

PLANNING COMMISSION AGENDA
City Commission Chambers - City Hall
625 Center Street, Oregon City, Oregon 97045
February 27, 2012 at 7:00 p.m.

The Planning Commission agendas, including staff reports, memorandums, and minutes are available from the Oregon City Web site home page under meetings. (www.orcity.org)

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1. CALL TO ORDER
 2. PUBLIC COMMENT ON ITEMS NOT LISTED ON AGENDA
 3. ADOPTION OF PLANNING COMMISSION MINUTES
 - 2-8 a. July 11, 2011 Draft Minutes
 - 9-11 b. August 22, 2011 Draft Minutes
 - 12-15 c. September 26, 2011 Draft Minutes
 - 16-19 d. October 10, 2011 Draft Minutes
 4. PLANNING COMMISSION HEARING
 - 20-680 a. CP 11-01: Master Plan

DP 11-03: Detailed Development Plan

NR 11-05: Natural Resource Overlay Exemption

LL 11-07: Lot Line Adjustment

Providence Willamette Falls Medical Center is seeking approval of a ten (10) year General Development Master Plan, a Detailed Development Plan to alter and expand the parking lot located at the corner of Division Street and Davis Road, a Natural Resource Overlay District Exemption and Lot Line Adjustment/Consolidation.
 5. ADJOURN
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**CITY OF OREGON CITY
PLANNING COMMISSION HEARING**

July 11, 2011, 7:00 P.M.
City Commission Chambers - City Hall

1. CALL TO ORDER

Chair Stein called the meeting to order at 7 p.m.

Roll Call:

Chair Carter Stein
Commissioner Charles Kidwell
Commissioner Damon Mabee
Commissioner Denyse McGriff
Commissioner Paul Espe
Commissioner Zachary Henkin

Staff Present:

Tony Konkol, Senior Planner
Laura Butler, Assistant Planner
Christina Robertson Gardiner,
Associate Planner
Pete Walter, Associate Planner
Carrie Richter, Assistant City Attorney

2. PUBLIC COMMENT ON ITEMS NOT LISTED ON AGENDA

There was no public comment on items not listed on the agenda.

3. ADOPTION OF PLANNING COMMISSION MINUTES

February 28, 2011 Draft Minutes

Motion by Commissioner Damon Mabee, second by Commissioner Denyse McGriff to to approve the minutes of the February 28, 2011 Planning Commission meeting minutes.

A roll call was taken and the motion passed with Chair Carter Stein, Commissioner Charles Kidwell, Commissioner Damon Mabee, Commissioner Denyse McGriff, Commissioner Paul Espe, Commissioner Zachary Henkin voting aye. [6:0:0]

4. PUBLIC HEARING

AN 11-01: Park Place Annexation 6.5 acres

AN 11-01 PC Staff Report

Exhibit 1. Vicinity and Comp Plan Map

Exhibit 2. Tax Map

Exhibit 3. PPCP Map

Exhibit 4. PPCP Cost Estimates

Exhibit 5. Petition and Narrative

Exhibit 6. Findings

Exhibit 7. Draft Annexation Agreement - Supplemental Police Funding Schedule A

Exhibit 8. PPCP Findings OAR 660-012-0060

Exhibit 9. Email - Clackamas River Water Comment

Exhibit 10. Email - Kent Ziegler Police Fees

Exhibit 11. Clackamas County Planning Comments

Exhibit 12. Urban Growth Management Agreement (UGMA)

Exhibit 13. Email - Police Chief Mike Conrad

Exhibit 14. Newspaper Public Notice

Chair Stein read the hearing statement describing the hearing format and correct process for participation. He asked if there were any declarations of ex parte contact, conflict of interest, bias, or statements.

Chair Stein knew the applicant from community meetings and was a participant in the Park Place planning process.

Commissioner McGriff visited the site.

Commissioner Mabey visited the site three years ago when the plan was being put forward and walked through the Concept Plan area.

Commissioner Espe said he went to that location frequently as his wife worked at Holcomb Elementary School.

Commissioner Kidwell walked through the area.

Commissioner Henkin drove through the area.

Pete Walter, Associate Planner, said this annexation was part of the Park Place Concept Plan. The area was flat and overgrown with three local street stubs into the site. The area had been part of two previous annexation proposals, one in 2007 and one in 2009. Both proposals were approved through the City process, but denied by voters. This was a medium density residential Comprehensive Plan designation. The applicant was only proposing annexation with this submittal. He explained the

approval criteria and how the application complied with the criteria. There was a police service short coming, and the applicant proposed to pay a \$3,500 per dwelling unit police service fee for any new home developed in the annexation area. He showed a diagram of the Concept Plan for the area. The reason why the annexation application was disconnected from the zoning was because of the Transportation Planning Rule (TPR) that required adequate public facilities that served the development and when a zone change was proposed within a Metro area, ODOT required there be no net impact at the end of a 20 year planning horizon. The applicant was proposing to defer compliance with the TPR until the time of zoning. The City had looked at off-site impacts for the entire Park Place area and adopted the estimated infrastructure improvements into the System Development Charges. Utility and street connections were stubbed into the site and the area was served by Clackamas Fire District #1. Staff recommended approval of the application.

Commissioner Mabey asked about the tax lot being 13.3 acres, and this annexation was only a portion of it. Mr. Walter stated the applicant turned in a legal description to the County for the annexation and staff recommended the applicant fully comply and turn in all the deeds for the annexation tax lot. He then referred to Exhibit 11, Clackamas County planning comments. It didn't appear to be an issue.

Commissioner Mabey asked about the zoning and street alignments. Mr. Walter said the zoning allowed for R3.5 and supported a fully connected street system.

Commissioner McGriff asked for a contour map. Mr. Walter said the property was not over 25% slope and there was no map provided. She requested that topographical information be provided for all applications.

Commissioner Espe asked if the property was in one contiguous sewer basin and if there was a pump station in this area. Mr. Walter said it fell in one basin and did not require any more pump stations.

Ryan O'Brien, Planning Consultant, explained the elevations of the property. They did not intend to do R3.5 zoning, but to do R5 zoning. He showed a picture of the property with street stubs. They would agree to a partition if required, but had talked to the County and there was a law that if they were doing a subdivision, they were not required to include the entire piece of property. He gave a history of how the tax lots were created. There were sewer connections to the property.

Kent Ziegler, resident of West Linn and Oregon City property owner, stated they had been working on this for a long time. He had participated in the Park Place Concept Plan process. He explained why this parcel made the most sense to be the initial phase to implement the Concept Plan. He read from a letter written by Alexin Analytical Laboratories in Tigard regarding the water quality on Livesay Road and also read from a letter from Black and Veatch regarding resolving the public safety hazard. He then read a letter which stated the City's plans to abandon the existing pump station and extend the water line to the south. If this annexation was approved, it would solve the water and access issues of the area.

Commissioner Espe asked about the possibility of an LID or Zone of Benefit. Mr. O'Brien said all the property in the area required sewer and they were planning to use an LID or payback from the property owners.

Chair Stein opened the public hearing and asked for public comment.

Rich Cohn-Lee, resident of Oregon City, stated the voters of Oregon City had rejected the Park Place annexations twice. He asked the Commission to be mindful that the voters had spoken on the issue and resoundingly rejected this annexation. Nothing had changed since the last vote. He owned property east of this area and had concerns regarding the plan. He was opposed to the annexation.

Kirk Tolstrup, lived to the west of this area, and was served by the City water by an old pump station. If this property was developed, his neighborhood could get a water line from the development and not have to deal with water outages when the power went out or when there was a mechanical failure at the pump station. When it flooded, they could not get out of their property except through the backyard. He wanted the connectivity and water systems as was outlined in the Concept Plan.

Christine Kosinski, resident of unincorporated Oregon City, expressed concern about disrupting the lives of those who lived in the Trail View subdivision, especially in regard to safety on the streets due to cross traffic. These would be small lots with no community parks. Citizens more than 300 feet away from this proposal should have been notified. She had funding concerns for the transportation improvements needed for the Concept Plan. The voters turned down previous annexation attempts due to lack of money for required infrastructure and development was not paying its way. Nothing had changed since the last vote.

Mr. O'Brien mentioned the voter annexation votes had been 40% in favor, 60% opposed. This development was small and would not be a significant cost to the City. All of the improvements would be paid by the developer and the development would help with the economy.

Mr. Ziegler said the economic environment called for them to incrementally approach implementation of the approved Concept Plan for this area. This made the most logical sense for where growth should occur. He read from the staff report regarding where the funding for the Concept Plan would come from. This project would save citizens money and generate property taxes.

There was discussion regarding the proposed police funding.

Commissioner Mabee clarified the applicant would also need to pay a school excise tax.

Chair Stein closed the public hearing.

Tony Konkol, Community Development Director, reminded the Commission of the approval criteria that they needed to use for the application. In terms of noticing, staff followed what the Municipal Code and State law required. The Planning Commission would make a

recommendation to the City Commission and the City Commission decided if it would go to the voters. An annexation decision could be appealed to the Land Use Board of Appeals.

Commissioner Kidwell said based on the criteria for approval, this proposal met the criteria. He thought the benefits outweighed the concerns expressed.

Commissioner Espe was interested in how much revenue a parcel would generate verses the amount of maintenance it required, and often residential did not pay for itself. This property should be annexed because the infrastructure was there.

Commissioner Henkin thought this neighborhood was ready for annexation due to the sewage needs. The police would be taken care of and the direction of the applicant was to go for R5 zoning. He was in support of the application.

Commissioner Mabee said two of the four sides of the property had development, connectivity of the roads would increase service for police and fire, and this was a small parcel. However, he was uncomfortable with the police funding contribution.

Commissioner McGriff appreciated the public testimony. She agreed that the notice for annexations was not adequate and thought it should be increased. She thought most residential development did not pay its way.

Chair Stein thought this area was appropriate for annexation. The Park Place area was annexed due to a State mandate for deficiencies in services and this area had been looked at for growth since the 1980's and had been planned through the Concept Plan. This would also provide citizens another chance to vote.

Motion by Commissioner Zachary Henkin, second by Commissioner Charles Kidwell to to recommend approval of AN 11-01 as proposed to the City Commission.

A roll call was taken and the motion passed with Chair Carter Stein, Commissioner Charles Kidwell, Commissioner Damon Mabee, Commissioner Paul Espe, Commissioner Zachary Henkin voting aye and Commissioner Denyse McGriff abstained. [5:0:1]

SP 11-05: 801 Main Street- Courthouse Addition

Commission Report

SP 11-05 Staff Report

SP 11-05 Map

SP 11-05 Applicant's Submittal

SP 11-05 John Replinger CommentsSP 11-05 Powerpoint*OCMC 17.44 Geologic Hazards Overlay District- Nancy Kraushaar Memo*Additional 3D Renderings Submitted by Applicant*

Motion by Commissioner Denyse McGriff, second by Commissioner Charles Kidwell to to approve SP 11-05 with the additional conditions of approval as proposed by staff.

A roll call was taken and the motion passed with Chair Carter Stein, Commissioner Charles Kidwell, Commissioner Damon Mabee, Commissioner Denyse McGriff, Commissioner Paul Espe, Commissioner Zachary Henkin voting aye. [6:0:0]

Chair Stein read the hearing statement describing the hearing format and correct process for participation. He asked if the Commission had any ex parte contact, conflict of interest, bias, or statements to declare.

All the Commission had visited the site.

Christina Robertson-Gardiner, Planner, entered into the record the PowerPoint presentation as Exhibit 1, memo from Nancy Kraushaar, City Engineer and Public Works Director, regarding her finding that no further geologic hazard review was required as Exhibit 2, and 3D elevations and existing photos provided by the applicant as Exhibit 3. Because of the newly adopted Development Code in 2009, it allowed for modifications that better met the standard. She gave three options for the application, explained the site plan, proposed addition, and transparency standard requirement. The Courthouse was not locally designated as a historic designated property, but it was eligible. To be designated, they needed Section 106 approval from the State Historic Preservation Office. The Courthouse gained approval in December 2010 and it was found the addition did not adversely affect the historic significance of the Courthouse. She explained the reasons why putting in a false commercial storefront window to meet the standards might not be the best fit for the addition. The CIC voted to support the application. Lloyd Purdy, Downtown Manager, stated Main Street businesses supported the application as a way to retain the Courthouse downtown and Courthouse traffic provided a life-line to downtown during the economic downturn and provided a healthy portion of lunch business to restaurants. She read the thoughts from staff. She questioned what kind of an impact this addition would have behind an under-utilized plaza. The Planning Commission could look at this application on its own against the larger goals of the Code and not be caught up on specific standards.

Paul Boundy, LRS Architects, explained the reasons for the security improvement project to the Courthouse and the elements of the proposed design. Regarding the transparency, the primary function of the building was security and he did not think it was appropriate to try to force something that did not belong. The applicant had used landscaping and elements of the plaza to help break up the scale of the elevation. Main Street businesses were in favor of the clock tower design and thought this would be great for murals or as a backdrop for projecting movies in the plaza.

The Commission asked questions and made suggestions about the design including breaking up the vertical panels on the front to help mitigate the transparency, making the garage door less obvious and to integrate it better into the building, the windows that were to be removed in the existing Courthouse should be saved and used elsewhere, and bringing the vertical band line across on the front elevation.

Chair Stein asked for any public testimony. There was none.

Chair Stein closed the public hearing.

Ms. Robertson-Gardiner went over the proposed conditions of approval. Condition 7 would be an introduction of a brick element divider on the Liberty Plaza elevation that broke up the vertical insets to align with existing fenestration. Condition 8 would be the applicant shall reduce the banding width around the garage to eight to ten inches neither brick or stone and provide a garage door of medium to dark hue to match the building. Condition 9 would be the applicant shall save all existing windows proposed to be removed to be able to be reused on site.

5. WORK SESSION

Membrane Structures

Draft Membrane Structures Memo

Membrane Structures Powerpoint

Ms. Robertson-Gardiner gave an update on the membrane structures code effective January 1, 2011. She reviewed the code adoption process, what a membrane structure was, what the code stated, how the regulation was enforced, and comments from Code Enforcement. There was no grandfather clause for membrane structures.

Chair Stein suggested putting an article in the City Newsletter and a flyer to Home Depot to let the public know about these changes.

Mr. Konkol said this was in response to a resident in Canemah that had a Code Enforcement issue. This was a long discussed policy decision and a decision was made to move forward. Staff recommended not changing the code and opening it up to further interpretation.

The Commission agreed with staff's recommendation, but wanted to make sure it was published to all neighborhood committees, Home Depot, and Lowe's.

Staff would not be bringing back the request from the Canemah resident to the Planning Commission.

6. ADJOURN

Chair Stein adjourned the meeting at 10:03 p.m.

**CITY OF OREGON CITY
PLANNING COMMISSION HEARING**

August 22, 2011, 7:00 P.M.
City Commission Chambers - City Hall

1. CALL TO ORDER

Chair Stein called the meeting to order at 7 p.m.

Roll Call:

Chair Carter Stein
Commissioner Chris Groener
Commissioner Denyse McGriff
Commissioner Damon Mabee
Commissioner Charles Kidwell
Commissioner Paul Espe

Staff Present:

Tony Konkol, Community
Development Director
Carrie Richter, Assistant City Attorney

2. PUBLIC COMMENT ON ITEMS NOT LISTED ON AGENDA

There was no public comment on items not listed on the agenda.

3. ADOPTION OF PLANNING COMMISSION MINUTES

**Adoption of Planning Commission minutes for the following dates:
December 13, 2010 February 28, 2011 March 14, 2011 May 9, 2011**

December 13, 2010

February 28, 2011

March 14, 2011

May 9, 2011

Motion by Commissioner Paul Espe, second by Commissioner Chris Groener to to approve the Planning Commission minutes of December 13, 2010.

A roll call was taken and the motion passed with Chair Carter Stein, Commissioner Chris Groener, Commissioner Denyse McGriff, Commissioner Charles Kidwell, Commissioner Paul Espe voting aye and

Commissioner Damon Mabee abstained. [5:0:1]

Motion by Commissioner Damon Mabee, second by Commissioner Chris Groener to to approve the Planning Commission minutes of February 28, 2011.

A roll call was taken and the motion passed with Chair Carter Stein, Commissioner Chris Groener, Commissioner Denyse McGriff, Commissioner Damon Mabee, Commissioner Charles Kidwell, Commissioner Paul Espe voting aye. [6:0:0]

Motion by Commissioner Damon Mabee, second by Commissioner Denyse McGriff to to approve the Planning Commission minutes of March 14, 2011.

A roll call was taken and the motion passed with Chair Carter Stein, Commissioner Chris Groener, Commissioner Denyse McGriff, Commissioner Damon Mabee, Commissioner Charles Kidwell, Commissioner Paul Espe voting aye. [6:0:0]

Motion by Commissioner Charles Kidwell, second by Commissioner Paul Espe to to approve the Planning Commission minutes of May 9, 2011.

A roll call was taken and the motion passed with Chair Carter Stein, Commissioner Chris Groener, Commissioner Denyse McGriff, Commissioner Damon Mabee, Commissioner Charles Kidwell, Commissioner Paul Espe voting aye. [6:0:0]

4. PUBLIC HEARING

LE-10-02 Water Master Plan (Continuance to 10/10/2011)

Chair Stein opened the public hearing.

Tony Konkol, Community Development Director, said staff was still working on the issue of the water rate roll back and the different financial implications and options. Staff asked to continue the public hearing to October 10, 2011.

There was no public testimony.

Motion by Commissioner Denyse McGriff, second by Commissioner Chris Groener to to continue the public hearing for LE 10-02 to October 10, 2011.

A roll call was taken and the motion passed with Chair Carter Stein, Commissioner Chris Groener, Commissioner Denyse McGriff, Commissioner Damon Mabee, Commissioner Charles Kidwell, Commissioner Paul Espe voting aye. [6:0:0]

5. WORK SESSION

2011-2012 Planning Commission Goals and Objectives

Mr. Konkol reviewed the draft 2011-2012 Planning Commission goals and objectives.

Regarding Goal 1, there was discussion about only holding one citizen open house/public education session this fiscal year, taking into account limited staff time and creating the process for outreach.

Commissioner McGriff discussed holding Work Sessions with defined agenda topics with different city committees, and more thought needed to go into meetings with the City Commission, Urban Renewal Commission, and Citizen Involvement Council.

Commissioner Mabee wanted to see long term goals and upcoming projects listed in the goals and objectives as well.

Regarding Goal 2, Mr. Konkol stated the City Commission decided to do community visioning for the Blue Heron site and South End Concept Plan.

There was discussion regarding the implications of redevelopment on the Blue Heron site and that the visioning would give a general idea of uses for the site. The Commission requested a tour of the site.

Regarding Goal 4, Mr. Konkol discussed alternatives for dealing with the urban street tree and sidewalk issues.

The Planning Commission consensus was to bring back the goals and objectives to the next Commission meeting for approval.

Mr. Konkol gave an update on the RFP for the Blue Heron site visioning process, South End Concept Plan scope of work, and Transportation System Plan update. He discussed an article that would be placed in the *Trail News* regarding tree removal permits and sidewalks and street trees. Information addressing membrane structures would be sent out in this month's water bill.

Commissioner McGriff reported on a NPR discussion on the state of urban development.

6. ADJOURN

Chair Stein adjourned the meeting at 8:02 p.m.

**CITY OF OREGON CITY
PLANNING COMMISSION HEARING**

September 26, 2011, 7:00 P.M.
City Commission Chambers - City Hall

1. CALL TO ORDER

Vice Chair Charles Kidwell called the meeting to order at 7 p.m.

Roll Call:

Commissioner Charles Kidwell
Commissioner Chris Groener
Commissioner Damon Mabee
Commissioner Denyse McGriff
Commissioner Zachary Henkin

Staff Present:

Tony Konkol, Senior Planner
Carrie Richter, Assistant City Attorney
Laura Terway, Planner

2. PUBLIC COMMENT ON ITEMS NOT LISTED ON AGENDA

There was no public comment on items not listed on the agenda.

3. ADOPTION OF PLANNING COMMISSION MINUTES

Adoption of Minutes for May 23, 2011 Planning Commission meeting.

PC 5.23.2011 Minutes

Motion by Commissioner Chris Groener, second by Commissioner Denyse McGriff to to approve the minutes of the May 23, 2011 Planning Commission meeting.

A roll call was taken and the motion passed with Commissioner Charles Kidwell, Commissioner Chris Groener, Commissioner Denyse McGriff, Commissioner Zachary Henkin voting aye and Commissioner Damon Mabee abstained. [4:0:1]

4. PUBLIC HEARING

CU 07-05 and SP 07-13 (Quasi-Judicial Hearing)

MD 11-01 MD 11-02 Staff ReportApplication

Carrie Richter, Assistant City Attorney, read the hearing statement describing the hearing format and correct process for participation. She asked if the Commission had any ex parte contact, conflict of interest, bias, or statements to declare.

Commissioner McGriff had visited the site several times.

Commissioner Henkin also visited the site.

Commissioner Groener visited the site and had grown up in the area.

Vice Chair Kidwell opened the public hearing.

Laura Terway, Planner, stated the two sites were located on South End Road and Lafayette Avenue and the area was primarily residential. She gave a history of the South End Fire Station and United Methodist Church. She explained the proposed future road configuration and modified access plan for the church. No development was proposed at this time. A traffic study was done, and the new alignment was found to be acceptable for safety and site distance. There would be no traffic impacts. She then explained the modification of the Fire Station conditional use and site plan. She gave the reasons for modification of the church partition, variance, and conditional use. She went over the Municipal Code and Conditional Use criteria. Staff recommended one condition of approval, prior to recording the partition plat for the church, the applicant shall record an agreement to ensure that the needed street connection was constructed when and if parcel 1 was developed as housing.

Tom Sisul, Consulting Engineer, was representing the United Methodist Church. He explained Parcel 2 was larger in this application than it was in the original to meet the Fire District's requirement for placement of the road. Regarding the parcel on the backside of the future extension of the road, it would still be one tax lot until the Fire District decided to partition it. He explained the extension of Josephine St. would be paid by the developer, the City or Fire District would not be responsible. The agreement between the Church and Fire District was entered into the record as Exhibit 1.

There was discussion regarding the alignment and sharp angles of Josephine.

Commissioner McGriff wanted to make it clear that the Planning Commission was not approving the idea of a plat or alignment of the future road.

Ed Kerchauffer?? representing the Fire District stated the Fire District proposed the change to the realignment of the road for the safety of the fire fighters and citizens. It had no impact on the Fire District operations at the site. The church was willing to allow the Fire District use of their parking lot for overflow parking and the Fire District was comfortable with the configuration.

There was no public testimony.

Vice Chair Kidwell closed the public hearing.

Motion by Commissioner Damon Mabee, second by Commissioner Denyse McGriff to to approve MD 11-01, modification of approved planning files SP 00-26, CU 00-05 to accommodate extension of Josephine Street, reduce parcel size by 7,731 sf and make modifications to landscaping, parking and access.

A roll call was taken and the motion passed with Commissioner Charles Kidwell, Commissioner Chris Groener, Commissioner Damon Mabee, Commissioner Denyse McGriff, Commissioner Zachary Henkin voting aye. [5:0:0]

Motion by Commissioner Denyse McGriff, second by Commissioner Zachary Henkin to to approve MD 11-02, modification of approved planning files CU 07-07, MP 07-11 and Conditions of Approval to adjust the proposed partition, increase the size of the church parcel by 4000 sf, and accommodate the future alignment of Josephine Street.

A roll call was taken and the motion passed with Commissioner Charles Kidwell, Commissioner Chris Groener, Commissioner Damon Mabee, Commissioner Denyse McGriff, Commissioner Zachary Henkin voting aye. [5:0:0]

5. 2011 - 2012 Planning Commission Goals and Objectives

Tony Konkol, Community Development Director, explained the changes made to the Goals and Objectives after input at the last Commission Work Session.

Motion by Commissioner Damon Mabee, second by Commissioner Denyse McGriff to to approve the 2011 - 2012 Planning Commission Goals and Objectives.

A roll call was taken and the motion passed with Commissioner Charles Kidwell, Commissioner Chris Groener, Commissioner Damon Mabee, Commissioner Denyse McGriff, Commissioner Zachary Henkin voting aye. [5:0:0]

Mr. Konkol stated that Chair Stein had resigned from the Planning Commission due to concerns regarding information staff provided concerning the Kent Ziegler annexation and the ballot title. Elections would be held at the next Commission meeting for the chair and vice chair.

There was discussion regarding Transportation Planning Rule compliance for the Ziegler annexation.

Mr. Konkol stated the ballot title was not relevant to the decision the Planning Commission made. The City Commission had adopted the ballot title and summary. This annexation would be placed on the May 2012 ballot.

A Work Session would be scheduled to discuss how to deal with these types of annexations in the future.

Mr. Konkol also updated the Commission on the Blue Heron Willamette Falls site and possible partnership with Metro.

Commissioner McGriff thanked staff for the tour of the property.

6. ADJOURN

Vice Chair Kidwell adjourned the meeting at 8:14 p.m.

**CITY OF OREGON CITY
PLANNING COMMISSION HEARING**

October 10, 2011, 7:00 P.M.
City Commission Chambers - City Hall

1. CALL TO ORDER

Vice Chair Charles Kidwell called the meeting to order at 7:13 p.m.

Roll Call:

Commissioner Charles Kidwell
Commissioner Damon Mabee
Commissioner Paul Espe
Commissioner Zachary Henkin
Commissioner Denyse McGriff

Staff Present:

Pete Walter, Associate Planner
Carrie Richter, Assistant City Attorney
Nancy Kraushaar, City Engineer & Public
Works Director

2. PUBLIC COMMENT ON ITEMS NOT LISTED ON AGENDA

There were no public comment on items not listed on the agenda.

3. PLANNING COMMISSION HEARING

L 10-02: Water Master Plan Update

Commission Report

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Executive Summary

Chapters 1-9

Comments from Lee Moore, Sr., General Manager of Clackamas River Water
(CRW)

Comments from Paul Edgar, Canemah, 01/26/2011

Appendix A - Diurnal Curve Tech Memo

Appendix B - Water System Seismic Vulnerability Assessment

Appendix C - Cost Estimating AssumptionsAppendix D - Project Data SheetsChapter 9 Financing Plan - RevisedPlanning Commission 10-10-11 PowerPointComments from Paul Edgar, Canemah, 10/10/201110-06-2011 Response to CRW Input for Master Plan

Pete Walter, Planner, said the purpose of the Water Master Plan was to anticipate the future demand of pottable and fire flow water system needs to serve the Urban Growth Boundary. The applicant was the City's Public Works Department. Staff's recommendation was for the Planning Commission to listen to the presentation, ask clarifying questions, and continue the hearing to October 24. He explained the exhibits received.

Nancy Kraushaar, City Engineer and Public Works Director, stated the previous master plan was from 2004 and many capital improvement projects had been completed. Staff was also preparing for a water rate roll back and possibly amending the Charter requirement. She introduced Walt Meyer, consultant for updating the Water Master Plan.

Mr. Meyer gave a PowerPoint presentation on the water service area, water demand, the existing system, future system expansion, recommended improvements, and financing options and recommendations.

Carrie Richter, Assistant City Attorney, explained the Planning Commission's role in the process was to review the plan to make sure it was consistent and compliant with the Comprehensive Plan and statewide planning rules.

Bob George, Clackamas River Water, summarized the three areas of concern CRW had with the master plan. The first was the drawings showed use of existing water mains that were owned by CRW, the second was the urban and rural reserve areas seemed to be different than the Urban Growth Boundary and there was a question as to where growth would occur, and the third was CRW was open to possibilities of serving the same areas and sharing facilities for storage. He explained the areas of critical infrastructure that were shown as future Oregon City lines and there needed to be more discussion with staff on the issues. He explained the areas CRW served, mainly the unincorporated areas outside of Oregon City.

Paul Edgar, land use chair of the Canemah Neighborhood Association, showed a map of Canemah. A lot of the planned infrastructure did not feed any houses or future development. There was a need for bringing in adequate water pipes for fire protection. He wanted to make sure the pipes were being put in where they should be placed and that they were the right size. He was also concerned about the raising of rates and taxing seniors out of their homes. He suggested in the future looking at some special funding districts where growth was funded by those districts themselves. He did not want to see money taken from the water revenue area redirected anywhere else, such as for a new Public Works facility. He would like a place at the table to honestly represent the citizenry and to analyze future growth

within the neighborhood associations and get them on board.

Ms. Kraushaar said the System Development Charges would be reviewed after the Water Master Plan was adopted and would be recalculated depending on the needs in the plan. Regarding the Canemah pipes, the pipes were proposed to be placed where they were because it was vacant land and the size was needed for future growth.

Mr. Meyer stated the sizes were for fire flow for the area. The SDC portion of the fund was not part of the CIP at this time. If in the future it was developed that was the size of pipe needed for fire flows for that land use. If it never developed, it would never be built.

Ms. Kraushaar said since it was park land, it might never develop. If it did develop, in order to require a developer to put in a water system, the City had to have something in an adopted plan. On the slide area, if a pipe needed to go in that location, an alignment alternative analysis would be done. There were methods of constructing pipes in slide areas, although the City tried not to have pipe running through such areas.

Mr. Walter said in addition to geologic hazard areas, there were natural resource overlay district requirements that required additional review by the Planning Commission. The City Charter required a vote of the people if there was any development or change that would not be a park purpose.

Commissioner Kidwell clarified the money was earmarked specifically for the water system and not be available for other capital improvement projects.

Mr. Edgar said for 2012/13 it showed a transfer from the revenue area from water of \$850,000, a transfer of \$850,000 in 2013/14, a transfer of \$500,000 in 2014/15, and with the roll back it went to zero.

Ms. Kraushaar replied Public Works needed new facilities and they had to plan for that expense in the future. They had been strategically setting aside money and working through the planning process for the facilities.

Commissioner Mabee thought it was a contingency fund that was unencumbered and could be accessed by the City Commission. If the money was used for a downpayment or surety for a bond, that would only happen after a vote of the people.

Ms. Kraushaar stated the Finance Director was tracking the transfers from each of the utilities and if they needed to go back there was a true record of it.

Commissioner Mabee clarified that the concept plan areas were included in the Water Master Plan. He thought there should be a condition when annexing land that the water rights were also annexed to the City, especially for wells and aquifers.

Mr. Walter said staff would present the staff report and updated maps and information on October 24.

There was discussion about educating the public on the plan and financing for the infrastructure and maintenance.

Motion by Commissioner Damon Mabee, second by Commissioner Paul Espe to to continue L 10-02: Water Master Plan Update to the meeting of October 24, 2011.

A roll call was taken and the motion passed with Commissioner Charles Kidwell, Commissioner Damon Mabee, Commissioner Paul Espe, Commissioner Zachary Henkin, Commissioner Denyse McGriff voting aye.
[5:0:0]

4. COMMUNICATIONS

Update on Street Tree and Sidewalk Public Outreach

Commission Report

Tower Vista N.A. Presentation

Mr. Walter said staff had attended many neighborhood association meetings to discuss the City's street tree policies. He gave a presentation on street trees and sidewalks including the benefits of street trees, air and water quality, property values, overview of the street tree policy, sidewalk repair, street tree permit, sidewalk analysis for the Tower Vista Neighborhood, and alternatives to removal.

5. ADJOURN

Vice Chair Kidwell adjourned the meeting at 10:01 p.m.



COMMISSION REPORT: CITY OF OREGON CITY

TO:	The Oregon City Planning Commission
FROM:	Laura Terway, Planner
PRESENTER:	Laura Terway, Planner
SUBJECT:	Providence Willamette Falls Medical Center Concept and Detailed Development Plan
Agenda Type: Planning Commission Hearing	
Approved by: Tony Konkol, Community Development Director	

RECOMMENDED ACTION (Motion):

Staff recommends the Planning Commission conditionally approve Planning files CP 11-01: Master Plan, DP 11-03: Detailed Development Plan, NR 11-05: Natural Resource Overlay Exemption and LL 11-07: Lot Line Adjustment for the properties located at Clackamas County Map 2-2EAB, Tax Lots 1201, 1900, 2000, 2100, 2200, 2400, 2500, 2800, 2900, 3100, 3900, 4000, 4100, 4200, 4400, 4600, Clackamas County Map 2-2E-32AA, TL 400 and Clackamas County Map 2-2E-32AC, TL 101, 201.

BACKGROUND:

The property located at 1500 Division Street is utilized as Providence Willamette Falls Medical Center and contains numerous medical related facilities within a hospital campus. Providence Willamette Falls Medical Center is seeking approval of a ten (10) year General Development Master Plan to be implemented over 3 phases. The proposed Concept (General/Master) Development Plan identifies the layout, maximum intensity, phasing and public improvements associated with the Providence Willamette Falls Medical Center over a 10 year period. Approval of the General (Concept) Plan is followed by a series of Detailed Development Plan applications with refined building details including building design, landscaping, etc. which comply with the Oregon City Municipal Code and the approved Concept (General) Plan. In addition to the Concept Plan, the applicant submitted a Detailed Development Plan to implement Phase 1 of the Master Plan to alter and expand the parking lot located at the corner of Division Street and Davis Road, a Natural Resource Overlay District Exemption and Lot Line Adjustment/Consolidation.

BUDGET IMPACT:

FY(s): N/A
Funding Source: N/A

ATTACHMENTS:

CP 11-01, DP 11-03, NR 11-05 and LL 11-07 Staff Report
Exhibit 1: Vicinity Map
Exhibit 2: Revised Narrative and Application
Exhibit 2: Addendum to the Narrative
Exhibit 2: Figures 1-7
Exhibit 2: Figures 8-13B
Exhibit 2: Figures 14A-21
Exhibit 2: Figures 22-25
Exhibit 2: Revised Planting Plan
Exhibit 2: Appendix A - Community Meeting Public Notification
Exhibit 2: Appendix B - Kittelson Associates Inc - Transportation Impact Analysis

Exhibit 2: Appendix C - KPFF Civil Engineering Narrative
Exhibit 2: Appendix D - Division Street Lot Consolidation Legal Description
Exhibit 2: Appendix E - Parking Lot Preliminary Storm Drainage Study
Exhibit 2: Letter from Michael Robinson, Dated November 18, 2011
Exhibit 2: Letter from Michael Robinson, Dated December 20, 2011
Exhibit 2: Letter from Michael Robinson, Dated December 21, 2011
Exhibit 2: TriMet Documentation
Exhibit 3: Staff Report for Conditional Use file CU 03-03
Exhibit 4: Staff Report for Site Plan and Design Review file SP 03-19
Exhibit 5: Comments Submitted by John Replinger, Replinger and Associates
Exhibit 6: Engineering Policy 00-01
Exhibit 7: Comments submitted by Gail Curtis, Senior Planner at Oregon Department of Transportation
Exhibit 8: Comments submitted by Denyse McGriff of the McLoughlin Neighborhood Association
Exhibit 9: Comments submitted by Paul Edgar of the Citizen Involvement Committee
Exhibit 10: Comments submitted by Tim Powell, Chair of the McLoughlin Neighborhood Association
Exhibit 11: Comments submitted by Michael Robinson, dated February 16, 2012
Exhibit 12: Comments submitted by Nancy Bush, Code Enforcement Manager



TYPE III LAND USE RECOMMENDATION

Staff Report and Decision

February 20, 2012

FILE NO.: CP 11-01: Master Plan
DP 11-03: Detailed Development Plan
NR 11-05: Natural Resource Overlay Exemption
LL 11-07: Lot Line Adjustment

APPLICATION TYPE: Type III

**APPLICANT/
OWNER:** Providence Willamette Falls Medical Center
C/o Russell Reinhard
1500 Division Street
Oregon City, Oregon 97045

REPRESENTATIVE: Peterson Kolberg & Associates
C/o Steve Kolberg
6969 SW Hampton Street
Portland, Oregon 97223

REQUEST: The applicant submitted a Concept (General) Development Plan, Detailed Development Plan, Lot Line Adjustment and Natural Resource Overlay District Exemption to analyze the build out of the Providence Willamette Falls Hospital over the next 10 years and construct a parking lot.

LOCATION: 1500 Division Street, Oregon City, OR 97045
Clackamas County Map 2-2EAB, Tax Lots 1201, 1900, 2000, 2100, 2200, 2400, 2500, 2800, 2900, 3100, 3900, 4000, 4100, 4200, 4400, 4600
Clackamas County Map 2-2E-32AA, TL 400 and
Clackamas County Map 2-2E-32AC, TL 101, 201

ZONING: “MUE” Mixed Use Employment District

REVIEWERS: Laura Terway, AICP, Planner
Bob Cullison, EIT, Development Services Manager

RECOMMENDATION: **Planning Commission Approval with Conditions.**

PROCESS: *Type III decisions involve the greatest amount of discretion and evaluation of subjective approval standards, yet are not required to be heard by the City Commission, except upon appeal. Applications evaluated through this process include conditional use permits and Master Plans for which discretion is provided. In the event that any decision is not classified, it shall be treated as a Type*

III decision. The process for these land use decisions is controlled by ORS 197.763. Notice of the application and the planning commission is published and mailed to the applicant, recognized neighborhood association and property owners within three hundred feet. Notice must be issued at least twenty days pre-hearing, and the staff report must be available at least seven days pre-hearing. At the evidentiary hearing held before the planning commission all issues are addressed. The decision of the planning commission is appealable to the city commission, on the record. A city-recognized neighborhood association requesting an appeal fee waiver pursuant to 17.50.290(c) must officially approve the request through a vote of its general membership or board at a duly announced meeting prior to the filing of an appeal. The city commission decision on appeal from the planning commission is the city's final decision and is appealable to LUBA within twenty-one days of when it becomes final.

A city-recognized neighborhood association requesting an appeal fee waiver pursuant to 17.50.290(C) must officially approve the request through a vote of its general membership or board at a duly announced meeting prior to the filing of an appeal.

IF YOU HAVE ANY QUESTIONS ABOUT THIS APPLICATION, PLEASE CONTACT THE PLANNING DIVISION OFFICE AT (503) 722-3789.

DECISION CRITERIA:

The development proposal will be analyzed for compliance with the following Chapters of the Oregon City Municipal Code:

Streets, Sidewalks and Public Places in Chapter 12.04,
Public and Street Trees in Chapter 12.08,
Property Line Adjustments and Abandonment Process and Standards in Chapter 16.20,
“MUE” Mixed Use Employment District in Chapter 17.31,
Tree Protection Standards in Chapter 17.41,
Geologic Hazards in Chapter 17.44,
Natural Resource Overlay District in Chapter 17.49,
Administration and Procedures are set forth in Chapter 17.50,
Off-Street Parking and Loading in Chapter 17.52,
Supplemental Zoning Regulations and Exception in Chapter 17.54,
Site Plan and Design Review in Chapter 17.62 and
Master Plans in Chapter 17.65.

CONCEPT (GENERAL) DEVELOPMENT PLAN:

The proposed Concept (General/Master) Development Plan identifies the layout, maximum intensity, phasing and public improvements associated with the Providence Willamette Falls Medical Center over a 10 year period. Approval of the General (Concept) Plan is followed by a series of Detailed Development Plan applications with refined building details including building design, landscaping, etc. which comply with the Oregon City Municipal Code and the approved Concept (General) Plan.

EXISTING USE:

The property located at 1500 Division Street is utilized as Providence Willamette Falls (PWF) Medical Center and contains numerous medical related facilities within a hospital campus (Exhibits 1 and 2). Since 1954, PWF has provided a full service medical center including emergency medicine, labor and delivery, surgical services, inpatient treatment, as well as many other inpatient and outpatient services to Oregon City and Clackamas County.

PROPOSED DEVELOPMENT:

Providence Willamette Falls Medical Center (PWF) is seeking approval of a ten (10) year General

Development Master Plan as well as a Detailed Development Plan to implement Phase 1 of the 3 Phase Master Plan. Phase 1 includes alteration and expansion of an existing parking lot at the corner of Davis Road and Division Street. The phases of the Master Plan include the following development:

Project Phase 1 – Division St. Parking Lot (Subject To Detailed Development Plan Approval)

The first project of the master plan consists of an alteration and expansion of the existing parking lot at the intersection of Davis Road, Division Street and Penn Lane. The applicant submitted a Detailed Development Plan for the construction of the parking lot which would be implemented subsequent to approval in 2012.

Project Phase 2 – Hospital Additions and Remodels

Phase 2 of the Master Plan includes the addition of approximately 54,000 square feet to the site including expanding the Medical Center building, the construction of a new central utility plant, and the remodeling of other areas of the facility. More particularly, these projects include:

Outpatient Surgery Expansion: The outpatient surgery expansion will add approximately two new operating rooms and short stay recovery space.

New Front Entry: The main entry to PWF will be remodeled and will include a new patient drop-off. The new entry will replace a section of the 1961 building which is currently sub-standard and houses hospital office spaces among other uses. This project will provide a more direct and unified entry into the hospital. A new canopy will welcome visitors into a large, high volume lobby that will provide physical and visual connections to corridors serving patient care, imaging, day surgery, birthplace, and the gift shop.

Second Floor Patient Room and Pharmacy Remodel: Several spaces on the second floor of the hospital will be converted from their current use as offices back to their original function as patient rooms. This patient room remodel will not increase the number of licensed beds, the staffing levels for the hospital, nor increase trip generation. The pharmacy will also be relocated.

Birthplace Expansion: Six additional Labor, Delivery, Recovery and Postpartum rooms will be added to the west end of the existing Birthplace wing. The addition would increase the number of labor and delivery/postpartum beds from 14 to 20.

Central Utility Plant: In order to centralize the system utilities for the campus and make them more efficient, PWF is planning for a central utility plant to house the appropriate mechanical, electrical, and plumbing systems to serve the medical campus. The development of this project is located within the Natural Resource Overlay District requiring review and mitigation .

Second Floor Shell Space Tenant Improvements: There is approximately 16,100 square feet of unfinished space above the Emergency Department planned for build out to house expanded hospital services. There is no definitive hospital program scheduled for this space but it is anticipated to be an expansion of outpatient services.

The applicant may complete the phase 2 projects in any order, provided they are all completed prior to initiating Phase 3. Phase 2 is projected to be implemented from 2012-2021.

Project Phase 3 – Medical Office Buildings (MOB)

Phase 3 of the Master Plan will add approximately 40,000 - 50,000 square feet of square footage to the medical campus including the construction of two new buildings including:

MOB Additions: PWF has identified two (East and West) sites for 20,000 - 25,000 square foot medical

Office Buildings (MOB's) which will house general physician's practices. The order of implementation for the two MOB's in this phase will depend upon Hospital strategic goals, project funding, and community needs. Phase 3 would be implemented from 2014-2021.

The applicant shall construct this development as proposed in this application and as required by the attached conditions of approval. **The applicant can satisfy this standard by complying with Condition of Approval 1.**

OREGON CITY MUNICIPAL CODE CRITERIA:

CHAPTER 17.50 – ADMINISTRATION AND PROCEDURES

Finding: Complies. The Concept (General) Development Plan and Detailed Development Plan applications were processed as Type III applications. Multiple neighborhood association meetings were held and a pre-application conference took place on July 13, 2011 with Oregon City staff. Notice of the development was mailed to property owners within 300 feet of the site, the McLoughlin Neighborhood Association, Citizen Involvement Commission and affected agencies on January 9th, 2012. The property was posted with a land use action sign providing details and requesting comments about the development from January 13th, 2012 to after the Planning Commission hearing(s). The following public comments were received:

Gail Curtis, Senior Planner of the Oregon Department of Transportation submitted comments (Exhibit 7), including concerns regarding the transportation impact study. The comments are addressed within this report.

Denyse McGriff of the McLoughlin Neighborhood Association submitted comments (Exhibit 8), regarding the attendance list at the McLoughlin Neighborhood Association meeting and forwarding the report to the appropriate chair.

Paul Edgar of the Citizen Involvement Committee submitted a request (Exhibit 9) for a hard copy of the application.

Tim Powell, Chair of the McLoughlin Neighborhood Association submitted comments from the Neighborhood Association expressing concern about hospital employees parking within the public right-of-way near the facility. He suggested the City limit the on-street parking to 2 hours and work with the hospital to develop a good neighbor plan (Exhibit 10). In response to this comment the applicant submitted a letter, dated February 16, 2012 indicating that Providence Willamette Falls Hospital recently adopted a policy restricting employees from parking on the street (Exhibit 11). In addition, Nancy Bush, Code Enforcement Manager submitted comments identifying the process to limit on-street parking to 2 hours as well as the resident parking program and suggested the neighbors apply (Exhibit 12). Furthermore, the applicant is required to demonstrate adequate parking to facilitate each new phase of development.

Other comments were submitted prior to initiating the public comment period which were not included in the analysis of this report. Comments received after February 13th, 2012 will be forwarded to the Planning Commission at the February 27th, 2012 public hearing. The public record will remain open until the Planning Commission closes the public hearing.

CHAPTER 17.31 “MUE” MIXED USE EMPLOYMENT DISTRICT

17.31.020 Permitted Uses

Finding: Complies as Proposed. The subject site is currently utilized as a hospital with medical clinics, uses permitted in OCMC 17.31.020.F and C of the Oregon City Municipal Code. The application did not include any alteration to the use of the site.

17.31.030 Limited Uses

Finding: Not Applicable. The subject site is currently utilized as a hospital with medical clinics, uses permitted in OCMC 17.31.020.F and C of the Oregon City Municipal Code. The application did not include any alteration to the use of the site.

17.31.040 Conditional Uses

Finding: Not Applicable. The subject site is currently utilized as a hospital with medical clinics, uses permitted in OCMC 17.31.020.F and C of the Oregon City Municipal Code. The application did not include any alteration to the use of the site.

17.31.050 Prohibited Uses

Finding: Not Applicable. The subject site is currently utilized as a hospital with medical clinics, uses permitted in OCMC 17.31.020.F and C of the Oregon City Municipal Code. The application did not include any alteration to the use of the site.

17.31.060.A Minimum lot areas: None.

Finding: Complies as Proposed. The applicant proposed to consolidate lots on the subject site. The subsequent lots exceed a minimum lot area of zero.

17.31.060.B Minimum Floor Area Ratio: 0.25.

Finding: Complies with Condition. The application did not identify the floor area ratio, as the exact square footage to be constructed will be refined during future Detailed Development Plans. Prior to issuance of the first Detailed Development Plan for Phase 3, the applicant shall submit documentation demonstrating the master plan complies with the minimum floor area ratio of 0.25. **The applicant can meet this standard by complying with Condition of Approval 2.**

17.31.060.C Maximum building height: except as otherwise provided in subsection C.1. of this section building height shall not exceed sixty feet.

1. In that area bounded by Leland Road, Warner Milne Road and Molalla Avenue, and located in this zoning district, the maximum building height shall not exceed eighty-five feet in height.

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.31.060.D Minimum required interior and rear yard setbacks if abutting a residential zone: twenty feet, plus one foot additional yard setback for every one foot of building height over thirty-five feet.

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.31.060.E Maximum allowed setbacks: No maximum limit provided the Site Plan and Design Review requirements of Section [17.62.055](#) are met. Development of a campus with an approved Master Plan in the MUE zone is exempt from Section [17.62.055](#)D.1 of Site Plan and Design Review. All other standards are applicable.

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.31.060.F Maximum site coverage of the building and parking lot: Eighty percent.

Finding: Complies with Condition. The application indicated that approximately 64% of the site is covered with buildings and parking lots. However, the site plan inaccurately displayed the location of the proposed parking lot as landscaped. Prior to issuance of permits associated with the Detailed Development Plan for Phase 1, the applicant shall submit a revised calculation demonstrating the Master Plan does not have more

than eighty percent site coverage of buildings and parking lots. All future construction shall demonstrate compliance with this standard. **The applicant can meet this standard by complying with Condition of Approval 3.**

17.31.060.G *Minimum landscape requirement (including the parking lot): Twenty Percent.*

The design and development of the landscaping in this district shall:

1. *Enhance the appearance of the site internally and from a distance;*
2. *Include street trees and street side landscaping;*
3. *Provide an integrated open space and pedestrian way system within the development with appropriate connections to surrounding properties;*
4. *Include, as appropriate, a bikeway walkway or jogging trail;*
5. *Provide buffering or transitions between uses;*
6. *Encourage outdoor eating areas appropriate to serve all the uses within the development;*
7. *Encourage outdoor recreation areas appropriate to serve all the uses within the development.*

Finding: Complies with Condition. A site plan displaying all landscaping onsite demonstrates that 277,623 square feet of the 769,757 square foot site (36%) is landscaped. However, the site plan inaccurately displays the location of the proposed parking lot as landscaped. Prior to issuance of permits associated with the Detailed Development Plan for Phase 1, the applicant shall submit a revised calculation demonstrating compliance with the minimum landscaping standards in Chapter 17.31.060.G of the Oregon City Municipal Code. **The applicant can meet this standard by complying with Condition of Approval 4.**

CHAPTER 16.12 Property Line Adjustments and Abandonment Process and Standards

Findings: Complies as Proposed. The tax lot located on the corner of Penn Lane and Division Street (Clackamas County Map 2-2E-32AB-01201) consists of multiple building lots, though only a single tax lot is present. The applicant proposed to consolidate building lots into a single building lot which mirrors the tax lot displayed in Exhibit D of the application. Subsequent to the consolidation, the lot would contain a parking lot and a structure where the future East medical office building would be located. As demonstrated within this report, the consolidated lots were reviewed for compliance with the Oregon City Municipal Code.

Chapter 17.65 – MASTER PLANS

17.65.050.A Existing Conditions Submittal Requirements

17.65.050.A.1.a *Current uses of and development on the site, including programs or services.*

Findings: Complies as Proposed. The site is currently being utilized as Providence Willamette Falls Medical Center (PWF). The applicant provided a site plan identifying the existing layout of the site (Exhibit 2).

17.65.050.A.1.b *History or background information about the mission and operational characteristics of the institution that may be helpful in the evaluation of the concept development plan.*

Findings: Complies as Proposed. The applicant submitted a narrative with a variety of information about the subject site (Exhibit 2).

17.65.050.A.1.c *A vicinity map showing the location of the Concept Development Plan boundary relative to the larger community, along with affected major transportation routes, transit, and parking facilities.*

Findings: Complies as Proposed. The applicant submitted a vicinity map displaying the subject site relative to the larger community, including major transportation routes, transit stops and parking facilities (Exhibit 2).

17.65.050.A.1.d *Non-institutional uses that surround the development site. May also reference submitted maps, diagrams or photographs.*

Findings: Complies as Proposed. The applicant submitted a map displaying the adjacent buildings and zoning designations. Though primarily adjacent to the “MUE” Mixed Use Employment District, a portion of the site borders residential zoning designations (Exhibit 2).

17.65.050.A.1.e *Previous land use approvals within the Concept Development Plan boundary and related conditions of approval.*

Findings: Complies as Proposed. The subject site has received approval of multiple land use applications. Two prior applications (Conditional Use CU 03-03 and Site Plan and Design Review SP 03-19) resulted in the requirement to receive Master Plan approval prior to proceeding with any additional land use applications (Exhibits 3 and 4).

- Condition of approval #5 for Conditional Use CU 03-03: The hospital shall receive a comprehensive city master plan approval prior to any future city land use approval or site development permit issuance (other than those approved or conditioned for approval as part of this conditional use permit or the associated site plan and design review, SP03-19). The master plan shall be based on all hospital properties in the Division Street area and include; phased development projects, full area traffic analysis, infrastructure evaluation and plans, multi-model planning (on and off-site) , vehicle and bicycle parking evaluation, evaluation of non-conformance, proposed timing and other required items.
- Condition of approval #31 for Site Plan and Design Review SP 03-19: The hospital shall receive a comprehensive city master plan approval prior to any future city land use approval or site development permit issuance (other than those approved as part of the associated Condition Use Permit CU 03-03, this Site Plan and Design Review or required in Conditions 2, 3 and 4 of this approval). The master plan shall be based on all hospital properties in the Division Street area and include; phased development projects, full area traffic analysis, infrastructure evaluation and plans, multi-model planning (on and off-site), vehicle and bicycle parking evaluation, evaluation of non-conformance, proposed timing and other required items.

17.65.050.A.1.f *Existing utilization of the site. May also reference submitted maps, diagrams or photographs.*

Findings: Complies as Proposed. The applicant provided a narrative statement describing the existing uses of the site and a series of maps (Exhibit 2). The site is currently being utilized as Providence Willamette Falls Medical Center. The subject site contains Clackamas County Map2-2EAB, Tax Lots 1201, 1900, 2000, 2100, 2200, 2400, 2500, 2800, 2900, 3100, 3900, 4000, 4100, 4200, 4400, 4600, Clackamas County Map 2-2E-32AA, TL 400 and Clackamas County Map 2-2E-32AC, TL 101, 201. The Master Plan is within the Mixed Use Employment District (MUE). PWF Medical Center is a permitted use in the MUE Zone under OCMC 17.31.010 and 17.31.020.F.

17.65.050.A.1.g *Site description, including the following items. May also reference submitted maps, diagrams or photographs.*

- (1) *Physical characteristics,*
- (2) *Ownership patterns,*
- (3) *Building inventory,*
- (4) *Vehicle/bicycle parking,*
- (5) *Landscaping/usable open space,*
- (6) *FAR/lot coverage,*
- (7) *Natural resources that appear on the City's adopted Goal 5 inventory,*
- (8) *Cultural/historic resources that appear on the City's adopted Goal 5 inventory, and,*
- (9) *Location of existing trees 6" in diameter or greater when measured 4' above the ground. The location of single trees shall be shown. Trees within groves may be clustered together rather than shown individually.*

Findings: Complies as Proposed. The applicant provided a narrative including a description of the site and a series of maps displaying the above existing conditions (Exhibit 2). As discussed in Chapter 17.65.050.C.4 of this report, no City-designated cultural or historic resources are located on the subject site. A small portion of the subject site includes two Overlay Districts; Natural Resource Overlay District (NROD), and Geologic Hazards. Both districts are on the eastern edges of the subject property where no additional development is proposed.

17.65.050.A.1.h *Existing transportation analysis, including the following items. May also reference submitted maps, diagrams or photographs.*

- (1) *Existing transportation facilities, including highways, local streets and street classifications, and pedestrian and bicycle access points and ways;*
- (2) *Transit routes, facilities and availability;*
- (3) *Alternative modes utilization, including shuttle buses and carpool programs; and*
- (4) *Baseline parking demand and supply study (may be appended to application or waived if not applicable).*

Findings: Complies as Proposed. The applicant provided a narrative statement describing the existing transportation conditions of the site. A Transportation Impact Analysis (TIA) was submitted by Kittelson & Associates, Inc. (Exhibit 2).

1. Sidewalks are provided along Redland Road to the south of Holcomb Boulevard-Abernethy Road.
2. Sidewalks and bicycle lanes are provided along Anchor Way west of Redland Road (for approximately 250 feet only).
3. Sidewalks are provided along Division Street to the south of 16th Street.
4. Bicycle lanes are provided along Division Street between 13th Street and 15th Street.
5. On-street parking is available along Division Street to the west of 9th Street and between 16th Street and Gilman Drive.
6. Not posted; assumed to be 25 miles per hour.

Bicycle Facilities and Connectivity. Bicycle lanes are currently provided on Division Street between 13th Street and 15th Street and along some of the major surrounding roadways, including Redland Road and Molalla Avenue. According to the TSP, bicycle lane improvements are needed on Division Street, 15th Street, Cascade Highway (OR 213), Anchor Way, Holcomb Boulevard- Abernethy Road, 7th Street, and Molalla Avenue.

Pedestrian Facilities and Connectivity. The PWF campus and surrounding neighborhood are generally well served by a grid network of streets and sidewalks today. Sidewalks are available adjacent to the campus on a majority of both Division Street and Davis Road, as well as along the major connecting roadways near the campus, including Molalla Avenue, 7th Street, and 15th Street. Additional sidewalk connectivity is planned in the vicinity of the PWF campus, as identified in the City of Oregon City TSP.

Transit Routes, Facilities and Availability. The primary bus route serving the site is Tri-Met with bus stops located adjacent to the subject site. Two fixed-route bus stops are located within one block of the main entrance of the PWF campus on Division Street; a total of four stops are located within one block of the overall PWF campus. Service to these stops is provided by Tri-Met Bus Route 32. Route 32 provides service between Clackamas Community College, Oregon City, Gladstone, and Milwaukie. As of August 2011, the bus operates Monday through Friday between 5:30 a.m. and 7:30 p.m. on 30-minute headways, Saturdays between 9:30 a.m. and 5:30 p.m. on 60-minute headways, and does not offer service on Sundays. The Oregon City Transit Center provides connections to several additional bus routes and services. Other bus service in the area of the PWF campus is provided by Tri-Met Bus Routes 33, 34, and 99.

Baseline Parking Demand and Supply. The applicant indicated that the campus has an existing supply of 749 parking stalls with an existing demand for 653 stalls.

17.65.050.A.1.i *Infrastructure facilities and capacity, including the following items.*

- (1) *Water,*
- (2) *Sanitary sewer,*
- (3) *Stormwater management, and*
- (4) *Easements.*

Findings: Complies as Proposed. The site is surrounded by adequate City water mains on all four sides including through the interior of the main property. Adequate sanitary sewer mains exist around the site while stormwater mains are located appropriately on the perimeter of the site.

17.65.050.A.2.a *Existing conditions site plan.*

Findings: Complies as Proposed. The applicant submitted a site plan of the existing conditions of the site (Exhibit 2).

17.65.050.A.2.b. *Vicinity map.*

Findings: Complies as Proposed. The applicant submitted a vicinity map of the development site (Exhibit 2).

17.65.050.A.2.c. *Aerial photo.*

Findings: Complies as Proposed. The applicant submitted an aerial photo depicting the subject site and adjacent property (Exhibit 2).

17.65.050.B. *Proposed Development Submittal Requirements*

17.65.050.B.1.a *The proposed duration of the concept development plan.*

Findings: Complies as Proposed. The General (Master) Plan is anticipated to be implemented over a period of 10 years.

17.65.050.B.1.b *The proposed development boundary. May also reference submitted maps or diagrams.*

Findings: Complies as Proposed. The project boundaries include Clackamas County Map 2-2EAB, Tax Lots 1201, 1900, 2000, 2100, 2200, 2400, 2500, 2800, 2900, 3100, 3900, 4000, 4100, 4200, 4400, 4600, Clackamas County Map 2-2E-32AA, TL 400 and Clackamas County Map 2-2E-32AC, TL 101, 201. A map of the subject site was submitted (Exhibit 2).

17.65.050.B.1.c *A description, approximate location, and timing of each proposed phase of development, and a statement specifying the phase or phases for which approval is sought under the current application. May also reference submitted maps or diagrams.*

Findings: Complies as Proposed. The applicant indicated that phases would generally include the following:

Project Phase 1 – Division St. Parking Lot (Subject To Detailed Development Plan Approval)

The first project of the master plan consists of an alteration and expansion of the existing parking lot at the intersection of Davis Road, Division Street and Penn Lane. The applicant submitted a Detailed Development Plan for the construction of the parking lot which would be implemented subsequent to approval in 2012.

Project Phase 2 – Hospital Additions and Remodels

Phase 2 of the Master Plan includes the addition of approximately 54,000 square feet to the site including expanding the Medical Center building, the construction of a new central utility plant, and the remodeling of other areas of the facility. More particularly, these projects include:

Outpatient Surgery Expansion: The outpatient surgery expansion will add approximately two new operating rooms and short stay recovery space.

New Front Entry: The main entry to PWF will be remodeled and will include a new patient drop-off. The new entry will replace a section of the 1961 building which is currently sub-standard and houses hospital office spaces among other uses. This project will provide a more direct and unified entry into the hospital. A new canopy will welcome visitors into a large, high volume lobby that will provide physical and visual connections to corridors serving patient care, imaging, day surgery, birthplace, and the gift shop.

Second Floor Patient Room and Pharmacy Remodel: Several spaces on the second floor of the hospital will be converted from their current use as offices back to their original function as patient rooms. This

patient room remodel will not increase the number of licensed beds, the staffing levels for the hospital, nor increase trip generation. The pharmacy will also be relocated.

Birthplace Expansion: Six additional Labor, Delivery, Recovery and Postpartum rooms will be added to the west end of the existing Birthplace wing. The addition would increase the number of labor and delivery/postpartum beds from 14 to 20.

Central Utility Plant: In order to centralize the system utilities for the campus and make them more efficient, PWF is planning for a central utility plant to house the appropriate mechanical, electrical, and plumbing systems to serve the medical campus. The development of this project is located within the Natural Resource Overlay District requiring review and mitigation .

Second Floor Shell Space Tenant Improvements: There is approximately 16,100 square feet of unfinished space above the Emergency Department planned for build out to house expanded hospital services. There is no definitive hospital program scheduled for this space but it is anticipated to be an expansion of outpatient services.

The applicant may complete the phase 2 projects in any order, provided they are all completed prior to initiating Phase 3. Phase 2 is projected to be implemented from 2012-2021.

Project Phase 3 – Medical Office Buildings (MOB)

Phase 3 of the Master Plan will add approximately 40,000 - 50,000 square feet of square footage to the medical campus including the construction of two new buildings including:

MOB Additions: PWF has identified two (East and West) sites for 20,000 - 25,000 square foot medical Office Buildings (MOB's) which will house general physician's practices. The order of implementation for the two MOB's in this phase will depend upon Hospital strategic goals, project funding, and community needs. Phase 3 would be implemented from 2014-2021.

17.65.050.B.1.d *An explanation of how the proposed development is consistent with the purposes of Section 17.65, the institutional zone, and any applicable overlay district.*

Findings: Refer to the findings within this report.

17.65.050.B.1.e *A statement describing the impacts of the proposed development on inventoried Goal 5 natural, historic or cultural resources within the development boundary or within 250 feet of the proposed development boundary.*

Findings: Complies as Proposed. The applicant provided a map displaying all nearby Goal 5 resources. The subject site is not within a historic district or include an individually designated historic structure. The property is within the Geologic Hazards Overlay District and the Natural Resource Overlay District.

17.65.050.B.1.f *An analysis of the impacts of the proposed development on the surrounding community and neighborhood, including:*

- (1) Transportation impacts as prescribed in Subsection "g" below;*
- (2) Internal parking and circulation impacts and connectivity to sites adjacent to the development boundary and public right-of-ways within 250 feet of the development boundary;*
- (3) Public facilities impacts (sanitary sewer, water and stormwater management) both within the development boundary and on city-wide systems;*
- (4) Neighborhood livability impacts;*
- (5) Natural, cultural and historical resource impacts within the development boundary and within 250 feet of the development boundary.*

Findings: The applicant submitted documentation on the impacts of the proposed development. Please refer to the analysis within this report.

17.65.050.B.1.g *A summary statement describing the anticipated transportation impacts of the proposed development. This summary shall include a general description of the impact of the entire development on the local street and road network, and shall specify the maximum projected average daily trips, projected AM and PM peak hour traffic and the maximum parking demand associated with build-out each phase of the master plan.*

Findings: Please to the analysis in OCMC Chapter 17.65.050.B.1.i of this report.

17.65.050.B.1.h *In addition to the summary statement of anticipated transportation impacts, an applicant shall provide a traffic impact study as specified by City requirements. The transportation impact study shall either:*

- (1) address the impacts of the development of the site consistent with all phases of the concept development plan; or*
- (2) address the impacts of specific phases if the City Engineer determines that the traffic impacts of the full development can be adequately evaluated without specifically addressing subsequent phases.*

Findings: Complies as Proposed. The applicant identified the transportation impact of the development with traffic impact analysis prepared by Kittleson and Associates (Exhibit 2) discussing the transportation impacts of the proposed development. The transportation study was reviewed by John Replinger, transportation consultant for the City from Replinger and Associates (Exhibit 5).

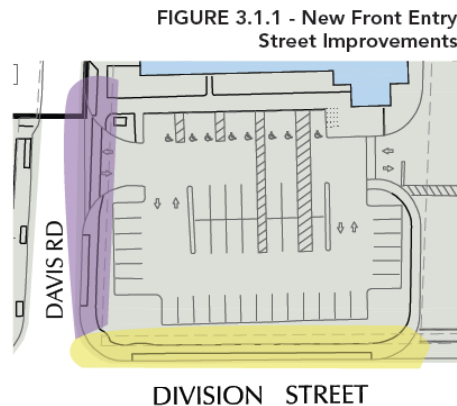
17.65.050.B.1.i *If an applicant chooses to pursue option h(1), the applicant may choose among three options for implementing required transportation capacity and safety improvements:*

- (1) The concept development plan may include a phasing plan for the proposed interior circulation system and for all on-site and off-site transportation capacity and safety improvements required on the existing street system as a result of fully implementing the plan. If this option is selected, the transportation phasing plan shall be binding on the applicant.*
- (2) The applicant may choose to immediately implement all required transportation safety and capacity improvements associated with the fully executed concept development plan. If this option is selected, no further transportation improvements will be required from the applicant. However, if a concept development plan is later amended in a manner so as to cause the projected average daily trips, the projected AM or PM peak hour trips, or the peak parking demand of the development to increase over original projections, an additional transportation impact report shall be required to be submitted during the detailed development plan review process for all future phases of the development project and additional improvements may be required.*
- (3) The applicant may defer implementation of any and all capacity and safety improvements required for any phase until that phase of the development reaches the detailed development plan stage. If this option is selected, the applicant shall submit a table linking required transportation improvements to vehicle trip thresholds for each development phase.*

Findings: Complies with Condition. The applicant proposed to install public improvements associated with each phase of development. The applicant submitted a transportation impact analysis prepared by Julia Kuhn, PE of Kittleson & Associates, Inc (Exhibit 2) discussing the transportation impacts of the proposed development. The report was reviewed by John Replinger, PE of Replinger and Associates, a City consultant (Exhibit 5). The applicant proposed to complete the following public improvements by the completion of Phase 3 of development.

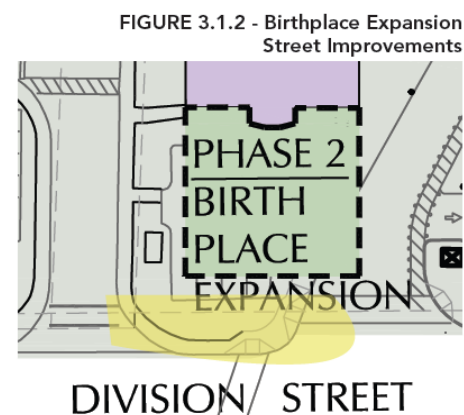
New Front Entry

The New Front Entry project in Phase 2 would trigger applicable street improvements in the highlighted areas in Figure 3.1.1. Minor Arterial street improvements along Division Street (to match the improvements in front of the ED expansion detailed in CU 03-03), and Local street improvement along Davis Road.



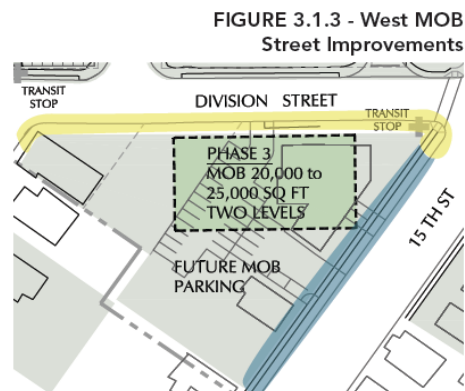
Birthplace Expansion

The Birthplace Expansion project in Phase 2 would trigger applicable street improvements in the highlighted areas in Figure 3.1.2. Minor Arterial street improvements along Division Street to match the improvements in front of the ED expansion detailed in CU 03-03.



West MOB

The West MOB project in Phase 3 would trigger applicable street improvements in the highlighted areas in Figure 3.1.3. Minor Arterial street improvements along Division Street (to match the improvements in front of the ED expansion detailed in CU 03-03), and Collector street improvement along 15th St. The improvements along Division St. will require a full depth half street improvements.



The City generally concurs with the public improvements proposed. The following identifies a specific list of public improvements and associated maps of where each improvement will occur. The applicant's engineer shall analyze and design the Division Street and 15th Street pavement restoration.

- Division Street, a Minor Arterial, would be improved with each phase of the Master Plan as follows:
 - Phase 1 (Parking Lot Improvements between Davis Road and Penn Lane): Construction of 2.5-foot wide full depth pavement restoration adjacent to new curb and gutter, 8 ft sidewalk with 4- by 6-ft tree wells, bike lane striping and markings, street lighting, and street trees.

- Phase 2 (Front Entry Improvements and Birthplace Expansion): Match improvements from ED expansion approved in CU 03-03, including but not limited to a 4-foot ROW dedication across Tax Lot 1900 and 2000. Construction of full depth pavement restoration from the northern end of the ED improvements to Davis Road for a width of 26 feet on the eastern half and 10 feet on the opposing side. New curb and gutter, 8-foot sidewalk with 4- by 6-ft tree wells, bike lane striping and markings, street lighting, and street trees.
- Phase 3 (East MOB): Construction of full depth pavement restoration between Davis Road and Penn Lane for a width of 20 feet on the eastern half (2-inch mill on the easternmost 2.5 feet done in Phase 1) and 10 feet on the opposing side.
- Phase 3 (West MOB): A 4-foot ROW dedication from 15th Street to 16th Street to provide 34 feet from centerline on the west side. Construction of full depth pavement restoration between 15th Street and 16th Street for a width of 26 feet on the western half and 10 feet on the opposing side (if not completed by other phases). Construction of curb and gutter, 8 ft sidewalk with 4- by 6-ft tree wells, bike lane striping and markings, street lighting, and street trees.
- Davis Road, a Local Street, would be improved with Phase 1 and 2 of the Master Plan as follows:
 - Phase 1 (Parking Lot Improvements between Davis Road and Penn Lane): A 1-foot street dedication. Construction of 2.5-foot wide full depth pavement restoration adjacent to new curb and gutter, 4.5-foot planter strip with street trees, 5 ft sidewalk, and street lighting. Provide opposing ADA ramp at southeast corner of Davis Road/Division Street.
 - Phase 2 (Front Entry Improvements): Dedication to result in 26.5 feet of ROW on the southern side. Construction of pavement restoration as determined by Applicant's Engineer's analysis/design (and coordination with City's Pavement Condition Index at time of design). Construction of 2.5-foot wide full depth pavement restoration adjacent to new curb and gutter, 4.5-foot planter strip with street trees, 5 ft sidewalk, and street lighting.
- 15th Street, a Collector, would be improved with Phase 3 of the Master Plan as follows:
 - Phase 3 (West MOB): There is 38 feet of existing pavement, with 19 feet on the MOB side. Construction of pavement restoration as determined by applicant's engineer's analysis/design (and coordination with City's Pavement Condition Index at time of design) across the tax lot frontages for a width of 19 feet on the northern half and 10 feet on the opposing side. Evaluation of the existing street lighting and install as necessary to meet current IES. Installation of street trees in existing planter strip and bike route signs.
- Penn Lane, a Local Street, would be improved with Phase 3 of the Master Plan as follows:
 - Phase 3 (East MOB): Construction of full pavement section adjacent to 1716 Penn Lane for a width of about 6 feet on the southern half with curb and gutter, 4.5-foot planter strip, 5-foot sidewalk, street trees, and street lighting.

In addition, the applicant's transportation impact study identified two off-site intersections where the impacts from the proposed development when coupled with future background projections would result in an unacceptable level of service. A more than 50 second delay for the westbound left at the intersection of Molalla Avenue/7th Street would result in a level of service (LOS) F in 2017 and a more than 50 second delay for the northbound left at the intersection of Redland Road/Anchor Way would result in a level of service (LOS) F in 2018 both, in part, as a result of Phase 2 impacts. Phase 1 was not determined to have an impact on the proposed development, as it entails an expansion of the parking lot which will not itself increase traffic demands generated on-site.

Although this Master Plan approval is for all three phases of the project, it is not possible at this time to determine what transportation improvements may be required to mitigate impacts on the transportation system from Phases 2, on the intersections of Molalla Avenue/7th Street and Redland Road/Anchor Way, and 3 which would be constructed up to 10 years in the future. A determination of the adequacy of the existing traffic infrastructure, the extent of the Providence Willamette Falls impacts, what improvements in the form of mitigation measures will be required, and/or the portion of the construction costs of those measures which

should be borne by the Providence Willamette Falls, will be made at the time of consideration of the detailed development plan for each Phase 2 and 3. Cost estimates shall be based on estimates contained in the Regional Transportation Plan or Oregon City Transportation System Plan, whichever is most current, with cost estimates updated by applying a published construction cost index. For projects already programmed for construction, the final project cost of most current cost estimates shall be utilized. If the impacts cannot be adequately mitigated based on the standards in effect at the time of filing the detailed development application, the detailed development plan will be denied.

ODOT suggested that the treatment of the central utility plant might have caused the traffic to be underestimated (Exhibit 7). John Replinger, PE of Replinger and Associates, a City consultant indicated that ODOT indicated that the “trip generation methodology was adequately explained and accurately executed” (Exhibit 5).

The additional development proposed in the master plan is forecast to produce 87 additional AM peak hour trips and 91 additional PM peak hour trips. This compares with current traffic of 339 AM peak hour trips and 356 PM peak hour trips.

The applicant is responsible for this project’s compliance with Engineering Policy 00-01. **The applicant can comply with this standard by meeting Conditions of Approval 5 and 6.**

17.65.050.B.1.j *The applicant or city staff may propose objective development standards to address identified impacts that will apply within the proposed development on land that is controlled by the institution. Upon approval of the concept development plan, these standards will supersede corresponding development standards found in this code. Development standards shall address at least the following:*

- (1) Pedestrian, bicycle and vehicle circulation and connectivity;*
- (2) Internal vehicle and bicycle parking;*
- (3) Building setbacks, landscaping and buffering;*
- (4) Building design, including pedestrian orientation, height, bulk, materials, ground floor windows and other standards of Chapter 17.62; and*
- (5) Other standards that address identified development impacts.*

Findings: Not Applicable. The applicant has not proposed alternative objective development standards.

17.65.050.B.2.a. *A preliminary site circulation plan showing the approximate location of proposed vehicular, bicycle, and pedestrian access points and circulation patterns, parking and loading areas or, in the alternative, proposed criteria for the location of such facilities to be determined during detailed development plan review.*

Findings: Complies with Conditions. The applicant submitted a site plan for the proposed development showing the approximate location of proposed vehicular, bicycle, and pedestrian access points and circulation patterns, parking and loading areas. The site is currently nonconforming as it does not comply with the current standards for parking lot landscaping, pedestrian accessway standards, etc. Proportional upgrades to the site are required per OCMC Chapter 17.58.

Vehicle Circulation Plan. A site plan identifying the circulation of vehicles onsite was provided demonstrating the ability for automobiles to travel down the street and within parking lots throughout the site.

Bicycle Circulation Plan. A site plan identifying the circulation of bicycles onsite was provided demonstrating the ability for bicycles to travel down the street and within parking lots within automobiles. There are no bicycle pathways onsite.

Pedestrian Circulation Plan. The applicant did not propose any changes to the pedestrian circulation plan within the Master Plan or Detailed Development Plan. As demonstrated within this report, the proposed parking lot layout does not include a pedestrian accessway within the parking lot. Prior to issuance of permits

associated with the Detailed Development Plan for Phase 1, the applicant shall install a pedestrian accessway within or adjacent to the proposed parking lot which complies with the Oregon City Municipal Code and provides safe access to pedestrians walking from the northern portion of the parking lot south towards the main hospital facility. **The applicant can meet this standard by complying with condition of approval 7.**

17.65.050.B.2.b *The approximate location of all proposed streets, alleys, other public ways, sidewalks, bicycle and pedestrian access ways and other bicycle and pedestrian ways, transit streets and facilities, neighborhood activity centers and easements on and within 250 feet of the site. The map shall identify existing subdivisions and development and un-subdivided or unpartitioned land ownerships adjacent to the proposed development site and show how existing streets, alleys, sidewalks, bike routes, pedestrian/bicycle access ways and utilities within 250 feet may be extended to and/or through the proposed development.*

Findings: Complies as Proposed. The applicant submitted a map displaying the approximate location of all pedestrian, bicycle and automobile facilities within 250 feet of the site.

17.65.050.B.2.c *The approximate location of all public facilities to serve the proposed development, including water, sanitary sewer, stormwater management facilities.*

Findings: Please refer to the analysis within this report.

17.65.050.B.2.d *The approximate projected location, footprint and building square footage of each phase of proposed development.*

Findings: Complies as Proposed. The applicant submitted a map displaying the approximate location and footprint of the proposed structures. The final sizes and locations are subject to minor changes in the Detailed Development Plan review. Major changes to the size or location of the structures will require an adjustment to the Concept (General/Master) Development Plan.

17.65.050.B.2.e *The approximate locations of proposed parks, playgrounds or other outdoor play areas; outdoor common areas and usable open spaces; and natural, historic and cultural resource areas or features proposed for preservation. This information shall include identification of areas proposed to be dedicated or otherwise preserved for public use and those open areas to be maintained and controlled by the owners of the property and their successors in interest for private use.*

Findings: Complies as Proposed. The applicant submitted an aerial photo in Exhibit 2. The applicant did not propose a park, playground or other outdoor play area or open space for the subject site.

17.65.050.C. Approval Criteria for a Concept Development Plan.

17.65.050.C.1 *The proposed Concept Development plan is consistent with the purposes of Section 17.65.*

Findings: Complies as Proposed. Chapter 17.65.010 of the Oregon City Municipal Code states: *"It is the intent of this Chapter to foster the growth of major institutions and other large-scale development, while identifying and mitigating the impacts of such growth on surrounding properties and public infrastructure. The City recognizes the valuable services and employment opportunities that these developments bring to Oregon City residents. The master plan process is intended to facilitate an efficient and flexible review process for major developments and to provide them with the assurance they need over the long term so that they can plan for and execute their developments in a phased manner. To facilitate this, the master plan process is structured to allow an applicant to address the larger development issues, such as adequacy of infrastructure and transportation capacity, and reserve capacity of the infrastructure and transportation system before expenditure of final design costs."*

The Master Plan is consistent with the purpose and intent statement in OCMC Chapter 17.65.010. The Master Plan identifies the growth expected on the Providence Willamette Falls Hospital campus over the next ten (10) years. Providence selected a 10-year timeframe for the master plan as the level of uncertainty of development plans after ten (10) years is too high. Providence submitted a Transportation Impact Analysis with phased public improvements which is analyzed within this report.

17.65.050.C.2 *The transportation system has sufficient capacity based on the City's level of service standards and is capable of safely supporting the development proposed in addition to the existing and planned uses in the area, or will be made adequate by the time each phase of the development is completed.*

Findings: Complies with Condition. The applicant's transportation impact study identified two off-site intersections where the impacts from the proposed development when coupled with future background projections would result in an unacceptable level of service. A more than 50 second delay for the westbound left at the intersection of Molalla Avenue/7th Street would result in a level of service (LOS) F in 2017 and a more than 50 second delay for the northbound left at the intersection of Redland Road/Anchor Way would result in a level of service (LOS) F in 2018 both, in part, as a result of Phase 2 impacts. Phase 1 was not determined to have an impact on the proposed development, as it entails an expansion of the parking lot which will not itself increase traffic demands generated on-site.

Although this Master Plan approval is for all three phases of the project, it is not possible at this time to determine what transportation improvements may be required to mitigate impacts on the transportation system from Phases 2, on the intersections of Molalla Avenue/7th Street and Redland Road/Anchor Way, and 3 which would be constructed up to 10 years in the future. A determination of the adequacy of the existing traffic infrastructure, the extent of the Providence Willamette Falls impacts, what improvements in the form of mitigation measures will be required, and/or the portion of the construction costs of those measures which should be borne by the Providence Willamette Falls, will be made at the time of consideration of the detailed development plan for each Phase 2 and 3. Cost estimates shall be based on estimates contained in the Regional Transportation Plan or Oregon City Transportation System Plan, whichever is most current, with cost estimates updated by applying a published construction cost index. For projects already programmed for construction, the final project cost of most current cost estimates shall be utilized. If the impacts cannot be adequately mitigated based on the standards in effect at the time of filing the detailed development application, the detailed development plan will be denied. **The applicant can comply with this standard by meeting Condition of Approval 5.**

17.65.050.C.3 *Public services for water supply, police, fire, sanitary waste disposal, and storm-water disposal are capable of serving the proposed development, or will be made capable by the time each phase of the development is completed.*

Findings: Complies with Condition. An analysis of the proposed impacts is provided below.

Domestic Water. There are existing water mains in the streets bounding the site as well as several on-site. New fire hydrants would be placed according to fire department code at the time of individual Detailed Development Plan review.

Police Protection. No significant police issues were identified during this Master Plan review.

Fire Protection. No significant fire protection issues were identified during this Master Plan review.

Sanitary Sewer. Adequate sanitary sewer mains exist around the site boundaries. During the Detailed Development Plan reviews, the applicant shall provide connection to new/existing sanitary sewer for new future facilities as required by plumbing code.

Storm Water. Stormwater mains exist bordering the site. The applicant shall provide stormwater facilities as necessary for street improvements and facility construction. Downstream conveyance calculations/analysis shall be performed for all existing storm systems where the Applicant's new facilities increase the stormwater flow. The applicant shall comply with the Oregon City Stormwater Design Standards and evaluate the existing stormwater facilities on 15th Street during Phase 3, West MOB. Current street curb drainage flow on 15th Street exceeds the 400-foot length standard on the north side. Construct a curb basin to connect into the eastern end of the storm line as necessary. During each of the Detailed Development Plan reviews, the

applicant shall provide site analysis to determine extent of stormwater detention and water quality that are required by the current code and implement appropriate Low Impact Design efforts. The use of Lynch-style catch basins for water quality is required for all new/revised parking lots. Water quality treatment will be achieved by means of any number of water quality features such as green roofs, vegetated swale, flow-thru planter box, or other LID system that will be designed per City of Oregon City Design Standards.

The applicant is responsible for this project's compliance with Engineering Policy 00-01. **The Applicant can comply with this standard by meeting Conditions of Approval 6, 8, 9, 10, 11, 12, 13 and 14.**

17.65.050.C.4 *The proposed Concept Development plan protects any inventoried Goal 5 natural, historic or cultural resources within the proposed development boundary consistent with the provisions of applicable overlay districts.*

Findings: Please refer to the analysis in Chapter 17.49 for compliance with the Natural Resource Overlay District and Chapter 17.44 for compliance with the Geologic Hazards Overlay District. There are no inventoried other Goal 5 historic or cultural resources in or within 250 feet of the development.

17.65.050.C.5 *The proposed Concept Development plan, including development standards and impact mitigation thresholds and improvements adequately mitigates identified impacts from each phase of development. For needed housing, as defined in ORS 197.303(1), the development standards and mitigation thresholds shall contain clear and objective standards.*

Findings: Please refer to the findings in 17.65.050.B.1.i of this analysis.

17.65.050.C.6 *The proposed Concept Development Plan is consistent with the Oregon City Comprehensive Plan and its ancillary documents.*

Findings: Complies as Proposed. As demonstrated below, the proposed Master Plan complies with the Oregon City Comprehensive Plan.

Section 1, Citizen Involvement

Section 1 of the Oregon City Comprehensive Plan established goals and policies to involve the public. The Master Plan review process included multiple meetings with neighborhood associations and other groups as well as a public comment period, mailed notices, public hearing and a notice in the newspaper.

Section 2, Land Use

Section 2 of the Oregon City Comprehensive Plan addresses the efficient use of available lands and the goal of creating a vibrant urban area that increases the opportunities for multi-modal transportation options.

Section 9, Economic Development

Section 9 of the Oregon City Comprehensive Plan establishes goals and policies that the City should strive to implement and meet but does not impose mandatory approval standards for a master plan application. The master plan will reinforce the role of the hospital in the community and contribute to the community's economic development.

Section 11, Public Facilities

Section 11 of the Oregon City Comprehensive Plan identifies the need for the City to provide public services. The Master Plan addresses the adequacy of the public facilities onsite.

Section 12, Transportation

Section 12 of the Oregon City Comprehensive Plan provides for a safe, convenient and economic transportation system that functions well and contributes to the city's well-being, enhances the quality of life and increases the opportunity for growth and development. The applicant proposed and is conditioned to mitigate all transportation impacts.

Section 13, Energy Conservation

Section 13 of the Oregon City Comprehensive Plan provides requires the conservation of energy in all forms through efficient land-use patterns, public transportation, building siting and construction standards, and city programs, facilities and activities. The proposed Master Plan encourages efficient use of the land while supporting transit, pedestrian and bicycle facilities.

17.65.050.D *Duration of Concept Development Plan. A Concept Development plan shall involve a planning period of at least five years and up to twenty years. An approved Concept Development plan shall remain in effect until development allowed by the plan has been completed through the detailed development plan process, the plan is amended or superseded, or the plan expires under its stated expiration date.*

Findings: Complies as Proposed. The General (Concept) Plan proposed envisions a 10-year view of the site.

17.65.060 *Detailed Development Plan*

Findings: Not Applicable. The applicant submitted a Detailed Development Plan application for implementation of Phase 1 of the development. Approval of a Detailed Development Plan is required prior to construction.

17.65.070 - *Adjustments to development standards.*

17.65.070.A *Purpose. In order to implement the purpose of the City's master plan process, which is to foster the growth of major institutions and other large-scale development, while identifying and mitigating their impacts on surrounding properties and public infrastructure, an applicant may request one or more adjustments to the applicable development regulations as part of the master planning process. These include, but are not limited to, items such as: dimensional standards of the underlying zone, site plan and design review criteria, residential design standards, and standards for land division approval.*

Findings: Applicable. The applicant submitted a request for an adjustment to the Oregon City Municipal Code with the Master Plan application. No other adjustments to the Oregon City Municipal Code have been requested.

17.65.070.B *Procedure. Requests for adjustments shall be processed concurrently with a general development plan. An adjustment request at the detailed development plan review shall cause the detailed development plan to be reviewed as a Type III application.*

Findings: Complies as Proposed. The proposed adjustment is being processed concurrent with the general development plan as a Type III application.

17.65.070.C *Regulations That May Not be Adjusted. Adjustments are prohibited for the following items:*

1. *To allow a primary or accessory use that is not allowed by the regulations;*
2. *To any regulation that contains the word "prohibited";*
3. *As an exception to a threshold review, such as a Type III review process; and*
4. *Any exception to allow a use not identified as a permitted or conditional use in the underlying zone.*

Findings: Complies as Proposed. The applicant has not proposed an adjustment for the use of the site or review process.

Oregon City Municipal Code Adjustment #1: Interior Parking Lot Landscaping

OCMC Chapter 17.52.060.D requires that within a parking lot no more than eight contiguous parking spaces shall be created without providing an interior landscape strip between them. Though the proposed parking lot expansion associated with Phase 1 of the Master Plan does not have more than 8 contiguous parking stalls without an interior landscape strip and will comply with OCMC 17.52.060(D), a majority of the existing parking lots within the Providence Willamette Falls campus were constructed prior to adoption of this standard.

The Nonconforming Chapter of the Oregon City Municipal Code, 17.58, requires the applicant to install interior parking lot landscaping within existing parking lots which do not comply with the current standards.

Each Detailed Development Plan costing more than \$75,000 is required to spend 10% of the project cost on upgrades to existing nonconforming facilities such as interior parking lot landscaping. Depending on the cost of construction, it is anticipated that all of the aforementioned nonconforming items would be upgraded within the Master Plan. Each parking lot upgrade will include documentation from the applicant demonstrating that there is no loss of parking due to installation of interior parking lot landscaping.

If this adjustment is approved, the nonconforming parking lots would be upgraded so that no more than 16 contiguous parking spaces would be provided without an interior landscape strip and future parking lots associated with Phases 2 and 3 of the Master Plan, no more than 16 contiguous parking spaces would be provided without an interior landscape strip. As shown in this analysis, in order to mitigate the impact of the adjustment to increase the number of contiguous parking stalls permitted without landscape strips, the applicant shall increase the minimum interior parking lot landscaping from 10% to 12%. The applicant may choose not to utilize the adjustment for a particular parking lot. If a parking lot does not utilize the adjustment and provides no more than eight contiguous parking spaces without an interior landscape strip, the applicant does not have to increase the minimum interior parking lot landscaping for that parking lot from 10% to 12%. The applicant shall be required to calculate the total number of trees that would be planted based on the existing requirements of one tree per six parking spaces in the interior parking lot landscaping and plant the required number of trees on-site or, if approved by the Community Development Director, pay a fee-in-lieu for the difference in the number of parking lot trees.

OCMC 17.52.060(D)(d) - EXISTING

*d. No more than **eight** contiguous parking spaces shall be created without providing an interior landscape strip between them. Landscape strips shall be provided between rows of parking shall be a minimum of six feet in width and a minimum of 10 feet in length.*

ADJUSTED TO:

OCMC 17.52.060(D)(d) - PROPOSED

*d. No more than **sixteen** contiguous parking spaces shall be created without providing an interior landscape strip between them. Landscape strips shall be provided between rows of parking shall be a minimum of six feet in width and a minimum of 10 feet in length.*

17.65.71.D.1. *Granting the adjustment will equally or better meet the purpose of the regulation to be modified;*

Finding: Complies with Condition. Chapter 17.52.060 of the Oregon City Municipal Code identifies the purpose of parking lot landscaping is:

- To enhance and soften the appearance of parking lots;
- To limit the visual impact of parking lots from sidewalks, streets and particularly from residential areas;
- To shade and cool parking areas;
- To reduce air and water pollution;
- To reduce storm water impacts and improve water quality; and
- To establish parking lots that are more inviting to pedestrians and bicyclists.

The applicant indicated that “the requirement for providing interior landscape strips in areas that will be affected by future detailed development plans will reduce the parking supply on the campus. Per the TIA in Appendix B, PWF currently has a parking surplus, but at the end of the proposed master plan there would be a parking deficit. Therefore it is important for PWF to maintain as many parking spaces as necessary. The intent of 17.52.060.D.(d) is ‘to enhance and soften the appearance of parking lots; to limit the visual impact of parking lots from sidewalks, streets and particularly from residential areas; to shade and cool parking areas’

among others. In the parking lot areas identified as lots B, D, G, and F per Figure 14 on page 44 of Kittelson & Associates TIA (see Appendix B), Lot G is not visible from any public streets or residential areas thanks to the stand of forest along its eastern border. Lot F currently has 23 street and parking lot deciduous shade trees, as well as landscaped triangular wheel stops and planter strips. Lots B and D also have numerous parking lot trees and landscaped buffer zones”.

Staff believes that a reduction in the frequency of interior parking lot landscaping islands would potentially reduce the amount of shade within the parking lot, thus resulting in higher temperature storm water and may not as adequately soften the appearance of the parking lot. The applicant has not proposed any mitigation for the proposed adjustment. OCMC 17.52.060.D requires surface parking lots have a minimum ten percent of the interior of the gross area of the parking lot be devoted to landscaping to improve the water quality, reduce storm water runoff, and provide pavement shade. In order to mitigate the impact of the adjustment to increase the number of contiguous parking stalls permitted without landscape strips, the applicant shall increase the minimum interior parking lot landscaping from 10% to 12%. The applicant may choose not to utilize the adjustment for a particular parking lot. If a parking lot does not utilize the adjustment and provides no more than eight contiguous parking spaces without an interior landscape strip, the applicant does not have to increase the minimum interior parking lot landscaping for that parking lot from 10% to 12%. The applicant shall be required to calculate the total number of trees that would be planted based on the existing requirements of one tree per six parking spaces in the interior parking lot landscaping and plant the required number of trees on-site or, if approved by the Community Development Director, pay a fee-in-lieu for the difference in the number of parking lot trees. **The applicant can satisfy this standard by complying with Condition of Approval 15.**

17.65.71.D.2. If more than one adjustment is being requested, the cumulative effect of the adjustments results in a project that is still consistent with the overall purpose of the zone;

Finding: Not Applicable. The applicant has not proposed more than one adjustment.

17.65.71.D.3. City-designated Goal 5 resources are protected to the extent otherwise required by Title 17;

Finding: Not Applicable. A portion of the Master Plan property is within the Natural Resource Overlay District and Geologic Hazards Overlay District. It is not anticipated that the proposed adjustment would negatively affect the overlays, as the applicant has not requested an adjustment to an overlay standard. There are no historic resources onsite.

17.65.71.D.4. Any impacts resulting from the adjustment are mitigated;

Finding: Complies with Condition. Staff believes that a reduction in the frequency of interior parking lot landscaping islands would potentially reduce the amount of shade within the parking lot, thus resulting in higher temperature storm water and may not as adequately soften the appearance of the parking lot. The applicant has not proposed any mitigation for the proposed adjustment. OCMC 17.52.060.D requires surface parking lots have a minimum ten percent of the interior of the gross area of the parking lot be devoted to landscaping to improve the water quality, reduce storm water runoff, and provide pavement shade. In order to mitigate the impact of the adjustment to increase the number of contiguous parking stalls permitted without landscape strips, the applicant shall increase the minimum interior parking lot landscaping from 10% to 12%. The applicant may choose to exempt parking lots which do not utilize the adjustment and there are not more than eight contiguous parking spaces without an interior landscape strip between them. Staff believes it is feasible for the applicant to comply with a minimum of 12% interior parking lot landscaping and complies with all other applicable standards. The applicant shall be required to calculate the total number of trees that would be planted based on the existing requirements of one tree per six parking spaces in the interior parking lot landscaping and plant the required number of trees on-site or, if approved by the Community Development Director, pay a fee-in-lieu for the difference in the number of parking lot trees. **The applicant can satisfy this standard by complying with Condition of Approval 15.**

17.65.71.D.5. If an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable.

Finding: Not Applicable. A portion of the Master Plan property is within the Natural Resource Overlay District and Geologic Hazards Overlay District. It is not anticipated that the proposed adjustment would negatively affect the overlays, as the applicant has not requested an adjustment to an overlay standard.

17.65.71.D.6. The proposed adjustment is consistent with the Oregon City Comprehensive Plan and ancillary documents.

Finding: Complies with Condition. The applicant indicated Section 12 of the Oregon City Comprehensive Plan “provides for a safe, convenient and economic transportation system that functions well and contributes to the city’s well-being, enhances the quality of life and increases the opportunity for growth and development. The proposed adjustment does not adversely affect transportation or parking goals set out in the Oregon City Comprehensive Plan”.

The applicant has not proposed any mitigation for the proposed adjustment. OCMC 17.52.060.D requires surface parking lots have a minimum ten percent of the interior of the gross area of the parking lot be devoted to landscaping to improve the water quality, reduce storm water runoff, and provide pavement shade. In order to mitigate the impact of the adjustment to increase the number of contiguous parking stalls permitted without landscape strips, the applicant shall increase the minimum interior parking lot landscaping from 10% to 12%. The applicant may choose not to utilize the adjustment for a particular parking lot. If a parking lot does not utilize the adjustment and provides no more than eight contiguous parking spaces without an interior landscape strip, the applicant does not have to increase the minimum interior parking lot landscaping for that parking lot from 10% to 12%. The proposed mitigation would increase the landscaping onsite and would comply with the following goals and policies of the Comprehensive Plan:

Goal 6.1 Air Quality - Promote the conservation, protection and improvement of the quality of the air in Oregon City.

Policy 6.1.4 - Encourage the maintenance and improvement of the city’s tree canopy to improve air quality.

The applicant can satisfy this standard by complying with Condition of Approval 15.

CHAPTER 17.49 NATURAL RESOURCE OVERLAY DISTRICT

Findings: Complies as Proposed. A portion of the site is mapped within the City of Oregon City Natural Resource Overlay District. All development in the Natural Resource Overlay District is subject to review by the City of Oregon City to ensure adequate protection of a nearby water feature. Oregon City Municipal Code protects the nearby feature by enforcing a vegetated corridor consisting of native plantings along the bank of the stream to improve the water quality and function. The applicant requested the portion of the property outside the NROD boundary is exempt from further NROD review. As the land outside of the NROD area is not subject to compliance with Chapter 17.49 of the Oregon City Municipal Code, staff recommends the Planning Commission except all land outside of the NROD boundary. Though a portion of the property associated with Detailed Development Plan for Phase 1 of the Master Plan is within the NROD, the proposed disturbance area associated with the proposed development is outside the NROD boundary. All future development shall be subject to additional review to demonstrate compliance with the Natural Resource Overlay District.

CHAPTER 17.44 – GEOLOGIC HAZARDS:

Finding: Complies as Proposed. Per OCMC 17.44.050.C, “the City Engineer may waive one or more requirements... if the City Engineer determines that site conditions, size or type of development or grading requirements do not warrant such detailed information”. The applicant proposed to construct Phase 1 which includes a parking lot adjacent to Penn Lane and Division Street. Due to the minimal impact on the nearby slopes the City Engineer has waived all requirements of OCMC Chapter 17.44 for the proposed development. The waiver may be challenged on appeal and may be denied by a subsequent review authority. If the development proposal changes from what is represented in this land use application, these findings shall be reviewed and revised by the City Engineer as needed.

All future development shall be subject to additional review to demonstrate compliance with the Geologic Hazards Overlay District.

CHAPTER 17.41 TREE PROTECTION STANDARDS

17.41.020 *Tree Protection – Applicability.*

Finding: Complies. The proposed development within the “MUE” Mixed Use Employment District and is subject to this standard.

17.41.040 – *Tree Protection – Exemptions.*

These regulations are not intended to regulate normal cutting, pruning and maintenance of trees on private property except where trees are located on lots that are undergoing development review or are otherwise protected within the Natural Resource Overlay District (NROD) of section 17.49. Additionally, these standards are not intended to regulate farm and forest practices as those practices,

Finding: Not Applicable. The applicant has not proposed to alter any trees within the Natural Resource Overlay District boundary.

17.41.050 *Tree Protection – Compliance Options.*

Finding: Complies as Proposed. The applicant proposed to remove one 30-inch caliper cedar tree with the Detailed Development Plan.

17.41.060 - *Tree Removal and Replanting - Mitigation (Option 1).*

Regulated trees that are removed outside of the construction area, if removed shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Regulated trees that are removed within the construction area shall be replanted with the number of replacement trees required in Column 2.

A. Applicants for development who select this option shall ensure that all healthy trees shall be preserved outside the construction area as defined in [Chapter 17.04](#) to the extent practicable. Compliance with these standards shall be demonstrated in a tree mitigation plan report prepared by a certified arborist, horticulturalist or forester or other environmental professional with experience and academic credentials in forestry or arboriculture. At the applicant's expense, the city may require the report to be reviewed by a consulting arborist. The number of replacement trees required on a development site shall be calculated separately from, and in addition to, any public or street trees in the public right-of-way required under section [12.08](#)—Community Forest and Street Trees.

B. The applicant shall determine the number of trees to be mitigated on the site by counting all of the trees six inch DBH (minimum four and one-half feet from the ground) or larger on the entire site and either:

1. Trees that are removed outside of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Trees that are removed within the construction area shall be replanted with the number of replacement trees required in Column 2; or

2. Diseased or hazardous trees, when the condition is verified by a certified arborist to be consistent with the definition in Section [17.04.1360](#), may be removed from the tree replacement calculation. Regulated healthy trees that are removed outside of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Regulated healthy trees that are removed within the construction area shall be replanted with the number of replacement trees required in Column 2.

*Table 17.41.060-1
Tree Replacement Requirements
All replacement trees shall be either:
Two-inch caliper deciduous, or
Six-foot high conifer*

<i>Size of tree removed (DBH)</i>	<i>Column 1 Number of trees to be planted. (If removed Outside of construction area)</i>	<i>Column 2 Number of trees to be planted. (If removed Within the construction area)</i>
6 to 12"	3	1
13 to 18"	6	2
19 to 24"	9	3
25 to 30"	12	4
31 and over"	15	5

Steps for calculating the number of replacement trees:

1. Count all trees measuring six inches DBH (minimum four and one-half feet from the ground) or larger on the entire development site.
2. Designate (in certified arborists report) the condition and size (DBH) of all trees pursuant to accepted industry standards.
3. Document any trees that are currently diseased or hazardous.
4. Subtract the number of diseased or hazardous trees in step 3. from the total number of trees on the development site in step 1. The remaining number is the number of healthy trees on the site. Use this number to determine the number of replacement trees in steps 5. through 8.
5. Define the construction area (as defined in [Chapter 17.04](#)).
6. Determine the number and diameter of trees to be removed within the construction area. Based on the size of each tree, use Column 2 to determine the number of replacement trees required.
7. Determine the number and diameter of trees to be removed outside of the construction area. Based on the size of each tree, use Column 1 to determine the number of replacement trees required.
8. Determine the total number of replacement trees from steps 6. and 7.

Finding: Complies as Proposed. The applicant proposed to remove one tree within the construction area associated with Detailed Development Plan. The tree is 30-inches in diameter and no information was provided indicating that it is diseased or hazardous and thus the applicant is required to plant 4 replacement trees.

17.41.070 – Planting Area Priority for Mitigation (Option 1).

Development applications which opt for removal or trees with subsequent replanting pursuant to section 17.41.050(A) and shall be required to mitigate for tree cutting by complying with the following priority for replanting standards 1-4.

Finding: Complies with Condition. The applicant has not proposed to plant 4 replacement trees and did not submit a plan identifying the location of the mitigation trees. Prior to issuance of permits associated with the Detailed Development Plan for Phase 1, the applicant shall submit a tree mitigation plan displaying the location of the 4 mitigation trees per OCMC Chapter 17.41. **The applicant can meet this standard by complying with condition of approval 16.**

17.41.075. Alternative Mitigation Plan.

Finding: Not Applicable. The applicant has not proposed an alternative mitigation plan.

17.41.080. Tree Preservation within Subdivisions and Partitions – Dedicated Tract (Option 2).

Finding: Not Applicable. The applicant has not proposed to utilize option 2.

17.41.090. Density transfers incentive for Tree Protection Tracts (Option 2).

Finding: Not Applicable. The applicant has not proposed to utilize option 2.

17.41.100. Permitted Modifications to Dimensional Standards (Option 2 Only).

Finding: Not Applicable. The applicant has not proposed to utilize option 2.

17.41.110. Tree Protection by Restrictive Covenant (Option 3).

Finding: Not Applicable. The applicant has not proposed to utilize option 3.

17.41.120. Permitted Adjustments (Option 3 Only).

Finding: Not Applicable. The applicant has not proposed to utilize option 3.

17.41.130. Regulated Tree Protection Procedures During Construction.

Finding: Complies with Condition. The applicant did not respond to this section. There are existing trees which will remain in the construction area during construction. The applicant failed to adequately respond to this criterion. Prior to issuance of permits associated with the Detailed Development Plan for Phase 1, the applicant shall submit documentation displaying compliance with the tree protection standards in OCMC Chapter 17.41.130 of the Oregon City Municipal Code. **The applicant can meet this standard by complying with condition of approval 17.**

CHAPTER 17.52 OFF-STREET PARKING AND LOADING

17.52.020.A – Number of Spaces Required

The construction of a new structure or at the time of enlargement or change in use of an existing structure within any district in the city, off-street parking spaces shall be provided in accordance with this section.

		<u>Parking Required</u> <u>Per 1,000 sq. ft. gross leasable</u>	
		<u>Minimum</u>	<u>Maximum</u>
Hospital	455,181	2 (819 Stalls with Reduction)	4 (1,820 stalls)

Finding: Complies with Condition. The applicant submitted a site plan with parking counts and demands for the 335,076 square feet of existing square footage in addition to the 104,000 in new square footage and 16,105 of existing shelled space to be completed. The applicant indicated that there are 749 existing parking stalls onsite. The existing count includes 66 stalls in the parking lot which will be replaced with the implementation of the Detailed Development Plan associated with Phase 1 of the Master Plan. The completion of the parking lot alteration associated with Phase 1 of the Master Plan will result in a loss of 7 parking stalls for a total of 742 stalls.

The applicant submitted a Transportation Impact Study prepared by Kittleson and Associates (Exhibit 2) which calculated a need for 138 new parking stalls with the proposed development to be installed over the 3 Phases of the Master Plan implementation. However, the TIS did not utilize the appropriate calculations for minimum and maximum parking stalls as defined in the Oregon City Municipal Code. Furthermore, the applicant is required to incrementally upgrade the existing parking lots which were developed prior to the requirement for interior parking lot landscaping with each Detailed Development Plan costing more than \$75,000 per OCMC Chapter 17.58. The parking calculations did not account for any reduction in existing parking associated with installation of interior parking lot landscaping. Prior to issuance of permits associated with any Detailed Development Plan, the applicant shall demonstrate that the subject site provides sufficient parking for the proposed development to demonstrate compliance with the number of parking spaces required in OCMC 17.52.020 and that all loss of existing parking due to nonconforming upgrades has been mitigated by installing an additional parking stall onsite. Prior to issuance of permits associated with the Detailed Development Plan for Phase 3, the applicant shall demonstrate that the Providence Willamette Falls campus associated with the Master Plan complies with the with the number of parking spaces required in OCMC 17.52.020. **The applicant can assure this standard is met through Condition of Approval 18.**

17.52.020.A.1 Multiple Uses. *In the event several uses occupy a single structure or parcel of land, the total requirements for off-street parking shall be the sum of the requirements of the several uses computed separately.*

Finding: Not Applicable. The applicant has not indicated multiple uses of the site.

17.52.020.A.2.

Requirements for types of buildings and uses not specifically listed herein shall be determined by the community development director, based upon the requirements of comparable uses listed.

Finding: Not Applicable. The use of the site was identified in Table 17.52.020.

17.52.020.A.3.

Where calculation in accordance with the following list results in a fractional space, any fraction less than one-half shall be disregarded and any fraction of one-half or more shall require one space.

Finding: Complies as Proposed. The applicant used the rounding techniques identified in this Chapter.

17.52.020.A.4.

The minimum required parking spaces shall be available for the parking of operable passenger automobiles of residents, customers, patrons and employees only, and shall not be used for storage of vehicles or materials or for the parking of trucks used in conducting the business or use.

Finding: Complies with Condition. The applicant did not respond to this section. Prior to issuance of permits associated with the Detailed Development Plan for Phase 1, the applicant shall submit documentation indicating the minimum required parking spaces shall be available for the parking of operable passenger automobiles of residents, customers, patrons and employees only, and shall not be used for storage of vehicles or materials or for the parking of trucks used in conducting the business or use. **The applicant can assure this standard is met through Condition of Approval 19.**

17.52.020.A.5.

A Change in use within an existing building located in the MUD Design District is exempt from additional parking requirements. Additions to an existing building or new construction in the district are required to meet the minimum parking requirements in Table 17.52.020.

Finding: Not Applicable. The proposed development does not include a change in use within the Mixed Use Downtown District.

17.52.020.B. Reduction of the Number of Automobile Spaces Required.

Reduction of the Number of Automobile Spaces Required. The required number of parking stalls may be reduced if one or more of the following is met:

1. Transit Oriented Development. The community development director may reduce the required number of parking stalls up to ten percent when it is determined that a commercial business center or multi-family project is adjacent to or within one thousand feet of an existing or planned public transit. Also, if a commercial center is within one thousand feet of a multi-family project, with over eighty units and pedestrian access, the parking requirements may be reduced by ten percent.

Finding: Not Applicable. The applicant did not request a reduction in the parking stalls due to transit oriented development.

2. Transportation Demand Management.

Finding: Not Applicable. The applicant did not request a reduction in the parking stalls due to transportation demand management. The applicant submitted a transportation analysis prepared by Kittleson and Associates which discussed the need for parking and parking calculations based on a minimum of 1.95 stalls per 1,000 gross square feet, a calculation which is not identified in the Oregon City Municipal Code. The analysis did not discuss a reduced parking demand due to alternative modes of transportation or a strategy to reduce parking onsite.

3. Shared Parking.

Finding: Not Applicable. The applicant did not request a reduction in the parking stalls due to shared parking.

4. Reduction in Parking for Tree Preservation.

Finding: Not Applicable. The applicant did not request a reduction in the parking stalls for tree preservation.

5. On-Street Parking.

Finding: Not Applicable. The applicant did not request a reduction in the parking stalls for on-street parking.

17.52.030 - Design review.

17.52.030.A. Access. *Ingress and egress locations on public thoroughfares shall be located in the interests of public traffic safety. Groups of more than four parking spaces shall be so located and served by driveways so that their use will require no backing movements or other maneuvering within a street right-of-way other than an alley. No driveway with a slope of greater than fifteen percent shall be permitted without approval of the city engineer.*

Finding: Complies with Condition. The proposed parking lot alteration and expansion would be accessed from a single ingress/egress on Davis Road. The application was reviewed by John Replinger of Replinger and Associates who did not identify a conflict with backing movements onto the public right-of-way (Exhibit 5).

The applicant did not propose any protected accessway for pedestrian to walk through the parking lot to safely walk from a vehicle into the hospital buildings or from the proposed East MOB building and the main hospital facility. Prior to final of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall install a pedestrian accessway to provide safe access to pedestrians walking from the East MOB through the proposed parking lot to the main hospital facility. The pedestrian accessway shall comply with all the standards of the Oregon City Municipal Code. **The applicant can meet this standard by complying with condition of approval 7.**

17.52.030.B. Surfacing. *Required off street parking spaces and access aisles shall have paved surfaces adequately maintained. The use of pervious asphalt/concrete and alternative designs that reduce storm water runoff and improve water quality pursuant to the city's storm water and low impact development design standards are encouraged.*

Finding: Complies as Proposed. The applicant provided a site plan with an asphalt parking lot.

17.52.030.C. Drainage. *Drainage shall be designed in accordance with the requirements of Chapter 13.12 and the city public works storm water and grading design standards.*

Finding: Complies with Conditions. The applicant shall provide stormwater facilities as necessary for street improvements and facility construction. Downstream conveyance calculations/analysis shall be performed for all existing storm systems where the applicant's new facilities increase the stormwater flow. The applicant shall comply with the Oregon City Stormwater Design Standards and evaluate the existing stormwater facilities on 15th Street during Phase 3, West MOB. Current street curb drainage flow on 15th Street exceeds the 400-foot length standard on the north side. Construct a curb basin to connect into the eastern end of the storm line as necessary. During each of the Detailed Development Plan reviews, the applicant shall provide site analysis to determine extent of stormwater detention and water quality that are required by the current code and implement appropriate Low Impact Design efforts. **The applicant can assure this standard is met through Conditions of Approval 8-14.**

17.52.030.D. Dimensional Requirements.

1. Requirements for parking developed at varying angles are according to the table included in this section. A parking space shall not be less than seven feet in height when within a building or structure, and shall have access by an all weather surface to a street or alley. Parking stalls in compliance with the American[s] with Disabilities Act may vary in size in order to comply with the building division requirements. Up to thirty five percent of the minimum required parking may be compact, while the remaining required parking stalls are designed to standard dimensions. The community development director may approve alternative dimensions for parking stalls in excess of the minimum requirement which comply with the intent of this Chapter.

2. Alternative parking/landscaping plan. The city understands the physical constraints imposed upon small parking lots and encourages alternative designs for parking lots of less than ten parking stalls. The community development director may approve an alternative parking lot/landscaping plan with variations to the parking angle or space dimensions and landscaping standards for off street parking. The alternative shall be consistent

with the intent of this Chapter and shall create a safe space for automobiles and pedestrians while retaining landscaping to the quantity and quality found within parking lot landscaping requirements.

PARKING STANDARD

PARKING ANGLE SPACE DIMENSIONS

Parking Angle		Stall Width	Stall to Curb	Aisle Width	Curb Length	Overhang
0 degrees		8.5	9.0	12	20	0
60 degrees	Standard	9'	21'	18'	10.4'	1.7
	Compact	8'	17.9'	16'	9.2'	
90 degrees	Standard	9'	19.0'	24'	9'	1.5
	Compact	8'	16.0'	22'	8'	

Finding: Complies as Proposed. The development proposal included a site plan with 0, 60 and 90 degree parking. Each of the standard stalls complies with the dimensions required with the exception of curb to stall length which is slightly longer than the required standard.

17.52.030.E Carpool and vanpool parking.

New office and industrial developments with seventy-five or more parking spaces, and new hospitals, government offices, nursing and retirement homes, schools and transit park-and-ride facilities with fifty or more parking spaces, shall identify the spaces available for employee, student and commuter parking and designate at least five percent, but not fewer than two, of those spaces for exclusive carpool and vanpool parking. Carpool and vanpool parking spaces shall be located closer to the main employee, student or commuter entrance than all other employee, student or commuter parking spaces with the exception of handicapped parking spaces. The carpool/vanpool spaces shall be clearly marked "Reserved - Carpool/Vanpool Only."

Finding: Complies with Condition. The applicant did not respond to this criterion. The proposed parking lot does not increase the parking for the hospital by 50 stalls, however, it is unknown if the remainder of the campus complies with this standard. Prior to issuance of permits associated with the Detailed Development Plan for Phase 3, the applicant shall submit sufficient documentation to demonstrate the subject site complies with the carpool and vanpool parking standards in OCMC Chapter 17.52.030.E. **The applicant can assure this standard is met through Condition of Approval 20.**

17.52.040 Bicycle parking

17.52.040.A Purpose-Applicability. *To encourage bicycle transportation to help reduce principal reliance on the automobile, and to ensure bicycle safety and security, bicycle parking shall be provided in conjunction with all uses other than single-family dwellings or duplexes.*

Finding: Complies. The proposed development is subject to the bicycle parking standards in OCMC 17.52.040.

17.52.040.B. Number of Bicycle Spaces Required. *For any use not specifically mentioned in Table A, the bicycle parking requirements shall be the same as the use which, as determined by the community development director is most similar to the use not specifically mentioned. Calculation of the number of bicycle parking spaces required shall be determined in the manner established in Section 17.52.020 for determining automobile parking space requirements.*

	MINIMUM BICYCLE PARKING
Hospital	1 per 20 auto spaces

Finding: Complies with Condition. The applicant submitted a transportation impact study which indicated that there are only 2 bicycles parked in the parking stalls at any given time. The number of existing and proposed bicycle parking stalls is unclear in the development proposal. Prior to issuance of permits associated with any

Detailed Development Plan, the applicant shall demonstrate that the subject site provides sufficient bicycle parking for the proposed development to demonstrate compliance OCMC 17.52.040. Prior to issuance of permits associated with the Detailed Development Plan for Phase 3, the applicant shall demonstrate that the Providence Willamette Falls campus associated with the Master Plan complies with the with the bicycle parking spaces required in OCMC 17.52.040. **The applicant can assure this standard is met through Condition of Approval 21.**

17.52.040.C.

Finding: Complies with Condition. The applicant did not submit documentation regarding the location of existing and proposed bicycle parking onsite. Prior to issuance of permits associated with any Detailed Development Plan, the applicant shall demonstrate that the subject site provides sufficient bicycle parking for the proposed development to demonstrate compliance OCMC 17.52.040. Prior to issuance of permits associated with the Detailed Development Plan for Phase 3, the applicant shall demonstrate that the Providence Willamette Falls campus associated with the Master Plan complies with the with the bicycle parking spaces required in OCMC 17.52.040. **The applicant can assure this standard is met through Condition of Approval 21.**

D. Bicycle parking facilities shall offer security in the form of either a lockable enclosure in which the bicycle can be stored or a stationary rack to which the bicycle can be locked. All bicycle racks and lockers shall be securely anchored to the ground or to a structure. Bicycle racks shall be designed so that bicycles may be securely locked to them without undue convenience.

Finding: Complies with Condition. The applicant did not submit documentation regarding the location of existing and proposed bicycle parking onsite. Prior to issuance of permits associated with any Detailed Development Plan, the applicant shall demonstrate that the subject site provides sufficient bicycle parking for the proposed development to demonstrate compliance OCMC 17.52.040. Prior to issuance of permits associated with the Detailed Development Plan for Phase 3, the applicant shall demonstrate that the Providence Willamette Falls campus associated with the Master Plan complies with the with the bicycle parking spaces required in OCMC 17.52.040. **The applicant can assure this standard is met through Condition of Approval 21.**

17.52.060 Parking lot landscaping.

17.52.060.A.1 *The landscaping shall be located in defined landscaped areas that are uniformly distributed throughout the parking or loading area.*

Finding: Complies as Proposed. A site plan prepared by Vala Christensen Landscape Architect, Inc was submitted displaying landscaping throughout the proposed parking lot. The landscaping was located in defined landscaped areas that are uniformly distributed throughout the parking area.

17.52.060.A.2. *All areas in a parking lot not used for parking, maneuvering, or circulation shall be landscaped.*

Finding: Complies with Condition. The applicant submitted a revised landscaping plan dated January 31, 2012. The revised plan includes a striped area in the northeast corner of the site which is not utilized for maneuvering, parking or circulation. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit a revised landscaping plan with landscaping in all areas of the parking lot which are not used for parking, maneuvering, or circulation. **The applicant can assure this standard is met through Condition of Approval 22.**

17.52.060.A.3. *Parking lot trees shall be a mix of deciduous shade trees and coniferous trees. The trees shall be evenly distributed throughout the parking lot as both interior and perimeter landscaping to provide shade.*

Finding: Complies as Proposed. The applicant submitted a landscaping plan with 4 deciduous tree species and 1 coniferous tree species throughout the parking lot. Any alterations to the landscaping plan shall demonstrate compliance with this standard.

17.52.060.A.4. Required landscaping trees shall be of a minimum two-inch minimum caliper size (though it may not be standard for some tree types to be distinguished by caliper), planted according to American Nurseryman Standards, and selected from the Oregon City Street Tree List;

Finding: Complies with Condition. The landscaping plan included a variety of tree sizes including 1-inch caliper, 2-inch caliper and 8-foot in height and did not identify if the landscape would be planted according to American Nurseryman Standards. Not all of the trees identified on the landscaping plan were identified on the Oregon City Street Tree List. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit a revised landscaping plan with a street tree from the Oregon City Street Tree List for the appropriate tree well width or documentation from the a certified arborist demonstrating the appropriateness of the tree species and documentation demonstrating that all required landscaping trees shall be of a minimum two-inch minimum caliper size (though it may not be standard for some tree types to be distinguished by caliper) and planted according to American Nurseryman Standards. **The applicant can meet this standard through Condition of Approval 23.**

17.52.060.A.5. Landscaped areas shall include irrigation systems unless an alternate plan is submitted, and approved by the community development director, that can demonstrate adequate maintenance;

Finding: Complies with Condition. The applicant did not respond to this criterion. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit documentation assuring that all landscaped areas within the proposed parking lot include irrigation systems unless an alternate plan is submitted, and approved by the community development director, that can demonstrate adequate maintenance. **The applicant can assure this standard is met through Condition of Approval 24.**

17.52.060.A.6. All plant materials, including trees, shrubbery and ground cover should be selected for their appropriateness to the site, drought tolerance, year-round greenery and coverage and staggered flowering periods. Species found on the Oregon City Native Plant List are strongly encouraged and species found on the Oregon City Nuisance Plant List are prohibited.

Finding: Complies as Proposed. The applicant submitted a landscaping plan which did not include any plants on the Oregon City Nuisance Plant list.

17.52.060.A.7. The landscaping in parking areas shall not obstruct lines of sight for safe traffic operation and shall comply with all requirements of Chapter 10.32, Traffic Sight Obstructions.

Finding: Complies as Proposed. The applicant submitted a transportation impacts study prepared by Julia Kuhn, PE of Kittleson and Associates which indicated pruning existing vegetation. Prior to final of building permits associated with Detailed Development Plan for Phase 1, the applicant shall prune vegetation, relocate signage and review on-street parking as required in the transportation impact study by Julia Kuhn, PE of Kittleson and Associates (Exhibit 2). **The applicant can assure this standard is met through Condition of Approval 25.**

17.52.060.A.8. Landscaping shall incorporate design standards in accordance with Chapter 13.12, Stormwater Management.

Finding: Complies with Condition. The applicant did not respond to this criterion. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit documentation assuring that the proposed parking lot complies with the parking lot incorporate design standards in accordance with Chapter 13.12, Stormwater Management. **The applicant can assure this standard is met through Condition of Approval 26.**

17.52.060.B Perimeter Parking Lot Landscaping and Parking Lot Entryway/Right-of-Way Screening. Parking lots shall include a five-foot wide landscaped buffer where the parking lot abuts the right-of-way and/or adjoining properties. In order to provide connectivity between non-single-family sites, the community development director may approve an interruption in the perimeter parking lot landscaping for a single

driveway where the parking lot abuts property designated as multi-family, commercial or industrial. Shared driveways and parking aisles that straddle a lot line do not need to meet perimeter landscaping requirements.

1. The perimeter parking lot are[a] shall include:

- a. Trees spaced a maximum of thirty-five feet apart (minimum of one tree on either side of the entryway is required). When the parking lot is adjacent to a public right-of-way, the parking lot trees shall be offset from the street trees;
- b. Ground cover, such as wild flowers, spaced a maximum of 16-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees; and
- c. An evergreen hedge screen of thirty to forty-two inches high or shrubs spaced no more than four feet apart on average. The hedge/shrubs shall be parallel to and not nearer than two feet from the right-of-way line. The required screening shall be designed to allow for free access to the site and sidewalk by pedestrians. Visual breaks, no more than five feet in width, shall be provided every thirty feet within evergreen hedges abutting public right-of-ways.

Finding: Complies with Condition. The applicant submitted a landscaping plan for the proposed parking lot associated with the Detailed Development Plan for Phase 1 of the Master Plan which included a landscaped area in excess of 5 feet wide between the parking lot and the public right-of-way and between the parking lot and the adjoining property. However, the landscaping within the landscape strip does not comply with this standard as the trees are not spaced a maximum of 35 feet, there is no note that limits bark except under the canopy of shrubs and within 2 feet of the base of trees, and the spacing of the evergreen hedge or shrubs does not comply with this standard. As the applicant has identified sufficient space for the perimeter parking lot landscaping, it is feasible that the landscaping comply with the landscaping requirement identified. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit a revised landscaping plan demonstrating compliance with the perimeter parking lot landscaping standards in OCMC 17.52.060.B. **The applicant can assure this standard is met through Condition of Approval 27.**

17.52.060.C Parking Area/Building Buffer. Parking areas shall be separated from the exterior wall of a structure, exclusive of pedestrian entranceways or loading areas, by one of the following:

1. Minimum five-foot wide landscaped planter strip (excluding areas for pedestrian connection) abutting either side of a parking lot sidewalk with:

- a. Trees spaced a maximum of thirty-five feet apart;
 - b. Ground cover such as wild flowers, spaced a maximum of sixteen-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees; and
 - c. An evergreen hedge of thirty to forty-two inches or shrubs placed no more than four feet apart on average; or
2. Seven-foot sidewalks with shade trees spaced a maximum of thirty-five feet apart in three-foot by five-foot tree wells.

Finding: Complies with Condition. The applicant submitted a landscaping plan for the proposed parking lot associated with the Detailed Development Plan for Phase 1 of the Master Plan which included a landscaped area in excess of 5 feet wide between the parking lot and the existing building on the eastern portion of the site. However, there is no note that limits bark except under the canopy of shrubs and within 2 feet of the base of trees. As the applicant has identified sufficient space for the parking area/building buffer landscaping, it is feasible that the landscaping comply with the landscaping requirement identified. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit a revised landscaping plan demonstrating compliance with the perimeter parking lot landscaping standards in OCMC 17.52.060.C. **The applicant can assure this standard is met through Condition of Approval 28.**

17.52.060.D Interior Parking Lot Landscaping. Surface parking lots shall have a minimum ten percent of the interior of the gross area of the parking lot devoted to landscaping to improve the water quality, reduce storm water runoff, and provide pavement shade. Interior parking lot landscaping shall not be counted toward the fifteen percent minimum total site landscaping required by Section 17.62.050(1) unless otherwise permitted by

the dimensional standards of the underlying zone district. Pedestrian walkways or any impervious surface in the landscaped areas are not to be counted in the percentage. Interior parking lot landscaping shall include:

- a. A minimum of one tree per six parking spaces.
- b. Ground cover, such as wild flowers, spaced a maximum of sixteen-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees.
- c. Shrubs spaced no more than four feet apart on average.
- d. No more than eight contiguous parking spaces shall be created without providing an interior landscape strip between them. Landscape strips shall be provided between rows of parking shall be a minimum of six feet in width and a minimum of ten feet in length.
- e. Pedestrian walkways shall have shade trees spaced a maximum of every thirty-five feet in a minimum three-foot by five-foot tree wells; or
Trees spaced every thirty-five feet, shrubs spaced no more than four feet apart on average, and ground cover covering one hundred percent of the exposed ground. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees.

Finding: Complies with Conditions. The applicant submitted a landscaping plan for the proposed parking lot associated with the Detailed Development Plan for Phase 1 of the Master Plan which included 56 parking stalls with 10 interior parking lot landscaping trees. The landscaping plan includes no more than eight contiguous stalls without a landscape island and a mix of vegetation.

The spacing of shrubs within the interior parking lot landscaping does not comply with this standard and the applicant did not identify the percentage of the interior parking lot landscaping for the proposed parking lot. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit a revised landscaping plan demonstrating compliance with the interior parking lot landscaping standards in OCMC 17.52.060.D. **The applicant can assure this standard is met through Condition of Approval 29.**

17.52.070 Alternative landscaping plan.

Finding: Not Applicable. The applicant has not proposed an alternative landscaping plan.

17.52.080 Maintenance The owner, tenant and their agent, if any, shall be jointly and severally responsible for the maintenance of the site including but not limited to the off-street parking and loading spaces, bicycle parking and all landscaping which shall be maintained in good condition so as to present a healthy, neat and orderly appearance and shall be kept free from refuse and debris.

All plant growth in interior landscaped areas shall be controlled by pruning, trimming, or otherwise so that:

- a. It will not interfere with the maintenance or repair of any public utility;
- b. It will not restrict pedestrian or vehicular access; and
- c. It will not constitute a traffic hazard due to reduced visibility.

Finding: Complies as Proposed. The applicant indicated compliance with this standard.

CHAPTER 17.62 SITE PLAN AND DESIGN REVIEW

17.62.050 Standards.

17.62.050.A.1. Landscaping, A minimum of fifteen percent of the lot shall be landscaped. Existing native vegetation shall be retained to the maximum extent practicable. All plants listed on the Oregon City Nuisance Plant List shall be removed from the site prior to issuance of a final occupancy permit for the building.

Finding: Complies with Condition. A site plan displaying all landscaping onsite demonstrates that 277,623 square feet of the 769,757 square foot site (36%) is landscaped. However, the site plan shows the location of the proposed parking lot as landscaped. Prior to issuance of permits associated with the Detailed Development Plan for Phase 1, the applicant shall submit a revised calculation demonstrating compliance with the minimum landscaping standards in Chapter 17.31.060.G and 17.62.050.A.1 of the Oregon City Municipal Code. **The applicant can meet this standard by complying with Condition of Approval 4.**

17.62.050.A.1.a. *Except as allowed elsewhere in the zoning and land division Chapters of this Code, all areas to be credited towards landscaping must be installed with growing plant materials. A reduction of up to twenty-five percent of the overall required landscaping may be approved by the community development director if the same or greater amount of pervious material is incorporated in the non-parking lot portion of the site plan (pervious material within parking lots are regulated in OCMC 17.52.070).*

Finding: Complies as Proposed. The applicant did not request a reduction in landscaping.

17.62.050.A.1.b. *Pursuant to Chapter 17.49, landscaping requirements within the Natural Resource Overlay District, other than landscaping required for parking lots, may be met by preserving, restoring and permanently protecting native vegetation and habitat on development sites.*

Finding: Please refer to the analysis in OCMC 17.49 of this report.

17.62.050.A.1.c. *The landscaping plan shall be prepared by a registered landscape architect and include a mix of vertical (trees and shrubs) and horizontal elements (grass, groundcover, etc.) that within three years will cover one hundred percent of the Landscape area. No mulch, bark chips, or similar materials shall be allowed at the time of landscape installation except under the canopy of shrubs and within two feet of the base of trees. The community development department shall maintain a list of trees, shrubs and vegetation acceptable for landscaping.*

Finding: Complies with Condition. The applicant submitted a revised landscaping plan, dated January 31, 2012 prepared by Dean A Christensen, a registered landscape architect with Vala Christensen, Landscape Architect. The plan did not identify that within three years will cover one hundred percent of the Landscape area or limit mulch, bark chips, or similar materials at the time of landscape installation except under the canopy of shrubs and within two feet of the base of trees. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit documentation assuring that within three years, cover one hundred percent of the landscape area and no mulch, bark chips, or similar materials shall be allowed at the time of landscape installation except under the canopy of shrubs and within two feet of the base of trees. **The applicant can satisfy this standard with Condition of Approval 30.**

17.62.050.A.1.d. *For properties within the Downtown Design District, or for major remodeling in all zones subject to this Chapter, landscaping shall be required to the extent practicable up to the ten percent requirement.*

Finding: Not Applicable. The site is not within the Downtown Design District.

17.62.050.A.1.e. *Landscaping shall be visible from public thoroughfares to the extent practicable.*

Finding: Complies as Proposed. The Detailed Development Plan includes installation of a parking lot adjacent to an existing parking lot which will be upgraded. The landscaping is distributed throughout the site and is visible from the right-of-way.

17.62.050.A.1.f. *Interior parking lot landscaping shall not be counted toward the fifteen percent minimum, unless otherwise permitted by the dimensional standards of the underlying zone district.*

Finding: Not Applicable. OCMC Chapter 17.31.060.G does not prohibit the interior parking lot landscaping from being counted towards the 15% minimum.

17.62.050.A.2. *Vehicular Access and Connectivity.*

17.62.050.A.2.a. *Parking areas shall be located behind buildings, below buildings, or on one or both sides of buildings.*

Finding: Complies as Proposed. The proposed parking lot is not located in front of a building location.

17.62.050.A.2.b. *Ingress and egress locations on public thoroughfares shall be located in the interest of public safety. Access for emergency services (fire and police) shall be provided.*

Finding: Complies as Proposed. The applicant proposed a single ingress/egress for the parking lot from Davis Road.

17.62.050.A.2.c. Alleys or vehicular access easements shall be provided in the following Districts: R-2, MUC-1, MUC-2, MUD and NC zones unless other permanent provisions for access to off-street parking and loading facilities are approved by the decision-maker. The corners of alley intersections shall have a radius of not less than ten feet.

Finding: Not Applicable. The subject site is within the “MUE” Mixed Use Employment District.

17.62.050.A.2.d. On corner lots, the driveway(s) shall be located off of the side street (unless the side street is an arterial) and away from the street intersection.

Finding: Complies as Proposed. The subject site is a corner lot, with access from Davis Street, with no access from Division Street.

17.62.050.A.2.e. Sites abutting an alley shall be required to gain vehicular access from the alley.

Finding: Not Applicable. The subject site does not abut an alley.

17.62.050.A.2.f. Where no alley access is available, the development shall be configured to allow only one driveway per frontage. Shared driveways shall be required as needed to accomplish the requirements of this section. The driveway shall be located to one side of the lot and away from the center of the site. The location and design of pedestrian access from the public sidewalk shall be emphasized so as to be clearly visible and distinguishable from the vehicular access to the site. Special landscaping, paving, lighting, and architectural treatments may be required to accomplish this requirement.

Finding: Complies as Proposed. The parking lot alteration includes three frontages and a single driveway located on Davis Street.

17.62.050.A.2.g. Development of large sites (more than two acres) shall be required to provide existing or future connections to adjacent sites through the use of a vehicular and pedestrian access easements where applicable.

Finding: Complies with Condition. The Master Plan utilizes access across adjacent parcels, but it is unknown if an easement existing to provides such access. Prior to final of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall submit a recorded access easement with all adjacent sites where access is obtained. **The applicant can satisfy this standard with Condition of Approval 31.**

17.62.050.A.2.h. Parking garage entries (both individual, private and shared parking garages) shall not dominate the streetscape. They shall be designed and situated to be ancillary to the use and architecture of the ground floor. This standard applies to both public garages and any individual private garages, whether they front on a street or private interior access road.

Finding: Not Applicable. The applicant has not proposed to construct a parking garage with the proposed development.

17.62.050.A.2.i. Buildings containing above-grade structured parking shall screen such parking areas with landscaping or landscaped berms, or incorporate contextual architectural elements that complement adjacent buildings or buildings in the area. Upper level parking garages shall use articulation or fenestration treatments that break up the massing of the garage and/or add visual interest.

Finding: Not Applicable. The applicant has not proposed to construct a structured parking lot.

17.62.050.A.3. Building structures shall be complimentary to the surrounding area. All exterior surfaces shall present a finished appearance. All sides of the building shall include materials and design characteristics consistent with those on the front. Use of inferior or lesser quality materials for side or rear facades or decking shall be prohibited.

Finding: Complies as Proposed. The applicant has not proposed to construct any buildings with the proposed development. The development application includes an upgrade an expansion of a nonconforming parking lot which will comply with the parking lot standards within the Oregon City Municipal Code.

17.62.050.A.4. This standard requires that grading shall be in accordance with the requirements of Chapter 15.48 and the public works stormwater and grading design standards.

Finding: Complies with Conditions. The applicant noted that a minimum amount of grading is required for this project. The grading shall be reviewed by the Development Services Department upon submission of a grading permit onsite. All grading activities shall comply with Chapter 3 of the City of Oregon City Stormwater and Grading Design Standards. In addition, the applicant shall comply with Engineering Policy 00-01. **The applicant can meet this standard through Conditions of Approval 6 and 11.**

17.62.050.A.5. This section requires that development subject to the requirements of the Geologic Hazard overlay district shall comply with the requirements of that district.

Finding: Please refer to the analysis in Chapter 17.44 of this report.

17.62.050.A.6. Drainage shall be provided in accordance with city's drainage master plan, Chapter 13.12, and the public works stormwater and grading design standards.

Finding: Complies with Conditions. Stormwater mains exist bordering the site. The applicant shall provide stormwater facilities as necessary for street improvements and facility construction. Downstream conveyance calculations/analysis shall be performed for all existing storm systems where the Applicant's new facilities increase the stormwater flow. The applicant shall comply with the Oregon City Stormwater Design Standards and evaluate the existing stormwater facilities on 15th Street during Phase 3, West MOB. Current street curb drainage flow on 15th Street exceeds the 400-foot length standard on the north side. Construct a curb basin to connect into the eastern end of the storm line as necessary. During each of the Detailed Development Plan reviews, the applicant shall provide site analysis to determine extent of stormwater detention and water quality that are required by the current code and implement appropriate Low Impact Design efforts. The use of Lynch-style catch basins for water quality is required for all new/revised parking lots. Stormwater detention is required. Water quality treatment will be achieved by means of any number of water quality features such as green roofs, vegetated swale, flow-thru planter box, or other LID system that will be designed per City of Oregon City Design Standards. **The applicant can meet this standard through Conditions of Approval 8, 9, 10, 11 and 12.**

17.62.050.A.7. This standard requires the development shall comply with City's parking standards as provided in Chapter 17.52.

Finding: Please see the analysis in Chapter 17.52 of this report.

17.62.050.A.8. This section requires that sidewalks and curbs shall be provided in accordance with the city's standards.

Finding: Please refer to the analysis in OCMC Chapter 17.65.050.B.1.i within this report.

17.62.050.A.9.a. A well-marked, continuous and protected on-site pedestrian circulation system meeting the following standards shall be provided:

Pathways between all building entrances and the street are required. Pathways between the street and buildings fronting on the street shall be direct. Exceptions may be allowed by the director where steep slopes or protected natural resources prevent a direct connection or where an indirect route would enhance the design and/or use of a common open space.

Finding: Complies with Condition. The applicant did not propose any changes to the pedestrian circulation plan within the Master Plan or Detailed Development Plan. The proposed parking lot is located between the proposed East MOB building and the main hospital facility but does not provide a pedestrian accessway to travel between the two locations in a direct and convenient manner. Prior to final of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall install a pedestrian accessway to provide safe

access to pedestrians walking from the East MOB through the proposed parking lot to the main hospital facility. The pedestrian accessway shall comply with all the standards of the Oregon City Municipal Code. Per OCMC Chapter 17.58, the applicant is required to review and upgrade the existing pedestrian circulation onsite with Phase 2 and 3 of the Master Plan. **The applicant can meet this standard by complying with condition of approval 7.**

17.62.050.A.9.b. *The pedestrian circulation system shall connect all main entrances on the site. For buildings fronting on the street, the sidewalk may be used to meet this standard. Pedestrian connections to other areas of the site, such as parking areas, recreational areas, common outdoor areas, and any pedestrian amenities shall be required.*

Finding: Complies with Condition. The applicant did not propose any changes to the pedestrian circulation plan within the Master Plan or Detailed Development Plan. The proposed parking lot is located between the proposed East MOB building and the main hospital facility but does not provide a pedestrian accessway to travel between the two locations in a direct and convenient manner. Prior to final of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall install a pedestrian accessway to provide safe access to pedestrians walking from the East MOB through the proposed parking lot to the main hospital facility. The pedestrian accessway shall comply with all the standards of the Oregon City Municipal Code. **The applicant can meet this standard by complying with condition of approval 7.**

17.62.050.A.9.c. *Elevated external stairways or walkways, that provide pedestrian access to multiple dwelling units located above the ground floor of any building are prohibited. The community development director may allow exceptions for external stairways or walkways located in, or facing interior courtyard areas provided they do not compromise visual access from dwelling units into the courtyard.*

Finding: Not Applicable. The site does not contain a dwelling unit.

17.62.050.A.9.d. *The pedestrian circulation system shall connect the main entrances of adjacent buildings on the same site.*

Finding: Complies with Condition. The applicant did not propose any changes to the pedestrian circulation plan within the Master Plan or Detailed Development Plan. The proposed parking lot is located between the proposed East MOB building and the main hospital facility but does not provide a pedestrian accessway to travel between the two locations in a direct and convenient manner. Prior to final of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall install a pedestrian accessway to provide safe access to pedestrians walking from the East MOB through the proposed parking lot to the main hospital facility. The pedestrian accessway shall comply with all the standards of the Oregon City Municipal Code. **The applicant can meet this standard by complying with condition of approval 7.**

17.62.050.A.9.e. *The pedestrian circulation system shall connect the principal building entrance to those of buildings on adjacent commercial and residential sites where practicable. Walkway linkages to adjacent developments shall not be required within industrial developments or to industrial developments or to vacant industrially-zoned land.*

Finding: Complies with Condition. The applicant did not propose any changes to the pedestrian circulation plan within the Master Plan or Detailed Development Plan. The proposed parking lot is located between the proposed East MOB building and the main hospital facility but does not provide a pedestrian accessway to travel between the two locations in a direct and convenient manner. Prior to final of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall install a pedestrian accessway to provide safe access to pedestrians walking from the East MOB through the proposed parking lot to the main hospital facility. The pedestrian accessway shall comply with all the standards of the Oregon City Municipal Code. **The applicant can meet this standard by complying with condition of approval 7.**

17.62.050.A.9.f. *On-site pedestrian walkways shall be hard surfaced, well drained and at least five feet wide. Surface material shall contrast visually to adjoining surfaces. When bordering parking spaces other than spaces for parallel parking, pedestrian walkways shall be a minimum of seven feet in width unless curb stops*

are provided. When the pedestrian circulation system is parallel and adjacent to an auto travel lane, the walkway shall be raised or separated from the auto travel lane by a raised curb, bollards, landscaping or other physical barrier. If a raised walkway is used, the ends of the raised portions shall be equipped with curb ramps for each direction of travel. Pedestrian walkways that cross drive isles or other vehicular circulation areas shall utilize a change in textual material or height to alert the driver of the pedestrian crossing area.

Finding: Complies with Condition. The applicant did not propose any changes to the pedestrian circulation plan within the Master Plan or Detailed Development Plan. The proposed parking lot is located between the proposed East MOB building and the main hospital facility but does not provide a pedestrian accessway to travel between the two locations in a direct and convenient manner. Prior to final of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall install a pedestrian accessway to provide safe access to pedestrians walking from the East MOB through the proposed parking lot to the main hospital facility. The pedestrian accessway shall comply with all the standards of the Oregon City Municipal Code. **The applicant can meet this standard by complying with condition of approval 7.**

17.62.050.A.10. This standard requires adequate means to ensure continued maintenance and necessary normal replacement of common facilities and areas, drainage ditches, streets and other ways, structures, recreational facilities, landscaping, fill and excavation areas, screening and fencing, groundcover, garbage storage areas and other facilities not subject to periodic maintenance by the city or other public agencies.

Finding: Complies with Condition. The applicant did not respond to this criterion. Prior to final of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall submit sufficient documentation demonstrating maintenance in accordance with the standards identified in OCMC 17.62.050.A.10. **The applicant can meet this standard by complying with condition of approval 32.**

17.62.050.A.11. This standard requires that site planning shall conform to the requirements of Oregon City Municipal Code Chapter 17.41—Tree Protection.

Finding: Please refer to the analysis in Chapter 17.41 of this report.

17.62.050.A.12. This standard requires compliance with the Natural Resource Overlay District when applicable.

Finding: Please refer to the analysis in Chapter 17.49 of this report.

17.62.050.A.13. This standard requires that all development shall maintain compliance with applicable Federal, State, and City standards pertaining to air, water, odor, heat, glare, noise and vibration, outdoor storage, and toxic material.

Finding: Complies as Proposed. The applicant indicated compliance with this standard.

17.62.050.A.14. Adequate public water and sanitary sewer facilities sufficient to serve the proposed or permitted level of development shall be provided. The applicant shall demonstrate that adequate facilities and services are presently available or can be made available concurrent with development. Service providers shall be presumed correct in the evidence, which they submit. All facilities shall be designated to city standards as set out in the city's facility master plans and public works design standards. A development may be required to modify or replace existing off-site systems if necessary to provide adequate public facilities. The city may require over sizing of facilities where necessary to meet standards in the city's facility master plan or to allow for the orderly and efficient provision of public facilities and services. Where over sizing is required, the developer may request reimbursement from the city for over sizing based on the city's reimbursement policy and fund availability, or provide for recovery of costs from intervening properties as they develop.

Finding: Please refer to the analysis in OCMC Chapter 17.65.050.C.3 of this report.

17.62.050.A.15. This standard requires that all traffic related impacts should be mitigated. The traffic mitigation elements may include adequate right-of-way improvements, pedestrian ways, and bike routes. The proposal shall demonstrate consistency with the Oregon City Transportation System Plan (TSP).

Finding: Please refer to the analysis in OCMC Chapter 17.65.050.B.1.i of this report.

17.62.050.A.16. If Tri-Met, upon review of an application for an industrial, institutional, retail or office development, recommends that a bus stop, bus turnout lane, bus shelter, bus landing pad or transit stop connection be constructed at the time of development, the review authority shall require such improvement, using designs supportive of transit use.

Finding: Complies as Proposed. Transit operates on the abutting portion of Division Street, with a bus stop adjacent to the site. The applicant submitted comments from Tri-Met confirming the location of the transit stop as appropriate. No concerns regarding the application were expressed.

17.62.050.A.17. This standard requires that all utilities shall be placed underground.

Finding: Complies as Proposed. The applicant indicated that all utilities would be placed underground.

17.62.050.A.18. Access and facilities for physically handicapped people shall be incorporated into the site and building design consistent with applicable federal and state requirements, with particular attention to providing continuous, uninterrupted access routes.

Finding: Complies as Proposed. The Building Division will review the proposal for compliance with applicable building codes upon submission of a building permit application.

17.62.050.A.19. This standard requires minimum densities for residential developments.

Finding: Not Applicable. This project is not a residential development.

17.62.050.A.20. Screening of Mechanical Equipment:

Finding: Not Applicable. The applicant did not propose to install mechanical equipment with the proposed development.

17.62.050.A.21. Building Materials.

Finding: Not Applicable. The development proposal does not include construction of a building.

17.62.050.A.22. Conditions of Approval. The review authority may impose such conditions as it deems necessary to ensure compliance with these standards and other applicable review criteria.

Finding Complies. As demonstrated within this report, the proposal will comply with the standards of the Oregon City Municipal Code with conditions.

17.62.055 - Institutional and commercial building standards.

17.62.055.B. Applicability. In addition to Section 17.62.050 requirements, institutional and commercial buildings shall comply with design standards contained in this section.

Finding: Applicable. The subject site is developed as a hospital within the Mixed Use Employment District.

17.62.055.C. Relationship between zoning district design standards and requirements of this section.

17.62.055.C.1. Building design shall contribute to the uniqueness of the underlying zoning district by applying appropriate materials, elements, features, color range and activity areas tailored specifically to the site and its context.

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.62.055.C.2 A standardized prototype or franchise design shall be modified if necessary to meet the provisions of this section.

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.62.055.C.3. *In the case of a multiple building development, each individual building shall include predominant characteristics, architectural vocabulary and massing shared by all buildings in the development so that the development forms a cohesive place within the underlying zoning district or community.*

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.62.055.C.4 *With the exception of standards for building orientation and building front setbacks, in the event of a conflict between a design standard in this section and a standard or requirement contained in the underlying zoning district, the standard in the zoning district shall prevail.*

Finding: Not Applicable. A conflict between the design standards and a standard in the underlying district does not exist.

17.62.055.C.5 *On sites with one hundred feet or more of frontage at least sixty percent of the site frontage width shall be occupied by buildings placed within five feet of the property line, unless a greater setback is accepted under the provisions of Section 17.62.055D. For sites with less than one hundred feet of street frontage, at least fifty percent of the site frontage width shall be occupied by buildings placed within five feet of the property line unless a greater setback is accepted under the provisions of Section 17.62.055D.*

Finding: Complies with Condition. The applicant did not respond to this criterion. Prior to issuance of the proposed Detailed Development Plan and Master Plan Phase 3, the applicant shall submit documentation demonstrating that for all new buildings, where there is one hundred feet or more of frontage at least sixty percent of the site frontage width shall be occupied by buildings placed within five feet of the property line, unless a greater setback is accepted under the provisions of Section 17.62.055D. For sites with less than one hundred feet of street frontage, at least fifty percent of the site frontage width shall be occupied by buildings placed within five feet of the property line unless a greater setback is accepted under the provisions of Section 17.62.055D. **The applicant can meet this standard by complying with Condition of Approval 33.**

17.62.055.D.1 *Relationship of Buildings to Streets and Parking.*

Finding: Not Applicable. The Master Plan included approximate locations of future structures and additions which appear to demonstrate greater compliance with this standard. Future phases of the Master Plan shall be reviewed for compliance with this standard. The applicant did not propose to construct a new building with the Detailed Development Plan.

17.62.055.D.2 *The front most architecturally significant facade shall be oriented toward the street and shall be accessed from a public sidewalk. Primary building entrances shall be clearly defined and recessed or framed by a sheltering element such as an awning, arcade or portico in order to provide shelter from the summer sun and winter weather.*

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.62.055.D.3 *Entryways.*

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.62.055.D.4 *Where additional stores will be located in the large retail establishment, each such store shall have at least one exterior customer entrance, which shall conform to the same requirements.*

Finding: Not Applicable. The proposed development is not within a large retail establishment.

17.62.055.D.5 *Trellises, canopies and fabric awnings may project up to five feet into front setbacks and public rights-of-way, provided that the base is not less than eight feet at the lowest point and no higher than ten feet above the sidewalk. Awnings shall be no longer than a single storefront.*

Finding: Not Applicable. The applicant has not proposed to construct a trellis, canopy or awning into the public right-of-way.

17.62.055.E Corner Lots.

Finding: Not Applicable. The applicant has not proposed to construct a building with the Detailed Development Plan for Phase 1 of the Master Plan. All future construction shall demonstrate compliance with this standard.

17.62.055.F Commercial First Floor Frontage.

In order to ensure that the ground floor of structures have adequate height to function efficiently for retail uses, the first floor height to finished ceiling of new infill buildings in the mixed use and neighborhood commercial districts shall be no lower than fourteen feet floor to floor. Where appropriate, the exterior facade at the ceiling level of new structures shall include banding, a change of materials or relief which responds to the cornice lines and window location of existing buildings that abut new structures.

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.62.055.G. Variation in Massing.

A single, large, dominant building mass shall be avoided in new buildings and, to the extent reasonably feasible, in development projects involving changes to the mass of existing buildings.

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.62.055.H Minimum Wall Articulation.

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.62.055.I. Facade Transparency.

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.62.055.J Roof Treatments.

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.62.055.K Drive-through facilities shall:

- 1. Be located at the side or rear of the building.*
- 2. Be designed to maximize queue storage on site.*

Finding Not Applicable. The proposed development does not include the installation of a drive through facility.

17.62.065 Outdoor Lighting

17.62.065 .B Applicability.

Finding: Complies. The applicant proposed to install exterior lighting with this proposed development. The development is subject to the standards in OCMC 17.62.065.

17.62.065 .C General Review Standard. *If installed, all exterior lighting shall meet the functional security needs of the proposed land use without adversely affecting adjacent properties or the community. For purposes of this section, properties that comply with the design standards of subsection D. below shall be deemed to not adversely affect adjacent properties or the community.*

Finding: Refer to the analysis in 17.62.065.D within this report.

17.62.065 .D Design and Illumination Standards.

General Outdoor Lighting Standard and Glare Prohibition.

17.62.065 .D.1 Outdoor lighting, if provided, shall be provided in a manner that enhances security, is appropriate for the use, avoids adverse impacts on surrounding properties, and the night sky through appropriate shielding as defined in this section. Glare shall not cause illumination on other properties in excess of a measurement of 0.5 footcandles of light as measured at the property line. In no case shall exterior lighting add more than 0.5 footcandle to illumination levels at any point off-site. Exterior lighting is not required except for purposes of public safety. However, if installed, all exterior lighting shall meet the following design standards:

Finding: Complies as Proposed. The applicant submitted a photometric plan for the proposed lighting alterations within the parking lot (Exhibit 2). The plan did not identify glare on adjacent properties more than 0.5 footcandles.

17.62.065 .D.2 Any light source or lamp that emits more than nine hundred lumens (thirteen watt compact fluorescent or sixty watt incandescent) shall be concealed or shielded with a full cut-off style fixture in order to minimize the potential for glare and unnecessary diffusion on adjacent property. All fixtures shall utilize one of the following bulb types: metal halide, induction lamp, compact fluorescent, incandescent (including tungsten-halogen), or high pressure sodium with a color rendering index above seventy.

Finding: Complies as Proposed. The applicant indicated compliance with this criterion.

17.62.065 .D.3 The maximum height of any lighting pole serving a multi-family residential use shall be twenty feet. The maximum height serving any other type of use shall be twenty-five feet, except in parking lots larger than five acres, the maximum height shall be thirty-five feet if the pole is located at least one hundred feet from any residential use.

Finding: Not Applicable. The applicant did not propose multi-family residential development.

17.62.065 .D.4 Lighting levels:

Table 1-17.62.065. Foot-candle Levels

Location	Max
Pedestrian Walkways	7:1 max/min ratio
Pedestrian Walkways in Parking Lots	10:1 max/min ratio
Pedestrian Accessways	7:1 max/min ratio
Building Entrances	
Bicycle Parking Areas	
Abutting property	.05

Finding: Complies with Condition. The applicant submitted a photometric plan which appeared to comply with the lighting levels identified in OCMC 17.62.065. However, the applicant is required to install a pedestrian walkway within the proposed parking lot. Prior to issuance of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall submit a photometric plan demonstrating compliance with OCMC 17.62.065 for the pedestrian walkway within the parking lot. **The applicant can meet this standard through Condition of Approval 34.**

17.62.065 .D .5 Parking lots and other background spaces shall be illuminated as unobtrusively as possible while meeting the functional needs of safe circulation and protection of people and property. Foreground spaces, such as building entrances and outside seating areas, shall utilize pedestrian scale lighting that defines the space without glare.

Finding: Please refer to the analysis in 17.62.065.D.4.

17.62.065 .D.6 Any on-site pedestrian circulation system shall be lighted to enhance pedestrian safety and allow employees, residents, customers or the public to use the walkways at night. Pedestrian walkway lighting through parking lots shall be lighted to light the walkway and enhance pedestrian safety pursuant to Table 1.

Finding: Please refer to the analysis in 17.62.065.D.4.

17.62.065 .D.7 Pedestrian Accessways. To enhance pedestrian and bicycle safety, pedestrian accessways required pursuant to OCMC 12.28 shall be lighted with pedestrian-scale lighting. Accessway lighting shall be to a minimum level of one-half foot-candles, a one and one-half foot-candle average, and a maximum to minimum ratio of seven-to-one and shall be oriented not to shine upon adjacent properties. Street lighting shall be provided at both entrances. Lamps shall include a high-pressure sodium bulb with an unbreakable lens.

Finding: Complies with Condition. The development proposal did not include installation of a pedestrian accessway. However, as demonstrated within this report the applicant is required to install a pedestrian walkway within the proposed parking lot. Prior to issuance of a building permit associated with the development the applicant shall submit a photometric plan demonstrating compliance with OCMC 17.62.065 for the pedestrian walkway within the parking lot. **The applicant can meet this standard through Condition of Approval 34.**

17.62.065 .D.8 Floodlights shall not be utilized to light all or any portion of a building facade between ten p.m. and six a.m.

Finding: Not Applicable. No floodlights are proposed.

17.62.065 .D.9 Lighting on automobile service station, convenience store, and other outdoor canopies shall be fully recessed into the canopy and shall not protrude downward beyond the ceiling of the canopy.

Finding: Not Applicable. No canopy lighting is proposed.

17.62.065 .D.10 The style of light standards and fixtures shall be consistent with the style and character of architecture proposed on the site.

Finding: Complies as Proposed. The applicant indicated that the proposed fixtures match the existing fixtures onsite.

17.62.065 .D.11 In no case shall exterior lighting add more than one foot-candle to illumination levels at any point off-site.

Finding: Complies as Proposed. The applicant submitted a photometric plan for the proposed lighting alterations within the parking lot (Exhibit 2). The plan did not identify glare on adjacent properties more than 0.5 footcandles.

17.62.065 .D.12 All outdoor light not necessary for security purposes shall be reduced, activated by motion sensor detectors, or turned off during non-operating hours.

Finding: Complies as Proposed. The applicant indicated that all outdoor lighting in this application is for the purposes of security and ease of use for the parking lot.

17.62.065 .D.13 Light fixtures used to illuminate flags, statues, or any other objects mounted on a pole, pedestal, or platform shall use a narrow cone beam of light that will not extend beyond the illuminated object.

Finding: Not Applicable. No flags, statues, or any other objects mounted on a pole, pedestal, or platform are proposed.

17.62.065 .D.14 For upward-directed architectural, landscape, and decorative lighting, direct light emissions shall not be visible above the building roofline.

Finding: Not Applicable. No upward directed lighting is proposed.

17.62.065 .D.15 No flickering or flashing lights shall be permitted, except for temporary decorative seasonal lighting.

Finding: Complies as Proposed. The applicant indicated that no flickering or flashing lights are proposed.

17.62.065 .D.16 Wireless Sites.

Finding: Not Applicable. This section relates to wireless sites, and does not apply.

17.62.065 .D .17 Lighting for outdoor recreational uses such as ball fields, playing fields, tennis courts, and similar uses, provided that such uses comply with the following standards:

i. Maximum permitted light post height: eighty feet.

ii . Maximum permitted illumination at the property line: 0.5 foot-candles

Finding: Not Applicable. This section applies to outdoor recreation sites, and does not apply.

17.62.080 Special Development along Transit Streets

17.62.080.B. Applicability. Except as otherwise provide in this section, the requirements of this section shall apply to the construction of new retail, office and institutional buildings which front on a transit street.

Finding: Complies. The abutting portion of Division Street which supports bus routes.

17.62.080.C

1. All buildings shall have at least one main building entrance oriented towards the transit street. A main building entrance is oriented toward a transit street if it is directly located on the transit street, or if it is linked to the transit street by an on-site pedestrian walkway that does not cross off-street parking or maneuvering areas.

a. If the site has frontage on more than one transit street, or on a transit street and a street intersecting a transit street, the building shall provide one main building entrance oriented to the transit street or to the corner where the two streets intersect.

b. For building facades over three hundred feet in length on a transit street, two or more main building entrances shall be provided as appropriate and oriented towards the transit street.

2. Main building entrances shall be well lighted and visible from the transit street. The minimum lighting level for building entries shall be three foot-candles. Lighting shall be a pedestrian scale with the source light shielded to reduce glare.

3. In the event a requirement of this section conflicts with other requirements in Title 17, the requirements of this section shall control.

Finding: Not Applicable. The applicant has not proposed to construct a building with the proposed development. All future construction shall demonstrate compliance with this standard.

17.62.080.D Exemptions. The following permitted uses are exempted from meeting the requirements of subsection C. of this section:

1. Heavy equipment sales;

2. Motor vehicle service stations, including convenience stores associated therewith;

3. Solid waste transfer stations; and

4. Truck stops, including convenience stores, eating or drinking establishments, overnight accommodations or other similar services associated therewith. A use found by the community development director to be similar to the exempt uses above.

Finding: Not Applicable. The applicant has not proposed an exempted use.

17.62.085 Refuse and Recycling Standards for commercial, industrial and multi-family developments

The purpose and intent of these provisions is to provide an efficient, safe and convenient refuse and recycling enclosure for the public as well as the local collection firm. All new development, change in property use, expansions or exterior alterations to uses other than single-family or duplex residences shall include a refuse and recycling enclosure.

Finding: Not Applicable. The subject site utilized as a hospital, an institutional site which is no subject to this standard.

Chapter 12.04 STREETS, SIDEWALKS AND PUBLIC PLACES

12.04.005 Jurisdiction and management of the public rights-of-way

Finding: Complies with Condition. The adjacent right-of-way is under the jurisdiction of Oregon City. The City has approved all changes to the right-of-way identified within this report. The applicant shall sign a Non-Remonstrance Agreement (NRA) prior to final occupancy for any Phase or portion of a Phase built on a property not already covered by a NRA for the purpose of making sanitary sewer, storm sewer, water or street improvements in the future that benefit the property and assessing the cost to benefited properties pursuant to the City's capital improvement regulations in effect at the time of such improvement; this includes paying the document recording fee. **The applicant can meet this standard through Condition of Approval 37.**

12.04.010 Construction specifications – improved streets

All sidewalks hereafter constructed in the city on improved streets shall be constructed to city standards and widths required in the Oregon City Transportation System Plan. The curb shall be constructed at the same time as the construction of the sidewalk and shall be located as provided in the ordinance authorizing the improvement of said street next proceeding unless otherwise ordered by the city commission. Both sidewalks and curbs are to be constructed according to plans and specifications provided by the city engineer.

Finding: Complies as Proposed. The applicant indicated compliance the Oregon City street design standards.

12.04.020 Construction specification – unimproved streets

Finding: Not Applicable. The site does not abut an unimproved street.

12.04.025 Street design – Curb cuts

Finding: Complies as Proposed. The applicant proposed to limit the access to the proposed parking lot to a single ingress/egress on Davis Road. The parking lot is currently accessed from multiple points along the frontage. Limiting access to the site will result in a safer facility.

12.04.030 – Maintenance and repair

The owner of land abutting the street where a sidewalk has been constructed shall be responsible for maintaining said sidewalk and abutting curb, if any, in good repair.

Finding: Complies. The applicant is subject to compliance with OCMC Chapter 12.04.

12.04.031 Liability for sidewalk injuries

A. *The owner or occupant of real property responsible for maintaining the adjacent sidewalk shall be liable to any person injured because of negligence of such owner or occupant in failing to maintain the sidewalk in good condition.*

B. *If the city is required to pay damages for an injury to persons or property caused by the failure of a person to perform the duty that this ordinance imposes, the person shall compensate the city for the amount of the damages paid. The city may maintain an action in a court of competent jurisdiction to enforce this section.*

Finding: Complies. The applicant is subject to compliance with OCMC Chapter 12.04.

12.04.032 Required sidewalk repair

A. *When the public works director determines that repair of a sidewalk is necessary he or she shall issue a notice to the owner of property adjacent to the sidewalk.*

B. *The notice shall require the owner of the property adjacent to the defective sidewalk to complete the repair of the sidewalk within ninety days after the service of notice. The notice shall also state that if the repair is not made by the owner, the City may do the work and the cost of the work shall be assessed against the property adjacent to the sidewalk.*

C. *The public works director shall cause a copy of the notice to be served personally upon the owner of the property adjacent to the defective sidewalk, or the notice may be served by registered or certified mail, return receipt requested. If after diligent search the owner is not discovered, the public works director shall cause a*

copy of the notice to be posted in a conspicuous place on the property, and such posting shall have the same effect as service of notice by mail or by personal service upon the owner of the property.

D. The person serving the notice shall file with the city recorder a statement stating the time, place and manner of service or notice.

Finding: Complies as Proposed. The adjacent right-of-way is under the jurisdiction of Oregon City. The City has approved all changes to the right-of-way identified within this report.

12.04.033 city may do work

If repair of the sidewalk is not completed within ninety days after the service of notice, the public works director shall carry out the needed work on the sidewalk. Upon completion of the work, the public works director shall submit an itemized statement of the cost of the work to the finance director. The city may, at its discretion, construct, repair or maintain sidewalks deemed to be in disrepair by the public works director for the health, safety and general welfare of the residents of the city.

Finding: Not Applicable. The City has not proposed to do sidewalk repairs with this development.

12.04.034 Assessment of costs

Upon receipt of the report, the finance director shall assess the cost of the sidewalk work against the property adjacent to the sidewalk. The assessment shall be a lien against the property and may be collected in the same manner as is provided for in the collection of street improvement assessment.

Finding: Not Applicable. The City has not proposed to do sidewalk repairs with this development.

12.04.040 Streets - Enforcement

Any person whose duty it is to maintain and repair any sidewalk, as provided by this Chapter, and who fails to do so shall be subject to the enforcement procedures of Chapters 1.16, 1.20 and 1.24. Failure to comply with the provisions of this Chapter shall be deemed a nuisance. Violation of any provision of this Chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.

Finding: Not Applicable. The subject site is not under enforcement action at this time.

12.04.045 Street design – Constrained local streets and/or rights-of-way

Finding: Not Applicable. No constrained streets are proposed or required.

12.04.050 Retaining walls - Required

Every owner of a lot within the city, abutting upon an improved street, where the surface of the lot or tract of land is above the surface of the improved street and where the soil or earth from the lot, or tract of land is liable to, or does slide or fall into the street or upon the sidewalk, or both, shall build a retaining wall, the outer side of which shall be on the line separating the lot, or tract of land from the improved street, and the wall shall be so constructed as to prevent the soil or earth from the lot or tract of land from falling or sliding into the street or upon the sidewalk, or both, and the owner of any such property shall keep the wall in good repair.

Finding: Not Applicable. The applicant did not propose to install a retaining wall in the public right-of-way. Future retaining walls within the right-of-way are subject to compliance with this standard.

12.04.060 Retaining walls- Maintenance

When a retaining wall is necessary to keep the earth from falling or sliding onto the sidewalk or into a public street and the property owner or person in charge of that property fails or refuses to build such a wall, such shall be deemed a nuisance. The violation of any provision of this Chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.

Finding: Not Applicable. The applicant did not propose to install a retaining wall in the public right-of-way.

12.04.070- Removal of sliding dirt.

It shall be the duty of the owner of any property as mentioned in Section 12.04.050, and in case the owner is a nonresident, then the agent or other person in charge of the same, to remove from the street or sidewalk or both

as the case may be, any and all earth or dirt falling on or sliding into or upon the same from the property, and to build and maintain in order at all times, the retaining wall as herein required; and upon the failure, neglect or refusal of the land owner, the agent or person in charge of the same to clean away such earth or dirt, falling or sliding from the property into the street or upon the sidewalk, or both, or to build the retaining wall, shall be deemed guilty of a misdemeanor.

Finding: Not Applicable. The applicant has not proposed and is not required to remove sliding dirt with this application.

12.04.080 - Excavations—Permit required.

It shall be unlawful for any person to dig up, break, excavate, disturb, dig under or undermine any public street or alley, or any part thereof or any macadam, gravel, or other street pavement or improvement without first applying for and obtaining from the engineer a written permit so to do.

Finding: Complies. The applicant is subject to compliance with OCMC Chapter 12.04.

12.04.090 - Excavations—Permit restrictions.

The permit shall designate the portion of the street to be so taken up or disturbed, together with the purpose for making the excavation, the number of days in which the work shall be done, and the trench or excavation to be refilled and such other restrictions as may be deemed of public necessity or benefit.

Finding: Not Applicable. The City shall review a permit upon submittal.

12.040.095 - Street Design—Curb Cuts.

To assure public safety, reduce traffic hazards and promote the welfare of pedestrians, bicyclists and residents

Finding: Complies as Proposed. The applicant proposed to limit the access to the proposed parking lot to a single ingress/egress on Davis. The parking lot is currently accessed from multiple points along the frontage. Limiting access to the site will result in a safer facility.

12.04.100 - Excavations—Restoration of pavement.

Whenever any excavation shall have been made in any pavement or other street improvement on any street or alley in the city for any purpose whatsoever under the permit granted by the engineer, it shall be the duty of the person making the excavation to put the street or alley in as good condition as it was before it was so broken, dug up or disturbed, and shall remove all surplus dirt, rubbish, or other material from the street or alley.

Finding: Applies. The applicant is subject to this standard.

12.04.110 - Excavations—Nuisance—Penalty.

Any excavation in violation of this Chapter shall be deemed a nuisance. Violation of any provision of this Chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.

Finding: Not Applicable. All excavations will comply with this Chapter via the conditions of approval.

12.04.120 - Obstructions—Permit required.

Finding: Not Applicable. The applicant has not proposed an obstruction within the right-of-way in this application.

12.04.130 - Obstructions—Sidewalk sales.

A. *It is unlawful for any person to use the public sidewalks of the city for the purpose of packing, unpacking or storage of goods or merchandise or for the display of goods or merchandise for sale. It is permissible to use the public sidewalks for the process of expeditiously loading and unloading goods and merchandise.*

B. *The city commission may, in its discretion, designate certain areas of the city to permit the display and sale of goods or merchandise on the public sidewalks under such conditions as may be provided.*

Finding: Not Applicable. The applicant has not proposed a sidewalk sale with this application.

12.04.140 - Obstructions—Nuisance—Penalty.

Any act or omission in violation of this Chapter shall be deemed a nuisance. Violation of any provision of this Chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.

Finding: Complies. The applicant is subject to compliance with OCMC Chapter 12.04.

12.04.150 - Street and alley vacations—Cost.

At the time of filing a petition for vacation of a street, alley or any part thereof, a fee as established by city commission resolution shall be paid to the city.

Finding: Not Applicable. The applicant has not proposed a street or alley vacation with this application.

12.04.160 - Street vacations—Restrictions.

The commission, upon hearing such petition, may grant the same in whole or in part, or may deny the same in whole or in part, or may grant the same with such reservations as would appear to be for the public interest, including reservations pertaining to the maintenance and use of underground public utilities in the portion vacated.

Finding: Not Applicable. The applicant has not proposed a street or alley vacation with this application.

12.04.170 - Street design—Purpose and general provisions.

All development shall be in conformance with the policies and design standards established by this Chapter and with applicable standards in the city's public facility master plan and city design standards and specifications.

In reviewing applications for development, the city engineer shall take into consideration any approved development and the remaining development potential of adjacent properties. All street, water, sanitary sewer, storm drainage and utility plans associated with any development must be reviewed and approved by the city engineer prior to construction. All streets, driveways or storm drainage connections to another jurisdiction's facility or right-of-way must be reviewed by the appropriate jurisdiction as a condition of the preliminary plat and when required by law or intergovernmental agreement shall be approved by the appropriate jurisdiction.

Finding: Complies as Proposed. The applicant indicated compliance the Oregon City street design standards.

12.04.175 - Street design—Generally.

The location, width and grade of street shall be considered in relation to: existing and planned streets, topographical conditions, public convenience and safety for all modes of travel, existing and identified future transit routes and pedestrian/bicycle accessways, and the proposed use of land to be served by the streets. The street system shall assure an adequate traffic circulation system with intersection angles, grades, tangents and curves appropriate for the traffic to be carried considering the terrain. To the extent possible, proposed streets shall connect to all existing or approved stub streets that abut the development site. Where location is not shown in the development plan, the arrangement of streets shall either:

A. *Provide for the continuation or appropriate projection of existing principal streets in the surrounding area and on adjacent parcels or conform to a plan for the area approved or adopted by the city to meet a particular situation where topographical or other conditions make continuance or conformance to existing streets impractical;*

B. *Where necessary to give access to or permit a satisfactory future development of adjoining land, streets shall be extended to the boundary of the development and the resulting dead-end street (stub) may be approved with a temporary turnaround as approved by the city engineer. Access control in accordance with section 12.04.200 shall be required to preserve the objectives of street extensions.*

Finding: The site is currently developed with existing sidewalks on the development areas except along the northern part of the parking lot expansion. Please refer to the analysis in OCMC Chapter 17.65.050.B.1.i for full details of required improvements for each phase.

12.04.180 - Street design—Minimum right-of-way.

All development shall provide adequate right-of-way and pavement width. Adequate right-of-way and pavement width shall be provided by:

A. *Complying with the street design standards contained in the table provided in Chapter 12.04. The street design standards are based on the classification of streets that occurred in the Oregon City Transportation*

System Plan (TSP), in particular, the following TSP figures provide the appropriate classification for each street in Oregon City: Figure 5-1: Functional Classification System and New Roadway Connections; Figure 5-3: Pedestrian System Plan; Figure 5.6: Bicycle System Plan; and Figure 5.7: Public Transit System Plan. These TSP figures from the Oregon City Transportation System Plan are incorporated herein by reference in order to determine the classification of particular streets.

Table 12.04.020 STREET DESIGN STANDARDS		
Type of Street	Maximum Right-of-Way Width	Pavement Width
Major arterial	124 feet	98 feet
Minor arterial	114 feet	88 feet
Collector street	86 feet	62 feet
Neighborhood Collector street	81 feet	59 feet
Local street	54 feet	32 feet
Alley	20 feet	16 feet

B. The applicant may submit an alternative street design plan that varies from the street design standards identified above. An alternative street design plan may be approved by the city engineer if it is found the alternative allows for adequate and safe traffic, pedestrian and bicycle flows and transportation alternatives and protects and provides adequate multi-modal transportation services for the development as well as the surrounding community.

Finding: Please refer to the analysis in OCMC Chapter 17.65.050.B.1.i of this report for full details of required improvements for each phase.

12.04.185 - Street design—Access control.

A. A street which is dedicated to end at the boundary of the development or in the case of half-streets dedicated along a boundary shall have an access control granted to the city as a city controlled plat restriction for the purposes of controlling ingress and egress to the property adjacent to the end of the dedicated street. The access control restriction shall exist until such time as a public street is created, by dedication and accepted, extending the street to the adjacent property.

B. The city may grant a permit for the adjoining owner to access through the access control.

C. The plat shall contain the following access control language or similar on the face of the map at the end of each street for which access control is required: "Access Control (See plat restrictions)."

A. Said plats shall also contain the following plat restriction note(s): "Access to (name of street or tract) from adjoining tracts (name of deed document number[s]) shall be controlled by the City of Oregon City by the recording of this plat, as shown. These access controls shall be automatically terminated upon the acceptance of a public road dedication or the recording of a plat extending the street to adjacent property that would access through those Access Controls."

Finding: Complies as Proposed. The applicant proposed to limit the access to the proposed parking lot to a single ingress/egress on Davis. The parking lot is currently accessed from multiple points along the frontage. Limiting access to the site will result in a safer facility.

12.04.190 - Street design—Alignment.

The centerline of streets shall be:

A. Aligned with existing streets by continuation of the centerlines; or

A. Offset from the centerline by no more than ten feet, provided appropriate mitigation, in the judgment of the city engineer, is provided to ensure that the offset intersection will not pose a safety hazard.

Finding: Not Applicable. The applicant has not proposed a street alignment with this application.

12.04.195 - Minimum street intersection spacing standards.

Finding: Not Applicable. The applicant has not proposed and is not required to install a new intersection with this development.

12.04.200 - Street design—Constrained local streets and/or rights-of-way.

Finding: Not Applicable. The development proposal does not include a constrained street.

12.04.205 - Intersection level of service standards.

When reviewing new developments, the City of Oregon City requires all relevant intersections to be maintained at the minimum acceptable Level Of Service (LOS) upon full build-out of the proposed development. The minimum acceptable LOS standards are as follows:

- A. For signalized intersection areas of the city that are located outside the Regional Center boundaries a LOS of "D" or better for the intersection as a whole and no approach operating at worse than LOS "E" and a v/c ratio not higher than 1.0 for the sum of critical movements.*
- B. For signalized intersections within the Regional Center boundaries a LOS "D" can be exceeded during the peak hour; however, during the second peak hour, LOS "D" or better will be required as a whole and no approach operating at worse than LOS "E" and a v/c ratio not higher than 1.0.*
- C. For unsignalized intersection throughout the city a LOS "E" or better for the poorest approach and with no movement serving more than twenty peak hour vehicles operating at worse than LOS "F" will be tolerated for minor movements during a peak hour.*

Finding: Please refer to the analysis in OCMC Chapter 17.65.050.B.1.i of this report.

12.04.210 - Street design—Intersection angles.

Finding: Not Applicable. The applicant has not proposed and is not required to redesign an intersection.

12.04.215 - Street design—Off-site street improvements.

During consideration of the preliminary plan for a development, the decision maker shall determine whether existing streets impacted by, adjacent to, or abutting the development meet the city's applicable planned minimum design or dimensional requirements. Where such streets fail to meet these requirements, the decision-maker shall require the applicant to make proportional improvements sufficient to achieve conformance with minimum applicable design standards required to serve the proposed development.

Finding: Not Applicable. The applicant has not proposed and the City is not requiring off-site improvements.

12.04.220 - Street design—Half street.

Half streets, while generally not acceptable, may be approved where essential to the development, when in conformance with all other applicable requirements, and where it will not create a safety hazard. When approving half streets, the decision maker must first determine that it will be practical to require the dedication of the other half of the street when the adjoining property is divided or developed. Where the decision maker approves a half street, the applicant must construct an additional ten feet of pavement width so as to make the half street safe and usable until such time as the other half is constructed. Whenever a half street is adjacent to property capable of being divided or developed, the other half of the street shall be provided and improved when that adjacent property divides or develops. Access control as described in [Section] 12.04.200 may be required to preserve the objectives of half streets.

