



City of Oregon City

625 Center Street
Oregon City, OR 97045
503-657-0891

Meeting Agenda Planning Commission

Monday, September 8, 2014

6:00 PM

Commission Chambers

1. Call to Order

2. Approval of the Minutes

14-512 Adopt minutes of the April 28, 2014 Planning Commission meeting.

Sponsors: Community Development Director Tony Konkol

Attachments: Draft PC Minutes 04.28.14.pdf

3. Public Comments on Non-Agenda Items

Public Hearings

[PC 14-102](#)

Willamette Falls Legacy Project

Master Plan: CP 14-02, Zone Change and Text Amendment: ZC 14-03, Comprehensive Plan Map Amendment and amendments to ancillary documents of the Comprehensive Plan: PZ 14-01, and creation of a Multi-modal Mixed Use Area (MMA)

Attachments:[Commission Report Sept 8](#)[CP 14-02 Staff Report WFLP \(September 2, 2014\)](#)[Vicinity Map](#)[Land Use Application Form](#)[Master Plan Narrative](#)[Maps and Drawings](#)[App A - Transpo Report attachments](#)[App A - Transpo Report with TSP Amendment](#)[App B - Site Utilities memo](#)[App C - Hist Res Matrix](#)[App D - SHPO Eligibility Info](#)[App E - Enviro Assessment](#)[App F - MMA Exhibits](#)[App G- Public Engagement Summary](#)[Willamette Falls Legacy Archaeology Memo](#)[Public Notice](#)[17.48 Amendment to Willamette River Greenway](#)[17.35 Proposed Willamette Falls Downtown District](#)[Willamette Falls Downtown District Policies and Design Guidelines
\(amended by staff\)](#)[TSP Project Amendment](#)[Trails Master Plan-Parks Master Plan Amendment](#)[Public Comment Summary 9-2-2014](#)[Public Comments Combined 9-2-2014](#)[Memo from City Attorney re Review Process](#)[Memo from Oregon City Public Works - Engineering](#)[Replinger & Associates Transportation Letter](#)[ORS Fact Sheet - Protection of Publicly Owned Properties](#)[Citizen Guide to sec 106](#)[Rediscover the Falls video link](#)[Vision Report link](#)[Site Stabilization and Building Assessment Report link](#)

[PC 14-101](#) 950 South End Road Assisted Living: CU 14-01 / SP 14-09 / VR 14-01 / LL 14-05

Sponsors: Community Development Director Tony Konkol

Attachments: [Commission Report](#)

[Site Plan DR1 REV 8.18.14.pdf](#)

[Elevations DR3 REV 8.18.14.pdf](#)

[Elevations DR.2.pdf](#)

[Landscaping REV 8.18.14.pdf](#)

[Tree Removal REV 8.18.14.pdf](#)

[Details REV 8.18.14.pdf](#)

[PC 14-100](#) LE 14-02: Sanitary Sewer Master Plan

Sponsors: Community Development Director Tony Konkol

Attachments: [Commission Report](#)

[LE 14-02 Staff Report](#)

[Sanitary Sewer Master Plan](#)

[Public Hearing Notices](#)

[2004 Comprehensive Plan](#)

[Ord. 14-1006 Sanitary Sewer Moratorium](#)

4. Communications

5. Adjournment

Public Comments: The following guidelines are given for citizens presenting information or raising issues relevant to the City but not listed on the agenda.

- *Complete a Comment Card prior to the meeting and submit it to the staff member.*
- *When the Chair calls your name, proceed to the speaker table and state your name and city of residence into the microphone.*
- *Each speaker is given 3 minutes to speak. To assist in tracking your speaking time, refer to the timer at the dais.*
- *As a general practice, Oregon City Officers do not engage in discussion with those making comments.*

Agenda Posted at City Hall, Pioneer Community Center, Library, and City Web site(oregon-city.legistar.com).

Video Streaming & Broadcasts: The meeting is streamed live on Oregon City's Web site at www.orcity.org and is available on demand following the meeting.

ADA: City Hall is wheelchair accessible with entry ramps and handicapped parking located on the east side of the building. Hearing devices may be requested from the City staff member prior to the meeting. Disabled individuals requiring other assistance must make their request known 48 hours preceding the meeting by contacting the City Recorder's Office at 503-657-0891.



City of Oregon City

625 Center Street
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Meeting Minutes Planning Commission

Monday, April 28, 2014

7:00 PM

Commission Chambers

1. Call to Order

Chair Kidwell called the meeting to order at 7:00 PM.

Present: 6 - Paul Espe, Zachary Henkin, Damon Mabee, Denyse McGriff, Charles Kidwell and Robert Mahoney

Absent: 1 - Tom Geil

Staffers: 4 - Tony Konkol, John Lewis, Laura Terway and Aleta Froman-Goodrich

2. Public Comments

John Lewis, Public Works Director, discussed the development of the Linn, Leland, Meyers Concept Plan which would be a supplement to the City's Transportation System Plan. It would be brought to the Planning Commission at a Work Session in June. He explained what would be included in the Concept Plan.

3. Public Hearing

3a. PC 14-035

Portland Metro Men's Center -
Conditional Use Permit (CU 13-01), Site Plan and Design Review (SP 13-11) and Lot Line Abandonment (LL 13-04).

Chair Kidwell read the quasi-judicial hearing procedure. He asked if any Commissioner had any ex parte contact, conflict of interest, bias, or statement to declare since the last hearing on this matter.

Commissioner McGriff said a week ago she went to pay her garbage bill and the person at the reception desk expressed concerns to her about this application. Commissioner McGriff had invited her to come to this meeting.

Chair Kidwell opened the public hearing.

Laura Terway, Planner, said a request for continuance to June 9, 2014, and an extension of the 120 day rule was received from the applicant. Staff supported the request as it would give staff time to address the concerns regarding sewer capacity.

Jinny Barksdale, resident of Oregon City, lived right behind the church. She was concerned about the storm water drainage because there was always a puddle of water near her house and the church had covered the drain with gravel. She had also heard that the church's basement had flooded. She did not want to have to put sandbags out in her yard.

Brandon Boyd, resident of Oregon City, asked about the continuance and where they were in the process. He wanted to make sure the continuance was reasonable.

Tony Konkol, Community Development Director, explained the reasons for the additional time. It was applicant driven as long as the applicant thought it was in his best interest to continue to resolve the issues.

Donnie Selby, resident of Oregon City, questioned the continued use of the property without a permit since 2012. It was a nuisance and the neighborhood was tired of it.

Mr. Konkol said there was disagreement about whether they had ever discontinued the use on the property and what uses were allowed under a religious institution. Part of this process was to rectify those issues.

Mr. Selby thought there was no question that the building stopped being used for a certain amount of time. Mr. Konkol encouraged him to submit any written testimony regarding that issue.

Shawn Houck, resident of Oregon City, had just moved into the neighborhood and said the idea of a dormitory was concerning as there were school children who walked by the property going to and from school.

Mr. Lewis said part of the delay was that staff was in the process of updating a City-wide Sewer Master Plan. He explained the sewer issues affecting this neighborhood.

A motion was made by Commissioner Espe, seconded by Commissioner Mabee, to continue Portland Metro Men's Center - Conditional Use Permit (CU 13-01), Site Plan and Design Review (SP 13-11) and Lot Line Abandonment (LL 13-04) to June 9, 2014. The motion carried by the following vote:

Aye: 6 - Paul Espe, Zachary Henkin, Damon Mabee, Denyse McGriff, Charles Kidwell and Robert Mahoney

4. Work Session

4a. PC 14-033

Presentation: Review Proposed Sign Code (OCMC Chapter 15.28)

Ms. Terway presented the staff report including the project goal and proposed code for public murals and prohibited signs.

There was discussion regarding how the murals would be maintained and the mural criteria review process.

Jonathan Stone, Main Street Manager, discussed the size of the six square foot A-frame signs. He was concerned that an unintended consequence would be some signs for businesses such as This and That which were made out of recycled doors would no longer be legal. Ms. Terway clarified they didn't regulate the material of signs on private property. There were more stringent regulations for A-frames in the public right of way.

Ms. Terway then discussed the proposed code for variances. A revised Sign Code document would be brought back to the Commission in May.

There was discussion regarding electronic billboards and Ms. Terway clarified the image could not change more than once a day. There was further discussion regarding the size of attention flags and wall signs, prohibiting ugly signs, and design

review for all signs which the Commission decided would be too subjective. The Commission discussed A-frames in the right-of-way, and how allowing one per frontage everywhere in the City was too many signs.

Mr. Stone said Main Street was supportive of various prescriptive placements of A-frame signs and was working with business owners to put in more permanent signs and promote better signage. He thought if they took out the duplicates, there weren't that many A-frames downtown and if a permit was put on the A-frames, the number would be reduced. There was also concern that the tax lot frontage was not equitable, especially if there were several businesses in a building.

There was agreement that there should be a permit for A-frames and a restriction for how long they could be put out.

Mr. Stone said the most offensive were the white plastic signs, but suggested black plastic be used instead. Ms. Terway said right now in the Code, signs in the right of way had to have a yearly permit. There were maintenance standards for the signs as well. Enforcement would not be in the code, but would be addressed as a separate issue.

Mr. Konkol clarified the only sign they were planning to permit was the A-frames in the public right of way. For wall signs, once they were approved the owners were entitled to it and it became a proactive enforcement if it started to deteriorate. For signs in the public right of way, for commercial zones they could only be there for 12 hours and residential zones it was specific times. A-frames were allowed on private property.

There was discussion regarding allowing A-frames or free standing signs for home occupancy businesses in residential zones. A discreet size wall sign was preferred. A 20 square foot wall or free standing sign was allowed in residential zones in the Code right now, and the new Code reduced it to 12 square feet. Staff would bring back two options, one with not allowing A-frames on private property in residential zones and one as proposed in the new Code. Temporary signs needed to be addressed, such as real estate or garage sale signs.

5. Communications

Mr. Konkol reported on the Willamette Falls Legacy site being part of Metro's open space local share. He discussed what would be on the May 12 agenda.

6. Adjournment

Chair Kidwell adjourned the meeting at 9:26 PM.



City of Oregon City

625 Center Street
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Staff Report

File Number: PC 14-102

Agenda Date: 9/8/2014

Status: Agenda Ready

To: Planning Commission

Agenda #:

From: Community Development Director Tony Konkol

File Type: Land Use Item

SUBJECT:

Willamette Falls Legacy Project

Master Plan: CP 14-02, Zone Change and Text Amendment: ZC 14-03, Comprehensive Plan

Map Amendment and amendments to ancillary documents of the Comprehensive Plan: PZ

14-01, and creation of a Multi-modal Mixed Use Area (MMA)

RECOMMENDED ACTION (Motion):

Staff recommends the Planning Commission recommend approval to the City Commission with the Conditions of Approval listed in the staff report.

BACKGROUND:

The purpose of the proposal is to create a framework for future development of the 22-acre former Blue Heron site.

The Master Framework Plan outlines how development will generally occur, identifying key areas for public access, open space, and development. It re-establishes the Main Street grid and creates connections for people to view Willamette Falls. A key element of the plan is the Riverwalk, a walkway that creates continuous public access to view the river and the falls. The Master Plan proposes design guidelines for future development and identifies four key buildings and the woolen mill foundation that are to remain on site as part of the redevelopment. The Master Plan is not a typical Master Plan in that it does not propose any specific development or uses at this time. The applicant proposes a Type III review process for almost all future development on the site.

The proposed Comprehensive Plan amendment and zone change will take the site from industrial to a new mixed use zone, the Willamette Falls Downtown District, that will allow commercial, residential and employment uses.

The creation of a multi-modal mixed use area (MMA) allows the project to take advantage of its location in an existing mixed use, pedestrian-friendly Regional Center.



**TYPE IV APPLICATION
STAFF REPORT AND RECOMMENDATION**

September 2, 2014

Planning Commission Public Hearing: September 8, 2014

FILE NO.: Master Plan: CP 14-02, Zone Change and Text Amendment: ZC 14-03, Comprehensive Plan Map Amendment and amendments to ancillary documents of the Comprehensive Plan: PZ 14-01, and creation of a Multi-modal Mixed Use Area (MMA)

APPLICATION TYPE: Type IV

APPLICANT/ OWNER: Falls Legacy LLC c/o George Heidgerken. 3303 S. 35th St. Tacoma, WA 98409

REPRESENTATIVE: Ben Schonberger, AICP, Winterbrook Planning, 310 SW 4th Avenue, Suite 1100, Portland, Oregon 97204

REQUEST: Proposed Zone Change and Text Amendment, Comprehensive Plan Map Amendment and amendments to ancillary documents, creation of a new Mixed Use Multi Modal Area (MMA) and Master Plan to create a framework for future development of the former Blue Heron site. No specific construction projects are proposed in this application. Future development can include a combination of open space, commercial, recreational, residential, and employment uses, with provisions for public access, cultural and historic interpretation, and enhancement of riparian resources.

LOCATION: 419 Main Street, and no address, in Oregon City, OR 97045 2-2E-31BD-00300, 500, 600, 390

ZONING: Industrial "GI"

REVIEWERS: Christina Robertson-Gardiner, AICP, Planner and Kelly Moosbrugger, Assistant Planner

RECOMMENDATION: Planning Commission Approval with Conditions.

PROCESS: Type IV decisions include only quasi-judicial plan amendments and zone changes. These applications involve the greatest amount of discretion and evaluation of subjective approval standards and must be heard by the city commission for final action. The process for these land use decisions is controlled by ORS 197.763. At the evidentiary hearing held before the planning commission, all issues are addressed. If the planning commission denies the application, any party with standing (i.e., anyone who appeared before the planning commission either in person or in writing) may appeal the planning commission denial to the city commission. If the planning commission denies the application and no appeal has been received within **fourteen days** of the issuance of the final decision then the action of the planning commission becomes the final decision of the city. If the planning commission votes to approve the application, that decision is forwarded as a recommendation to the city commission for final consideration. In either case, any review by the city commission is on the record and only issues raised before the planning commission may be raised before the city commission. The city commission decision is the city's final decision and is appealable to the Land Use Board of Appeals (LUBA) within twenty-one days of when it becomes final. IF YOU HAVE ANY QUESTIONS ABOUT THIS APPLICATION, PLEASE CONTACT THE PLANNING DIVISION OFFICE AT (503) 722-3789.

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.

DECISION CRITERIA:

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

Oregon City Municipal Code. The City Code Book is available on-line at www.orcity.org

- 17.50 - Administration and Procedures
- 12.04 – Street, Sidewalks and Public Places
- 12.08 – Public and Street Trees
- 17.36 - "GI"—General Industrial District
- 17.68 – Zone Changes
- 17.65 – Master Plans
- 17.49 - Natural Resource Overlay District
- 17.42 - Flood Management Overlay District
- 17.48 - Willamette River Greenway
- 17.44 - Geologic Hazards Overlay District
- 17.62 - Site Plan and Design Review
- 17.52 – Off-street Parking and Loading

EXISTING USE: The 22-acre site is currently occupied by industrial buildings and infrastructure related to the recently-closed Blue Heron Paper Mill. An office building is located near the northwest corner of the site. The built elements of the site include remnants of previous uses.

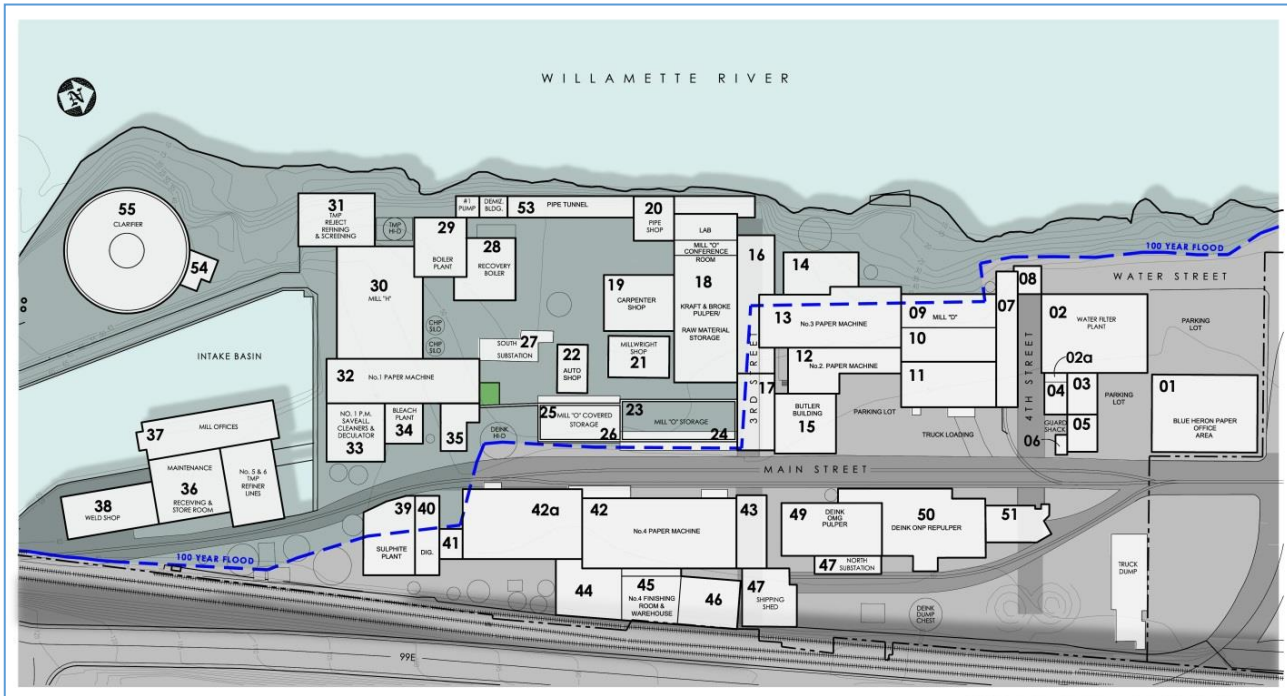
DEVELOPMENT HISTORY OF THE SITE.

Industrial development began at the site in 1829 when what was almost certainly the first permanent water-powered sawmill in the Oregon Territory was established by Dr. John McLoughlin. The need to portage around the falls and the availability of waterpower they offered made the site logical for settlement. Oregon City, later to become the territorial capital, was founded in 1829. As the “end” of the Oregon Trail, the city was incorporated in 1844. By the mid-19th century development lined both sides of the main commercial corridor, Main Street, in Oregon City. Continued expansion saw the Hawley Company, and later Publishers Paper and others, completely absorb all of Main Street south of 4th Street, resulting in the closure of the public right of way. The original plat, with Main Street and the numbered cross-streets, was vacated within the mill site. Despite the property’s location, immediately adjacent to the downtown core of Oregon City, public access and any direct connection to the site and falls was almost entirely eliminated in favor of the industrial development. Expansion and new industrial construction associated with the paper mill, including water management and treatment facilities, continued into the 1970s. The Blue Heron Paper Company, which purchased the site in 2000, remained in operation until it closed in February 2011.

PROCESS FOR LAND USE APPLICATION

Carrie Richter, Assistant City Attorney submitted a letter to the City Commission in the spring of 2014 providing additional direction on the proper land use process for this application. Ms. Richter concluded that “although the creation of the Willamette Falls Downtown District does include some policy making components, overall this decision is more likely quasi-judicial in character in that it requires the application of specific criteria and affects a single, closely circumscribed factual situation. Providing the procedural protections required by a

quasi-judicial process is the most conservative course in any event and will result in a decision by unbiased decision-makers that is not susceptible to a further procedural challenge.” Her March 26, 2014 memo is attached as an exhibit to this report.



PROPOSED DEVELOPMENT: This application is for a zone change, text amendment comprehensive plan amendments and concept Master Plan. No specific building projects are proposed in the short term.

The Master Framework Plan outlines how development will generally occur, identifying key areas for public access, open space and development. It re-establishes the Main Street grid and creates connections for people to view majestic Willamette Falls. The site will also change zoning, from industrial to a new mixed use zone that will allow commercial, residential and employment uses.

framework plan



The areas identified in **green** fall within the 1996 flood inundation area. These areas are more suitable for open space and harder to redevelop. The numbered areas in **yellow** are mostly out of the flood area and are considered easier to develop. These areas will form new City blocks in downtown Oregon City. The **light yellow** areas contain structures that have opportunity for rehabilitation but are within the flood area. These parts of the site will need further refinement and may be a mix of open space and development. In cooperation with the new owner, the master plan has been amended to include a new area in **hashed red**, which represents the most complicated area of the site that has some opportunity for new development above the flood plain but will require special development review. The historic **street grid** is proposed to be reintroduced to the site. Five historic **structures** outlined in black are required to be utilized in redevelopment through adaptive re-use or rehabilitation of some form. The remaining buildings on site may be retained, but are not required to remain. A **shared multiuse path (Riverwalk)** along the riverfront, identified in orange, is also a requirement of the Framework Plan. This walkway leads to a platform that provides fantastic viewing access to Willamette Falls.

SURROUNDING LAND USES: The 22 acre site is currently zoned Industrial and abuts the existing historic downtown which is zoned Mixed Use Downtown “MUD”. The master plan boundary includes four contiguous tax lots (2-2E-31BD-0300, 500, 600, and 390). The plan does not include the PGE dam, which zig-zags into the site’s south end. It also excludes a property at the northeast corner of the industrial area that is under different ownership, and zoned Mixed Use Downtown (owned by Endres NW).

VISION REPORT

This document is the inspiring “big picture” report we will use over the coming years to secure funding for long term implementation of the Riverwalk and other infrastructure elements, while the Master Plan is a technical land use document and plan that guides future development on the site.

The Vision Document (Exhibit 28) aims to distill the public vision of the site into a dynamic and visually appealing document that includes many inspiration drawings of how the site could be developed. It, however, was never intended to be part of the Master Plan approval criteria. The City Commission will be adopting the

report via resolution as part of the Master Plan and Zone change hearings for this project. This document should be viewed by this and future Planning Commissions with the same direction as any other document adopted by resolution by the City Commission. That is, it provides broad policy direction but should not be construed as being part of the regulatory requirements of any detailed development plan.

PUBLIC INVOLVEMENT PROCESS

This Willamette Falls Legacy Project Master Plan and vision strategy is the result of an intensive, nine-month long community engagement process that has built a broad base of supporters and champions. Project leaders and staff connected with thousands of participants through in-person conversations and online forums, including discussions with more than 62 local and regional groups ranging from civic to business, environmental and government organizations. Staff spoke one-on-one with hundreds of people of all ages at seven summer events including farmers markets, West Linn's Centennial Celebration and Concerts in the Park.

The first of three community interactive events was held at the First City Festival in July 2013 in Oregon City where participants contributed nearly 1,000 distinct comments and ideas for the site. In July and August more than 2,100 people commented through Metro's regional Opt In Online Opinion Panel and the online survey on the project website. Approximately 130 people learned and shared ideas in small group discussions at the second community interactive event in October at the Museum of the Oregon Territory. A second round of surveys through Opt In and the project website garnered an additional 1,900 responses. Nearly 100 people participated in the third community event at Ainsworth House and Gardens to review the draft Master Framework and Demonstration Plans. In addition, nearly three dozen participants signed up to become community champions to support implementation of the Willamette Falls Legacy Project.

The project team continues to stay connected with champions and engage new champions each week. Hundreds of people stay informed through the project website, Facebook page, Twitter feed, Oregon City News, email newsletter, and weekly online blog. The Facebook page alone reaches more than 1,400-1,700 people on a daily basis with updates on events as well as with a photo of the day. Weekly guided tours of the site are just one more way in which members of the public were involved with the master planning process.

On March 6th, approximately three hundred supporters from throughout the region gathered at Keen Headquarters in Portland to celebrate the vision and spread the word about this historic opportunity. The number of Community Champions soared to more than one hundred people as elected officials and residents alike pledged their support to help implement the vision.

Additionally, project partners release a 1 1/2 minute video on August 26, 2014 which has been attached to the staff report.

OREGON CITY MUNICIPAL CODE CRITERIA:

CHAPTER 17.50 – ADMINISTRATION AND PROCEDURES

Finding: Complies. The Master Plan (formally known as a Concept or General Development Plan), Zone Change and Comprehensive Plan Amendment applications and request for adoption of an MMA were processed as Type IV applications. A neighborhood association meeting was held and a pre-application conference took place on PA 13-38 (Date of Meeting: December 4, 2013) with Oregon City staff. The application was submitted to the City on August 1, 2014 and deemed complete the same day. Notice of the development was mailed to property owners within 300 feet of the site, taxlots within the proposed MMA area, the Two Rivers Neighborhood Association, Citizen Involvement Committee and affected agencies on August 2, 2014. The property was posted with a land use action sign providing details and requesting comments.

Public comments received as of September 2, 2014 have been added as an exhibit 20 to the staff report with a brief content summary. A majority of the letters provide general support for the proposal.

Jackie Hammond Williams- Executive Director of the Oregon City Farmers Market, however, identifies specific items of concern, Staff has responded below:

1) In reference to providing enough flexibility to encourage private investment on the site, removing regulatory and other barriers to redevelopment: On page 64 of the pdf, the proposed zoning prohibits warehousing. Light manufacturing or small-scale food processing (and therefore possibly some kind of warehousing connected to them) would be an excellent use at this site, providing living wage jobs. I think it's too early to start prohibiting this use unless it applies to "stand alone" warehousing.

Staff response: Warehousing in conjunction with a permitted use is allowed in the zone. Stand along warehousing is prohibited. Staff will provide an update to the zoning district at the September 15th hearing that will clarify this item.

2) In reference to retaining site authenticity: The 13 or so buildings (out of 55 on the site) that are determined to be eligible for the National Register of Historic Places should all be included in the plan and preserved. History is what Oregon City and particularly this site is about.

Staff response: As described further in this staff report, the process for determining which buildings were both viable for retention and provided the strongest ability for retaining a sense of authenticity while allowing new buildings and uses, was presented to the public through the yearlong visioning process and a majority of the responses advocated for balanced approach to retention of structures onsite in order to create a plan that fully incorporated the four values and created a market driven model that maintained a balance of certainty and flexibility for long term implementation.

3) I do not believe the Pullery or Picking House is listed as eligible for the Register, yet is the oldest building on the site. (#19 on the map on pdf page 9) I think it's called the Carpentry Shop now. This is where the wool was "pulled" from the sheep skins and this building would have been integral to the Woolen Mills operation, and therefore is very much part of the history of the site.

Staff response: While the carpentry building is indeed quite old, it did not meet the threshold for eligibility on the National Register due to extensive exterior alterations. Additionally, the second story and roof has substantial water intrusion problems that removed it from further adaptive reuse analysis.

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 a no-longer-operating industrial use. Most recently the site was used as a paper mill.

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 site is not an institution. It was until, just recently, owned by the bankruptcy trustee that took control of the site from the Blue Heron Paper operation. Falls Legacy LLC purchased the site in May 2014. They do not have any specific development plans at this time. 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 (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 site is bounded by non-institutional uses. Residential development borders the site to the east, though this is high above the site on the bluff. The river bounds the site to the west and south. To the north, across 99E, is existing downtown Oregon City, which is a commercial district. Aerial photos (Sheet 2) shows surrounding development. The applicant submitted a map displaying the adjacent buildings and zoning designations.

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. City land use files go back only as far as the 1980s. While there are numerous land use review cases in the city's database relating to this property, none have conditions that still apply to the site. File numbers for land use actions on the site are listed below.

CU 95-13	CU 94-04	CU 83-03	SP 95-41
CU 95-09	CU 88-03	CU 80-06	PA 99-50
CU 95-18	CU 86-04	CU 81-08	PA 05-09
SP 88-6	CU 82-00	CU 93-06	SP 95-41
CU 97-02	CU 95-09	CU 95-13	PA 99-50

The land use actions at the site were for site plan and design review activities related to construction or modification of industrial buildings or uses at the site. None are applicable to the proposed uses or development included in this master plan.

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 fully and intensely developed for industrial use, though the mill use is no longer in operation. The south side of the property contains a lagoon and a long rail spur toward Canemah.

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). The site is mostly flat, occupying a basalt shelf at the base of a bluff. The site drops off quickly into the Willamette River, which bounds the site to the west. Willamette Falls is located southwest of the site. Buildings and structures relate to the industrial past that occupied the site for the last 100 years, most recently a paper mill.

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 Conditioned. The applicant submitted a transportation impact letter prepared by Carl Springer and Kevin Chewuk of DKS Associates identifying the traffic impacts to the area. As this project is also in conjunction with the adoption of a Mixed Use Multi- Modal MMA area, the applicant was limited to addressing safety conditions on and near the site. As part of the analysis, several system wide improvements were recommended offsite that would address existing safety conditions and mitigate the additional trips created by full build-out of the project. Throughout the last year, the applicant, City and ODOT have met to discuss the planned improvements to 99E proposed as part of this project.

Additional consultation with ODOT has resulted in a modification to the applicant's proposed improvements. This modification removes the proposed traffic signal at 6th Street and has replaced that project with a project that modifies the right turn geometry from 99E to Railroad Avenue to allow space for turning traffic to slow and maneuver outside the travel lanes on a curve with limited sight distance.

ODOT found significant sight distance constraints with the proposed traffic signal on 6th and 99E and recommended the revised safety project on Railroad Avenue. The reconfiguration of Railroad Avenue will allow a small deceleration lane outside of the northbound through lanes and provide better sight distance for pedestrians crossing Railroad Avenue to and from the ODOT pedestrian tunnel. The specific dimension and layout of the deceleration lane will be further detailed and defined in cooperation with the City and ODOT. The transportation study was reviewed by John Replinger, transportation consultant for the City from Replinger Associates who concurred with the transportation analysis and the refined project list and determined that approach presented by the applicant and revised by ODOT was consistent with the goals and intent of City code and the proposed Master Plan.

As part of the approval process for this application, the City Commission will adopt an intergovernmental agreement (IGA) with ODOT addressing safety measures on 99E in conjunction with the approval of the Master Plan and Zone Change. A draft of the IGA is will be submitted into the record as soon as it is finalized. Staff anticipates that a draft will be ready by the September 15th Planning Commission meeting.

Conditions of approval for the Master Plan from the proposed IGA , are as follows:

- 1) Oregon City and ODOT have agreed on three key transportation improvements along OR 99E with the goal of maintaining safety and improving accessibility of the site:
 - A. Intelligent Transportation Systems designed to warn traffic approaching the tunnel of hazardous conditions ahead.

- B. Prohibiting left turns northbound from OR 99E to Main Street and modification of the right turn geometry from 99E to Railroad Avenue to allow space for turning traffic to slow and maneuver outside the travel lanes on a curve with limited sight distance.
 - C. A pork-chop (or raised median) at the Water Avenue/OR 99E intersection to prevent unsafe movements and reinforce right-in, right-out access at that location.
- 2) Oregon City will assure design and construction of the three projects as follows:
- a. A \$1,940,000 project to replace the tunnel's illumination system in the 2017-18 timeframe is included in the draft ODOT statewide Transportation Improvement Program (STIP). ODOT will design and construct project "A" with this illumination project. Should the \$1,940,000 available to ODOT be insufficient to fund both the illumination and ITS projects, Oregon City will contribute up to \$500,000 to cost of the project, which will include up to \$250,000 contribution by the applicant.
 - b. Design of and right-of-way acquisition for Project "B" will be completed prior to opening of the Riverwalk or within two years of plan adoption (whichever comes first). The design and acquisition will be led by Oregon City in cooperation with ODOT. The applicant is responsible for construction of project "B", which is required to be completed prior to trip generation to the site surpassing 140 peak hour trips. The purpose of this improvement is to safely accommodate the increasing number of motor vehicles slowing in the tunnel to turn right on Railroad Avenue and for the safety of pedestrians crossing Railroad Avenue. The right turn into Railroad Avenue is part of an indirect left turn movement required for OR 99E northbound motor vehicles accessing the Willamette Falls site.
 - c. Project "C" will be constructed during the construction of Water Avenue/OR 99E intersection. Construction of Water Avenue/99E will be triggered when one of the following occurs:
 - i. At the time of Riverwalk construction.
 - ii. Any new construction or addition over 1,000 square feet on Block 1 of the Framework Master
 - iii. Once development on the site has surpassed 140 peak hour trips.
 - d. Master plan approval requires ODOT concurrence for any phase of development of the Willamette Falls Master Plan area that would result in the total estimated peak hour trips generated from the area to exceed 700. If at that time, traffic analysis establishes that additional safety measures are needed, the applicant will be required to include additional safety measures or upon agreement on other countermeasures not provided in association with proposed development.
- 3) The Applicant will estimate the number of trips at the time of each phase of master plan review and will notify ODOT and the City of the proposed development and estimated trips 30 days prior to the first evidentiary hearing.
- 4) The Institute of Traffic Engineers Trip Generation Manual will be the source for trip generation estimates unless ODOT and the City agree to an adjustment.
- 5) If after the three safety mitigation projects are constructed, Oregon City or ODOT determines that significant safety issues remain or develop, the applicant shall, as part of, the next detailed development plan, pay up to \$60,000 (2014 dollars) of the cost of a multimodal safety audit in

cooperation with Oregon City and ODOT and pay for the proportional share of any additional safety measures conditioned as part of a detailed development plan.