Finding: Not Applicable. A half street is not proposed or existing adjacent to the site.

12.04.225 - Street design—Cul-de-sacs and dead-end streets.

Finding: Not Applicable. A cul-de-sac or dead end is not proposed or required.

12.04.230 - Street design—Street names.

Finding: Not Applicable. A new street is not proposed or existing with the proposed development.

12.04.235 - Street design—Grades and curves.

Grades and center line radii shall conform to the standards in the city's street design standards and specifications.

Finding: Not applicable. A new street is not proposed with the proposed development.

12.04.240 - Street design—Development abutting arterial or collector street.

Where development abuts or contains an existing or proposed arterial or collector street, the decision maker may require: access control; screen planting or wall contained in an easement or otherwise protected by a restrictive covenant in a form acceptable to the decision maker along the rear or side property line; or such other treatment it deems necessary to adequately protect residential properties or afford separation of through and local traffic. Reverse frontage lots with suitable depth may also be considered an option for residential property that has arterial frontage. Where access for development abuts and connects for vehicular access to another jurisdiction's facility then authorization by that jurisdiction may be required.

Finding: Complies with Condition. The applicant has not proposed and the City has not requiring the applicant to change the location of the existing accessways with this development. The applicant shall sign a Non-Remonstrance Agreement (NRA) prior to final occupancy for any Phase or portion of a Phase built on a property not already covered by a NRA for the purpose of making sanitary sewer, storm sewer, water or street improvements in the future that benefit the property and assessing the cost to benefited properties pursuant to the City's capital improvement regulations in effect at the time of such improvement; this includes paying the document recording fee. **The applicant can meet this standard through Condition of Approval 37.**

12.04.245 - Street design—Pedestrian and bicycle safety.

Where deemed necessary to ensure public safety, reduce traffic hazards and promote the welfare of pedestrians, bicyclists and residents of the subject area, the decision maker may require that local streets be so designed as to discourage their use by nonlocal automobile traffic.

All crosswalks shall include a large vegetative or sidewalk area which extends into the street pavement as far as practicable to provide safer pedestrian crossing opportunities. These curb extensions can increase the visibility of pedestrians and provide a shorter crosswalk distance as well as encourage motorists to drive slower. The decision maker may approve an alternative design that achieves the same standard for constrained sites or where deemed unnecessary by the city engineer.

Finding: The site is currently developed sidewalks on all frontages except along the northern half of the proposed parking lot expansion. The applicant proposes to install the missing sidewalk as part of Phase 1. Please refer to the analysis in OCMC Chapter 17.65.050.B.1.i for full details of required improvements for Phase 1.

12.04.255 - Street design—Alleys.

Finding: Not Applicable. The applicant has not proposed to install a new alley with this application.

12.04.260 - Street design—Transit.

Streets shall be designed and laid out in a manner that promotes pedestrian and bicycle circulation. The applicant shall coordinate with Tri-Met where the application impacts transit streets as identified on Figure 5.7: Public Transit System Plan of the Oregon City Transportation System Plan. Pedestrian/bicycle access ways shall be provided as necessary in conformance with the requirements in Section 17.90.220 of this code and Chapter 12.24 to minimize the travel distance to transit streets and stops and neighborhood activity centers. The decision maker may require provisions, including easements, for transit facilities along transit streets where a need for bus stops, bus pullouts or other transit facilities within or adjacent to the development has been identified.

Finding: Not Applicable. The applicant has not proposed and is not required to install transit improvements.

12.04.265 - Street design—Planter strips.

All development shall include vegetative planter strips that are five feet in width or larger and located adjacent to the curb. This requirement may be waived or modified if the decision maker finds it is not practicable. The decision maker may permit constrained sites to place street trees on the abutting private property within 10 feet

of the public right-of-way if a covenant is recorded on the title of the property identifying the tree as a city street tree which is maintained by the property owner. Development proposed along a collector, minor arterial, or major arterial street may use tree wells with root barriers located near the curb within a wider sidewalk in lieu of a planter strip, in which case each tree shall have a protected area to ensure proper root growth and reduce potential damage to sidewalks, curbs and gutters.

To promote and maintain the community tree canopy adjacent to public streets, trees shall be selected and planted in planter strips in accordance with Chapter 12.08, Street Trees. Individual abutting lot owners shall be legally responsible for maintaining healthy and attractive trees and vegetation in the planter strip. If a homeowners' association is created as part of the development, the association may assume the maintenance obligation through a legally binding mechanism, e.g., deed restrictions, maintenance agreement, etc., which shall be reviewed and approved by the city attorney. Failure to properly maintain trees and vegetation in a planter strip shall be a violation of this code and enforceable as a civil infraction.

Finding: Please refer to the analysis in OCMC Chapter 17.65.050.B.1.i for full details of required improvements for each phase including the planter strip and street tree requirements.

12.04.270 - Standard construction specifications.

The workmanship and materials for any work performed under permits issued per this Chapter shall be in accordance with the edition of the "Standard Specifications for Public Works Construction," as prepared by the Oregon Chapter of American Public Works Association (APWA) and as modified and adopted by the city, in effect at the time of application. The exception to this requirement is where this Chapter and the Public Works Street Design Drawings provide other design details, in which case the requirements of this Chapter and the Public Works Street Design Drawings shall be complied with. In the case of work within ODOT or Clackamas County rights-of-way, work shall be in conformance with their respective construction standards.

Finding: Complies as Proposed. The applicant indicated compliance the Oregon City street design standards.

Chapter 12.08 PUBLIC AND STREET TREES

12.08.015 - Street tree planting and maintenance requirements.

All new construction or major redevelopment shall provide street trees adjacent to all street frontages. Species of trees shall be selected based upon vision clearance requirements, but shall in all cases be selected from the Oregon City Street Tree List or be approved by a certified arborist. If a setback sidewalk has already been constructed or the Development Services determines that the forthcoming street design shall include a setback sidewalk, then all street trees shall be installed with a planting strip. If existing street design includes a curb-tight sidewalk, then all street trees shall be placed within the front yard setback, exclusive of any utility easement.

Finding: Complies with Condition. The applicant submitted a revised landscaping plan, for the proposed parking lot associated with the Detailed Development Plan for Phase 1 of the Master Plan, dated January 31, 2012, identifying the location of street trees, but not identifying the species. Prior to issuance of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall submit a revised landscaping plan with a street tree from the Oregon City Street Tree List for the appropriate tree well width or documentation from the a certified arborist demonstrating the appropriateness of the tree species within the size of the tree well. **The applicant can meet this standard through Condition of Approval 23.**

12.08.015.A *One street tree shall be planted for every thirty-five feet of property frontage. The tree spacing shall be evenly distributed throughout the total development frontage. The community development director may approve an alternative street tree plan if site or other constraints prevent meeting the placement of one street tree per thirty-five feet of property frontage.*

Finding: Complies with Condition. The applicant submitted a revised landscaping plan, dated January 31, 2012, for the proposed parking lot associated with the Detailed Development Plan for Phase 1 of the Master Plan. The landscaping plan identified less than 1 street tree for every 35 feet of frontage along the Division Street and Penn Lane frontages.

It is feasible that the applicant revise the landscaping plan to include the proper amount of street trees required along each frontage. The parking lot associated with the Detailed Development Plan for Phase 1 of the Master Plan extends along the entire Division Street frontage and along a portion of the Penn Lane frontage. The landscaping plan displays the appropriate number of trees abutting the parking lot on the Penn Lane frontage however, the street improvements, including street trees along eastern portion of the frontage where the future Medical Office Building is identified to be constructed in Phase 3. Prior to issuance of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall submit documentation demonstrating compliance with OCMC Chapter 12.08 for the Division Street frontage adjacent to the proposed parking lot associated with the Phase 1 Detailed Development Plan. If the applicant submits documentation from an engineer indicating the proper spacing cannot be met due to sight line or other unavoidable issues, the Community Development Director may approve an alternative such as planting a tree in an alternate location or providing a fee-in-lieu. All future Detailed Development Plans shall demonstrate compliance with this standard. **The applicant can meet this standard through Condition of Approval 35.**

12.08.015.B *The following clearance distances shall be maintained when planting trees:*

1. *Fifteen feet from streetlights;*
2. *Five feet from fire hydrants;*
3. *Twenty feet from intersections;*
4. *A minimum of five feet (at mature height) below power lines.*

Finding: Complies with Condition. The applicant is required to revise the location of the street trees adjacent to the parking lot. Prior to issuance of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall submit documentation demonstrating compliance with OCMC Chapter 12.08 for Phase 1 of the Detailed Development Plan. All future Detailed Development Plans shall demonstrate compliance with this standard. **The applicant can meet this standard through Condition of Approval 35.**

12.08.015.C *All trees shall be a minimum of two inches in caliper at six inches above the root crown and installed to city specifications.*

Finding: Complies as Proposed. The street trees proposed are 2-inches in caliper.

12.08.015.D *All established trees shall be pruned tight to the trunk to a height that provides adequate clearance for street cleaning equipment and ensures ADA complaint clearance for pedestrians.*

Finding: Complies with Condition. The applicant did not provide a response to this criterion. Prior to issuance of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall submit documentation demonstrating compliance with OCMC Chapter 12.08 for Phase 1 of the Detailed Development Plan. All future Detailed Development Plans shall demonstrate compliance with this standard. **The applicant can meet this standard through Condition of Approval 35.**

12.08.020 - *Street tree species selection.*

The community development director may specify the species of street trees required to be planted if there is an established planting scheme adjacent to a lot frontage, if there are obstructions in the planting strip, or if overhead power lines are present.

Finding: Complies with Condition. The applicant submitted a revised landscaping plan, dated January 31, 2012 identifying the location of street trees, but not identifying the species. Prior to issuance of a permit associated with the site, the applicant shall submit a revised landscaping plan with a street tree from the Oregon City Street Tree List for the appropriate tree well width or documentation from the a certified arborist demonstrating the appropriateness of the tree species within the size of the tree well. **The applicant can meet this standard through Condition of Approval 23.**

12.08.025 - *General tree maintenance.*

Abutting property owners shall be responsible for the maintenance of street trees and planting strips. Topping of trees is permitted only under recommendation of a certified arborist, or other qualified professional, if required by city staff. Trees shall be trimmed appropriately. Maintenance shall include trimming to remove

dead branches, dangerous limbs and to maintain a minimum seven-foot clearance above all sidewalks and ten-foot clearance above the street. Planter strips shall be kept clear of weeds, obstructing vegetation and trash.

Finding: Complies with Condition. The applicant did not respond to this section. Prior to issuance of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall submit documentation demonstrating compliance with OCMC Chapter 12.08 for Phase 1 of the Detailed Development Plan. All future Detailed Development Plans shall demonstrate compliance with this standard. **The applicant can meet this standard through Condition of Approval 35.**

12.08.030 - Public property tree maintenance.

The city shall have the right to plant, prune, maintain and remove trees, plants and shrubs in all public rights-of-way and public grounds, as may be necessary to ensure public safety or to preserve and enhance the symmetry or other desirable characteristics of such public areas. The natural resources committee may recommend to the community development director the removal of any tree or part thereof which is in an unsafe condition, or which by reason of its nature is injurious to above or below-ground public utilities or other public improvements.

Finding: Complies with Condition. The applicant did not respond to this section. Prior to issuance of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall submit documentation demonstrating compliance with OCMC Chapter 12.08 for Phase 1 of the Detailed Development Plan. All future Detailed Development Plans shall demonstrate compliance with this standard. **The applicant can meet this standard through Condition of Approval 35.**

12.08.035 - Public tree removal.

Finding: Not Applicable. The applicant did not propose and is not required to remove any street trees with this application. The applicant shall submit an application for street tree removal if any street trees are required to be removed to accommodate the proposed construction or conditions of approval.

12.08.040 - Heritage Trees and Groves.

Finding: Not Applicable. The applicant does not have any designated heritage trees or groves onsite and is not proposing or required to designate any trees.

12.08.045 - Gifts and funding.

Finding: Not Applicable. The applicant has not proposed and the City has not required any gift or funding for street trees.

12.08.050 - Violation—Penalty.

The violation of any provision of this Chapter shall be constitute a civil infraction, subject to code enforcement procedures of Chapter 1.16 and/or Chapter 1.20.

Finding: Not Applicable. This application does not include a violation.

CHAPTER 17.54.100 SUPPLEMENTAL ZONING REGULATIONS AND EXCEPTIONS- FENCE, HEDGE & WALLS

Finding: Not Applicable. The applicant has not requested to install a fence, hedge or wall onsite. All future fences, hedges and walls shall be subject to review for compliance with the Oregon City Municipal Code.

CHAPTER 17.58 NONCONFORMING USES, STRUCTURES AND LOTS

Finding: Complies with Condition. The site is currently nonconforming as it does not comply with the current standards for parking lot landscaping, etc. OCMC Chapter 17.58.040.C.2.a requires upgrades to nonconforming portions of the site for additions and exterior alterations more than \$75,000. Per OCMC 17.58, ten percent of the project cost shall be allocated to assuring compliance with pedestrian circulation systems, minimum perimeter parking lot landscaping, minimum interior parking lot landscaping, minimum site landscaping requirements, bicycle parking by upgrading existing racks and providing additional spaces,

screening, and paving of surface parking and exterior storage and display areas. Depending on the cost of construction, it is anticipated that all of the aforementioned nonconforming items would be upgraded within the Master Plan.

The applicant proposed to upgrade an existing parking lot to comply with all standards of the Oregon City Municipal Code with phase 1 of the Master Plan. The nonconforming portions of the site will be reviewed upon review of subsequent Detailed Development Plans implementing Phases 2 and 3. Prior to final of permits associated with the Detailed Development Plan for Phase 2 of the Master Plan, the applicant shall submit a phasing plan displaying the general location and prioritization of the nonconforming upgrades to the site required per OCMC 17.58.040.C. Each Detailed Development Plan will be reviewed for compliance with the Nonconforming chapter in the Oregon City Municipal Code. **The applicant can meet this standard by complying with condition of approval 36.**

RECOMMENDATION:

Based on the analysis and findings as described above, Staff recommends the Planning Commission conditionally approve Planning files CP 11-01: Master Plan, DP 11-03: Detailed Development Plan, NR 11-05: Natural Resource Overlay Exemption and LL 11-07: Lot Line Adjustment for the properties located at Clackamas County Map 2-2EAB, Tax Lots 1201, 1900, 2000, 2100, 2200, 2400, 2500, 2800, 2900, 3100, 3900, 4000, 4100, 4200, 4400, 4600, Clackamas County Map 2-2E-32AA, TL 400 and Clackamas County Map 2-2E-32AC, TL 101, 201.

EXHIBITS:

1. Vicinity Map
2. Applicant's Narrative and Site Plan (On-File)
3. Staff Report for Conditional Use file CU 03-03
4. Staff Report for Site Plan and Design Review file SP03-19
5. Comments Submitted by John Replinger, Replinger and Associates
6. Engineering Policy 00-01 (On-File)
7. Comments submitted by Gail Curtis, Senior Planner at Oregon Department of Transportation
8. Comments submitted by Denyse McGriff of the McLoughlin Neighborhood Association
9. Comments submitted by Paul Edgar of the Citizen Involvement Committee
10. Comments submitted by Tim Powell, Chair of the McLoughlin Neighborhood Association
11. Comments submitted by Michael Robinson, dated February 17, 2012
12. Comments submitted by Nancy Bush, Code Enforcement Manager

RECOMMENDED CONDITIONS OF APPROVAL

CP 11-01: Master Plan, DP 11-03: Detailed Development Plan,
NR 11-05: Natural Resource Overlay Exemption and LL 11-07: Lot Line Adjustment

1. The applicant shall construct this development as proposed in this application and as required by the attached conditions of approval.
2. Prior to issuance of the first Detailed Development Plan for Phase 3, the applicant shall submit documentation demonstrating that the master plan complies with the minimum floor area ratio of 0.25. (P)
3. Prior to issuance of permits associated with the Detailed Development Plan for Phase 1, the applicant shall submit a revised calculation demonstrating the master plan does not have more than eighty percent site coverage of buildings and parking lots. (P)

4. Prior to issuance of permits associated with the Detailed Development Plan for Phase 1, the applicant shall submit a revised calculation demonstrating compliance with the minimum landscaping standards in Chapter 17.31.060.G and 17.62.050.A.1 of the Oregon City Municipal Code. (P)
5. The applicant shall install the following public improvements as required.
 - Division Street, a Minor Arterial, would be improved with each phase of the Master Plan as follows:
 - Phase 1 (Parking Lot Improvements between Davis Road and Penn Lane): Construction of 2.5-foot wide full depth pavement restoration adjacent to new curb and gutter, 8 ft sidewalk with 4- by 6-ft tree wells, bike lane striping and markings, street lighting, and street trees.
 - Phase 2 (Front Entry Improvements and Birthplace Expansion): Match improvements from ED expansion approved in CU 03-03, including but not limited to a 4-foot ROW dedication across Tax Lot 1900 and 2000. Construction of full depth pavement restoration from the northern end of the ED improvements to Davis Road for a width of 26 feet on the eastern half and 10 feet on the opposing side. New curb and gutter, 8-foot sidewalk with 4- by 6-ft tree wells, bike lane striping and markings, street lighting, and street trees.
 - Phase 3 (East MOB): Construction of full depth pavement restoration between Davis Road and Penn Lane for a width of 20 feet on the eastern half (2-inch mill on the easternmost 2.5 feet done in Phase 1) and 10 feet on the opposing side.
 - Phase 3 (West MOB): A 4-foot ROW dedication from 15th Street to 16th Street to provide 34 feet from centerline on the west side. Construction of full depth pavement restoration between 15th Street and 16th Street for a width of 26 feet on the western half and 10 feet on the opposing side (if not completed by other phases). Construction of curb and gutter, 8 ft sidewalk with 4- by 6-ft tree wells, bike lane striping and markings, street lighting, and street trees.
 - Davis Road, a Local Street, would be improved with Phase 1 and 2 of the Master Plan as follows:
 - Phase 1 (Parking Lot Improvements between Davis Road and Penn Lane): A 1-foot street dedication. Construction of 2.5-foot wide full depth pavement restoration adjacent to new curb and gutter, 4.5-foot planter strip with street trees, 5 ft sidewalk, and street lighting. Provide opposing ADA ramp at southeast corner of Davis Road/Division Street.
 - Phase 2 (Front Entry Improvements): Dedication to result in 26.5 feet of ROW on the southern side. Construction of pavement restoration as determined by Applicant's Engineer's analysis/design (and coordination with City's Pavement Condition Index at time of design). Construction of 2.5-foot wide full depth pavement restoration adjacent to new curb and gutter, 4.5-foot planter strip with street trees, 5 ft sidewalk, and street lighting.
 - 15th Street, a Collector, would be improved with Phase 3 of the Master Plan as follows:
 - Phase 3 (West MOB): There is 38 feet of existing pavement, with 19 feet on the MOB side. Construction of pavement restoration as determined by applicant's engineer's analysis/design (and coordination with City's Pavement Condition Index at time of design) across the tax lot frontages for a width of 19 feet on the northern half and 10 feet on the opposing side. Evaluation of the existing street lighting and install as necessary to meet current IES. Installation of street trees in existing planter strip and bike route signs.
 - Penn Lane, a Local Street, would be improved with Phase 3 of the Master Plan as follows:
 - Phase 3 (East MOB): Construction of full pavement section adjacent to 1716 Penn Lane for a width of about 6 feet on the southern half with curb and gutter, 4.5-foot planter strip, 5-foot sidewalk, street trees, and street lighting.

Although this Master Plan approval is for all three phases of the project, it is not possible at this time to determine what transportation improvements may be required to mitigate impacts on the transportation system from Phases 2 and 3 which would be constructed up to 10 years in the future. A determination of the adequacy of the existing traffic infrastructure, the extent of the Providence Willamette Falls impacts, what improvements in the form of mitigation measures will be required, and/or the portion of the construction costs of those measures which should be borne by the Providence Willamette Falls, will be made at the time of consideration of the detailed development plan for each Phase 2 and 3. Cost estimates shall be based on estimates contained in the Regional Transportation Plan or Oregon City Transportation

System Plan, whichever is most current, with cost estimates updated by applying a published construction cost index. For projects already programmed for construction, the final project cost of most current cost estimates shall be utilized. If the impacts cannot be adequately mitigated based on the standards in effect at the time of filing the detailed development application, the detailed development plan will be denied. *(P and DS)*

6. The applicant is responsible for this project's compliance with Engineering Policy 00-01. *(DS)*
7. Prior to issuance of permits associated with the Detailed Development Plan for Phase 1, the applicant shall install a pedestrian accessway within or adjacent to the proposed parking lot which complies with the Oregon City Municipal Code and provides safe access to pedestrians walking from the northern portion of the parking lot south towards the main hospital facility. *(P)*
8. During the Detailed Development Plan reviews, the applicant shall provide connection to new/existing water lines for new future facilities as required by plumbing code. *(DS)*
9. During the Detailed Development Plan reviews, the applicant shall provide connection to new/existing sanitary sewer for new future facilities as required by plumbing code. *(DS)*
10. The applicant shall provide stormwater facilities as necessary for street improvements and facility construction. Downstream conveyance calculations/analysis shall be performed for all existing storm systems where the applicant's new facilities increase the stormwater flow. *(DS)*
11. The applicant shall comply with the Oregon City Stormwater Design Standards and evaluate the existing stormwater facilities on 15th Street during Phase 3, West MOB. Current street curb drainage flow on 15th Street exceeds the 400-foot length standard on the north side. Construct a curb basin to connect into the eastern end of the storm line as necessary. *(DS)*
12. During each of the Detailed Development Plan reviews, the applicant shall provide site analysis to determine extent of stormwater detention and water quality that are required by the current code and implement appropriate Low Impact Design efforts. *(DS)*
13. New fire hydrants would be placed according to fire department code at the time of individual Detailed Development Plan review. *(DS)*
14. The development proposal shall be reviewed for compliance with the Clackamas County Fire Department upon submittal of the Detailed Development Plan. *(DS)*
15. In order to mitigate the impact of the adjustment to increase the number of contiguous parking stalls permitted without landscape strips, the applicant shall increase the minimum interior parking lot landscaping from 10% to 12%. The applicant may choose not to utilize the adjustment for a particular parking lot. If a parking lot does not utilize the adjustment and provides no more than eight contiguous parking spaces without an interior landscape strip, the applicant does not have to increase the minimum interior parking lot landscaping for that parking lot from 10% to 12%. *(P)*
16. Prior to issuance of permits associated with the Detailed Development Plan for Phase 1, the applicant shall submit a tree mitigation plan displaying the location of the 4 mitigation trees per OCMC Chapter 17.41. *(P)*
17. Prior to issuance of permits associated with the Detailed Development Plan for Phase 1, the applicant shall submit documentation displaying compliance with the tree protection standards in OCMC Chapter 17.41.130 of the Oregon City Municipal Code. *(P)*
18. Prior to issuance of permits associated with any Detailed Development Plan, the applicant shall demonstrate that the subject site provides sufficient parking for the proposed development to demonstrate compliance with the number of parking spaces required in OCMC 17.52.020 and that all loss of existing parking due to nonconforming upgrades has been mitigated by installing an additional parking stall onsite. Prior to issuance of permits associated with the Detailed Development Plan for Phase 3, the applicant shall demonstrate that the Providence Willamette Falls campus associated with the Master Plan complies with the with the number of parking spaces required in OCMC 17.52.020. *(P)*
19. Prior to issuance of permits associated with the Detailed Development Plan for Phase 1, the applicant shall submit documentation indicating the minimum required parking spaces shall be available for the parking of operable passenger automobiles of residents, customers, patrons and employees only, and shall not be used for storage of vehicles or materials or for the parking of trucks used in conducting the business or use. *(P)*

20. Prior to issuance of permits associated with the Detailed Development Plan for Phase 3, the applicant shall submit sufficient documentation to demonstrate the subject site complies with the carpool and vanpool parking standards in OCMC Chapter 17.52.030.E. *(P)*
21. Prior to issuance of permits associated with any Detailed Development Plan, the applicant shall demonstrate that the subject site provides sufficient bicycle parking for the proposed development to demonstrate compliance OCMC 17.52.040. Prior to issuance of permits associated with the Detailed Development Plan for Phase 3, the applicant shall demonstrate that the Providence Willamette Falls campus associated with the Master Plan complies with the bicycle parking spaces required in OCMC 17.52.040. *(P)*
22. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit a revised landscaping plan with landscaping in all areas of the parking lot which are not used for parking, maneuvering, or circulation. *(P)*
23. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit a revised landscaping plan with a street tree from the Oregon City Street Tree List for the appropriate tree well width or documentation from the a certified arborist demonstrating the appropriateness of the tree species and documentation demonstrating that all required landscaping trees shall be of a minimum two-inch minimum caliper size (though it may not be standard for some tree types to be distinguished by caliper) and planted according to American Nurseryman Standards. *(P)*
24. Prior to issuance of a permit associated with Detailed Development Plan for Phase 1 the applicant shall submit documentation assuring that all landscaped areas within the proposed parking lot include irrigation systems unless an alternate plan is submitted, and approved by the community development director, that can demonstrate adequate maintenance. *(P)*
25. Prior to final of building permits associated with Detailed Development Plan for Phase 1, the applicant shall prune vegetation, relocate signage and review on-street parking as required in the transportation impact study by Julia Kuhn, PE of Kittleson and Associates (Exhibit 2) for proper sight distance. *(P and DS)*
26. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit documentation assuring that the proposed parking lot complies with the parking lot incorporate design standards in accordance with Chapter 13.12, Stormwater Management. *(DS)*
27. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit a revised landscaping plan demonstrating compliance with the perimeter parking lot landscaping standards in OCMC 17.52.060.B. *(P)*
28. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit a revised landscaping plan demonstrating compliance with the perimeter parking lot landscaping standards in OCMC 17.52.060.C. *(P)*
29. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit a revised landscaping plan demonstrating compliance with the interior parking lot landscaping standards in OCMC 17.52.060.D. *(P)*
30. Prior to issuance of building permits associated with Detailed Development Plan for Phase 1, the applicant shall submit documentation assuring that within three years, cover one hundred percent of the landscape area and no mulch, bark chips, or similar materials shall be allowed at the time of landscape installation except under the canopy of shrubs and within two feet of the base of trees. *(P)*
31. Prior to final of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall submit a recorded access easement with all adjacent sites where access is obtained. *(P)*
32. Prior to final of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall submit sufficient documentation demonstrating maintenance in accordance with the standards identified in OCMC 17.62.050.A.10. *(P)*
33. Prior to issuance of the proposed Detailed Development Plan and Master Plan Phase 3, the applicant shall submit documentation demonstrating that for all new buildings, where there is one hundred feet or more of frontage at least sixty percent of the site frontage width shall be occupied by buildings placed within five feet of the property line, unless a greater setback is accepted under the provisions of Section 17.62.055D. For sites with less than one hundred feet of street frontage, at least fifty percent of the site frontage width shall be occupied by buildings placed within five feet of the property line unless a greater setback is accepted under the provisions of Section 17.62.055D. *(P)*

34. Prior to issuance of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall submit a photometric plan demonstrating compliance with OCMC 17.62.065 for the pedestrian walkway within the parking lot. *(P)*
35. Prior to issuance of the proposed Detailed Development Plan and Master Plan Phase 1, the applicant shall submit documentation demonstrating compliance with OCMC Chapter 12.08 for the Division Street frontage adjacent to the proposed parking lot associated with the Phase 1 Detailed Development Plan. If the applicant submits documentation from an engineer indicating the proper spacing cannot be met due to sight line or other unavoidable issues, the Community Development Director may approve an alternative such as planting a tree in an alternate location or providing a fee-in-lieu. *(P)*
36. Prior to final of permits associated with the Detailed Development Plan for Phase 2 of the Master Plan, the applicant shall submit a phasing plan displaying the general location and prioritization of the nonconforming upgrades to the site required per OCMC 17.58.040.C. Each Detailed Development Plan will be reviewed for compliance with the Nonconforming chapter in the Oregon City Municipal Code. *(P)*
37. The applicant shall sign a Non-Remonstrance Agreement (NRA) prior to final occupancy for any Phase or portion of a Phase built on a property not already covered by a NRA for the purpose of making sanitary sewer, storm sewer, water or street improvements in the future that benefit the property and assessing the cost to benefited properties pursuant to the City's capital improvement regulations in effect at the time of such improvement; this includes paying the document recording fee. *(DS)*

(P) = Verify that condition of approval has been met with the Planning Division.

(DS) = Verify that condition of approval has been met with the Development Services Division.



OCTOBER 04, 2011



PROVIDENCE WILLAMETTE FALLS MEDICAL CENTER MASTER PLAN

GENERAL DEVELOPMENT PLAN SUBMITTAL,
DIVISION STREET PARKING LOT DETAILED DEVELOPMENT PLAN
AND
TYPE I LOT CONSOLIDATION

Submitted To:
The City of Oregon City
221 Molalla Ave, Suite 200
PO Box 3040 Oregon City Or 97045
Phone: (503) 496-1564



6969 SW Hampton Street | Portland, Oregon 97223

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CITY OF OREGON CITY LAND USE APPLICATION



City of Oregon City, Community Development Department, 221 Molalla Ave., Ste. 200, P.O. Box 3040, Oregon City, OR 97045, (503) 722-3789

Type I (OCMC 17.50.030.A)

- ☐ Compatibility Review
- ☐ Nonconforming Use review
- ☐ Water Resources Exemption
- ☒ Lot Consolidation/Lot Line Adjustment

Type II (OCMC 17.50.030.B)

- ☐ Extension
- ☒ Detailed Development Review
- ☐ Geotechnical Hazards
- ☐ Minor Partition
- ☐ Minor Site Plan & Design Review
- ☐ Nonconforming Use Review
- ☐ Site Plan and Design Review
- ☐ Subdivision
- ☐ Minor Variance
- ☐ Water Resource Review

Type III / IV (OCMC 17.50.030.C)

- ☐ Annexation
- ☐ Code Interpretation / Similar Use
- ☒ Concept Development Plan
- ☐ Conditional Use
- ☐ Comprehensive Plan Amendment (Text/Map)
- ☐ Detailed Development Plan
- ☐ Historic Review
- ☐ Oregon City Municipal Code Amendment
- ☐ Variance
- ☐ Zone Change
- ☒ NROD Exemption

Application Number: _____

Proposed Land Use or Activity: Hospital/Medical Center

Project Name: Providence Willamette Falls Medical Center Master Plan Number of Lots Proposed (If Applicable): _____

Physical Address of Site: 1500 Division Street, Oregon City, OR 97045

Clackamas County Map and Tax Lot Number(s): See Page 3 of this report for full listing

Applicant(s):
Applicant(s) Signature: Russell Reinhard

Applicant(s) Name Printed: Russell Reinhard Date: 12.16.2011

Mailing Address: 1500 Division Street, Oregon City, OR 97045

Phone: (503) 657-6915 Fax: _____ Email: Russell.Reinhard@providence.org

Property Owner(s):
Property Owner(s) Signature: Russell Reinhard

Property Owner(s) Name Printed: Russell Reinhard Date: 12.16.2011

Mailing Address: 1500 Division Street, Oregon City, OR 97045

Phone: (503) 657-6915 Fax: _____ Email: Russell.Reinhard@providence.org

Representative(s):
Representative(s) Signature: Steve Kolberg

Representative (s) Name Printed: Steve Kolberg Date: 12.16.2011

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PKA ARCHITECTS

PROVIDENCE WILLAMETTE FALLS MEDICAL CENTER MASTER PLAN

III

1 PROJECT TEAM

Client	Providence Willamette Falls Medical Center Russ Reinhard, Chief Executive Officer John Flanders, Chief Operating Officer Dana White, Chief Executive for Real Estate & Construction Development Karen Weylandt, Chief Design & Construction Officer
Land Use Counsel	Perkins Coie, LLP Michael Robinson, Partner
Architect	Petersen Kolberg & Associates Steve Kolberg, AIA, Principal Josh Kolberg, Project Manager
Civil	KPFF Matt Dolan, Principal Adam Roth, Senior Project Manager Troy Tetsuka, Survey Manager
Traffic Consultant	Kittelson & Associates, Inc. Julia Kuhn, Principal Engineer
Landscape Architect	Vala-Christensen Landscape Architects Dean Christensen, Principal

2 GENERAL DEVELOPMENT PLAN EXISTING CONDITIONS SUBMITTAL REQUIREMENTS

2.1 NARRATIVE STATEMENT

17.65.50.A General Development Plan

1. Narrative statement. An applicant must submit a narrative statement that describes the following:

- a. Current uses of and development on the site, including programs or services.
- b. History or background information about the mission and operational characteristics of the institution that may be helpful in the evaluation of the General Development Plan.

RESPONSE: Providence Willamette Falls Medical Center (PWF) is seeking the approval of a ten (10) year general development master plan and detailed development plan from Oregon City in order to continue to grow and meet the needs of the community. Pursuant to COA #5 for CU 03-03 and COA #31 for SP 03-19, PWF needs a comprehensive city master plan approval prior to any future city land use approvals or site development permit issuance (other than those approved as part of the associated Conditional Use Permit CU 03-03 or Site Plan SP 03-19).

PWF is a full service medical center that provides emergency medicine, labor and delivery, surgical services, inpatient treatment, as well as many other inpatient and outpatient services. Since opening in 1954, PWF has grown and gone through numerous developments, additions, and remodels to better provide healthcare services to Oregon City and Clackamas County. The approval of a new master plan will help define the growth and development strategies for PWF. The hospital improvements outlined in this master plan are largely updates and modernization projects as opposed to capacity increases, with the exception of the Birthplace and Outpatient surgery projects.

PWF is seeking a 10-year master plan because, although a 20-year master plan is allowed, a 10-year plan is a more reliable vision of likely development.

- c. A vicinity map showing the location of the General Development Plan boundary relative to the larger community, along with affected major transportation routes, transit, and parking facilities. At least one copy of the vicinity map must be 8.5" x 11" in size, and black and white reproducible.
- d. Non-institutional uses that surround the development site. May also reference submitted maps, diagrams or photographs.

RESPONSE: See Figure 1.

- e. Previous land use approvals within the General Development Plan boundary and related conditions of approval.

RESPONSE: Pursuant to COA #5 for CU 03-03 and COA #31 for SP 03-19, PWF needs a comprehensive city master plan approval prior to any future city land use approvals or site development permit issuance

(other than those approved as part of the associated Conditional Use Permit CU 03-03 or Site Plan SP 03-19).

f. Existing utilization of the site. May also reference submitted maps, diagrams or photographs.

RESPONSE: See Figures 1, 4, 5, and 7.

1500 Division Street, Oregon City, OR 97045

Tax Lot Identification 2-2E-32AB: Tax Lots 01201, 01900, 02000, 02100, 02200, 02400, 02500, 02800, 02900, 03100, 03900, 04000, 04100, 04200, 04400, 04600

Tax Lot Identification 2-2E-32AA: Tax Lots 00400

Tax Lot Identification 2-2E-32AC: Tax Lots 00101, 00201

The master plan area consists of the area zoned Multiple Use Employment District (MUE). PWF Medical Center is a permitted use in the MUE Zone under OCMC 17.31.010 and 17.31.020.F.

g. Site description, including the following items. May also reference submitted maps, diagrams or photographs.

- (1) Physical characteristics,*
- (2) Ownership patterns,*
- (3) Building inventory,*
- (4) Vehicle/bicycle parking,*
- (5) Landscaping/usable open space,*
- (6) FAR/lot coverage,*
- (7) Natural resources that appear on the City's adopted Goal 5 inventory,*
- (8) Cultural/historic resources that appear on the City's adopted Goal 5 inventory, and,*
- (9) Location of existing trees 6" in diameter or greater when measured 4' above the ground. The location of single trees shall be shown. Trees within groves may be clustered together rather than shown individually.*

RESPONSE: See Figures 1, 3, 4, 5, and 7-11. There are no City-designated cultural or historic resources on in the development area. A small portion of the subject site includes two Overlay Districts; Natural Resource Overlay District (NROD), and Geologic Hazards. Both districts are on the eastern edges of the subject property where no additional development is proposed. Chapter 3.1 of this submission will identify which project will trigger the need for identifying a natural resource buffer zone.

h. Existing transportation analysis, including the following items. May also reference submitted maps, diagrams or photographs.

- (1) Existing transportation facilities, including highways, local streets and street classifications, and pedestrian and bicycle access points and ways;*
- (2) Transit routes, facilities and availability;*
- (3) Alternative modes utilization, including shuttle buses and carpool programs; and*
- (4) Baseline parking demand and supply study (may be appended to application or waived if not applicable).*

RESPONSE: See Figure 3 and the Transportation Impact Analysis (TIA) completed by Kittelson & Associates, Inc. in Appendix B (pages 1-23)

- i. Infrastructure facilities and capacity, including the following items.
 - (1) Water,
 - (2) Sanitary sewer,
 - (3) Stormwater management, and
 - (4) Easements.

RESPONSE: See Figures 18-21. Please also refer to Appendix C pages 1-3 which contain detailed narratives regarding the existing infrastructure facilities and capacity.

2.1 MAPS AND PLANS

17.65.50.A General Development Plan

2. Maps and Plans.

- a. Existing conditions site plan. Drawn at a minimum scale of one-inch equals one hundred feet (1"=100') that shows the following items. At least one copy must be 8.5" x 11" in size, and black and white reproducible.
 - (1) Date, north point, and scale of drawing.
 - (2) Identification of the drawing as an existing conditions site plan.
 - (3) Proposed development boundary.
 - (4) All parking, circulation, loading and service areas, including locations of all carpool, vanpool and bicycle parking spaces as required in Chapter 52 of this title.
 - (5) Contour lines at two-foot contour intervals for grades zero to ten percent, and five-foot intervals for grades over ten percent.
 - (6) A site plan or plans, to scale, for the General Development Plan site and surrounding properties containing the required information identified in:
 - a. Chapter 17.62.040.A(1), (2), (3), (4), (5), (6), (7), (9), (11), (12), (13), (14), and (15);
 - b. Chapter 17.62.040.B;
 - c. Chapter 17.62.040.F; and
 - d. Chapter 17.62.040.G

RESPONSE: See Figures 1-11.

- b. Vicinity map. Depicting the location of the site sufficient to define its location, including identification of nearest cross **RESPONSE:** No buildings are proposed.
- s. At least one copy of the vicinity map must be 8.5" x 11" in size, and black and white reproducible.

RESPONSE: See Figure 1.

- c. Aerial photo. Depicting the subject site and property within 250 feet of the

proposed development boundaries. At least one copy of the aerial photo must be 8.5" x 11" in size, and black and white reproducible.

RESPONSE: See Figure 25.

3 PROPOSED GENERAL DEVELOPMENT PLAN SUBMITTAL REQUIREMENTS

3.1 NARRATIVE STATEMENT

17.65.50.B General Development Plan

1. Narrative statement. An applicant shall submit a narrative statement that describes the following:

a. The proposed duration of the General Development Plan.

RESPONSE: PWF is seeking a 10-year duration for this general development master plan. The applicant believes this gives the PWF the most accurate time horizon for which to project facilities growth and subsequent transportation impacts.

b. The proposed development boundary. May also reference submitted maps or diagrams.

RESPONSE: See Figure 2. Figure 2 shows the boundary as including all of the MUE zone.

c. A description, approximate location, and timing of each proposed phase of development, and a statement specifying the phase or phases for which approval is sought under the current application. May also reference submitted maps or diagrams.

RESPONSE: See Figure 2. PWF has targeted several projects that are critical to its growth over the 10 year life of this master plan. These projects make up the facilities development for this Master Plan. These elements are critical to PWF maintaining its goal of serving the community and meeting the growing needs of the community. Below are the descriptions of those projects:

Project Phase 1 – Division St. Parking Lot (Subject To Detailed Development Plan Approval)

The first project of the master plan will be a paving project to create on-grade parking in the area along Division St. which is currently a gravel lot. The detailed development plan for this parking lot project can be found in Section 9. PWF is submitting this detailed development plan concurrently with the general development master plan. This improvement will bring the existing gravel parking lot up to current City standards and improve it with landscaping and storm drainage meeting City requirements.

Project Phase 2 – Hospital Additions and Remodels

The following projects will occur in phase 2 of the Master Plan and will add approximately 54,000 square feet of building to the campus. The order of implementation for projects in this phase will vary and depend upon Hospital strategic goals, project funding, and community needs.

Outpatient Surgery Expansion: One of the most pressing strategic growth areas for PWF is in the area of outpatient surgical services. The outpatient surgery expansion will add approximately two new operating rooms and short stay recovery space. PWF is currently using typical adult medical/surgical inpatient

rooms to accommodate their day surgery patients.

New Front Entry: The main entry to PWF will be remodeled and will include a new patient drop-off. The new entry will replace a section of the 1961 building which is currently sub-standard and houses hospital office spaces among other uses. This project will provide a more direct and unified entry into the hospital. A new canopy will welcome visitors into a large, high volume lobby that will provide physical and visual connections to corridors serving patient care, imaging, day surgery, birthplace, and the gift shop.

Second Floor Patient Room and Pharmacy Remodel: Several spaces on the second floor of the hospital will be converted from their current use as offices back to their original function as patient rooms. This patient room remodel will not increase the number of licensed beds, the staffing levels for the hospital, nor increase trip generation. The pharmacy will also be relocated.

Birthplace Expansion: Six additional LDRP rooms will be added to the west end of the existing Birthplace wing. This will bring the total number of labor and delivery/postpartum beds from 14 to 20.

Central Utility Plant: In order to centralize the system utilities for the campus and make them more efficient, PWF is planning for a central utility plant to house the appropriate mechanical, electrical, and plumbing systems to serve the medical campus. Per the plans in Figures 10-11, the development of this project will necessitate the identification of a natural resource buffer zone during the Detailed Development Plan process.

Second Floor Shell Space Tenant Improvements: There is approximately 16,100 square feet of unfinished space above the Emergency Department that could be built out to house expanded hospital services. There is no definitive hospital program scheduled for this space but it is anticipated to be an expansion of outpatient services.

Project Phase 3 – Medical Office Buildings (MOB)

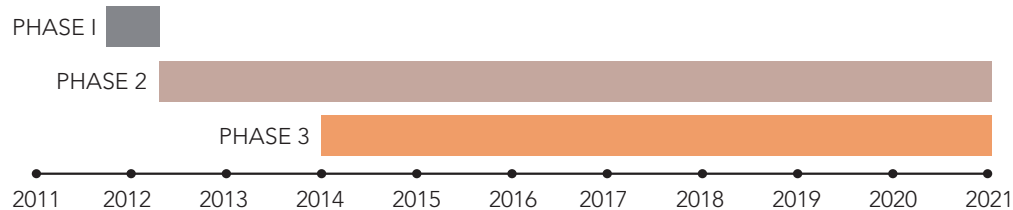
The following projects will occur in phase 3 of the Master Plan and add approximately 40,000 - 50,000 square feet of building to the medical campus.

MOB Additions: PWF has identified two (labeled East and West) sites for 20,000 - 25,000 square foot MOB's which will house general physician's practices. These sites are shown in Figure 1. The order of implementation for the two MOB's in this phase will depend upon Hospital strategic goals, project funding, and community needs. These MOB's may or may not be built concurrently.

Phasing Timing

The timeline for the above mentioned projects and phases will occur according to Figure 26 shown below. This illustrates approximately when phases will begin and also shows that there may be some concurrence of projects in Phases 2 and 3.

FIGURE 26 - Project Phasing Timeline



d. An explanation of how the proposed development is consistent with the purposes of Section 17.65, the institutional zone, and any applicable overlay district.

RESPONSE: See Figure 2. All proposed developments for the PWF campus are hospital uses which meet the criteria of the MUE Zone as described in OCMC 17.31.010 and 17.31.020.F.

e. A statement describing the impacts of the proposed development on inventoried Goal 5 natural, historic or cultural resources within the development boundary or within 250 feet of the proposed development boundary.

RESPONSE: See Figures 1, 3, 4, 5, and 7-11. There are no City-designated cultural or historic resources in the development area.

f. An analysis of the impacts of the proposed development on the surrounding community and neighborhood, including:

- (1) Transportation impacts as prescribed in Subsection "g" below;*
- (2) Internal parking and circulation impacts and connectivity to sites adjacent to the development boundary and public right-of-ways within 250 feet of the development boundary;*

RESPONSE: See Figure 3 as well as the Transportation Impact Analysis completed by Kittelson & Associates, Inc. in Appendix B (pages 24-50)

- (3) Public facilities impacts (sanitary sewer, water and stormwater management) both within the development boundary and on city-wide systems;*

RESPONSE: See Figures 22-24. Please also refer to Appendix C pages 4-6 which contain detailed narratives regarding the public facilities impacts.

- (4) Neighborhood livability impacts;*
- (5) Natural, cultural and historical resource impacts within the development boundary and within 250 feet of the development boundary.*

RESPONSE: The proposed developments will trigger half street improvements that will improve the safety, accessibility, and livability along Division Street, 15th Street, as well as Davis Road.

g. A summary statement describing the anticipated transportation impacts of the proposed development. This summary shall include a general description of the impact of the entire development on the local street and road network, and shall specify the maximum projected average daily trips, projected AM and PM peak hour traffic and the maximum parking demand associated with build-out each phase of the master plan.

h. In addition to the summary statement of anticipated transportation impacts, an applicant shall provide a traffic impact study as specified by City requirements. The transportation impact study shall either:

- (1) address the impacts of the development of the site consistent with all phases of the General Development Plan; or*
- (2) address the impacts of specific phases if the City Engineer determines that the traffic impacts of the full development can be adequately evaluated without specifically addressing subsequent phases.*

i. If an applicant chooses to pursue option h(1), the applicant may choose among three options for implementing required transportation capacity and safety improvements:

- (1) The General Development Plan may include a phasing plan for the proposed interior circulation system and for all on-site and off-site transportation capacity and safety improvements required on the existing street system as a result of fully implementing the plan. If this option is selected, the transportation phasing plan shall be binding on the applicant.*
- (2) The applicant may choose to immediately implement all required transportation safety and capacity improvements associated with the fully executed General Development Plan. If this option is selected, no further transportation improvements will be required from the applicant. However, if a General Development Plan is later amended in a manner so as to cause the projected average daily trips, the projected AM or PM peak hour trips, or the peak parking demand of the development to increase over original projections, an additional transportation impact report shall be required to be submitted during the detailed development plan review process for all future phases of the development project and additional improvements may be required.*
- (3) The applicant may defer implementation of any and all capacity*

and safety improvements required for any phase until that phase of the development reaches the detailed development plan stage. If this option is selected, the applicant shall submit a table linking required transportation improvements to vehicle trip thresholds for each development phase.

RESPONSE: See Figure 3 as well as the TIA completed by Kittelson & Associates, Inc. in Appendix B (pages 24-50). The TIA is arranged per the requirements in OCMC 17.65.050.B.h.2 and 17.65.050.B.i.3.

j. The applicant or city staff may propose objective development standards to address identified impacts that will apply within the proposed development on land that is controlled by the institution. Upon approval of the General Development Plan, these standards will supercede corresponding development standards found in this code. Development standards shall address at least the following:

- (1) Pedestrian, bicycle and vehicle circulation and connectivity;*
- (2) Internal vehicle and bicycle parking;*
- (3) Building setbacks, landscaping and buffering;*
- (4) Building design, including pedestrian orientation, height, bulk, materials, ground floor windows and other standards of Chapter 17.62;*
- and*
- (5) Other standards that address identified development impacts.*

RESPONSE: The Division Street Parking Lot detailed development plan (see chapters 5 and 6) meets all current OCMC standards. PWF proposes planned upgrades to the following areas of non-conformance. These upgrades would be included in the detailed development plans for these projects:

OCMC 12.04.215 Street design--Off-Site Street Improvements.

During consideration of the preliminary plan for a development, the decision maker shall determine whether existing streets impacted by, adjacent to, or abutting the development meet the city's applicable planned minimum design or dimensional requirements. Where such streets fail to meet these requirements, the decision-maker shall require the applicant to make proportional improvements sufficient to achieve conformance with minimum applicable design standards required to serve the proposed development.

Existing streets impacted by, adjacent to, or abutting proposed facilities projects are required to meet the city's applicable planned minimum design or dimensional requirements. PWF intends to complete all applicable proportional street improvements no later than the completion of Phase 3 as required and concurrently with individual development projects described in the previous section.

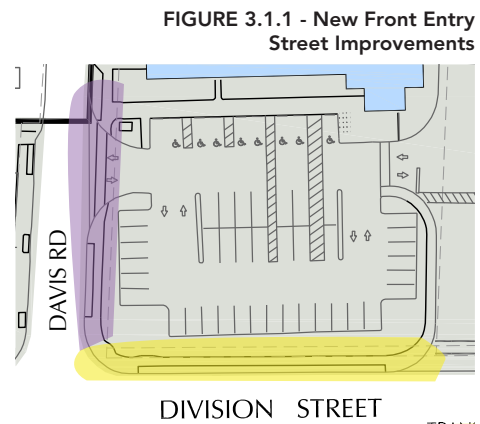
Applicable street improvements will be triggered by certain projects. The following list and associated plans highlight the projects which will trigger specific applicable street improvements.

Division Street Parking Lot

Street improvements as detailed in the Detailed Development Plan in Chapters 5 and 6 of this report.

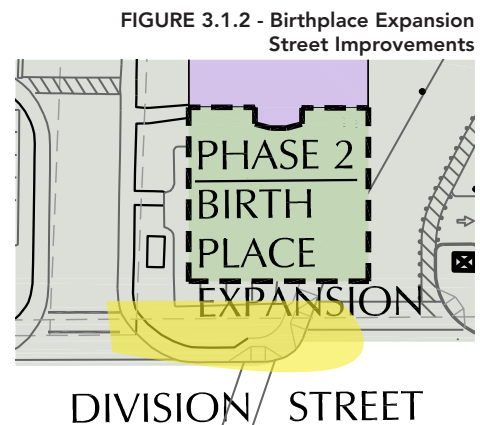
New Front Entry

The New Front Entry project in Phase 2 would trigger applicable street improvements in the highlighted areas in Figure 3.1.1. Minor Arterial street improvements along Division Street (to match the improvements in front of the ED expansion detailed in CU 03-03), and Local street improvement along Davis Road.



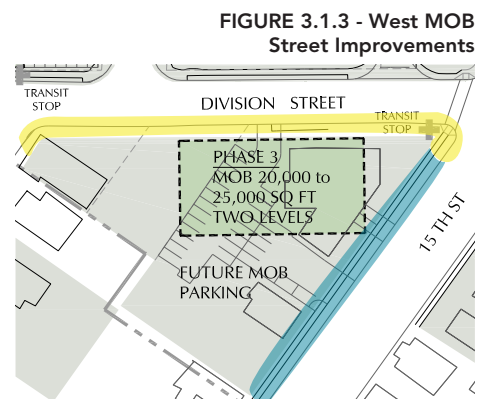
Birthplace Expansion

The Birthplace Expansion project in Phase 2 would trigger applicable street improvements in the highlighted areas in Figure 3.1.2. Minor Arterial street improvements along Division Street to match the improvements in front of the ED expansion detailed in CU 03-03.



West MOB

The West MOB project in Phase 3 would trigger applicable street improvements in the highlighted areas in Figure 3.1.3. Minor Arterial street improvements along Division Street (to match the improvements in front of the ED expansion detailed in CU 03-03), and Collector street improvement along 15th St. The improvements along Division St. will require a full depth half street improvements.



PWF proposes that OCMC 17.52.060.D.(d) be modified.

17.52.060.D Parking Lot Landscaping.

d. No more than eight contiguous parking spaces shall be created without providing an interior landscape strip between them. Landscape strips shall be provided between rows of parking shall be a minimum of six feet in width and a minimum of 10 feet in length.

There are two reasons for making a change to this development standard.

1. The requirement for providing interior landscape strips in areas that will be affected by future detailed development plans will reduce the parking supply on the campus. Per the TIA in Appendix B, PWF currently has a parking surplus, but at the end of the proposed master plan there would be a parking deficit. Therefore it is important for PWF to maintain as many parking spaces as necessary.
2. The intent of 17.52.060.D.(d) is “to enhance and soften the appearance of parking lots; to limit the visual impact of parking lots from sidewalks, streets and particularly from residential areas; to shade and cool parking areas” among others. In the parking lot areas identified as lots B, D, G, and F per Figure 14 on page 44 of Kittelson & Associates TIA (see Appendix B), Lot G is not visible from any public streets or residential areas thanks to the stand of forest along its eastern border. Lot F currently has 23 street and parking lot deciduous shade trees, as well as landscaped triangular wheel stops and planter strips. Lots B and D also have numerous parking lot trees and landscaped buffer zones.

Therefore, PWF proposes the following modification to OCMC 17.52.060.D.(d):

d. No more than sixteen contiguous parking spaces shall be created without providing an interior landscape strip between them. Landscape strips shall be provided between rows of parking shall be a minimum of six feet in width and a minimum of 10 feet in length.

With the approval of this change to the development standards, PWF will bring into conformance areas impacted by future detailed development plans projected in this master plan.

3.2 MAPS AND DIAGRAMS

17.65.50.B General Development Plan

2. *Maps and diagrams. The applicant must submit, in the form of scaled maps or diagrams, as appropriate, the following information:*
 - a. *A preliminary site circulation plan showing the approximate location of proposed vehicular, bicycle, and pedestrian access points and circulation patterns, parking and loading areas or, in the alternative, proposed criteria for the location of such facilities to be determined during detailed development plan review.*

RESPONSE: See Figure 3.

b. The approximate location of all proposed streets, alleys, other public ways, sidewalks, bicycle and pedestrian access ways and other bicycle and pedestrian ways, transit streets and facilities, neighborhood activity centers and easements on and within 250 feet of the site. The map shall identify existing subdivisions and development and un-subdivided or unpartitioned land ownerships adjacent to the proposed development site and show how existing streets, alleys, sidewalks, bike routes, pedestrian/bicycle access ways and utilities within 250 feet may be extended to and/or through the proposed development.

RESPONSE: See Figures 2 and 3

c. The approximate location of all public facilities to serve the proposed development, including water, sanitary sewer, stormwater management facilities.

RESPONSE: See Figures 22-24

d. The approximate projected location, footprint and building square footage of each phase of proposed development.

RESPONSE: See Figure 2

e. The approximate locations of proposed parks, playgrounds or other outdoor play areas; outdoor common areas and usable open spaces; and natural, historic and cultural resource areas or features proposed for preservation. This information shall include identification of areas proposed to be dedicated or otherwise preserved for public use and those open areas to be maintained and controlled by the owners of the property and their successors in interest for private use.

RESPONSE: There are no applicable open areas proposed in this general development plan.

3.3 NEIGHBORHOOD MEETINGS

Providence sponsored or participated in five public meetings, including attending the June, 2011 CIC meeting and the July, 6 2011 MNA meeting. Providence has satisfied the requirements of OCMC 17.50.055 requiring a neighborhood meeting before submitting this master plan application. Below is the chronology of PWF's community communication activities:

April 4, 2011

Citizen Involvement Council

Renee King, PWF public affairs manager, introduced self and requested time at future meeting to present new master plan details.

June 6, 2011

Citizen Involvement Council

John Flanders, PWF chief operating officer, presented the draft new master plan followed by questions from the council and community members. Renee King in attendance.

June 3, 2011

Renee King sends email to Tim Powell and Gordon Wilson confirming who is the chair of the Association and who should receive a certified letter regarding a McLoughlin Neighborhood Association meeting regarding the proposed new master plan.

June 3, 2011

Tim Powell sends email to Renee King confirming letter should go to him and he provides his home address.

June 7, 2011

Certified letter, return receipt requested, sent to Tim Powell and Citizen Involvement Council regarding proposed McLoughlin Neighborhood Association meeting to present the draft master plan as per City of Oregon City code requirements.

June 8, 2011

Return receipt received at PWF for certified letter signed by M. Haag on behalf of Citizen Involvement Council.

June 8, 2011

Trillium Park Homeowners Association board meeting

John Flanders presented the draft new master plan followed by questions from the board and community members. Renee King in attendance.

June 14, 2011

Renee King emails Tim Powell asking if he has received certified letter of June 7. Asks in email if the McLoughlin Neighborhood Association is going to hold their own meeting within 30 days of the date of the letter for a proposed master plan presentation or will the July 7 meeting PWF has planned satisfy the Association and thereby City code.

June 16, 2011

Renee King email communication to Gordon Wilson asking if he has additional contact information for Tim Powell. Gordon responded with a phone number and a call was placed to Tim Powell.

June 17, 2011

Tim Powell emails Renee King saying he had been out of town due to a death in the family. He will go by the post office and pick up certified letter.

June 17, 2011

Per City of Oregon City code, 6" x 9" post card (See Appendix A) announcing neighborhood meeting mailed to property owners within boundaries of hospital per code, and to Trillium Park Homeowners association property owners.

July 5, 2011

Renee King email to Tim Powell confirming PWF to attend McLoughlin Neighborhood Association general meeting on July 6. Also attached to email was an electronic copy of June 7 letter as the post office returned the original letter to PWF.

July 6, 2011, 7:00 PM

McLoughlin Neighborhood Association general meeting

Attendees: Renee King (Providence), John Flanders (Providence), and Mike Robinson (Perkins Coie LLP)

General notes: There were about 15 neighbors in attendance. PWF stated they would give an overview of that master plan and answer any questions people had. PWF invited the community to attend the July 7 meeting to be held at 6:30 p.m. at the hospital which would also be an opportunity to present the master plan and answer questions. PWF had on display the DRAFT master plan drawing. Questions or comments included:

- What is the timeline for construction?
- Any plans for easier access to the hospital? Alternative routes?
- Will the site plan be altered to add buildings across Division?
- Will additional docs bring more traffic to the area? This was more a question about the state of Division Street and the need to repair and make improvements to the road.
- A neighbor in attendance commented that they expect PWF will get some push back from neighbors if the MOB across Division's design doesn't fit with the neighborhood feel.
- Why 10 year and not 20 year plan?
- Why did a child who was injured in front of the hospital get transferred to Legacy?
- The McLoughlin Memoranda Neighborhood news recorded minutes from this presentation (see Appendix A).

July 6, 2011, 7:24 p.m.

Tim Powell email to Renee King saying he was out of town for the July 6 meeting but would try to attend the July 7 neighborhood meeting. Denyse McGriff copied on email.

July 7, 2011, 6:30 p.m.

PWF held a pre-announced neighborhood meeting on July 7, 2011 presenting a draft of the PWF 10-year master plan. 13 community members attended. The notice and meeting satisfied the requirements of OCMC 17.50.055. John Flanders, Chief Operating Officer of PWF, opened the meeting at 6:33 p.m. with a reflection on community and cooperation. After introductions, Mr. Flanders presented an overview of the plan and fielded questions. Questions or comments included:

- Discussion from several community members about traffic and, specifically, parking on the residential streets. PWF Response: PWF is in the midst of a traffic study that will be a public document, but that PWF did not expect a significant increase in traffic. Also, PWF is working with its security team to finalize a revised parking plan that should redirect staff to campus parking.
- General concern that the hospital's no-smoking policy has moved smokers to residential areas.
- Will the hospital be buying more land or just making changes to the land PWF already owns?
- What is the hospital's service area?
- Why a 10-year and not 20-year master plan?
- If these plans do not substantially increase traffic, why include parking at the proposed new medical office buildings?
- What is the timing for these construction projects?

- Has there been a study to see if utility infrastructure, specifically water and sewer mains, can accommodate the growth?
- Has PWF already submitted pre-application to the City of Oregon City? What is the timing of next steps?
- Is PWF envisioning design of the medical office buildings to be similar to existing structures?
- As part of the traffic study could PWF look at the feasibility of straightening out the "Y" intersections at Davis and 15th and 16th streets?
- Could the City consider making the residential areas adjacent to the hospital 2-hour parking?
- Can anything be done to the storm water drainage area on Davis Street to reduce the critter (rodents/skunks) activity?
- Will construction staging disrupt the neighborhood?
- Is PWF part of the FEMA/emergency system?

The chairs of the McLoughlin Neighborhood Association and the Trillium Park Homeowners Association attended the meeting. The sign-in sheet, minutes, and notice for this meeting can be found in Appendix A.

4 GENERAL DEVELOPMENT PLAN APPROVAL CRITERIA

Oregon City Municipal Code ("OCMC") § 17.65.050C, "Approval Criteria for a General Development Plan," contains the approval criteria for a general development plan. This section describes how the application satisfies the approval criteria.

17.65.050 General Development Plan.

C. Approval Criteria for a General Development Plan. The Planning Commission shall approve an application for General Development Plan approval only upon finding that the following approval criteria are met.

- 1. The proposed General Development Plan is consistent with the purposes of Section 17.65.*

17.65.10 Purpose and Intent

It is the intent of this Chapter to foster the growth of major institutions and other large-scale development, while identifying and mitigating the impacts of such growth on surrounding properties and public infrastructure. The City recognizes the valuable services and employment opportunities that these developments bring to Oregon City residents. The master plan process is intended to facilitate an efficient and flexible review process for major developments and to provide them with the assurance they need over the long term so that they can plan for and execute their developments in a phased manner. To facilitate this, the master plan process is structured to allow an applicant to address the larger development issues, such as adequacy of infrastructure and transportation capacity, and reserve capacity of the infrastructure and transportation system before expenditure of final design costs.

RESPONSE: The Planning Commission can find that the 10-year master plan is consistent with the purpose and intent statement in OCMC § 17.65.010 for the following reasons. First, the master plan identifies the growth expected on the Providence Willamette Falls Hospital campus over the next ten (10) years. Providence selected a 10-year timeframe for the master plan instead of the maximum 20-year timeframe because of the uncertainty of development plans after ten (10) years. Thus, the 10-year timeframe is more reliable than 20-year timeframe and gives neighbors and the City a more accurate and reliable assurance of the development of the hospital in the next ten (10) years.

The proposed development of the hospital campus over the next ten (10) years will assure continued compatibility between the Willamette Falls Medical Campus and its surrounding residential neighbors. Additionally, the master plan demonstrates that the public infrastructure, with improvements necessitated by individual phases within the master plan, assure the City that public infrastructure is either adequate or can be made adequate to meet the requirements of the master plan.

Second, the transportation system will be adequate during the 10-year period. Providence has completed a Transportation Impact Analysis ("TIA") that analyzes the development of the medical center campus over the next ten (10) years. The TIA demonstrates that surrounding and nearby public roads are

adequate to accommodate the expected trip generation from the improvements to the medical campus over the next ten (10) years.

The Planning Commission can find that this standard is satisfied.

2. The transportation system has sufficient capacity based on the City's level of service standards and is capable of supporting the development proposed in addition to the existing and planned uses in the area, or will be made adequate by the time each phase of the development is completed.

RESPONSE: The TIA prepared by Kittelson & Associates demonstrates that in the year 2021 (the end of the 10-year master plan), the proposed master plan will not cause any affected public streets to fail to meet City of Oregon City operational standards. The TIA recommends that certain improvements be made on roadways adjacent to the campus and that Providence and the City develop a proportional share arrangement for improvements at the Redland Road/Anchor Way and Molalla Avenue/7th Street intersections.

The Planning Commission can find that the TIA demonstrates that public streets will be adequate to serve the medical campus improvements throughout the master plan period.

3. Public services for water supply, police, fire, sanitary waste disposal, and storm-water disposal are capable of serving the proposed development, or will be made capable by the time each phase of the development is completed.

RESPONSE: The master plan application includes a statement from KPFF Civil Engineers demonstrating that water, sanitary waste and storm-water disposal are capable of serving the proposed master plan improvements. Because the master plan improvements primarily involve the reconstruction of certain areas of the hospital without adding additional patient rooms, public facilities and services which presently serve the hospital will continue to be adequate to serve the medical campus after the master plan is completed. The addition of a 20,000 square foot medical office building will not result in the City's public services becoming inadequate to serve the medical campus.

The Planning Commission can find that this standard is satisfied.

4. The proposed General Development Plan protects any inventoried Goal 5 natural, historic or cultural resources within the proposed development boundary consistent with the provisions of applicable overlay districts.

RESPONSE: The master plan does not propose any development within inventoried Goal 5 areas, natural, historic or cultural resources. The medical campus contains an inventoried Goal 5 natural area at the south edge of the campus but no additional development is proposed in this area.

The Planning Commission can find that this standard is satisfied.

5. The proposed General Development Plan, including development standards and impact mitigation thresholds and improvements adequately mitigates

identified impacts from each phase of development. For needed housing, as defined in ORS 197.303(1), the development standards and mitigation thresholds shall contain clear and objective standards.

RESPONSE: The proposed concept development plan for the 10-year master plan adequately mitigates identified impacts from each phase of development of the master plan. No needed housing is proposed to be developed within the master plan.

The Planning Commission can find that this standard is satisfied.

6. The proposed General Development Plan is consistent with the Oregon City Comprehensive Plan and its ancillary documents.

RESPONSE:

Section 1, Citizen Involvement

Section 1 establishes goals and policies that the City should strive to implement and meet but it does not impose requirements on a master plan application. The application will be advertised in the local newspaper, the master plan site will be posted with a notice of the Planning Commission hearing and surrounding property owners, and the CIC will be mailed notice of the application and the public hearing. This section can be satisfied.

Section 2, Land Use

Section 2 addresses the efficient use of available lands and the goal of creating a vibrant urban area that increases the opportunities for multi-modal transportation options. This application satisfies this section by reinforcing the role of the hospital in the community.

Section 5, Open Spaces, Scenic and Historical Areas, and Natural Resources

Section 5 requires that open spaces and natural, scenic and historical resources be protected. This application does not propose to impact any natural, scenic or historical resource.

Section 6, Quality of Air, Water and Land Resources

This section addresses air quality, water quality, lighting, noise and mineral and aggregate operations. The master plan will provide pedestrian connections throughout the campus. The applicant will utilize stormwater quality improvements, including naturally vegetated drainage ways that will reduce temperatures and improve water quality. The applicant will utilize lighting that will minimize the impacts on surrounding properties and meets the Oregon City Municipal Code.

Section 7, Natural Hazards

This Section address goals and policies that strive to protect life and reduce property loss from the destruction associated with natural hazards. This application does not impact any natural hazard areas.

Section 8, Parks and Recreation

This Section addresses the need to provide recreational opportunities to the community. This master plan will not create the need for additional recreational opportunities.

Section 9, Economic Development

Section 9 establishes goals and policies that the City should strive to implement and meet but does not impose mandatory approval standards for a master plan application. The master plan will reinforce the role of the hospital in the community and contribute to the community's economic development.

Section 10, Housing

This section addresses the need for a variety of housing types. This master plan application does not affect housing.

Section 11, Public Facilities

This section addresses the need for the City to provide public services in accordance with the community's needs as a whole rather than be forced to respond to individual developments as they occur. Oregon City has adopted master plans to address public infrastructure. The master plan application will satisfy these master plans and the Oregon City Municipal Code. Appropriate conditions of approval can be included to address any needed mitigation to ensure that adequate infrastructure is provided.

Section 12, Transportation

This section provides for a safe, convenient and economic transportation system that functions well and contributes to the city's well-being, enhances the quality of life and increases the opportunity for growth and development. The TIA shows that the proposed master plan will not adversely affect public streets.

Section 13, Energy Conservation

This section requires the conservation of energy in all forms through efficient land-use patterns, public transportation, building siting and construction standards, and city programs, facilities and activities. The policies promote energy conservation through the promotion of mixed-use developments and increased densities near activity centers, and the construction of bikeways and sidewalks to improve connectivity. The proposed master plan meets this section because it encourages the continued development of the medical campus at a location which is easily reached from other city areas.

Section 14, Urbanization

This section is inapplicable to this master plan application.

5 DIVISION STREET PARKING LOT DETAILED DEVELOPMENT PLAN SUBMITTAL REQUIREMENTS

The Division Street Parking Lot which is currently a gravel lot is a paving project which will create on-grade parking in the area along Division Street between Penn Lane and Davis Road. This improvement will add approximately 31 paved parking spaces to the campus. This improvement will bring the existing gravel parking lot up to current City standards and improve it with landscaping and storm drainage meeting City requirements.

A Type I Lot Consolidation/Lot Line Adjustment for the property on which the Division Street Parking Lot is located is also included (see Appendix D). The parcels are currently described by individual lot descriptions created as they were purchased.

17.65.60 Detailed Development Plan

A. Submittal Requirements.

1. *A transportation impact study documenting the on- and off-site transportation impacts, as specified in 17.65.050.B.1.h(1). If such an analysis was submitted as part of the General Development Plan process, the scope of the report may be limited to any changes which have occurred during the interim and any information listed below which was not a part of the initial study.*

RESPONSE: The City can find that this detailed development plan will not create any transportation impacts. A complete transportation impact study was completed by Kittelson & Associates, Inc. This report can be found in full in Appendix A. Page 32 of the report states, "The paving of the parking lot adjacent to Penn Lane is not anticipated to generate any new trips to the campus."

- The on-site portion of the analysis shall include the location, dimensions and names of all proposed streets, alleys, other public ways, sidewalks, bike routes and bikeways, pedestrian/bicycle access ways and other pedestrian and bicycle ways, transit streets and facilities, neighborhood activity centers, and easements on and within 250 feet of the boundaries of the site. The map shall identify existing subdivisions and development and un-subdivided or unpartitioned land ownerships adjacent to the proposed development site and show how existing streets, alleys, sidewalks, bike routes, pedestrian/bicycle access ways and utilities within 250 feet may be extended to and/or through the proposed development.*
2. *The location within the development and in the adjoining streets of existing and proposed sewers, water mains, culverts, drain pipes, underground electric, cable television and telephone distribution lines, gas lines, and the location of existing aerial electric, telephone and television cable lines, if any, to be relocated within the development.*
 3. *A site plan or plans, to scale, containing the required information identified in:*
 - a. *Chapter 17.62.040.A.(8), (10), (11), (12), (13), (14), and (15);*
 - b. *Chapter 17.62.040.B;*
 - c. *Chapter 17.62.040.C;*
 - d. *Chapter 17.62.040.D;*

- e. Chapter 17.62.040.E;
- f. Chapter 17.62.040.G;
- g. Chapter 17.62.040.H; and
- h. Chapter 17.62.040.J

RESPONSE: The following Figures denote architectural, site civil existing conditions, grading, storm drainage, erosion control, and landscaping plans for the development of the Division Street Parking Lot project. Chapter 17.62.040.B is not applicable as there are no built structures in this development.

Architectural Site Plan:	Figure 12 (Satisfies Chapter 17.62.040.A.(8), (10), (11), (12), (13), (14); and 17.62.040.C)
Existing Conditions Plans:	Figures 13A, 13B
Grading and Storm Drainage Plans:	Figures 14A, 14B (Satisfies Chapter 17.62.040.A.(8), 17.62.040.E)
Erosion Control Plans:	Figures 15A, 15B (Satisfies Chapter 17.62.040.E)
Landscape Planting Plan:	Figure 16 (Satisfies Chapter 17.62.040.A.(15) and 17.62.040.B)
Electrical Lighting Plan:	Figure 17 (Satisfies Chapter 17.62.040.G)

5.1 TYPE I LOT CONSOLIDATION

Please refer to Appendix D for the legal description and map describing the lot consolidation. Oregon City Municipal Code ("OCMC") § 17.31.060, "Dimensional Standards for MUE Zone," contains the approval criteria for this lot consolidation. This section describes how the application satisfies the approval criteria.

17.31.060 Dimensional Standards.

- A. Minimum lot areas: None
- B. Minimum Floor Area Ratio: 0.25
- C. Maximum building height: except as otherwise provided in subsection C (1) of this section building height shall not exceed sixty feet.
 - 1. In that area bounded by Leland Road, Warner Milne Road and Molalla Avenue, and located in this zoning district, the maximum building height shall not exceed eighty-five feet in height.

RESPONSE: There are currently no structures on the consolidated lots and the detailed development plan does not call for any new structures.

- D. Minimum required interior and rear yard setbacks if abutting a residential zone: twenty feet, plus one-foot additional yard setback for every one-foot of building height over thirty-five feet.

RESPONSE: There are no instances of the lots being consolidated abutting a residential zone.

- E. Maximum allowed setbacks: No maximum limit provided the Site Plan and Design Review requirements of Section 17.62.055 are met. Development of a campus with an approved Master Plan in the MUE zone is exempt from Section 17.62.055.D.1 of Site Plan and Design Review. All other standards are applicable.

RESPONSE: This section is not an approval standard.

F. Maximum site coverage of the building and parking lot: 80%

RESPONSE: The detailed development plan, per Figure 16, calls for impervious site coverage of the parking lot to be 74% which meets the requirements of OCMC 17.31.060.F.

G. Minimum landscape requirement (including the parking lot): 20%

The design and development of the landscaping in this district shall:

- 1. Enhance the appearance of the site internally and from a distance;*
- 2. Include street trees and street side landscaping;*
- 3. Provide an integrated open space and pedestrian way system within the development with appropriate connections to surrounding properties;*
- 4. Include, as appropriate, a bikeway walkway or jogging trail;*
- 5. Provide buffering or transitions between uses;*
- 6. Encourage outdoor eating areas appropriate to serve all the uses within the development;*
- 7. Encourage outdoor recreation areas appropriate to serve all the uses within the development.*

RESPONSE: The detailed development plan, per Figure 16, calls for landscaped site coverage of the parking lot to be 26% which meets the requirements of OCMC 17.31.060.G. This includes street improvements on Division Street and Davis Road, street trees, and street side landscaping.

6 DIVISION STREET PARKING LOT DETAILED DEVELOPMENT PLAN APPROVAL CRITERIA

The following sections address the standards in the OCMC that are applicable to the Division Street Parking Lot detailed development plan proposal. Each applicable standard is shown, and the applicant's response follows.

12.04.005 Jurisdiction and management of the public rights-of-way.

- A. *The city has jurisdiction and exercises regulatory management over all public rights-of-way within the city under authority of the City Charter and state law by issuing separate Public Works right-of-way permits or permits as part of issued public infrastructure construction plans. No work in the public right-of-way shall be done without the proper permit. Some public rights-of-way within the City are regulated by the State of Oregon Department of Transportation (ODOT) or Clackamas County and as such, any work in these streets shall conform to their respective permitting requirements.*
- B. *Public rights-of-way include, but are not limited to, streets, roads, highways, bridges, alleys, sidewalks, trails, paths, public easements and all other public ways or areas, including the subsurface under and air space over these areas.*
- C. *The city has jurisdiction and exercises regulatory management over each public right-of-way whether the city has a fee, easement, or other legal interest in the right-of-way. The city has jurisdiction and regulatory management of each right-of-way whether the legal interest in the right-of-way was obtained by grant, dedication, prescription, reservation, condemnation, annexation, foreclosure or other means.*
- D. *No person may occupy or encroach on a public right-of-way without the permission of the city. The city grants permission to use rights-of-way by franchises and permits.*
- E. *The exercise of jurisdiction and regulatory management of a public right-of-way by the city is not official acceptance of the right-of-way, and does not obligate the city to maintain or repair any part of the right-of-way.*

RESPONSE: The plans provided in Figures 12-17 show that all Oregon City right-of-way requirements are met and or improved with the proposed design.

12.04.010 Construction specifications—Improved streets.

All sidewalks hereafter constructed in the city on improved streets shall be constructed to city standards and widths required in the Oregon City Transportation System Plan. The curb shall be constructed at the same time as the construction of the sidewalk and shall be located as provided in the ordinance authorizing the improvement of said street next proceeding unless otherwise ordered by the city commission. Both sidewalks and curbs are to be constructed according to plans and specifications provided by the city engineer.

RESPONSE: The plans provided in Figures 12-17 show that all Oregon City street design standards are met for both Davis Road and Division Street. The half street improvements detailed for this section of Division Street match the half street improvements which were approved in CUP 03-03 for the Emergency Department hospital expansion.

12.04.020 Construction specifications—Unimproved streets.

Sidewalks constructed on unimproved streets shall be constructed of concrete according to lines and grades established by the city engineer and approved by the city commission. On unimproved streets curbs do not have to be constructed at the same time as the sidewalk.

RESPONSE: There are no unimproved streets adjacent to the parking lot.

12.04.25 Street design--Curb cuts.

A. To assure public safety, reduce traffic hazards and promote the welfare of pedestrians, bicyclists and residents of the subject area, such as a cul-de-sac or dead-end street, the decision maker shall be authorized to minimize the number and size of curb cuts (including driveways) as far as practicable where any of the following conditions are necessary:

- 1. To provide adequate space for on-street parking;*
- 2. To facilitate street tree planting requirements;*
- 3. To assure pedestrian and vehicular safety by limiting vehicular access points; and*
- 4. To assure that adequate sight distance requirements are met.*

Where the decision maker determines any of these situations exist or may occur due to approval of a proposed development, driveway curb cuts shall be limited to those widths as approved by the Public Works Street Standard Drawings. Shared residential driveways shall be limited to twenty-four feet in width adjacent to the sidewalk and property line and may extend to a maximum of thirty feet abutting the street pavement to facilitate turning movements. Non-residential development driveway curb cuts in these situations shall be limited to those widths as approved by the Public Works Street Standard Drawings or as approved by the City Engineer upon review of the vehicle turning radii based on a professional engineer's design submittal.

B. Each new or redeveloped curb cut shall have an approved concrete approach or asphalted street connection where there is no concrete curb and a minimum hard surface for at least 10 feet and preferably 20 feet back into the lot as measured from the current edge of street pavement to provide for controlling gravel tracking onto the public street. The hard surface may be concrete, asphalt, or other surface approved by the City Engineer.

C. It shall be a code violation to drive vehicles, trailers, boats, or other wheeled objects across a sidewalk or roadside planter strip at a location other than an approved permanent or City-approved temporary driveway approach. Damages caused by such action shall be corrected by the adjoining property owner.

D. It shall be a code violation to place soil, gravel, wood, or other material in the gutter or space next to the curb of a public street with the intention of using it as a permanent or temporary driveway. Damages caused by such action shall be corrected by the adjoining property owner.

E. Any driveway built within public street or alley right-of-way shall be built and permitted per City requirements as approved by the City Engineer.

F. Exceptions. The Public Works Director reserves the right to waive this policy in certain instances, if it is determined through written findings, that it is in the best interest of the public to do so. Examples of allowable exceptions include:

1. Corner properties or properties adjacent to more than one street frontage provided at least one on-street parking space on each frontage remains available after the installation of a second driveway.
2. Special needs for disabled access.
3. When the size of the lot or the length of the street frontage is adequate to support more than one driveway, the installation of a driveway will result in the loss of no more than one on-street parking space and there is no shortage of on-street parking available for neighboring property.

In no case shall more than two driveways be allowed on any single family residential property.

G. Appeals. Decisions made by the Public Works Director are final unless appealed in writing to the Transportation Advisory Committee for review and recommendation to the City Commission.

H. Failure to Comply. Failure to meet the intent of this section shall be a violation of this Code and enforceable as a civil infraction.

RESPONSE: The above curb cut criteria are met with the proposed development.

12.04.030 Maintenance and repair.

The owner of land abutting the street where a sidewalk has been constructed shall be responsible for maintaining said sidewalk and abutting curb, if any, in good repair.

12.04.031 Liability for sidewalk injuries.

A. The owner or occupant of real property responsible for maintaining the adjacent sidewalk shall be liable to any person injured because of negligence of such owner or occupant in failing to maintain the sidewalk in good condition.

B. If the city is required to pay damages for an injury to persons or property caused by the failure of a person to perform the duty that this ordinance imposes, the person shall compensate the city for the amount of the damages paid. The city may maintain an action in a court of competent jurisdiction to enforce this section.

12.04.032 Required sidewalk repair.

A. When the public works director determines that repair of a sidewalk is necessary he or she shall issue a notice to the owner of property adjacent to the sidewalk.

B. The notice shall require the owner of the property adjacent to the defective sidewalk to complete the repair of the sidewalk within ninety days after the service of notice. The notice shall also state that if the repair is not made by the owner, the city may do the work and the cost of the work shall be assessed against the property adjacent to the sidewalk.

C. The public works director shall cause a copy of the notice to be served personally upon the owner of the property adjacent to the defective sidewalk, or the notice may be served by registered or certified mail, return receipt requested. If after diligent search the owner is not discovered, the public works director shall cause a copy of the notice to be posted in a conspicuous place on the property, and such posting shall have the same effect as service of notice by mail or by personal service upon the owner of the property.

D. The person serving the notice shall file with the city recorder a statement stating the time, place and manner of service or notice.

12.04.033 City may do work.

If repair of the sidewalk is not completed within ninety days after the service of notice, the public works director shall carry out the needed work on the sidewalk. Upon completion of the work, the public works director shall submit an itemized statement of the cost of the work to the finance director. The city may, at its discretion, construct, repair or maintain sidewalks deemed to be in disrepair by the public works director for the health, safety and general welfare of the residents of the city.

12.04.034 Assessment of costs.

Upon receipt of the report, the finance director shall assess the cost of the sidewalk work against the property adjacent to the sidewalk. The assessment shall be a lien against the property and may be collected in the same manner as is provided for in the collection of street improvement assessment.

12.04.040 Streets--Enforcement.

Any person whose duty it is to maintain and repair any sidewalk, as provided by this chapter, and who fails to do so shall be subject to the enforcement procedures of Chapters 1.16, 1.20 and 1.24. Failure to comply with the provisions of this chapter shall be deemed a nuisance. Violation of any provision of this chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.

RESPONSE: These sections are not approval standards.

12.04.045 Street Design--Constrained Local Streets and/or Rights-of-Way.

Any accessway with a pavement width of less than thirty-two feet shall require the approval of the City Engineer, Community Development Director and Fire Chief and shall meet minimum life safety requirements, which may include fire suppression devices as determined by the fire marshal to assure an adequate level of fire and life safety. The standard width for constrained streets is twenty feet of paving with no on-street parking and twenty-eight feet with on-street parking on one side only. Constrained local streets shall maintain a twenty-foot wide unobstructed accessway. Constrained local streets and/or right-of-way shall comply with necessary slope easements, sidewalk easements and altered curve radius, as approved by the City Engineer and Community Development Director.

Table 12.04.045: STREET DESIGN STANDARDS FOR LOCAL CONSTRAINED STREETS

Type of Street	Minimum Right-of-way	Required Pavement Width
Constrained local street	20 to 40	20 to less than 32

RESPONSE: The plans for the Division Street parking lot meet the City requirements for right-of-way along Division Street (60 feet) and Davis Road (53 feet). Half street improvements on the south side of Penn Lane have already been completed and all right-of-way requirements were met in that location as well. These improvements can be seen in Figure 12.

12.04.050 Retaining walls--Required.

Every owner of a lot within the city, abutting upon an improved street, where the surface of the lot or tract of land is above the surface of the improved street and where the soil or earth from the lot, or tract of land is liable to, or does slide or fall into the street or upon the sidewalk, or both, shall build a retaining wall, the outer side of which shall be on the line separating the lot, or tract of land from the improved street, and the wall shall be so constructed as to prevent the soil or earth from the lot or tract of land from falling or sliding into the street or upon the sidewalk, or both, and the owner of any such property shall keep the wall in good repair.

RESPONSE: The grading plans in Figures 14A and 14B show that there are no required retaining walls around the parking lot.

12.04.060 Retaining walls--Maintenance.

When a retaining wall is necessary to keep the earth from falling or sliding onto the sidewalk or into a public street and the property owner or person in charge of that property fails or refuses to build such a wall, such shall be deemed a nuisance. The violation of any provision of this chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.

RESPONSE: There are no retaining walls proposed in this detailed development plan.

12.04.070 Removal of sliding dirt.

It shall be the duty of the owner of any property as mentioned in Section 12.04.050, and in case the owner is a nonresident, then the agent or other person in charge of the same, to remove from the street or sidewalk or both as the case may be, any and all earth or dirt falling on or sliding into or upon the same from the property, and to build and maintain in order at all times, the retaining wall as herein required; and upon the failure, neglect or refusal of the land owner, the agent or person in charge of the same to clean away such earth or dirt, falling or sliding from the property into the street or upon the sidewalk, or both, or to build the retaining wall, shall be deemed guilty of a misdemeanor.

12.04.080 Excavations--Permit required.

It shall be unlawful for any person to dig up, break, excavate, disturb, dig under or undermine any public street or alley, or any part thereof or any macadam, gravel, or other street pavement or improvement without first applying for and obtaining from the engineer a written permit so to do.

12.04.090 Excavations--Permit restrictions.

The permit shall designate the portion of the street to be so taken up or disturbed, together with the purpose for making the excavation, the number of days in which the work shall be done, and the trench or excavation to be refilled and such other restrictions as may be deemed of public necessity or benefit.

RESPONSE: These sections are not approval standards.

12.04.095 Street Design – Curb Cuts.

To assure public safety, reduce traffic hazards and promote the welfare of pedestrians, bicyclists and residents of the subject area, such as a cul-de-sac or dead-end street, the decision maker shall be authorized to minimize the number and size of curb cuts (including driveways) as far as practicable where any of the following conditions are necessary:

- A. To provide adequate space for on-street parking;*
- B. To facilitate street tree planting requirements;*
- C. To assure pedestrian and vehicular safety by limiting vehicular access points; and*
- D. To assure that adequate sight distance requirements are met.*

Where the decision maker determines any of these situations exist or may occur due to approval of a proposed development, single residential driveway curb cuts shall be limited to 12 feet in width adjacent to the sidewalk and property line and may extend to a maximum of 18 feet abutting the street pavement to facilitate turning movements. Shared residential driveways shall be limited to 24 feet in width adjacent to the sidewalk and property line and may extend to a maximum of 30 feet abutting the street pavement to facilitate turning movements. Non-residential development driveway curb cuts in these situations shall be limited to the minimum required widths based on vehicle turning radii based on a professional engineer's design submittal and as approved by the decision maker.

RESPONSE: The development site plan in Figure 12 shows that the number of curb cuts is limited to one for the access of the parking lot along Davis Road.

12.04.100 Excavations – Restoration of Pavement

Whenever any excavation shall have been made in any pavement or other street improvement on any street or alley in the city for any purpose whatsoever under the permit granted by the engineer, it shall be the duty of the person making the excavation to put the street or alley in as good condition as it was before it was so broken, dug up or disturbed, and shall remove all surplus dirt, rubbish, or other material from the street or alley.

12.04.110 Excavations--Nuisance--Penalty.

Any excavation in violation of this chapter shall be deemed a nuisance. Violation of any provision of this chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.

12.04.120 Obstructions – Permit Required

A. Permanent Obstructions. It is unlawful for any person to place, put or maintain any obstruction, other than a temporary obstruction, as defined in subsection B of this section, in any public street or alley in the city, without obtaining approval for a right-of-way permit from the commission by passage of a resolution.

- 1. The city engineer shall provide applicants with an application form outlining the minimum submittal requirements.*
- 2. The applicant shall submit at least the following information in the permitting process in order to allow the commission to adequately consider whether to*

allow the placement of an obstruction and whether any conditions may be attached:

- a. Site plan showing right-of-way, utilities, driveways as directed by staff;
- b. Sight distance per Chapter 10.32, Traffic Sight Obstructions;
- c. Traffic control plan including parking per Manual on Uniform Traffic Control Devices (MUTCD);
- d. Alternative routes if necessary;
- e. Minimizing obstruction area; and
- f. Hold harmless/maintenance agreement.

3. If the commission adopts a resolution allowing the placement of a permanent obstruction in the right-of-way, the city engineer shall issue a right-of-way permit with any conditions deemed necessary by the commission.

B. Temporary Obstructions.

1. A "temporary obstruction" is defined as an object placed in a public street, road or alley for a period of not more than sixty consecutive days. A "temporary obstruction" includes, but is not limited to, moving containers and debris dumpsters.

2. The city engineer, or designee, is authorized to grant a permit for a temporary obstruction.

3. The city engineer shall provide applicants with an application form outlining the minimum submittal requirements.

4. The applicant shall submit, and the city engineer, or designee, shall consider, at least the following items in the permitting process. Additional information may be required in the discretion of the city engineer:

- a. Site plan showing right-of-way, utilities, driveways as directed by staff;
- b. Sight distance per Chapter 10.32, Traffic Sight Obstructions;
- c. Traffic control plan including parking per Manual on Uniform Traffic Control Devices (MUTCD);
- d. Alternative routes if necessary;
- e. Minimizing obstruction area; and
- f. Hold harmless/maintenance agreement.

5. In determining whether to issue a right-of-way permit to allow a temporary obstruction, the city engineer may issue such a permit only after finding that the following criteria have been satisfied:

- a. The obstruction will not unreasonably impair the safety of people using the right-of-way and nearby residents;
- b. The obstruction will not unreasonably hinder the efficiency of traffic affected by the obstruction;
- c. No alternative locations are available that would not require use of the public right-of-way; and
- d. Any other factor that the city engineer deems relevant.

6. The permittee shall post a weatherproof copy of the temporary obstruction permit in plain view from the right-of-way.

C. Fees. The fee for obtaining a right-of-way permit for either a permanent obstruction or a temporary obstruction shall be set by resolution of the commission.

12.04.130 Obstructions--Sidewalk sales.

A. It is unlawful for any person to use the public sidewalks of the city for the purpose of packing, unpacking or storage of goods or merchandise or for the display of goods or merchandise for sale. It is permissible to use the public sidewalks for the process of expeditiously loading and unloading goods and merchandise.

B. The city commission may, in its discretion, designate certain areas of the city to permit the display and sale of goods or merchandise on the public sidewalks under such conditions as may be provided.

12.04.140 Obstructions--Nuisance--Penalty.

Any act or omission in violation of this chapter shall be deemed a nuisance. Violation of any provision of this chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.

12.04.150 Street and alley vacations--Cost.

At the time of filing a petition for vacation of a street, alley or any part thereof, a fee as established by city commission resolution shall be paid to the city.

12.04.160 Street vacations--Restrictions.

The commission, upon hearing such petition, may grant the same in whole or in part, or may deny the same in whole or in part, or may grant the same with such reservations as would appear to be for the public interest, including reservations pertaining to the maintenance and use of underground public utilities in the portion vacated.

RESPONSE: These sections are not approval standards.

12.04.170 Street Design - Purpose and General Provisions.

All development shall be in conformance with the policies and design standards established by this chapter and with applicable standards in the City 's Public Facility Master Plan and City design standards and specifications. In reviewing applications for development, the City Engineer shall take into consideration any approved development and the remaining development potential of adjacent properties. All street, water, sanitary sewer, storm drainage and utility plans associated with any development must be reviewed and approved by the city engineer prior to construction. All streets, driveways or storm drainage connections to another jurisdiction's facility or right-of-way must be reviewed by the appropriate jurisdiction as a condition of the preliminary plat and when required by law or intergovernmental agreement shall be approved by the appropriate jurisdiction.

RESPONSE: The development plans seen in Figures 12-17 show that all applicable OCMC street design standards have been met for half street improvements, right-of-way, tree well's, sidewalks, landscape buffers, and all other relevant sections.

12.04.175 Street Design--Generally.

The location, width and grade of street shall be considered in relation to: existing and planned streets, topographical conditions, public convenience and safety for all modes of travel, existing and identified future transit routes and pedestrian/bicycle accessways, and the proposed use of land to be served by the streets. The street system shall assure

an adequate traffic circulation system with intersection angles, grades, tangents and curves appropriate for the traffic to be carried considering the terrain. To the extent possible, proposed streets shall connect to all existing or approved stub streets that abut the development site. Where location is not shown in the development plan, the arrangement of streets shall either:

- A. Provide for the continuation or appropriate projection of existing principal streets in the surrounding area and on adjacent parcels or conform to a plan for the area approved or adopted by the city to meet a particular situation where topographical or other conditions make continuance or conformance to existing streets impractical;
- B. Where necessary to give access to or permit a satisfactory future development of adjoining land, streets shall be extended to the boundary of the development and the resulting dead-end street (stub) may be approved with a temporary turnaround as approved by the city engineer. Access control in accordance with section 12.04.200 shall be required to preserve the objectives of street extensions.

RESPONSE: The development calls for the addition of a 6 foot bicycle lane along its frontage on the minor arterial of Division Street. This can be viewed in Figure 12.

12.04.180 Street Design--Minimum Right-of-Way.

All development shall provide adequate right-of-way and pavement width. Adequate right-of-way and pavement width shall be provided by:

- A. Complying with the Street Design Standards contained in the table provided in chapter 12.04. The Street Design Standards are based on the classification of streets that occurred in the Oregon City Transportation System Plan (TSP), in particular, the following TSP figures provide the appropriate classification for each street in Oregon City: Figure 5-1: Functional Classification System and New Roadway Connections; Figure 5-3: Pedestrian System Plan; Figure 5.6: Bicycle System Plan; and Figure 5.7: Public Transit System Plan. These TSP figures from the Oregon City Transportation System Plan are incorporated herein by reference in order to determine the classification of particular streets.

Table 12.04.020: STREET DESIGN STANDARDS

Type of Street	Maximum Right-of-Way Width	Pavement Width
Major arterial	124 feet	98 feet
Minor arterial	114 feet	88 feet
Collector street	86 feet	62 feet
Neighborhood Collector street	81 feet	59 feet
Local street	54 feet	32 feet
Alley	20 feet	16 feet

- B. The applicant may submit an alternative street design plan that varies from the Street Design Standards identified above. An alternative street design plan may be approved by the City Engineer if it is found the alternative allows for adequate and safe

traffic, pedestrian and bicycle flows and transportation alternatives and protects and provides adequate multi-modal transportation services for the development as well as the surrounding community.

RESPONSE: Minimum right-of-way and pavement width requirements were met with the half street design elements noted in Figure 12.

12.04.185 Street Design--Access Control.

A. A street which is dedicated to end at the boundary of the development or in the case of half-streets dedicated along a boundary shall have an access control granted to the City as a City controlled plat restriction for the purposes of controlling ingress and egress to the property adjacent to the end of the dedicated street. The access control restriction shall exist until such time as a public street is created, by dedication and accepted, extending the street to the adjacent property.

B. The City may grant a permit for the adjoining owner to access through the access control.

C. The plat shall contain the following access control language or similar on the face of the map at the end of each street for which access control is required: "Access Control (See plat restrictions)."

D. Said plats shall also contain the following plat restriction note(s): "Access to (name of street or tract) from adjoining tracts (name of deed document number[s]) shall be controlled by the City of Oregon City by the recording of this plat, as shown. These access controls shall be automatically terminated upon the acceptance of a public road dedication or the recording of a plat extending the street to adjacent property that would access through those Access Controls."

RESPONSE: These sections are not approval standards.

12.04.190 Street Design--Alignment.

The centerline of streets shall be:

A. Aligned with existing streets by continuation of the centerlines; or

B. Offset from the centerline by no more than 10 feet, provided appropriate mitigation, in the judgment of the City Engineer, is provided to ensure that the offset intersection will not pose a safety hazard.

RESPONSE: Existing street centerlines were used for Davis Road and Division Street and can be viewed in the Existing Conditions plans in Figures 13A and 13B.

12.04.195 Minimum Street Intersection Spacing Standards.

A. All new development and redevelopment shall meet the following Public Street Intersection Spacing Standards:

Table 12.04.040 - Public Street Intersection Spacing Standards

	Distance in Feet between Streets of Various Classifications								
	Between Arterial and Arterial	Between Arterial and Collector	Between Arterial and Neighborhood Collector	Between Arterial and Local Street	Between Collector Street and Collector Street	Between Collector Street and Neighborhood Collector	Between Collector and Local Street	Between Neighborhood Collector and Local Street	Between two adjacent Local Streets
Measured along an Arterial Street	1320	800	600	300	600	300	150	150	150
Measured along a Collector Street	800	800	600	300	600	300	150	150	150
Measured along a Neighborhood Collector Street	800	600	300	300	300	150	150	150	150
Measured along a Local Street	600	600	300	300	300	150	150	150	150
Note: With regard to public intersection spacing standards, the same distances apply to both major arterial and minor arterial streets. In this table, the term "arterial" applies to both major arterial and minor arterial streets.									

or

B. A lesser distance between intersections may be allowed, provided appropriate mitigation, in the judgment of the City Engineer, is provided to ensure that the reduction in intersection spacing will not pose a safety hazard.

RESPONSE: There are no applicable street intersections contained in this development plan.

12.04.200 Street Design--Constrained Local Streets and/or Rights-of-Way.

Any accessway with a pavement width of less than thirty-two feet shall require the approval of the City Engineer, Community Development Director and Fire Chief and

shall meet minimum life safety requirements, which may include fire suppression devices as determined by the fire marshal to assure an adequate level of fire and life safety. The standard width for constrained streets is twenty feet of paving with no on-street parking and twenty-eight feet with on-street parking on one side only. Constrained local streets shall maintain a twenty-foot wide unobstructed accessway. Constrained local streets and/or right-of-way shall comply with necessary slope easements, sidewalk easements and altered curve radius, as approved by the City Engineer and Community Development Director.

Table 12.04.045: STREET DESIGN STANDARDS FOR LOCAL CONSTRAINED STREETS

Type of Street	Minimum Right-of-way	Required Pavement Width
Constrained local street	30 to 40	20 to less than 32

RESPONSE: The paved width of Davis Road will be 32 feet.

12.04.205 Intersection Level of Service Standards.

When reviewing new developments, the City of Oregon City requires all relevant intersections to be maintained at the minimum acceptable Level Of Service (LOS) upon full build-out of the proposed development. The minimum acceptable LOS standards are as follows:

- A. For signalized intersection areas of the city that are located outside the Regional Center boundaries a LOS of "D" or better for the intersection as a whole and no approach operating at worse than LOS "E" and a v/c ratio not higher than 1.0 for the sum of critical movements.
- B. For signalized intersections within the Regional Center boundaries a LOS "D" can be exceeded during the peak hour; however, during the second peak hour, LOS "D" or better will be required as a whole and no approach operating at worse than LOS "E" and a v/c ratio not higher than 1.0.
- C. For unsignalized intersection throughout the city a LOS "E" or better for the poorest approach and with no movement serving more than 20 peak hour vehicles operating at worse than LOS "F" will be tolerated for minor movements during a peak hour.

RESPONSE: There are no applicable street intersections contained in this detailed development plan.

12.04.210 Street design--Intersection Angles.

Except where topography requires a lesser angle, streets shall be laid out to intersect at angles as near as possible to right angles. In no case shall the acute angles be less than eighty degrees unless there is a special intersection design. An arterial or collector street intersecting with another street shall have at least one hundred feet of tangent adjacent to the intersection unless topography requires a lesser distance. Other streets, except alleys, shall have at least fifty feet of tangent adjacent to the intersection unless topography requires a lesser distance. All street intersections shall be provided with a minimum curb return radius of twenty-five feet for local streets. Larger radii shall be required for higher street classifications as determined by the city engineer.

Additional right-of-way shall be required to accommodate curb returns and sidewalks at intersections. Ordinarily, intersections should not have more than two streets at any one point.

RESPONSE: There are no applicable new street intersections contained in this development plan.

12.04.215 Street design--Off-Site Street Improvements.

During consideration of the preliminary plan for a development, the decision maker shall determine whether existing streets impacted by, adjacent to, or abutting the development meet the city's applicable planned minimum design or dimensional requirements. Where such streets fail to meet these requirements, the decision-maker shall require the applicant to make proportional improvements sufficient to achieve conformance with minimum applicable design standards required to serve the proposed development.

RESPONSE: The plans provided in Figures 12-17 show that all Oregon City street design standards are met for both Davis Road and Division Street. The half street improvements detailed for this section of Division Street match the half street improvements which were approved in CUP 03-03 for the Emergency Department hospital expansion.

12.04.220 Street Design--Half Street.

Half streets, while generally not acceptable, may be approved where essential to the development, when in conformance with all other applicable requirements, and where it will not create a safety hazard. When approving half streets, the decision maker must first determine that it will be practical to require the dedication of the other half of the street when the adjoining property is divided or developed. Where the decision maker approves a half street, the applicant must construct an additional ten feet of pavement width so as to make the half street safe and usable until such time as the other half is constructed. Whenever a half street is adjacent to property capable of being divided or developed, the other half of the street shall be provided and improved when that adjacent property divides or develops. Access Control as described in 12.04.200 may be required to preserve the objectives of half streets.

RESPONSE: There are no applicable half streets contained in this detailed development plan.

12.04.225 Street Design--Cul-de-sacs and Dead-End Streets.

The City discourages the use of cul-de-sacs and permanent dead-end streets except where construction of a through street is found by the decision maker to be impracticable due to topography or some significant physical constraint such as unstable soils, wetland, natural or historic resource areas, dedicated open space, existing development patterns, or arterial access restrictions. When permitted, cul-de-sacs and permanent dead-end streets shall have a maximum length of three hundred fifty feet, as measured from the right-of-way line of the nearest intersecting street to the back of the cul-de-sac curb face, and include pedestrian/bicycle accessways as provided in Section 17.90.220 of this code and Chapter 12.24. This section is not intended to preclude the use of curvilinear eyebrow widening of a street where needed to provide adequate lot coverage.

Where approved, cul-de-sacs shall have sufficient radius to provide adequate turn-around for emergency vehicles in accordance with Fire District and City adopted street standards. Permanent dead-end streets other than cul-de-sacs shall provide public street right-of-way / easements sufficient to provide turn-around space with appropriate no-parking signs or markings for waste disposal, sweepers, and other long vehicles in the form of a hammerhead or other design to be approved by the decision maker. Driveways shall be encouraged off the turnaround to provide for additional on-street parking space.

12.04.230 Street Design--Street Names.

Except for extensions of existing streets, no street name shall be used which will duplicate or be confused with the name of an existing street. Street names shall conform to the established standards in the City and shall be subject to the approval of the City.

12.04.235 Street Design--Grades and Curves.

Grades and center line radii shall conform to the standards in the City's street design standards and specifications.

12.04.240 Street Design--Development Abutting Arterial or Collector Street.

Where development abuts or contains an existing or proposed arterial or collector street, the decision maker may require: access control; screen planting or wall contained in an easement or otherwise protected by a restrictive covenant in a form acceptable to the decision maker along the rear or side property line; or such other treatment it deems necessary to adequately protect residential properties or afford separation of through and local traffic. Reverse frontage lots with suitable depth may also be considered an option for residential property that has arterial frontage. Where access for development abuts and connects for vehicular access to another jurisdiction's facility then authorization by that jurisdiction may be required.

12.04.245 Street Design--Pedestrian and Bicycle Safety.

Where deemed necessary to ensure public safety, reduce traffic hazards and promote the welfare of pedestrians, bicyclists and residents of the subject area, the decision maker may require that local streets be so designed as to discourage their use by nonlocal automobile traffic.

All crosswalks shall include a large vegetative or sidewalk area which extends into the street pavement as far as practicable to provide safer pedestrian crossing opportunities. These curb extensions can increase the visibility of pedestrians and provide a shorter crosswalk distance as well as encourage motorists to drive slower. The decision maker may approve an alternative design that achieves the same standard for constrained sites or where deemed unnecessary by the City Engineer.

12.04.255 Street design--Alleys.

Public alleys shall be provided in the following districts R-5, R-3.5, R-2, MUC-1, MUC-2 and NC zones unless other permanent provisions for private access to off-street parking and loading facilities are approved by the decision maker. The corners of alley intersections shall have a radius of not less than ten feet.

12.04.260 Street Design--Transit.

Streets shall be designed and laid out in a manner that promotes pedestrian and bicycle circulation. The applicant shall coordinate with Tri-Met where the application impacts transit streets as identified on Figure 5.7: Public Transit System Plan of the Oregon City Transportation System Plan. Pedestrian/bicycle access ways shall be provided as necessary in conformance with the requirements in Section 17.90.220 of this code and Chapter 12.24 to minimize the travel distance to transit streets and stops and neighborhood activity centers. The decision maker may require provisions, including easements, for transit facilities along transit streets where a need for bus stops, bus pullouts or other transit facilities within or adjacent to the development has been identified.

RESPONSE: These sections are not approval standards.

12.04.265 Street design--Planter Strips.

All development shall include vegetative planter strips that are five feet in width or larger and located adjacent to the curb. This requirement may be waived or modified if the decision maker finds it is not practicable. The decision maker may permit constrained sites to place street trees on the abutting private property within 10 feet of the public right-of-way if a covenant is recorded on the title of the property identifying the tree as a city street tree which is maintained by the property owner. Development proposed along a collector, minor arterial, or major arterial street may use tree wells with root barriers located near the curb within a wider sidewalk in lieu of a planter strip, in which case each tree shall have a protected area to ensure proper root growth and reduce potential damage to sidewalks, curbs and gutters.

To promote and maintain the community tree canopy adjacent to public streets, trees shall be selected and planted in planter strips in accordance with Chapter 12.08, Street Trees. Individual abutting lot owners shall be legally responsible for maintaining healthy and attractive trees and vegetation in the planter strip. If a homeowners' association is created as part of the development, the association may assume the maintenance obligation through a legally binding mechanism, e.g., deed restrictions, maintenance agreement, etc., which shall be reviewed and approved by the city attorney. Failure to properly maintain trees and vegetation in a planter strip shall be a violation of this code and enforceable as a civil infraction.

RESPONSE: Planter strips, landscape buffers, and tree well details can be viewed in Figures 12-17 of this detailed development plan.

12.04.270 Standard Construction Specifications.

The workmanship and materials for any work performed under permits issued per this chapter shall be in accordance with the edition of the "Standard Specifications for Public Works Construction," as prepared by the Oregon Chapter of American Public Works Association (APWA) and as modified and adopted by the city, in effect at the time of application. The exception to this requirement is where this chapter and the Public Works Street Design Drawings provide other design details, in which case the

requirements of this chapter and the Public Works Street Design Drawings shall be complied with. In the case of work within ODOT or Clackamas County rights-of-way, work shall be in conformance with their respective construction standards.

12.04.280 Violation--Penalty.

Any act or omission in violation of this chapter shall be deemed a nuisance. Violation of any provision of this chapter is subject to the code enforcement procedures of Chapters 1.16, 1.20 and 1.24.

RESPONSE: These sections are not approval standards.

12.08.015 Street Tree Planting and Maintenance Requirements.

All new construction or major redevelopment shall provide street trees adjacent to all street frontages. Species of trees shall be selected based upon vision clearance requirements, but shall in all cases be selected from the Oregon City Street Tree List or be approved by a certified arborist. If a setback sidewalk has already been constructed or the Development Services determines that the forthcoming street design shall include a setback sidewalk, then all street trees shall be installed with a planting strip. If existing street design includes a curb-tight sidewalk, then all street trees shall be placed within the front yard setback, exclusive of any utility easement.

A. One street tree shall be planted for every thirty-five feet of property frontage. The tree spacing shall be evenly distributed throughout the total development frontage. The Community Development Director may approve an alternative street tree plan if site or other constraints prevent meeting the placement of one street tree per thirty-five feet of property frontage.

B. The following clearance distances shall be maintained when planting trees:

1. Fifteen feet from streetlights;
2. Five feet from fire hydrants;
3. Twenty feet from intersections;
4. A minimum of five feet (at mature height) below power lines.

C. All trees shall be a minimum of two inches in caliper at six inches above the root crown and installed to city specifications.

D. All established trees shall be pruned tight to the trunk to a height that provides adequate clearance for street cleaning equipment and ensures ADA compliant clearance for pedestrians.

RESPONSE: The landscape planting plan for this development can be viewed in Figure 16.

12.08.020 Street Tree Species Selection.

The Community Development Director may specify the species of street trees required to be planted if there is an established planting scheme adjacent to a lot frontage, if there are obstructions in the planting strip, or if overhead power lines are present.

RESPONSE: The plans provided in Figure 16 show that all Oregon City street design standards are met for the half street improvements detailed for this section of Division Street. They match the half street improvements which were approved in CUP 03-03 for the Emergency Department hospital expansion.

12.08.025 General Tree Maintenance.

Abutting property owners shall be responsible for the maintenance of street trees and planting strips. Topping of trees is permitted only under recommendation of a certified arborist, or other qualified professional, if required by city staff. Trees shall be trimmed appropriately. Maintenance shall include trimming to remove dead branches, dangerous limbs and to maintain a minimum seven-foot clearance above all sidewalks and ten-foot clearance above the street. Planter strips shall be kept clear of weeds, obstructing vegetation and trash.

12.08.030 Public Property Tree Maintenance.

The City shall have the right to plant, prune, maintain and remove trees, plants and shrubs in all public rights-of-way and public grounds, as may be necessary to ensure public safety or to preserve and enhance the symmetry or other desirable characteristics of such public areas. The Natural Resources Committee may recommend to the Community Development Director the removal of any tree or part thereof which is in an unsafe condition, or which by reason of its nature is injurious to above or below-ground public utilities or other public improvements.

RESPONSE: These sections are not approval standards.

12.08.035 Public Tree Removal.

Existing street trees shall be retained and protected during construction unless removal is specified as part of a land use approval or in conjunction with a public facilities construction project, as approved by the community development director. A diseased or hazardous street tree, as determined by a registered arborist and verified by the City, may be removed if replaced. . A non-diseased, non-hazardous street tree that is removed shall be replaced in accordance with the Table 12.08.035.

All new street trees will have a minimum two-inch caliper trunk measured six inches above the root crown. The Community Development Director may approve off-site installation of replacement trees where necessary due to planting constraints. The Community Development Director may additionally allow a fee in-lieu of planting the tree(s) to be placed into a City fund dedicated to planting trees in Oregon City in accordance with OCMC 12.08.

RESPONSE: This development plan calls for the removal of one tree as noted in Figure 12. It is replaced with approximately 28 approved new trees as called out in the landscape planting plan in Figure 16.

12.08.040 Heritage Trees and Groves.

A. Purpose.

Certain trees, because of their age, species, natural resource value, ecological or historical association, are of special importance to the City. These trees may live on private or public property.

1. The purpose of this chapter is to recognize, foster appreciation and provide for voluntary protection of Heritage Trees.
2. In particular, the following trees are shall be considered significant, and

therefore eligible for heritage tree nomination in Oregon City, if they meet the minimum size requirements of the table below:

B. Recommendation.

1. Any citizen may recommend tree(s) to be designated as a Heritage Tree or Grove. If the proposed Heritage Tree or Grove is located on property other than City property or public right-of-way under City jurisdiction, the recommendation shall be submitted by the property owner or accompanied by the property owner's written consent. If the proposed Heritage Tree or Grove is located on City property or public right-of-way under City jurisdiction, the recommendation shall be submitted to the Community Development Director; if the recommendation is consented to by the City, the Community Development Director shall submit the recommendation to the City Commission.
2. Recommendation shall be made on such form as required by the Community Development Director. The recommendation form shall include a narrative explaining why the tree qualifies for Heritage Tree or Grove status pursuant to the definition in Section 1 and the written consent of the property owner as described in subsection (1) of this section.

C. Review Process.

1. The City Commission shall review all Heritage Trees and Grove recommendations at a public meeting. Notice of the meeting shall be provided to the recommending applicant, the property owner (unless the recommended tree or grove is located on public right-of-way under City jurisdiction, in which event notice shall be given to the Community Development Director), the chair of any recognized neighborhood association in which the tree or grove is located, and the Parks and Recreation Advisory Committee (PRAC), if applicable.
2. Staff shall prepare a report for the City Commission analyzing whether the tree or grove complies with the requirements for designation.
3. After considering the staff report and any testimony by interested persons, the City Commission shall vote on the recommendation.
4. Following approval by the City Commission:
 - a. If the tree or grove is located on private property, the designation shall be complete upon the Property Owner's execution of a covenant running with the land suitable for recordation by the City. The covenant shall describe the subject property, generally describe the location of the heritage tree or grove, and covenant that the tree or grove is protected as a "Heritage Tree" or "Heritage Grove" by the City of Oregon City and is therefore subject to special protection as provided in this Title.
 - b. If the tree or grove is located on public right-of-way, the designation shall be complete upon the Staff's listing of the tree or grove on the City Heritage Tree and Grove records.
 - c. If the tree or grove is located on the public right-of-way, the City shall condition any future Property Owner-requested vacation of the public right-of-way upon the execution of a covenant in accordance with subsection (a) above, which shall be recorded by the City upon the vacation of the right-of-way.

D. Criteria

1. The City Commission may designate a tree or grove as a Heritage Tree or Heritage Grove if the Commission determines that the following criteria are met:
 - a. The tree or grove is of landmark importance to the City of Oregon City due to age, size, species, horticultural quality or historic importance; or
 - b. It is listed as a State Heritage Tree, as designated by the state division of forest resources; or
 - c. It is a rare species, or provides a habitat for rare species of plants, animals or birds; and
 - d. The tree is not irreparably damaged, diseased, hazardous or unsafe, or the applicant is willing to have the tree treated by an arborist and the treatment will alleviate the damage, disease or hazard;

E. Protection of Heritage Trees and Groves.

1. No Heritage Tree or Grove may be removed, topped, or otherwise altered unless permitted by this section.
2. An application to remove a Heritage Tree or Grove shall demonstrate that the burden imposed on the property owner, or, if the tree is located within the public right-of-way under City jurisdiction, then the burden imposed on the City by the continued presence of the tree outweighs the public benefit provided by the tree. For the purposes of making this determination, the following tree impacts shall not be considered unreasonable burdens on the property owner, or if appropriate, the City:
 - a. View obstruction;
 - b. Routine pruning, leaf raking and other maintenance activities; and
 - c. Infrastructure impacts or tree hazards that can be controlled or avoided by appropriate pruning or maintenance.
3. Unless the tree is permitted to be removed due to poor health or hazard pursuant to Section 12.08.042, the applicant shall be required to mitigate for the loss of the tree pursuant to Table 12.08.042.
4. Any person who removes a Heritage Tree or Grove in violation of this chapter shall be subject to the penalties provided in this chapter.

F. Recognition of Heritage Trees and Groves.

1. A Heritage Tree plaque may be designed and furnished by the City to the property owner, or if the tree is in the public right-of-way, to the appropriate City official, of a designated Heritage Tree or Grove. The City may charge a fee to cover the costs of the providing the plaque. The plaque shall be posted at a location at or near the tree or grove and, if feasible, visible from a public right-of-way.
2. The Community Development Director shall maintain a list and map of designated Heritage Trees and Groves.

G. Removal of Heritage Tree or Grove Designation.

1. A Heritage Tree or Grove may be removed from designation if it dies or is removed pursuant to this chapter. If removed from private property, the City shall record a document extinguishing the covenant.

12.08.045 Gifts and Funding.

The City of Oregon City may accept gifts, which are specifically designated for the

purpose of planting or maintaining trees within the city. The Community Development Director may allow a fee in-lieu of planting the tree(s) to be placed into a City fund dedicated to planting trees in Oregon City. The Community Development Director may determine the type, caliper and species of the trees purchased with the fund. The cost of each tree may be adjusted annually based upon current market prices for materials and labor as calculated by the Community Development Director. A separate fund shall be established and maintained for revenues and expenditures created by activities specified in this chapter. The Natural Resources Committee shall have authority on behalf of the city to seek grants and alternative funding for tree projects. Funds from such grant awards shall be administered by the city pursuant to this section.

12.08.050 Violation--Penalty.

The violation of any provision of this chapter shall be constitute a civil infraction, subject to code enforcement procedures of Chapter 1.16 and/or Chapter 1.20.

**Prior ordinance history: Ords. 98-1010 and 99-1004.*

RESPONSE: These sections are not approval standards.

17.41.020 Tree Protection – Applicability.

- 1. Applications for development subject to Chapter 16.08 or 16.12 (Subdivision or Minor Partition) or Chapter 17.62 (Site Plan and Design Review) shall demonstrate compliance with these standards as part of the review proceedings for those developments.*
- 2. For public capital improvement projects, the City Engineer shall demonstrate compliance with these standards pursuant to a Type II process.*
- 3. Tree canopy removal greater than 25% on sites greater than 25% percent slope, unless exempted under section 17.41.040, shall be subject to these standards.*
- 4. A heritage tree or grove which has been designated pursuant to the procedures of Chapter 12.08.050 shall be subject to the standards of this section.*

17.41.030 – Tree Protection - Conflicting Code Provisions.

Except as otherwise specified in this section, where these standards conflict with adopted City development codes or policies, the provision which provides the greater protection for regulated trees or groves, as defined in section 17.04, shall govern.

RESPONSE: These sections are not approval standards.

17.41.040 – Tree Protection – Exemptions.

These regulations are not intended to regulate normal cutting, pruning and maintenance of trees on private property except where trees are located on lots that are undergoing development review or are otherwise protected within the Natural Resource Overlay District (NROD) of section 17.49. These standards are not intended to regulate farm and forest practices as those practices are defined under ORS 30.930.

Farm or forest resources. An applicant for development may claim exemption from compliance with these standards if the development site containing the regulated grove or trees was a designated farm or forest use, tree farm, Christmas tree plantation, or other approved timber use within one year prior to development application. "Forest practices" and "forestlands" as used in this subsection shall have the meaning as set out

in ORS 30.930. The Community Development Director has the authority to modify or waive compliance in this case.

RESPONSE: These sections are not approval standards.

17.41.050 - Tree Protection – Compliance Options.

Applicants for review shall comply with these requirements through one or a combination of the following procedures:

A. Option 1 - Mitigation. Retention and removal of trees, with subsequent mitigation by replanting pursuant to section 17.41.060 or 17.41.070. All replanted and saved trees shall be protected by a permanent restrictive covenant or easement approved in form by the city.

B. Option 2 – Dedicated Tract. Protection of trees or groves by placement in a tract within a new subdivision or partition plat pursuant to sections 17.41.080-100; or

C. Option 3 – Restrictive Covenant. Protection of trees or groves by recordation of a permanent restrictive covenant pursuant to section 17.41.110-120.; or

D. Option 4 - Cash-in-lieu of planting pursuant to Section 17.41.130.

A regulated tree that has been designated for protection pursuant to this section must be retained or permanently protected unless it has been determined by a certified arborist to be diseased or hazardous, pursuant to the following applicable provisions.

The Community Development Director, pursuant to a Type II procedure, may allow a property owner to cut a specific number of trees within a regulated grove if preserving those trees would:

- (1) Preclude achieving 80% of minimum density with reduction of lot size; or
- (2) Preclude meeting minimum connectivity requirements for subdivisions.

RESPONSE: The applicant will select Option 1 for tree removal and replanting.

17.41.060 - Tree Removal and Replanting - Mitigation (Option 1).

A. Applicants for development who select this option shall ensure that all healthy trees shall be preserved outside the construction area as defined in Chapter 17.04 to the extent practicable. Compliance with these standards shall be demonstrated in a tree mitigation plan report prepared by a certified arborist, horticulturalist or forester or other environmental professional with experience and academic credentials in forestry or arboriculture. At the applicant's expense, the City may require the report to be reviewed by a consulting arborist. The number of replacement trees required on a development site shall be calculated separately from, and in addition to, any public or street trees in the public right-of-way required under section 12.08 – Community Forest and Street Trees.

B. The applicant shall determine the number of trees to be mitigated on the site by counting all of the trees 6" DBH (minimum 4.5 feet from the ground) or larger on the entire site and either:

- (1) Trees that are removed outside of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Trees that are removed within the construction area shall be replanted with the number of replacement trees required in Column 2; or

(2) Diseased or hazardous trees, when the condition is verified by a certified arborist to be consistent with the definition in Section 17.04.1360, may be removed from the tree replacement calculation. Regulated healthy trees that are removed outside of the construction area, shall be replanted with the number of trees specified in Column 1 of Table 17.41.060-1. Regulated healthy trees that are removed within the construction area shall be replanted with the number of replacement trees required in Column 2.

Steps for calculating the number of replacement trees:

1. Count all trees measuring 6" DBH (minimum 4.5 feet from the ground) or larger on the entire development site.
2. Designate (in certified arborists report) the condition and size (DBH) of all trees pursuant to accepted industry standards.
3. Document any trees that are currently diseased or hazardous.
4. Subtract the number of diseased or hazardous trees in step (3) from the total number of trees on the development site in step (1). The remaining number is the number of healthy trees on the site. Use this number to determine the number of replacement trees in steps (5) through (8).
5. Define the construction area (as defined in Chapter 17.04)
6. Determine the number and diameter of trees to be removed within the construction area. Based on the size of each tree, use Column 2 to determine the number of replacement trees required.
7. Determine the number and diameter of trees to be removed outside of the construction area. Based on the size of each tree, use Column 1 to determine the number of replacement trees required.
8. Determine the total number of replacement trees from steps (6) and (7).

17.41.070 – Planting Area Priority for Mitigation (Option 1).

Development applications which opt for removal of trees with subsequent replanting pursuant to section 17.41.050(A) shall be required to mitigate for tree cutting by complying with the following priority for replanting standards below:

- A. First Priority. Replanting on the development site.
- B. Second Priority. Off-site Replacement Tree Planting Locations. If the Community Development Director determines that it is not practicable to plant the total number of replacement trees on-site, a suitable off-site planting location for the remainder of the trees may be approved that will reasonably satisfy the objectives of this section. Such locations may include either publicly owned or private land and must be approved by the Community Development Director.

RESPONSE: The detailed development site plans in Figures 12-17 show that there is one existing tree that will be removed that is within the construction area. It is a 30" DBH Cedar tree. Per the calculations detailed in 17.41.060.B.2 and Table 17.41.060-1 the number of replacement trees to be planted is four. The landscape planting plan in Figure 16 shows a plan to plant approximately 24 trees on the development site that are not street trees or part of any street improvements.

17.44 - US – Geologic Hazards

17.44.010 Intent and Purpose.

The intent and purpose of the provisions of this chapter are:

- A. To ensure that activities in geologic hazard areas are designed based on detailed knowledge of site conditions in order to reduce the risk of private and public losses;*
- B. To establish standards and requirements for the use of lands within geologic hazard areas;*
- C. To provide safeguards to prevent undue hazards to property, the environment, and public health, welfare, and safety in connection with use of lands within geologic hazard areas;*
- D. To mitigate risk associated with geologic hazard areas, not to act as a guarantee that the hazard risk will be eliminated, nor as a guarantee that there is a higher hazard risk at any location. Unless otherwise provided, the geologic hazards regulations are in addition to generally applicable standards provided elsewhere in the Oregon City Municipal Code.*

17.49 - Natural Resource Overlay District

17.49.010 Purpose

The Natural Resource Overlay District designation provides a framework for protection of Metro Titles 3 and 13 lands, and Statewide Planning Goal 5 resources within Oregon City. The Natural Resource Overlay District (NROD) implements the Oregon City Comprehensive Plan Natural Resource Goals and Policies, as well as Federal Clean Water Act requirements for shading of streams and reduction of water temperatures, and the recommendations of the Metro ESEE Analysis. It is intended to resolve conflicts between development and conservation of habitat, stream corridors, wetlands, and floodplains identified in the City's maps. The NROD contributes to the following functional values:

- A. Protect and restore streams and riparian areas for their ecologic functions and as an open space amenity for the community.*
 - B. Protect floodplains and wetlands, and restore them for improved hydrology, flood protection, aquifer recharge, and habitat functions.*
 - C. Protect upland habitats, and enhance connections between upland and riparian habitat.*
 - D. Maintain and enhance water quality and control erosion and sedimentation through the revegetation of disturbed sites and by placing limits on construction, impervious surfaces, and pollutant discharges.*
 - E. Conserve scenic, recreational, and educational values of significant natural resources.*
- The NROD ecological functions listed above are planned for integration with existing neighborhoods and new residential and commercial developments. The long-term goal of the NROD is to restore and enhance stream corridors, wetlands, and forests to more natural vegetated conditions, recognizing that existing homes and other existing uses will continue in the district. This chapter does not regulate the development within the identified water resource. Separate permits from the Division of State Lands and the Army Corp of Engineers may be required for work within a stream or wetland.*

RESPONSE: Providence is requesting an exemption for all areas outside of the NROD overlay as well as the Geologic Hazards overlay. The land use application form for this submission has been updated to reflect the request for a Type III NROD exemption. The scope of work for DP 11-03 is outside the overlay areas for both the NROD and the Geologic Hazard zone. Should a DDP

application be submitted for any area subject to OCMC Chapters 17.44 or 17.49, the application will include the relevant development permit applications.

17.52.020 Number of Automobile Spaces Required.

A. The number of parking spaces shall comply with the minimum and maximum standards listed in Table 17.52.020. The parking requirements are based on spaces per 1,000 square feet gross leasable area unless otherwise stated.

1. Multiple Uses. In the event several uses occupy a single structure or parcel of land, the total requirements for off-street parking shall be the sum of the requirements of the several uses computed separately.
2. Requirements for types of buildings and uses not specifically listed herein shall be determined by the Community Development Director, based upon the requirements of comparable uses listed.
3. Where calculation in accordance with the following list results in a fractional space, any fraction less than one-half shall be disregarded and any fraction of one-half or more shall require one space.
4. The minimum required parking spaces shall be available for the parking of operable passenger automobiles of residents, customers, patrons and employees only, and shall not be used for storage of vehicles or materials or for the parking of trucks used in conducting the business or use.
5. A Change in Use within an existing building located in the MUD Design District is exempt from additional parking requirements. Additions to an existing building or new construction in the District are required to meet the minimum parking requirements in Table 17.52.020.

RESPONSE: The Division Street Parking lot detailed development is on the PWF hospital campus. The parking capacity evaluation completed in the TIA in Appendix B pages 42-50 shows that the campus meets the City requirements for minimum and maximum parking requirements.

B. Reduction of the Number of Automobile Spaces Required. The required number of parking stalls may be reduced if one or more of the following is met:

1. Transit Oriented Development. The Community Development Director may reduce the required number of parking stalls up to 10% when it is determined that a commercial business center or multi-family project is adjacent to or within 1,000 feet of an existing or planned public transit. Also, if a commercial center is within 1,000 feet of a multi-family project, with over 80 units and pedestrian access, the parking requirements may be reduced by 10%.
2. Transportation Demand Management. The Community Development Director may reduce the required number of parking stalls up to 10% when a parking-traffic study prepared by a traffic engineer demonstrates:
 - a. Alternative modes of transportation, including transit, bicycles, and walking, and/or special characteristics of the customer, client, employee or resident population will reduce expected vehicle use and parking space demand for this development, as compared to standard Institute of Transportation Engineers vehicle trip generation rates and minimum city parking requirements.
 - b. A Transportation Demand Management (TDM) Program has been

developed for approval by the City Engineer. The plan will contain strategies for reducing vehicle use and parking demand generated by the development and will be measured annually. If, at the annual assessment, the City determines the plan is not successful, the plan may be revised. If the City determines that no good-faith effort has been made to implement the plan, the City may take enforcement actions.

3. *Shared Parking.* The Community Development Director may reduce the required number of parking stalls up to 50% for:

a. *Mixed uses.* If more than one type of land use occupies a single structure or parcel of land, the total requirements for off-street automobile parking shall be the sum of the requirements for all uses, unless it can be shown that the peak parking demands are actually less (i.e., the uses operate on different days or at different times of the day). In that case, the total requirements shall be reduced accordingly, up to a maximum reduction of 50%, as determined by the Community Development Director.

b. *Shared parking.* Required parking facilities for two or more uses, structures, or parcels of land may be satisfied by the same parking facilities used jointly, to the extent that the owners or operators show that the need for parking facilities does not materially overlap (e.g., uses primarily of a daytime versus nighttime nature), that the shared parking facility is within 1,000 feet of the potential uses, and provided that the right of joint use is evidenced by a recorded deed, lease, contract, or similar written instrument establishing the joint use.

4. *Reduction in Parking for Tree Preservation.* The Community Development Director may grant an adjustment to any standard provided that the adjustment preserves a regulated tree or grove so that the reduction in the amount of required pavement can help preserve existing healthy trees in an undisturbed, natural condition. The amount of reduction can be determined only after taking into consideration any unique site conditions and the impact of the reduction on parking needs for the use, and must be approved by the Community Development Director. This reduction is discretionary and subject to the approval of the Community Development Director.

5. *On-Street Parking.* On-street parking for commercial, multifamily, industrial and institutional, uses shall conform to the following standards:

1. *Dimensions.* The following constitutes one on-street parking space:

a. Parallel parking, each [22] feet of uninterrupted and available curb;

b. [45/60] degree diagonal, each with [12] feet of curb;

c. 90 degree (perpendicular) parking, each with [12] feet of curb.

2. *Location.* Parking may be counted toward the minimum standards in the Parking Requirement Table below when it is on the block abutting the subject land use. An on-street parking space must not obstruct a required clear vision area and it must not violate any law or street standard.

3. *Public Use Required for Credit.* On-street parking spaces counted toward meeting the parking requirements of a specific use may not be

used exclusively by that use, but shall be available for general public use at all times. Signs or other actions that limit general public use of on-street spaces are prohibited.

RESPONSE: Not applicable. The required number of automobile spaces is not proposed to be reduced.

17.52.030 Standards for Automobile Parking.

A. Access. Ingress and egress locations on public thoroughfares shall be located in the interests of public traffic safety. Groups of more than four parking spaces shall be so located and served by driveways so that their use will require no backing movements or other maneuvering within a street right-of-way other than an alley. No driveway with a slope of greater than fifteen percent shall be permitted without approval of the city engineer.

B. Surfacing. Required off-street parking spaces and access aisles shall have paved surfaces adequately maintained. The use of pervious asphalt/concrete and alternative designs that reduce storm water runoff and improve water quality pursuant to the city's Stormwater and Low Impact Development Design Standards are encouraged.

C. Drainage. Drainage shall be designed in accordance with the requirements of Chapter 13.12 and the city public works stormwater and grading design standards.

D. Dimensional Standards.

1. Requirements for parking developed at varying angles are according to the table included in this section. A parking space shall not be less than seven feet in height when within a building or structure, and shall have access by an all-weather surface to a street or alley. Parking stalls in compliance with the American with Disabilities Act may vary in size in order to comply with the Building Division requirements. Up to 35% of the minimum required parking may be compact, while the remaining required parking stalls are designed to standard dimensions. The Community Development Director may approve alternative dimensions for parking stalls in excess of the minimum requirement which comply with the intent of this chapter.

RESPONSE: All of the requirements of section 17.52.030 (parking stall dimensional standards, drainage, surfacing, and access) are met as shown in Figures 12-17.

17.52.040 Bicycle Parking Standards-

A. Purpose-Applicability. To encourage bicycle transportation to help reduce principal reliance on the automobile, and to ensure bicycle safety and security, bicycle parking shall be provided in conjunction with all uses other than single-family dwellings or duplexes.

B. Number of Bicycle Spaces Required. For any use not specifically mentioned in Table A, the bicycle parking requirements shall be the same as the use which, as determined by the Community Development Director is most similar to the use not specifically mentioned. Calculation of the number of bicycle parking spaces required shall be determined in the manner established in Section 17.52.020 for determining automobile parking space requirements.

C. Location of Bicycle Parking

1. Bicycle parking shall be located on-site, in one or more convenient, secure and accessible location. The City Engineer and the Community Development

Director may permit the bicycle parking to be provided within the public right-of-way. If sites have more than one building, bicycle parking shall be distributed as appropriate to serve all buildings. If a building has two or more main building entrances, the review authority may require bicycle parking to be distributed to serve all main building entrances, as it deems appropriate.

2. Bicycle parking areas shall be clearly marked or visible from on-site buildings or the street. If a bicycle parking area is not plainly visible from the street or main building entrance, a sign must be posted indicating the location of the bicycle parking area. Indoor bicycle parking areas shall not require stairs to access the space unless approved by the Community Development Director.

3. All bicycle parking areas shall be located to avoid conflicts with pedestrian and motor vehicle movement.

a. Bicycle parking areas shall be separated from motor vehicle parking and maneuvering areas and from arterial streets by a barrier or a minimum of five feet.

b. Bicycle parking areas shall not obstruct pedestrian walkways; provided, however, that the review authority may allow bicycle parking in the public sidewalk where this does not conflict with pedestrian accessibility.

4. Accessibility.

a. Outdoor bicycle areas shall be connected to main building entrances by pedestrian accessible walks.

b. Outdoor bicycle parking areas shall have direct access to a public right-of-way.

D. Bicycle parking facilities shall offer security in the form of either a lockable enclosure in which the bicycle can be stored or a stationary rack to which the bicycle can be locked. All bicycle racks and lockers shall be securely anchored to the ground or to a structure. Bicycle racks shall be designed so that bicycles may be securely locked to them without undue inconvenience.

RESPONSE: Table A in OCMC Section 17.52.040 shows that the PWF campus (Institutional, Hospital) meets the requirements for one bicycle parking space per 20 automobile parking spaces. It should also be noted that in the Transportation Impact Analysis in Appendix B pages 14 and 15 a count was taken at the PWF campus of parked bicycles in designated racks and found a maximum of three bicycles parked at any one time. PWF also meets the requirements regarding location and security. There is no further bicycle parking planned for the Division Street parking lot.

17.52.060 Parking Lot Landscaping.

Purpose. The purpose of this code section includes the following:

1. To enhance and soften the appearance of parking lots;
2. To limit the visual impact of parking lots from sidewalks, streets and particularly from residential areas;
3. To shade and cool parking areas;
4. To reduce air and water pollution;
5. To reduce storm water impacts and improve water quality; and
6. To establish parking lots that are more inviting to pedestrians and bicyclists.

A. Development Standards

1. The landscaping shall be located in defined landscaped areas that are uniformly distributed throughout the parking or loading area.
2. All areas in a parking lot not used for parking, maneuvering, or circulation shall be landscaped.
3. Parking lot trees shall be a mix of deciduous shade trees and coniferous trees. The trees shall be evenly distributed throughout the parking lot as both interior and perimeter landscaping to provide shade.
4. Required landscaping trees shall be of a minimum two-inch minimum caliper size (though it may not be standard for some tree types to be distinguished by caliper), planted according to American Nurseryman Standards, and selected from the Oregon City Street Tree List;
5. Landscaped areas shall include irrigation systems unless an alternate plan is submitted, and approved by the Community Development Director, that can demonstrate adequate maintenance
6. All plant materials, including trees, shrubbery and ground cover should be selected for their appropriateness to the site, drought tolerance, year-round greenery and coverage and staggered flowering periods. Species found on the Oregon City Native Plant List are strongly encouraged and species found on the Oregon City Nuisance Plant List are prohibited.
7. The landscaping in parking areas shall not obstruct lines of sight for safe traffic operation and shall comply with all requirements of Chapter 10.32, Traffic Sight Obstructions.
8. Landscaping shall incorporate design standards in accordance with Chapter 13.12, Stormwater Management.

B. Perimeter Parking Lot Landscaping and Parking Lot Entryway/Right-of-Way Screening. Parking lots shall include a 5-foot wide landscaped buffer where the parking lot abuts the right-of-way and/or adjoining properties. In order to provide connectivity between non-single-family sites, the Community Development Director may approve an interruption in the perimeter parking lot landscaping for a single driveway where the parking lot abuts property designated as multi-family, commercial or industrial. Shared driveways and parking aisles that straddle a lot line do not need to meet perimeter landscaping requirements.

1. The perimeter parking lot are shall include:
 - a. Trees spaced a maximum of thirty-five feet apart (minimum of one tree on either side of the entryway is required). When the parking lot is adjacent to a public right-of-way, the parking lot trees shall be offset from the street trees;
 - b. Ground cover, such as wild flowers, spaced a maximum of 16-inches on center covering one hundred percent of the exposed ground within 3 years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees; and
 - c. An evergreen hedge screen of thirty to forty-two inches high or shrubs spaced no more than four feet apart on average. The hedge/shrubs shall be parallel to and not nearer than two feet from the right-of-way line. The required screening shall be designed to allow for free access to the site and sidewalk by pedestrians. Visual breaks, no more than five feet in width, shall be provided every thirty feet within evergreen hedges

abutting public right-of-ways.

C. *Parking Area/Building Buffer.* Parking areas shall be separated from the exterior wall of a structure, exclusive of pedestrian entranceways or loading areas, by one of the following:

1. Minimum five-foot wide landscaped planter strip (excluding areas for pedestrian connection) abutting either side of a parking lot sidewalk with:
 - a. Trees spaced a maximum of thirty-five feet apart;
 - b. Ground cover such as wild flowers, spaced a maximum of 16-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees; and
 - c. An evergreen hedge of thirty to forty-two inches or shrubs placed no more than four feet apart on average; or
2. Seven-foot sidewalks with shade trees spaced a maximum of thirty-five feet apart in three-foot by five-foot tree wells.

D. *Interior Parking Lot Landscaping.* Surface parking lots shall have a minimum ten percent of the interior of the gross area of the parking lot devoted to landscaping to improve the water quality, reduce storm water runoff, and provide pavement shade. Interior parking lot landscaping shall not be counted toward the fifteen percent minimum total site landscaping required by Section 17.62.050(1) unless otherwise permitted by the dimensional standards of the underlying zone district. Pedestrian walkways or any impervious surface in the landscaped areas are not to be counted in the percentage. Interior parking lot landscaping shall include:

- a. A minimum of one tree per six parking spaces.
- b. Ground cover, such as wild flowers, spaced a maximum of 16-inches on center covering one hundred percent of the exposed ground within three years. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees.
- c. Shrubs spaced no more than four feet apart on average.
- d. No more than eight contiguous parking spaces shall be created without providing an interior landscape strip between them. Landscape strips shall be provided between rows of parking shall be a minimum of six feet in width and a minimum of 10 feet in length.
- e. Pedestrian walkways shall have shade trees spaced a maximum of every thirty-five feet in a minimum three-foot by five-foot tree wells; or Trees spaced every thirty-five feet, shrubs spaced no more than four feet apart on average, and ground cover covering one hundred percent of the exposed ground. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees.

E. *Installation.*

1. All landscaping shall be installed according to accepted planting procedures, according to American Nurseryman Standards.
2. The site, soils and proposed irrigation systems shall be appropriate for the healthy and long-term maintenance of the proposed plant species.
3. Certificates of occupancy shall not be issued unless the landscaping requirements have been met or other arrangements have been made and approved by the city, such as the posting of a surety.

RESPONSE: The Detailed Development plans as shown in Figures 12-17 shows that all requirements of OCMC Section 17.52.060 are met.

17.52.070. Alternative landscaping plan.

Any applicant may propose an alternative landscaping plan. Such plans are often proposed to address physically constrained or smaller sites, however innovative designs for larger sites may also be considered. Alternative plans may include the use of low impact development techniques and minimized landscaping requirements. In such situations, the Community Development Director may approve variations to the landscaping standards of section 17.52.060.

A. General Review Standard. The alternative shall be meet or exceed the intent of this chapter and shall create a safe space for automobiles and pedestrians. The alternative landscaping plan shall be prepared by a licensed landscape architect.

B. Credit for Pervious / Low Impact Development. The Community Development Director may count up to 50% of the square footage of any pervious hardscaped landscape material within a parking lot that is designed and approved pursuant to the City's adopted Stormwater and Low Impact Development Design Standards toward minimum landscaping requirements for the site. (This includes porous pavement detention, open celled block pavers, porous asphalt, porous concrete pavement, porous turf, porous gravel, etc).

RESPONSE: The applicant is not proposing an alternative landscaping plan.

17.52.080. Maintenance.

The owner, tenant and their agent, if any, shall be jointly and severally responsible for the maintenance of the site including but not limited to the off-street parking and loading spaces, bicycle parking and all landscaping which shall be maintained in good condition so as to present a healthy, neat and orderly appearance and shall be kept free from refuse and debris. All plant growth in interior landscaped areas shall be controlled by pruning, trimming, or otherwise so that:

- a. It will not interfere with the maintenance or repair of any public utility;*
- b. It will not restrict pedestrian or vehicular access; and*
- c. It will not constitute a traffic hazard due to reduced visibility.*

RESPONSE: The applicant agrees that it will conform to this standard.

17.58 - Lawful Nonconforming Uses, Structures, and Lots

17.58.010 - Purpose.

Nonconforming situations are created when the application of zoning district to a site changes or the zoning regulations change. As part of the change, existing uses, density, or development might no longer be allowed or are further restricted. Nonconforming uses, structures and lots are those uses, structures and lots that were lawfully established but do not conform to the provisions of this title or the provisions of the zoning district in which the use, structure or lot is located. The intent of these provisions is not to force all nonconforming situations immediately to be brought into conformance. Instead, the intent is to guide nonconforming situations in a new direction consistent with city policy,

and, eventually, bring them into conformance.

RESPONSE: The proposed parking lot is a part of the Willamette Falls Medical Center campus. The campus is a "site" as that term is used in OCMC Chapter 17.58. The City believes that the campus' parking lots (other than the existing Division Street parking lot) are non-conforming (they were lawfully developed in compliance at the time of development but do not meet current OCMC standards). Therefore, OCMC 17.58.040(C)(2)(c)(1) and (C)(2)(d)(1) apply. The City and the applicant have agreed that each DDP application which includes an existing parking lot will implement OCMC 17.58.040(C)(2)(d)(1) so that the applicant will spend up to ten percent (10%) of the project cost on parking lot improvements meeting current standards.

17.62.010 Purpose.

The purposes of site plan and design review are to: encourage site planning in advance of construction; protect lives and property from potential adverse impacts of development; consider natural or man-made hazards which may impose limitations on development; conserve the city's natural beauty and visual character and minimize adverse impacts of development on the natural environment as much as is reasonably practicable; assure that development is supported with necessary public facilities and services; ensure that structures and other improvements are properly related to their sites and to surrounding sites and structure; and implement the city's comprehensive plan and land use regulations with respect to development standards and policies.

RESPONSE: The proposed Detailed Development Plan has been prepared in accordance with the standards of OCMC 17.62, and compliance with the standards is demonstrated on the site plans in Figures 12-17.

17.62.040 Plans Required.

A complete application for site plan and design review shall be submitted. Except as otherwise in subsection I of this section, the application shall include the following plans and information:

A. A site plan or plans, to scale, containing the following:

- 1. Vicinity information showing streets and access points, pedestrian and bicycle pathways, transit stops and utility locations;*
- 2. The site size, dimensions, and zoning, including dimensions and gross area of each lot or parcel and tax lot and assessor map designations for the proposed site and immediately adjoining properties;*
- 3. Contour lines at two foot contour intervals for grades zero to ten percent, and five-foot intervals for grades over ten percent;*
- 4. The location of natural hazard areas on and within one hundred feet of the boundaries of the site, including:*
 - a. Areas indicated on floodplain maps as being within the one hundred-year floodplain,*
 - b. Unstable slopes, as defined in Section 17.44.020,*
 - c. Areas identified on the seismic conditions map in the comprehensive plan as subject to earthquake and seismic conditions;*
- 5. The location of natural resource areas on and within one hundred feet of the boundaries of the site, including fish and wildlife habitat, existing trees (six*

inches or greater in caliper measured four feet above ground level), wetlands, streams, natural areas, wooded areas, areas of significant trees or vegetation, and areas designated as being within the natural resources overlay district;

6. The location of inventoried historic or cultural resources on and within one hundred feet of the boundaries of the site;
7. The location, dimensions, and setback distances of all existing permanent structures, improvements and utilities on or within twenty-five feet of the site, and the current or proposed uses of the structures;
8. The location, dimensions, square footage, building orientation and setback distances of proposed structures, improvements and utilities, and the proposed uses of the structures by square footage;
9. The location, dimension and names, as appropriate, of all existing and platted streets, other public ways, sidewalks, bike routes and bikeways, pedestrian/bicycle accessways and other pedestrian and bicycle ways, transit street and facilities, neighborhood activity centers, and easements on and within two hundred fifty feet of the boundaries of the site;
10. The location, dimension and names, as appropriate, of all proposed streets, other public ways, sidewalks, bike routes and bikeways, pedestrian/bicycle accessways and other pedestrian and bicycle ways, transit streets and facilities, neighborhood activity centers, and easements on and within two hundred fifty feet of the boundaries of the site;
11. All parking, circulation, loading and servicing areas, including the locations of all carpool, vanpool and bicycle parking spaces as required in Chapter 52 of this title;
12. Site access points for automobiles, pedestrians, bicycles and transit;
13. On-site pedestrian and bicycle circulation;
14. Outdoor common areas proposed as open space;
15. Total impervious surface created (including buildings and hard ground surfaces).
16. The proposed location, dimensions and materials of fences and walls.

RESPONSE: The Detailed Development plans in Figures 12-17 shows that all requirements of OCMC Section 17.62.040.A are met.

B. A landscaping plan, drawn to scale, showing the location and types of existing trees (six inches or greater in caliper measured four feet above ground level) and vegetation proposed to be removed and to be retained on the site, the location and design of landscaped areas, the varieties, sizes and spacings of trees and plant materials to be planted on the site, other pertinent landscape features, and irrigation systems required to maintain plant materials.

RESPONSE: The Detailed Development plan in Figure 16 shows that all requirements of OCMC Section 17.62.040.B are met.

C. Architectural drawings or sketches, drawn to scale and showing floor plans, elevations accurately reflected to grade, and exterior materials of all proposed structures and other improvements as they will appear on completion of construction.

RESPONSE: The Detailed Development plans in Figures 12-17 shows that all requirements of OCMC Section 17.62.040.A are met. There are no proposed structures as part of this detailed development plan.

D. A materials board, no larger size than eleven inches by seventeen inches clearly depicting all building materials with specifications as to type, color and texture of exterior materials of proposed structures. An electronic version may be accepted as an alternative if approved by the Community Development Director.

RESPONSE: This Detailed Development plan is not proposing any new structures. This section is not an approval standard.

E. An erosion/sedimentation control plan, in accordance with the requirements of Chapter 17.47 and the Public Works Erosion and Sediment Control Standards, and a drainage plan developed in accordance with city drainage master plan requirements, Chapter 13.12 and the Public Works Stormwater and Grading Design Standards. The drainage plan shall identify the location of drainage patterns and drainage courses on and within one hundred feet of the boundaries of the site. Where development is proposed within an identified hazard area, these plans shall reflect concerns identified in the hydrological/geological/ geotechnical development impact statement.

RESPONSE: The Detailed Development plans in Figures 15A-15B show that all requirements of OCMC Section 17.62.040.E are met.

F. The legal description of the site.

RESPONSE: The Detailed Development plans in Figures 12-17 as well as the lot consolidation description in Appendix D shows that all requirements of OCMC Section 17.62.040.F are met.

G. An exterior lighting plan, drawn to scale, showing type, height, and area of illumination.

RESPONSE: The Detailed Development plan in Figure 17 shows that all requirements of OCMC Section 17.62.040.G are met.

H. Archeological Monitoring Recommendation. For all projects that will involve ground disturbance, the applicant shall provide,

- 1. A letter or email from the Oregon State Historic Preservation Office Archaeological Division indicating the level of recommended archeological monitoring on-site, or demonstrate that the applicant had notified the Oregon State Historic Preservation Office and that the Oregon State Historic Preservation Office had not commented within 45 days of notification by the applicant; and*
- 2. A letter or email from the applicable tribal cultural resource representative of the Confederated Tribes of the Grand Ronde, Confederated Tribes of the Siletz, Confederated Tribes of the Umatilla, Confederated Tribes of the Warm Springs and the Confederated Tribes of the Yakama Nation indicating the level*

of recommended archeological monitoring on-site, or demonstrate that the applicant had notified the applicable tribal cultural resource representative and that the applicable tribal cultural resource representative had not commented within 45 days of notification by the applicant.

If, after 45 days notice from the applicant, the Oregon State Historic Preservation Office or the applicable tribal cultural resource representative fails to provide comment, the city will not require the letter or email as part of the completeness review. For the purpose of this section, ground disturbance is defined as the movement of native soils.

I. Such special studies or reports as the Community Development Director may require to obtain information to ensure that the proposed development does not adversely affect the surrounding community or identified natural resource areas or create hazardous conditions for persons or improvements on the site. The Community Development Director shall require an applicant to submit one or more development impact statements, as described in Section 16.12.050, upon determination that (1) there is a reasonable likelihood that traffic safety or capacity improvements may be required; (2) the proposal could have significant adverse impacts on identified natural resource areas, including areas designated as being within the natural resources overlay district; or (3) the proposal would be located on or could have significant adverse impacts on natural hazard areas, including the geologic hazard and flood plain overlay districts. The Community Development Director shall determine which types of development impact statements are necessary and provide written reasons for requiring the statement(s). The development impact statements shall include the information described in Sections 16.12.070, 16.12.080, and 16.12.120. 17.62.040

J. The Community Development Director may waive the submission of information for specific requirements of this section or may require information in addition to that required by a specific provision of this section, as follows:

1. The Community Development Director may waive the submission of information for a specific requirement upon determination either that specific information is not necessary to evaluate the application properly, or that a specific approval standard is not applicable to the application. If submission of information is waived, the Community Development Director shall, in the decision, identify the waived requirements, explain the reasons for the waiver, and state that the waiver may be challenged on appeal and may be denied by a subsequent review authority. If the matter is forwarded to the planning commission for initial review, the information required by this paragraph shall be included in the staff report;

2. The Community Development Director may require information in addition to that required by a specific provision of this section upon determination that the information is needed to evaluate the application properly and that the need can be justified on the basis of a special or unforeseen circumstance. If additional information is required, the Community Development Director shall, in the decision, explain the reasons for requiring the additional information.

RESPONSE: PWF is requesting the Community Development Director to waive the requirements of OCMC 17.62.040.H per the provisions of OCMC 17.62.040.J) because there is no reason to believe that there are any archaeological resources on the development site. If during construction any such resources are encountered, PWF will comply with state and federal law by stopping construction until an

archaeological review is completed.

K.. If the applicant has not already done so as some other part of the land use review process, the applicant shall submit an erosion control plan that complies with the applicable requirements of Chapter 17.74 of this code.

RESPONSE: The Detailed Development plans in Figures 15A-15B show that all requirements of OCMC Section 17.62.040.K are met.

17.62.050 Standards.

A. All development shall comply with the following standards:

1. Landscaping, A minimum of fifteen percent of the lot shall be landscaped. Existing native vegetation shall be retained to the maximum extent practicable. All plants listed on the Oregon City Nuisance Plant List shall be removed from the site prior to issuance of a final occupancy permit for the building.
 - a. Except as allowed elsewhere in the Zoning and Land Division Chapters of this code, all areas to be credited towards landscaping must be installed with growing plant materials. A reduction of up to 25% of the overall required landscaping may be approved by the Community Development Director if the same or greater amount of pervious material is incorporated in the non-parking lot portion of the site plan (pervious material within parking lots are regulated in OCMC 17.52.070).
 - b. Pursuant to Chapter 17.49, landscaping requirements within the Natural Resource Overlay District, other than landscaping required for parking lots, may be met by preserving, restoring and permanently protecting native vegetation and habitat on development sites.
 - c. The landscaping plan shall be prepared by a registered landscape architect and include a mix of vertical (trees and shrubs) and horizontal elements (grass, groundcover, etc.) that within 3 years will cover 100% of the Landscape area. No mulch, bark chips, or similar materials shall be allowed at the time of landscape installation except under the canopy of shrubs and within two feet of the base of trees. The Community Development Department shall maintain a list of trees, shrubs and vegetation acceptable for landscaping.
 - d. For properties within the Downtown Design District, or for major remodeling in all zones subject to this chapter, landscaping shall be required to the extent practicable up to the ten percent requirement.
 - e. Landscaping shall be visible from public thoroughfares to the extent practicable.
 - f. Interior parking lot landscaping shall not be counted toward the fifteen percent minimum, unless otherwise permitted by the dimensional standards of the underlying zone district.

RESPONSE: 26% of the parking lot site is landscaped as shown in Figure 16. Tree and shrub schedules are also shown in Figure 16.

2. Vehicular Access and Connectivity

- a. Parking areas shall be located behind buildings, below buildings, or on one or both sides of buildings.
- b. Ingress and egress locations on public thoroughfares shall be located in the interest of public safety. Access for emergency services (fire and police) shall be provided.
- c. Alleys or vehicular access easements shall be provided in the following Districts: R-2, MUC-1, MUC-2, MUD and NC zones unless other permanent provisions for access to off-street parking and loading facilities are approved by the decision-maker. The corners of alley intersections shall have a radius of not less than ten feet.
- d. Sites abutting an alley shall be required to gain vehicular access from the alley unless deemed impracticable by the Community Development Director.
- e. Where no alley access is available, the development shall be configured to allow only one driveway per frontage. On corner lots, the driveway(s) shall be located off of the side street (unless the side street is an arterial) and away from the street intersection. Shared driveways shall be required as needed to accomplish the requirements of this section. The location and design of pedestrian access from the public sidewalk shall be emphasized so as to be clearly visible and distinguishable from the vehicular access to the site. Special landscaping, paving, lighting, and architectural treatments may be required to accomplish this requirement
- f. Development shall be required to provide existing or future connections to adjacent sites through the use of a vehicular and pedestrian access easements where applicable.
- g. Parking garage entries (both individual, private and shared parking garages) shall not dominate the streetscape. They shall be designed and situated to be ancillary to the use and architecture of the ground floor. This standard applies to both public garages and any individual private garages, whether they front on a street or private interior access road.
- h. Buildings containing above-grade structured parking shall screen such parking areas with landscaping or landscaped berms, or incorporate contextual architectural elements that complement adjacent buildings or buildings in the area. Upper level parking garages shall use articulation or fenestration treatments that break up the massing of the garage and/or add visual interest.

RESPONSE: (a) DP 11-03 develops a parking lot which meets OCMC standards and is located to the side of the MOB plaza's. (b) Ingress and egress to the parking lot has been limited to one driveway and is located as far back from the Davis Road and Division Street intersection as possible. (c)(d) There are no alley's in this DDP. (e) There is only one driveway for the lot (three frontages) and it is located away from the intersection of Davis Road and Division Street. (f) No applicable adjacent sites. (g)(h) DP 11-03 is surface parking only.

3. Building structures shall be complimentary to the surrounding area. All exterior surfaces shall present a finished appearance. All sides of the building

shall include materials and design characteristics consistent with those on the front. Use of inferior or lesser quality materials for side or rear facades or decking shall be prohibited.

a. Alterations, additions and new construction located within the McLoughlin Conservation District, Canemah National Register District, and the Downtown Design District and when abutting a designated Historic Landmark shall utilize materials and a design that incorporates the architecture of the subject building as well as the surrounding district or abutting Historic Landmark. Historic materials such as doors, windows and siding shall be retained or replaced with in kind materials unless the Community Development Director determines that the materials cannot be retained and the new design and materials are compatible with the subject building, and District or Landmark. The Community Development Director may utilize the Historic Review Board's Guidelines for New Construction (2006) to develop findings to show compliance with this section.

b. In historic areas and where development could have a significant visual impact, the review authority may request the advisory opinions of appropriate experts designated by the Community Development Director from the design fields of architecture, landscaping and urban planning. The applicant shall pay the costs associated with obtaining such independent professional advice; provided, however, that the review authority shall seek to minimize those costs to the extent practicable.

RESPONSE: No buildings are proposed.

4. Grading shall be in accordance with the requirements of Chapter 15.48 and the public works stormwater and grading design standards.

RESPONSE: The grading and stormwater drainage plans as shown in Figures 14A and 14B comply with the requirements of OCMC Chapter 15.48 and the public works stormwater and grading design standards.

5. Development subject to the requirements of the Geologic Hazard overlay district shall comply with the requirements of that district.

RESPONSE: The Geologic Hazard overlay district is not mapped on this site.

6. Drainage shall be provided in accordance with city's drainage master plan, Chapter 13.12, and the public works stormwater and grading design standards.

RESPONSE: The drainage plans as shown in Figures 14A and 14B comply with the requirements of OCMC Chapter 13.12 and the public works stormwater and grading design standards.

7. Parking, including carpool, vanpool and bicycle parking, shall comply with city off-street parking standards, Chapter 17.52.

RESPONSE: The plans as shown in Figures 12-17 comply with the standards of OCMC Chapter 17.52 for off-street parking.

8. Sidewalks and curbs shall be provided in accordance with the city's transportation master plan and street design standards. Upon application, the Community Development Director may waive this requirement in whole or in part in those locations where there is no probable need, or comparable alternative location provisions for pedestrians are made.

RESPONSE: The sidewalk and curb design for DP 11-03 are in accordance with the city's transportation master plan and street design standards. The curb and sidewalk design along the Division Street frontage matches the design implemented in front of the ED project approved with the Conditional Use Permit CU 03-03 and Site Plan SP 03-19. The design for curbs and sidewalks along the Davis Road frontage meets the standards for a local street.

9. A well-marked, continuous and protected on-site pedestrian circulation system meeting the following standards shall be provided:

- a. Pathways between all building entrances and the street are required. Pathways between the street and buildings fronting on the street shall be direct. Exceptions may be allowed by the Director where steep slopes or protected natural resources prevent a direct connection or where an indirect route would enhance the design and/or use of a common open space.*
- b. The pedestrian circulation system shall connect all main entrances on the site. For buildings fronting on the street, the sidewalk may be used to meet this standard. Pedestrian connections to other areas of the site, such as parking areas, recreational areas, common outdoor areas, and any pedestrian amenities shall be required.*
- c. Elevated external stairways or walkways, that provide pedestrian access to multiple dwelling units located above the ground floor of any building are prohibited. The Community Development Director may allow exceptions for external stairways or walkways located in, or facing interior courtyard areas provided they do not compromise visual access from dwelling units into the courtyard.*
- d. The pedestrian circulation system shall connect the main entrances of adjacent buildings on the same site.*
- e. The pedestrian circulation system shall connect the principal building entrance to those of buildings on adjacent commercial and residential sites where practicable. Walkway linkages to adjacent developments shall not be required within industrial developments or to industrial developments or to vacant industrially-zoned land.*
- f. On-site pedestrian walkways shall be hard surfaced, well drained and at least five feet wide. Surface material shall contrast visually to adjoining surfaces. When bordering parking spaces other than spaces for parallel parking, pedestrian walkways shall be a minimum of seven feet in width unless curb stops are provided. When the pedestrian circulation system*

is parallel and adjacent to an auto travel lane, the walkway shall be raised or separated from the auto travel lane by a raised curb, bollards, landscaping or other physical barrier. If a raised walkway is used, the ends of the raised portions shall be equipped with curb ramps for each direction of travel. Pedestrian walkways that cross drive isles or other vehicular circulation areas shall utilize a change in textual material or height to alert the driver of the pedestrian crossing area.

RESPONSE: DP 11-03 meets OCMC section 17.62.050.A.9 that are applicable per Figure 12. The parking lot does not serve any buildings which are connected via walkway's.

10. There shall be provided adequate means to ensure continued maintenance and necessary normal replacement of private common facilities and areas, drainage ditches, streets and other ways, structures, recreational facilities, landscaping, fill and excavation areas, screening and fencing, groundcover, garbage storage areas and other facilities not subject to periodic maintenance by the city or other public agency.

RESPONSE: All water quality detention and filtration systems are accessible for continued normal maintenance.

11. Site planning shall conform to the requirements of OCMC Chapter 17.41 Tree Protection

RESPONSE: For DP 11-03 see response to OCMC Chapter 17.41 on pages 43-45.

12. Development shall be planned, designed, constructed and maintained to protect water resources and habitat conservation areas in accordance with the requirements of the city's Natural Resources Overlay District, Chapter 17.49, as applicable.

RESPONSE: The Natural Resources Overlay District is not mapped on this site.

13. All development shall maintain continuous compliance with applicable federal, state, and city standards pertaining to air and water quality, odor, heat, glare, noise and vibrations, outdoor storage, radioactive materials, toxic or noxious matter, and electromagnetic interference. Prior to issuance of a building permit, the Community Development Director or building official may require submission of evidence demonstrating compliance with such standards and receipt of necessary permits. The review authority may regulate the hours of construction or operation to minimize adverse impacts on adjoining residences, businesses or neighborhoods. The emission of odorous gases or other matter in such quantity as to be readily detectable at any point beyond the property line of the use creating the odors or matter is prohibited.

RESPONSE: The applicant acknowledges the above section.

14. Adequate public water and sanitary sewer facilities sufficient to serve the proposed or permitted level of development shall be provided. The applicant shall demonstrate that adequate facilities and services are presently available or can be made available concurrent with development. Service providers shall be presumed correct in the evidence, which they submit. All facilities shall be designated to city standards as set out in the city's facility master plans and public works design standards. A development may be required to modify or replace existing offsite systems if necessary to provide adequate public facilities. The city may require over sizing of facilities where necessary to meet standards in the city's facility master plan or to allow for the orderly and efficient provision of public facilities and services. Where over sizing is required, the developer may request reimbursement from the city for over sizing based on the city's reimbursement policy and fund availability, or provide for recovery of costs from intervening properties as they develop.

RESPONSE: As shown in Figures 14A-15B, the storm detention, drainage and erosion control plans provide adequate design solutions and facilities for the parking lot. A 1" water service line will be added to the site for landscape irrigation. No over sizing is required.

15. Adequate right-of-way and improvements to streets, pedestrian ways, bike routes and bikeways, and transit facilities shall be provided and be consistent with the city's transportation master plan and design standards and this title. Consideration shall be given to the need for street widening and other improvements in the area of the proposed development impacted by traffic generated by the proposed development. This shall include, but not be limited to, improvements to the right-of-way, such as installation of lighting, signalization, turn lanes, median and parking strips, traffic islands, paving, curbs and gutters, sidewalks, bikeways, street drainage facilities and other facilities needed because of anticipated vehicular and pedestrian traffic generation. When approving land use actions, Oregon City requires all relevant intersections to be maintained at the minimum acceptable level of service (LOS) upon full build-out of the proposed land use action. The minimum acceptable LOS standards are as follows:

- a. For signalized intersection areas of the city that are located outside the Regional Center boundaries a LOS of "D" or better for the intersection as a whole and no approach operating at worse than LOS "E" and a v/c ratio not higher than 1.0 for the sum of critical movements.
- b. For signalized intersections within the Regional Center boundaries a LOS "D" can be exceeded during the peak hour; however, during the second peak hour, LOS "D" or better will be required as a whole and no approach operating at worse than LOS "E" and a v/c ratio not higher than 1.0.
- c. For unsignalized intersection throughout the city a LOS "E" or better for the poorest approach and with no movement serving more than twenty peak hour vehicles operating at worse than LOS "F" will be tolerated for minor movements during a peak hour.

RESPONSE: As part of DP 11-03 (as shown in Figures 12-17), PWF will be improving the frontages of Division Street and Davis Road to be consistent with the city's transportation master plan. Along Division Street this means adding a bike lane, new curbs and gutters, new sidewalks, tree wells, and street trees with the appropriate landscaped buffer zone. Along Davis Road this means adding new curbs and gutters, new sidewalks, and the appropriate landscaped buffer zone. The existing street lighting on Division Street and Davis Road meet ANSI / IESNA RP-8-00 which Oregon City has adopted for roadway lighting standards.

16. If Tri-Met, upon review of an application for an industrial, institutional, retail or office development, recommends that a bus stop, bus turnout lane, bus shelter, bus landing pad or transit stop connection be constructed at the time of development, the review authority shall require such improvement, using designs supportive of transit use

RESPONSE: No buildings are proposed.

17. All utility lines shall be placed underground.

RESPONSE: The applicant acknowledges the above section.

18. Access and facilities for physically handicapped people shall be incorporated into the site and building design consistent with applicable federal and state requirements, with particular attention to providing continuous, uninterrupted access routes.

RESPONSE: No buildings are proposed.

19. For a residential development, site layout shall achieve at least eighty percent of the maximum density of the base zone for the net developable area. Net developable area excludes all areas for required right-of-way dedication, land protected from development through Natural Resource or Geologic Hazards protection, and required open space or park dedication.

RESPONSE: No residential development is proposed.

20. Screening of Mechanical Equipment:
a. Rooftop mechanical equipment, including HVAC equipment and utility equipment that serves the structure, shall be screened. Screening shall be accomplished through the use of parapet walls or a sight-obscuring enclosure around the equipment constructed of one of the primary materials used on the primary facades of the structure, and that is an integral part of the building's architectural design. The parapet or screen shall completely surround the rooftop mechanical equipment to an elevation equal to or greater than the highest portion of the rooftop mechanical equipment being screened. In the event such parapet wall does not fully screen all rooftop equipment, then the rooftop equipment

shall be enclosed by a screen constructed of one of the primary materials used on the primary facade of the building so as to achieve complete screening.

b. Wall-mounted mechanical equipment shall not be placed on the front facade of a building or on a facade that faces a right-of-way. Wall-mounted mechanical equipment, including air conditioning or HVAC equipment and groups of multiple utility meters, that extends six inches or more from the outer building wall shall be screened from view from streets; from residential, public, and institutional properties; and from public areas of the site or adjacent sites through the use of (a) sight-obscuring enclosures constructed of one of the primary materials used on the primary facade of the structure, (b) sight-obscuring fences, or (c) trees or shrubs that block at least 80 percent of the equipment from view or (d) painting the units to match the building. Wall-mounted mechanical equipment that extends six inches or less from the outer building wall shall be designed to blend in with the color and architectural design of the subject building.

c. Ground-mounted above-grade mechanical equipment shall be screened by ornamental fences, screening enclosures, trees, or shrubs that block at least 80 percent of the view. Placement and type of screening shall be determined by the Community Development Director.

d. All mechanical equipment shall comply with the standards in this section. If mechanical equipment is installed outside of the Site Plan and Design Review process, planning staff shall review the plans to determine if additional screening is required. If the proposed screening meets this section, no additional Planning review is required.

e. This section shall not apply to the installation of solar energy panels, photovoltaic equipment or wind power generating equipment.

RESPONSE: No mechanical equipment is proposed.

21. Building Materials

a. Preferred building materials. Building exteriors shall be constructed from high quality, durable materials. Preferred exterior building materials that reflect the City's desired traditional character are as follows:

i. Brick.

ii. Basalt stone or basalt veneer

iii. Narrow horizontal wood or composite siding (generally 5 inches wide or less); wider siding will be considered where there is a historic precedent.

iv. Board and baton siding

v. Other materials subject to approval by the Community Development Director.

vi. Plywood with battens or fiber/composite panels with concealed fasteners and contiguous aluminum sections at each joint that are either horizontally or vertically aligned.

- vii. Stucco shall be trimmed in wood, masonry, or other approved materials and shall be sheltered from extreme weather by roof overhangs or other methods.
- b. Prohibited materials. The following materials shall be prohibited in visible locations unless an exception is granted by the Community Development Director based on the integration of the material into the overall design of the structure.
 - i. Vinyl or plywood siding(including T-111 or similar plywood).
 - ii. Glass block or highly tinted, reflected, translucent or mirrored glass (except stained glass) as more than 10 percent of the building façade
 - iii. Corrugated fiberglass.
 - iv. Chain link fencing (except for temporary purposes such as a construction site or as a
 - v. gate for a refuse enclosure).
 - vi. Crushed colored rock/crushed tumbled glass.
 - vii. Non-corrugated and highly reflective sheet metal.
- c. Special material standards: The following materials are allowed if they comply with the requirements found below:
 - 1. Concrete block. When used for the front façade of any building, concrete blocks shall be split, rock- or ground-faced and shall not be the prominent material of the elevation. Plain concrete block or plain concrete may be used as foundation material if the foundation material is not revealed more than 3 feet above the finished grade level adjacent to the foundation wall.
 - 2. Metal siding. Metal siding shall have visible corner moldings and trim and incorporate masonry or other similar durable/ permanent material near the ground level (first two feet above ground level).
 - 3. Exterior Insulation and Finish System (EIFS) and similar troweled finishes shall be trimmed in wood, masonry, or other approved materials and shall be sheltered from extreme weather by roof overhangs or other methods.
 - 4. Building surfaces shall be maintained in a clean condition and painted surfaces shall be maintained to prevent or repair peeling, blistered or cracking paint.

RESPONSE: No buildings are proposed.

22. Conditions of Approval. The review authority may impose such conditions as it deems necessary to ensure compliance with these standards and other applicable review criteria, including standards set out in city overlay districts, the city's master plans, and city public works design standards. Such conditions shall apply as described in Sections 17.50.310, 17.50.320 and 17.50.330. The review authority may require a property owner to sign a waiver of remonstrance against the formation of and participation in a local improvement district where it deems

such a waiver necessary to provide needed improvements reasonably related to the impacts created by the proposed development. To ensure compliance with this chapter, the review authority may require an applicant to sign or accept a legal and enforceable covenant, contract, dedication, easement, performance guarantee, or other document, which shall be approved in form by the city attorney.

RESPONSE: The applicant proposes the following condition of approval to address the City's request for Division Street paving and frontage improvements concurrent with construction of the medical office building and master plan Phase III.

"This condition of approval is part of the General Development Plan ("GDP") master plan approval. Phase III of the master plan includes a medical office building on Division Street. This condition of approval requires that at the time the medical office building on Division Street is approved through a detailed development plan ("DDP"), the applicant shall agree to street improvements on the medical office building Division Street frontage as shown on Exhibit 1 (see Page 68), attached hereto and incorporated herein, as part of this condition of approval. The street improvements include, if warranted at the time of DDP approval, street trees, landscaping strip, sidewalk, curb, gutter and travel surface and base improvements. For DP 11-03, street frontage improvements per OCMC and standards include sidewalks, street trees, tree well's, bike lane, curb and gutter, and landscaping strip."



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Project Title:
DIVISION STREET
PARKING LOT
OREGON CITY
OREGON

PROVIDENCE
WILLAMETTE FALLS
MEDICAL CENTER

Key Plan:

Sheet Title:

Drawn By:

Date:

Revised:

No. Revisions: 1 Date:

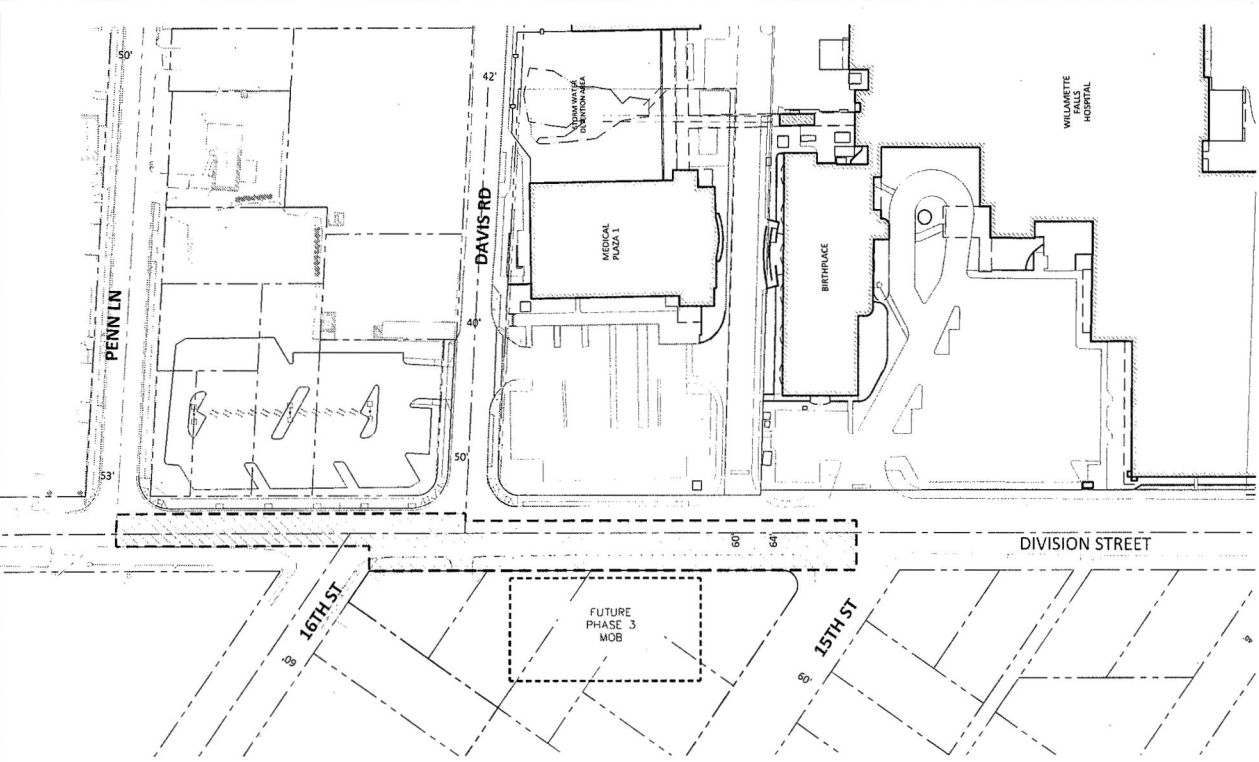
PHASE 3 MOB
DIVISION STREET
ROADWAY
IMPROVEMENTS

Project Number:

110020

Sheet Number:

EX 1



LEGEND:



ANTICIPATED PHASE 3 MOB IMPROVEMENTS

- NEW CURB, GUTTER, SIDEWALK AND PLANTER ALONG THE WEST SIDE OF DIVISION ST FROM 15TH ST TO 16TH ST.
- FULL PAVEMENT RESTORATION FROM NEW GUTTER TO 10' EAST OF DIVISION ST CENTERLINE FROM 15TH ST TO 16TH ST.
- PAVEMENT RESTORATION ONLY FROM EAST GUTTER TO 10' WEST OF CENTERLINE FROM 16TH ST TO PENN LANE.



PKA ARCHITECTS

PROVIDENCE WILLAMETTE FALLS MEDICAL CENTER MASTER PLAN

68

17.62.065 Outdoor Lighting

A. Purpose. The general purpose of this Section is to require outdoor lighting that is adequate for safety and convenience; in scale with the activity to be illuminated and its surroundings; directed to the surface or activity to be illuminated; and designed to clearly render people and objects and contribute to a pleasant nighttime environment. Additional specific purposes are to:

- 1. Provide safety and personal security as well as convenience and utility in areas of public use or traverse, for uses where there is outdoor public activity during hours of darkness;*
- 2. Control glare and excessive brightness to improve visual performance, allow better visibility with relatively less light, and protect residents from nuisance and discomfort;*
- 3. Control trespass light onto neighboring properties to protect inhabitants from the consequences of stray light shining in inhabitants' eyes or onto neighboring properties;*
- 4. Result in cost and energy savings to establishments by carefully directing light at the surface area or activity to be illuminated, using only the amount of light necessary; and*
- 5. Control light pollution to minimize the negative effects of misdirected light and recapture views to the night sky.*

RESPONSE: The applicant acknowledges the above OCMC section.