The circulation plan for the project is simple, with the most important element being the reconnection of Main Street into the site and the reestablishment of a grid of streets. This new Main Street is proposed to be a multimodal, “complete street” with a full mix of users, including transit, walking, bikes, cars, delivery/service and emergency vehicles. Main Street (along with Water, 3rd and 4th Streets) is intended to be low-speed, with on-street parking and generously-sized sidewalks. It is intended to feel like a seamless extension of Main Street from Oregon City’s existing downtown. The crossing of Highway 99E will be a critical point in this extension, so generous crosswalks are proposed, to encourage pedestrian movement and safety. Along the riverbank, the re-extension of Water Street into the site is another important circulation element, with the associated Riverwalk serving as a generous sidewalk to Water Street and extending south as a shared use path along the river into the site and to the Falls, with connections back to 3rd and 4th streets. Circulation into and within the site strives to meet the following City and State objectives:

Active Transportation

- Strengthening the existing urban crossing of Main Street across McLoughlin Boulevard to the site.
- Create at least one pedestrian and bicycle overcrossing of McLoughlin Boulevard and the rail tracks at the south end of the site.
- Create a continuous walking and biking connection between the Willamette Terrace and the site and further south to Canemah.
- Extend transit service into the site on Main Street and support existing service downtown

Motor Vehicle

- Institute transportation demand management policies to reduce vehicle trips generated by the site.
- Understand that congestion on nearby streets is acceptable and actually reflects a successful and thriving downtown.
- Identify at least one additional site access point for motor vehicles.
- Allow for safe left-turns for motor vehicles from McLoughlin Boulevard to Main Street.
- Enhance the McLoughlin Boulevard/Main Street intersection.

The existing private dock offers an opportunity to explore providing a light watercraft launch point into the river and to encourage people to interact with the river safely, both for fishing and other more passive pursuits. Small craft can also be launched along the basin edge of Mill E. Finally, given the site’s proximity to the main north-south trunk railroad line, the applicant proposes that future plans should consider and allow for the possibility of passenger rail improvements, with potential for an on-site station.

As this is a framework plan with no specific development being proposed, Staff has also identified the following conditions of approval be added to the report to create a process to address utility and street infrastructure analysis closer to the time of development application:

- Right of Way dedication shall be governed by a street and utility plan which shall be submitted at the time of the first development application of new habitable space. The Public Works Director may approve or require an alternate proposal of a private streets governed by a public access easement if the design meets or exceeds the intent of the Master Plan.
- The Master Plan includes a new pedestrian bridge connecting the McLoughlin Promenade over 99E and the Union Pacific rail line to the site. The project is proposed to be included in the Oregon City TSP project list as part of this application. Currently, there are no development triggers for this project, which is assumed to be primarily a publicly funded project. However, future development applications will need to plan for its location. Completion of and payment towards the project can be used to meet transportation demand management requirements.

Baseline Parking Demand and Supply.

ON-SITE PARKING STRATEGY

Each development block in the Willamette Falls District is sized to park itself, that is, accommodate its own parking, without the need for offsite spaces. Oregon City's parking rules are flexible, both in terms of the location and amount of parking. Parking can be located on each block, or it can be consolidated in the form of a shared garage. Because the site is part of the downtown parking district, minimum requirements may be reduced by up to 50%. The Master Plan envisions that parking will occur in structures at the back of new buildings, or on their upper stories in order to support an active streetscape. Underground parking is highly unlikely because the site is located on solid basalt rock. Parking supply at full build out of the site is estimated at 1,150 spaces off-street, and 85 spaces on-street. Visitor parking is expected to be woven into existing parking garages and on street parking. There is no specific location nor financing plan for a municipal garage at this time. However, the Master Plan anticipates this type of approach and will be processed the same as any development associated with this Master Plan.

OFF-SITE PARKING STRATEGY

This site will be considered integral to the existing downtown and McLoughlin Neighborhood. A Transportation Demand Management approach that works to utilize and improve the existing transportation network and re-stitch the site back into the urban framework should be the guiding approach and will be needed to redevelop the site to its full potential. The development of housing, employment and retail in the subject site and the existing downtown will have a substantial effect on the community's approach to multi-modal living. Investing in the Riverwalk and the 99E/Promenade overcrossing as well as working with Main Street Oregon City and the City on innovative parking strategies for off-peak and peak hour visitor parking will be an essential part of the site's success.

Minimum Parking Standards			
Uses	Oregon City Minimum Parking Standards	Oregon City Downtown Parking District (WFDD) minimums	Comparison - City of Portland Near or on Transit Streets
Residential	Multi-Family: Studio 1.00 per unit Multi-Family: 1 bedroom 1.25 per unit Multi-Family: 2 bedroom 1.5 per unit Multi-Family: 3 bedroom 1.75 per unit	Multi-Family: Studio .5 per unit Multi-Family: 1 bedroom .63 per unit Multi-Family: 2 bedroom .75 per unit Multi-Family: 3 bedroom .86 per unit	a. Where there are up to 30 units on the site, no parking is required; b. Where there are 31 to 40 units on the site, the minimum number of parking spaces required is 0.20 spaces per unit; c. Where there are 41 to 50 units on the site, the minimum number of parking spaces required is 0.25 spaces per unit; and d. Where there are 51 or more units on the site, the minimum number of parking spaces required is 0.33 spaces per unit.
Office	2.7 spaces per 1,000 square feet	1.35 spaces per 1,000 square feet	none
Hotel	1 space per guest room	.5 spaces per guest room	none
Retail	4.1 spaces per 1,000 square feet	2.05 spaces per 1,000 square feet	none

Guideline 3. Maintain Downtown Character

Parking. Locate parking to minimize impact on building appearance, streetscape, and pedestrians. Plan for the primary method of car storage to be within structures. Show that parking can flexibly serve different users, times of day, and could be reconfigured for other purposes. Develop, orient and screen structured parking to complement adjacent buildings. Reduce automobile/pedestrian conflicts around parking areas and support the pedestrian environment.

A robust transportation management plan will be the critical for the success of the site. While it is implied in the following guidelines , staff recommends a specific condition that spells out what is expected of the applicant during subsequent development applications.

For any development that creates over 20,000 square feet of new habitable space, or requests approval of any phase of the Riverwalk, the applicant will be required to submit a transportation demand management program that addresses the existing conditions and proposes transportation demand programs that proportionally mitigate the impact of the proposed development to the site and abutting downtown.

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 with Condition. The site is served by City sanitary sewer, water, and stormwater management. Use of existing public facilities is very low because the mill is not operating and the property is unoccupied. Additional utility analysis can be found later in this report.

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 will be implemented over a period of 20 years from initial adoption.

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

Findings: Complies as Proposed. The applicant submitted a boundary that includes several taxlots.

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. Development will occur in multiple phases over the 20-year lifespan of the master plan. The precise location and sequence of development is uncertain because public and private investment in the property has not been finalized.

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: Complies as Conditioned. The purpose of Chapter 17.65 is to “foster the growth of major institutions and other large-scale development.” The site consists of 22 acres of re-developable land, and this master plan fosters its growth by establishing a framework for the locations of streets, development, and open space areas within the district. Compatibility and design quality is ensured through development standards and design guidelines. The site is located in the Willamette River Greenway, Natural Resources, and Geologic Hazards Overlays. The purpose of these chapters is stated in OCMC 17.44.010, 17.48.020, and 17.49.010. As part of this master plan, all future development must still meet the regulations of the overlay districts as part of the detailed development plan process. As a result, the plan is consistent with the purposes of these districts.

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 Conditioned. Impacts on inventoried Natural Goal 5 resources will depend on the specifics of actual development, which is not proposed as part of this master plan. This general development plan establishes a framework for future development. When building or open space redevelopment is proposed, these plans must demonstrate compliance with city rules for the protection of Goal 5 natural resources at that time. Additional findings can be found in 17.65.050.C.4

As discussed above, there are currently no federally or locally designated historic structures (OCMC 17.40) located on the property. The Blue Heron site is not currently located within a local or National Register Historic District and is not part of the city’s Goal 5 inventory. Adoption of this master plan and zone change will not serve to amend the City’s acknowledged historic preservation plans. Rather, adoption of this plan serves as a preliminary step in identifying those resources that may be suitable for designation of historic resource or landmark and could be subject to the City’s Historic Resource Overlay, OCMC 17.40.050, in the future. Moreover, local designation of historic resource requires owner consent and staff understands the applicant’s apprehension for requiring local designation of structures prior to detailed development plans.

The Blue Heron site, despite its stunning location on the Willamette Falls and its historical importance as the founding place of Oregon, also presents significant challenges to attracting private investment. The combination of market conditions, inadequate infrastructure, and challenging site conditions are all barriers to private development. Staff finds that the approach taken in the Master Plan balances these two forces and creates a future development program that requires retention of the buildings with the high adaptive reuse opportunities but provides a fair amount of flexibility for market implementation. An description of this process can be found below.

Through the Vision and Master planning process, the city, in cooperation and on behalf of the applicant, structured the historic resource analysis, protection and mitigation approach based on the best practices model of ORS 358 and the Section 106 process.

Oregon Revised Statute (ORS) 358.653 is an Oregon state law obligating state agencies and all “political subdivisions” of the state—including counties, cities, universities, school districts, and local taxing districts—to consult with the State Historic Preservation Office (SHPO) to avoid inadvertent impacts to historic properties for which they are responsible. Impacts are usually the result of construction projects (additions, remodeling, etc.), but may also include the transfer of properties out of public ownership. The statute does not provide many specifics, and there are currently no clarifying administrative rules, so, as a practical matter, SHPO follows a “lite” version of a similar federal

law, Section 106 of the National Historic Preservation Act. In cases where federal funds, permits, or licenses are used, ORS 358.653 is superseded by Section 106.

Section 106 requires federal agencies to consider the effects of projects they carry out, approve, or fund on historic properties. Additionally, federal agencies must provide the ACHP an opportunity to comment on such projects prior to the agency's decision on them. Section 106 review encourages, but does not mandate, preservation. Sometimes there is no way for a needed project to proceed without harming historic properties. Section 106 review does ensure that preservation values are factored into federal agency planning and decisions. Because of Section 106, federal agencies must assume responsibility for the consequences of the projects they carry out, approve, or fund on historic properties and be publicly accountable for their decisions.

Section 106 Process Overview

Step One: The agency determines whether its proposed action is an undertaking. An undertaking is defined as a project, activity, or program funded in whole or in part under the direct or indirect jurisdiction of a federal agency, including those carried out by or on behalf of a federal agency; those carried out with federal financial assistance; and those requiring a federal permit, license or approval.

Finding: There is currently no federal undertaking on the property. However, the applicant and the city anticipate the use of federal funding for site implementation.

Step Two: The agency determines the Area of Potential Effect (APE) and decides on an appropriate survey methodology in consultation with the Oregon SHPO. The appropriate APE will vary from project to project and may include physical, visual, and auditory effects. Contact the SHPO before work begins to avoid unnecessary documentation or delay in completing the Section 106 process.

Agencies are required to contact and consult with the appropriate Native American Nation when an undertaking takes place on tribal lands or when an undertaking will affect Native American cultural sites. A list of contacts can be found on our website: [Native American Nation Contacts](#). Consultation with other interested parties such as Certified Local Governments is also encouraged.

Finding: The APE for this site was limited to the boundaries of the property. The project site is located on the site of Dr. John McLoughlin's original homesite and mill as well as the original first 5 blocks of historic Oregon City, which were slowly overtaken by mill development through the years. The site is also adjacent to scenic Willamette Falls (second largest falls by volume in the United States). Willamette Falls is also recognized by the Confederated Tribes of the Grand Ronde and Warm Springs, and Siletz, and the Confederated Tribes of the Umatilla Indian Reservation, and Yakama Indian Nation as a sacred gathering place of high cultural significance.

While this project did not trigger formal consultation with affected tribes, the city, in cooperation with the owner, contacted and requested engagement with all the tribes listed above. Additionally, the project will be presented at the September 2014 tribal cluster meeting. Moreover, as part of the recently adopted MOU between the Legacy project partners, State Parks has agreed to take the lead on all future tribal communications.

Step Three: The agency determines if the resources within the APE are already listed in the National Register of Historic Places or may be eligible for listing. Eligible historic properties are those that are at least 50 years of age and maintain the majority of their historic features, called historic integrity. If a building meets these minimum qualifications it is considered eligible for the Register unless the agency

can prove otherwise through further historical or archaeological studies. The eligibility of archaeological resources is based on careful recordation and evaluation according to professional standards. These guidelines are available here: [Guidelines for Conducting Field Archaeology in Oregon](#).

Finding: As this application is for a framework master plan and no specific development proposal has been submitted, the level of archeological review has been shaped to be more of an overview document that provided direction for future development applications. A memorandum from Rick Minor, Archaeologist from Heritage Research Associates, discusses the archaeological issues and potential for the site and is part of the applicant's submittal.

As discussed above, there are currently no federally or locally designated historic structures (OCMC 17.40) located on the property. The Blue Heron site is not currently located within a local or National Register Historic District and is not part of the city's Goal 5 inventory.

However, a fair amount of information exist on the site. A report was prepared for Portland General Electric & the Blue Heron Paper Company, in cooperation with the West Linn Paper Company, in May 2002 by Kramer and Company, George Kramer, M.S., HP, Sr. Preservation Specialist. This report indicated that some of the buildings located onsite are contributing historic structures. *"Willamette Falls Industrial Area Request for Determination of Eligibility 2002"*— George Kramer.

In the spring of 2012, the City of Oregon City provided updated survey data to the 2002 Determination of Eligibility, including additional information on the 1950s structures into the Oregon Historic Site Database. In the fall of 2012, the Oregon State Historic Preservation Office issued a Revised Determination of Eligibility for the site that concurred with the updated information and indicated that the site was not eligible for listing as a National Register District. Therefore, all of the buildings were reviewed for individually eligibility. A revised Determination of Eligibility review was completed in September 2012 and is attached in the exhibits section of the staff report.

Step Four: The agency decides what the effect of the undertaking will be. A project is said to have "No Effect" if there are no eligible properties in the APE, or a historic property is not affected in anyway. An undertaking may have "No Adverse Effect" if the project does impact the historic property, but the effect is minimal. If the proposed work will diminish the features that qualify a resource for listing the project is said to have an "Adverse Effect."

From the onset of this process, it was understood that a determination of an adverse effect would be the outcome of the master plan, as the city would not be regulating the retention of all structures identified as potentially eligible for listing on the National Register.

As part of the 2012 Site Stabilization and Building Assessment Report, a consultant team comprised of Kramer & Company, DiLoreto Architecture, KPFF, Environmental Science Associates and Environmental Resource Management (ERM) provided historic, reuse, structural, stormwater/habitat and demolition expertise to generate an integrated evaluation of the structures and site. Shiels Obletz Johnsen managed the consultant team's efforts on behalf of the project partners.

KPFF conducted a preliminary structural analysis of each building and sought to identify any "fatal flaws" that would preclude opportunities for reuse. No structural "fatal flaws" were discovered; although some of the buildings scored low in terms of their existing condition and renovation potential, KPFF believes that all of the buildings could be salvaged and re-purposed given sufficient financial resources. Due to the complexity of the basement levels throughout the site, the building foundations were visually reviewed but not individually assessed. The buildings were also evaluated based on historic value and reuse potential.

These evaluations resulted in the identification of fourteen buildings with the greatest potential for adaptive reuse and support for interpreting the history of the site. Note that as building remnant, the woolen mill foundation was not eligible for individual listing on the National Register, but because of size, history and aesthetic reasons, was later included as an element regulated for retention onsite through the Vision and Master Plan process. .

Given the size and complexity of the site, the consultant team conducted an initial site overview session to prioritize the level of evaluation to be conducted on each building based on their general attributes, and categorize buildings into two major groups. The 57 buildings plus miscellaneous structures were identified as either "Category A" buildings or "Category B" buildings. Category A Buildings stood out as having the greatest opportunity for adaptive reuse based on their combined historic integrity, building condition, physical layout, access, structural condition and value for supporting adjacent historic structures. There are 16 structures identified as Category A, including four that have sufficient historic integrity to be considered individually eligible for listing on the National Register of Historic Places. Category B Buildings include minor structures with low priority for retention, although some of these buildings may be worth retaining to support adjacent Category A buildings and broader site goals. A few Category B structures were determined to have high historic value and are considered eligible for listing on the National Register of Historic Places. However, they were found to have low reuse potential as a result of their construction, design, original function or position on the site.

All of the buildings were then evaluated on their historic value, reuse potential and structural condition. More thorough analyses were performed on the prioritized Category A buildings.

This analysis was further refined in 2013-2014 Vision and Master Planning process through the consultant team lead by Walker Macy. In an effort to provide a vision that balanced the four values and provides a balance of certainty and flexibility, the Walker Macy team recommended the Master Plan regulate the retention of No.4 Paper Machine (bldg. 42, 42a), Mill O (bldg. 18), De Ink (bldg.. 49) and the Hawley Building (33) in addition to the Woolen Mill foundation and leave the remainder of the buildings onsite be left to market forces to determine viability. Through the vision process, the consultant team heard from many that the retention of non-building elements was very important for site interpretation as well as retaining a level of authenticity to the site. As part of the Master Plan policies, the applicant will be required show how they are proposing to retain the secondary elements onsite to help tell the story of the site.

As part of the Master Plan process, subsequent development applications must adhere, in addition to the city's development code, to the proposed Master Plan policies. Proposed by the applicant and applicable during future detailed development applications, and Guideline 4 speaks to the historic nature of the site. This guideline will also guide how development proposals will include cultural and historic interpretation as a way to meet this guideline. For the purposes of this report the buildings/ structures fall into two categories.

Guideline 4. Re-Use, Rehabilitate, and Restore Buildings and Structures

Principles:

Key structures. Preservation or rehabilitation of key structures should be a priority in the design of new buildings and open space. Highest value is placed on the following structures: De-Ink Building, #4 Paper Machine, Mill O, Hawley Building, and the Woolen Mill Foundation. If any these key structures must be removed, the applicant must document the specific reason for doing so, and propose mitigation to compensate for the loss of site character.

Other structures. Incorporate remnants, key features or other significant portions of existing structures into project design. The district's 150-year history as a mill site (flour, wool, paper) and a manufacturing center should be celebrated and recognized when new buildings and uses are established.

Archaeology. Incorporate pre-colonial history of the site into new development where appropriate. Monitor archeology when disturbance of native soil is proposed.

The Applicant has provided a strong guideline statement for building retention. However, interpretation measures should be integrated into this policy. These could include retention of existing industrial elements, historic panels, or other creative ways to tell the story of the site. Staff recommends the following amendments to this policy.

Guideline 4. Re-Use, Rehabilitate, ~~and~~ Restore and Interpret Buildings and Structures

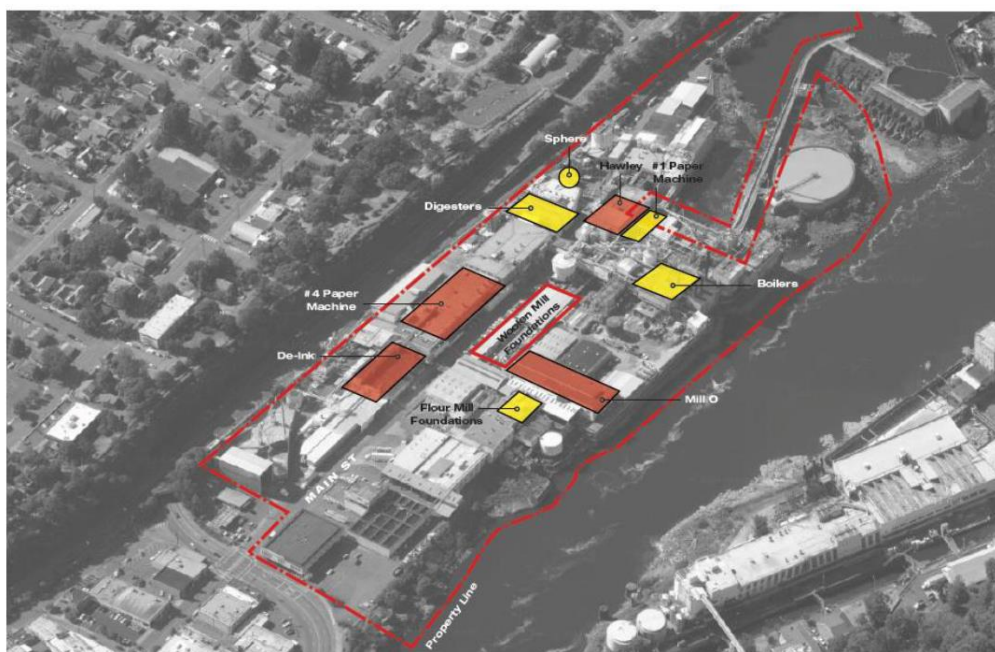
Principles:

Key structures. Preservation or rehabilitation of key structures should be a priority in the design of new buildings and open space. Highest value is placed on the following structures: De-Ink Building, #4 Paper Machine, Mill O, Hawley Building, and the Woolen Mill Foundation. If any these key structures must be removed, the applicant must document the specific reason for doing so, and propose mitigation to compensate for the loss of site character.

Other structures. Incorporate remnants, key features or other significant portions of existing structures into project design. The district's 150-year history as a mill site (flour, wool, paper) and a manufacturing center should be celebrated and recognized when new buildings and uses are established.

Archaeology. Incorporate pre-colonial history of the site into new development where appropriate. Monitor archeology when disturbance of native soil is proposed.

Interpretation. Weave interpretive elements throughout the site to provide multiple and diverse opportunities to learn and reflect on the site's history.



Structures Identified for Retention and Reuse

1. Mill O
2. Hawley Building
3. DeInk/Mill B
4. No. 4 Paper Machine
5. Woolen Mill Foundations

Secondary Elements Identified For Full or Partial Retention

1. Oregon City Flour Mill foundation
2. Digesters
3. Horton Sphere
4. Boilers
5. No.1 Paper Machine

However, future developers are encouraged to reuse or repurpose any of these elements onsite as part of redevelopment projects, as they help in conveying a connection to the past history of the site.

Step Five: The agency or government consults with the State Historic Preservation Office (SHPO) on its determinations by submitting proper documentation for the impacted properties.

Finding: Again, while this site is currently not involved in a federal undertaking, nor is it owned by a public entity, the City has been in close coordination with the State Historic Preservation Office for the last three years to ensure that all site analysis meets the process and intent of the Section 106 process to ensure that future federal funding or public ownership would not be compromised.

Step Six: SHPO either concurs with the agency's determinations or does not concur.

Finding: The city submitted a request to review the Section 106 methodology to SHPO. While the site is not currently subject to ORS 358 or Section 106, SHPO will be submitting a concurrence letter acknowledging that the applicant and city have followed a best practices model in preparation for a future Section 106 or ORS submittal.

Staff recommends the addition of the following conditions of approval to help guide the future owner and Legacy Project Partner agencies when they submit specific development proposals to the Planning Commission.

1. Prior to the demolition of any structures identified as potential eligible for listing on the National Register, the applicant, shall submit site plans and documentation photos of the interior and exterior of the buildings the adhere to the Section 106 documentation process.
2. If the applicant is proposing site cleanup, demolition, or new construction that will include the disturbance of native soils, or has a high likelihood of containing archeological evidence, as confirmed by the State Historic Preservation Office, the applicant shall submit and adhere to an inadvertent discovery plan that, depending on the proposed action could include archeological monitoring during times of site disturbance.
3. Removal of structures not identified for retention (including the secondary elements) will be processed as a Type I Land Use action provided all applicable conditions of approval from the CP 14-02 have been met.

4. Substantial alterations or request for demolitions to structures identified for retention (including the secondary elements) shall be processed as a Type III Land Use action.

If SHPO Concurs:

- No Historic Property, No Effect, or No Adverse Effect: The applicant is finished with the Section 106 Review consultation process.
- Adverse Effect: The agency enters into a "Memorandum of Agreement" (MOA) to mitigate the adverse effect or submits a research design to mitigate adverse effects through proper recovery. The MOA is signed by the agency and SHPO. The federal agency submits the MOA to the Advisory Council, along with a description of the project and the alternatives that were considered to mitigate the "adverse effect." The Advisory Council has 30 days to review the project and decide if it is willing to sign the MOA. Once the MOA is signed, the documentation should be completed and accepted by designated repositories before the project begins.

If SHPO Does Not Concur: Federal agencies may appeal to the Keeper of the National Register of Historic Places or the Advisory Council on Historic Preservation.

Finding: Complies as Conditioned. As stated above, the site is currently not involved with a federal undertaking nor is it owned by a public entity.

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. Building and open spaces placement, development standards, design guidelines, and environmental enhancement opportunities identified in Section 1 will ensure the development's compatibility with the surrounding community. Transportation impacts from full build-out of the site can be managed with incremental improvements to the existing street network. There will be a net positive impact on natural features, as upgrades will occur with new development. Section 1, Development Impacts and Mitigation, identifies potential impacts on the community.

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: Complies as Conditioned. Please refer 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 Conditioned. As this is a unique Framework plan that that does not include a concurrent detailed development plan, the applicant and the city are proposed a bit of hybrid approach for ensuring safety impacts are mitigated during the full build out of this plan. A traffic impact study prepared by Carl Springer of DKS Associates has been developed for the site, based on broad assumptions about the long term redevelopment of the site. This study summarizes impacts from proposed development, and identifies mitigation measures that will allow the existing transportation system to accommodate anticipated new trips. The transportation study was reviewed by John Replinger, transportation consultant for the City from Replinger and Associates who agreed with the analysis and the revised project list as agreed upon by ODOT. His letter has been attached to this report as well as the condition requiring a safety audit after the completion of the three off- site projects is additional safety concern are addressed.

Mr. Replinger specifically found that the traffic analysis (TA) provides an adequate basis upon which to assess the impacts of the redevelopment proposal and found believes that the TA provides sufficient documentation and mitigation measures showing that the transportation needs and safety associated with a Mixed Use Multimodal Area (MMA) will be satisfied. He specifically recommends that approval of the master plan, the rezoning, and designation of the MMA 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 the impacts become significant. Staff believed that the conditions and timing relating to the three offsite projects as proposed by ODOT and integrated into a future IGA, will address Mr. Replinger's concern.

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 as Conditioned. The applicant submitted a traffic impact analysis prepared by DKS and Associates discussing the transportation impacts of the proposed development. The traffic impact study has quantified transportation impacts based on anticipated future development. As discussed in the narrative, this plan includes a range of potential improvements to the area around and adjacent to the site. The study addresses impacts consistent with all phases of the general development plan.

This analysis is based on a full build-out of 700 peak hour trips. As part of the agreement with ODOT, the city and the applicant have agreed that additional safety measures may be required when the development exceeds 700 peak hour trips. A safety audit may also be triggered after the construction of the three offsite improvement to

identify safety projects, but at this time, additional offsite safety measures will not be required prior to the exceeding 700 peak hour trips. Internal infrastructure improvements will be assessed at each development application.

The Master plan approval additionally requires ODOT concurrence for any phase of development of the Willamette Falls Master Plan area that would result in the total estimated peak hour trips generated from the area to exceed 700. If at that time, traffic analysis establishes that additional safety measures are needed, the applicant will be required to include additional safety measures or upon ODOT agreement on other countermeasures not provided in association with proposed development.

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: Development standards specific to this facility are contained in the new zoning chapter for the Willamette Falls Downtown District. In addition to the adopted municipal development code, this application contains design guidelines for future development in the area. See page 17 of this report.

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 as Proposed. The applicant submitted a site plan for the proposed development displaying the approximate location of proposed vehicular, bicycle, and pedestrian access points and circulation patterns, parking and loading areas. Sheet 8 of the applicant's submittal shows the circulation patterns on the site. The historic street grid will be re-established on the site, and a pedestrian/bike access will be created along the riverfront and south to Canemah.

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 Conditioned. The proposal shows the location of all proposed streets and pedestrian/bicycle access ways. The historic street grid will be re-established on the site, and a pedestrian/bike access (The Riverwalk) will be created along the riverfront and south to Canemah. It should be noted that ROW acquisition and/or dedication of a public access easements will be determined at the time of a detailed development review.

This plan establishes the expectations for the general location and purpose of connections into and through the site. The final configuration and location of the pedestrian paths and streets will be determined during the development review process and through negotiations for a public easement across the site.

In certain situations or locations, it may be in the city's best interest to retain streets in private ownership with a public access easement. This analysis is contingent and should be related to a specific development application.

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: Complies as Conditioned. Sheet 10 of the applicant's submittal, the proposed utility plan, shows approximate location of water, sanitary sewer, and stormwater management facilities. 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 approximate location and footprint of proposed development is outlined by the framework plan map, on Sheet 7 of the applicant's submittal. The precise location, footprint, and square footage of structures will depend on future development. The City will review location and building design at detailed development plan review.

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 Conditioned. Open space is proposed in the framework plan. These areas are below the floodplain and will develop with a combination of open space/recreational uses and rehabilitated industrial buildings. The exact nature of the open space will be determined at the time of development or purchase of public easements. The natural resources subject to protection are related to the riparian corridor and are subject to the city's natural resource overlay. Historic structures to be preserved are shown Section 1.

To ensure proper planning, construction and maintenance of these facilities,

1. The applicant has proposed a Master Plan that includes a conceptual amount of open/public space in blocks 3 and 4. In order to ensure that the open/public space is implemented in conjunction with overall development and not left to a final phase, the applicant shall show construction of an open/public space parcel that is a minimum 40,000 square feet and consists of both active and passive uses with prominent views of the falls at the time of completion of the first 400,000 square feet of new habitable space. As part of the detailed development review for this open space, the applicant shall submit a long term maintenance and operation plan to ensure the open/public space can be maintained. This plan anticipates the use of both private and public contributions.
2. The applicant has proposed a Master Plan that includes the Riverwalk along the Willamette River. In order to ensure that the Riverwalk is provided, either independently or in conjunction with overall development and not left to a final phase, the applicant shall design and construct all or some roughly proportional portion of the Riverwalk no later than the time of completion of the first 300,000 square feet of new habitable space. As part of the detailed development review that includes design for the Riverwalk, the applicant shall submit a long term maintenance and operation plan explaining how the Riverwalk will be maintained. This plan anticipates the use of both private and public contributions.

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

17.65.050.C.1 *The proposed General 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 as it identifies the growth expected on the former Blue Heron Paper mill over the next twenty years.

The Willamette Falls Legacy Project site is a 22 acre site, and has the potential for large-scale development to the benefit of Oregon City and the region. The potential impacts of the redevelopment of the site are favorable with regard to economic development, public access, and new opportunities for people to experience the natural wonder of the largest falls in Oregon. The impacts on surrounding properties with regard to transportation and public infrastructure will be mitigated by incremental offsetting changes to public systems for accommodating new growth, that is, the transportation and public utility improvements that are identified in this plan and will be implemented concurrent with new development. A re-developed and revitalized Willamette Falls District would provide a range of services and employment opportunities to Oregon City residents--which are as-yet undefined, and contingent on market conditions.

This plan provides the first step in setting the future of the new district and establishes a flexible review process for major new development. This review process includes an assurance of compliance with the principles of and standards within the general development plan, all the requirements and information necessary for the subsequent detailed development plan, and further, compliance with a district-only set of design guidelines that will be approved with the general development plan. Setting up the master plan in this way allows planning and design of individual projects within the larger district to go forward, and gives a clear path to gaining future approval for development of both new buildings and open space. Establishing parameters for future development on the site allows for renewal of the area to occur over time, in a phased manner, while assuring consistency with the general principles of the plan, which have been expressed by a broad and inclusive public process that leads up to this document. This general development plan addresses the larger development issues, such as street location, layout of development and open space areas, and infrastructure capacity, while leaving details of building orientation or how uses are mixed until the detailed development phase. Ultimately, the general development plan will foster the growth of the Willamette Falls District by clearly delineating areas for new development and open space, designating public access through a grid of streets and multi-use paths along the waterfront, and setting up a future land use approval process, including new design guidelines, that ensure a clear path forward for high-quality future projects.