B. Applicability

1. General

- a. All exterior lighting for any type of commercial, mixed-use, industrial or multi-family development shall comply with the standards of this Section, unless excepted in Subsection B.3.*
- b. The City Engineer/Public Works Director shall have the authority to enforce these regulations on private property if any outdoor illumination is determined to present an immediate threat to the public health, safety and welfare.*

2. Lighting Plan Requirement

All commercial, industrial, mixed-use, cottage housing and multi-family developments shall submit a proposed exterior lighting plan. The plan must be submitted concurrently with the site plan. The exterior lighting plan shall include plans and specifications for streetlights, parking lot lights, and exterior building lights. The specifications shall include details of the pole, fixture height and design, lamp type, wattage, and spacing of lights.

3. Excepted Lighting

The following types of lighting are excepted from the requirements of this Section.

- a. Residential lighting for single-family attached and detached homes, and duplexes.*
- b. Public street and right-of-way lighting.*
- c. Temporary decorative seasonal lighting provided that individual lamps have a light output of 60 watts or less.*

- d. Temporary lighting for emergency or nighttime work and construction.
- e. Temporary lighting for theatrical, television, and performance areas, or for special public events.
- f. Lighting for a special district, street, or building that, according to an adopted municipal plan or ordinance, is determined to require special lighting aesthetics as part of its physical character.
- g. Lighting required and regulated by the Federal Aviation Administration.

RESPONSE: OCMC 17.62.065.B is applicable to DP 11-03 and the lighting plan as shown in Figure 17 meets the requirements of OCMC 17.62.065.B.(2).

C. General Review Standard. If installed, all exterior lighting shall meet the functional security needs of the proposed land use without adversely affecting adjacent properties or the community. For purposes of this Section, properties that comply with the design standards of Subsection D below shall be deemed to not adversely affect adjacent properties or the community.

RESPONSE: The applicant acknowledges the above section.

D. Design and Illumination Standards

General Outdoor Lighting Standard and Glare Prohibition

1. Outdoor lighting, if provided, shall be provided in a manner that enhances security, is appropriate for the use, avoids adverse impacts on surrounding properties, and the night sky through appropriate shielding as defined in this section. Glare shall not cause illumination on other properties in excess of a measurement of 0.5 foot-candles of light as measured at the property line. In no case shall exterior lighting add more than 0.5 footcandle to illumination levels at any point off-site. Exterior lighting is not required except for purposes of public safety. However, if installed, all exterior lighting shall meet the following design standards:

RESPONSE: As shown in Figure 17, the parking lot lighting standards meet the outdoor lighting and glare standards for neighboring properties while adequately illuminating the parking lot for ease of use and safety.

2. Any light source or lamp that emits more than 900 lumens (13 watt compact fluorescent or 60 watt incandescent) shall be concealed or shielded with a full cut-off style fixture in order to minimize the potential for glare and unnecessary diffusion on adjacent property. All fixtures shall utilize one of the following bulb types: metal halide, induction lamp, compact fluorescent, incandescent (including tungsten-halogen), or high pressure sodium with a color rendering index above 70.

RESPONSE: The three light fixtures as shown in Figure 17 are specifically designed parking lot light standards meant to minimize glare.

3. *The maximum height of any lighting pole serving a multi-family residential use shall be 20 feet. The maximum height serving any other type of use shall be 25 feet, except in parking lots larger than five acres, the maximum height shall be 35 feet if the pole is located at least 100 feet from any residential use.*

RESPONSE: The pole specified in the plan is 20' in height.

4. *Lighting levels*

RESPONSE: Lighting levels as shown in Figure 17 meet OCMC standards.

5. *Parking lots and other background spaces shall be illuminated as unobtrusively as possible while meeting the functional needs of safe circulation and protection of people and property. Foreground spaces, such as building entrances and outside seating areas, shall utilize pedestrian scale lighting that defines the space without glare.*

RESPONSE: There are no proposed buildings or buildings in foreground spaces. The lighting as shown in Figure 17 is for the parking lot only.

6. *Any on-site pedestrian circulation system shall be lighted to enhance pedestrian safety and allow employees, residents, customers or the public to use the walkways at night. Pedestrian walkway lighting through parking lots shall be lighted to light the walkway and enhance pedestrian safety pursuant to Table 1.*

RESPONSE: The lighting levels for pedestrian walkways through a parking lot meet the requirements as laid out in Table 1-17.62.065. "Foot-candle Levels".

7. *Pedestrian Accessways. To enhance pedestrian and bicycle safety, pedestrian accessways required pursuant to OCMC 12.28 shall be lighted with pedestrian-scale lighting. Accessway lighting shall be to a minimum level of one-half foot-candles, a one and one-half foot-candle average, and a maximum to minimum ratio of seven-to-one and shall be oriented not to shine upon adjacent properties. Street lighting shall be provided at both entrances. Lamps shall include a high-pressure sodium bulb with an unbreakable lens.*

RESPONSE: There are no pedestrian accessways in this application.

8. *Floodlights shall not be utilized to light all or any portion of a building facade between 10:00 pm and 6:00 am.*

RESPONSE: No floodlights are proposed.

9. *Lighting on automobile service station, convenience store, and other outdoor canopies shall be fully recessed into the canopy and shall not protrude downward beyond the ceiling of the canopy.*

RESPONSE: No automobile service stations are proposed.

10. The style of light standards and fixtures shall be consistent with the style and character of architecture proposed on the site.

RESPONSE: DP 11-03 meets OCMC section 17.62.065.D.10 per Figure 17. The proposed light standards match existing light standards on the hospital campus.

11. In no case shall exterior lighting add more than 1 foot-candle to illumination levels at any point off-site.

RESPONSE: As shown in Figure 17, no areas off the site are illuminated more than 1 foot-candle.

12. All outdoor light not necessary for security purposes shall be reduced, activated by motion sensor detectors, or turned off during non-operating hours.

RESPONSE: All outdoor lighting in this application are for the purposes of security and ease of use for the parking lot.

13. Light fixtures used to illuminate flags, statues, or any other objects mounted on a pole, pedestal, or platform shall use a narrow cone beam of light that will not extend beyond the illuminated object.

RESPONSE: No flags, statues, or any other objects mounted on a pole, pedestal, or platform are proposed.

14. For upward-directed architectural, landscape, and decorative lighting, direct light emissions shall not be visible above the building roofline.

RESPONSE: No upward-directed architectural, landscape, and decorative lighting is proposed.

15. No flickering or flashing lights shall be permitted, except for temporary decorative seasonal lighting.

RESPONSE: No flickering or flashing lights are proposed.

16. Wireless Sites. Unless required by the Federal Aviation Administration or the Oregon Aeronautics Division, artificial lighting of wireless communication towers and antennas shall be prohibited. Strobe lighting of Wireless Communication facilities is prohibited unless required by the Federal Aviation Administration. Security lighting for equipment shelters or cabinets and other on-the-ground auxiliary equipment on Wireless Communication Facilities shall be initiated by motion detecting lighting.

RESPONSE: No wireless sites are being proposed.

17. Lighting for outdoor recreational uses such as ball fields, playing fields, tennis courts, and similar uses, provided that such uses comply with the following standards:
- i. Maximum permitted light post height: 80 feet.
 - ii. Maximum permitted illumination at the property line: 0.5 foot-candles.

RESPONSE: No outdoor recreational uses are being proposed.

17.62.085: Refuse and Recycling Standards For Commercial, Industrial, and Multi-family Developments

The purpose and intent of these provisions is to provide an efficient, safe and convenient refuse and recycling enclosure for the public as well as the local collection firm. All new development, change in property use, expansions or exterior alterations to uses other than single-family or duplex residences shall include a refuse and recycling enclosure. The area(s) shall be:

- A. Sized appropriately to meet the needs of current and expected tenants, including an expansion area if necessary;*
- B. Designed with sturdy materials, which are compatible to the primary structure(s);*
- C. Fully enclosed and visually screened;*
- D. Located in a manner easily and safely accessible by collection vehicles;*
- E. Located in a manner so as not to hinder travel lanes, walkways, streets or adjacent properties;*
- F. On a level, hard surface designed to discharge surface water runoff and avoid ponding;*
- G. Maintained by the property owner;*
- H. Used only for purposes of storing solid waste and recyclable materials;*
- I. Designed in accordance with applicable sections of the Oregon City Municipal Code (including Chapter 8.20-Solid Waste Collection and Disposal) and City adopted policies.*

RESPONSE: This section is entitled "Refuse and Recycling Standards for Commercial, Industrial and Multi-Family Developments." The proposed DDP for a parking lot development is not in a commercial, industrial or multi-family development. The parking lot is an accessory use to a principal permitted use in the base zoning district. OCMC 17.62.085 provides that "all new development, change in property use, expansions or exterior alterations to uses . . . shall include a refuse and recycling enclosure." However, there is no need for refuse and recycling enclosure for a parking lot. Those facilities are found with the existing uses in the Willamette Falls Hospital campus. The application asks that the Director provide a waiver to the information required by this standard pursuant to OCMC 17.62.040.J.1. The waiver is based on the fact that the Community Development Director may find that a specific approval standard is not applicable to the application.

17.65.10 Purpose and Intent

It is the intent of this Chapter to foster the growth of major institutions and other large-scale development, while identifying and mitigating the impacts of such growth on surrounding properties and public infrastructure. The City recognizes the valuable

services and employment opportunities that these developments bring to Oregon City residents. The master plan process is intended to facilitate an efficient and flexible review process for major developments and to provide them with the assurance they need over the long term so that they can plan for and execute their developments in a phased manner. To facilitate this, the master plan process is structured to allow an applicant to address the larger development issues, such as adequacy of infrastructure and transportation capacity, and reserve capacity of the infrastructure and transportation system before expenditure of final design costs.

RESPONSE: The proposed Detailed Development Plan has been prepared in accordance with the standards of OCMC 17.65, and compliance with the standards is demonstrated on the site plans in Figures 12-17 as well as the narratives described in Sections 5 and 6 of this report.

ADDENDUM 1

PWF proposes that OCMC 17.52.060(D)(d) be adjusted as follows:

17.52.060(D)(d) - EXISTING

d. No more than eight contiguous parking spaces shall be created without providing an interior landscape strip between them. Landscape strips shall be provided between rows of parking shall be a minimum of six feet in width and a minimum of 10 feet in length.

BE ADJUSTED TO:

17.52.060(D)(d) - PROPOSED

d. No more than sixteen contiguous parking spaces shall be created without providing an interior landscape strip between them. Landscape strips shall be provided between rows of parking shall be a minimum of six feet in width and a minimum of 10 feet in length.

The findings for the above proposed adjustment are listed below.

17.65.070 - Adjustments to development standards.

A. Purpose. In order to implement the purpose of the city's master plan process, which is to foster the growth of major institutions and other large-scale development, while identifying and mitigating their impacts on surrounding properties and public infrastructure, an applicant may request one or more adjustments to the applicable development regulations as part of the master planning process. These include, but are not limited to, items such as: dimensional standards of the of the underlying zone, site plan and design review criteria, residential design standards, and standards for land division approval.

B. Procedure. Requests for adjustments shall be processed concurrently with a general development plan. An adjustment request at the detailed development plan review shall cause the detailed development plan to be reviewed as a Type III application.

RESPONSE: PWF requests this code adjustment be processed concurrently with CP 11-01.

C. Regulations That May Not be Adjusted. Adjustments are prohibited for the following items:

- 1. To allow a primary or accessory use that is not allowed by the regulations;*
- 2. To any regulation that contains the word "prohibited";*
- 3. As an exception to a threshold review, such as a Type III review process; and*
- 4. Any exception to allow a use not identified as a permitted or conditional use in the underlying zone.*

RESPONSE: The requested code adjustment does not impact any of the prohibited items listed in OCMC 17.65.070(C)(1-4).

D. Approval Criteria. A request for an adjustment to one or more applicable development regulations under this section shall be approved if the review body finds that the applicant has shown the following criteria to be met.

- 1. Granting the adjustment will equally or better meet the purpose of the regulation to be modified;*

RESPONSE:

1. The requirement for providing interior landscape strips in areas that will be affected by future detailed development plans will reduce the parking supply on the campus. Per the TIA in Appendix B, PWF currently has a parking surplus, but at the end of the proposed master plan there would be a parking deficit. Therefore it is important for PWF to maintain as many parking spaces as necessary.
2. The intent of 17.52.060.D.(d) is "to enhance and soften the appearance of parking lots; to limit the visual impact of parking lots from sidewalks, streets and particularly from residential areas; to shade and cool parking areas" among others. In the parking lot areas identified as lots B, D, G, and F per Figure 14 on page 44 of Kittelson & Associates TIA (see Appendix B), Lot G is not visible from any public streets or residential areas thanks to the stand of forest along its eastern border. Lot F currently has 23 street and parking lot deciduous shade trees, as well as landscaped triangular wheel stops and planter strips. Lots B and D also have numerous parking lot trees and landscaped buffer zones.

The Planning Commission can find that this standard is satisfied.

- 2. If more than one adjustment is being requested, the cumulative effect of the adjustments results in a project that is still consistent with the overall purpose of the zone;*

RESPONSE: Only one adjustment is being requested.

The Planning Commission can find that this standard is satisfied.

- 3. City-designated Goal 5 resources are protected to the extent otherwise required by Title 17*

RESPONSE: The master plan (CP 11-01) does not propose any development within inventoried Goal 5 areas, natural, historic or cultural resources. The medical campus contains an inventoried Goal 5 natural area at the east edge of the campus but no additional development is proposed in this area.

The Planning Commission can find that this standard is satisfied.

- 4. Any impacts resulting from the adjustment are mitigated; and*

RESPONSE: Impacts to the proposed adjustment are mitigated by the numerous trees on and surrounding the campus which screen the parking lot areas from residential areas and limit the visual impact of the parking lots from streets and sidewalks.

The Planning Commission can find that this standard is satisfied.

5. If an environmental zone, the proposal has as few significant detrimental environmental impacts on the resource and resource values as is practicable. (Ord. 03-1014, Att. B3 (part), 2003)

RESPONSE: The proposed adjustment does not impact any existing environmental zones.

The Planning Commission can find that this standard is satisfied.

6. The proposed adjustment is consistent with the Oregon City Comprehensive Plan and ancillary documents.

RESPONSE:

Section 12, Transportation

This section provides for a safe, convenient and economic transportation system that functions well and contributes to the city's well-being, enhances the quality of life and increases the opportunity for growth and development. The proposed adjustment does not adversely affect transportation or parking goals set out in the Oregon City Comprehensive Plan.

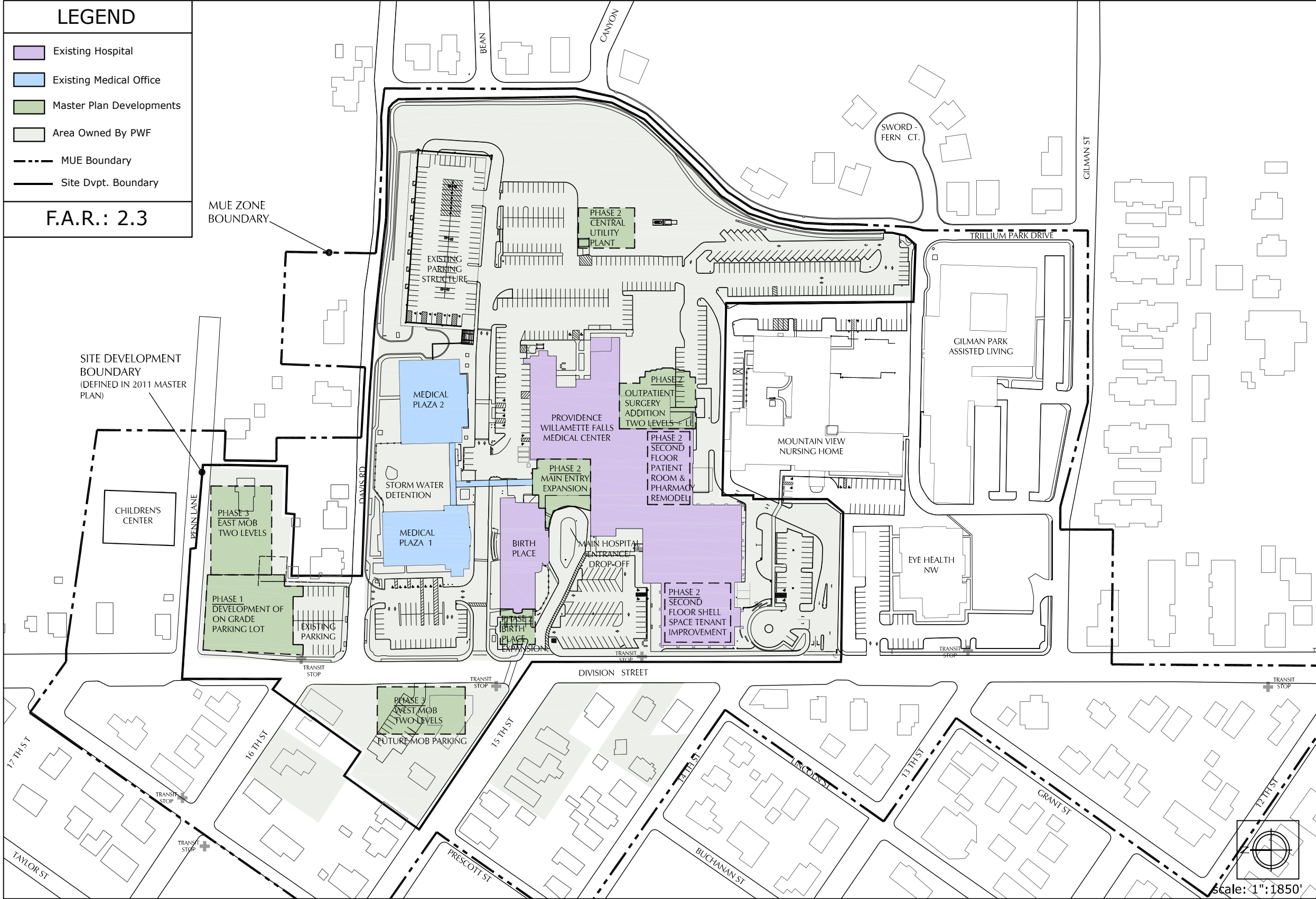
The Planning Commission can find that this standard is satisfied.




Sheet Number
FIGURE 01

Sheet Number:







Date: 09/02/2011

Sheet Number: FIGURE 02


Providence Willamette Falls Medical Center Master Plan

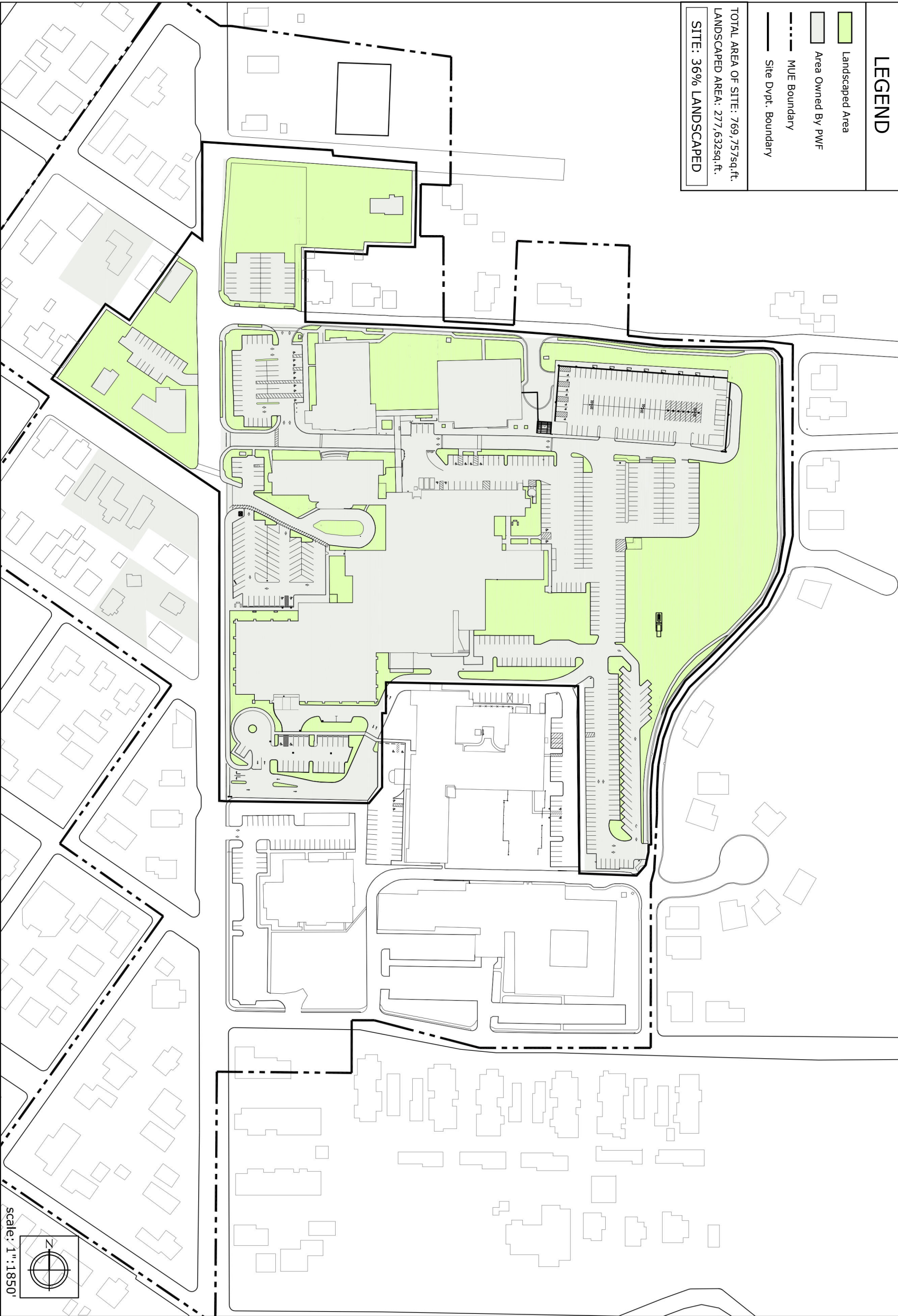
Site Plan


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Providence Willamette Falls Medical Center
Master Plan

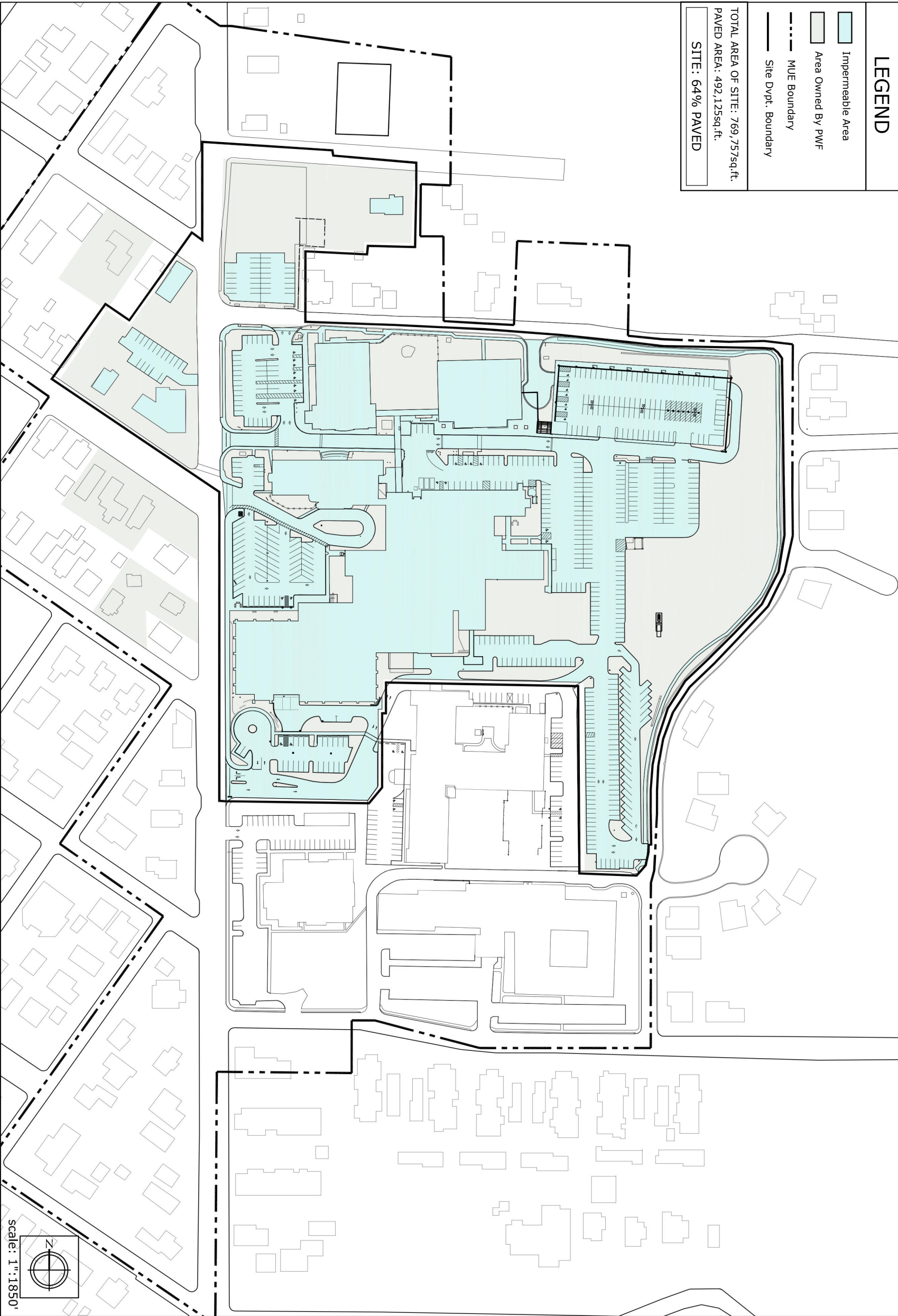
Site Plan: Landscaped Area

Date: 09/02/2011

Sheet Number:

FIGURE 04





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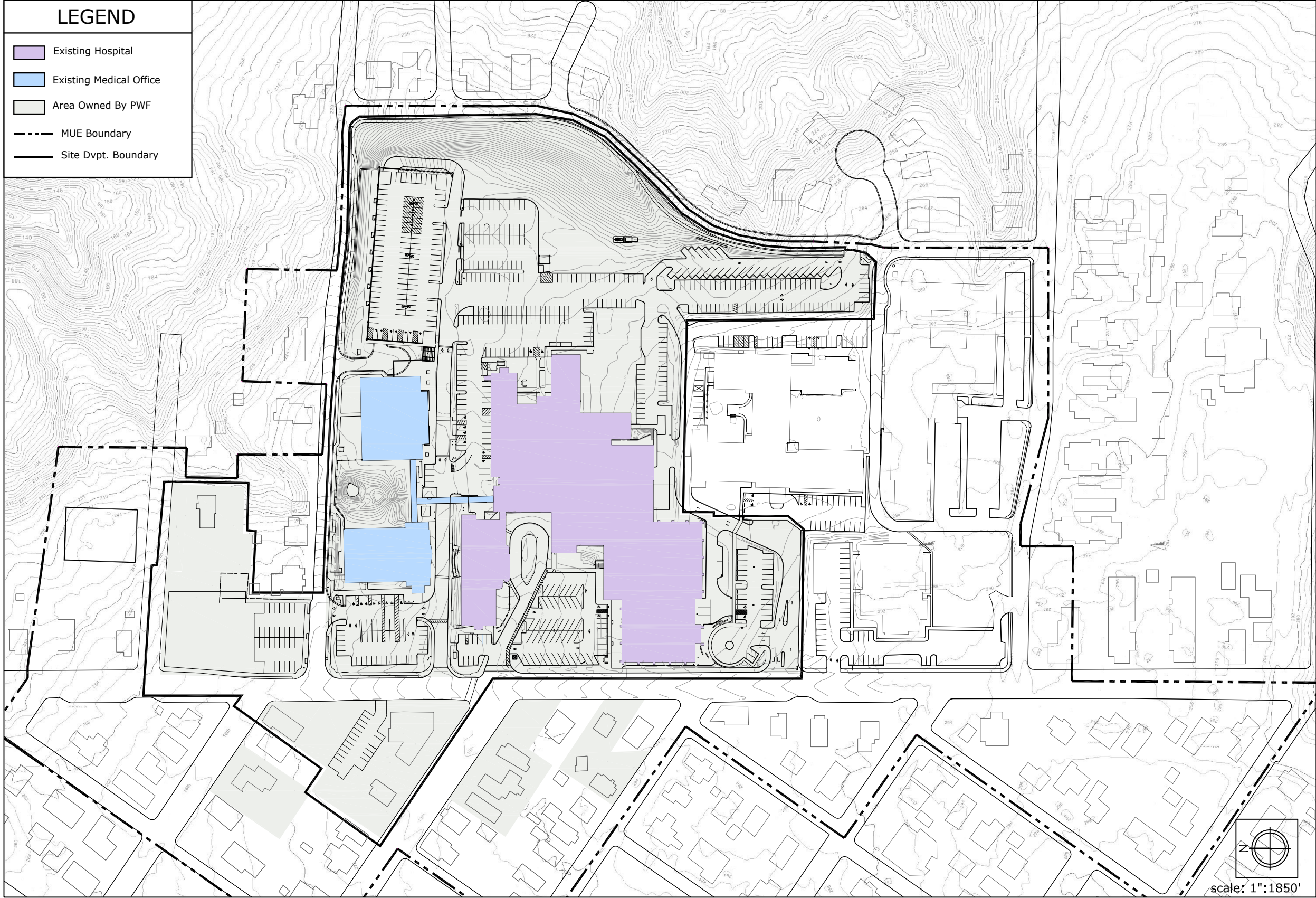
Providence Willamette Falls Medical Center
Master Plan

Site Plan: Impermeable Area

Date:
09/02/2011

Sheet Number:
FIGURE 05

PROVIDENCE
Health & Services



LEGEND

Existing Hospital

Existing Medical Office

Area Owned By PWF

MUE Boundary

Site Dvpt. Boundary

PROVIDENCE

Health & Services

Date: 09/02/2011

Sheet Number: FIGURE 06

Providence Willamette Falls Medical Center

Master Plan

Site Plan: Contour Lines

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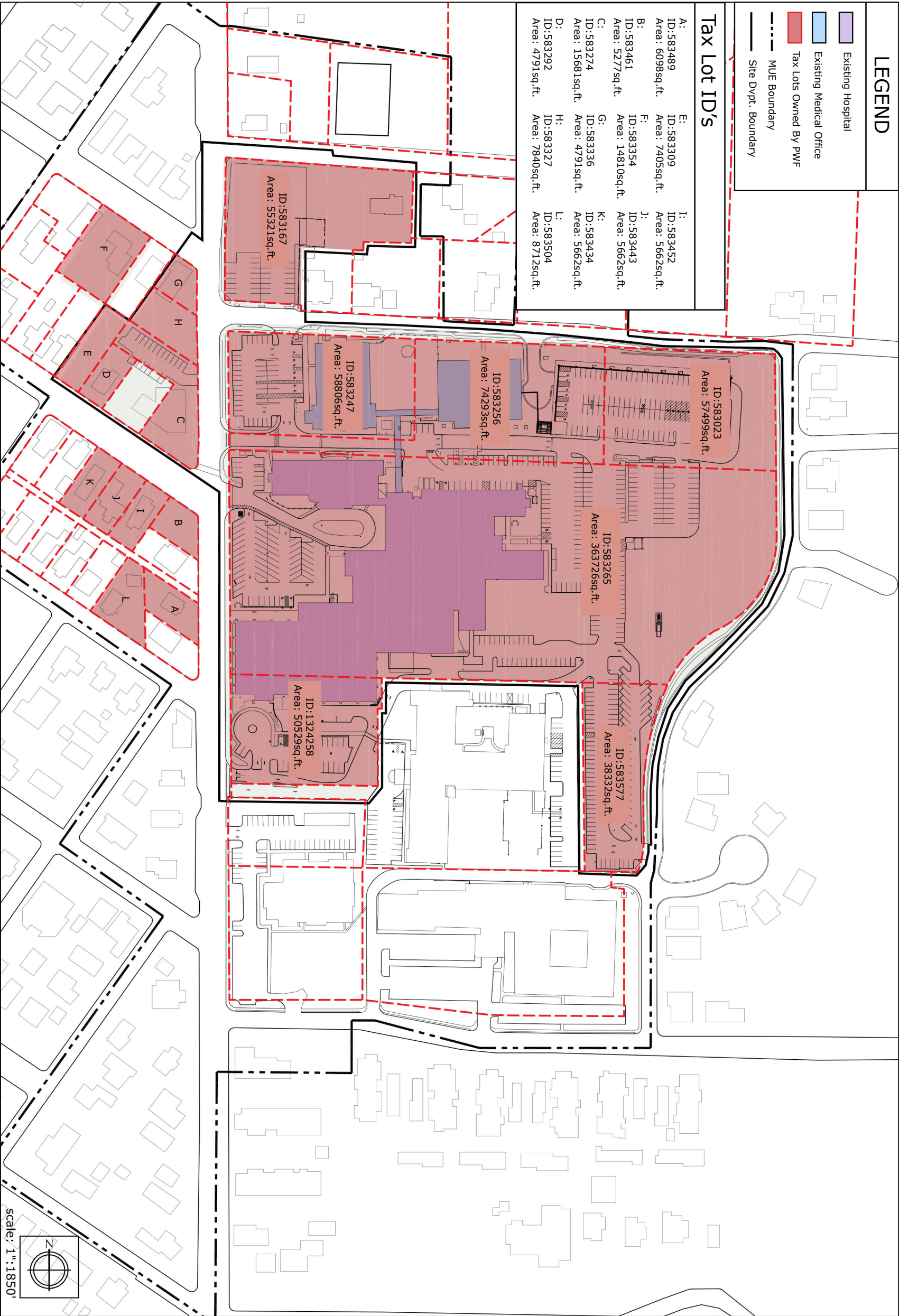
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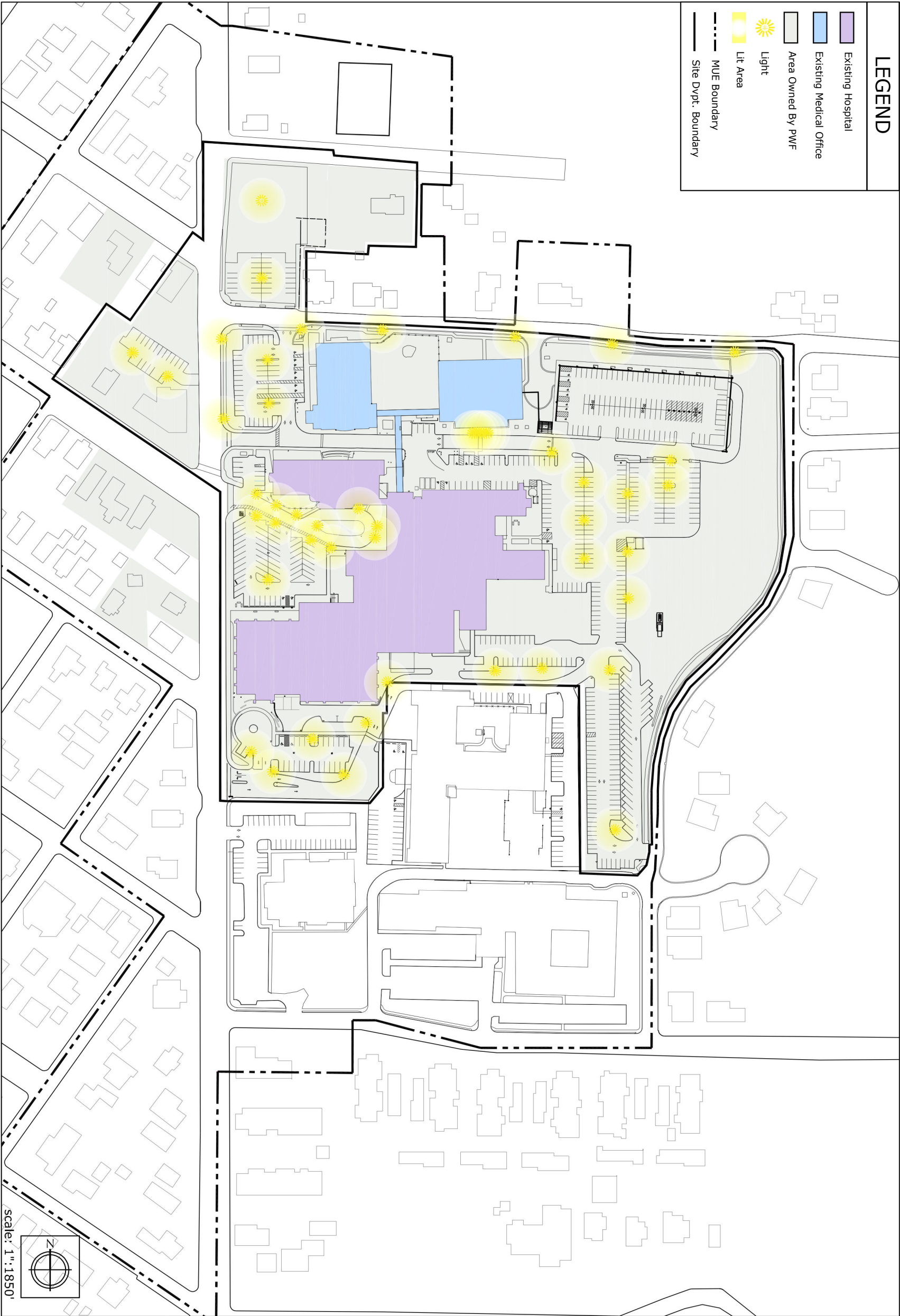
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scale: 1":1850'

4a. CP 11-01: Master Plan

Page 166 of 680





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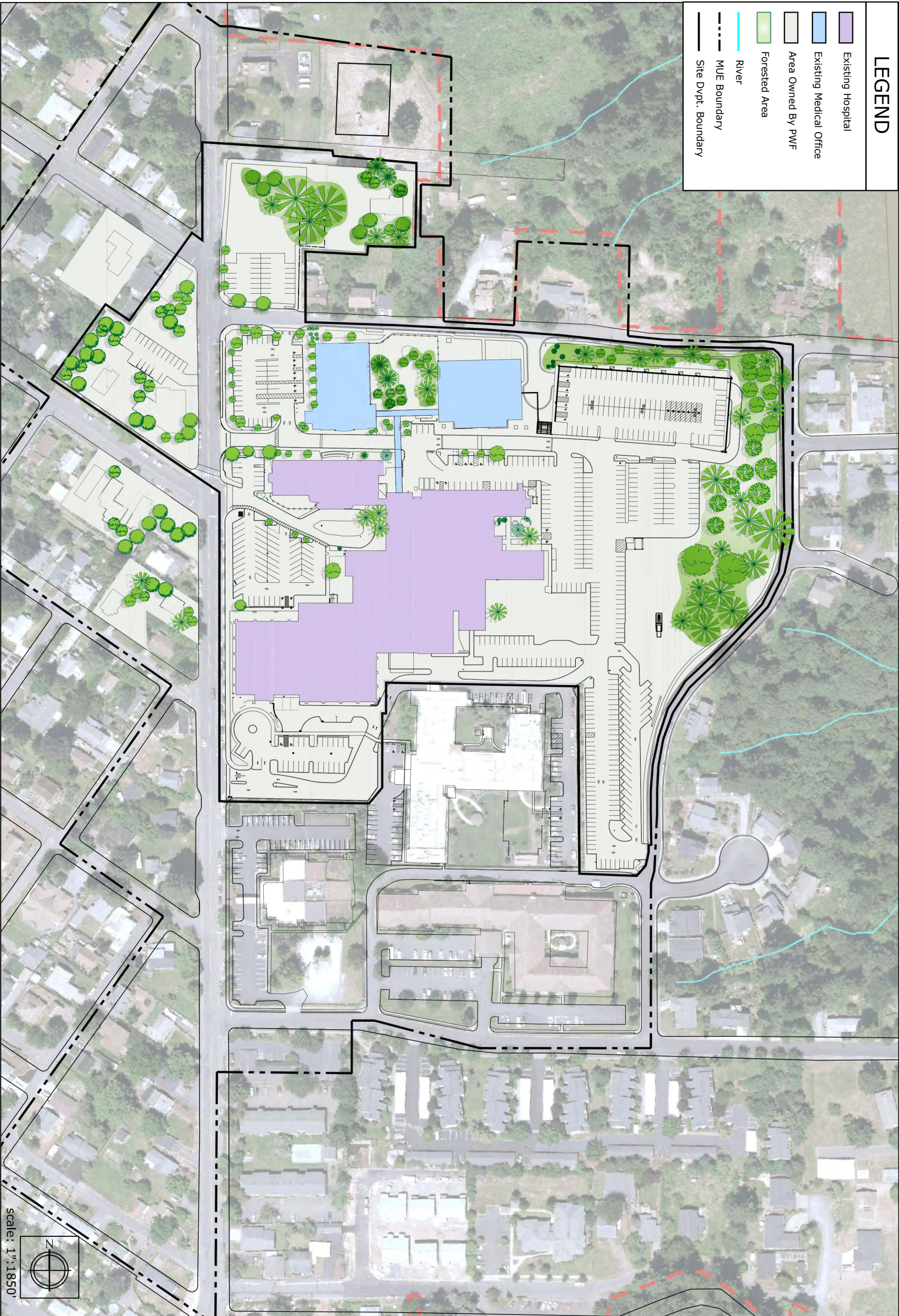
Site Plan: Existing Light Locations

Date:
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Sheet Number:

FIGURE 08





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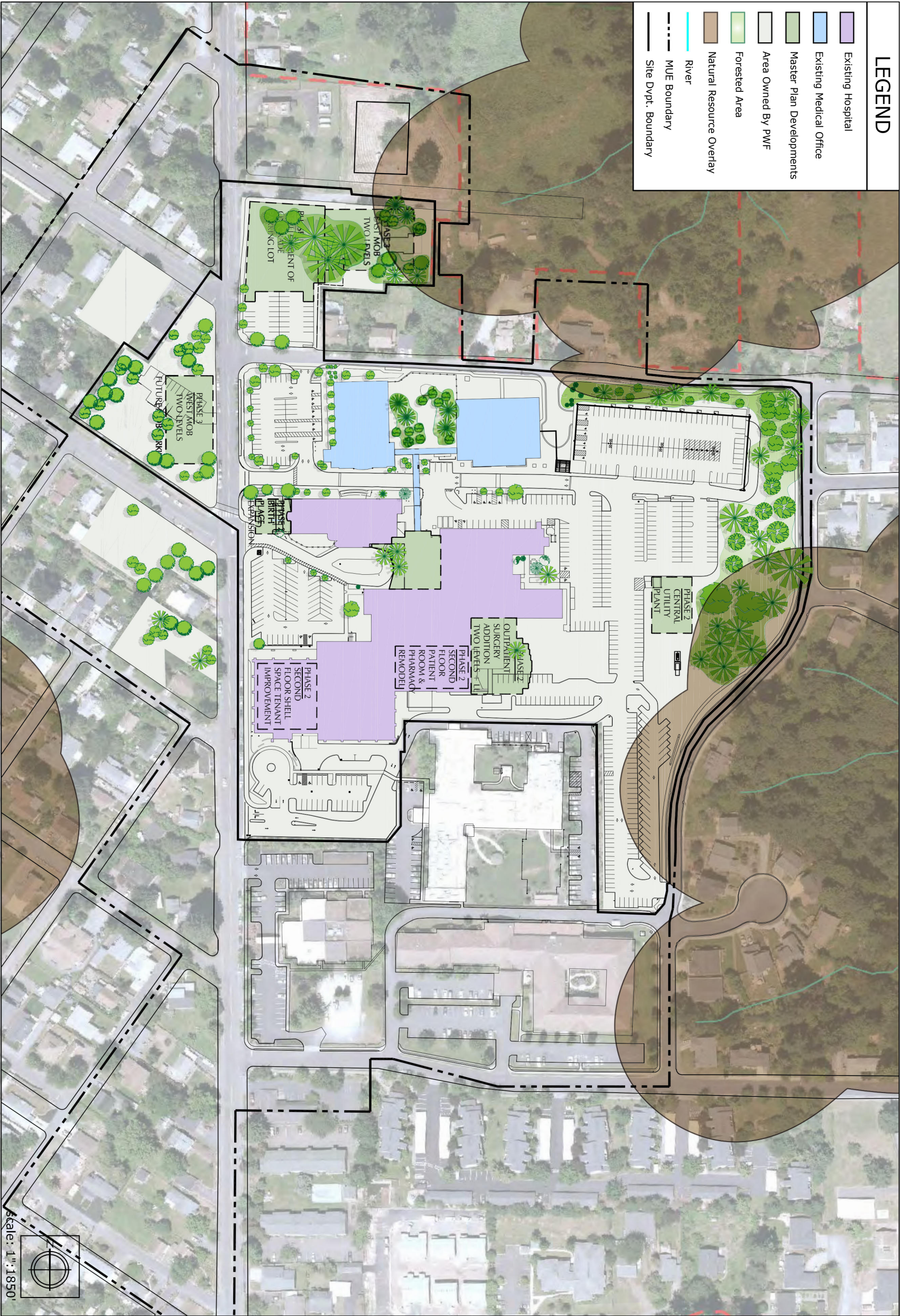
Site Plan: Existing Landscape

Date:
09/02/2011

Sheet Number:

FIGURE 09





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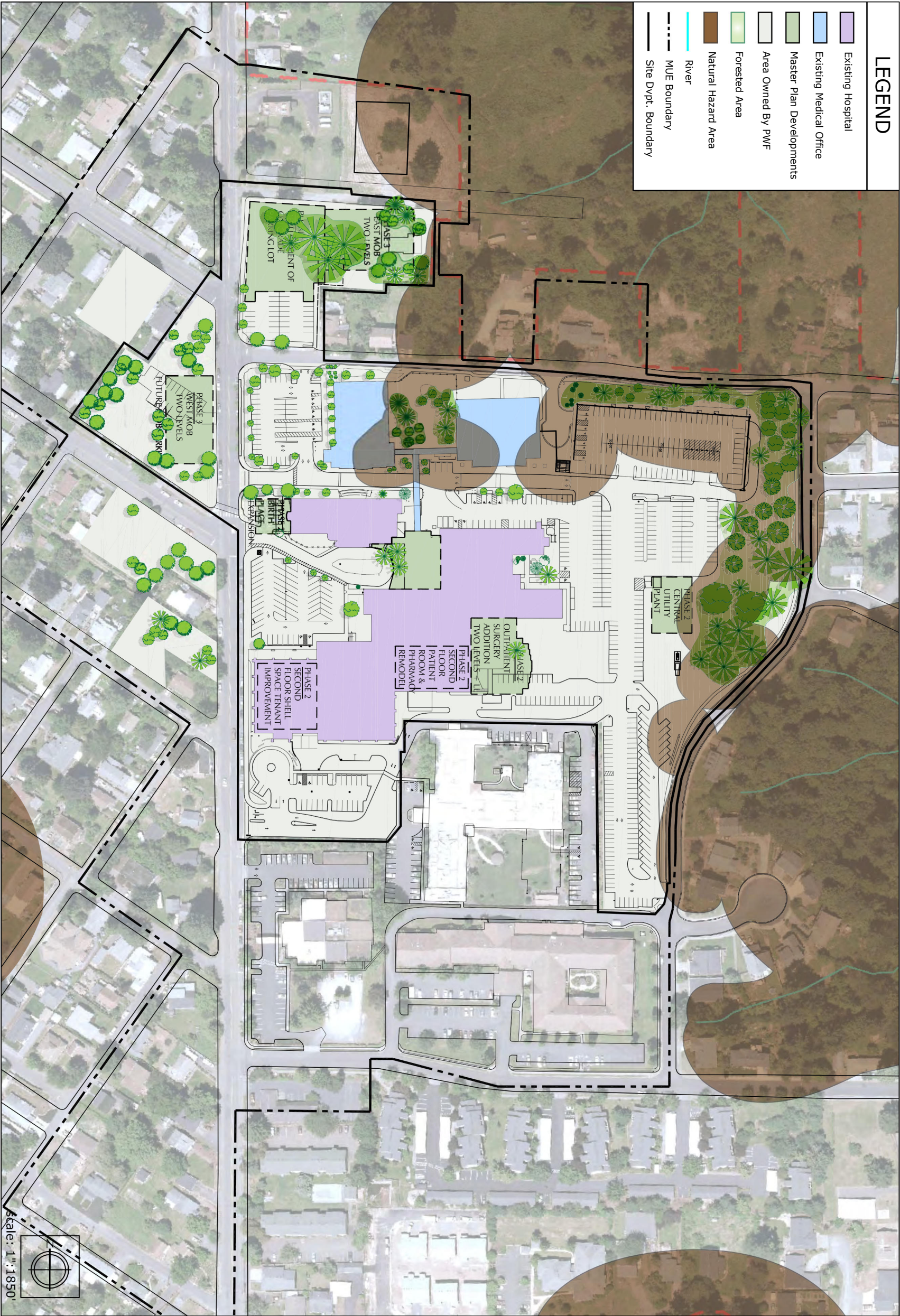
Natural Resource Area Plan

Date:
09/02/2011

Sheet Number:

FIGURE 10





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Providence Willamette Falls Medical Center
Master Plan

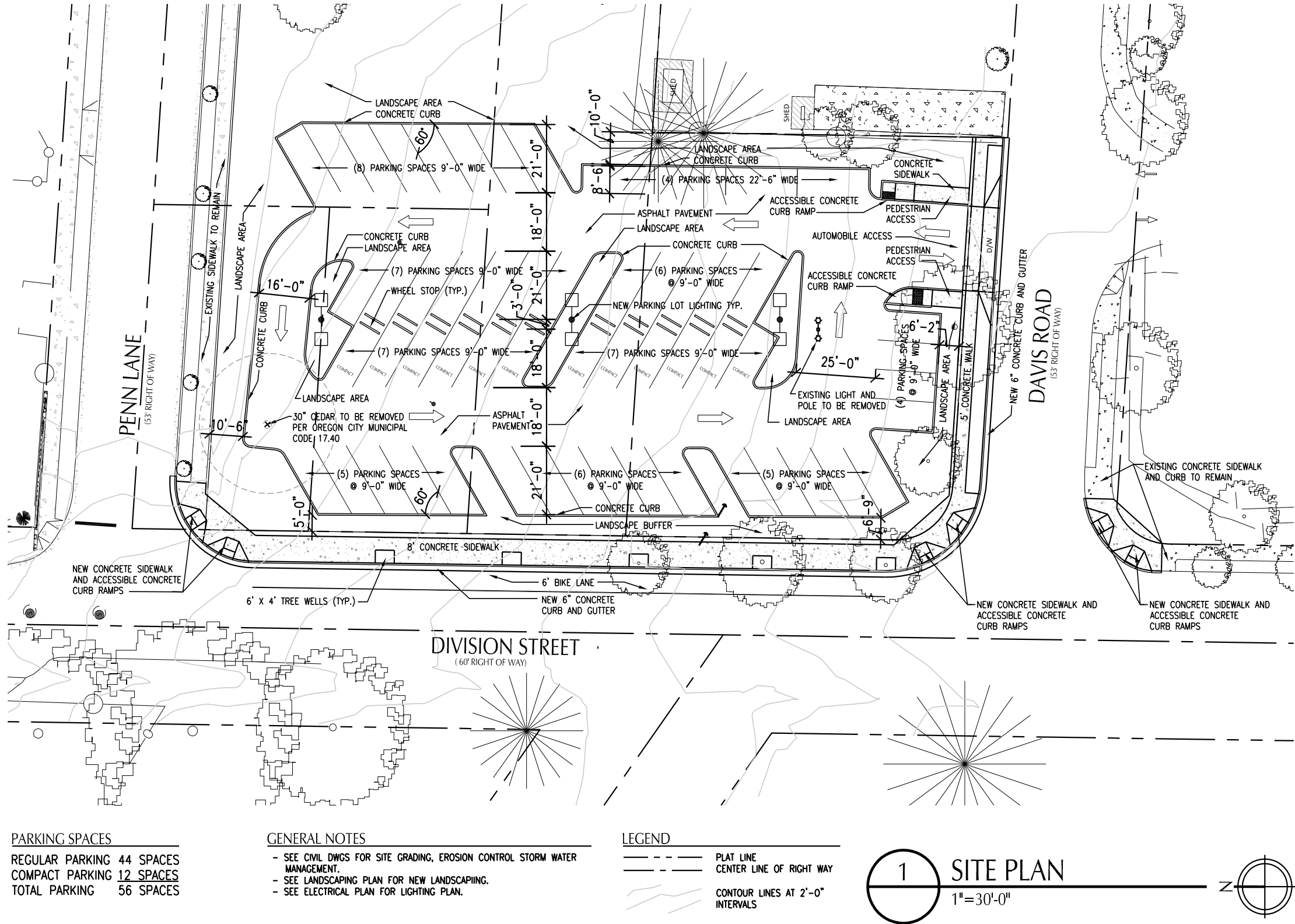
Natural Hazard Area Plan

Date:
09/02/2011

Sheet Number:

FIGURE 11



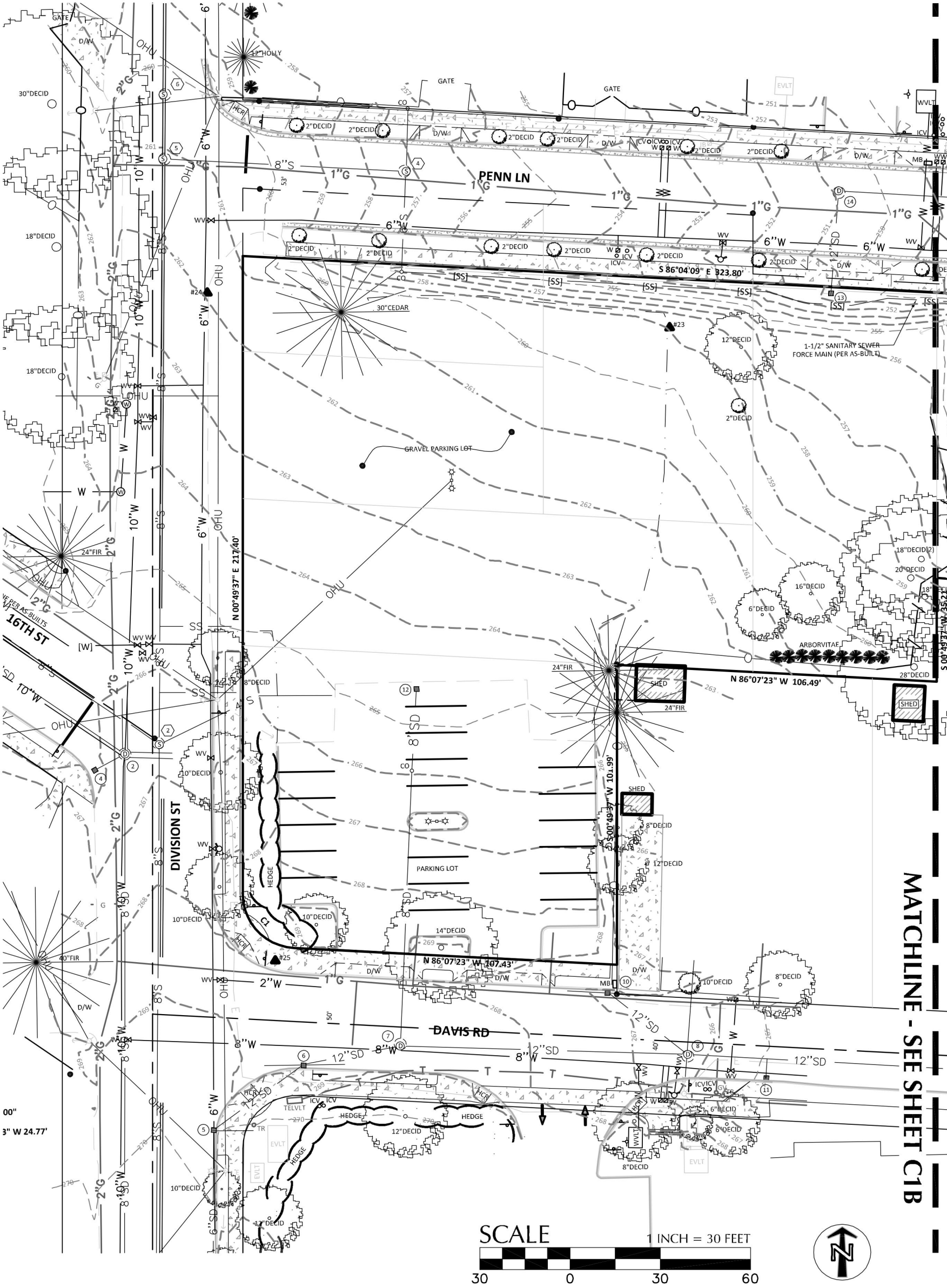


Date:
Project Number: 110420
Sheet Number: 12

PROVIDENCE WILLAMETTE FALLS
MEDICAL CENTER
OREGON CITY, OR
DIVISION STREET PARKING LOT

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FIGURE 12
SITE PLAN



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PROVIDENCE WILLAMETTE FALLS
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EXISTING CONDITIONS PLAN

Date:
9/23/11
Project Number:
110420
Sheet Number:
FIGURE 13A

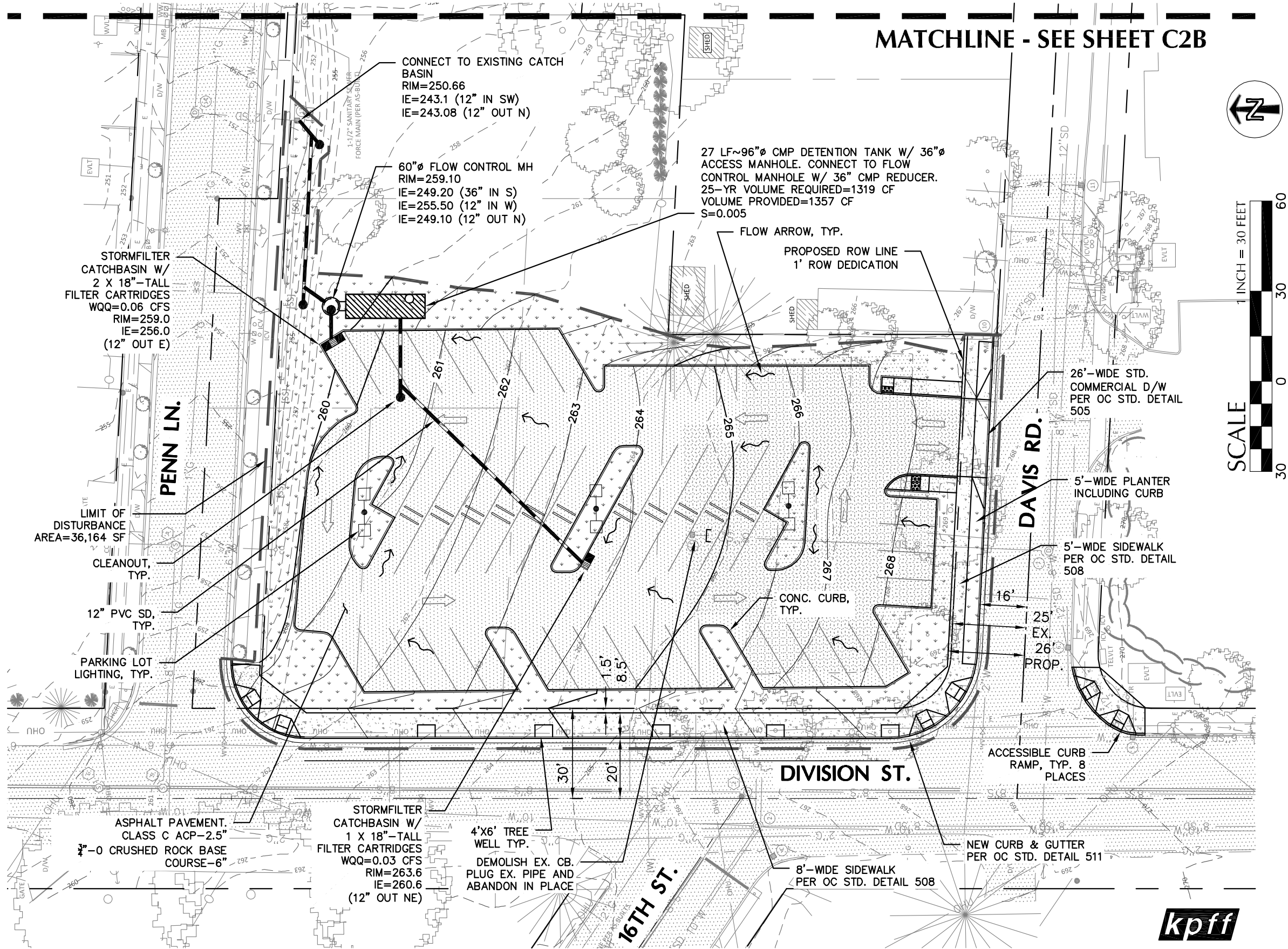




EXISTING CONDITIONS PLAN

FIGURE 13B

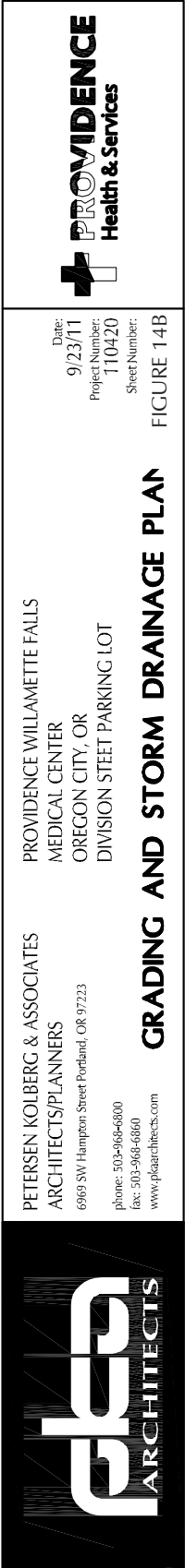




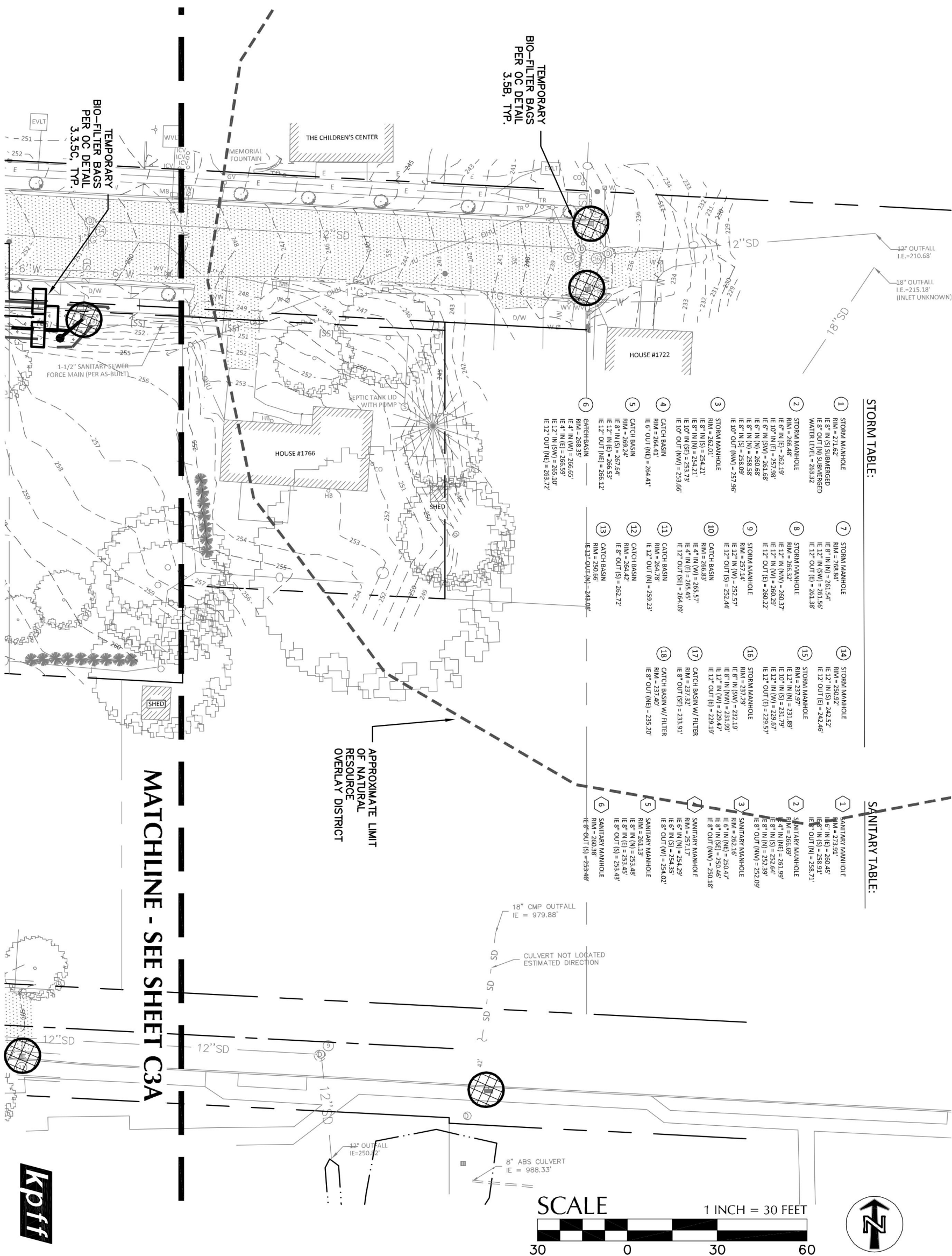
PROVIDENCE WILLAMETTE FALLS
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OREGON CITY, OR
DIVISION STREET PARKING LOT

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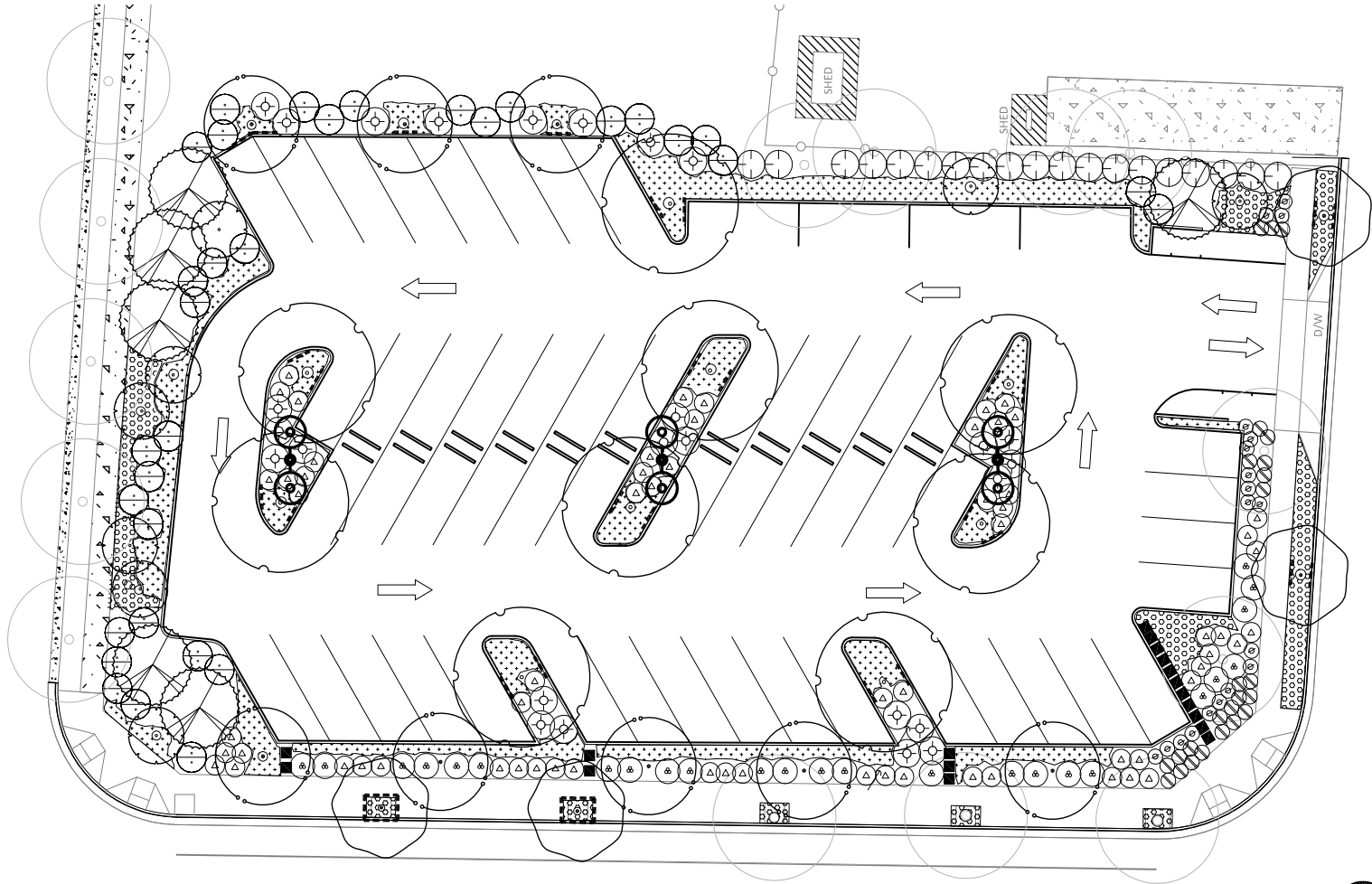


















GENERAL LANDSCAPE NOTES

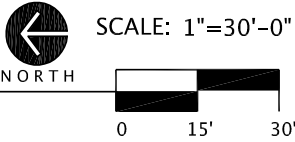
1. **LANDSCAPE AREA:** Total Paved Area (as measured from the back of the property line): 21,850 sq. ft.
Total Landscape Area (as measured form the back of the property line): 7,500 sq. ft.
Total Site Area (as measured form the back of the property line): 29,350 sq. ft.
Percentage of landscape area per the site: 26%
2. **LANDSCAPE IRRIGATION:** All areas shown will be maintained with an automatic Irrigation system.
3. **PLANTING LEGEND:** All plant quantities listed on planting legend are provided as a courtesy.
4. **PLANTING BED GRADES:** 6" minimum crown required in all landscaped areas
to provide adequate drainage Grade to 2 to 2 1/2 inches below bordering paving, curbs, walls, etc., before application of mulch.
5. **MULCH MATERIALS:** Free from noxious weed seed and all foreign material harmful to plant life. Hemlock medium grind, -1.5 + 3/4" size in plant beds. Decomposed garden compost, fine grind, -3/4" size in water quality areas.
6. **MULCHING OF PLANTING BEDS:** Mulch shrub planting beds with 2 inch minimum layer of Hemlock medium grind bark. Cover entire planting bed.
7. **MAINTENANCE:** Contractor responsible for maintaining project for 4 weeks past the date of final acceptance.



LANDSCAPE PLANTING PLAN

Tree Schedule					
SYM.	BOTANICAL NAME	COMMON NAME	SIZE	QTY	DETAIL
	Cercis canadensis	Eastern Redbud	2" Cal.	0	0/LA0.0
	Acer rubrum 'Franksred'	Red Sunset Maple	2" Cal.	0	0/LA0.0
	Pyrus calleryana 'Glens Form'	Chanticleer Pear	2" Cal.	0	0/LA0.0
	Calocedrus decurrens	Incense Cedar	8" Ht.	0	0/LA0.0
	Cornus kousa 'Milky Way'	Milky Way Dogwood	1" Cal.	0	0/LA0.0
	EXISTING TREES TO REMAIN AND PROTECT DURING EXCAVATION	See specification for limits of protection. Inform Landscape Architect immediately if tree roots larger than 1" dia. are exposed during excavation.			

Shrub and Groundcover Schedule					
SYM.	BOTANICAL NAME	COMMON NAME	SIZE	QTY	DETAIL
	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	2 Gal	00	0/LA0.0
	Cornus Sericea 'Kelsyl'	Kelsyl Dogwood	5 Gal.	00	0/LA0.0
	Euonymus alatus 'Compacta'	Compact Burning Bush	5 Gal.	00	0/LA0.0
	Ilex x meserveae 'China Girl'	China Girl Holly	5 Gal.	00	0/LA0.0
	Ligustrum vulgare 'Cheyenne'	Cheyenne Privet	30"	00	0/LA0.0
	Panicum virgatum 'Heavy Metal'	Blue Switch Grass	2 Gal.	00	0/LA0.0
	Spirea x bumalda 'Anthony Waters'	Anthony Waterer Spirea	5 Gal	00	0/LA0.0
	Arcostaphylos uva-ursi 'Vancouver Jade'	Vancouver Jade Bearberry	1 Gal	18" O.C.	0/LA0.0
	Mahonia repens	Creeping Mahonia	1 Gal	18" O.C.	0/LA0.0
	Light Pole, see electrical drawings for exact layout and type.				
	18" x 18" Concrete Paver, 1½" thick min. Simple gray color with textured finish, submit sample to Architect for approval. Place on compacted planting soil, 6" between paver.				0/LA0.0
	Root Barrier				0/LA0.0
PLANT QUANTITIES IN LEGEND ARE PROVIDED AS A COURTESY ONLY. LANDSCAPE CONTRACTOR RESPONSIBLE FOR INSTALLING PLANTS AS SHOWN ON DRAWING.					



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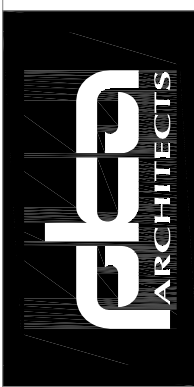
FIGURE 16

PROVIDENCE WILLAMETTE FALLS
MEDICAL CENTER
OREGON CITY, OR
DIVISION STREET PARKING LOT

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LANDSCAPE PLANTING PLAN

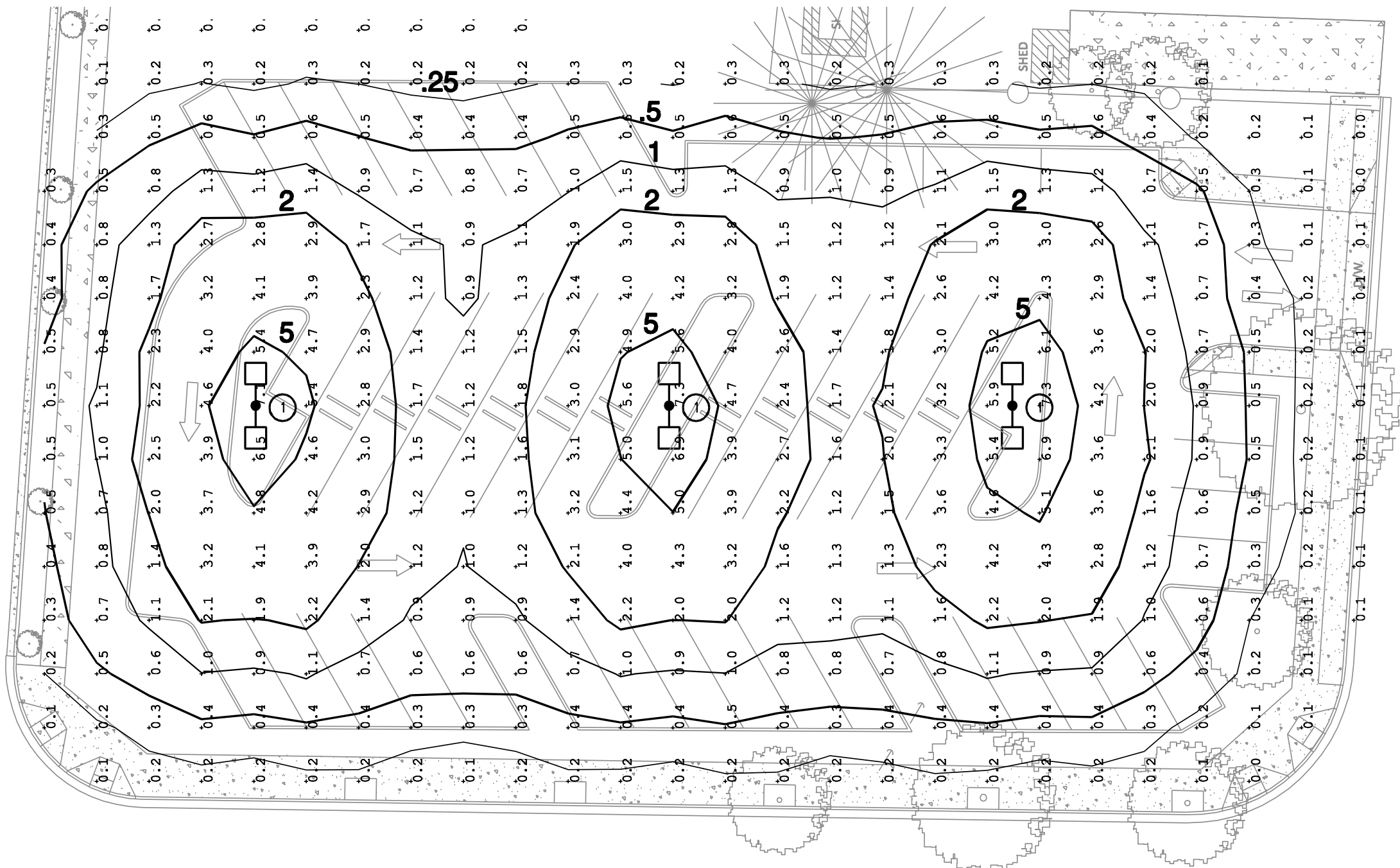


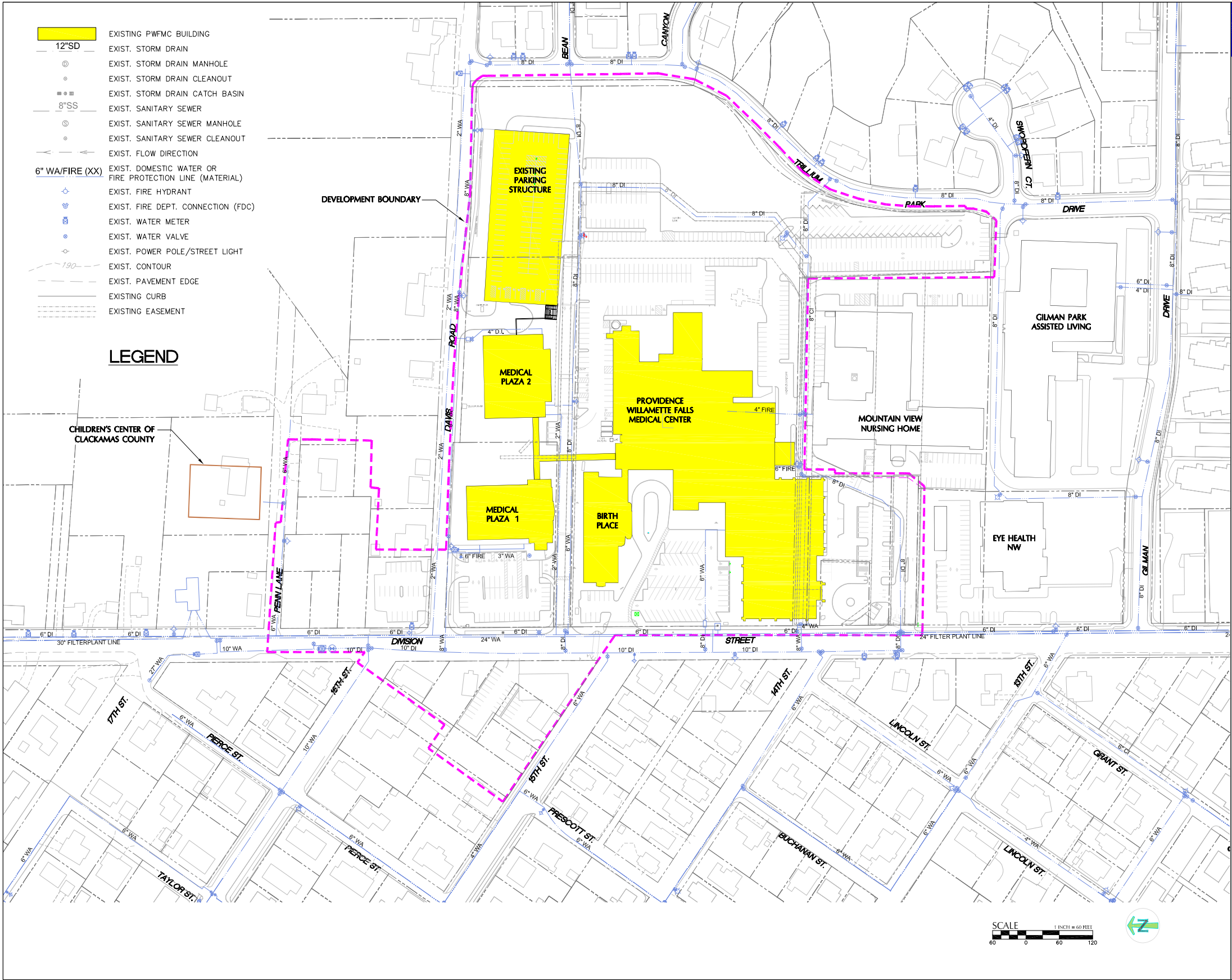
1 PROVIDE LSI "GREENBRIAR" FLAT LENS FIXTURE, CATALOG #GFM-FP-200-PSMV-F-MT-WHT-55. PROVIDE 20' TALL X 4" SQUARE POLE WITH 11 GA STEEL, WHITE FINISH AND 5" BASE COVER.

1

E100

SCALE: 1" = 20'





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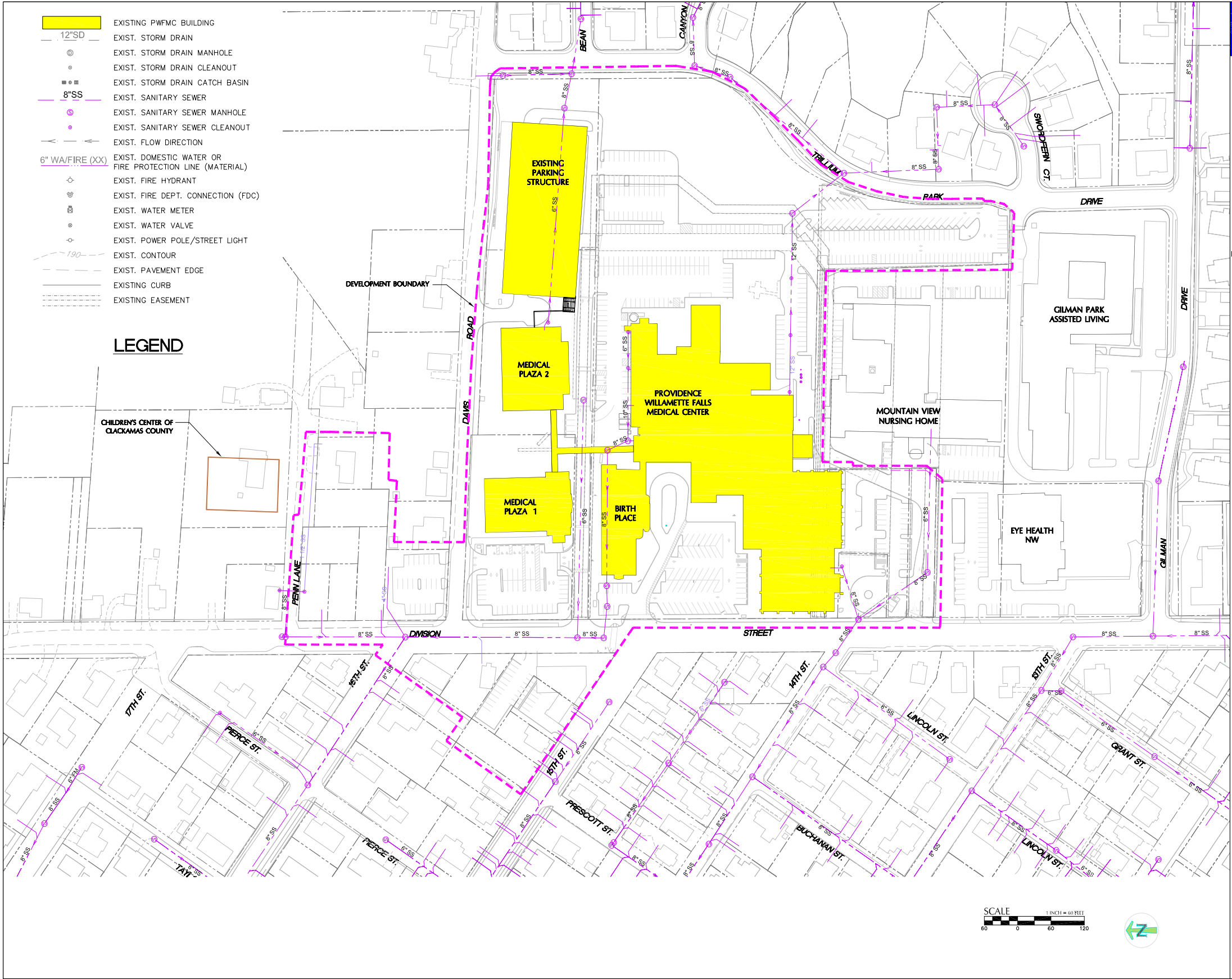
kpff
Consulting Engineers
11 SW Fifth Avenue
Suite 2000
Portland, Oregon 97204
Phone: (503) 227-3251
Fax: (503) 274-4681

Project Title:
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WILLAMETTE FALLS
MEDICAL CENTER
MASTER PLAN**
OREGON CITY,
OREGON

EXISTING
WATER
PLAN

Date:
23 September 2011

Sheet Number:
FIGURE 18



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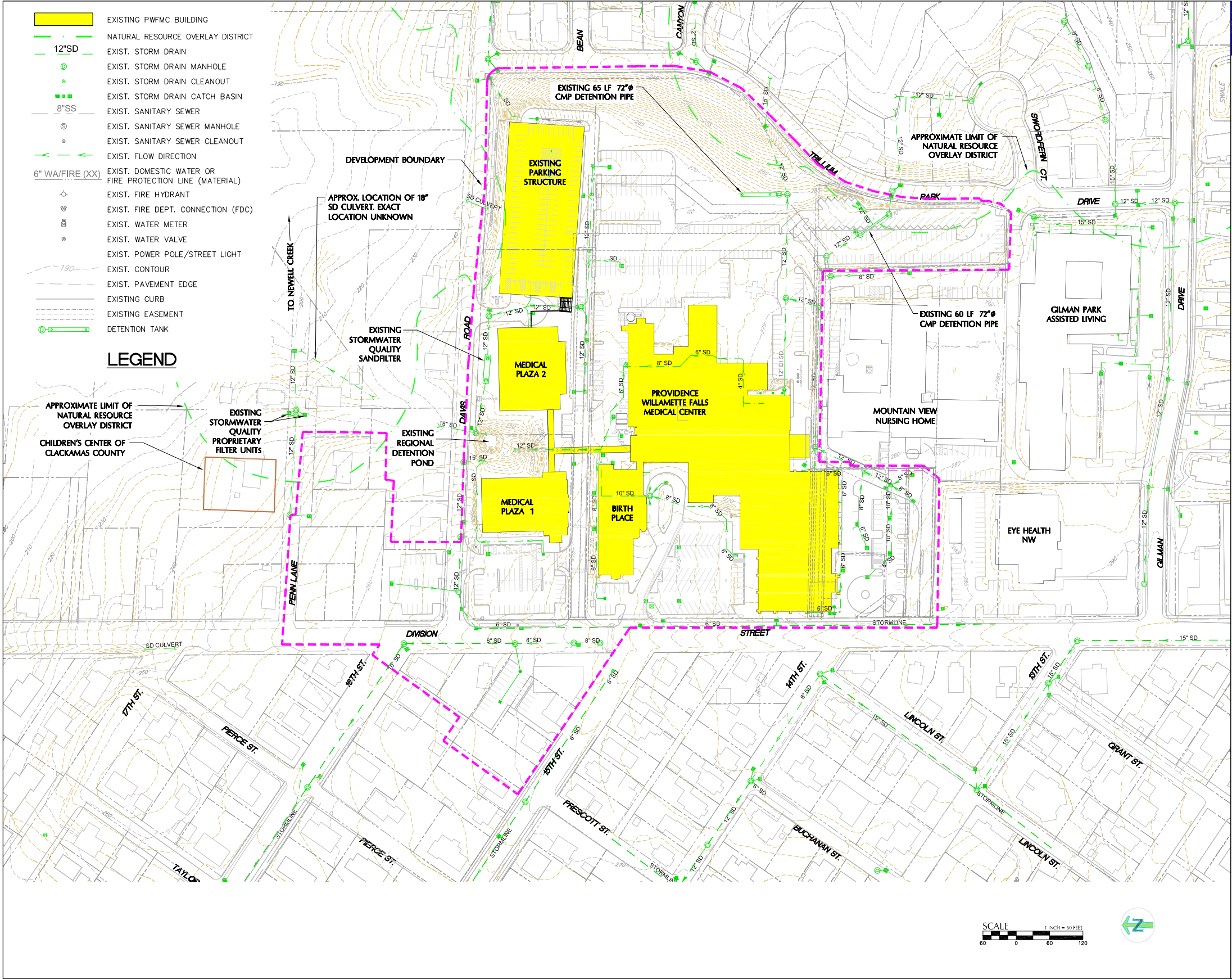
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Portland, Oregon 97204
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Fax: (503) 274-4881

Project Title:
PROVIDENCE WILLAMETTE FALLS MEDICAL CENTER MASTER PLAN
OREGON CITY, OREGON

EXISTING SANITARY SEWER PLAN

Date:
23 September 2011

Sheet Number:
FIGURE 19



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Fax: 503-227-4891

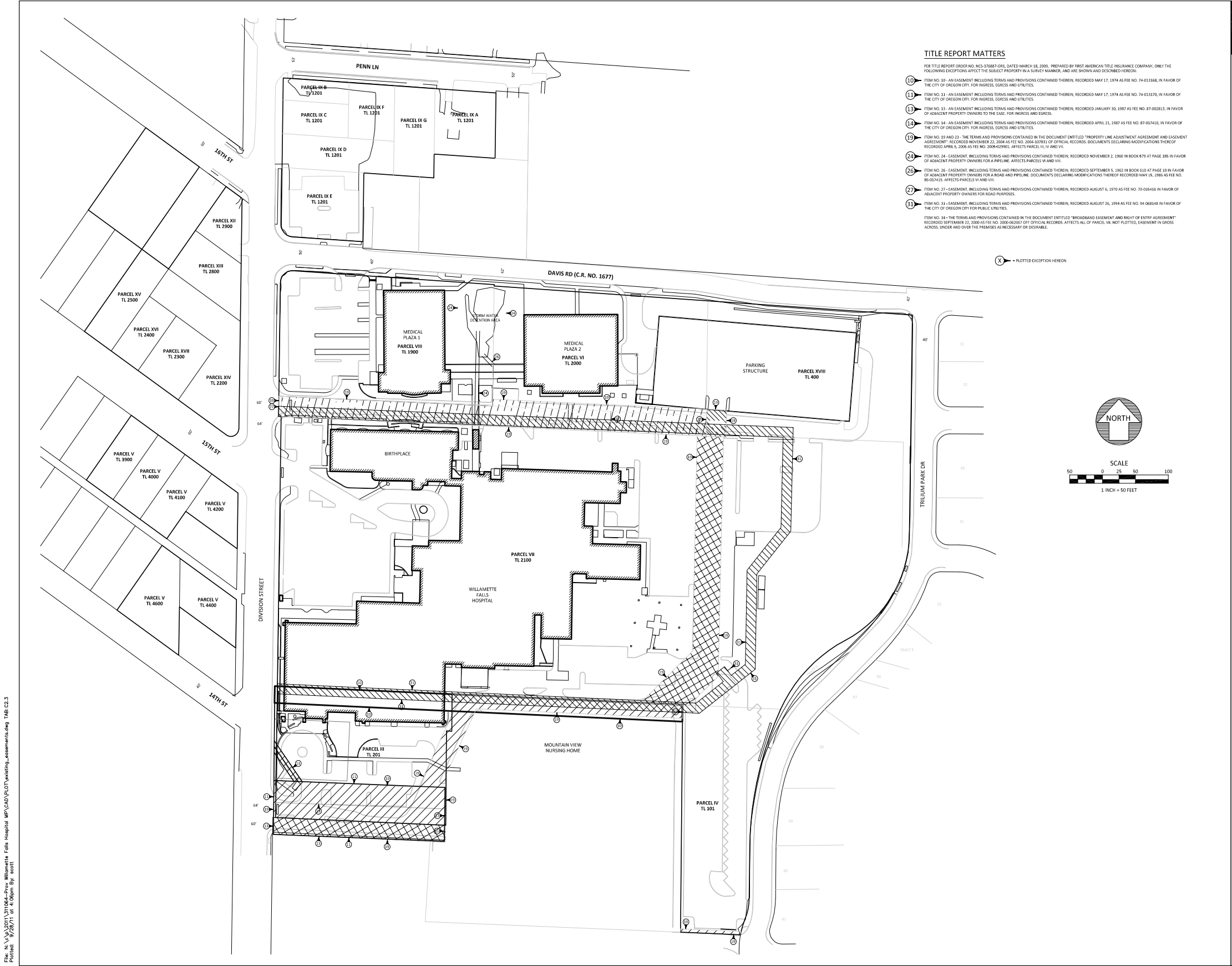
Project Title:
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MASTER PLAN**
OREGON CITY,
OREGON

EXISTING
STORM SEWER
PLAN

Date:
23 September 2011

Sheet Number:
FIGURE 20

File: W:\V\2011\2011-01-01 Master Plan\2011-01-01 Master Plan.dwg
Plot: 2011-01-01 Master Plan.dwg
Plot: 2011-01-01 Master Plan.dwg



PETTERSON KUMMER & ASSOCIATES
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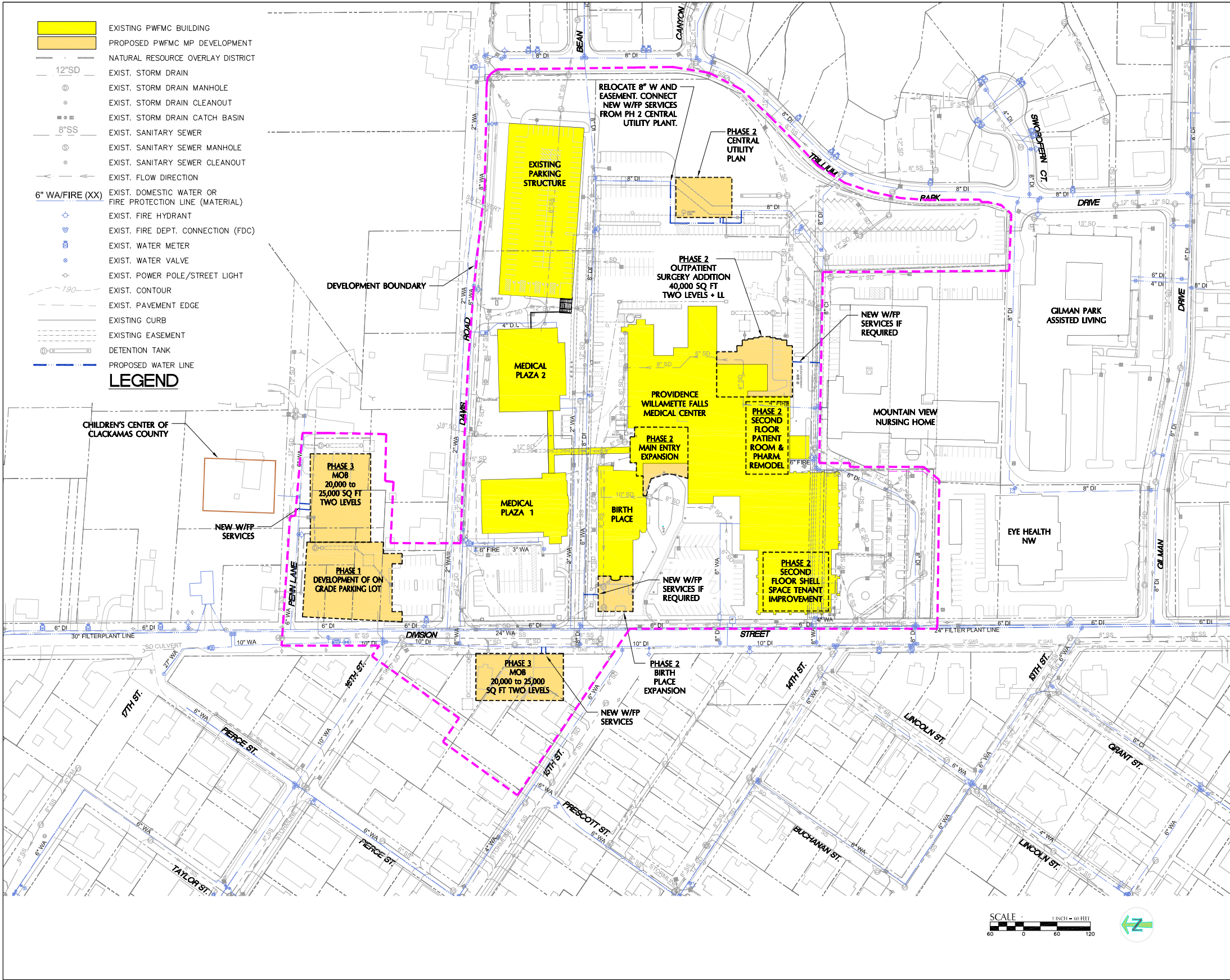
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Suite 2400
Portland, Oregon 97204
Phone: 503 227-3251
Fax: 503 274-4881

Project Title:
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WILLAMETTE FALLS
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OREGON

EXISTING
EASEMENT PLAN

Date:
23 September 2011

Sheet Number:
FIGURE 21



pka ARCHITECTS

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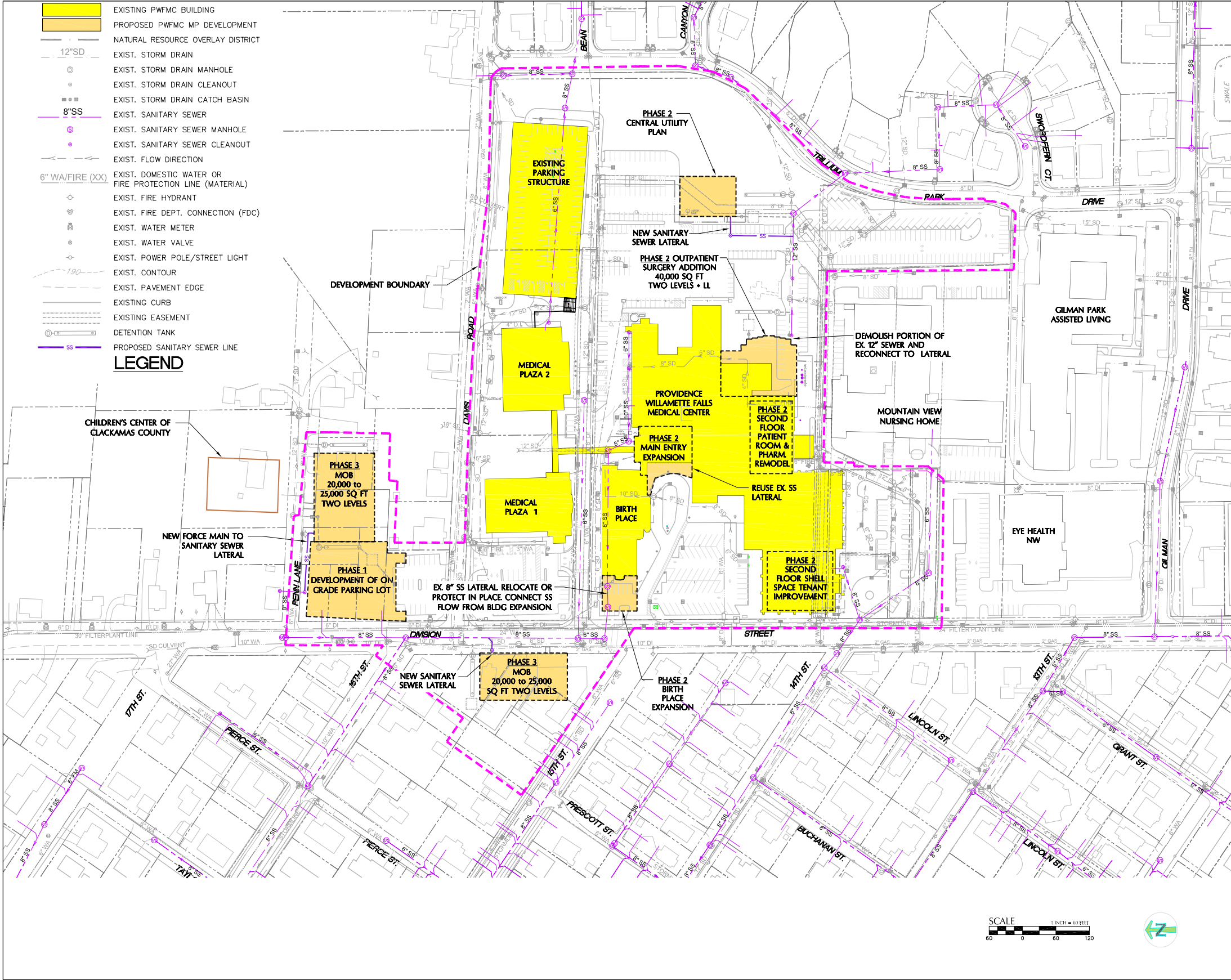
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PROVIDENCE
Health & Services

Project Title:
PROVIDENCE WILLAMETTE FALLS MEDICAL CENTER MASTER PLAN
OREGON CITY, OREGON

Date:
23 September 2011

Sheet Number:
FIGURE 22



pka
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PROVIDENCE
Health & Services

Project Title:
**PROVIDENCE
WILLAMETTE FALLS
MEDICAL CENTER
MASTER PLAN**
OREGON CITY,
OREGON

PROPOSED
SANITARY SEWER
PLAN

Date:
23 September 2011

Sheet Number:
FIGURE 23



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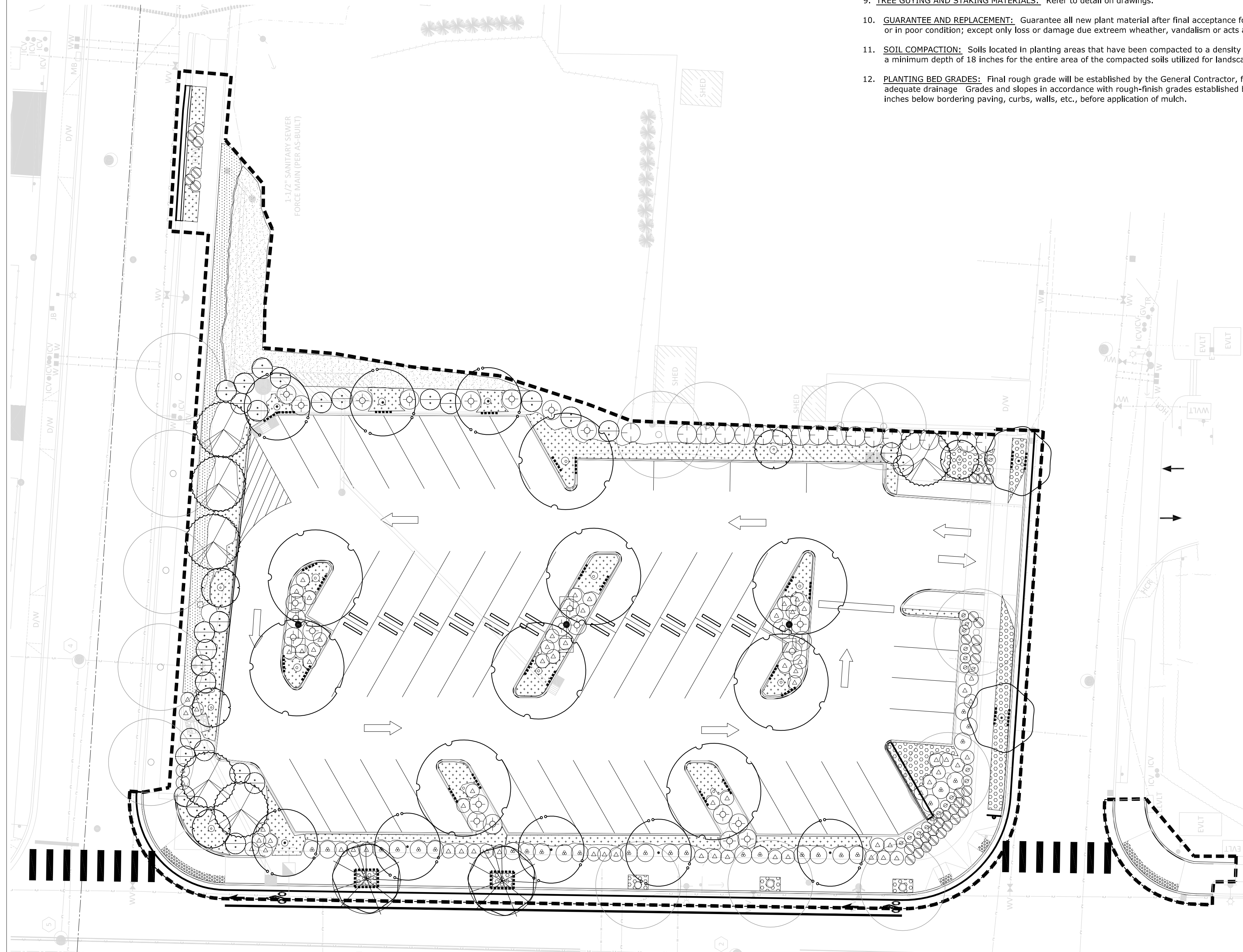
Providence Willamette Falls Medical Center
Master Plan

Aerial Photo

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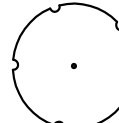

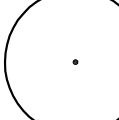
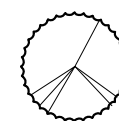
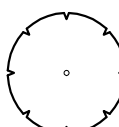

FIGURE 25
















LANDSCAPE PLANTING PLAN

1. LANDSCAPE CONTRACTOR: The Landscape Contractor must have a State Landscape Contractor's license and be bonded in the State.
2. SCOPE: Furnish labor, materials, equipment and supervision necessary to complete all work shown on the Drawings and in the Specifications.
3. CALL BEFORE YOU DIG: Contractor is responsible for verifying the locations of all underground utilities prior to commencement of work; and to protect said utilities from damage during plant installation.
4. PERMITS AND FEES: Contractor shall obtain and pay for all necessary permits and fees as required by applicable codes and ordinances for this work.
5. PROTECTION: Contractor shall provide protection of all property, persons, work in progress, structures, utilities, walks, curbs and paved surfaces during the installation of landscape and Irrigation work..
5. CLEANING: Contractor shall keep all areas of work clean, neat and orderly at all times. All paved areas are to be cleaned following planting and maintenance activities.
6. FIELD CONDITION CONFLICTS: Conflicts between approved planting plans and field conditions shall be identified to the Responsible Official prior to planting.
7. VARIATION FORM APPROVED PLANS: Proposals for plant substitutions, location adjustments, soil amendments or any variations from the approved plans shall require prior approval by the Responsible Official.
8. PLANTING LEGEND: All plant quantities listed in planting legend are provide as a courtesy only. Contractor responsible for providing all plant material shown on drawings. Report any discrepancies to Landscape Architect.
9. TREE GUYING AND STAKING MATERIALS: Refer to detail on drawings.
10. GUARANTEE AND REPLACEMENT: Guarantee all new plant material after final acceptance for duration of one full growing season or one year, whichever is longer. Replace plant material not surviving or in poor condition; except only loss or damage due extreme weather, vandalism or acts and neglects on the part of others.
11. SOIL COMPACTION: Soils located in planting areas that have been compacted to a density greater than that penetrable with a hand shovel (approx.. 85%), shall be loosened to increase aeration for a minimum depth of 18 inches for the entire area of the compacted soils utilized for landscape purposes. Imported topsoil shall be incorporated into loosened sub grade to a minimum depth of 6".
12. PLANTING BED GRADES: Final rough grade will be established by the General Contractor, fine finish grade by Landscape Contractor. 6" minimum crown required in all landscaped areas to provide adequate drainage. Grades and slopes in accordance with rough-finish grades established by others plus increase resulting from addition of bark mulch in all planting bed areas. Grade to 2 to 2 1/2 inches below bordering paving, curbs, walls, etc., before application of mulch.

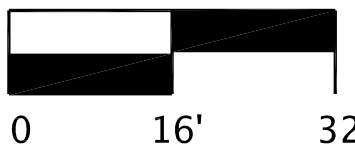
SYM.	BOTANICAL NAME	COMMON NAME	SIZE	QTY	DETAIL
	Fraxinus pennsylvanica 'Summit Ash'	Summit Ash	2" Cal.	0	1/LA.1-1
	Acer rubrum 'Franksred'	Red Sunset Maple	2" Cal.	0	1/LA.1-1
	Pyrus calleryana 'Glens Form'	Chanticleer Pear	2" Cal.	0	1/LA.1-1
	Calocedrus decurrens	Incense Cedar	8" Ht.	0	5/LA.1-1
	Cornus kousa 'Milky Way'	Milky Way Dogwood	1" Cal.	0	1/LA.1-1
	EXISTING TREES TO REMAIN AND PROTECT DURING EXCAVATION	See specification for limits of protection. Inform Landscape Architect immediately if tree roots larger than 1" dia. are exposed during excavation.			

Shrub and Groundcover Schedule					
SYM.	BOTANICAL NAME	COMMON NAME	SIZE	QTY	DETAIL
	Calamagrostis x acutiflora 'Karl Foerster'	Karl Foerster Feather Reed Grass	2 Gal	00	2/LA.1.
	Cornus Sericea 'Kelsyi'	Kelsyi Dogwood	5 Gal.	00	2/LA.1.
	Eunonymus alatus 'Compacta'	Compact Burning Bush	5 Gal.	00	2/LA.1.
	Viburnum tinus 'Spring Boquet'	Spring Boquet Viburnum	5 Gal.	00	2/LA.1.
	Ligustrum vulgare 'Cheyenne'	Cheyenne Privet	30"	00	2/LA.1.
	Panicum virgatum 'Heavy Metal'	Blue Switch Grass	2 Gal.	00	2/LA.1.
	Spiraea x bumalda 'Anthony Waterer'	Anthony Waterer Spiraea	5 Gal	00	2/LA.1.
	Arctostaphylos uva-ursi 'Vancouver Jade'	Vancouver Jade Bearberry	1 Gal	18" O.C.	6/LA.1.
	Mahonia repens	Creeping Mahonia	1 Gal	18" O.C.	6/LA.1.
	Clean Water Low-Grow Swale Mix	Hobbs & Hopkins LTD www.protimeesed.com	5 lbs.	1,000 s.f.	
	Companion Seed Mix	Hobbs & Hopkins LTD www.protimeesed.com	5 lbs.	1,000 s.f.	
*****	Root Barrier				1/LA.1.
PLANT QUANTITIES IN LEGEND ARE PROVIDED AS A COURTESY ONLY. LANDSCAPE CONTRACTOR RESPONSIBLE FOR INSTALLING PLANTS AS SHOWN ON DRAWING.					

PLANT QUANTITIES IN LEGEND ARE PROVIDED AS A COURTESY ONLY. LANDSCAPE CONTRACTOR RESPONSIBLE FOR INSTALLING PLANTS AS SHOWN ON DRAWING.



SCALE: 1"=16'-0"



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Project Title

DIVISION STREET PARKING LOT

OREGON CITY

PROVIDENCE
WILLAMETTE FALLS
MEDICAL CENTER

Key Plan:

Sheet Title

LANDSCAPE PLANTING PLAN

Drawn By

Date:

01.31.1

Revisions: Δ

No. Revision

Date _____

Project Number
110420

Sheet Number:

LA1.1
Permit Set

APPENDIX A

PWF Community Meeting Public Notification
July 7, 2011 PWF Master Plan Community Meeting Sign-In Sheet



Changing to meet your needs as a growing community



As our community grows, we're making changes to grow with you.

Just as you make improvements to your home, Providence Willamette Falls Medical Center needs to make some upgrades to its property.

Among the upgrades:

- Making our main entrance more inviting and efficient
- Adding a contemporary outpatient surgery area
- Paving a gravel parking lot

This work requires a new master plan. We invite you to come to a neighborhood meeting where staff will discuss the master plan being submitted to the City of Oregon City. We think you'll like what you see.

Neighborhood Meeting

6:30 p.m., Thursday
July 7, 2011
Providence Willamette Falls Medical Center
Conference rooms 3 and 4
1500 Division St., Oregon City

Questions? Contact Renee King at 503-650-6262
or email renee.king@providence.org.



1500 Division St
Oregon City, OR 97045

BACK

McLoughlin

Memoranda

Volume XV, No. 6

NEIGHBORHOOD NEWS

September - October 2011

GENERAL MEETING

Thursday, September 1, 7 p.m.

Main Fire Station - 2nd floor

Welcome back. We have had a busy and productive summer – hope you have too! The guest speaker for our September meeting is MNA neighbor, and former MNA chair, **RICK WINTERHALTER**. Rick is a recycling specialist with the **OFFICE OF SUSTAINABILITY** for Clackamas County. Come with your questions about recycling.

At our last meeting ...

Instead of a letter from our chair, we're trying something new – “mini minutes” from our last meeting. Our goal is to keep you informed and give you an idea of the great discussion and information that's shared at our MNA meetings.

Willamette Falls Hospital:

- The hospital is opening a free clinic in the old St. Vincent DePaul building on Molalla Avenue.
- There are plans for a two-story clinic in the current clinic site across Division St. from the hospital and for two buildings – an expanded surgical area and a utilities building – to be built within the current hospital site, as part of Providence Hospital's master plan for Willamette Falls.

Public Works:

- The MNA successfully convinced Public Works to add more crosswalks to the Carnegie Center and improve visibility when crossing 6th Ave.
- There are 12 possible sites for the new Public Works building being reviewed by City Council. The old plan is out.
- The railroad tunnel access (Railroad Ave. to the Promenade) is being cleaned up.
- Main street will become two-way the whole length soon.
- Amtrak has a monthly pass available for the Oregon City to Portland route to encourage commuter use.

The Cove development:

- The Cove developers made a presentation of their latest plans at the last Citizen's Involvement Council meeting. Extensive park/natural areas are in the plan.

*What do you think of our “mini minutes”? Interesting? Boring?
Tell us what you think!*

For newsletter submissions, please contact Denyse McGriff at mcgriffd@pdc.us or 503-656-3912. Deadline: Thursday, October 13.

MNA Meeting Dates

*Meetings are held the
FIRST THURSDAY
of the month,
with the exception of July and
August, due to our participation
in Concerts in the Parks.*

*The General Assembly
meets every other month.
All are welcome to attend
Steering Committee Meetings.*

GENERAL MEETINGS

- September 1, 2011
- November 3, 2011
- January 5, 2012

STEERING COMMITTEE

- October 6, 2011
- December 1, 2011
- February 2, 2012

TIME: 7 PM

**LOCATION: NEIGHBORHOOD
ASSOCIATION OFFICE, FIRE
STATION, LOWER LEVEL.
ENTRANCE ON 7TH STREET.**

Providence Willamette Falls Medical Center
Master Plan Community Meeting
July 7, 2011

Name

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1209 Grant St.
Oregon City, Ore

Gerald Dietz

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2263 Gilman Dr
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Mick Gross

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Tim Powell

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Providence Willamette Falls Medical Center
Master Plan Community Meeting
July 7, 2011

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Jack Dresdow

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SCOTT & JENNIFER POZEL

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STEVEN WAGG

Oregon City

Providence Willamette Falls Medical Center
Master Plan Community Meeting
July 7, 2011

Name

Address

Armando Borja

~~97078~~ 13870 Beau CT

APPENDIX B

Kittelsohn & Associates, Inc. - Transportation Impact Analysis

Transportation Impact Analysis

Providence Willamette Falls Medical Center

Oregon City, Oregon

August 2011



Transportation Impact Analysis

Providence Willamette Falls Medical Center

Oregon City, Oregon

Prepared For:
Providence Health & Services
Real Estate & Construction Development
4400 NE Halsey Street
Building 1, Suite 160
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(503) 215-6575

Prepared By:
Kittelson & Associates, Inc.
610 SW Alder Street, Suite 700
Portland, OR 97205
(503) 228-5230

Project Manager: Julia Kuhn, P.E.
Project Principal: Chris Brehmer, P.E.

Project No. 10567.0

August 2011



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Appendix H	Parking Utilization Data

Section 1 Executive Summary

EXECUTIVE SUMMARY

Providence Health & Services is preparing a Master Plan and Detailed Development Plan (DDP) for its Providence Willamette Falls Medical Center (PWPMC) campus. The Master Plan will include development of the property between Division Street, Davis Road, Trillium Park Drive, and Gilman Drive, in addition to the property immediately west of Division Street between 14th Street and 16th Street and the property immediately east of Division Street between Penn Lane and Davis Road.

As part of the Master Plan, the existing campus buildings will remain intact and operational. PWPMC is seeking approval to increase the amount of development on-campus by a net addition of 104,000 square feet, which accounts for two additional medical office buildings (MOBs), expansions to the existing hospital building, and a central utility plant (CUP). The DDP includes the upgrading of the existing gravel parking lot adjacent to Penn Lane. As part of the upgrading, the parking lot will be paved and stormwater, landscaping and curbs will be added. No traffic impacts are anticipated by the paving of the parking lot. All other planned additions to the campus will require separate DDP submissions and subsequent traffic analyses.

This report summarizes the transportation and parking analyses needed to support the Master Plan. The pertinent findings and recommendations are summarized below.

Findings

EXISTING TRANSPORTATION SYSTEM OPERATIONS AND SAFETY

- Under existing conditions, all study intersections meet operating standards during both the a.m. and p.m. peak hours.
- Only five of the study intersections have any reported crashes over the past five years. No safety mitigation needs have been identified based on the crash data alone.
- Several mitigations have been identified that would improve sight distance at the PWPMC accesses and the roadways that intersect Division Street across from the PWPMC campus. In order to provide adequate sight distance, PWPMC should move the hospital sign at the intersection of Division Street/Davis Road and restrict on-street parking and consider bulb-outs for the accesses and intersections along Division Street, particularly at the intersections of Division Street/Davis Road, Division Street/15th Street, and the Division Street/PWPMC Access Road (between 13th Street and 14th Street). The City and property owners should consider trimming and maintaining the shrubs near the roadway.

YEAR 2021 TRANSPORTATION SYSTEM OPERATIONS

- The 104,000 square feet of net building space proposed as part of the Master Plan is estimated to generate 87 weekday a.m. and 91 weekday p.m. peak hour trips, assuming no additional reduction in campus-related drive-alone travel is realized during the next ten years.

- Assuming year 2021 background conditions without an increase in campus-related uses, the Redland Road/Anchor Way and Molalla Avenue/7th Street intersections do not meet City of Oregon City operating standards. The Molalla Avenue/7th Street intersection is anticipated to operate acceptably for the next five years (through the year 2016) whereas the Redland Road/Anchor Way intersection is anticipated to operate acceptably for the next six years (through the year 2017) with increases in background growth.
- Assuming year 2021 total build-out conditions, the Master Plan does not cause any intersections to not meet City of Oregon City operating standards.
 - The City has been evaluating the potential for a roundabout at the Molalla Avenue/7th Street intersection. With a roundabout in-place, this intersection would meet City standards at full build-out of the Master Plan.
 - The Redland Road/Anchor Way intersection is anticipated to warrant a traffic signal within the next six years. This improvement has been identified in the Oregon City TSP. With a signal in-place, this intersection would meet standards.

MODE SPLIT AND PARKING

- The 2011 Employee Commute Options (ECO) survey results represent a slight decrease in the drive-alone mode split from the July 2010 survey (a decrease from 89 to 88 percent). PWFMC's efforts to reduce the drive-alone rate will continue to lessen both parking and traffic impacts associated with the campus over time.
- There is sufficient on-campus parking today to accommodate the existing peak daily demand. During the highest hour of parking utilization, approximately 78 percent of the spaces are full within the existing Master Plan boundaries. This level of utilization still provides sufficient opportunities for patients and visitors to easily and efficiently find a parking space without unnecessary circulating through the garages or parking lots.
- Based on the existing parking demand, a campus-wide rate of 1.95 spaces per 1,000 square feet of building space should be supplied on-campus throughout the next ten years. Accounting for an excess of parking today, 138 new spaces would be needed campus-wide upon build-out of the Master Plan uses.
- PWFMC should monitor the need for supplying a campus-wide rate of 1.95 spaces per 1,000 square feet of buildings space to ensure that this ratio remains applicable as the drive-alone rate to campus continues to decrease over time.
- There is limited use of the first block of 15th Street (west of Division Street) by hospital staff and visitors. Neighborhood feedback indicated that hospital staff and visitors also frequently park on the first blocks of 14th Street and 16th Street (west of Division Street). PWFMC should continue to monitor this situation and work with the neighborhood to ensure any impacts are mitigated.

Recommendations

- In order to achieve adequate sight distance at the PWFMC accesses and roadways intersecting Division Street, the hospital sign at the intersection of Division Street/Davis Road should be moved east. Parking restrictions and bulb-outs should also be considered in order to acquire additional sight distance, specifically at the intersections of Division Street/Davis Road, Division Street/15th Street, and the Division Street/PWFMC Access Road (between 13th Street and 14th Street). The City and property owners should consider trimming and maintaining the shrubs near the roadway.
- Based on existing parking demand, 1.95 parking spaces should be provided per 1,000 square feet of total building space on-campus. This ratio should be monitored over time to ensure its application remains appropriate as the campus experiences further reductions in the drive-alone rate. This ratio results in a total campus need of 138 new parking spaces.
- PWFMC should work with the City of Oregon City to contribute a pro rata share of improvements at the Redland Road/Anchor Way and Molalla Avenue/7th Street intersections. The timing of and need for these pro rata share improvements should be determined as part of subsequent DDP submittals. Improvements at these locations are not anticipated to be needed for five to six years, and the timing of expansions to the hospital that are included in the Master Plan have not yet been defined.
 - Based on current estimates, build-out of the Master Plan uses would contribute approximately 1.1 percent of the p.m. peak hour traffic volumes in the year 2021 at the Molalla Avenue/7th Street intersection.
 - At the Redland Road/Anchor Way intersection, build-out of the Master Plan uses would contribute approximately 2.3 percent of the p.m. peak hour traffic volumes in the year 2021.

Section 2 Introduction

INTRODUCTION

Project Description

As part of the Master Plan, Providence Willamette Falls Medical Center (PWPMC) is proposing a net increase of 104,000 square feet of new space on campus. The new Master Plan will include development of the property between Division Street, Davis Road, Trillium Park Drive, and Gilman Drive, in addition to the property immediately west of Division Street between 14th Street and 16th Street and the property immediately east of Division Street between Penn Lane and Davis Road. Figure 1 illustrates the site vicinity and updated campus boundary. Figure 2 shows the Master Plan conceptual uses.

There are a number of public roadways and private accesses that serve the campus today. The majority of these will be maintained as part of future development. One additional access point along Penn Lane is proposed as part of future campus development and will serve a parking lot that has an existing access to Division Street that will be closed.

Construction activities are expected to occur over the course of several years, depending on fiscal resources and operational needs. For the purposes of this report, a ten-year planning horizon was used to understand transportation impacts associated with build-out of the Master Plan uses.

A Detailed Development Plan (DDP) is being submitted concurrently with the Master Plan. As part of this DDP, PWPMC proposes to upgrade the parking lot adjacent to Penn Lane. No traffic impacts are anticipated with the paving of this parking lot.

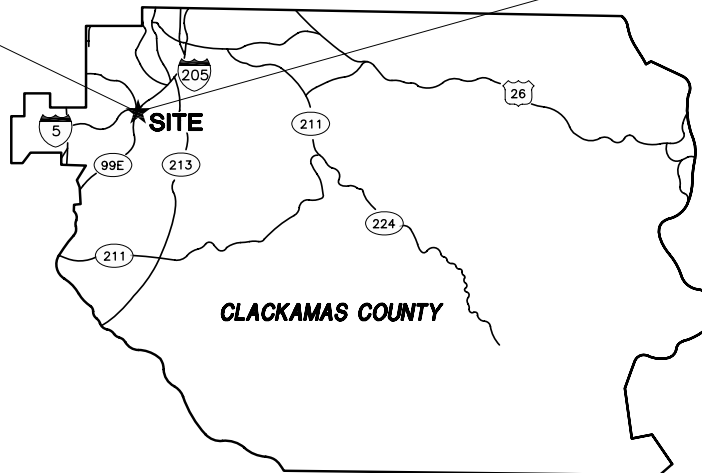
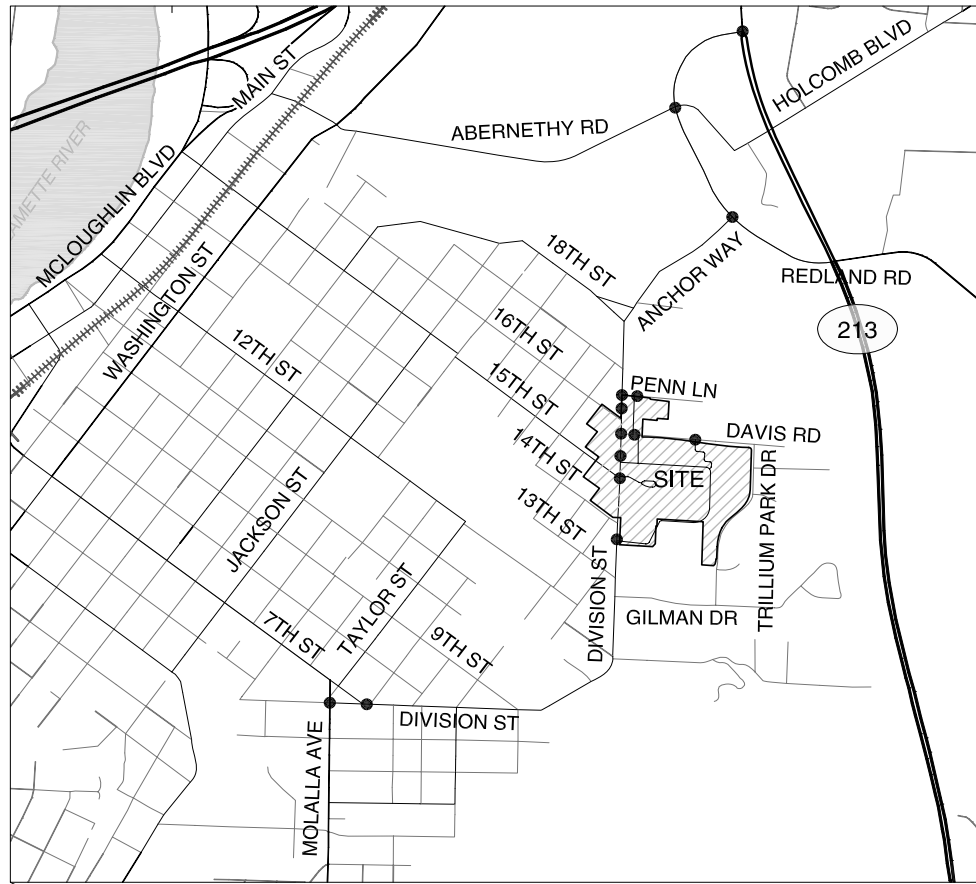
Scope of the Report

This report identifies the transportation-related impacts associated with development of an additional 104,000 square feet of net new campus space proposed as part of the Master Plan update and was prepared in accordance with the City of Oregon City standards. The study intersections and scope of this project were selected based on a review of the local transportation system and direction provided by City staff. Operational analyses were performed for the weekday a.m. and p.m. peak hours at the following locations:

Off-Site Locations

1. Cascade Highway (OR 213)/Redland Road
2. Redland Road/Holcomb Boulevard-Abernethy Road
3. Redland Road/Anchor Way
4. Molalla Avenue/7th Street
5. Molalla Avenue/Division Street
6. 7th Street/Division Street

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LEGEND

- - STUDY INTERSECTIONS

**SITE VICINITY MAP
OREGON CITY, OREGON**

**FIGURE
1**



Campus Adjacent Locations

7. Division Street/Davis Road
8. Division Street/Penn Lane (Total Traffic Conditions Only)

Campus Accesses

- A1E. Access #1 (Existing Location): Division Street/Between 16th Street and Penn Lane (Existing Traffic Conditions Only)
- A1F. Access #1 (Future Location): Penn Lane/East of Division Street (Total Traffic Conditions Only)
- A2. Access #2: Davis Road/West Access between Division Street and Trillium Park Drive (This access point contains two driveways with (A) access to the parking lot between Penn Lane and Davis Road and (B) access to the parking lot south of Davis Road.)
- A3. Access #3: Davis Road/East Access between Division Street and Trillium Park Drive
- A4. Access #4: Division Street/Between Davis Road and 15th Street
- A5. Access #5: Division Street/15th Street
- A6. Access #6: Division Street/Between 13th Street and 14th Street

This report summarizes these transportation areas:

- Existing land-use and transportation-system conditions within the site vicinity during the weekday a.m. and p.m. peak periods;
- Year 2021 traffic conditions during both peak periods;
- Trip generation and distribution estimates for the proposed Master Plan uses;
- Campus parking demand and supply analyses;
- On-street parking analyses; and
- Conclusions and recommendations.

Section 3 Existing Conditions

EXISTING CONDITIONS

The existing conditions analysis identifies the site conditions and current multimodal, operational, functional, and safety characteristics of the transportation system within the vicinity of the campus. These conditions are compared with future conditions later in this report.

Kittelson & Associates, Inc. (KAI) staff collected information regarding site conditions, adjacent land uses, existing traffic operations, and transportation facilities in the study area during the spring and summer of 2011.

Campus Conditions and Adjacent Land Uses

The main Providence Willamette Falls Medical Center (PWFMC) campus encompasses the area between Division Street, Davis Road, Trillium Park Drive, and Gilman Drive. The main campus includes 335,076 square feet of medical and administrative/support uses today. In addition, 16,105 square feet of shelled space has been constructed within the hospital but is not yet in use.

Structured parking and surface parking are available on the campus today. The parking structure is located on the northeast corner of the campus near the intersection of Davis Road and Trillium Park Drive. The parking structure has two accesses that are located off of Davis Road (to the north) and through the surface parking lot (to the south). There are surface parking lots currently surrounding the campus. Two of the parking lots are located on the northeast and southeast corners of the Division Street/Davis Road intersection. Another surface parking lot is located on the west side of the campus, near the Division Street/15th Street intersection, and wraps around the east side of the Hospital, extending to Trillium Park Drive. A gated driveway is located on the southeast corner of the campus connecting to Trillium Park Drive and is for emergency use only.

The PWFMC campus is zoned Mixed Use Employment (MUE). The MUE zoning extends beyond the PWFMC campus to the north, south, and west. There is a Children's Center on Penn Lane outside of the Master Plan boundary to the north. Other medical providers are located to the south of the Master Plan boundary, including the Mountain View Nursing Home, Eye Health Northwest, and Gilman Park Assisted Living. While Eye Health Northwest and Gilman Park Assisted Living have their own surface parking lots and accesses, Mountain View Nursing Home shares the PWFMC Division Street access between 13th Street and 14th Street. The surrounding properties beyond the MUE zoned area are generally residentially zoned as single family (R-6 and R-10) to the west and east and multi-family (R-2) to the south.

Transportation Facilities

Table 1 provides a summary of the transportation facilities included in the analyses. This table outlines the operational characteristics of the streets, as well as the modal functional classifications identified in the City of Oregon City *Transportation System Plan* (TSP, Reference 1). Figure 3 identifies the lane configurations and traffic control devices at the study intersections.

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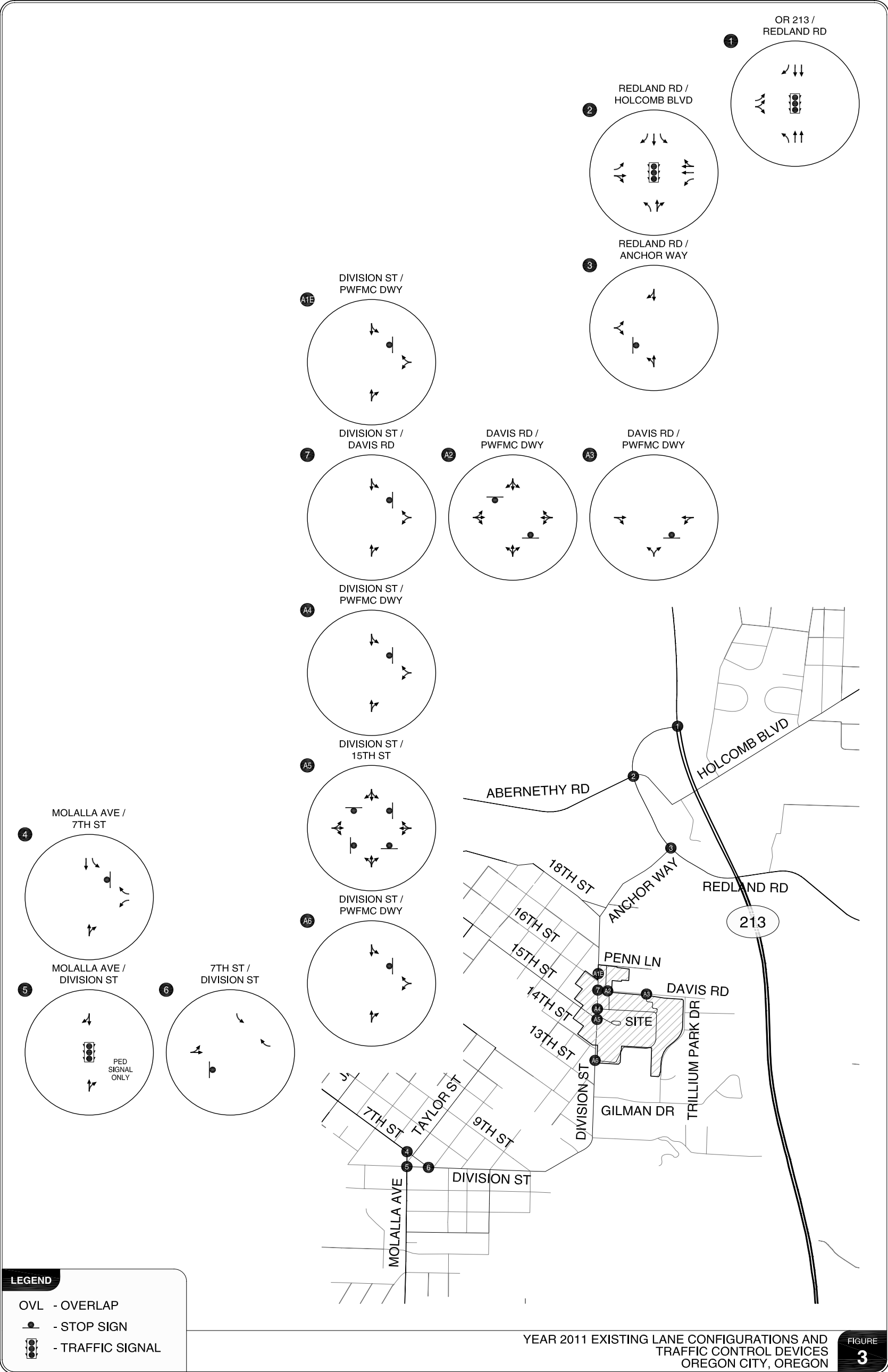


Table 1 Existing Transportation Facilities

Roadway	Classification	Number of Lanes	Posted Speed (MPH)	Sidewalks	Bicycle Lanes	On-Street Parking	Transit Route
Cascade Highway (OR 213)	Expressway	4 - 5	45	No	Yes	No	No
Redland Road	Minor Arterial	2 - 5	45	Partial ¹	Yes	No	No
Holcomb Boulevard	Minor Arterial	2 - 4	40	Yes	Yes	No	Yes
Anchor Way	Minor Arterial	2	25	Partial ²	Partial ²	No	No
Division Street	Minor Arterial	2	25	Partial ³	Partial ⁴	Partial ⁵	Yes
Penn Lane	Local Street	2	NP ⁶	Yes	No	Yes	No
Davis Road	Local Street	2	NP ⁶	Yes	No	Yes	No
15 th Street	Collector	2	25	Yes	No	Yes	No
7 th Street	Minor Arterial	2	25	Yes	No	Yes	Yes
Molalla Avenue	Major Arterial	2 - 3	25	Yes	Yes	No	Yes

¹ Sidewalks are provided along Redland Road to the south of Holcomb Boulevard-Abernethy Road.

² Sidewalks and bicycle lanes are provided along Anchor Way west of Redland Road (for approximately 250 feet only).

³ Sidewalks are provided along Division Street to the south of 16th Street.

⁴ Bicycle lanes are provided along Division Street between 13th Street and 15th Street.

⁵ On-street parking is available along Division Street to the west of 9th Street and between 16th Street and Gilman Drive.

⁶ Not posted; assumed to be 25 miles per hour.

PEDESTRIAN AND BICYCLE FACILITIES

The PWFMC campus and surrounding neighborhood are generally well served by a grid network of streets and sidewalks today. Sidewalks are available adjacent to the campus on both Division Street and Davis Road, as well as along the major connecting roadways near the campus, including Molalla Avenue, 7th Street, and 15th Street. Additional sidewalk connectivity is planned in the vicinity of the PWFMC campus, as identified in the City of Oregon City TSP. The need for new sidewalks has been identified for Division Street, Anchor Way, Redland Road, Holcomb Boulevard-Abernethy Road, 15th Street, and Molalla Avenue.

Bicycle lanes are currently provided on Division Street between 13th Street and 15th Street and along some of the major surrounding roadways, including Redland Road and Molalla Avenue. According to the TSP, bicycle lane improvements are needed on Division Street, 15th Street, Cascade Highway (OR 213), Anchor Way, Holcomb Boulevard- Abernethy Road, 7th Street, and Molalla Avenue.

Bicycle parking counts were conducted once per day on the PWFMC campus around 11:00 a.m. from Monday, July 18, 2011, through Thursday, July 21, 2011. The results are summarized in Table 2. The bicycle counts revealed that, on average, there are two bicycles parked in the designated bicycle racks per day. There may be additional bicycles parked elsewhere on campus, as PWFMC staff could take their bicycles in to their offices.

Table 2 PWFMC Campus Bicycle Count

Day	Number of Bicycles Parked in Designated Bicycle Racks
Monday, July 18, 2011	0
Tuesday, July 19, 2011	2
Wednesday, July 20, 2011	2
Thursday, July 21, 2011	3

TRANSIT FACILITIES

Two fixed-route bus stops are located within one block of the main entrance of the PWFMC campus on Division Street; a total of four stops are located within one block of the overall PWFMC campus. Service to these stops is provided by TriMet Bus Route 32. Route 32 provides service between Clackamas Community College, Oregon City, Gladstone, and Milwaukie. As of August 2011, the bus operates Monday through Friday between 5:30 a.m. and 7:30 p.m. on 30-minute headways, Saturdays between 9:30 a.m. and 5:30 p.m. on 60-minute headways, and does not offer service on Sundays. The Oregon City Transit Center provides connections to several additional bus routes and services. Other bus service in the area of the PWFMC campus is provided by TriMet Bus Routes 33, 34, and 99 (Reference 2).

Existing Campus Mode Split

The Employee Commute Options (ECO) Program is mandated by the Department of Environmental Quality (DEQ). The program requires employers with more than 100 employees to provide commute options that will reduce the number of work-commute trips made by car in Portland and the surrounding area. The ECO Program is part of the Portland-Vancouver Air Plan to meet federal health-based ozone standards (Reference 3).

Per the 2011 Employee Commute Options (ECO) survey, the existing employee mode split for the PWFMC campus is as follows:

- 88 percent single-occupancy-vehicle travel (drive-alone)
- 4 percent carpool
- 3 percent bus
- 1 percent bike
- 1 percent walk
- 0 percent telecommute
- 3 percent compressed work week

The 2011 results show a decrease in the drive-alone mode split from the July 2010 survey, which showed a rate of 89 percent. Since the baseline ECO survey was conducted in August 1997, there

has been a seven-percent reduction in drive-alone trips. PWFMC's efforts to reduce the drive-alone rate will continue to lessen both parking and traffic impacts associated with the campus over time.

Traffic Volumes and Peak Hour Operations

Peak period vehicular, pedestrian, and bicycle counts were collected on June 2, 2011, at the study intersections and PWFMC accesses.

ODOT requires that a seasonal factor be applied to traffic volumes on ODOT facilities. Seasonal factors adjust traffic counts based on trends seen during the peak month of the year. Because the traffic counts for this study were taken in June, a seasonal factor of 1.01 was applied to the volumes on OR 213 at the OR 213/Redland Road intersection.

Figure 4 and Figure 5 provide a summary of the existing turning-movement counts during the weekday a.m. and p.m. peak hours, respectively. *Appendix "A" contains the traffic counts used in this study.*

The PWFMC campus currently generates 339 trips during the a.m. peak hour and 356 trips during the p.m. peak hour, as shown in Table 3.

Table 3 Measured Trip Generation for PWFMC Based on Traffic Counts

Weekday AM Peak Hour Trips			Weekday PM Peak Hour Trips		
In	Out	Total	In	Out	Total
257 (76%)	82 (24%)	339	89 (25%)	267 (75%)	356

CURRENT LEVELS OF SERVICE

Level-of-service (LOS) analyses described in this report were performed in accordance with the procedures stated in the *2000 Highway Capacity Manual* (Reference 4). All intersection level-of-service evaluations used the peak 15-minute flow rate during the peak hour. Using the peak 15-minute flow rate ensures that this analysis is based on a reasonable worst-case scenario. *A description of level of service and the criteria by which it is determined is presented in Appendix "B."*

Per the City of Oregon City *Guidelines for Transportation Impact Analyses* (Reference 5):

- The minimum acceptable LOS is defined as follows for signalized intersections located outside the Regional Center boundaries:
 - LOS "D" or better for the intersection as a whole *and* no approach operating at worse than LOS "E" *and* a volume-to-capacity (v/c) ratio not higher than 1.0 for the sum of the critical movements.
- For signalized intersections within the Regional Center boundaries, the following minimum LOS standards will be allowed:
 - LOS "D" can be exceeded during the a.m. and p.m. peak hour; however, during the second hour of each two-hour peak period, LOS "D" or better will be required for

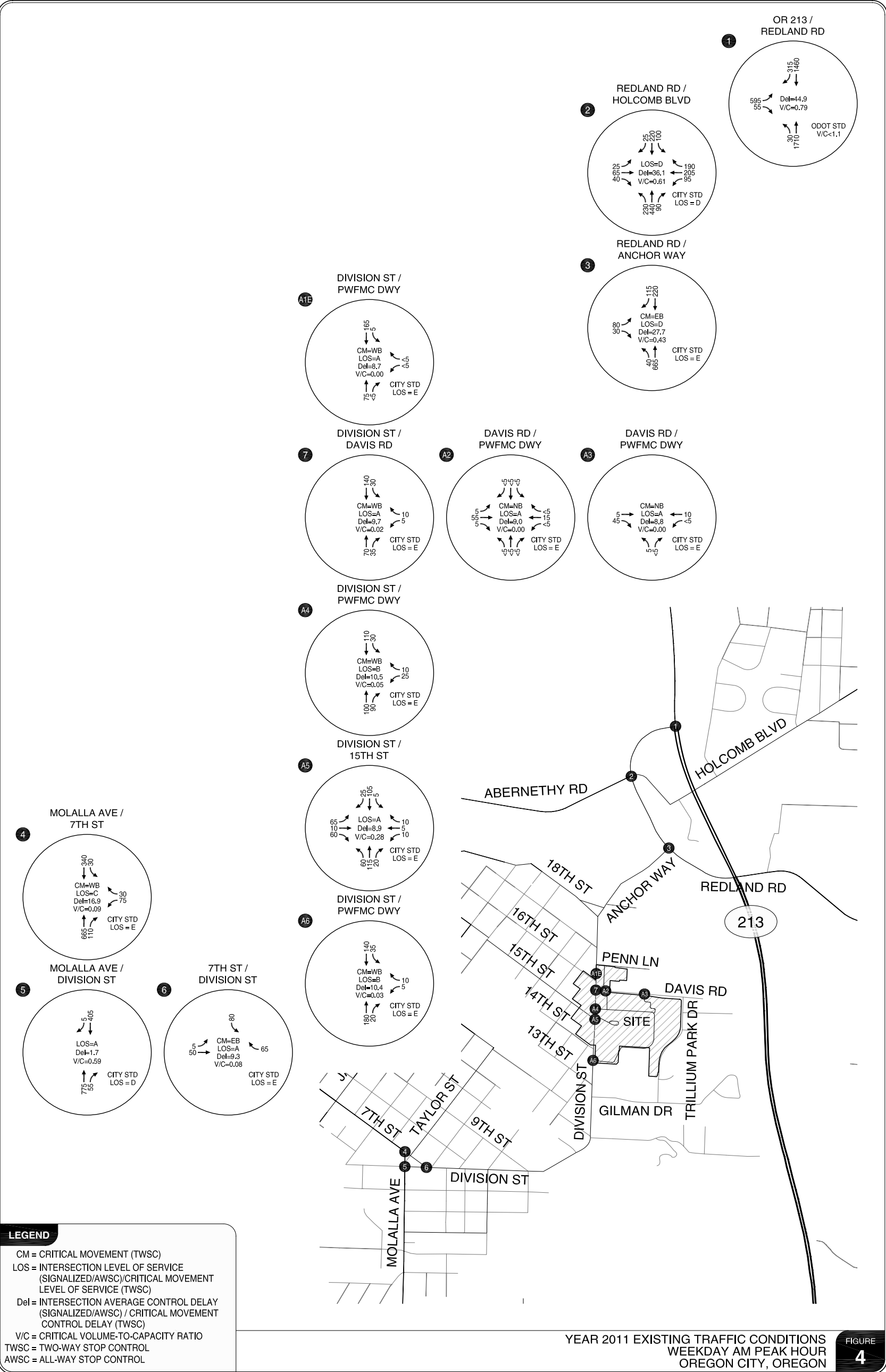
- the intersection as a whole *and* no approach operating at worse than LOS "E" *and* a v/c ratio not higher than 1.0 for the sum of the critical movements.
- Oregon City's minimum acceptable LOS is defined as follows for unsignalized intersections throughout the City:
 - LOS "E" or better for the poorest operating approach *and* with no movement serving more than 20 peak hour vehicles operating at worse than LOS "E." In other words, LOS "F" will be tolerated for minor movements during a peak hour.

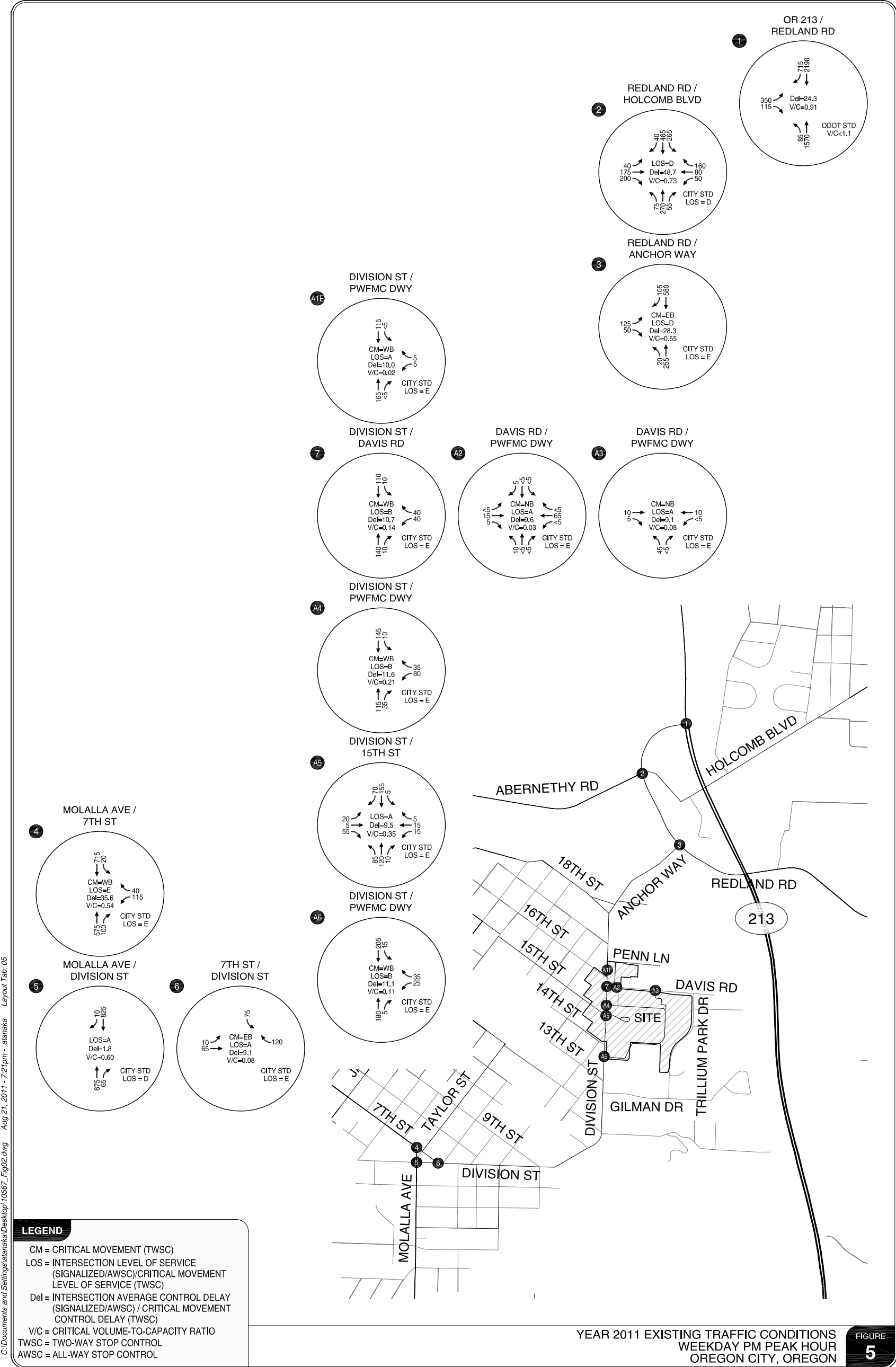
Operations at the OR 213/Redland Road intersection are governed by ODOT, which operates and maintains the intersection. The v/c mobility standard from the Oregon Highway Plan (OHP, Reference 6) is 1.10 for the first peak hour and 0.99 for the second peak hour.

Figures 4 and 5 summarize the level-of-service analyses for the study intersections. The OR 213/Redland Road intersection currently operates acceptably during the a.m. and p.m. peak periods using ODOT standards. The Redland Road/Holcomb Boulevard-Abernethy Road intersection is located within the Regional Center boundaries, and it currently operates acceptably during the a.m. and p.m. peak periods using City standards.

The signalized study intersections located outside of the Regional Center boundaries and the unsignalized study intersections also operate acceptably during both peak periods. *Appendix "C" includes the level-of-service worksheets for the existing traffic conditions.*

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Safety Analyses

CRASH RECORDS

The crash history of each study intersection was reviewed in an effort to identify potential safety issues. Crash records were obtained from ODOT for the five-year period from January 1, 2005, through December 31, 2009. Table 4 displays the crashes reported at the study intersections and access points during the five-year period. *Appendix "D" contains the crash records obtained from ODOT.*

Table 4 Intersection Crash History (January 1, 2005 – December 31, 2009)

Intersection	Collision Type				Severity			Total	Crash Rate ²
	Rear-End	Turning	Angle	Other	PDO ¹	Injury	Fatal		
Cascade Hwy (OR 213)/Redland Road	2	6	-	-	4	4	-	8	0.09
Redland Road/Holcomb Boulevard-Abernethy Road	3	-	-	-	2	1	-	3	0.09
Redland Road/Anchor Way	1	4	1	-	4	2	-	6	0.29
Division Street/7 th Street	-	-	-	-	-	-	-	0	0.00
Molalla Avenue/Division Street	-	-	1	1	1	1	-	2	0.07
Molalla Avenue/7 th Street	-	2	2	-	2	2	-	4	0.14
Division Street/Davis Road	-	-	-	-	-	-	-	0	0.00
Access A1E: Division Street/South of Penn Lane	-	-	-	-	-	-	-	0	0.00
Access A2: Davis Road/West Access between Division Street and Trillium Park Drive	-	-	-	-	-	-	-	0	0.00
Access A3: Davis Road/East Access between Division Street and Trillium Park Drive	-	-	-	-	-	-	-	0	0.00
Access A4: Division Street/Between Davis Road and 15 th Street	-	-	-	-	-	-	-	0	0.00
Access A5: Division Street/15 th Street	-	-	-	-	-	-	-	0	0.00
Access A6: Division Street/Between 13 th Street and 14 th Street	-	-	-	-	-	-	-	0	0.00

¹ PDO – Property Damage Only.

² Crash Rate = Crashes per million entering vehicles.

As shown in Table 4, the study intersections and campus access points have experienced relatively low crash rates.

Based on a review of the crash records, six of the eight crashes that occurred at the signalized OR 213/Redland Road intersection were turning crashes. Four of the six turning crashes at that location involved eastbound vehicles turning left, and four of the six crashes occurred during dark conditions. One of the turning crashes involved a bicyclist. ODOT is currently rebuilding this intersection, as will be discussed later in this report.

The majority of crashes reported at the unsignalized Redland Road/Anchor Way intersection involved turning and angle crashes. Three of those turning and angle crashes involved eastbound vehicles turning left from Anchor Way on to Redland Road. The most common cause was cited as vehicles not yielding the right-of-way. However, there are no discernable patterns related to time of day or weather conditions.

While left turns are not permitted at the Molalla Avenue/Division Street intersection, the angle crash involved a right-turning vehicle and a bicyclist. The other crash reported at this location was caused by a vehicle backing up into another vehicle.

Overall, there are no discernable patterns related to time of day or weather conditions at the study area intersections.

DRIVEWAY SIGHT DISTANCE

A sight distance investigation was conducted at the PWFMC accesses and the public roadways across from the campus that intersect Division Street. Table G1 (in "Appendix G") contains information on the available sight distance at each intersection. *More detailed information and pictures from each access and roadway are also provided in "Appendix G."*

Based on the posted speed limit along Division Street (25 miles per hour), 280 feet of intersection sight distance is required in both directions, in accordance with the AASHTO *Policy on Geometric Design of Highways and Streets* (Reference 7) that is referenced in the City of Oregon City *Guidelines for Transportation Impact Analysis*. Measurements were based on an eye height of 3.5 feet and an object height of 3.5 feet above the road; and were assumed to be 6.5 feet from the near edge of pavement to the front of a stopped vehicle (actual measurements were taken 14.5 feet from the travel edge).

Sight distance is limited by parked vehicles to the south of the following intersections:

- Division Street/Penn Lane;
- Division Street/16th Street;
- Division Street/Davis Road; and
- Division Street/PWFMC Access (at 15th Street).

Sight distance is limited by parked vehicles to the north of the following intersections:

- Division Street/Davis Road;

- Division Street/PWFMC Access (Between 15th Street and Davis Road);
- Division Street/14th Street; and
- Division Street/PWFMC Access Road (Between 13th Street and 14th Street).

Sight Distance Recommendations

Sight distance could be improved at these locations by restricting on-street parking along Division Street immediately adjacent to the intersections. In addition to signing and striping options, bulb-outs could be constructed to accommodate pedestrians and facilitate sight distance. In particular, bulb-outs at the Division Street/Davis Road, Division Street/15th Street, and Division Street/PWFMC Access Road (between 13th and 14th Street) intersections would improve sight distance compliance.

Even if on-street parking is restricted, sight distance would still be obstructed by a hospital sign to the north of the Division Street/Davis Road intersection. In order to have 280 feet of sight distance at that location, the sign would need to be moved further east.

While PWFMC could adjust on-street parking and the hospital sign, the City or property owners should consider implementing the following additional recommendations. Sight distance is limited by shrubs to the east of the PWFMC West Access located on the north side of Davis Road, and in addition to the shrubs, sight distance is limited by a mailbox and fence at the PWFMC East Access located on the north side of Davis Road. The shrubs should be trimmed and maintained to accommodate the required sight distance at the West Access. Plans for the parking lot located between Penn Lane and Davis Road include restricting the East Access to an inbound-only access, which this analysis confirms would improve sight lines at that location.

Shrubs are also a sight-distance obstruction for eastbound drivers facing to the north and south of the Division Street/14th Street intersection and to the south of the Division Street/PWFMC Access Road (between 13th Street and 14th Street) intersection. The shrubs should be trimmed and maintained to achieve adequate sight distance at those locations.

Existing Conditions Summary

The key findings from the existing conditions analysis are summarized below.

- The PWFMC campus currently produces 339 trips during the a.m. peak hour and 356 trips during the p.m. peak hour.
- The 2011 ECO survey results represent a slight decrease in the drive-alone mode split from the July 2010 survey (a decrease from 89 to 88 percent). PWFMC's efforts to reduce the drive-alone rate are expected to continue to lessen both parking and traffic impacts associated with the campus over time.
- The OR 213/Redland Road intersection operates acceptably during the a.m. and p.m. peak hours under ODOT standards.
- The Redland Road/Holcomb Boulevard-Abernethy Road intersection is located within the Regional Center boundaries, and it operates acceptably during the a.m. and p.m. peak periods, according to City of Oregon City standards.

- All of the signalized study intersections and access points within the Regional Center boundaries and all of the unsignalized intersections and access points meet City operating standards during both the weekday a.m. and p.m. peak hours.
- A review of historical crash records revealed that only five of the study intersections have any reported crashes over the past five years. No safety mitigation needs have been identified based on the crash data alone.
- Several mitigations have been identified that could improve sight distance at the PWPMC accesses and the roadways that intersect Division Street across from the PWPMC campus. PWPMC should move the hospital sign at the intersection of Division Street/Davis Road and restrict on-street parking and consider bulb-outs for the accesses and intersections along Division Street, particularly at the intersections of Division Street/Davis Road, Division Street/15th Street, and Division Street/PWPMC Access Road (between 13th Street and 14th Street). The City and property owners should consider trimming and maintaining shrubs near the roadway.

Section 4 Transportation Impact Analysis

TRANSPORTATION IMPACT ANALYSIS

The transportation impact analysis identifies how the study area's transportation system is forecast to operate in 2021, which is representative of when the proposed campus modifications within the updated Master Plan are likely to be complete. The transportation impacts associated with the updated Master Plan were examined as follows:

- Planned developments and transportation improvements in the site vicinity were identified and reviewed;
- Year 2021 background traffic conditions were analyzed at each of the study intersections during the weekday a.m. and p.m. peak hours;
- Site-generated trips were estimated for the net increase in building square footage proposed under the updated Master Plan;
- A site trip-distribution pattern was developed and the site-generated trips were assigned to the study intersections and access points;
- Year 2021 total traffic conditions were analyzed during both peak periods; and
- On-site circulation issues and access operations were evaluated.

Year 2021 Background Traffic Conditions

The year 2021 background traffic conditions analysis identifies how the study area's transportation system will operate without the additional uses proposed as part of the updated Master Plan. This analysis includes traffic attributed to PWPMC building space that is approved and constructed but not currently used and to general growth in the region.

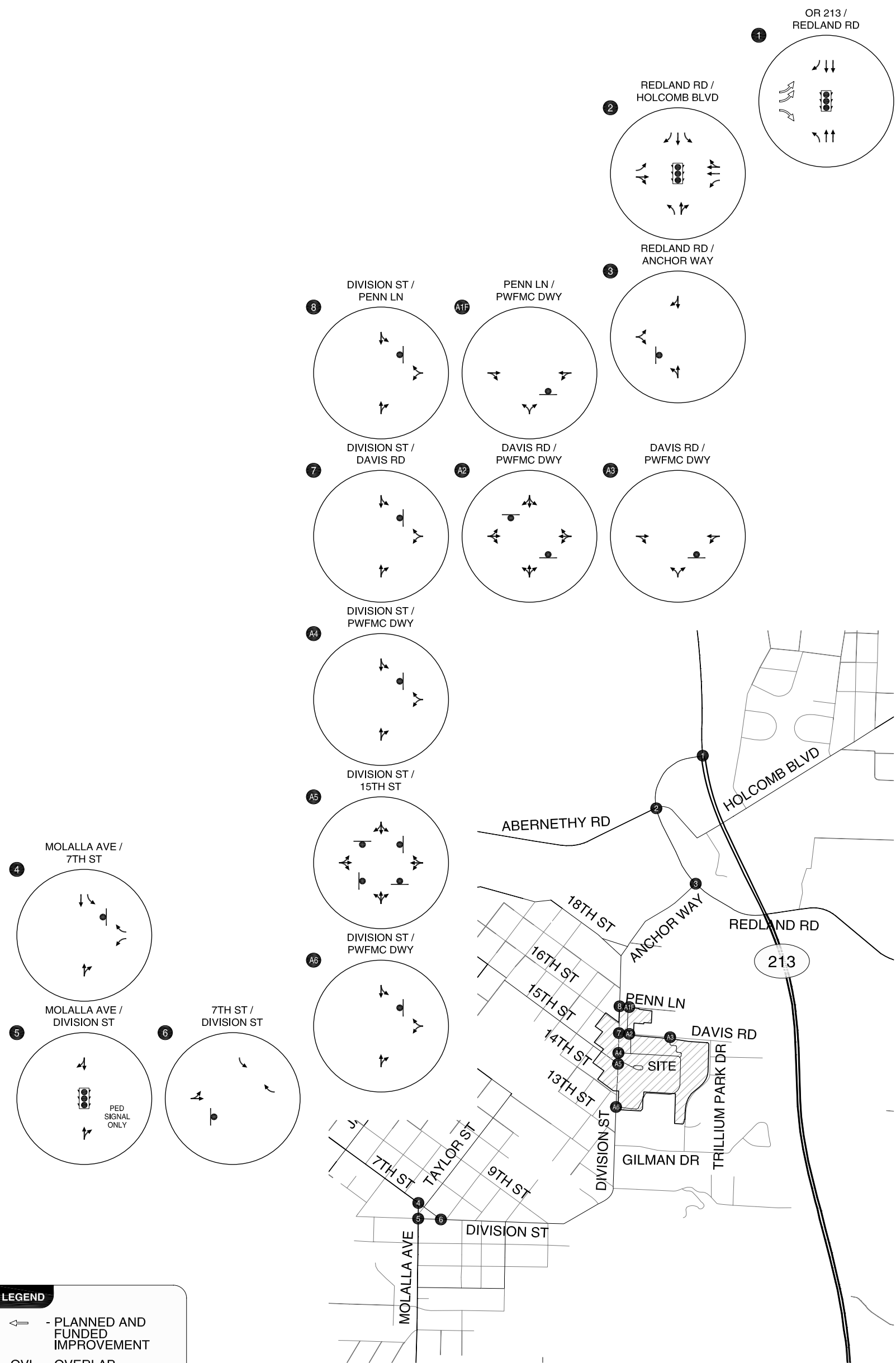
TRANSPORTATION FACILITIES

Most of the study intersections are expected to have the same lane configurations and traffic control devices in 2021. ODOT is currently constructing improvements on OR 213 that will include widening the eastbound approach at the OR 213/Redland Road intersection to provide two left-turn lanes and a separate right-turn lane with an overlap phase. Figure 6 shows the anticipated 2021 lane configurations and traffic control devices. The future signal timing plan for the reconstructed approach has not been completed on the OR 213 project. The existing signal timing plan was used for the background and future conditions analyses at the OR 213/Redland Road intersection, in order to maintain the existing green time on OR 213.

BACKGROUND GROWTH ASSUMPTIONS

PWPMC previously secured approval for 16,105 square feet of "shelled" space that has been constructed but is not yet in use. For traffic study purposes, the future trips associated with the shelled space were included in the background growth, as shown in Figures E1 and E2 in "Appendix E."

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LEGEND

- PLANNED AND FUNDED IMPROVEMENT
- OVL - OVERLAP
- STOP SIGN
- TRAFFIC SIGNAL

YEAR 2021 LANE CONFIGURATIONS AND TRAFFIC CONTROL DEVICES
OREGON CITY, OREGON

FIGURE
6

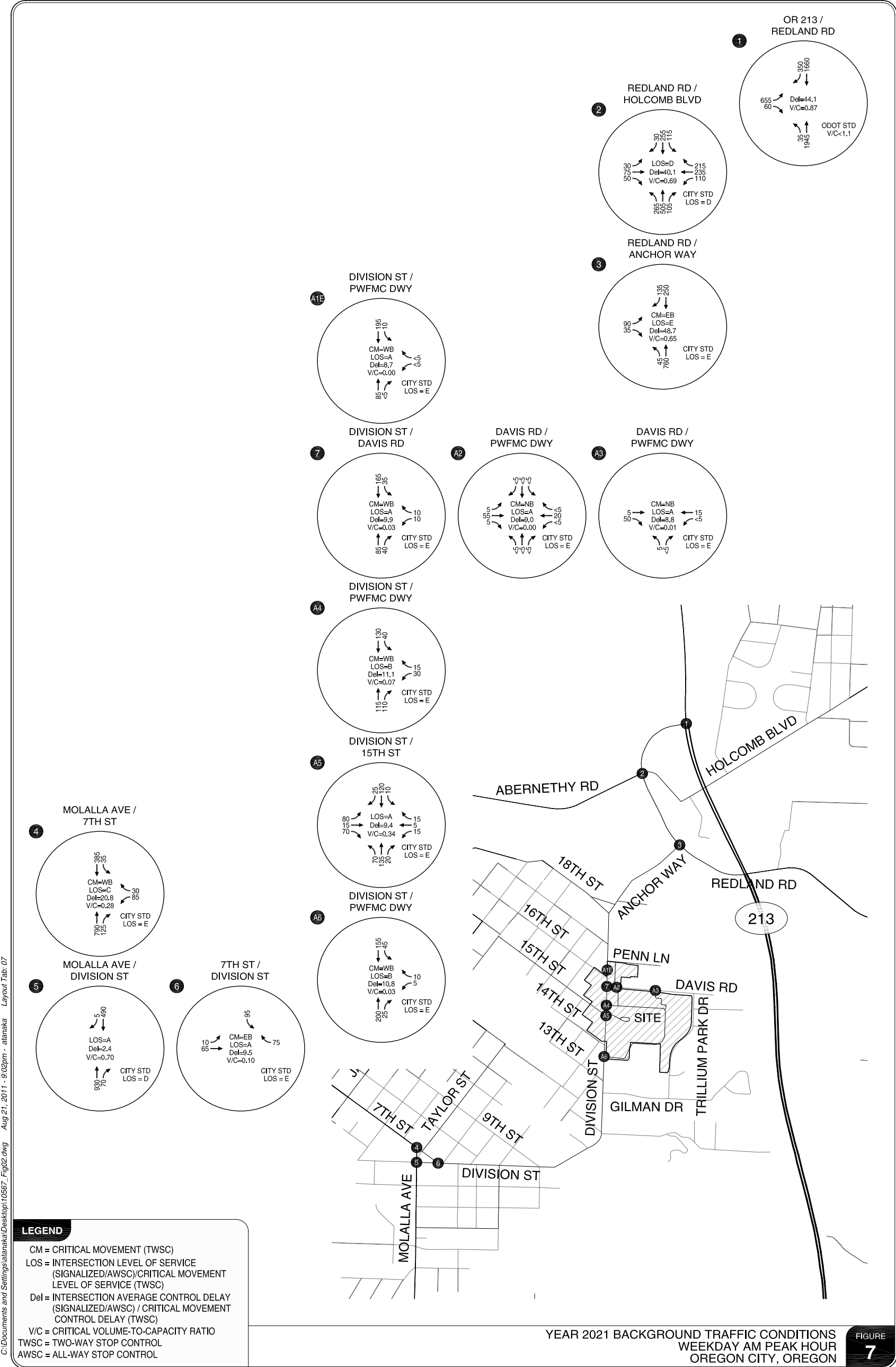
In addition to the inclusion of traffic associated with the shelled PWFMC space, annual growth rates were applied to the existing traffic counts at the study intersections to reflect local and regional growth. The assumed annual growth rates were based on historic patterns and direction from City staff.

Specifically, a 2008 study related to the OR 213/Redland Road intersection applied a 1.37-percent annual growth rate on OR 213 based on the City's *Transportation System Plan*, ODOT's *I-205 Reconnaissance Study* (June 2006) (Reference 8), and the *Highway 213 Urban Corridor Design Study* (Reference 9). A two percent annual growth rate was applied on Molalla Avenue because it is a major arterial, while a 1.5 percent annual growth rate was applied to the remaining study area streets because they are minor arterials, collectors, or local streets.

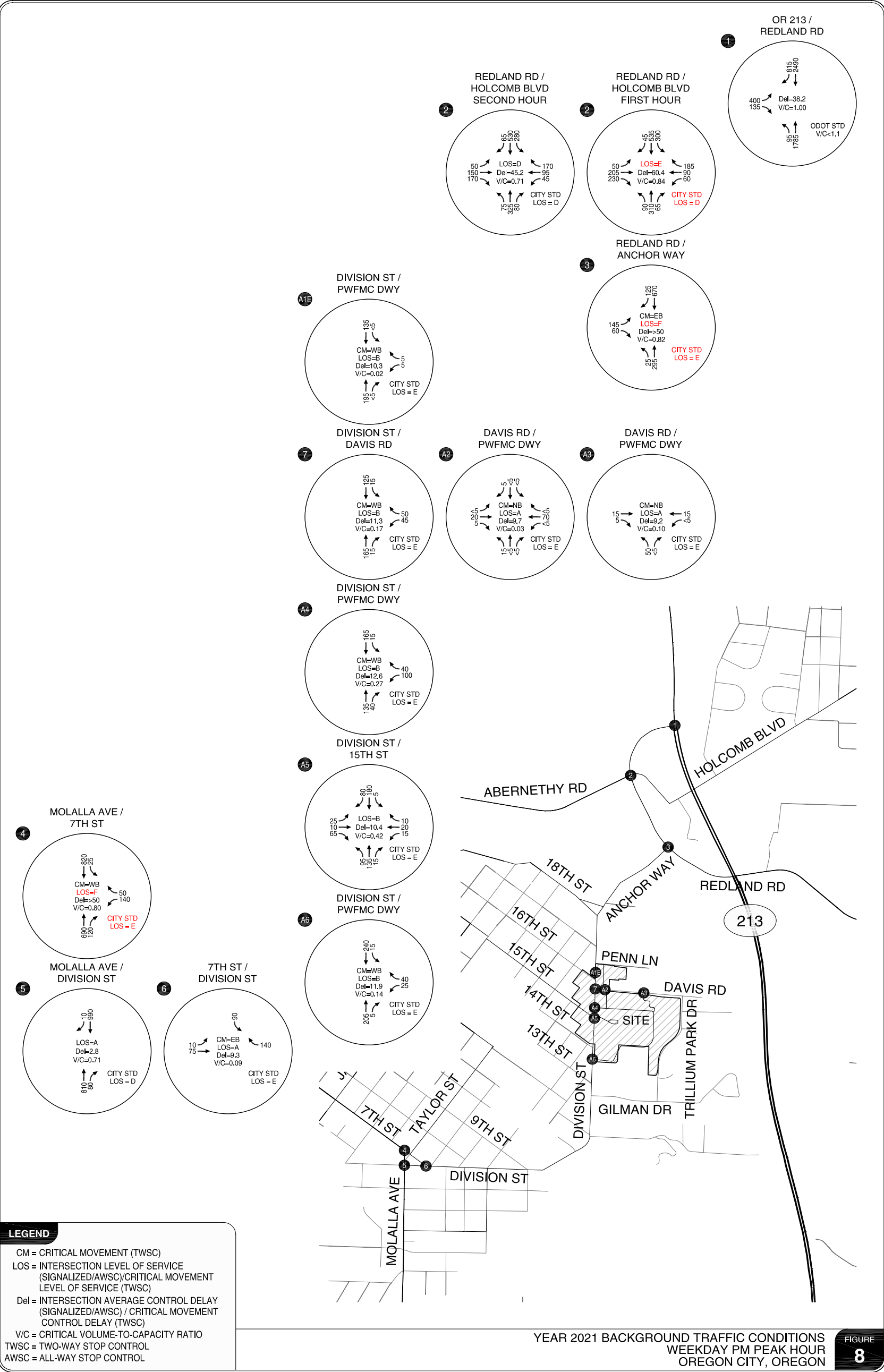
TRAFFIC VOLUMES & LEVEL-OF-SERVICE ANALYSIS

The year 2021 background traffic volumes are illustrated in Figure 7 and Figure 8. These figures also show the corresponding operating standards and the anticipated levels of service at the study intersections and access points in the year 2021. As indicated by the figures, the background traffic analysis determined that most of the study intersections are forecast to continue to operate acceptably, as discussed below.

- The Redland Road/Holcomb Boulevard-Abernethy Road intersection operates at LOS E during the p.m. peak hour (which is below City standards for signalized intersections within the Regional Center boundaries). However, during the second hour of the peak period, the Redland Road/Holcomb Boulevard-Abernethy Road intersection operates at LOS D. These operations are within acceptable City standards.
- The Molalla Avenue/7th Street intersection operates at LOS F during the p.m. peak period as a result of the westbound approach. This does not meet City standards. Based on the applied growth rates, the Molalla Avenue/7th Street intersection is anticipated to meet City standards through the year 2016. In 2017, the westbound left at this intersection is anticipated to operate at LOS F with more than 50 seconds of delay.
- The Redland Road/Anchor Way intersection operates at LOS F during the p.m. peak hour as a result of the eastbound approach. These operations also do not meet City standards. Based on the applied growth rates, the Redland Road/Anchor Way intersection is anticipated to meet City standards through the year 2017. In 2018, the northbound left at this intersection is anticipated to operate at LOS F with more than 50 seconds of delay.
- The operations of the remaining intersections and access points meet the applicable standards through the year 2021. *Appendix "E" contains the year 2021 background traffic level-of-service worksheets.*



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Trip Generation

Recent studies conducted at other hospital campuses in the Metro area have shown that it is most appropriate to identify a hospital campus trip rate, rather than trying to separate out the trip generation by use. These studies have shown that there is a synergy and efficiency that is gained by a hospital campus between the main hospital, medical office buildings (MOBs), and ancillary uses. In addition, we have also identified that the trip rates for Portland area hospital campuses are lower than what may be predicted by the Institute of Transportation Engineer's (ITE) *Trip Generation* (Reference 10) given the relatively high rate of non-single occupancy vehicle use at these campuses. Highlights of these representative studies are summarized below.

LOCAL HOSPITAL MASTER PLAN TRIP GENERATION

As part of the St Vincent's Master Plan recently approved by Washington County, a combined rate of 0.97 trips per 1,000 square feet of campus space was measured and approved for the weekday a.m. peak hour and a combined rate of 0.92 trips per 1,000 square feet was measured and approved for the weekday p.m. peak hour based on 2008 traffic count data. According to the 2007 Employee Commute Option survey, 74 percent of all employees surveyed traveled via a single-occupancy vehicle to the St. Vincent's campus.

In 2001, a Providence Portland Medical Center (PPMC) campus rate of 1.24 trips per 1,000 square feet of campus space was measured and approved for the weekday a.m. peak hour and a rate of 1.04 trips per 1,000 square feet of campus space was measured and approved for the weekday p.m. peak hour. Since 2001, the drive-alone rate at PPMC has decreased from 79 percent to 67 percent, according to TriMet's ECO survey. Most recently, a combined PPMC campus rate of 0.78 trips per 1,000 square feet of campus space was measured during the weekday a.m. peak hour and a rate of 0.75 trips per 1,000 square feet of campus space was measured during the weekday p.m. peak hour using traffic counts from 2010. The lower trip rates most likely reflect the success of the ECO program on the PPMC campus.

PROPOSED PWFMC TRIP GENERATION ASSUMPTIONS

The existing conditions traffic counts conducted at all access points into the hospital campus were used to determine the current campus trip rate for the PWFMC campus. The total number of vehicles observed at the campus driveways was divided by the total square-footage of the campus (total vehicles/335,076 square-feet) to develop a campus trip generation rate for PWFMC. Table 5 summarizes the measured trip generation rates for the PWFMC campus during the weekday a.m. and p.m. peak hours.

Table 5 Measured Trip Generation Rates for PWFMC Based on Traffic Counts

Weekday AM Peak Hour Trips				Weekday PM Peak Hour Trips			
In	Out	Total	Rate (Trips Per 1,000 Square Feet)	In	Out	Total	Rate (Trips Per 1,000 Square Feet)
257 (76%)	82 (24%)	339	1.01	89 (25%)	267 (75%)	356	1.06

The trip rates in Table 5 are representative of the proposed hospital development that includes the MOBs and expansions to the existing Hospital. The central utility plant (CUP) will operate differently than the rest of the PWFMC campus because it will be used to house heating, cooling, and other building electrical equipment supporting the campus. A different trip generation rate is proposed for the CUP, as discussed in the following sections.

MASTER PLAN PROPOSAL

Currently, PWFMC is proposing a net addition of 104,000 square feet of additional campus space as part of the Master Plan. This addition accounts for two additional MOBs, expansions to the existing hospital building, and a CUP. While the trip rates in Table 5 are recommended for the 84,000 square feet of MOBs and expansions to the Hospital building, ITE *Trip Generation* rates are recommended for the 20,000 square feet of CUP.

The Central Utility Plant is an ancillary use to the campus that will not generate trips nor new staff. However to remain conservative, trip generation for the CUP building space was estimated using the high-cube warehouse land use in ITE. Table 6 contains a summary of the Master Plan proposal, and Table 7 shows the resulting trip generation for the proposed campus using both the PWFMC and ITE trip generation rates.

Table 6 Summary of Master Plan Proposal

	Size (Square Feet)
Total Existing Campus	335,076
Total In-Process (Used in Background Traffic Conditions)	
<i>Uses Approved but Not Yet Constructed</i>	0
<i>Shelled Space in the Hospital Building</i>	16,105
Total	16,105
Proposed Expansion	
<i>MOBs and Hospital Expansions</i>	84,000
<i>Central Utility Plant</i>	20,000
Total	104,000
Total Space at Build Out	455,181

Table 7 Estimated Trip Generation

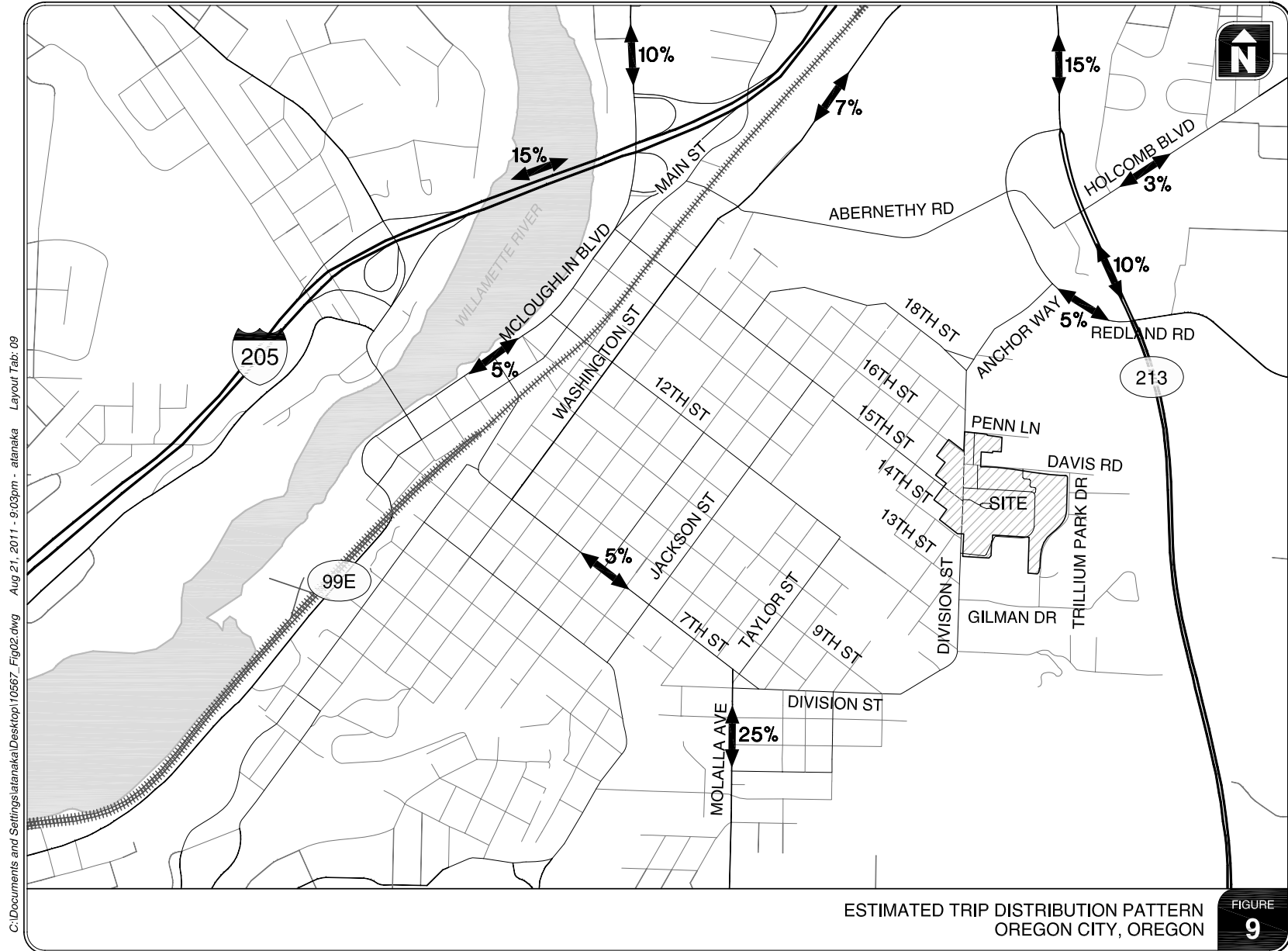
Use	Size (Square Feet)	Weekday AM Peak Hour			Weekday PM Peak Hour		
		In	Out	Total	In	Out	Total
PWFMC MOBs and Hospital Expansions	84,000	65	20	85	22	67	89
Central Utility Plant	20,000	1	1	2	1	1	2
Total Proposed Campus	104,000	66	21	87	23	68	91

The paving of the parking lot adjacent to Penn Lane is not anticipated to generate any new trips to the campus.

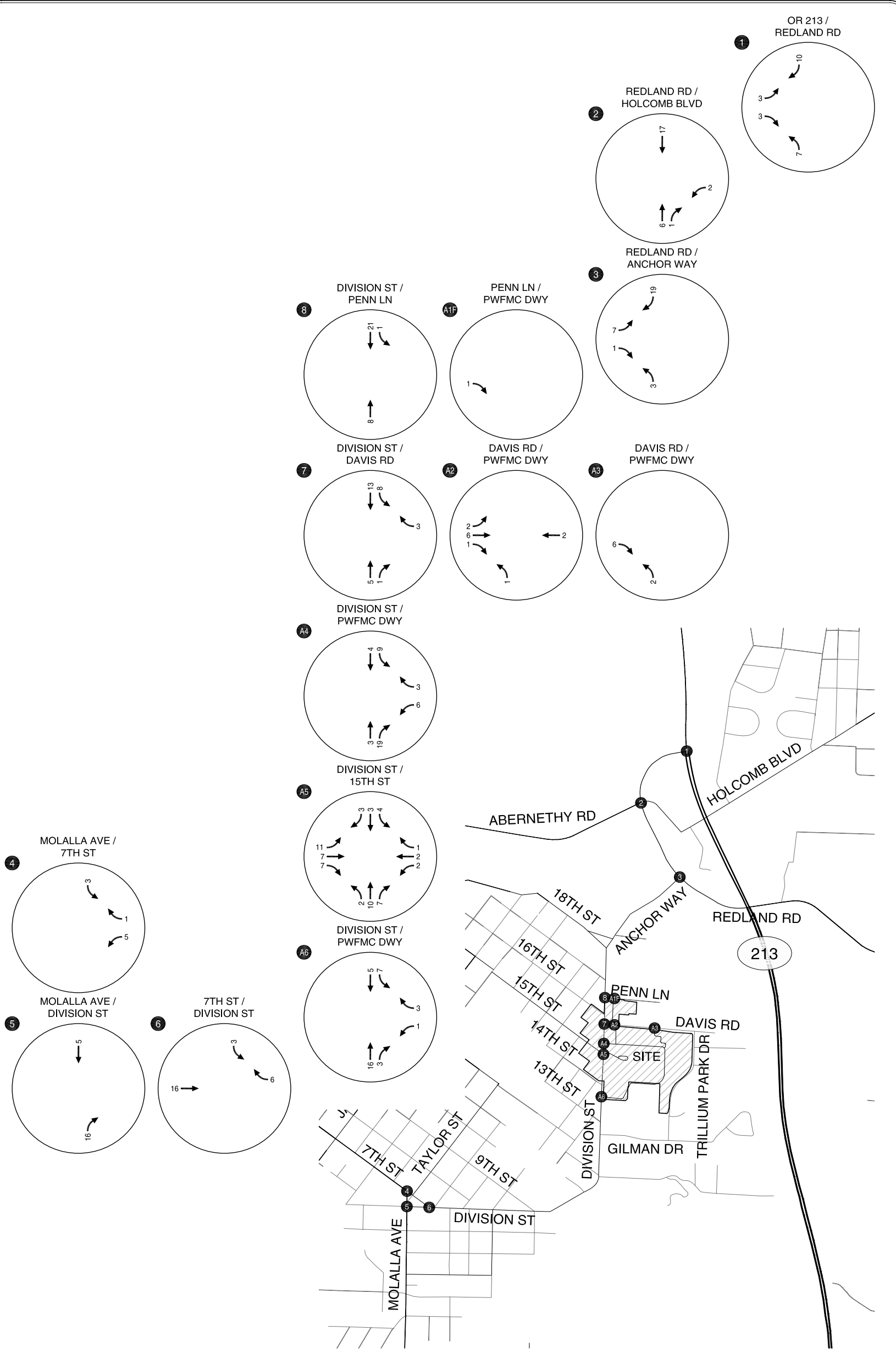
Trip Distribution

The trip distribution of site-generated trips was based on the existing 2011 traffic counts. Figure 9 illustrates the estimated trip distribution pattern for PWFMC. A majority of the site-generated traffic is anticipated to travel to and from War Veterans Memorial Parkway (I-205), Cascade Highway (OR 213), McLoughlin Boulevard (99E), and Molalla Avenue.

Figure 10 and Figure 11 show the distribution of site-generated traffic during the a.m. and p.m. peak hours respectively.

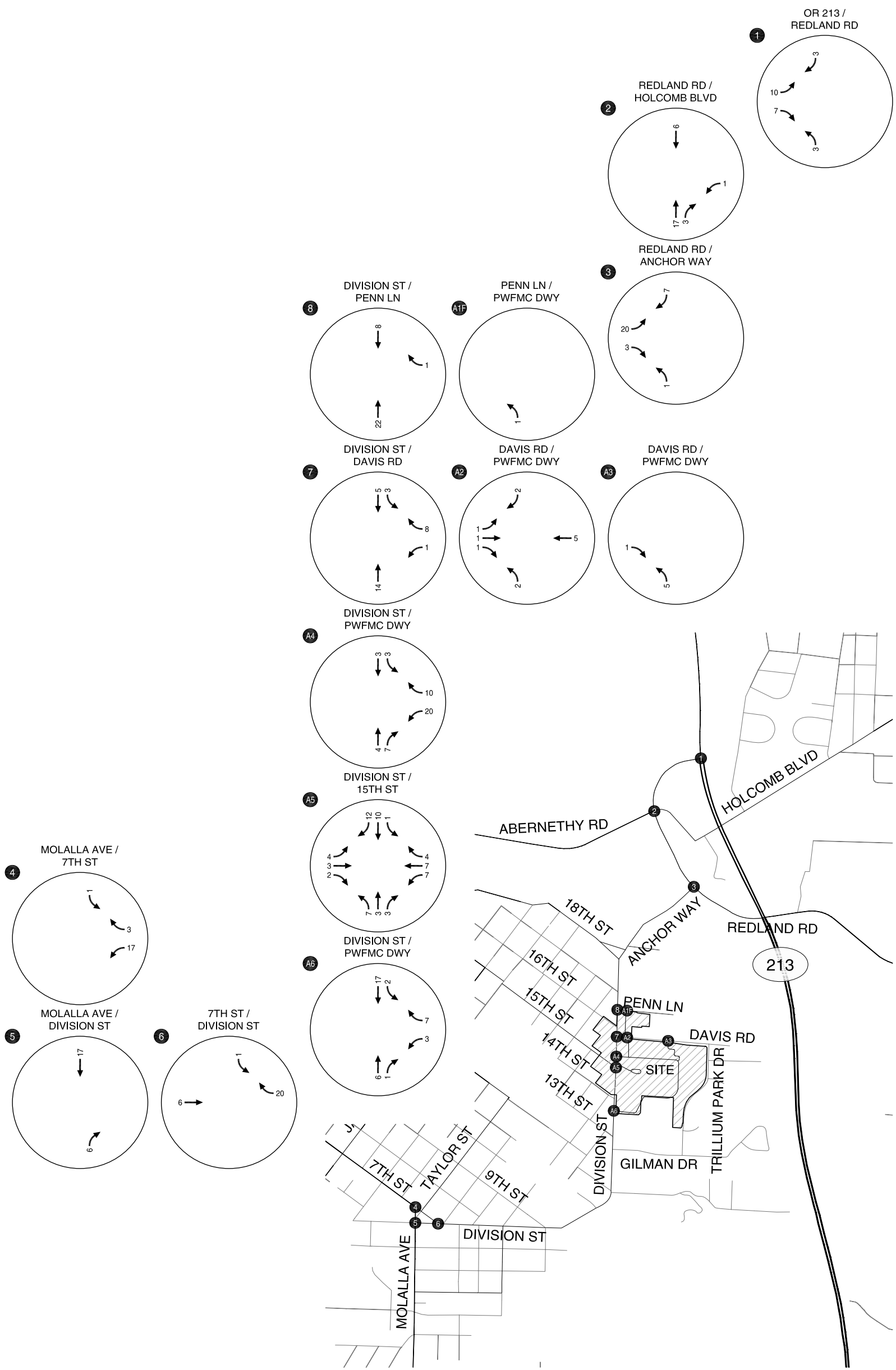


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SITE-GENERATED TRAFFIC
WEEKDAY AM PEAK HOUR
OREGON CITY, OREGON

FIGURE
10



SITE-GENERATED TRAFFIC
WEEKDAY PM PEAK HOUR
OREGON CITY, OREGON

FIGURE
11

Year 2021 Total Traffic Conditions

The total traffic conditions analysis forecasts how the study area's transportation system will operate with the traffic generated by the Master Plan uses. The 2021 analysis reflects the background traffic and net new campus-generated traffic. The resultant traffic volumes during the weekday a.m. and p.m. peak hour are shown in Figure 12 and Figure 13. These figures also identify the projected operations at each of the study intersections and the corresponding standard.

Comparing the 2021 background and total traffic conditions, the Master Plan does not cause any of the intersections to not meet applicable standards. The two study intersections that were not meeting the adopted operating standards under background conditions also do not meet standards under total traffic conditions, as shown in Table 8.

Table 8 Intersections Not Meeting City Standards

Intersection	Scenario & Time Period	Operations		
		LOS	V/C	LOS Standard
#3: Redland Road/Anchor Way	Background PM Peak	F	0.82	E
	Future AM Peak	F	0.72	E
	Future PM Peak	F	0.93	E
#4: Molalla Avenue/7 th Street	Background PM Peak	F	0.80	E
	Future PM Peak	F	0.90	E

Similar to background conditions, the Redland Road/Holcomb Boulevard-Abernethy Road intersection operates at LOS E during the p.m. peak hour but at LOS D during the second hour of the peak period (which puts the intersection within City standards for signalized intersections within the Regional Center boundaries).

As discussed in the previous section, the Molalla Avenue/7th Street intersection is anticipated to operate acceptably for the next five years, whereas the Redland Road/Anchor Way intersection is anticipated to operate acceptably for the next six years with increases in background growth. Based on estimated traffic volumes, the following improvements would be needed to meet City standards at these intersections:

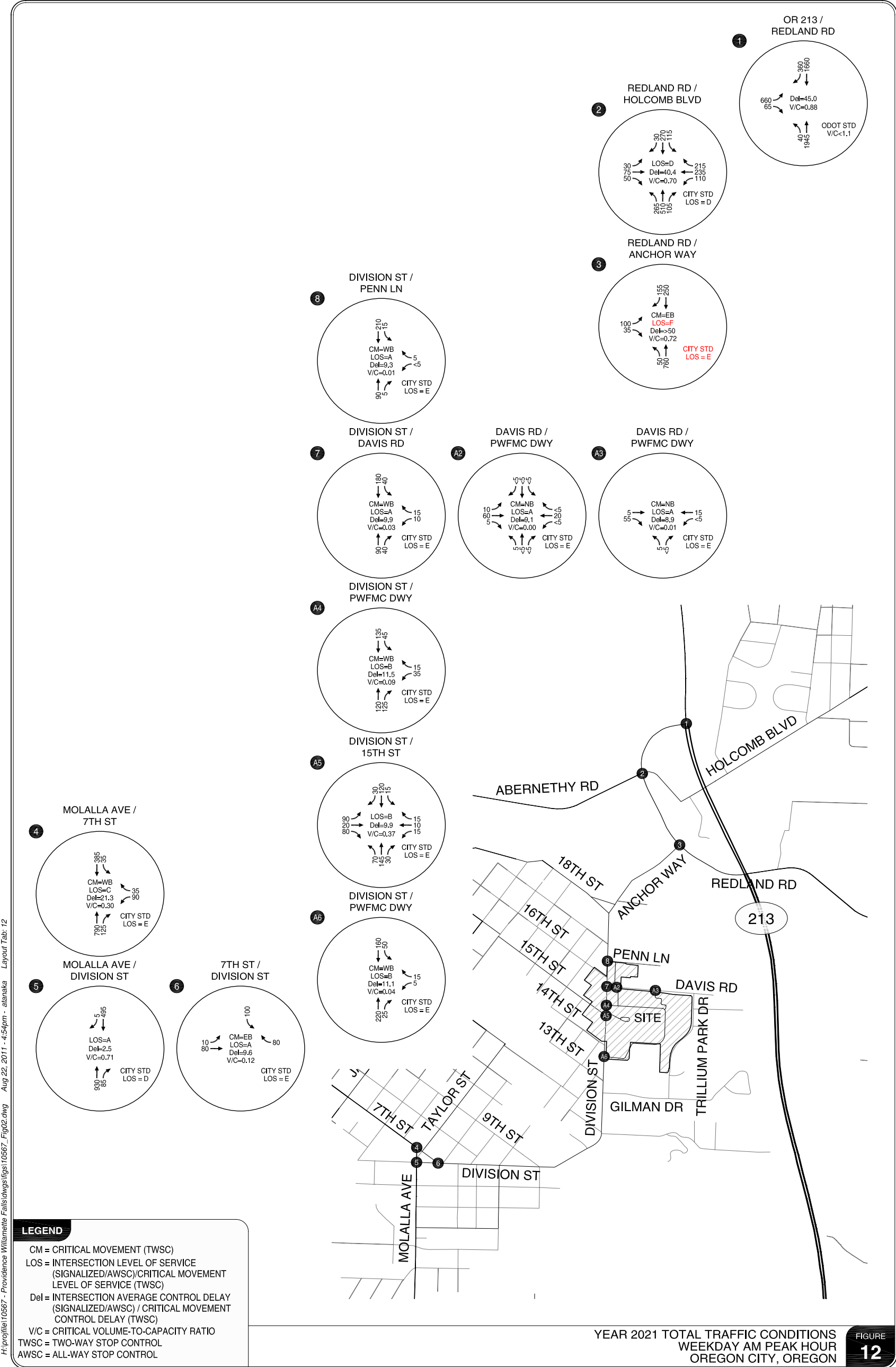
- Molalla Avenue/7th Street: The City has been evaluating the potential for a roundabout at this location. With a roundabout in-place, this intersection would meet City standards at full build-out of the Master Plan.
- Redland Road/Anchor Way: This intersection is anticipated to warrant a traffic signal within the next six years. This improvement has been identified in the Oregon City TSP. With a signal in-place, this intersection would meet standards.

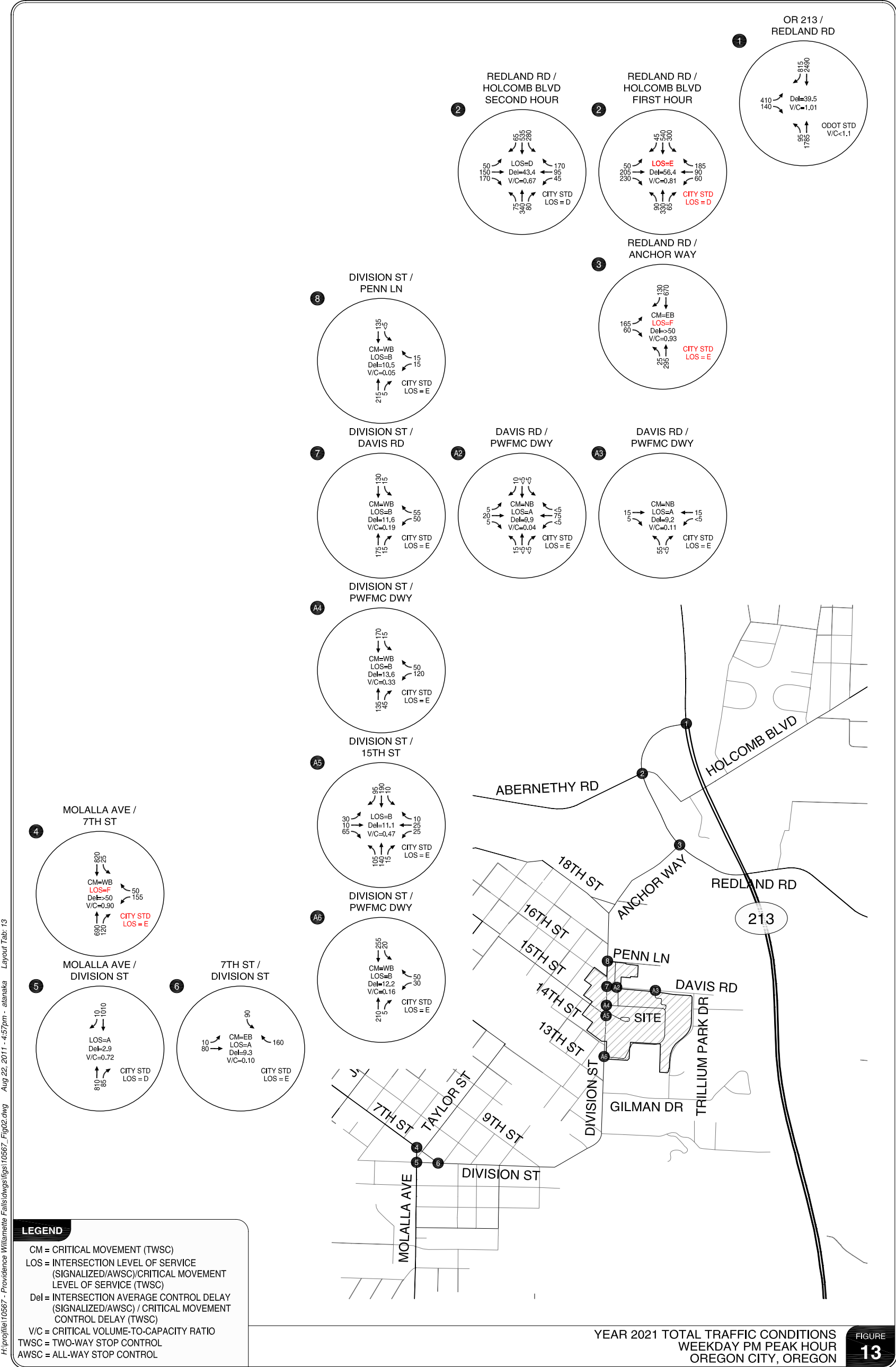
Given that build-out of the Master Plan does not create the need for the improvements, PWFMC should work with the City of Oregon City to contribute a pro rata share of improvements at the Redland Road/Anchor Way and Molalla Avenue/7th Street intersections. The timing of and need for

these pro rata share improvements should be determined as part of subsequent DDP submittals. Improvements at these locations are not anticipated to be needed for five to six years, and the timing of expansions to the hospital that are included in the Master Plan have not yet been defined.

- Based on current estimates, build-out of the Master Plan uses would contribute approximately 1.1 percent of the p.m. peak hour traffic volumes in the year 2021 at the Molalla Avenue/7th Street intersection.
- At the Redland Road/Anchor Way intersection, build-out of the Master Plan uses would contribute approximately 2.3 percent of the p.m. peak hour traffic volumes in the year 2021.

Appendix "F" contains the year 2021 total traffic level-of-service worksheets.





On-Site Circulation and Driveway Operations

Campus circulation was evaluated to ensure that the Master Plan provides for a well-connected pedestrian and bicycle environment and plans for sufficient vehicular traffic to/from and within the campus.

PEDESTRIAN AND BICYCLE ACCESS

The PWFMC campus includes a variety of pedestrian and bicycle access ways within the campus and sidewalks and bicycle lanes along the frontage of the campus. These facilities enable convenient and comfortable options for people walking and biking through or adjacent to the campus, as well as for those walking and biking to/from uses within the campus.

Transportation Impact Analysis Findings

The pertinent findings of the year 2021 transportation impact analyses are summarized below.

- The 104,000 square feet of net building space proposed as part of the Master Plan is estimated to generate 87 weekday a.m. and 91 weekday p.m. peak hour trips, assuming no additional reduction in campus-related drive-alone travel is realized during the next ten years.
- Assuming year 2021 background conditions without an increase in campus-related uses, the Redland Road/Anchor Way and Molalla Avenue/7th Street intersections do not meet City of Oregon City operating standards.
 - The City has been evaluating the potential for a roundabout at the Molalla Avenue/7th Street intersection. With a roundabout in-place, this intersection would meet City standards at full build-out of the Master Plan
 - The Redland Road/Anchor Way intersection is anticipated to warrant a traffic signal within the next six years. This improvement has been identified in the Oregon City TSP. With a signal in-place, this intersection would meet standards.
- Assuming year 2021 total build-out conditions, no additional intersections fail under the City of Oregon City operating standards as a result of the increase in PWFMC campus-related uses.
- PWFMC should work with the City of Oregon City to contribute a pro rata share of improvements at the Redland Road/Anchor Way and Molalla Avenue/7th Street intersections. The timing of and need for these pro rata share improvements should be determined as part of subsequent DDP submittals. Improvements at these locations are not anticipated to be needed for five to six years, and the timing of expansions to the hospital that are included in the Master Plan have not yet been defined.
 - Based on current estimates, build-out of the Master Plan uses would contribute approximately 1.1 percent of the p.m. peak hour traffic volumes in the year 2021 at the Molalla Avenue/7th Street intersection.

- At the Redland Road/Anchor Way intersection, build-out of the Master Plan uses would contribute approximately 2.3 percent of the p.m. peak hour traffic volumes in the year 2021.



Section 5 Parking Analysis

PARKING ANALYSIS

This section describes the PWFMC parking in-place today as well as the parking planned as part of the Master Plan.

Parking Data Collection Methodology

Parking utilization data was collected at each of the surface and structured parking locations throughout the campus between 6:00 a.m. and 6:00 p.m. on June 2, 2011. The number of vehicles parked in each of the parking locations was recorded on each hour. The study parking lots are listed below with their existing vehicular parking supplies:

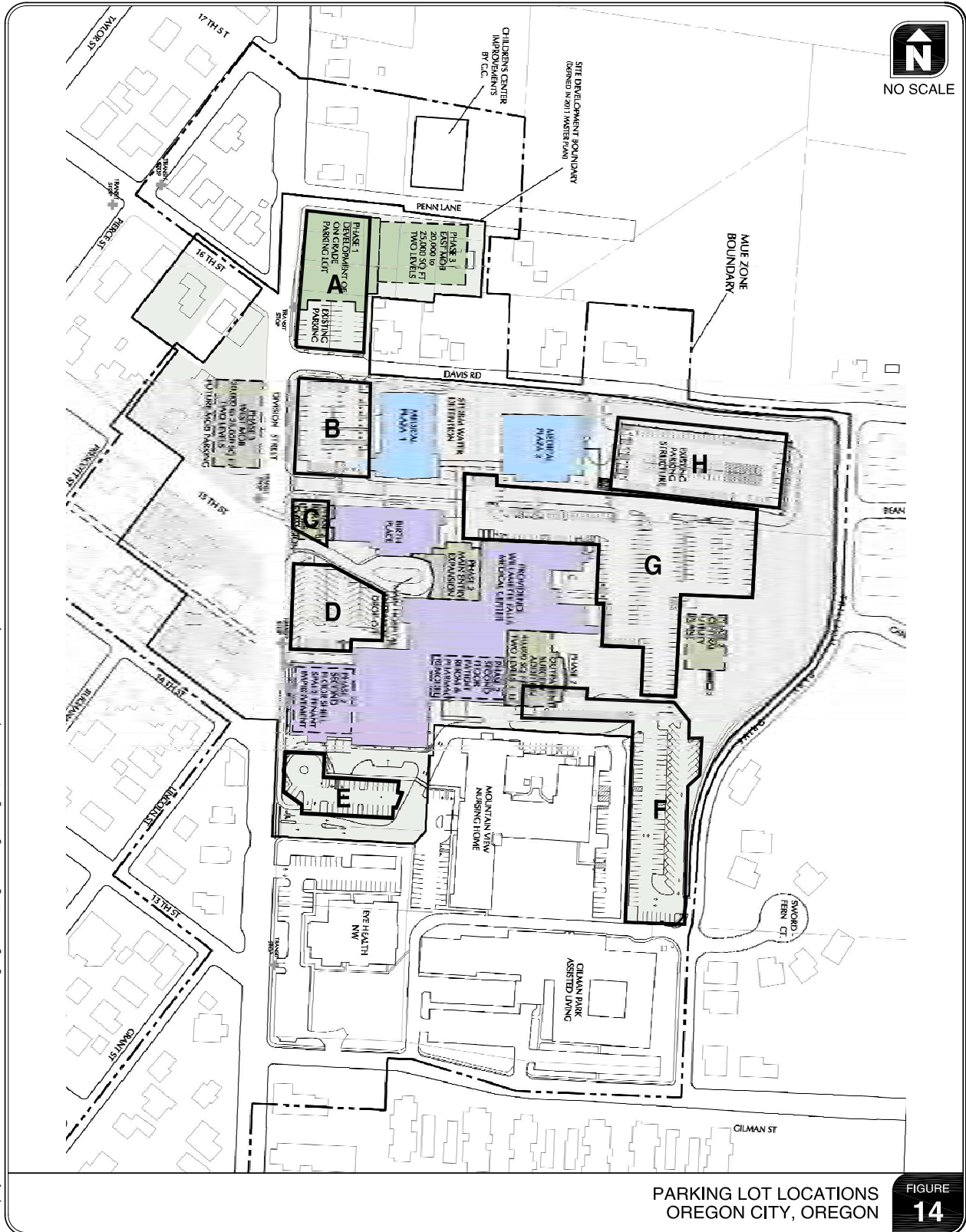
- (A) MOB Parking Lot between Penn Lane and Davis Road – 66 vehicles
- (B) Medical Plaza 1 Parking Lot – 47 vehicles
- (C) Birthing Center Parking Lot – 10 vehicles
- (D) Main Hospital Entrance Parking Lot – 54 vehicles
- (E) Main Hospital South Parking Lot between 13th Street and 14th Street – 25 vehicles
- (F) Outpatient Surgery Parking Lot – 128 vehicles
- (G) Medical Plaza 2 Parking Lot – 193 vehicles
- (H) Parking Structure – 226 vehicles

Figure 14 shows the location of each of the study parking lots on the PWFMC campus. At the time of the study, the total vehicular parking supply was measured at 749 parking spaces.

Daily Parking Demand

Exhibit 1 and Exhibit 2 show the hourly fluctuations in parking utilization based on the June 2011 data (both in terms of number of spaces occupied and percent utilization). As shown, the demand for parking is fairly consistent between 8:00 a.m. and 4:00 p.m. Peak parking demand occurred between 11:00 a.m. and 12:00 p.m. At peak times, approximately up to 78 percent of all parking spaces are utilized. *“Appendix H” contains the campus parking utilization data.*

For planning purposes, a general rule-of-thumb is that a parking facility’s capacity is reached when approximately 85 – 90 percent of the spaces are occupied. The remaining 10 - 15 percent of available spaces provide a buffer for visitors and staff to circulate and conveniently locate a parking space.



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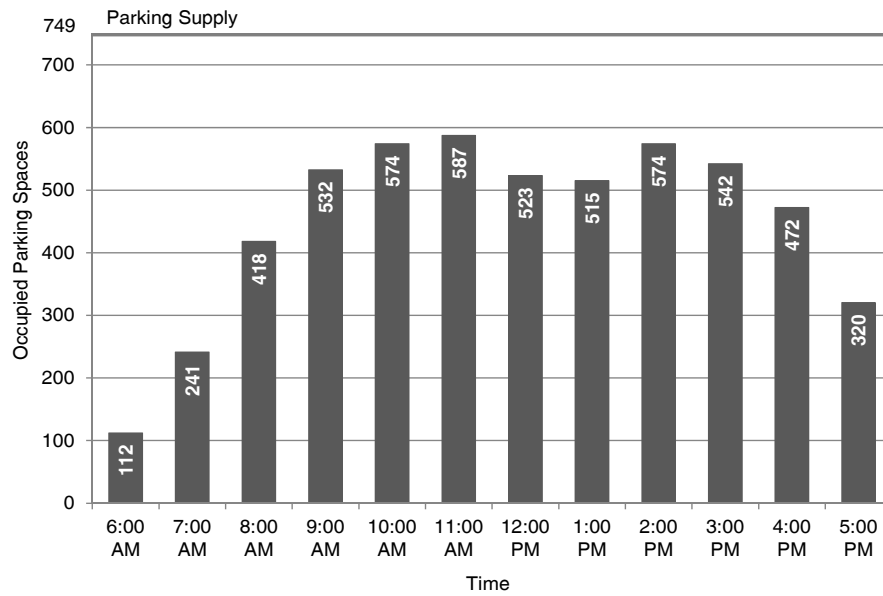


Exhibit 1 Parking Occupancy by Number of Vehicles Parked On Campus

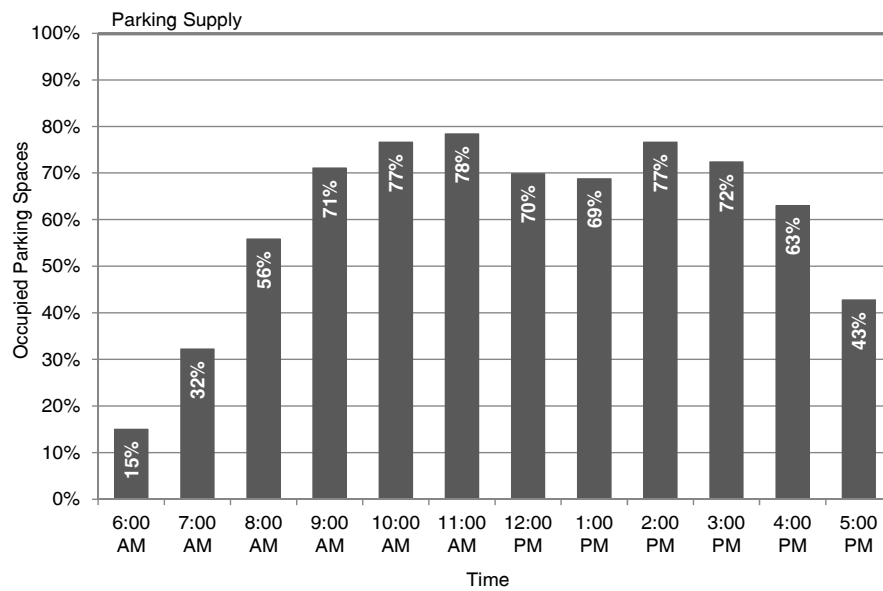


Exhibit 2 Parking Occupancy by Percentage of Parking Spaces Occupied

Peak Parking Demand

Within the PWFMC campus, the existing parking supply and demand ratios (assuming 335,076 square feet of usable space today) are as follows:

- Parking Supply = 2.24 spaces per 1,000 square feet
- Parking Demand = 1.75 spaces per 1,000 square feet

Like the trip generation, the parking ratios were calculated using the total square feet of buildings in operation on the PWFMC campus today, given the synergy between uses.

For campus planning purposes, it is common to apply either an 85 or 90 percent full standard to determine parking supply needed to facilitate build-out of the Master Plan uses. These ratios assume a better overall efficiency in campus parking but do not assume a change in the employee-related mode split occurring today. The resultant parking ratios are shown below:

- 85 percent full = 2.06 spaces required per 1,000 square feet of new building space
- 90 percent full = 1.95 spaces per 1,000 square feet of new building space

Application of the 90 percent full parking ratio for the overall campus at build-out of the Master Plan uses is recommended because this still provides enough “reserve capacity” to minimize the need for unnecessary circling when trying to locate a parking space, ensures there is sufficient parking to accommodate higher than typical demand, and to ensure the most appropriate and efficient use of resources are dedicated to parking.

Future On-Campus Parking Demand

Based on a 90-percent-full ratio and assuming the drive-alone rate for employees remains at 88 percent, the following identifies the number of parking spaces that would be needed to serve the demand, assuming the 16,105 square feet of shelled space is in-use and a net increase of 104,000 square feet of new uses:

EXISTING PARKING SUPPLY/DEMAND

- Existing Campus Parking Need = 653 spaces assuming parking ratio of 1.95 spaces per 1,000 square feet for total campus space (335,076 square feet)
- Existing Campus Supply = 749 spaces
- *Existing Campus Surplus = 96 spaces (749 supplied versus 653 needed at 90 percent full)*

SHELLED SPACE PARKING SUPPLY/DEMAND

- Parking need for 16,105 square feet of shelled space = 31 spaces
- *Net Parking Supply Surplus = 65 spaces (96 surplus spaces minus 31 spaces)*

NET NEW SPACE PARKING SUPPLY/DEMAND

- Parking need for 104,000 square feet of net new space = 203 spaces
- *Total New Parking Supply Needed = 138 net new spaces on campus (203 spaces minus 65 spaces)*

Per the Master Plan, future parking needs will be met through a combination of structured parking and surface parking facilities. Some new parking is planned as part of the new MOB's north of Davis Road and west of Division Street (between 15th Street and 16th Street), but additional parking space should be identified to accommodate the 138 new parking spaces needed on campus. PWFMC should continue to monitor this parking ratio over time to ensure its application remains appropriate. The required parking ratio would be reduced with further reductions in the drive-alone rate.

Existing On-Street Parking Demand

Parking utilization data was also collected along the following street segments surrounding the campus during the 6:00 a.m. to 6:00 p.m. period on June 2, 2011:

- Davis Road between Division Street and Trillium Park Drive
- Gilman Drive between Division Street and Trillium Park Drive
- Division Street between Penn Lane and Gilman Drive
- Trillium Park Drive between Gilman Drive and Davis Road

The parking utilization for the on-street parking ranged from 14 to 27 percent. Exhibit 3 identifies the hourly parking fluctuation in the number of spaces occupied on-street. The 6:00 a.m. time period is used to gauge the non-campus related parking demand within the neighborhood. As shown in the figure, there is very little variation in on-street parking usage during the course of the day, with the exception of Division Street, which is the minor arterial that fronts the PWFMC campus. The on-street parking pattern is reasonable given the easily-accessible parking spaces along Division Street.

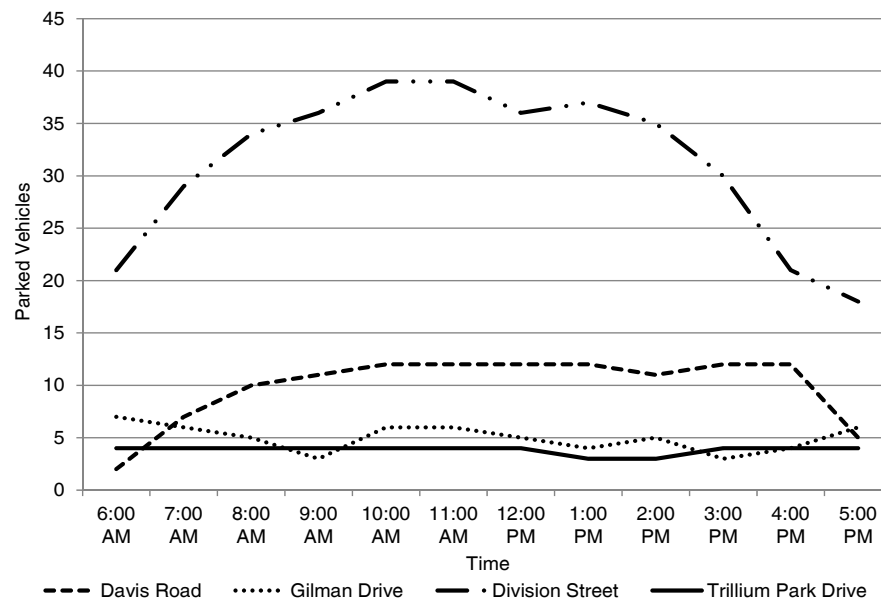
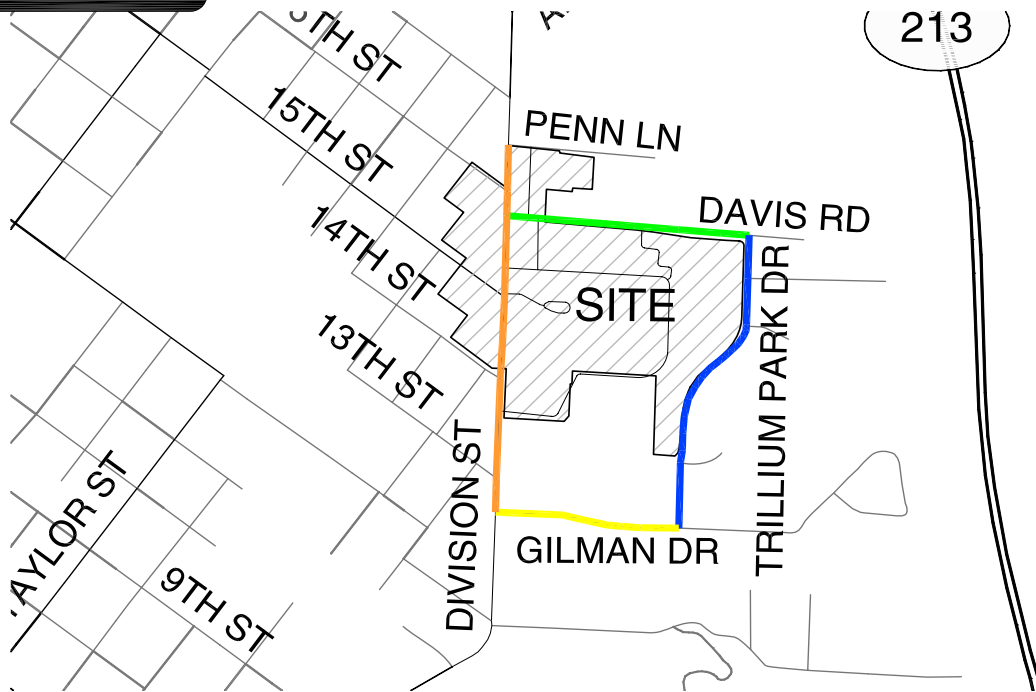


Exhibit 3 On-Street Parking Occupancy

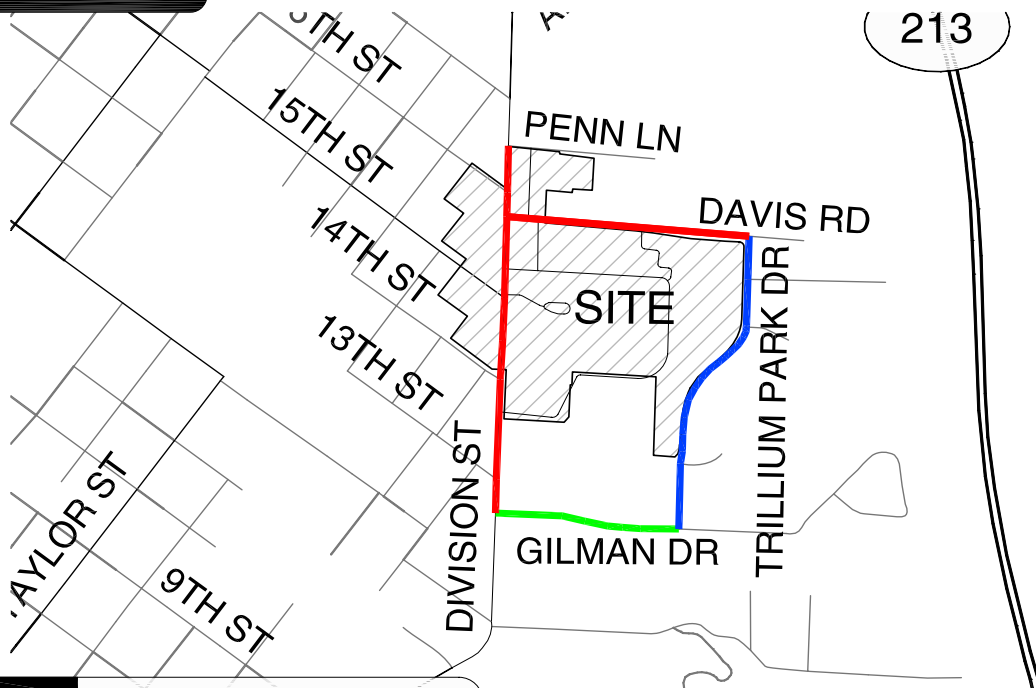
Figure 15 shows the change in parking utilization, by block face, when comparing the 11:00 a.m. to 12:00 p.m. period (when the campus is at its maximum) to the 6:00 a.m. to 7:00 a.m. time period. The data shown in this figure confirms that there are few hospital-related parking occurrences on the neighborhood streets immediately surrounding the campus, with the exception of Division Street.

After reviewing the peak hour videos of the Division Street/15th Street intersection, it appears that there is limited use of the first block of 15th Street (west of Division Street) by hospital staff and visitors. Neighborhood feedback indicated that hospital staff and visitors also frequently park on the first blocks of 14th Street and 16th Street (west of Division Street). PWPMC should continue to monitor this situation and work with the neighborhood to ensure any impacts are mitigated.

6:00 AM UTILIZATION



11:00 AM UTILIZATION



LEGEND

- 0 - 5% UTILIZED
- 6 - 10% UTILIZED
- 11 - 25% UTILIZED
- 26 - 50% UTILIZED
- 51 - 75% UTILIZED
- 76 - 100% UTILIZED

ON-STREET PARKING UTILIZATION
OREGON CITY, OREGON

FIGURE
15

Parking Conclusions

The significant findings of the parking analysis are summarized below.

- There is sufficient on-campus parking today to accommodate the existing peak daily demand. During the highest hour of parking utilization, 78 percent of the spaces are full within the existing Master Plan boundaries. This level of utilization still provides sufficient opportunities for patients and visitors to easily and efficiently find a parking space without unnecessary circulating through the garages or parking lots.
- The Master Plan includes some additional parking on the west side of Division Street, but new parking areas will need to be identified to facilitate the new development. Based on a ratio of 1.95 spaces per 1,000 square feet, 138 new spaces would be needed campus-wide at build-out.
- PWFMC should monitor the need for supplying 1.95 spaces per 1,000 square feet of new buildings to ensure that this ratio remains applicable assuming the drive-alone rate to campus continues to decrease over time.
- There is limited use of the first block of 15th Street (west of Division Street) by hospital staff and visitors. Neighborhood feedback indicated that hospital staff and visitors also frequently park on the first blocks of 14th Street and 16th Street (west of Division Street). PWFMC should continue to monitor this situation and work with the neighborhood to ensure any impacts are mitigated.



Section 6 Conclusions and Recommendations

CONCLUSIONS AND RECOMMENDATIONS

The pertinent findings and recommendations are summarized below.

Findings

EXISTING TRANSPORTATION SYSTEM OPERATIONS AND SAFETY

- Under existing conditions, all study intersections meet operating standards during both the a.m. and p.m. peak hours.
- Only five of the study intersections have any reported crashes over the past five years. No safety mitigation needs have been identified based on the crash data alone.
- Several mitigations have been identified that would improve sight distance at the PWPMC accesses and the roadways that intersect Division Street across from the PWPMC campus. In order to provide adequate sight distance, PWPMC should move the hospital sign at the intersection of Division Street/Davis Road and restrict on-street parking and consider bulb-outs for the accesses and intersections along Division Street, particularly at the intersections of Division Street/Davis Road, Division Street/15th Street, and the Division Street/PWPMC Access Road (between 13th Street and 14th Street). The City and property owners should consider trimming and maintaining the shrubs near the roadway.

YEAR 2021 TRANSPORTATION SYSTEM OPERATIONS

- The 104,000 square feet of net building space proposed as part of the Master Plan is estimated to generate 87 weekday a.m. and 91 weekday p.m. peak hour trips, assuming no additional reduction in campus-related drive-alone travel is realized during the next ten years.
- Assuming year 2021 background conditions without an increase in campus-related uses, the Redland Road/Anchor Way and Molalla Avenue/7th Street intersections do not meet City of Oregon City operating standards. The Molalla Avenue/7th Street intersection is anticipated to operate acceptably for the next five years (through the year 2016) whereas the Redland Road/Anchor Way intersection is anticipated to operate acceptably for the next six years (through the year 2017) with increases in background growth.
- Assuming year 2021 total build-out conditions, the Master Plan does not cause any intersections to not meet City of Oregon City operating standards.
 - The City has been evaluating the potential for a roundabout at the Molalla Avenue/7th Street intersection. With a roundabout in-place, this intersection would meet City standards at full build-out of the Master Plan.
 - The Redland Road/Anchor Way intersection is anticipated to warrant a traffic signal within the next six years. This improvement has been identified in the Oregon City TSP. With a signal in-place, this intersection would meet standards.

MODE SPLIT AND PARKING

- The 2011 Employee Commute Options (ECO) survey results represent a slight decrease in the drive-alone mode split from the July 2010 survey (a decrease from 89 to 88 percent). PWFMC's efforts to reduce the drive-alone rate will continue to lessen both parking and traffic impacts associated with the campus over time.
- There is sufficient on-campus parking today to accommodate the existing peak daily demand. During the highest hour of parking utilization, approximately 78 percent of the spaces are full within the existing Master Plan boundaries. This level of utilization still provides sufficient opportunities for patients and visitors to easily and efficiently find a parking space without unnecessary circulating through the garages or parking lots.
- Based on the existing parking demand, a campus-wide rate of 1.95 spaces per 1,000 square feet of building space should be supplied on-campus throughout the next ten years. Accounting for an excess of parking today, 138 new spaces would be needed campus-wide upon build-out of the Master Plan uses.
- PWFMC should monitor the need for supplying a campus-wide rate of 1.95 spaces per 1,000 square feet of buildings space to ensure that this ratio remains applicable as the drive-alone rate to campus continues to decrease over time.
- There is limited use of the first block of 15th Street (west of Division Street) by hospital staff and visitors. Neighborhood feedback indicated that hospital staff and visitors also frequently park on the first blocks of 14th Street and 16th Street (west of Division Street). PWFMC should continue to monitor this situation and work with the neighborhood to ensure any impacts are mitigated.

Recommendations

- In order to achieve adequate sight distance at the PWFMC accesses and roadways intersecting Division Street, the hospital sign at the intersection of Division Street/Davis Road should be moved east. Parking restrictions and bulb-outs should also be considered in order to acquire additional sight distance, specifically at the intersections of Division Street/Davis Road, Division Street/15th Street, and the Division Street/PWFMC Access Road (between 13th Street and 14th Street). The City and property owners should consider trimming and maintaining the shrubs near the roadway.
- Based on existing parking demand, 1.95 parking spaces should be provided per 1,000 square feet of total building space on-campus. This ratio should be monitored over time to ensure its application remains appropriate as the campus experiences further reductions in the drive-alone rate. This ratio results in a total campus need of 138 new parking spaces.
- PWFMC should work with the City of Oregon City to contribute a pro rata share of improvements at the Redland Road/Anchor Way and Molalla Avenue/7th Street intersections. The timing of and need for these pro rata share improvements should be determined as part of subsequent DDP submittals. Improvements at these locations are not anticipated to be needed for five to six years, and the timing of expansions to the hospital that are included in the Master Plan have not yet been defined.

- Based on current estimates, build-out of the Master Plan uses would contribute approximately 1.1 percent of the p.m. peak hour traffic volumes in the year 2021 at the Molalla Avenue/7th Street intersection.
- At the Redland Road/Anchor Way intersection, build-out of the Master Plan uses would contribute approximately 2.3 percent of the p.m. peak hour traffic volumes in the year 2021.

Section 7 References

REFERENCES

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2. TriMet. www.trimet.org. 2011.
3. Oregon Department of Environmental Quality. www.deq.state.or.us/nwr/ECO/eco.htm. 2011.
4. Transportation Research Board. *2000 Highway Capacity Manual*. 2000.
5. City of Oregon City. *Guidelines for Transportation Impact Analysis (TIA)*. 2005.
6. Oregon Department of Transportation. *1999 Oregon Highway Plan*. 1999.
7. American Association of State Highway and Transportation Officials (AASHTO). *A Policy on Geometric Design of Highways and Streets*. 2004.
8. Oregon Department of Transportation. *I-205 Reconnaissance Study*. 2006.
9. City of Oregon City. *Highway 213 Urban Corridor Design Study*. 2001.
10. Institute of Transportation Engineers. *Trip Generation, 8th Edition*. 2008.

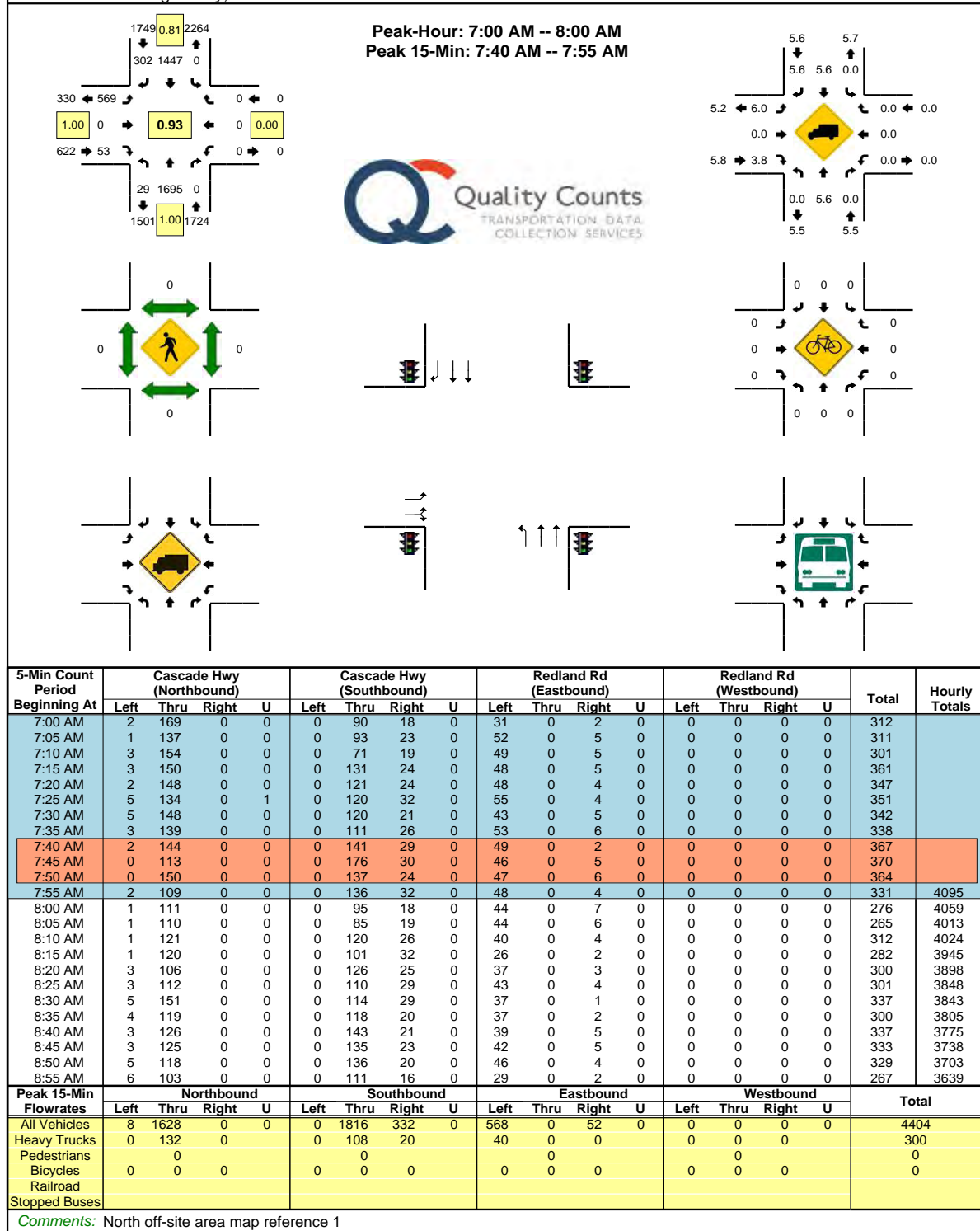
Appendix A Traffic Count Data

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Cascade Hwy -- Redland Rd
CITY/STATE: Oregon City, OR

QC JOB #: 10624801
DATE: 6/2/2011



Report generated on 7/6/2011 11:50 AM

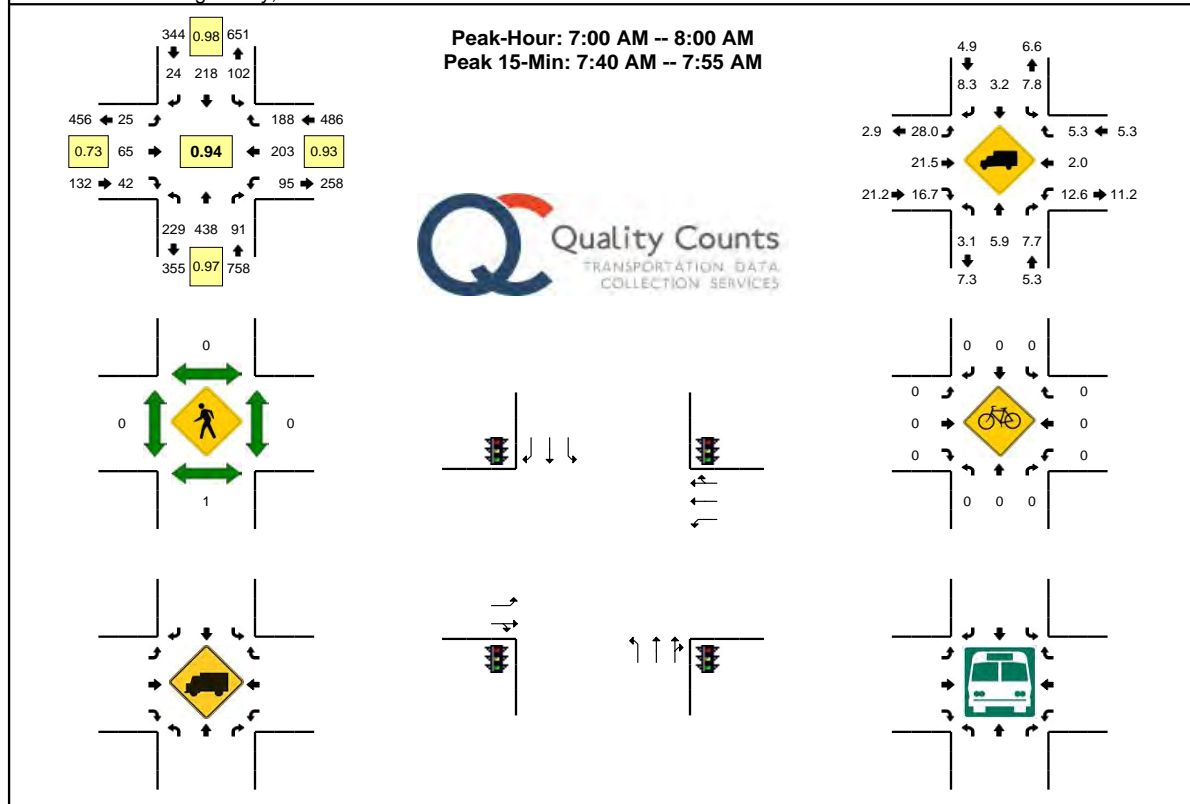
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Redland Rd -- Holcomb Blvd
CITY/STATE: Oregon City, OR

QC JOB #: 10624803
DATE: 6/2/2011



5-Min Count Period Beginning At	Redland Rd (Northbound)				Redland Rd (Southbound)				Holcomb Blvd (Eastbound)				Holcomb Blvd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	17	36	7	0	5	15	1	0	0	6	0	0	2	15	19	0	123	
7:05 AM	14	32	6	0	12	12	4	0	5	3	2	0	6	14	21	0	131	
7:10 AM	18	49	4	0	2	15	2	0	3	3	4	0	8	12	19	0	139	
7:15 AM	15	37	7	0	5	22	2	0	1	3	2	0	9	11	20	0	134	
7:20 AM	29	47	5	0	7	15	3	0	1	6	4	0	14	12	9	0	152	
7:25 AM	18	27	6	0	9	24	1	0	1	3	5	0	11	15	19	0	139	
7:30 AM	24	47	7	0	11	16	3	0	1	7	4	0	4	25	9	0	158	
7:35 AM	23	32	2	0	13	11	3	0	2	6	1	0	3	17	13	0	126	
7:40 AM	14	33	12	0	10	27	1	0	2	5	3	0	3	22	16	0	148	
7:45 AM	27	32	9	0	4	22	0	0	1	5	6	0	7	27	13	0	153	
7:50 AM	13	40	15	0	8	15	1	0	7	9	7	0	9	19	15	0	158	
7:55 AM	17	26	11	0	16	24	3	0	1	9	4	0	19	14	15	0	159	1720
8:00 AM	10	37	7	0	2	15	1	0	4	4	4	0	12	14	16	0	126	1723
8:05 AM	13	30	5	0	4	15	1	0	0	8	4	0	3	11	13	0	107	1699
8:10 AM	9	20	6	0	5	20	0	0	1	4	4	0	5	10	11	0	95	1655
8:15 AM	16	25	4	0	4	23	3	0	0	2	6	0	6	9	5	0	103	1624
8:20 AM	12	23	4	0	11	19	0	0	1	3	7	0	8	10	18	0	116	1588
8:25 AM	8	30	4	0	3	26	3	0	2	3	5	0	5	11	14	0	114	1563
8:30 AM	5	32	4	0	7	22	6	0	0	6	2	0	3	6	8	0	101	1506
8:35 AM	9	29	3	0	5	19	0	0	1	1	8	0	7	3	11	0	96	1476
8:40 AM	17	32	5	0	5	16	1	0	1	2	4	0	4	5	17	0	109	1437
8:45 AM	18	33	3	0	8	17	2	0	1	3	5	0	4	6	15	0	115	1399
8:50 AM	9	31	1	0	7	18	5	0	0	7	5	0	5	10	8	0	106	1347
8:55 AM	10	23	5	0	6	6	4	0	2	4	4	0	2	5	6	0	77	1265
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	216	420	144	0	88	256	8	0	40	76	64	0	76	272	176	0	1836	
Heavy Trucks	4	28	8	0	4	12	0	0	16	4	8	0	16	8	8	0	116	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments: North off-site area map reference 2

Report generated on 7/6/2011 11:50 AM

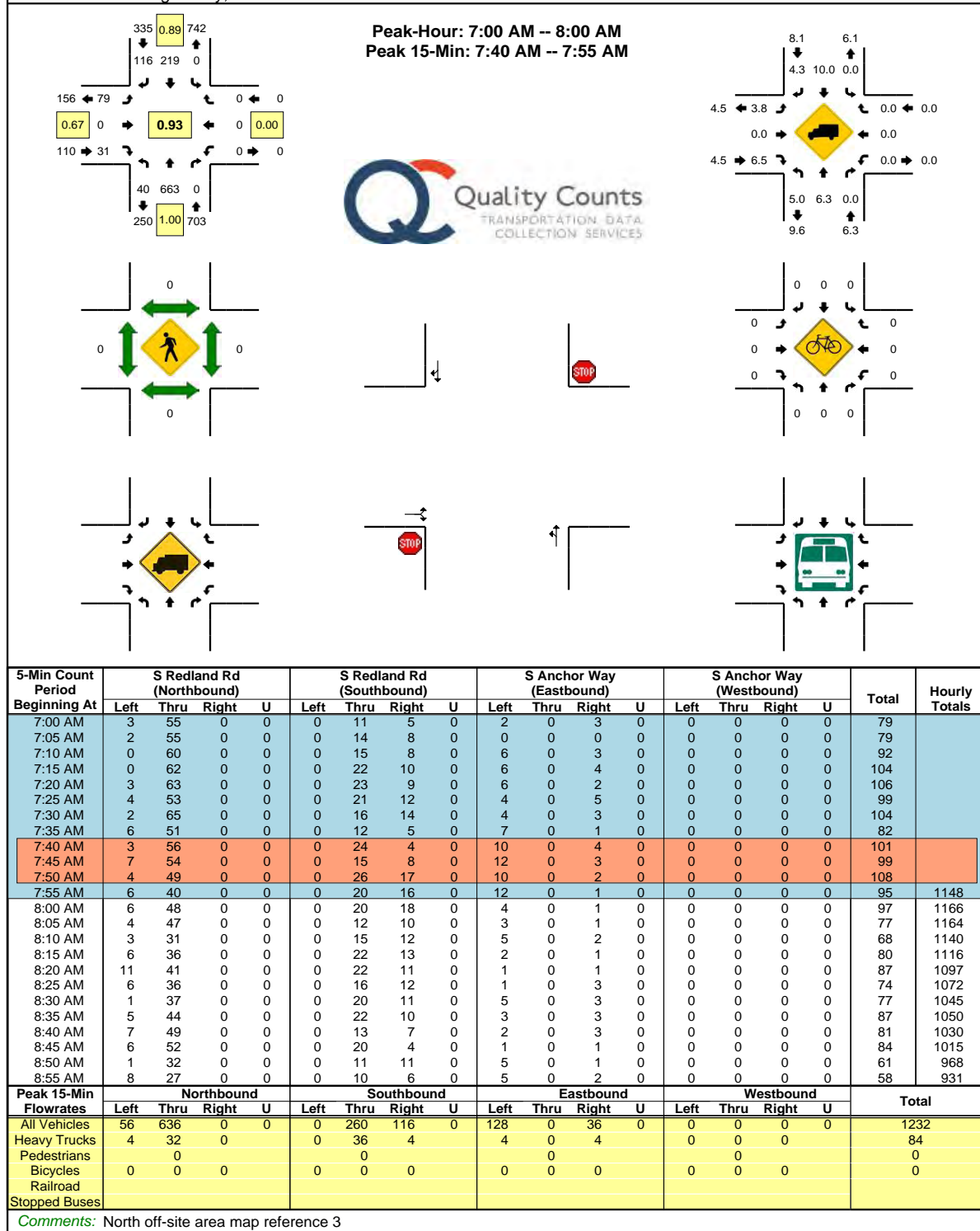
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: S Redland Rd -- S Anchor Way
CITY/STATE: Oregon City, OR

QC JOB #: 10624805
DATE: 6/2/2011



Report generated on 7/6/2011 11:50 AM

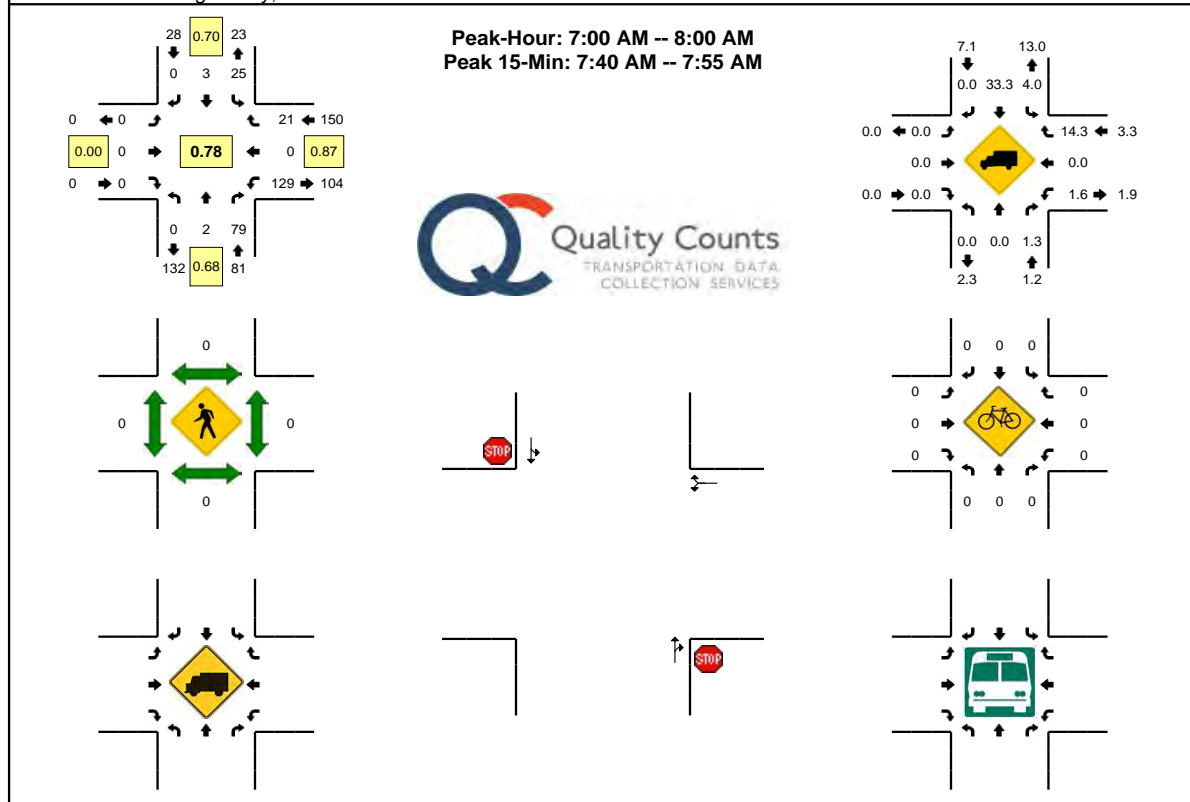
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St/18th St -- S Anchor Way
CITY/STATE: Oregon City, OR

QC JOB #: 10624807
DATE: 6/2/2011



5-Min Count Period Beginning At	Division St/18th St (Northbound)				Division St/18th St (Southbound)				S Anchor Way (Eastbound)				S Anchor Way (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	1	4	0	0	1	0	0	0	0	0	0	7	0	2	0	15	
7:05 AM	0	0	0	0	1	0	0	0	0	0	0	0	7	0	1	0	9	
7:10 AM	0	0	5	0	3	1	0	0	0	0	0	0	8	0	1	0	18	
7:15 AM	0	0	12	0	2	0	0	0	0	0	0	0	12	0	0	0	26	
7:20 AM	0	0	3	0	0	0	0	0	0	0	0	0	8	0	4	0	15	
7:25 AM	0	0	5	0	4	0	0	0	0	0	0	0	10	0	1	0	20	
7:30 AM	0	1	4	0	2	0	0	0	0	0	0	0	15	0	4	0	26	
7:35 AM	0	0	8	0	2	0	0	0	0	0	0	0	8	0	1	0	19	
7:40 AM	0	0	10	0	4	0	0	0	0	0	0	0	8	0	2	0	24	
7:45 AM	0	0	12	0	4	1	0	0	0	0	0	0	12	0	1	0	30	
7:50 AM	0	0	8	0	1	0	0	0	0	0	0	0	19	0	1	0	29	
7:55 AM	0	0	8	0	2	0	0	0	0	0	0	0	15	0	3	0	28	259
8:00 AM	0	0	5	0	1	0	0	0	0	0	0	0	20	0	4	0	30	274
8:05 AM	0	0	1	0	2	0	0	0	0	0	0	0	11	0	3	0	17	282
8:10 AM	0	0	5	0	3	0	0	0	0	0	0	0	13	0	2	0	23	287
8:15 AM	0	0	2	0	0	0	0	0	0	0	0	0	15	0	3	0	20	281
8:20 AM	0	1	1	0	1	0	0	0	0	0	0	0	20	0	2	0	25	291
8:25 AM	0	0	5	0	1	0	0	0	0	0	0	0	19	0	2	0	27	298
8:30 AM	0	0	7	0	2	0	0	0	0	0	0	0	11	0	1	0	21	293
8:35 AM	0	0	3	0	3	0	0	0	0	0	0	0	13	0	3	0	22	296
8:40 AM	0	0	3	0	1	0	0	0	0	0	0	0	12	0	3	0	19	291
8:45 AM	0	0	1	0	0	0	0	0	0	0	0	0	6	0	4	0	11	272
8:50 AM	0	1	4	0	3	0	0	0	0	0	0	0	9	0	2	0	19	262
8:55 AM	0	0	8	0	0	0	0	0	0	0	0	0	12	0	1	0	21	255
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	120	0	36	4	0	0	0	0	0	0	156	0	16	0	332	
Heavy Trucks	0	0	4	0	0	0	0	0	0	0	0	0	4	0	0	0	8	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments: North off-site area map reference 4

Report generated on 7/6/2011 11:50 AM

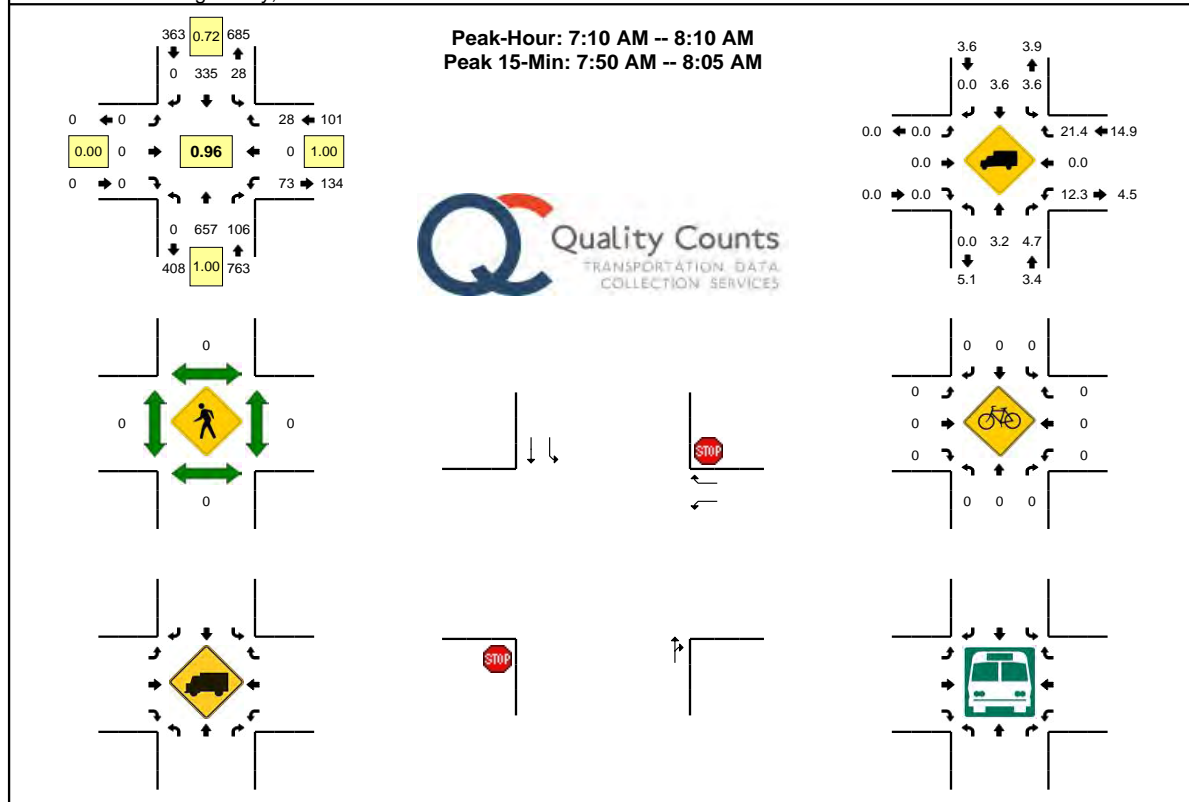
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Molalla Ave/7th St -- Taylor St/7th St
CITY/STATE: Oregon City, OR

QC JOB #: 10624809
DATE: 6/2/2011



5-Min Count Period Beginning At	Molalla Ave/7th St (Northbound)				Molalla Ave/7th St (Southbound)				Taylor St/7th St (Eastbound)				Taylor St/7th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	43	8	0	2	23	0	0	0	0	0	0	3	0	2	0	81	
7:05 AM	0	51	2	0	1	21	0	0	0	0	0	0	10	0	1	0	86	
7:10 AM	0	56	4	0	0	16	0	0	0	0	0	0	4	0	2	0	82	
7:15 AM	0	57	7	0	3	16	0	0	0	0	0	0	10	0	1	0	94	
7:20 AM	0	54	8	0	1	29	0	0	0	0	0	0	8	0	5	0	105	
7:25 AM	0	69	8	0	1	20	0	0	0	0	0	0	4	0	2	0	104	
7:30 AM	0	58	11	0	2	20	0	0	0	0	0	0	10	0	6	0	107	
7:35 AM	0	49	6	0	1	32	0	0	0	0	0	0	5	0	1	0	94	
7:40 AM	0	69	16	0	1	26	0	0	0	0	0	0	2	0	1	0	115	
7:45 AM	0	66	7	0	2	29	0	0	0	0	0	0	4	0	0	0	108	
7:50 AM	0	43	8	0	6	39	0	0	0	0	0	0	5	0	1	0	102	
7:55 AM	0	53	10	0	7	38	0	0	0	0	0	0	3	0	4	0	115	1193
8:00 AM	0	39	17	0	1	35	0	0	0	0	0	0	8	0	3	0	103	1215
8:05 AM	0	44	4	0	3	35	0	0	0	0	0	0	10	0	2	0	98	1227
8:10 AM	0	45	5	0	1	18	0	0	0	0	0	0	6	0	3	0	78	1223
8:15 AM	0	27	9	0	3	27	0	0	0	0	0	0	7	0	0	0	73	1202
8:20 AM	0	44	10	0	5	34	0	0	0	0	0	0	7	0	2	0	102	1199
8:25 AM	0	37	14	0	0	26	0	0	0	0	0	0	7	0	7	0	91	1186
8:30 AM	0	38	6	0	3	27	0	0	0	0	0	0	10	0	0	0	84	1163
8:35 AM	0	37	3	0	2	27	0	0	0	0	0	0	5	0	2	0	76	1145
8:40 AM	0	29	8	0	2	34	0	0	0	0	0	0	6	0	4	0	83	1113
8:45 AM	0	34	7	0	2	27	0	0	0	0	0	0	13	0	2	0	85	1090
8:50 AM	0	35	7	0	1	37	0	0	0	0	0	0	9	0	1	0	90	1078
8:55 AM	0	37	8	0	1	44	0	0	0	0	0	0	7	0	2	0	99	1062
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
All Vehicles	0	540	140	0	56	448	0	0	0	0	0	0	64	0	32	0	1280	
Heavy Trucks	0	24	12	0	0	32	0	0	0	0	0	0	4	0	8	0	80	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments: Molalla area map reference 1

Report generated on 7/6/2011 11:52 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

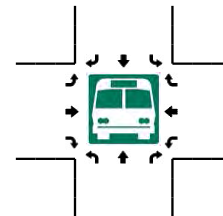
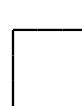
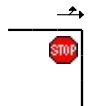
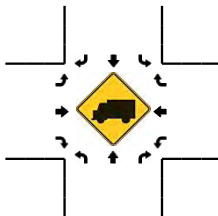
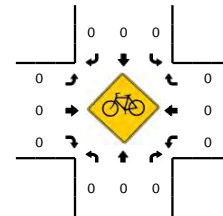
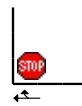
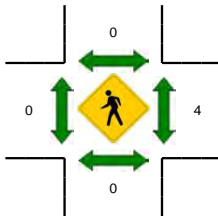
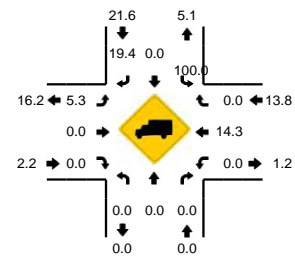
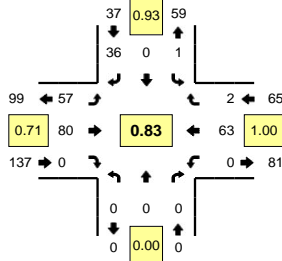
Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Taylor St -- 7th St
CITY/STATE: Oregon City, OR

QC JOB #: 10624811
DATE: 6/2/2011

Peak-Hour: 7:10 AM -- 8:10 AM
Peak 15-Min: 7:50 AM -- 8:05 AM



5-Min Count Period Beginning At	Taylor St (Northbound)				Taylor St (Southbound)				7th St (Eastbound)				7th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	1	0	2	7	0	0	0	4	0	0	14	
7:05 AM	0	0	0	0	0	0	4	0	2	3	0	0	0	8	0	0	17	
7:10 AM	0	0	0	0	1	0	1	0	4	3	0	0	0	5	0	0	14	
7:15 AM	0	0	0	0	0	0	3	0	4	6	0	0	0	7	0	0	20	
7:20 AM	0	0	0	0	0	0	5	0	3	6	0	0	0	9	0	0	23	
7:25 AM	0	0	0	0	0	0	3	0	7	2	0	0	0	2	0	0	14	
7:30 AM	0	0	0	0	0	0	5	0	6	7	0	0	0	11	0	0	29	
7:35 AM	0	0	0	0	0	0	1	0	3	4	0	0	0	5	1	0	14	
7:40 AM	0	0	0	0	0	0	1	0	9	8	0	0	0	3	0	0	21	
7:45 AM	0	0	0	0	0	0	2	0	3	7	0	0	0	1	0	0	13	
7:50 AM	0	0	0	0	0	0	4	0	2	12	0	0	0	2	0	0	20	
7:55 AM	0	0	0	0	0	0	1	0	6	11	0	0	0	6	0	0	24	223
8:00 AM	0	0	0	0	0	0	5	0	8	9	0	0	0	6	0	0	28	237
8:05 AM	0	0	0	0	0	0	5	0	2	5	0	0	0	6	1	0	19	239
8:10 AM	0	0	0	0	0	0	1	0	3	3	0	0	0	7	0	0	14	239
8:15 AM	0	0	0	0	0	0	1	0	4	8	0	0	0	6	0	0	19	238
8:20 AM	0	0	0	0	0	0	4	0	6	8	0	0	0	6	1	0	25	240
8:25 AM	0	0	0	0	0	0	3	0	2	11	0	0	0	12	1	0	29	255
8:30 AM	0	0	0	0	0	0	2	0	3	7	0	0	0	6	0	0	18	244
8:35 AM	0	0	0	0	1	0	3	0	1	4	0	0	0	4	0	0	13	243
8:40 AM	0	0	0	0	1	0	0	0	8	2	0	0	0	11	0	0	22	244
8:45 AM	0	0	0	0	0	0	5	0	3	6	0	0	0	11	0	0	25	256
8:50 AM	0	0	0	0	0	0	1	0	2	6	0	0	0	8	1	0	18	254
8:55 AM	0	0	0	0	0	0	3	0	3	6	0	0	0	7	0	0	19	249
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	0	0	0	0	40	0	64	128	0	0	0	56	0	0	288	
Heavy Trucks	0	0	0	0	0	0	8	0	4	0	0	0	0	4	0	0	16	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments: Molalla area map reference 1

Report generated on 7/6/2011 11:52 AM

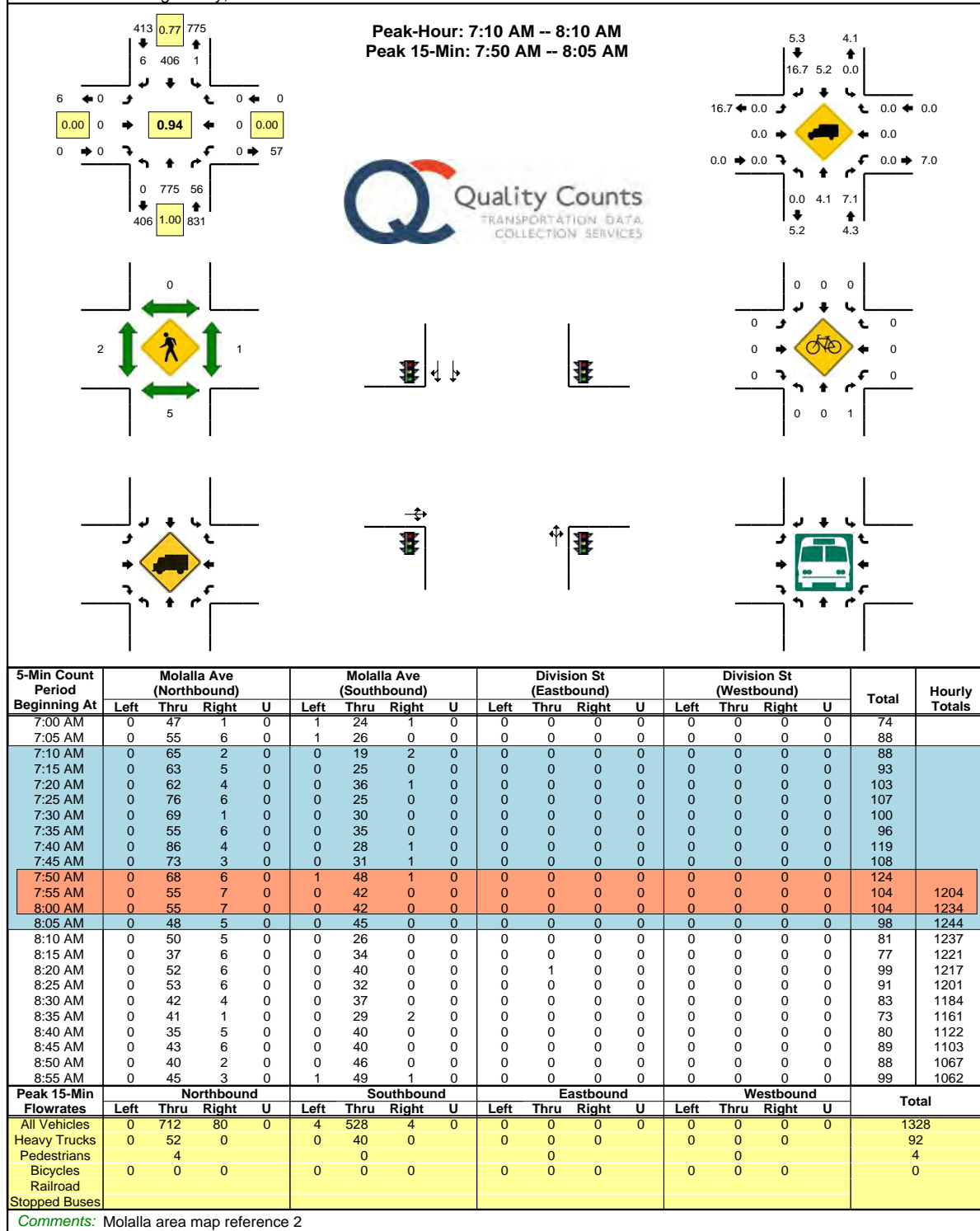
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Molalla Ave -- Division St
CITY/STATE: Oregon City, OR

QC JOB #: 10624813
DATE: 6/2/2011

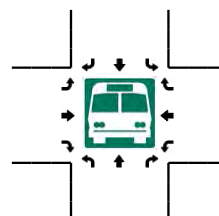
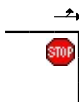
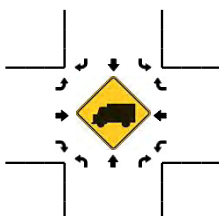
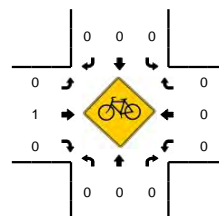
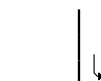
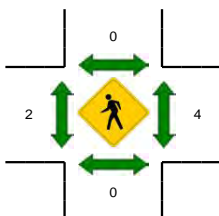
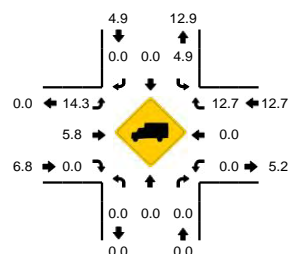


Report generated on 7/6/2011 11:52 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Method for determining peak hour: Total Entering Volume

QC JOB #: 10624815
DATE: 6/2/2011



Comments: Molalla area map reference 3

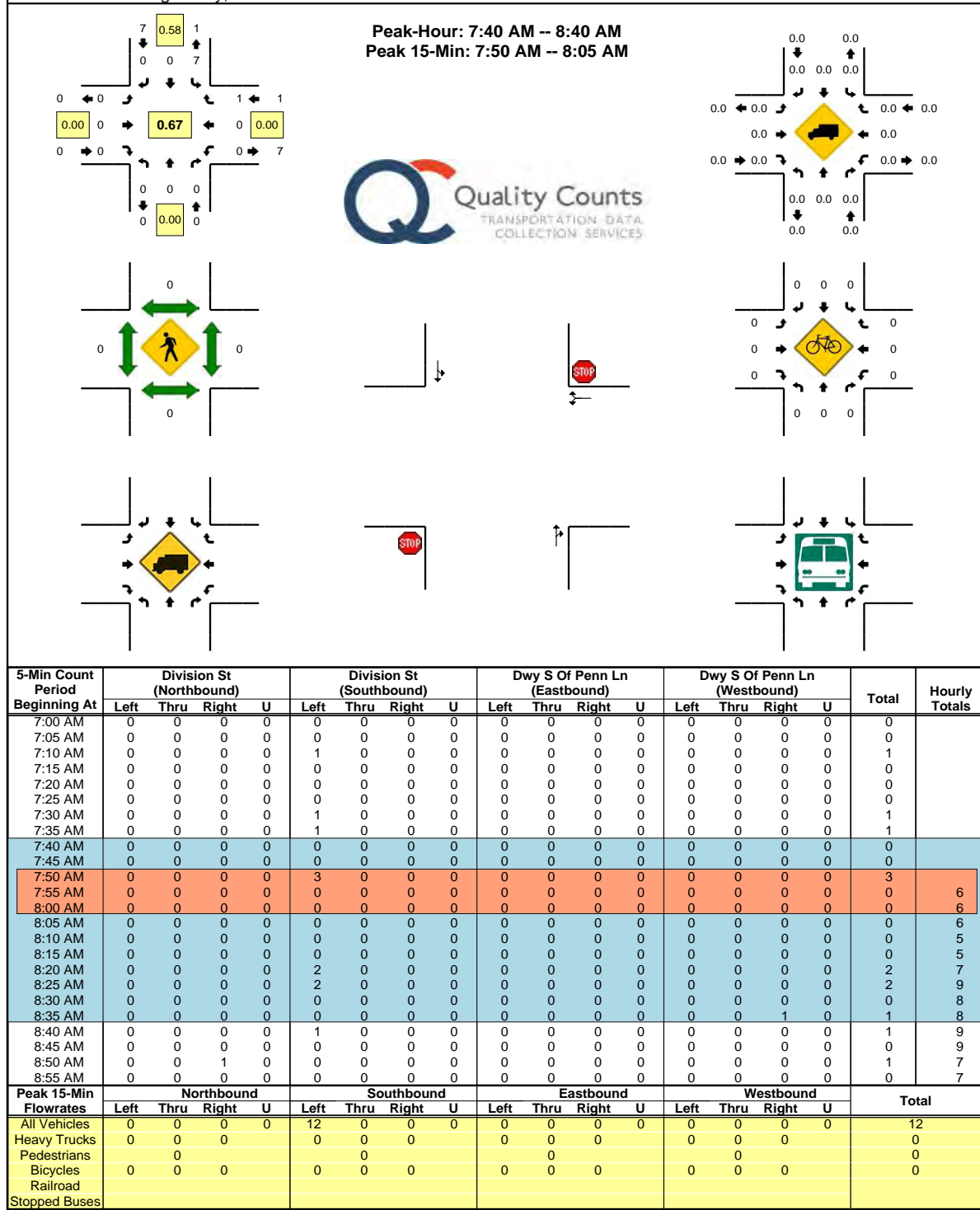
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- Dwy S Of Penn Ln
CITY/STATE: Oregon City, OR

QC JOB #: 10624817
DATE: 6/2/2011



Report generated on 7/6/2011 11:57 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

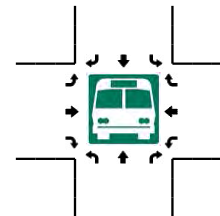
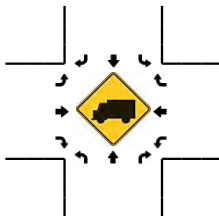
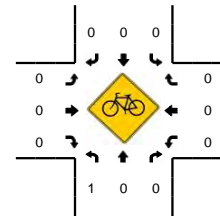
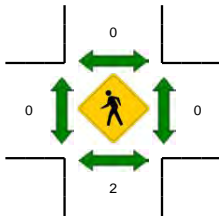
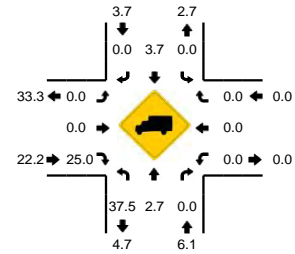
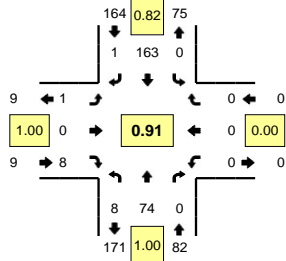
Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- 16th St
CITY/STATE: Oregon City, OR

QC JOB #: 10624819
DATE: 6/2/2011

Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 7:50 AM -- 8:05 AM



5-Min Count Period Beginning At	Division St (Northbound)				Division St (Southbound)				16th St (Eastbound)				16th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	4	0	0	0	6	0	0	0	0	1	0	0	0	0	0	11	
7:05 AM	2	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	10	
7:10 AM	0	5	0	0	0	7	2	0	0	0	0	0	0	0	0	0	14	
7:15 AM	0	12	0	0	0	10	0	0	0	0	1	0	0	0	0	0	23	
7:20 AM	0	3	0	0	0	9	0	0	1	0	0	0	0	0	0	0	13	
7:25 AM	2	5	0	0	0	9	0	0	0	0	0	0	0	0	0	0	16	
7:30 AM	2	4	0	0	0	14	2	0	0	0	2	0	0	0	0	0	24	
7:35 AM	1	7	0	0	0	9	0	0	1	0	1	0	0	0	0	0	19	
7:40 AM	3	10	0	0	0	8	0	0	0	0	0	0	0	0	0	0	21	
7:45 AM	2	12	0	0	0	12	0	0	0	0	0	0	0	0	0	0	26	
7:50 AM	0	8	0	0	0	17	0	0	0	0	0	0	0	0	0	0	25	
7:55 AM	1	6	0	0	0	12	0	0	0	0	1	0	0	0	0	0	20	222
8:00 AM	0	4	0	0	0	21	0	0	0	0	0	0	0	0	0	0	25	236
8:05 AM	1	1	0	0	0	11	1	0	0	0	1	0	0	0	0	0	15	241
8:10 AM	0	5	0	0	0	12	0	0	1	0	1	0	0	0	0	0	19	246
8:15 AM	0	5	0	0	0	16	0	0	0	0	0	0	0	0	0	0	21	244
8:20 AM	0	5	0	0	0	16	0	0	0	0	1	0	0	0	0	0	22	253
8:25 AM	1	7	0	0	0	16	0	0	0	0	0	0	0	0	0	0	24	261
8:30 AM	0	7	0	0	0	12	0	0	0	0	0	0	0	0	0	0	19	256
8:35 AM	0	4	0	0	0	10	0	0	0	0	4	0	0	0	0	0	18	255
8:40 AM	0	2	0	0	0	11	0	0	0	0	1	0	0	0	0	0	14	248
8:45 AM	0	1	0	0	0	4	0	0	0	0	3	0	0	0	0	0	8	230
8:50 AM	0	6	0	0	0	8	0	0	0	0	2	0	0	0	0	0	16	221
8:55 AM	2	6	0	0	0	14	0	0	0	0	0	0	0	0	0	0	22	223
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
	4	72	0	0	0	200	0	0	0	0	4	0	0	0	0	0	280	
	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	
	0	8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	8	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Stopped Buses																		

Comments: Campus area map reference 2

Report generated on 7/6/2011 11:57 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

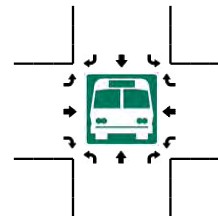
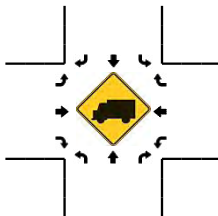
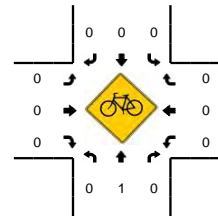
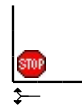
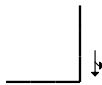
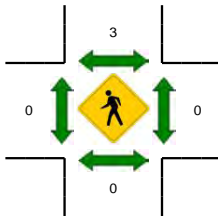
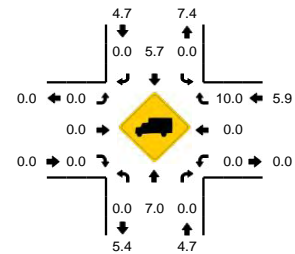
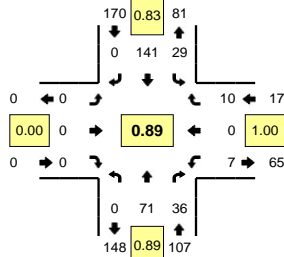
Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- Davis St
CITY/STATE: Oregon City, OR

QC JOB #: 10624821
DATE: 6/2/2011

Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 7:50 AM -- 8:05 AM



5-Min Count Period Beginning At	Division St (Northbound)				Division St (Southbound)				Davis St (Eastbound)				Davis St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	3	2	0	1	6	0	0	0	0	0	0	0	0	1	0	13	
7:05 AM	0	2	2	0	0	8	0	0	0	0	0	0	0	0	0	0	12	
7:10 AM	0	2	2	0	0	7	0	0	0	0	0	0	1	0	3	0	15	
7:15 AM	0	9	1	0	3	8	0	0	0	0	0	0	2	0	3	0	26	
7:20 AM	0	2	1	0	0	9	0	0	0	0	0	0	0	0	1	0	13	
7:25 AM	0	5	4	0	3	6	0	0	0	0	0	0	2	0	2	0	22	
7:30 AM	0	4	4	0	2	13	0	0	0	0	0	0	1	0	2	0	26	
7:35 AM	0	7	3	0	1	10	0	0	0	0	0	0	0	0	1	0	22	
7:40 AM	0	11	5	0	3	5	0	0	0	0	0	0	0	0	2	0	26	
7:45 AM	0	11	1	0	3	8	0	0	0	0	0	0	0	0	3	0	26	
7:50 AM	0	9	2	0	4	14	0	0	0	0	0	0	0	0	0	0	29	
7:55 AM	0	4	6	0	2	11	0	0	0	0	0	0	0	0	2	0	25	255
8:00 AM	0	4	5	0	2	18	0	0	0	0	0	0	0	0	0	0	29	271
8:05 AM	0	2	1	0	0	12	0	0	0	0	0	0	2	0	0	0	17	276
8:10 AM	0	4	1	0	2	12	0	0	0	0	0	0	1	0	1	0	21	282
8:15 AM	0	4	3	0	1	15	0	0	0	0	0	0	0	0	1	0	24	280
8:20 AM	0	5	3	0	3	14	0	0	0	0	0	0	2	0	0	0	27	294
8:25 AM	0	7	4	0	4	11	0	0	0	0	0	0	1	0	0	0	27	299
8:30 AM	0	6	3	0	1	11	0	0	0	0	0	0	1	0	1	0	23	296
8:35 AM	0	4	2	0	4	10	0	0	0	0	0	0	0	0	0	0	20	294
8:40 AM	0	2	2	0	2	10	0	0	0	0	0	0	0	0	0	0	16	284
8:45 AM	0	1	2	0	2	5	0	0	0	0	0	0	2	0	0	0	12	270
8:50 AM	0	6	2	0	1	9	0	0	0	0	0	0	1	0	1	0	20	261
8:55 AM	0	6	2	0	2	12	0	0	0	0	0	0	0	0	2	0	24	260
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	68	52	0	32	172	0	0	0	0	0	0	0	0	8	0	332	
Heavy Trucks	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	
Pedestrians	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments: Campus area map reference 2

Report generated on 7/6/2011 11:57 AM

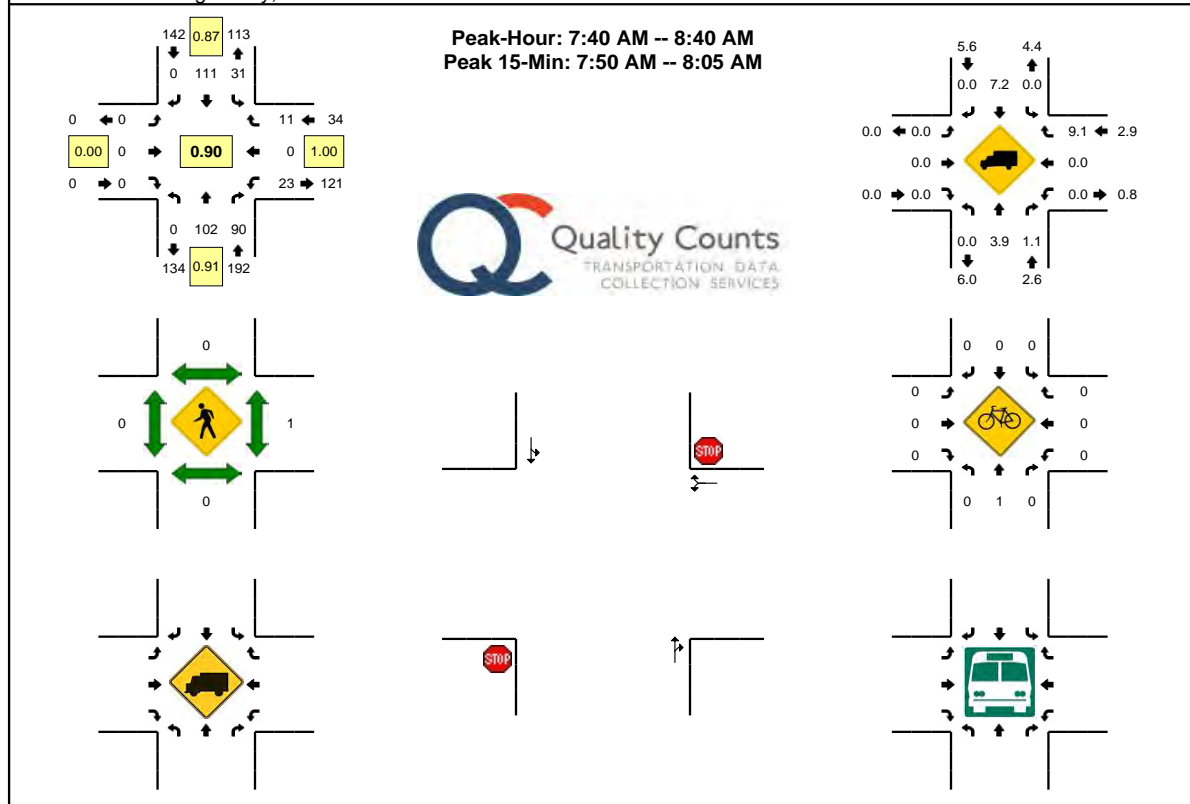
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- Providence Dwy 1
CITY/STATE: Oregon City, OR

QC JOB #: 10624823
DATE: 6/2/2011



5-Min Count Period Beginning At	Division St (Northbound)				Division St (Southbound)				Providence Dwy 1 (Eastbound)				Providence Dwy 1 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	4	4	0	1	3	0	0	0	0	0	0	0	0	0	0	12	
7:05 AM	0	4	1	0	2	5	0	0	0	0	0	0	3	0	1	0	16	
7:10 AM	0	3	1	0	1	6	0	0	0	0	0	0	1	0	1	0	13	
7:15 AM	0	9	3	0	2	9	0	0	0	0	0	0	0	0	1	0	24	
7:20 AM	0	5	2	0	2	6	0	0	0	0	0	0	3	0	0	0	18	
7:25 AM	0	8	5	0	1	6	0	0	0	0	0	0	0	0	0	0	20	
7:30 AM	0	7	1	0	6	10	0	0	0	0	0	0	2	0	1	0	27	
7:35 AM	0	10	3	0	2	8	0	0	0	0	0	0	0	0	0	0	23	
7:40 AM	0	16	4	0	2	3	0	0	0	0	0	0	3	0	1	0	29	
7:45 AM	0	10	4	0	3	6	0	0	0	0	0	0	1	0	2	0	26	
7:50 AM	0	12	5	0	4	9	0	0	0	0	0	0	2	0	0	0	32	
7:55 AM	0	10	11	0	2	9	0	0	0	0	0	0	3	0	1	0	36	276
8:00 AM	0	7	8	0	1	16	0	0	0	0	0	0	1	0	1	0	34	298
8:05 AM	0	4	11	0	5	9	0	0	0	0	0	0	1	0	0	0	30	312
8:10 AM	0	5	8	0	1	11	0	0	0	0	0	0	4	0	0	0	29	328
8:15 AM	0	6	12	0	1	13	0	0	0	0	0	0	0	0	1	0	33	337
8:20 AM	0	10	4	0	4	11	0	0	0	0	0	0	1	0	0	0	30	349
8:25 AM	0	11	8	0	3	9	0	0	0	0	0	0	0	0	3	0	34	363
8:30 AM	0	6	7	0	0	10	0	0	0	0	0	0	3	0	1	0	27	363
8:35 AM	0	5	8	0	5	5	0	0	0	0	0	0	4	0	1	0	28	368
8:40 AM	0	4	5	0	1	8	0	0	0	0	0	0	4	0	0	0	22	361
8:45 AM	0	4	13	0	0	7	0	0	0	0	0	0	2	0	0	0	26	361
8:50 AM	0	8	3	0	1	8	0	0	0	0	0	0	5	0	0	0	25	354
8:55 AM	0	6	10	0	3	9	0	0	0	0	0	0	1	0	3	0	32	350
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	116	96	0	28	136	0	0	0	0	0	0	24	0	8	0	408	
Heavy Trucks	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments: Campus area map reference 3

Report generated on 7/6/2011 11:57 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

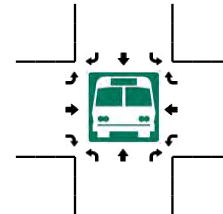
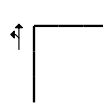
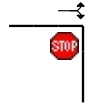
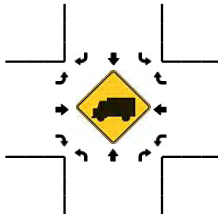
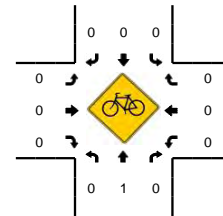
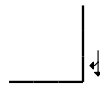
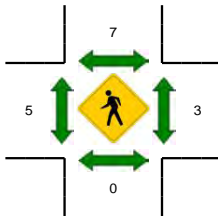
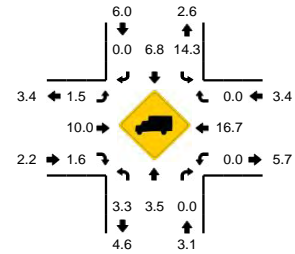
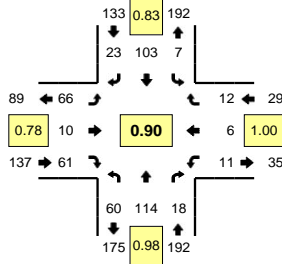
Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- 15th St
CITY/STATE: Oregon City, OR

QC JOB #: 10624825
DATE: 6/2/2011

Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 7:50 AM -- 8:05 AM



5-Min Count Period Beginning At	Division St (Northbound)				Division St (Southbound)				15th St (Eastbound)				15th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	6	5	1	0	1	2	0	0	4	0	2	0	0	0	0	0	21	
7:05 AM	6	4	2	0	2	4	2	0	1	0	2	0	1	0	0	0	24	
7:10 AM	7	3	2	0	0	7	0	0	1	1	7	0	0	1	0	0	29	
7:15 AM	5	8	1	0	1	6	2	0	4	1	1	0	0	0	0	0	29	
7:20 AM	2	6	1	0	2	6	1	0	1	1	4	0	0	0	0	0	24	
7:25 AM	1	9	1	0	0	5	1	0	3	0	6	0	0	1	1	0	28	
7:30 AM	5	4	2	0	1	11	0	0	4	0	2	0	2	0	1	0	32	
7:35 AM	0	10	2	0	0	8	1	0	2	0	2	0	0	1	0	0	26	
7:40 AM	7	16	1	0	0	2	4	0	4	1	4	0	2	1	1	0	43	
7:45 AM	12	8	1	0	1	4	1	0	5	0	2	0	1	0	0	0	35	
7:50 AM	5	15	2	0	0	10	2	0	3	0	9	0	0	1	0	0	47	
7:55 AM	3	11	3	0	0	9	2	0	9	1	9	0	0	0	1	0	48	386
8:00 AM	3	7	0	0	0	16	1	0	7	1	5	0	2	0	0	0	42	407
8:05 AM	4	9	4	0	0	9	1	0	3	3	11	0	0	0	3	0	47	430
8:10 AM	2	5	2	0	1	11	3	0	7	0	2	0	2	0	2	0	37	438
8:15 AM	3	9	0	0	2	10	1	0	7	0	3	0	0	0	1	0	36	445
8:20 AM	2	7	2	0	0	8	1	0	6	0	2	0	0	0	1	0	29	450
8:25 AM	3	12	1	0	1	10	1	0	6	2	4	0	1	1	1	0	43	465
8:30 AM	7	9	2	0	2	8	2	0	4	1	5	0	2	1	0	0	43	476
8:35 AM	9	6	0	0	0	6	4	0	5	1	5	0	1	2	2	0	41	491
8:40 AM	4	5	0	0	2	7	2	0	3	2	3	0	2	1	1	0	32	480
8:45 AM	2	8	2	0	1	6	3	0	8	1	3	0	1	2	1	0	38	483
8:50 AM	3	7	2	0	0	12	1	0	3	1	2	0	0	2	2	0	35	471
8:55 AM	2	10	1	0	0	9	1	0	5	0	1	0	0	0	0	0	29	452
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	44	132	20	0	0	140	20	0	76	8	92	0	8	4	4	0	548	
Heavy Trucks	0	0	0	0	0	4	0	0	0	0	4	0	0	0	0	0	8	
Pedestrians	0	0	0	0	0	8	0	0	0	8	0	0	0	4	0	0	20	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments: Campus area map reference 4

Report generated on 7/6/2011 11:57 AM

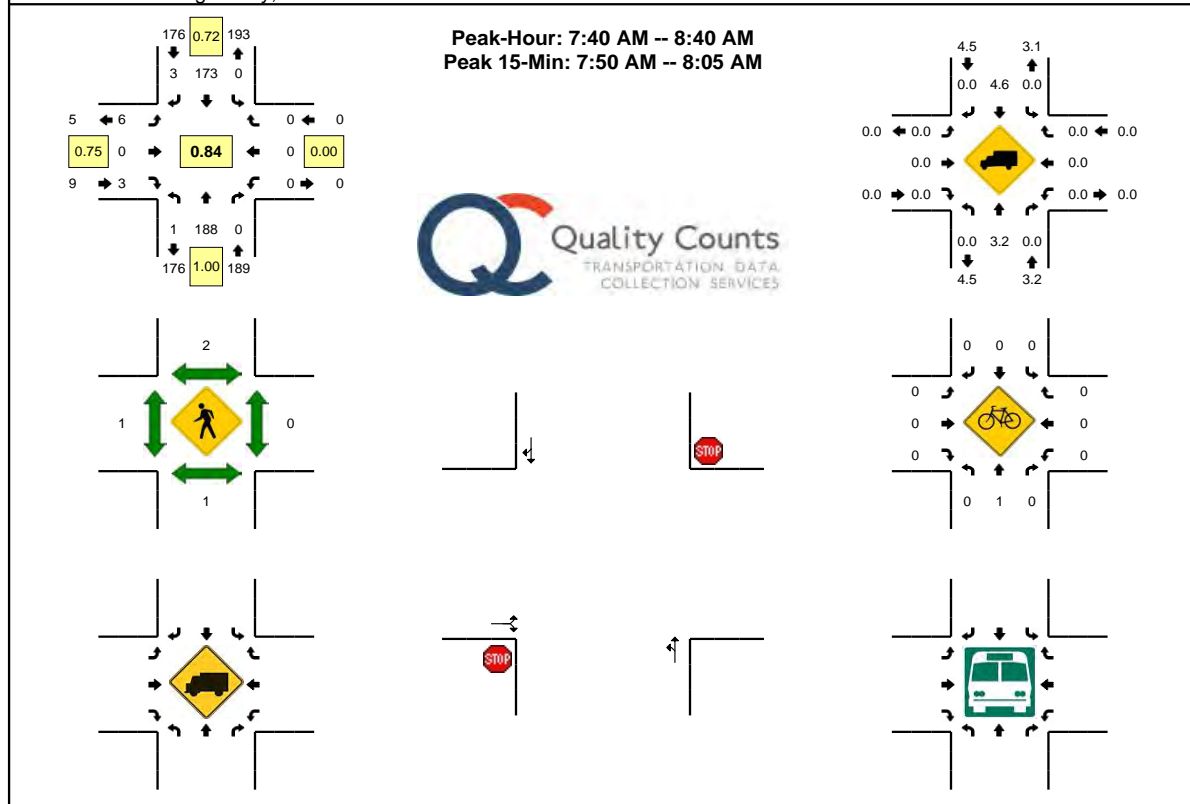
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- 14th St
CITY/STATE: Oregon City, OR

QC JOB #: 10624827
DATE: 6/2/2011



5-Min Count Period Beginning At	Division St (Northbound)				Division St (Southbound)				14th St (Eastbound)				14th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	1	14	0	0	0	4	0	0	0	0	1	0	0	0	0	0	20	
7:05 AM	1	9	0	0	0	7	0	0	0	0	0	0	0	0	0	0	17	
7:10 AM	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	22	
7:15 AM	0	14	0	0	0	9	0	0	0	0	0	0	0	0	0	0	23	
7:20 AM	0	8	0	0	0	10	0	0	1	0	1	0	0	0	0	0	20	
7:25 AM	0	11	0	0	0	11	0	0	0	0	0	0	0	0	0	0	22	
7:30 AM	0	11	0	0	0	14	0	0	0	0	0	0	0	0	0	0	25	
7:35 AM	0	12	0	0	0	10	0	0	0	0	0	0	0	0	0	0	22	
7:40 AM	0	26	0	0	0	9	0	0	1	0	0	0	0	0	0	0	36	
7:45 AM	1	18	0	0	0	6	0	0	2	0	0	1	0	0	0	0	28	
7:50 AM	0	21	0	0	0	19	1	0	0	0	1	0	0	0	0	0	42	
7:55 AM	0	17	0	0	0	15	1	0	0	0	1	0	0	0	0	0	34	311
8:00 AM	0	9	0	0	0	25	0	0	1	0	0	0	0	0	0	0	35	326
8:05 AM	0	16	0	0	0	20	0	0	1	0	0	0	0	0	0	0	37	
8:10 AM	0	9	0	0	0	13	0	0	0	0	0	0	0	0	0	0	22	346
8:15 AM	0	13	0	0	0	15	0	0	0	0	0	0	0	0	0	0	28	351
8:20 AM	0	11	0	0	0	9	0	0	0	0	1	0	0	0	0	0	21	352
8:25 AM	0	15	0	0	0	15	0	0	0	0	0	0	0	0	0	0	30	360
8:30 AM	0	18	0	0	0	15	1	0	0	0	0	0	0	0	0	0	34	369
8:35 AM	0	15	0	0	0	12	0	0	0	0	0	0	0	0	0	0	27	374
8:40 AM	0	8	0	0	0	12	0	0	1	0	0	0	0	0	0	0	21	359
8:45 AM	0	12	0	0	0	10	0	0	0	0	0	0	0	0	0	0	22	353
8:50 AM	0	12	0	0	0	13	0	0	0	0	0	0	0	0	0	0	25	336
8:55 AM	0	13	0	0	0	11	0	0	0	0	0	0	0	0	0	0	24	326
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	188	0	0	0	236	8	0	4	0	8	0	0	0	0	0	444	
Heavy Trucks	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8	
Pedestrians		4				0				4				0			8	
Bicycles	0	0	0		0	0	0		0	0	0		0	0	0		0	
Railroad																		
Stopped Buses																		

Comments: Campus area map reference 5

Report generated on 7/6/2011 11:57 AM

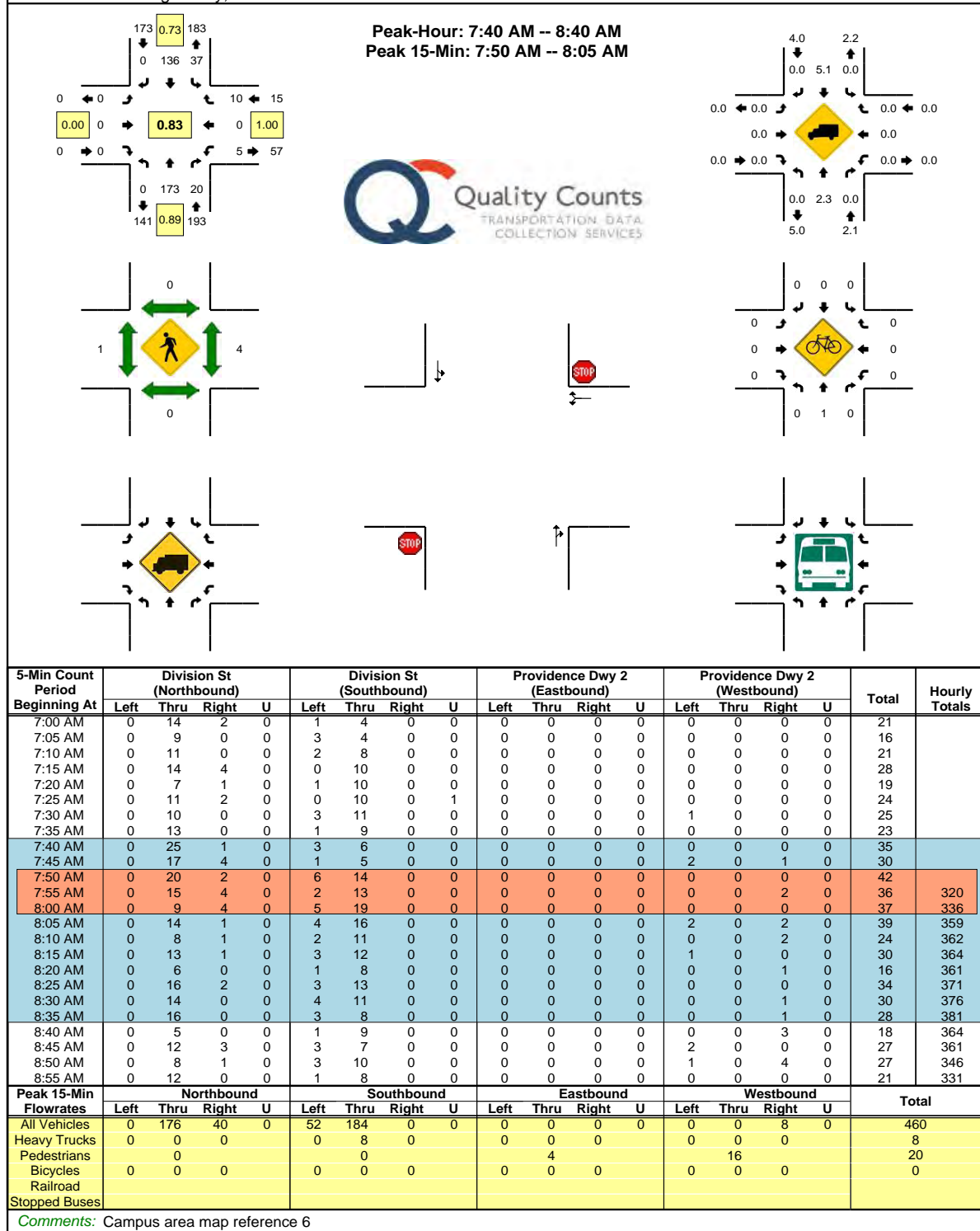
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- Providence Dwy 2
CITY/STATE: Oregon City, OR

QC JOB #: 10624829
DATE: 6/2/2011



Report generated on 7/6/2011 11:57 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

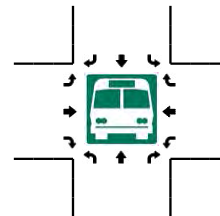
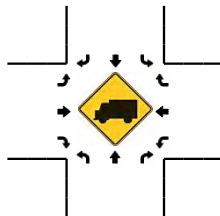
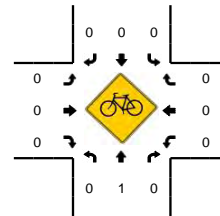
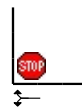
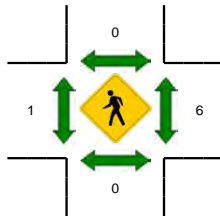
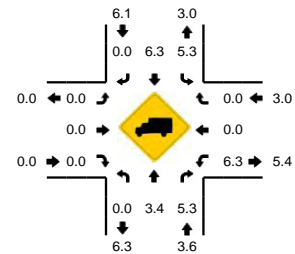
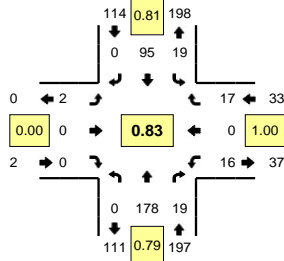
Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- Gilman Dr
CITY/STATE: Oregon City, OR

QC JOB #: 10624831
DATE: 6/2/2011

Peak-Hour: 7:40 AM -- 8:40 AM
Peak 15-Min: 7:50 AM -- 8:05 AM



5-Min Count Period Beginning At	Division St (Northbound)				Division St (Southbound)				Gilman Dr (Eastbound)				Gilman Dr (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	13	1	0	1	2	0	0	0	0	0	0	0	0	6	0	23	
7:05 AM	0	6	1	0	0	5	0	0	0	0	0	0	3	0	2	0	17	
7:10 AM	0	6	2	0	2	3	0	0	0	0	0	0	1	0	5	0	19	
7:15 AM	0	13	0	0	2	7	0	0	0	0	0	0	1	0	2	0	25	
7:20 AM	0	10	0	0	0	7	0	0	0	0	0	0	1	0	2	0	20	
7:25 AM	0	16	0	0	1	6	0	0	0	0	0	0	1	0	1	0	25	
7:30 AM	0	12	0	0	1	8	0	0	0	0	0	0	4	0	1	0	26	
7:35 AM	0	12	2	0	1	6	0	0	0	0	0	0	1	0	1	0	23	
7:40 AM	0	23	1	0	1	3	0	0	1	0	0	0	1	0	1	0	31	
7:45 AM	0	18	2	0	1	6	0	0	0	0	0	0	1	0	4	0	32	
7:50 AM	0	22	2	0	3	6	0	1	0	0	0	0	1	0	2	0	37	
7:55 AM	0	17	4	0	1	8	0	0	0	0	0	0	0	0	2	0	32	310
8:00 AM	0	15	2	0	5	11	0	0	0	0	0	0	2	0	0	0	35	322
8:05 AM	0	15	1	0	1	15	0	0	1	0	0	0	1	0	0	0	34	339
8:10 AM	0	7	0	0	0	9	0	0	0	0	0	0	0	0	2	0	18	338
8:15 AM	0	12	4	0	1	9	0	0	0	0	0	0	3	0	3	0	32	345
8:20 AM	0	9	1	0	1	9	0	0	0	0	0	0	1	0	1	0	22	347
8:25 AM	0	18	1	0	3	8	0	0	0	0	0	0	3	0	0	0	33	355
8:30 AM	0	13	1	0	0	5	0	0	0	0	0	0	1	0	1	0	21	350
8:35 AM	0	9	0	0	1	6	0	0	0	0	0	0	2	0	1	0	19	346
8:40 AM	0	8	4	0	2	10	0	0	0	0	0	0	0	0	0	0	24	339
8:45 AM	0	16	2	0	0	10	0	0	0	0	0	0	1	0	0	0	29	336
8:50 AM	0	9	1	0	1	7	0	0	0	0	0	0	1	0	2	0	21	320
8:55 AM	0	10	1	0	2	10	0	0	0	0	0	0	2	0	0	0	25	313
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	216	32	0	36	100	0	4	0	0	0	0	12	0	16	0	416	
Heavy Trucks	0	4	4	0	0	8	0	0	0	0	0	0	0	0	0	0	16	
Pedestrians	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	4	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments: Campus area map reference 7

Report generated on 7/6/2011 11:57 AM

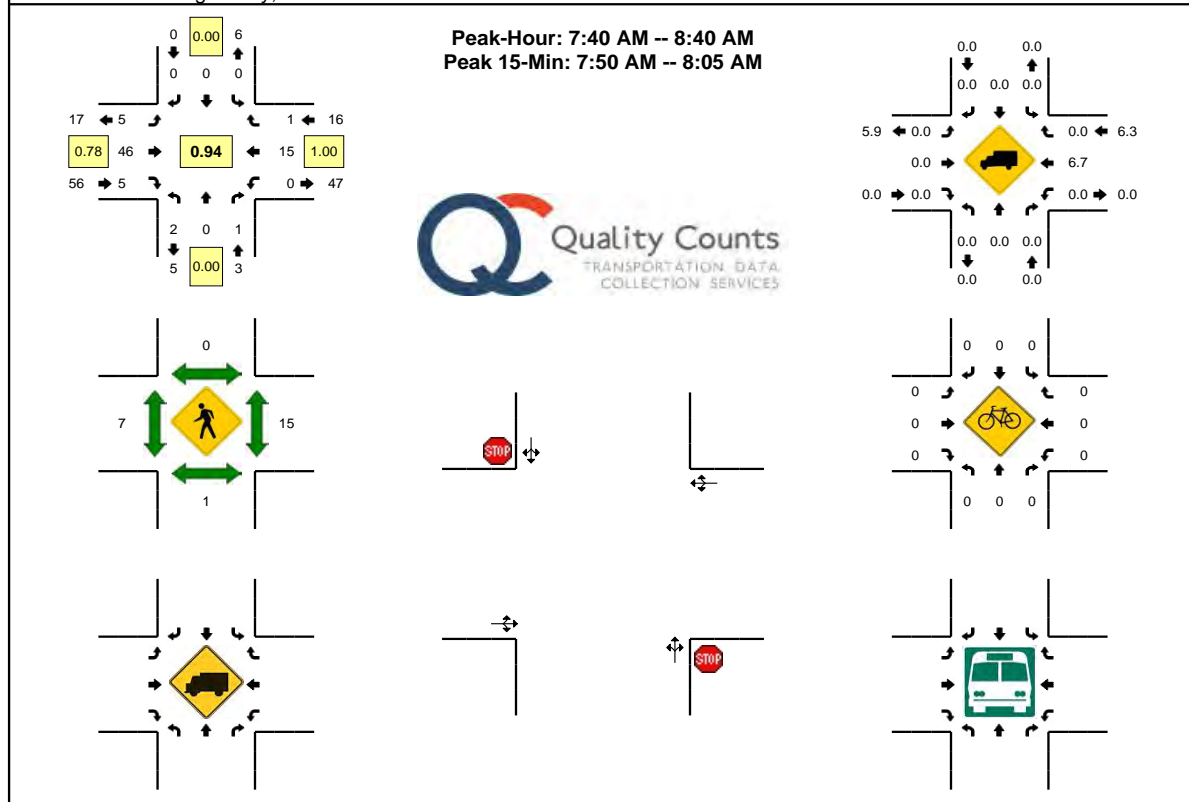
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Providence Dwy 3 -- Davis Rd
CITY/STATE: Oregon City, OR

QC JOB #: 10624833
DATE: 6/2/2011



5-Min Count Period Beginning At	Providence Dwy 3 (Northbound)				Providence Dwy 3 (Southbound)				Davis Rd (Eastbound)				Davis Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	0	0	0	0	0	0	0	1	1	1	0	0	1	1	0	5	
7:05 AM	0	0	0	0	0	1	0	0	1	2	0	0	0	1	0	0	5	
7:10 AM	0	0	1	0	0	0	0	0	1	1	0	0	0	3	0	0	6	
7:15 AM	0	0	0	0	0	0	0	0	1	2	0	0	0	5	0	0	8	
7:20 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	0	2	
7:25 AM	0	0	0	0	0	0	0	0	0	5	1	0	0	4	0	0	10	
7:30 AM	0	0	0	0	0	0	0	0	2	4	0	0	0	2	0	0	8	
7:35 AM	0	0	0	0	0	0	0	0	1	3	0	0	0	1	0	0	5	
7:40 AM	0	0	0	0	0	0	0	0	0	5	1	0	0	2	0	0	8	
7:45 AM	0	0	0	0	0	0	0	0	1	2	1	0	0	3	0	0	7	
7:50 AM	0	0	0	0	0	0	0	0	0	5	0	0	0	1	0	0	6	
7:55 AM	0	0	0	0	0	0	0	0	0	6	0	0	0	1	0	0	7	77
8:00 AM	0	0	0	0	0	0	0	0	0	7	0	0	0	0	0	0	7	79
8:05 AM	0	0	0	0	0	0	0	0	1	0	0	0	0	3	0	0	4	78
8:10 AM	1	0	0	0	0	0	0	0	0	2	2	0	0	0	0	0	5	77
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2	71
8:20 AM	0	0	1	0	0	0	0	0	0	5	0	0	0	2	0	0	8	77
8:25 AM	0	0	0	0	0	0	0	0	0	7	1	0	0	1	1	0	10	77
8:30 AM	1	0	0	0	0	0	0	0	2	2	0	0	0	1	0	0	6	75
8:35 AM	0	0	0	0	0	0	0	0	1	4	0	0	0	0	0	0	5	75
8:40 AM	0	0	0	0	0	0	0	0	1	2	1	0	0	0	0	0	4	71
8:45 AM	1	0	0	0	0	0	0	0	2	2	0	0	0	1	0	0	6	70
8:50 AM	0	0	0	0	0	0	0	0	0	0	1	1	0	1	0	0	3	67
8:55 AM	0	1	0	0	0	1	0	0	1	2	1	0	0	0	1	0	7	67
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	0	0	0	0	0	0	0	0	72	0	0	0	0	8	0	80	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	4	0	0	0	20	0	0	24	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments: Campus area map reference 8

Report generated on 7/6/2011 11:57 AM

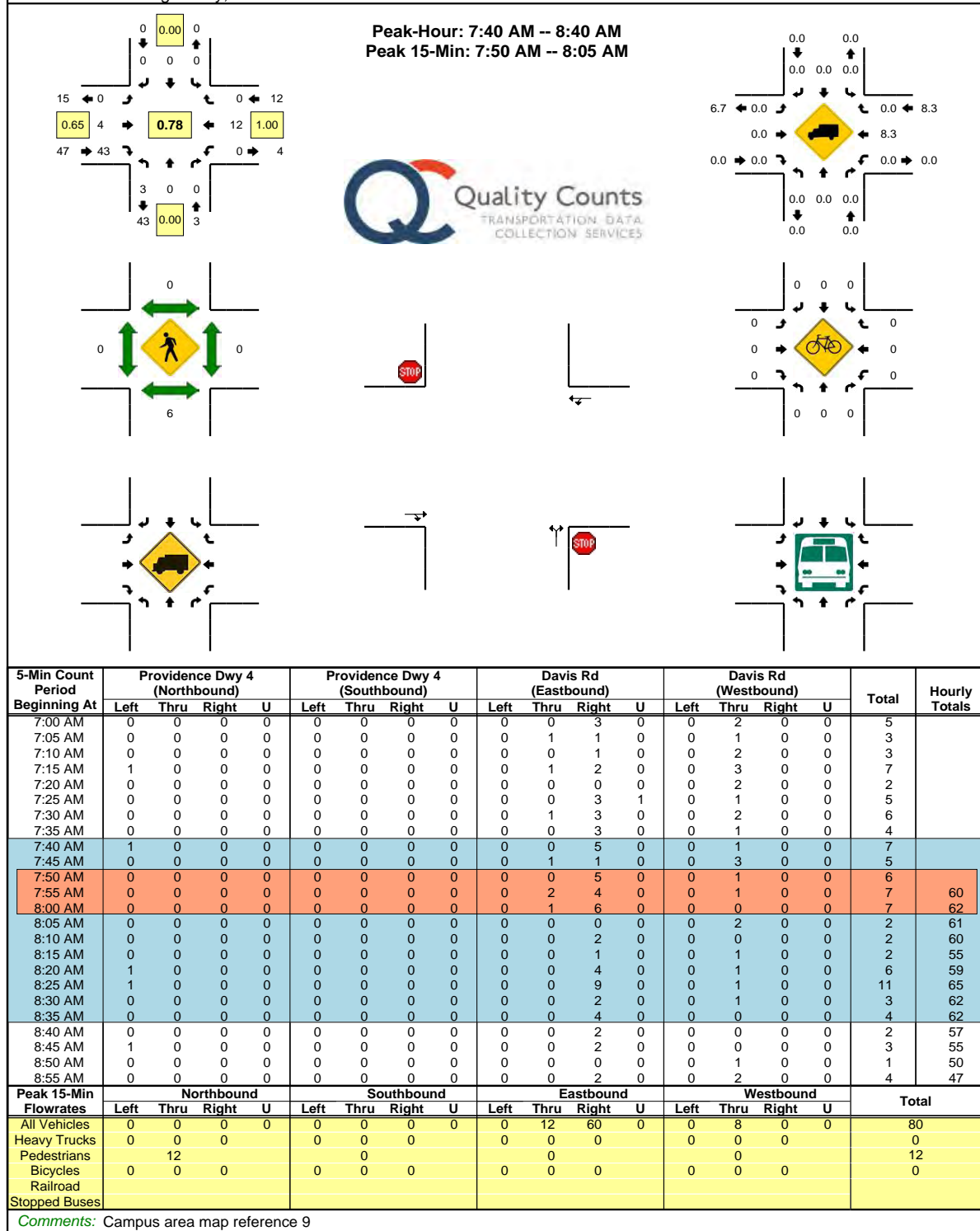
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Providence Dwy 4 -- Davis Rd
CITY/STATE: Oregon City, OR

QC JOB #: 10624835
DATE: 6/2/2011



Report generated on 7/6/2011 11:57 AM

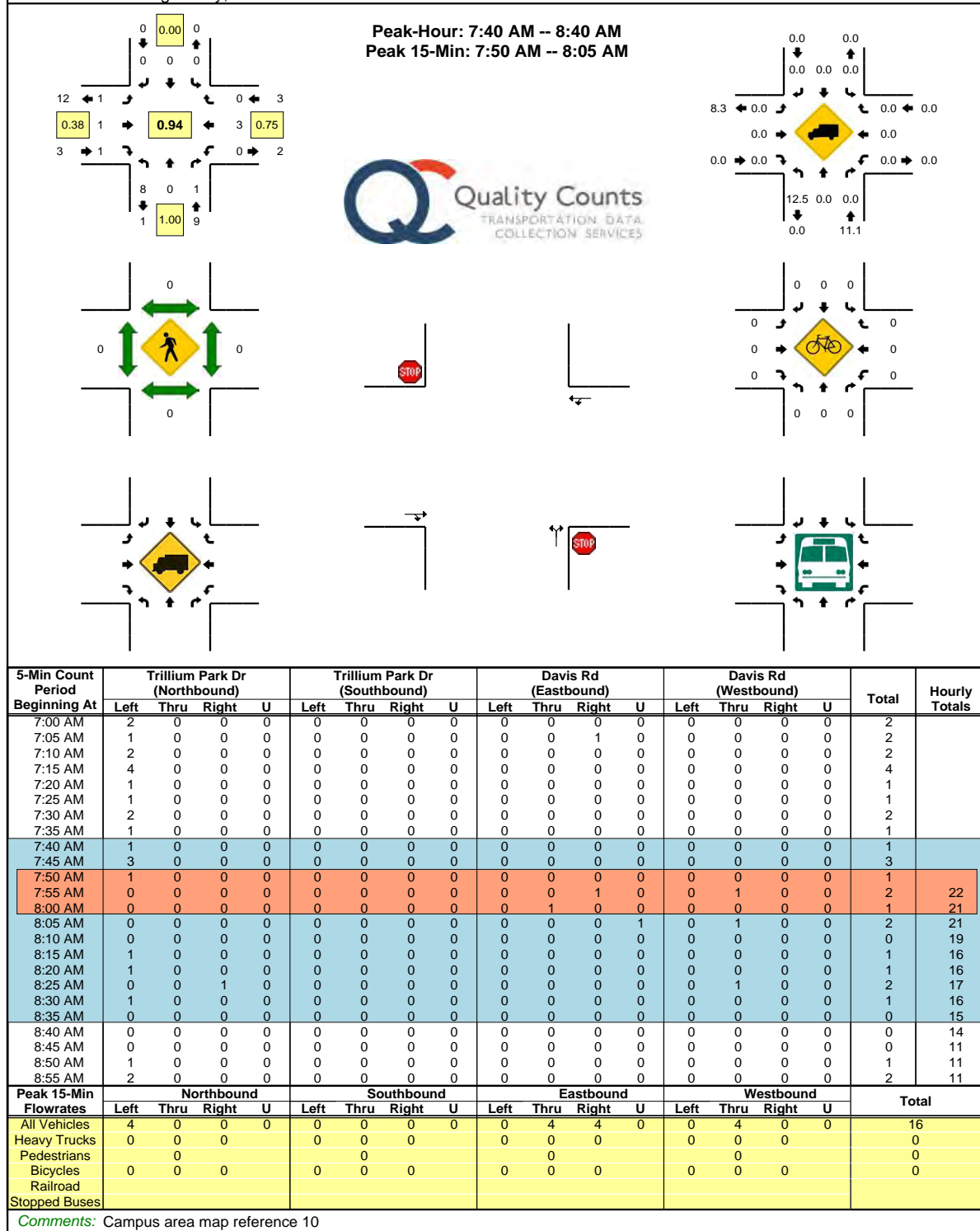
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Trillium Park Dr -- Davis Rd
CITY/STATE: Oregon City, OR

QC JOB #: 10624837
DATE: 6/2/2011



Report generated on 7/6/2011 11:57 AM

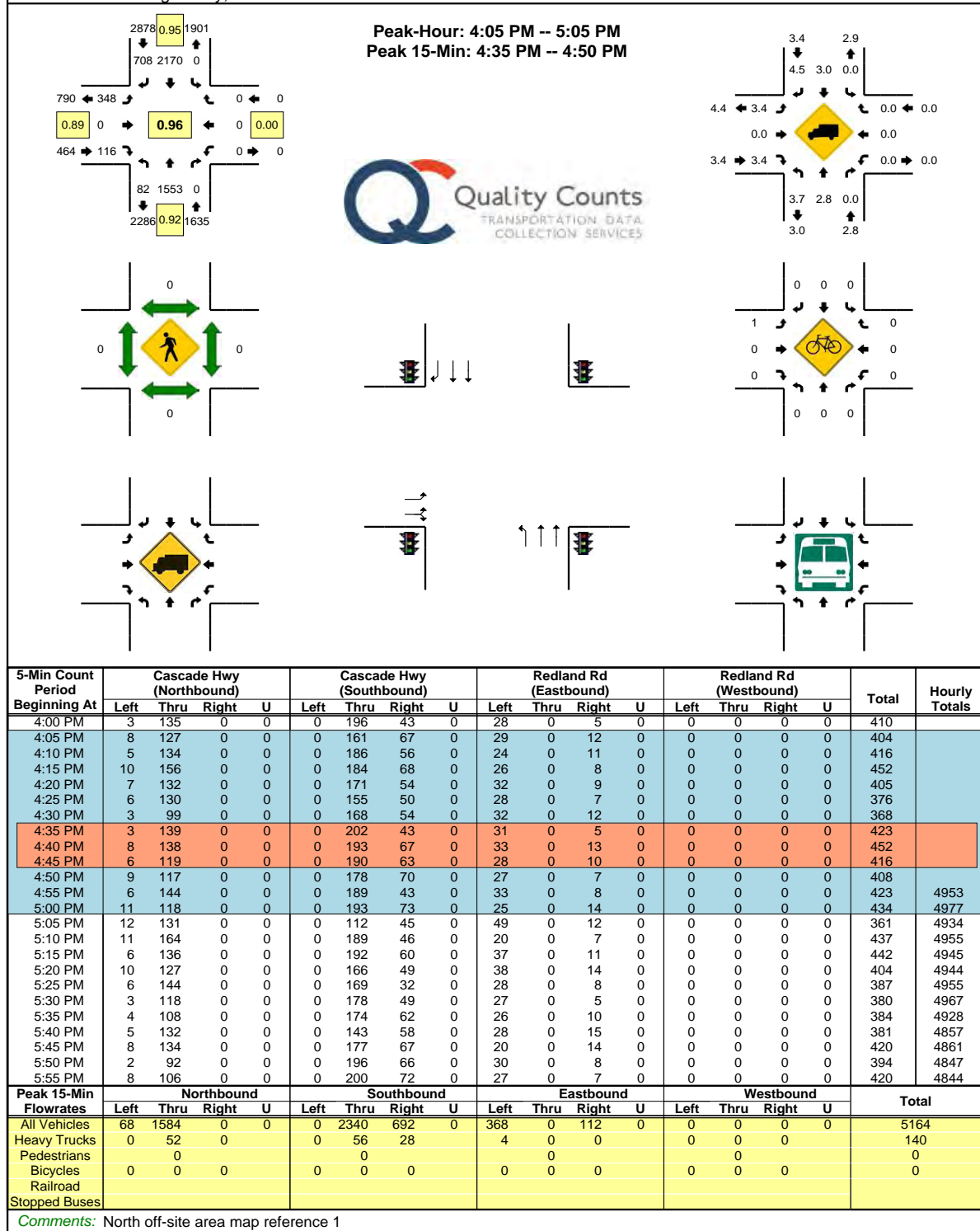
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: Intersection Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Cascade Hwy -- Redland Rd
CITY/STATE: Oregon City, OR

QC JOB #: 10624802
DATE: 6/2/2011



Report generated on 7/6/2011 1:56 PM

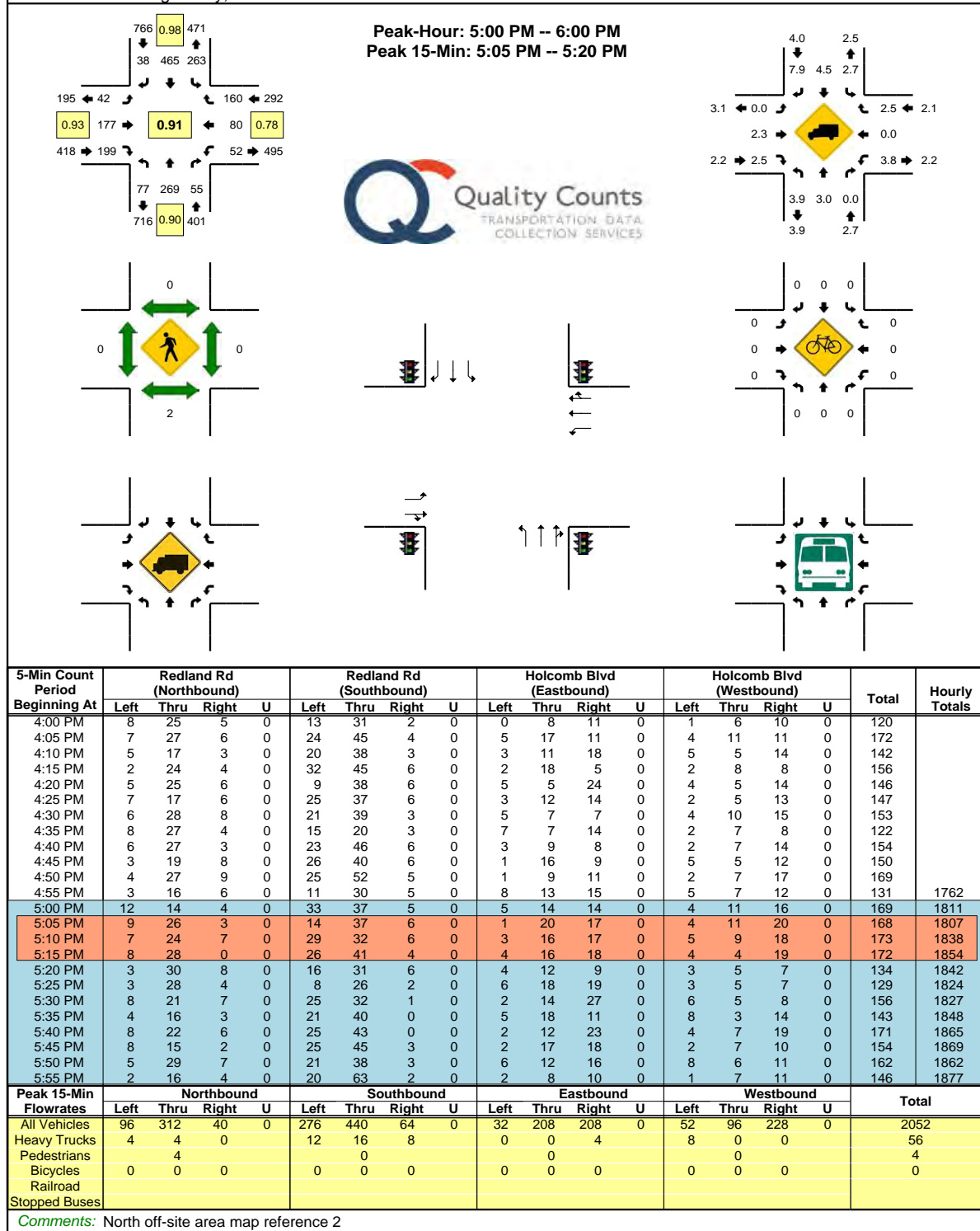
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Redland Rd -- Holcomb Blvd
CITY/STATE: Oregon City, OR

QC JOB #: 10624804
DATE: 6/2/2011



Report generated on 7/6/2011 1:57 PM

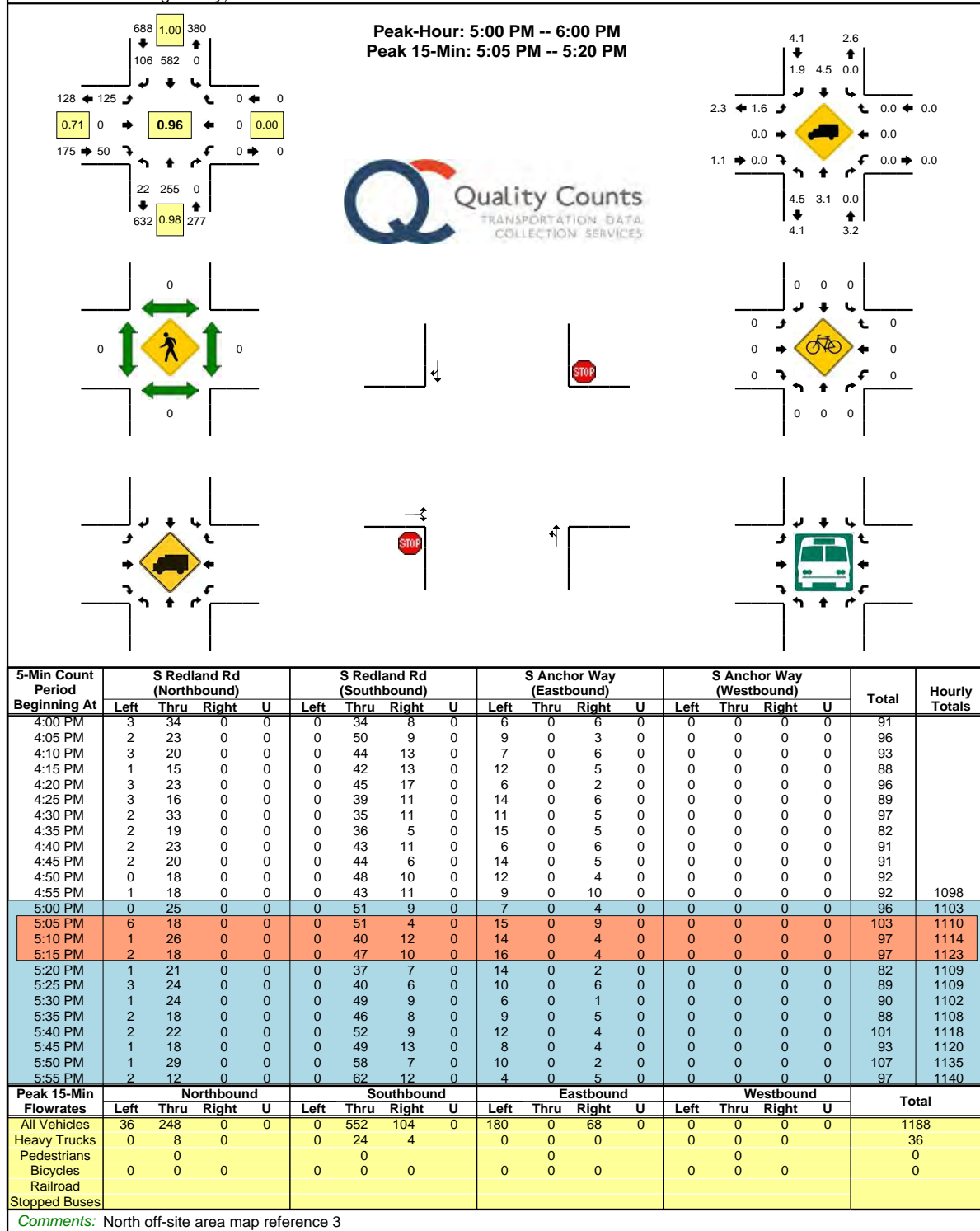
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: S Redland Rd -- S Anchor Way
CITY/STATE: Oregon City, OR

QC JOB #: 10624806
DATE: 6/2/2011



Report generated on 7/6/2011 1:57 PM

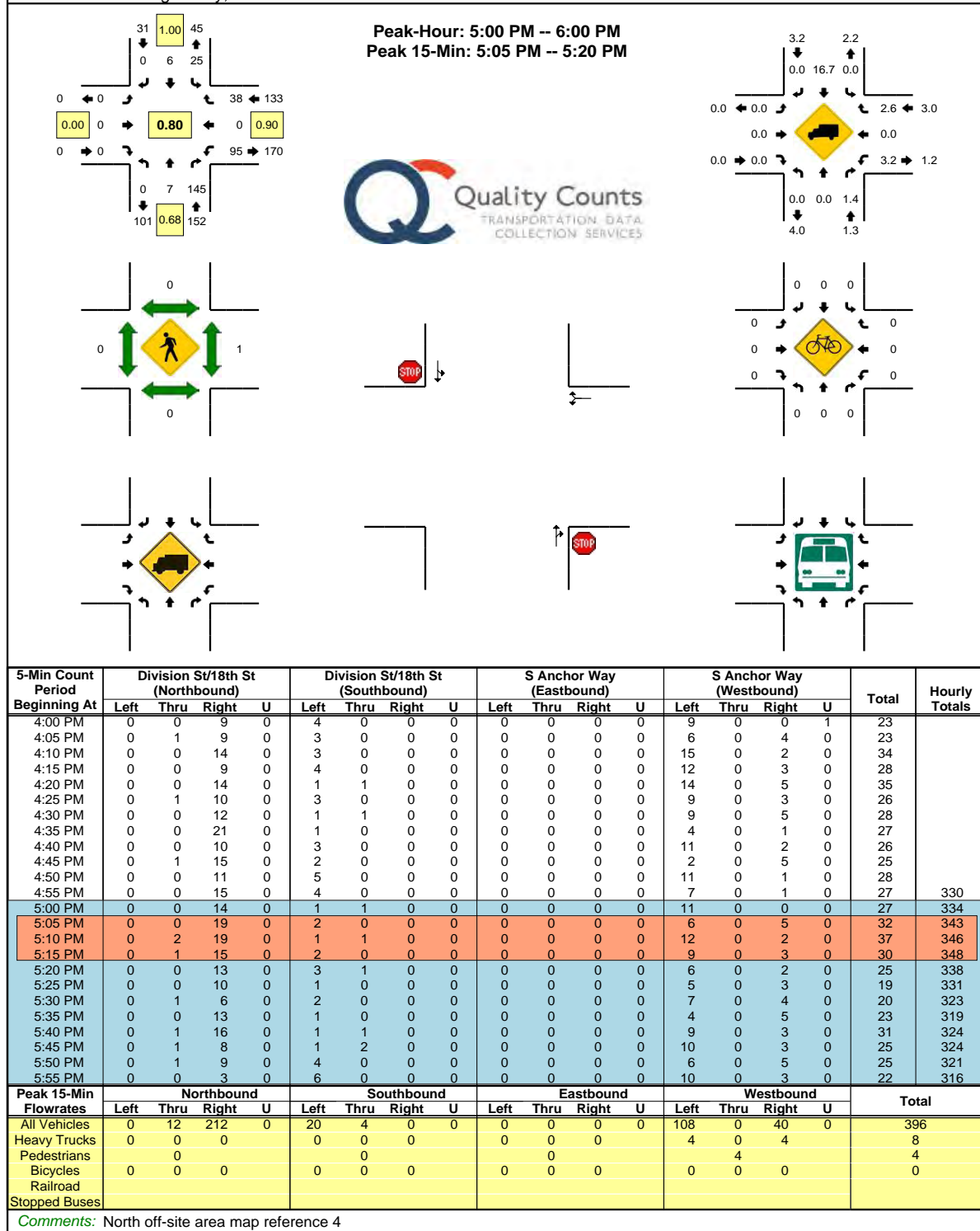
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St/18th St -- S Anchor Way
CITY/STATE: Oregon City, OR

QC JOB #: 10624808
DATE: 6/2/2011



Report generated on 7/6/2011 1:57 PM

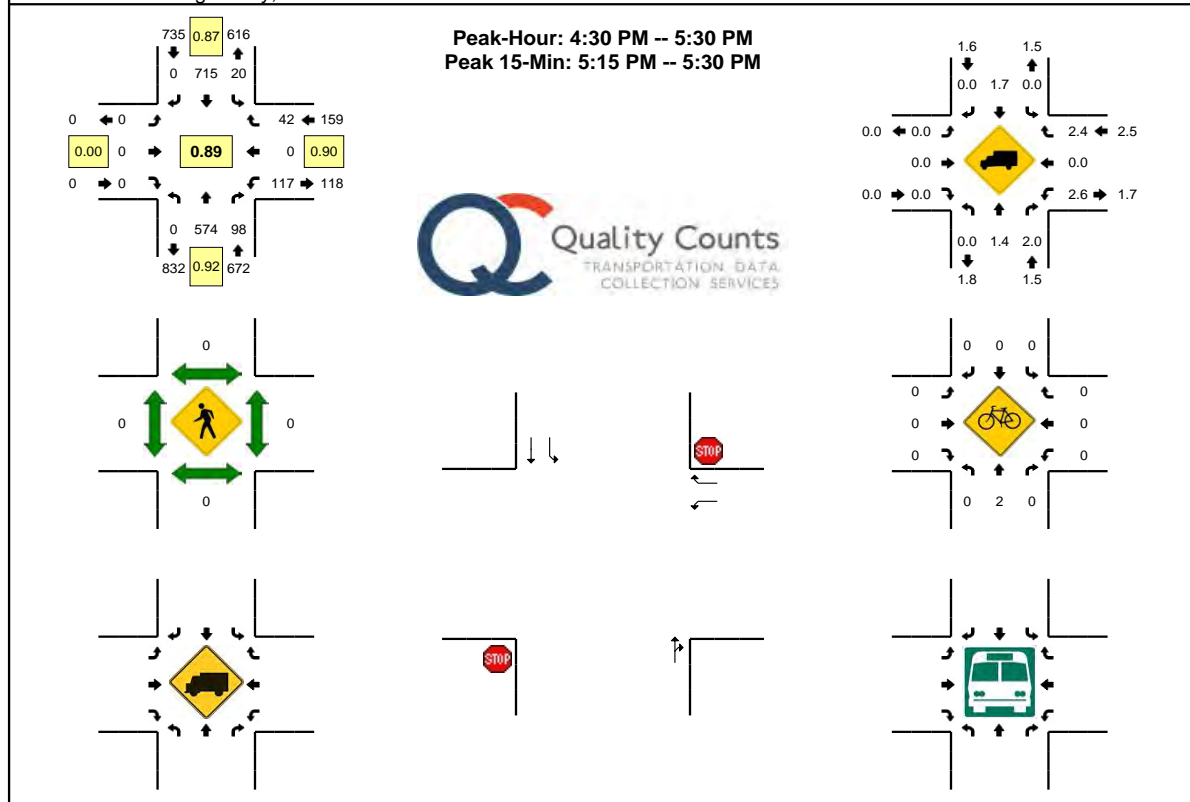
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Molalla Ave/7th St -- Taylor St/7th St
CITY/STATE: Oregon City, OR

QC JOB #: 10624810
DATE: 6/2/2011



5-Min Count Period Beginning At	Molalla Ave/7th St (Northbound)				Molalla Ave/7th St (Southbound)				Taylor St/7th St (Eastbound)				Taylor St/7th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	51	8	0	3	61	0	0	0	0	0	0	16	0	1	0	140	
4:05 PM	0	53	10	0	4	61	0	0	0	0	0	0	7	0	3	0	138	
4:10 PM	0	50	7	0	1	46	0	0	0	0	0	0	9	0	2	0	115	
4:15 PM	0	44	4	0	5	64	0	0	0	0	0	0	6	0	1	0	124	
4:20 PM	0	44	8	0	3	56	0	0	0	0	0	0	13	0	3	0	127	
4:25 PM	0	36	9	0	4	57	0	0	0	0	0	0	8	0	3	0	117	
4:30 PM	0	45	5	0	0	61	0	0	0	0	0	0	14	0	5	0	130	
4:35 PM	0	55	7	0	1	43	0	0	0	0	0	0	13	0	1	0	120	
4:40 PM	0	36	9	0	2	64	0	0	0	0	0	0	7	0	5	0	123	
4:45 PM	0	51	12	0	1	72	0	0	0	0	0	0	6	0	4	0	146	
4:50 PM	0	43	8	0	4	52	0	0	0	0	0	0	11	0	1	0	119	
4:55 PM	0	37	10	0	2	45	0	0	0	0	0	0	9	0	3	0	106	
5:00 PM	0	51	8	0	1	48	0	0	0	0	0	0	7	0	0	0	115	1505
5:05 PM	0	47	12	0	1	59	0	0	0	0	0	0	10	0	7	0	136	1478
5:10 PM	0	47	7	0	0	67	0	0	0	0	0	0	9	0	3	0	133	1496
5:15 PM	0	62	6	0	2	68	0	0	0	0	0	0	11	0	6	0	155	1527
5:20 PM	0	48	8	0	2	55	0	0	0	0	0	0	8	0	5	0	126	1526
5:25 PM	0	52	6	0	4	81	0	0	0	0	0	0	12	0	2	0	157	1566
5:30 PM	0	45	11	0	4	50	0	0	0	0	0	0	8	0	0	0	118	1554
5:35 PM	0	46	12	0	4	66	0	0	0	0	0	0	5	0	4	0	137	1571
5:40 PM	0	40	5	0	3	49	0	0	0	0	0	0	15	0	1	0	113	1561
5:45 PM	0	40	9	0	3	50	0	0	0	0	0	0	8	0	0	0	110	1525
5:50 PM	0	28	9	0	1	57	0	0	0	0	0	0	17	0	0	0	112	1518
5:55 PM	0	45	14	0	3	64	0	0	0	0	0	0	6	0	0	0	132	1544
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	648	80	0	32	816	0	0	0	0	0	0	124	0	52	0	1752	
Heavy Trucks	0	12	0	0	0	8	0	0	0	0	0	0	4	0	0	0	24	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	
Railroad																		
Stopped Buses																		

Comments: Molalla area map reference 1

Report generated on 7/6/2011 11:53 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

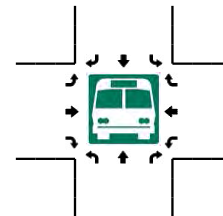
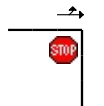
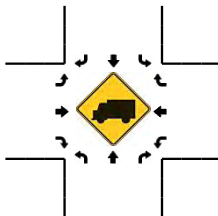
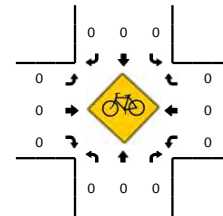
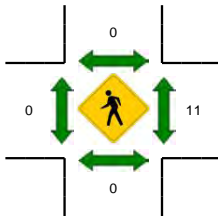
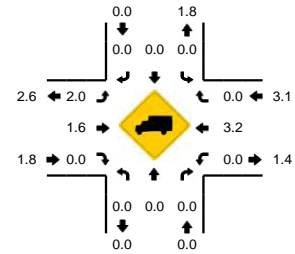
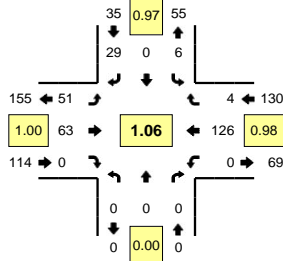
Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Taylor St -- 7th St
CITY/STATE: Oregon City, OR

QC JOB #: 10624812
DATE: 6/2/2011

Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 5:15 PM -- 5:30 PM



5-Min Count Period Beginning At	Taylor St (Northbound)				Taylor St (Southbound)				7th St (Eastbound)				7th St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	0	0	0	0	0	6	0	5	6	0	0	0	12	0	0	29	
4:05 PM	0	0	0	0	1	0	3	0	7	8	0	0	0	8	1	0	28	
4:10 PM	0	0	0	0	0	0	1	0	5	2	0	0	0	9	0	0	17	
4:15 PM	0	0	0	0	1	0	1	0	3	7	0	0	0	8	1	0	21	
4:20 PM	0	0	0	0	0	0	1	0	3	6	0	0	0	12	0	0	22	
4:25 PM	0	0	0	0	0	0	0	0	5	9	0	0	0	11	1	0	26	
4:30 PM	0	0	0	0	0	0	3	0	3	2	0	0	0	14	0	0	22	
4:35 PM	0	0	0	0	0	0	4	0	3	5	0	0	0	8	1	0	21	
4:40 PM	0	0	0	0	0	0	2	0	4	7	0	0	0	10	1	0	24	
4:45 PM	0	0	0	0	3	0	3	0	5	7	0	0	0	9	0	0	27	
4:50 PM	0	0	0	0	0	0	6	0	5	7	0	0	0	6	0	0	24	
4:55 PM	0	0	0	0	0	0	2	0	5	7	0	0	0	9	0	0	23	
5:00 PM	0	0	0	0	1	0	1	0	5	5	0	0	0	9	0	0	21	284
5:05 PM	0	0	0	0	0	0	0	0	10	2	0	0	0	17	1	0	30	276
5:10 PM	0	0	0	0	1	0	0	0	4	4	0	0	0	11	1	0	21	278
5:15 PM	0	0	0	0	1	0	2	0	1	3	0	0	0	14	0	0	21	282
5:20 PM	0	0	0	0	0	0	1	0	5	5	0	0	0	10	0	0	21	281
5:25 PM	0	0	0	0	0	0	5	0	1	9	0	0	0	9	0	0	24	279
5:30 PM	0	0	0	0	1	0	2	0	5	10	0	0	0	6	0	0	24	281
5:35 PM	0	0	0	0	0	0	2	0	9	7	0	0	0	7	0	0	25	285
5:40 PM	0	0	0	0	1	0	4	0	4	4	0	0	0	12	0	0	25	286
5:45 PM	0	0	0	0	0	0	3	0	7	5	0	0	0	6	0	0	21	280
5:50 PM	0	0	0	0	0	0	6	0	6	4	0	0	0	11	1	0	28	284
5:55 PM	0	0	0	0	0	0	1	0	9	8	0	0	0	5	0	0	23	284
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
All Vehicles	0	0	0	0	4	0	32	0	28	68	0	0	0	132	0	0	264	
Heavy Trucks	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	4	0	0	4	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments: Molalla area map reference 1

Report generated on 7/6/2011 11:53 AM

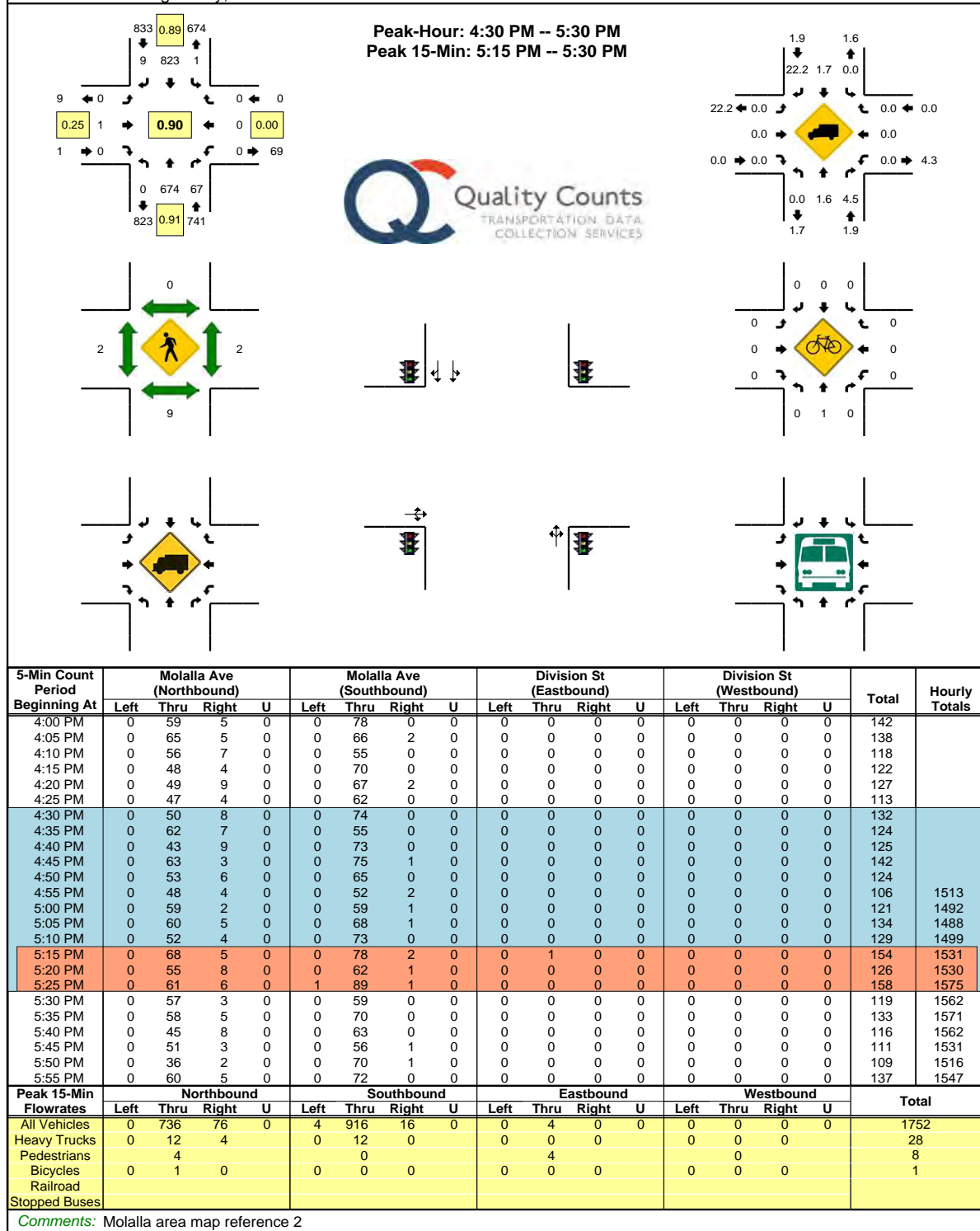
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Molalla Ave -- Division St
CITY/STATE: Oregon City, OR

QC JOB #: 10624814
DATE: 6/2/2011



Report generated on 7/6/2011 11:53 AM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

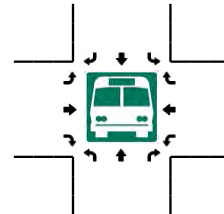
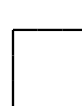
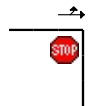
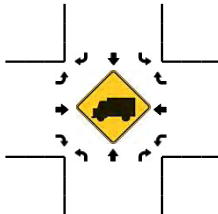
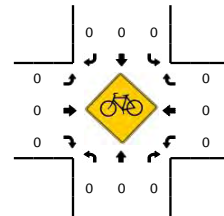
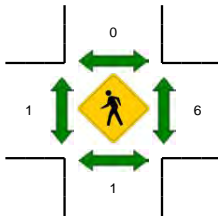
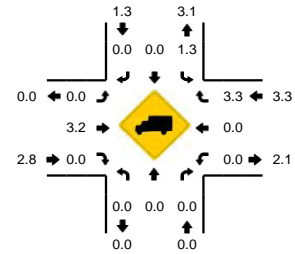
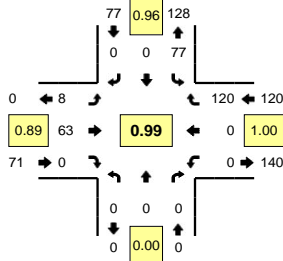
Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: 7th St -- Division St
CITY/STATE: Oregon City, OR