17.65.050.C.2 Development shall demonstrate compliance with Chapter 12.04, Streets, Sidewalks and Public Places.

Findings: Complies as Proposed. The master plan for the new Willamette Falls District establishes street locations and dimensions that are generally consistent with OCMC 12.04. The primary facilities that will be established over the life of the master plan are a new Main Street, Water Street, 3rd and 4th Streets, and a multi-use pedestrian and bicycle path along the waterfront and potentially south toward Canemah. The grid of

public streets is the continuation and re-creation of the historic pattern that already exists in downtown Oregon City. This network of streets was vacated in the past to make way for large-scale industrial development. As the site re-develops with a mix of uses, the site can again benefit from the accessibility that can be provided by a continuous street network.

Main Street is a “collector” street and future development of this street will comply with the City’s standards for collector streets with one exception. Rather than a standard 10.5 foot sidewalk, the Main Street profile will include 16 foot sidewalks. This dimension could be reduced for a specific development application to accommodate a special condition such as to protect the façade of an existing historic building. This proposed change will accommodate an expected high level of pedestrian activity that is forecast for the new district, and is in response to the current experience of Main Street in downtown Oregon City, where street furniture and signage has often left the through-zone for pedestrian traffic seeming congested. Additional findings relating to this chapter can be found later in the staff report.

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. As part of the pre-application meeting, city and area service providers provided information in response to the applicant’s request regarding water, sanitary, storm, and other public services. The applicant provided the response in the application.

Oregon City Public Works staff submitted a memorandum dated August 27, 2014 which updates and refines the initial analysis from the pre-application conference. Staff has incorporated the recommend conditions from Public Works and adjusted the mas needed to ensure they met the compliance triggers identified in the conditions. The comments mainly focused on two items:

1. Submittal requirements needed in a utilities/infrastructure phasing plan which will be required at the time of the first detailed development plan of new habitable space over 1,000 square feet. If the Riverwalk development application is the first submittal, the phasing plan for the Riverwalk shall be limited to the boundary of the Riverwalk project.
2. Immediately addressing an existing condition of the onsite manhole at the intersection of 3rd St and Main St that has been changed with the addition of a weir to direct the storm water flow into the onsite sanitary sewer system, which flows directly to the TCSD interceptor pipe. This storm water issue further exacerbates the surcharging condition in the TCSD interceptor sewers and needs to be rectified prior to the submittal of a detailed development plan.

PUBLIC FACILITIES AND SERVICES

WATER

Existing Water System

The existing public water system serving the former Blue Heron site consists of an onsite 10-inch cast iron (CI) water main that connects to a bi-directional pressure reducing valve (PRV) station at the north end of the property in Main Street just south of the intersection of Highway 99E (5th Street) and Main Street. The 10-inch CI water main extends south from the PRV station in the alignment of Main Street to approximately the middle of the property just south of where 3rd Street would be located. Then the 10-inch CI turns easterly in a location under the existing building and continues easterly under the railroad tracks and Hwy 99E. On the east side of Hwy 99E, the water main transitions from underground to above ground and is located vertically on the bluff wall, attached with pipe supports, from Hwy 99E at the bottom to the McLoughlin Promenade at the top where the water main

transitions back to underground. The 10-inch water main continues easterly underground from the bluff wall to a second PRV station at 3rd Street just westerly of High Street. The 10-inch main is the source of water supply to the former Blue Heron's large metered water service and onsite private water system.

The 3rd/Bluff PRV station is the primary source of water supply to the 10-inch main. The station contains two PRVs that control the flow of water from the upper pressure zone to the lower pressure zone with one small PRV providing water service during normal operating conditions and one large PRV providing higher flows during fire flow conditions. During normal operating conditions the 10-inch system is a dead end main served by the 3rd/Bluff PRV and providing water to the onsite metered service. The 5th/Main PRV operation is bi-directional and only provides flow to the 10-inch main during fire flow conditions. It should be noted that the operational parameters of the PRV stations were designed and set based on the operational needs of the former Blue Heron industrial site. The PRV stations need to be evaluated for operational changes based on the proposed redevelopment uses of the site.

The 2012 Water Master Plan evaluated the fire flow capacity of the 10-inch main onsite using a hydraulic model. The estimated available fire flow at 20 psi residual pressure is 2,450 gallons per minute (gpm). The former Blue Heron site's required fire flow was 5,000 gpm. For the site's fire protection needs, the public system is supplemented by an onsite private water system. This private system includes a fire protection system and potable water system. The private fire system facilities include a tank on a property at the westerly corner of High Street and 1st Street, with a private fire main that extends from the tank, down the bluff wall, crosses under Hwy 99E and the railroad tracks, with a network of fire mains onsite that provide flow to onsite private fire hydrants and sprinkler systems located inside the existing buildings. It is assumed as the site redevelops, the private system will be abandoned, removed and/or demolished including the private fire system facilities.

The referenced public 10-inch CI and steel water mains are old, in poor condition and need to be replaced. The above ground steel main failed in December 2013 with leaking pipes and the City made temporary repairs to keep the pipeline in service. The referenced PRV stations are also old and have operational and maintenance problems with the 3rd/Bluff PRV station needing to be replaced.

The capacity of the existing public 10-inch system with two PRV stations is not adequate to provide the commercial fire flow requirement of 3,000 gpm at 20 psi residual pressure. Due to the existing system's deficiencies, there needs to be a hydraulic analysis performed to determine what water system improvements are needed to provide the fire flow requirements as required by the Uniform Fire Code and Clackamas Fire District #1 for the range of uses and overall development proposal.

During the interim period, between approval of the Master Plan and the first detailed development plan application, it is important to document the plan for how the existing onsite private water system will be operated and maintained, when the large metered service is anticipated to be removed, and what the fire protection requirements are for the existing buildings on the site.

Recommended Conditions of Approval:

1. Within six (6) months from the date of the land use approval for CP 14-02 Master Plan, the applicant shall develop, finalize and submit to the City an interim water utility plan for the private onsite water system. The private system currently provides both domestic water service and fire flow protection to the entire site. The interim water utility plan shall include:
 - a. Detailed operational and maintenance plan for the private water system during the interim period.
 - b. Water System Pipe Schematic showing the private system schematically that will be operation during the interim period, including from the City's metered connection to the ends of the operational pipe segments, primary isolation valves, fire hydrants, sprinkler systems and other notable appurtenances.
 - c. Collaboration with the City's Public Works Operations and Engineering staff regarding the interim operations and maintenance of the private water system.
 - d. Collaboration with Clackamas Fire District #1's (CCFD#1) to determine the minimum fire flow requirements for the existing buildings onsite and how the private system will comply with the requirements.
- 2.. Prior to site development and concurrent with the first development land use application, the applicant shall develop an overall water utility plan for providing a public water system that provides both potable water service and fire flow protection to the entire site. The overall water utility plan shall require final approval by the City and include:
 - a. Compliance with City Standards including Public Works Utility Standards
 - b. Compliance with Clackamas Fire District #1's (CCFD#1) and Uniform Fire Code requirements for the site's maximum fire flow based on the overall site development plan and any other conditions of approval as applicable.
 - c. A looped system providing two sources of supply with consideration of one source being located at the southern end of the site about where the existing pedestrian bridge crosses over Hwy 99E and the railroad tracks. This existing bridge is planned to be replaced sometime in the future with a new pedestrian bridge and consideration should be made for making the new bridge dual purpose and incorporate public utility crossings such as a new water pipeline.
 - d. Evaluation of the existing water distribution system using City's approved hydraulic network model to determine what new water system improvements are needed to provide adequate service pressures during normal operating conditions, fire flows as required by CCFD#1, and PRV station operational parameters based on the redevelopment needs of the site. Note: The

existing PRV operational parameters may not work for the proposed redevelopment and be required to change.

e. Evaluation to determine if the City's designated "Paper Mill" pressure zone can be rezoned and made part of the "Lower" pressure zone and whether the PRV station at 5th/Main St is needed with the overall redevelopment plan.

f. Phasing plan for new water improvements, including consideration of when existing water facilities will be abandoned, removed and/or replaced, how fire protection will be provided to existing buildings that are remaining in place during that development phase, how the new system will operate during that development phase if there are old water facilities still needed to be operational, replacing and/or upgrading PRV stations, installation of new public water mains, fire hydrants and metered services located within future public streets meeting separation standards from other utilities as applicable.

g. Consideration of completely abandoning the private system with the first phase development and what new water improvements are needed to accomplish this.

2. Prior to building permits for the first site development, the plan will be implemented as approved.

SANITARY SEWER

Existing Sanitary Sewer System

There is an existing private sanitary sewer collection system on site which is a gravity system consisting of 8-inch and 12-inch pipe. This system connects directly to the Tri-City Service District (TCSD) interceptor system located on Highway 99E near the location of the future Water Street. A portion of the private pipe is located beneath the water filtration plant.

The existing private system on site is old, the condition is unknown and is at least partially inaccessible. This system will need to be abandoned in place and/or removed, and replaced with a public sanitary sewer system complying with City standards and located in future public right-of-way. As the site is relatively flat, it may be difficult to provide gravity sanitary sewer service to the south end of the site. The City's 2014 Sanitary Sewer Master Plan (SSMP) that is being adopted, includes an evaluation of the capacity of the Tri-City interceptor sewers along Hwy 99E. A number of the Tri-City sewers were found to be surcharging under both existing and future conditions. Water Environment Services (WES) manages and operates the Tri-City interceptor system. There will need to be coordination with WES and WES approvals regarding the connection to the Tri-City interceptor system with future sanitary sewer system improvements.

Recommended Conditions of Approval:

1. Prior to site development and concurrent with the first development land use application, the applicant shall develop an overall sanitary sewer utility plan for providing a public sanitary sewer system to the entire site. The overall sanitary sewer utility plan shall require final approval by the City and include:
 - a. Compliance with City Standards including Public Works Utility Standards
 - b. Capacity evaluation of existing sanitary sewer collection system using City's approved hydrologic/hydraulic model due to the proposed wastewater flow contribution from the entire development, including consideration of the TCSD surcharged interceptor sewers predicted in the 2014 SSMP and potential need for backflow protection improvements due to negative impacts from TCSD surcharged system.
 - c. Phasing plan for abandonment, removal, and/or replacement of existing sewer facilities, and new public sanitary sewer extensions with lateral services located within future public streets meeting separation standards from other utilities as applicable.

2. Prior to building permits for the first site development, the plan will be implemented as approved.

STORM DRAINAGE

Existing water quality facilities have been installed as temporary measures until development occurs. The temporary measures include gabions with filter material at one tailrace and the pipe gallery; retention and settling in the grotto; and rain gardens in totes for the roof drains. There are two existing outfalls on the site located within the redevelopment area, one at approximately 3rd Street and the second at 4th Street.

The 3rd St outfall and pipe conveyance system collects storm water runoff through Oregon Department of Transportation (ODOT) Hwy 99E from Tumwater Drive to 3rd Street and conveys the flows downstream to the pipe system onsite along 3rd Street to the 3rd St outfall. Confirmation was made that one of the onsite manholes along this conveyance system at the intersection of 3rd St and Main St has been changed with the addition of a weir to direct the storm water flow into the onsite sanitary sewer system which flows directly to the TCSD interceptor pipe. This storm water issue further exacerbates the surcharging condition in the TCSD interceptor sewers and needs to be rectified.

The 4th St outfall system appears to collect onsite drainage and convey this through a pipe system to the outfall. There is a third outfall at the south end of the site discharging storm water to the pond above the dam from the Oregon Department of Transportation (ODOT) Hwy 99E and City 2nd St/High St stormwater systems. The outfall is submerged in the pond and this section is believed to be damaged, requiring repairs and/or replacement to make the system fully functional.

There is a fourth outfall at the north end of the site where the future Water Street intersects Hwy 99E (5th St). The 5th/Water outfall system collects and conveys stormwater from Railroad Ave, along the site's frontage on 5th St to the outfall. There appears to be operational problems with this system that include surcharging of the catch basins in the intersection of Main St and Hwy 99E. The site contributes stormwater runoff to this system. This problem will need to be evaluated for existing deficiencies in the system.

The site has been cleaned up such that storm water from the site can be discharged to the Willamette River without further environmental remediation. Due to the direct discharge to the Willamette River detention will not be required. Standard water quality treatment will be required per the City's stormwater management standards.

Recommended Conditions of Approval:

1. Prior to site development and concurrent with the first development land use application, the applicant shall develop an overall stormwater management plan for the entire site. The plan shall require final approval by the City and include:
 - a. Compliance with City Standards including Public Works Utility Standards
 - b. New stormwater facilities that provide for collection and treatment prior to discharge.

- c. Consideration of alternative treatment methods such as Low Impact Development due to the nature of the site (bedrock at or near the existing ground surface).
 - d. Evaluation of existing stormwater system along frontage of site and determination of what improvements are needed to fix any deficiencies found.
 - e. Phasing plan as applicable and meeting the needs for phased redevelopment of the site.
2. By September 30, 2015, the applicant shall rectify the stormwater issue at the referenced manhole at Main St/3rd St intersection and separate the storm system from the sanitary sewer system. The resolution shall include collaboration and coordination with ODOT to determine what improvements are necessary for the separation of systems, City and ODOT approval of the plan, and implementation.

In addition to these conditions, staff recommends the applicant obtain an Oregon City Erosion Control Permit, if applicable, for all site clean-up, demolition or interim parking uses and verifies that the proposed work is consistent or can be made consistent with the DEQ interim stormwater plan.

STREETS

The master plan for the new Willamette Falls District establishes street locations and dimensions that are generally consistent with OCMC 12.04. The primary facilities that will be established over the life of the master plan are a new Main Street, Water Street, 3rd and 4th Streets, and a multi-use pedestrian and bicycle path along the waterfront and potentially south toward Canemah.

The grid of public streets is the continuation and re-creation of the historic pattern that already exists in downtown Oregon City. This network of streets was vacated in the past to make way for large-scale industrial development. As the site re-develops with a mix of uses, the site can again benefit from the accessibility that can be provided by a continuous street network.

Main Street is a “collector” street and future development of this street will comply with City standards with one exception. Rather than a standard 10.5 foot sidewalk, the standard profile will include minimum 16 foot sidewalks. This dimension could be reduced for a specific development application to accommodate a special condition such as to protect the façade of an existing historic building. This change will accommodate an expected high level of pedestrian activity that is forecast for the new district, and is in response to the current experience of Main Street in downtown Oregon City, where street furniture and signage has often left the through-zone for pedestrian traffic seeming congested.

Water Street is a new street that will be classified as a “local street” and comply with the design standards for that classification as contained in 12.04. Likewise, 3rd and 4th Streets will also be designated as local streets. These streets have the most flexibility depending on the nature of future development, since they are short segments, bounded by 99E and basalt cliffs to the east, and the river to the west. These streets could be established in a traditional section, or as shared streets, or as stubs into a parking structure.

For all streets within the district, the requirement for street trees will be modified as part of this master plan approval. The entire Willamette Falls Downtown District is on a basalt shelf that has only a shallow layer of soil—if any—that is a poor environment for growing trees. A continuous

canopy of street trees is strongly encouraged, and should be installed wherever it is feasible. In locations where underlying basalt does not allow standard street tree installation, an alternative approach will be allowed. Design guidelines proposed with the plan will encourage streetscapes to have a lively vegetative presence regardless of the underlying soil conditions, whether in planters or using smaller trees and shrubs.

Recommended Conditions of Approval:

1. Prior to site development and concurrent with the first development land use application, the applicant shall develop an overall street utility plan for the entire site. The plan shall require final approval by the City and include:
2. Compliance with City Standards including Public Works Utility Standards, unless amended by this review or from the public works director
3. Consideration of design exceptions and alternative streetscape elements if the site conditions (bedrock at or near the existing ground surface) do not allow for City Standards to be met.
4. Phasing plan as applicable for phased redevelopment of the site.
5. Prior to disturbance of soil associated with the proposed development, 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.
6. The applicant is responsible for this project's compliance with Engineering Policy 00-01 found at <http://www.orcity.org/sites/default/files/EP00-01v6.pdf>. The policy pertains to any land use decision requiring the applicant to provide any public improvements.

Staff finds that the applicant has shown that 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 if the Conditions of Approval are met.

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: Analysis of the plan to protect historic and cultural elements was discussed previously in 17.65.050.B.1.e.

The city's mechanism for inventorying and protecting Goal 5 natural resources on the site is through the Natural Resources Overlay District. 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. Resources on this site are related to its proximity to the Willamette River and the associated NROD district boundary reflects the riparian resources. The city's Natural Resource Overlay District applies to a large portion of the Willamette Falls District, and its requirements will be met as part of any future detailed development plan application.

Though the site is on the banks of the river, the entire developed area of the site and covered with impervious surface. The NROD chapter provides an exemption for properties that do not increase impervious surface over existing conditions (17.49.080.J). This exemption is likely to be invoked for future development, since there is virtually no pervious surface on the existing site. Because the property is completely built out with decades of industrial development. Changes to the site will likely increase pervious surface in the district.

Nevertheless, satisfying the overall district objectives requires attention to habitat restoration and environmental protection. To that end, the master plan identifies restoration and enhancement opportunities for the site that will improve riparian conditions and fish and wildlife habitat. These enhancement actions can also provide improvements for water resources, including stormwater treatment and water quality. The existing conditions and menu of proposed, high-value site improvements is outlined in a natural resources assessment prepared by ESA in October 2012, “Willamette Falls Legacy Project: Habitat and Water Resources Opportunities,” which is included as an appendix. In addition, Metro scientists have completed two years of study about the healthy habitat elements of the site, and further refined the list of environmental restoration targets at the site. These inputs have created key recommendations for enhancing the site’s natural resource values:

- Expose and restore the historical shoreline
- Diversify habitat, restore tailraces, revegetate, remove invasive species
- Provide stormwater treatment along shoreline and in grotto
- Increase circulation in lagoon
- Diversify lagoon habitat

Two of the above identified actions would be especially important to improving the habitat values of the Willamette Falls site and its adjunct river corridor. Tail races once carved deep into the site at its southern end have been filled in or channelized as industrial development dominated the site. The intake basin (*i.e.*, lagoon), which creates an upper section of river through the site above the dam, provided a place for water transportation into the site from upstream. This water body is now stagnant. Re-establishing the mill races, either in part or in full, to receive greater flows from the lagoon has multiple environmental benefits. The water quality of the lagoon improves by circulating fresh water through the area. Greater circulation would aerate water flowing through the tail races, thus providing a more welcoming habitat for fish and other riparian vegetation. The master plan allows for this concept, with the understanding that the development of the open space in this location is still undetermined. The design of the open space and development in this area of the site will be determined in a future development application and any proposal will be required to show compliance with the overlay districts and the concept development plan.

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: Complies as Conditioned.

Needed Housing.

The applicant has proposed a master plan in conjunction with a new zoning designation that allows for, but does not require residential units. The applicant has also proposed a review process that requires future detailed development plans to show compliance with master plan policies through a Type II or Type III process. This proposed process would not provide “clear and objective” standards for housing and thus would not contribute to needed housing in the City.

Needed Housing: As used in ORS [197.307 \(Effect of need for certain housing in urban growth areas\)](#), needed housing means housing types determined to meet the need shown for housing within an urban growth boundary at particular price ranges and rent levels, including at least the following housing types:

- (a) Attached and detached single-family housing and multiple family housing for both owner and renter occupancy;
- (b) Government assisted housing;
- (c) Mobile home or manufactured dwelling parks as provided in ORS [197.475 \(Policy\)](#) to [197.490 \(Restriction on establishment of park\)](#);

- (d) Manufactured homes on individual lots planned and zoned for single-family residential use that are in addition to lots within designated manufactured dwelling subdivisions; *and*
- (e) Housing for farmworkers.

During the City's last Comprehensive Plan update, the city produced a housing needs analysis based on data up to 2002 that looked at existing housing units and land available for housing. The report found that the City had a deficiency of land available for housing development through the year 2017 and needed to increase the capacity to accommodate an additional 1,444 units by the year 2017. The report predicted that by 2017, the City would gain an additional 6,075 units through development of existing and new residential land. In fact, the City has gained less than 3,000 additional units between 2002 and 2014. The Great Recession decreased the growth of housing demand, and the ultimate need may not be quite as high as predicted. Nonetheless, the city has increased its housing unit capacity since 2002 by 953 units, and has vastly expanded the opportunity for housing in new mixed use zones.

The 2004 revised Comprehensive Plan and Zoning maps responded to the need for additional housing types by upzoning areas throughout the city to help provide additional infill development. Through this Comprehensive Plan and Zoning Map amendment (L 03-01), the City added capacity for 628 units. The city reviewed infill opportunities again in 2008 and provided additional capacity for 150 units through a Comprehensive Plan and Zoning Map amendment L 08-01. In addition, property owner-initiated zone changes have increased capacity by 175 units between 2002 and today.

During this time period, the city also created and approved concept plans for three areas (South End, Beavercreek, Park Place) recently brought into the UGB. The density for these areas is prescribed by Title 11 of the Metro Functional Plan.

Concept Plan Areas	Units Required	Units Provided	Net capacity Added
Park Place (2002 UGB expansion only)	1091	1091	0
Beavercreek (Currently under review by courts)	0	1023	923
South End (2002 UGB expansion only)	1330	1210	-120
TOTAL	2421	3324	803

While not counted as contributing to needed housing, the City also increased housing through the introduction of mixed use zones in 2004 – MUC-1, MUC-2, and MUD zones, which all allow for multifamily development. Capacity from these new mixed use zones is estimated at a potential 8,000 units within the City limits. The provision for accessory dwelling units in all single family residential zones has increased overall housing availability as well.

The city has additionally adopted cottage housing and accessory dwelling units as a permitted use in single family residential zones. These two unit types provide a diverse and often affordable housing opportunities within existing neighborhoods.

The applicant has requested to pursue a non-clear and objective implementation model for future detailed development plans. Staff agree with this approach, given the lack of detailed for future phases, and finds that the city has adequately addressed the 2002 Housing Study and over the last twelve years has implemented zone changes and permitted new types of residential uses that greatly expands the capacity and variety of housing units in the city and additionally finds that this industrially zone site is not subject to meeting needed housing in the city.

Mitigation

The applicant provided the following table to summarize the discussion of impacts.

Impact category	Impact from Master Planned development	Summary of Proposed Mitigation
Aesthetics	New mixed use development and open space waterfront areas.	Impact is positive, no mitigation required.
Environmental Resources	Riparian corridor already badly degraded from years of heavy industrial use. New development subject to NROD and protects sensitive resources.	Plan includes enhancement opportunities to: expose and restore historical shoreline (diversify habitat, restore mill races, revegetate); provide stormwater treatment along shoreline and in grotto; increase circulation in lagoon and diversify habitat; establish vegetated buffer upslope.
Cultural Resources	Open up access to highly significant Native American site. Undertaken Sec 106 process as a best practice to understand final impact of Mater Plan to historic resources.	Impact is generally positive for access to Willamette Falls - no mitigation required. Future development will coordinate with tribes to assess impacts. Coordinate Mater Plan policies and Conditions of Approval to use for potential Memorandum of Understanding if federal funds or public ownership is involved in future phases.
Hydrology and Water Quality	Site already heavily impervious because of basalt shelf and industrial development. No increase in impervious surface anticipated.	Areas in floodplain generally designated for open space uses
Noise	Reduced noise impacts from what is allowed under current zoning, because of conversion to mixed use development.	Impact is positive, no mitigation required.
Transportation/Traffic	Additional vehicle and pedestrian traffic from development of new buildings and open space uses.	Package of improvements in and near site to mitigate impacts. Includes: signal at 6 th and 99E, shared use path on waterfront, Water Street access, northbound right at Main/99E intersection, indirect left into site via Railroad, and ped bridge over 99E at south end of site.

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 Conditioned.

Introduction

Statements of Principle

Oregon City's Comprehensive Plan is founded on a number of principles, which shape the City Commission's vision for the future growth and development of the city. The principles help determine the scope of issues, concerns, and actions that will guide development, and they are reflected in the plan's goals and policies. Statements of these principles, listed below, are not legally binding. They are instead intended to help citizens understand the kind of city this plan will help to achieve.

*Promote sustainability and sustainable development. ****

*Contain urban development. ****

*Promote redevelopment. ****

*Protect natural resources. ****

*Foster economic vitality. ****

*Provide efficient and cost-effective services. ****

*Ensure a sense of history and place. ****

Finding: The proposed general development plan for the Willamette Falls Downtown District is consistent with the above statements of principle because it takes a comprehensive approach to the redevelopment and revitalization of the district. The plan promotes sustainability by incorporating protections and enhancement for the site's riparian values, promoting the adaptive reuse of existing historic buildings on the site, and creating a pedestrian-friendly street and pathway network that will minimize car travel. It contains urban development by anticipating highly urban uses and building types downtown, which is the most central area of the city and will reinforce the core of the city. It promotes redevelopment by establishing a clear set of rules for buildings and open space, and designating more than six acres of the site for new development, and laying out the anticipated network of transportation and utility connections that will accompany future development. It protects natural resources by identifying a list of resource enhancement opportunities and requiring compliance with existing city rules for environmental protection. It fosters economic vitality by designating land for redevelopment consistent with current market realities, and providing more certainty for private and public investment on the site with regard to the spatial organization of the property. It provides efficient and cost-effective services because it promotes the redevelopment of 22 acres adjacent to the core of the city where it is easiest to provide utilities and other public services. It ensures a sense of history and place by designating specific buildings and structures for historic preservation, reestablishing the historic street grid, and requiring that new development show respect for the natural, territorial, and industrial history of the site.

Section 2: Land Use

Industrial Land

There is often pressure to convert industrially zoned land to easily developable sites and other uses. The goals of the City are to protect existing industrial land from conversion, where appropriate, to annex industrial land and expand the Urban Growth Boundary to add urbanizable industrial land to the inventory, and to ensure that public facilities can serve future development.

- *Industrial (I) — uses related to manufacturing, processing and distribution of goods. Employment-based uses are encouraged. Intensive or heavy industrial uses are allowed in certain zones. Zones in the Comprehensive Plan Land-Use Map district are designed to comply with requirements of Title 4 of Metro's Urban Growth Management Functional Plan (1998).*

- *Mixed Use Downtown (MUD) — urban density, mixed uses that are conducive to pedestrian and transit uses. This category is intended to be used to implement the Oregon City Downtown Community Plan (1999), the Oregon City Waterfront Master Plan (2002), and Metro’s Regional Center concept, particularly in terms of connecting the Downtown with the waterfront. A design overlay is included in this area and is intended to promote development consistent with Oregon City’s traditional Downtown form.*

Finding: Complies as Proposed. The proposed plan is for re-development of the formerly industrial site, and is concurrent with a zone change from industrial to a mixed-use zone that supports a wider range of uses including office, craft industrial, commercial, and residential uses. This is consistent with comprehensive plan policy 2.2.12, “Ensure a master plan is developed at the Blue Heron Paper Company site ... which addresses transitioning the overall site from industrial to non-industrial land uses.” The industrial history of the site is rooted in its proximity to the falls as a source of power. Being close to hydro-power is no longer a necessary requirement for desirable industrial land. Moreover, the location of this site has numerous challenges that have rendered it less appealing for industrial use than other site’s within the city: limited transportation access, more than half the property being within the floodplain, and the presence of existing mill infrastructure. Finally, the city currently has in its inventory adequate and industrial land in areas with many fewer constraints.

Goal 2.1 Efficient Use of Land

Ensure that property planned for residential, commercial, office, and industrial uses is used efficiently and that land is developed following principles of sustainable development.

Policy 2.1.1

Create incentives for new development to use land more efficiently, such as by having minimum floor area ratios and maximums for parking and setbacks.

Policy 2.1.2

Encourage the vertical and horizontal mixing of different land-use types in selected areas of the city where compatible uses can be designed to reduce the overall need for parking, create vibrant urban areas, reduce reliance on private automobiles, create more business opportunities and achieve better places to live.

Policy 2.1.3

Encourage sub-area master planning for larger developments or parcels, including re-development, where it may be feasible to develop more mixed uses, or campus-style industrial parks, with shared parking and landscaping areas. Allow developments to vary from prescriptive standards if planned and approved under this provision.

Policy 2.1.4

Use redevelopment programs such as urban renewal to help redevelop underutilized commercial and industrial land.

Finding: Complies as Proposed The proposed plan for the Willamette Falls District will use land efficiently because it provides for a range of uses to mix on the same site at urban densities, and in a location that is close to existing development and public services. The new zone that is being created for this area encourages efficient use of land by establishing a minimum floor area ratio, no minimum setback, and very low parking minimums. The historic street grid that will be re-established on the site likewise creates a very rational and efficient division of the site into development blocks that are well suited for mixed use development of many different kinds, while providing sufficient access to each area of the site. The range of uses that are allowed and anticipated to occur at the site--employment, residential, commercial--will create a vibrant urban setting that drives economic development and also reduces the need for parking and automobile travel. The large scale nature of this development area and its current status as being in a single ownership provides unique opportunities for shared parking and common landscape areas. The areas proposed in the master plan for open space which are closest to the river (and below the floodplain) are an example of a common open space that efficiently serves the whole district.

Goal 2.2 Downtown Oregon City

Develop the Downtown area, which includes the Historic Downtown Area, the “north end” of the Downtown, Clackamette Cove, and the End of the Oregon Trail area, as a quality place for shopping, living, working, cultural and recreational activities, and social interaction. Provide walkways for pedestrian and bicycle traffic, preserve views of Willamette Falls and the Willamette River, and preserve the natural amenities of the area.

Policy 2.2.1

Redefine the Metro Regional Center concept to recognize the unique character of Oregon City while being in accordance with Metro’s 2040 Growth Concept.

Policy 2.2.2

Support multi-modal transportation options throughout the Regional Center and to other Regional and Town Centers.

Policy 2.2.3

Develop and promote a vision for the economic development and redevelopment of the Downtown area that solidifies the Oregon City Downtown Community Plan and Oregon City Waterfront Master Plan.

Policy 2.2.4

Target public infrastructure investments and create public/private partnerships to leverage maximum benefits from public investment and to help ensure that the Regional Center develops to its maximum capacity and realizes its full potential.

Policy 2.2.5

Encourage the development of a strong and healthy Historic Downtown retail, office, cultural, and residential center.

Policy 2.2.6

Working with major stakeholders, develop and implement a strategy to help the Historic Downtown Area enhance its position as a retail district. Such a strategy might include funding for a “Main Street” or similar program.

Policy 2.2.9

Improve connectivity for vehicles, bicycles, and pedestrians within the Oregon City Downtown community and waterfront master plan areas and improve links between residential areas and the community beyond.

Policy 2.2.11

Investigate an interpretive scheme that incorporates the End of the Oregon Trail Interpretive Center, the waterfront, and Downtown. Describe environmental, social, and historic aspects including the concept of a greenway along Abernethy Creek and nearby structures of historic significance.

Policy 2.2.12

Ensure a master plan is developed at the Blue Heron Paper Company site at such time as the property owner proposes a large-scale development, which addresses transitioning the overall site from industrial to non-industrial land uses.

Policy 2.2.13

Monitor the redevelopment within the Downtown Design District and investigate the need to require retail and service uses on the first floor and limit residential and office uses to the second floor and above.

Finding: Complies as Proposed The proposed plan for the Willamette Falls Downtown District extends the existing downtown farther to the south. The new district is anticipated to have a similar mixed-use feel as downtown, but also have larger buildings and a wider range of uses that are reflective of the industrial and employment history of the area. The change in zoning will allow for a wide range of uses within the area that are typical of Oregon City’s downtown, shopping, employment, culture and recreation, and also potentially light industrial uses. The plan creates a network of multi-use paths for pedestrian and bicycle traffic, and preserves the natural amenities of the site, which are largely related to the river. Most of all, the redevelopment and opening up of this district will preserve and enhance views of Willamette Falls and the Willamette River, by creating public access to the historic center of the region in a way that has not been possible for the last 100-plus years.

The master plan supports Metro's Regional Center concept by increasing development and multi-modal transportation options within an existing downtown. The proposed new development will be well-served by existing services that are already present on site or close to it. Connectivity to the existing downtown and its surrounding areas will be vastly improved by the anticipated transportation improvements including a riverfront pathway that will provide access up to the edge of the falls.