QC JOB #: 10624816
DATE: 6/2/2011

Peak-Hour: 4:30 PM -- 5:30 PM
Peak 15-Min: 5:15 PM -- 5:30 PM



5-Min Count Period Beginning At	7th St (Northbound)				7th St (Southbound)				Division St (Eastbound)				Division St (Westbound)				Total	Hourly Totals	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U			
4:00 PM	0	0	0	0	6	0	0	0	0	5	0	0	0	0	0	12	0	23	
4:05 PM	0	0	0	0	8	0	0	0	0	5	0	0	0	0	0	10	0	23	
4:10 PM	0	0	0	0	2	0	0	0	0	6	0	0	0	0	0	9	0	17	
4:15 PM	0	0	0	0	6	0	0	0	0	4	0	0	0	0	0	9	0	19	
4:20 PM	0	0	0	0	5	0	0	0	1	7	0	0	0	0	0	10	0	23	
4:25 PM	0	0	0	0	8	0	0	0	1	5	0	0	0	0	0	10	0	24	
4:30 PM	0	0	0	0	3	0	0	0	1	7	0	0	0	0	0	15	0	26	263 255 259 266
4:35 PM	0	0	0	0	6	0	0	0	1	6	0	0	0	0	0	7	0	20	
4:40 PM	0	0	0	0	7	0	0	0	0	7	0	0	0	0	0	10	0	24	
4:45 PM	0	0	0	0	10	0	0	0	1	5	0	0	0	0	0	8	0	24	
4:50 PM	0	0	0	0	7	0	0	0	0	8	0	0	0	0	0	7	0	22	
4:55 PM	0	0	0	0	6	0	0	0	1	3	0	0	0	0	0	8	0	18	
5:00 PM	0	0	0	0	6	0	0	0	1	1	0	0	0	0	0	7	0	15	
5:05 PM	0	0	0	0	3	0	0	0	1	4	0	0	0	0	0	19	0	27	
5:10 PM	0	0	0	0	9	0	0	0	0	4	0	0	0	0	0	11	0	24	
5:15 PM	0	0	0	0	7	0	0	0	1	5	0	0	0	0	0	11	0	24	
5:20 PM	0	0	0	0	5	0	0	0	1	7	0	0	0	0	0	10	0	23	
5:25 PM	0	0	0	0	8	0	0	0	0	6	0	0	0	0	0	7	0	21	
5:30 PM	0	0	0	0	11	0	0	0	0	3	0	0	0	0	0	6	0	20	
5:35 PM	0	0	0	0	7	0	0	0	1	5	0	0	0	0	0	6	0	19	
5:40 PM	0	0	0	0	4	0	0	0	0	7	0	0	0	0	0	12	0	23	
5:45 PM	0	0	0	0	8	0	0	0	0	5	0	0	0	0	0	10	0	23	
5:50 PM	0	0	0	0	4	0	0	0	0	3	0	0	0	0	0	9	0	16	
5:55 PM	0	0	0	0	7	0	0	0	0	3	0	0	0	0	0	6	0	16	
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total		
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U			
	0	0	0	0	80	0	0	0	8	72	0	0	0	0	0	112		0	
	0	0	0		0	0	0		0	4	0		0	0	4				
		4				0				4				0					
	0	0	0		0	0	0		0	0	0		0	0	0				
Railroad																			
Stopped Buses																			

Comments: Molalla area map reference 3

Report generated on 7/6/2011 11:53 AM

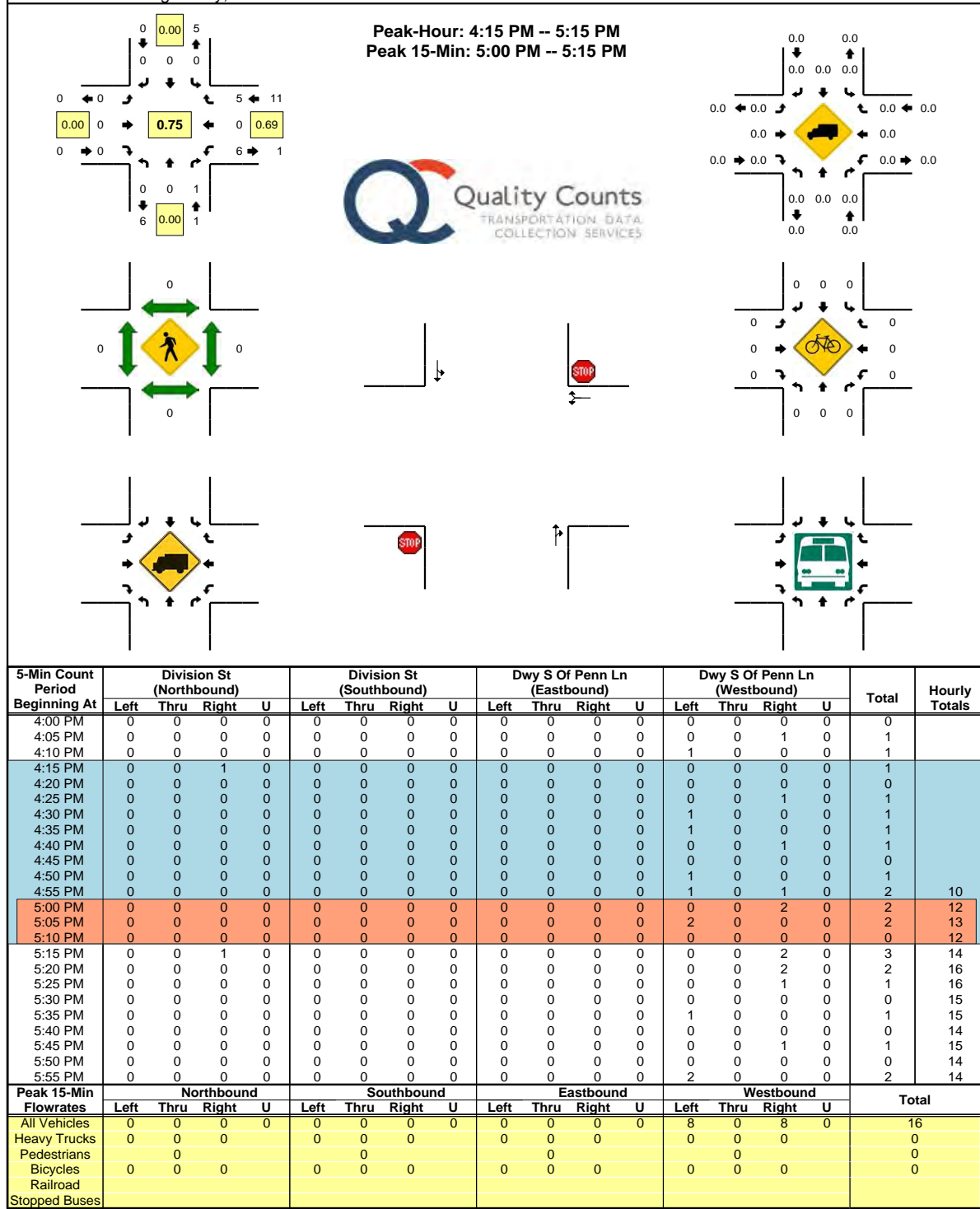
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- Dwy S Of Penn Ln
CITY/STATE: Oregon City, OR

QC JOB #: 10624818
DATE: 6/2/2011



Report generated on 7/6/2011 12:20 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Method for determining peak hour: Total Entering Volume

QC JOB #: 10624820
DATE: 6/2/2011



Comments: Campus area map reference 2

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

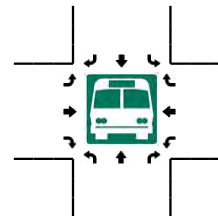
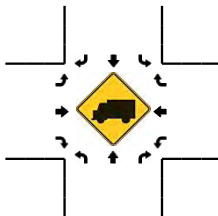
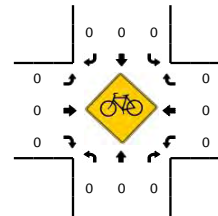
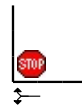
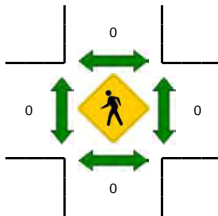
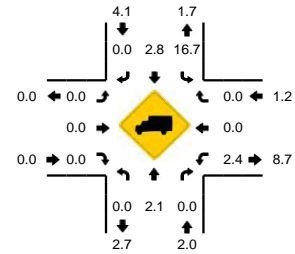
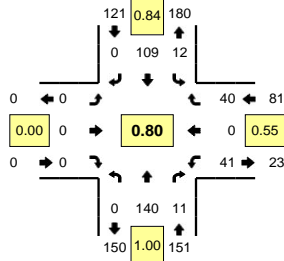
Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- Davis St
CITY/STATE: Oregon City, OR

QC JOB #: 10624822
DATE: 6/2/2011

Peak-Hour: 4:15 PM -- 5:15 PM
Peak 15-Min: 5:00 PM -- 5:15 PM



5-Min Count Period Beginning At	Division St (Northbound)				Division St (Southbound)				Davis St (Eastbound)				Davis St (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	12	0	0	2	9	0	0	0	0	0	0	8	0	1	0	32	
4:05 PM	0	8	1	0	2	7	0	0	0	0	0	0	3	0	0	0	21	
4:10 PM	0	14	1	0	4	13	0	0	0	0	0	0	6	0	2	0	40	
4:15 PM	0	7	3	0	1	13	0	0	0	0	0	0	2	0	1	0	27	
4:20 PM	0	12	0	0	0	12	0	0	0	0	0	0	0	0	3	0	27	
4:25 PM	0	8	0	0	1	8	0	0	0	0	0	0	0	0	4	0	21	
4:30 PM	0	13	1	0	0	10	0	0	0	0	0	0	4	0	1	0	29	
4:35 PM	0	16	1	0	2	5	0	0	0	0	0	0	6	0	8	0	38	
4:40 PM	0	5	2	0	1	9	0	0	0	0	0	0	3	0	2	0	22	
4:45 PM	0	15	2	0	1	2	0	0	0	0	0	0	2	0	3	0	25	
4:50 PM	0	12	0	0	1	9	0	0	0	0	0	0	2	0	1	0	25	
4:55 PM	0	16	1	0	1	9	0	0	0	0	0	0	0	0	2	0	29	336
5:00 PM	0	9	1	0	3	7	0	0	0	0	0	0	4	0	4	0	28	332
5:05 PM	0	9	0	0	1	11	0	0	0	0	0	0	12	0	7	0	40	351
5:10 PM	0	18	0	0	0	14	0	0	0	0	0	0	6	0	4	0	42	353
5:15 PM	0	15	0	0	0	8	0	0	0	0	0	0	5	0	0	0	28	354
5:20 PM	0	9	1	0	1	8	0	0	0	0	0	0	1	0	4	0	24	351
5:25 PM	0	10	0	0	0	7	0	0	0	0	0	0	1	0	0	0	18	348
5:30 PM	0	4	1	0	1	7	0	0	0	0	0	0	5	0	5	0	23	342
5:35 PM	0	12	2	0	0	5	0	0	0	0	0	0	6	0	3	0	28	332
5:40 PM	0	14	2	0	0	7	0	0	0	0	0	0	1	0	2	0	26	336
5:45 PM	0	7	2	0	0	14	0	0	0	0	0	0	2	0	1	0	26	337
5:50 PM	0	8	1	0	1	10	0	0	0	0	0	0	1	0	3	0	24	336
5:55 PM	0	5	0	0	2	9	0	0	0	0	0	0	1	0	1	0	18	325
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
All Vehicles	0	144	4	0	16	128	0	0	0	0	0	0	88	0	60	0	440	
Heavy Trucks	0	0	0	0	4	8	0	0	0	0	0	0	4	0	0	0	16	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

Comments: Campus area map reference 2

Report generated on 7/6/2011 12:20 PM

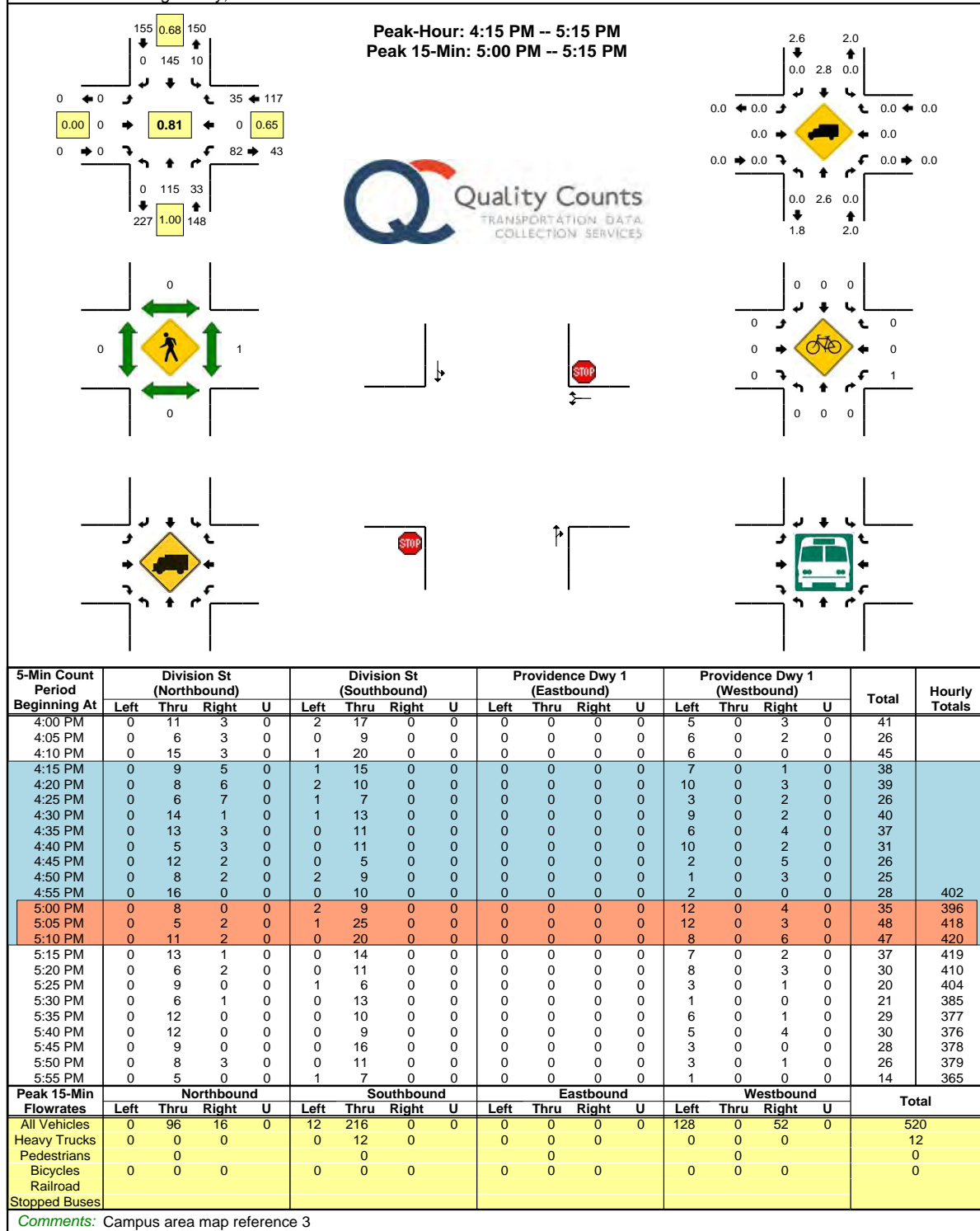
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- Providence Dwy 1
CITY/STATE: Oregon City, OR

QC JOB #: 10624824
DATE: 6/2/2011



Report generated on 7/6/2011 12:20 PM

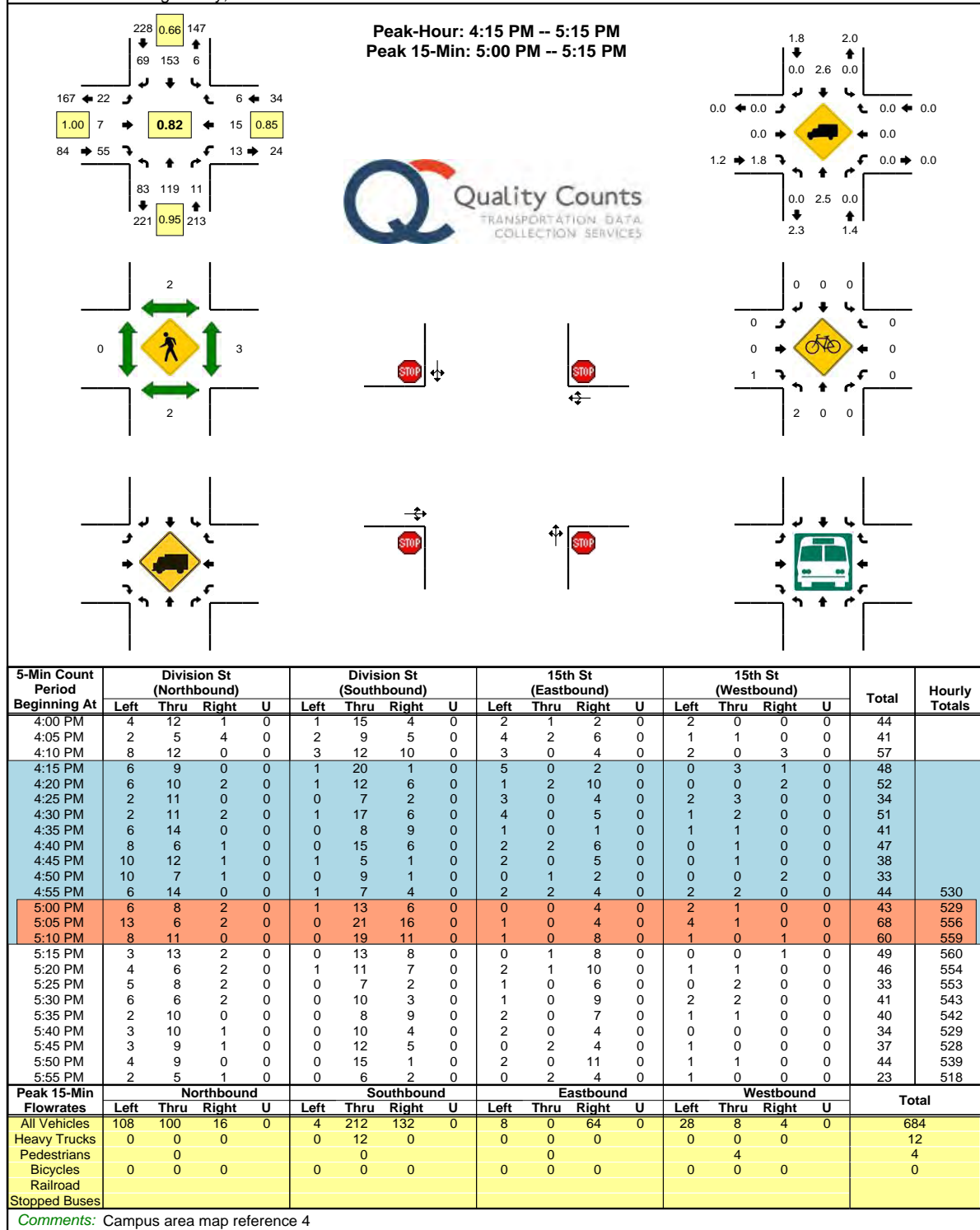
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- 15th St
CITY/STATE: Oregon City, OR

QC JOB #: 10624826
DATE: 6/2/2011



Report generated on 7/6/2011 12:20 PM

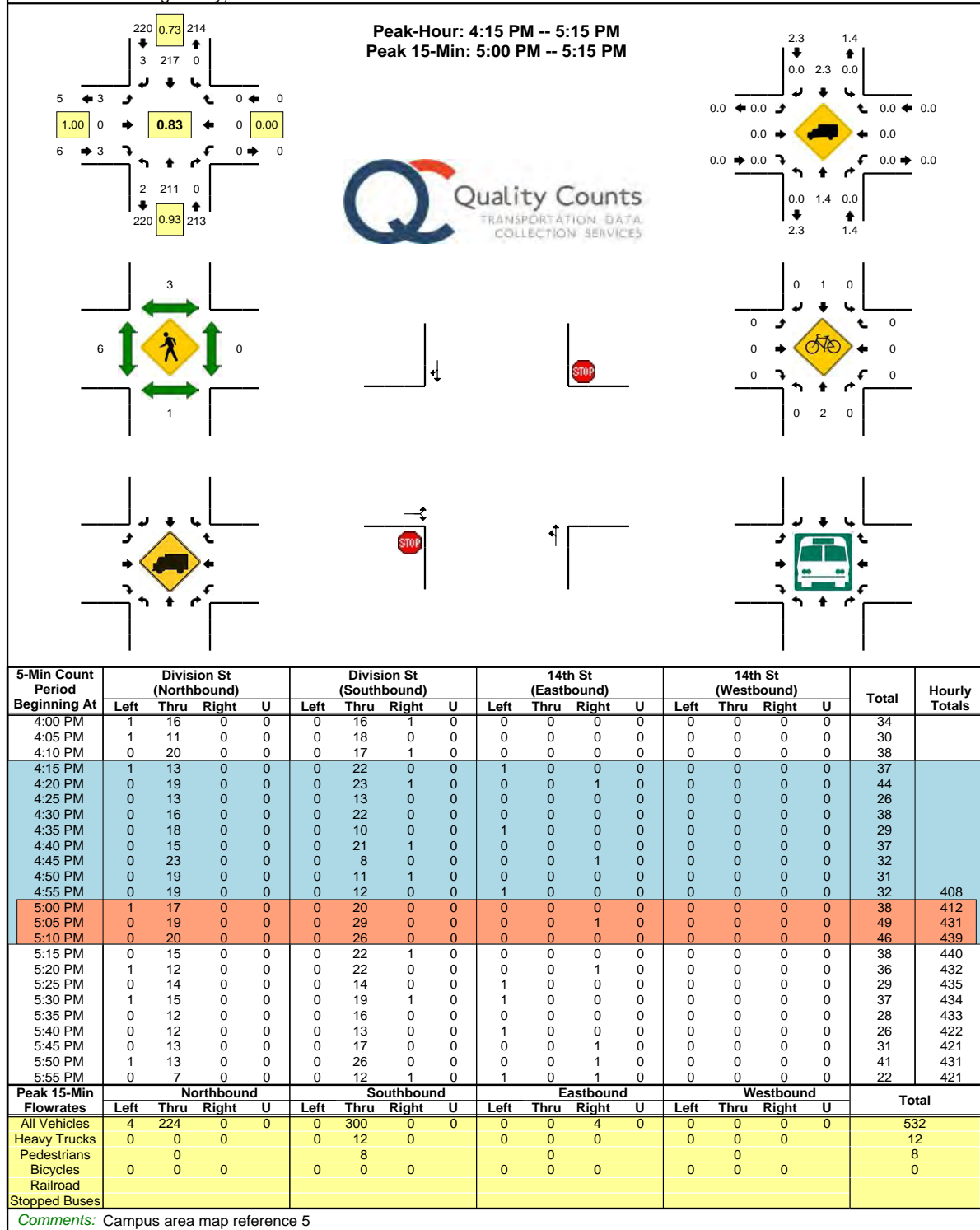
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- 14th St
CITY/STATE: Oregon City, OR

QC JOB #: 10624828
DATE: 6/2/2011



Report generated on 7/6/2011 12:20 PM

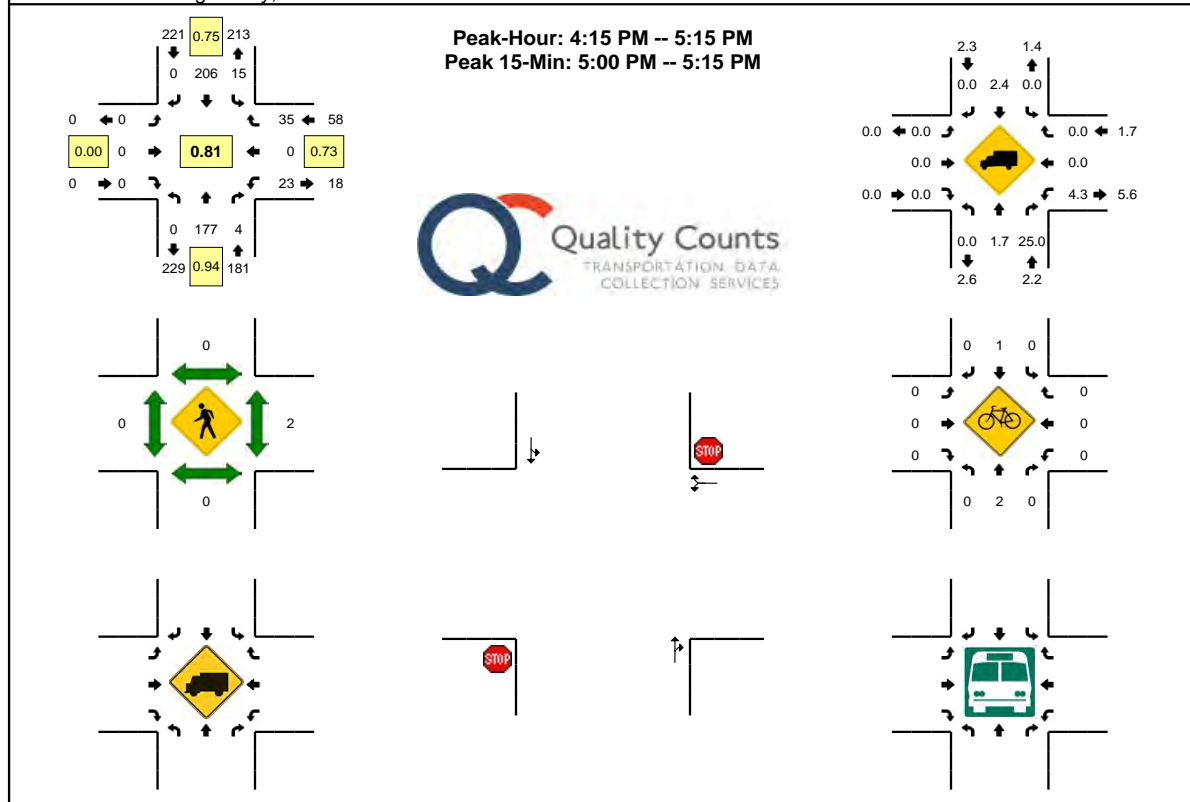
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Division St -- Providence Dwy 2
CITY/STATE: Oregon City, OR

QC JOB #: 10624830
DATE: 6/2/2011



5-Min Count Period Beginning At	Division St (Northbound)				Division St (Southbound)				Providence Dwy 2 (Eastbound)				Providence Dwy 2 (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	0	17	0	0	3	13	0	0	0	0	0	0	0	0	0	0	33	
4:05 PM	0	10	0	0	3	14	0	1	0	0	0	0	2	0	2	0	32	
4:10 PM	0	19	0	0	1	16	0	0	0	0	0	0	2	0	1	0	39	
4:15 PM	0	13	1	0	1	21	0	0	0	0	0	0	1	0	2	0	39	422
4:20 PM	0	17	0	0	2	22	0	0	0	0	0	0	1	0	1	0	43	
4:25 PM	0	10	0	0	2	12	0	0	0	0	0	0	2	0	3	0	29	
4:30 PM	0	13	1	0	0	21	0	0	0	0	0	0	2	0	3	0	40	
4:35 PM	0	15	0	0	1	11	0	0	0	0	0	0	1	0	3	0	31	
4:40 PM	0	12	0	0	1	19	0	0	0	0	0	0	2	0	3	0	37	
4:45 PM	0	21	1	0	1	9	0	0	0	0	0	0	0	0	4	0	36	
4:50 PM	0	14	0	0	1	10	0	0	0	0	0	0	2	0	3	0	30	
4:55 PM	0	15	0	0	2	11	0	0	0	0	0	0	1	0	4	0	33	
5:00 PM	0	15	0	0	2	17	0	0	0	0	0	0	2	0	3	0	39	428
5:05 PM	0	16	0	0	0	30	0	0	0	0	0	0	6	0	2	0	54	450
5:10 PM	0	16	1	0	1	23	0	1	0	0	0	0	3	0	4	0	49	460
5:15 PM	0	14	1	0	0	21	0	0	0	0	0	0	1	0	2	0	39	460
5:20 PM	0	14	1	0	1	21	0	0	0	0	0	0	0	0	1	0	38	455
5:25 PM	0	11	1	0	1	14	0	0	0	0	0	0	0	0	4	0	31	457
5:30 PM	0	13	1	0	0	18	0	0	0	0	0	0	1	0	3	0	36	453
5:35 PM	0	11	0	0	0	18	0	0	0	0	0	0	1	0	1	0	31	453
5:40 PM	0	11	2	0	0	13	0	0	0	0	0	0	2	0	1	0	29	445
5:45 PM	0	14	0	0	2	16	0	0	0	0	0	0	1	0	1	0	34	443
5:50 PM	0	9	0	0	1	22	0	0	0	0	0	0	1	0	3	0	36	449
5:55 PM	0	6	4	0	1	15	0	0	0	0	0	0	0	0	2	0	28	444
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	188	4	0	12	280	0	4	0	0	0	0	44	0	36	0	568	
Heavy Trucks	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	12	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Railroad																		
Stopped Buses																		

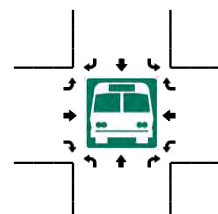
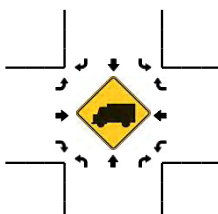
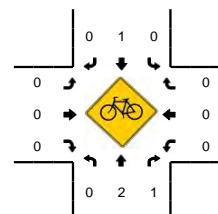
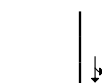
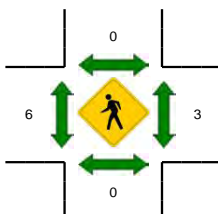
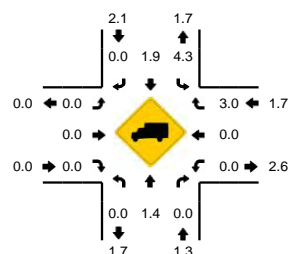
Comments: Campus area map reference 6

Report generated on 7/6/2011 12:20 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Method for determining peak hour: Total Entering Volume

QC JOB #: 10624832
DATE: 6/2/2011



Comments: Campus area map reference 7

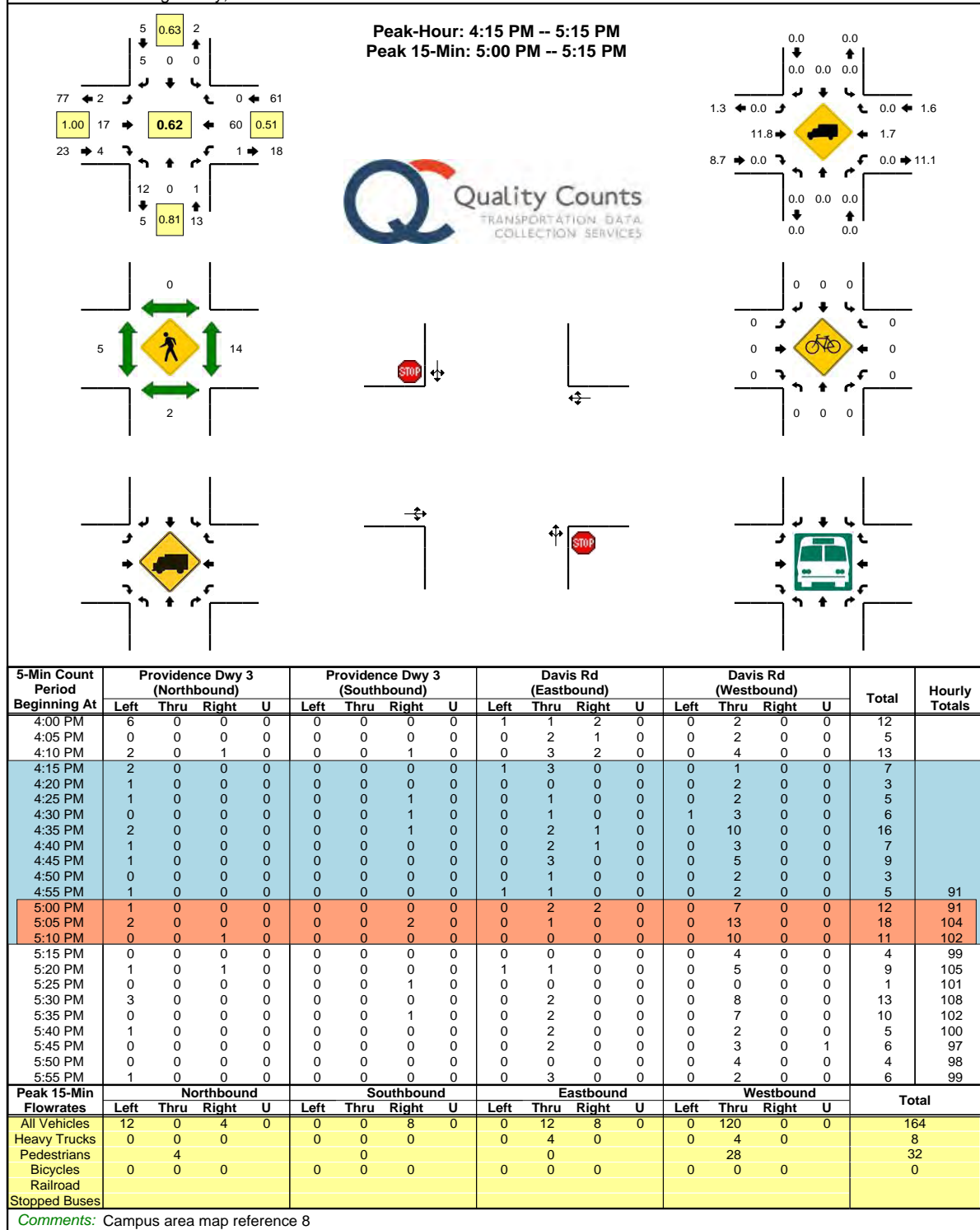
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Providence Dwy 3 -- Davis Rd
CITY/STATE: Oregon City, OR

QC JOB #: 10624834
DATE: 6/2/2011



Report generated on 7/6/2011 12:20 PM

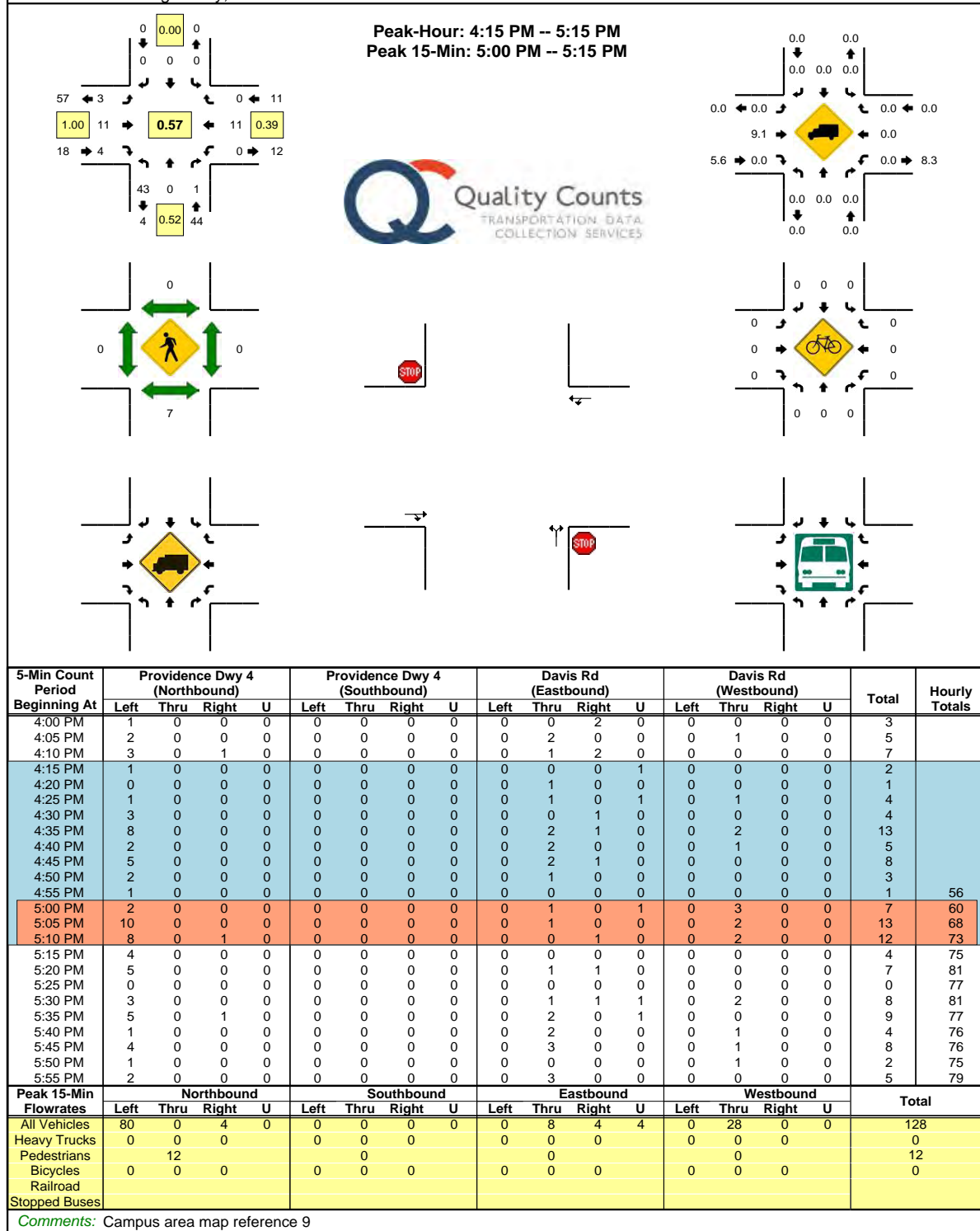
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Providence Dwy 4 -- Davis Rd
CITY/STATE: Oregon City, OR

QC JOB #: 10624836
DATE: 6/2/2011



Report generated on 7/6/2011 12:20 PM

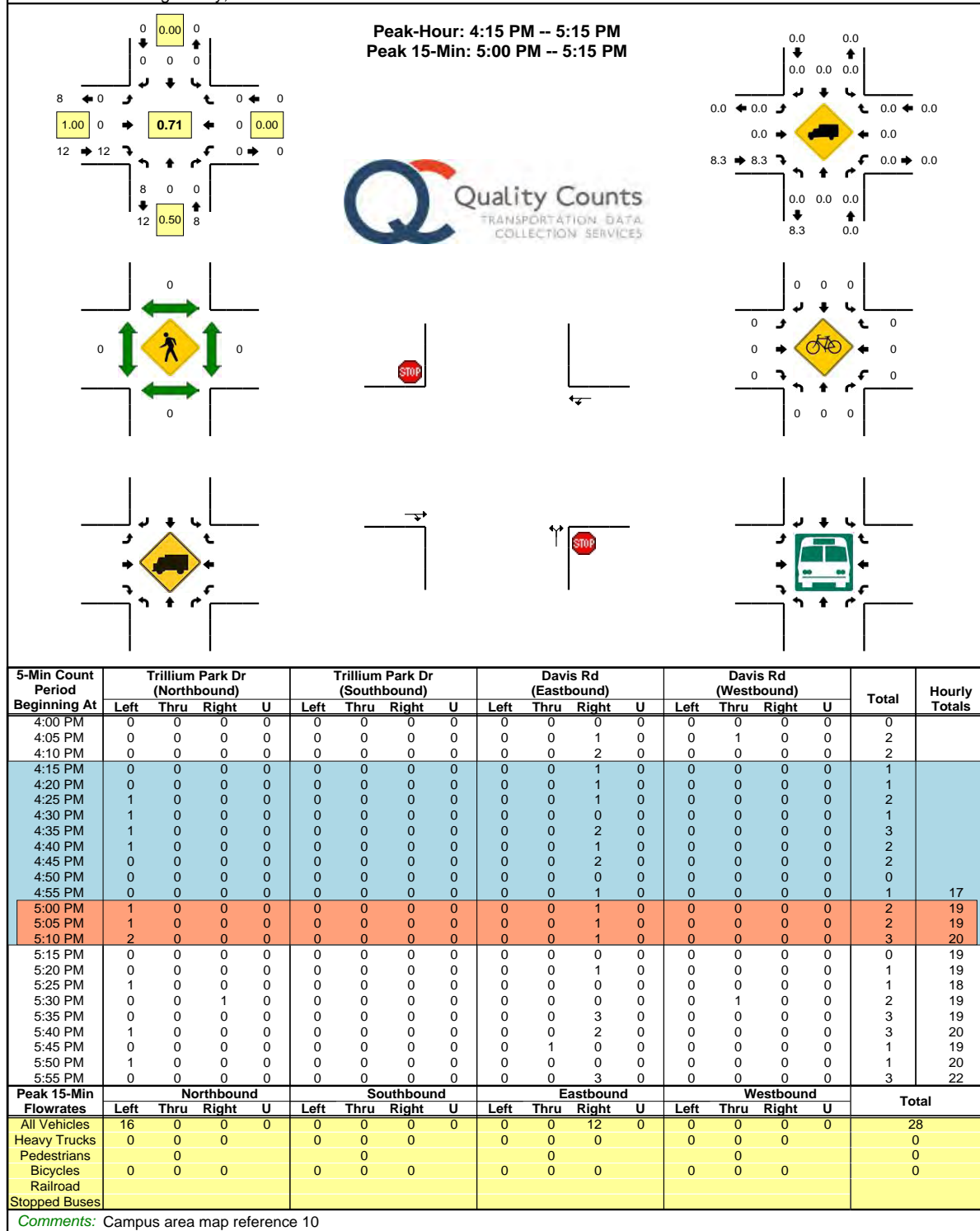
SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

Type of peak hour being reported: System Peak

Method for determining peak hour: Total Entering Volume

LOCATION: Trillium Park Dr -- Davis Rd
CITY/STATE: Oregon City, OR

QC JOB #: 10624838
DATE: 6/2/2011



Report generated on 7/6/2011 12:20 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>)

**Appendix B Description of Level-of-Service
and Volume-to-Capacity
Methods and Criteria**

APPENDIX B LEVEL-OF-SERVICE AND VOLUME-TO-CAPACITY CONCEPTS

Level-of-Service Concept

Level of service (LOS) is a concept developed to quantify the degree of comfort (including such elements as travel time, number of stops, total amount of stopped delay, and impediments caused by other vehicles) afforded to drivers as they travel through an intersection or roadway segment. Six grades are used to denote the various level of service from “A” to “F.”¹

SIGNALIZED INTERSECTIONS

The six level-of-service grades are described qualitatively for signalized intersections in Table B1. Additionally, Table B2 identifies the relationship between level of service and average control delay per vehicle. Control delay is defined to include initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. Using this definition, Level of Service “D” is generally considered to represent the minimum acceptable design standard.

Table B1 Level-of-Service Definitions (Signalized Intersections)

Level of Service	Average Delay per Vehicle
A	Very low average control delay, less than 10 seconds per vehicle. This occurs when progression is extremely favorable, and most vehicles arrive during the green phase. Most vehicles do not stop at all. Short cycle lengths may also contribute to low delay.
B	Average control delay is greater than 10 seconds per vehicle and less than or equal to 20 seconds per vehicle. This generally occurs with good progression and/or short cycle lengths. More vehicles stop than for a level of service A, causing higher levels of average delay.
C	Average control delay is greater than 20 seconds per vehicle and less than or equal to 35 seconds per vehicle. These higher delays may result from fair progression and/or longer cycle lengths. Individual cycle failures may begin to appear at this level. The number of vehicles stopping is significant at this level, although many still pass through the intersection without stopping.
D	Average control delay is greater than 35 seconds per vehicle and less than or equal to 55 seconds per vehicle. The influence of congestion becomes more noticeable. Longer delays may result from some combination of unfavorable progression, long cycle length, or high volume/capacity ratios. Many vehicles stop, and the proportion of vehicles not stopping declines. Individual cycle failures are noticeable.
E	Average control delay is greater than 55 seconds per vehicle and less than or equal to 80 seconds per vehicle. This is usually considered to be the limit of acceptable delay. These high delay values generally (but not always) indicate poor progression, long cycle lengths, and high volume/capacity ratios. Individual cycle failures are frequent occurrences.
F	Average control delay is in excess of 80 seconds per vehicle. This is considered to be unacceptable to most drivers. This condition often occurs with oversaturation. It may also occur at high volume/capacity ratios below 1.0 with many individual cycle failures. Poor progression and long cycle lengths may also contribute to such high delay values.

¹Most of the material in this appendix is adapted from the Transportation Research Board, *Highway Capacity Manual*, 2000.

Table B2 Level-of-Service Criteria for Signalized Intersections

Level of Service	Average Control Delay per Vehicle (Seconds)
A	<10.0
B	>10 and ≤20
C	>20 and ≤35
D	>35 and ≤55
E	>55 and ≤80
F	>80

UNSIGNALIZED INTERSECTIONS

Unsignalized intersections include two-way stop-controlled (TWSC) and all-way stop-controlled (AWSC) intersections. The *2000 Highway Capacity Manual* (HCM) provides models for estimating control delay at both TWSC and AWSC intersections. A qualitative description of the various service levels associated with an unsignalized intersection is presented in Table B3. A quantitative definition of level of service for unsignalized intersections is presented in Table B4. Using this definition, Level of Service “E” is generally considered to represent the minimum acceptable design standard.

Table B3 Level-of-Service Definitions (Unsignalized Intersections)

Level of Service	Average Delay per Vehicle to Minor Street
A	<ul style="list-style-type: none"> Nearly all drivers find freedom of operation. Very seldom is there more than one vehicle in queue.
B	<ul style="list-style-type: none"> Some drivers begin to consider the delay an inconvenience. Occasionally there is more than one vehicle in queue.
C	<ul style="list-style-type: none"> Many times there is more than one vehicle in queue. Most drivers feel restricted, but not objectionably so.
D	<ul style="list-style-type: none"> Often there is more than one vehicle in queue. Drivers feel quite restricted.
E	<ul style="list-style-type: none"> Represents a condition in which the demand is near or equal to the probable maximum number of vehicles that can be accommodated by the movement. There is almost always more than one vehicle in queue. Drivers find the delays approaching intolerable levels.
F	<ul style="list-style-type: none"> Forced flow. Represents an intersection failure condition that is caused by geometric and/or operational constraints external to the intersection.

Table B4 Level-of-Service Criteria for Unsignalized Intersections

Level of Service	Average Control Delay per Vehicle (Seconds)
A	<10.0
B	>10.0 and ≤ 15.0
C	>15.0 and ≤ 25.0
D	>25.0 and ≤ 35.0
E	>35.0 and ≤ 50.0
F	>50.0

It should be noted that the level-of-service criteria for unsignalized intersections are somewhat different than the criteria used for signalized intersections. The primary reason for this difference is that drivers expect different levels of performance from different kinds of transportation facilities. The expectation is that a signalized intersection is designed to carry higher traffic volumes than an unsignalized intersection. Additionally, there are a number of driver behavior considerations that combine to make delays at signalized intersections less galling than at unsignalized intersections. For example, drivers at signalized intersections are able to relax during the red interval, while drivers on the minor street approaches to TWSC intersections must remain attentive to the task of identifying acceptable gaps and vehicle conflicts. Also, there is often much more variability in the amount of delay experienced by individual drivers at unsignalized intersections than signalized intersections. For these reasons, it is considered that the control delay threshold for any given level of service is less for an unsignalized intersection than for a signalized intersection. While overall intersection level of service is calculated for AWSC intersections, level of service is only calculated for the minor approaches and the major street left turn movements at TWSC intersections. No delay is assumed to the major street through movements. For TWSC intersections, the overall intersection level of service remains undefined: level of service is only calculated for each minor street lane.

In the performance evaluation of TWSC intersections, it is important to consider other measures of effectiveness (MOEs) in addition to delay, such as v/c ratios for individual movements, average queue lengths, and 95th-percentile queue lengths. By focusing on a single MOE for the worst movement only, such as delay for the minor-street left turn, users may make inappropriate traffic control decisions. The potential for making such inappropriate decisions is likely to be particularly pronounced when the HCM level-of-service thresholds are adopted as legal standards, as is the case in many public agencies.

Volume-To-Capacity Concept

The Highway Capacity Manual 2000 defines capacity as “the maximum number of vehicles that can pass a certain point during a specified period under prevailing roadway, traffic, and control conditions.” Capacity analysis examines segments or points (such as signalized intersections) of a facility under uniform traffic, roadway, and control conditions. These conditions determine capacity; therefore, segments with different prevailing conditions will have different capacities.

Capacity is not the absolute maximum flow rate – driver characteristics vary from region to region, and the absolute maximum capacity can vary from day to day and location to location.

SIGNALIZED INTERSECTIONS

Capacity at signalized intersections is defined for each lane group. The lane group capacity is the maximum hourly rate at which vehicles can reasonably be expected to pass through the intersection under prevailing conditions. The ratio of flow rate to capacity (v/c), often called the volume to capacity ratio, is typically referred to as the degree of saturation. The critical v/c ratio (also known as the intersection v/c ratio) depends on the conflicting critical lane flow rates and the signal phasing, and considers only the lane groups that have the highest flow ratio (v/s) for a given signal phase.

The Oregon Highway Plan Action 1F.6 identifies maximum v/c thresholds for signalized intersections for areas within and outside of MPO areas. These are summarized below in Tables A5 and A6.

Table B5 Maximum Volume-To-Capacity Ratios for Peak Hour Operating Conditions¹

Maximum Volume-To-Capacity Ratios Outside Metro2							
Highway Category	Inside Urban Growth Boundary					Outside Urban Growth Boundary	
	STAs	MPO	Non-MPO outside of STAs where non-freeway posted speed <= 35 mph, or a Designated UBA	Non-MPO outside of STAs where non-freeway speed limit > 35 mph	Non-MPO where non-freeway speed limit >= 45 mph	Unincorporated Communities	Rural Lands
Interstate Highways	N/A	0.80	N/A	0.70	0.70	0.70	0.70
Statewide Expressways	N/A	0.80	0.70	0.70	0.70	0.70	0.70
Freight Route on a Statewide Highway	0.85	0.80	0.80	0.75	0.70	0.70	0.70
Statewide (not a freight route)	0.90	0.85	0.85	0.80	0.75	0.75	0.70
Freight Route on a Regional or District Highway	0.90	0.85	0.85	0.80	0.75	0.75	0.70
Expressway on a Regional or District Highway	N/A	0.85	N/A	0.80	0.75	0.75	0.70
Regional Highways	0.95	0.85	0.85	0.80	0.75	0.75	0.70
District/Local Interest Roads	0.95	0.90	0.90	0.85	0.80	0.80	0.75

¹ For Portland Metro and the Rouge Valley MPO see also OHP Amendment 00-04 amended Table 7 regarding Metro and established Alternative Mobility Standards for the RVMPO. Where there is a conflict between the Table 6 standards and the established alternative mobility standards, the more tolerant standard (higher v/c ratio) applies. The OHP amendments establishing the RVMPO and Metro alternative standards are located on the web at:

² National Highway System (NHS) highway designation requirements are addressed in the Highway Design Manual (HDM)

Table B6 Maximum Volume-To-Capacity Ratios within Portland Metropolitan Region¹

Location	Standard	
	1 st Hour	2 nd Hour
Central City Regional Centers Town Centers Main Streets Station Communities	1.1	0.99
Corridors ² Industrial Areas Intermodal Facilities Employment Areas Inner Neighborhoods Outer Neighborhoods	0.99	0.99
Banfield Freeway ³ (from I-5 to I-205)	1.1	0.99
I-5 North ³ (from Marquam Bridge to Interstate Bridge)	1.1	0.99
Highway 99E ³ (from Lincoln Street to Highway 224 Interchange)	1.1	0.99
Sunset Highway ³ (from I-405 to Sylvan interchange)	1.1	0.99
Stadium Freeway ³ (from I-5 South to I-5 North)	1.1	0.99
Other Principal Arterial Routes I-205 ³ I-84 (east of I-205) I-5 (Marquam Bridge to Wilsonville) Highway 217 ³ US 26 (west of Sylvan) Highway 30 Tualatin Valley Hwy ³ (Cedar Hills Blvd. to Brookwood Avenue) Highway 224 ³ Highway 47 Highway 213 242nd /US 26 in Gresham	0.99	0.99
Areas of Special Concern		Areas with this designation are planned for mixed use development, but are also characterized by physical, environmental or other constraints that limit the range of acceptable transportation solutions for addressing a high level-of-service need, but where alternative routes for regional through-traffic are provided. In these areas, substitute performance measures are allowed by OAR.660.012.0060(1)(d). Provisions for determining the alternative performance measures are included in Section 6.7.7 of the 200 RTP. The OHP mobility standard for state highways in these areas applies until the alternative performance measures are adopted in local plans and approved by the Oregon Transportation Commission.
Beaverton Regional Center	1.0	
Highway 99W (I-5 to Tualatin Road)	0.95	



Notes for Table B6

Note: Maximum volume to capacity ratios for two hour peak hour operating conditions through a 20-year horizon for state highway sections within the Portland metropolitan area urban growth boundary.

¹ The volume to capacity ratios in the table are for the highest two consecutive hours or weekday traffic volumes. This is calculated by dividing the traffic volume for the average weekly two-hour PM peak by twice the hourly capacity.

² Corridors that are also state highways are 99W, Sandy Boulevard, Powell Boulevard, 82nd Avenue, North Portland Road, North Denver Street, Lombard Street, Hall Boulevard, Farmington Road, Canyon Road, Beaverton-Hillsdale Highway, Tualatin Valley Highway (from Hall Boulevard to Cedar Hills Boulevard and from Brookwood Street to E Street in Forest Grove), Scholls Ferry Road, 99E (from Milwaukie to Oregon City) and Highway 43.

³ Thresholds shown are for interim purposes only; refinement plans for these corridors are required in Metro Regional Transportation Plan and will include a recommended motor vehicle performance policy for each corridor.

UNSIGNALIZED INTERSECTIONS

For unsignalized intersections, capacity is determined using a gap acceptance model which calculates the potential capacity of each minor traffic stream in accordance with Equation 17-3 in the Highway Capacity Manual 2000. The potential capacity of a movement is a function of the conflicting flow rate expressed as an hourly rate, as well as the minor-street movement. The Oregon Highway Plan Action 1F.1 identifies maximum v/c thresholds for unsignalized intersections.

**Appendix C 2011 Existing Conditions Level-
of-Service Worksheets**

Queues

1: Redland Road & Cascade Highway

8/21/2011



Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	700	32	1841	1571	338
v/c Ratio	1.35	0.42	0.68	0.62	0.23
Control Delay	216.3	85.2	8.8	11.1	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	216.3	85.2	8.8	11.1	0.5
Queue Length 50th (ft)	~461	31	372	378	0
Queue Length 95th (ft)	#590	68	432	478	8
Internal Link Dist (ft)	811		359	441	
Turn Bay Length (ft)		350			
Base Capacity (vph)	518	182	2693	2536	1450
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	1.35	0.18	0.68	0.62	0.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

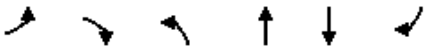
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis 1: Redland Road & Cascade Highway

8/21/2011










						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	←←←		←	↑↑	↑↑	←
Volume (vph)	595	56	30	1712	1461	314
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.97		1.00	0.95	0.95	1.00
Frt	0.99		1.00	1.00	1.00	0.85
Flt Protected	0.96		0.95	1.00	1.00	1.00
Satd. Flow (prot)	3288		1805	3406	3406	1524
Flt Permitted	0.96		0.95	1.00	1.00	1.00
Satd. Flow (perm)	3288		1805	3406	3406	1524
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	640	60	32	1841	1571	338
RTOR Reduction (vph)	5	0	0	0	0	39
Lane Group Flow (vph)	695	0	32	1841	1571	299
Heavy Vehicles (%)	6%	4%	0%	6%	6%	6%
Turn Type			Prot			pm+ov
Protected Phases	8		1	6	2	8
Permitted Phases						2
Actuated Green, G (s)	22.0		4.2	116.6	107.9	129.9
Effective Green, g (s)	23.4		4.7	118.6	109.9	132.7
Actuated g/C Ratio	0.16		0.03	0.79	0.73	0.88
Clearance Time (s)	5.4		4.5	6.0	6.0	5.4
Vehicle Extension (s)	0.5		0.5	4.8	4.8	0.5
Lane Grp Cap (vph)	513		57	2693	2495	1348
v/s Ratio Prot	c0.21		0.02	c0.54	0.46	0.03
v/s Ratio Perm						0.16
v/c Ratio	1.35		0.56	0.68	0.63	0.22
Uniform Delay, d1	63.3		71.6	7.2	10.0	1.2
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	172.0		7.3	1.4	1.2	0.0
Delay (s)	235.3		79.0	8.6	11.2	1.3
Level of Service	F		E	A	B	A
Approach Delay (s)	235.3			9.8	9.4	
Approach LOS	F			A	A	
Intersection Summary						
HCM Average Control Delay			44.9		HCM Level of Service	D
HCM Volume to Capacity ratio			0.79			
Actuated Cycle Length (s)			150.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			72.7%		ICU Level of Service	C
Analysis Period (min)			15			

c Critical Lane Group

Queues

2: Abernethy Road & Redland Road

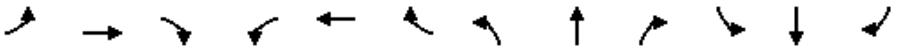









8/21/2011

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	27	114	101	416	244	563	109	232	26
v/c Ratio	0.27	0.55	0.57	0.53	0.74	0.65	0.56	0.30	0.04
Control Delay	59.8	48.2	62.0	29.3	57.2	27.6	59.3	25.7	10.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.8	48.2	62.0	29.3	57.2	27.6	59.3	25.7	10.1
Queue Length 50th (ft)	18	61	67	94	158	272	71	102	0
Queue Length 95th (ft)	55	135	144	163	288	569	152	230	22
Internal Link Dist (ft)		258		507		880		811	
Turn Bay Length (ft)	115		95		125		210		220
Base Capacity (vph)	401	578	298	1029	498	866	397	783	650
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.20	0.34	0.40	0.49	0.65	0.27	0.30	0.04
Intersection Summary									

HCM Signalized Intersection Capacity Analysis










2: Abernethy Road & Redland Road

8/21/2011

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	25	65	42	95	203	188	229	438	91	102	218	24
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.94		1.00	0.93		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1410	1476		1597	3238		1752	1740		1671	1845	1495
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1410	1476		1597	3238		1752	1740		1671	1845	1495
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	27	69	45	101	216	200	244	466	97	109	232	26
RTOR Reduction (vph)	0	18	0	0	109	0	0	4	0	0	0	15
Lane Group Flow (vph)	27	96	0	101	307	0	244	559	0	109	232	11
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	28%	22%	17%	13%	2%	5%	3%	6%	8%	8%	3%	8%
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	4.7	15.0		12.1	22.4		20.1	53.7		12.3	45.9	45.9
Effective Green, g (s)	5.2	16.0		12.1	22.9		20.6	54.2		12.8	46.4	46.4
Actuated g/C Ratio	0.05	0.14		0.11	0.21		0.19	0.49		0.12	0.42	0.42
Clearance Time (s)	4.5	5.0		4.0	4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	3.0		2.5	3.0	3.0
Lane Grp Cap (vph)	66	213		174	667		325	849		193	771	624
v/s Ratio Prot	0.02	0.07		c0.06	c0.09		c0.14	c0.32		0.07	0.13	
v/s Ratio Perm												0.01
v/c Ratio	0.41	0.45		0.58	0.46		0.75	0.66		0.56	0.30	0.02
Uniform Delay, d1	51.5	43.5		47.1	38.7		42.8	21.5		46.5	21.5	19.0
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.0	1.1		4.0	0.4		9.0	4.0		3.1	1.0	0.1
Delay (s)	54.4	44.6		51.1	39.1		51.8	25.5		49.6	22.5	19.0
Level of Service	D	D		D	D		D	C		D	C	B
Approach Delay (s)		46.5			41.4			33.4			30.3	
Approach LOS		D			D			C			C	
Intersection Summary												
HCM Average Control Delay			36.1				HCM Level of Service			D		
HCM Volume to Capacity ratio			0.61									
Actuated Cycle Length (s)			111.1				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			63.4%				ICU Level of Service			B		
Analysis Period (min)			15									
c Critical Lane Group												












HCM Unsignalized Intersection Capacity Analysis 3: Anchor Way & Redland Road

8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	79	31	40	663	219	116
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	85	33	43	713	235	125
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					960	
pX, platoon unblocked	0.94	0.94	0.94			
vC, conflicting volume	1097	298	360			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1070	217	284			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	61	96	96			
cM capacity (veh/h)	219	762	1182			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	118	756	360			
Volume Left	85	43	0			
Volume Right	33	0	125			
cSH	274	1182	1700			
Volume to Capacity	0.43	0.04	0.21			
Queue Length 95th (ft)	51	3	0			
Control Delay (s)	27.7	0.9	0.0			
Lane LOS	D	A				
Approach Delay (s)	27.7	0.9	0.0			
Approach LOS	D					
Intersection Summary						
Average Delay			3.2			
Intersection Capacity Utilization			72.0%	ICU Level of Service		C
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 4: 7th Street & Molalla Avenue

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	73	28	664	111	28	340
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	76	29	692	116	29	354
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLTL		TWLTL	
Median storage (veh)			2		2	
Upstream signal (ft)			147			
pX, platoon unblocked	0.82	0.82			0.82	
vC, conflicting volume	1162	749			807	
vC1, stage 1 conf vol	749					
vC2, stage 2 conf vol	412					
vCu, unblocked vol	1088	585			656	
tC, single (s)	6.5	6.4			4.1	
tC, 2 stage (s)	5.5					
tF (s)	3.6	*4.4			2.2	
p0 queue free %	80	91			96	
cM capacity (veh/h)	385	331			757	
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total	76	29	807	29	354	
Volume Left	76	0	0	29	0	
Volume Right	0	29	116	0	0	
cSH	385	331	1700	757	1700	
Volume to Capacity	0.20	0.09	0.47	0.04	0.21	
Queue Length 95th (ft)	18	7	0	3	0	
Control Delay (s)	16.6	16.9	0.0	9.9	0.0	
Lane LOS	C	C		A		
Approach Delay (s)	16.7		0.0	0.8		
Approach LOS	C					
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization			52.4%	ICU Level of Service	A	
Analysis Period (min)			15			

* User Entered Value

Queues

5: Division Street & Molalla Avenue


8/21/2011



Lane Group	NBT	SBT
Lane Group Flow (vph)	884	439
v/c Ratio	0.52	0.26
Control Delay	4.0	2.1
Queue Delay	0.0	0.0
Total Delay	4.0	2.1
Queue Length 50th (ft)	0	0
Queue Length 95th (ft)	385	128
Internal Link Dist (ft)	126	67
Turn Bay Length (ft)		
Base Capacity (vph)	1703	1701
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.52	0.26
Intersection Summary		

HCM Signalized Intersection Capacity Analysis 5: Division Street & Molalla Avenue

8/21/2011










												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								↶			↶	
Volume (vph)	0	0	0	0	0	0	0	775	56	0	407	6
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Frpb, ped/bikes								1.00			1.00	
Flpb, ped/bikes								1.00			1.00	
Frt								0.99			1.00	
Flt Protected								1.00			1.00	
Satd. Flow (prot)								1804			1803	
Flt Permitted								1.00			1.00	
Satd. Flow (perm)								1804			1803	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	0	0	0	0	824	60	0	433	6
RTOR Reduction (vph)	0	0	0	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	882	0	0	439	0
Confl. Peds. (#/hr)			5	5			2		1	1		2
Confl. Bikes (#/hr)									1			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	7%	0%	5%	17%
Turn Type												
Protected Phases								3 6			2 3	
Permitted Phases												
Actuated Green, G (s)								45.7			45.7	
Effective Green, g (s)								45.7			45.7	
Actuated g/C Ratio								0.83			0.83	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)								1496			1495	
v/s Ratio Prot								c0.49			0.24	
v/s Ratio Perm												
v/c Ratio								0.59			0.29	
Uniform Delay, d1								1.6			1.1	
Progression Factor								1.00			1.00	
Incremental Delay, d2								0.4			0.0	
Delay (s)								2.0			1.1	
Level of Service								A			A	
Approach Delay (s)		0.0			0.0			2.0			1.1	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM Average Control Delay			1.7									
HCM Volume to Capacity ratio			0.59									
Actuated Cycle Length (s)			55.1									
Intersection Capacity Utilization			47.5%									
Analysis Period (min)			15									
c Critical Lane Group												

10567 - Providence Willamette Falls Medical Center Master Plan 7/12/2011 Existing AM Peak Hour
AMT

Synchro 7 - Report
Page 8










HCM Unsignalized Intersection Capacity Analysis 6: Division Street & 7th Street

8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	7	52	0	63	82	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	9	65	0	79	102	0
Pedestrians				4		
Lane Width (ft)				12.0		
Walking Speed (ft/s)				4.0		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	181	106	102			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	181	106	102			
tC, single (s)	6.5	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	99	93	100			
cM capacity (veh/h)	781	934	1502			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	74	79	102			
Volume Left	9	0	0			
Volume Right	65	0	0			
cSH	913	1700	1700			
Volume to Capacity	0.08	0.05	0.06			
Queue Length 95th (ft)	7	0	0			
Control Delay (s)	9.3	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	9.3	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay		2.7				
Intersection Capacity Utilization		16.1%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis 7: Davis Road & Division Street










8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	7	10	72	36	29	142
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	8	11	81	40	33	160
Pedestrians						3
Lane Width (ft)						12.0
Walking Speed (ft/s)						4.0
Percent Blockage						0
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	326	104			121	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	326	104			121	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	99	99			98	
cM capacity (veh/h)	658	927			1479	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	19	121	192			
Volume Left	8	0	33			
Volume Right	11	40	0			
cSH	793	1700	1479			
Volume to Capacity	0.02	0.07	0.02			
Queue Length 95th (ft)	2	0	2			
Control Delay (s)	9.7	0.0	1.4			
Lane LOS	A		A			
Approach Delay (s)	9.7	0.0	1.4			
Approach LOS	A					
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization		26.7%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

















1: Access: Existing PWPMC Driveway (S of Penn Lane) & Division Street

8/21/2011

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Volume (veh/h)	0	1	75	0	7	164			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91			
Hourly flow rate (vph)	0	1	82	0	8	180			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type			None			None			
Median storage (veh)									
Upstream signal (ft)									
pX, platoon unblocked									
vC, conflicting volume	278	82			82				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	278	82			82				
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			99				
cM capacity (veh/h)	712	983			1528				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	1	82	188						
Volume Left	0	0	8						
Volume Right	1	0	0						
cSH	983	1700	1528						
Volume to Capacity	0.00	0.05	0.01						
Queue Length 95th (ft)	0	0	0						
Control Delay (s)	8.7	0.0	0.3						
Lane LOS	A		A						
Approach Delay (s)	8.7	0.0	0.3						
Approach LOS	A								
Intersection Summary									
Average Delay		0.3							
Intersection Capacity Utilization		24.3%	ICU Level of Service	A					
Analysis Period (min)		15							










HCM Unsignalized Intersection Capacity Analysis
 2: Access: Davis Road & PWFMC Driveway (QC#3)

8/21/2011

																				
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR								
Lane Configurations																				
Volume (veh/h)	5	55	5	0	15	1	2	0	1	0	0	0								
Sign Control		Free			Free			Stop			Stop									
Grade		0%			0%			0%			0%									
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94								
Hourly flow rate (vph)	5	59	5	0	16	1	2	0	1	0	0	0								
Pedestrians		7			15			1			0									
Lane Width (ft)		12.0			12.0			12.0												
Walking Speed (ft/s)		4.0			4.0			4.0												
Percent Blockage		1			1			0												
Right turn flare (veh)																				
Median type		None			None															
Median storage (veh)																				
Upstream signal (ft)																				
pX, platoon unblocked																				
vC, conflicting volume	17			65			96	90	77	104	92	23								
vC1, stage 1 conf vol																				
vC2, stage 2 conf vol																				
vCu, unblocked vol	17			65			96	90	77	104	92	23								
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2								
tC, 2 stage (s)																				
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3								
p0 queue free %	100			100			100	100	100	100	100	100								
cM capacity (veh/h)	1613			1549			882	801	976	866	799	1053								
Direction, Lane #	EB 1	WB 1	NB 1	SB 1																
Volume Total	69	17	3	0																
Volume Left	5	0	2	0																
Volume Right	5	1	1	0																
cSH	1613	1549	912	1700																
Volume to Capacity	0.00	0.00	0.00	0.00																
Queue Length 95th (ft)	0	0	0	0																
Control Delay (s)	0.6	0.0	9.0	0.0																
Lane LOS	A		A	A																
Approach Delay (s)	0.6	0.0	9.0	0.0																
Approach LOS			A	A																
Intersection Summary																				
Average Delay			0.8																	
Intersection Capacity Utilization			21.5%	ICU Level of Service					A											
Analysis Period (min)			15																	










HCM Unsignalized Intersection Capacity Analysis
3: Access: Davis Road & PWPMC Driveway (QC#4)

8/21/2011

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	4	43	0	12	3	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	5	55	0	15	4	0
Pedestrians					6	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			66		54	39
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			66		54	39
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)			1541		954	1034
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	60	15	4			
Volume Left	0	0	4			
Volume Right	55	0	0			
cSH	1700	1541	954			
Volume to Capacity	0.04	0.00	0.00			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	8.8			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.8			
Approach LOS			A			
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			15.2%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
4: Access: PWFMC Driveway (QC#1) & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	23	11	102	90	31	111
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	26	12	113	100	34	123
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	357	164			214	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	357	164			214	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	96	99			97	
cM capacity (veh/h)	629	862			1367	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	38	213	158			
Volume Left	26	0	34			
Volume Right	12	100	0			
cSH	689	1700	1367			
Volume to Capacity	0.05	0.13	0.03			
Queue Length 95th (ft)	4	0	2			
Control Delay (s)	10.5	0.0	1.8			
Lane LOS	B		A			
Approach Delay (s)	10.5	0.0	1.8			
Approach LOS	B					
Intersection Summary						
Average Delay			1.7			
Intersection Capacity Utilization			31.9%	ICU Level of Service	A	
Analysis Period (min)			15			

Default Scenario Sun Aug 21, 2011 12:37:17 Page 2-1

10567 - Providence Willamette Falls Medical Center Master Plan
Existing AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #A5 10567 - Providence Willamette Falls Medical Center Master Plan

Cycle (sec): 100 Critical Vol./Cap.(X): 0.279
Loss Time (sec): 0 Average Delay (sec/veh): 8.9
Optimal Cycle: 0 Level Of Service: A

Street Name: Division Street 15th Street
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0

Volume Module: AM Peak Hour
Base Vol: 60 114 18 7 104 23 66 10 61 11 6 12
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 60 114 18 7 104 23 66 10 61 11 6 12
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 67 127 20 8 116 26 73 11 68 12 7 13
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 67 127 20 8 116 26 73 11 68 12 7 13
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 67 127 20 8 116 26 73 11 68 12 7 13

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.31 0.60 0.09 0.05 0.78 0.17 0.48 0.07 0.45 0.38 0.21 0.41
Final Sat.: 239 454 72 39 586 130 353 53 326 266 145 290

Capacity Analysis Module:
Vol/Sat: 0.28 0.28 0.28 0.20 0.20 0.20 0.21 0.21 0.21 0.05 0.05 0.05
Crit Moves: ****

Delay/Veh: 9.2 9.2 9.2 8.6 8.6 8.6 8.8 8.8 8.8 7.9 7.9 7.9
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 9.2 9.2 9.2 8.6 8.6 8.6 8.8 8.8 8.8 7.9 7.9 7.9
LOS by Move: A A A A A A A A A A A A
ApproachDel: 9.2 8.6 8.8 7.9
Delay Adj: 1.00 1.00 1.00
ApprAdjDel: 9.2 8.6 8.8 7.9
LOS by Appr: A A A A
AllWayAvgQ: 0.4 0.4 0.4 0.2 0.2 0.2 0.2 0.2 0.2 0.0 0.0 0.0

Note: Queue reported is the number of cars per lane.

Traffic 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND

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Default Scenario Sun Aug 21, 2011 12:37:21 Page 3-1

10567 - Providence Willamette Falls Medical Center Master Plan
Existing AM Peak Hour

Level Of Service Detailed Computation Report
2000 HCM 4-Way Stop Method
Base Volume Alternative

Intersection #A5 10567 - Providence Willamette Falls Medical Center Master Plan

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Time Period: 0.25 hour
HvVeh: 3% 6% 3% 0%
Alpha Value: 0.01

GroupType: 1 1 1 1
P[C1]: 0.62 0.56 0.57 0.48
P[C2]: 0.15 0.21 0.03 0.12
P[C3]: 0.18 0.16 0.34 0.29
P[C4]: 0.05 0.07 0.06 0.11
P[C5]: 0.00 0.00 0.00 0.01
Padj[C1]: 0.007 0.007 0.009 0.011
Padj[C2]: 0.001 0.001 0.005 0.004
Padj[C3]: -0.005 -0.004 -0.010 -0.007
Padj[C4]: -0.003 -0.004 -0.004 -0.007
Padj[C5]: -0.003 -0.000 -0.000 -0.001

Lane: L1 L1 L1 L1
LaneType: LEFTTHURRITE LEFTTHURRITE LEFTTHURRITE LEFTTHURRITE

HeadwayAdj: 0.057 0.009 -0.120 -0.172
Volume: 213 149 152 32
Capacity: 764 755 732 701
DegOfUtil: 0.27 0.19 0.20 0.04
DepHeadway: 4.56 4.58 4.63 4.73
ServiceTime: 2.6 2.6 2.6 2.7
Delay: 9.2 8.6 8.8 7.9
Queue: 0.4 0.2 0.2 0.0

Approach: North Bound South Bound East Bound West Bound










ApproachDel: 9.2 8.6 8.8 7.9
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 9.2 8.6 8.8 7.9
LOS by Appr: A A A A
OverallDel: 8.9
OverallLOS: A

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HCM Unsignalized Intersection Capacity Analysis
6: Access: PWFMC Driveway (QC#2) & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	5	10	179	20	37	139
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	6	12	216	24	45	167
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	488	232			244	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	488	232			244	
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	99			97	
cM capacity (veh/h)	522	810			1330	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	18	240	212			
Volume Left	6	0	45			
Volume Right	12	24	0			
cSH	684	1700	1330			
Volume to Capacity	0.03	0.14	0.03			
Queue Length 95th (ft)	2	0	3			
Control Delay (s)	10.4	0.0	1.9			
Lane LOS	B		A			
Approach Delay (s)	10.4	0.0	1.9			
Approach LOS	B					
Intersection Summary						
Average Delay			1.2			
Intersection Capacity Utilization			33.7%	ICU Level of Service	A	
Analysis Period (min)			15			

Queues

1: Redland Road & Cascade Highway

8/21/2011



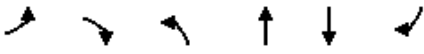
Lane Group	EBL	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	483	86	1634	2283	745
v/c Ratio	0.87	0.68	0.59	0.95	0.53
Control Delay	74.9	93.2	7.7	31.7	2.5
Queue Delay	0.0	0.0	0.0	0.0	0.0
Total Delay	74.9	93.2	7.7	31.7	2.5
Queue Length 50th (ft)	225	84	304	1008	42
Queue Length 95th (ft)	289	141	368	#1369	101
Internal Link Dist (ft)	811		359	441	
Turn Bay Length (ft)		350			
Base Capacity (vph)	607	186	2759	2411	1412
Starvation Cap Reductn	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0
Reduced v/c Ratio	0.80	0.46	0.59	0.95	0.53

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis 1: Redland Road & Cascade Highway










8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	←←←		←	↑↑	↑↑	←
Volume (vph)	348	116	83	1569	2192	715
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0		4.0	4.0	4.0	4.0
Lane Util. Factor	0.97		1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00		1.00	1.00	1.00	1.00
Frt	0.96		1.00	1.00	1.00	0.85
Flt Protected	0.96		0.95	1.00	1.00	1.00
Satd. Flow (prot)	3320		1736	3505	3505	1538
Flt Permitted	0.96		0.95	1.00	1.00	1.00
Satd. Flow (perm)	3320		1736	3505	3505	1538
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	362	121	86	1634	2283	745
RTOR Reduction (vph)	24	0	0	0	0	61
Lane Group Flow (vph)	459	0	86	1634	2283	684
Confl. Bikes (#/hr)	1					
Heavy Vehicles (%)	3%	3%	4%	3%	3%	5%
Turn Type			Prot		pm+ov	
Protected Phases	8		1	6	2	8
Permitted Phases						2
Actuated Green, G (s)	22.5		10.4	116.1	101.2	123.7
Effective Green, g (s)	23.9		10.9	118.1	103.2	126.5
Actuated g/C Ratio	0.16		0.07	0.79	0.69	0.84
Clearance Time (s)	5.4		4.5	6.0	6.0	5.4
Vehicle Extension (s)	0.5		0.5	4.8	4.8	0.5
Lane Grp Cap (vph)	529		126	2760	2411	1297
v/s Ratio Prot	c0.14		c0.05	0.47	c0.65	0.08
v/s Ratio Perm						0.36
v/c Ratio	0.87		0.68	0.59	0.95	0.53
Uniform Delay, d1	61.5		67.9	6.4	20.9	3.3
Progression Factor	1.00		1.00	1.00	1.00	1.00
Incremental Delay, d2	13.7		11.5	0.9	9.5	0.2
Delay (s)	75.2		79.3	7.3	30.5	3.5
Level of Service	E		E	A	C	A
Approach Delay (s)	75.2			10.9	23.8	
Approach LOS	E			B	C	
Intersection Summary						
HCM Average Control Delay			24.3		HCM Level of Service	C
HCM Volume to Capacity ratio			0.91			
Actuated Cycle Length (s)			150.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			88.8%		ICU Level of Service	E
Analysis Period (min)			15			
c Critical Lane Group						

Queues

2: Abernethy Road & Redland Road

8/21/2011

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	46	414	57	264	85	356	289	511	42
v/c Ratio	0.39	0.88	0.47	0.27	0.55	0.52	0.87	0.59	0.06
Control Delay	73.0	65.4	76.0	14.1	74.4	37.7	80.0	32.8	11.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	73.0	65.4	76.0	14.1	74.4	37.7	80.0	32.8	11.7
Queue Length 50th (ft)	41	331	51	31	76	255	263	353	6
Queue Length 95th (ft)	85	#517	101	68	135	379	#461	545	33
Internal Link Dist (ft)		258		507		880		811	
Turn Bay Length (ft)	115		95		125		210		220
Base Capacity (vph)	410	539	259	1016	394	684	333	863	729
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.77	0.22	0.26	0.22	0.52	0.87	0.59	0.06

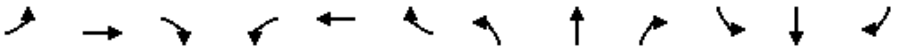









Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis










2: Abernethy Road & Redland Road

8/21/2011

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	177	199	52	80	160	77	269	55	263	465	38
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.92		1.00	0.90		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1805	1683		1736	3206		1736	1807		1752	1810	1495
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1805	1683		1736	3206		1736	1807		1752	1810	1495
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	46	195	219	57	88	176	85	296	60	289	511	42
RTOR Reduction (vph)	0	27	0	0	129	0	0	4	0	0	0	16
Lane Group Flow (vph)	46	387	0	57	135	0	85	352	0	289	511	26
Confl. Peds. (#/hr)			2		2							
Heavy Vehicles (%)	0%	2%	3%	4%	0%	2%	4%	3%	0%	3%	5%	8%
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	7.2	34.7		8.1	35.6		11.6	50.5		25.2	64.1	64.1
Effective Green, g (s)	7.7	35.7		8.1	36.1		12.1	51.0		25.7	64.6	64.6
Actuated g/C Ratio	0.06	0.26		0.06	0.26		0.09	0.37		0.19	0.47	0.47
Clearance Time (s)	4.5	5.0		4.0	4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	3.0		2.5	3.0	3.0
Lane Grp Cap (vph)	102	440		103	848		154	675		330	857	708
v/s Ratio Prot	0.03	c0.23		c0.03	0.04		0.05	0.19		c0.16	c0.28	
v/s Ratio Perm												0.02
v/c Ratio	0.45	0.88		0.55	0.16		0.55	0.52		0.88	0.60	0.04
Uniform Delay, d1	62.4	48.4		62.4	38.5		59.6	33.2		53.8	26.4	19.3
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.3	18.1		5.1	0.1		3.4	2.9		21.8	3.1	0.1
Delay (s)	64.7	66.5		67.5	38.6		63.0	36.1		75.6	29.4	19.4
Level of Service	E	E		E	D		E	D		E	C	B
Approach Delay (s)		66.3			43.7			41.3			44.8	
Approach LOS		E			D			D			D	
Intersection Summary												
HCM Average Control Delay			48.7				HCM Level of Service			D		
HCM Volume to Capacity ratio			0.73									
Actuated Cycle Length (s)			136.5				Sum of lost time (s)			12.0		
Intersection Capacity Utilization			70.3%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis 3: Anchor Way & Redland Road







8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	125	50	22	255	582	106
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	130	52	23	266	606	110
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					960	
pX, platoon unblocked	0.80	0.80	0.80			
vC, conflicting volume	973	661	717			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	840	451	520			
tC, single (s)	*5.9	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	56	89	97			
cM capacity (veh/h)	294	490	824			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	182	289	717			
Volume Left	130	23	0			
Volume Right	52	0	110			
cSH	332	824	1700			
Volume to Capacity	0.55	0.03	0.42			
Queue Length 95th (ft)	78	2	0			
Control Delay (s)	28.3	1.0	0.0			
Lane LOS	D	A				
Approach Delay (s)	28.3	1.0	0.0			
Approach LOS	D					
Intersection Summary						
Average Delay		4.6				
Intersection Capacity Utilization		53.7%		ICU Level of Service	A	
Analysis Period (min)		15				

* User Entered Value

HCM Unsignalized Intersection Capacity Analysis 4: 7th Street & Molalla Avenue

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	117	42	576	98	20	716
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	131	47	647	110	22	804
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLT		TWLT	
Median storage (veh)			2		2	
Upstream signal (ft)			152			
pX, platoon unblocked	0.85	0.85			0.85	
vC, conflicting volume	1552	702			757	
vC1, stage 1 conf vol	702					
vC2, stage 2 conf vol	849					
vCu, unblocked vol	1561	564			628	
tC, single (s)	*7.6	*6.9			4.1	
tC, 2 stage (s)	6.6					
tF (s)	3.5	*10.0			2.2	
p0 queue free %	46	77			97	
cM capacity (veh/h)	245	206			821	
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total	131	47	757	22	804	
Volume Left	131	0	0	22	0	
Volume Right	0	47	110	0	0	
cSH	245	206	1700	821	1700	
Volume to Capacity	0.54	0.23	0.45	0.03	0.47	
Queue Length 95th (ft)	72	21	0	2	0	
Control Delay (s)	35.6	27.6	0.0	9.5	0.0	
Lane LOS	E	D		A		
Approach Delay (s)	33.5		0.0	0.3		
Approach LOS	D					
Intersection Summary						
Average Delay			3.5			
Intersection Capacity Utilization			50.8%	ICU Level of Service	A	
Analysis Period (min)			15			

* User Entered Value

Queues

5: Division Street & Molalla Avenue

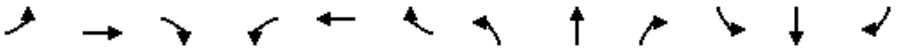
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Lane Group	NBT	SBT
Lane Group Flow (vph)	823	926
v/c Ratio	0.48	0.53
Control Delay	3.4	4.0
Queue Delay	0.0	0.0
Total Delay	3.4	4.0
Queue Length 50th (ft)	0	0
Queue Length 95th (ft)	322	410
Internal Link Dist (ft)	126	72
Turn Bay Length (ft)		
Base Capacity (vph)	1726	1747
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.48	0.53
Intersection Summary		

HCM Signalized Intersection Capacity Analysis 5: Division Street & Molalla Avenue

8/21/2011










												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								↶			↶	
Volume (vph)	0	0	0	0	0	0	0	674	67	0	824	9
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Frpb, ped/bikes								1.00			1.00	
Flpb, ped/bikes								1.00			1.00	
Frt								0.99			1.00	
Flt Protected								1.00			1.00	
Satd. Flow (prot)								1833			1856	
Flt Permitted								1.00			1.00	
Satd. Flow (perm)								1833			1856	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	0	0	0	0	749	74	0	916	10
RTOR Reduction (vph)	0	0	0	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	821	0	0	926	0
Confl. Peds. (#/hr)			9	9			2		2	2		2
Confl. Bikes (#/hr)								1	1			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	4%	0%	2%	22%
Turn Type												
Protected Phases								3 6			2 3	
Permitted Phases												
Actuated Green, G (s)								46.4			46.4	
Effective Green, g (s)								46.4			46.4	
Actuated g/C Ratio								0.83			0.83	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)								1524			1543	
v/s Ratio Prot								0.45			c0.50	
v/s Ratio Perm												
v/c Ratio								0.54			0.60	
Uniform Delay, d1								1.4			1.6	
Progression Factor								1.00			1.00	
Incremental Delay, d2								0.2			0.5	
Delay (s)								1.6			2.0	
Level of Service								A			A	
Approach Delay (s)		0.0			0.0			1.6			2.0	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM Average Control Delay			1.8									
HCM Volume to Capacity ratio			0.60									
Actuated Cycle Length (s)			55.8									
Intersection Capacity Utilization			47.2%									
Analysis Period (min)			15									
c Critical Lane Group												

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AMT

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HCM Unsignalized Intersection Capacity Analysis 6: Division Street & 7th Street

8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	8	63	0	120	77	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	8	64	0	121	78	0
Pedestrians				6		
Lane Width (ft)				12.0		
Walking Speed (ft/s)				4.0		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	199	84	78			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	199	84	78			
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	93	100			
cM capacity (veh/h)	794	968	1534			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	72	121	78			
Volume Left	8	0	0			
Volume Right	64	0	0			
cSH	945	1700	1700			
Volume to Capacity	0.08	0.07	0.05			
Queue Length 95th (ft)	6	0	0			
Control Delay (s)	9.1	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	9.1	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay		2.4				
Intersection Capacity Utilization		19.4%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis 7: Davis Road & Division Street










8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	41	40	140	11	12	109
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	51	50	175	14	15	136
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	348	182			189	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	348	182			189	
tC, single (s)	6.4	6.2			4.3	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.4	
p0 queue free %	92	94			99	
cM capacity (veh/h)	641	866			1300	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	101	189	151			
Volume Left	51	0	15			
Volume Right	50	14	0			
cSH	736	1700	1300			
Volume to Capacity	0.14	0.11	0.01			
Queue Length 95th (ft)	12	0	1			
Control Delay (s)	10.7	0.0	0.9			
Lane LOS	B		A			
Approach Delay (s)	10.7	0.0	0.9			
Approach LOS	B					
Intersection Summary						
Average Delay			2.7			
Intersection Capacity Utilization		27.1%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis

















1: Access: Existing PWFMC Driveway (S of Penn Lane) & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	6	5	166	1	0	115
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	7	6	195	1	0	135
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	331	196			196	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	331	196			196	
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	99			100	
cM capacity (veh/h)	668	851			1388	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	13	196	135			
Volume Left	7	0	0			
Volume Right	6	1	0			
cSH	740	1700	1388			
Volume to Capacity	0.02	0.12	0.00			
Queue Length 95th (ft)	1	0	0			
Control Delay (s)	10.0	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	10.0	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			0.4			
Intersection Capacity Utilization			18.8%	ICU Level of Service	A	
Analysis Period (min)			15			










HCM Unsignalized Intersection Capacity Analysis
2: Access: Davis Road & PWFMC Driveway (QC#3)

8/21/2011

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	17	4	1	64	0	12	0	1	0	0	5
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Hourly flow rate (vph)	3	27	6	2	103	0	19	0	2	0	0	8
Pedestrians		5			14			2				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		0			1			0				
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	103			36			159	146	47	159	149	108
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	103			36			159	146	47	159	149	108
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			98	100	100	100	100	99
cM capacity (veh/h)	1501			1585			797	746	1015	797	743	947
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	37	105	21	8								
Volume Left	3	2	19	0								
Volume Right	6	0	2	8								
cSH	1501	1585	811	947								
Volume to Capacity	0.00	0.00	0.03	0.01								
Queue Length 95th (ft)	0	0	2	1								
Control Delay (s)	0.7	0.1	9.6	8.8								
Lane LOS	A	A	A	A								
Approach Delay (s)	0.7	0.1	9.6	8.8								
Approach LOS			A	A								
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			20.3%		ICU Level of Service				A			
Analysis Period (min)			15									










HCM Unsignalized Intersection Capacity Analysis
3: Access: Davis Road & PWFMC Driveway (QC#4)

8/21/2011

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	11	4	0	11	43	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57
Hourly flow rate (vph)	19	7	0	19	75	2
Pedestrians					7	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			33		49	30
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			33		49	30
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		92	100
cM capacity (veh/h)			1582		960	1044
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	26	19	77			
Volume Left	0	0	75			
Volume Right	7	0	2			
cSH	1700	1582	961			
Volume to Capacity	0.02	0.00	0.08			
Queue Length 95th (ft)	0	0	7			
Control Delay (s)	0.0	0.0	9.1			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	9.1			
Approach LOS			A			
Intersection Summary						
Average Delay			5.7			
Intersection Capacity Utilization			15.4%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
4: Access: PWFMC Driveway (QC#1) & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	82	35	115	33	10	146
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	101	43	142	41	12	180
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	368	163			184	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	368	163			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 %	84	95			99	
cM capacity (veh/h)	630	886			1402	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	144	183	193			
Volume Left	101	0	12			
Volume Right	43	41	0			
cSH	689	1700	1402			
Volume to Capacity	0.21	0.11	0.01			
Queue Length 95th (ft)	20	0	1			
Control Delay (s)	11.6	0.0	0.6			
Lane LOS	B		A			
Approach Delay (s)	11.6	0.0	0.6			
Approach LOS	B					
Intersection Summary						
Average Delay			3.4			
Intersection Capacity Utilization		29.2%		ICU Level of Service	A	
Analysis Period (min)		15				

Default Scenario	Sun Aug 21, 2011 12:39:43	Page 2-1
10567 - Providence Willamette Falls Medical Center Master Plan Existing PM Peak Hour		
Level Of Service Computation Report 2000 HCM 4-Way Stop Method (Base Volume Alternative)		

Intersection #A5 10567 - Providence Willamette Falls Medical Center Master Plan		

Cycle (sec):	100	Critical Vol./Cap.(X): 0.350
Loss Time (sec):	0	Average Delay (sec/veh): 9.5
Optimal Cycle:	0	Level Of Service: A

Street Name:	Division Street	15th Street
Approach:	North Bound	South Bound
Movement:	L - T - R	L - T - R
----- ----- ----- -----		
Control:	Stop Sign	Stop Sign
Rights:	Include	Include
Min. Green:	0 0 0 0	0 0 0 0
Lanes:	0 0 1 0 0	0 0 1 0 0
----- ----- ----- -----		
Volume Module: PM Peak Hour		
Base Vol:	83 120 11	6 153 69
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	83 120 11	6 153 69
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.82 0.82 0.82	0.82 0.82 0.82
PHF Volume:	101 146 13	7 187 84
Reduct Vol:	0 0 0	0 0 0
Reduced Vol:	101 146 13	7 187 84
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00
Final Volume:	101 146 13	7 187 84
----- ----- ----- -----		
Saturation Flow Module:		
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00
Lanes:	0.39 0.56 0.05	0.03 0.67 0.30
Final Sat.:	293 424 39	21 532 240
----- ----- ----- -----		
Capacity Analysis Module:		
Vol/Sat:	0.35 0.35 0.35	0.35 0.15 0.15
Crit Moves:	****	****
Delay/Veh:	9.9 9.9 9.9	9.7 9.7 9.7
Delay Adj:	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	9.9 9.9 9.9	9.7 9.7 9.7
LOS by Move:	A A A	A A A
ApproachDel:	9.9	9.7
Delay Adj:	1.00	1.00
ApprAdjDel:	9.9	9.7
LOS by Appr:	A	A
AllWayAvgQ:	0.5 0.5 0.5	0.5 0.1 0.1

Note: Queue reported is the number of cars per lane.		

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H:\projfile\10567 - Providence Willamette Falls\traffix\10567expm5.doc

Default Scenario	Sun Aug 21, 2011 12:39:48	Page 3-1
10567 - Providence Willamette Falls Medical Center Master Plan Existing PM Peak Hour		
Level Of Service Detailed Computation Report 2000 HCM 4-Way Stop Method Base Volume Alternative		

Intersection #A5 10567 - Providence Willamette Falls Medical Center Master Plan		










Approach:	North Bound	South Bound
Movement:	L - T - R	L - T - R
----- ----- ----- -----		
Time Period:	0.25 hour	
HevVeh:	2%	2%
Alpha Value:	0.01	
----- ----- ----- -----		
GroupType:	1	1
P[C1]:	0.54	0.54
P[C2]:	0.28	0.27
P[C3]:	0.12	0.12
P[C4]:	0.07	0.07
P[C5]:	0.00	0.00
Padj[C1]:	0.007	0.007
Padj[C2]:	-0.000	-0.000
Padj[C3]:	-0.003	-0.003
Padj[C4]:	-0.004	-0.004
Padj[C5]:	-0.000	-0.000
----- ----- ----- -----		
Lane:	L1	L1
LaneType:	LEFTTHURRITE	LEFTTHURRITE
----- ----- ----- -----		
HeadwayAdj:	0.081	-0.142
Volume:	261	278
Capacity:	755	793
DegOfUtil:	0.34	0.34
DepHeadway:	4.63	4.40
ServiceTime:	2.6	2.4
Delay:	9.9	9.7
Queue:	0.5	0.5
----- ----- ----- -----		
Approach:	North Bound	South Bound
----- ----- ----- -----		
ApproachDel:	9.9	9.7
Delay Adj:	1.00	1.00
ApprAdjDel:	9.9	9.7
LOS by Appr:	A	A
OverallDel:		9.5
OverallLOS:		A

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HCM Unsignalized Intersection Capacity Analysis
6: Access: PWFMC Driveway (QC#4) & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	23	35	178	4	15	206
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	28	43	220	5	19	254
Pedestrians	2					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	516	224			227	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	516	224			227	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	94	95			99	
cM capacity (veh/h)	508	819			1351	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	72	225	273			
Volume Left	28	0	19			
Volume Right	43	5	0			
cSH	659	1700	1351			
Volume to Capacity	0.11	0.13	0.01			
Queue Length 95th (ft)	9	0	1			
Control Delay (s)	11.1	0.0	0.6			
Lane LOS	B		A			
Approach Delay (s)	11.1	0.0	0.6			
Approach LOS	B					
Intersection Summary						
Average Delay			1.7			
Intersection Capacity Utilization			33.3%	ICU Level of Service	A	
Analysis Period (min)			15			

Appendix D Crash Data

CDS150 07/14/2011

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

PAGE: 1

S Anchor Way @ S Redland Road
January 1, 2005 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	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2009														
ANGLE	0	0	1	1	0	0	0	1	0	0	1	1	0	0
2009 TOTAL	0	0	1	1	0	0	0	1	0	0	1	1	0	0
YEAR: 2008														
TURNING MOVEMENTS	0	1	1	2	0	1	0	2	0	1	1	2	0	0
2008 TOTAL	0	1	1	2	0	1	0	2	0	1	1	2	0	0
YEAR: 2007														
REAR-END	0	0	1	1	0	0	0	1	0	1	0	1	0	0
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2007 TOTAL	0	0	2	2	0	0	0	2	0	2	0	2	0	0
YEAR: 2005														
TURNING MOVEMENTS	0	1	0	1	0	2	0	0	1	1	0	1	0	0
2005 TOTAL	0	1	0	1	0	2	0	0	1	1	0	1	0	0
FINAL TOTAL	0	2	4	6	0	3	0	5	1	4	2	6	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.

CDS380 7/14/2011

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

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CITY OF OREGON CITY, CLACKAMAS COUNTY

S Anchor Way @ S Redland Road
January 1, 2005 through December 31, 2009

SER#	INVEST	P E C	R A U G	D S W H R L K	DATE DAY TIME	CLASS DIST FROM	CITY FIRST STREET SECOND STREET	RD CHAR DIRECT LOCTN	INT-TYP (MEDIAN) LEGS (#LANES)	INT-REL TRAF- CONTL	OFF-RD RDNDBT DRVWY	WTHR SURF LIGHT	CRASH COLL TYP SVRVTY	SPCL USE TRLR QTY OWNER V#	MOVE FROM TO	P#	PRTC TYPE	INJ SVRTY	A G E X	S E RES	LICNS	PED LOC	ERROR	ACTN	EVENT	CAUSE
04701 NONE	N N N				10/26/2007 Fri 11A	19 0	ANCHOR WAY REDLAND RD	INTER SW 06	CROSS 0	N STOP SIGN	N DRY DAY	CLR TURN PDO	ANGL-OTH	01 NONE PRVTE PSNGR CAR	0 TURN-R NW SW	01	DRVR	NONE	21 M	OR-Y OR<25		001		000		08 00 08
														02 NONE PRVTE PSNGR CAR	0 STRGHT SW NE	01	DRVR	NONE	54 F	OR-Y OR<25		000		000		00 00 00
01771 NONE	N N N				05/01/2007 Tue 6P	16 0	ANCHOR WAY REDLAND RD	INTER CN 03	3-LEG 0	N UNKNOWN	N DRY DAY	CLR REAR PDO	S-1STOP	01 NONE PRVTE PSNGR CAR	0 STRGHT SW NE	01	DRVR	NONE	18 M	OR-Y OR<25		000,026		000		07 00 07
														02 NONE PRVTE PSNGR CAR	0 STOP SW NE	01	DRVR	NONE	59 M	OR-Y OR<25		000		012 000		00 00 00
00022 CITY	N N N N N				01/03/2008 Thu 7P	16 0	ANCHOR WAY REDLAND RD	INTER CN 03	3-LEG 0	N STOP SIGN	N DRY DARK	CLR TURN INJ	O-1TURN	01 NONE PRVTE PSNGR CAR	0 STRGHT NW SE	01	DRVR	NONE	59 M	OR-Y OR<25		000		000		02 00 00
														02 NONE PRVTE PSNGR CAR	0 TURN-L SE SW	01	DRVR	NONE	19 F	NONE OR<25		028		000		00 02 00
																02	PSNG	INJC	39 F			000		000		00 00 00
01818 NONE	N N N				05/09/2005 Mon 3P	16 0	ANCHOR WAY REDLAND RD	INTER CN 04	3-LEG 0	N STOP SIGN	N WET DAY	RAIN TURN INJ	ANGL-OTH	01 NONE PRVTE PSNGR CAR	0 STRGHT NW SE	01	DRVR	INJC	18 M	OR-Y OR<25		000		000		02 00 00
														02 NONE PRVTE PSNGR CAR	0 TURN-L SW NW	01	DRVR	INJB	18 M	OR-Y OR<25		028		015 000		00 02 00
03082 NONE	N N N				08/11/2008 Mon 4P	16 0	ANCHOR WAY REDLAND RD	INTER CN 04	3-LEG 0	N UNKNOWN	N DRY DAY	CLR TURN PDO	ANGL-OTH	01 NONE PRVTE PSNGR CAR	0 TURN-L SW NW	01	DRVR	NONE	19 M	OR-Y OR<25		028		000		02 00 02
														02 NONE PRVTE PSNGR CAR	0 STRGHT NW SE	01	DRVR	NONE	60 M	OR-Y OR<25		000		000		00 00 00
00223 CITY	N N N N N N				01/17/2009 Sat 6P	16 0	ANCHOR WAY REDLAND RD	INTER CN 04	3-LEG 0	N STOP SIGN	N DRY DARK	CLR ANGL PDO	ANGL-OTH	01 NONE PRVTE PSNGR CAR	0 TURN-L S W	01	DRVR	NONE	16 M	OR-Y OR<25		004,028		000	094	02 00 02

SER#	S D				CLASS	CITY STREET	RD CHAR	INT-TYP					SPCL USE					A S	E X	LICNS	PED	LOC	ERROR	ACTN	EVENT	CAUSE														
	E	A	U	C				DATE	DIST	FIRST STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	WTHR	CRASH TYP										COLL TYP	OWNER	FROM	MOVE	PRTC	INJ	G	E	RES	LOC	ERROR	ACTN	EVENT	CAUSE
INVEST	C	L	K	TIME	FROM	SECOND STREET	LOCTN	(#LANES)	CONTL	DRVWY	LIGHT	SVRTY	V#	VEH TYPE	TO	P#	TYPE	SVRTY	E	X	RES	LOC	ERROR	ACTN	EVENT	CAUSE														
													02	NONE	0	STRGHT																								
														PRVTE	W	E								000		00														
														PSNGR CAR		01	DRVR	NONE	19	F	OR-Y		000	000		00														
																					OR<25																			

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	TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT													
	CRASH SUMMARIES BY YEAR BY COLLISION TYPE													
	Davis Road from Division Street to Trillium Park Drive excluding ending intersections													
	January 1, 2005 through December 31, 2009													
		NON-	PROPERTY									INTER-	INTER-	
	FATAL	FATAL	DAMAGE	TOTAL	PEOPLE	PEOPLE		DRY	WET			INTER-	SECTION	OFF-
	CRASHES	CRASHES	ONLY	CRASHES	KILLED	INJURED	TRUCKS	SURF	SURF	DAY	DARK	SECTION	RELATED	ROAD
COLLISION TYPE														
YEAR:														
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.

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OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

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TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Division Street @ 15th Street

January 1, 2005 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	INTER- SECTION RELATED	OFF- ROAD
YEAR:														
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.

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OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

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TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Division Street @ 7th Street

January 1, 2005 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	INTER- SECTION RELATED	OFF- ROAD
YEAR:														
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.

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OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

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TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Division Street @ Davis Road

January 1, 2005 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	INTER- SECTION RELATED	OFF- ROAD
YEAR:														
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.

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE
Division Street @ Molalla Avenue
January 1, 2005 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	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2009														
ANGLE	0	1	0	1	0	1	0	0	1	1	0	1	0	0
BACKING	0	0	1	1	0	0	0	0	1	1	0	1	0	0
2009 TOTAL	0	1	1	2	0	1	0	0	2	2	0	2	0	0
FINAL TOTAL	0	1	1	2	0	1	0	0	2	2	0	2	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.

CDS380 7/14/2011

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

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CITY OF OREGON CITY, CLACKAMAS COUNTY

Division Street @ Molalla Avenue
January 1, 2005 through December 31, 2009

[illegible]

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OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

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TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Division Street from 13th Street to 14th Street excluding ending intersections

January 1, 2005 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	INTER- SECTION RELATED	OFF- ROAD
YEAR:														
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.

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OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

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TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Division Street from Davis Road to 15th Street excluding ending intersections

January 1, 2005 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	INTER- SECTION RELATED	OFF- ROAD
YEAR:														
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.

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OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION

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TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT

CRASH SUMMARIES BY YEAR BY COLLISION TYPE

Division Street from Penn Lane to 16th Street excluding ending intersections

January 1, 2005 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	INTER- SECTION RELATED	OFF- ROAD
YEAR:														
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.

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OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE
Holcomb Boulevard / Abernathy Road @ S Redland Road
January 1, 2005 through December 31, 2009

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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	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2007														
REAR-END	0	0	1	1	0	0	0	0	0	0	1	1	0	0
2007 TOTAL	0	0	1	1	0	0	0	0	0	0	1	1	0	0
YEAR: 2005														
REAR-END	0	1	1	2	0	1	0	2	0	2	0	2	0	0
2005 TOTAL	0	1	1	2	0	1	0	2	0	2	0	2	0	0
FINAL TOTAL	0	1	2	3	0	1	0	2	0	2	1	3	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.

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Holcomb Boulevard / Abernathy Road @ S Redland Road
January 1, 2005 through December 31, 2009

SER#	S D					DATE	CLASS	CITY STREET	RD CHAR	INT-TYP	INT-REL	OFF-RD	WTHR	CRASH TYP	SPCL USE			MOVE	P#	PRTC	INJ	A S			PED	ERROR	ACTN	EVENT	CAUSE					
	INVEST	E	A	U	C										O	TRLR	QTY					OWNER	VEH	TYPE						FROM	TO	G	E	LICNS
04470	NONE	N	N	N		10/11/2007	16	ABERNATHY RD	INTER	CROSS	N		N	UNK	S-1STOP	01	NONE	0	STRGHT											07				
						Thu	0	REDLAND RD	SW		TRF	SIGNAL	N	UNK	REAR				SW	NE									000	00				
						7P			06	0			N	DARK	PDO		PSNGR	CAR				01	DRVR	NONE	59	F	OR-Y	OR<25	026	000	07			

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OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE
Cascade Highway OR 213 (Hwy 160) @ S Redland Road
January 1, 2005 through December 31, 2009

PAGE: 1

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	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2007														
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2007 TOTAL	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR: 2006														
TURNING MOVEMENTS	0	3	0	3	0	3	0	1	2	0	3	3	0	0
2006 TOTAL	0	3	0	3	0	3	0	1	2	0	3	3	0	0
YEAR: 2005														
REAR-END	0	1	1	2	0	3	0	2	0	2	0	2	0	0
TURNING MOVEMENTS	0	0	2	2	0	0	0	2	0	1	1	2	0	0
2005 TOTAL	0	1	3	4	0	3	0	4	0	3	1	4	0	0
FINAL TOTAL	0	4	4	8	0	6	0	6	2	4	4	8	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.

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Cascade Highway OR 213 (Hwy 160) @ S Redland Road
January 1, 2005 through December 31, 2009

SER#	P R S W E A U C O DATE INVEST D C S L K TIME	COUNTY CITY URBAN AREA	RD# FC COMPNT MLG TYP MILEPNT	CONN # FIRST STREET SECOND STREET	RD CHAR DIRECT LOCTN	INT-TYP (MEDIAN) INT-REL LEGS TRAF-CNTL	OFFRDT RNDDBT	WTHR SURF LIGHT	CRASH TYP COLL SVRTY	SPCL USE TRLR QTY MOVE VEH OWNER FROM TO	A S G E LICNS PED X RES LOC ERROR	ACTN EVENT	CAUSE
02213 STATE	Y N N N 06/02/2005 Thu 11A	CLACKAMAS OREGON CITY PORTLAND UA	1 14 0 0 0.48	REDLAND RD CASCADE HY SOUTH	INTER N 06	3-LEG N TRF SIGNAL 99	N CLD N DRY DAY	S-1STOP REAR INJ	01 NONE PRVTE PSNGR CAR	STRGHT N S	01 DRVR INJC 35 F OR-Y OR<25 02 PSNG INJC 10 M 01 DRVR INJC 45 M OR-Y OR<25	000 038 000 011 000	01,27 00 01,27 00 00 00
00444 STATE	Y N Y N 01/27/2005 Thu 11P	CLACKAMAS OREGON CITY PORTLAND UA	1 14 0 0 0.48	REDLAND RD CASCADE HY SOUTH	INTER E 06	CROSS N TRF SIGNAL 99	N CLR N DRY DARK	ANGL-STP TURN PDO	01 NONE PRVTE PSNGR CAR	TURN-L N E	01 DRVR NONE 21 M SUSP OR<25 02 NONE PRVTE STOP E W PSNGR CAR 01 DRVR NONE 49 M OR-Y OR<25	000 000 011 000	01,08 00 01,08 00 00
04766 NO RPT	N N N N 11/09/2005 Wed 7A	CLACKAMAS OREGON CITY PORTLAND UA	1 14 0 0 0.48	REDLAND RD CASCADE HY SOUTH	INTER S 06	3-LEG N TRF SIGNAL 0	N CLR N DRY DAY	S-1STOP REAR PDO	01 NONE PRVTE PSNGR CAR	STRGHT S N	01 DRVR NONE 19 M OR-Y OR<25 02 NONE PRVTE STOP S N PSNGR CAR 01 DRVR NONE 55 F OR-Y OR<25	000 000 011 000	07 00 07 00 00
00775 STATE	Y N N N 02/23/2006 Thu 9P	CLACKAMAS OREGON CITY PORTLAND UA	1 14 0 0 0.48	CASCADE HY SOUTH REDLAND RD	INTER CN 01	3-LEG N TRF SIGNAL 0	N RAIN N WET DLIT	S-OTHER TURN INJ	01 NONE PRVTE PSNGR CAR	TURN-L W N	01 DRVR NONE 59 M OR-Y OR<25 02 NONE PRVTE TURN-L W N PSNGR CAR 01 DRVR INJC 19 M OR-Y OR<25	000 017 000 000	01 00 01 00 00
05157 STATE	N N N N N 11/22/2007 Thu 11A	CLACKAMAS OREGON CITY PORTLAND UA	1 14 0 0 0.48	CASCADE HY SOUTH REDLAND RD	INTER CN 03	3-LEG N TRF SIGNAL 0	N CLR N DRY DAY	ANGL-OTH TURN PDO	01 NONE PRVTE PSNGR CAR	STRGHT N S	01 DRVR NONE 81 F OR-Y OR<25 02 NONE PRVTE TURN-L W N PSNGR CAR 01 DRVR NONE 54 M OR-Y OR<25	000 000 000 000	04 00 04 00 00

CDS380	7/14/2011	OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT CONTINUOUS SYSTEM CRASH LISTING																PAGE: 2						
160 CASCADE HWY SOUTH			Cascade Highway OR 213 (Hwy 160) @ S Redland Road January 1, 2005 through December 31, 2009																					
	S D P R S W E A U C O	DATE	COUNTY	RD# FC	CONN #	RD CHAR	INT-TYP	INT-REL	OFFRD	WTHR	CRASH TYP	SPCL USE	MOVE		A S									
SER#	E L G H R	DAY	CITY	MLG TYP	FIRST STREET	DIRECT	LEGS	TRAF-	RNDBT	SURF	COLL TYP	OWNER	FROM		PRTC	INJ	G E	LICNS	PED					
INVEST	D C S L K	TIME	URBAN AREA	MILEPNT	SECOND STREET	LOCTN	(#LANES)	CNTL	DRVWY	LIGHT	SVRTY	V#	VEH TYPE	TO	P#	TYPE	SVRTY	E X	RES	LOC	ERROR	ACTN	EVENT	CAUSE
01419	N N N	04/11/2005	CLACKAMAS	1 14		INTER		N	N CLD	ANGL-OTH	01	NONE	0	STRGHT									04	
STATE		Mon	OREGON CITY	0 0	REDLAND RD	CN		TRF SIGNAL	N DRY	TURN		PRVTE	N S								000		00	
	1P		PORTLAND UA	0.48	CASCADE HY SOUTH	04	0		N DAY	PDO		PSNGR CAR			01	DRVR	NONE	75 M	OR-Y	000	000		04	
																		OR<25						
												02	NONE	0	TURN-L								00	
												PRVTE	S W								000		00	
												PSNGR CAR			01	DRVR	NONE	58 F	OR-Y	000	000		00	
																		OR<25						
00611	N N N	02/08/2006	CLACKAMAS	1 14		INTER	3-LEG	N	N CLR	BIKE													04	
NONE		Wed	OREGON CITY	0 0	CASCADE HY SOUTH	CN		TRF SIGNAL	N DRY	TURN														
	6A		PORTLAND UA	0.48	REDLAND RD	04	0		N DARK	INJ				STOP	01	BIKE	INJC	56 M		000	000		00	
														W N										
												01	NONE	0	STRGHT								00	
												PRVTE	S N								000		04	
												PSNGR CAR			01	DRVR	NONE	48 M	OR-Y	020	000			
																		OR<25						
05403	N N N	12/14/2006	CLACKAMAS	1 14		INTER	3-LEG	N	N RAIN	ANGL-OTH	01	NONE	0	STRGHT									04	
NO RPT		Thu	OREGON CITY	0 0	CASCADE HY SOUTH	CN		TRF SIGNAL	N WET	TURN		PRVTE	S N								000		00	
	5P		PORTLAND UA	0.48	REDLAND RD	04	0		N DARK	INJ		PSNGR CAR			01	DRVR	INJC	55 M	OR-Y	020	000		04	
																		OR<25						
												02	NONE	0	TURN-L								00	
												PRVTE	W N								000		00	
												PSNGR CAR			01	DRVR	NONE	55 F	OR-Y	000	000		00	
																		OR<25						

CDS150 08/11/2011

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
CRASH SUMMARIES BY YEAR BY COLLISION TYPE

PAGE: 1

Molalla Avenue @ 7th Street
January 1, 2005 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	INTER- SECTION RELATED	OFF- ROAD
YEAR: 2009														
TURNING MOVEMENTS	0	0	1	1	0	0	0	1	0	1	0	1	0	0
2009 TOTAL	0	0	1	1	0	0	0	1	0	1	0	1	0	0
YEAR: 2008														
ANGLE	0	1	0	1	0	1	0	0	1	0	1	1	0	0
2008 TOTAL	0	1	0	1	0	1	0	0	1	0	1	1	0	0
YEAR: 2006														
ANGLE	0	1	0	1	0	2	0	1	0	1	0	1	0	0
2006 TOTAL	0	1	0	1	0	2	0	1	0	1	0	1	0	0
YEAR: 2005														
TURNING MOVEMENTS	0	0	1	1	0	0	0	0	1	1	0	1	0	0
2005 TOTAL	0	0	1	1	0	0	0	0	1	1	0	1	0	0
FINAL TOTAL	0	2	2	4	0	3	0	2	2	3	1	4	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.

CDS380 8/11/2011

OREGON DEPARTMENT OF TRANSPORTATION - TRANSPORTATION DEVELOPMENT DIVISION
TRANSPORTATION DATA SECTION - CRASH ANALYSIS AND REPORTING UNIT
URBAN NON-SYSTEM CRASH LISTING

PAGE: 1

CITY OF OREGON CITY, CLACKAMAS COUNTY

Molalla Avenue @ 7th Street
January 1, 2005 through December 31, 2009

[illegible]

ACTION CODE TRANSLATION LIST		
ACTION CODE	SHORT DESCRIPTION	LONG DESCRIPTION
000	NONE	NO ACTION OR NON-WARRANTED
001	SKIDDED	SKIDDED
002	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE
003	LOAD OVR	OVERHANGING LOAD STRUCK ANOTHER VEHICLE, ETC.
006	SLOW DN	SLOWED DOWN
007	AVOIDING	AVOIDING MANEUVER
008	PAR PARK	PARALLEL PARKING
009	ANG PARK	ANGLE PARKING
010	INTERFERE	PASSENGER INTERFERING WITH DRIVER
011	STOPPED	STOPPED IN TRAFFIC NOT WAITING TO MAKE A LEFT TURN
012	STP/L TRN	STOPPED BECAUSE OF LEFT TURN SIGNAL OR WAITING, ETC.
013	STP TURN	STOPPED WHILE EXECUTING A TURN
015	GO A/STOP	PROCEED AFTER STOPPING FOR A STOP SIGN/FLASHING RED.
016	TRN A/RED	TURNED ON RED AFTER STOPPING
017	LOSTCTRL	LOST CONTROL OF VEHICLE
018	EXIT DWY	ENTERING STREET OR HIGHWAY FROM ALLEY OR DRIVEWAY
019	ENTR DWY	ENTERING ALLEY OR DRIVEWAY FROM STREET OR HIGHWAY
020	STR ENTR	BEFORE ENTERING ROADWAY, STRUCK PEDESTRIAN, ETC. ON SIDEWALK OR SHOULDER
021	NO DRVR	CAR RAN AWAY - NO DRIVER
022	PREV COL	STRUCK, OR WAS STRUCK BY, VEHICLE OR PEDESTRIAN IN PRIOR COLLISION BEFORE ACC. STABILIZED
023	STALLED	VEHICLE STALLED
024	DRVR DEAD	DEAD BY UNASSOCIATED CAUSE
025	FATIGUE	FATIGUED, SLEEPY, ASLEEP
026	SUN	DRIVER BLINDED BY SUN
027	HDLGHTS	DRIVER BLINDED BY HEADLIGHTS
028	ILLNESS	PHYSICALLY ILL
029	THRU MED	VEHICLE CROSSED, PLUNGED OVER, OR THROUGH MEDIAN BARRIER
030	PURSUIT	PURSuing OR ATTEMPTING TO STOP ANOTHER VEHICLE
031	PASSING	PASSING SITUATION
032	PRKOFFRD	VEHICLE PARKED BEYOND CURB OR SHOULDER
033	CROS MED	VEHICLE CROSSED EARTH OR GRASS MEDIAN
034	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
035	X W/ SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
036	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
037	BTWN INT	CROSSING BETWEEN INTERSECTIONS
038	DISTRACT	DRIVER'S ATTENTION DISTRACTED
039	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
040	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
041	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
042	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
043	PLAYINRD	PLAYING IN STREET OR ROAD
044	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
045	WORK ON	WORKING IN ROADWAY OR ALONG SHOULDER
050	LAY ON RD	STANDING OR LYING IN ROADWAY
051	ENT OFFRD	ENTERING / STARTING IN TRAFFIC LANE FROM OFF-ROAD
088	OTHER	OTHER ACTION
099	UNK	UNKNOWN ACTION

CAUSE CODE TRANSLATION LIST		
CAUSE CODE	SHORT DESCRIPTION	LONG DESCRIPTION
00	NO CODE	NO CAUSE ASSOCIATED AT THIS LEVEL
01	TOO-FAST	TOO FAST FOR CONDITIONS (NOT EXCEED POSTED SPEED
02	NO-YIELD	DID NOT YIELD RIGHT-OF-WAY
03	PAS-STOP	PASSED STOP SIGN OR RED FLASHER
04	DIS--RAG	DISREGARDED R-A-G TRAFFIC SIGNAL.
05	LEFT-CTR	DROVE LEFT OF CENTER ON TWO-WAY ROAD
06	IMP-OVER	IMPROPER OVERTAKING
07	TOO-CLOS	FOLLOWED TOO CLOSELY
08	IMP-TURN	MADE IMPROPER TURN
09	DRINKING	ALCOHOL OR DRUG INVOLVED
10	OTHR-IMP	OTHER IMPROPER DRIVING
11	MECH-DEF	MECHANICAL DEFECT
12	OTHER	OTHER (NOT IMPROPER DRIVING)
13	IMP LN C	IMPROPER CHANGE OF TRAFFIC LANES
14	DIS TCD	DISREGARDED OTHER TRAFFIC CONTROL DEVICE
15	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY
16	FATIGUE	DRIVER DROWSY/FATIGUED/SLEEPY
18	IN RDWY	NON-MOTORIST ILLEGALLY IN ROADWAY
19	NT VISBL	NON-MOTORIST CLOTHING NOT VISIBLE
20	IMP PKNG	VEHICLE IMPROPERLY PARKED
21	DEF STER	DEFECTIVE STEERING MECHANISM
22	DEF BRKE	INADEQUATE OR NO BRAKES
24	LOADSHFT	VEHICLE LOST LOAD OR LOAD SHIFTED
25	TIREFAIL	TIRE FAILURE
26	PHANTOM	PHANTOM / NON-CONTACT VEHICLE
27	INATTENT	INATTENTION
30	SPEED	DRIVING IN EXCESS OF POSTED SPEED
31	RACING	SPEED RACING (PER PAR)
32	CARELESS	CARELESS DRIVING (CITATION ISSUED)
33	RECKLESS	RECKLESS DRIVING (CITATION ISSUED)
34	AGGRESV	AGGRESSIVE DRIVING (PER PAR)
35	RD RAGE	ROAD RAGE (PER PAR)

COLLISION TYPE CODE TRANSLATION LIST		
COLL CODE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OTH	MISCELLANEOUS
-	BACK	BACKING
0	PED	PEDESTRIAN
1	ANGL	ANGLE
2	HEAD	HEAD-ON
3	REAR	REAR-END
4	SS-M	SIDESWIPE - MEETING
5	SS-O	SIDESWIPE - OVERTAKING
6	TURN	TURNING MOVEMENT
7	PARK	PARKING MANEUVER
8	NCOL	NON-COLLISION
9	FIX	FIXED OBJECT OR OTHER OBJECT

CRASH TYPE CODE TRANSLATION LIST		
CRASH TYPE	SHORT DESCRIPTION	LONG DESCRIPTION
&	OVERTURN	OVERTURNED
0	NON-COLL	OTHER NON-COLLISION
1	OTH RDWY	MOTOR VEHICLE ON OTHER ROADWAY
2	PRKD MV	PARKED MOTOR VEHICLE
3	PED	PEDESTRIAN
4	TRAIN	RAILWAY TRAIN
6	BIKE	PEDALCYCLIST
7	ANIMAL	ANIMAL
8	FIX OBJ	FIXED OBJECT
9	OTH OBJ	OTHER OBJECT
A	ANGL-STP	ENTERING AT ANGLE - ONE VEHICLE STOPPED
B	ANGL-OTH	ENTERING AT ANGLE - ALL OTHERS
C	S-STRGHT	FROM SAME DIRECTION - BOTH GOING STRAIGHT
D	S-1TURN	FROM SAME DIRECTION - ONE TURN, ONE STRAIGHT
E	S-1STOP	FROM SAME DIRECTION - ONE STOPPED
F	S-OTHER	FROM SAME DIRECTION-ALL OTHERS, INCLUDING PARKING
G	O-STRGHT	FROM OPPOSITE DIRECTION - BOTH GOING STRAIGHT
H	O-1TURN	FROM OPPOSITE DIRECTION - ONE TURN, ONE STRAIGHT
I	O-1STOP	FROM OPPOSITE DIRECTION - ONE STOPPED
J	O-OTHER	FROM OPPOSITE DIRECTION-ALL OTHERS INCL. PARKING

DRIVER LICENSE CODE TRANSLATION LIST

LIC CODE	SHORT DESC	LONG DESCRIPTION
0	NONE	NOT LICENSED (HAD NEVER BEEN LICENSED)
1	OR-Y	VALID OREGON LICENSE
2	OTH-Y	VALID LICENSE, OTHER STATE OR COUNTRY
3	SUSP	SUSPENDED/REVOKED

DRIVER RESIDENCE CODE TRANSLATION LIST

RES CODE	SHORT DESC	LONG DESCRIPTION
1	OR<25	OREGON RESIDENT WITHIN 25 MILE OF HOME
2	OR>25	OREGON RESIDENT 25 OR MORE MILES FROM HOME
3	OR-?	OREGON RESIDENT - UNKNOWN DISTANCE FROM HOME
4	N-RES	NON-RESIDENT
9	UNK	UNKNOWN IF OREGON RESIDENT

ERROR CODE TRANSLATION LIST

ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
000	NONE	NO ERROR
001	WIDE TRN	WIDE TURN
002	CUT CORN	CUT CORNER ON TURN
003	FAIL TRN	FAILED TO OBEY MANDATORY TRAFFIC TURN SIGNAL, SIGN OR LANE MARKINGS
004	L IN TRF	LEFT TURN IN FRONT OF ONCOMING TRAFFIC
005	L PROHIB	LEFT TURN WHERE PROHIBITED
006	FRM WRNG	TURNED FROM WRONG LANE
007	TO WRONG	TURNED INTO WRONG LANE
008	ILLEG U	U-TURNED ILLEGALLY
009	IMP STOP	IMPROPERLY STOPPED IN TRAFFIC LANE
010	IMP SIG	IMPROPER SIGNAL OR FAILURE TO SIGNAL
011	IMP BACK	BACKING IMPROPERLY (NOT PARKING)
012	IMP PARK	IMPROPERLY PARKED
013	UNPARK	IMPROPER START LEAVING PARKED POSITION
014	IMP STRT	IMPROPER START FROM STOPPED POSITION
015	IMP LGHT	IMPROPER OR NO LIGHTS (VEHICLE IN TRAFFIC)
016	INATTENT	FAILED TO DIM LIGHTS (UNTIL 4/1/97) / INATTENTION (AFTER 4/1/97)
017	UNSF VEH	DRIVING UNSAFE VEHICLE (NO OTHER ERROR APPARENT)
018	OTH PARK	ENTERING, EXITING PARKED POSITION WITH INSUFFICIENT CLEARANCE OR OTHER IMPROPER PARKING MANEUVER
019	DIS DRIV	DISREGARDED OTHER DRIVER'S SIGNAL
020	DIS SGNL	DISREGARDED TRAFFIC SIGNAL
021	RAN STOP	DISREGARDED STOP SIGN OR FLASHING RED
022	DIS SIGN	DISREGARDED WARNING SIGN, FLARES OR FLASHING AMBER
023	DIS OFCR	DISREGARDED POLICE OFFICER OR FLAGMAN
024	DIS EMER	DISREGARDED SIREN OR WARNING OF EMERGENCY VEHICLE
025	DIS RR	DISREGARDED RR SIGNAL, RR SIGN, OR RR FLAGMAN
026	REAR-END	FAILED TO AVOID STOPPED OR PARKED VEHICLE AHEAD OTHER THAN SCHOOL BUS
027	BIKE ROW	DID NOT HAVE RIGHT-OF-WAY OVER PEDALCYCLIST
028	NO ROW	DID NOT HAVE RIGHT-OF-WAY
029	PED ROW	FAILED TO YIELD RIGHT-OF-WAY TO PEDESTRIAN
030	PAS CURV	PASSING ON A CURVE
031	PAS WRNG	PASSING ON THE WRONG SIDE
032	PAS TANG	PASSING ON STRAIGHT ROAD UNDER UNSAFE CONDITIONS
033	PAS X-WK	PASSED VEHICLE STOPPED AT CROSSWALK FOR PEDESTRIAN
034	PAS INTR	PASSING AT INTERSECTION
035	PAS HILL	PASSING ON CREST OF HILL
036	N/PAS ZN	PASSING IN "NO PASSING" ZONE
037	PAS TRAF	PASSING IN FRONT OF ONCOMING TRAFFIC
038	CUT-IN	CUTTING IN (TWO LANES - TWO WAY ONLY)
039	WRNGSIDE	DRIVING ON WRONG SIDE OF THE ROAD
040	THRU MED	DRIVING THROUGH SAFETY ZONE OR OVER ISLAND
041	F/ST BUS	FAILED TO STOP FOR SCHOOL BUS

ERROR CODE TRANSLATION LIST		
ERROR CODE	SHORT DESCRIPTION	FULL DESCRIPTION
042	F/SLO MV	FAILED TO DECREASE SPEED FOR SLOWER MOVING VEHICLE
043	TO CLOSE	FOLLOWING TOO CLOSELY (MUST BE ON OFFICER'S REPORT)
044	STRDL LN	STRADDLING OR DRIVING ON WRONG LANES
045	IMP CHG	IMPROPER CHANGE OF TRAFFIC LANES
046	WRNG WAY	WRONG WAY ON ONE-WAY ROADWAY (VEHICLE IS DELIBERATELY TRAVELING ON WRONG SIDE)
047	BASCRULE	DRIVING TOO FAST FOR CONDITIONS (NOT EXCEEDING POSTED SPEED)
048	OPN DOOR	OPENED DOOR INTO ADJACENT TRAFFIC LANE
049	IMPEDING	IMPEDING TRAFFIC
050	SPEED	DRIVING IN EXCESS OF POSTED SPEED
051	RECKLESS	RECKLESS DRIVING (PER PAR)
052	CARELESS	CARELESS DRIVING (PER PAR)
053	RACING	SPEED RACING (PER PAR)
054	X N/SGNL	CROSSING AT INTERSECTION - NO TRAFFIC SIGNAL PRESENT
055	X W/SGNL	CROSSING AT INTERSECTION - TRAFFIC SIGNAL PRESENT
056	DIAGONAL	CROSSING AT INTERSECTION - DIAGONALLY
057	BTWN INT	CROSSING BETWEEN INTERSECTIONS
059	W/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER WITH TRAFFIC
060	A/TRAF-S	WALKING, RUNNING, RIDING, ETC., ON SHOULDER FACING TRAFFIC
061	W/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT WITH TRAFFIC
062	A/TRAF-P	WALKING, RUNNING, RIDING, ETC., ON PAVEMENT FACING TRAFFIC
063	PLAYINRD	PLAYING IN STREET OR ROAD
064	PUSH MV	PUSHING OR WORKING ON VEHICLE IN ROAD OR ON SHOULDER
065	WK IN RD	WORKING IN ROADWAY OR ALONG SHOULDER
070	LAYON RD	STANDING OR LYING IN ROADWAY
073	DIS POL	DISREGARDING POLICE (ELUDING)
080	FAIL LN	FAILED TO MAINTAIN LANE
081	OFF RD	RAN OFF ROAD
082	NO CLEAR	DRIVER MISJUDGED CLEARANCE
083	OVRSTEER	OVER CORRECTING
084	NOT USED	CODE NOT IN USE
085	OVRLOAD	OVERLOADING OR IMPROPER LOADING OF VEHICLE WITH CARGO OR PASSENGERS
097	UNA DIS TC	UNABLE TO DETERMINE WHICH DRIVER DISREGARDED TRAFFIC CONTROL DEVICE

EVENT CODE TRANSLATION LIST		
EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
001	FEL/JUMP	OCCUPANT FELL, JUMPED OR WAS EJECTED FROM MOVING VEHICLE
002	INTERFER	PASSENGER INTERFERED WITH DRIVER
003	BUG INTF	ANIMAL OR INSECT IN VEHICLE INTERFERED WITH DRIVER
004	PED INV	PEDESTRIAN INVOLVED (NON-PEDESTRIAN ACCIDENT)
005	SUB-PED	"SUB-PED": PEDESTRIAN INJURED SUBSEQUENT TO COLLISION, ETC.
006	BIKE INV	TRICYCLE-BICYCLE INVOLVED
007	HITCHIKR	HITCHHIKER (SOLICITING A RIDE)
008	PSNGR TOW	PASSENGER BEING TOWED OR PUSHED ON CONVEYANCE
009	ON/OFF V	GETTING ON OR OFF STOPPED OR PARKED VEHICLE (OCCUPANTS ONLY)
010	SUB OTRN	OVERTURNED AFTER FIRST HARMFUL EVENT
011	MV PUSHD	VEHICLE BEING PUSHED
012	MV TOWED	VEHICLE TOWED OR HAD BEEN TOWING ANOTHER VEHICLE
013	FORCED	VEHICLE FORCED BY IMPACT INTO ANOTHER VEHICLE, PEDALCYCLIST OR PEDESTRIAN
014	SET MOTN	VEHICLE SET IN MOTION BY NON-DRIVER (CHILD RELEASED BRAKES, ETC.)
015	RR ROW	AT OR ON RAILROAD RIGHT-OF-WAY (NOT LIGHT RAIL)
016	LT RL ROW	AT OR ON LIGHT-RAIL RIGHT-OF-WAY
017	RR HIT V	TRAIN STRUCK VEHICLE
018	V HIT RR	VEHICLE STRUCK TRAIN
019	HIT RR CAR	VEHICLE STRUCK RAILROAD CAR ON ROADWAY
020	JACKKNIFE	JACKKNIFE; TRAILER OR TOWED VEHICLE STRUCK TOWING VEHICLE
021	TRL OTRN	TRAILER OR TOWED VEHICLE OVERTURNED
022	CN BROKE	TRAILER CONNECTION BROKE
023	DETACH TRL	DETACHED TRAILING OBJECT STRUCK OTHER VEHICLE, NON-MOTORIST, OR OBJECT
024	V DOOR OPN	VEHICLE DOOR OPENED INTO ADJACENT TRAFFIC LANE
025	WHEELOFF	WHEEL CAME OFF
026	HOOD UP	HOOD FLEW UP
028	LOAD SHIFT	LOST LOAD, LOAD MOVED OR SHIFTED
029	TIREFAIL	TIRE FAILURE
030	PET	PET: CAT, DOG AND SIMILAR
031	LVSTOCK	STOCK: COW, CALF, BULL, STEER, SHEEP, ETC.
032	HORSE	HORSE, MULE, OR DONKEY
033	HRSE&RID	HORSE AND RIDER
034	GAME	WILD ANIMAL, GAME (INCLUDES BIRDS; NOT DEER OR ELK)
035	DEER ELK	DEER OR ELK, WAPITI
036	ANML VEH	ANIMAL-DRAWN VEHICLE
037	CULVERT	CULVERT, OPEN LOW OR HIGH MANHOLE
038	ATENUATN	IMPACT ATTENUATOR
039	PK METER	PARKING METER
040	CURB	CURB (ALSO NARROW SIDEWALKS ON BRIDGES)
041	JIGGLE	JIGGLE BARS OR TRAFFIC SNAKE FOR CHANNELIZATION
042	GDRL END	LEADING EDGE OF GUARDRAIL
043	GARDRAIL	GUARD RAIL (NOT METAL MEDIAN BARRIER)
044	BARRIER	MEDIAN BARRIER (RAISED OR METAL)
045	WALL	RETAINING WALL OR TUNNEL WALL
046	BR RAIL	BRIDGE RAILING (ON BRIDGE AND APPROACH)
047	BR ABUT	BRIDGE ABUTMENT (APPROACH ENDS)
048	BR COLMN	BRIDGE PILLAR OR COLUMN (EVEN THOUGH STRUCK PROTECTIVE GUARD RAIL FIRST)
049	BR GIRDR	BRIDGE GIRDER (HORIZONTAL STRUCTURE OVERHEAD)
050	ISLAND	TRAFFIC RAISED ISLAND
051	GORE	GORE
052	POLE UNK	POLE - TYPE UNKNOWN
053	POLE UTL	POLE - POWER OR TELEPHONE
054	ST LIGHT	POLE - STREET LIGHT ONLY
055	TRF SGNL	POLE - TRAFFIC SIGNAL AND PED SIGNAL ONLY
056	SGN BRDG	POLE - SIGN BRIDGE
057	STOPSIGN	STOP OR YIELD SIGN
058	OTH SIGN	OTHER SIGN, INCLUDING STREET SIGNS
059	HYDRANT	HYDRANT

EVENT CODE TRANSLATION LIST		
EVENT CODE	SHORT DESCRIPTION	LONG DESCRIPTION
060	MARKER	DELINEATOR OR MARKER (REFLECTOR POSTS)
061	MAILBOX	MAILBOX
062	TREE	TREE, STUMP OR SHRUBS
063	VEG OHED	TREE BRANCH OR OTHER VEGETATION OVERHEAD, ETC.
064	WIRE/CBL	WIRE OR CABLE ACROSS OR OVER THE ROAD
065	TEMP SGN	TEMPORARY SIGN OR BARRICADE IN ROAD, ETC.
066	PERM SGN	PERMANENT SIGN OR BARRICADE IN/OFF ROAD
067	SLIDE	SLIDES, ROCKS OFF OR ON ROAD, FALLING ROCKS
068	FRGN OBJ	FOREIGN OBSTRUCTION/DEBRIS IN ROAD (NOT GRAVEL)
069	EQP WORK	EQUIPMENT WORKING IN/OFF ROAD
070	OTH EQP	OTHER EQUIPMENT IN OR OFF ROAD (INCLUDES PARKED TRAILER, BOAT)
071	MAIN EQP	WRECKER, STREET SWEEPER, SNOW PLOW OR SANDING EQUIPMENT
072	OTHER WALL	ROCK, BRICK OR OTHER SOLID WALL
073	IRRL PVMT	SPEED BUMP, OTHER BUMP, POTHOLE OR PAVEMENT IRREGULARITY (PER PAR)
075	CAVE IN	BRIDGE OR ROAD CAVE IN
076	HI WATER	HIGH WATER
077	SNO BANK	SNOW BANK
078	HOLE	CHUCKHOLE IN ROAD, LOW OR HIGH SHOULDER AT PAVEMENT EDGE
079	DITCH	CUT SLOPE OR DITCH EMBANKMENT
080	OBJ F MV	STRUCK BY ROCK OR OTHER OBJECT SET IN MOTION BY OTHER VEHICLE (INCL. LOST LOADS)
081	FLY-OBJ	STRUCK BY OTHER MOVING OR FLYING OBJECT
082	VEH HID	VEHICLE OBSCURED VIEW
083	VEG HID	VEGETATION OBSCURED VIEW
084	BLDG HID	VIEW OBSCURED BY FENCE, SIGN, PHONE BOOTH, ETC.
085	WIND GUST	WIND GUST
086	IMMERSED	VEHICLE IMMERSED IN BODY OF WATER
087	FIRE/EXP	FIRE OR EXPLOSION
088	FENC/BLD	FENCE OR BUILDING, ETC.
089	OTH ACDT	ACCIDENT RELATED TO ANOTHER SEPARATE ACCIDENT
090	TO 1 SIDE	TWO-WAY TRAFFIC ON DIVIDED ROADWAY ALL ROUTED TO ONE SIDE
092	PHANTOM	OTHER (PHANTOM) NON-CONTACT VEHICLE (ON PAR OR REPORT)
093	CELL-POL	CELL PHONE (ON PAR OR DRIVER IN USE)
094	VIOL GDL	TEENAGE DRIVER IN VIOLATION OF GRADUATED LICENSE PGM
095	GUY WIRE	GUY WIRE
096	BERM	BERM (EARTHEN OR GRAVEL MOUND)
097	GRAVEL	GRAVEL IN ROADWAY
098	ABR EDGE	ABRUPT EDGE
099	CELL-WTN	CELL PHONE USE WITNESSED BY OTHER PARTICIPANT
100	UNK FIXD	UNKNOWN TYPE OF FIXED OBJECT
101	OTHER OBJ	OTHER OR UNKNOWN OBJECT, NOT FIXED
104	OUTSIDE V	PASSENGER RIDING ON VEHICLE EXTERIOR
105	PEDAL PSGR	PASSENGER RIDING ON PEDALCYCLE
106	MAN WHLCHR	PEDESTRIAN IN NON-MOTORIZED WHEELCHAIR
107	MTR WHLCHR	PEDESTRIAN IN MOTORIZED WHEELCHAIR
110	N-MTR	NON-MOTORIST STRUCK VEHICLE
111	S CAR VS V	STREET CAR/TROLLEY (ON RAILS AND/OR OVERHEAD WIRE SYSTEM) STRUCK VEHICLE
112	V VS S CAR	VEHICLE STRUCK STREET CAR/TROLLEY (ON RAILS AND/OR OVERHEAD WIRE SYSTEM)
113	S CAR ROW	AT OR ON STREET CAR/TROLLEY RIGHT-OF-WAY
114	RR EQUIP	VEHICLE STRUCK RAILROAD EQUIPMENT (NOT TRAIN) ON TRACKS
120	WIRE BAR	WIRE OR CABLE MEDIAN BARRIER
124	SLIPPERY	SLIDING OR SWERVING DUE TO WET, ICY, SLIPPERY OR LOOSE SURFACE
125	SHLDR	SHOULDER GAVE WAY

FUNCTIONAL CLASSIFICATION TRANSLATION LIST

FUNC CLASS	DESCRIPTION	
01	RURAL	PRINCIPAL ARTERIAL - INTERSTATE
02	RURAL	PRINCIPAL ARTERIAL - OTHER
06	RURAL	MINOR ARTERIAL
07	RURAL	MAJOR COLLECTOR
08	RURAL	MINOR COLLECTOR
09	RURAL	LOCAL
11	URBAN	PRINCIPAL ARTERIAL - INTERSTATE
12	URBAN	PRINCIPAL ARTERIAL - OTHER FREEWAYS AND EXP
14	URBAN	PRINCIPAL ARTERIAL - OTHER
16	URBAN	MINOR ARTERIAL
17	URBAN	COLLECTOR
19	URBAN	LOCAL
78	UNKNOWN	RURAL SYSTEM
79	UNKNOWN	RURAL NON-SYSTEM
98	UNKNOWN	URBAN SYSTEM
99	UNKNOWN	URBAN NON-SYSTEM

HIGHWAY COMPONENT TRANSLATION LIST

CODE	DESCRIPTION	
0	MAINLINE	STATE HIGHWAY
1	COUPLET	
3	FRONTAGE	ROAD
6	CONNECTION	
8	HIGHWAY - OTHER	

INJURY SEVERITY CODE TRANSLATION LIST

CODE	SHORT	
	DESC	LONG DESCRIPTION
1	KILL	FATAL INJURY
2	INJA	INCAPACITATING INJURY - BLEEDING, BROKEN BONES
3	INJB	NON-INCAPACITATING INJURY
4	INJC	POSSIBLE INJURY - COMPLAINT OF PAIN
5	PRI	DIED PRIOR TO CRASH
7	NO<5	NO INJURY - 0 TO 4 YEARS OF AGE

LIGHT CONDITION CODE TRANSLATION LIST

CODE	SHORT	
	DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	DAY	DAYLIGHT
2	DLIT	DARKNESS - WITH STREET LIGHTS
3	DARK	DARKNESS - NO STREET LIGHTS
4	DAWN	DAWN (TWILIGHT)
5	DUSK	DUSK (TWILIGHT)

MEDIAN TYPE CODE TRANSLATION LIST

CODE	SHORT	
	DESC	LONG DESCRIPTION
0	NONE	NO MEDIAN
1	RSDMD	SOLID MEDIAN BARRIER
2	DIVMD	EARTH, GRASS OR PAVED MEDIAN

MILEAGE TYPE CODE TRANSLATION LIST

CODE	LONG DESCRIPTION	
0	REGULAR	MILEAGE
T	TEMPORARY	
Y	SPUR	
Z	OVERLAPPING	

MOVEMENT TYPE CODE TRANSLATION LIST

CODE	SHORT	
	DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	STRGHT	STRAIGHT AHEAD
2	TURN-R	TURNING RIGHT
3	TURN-L	TURNING LEFT
4	U-TURN	MAKING A U-TURN
5	BACK	BACKING
6	STOP	STOPPED IN TRAFFIC
7	PRKD-P	PARKED - PROPERLY
8	PRKD-I	PARKED - IMPROPERLY

PEDESTRIAN LOCATION CODE TRANSLATION LIST

CODE	LONG DESCRIPTION
00	AT INTERSECTION - NOT IN ROADWAY
01	AT INTERSECTION - INSIDE CROSSWALK
02	AT INTERSECTION - IN ROADWAY, OUTSIDE CROSSWALK
03	AT INTERSECTION - IN ROADWAY, XWALK AVAIL UNKNWN
04	NOT AT INTERSECTION - IN ROADWAY
05	NOT AT INTERSECTION - ON SHOULDER
06	NOT AT INTERSECTION - ON MEDIAN
07	NOT AT INTERSECTION - WITHIN TRAFFIC RIGHT-OF-WAY
08	NOT AT INTERSECTION - IN BIKE PATH
09	NOT-AT INTERSECTION - ON SIDEWALK
10	OUTSIDE TRAFFICWAY BOUNDARIES
15	NOT AT INTERSECTION - INSIDE MID-BLOCK CROSSWALK
18	OTHER, NOT IN ROADWAY
99	UNKNOWN LOCATION

ROAD CHARACTER CODE TRANSLATION LIST

CODE	SHORT	
	DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	INTER	INTERSECTION
2	ALLEY	DRIVEWAY OR ALLEY
3	STRGHT	STRAIGHT ROADWAY
4	TRANS	TRANSITION
5	CURVE	CURVE (HORIZONTAL CURVE)
6	OPENAC	OPEN ACCESS OR TURNOUT
7	GRADE	GRADE (VERTICAL CURVE)
8	BRIDGE	BRIDGE STRUCTURE
9	TUNNEL	TUNNEL

PARTICIPANT TYPE CODE TRANSLATION LIST

CODE	SHORT	
	DESC	LONG DESCRIPTION
0	OCC	UNKNOWN OCCUPANT TYPE
1	DRVR	DRIVER
2	PSNG	PASSENGER
3	PED	PEDESTRIAN
4	CONV	PEDESTRIAN USING A PEDESTRIAN CONVEYANCE
5	PTOW	PEDESTRIAN TOWING OR TRAILERING AN OBJECT
6	BIKE	PEDALCYCLIST
7	BTOW	PEDALCYCLIST TOWING OR TRAILERING AN OBJECT
8	PRKD	OCCUPANT OF A PARKED MOTOR VEHICLE
9	UNK	UNKNOWN TYPE OF NON-MOTORIST

TRAFFIC CONTROL DEVICE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
000	NONE	NO CONTROL
001	TRF SIGNAL	TRAFFIC SIGNALS
002	FLASHBCN-R	FLASHING BEACON - RED (STOP)
003	FLASHBCN-A	FLASHING BEACON - AMBER (SLOW)
004	STOP SIGN	STOP SIGN
005	SLOW SIGN	SLOW SIGN
006	REG-SIGN	REGULATORY SIGN
007	YIELD	YIELD SIGN
008	WARNING	WARNING SIGN
009	CURVE	CURVE SIGN
010	SCHL X-ING	SCHOOL CROSSING SIGN OR SPECIAL SIGNAL
011	OFCR/FLAG	POLICE OFFICER, FLAGMAN - SCHOOL PATROL
012	BRDG-GATE	BRIDGE GATE - BARRIER
013	TEMP-BARR	TEMPORARY BARRIER
014	NO-PASS-ZN	NO PASSING ZONE
015	ONE-WAY	ONE-WAY STREET
016	CHANNEL	CHANNELIZATION
017	MEDIAN BAR	MEDIAN BARRIER
018	PILOT CAR	PILOT CAR
019	SP PED SIG	SPECIAL PEDESTRIAN SIGNAL
020	X-BUCK	CROSSBUCK
021	THR-GN-SIG	THROUGH GREEN ARROW OR SIGNAL
022	L-GRN-SIG	LEFT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
023	R-GRN-SIG	RIGHT TURN GREEN ARROW, LANE MARKINGS, OR SIGNAL
024	WIGWAG	WIGWAG OR FLASHING LIGHTS W/O DROP-ARM GATE
025	X-BUCK WRN	CROSSBUCK AND ADVANCE WARNING
026	WW W/ GATE	FLASHING LIGHTS WITH DROP-ARM GATES
027	OVHRD SGNL	SUPPLEMENTAL OVERHEAD SIGNAL (RR XING ONLY)
028	SP RR STOP	SPECIAL RR STOP SIGN
029	ILUM GRD X	ILLUMINATED GRADE CROSSING
037	RAMP METER	METERED RAMPS
038	RUMBLE STR	RUMBLE STRIP
090	L-TURN REF	LEFT TURN REFUGE (WHEN REFUGE IS INVOLVED)
091	R-TURN ALL	RIGHT TURN AT ALL TIMES SIGN, ETC.
092	EMR SGN/FL	EMERGENCY SIGNS OR FLARES
093	ACCEL LANE	ACCELERATION OR DECELERATION LANES
094	R-TURN PRO	RIGHT TURN PROHIBITED ON RED AFTER STOPPING

VEHICLE TYPE CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
01	PSNGR CAR	PASSENGER CAR, PICKUP, ETC.
02	BOBTAIL	TRUCK TRACTOR WITH NO TRAILERS (BOBTAIL)
03	FARM TRCTR	FARM TRACTOR OR SELF-PROPELLED FARM EQUIPMENT
04	SEMI TOW	TRUCK TRACTOR WITH TRAILER/MOBILE HOME IN TOW
05	TRUCK	TRUCK WITH NON-DETACHABLE BED, PANEL, ETC.
06	MOPED	MOPED, MINIBIKE, MOTOR SCOOTER, OR MOTOR BICYCLE
07	SCHL BUS	SCHOOL BUS (INCLUDES VAN)
08	OTH BUS	OTHER BUS
09	MTRCYCLE	MOTORCYCLE
10	OTHER	OTHER: FORKLIFT, BACKHOE, ETC.
11	MOTRHOME	MOTORHOME
12	TROLLEY	MOTORIZED STREET CAR/TROLLEY (NO RAILS/WIRES)
13	ATV	ATV
14	MTRSCTR	MOTORIZED SCOOTER
15	SNOWMOBILE	SNOWMOBILE
99	UNKNOWN	UNKNOWN VEHICLE TYPE

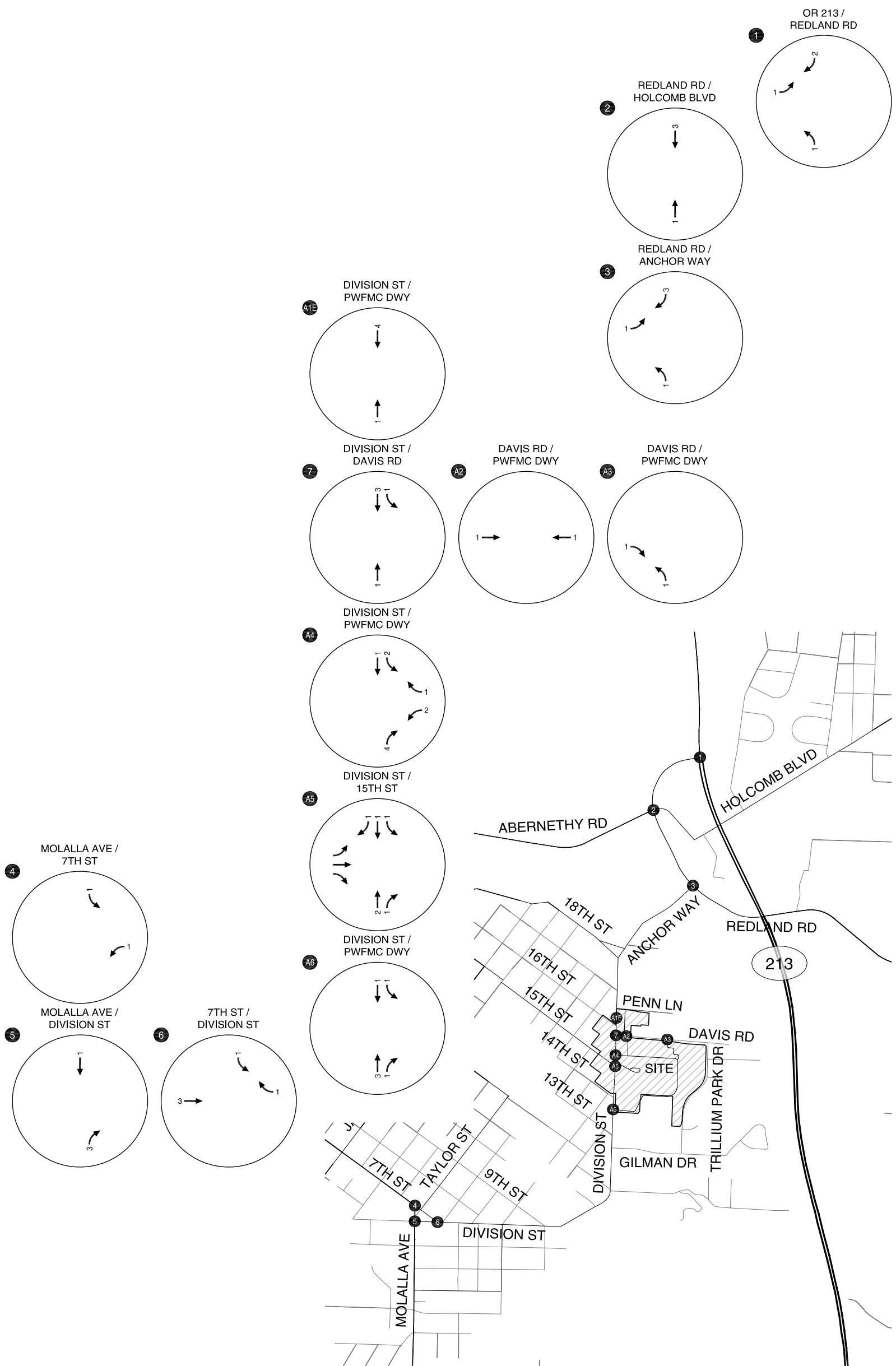
095	BUS STPSGN	BUS STOP SIGN AND RED LIGHTS
099	UNKNOWN	UNKNOWN OR NOT DEFINITE

WEATHER CONDITION CODE TRANSLATION LIST

CODE	SHORT DESC	LONG DESCRIPTION
0	UNK	UNKNOWN
1	CLR	CLEAR
2	CLD	CLOUDY
3	RAIN	RAIN
4	SLT	SLEET
5	FOG	FOG
6	SNOW	SNOW
7	DUST	DUST
8	SMOK	SMOKE
9	ASH	ASH

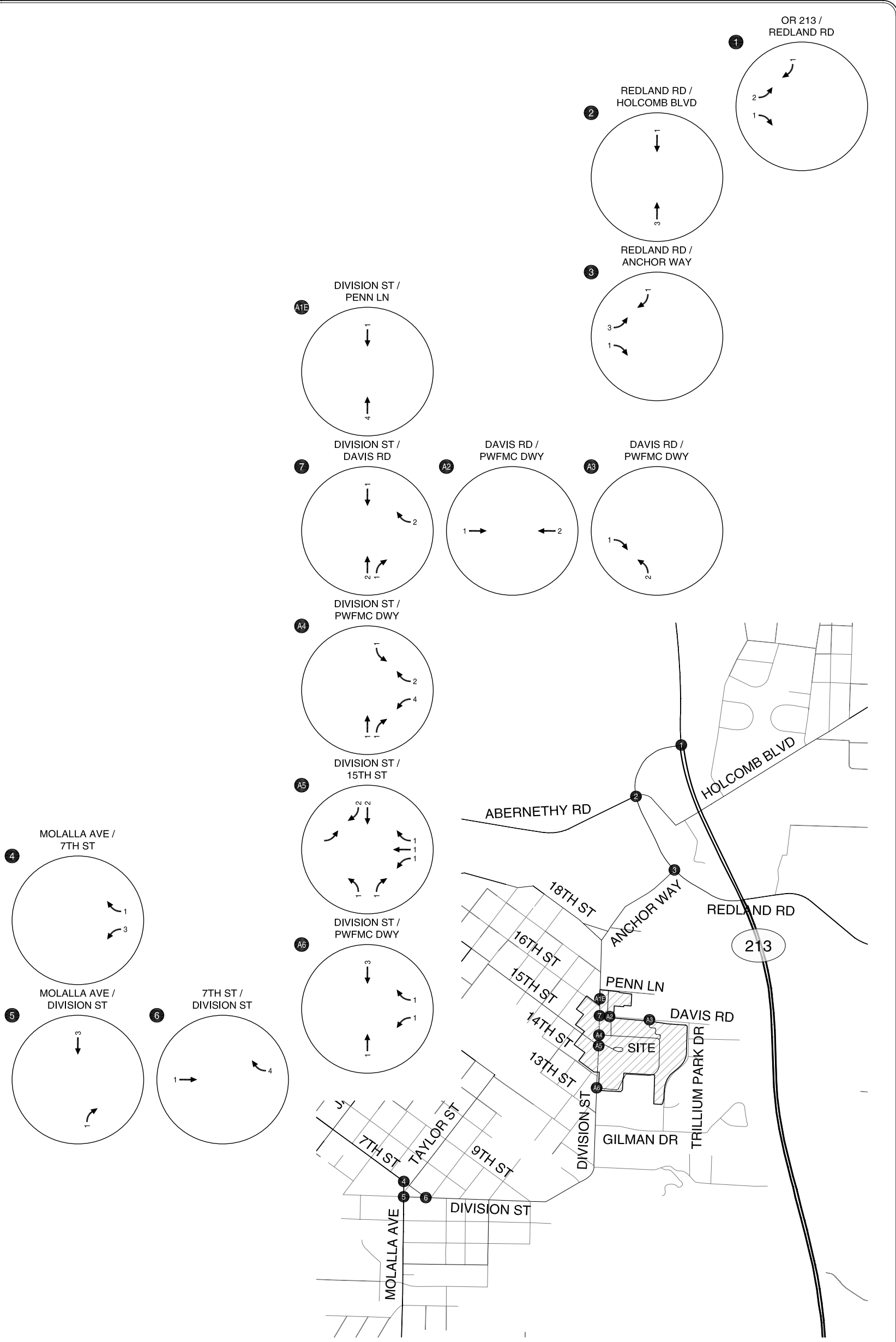
Appendix E 2021 Background Level-of- Service Worksheets

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APPROVED SITE-GENERATED TRAFFIC
WEEKDAY AM PEAK HOUR
OREGON CITY, OREGON

FIGURE
E1









SITE-GENERATED TRAFFIC
WEEKDAY PM PEAK HOUR
OREGON CITY, OREGON

FIGURE
E2

Queues













1: Redland Road & Cascade Highway

8/21/2011

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	704	66	37	2092	1787	375
v/c Ratio	1.37	0.18	0.46	0.78	0.72	0.26
Control Delay	222.9	29.3	86.6	11.1	14.2	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	222.9	29.3	86.6	11.1	14.2	0.5
Queue Length 50th (ft)	~466	30	36	504	493	0
Queue Length 95th (ft)	#594	71	75	588	626	9
Internal Link Dist (ft)	811			948	600	
Turn Bay Length (ft)	330		350			
Base Capacity (vph)	515	455	182	2693	2488	1430
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.37	0.15	0.20	0.78	0.72	0.26
Intersection Summary						
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.						
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.						

HCM Signalized Intersection Capacity Analysis 1: Redland Road & Cascade Highway

8/21/2011










						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (vph)	655	61	34	1946	1662	349
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.5	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3303	1553	1805	3406	3406	1524
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3303	1553	1805	3406	3406	1524
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	704	66	37	2092	1787	375
RTOR Reduction (vph)	0	23	0	0	0	46
Lane Group Flow (vph)	704	43	37	2092	1787	329
Heavy Vehicles (%)	6%	4%	0%	6%	6%	6%
Turn Type	pm+ov		Prot	pm+ov		
Protected Phases	8	1	1	6	2	8
Permitted Phases	8					2
Actuated Green, G (s)	22.0	27.4	5.4	116.6	106.7	128.7
Effective Green, g (s)	23.4	27.4	5.9	118.6	108.7	131.5
Actuated g/C Ratio	0.16	0.18	0.04	0.79	0.72	0.88
Clearance Time (s)	5.4	4.5	4.5	6.0	6.0	5.4
Vehicle Extension (s)	0.5	0.5	0.5	4.8	4.8	0.5
Lane Grp Cap (vph)	515	284	71	2693	2468	1336
v/s Ratio Prot	c0.21	0.01	0.02	c0.61	0.52	0.04
v/s Ratio Perm		0.02				0.18
v/c Ratio	1.37	0.15	0.52	0.78	0.72	0.25
Uniform Delay, d1	63.3	51.5	70.7	8.5	12.0	1.5
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	177.3	0.1	3.2	2.3	1.9	0.0
Delay (s)	240.6	51.6	73.8	10.8	13.8	1.5
Level of Service	F	D	E	B	B	A
Approach Delay (s)	224.4			11.9	11.7	
Approach LOS	F			B	B	
Intersection Summary						
HCM Average Control Delay			44.1	HCM Level of Service		D
HCM Volume to Capacity ratio			0.87			
Actuated Cycle Length (s)			150.0	Sum of lost time (s)		8.0
Intersection Capacity Utilization			79.1%	ICU Level of Service		D
Analysis Period (min)			15			
c Critical Lane Group						

c Critical Lane Group

Queues

2: Abernethy Road & Redland Road

8/21/2011

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	31	131	116	478	280	649	124	270	30
v/c Ratio	0.31	0.61	0.62	0.59	0.78	0.76	0.60	0.36	0.05
Control Delay	63.4	53.7	65.8	32.6	59.7	33.9	62.6	29.2	9.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.4	53.7	65.8	32.6	59.7	33.9	62.6	29.2	9.9
Queue Length 50th (ft)	22	78	83	124	195	376	88	139	0
Queue Length 95th (ft)	61	157	162	196	338	#784	170	273	23
Internal Link Dist (ft)		258		507		880		811	
Turn Bay Length (ft)	115		95		125		335		245
Base Capacity (vph)	381	549	283	987	473	849	377	743	620
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.24	0.41	0.48	0.59	0.76	0.33	0.36	0.05
Intersection Summary									
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.									

HCM Signalized Intersection Capacity Analysis

2: Abernethy Road & Redland Road

8/21/2011










Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	75	48	109	233	216	263	505	105	117	254	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.94		1.00	0.93		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1410	1477		1597	3238		1752	1740		1671	1845	1495
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1410	1477		1597	3238		1752	1740		1671	1845	1495
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	31	80	51	116	248	230	280	537	112	124	270	30
RTOR Reduction (vph)	0	17	0	0	108	0	0	4	0	0	0	18
Lane Group Flow (vph)	31	114	0	116	370	0	280	645	0	124	270	12
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	28%	22%	17%	13%	2%	5%	3%	6%	8%	8%	3%	8%
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	5.1	16.4		13.4	24.7		23.2	55.4		13.6	45.8	45.8
Effective Green, g (s)	5.6	17.4		13.4	25.2		23.7	55.9		14.1	46.3	46.3
Actuated g/C Ratio	0.05	0.15		0.11	0.22		0.20	0.48		0.12	0.40	0.40
Clearance Time (s)	4.5	5.0		4.0	4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	3.0		2.5	3.0	3.0
Lane Grp Cap (vph)	68	220		183	699		356	833		202	731	593
v/s Ratio Prot	0.02	0.08		c0.07	c0.11		c0.16	c0.37		0.07	0.15	
v/s Ratio Perm												0.01
v/c Ratio	0.46	0.52		0.63	0.53		0.79	0.77		0.61	0.37	0.02
Uniform Delay, d1	54.1	45.8		49.4	40.5		44.2	25.2		48.8	24.9	21.4
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.5	1.5		6.1	0.6		10.5	7.0		4.7	1.4	0.1
Delay (s)	57.6	47.4		55.5	41.1		54.7	32.2		53.4	26.4	21.5
Level of Service	E	D		E	D		D	C		D	C	C
Approach Delay (s)		49.3			43.9			39.0			33.9	
Approach LOS		D			D			D			C	
Intersection Summary												
HCM Average Control Delay			40.1									HCM Level of Service D
HCM Volume to Capacity ratio			0.69									
Actuated Cycle Length (s)			116.8									Sum of lost time (s) 8.0
Intersection Capacity Utilization			70.3%									ICU Level of Service C
Analysis Period (min)			15									
c Critical Lane Group												

10567 - Providence Willamette Falls Medical Center Master Plan 5:00 pm 7/12/2011 Background AM Peak Hour
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HCM Unsignalized Intersection Capacity Analysis 3: Anchor Way & Redland Road

8/21/2011












						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	92	36	47	762	252	136
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	99	39	51	819	271	146
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					960	
pX, platoon unblocked	0.91	0.91	0.91			
vC, conflicting volume	1265	344	417			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1241	230	310			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	40	95	95			
cM capacity (veh/h)	166	728	1123			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	138	870	417			
Volume Left	99	51	0			
Volume Right	39	0	146			
cSH	212	1123	1700			
Volume to Capacity	0.65	0.05	0.25			
Queue Length 95th (ft)	98	4	0			
Control Delay (s)	48.7	1.2	0.0			
Lane LOS	E	A				
Approach Delay (s)	48.7	1.2	0.0			
Approach LOS	E					
Intersection Summary						
Average Delay			5.4			
Intersection Capacity Utilization			81.6%	ICU Level of Service		D
Analysis Period (min)			15			

10567 - Providence Willamette Falls Medical Center Master Plan 5:00 pm 7/12/2011 Background AM Peak Hour
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HCM Unsignalized Intersection Capacity Analysis 4: 7th Street & Molalla Avenue

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	85	32	788	127	33	385
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	89	33	821	132	34	401
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLT		TWLT	
Median storage (veh)			2		2	
Upstream signal (ft)			147			
pX, platoon unblocked	0.72	0.72			0.72	
vC, conflicting volume	1357	887			953	
vC1, stage 1 conf vol	887					
vC2, stage 2 conf vol	470					
vCu, unblocked vol	1302	654			745	
tC, single (s)	6.5	6.4			4.1	
tC, 2 stage (s)	5.5					
tF (s)	3.6	*4.4			2.2	
p0 queue free %	72	88			94	
cM capacity (veh/h)	315	269			618	
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total	89	33	953	34	401	
Volume Left	89	0	0	34	0	
Volume Right	0	33	132	0	0	
cSH	315	269	1700	618	1700	
Volume to Capacity	0.28	0.12	0.56	0.06	0.24	
Queue Length 95th (ft)	28	10	0	4	0	
Control Delay (s)	20.8	20.3	0.0	11.2	0.0	
Lane LOS	C	C		B		
Approach Delay (s)	20.7		0.0	0.9		
Approach LOS	C					
Intersection Summary						
Average Delay			1.9			
Intersection Capacity Utilization			60.6%	ICU Level of Service		B
Analysis Period (min)			15			

* User Entered Value

Queues

5: Division Street & Molalla Avenue


8/21/2011



Lane Group	NBT	SBT
Lane Group Flow (vph)	1063	526
v/c Ratio	0.63	0.31
Control Delay	5.7	2.3
Queue Delay	0.0	0.0
Total Delay	5.7	2.3
Queue Length 50th (ft)	0	0
Queue Length 95th (ft)	605	161
Internal Link Dist (ft)	126	67
Turn Bay Length (ft)		
Base Capacity (vph)	1697	1696
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.63	0.31
Intersection Summary		

HCM Signalized Intersection Capacity Analysis 5: Division Street & Molalla Avenue

8/21/2011










												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								↶			↶	
Volume (vph)	0	0	0	0	0	0	0	930	70	0	488	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Frpb, ped/bikes								1.00			1.00	
Flpb, ped/bikes								1.00			1.00	
Frt								0.99			1.00	
Flt Protected								1.00			1.00	
Satd. Flow (prot)								1804			1803	
Flt Permitted								1.00			1.00	
Satd. Flow (perm)								1804			1803	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	0	0	0	0	989	74	0	519	7
RTOR Reduction (vph)	0	0	0	0	0	0	0	1	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1062	0	0	526	0
Confl. Peds. (#/hr)			5	5			2		1	1		2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	7%	0%	5%	17%
Turn Type												
Protected Phases								3 6			2 3	
Permitted Phases												
Actuated Green, G (s)								49.7			49.7	
Effective Green, g (s)								49.7			49.7	
Actuated g/C Ratio								0.84			0.84	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)								1515			1514	
v/s Ratio Prot								c0.59			0.29	
v/s Ratio Perm												
v/c Ratio								0.70			0.35	
Uniform Delay, d1								1.9			1.1	
Progression Factor								1.00			1.00	
Incremental Delay, d2								1.2			0.1	
Delay (s)								3.1			1.1	
Level of Service								A			A	
Approach Delay (s)		0.0			0.0			3.1			1.1	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM Average Control Delay			2.4									HCM Level of Service A
HCM Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			59.2								9.5	
Intersection Capacity Utilization			56.5%								B	
Analysis Period (min)			15									
c Critical Lane Group												

10567 - Providence Willamette Falls Medical Center Master Plan 5:00 pm 7/12/2011 Background AM Peak Hour
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HCM Unsignalized Intersection Capacity Analysis 6: Division Street & 7th Street

8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	8	63	0	73	95	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	10	79	0	91	119	0
Pedestrians				4		
Lane Width (ft)				12.0		
Walking Speed (ft/s)				4.0		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	210	123	119			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	210	123	119			
tC, single (s)	6.5	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	99	91	100			
cM capacity (veh/h)	752	915	1482			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	89	91	119			
Volume Left	10	0	0			
Volume Right	79	0	0			
cSH	893	1700	1700			
Volume to Capacity	0.10	0.05	0.07			
Queue Length 95th (ft)	8	0	0			
Control Delay (s)	9.5	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	9.5	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay		2.8				
Intersection Capacity Utilization		17.5%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis 7: Davis Road & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	8	12	83	41	34	165
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	9	13	93	46	38	185
Pedestrians						3
Lane Width (ft)						12.0
Walking Speed (ft/s)						4.0
Percent Blockage						0
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	378	119			139	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	378	119			139	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	99	99			97	
cM capacity (veh/h)	611	909			1457	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	22	139	224			
Volume Left	9	0	38			
Volume Right	13	46	0			
cSH	761	1700	1457			
Volume to Capacity	0.03	0.08	0.03			
Queue Length 95th (ft)	2	0	2			
Control Delay (s)	9.9	0.0	1.5			
Lane LOS	A		A			
Approach Delay (s)	9.9	0.0	1.5			
Approach LOS	A					
Intersection Summary						
Average Delay			1.4			
Intersection Capacity Utilization		31.7%		ICU Level of Service	A	
Analysis Period (min)		15				










10567 - Providence Willamette Falls Medical Center Master Plan 5:00 pm 7/12/2011 Background AM Peak Hour
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HCM Unsignalized Intersection Capacity Analysis

















1: Access: Existing PWPMC Driveway (S of Penn Lane) & Division Street

8/21/2011

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Volume (veh/h)	0	1	87	0	8	193			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91			
Hourly flow rate (vph)	0	1	96	0	9	212			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type			None			None			
Median storage (veh)									
Upstream signal (ft)									
pX, platoon unblocked									
vC, conflicting volume	325	96			96				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	325	96			96				
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			99				
cM capacity (veh/h)	669	966			1511				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	1	96	221						
Volume Left	0	0	9						
Volume Right	1	0	0						
cSH	966	1700	1511						
Volume to Capacity	0.00	0.06	0.01						
Queue Length 95th (ft)	0	0	0						
Control Delay (s)	8.7	0.0	0.3						
Lane LOS	A		A						
Approach Delay (s)	8.7	0.0	0.3						
Approach LOS	A								
Intersection Summary									
Average Delay		0.3							
Intersection Capacity Utilization		26.6%	ICU Level of Service	A					
Analysis Period (min)		15							










HCM Unsignalized Intersection Capacity Analysis
 2: Access: Davis Road & PWPMC Driveway (QC#3)

8/21/2011

																				
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR								
Lane Configurations																				
Volume (veh/h)	6	54	6	0	18	1	2	0	1	0	0	0								
Sign Control		Free			Free			Stop			Stop									
Grade		0%			0%			0%			0%									
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94								
Hourly flow rate (vph)	6	57	6	0	19	1	2	0	1	0	0	0								
Pedestrians		7			15			1			0									
Lane Width (ft)		12.0			12.0			12.0												
Walking Speed (ft/s)		4.0			4.0			4.0												
Percent Blockage		1			1			0												
Right turn flare (veh)																				
Median type		None			None															
Median storage (veh)																				
Upstream signal (ft)																				
pX, platoon unblocked																				
vC, conflicting volume	20			65			101	95	77	109	97	27								
vC1, stage 1 conf vol																				
vC2, stage 2 conf vol																				
vCu, unblocked vol	20			65			101	95	77	109	97	27								
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2								
tC, 2 stage (s)																				
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3								
p0 queue free %	100			100			100	100	100	100	100	100								
cM capacity (veh/h)	1609			1549			876	795	977	859	793	1049								
Direction, Lane #	EB 1	WB 1	NB 1	SB 1																
Volume Total	70	20	3	0																
Volume Left	6	0	2	0																
Volume Right	6	1	1	0																
cSH	1609	1549	907	1700																
Volume to Capacity	0.00	0.00	0.00	0.00																
Queue Length 95th (ft)	0	0	0	0																
Control Delay (s)	0.7	0.0	9.0	0.0																
Lane LOS	A		A	A																
Approach Delay (s)	0.7	0.0	9.0	0.0																
Approach LOS			A	A																
Intersection Summary																				
Average Delay			0.8																	
Intersection Capacity Utilization			22.4%	ICU Level of Service					A											
Analysis Period (min)			15																	










HCM Unsignalized Intersection Capacity Analysis
3: Access: Davis Road & PWFMC Driveway (QC#4)

8/21/2011

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	5	50	0	14	4	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	6	64	0	18	5	0
Pedestrians					6	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			77		62	44
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			77		62	44
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		99	100
cM capacity (veh/h)			1527		944	1026
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	71	18	5			
Volume Left	0	0	5			
Volume Right	64	0	0			
cSH	1700	1527	944			
Volume to Capacity	0.04	0.00	0.01			
Queue Length 95th (ft)	0	0	0			
Control Delay (s)	0.0	0.0	8.8			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.8			
Approach LOS			A			
Intersection Summary						
Average Delay			0.5			
Intersection Capacity Utilization		15.6%		ICU Level of Service		A
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis
4: Access: PWFMC Driveway (QC#1) & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	28	14	117	108	38	129
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	31	16	130	120	42	143
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	419	191			251	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	419	191			251	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	95	98			97	
cM capacity (veh/h)	575	832			1325	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	47	250	186			
Volume Left	31	0	42			
Volume Right	16	120	0			
cSH	641	1700	1325			
Volume to Capacity	0.07	0.15	0.03			
Queue Length 95th (ft)	6	0	2			
Control Delay (s)	11.1	0.0	2.0			
Lane LOS	B		A			
Approach Delay (s)	11.1	0.0	2.0			
Approach LOS	B					
Intersection Summary						
Average Delay			1.8			
Intersection Capacity Utilization			35.1%	ICU Level of Service	A	
Analysis Period (min)			15			

Default Scenario	Sun Aug 21, 2011 12:43:13	Page 2-1
10567 - Providence Willamette Falls Medical Center Master Plan Background AM Peak Hour		
Level Of Service Computation Report 2000 HCM 4-Way Stop Method (Base Volume Alternative)		
***** Intersection #A5 10567 - Providence Willamette Falls Medical Center Master Plan *****		
Cycle (sec):	100	Critical Vol./Cap.(X): 0.336
Loss Time (sec):	0	Average Delay (sec/veh): 9.4
Optimal Cycle:	0	Level Of Service: A

Street Name:	Division Street	15th Street
Approach:	North Bound	South Bound
Movement:	L - T - R	L - T - R
Control:	Stop Sign	Stop Sign
Rights:	Include	Include
Min. Green:	0 0 0 0	0 0 0 0
Lanes:	0 0 1 0 0	0 0 1 0 0
Volume Module:AM Peak Hour		
Base Vol:	69 133 22	9 119 27
Growth Adj:	1.00 1.00 1.00	1.00 1.00 1.00
Initial Bse:	69 133 22	9 119 27
User Adj:	1.00 1.00 1.00	1.00 1.00 1.00
PHF Adj:	0.90 0.90 0.90	0.90 0.90 0.90
PHF Volume:	77 148 24	10 132 30
Reduct Vol:	0 0 0	0 0 0
Reduced Vol:	77 148 24	10 132 30
PCE Adj:	1.00 1.00 1.00	1.00 1.00 1.00
MLF Adj:	1.00 1.00 1.00	1.00 1.00 1.00
FinalVolume:	77 148 24	10 132 30
Saturation Flow Module:		
Adjustment:	1.00 1.00 1.00	1.00 1.00 1.00
Lanes:	0.31 0.59 0.10	0.06 0.77 0.17
Final Sat.:	228 440 73	42 559 127
Capacity Analysis Module:		
Vol/Sat:	0.34 0.34 0.24	0.24 0.26 0.26
Crit Moves:	****	****
Delay/Veh:	9.9 9.9 9.9	9.1 9.1 9.1
Delay Adj:	1.00 1.00 1.00	1.00 1.00 1.00
AdjDel/Veh:	9.9 9.9 9.9	9.1 9.1 9.1
LOS by Move:	A A A	A A A
ApproachDel:	9.9	9.3
Delay Adj:	1.00	1.00
ApprAdjDel:	9.9	9.3
LOS by Appr:	A	A
AllWayAvgQ:	0.5 0.5 0.5	0.3 0.3 0.3

Note: Queue reported is the number of cars per lane.		