The most directly applicable policy is 2.2.12, "Ensure a master plan is developed at the Blue Heron Paper Company site at such time as the property owner proposes a large-scale development, which addresses transitioning the overall site from industrial to non-industrial land uses." This is exactly the purpose of this land use application, as it sets out the rules and expectations for the long term conversion and redevelopment of the site from its former industrial use to that of a district more consistent with the mixed use character reflective of the existing historic downtown.

Goal 2.3 Corridors

Focus transit-oriented, higher intensity, mixed-use development along selected transit corridors.

Policy 2.3.1

Ensure planning for transit corridors includes facilities and access management, aesthetics (including signage and building facade improvements), infill and redevelopment opportunities, high-density residential development, and business assistance to existing businesses.

Finding: Complies as Proposed This site is bounded by a transit corridor, on Highway 99E, which is served by TriMet's line 33 bus. The site itself is not open to the public, nor is it currently in use as an employment center, so it is not served in any real way by transit. There is a stop three blocks north of the site in the downtown at 7th and Railroad, and southeast of the site at 2nd and Tumwater. Nevertheless, with the anticipated redevelopment of the site, transit access into and through the site is likely to improve. Overall, the development standards and requirements for the site are highly supportive of transit-oriented development.

Goal 2.6 Industrial Land Development

Ensure an adequate supply of land for major industrial employers with family-wage jobs.

Policy 2.6.1

Work with Metro to ensure that there is enough land available within the Urban Growth Boundary to meet the need for industrial and/or commercial may be appropriate to annex. The selection of these areas will be based on market factors, protection of environmentally sensitive areas, compatibility with development. If there is not enough, identify areas outside the boundary that adjoining and nearby uses, public facilities and infrastructure, proximity to expressways and transit, site requirements of specific types of industries, and the desires of the property owners.

Policy 2.6.2

Ensure that land zoned or planned for industrial use is used for industrial purposes, and that exceptions are allowed only where some other use supports industrial development. New non-industrial uses should especially be restricted in already developed, active industrial sites.

Policy 2.6.3

Protect the city's supply of undeveloped and underdeveloped land zoned for industrial uses by limiting non-industrial community uses, such as schools, parks, and churches on such properties and by limiting larger commercial uses within those areas.

Policy 2.6.4

Protect existing and planned undeveloped and underdeveloped industrial lands from incompatible land uses, and minimize deterrents to desired industrial development.

Policy 2.6.5

Ensure that land-use patterns create opportunities for citizens to live closer to their workplace.

Policy 2.6.6

Identify industrial uses that could partner with Clackamas Community College as training centers and future employers of students graduating from CCC.

Policy 2.6.7

Establish priorities to ensure that adequate public facilities are available to support the desired industrial development.

Finding: Complies as Proposed The plan will re-develop a formerly industrial site, and is proposed concurrent with a zone change from industrial to a mixed-use zone that supports a wide range of uses including office, craft industrial, commercial, and residential uses. This change is consistent with the comprehensive plan policy most clearly directed at the site, policy 2.2.12, which states, “Ensure a master plan is developed at the Blue Heron Paper Company site ... which addresses transitioning the overall site from industrial to non-industrial land uses.” This policy must be balanced against policies for preserving industrial land within the city. The decision to convert this land to mixed-use is the result of an analysis of its highest and best use, and that proximity to hydro-power is no longer a necessity for industrial users. Constraints on the site--limited access, floodplain, existing mill infrastructure--make it even more challenging for industrial development. The new Willamette Falls Downtown District will still allow craft industrial or light industrial uses such as small-scale apparel manufacturing or beer brewing. Finally, the city currently has in its inventory adequate and industrial land in areas with many fewer constraints.

Goal 5.1 Open Space

Establish an open space system that conserves fish and wildlife habitat and provides recreational opportunities, scenic vistas, access to nature and other community benefits.

Policy 5.1.2

Manage open space areas for their value in linking citizens and visitors with the natural environment, providing solace, exercise, scenic views and outdoor community benefits. Conserve open space along creeks, urban drainage ways, steep hillsides, and education. Built features in open space sites should harmonize with natural surroundings.

Finding: Complies as Proposed. The proposed framework plan for the site identifies area near the waterfront and below the flood zone for open space uses. Because these areas are closest to the river and within the flood zone, they will be amenable to the values identified above. Some of this area is currently open water or cliff-top and thus unbuildable. A wide range of possibilities for the construction of these open space blocks could improve fish and wildlife habitat by roughening the shoreline and re-employing the mill races that have been hidden or covered over by decades of industrial development. Recreational opportunities could be created that will allow people to circulate through the district on a riverfront path to the edge of the falls, and beyond to Canemah. A planned waterfront path reaches its terminus at the edge of the falls, which is one of the most spectacular scenic vistas in the State of Oregon. Shoreline restoration and enhancement and the presence of a riverfront path will allow people access to this natural resource in a way that has not been possible for over 100 years. In all the anticipated options for development of the open spaces, citizens and visitors will be able to connect with the natural environment and gain access to views and the outdoors.

Goal 5.2 Scenic Views and Scenic Sites

Protect the scenic qualities of Oregon City and scenic views of the surrounding landscape.

Policy 5.2.1

Identify and protect significant views of local and distant features such as Mt. Hood, the Cascade Mountains, the Clackamas River Valley, the Willamette River, Willamette Falls, the Tualatin Mountains, Newell Creek Canyon, and the skyline of the city of Portland, as viewed from within the city

Policy 5.2.2

Maximize the visual compatibility and minimize the visual distraction of new structures or development within important viewsheds by establishing standards for landscaping, placement, height, mass, color, and window reflectivity.

Finding: Complies as Proposed The plan protects the scenic qualities of the city by setting up a framework that will prioritize public access and help bring citizens and visitors to the falls. The most significant feature of the site, its presence at the edge of the falls, is currently obscured by industrial buildings and the lack of access. The proposed plan will create new access, and new buildings will comply with a proposed design guideline that insures respect for the views. Development standards in the new zone and compliance with design guidelines address the details of future development.

Goal 5.3 Historic Resources

Encourage the preservation and rehabilitation of homes and other buildings of historic or architectural significance in Oregon City.

Policy 5.3.4

Support the preservation of Oregon City's historic resources through public information, advocacy and leadership within the community, and the use of regulatory tools and incentive programs.

Policy 5.3.8

Preserve and accentuate historic resources as part of an urban environment that is being reshaped by new development projects.

Finding: Complies as Conditioned. This plan identifies buildings of historical significance on the site and designates certain buildings for preservation or rehabilitation as part of any redevelopment project. Four buildings and a foundation (of the 50-plus structures on the site) are identified as highest value considering their historicity and potential for re-use. Five other structures are designated as worth saving, either whole or in part, but were found to be difficult to repurpose and generally could not be seen as income generating buildings. Elements or pieces of other buildings on the site have value, but will be more difficult to save. This plan lays out the regulatory tools and incentive programs for historic preservation. As part of the plan and as also promoted by the design guidelines, new development projects will emphasize and accentuate the historic value of the site and integrate these resources into the new setting.

Goal 5.4 Natural Resources

Identify and seek strategies to conserve and restore Oregon City's natural resources, including air, surface and subsurface water, geologic features, soils, vegetation, and fish and wildlife, in order to sustain quality of life for current and future citizens and visitors, and the long-term viability of the ecological systems.

Policy 5.4.1

Conserve and restore ecological structure, processes and functions within the city to closely approximate natural ecosystem structure, processes, and functions.

Policy 5.4.2

Cooperate with Clackamas County, Metro and other agencies to identify and protect wildlife habitat, distinctive natural areas, corridors and linkages and other ecological resources within the Urban Growth Boundary and incorporate the information into the Urban Growth Management Agreement with Clackamas County.

Policy 5.4.4

Consider natural resources and their contribution to quality of life as a key community value when planning, evaluating and assessing costs of City actions.

Policy 5.4.5

Ensure that riparian corridors along streams and rivers are conserved and restored to provide maximum ecological value to aquatic and terrestrial species. This could include an aggressive tree and vegetation planting program to stabilize slopes, reduce erosion, and mitigate against invasive species and stream impacts where appropriate.

Policy 5.4.6

Support and promote public education, interpretation, and awareness of the city's ecological resources.

Policy 5.4.8

Conserve natural resources that have significant functions and values related to flood protection, sediment and erosion control, water quality, groundwater recharge and discharge, education, vegetation and fish, and wildlife habitat.

Policy 5.4.9

Protect and enhance riparian corridors along streams in Oregon City to increase shade, reduce streambank erosion and intrusion of sediments, and provide habitat for a variety of plants, animals, and fish.

Policy 5.4.10

Encourage and promote the restoration of the hydrologic and ecological character and function of streams and wetlands that have been degraded by channeling or eliminated from the landscape by routing into culverts.

Policy 5.4.16

Protect surfacewater quality by:

- *providing a vegetated corridor to separate protected water features from development*
- *maintaining or reducing stream temperatures with vegetative shading*
- *minimizing erosion and nutrient and pollutant loading into water*
- *providing infiltration and natural water purification by percolation through soil and vegetation.*

Finding: Complies as Proposed This plan identifies both the location and type of restoration projects that will improve the natural resources present on the site. Though degraded by a century of heavy industrial use, the riparian setting provides tremendous opportunities. As listed in the plan, future development could expose and restore the historical shoreline, increase the circulation in the lagoon and diversify habitat, and establish a vegetated buffer along the riverbank. These actions would dramatically improve resource values and upgrade habitat for fish, birds, and plant communities. Finally, by designating a large area of the site as ideal for open space or park uses, the plan sets a framework for a large reduction in impervious surface and an increase in landscaped area. This would have an overall benefit to the site's natural resource functions.

Goal 6.1 Air Quality

Promote the conservation, protection and improvement of the quality of the air in Oregon City.

Policy 6.1.1

Promote land-use patterns that reduce the need for distance travel by single occupancy vehicles and increase opportunities for walking, biking and/or transit to destinations such as places of employment, shopping and education.

Policy 6.1.2

Ensure that development practices comply with or exceed regional, state, and federal standards for air quality.

Finding: Complies as Proposed This plan creates a multi-modal district with a mix of uses that will reduce the need for distance travel. By placing a range of uses together within close distance, and accessible by non-auto methods of travel, air quality will be protected. All development in the district will be subject to current regional, state, and federal air quality standards.

Goal 6.2 Water Quality

Control erosion and sedimentation associated with construction and development activities to protect water quality.

Policy 6.2.1

Prevent erosion and restrict the discharge of sediments into surface- and groundwater by requiring erosion prevention measures and sediment control practices.

Policy 6.2.2

Where feasible, use open, naturally vegetated drainage ways to reduce stormwater and improve water quality.

Finding: Complies as Proposed .The city’s existing erosion control standards in OCMC 15.48 are to be used for any future construction or development on the site. This will reduce or eliminate discharge of sediment. Stormwater planters will be incorporated into site design as feasible, although the solid basalt base for the site offers little natural ability for water to be absorbed.

Goal 7.1 Natural Hazards

Protect life and reduce property loss from the destruction associated with natural hazards.

Policy 7.1.1

Limit loss of life and damage to property from natural hazards by regulating or prohibiting development in areas of known or potential hazards.

Policy 7.1.5

Minimize the risk of loss of life and damage to property from flooding by limiting development in the 100-year floodplain and by ensuring that accepted methods of flood proofing are used.

Policy 7.1.6

Encourage the use of land and design of structures that are relatively unaffected by the periodic effects of flooding, such as parking and other uses not normally occupied by humans.

Policy 7.1.7

Prohibit uses in areas subject to flooding that would exacerbate or contribute to hazards posed by flooding by introducing hazardous materials, filling or obstructing floodways, modifying drainage channels, and other detrimental actions.

Finding: Complies as Proposed As a riverfront site, 12.5 acres of the 22 acre site is located within the 100 year floodplain. This plan outlines a design that protects life and reduces property loss by locating open space and waterfront uses within areas most vulnerable to flooding. This insures that those areas likely to flood are occupied by land and structures unaffected by flooding, like open spaces or unoccupied areas underneath buildings. Though some building development could occur within these zones, especially if it relates to the adaptive reuse of historic structures, any construction would be subject to the city’s Flood Management Overlay District rules (OCMC 17.42). These rules require flood proofing and balanced cut and fill.

Goal 8.1 Developing Oregon City’s Park and Recreation System

Maintain and enhance the existing park and recreation system while planning for future expansion to meet residential growth.

Policy 8.1.1

Provide an active neighborhood park-type facility and community park-type facility within a reasonable distance from residences, as defined by the Oregon City Park and Recreation Master Plan, to residents of Oregon City.

Policy 8.1.3

Develop regional and community parks in such a way that revenue-producing amenities are included to bring in a revenue stream to partially fund maintenance of the parks system.

Finding: Complies as Conditioned The proposed plan identifies areas of the site well-suited for open space or waterfront uses. A large portion of this area is expected to be developed into a regional, neighborhood or community park-like facility that would be available for use by all residents of Oregon City and the region. Design of the facility or funding for it is still uncertain, but the plan clearly designated land close to the river for this use. Depending on the nature of the open space facility, this could include a revenue-producing amenity that offsets maintenance costs. Conditions of Approval that implement development triggers for the open space can be found in the end of the staff report.

Goal 9.1 Improve Oregon City’s Economic Health

Provide a vital, diversified, innovative economy including an adequate supply of goods and services and employment opportunities to work toward an economically reasonable, ecologically sound and socially equitable economy.

Policy 9.1.1

Attract high-quality commercial and industrial development that provides stable, high-paying jobs in safe and healthy work environments, that contributes to a broad and sufficient tax base, and that does not compromise the quality of the environment.

Policy 9.1.2

Contribute to the health of the regional and state economy by supporting efforts to attract “traded sector industries” such as high technology and production of metals, machinery, and transportation equipment. (Traded sector industries compete in multi-state, national, and international markets and bolster the state’s economy by bringing money in from sales of goods and services outside of the state.)

Finding: Complies as Proposed The proposed mix of uses, including employment, office, residential, retail, and light industrial uses, will allow a wide range of businesses and employers to locate at the Willamette Falls site, thereby building toward a strong local economy. The site has been an economic engine for the city for more than a century. While future development is expected to be at a smaller scale in a variety of businesses and industries, the framework established by this plan will nevertheless create fertile ground for high-quality commercial development.

Goal 9.6 Tourism

Promote Oregon City as a destination for tourism.

Policy 9.6.1

Protect historic, recreational, and natural resources as the basis for tourism, such as the Historic Downtown Area.

Policy 9.6.2

Ensure land uses and transportation connections that support tourism as an important aspect of the City’s economic development strategy. This could include connections to the End of the Oregon Trail Interpretive Center and the train depot.

Policy 9.6.3

Provide land uses in the Downtown Historic Area, 7th Street corridor, and the End of the Oregon Trail Interpretive Center that support tourism and visitor services.

Policy 9.6.4

Encourage and support citywide events that would attract visitors and tie to the historic attractions of the city. Preserve tourism-related transportation services like the Oregon City Elevator and trolley.

Policy 9.6.5

Encourage river-related tourism facilities and services, such as docking facilities, river transit and river tours.

Policy 9.6.6

Encourage private development of hotel, bed and breakfast, restaurant facilities and other visitor services.

Finding: Complies as Proposed The master plan has been structured to be especially responsive to tourism, and anticipates that the site will be a regional destination that could attract visitors and outside investment on a large scale, to the benefit of the entire city. The core attraction of the site is its namesake and a spectacular natural feature: the second largest falls, by volume, in North America, behind only Niagara Falls. The key component of this master plan is public access to the site, giving the greater public a chance to access the falls for the first time in 100 years. A waterfront pathway that leads to the falls is expected to be a major attraction. Facilities and uses that support this attraction are allowed in the new district, and will build out as people begin to discover the site. Also, planned open space blocks that will be most visited and shared by the public are oriented toward the falls. The plan therefore explicitly encourages river-related tourism and facilities to support it.

Goal 9.8 Transportation System

Recognize the importance of the land use-transportation link and encourage businesses to locate in areas already served by the type of transportation system they need.

Policy 9.8.1

Through coordination with TriMet and local employers, encourage and promote the use of mass transit to travel between residential areas and employment areas.

Policy 9.8.2

Participate in regional efforts to encourage employers to promote telecommuting and other flexible work arrangements.

Policy 9.8.4

Promote “shared parking” and transportation demand management techniques such as transit vouchers, car or van pooling, and flexible schedules and telecommuting options to reduce peak hour trips.

Policy 9.8.6

Encourage the provision of multi-modal transportation to support major existing employers.

Policy 9.8.7

Assess methods to integrate the pedestrian, bicycle and elevator transportation modes into the mass transit system.

Finding: Complies as Conditioned. The new Willamette Falls District has been planned to be a multi-modal area that has a high level of pedestrian and bicycle amenities, a mix of land uses in close proximity, and high densities that will support convenient and efficient transportation, and reduce peak hour trips. Transit stops that are close to but not on the site may one day be brought into the property, and the rich network of pedestrian and bicycle connections will complement transit opportunities. The plan explicitly encourages shared parking both within and outside the district.

Goal 10.1 Diverse Housing Opportunities

Provide for the planning, development and preservation of a variety of housing types and lot sizes.

Policy 10.1.3

Designate residential land for a balanced variety of densities and types of housing, such as single-family attached and detached, and a range of multi-family densities and types, including mixed-use development.

Finding: Complies as Proposed There is no housing currently on the site because it is not allowed by the existing General Industrial zoning. The proposed change in zoning will allow for multi-family residential uses. This is just one of many uses in what is anticipated by the master plan to be a mixed use zone with office, recreational, retail, and employment uses. Re-establishing a regular street grid makes development blocks that are well-suited for many types of development, including housing.

Goal 10.2 Supply of Affordable Housing

Provide and maintain an adequate supply of affordable housing.

Policy 10.2.1

Retain affordable housing potential by evaluating and restricting the loss of land reserved or committed to residential use. When considering amendments to the Comprehensive Plan Land-Use Map, ensure that potential loss of affordable housing is replaced.

Finding Complies as Proposed: By changing from a zone where housing is prohibited to one in which housing is an allowed use, this land use action creates an opportunity for new housing at any price level. Regardless of the affordability of potential future housing on the site, increasing supply will reduce price pressure on other units in the city. Affordable housing potential, as described in Policy 10.2.1, is increased by creating land where it could be built.

Goal 12.1 Land Use-Transportation Connection

Ensure that the mutually supportive nature of land use and transportation is recognized in planning for the future of Oregon City.

Policy 12.1.1

Maintain and enhance citywide transportation functionality by emphasizing multi-modal travel options for all types of land uses.

Policy 12.1.3

Support mixed uses with higher residential densities in transportation corridors and include a consideration of financial and regulatory incentives to upgrade existing buildings and transportation systems.

Policy 12.1.4

Provide walkable neighborhoods. They are desirable places to live, work, learn and play, and therefore a key component of smart growth.

Finding: Complies as Condition. The Willamette Falls District is a multi-modal district that has a high level of pedestrian and bicycle amenities, a mix of land uses in close proximity, and high densities that will enhance convenient and efficient transportation choices. The development standards, use provisions, and design standards that are part of the district's regulatory scheme will promote mixed uses and higher residential densities, along with walkable neighborhoods.

Goal 13.1 Energy Sources

Conserve energy in all forms through efficient land-use patterns, public transportation, building siting and construction standards, and city programs, facilities, and activities.

Policy 13.1.1

Maintain the historic use of Willamette Falls as an energy source for industrial and commercial development.

Finding: Complies as Proposed Willamette Falls is no longer used as an energy source for industrial and commercial development, but the proposed plan does not interfere with or preclude future use of the falls for this purpose. PGE will retain its current ownership of the dam on the Oregon City side of the falls. It has the authority to use the dam to create and/or transmit hydro power in the future.

Goal 13.2 Energy Conservation

Plan public and private development to conserve energy.

Policy 13.2.3

Plan for complementary mixed uses when considering annexation of new, under- or undeveloped areas so that new urban residential areas have closer access to jobs and services.

Policy 13.2.5

Construct bikeways and sidewalks, and require connectivity of these facilities to reduce the use of petroleum-fueled transportation.

Finding: Complies as Proposed Development on the site is organized to accommodate a wide range of complementary mixed uses: office and other employment, retail, residential, and recreational. The planned network of sidewalks on the street network and a multi-use path along the riverfront will create connectivity throughout the site. Buildings are expected to be multi-story, multi-use structures, which are more energy-efficient than the same uses in detached buildings. Taken together, these plan elements will help conserve energy.

Goal 15.1 Protect the Willamette River Greenway

Ensure the environmental and economic health of the Willamette River by adopting goals, policies and procedures that meet LCDC Statewide Planning Goal 15, Willamette River Greenway.

Policy 15.1.1

Protect the significant fish and wildlife habitat of the Willamette River by maximizing the preservation of trees and vegetative cover.

Policy 15.1.2

Preserve major scenic views, drives and sites of the WRG.

Policy 15.1.3

Encourage access to and along the river consistent with the Oregon City Park and Recreation Master Plan and the Oregon City Waterfront Master Plan.

Policy 15.1.4

Restrict new substations and power line towers in the WRG and river view corridor.

Policy 15.1.5

Protect and maintain parks and recreation areas and facilities along the Willamette River to minimize effects in the WRG, in accordance with the Oregon

City Park and Recreation Master Plan and the Oregon City Waterfront Master Plan.

Policy 15.1.6

Review uses proposed for inside the Willamette River Greenway Compatibility Review Boundary for consistency with local goals and policies for that area.

Finding: Complies as Conditioned. The entire Willamette Falls District is within the Willamette River Greenway, protects the scenic, historic, and recreational qualities of the riverfront. Allowed uses in the new zone are appropriate for lands within the greenway, as long as the development associated with these uses protects the important riverfront qualities.

The plan requires that applicants meet Willamette River Greenway standards, including a setback that keeps structures separated from the river. Separation between buildings and the river must be found to “protect, maintain, preserve and enhance the natural scenic, historic and recreational qualities of the Willamette River Greenway” (17.48.080.E)

For everything within 150 feet of the ordinary low water line, there is a Greenway “compatibility review” (17.48.100.A) that will be part of a future detailed development plan application. This compatibility review emphasizes landscaped area between the new activity and the river and public access along the riverfront.

The application also proposes a text amendment to the Willamette River Greenway code that would remove the 35 foot height limit for main or accessory residential structures in the Willamette Falls District. Development within the district (which is entirely covered by the Greenway overlay) will maintain compliance with this planning goal because it is also subject to land use review through the master plan requirements. New development must show that it is consistent with the master plan and the four core values for the site, and comply with development standards and design guidelines. This process will protect the stated values of the Greenway.

Modifications and Adjustments to Master Plan Process

The applicant requests two adjustments to development standards, as permitted during the master plan process. First, the applicant requests that future detailed development plans be reviewed through a Type III, rather than a Type II process, as would otherwise be required in OCMC 17.65.040.C. The reason for this change is that the proposed general development plan is less specific than usual for a master plan, because it is designed to be a flexible framework plan for future development. The shape of new buildings and open space on the site will evolve depending on the direction of a future developer, combined with a funding and financing plan that is not yet determined. The proposed plan offers a great deal of flexibility for a range of positive outcomes. However, that flexibility requires greater scrutiny and discretion by Oregon City at the next stage of the development process, more than can appropriately be decided by staff. One of the key elements of future

review will be compliance with the design guidelines contained in this approval, for which planning staff anticipates incorporating the advice of the design community as part of the review. Also, future detailed plans will have to comply with underlying zoning, consistency with this general development plan and design guidelines, the equivalent of site plan and design review, and compliance with rules for four overlay zones that might apply depending on location. Given the depth and complexity of a future development review, and the importance of this site to the City, future detailed development plans should be reviewed as a Type III process, which automatically is considered by the Planning Commission.

One exception to the above adjustment request—that all detailed development plans be elevated to Type III review—is for smaller projects, specifically those that meet all the requirements for minor site plan and design review (OCMC 17.62.035). In these limited situations, the detailed development plan may remain as a Type II review, but is still subject to the same standards identified in this master plan.

The second adjustment to the master plan process relates to the timing of which regulations apply. Although the master plan chapter allows development to freeze regulations in time as of the date of general development plan approval, the applicant requests that future plans instead be subject to the land use regulations in effect on the date those plans are submitted.

Overall, through the duration of this master plan, the principle of redevelopment of historic and non-historic structures on the site is vested by this framework plan. Current rules allow, for example, renovation of waterfront structures if habitable areas are above flood elevation, Greenway compatibility standards are met, natural resources are protected, etc. The proposed modification—allowing future applications to be subject to development standards that are current—should not be construed to override the principle that redevelopment is permitted and encouraged. As long as proposals comply with all the standards of the master plan, and can meet development standards, they may be approved.

The timeframe for this approval is 20 years long. The site will build out in different stages, over a long period of time. In addition, properties on the site, depending on location, could be subject to multiple different sections of the Oregon City Municipal Code: rules for master plans, site plan and design review, and four different overlay zones. For ease of review by city staff, and so that future developers do not have to comb through old codes to find out which version is applicable, this general development plan streamlines the review by making future applications subject to regulations in effect at the date of detailed development plan submittal. This is specifically allowed by the master plan.

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 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.

Process for Detailed Development Plan moved to Type III process

The requirement that detailed development review is subject to a Type II process is an “applicable development regulation” as stated above, because it is contained in OCMC 17.65.040.C. The request to increase the level of review from Type II to Type III is not specifically listed under subsection (A), but this list is not exhaustive, as

evidenced by the “but are not limited to” clause. The adjustment request is processed concurrently with the general development plan. An ancillary effect of this change will be that detailed development plans will be under a Type III review—with the exception of those small changes that can meet the minor site plan and design review thresholds—regardless of whether they also request an adjustment to a development standard.

Increase minimum Sidewalk width on Main Street

Main Street is a “collector” street and future development of this street will comply with these standards with one exception. Rather than the standard 10.5 foot sidewalk, the proposal for Main Street is 16 foot sidewalks. This dimension could be reduced for a specific development application to accommodate a special condition such as to protect the façade of an existing historic building. This change will accommodate an expected level of pedestrian activity that is forecast for the new district, and is in response to the current experience of Main Street in downtown Oregon City, where street furniture and signage has often left the through-zone for pedestrian traffic seeming congested.

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.*

Finding: The applicant requested to increase the level of review for detailed development plans from a Type II to a Type III process, with a minor exception for those small projects that meet minor site plan and design review thresholds. Such a change to the master plan process is not listed as a prohibited adjustment in this section, and is therefore allowed to proceed. The increase in minimum sidewalk width is not identified as a regulation that cannot be adjusted.

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;*

Finding: The purpose of the master plan regulation is as follows:

17.65.010 - 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.

The change to procedure that requires upgrading review from Type II to Type III is at the request of the applicant and serves to improve the level of scrutiny and insure the efficient growth of development on the site. The relatively open nature of the general development plan as a framework addresses “the larger development issues” but leaves specifics to a later date. The location and design of new buildings and open space on the site depends on the direction of a future owner, and a funding and financing plan that is not yet in place. The flexibility and discretion offered by the plan requires greater scrutiny by Oregon City at the detailed plan stage. Given the depth and complexity of a future development review, and the importance of this site to the city,

future detailed development plans should be reviewed as a Type III process, which automatically goes to the Planning Commission. By doing so, the change helps facilitate an efficient and flexible review process, and provides more certainty for both future developers and the city.

Small projects that meet minor site plan and design review thresholds (OCMC 17.62.035) may still be processed as a Type II review. These projects will still be subject to the standards and conditions of the general development plan approval.

The increase in the width of sidewalks on Main Street is intended to provide a pedestrian environment that can accommodate the expected development.

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: The two adjustments are very different in nature and have been explained in the findings above; staff does not see either of them having a cumulative effect on the overall purpose of the zone.

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

Finding: The first proposed change is procedural, and will have no effect on city designated Goal 5 resources. This criterion does not apply. To the extent that a future development application might impact Goal 5 resources, the increased level of scrutiny offered by a Type III rather than Type II review could potentially protect these resources more thoroughly than without the proposed change. The second proposed change increase the pedestrian environment of the site and can be adjusted to protect historic resources through the detailed development process.

4. Any impacts resulting from the adjustment are mitigated; and

Finding: The first proposed change is procedural, and will have no on-the-ground impacts, and therefore nothing that needs to be mitigated. The change is merely to upgrade the level of review for future detailed development applications, from a Type II to a Type III land use review. The second proposed change increases the pedestrian environment of the site and can be adjusted to protect historic resources through the detailed development process.

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

Finding: The first proposed change applies to the entire area covered by the master plan, which includes areas within the Natural Resource Overlay District. However, this change is strictly procedural, increasing the level of land use review for future projects from Type II to Type III, and therefore has no impacts on the resource and resource values. Because there are no significant detrimental environmental impacts, this criterion does not apply. As Main Street is not located within the National Resource Overlay District, no detrimental impacts are projected for the increase in sidewalk width.

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

Finding: The first proposed change is procedural, and merely increases the level of public review from Type II to Type III. This is a minor change to procedure and is consistent with the Oregon City Comprehensive Plan. Insofar as any findings are required to satisfy this criterion, the findings for consistency of the master plan under OCMC 17.65.050.C.6 also are incorporated here, by reference, for the adjustment. The second proposed change

increases the pedestrian environment of the site and can be adjusted to protect historic resources through the detailed development process.

17.65.090 Regulations that apply.

An applicant is entitled to rely on land use regulations in effect on the date its general development plan application was initially submitted, pursuant to ORS 227.178(3), as that statute may be amended from time to time. After a general development plan is approved, and so long as that General Development Plan is in effect, an applicant is entitled to rely on the land use regulations in effect on the date its general development plan application was initially submitted, as provided above, when seeking approval of detailed development plans that implement an approved general development plan. At its option, an applicant may request that a detailed development plan be subject to the land use regulations in effect on the date its detailed development plan is initially submitted.

Finding: Along with the street modification above, the applicant requests that future detailed development plans be subject to the land use regulations in effect on the date its detailed development plan is initially submitted. Because this master plan may have multiple ownerships over the life of the plan, and because the financial and funding mechanisms are not yet in place for all district development, the level of detail and certainty is less than would be expected in a more traditional master plan. This approval has a 20 year lifespan. The site will build out in different stages, over a long period of time. In addition, properties on the site, depending on location, could be subject to multiple different sections of the Oregon City Municipal Code: rules for master plans, site plan and design review, and four different overlay zones. For ease of review by city staff, and so that future developers do not have to comb through old codes to find out applicable language, this general development plan prefers the ease of making future applications subject to whatever land use regulations are in effect at the date of detailed development plan submittal.

Zone Change (OCMC 17.68)

17.68.010 Initiation of the amendment.

A text amendment to this title or the comprehensive plan, or an amendment to the zoning map or the comprehensive plan map, may be initiated by:

- A. A resolution request by the city commission;*
- B. An official proposal by the planning commission;*
- C. An application to the planning division presented on forms and accompanied by information prescribed by the planning commission.*
- D. A Legislative request by the Planning Division.*

All requests for amendment or change in this title shall be referred to the planning commission.

Finding: This zone change and comprehensive plan amendment results from an application to the planning division per 17.68.010.C above.

The applicant is requesting a zone change from Light Industrial to a newly created Willamette Falls Downtown District (Exhibit 16). The proposed district language is attached in the exhibits and is generally described through the following description:

The Willamette Falls Downtown (WFD) district applies to the historic Willamette Falls site, bordered by 99E to the north and east, and the Willamette River to the west and south. This area was formerly an industrial site occupied by the Blue Heron Paper Mill and is the location of Oregon City's founding. A mix of open space, retail, high-density residential, office, and compatible light industrial uses are encouraged in this district, with retail, service, and light industrial uses on the ground floor and office

and residential uses on upper floors. Allowed uses in the District will encourage pedestrian and transit activity. This district includes a Downtown Design overlay for the historic downtown area. Design guidelines for this sub-district require storefront façades along designated public streets featuring amenities to enhance the active and attractive pedestrian environment

17.68.020 Criteria.

The criteria for a zone change are set forth as follows:

A. *The proposal shall be consistent with the goals and policies of the comprehensive plan.*

Finding: Consistency with comprehensive plan goals and policies for the zone change was addressed in the findings for the general development plan, OCMC 17.65.50(C)(6), earlier in this document. The plan goals and policies, and the applicant response to these policies, were selected and responded to in consideration of the whole proposal, both master plan and zone change. Therefore, rather than duplicate the entire section of policies and responses, this response incorporates those findings by reference. Based on the findings contained in that section, this parallel criterion for the zone change is met.

B. *That public facilities and services (water, sewer, storm drainage, transportation, schools, police and fire protection) are presently capable of supporting the uses allowed by the zone, or can be made available prior to issuing a certificate of occupancy. Service shall be sufficient to support the range of uses and development allowed by the zone.*

Finding: Complies as Conditioned. As part of the pre-application conference, city and area service providers provided information in response to the applicant's request regarding water, sanitary, storm, and other public services. This information, analysis and proposed conditions of approval needed to show compliance with this section can be found in section **17.65.050.C.3 of this report**

C. *The land uses authorized by the proposal are consistent with the existing or planned function, capacity and level of service of the transportation system serving the proposed zoning district.*

Finding: Complies as Conditioned. The proposed zoning allows a wide range of uses on the site, encouraging the development of a mixed use area that is similar to that of the existing downtown. The historic street pattern of downtown will be re-established, linking the district to the rest of the city with a pedestrian-friendly network of local streets. In addition to new streets, public access to the site will include pedestrian and bicycle connections. Final configuration and location of the pedestrian paths and streets will be determined when building or park space development on the site is proposed.

Improvements to the existing public system of streets, sidewalks, and pedestrian paths will be constructed in combination with new development on the site. The package of improvements assumes increased use of the Willamette Falls site, from workers, residents, and visitors to new buildings and activities. A transportation analysis performed for the zone change and master plan showed that relatively light infrastructure improvements to the south end of the existing downtown and the north end of the new Willamette Falls District can accommodate the potential vehicular and pedestrian traffic in and out of the site. The package of projects is listed in the conditions of for approval and, a shared use path on the riverfront, creation of a new Water Street connection, modifications to the Main Street/99E intersection geometry, and a pedestrian bridge over 99E at the south end of the site.

These improvements will enable the functioning of the transportation system in and around the site at the planned capacity and level of service. This conclusion is based on analysis done in cooperation with Oregon City and ODOT transportation officials, and assumed high levels of development and activity at the site.

D. Statewide planning goals shall be addressed if the comprehensive plan does not contain specific policies or provisions which control the amendment.

Finding: Comprehensive Plan goals and policies were addressed previously in the section under the master plan approval, 17.65. The following statewide planning goals are applicable to the change in zoning, and are satisfied by the proposal.

Goal 1. Citizen Involvement

The zone change and master plan is the outcome of an extensive public engagement process. This process has reached out to thousands of Oregonians, as has been described in detail in the application's Public Engagement Summary.

Goal 2. Land Use Planning

The zone change and master plan establishes an orderly, fact-based, rational process for development on the site, in conformance with existing land use planning codes and policies in Oregon City. The creation of a new zone and the master plan that applies to the site are existing, adopted policies within the city code.

Goal 5. Natural Resources, Scenic and Historic Areas, and Open Spaces

The zone change and master plan protect all identified Goal 5 natural resources through a combination of: delineating areas for open space development, identifying opportunities for enhancement, and improving public access to the resources. Existing city protections of Goal 5 resources will remain in place, specifically, compliance with the Natural Resources Overlay District, OCMC 17.49.

There are currently no federally or locally designated historic structures (OCMC 17.40) located on the property. The Blue Heron site is not currently located within a local or National Register Historic District and is not part of the city's Goal 5 inventory. Adoption of this master plan and zone change will not serve to amend the City's acknowledged historic preservation plans. Rather, adoption of this plan serves as a preliminary step in identifying those resources that may be suitable for designation of historic resource or landmark and could be subject to the City's Historic Resource Overlay, OCMC 17.40.050, in the future. Through the Vision and Master planning process, the city, in cooperation and on behalf of the applicant, structured the historic resource analysis, protection and mitigation approach based on the best practices model of ORS 358 and the Section 106 process.

Goal 6. Air, Water and Land Resources Quality

The change to base zoning on the site that this application requests does not change existing city protections provided by overlays for natural resources, stormwater rules, or other environmental protections. These are specifically enhanced by the city code's acknowledged compliance with Metro code Title 3 and Title 13.

Goal 7. Areas Subject to Natural Hazards

The change to base zoning on the site that this application requests does not change existing city protections provided the city's Geologic Hazards Overlay, OCMC 17.44. These city rules are consistent with Goal 7 and protect development from inappropriate development on steep slopes.

Goal 8. Recreational Needs

The proposed zoning includes parks and open areas as allowed permitted use, and the master plan anticipates new public access and open space areas for recreation. Access to the falls and to the river resource is a core element of the master plan that will be enabled by the new zoning.

Goal 9. Economic Development

The proposed mix of uses permitted in the new zone, including employment, office, retail, and light industrial uses, will allow a wide range of businesses and employers to locate at the site, thereby building toward a strong local economy. The framework established by this plan will create fertile environment for high-quality commercial development and jobs.

The proposed plan is for re-development of the formerly industrial site, and is concurrent with a zone change from industrial to a mixed-use zone that supports a wider range of uses including office, craft industrial, commercial, and residential uses. The industrial history of the site is rooted in its proximity to the falls as a source of power. Being close to hydro-power is no longer a necessary requirement for desirable industrial land. Moreover, the location of this site has numerous challenges that have rendered it less appealing for industrial use than other site's within the city: limited transportation access, more than half the property being within the floodplain, and the presence of existing mill infrastructure. Finally, the city currently has in its inventory adequate and industrial land in areas with many fewer constraints.

Goal 10. Housing

The proposed new zone permits for multi-family residential uses, which is appropriate for a downtown location. Under current industrial zoning, housing is not allowed permitted use. Re-establishing a regular street grid will create development blocks that are well-suited for the development of housing, as well as other types of development.

Goal 11. Public Facilities and Services

Public facility provision is addressed in the response to criterion 17.68.020.B above. All future development in the zone will meet current Oregon City code.

Goal 12. Transportation

A transportation study included with the application studied access to the site and evaluated a full-build out scenario. It assumed a mix of uses as allowed by the proposed zoning, and a network of streets and pedestrian facilities to serve the site as outlined in the master plan. Final configuration and location of paths and streets will be determined when building or open space is proposed.

Based on modeling, these trips can be accommodated on the existing transportation network if a number of relatively minor improvements are made to improve safety and flow. Improvements will be built incrementally, as development occurs, and will enable the smooth functioning of the transportation system in and around the site. This conclusion is based on analysis done in cooperation with Oregon City and ODOT transportation officials. Additional findings for this section can be found ibn OCM 17.65.050a1h

Goal 13. Energy Conservation

Mixed-use development encouraged by the new zone is more energy efficient that other development patterns. The zoning and the master plan for the site is organized to accommodate a wide range of complementary mixed

uses: office and other employment, retail, residential, and recreational. Buildings are expected to be multi-story, multi-use structures, which are more energy-efficient than the same uses in detached buildings. Taken together, these plan elements will help conserve energy.

Goal 15. Willamette River Greenway

The entire Willamette Falls District zoning designation is within the Willamette River Greenway, which protects the scenic, historic, and recreational qualities of the riverfront. The base zoning requested does not change the fact that future development is subject to city rules for Willamette River Greenway standards, including a setback that keeps structures separated from the river. Separation between buildings and the river must be found to “protect, maintain, preserve and enhance the natural scenic, historic and recreational qualities of the Willamette River Greenway” (17.48.080.E) Also, for all development within 150 feet of the ordinary low water line, there is a Greenway “compatibility review” (17.48.100.A) that will be part of a future development application.

Regional Functional Plan Requirements

The regional policies which are adopted by this Urban Growth Management Functional Plan recommend and require changes to city and county comprehensive plans and implementing ordinances. The purpose of the functional plan is to implement regional goals and objectives adopted by the Metro Council as the Regional Urban Growth Goals and Objectives (RUGGO), including the Metro 2040 Growth Concept and the Regional Framework Plan. The comprehensive plan changes and related actions, including implementing regulations, required by this functional plan as a component of the Regional Framework Plan, shall be complied with by cities and counties as required by Section 5(e)(2) of the Metro Charter.

Title 1: Housing Capacity

Finding: Oregon City is currently in compliance with this section of the Regional Functional Plan. Furthermore, by rezoning the site from Industrial to Willamette Falls Downtown District, the city is provide additional housing opportunities and increases housing density within the Regional Center. This meets the overall goal of title 1

Title 3: Water Quality and Flood Management

Finding: No changes to Natural Resource Overlay District or Flood Management Overlay District are being proposed as part of this application. This section does not apply.

Title 4: Industrial and Other Employment Areas

Finding: The site is not included on the Employment and Industrial Areas Map of Title 4. For this reason, the city is not required to comply with section 3.07.450 of Title 4 for amendments to the Comprehensive Plan or zoning code due to a rezone from industrial to non-industrial uses.

Title 6: Centers, Corridors, Station Communities and Main streets

Finding: The Regional Framework Plan identifies Centers, Corridors, Main Streets and Station Communities throughout the region and recognizes them as the principal centers of urban life in the region. Title 6 calls for actions and investments by cities and counties, complemented by regional investments, to enhance this role. A regional investment is an investment in a new high -capacity transit line or designated a regional investment in a grant or funding program administered by Metro or subject to Metro’s approval

Oregon City’s downtown was designated as a Regional Center as part of a Metro Ordinance No. 95-625A, adopted in Dec 1995. The Regional Center boundary map was approved by the city as part of the 2013 TSP is consistent with the map shown as a Conceptual boundary on the Title 6 maps.

In order to be eligible for a regional investment in a Center, Corridor, Station Community or Main Street, or a portion thereof, a city or county shall take the following actions:

- 1. Establish a boundary for the Center, Corridor, Station Community or Main Street, or portion thereof, pursuant to subsection B;*
- 2. Perform an assessment of the Center, Corridor, Station Community or Main Street, or portion thereof, pursuant to subsection C; and*
- 3. Adopt a plan of actions and investments to enhance the Center, Corridor, Station Community or Main Street, or portion thereof, pursuant to subsection D*

For the last 19 years, Oregon City has been working diligently on assessing, planning and investing in the Regional Center. The city has chosen to weave these goal, policies and improvements into the following documents below. The last step in the process (formally adopting the Regional Center Boundary) has been missing and can be rectified as part of this application process.

Oregon City Comprehensive Plan and Municipal Code Update (2004)
Oregon City Futures Plan (2004/2006)
Downtown Community Plan (1999)
Downtown Oregon City Parking Study (2009)
Oregon City Urban Renewal Plan (2007)
Oregon City Transportation System Plan (2013)

Title 7: Housing Choice

Finding: The city, nor the applicant is choosing to pursue an affordable housing program at this time. This section is not applicable.

Title 8: Compliance Procedures

Finding: The city is currently in compliance with the functional plan and has provided notice to Metro for the proposed changes to the comprehensive plan and municipal code.

Title 11: Planning For New Urban Areas

Finding: This is not a new urban area. This section is not applicable.

Title 12: Protection of Residential Neighborhoods

Finding: The site is not part of an existing residential neighborhood. This section does not apply.

Title 13: Nature in Neighborhoods

Finding: No changes to the Natural Resource Overlay District are being proposed as part of this application. This section does not apply.

CHAPTER 12.04 STREETS SIDEWALKS, AND PUBLIC PLACES

12.04.007 Modifications.

The review body may consider modification of this standard resulting from constitutional limitations restricting the city's ability to require the dedication of property or for any other reason, based upon the criteria listed below and other criteria identified in the standard to be modified. All modifications shall be processed through a Type II Land Use application and may require additional evidence from a transportation engineer or others to verify compliance. Compliance with the following criteria is required:

A. The modification meets the intent of the standard;

Finding: Two modifications are proposed, for increased sidewalk width and for not requiring street trees in areas that have little to no soil or cannot support the inclusion of planter vaults. The intent of the street design standards is found in OCMC 12.04.175.

Modification to Street Standards

This general development plan application includes two modifications to the street standards contained in OCMC 12.04.180. Because of the unique character of the district, this application requests that the minimum sidewalk width of Main Street through the site, which is classified as a collector street, be increased from 10.5 feet to 16 feet. This is based on an observation by the city that the current 12 foot width of the sidewalks on Main Street frequently results in a congested condition for pedestrians, especially in locations where “sandwich” type sign boards, newspaper boxes, café tables, or other street furniture is present. The additional width will provide a livelier streetscape in the new district that will also have sufficient space for a pedestrian “through zone.” Without this modification, the city would have no basis to compel future development to provide the desired sidewalk width. The city may approve a reduction from this requested sidewalk width for unique conditions, such as to allow for the encroachment of a historic building façade.

Secondly, the geology of the area requires a modification of the typical requirement in OCMC 12.04.180 for street trees to always be planted on both collectors and local streets. A continuous canopy of street trees should be planted if at all feasible. However, the entire Willamette Falls Downtown District is on a basalt shelf that has only a shallow layer of soil—if any—that is a poor environment for growing trees. In some locations, underlying conditions may make installing tree wells and meeting typical street tree impractical. Nevertheless, design guidelines included with the plan will encourage streetscapes to have a lively vegetative presence, in planters above ground or integrated into facing buildings. This modification will apply both to collectors (Main Street) and local streets (3rd, 4th, Water) in the district.

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, overlay districts, 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. 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...[***]*

Increasing the width of proposed Main Street’s sidewalk through the district was considered “in relation to:... public convenience and safety for all modes of travel.” City of Oregon City planning and engineering staff have observed that the presence of street furniture, sign boards, and other amenities in the sidewalk area reduces the capacity of the sidewalk to accommodate people walking through. A minor increase in width can increase the “through zone” of the sidewalk and create a livelier and more comfortable pedestrian environment, which is an essential component of the planned mixed use area. This has the effect of improving the “proposed use of land to be served by the streets.”

Modifying the requirement for street trees is a necessity given the unique topography and soil conditions of the Willamette Falls District. In this sense, the modification was considered “in relation to:... topographical conditions,” per the statement of intent. “Topographical or other conditions” make matching the pattern of street development that is typical of downtown and other local area streets an unreasonable burden. Despite the modifying the street trees requirement, trees will still be installed if it is practical to do so. If local conditions prevent street trees, the street design will still maintain a lively vegetative presence by using planters or other ways of bringing green into the streetscape.

B. The modification provides safe and efficient movement of pedestrians, motor vehicles, bicyclists and freight;

Finding: Complies as Proposed The express purpose of the modification for wider sidewalks is to provide for more efficient movement of pedestrians. The rest of the right of way will be unchanged from existing standards, so this should have no effect on other modes. On balance, therefore the movement of all users will be improved. The exception for street trees in the right of way due to localized soil conditions has no impact on the safety or efficiency of any user.

C. The modification is consistent with an adopted plan; and

Finding: Complies as Proposed The modifications to street standards are still consistent with the city’s TSP, and have virtually no effect on any of the principles espoused in that plan. As a result of this planning process, it is expected that the Oregon City Commission will adopt the findings of the new zone and master plan that contains the modification, thereby making the change consistent with the Willamette Falls District master plan.

D. The modification is complementary with a surrounding street design; or, in the alternative;

Finding: Complies as Proposed The proposed modifications are complementary with the street designs in the existing downtown, in that the general dimensions and appearance of the streetscape will be very similar, with only minor changes to improve pedestrian accessways and sidewalks and respond to local soil conditions. The alignment, overall right of way width, continuous storefront pattern, and provision of streetscape amenities are complementary to the surrounding street design.

E. If a modification is requested for constitutional reasons, the applicant shall demonstrate the constitutional provision or provisions to be avoided by the modification and propose a modification that complies with the state or federal constitution. The city shall be under no obligation to grant a modification in excess of that which is necessary to meet its constitutional obligations.

Finding: Complies as Proposed The modification is not requested for constitutional reasons.

CHAPTER 17.42 FLOOD MANAGEMENT OVERLAY DISTRICT

17.42.020 Applicability.

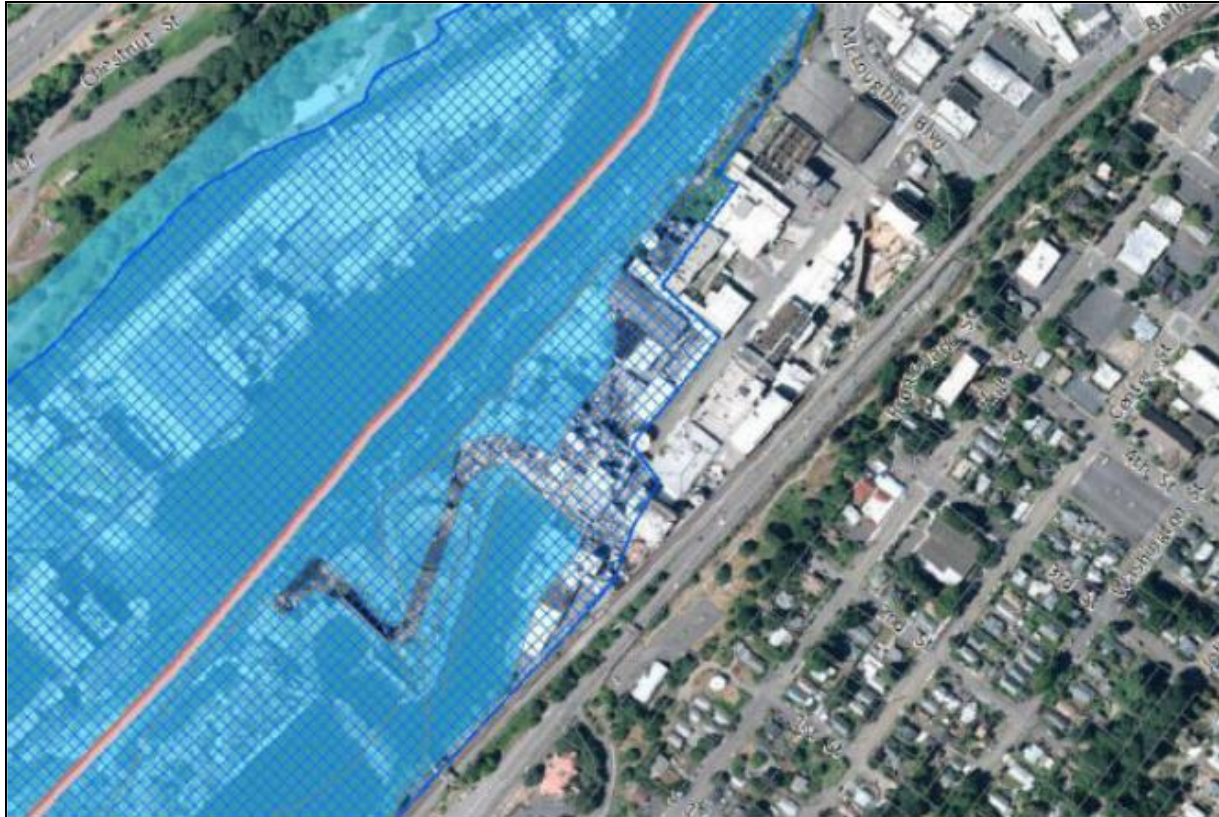
A. This chapter shall apply to development in the flood management overlay district, which may also be referred to as the "floodplain overlay district" in this code. The flood management overlay district includes all areas of special flood hazards and all flood management areas within the city. The overlay district restricts the uses that are allowed in the base zone by right, with limitations, or as provisional uses.

B. The flood management areas which have been mapped include the following locations:

1. Land contained within the one hundred-year floodplain, flood area and floodway as shown on the Federal Emergency Management Agency flood insurance maps dated June 17, 2008, including areas of special flood hazard pursuant to Section 17.42.040 and the area of inundation for the February 1996 flood; and

2. Lands that have physical or documented evidence of flooding within recorded history based on aerial photographs of the 1996 flooding and/or the water quality and flood management areas maps.
- C. The standards that apply to the flood management areas apply in addition to state or federal restrictions governing floodplains or flood management areas.

Finding: Complies as Proposed 12.5 acres of the Willamette Falls District is within the city-defined flood management area as shown in the map below:



FLOOD MANAGEMENT OVERLAY ZONE.

17.42.080 Administration.

This chapter establishes a flood management overlay district, which is delineated on the water quality and flood management areas map attached and incorporated by reference as a part of this document.

A. The following maps and studies are adopted and declared to be a part of this chapter. These maps are on file in the office of the city recorder:

1. The Water Quality and Flood Management Areas Map, dated June 7, 1999;
2. The Federal Insurance Administration, Flood Insurance Rate Maps for Clackamas County, Oregon and Incorporated Areas dated June 17, 2008;

B. Applicants are required to provide the city with a delineation of the flood management areas on the subject property as part of any application. An application shall not be complete until this delineation is submitted to the city.

C. The city shall review the water quality and flood management areas maps during periodic review as required by ORS 197.633 (1997).

D. Development Permit.

1. A development permit shall be obtained before construction or development begins within any portion of the flood management overlay district. The permit shall be for all structures, including manufactured homes and all other development, including fill and other activities, as set forth in Chapter 17.04 (Definitions).

2. Application for a development permit shall be made on forms furnished by the community development department. Requirements may include, but are not limited to: plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill, storage materials, drainage facilities; and the location of the foregoing.

3. The following information is specifically required:

- a. Elevation in relation to mean sea level of the lowest floor (including basement) of all structures;
- b. Elevation in relation to mean sea level to which any structure has been floodproofed;
- c. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 17.42.170E.5.; and
- d. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.

Finding: Complies as Proposed No specific development projects are proposed as part of this general development plan application. Rather, this application addresses the framework for future development, but does not request permits for work in the flood management area. As such, this chapter continues to apply to the district after the change in zoning and approval of the master plan. As part of the future detailed development plan application, which is required for any development in this district, compliance with the standards of this chapter will be required. Specifically, it is expected that the city will require a hydrologic analysis of the area to be developed that creates a more precise measurement of both the horizontal extent of the floodplain area and the vertical elevation of the floodplain as it relates to existing structures. This study will be dependent on a specific development application.

17.42.160 Flood management area standards.

A. Uses Permitted Outright:

1. Excavation and fill required to plant any new trees or vegetation.
2. Restoration or enhancement of floodplains, riparian areas, wetland, upland and streams that meet federal and state standards provided that any restoration project which encroaches on the floodway complies with the requirements of Section 17.42.190 (Floodways).

B. Provisional Uses.

1. All uses allowed in the base zone or existing flood hazard overlay zone are allowed in the flood management overlay district subject to compliance with the development standards of this section.

C. Prohibited Uses.

1. Any use prohibited in the base zone;
2. Uncontained areas of hazardous materials as defined by the Department of Environmental Quality.

D. Site Development Standards. All development in the floodplain shall conform to the following balanced cut and fill standards: ***

E. Construction Standards.

1. Anchoring. ***
2. Construction Materials and Methods. ***
3. Utilities. ***
4. Residential Construction. ***
5. Nonresidential Construction. ***

Finding: Complies as Proposed As stated above, all future development in the Willamette Falls District is subject to the Flood Management Overlay District rules, which include these area standards. All of the uses written into the new Willamette Falls Downtown District designation will be permitted in the flood zone, “subject to compliance with development standards” for flood protection. These include provisions for anchoring, construction materials, utilities, and residential and non-residential construction.

CHAPTER 17.44: GEOLOGIC HAZARD OVERLAY DISTRICT

17.44.025 When required; regulated activities; permit and approval requirements.

No person shall engage in any of the following regulated activities within the adopted Oregon City Geologic Hazards Overlay Zone as defined in section 17.04.515 of the Oregon City Municipal Code without first obtaining permits or approvals as required by this chapter:

- A. Installation or construction of an accessory structure greater than 500 square feet in area;
 - B. Development of land, construction, reconstruction, structural alteration, relocation or enlargement of any building or structure for which permission is required pursuant to the Oregon City Municipal Code;
 - C. Tree removal on slopes greater than 25 percent where canopy area removal exceeds 25 percent of the lot.
 - D. Excavation which exceeds two feet in depth, or which involves twenty-five or more cubic yards of volume;
- The requirements of this chapter are in addition to other provisions of the Oregon City Municipal Code. Where the provisions of this chapter conflict with other provisions of the Oregon City Municipal Code, the provisions that are the more restrictive of regulated development activity shall govern.

Finding: Complies as Proposed As clearly shown on city maps, a large portion of the site is within a Geologic Hazard Overlay District.



GEOLOGIC HAZARD OVERLAY DISTRICT.

Consequently, the regulations within this chapter apply and future development proposals will be required to respond to the standards within it. As with the other overlay zones, the development standards are intended to apply to the specifics of a proposal to develop land, not to general plans such as the first step of a two-step master plan. Therefore, the rules of this chapter will be addressed as part of a future development application.

17.44.050 Development—Application requirements and review procedures and approvals.

Except as provided by subsection B. of this section, the following requirements apply to all development proposals subject to this chapter:

- A. A geological assessment and geotechnical report that specifically includes, but is not limited to:
 - 1. Comprehensive information and data regarding the nature and distribution of underlying geology, the physical and chemical properties of existing soils and groundwater; an opinion of site geologic stability, and

conclusions regarding the effect of geologic conditions on the proposed development. In addition to any field reconnaissance or subsurface investigation performed for the site, the following resources, as a minimum, shall be reviewed to obtain this information and data: ***

2. Information and recommendations regarding existing local drainage, proposed permit activity impacts on local drainage, and mitigation to address adverse impacts;
3. Comprehensive information about site topography;
4. Opinion as to the adequacy of the proposed development from an engineering standpoint;
5. Opinion as to the extent that instability on adjacent properties may adversely affect the project;

Finding: Complies as Proposed To reiterate, all the protections of this chapter will be in effect when a detailed development plan application is requested. The information required at that time will include a geotechnical study, as listed in this section.

17.44.060 Development standards.

Notwithstanding any contrary dimensional or density requirements of the underlying zone, the following standards shall apply to the review of any development proposal subject to this chapter. Requirements of this chapter are in addition to other provision of the Oregon City Municipal Code. Where provision of this chapter conflict with other provision of the Oregon City Municipal Code, the provisions that are more restrictive of regulated development activity shall govern.

17.44.090 Stormwater drainage.

The applicant shall submit a permanent and complete stormwater control plan. The program shall include, but not be limited to the following items as appropriate: curbs, gutters, inlets, catch basins, detention facilities and stabilized outfalls. Detention facilities shall be designed to city standards as set out in the city's drainage master plan and design standards.

17.44.100 Construction standards.

During construction on land subject to this chapter, the following standards shall be implemented by the developer:

- A. All development activity shall minimize vegetation removal and soil disturbance and shall provide positive erosion prevention measures in conformance with OCMC Chapter 17.47—Erosion and Sediment Control.

Finding: Complies as Proposed The above quoted and truncated sections are to indicate that, as stated, all future development must comply with the standards of this chapter. That includes numerous standards related to slope stability, drainage, soil disturbance, vegetation removal, and cut and fill provisions. It also regulates stormwater methods and erosion and sediment control. None of these protections are altered as part of this application.

CHAPTER 17.48 WILLAMETTE RIVER GREENWAY OVERLAY DISTRICT

Future development in the district must meet Willamette River Greenway standards. One of the key elements in this review is a setback separating structures from the river. Separation between buildings and the river, which will be determined at the detailed development plan phase, must “protect, maintain, preserve and enhance the natural scenic, historic and recreational qualities of the Willamette River Greenway” (OCMC 17.48.080.E)

For all development within 150 feet of the ordinary low water line, there is a Greenway “compatibility review” (17.48.100.A) that will be part of a future detailed development plan application. This compatibility review emphasizes landscaped area between the new activity and the river and public access along the

riverfront. Both of these criteria would be satisfied by a landscaped riverfront access path. Such a path is shown in schematic form on the general master plan drawings.

17.48.070 Development standards—Specific use.

In approving any development or change or intensification of use, the approving officer or body shall apply the following standards:

Considerations for Specific Uses.

- A. With respect to recreational uses only: the considerations set forth in section C.3.b of Goal 15.*
- B. With respect to those fish and wildlife habitats identified in the city comprehensive plan only: the considerations set forth in section C.3.d. of Goal 15.*
- C. With respect to those scenic qualities and views identified in the city comprehensive plan only: the considerations set forth in section C.3.e. of Goal 15.*
- D. With respect to timber resources only: the considerations set forth in section C.3.h. of Goal 15.*
- E. With respect to aggregate extraction only: the considerations set forth in section C.3.i. of Goal 15.*

Finding: Complies as Proposed To the extent that any of the above identified uses are proposed or located on the site, the applicable Goal 15 standards will apply. The greenway overlay does not restrict uses on the property, generally. Rather, uses that are permitted are listed in the underlying zone.

17.48.080 Development standards—General considerations.

The following considerations shall be applicable to all Willamette River Greenway permits.

- A. Access. Adequate public access to the Willamette River shall be considered and provided for.*
- B. Protection and Safety. Maintenance of public safety and protection of public and private property, especially from vandalism and trespass, shall be provided for to the maximum extent practicable.*
- C. Vegetative Fringe. The natural vegetative fringe along the Willamette River shall be protected and enhanced to the maximum extent practicable.*
- D. Directing Development Away from the River. Development shall be directed away from the Willamette River to the greatest possible degree, provided that lands committed to urban uses within the Greenway may continue as urban uses, subject to the nonconforming use provisions of Chapter 17.58 of this title.*
- E. A Greenway Setback. In each application, the approving officer or body shall establish a setback to keep structures separated from the Willamette River in order to protect, maintain, preserve and enhance the natural scenic, historic and recreational qualities of the Willamette River Greenway, as set forth in the city comprehensive plan; provided, however, that the requirement to establish such setbacks shall not apply to water-related or water-dependent uses.*
- F. Other Applicable Standards. The Oregon Department of Transportation Greenway Plan, the Greenway portions of the city comprehensive plan, the Willamette River Greenway statutes and the provisions of Statewide Planning Goal 15, shall also be considered in actions involving Willamette River Greenway permits.*

Finding: Complies as Proposed Future development applications will be subject to these development standards. At that time, a review can include the fact that this general development plan proposes a multi-use pedestrian path along the riverfront that would satisfy the consideration under subsection (A). Likewise, the design of the path will determine protection and safety under subsection (B). The vegetative fringe consideration in subsection (C) can also be achieved by some of the environmental enhancements listed in this plan and be used to satisfy requirements under the Natural Resources Overlay District. The size of the setback and the extent to which development will be “directed away from the Willamette River to the greatest possible degree” in subsections (D) and (E) will be determined at the time a project is proposed, acknowledging the fact that the entire district is committed to urban uses. On balance, staff

finds that the Master Plan meets the intent of the Purpose of this Overlay Zone. Specifically, the master plan calls for a significant addition of direct pedestrian access to Willamette Falls and Willamette River in conjunction with substantial riparian improvements via the future Riverwalk project. The rehabilitation of existing buildings and approval of any new construction within the Greenway Compatibility boundaries will need to comply with the above standards and be seen as supporting the overall goal of the project to protect, maintain, preserve and enhance the natural scenic, historic and recreational qualities of the Willamette River Greenway.

17.48.100 Compatibility review.

A. In all areas within one hundred fifty feet of the ordinary low-water line of the Willamette River, hereinafter referred to as the “compatibility boundary,” the provisions of this subsection shall be applicable to all developments and changes or intensification of uses, so as to ensure their compatibility with Oregon's Greenway statutes, and to assure that the best possible appearance, landscaping and public access be provided.

B. All development or changes or intensifications of uses in the compatibility area shall be approved only if the following findings be made by the planning commission.

1. That to the greatest extent possible, the development or change or intensification of use provides for the maximum possible landscaped area, open space or vegetation between the activity and the river.

2. That to the greatest degree possible, necessary public access is provided to and along the Willamette River by appropriate legal means.

C. Procedure for action on compatibility review shall be as set forth in Section 17.48.060 and shall include application of the relevant use management considerations and requirements provided in Sections 17.48.070 and 080. The planning commission, after notice and public hearing held pursuant to Chapter 17.50 shall approve issuance, approve issuance with conditions or disapprove issuance of the Willamette River Greenway conditional use permit. The application shall be accompanied by the fee listed in Chapter to defray the costs of publication, investigation and processing.

Finding: Complies as Proposed The compatibility review described in this section will be required at the time of detailed development review. Two elements of this plan, if incorporated, would support a finding of compatibility for a future project. First, “maximum possible landscaped area, open space or vegetation between the activity and the river” could be achieved by riparian enhancements which are identified in this master plan. Riverbank improvements would also help satisfy the requirements of the Natural Resources Overlay District. Second, “necessary public access...to and along the Willamette River” is shown, schematically, on the master plan by way of a multi-use riverfront path that leads from a re-established Water Street and south along the PGE dam to the edge of the falls.