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Default Scenario	Sun Aug 21, 2011 12:43:17	Page 3-1
10567 - Providence Willamette Falls Medical Center Master Plan Background AM Peak Hour		
Level Of Service Detailed Computation Report 2000 HCM 4-Way Stop Method Base Volume Alternative		
***** Intersection #A5 10567 - Providence Willamette Falls Medical Center Master Plan *****		
Approach:	North Bound	South Bound
Movement:	L - T - R	L - T - R
Time Period:	0.25 hour	
HevVeh:	3%	6%
Alpha Value:	0.01	
GroupType:		
P[C1]:	0.56	0.49
P[C2]:	0.16	0.23
P[C3]:	0.21	0.18
P[C4]:	0.07	0.10
P[C5]:	0.00	0.00
Padj[C1]:	0.008	0.009
Padj[C2]:	0.002	0.001
Padj[C3]:	-0.005	-0.004
Padj[C4]:	-0.004	-0.006
Padj[C5]:	-0.000	-0.000
Lane:		
LaneType:	LEFTTHURITE	LEFTTHURITE
HeadwayAdj:	0.054	0.009
Volume:	249	172
Capacity:	741	728
DegOfUtil:	0.32	0.23
DepHeadway:	4.69	4.73
ServiceTime:	2.7	2.8
Delay:	9.9	9.1
Queue:	0.5	0.3
Approach:		
ApproachDel:	9.9	9.1
Delay Adj:	1.00	1.00
ApprAdjDel:	9.9	9.1
LOS by Appr:	A	A
OverallDel:		9.4
OverallLOS:		A

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HCM Unsignalized Intersection Capacity Analysis
6: Access: PWFMC Driveway (QC#2) & Division Street







8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	6	12	202	24	44	157
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	7	14	243	29	53	189
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	557	262			276	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	557	262			276	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	98			96	
cM capacity (veh/h)	473	779			1294	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	22	272	242			
Volume Left	7	0	53			
Volume Right	14	29	0			
cSH	641	1700	1294			
Volume to Capacity	0.03	0.16	0.04			
Queue Length 95th (ft)	3	0	3			
Control Delay (s)	10.8	0.0	2.0			
Lane LOS	B		A			
Approach Delay (s)	10.8	0.0	2.0			
Approach LOS	B					
Intersection Summary						
Average Delay			1.3			
Intersection Capacity Utilization			36.3%	ICU Level of Service	A	
Analysis Period (min)			15			

Queues
















1: Redland Road & Cascade Highway

8/21/2011

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	419	140	98	1857	2596	848
v/c Ratio	0.82	0.35	0.73	0.66	1.07	0.61
Control Delay	75.8	45.9	95.6	8.3	63.8	3.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.8	45.9	95.6	8.3	63.8	3.8
Queue Length 50th (ft)	207	110	95	358	~1483	80
Queue Length 95th (ft)	261	164	157	474	#1697	183
Internal Link Dist (ft)	811			805	579	
Turn Bay Length (ft)	330		350			
Base Capacity (vph)	598	442	186	2795	2428	1412
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.70	0.32	0.53	0.66	1.07	0.60
Intersection Summary						
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.						
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.						

HCM Signalized Intersection Capacity Analysis 1: Redland Road & Cascade Highway

8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	 			 	 	
Volume (vph)	402	134	94	1783	2492	814
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.5	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3400	1568	1736	3505	3505	1538
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3400	1568	1736	3505	3505	1538
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	419	140	98	1857	2596	848
RTOR Reduction (vph)	0	3	0	0	0	54
Lane Group Flow (vph)	419	137	98	1857	2596	794
Confl. Bikes (#/hr)	1					
Heavy Vehicles (%)	3%	3%	4%	3%	3%	5%
Turn Type	pm+ov		Prot			pm+ov
Protected Phases	8	1	1	6	2	8
Permitted Phases		8				2
Actuated Green, G (s)	21.0	32.2	11.2	117.6	101.9	122.9
Effective Green, g (s)	22.4	32.2	11.7	119.6	103.9	125.7
Actuated g/C Ratio	0.15	0.21	0.08	0.80	0.69	0.84
Clearance Time (s)	5.4	4.5	4.5	6.0	6.0	5.4
Vehicle Extension (s)	0.5	0.5	0.5	4.8	4.8	0.5
Lane Grp Cap (vph)	508	337	135	2795	2428	1289
v/s Ratio Prot	c0.12	0.03	0.06	c0.53	c0.74	0.09
v/s Ratio Perm		0.06				0.42
v/c Ratio	0.82	0.41	0.73	0.66	1.07	0.62
Uniform Delay, d1	61.9	50.7	67.6	6.6	23.0	4.1
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.0	0.3	15.1	1.3	40.0	0.6
Delay (s)	71.9	51.0	82.7	7.8	63.1	4.7
Level of Service	E	D	F	A	E	A
Approach Delay (s)	66.7			11.6	48.7	
Approach LOS	E			B	D	
Intersection Summary						
HCM Average Control Delay			38.2		HCM Level of Service	D
HCM Volume to Capacity ratio			1.00			
Actuated Cycle Length (s)			150.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			95.6%		ICU Level of Service	F
Analysis Period (min)			15			
c Critical Lane Group						


10567 - Providence Willamette Falls Medical Center Master Plan 7/12/2011 Background PM Peak Hour
AMT

Synchro 7 - Report
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Queues

2: Abernethy Road & Redland Road

8/21/2011

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	53	476	66	303	98	412	332	589	48
v/c Ratio	0.43	0.92	0.52	0.28	0.60	0.63	1.05	0.73	0.07
Control Delay	75.1	70.5	78.8	13.9	77.0	43.2	118.8	40.9	13.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.1	70.5	78.8	13.9	77.0	43.2	118.8	40.9	13.8
Queue Length 50th (ft)	48	408	61	36	89	316	~341	453	10
Queue Length 95th (ft)	95	#658	113	77	150	455	#561	#694	40
Internal Link Dist (ft)		258		507		880		811	
Turn Bay Length (ft)	115		95		125		335		245
Base Capacity (vph)	390	515	246	1089	375	651	317	805	681
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.92	0.27	0.28	0.26	0.63	1.05	0.73	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

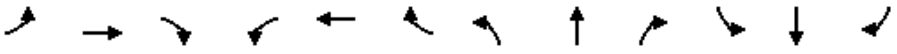









95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Abernethy Road & Redland Road


8/21/2011

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	204	229	60	92	184	89	312	63	302	536	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.92		1.00	0.90		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1805	1683		1736	3206		1736	1807		1752	1810	1495
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1805	1683		1736	3206		1736	1807		1752	1810	1495
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	53	224	252	66	101	202	98	343	69	332	589	48
RTOR Reduction (vph)	0	26	0	0	143	0	0	5	0	0	0	16
Lane Group Flow (vph)	53	450	0	66	160	0	98	407	0	332	589	32
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	2%	3%	4%	0%	2%	4%	3%	0%	3%	5%	8%
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	7.9	40.3		8.9	41.3		12.8	50.1		25.1	62.4	62.4
Effective Green, g (s)	8.4	41.3		8.9	41.8		13.3	50.6		25.6	62.9	62.9
Actuated g/C Ratio	0.06	0.29		0.06	0.29		0.09	0.36		0.18	0.44	0.44
Clearance Time (s)	4.5	5.0		4.0	4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	3.0		2.5	3.0	3.0
Lane Grp Cap (vph)	106	488		109	941		162	642		315	800	660
v/s Ratio Prot	0.03	c0.27		c0.04	0.05		0.06	0.23		c0.19	c0.33	
v/s Ratio Perm												0.02
v/c Ratio	0.50	0.92		0.61	0.17		0.60	0.63		1.05	0.74	0.05
Uniform Delay, d1	65.0	49.0		65.0	37.4		62.0	38.2		58.4	32.9	22.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.7	23.1		7.8	0.1		5.3	4.7		65.6	6.0	0.1
Delay (s)	67.6	72.1		72.8	37.5		67.3	42.9		124.0	38.9	22.8
Level of Service	E	E		E	D		E	D		F	D	C
Approach Delay (s)		71.7			43.8			47.6			67.2	
Approach LOS		E			D			D			E	
Intersection Summary												
HCM Average Control Delay			60.4									HCM Level of Service E
HCM Volume to Capacity ratio			0.84									
Actuated Cycle Length (s)			142.4									Sum of lost time (s) 12.0
Intersection Capacity Utilization			78.5%									ICU Level of Service D
Analysis Period (min)			15									
c Critical Lane Group												

Queues

2: Abernethy Road & Redland Road

8/21/2011

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	54	353	48	291	81	442	309	584	69
v/c Ratio	0.41	0.84	0.42	0.33	0.52	0.62	0.89	0.64	0.09
Control Delay	70.1	61.5	72.3	15.9	70.9	37.9	78.5	31.5	11.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	70.1	61.5	72.3	15.9	70.9	37.9	78.5	31.5	11.2
Queue Length 50th (ft)	45	262	40	37	67	299	260	366	11
Queue Length 95th (ft)	96	392	89	78	130	485	#500	642	47
Internal Link Dist (ft)		258		507		880		811	
Turn Bay Length (ft)	115		95		125		335		245
Base Capacity (vph)	430	564	272	971	414	716	349	914	776
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.63	0.18	0.30	0.20	0.62	0.89	0.64	0.09

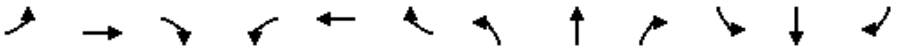









Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis










2: Abernethy Road & Redland Road

8/21/2011

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	152	169	44	95	170	74	324	78	281	531	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.92		1.00	0.90		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1805	1684		1736	3221		1736	1801		1752	1810	1495
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1805	1684		1736	3221		1736	1801		1752	1810	1495
Peak-hour factor, PHF	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Adj. Flow (vph)	54	167	186	48	104	187	81	356	86	309	584	69
RTOR Reduction (vph)	0	28	0	0	145	0	0	5	0	0	0	21
Lane Group Flow (vph)	54	325	0	48	146	0	81	437	0	309	584	48
Confl. Peds. (#/hr)			2		2							
Heavy Vehicles (%)	0%	2%	3%	4%	0%	2%	4%	3%	0%	3%	5%	8%
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	7.6	29.1		7.3	28.8		11.0	50.6		25.3	64.9	64.9
Effective Green, g (s)	8.1	30.1		7.3	29.3		11.5	51.1		25.8	65.4	65.4
Actuated g/C Ratio	0.06	0.23		0.06	0.22		0.09	0.39		0.20	0.50	0.50
Clearance Time (s)	4.5	5.0		4.0	4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	3.0		2.5	3.0	3.0
Lane Grp Cap (vph)	112	389		97	724		153	706		347	908	750
v/s Ratio Prot	c0.03	c0.19		0.03	0.05		0.05	0.24		c0.18	c0.32	
v/s Ratio Perm												0.03
v/c Ratio	0.48	0.84		0.49	0.20		0.53	0.62		0.89	0.64	0.06
Uniform Delay, d1	59.1	47.8		59.7	41.0		56.8	31.8		50.9	23.9	16.7
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.4	14.2		2.9	0.1		2.5	4.0		23.5	3.5	0.2
Delay (s)	61.4	61.9		62.6	41.1		59.3	35.8		74.4	27.4	16.9
Level of Service	E	E		E	D		E	D		E	C	B
Approach Delay (s)		61.8			44.1			39.5			41.7	
Approach LOS		E			D			D			D	
Intersection Summary												
HCM Average Control Delay			45.2				HCM Level of Service			D		
HCM Volume to Capacity ratio			0.71									
Actuated Cycle Length (s)			130.3				Sum of lost time (s)			8.0		
Intersection Capacity Utilization			72.6%				ICU Level of Service			C		
Analysis Period (min)			15									
c Critical Lane Group												

HCM Unsignalized Intersection Capacity Analysis 3: Anchor Way & Redland Road












8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	147	59	25	293	669	123
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	153	61	26	305	697	128
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)					960	
pX, platoon unblocked	0.73	0.73	0.73			
vC, conflicting volume	1118	761	825			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	979	492	579			
tC, single (s)	*5.9	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	32	86	96			
cM capacity (veh/h)	226	426	718			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	215	331	825			
Volume Left	153	26	0			
Volume Right	61	0	128			
cSH	261	718	1700			
Volume to Capacity	0.82	0.04	0.49			
Queue Length 95th (ft)	163	3	0			
Control Delay (s)	60.8	1.2	0.0			
Lane LOS	F	A				
Approach Delay (s)	60.8	1.2	0.0			
Approach LOS	F					
Intersection Summary						
Average Delay		9.8				
Intersection Capacity Utilization		61.1%		ICU Level of Service	B	
Analysis Period (min)		15				

* User Entered Value

HCM Unsignalized Intersection Capacity Analysis 4: 7th Street & Molalla Avenue

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	138	49	689	118	23	822
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	155	55	774	133	26	924
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLT		TWLT	
Median storage (veh)			2		2	
Upstream signal (ft)			152			
pX, platoon unblocked	0.78	0.78			0.78	
vC, conflicting volume	1816	840			907	
vC1, stage 1 conf vol	840					
vC2, stage 2 conf vol	975					
vCu, unblocked vol	1903	658			743	
tC, single (s)	*7.6	*6.9			4.1	
tC, 2 stage (s)	6.6					
tF (s)	3.5	*10.0			2.2	
p0 queue free %	20	68			96	
cM capacity (veh/h)	195	174			684	
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total	155	55	907	26	924	
Volume Left	155	0	0	26	0	
Volume Right	0	55	133	0	0	
cSH	195	174	1700	684	1700	
Volume to Capacity	0.80	0.32	0.53	0.04	0.54	
Queue Length 95th (ft)	139	32	0	3	0	
Control Delay (s)	71.2	35.0	0.0	10.5	0.0	
Lane LOS	F	D		B		
Approach Delay (s)	61.7		0.0	0.3		
Approach LOS	F					
Intersection Summary						
Average Delay			6.4			
Intersection Capacity Utilization			57.7%	ICU Level of Service		B
Analysis Period (min)			15			

* User Entered Value

Queues

5: Division Street & Molalla Avenue

8/21/2011




Lane Group	NBT	SBT
Lane Group Flow (vph)	989	1113
v/c Ratio	0.57	0.64
Control Delay	4.5	5.9
Queue Delay	0.0	0.0
Total Delay	4.5	5.9
Queue Length 50th (ft)	0	0
Queue Length 95th (ft)	481	#664
Internal Link Dist (ft)	126	72
Turn Bay Length (ft)		
Base Capacity (vph)	1725	1747
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.57	0.64

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.










HCM Signalized Intersection Capacity Analysis 5: Division Street & Molalla Avenue

8/21/2011

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								↶			↶	
Volume (vph)	0	0	0	0	0	0	0	809	81	0	991	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Frpb, ped/bikes								1.00			1.00	
Flpb, ped/bikes								1.00			1.00	
Frt								0.99			1.00	
Flt Protected								1.00			1.00	
Satd. Flow (prot)								1833			1856	
Flt Permitted								1.00			1.00	
Satd. Flow (perm)								1833			1856	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	0	0	0	0	899	90	0	1101	12
RTOR Reduction (vph)	0	0	0	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	987	0	0	1113	0
Confl. Peds. (#/hr)			9	9			2		2	2		2
Confl. Bikes (#/hr)								1	1			
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	4%	0%	2%	22%
Turn Type												
Protected Phases								3 6			2 3	
Permitted Phases												
Actuated Green, G (s)								50.6			50.6	
Effective Green, g (s)								50.6			50.6	
Actuated g/C Ratio								0.84			0.84	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)								1541			1560	
v/s Ratio Prot								0.54			c0.60	
v/s Ratio Perm												
v/c Ratio								0.64			0.71	
Uniform Delay, d1								1.7			1.9	
Progression Factor								1.00			1.00	
Incremental Delay, d2								0.7			1.3	
Delay (s)								2.3			3.2	
Level of Service								A			A	
Approach Delay (s)		0.0			0.0			2.3			3.2	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM Average Control Delay			2.8									
HCM Volume to Capacity ratio			0.71									
Actuated Cycle Length (s)			60.2									
Intersection Capacity Utilization			56.2%									
Analysis Period (min)			15									
c Critical Lane Group												










HCM Unsignalized Intersection Capacity Analysis 6: Division Street & 7th Street

8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	9	73	0	142	89	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	9	74	0	143	90	0
Pedestrians				6		
Lane Width (ft)				12.0		
Walking Speed (ft/s)				4.0		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	233	96	90			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	233	96	90			
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	92	100			
cM capacity (veh/h)	759	953	1518			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	83	143	90			
Volume Left	9	0	0			
Volume Right	74	0	0			
cSH	927	1700	1700			
Volume to Capacity	0.09	0.08	0.05			
Queue Length 95th (ft)	7	0	0			
Control Delay (s)	9.3	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	9.3	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay		2.4				
Intersection Capacity Utilization		21.1%		ICU Level of Service	A	
Analysis Period (min)		15				

HCM Unsignalized Intersection Capacity Analysis 7: Davis Road & Division Street










8/21/2011

									
Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Volume (veh/h)	47	48	163	14	14	126			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80			
Hourly flow rate (vph)	59	60	204	18	18	158			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type			None			None			
Median storage (veh)									
Upstream signal (ft)									
pX, platoon unblocked									
vC, conflicting volume	405	212			221				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	405	212			221				
tC, single (s)	6.4	6.2			4.3				
tC, 2 stage (s)									
tF (s)	3.5	3.3			2.4				
p0 queue free %	90	93			99				
cM capacity (veh/h)	593	833			1264				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	119	221	175						
Volume Left	59	0	18						
Volume Right	60	18	0						
cSH	694	1700	1264						
Volume to Capacity	0.17	0.13	0.01						
Queue Length 95th (ft)	15	0	1						
Control Delay (s)	11.3	0.0	0.9						
Lane LOS	B		A						
Approach Delay (s)	11.3	0.0	0.9						
Approach LOS	B								
Intersection Summary									
Average Delay		2.9							
Intersection Capacity Utilization		30.5%	ICU Level of Service		A				
Analysis Period (min)		15							

HCM Unsignalized Intersection Capacity Analysis

















1: Access: Existing PWPMC Driveway (S of Penn Lane) & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	7	6	194	1	0	133
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	8	7	228	1	0	156
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	385	229			229	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	385	229			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 %	99	99			100	
cM capacity (veh/h)	622	815			1351	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	15	229	156			
Volume Left	8	0	0			
Volume Right	7	1	0			
cSH	698	1700	1351			
Volume to Capacity	0.02	0.13	0.00			
Queue Length 95th (ft)	2	0	0			
Control Delay (s)	10.3	0.0	0.0			
Lane LOS	B					
Approach Delay (s)	10.3	0.0	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay		0.4				
Intersection Capacity Utilization		20.3%		ICU Level of Service	A	
Analysis Period (min)		15				










HCM Unsignalized Intersection Capacity Analysis
2: Access: Davis Road & PWPMC Driveway (QC#3)

8/21/2011

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	2	21	5	1	71	0	14	0	1	0	0	6
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Hourly flow rate (vph)	3	34	8	2	115	0	23	0	2	0	0	10
Pedestrians		5			14			2				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		0			1			0				
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	115			44			179	164	54	178	168	120
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	115			44			179	164	54	178	168	120
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			97	100	100	100	100	99
cM capacity (veh/h)	1487			1575			772	729	1005	776	725	934
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	45	116	24	10								
Volume Left	3	2	23	0								
Volume Right	8	0	2	10								
cSH	1487	1575	784	934								
Volume to Capacity	0.00	0.00	0.03	0.01								
Queue Length 95th (ft)	0	0	2	1								
Control Delay (s)	0.5	0.1	9.7	8.9								
Lane LOS	A	A	A	A								
Approach Delay (s)	0.5	0.1	9.7	8.9								
Approach LOS			A	A								
Intersection Summary												
Average Delay			1.8									
Intersection Capacity Utilization			20.4%		ICU Level of Service				A			
Analysis Period (min)			15									










HCM Unsignalized Intersection Capacity Analysis
3: Access: Davis Road & PWFMC Driveway (QC#4)

8/21/2011

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	13	6	0	13	51	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57
Hourly flow rate (vph)	23	11	0	23	89	2
Pedestrians					7	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			40		58	35
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			40		58	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		91	100
cM capacity (veh/h)			1573		949	1037
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	33	23	91			
Volume Left	0	0	89			
Volume Right	11	0	2			
cSH	1700	1573	950			
Volume to Capacity	0.02	0.00	0.10			
Queue Length 95th (ft)	0	0	8			
Control Delay (s)	0.0	0.0	9.2			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	9.2			
Approach LOS			A			
Intersection Summary						
Average Delay			5.7			
Intersection Capacity Utilization			15.4%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
4: Access: PWFMC Driveway (QC#1) & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	98	42	133	39	13	167
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	121	52	164	48	16	206
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	428	189			213	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	428	189			213	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	79	94			99	
cM capacity (veh/h)	580	857			1368	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	173	212	222			
Volume Left	121	0	16			
Volume Right	52	48	0			
cSH	643	1700	1368			
Volume to Capacity	0.27	0.12	0.01			
Queue Length 95th (ft)	27	0	1			
Control Delay (s)	12.6	0.0	0.6			
Lane LOS	B		A			
Approach Delay (s)	12.6	0.0	0.6			
Approach LOS	B					
Intersection Summary						
Average Delay			3.8			
Intersection Capacity Utilization			34.2%	ICU Level of Service	A	
Analysis Period (min)			15			

Default Scenario Sun Aug 21, 2011 12:45:42 Page 2-1

10567 - Providence Willamette Falls Medical Center Master Plan
Background PM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #A5 10567 - Providence Willamette Falls Medical Center Master Plan

Cycle (sec): 100 Critical Vol./Cap.(X): 0.422
Loss Time (sec): 0 Average Delay (sec/veh): 10.4
Optimal Cycle: 0 Level Of Service: B

Street Name: Division Street 15th Street
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 1 0 0 0 0 1 0 0 0

Volume Module: PM Peak Hour
Base Vol: 96 137 14 7 178 81 26 8 63 16 18 8
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 96 137 14 7 178 81 26 8 63 16 18 8
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82
PHF Volume: 117 167 17 9 217 99 32 10 77 20 22 10
Reduct Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 117 167 17 9 217 99 32 10 77 20 22 10
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 117 167 17 9 217 99 32 10 77 20 22 10

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.39 0.55 0.06 0.03 0.67 0.30 0.27 0.08 0.65 0.38 0.43 0.19
Final Sat.: 284 405 41 20 514 234 173 53 420 225 253 112

Capacity Analysis Module:
Vol/Sat: 0.41 0.41 0.41 0.42 0.42 0.42 0.18 0.18 0.18 0.09 0.09 0.09
Crit Moves: ****
Delay/Veh: 10.9 10.9 10.9 10.7 10.7 10.7 9.0 9.0 9.0 8.9 8.9 8.9
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 10.9 10.9 10.9 10.7 10.7 10.7 9.0 9.0 9.0 8.9 8.9 8.9
LOS by Move: B B B B A A A A A A
ApproachDel: 10.9 10.7 9.0 8.9
Delay Adj: 1.00 1.00 1.00
ApprAdjDel: 10.9 10.7 9.0 8.9
LOS by Appr: B B A A
AllWayAvgQ: 0.6 0.6 0.6 0.7 0.7 0.7 0.2 0.2 0.2 0.1 0.1 0.1

Note: Queue reported is the number of cars per lane.

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Default Scenario Sun Aug 21, 2011 12:45:45 Page 3-1

10567 - Providence Willamette Falls Medical Center Master Plan
Background PM Peak Hour

Level Of Service Detailed Computation Report
2000 HCM 4-Way Stop Method
Base Volume Alternative

Intersection #A5 10567 - Providence Willamette Falls Medical Center Master Plan

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Time Period: 0.25 hour
HvVeh: 2% 2% 1% 0%
Alpha Value: 0.01

GroupType: 1 1 1 1
P[C1]: 0.45 0.46 0.33 0.30
P[C2]: 0.32 0.31 0.03 0.06
P[C3]: 0.13 0.13 0.44 0.40
P[C4]: 0.10 0.09 0.19 0.22
P[C5]: 0.01 0.01 0.01 0.03
Padj[C1]: 0.009 0.009 0.015 0.016
Padj[C2]: 0.000 0.000 0.008 0.009
Padj[C3]: -0.003 -0.003 -0.011 -0.009
Padj[C4]: -0.006 -0.006 -0.011 -0.013
Padj[C5]: -0.001 -0.001 -0.001 -0.003

Lane: L1 L1 L1 L1
LaneType: LEFTTHURITE LEFTTHURITE LEFTTHURITE LEFTTHURITE

HeadwayAdj: 0.078 -0.143 -0.319 -0.038
Volume: 301 324 118 51
Capacity: 731 768 646 590
DegOfUtil: 0.40 0.41 0.17 0.08
DepHeadway: 4.78 4.55 5.05 5.43
ServiceTime: 2.8 2.5 3.0 3.4
Delay: 10.9 10.7 9.0 8.9
Queue: 0.6 0.7 0.2 0.1

Approach: North Bound South Bound East Bound West Bound










ApproachDel: 10.9 10.7 9.0 8.9
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 10.9 10.7 9.0 8.9
LOS by Appr: B B A A
OverallDel: 10.4
OverallLOS: B

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Page 1 of 1

HCM Unsignalized Intersection Capacity Analysis
6: Access: PWFMC Driveway (QC#4) & Division Street

8/21/2011







						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	27	41	205	5	17	240
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	33	51	253	6	21	296
Pedestrians	2					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	596	258			261	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	596	258			261	
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	94			98	
cM capacity (veh/h)	455	784			1313	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	84	259	317			
Volume Left	33	0	21			
Volume Right	51	6	0			
cSH	609	1700	1313			
Volume to Capacity	0.14	0.15	0.02			
Queue Length 95th (ft)	12	0	1			
Control Delay (s)	11.9	0.0	0.7			
Lane LOS	B		A			
Approach Delay (s)	11.9	0.0	0.7			
Approach LOS	B					
Intersection Summary						
Average Delay			1.8			
Intersection Capacity Utilization			37.3%	ICU Level of Service	A	
Analysis Period (min)			15			

**Appendix F 2021 Total Traffic Level-of-
Service Worksheets**

Queues
















1: Redland Road & Cascade Highway

8/21/2011

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	708	69	44	2092	1787	386
v/c Ratio	1.37	0.18	0.50	0.78	0.73	0.27
Control Delay	226.0	29.6	88.0	11.1	15.4	0.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	226.0	29.6	88.0	11.1	15.4	0.6
Queue Length 50th (ft)	~471	32	43	504	502	0
Queue Length 95th (ft)	#598	74	85	588	640	10
Internal Link Dist (ft)	811			948	600	
Turn Bay Length (ft)	330		350			
Base Capacity (vph)	515	455	182	2693	2437	1408
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	1.37	0.15	0.24	0.78	0.73	0.27
Intersection Summary						
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.						
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.						

HCM Signalized Intersection Capacity Analysis 1: Redland Road & Cascade Highway

8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	 			 	 	
Volume (vph)	658	64	41	1946	1662	359
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.5	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3303	1553	1805	3406	3406	1524
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3303	1553	1805	3406	3406	1524
Peak-hour factor, PHF	0.93	0.93	0.93	0.93	0.93	0.93
Adj. Flow (vph)	708	69	44	2092	1787	386
RTOR Reduction (vph)	0	23	0	0	0	51
Lane Group Flow (vph)	708	46	44	2092	1787	335
Heavy Vehicles (%)	6%	4%	0%	6%	6%	6%
Turn Type	pm+ov		Prot	pm+ov		
Protected Phases	8	1	1	6	2	8
Permitted Phases	8					2
Actuated Green, G (s)	22.0	28.8	6.8	116.6	105.3	127.3
Effective Green, g (s)	23.4	28.8	7.3	118.6	107.3	130.1
Actuated g/C Ratio	0.16	0.19	0.05	0.79	0.72	0.87
Clearance Time (s)	5.4	4.5	4.5	6.0	6.0	5.4
Vehicle Extension (s)	0.5	0.5	0.5	4.8	4.8	0.5
Lane Grp Cap (vph)	515	298	88	2693	2436	1322
v/s Ratio Prot	c0.21	0.01	0.02	c0.61	0.52	0.04
v/s Ratio Perm		0.02				0.18
v/c Ratio	1.37	0.16	0.50	0.78	0.73	0.25
Uniform Delay, d1	63.3	50.5	69.6	8.5	12.8	1.7
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	180.6	0.1	1.6	2.3	2.0	0.0
Delay (s)	243.9	50.6	71.2	10.8	14.8	1.7
Level of Service	F	D	E	B	B	A
Approach Delay (s)	226.7			12.0	12.5	
Approach LOS	F			B	B	
Intersection Summary						
HCM Average Control Delay			45.0	HCM Level of Service		D
HCM Volume to Capacity ratio			0.88			
Actuated Cycle Length (s)			150.0	Sum of lost time (s)		8.0
Intersection Capacity Utilization			79.2%	ICU Level of Service		D
Analysis Period (min)			15			
c Critical Lane Group						

c Critical Lane Group










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Queues

2: Abernethy Road & Redland Road

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Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	31	131	118	478	280	657	124	288	30
v/c Ratio	0.31	0.61	0.63	0.58	0.77	0.77	0.60	0.39	0.05
Control Delay	63.5	53.7	66.1	32.5	59.7	34.5	62.9	29.7	10.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	63.5	53.7	66.1	32.5	59.7	34.5	62.9	29.7	10.0
Queue Length 50th (ft)	22	78	84	125	195	385	88	150	0
Queue Length 95th (ft)	61	157	165	196	338	#799	170	292	23
Internal Link Dist (ft)		258		507		880		811	
Turn Bay Length (ft)	115		95		125		335		245
Base Capacity (vph)	380	548	282	985	472	849	376	742	619
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.08	0.24	0.42	0.49	0.59	0.77	0.33	0.39	0.05

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Abernethy Road & Redland Road

8/21/2011










Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	29	75	48	111	233	216	263	511	106	117	271	28
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.94		1.00	0.93		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1410	1477		1597	3238		1752	1741		1671	1845	1495
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1410	1477		1597	3238		1752	1741		1671	1845	1495
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	31	80	51	118	248	230	280	544	113	124	288	30
RTOR Reduction (vph)	0	17	0	0	108	0	0	4	0	0	0	18
Lane Group Flow (vph)	31	114	0	118	370	0	280	653	0	124	288	12
Confl. Peds. (#/hr)			1	1								
Heavy Vehicles (%)	28%	22%	17%	13%	2%	5%	3%	6%	8%	8%	3%	8%
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	5.1	16.5		13.5	24.9		23.3	55.5		13.6	45.8	45.8
Effective Green, g (s)	5.6	17.5		13.5	25.4		23.8	56.0		14.1	46.3	46.3
Actuated g/C Ratio	0.05	0.15		0.12	0.22		0.20	0.48		0.12	0.40	0.40
Clearance Time (s)	4.5	5.0		4.0	4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	3.0		2.5	3.0	3.0
Lane Grp Cap (vph)	67	221		184	702		356	833		201	729	591
v/s Ratio Prot	0.02	0.08		c0.07	c0.11		c0.16	c0.38		0.07	0.16	
v/s Ratio Perm												0.01
v/c Ratio	0.46	0.52		0.64	0.53		0.79	0.78		0.62	0.40	0.02
Uniform Delay, d1	54.3	45.9		49.5	40.5		44.2	25.5		48.9	25.4	21.6
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	3.6	1.5		6.6	0.5		10.5	7.3		4.7	1.6	0.1
Delay (s)	57.9	47.4		56.1	41.1		54.8	32.8		53.7	27.0	21.6
Level of Service	E	D		E	D		D	C		D	C	C
Approach Delay (s)		49.4			44.1			39.4			34.1	
Approach LOS		D			D			D			C	
Intersection Summary												
HCM Average Control Delay			40.4									HCM Level of Service D
HCM Volume to Capacity ratio			0.70									
Actuated Cycle Length (s)			117.1									Sum of lost time (s) 8.0
Intersection Capacity Utilization			70.7%									ICU Level of Service C
Analysis Period (min)			15									
c Critical Lane Group												

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HCM Unsignalized Intersection Capacity Analysis 3: Anchor Way & Redland Road

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Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	99	37	50	762	252	155
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93
Hourly flow rate (vph)	106	40	54	819	271	167
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)					960	
pX, platoon unblocked	0.90	0.90	0.90			
vC, conflicting volume	1281	354	438			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	1257	226	319			
tC, single (s)	6.4	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.4	2.2			
p0 queue free %	34	94	95			
cM capacity (veh/h)	160	723	1101			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	146	873	438			
Volume Left	106	54	0			
Volume Right	40	0	167			
cSH	203	1101	1700			
Volume to Capacity	0.72	0.05	0.26			
Queue Length 95th (ft)	116	4	0			
Control Delay (s)	58.2	1.3	0.0			
Lane LOS	F	A				
Approach Delay (s)	58.2	1.3	0.0			
Approach LOS	F					
Intersection Summary						
Average Delay			6.6			
Intersection Capacity Utilization			83.3%	ICU Level of Service	E	
Analysis Period (min)			15			

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HCM Unsignalized Intersection Capacity Analysis 4: 7th Street & Molalla Avenue

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	90	33	788	127	36	385
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	94	34	821	132	38	401
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLT		TWLT	
Median storage (veh)			2		2	
Upstream signal (ft)			147			
pX, platoon unblocked	0.72	0.72			0.72	
vC, conflicting volume	1363	887			953	
vC1, stage 1 conf vol	887					
vC2, stage 2 conf vol	476					
vCu, unblocked vol	1310	648			740	
tC, single (s)	6.5	6.4			4.1	
tC, 2 stage (s)	5.5					
tF (s)	3.6	*4.4			2.2	
p0 queue free %	70	87			94	
cM capacity (veh/h)	314	269			617	
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total	94	34	953	38	401	
Volume Left	94	0	0	38	0	
Volume Right	0	34	132	0	0	
cSH	314	269	1700	617	1700	
Volume to Capacity	0.30	0.13	0.56	0.06	0.24	
Queue Length 95th (ft)	31	11	0	5	0	
Control Delay (s)	21.3	20.3	0.0	11.2	0.0	
Lane LOS	C	C		B		
Approach Delay (s)	21.0		0.0	1.0		
Approach LOS	C					
Intersection Summary						
Average Delay			2.1			
Intersection Capacity Utilization			60.8%	ICU Level of Service		B
Analysis Period (min)			15			

* User Entered Value

Queues

5: Division Street & Molalla Avenue

8/21/2011



Lane Group	NBT	SBT
Lane Group Flow (vph)	1080	531
v/c Ratio	0.64	0.31
Control Delay	5.9	2.3
Queue Delay	0.0	0.0
Total Delay	5.9	2.3
Queue Length 50th (ft)	0	0
Queue Length 95th (ft)	#659	163
Internal Link Dist (ft)	126	67
Turn Bay Length (ft)		
Base Capacity (vph)	1693	1696
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.64	0.31

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis 5: Division Street & Molalla Avenue

8/21/2011










Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								↶			↶	
Volume (vph)	0	0	0	0	0	0	0	930	86	0	493	7
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Frpb, ped/bikes								1.00			1.00	
Flpb, ped/bikes								1.00			1.00	
Frt								0.99			1.00	
Flt Protected								1.00			1.00	
Satd. Flow (prot)								1799			1803	
Flt Permitted								1.00			1.00	
Satd. Flow (perm)								1799			1803	
Peak-hour factor, PHF	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Adj. Flow (vph)	0	0	0	0	0	0	0	989	91	0	524	7
RTOR Reduction (vph)	0	0	0	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	1078	0	0	531	0
Confl. Peds. (#/hr)			5	5			2		1	1		2
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	4%	7%	0%	5%	17%
Turn Type												
Protected Phases								3 6			2 3	
Permitted Phases												
Actuated Green, G (s)								50.5			50.5	
Effective Green, g (s)								50.5			50.5	
Actuated g/C Ratio								0.84			0.84	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)								1514			1518	
v/s Ratio Prot								c0.60			0.29	
v/s Ratio Perm												
v/c Ratio								0.71			0.35	
Uniform Delay, d1								1.9			1.1	
Progression Factor								1.00			1.00	
Incremental Delay, d2								1.3			0.1	
Delay (s)								3.2			1.1	
Level of Service								A			A	
Approach Delay (s)		0.0			0.0			3.2			1.1	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM Average Control Delay			2.5									HCM Level of Service A
HCM Volume to Capacity ratio			0.71									
Actuated Cycle Length (s)			60.0									Sum of lost time (s) 9.5
Intersection Capacity Utilization			57.5%									ICU Level of Service B
Analysis Period (min)			15									
c Critical Lane Group												

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
HCM Unsignalized Intersection Capacity Analysis
6: Division Street & 7th Street

8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	8	79	0	79	98	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	10	99	0	99	122	0
Pedestrians				4		
Lane Width (ft)				12.0		
Walking Speed (ft/s)				4.0		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	221	126	122			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	221	126	122			
tC, single (s)	6.5	6.3	4.1			
tC, 2 stage (s)						
tF (s)	3.6	3.4	2.2			
p0 queue free %	99	89	100			
cM capacity (veh/h)	741	910	1477			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	109	99	122			
Volume Left	10	0	0			
Volume Right	99	0	0			
cSH	891	1700	1700			
Volume to Capacity	0.12	0.06	0.07			
Queue Length 95th (ft)	10	0	0			
Control Delay (s)	9.6	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	9.6	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay			3.2			
Intersection Capacity Utilization			18.5%	ICU Level of Service		A
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis 7: Davis Road & Division Street

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Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	8	15	88	42	42	178
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	9	17	99	47	47	200
Pedestrians						3
Lane Width (ft)						12.0
Walking Speed (ft/s)						4.0
Percent Blockage						0
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	417	125			146	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	417	125			146	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	98	98			97	
cM capacity (veh/h)	577	902			1448	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	26	146	247			
Volume Left	9	0	47			
Volume Right	17	47	0			
cSH	754	1700	1448			
Volume to Capacity	0.03	0.09	0.03			
Queue Length 95th (ft)	3	0	3			
Control Delay (s)	9.9	0.0	1.7			
Lane LOS	A		A			
Approach Delay (s)	9.9	0.0	1.7			
Approach LOS	A					
Intersection Summary						
Average Delay			1.6			
Intersection Capacity Utilization		33.2%		ICU Level of Service	A	
Analysis Period (min)		15				

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HCM Unsignalized Intersection Capacity Analysis 8: Penn Lane & Division Street

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Movement	WBL	WBR	NBT	NBR	SBL	SBT			
Lane Configurations									
Volume (veh/h)	1	3	88	7	14	212			
Sign Control	Stop		Free			Free			
Grade	0%		0%			0%			
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91			
Hourly flow rate (vph)	1	3	97	8	15	233			
Pedestrians									
Lane Width (ft)									
Walking Speed (ft/s)									
Percent Blockage									
Right turn flare (veh)									
Median type			None			None			
Median storage (veh)									
Upstream signal (ft)									
pX, platoon unblocked									
vC, conflicting volume	364	101			104				
vC1, stage 1 conf vol									
vC2, stage 2 conf vol									
vCu, unblocked vol	364	101			104				
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			99				
cM capacity (veh/h)	633	960			1500				
Direction, Lane #	WB 1	NB 1	SB 1						
Volume Total	4	104	248						
Volume Left	1	0	15						
Volume Right	3	8	0						
cSH	850	1700	1500						
Volume to Capacity	0.01	0.06	0.01						
Queue Length 95th (ft)	0	0	1						
Control Delay (s)	9.3	0.0	0.5						
Lane LOS	A		A						
Approach Delay (s)	9.3	0.0	0.5						
Approach LOS	A								
Intersection Summary									
Average Delay		0.5							
Intersection Capacity Utilization		28.6%	ICU Level of Service		A				
Analysis Period (min)		15							

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HCM Unsignalized Intersection Capacity Analysis
 2: Access: Davis Road & PWFMC Driveway (QC#3)

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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	8	60	7	0	20	1	3	0	1	0	0	0
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Hourly flow rate (vph)	9	64	7	0	21	1	3	0	1	0	0	0
Pedestrians		7			15			1			0	
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		1			1			0				
Right turn flare (veh)												
Median type	None			None								
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	22			72			114	108	84	122	111	29
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	22			72			114	108	84	122	111	29
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	99			100			100	100	100	100	100	100
cM capacity (veh/h)	1606			1539			858	781	968	841	778	1046
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	80	22	4	0								
Volume Left	9	0	3	0								
Volume Right	7	1	1	0								
cSH	1606	1539	883	1700								
Volume to Capacity	0.01	0.00	0.00	0.00								
Queue Length 95th (ft)	0	0	0	0								
Control Delay (s)	0.8	0.0	9.1	0.0								
Lane LOS	A		A	A								
Approach Delay (s)	0.8	0.0	9.1	0.0								
Approach LOS			A	A								
Intersection Summary												
Average Delay			1.0									
Intersection Capacity Utilization			24.4%	ICU Level of Service						A		
Analysis Period (min)			15									

HCM Unsignalized Intersection Capacity Analysis
3: Access: Davis Road & PWFMC Driveway (QC#4)

8/21/2011










						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	5	56	0	14	6	0
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.78	0.78	0.78	0.78	0.78	0.78
Hourly flow rate (vph)	6	72	0	18	8	0
Pedestrians					6	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					0	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			84		66	48
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			84		66	48
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		99	100
cM capacity (veh/h)			1518		939	1021
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	78	18	8			
Volume Left	0	0	8			
Volume Right	72	0	0			
cSH	1700	1518	939			
Volume to Capacity	0.05	0.00	0.01			
Queue Length 95th (ft)	0	0	1			
Control Delay (s)	0.0	0.0	8.9			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	8.9			
Approach LOS			A			
Intersection Summary						
Average Delay			0.7			
Intersection Capacity Utilization			15.9%	ICU Level of Service	A	
Analysis Period (min)			15			

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AMT

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HCM Unsignalized Intersection Capacity Analysis
4: Access: PWFMC Driveway (QC#1) & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	34	17	120	127	47	133
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.90	0.90	0.90	0.90	0.90	0.90
Hourly flow rate (vph)	38	19	133	141	52	148
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	457	205			275	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	457	205			275	
tC, single (s)	6.4	6.3			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.4			2.2	
p0 queue free %	93	98			96	
cM capacity (veh/h)	542	818			1298	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	57	274	200			
Volume Left	38	0	52			
Volume Right	19	141	0			
cSH	611	1700	1298			
Volume to Capacity	0.09	0.16	0.04			
Queue Length 95th (ft)	8	0	3			
Control Delay (s)	11.5	0.0	2.3			
Lane LOS	B		A			
Approach Delay (s)	11.5	0.0	2.3			
Approach LOS	B					
Intersection Summary						
Average Delay			2.1			
Intersection Capacity Utilization			37.1%	ICU Level of Service		A
Analysis Period (min)			15			

Default Scenario Sun Aug 21, 2011 12:48:47 Page 2-1

10567 - Providence Willamette Falls Medical Center Master Plan
Future AM Peak Hour

Level Of Service Computation Report
2000 HCM 4-Way Stop Method (Base Volume Alternative)

Intersection #A5 10567 - Providence Willamette Falls Medical Center Master Plan

Cycle (sec): 100 Critical Vol./Cap.(X): 0.373
Loss Time (sec): 0 Average Delay (sec/veh): 9.9
Optimal Cycle: 0 Level Of Service: A

Street Name: Division Street 15th Street
Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Control: Stop Sign Stop Sign Stop Sign Stop Sign
Rights: Include Include Include Include
Min. Green: 0 0 0 0 0 0 0 0 0 0 0 0
Lanes: 0 0 1 0 0 0 0 0 1 0 0 0 0 0 1 0 0 0

Volume Module: AM Peak Hour
Base Vol: 71 143 29 13 122 30 89 20 78 15 9 15
Growth Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse: 71 143 29 13 122 30 89 20 78 15 9 15
User Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj: 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90 0.90
PHF Volume: 79 159 32 14 136 33 99 22 87 17 10 17
Reduced Vol: 0 0 0 0 0 0 0 0 0 0 0 0
Reduced Vol: 79 159 32 14 136 33 99 22 87 17 10 17
PCE Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume: 79 159 32 14 136 33 99 22 87 17 10 17

Saturation Flow Module:
Adjustment: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes: 0.29 0.59 0.12 0.08 0.74 0.18 0.47 0.11 0.42 0.39 0.23 0.38
Final Sat.: 211 426 86 56 522 128 327 73 287 242 145 242

Capacity Analysis Module:
Vol/Sat: 0.37 0.37 0.37 0.26 0.26 0.26 0.30 0.30 0.30 0.07 0.07 0.07
Crit Moves: **** **** **** ****
Delay/Veh: 10.5 10.5 10.5 9.5 9.5 9.5 9.9 9.9 9.9 8.5 8.5 8.5
Delay Adj: 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh: 10.5 10.5 10.5 9.5 9.5 9.5 9.9 9.9 9.9 8.5 8.5 8.5
LOS by Move: B B A A A A A A A A A A
ApproachDel: 10.5 9.5 9.9 8.5
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 10.5 9.5 9.9 8.5
LOS by Appr: B A A A
AllWayAvgQ: 0.5 0.5 0.5 0.3 0.3 0.3 0.4 0.4 0.4 0.1 0.1 0.1

Note: Queue reported is the number of cars per lane.

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Future AM Peak Hour

Level Of Service Detailed Computation Report
2000 HCM 4-Way Stop Method
Base Volume Alternative

Intersection #A5 10567 - Providence Willamette Falls Medical Center Master Plan

Approach: North Bound South Bound East Bound West Bound
Movement: L - T - R L - T - R L - T - R L - T - R

Time Period: 0.25 hour
HvVeh: 3% 6% 3% 4%
Alpha Value: 0.01

GroupType: 1 1 1 1
P[C1]: 0.51 0.43 0.45 0.35
P[C2]: 0.17 0.24 0.03 0.14
P[C3]: 0.23 0.20 0.40 0.31
P[C4]: 0.09 0.12 0.11 0.19
P[C5]: 0.00 0.01 0.01 0.03
Padj[C1]: 0.009 0.010 0.012 0.014
Padj[C2]: 0.003 0.002 0.006 0.006
Padj[C3]: -0.006 -0.005 -0.011 -0.007
Padj[C4]: -0.005 -0.007 -0.007 -0.011
Padj[C5]: -0.000 -0.001 -0.001 -0.003

Lane: L1 L1 L1 L1
LaneType: LEFTTHURRITE LEFTTHURRITE LEFTTHURRITE LEFTTHURRITE

HeadwayAdj: 0.038 0.009 -0.104 -0.086
Volume: 270 183 208 43
Capacity: 723 705 687 629
DegOfUtil: 0.36 0.25 0.28 0.06
DepHeadway: 4.79 4.86 4.92 5.17
ServiceTime: 2.8 2.9 2.9 3.2
Delay: 10.5 9.5 9.9 8.5
Queue: 0.5 0.3 0.4 0.1

Approach: North Bound South Bound East Bound West Bound










ApproachDel: 10.5 9.5 9.9 8.5
Delay Adj: 1.00 1.00 1.00 1.00
ApprAdjDel: 10.5 9.5 9.9 8.5
LOS by Appr: B A A A
OverallDel: 9.9
OverallLOS: A

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HCM Unsignalized Intersection Capacity Analysis
6: Access: PWFMC Driveway (QC#2) & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	7	15	218	27	51	162
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.83	0.83	0.83	0.83	0.83	0.83
Hourly flow rate (vph)	8	18	263	33	61	195
Pedestrians	4					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	601	283			299	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	601	283			299	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	98	98			95	
cM capacity (veh/h)	443	758			1269	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	27	295	257			
Volume Left	8	0	61			
Volume Right	18	33	0			
cSH	618	1700	1269			
Volume to Capacity	0.04	0.17	0.05			
Queue Length 95th (ft)	3	0	4			
Control Delay (s)	11.1	0.0	2.2			
Lane LOS	B		A			
Approach Delay (s)	11.1	0.0	2.2			
Approach LOS	B					
Intersection Summary						
Average Delay			1.5			
Intersection Capacity Utilization			37.9%	ICU Level of Service	A	
Analysis Period (min)			15			







10567 - Providence Willamette Falls Medical Center Master Plan 5:00 pm 7/12/2011 Future AM Peak Hour
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Queues



















1: Redland Road & Cascade Highway

8/21/2011

						
Lane Group	EBL	EBR	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	429	147	101	1857	2596	851
v/c Ratio	0.83	0.37	0.74	0.67	1.07	0.62
Control Delay	75.9	46.0	96.1	8.5	66.3	3.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	75.9	46.0	96.1	8.5	66.3	3.9
Queue Length 50th (ft)	212	115	98	365	~1493	88
Queue Length 95th (ft)	268	172	161	474	#1697	190
Internal Link Dist (ft)	811			805	579	
Turn Bay Length (ft)	330		350			
Base Capacity (vph)	598	446	186	2786	2415	1406
Starvation Cap Reductn	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.33	0.54	0.67	1.07	0.61
Intersection Summary						
~ Volume exceeds capacity, queue is theoretically infinite. Queue shown is maximum after two cycles.						
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.						

HCM Signalized Intersection Capacity Analysis 1: Redland Road & Cascade Highway

8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations	 	 	 	 	 	 
Volume (vph)	412	141	97	1783	2492	817
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.5	4.0	4.0	4.0	4.0
Lane Util. Factor	0.97	1.00	1.00	0.95	0.95	1.00
Frpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00	1.00	1.00	1.00	1.00
Frt	1.00	0.85	1.00	1.00	1.00	0.85
Flt Protected	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (prot)	3400	1568	1736	3505	3505	1538
Flt Permitted	0.95	1.00	0.95	1.00	1.00	1.00
Satd. Flow (perm)	3400	1568	1736	3505	3505	1538
Peak-hour factor, PHF	0.96	0.96	0.96	0.96	0.96	0.96
Adj. Flow (vph)	429	147	101	1857	2596	851
RTOR Reduction (vph)	0	3	0	0	0	52
Lane Group Flow (vph)	429	144	101	1857	2596	799
Confl. Bikes (#/hr)	1					
Heavy Vehicles (%)	3%	3%	4%	3%	3%	5%
Turn Type	pm+ov		Prot		pm+ov	
Protected Phases	8	1	1	6	2	8
Permitted Phases	8				2	
Actuated Green, G (s)	21.4	32.8	11.4	117.2	101.3	122.7
Effective Green, g (s)	22.8	32.8	11.9	119.2	103.3	125.5
Actuated g/C Ratio	0.15	0.22	0.08	0.79	0.69	0.84
Clearance Time (s)	5.4	4.5	4.5	6.0	6.0	5.4
Vehicle Extension (s)	0.5	0.5	0.5	4.8	4.8	0.5
Lane Grp Cap (vph)	517	343	138	2785	2414	1287
v/s Ratio Prot	c0.13	0.03	0.06	c0.53	c0.74	0.09
v/s Ratio Perm		0.06				0.42
v/c Ratio	0.83	0.42	0.73	0.67	1.08	0.62
Uniform Delay, d1	61.7	50.4	67.5	6.7	23.4	4.2
Progression Factor	1.00	1.00	1.00	1.00	1.00	1.00
Incremental Delay, d2	10.1	0.3	15.7	1.3	42.4	0.7
Delay (s)	71.9	50.7	83.2	8.0	65.8	4.8
Level of Service	E	D	F	A	E	A
Approach Delay (s)	66.5			11.9	50.7	
Approach LOS	E			B	D	
Intersection Summary						
HCM Average Control Delay			39.5		HCM Level of Service	D
HCM Volume to Capacity ratio			1.01			
Actuated Cycle Length (s)			150.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			96.0%		ICU Level of Service	F
Analysis Period (min)			15			
c Critical Lane Group						


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Queues

2: Abernethy Road & Redland Road

8/21/2011

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	51	456	64	291	94	415	318	571	46
v/c Ratio	0.42	0.91	0.51	0.28	0.58	0.63	0.99	0.69	0.07
Control Delay	74.8	69.1	78.2	13.9	76.2	42.5	103.8	38.5	13.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	74.8	69.1	78.2	13.9	76.2	42.5	103.8	38.5	13.3
Queue Length 50th (ft)	47	383	59	34	86	318	~313	430	9
Queue Length 95th (ft)	92	#614	110	74	147	459	#530	649	38
Internal Link Dist (ft)		258		507		880		811	
Turn Bay Length (ft)	115		95		125		335		245
Base Capacity (vph)	397	523	250	1055	382	662	322	824	696
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.13	0.87	0.26	0.28	0.25	0.63	0.99	0.69	0.07

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

HCM Signalized Intersection Capacity Analysis

2: Abernethy Road & Redland Road

8/21/2011

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	48	204	229	61	92	184	89	329	66	302	542	44
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.92		1.00	0.90		1.00	0.98		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1805	1683		1736	3206		1736	1807		1752	1810	1495
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1805	1683		1736	3206		1736	1807		1752	1810	1495
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	51	215	241	64	97	194	94	346	69	318	571	46
RTOR Reduction (vph)	0	26	0	0	139	0	0	4	0	0	0	16
Lane Group Flow (vph)	51	430	0	64	152	0	94	411	0	318	571	30
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	2%	3%	4%	0%	2%	4%	3%	0%	3%	5%	8%
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	7.6	38.3		8.7	39.4		12.5	50.4		25.1	63.0	63.0
Effective Green, g (s)	8.1	39.3		8.7	39.9		13.0	50.9		25.6	63.5	63.5
Actuated g/C Ratio	0.06	0.28		0.06	0.28		0.09	0.36		0.18	0.45	0.45
Clearance Time (s)	4.5	5.0		4.0	4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	3.0		2.5	3.0	3.0
Lane Grp Cap (vph)	104	471		107	910		161	655		319	818	676
v/s Ratio Prot	0.03	c0.26		c0.04	0.05		0.05	0.23		c0.18	c0.32	
v/s Ratio Perm												0.02
v/c Ratio	0.49	0.91		0.60	0.17		0.58	0.63		1.00	0.70	0.04
Uniform Delay, d1	64.2	48.9		64.2	37.8		61.2	37.0		57.4	30.8	21.5
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.6	22.0		7.3	0.1		4.4	4.5		49.2	4.9	0.1
Delay (s)	66.8	70.9		71.5	37.9		65.6	41.5		106.6	35.7	21.7
Level of Service	E	E		E	D		E	D		F	D	C
Approach Delay (s)		70.5			43.9			45.9			59.1	
Approach LOS		E			D			D			E	
Intersection Summary												
HCM Average Control Delay			56.4									HCM Level of Service E
HCM Volume to Capacity ratio			0.81									
Actuated Cycle Length (s)			140.5									Sum of lost time (s) 12.0
Intersection Capacity Utilization			79.6%									ICU Level of Service D
Analysis Period (min)			15									
c Critical Lane Group												










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Queues

2: Abernethy Road & Redland Road

8/21/2011

									
Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Group Flow (vph)	52	338	47	279	78	444	296	565	66
v/c Ratio	0.40	0.83	0.41	0.33	0.51	0.61	0.84	0.59	0.08
Control Delay	69.3	60.1	71.5	16.0	70.3	37.3	72.3	28.8	10.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	69.3	60.1	71.5	16.0	70.3	37.3	72.3	28.8	10.8
Queue Length 50th (ft)	43	246	39	35	64	294	243	337	10
Queue Length 95th (ft)	93	371	87	75	125	487	#470	610	45
Internal Link Dist (ft)		258		507		880		811	
Turn Bay Length (ft)	115		95		125		335		245
Base Capacity (vph)	434	569	274	965	418	723	353	964	816
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.12	0.59	0.17	0.29	0.19	0.61	0.84	0.59	0.08
Intersection Summary									
# 95th percentile volume exceeds capacity, queue may be longer. Queue shown is maximum after two cycles.									

HCM Signalized Intersection Capacity Analysis

2: Abernethy Road & Redland Road

8/21/2011










Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	49	152	169	45	95	170	74	341	81	281	537	63
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.0		4.0	4.0		4.0	4.0		4.0	4.0	4.0
Lane Util. Factor	1.00	1.00		1.00	0.95		1.00	1.00		1.00	1.00	1.00
Frpb, ped/bikes	1.00	0.99		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Flpb, ped/bikes	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Frt	1.00	0.92		1.00	0.90		1.00	0.97		1.00	1.00	0.85
Flt Protected	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (prot)	1805	1684		1736	3221		1736	1802		1752	1810	1495
Flt Permitted	0.95	1.00		0.95	1.00		0.95	1.00		0.95	1.00	1.00
Satd. Flow (perm)	1805	1684		1736	3221		1736	1802		1752	1810	1495
Peak-hour factor, PHF	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Adj. Flow (vph)	52	160	178	47	100	179	78	359	85	296	565	66
RTOR Reduction (vph)	0	28	0	0	140	0	0	5	0	0	0	20
Lane Group Flow (vph)	52	310	0	47	139	0	78	439	0	296	565	46
Confl. Peds. (#/hr)			2	2								
Heavy Vehicles (%)	0%	2%	3%	4%	0%	2%	4%	3%	0%	3%	5%	8%
Turn Type	Prot			Prot			Prot			Prot		Perm
Protected Phases	3	8		7	4		1	6		5	2	
Permitted Phases												2
Actuated Green, G (s)	7.4	28.0		7.2	27.8		9.2	51.7		25.3	67.8	67.8
Effective Green, g (s)	7.9	29.0		7.2	28.3		9.7	52.2		25.8	68.3	68.3
Actuated g/C Ratio	0.06	0.22		0.06	0.22		0.07	0.40		0.20	0.52	0.52
Clearance Time (s)	4.5	5.0		4.0	4.5		4.5	4.5		4.5	4.5	4.5
Vehicle Extension (s)	2.5	2.5		2.5	2.5		2.5	3.0		2.5	3.0	3.0
Lane Grp Cap (vph)	110	375		96	700		129	722		347	949	784
v/s Ratio Prot	c0.03	c0.18		0.03	0.04		0.04	0.24		c0.17	c0.31	
v/s Ratio Perm												0.03
v/c Ratio	0.47	0.83		0.49	0.20		0.60	0.61		0.85	0.60	0.06
Uniform Delay, d1	59.1	48.2		59.7	41.7		58.4	30.9		50.4	21.4	15.2
Progression Factor	1.00	1.00		1.00	1.00		1.00	1.00		1.00	1.00	1.00
Incremental Delay, d2	2.3	13.6		2.8	0.1		6.6	3.8		17.8	2.7	0.1
Delay (s)	61.5	61.8		62.6	41.8		65.0	34.7		68.2	24.1	15.3
Level of Service	E	E		E	D		E	C		E	C	B
Approach Delay (s)		61.7			44.8			39.2			37.6	
Approach LOS		E			D			D			D	
Intersection Summary												
HCM Average Control Delay			43.4									HCM Level of Service D
HCM Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			130.2									Sum of lost time (s) 8.0
Intersection Capacity Utilization			73.7%									ICU Level of Service D
Analysis Period (min)			15									
c Critical Lane Group												

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HCM Unsignalized Intersection Capacity Analysis 3: Anchor Way & Redland Road












8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	167	61	26	293	669	130
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96
Hourly flow rate (vph)	174	64	27	305	697	135
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type				None	None	
Median storage veh						
Upstream signal (ft)					960	
pX, platoon unblocked	0.74	0.74	0.74			
vC, conflicting volume	1124	765	832			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	995	512	603			
tC, single (s)	*5.9	6.2	4.1			
tC, 2 stage (s)						
tF (s)	3.5	3.3	2.2			
p0 queue free %	22	85	96			
cM capacity (veh/h)	224	421	715			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	238	332	832			
Volume Left	174	27	0			
Volume Right	64	0	135			
cSH	257	715	1700			
Volume to Capacity	0.93	0.04	0.49			
Queue Length 95th (ft)	208	3	0			
Control Delay (s)	80.6	1.3	0.0			
Lane LOS	F	A				
Approach Delay (s)	80.6	1.3	0.0			
Approach LOS	F					
Intersection Summary						
Average Delay		14.0				
Intersection Capacity Utilization		62.7%		ICU Level of Service	B	
Analysis Period (min)		15				

* User Entered Value

HCM Unsignalized Intersection Capacity Analysis 4: 7th Street & Molalla Avenue

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	155	52	689	118	24	822
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.89	0.89	0.89	0.89	0.89	0.89
Hourly flow rate (vph)	174	58	774	133	27	924
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			TWLT		TWLT	
Median storage (veh)			2		2	
Upstream signal (ft)			152			
pX, platoon unblocked	0.78	0.78			0.78	
vC, conflicting volume	1818	840			907	
vC1, stage 1 conf vol	840					
vC2, stage 2 conf vol	978					
vCu, unblocked vol	1906	658			743	
tC, single (s)	*7.6	*6.9			4.1	
tC, 2 stage (s)	6.6					
tF (s)	3.5	*10.0			2.2	
p0 queue free %	10	66			96	
cM capacity (veh/h)	194	174			685	
Direction, Lane #	WB 1	WB 2	NB 1	SB 1	SB 2	
Volume Total	174	58	907	27	924	
Volume Left	174	0	0	27	0	
Volume Right	0	58	133	0	0	
cSH	194	174	1700	685	1700	
Volume to Capacity	0.90	0.34	0.53	0.04	0.54	
Queue Length 95th (ft)	173	35	0	3	0	
Control Delay (s)	90.2	35.8	0.0	10.5	0.0	
Lane LOS	F	E		B		
Approach Delay (s)	76.5		0.0	0.3		
Approach LOS	F					
Intersection Summary						
Average Delay			8.7			
Intersection Capacity Utilization			58.7%	ICU Level of Service		B
Analysis Period (min)			15			

* User Entered Value

Queues

5: Division Street & Molalla Avenue

8/21/2011




Lane Group	NBT	SBT
Lane Group Flow (vph)	996	1132
v/c Ratio	0.58	0.65
Control Delay	4.6	6.1
Queue Delay	0.0	0.0
Total Delay	4.6	6.1
Queue Length 50th (ft)	0	0
Queue Length 95th (ft)	491	#745
Internal Link Dist (ft)	126	72
Turn Bay Length (ft)		
Base Capacity (vph)	1723	1747
Starvation Cap Reductn	0	0
Spillback Cap Reductn	0	0
Storage Cap Reductn	0	0
Reduced v/c Ratio	0.58	0.65

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.










HCM Signalized Intersection Capacity Analysis 5: Division Street & Molalla Avenue

8/21/2011

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations								↶			↶	
Volume (vph)	0	0	0	0	0	0	0	809	87	0	1008	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Total Lost time (s)								4.0			4.0	
Lane Util. Factor								1.00			1.00	
Frpb, ped/bikes								1.00			1.00	
Flpb, ped/bikes								1.00			1.00	
Frt								0.99			1.00	
Flt Protected								1.00			1.00	
Satd. Flow (prot)								1831			1856	
Flt Permitted								1.00			1.00	
Satd. Flow (perm)								1831			1856	
Peak-hour factor, PHF	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90	0.90
Adj. Flow (vph)	0	0	0	0	0	0	0	899	97	0	1120	12
RTOR Reduction (vph)	0	0	0	0	0	0	0	2	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	0	0	0	994	0	0	1132	0
Confl. Peds. (#/hr)			9	9			2		2	2		2
Confl. Bikes (#/hr)								1				
Heavy Vehicles (%)	0%	0%	0%	0%	0%	0%	0%	2%	4%	0%	2%	22%
Turn Type												
Protected Phases								3 6			2 3	
Permitted Phases												
Actuated Green, G (s)								51.4			51.4	
Effective Green, g (s)								51.4			51.4	
Actuated g/C Ratio								0.84			0.84	
Clearance Time (s)												
Vehicle Extension (s)												
Lane Grp Cap (vph)								1543			1564	
v/s Ratio Prot								0.54			c0.61	
v/s Ratio Perm												
v/c Ratio								0.64			0.72	
Uniform Delay, d1								1.7			1.9	
Progression Factor								1.00			1.00	
Incremental Delay, d2								0.7			1.4	
Delay (s)								2.4			3.4	
Level of Service								A			A	
Approach Delay (s)		0.0			0.0			2.4			3.4	
Approach LOS		A			A			A			A	
Intersection Summary												
HCM Average Control Delay			2.9									
HCM Volume to Capacity ratio			0.72									
Actuated Cycle Length (s)			61.0									
Intersection Capacity Utilization			57.1%									
Analysis Period (min)			15									
c Critical Lane Group												










HCM Unsignalized Intersection Capacity Analysis 6: Division Street & 7th Street

8/21/2011

						
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Volume (veh/h)	9	79	0	162	90	0
Sign Control	Stop			Free	Free	
Grade	0%			0%	0%	
Peak Hour Factor	0.99	0.99	0.99	0.99	0.99	0.99
Hourly flow rate (vph)	9	80	0	164	91	0
Pedestrians				6		
Lane Width (ft)				12.0		
Walking Speed (ft/s)				4.0		
Percent Blockage				0		
Right turn flare (veh)						
Median type				None	None	
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	255	97	91			
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	255	97	91			
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	92	100			
cM capacity (veh/h)	738	952	1517			
Direction, Lane #	EB 1	NB 1	SB 1			
Volume Total	89	164	91			
Volume Left	9	0	0			
Volume Right	80	0	0			
cSH	924	1700	1700			
Volume to Capacity	0.10	0.10	0.05			
Queue Length 95th (ft)	8	0	0			
Control Delay (s)	9.3	0.0	0.0			
Lane LOS	A					
Approach Delay (s)	9.3	0.0	0.0			
Approach LOS	A					
Intersection Summary						
Average Delay		2.4				
Intersection Capacity Utilization		22.5%		ICU Level of Service	A	
Analysis Period (min)		15				










HCM Unsignalized Intersection Capacity Analysis 7: Davis Road & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	48	56	177	14	17	131
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.80	0.80	0.80	0.80	0.80	0.80
Hourly flow rate (vph)	60	70	221	18	21	164
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	436	230			239	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	436	230			239	
tC, single (s)	6.4	6.2			4.3	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.4	
p0 queue free %	89	91			98	
cM capacity (veh/h)	567	814			1245	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	130	239	185			
Volume Left	60	0	21			
Volume Right	70	18	0			
cSH	678	1700	1245			
Volume to Capacity	0.19	0.14	0.02			
Queue Length 95th (ft)	18	0	1			
Control Delay (s)	11.6	0.0	1.0			
Lane LOS	B		A			
Approach Delay (s)	11.6	0.0	1.0			
Approach LOS	B					
Intersection Summary						
Average Delay			3.1			
Intersection Capacity Utilization		33.9%		ICU Level of Service	A	
Analysis Period (min)		15				

















HCM Unsignalized Intersection Capacity Analysis 8: Penn Lane & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	15	16	213	3	0	133
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.85	0.85	0.85	0.85	0.85	0.85
Hourly flow rate (vph)	18	19	251	4	0	156
Pedestrians						
Lane Width (ft)						
Walking Speed (ft/s)						
Percent Blockage						
Right turn flare (veh)						
Median type			None			None
Median storage veh						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	409	252			254	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	409	252			254	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	97	98			100	
cM capacity (veh/h)	603	791			1323	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	36	254	156			
Volume Left	18	0	0			
Volume Right	19	4	0			
cSH	687	1700	1323			
Volume to Capacity	0.05	0.15	0.00			
Queue Length 95th (ft)	4	0	0			
Control Delay (s)	10.5	0.0	0.0			
Lane LOS	B					
Approach Delay (s)	10.5	0.0	0.0			
Approach LOS	B					
Intersection Summary						
Average Delay			0.9			
Intersection Capacity Utilization		21.4%		ICU Level of Service	A	
Analysis Period (min)		15				










HCM Unsignalized Intersection Capacity Analysis
2: Access: Davis Road & PWPMC Driveway (QC#3)

8/21/2011

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	3	22	6	1	76	0	16	0	1	0	0	8
Sign Control		Free			Free			Stop			Stop	
Grade		0%			0%			0%			0%	
Peak Hour Factor	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62	0.62
Hourly flow rate (vph)	5	35	10	2	123	0	26	0	2	0	0	13
Pedestrians		5			14			2				
Lane Width (ft)		12.0			12.0			12.0				
Walking Speed (ft/s)		4.0			4.0			4.0				
Percent Blockage		0			1			0				
Right turn flare (veh)												
Median type		None			None							
Median storage (veh)												
Upstream signal (ft)												
pX, platoon unblocked												
vC, conflicting volume	123			47			196	178	56	191	183	128
vC1, stage 1 conf vol												
vC2, stage 2 conf vol												
vCu, unblocked vol	123			47			196	178	56	191	183	128
tC, single (s)	4.1			4.1			7.1	6.5	6.2	7.1	6.5	6.2
tC, 2 stage (s)												
tF (s)	2.2			2.2			3.5	4.0	3.3	3.5	4.0	3.3
p0 queue free %	100			100			97	100	100	100	100	99
cM capacity (veh/h)	1477			1571			749	715	1002	759	711	924
Direction, Lane #	EB 1	WB 1	NB 1	SB 1								
Volume Total	50	124	27	13								
Volume Left	5	2	26	0								
Volume Right	10	0	2	13								
cSH	1477	1571	761	924								
Volume to Capacity	0.00	0.00	0.04	0.01								
Queue Length 95th (ft)	0	0	3	1								
Control Delay (s)	0.7	0.1	9.9	9.0								
Lane LOS	A	A	A	A								
Approach Delay (s)	0.7	0.1	9.9	9.0								
Approach LOS			A	A								
Intersection Summary												
Average Delay			2.0									
Intersection Capacity Utilization			20.7%		ICU Level of Service				A			
Analysis Period (min)			15									










HCM Unsignalized Intersection Capacity Analysis
3: Access: Davis Road & PWFMC Driveway (QC#4)

8/21/2011

						
Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Volume (veh/h)	13	7	0	13	56	1
Sign Control	Free			Free	Stop	
Grade	0%			0%	0%	
Peak Hour Factor	0.57	0.57	0.57	0.57	0.57	0.57
Hourly flow rate (vph)	23	12	0	23	98	2
Pedestrians					7	
Lane Width (ft)					12.0	
Walking Speed (ft/s)					4.0	
Percent Blockage					1	
Right turn flare (veh)						
Median type	None			None		
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume			42		59	36
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol			42		59	36
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		90	100
cM capacity (veh/h)			1571		948	1036
Direction, Lane #	EB 1	WB 1	NB 1			
Volume Total	35	23	100			
Volume Left	0	0	98			
Volume Right	12	0	2			
cSH	1700	1571	949			
Volume to Capacity	0.02	0.00	0.11			
Queue Length 95th (ft)	0	0	9			
Control Delay (s)	0.0	0.0	9.2			
Lane LOS			A			
Approach Delay (s)	0.0	0.0	9.2			
Approach LOS			A			
Intersection Summary						
Average Delay			5.9			
Intersection Capacity Utilization			15.4%	ICU Level of Service	A	
Analysis Period (min)			15			

HCM Unsignalized Intersection Capacity Analysis
4: Access: PWFMC Driveway (QC#1) & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	118	52	137	46	16	170
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	146	64	169	57	20	210
Pedestrians	1					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	448	199			227	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	448	199			227	
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	92			99	
cM capacity (veh/h)	563	847			1352	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	210	226	230			
Volume Left	146	0	20			
Volume Right	64	57	0			
cSH	628	1700	1352			
Volume to Capacity	0.33	0.13	0.01			
Queue Length 95th (ft)	37	0	1			
Control Delay (s)	13.6	0.0	0.8			
Lane LOS	B		A			
Approach Delay (s)	13.6	0.0	0.8			
Approach LOS	B					
Intersection Summary						
Average Delay			4.6			
Intersection Capacity Utilization			38.6%	ICU Level of Service	A	
Analysis Period (min)			15			

Default Scenario	Sun Aug 21, 2011 12:51:54	Page 2-1
10567 - Providence Willamette Falls Medical Center Master Plan Future PM Peak Hour		
Level Of Service Computation Report 2000 HCM 4-Way Stop Method (Base Volume Alternative)		

Intersection #A5 10567 - Providence Willamette Falls Medical Center Master Plan		

Cycle (sec):	100	Critical Vol./Cap.(X): 0.473
Loss Time (sec):	0	Average Delay (sec/veh): 11.1
Optimal Cycle:	0	Level Of Service: B

Street Name:	Division Street	15th Street
Approach:	North Bound	South Bound
Movement:	L - T - R	L - T - R

Control:	Stop Sign	Stop Sign
Rights:	Include	Include
Min. Green:	0 0 0	0 0 0
Lanes:	0 0 1 0 0	0 0 1 0 0

Volume Module: PM Peak Hour		
Base Vol:	103 140	17 8 188 93 30 11 65 23 25 12
Growth Adj:	1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Initial Bse:	103 140	17 8 188 93 30 11 65 23 25 12
User Adj:	1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
PHF Adj:	0.82 0.82	0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82 0.82
PHF Volume:	126 171	21 10 229 113 37 13 79 28 30 15
Reduct Vol:	0 0 0	0 0 0 0 0 0 0 0 0 0
Reduced Vol:	126 171	21 10 229 113 37 13 79 28 30 15
PCE Adj:	1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
MLF Adj:	1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Final Volume:	126 171	21 10 229 113 37 13 79 28 30 15

Saturation Flow Module:		
Adjustment:	1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
Lanes:	0.40 0.54	0.06 0.03 0.65 0.32 0.28 0.10 0.62 0.38 0.42 0.20
Final Sat.:	280 380	46 21 484 240 175 64 379 219 238 114

Capacity Analysis Module:		
Vol/Sat:	0.45 0.45	0.45 0.47 0.47 0.21 0.21 0.21 0.13 0.13 0.13
Crit Moves:	****	****
Delay/Veh:	11.7 11.7	11.7 11.6 11.6 11.6 9.5 9.5 9.5 9.3 9.3 9.3
Delay Adj:	1.00 1.00	1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00 1.00
AdjDel/Veh:	11.7 11.7	11.7 11.6 11.6 11.6 9.5 9.5 9.5 9.3 9.3 9.3
LOS by Move:	B B	B B A A A A A
ApproachDel:	11.7	11.6 9.5 9.3
Delay Adj:	1.00	1.00 1.00
ApprAdjDel:	11.7	11.6 9.5 9.3
LOS by Appr:	B	B A A
AllWayAvgQ:	0.7 0.7	0.7 0.8 0.8 0.2 0.2 0.2 0.1 0.1 0.1

Note: Queue reported is the number of cars per lane.		

Traffic 8.0.0715 (c) 2008 Dowling Assoc. Licensed to KITTELSON, PORTLAND

H:\projfile\10567 - Providence Willamette Falls\traffix\10567futpm5.doc

Default Scenario	Sun Aug 21, 2011 12:51:57	Page 3-1
10567 - Providence Willamette Falls Medical Center Master Plan Future PM Peak Hour		
Level Of Service Detailed Computation Report 2000 HCM 4-Way Stop Method Base Volume Alternative		

Intersection #A5 10567 - Providence Willamette Falls Medical Center Master Plan		

Approach:	North Bound	South Bound
Movement:	L - T - R	L - T - R

Time Period:	0.25 hour	
HevVeh:	2%	2%
Alpha Value:	0.01	0%

GroupType:	1	1
P[C1]:	0.39	0.41
P[C2]:	0.33	0.31
P[C3]:	0.14	0.15
P[C4]:	0.13	0.12
P[C5]:	0.01	0.01
Padj[C1]:	0.010	0.010
Padj[C2]:	0.001	0.001
Padj[C3]:	-0.003	-0.003
Padj[C4]:	-0.008	-0.007
Padj[C5]:	-0.001	-0.001

Lane:	L1	L1
LaneType:	LEFTTHURITE	LEFTTHURITE

HeadwayAdj:	0.074	-0.154
Volume:	317	352
Capacity:	706	745
DegOfUtil:	0.43	0.46
DepHeadway:	4.93	4.68
ServiceTime:	2.9	2.7
Delay:	11.7	11.6
Queue:	0.7	0.8

Approach:	North Bound	South Bound










ApproachDel:	11.7	11.6
Delay Adj:	1.00	1.00
ApprAdjDel:	11.7	11.6
LOS by Appr:	B	B
OverallDel:		11.1
OverallLOS:		B

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Page 1 of 1

HCM Unsignalized Intersection Capacity Analysis
6: Access: PWFMC Driveway (QC#4) & Division Street

8/21/2011

						
Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (veh/h)	30	48	211	6	19	257
Sign Control	Stop		Free			Free
Grade	0%		0%			0%
Peak Hour Factor	0.81	0.81	0.81	0.81	0.81	0.81
Hourly flow rate (vph)	37	59	260	7	23	317
Pedestrians	2					
Lane Width (ft)	12.0					
Walking Speed (ft/s)	4.0					
Percent Blockage	0					
Right turn flare (veh)						
Median type			None			None
Median storage (veh)						
Upstream signal (ft)						
pX, platoon unblocked						
vC, conflicting volume	630	266			270	
vC1, stage 1 conf vol						
vC2, stage 2 conf vol						
vCu, unblocked vol	630	266			270	
tC, single (s)	6.4	6.2			4.1	
tC, 2 stage (s)						
tF (s)	3.5	3.3			2.2	
p0 queue free %	91	92			98	
cM capacity (veh/h)	433	776			1303	
Direction, Lane #	WB 1	NB 1	SB 1			
Volume Total	96	268	341			
Volume Left	37	0	23			
Volume Right	59	7	0			
cSH	595	1700	1303			
Volume to Capacity	0.16	0.16	0.02			
Queue Length 95th (ft)	14	0	1			
Control Delay (s)	12.2	0.0	0.7			
Lane LOS	B		A			
Approach Delay (s)	12.2	0.0	0.7			
Approach LOS	B					
Intersection Summary						
Average Delay			2.0			
Intersection Capacity Utilization			40.4%	ICU Level of Service	A	
Analysis Period (min)			15			

Appendix G Sight Distance Analysis

APPENDIX G SIGHT DISTANCE ANALYSIS



Table G1 Summary of Field-Measured Intersection Sight Distances



	Sight Distance Facing to the Right (Feet)	Obstruction	Sight Distance Facing to the Left (Feet)	Obstruction
Driveways and Intersections on Division Street				
Division Street/Penn Lane	410 feet	Vertical curve	250 feet	Parked vehicles on Division Street
Division Street / PWFMC Access A1E (Between Davis Road and 16 th Street) (To Be Removed)	Clear	None	Clear	None
Division Street/16 th Street	140 feet with parked vehicles on Division Street Clear without parked vehicles on Division Street	Parked vehicles on Division Street	410 feet	Vertical curve
Division Street/Davis Road	130 feet with parked vehicles on Division Street 265 feet without parked vehicles on Division Street	Parked vehicles on Division Street PWFMC Entrance sign	95 feet with parked vehicles on Division Street 350 feet without parked vehicles on Division Street	Parked vehicles on Division Street
Division Street/PWFMC Access A4 (Between 15 th Street and Davis Road)	145 feet with parked vehicles on Division Street Clear without parked vehicles on Division Street	Parked vehicles on Division Street	340 feet	Parked vehicles on Division Street
Division Street/15 th Street	Clear	None	340 feet (using the gap between vehicles)	Parked vehicles on Division Street
Division Street / PWFMC Access A5 (at 15 th Street)	300 feet	None	140 feet	Parked vehicles on Division Street
Division Street/14 th Street	170 feet	Shrubs	150 feet	Shrubs Parked vehicles on Division Street
Division Street/PWFMC Access A6 (Between 13 th Street and 14 th Street)	110 feet with parked vehicles on Division Street Clear without parked vehicles on Division Street	Parked vehicles	195 feet	Shrubs



Table G1 (Continued) Summary of Field-Measured Intersection Sight Distances



	Sight Distance Facing to the Right (Feet)	Obstruction	Sight Distance Facing to the Left (Feet)	Obstruction
Driveways and Intersections on Penn Lane				
Penn Lane / PWPMC Future Access A1F (West Driveway, East of Division Street)	Clear	None	Clear	None
Penn Lane / PWPMC Future Access A1F (East Driveway, East of Division Street)	Clear	None	Clear	None
Driveways and Intersections on Davis Road				
Davis Road / PWPMC Access A2 (West Driveway, East of Division Street and on North Side of Davis Road)	Clear	None	190 feet	Shrubs
Davis Road / PWPMC Access A2 (East Driveway, East of Division Street and on North Side of Davis Road)	Clear	None	90 feet	Mailbox Fence Shrubs
Davis Road / PWPMC Access A2 (West Driveway, East of Division Street and on South Side of Davis Road)	Clear	None	Clear	None
Davis Road / PWPMC Access A3 (East Driveway, East of Division Street and on South Side of Davis Road)	Clear	None	Clear	None



NOTE: Bold text indicates locations with sight distance limitations that should be improved to meet City code.



Division Street / Penn Lane		
Direction	North	South
Sight Dist.	410 feet	250 feet
Obstruction	Vertical curve	Parked vehicles
Picture		

Division Street / PWPMC Access A1E (Between Davis Road and 16 th Street) (To Be Removed)		
Direction	North	South
Sight Dist.	Clear	Clear
Obstruction	None	None
Picture		



Division Street / 16 th Street		
Direction	North	South
Sight Dist.	410 feet	140 feet with parked vehicles Clear without parked vehicles
Obstruction	Vertical curve	Parked vehicles
Picture		

Division Street / Davis Road		
Direction	North	South
Sight Dist.	130 feet with parked vehicles 265 feet without parked vehicles	95 feet with parked vehicles 350 feet without parked vehicles
Obstruction	Parked vehicles Entrance sign	Parked vehicles
Picture		



Division Street / PWPMC Access A4 (Between 15 th Street and Davis Road)		
Direction	North	South
Sight Dist.	145 feet with parked vehicles Clear without parked vehicles	340 feet
Obstruction	Parked vehicles	Parked vehicles
Picture		

Division Street / 15 th Street		
Direction	North	South
Sight Dist.	340 feet (gap between vehicles)	Clear
Obstruction	Parked vehicles	None
Picture		

15 th Street / PWPMC Access A5 (at 15 th Street)		
Direction	North	South
Sight Dist.	300 feet	140 feet
Obstruction	None	Parked vehicles
Picture		

Division Street / 14 th Street		
Direction	North	South
Sight Dist.	150 feet	170 feet
Obstruction	Shrubs Parked vehicles	Shrubs
Picture		

Division Street / PWPMC Access A6 (Between 13 th Street and 14 th Street)		
Direction	North	South
Sight Dist.	110 feet with parked vehicles Clear without parked vehicles	195 feet
Obstruction	Parked vehicles	Shrubs
Picture		

Penn Lane / PWPMC Future Access A1F (West Driveway, East of Division Street)		
Direction	West	East
Sight Dist.	Clear	Clear
Obstruction	None	None
Picture		

Penn Lane / PWPMC Future Access A1F (East Driveway, East of Division Street)		
Direction	West	East
Sight Dist.	Clear	Clear
Obstruction	None	None
Picture		

Davis Road / PWFMC Access A2 (West Driveway, East of Division Street and on North Side of Davis Road)

Direction	West	East
Sight Dist.	Clear	190 feet
Obstruction	None	Shrubs
Picture		

Davis Road / PWFMC Access A2 (East Driveway, East of Division Street and on North Side of Davis Road)

Direction	West	East
Sight Dist.	Clear	90 feet
Obstruction	None	Mailbox Fence Shrubs
Picture		

Davis Road / PWFMC Access A2 (West Driveway, East of Division Street and on South Side of Davis Road)

Direction	West	East
Sight Dist.	Clear	Clear
Obstruction	None	None
Picture		

Davis Road / PWFMC Access A3 (East Driveway, East of Division Street and on South Side of Davis Road)

Direction	West	East
Sight Dist.	Clear	Clear
Obstruction	None	None
Picture		



Appendix H Parking Utilization Data

APPENDIX H PARKING UTILIZATION DATA

Table H1 summarizes the parking utilization on the PWFMC campus between 11:00 a.m. and 12:00 p.m., which represented the highest vehicular parking hour.

Table H1 Parking Utilization

Location	Number of Spaces Occupied from 11 AM – 12 PM	Capacity	% Utilized
MOB Parking Lot	54	66	82%
Medical Plaza 1 Parking Lot	41	47	87%
Birthing Center Parking Lot	4	10	40%
Main Hospital Entrance Parking Lot	52	54	96%
Main Hospital South Parking Lot	14	25	56%
Outpatient Surgery Parking Lot	92	128	72%
Medical Plaza 2 Parking Lot	168	193	87%
Parking Structure Parking Lot	162	226	72%
Total	587	749	78%





16285 SW 85th Ave, Ste 302
 Tigard, OR 97224
 503-620-4242
www.qualitycounts.net

Willamette Falls Parking Study

6/2/2011		Demand											
Parking Lot	Supply	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
A	66	1	9	30	62	57	54	49	47	52	49	45	27
B	47	6	6	24	37	39	41	35	24	40	39	31	24
C	10	2	2	4	4	2	4	4	4	5	6	5	5
D	54	23	32	45	48	51	52	49	47	53	43	41	42
E	25	4	6	6	6	7	14	10	12	14	12	16	14
F	128	15	31	71	81	89	92	97	93	88	85	78	49
G	193	55	128	140	144	171	168	154	152	168	155	121	90
H	226	6	27	98	150	158	162	125	136	154	153	135	69
TOTAL	749	112	241	418	532	574	587	523	515	574	542	472	320
%		15%	32%	56%	71%	77%	78%	70%	69%	77%	72%	63%	43%

6/2/2011		Demand											
Street Parking	Estimated Supply	6:00	7:00	8:00	9:00	10:00	11:00	12:00	13:00	14:00	15:00	16:00	17:00
Davis between Division & Trillium Park Dr	21	2	7	10	11	12	12	12	12	11	12	12	5
Gilman Dr between Division & Trillium Park Dr	58	7	6	5	3	6	6	5	4	5	3	4	6
Division between Penn Ln & Gilman Dr	62	21	29	34	36	39	39	36	37	35	30	21	18
Trillium Park between Gilman & Davis	88	4	4	4	4	4	4	4	3	3	4	4	4
TOTAL	229	34	46	53	54	61	61	57	56	54	49	41	33
%		15%	20%	23%	24%	27%	27%	25%	24%	24%	21%	18%	14%

Notes: All the street parking was pretty consistent with the same vehicles parked all day. Division St had a little more coming and going compared to the other streets.
 The supply for parking lot A was a best guess because half the lot was gravel.
 All the street parking was an estimate because there were no line markings for spaces except for a few on Division.

APPENDIX C

KPFF Civil Engineering Narratives

D E S I G N M E M O R A N D U M

DATE: 9/13/11
TO: Josh Kolberg - PKA
FROM: Adam Roth
RE: Providence Willamette Falls Medical Center – Master Plan – Civil Narrative
PROJECT NO.: 311083

The purpose of this memorandum is to provide responses to the applicable civil-related sections in the Master Plan chapter of the Oregon City Municipal Code for the subject project.

Oregon City Municipal Code Section:

17.65.050.A.1

i. Infrastructure facilities and capacity, including the following items.

- (1) Water,
- (2) Sanitary sewer,
- (3) Stormwater management, and
- (4) Easements.

(1) Water

Domestic Water

Existing water mains are located in the streets bounding the Providence Willamette Falls (PWF) Hospital site as well as traversing the site in utility easements. There are 8-inch mains in Trillium Park Drive to the north, Davis Road to the west and Gilman Drive to the east. Division Street to the south contains a 10-inch main in the vicinity of PWF which transitions to a 6-inch main east of the Master Plan boundary near the entrance of the Mountain View nursing home. There are two public water mains running east-west across the campus in utility easements connecting the mains in Division Street and Trillium Park Drive. The northern of the two is located in the access road between the Medical Plazas and the Birthing Center. It is 6 inches in diameter from Division Street to the southern edge of Medical Plaza 2 where it transitions to 8 inches until it reaches Trillium Park Drive. The southern main runs north in the driveway to the Mountain View Nursing Home, jogs to the northeast between the main hospital building and the nursing home and heads back to the east to Trillium Park Drive. These two mains are connected near the eastern edge of the site with another 8-inch main in a utility easement. A 6 inch water main

was installed in Penn Lane as part of improvements associated with the Children's Center of Clackamas County project. A 10-inch water main exists in 16th Street while a 6-inch main exists in 15th Street.

There is no evidence of capacity issues with the existing water system serving the campus. Pressure testing completed at fire hydrants surrounding the campus resulted in static and residual pressures ranging from 80 to 100 pounds per square inch (psi). Water system pressures and flows will need to be verified during the design of each phase.

Domestic water services to the existing PWF buildings are shown in the Table below.

Existing Building	Domestic Service Size	Main Providing Service
Main Hospital Building	6 inches	Division Street (10 inch)
Medical Plaza 1	3 inches	Davis Road (8 inch)
Medical Plaza 2	3 inches	Division Street (10 inch)
Parking Structure	NA	NA

Table 1 – Existing PWF Domestic Services

Fire Protection

Fire hydrants exist around and within the site and are fed from the public water main network described in the Domestic Water section. Fire protection service to existing building sprinkler systems is also served by the existing water mains. The location of existing fire hydrants is provided in Map C2.0. Table 2 below shows the existing fire protection services for PWF buildings.

Existing Building	Domestic Service Size	Main Providing Service
Main Hospital Building	4 inches 6 inches	Southern main through site (8-inch) Southern main through site (8-inch)
Medical Plaza 1	6 inches	Davis Road (8-inch)
Medical Plaza 2	4 inches	Davis Road (8-inch)
Parking Structure	FDC with 6-inch line from structure	Davis Road (8 inch)

Table 2 – Existing PWF Fire Protection Services

(2) Sanitary Sewer

Separated public sanitary sewer mains exist in the streets adjacent to the PWF site. Sanitary flows from the Medical Plaza 2 building, the parking structure and portions of the main hospital drain to the east to

8-inch mains in Trillium Park Drive, Bean Court and Canyon Court and eventually connect to the existing 18-inch sewer trunk line in the Cascade Highway (213) right-of-way. Medical Plaza 1 and the remainder of the main hospital building drain to the west to 8-inch mains in Division Street and 14th Street respectively. Existing 8-inch mains also exist in both 16th and 15th streets draining to the west. A short extension of 8-inch gravity sewer was installed in Penn Lane with the improvements associated with the Children's Center of Clackamas County project. Force mains from the Children's Center and a residence near the east end of Penn Lane connect to this main. The PWF site area draining to the west was included in the 12th Street Basin of the City of Oregon City Sanitary Sewer Master Plan dated December 2003. For build out conditions in this basin, no future improvements were recommended in the Sanitary Sewer Master Plan. The area draining to the east was not included in this study.

(3) Stormwater Management

According to the City of Oregon City Public Works Stormwater and Grading Design Standards dated December 17, 1999, the site lies within both the Abernethy and Newell drainage basin boundaries.

The majority of the stormwater runoff from the existing PWF site drains via a private system of roof drains, catch basins and conveyance piping to a stormwater detention pond located between Medical Plazas 1 and 2 on the south side of Davis Road. This pond was installed in conjunction with the Medical Plaza 2 project in 2003 and is located in a public easement. The east side of the Division Street right-of-way adjacent to the site as well as approximately 500 feet of Davis Road east of Division Street is also tributary to the pond. The runoff from Division Street is conveyed in a 6-inch public main that connects to a 12-inch main in Davis Street before discharging to the pond. The pond also detains runoff from the paved portion of the Division Street Parking Lot. Stormwater outflow from the pond is routed to the north through a flow control structure to a public 18-inch culvert under Davis Road. The culvert outfalls to an existing tributary of Newell Creek in a water quality resource area (WQRA) on the north side of Davis Road. The City believes this drainage way is then intercepted by another culvert and routed under private property before discharging at the east end of the improved Penn Lane right-of-way.

According to the City's comments in the Pre Application Conference Notes dated July 13, 2011, the pond may be undersized and is discharged in an unapproved pipe across private property before flowing into the tributary of Newell Creek north of Davis Road. The drainage report for the design of the existing detention pond was prepared by Hopper Dennis Jellison dated January 14, 2002. According to the report, the pond was designed using the guidelines set forth in the current City of Oregon City Public Works Stormwater and Grading Design Standards dated December 17, 1999. The report also indicates that the pond and flow control structure was sized to detain runoff from 13.41 acres of public and private property which over-estimates the actual tributary area to the pond. As explained by PWF Facilities personnel recent flooding issues occurring in the area of the pond were due to root intrusion into conveyance piping and were not based on pond sizing. The root intrusion problem has been remedied by Providence and there is no indication that the pond is currently undersized.

Upstream of this pond, water quality is provided for the improvements associated with the Medical Plaza 2 and Parking Structure projects in an underground sand filter located between Davis Road and the building and a water quality manhole.

Runoff from the recent Penn Lane improvements north of Division Street and the gravel portion of the Division Street Parking Lot is conveyed in a new 12-inch diameter storm main to a pond outlet structure at the east end of the right-of-way. The pond outlet discharges into another tributary of Newell Creek within the same WQRA mentioned above. Water quality from the street runoff is provided at the downstream end of the paved improvements in two CONTECH StormFilter Catch Basin devices upstream of the outfall. The storm drainage report for the Penn Lane Improvements prepared by HDJ Design Group dated October 6, 2010 indicates that topographic constraints prohibited the installation of a detention system for the roadway improvements. The report mentions runoff from the proposed Division Street Parking Lot shall be over-detained to account for the un-detained areas of Penn Lane. The Penn Lane improvements project was completed in 2011.

The remainder of the currently developed PWF site drains to the east to two streams in another WQRA east of Trillium Lake Drive. Runoff from portions of the main hospital building's roof as well as from the parking areas in the south and east portions of the site is routed through two separate underground detention tanks with flow control structures. Downstream of the detention systems, 15-inch and 12-inch culverts convey the flows across Trillium Park Drive in public facilities that discharge into the creeks on the east side of the road.

An existing 10-inch main and 6-inch main exist in 16th and 15th Streets respectively just west of Division Street. Division Street generally delineates the top of the drainage conveyance system heading to the west down 16th and 15th Streets. These main lines would be used to convey stormwater runoff from the Phase 3 Medical Office Building Project on the west side of Division Street.

(4) Easements

Existing easements affecting the properties encompassing the Master Plan development area are shown on plan C2.3. Known easements affecting the Master Plan development include storm drainage, sanitary sewer, water and other utilities as well as access and maintenance.

Oregon City Municipal Code Section:

17.65.050.B.1.f

- (3) Public facilities impacts (sanitary sewer, water and stormwater management) both within the development boundary and on city-wide systems;

Water

Domestic Water

The PWF Master Plan developments will create additional demand on the City's public water system. The proposed Phase 2 building additions, expansions and remodels will either re-use existing building services or require new services. The Phase 3 new Medical Office Buildings will require new domestic water services from existing public mains. The exact demands and resulting service sizes will be determined during the Detailed Development Plan process for each project. The City indicates in the Pre Application Conference Notes dated July 13, 2011 that a portion of the water system in Division Street has been upgraded but there is more to be completed. City staff has indicated that the intent in the future is to extend the 10-inch main in Division Street from the south edge of PWF property to the 8-inch main in Gilman Drive. Further coordination with City staff has determined that no other public water utility improvements will be required for projects associated with this Master Plan and that these public improvements will be part of a currently unscheduled public works project. Any work on water lines associated with the Master Plan development will be per the current City of Oregon City Public Works Water Standards Manual.

Fire Protection

New fire hydrants will be placed as required for each of the projects associated with this Master Plan. New fire protection service connections will be made and/or relocated as necessary to feed future building sprinkler systems. The final location of the fire hydrants shall be approved by Clackamas County Fire Department and shall be evaluated by the Oregon Fire Code (OFC), Appendix C. Fire flows shall meet the requirements listed under Appendix B of the OFC.

Sanitary Sewer

In general sanitary sewer flows generated from the projects associated with the PWF Master Plan development will either be routed to existing sanitary sewer laterals or require the installation of new sewer laterals connecting to existing public sanitary sewer mains. New or relocated sewer laterals will be designed and installed per the current City of Oregon City Public Works Sanitary Sewer Design Standards. Any existing private sewer laterals affected by the proposed construction will be re-routed as needed.

As mentioned in the analysis of the existing sanitary sewer conditions, the PWF site area draining to the west was included in the 12th Street Basin of the City of Oregon City Sanitary Sewer Master Plan dated

December 2003. For build out conditions in this basin, no future improvements were recommended in the Sanitary Sewer Master Plan. The City has not indicated that specific public sanitary sewer improvements associated with this Master Plan development are required. The City's comments in the Pre Application Conference Notes dated July 13, 2011 indicate that a sanitary sewer master plan update is scheduled to be completed within the next couple of budget years.

Stormwater Management

In general, the strategy for managing stormwater for the projects associated with this Master Plan will include both utilizing existing facilities and installing new facilities. City staff mentioned in the Pre Application meeting that an update to the current drainage standards with a focus on LID design techniques will be released soon. PWF's goal is to implement low impact development (LID) techniques when possible. Stormwater infrastructure will be designed using the most current City of Oregon City Public Works Stormwater and Grading Design Standards at the time of permitting.

The projects associated with Phases 1 and 3 are isolated properties with their own associated stormwater management facilities. Phase 2 projects are located on the main hospital site and will use existing stormwater management facilities when possible. The goal for managing stormwater for all phases is to limit impacts to downstream public stormwater infrastructure and Water Quality Resource Areas (WQRA) including streams, creeks and rivers. Below is a brief discussion on stormwater impacts from each phase.

Phase 1 – Division Street Parking Lot

Stormwater management for this project is shown in the Detailed Development Plan concurrently submitted with this Master Plan. In order to maximize parking space and provide future flexibility when designing the adjacent Phase 3 Medical Office Building, water quality will be provided by proprietary treatment devices and detention is provided in underground tanks. Flows leaving the site will be conveyed to the public 12-inch storm main in Penn Lane before discharging to the tributary of Newell Creek in the existing WQRA. Runoff from the existing paved portion of this site which is currently being detained in the detention pond on the south side of Davis Street will be rerouted to the proposed stormwater management facilities described above. This will relieve the pond of flows from approximately 8,300 square feet of impervious area, thereby providing for a portion of the on-site Phase 2 improvements.

As mentioned in the existing conditions section, Providence encumbrances to over-detain runoff from this parking lot project to account for flow attenuation that was not provided for the recent Penn Lane Improvements. PWF proposes to meet this requirement over the course of the full build out of the Master Plan development using excess capacity created in the existing detention pond or by over-sizing new detention systems required. Because Penn Lane and the Phase 1 and 2 Master Plan areas drain to the same WQRA, the City indicated in the Pre-Application Meeting that the burden of over-detaining the entire Penn Lane Improvements project during the Division Street Parking Lot project is not required.

Phase 2 – Hospital Additions and Remodels

This Phase includes projects that are all located on the main hospital site, the majority of which drain to the existing detention pond. The remainder of the site drains to two underground detention pipe systems in the eastern parking areas. The projects associated with this phase will increase impervious area by approximately 23,540 square feet from existing conditions. PWF plans to utilize the excess capacity in the existing detention pond created during Phase 1 to manage as much of this area as possible. Additional detention facilities may be required as described below if modifications to the other existing, on-site detention facilities are not feasible. Below is a more specific analysis of the individual projects included in Phase 2.

It is anticipated that runoff from the New Front Entry and the Birthplace Expansion projects will be routed to and detained in the existing detention pond.

Runoff from the Central Utility Plant and Outpatient Surgery Expansion projects will be routed to the existing detention tank systems on the east side of the site. The existing flow control structures will be modified and/or additional storage capacity will be added to the tanks to accommodate the increase in-flow rates. If these modifications prove infeasible during detailed development design, new detention systems will be proposed per City standards.

The Second Floor Patient Room and Pharmacy Remodel project and the Second Floor Shell Space Tenant Improvements will not increase or replace impervious area and will not be required to provide additional stormwater management facilities.

New stormwater treatment (water quality) facilities will be provided per City standards for all new impervious areas created with each project in this Phase. As mentioned elsewhere, these will be provided in the form of LID techniques wherever feasible.

The City would like to explore possible retrofit options for the downstream conveyance of the existing detention pond. During the design of the first Phase 2 project with area tributary to the pond, additional coordination will be required with the City.

Phase 3 – Medical Office Buildings

In general, new, stand-alone stormwater management facilities will be designed and installed per current City standards for these projects.

APPENDIX D

Division Street Lot Consolidation Legal Description

EXHIBIT A

PROVIDENCE HEALTH & SERVICES - OREGON

JOB NO. 311115

AUGUST 30, 2011

LEGAL DESCRIPTION

A TRACT OF LAND LOCATED IN THE EZRA FISHER DONATION LAND CLAIM NO. 44, BEING ALL OF THOSE PARCELS OF LAND DESCRIBED IN FEE NUMBERS 88-029130 & 93-053775 AND PORTIONS OF THOSE PARCELS OF LAND DESCRIBED IN FEE NUMBERS 88-026297, 95-033590, 95-076491, 97-036962 & 96-095812, CLACKAMAS COUNTY DEED RECORDS, LOCATED IN THE NORTHEAST ONE-QUARTER OF SECTION 32, TOWNSHIP 2 SOUTH, RANGE 2 EAST, WILLAMETTE MERIDIAN, CITY OF OREGON CITY, CLACKAMAS COUNTY, OREGON, MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCING AT A STONE SCRIBED WITH AN 'X', SET BY JOHN MELDRUM ON THE WEST LINE OF SAID DLC NO. 44, THAT BEARS SOUTH 00°49'37" WEST 1321.97 FEET FROM THE NORTHWEST CORNER OF SAID DLC NO. 44; THENCE ALONG SAID WEST LINE, SOUTH 00°49'37" WEST 420.66 FEET TO THE INTERSECTION OF THE EAST RIGHT-OF-WAY LINE OF DIVISION STREET (60 FEET WIDE) AND THE SOUTH RIGHT-OF-WAY LINE OF PENN LANE (53 FEET WIDE) AS DESCRIBED IN FEE NO. 2011-024837, CLACKAMAS COUNTY DEED RECORDS, AND THE **TRUE POINT OF BEGINNING**; THENCE ALONG SAID SOUTH RIGHT-OF-WAY LINE, SOUTH 86°04'09" EAST 323.80 FEET TO THE EAST LINE OF SAID FEE NO. 97-036962; THENCE ALONG SAID EAST LINE, SOUTH 00°49'37" WEST 96.97 FEET TO THE SOUTHEAST CORNER OF SAID FEE NO. 97-036962; THENCE ALONG THE SOUTH LINE OF SAID FEE NO. 97-036962, NORTH 86°07'23" WEST 92.80 FEET TO THE EAST LINE OF SAID FEE NO. 95-033590; THENCE ALONG SAID EAST LINE, SOUTH 00°49'37" WEST 35.21 FEET TO THE SOUTHEAST CORNER SAID FEE NO. 95-033590; THENCE ALONG THE SOUTH LINE OF SAID FEE NO. 95-033590 & FEE NO. 88-029130, NORTH 86°07'23" WEST 106.49 FEET TO THE EAST LINE OF SAID FEE NO. 88-026297; THENCE ALONG SAID EAST LINE, SOUTH 00°49'37" WEST 101.99 FEET TO THE NORTH LINE OF DAVIS ROAD (50 FEET WIDE) AS DESCRIBED IN INSTRUMENT NO. 2004-019351; THENCE ALONG SAID NORTH LINE, NORTH 86°07'23" WEST 107.43 FEET TO THE BEGINNING OF A TANGENT CURVE; THENCE ALONG THE ARC OF A 18.00 FOOT RADIUS CURVE CONCAVE NORTHEASTERLY THROUGH A CENTRAL ANGLE OF 86°57'00" (THE LONG CHORD OF WHICH BEARS NORTH 42°38'53" WEST 24.77 FEET) AN ARC DISTANCE OF 27.32 FEET TO A POINT OF TANGENCY ON SAID EAST RIGHT-OF-WAY LINE OF DIVISION STREET; THENCE ALONG SAID EAST RIGHT-OF-WAY LINE, NORTH 00°49'37" EAST 217.40 FEET TO THE **TRUE POINT OF BEGINNING**.

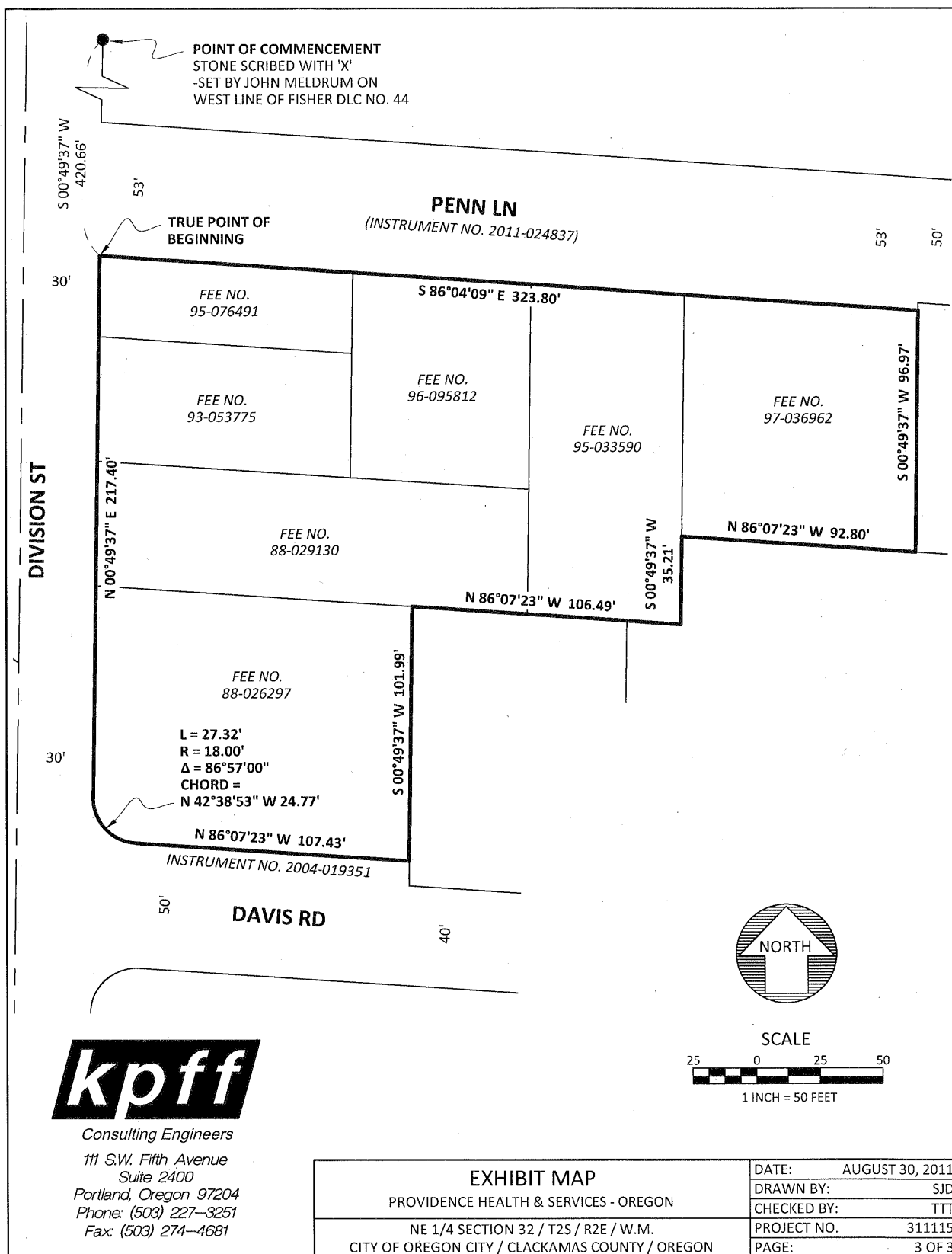
CONTAINING 52,141 SQUARE FEET OR 1.197 ACRES, MORE OR LESS.

THE BASIS OF BEARINGS IS BASED ON AN ASSUMED BEARING FOR THE CENTERLINE OF DIVISION STREET, AS NORTH 00°49'37" EAST.

THE TRACT OF LAND IS SHOWN ON THE ATTACHED EXHIBIT MAP AND BY THIS REFERENCE MADE A PART THEREOF.



RENEWAL DATE 6-30-12



APPENDIX E

Division Street Parking Lot Preliminary Storm Drainage Study



Preliminary Storm Drainage Study

for

Providence Willamette Falls Medical Center Division Street Parking Lot Oregon City, Oregon

Oregon City Planning File No. PA-11-12

KPFF Consulting Engineers
111 SW 5th Avenue, Suite 2400
Portland, OR 97204
(503) 227-3251

September 23, 2011

KPFF Project Number # 311119

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 - e. Sensitive Areas
 - f. Soils
 - g. Water Wells, Septic Tanks, etc.
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 - b. Topography
 - c. Drainage Patterns and Basins
 - d. Hydrologic and Hydraulic Analysis
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 - f. Stormwater Quality Facility Design
 - g. Conveyance and Inlet Capacity Analysis
 - h. Downstream Analysis
- V. Operations and Maintenance Requirements

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Appendix E – Hydrologic/Hydraulic Analysis
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I. Purpose of the Report

The purpose of this report is to document the design criteria, methodology and analysis for the stormwater facilities proposed for the Providence Willamette Falls Medical Center (PWFMC) Division Street Parking Lot project.

II. Project Location/Description

The Division Street Parking Lot project constitutes the first Phase of the PWFMC Master Plan Development. The project consists of redeveloping an existing asphalt-paved and gravel parking lot into a new, fully paved parking lot with 56 proposed stalls. The approximately 1.2 acre property is located in Oregon City, Oregon and is bounded by Division Street to the west, Penn Lane to the north, private property to the east and Davis Road to the south. According to Figure 4-1 Drainage Basin Boundaries throughout the Oregon City Area in the City of Oregon City Stormwater and Grading Design Standards 1999, the property is located in the Abernethy drainage basin. The property consists of one legal tax lot (TL1201) and is the northern-most property included in the PWF Master Plan Development. Approximately 0.84 acres will be disturbed by the proposed parking improvements including right-of-way improvements on Davis Road and Division Street. Refer to Appendix A for a vicinity map. 0.64 acres of the private property will be disturbed and is studied in this drainage report.

III. Existing Conditions

a. Land Use and Cover

The majority of the site is currently used as a parking lot by PWF. The southern half consists of an asphalt-paved parking area with 22 stalls while the northern half consists of a gravel area providing additional parking. In the northeast corner of the property there is an existing single family residence separated from the gravel parking area by a fallow field and trees. The residence will not be disturbed by this project. Refer to Table 1 for the breakdown of areas for the existing site.

b. Abutting Property Land Cover and Use

The site abuts property other than City-owned right-of-way only on its east side. These properties consist of single-family homes covered with various landscaping, vegetation and trees as well as associated walkways and driveways.

c. Topography and Drainage Patterns

The on-site parking areas generally slope downward in a northeasterly direction at a grade of approximately 4 to 5 percent. At the northern edge of the property the topography abruptly transitions to a 2:1 slope down to a grass and jute-lined swale adjacent to the Penn Lane right-of-way. The elevation change at the 2:1 slope varies from 0 to approximately 8 feet increasing as it moves east down Penn Lane. The swale flows to the east following the longitudinal slope of Penn Lane. The topography of the fallow field and residence in the

northeast portion of the property also generally slope to the north and east with grades ranging from 5 to 20 percent.

Runoff from the majority of the existing asphalt-paved portion of the site flows to one catch basin at the north edge of the pavement. The flows are then conveyed to the south to storm drainage system in Davis Road and are ultimately routed to the existing detention pond on PWFCM property. Runoff from the rest of the property except for the portion with the single-family residence drains north to the swale adjacent to Penn Lane which conveys flows to a private catch basin at the NE corner of the site. The flows collected in the catch basin are routed to the public 12-inch storm main in Penn Lane which outfalls to a drainage channel at the east end of improved right-of-way.

d. Offsite Drainage to Property

A small portion of the residential property to the east consisting of vegetated surfaces drains over the northeast corner of the site. This area is not affected by the proposed parking improvements.

e. Sensitive Areas

The Oregon City Web Maps indicate that the northeast corner of the property and the east end of the improved Penn Lane right-of-way are located within a Title 13 Natural Resources Overlay District. Refer to Appendix B for a map of the Natural Resources Overlay District.

f. Soils

According to the USDA Natural Resources Conservation Service (NRCS) the soil on site consists of Woodburn silt and loam. According to Table 4.2 Hydrologic Soil Group of the Soils of Oregon City, Woodburn soils are categorized as Hydrologic Soil Group C (moderately high runoff potential). Refer to Appendix C for soils information.

g. Water wells, Septic Tanks, etc.

In the northeast corner of the property there is a septic tank for the residential property. A pump and force main convey the sewage to the public sanitary sewer main in Penn Lane. This system will be not be disturbed by the proposed improvements. No known wells exist on site.

IV. Developed Site Drainage Conditions

a. Land Use and Cover

The land use of the developed site will remain unchanged. The existing parking areas will be improved to include additional asphalt pavement and increase the amount of parking stalls. The existing residence will not be disturbed.

b. Topography

The proposed improvements will closely match the existing topography in an effort to re-use as much of the existing base course and gravel as possible during the parking lot construction. The grades in the parking area will vary between approximately 3 and 6 percent. There are no accessible stalls proposed in the parking area. The northern edge of the pavement area terminates at the top of the existing slope down to the Penn Lane sidewalk. Disturbance to this slope will be limited to storm drain pipe construction and will be re-graded to match existing slopes.

c. Drainage Patterns and Basins

In the developed condition, runoff from the proposed parking area will sheet flow to two new catch basins, one in the middle of the site roughly in the same location as the existing catch basin and one in the north east corner of the paved area. Both of these catch basins will include CONTECH Stormwater Management Inc. StormFilter cartridges for water quality treatment. Stormwater collected in the catch basins will be routed to an underground tank detention system and flow control manhole and will ultimately be conveyed to the existing catch basin at the northeast corner of the site. As mentioned above, this catch basin is connected to the 12-inch public storm drain main in Penn Lane with a 12-inch private storm sewer lateral.

As a result of the proposed drainage patterns, the public storm system in Davis Road and the existing detention facility on PWPMC property south of Davis Road will be relieved of runoff from the existing paved parking lot on site. This additional capacity in the existing detention pond will be utilized for future projects included in the PWPMC Master Plan development. Also, since the northern half of the site is now conveyed to the proposed detention tank, the swale south of the Penn Lane sidewalk will have minimal tributary area and resulting conveyance flow.

Refer to Table 1 below for a comparison of land cover areas in the existing and developed conditions.

Table 1: On-site Drainage Basin Areas

Basin Id.	Description	Total Area (acre)	Impervious Area (acre)	Pervious Area (acre)
Existing	Asphalt pavement, gravel, vegetation	0.64	0.59*	0.05
Developed	Asphalt pavement, vegetation	0.64	0.52	0.12

*Existing Impervious area includes 0.40 acres of gravel and 0.19 acres of asphalt pavement.

d. Hydrologic and Hydraulic Analysis

The SCS TR-55 hydrologic analysis method for Type 1A rainfall distribution is used to estimate peak flow rates and quantities. Autodesk Storm and Sanitary Analysis 2011 (formerly Boss International StormNet) is the software used to prepare the analysis. Curve Number (CN) values used for the evaluation are listed below and correspond with Table 4-3 of the City's Stormwater and Grading Design Standards:

- Impervious surfaces – CN = 98
- Gravel surfaces – CN = 89
- Pervious surfaces existing – CN = 81
- Pervious surfaces developed – CN = 86

The Rational Method is used to size the conveyance piping.

e. Detention System Design

Below are the City's detention system requirements for sites within the Abernethy Drainage Basin:

- The 2-year, 24-hour peak discharge rate for the developed site cannot exceed 50% of the existing site's 2-year, 24-hour peak discharge rate.
- The 5-year, 24-hour peak discharge rate for the developed site cannot exceed the existing site's 5-year, 24-hour peak discharge rate.
- The 25-year, 24-hour peak discharge rate for the developed site cannot exceed the existing site's 10-year, 24-hour peak discharge rate.

In order to meet this requirement, runoff from the developed site is routed to 27 lineal feet of 96-inch diameter corrugated metal pipe (CMP). The flow out of the tank is controlled by a flow control outlet riser consisting of two orifices and an overflow in a 54-inch diameter manhole. The orifice information is provided in Table 2 below.

Table 2: Detention Tank Orifice Data

Orifice Size (in)	Orifice Elevation (ft)
1.5	248.70
3.5	256.20
12 (overflow)	257.10

The resulting developed peak discharge rates from the detention system are presented below compared to the required existing peak discharge rates.

Table 3: Existing and Developed Peak Discharge Rates

Storm Frequency	Peak Existing Discharge Rate (CFS)	Storm Frequency	Peak Developed Discharge Rate (CFS)
50% of the 2-year	0.14	2-year	0.13
5-year	0.36	5-year	0.15
10-year	0.41	25-year	0.36

The total volume stored at the 25-year peak discharge is 1,319 cubic feet. 1,357 cubic feet of storage is provided.

The Penn Lane Improvements Final Drainage Report indicates that the PWFMC Division Street Parking Lot project is required to over-detain its on-site flows to account for detention that was not provided for the Penn Lane project. Per the Master Plan General Development Plan submitted concurrently with the Detailed Development Plan for this project, the over-detention for Penn Lane will be implemented in a future phase of the Master Plan.

f. Stormwater Quality Facility Design

The City requires water quality facilities to be sized to treat the peak discharge rate equal to 1/3 of the SCS 2-year, 24-hour storm event. As mentioned above, two StormFilter Catch Basins will be used to meet the water quality requirements for the proposed parking area. The StormFilter cartridges will be sized using a specific flow rate of 2 gpm/sf and will contain perlite media.

Impervious areas to each catch basin, the resulting water quality design storms and the StormFilter Catch Basin treatment capacities are listed below in Table 4.

Table 4: Water Quality Analysis

Structure No.	Tributary Area (ac)	Water Quality Design Storm (CFS)	StormFilter Cartridge Height/Capacity	StormFilter Cartridges Required	Treatment Capacity (CFS)
CBSF 1	0.19	0.03	18" / 0.033 CFS	1	0.033
CBSF 2	0.33	0.06	18" / 0.033 CFS	2	0.066

g. Conveyance and Inlet Capacity Analysis

The full pipe conveyance and inlet capacity analysis will be included in the final version of the report. In general the 100-year peak discharge from the total site is 0.77 CFS. All of the pipe proposed will be 12-inch diameter PVC (n=0.011) at a minimum slope of 1 percent. The Manning's equation results in a capacity of 4.21 CFS. The capacity of the StormFilter Catch Basin inlet (inlet area of 3.553 SF, perimeter of 9.25 feet) assuming 4-inches of head is 5.8 CFS.

h. Downstream Analysis

As mentioned above the site drains to a newly installed 12-inch public storm main in Penn Lane. Per the Final Drainage Report for the Penn Lane Improvements dated October 6, 2010 prepared by HDJ Design Group, this line was sized based on a 100-year peak flow of 1.16 CFS which includes tributary area from the existing parking lot site and its resulting 100-year peak flow contribution of 0.49 CFS. The 12-inch line has a capacity of 9.69 CFS at the point of connection from this site and 13.80 CFS in the downstream length of pipe prior to the outfall.

The 100 year peak flow from the developed parking lot is 0.77 CFS. This contribution increases the design flow to the 12-inch public main to 1.44 CFS which is still less than the capacity of the system.

i. Operations and Maintenance Requirements


An Operations and Maintenance Manual for the stormwater facilities has been provided in Appendix F of this report.

APPENDIX A

Vicinity Map and Oregon City Drainage Basin Boundaries



MAP FROM: GOOGLE ©

 <p> kpff Consulting Engineers 111 S.W. Fifth Avenue Suite 2400 Portland, Oregon 97204 (503) 227-3201 STRUCT. FAX (503) 227-7980 CIVIL FAX (503) 274-4681 </p>	SCALE: NTS	TITLE:	SHEET NO.: Figure 1
	JOB NO.: 311119	PROJECT:	
	DATE: 9/23/11	PWFCM - DIVISION STREET PARKING LOT OREGON CITY, OR	

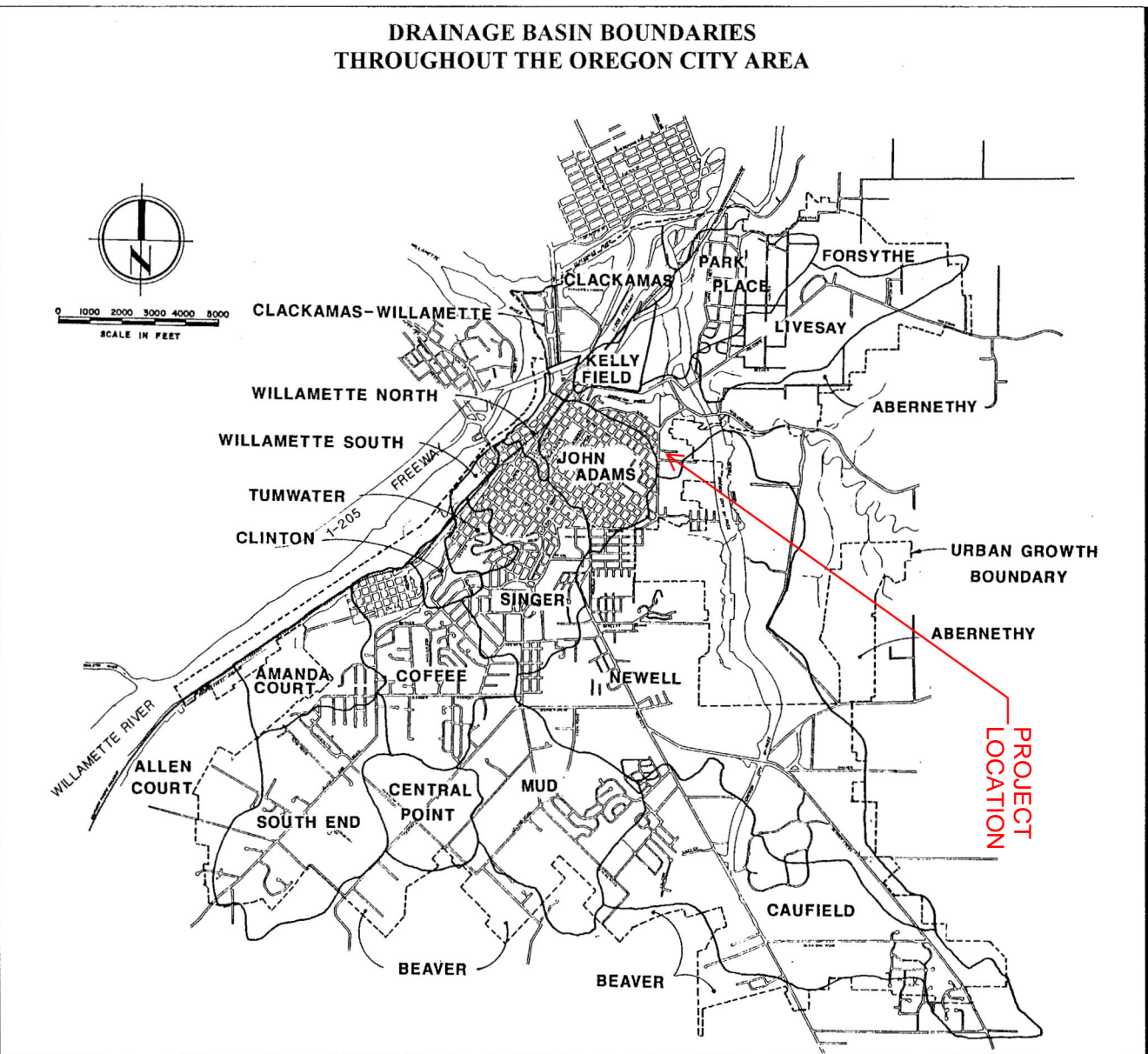
CHAPTER 4 - STORMWATER QUANTITY CONTROL FACILITIES

4.1 DRAINAGE BASINS

The 1988 Drainage Master Plan divided the Oregon City Area into 22 major drainage areas as depicted in Figure 4-1 (reference: Drainage Master Plan - Figure 3-1). Table 4-0 identifies the drainage basins and the minimum peak rate stormwater runoff control requirements. It is anticipated that as each drainage area is studied in further detail, the peak rate stormwater runoff control requirement may be revised. The requirements presented in this table represent the minimum requirements and shall be required unless expressly exempted by Section 4.1.3 of this document. Additionally, the City Engineer may require that runoff from a development site (or redevelopment site) be controlled for additional design storm events or to a more stringent level.

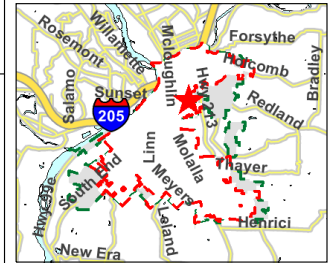
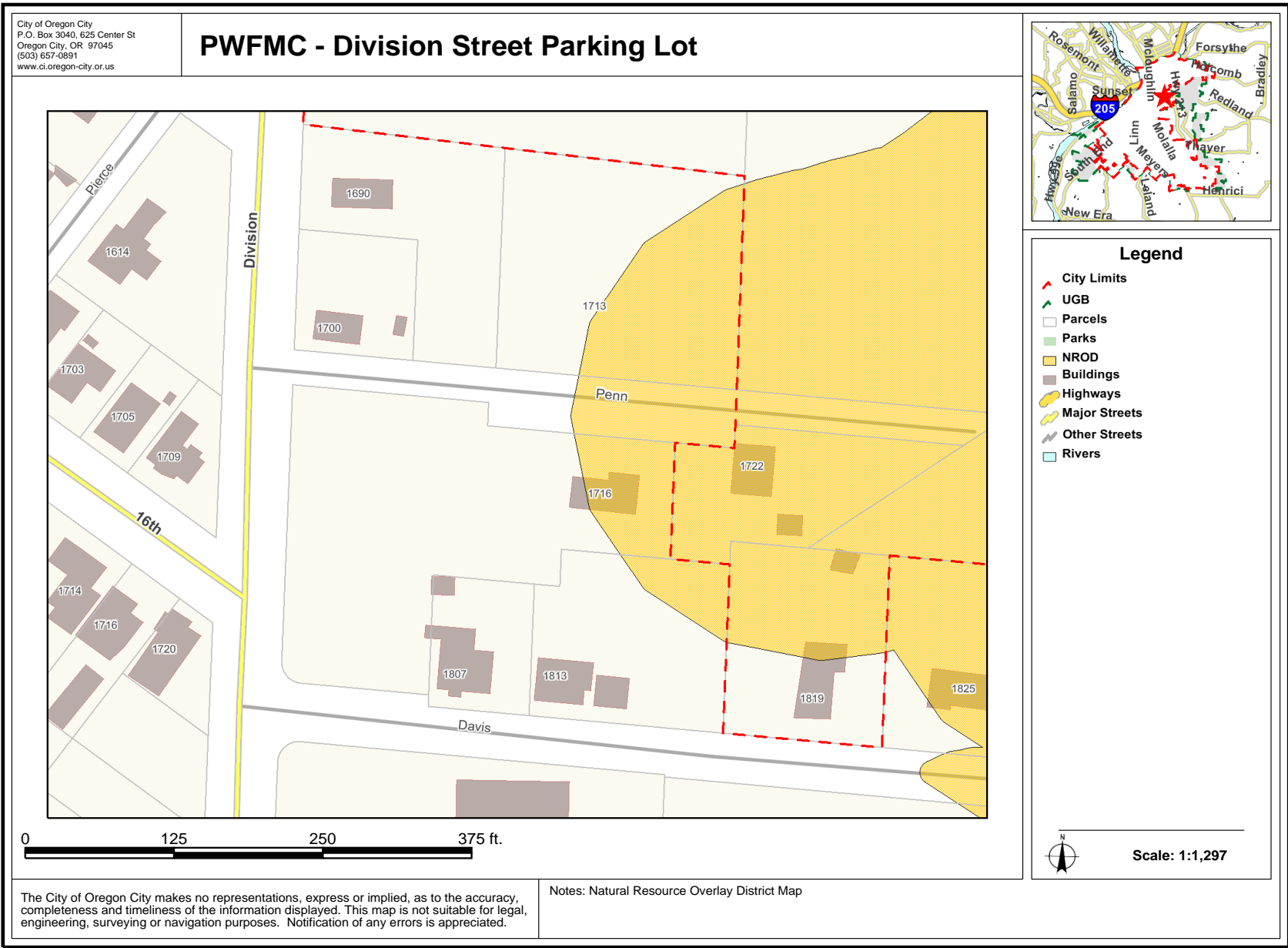
Table 4-0	
Drainage Basin Name	Minimum Peak Rate Stormwater Runoff Control Requirements
Clackamas Clackamas-Willamette Willamette North Willamette South	<ul style="list-style-type: none"> The post-development peak stormwater discharge rate from the development site for the ten-year, 24-hour duration design storm events shall at no time exceed the open channel flow capacity of downstream stormwater facilities.
<u>Abernethy</u> Allen Court Amanda Court Beaver Caufield * Central Point Coffee Clinton Forsythe John Adams Kelly Field Livesay Mud Newell Park Place Singer South End Tumwater	<ul style="list-style-type: none"> The post-development peak stormwater discharge rate from the development site for the two-year, 24-hour duration design storm events shall at no time exceed fifty percent (50%) of the pre-development peak stormwater runoff rate for the same design storm event. The post-development peak stormwater discharge rate from the development site for the five-year, 24-hour duration design storm events shall at no time exceed the pre-development peak stormwater runoff rate for the same design storm event. The post-development peak stormwater discharge rate from the development site for the 25-year, 24-hour duration design storm events shall at no time exceed the pre-development peak stormwater runoff rate for the ten-year, 24-hour duration design storm events. <p>* This supersedes the Caufield Basin Master Plan requirements.</p>

FIGURE 4-1



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APPENDIX B
Natural Resources Overlay District Map



APPENDIX C

Soil Map and Information

Soil Map—Clackamas County Area, Oregon
(PWF - Division Street Parking Lot)



Map Unit Legend

Clackamas County Area, Oregon (OR610)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
91B	Woodburn silt loam, 3 to 8 percent slopes	1.1	100.0%
Totals for Area of Interest		1.1	100.0%

Table 4-2 HYDROLOGIC SOIL GROUP OF THE SOILS OF OREGON CITY*

SOIL GROUP	HYDROLOGIC GROUP*	SOIL GROUP	HYDROLOGIC GROUP*
Aloha	C	Helvetia	C
Amity	D	Jory	C
Borges	D	Laurelwood	B
Bornstedt	C	Nekia	D
Camas	A	Newberg	B
Chehalis	B	Salem	B
Clackamas	D	Saum	C
Cloquato	B	Wapato	D
Cottrell	C	Woodburn	C
Delena	D	Xerochrepts	Variable
Hard scramble	D		

HYDROLOGIC SOIL GROUP CLASSIFICATIONS

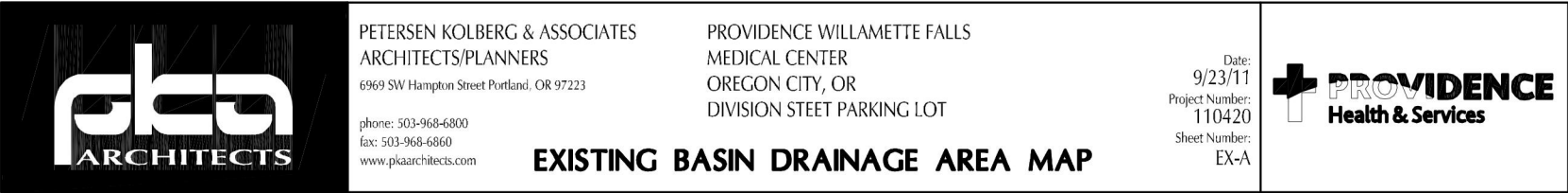
- A. *(Low runoff potential)*. Soils having high infiltration rates, even when thoroughly wetted, and consisting chiefly of deep, well-to-excessively drained sands or gravels. These soils have a high rate of water transmission.
- B. *(Moderately low runoff potential)*. Soils having moderate infiltration rates when thoroughly wetted, and consisting chiefly of moderately fine to moderately coarse textures. These soils have a moderate rate of water transmission.
- C. *(Moderately high runoff potential)*. Soils having slow infiltration rates when thoroughly wetted, and consisting chiefly of soils with a layer that impedes downward movement of water, or soils with moderately fine to fine textures. These soils have a low rate of water transmission.
- D. *(High runoff potential)*. Soils having very slow infiltration rates when thoroughly wetted, consisting chiefly of clay soils with a high swelling potential. Soils with a permanent high water table. Soils with a hardpan or clay layer at or near the surface. Shallow soils over nearly impervious material. These soils have a very slow rate of water transmission.

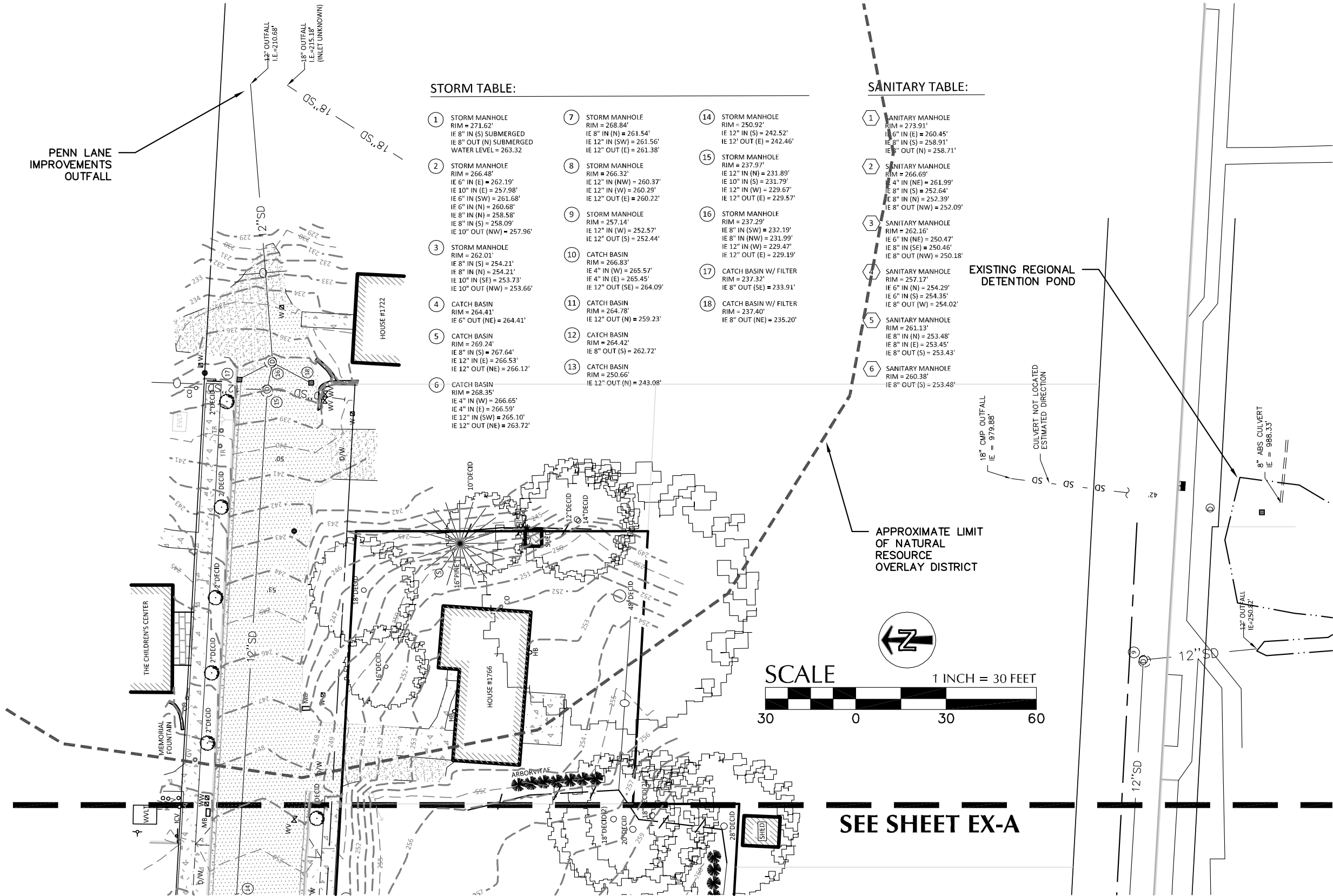
Note: Two Hydrologic soil groups such as C/D indicates the Drained/Undrained situation.

From SCS, TR-55, Second Edition, June 1986, Exhibit A-1.

APPENDIX D

Drainage Basin Maps





STORM TABLE:

1	STORM MANHOLE RIM = 271.62' IE 8" IN (S) SUBMERGED IE 8" OUT (N) SUBMERGED WATER LEVEL = 263.32	7	STORM MANHOLE RIM = 268.84' IE 8" IN (N) = 261.54' IE 12" IN (SW) = 261.56' IE 12" OUT (E) = 261.38'	14	STORM MANHOLE RIM = 250.92' IE 12" IN (S) = 242.52' IE 12" OUT (E) = 242.46'
2	STORM MANHOLE RIM = 266.48' IE 6" IN (E) = 262.19' IE 10" IN (E) = 257.98' IE 6" IN (SW) = 261.68' IE 6" IN (N) = 260.68' IE 8" IN (N) = 258.58' IE 8" IN (S) = 258.09' IE 10" OUT (NW) = 257.96'	8	STORM MANHOLE RIM = 266.32' IE 12" IN (NW) = 260.37' IE 12" IN (W) = 260.29' IE 12" OUT (E) = 260.22'	15	STORM MANHOLE RIM = 237.97' IE 12" IN (N) = 231.89' IE 10" IN (S) = 231.79' IE 12" IN (W) = 229.67' IE 12" OUT (E) = 229.57'
3	STORM MANHOLE RIM = 262.01' IE 8" IN (S) = 254.21' IE 8" IN (N) = 254.21' IE 10" IN (SE) = 253.73' IE 10" OUT (NW) = 253.66'	9	STORM MANHOLE RIM = 257.14' IE 12" IN (W) = 252.57' IE 12" OUT (S) = 252.44'	16	STORM MANHOLE RIM = 237.29' IE 8" IN (SW) = 232.19' IE 8" IN (NW) = 231.99' IE 12" IN (W) = 229.47' IE 12" OUT (E) = 229.19'
4	CATCH BASIN RIM = 264.41' IE 6" OUT (NE) = 264.41'	10	CATCH BASIN RIM = 266.83' IE 4" IN (W) = 265.57' IE 4" IN (E) = 265.45' IE 12" OUT (SE) = 264.09'	17	CATCH BASIN W/ FILTER RIM = 237.32' IE 8" OUT (SE) = 233.91'
5	CATCH BASIN RIM = 269.24' IE 8" IN (S) = 267.64' IE 12" IN (E) = 266.53' IE 12" OUT (NE) = 266.12'	11	CATCH BASIN RIM = 264.78' IE 12" OUT (N) = 259.23'	18	CATCH BASIN W/ FILTER RIM = 237.40' IE 8" OUT (NE) = 235.20'
6	CATCH BASIN RIM = 268.35' IE 4" IN (W) = 266.65' IE 4" IN (E) = 266.59' IE 12" IN (SW) = 265.10' IE 12" OUT (NE) = 263.72'	12	CATCH BASIN RIM = 264.42' IE 8" OUT (S) = 262.72'		
		13	CATCH BASIN RIM = 250.66' IE 12" OUT (N) = 243.08'		

SANITARY TABLE:

1	SANITARY MANHOLE RIM = 273.91' IE 6" IN (E) = 260.45' IE 8" IN (S) = 258.91' IE 8" OUT (N) = 258.71'	2	SANITARY MANHOLE RIM = 266.69' IE 4" IN (NE) = 261.99' IE 8" IN (S) = 252.64' IE 8" IN (N) = 252.39' IE 8" OUT (NW) = 252.09'
3	SANITARY MANHOLE RIM = 262.16' IE 6" IN (NE) = 250.47' IE 8" IN (SE) = 250.46' IE 8" OUT (NW) = 250.18'	4	SANITARY MANHOLE RIM = 257.17' IE 6" IN (N) = 254.29' IE 6" IN (S) = 254.35' IE 8" OUT (W) = 254.02'
5	SANITARY MANHOLE RIM = 261.13' IE 8" IN (N) = 253.48' IE 8" IN (E) = 253.45' IE 8" OUT (S) = 253.43'	6	SANITARY MANHOLE RIM = 260.38' IE 8" OUT (S) = 253.48'



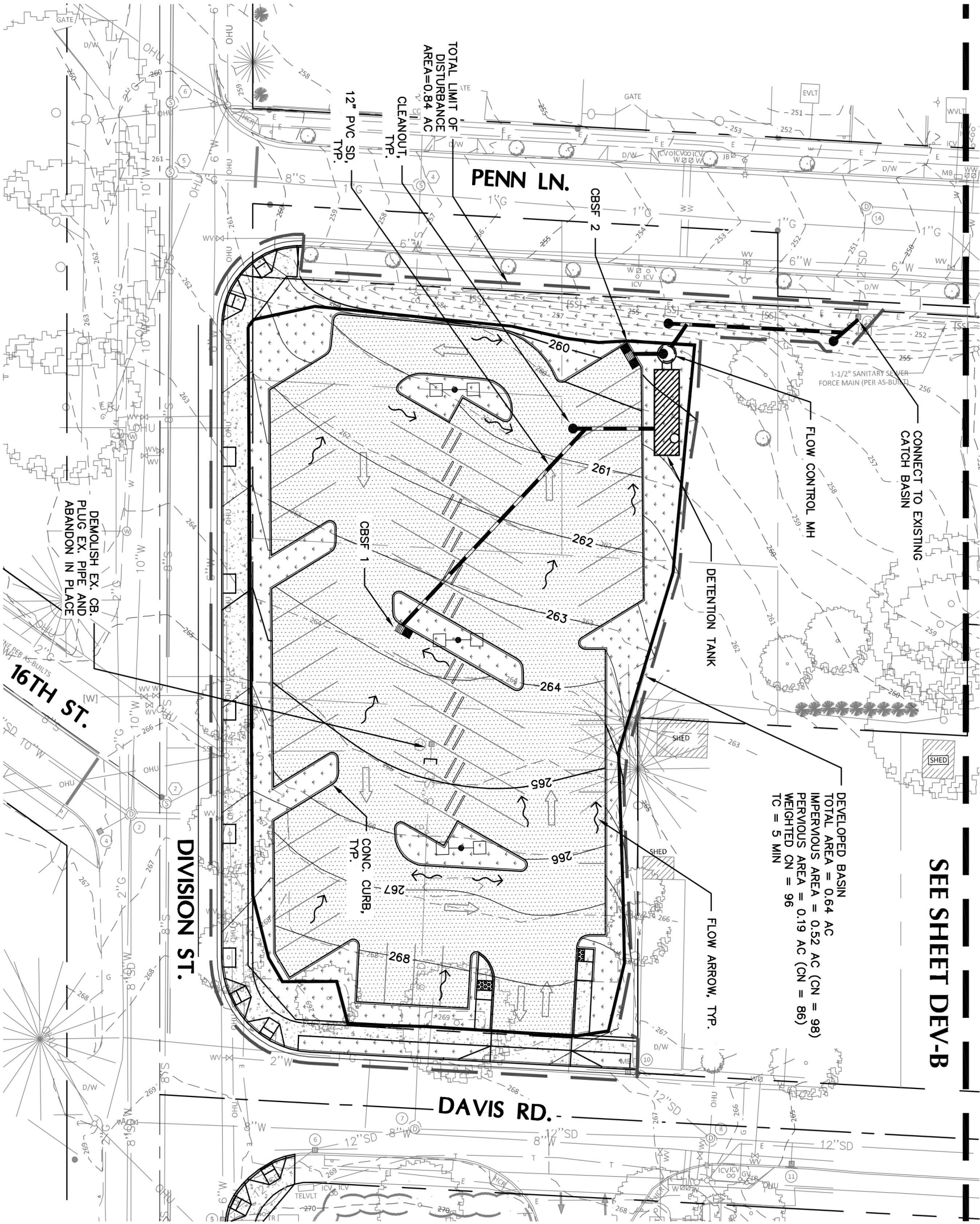
Date: 9/23/11
Project Number: 110420
Sheet Number: EX-B

PROVIDENCE WILLAMETTE FALLS
MEDICAL CENTER
OREGON CITY, OR
DIVISION STREET PARKING LOT

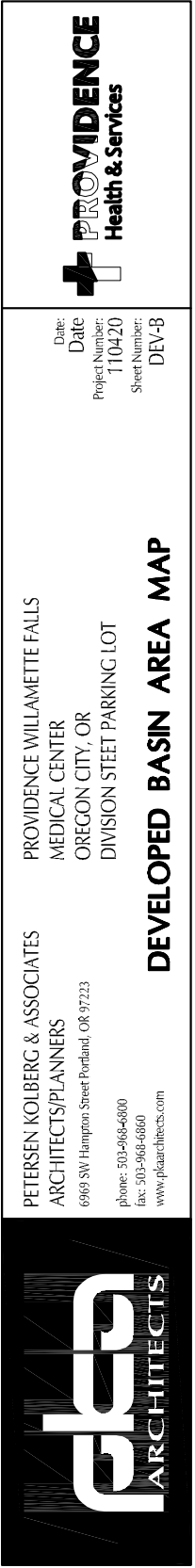
PETERSEN KOLBERG & ASSOCIATES
ARCHITECTS/PLANNERS
6969 SW Hampton Street Portland, OR 97223
phone: 503-966-6800
fax: 503-966-6860
www.pksarchitects.com



EXISTING BASIN DRAINAGE AREA MAP



	PETERSEN KOLBERG & ASSOCIATES ARCHITECTS/PLANNERS 6969 SW Hampton Street Portland, OR 97223 phone: 503-968-6800 fax: 503-968-6860 www.pkaarchitects.com	PROVIDENCE WILLAMETTE FALLS MEDICAL CENTER OREGON CITY, OR DIVISION STEET PARKING LOT	Date: Project Number: Sheet Number:
	DEVELOPED BASIN AREA MAP		110420 DEV-A

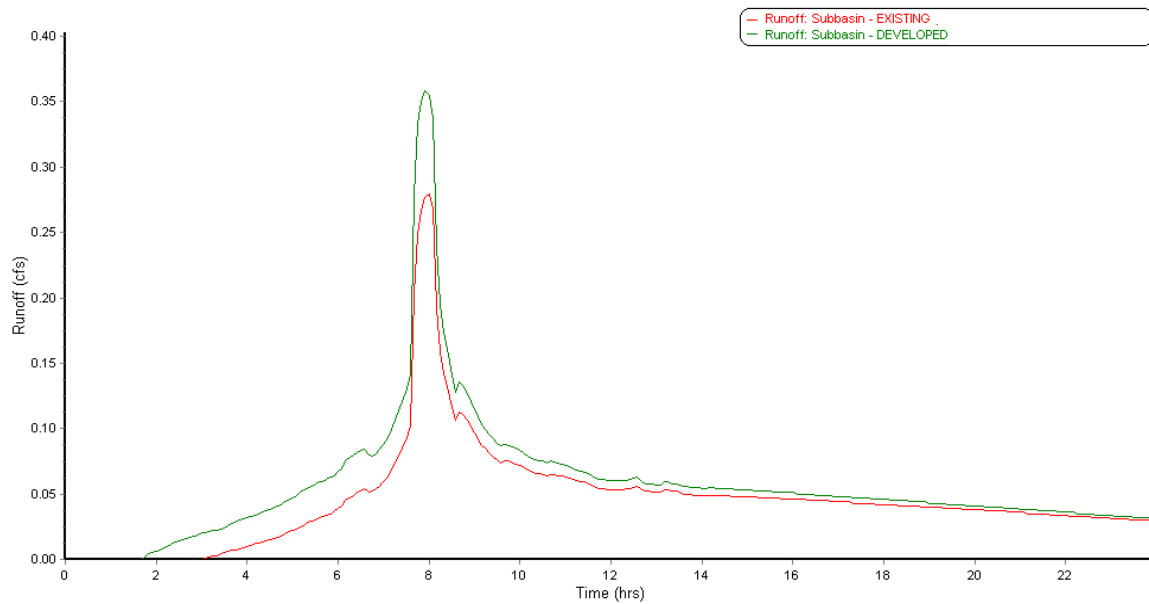


APPENDIX E

Hydrologic/Hydraulic Analysis

2 YEAR STORM EVENT

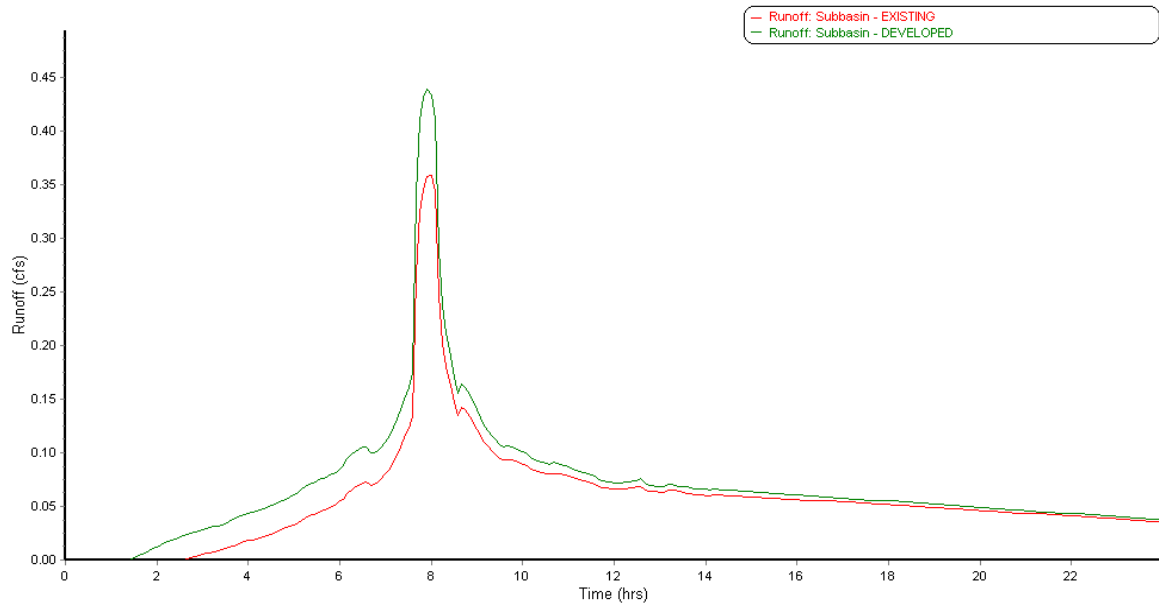
BASIN: EXISTING AND DEVELOPED



Runoff Summary Table		
Time period	EXISTING	DEVELOPED
From: 06/24/2011, 12:00:00 AM	Maximum Runoff (cfs)	0.28 0.36
To: 06/25/2011, 12:00:00 AM	Minimum Runoff (cfs)	0 0
Thresholds	Event Mean Runoff (cfs)	0.05 0.06
Exceedance: 0	Duration of Exceedances (hrs)	N/A N/A
Deficit: 0	Duration of Deficits (hrs)	N/A N/A
Detention storage	Number of Exceedances	N/A N/A
Max flow: 0	Number of Deficits	N/A N/A
	Volume of Exceedance (ft³)	N/A N/A
	Volume of Deficit (ft³)	N/A N/A
	Total Runoff (ft³)	3939.84 4933.99

5 YEAR STORM EVENT

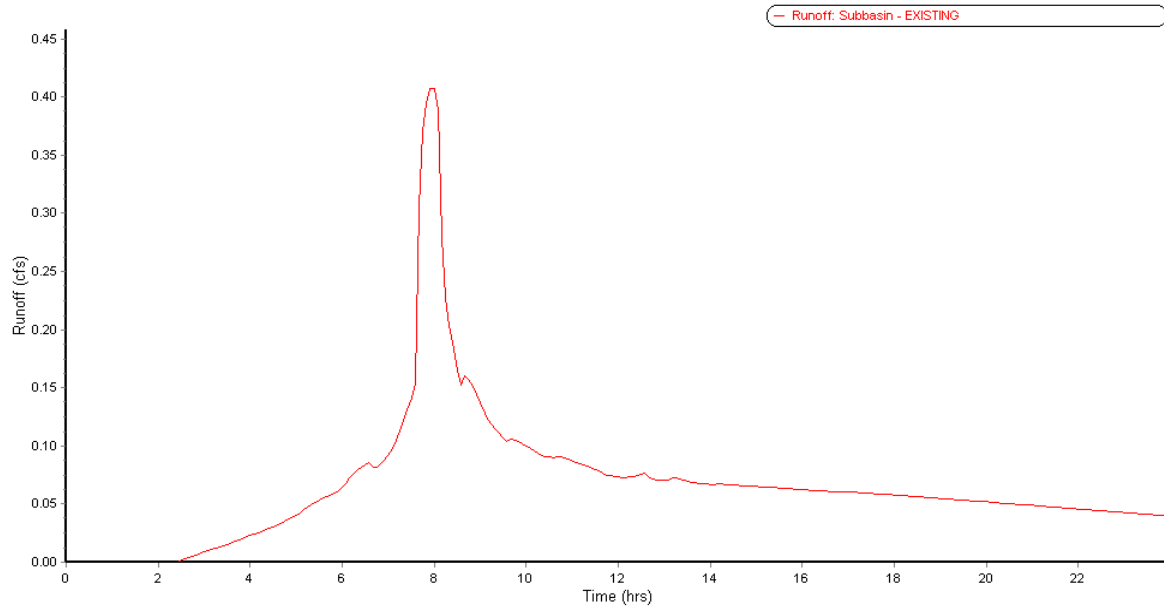
BASIN: EXISTING AND DEVELOPED



Runoff Summary Table			
Time period			
From:	06/24/2011, 12:00:00 AM		
To:	06/25/2011, 12:00:00 AM		
Thresholds			
Exceedance:	0		
Deficit:	0		
Detention storage			
Max flow:	0		
Element ID	EXISTING	DEVELOPED	
Maximum Runoff (cfs)	0.36	0.44	
Minimum Runoff (cfs)	0	0	
Event Mean Runoff (cfs)	0.06	0.07	
Duration of Exceedances (hrs)	N/A	N/A	
Duration of Deficits (hrs)	N/A	N/A	
Number of Exceedances	N/A	N/A	
Number of Deficits	N/A	N/A	
Volume of Exceedance (ft³)	N/A	N/A	
Volume of Deficit (ft³)	N/A	N/A	
Total Runoff (ft³)	5012.78	6066.69	

10 YEAR STORM EVENT

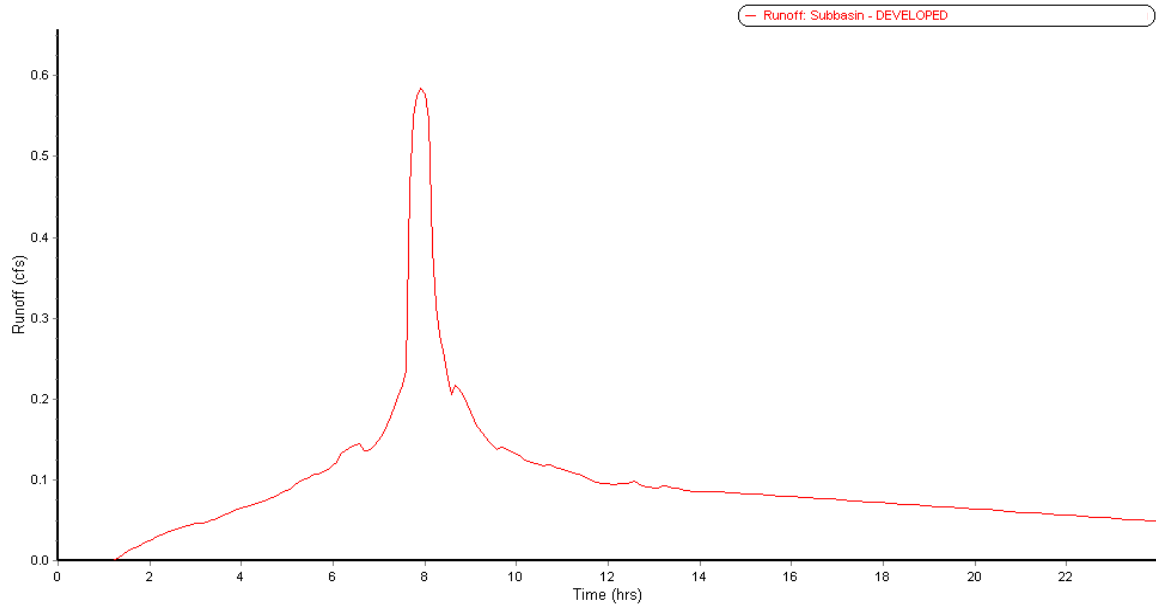
BASIN: EXISTING



Runoff Summary Table		
Time period		
From:	06/24/2011, 12:00:00 AM	
To:	06/25/2011, 12:00:00 AM	
Thresholds		
Exceedance:	0	
Deficit:	0	
Detention storage		
Max flow:	0	
Element ID	EXISTING	
Maximum Runoff (cfs)	0.41	
Minimum Runoff (cfs)	0	
Event Mean Runoff (cfs)	0.07	
Duration of Exceedances (hrs)	N/A	
Duration of Deficits (hrs)	N/A	
Number of Exceedances	N/A	
Number of Deficits	N/A	
Volume of Exceedance (ft³)	N/A	
Volume of Deficit (ft³)	N/A	
Total Runoff (ft³)	5666.89	

25 YEAR STORM EVENT

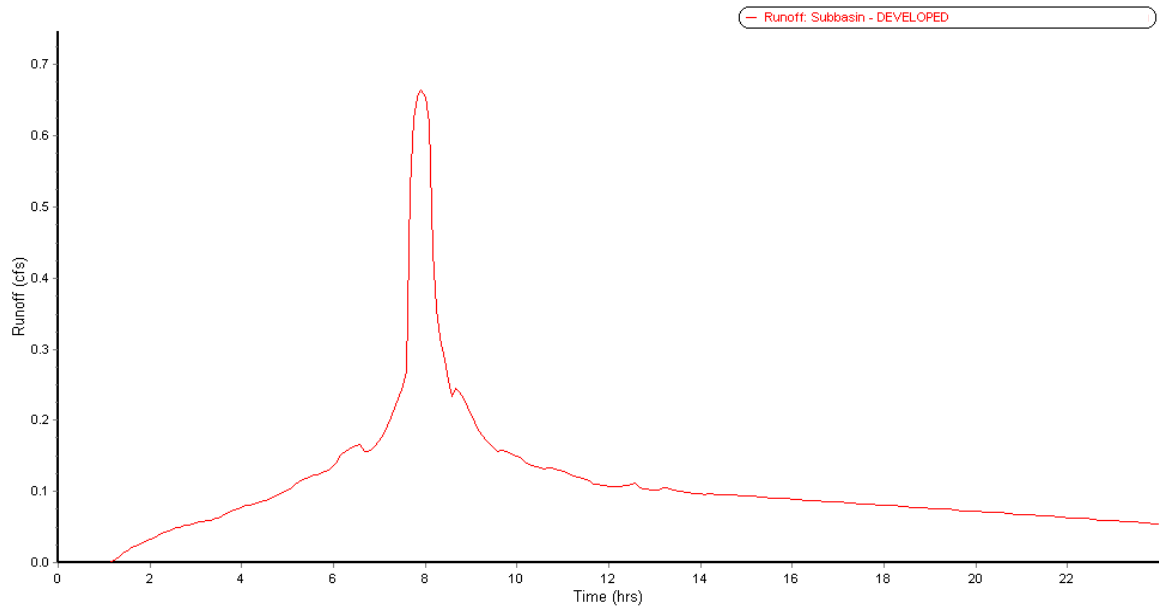
BASIN: DEVELOPED



Runoff Summary Table	
Time period	Element ID DEVELOPED
From: 06/24/2011, 12:00:00 AM	Maximum Runoff (cfs) 0.58
To: 06/25/2011, 12:00:00 AM	Minimum Runoff (cfs) 0
Thresholds	Event Mean Runoff (cfs) 0.09
Exceedance: 0	Duration of Exceedances (hrs) N/A
Deficit: 0	Duration of Deficits (hrs) N/A
Detention storage	Number of Exceedances N/A
Max flow: 0	Number of Deficits N/A
	Volume of Exceedance (ft³) N/A
	Volume of Deficit (ft³) N/A
	Total Runoff (ft³) 8122.82

100 YEAR STORM EVENT

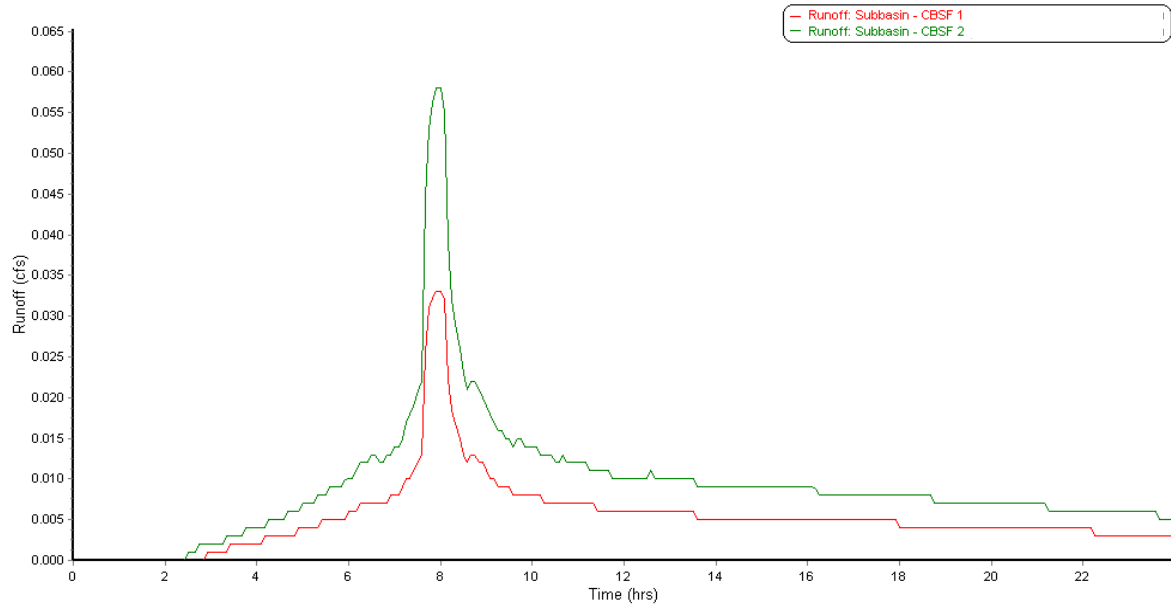
BASIN: DEVELOPED



Runoff Summary Table	
Time period	Element ID DEVELOPED
From: 06/24/2011, 12:00:00 AM	Maximum Runoff (cfs) 0.66
To: 06/25/2011, 12:00:00 AM	Minimum Runoff (cfs) 0
Thresholds	Event Mean Runoff (cfs) 0.11
Exceedance: 0	Duration of Exceedances (hrs) N/A
Deficit: 0	Duration of Deficits (hrs) N/A
Detention storage	Number of Exceedances N/A
Max flow: 0	Number of Deficits N/A
	Volume of Exceedance (ft³) N/A
	Volume of Deficit (ft³) N/A
	Total Runoff (ft³) 9269.65

WQ STORM EVENT

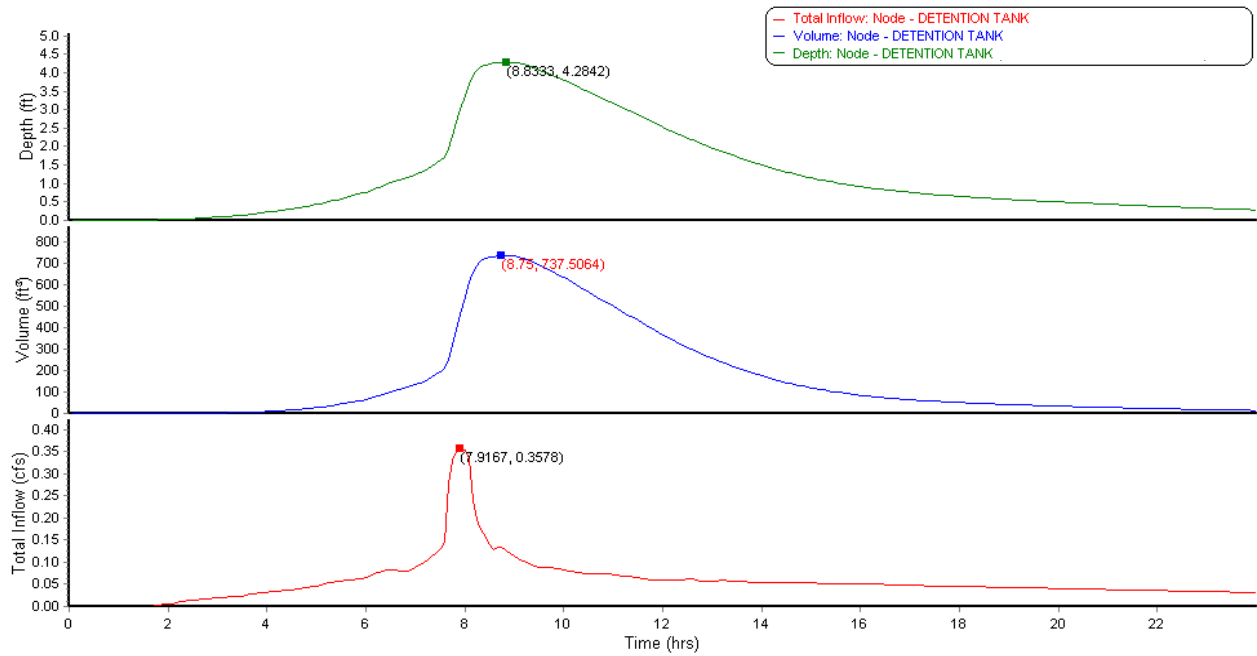
BASIN: CBSF1 AND CBSF 2



Runoff Summary Table			
Time period			
From:	06/24/2011, 12:00:00 AM		
To:	06/25/2011, 12:00:00 AM		
Thresholds			
Exceedance:	0		
Deficit:	0		
Detention storage			
Max flow:	0		
Element ID	CBSF 1	CBSF 2	
Maximum Runoff (cfs)	0.03	0.06	
Minimum Runoff (cfs)	0	0	
Event Mean Runoff (cfs)	0.01	0.01	
Duration of Exceedances (hrs)	N/A	N/A	
Duration of Deficits (hrs)	N/A	N/A	
Number of Exceedances	N/A	N/A	
Number of Deficits	N/A	N/A	
Volume of Exceedance (ft³)	N/A	N/A	
Volume of Deficit (ft³)	N/A	N/A	
Total Runoff (ft³)	457.78	799.25	

DETENTION TANK

STORM EVENT: 2 YEAR

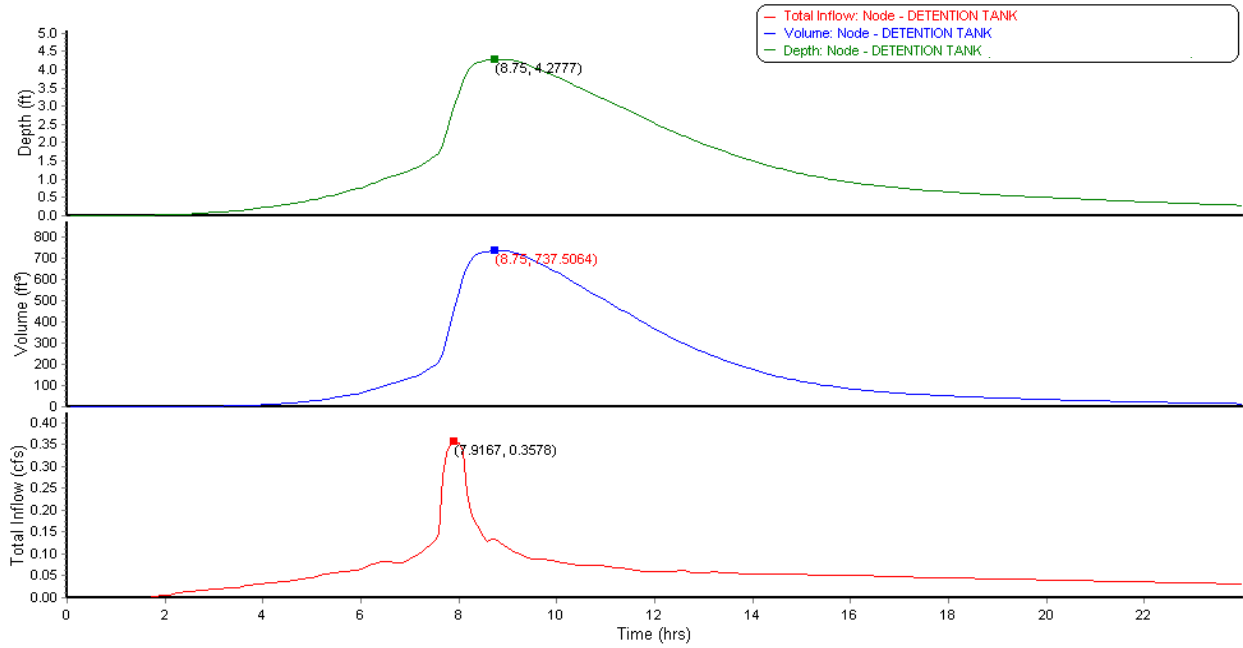


Depth Summary Table

Time period		Element ID	DETENTION TANK
From:	06/24/2011, 12:00:00 AM	Maximum Depth (ft)	4.28
To:	06/25/2011, 12:00:00 AM	Minimum Depth (ft)	0.00
Thresholds		Event Mean Depth (ft)	1.22
Exceedance:	0	Duration of Exceedances (hrs)	N/A
Deficit:	0	Duration of Deficits (hrs)	N/A
		Number of Exceedances	N/A
		Number of Deficits	N/A

DETENTION TANK

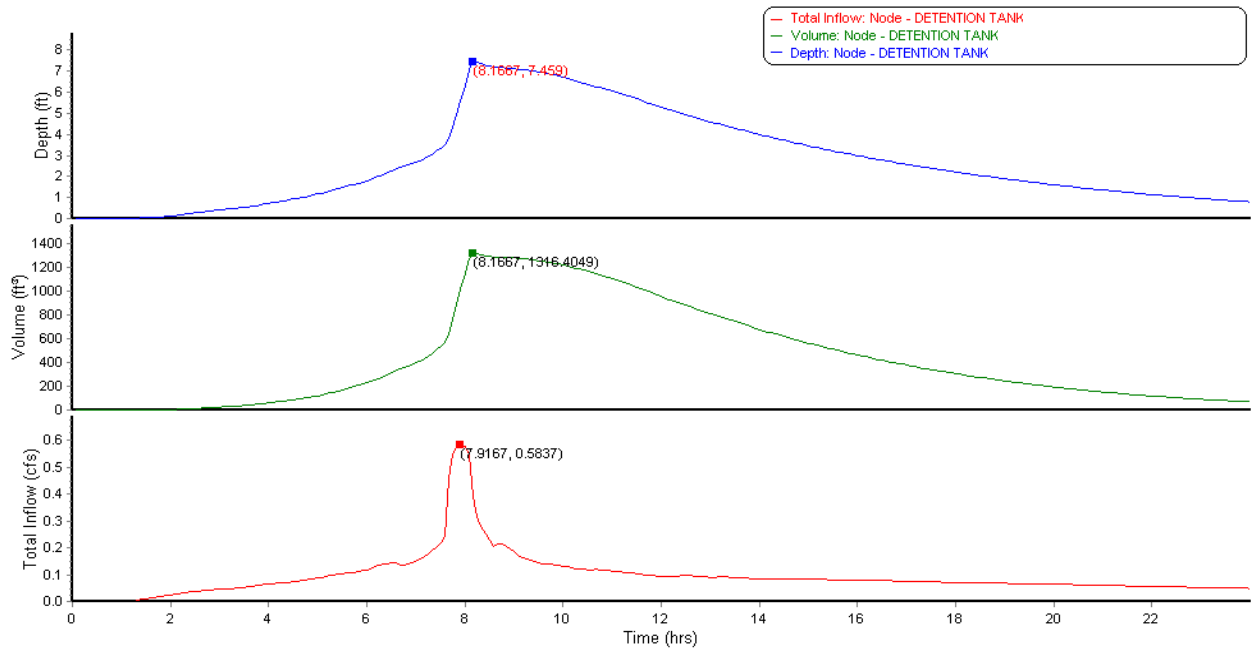
STORM EVENT: 5 YEAR



Depth Summary Table	
Time period	Element ID DETENTION TANK
From: 06/24/2011, 12:00:00 AM	Maximum Depth (ft) 4.28
To: 06/25/2011, 12:00:00 AM	Minimum Depth (ft) 0.00
Thresholds	Event Mean Depth (ft) 1.22
Exceedance: 0	Duration of Exceedances (hrs) N/A
Deficit: 0	Duration of Deficits (hrs) N/A
	Number of Exceedances N/A
	Number of Deficits N/A

DETENTION TANK

STORM EVENT: 25 YEAR



Depth Summary Table	
Time period	
From:	06/24/2011, 12:00:00 AM
To:	06/25/2011, 12:00:00 AM
Thresholds	
Exceedance:	0
Deficit:	0
Element ID	DETENTION TANK
Maximum Depth (ft)	7.46
Minimum Depth (ft)	0.00
Event Mean Depth (ft)	2.73
Duration of Exceedances (hrs)	N/A
Duration of Deficits (hrs)	N/A
Number of Exceedances	N/A
Number of Deficits	N/A

Storage Nodes

2-YEAR, 24-HOUR STORM EVENT ROUTED THROUGH DETENTION TANK

Storage Node : Detention Tank

Input Data

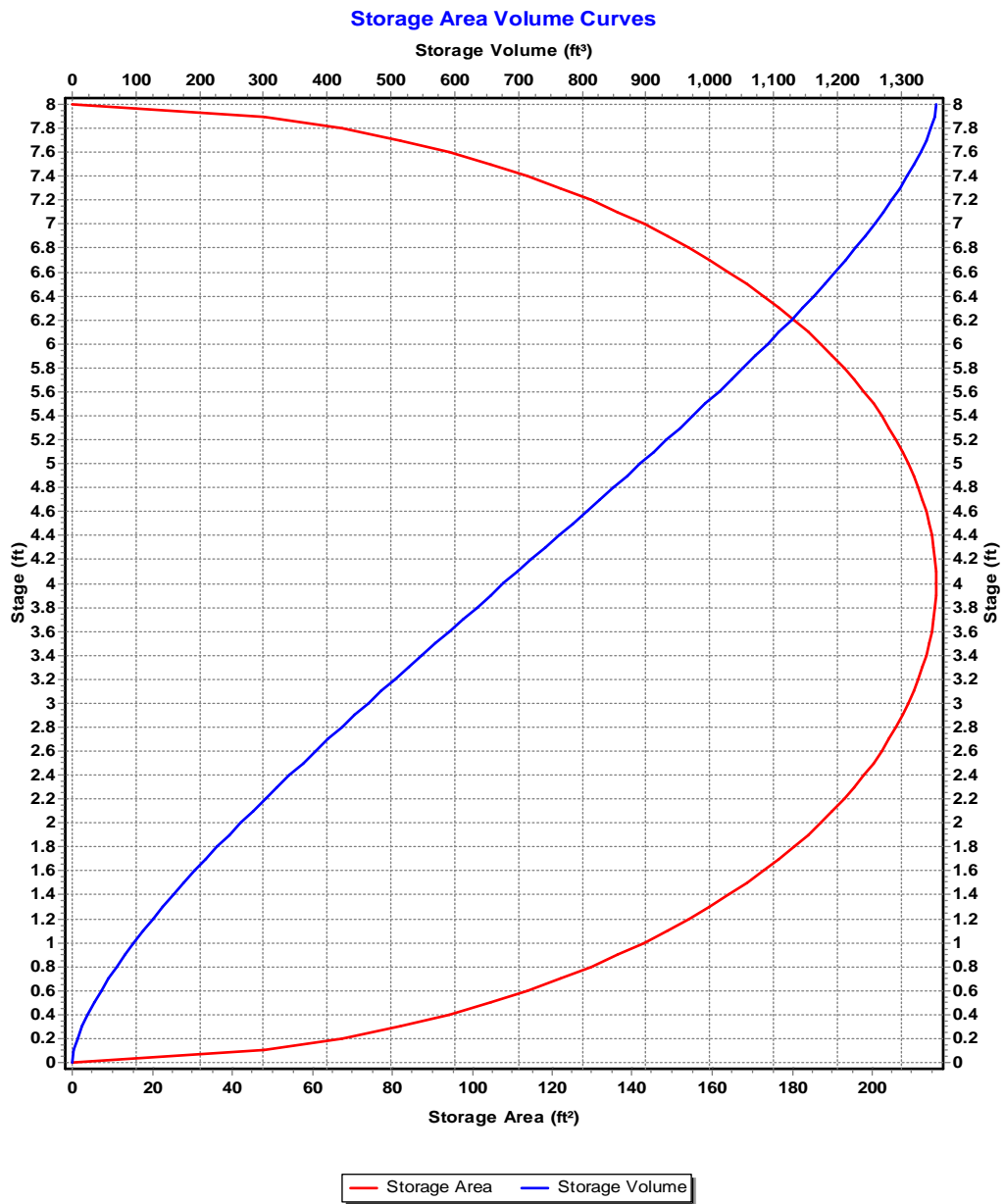
Invert Elevation (ft)	0.00
Max (Rim) Elevation (ft)	8.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	0.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : CMP

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	0.0000	0.000
0.1	47.9962	2.40
0.2	67.4460	8.17
0.3	82.0729	15.65
0.4	94.1522	24.46
0.5	104.5706	34.40
0.6	113.7851	45.32
0.7	122.0687	57.11
0.8	129.6000	69.69
0.9	136.5036	83.00
1	142.8706	96.97
1.1	148.7698	111.55
1.2	154.2549	126.70
1.3	159.3686	142.38
1.4	164.1458	158.56
1.5	168.6149	175.20
1.6	172.8000	192.27
1.7	176.7211	209.75
1.8	180.3956	227.61
1.9	183.8381	245.82
2	187.0615	264.36
2.1	190.0769	283.22
2.2	192.8942	302.37
2.3	195.5218	321.79
2.4	197.9673	341.46
2.5	200.2374	361.37
2.6	202.3379	381.50
2.7	204.2742	401.83
2.8	206.0509	422.35
2.9	207.6720	443.04
3	209.1411	463.88
3.1	210.4615	484.86
3.2	211.6359	505.96
3.3	212.6668	527.18
3.4	213.5562	548.49
3.5	214.3059	569.88
3.6	214.9173	591.34
3.7	215.3916	612.86
3.8	215.7298	634.42
3.9	215.9325	656.00
4	216.0000	677.60
4.1	215.9325	699.20
4.2	215.7298	720.78
4.3	215.3916	742.34
4.4	214.9173	763.86
4.5	214.3059	785.32
4.6	213.5562	806.71
4.7	212.6668	828.02
4.8	211.6359	849.24
4.9	210.4615	870.34
5	209.1411	891.32
5.1	207.6720	912.16
5.2	206.0509	932.85
5.3	204.2742	953.37
5.4	202.3379	973.70
5.5	200.2374	993.83
5.6	197.9673	1013.74
5.7	195.5218	1033.41
5.8	192.8942	1052.83
5.9	190.0769	1071.98
6	187.0615	1090.84
6.1	183.8381	1109.38
6.2	180.3956	1127.59
6.3	176.7211	1145.45
6.4	172.8000	1162.93

6.5	168.6149	1180.00
6.6	164.1458	1196.64
6.7	159.3686	1212.82
6.8	154.2549	1228.50
6.9	148.7698	1243.65
7	142.8706	1258.23
7.1	136.5036	1272.20
7.2	129.6000	1285.51
7.3	122.0687	1298.09
7.4	113.7851	1309.88
7.5	104.5706	1320.80
7.6	94.1522	1330.74
7.7	82.0729	1339.55
7.8	67.4460	1347.03
7.9	47.9962	1352.80
8	0.0000	1355.20



Storage Node : Detention Tank (continued)

Outflow Orifices

SN	Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1	Orifice-09	Bottom	CIRCULAR	No	1.50			-0.50	0.61
2	Orifice-10	Side	CIRCULAR	No	3.50			7.00	0.61
3	Orifice-11	Bottom	CIRCULAR	No	12.00			7.90	0.61

Output Summary Results

Peak Inflow (cfs)	0.36
Peak Lateral Inflow (cfs)	0.36
Peak Outflow (cfs)	0.13
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	4.28
Max HGL Depth Attained (ft)	4.28
Average HGL Elevation Attained (ft)	1.21
Average HGL Depth Attained (ft)	1.21
Time of Max HGL Occurrence (days hh:mm)	0 08:51
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Nodes

5-YEAR, 24-HOUR STORM EVENT ROUTED THROUGH DETENTION TANK

Storage Node : Detention Tank

Input Data

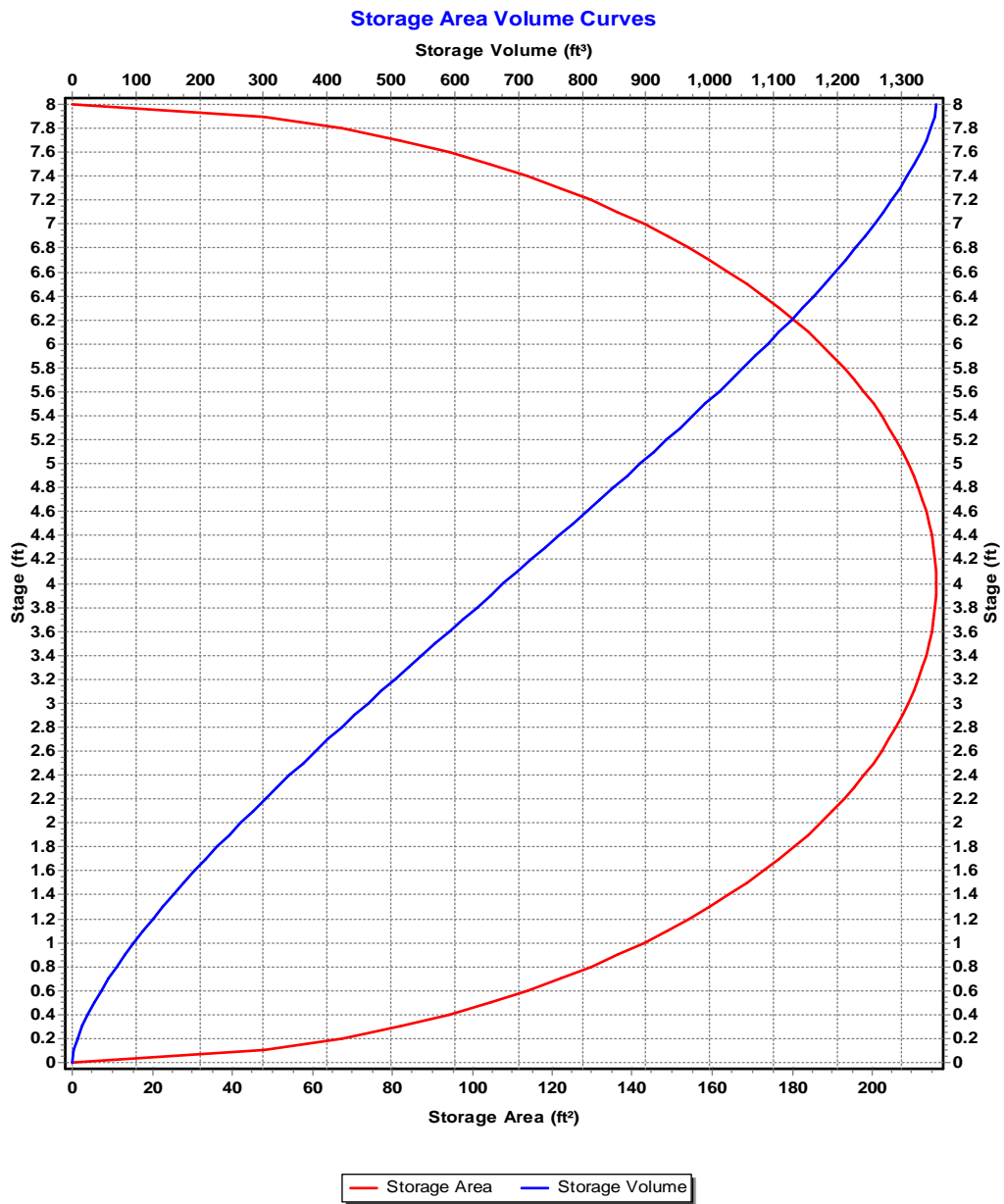
Invert Elevation (ft)	0.00
Max (Rim) Elevation (ft)	8.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	0.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : CMP

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	0.0000	0.000
0.1	47.9962	2.40
0.2	67.4460	8.17
0.3	82.0729	15.65
0.4	94.1522	24.46
0.5	104.5706	34.40
0.6	113.7851	45.32
0.7	122.0687	57.11
0.8	129.6000	69.69
0.9	136.5036	83.00
1	142.8706	96.97
1.1	148.7698	111.55
1.2	154.2549	126.70
1.3	159.3686	142.38
1.4	164.1458	158.56
1.5	168.6149	175.20
1.6	172.8000	192.27
1.7	176.7211	209.75
1.8	180.3956	227.61
1.9	183.8381	245.82
2	187.0615	264.36
2.1	190.0769	283.22
2.2	192.8942	302.37
2.3	195.5218	321.79
2.4	197.9673	341.46
2.5	200.2374	361.37
2.6	202.3379	381.50
2.7	204.2742	401.83
2.8	206.0509	422.35
2.9	207.6720	443.04
3	209.1411	463.88
3.1	210.4615	484.86
3.2	211.6359	505.96
3.3	212.6668	527.18
3.4	213.5562	548.49
3.5	214.3059	569.88
3.6	214.9173	591.34
3.7	215.3916	612.86
3.8	215.7298	634.42
3.9	215.9325	656.00
4	216.0000	677.60
4.1	215.9325	699.20
4.2	215.7298	720.78
4.3	215.3916	742.34
4.4	214.9173	763.86
4.5	214.3059	785.32
4.6	213.5562	806.71
4.7	212.6668	828.02
4.8	211.6359	849.24
4.9	210.4615	870.34
5	209.1411	891.32
5.1	207.6720	912.16
5.2	206.0509	932.85
5.3	204.2742	953.37
5.4	202.3379	973.70
5.5	200.2374	993.83
5.6	197.9673	1013.74
5.7	195.5218	1033.41
5.8	192.8942	1052.83
5.9	190.0769	1071.98
6	187.0615	1090.84
6.1	183.8381	1109.38
6.2	180.3956	1127.59
6.3	176.7211	1145.45
6.4	172.8000	1162.93

6.5	168.6149	1180.00
6.6	164.1458	1196.64
6.7	159.3686	1212.82
6.8	154.2549	1228.50
6.9	148.7698	1243.65
7	142.8706	1258.23
7.1	136.5036	1272.20
7.2	129.6000	1285.51
7.3	122.0687	1298.09
7.4	113.7851	1309.88
7.5	104.5706	1320.80
7.6	94.1522	1330.74
7.7	82.0729	1339.55
7.8	67.4460	1347.03
7.9	47.9962	1352.80
8	0.0000	1355.20



Storage Node : Detention Tank (continued)

Outflow Orifices

SN	Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1	Orifice-09	Bottom	CIRCULAR	No	1.50			-0.50	0.61
2	Orifice-10	Side	CIRCULAR	No	3.50			7.00	0.61
3	Orifice-11	Bottom	CIRCULAR	No	12.00			7.90	0.61

Output Summary Results

Peak Inflow (cfs)	0.44
Peak Lateral Inflow (cfs)	0.44
Peak Outflow (cfs)	0.14
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	5.61
Max HGL Depth Attained (ft)	5.61
Average HGL Elevation Attained (ft)	1.76
Average HGL Depth Attained (ft)	1.76
Time of Max HGL Occurrence (days hh:mm)	0 08:58
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

Storage Nodes

25-YEAR, 24-HOUR STORM EVENT ROUTED THROUGH DETENTION TANK

Storage Node : Detention Tank

Input Data

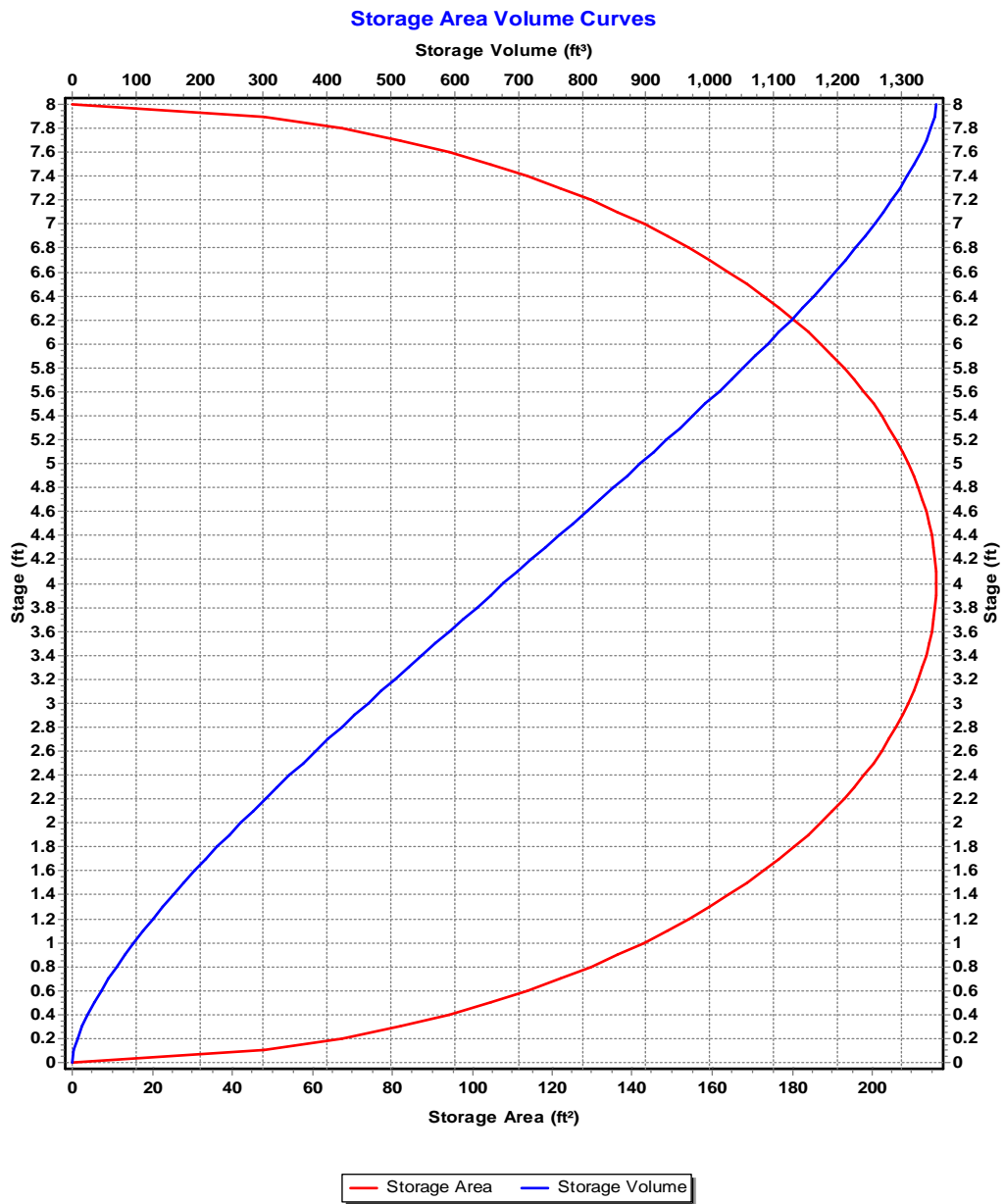
Invert Elevation (ft)	0.00
Max (Rim) Elevation (ft)	8.00
Max (Rim) Offset (ft)	8.00
Initial Water Elevation (ft)	0.00
Initial Water Depth (ft)	0.00
Ponded Area (ft²)	0.00
Evaporation Loss	0.00

Storage Area Volume Curves

Storage Curve : CMP

Stage (ft)	Storage Area (ft²)	Storage Volume (ft³)
0	0.0000	0.000
0.1	47.9962	2.40
0.2	67.4460	8.17
0.3	82.0729	15.65
0.4	94.1522	24.46
0.5	104.5706	34.40
0.6	113.7851	45.32
0.7	122.0687	57.11
0.8	129.6000	69.69
0.9	136.5036	83.00
1	142.8706	96.97
1.1	148.7698	111.55
1.2	154.2549	126.70
1.3	159.3686	142.38
1.4	164.1458	158.56
1.5	168.6149	175.20
1.6	172.8000	192.27
1.7	176.7211	209.75
1.8	180.3956	227.61
1.9	183.8381	245.82
2	187.0615	264.36
2.1	190.0769	283.22
2.2	192.8942	302.37
2.3	195.5218	321.79
2.4	197.9673	341.46
2.5	200.2374	361.37
2.6	202.3379	381.50
2.7	204.2742	401.83
2.8	206.0509	422.35
2.9	207.6720	443.04
3	209.1411	463.88
3.1	210.4615	484.86
3.2	211.6359	505.96
3.3	212.6668	527.18
3.4	213.5562	548.49
3.5	214.3059	569.88
3.6	214.9173	591.34
3.7	215.3916	612.86
3.8	215.7298	634.42
3.9	215.9325	656.00
4	216.0000	677.60
4.1	215.9325	699.20
4.2	215.7298	720.78
4.3	215.3916	742.34
4.4	214.9173	763.86
4.5	214.3059	785.32
4.6	213.5562	806.71
4.7	212.6668	828.02
4.8	211.6359	849.24
4.9	210.4615	870.34
5	209.1411	891.32
5.1	207.6720	912.16
5.2	206.0509	932.85
5.3	204.2742	953.37
5.4	202.3379	973.70
5.5	200.2374	993.83
5.6	197.9673	1013.74
5.7	195.5218	1033.41
5.8	192.8942	1052.83
5.9	190.0769	1071.98
6	187.0615	1090.84
6.1	183.8381	1109.38
6.2	180.3956	1127.59
6.3	176.7211	1145.45
6.4	172.8000	1162.93

6.5	168.6149	1180.00
6.6	164.1458	1196.64
6.7	159.3686	1212.82
6.8	154.2549	1228.50
6.9	148.7698	1243.65
7	142.8706	1258.23
7.1	136.5036	1272.20
7.2	129.6000	1285.51
7.3	122.0687	1298.09
7.4	113.7851	1309.88
7.5	104.5706	1320.80
7.6	94.1522	1330.74
7.7	82.0729	1339.55
7.8	67.4460	1347.03
7.9	47.9962	1352.80
8	0.0000	1355.20



Storage Node : Detention Tank (continued)

Outflow Orifices

SN	Element ID	Orifice Type	Orifice Shape	Flap Gate	Circular Orifice Diameter (in)	Rectangular Orifice Height (in)	Rectangular Orifice Width (in)	Orifice Invert Elevation (ft)	Orifice Coefficient
1	Orifice-09	Bottom	CIRCULAR	No	1.50			-0.50	0.61
2	Orifice-10	Side	CIRCULAR	No	3.50			7.00	0.61
3	Orifice-11	Bottom	CIRCULAR	No	12.00			7.90	0.61

Output Summary Results

Peak Inflow (cfs)	0.58
Peak Lateral Inflow (cfs)	0.58
Peak Outflow (cfs)	0.36
Peak Exfiltration Flow Rate (cfm)	0.00
Max HGL Elevation Attained (ft)	7.48
Max HGL Depth Attained (ft)	7.48
Average HGL Elevation Attained (ft)	2.71
Average HGL Depth Attained (ft)	2.71
Time of Max HGL Occurrence (days hh:mm)	0 08:12
Total Exfiltration Volume (1000-ft³)	0.000
Total Flooded Volume (ac-in)	0
Total Time Flooded (min)	0
Total Retention Time (sec)	0.00

MUNICIPAL PRODUCT SEARCH

 Go

ENGINEERING TOOLS

[Modified Manning Calculators](#)
[Weir and Orifice Calculator](#)
[Weir Flow](#)
[Orifice Flow](#)
[Curb Opening Hydraulics Calculator](#)
[Neenah Grate Information](#)
[Engineering Literature & Videos](#)

HOME // MUNICIPAL // ENGINEERING TOOLS & CALCULATORS // WEIR AND ORIFICE CALCULATOR

WEIR & ORIFICE CALCULATOR

The Weir and Orifice Calculator is used to determine the inlet capacity in sag (ponding) conditions by use of the Weir and Orifice equations. Knowing this information will allow you to select the proper grate type and size for your specific job or project.

Weir Flow Calculations

Weir Equation: $Q = 3.3P(h)^{1.5}$

- **Q** = Capacity in CFS
- **P** = Feet perimeter
- **h** = Head in feet
- [Weir Information](#)

Orifice Flow Calculations

Orifice Flow Equation: $Q = 0.6A \sqrt{2gh}$

- **Q** = Capacity in CFS
- **A** = Free open area of grate in sq. ft.
- **g** = 32.2 (feet per sec/sec)
- **h** = Head in feet
- [Orifice Information](#)

Instructions:

1. Select a catalog number (will automatically fill in Open Area and Perimeter) or enter your own values
2. Enter head value
3. Click "calculate"

The results will determine automatically if your situation falls into a Weir, Transitional or Orifice flow. Additionally, Neenah grates which fall within the parameters chosen will appear below the calculator.

Catalog Number and Grate Type:

 Select Number and Grate

Feet perimeter (P):

9.25

Head in feet (h):

.33

Free open area in sq. ft. (A):

3.553

Calculate

Weir capacity in cfs:

5.8

Transitional flow in cfs:

Orifice capacity in cfs:

For additional information regarding Neenah Inlet Grate Capacities, please contact Steven Akkala P.E., at (920) 729.3653 or email at sakkala@nfco.com.

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AG & Construction

CAPABILITIES

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LOCATIONS

Advanced Cast Products
Dalton Corporation

APPENDIX F

Operations and Maintenance Manual



Maintenance

Underground storm water detention and retention systems should be inspected at regular intervals and maintained when necessary to ensure optimum performance. The rate at which the system collects pollutants will depend more heavily on site activities than the size or configuration of the system.

Inspection

Inspection is the key to effective maintenance and is easily performed. CONTECH recommends ongoing quarterly inspections of the accumulated sediment. Sediment deposition and transport may vary from year to year and quarterly inspections will help insure that systems are cleaned out at the appropriate time. Inspections should be performed more often in the winter months in climates where sanding operations may lead to rapid accumulations, or in equipment washdown areas. It is very useful to keep a record of each inspection. A sample inspection log is included for your use.

Systems should be cleaned when inspection reveals that accumulated sediment or trash is clogging the discharge orifice. CONTECH suggests that all systems be designed with an access/inspection manhole situated at or near the inlet and the outlet orifice. Should it be necessary to get inside the system to perform maintenance activities, all appropriate precautions regarding confined space entry and OSHA regulations should be followed.

Cleaning

Maintaining an underground detention or retention system is easiest when there is no flow entering the system. For this reason, it is a good idea to schedule the cleanout during dry weather.

Accumulated sediment and trash can typically be evacuated through the manhole over the outlet orifice. If maintenance is not performed as recommended, sediment and trash may accumulate in front of the outlet orifice. Manhole covers should be securely seated following cleaning activities.



Inspection & Maintenance Log

___" Diameter System			Location: Anywhere, USA		
Date	Depth of Sediment	Accumulated Trash	Maintenance Performed	Maintenance Personnel	Comments
12/01/99	2"	None	Removed Sediment	B. Johnson	Installed
03/01/00	1"	Some	Removed Sediment and Trash	B. Johnson	Swept parking lot
06/01/00	0"	None	None		
09/01/00	0"	Heavy	Removed Trash	S. Riley	
12/01/00	1"	None	Removed Sediment	S. Riley	
4/01/01	0"	None	None	S. Riley	
04/15/01	2"	Some	Removed Sediment and Trash	ACE Environmental Services	

SAMPLE



Operation and Maintenance

CatchBasin StormFilter™

Important: These guidelines should be used as a part of your site stormwater plan.

Overview

The CatchBasin StormFilter™ (CBSF) consists of a multi-chamber steel, concrete, or plastic catch basin unit that can contain up to four StormFilter cartridges. The steel CBSF is offered both as a standard and as a deep unit.

The CBSF is installed flush with the finished grade and is applicable for both constrained lot and retrofit applications. It can also be fitted with an inlet pipe for roof leaders or similar applications.

The CBSF unit treats peak water quality design flows up to 0.13 cfs, coupled with an internal weir overflow capacity of 1.0 cfs for the standard unit, and 1.8 cfs for the deep steel and concrete units. Plastic units have an internal weir overflow capacity of 0.5 cfs.

Design Operation

The CBSF is installed as the primary receiver of runoff, similar to a standard, grated catch basin. The steel and concrete CBSF units have an H-20 rated, traffic-bearing lid that allows the filter to be installed in parking lots, and for all practical purposes, takes up no land area. Plastic units can be used in landscaped areas and for other non-traffic-bearing applications.

The CBSF consists of a sumped inlet chamber and a cartridge chamber(s). Runoff enters the sumped inlet chamber either by sheet flow from a paved surface or

from an inlet pipe discharging directly to the unit vault. The inlet chamber is equipped with an internal baffle, which traps debris and floating oil and grease, and an overflow weir. While in the inlet chamber, heavier solids are allowed to settle into the deep sump, while lighter solids and soluble pollutants are directed under the baffle and into the cartridge chamber through a port between the baffle and the overflow weir. Once in the cartridge chamber, polluted water ponds and percolates horizontally through the media in the filter cartridges. Treated water collects in the cartridge's center tube from where it is directed by an under-drain manifold to the outlet pipe on the downstream side of the overflow weir and discharged.

When flows into the CBSF exceed the water quality design value, excess water spills over the overflow weir, bypassing the cartridge bay, and discharges to the outlet pipe.

Applications

The CBSF is particularly useful where small flows are being treated or for sites that are flat and have little available hydraulic head to spare. The unit is ideal for applications in which standard catch basins are to be used. Both water quality and catchment issues can be resolved with the use of the CBSF.

Retro-Fit

The retrofit market has many possible applications for the CBSF. The CBSF can be installed by replacing an existing catch basin without having to "chase the grade," thus reducing the high cost of re-piping the storm system.

Maintenance Guidelines

Maintenance procedures for typical catch basins can be applied to the CatchBasin StormFilter (CBSF). The filter cartridges contained in the CBSF are easily removed and replaced during maintenance activities according to the following guidelines.

1. Establish a safe working area as per typical catch basin service activity.
2. Remove steel grate and diamond plate cover (weight \approx 100 lbs. each).
3. Turn cartridge(s) counter-clockwise to disconnect from pipe manifold.
4. Remove 4" center cap from cartridge and replace with lifting cap.
5. Remove cartridge(s) from catch basin by hand or with vactor truck boom.
6. Remove accumulated sediment via vactor truck (min. clearance 13" x 24").
7. Remove accumulated sediment from cartridge bay.
(min. clearance 9.25" x 11")
8. Rinse interior of both bays and vactor remaining water and sediment.
9. Install fresh cartridge(s) threading clockwise to pipe manifold.
10. Replace cover and grate.
11. Return original cartridges to CONTECH Stormwater Solutions for cleaning and media disposal.

Media may be removed from the filter cartridges using the vactor truck before the cartridges are removed from the catch basin structure. Empty cartridges can be easily removed from the catch basin structure by hand. Empty cartridges should be reassembled and returned to CONTECH Stormwater Solutions, as appropriate.

Materials required include a lifting cap, vactor truck, and fresh filter cartridges. Contact CONTECH Stormwater Solutions for specifications and availability of the lifting cap. The vactor truck must be equipped with a hose capable of reaching areas of restricted clearance. The owner may refresh spent cartridges. Refreshed cartridges are also available from CONTECH Stormwater Solutions on an exchange basis. Contact the maintenance department of CONTECH Stormwater Solutions at (503) 240-3393 for more information.

Maintenance is estimated at 26 minutes of site time. For units with more than one cartridge, add approximately 5 minutes for each additional cartridge. Add travel time as required.

Mosquito Abatement

In certain areas of the United States, mosquito abatement is desirable to reduce the incidence of vectors.

In BMPs with standing water, which could provide mosquito breeding habitat, certain abatement measures can be taken.

1. Periodic observation of the standing water to determine if the facility is harboring mosquito larvae.
2. Regular catch basin maintenance
3. Use of larvicides containing *Bacillus thuringiensis israelensis* (BTI). BTI is a bacterium toxic to mosquito and black fly larvae.

In some cases, the presence of petroleum hydrocarbons may interrupt the mosquito growth cycle.

Using Larvicides in the CatchBasin StormFilter

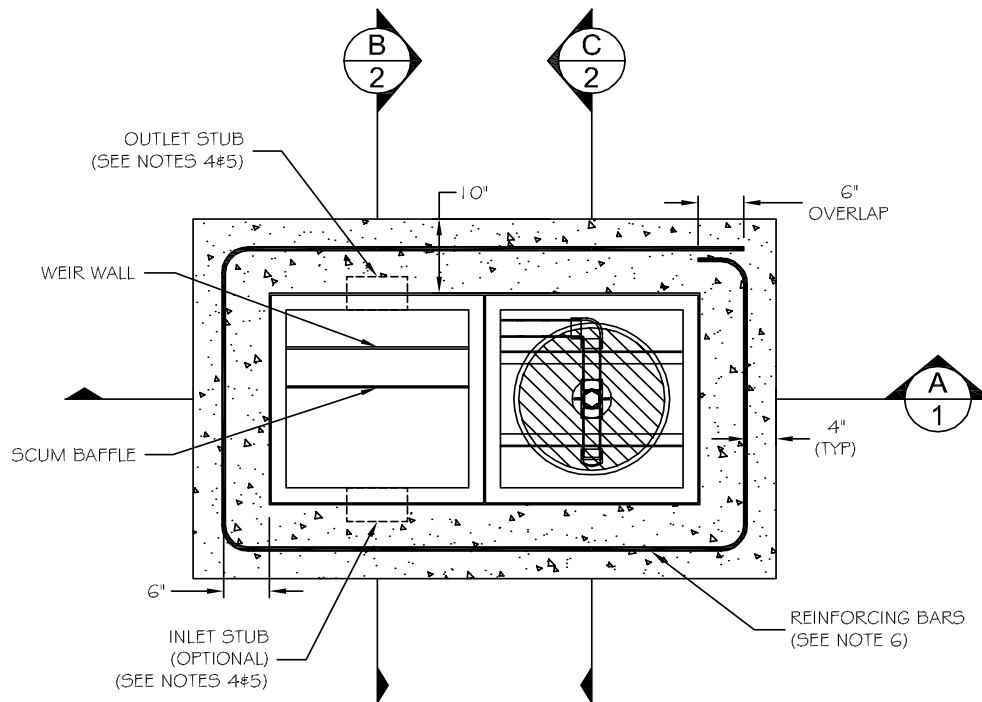
Larvicides should be used according to manufacturer's recommendations.

Two widely available products are Mosquito Dunks and Summit B.t.i. Briquets. For more information, visit http://www.summitchemical.com/mos_ctrl/default.htm.

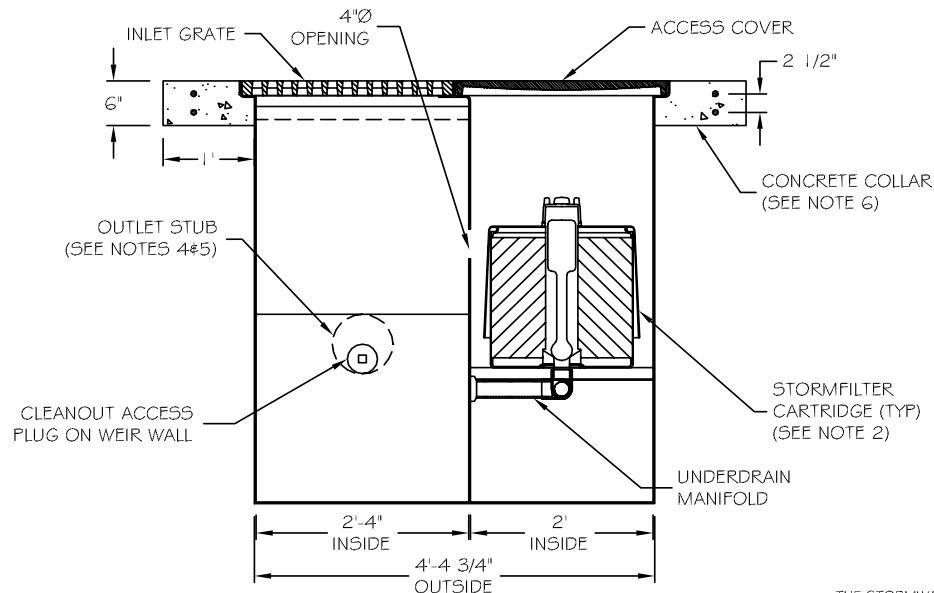
The larvicide must be in contact with the permanent pool. The larvicide should also be fastened to the CatchBasin StormFilter by string or wire to prevent displacement by high flows. A magnet can be used with a steel catch basin.

For more information on mosquito abatement in stormwater BMPs, refer to the following:

<http://www.ucmrp.ucdavis.edu/publications/managingmosquitoesstormwater8125.pdf>



1-CARTRIDGE CATCHBASIN - PLAN VIEW 1
1



1-CARTRIDGE CATCHBASIN - SECTION VIEW A
1

THE STORMWATER MANAGEMENT
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No. 5,707,527, No. 6,027,639
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DEEP STEEL CATCHBASIN STORMFILTER
PLAN AND SECTION VIEWS
STANDARD DETAIL - 1 CARTRIDGE UNIT

DRAWING

1

1/3

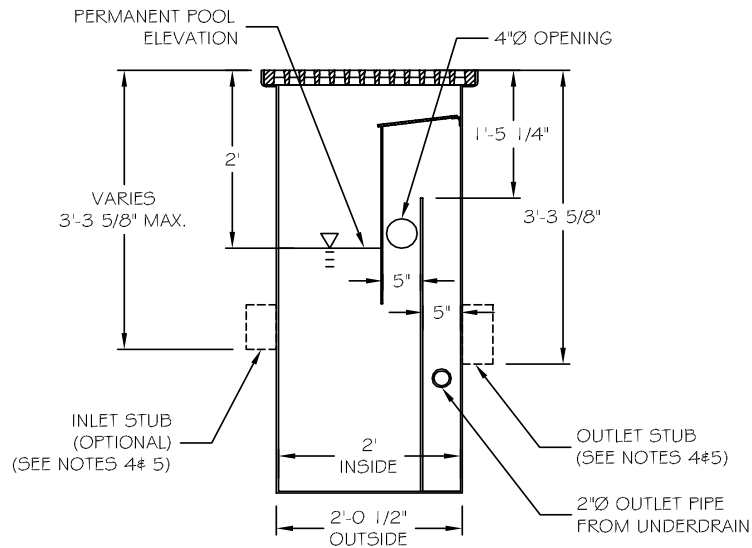
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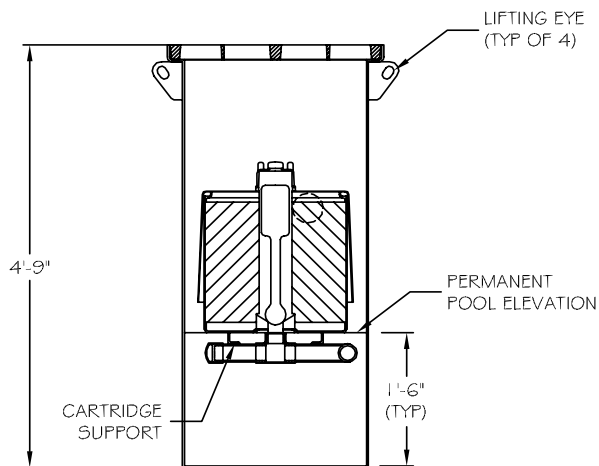
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1-CARTRIDGE CATCHBASIN - SECTION VIEW B
2



1-CARTRIDGE CATCHBASIN - SECTION VIEW C
2

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SECTION VIEWS
STANDARD DETAIL - 1 CARTRIDGE UNIT

DRAWING

2

2/3

DATE: 11/01/05

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

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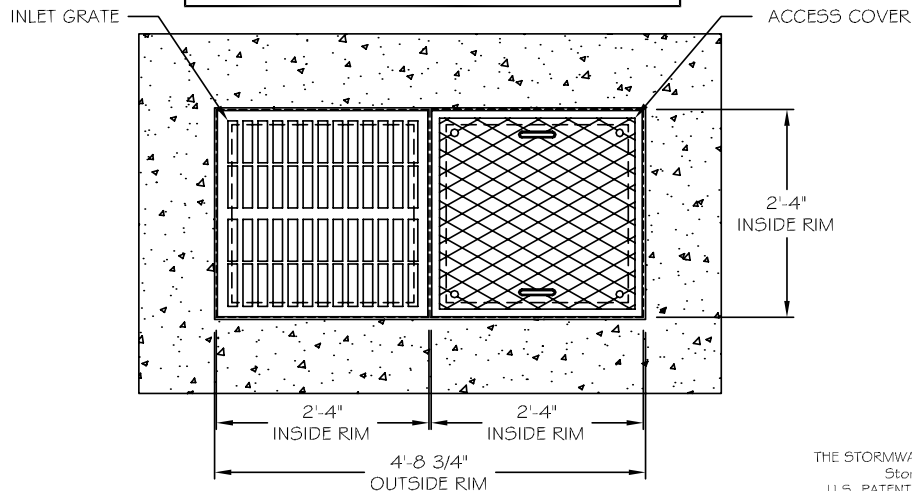
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GENERAL NOTES

- 1) STORMFILTER BY CONTECH STORMWATER SOLUTIONS; PORTLAND, OR (800) 548-4667; SCARBOROUGH, ME (877) 907-8676; ELKRIDGE, MD (866) 740-3318.
- 2) FILTERS TO BE SIPHON-ACTUATED AND SELF-CLEANING.
- 3) STEEL STRUCTURE TO BE MANUFACTURED OF 1/4 INCH STEEL PLATE.
- 4) STORMFILTER REQUIRES 3.3 FEET OF DROP FROM RIM TO OUTLET. INLET SHOULD NOT BE LOWER THAN OUTLET. INLET (IF APPLICABLE) AND OUTLET PIPING TO BE SPECIFIED BY ENGINEER AND PROVIDED BY CONTRACTOR.
- 5) CBSF EQUIPPED WITH 4 INCH (APPROXIMATE) LONG STUBS FOR INLET (IF APPLICABLE) AND OUTLET PIPING. STANDARD OUTLET STUB IS 8 INCHES IN DIAMETER. MAXIMUM OUTLET STUB IS 15 INCHES IN DIAMETER. CONNECTION TO COLLECTION PIPING CAN BE MADE USING FLEXIBLE COUPLING BY CONTRACTOR.
- 6) FOR H-20 LOAD RATING, CONCRETE COLLAR IS REQUIRED. CONCRETE COLLAR WITH QUANTITY (2) #4 REINFORCING BARS TO BE PROVIDED BY CONTRACTOR.
- 7) ALL STORMFILTERS REQUIRE REGULAR MAINTENANCE. REFER TO OPERATION AND MAINTENANCE GUIDELINES FOR MORE INFORMATION.

1-CARTRIDGE DEEP CATCHBASIN STORMFILTER DATA

STRUCTURE ID	XXX	
WATER QUALITY FLOW RATE (cfs)	X.XX	
PEAK FLOW RATE (<1.8 cfs)	X.XX	
RETURN PERIOD OF PEAK FLOW (yrs)	XXX	
CARTRIDGE FLOW RATE (1.5 OR 7.5 gpm)	XX	
MEDIA TYPE (CSF, PERLITE, ZPG)	XXXXX	
RIM ELEVATION	XXX.XX'	
PIPE DATA:		
	I.E.	DIAMETER
INLET STUB	XXX.XX'	XX"
OUTLET STUB	XXX.XX'	XX"
CONFIGURATION		
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SLOPED LID	YES/NO	
SOLID COVER	YES/NO	
NOTES/SPECIAL REQUIREMENTS:		



1-CARTRIDGE CATCHBASIN - TOP VIEW

1
3

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DEEP STEEL CATCHBASIN STORMFILTER
TOP VIEW, NOTES AND DATA
STANDARD DETAIL - 1 CARTRIDGE UNIT

DRAWING

3

3/3

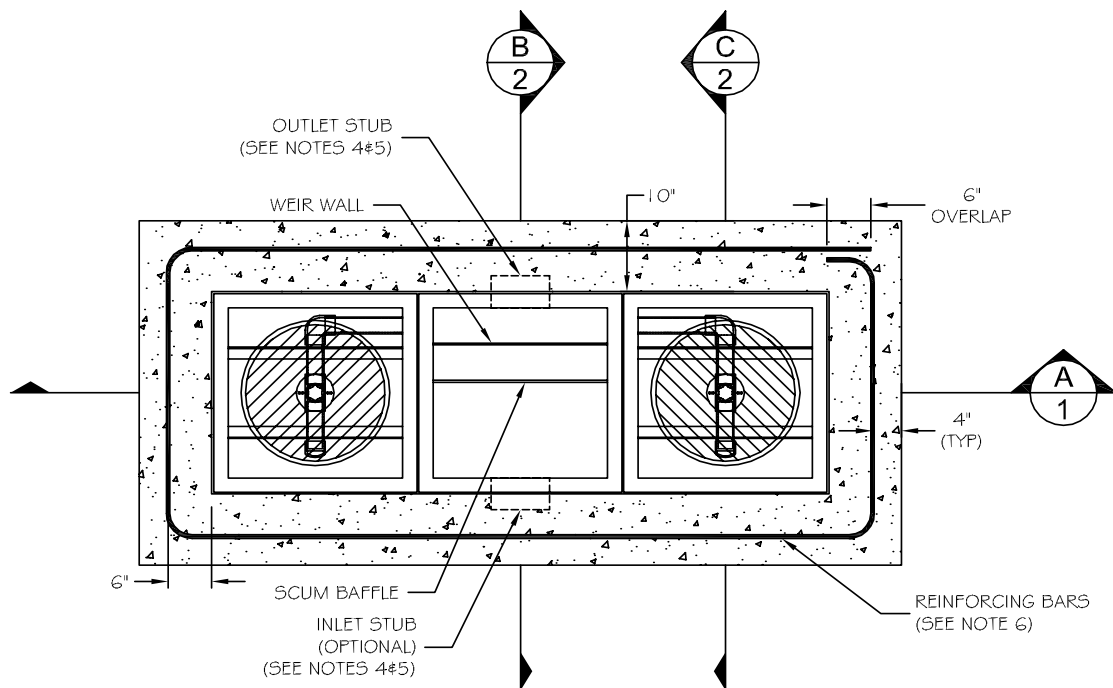
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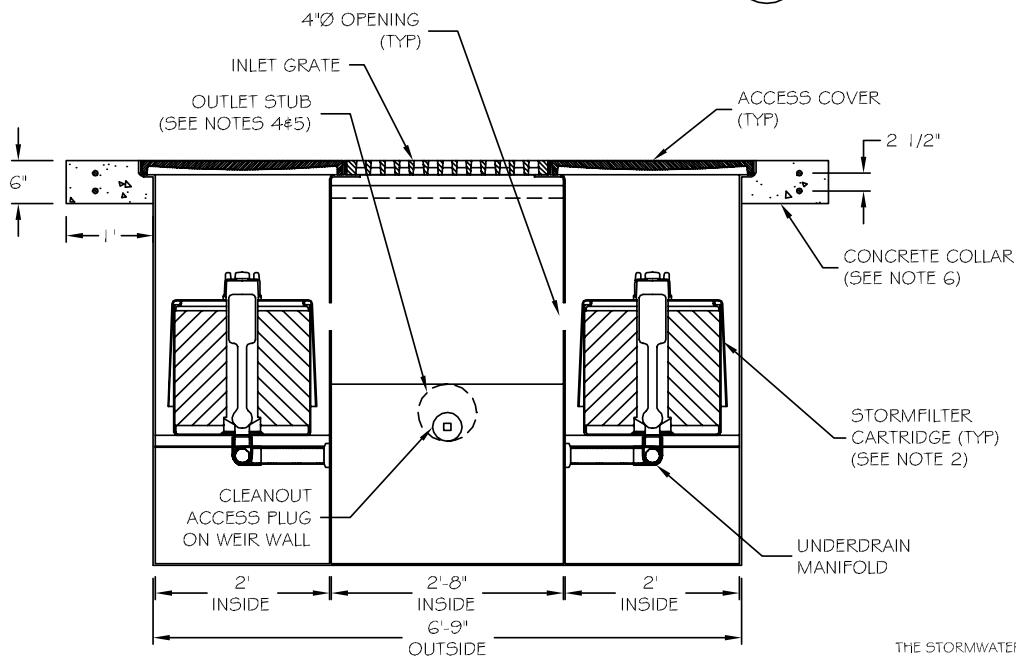
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2-CARTRIDGE CATCHBASIN - PLAN VIEW



2-CARTRIDGE CATCHBASIN - SECTION VIEW

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DEEP STEEL CATCHBASIN STORMFILTER
PLAN AND SECTION VIEWS
STANDARD DETAIL - 2 CARTRIDGE UNIT

DRAWING

1

1/3

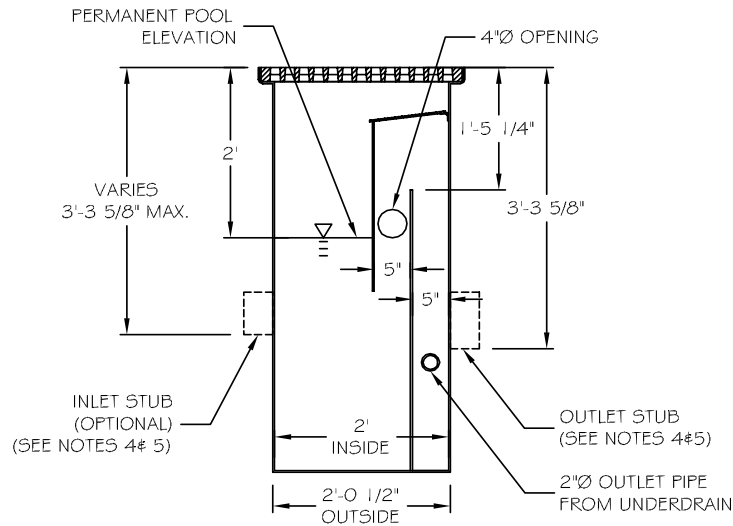
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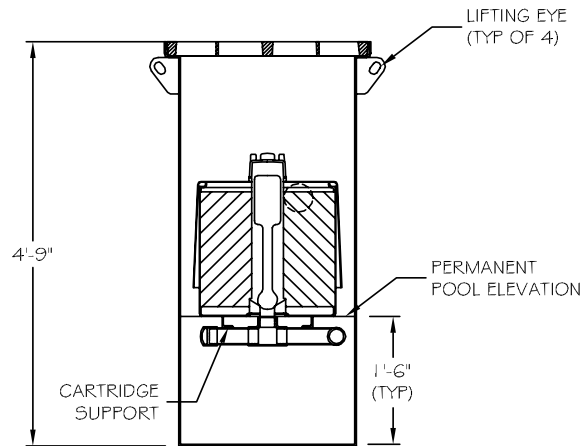
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2-CARTRIDGE CATCHBASIN - SECTION VIEW B
2



2-CARTRIDGE CATCHBASIN - SECTION VIEW C
2

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STANDARD DETAIL - 2 CARTRIDGE UNIT

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2

2/3

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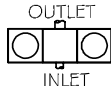
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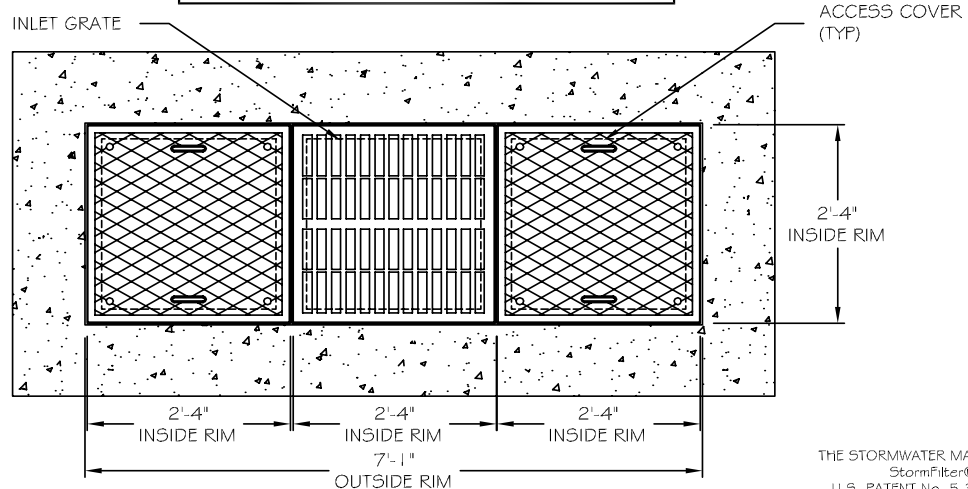
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STRUCTURE ID	XXX	
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RETURN PERIOD OF PEAK FLOW (yrs)	XXX	
CARTRIDGE FLOW RATE (1.5 OR 7.5 gpm)	XX	
MEDIA TYPE (CSF, PERLITE, ZPG)	XXXXX	
RIM ELEVATION	XXX.XX'	
PIPE DATA:		
INLET STUB	I.E.	DIAMETER
OUTLET STUB	XXX.XX'	XX"
OUTLET STUB	XXX.XX'	XX"
CONFIGURATION <div style="text-align: center;">  </div>		
SLOPED LID		
YES/NO		
SOLID COVER		
YES/NO		
NOTES/SPECIAL REQUIREMENTS:		



2-CARTRIDGE CATCHBASIN - TOP VIEW

1
3

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DEEP STEEL CATCHBASIN STORMFILTER TOP VIEW, NOTES AND DATA STANDARD DETAIL - 2 CARTRIDGE UNIT

DRAWING

3

3/3

DATE: 11/01/05	SCALE: NONE	FILE NAME: CBSF2-SD-DTL	DRAWN: MJW	CHECKED: ARG
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1120 N.W. Couch Street, Tenth Floor
Portland, OR 97209-4128
PHONE: 503.727.2000
FAX: 503.727.2222
www.perkinscoie.com

Michael C. Robinson
PHONE: (503) 727-2264
FAX: (503) 346-2264
EMAIL: MRobinson@perkinscoie.com

November 18, 2011

VIA E-MAIL

Ms. Laura Terway, AICP
Planner
Planning Division
PO Box 3040
221 Molalla Avenue, Suite 200
Oregon City, Oregon 97045

Re: City of Oregon City File Nos. LL 11-07, DP 11-03 and CP-11-01; Request to Discuss Completeness Items

Dear Laura:

Thank you for your letter deeming the application incomplete on November 2, 2011. Providence has reviewed the letter and would like to schedule a meeting with you and Tony Konkol to discuss the completeness responses. This letter is not the election of how the applicant will respond to the completeness items as required by ORS 227.178(4). Instead, Providence wants to provide you with its initial thoughts so that we have an opportunity to discuss the completeness items with you and then submit a revised application that you can find is complete.

In general, Providence's responses will be as follows:

- Providence will provide the additional approval criteria responses you have requested, except for Oregon City Municipal Code ("OCMC") Chapters 17.44, .49, .58 and .62. We can explain why we do not think these sections require responses.
- Because Providence is not proposing any development through a Detailed Development Plan ("DDP") in this application that affects any natural resource designations, we do not believe that a natural resource permit is necessary.

38638-0069/LEGAL22164250.1

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Perkins Coie LLP

Ms. Laura Terway
November 18, 2011
Page 2

- Providence does not find any applicable approval criteria that requires it to identify non-conforming elements of the hospital and then propose a compliance plan for those elements. The OCMC provides that non-conforming structures may remain unless altered.
- Providence does not find any approval criteria requiring it to analyze the safety of transit stops. However, because this request is not specific as to its basis, Providence would like a better understanding of what you meant by this request.

We would like to meet as soon as possible but we understand with Thanksgiving approaching that it may be difficult to schedule a meeting right away. Our preference would be to meet the week of November 28 but if not that week, the week of December 5.

Please let me know if you have any questions.

Very truly yours,



Michael C. Robinson

MCR:cfr

Cc: Mr. John Flanders (via email)
Ms. Karen Weylandt (via email)
Mr. Josh Kolberg (via email)
Ms. Julia Kuhn (via email)
Ms. Dana White (via email)
Mr. Matt Dolan (via email)
Mr. Adam Roth (via email)
Mr. Tony Konkol (via email)

38638-0069/LEGAL22164250.1



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Michael C. Robinson
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FAX: (503) 346-2264
EMAIL: MRobinson@perkinscoie.com

December 20, 2011

VIA E-MAIL

Ms. Laura Terway, AICP
Planner
City of Oregon City
P. O. Box 3040
221 Molalla Avenue, Suite 200
Oregon City, Oregon 97045

Re: City of Oregon City File No. LL 11-07, DP 11-03 and CP 11-01

Dear Ms. Terway:

This office represents the applicant, Providence Health & Services - Oregon ("Providence"). This letter constitutes the applicant's election pursuant to ORS 227.178(4) for resolving the incompleteness determination on this permit application by the City of Oregon City (the "City") on November 2, 2011. Pursuant to ORS 227.178(4)(a), the applicant intends to provide all of the missing information. The date the City receives the information starts the 120-day clock in ORS 227.178(3).

For purposes of clarity, I have listed the incompleteness items and the applicant's response below.

1. **"Review the safety of the transit stops."**

RESPONSE: I provided you an email with attachments from Tri-Met on December 14, 2011 demonstrating that Tri-Met approved the change to the transit stop location to its current location from the Willamette Falls Medical Center Emergency Department. You responded on the same day that the information that I provided you was sufficient to resolve this completeness item.

38638-0069/LEGAL22352149.1

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Perkins Coie LLP

Ms. Laura Terway
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2. **"Summary of the issues discussed at the McLaughlin Neighborhood Association meeting."**

RESPONSE: The applicant has included the list of issues required by Oregon City Municipal Code ("OCMC") Section 17.50.055 in the revised application. This completeness item is resolved.

3. **"Identification of all nonconforming aspects of the site and a proposed compliance plan."**

RESPONSE: The City and the applicant agreed at our November 29, 2011 meeting that this was not a completeness requirement for the General Development Plan ("GDP") but that it could be resolved in each Detailed Development Plan ("DDP") application. The applicant has agreed to apply the requirements of OCMC Chapter 17.58 to the concurrent DDP application for the Division Street parking lot. This completeness issue is resolved.

4. **"A Natural Resource Overlay District application."**

RESPONSE: The applicant and the City have agreed that the Natural Resource Overlay District application will be addressed in each DDP application. The applicant will request an exemption to the NROD application requirement for the Division Street parking lot DDP application. This completeness issue is resolved.

5. **"A discussion of the following approval criteria and subsections that explains how the criteria are or can be met. Oregon City Municipal Code Chapters 17.52, 17.62.050, 17.62.085, 17.62.065, 17.58, 17.44 and 17.49."**

RESPONSE: The revised application addresses each of these OCMC provisions in the DDP application. This completeness issue is resolved.

Based on the above, the City can find that this application is complete on the date it receives the revised application.

Please let me know if you have any questions.

Very truly yours,



Michael C. Robinson

MCR:cfr

38638-0069/LEGAL22352149.1

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Cc: Ms. Dana White (via email)
Ms. Karen Weylandt (via email)
Mr. Russ Rhinehard (via email)
Mr. Josh Kolberg (via email)
Mr. Steve Kolberg (via email)
Ms. Julia Kuhn (via email)
Mr. Matt Dolan (via email)
Mr. Adam Roth (via email)
Mr. Rick Staley (via email)

38638-0069/LEGAL22352149.1

Laura Terway

From: Clark, Lani (Perkins Coie) [LClark@perkinscoie.com] on behalf of Robinson, Michael C. (Perkins Coie) [MRobinson@perkinscoie.com]
Sent: Wednesday, December 21, 2011 5:16 PM
To: Laura Terway
Cc: 'crichter@gsblaw.com'; 'josh@pkaarchitects.com'
Subject: City of Oregon City File Nos. LL 11-07, DP 11-03 and CP 11-01

Dear Ms. Terway,

This office represents the applicant, Providence Willamette Falls Medical Center ("Providence"). My clients and I appreciated the time that you and Ms. Richter took to meet with us on Tuesday, November 29 to discuss the City's incompleteness determination. I am writing to describe how we resolved these items. If you believe I have misstated our discussion, please let me know. As I noted in my earlier letter to you, neither that letter nor this letter are an election of the response to the City's incompleteness determination pursuant to ORS 227.178(4). However, based on the discussion of the resolution of the items, we intend to make the application complete in the ways described below.

The remainder of this letter describes the five (5) incompleteness items listed in your November 2, 2011 incompleteness determination and how Providence intends to respond to those items.

1. "A discussion of the following approval criteria and subsections that explains how the criteria can be met. 17.52 ("Off-Street Parking and Loading") 17.62.050 ("Standards"), 17.62.085 ("Refuse and Recycling Standards for Commercial, Industrial and Multi-Family Developments"), 17.62.065 ("Outdoor Lighting"), 17.58 ("Lawful Nonconforming Uses, Structures and Lots"), 17.44 ("US-Geologic Hazards"), and 17.49 ("Natural Resource Overlay District").

All of these standards apply to the DDP application for the Division Street parking lot, not to the GDP Application. The applicant will provide a response to all the chapters except OCMC 17.62.085. The applicant will request that the City not apply this standard for the parking lot.

2. "A Natural Resource Overlay District application."

This requirement would only apply to the Division Street parking lot but as we agreed, the parking lot is not included within a mapped Natural Resource Overlay District. Therefore, we will ask for an exemption. We agreed that at each subsequent DDP stage, Providence will determine whether the Natural Resource Overlay District application or US-Geologic Hazards standards are applicable and, if so, will make the required permit application.

3. "Identification of all nonconforming aspects of the site and a proposed compliance plan."

We agreed that at each DDP stage, Providence will analyze nonconforming development aspects of that particular phase and then determine if the requirements of OCMC 17.58.040.C are triggered. We agreed that trying to identify all nonconforming aspects of the entire master plan would be problematic and, in any event, because the master plan provides for a 10-year period, identification now would be unhelpful since the OCMC might well change before implementation of a DDP, thus making the current analysis unhelpful.

We did not reach agreement on the application of OCMC Chapter 17.58 to the Division Street parking lot. As to the application of this chapter to the Division Street parking lot DDP, assuming that the use is unlawful, it is not a nonconforming structure (or development) and, therefore, OCMC 17.58.040.C would not be applicable. Providence, however, commits to improving the parking lot consistent with applicable standards at the time the DDP and GDP applications were submitted.

4. "A summary of the issues discussed at the McLaughlin Neighborhood Association meeting"

Providence will submit a summary of the issues discussed at the July 6, 2011 McLaughlin Neighborhood meeting as required by OCMC 17.50.055.A.5.

5. "Review the safety of the transit stops."

We understand the City **did not** request an analysis of transit stop safety but rather evidence of Tri-Met's 2003 approval of the relocation of the transit stop to a location on Division Street in front of the Emergency Department. Providence has provided that information letter to you.

Thanks again for your cooperation and assistance. We look forward to making the application complete shortly.

Michael C. Robinson | Perkins Coie LLP

1120 N.W. Couch Street
Tenth Floor
Portland, OR 97209-4128
PHONE: 503.727.2264
FAX: 503.346.2264
E-MAIL: mrobinson@perkinscoie.com

IRS CIRCULAR 230 DISCLOSURE: To ensure compliance with Treasury Department and IRS regulations, we inform you that, unless expressly indicated otherwise, any federal tax advice contained in this communication (including any attachments) is not intended or written by Perkins Coie LLP to be used, and cannot be used by the taxpayer, for the purpose of (i) avoiding penalties that may be imposed on the taxpayer under the Internal Revenue Code or (ii) promoting, marketing or recommending to another party any transaction or matter addressed herein (or any attachments).

* * * * *

NOTICE: This communication may contain privileged or other confidential information. If you have received it in error, please advise the sender by reply email and immediately delete the message and any attachments without copying or disclosing the contents. Thank you.



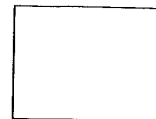
Bus Stop Work Request



GPS



Work Order Number



FacMaint

Writer BALDWIN Date 7/18/06 Line 32 Others _____ Stop # 1000 LocID 1404☐ Safety Hazard: Immediate Attention Required☐ PRIORITY WORK

Origin	Stop Designation	Status Sheet Reference
<input type="checkbox"/> Field Check	<input type="checkbox"/> Nearside <input checked="" type="checkbox"/> Inbound	<input type="checkbox"/> 1 =
<input type="checkbox"/> OCR	<input type="checkbox"/> Farside <input type="checkbox"/> Outbound	<input type="checkbox"/> 2 =
<input type="checkbox"/> CSI #	Travel Street Cross Street	<input type="checkbox"/> 3E =
<input type="checkbox"/> Unit 9941 <input type="checkbox"/> Dispatch	<u>DIVISION</u>	<input type="checkbox"/> 4 =
<input checked="" type="checkbox"/> Project Planning	<u>LORESON CITY</u>	<input type="checkbox"/> 5 =
<input type="checkbox"/> Other	AT	<input type="checkbox"/> 7 =
	Opposite	<input type="checkbox"/> 8 =
	<u>15th</u>	
Stop/Zone Type		
<input checked="" type="checkbox"/> Existing Stop	Stop Before = <u>950</u>	
<input type="checkbox"/> New Stop	Stop After = <u>1050</u>	
<input checked="" type="checkbox"/> Bus Zone (<u>by D.C.</u>)	Destination = <u>MILW, TC OR</u>	
<input type="checkbox"/> Layover Zone	<u>PORTLAND</u>	
<input type="checkbox"/> Mall/Transit Center	Distance From Last Stop	
<input type="checkbox"/> No Parking Zone	Distance To Next Stop	
Sign/Pole Condition		
<input type="checkbox"/> Sign Damaged/Missing	Zone <u>3</u> <input type="checkbox"/> First Stop	
<input type="checkbox"/> Sign Needs Cleaning	<input type="checkbox"/> Fareless Sq. <input type="checkbox"/> Last Stop	
<input type="checkbox"/> Pole Damaged	<input type="checkbox"/> Wkdy/Sa/Su <input type="checkbox"/> Wkdy/Sat	
<input type="checkbox"/> Pole Base Damaged	<input type="checkbox"/> Peak Only <input type="checkbox"/> Wkday Only	
<input type="checkbox"/> Pole Base OK		
Action	Shelter	
<input type="checkbox"/> Move Stop	<input type="checkbox"/> Move/Remove Shelter	
<input type="checkbox"/> Install New Stop	<input type="checkbox"/> Repair Shelter	
<input checked="" type="checkbox"/> Replace TM Sign	<input type="checkbox"/> Cracked/Broken Shelter Glass	
<input type="checkbox"/> Install/Change Sticker	<input type="checkbox"/> Repair BCID	
<input checked="" type="checkbox"/> Install On New TM Pole <u>30E</u>	<input type="checkbox"/> Repair TM Bench	
<input type="checkbox"/> Use Existing Pole/Utility	<input type="checkbox"/> Repair/Move Ad Bench	
<input type="checkbox"/> Install/Change Bus Zone	Cleanliness	
<input type="checkbox"/> Replace Front Zone Sign	<input type="checkbox"/> Emergency Cleaning Needed	
<input type="checkbox"/> Replace Rear Zone Sign	<input type="checkbox"/> Install TM Garbage Can	
<input type="checkbox"/> Install "Except Bus" Sign	<input type="checkbox"/> Remove TM Garbage Can	
<input type="checkbox"/> Re-Tape Curb	<input type="checkbox"/> Reposition TM Garbage Can	
<input type="checkbox"/> Install NPA	Construction	
<input type="checkbox"/> Reset Existing TM Pole	<input type="checkbox"/> Install Front Landing Pad	
<input type="checkbox"/> Reset Existing City Pole	<input type="checkbox"/> Install Rear Landing Pad	
<input type="checkbox"/> Install Special Signage	<input type="checkbox"/> Install ADA Pad	
<input type="checkbox"/> Remove Graffiti	<input type="checkbox"/> Extend Sidewalk To Meet Stop	
<input type="checkbox"/> Abandon/Remove Stop	<input type="checkbox"/> Install Curb Ramp	
	<input type="checkbox"/> Install Curb Extension	
<input type="checkbox"/> Change Master Stop List	<input type="checkbox"/> Repair Concrete	

Utility Check Information
Install After: _____
Reference # _____

Internal Tracking
RdOps Reviewer _____ Date _____
ProjPng Reviewer _____ Date 7/24/06
Analyst Reviewer MW Date 7/24
Received FM by David & Carol Date 7/26/06
Completed by _____ Date 10-4-06
Job Hours 1.0 Time 12:30
Inspected by _____ Date _____
() Approved () Not Approved
Comments: - NO pole bend -

• Return to Myleen Richardson @ HS
OCT 06 2006

Utility Check Information					
Jurisdiction			Location Paint On:		Installation Circle On
<input checked="" type="checkbox"/> Clackamas <input type="checkbox"/> Multnomah <input type="checkbox"/> Washington <input type="checkbox"/> Clark (WA)			<input checked="" type="checkbox"/> Curb Face <input type="checkbox"/> Pavement <input type="checkbox"/> Other _____ <input type="checkbox"/> Preliminary, No Paint		<input checked="" type="checkbox"/> Concrete <input type="checkbox"/> Rock/Loose <input type="checkbox"/> Asphalt <input type="checkbox"/> Landscaping <input type="checkbox"/> Other _____
City <u>OREGON CITY</u>			<u>174'</u> Feet From <u>15TH AVE</u>		<u>8.5'</u> Feet From <u>CURB</u>
Map Book					
<input type="checkbox"/> Thomas <input type="checkbox"/> Pittmon					
Edition _____	Page _____	Section _____			
Adjacent Land Use					
Nearest Building		Distance To Nearest Building		Other Nearby Uses	
<input type="checkbox"/> Residential <input type="checkbox"/> MultiFamily <input type="checkbox"/> Industrial <input type="checkbox"/> Commercial <input type="checkbox"/> Rural <input type="checkbox"/> Parking Lot		<input type="checkbox"/> _____ Feet <input type="checkbox"/> _____ Miles <input type="checkbox"/> _____ Blocks			
If Not On TriMet Pole, Install Sign On:					
<input type="checkbox"/> 4X4	<input type="checkbox"/> Wood Utility	<input type="checkbox"/> Metal Utility	<input type="checkbox"/> City Pole (Square or Round)	<input type="checkbox"/> Miscellaneous	

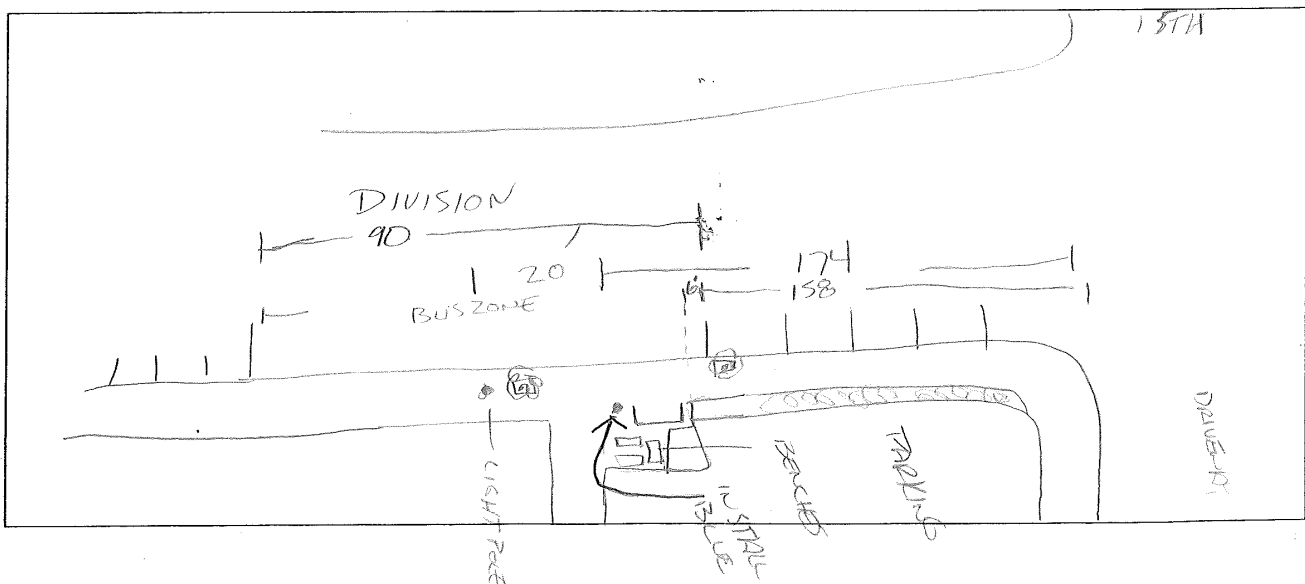
Comments: INSTALL BLUE POLE. OC TO INSTALL ZONE.
USE BASEPLATE
- Construction Complete, reinstalling sign -



Draw Arrow To
Indicate North



Draw Arrow For
Direction Bus Travels



CITY OF OREGON CITY
TYPE III – CONDITIONAL USE PERMIT
320 WARNER MILNE ROAD OREGON CITY, OREGON 97045
Tel 657-0891 Fax 657-7892



NOTICE OF TYPE III LAND USE DECISION

STAFF REPORT and DECISION

December 11, 2003

FILE NO.: CUP 03-03

Complete: October 23, 2003
120-Day: - February 20, 2004

APPLICATION TYPE: Type III

APPLICANT/OWNER: **Willamette Falls Hospital** **Mountain View Avamere Properties LLC**
1500 Division Street 25117 SW Parkway Avenue, #F
Oregon City, OR 97045 Wilsonville, OR 97070

**APPLICANT'S
REPRESENTATIVE:** Clark Kjos
Contact: Corey Morris
333 NW 5th Avenue
Portland, OR 97209
(503) 224-4848

REQUEST: Conditional Use Permit for Hospital Building Expansion with Hospital
and Nursing Home Site Improvements

LOCATION: 22E 32AB Lots 1900, 1900E2, 1900E3, 2000, 2100; 22E 32AA Lot 400 and
22E 32AC Lots 101, 103, 200, 201, 300

REVIEWER: Chris Cocker, Consulting Senior Planner
Bill Kabeisman, Consulting City Attorney
Tony Konkol, Associate Planner, City of Oregon City
Bill Kopp, Consulting Senior Engineer

RECOMMENDATION: Approval with Conditions.

Type III decisions involve the greatest amount of discretion and evaluation of subjective approval standards, yet are not required to be heard by the city commission, except upon appeal. Applications evaluated through this process include conditional use permits, preliminary planned unit development plans, variances, code interpretations, similar use determinations and those rezonings upon annexation under Section 17.06.050 for which discretion is provided. In the event that any decision is not classified, it shall be treated as a Type III decision. The process for these land use decisions is controlled by ORS 197.763. Notice of the application and the planning commission or the historic review board hearing is published and mailed to the applicant, recognized neighborhood association and property owners within three hundred feet. Notice must be issued at least twenty days pre-hearing, and the staff report must be available at least seven days pre-hearing. At the evidentiary hearing held before the planning commission or the historic review board, all issues are addressed. The decision of the planning commission or historic review board is appealable to the city commission, on the record. The city commission decision on appeal from the historic review board or the planning commission is the city's final decision and is appealable to LUBA within twenty-one days of when it becomes final.

IF YOU HAVE ANY QUESTIONS ABOUT THIS DECISION, PLEASE CONTACT THE PLANNING DIVISION OFFICE AT (503) 657-0891.

DECISION CRITERIA: *Chapter 17.22 LO (LIMITED OFFICE) DISTRICT- Use Only*
 Chapter 17.50 ADMINISTRATION AND PROCEDURES
 Chapter 17.56 CONDITIONAL USES
 Chapter 17.58 NONCONFORMING USES, STRUCTURES AND LOTS

I. BACKGROUND

Willamette Falls Hospital and Mountain View Avamere Properties have jointly applied for conditional use permit and site plan/design review permits for the expansion of the hospital, hospital site improvements and nursing home site improvements. The properties are located on Division Street. The proposed 29,300 square foot building expansion would provide a new emergency room, area for imaging and diagnostic operations and an undetermined use area. The hospital in coordination with the Mountain View Nursing Home will develop a new shared access drive and site improvements including new and modified parking lot areas. The project requires a demolition permit for the existing 15,700 square foot clinic building and associated parking and landscaping.

The site includes all contiguously owned Willamette Falls Hospital property south of Davis Road, approximately 7 acres in total, and the 3-acre nursing home property owned by Mountain View Avamere Properties. The hospital properties are being looked at as one site as the uses are intermixed and there are buildings and parking spaces that cross property lines.

The project requires three land use reviews; a conditional use permit (CUP), a site plan and design review (SP/DR) and a lot line adjustment. Currently, the CUP and the SP/DR have been submitted for approval. The following is the staff report review for the CUP.

II. FACTS

1. **Location:** 1500 Division Street, 1400 Division Street. Tax Lot Identification: 22E32AC tax lots 101, 103, 200, 201, and 300. 22E 32AB tax lots 1900, 1900E2, 1900E3, 2000, 2100; and 22E 32AA tax lot 400.

Summary of Project: Site improvements are desired for the 10-acre Willamette Falls Hospital and Mountain View Avamere Nursing Home properties located on Division Street south of Davis Road. Willamette Falls Hospital proposes a 29,300 square foot expansion (25,250 square foot footprint) to their hospital. The following uses are anticipated:

Hospital Use	Existing Square Footage	Proposed Square Footage	Increase in Square Footage
Emergency Room	4,200	12,300	8,100
X-Ray Processing	11,000	17,000	6,000
Non-Specific Use	0	15,200	15,200
All			29,300

A portion of the site improvements (including building expansion) would take place after the demolition of the existing 15,700 square foot Mountain View Medical Offices. The applicant indicates that the two neurologists that currently occupy the building will move to one of the existing Medical Office buildings on campus. The outpatient physical therapy use in this building will move elsewhere in town.

Proposed improvements to the Willamette Falls Hospital property include the building addition, new shared entrance driveway and revised circulation (including ambulance access), new landscaping and new parking. The nursing home will share the new entrance driveway, and proposes improvements such as new landscaping and a new rear parking area. Nursing home truck deliveries are proposed to be rerouted to avoid the need to back out to Division Street after providing service. The new road will allow the trucks to exit via the hospital's northern Division Street entrance.

In addition to the expansion indicated above, the applicant proposes updated truck and vehicle circulation, parking facilities and drop-off areas for both property owners. The new circulation plan will require lot line adjustments. Lot consolidation will also be required as there are existing buildings that cross property lines. Lot line adjustments shall be reviewed under separate land use reviews. Lot consolidation shall take place at the first opportunity allowed by the Clackamas County Assessor's Office.

The main access to the Mountain View Nursing Home will be relocated to the south. Site circulation will continue to be provided via on-site private driveways and streets.

2. **Overlay District Zoning.** The subject site includes the following Overlay Districts; Water Quality Resource District (WQRD), Seismic Hazard Area and Unstable Slope/Landslide Area zone. The latter two districts are on the eastern edge of the site and would have no bearing on the improvements being proposed. The determination that improvements will not affect the WQRD is being evaluated by city staff under separate review. The property is also identified as having a shallow underground water table. See attached city engineer's comments for more information.
3. **Surrounding Zoning and Land Uses.** The subject site and surrounding properties have the following zoning and uses:

Subject Site:	LO Limited Office
North:	R-10 Single Family Dwelling and County Properties (residential)
East:	R-10 Single Family Dwelling
South:	LO Limited Office
West:	R-6 Single Family Dwelling
4. **Public Comment.** Notice of this proposal was sent to property owners within three hundred feet of the subject property and various City departments and other agencies on November 14, 2003. The subject site was posted on November 19, 2003 and the Planning Commission Hearing was advertised in the Clackamas Review on November 26, 2003 requesting comments.

A letter was received from Mr. and Mrs. Dresdow of 17426 Trillium Parkway indicating that the present design of traffic flow to the Hospital is occurring on residential streets that are not designed for this type of use and intensity. They request that the Planning Commission delay any deliberations or decision regarding this application until they and their neighbors have had the opportunity to meet with the Hospital planners. (Exhibit 15).

III. CONDITIONAL USE PERMIT FINDINGS:

Comprehensive Plan Policies

B. Citizen Participation Element

Oregon City has two major components in its Citizen Participation Program; Neighborhood Associations and the Citizen Involvement Committee (CIC) Council. The City recognizes neighborhood associations as a mechanism to facilitate citizen participation in Oregon City. The City Commission and City staff *"provide the neighborhood associations through the appropriate CIC representative with accurate and current information on policies, programs and land use related projects"* including conditional use requests. Under *Citizen Involvement Goals and Policies*, Policy 4 states, *"Encourage citizen participation in all functions of government and land use planning."*

Finding: Complies. The application has followed the public notification requirements as outlined in the Oregon City Zoning Code Sections 17.50.050 and 17.50.090. The proposed project is not located within an area that has a recognized neighborhood group. In addition to the owners of property within 300 feet of the subject area, the subject was posted and the city notified the CIC and the closest neighborhood group, the McLoughlin Neighborhood Association, as part of the notification. The city also published notice of the planning commission hearing and agenda on November 26, 2003.

The city recommends but does not mandate that a neighborhood meeting be held. At this time the applicant has indicated that they will hold a voluntary neighborhood meeting. This meeting is scheduled for December 16, 2003.

D. Commerce and Industry Element

The overriding goal of this element is to *"maintain a healthy and diversified economic community for the supply of goods, services, and employment opportunities."*

The Health Services Industry has a long history of supporting regional health services at the Willamette Falls Hospital Site on Division Street. The Comprehensive Plan indicates that land was originally provided on Division Street (and others) to accommodate the move of some medical facilities to larger sites within the community.

Finding: Complies. This expansion of the existing health services associated with the hospital and site improvements for the nursing home certainly helps Oregon City maintain and expand good health services and employment opportunities. The expansion of service within the hospital indicates that medical services and facilities are expanding on this comparatively large property.

Policy 2 – Use of mass transit will be encouraged between residential and employment areas through coordination with Tri-met and local employers.

Finding: Complies. This hospital expansion will result in better connectivity (crosswalks, sidewalks and walkways) of the site to the transit stops located on Division Street. One transit stop would be relocated to better coordinate with the new walkway improvements on the hospital property.

F. Natural Resource Element

Goal

Preserve and manage our scarce natural resources while building a livable urban environment.

Findings: Complies. The improvements associated with the proposed use are to be in areas that are already developed and will meet the city standards for infrastructure improvements. As a result, the net effect of the project will be negligible with regard to the stormwater and habitat impacts.

Policy 4. Preserve urban forest land by:

3) encouraging non-forested land for development before forest land is disturbed.

Findings: Complies. The project site includes a small area of urban forest along the northeastern property border. This area would not be impacted by the proposed expansion of use and associated development.

Policy 9. Preserve the environmental quality of major water resources by requiring site plan review, and/or other appropriate procedures on new developments.

Findings: The project-specific improvements associated with individual buildings approved with this CUP will be reviewed under Site Plan and Design Review requirements. This permit looks at the overall adequacy of systems and finds that generally the improvements can be site designed and/or conditioned to not adversely affect the major water resources (natural water features, wetlands, riparian corridors and water quality resource areas) in the project vicinity. The applicant's stormwater consultant, Lee Engineering, has looked at the stormwater treatment and detention associated with the site and expansion of use. The project will provide both water detention and water quality facilities to help maintain environmental quality.

The Natural Resource Element identifies Newell Creek and tributaries as river and creek water resources that should be protected. The proposed project is reviewed under city requirements for compliance with stormwater standards.

A small portion of the overall 7-acre hospital property is identified within the buffer area of a water quality resource district. The nursing home property is outside of this district. The applicant has filed for a determination that the project limits would not be within the resource boundary.

The proposed construction areas are relatively flat and will be located on areas that have existing buildings, parking lots or landscaping. The property includes a sloped and forested area that will not be touched by this development. This natural area is within the Water Quality Resource buffer of the nearby tributary to Newell Creek. The proposed project areas on this site do not touch the water quality resources or their associated buffers.

As a result, this report finds that the impact on natural resource areas and associated stormwater facilities will be negligible. The proposed expansion meets the applicable Goals and Policies of the Natural Resource Element.

G. Growth and Urbanization Element

Goal

“... preserve and manage our scarce natural resources while building a livable urban environment.”

Finding: Complies. This goal fits under the state planning Goal 14: *“To provide for an orderly and efficient transition from rural to urban land use.”* The Plan element further outlines the requirements for land that is brought into urban growth boundaries. The hospital and nursing home properties have been located within the Urban Growth Boundary prior to the Plan was adopted in 1982 and are both currently located within the Urban Growth Boundary.

Goal

Preserve and enhance the natural and developed character of Oregon City and its urban growth area.

Finding: The proposed expanded land use will help “preserve and enhance the natural and developed character of Oregon City and its urban growth area” as the proposed development is within the existing hospital complex. The nursing home improvements are similarly within the existing property boundaries. A building expansion of the main hospital is proposed to be contained within a private road system. City-identified resource areas are not located where construction is proposed. The applicant has developed plans that will help protect trees where possible. The improvements would not encroach within the nearby Water Quality Resource District area.

Policy 1. Provide land use opportunities within the City and the Urban Growth Boundary to accommodate the projected population increase to the year 2000.

Finding: Complies. This proposal would help serve growth that has occurred prior to and since the year 2000. The application implies that expanded hospital services are needed to accommodate existing and future population growth. This proposed expansion will help the hospital accommodate increased populations, including more senior-aged adults, and overall, help alleviate some of the increased demand on local and regional health services.

H. Energy

This element starts with the statement “As fossil fuels become more scarce, the costs of non-renewable energy increase, and our technology advances, we will need to find new energy sources and conserve our available energy.” The overall goal is “To conserve energy.” Most of the Energy Element talks about regional objectives relating to these goals. The element also describes the need to conserve energy with good land use practices including looking at both direct and indirect energy use. The direct and indirect uses include use of utilities and the cost of construction for utilities.

The key energy conservation goal is to “Plan urban land development which encourages public and private efforts towards conservation of energy.” Policies include:

3. Encourage the use of carpools and incentive-producing traffic lanes in cooperation with Tri-Met and other state and regional transportation agencies.
5. Encourage non-petroleum means of transportation by constructing bikeways and sidewalks.

Finding: Complies. The expanded use would be in area already served by various utilities, thus resulting in less energy costs. The architect has also designed the building to energy efficient through the use of large amounts of glass and associated window placement to maximize solar exposure. The project will also emphasize new pedestrian and transit connectivity features, both means of reducing dependency on fossil fuels. The project shall result in the required carpool/van pool parking spaces that are warranted with the existing parking areas on this site.

I. Community Facilities

Guided by State Planning Goal 11, this element supports development “being guided and supported by timely, orderly and efficient provision of public facilities and services.” Services include sewer, water, stormwater drainage, solid waste disposal, electricity, gas and telephone facilities, health services, education and the various governmental services.

The main goal is “Serve the health, safety, education, welfare and recreational needs of all Oregon City residents through the planning and provision of adequate community facilities.”

Finding: Complies. Both properties are within an urban infill area and would use facilities that are already in place. Comments from service providers are included in the Exhibit section of this report.

Policy 7. Maximum efficiency for existing urban facilities and services will be reinforced by encouraging development at maximum levels permitted in the Comprehensive Plan and through infill of vacant city land.

Finding: Complies. This expansion would increase the level of use of the hospital property and have no effect on the level of use of the nursing home property. Improvements would occur on infill property (some of which is already developed while other portions are vacant). Utility services are already located in immediate proximity to the proposed expansion. Sufficiency of capacity to accommodate this proposal is anticipated for each utility.

Health and Education

1. Oregon City will coordinate with the Northwest Oregon Health System to ensure adequate health planning information is available and quality health care is maintained in Oregon City.

Finding: Complies. The proposed expansion of uses would help maintain the “quality health care” in Oregon City.

L. Transportation Element

Goal

Improve the systems for movement of people and products in accordance with land use planning, energy conservation, neighborhood groups and appropriate public and private agencies.

Policy 3. The provision for adequate off-street parking will be mandatory for all new building construction, and remodeling projects, if appropriate.

Finding: The hospital currently has 686 parking spaces to be reduced to 676 spaces with this proposed project. The nursing home currently has 66 parking spaces to be reduced to 62 spaces. The following table summarizes the parking status and proposed parking figures:

Land Use	Minimum	Maximum	Existing (Status)	Code Requires	Proposed
Willamette Falls Hospital					
Hospital Category (143 beds current with 150 as proposed)	N/A	1 space/1.5 beds	407 spaces (192 are legal and non-conforming)	Minimum = N/A Maximum for existing = 215 spaces, for proposed = 225 spaces	397 spaces
Medical Plaza 1					
Medical Clinic Category (62,932 square feet)	N/A	3.33/1,000 Sq. Ft.	48	Minimum = N/A Maximum = 210 spaces	48
Medical Plaza 2 and Parking Structure					
Medical Clinic Category (56,790 square feet)	N/A	3.33/1,000 Sq. Ft.	231 spaces ¹ (42 are legal and non-conforming)	Minimum = N/A Maximum = 189 spaces	231
Three Hospital Buildings and Parking Structure Total			686 spaces (62 are legal and non-conforming)	Minimum = N/A Maximum = 624 spaces	676 spaces
Mountain View Nursing Home					
Nursing Home Category (120 beds)		1 space/5 beds	66 spaces ² (44 are legal and non-conforming)	Minimum = N/A Maximum = 24 spaces	62 spaces
Mountain View	N/A	3.33/1,000	47 spaces	Minimum =	0 spaces

Land Use	Minimum	Maximum	Existing (Status)	Code Requires	Proposed
Medical Offices (16,000 square feet) (to be removed)		Sq. Ft.		N/A Maximum = 53 spaces	(to be removed)

¹Medical Office 2 parking spaces include the parking structure

²19 spaces are located on hospital property but are in an easement and used by the nursing home

Both the hospital and the nursing home have more than the maximum allowed parking spaces. The proposed improvements would slightly lower the number of legal non-conforming parking spaces on each property. The hospital would lose 10 spaces and the nursing home would lose 4 spaces. Both properties would still have more parking spaces than the city currently allows.

Policy 4. Curb cuts for vehicle use along new or redeveloped arterial streets will be discouraged.

Finding: Complies. The proposed use and improvements would result in removal of two Division Street (minor arterial) curb cuts.

Policy 6. Sidewalks will be of sufficient width to accommodate pedestrian traffic.

Policy 7. Use of additional easements or underground utilities for utility poles will be encouraged.

Policy 8. Sidewalks will be provided at the minimum along one side of every arterial and collector.

Finding: Complies (if condition added). The expansion of use will result in new sidewalks on Division Street, the minor arterial street, part of the requirements of the half street improvements described in Condition 1. New utilities will require easements and utility poles are encouraged to be placed underground.

With the conditions of approval for site plan/design review, the proposed expansion meets the applicable Goals and Policies of the Transportation Element.

Transportation System Plan

The city's Transportation System Plan (TSP) is an adopted document under the City's Comprehensive Plan and the Transportation Element of that Plan. Division Street is identified as a minor arterial in the TSP. Minor arterials require 64 to 114 feet of right-of-way and variable improvements. Davis Road and Trillium Park Drive are classified as local streets in the TSP. The required right-of-way is 42 to 54 feet wide with associated improvements.

Finding: Compliant (if conditions added). The expansion of use for the hospital and nursing home properties requires that dedication of street frontages, street improvements and transit orientation improvements to bring the city streets into right-of-way and street section compliance. The following items which fall under the TSP, shall be addressed:

Street	Sidewalks and Curbs Needed?	ROW Dedication?
Division Street	Yes, from south property corner to the first driveway south of Davis Road.	Yes, 34-foot half street.
Davis Road	No	Yes, 12-foot dedication.
Trillium Park Drive	Yes, from south east property corner to end of first retaining wall (standard). From north end of retaining wall extending north, redo asphalt sidewalk to concrete sidewalk	No

See condition 1.

OREGON CITY ZONING CODE

Chapter 17.22 – LO Limited Office District

17.22.010 Designated.

The limited office zoning district is designed to accommodate a limited number of offices and medical buildings as well as high density housing. These areas can act as buffer between residential and non-residential areas.

Finding: Not a Designated Use. The Limited Office District (LO) allows limited numbers of medical buildings and hospitals are listed as a conditional use under Chapter 17.56 of the zoning code.

17.22.020 Permitted uses.

All limited uses, defined as:

A. Offices, studios or clinics of one or more of the following uses:

Accountant

Architect

Artist

Attorney

Author

Designer

Engineer

Governmental services and agencies (excluding trucking, auto and truck repairs, or service or equipment yards)

Insurance agent

Investment counselor

Landscape architect

Management consultant

Medical practitioners, including dentists and psychologists

Mortuaries

Real estate agent

Willamette Falls Hospital/Mt. View Avamere Properties

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Surveyor

Telephone answering service

Trade union offices

Urban planner

Writer

B. Pharmacies as an accessory use in a medical clinic, provided there is no separate exterior public entrance and no outdoor signing for the pharmacy;

C. Restaurant and eating facilities as an accessory use in an office building, provided such use does not occupy more than thirty percent of the building's square footage;

D. Child care centers and day care and nursery schools;

E. Uses permitted in the RA-2 multi-family dwelling district. (Prior code §11-3-9(A))

Finding: Not a Permitted Use. The hospital use is not an outright permitted use. Hospitals are listed as a conditional use.

17.22.030 Conditional uses.

In this zone, the following conditional uses are permitted when authorized by and in accordance with the standards contained in Chapter 17.56:

A. Offices not included above, excluding retail stores;

B. Governmental services not included above;

C. Uses listed in Section 17.56.030 of this title. (Prior code §11-3-9(B))

Finding: Use Is a Conditional Use. The hospital use is listed in Section 17.56.030.

17.50 Administrative Procedures

17.50.050 Preapplication conference and neighborhood meeting.

Comment: The applicant attended a pre-application conference with city staff on May 27, 2003. The Pre-Application Conference Summary is attached as Exhibit 1. There is no city recognized neighborhood association for this area. The applicant has indicated that they will hold a neighborhood meeting on December 16, 2003. The neighborhood meeting is highly recommended but is an optional meeting.

17.50.080 Complete application--Required information.

Comment: The applicant provided the required items and was deemed complete on October 23, 2002.

The 120-day clock started on this date and runs through February 20, 2004.

17.50.090 Public Notices.

Comment: Notice of this proposal was sent to property owners within three hundred feet of the subject property and various City departments and other agencies on November 14, 2003. The subject site was posted on November 19, 2003 and the Planning Commission Hearing was advertised in the Clackamas Review on November 26, 2003 requesting comments.

Chapter 17.56 Conditional Uses

17.56.010 Permit--Authorization--Standards--Conditions.

A conditional use listed in this title may be permitted, enlarged or altered upon authorization of the planning commission in accordance with the standards and procedures of this title. A conditional use permit listed in this section may be permitted, enlarged or altered upon authorization of the planning commission in accordance with the standards and procedures of this section. Any expansion to, alteration of, or accessory use to a conditional use shall require planning commission approval of a modification to the original conditional use permit.

Finding: Complies. This application is a dual application where two conditional use permits have been combined into one permit. The hospital is a conditional use in the LO zone and requires conditional use approval by the planning commission for the building expansion and site improvements. The nursing home is also a conditional use in the LO zone and also requires conditional use approval for site improvements.

A. *The following conditional uses, because of their public convenience and necessity and their effect upon the neighborhood shall be permitted only upon the approval of the planning commission after due notice and public hearing, according to procedure as provided in Chapter 17.50.*

Finding: Complies. This application has been properly noticed see findings for Chapter 17.50, later in this report.

The planning commission may allow a conditional use, provided that the applicant provides evidence substantiating that all the requirements of this title relative to the proposed use are satisfied, and demonstrates that the proposed use also satisfies the following criteria:

1. *The use is listed as a conditional use in the underlying district;*

Finding: Complies. Both the hospital and the nursing home uses are identified in Chapter 17.22 and listed in Chapter 17.56.030 as conditional uses.

2. *The characteristics of the site are suitable for the proposed use considering size, shape, location, topography, existence of improvements and natural features;*

Finding: Complies. The applicant proposes using primarily existing developed property for the project. One vacant area is proposed to be used for parking expansion behind the nursing home. This area is flat, with no significant natural features and is a good location to match the nursing home parking with existing hospital parking area on the east side of the property.

3. *The site and proposed development are timely, considering the adequacy of transportation systems, public facilities and services existing or planned for the area affected by the use;*

Finding: Complies (if condition added). The area is fully served by public transit, road connections, and utilities. The applicant has proposed that Trillium Park Drive to Gilman Drive be used for nursing home truck traffic and vehicle circulation back to Division Street. These streets are not built for large truck turning, have residential use and are built to local street standards. The applicant shall not allow truck traffic to use Trillium Park Drive and shall de-emphasize it for use by other vehicles. See attached Condition 3 that addresses this issue.

Utility connections and improvements have been reviewed with this application and requirements are addressed under the separate site plan/design review conditions of approval. Also, see the Exhibits portion of this report for comments by the various service providers.

4. The proposed use will not alter the character of the surrounding area in a manner which substantially limits, impairs or precludes the use of surrounding properties for the primary uses listed in the underlying district;

Finding: Complies (with conditions added). The surrounding residential neighborhood street will be protected from additional truck and vehicle traffic with the application of Condition 3, explained in the previous criterion. Half street improvements to the frontage on Division Street will help vehicle and pedestrian movement on the minor arterial. See Condition 1.

5. The proposal satisfies the goals and policies of the city comprehensive plan which apply to the proposed use.

Finding: Complies (with conditions added). See specific Comprehensive Plan Elements above for findings and conditions.

B. Permits for conditional uses shall stipulate restrictions or conditions which may include, but are not limited to, a definite time limit to meet such conditions, provisions for a front, side or rear yard greater than the minimum dimensional standards of the zoning ordinance, suitable landscaping, off-street parking, and any other reasonable restriction, condition or safeguard that would uphold the spirit and intent of the zoning ordinance, and mitigate adverse effect upon the neighborhood properties by reason of the use, extension, construction or alteration allowed as set forth in the findings of the planning commission.

Finding: Complies. The applicant has not requested any restriction, condition or safeguard beyond what is normally required by the city to uphold the spirit and intent of the zoning ordinance and mitigate adverse effect upon neighborhood properties.

C. Any conditional use shall meet the dimensional standards of the zone in which it is to be located pursuant to subsection B of this section unless otherwise indicated, as well as the minimum conditions listed below.

Finding: Complies. The applicant has indicated that the dimensional standards of the zone will be met.

D. In the case of a use existing prior to the effective date of the ordinance codified in this title and classified in this title as a conditional use, any change of use expansion of lot area or expansion of structure shall conform with the requirements for conditional use.

Finding: Not Applicable. No prior existing use (including the helipad) has been demonstrated to have been in effect prior to the effective date of the ordinance codified in this title.

E. The planning commission may specifically permit, upon approval of a conditional use, further expansion to a specified maximum designated by the planning commission without the need to return for additional review. (Ord. 91-1025 §1, 1991; prior code §11-6-1)

Finding: Not Applicable. Further expansion to a specified maximum has not been requested. The applicant will be required under the concurrent Site Plan/Design Review to prepare a master plan for future permits that will make use of this provision.

17.56.020 Permit--Application.

Finding: Complies. The hospital and nursing home have properly filed the conditional use request and a public hearing to be held before the planning commission is scheduled for December 18, 2003.

17.56.030 Uses requiring conditional use permit.

Uses requiring conditional use permit are:

- A. Ambulance services in LO, C, M-1 and M-2 districts;*
- B. Boarding and lodging houses, bed and breakfast inns, and assisted living facilities for senior citizens;*
- C. Boat repair, for boats not exceeding twenty-five feet in length, in the C district;*
- D. Cemeteries, crematories, mausoleums, and columbariums;*
- E. Child care centers and nursery schools;*
- F. Churches;*
- G. Colleges and universities, excluding residential districts;*
- H. Correctional facilities, in M-1 and M-2 districts;*
- I. Emergency service facilities (police and fire), excluding correctional facilities;*
- J. Helipad in conjunction with a permitted use, excluding residential districts;*
- K. Hospitals, excluding residential districts;*
- L. Houseboats;*
- M. Hydroelectric generating facilities in M-1 and M-2 districts only;*
- N. Motor vehicle towing and temporary storage in M-1 or M-2 districts; recreational vehicle storage in C, M-1 or M-2 districts;*
- O. Museums;*
- P. Nursing homes;*
- Q. Parking lots not in conjunction with a primary use;*
- R. Private and public schools;*
- S. Private clubs and lodges, excluding residential districts;*
- T. Public utilities, including sub-stations and communication facilities (such as towers, transmitters, buildings, plants and other structures);*
- U. Radio and television transmitters or towers, excluding residential districts;*
- V. Sales and service establishments of manufactured homes and recreational vehicles in C, M-1 and M-2 districts;*
- W. Stadiums, arenas and auditoriums, excluding residential districts;*
- X. Welfare institutions and social service organizations, excluding residential districts. (Ord. 98-1004 §§1, 2, 1998; Ord. 91-1025 §2, 1991)*

Finding: Complies. Both the hospital and the nursing home are listed here, as conditional uses.

17.56.040 Criteria and standards for conditional uses.

In addition to the standards listed herein in Section 17.56.010, which are to be considered in the approval of all conditional uses and the standards of the zone in which the conditional use is located, the following additional standards shall be applicable:

A. Building Openings. The city may limit or prohibit building openings within fifty feet of residential property in a residential zone if the openings will cause glare, excessive noise or excessive traffic which would adversely affect adjacent residential property as set forth in the findings of the planning commission.

Finding: Not Applicable. The building openings would not be within 50 feet of residential property.

B. Additional Street Right-of-Way. The dedication of additional right-of-way may be required where the city plan indicates need for increased width and where the street is inadequate for its use; or where the nature of the proposed development warrants increased street width.

Finding: Applicable. Additional right-of-way is required on both Division Street and on Davis Road. The right-of-way areas needed are summarized under the Transportation Element, Transportation System Plan above and in Condition 1.

C. Churches and Other Religious Facilities.

Finding: Not Applicable.

D. Public Utility or Communication Facility.

Finding: Not Applicable.

E. Schools.

Finding: Not Applicable.

F. Helipad Landing Facility. In evaluating a conditional use application for a helipad, the planning commission shall consider such matters as the following:

1. Size of runways and landing areas;

Finding: Complies. The applicant indicates that the helipad is located on the east side of the hospital between parking lots. The helipad landing area is approximately 30 feet by 30 feet or 900 square feet. The grassy clear zone, defined by landing markers around the landing area is 68 feet by 70 feet, for a total of 4,760 square feet. The nearest point of the hospital building is another 30 feet from the grassy clear zone.

2. Approaches and obstructions within the runways and landing areas;

Finding: Complies. The air approaches to the landing area are unencumbered from the north and south and over the hospital building from the west. The east and northeast direction is the most restrictive as the forested portion of the site is approximately 180 to 440 feet away from the landing area.

3. Fencing and/or screening to provide visual and noise buffering and to deflect winds or blast due to aircraft operation;

Finding: Complies. Visual noise buffering is provided due to the helipad distance from nearby properties. The helipad is over 160 feet from the Mountain View Nursing Home, the

nearest neighbor. The landing area is approximately 280 feet from the nearest single family residence. Although there is no fencing or screening around the landing area it is buffered by a clear zone of grass outside of the concrete landing pad. The landing area also is buffered by the parking lots on the north and east side, an access drive on the south side, and by open landscaping toward the west to the existing building.

4. Fire protection measures and equipment;

Finding: Complies. The applicant has identified a fire hydrant located just to the southeast of the helipad that can be utilized for fire protection.

5. Night illumination adequate for operations, and its effects upon surrounding property;

Finding: Complies. The hospital building has mounted lighting, which provides indirect lighting to the helipad area. A nearby floodlight also is directed toward the helipad providing adequate illumination. The landing markers also help provide reflective illumination to the landing area.

6. Landing markers;

Finding: Complies. Eight landing markers surround the helicopter landing pad. Landing markers are shown on the Existing Helipad Plan (Exhibit 18).

7. Structural adequacy of runways, pads and other structures;

Finding: Complies. The helipad is a concrete pad and the applicant indicates that it has proven to be structurally adequate having handled numerous landings over the past 30 years.

8. Paving and ground cover materials in relation to noise and down wash.

Finding: Complies. The helipad consists of a concrete pad with a concrete walkway to the pad from the access drive. The ground cover consists of grass which, the applicant indicates, keeps down debris from flying in the air during landings.

G. Residential Care Facilities.

Finding: Not applicable.

H. Bed and Breakfast Inns

Finding: Not Applicable.

17.56.060 Revocation of conditional use permits.

Finding: Not Applicable. No previous conditional use permit is being revoked.

17.56.070 Periodic review of conditional use permits.

Finding: Not Applicable. Neither the hospital nor the nursing home has any identified items that would require periodic review of an issued conditional use permit.

Chapter 17.58 Nonconforming Uses, Structures And Lots

17.58.010 Generally.

Nonconforming uses, structures and lots are those uses, structures and lots that do not conform to the provisions of this title or the provisions of the zoning district in which the use, structure or lot is located. (Prior code §11-7-1)

Finding: Applies. There are a number of items, both existing and proposed, that appear not to be in conformance with the current city regulations. Most of these items are zoning code requirements (parking, connectivity, setbacks, etc.). This section of the code applies to non-conforming uses and non-conforming structures. The current and proposed uses on these sites do not qualify as non-conforming uses; they are conditional uses that have been reviewed for compliance under this permit. The criteria generally do not apply to this application; however some of the structures have non-conforming elements such as setbacks.

17.58.020 Continuation of use.

Finding: Not Applicable. Neither the hospital nor the nursing home is considered a non-conforming use.

17.58.030 Expansion of uses of structures.

Nonconforming uses and/or structures shall not be expanded or enlarged after adoption of this title, nor shall other structures be added. If no structural alterations are made, a nonconforming use of the building may be changed to another nonconforming use of the same or a more restricted classification. A nonconforming use shall not hereafter be changed to a less restrictive use. (Prior code §11-7-3)

Finding: Complies. Expansion or enlargement of non-conformance would mean increasing the degree of non-conformance. In no case, will this application increase (expand or enlarge) the non-conformance, as outlined throughout the findings for this CUP staff report and the accompanying SP/DR staff report.

17.58.040 Abandonment of use.

Finding: Not Applicable.

17.58.050 Reconstruction of damaged building.

Finding: Not Applicable.

17.58.060 Structural changes.

Finding: Not Applicable.

CONCLUSION AND DECISION:

Based on the analysis and findings as described above, staff concludes that the proposed Conditional Uses expansions for the two properties, can meet the requirements as described in the Oregon City Municipal Code for Conditional Use Permit by complying with the Conditions of Approval provided in this report.

Therefore, staff recommends approval of file CU03-03 with conditions, based upon the findings and exhibits contained in this staff report.

IV. CONDITIONS

RIGHTS OF WAY AND IMPROVEMENTS

1. The following right-of way dedications and improvements are required:

Location	ROW Dedication	Improvements or Action Required	Timeframe
Division Street (from south property corner to the first driveway south of Davis Road)	34-foot half street	Build half street improvements - including 12 foot travel lane, 6 foot bike lane, 8 foot parallel parking, 4 foot portion of sidewalk with tree well (includes curb) and 4 foot clear sidewalk (abutting property line) One foot utility easement abutting property line (over portion of sidewalk)	Final city inspection required prior to any temporary or final occupancy are approved, whichever comes first*
Davis Road (north of Medical Plaza 1)	12-foot wide section (per Condition 19 of SP 01-12, the approval of the Medical Plaza 1 facility)	None	Dedication to be complete prior to any temporary or final occupancy are approved, whichever comes first
Davis Road (north of parking structure)	None	Provide easement documentation to show public ingress and egress easement over existing sidewalk	Easement to be recorded and approved by city prior to any temporary or final occupancy are approved, whichever comes first

Location	ROW Dedication	Improvements or Action Required	Timeframe
Trillium Park Drive	None	Build new city standard concrete sidewalk from northwest corner at Swordfern Court north to north end of retaining wall, redo asphalt sidewalk on west side of Trillium Park Drive from north end of retaining wall north to concrete sidewalk	Final city inspection required prior to any temporary or final occupancy are approved, whichever comes first*

* As an alternative, the city may accept a surety in lieu of final construction sign-off.

2. The applicant proposes moving the existing northbound Tri-Met transit stop approximately 100 feet to the south on Division Street. The new location shall coincide with the new pedestrian walkway main entrance to the hospital. Improvements shall be made that meet Tri-Met requirements for shelter location, the design of the shelter, pedestrian and bus safety. The hospital shall also provide a cross-walk and sidewalk connection immediately north of the existing main traffic entrance to the hospital so that the southbound transit stop can be reached safely. The design of these improvements shall be approved by the city and Tri-Met. These items are to be added to the revised drawings, see Condition 4.

CIRCULATION

3. The applicant shall revise the circulation plan to result in two-way circulation in the area between the hospital and the nursing home (see concept in Exhibit 11). Revisions shall be made to the preliminary drawing set to reflect this circulation change. Emphasis shall be placed on the existing and new Division Street ingress and egress points and not the Trillium Park Drive access. The city will approve the circulation plan prior to issuance of any constructions permits. The applicant shall provide revised drawings per Condition 4.
4. The applicant shall provide full revised drawing sets (with new dates) that address the conditions herein, for approval by city staff, prior to any construction permit issuance for this project. The construction permit drawings shall reflect the requirements of these conditions.

MASTER PLAN

5. The hospital shall receive a comprehensive city master plan approval prior to any future city land use approval or site development permit issuance (other than those approved or conditioned for approval as part of this conditional use permit or the associated site plan and design review, SP03-19). The master plan shall be based on all hospital properties in the Division Street area and include; phased development projects, full area traffic analysis, infrastructure evaluation and plans, multi-model planning (on and off-site) , vehicle and bicycle parking evaluation, evaluation of non-conformance, proposed timing and other required items.

MISCELLANEOUS

6. All conditions associated with city reviewers and agencies shall be met.
7. Where the city agrees to the posting of a surety to assure performance in a form approved by the City Attorney, that surety may be from 110% to 150% (depending on type) of the city approved cost estimate for the work. The applicant would be responsible for preparing any estimates and getting city concurrence.

COVENANT EXECUTION

8. The property owner shall execute a covenant to meet the requirement of Zoning Code Section 17.50.150. Evidence shall be provided to the city of covenant execution prior to final (or temporary) occupancy of the new building, whichever comes first.

~~There may be another condition for the upgrade of the Molalla Avenue/213 turning movements. Mike says this would occur only with ODOT support. The ODOT letter should be in tomorrow (7/3/03). Mike and Kate need to discuss this.~~

EXHIBITS:

1. City of Oregon City Pre-Application Conference Summary, dated May 27, 2003 (On File)
2. County Assessor's Maps (including entire property)
3. Application Form (On File)
4. 300-Foot Mailing Labels (On File)
5. Applicant's Conditional Use Permit and Site Plan Review Narrative, dated October 16, 2003
6. Applicant's Design Review Package Drawings, dated October 16, 2003 (B1.00, B1.01, B1.02, B1.03, B1.04, B1.05, B1.06, B1.07, B1.08, B1.09, B1.10, B1.11, B1.12, EXISTING GRADING PLAN, PROPOSED GRADING PLAN, B1.13, B1.14, C1.11, C1.12, C1.08 C1.04, C1.05, C1.06, C1.07, C1.13, B1.15, B1.16, B1.17, B1.18, B1.19, B1.20, L1.0, L1.1, L1.2, E1.01, E1.02). (On File)
7. Exhibit 6 - Reduced Design Review Package Drawings
8. Geotechnical Engineering Study Excerpt: Subsurface Investigation and Report; Willamette Falls Hospital Expansion for Emergency, Imaging, and Pharmacy Services; Oregon City, Oregon prepared by Patrick B. Kelly, Consulting Engineer dated October 14, 2003. (On File)
9. Traffic Evaluation Excerpt for the proposed Willamette Falls Hospital Redevelopment – Oregon City, Oregon by Kittelson & Associates, Inc. dated August 6, 2003. (On File)
10. Hydraulic Calculations Excerpt (Stormwater Report) for Willamette Falls Hospital by Lee Engineering, Inc. dated October (24), 2003. (On File)
11. Willamette Falls Hospital and Mountain View Nursing Home Revised Circulation Exhibit, dated November 24, 2003
12. Public Works comments, dated November 21, 2003
13. City Building Department comments
14. City Engineering Comments, dated December 10, 2003, 2003
15. Mr. and Mrs Dresdow Letter, dated December 9, 2003
16. City Traffic Engineer comments, dated December 3, 2003
17. City Engineering Policy 00-01 (On File)
18. Existing Helipad Plan, Revised October 24, 2003.
19. Willamette Falls Hospital Expansion Existing Helipad Memorandum, dated December 11, 2003

~~(NOT CONSISTENT FONT SIZES ABOVE)~~

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BEFORE THE OREGON CITY PLANNING COMMISSION

**In the Matter of a Request for a)
Conditional Use Permit, Site Plan and)
Design Review, and Water Quality)
Resource Exemption filed by)
Willamette Falls Hospital and)
Mountain View Avamere Properties;)
Oregon City File Nos. CU 03-03, SP 03-)
19 and WR 03-15.)
)**

**FINDINGS OF FACT, CONCLUSIONS OF
LAW AND FINAL ORDER**

INTRODUCTION

This matter came before the Oregon City Planning Commission on December 18, 2003, for a public hearing of an application for a Conditional Use Permit (CU), Site Plan and Design Review (SP), and Water Resource exemption (WR). Willamette Falls Hospital and Mountain View Avamere Properties jointly applied for permits for the approval of an expansion of the hospital, hospital and nursing home site improvements, and off site improvements. The properties are located on Division Street. The proposed 29,300 square foot building expansion would provide a new emergency room, area for imaging and diagnostic operations and an undetermined use area. The hospital, in coordination with the Mountain View Nursing Home, will develop a new shared access drive and site improvements, including new and modified parking lot areas.

After reviewing the Staff report as well as the testimony, evidence and arguments put forth by the applicant and other participants at the public hearing, the Planning Commission finds that the criteria for a CU, SP, and WR exemption have been met or can be met with the conditions of approval and, therefore, **APPROVES** WR 03-15 and **APPROVES WITH CONDITIONS** CU 03-03 and SP 03-19.

FACTS

Site improvements are desired for the 10-acre Willamette Falls Hospital and Mountain View Avamere Nursing Home properties located on Division Street south of Davis Road. Willamette Falls Hospital proposes a 29,300 square foot expansion (25,250 square foot footprint) to their hospital. A portion of the site improvements (including building expansion) would take place after the demolition of the existing 15,700 square foot Mountain View Medical Offices.

Proposed improvements to the Willamette Falls Hospital property include the building addition, new shared entrance driveway and revised circulation (including ambulance access), new landscaping and new parking. The nursing home will share the new entrance driveway, and proposes improvements such as new landscaping and a new rear parking area. Nursing home truck deliveries are proposed to be rerouted to avoid the need to back out to Division Street after providing service. The new road will allow the trucks to exit via the hospital's northern Division Street entrance.

In addition to the expansion indicated above, the applicant proposes updated truck and vehicle circulation, parking facilities and drop-off areas for both property owners. The new circulation plan will require lot line adjustments. Lot consolidation will also be required as there are existing buildings that cross property lines. Lot line adjustments shall be reviewed under separate land use reviews.

The main access to the Mountain View Nursing Home will be relocated to the south. Site circulation will continue to be provided via on-site private driveways and streets. The subject site includes the following Overlay Districts; Water Quality Resource District (WQRD), Seismic Hazard Area and Unstable Slope/Landslide Area zone. The latter two districts are on the eastern edge of the site and would have no

bearing on the improvements being proposed. The property is also identified as having a shallow underground water table. The site, which is zoned Limited Office, is surrounded by low-density residential housing to the north, east and west and Limited Office to the south.

CRITERIA

Conditional Use

OCCMC 17.56 provides the grounds for reviewing CU applications. The applicant held a public meeting with the neighbors and Trillium Park Home Owners Association on December 16, 2003. At this meeting the Hospital and Association began a dialogue to try and address the neighbors concerns about hospital traffic using the rear access of the hospital that exits onto Trillium Park Drive. The Planning Commission determined that the new two-way access route through the facility to Division Street in conjunction with new signs and education of hospital employees will reduce the traffic using Trillium Park Drive and did not require the access to be closed at this time as requested by the Association. The Planning Commission added an additional Condition of Approval to the CU that requires the applicant to appear before the Planning Commission 6-months after final occupancy or provide a written agreement between the hospital and the Association indicating that the access issue to Trillium Park Drive had been resolved. The Planning Commission approved the CU application with the addition of the following condition of approval to the existing conditions presented at the hearing and contained in the staff report dated December 11, 2003.

Within six months of receiving final occupancy, the applicant shall enter into a letter of agreement with the Trillium Park Homeowners Association detailing the use and/or closure of the Trillium Park driveway access. If the applicant is unable to reach an agreement with the Trillium Park Homeowners Association within six months, the issue will be reviewed by the Planning Commission for a final decision on the use and/or closure of the Trillium Park driveway access. Should the Planning Commission review this issue, notice of any such hearing will be provided to the Trillium Park Homeowners Association as well as each individual Trillium Park subdivision homeowner.

Attachment A of this report reflects the final conditions of approval that the Planning Commission approved for the CU application at the hearing.

Site Plan and Design Review

The applicant requested amendments to 6 conditions of approval for the SP to provide clarification and flexibility, which staff agreed with and the Planning Commission approved at the December 18, 2003 hearing. The following condition of approval were amended at the Planning Commission Hearing:

Condition of Approval 8 was amended to require a 110% rather than 150% surety. The City requires a 110% surety for the site improvements the condition was referencing.

Conditions of Approval 9, 16, and 39 were amended to add or by providing a surety (see condition 24). to the end of each staff report proposed condition. Do to the multiple phases of development and the necessity to provide continued emergency service during the construction and site improvements, the condition was amended to allow the applicant to either finish the required improvement by occupancy or provide a surety in lieu of the improvement.

Condition of Approval 12 was amended to: Bicycle parking areas shall have the minimum lighting level required by city code. The reference to a specific, numeric lighting standard was removed to allow the applicant to provide the lighting standard in place at time of development.

Condition of Approval 49 was amended to: All on-site utility lines shall be placed underground. The reference to on-site utilities was added to clarify that the utilities along Division Street are not required to be placed underground.

Attachment B of this report reflects the final conditions of approval that the Planning Commission approved for the SP application at the hearing.

CONCLUSION

For all of the above reasons and based on the findings in the Staff Reports for Planning Files CU 03-03, SP 03-19, and WR 03-15, the Planning Commission concludes that the Water Resource Exemption is **APPROVED** and the Conditional Use Permit and Site Plan and Design Review are **APPROVED with CONDITIONS**, which are included as Attachments A and B.

ATTACHMENTS

- A. CU 03-03 Conditions of Approval
- B. SP 03-19 Conditions of Approval

ATTACHMENT A
CONDITIONS OF APPROVAL
PLANNING FILE: CU 03-03
Date: December 22, 2003

RIGHTS OF WAY AND IMPROVEMENTS

1. The following right-of way dedications and improvements are required:

Location	ROW Dedication	Improvements or Action Required	Timeframe
Division Street (from south property corner to the first driveway south of Davis Road)	34-foot half street	Build half street improvements - including 12 foot travel lane, 6 foot bike lane, 8 foot parallel parking, 4 foot portion of sidewalk with tree well (includes curb) and 4 foot clear sidewalk (abutting property line) One foot utility easement abutting property line (over portion of sidewalk)	Final city inspection required prior to any temporary or final occupancy are approved, whichever comes first*
Davis Road (north of Medical Plaza 1)	12-foot wide section (per Condition 19 of SP 01-12, the approval of the Medical Plaza 1 facility)	None	Dedication to be complete prior to any temporary or final occupancy are approved, whichever comes first
Davis Road (north of parking structure)	None	Provide easement documentation to show public ingress and egress easement over existing sidewalk	Easement to be recorded and approved by city prior to any temporary or final occupancy are approved, whichever comes first
Trillium Park Drive	None	Build new city standard concrete sidewalk from northwest corner at Swordfern Court north to north end of retaining wall, redo asphalt sidewalk on west side of Trillium Park Drive from north end of retaining wall north to concrete sidewalk	Final city inspection required prior to any temporary or final occupancy are approved, whichever comes first*

* As an alternative, the city may accept a surety in lieu of final construction sign-off.

2. The applicant proposes moving the existing northbound Tri-Met transit stop approximately 100 feet to the south on Division Street. The new location shall coincide with the new pedestrian walkway main entrance to the hospital. Improvements shall be made that meet Tri-Met requirements for shelter location, the design of the shelter, pedestrian and bus safety. The hospital shall also provide a cross-walk and sidewalk connection immediately north of the existing main traffic entrance to the hospital so that the southbound transit stop can be

reached safely. The design of these improvements shall be approved by the city and Tri-Met. These items are to be added to the revised drawings, see Condition 4.

CIRCULATION

3. The applicant shall revise the circulation plan to result in two-way circulation in the area between the hospital and the nursing home (see concept in Exhibit 11). Revisions shall be made to the preliminary drawing set to reflect this circulation change. Emphasis shall be placed on the existing and new Division Street ingress and egress points and not the Trillium Park Drive access. The city will approve the circulation plan prior to issuance of any constructions permits. The applicant shall provide revised drawings per Condition 4.

4. The applicant shall provide full revised drawing sets (with new dates) that address the conditions herein, for approval by city staff, prior to any construction permit issuance for this project. The construction permit drawings shall reflect the requirements of these conditions.

MASTER PLAN

5. The hospital shall receive a comprehensive city master plan approval prior to any future city land use approval or site development permit issuance (other than those approved or conditioned for approval as part of this conditional use permit or the associated site plan and design review, SP03-19). The master plan shall be based on all hospital properties in the Division Street area and include; phased development projects, full area traffic analysis, infrastructure evaluation and plans, multi-model planning (on and off-site) , vehicle and bicycle parking evaluation, evaluation of non-conformance, proposed timing and other required items.

MISCELLANEOUS

6. All conditions associated with city reviewers and agencies shall be met.

7. Where the city agrees to the posting of a surety to assure performance in a form approved by the City Attorney, that surety may be from 110% to 150% (depending on type) of the city approved cost estimate for the work. The applicant would be responsible for preparing any estimates and getting city concurrence.

COVENANT EXECUTION

8. The property owner shall execute a covenant to meet the requirement of Zoning Code Section 17.50.150. Evidence shall be provided to the city of covenant execution prior to final (or temporary) occupancy of the new building, whichever comes first.

ADDED CONDITION

9. Within six months of receiving final occupancy, the applicant shall enter into a letter of agreement with the Trillium Park Homeowners Association detailing the use and/or closure of the Trillium Park driveway access. If the applicant is unable to reach an agreement with the Trillium Park Homeowners Association within six months, the issue will be reviewed by the Planning Commission for a final decision on the use and/or closure of the Trillium Park driveway access. Should the Planning Commission review this issue, notice of any such hearing will be provided to the Trillium Park Homeowners Association as well as each individual Trillium Park subdivision homeowner.

ATTACHMENT B
CONDITIONS OF APPROVAL
December 22, 2003
SP 03-19

BUILDING HEIGHT AND SETBACKS

1. Sheet B1.18 indicates that the building being proposed would be 35 feet 10 inches (45 feet for mechanical equipment) in some places. This would exceed the maximum height and is not permitted under this application. The applicant shall revise the design to not exceed the 35 foot height limit.

2. Interior Side Yard Requirements:

Building	Existing Interior Side Yard Setback (10 feet required)	Proposed Project Interior Side Yard Setback	Suggested Methods for Conditional Compliance
Willamette Falls Hospital	10 feet	2 feet	Move proposed building location, Property line adjustment or Variance
Medical Plaza 1	0 feet	0 feet	Property Line Adjustment, Lot consolidation
Medical Plaza 2	0 feet	0 feet	Property Line Adjustment, Lot consolidation
Parking Structure	0 feet	0 feet	Property Line Adjustment, Lot consolidation
Mountain View Nursing Home	9 feet 2 inches	Same	Property line adjustment
Mountain View Medical Offices	8 inches	To be removed	N/A

Each of the existing buildings does not meet the minimum 10-foot interior side yard setback requirement. Compliance is required for all buildings prior to temporary or final occupancy, whichever comes first.

The proposed addition would also not meet the minimum 10 foot requirement. The hospital addition would be within 2 feet of the interior property line that is shared with the Mountain View Nursing Home property. A property line adjustment or a variance is needed to approve the building in the proposed location.

3. Rear Yard Requirement:

Building	Rear Yard Setback (10 feet required)	Proposed Rear Yard Setback	Methods for Conditional Compliance
Medical Plaza 1	0 feet	0 feet	Property Line Adjustment, Lot consolidation

Medical Plaza 1 does not meet the rear setback requirement. Property line adjustment or lot consolidation is required prior to temporary or final occupancy, whichever comes first.

4. Prior to issuing any building permits, consolidate the lots, or provide lot line adjustments through the city process so all existing and proposed buildings are in accordance with the required City zoning setback requirements. Such lot line adjustments or consolidations shall be completed and accepted by the county prior to issuance of temporary or permanent occupancy permits for any of the proposed buildings. As an alternative, the city may accept a surety in lieu of final construction sign-off.

CIRCULATION

5. The applicant shall revise the circulation plan to result in two-way circulation in the area between the hospital and the nursing home (see concept in Exhibit 11). Revisions shall be made to the preliminary drawing set to reflect this circulation change. Emphasis shall be placed on the existing and new Division Street ingress and egress points and not the Trillium Park Drive access. The city will approve the circulation plan prior to issuance of any constructions permits. The applicant shall provide revised drawings per Condition 51.
6. Vehicles for deliveries and garbage pickup to the nursing home shall enter at the southernmost entrance on Division Street. The applicant shall change the parking lot design to work with the concept design in Exhibit 11. Service vehicles will egress through the hospital property at the northernmost entrance on Division Street. Signage will be added (in city agreed locations) to prohibit trucks from exiting at Trillium Park Drive.
7. The proposed driveway at Trillium Park Drive would constitute a safety concerns due to the proposed realignment of this driveway and the resulting 5-way intersection. The applicant shall leave the driveway in its current location. The applicant shall build an ADA compliant pedestrian sidewalk refuge between the existing driveway and the corner of Trillium Park Drive and Swordfern Court. New sidewalk shall be provided per condition 40.

PARKING AND PARKING LANDSCAPING

The following lot numbers are used to identify parking areas that have conditions of approval associated with them:

Parking Lot Number	Parking Lot Description
1.	Proposed South of New Hospital Addition
2.	Modified North of New Hospital Addition
3.	Modified Southeast and East of Hospital
4.	Modified West of Nursing Home
5.	Expanding East of Nursing Home

8. Performance Bond for Site Improvements

Completion Time for Site Improvements. As the required site improvements are to be spread out over three phases, the site improvements must be built and available for use before the final inspection is completed by the building inspector. An extension of time, not to exceed one year may be granted by the building inspector providing that a performance bond, or its equivalent, is posted equaling one hundred ten percent of the cost of completion of the improvements as confirmed by the building inspector, provided the parking space is not required for immediate use. In the event the improvements are not completed within one year's time, the improvements shall be constructed under the direction of the city, utilizing the proceeds of the performance bond or its equivalent as necessary.

9. Lot 1 contains a parking space (the furthest west parking space) proposed with a 3.5-foot landscape area between it and the new sidewalk. The plans shall be revised to meet the minimum 5-foot landscape area requirement or provide a 30-inch low wall.

Three other proposed areas that would not meet the minimum five-foot width for landscaping are in Lot 1 between the parking lot and the ambulance turnaround, Lot 3 in the north landscape area (near the truck turnaround) and in Lot 5 on the western edge (just south of the nursing home). A minimum width of 5 feet of new landscaping will on the perimeter of the new parking areas provided in these areas or a 30-inch low wall (per Chapter 17.52.030.B) shall be provided. These landscape improvements will be provided prior to temporary or final occupancy, whichever comes first, or by providing a surety (see condition 24).

10. The applicant has designated an area for 20 carpool/vanpool parking spaces within the hospital parking area. The hospital site being reviewed as one site (and being required to consolidate lots) proposes 683 total parking spaces. Provide the minimum of 34 spaces (5%) that must be carpool/vanpool parking spaces.

The nursing home has no dedicated carpool/vanpool parking spaces. There would be 62 total parking spaces on the nursing home property. A minimum of 3 spaces (5%) shall be carpool/vanpool parking spaces. The nursing home would have 4 handicap parking spaces, none of which would be van accessible. At minimum, the ADA requires at least van accessible parking space for a parking lot of this size. The updated plan shall indicate one, city approved, van accessible parking space for the nursing home.

Identify employee parking areas for each property. Indicate this information on a full revised drawing set and the construction permit drawings.

11. All parking lot improvements shall be ready for use before the final (occupancy) inspection is completed by the building inspector or city approved assurance is paid.
12. An updated drawing set, that includes the following bike parking information, and any other required changes, shall be submitted and approved by staff prior to building permit approval. All bicycle parking spaces on both sites shall be indicated and meet the requirements of the Oregon City zoning code. Bicycle parking spaces shall meet the minimum required number of on-site spaces and be convenient, secure and accessible to main building entrances on-site buildings. Bicycle parking areas shall have the minimum lighting level required by code.
13. Bicycle parking:
 - a. The applicant proposes 6 new bike parking spaces located outside the new hospital expansion area, 8 new spaces at the proposed east entrance and 7 existing bike parking spaces on the north side of the hospital. The entire hospital facility will have 683 parking spaces requiring 34 bike parking spaces. The nursing home will have 62 parking spaces requiring 2 bike parking spaces. The updated drawing set shall have the minimum required bicycle parking spaces. These will be provided prior to temporary or final occupancy, whichever comes first.
 - b. No bicycle parking is indicated at the main entrance to the hospital. The hospital must include some city staff approved, bicycle parking spaces at the main entrance to the hospital. Similarly, the nursing home required 2 bike parking spaces shall be located near the main entrance to this facility. All required bicycle parking areas, shall be approved by staff, and shall meet the requirements of this code.
 - c. All bicycle parking shall offer security in the form of either a lockable enclosure in which the bicycle can be stored or a stationary rack to which the bicycle can be locked. All bicycle racks and lockers shall be securely anchored to the ground or to a structure. Bicycle racks shall be designed so that bicycles may be securely locked to them without undue inconvenience
14. The bicycle areas near the Division Street entrances shall have signs indicating "Public Bike Parking". In addition, the employee bicycle parking area shall be clearly marked with signage that reads "Employee Bike Parking." This signage will be provided prior to temporary or final occupancy, whichever comes first.
15. Lot 3 does not have the shade trees in the landscape area north (near the truck turnaround area) of this parking lot. Likewise, Lot 5 would not meet the minimum tree requirement on the western edge of this lot, just south of the nursing home. The updated drawing set shall

indicate the minimum number of trees in these areas. These landscape improvements will be provided prior to temporary or final occupancy, whichever comes first.

16. Where a minimum of 5 feet of shrubs divides parking areas, additional grass landscape area is allowed. Two areas that would not meet the maximum five foot spacing requirement under the applicant's proposed drawings are Lot 3 in the north landscape area (near the truck turnaround) and in Lot 5 on the western edge (just south of the nursing home). All shrubs shall be planted five feet apart or closer. The updated drawing set shall indicate the minimum number of shrubs in these areas. These landscape improvements will be provided prior to temporary or final occupancy, whichever comes first, or by providing a surety (see condition 24).

Three of the proposed areas would not meet the minimum five-foot width for landscaping both within and on the perimeter of parking areas. The three areas include; Lot 1, between the parking lot and the ambulance turnaround; Lot 3 in the north landscape area (near the truck turnaround) and; Lot 5 on the western edge (just south of the nursing home). A minimum width of 5 feet of new landscaping shall be provided in these areas or a 30-inch low wall (see Chapter 17.52.030.B) may be substituted. These improvements shall be indicated on the revised preliminary drawings and implemented prior to temporary or final occupancy, whichever comes first.

17. The applicant will receive staff approval for screening of the garbage areas and other ancillary facilities prior to issuance of temporary or final occupancy of the new building expansion, whichever comes first.
18. Lot 2 is proposed to be partially renovated due to Division Street dedications and improvements that are being completed as part of this project. The existing Lot 2 will maintain the (non-conforming) interior landscape areas but will have new landscaping along its Division Street frontage. Lot 3 will have new perimeter landscape areas added in the areas where the new driveway and parking lot connections will be built. See also Conditions 15 to 16.

LANDSCAPING

19. The driveway at Trillium Park Drive has a number of safety related concerns including alignment with the intersection at Swordfern Court and line of sight plantings. The driveway shall not be realigned as proposed. The Emerald Green Arborvitae, and the Flamingo Japanese Pieris and any other plants that grow above 3 feet in height must not be planted within the line of sight areas.
20. The applicant shall provide an in-ground irrigation system for all landscape areas. Prior to final (or temporary) occupancy of the new building, the applicant shall provide an irrigation plan that meets this requirement and is reviewed and approved by the city.

21. The applicant has proposed an assortment of trees for parking lot landscaping that do not meet the minimum 3-inch caliper size. All trees shall meet the minimum 3-inch caliper size.
22. The Honey Locust tree does not have a deep root system and will "heave paving" when placed close to walkways and asphalt areas. The applicant shall use another variety of tree with a deeper root system, rather than the Honey Locust. The Honey Locust also produces pods that make a mess. The applicant shall use another variety of tree with a deeper root system and not produce seed pods or fruit, rather than the Honey Locust.
23. None of the trees proposed is coniferous. The applicant shall intersperse some coniferous trees in the parking areas.
24. Landscape materials shall be installed according to accepted planting procedures, under American Nurseryman Standards. The site, soils, and proposed irrigation systems shall be appropriate for the healthy and long-term maintenance of the plants. The design standards from Chapter 13.12, Stormwater Management must be incorporated into the landscaping. Final (or temporary) certificates of occupancy shall not be issued unless the landscaping requirements have been met or other arrangements have been made and approved by the city, such as the posting of a surety.
25. In addition to the trees to be saved on the applicant's landscape plans (see Sheets L1.1 and L1.2), two trees within Lot 2 (immediately north of proposed addition and within the closest parking stall area) shall be saved, unless the project landscape architect indicates that these trees cannot be saved due to their proximity to construction. All existing trees to remain at the perimeter of and within construction areas, shall be properly protected by the applicant with fencing surrounding the root system of each tree and protected throughout the construction process or the city may place a stop work on the construction of this project.

WALKWAYS

26. The applicant has proposed new pedestrian walkways for some areas on the site. In addition to the proposed new areas, direct and convenient access shall be provided for the following:

Property, Location	Existing Status	Upgrade Required
Nursing Home, New South Entry Road	Substandard walkway	Provide walkway and lighting from Division Street to main entrance of nursing home
Hospital, New Entrance to Emergency Room	Existing improvements that will be demolished	Provide walkway and lighting for applicant proposed walkway, a direct access walkway and lighting
Hospital/Nursing Home, Pedestrian Connection from New ER entrance to Nursing	Existing improvements that will be demolished	Provide direct walkway and lighting

Property, Location	Existing Status	Upgrade Required
Home Front Entrance		
Hospital/Nursing Home, Pedestrian Connection between north side of nursing home and southeast side of hospital	Existing Concrete pedestrian walkway between properties	With redesign of two-way access road (see Exhibit 11) provide pedestrian crosswalks to line up with the existing concrete walkway
Hospital, Main Entrance	No existing pedestrian improvements	Provide new pedestrian gathering area (with L-shape seating), walkway and lighting at south side of parking area in front of main entrance (see Condition 29 for more detail). Create entry statement that eventually tapers down to no less than a five-foot wide walkway.
Hospital, Access from Southbound Transit Stop	Non-conforming parking lot area, No existing pedestrian improvements	Provide five-foot wide direct connection from south-bound transit stop to main entrance (include crosswalks, sidewalk, and painted walkway with road safety buttons) immediately north of existing landscape area within main entrance driveway.

Walkways would be raised from parking lot elevations except in the case of the existing non-conforming hospital main entrance walkway that will be painted similar to a crosswalk and separated from auto travel lanes using safety buttons. The safety buttons shall be raised above the driveway pavement elevation. All walkways, proposed or to be upgraded, shall meet city standards and have lighting that meets city minimum lighting requirements.

27. The new walkways shall be sidewalk height to differentiate it from the parking and roadway paving (see 17.62.070.D). These walkways shall meet the requirements of Chapter 31 of the UBC. Where walkways cross driving aisles, separate textural material (see 17.62.070.D), striping or other continuous and detectable markings shall be used to indicate the crosswalk and alert motorists. The crossing shall have contrasting, slip resistant materials and be a minimum of 36 inches wide.
28. ADA accessible walkways and ramps shall be added for new walkways.
29. The building addition is proposed with a front setback of 7 foot 2 inches. Institutional buildings must be set back no further than 5 feet from a transit street. The slightly larger

setback is allowed with enhancements that are required for the new main pedestrian entrance to the hospital.

A new main pedestrian entrance shall be located a few feet north of the new addition. The entry should encourage the proper use of this entry point. The plaza should encourage use as an employee/ pedestrian visitor gathering area.

The plan shall be revised to comply with the following requirements:

- a. The applicant shall keep the walkway areas (minimum 5 feet wide) separate from the plaza area as required by the ADA.
- b. The plaza area shall be located next to Division Street starting within 50 feet of the northwest corner of the new building addition.
- c. The applicant shall provide shaded areas within the plaza.
- d. The applicant shall provide at least two L-shape plaza area benches for group conversations or meetings.
- e. The applicant shall provide signage that help guide people from the sidewalk to the plaza.
- f. The applicant shall provide at least two benches along the proposed walkway under the existing trees to take advantage of shade.

Design shall be approved by city staff prior to construction permit issuance.

30. The parking lot is appropriately designed to minimize conflicts between pedestrians and vehicles. In locations where pedestrian and vehicle circulation must cross the applicant shall provide crosswalks. These crosswalks shall be of a different textural material than the driveways and parking areas. These areas must meet the requirements of Chapter 31 of the UBC.

MASTER PLAN

31. The hospital shall receive a comprehensive city master plan approval prior to any future city land use approval or site development permit issuance (other than those approved as part of the associated Condition Use Permit CU 03-03, this Site Plan and Design Review or required in Conditions 2, 3 and 4 of this approval). The master plan shall be based on all hospital properties in the Division Street area and include; phased development projects, full area traffic analysis, infrastructure evaluation and plans, multi-model planning (on and off-site) , vehicle and bicycle parking evaluation, evaluation of non-conformance, proposed timing and other required items.

BUILDING IMPROVEMENTS

32. The eastern side of the south elevation (121 feet) is non-compliant as it only has a few windows. The applicant must provide no areas exceeding 30 feet where there are less than two of the following required design elements:
 - a. Change in plane,

- b. Change in texture or masonry pattern,
- c. Windows, treillage with vines, or
- d. An equivalent element that subdivides the wall into human scale proportions.

Provide this change with the revised drawing set (see Condition 51).

33. A new building entrance in the southwest corner of the new addition is proposed to face in a south direction (at ninety degree angle to Division Street). This entrance is needed to face south to help emergency room accessibility from the new parking area to the south. The applicant will provide an access walkway and door that directly faces Division Street, a transit street. This door may be part of the proposed vestibule for the above-mentioned entry.
34. As proposed, the new structure would not meet the East façade minimum projection/recession depth and minimum distance for the projection/recession and the west façade for minimum distance for the projection. Also, a portion of the south façade would have over 100 feet of uninterrupted façade. The applicant must modify the design and get staff approval to fully meet these criteria prior to construction permit issuance. The tables below indicate the non-compliant items in italics.

Wall Plane Projections/Recessions

Facade	Length Proposed	Depth Proposed	Minimum Depth Required	Proposed Distance of Projection/Recession	Distance of Projection/Recession Required
East	87.25 feet	<i>0 feet</i>	<i>2.6 feet</i>	<i>0 feet</i>	<i>17.5 feet</i>
West	131 feet	4 foot	4 feet	<i>20 feet</i>	<i>26.2 feet</i>

100 Feet of Uninterrupted Façade Length

Facade	100 Foot of Uninterrupted Façade?	Distance of Uninterrupted Façade
North	No	n/a
South	Yes	<i>120.33 feet</i>
East	No	n/a
West	No	n/a

Provide the necessary changes with the revised drawing set (see Condition 51).

35. The stone columns are in compliance as they repeat on the front façade every 28 feet. The column distance exceeds the 30 foot maximum limit or is not part of the design on the north, south and east elevations. The applicant must comply with the requirement above on these sides of the new building addition. Provide the necessary changes with the revised drawing set (see Condition 51).

36. The proposed drawings include portions of three building facades that would not have recognizable tops; the south façade (easterly portion of the first floor), the easterly façade, and the north façade (second floor). These facades shall include recognizable top per Chapter 17.62.055.G.1. Provide the necessary changes with the revised drawing set (see Condition 51).

LIGHTING

37. The applicant has provided an incomplete lighting plan. The applicant's lighting plan indicates that lighting on the walkways would be as low as 0.1 foot-candle. The plan does not address the minimum (currently 3 foot-candles) required lighting for the pedestrian walkways. The updated plans will demonstrate the needed lighting both on pedestrian walkways and in parking and roadway areas (.5 foot-candles) while maintaining a .5 foot-candle maximum at the property lines. Provide a city approved, updated lighting plan in the full revised drawing set and construction permit drawings. See condition 51.
38. The lighting plan for the building shows lighting levels that do not meet the minimum of 4 foot-candles at either the main or the new proposed entrances. There is no indication what type of lighting is proposed and whether it will be shielded or at a pedestrian scale. The drawings do not meet minimum lighting levels at the new building access point. This area must be lit to a minimum of 4 foot-candles. Incorporate city approved lighting into the full revised drawing set and construction permit drawings. See condition 51.
39. Lighting shall be installed prior to final (or temporary) occupancy of the building, whichever comes first, or by providing a surety (see condition 24).

RIGHTS OF WAY AND IMPROVEMENTS

40. The following right-of way dedications and improvements are required:

Location	ROW Dedication	Improvements or Action Required	Timeframe
Division Street (from south property corner to the first driveway south of Davis Road)	34-foot half street	Build half street improvements - including 12 foot travel lane, 6 foot bike lane, 8 foot parallel parking, 4 foot portion of sidewalk with tree well (includes curb) and 4 foot clear sidewalk (abutting property line) One foot utility easement abutting property line (over portion of sidewalk)	Final city inspection required prior to any temporary or final occupancy are approved, whichever comes first*

Location	ROW Dedication	Improvements or Action Required	Timeframe
Davis Road (north of Medical Plaza 1)	12-foot wide section (per Condition 19 of SP 01-12, the approval of the Medical Plaza 1 facility)	None	Dedication to be complete prior to any temporary or final occupancy are approved, whichever comes first
Davis Road (north of parking structure)	None	Provide easement documentation to show public ingress and egress easement over existing sidewalk	Easement to be recorded and approved by city prior to any temporary or final occupancy are approved, whichever comes first
Trillium Park Drive	None	Build new city standard concrete sidewalk from northwest corner at Swordfern Court north to north end of retaining wall, redo asphalt sidewalk on west side of Trillium Park Drive from north end of retaining wall north to concrete sidewalk	Final city inspection required prior to any temporary or final occupancy are approved, whichever comes first*

* As an alternative, the city may accept a surety in lieu of final construction sign-off.

41. At the new southerly access point on Division Street, the applicant shall provide two exiting lanes (one left-turn and one right-turn lane) to reduce delay for exiting vehicles and to reduce the possibility that existing vehicles will block the entry into the emergency room parking lot.
42. The applicant proposes moving the existing northbound Tri-Met transit stop approximately 100 feet to the south on Division Street. The new location shall coincide with the new pedestrian walkway main entrance to the hospital (see Condition 27). Improvements shall be made that meet Tri-Met requirements for shelter location, the design of the shelter, pedestrian and bus safety. The hospital shall also provide a cross-walk and sidewalk connection immediately north of the existing main traffic entrance to the hospital so that the southbound transit stop can be reached safely. The design of these improvements shall be approved by the city and Tri-Met. These items are to be added to the revised drawings, see Condition 51.

ENGINEERING AND MISCELLANEOUS

43. The project shall be constructed in conformance with the Comments and Recommendations section of the approved signed and stamped geotechnical investigation report for the site prepared by Patrick B. Kelley Consulting Engineer.
44. The applicant shall sign a Non-Remonstrance Agreement for the purpose of making sanitary sewer, storm sewer, water or street improvements in the future that benefit the Property and assessing the cost to benefited properties pursuant to the City's capital improvement regulations in effect at the time of such improvement.
45. The applicant is responsible for this project's compliance with Engineering Policy 00-01 (attached). The policies pertain to any land use decision requiring the applicant to provide any public improvements.
46. Provide a financial guarantee to assure performance in a form approved by the City Attorney for the construction and encroachment permits in the amount of 110% of the Engineer's approved cost estimate or shall provide such alternate guarantee as may be approved by the City Attorney. Submit an engineer's cost estimate for all public improvements and specific private improvements. City staff shall concur with the engineer's cost estimate. The city will require final inspection approval and evidence of recorded easements before releasing of performance surety. Additional requirements for release of performance surety can be obtained through the City Engineering Department. Additional requirements for specific projects are described in the following conditions.
47. All conditions associated with city reviewers and agencies shall be met.
48. The project applicant proposes shared common facilities that will be owned by the two applicants and that would not be the responsibility of the City of Oregon City for maintenance and necessary normal replacement. These include but are not necessarily limited to private roadway, utilities, and landscape areas. The applicant shall prepare a maintenance and replacement agreement that shall be reviewed by the city for acceptability. This agreement will be in place prior to temporary or final occupancy of the new structure, whichever comes first.
49. All on-site utility lines shall be placed underground.
50. The applicant shall relocate the existing public utility easements located in the area of project improvements prior to the issuance of occupancy for the new building. The applicant shall provide the City with evidence of relocated and abandoned easements prior to final (or temporary) occupancy, whichever comes first, of the new building.
51. The applicant shall provide full revised drawing sets (with new dates) that address the conditions herein, for approval by city staff, prior to any construction permit issuance for this project. The construction permit drawings shall reflect the requirements of these conditions.

52. The property owner shall execute a covenant to meet the requirement of Zoning Code Section 17.50.150. Evidence shall be provided to the city of covenant execution prior to final (or temporary) occupancy of the new building, whichever comes first.
53. Where the city agrees to the posting of a surety to assure performance in a form approved by the City Attorney, that surety may be from 110% to 150% (depending on type) of the city approved cost estimate for the work. The applicant would be responsible for preparing any estimates and getting city concurrence.

CITY OF OREGON CITY

TYPE III – SITE PLAN AND DESIGN REVIEW

320 WARNER MILNE ROAD
Tel 657-0891

OREGON CITY, OREGON 97045
Fax 657-7892



NOTICE OF TYPE III LAND USE DECISION

STAFF REPORT and DECISION

December 11, 2003

FILE NO.: SP 03-19

APPLICATION TYPE: Type III

Complete: October 23, 2003
120-Day: - February 20, 2004

APPLICANT/OWNERS **Willamette Falls Hospital** **Mountain View Avamere Properties LLC**
1500 Division Street 25117 SW Parkway Avenue, #F
Oregon City, OR 97045 Wilsonville, OR 97070

**APPLICANT'S
REPRESENTATIVE:** Clark Kjos
Contact: Corey Morris
333 NW 5th Avenue
Portland, OR 97209
(503) 224-4848

REQUEST: Site Plan and Design Review for Hospital Building Expansion with
Hospital and Nursing Home Site Improvements

LOCATION: 22E 32AB Lots 1900, 1900E2, 1900E3, 2000, 2100; 22E 32AA Lot 400 and
22E 32AC Lots 101, 103, 200, 201, 300

REVIEWER: Chris Cocker, Consulting Senior Planner
Bill Kabeisman, Consulting City Attorney
Tony Konkol, Associate Planner, City of Oregon City
Bill Kopp, Consulting Senior Engineer

RECOMMENDATION: Approval with Conditions.

Type III decisions involve the greatest amount of discretion and evaluation of subjective approval standards, yet are not required to be heard by the city commission, except upon appeal. Applications evaluated through this process include conditional use permits, preliminary planned unit development plans, variances, code interpretations, similar use determinations and those rezonings upon annexation under Section 17.06.050 for which discretion is provided. In the event that any decision is not classified, it shall be treated as a Type III decision. The process for these land use decisions is controlled by ORS 197.763. Notice of the application and the planning commission or the historic review board hearing is published and mailed to the applicant, recognized neighborhood association and property owners within three hundred feet. Notice must be issued at least twenty days pre-hearing, and the staff report must be available at least seven days pre-hearing. At the evidentiary hearing held before the planning commission or the historic review board, all issues are addressed. The decision of the planning commission or historic review board is appealable to the city commission, on the record. The city commission decision on appeal from the historic review board or the planning commission is the city's final decision and is appealable to LUBA within twenty-one days of when it becomes final.

IF YOU HAVE ANY QUESTIONS ABOUT THIS DECISION, PLEASE CONTACT THE PLANNING DIVISION OFFICE AT (503) 657-0891.

DECISION CRITERIA: Chapter 17.22 LO (LIMITED OFFICE) DISTRICT- Standards Only
Chapter 17.50 ADMINISTRATION AND PROCEDURES
Chapter 17.52 OFF-STREET PARKING AND LOADING
Chapter 17.62 SITE PLAN AND DESIGN REVIEW

I. BACKGROUND

Willamette Falls Hospital and Mountain View Avamere Properties have jointly applied for site plan/design review permits for the expansion of the hospital, hospital site improvements and nursing home site improvements. The properties are located on Division Street. The proposed 30,000 square foot building expansion would provide a new emergency room, area for imaging and diagnostic operations and an undetermined use area. The hospital in coordination with the Mountain View Nursing Home will develop a new shared access drive and site improvements including new and modified parking lot areas. The project requires a demolition permit for the existing 15,700 square foot clinic building and associated parking and landscaping.

The site includes all contiguously owned Willamette Falls Hospital property south of Davis Road, approximately 7 acres in total, and the 3-acre nursing home property owned by Mountain View Avamere Properties. The hospital properties are being looked at as one site as the uses are intermixed and there are buildings and parking spaces that cross property lines. The project requires three land use reviews; a conditional use permit (CUP), a site plan and design review (SP/DR) and a lot line adjustment. Currently, the CUP and the SP/DR have been submitted for approval. The following is the staff report review for the SP/DR.

II. FACTS

- Location:** 1500 Division Street, 1400 Division Street. Tax Lot Identification: 22E32AC tax lots 101, 103, 200, 201, and 300. 22E 32AB tax lots 1900, 1900E2, 1900E3, 2000, 2100; and 22E 32AA tax lot 400.

Summary of Project: Site improvements are desired for the 10-acre Willamette Falls Hospital and Mountain View Avamere Nursing Home properties located on Division Street south of Davis Road. Willamette Falls Hospital proposes a 29,300 square foot expansion (25,250 square foot footprint) to their hospital. The following uses are anticipated:

Hospital Use	Existing Footage	Square	Proposed Footage	Square	Increase in Square Footage
Emergency Room	4,200		12,300		8,100
X-Ray Processing	11,000		17,000		6,000
Non-Specific Use	0		15,200		15,200
All					29,300

A portion of the site improvements (including building expansion) would take place after the demolition the existing 15,700 square foot Mountain View Medical Offices. The applicant indicates that the two neurologists that currently occupy the building will move to one of the existing Medical Office buildings on campus. The outpatient physical therapy use in this building will move elsewhere in town.

Proposed improvements to the Willamette Falls Hospital property include the building addition, new shared entrance driveway and revised circulation (including ambulance access), new landscaping and new parking. The nursing home will share the new entrance driveway, and proposes improvements such as new landscaping and a new rear parking area. Nursing home truck deliveries are proposed to be rerouted to avoid the need to back out to Division Street after providing service. The new road will allow the trucks to exit via the hospital's northern Division Street entrance.

In addition to the expansion indicated above, the applicant proposes updated truck and vehicle circulation, parking facilities and drop-off areas for both property owners. The new circulation plan will require lot line adjustments. Lot consolidation will also be required as there are existing buildings that cross property lines. Lot line adjustments shall be reviewed under separate land use reviews. Lot consolidation shall take place at the first opportunity allowed by the Clackamas County Assessor's Office.

The main access to the Mountain View Nursing Home will be relocated to the south. Site circulation will continue to be provided via on-site private driveways and streets.

2. **Overlay District Zoning.** The subject site includes the following Overlay Districts; Water Quality Resource District (WQRD), Seismic Hazard Area and Unstable Slope/Landslide Area zone. The latter two districts are on the eastern edge of the site and would have no bearing on the improvements being proposed. The determination that improvements will not affect the WQRD is being evaluated by city staff under separate review. The property is also identified as having a shallow underground water table. See attached city engineer's comments for more information.
3. **Surrounding Zoning and Land Uses.** The subject site and surrounding properties have the following zoning and uses:

Subject Site:	LO Limited Office
North:	R-10 Single Family Dwelling and County Properties (residential)
East:	R-10 Single Family Dwelling
South:	LO Limited Office
West:	R-6 Single Family Dwelling
4. **Public Comment.** Notice of this proposal was sent to property owners within three hundred feet of the subject property and various City departments and other agencies on November 14, 2003.

The subject site was posted on November 19, 2003 and the Planning Commission Hearing was advertised in the Clackamas Review on November 26, 2003 requesting comments.

A letter was received from Mr. and Mrs. Dresdow of 17426 Trillium Parkway indicating that the present design of traffic flow to the Hospital is occurring on residential streets that are not designed for this type of use and intensity. They request that the Planning Commission delay any deliberations or decision regarding this application until they and their neighbors have had the opportunity to meet with the Hospital planners. (Exhibit 15).

III. SITE PLAN/DESIGN REVIEW FINDINGS:

Chapter 17.22 – LO Limited Office District

17.22.010 Designated

The limited office zoning district is designed to accommodate a limited number of offices and medical buildings as well as high density housing. These areas can act as buffer between residential and non-residential areas.

Finding: Not a Designated Use. The Limited Office District (LO) allows limited numbers of medical buildings and hospitals are listed as a conditional use under Chapter 17.56 of the zoning code.

17.22.020 Permitted uses.

All limited uses, defined as:

A. Offices, studios or clinics of one or more of the following uses:

Accountant

Architect

Artist

Attorney

Author

Designer

Engineer

Governmental services and agencies (excluding trucking, auto and truck repairs, or service or equipment yards)

Insurance agent

Investment counselor

Landscape architect

Management consultant

Medical practitioners, including dentists and psychologists

Mortuaries

Real estate agent

Surveyor

Telephone answering service

Trade union offices

Urban planner

Writer

B. Pharmacies as an accessory use in a medical clinic, provided there is no separate exterior public entrance and no outdoor signing for the pharmacy;

- C. Restaurant and eating facilities as an accessory use in an office building, provided such use does not occupy more than thirty percent of the building's square footage;*
- D. Child care centers and day care and nursery schools;*
- E. Uses permitted in the RA-2 multi-family dwelling district. (Prior code §11-3-9(A))*

Finding: Not a Permitted Use. The hospital use is not an outright permitted use. Hospitals are listed as a conditional use.

17.22.030 Conditional uses.

In this zone, the following conditional uses are permitted when authorized by and in accordance with the standards contained in Chapter 17.56:

- A. Offices not included above, excluding retail stores;*
- B. Governmental services not included above;*
- C. Uses listed in Section 17.56.030 of this title. (Prior code §11-3-9(B))*

Finding: Is a Conditional Use. The hospital use is listed in Section 17.56.030. See separate conditional use approval CU-03-03.

17.22.040 Dimensional standards.

Dimensional standards in the LO district are:

A. Minimum lot area:

- 1. Single-family dwellings, six thousand square feet,*
- 2. Two-family dwellings, eight thousand square feet,*
- 3. Multi-family dwellings, four thousand square feet per unit for the first two units, two thousand square feet for each additional unit,*
- 4. Nonresidential uses, six thousand square feet;*

Finding: Complies. The subject properties associated with this request are each more than six thousand square feet.

B. Maximum building height, three stories, not to exceed thirty-five feet;

Finding: Complies. Sheet B1.18 indicates that the building being proposed would be 35 feet 10 inches (45 feet for mechanical equipment) in some places. This would exceed the maximum height and is not permitted under this application. The applicant shall revise the design to not exceed the 35 foot height limit. See Condition 1.

C. Minimum required setbacks:

- 1. Front yard, fifteen feet minimum depth,*

Finding: Complies (if condition added). The existing buildings (both ownerships) meet the minimum fifteen foot setback. The proposed addition would not meet this requirement as it is proposed at 7 feet 2 inches back from the (newly dedicated) front property line. As the hospital is an institutional building the hospital shall be closer to the street than 15 feet. See Section 17.62.055.D for compliance discussion and Condition 29.

2. Interior side yard, ten feet minimum width,

Finding: Complies (if condition added). Existing hospital buildings and the nursing home building do not, or as proposed would not, meet the minimum interior side yard setback requirements. Existing and proposed interior side yard setbacks for each building are as follows:

Building	Existing Interior Side Yard Setback (10 foot minimum required)	Proposed Project Interior Side Yard Setback	Suggested Method for Conditional Compliance
Willamette Falls Hospital	10 feet	2 feet	Move proposed building location, Property line adjustment or Variance
Medical Plaza 1	0 feet	0 feet	Property Line Adjustment, Lot consolidation
Medical Plaza 2	0 feet	0 feet	Property Line Adjustment, Lot consolidation
Parking Structure	0 feet	0 feet	Property Line Adjustment, Lot consolidation
Mountain View Nursing Home	9 feet 2 inches	Same	Property line adjustment
Mountain View Medical Offices	8 inches	To be removed	N/A

The proposed addition would also not meet the minimum 10 foot requirement. The hospital addition will be within 2 feet of the interior property line that is shared with the Mountain View Nursing Home property. Property line adjustment or a variance is needed to approve the building in the proposed location. Condition 4 addresses each of the compliance requirements, as identified in the table above.

3. Corner side yard, fifteen feet minimum width,

Finding: Complies. The corner lot side yards on Davis Road at Division Street and Davis Road at Trillium Park Drive have minimum side yard setbacks of 21'7" and 84 feet, respectively.

4. Rear yard, ten feet minimum depth. (Prior code §11-3-9(C))

Finding: Complies (if condition added). The existing hospital buildings do not meet the minimum interior side yard setback requirements, as follows:

Building	Rear Yard Setback (10-foot minimum)	Proposed Rear Yard Setback	Conditional Compliance to Be Obtained for
Willamette Falls Hospital	217 feet 8 inches	Same	N/A
Medical Plaza 1	0 feet	0 feet	Lot consolidation
Medical Plaza 2	57 feet 2 inches	Same	N/A
Parking Structure	39 feet	Same	N/A
Mountain View Nursing Home	9 feet 2 inches	Same	Property line adjustment
Mountain View Medical Offices	0 feet	To be removed	N/A

Medical Plaza 1 does not meet the rear setback requirement. Property line adjustment or lot consolidation is required. See Condition 3.

Chapter 17.50 ADMINISTRATION AND PROCEDURES

17.50.050 Pre-application conference and neighborhood meeting.

Comment: The applicant attended a pre-application conference with city staff on May 27, 2003. The Pre-Application Conference Summary is attached as Exhibit 1. There is no city recognized neighborhood association for this area. The applicant has indicated that they will hold a neighborhood meeting on December 16, 2003. The neighborhood meeting is highly recommended but is an optional meeting.

17.50.080 Complete application--Required information.

Comment: The applicant provided the required items and was deemed complete on October 23, 2003. The 120-day clock started on this date and runs through February 20, 2004.

17.50.090 Public Notices.

All public notices issued by the city with regard to a land use matter, announcing applications or public hearings of quasi-judicial or legislative actions, shall comply with the requirements of this section.

Comment: Appropriate notification took place on November 14, 2003 for the mailing and November 19, 2003 for the newspaper notification and posting of the property.

Chapter 17.52 – Off-Street Parking and Loading**17.52.010 Number of spaces required.**

At any time of erection of a new structure or at the time of enlargement or change in use of an existing structure within any district in the city, off-street parking spaces shall be provided in accordance with this section. If parking space has been provided in connection with an existing use, the parking space shall not be eliminated if elimination would result in less space than is required by this section. Where square feet are specified, the area measured shall be the gross floor area primary to the functioning of the particular use of the property, but shall exclude space devoted to off-street parking or loading. Where employees are specified, persons counted shall be those working on the premises, including proprietors, during the largest shift at peak season. Where calculation in accordance with the following list results in a fractional space, any fraction less than one-half shall be disregarded and any fraction of one-half or more shall require one space.

Note: The City's Transportation System Plan, an adopted Comprehensive Plan document, requires the following parking space ratios.

Transportation System Plan Parking Standards- Table 5-14. City of Oregon City Parking Ratios
Parking Space Requirement Table

Land Use	Minimum	Maximum	Existing (Status)	Code Requires	Proposed
Willamette Falls Hospital					
Hospital Category (143 beds current with 150 as proposed)	N/A	1 space/1.5 beds	407 spaces (192 are legal and non-conforming)	Minimum = N/A Maximum for existing = 215 spaces, for proposed = 225 spaces	397 spaces
Medical Plaza 1					
Medical Clinic Category (62,932 square feet)	N/A	3.33/1,000 Sq. Ft.	48	Minimum = N/A Maximum = 210 spaces	48
Medical Plaza 2 and Parking Structure					
Medical Clinic Category (56,790 square feet)	N/A	3.33/1,000 Sq. Ft.	231 spaces ¹ (42 are legal and non-conforming)	Minimum = N/A Maximum = 189 spaces	231
Three Hosnital			686 spaces	Minimum –	676 spaces

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Land Use	Minimum	Maximum	Existing (Status)	Code Requires	Proposed
Buildings and Parking Structure Total			(62 are legal and non- conforming)	N/A Maximum = 624 spaces	
Mountain View Nursing Home					
Nursing Home Category (120 beds)		1 space/5 beds	66 spaces ² (44 are legal and non- conforming)	Minimum = N/A Maximum = 24 spaces	62 spaces
Mountain View Medical Offices (16,000 square feet) (to be removed)	N/A	3.33/1,000 Sq. Ft.	47 spaces	Minimum = N/A Maximum = 53 spaces	0 spaces (to be removed)

¹Medical Office 2 parking spaces include the parking structure

²19 space are located on hospital property but are in an easement and used by the nursing home

Finding: Complies. The hospital building is physically attached to both the Medical Plaza buildings. Also, the parking structure is crossing one of the lot lines. For these reasons, the applicant will be required to consolidate the property lines and create a larger lot. Therefore the parking and uses will be looked at together. Currently, the hospital buildings have a total of 686 parking spaces, 62 over the maximum. The 62 extra spaces are legal and non-conforming to regulations. The hospital site improvements will lower the number of non-conforming parking spaces to 52 spaces or 676 total spaces. Similarly, the nursing home currently has 66 spaces, 42 over the maximum allowed. The nursing home site improvements will bring the number of non-conforming spaces down to 38 as there are 62 spaces proposed.

17.52.020 Administrative Provisions.

- A. *The provision and maintenance of off-street parking and loading spaces are continuing obligations of the property owner. No building or other permit shall be issued until plans are presented that show property that is and will remain available for exclusive use as off-street parking and loading space. The subsequent use of property for which the building permit is issued shall be conditional upon the unqualified continuance and availability of the amount of parking and loading space required by this title. Use of property in violation is a violation of this title. Should the owner or occupant of a lot or building change the use to which the lot or building is put, thereby increasing off-street parking or loading requirements, it is unlawful and a violation of this title to begin or maintain such altered use until the required increase of off-street parking or loading is provided.*
- B. *Requirements for types of buildings and uses not specifically listed herein shall be determined by the planning commission, based upon the requirements of comparable uses listed.*

- C. *In the event several uses occupy a single structure or parcel of land, the total requirements for off-street parking shall be the sum of the requirements of the several uses computed separately. Shopping centers shall be considered a retail use.*

Finding: Complies. The calculation provided above in 17.52.010 is based on the consolidation or lot line adjustment (see Condition 3) of all the hospital properties and the total requirement for each individual use. The highlighted lower portion of the table summarizes the proposed project once the consolidation of existing lots takes place.

- D. *Owners of two or more uses, structures, or parcels of land, may agree to utilize jointly the same parking and loading spaces when the hours of operation do not overlap, provided that satisfactory documentation is presented to the planning department.*

Finding: N/A. The applicants shall not share the same parking or loading spaces.

- E. *Off-street parking for dwellings shall be located on the same lot with the dwelling. Other required parking spaces shall be located not farther than five hundred feet from the building or use they are required to serve dwelling. Other required parking spaces shall be located not farther than five hundred feet from the building or use they are required to serve, measured in a straight line from the building.*

Finding: Complies. All off-street parking shall be located within 500 feet of the building that are being used.

- F. *Required parking spaces shall be available for the parking of operable passenger automobiles of residents, customers, patrons and employees only, and shall not be used for storage of vehicles or materials or for the parking of trucks used in conducting the business or use.*

Finding: Complies. All off-street parking is in use for operable vehicles.

- G. *Any use may develop more parking than required, provided other requirements such as landscaping are met. However, any proposal to develop more than twice as much parking as required must be referred to the planning commission, which may approve or deny the number of spaces. Energy conservation shall be the principal criteria for such review.*

Finding: Complies. The hospital and the nursing home both more than double the maximum amount of parking under their existing condition. The proposed project improvements will bring both closer to conformance (see Section 17.52.010 above)

- H. *Completion Time for Parking Lots. Required parking spaces shall be improved and available for use before the final inspection is completed by the building inspector. An extension of time, not to exceed one year may be granted by the building inspector providing that a performance bond, or its equivalent, is posted equaling one hundred fifty percent of the cost of completion of the improvements as estimated by the building inspector, provided the parking space is not required for immediate use. In the event the improvements are not completed within one year's time, the improvements shall be constructed under the direction of the city, utilizing the proceeds of the performance bond or its equivalent as necessary.*

Finding: Complies. All parking lot improvements shall be ready for use before the final inspection is completed by the building inspector. See Condition 8.

- I. *Lesser Requirements Allowed by Planning Commission.* The planning commission may permit lesser requirements than those specified in the parking and loading requirements above where it can be shown that, owing to special and unusual circumstances related to a specific piece of property, the enforcement of the above off-street parking and loading restrictions would cause an undue or unnecessary hardship.

Section 17.60.030 shall be the grounds for establishing lesser requirements. (Prior code §11-5-2)

Finding: Complies. All requirements are anticipated to be met.

Section 17.52.030 – Design Review

The following lot numbers are used to identify parking areas that will have site improvements associated with them:

Parking Lot Number	Parking Lot Description
1.	Proposed South of New Hospital Addition
2.	Modified North of New Hospital Addition
3.	Modified Southeast and East of Hospital
4.	Modified West of Nursing Home
5.	Expanding East of Nursing Home

- A. *Development of parking lots shall require site plan review.*

Finding: Complies. This review is for site plan and design review approval.

- B. *Screening.* Public lots and other areas used for the parking, service, sale or storage of vehicles shall be separated from public right-of-ways by a landscaped area at least five feet in width, or by a low wall approximately thirty inches in height, excepting only necessary driveway access. There shall be similar separation from all other necessary driveway access. There shall be similar separation from all other abutting property lines, excepting in those locations where access or parking is shared between adjoining landowners. Where parking areas abut an R district, there shall be a wall, sight-obscuring fence, or sight-obscuring landscaping not less than six feet in height.

Finding: Complies (if condition added). Lot 1 contains a parking space on the west edge with a proposed 3.5-foot landscape area (the furthest west parking space close to the proposed sidewalk on Division Street). The plans shall be revised to meet the minimum 5-foot landscape area requirement or provide the 30-inch low wall. See Condition 9.

- C. *Access.* Ingress and egress locations on public thoroughfares shall be located in the interests of public traffic safety. Groups of more than four parking spaces shall be so located and served by driveways that their use will require no backing movements or other maneuvering within a street

right-of-way other than an alley. No driveway with a slope of greater than fifteen percent shall be permitted without approval of the city engineer.

Finding: Complies (if conditions added). Currently there are eight public right-of-way access points into the subject properties. Five are located on Division Street, two are on Davis Road and one is on Trillium Park Drive. Two of the Division Street access points shall be removed. The southernmost access driveway will remain the main access for the Mountain View Nursing Home and will become a key route for access to the hospital's easterly parking areas. The City Traffic Engineer requires two exit lanes on this driveway (one left-turn and one right-turn lane) to reduce delay for exiting vehicles and to reduce the possibility that existing vehicles will block the entry into the emergency room parking lot. See Condition 41.

The access point at Trillium Park Drive will not become the truck access for the nursing home as proposed. The proposed realignment of this access drive and the location of the Trillium Park Drive and Swordfern Court intersection would pose some safety concerns. See Conditions 7 and 40.

There are no areas of four or less parking spaces that require backing into public rights-of-way. There are no driveways with proposed grades of over fifteen percent.

D. Surfacing. Required off-street parking spaces and access aisles shall have paved surfaces adequately maintained.

Finding: Complies. The parking lot areas will all be paved and shall be maintained by the property owners, as required.

E. Drainage. Drainage shall be designed in accordance with the requirements of Chapter 13.12 and the city Public Works Stormwater and Grading Design Standards.

Finding: Complies. (if conditions added). The proposed site improvements would be within the Newell Creek Drainage Basin, as designated in the City's Drainage Master Plan. The City Engineer has reviewed the stormwater and grading design and has added some conditions of approval. See Exhibit 14 and associated conditions.

F. Lighting. Artificial lighting which may be provided shall not create or reflect a substantial glare in a residential zone or on adjacent dwellings.

Finding: Complies. The proposed lighting would be less than 1 foot-candle at the proposed project improvement locations along the property lines. Due to right-of-way separation and the distance away from the nearest dwellings, there would be no glare from the proposed project. The project does not directly abut a residential zone. The closest residential areas are on the west side of Division Street (homes are a minimum of 60 feet from the property line) and on the east side of Trillium Park Drive (homes are a minimum of 50 feet from the property line).

G. Dimensional Requirements. Parking spaces shall be a minimum of nine feet by twenty feet; parking at right angles to access aisles shall require twenty-four feet backing distance in aisle

width. Requirements for parking developed at varying angles are according to the table included in this section. With the approval of the site plan review, up to twenty-five percent of the required parking may be reduced in size to eight feet in width by sixteen feet in length and marked for the use of compact cars only. Any parking in excess of the number of spaces required may also be eight feet by sixteen feet, if marked for the use of compact cars only. In no case may aisle widths be reduced for compact cars parking. An overhang of one and one-half feet from face of curb may be included in the length of a parking space. A parking space shall not be less than seven feet in height when within a building or structure, and shall have access by an all-weather surface to a street or alley.

PARKING STANDARD

PARKING ANGLE SPACE DIMENSIONS

A Parking Angle	B Stall Width	C Stall to Curb	D Aisle Width	E Curb Length	F Overhang
90 degrees	9	20.0	24	9	2.0
	9.5	20.0	24	9.5	
	10	20.0	24	10	
45 degrees	9	19.8	13	12.7	1.4
	9.5	20.1	13	13.4	
	10	20.5	13	14.1	

Finding: Complies. The following outlines the project parking space status, both existing and proposed. Many of the existing parking spaces do not meet the current nine foot by 20 foot minimum (at 90 degrees) for standard size parking stalls. These stalls do meet the minimum requirements for compact stalls.

Building	Existing Standard	Existing Compact	Existing Total	Standard Required w/ Max. Parking	Compact Allowed Max. Parking	Proposed Standard	Proposed Compact	Proposed Total
Willamette Falls Hospital	131	276	407	(215X75%) = 161	(215X25%) = 54	172 (6 are HC)	232 (4 are HC)	404
Medical Plaza 1	12	36 (9 are HC)	48 (9 are HC)	(210X75%) = 157	(210X25%) = 53	12	36 (9 are HC)	48 (9 are HC)
Medical Plaza 2/w Parking Structure	174 (prior approval indicate)	57 (prior approval indicates not over 25%)	231 (12 are HC)	(189X75%) = 142	(189X25%) = 47	174 (prior approval indicate)	57 (prior approval indicates not over 25%)	231 (12 are HC)

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Building	Existing Standard	Existing Compact	Existing Total	Standard Required w/ Max. Parking	Compact Allowed Max. Parking	Proposed Standard	Proposed Compact	Proposed Total
	50 (over 75%)					50 (over 75%)	25 (over 25%)	
Mountain View Medical Offices	10	37 (1 is HC)	47	(53X75%) = 40	(53X25%) = 13			0 (to be removed)
Total Hospital Properties	327	406	733	(667X75%) = 500	(667X25%) = 167	358*	325	683
Mountain View Nursing Home	19	47 (4 are HC)	66	(24X75%) = 18	(24X25%) = 6	33 (2 are HC)	29 (2 are HC)	62

* New Hospital maximum allowed under the current zoning is 614 parking spaces as the Mountain View Medical Buildings are to be removed.

Finding: Complies. The hospital has more compact parking stalls than the current code allows. The required "Standard required with maximum parking" column in the above table indicates that with maximum zone permitted parking on the hospital site, 500 spaces should be standard size. There are in fact, only 327 existing standard size spaces. This is deemed to be legal and non-conforming with the current requirements. With the nursing home maximum zone permitted parking, a minimum of 18 spaces should be standard size. There are 19 existing standard size spaces. As only standard size spaces are being added to both properties, the new parking stalls on the hospital site would bring the standard/compact ratio closer to conformance with the current standard for the hospital site. The nursing home property would continue to meet the requirement for standard size stalls.