17.48.110 Prohibited activities.

The following are prohibited within the Willamette River Greenway:

A. Any main or accessory residential structure exceeding a height of thirty-five feet;

B. Structural bank protection, except rip rap or a channelization used as an emergency measure only to protect existing structures. Any such rip rap or channelization to stabilize undeveloped sites shall be prohibited as well;

C. Subsurface sewage disposal drainfields within one hundred feet of the ordinary mean low-water line of the Willamette River.

Finding: Complies as Conditioned Structural bank protection is not anticipated on the site, nor is subsurface sewage disposal. Residential development in mixed use structures is expected to occur at the site. The residential restriction in subsection (A) creates a potential conflict. Residential uses are allowed outright in the proposed Willamette Falls Downtown District; height limits go up to 80 feet. A new or reconstructed building that is predominantly residential (and therefore defined as a “main...residential

structure”) proposed to be taller than 35 feet would be prohibited under current rules. Also, this prohibition/height limitation is a local restriction, and not part of state law. For example, no similar limitation on residential building height in the Greenway exists in West Linn. Many existing buildings on the site currently exceed this height. Buildings in which residential is not the “main” use, and residential buildings shorter than 35 feet, and non-residential development, are not subject to this restriction.

Residential uses and structures are anticipated to be constructed on the site under the master plan, and are therefore allowed under the new zoning code chapter. It is likely that new residential buildings could exceed this 35 foot threshold. Therefore, in order to make way for this potential development outcome, this application proposes a text amendment to the Greenway code (Exhibit 15). The amendment provides an exception to the height limit, only within the Willamette Falls Downtown District, up to the maximum allowed by the zone. Property within this district is different from other Greenway-overlay property in the city, in that any proposal with the new district will be required to go through a process to show consistency with the master plan and the four core values. This process includes compliance with development standards and design guidelines that are outlined in the plan.

Regulatory elements of future reviews that will protect the Willamette River Greenway and the riverfront character of the site, including for residential structures taller than 35 feet, include:

- Design Guideline 1, which includes the following principle: “Views. Take advantage of views toward the river and falls. Step structures down to follow natural change in elevation from the basalt bluffs to water’s edge.”
- Design Guideline 3, “Maintain Downtown Character,” which acknowledges the unique industrial scale and history of the site, but also emphasizes a smooth transition in architecture and urban design between the existing downtown and the new district.

Greenway review standards. 17.48.080(D) directs development away from the river “to the greatest possible degree,” in most cases, and 17.48.080(E) establishes a riparian setbacks that preserve “the natural scenic, historic, and recreational qualities” of the greenway.

- Compatibility review. Projects within 150 feet of the low water line must comply with a compatibility review that requires “maximum possible” landscaped area close to the river, and necessary public access to and along the river.

In combination, these regulatory requirements will protect the principles of the greenway for all buildings at least as well as a blanket restriction on residential building height.

The applicant also supports a future, City-initiated, city-wide review of the Greenway code to help further understand the community’s desire for residential units in urban areas that are also located within the Greenway boundary.

CHAPTER 17.49: NATURAL RESOURCES OVERLAY DISTRICT

As clearly shown on city maps, a large portion of the Willamette Falls District is within the NROD. Consequently, future applications for development at the site will be subject to the requirements of 17.49. The standards for developing buildings or other structures within this overlay are specific to actual development proposals, not concept planning, so review under this chapter will be done at the time a detailed development plan is proposed.

In anticipation of future development, the master plan identifies both the location and type of restoration projects that will improve the natural resource condition of the site. Though degraded by a century of heavy industrial use, natural resources are present on the property and the riparian setting provides tremendous opportunity for restoration. Future development could expose and restore the historical shoreline, increase the circulation in the lagoon and diversify habitat, and establish a vegetated buffer along the riverbank. These actions would dramatically improve the riparian resource values and upgrade habitat for fish, birds, and plant communities. Finally, by designating a large area of the site as ideal for open space or park uses, the plan sets a framework for a large reduction in impervious surface and an increase in landscaped area. This would have an overall benefit to the site's natural resource functions.

17.49.080 Uses allowed outright (exempted).

The following uses are allowed within the NROD and do not require the issuance of an NROD permit:

A. Stream, wetland, riparian, and upland restoration or enhancement projects as authorized by the city.

I. Routine repair and maintenance of existing structures, roadways, driveways and utilities.

J. Replacement, additions, alterations and rehabilitation of existing structures, roadways, utilities, etc., where the ground level impervious surface area is not increased.

K. Measures mandated by the City of Oregon City to remove or abate nuisances or hazardous conditions.

L. Planting of native vegetation and the removal of non-native, invasive vegetation (as identified on the Oregon City Native Plant List), and removal of refuse and fill, provided that:

- 1. All work is done using hand-held equipment;*
- 2. No existing native vegetation is disturbed or removed; and*
- 3. All work occurs outside of wetlands and the top-of-bank of streams.*

Finding: The most significant element of the NROD regulations as it relates to the Willamette Falls district is the exemption contained in 17.49.080.J, which exempts from NROD permits development "where ground level impervious surface area is not increased." This exemption applies even to "replacement" of existing structures. Virtually the entire area where new development will occur in the Willamette Falls District—where structures and other development will be replaced—is impervious surface. This is the result of more than a century of urban development, most recently for heavy industrial uses. Nearly every developed square foot of the site is either paved or covered by a building. Because the site is built on top of a basalt shelf, even those areas without buildings or paving are impervious. In the long run the anticipated development of open space on the site (per the framework plan's designation of more than 5 acres of the site for some kind of waterfront or open space use), and the anticipated habitat and shoreline restoration opportunities identified in the master plan will result in a site that has significantly more impervious surface than exists under current conditions.

Nevertheless, healthy habitat is a core value for the site that has been repeatedly expressed by all the partners in the planning of this site, and other regulations will encourage restoration of the natural resource values. The enhancements identified in the master plan are a starting point for the restoration of the site's unique setting and natural resources.

Finally, several other uses identified above could occur at the site and would be exempt from NROD permits: natural resource enhancement projects, routine maintenance and repair, and nuisance abatement. These categories—combined with any development that doesn't increase impervious surface—are likely to cover virtually all potential projects at the site.

17.49.[0]90 Uses allowed under prescribed conditions.

The following uses within the NROD are subject to the applicable standards listed in Sections 17.49.100 through 190 pursuant to a Type II process:

A. Alteration to existing structures within the NROD when not exempted by Section 17.49.080, subject to Section 17.49.13

D. Land divisions when not exempted by Section 17.49.080, subject to the applicable standards of Section 17.49.160

E. Trails/pedestrian paths when not exempted by Section 17.49.080, subject to Section 17.49.170 (for trails) or Section 17.49.150 (for paved pedestrian paths).

F. New roadways, bridges/creek crossings, utilities or alterations to such facilities when not exempted by Section 17.49.080.

G. Roads, bridges/creek crossings Subject to Section 17.49.150

H. Utility lines subject to Section 17.49.140

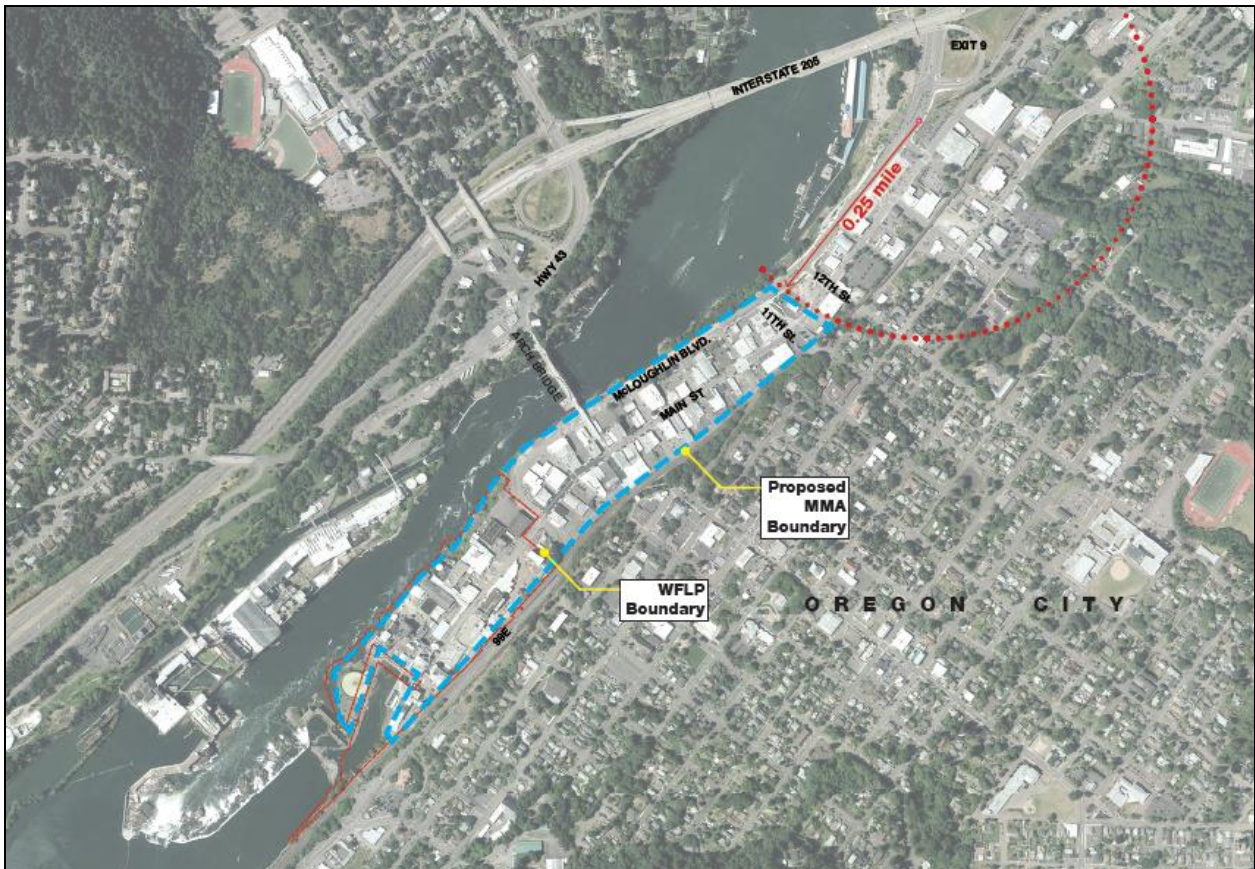
I. Stormwater detention or pre-treatment facilities subject to Section 17.49.155

J. Institutional, industrial or commercial development on a vacant lot of record situated in an area designated for such use that has more than seventy-five percent of its area covered by the NROD, subject to subsection 17.49.120B.

K. City, county and state capital improvement projects, including sanitary sewer, water and storm water facilities, water stations, and parks and recreation projects.

Finding: In the event that a future development proposal under the master plan cannot show that it is exempt, it would be “allowed under prescribed conditions” and subject to all the standards of this chapter. Because future development actions in the plan are subject to detailed development plan approval under a Type III process, the NROD review would occur concurrent with this process.

MULTI-MODAL MIXED USE AREA (OAR 660-012-0060)



PROPOSED MMA BOUNDARY.

When a city proposes changes to its Comprehensive Plan, state law requires transportation impacts of that change to be analyzed. The Transportation Planning Rule (“TPR”), OAR 660-012-0060, outlines the analysis. The purpose of the TPR is to maintain a balance between allowed land uses and the transportation system necessary to support them. The rule assesses whether changes create a “significant impact” on the system. If so, mitigation must be proposed that brings the conditions back to the same level (or better) than the no-build condition.

However, as of 2012, new TPR regulations allow more leeway for projects that are located in areas designated as “Mixed-use Multi-modal Areas” (“MMA”). Cities can rezone areas for more intensive use without the impact analysis that would typically be required if that area is within an MMA. Specifically, Section 10 of the rule now authorizes a local government to amend local land use provisions without applying the TPR performance standards, if the amendment meets two specified requirements:

1. The amendment must be a map or text amendment affecting only land entirely within a multimodal mixed-use area (MMA); and
2. The amendment must be consistent with the definition of an MMA and consistent with the function of the MMA as described in the findings designating the MMA.

Because it offers flexibility for future development, this application requests the creation of a new MMA that encompasses the existing downtown area of Oregon City and the newly rezoned Willamette Falls

Downtown District. The city anticipates demand for more mixed-use development in the new Willamette Falls District and the existing downtown, which is already zoned mixed-use.

A key requirement for an MMA is that it be more than ¼ mile from freeway on ramps. The proposed boundary's north edge is at 12th Street, which is farther than ¼ mile from the nearest I-205 ramp. In fact, there are two freeway interchanges near the downtown—one over the river in West Linn, and one north of downtown on Highway 99E—but both are more than ¼ of a mile distance by road from the proposed MMA boundary. At this time, these freeway interchanges have enough transportation capacity, but with additional development, there could be some traffic capacity issues at some intersections in the area. Oregon City wants to strengthen their downtown and provide for additional development and visitors to a newly designated open space along the Willamette River overlooking Willamette Falls. Without the flexibility offered by an MMA, Oregon City is concerned that the old system of mitigating for significant impacts would require major, expensive, impractical upgrades to create more automobile capacity. These upgrades could be more than the applicant, Oregon City, and even ODOT can afford, especially because of the area's unique topography (cliffsides, riverfront, basalt rock) would drive up infrastructure costs.

Oregon City has used the Model Development Code that was jointly developed by the Oregon Department of Transportation and Department of Land Conservation and Development as a reference to create zoning in the existing Mixed Use Downtown District and for the newly created Willamette Falls Downtown District. The existing Municipal Code has been updated and refined over the last nine years to better meet the intent of a multi-modal Regional Center.

The Willamette Falls Downtown (WFD) district is designed to apply within the historic Willamette Falls downtown area, between McLoughlin Boulevard and the Willamette River. This area was formerly an industrial site occupied by the Blue Heron Paper Mill. A mix of open space, retail, high-density residential, office and light industrial uses are encouraged in this district, with retail and service uses on the ground floor and office and residential uses on the upper floors. Allowed uses in the District will encourage pedestrian and transit activity. This district includes a Downtown Design overlay for the historic downtown area. The design standards for this sub-district require a continuous storefront façade featuring streetscape amenities to enhance the active and attractive pedestrian environment.

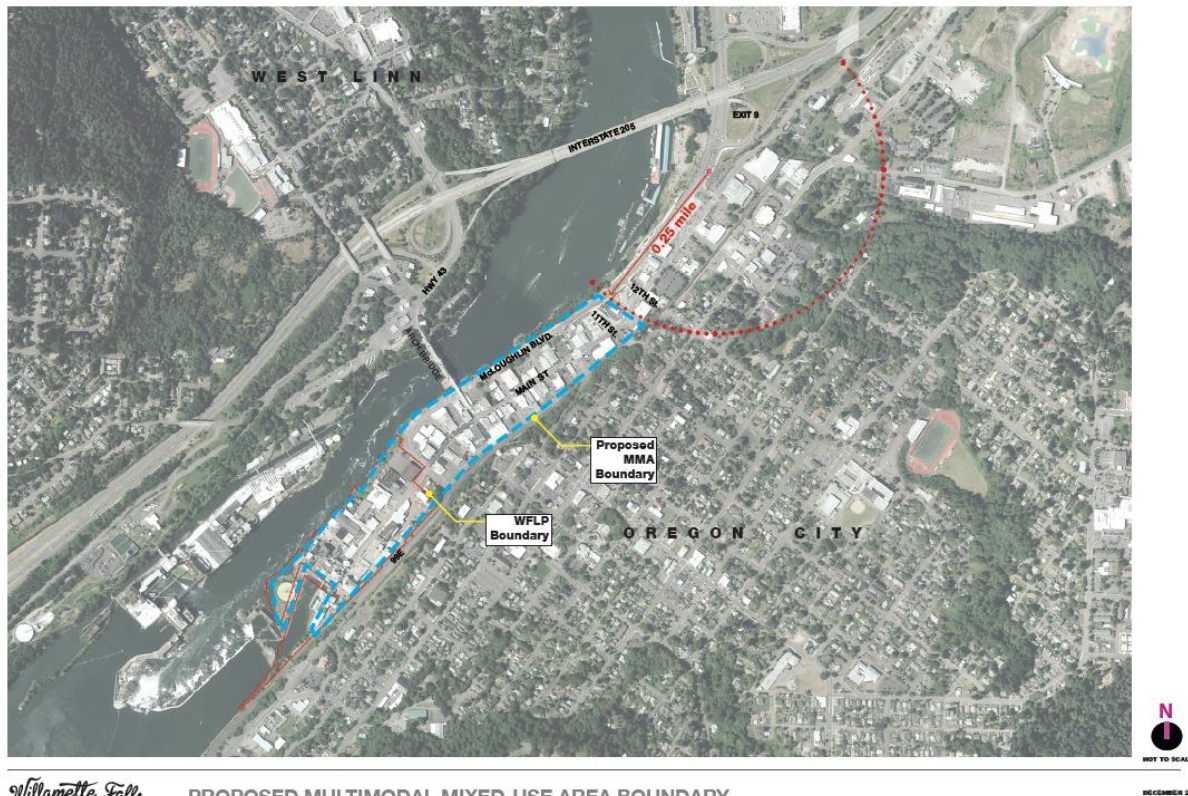
The existing mixed-use downtown (MUD) district applies within the traditional downtown core along Main Street and includes the “north-end” area, generally between 5th Street and Abernethy Street, and some of the area bordering McLoughlin Boulevard. Land uses are characterized by high-volume establishments constructed at the human scale such as retail, service, office, multi-family residential, lodging or similar as defined by the community development director. A mix of high-density residential, office and retail uses are encouraged in this district, with retail and service uses on the ground floor and office and residential uses on the upper floors. The emphasis is on those uses that encourage pedestrian and transit use. This district includes a Downtown Design District overlay for the historic downtown area. Retail and service uses on the ground floor and office and residential uses on the upper floors are encouraged in this district. The design standards for this sub-district require a continuous storefront façade featuring streetscape amenities to enhance the active and attractive pedestrian environment.

OAR 660-012-0060 Findings

(10)(b)(A) Requires the MMA to be an area “With a boundary adopted by a local government as provided in subsection (d) or (e) of this section and that has been acknowledged.”

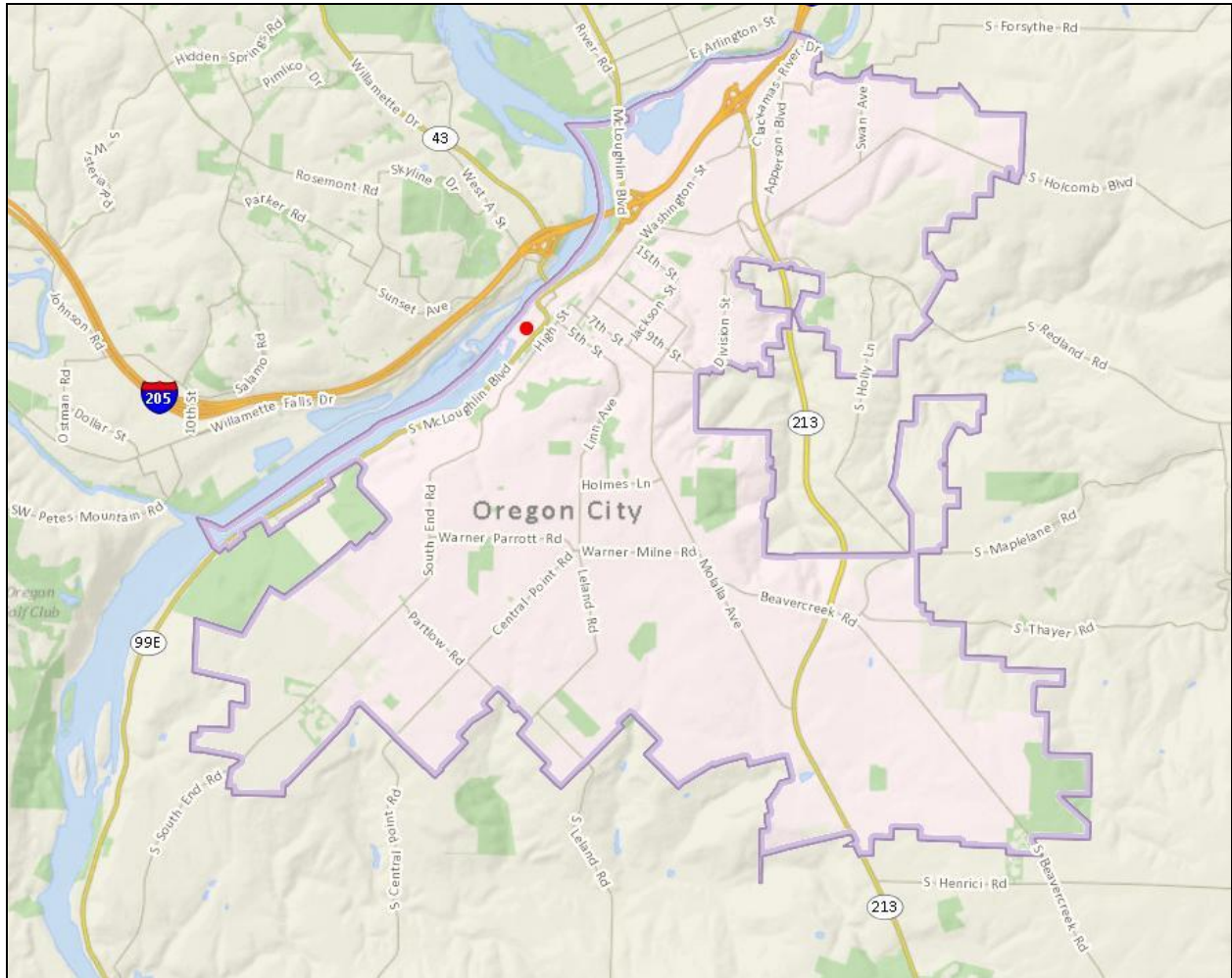
Finding: Complies as Proposed the Map below shows the proposed boundary around the MMA area. The proposed area includes most of downtown Oregon City, including the existing downtown and the new

Willamette Falls Downtown District. The boundary follows 11th Street to the north, Railroad Avenue and 99E to the east, the lagoon to the south, and the Willamette River to the west. Through the adoption and acknowledgement of this proposed MMA boundary in the Oregon City Comprehensive Plan, this requirement can be met.



(10)(b)(B) Requires MMAs to be located “Entirely within an urban growth boundary.”

Finding: Complies as Proposed Downtown Oregon City is entirely within the city’s urban growth boundary. The UGB is shown below in purple. The Willamette Falls Downtown District is identified with a red dot. The MMA area includes the Willamette Falls Downtown District and the existing downtown, just north of the district, both of which are within Oregon City’s UGB.



OREGON CITY URBAN GROWTH BOUNDARY.

(10)(b)(C) Requires MMAs to have “adopted plans and development regulations that allow the uses listed in paragraphs (8)(b)(A) through (C) of this rule and that require new development to be consistent with the characteristics listed in paragraphs (8)(b)(D) through (H) of this rule.”

Finding: Complies as Proposed The proposed language for a Willamette Falls Downtown District is included with this application. The zoning district regulations address allowed and prohibited uses, minimum FAR, height, and other development standards. A set of plan policies and design guidelines is also anticipated to be approved with the master plan and will apply to development on the site. These plans will constitute “adopted plans and development regulations” as described in this standard. The existing downtown, which is also part of the proposed MMA, is within the city’s Mixed Use Downtown District (OCMC 17.34). The MUD chapter regulates new development consistent with the uses and characteristics identified. In total, the proposed WFDD and the existing MUD satisfy the requirements of this rule.

(8)(b)(A) Requires MMAs to allow “A concentration of a variety of land uses in a well-defined area, including the following:”

Finding: The MMA is centered on Main Street, south from 11th street, through downtown and into the proposed through the Willamette Falls Downtown District. This area includes a variety of retail, office, and civic uses, with allowances for higher-density residential, craft industrial, and recreational attractions. The

downtown, due to geography and the historic development of the area, is well-defined with denser development than in other areas of Oregon City.

(8)(b)(A)(i) Requires MMAs to allow “Medium to high density residential development (12 or more units per acre).”

Finding: Complies as Proposed Multifamily residential development is allowed in the proposed MMA, both in the existing MUD and proposed WFDD. Within the stated limits on height, there is no restriction on the density of residential units. Ultimately, the number of units on a site and the overall residential density will be dictated by proposed development, but the zone encourages higher densities by incorporating a minimum FAR, expansive height limits, and reduced parking requirements.

(8)(b)(A)(ii) Requires MMAs to allow “Offices or office buildings.”

Finding: Complies as Proposed Office uses are allowed in the proposed MMA, both in the existing MUD (17.34) and the proposed Willamette Falls Downtown District.

(8)(b)(A)(iii) Requires MMAs to allow “Retail stores and services.”

Finding: Complies as Proposed Retail and service uses are allowed in the proposed MMA, both in the existing MUD (17.34) and the proposed Willamette Falls Downtown District.

(8)(b)(A)(vi) Requires MMAs to allow “Restaurants”

Finding: Complies as Proposed Restaurants are allowed in the proposed MMA, both in the existing MUD (17.34) and the proposed Willamette Falls Downtown District.

(8)(b)(A)(v) Requires MMAs to allow “Public open space or private open space which is available for public use, such as a park or plaza.”

Finding: Complies as Proposed Public and private open spaces for public use are allowed in the proposed MMA, both in the existing MUD (17.34) and the proposed Willamette Falls Downtown District. The new Willamette Falls District master plan designates more than five acres of land for open-space and waterfront uses.

(8)(b)(B) Requires MMAs to “Generally include civic or cultural uses.”

Finding: Complies as Proposed Civic and cultural uses are allowed in the proposed MMA, both in the existing MUD (17.34) and the proposed Willamette Falls Downtown District.

(8)(b)(C) Requires MMAs to allow “A core commercial area where multi-story buildings are permitted.”

Finding: Complies as Proposed The proposed MMA is centered on the existing Main Street core commercial areas, on which there are existing multi-story buildings in a historic downtown center, which includes the Main Street core commercial area. There are existing multi-story buildings on Main Street, both north and south of McLoughlin Boulevard. Building height limits in the existing downtown vary, but go up to 75 feet. The downtown design district height limit is 58 feet. The new Willamette Falls district allows buildings up to 80 feet.

(8)(b)(D) Requires MMAs to have development standards where “buildings and building entrances oriented to streets.”

Finding: Complies as Proposed Any new development in the existing MUD zone must go through site plan and design review (17.62), which requires that all new buildings oriented to streets. OCMC 17.62.055(D)(1) through (3) requires “the front most architecturally significant facade shall be oriented toward the street and shall be accessed from a public sidewalk,” and “primary building entrances shall be clearly defined and recessed or framed by a sheltering element.” OCMC 17.62.050.A.2 also requires parking areas to be located behind buildings, below buildings, or on one or both sides of buildings.

New development in the proposed WFDD zone is subject to a detailed development review, the second step of a master planned development. This review requires compliance with the same standard in 17.62 for buildings to face streets and de-emphasize parking, per 17.65.060(B)(3).

(8)(b)(E) Requires MMAs to have “street connections and crossings that make the center safe and conveniently accessible from adjacent areas.”

Finding: Complies as Proposed The proposed MMA is located within an historic downtown grid of streets that is either existing or will be re-established on the Willamette Falls property. Accessibility for the existing downtown will not change, and with development of the Willamette Falls area, this adjacent area will re-create a connected downtown street grid, resulting in a safer and greater public access. Existing streets in the downtown area of the MMA have sidewalks on both sides of the street; this condition will be a requirement of development in the new Willamette Falls District. There are crosswalks throughout the MMA and strong pedestrian connections planned from the historic downtown across 99E.

(8)(b)(F) Requires MMAs to have “a network of streets and, where appropriate, accessways and major driveways that make it attractive and highly convenient for people to walk between uses within the center or neighborhood, including streets and major driveways within the center with wide sidewalks and other features, including pedestrian-oriented street crossings, street trees, pedestrian-scale lighting and onstreet parking.”

Finding: Complies as Proposed The proposed MMA is a series of blocks within a street grid. The proposed MMA is approximately 15 blocks long and two blocks wide. Approximately 90 percent of streets have sidewalks on both sides of the street. Most intersections within the existing downtown are marked, and crossing distances are short. Downtown has a strong, pedestrian oriented streetscape. A map of the proposed MMA showing the local street network is included as an exhibit.

(8)(b)(G) Requires MMAs to have “one or more transit stops (in urban areas with fixed route transit service).”

Finding: Complies as Proposed TriMet serves the proposed MMA with its Line 33 and Line 99 bus service, with multiple stops within the district. The Oregon City Transit Center is within the proposed MMA, 11th Street and Main Street, where multiple bus lines operate. Oregon City’s TSP (2013 update) identifies downtown as a regional transit hub.

(8)(b)(H) Requires regulations within MMAs to “limit or do not allow low-intensity or land extensive uses, such as most industrial uses, automobile sales and services, and drive-through services.”

Finding: Complies as Proposed Industrial uses are not permitted in the MUD zone district, and only light industrial or craft industrial uses such as brewpubs or apparel studios are allowed in the WFDD zone. These

uses are size-limited. Automotive sales, service, rental and repair are expressly prohibited in both zones, and are drive-through uses require a conditional use permit.

(10)(b)(D) requires MMAs to have “land use regulations that do not require the provision of off-street parking, or regulations that require lower levels of off-street parking than required in other areas and allow flexibility to meet the parking requirements (e.g. count on-street parking, allow long-term leases, allow shared parking).”

Finding: Complies as Proposed The off-street parking requirement in both the MUD and proposed WFDD zones are unique in Oregon City in that they allow reduction from the city’s existing standard by up to 50 percent. Likewise, there is flexibility within both districts for shared parking between uses, and for sharing parking between the two zoned areas. On street parking in both zones may count toward the minimum standard when it is on the street face abutting the proposed land use. A change in use of an existing building within the Downtown Design District and WFDD zone is exempt from parking review and required parking increases. In this respect the MMA area requires lower levels of off-street parking than required in other areas.

(10)(b)(E) Requires the MMA to be “located in one or more of the categories below:

(i) At least one-quarter mile from any ramp terminal intersection of existing or planned interchanges;

(ii) Within the area of an adopted Interchange Area Management Plan (IAMP) and consistent with the IAMP; or

(iii) Within one-quarter mile of a ramp terminal intersection of an existing or planned interchange if the mainline facility provider has provided written concurrence with the MMA designation as provided in subsection (c) of this section.”

Finding: The proposed MMA is more than ¼ mile from any ramp terminal intersection of the existing I-205 interchange. Subsection (i) is satisfied and this requirement is met.

Chapter 12.04 STREETS, SIDEWALKS AND PUBLIC PLACES

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

Finding: Complies as Proposed. The adjacent right-of-way is under the jurisdiction of Oregon City.

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: Not applicable. No new streets are proposed with this development.

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: Not applicable. The applicant has not proposed to alter a curb cut onsite.

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: Not Applicable. The applicant has not proposed and is not required to repair a sidewalk with this development review.

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 applicant is subject to compliance with OCMC Chapter 12.04.

12.040.095 - Street Design—Curb Cuts.

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

Finding: Not Applicable. There is an existing curb cut and no others are anticipated.

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 but no excavations are proposed.

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. The applicant has not proposed an excavation with this development.

12.04.120 - Obstructions—Permit required.

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

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 development.

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**

Conditioned. As part of the conditioned of approval, the applicant will be required to submitted infrastructure phasing plan at the time of the First Type III detailed development plan.

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 Complies as Conditioned. As part of the conditioned of approval, the applicant will be required to submitted infrastructure phasing plan at the time of the First Type III detailed development plan.

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: Complies as Proposed. The applicant has not proposed to alter the right-of-way with this application. The additional 4 feet requested in the modified sidewalks for Main Street can fit within the maximum ROW. Findings for the request can be found in the modification request and the conditions relating to street phasing plan.

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 has not proposed and is not required to alter the access with this development application.

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: Complies as Conditioned. The applicant has requested approval of a Mixed Use Multi-Modal area that limits transportation mitigation for projects located within the boundary be limited to safety improvements and supersede these requirements. Conditions of approval and findings for these improvement may be found in OCMC 17.65.050.A.1.h in the 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: : Complies as Conditioned. The applicant has requested approval of a Mixed Use Multi-Modal area that limits transportation mitigation for projects located within the boundary be limited to safety improvements and supersede these requirements. Conditions of approval and findings for these improvement may be found in OCMC 17.65.050.A.1.h in the report.

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: Complies as Conditioned .

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

Finding: Not Applicable. A new street is not proposed or constructed with this application

12.04.230 - Street design—Street names.

Finding: Not Applicable. A new street is not proposed or constructed with this application

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 or constructed with this application .

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: Not Applicable. The abutting portion of 99E is designated as a Major arterial in the Oregon City Transportation System Plan, but the applicant has not proposed a new building or exterior alterations to existing buildings and thus this standard is not applicable.

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: Not Applicable. A new street is not proposed or constructed with this application

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 for this application .

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: Not Applicable. A new street is not proposed or constructed with this application

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: Not Applicable. A new street is not proposed or constructed with this application

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: Not Applicable A new street is not proposed or constructed with this application

Chapter 17.58 – NONCONFORMING USES, STRUCTURES AND LOTS

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.

Findings: Applicable. Much of the subject site was constructed before the adoption of this zoning code and does not meet a variety of criteria including design, landscaping, etc. The proposed development to the nonconforming site requires compliance with OCMC 17.58.040.C.2.

17.58.040.C.2.a *Thresholds triggering compliance. The standards of Subparagraph C.2.b below shall be met when the value of the proposed exterior alterations or additions to the site, as determined by the Community Development Director, is more than \$75,000. The following alterations and improvements shall not be included in the threshold calculation:*

- (1) *Proposed alterations to meet approved fire and life safety agreements;*
- (2) *Alterations related to the removal of existing architectural barriers, as required by the Americans with Disabilities Act, or as specified in Section 1113 of the Oregon Structural Specialty Code;*
- (3) *Alterations required to meet Seismic Design Requirements; and*
- (4) *Improvements to on-site stormwater management facilities in conformance with Oregon City Stormwater Design Standards.*

Findings: Complies. The master plan proposes a plan that will, as development occurs, mitigate and implement site upgrades for any non-confirming structures that pursue rehabilitation.

17.58.040.C.2. *An expansion of a nonconforming structure with alterations that exceed the threshold of Subparagraph C.2.a below shall comply with the development standards listed in Subparagraph C.2.b. The value of the alterations and improvements is based on the entire project and not individual building permits.*
b. Standards that shall be met. Developments not complying with the development standards listed below shall be brought into conformance.

- 1. Pedestrian circulation systems, as set out in the pedestrian standards that apply to the sites;*
- 2. Minimum perimeter parking lot landscaping;*
- 3. Minimum interior parking lot landscaping;*
- 4. Minimum site landscaping requirements;*
- 5. Bicycle parking by upgrading existing racks and providing additional spaces in order to comply with Chapter 17.52—Off-Street Parking and Loading;*
- 6. Screening; and*
- 7. Paving of surface parking and exterior storage and display areas.*

c. Area of required improvements.

1. Generally. Except as provided in C.2.c.2. below, required improvements shall be made for the entire site.

Findings: Complies as Proposed. Complies. The master plan proposes a plan that will, as development occurs, mitigate and implement sire upgrades for any non-confirming structures that pursue rehabilitation.

17.58.040.C.d *Timing and cost of required improvements. The applicant may choose one of the two following options for making the required improvements:*

Findings: Not applicable. No development application is being proposed as part of this applications

CONCLUSION AND RECOMMENDATION:

Based on the analysis and findings as described above, Staff recommends the Planning Commission recommend approval of Planning files Master Plan: CP 14-02, Zone Change and Text Amendment: ZC 14-03, Comprehensive Plan Map Amendment and amendments to ancillary documents of the Comprehensive Plan: PZ 14-01, and creation of a Multi-modal Mixed Use Area (MMA) with the Conditions listed below.

EXHIBITS:

1. Vicinity Map
2. Land Use Application Form
3. Narrative
4. Maps and Drawings
5. Appendix A: Transportation Report
6. Appendix A: Transportation Report Attachments
7. Appendix B: Utilities Memo
8. Appendix C: Historic Resources Matrix
9. Appendix D: SHPO Eligibility
10. Appendix E: Environmental Assessment
11. Appendix F: MMA Exhibits
12. Appendix G: Public Engagement Summary
13. Archaeology Report
14. Public Notice
15. Amendment to the Willamette River Greenway
16. New Willamette Falls Downtown District Zone
17. Proposed Plan Guidelines (excerpt of Master Plan Narrative)
18. Proposed Amendments to Ancillary Document to the Comprehensive Plan
 - a. Transportation System Plan
 - b. Parks Master Plan
19. Engineering Policy 00-01 (onfile)
20. Public Comments
21. Draft ODOT- Oregon City IGA- Transportation Improvement (*will be submitted at the September 15, 2014 PC Hearing*)
22. March 26, 2014 Memo from Carrie Richter- Willamette Legacy Project Master Plan Review Process.
23. Public Works Memo
- 24.** Traffic Analysis Memo-Replinger and Associates August 27, 2014
25. ORS Fact Sheet - Protection of Publicly Owned Properties
26. Citizen Guide to sec 106
27. Rediscover the Falls video link
28. Vision Report link
29. Site Stabilization and Building Assessment Report link

Recommended Conditions of Approval

CP 14-02, ZC 14-03, and PZ 14-01

1. Unless further amended and extended by the Planning Commission, this Master Plan shall control development on the site for 20 years from the date of initial adoption.
2. Unless further amended in a refined Master Plan, detailed development plans within the Willamette Falls Downtown District will be processed as a Type III Land Use Review that is heard before the Oregon City Planning Commission. However, projects that meet Minor Site Plan and Design Review thresholds (OCMC 17.62.035) shall be processed as a Type II review. These projects will still be subject to the standards and conditions of the general development plan approval.
3. For all projects requiring for Type III review, the ability to comply with district design guidelines will be assessed by a Design Evaluation Board, a special city-assigned body that will provide broader feedback into the process. The Design Evaluation Board will make its recommendation to the Planning Commission through city staff. This condition may also be met through the addition of adhoc Planning Commission members that can demonstrate specialized Urban Design backgrounds to provide additional expertise to the Planning Commission.
4. As the site is located within the newly created Mixed Use Multi-Model area, all future development will be reviewed for impacts to safety in this area and not be subject review of the development on the capacity of the system.
5. The following are listed in the Master Plan as Structures Identified for Retention and Reuse.
 - a. Mill O
 - b. Hawley Building
 - c. DeInk/Mill B
 - d. No. 4 Paper Machine
 - e. Woolen Mill Foundations
6. The following are listed in the Master Plan as Secondary Elements Identified For Full or Partial Retention.
 - a. Oregon City Flour Mill Foundation
 - b. Digesters
 - c. Horton Sphere
 - d. Boilers
 - e. No.1 Paper Machine
7. Removal of structures or elements not identified for retention will be processed as a Type I Land Use action provided all applicable conditions of approval from the master plan have been met.
8. Substantial alterations or request for demolitions either to Structures Identified for Retention and Reuse or Secondary Elements Identified For Full or Partial Retention shall be processed as a Type III Land Use action.
9. Prior to the demolition of any structures identified as potential eligible for listing on the National Register, the applicant, shall submit site plans and documentation photos of the interior and exterior of the buildings that adhere to the Section 106 documentation process.
10. If the applicant is proposing site cleanup, demolition, or new construction that will include the disturbance of native soils, or has a high likelihood of containing archeological evidence, as confirmed by the State Historic Preservation Office, the applicant shall submit and adhere to an inadvertent discovery plan that, depending on the proposed action, and as recommended by SHPO, could include archeological monitoring during times of site disturbance.

11. The applicant shall obtain an Oregon City Erosion Control Permit, if applicable, for all site clean-up, demolition or interim parking uses and verify that the proposed work is consistent or can be made consistent with the DEQ interim stormwater plan.
12. Tennant improvements of existing habitable space is allowed and does not require any further land use review unless the applicant proposes exterior alterations that trigger a Type II or Type III detailed development plan.

13. Amend Policy 4 as proposed to ensure interpretive elements be included in all development proposals,

Guideline 4. Re-Use, Rehabilitate, ~~and~~ Restore and Interpret Buildings and Structures

Principles:

Key structures. Preservation or rehabilitation of key structures should be a priority in the design of new buildings and open space. Highest value is placed on the following structures: De-Ink Building, #4 Paper Machine, Mill O, Hawley Building, and the Woolen Mill Foundation. If any these key structures must be removed, the applicant must document the specific reason for doing so, and propose mitigation to compensate for the loss of site character.

Other structures. Incorporate remnants, key features or other significant portions of existing structures into project design. The district's 150-year history as a mill site (flour, wool, paper) and a manufacturing center should be celebrated and recognized when new buildings and uses are established.

Archaeology. Incorporate pre-colonial history of the site into new development where appropriate. Monitor archeology when disturbance of native soil is proposed.

Interpretation. Weave interpretive elements throughout the site to provide multiple and diverse opportunities to learn and reflect on the site's history.

14. The applicant has proposed a Master Plan that includes a conceptual amount of open/public space in blocks 3 and 4. In order to ensure that the open/public space is implemented in conjunction with overall development and not left to a final phase, the applicant shall show construction of an open/public space area that is a minimum 40,000 square feet and consists of both active and passive uses with prominent views of the falls at the time of completion of the first 400,000 square feet of new habitable space. As part of the detailed development review for this open space, the applicant shall submit a long term maintenance and operation plan to ensure the open/public space can be maintained. This plan anticipates the use of both private and public contributions.
15. The applicant has proposed a Master Plan that includes the Riverwalk along the Willamette River. In order to ensure that the Riverwalk is provided, either independently or in conjunction with overall development and not left to a final phase, the applicant shall design and construct all or some roughly proportional portion of the Riverwalk no later than the time of completion of the first 300,000 square feet of new habitable space. As part of the detailed development review that includes design for the Riverwalk, the applicant shall submit a long term maintenance and operation plan explaining how the Riverwalk will be maintained. This plan anticipates the use of both private and public contributions.
16. The applicant has requested, for ease of long term implementation, to follow the development code in affect at the time of each development application.
17. Main Street is a "collector" street and future development of this street will comply with the modified sidewalk standard for this Master Plan for minimum 16 foot sidewalks. This dimension could be reduced for a specific development application to accommodate a special condition such as to protect the façade of an existing historic building or support general adaptive reuse proposals of existing buildings.

18. Oregon City and ODOT have agreed on three key transportation improvements along OR 99E with the goal of maintaining safety and improving accessibility of the site:
 - a. Intelligent Transportation Systems designed to warn traffic approaching the tunnel of hazardous conditions ahead.
 - b. Prohibiting left turns northbound from OR 99E to Main Street and modification of the right turn geometry from 99E to Railroad Avenue to allow space for turning traffic to slow and maneuver outside the travel lanes on a curve with limited sight distance.
 - c. A pork-chop (or raised median) at the Water Avenue/OR 99E intersection to prevent unsafe movements and reinforce right-in, right-out access at that location.
19. Oregon City will assure design and construction of the three projects as follows:
 - a. A \$1,940,000 project to replace the tunnel's illumination system in the 2017-18 timeframe is included in the draft ODOT STIP. ODOT will design and construct project "a" with this illumination project. Should the \$1,940,000 available to ODOT be insufficient to fund both the illumination and ITS projects, Oregon City will contribute up to \$500,000 to cost of the project, which will include up to \$250,000 contribution by the applicant.
 - b. Design of and right of way acquisition for Project "b" will be completed prior to opening of the Riverwalk or within two years of plan adoption (whichever comes first). The design and acquisition will be led by Oregon City in cooperation with ODOT. The applicant is responsible for construction of project b and is required to be completed prior to trip generation to the site surpassing 140 peak hour trips. The purpose of this improvement is to safely accommodate the increasing number of motor vehicles slowing in the tunnel to turn right on Railroad Avenue and for the safety of pedestrians crossing Railroad Avenue. The right turn into Railroad Avenue is part of an indirect left turn movement required for OR 99E northbound motor vehicles accessing the Willamette Falls site.
 - c. Project "c" will be constructed during the construction of Water Avenue/OR 99E intersection. Construction of Water Avenue/99E will be triggered when one of the following occurs:
 - i. At the time of Riverwalk construction adjacent to Water Avenue.
 - ii. Any new construction or addition over 1,000 square feet on Block 1 of the Framework i
 - ii. Master Plan Once development on the site has surpassed 140 peak hour trips.
20. If after the three safety mitigation projects identified in condition 18 & 19 are constructed, Oregon City or ODOT determines, as part of a detailed development plan review, that significant safety issues remain or will result from the proposal, the applicant shall contribute up to \$60,000 (2014 dollars) for the cost of a multimodal safety audit in cooperation with Oregon City and ODOT. Identified safety projects may be required to be implemented after the development has exceed 700 peak hour trips.
21. Master Plan approval requires ODOT concurrence for any phase of development of the Willamette Falls Master Plan area that would result in the total estimated peak hour trips generated from the area to exceed 700. If at that time, traffic analysis establishes that additional safety measures are needed, the applicant will be required to include additional safety measures or upon ODOT agreement on other countermeasures not provided in association with proposed development.
22. The Applicant will estimate the number of trips at the time of each phase of master plan review and will notify ODOT and the City of the proposed development and estimated trips 30 days prior to the first evidentiary hearing.
23. The Institute of Traffic Engineers Trip Generation Manual will be the source for trip generation estimates unless ODOT and the City agree to an adjustment.

24. For any development that creates over 20,000 square feet of new habitable space, or requests approval of the Riverwalk, the applicant will be required to submit a transportation demand management program that addresses the existing conditions and proposes transportation demand programs that proportionally mitigate the impact of the proposed development to the site and abutting downtown.
25. Within six (6) months from the date of the land use approval for CP 14-02 Master Plan, the applicant shall develop, finalize and submit to the City an interim water utility plan for the private onsite water system. The private system currently provides both domestic water service and fire flow protection to the entire site. This condition shall be satisfied prior of the submission of a detailed development plan. The interim water utility plan shall include:
- a. Detailed operational and maintenance plan for the private water system during the interim period.
 - b. Water System Pipe Schematic showing the private system schematically that will be operation during the interim period, including from the City's metered connection to the ends of the operational pipe segments, primary isolation valves, fire hydrants, sprinkler systems and other notable appurtenances.
 - c. Collaboration with the City's Public Works Operations and Engineering staff regarding the interim operations and maintenance of the private water system.
 - d. Collaboration with Clackamas Fire District #1's (CCFD#1) to determine the minimum fire flow requirements for the existing buildings onsite and how the private system will comply with the requirements.
 - e. Concurrence from the City and CCFD#1 on the final interim water utility plan.
26. The Master Plan includes a new pedestrian bridge connecting the Promenade over 99E to the site. The project is proposed to be included in the Oregon City TSP project list as part of this application. Currently, there are no development triggers for this project, which is assumed to be primarily a publically supported project. However, future development applications will need to plan for its location. Completion of and payment towards the project may be used to meet transportation demand management requirements of the Master Plan.
27. By September 30, 2015, the applicant shall rectify the stormwater issue at the referenced manhole at Main St/3rd St intersection and separate the storm system from the sanitary sewer system. The resolution shall include collaboration and coordination with ODOT to determine what improvements are necessary for the separation of systems, City and ODOT approval of the plan, and implementation. This condition shall be satisfied prior of the submission of a detailed development plan.
28. Right of Way dedication shall be governed by the street and utility phasing plan which shall be submitted at the time of the first development application of more than 1,000 square feet of new habitable space. The Public Works Director may approve an alternate proposal of private streets governed by a full public access easement if the design and maintenance plan meets or exceeds the intent of the Master Plan.
29. A utilities/infrastructure phasing plan which will be required at the time of the first development application of new habitable space over 1,000 square feet or approval of the Riverwalk. If the Riverwalk development application is the first submittal, the phasing plan for the Riverwalk shall be limited to the boundary of the Riverwalk project. The following submittal requirements shall be included in future development application unless amended or waived by the Planning Commission:
- a. *Stormwater Management*
 - i. Compliance with City Standards including Public Works Utility Standards
 - ii. New stormwater facilities that provide for collection and treatment prior to discharge.
 - iii. Consideration of alternative treatment methods such as low impact development due to the nature of the site (bedrock at or near the existing ground surface).

- iv. Evaluation of existing stormwater system along frontage of site and determination of what improvements are needed to fix any deficiencies found.
- v. Phasing plan as applicable and meeting the needs for phased redevelopment of the site.

b. Sanitary Sewer

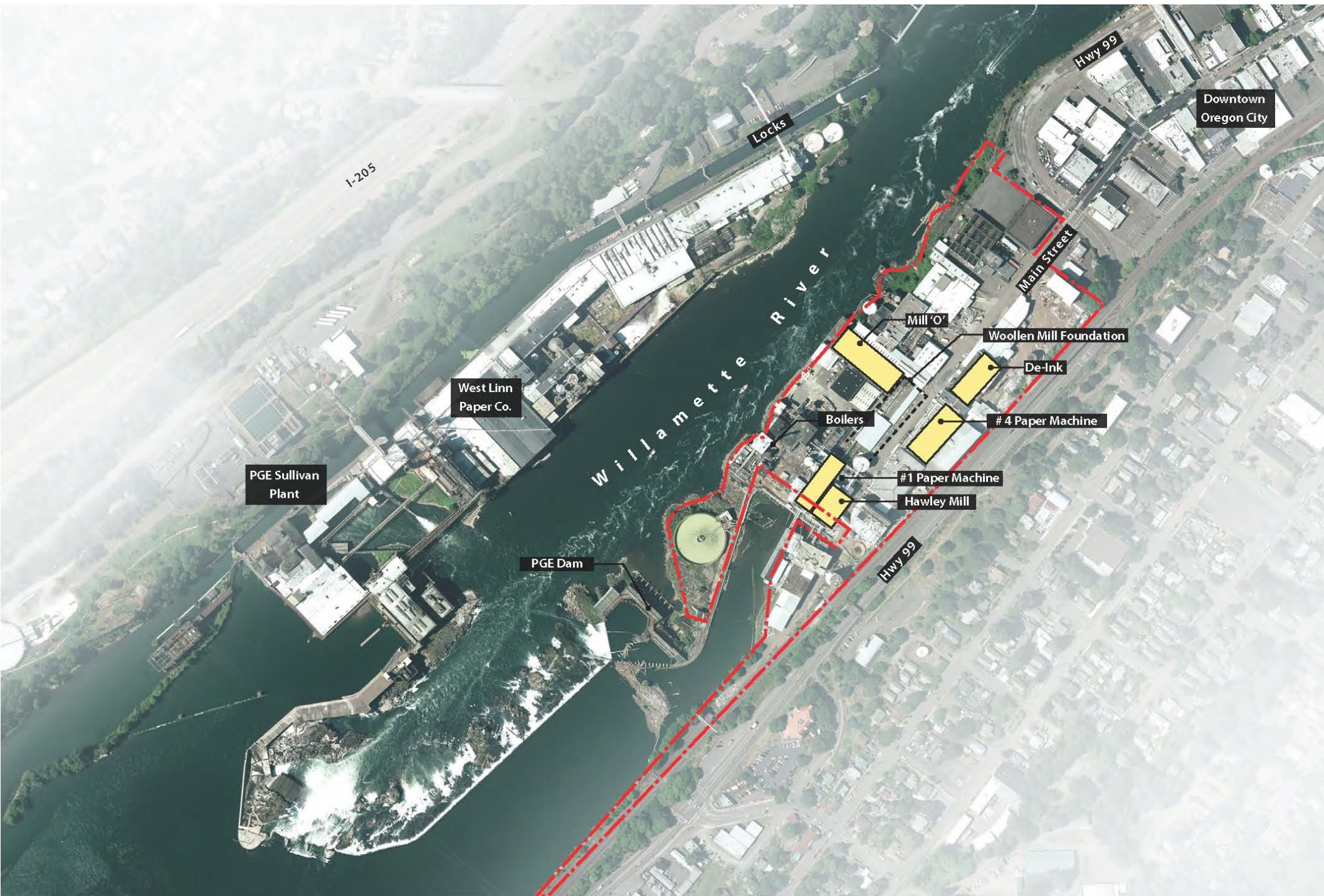
- i. Compliance with City Standards including Public Works Utility Standards
- ii. Capacity evaluation of existing sanitary sewer collection system using City's approved hydrologic/hydraulic model due to the proposed wastewater flow contribution from the entire development, including consideration of the TDS surcharged interceptor sewers predicted in the 2014 SSMP and potential need for backflow protection improvements due to negative impacts from TCSD surcharged system.
- iii. Phasing plan for abandonment, removal, and/or replacement of existing sewer facilities, and new public sanitary sewer extensions with lateral services located within future public streets meeting separation standards from other utilities as applicable.

c. Water

- i. Compliance with Clackamas Fire District #1's (CCFD#1) and Uniform Fire Code requirements for the site's maximum fire flow based on the overall site development plan and any other conditions of approval as applicable.
- ii. A looped system providing two sources of supply with consideration of one source being located at the southern end of the site about where the existing pedestrian bridge crosses over Hwy 99E and the railroad tracks. This existing bridge is planned to be replaced sometime in the future with a new pedestrian bridge and consideration should be made for making the new bridge dual purpose and incorporate public utility crossings such as a new water pipeline.
- iii. Evaluation of the existing water distribution system using City's approved hydraulic network model to determine what new water system improvements are needed to provide adequate service pressures during normal operating conditions, fire flows as required by CCFD#1, and PRV station operational parameters based on the redevelopment needs of the site. Note: The existing PRV operational parameters may not work for the proposed redevelopment and be required to change.
- iv. Evaluation to determine if the City's designated "Paper Mill" pressure zone can be rezoned and made part of the "Lower" pressure zone and whether the PRV station at 5th/Main St is needed with the overall redevelopment plan.
- v. Phasing plan for new water improvements, including consideration of when existing water facilities will be abandoned, removed and/or replaced, how fire protection will be provided to existing buildings that are remaining in place during that development phase, how the new system will operate during that development phase if there are old water facilities still needed to be operational, replacing and/or upgrading PRV stations, installation of new public water mains, fire hydrants and metered services located within future public streets meeting separation standards from other utilities as applicable
- vi. Consideration of completely abandoning the private system with the first phase development and what new water improvements are needed to accomplish this.

d. Streets

- i. Compliance with City Standards including Public Works Utility Standards, unless further amended or waived by the Public Works Director.
- ii. Consideration of design exceptions and alternative streetscape elements if the site conditions (bedrock at or near the existing ground surface, existing buildings) do not allow for City Standards to be met or the proposed alternative can meet or exceed purpose of Master Plan and be acceptable to the Public Works Director .
- iii. Phasing plan as applicable for phased redevelopment of the site.





OREGON CITY

Community Development – Planning

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LAND USE APPLICATION FORM

Type I (OCMC 17.50.030.A)

- ☐ Compatibility Review
- ☐ Lot Line Adjustment
- ☐ Non-Conforming Use Review
- ☐ Natural Resource (NROD) Verification

Type II (OCMC 17.50.030.B)

- ☐ Extension
- ☐ Detailed Development Review
- ☐ Geotechnical Hazards
- ☐ Minor Partition (<4 lots)
- ☐ Minor Site Plan & Design Review
- ☐ Non-Conforming Use Review
- ☐ Site Plan and Design Review
- ☐ Subdivision (4+ lots)
- ☐ Minor Variance
- ☐ Natural Resource (NROD) 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
- ☐ Municipal Code Amendment
- ☐ Variance
- ☒ Zone Change

File Number(s): CP 14-02, ZC 14-03, PZ 14-01

Proposed Land Use or Activity: Zone change and general development plan to create framework for future development at Willamette Falls site. No specific building projects proposed in short term.

Project Name: Willamette Falls Legacy Project Number of Lots Proposed (If Applicable): n/a

Physical Address of Site: 419 Main Street

Clackamas County Map and Tax Lot Number(s): 2-2E-31BD tax lots 300, 500, 600, 390

Applicant(s):

Applicant(s) Signature: *George Heidgerken*

Applicant(s) Name Printed: George Heidgerken, Falls Legacy L.L.C. Date: 7-16-2014

Mailing Address: 3303 S. 35th Street, Tacoma, WA 98409

Phone: _____ Fax: _____ Email: _____

Property Owner(s):

Property Owner(s) Signature: _____

Property Owner(s) Name Printed: (same as above) Date: _____

Mailing Address: _____

Phone: _____ Fax: _____ Email: _____

Representative(s):

Representative(s) Signature: *Ben Schonberger*

Representative (s) Name Printed: Ben Schonberger, Winterbrook Planning Date: June 16, 2014

Mailing Address: 310 SW 4th Avenue, #1100, Portland, OR 97204

Phone: 503-827-4422 Fax: _____ Email: ben@winterbrookplanning.com

All signatures represented must have the full legal capacity and hereby authorize the filing of this application and certify that the information and exhibits herewith are correct and indicate the parties willingness to comply with all code requirements.

Application for a General Development Plan and Zone Change
Willamette Falls Legacy Project



Prepared for the:
City of Oregon City

Prepared by:
Winterbrook Planning
310 SW 4th Avenue, #1100
Portland, Oregon 97204

In collaboration with:
Walker Macy
Falls Legacy LLC

JULY 2014

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- A. Transportation Report (DKS)
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- C. Historic Resource Matrix (Walker Macy)
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- F. Multi-Modal Mixed Use Area Documents
- G. Public Engagement Summary

General Information

Applicant:	George Heidgerken Falls Legacy LLC 3303 South 35 th Street Tacoma, Washington 98409
Consulting Team Project Manager:	Ken Pirie, AICP Walker Macy Phone: (503) 228-3122 Ben Schonberger, AICP Winterbrook Planning 310 SW 4th Avenue, Suite 1100 Portland, Oregon 97204 Phone: (503) 827-4422
Site Address:	419 Main Street (TL500), no address (TL 300)
Tax Lot Numbers:	2-2E-31BD-00300, 500, 600, 390
Site Size:	21.94 acres (hereafter rounded up to 22 acres)
Zoning/Comp. Plan:	General Industrial (GI)/ Industrial
Neighborhood Assoc.:	Two Rivers
Application:	Zone Change, Comprehensive Plan Change, General Development Master Plan
Procedure Type:	Type III/IV
Pre-Application No.:	PA 13-38 (Date of Meeting: December 4, 2013)
Proposal Summary:	Proposed Zone Change and Master Plan to create a framework for future development of the site. No specific building projects proposed in the short term. Future development can include a combination of open space, commercial, residential, and employment uses, with provisions for public access and enhancement of riparian resources.

SECTION 1: PROJECT NARRATIVE

1. Existing Conditions (2014)

Project Site and Vicinity



Figure 1. Site boundary and vicinity.

Site History

This history of development at the Willamette Falls Project Site has been shaped by the falls, roaring nearby in the Willamette River. The largest waterfall by volume in the Pacific Northwest, it was long an important cultural and gathering place for Native American tribes. Located at a natural up and downstream stopping point on the river, the area around the Willamette Falls was a natural locale for Native American trade and fishing activity centuries before the arrival of Euro-Americans in the early 19th century.

Industrial development began at the site in 1829 when what was almost certainly the first permanent water-powered sawmill in the Oregon Territory was established by Dr. John McLoughlin. The need to portage around the falls and the availability of waterpower they offered made the site logical for settlement. Oregon City, later to become the territorial capital, was founded in 1829. As the “end” of the Oregon Trail, the city was incorporated in 1844. By the mid-19th century development lined both sides of the main commercial corridor, Main Street, in Oregon City. It consisted of various

water-powered industrial facilities including saw and flour mills, that were powered by small timber dams and water channels (mill races) cut into bedrock. Among these early industries, most significantly for this study, was the Oregon Woolen Mill, established in 1865. By the turn of the century the giant three-story woolen mill, along with other smaller industrial users, lined Main Street west of 4th Street extending out to the enlarged Willamette Falls Dam, constructed 1889- 1890 to power hydroelectric development. Throughout the late 19th and early 20th centuries, large-scale industrial users co-existed with typical main street businesses, including grocery stores, barbers, hotels, saloons, and banks, lining Main Street within what is now the Willamette Falls Legacy Project Site. Paper manufacturing, which began across the river in West Linn, expanded to Oregon City in 1908. Willard P. Hawley, formerly the plant manager at West Linn, purchased several water rights and established his own manufacturing plant at the base of the dam, on the site of the old Portland Flouring Mill. The Hawley Pulp and Paper Company grew significantly and by the mid-1920s occupied large portions of Main Street on either side of the Woolen Mill and across the street, on the east side, flanking the railroad/trolley line that still ran down this block of Main Street.

Continued expansion saw the Hawley Company, and later Publishers Paper and others, completely absorb all of Main Street south of 4th Street, resulting in the closure of the public right of way. The original plat, with Main Street and the numbered cross-streets, was vacated within the mill site. Despite the property's location, immediately adjacent to the downtown core of Oregon City, public access and any direct connection to the site and falls was almost entirely eliminated in favor of the industrial development. Expansion and new industrial construction associated with the paper mill, including water management and treatment facilities, continued into the 1970s. The Blue Heron Paper Company, which purchased the site in 2000, remained in operation until it closed in February 2011. Facing global competition and a shortage of wood fiber, the closure of the mill ended more than a century of paper-making activity in Oregon City.

Existing Use and Structures

The site is currently occupied by industrial buildings and infrastructure related to the recently-closed Blue Heron Paper Mill. The built elements of the site include remnants of previous uses.

Table 1. Existing Structures.

Building ID #	Building / Group Name	Building Area / Zone	Date of Construction	National Register Status (A)	Within Floodplain	Comments
1	Blue Heron Paper Office Building (Post Office)	Entire Building	1932/1970	UN	No	1960's Renovation of historic post office. No historic fabric remains intact. 2-story with partial basement. Concrete, steel and wood.
2	Water Filtration Plant	Filter Plant	1953	ES	No	Multi-story, pump room and multiple open air basins. Concrete and steel.
2A	Water Filtration Plant	Stair / Elevator Tower	1953		No	Multi-story, steel stair and elevator. Concrete and steel.
3	Water Filtration Plant	Control Tower	1953		No	Multi-story, 2 mixing basins and control room. Concrete and steel
4	Fire Station	One Story Addition - South	1955	NP	No	1 story, CMU / wood
5	Office	Restroom Addition - East	1953	NP	No	1 story, CMU / wood
6	Guard Shack	Entire Building	1953	NC	No	1 story, modular wood frame
7	Mill 'D' - North Train Siding on 4th Street	Entire Structure	1947	ES	No	Open roof structure attached to Mill 'D' Warehouse. Steel frame
8	Mill 'D' - Metal Roof west end of 4th St	Entire Structure	TBD		No	Open roof structure. Steel frame
9	Mill 'D' Warehouse	No. 3 Warehouse	1910 - 1916		Partially	1 story with multiple basements. Concrete, steel
10	Mill 'D' Warehouse	No. 3 Finishing	1910 - 1916		No	1 story with full basement. Concrete, steel, wood
11	Mill 'D' Warehouse	No. 2 Finishing	1925		No	1 story with full basement. Concrete, steel, wood
12	No. 2 Paper Machine	Entire Building	1910	ES	No	2 story with multiple basements. Damaged by Fire, Floor Mill foundations pre 1888, + Drive shaft and fly wheels in sub-basement
13	No. 3 Paper Machine	Main Building	1913	ES	Partially	1 story with multiple basements. Concrete, steel
14	No. 3 Paper Machine	West Additions	Post 1962, Post 1972		Partially	2 story on raised structure. Concrete, steel, wood
15	Butler Building east of No. 2 Paper Machine	Entire Building	1970's	NC	No	1 story, built over pipe chase. Steel pre-fab structure
16	Roof Structure over 3rd Street Access	West	Post 1972	NP	Partially	Open roof structure. Steel
17	Roof Structure over 3rd Street Access	East	Post 1962	NP	Partially	Open roof structure. Steel
18	Mill 'O'	Mill 'O'	1918	ES	Yes	Concrete exterior walls with heavy timber framing, multi-story with partial basement
19	Carpentry Shop	Entire Building	Pre 1911	ES	Yes	2 story. Heavy timber frame, translite siding
20	Pipe Shop	Entire Building	1960's	NC	Yes	1 story. Steel pre-fab structure
21	Millwright Shop	Entire Building	1960's	NC	Yes	1 story + mezzanine. Steel pre-fab structure, partial CMU interior walls
22	Auto Shop	Entire Building	Mid 1950s	NC	Yes	1 story. Concrete exterior walls, steel frame

Building ID #	Building / Group Name	Building Area / Zone	Date of Construction	National Register Status (A)	Within Floodplain	Comments
23	North Woolen Mill Stone Walls and Foundations	North	Pre 1888	ES	Yes	Basalt masonry walls
24	North Woolen Mill Stone Walls and Foundations	Partial Roof Covering	Post 1977	NP	Yes	Open roof structure / 1/2 bay. Steel pre-fab structure
25	South Woolen Mill Stone Walls and Foundations	South	Pre 1892	ES	Yes	Basalt masonry walls
26	South Woolen Mill Stone Walls and Foundations	Roof Covering	Post 1977	NP	Yes	Open roof structure. Steel pre-fab structure
27	South Substation	South Substation	Post 1962	NC	Yes	1 story with raised transformer platforms. Concrete
28	Mill 'G'	Recovery Boiler	1950's	ES	Yes	Multi-story with multiple basements. Concrete, steel
29	Mill 'G'	Boiler Plant	1949	ES	Yes	Multi-story with multiple basements. Concrete, steel
30	Mill 'H'	Deink / THP Area	1950's	NP	Yes	Multi-story with full basement on raised structure, connected to sea wall. Concrete, steel
31	Mill 'H'	THP Reject Refining	1970-1979	NP	Yes	Multi-story with full basement on raised structure, connected to sea wall. Concrete, steel
32	No. 1 Paper Machine	West Hawley	1917	ES	Yes	1 story with full basement, connected to sea wall. Concrete, steel, wood
33	No. 1 Paper Machine	4 Story Hawley	1917	ES	Yes	4 story with full basement, connected to sea wall. Concrete, steel, wood
34	No. 1 Paper Machine	Bleach Plant	1960	ES	Yes	Multi-story with partial basement. Concrete, steel
35	No. 1 Paper Machine	Rewind +	1962		Yes	1 story with full basement. Concrete, steel, wood
36	Mill 'E'	Main Building	1945	NC	Yes	Multi-story on raised base. Located within intake basin. Concrete, steel, wood
37	Mill 'E'	West Addition	1944-45; 1970's	NC	Yes	Multi-story on raised base. Located within intake basin. Concrete, steel, wood
38	Mill 'E'	Weld Shop	1970's	NC	Yes	1 story. Steel pre-fab structure
39	Sulphite Plant	Entire Building	1956	ES	No	Multi-story with full basement. Concrete, steel, Translite siding
40	Digesters	Entire Building	1890 / 1910	ES	No	4 story access walkway, wood chip convivance loft and partial basement. Steel frame with Translite siding.
41	Save All	Entire Building	Post 1972	NP	No	Steel frame structure supported on tile tank
42A	No. 4 Paper Machine	South Addition	1923	ES	No	Multi-story with full basement. Pre 1928 Building replaced after Main Building was completed. Addition extends over Main Building.
42	No. 4 Paper Machine	Main Building	1928		No	Multi-story with full basement. Concrete, steel.
43	No. 4 Paper Machine	North Addition	Post 1972		NO	Multi-story with full basement. Concrete, steel.