Section 17.52.040 – Carpool and Vanpool Parking

- A. *New retail, office commercial and industrial developments with twenty-five or more parking spaces, and new hospitals, government offices, nursing and retirement homes, schools and transit park-and-ride facilities with twenty-five or more parking spaces, shall identify the spaces available for employee, student and commuter parking and designate at least five percent, but not fewer than two, of those spaces for exclusive carpool and vanpool parking. Carpool and vanpool parking spaces shall be located closer to the main employee, student or commuter entrance than all other employee, student or commuter parking spaces with the exception of handicapped parking spaces. The carpool/vanpool spaces shall be clearly marked "Reserved - Carpool/Vanpool Only."*
- B. *As used in this section, "carpool" means a group of two or more commuters, including the driver, who share the ride to and from work, school and other destinations. "Vanpool" means a group of five or more commuters, including the driver, who share the ride to and from work, school or other destination on a regularly scheduled basis.*

Finding: Complies (if condition added). The applicant has not defined the parking areas for employees on either site.

Hospital Property

The hospital has designated an area for 20 carpool/vanpool parking spaces. The hospital site being reviewed as one site (and being required to consolidate lots) proposes 683 total parking spaces. The 5 percent requirement results in a minimum of 34 spaces that must be carpool/vanpool parking spaces.

Nursing Home Property

The nursing home has no dedicated carpool/vanpool parking spaces. There are 62 total parking spaces proposed and the 5 percent requirement results in a minimum of 3 spaces that must be carpool/vanpool parking spaces.

Condition 10 addresses this requirement.

Section 17.52.050 – Bicycle Parking

To encourage bicycle transportation to help reduce principal reliance on the automobile, and to ensure bicycle safety and security, bicycle parking shall be provided in conjunction with all of the following uses:

- A. *Multifamily housing of four or more units;*
- B. *Retail and office development;*
- C. *Industrial development;*
- D. *Institutional development;*
- E. *Transit transfer stations and park-and-ride lots;*
- F. *Automobile parking lots and structures.*

Finding: Bike parking is required for institutional development including hospitals, medical clinics and nursing homes.

17.52.060 Bicycle parking standards.

A. *Unless exempted pursuant to subsection J of this section, bicycle parking spaces shall be provided for the uses described in Section 17.52.050, in the amounts specified in Table A, found at the end of this chapter; provided, however, that all nonexempt uses shall have a minimum of two parking spaces. These requirements shall apply to new development; to any change in use of existing development subject to this section; and to any expansion of any existing use subject to this section where the expansion equals or exceeds fifty percent of the existing gross floor area or three thousand square feet of gross floor area. Calculation of the number of bicycle parking spaces required shall be determined in the manner established in Section 17.52.010 for determining automobile parking space requirements.*

1. *Bicycle parking shall be located on-site, in one or more convenient, secure and accessible outdoor and indoor locations close to a main building entrance.*

Finding: Complies (if condition added). Public bicycle parking areas are proposed in locations that will convenient, secure and accessible to main building entrances. Bicycle parking spaces needed to meet the minimum required number of on-site spaces shall be convenient, secure and accessible to main building entrances on-site buildings. See Condition 13.

2. *Bicycle parking areas shall be clearly marked. Outdoor bicycle parking areas shall be visible from on-site buildings or the street. Indoor bicycle parking areas shall not require stairs to access the space, except that bicycle parking may be allowed on upper stories within multi-story residential structures.*

Finding: Complies (if condition added). Public bicycle parking areas are proposed in locations that will either be visible from the on-site buildings or from the street. Bike parking signs shall be clearly marked. See Condition 14.

3. *The locations of bicycle parking spaces shall be indicated in an off-street parking and loading plan which shall be submitted for review by the review authority during site plan and design review or as otherwise required by city regulations.*

Finding: Complies (if conditions added). The applicant has submitted a plan that indicates the location of some of the bicycle parking spaces. An updated drawing set that includes all the bike parking information and other required changes shall be approved by staff prior to building permit approval. See Conditions 12,13 and 51.

4. *For any expansion of an existing use subject to this section, the number of required bicycle parking spaces shall be determined based on the entire use rather than the incremental increase in floor space. For any change in use, the number of required*

bicycle parking spaces shall be calculated based upon requirements for the new use as shown in Table A. For any change in use or expansion of an existing use subject to this section, the review authority may reduce or waive requirements of this section to the extent the review authority determines that compliance with those requirements is not practicable due to existing development patterns or that application of these standards is not reasonably related to the scale and intensity of the development.

Finding: Complies (if condition added). Bicycle requirements listed under Table A are addressed in Section 17.52.080 below and by Condition 13.

5. *For any use not specifically mentioned in Table A, the bicycle parking requirements shall be the same as the use which, as determined by the principal planner, is most similar to the use not specifically mentioned.*

Finding: Complies (if condition added). Bicycle requirements listed under Table A are addressed in Section 17.52.080 below and by Condition 13.

- B. *All bicycle parking areas shall be located to avoid conflicts with pedestrian and motor vehicle movement.*

1. *Bicycle parking areas shall be separated from motor vehicle parking and maneuvering areas and from arterial streets by a barrier or a minimum of five feet. Areas set aside for required bicycle parking shall be clearly marked and reserved for bicycle parking only. If a bicycle parking area is not plainly visible from the street or main building entrance, then a sign must be posted indicating the location of the bicycle parking area.*

Finding: Complies (if conditions added). The new bicycle parking areas (public and employee) shall be over 5 feet from the public and private street system. Additional required bicycle parking areas shall be over 5 feet from the public and private street system (see Condition 12 and 13).

2. *Bicycle parking areas shall not obstruct pedestrian walkways; provided, however, that the review authority may allow bicycle parking in the public sidewalk where this does not conflict with pedestrian accessibility.*

Finding: Complies (if condition added). The two indicated new bicycle racks will not obstruct the pedestrian walkways. Additional bicycle parking areas (both existing and proposed) shall not obstruct pedestrian walkways (see Condition 13).

- C. *Outdoor bicycle areas shall be connected to main building entrances by pedestrian accessible walks. Outdoor bicycle parking areas also shall have direct access to public right-of-way and to existing and proposed pedestrian/bicycle accessways and pedestrian walkways.*

Finding: Complies (if condition added). The two indicated new bicycle racks will be connected to pedestrian walkways. It shall be demonstrated that additional bicycle parking areas (both existing and proposed) connect to the pedestrian walkways (see Condition 13).

- D. *If sites have more than one building, bicycle parking shall be distributed as appropriate to serve all buildings. If a building has two or more main building entrances, the review authority may require bicycle parking to be distributed to serve all main building entrances as it deems appropriate.*

Finding: Complies (if condition added). The hospital has proposed new bicycle parking at the entrance to the proposed addition to the hospital. No bicycle parking is indicated at the main entrance to the hospital. The hospital must include some city approved bicycle parking spaces at the main entrance to the hospital. Similarly, the nursing home is required to have 2 bike parking spaces (see 17.052.080 below) to be located near the main entrance to this facility. See Condition 13.

- E. *Bicycle parking facilities shall offer security in the form of either a lockable enclosure in which the bicycle can be stored or a stationary rack to which the bicycle can be locked. All bicycle racks and lockers shall be securely anchored to the ground or to a structure. Bicycle racks shall be designed so that bicycles may be securely locked to them without undue inconvenience.*

Finding: Complies (if condition added). The project shall provide stationary racks that are attached to the concrete ground surface or to a structure. See Condition 13.

- F. *Required bicycle parking shall have a minimum lighting level of three foot-candles so that the system can be securely used at night by employees, residents and customers.*

Finding: Complies (if condition added). The applicant's lighting plan does not indicate that the new bike parking areas will be lit to the minimum 3 foot-candle level. Bicycle parking areas shall have the minimum lighting level of three foot-candles. See Condition 12.

- G. *Bicycle parking may be uncovered, although cover is encouraged. Cover can be accommodated through building or roof overhangs, awnings, bicycle lockers or bicycle storage within buildings.*

Finding: Complies. None of the existing or proposed bicycle parking will be covered. As this is not a requirement, this criterion is satisfied.

- H. *Bicycle parking spaces required by this chapter may not be rented or leased except where required motor vehicle parking is rented or leased.*

Finding: Complies. No rented or leased bicycle parking spaces are proposed.

- I. *At park-and-ride lots, site drawings shall allocate adequate space for one hundred percent bicycle locker expansion. This expansion area may be part of the required landscaped area on the site.*

Finding: Not applicable. No park-and-ride lots are proposed with this application.

- J. *The review authority shall allow exemptions from the bicycle parking requirements for the following uses:*

1. *Seasonal uses, such as fireworks stands and Christmas tree sales;*
2. *Drive-in theaters;*
3. *Storage facilities for household and consumer goods;*
4. *Home occupations.*

Finding: Not applicable. The above listed uses do not apply to this application.

Section 17.52.070 – Pedestrian Access in Off-Street Automobile Parking Areas

A. *The off-street parking and loading plan shall identify the location of safe, direct, well lighted and convenient pedestrian walkways connecting the parking area and the use being served.*

Finding: Complies (if conditions added). The applicant has provided a Proposed Circulation and Access Plan (Sheet B1.08) that shows proposed and existing pedestrian walkways. In addition to the walkways shown on this plan the applicant will provide walkway connection from the Emergency Room entrance through the southwest parking lot landscape area to connect to a new walkway on the south side of the private access road between the nursing home and the hospital. The new shared access drive shall include new pedestrian walkway on both sides of this access drive, as approved by the planning director. Pedestrian crossings shall be provided that are hard surfaced and provide a change in textural material (see 17.62.070.D). See Conditions 26, 27, 28 and 30.

B. *All pedestrian walkways constructed within parking lots shall be raised to standard sidewalk height. All surface treatment of pedestrian walkways shall be firm, stable and slip resistant, and shall comply with Chapter 31 of the Uniform Building Code.*

Finding: Complies (if conditions added). The walkways shall be sidewalk height and consist of material that is different from the parking and roadway asphalt paving (see 17.62.070.D). The walkways shall meet the requirements of Chapter 31 of the UBC. The driveway at the main entrance is an existing non-conforming situation where pedestrians currently walk on the driveway itself. A five foot wide portion of the driveway shall be designated with crosswalk markings and raised safety buttons on one edge in this location only. See Condition 26 and 27.

C. *Where an accessible pedestrian walkway crosses or adjoins a vehicular way, the boundary between the areas shall be defined by a marked crossing having a continuous, detectable marking not less than thirty-six inches wide. Where pedestrian walkways cross driving aisles, they shall be clearly marked with contrasting slip resistant materials.*

Finding: Complies (if conditions added). Where walkways cross driving aisles, separate textural material (see 17.62.070.D), striping or other continuous and detectable markings shall be used to indicate the crosswalk and alert motorists. The crossing will have contrasting, slip resistant materials and be a minimum of 36 inches wide. See Conditions 26 and 30.

Section 17.52.080 – Conversion of Existing Required Parking

To promote transit travel and the more efficient use of urban land on properties adjacent to transit streets, off-street parking spaces constructed in excess of the minimum required may be redeveloped for transit oriented uses.

1. *This section shall apply in all districts, which require minimum off-street parking, but only where a minimum of ten off-street parking spaces are required.*
2. *As used in this section, "transit oriented uses" include multifamily residential development, retail, office and institutional uses of sufficient intensity to support transit operations, and transit supportive features such as bus stops and pullouts, bus shelters, park and ride stations, pedestrian*

spaces containing landscaping and benches plus at least two other pedestrian amenities such as awnings, water features, public art or kiosks, pedestrian scale outdoor lighting, or outdoor eating areas or vendors, and the like.

Finding: This section applies as more than 10 off-street parking spaces are required and the proposed institutional use is a “transit oriented use.”

The following identifies the required bicycle parking spaces:

TABLE A Required Bicycle Parking Spaces*	
USE	BICYCLE PARKING
Hospital	1 per 20 auto spaces
Medical and dental clinic	1 per 20 auto spaces
Nursing home, care facility, sanitarium	1 per 30 auto spaces

**All uses identified as requiring bicycle parking shall have a minimum of two bicycle parking spaces.*

Finding: Complies (if condition added) The applicant shows 6 new bike parking spaces located outside the new hospital expansion area, 8 new spaces at the east entrance and 7 existing bike parking spaces on the north side of the hospital. The entire hospital facility will have 683 parking spaces requiring 34 bike parking spaces. The nursing home will have 62 parking spaces requiring 2 bike parking spaces. See Condition 13.

Section 17.52.090 – Parking Lot Landscaping

- A. *Purpose.* The purpose of this code section includes the following:
To enhance and soften the appearance of parking lots; to limit the visual impact of parking lots from sidewalks, streets and particularly from residential areas; to shade and cool parking areas; to reduce air and water pollution; and to establish parking lots that are more inviting to pedestrians and bicyclists.
- B. *Definitions.* "Interior parking lot landscaping," means landscaping located inside the surfaced area used for on-site parking and maneuvering.
"Perimeter parking lot landscaping," means landscaping located outside of, and adjacent to, the surfaced area used for on-site parking and maneuvering.
- C. *Parking lot landscaping is required for all uses, except for single- and two-family residential dwellings.*
 1. *The landscaping shall be located in defined landscaped areas, which are uniformly distributed throughout the parking or loading area. Parking lot landscaping can be counted toward the fifteen percent minimum total site landscaping required by Section 17.62.050(1). One tree shall be planted for every eight parking spaces. These trees shall be evenly distributed throughout the parking lot as both interior and perimeter landscaping to provide shade.*

Finding: Complies (if condition added). The applicant proposes to leave many of the existing parking lots, adding one new lot (a hospital lot connected with the proposed expansion), expanding one lot (nursing home lot) and modifying portions of three other lots (two hospital lots, one just north of the proposed expansion another in the southeast

portion of the hospital facilities and one nursing home lot that includes some minor lot modifications in front of the main building). The small parking lots associated with the Mountain View Medical Offices will be removed with building demolition.

Many of the existing lots are legal but non-conforming with the city requirements for landscaping. The parking lots that will be changed will meet the criterion as follows:

Lot Number	Lot Description	Uniform distribution of landscaping?	One tree per eight parking spaces?	Compliant?
1.	Proposed South of New Hospital Addition	Yes	Yes	Yes
2.	Modified North of New Hospital Addition	No	No	Yes, if conditions added (see below)
3.	Modified Southeast and East of Hospital	No (missing perimeter shade trees)	Yes	Yes, if conditions added (see below)
4.	Modified West of Nursing Home	Yes	Yes	Yes
5.	Expanding East of Nursing Home	No (missing perimeter shade trees)	Yes	Yes, if conditions added (see below)

The applicant proposes to rebuild a portion of Lot 2 along its western edge to accommodate the new dedication and improvements on Division Street. The applicant has proposed to restripe the remainder of the existing parking lot. The city has determined that improvements to the perimeter landscaping will suffice for this non-conforming lot. Perimeter landscaping improvements will include the area between Division Street and the parking lot as well as the area around the new main pedestrian walkway. See Conditions 15 and 18.

2. *Landscaped areas both internal and perimeter shall have a minimum width of at least five feet. Landscaped areas shall contain:*

Finding: Complies (if condition added). The Lot 1 contains a parking space on the west edge with a proposed 3.5-foot landscape area (the furthest west parking space close to the proposed sidewalk on Division Street). The plans shall be revised to meet the minimum 5-foot landscape area requirement or provide the 30-inch low wall (per Chapter 17.52.030.B).

Three other proposed areas that would not meet the minimum five-foot width for landscaping are in Lot 1 between the parking lot and the ambulance turnaround, Lot 3 in the north landscape area (near the truck turnaround) and in Lot 5 on the western edge (just south of the nursing home). See Condition 16.

- a. *Shade trees spaced as appropriate to the species, not to exceed forty feet apart on average;*

Finding: Complies (if condition added). The landscape plan shows planting strips in both Lots 1 and 2, south and north of the proposed addition. The applicant has put one parking space within the proposed south lot that encroaches on the five foot landscape area. The applicant shall move or remove that space. Lot 3 does not have the shade trees in the landscape area north (near the truck turnaround area) of this parking lot. Likewise, Lot 5 would not meet the minimum tree requirement on the western edge of this lot, just south of the nursing home. See Condition 15.

- b. *Shrubs, spaced no more five feet apart on the average; and*

Finding: Complies (if condition added) A variety of shrubs are shown on the landscape plan, proposed to be planted as visual breaks between the parking lot and public and private streets. Where a minimum of 5 feet of shrubs divides these areas additional landscape area to be planted with grass is allowed. Two areas that would not meet the maximum five foot spacing requirement under the applicant's proposed drawings are Lot 3 in the north landscape area (near the truck turnaround) and in Lot 5 on the western edge (just south of the nursing home). All shrubs shall be planted five feet apart or closer. Condition 16 addresses this criterion.

- c. *Ground cover such as grass, wild flowers or other landscaping material covering one hundred percent of the exposed ground. No bark mulch shall be allowed except under the canopy of shrubs and within two feet of the base of trees.*

Finding: Complies. All areas are proposed to be covered with sod lawn, grasses, shrubs or trees. The landscaping plan shows that all medians in the parking area will be planted with groundcovers, shrubs, or trees. The landscape plan does not propose the use of bark mulch as a groundcover.

3. *The amount of interior landscaped area is based upon the number of required parking spaces.*
 - a. *Parking lots with over twenty spaces shall have a minimum ten percent of the interior of the gross area of the parking lot devoted to landscaping. Pedestrian walkways or any impervious surface in the landscaped areas are not to be counted in the percentage. In addition, the perimeter landscaping shall not be included in the ten percent figure.*

Finding: Complies or is Legal and Non-Conforming.

Parking Lot Number	Parking Lot Description	Landscape Percentage of Gross Area of Interior	Compliant?
1.	Proposed Lot South of New Hospital Addition	12%	Yes
2.	Modified Lot North of New Hospital Addition	7% (non-conforming)	No, is legal and non-conforming
3.	Modified Lot South-east and East of Hospital	n/a (vehicle driveway modification)	No, is legal and non-conforming
4.	Modified Lot West of Nursing Home	11%	Yes
5.	Expanding Lot East of Nursing Home	10%	Yes

Lot 2 is proposed to be partially renovated due to Division Street dedications and improvements that are being completed as part of this project. The existing Lot 2 will maintain the (non-conforming) interior landscape areas but will have new landscaping along its Division Street frontage. Lot 3 would only have new perimeter landscape areas added in the areas where the new driveway and parking lot connections will be built. Condition 18 addresses the landscape requirements for these parking areas.

- b. *Parking lots with ten to twenty spaces shall have a minimum five percent of the interior of the gross area of the parking lot devoted to landscaping. The perimeter landscaping shall not be included in the five percent measurement.*

Finding: Not applicable. See response above.

- c. *Parking lots with fewer than ten spaces shall have the standard perimeter landscaping and at least two shade trees.*

Lot Number	Lot Description	Landscape Percentage of Gross Area of Interior	Compliant?
4.	Modified Lot West of Nursing Home	11%	Yes

Finding: Complies. This small parking area contains four existing and five proposed parking spaces. One existing shade tree exists and a new one is proposed.

4. *All areas in a parking lot not used for parking, maneuvering, or circulation shall be landscaped.*

Finding: Complies. All areas within the parking area not used for parking, maneuvering, or circulation are landscaped with a variety of plant species.

5. *The landscaping in parking areas shall not obstruct lines of sight for safe traffic operation and shall comply with all requirements of Chapter 10.32, Traffic Sight Obstructions.*

Finding: Complies (if condition added). Chapter 10.32 requires that: "A clear vision area shall contain no vegetation or fences or other artificial obstruction exceeding three feet in height measured from the top of the curb or, where no curb exists, from the established street center line grade, except that trees exceeding this height may be located in this area provided all branches and foliage are removed to a height of eight feet above the grade." The applicant has not proposed any plant materials that will conflict with the line of sight triangles at the driveway entrances on Division Street. The driveway at Trillium Park Drive has a number of safety related concerns including alignment with the intersection at Swordfern Court and line of sight plantings. The Emerald Green Arborvitae, and the Flamingo Japanese Pieris and any other plants that grow above 3 feet in height must not be planted within the line of sight areas. See Condition 19.

6. *Irrigation facilities shall be located so that landscaped areas can be properly maintained and so that the facilities do not interfere with vehicular or pedestrian circulation.*

Finding: Complies. Automatic irrigation facilities are indicated on the landscape plan. Irrigation facilities are required per the attached Condition 20.

7. *Off-street loading areas and garbage receptacles shall be located so as not to hinder travel lanes, walkways, public or private streets or adjacent properties.*

Finding: Complies (if conditions added). The site plan identifies the trash enclosure and generator/transformer areas. No new facilities are proposed and none of the existing facilities currently hinder travel lanes, walkways, public or private streets or adjacent properties. Vehicular circulation shall be designed to minimize conflicts with these areas.

Deliveries and garbage pickup to the nursing home will require that trucks enter at the southernmost entrance on Division Street and service the northeast corner of the building. The applicant shall change the parking lot design so that these vehicles will egress through the hospital property and out the northernmost entrance on Division Street. Hospital service trucks will also use Division Street access points only. Signage will be added (in city agreed locations) to prohibit trucks from exiting at Trillium Park Drive. See Conditions 5 and 6.

8. *Garbage receptacles and other permanent ancillary facilities shall be enclosed and screened appropriately.*

Finding: Complies (if condition added). The applicant indicates that the existing garbage and generator/transformer will continue to be used by the proposed areas of the hospital. The nursing home will also continue to use their existing service entrance. The nursing home has a fence around the screened garbage area. The hospital's trash dumpsters are not screened. The applicant will receive staff approval for screening of the garbage areas and other ancillary facilities prior to issuance of temporary or final occupancy of the new building expansion, whichever comes first. See Condition 17.

9. *All plant materials, including trees, shrubbery and ground cover, shall be selected for their appropriateness to the site, drought tolerance, year-round greenery and coverage and staggered flowering periods. Species found on the Oregon City native plant list are strongly encouraged and species found on the Oregon City nuisance plant list are prohibited.*

Finding: Complies. The landscape plan has been prepared by a professional landscape architect who has proposed an appropriate assortment of plant materials. Several plant species identified on the Oregon City native plant list are used in the landscaping plan. No plants identified as nuisance plant on the Oregon City plant list are used.

10. *Landscaping shall incorporate design standards in accordance with Chapter 13.12, Stormwater Management.*

Finding: Complies (if condition added) The design standards from Chapter 13.12, Stormwater Management must be incorporated into the landscaping. See Condition 24.

11. *Required landscaping trees shall possess the following characteristics:*

- a. *Three-inch minimum caliper size, according to American Nurseryman Standards;*

Finding: Complies (if condition added). The applicant has proposed an assortment of trees that do not meet the minimum 3-inch caliper size. See Condition 21.

- b. *Generous spreading canopy for shade;*

Finding: Complies. The proposed Red Sunset Maple, Skyline Honey Locust, Cambridge Pear, and Rivers Purple Beech will provide adequate shade as the canopy each type of tree is large.

- c. *A canopy that spreads at least six feet up from grade in, or adjacent to, parking lots, roads or sidewalks unless the tree is columnar in nature;*

Finding: Complies. Each of the prior mentioned parking lot landscape trees have straight columnar trunks before branches spread into the canopy. When mature, these trees' natural growth patterns will result in a canopy above six feet from the grade in the parking lots.

- d. *Roots that do not break up the adjacent paving;*

Finding: Complies (if condition added). The Honey Locust does not have a deep root system and will "heave paving" in close areas. The applicant shall

use another variety of tree with a deeper root system, rather than the Honey Locust. See Condition 22.

e. *No sticky leaves or sap dripping trees;*

Finding: Complies. None of tree species have sticky leaves or are sap-dripping.

f. *No seed pods or fruit bearing trees (flowering trees are acceptable);*

Finding: Complies (if condition added). The Honey Locust produces pods that make a mess. The applicant shall use another variety of tree that will not produce seed pods or fruit, rather than the Honey Locust. See Condition 22.

g. *Resistance to disease;*

Finding: Complies. The proposed tree varieties are relatively disease free and resistant to pests.

h. *Compatibility to planter size;*

Finding: Complies. Landscaping shall be compatible with the planting area.

i. *Tolerance to drought unless irrigation is provided;*

Finding: Complies. An irrigation system shall be provided. See Condition 20.

j. *Attractive foliage or form in all seasons; and*

Finding: Complies. The plantings are a mix of deciduous and evergreen trees, shrubs, and groundcovers

k. *A mix of deciduous and coniferous trees*

Finding: Complies. None of the trees proposed is coniferous. The applicant shall intersperse some coniferous trees in the parking areas. See Condition 23.

D. *Installation.*

1. *All landscaping shall be installed according to accepted planting procedures, according to American Nurseryman Standards.*
2. *The site, soils and proposed irrigation systems shall be appropriate for the healthy and long-term maintenance of the proposed plant species.*
3. *Landscaping shall be installed with the provisions of this code.*
4. *Certificates of occupancy shall not be issued unless the landscaping requirements have been met or other arrangements have been made and approved by the city, such as the posting of a surety.*

Finding: Complies (if conditions added) The proper installation of landscape materials shall be assured via the posting of a surety or other city agreed method. See Condition 24 and 46.

E. *Maintenance.*

1. The owner, tenant and their agent, if any, shall be jointly and severally responsible for the maintenance of all landscaping which shall be maintained in good condition so as to present a healthy, neat and orderly appearance and shall be kept free from refuse and debris.
2. All plant growth in interior landscaped areas shall be controlled by pruning, trimming, or otherwise so that:
 - a. It will not interfere with the maintenance or repair of any public utility;
 - b. It will not restrict pedestrian or vehicular access; and
 - c. It will not constitute a traffic hazard due to reduced visibility.

Finding: Complies (if condition added). The landscaping maintenance requirement shall be met. See Condition 24.

Chapter 17.62 – Site Plan and Design Review

Section 17.62.050 - Site Plan and Design Review Standards

A. All development shall comply with the following standards:

1. A minimum of fifteen percent of the lot area being developed shall be landscaped. Natural landscaping shall be retained where possible to meet the landscaping requirement. Landscape design and landscaping areas shall serve their intended functions and not adversely impact surrounding areas. The landscaping shall include a mix of vertical (trees) and horizontal elements (grass, groundcover, etc.). The principal planner shall maintain a list of trees, shrubs and vegetation acceptable for landscaping. For properties within the central business district, and for major remodeling in all zones subject to this chapter, landscaping shall be required to the extent practicable up to the fifteen percent requirement. Landscaping also shall be visible from public thoroughfares to the extent practicable.

Finding: Complies. With the site improvements, the applicant indicates that approximately 30 percent of the site is landscaped. The applicant also provided an updated site statistics sheets (Exhibits 19 and 20) that indicates the hospital will have 33% landscaping, Medical Office Building 1 will have 41% and Medical Office Building 2 has 59%. The proposed plan shows at minimum a 29% the nursing home site would be in landscaping (natural or man-made) and at minimum 32% of the hospital properties would be in landscaping (natural or man-made). The landscape areas contain a mix of deciduous and evergreen trees and a variety of vegetation types. The existing and proposed vegetation are acceptable for landscaping.

2. The size, shape, height, and spatial and visual arrangement of uses, structures, fences, and walls, including color and material selection, shall be compatible with existing surroundings and future allowed uses. Consideration may be given to common driveways, shared parking, increased setbacks, building heights, and the like.

Finding: Complies (if condition added). The project proposed structure is an addition to the main portion of the hospital. The applicant has proposed building materials and color that matches the existing hospital building. The applicant's architect indicates that the two story stucco box appearance "echoes the form and material of the existing hospital buildings." The building height is taller than the existing building "to accommodate modern mechanical systems." The building shall not exceed the 35 foot height limit for the

zone. The architect has designed a circular tower portion of the building to help the public locate the entrance to this portion of the hospital.

The building addition would be moved towards the transit street and set back 7 feet from the front property line. The hospital will share a private driveway access with the co-applicant, the Mountain View Nursing Home.

3. Grading shall be in accordance with the requirements of Chapter 15.48 and the public works stormwater and grading design standards.

Finding: Complies (if condition added). The grading plan involves a very minor cut in the area of the proposed building improvements. The pad for expansion will match well with the existing topography. The remainder of the improvements will involve small amounts of balanced cut and fill, areas that work with the existing site topography. Preliminary grading has been reviewed by the city. City engineering has identified a proposed grading area near the proposed entrance, just east of the proposed sidewalk that may require some retaining walls and could present an issue with making the walkways ADA compliant. The final grading shall assure that ADA compliance is achieved. See City Engineering Comments (and conditions), in Exhibit 14.

4. Development subject to the requirements of the unstable slopes overlay district shall comply with the requirements of that district. The review authority may impose such conditions as are necessary to minimize the risk of erosion and slumping and assure that landslides and property damage will not occur.

Finding: Complies (if conditions added). Only a very minor portion of the site has the unstable slopes overlay on it. Proposed construction at its nearest point is approximately 200 feet from the identified overlay area and therefore does not require the fall under the requirements for this district. Erosion control is addressed the applicant on Sheets C1.4, C1.5, C1.6, C1.7 and C1.13. City engineering has reviewed the plans (see Exhibit 14) and requires Erosion Control Permits that are the applicant must address under separate approvals.

5. Drainage shall be provided in accordance with city's drainage master plan, Chapter 13.12, and the public works stormwater and grading design standards.

Finding: Complies (if condition added). The applicant has provided plans for water quality and stormwater detention along with utility plans and stormwater calculations. City engineering has reviewed these items for conformance with the City requirements for stormwater quality. See Exhibit 14 with associated conditions.

6. Parking, including carpool, vanpool and bicycle parking, shall comply with city parking standards. Off-street parking and loading-unloading facilities shall be provided in a safe, well-designed and efficient manner and shall be buffered from the street and from adjacent residential zones by means of landscaping or by a low fence or wall not greater than three feet six inches in height, but not to the extent of restricting visibility necessary for safety and security. Off-street

parking design shall consider the layout of parking, opportunities to reduce the amount of impervious surface, storage of all types of vehicles and trailers, shared parking lots and common driveways, garbage collection and storage points; and the surfacing, lighting, screening, landscaping, concealing and other treatment of the same. The review authority, at its discretion, may reduce the required number of off-street parking spaces for the purpose of preserving an existing specimen tree. Carpool, vanpool and bicycle parking shall be provided in accordance with Section 17.52.040 through 17.52.070.

Finding: Complies (if conditions added). See section 17.52 addressed above.

7. Sidewalks and curbs shall be provided in accordance with the city's transportation master plan and street design standards. Upon application, the planning commission may waive this requirement in whole or in part in those locations where there is no probable need, or comparable alternative location provisions for pedestrians are made.

Finding: Complies (if conditions added). The city requires street curb and sidewalks as follows:

Street	Sidewalks and Curbs Needed?	ROW Dedication?
Division Street	Yes, from south property corner to the first driveway south of Davis Road.	Yes, 34-foot half street.
Davis Road	No	Yes, 12-foot dedication.
Trillium Park Drive	Yes, build new city standard concrete sidewalk from northwest corner at Swordfern Court north to north end of retaining wall, redo asphalt sidewalk on west side of Trillium Park Drive from north end of retaining wall north to concrete sidewalk	No

Division Street sidewalk shall include 4-foot grated tree wells and 4-foot side walk to the property line. See Exhibit 14 with conditions and Condition 40.

8. Circulation boundaries within the boundary of the site shall facilitate direct and convenient pedestrian and bicycle access. Consideration shall include the layout of the site with respect to the location, number, design and dimensions of all vehicular and pedestrian accesses, exits, drives, walkways, bikeways, pedestrian/bicycle accessways, buildings, emergency equipment ways, and other related facilities. Ingress and egress locations on public thoroughfares shall be located in the

interest of public safety and determined by the review authority. Reasonable access for emergency services (fire and police) shall be provided.

Finding: Complies (if conditions added). The applicant has proposed new pedestrian circulation for some areas on the site. In addition to the proposed new areas, direct and convenient access shall be reached with the following improvements:

Property, Location	Existing Status	Upgrade Required
Nursing Home, New South Entry Road	Substandard walkway	Provide walkway and lighting from Division Street to main entrance of nursing home
Hospital, New Entrance to Emergency Room	Existing improvements that will be demolished	Provide walkway and lighting for applicant proposed walkway, a direct access walkway and lighting
Hospital/Nursing Home, Pedestrian Connection from New ER entrance to Nursing Home Front Entrance	Existing improvements that will be demolished	Provide direct walkway and lighting
Hospital/Nursing Home, Pedestrian Connection between north side of nursing home and southeast side of hospital	Existing Concrete pedestrian walkway between properties	With redesign of two-way access road (see Exhibit 11) provide pedestrian crosswalks to line up with the existing concrete walkway
Hospital, Main Entrance	No existing pedestrian improvements	Provide new pedestrian gathering area (with L-shape seating), walkway and lighting at south side of parking area in front of main entrance (see Condition 29 for more detail). Create entry statement that eventually tapers down to no less than a five-foot wide walkway.
Hospital, Access from Southbound Transit Stop	Non-conforming parking lot area, No existing pedestrian improvements	Provide five-foot wide direct connection from south-bound transit stop to main entrance (include crosswalks, sidewalk, and painted walkway with road safety buttons) immediately north of existing landscape area

Property, Location	Existing Status	Upgrade Required
		within main entrance driveway.

See Condition 26.

Hospital Site - External and Internal Connectivity for Other Locations

Aside from the needed improvements described above, a future master plan shall consider all bike and pedestrian connections abutting and within the hospital property. A hospital master plan shall be approved by the city, which includes multi-use path connections through the project. See Condition 31.

9. There shall be provided adequate means to ensure continued maintenance and necessary normal replacement of private common facilities and areas, drainage ditches, streets and other ways, structures, recreational facilities, landscaping, fill and excavation areas, screening and fencing, groundcover, garbage storage areas and other facilities not subject to periodic maintenance by the city or other public agency.

Finding: Complies (if condition added). The project applicant proposes shared common facilities that will be owned by the two applicants and that would not be the responsibility of the City of Oregon City for maintenance and necessary normal replacement. These include but are not necessarily limited to private roadway, utilities, and landscape areas. The applicant shall prepare a maintenance and replacement agreement that shall be reviewed by the city for acceptability. See Condition 48.

10. Outdoor lighting shall be provided in a manner that enhances security, is appropriate for the use, and avoids adverse impacts on surrounding properties. Glare shall not cause illumination on other properties in excess of a measurement of 0.5 foot-candles of light.

Finding: Complies (if condition added). The applicant proposes outdoor lighting for safety and convenience. The lighting plan does not address the required lighting for the pedestrian walkways. The updated plans will demonstrate the needed lighting both on pedestrian walkways and in parking and roadway areas while maintaining a .5 foot-candle maximum at the property lines. See Condition 37.

11. Site planning, including the siting of structures, roadways and utility easements, shall provide for the protection of tree resources. Trees of six-inch caliper or greater measured four feet from ground level shall, whenever practicable, be preserved outside buildable area. Where the planning manager determines that it is impractical or unsafe to preserve such trees, the trees shall be replaced in accordance with an approved landscape plan that includes new plantings of similar character at least two inches to two and one-half inches in caliper. Specimen trees shall be preserved where practicable. Where these requirements would cause an undue hardship, the review authority may modify the requirements in a manner which, in its judgment, reasonable satisfies the purposes and intent of this subsection. The review authority may impose conditions to avoid disturbance to tree roots by grading activities and to protect trees and other significant vegetation identified for

retention from harm. Such conditions may include, if deemed necessary by the review authority, the advisory expertise of a qualified consulting arborist or horticulturist both during and after site preparation, and a special maintenance and management program to provide protection to the resources as recommended by the arborist or horticulturist.

Finding: Complies (if condition added). The existing landscape plan includes a number of trees that meet the 6-inch caliper minimum size. The applicant proposes to save a number of the trees that are within the project improvement areas. One tree on the nursing home property will be removed due to the proposed new shared driveway. In addition, fifteen trees will be removed in the area of the proposed hospital addition. Two more trees within Lot 2 (immediately north of proposed addition and within the closest parking stall area) shall be protected during construction unless the project landscape architect indicates that they cannot be saved. This property does not contain any significant trees, as identified by the City's Significant Tree List. All existing trees at the perimeter of the proposed construction shall be protected during construction. See Condition 25.

12. Development shall be planned, designed, constructed and maintained to protect water resources in accordance with the requirements of the city's water resources overlay district, Chapter 17.49, as applicable.

Finding: Complies (if conditions added). The project has been reviewed for Chapter 17.49 applicability under separate determination. The project includes stormwater facilities for both stormwater quality and detention. The project's stormwater system and calculations have been reviewed for compliance with Chapter 13.12 of the Oregon City Municipal Code. City Engineering has evaluated the applicant's stormwater system that will help protect the Newell Creek basin. See City Engineering Comments, Exhibit 14 and associated conditions.

13. Development shall comply with applicable city regulations protecting natural resources. For inventoried natural resources, the siting and design of buildings and other improvements shall be appropriate to protect these resources as provided by the comprehensive plan and this title. Elsewhere, development shall be planned, designed and constructed to avoid or minimize adverse impacts on natural resources to the extent practicable.

Finding: Complies. The City's Water Quality and Flood Management Area Map shows a protected buffer area on the east edge of the property. The applicant has applied for a determination of non-applicability under Section 17.49.030 of the city code. The city concurs that the improvements would be outside of the district area and buffer.

14. All development shall maintain continuous compliance with applicable federal, state, and city standards pertaining to air and water quality, odor, heat, glare, noise and vibrations, outdoor storage, radioactive materials, toxic or noxious matter, and electromagnetic interference. Prior to issuance of a building permit, the principal planner or building official may require submission of evidence demonstrating compliance with such standards and receipt of necessary permits. The review authority may regulate the hours of construction or operation to minimize adverse impacts on adjoining residences, businesses or neighborhoods. The emission of odorous gases or other matter in

such quantity as to be readily detectable at any point beyond the property line of the use creating the odors or matter is prohibited.

Finding: Complies All standards shall be met. The project shall meet or exceed Federal, State and City standards regarding energy (including heat), appropriate materials and other standards. All necessary permits shall be obtained by the applicant.

15. Adequate public water and sanitary sewer facilities sufficient to serve the proposed or permitted level of development shall be provided. The applicant shall demonstrate that adequate facilities and services are presently available or can be made available concurrent with development. Service providers shall be presumed correct in the evidence, which they submit. All facilities shall be designated to city standards as set out in the city's facility master plans and public works design standards. A development may be required to modify or replace existing offsite systems if necessary to provide adequate public facilities. The city may require oversizing of facilities where necessary to meet standards in the city's facility master plan or to allow for the orderly and efficient provision of public facilities and services. Where oversizing is required, the developer may request reimbursement from the city for oversizing based on the city's reimbursement policy and fund availability, or provide for recovery of costs from intervening properties as they develop.

Finding: Complies (with conditions added). The applicant has provided plans that include: Sheet B1.04 (Existing Easement Plan), B1.05 (Proposed Easement Plan), B1.13 (Existing Site Utility Plan), B1.14 (Proposed Site Utility Plan), C1.11 (Storm Detention Plan), C1.12 (Storm Sewer Plan and Profile), and C1.8 (Fire Line Connection). City Public Works comments (Exhibit 12) and service provider comments are attached. The following conditions and City Engineering Comments and conditions (Exhibit 14), addressing adequacy of facilities and services. Additional requirements may be necessary and requested by the individual service providers (see Condition 47).

16. Adequate right-of-way and improvements to streets, pedestrian ways, bike routes and bikeways, and transit facilities shall be provided, consistent with the city's transportation master plan and design standards and this title. Consideration shall be given to the need for street widening and other improvements in the area of the proposed development impacted by traffic generated by the proposed development. This shall include, but not be limited to, improvements to the right-of-way, such as installation of lighting, signalization, turn lanes, median and parking strips, traffic islands, paving, curbs and gutters, sidewalks, bikeways, street drainage facilities and other facilities needed because of anticipated vehicular and pedestrian traffic generation.

Finding: Complies (with conditions added). The following right-of way dedications and improvements are required:

Location	ROW Dedication	Improvements or Action Required	Timeframe
Division Street (from south property corner to the northern	Yes, to 34 foot half street	Half street improvements - including 12 foot travel lane, 6	Final city inspection required prior to any temporary or final

Location	ROW Dedication	Improvements or Action Required	Timeframe
driveway south of Davis Road)		foot bike lane, 8 foot parallel parking, 4 foot portion of sidewalk with tree well (includes curb) and 4 foot clear sidewalk (abutting property line) One foot utility easement abutting property line (over portion of sidewalk)	occupancy are approved
Davis Road (north of Medical Plaza 1)	12 foot wide section (per Condition 19 of SP 01-12, the approval of the Medical Plaza 1 facility)	None	Dedication to be complete prior to any temporary or final occupancy are approved
Davis Road (north of parking structure)	None	Easement documentation to show public ingress and egress easement over existing sidewalk	Easement to be recorded and approved by city prior to any temporary or final occupancy are approved
Trillium Park Drive	None	Build new city standard concrete sidewalk from northwest corner at Swordfern Court north to north end of retaining wall, redo asphalt sidewalk on west side of Trillium Park Drive from north end of retaining wall north to concrete sidewalk	Final city inspection required prior to any temporary or final occupancy are approved, whichever comes first*

Condition 40 and Exhibit 14 address the dedication and improvements/actions required.

The applicant has provided a traffic impact analysis that has been reviewed by the City Traffic Engineer. He finds that the two-way circulation between the hospital and the nursing home is a better design than the one-way circulation originally proposed. He also finds that the proposed southern driveway at Division Street should have two exiting lanes (one left-turn and one right-turn). The two lanes at the new combined driveway would help reduce delay for exiting vehicles and help reduce the possibility that those exiting vehicles would block the entry into the emergency room parking lot. Conditions 5, 6 and 41 address his findings and this criterion.

17. Major industrial, institutional, retail and office developments shall provide direct, safe and convenient bicycle and pedestrian travel as appropriate both within the development and between the development and other residential or neighborhood activity centers such as shopping, schools, parks and transit centers. Where practicable, new office parks and commercial developments shall enhance internal pedestrian circulation through clustering of buildings, construction of pedestrian ways, or similar techniques. Bicycle parking facilities shall be required as part of new multifamily residential developments of four units or more, new retail, office and institutional developments, and all transit transfer stations and park-and-ride lots.

Finding: Complies (with conditions added). The internal bicycle and pedestrian circulation improvements and associated conditions are addressed in 17.62.050.A.8. above and Conditions 26 to 31. Safe lighting is required. The applicant has provided a lighting plan for the improvement area immediately surrounding the building. Lighting for safety is addressed by Conditions 37 to 39.

18. If Tri-Met, upon review of an application for an industrial, institutional, retail or office development, recommends that a bus stop, bus turnout lane, bus shelter, bus landing pad or transit stop connection be constructed at the time of development, the review authority shall require such improvement, using designs supportive of transit use, if the development is of a type which generates transit ridership and the review authority determines that the recommended condition is reasonably related to the scale and intensity of the development. Where transit service is or reasonably can be made available to serve the site, the development shall include sidewalks or pedestrian easements as necessary to provide safe and direct access to transit stops.

Finding: Complies (with condition added). The applicant proposes moving the existing northbound Tri-Met transit stop approximately 100 feet to the south on Division Street. The new location will coincide with the pedestrian walkway main entrance to the hospital. Improvements shall be made that meet Tri-Met requirements for the shelter, pedestrian and bus safety. The hospital shall also provide a cross-walk and sidewalk connection immediately north of the existing main traffic entrance to the hospital. The design of these improvements shall be approved by the city and Tri-Met. See Condition 42.

19. All utility lines shall be placed underground.

Finding: Complies (with condition added). All utility lines shall be placed underground. See Condition 49.

20. Access and facilities for physically handicapped people shall be incorporated into the site and building design consistent with applicable federal and state requirements, with particular attention to providing continuous, uninterrupted access routes.

Finding: Complies (with conditions added). ADA accessible walkways and ramps shall be added for new walkways. The hospital would have a total of 28 handicap spaces (ten are van accessible spaces). Federal requirements for handicap parking spaces would be met on the hospital site. The nursing home would have 4 handicap parking spaces, none of which would be van accessible. At minimum, the ADA requires at least van accessible parking space for a parking lot of this size. See Conditions 10, 27 and 28.

21. Pedestrian/bicycle accessways shall be provided as appropriate in accordance with the requirements and standards in Chapter 12.24 and such other design standards as the city may adopt.

Finding: Does Not Apply. The pedestrian accessway standards only apply “within and from new subdivisions and planned unit developments.”

22. In office parks and commercial centers, clustering of buildings shall be provided to the extent reasonably practicable to facilitate off-site pedestrian access. If located along transit streets, clustering of buildings near the transit street shall be provided to the extent reasonably practicable to facilitate access by transit.

B. The review authority may impose such conditions as it deems necessary to ensure compliance with these standards and other applicable review criteria, including standards set out in city overlay districts, the city's master plans, and city public works design standards. Such conditions shall apply as described in Sections 17.50.310, 17.50.320 and 17.50.330. The review authority may require a property owner to sign a waiver of remonstrance against the formation of and participation in a local improvement district where it deems such a waiver necessary to provide needed improvements reasonably related to the impacts created by the proposed development. To ensure compliance with this chapter, the review authority may require an applicant to sign or accept a legal and enforceable covenant, contract, dedication, easement, performance guarantee, or other document, which shall be approved in form by the city attorney.

Finding: Not Applicable.

17.62.055 Institutional and commercial building standards.

A. Purpose. This section is intended to promote the design of an urban environment that is built to human scale and to encourage street fronts that create a pedestrian-conducive environment, while also accommodating vehicular movement. The primary objective of the regulations contained in this section is to provide a range of design choices that would promote creative, functional, and cohesive development compatible with the surrounding areas.

B. Applicability. In addition to Section 17.62.050 requirements, institutional and commercial buildings shall comply with design standards contained in this section.

Finding: The project involves an institutional building; therefore this section of the code applies.

C. Relationship between Zoning District Design Standards and Requirements of this Section.

1. *Building design shall contribute to the uniqueness of the underlying zoning district by applying appropriate materials, elements, features, color range and activity areas tailored specifically to the site and its context.*

Finding: Complies. The applicant has provided a materials and color board that were developed to match with the existing hospital building features, colors and materials. The applicant indicates that the materials and colors allow “the building to blend with the main building and to form a cohesive place in the neighborhood.”

2. *A standardized prototype design shall be modified if necessary to meet the provisions of this section.*

Finding: Does not apply. A standardized prototypical design has not been suggested.

3. *In the case of a multiple building development, each individual building shall include predominant characteristics shared by all buildings in the development so that the development forms a cohesive place within the underlying zoning district or community.*

Finding: Complies. Each of the buildings are in whites, beige and off-white tones. The hospital building is differentiated slightly from the medical buildings within this campus. The building styles are complementary and are connected to one another both by appearance and physically, by skywalks.

4. *With the exception of standards for building orientation and building front setbacks, in the event of a conflict between a design standard in this section and a standard or requirement contained in the underlying zoning district, the standard in the zoning district shall prevail.*

Finding: Complies. This review follows this priority of relevant standards.

D. Relationship of Buildings to Streets and Parking.

1. *Buildings shall be placed no farther than five feet from the front property line. A larger front yard setback may be approved through site plan and design review if the setback area incorporates enhanced pedestrian spaces and amenities such as plazas, arcades, outdoor cafe, benches, street furniture, public art, kiosks, or additional landscaping.*

Finding: Complies (if condition added). The building addition is proposed with a front setback of 7 foot 2 inches. The slightly larger setback is allowed with enhancements that are required for the new main pedestrian entrance to the hospital. This entrance shall be located a few feet north of the new addition. The entry should encourage the proper use of this entry point. The plaza should encourage use as an employee/ pedestrian visitor gathering area.

Features of the new entry shall include entry plaza area with minimum of two seating areas, coordination of entry plaza with transit stop (to be moved within 50 feet of the northwest corner of the addition), and a walkway that transitions from the entry plaza width down to sufficient walkway width to the main entrance to the hospital. The improvement area shall include landscaping materials that would coordinate with the entry and the parking lot immediately to the north. Design shall be approved by staff prior

to construction permit issuance. This proposed improvement would constitute an enhancement that meets that intent of the above criteria. See Condition 29.

2. *At least one main entrance of any building shall be oriented toward the street and shall be accessed from a public sidewalk. Primary building entrances shall be clearly defined and recessed or framed by a sheltering element such as an awning, arcade or portico in order to provide shelter from the summer sun and winter weather.*

Finding: Complies (if conditions added). The new hospital building entrance would not be the main entrance to the hospital. The existing main entrance is under a portico cover and is set back from the street. It does have a door that faces the public street. New pedestrian access improvements will be required including a new pedestrian main entrance and a pedestrian crosswalk on the existing main entrance driveway. See Conditions 26 and 29.

A new primary entrance to be located in the southwest corner is proposed to face in a south direction (at ninety degree angle to Division Street). This entrance is needed to face south to help emergency room accessibility from the new parking area to the south. Direct pedestrian access from the street sidewalk shall occur at this same entrance. See Condition 33.

The nursing home entrance that currently is facing towards Division Street would remain unchanged. The pedestrian walkway to this entrance shall be upgraded (see Condition 26).

3. *Parking areas shall be located behind buildings, below buildings, or on one or both sides of buildings.*

Finding: Complies. The new hospital parking area would be located to the side (south) of the new addition. Other parking lot improvements involve existing lots and therefore do not apply to this criterion.

E. Variation in Massing.

1. *A single, large, dominant building mass shall be avoided in new buildings and, to the extent reasonably feasible, in development projects involving changes to the mass of existing buildings.*

Finding: Complies. The proposal includes stone piers that will help break the mass of the addition along with projecting overhangs to help break the horizontal mass. The architect has added a rotunda structure that will help break up the anchor the building with the taller portion of the structure on the north end of the building. The mass of the addition is also proportionate with other building on the campus including both Medical Plaza buildings.

No building changes are proposed to the nursing home.

2. *Horizontal masses shall not exceed a height: width ratio of 1:3 without substantial variation in massing that includes a change in height and projecting or recessed elements.*

Finding: Complies. The applicant exceeds the horizontal mass requirement identified by the height: width ratio along the building's visible front elevation and side elevations. At the front, the proposed maximum height (by condition) would be 35 feet matched with a width of 140.5 feet results in a horizontal ratio of 1:4. The architect has designed a substantial variation in massing that accentuates the proposed 28 foot wide by 35 foot high rotunda structure. Although the remainder of the front elevation is 32 feet 4 inches high the architectural detailing effectively lowers that massing by another 4 feet.

The side elevation massing proposes substantial variations in height that varies the massing accordingly. The proposed north elevation offers 12 foot (existing), 27 foot, 30 foot, and 32 foot 4 inch heights. The proposed south elevation would result in 20 foot, 24 foot, 32 foot 4 inch, and 35 foot heights. Both side elevations offer wide variations in projected and recessed elements as well.

Due to the substantial variations in massing, to include changes in height and projecting and recessed elements, the building addition is compliant with this requirement.

3. *Changes in mass shall be related to entrances, the integral structure and/or the organization of interior spaces and activities and not merely for cosmetic effect. False fronts or parapets create an insubstantial appearance and are prohibited.*

Finding: Complies. The variation in building mass is based on structural differences and their relationship to the building entrances and not false fronts or parapets.

F. Facade Treatment.

1. *Minimum Wall Articulation.*
- a. *Facades shall add architectural interest and variety and avoid the effect of a single, long or massive wall with no relation to human size. No wall that faces a street or connecting walkway shall have a blank, uninterrupted length exceeding thirty feet without including, but not be limited to, at least two of the following:*
- i. *Change in plane,*
 - ii. *Change in texture or masonry pattern,*
 - iii. *Windows, treillage with vines, or*
 - iv. *An equivalent element that subdivides the wall into human scale proportions.*

Finding: Complies (if condition added). The visible west (front) and north elevations have texture change and window elements that comply with the above requirements. Similarly, the west side of the south elevation has texture changes, windows and changes in building plane. The eastern side of the south elevation (121 feet) is non-compliant as it only has a few windows. The applicant must provide no areas exceeding 30 feet where there are less than two of the required design elements. See Condition 32.

b. Facades greater than one hundred feet in length, measured horizontally, shall incorporate wall plane projections or recesses having a depth of at least three percent of the length of the facade and extending at least twenty percent of the length of the facade. No uninterrupted length of any facade shall exceed one hundred horizontal feet.

Finding: Complies (if condition applied). As proposed the addition does not comply fully meet the requirements of this criterion. The two tables below summarize the city's compliance findings. Items that are in bold and italics are non-compliant. Non compliant items include; the East façade minimum projection/recession depth and minimum distance for the projection/recession and the west façade for minimum distance for the projection. Also, a portion of the south façade would have over 100 feet of uninterrupted façade. The applicant must modify the design and get staff approval to fully meet these criteria prior to construction permit issuance. A condition has been added that will require full compliance with this criterion. See Condition 34.

Wall Plane Projections/Recessions

Facade	Length Proposed	Depth Proposed	Minimum Depth Required	Proposed Distance of Projection/Recession	Distance of Projection/Recession Required
North	113.25 feet	3.2/32.5 feet	3.2 feet	26 feet	22.7 feet
South	245 feet	10.5/12.3 feet	7.35 feet	76 feet	49 feet
East	87.25 feet	<i>0 feet</i>	<i>2.6 feet</i>	<i>0 feet</i>	<i>17.5 feet</i>
West	131 feet	4 foot	4 feet	<i>20 feet</i>	<i>26.2 feet</i>

100 Feet of Uninterrupted Façade Length

Facade	100 Foot of Uninterrupted Façade?	Distance of Uninterrupted Façade
North	No	n/a
South	Yes	<i>120.33 feet</i>
East	No	n/a
West	No	n/a

c. Ground floor facades that face public streets shall have arcades, display windows, entry areas, awnings or other such features along no less than sixty percent of their horizontal length.

Finding: Complies. The building would have ground floor windows that extend for the entire length of the front of the building on Division Street. The window area is 85% (112 feet/131 feet) of the front façade.

- d. *Building facades must include a repeating pattern that includes any one or more of the following elements:*
- i. *Color change;*
 - ii. *Texture change;*
 - iii. *Material module change.*

Finding: Complies. The building would have repeating patterns on the building façade that includes stone columns, window details, and texture changes.

- e. *Facades shall have an expression of architectural or structural bays through a change in plane no less than twelve inches in width, such as an offset, reveal or projecting rib.*

Finding: Complies. The applicant proposes columns with a minimum of 48" in width to accentuate the structural elements of the building.

- f. *Facades shall have at least one of elements subsections (F) (1) (b), (c) or (d) of this section repeat horizontally. All elements shall repeat at intervals of no more than thirty feet, either horizontally or vertically.*

Finding: Complies. (if condition added). The stone columns repeat on the front façade every 28 feet. The column distance exceeds the 30 foot maximum limit or is not part of the design on the north, south and east elevations. The applicant must comply with the requirement above on these sides of the new building addition. See Condition 35.

2. *Facade Transparency. The main front elevation shall provide at least sixty percent windows or transparency at the pedestrian level. The side elevation shall provide at least thirty percent transparency. The transparency is measured in lineal fashion (For example, a one-hundred-foot long building elevation shall have at least sixty feet (60% of 100 feet) of transparency in length).*

Finding: Complies. The front elevation glazing measures 85 percent of the façade. The minimum of 60 percent transparency would be met. The two side elevations measure 53 percent (south) and 81 percent (north). The minimum 30 percent transparency would be met.

3. *Side or rear walls that face walkways may only include false windows and door openings defined by frames, sills and lintels, or similarly proportioned modulations of the wall, only when actual doors and windows are not feasible because of the nature of the use of the building.*

Finding: Complies. All side walls have real windows and door openings. The proposed rear (east) wall does not have any proposed opening due to the hospital use in this area.

4. *All sides of the building shall include materials and design characteristics consistent with those on the front. Use of inferior or lesser quality materials for side or rear facades shall be prohibited.*

Finding: Complies (if conditions added). All sides shall have consistent use of quality materials. The east and south wall design must be changed (see 17.62.055.F.1.b. above and Condition 32 through 36) and will require additional projections and/or façade interruption that would require additional quality materials.

5. *Trellises, canopies and fabric awnings may project up to five feet into front setbacks and public rights-of-way, provided that the base is not less than eight feet at the lowest point and no higher than ten feet above the sidewalk. Awnings shall be no longer than a single storefront, unless multiple storefronts exist. If multiple storefronts exist, trellises, canopies, and fabric awnings shall create uniform cover without breaks.*

Finding: Complies. There are no proposed projections into a public right-of-way. Awnings are limited to protecting entrances to the building.

G. Roof Treatments.

1. *All facades shall have a recognizable “top” consisting of, but not limited to:*
- a. *Cornice treatments, other than just colored “stripes” or “bands,” with integrally textured materials such as stone or other masonry or differently colored materials; or*
 - b. *Sloping roof with overhangs and brackets; or*
 - c. *Stepped parapets;*

Finding: Complies (if condition added). The front façade of the building would have a one-foot-high cornice (with minimum 3 foot eave) capping each floor. These cornices would be metal caps with wood under the eaves in contrast to the stucco walls, a textured material. The building would also have an awning at the southwest corner of the building.

The proposed drawings include portions of three proposed building facades that do not have recognizable tops; the south façade (easterly portion of the first floor), the easterly façade, and the north façade (second floor). See Condition 36.

- d. *Special architectural features, such as bay windows, decorative roofs and entry features may project up to three feet into street rights-of-way, provided that they are not less than nine feet above the sidewalk.*

Finding: Complies. No architectural features would project into the street right-of-way.

2. *Buildings below an overlook area shall be required to have roof treatments incorporating architectural enhancement such as matting, latticework, or roof gardens.*

Finding: Does Not Apply. The building would not be below an overlook area.

H. Entryways. Institutional and commercial buildings shall have clearly defined, highly visible customer entrances including at least three of the following elements, listed below.

1. Canopies or porticos;
2. Overhangs;
4. Recesses/projections;
5. Arcades;
6. Raised corniced parapets over the door;
7. Peaked roof forms;
8. Arches;
9. Outdoor patios;
10. Display windows;
11. Architectural details such as tile work and moldings which are integrated into the building structure and design;
12. Integral planters or wing walls that incorporate landscaped areas and/or places for sitting.

Finding: Complies. The new hospital expansion would have its “customer entrance” at the building’s southwest corner. The entrance would part of a round rotunda that stands higher than the majority of the building. The rotunda, an architectural detail, will help define the entrance. This entrance would also incorporate awnings (overhangs), a raised cornice parapet, and an integrated (with landscape planting) entry.

Where additional stores will be located in the large retail establishment, each such store shall have at least one exterior customer entrance, which shall conform to the same requirements.

Finding: Does not apply.

Section 17.62.060 – Building Structures

- A. *Building structures shall be complimentary to the surrounding area as provided by the design guidelines adopted by the city commission. All exterior surfaces shall present a finished appearance. In historic areas and where development could have a significant visual impact, the review authority may request the advisory opinions of appropriate experts designated by the city manager from the design fields of architecture, landscaping and urban planning. The applicant shall pay the costs associated with obtaining such independent professional advice; provided, however, that the review authority shall seek to minimize those costs to the extent practicable.*

Finding: Complies. The building would meet the design guidelines that are adopted under Section 17.62.055, above. The exterior surfaces of stucco and stone would have a finished appearance. The building is not within a historic area. The building would meet all the site design criteria of the Oregon City code.

17.62.070 On-site Pedestrian Access.

All commercial, industrial, institutional and multi-family residential developments shall provide an on-site pedestrian circulation system that provides convenient, accessible and direct route design.

Finding: Complies (if conditions added). On-site pedestrian access is addressed in 17.52.070 – Pedestrian Access in Off-Street Automobile Parking Areas above. The access requirements are

commensurate with the current permit request. There will still be some pedestrian links that shall be addressed with the future master plan for the hospital. Currently there are some missing pedestrian links for both internal and external connectivity. The main links for the nursing home are addressed in the prior criterion (and associated condition). The need to provide a hospital master plan that will address these items is addressed in Conditions 26 through 31 and 33.

- A. *The on-site pedestrian circulation system shall provide direct and barrier-free connections between buildings and existing public rights-of-way, pedestrian/bicycle accessways and other on-site pedestrian facilities while minimizing out-of-direction travel. The pedestrian circulation system and pedestrian walkways and facilities shall be designed and constructed, as appropriate, to connect:*

Finding: Complies (if condition added). The circulation system for the 7-acre hospital property is non-conforming. The nursing home circulation is addressed in Condition 26. Some project-based upgrades are necessary based on similar criteria addressed in this report. The master plan (to be addressed prior to any more land use reviews) would address the future circulation system.

To assure full compliance, the hospital is required to develop a circulation plan that would demonstrate how full compliance shall be reached for the entire site. That plan would identify all connection points, pedestrian and bicycle circulation based on existing and proposed phased development. The plan would also identify milestone projects and associated connectivity improvements that would occur with each improvement. The circulation plan would be adopted as part of the future master plan application documentation. See Condition 31.

1. *The main building entrance(s) of the primary structure(s) on the site with the nearest sidewalk or other walkway leading to a sidewalk;*

Finding: Complies (if conditions added). The main building entrance coincides with the front parking area (just north of the proposed building addition). The main pedestrian access will be placed immediately south of the front parking area. This new pedestrian access point would result in pedestrians not having to cross the parking lot and will coordinate with the relocation of the northbound transit stop on Division Street. The hospital will also provide improvements for pedestrians coming from Division Street's southbound transit stop (immediately north of the main entrance driveway) and entering the main entrance of the hospital. Aside from a crosswalk on Division Street and ADA compliant frontage improvements, the driveway at the north edge of the front parking area will be painted and have traffic safety buttons. This will provide safe access for pedestrians coming to the main entrance from the north. See Conditions 26 through 30.

The nursing home main entrance will be connected to Division Street with a walkway that is currently substandard. See Condition 26.

2. *New building entrances on a development site with other new and existing building entrances except those used for loading and unloading;*

Finding: Complies. The new building entrance will have new direct connections to Division Street and the main entrance to the nursing home. New pedestrian connections on the northside of the new building addition will further enhance connectivity to the main building entrance. The area along the southeast portion of the building is not proposed to connect to other entrances at the south side of the hospital because the south side of the hospital due to existing and proposed uses in that area. There would be no formal entrances on this side of the hospital with doors used for fire exits only.

3. *Other pedestrian-use areas on-site, such as parking areas, transit stops, recreation or play areas, common outdoor areas, and any pedestrian amenities such as plazas, resting areas and viewpoints;*

Finding: Complies (if condition added). The applicant shall provide direct barrier free connections for all for new plaza area that will be designated the main pedestrian entrance. See Condition 29.

4. *To adjacent developments where feasible. Development patterns shall not preclude eventual site-to-site pedestrian connections where feasible, even if infeasible at the time of development. Public and private schools, and parks over one acre in size, shall provide direct pedestrian access from adjacent neighborhoods, using multiple-access points in all directions as reasonably practicable to minimize neighborhood walking distance to a site. Walkway linkages to adjacent developments shall not be required within industrial developments or to industrial developments or to vacant industrially zoned land.*

Finding: Complies (if conditions added). A pedestrian walkway will be provided to connect the new hospital building entrance to the main nursing home entrance (see Condition 26). The review of other site to site pedestrian conditions will take place at the time when a full circulation plan is reviewed for the hospital master plan. See Condition 31.

- B. *On-site pedestrian walkways shall be hard surfaced, well-drained and at least five feet wide. Surface material shall contrast visually to adjoining surfaces. When bordering parking spaces other than spaces for parallel parking, pedestrian walkways shall be increased to seven feet in width unless curb stops are provided. When the pedestrian circulation system is parallel and adjacent to an auto travel lane, the safety of the pedestrian must be assured by raising the walkway or separating it from the auto travel lane by a raised curb, bollards, landscaping or other physical barrier. If a raised walkway is used, the ends of the raised portions shall be equipped with curb ramps for each direction of travel.*

Finding: Complies (if conditions added). The walkways would be a minimum of five feet wide. Walkways would be raised except in the case of the existing non-conforming main entrance walkway that will be painted similar to a crosswalk and separated from

auto travel lanes using safety buttons. The safety buttons shall be raised above the driveway pavement elevation. See Conditions 26, 27 and 28.

- C. *The on-site pedestrian circulation system shall be lighted to a minimum level of three foot-candles to enhance pedestrian safety and allow employees, residents, customers or the public to use the walkways at night. Pedestrian walkway lighting through parking lots shall be designed to light the walkway and enhance pedestrian safety.*

Finding: Complies (if condition added). Upon review of the applicant's lighting plan, the proposal indicates that lighting on the path would be as low as 0.1 foot-candle. Additional lighting along walkways is necessary to meet the minimum 3 foot-candle requirement (or whatever the city standard is at the time the construction permit is pulled). See Condition 37.

- D. *On-site vehicular and pedestrian circulation patterns shall be designed to minimize vehicular/pedestrian conflicts through measures such as minimizing driveway crossings, creating separate pedestrian walkways through the site and parking areas, and designating areas for pedestrians by marking crossings with changes in textural material. Such textural material shall be consistent with Chapter 31 of the Uniform Building Code. Pedestrian walkways in parking areas shall comply with the requirements of Section 17.52.080.*

Finding: Complies (if condition added). The new and reconstructed parking lots shall be appropriately designed to minimize conflicts between pedestrians and vehicles. In locations where pedestrian and vehicle circulation must cross, the applicant shall provide crosswalks. These crosswalks shall be of a different textural material than the driveways and parking areas. These areas must meet the requirements of Chapter 31 of the UBC. See Condition 30.

17.62.080 Special development standards along transit streets.

- A. *Purpose. This section is intended to provide direct and convenient pedestrian access to retail, office and institutional buildings from public sidewalks and transit facilities and to promote pedestrian and transit travel to commercial and institutional facilities.*
- B. *Applicability. Except as otherwise provide in this section, the requirements of this section shall apply to the construction of new retail, office and institutional buildings which front on a transit street.*

Finding: Applies. The project has frontage on Division Street, a transit street.

- C. *Development Standards.*
1. *All buildings shall have at least one main building entrance oriented towards the transit street or a street intersecting the transit street. A main building entrance is oriented toward a transit street or a street intersecting a transit street if it is directly located on the transit street or the intersecting street, or if it is linked to the transit street or the intersecting street by an on-site pedestrian walkway that does not cross off-street parking areas.*

Finding: Complies. Both the new building entrance and the main building entrance would be linked to the transit street by on-site pedestrian walkways that do not cross off-street parking areas.

- a. *If the site has frontage on more than one transit street, or on a transit street and a street intersecting a transit street, the building shall provide one main building entrance oriented to the transit street or the intersecting street or to the corner where the two streets intersect.*

Finding: Complies. The building would have frontage on Division Street, a transit street. The existing main entrance is pulled back from the street but faces the transit street.

- b. *For building facades over three hundred feet in length on a transit street or a street intersecting a transit street, two or more main building entrances shall be provided as appropriate and oriented towards the transit street or the intersecting street.*

Finding: Complies (if conditions added). The overall proposed front façade is about 420 feet long. The existing main entrance will have improved pedestrian access to the transit street (see Conditions 26 and 29). The second access will be part of the new building addition and must have a direct connection to the transit street (see Condition 33).

2. *Main building entrances shall be well lighted and visible from the transit street. The minimum lighting level for building entries shall be four foot-candles. Lighting shall be a pedestrian scale with the source light shielded to reduce glare.*

Finding: Complies (if condition added). The lighting plan for the building shows lighting levels that do not meet the minimum of 4 foot-candles at either the main or the new proposed entrances. There is no indication what type of lighting is proposed and whether it will be shielded or at a pedestrian scale. See Condition 38.

3. *In the event a requirement of this section conflicts with other requirements in Title 17, the requirements of this section shall control.*

Finding: Any conflicts with other sections of the zoning code are identified under each respective code section.

- D. *Exemptions. The following permitted uses are exempted from meeting the requirements of subsection C of this section:*

1. *Heavy equipment sales;*
2. *Motor vehicle service stations, including convenience stores associated therewith;*
3. *Solid waste transfer stations;*
4. *Truck stops, including convenience stores, eating or drinking establishments, overnight accommodations or other similar services associated therewith.*

Finding: Not Applicable. None of the exempt uses apply to this application.

17.62.090 Enforcement.

- A. *Applications for site plan and design review shall be reviewed in the manner provided in Chapter 17.50. The city building official may issue a certificate of occupancy only after the improvements required by site plan and design review approval have been completed, or a schedule for completion and a bond or other financial guarantee have been accepted by the city. If construction has not begun within one year from the date of site and design review approval, such approval shall expire unless an extension is requested and granted.*

Finding: This application has been reviewed per Chapter 17.50 requirements. Conditions of approval are attached and performance guarantees are identified in Conditions 46, 52 and 53.

- B. *In performing site plan and design review, the review authority shall consider the effect of additional financial burdens imposed by such review on the cost and availability of needed housing types. Consideration of such factors shall not prevent the imposition of conditions of approval found necessary to meet the requirements of this section. The cost of such conditions of approval shall not unduly increase the cost of housing beyond the minimum necessary to achieve the provisions of this title, nor shall such cost prevent the construction of needed housing types. The use of the site plan and design review provisions of this section shall have no effect on dwelling unit densities.*

Finding: Not Applicable. This application does not affect housing or availability of housing types.

CONCLUSION AND DECISION:

Based on the analysis and findings as described above, staff concludes that the proposed site plan for the hospital building expansion, can meet the requirements as described in the Oregon City Municipal Code for Site Plan and Design Review (Section 17.62) and other applicable code sections by complying with the Conditions of Approval provided in this report.

Therefore, the Planning Manager approves file SP 03-19 with conditions, based upon the findings, and exhibits contained in this staff report.

IV. CONDITIONS

BUILDING HEIGHT AND SETBACKS

1. Sheet B1.18 indicates that the building being proposed would be 35 feet 10 inches (45 feet for mechanical equipment) in some places. This would exceed the maximum height and is not permitted under this application. The applicant shall revise the design to not exceed the 35 foot height limit.

2. Interior Side Yard Requirements:

Building	Existing Interior Side Yard Setback (10 feet required)	Proposed Project Interior Side Yard Setback	Suggested Methods for Conditional Compliance
Willamette Falls Hospital	10 feet	2 feet	Move proposed building location, Property line adjustment or Variance
Medical Plaza 1	0 feet	0 feet	Property Line Adjustment, Lot consolidation
Medical Plaza 2	0 feet	0 feet	Property Line Adjustment, Lot consolidation
Parking Structure	0 feet	0 feet	Property Line Adjustment, Lot consolidation
Mountain View Nursing Home	9 feet 2 inches	Same	Property line adjustment
Mountain View Medical Offices	8 inches	To be removed	N/A

Each of the existing buildings does not meet the minimum 10-foot interior side yard setback requirement. Compliance is required for all buildings prior to temporary or final occupancy, whichever comes first.

The proposed addition would also not meet the minimum 10 foot requirement. The hospital addition would be within 2 feet of the interior property line that is shared with the Mountain View Nursing Home property. A property line adjustment or a variance is needed to approve the building in the proposed location.

3. Rear Yard Requirement:

Building	Rear Yard	Proposed Rear	Methods for Condi-
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	Setback (10 feet required)	Yard Setback	tional Compliance
Medical Plaza 1	0 feet	0 feet	Property Line Adjustment, Lot consolidation

Medical Plaza 1 does not meet the rear setback requirement. Property line adjustment or lot consolidation is required prior to temporary or final occupancy, whichever comes first.

4. Prior to issuing any building permits, consolidate the lots, or provide lot line adjustments through the city process so all existing and proposed buildings are in accordance with the required City zoning setback requirements. Such lot line adjustments or consolidations shall be completed and accepted by the county prior to issuance of temporary or permanent occupancy permits for any of the proposed buildings. As an alternative, the city may accept a surety in lieu of final construction sign-off.

CIRCULATION

5. The applicant shall revise the circulation plan to result in two-way circulation in the area between the hospital and the nursing home (see concept in Exhibit 11). Revisions shall be made to the preliminary drawing set to reflect this circulation change. Emphasis shall be placed on the existing and new Division Street ingress and egress points and not the Trillium Park Drive access. The city will approve the circulation plan prior to issuance of any constructions permits. The applicant shall provide revised drawings per Condition 51.
6. Vehicles for deliveries and garbage pickup to the nursing home shall enter at the southernmost entrance on Division Street. The applicant shall change the parking lot design to work with the concept design in Exhibit 11. Service vehicles will egress through the hospital property at the northernmost entrance on Division Street. Signage will be added (in city agreed locations) to prohibit trucks from exiting at Trillium Park Drive.
7. The proposed driveway at Trillium Park Drive would constitute a safety concerns due to the proposed realignment of this driveway and the resulting 5-way intersection. The applicant shall leave the driveway in its current location. The applicant shall build an ADA compliant pedestrian sidewalk refuge between the existing driveway and the corner of Trillium Park Drive and Swordfern Court. New sidewalk shall be provided per condition 40.

PARKING AND PARKING LANDSCAPING

The following lot numbers are used to identify parking areas that have conditions of approval associated with them:

Parking Lot Number	Parking Lot Description

Parking Lot Number	Parking Lot Description
1.	Proposed South of New Hospital Addition
2.	Modified North of New Hospital Addition
3.	Modified Southeast and East of Hospital
4.	Modified West of Nursing Home
5.	Expanding East of Nursing Home

8. Performance Bond for Site Improvements
Completion Time for Site Improvements. As the required site improvements are to be spread out over three phases, the site improvements must be built and available for use before the final inspection is completed by the building inspector. An extension of time, not to exceed one year may be granted by the building inspector providing that a performance bond, or its equivalent, is posted equaling one hundred fifty percent of the cost of completion of the improvements as confirmed by the building inspector, provided the parking space is not required for immediate use. In the event the improvements are not completed within one year's time, the improvements shall be constructed under the direction of the city, utilizing the proceeds of the performance bond or its equivalent as necessary.

9. Lot 1 contains a parking space (the furthest west parking space) proposed with a 3.5-foot landscape area between it and the new sidewalk. The plans shall be revised to meet the minimum 5-foot landscape area requirement or provide a 30-inch low wall.

Three other proposed areas that would not meet the minimum five-foot width for landscaping are in Lot 1 between the parking lot and the ambulance turnaround, Lot 3 in the north landscape area (near the truck turnaround) and in Lot 5 on the western edge (just south of the nursing home). A minimum width of 5 feet of new landscaping will on the perimeter of the new parking areas provided in these areas or a 30-inch low wall (per Chapter 17.52.030.B) shall be provided. These landscape improvements will be provided prior to temporary or final occupancy, whichever comes first.

10. The applicant has designated an area for 20 carpool/vanpool parking spaces within the hospital parking area. The hospital site being reviewed as one site (and being required to consolidate lots) proposes 683 total parking spaces. Provide the minimum of 34 spaces (5%) that must be carpool/vanpool parking spaces.

The nursing home has no dedicated carpool/vanpool parking spaces. There would be 62 total parking spaces on the nursing home property. A minimum of 3 spaces (5%) shall be carpool/vanpool parking spaces. The nursing home would have 4 handicap parking spaces, none of which would be van accessible. At minimum, the ADA requires at least van accessible

parking space for a parking lot of this size. The updated plan shall indicate one, city approved, van accessible parking space for the nursing home.

Identify employee parking areas for each property. Indicate this information on a full revised drawing set and the construction permit drawings.

11. All parking lot improvements shall be ready for use before the final (occupancy) inspection is completed by the building inspector or city approved assurance is paid.
12. An updated drawing set, that includes the following bike parking information, and any other required changes, shall be submitted and approved by staff prior to building permit approval. All bicycle parking spaces on both sites shall be indicated and meet the requirements of the Oregon City zoning code. Bicycle parking spaces shall meet the minimum required number of on-site spaces and be convenient, secure and accessible to main building entrances on-site buildings. Bicycle parking areas shall have the minimum lighting level of three foot-candles.
13. Bicycle parking:
 - a. The applicant proposes 6 new bike parking spaces located outside the new hospital expansion area, 8 new spaces at the proposed east entrance and 7 existing bike parking spaces on the north side of the hospital. The entire hospital facility will have 683 parking spaces requiring 34 bike parking spaces. The nursing home will have 62 parking spaces requiring 2 bike parking spaces. The updated drawing set shall have the minimum required bicycle parking spaces. These will be provided prior to temporary or final occupancy, whichever comes first.
 - b. No bicycle parking is indicated at the main entrance to the hospital. The hospital must include some city staff approved, bicycle parking spaces at the main entrance to the hospital. Similarly, the nursing home required 2 bike parking spaces shall be located near the main entrance to this facility. All required bicycle parking areas, shall be approved by staff, and shall meet the requirements of this code.
 - c. All bicycle parking shall offer security in the form of either a lockable enclosure in which the bicycle can be stored or a stationary rack to which the bicycle can be locked. All bicycle racks and lockers shall be securely anchored to the ground or to a structure. Bicycle racks shall be designed so that bicycles may be securely locked to them without undue inconvenience
14. The bicycle areas near the Division Street entrances shall have signs indicating "Public Bike Parking". In addition, the employee bicycle parking area shall be clearly marked with signage that reads "Employee Bike Parking." This signage will be provided prior to temporary or final occupancy, whichever comes first.

15. Lot 3 does not have the shade trees in the landscape area north (near the truck turnaround area) of this parking lot. Likewise, Lot 5 would not meet the minimum tree requirement on the western edge of this lot, just south of the nursing home. The updated drawing set shall indicate the minimum number of trees in these areas. These landscape improvements will be provided prior to temporary or final occupancy, whichever comes first.
16. Where a minimum of 5 feet of shrubs divides parking areas, additional grass landscape area is allowed. Two areas that would not meet the maximum five foot spacing requirement under the applicant's proposed drawings are Lot 3 in the north landscape area (near the truck turnaround) and in Lot 5 on the western edge (just south of the nursing home). All shrubs shall be planted five feet apart or closer. The updated drawing set shall indicate the minimum number of shrubs in these areas. These landscape improvements will be provided prior to temporary or final occupancy, whichever comes first.

Three of the proposed areas would not meet the minimum five-foot width for landscaping both within and on the perimeter of parking areas. The three areas include; Lot 1, between the parking lot and the ambulance turnaround; Lot 3 in the north landscape area (near the truck turnaround) and; Lot 5 on the western edge (just south of the nursing home). A minimum width of 5 feet of new landscaping shall be provided in these areas or a 30-inch low wall (see Chapter 17.52.030.B) may be substituted. These improvements shall be indicated on the revised preliminary drawings and implemented prior to temporary or final occupancy, whichever comes first.

17. The applicant will receive staff approval for screening of the garbage areas and other ancillary facilities prior to issuance of temporary or final occupancy of the new building expansion, whichever comes first.
18. Lot 2 is proposed to be partially renovated due to Division Street dedications and improvements that are being completed as part of this project. The existing Lot 2 will maintain the (non-conforming) interior landscape areas but will have new landscaping along its Division Street frontage. Lot 3 will have new perimeter landscape areas added in the areas where the new driveway and parking lot connections will be built. See also Conditions 15 to 16.

LANDSCAPING

19. The driveway at Trillium Park Drive has a number of safety related concerns including alignment with the intersection at Swordfern Court and line of sight plantings. The driveway shall not be realigned as proposed. The Emerald Green Arborvitae, and the Flamingo Japanese Pieris and any other plants that grow above 3 feet in height must not be planted within the line of sight areas.
20. The applicant shall provide an in-ground irrigation system for all landscape areas. Prior to final (or temporary) occupancy of the new building, the applicant shall provide an irrigation plan that meets this requirement and is reviewed and approved by the city.

21. The applicant has proposed an assortment of trees for parking lot landscaping that do not meet the minimum 3-inch caliper size. All trees shall meet the minimum 3-inch caliper size.
22. The Honey Locust tree does not have a deep root system and will "heave paving" when placed close to walkways and asphalt areas. The applicant shall use another variety of tree with a deeper root system, rather than the Honey Locust. The Honey Locust also produces pods that make a mess. The applicant shall use another variety of tree with a deeper root system and not produce seed pods or fruit, rather than the Honey Locust.
23. None of the trees proposed is coniferous. The applicant shall intersperse some coniferous trees in the parking areas.
24. Landscape materials shall be installed according to accepted planting procedures, under American Nurseryman Standards. The site, soils, and proposed irrigation systems shall be appropriate for the healthy and long-term maintenance of the plants. The design standards from Chapter 13.12, Stormwater Management must be incorporated into the landscaping. Final (or temporary) certificates of occupancy shall not be issued unless the landscaping requirements have been met or other arrangements have been made and approved by the city, such as the posting of a surety.
25. In addition to the trees to be saved on the applicant's landscape plans (see Sheets L1.1 and L1.2), two trees within Lot 2 (immediately north of proposed addition and within the closest parking stall area) shall be saved, unless the project landscape architect indicates that these trees cannot be saved due to their proximity to construction. All existing trees to remain at the perimeter of and within construction areas, shall be properly protected by the applicant with fencing surrounding the root system of each tree and protected throughout the construction process or the city may place a stop work on the construction of this project.

WALKWAYS

26. The applicant has proposed new pedestrian walkways for some areas on the site. In addition to the proposed new areas, direct and convenient access shall be provided for the following:

Property, Location	Existing Status	Upgrade Required
Nursing Home, New South Entry Road	Substandard walkway	Provide walkway and lighting from Division Street to main entrance of nursing home
Hospital, New Entrance to Emergency Room	Existing improvements that will be demolished	Provide walkway and lighting for applicant proposed walkway, a direct access walkway and lighting
Hospital/Nursing Home, Pedestrian	Existing improvements that will be demolished	Provide direct walkway and lighting

Property, Location	Existing Status	Upgrade Required
Connection from New ER entrance to Nursing Home Front Entrance		
Hospital/Nursing Home, Pedestrian Connection between north side of nursing home and southeast side of hospital	Existing Concrete pedestrian walkway between properties	With redesign of two-way access road (see Exhibit 11) provide pedestrian crosswalks to line up with the existing concrete walkway
Hospital, Main Entrance	No existing pedestrian improvements	Provide new pedestrian gathering area (with L-shape seating), walkway and lighting at south side of parking area in front of main entrance (see Condition 29 for more detail). Create entry statement that eventually tapers down to no less than a five-foot wide walkway.
Hospital, Access from Southbound Transit Stop	Non-conforming parking lot area, No existing pedestrian improvements	Provide five-foot wide direct connection from south-bound transit stop to main entrance (include crosswalks, sidewalk, and painted walkway with road safety buttons) immediately north of existing landscape area within main entrance driveway.

Walkways would be raised from parking lot elevations except in the case of the existing non-conforming hospital main entrance walkway that will be painted similar to a crosswalk and separated from auto travel lanes using safety buttons. The safety buttons shall be raised above the driveway pavement elevation. All walkways, proposed or to be upgraded, shall meet city standards and have lighting that meets city minimum lighting requirements.

27. The new walkways shall be sidewalk height to differentiate it from the parking and roadway paving (see 17.62.070.D). These walkways shall meet the requirements of Chapter 31 of the UBC. Where walkways cross driving aisles, separate textural material (see 17.62.070.D), striping or other continuous and detectable markings shall be used to indicate the crosswalk and alert motorists. The crossing shall have contrasting, slip resistant materials and be a minimum of 36 inches wide.
28. ADA accessible walkways and ramps shall be added for new walkways.

29. The building addition is proposed with a front setback of 7 foot 2 inches. Institutional buildings must be set back no further than 5 feet from a transit street. The slightly larger setback is allowed with enhancements that are required for the new main pedestrian entrance to the hospital.

A new main pedestrian entrance shall be located a few feet north of the new addition. The entry should encourage the proper use of this entry point. The plaza should encourage use as an employee/ pedestrian visitor gathering area.

The plan shall be revised to comply with the following requirements:

- a. The applicant shall keep the walkway areas (minimum 5 feet wide) separate from the plaza area as required by the ADA.
- b. The plaza area shall be located next to Division Street starting within 50 feet of the northwest corner of the new building addition.
- c. The applicant shall provide shaded areas within the plaza.
- d. The applicant shall provide at least two L-shape plaza area benches for group conversations or meetings.
- e. The applicant shall provide signage that help guide people from the sidewalk to the plaza.
- f. The applicant shall provide at least two benches along the proposed walkway under the existing trees to take advantage of shade.

Design shall be approved by city staff prior to construction permit issuance.

30. The parking lot is appropriately designed to minimize conflicts between pedestrians and vehicles. In locations where pedestrian and vehicle circulation must cross the applicant shall provide crosswalks. These crosswalks shall be of a different textural material than the driveways and parking areas. These areas must meet the requirements of Chapter 31 of the UBC.

MASTER PLAN

31. The hospital shall receive a comprehensive city master plan approval prior to any future city land use approval or site development permit issuance (other than those approved as part of the associated Condition Use Permit CU 03-03, this Site Plan and Design Review or required in Conditions 2, 3 and 4 of this approval). The master plan shall be based on all hospital properties in the Division Street area and include; phased development projects, full area traffic analysis, infrastructure evaluation and plans, multi-model planning (on and off-site) , vehicle and bicycle parking evaluation, evaluation of non-conformance, proposed timing and other required items.

BUILDING IMPROVEMENTS

32. The eastern side of the south elevation (121 feet) is non-compliant as it only has a few windows. The applicant must provide no areas exceeding 30 feet where there are less than two of the following required design elements:
- Change in plane,
 - Change in texture or masonry pattern,
 - Windows, treillage with vines, or
 - An equivalent element that subdivides the wall into human scale proportions.

Provide this change with the revised drawing set (see Condition 51).

33. A new building entrance in the southwest corner of the new addition is proposed to face in a south direction (at ninety degree angle to Division Street). This entrance is needed to face south to help emergency room accessibility from the new parking area to the south. The applicant will provide an access walkway and door that directly faces Division Street, a transit street. This door may be part of the proposed vestibule for the above-mentioned entry.
34. As proposed, the new structure would not meet the East façade minimum projection/recession depth and minimum distance for the projection/recession and the west façade for minimum distance for the projection. Also, a portion of the south façade would have over 100 feet of uninterrupted façade. The applicant must modify the design and get staff approval to fully meet these criteria prior to construction permit issuance. The tables below indicate the non-compliant items in italics.

Wall Plane Projections/Recessions

Facade	Length Proposed	Depth Proposed	Minimum Depth Required	Proposed Distance of Projection/Recession	Distance of Projection/Recession Required
East	87.25 feet	<i>0 feet</i>	<i>2.6 feet</i>	<i>0 feet</i>	<i>17.5 feet</i>
West	131 feet	4 foot	4 feet	<i>20 feet</i>	<i>26.2 feet</i>

100 Feet of Uninterrupted Façade Length

Facade	100 Foot of Uninterrupted Façade?	Distance of Uninterrupted Façade
North	No	n/a
South	Yes	<i>120.33 feet</i>
East	No	n/a
West	No	n/a

Provide the necessary changes with the revised drawing set (see Condition 51).

35. The stone columns are in compliance as they repeat on the front façade every 28 feet. The column distance exceeds the 30 foot maximum limit or is not part of the design on the north, south and east elevations. The applicant must comply with the requirement above on these sides of the new building addition. Provide the necessary changes with the revised drawing set (see Condition 51).
36. The proposed drawings include portions of three building facades that would not have recognizable tops; the south façade (easterly portion of the first floor), the easterly façade, and the north façade (second floor). These facades shall include recognizable top per Chapter 17.62.055.G.1. Provide the necessary changes with the revised drawing set (see Condition 51).

LIGHTING

37. The applicant has provided an incomplete lighting plan. The applicant's lighting plan indicates that lighting on the walkways would be as low as 0.1 foot-candle. The plan does not address the minimum (currently 3 foot-candles) required lighting for the pedestrian walkways. The updated plans will demonstrate the needed lighting both on pedestrian walkways and in parking and roadway areas (.5 foot-candles) while maintaining a .5 foot-candle maximum at the property lines. Provide a city approved, updated lighting plan in the full revised drawing set and construction permit drawings. See condition 51.
38. The lighting plan for the building shows lighting levels that do not meet the minimum of 4 foot-candles at either the main or the new proposed entrances. There is no indication what type of lighting is proposed and whether it will be shielded or at a pedestrian scale. The drawings do not meet minimum lighting levels at the new building access point. This area must be lit to a minimum of 4 foot-candles. Incorporate city approved lighting into the full revised drawing set and construction permit drawings. See condition 51.
39. Lighting shall be installed prior to final (or temporary) occupancy of the building, whichever comes first.

RIGHTS OF WAY AND IMPROVEMENTS

40. The following right-of way dedications and improvements are required:

Location	ROW Dedication	Improvements or Action Required	Timeframe
Division Street (from south property corner to the first driveway south of Davis Road)	34-foot half street	Build half street improvements - including 12 foot travel lane, 6 foot bike lane, 8 foot parallel parking, 4 foot portion of sidewalk with tree well (includes curb) and 4	Final city inspection required prior to any temporary or final occupancy are approved, whichever comes first*

Location	ROW Dedication	Improvements or Action Required	Timeframe
		foot clear sidewalk (abutting property line) One foot utility easement abutting property line (over portion of sidewalk)	
Davis Road (north of Medical Plaza 1)	12-foot wide section (per Condition 19 of SP 01-12, the approval of the Medical Plaza 1 facility)	None	Dedication to be complete prior to any temporary or final occupancy are approved, whichever comes first
Davis Road (north of parking structure)	None	Provide easement documentation to show public ingress and egress easement over existing sidewalk	Easement to be recorded and approved by city prior to any temporary or final occupancy are approved, whichever comes first
Trillium Park Drive	None	Build new city standard concrete sidewalk from northwest corner at Swordfern Court north to north end of retaining wall, redo asphalt sidewalk on west side of Trillium Park Drive from north end of retaining wall north to concrete sidewalk	Final city inspection required prior to any temporary or final occupancy are approved, whichever comes first*

* As an alternative, the city may accept a surety in lieu of final construction sign-off.

41. At the new southerly access point on Division Street, the applicant shall provide two exiting lanes (one left-turn and one right-turn lane) to reduce delay for exiting vehicles and to reduce the possibility that existing vehicles will block the entry into the emergency room parking lot.
42. The applicant proposes moving the existing northbound Tri-Met transit stop approximately 100 feet to the south on Division Street. The new location shall coincide with the new pedestrian walkway main entrance to the hospital (see Condition 27). Improvements shall be

made that meet Tri-Met requirements for shelter location, the design of the shelter, pedestrian and bus safety. The hospital shall also provide a cross-walk and sidewalk connection immediately north of the existing main traffic entrance to the hospital so that the southbound transit stop can be reached safely. The design of these improvements shall be approved by the city and Tri-Met. These items are to be added to the revised drawings, see Condition 51.

ENGINEERING AND MISCELLANEOUS

43. The project shall be constructed in conformance with the Comments and Recommendations section of the approved signed and stamped geotechnical investigation report for the site prepared by Patrick B. Kelley Consulting Engineer.
44. The applicant shall sign a Non-Remonstrance Agreement for the purpose of making sanitary sewer, storm sewer, water or street improvements in the future that benefit the Property and assessing the cost to benefited properties pursuant to the City's capital improvement regulations in effect at the time of such improvement.
45. The applicant is responsible for this project's compliance with Engineering Policy 00-01 (attached). The policies pertain to any land use decision requiring the applicant to provide any public improvements.
46. Provide a financial guarantee to assure performance in a form approved by the City Attorney for the construction and encroachment permits in the amount of 110% of the Engineer's approved cost estimate or shall provide such alternate guarantee as may be approved by the City Attorney. Submit an engineer's cost estimate for all public improvements and specific private improvements. City staff shall concur with the engineer's cost estimate. The city will require final inspection approval and evidence of recorded easements before releasing of performance surety. Additional requirements for release of performance surety can be obtained through the City Engineering Department. Additional requirements for specific projects are described in the following conditions.
47. All conditions associated with city reviewers and agencies shall be met.
48. The project applicant proposes shared common facilities that will be owned by the two applicants and that would not be the responsibility of the City of Oregon City for maintenance and necessary normal replacement. These include but are not necessarily limited to private roadway, utilities, and landscape areas. The applicant shall prepare a maintenance and replacement agreement that shall be reviewed by the city for acceptability. This agreement will be in place prior to temporary or final occupancy of the new structure, whichever comes first.
49. All utility lines shall be placed underground.
50. The applicant shall relocate the existing public utility easements located in the area of project improvements prior to the issuance of occupancy for the new building. The applicant shall

provide the City with evidence of relocated and abandoned easements prior to final (or temporary) occupancy, whichever comes first, of the new building.

51. The applicant shall provide full revised drawing sets (with new dates) that address the conditions herein, for approval by city staff, prior to any construction permit issuance for this project. The construction permit drawings shall reflect the requirements of these conditions.
52. The property owner shall execute a covenant to meet the requirement of Zoning Code Section 17.50.150. Evidence shall be provided to the city of covenant execution prior to final (or temporary) occupancy of the new building, whichever comes first.
53. Where the city agrees to the posting of a surety to assure performance in a form approved by the City Attorney, that surety may be from 110% to 150% (depending on type) of the city approved cost estimate for the work. The applicant would be responsible for preparing any estimates and getting city concurrence.

EXHIBITS:

1. City of Oregon City Pre-Application Conference Summary, dated May 27, 2003 (On File)
2. County Assessor's Maps (including entire property)
3. Application Form (On File)
4. 300-Foot Mailing Labels (On File)
5. Applicant's Conditional Use Permit and Site Plan Review Narrative, dated October 16, 2003
6. Applicant's Design Review Package Drawings, dated October 16, 2003 (B1.00, B1.01, B1.02, B1.03, B1.04, B1.05, B1.06, B1.07, B1.08, B1.09, B1.10, B1.11, B1.12, EXISTING GRADING PLAN, PROPOSED GRADING PLAN, B1.13, B1.14, C1.11, C1.12, C1.08 C1.04, C1.05, C1.06, C1.07, C1.13, B1.15, B1.16, B1.17, B1.18, B1.19, B1.20, L1.0, L1.1, L1.2, E1.01, E1.02). (On File)
7. Exhibit 6 - Reduced Design Review Package Drawings
8. Geotechnical Engineering Study Excerpt: Subsurface Investigation and Report; Willamette Falls Hospital Expansion for Emergency, Imaging, and Pharmacy Services; Oregon City, Oregon prepared by Patrick B. Kelly, Consulting Engineer dated October 14, 2003. (On File)
9. Traffic Evaluation Excerpt for the proposed Willamette Falls Hospital Redevelopment – Oregon City, Oregon by Kittelson & Associates, Inc. dated August 6, 2003. (On File)
10. Hydraulic Calculations Excerpt (Stormwater Report) for Willamette Falls Hospital by Lee Engineering, Inc. dated October (24), 2003. (On File)
11. Willamette Falls Hospital and Mountain View Nursing Home Revised Circulation Exhibit, dated November 24, 2003
12. Public Works comments, dated November 21, 2003
13. City Building Department comments
14. City Engineering Comments, dated December 10, 2003, 2003
15. Mr. and Mrs Dresdow Letter, dated December 9, 2003
16. City Traffic Engineer comments, dated December 3, 2003
17. City Engineering Policy 00-01 (On File)
18. Applicant's Revision – Site Statistics of Proposal (On File)
19. Applicant's Revision – Site Statistics of Existing Site, revised November 12, 2003 (On File)

WilFallsSPDRFour - SP 03-08

BEFORE THE OREGON CITY PLANNING COMMISSION

**In the Matter of a Request for a)
Conditional Use Permit, Site Plan and)
Design Review, and Water Quality)
Resource Exemption filed by)
Willamette Falls Hospital and)
Mountain View Avamere Properties;)
Oregon City File Nos. CU 03-03, SP 03-)
19 and WR 03-15.)
)**

**FINDINGS OF FACT, CONCLUSIONS OF
LAW AND FINAL ORDER**

INTRODUCTION

This matter came before the Oregon City Planning Commission on December 18, 2003, for a public hearing of an application for a Conditional Use Permit (CU), Site Plan and Design Review (SP), and Water Resource exemption (WR). Willamette Falls Hospital and Mountain View Avamere Properties jointly applied for permits for the approval of an expansion of the hospital, hospital and nursing home site improvements, and off site improvements. The properties are located on Division Street. The proposed 29,300 square foot building expansion would provide a new emergency room, area for imaging and diagnostic operations and an undetermined use area. The hospital, in coordination with the Mountain View Nursing Home, will develop a new shared access drive and site improvements, including new and modified parking lot areas.

After reviewing the Staff report as well as the testimony, evidence and arguments put forth by the applicant and other participants at the public hearing, the Planning Commission finds that the criteria for a CU, SP, and WR exemption have been met or can be met with the conditions of approval and, therefore, **APPROVES** WR 03-15 and **APPROVES WITH CONDITIONS** CU 03-03 and SP 03-19.

FACTS

Site improvements are desired for the 10-acre Willamette Falls Hospital and Mountain View Avamere Nursing Home properties located on Division Street south of Davis Road. Willamette Falls Hospital proposes a 29,300 square foot expansion (25,250 square foot footprint) to their hospital. A portion of the site improvements (including building expansion) would take place after the demolition of the existing 15,700 square foot Mountain View Medical Offices.

Proposed improvements to the Willamette Falls Hospital property include the building addition, new shared entrance driveway and revised circulation (including ambulance access), new landscaping and new parking. The nursing home will share the new entrance driveway, and proposes improvements such as new landscaping and a new rear parking area. Nursing home truck deliveries are proposed to be rerouted to avoid the need to back out to Division Street after providing service. The new road will allow the trucks to exit via the hospital's northern Division Street entrance.

In addition to the expansion indicated above, the applicant proposes updated truck and vehicle circulation, parking facilities and drop-off areas for both property owners. The new circulation plan will require lot line adjustments. Lot consolidation will also be required as there are existing buildings that cross property lines. Lot line adjustments shall be reviewed under separate land use reviews.

The main access to the Mountain View Nursing Home will be relocated to the south. Site circulation will continue to be provided via on-site private driveways and streets. The subject site includes the following Overlay Districts; Water Quality Resource District (WQRD), Seismic Hazard Area and Unstable Slope/Landslide Area zone. The latter two districts are on the eastern edge of the site and would have no

bearing on the improvements being proposed. The property is also identified as having a shallow underground water table. The site, which is zoned Limited Office, is surrounded by low-density residential housing to the north, east and west and Limited Office to the south.

CRITERIA

Conditional Use

OCMC 17.56 provides the grounds for reviewing CU applications. The applicant held a public meeting with the neighbors and Trillium Park Home Owners Association on December 16, 2003. At this meeting the Hospital and Association began a dialogue to try and address the neighbors concerns about hospital traffic using the rear access of the hospital that exits onto Trillium Park Drive. The Planning Commission determined that the new two-way access route through the facility to Division Street in conjunction with new signs and education of hospital employees will reduce the traffic using Trillium Park Drive and did not require the access to be closed at this time as requested by the Association. The Planning Commission added an additional Condition of Approval to the CU that requires the applicant to appear before the Planning Commission 6-months after final occupancy or provide a written agreement between the hospital and the Association indicating that the access issue to Trillium Park Drive had been resolved. The Planning Commission approved the CU application with the addition of the following condition of approval to the existing conditions presented at the hearing and contained in the staff report dated December 11, 2003.

One of two actions will take place regarding the potential closure of Willamette Falls Hospital's Trillium Park driveway: 1. Within 6 months of final occupancy a letter of agreement signed by the Trillium Park Homeowner's Association and Willamette Falls Hospital will be provided to city staff; or 2. The possible closure of the driveway will be reviewed by the Planning Commission. The Trillium Park Homeowners will be included with the public notice for all public hearings that are needed.

Attachment A of this report reflects the final conditions of approval that the Planning Commission approved for the CU application at the hearing.

Site Plan and Design Review

The applicant requested amendments to 6 conditions of approval for the SP to provide clarification and flexibility, which staff agreed with and the Planning Commission approved at the December 18, 2003 hearing. The following condition of approval were amended at the Planning Commission Hearing:

Condition of Approval 8 was amended to require a 110% rather than 150% surety. The City requires a 110% surety for the site improvements the condition was referencing.

Conditions of Approval 9, 16, and 39 were amended to add or by providing a surety (see condition 24). to the end of each staff report proposed condition. Do to the multiple phases of development and the necessity to provide continued emergency service during the construction and site improvements, the condition was amended to allow the applicant to either finish the required improvement by occupancy or provide a surety in lieu of the improvement.

Condition of Approval 12 was amended to: Bicycle parking areas shall have the minimum lighting level required by city code. The reference to a specific, numeric lighting standard was removed to allow the applicant to provide the lighting standard in place at time of development.

Condition of Approval 49 was amended to: All on-site utility lines shall be placed underground. The reference to on-site utilities was added to clarify that the utilities along Division Street are not required to be placed underground.

Attachment B of this report reflects the final conditions of approval that the Planning Commission approved for the SP application at the hearing.

CONCLUSION

For all of the above reasons and based on the findings in the Staff Reports for Planning Files CU 03-03, SP 03-19, and WR 03-15, the Planning Commission concludes that the Water Resource Exemption is **APPROVED** and the Conditional Use Permit and Site Plan and Design Review are **APPROVED with CONDITIONS**, which are included as Attachments A and B.

ATTACHMENTS

- A. CU 03-03 Conditions of Approval
- B. SP 03-19 Conditions of Approval

ATTACHMENT A
CONDITIONS OF APPROVAL
PLANNING FILE: CU 03-03
Date: December 22, 2003

RIGHTS OF WAY AND IMPROVEMENTS

1. The following right-of way dedications and improvements are required:

Location	ROW Dedication	Improvements or Action Required	Timeframe
Division Street (from south property corner to the first driveway south of Davis Road)	34-foot half street	Build half street improvements - including 12 foot travel lane, 6 foot bike lane, 8 foot parallel parking, 4 foot portion of sidewalk with tree well (includes curb) and 4 foot clear sidewalk (abutting property line) One foot utility easement abutting property line (over portion of sidewalk)	Final city inspection required prior to any temporary or final occupancy are approved, whichever comes first*
Davis Road (north of Medical Plaza 1)	12-foot wide section (per Condition 19 of SP 01-12, the approval of the Medical Plaza 1 facility)	None	Dedication to be complete prior to any temporary or final occupancy are approved, whichever comes first
Davis Road (north of parking structure)	None	Provide easement documentation to show public ingress and egress easement over existing sidewalk	Easement to be recorded and approved by city prior to any temporary or final occupancy are approved, whichever comes first
Trillium Park Drive	None	Build new city standard concrete sidewalk from northwest corner at Swordfern Court north to north end of retaining wall, redo asphalt sidewalk on west side of Trillium Park Drive from north end of retaining wall north to concrete sidewalk	Final city inspection required prior to any temporary or final occupancy are approved, whichever comes first*

* As an alternative, the city may accept a surety in lieu of final construction sign-off.

2. The applicant proposes moving the existing northbound Tri-Met transit stop approximately 100 feet to the south on Division Street. The new location shall coincide with the new pedestrian walkway main entrance to the hospital. Improvements shall be made that meet Tri-Met requirements for shelter location, the design of the shelter, pedestrian and bus safety. The hospital shall also provide a cross-walk and sidewalk connection immediately north of the existing main traffic entrance to the hospital so that the southbound transit stop can be

reached safely. The design of these improvements shall be approved by the city and Tri-Met. These items are to be added to the revised drawings, see Condition 4.

CIRCULATION

3. The applicant shall revise the circulation plan to result in two-way circulation in the area between the hospital and the nursing home (see concept in Exhibit 11). Revisions shall be made to the preliminary drawing set to reflect this circulation change. Emphasis shall be placed on the existing and new Division Street ingress and egress points and not the Trillium Park Drive access. The city will approve the circulation plan prior to issuance of any constructions permits. The applicant shall provide revised drawings per Condition 4.

4. The applicant shall provide full revised drawing sets (with new dates) that address the conditions herein, for approval by city staff, prior to any construction permit issuance for this project. The construction permit drawings shall reflect the requirements of these conditions.

MASTER PLAN

5. The hospital shall receive a comprehensive city master plan approval prior to any future city land use approval or site development permit issuance (other than those approved or conditioned for approval as part of this conditional use permit or the associated site plan and design review, SP03-19). The master plan shall be based on all hospital properties in the Division Street area and include; phased development projects, full area traffic analysis, infrastructure evaluation and plans, multi-model planning (on and off-site) , vehicle and bicycle parking evaluation, evaluation of non-conformance, proposed timing and other required items.

MISCELLANEOUS

6. All conditions associated with city reviewers and agencies shall be met.

7. Where the city agrees to the posting of a surety to assure performance in a form approved by the City Attorney, that surety may be from 110% to 150% (depending on type) of the city approved cost estimate for the work. The applicant would be responsible for preparing any estimates and getting city concurrence.

COVENANT EXECUTION

8. The property owner shall execute a covenant to meet the requirement of Zoning Code Section 17.50.150. Evidence shall be provided to the city of covenant execution prior to final (or temporary) occupancy of the new building, whichever comes first.

ADDED CONDITION

9. One of two actions will take place regarding the potential closure of Willamette Falls Hospital's Trillium Park driveway: 1. Within 6 months of final occupancy a letter of agreement signed by the Trillium Park Homeowner's Association and Willamette Falls Hospital will be provided to city staff; or 2. The possible closure of the driveway will be reviewed by the Planning Commission. The Trillium Park Homeowners will be included with the public notice for all public hearings that are needed.

ATTACHMENT B
CONDITIONS OF APPROVAL
December 22, 2003
SP 03-19

BUILDING HEIGHT AND SETBACKS

1. Sheet B1.18 indicates that the building being proposed would be 35 feet 10 inches (45 feet for mechanical equipment) in some places. This would exceed the maximum height and is not permitted under this application. The applicant shall revise the design to not exceed the 35 foot height limit.

2. Interior Side Yard Requirements:

Building	Existing Interior Side Yard Setback (10 feet required)	Proposed Project Interior Side Yard Setback	Suggested Methods for Conditional Compliance
Willamette Falls Hospital	10 feet	2 feet	Move proposed building location, Property line adjustment or Variance
Medical Plaza 1	0 feet	0 feet	Property Line Adjustment, Lot consolidation
Medical Plaza 2	0 feet	0 feet	Property Line Adjustment, Lot consolidation
Parking Structure	0 feet	0 feet	Property Line Adjustment, Lot consolidation
Mountain View Nursing Home	9 feet 2 inches	Same	Property line adjustment
Mountain View Medical Offices	8 inches	To be removed	N/A

Each of the existing buildings does not meet the minimum 10-foot interior side yard setback requirement. Compliance is required for all buildings prior to temporary or final occupancy, whichever comes first.

The proposed addition would also not meet the minimum 10 foot requirement. The hospital addition would be within 2 feet of the interior property line that is shared with the Mountain View Nursing Home property. A property line adjustment or a variance is needed to approve the building in the proposed location.

3. Rear Yard Requirement:

Building	Rear Yard Setback (10 feet required)	Proposed Rear Yard Setback	Methods for Conditional Compliance
Medical Plaza 1	0 feet	0 feet	Property Line Adjustment, Lot consolidation

Medical Plaza 1 does not meet the rear setback requirement. Property line adjustment or lot consolidation is required prior to temporary or final occupancy, whichever comes first.

4. Prior to issuing any building permits, consolidate the lots, or provide lot line adjustments through the city process so all existing and proposed buildings are in accordance with the required City zoning setback requirements. Such lot line adjustments or consolidations shall be completed and accepted by the county prior to issuance of temporary or permanent occupancy permits for any of the proposed buildings. As an alternative, the city may accept a surety in lieu of final construction sign-off.

CIRCULATION

5. The applicant shall revise the circulation plan to result in two-way circulation in the area between the hospital and the nursing home (see concept in Exhibit 11). Revisions shall be made to the preliminary drawing set to reflect this circulation change. Emphasis shall be placed on the existing and new Division Street ingress and egress points and not the Trillium Park Drive access. The city will approve the circulation plan prior to issuance of any constructions permits. The applicant shall provide revised drawings per Condition 51.
6. Vehicles for deliveries and garbage pickup to the nursing home shall enter at the southernmost entrance on Division Street. The applicant shall change the parking lot design to work with the concept design in Exhibit 11. Service vehicles will egress through the hospital property at the northernmost entrance on Division Street. Signage will be added (in city agreed locations) to prohibit trucks from exiting at Trillium Park Drive.
7. The proposed driveway at Trillium Park Drive would constitute a safety concerns due to the proposed realignment of this driveway and the resulting 5-way intersection. The applicant shall leave the driveway in its current location. The applicant shall build an ADA compliant pedestrian sidewalk refuge between the existing driveway and the corner of Trillium Park Drive and Swordfern Court. New sidewalk shall be provided per condition 40.

PARKING AND PARKING LANDSCAPING

The following lot numbers are used to identify parking areas that have conditions of approval associated with them:

Parking Lot Number	Parking Lot Description
1.	Proposed South of New Hospital Addition
2.	Modified North of New Hospital Addition
3.	Modified Southeast and East of Hospital
4.	Modified West of Nursing Home
5.	Expanding East of Nursing Home

8. Performance Bond for Site Improvements
Completion Time for Site Improvements. As the required site improvements are to be spread out over three phases, the site improvements must be built and available for use before the final inspection is completed by the building inspector. An extension of time, not to exceed one year may be granted by the building inspector providing that a performance bond, or its equivalent, is posted equaling one hundred ten percent of the cost of completion of the improvements as confirmed by the building inspector, provided the parking space is not required for immediate use. In the event the improvements are not completed within one year's time, the improvements shall be constructed under the direction of the city, utilizing the proceeds of the performance bond or its equivalent as necessary.

9. Lot 1 contains a parking space (the furthest west parking space) proposed with a 3.5-foot landscape area between it and the new sidewalk. The plans shall be revised to meet the minimum 5-foot landscape area requirement or provide a 30-inch low wall.

Three other proposed areas that would not meet the minimum five-foot width for landscaping are in Lot 1 between the parking lot and the ambulance turnaround, Lot 3 in the north landscape area (near the truck turnaround) and in Lot 5 on the western edge (just south of the nursing home). A minimum width of 5 feet of new landscaping will on the perimeter of the new parking areas provided in these areas or a 30-inch low wall (per Chapter 17.52.030.B) shall be provided. These landscape improvements will be provided prior to temporary or final occupancy, whichever comes first, or by providing a surety (see condition 24).

10. The applicant has designated an area for 20 carpool/vanpool parking spaces within the hospital parking area. The hospital site being reviewed as one site (and being required to consolidate lots) proposes 683 total parking spaces. Provide the minimum of 34 spaces (5%) that must be carpool/vanpool parking spaces.

The nursing home has no dedicated carpool/vanpool parking spaces. There would be 62 total parking spaces on the nursing home property. A minimum of 3 spaces (5%) shall be carpool/vanpool parking spaces. The nursing home would have 4 handicap parking spaces, none of which would be van accessible. At minimum, the ADA requires at least van accessible parking space for a parking lot of this size. The updated plan shall indicate one, city approved, van accessible parking space for the nursing home.

Identify employee parking areas for each property. Indicate this information on a full revised drawing set and the construction permit drawings.

11. All parking lot improvements shall be ready for use before the final (occupancy) inspection is completed by the building inspector or city approved assurance is paid.
12. An updated drawing set, that includes the following bike parking information, and any other required changes, shall be submitted and approved by staff prior to building permit approval. All bicycle parking spaces on both sites shall be indicated and meet the requirements of the Oregon City zoning code. Bicycle parking spaces shall meet the minimum required number of on-site spaces and be convenient, secure and accessible to main building entrances on-site buildings. Bicycle parking areas shall have the minimum lighting level required by code.
13. Bicycle parking:
 - a. The applicant proposes 6 new bike parking spaces located outside the new hospital expansion area, 8 new spaces at the proposed east entrance and 7 existing bike parking spaces on the north side of the hospital. The entire hospital facility will have 683 parking spaces requiring 34 bike parking spaces. The nursing home will have 62 parking spaces requiring 2 bike parking spaces. The updated drawing set shall have the minimum required bicycle parking spaces. These will be provided prior to temporary or final occupancy, whichever comes first.
 - b. No bicycle parking is indicated at the main entrance to the hospital. The hospital must include some city staff approved, bicycle parking spaces at the main entrance to the hospital. Similarly, the nursing home required 2 bike parking spaces shall be located near the main entrance to this facility. All required bicycle parking areas, shall be approved by staff, and shall meet the requirements of this code.
 - c. All bicycle parking shall offer security in the form of either a lockable enclosure in which the bicycle can be stored or a stationary rack to which the bicycle can be locked. All bicycle racks and lockers shall be securely anchored to the ground or to a structure. Bicycle racks shall be designed so that bicycles may be securely locked to them without undue inconvenience
14. The bicycle areas near the Division Street entrances shall have signs indicating "Public Bike Parking". In addition, the employee bicycle parking area shall be clearly marked with signage that reads "Employee Bike Parking." This signage will be provided prior to temporary or final occupancy, whichever comes first.
15. Lot 3 does not have the shade trees in the landscape area north (near the truck turnaround area) of this parking lot. Likewise, Lot 5 would not meet the minimum tree requirement on the western edge of this lot, just south of the nursing home. The updated drawing set shall

indicate the minimum number of trees in these areas. These landscape improvements will be provided prior to temporary or final occupancy, whichever comes first.

16. Where a minimum of 5 feet of shrubs divides parking areas, additional grass landscape area is allowed. Two areas that would not meet the maximum five foot spacing requirement under the applicant's proposed drawings are Lot 3 in the north landscape area (near the truck turnaround) and in Lot 5 on the western edge (just south of the nursing home). All shrubs shall be planted five feet apart or closer. The updated drawing set shall indicate the minimum number of shrubs in these areas. These landscape improvements will be provided prior to temporary or final occupancy, whichever comes first, or by providing a surety (see condition 24).

Three of the proposed areas would not meet the minimum five-foot width for landscaping both within and on the perimeter of parking areas. The three areas include; Lot 1, between the parking lot and the ambulance turnaround; Lot 3 in the north landscape area (near the truck turnaround) and; Lot 5 on the western edge (just south of the nursing home). A minimum width of 5 feet of new landscaping shall be provided in these areas or a 30-inch low wall (see Chapter 17.52.030.B) may be substituted. These improvements shall be indicated on the revised preliminary drawings and implemented prior to temporary or final occupancy, whichever comes first.

17. The applicant will receive staff approval for screening of the garbage areas and other ancillary facilities prior to issuance of temporary or final occupancy of the new building expansion, whichever comes first.
18. Lot 2 is proposed to be partially renovated due to Division Street dedications and improvements that are being completed as part of this project. The existing Lot 2 will maintain the (non-conforming) interior landscape areas but will have new landscaping along its Division Street frontage. Lot 3 will have new perimeter landscape areas added in the areas where the new driveway and parking lot connections will be built. See also Conditions 15 to 16.

LANDSCAPING

19. The driveway at Trillium Park Drive has a number of safety related concerns including alignment with the intersection at Swordfern Court and line of sight plantings. The driveway shall not be realigned as proposed. The Emerald Green Arborvitae, and the Flamingo Japanese Pieris and any other plants that grow above 3 feet in height must not be planted within the line of sight areas.
20. The applicant shall provide an in-ground irrigation system for all landscape areas. Prior to final (or temporary) occupancy of the new building, the applicant shall provide an irrigation plan that meets this requirement and is reviewed and approved by the city.

21. The applicant has proposed an assortment of trees for parking lot landscaping that do not meet the minimum 3-inch caliper size. All trees shall meet the minimum 3-inch caliper size.
22. The Honey Locust tree does not have a deep root system and will "heave paving" when placed close to walkways and asphalt areas. The applicant shall use another variety of tree with a deeper root system, rather than the Honey Locust. The Honey Locust also produces pods that make a mess. The applicant shall use another variety of tree with a deeper root system and not produce seed pods or fruit, rather than the Honey Locust.
23. None of the trees proposed is coniferous. The applicant shall intersperse some coniferous trees in the parking areas.
24. Landscape materials shall be installed according to accepted planting procedures, under American Nurseryman Standards. The site, soils, and proposed irrigation systems shall be appropriate for the healthy and long-term maintenance of the plants. The design standards from Chapter 13.12, Stormwater Management must be incorporated into the landscaping. Final (or temporary) certificates of occupancy shall not be issued unless the landscaping requirements have been met or other arrangements have been made and approved by the city, such as the posting of a surety.
25. In addition to the trees to be saved on the applicant's landscape plans (see Sheets L1.1 and L1.2), two trees within Lot 2 (immediately north of proposed addition and within the closest parking stall area) shall be saved, unless the project landscape architect indicates that these trees cannot be saved due to their proximity to construction. All existing trees to remain at the perimeter of and within construction areas, shall be properly protected by the applicant with fencing surrounding the root system of each tree and protected throughout the construction process or the city may place a stop work on the construction of this project.

WALKWAYS

26. The applicant has proposed new pedestrian walkways for some areas on the site. In addition to the proposed new areas, direct and convenient access shall be provided for the following:

Property, Location	Existing Status	Upgrade Required
Nursing Home, New South Entry Road	Substandard walkway	Provide walkway and lighting from Division Street to main entrance of nursing home
Hospital, New Entrance to Emergency Room	Existing improvements that will be demolished	Provide walkway and lighting for applicant proposed walkway, a direct access walkway and lighting
Hospital/Nursing Home, Pedestrian Connection from New ER entrance to Nursing	Existing improvements that will be demolished	Provide direct walkway and lighting

Property, Location	Existing Status	Upgrade Required
Home Front Entrance		
Hospital/Nursing Home, Pedestrian Connection between north side of nursing home and southeast side of hospital	Existing Concrete pedestrian walkway between properties	With redesign of two-way access road (see Exhibit 11) provide pedestrian crosswalks to line up with the existing concrete walkway
Hospital, Main Entrance	No existing pedestrian improvements	Provide new pedestrian gathering area (with L-shape seating), walkway and lighting at south side of parking area in front of main entrance (see Condition 29 for more detail). Create entry statement that eventually tapers down to no less than a five-foot wide walkway.
Hospital, Access from Southbound Transit Stop	Non-conforming parking lot area, No existing pedestrian improvements	Provide five-foot wide direct connection from south-bound transit stop to main entrance (include crosswalks, sidewalk, and painted walkway with road safety buttons) immediately north of existing landscape area within main entrance driveway.

Walkways would be raised from parking lot elevations except in the case of the existing non-conforming hospital main entrance walkway that will be painted similar to a crosswalk and separated from auto travel lanes using safety buttons. The safety buttons shall be raised above the driveway pavement elevation. All walkways, proposed or to be upgraded, shall meet city standards and have lighting that meets city minimum lighting requirements.

27. The new walkways shall be sidewalk height to differentiate it from the parking and roadway paving (see 17.62.070.D). These walkways shall meet the requirements of Chapter 31 of the UBC. Where walkways cross driving aisles, separate textural material (see 17.62.070.D), striping or other continuous and detectable markings shall be used to indicate the crosswalk and alert motorists. The crossing shall have contrasting, slip resistant materials and be a minimum of 36 inches wide.
28. ADA accessible walkways and ramps shall be added for new walkways.
29. The building addition is proposed with a front setback of 7 foot 2 inches. Institutional buildings must be set back no further than 5 feet from a transit street. The slightly larger

setback is allowed with enhancements that are required for the new main pedestrian entrance to the hospital.

A new main pedestrian entrance shall be located a few feet north of the new addition. The entry should encourage the proper use of this entry point. The plaza should encourage use as an employee/ pedestrian visitor gathering area.

The plan shall be revised to comply with the following requirements:

- a. The applicant shall keep the walkway areas (minimum 5 feet wide) separate from the plaza area as required by the ADA.
- b. The plaza area shall be located next to Division Street starting within 50 feet of the northwest corner of the new building addition.
- c. The applicant shall provide shaded areas within the plaza.
- d. The applicant shall provide at least two L-shape plaza area benches for group conversations or meetings.
- e. The applicant shall provide signage that help guide people from the sidewalk to the plaza.
- f. The applicant shall provide at least two benches along the proposed walkway under the existing trees to take advantage of shade.

Design shall be approved by city staff prior to construction permit issuance.

30. The parking lot is appropriately designed to minimize conflicts between pedestrians and vehicles. In locations where pedestrian and vehicle circulation must cross the applicant shall provide crosswalks. These crosswalks shall be of a different textural material than the driveways and parking areas. These areas must meet the requirements of Chapter 31 of the UBC.

MASTER PLAN

31. The hospital shall receive a comprehensive city master plan approval prior to any future city land use approval or site development permit issuance (other than those approved as part of the associated Condition Use Permit CU 03-03, this Site Plan and Design Review or required in Conditions 2, 3 and 4 of this approval). The master plan shall be based on all hospital properties in the Division Street area and include; phased development projects, full area traffic analysis, infrastructure evaluation and plans, multi-model planning (on and off-site) , vehicle and bicycle parking evaluation, evaluation of non-conformance, proposed timing and other required items.

BUILDING IMPROVEMENTS

32. The eastern side of the south elevation (121 feet) is non-compliant as it only has a few windows. The applicant must provide no areas exceeding 30 feet where there are less than two of the following required design elements:
 - a. Change in plane,

- b. Change in texture or masonry pattern,
- c. Windows, treillage with vines, or
- d. An equivalent element that subdivides the wall into human scale proportions.

Provide this change with the revised drawing set (see Condition 51).

33. A new building entrance in the southwest corner of the new addition is proposed to face in a south direction (at ninety degree angle to Division Street). This entrance is needed to face south to help emergency room accessibility from the new parking area to the south. The applicant will provide an access walkway and door that directly faces Division Street, a transit street. This door may be part of the proposed vestibule for the above-mentioned entry.
34. As proposed, the new structure would not meet the East façade minimum projection/recession depth and minimum distance for the projection/recession and the west façade for minimum distance for the projection. Also, a portion of the south façade would have over 100 feet of uninterrupted façade. The applicant must modify the design and get staff approval to fully meet these criteria prior to construction permit issuance. The tables below indicate the non-compliant items in italics.

Wall Plane Projections/Recessions

Facade	Length Proposed	Depth Proposed	Minimum Depth Required	Proposed Distance of Projection/Recession	Distance of Projection/Recession Required
East	87.25 feet	<i>0 feet</i>	<i>2.6 feet</i>	<i>0 feet</i>	<i>17.5 feet</i>
West	131 feet	4 foot	4 feet	<i>20 feet</i>	<i>26.2 feet</i>

100 Feet of Uninterrupted Façade Length

Facade	100 Foot of Uninterrupted Façade?	Distance of Uninterrupted Façade
North	No	n/a
South	Yes	<i>120.33 feet</i>
East	No	n/a
West	No	n/a

Provide the necessary changes with the revised drawing set (see Condition 51).

35. The stone columns are in compliance as they repeat on the front façade every 28 feet. The column distance exceeds the 30 foot maximum limit or is not part of the design on the north, south and east elevations. The applicant must comply with the requirement above on these sides of the new building addition. Provide the necessary changes with the revised drawing set (see Condition 51).

36. The proposed drawings include portions of three building facades that would not have recognizable tops; the south façade (easterly portion of the first floor), the easterly façade, and the north façade (second floor). These facades shall include recognizable top per Chapter 17.62.055.G.1. Provide the necessary changes with the revised drawing set (see Condition 51).

LIGHTING

37. The applicant has provided an incomplete lighting plan. The applicant's lighting plan indicates that lighting on the walkways would be as low as 0.1 foot-candle. The plan does not address the minimum (currently 3 foot-candles) required lighting for the pedestrian walkways. The updated plans will demonstrate the needed lighting both on pedestrian walkways and in parking and roadway areas (.5 foot-candles) while maintaining a .5 foot-candle maximum at the property lines. Provide a city approved, updated lighting plan in the full revised drawing set and construction permit drawings. See condition 51.
38. The lighting plan for the building shows lighting levels that do not meet the minimum of 4 foot-candles at either the main or the new proposed entrances. There is no indication what type of lighting is proposed and whether it will be shielded or at a pedestrian scale. The drawings do not meet minimum lighting levels at the new building access point. This area must be lit to a minimum of 4 foot-candles. Incorporate city approved lighting into the full revised drawing set and construction permit drawings. See condition 51.
39. Lighting shall be installed prior to final (or temporary) occupancy of the building, whichever comes first, or by providing a surety (see condition 24).

RIGHTS OF WAY AND IMPROVEMENTS

40. The following right-of way dedications and improvements are required:

Location	ROW Dedication	Improvements or Action Required	Timeframe
Division Street (from south property corner to the first driveway south of Davis Road)	34-foot half street	Build half street improvements - including 12 foot travel lane, 6 foot bike lane, 8 foot parallel parking, 4 foot portion of sidewalk with tree well (includes curb) and 4 foot clear sidewalk (abutting property line) One foot utility easement abutting property line (over portion of sidewalk)	Final city inspection required prior to any temporary or final occupancy are approved, whichever comes first*

Location	ROW Dedication	Improvements or Action Required	Timeframe
Davis Road (north of Medical Plaza 1)	12-foot wide section (per Condition 19 of SP 01-12, the approval of the Medical Plaza 1 facility)	None	Dedication to be complete prior to any temporary or final occupancy are approved, whichever comes first
Davis Road (north of parking structure)	None	Provide easement documentation to show public ingress and egress easement over existing sidewalk	Easement to be recorded and approved by city prior to any temporary or final occupancy are approved, whichever comes first
Trillium Park Drive	None	Build new city standard concrete sidewalk from northwest corner at Swordfern Court north to north end of retaining wall, redo asphalt sidewalk on west side of Trillium Park Drive from north end of retaining wall north to concrete sidewalk	Final city inspection required prior to any temporary or final occupancy are approved, whichever comes first*

* As an alternative, the city may accept a surety in lieu of final construction sign-off.

41. At the new southerly access point on Division Street, the applicant shall provide two exiting lanes (one left-turn and one right-turn lane) to reduce delay for exiting vehicles and to reduce the possibility that existing vehicles will block the entry into the emergency room parking lot.
42. The applicant proposes moving the existing northbound Tri-Met transit stop approximately 100 feet to the south on Division Street. The new location shall coincide with the new pedestrian walkway main entrance to the hospital (see Condition 27). Improvements shall be made that meet Tri-Met requirements for shelter location, the design of the shelter, pedestrian and bus safety. The hospital shall also provide a cross-walk and sidewalk connection immediately north of the existing main traffic entrance to the hospital so that the southbound transit stop can be reached safely. The design of these improvements shall be approved by the city and Tri-Met. These items are to be added to the revised drawings, see Condition 51.

ENGINEERING AND MISCELLANEOUS

43. The project shall be constructed in conformance with the Comments and Recommendations section of the approved signed and stamped geotechnical investigation report for the site prepared by Patrick B. Kelley Consulting Engineer.
44. The applicant shall sign a Non-Remonstrance Agreement for the purpose of making sanitary sewer, storm sewer, water or street improvements in the future that benefit the Property and assessing the cost to benefited properties pursuant to the City's capital improvement regulations in effect at the time of such improvement.
45. The applicant is responsible for this project's compliance with Engineering Policy 00-01 (attached). The policies pertain to any land use decision requiring the applicant to provide any public improvements.
46. Provide a financial guarantee to assure performance in a form approved by the City Attorney for the construction and encroachment permits in the amount of 110% of the Engineer's approved cost estimate or shall provide such alternate guarantee as may be approved by the City Attorney. Submit an engineer's cost estimate for all public improvements and specific private improvements. City staff shall concur with the engineer's cost estimate. The city will require final inspection approval and evidence of recorded easements before releasing of performance surety. Additional requirements for release of performance surety can be obtained through the City Engineering Department. Additional requirements for specific projects are described in the following conditions.
47. All conditions associated with city reviewers and agencies shall be met.
48. The project applicant proposes shared common facilities that will be owned by the two applicants and that would not be the responsibility of the City of Oregon City for maintenance and necessary normal replacement. These include but are not necessarily limited to private roadway, utilities, and landscape areas. The applicant shall prepare a maintenance and replacement agreement that shall be reviewed by the city for acceptability. This agreement will be in place prior to temporary or final occupancy of the new structure, whichever comes first.
49. All on-site utility lines shall be placed underground.
50. The applicant shall relocate the existing public utility easements located in the area of project improvements prior to the issuance of occupancy for the new building. The applicant shall provide the City with evidence of relocated and abandoned easements prior to final (or temporary) occupancy, whichever comes first, of the new building.
51. The applicant shall provide full revised drawing sets (with new dates) that address the conditions herein, for approval by city staff, prior to any construction permit issuance for this project. The construction permit drawings shall reflect the requirements of these conditions.

52. The property owner shall execute a covenant to meet the requirement of Zoning Code Section 17.50.150. Evidence shall be provided to the city of covenant execution prior to final (or temporary) occupancy of the new building, whichever comes first.
53. Where the city agrees to the posting of a surety to assure performance in a form approved by the City Attorney, that surety may be from 110% to 150% (depending on type) of the city approved cost estimate for the work. The applicant would be responsible for preparing any estimates and getting city concurrence.

REPLINGER & ASSOCIATES LLC
TRANSPORTATION ENGINEERING

February 8, 2012

Ms. Laura Terway
City of Oregon City
PO Box 3040
Oregon City, OR 97045

**SUBJECT: REVIEW OF TRANSPORTATION IMPACT ANALYSIS – MASTER PLAN
PROVIDENCE WILLAMETTE FALLS MEDICAL CENTER – CP11-01 & DP11-03**

Dear Ms. Terway:

In response to your request, I have reviewed the materials submitted in support of the proposed master plan for the Providence Willamette Falls Medical Center (PWPMC). The relevant materials included the project narrative, site plan and the Transportation Impact Analysis (TIA) prepared for the PWPMC Master Plan. The TIA was prepared in August 2011 under the direction of Julia Kuhn, PE of Kittelson & Associates, Inc. In addition I reviewed email comments provided by Gail Curtis and Avi Tayar, PE of the Oregon Department of Transportation.

The Master Plan covers the area bounded between Division Street, Davis Road, Trillium Park Drive, and Gilman Drive, in addition to the property immediately west of Division Street between 14th Street and 16th Street and the property immediately east of Division Street between Penn Lane and Davis Road. The campus currently consists of facilities totaling approximately 335,000 square feet. These facilities will remain in operation. An expansion totaling 104,000 square feet is proposed.

The TIA addresses a three-phase development of the site. The phases consist of improvements to the Division Street parking lot; hospital additions and remodels; and the construction of two medical office buildings. For the purposes of the transportation analysis, all three phases are presumed to be completed by 2021. The future year transportation analyses were based on 2021.

The TIA provides a basis upon which the development proposal can be evaluated for conformance with master plan criteria and transportation impacts.

Comments

1. **Study Area.** The study addresses the appropriate intersections. As required in Oregon City's Guidelines for Traffic Impact Analyses, the analysis includes all intersections where the change exceeds 25 peak hour trips. The engineer evaluated traffic patterns and traffic volumes and evaluated 13 locations. The key intersections were:

- OR 213/Redland Road
- Redland Road/Holcomb Boulevard
- Redland Road/Anchor Way
- Division Street/Davis Road
- Division Street/15th Street

- Division Street/7th Street
- Division Street/Molalla Avenue
- Molalla Avenue/7th Street
- Six site driveways (two on Davis Road and four on Division Street, including the one at Division Avenue/15th Street)

The study area is appropriate.

- 2. Traffic Counts.** The traffic counts used in the analysis were conducted in June 2011. Traffic counts were conducted during both the AM and PM peak periods and were adjusted to an annual average weekday condition. The counts appear reasonable.
- 3. Trip Generation.** The traffic counts conducted at the site driveways were used to calculate a specific trip generation rate for the medical center complex. In addition, the engineer provided comparison values with other Providence medical center facilities in the Portland region. The engineer also provided information from the Employee Commute Option data to help explain why trip generation was lower than values cited in ITE *Trip Generation*.

The engineer accounts for occupancy of approximately 16,000 square feet of space in the existing campus buildings that is currently unoccupied. This is appropriate.

One element of the Master Plan is the construction of a central utility plant. The engineer indicates the facility is not expected to cause any increase in traffic, but uses an industrial use to calculate a few additional trips. Based on the information in the project narrative and site plan and aerial photographs of the site, it appears some existing utilities that are not currently covered or enclosed will be within a structure. The engineer's estimate of trips seems reasonable. ODOT suggested that the treatment of the central utility plant might have caused the traffic to be underestimated. I disagree. I find that trip generation methodology was adequately explained and accurately executed.

The additional development proposed in the master plan is forecast to produce 87 additional AM peak hour trips and 91 additional PM peak hour trips. This compares with current traffic of 339 AM peak hour trips and 356 PM peak hour trips.

- 4. Trip Distribution.** The trip distribution seems reasonable. The trip distribution shows traffic being disbursed in all directions.
- 5. Traffic Growth.** The traffic counts were adjusted to account for growth for the proposed ten-year build-out period. The engineer used a 1.37 percent annual growth rate on Highway 213 and from 1.5 to 2.0 percent annually to account for other growth depending on street classification. The traffic growth assumptions and methodology appear reasonable.
- 6. Analysis.** Traffic volumes were calculated for the intersections described in #1, above. At each location, the level of service (LOS) and delay calculations were provided to assess operations relative to the city's intersection LOS standard and the volume-to-capacity ratio for the intersection on Highway 213. The analysis was undertaken for the AM and PM peak hours and

included year 2011 background conditions, 2021 background conditions and year 2021 with build-out of the campus. The engineer appropriately accounts for the improvements scheduled to be constructed at the intersection of Highway 213/Redland Road in the analyses of 2021 operations.

According to the engineer, under existing 2011 conditions, all study area intersections are calculated to operate at acceptable performance levels during both the AM and PM peak periods. Two of the key study area intersections, Highway 213/Redland Road and Redland Road/Holcomb Boulevard, are within the Regional Center and are, therefore, allowed to have a lower level of service than the other intersections. According to city standards, low-volume approaches at unsignalized intersections are also allowed to operate at LOS E during the peak hours.

A traffic operations analysis was also conducted for 2021 background traffic conditions that account for ten years of traffic growth as described in #5, above. Most study area intersections are predicted to continue to operate acceptably, but with some issues as discussed below.

- The Redland Road/Holcomb Boulevard-Abernethy Road intersection is predicted to operate at LOS E during the PM peak hour. Outside the regional center boundaries, this would be unacceptable. Within the regional center, we also look at the second hour of the peak period. During the second hour, the Redland Road/Holcomb Boulevard-Abernethy Road intersection operates at LOS D, which is within acceptable city standards.
- The Molalla Avenue/7th Street intersection is predicted to operate at LOS F during the pm peak period as a result of the westbound approach. This does not meet city standards. Based on the applied growth rates, the Molalla Avenue/7th Street intersection is anticipated to meet city standards through the year 2016. In 2017, the westbound left at this intersection is anticipated to operate at LOS F with more than 50 seconds of delay.
- The Redland Road/Anchor Way intersection is predicted to operate at LOS F during the pm peak hour as a result of the eastbound approach. These operations also do not meet city standards. Based on the applied growth rates, the Redland Road/Anchor Way intersection is anticipated to meet city standards through the year 2017. In 2018, the northbound left at this intersection is anticipated to operate at LOS F with more than 50 seconds of delay.
- The operations of the remaining intersections and access points meet the applicable standards through the year 2021.

Under the 2021 build-out traffic conditions, the engineer indicates that Molalla Avenue/7th Street and Redland Road/Anchor Way intersections are further degraded. The engineer offers mitigation options to allow the intersections to operate at city standards. The engineer indicates the following improvements would be needed to meet city standards at these intersections:

- Molalla Avenue/7th Street: The city has been evaluating the potential for a roundabout at this location. With a roundabout in-place, this intersection would meet city standards at full build-out of the master plan.
- Redland Road/Anchor Way: This intersection is anticipated to warrant a traffic signal within the next six years. This improvement has been identified in the Oregon City TSP. With a signal in-place, this intersection would meet standards.

I concur with the engineer's conclusions about the predicted failure of the intersections under background conditions and what is needed to achieve adequate operations.

7. **Turn Lanes at Site Entrance(s).** The site access points are all predicted to operate acceptably and there does not appear to be a need for lanes beyond those in place or planned.
8. **Crash Information.** The TIA provided a comprehensive summary of crash history at the study area intersections. Only five locations had any crashes in the five-year period from 2005 through 2009. Even those five had low crash rates and no patterns requiring further analysis were identified. No mitigation was recommended and none appears to be warranted.
9. **Pedestrian and Bicycle Facilities.** The TIA provides a good summary of the existing facilities. The narrative and site plan indicate the implementation of the master plan will improve facilities and conditions. Counts of bicycles parked on site were also provided.
10. **Site Plan and Access.** The master plan provides for reconstruction of the existing Division Street parking lot (Phase 1) and adds new parking in connection with a proposed medical office building on the west side of Division Street in Phase 3.

The report provides a detailed analysis of parking utilization and parking needs including information on parking on adjacent streets. Based on current parking use, the report suggests 138 new parking spaces may be needed and recommends monitoring of employee trips to evaluate parking ratios as development occurs. The report provides information on a downward trend of drive-alone transportation by employees that could reduce parking demand.

The project narrative indicates frontage improvements, including pedestrian features, will be implemented in connection with various project elements.

11. **Intersection Spacing.** The master plan does not create any new intersections.
12. **Sight Distance.** The engineer identified some sight distance limitations that should be corrected through relocation of an existing hospital sign and pruning of vegetation. The engineer recommends moving the hospital sign at Division Street and Davis Road to the east to improve sight distance at that location. The engineer also recommends that parking restrictions and bulb-outs be considered in order to improve sight distance at the intersections of Division Street/Davis Road, Division Street/15th Street, and the Division Street/PWFMC access between 13th Street and 14th Street. The city and property owners should seek prune vegetation as required.

13. Consistency with the Transportation System Plan (TSP). The project narrative indicates frontage improvements will be made to city standards.

The suggested mitigation to improve performance of the intersections of Molalla Avenue/7th Street and Redland Road/Anchor Way is consistent with the needs identified in the TSP.

14. Conclusions and Recommendations. The engineer provides a series of conclusions that I summarize as follows:

- All study area intersections currently operate at accepted performance levels during the AM and PM peak periods.
- All study area intersections exhibit low crash rates
- Sight distance at access locations can be improved. The hospital sign at Division Street and Davis Road should be relocated. Vegetation should be trimmed by property owners and the city.
- The proposed expansion of the campus is expected to increase trips with 87 new AM peak hour trips and 91 new PM peak hour trips.
- Increases in background traffic will cause two intersections, Redland Road/Anchor Way and Molalla Avenue/7th Street, to fall below city operational standards within five or six years.
- In year 2021, the build-out year for the master plan, both intersections would operate acceptably with installation of a traffic signal at the former and a roundabout at the later.
- The Employee Commute Options program indicates drive-alone travel to the campus has decreased over time.
- The campus currently has sufficient parking and with continuation of the same parking utilization ratios, 138 new parking spaces would be adequate to accommodate the expansion identified in the master plan.
- The PWFMC should monitor the parking use and travel options by employees and visitors to see if the current parking utilization ratios remain valid.
- The PWFMC should monitor parking in the neighborhood and work with the neighbors to mitigate the impact.

The engineer makes a series of recommendations that I summarize as follows:

- The sight distance should be improved by relocation of the hospital sign. The city and property owners should help improve sight distance by pruning of vegetation.
- The PWFMC should monitor parking utilization to see if current trends continue. If the current utilization rates continue, 138 new spaces will be needed.
- The PWFMC should work with the city to contribute a pro rata share of improvements needed at Redland Road/Anchor Way and Molalla Avenue/7th Street. The engineer provides a calculation at each intersection identifying the percentage of total 2021 traffic is attributable to the traffic increases associated with the new development on the campus identified in the master plan.

I concur with the conclusions of the applicant's engineer. I have some reservations about the recommendations and present those below.

Ms. Laura Terway
February 8, 2012
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Conclusion and Recommendations

I find that the TIA provides an adequate basis upon which to assess the impacts of the master plan proposal.

I agree with the engineer's conclusion that the failure of two key intersections, Redland Road/Anchor Way and Molalla Avenue/7th Street, can be attributed to forecast increases in background traffic. I also agree that mitigation consisting of signalization and a roundabout, respectively, can bring the intersections to an appropriate operational standard.

My interpretation of the master plan approval criteria is that the transportation system and the key intersections must have capacity to accommodate the proposed development. Showing that there is a solution is not sufficient. Contributing a pro rata share based on total volumes will not provide adequate funding for the improvements to be in place when needed.

I recommend that approval of the master plan be conditioned on the identification and commitment of adequate resources from the applicant and others to assure that the identified mitigations or other alternative solutions can be constructed and operational at the time when they are required to meet city operational standards. Based on the information provided in the TIA, I conclude the paving of the parking lot, identified as Phase 1 of the master plan, need not be conditioned on off-site transportation system improvements.

If you have any questions or need any further information concerning this review, please contact me at replinger-associates@comcast.net.

Sincerely,



John Replinger, PE
Principal

Oregon City\2011\CP11-01.docx

CITY OF OREGON CITY

**ENGINEERING POLICY 00-01
Guidelines for Development**

EFFECTIVE: April 10, 2000

PREPARED BY

PUBLIC WORKS DEPARTMENT

625 Center Street

Post Office Box 3040

Oregon City, Oregon 97045-0304

Telephone: (503) 657-0891

Development Services Division

Applicability. This policy applies to applicants for land use decisions and site plan reviews with regard to providing public improvements and submittal of documentation. The following sections outline some of the important requirements and helpful hints for those unfamiliar with providing public improvements as required by the Oregon City Municipal Code and Oregon City Public Works Standards. This is not an all-inclusive list of City requirements and does not relieve the applicant from meeting [the Conditions of Approval](#) and all applicable City Code and Public Works Standards.

Availability of Codes and Standards. Copies of these City Codes and Standards are available [online at www.orcity.org](#) and at City Hall in hard copy or CD-ROM for a nominal price. Some engineering firms in the local metropolitan area already own these Codes and Standards to enable them to properly plan, design, and construct City projects.

General

- Applicants shall design and construct all required public works improvements to City Standards. These Standards include the latest version in effect at the time of application of the following list of documents: Oregon City Municipal Code, Water Master Plan, Transportation System Plan, Sanitary Sewer Master Plan, Drainage Master Plan, [and any adopted individual Drainage Basin Plans](#). It includes the Public Works Design Standards, which is comprised of Sanitary Sewer, Water Distribution System, Stormwater and Grading, and Erosion Control. This list also includes the Street Work Drawings and the Site Traffic Impact Study Procedures. It may also include the City of Oregon City Review Checklist of Subdivision and Partition Plats when the development is a Subdivision, Partition, or Planned Unit Development.

Water (Water Distribution System Design Standards)

- The applicant shall provide water facilities for their development. This includes water mains, valves, fire hydrants, blow-offs, service laterals, and meters.
- All required public water system improvements shall be designed and constructed to City standards.
- The Fire Marshall shall determine the number of fire hydrants and their locations. All hydrants to be completed, installed, and operational before beginning structural framing. Hydrants shall be painted with Rodda All-Purpose Equipment Enamel (1625 Safety Orange Paint) and all chains shall be removed from the fire hydrants.
- Backflow prevention assemblies are required on all domestic lines for commercial buildings, all fire service lines, and all irrigation lines [and require a plumbing permit issued by the City's Building Division](#). Backflow prevention assemblies are also required on residential domestic lines greater than or equal to 2-inch diameter. These assemblies are also required where internal plumbing is greater than 32 feet above the water main. The type of backflow prevention device required is dependent on the degree of hazard. City Water Department personnel, certified as cross connection inspectors, shall determine the type of device to be installed in any specific instance. All backflow prevention devices shall be located on the applicant's property and are the property owner's responsibility to test and maintain in accordance with manufacturer's recommendations and Oregon statutes.
- The applicant shall verify that there are no wells on site, or if any wells are on the site prior to connecting to the public water system; the applicant shall:
 - Abandon the well per Oregon State requirements and provide copies of the final approval of well abandonment to the City; or

- Disconnect the well from the home and only use the well for irrigation. In this case, the applicant shall [obtain a plumbing permit from the City's Building Division](#) to install a back flow preventor on the public service line. The applicant shall also coordinate with the City water department to provide a cross connection inspection before connecting to the public water system.
- [New water line system must be flushed, filled to test for bacteria and pressure tested; and City Water Division will obtain two bacteriological testing results within 24 hours, and contractor shall obtain City Water Division approval before final connection to existing water line system.](#)

Sanitary Sewer (Sanitary Sewer Design Standards)

- The applicant shall provide sanitary sewer facilities to their development. This includes gravity mains, manholes, stub outs, and service laterals.
- All required public sanitary sewer system improvements shall be designed and constructed to City standards.
- Applicant must process and obtain sanitary sewer system design approval from DEQ.
- Any existing septic system on site shall be abandoned and certification documentation provided from Clackamas County [to the City Development Services Division](#) before recording the plat or obtaining a certificate of occupancy.
- If the Land Use application involves a restaurant, deli, or the like, it will require a private grease interceptor installation which can be quite costly. The Applicant should look into this with their engineer/architect for proper location, installation, and cost estimate as part of their due diligence in deciding to do the project. There are also periodic maintenance costs as well.

Stormwater (Stormwater and Grading Design Standards)

- The applicant shall provide stormwater and detention facilities for their development. This includes the stormwater mains, inlets, manholes, service laterals for roof and foundation drains, detention system if necessary, control structure if necessary, inflow and outflow devices if necessary, energy dissipaters if necessary, and landscaping when directed by the Public Works Stormwater and Grading Standards.
- [The applicant must design, construct, and complete the entire stormwater system, including the pond and it's landscaping prior to recording of the plat or obtaining a certificate of occupancy permit. The City will not accept a surety for the pond landscaping unless Staff determines that an adequate planting season is not available prior to submission of the final plat. Even if this is the case, Staff will still require a minimum of an adequate application of hydro seeding/erosion blanket, sod, or other means to ensure the pond performs adequately to meet turbidity regulations within the City's Erosion Control regulations.](#)
- The applicant shall design and construct required public stormwater system improvements to City standards and it shall be completed before building permits are issued. Each project is to coordinate with the City Drainage Master Plan, the Public Works Stormwater and Grading Standards, and the appropriate individual Basin Master Plan (as adopted) and incorporate recommendations from them as directed.
- The applicant shall design the stormwater system to detain any increased runoff created through the development of the site, as well as convey any existing off-site surface water entering the site from other properties.

- The applicant shall submit hydrology/detention calculations to the City Development Services Division for review and approval before approval of construction plans. The applicant shall provide documentation to verify the hydrology and detention calculations. The applicant shall show the 100-year overflow path and shall not design the flow to cross any developed properties.

Dedications and Easements

- The applicant shall obtain and record all off-site easements required for the project before City approval of construction plans.

Streets

- The applicant shall provide street facilities to their site including within the site and on the perimeter of the site where it borders on existing public streets. This includes half- and full-street width pavement as directed, curbs, gutters, planter strips or tree wells as directed, street trees, sidewalks, and bicycle lanes (when required by the type of street classification). This also includes city utilities (water, sanitary and storm drainage facilities), [handicap access ramps at intersections and mid-block as directed](#), traffic control devices, centerline/[intersection](#) monumentation in monument boxes, and street lights in compliance with the City Code for Oregon City and its various Master Plans. Half-street improvements include an additional 10-foot wide pavement past the centerline subject to City review of existing conditions. [This provides the required improvement on the applicant's portion of the roadway, and allows the opposing travel way to have safe passage on the new gradient.](#)
- All street names shall be reviewed and approved by the City ([Planning and Building Divisions 722-3789](#)) prior to approval of the final plat to ensure [names meet current Planning Division Street Name criteria and that](#) no duplicate names are proposed in Oregon City or the 9-1-1 Service Area.
- All street improvements shall be completed and street name and traffic control signs shall be installed before issuance of building permits.
- The applicant is responsible for all sidewalks in their development. The applicant may transfer the responsibility for the sidewalks adjacent to the right-of-way as part of the requirement for an individual building permit on local streets. However, failure to do so does not waive the applicant's requirement to construct the sidewalks. Applicant shall complete sidewalks on each residential or industrial/commercial lot in accordance with the Land Division (or Project) Compliance Agreement for the project (e.g.; subdivision, partition, or Planned Unit Development) or prior to the final sign off of a building permit.
- Applicant shall install sidewalks along any tracts within their development, any pedestrian/bicycle accessways within their development, along existing homes or industrial/commercial buildings within the development's property boundaries, and all handicap access ramps required in their development [at the time of street construction](#).
- Street lights shall typically be owned by the City of Oregon City under PGE [Option "B"](#) and installed at the expense of the applicant. The applicant shall submit a street light plan, subject to City and PGE approval, prepared by a qualified electrical contractor. Streetlights shall be placed at street intersections and along streets at property lines. The required lights shall be installed by a qualified electrical contractor.
- Streetlights are to be spaced and installed per recommendations of the Illuminating Engineering Society of North America as published in their current issue of IES, RP-8 to provide adequate lighting for safety of drivers, pedestrians, and other modes of transportation. Streetlights for local streets shall be 100-watt high-pressure sodium fixtures

mounted on **direct-bury** fiberglass poles with a 25-foot mounting height unless otherwise specified. Streetlights for arterial, collector, and neighborhood collector streets shall be **200-watt** high-pressure sodium fixtures mounted on **base-mounted** brushed aluminum poles with a 30-foot mounting height unless otherwise specified. The applicant shall dedicate any necessary electrical easements on the final plat. All streetlight fixtures, mastheads, and poles shall be constructed of material approved by PGE for maintenance by PGE.

- Street lights along certain designated traffic corridors such as Molalla Avenue require specially-approved non PGE approved lights. These systems are owned and operated by the City and require design by an Oregon-licensed Professional Electrical Engineer who shall stamp the appropriate street light plans. The design shall include the provision of either extending power from an existing City light system or providing a new meter for the power. Provisions to extend these light systems shall be provided.

Grading And Erosion Control

- The applicant's engineer shall submit rough grading plan with construction plans. The engineer shall certify completed rough grading elevations to +/- 0.1 feet. For single family residential developments, a final residential lot-grading plan shall be based on these certified grading elevations and approved by the City Engineer before issuance of a building permit. If significant grading is required for the residential lots due to its location or the nature of the site, rough grading shall be required of the developer before the acceptance of the public improvements. (See Geotechnical section for cut and fill certification issues on building lots or parcels) There shall not be more than a maximum grade differential of two (2) feet at all site boundaries. Final grading shall in no way create any water traps, or create other ponding situations.
- Applicants shall obtain a DEQ 1200c permit when their site clearing effort is over one (1) acre, as modified by DEQ. Applicant shall provide a copy of their DEQ 1200c permit to the City before any clearing efforts are started.
- An Erosion Prevention and Sedimentation Control Plan shall be submitted for City approval. Applicant shall obtain an Erosion Control permit before any work on site.
 - Dewatering excavations shall not be allowed unless the discharge water meets turbidity standards (see next bullet) or is adequately clarified before it enters on-site wetlands, drainage courses, and before it leaves the site. Discharge from man-made, natural, temporary, or permanent ponds shall meet the same standard.
 - Construction activities shall not result in greater than 10 percent turbidity increase between points located upstream and downstream of construction activities.
 - Effective erosion control shall be maintained after site work is complete and throughout building permit issuance.
 - Plans shall document erosion prevention and control measures that will remain effective and be maintained until all construction is complete and permanent vegetation has been established on the site.
 - Responsible party (site steward) for erosion control maintenance throughout construction process shall be shown on the Erosion Control Plan.
 - Staff encourages applicant to select high performance erosion control alternatives to minimize the potential for water quality and fish habitat degradation in receiving waters.

Geotechnical

- Any structural fill to accommodate public improvements shall be overseen and directed by a geotechnical engineer. The geotechnical engineer shall provide test reports and certification that all structural fill has been placed as specified and provide a final summary report to the City certifying all structural fill on the site before City approval and acceptance of public improvements.
- Any cut or fill in building lots or parcels beyond the rough grading shall be subject to the Building Division's requirements for certification under the building permit.

Engineering Requirements

- Design engineer shall schedule a pre-design meeting with the City of Oregon City Development Services Division before submitting engineering plans for review.
- Street Name/Traffic Control Signs. Approved street name signs are required at all street intersections with any traffic control signs/signals/stripping.
- Bench Marks. At least one benchmark based on the City's datum shall be located within a subdivision.
- Other Public Utilities. The applicant shall make necessary arrangements with utility companies for the installation of underground lines and facilities. The City Engineer may require the applicant to pay these utility companies to use trenchless methods to install their utilities in order to save designated and marked trees when the utility crosses within a dripline of a tree marked, or identified, to be saved. Applicant to bear any additional costs that this may incur.
- Technical Plan Check and Inspection Fees. The current Technical Plan Check and Inspection Fee shall be paid before approval of the final engineering plans for the required site improvements. The fee is the established percentage of a City-approved engineer's cost estimate or actual construction bids as submitted by the applicant. Half of the fee is due upon submitting plans [to Development Services](#); the other half is due upon approval of the final plans.
- It is the City's policy that the City will only provide spot check inspection for non public-funded improvements, and the applicant's engineer shall provide inspection and surveying services necessary to stake and construct the project and prepare the record (as-built) drawings when the project is complete.
- [The Applicant's inspector and contractor shall follow the City's Minimum Guidelines for Public Works Construction \(available on the City website\).](#)
- Applicant shall submit two (2) sets of final engineering plans for initial review by the City Development Services Division to include the drainage report (wet signed by the responsible engineer), and the cost estimate with half of the Technical Plan Check fee. The engineering plans shall be blackline copies, 22" x 34" or 24" x 36". Blue line copies are not acceptable.
- For projects such as subdivisions, partitions, and Planned Unit Developments, the applicant shall submit a completed copy of the City's latest final subdivision and partition plat checklist, the plat review fee, and a paper copy of the preliminary plat.
- Two (2) copies of any revised documents (in response to redlined comments) will be required for subsequent reviews, if necessary.
- The applicant shall submit, for the final City approval, seven (7) copies of the plans with two full sets wet signed in blue over the engineer's Professional Engineer Oregon stamp.
- Minimum Improvement Requirements. Applicant shall provide a surety on developments for uncompleted work including landscaping before a plat is recorded or a building sign off as required by a Compliance Agreement (available in hard copy or electronic version from City Development Services or on the City website). This occurs if the

applicant wishes to record the final plat before completion of all required improvements or occupy the new development prior to completion of the public improvements including landscaping. Surety shall be an escrow account, construction set-aside, performance guaranty, or in a form that is acceptable to the City Attorney (no bonds are allowed).

- Upon conditional acceptance of the public improvements by the City, the applicant shall provide a two-year maintenance guarantee as described in the Compliance Agreement. This Maintenance Guarantee shall be for fifteen (15) percent of the engineer's cost estimate or actual bids for the complete public improvements.
- The applicant shall submit a paper copy of the record (as-built) drawings, of field measured facilities, to the City Engineer for review before building permits are issued beyond the legal limit. Upon approval of the paper copy by the City Engineer, applicant shall submit a bond copy set and two 4-mil mylar record drawings sets as directed.
- The applicant shall submit one full set of the record (as-built) drawings, of field measured facilities, on AutoCAD files on CD-ROM, in a format acceptable to the City Engineer, and include all field changes.
- One AutoCAD file of the preliminary plat, if applicable, shall be furnished by the applicant to the City Addressing staff (in the Building Division) for addressing purposes. A sample of this format may be obtained from the City Geographical Information System Division. This information, and documents, shall be prepared at the applicant's cost.
- The applicant's surveyor shall also submit, at the time of recordation, a copy of the plat on a CD-ROM to the City in a format that is acceptable to the City's Geographic Information System Division.
- The City reserves the right to accept, or reject, record drawings that the City Engineer deems incomplete or unreadable that are submitted to meet this requirement. The applicant shall be responsible for all costs associated with meeting this condition. The applicant shall ensure their engineer submits the record drawings before the City will release final surety funds or residential building permits beyond the legal limit.
- Final Plat Requirements, if applicable. The final plat shall comply with ORS 92.010 through 92.190, and City Code. In addition the following requirements shall be required:
 - The applicant, and their surveyor, shall conform to the City's submittal and review procedures for the review and approval of plats, easements, agreements, and other legal documents associated with the division of this parcel.
 - Show the City Planning File Number on the final plat, preferably just below the title block.
 - A blackline copy of the final plat illustrating maximum building envelopes shall be submitted to the Planning Division concurrently with submittal of the plat to ensure setbacks and easements do not conflict.
 - Use recorded City control surveys for street centerline control, if applicable.
 - Show state plane coordinates on the Point of Beginning.
- The civil construction drawings, once approved by the City Development Services Division, shall have an approval period of one year in which to commence with construction. The plans and drawings shall be valid, once the City Engineer holds the preconstruction conference and construction activity proceeds, for as long as the construction takes. If the construction drawings expire before construction commences, the applicant shall ensure the civil construction documents and plans conform to the latest Standards, Specifications, and City Codes that are in place at the time of the update. The applicant shall bear the cost associated with bringing them into conformance, including additional technical plan check and review costs. [The applicant is reminded that the City Code requires that the final plat be submitted to the Development Services Division within two years after land use decision.](#)

- The applicant shall include a statement in proposed Conditions, Covenants, and Restrictions (CC & R's), plat restrictions, or some other means acceptable to the City Attorney for:
 - Maintaining surface runoff patterns established for each lot,
 - Maintaining any proposed private storm lines or detention, and
 - Conformance by individual lot owner to the City's erosion control standards when establishing or renovating landscaping.
 - The applicant shall submit the proposed method and statement to the Planning staff for review and approval, before final plat approval.
- Construction vehicles and other vehicles associated with the development shall only use the entrance as approved by the City Development Services Division to enter their site and these vehicles shall park or wait on the construction site. The applicant should provide a specified area of off street parking for the site's construction workers which meets the erosion/sedimentation control measures. Supplier vehicles and trailers (hauling vehicles) and actual construction vehicles shall not park, or wait, in such a manner that would block or hinder access for emergency vehicles. This includes private vehicles belonging to construction workers, supplier vehicles and trailers, and actual construction vehicles.
- Site construction activity is to only occur between 7:00 AM and 6:00 PM on Monday through Friday; between 9:00 AM and 6:00 PM on Saturday. No site improvement construction activity is allowed on Sunday. Construction activity includes all field maintenance of equipment, refueling, and pick up and delivery of equipment as well as actual construction activity.
- The applicant shall ensure that all applicable outside agencies are contacted and any appropriate approvals obtained for the construction of the project. The applicant shall supply copies of approvals to the City. Failure to do so shall be a justification for the City to prevent the issuance of a construction or building permit or to revoke an issued permit for this project.
- The applicant shall be responsible for paying all fees associated with the recording of documents such as non-remonstrance agreements, easements, and dedications.
- Should the applicant, or any assigns or heirs, fail to comply with any of the conditions set forth here, the City may take the appropriate legal action to ensure compliance. The applicant shall be responsible for any City legal fees and staff time associated with enforcing these conditions of approval.

I:\Engineering\Policy\EP00-01v6.doc

From: [CURTIS Gail E](#)
To: [Laura Terway](#)
Cc: [TAYAR Abraham * Avi](#)
Subject: FW: Oregon City Providence hospital expansion
Date: Tuesday, January 31, 2012 11:41:00 AM

Avi Tayar of our traffic engineer team has found some discrepancies and errors in the Providence Hospital TIA that you should know about. While the corrections will not impact OR213, the only state facility in the area, the corrections will likely have implications for the city's system and SDC collection. There is a potential for 25 percent more trips than estimated for the expansion and an error was made in the applicable ODOT v/c standard. This is the extent of our comments. We have no objection to the proposal. Please see below for further detail on the traffic generation.

Gail Curtis, AICP
Senior Planner, Region 1, Oregon Department of Transportation 123 NW Flanders Street Portland OR 97209-4012
gail.e.curtis@odot.state.or.us 503-731-8206 <http://www.oregon.gov/ODOT/>

From: TAYAR Abraham * Avi
Sent: Monday, January 30, 2012 5:04 PM
To: CURTIS Gail E
Subject: RE: Oregon City hospital expansion

ODOT have the following issues:

I. ODOT's standard for the intersection of OR213 and Redland Road is 0.99 V/C ratio rather than the reported Kittelson's TIA V/C ratio of 1.1.

II. Estimated Trip Generation - Table 5 of the TIA indicates that measured trip generation for the PWFMC is based on traffic counts. The TIA proposes to apply different trip generation rate for the Central Utility Plant (CUP) than the rate above (proposed for other hospital expansion area). The existing Campus area is reported to be 335,076 square feet (Table 6), and it is unclear if it includes any CUP areas that support the Campus. If current Campus area (335K+ SF) includes any supporting CUP areas, only one proposed trip generation rate should be applied for all expansion areas (an increase of approx. 25% in the trip generation estimate).

From: CURTIS Gail E
Sent: Thursday, January 26, 2012 4:06 PM
To: TAYAR Abraham * Avi
Subject: Oregon City hospital expansion

COMMENTS DUE BY: **February 6th, 2012 to Gail please.**

From: [Tony Konkol](#)
To: mcgriffd@pdc.us
Cc: [Laura Terway](#)
Subject: FW: WFH meeting - November 10th
Date: Tuesday, January 10, 2012 5:30:21 PM
Attachments: [Nov 10 2011 mtg roster - 11-14-11 - 4UPMVDV.pdf](#)

Evening Denyse,
Thanks for passing along this information.
Tony

From: McGriff, Denyse [mailto:McGriffD@pdc.us]
Sent: Monday, January 09, 2012 3:23 PM
To: Tony Konkol
Subject: WFH meeting - November 10th

<<Nov 10,2011 mtg roster - 11-14-11 - 4UPMVDV.pdf>>

I had a thought before hitting the sack last night- I thought did I ever send this list to you.
If I did chalk it up to the my mind's computer memory being full! ☺

Special MNA Neighborhood Mtg
November 10, 2011

Name	Where You Live in MNA
Debbie McAuley	Trillium Park Estates
Missy Hille	Lincoln St.
DENNIS LIPE TPEHOA	13779 BEAN CT.
MISSY LIPE TPEHOA	13774 BEAN CT.
Gerald Dietz	2263 Gilman Dr.
Tony Vaught	1831 Davis Rd.
Allan Dunn	1807 Davis Rd. (18450 Vogel)
Viktor Deyna	13829 CANYON CT 97089
Robert Ripp	14th St.
Sam Solomon	1123 Grant St.
Jessica Martin	1808 15th St
Kathy Huebner	1810 15th St.
Valdie Martin	17475 Harriet Ave
Herman Martin	17475 Harriet Ave
DONALD KILOH	1116 GRANT STREET
Karen Smith (formerly 1309 Van Buren St)	
- Linda Wilson	Grant St.
Nick Bocchetti	1610 18th St
Judy Joyner	1920 14th St.
Barbara Howard	1205 Division St
Mark Gross	13845 Bear Ct.
Bob Fischette	13768 Swardfern Ct
Kerrie Mengelberg	2263 Gilman Dr
Denise McPuff	315 Washington St. SE

From: [McGriff, Denyse](#)
To: [Laura Terway](#)
Subject: RE: Providence Willamette Falls Medical Center Master Plan Transmittal - Comments Due February 13, 2012 (Email 1 of 3)
Date: Monday, January 09, 2012 2:48:16 PM

Tim Powell. Normally, not under these circumstance, I would be reviewing it. Ok, then it is ok for to look at it as a planning commissioner, thanks.

From: Laura Terway [mailto:lterway@ci.oregon-city.or.us]
Sent: Monday, January 09, 2012 2:46 PM
To: McGriff, Denyse
Subject: RE: Providence Willamette Falls Medical Center Master Plan Transmittal - Comments Due February 13, 2012 (Email 1 of 3)

Denyse,
The information enclosed in the prior email will be forwarded to the PC with the Staff Report. Can you confirm who the current chair of McLoughlin is? I want to make sure our records are correct. Thank you!
-Laura

From: McGriff, Denyse [mailto:McGriffD@pdc.us]
Sent: Monday, January 09, 2012 2:40 PM
To: Laura Terway
Subject: RE: Providence Willamette Falls Medical Center Master Plan Transmittal - Comments Due February 13, 2012 (Email 1 of 3)

Thanks, Laura, I am handing this off to our MNA president for review on behalf of MNA. I do not plan to open any of the files, unless it is the same information I will be receiving as a planning commissioner. Let me know if that is the case. If so, I guess I could get my reading started early!!!

From: Laura Terway [mailto:lterway@ci.oregon-city.or.us]
Sent: Monday, January 09, 2012 2:27 PM
To: Bob Cullison; Nancy Kraushaar; John M. Lewis; Scott Linfesty; Samantha Vandagriff; Mike Boumann; Marek, Joe; Tom Geil; pauloedgar@q.com; Gail Curtis; damonmabee@comcast.net; william@smallflags.com; McGriff, Denyse
Subject: Providence Willamette Falls Medical Center Master Plan Transmittal - Comments Due February 13, 2012 (Email 1 of 3)

This is an electronic land use transmittal from Oregon City Planning Division. The attached application material is referred to you for your information, study and official comments. **If you need hard copies mailed to you, please contact the Planning Division.**

COMMENTS DUE BY: **February 13, 2012**
HEARING DATE: **February 27, 2012**
HEARING BODY: Staff Review; XX PC; HRB; CC

FILE # & TYPE: LL 11-07: Lot Line Adjustment
DP 11-03: Detailed Development Plan
CP 11-01: Master Plan
NR 11-05: Natural Resource Overlay Exemption

PLANNER: Laura Terway, AICP, Planner (503) 496-1553

APPLICANT: Providence Willamette Falls Medical Center

REQUEST: The applicant submitted a Concept (General) Development Plan, Detailed Development Plan, Lot Line Adjustment and Natural Resource Overlay District Exemption to analyze the build out of the Providence Willamette Falls Hospital over the next 10 years and construct a parking lot.

ZONING: "MUE" Mixed Use Employment District

LOCATION: 1500 Division Street, Oregon City, OR 97045
Clackamas County Map 2-2EAB, Tax Lots 01201, 01900, 02000, 02100, 02200, 02400, 02500, 02800, 02900, 03100, 03900, 04000, 04100, 04200, 04400, 04600
2-2E-32AA, Tax Lot 00400
2-2E-32AC, Tax Lots 00101, 00201



Laura Terway, AICP
Planner
Planning Division
PO Box 3040
221 Molalla Avenue, Suite 200
Oregon City, Oregon 97045
**7:30am-6pm Monday-Thursday and
by appointment on Friday**
Phone: 503.496.1553
Fax: 503.722.3880
lterway@orc.org

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 Please consider the environment before printing

PUBLIC RECORDS LAW DISCLOSURE: *This e-mail is subject to the State Retention Schedule and may be made available to the public.*

From: [Paul Edgar](#)
To: [Laura Terway](#)
Subject: Re: Providence Willamette Falls Medical Center Master Plan Transmittal - Comments Due February 13, 2012 (Email 2 of 3)
Date: Monday, January 09, 2012 4:36:21 PM

As the Land Use Chair of the CIC, I would like to get a hard copy of this report.

Thank You, Paul Edgar

On 1/9/2012 2:27 PM, Laura Terway wrote:

From: Laura Terway
Sent: Monday, January 09, 2012 2:27 PM
To: Bob Cullison; Nancy Kraushaar; John M. Lewis; Scott Linfesty; Samantha Vandagriff; Mike Boumann; 'Marek, Joe'; 'Tom Geil'; 'pauloedgar@q.com'; Gail Curtis; 'damonmabee@comcast.net'; 'william@smallflags.com'; 'McGriffD@pdc.us'
Subject: Providence Willamette Falls Medical Center Master Plan Transmittal - Comments Due February 13, 2012 (Email 1 of 3)

This is an electronic land use transmittal from Oregon City Planning Division. The attached application material is referred to you for your information, study and official comments. **If you need hard copies mailed to you, please contact the Planning Division.**

COMMENTS DUE BY: **February 13, 2012**
HEARING DATE: **February 27, 2012**
HEARING BODY: __Staff Review; **XX**__PC; __HRB; __CC
FILE # & TYPE: LL 11-07: Lot Line Adjustment
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PLANNER: Laura Terway, AICP, Planner (503) 496-1553
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ZONING: "MUE" Mixed Use Employment District
LOCATION: 1500 Division Street, Oregon City, OR 97045
Clackamas County Map 2-2EAB, Tax Lots 01201, 01900, 02000, 02100, 02200, 02400, 02500, 02800, 02900, 03100, 03900, 04000, 04100, 04200, 04400, 04600
2-2E-32AA, Tax Lot 00400
2-2E-32AC, Tax Lots 00101, 00201



Laura Terway, AICP
Planner
Planning Division
PO Box 3040
221 Molalla Avenue, Suite 200
Oregon City, Oregon 97045
**7:30am-6pm Monday-Thursday and
by appointment on Friday**
Phone: 503.496.1553
Fax: 503.722.3880
Iterway@orc.org

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PUBLIC RECORDS LAW DISCLOSURE: This e-mail is subject to the State Retention Schedule and may be made available to the public.

From: timpowell1954@comcast.net
To: [Laura Terway](#)
Subject: Willamette Falls
Date: Monday, February 13, 2012 5:07:51 PM
Attachments: [WILLAMETTE FALLS.doc](#)

Laura,

Comments for Willamette Falls Master Plan.

-Tim

* This is a resend, I had your old e-mail address and just realized.

M c L O U G H L I N



N E I G H B O R H O O D
A S S O C I A T I O N

City of Oregon City
Planning Department
221 Molalla Ave
Oregon City, OR 97045

Attn: Laura Terway

2/1/11

LL 11-07: Lot Line Adjustment
DP 11-03: Detailed Development Plan
CP 11-01: Master Plan
NR 11-05: Natural Resource Overlay Exemption
Willamette Falls Master Plan Comments

Dear Laura,

After reviewing the proposed master plan changes for the Providence Willamette Falls hospital site we have a couple of concerns that we would like to address. Our greatest concern is for the parking around the hospital that is on the public thoroughfare. Traditionally the hospital has allowed employees to park around the residential area instead of directing them to an open hospital sponsored lot or area that would cause less congestion. We would like to recommend that the hospital consider and the Planning Commission discuss the idea of defining an area adjacent to the residential areas as a 2 hour short term parking area, or make it unavailable to hospital employees. We believe that this will help to control congestion, improper or illegally parked vehicles and the blocking of driveways and neighbors access to their only source of parking.

We would also like to recommend for the consideration of Providence Willamette Falls and the Planning Commission to develop a "good neighbor" plan to work closely with Code Enforcement to make sure that if parking guidelines are in fact implemented that they are enforced.

Best Regards,

Tim Powell
Chair, McLoughlin NA

Post Office Box 1027, Oregon City, Oregon 97045 • www.mnaoc.org

From: [Ryan, Corinne F. \(Perkins Coie\)](#) on behalf of [Robinson, Michael C. \(Perkins Coie\)](#)
To: [Laura Terway](#)
Cc: [josh@pkaarchitects.com](#); [Reinhard, Russ](#); [Robinson, Michael C. \(Perkins Coie\)](#)
Subject: City of Oregon City File No. CP 11-01; Response to Comment by Mr. Tim Powell, Chair, McLoughlin Neighborhood Association
Date: Friday, February 17, 2012 11:02:56 AM

Dear Ms. Terway,

Mr. Russ Reinhard, Chief Executive Officer of Providence Willamette Falls Medical Center, has asked me to respond to Mr. Powell's written comment. Mr. Powell's comment raised two (2) issues.

First, Mr. Powell requested that Providence employees not park on surrounding public streets. Providence is aware of the neighbors' concerns about on-street parking. Consequently, Providence Willamette Falls has initiated a "no on-street" parking policy for its employees. Mr. Reinhard told me on February 14, 2012 that the policy has just been initiated and that a check that day by Providence of whether its employees were parking on surrounding public streets indicated that was not happening. This is a new policy and it may take some time for the policy to be fully implemented.

Second, Mr. Powell requested that Providence enter into a "good neighbor" agreement with the McLoughlin Neighborhood Association. Providence believes that continued communication with neighbors, including the neighborhood association, is important to good relations. To this end, Providence remains available any time the neighborhood association requests it to participate in a neighborhood meeting and to answer questions by its neighbors. However, a good neighbor agreement will not facilitate this discussion and it is not appropriate as a condition of approval.

Would you please place this email in the official Planning Department file for this application and before the Planning Commission at its February 27, 2012 public hearing?

Mike

Michael C. Robinson | Perkins Coie LLP

1120 N.W. Couch Street

Tenth Floor

Portland, OR 97209-4128

PHONE: 503.727.2264

MOBILE: 503.407.2578

FAX: 503.346.2264

E-MAIL: mrobinson@perkinscoie.com

38638-0069

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**POLICE DEPARTMENT
CODE ENFORCEMENT**

320 Warner Milne Road | Oregon City OR 97045
(503) 496-1559 | Fax (503) 657-6629

February 16, 2012

Laura,

The current Resident Permit Program would apply in this situation. Those neighbors experiencing parking congestion may request on-street parking restrictions. The restriction prohibits anyone from exceeding the posted maximum stay, with the exception of the resident displaying the permit.

Resident permit areas are not enforced daily, generally enforced by complaint with the exception of the Bluff area. Once the signs are installed, HEAVY enforcement follows for the first week or two; the area is then policed by the residents. When future violations occur, the resident alerts the code enforcement office, and enforcement is stepped up in the permit area to gain compliance (word of citations travel quickly amongst employees).

The hospital should be encouraged to provide off-street employee parking. This would alleviate the current parking situation immediately, and address the MNA concerns.

Resident Permit information and eligibility may be found at **www.orcity.org/code-enforcement** under McLoughlin Resident Permit Program.

Nancy Busch
Code Enforcement Manager

NEIGHBORHOOD LIVABILITY STARTS WITH YOU!