Building ID #	Building / Group Name	Building Area / Zone	Date of Construction	National Register Status (A)	Within Floodplain	Comments
44	No. 4 Finishing Room / Warehouse	South Addition	1928	ES	No	Multi-story. Structurally integrated with rail line. Concrete, steel
45	No. 4 Finishing Room / Warehouse	Central	1911	ES	No	Multi-story. Structurally integrated with rail line. Wood Frame
46	No. 4 Finishing Room / Warehouse	North	Pre-1925	ES	No	Multi-story. Structurally integrated with rail line. Wood Frame
47	No. 4 Finishing Room / Warehouse	Shipping Shed	1977	ES	No	1 story open structure. Steel pre-fab structure
48	North Substation	Entire Structure	1927	NC	No	Multi-story steel support frame
49	Mill 'B' - Deink	Entire Building	1927	ES	No	Multi-story. Concrete, steel
50	Deink ONP Repulper	Central	1953	NC	No	1 story. Concrete, steel
51	Deink ONP Repulper	North	1960's	NC	No	1 story. Concrete, steel
52	PGE Dam Structure	Entire Structure	1943, prior	ES	Yes	Concrete
53	Pipe Chase Cistern	Entire Structure	1967	NP	Yes	Concrete
54	Clarifier Control Structure	Entire Structure	1967	NP	Yes	Multi-story. Concrete, steel
55	Clarifier	Entire Structure	1967	NP	Yes	Open concrete tank on basalt bedrock terrace
56	Sulphite Sphere / Tank	Entire Structure	Post 1947	NC	Yes	Riveted steel spherical tank on steel support structure
57	Multiple Tile Tanks	Entire Structure	Varies	NC/NP	Varies	Tile containment tanks for paper making processes.

Historic Structures

As the result of its long association with the development of area industries and its role in the history of both Oregon and Oregon City, the area bordering the Willamette River at the Willamette Falls has been evaluated several times for historic significance.

Portions of the property, as discussed below have been “Determined Eligible” for listing on the National Register of Historic Places (NRHP). As the result of the relicensing process for Portland General Electric’s Willamette Falls Hydroelectric Project (FERC No. 2233), the Willamette Falls Industrial Area was first “Determined Eligible” for listing as a historic district on the National Register in May 2003. This determination identified 46 built resources on both sides of the river, including 23 located on the Oregon City side. The 2003 U. S. Department of Energy (DOE) request identified 13 resources as “Historic Contributing” on the Oregon City side and thus considered “eligible” for listing on the

NRHP. The DOE process looked largely at the historic and associative values of the structures with less attention to their physical/structural character.




The City of Oregon City re-evaluated the site in February 2011 and completed an updated survey in May 2012. Oregon State Historic Preservation Office and Oregon City concluded that the Willamette Falls Legacy Project Site was not eligible for listing as a National Register District. They agreed, however, that multiple structures within the project area were eligible for such designation *individually*. Sixteen built resources were determined Eligible/Significant, including all the previously evaluated “contributing” buildings.



A site stabilization report and survey, conducted for this master plan in 2012, assessed site structures with an eye towards adaptive re-use. A team consisting of a historic resource expert, a structural engineer, and an architect evaluated 57 individual resources on the site and scored them according to three categories: Historic, Reuse, and Structural. (A complete structural analysis was not completed for this report.)

The resulting analysis determined that although many of the site buildings had strong historic value, four buildings and one building remnant stood above the rest as having the greatest potential for re-use. These are the following, pictured below:

- De-Ink Building
- #4 Paper Machine
- Mill O
- Hawley Building
- Woolen Mill Foundation

Table 2. Primary Historic Buildings

Building	Photo	Notes
De-Ink		1927; concrete and steel structure; outside floodplain
#4 Paper Machine		1928; concrete and steel structure; outside floodplain
Mill O		1918; concrete exterior walls with heavy timber framing

<p>Hawley Building</p>		<p>1917; 4-story building; connected to sea wall; concrete, steel, wood</p>
<p>Woolen Mill Foundation</p>		<p>Pre-1892; basalt masonry walls</p>

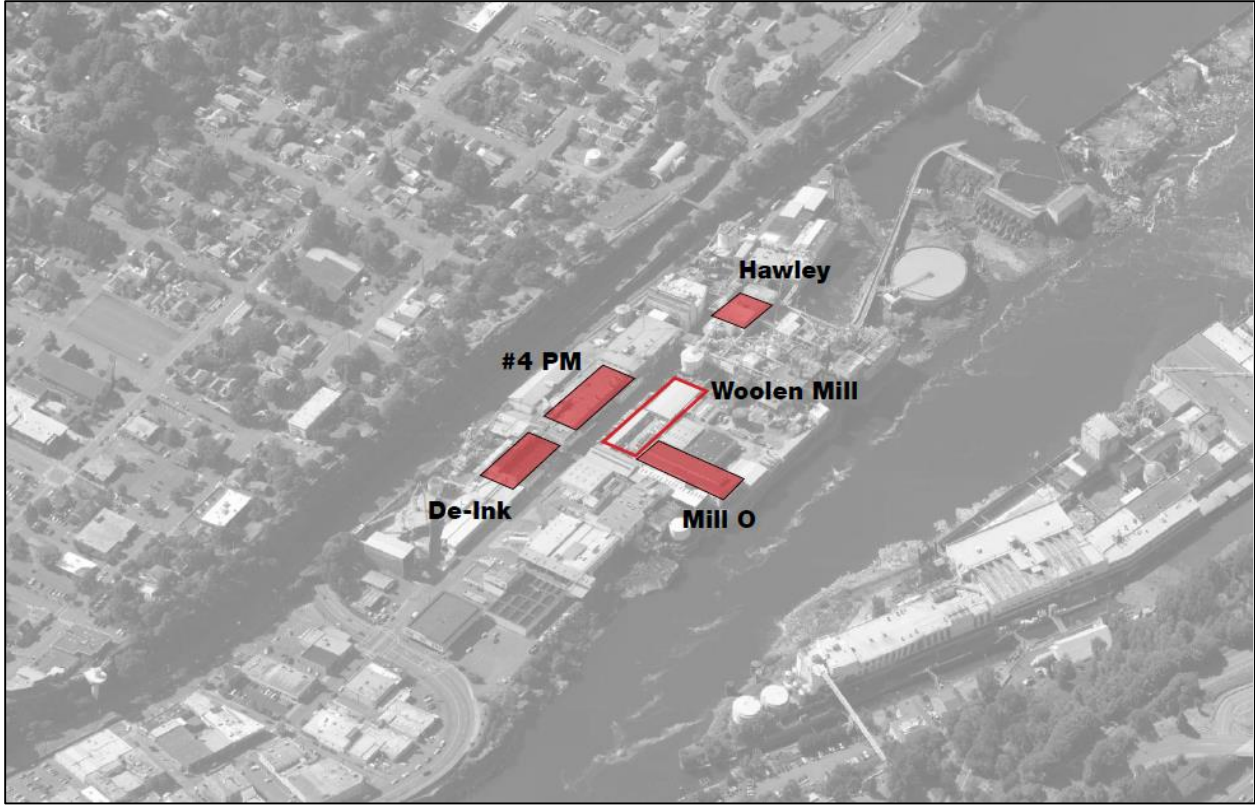


Figure 3. Location of primary historic structures.

These structures have a combination of historic value, potential for re-use, and structural integrity that was considered most worth saving in future re-development.

A second tier of historic structures are historically valuable, but are somewhat less prominent, and may be more difficult to re-use in a modern context. These structures are: the digesters, the sphere, #1 Paper Machine, boilers, and the Oregon City Flour Mill foundation, which is located under #3 Paper Machine.

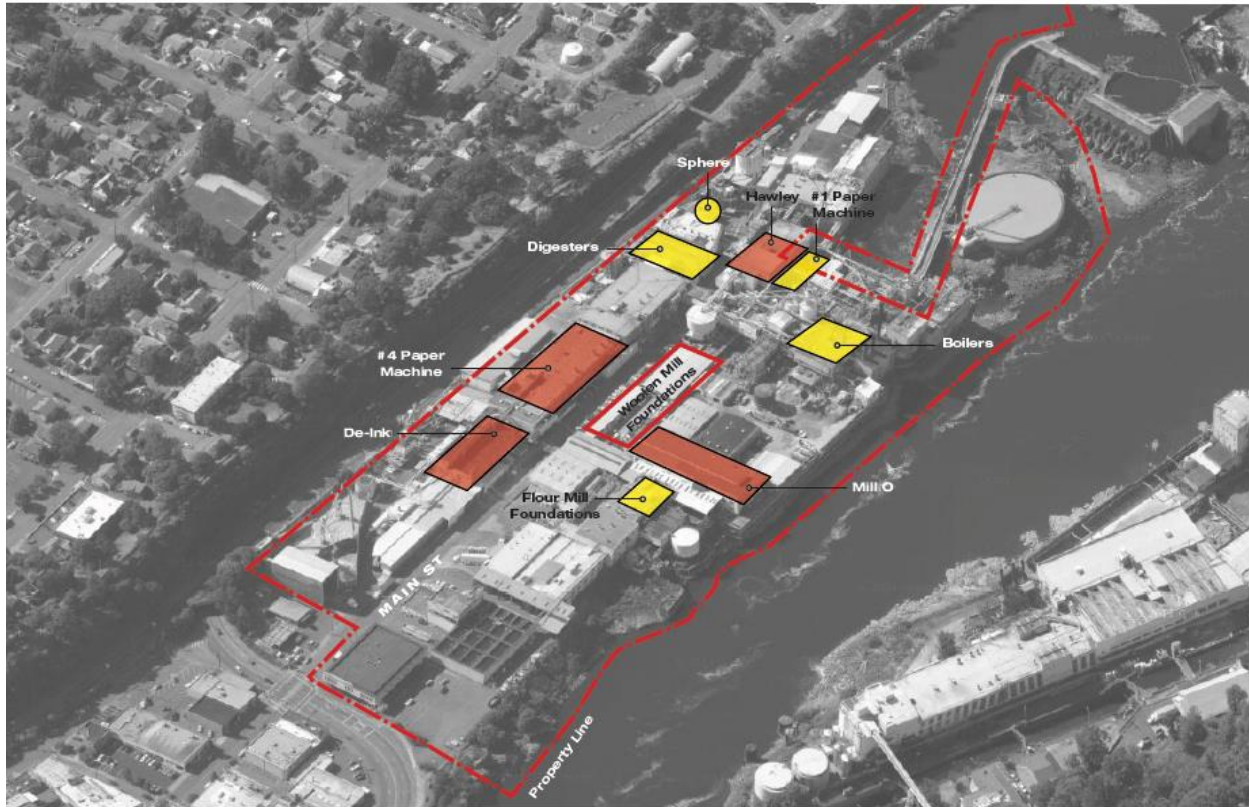


Figure 4. Location of secondary historic structures, in yellow.

These structures convey an industrial history of the site and may be incorporated in some way with future redevelopment plans. Elements of these structures, either whole or in part, should be considered for preservation, reuse, or relocation.

Other buildings and structures on the site were considered to have less value historically. While they may be rehabilitated or incorporated into new development, they are lower on the hierarchy of preservation than the structures identified above. However, future developers are encouraged to reuse or repurpose any of these elements onsite as part of redevelopment projects, as they help in conveying a connection to the past history of the site. An assessment of existing structures and their relative historic value is included as an appendix to this application.

The historic resources analysis described above, along with the determinations of eligibility from the State Historic Preservation Office in 2002 and 2012, was the foundation for master planning efforts and is tied to one of the four core values, namely, cultural and historical interpretation (See "Meeting Four Core Values," page 50). Work performed by the consultant team relating to adaptive reuse, habitat opportunities, economic development and real estate have repeatedly affirmed the approach to preserving or adapting historic buildings.

Utilities

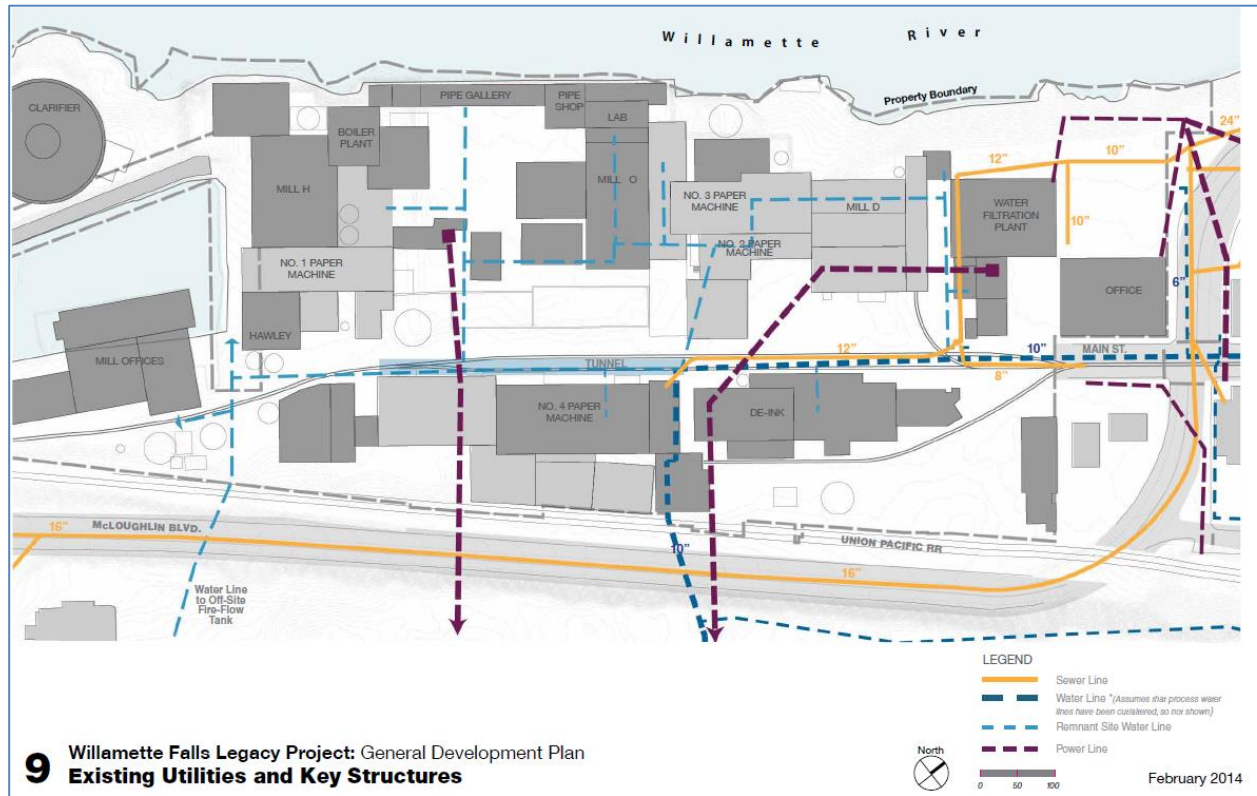


Figure 5. Existing site utilities.

Existing utilities throughout the redevelopment area are largely private lines used to support the prior industrial Blue Heron Paper Mill operations, with limited public water and stormwater infrastructure within the vacated right-of-ways. When the site was in active industrial use, stormwater runoff was combined with effluent from mill processes, pumped to the West Linn side of the river, treated, and discharged into the river. The closure plan – approved by Oregon Department of Environmental Quality – ended this method, and current management incorporates on-site systems and the historic mill races to treat stormwater and discharge into the river on the Oregon City side.

Existing utilities are mostly antiquated and in poor condition, and unsuitable for reuse. Secondary mill operation utilities will be removed as part of redevelopment.

Water

A 10-inch cast iron public water main runs through the northern end of the site and is the primary supply to downtown Main Street. The existing main hangs vertically off the bluff, east of Highway 99E before crossing below the highway and the railroad where it enters the site at the vacated 3rd Street right-of-way. The main follows 3rd Street and

turns north along Main Street, and then continues north to downtown. Pressure reducing valves are located at the top of the bluff and near the intersection of Main Street and Highway 99E.

The vertical line hanging off the bluff was recently repaired in late 2013 by Oregon City crews after a cold snap froze the line and caused a leak. Oregon City is evaluating long term replacement alternatives for this line to be implemented in the next 10-20 years.

Fire Protection

There is a separate, private 8-inch water line that enters the site from the south, supplied from a 100,000 gallon storage tank on the bluff off High Street. This line supplies fire sprinkler systems on existing buildings. It also hangs vertically off the bluff, east of Highway 99E, before crossing below the highway. The line is exposed again west of the highway above the railroad. It remains exposed as it drops to pass below the rail where it enters the site at the vacated 2nd Street right-of-way.

Approximately 14 fire hydrants are located throughout the site, presumably fed from private water mains extending from the 10-inch public line within the vacated right-of-way noted above.

Sewer

A 12-inch sanitary line flows north in Main Street from 3rd and 4th Street. An 8-inch line also flows south in Main from 5th to 4th Street where it ties into the 12-inch line. There are other secondary sewer lines from the northern part of the site that connect to this system. The main continues west in 4th Street and north in Water Street before it ties into the Tri-City Service District Willamette Interceptor at the intersection of Water Street and Highway 99E.

An existing storm manhole at 3rd Street and Main has been modified to divert low flows from an 18-inch storm line flowing west in 3rd Street to the 12-inch sanitary line flowing north. During larger storm events, the flow would overtop the weir to the existing storm outfall at the river.

While the paper mill was operational, a network of private sanitary lines collected and conveyed industrial waste water to the clarifier, before being pumped across the river. Much of this system was removed during the salvage operation, which included construction of the Interim Stormwater Post-Closure Plan to retrofit the site drainage to the tailraces – the channels that conveyed water through the site and back to the river.

Stormwater

Two storm mains pass through the site and discharge to the Willamette River: an 18-inch main in 3rd Street that discharges to Outfall C (City ID 40016) and a 12-inch main in 4th Street that discharges to Outfall 2 (City ID 40017). The 18-inch main in 3rd Street

conveys stormwater from Highway 99E and the storm network on the bluff to the south. It is unknown if any portions of the site currently discharge into this storm main. The storm manhole at 3rd Street and Main has been modified to divert low flows from the 18-inch line to the 12-inch sanitary line flowing north. During larger storm events, flows overtop the low wall, or weir, to the existing storm outfall at the river. The 12-inch main in 4th Street collects surface runoff from the site, north of 3rd Street.

The site also contains three tailraces that outfall to the Willamette River. These tailraces are remnants of natural flow channels that were disturbed when the dam was constructed and the original paper mill was built. Flow to these tailraces is mostly limited to site runoff after the construction of the Interim Stormwater Post-Closure Plan. The closure plan was a requirement by the bankruptcy trustee when NRI Global, the salvage contractor, finished its demolition activities onsite. The Stormwater Post-Closure Plan was approved by the Oregon Department of Environmental Quality in the fall of 2013. The site is currently in compliance with Oregon storm water regulations.

Transportation Conditions

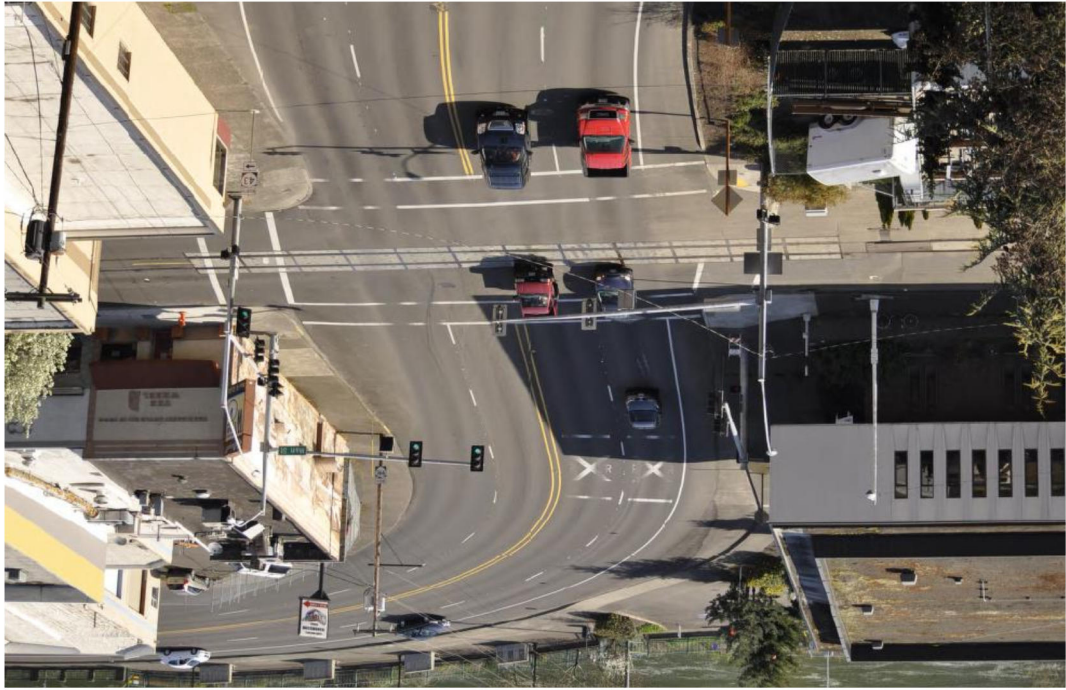


Figure 6. Intersection of Main Street and 99E.

The site is publicly accessible from only two points, the intersection of Main Street and McLoughlin Boulevard (Oregon State Highway 99E), and a small parking lot off 99E at the northwest corner of the site. A locked gate at the entrance restricts access deeper into the site. Historically, the site was served by a grid of streets, the spine of which was

a very active Main Street, filled with commercial and residential uses. Main Street was continuous across what is now 99E, continuing from downtown the south end of the Willamette Falls site. An inter-urban trolley utilized Main Street through the site to its terminus in Canemah Park until the mid-1950s. Over time, industrial uses became more dominant, and public streets were vacated as the paper mill consolidated operations. Remnants of the historic street system are still present, and some served the mill as internal circulation patterns for heavy equipment and vehicles. Today, there is neither vehicular nor pedestrian access to the site open to the public, other than the parking lot entrance from 99E.



Figure 8. Vacated Main Street on the site, looking south.

Likewise, non-motorized transportation is not open to the public. Pathways between and around buildings were established based on the industrial uses of the site. Pedestrian and bicycle access to the former industrial site is currently not permitted.

Flood Zones

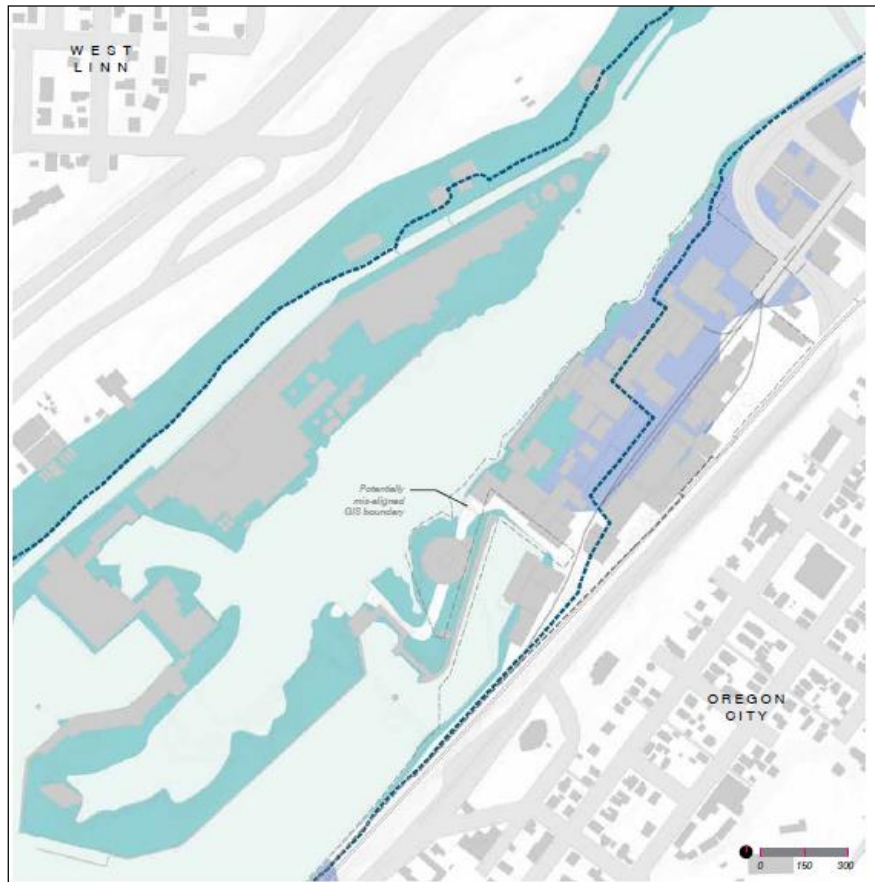


Figure 9. 100 year flood plain and 1996 flood boundary.

Because of its location on the Oregon City riverfront, areas of the site are prone to flooding. The last two major flood events to occur on the site were in 1964 and 1996.



Figure 10. Site flooding, 1964 (left) and 1996 (right)

Oregon City designates two land areas as part of its local flood management area: the Federal Emergency Management Agency-mapped 100-year floodplain, and areas inundated by the 1996 flood. The 1996 flood inundation boundary is larger than the FEMA 100-year flood zone, which covers only the southwestern portion of the site. Taken together, the city's flood management area covers 12.5 acres of the 22 acre site.

Available 1996 flood inundation information is the best available data, and it has been used as an organizing framework for the master plan. However, conditions on the site have changed substantially in the last 18 years and further hydrologic analysis could be done to refine this boundary. Nevertheless, this application proposes no amendments to the city's flood management overlay district. New development will be subject to the existing flood overlay district requirements at the time of development. Further hydrological studies may provide additional refinement to the Flood Overlay District and should be anticipated with future development.

Natural Resources

Natural resources on the site are related to the proximity to the river, and its 4,500 feet of shoreline. Currently, habitats are relatively small and fragmented in part due to the presence of major highways along the river (I-205 and 99E), the railroad, and heavy industrial development along the shoreline. Habitat areas identified on this site include: Willamette River shoreline, tailraces, intake basin, and the developed area. The shoreline is in two sections, downstream of the falls and the upstream of both the falls and intake basin. The intake basin is connected to the Willamette River and is part of the shoreline.



Figure 11. Riverbank along site.

A variety of fish species in the river adjacent to the site include at least six federally listed, threatened, endangered, or sensitive species. Anadromous fish present in the Willamette River include: Chinook salmon, steelhead, coastal cutthroat trout, Coho salmon, white sturgeon, Pacific lamprey, and bull trout. Gulls, mergansers, cormorants, and great blue herons congregate in the spring and fall to feed on out-migrating juvenile salmon at the falls. Besides native migratory species, 23 introduced species are found within the lower Willamette River, including sockeye salmon, brown trout, brook trout, American shad, and multiple warm water game fish such as bass, crappie, and catfish. In addition, significant reductions in the presence of wildlife have been occurring on and around this site for over a century due to habitat losses associated with conversion of forests to agricultural use in the early 1800s, followed by increasing development through the 19th and 20th centuries.

Riparian forests in the vicinity have been disturbed to varying degrees by management of adjacent lands. Dominant species in nearby riparian forests include red alder, black cottonwood, Oregon ash, and big-leaf maple. Douglas-fir and Oregon white oak are also present on drier sites. Understory species vary with red-osier dogwood, willows, and salmonberry along the river margin and Armenian blackberry thickets occur along roadways and in sunny openings. Ocean spray, snowberry, and rose are common where soils are drier. Hazelnut and Douglas hawthorn are scattered.

In a landscape context, the habitat areas currently found on-site, though relatively small in size and fragmented with low structural and species diversity still provide some habitat functions in the region. Because of the small size and fragmentation, these habitats are subject to edge effects (*i.e.*, influence from recreation, residential and industrial use) as well as island effects. Habitats with a high edge to interior ratio are generally occupied by species with small home ranges, broad habitat requirements, and a relatively high tolerance to human activity. Riverside habitat is extremely important to birds, even small patches, due to the relative scarcity in the region. Small connector patches are essential to maintain connectivity along the river for migratory birds.

Historic/Cultural Resources

Archaeological evidence of Native American activity around Willamette Falls potentially dates to as early as 13,000 years ago when the last of the Missoula Floods swept down the Columbia River. Petroglyphs on the rocks at the falls are visible and an obvious element for interpretation. The oral literature of the Chinookan and Kalapuyan peoples refer to Willamette Falls. After Celilo Falls near The Dalles, Willamette Falls is often cited as the second most important trading center in the Pacific Northwest.

Archaeological evidence, including artifacts of Euro-American manufacture often referred to as “trade goods,” are likely to be recovered during future investigations and will contribute to the picture of native life ways in this critical period. The applicant anticipates working with the city, State Historic Preservation Office and associated tribes to create a best practices inadvertent discovery plan when proposed development could disturb native soil.

Project leadership has initiated a dialogue with the Confederated Tribes of the Grand Ronde. The Confederated Tribes of Grand Ronde is the Willamette Valley Treaty Tribe which ceded much of the land in the valley to settlers, including Willamette Falls and the Blue Heron mill site. Team members continue to outreach to the other Tribes with an interest in the area, including the Confederated Tribes of the Siletz Indians, the Confederated Tribes of the Umatilla Indian Reservation, the Confederated Tribes of Warm Springs, and the Confederated Tribes and Bands of the Yakama Nation.

Founded in 1829 and incorporated in 1844, Oregon City was one of the earliest Euro-American settlements in the Oregon Territory, serving as its capital from 1848 to 1851. The original street grid is still discernible among the industrial structures and buildings covering the site today. Remains of commercial and residential structures – not only foundation walls but also such features as hearths, wells, privies – are still on the site from the period from 1829 to the 1880s, an era which is poorly documented in the historical record.

Features associated with early industries, such as rock or brick walls, wells and other water-control features, are present on the site. Features dating to the period from 1829 to the 1880s are potentially most important, at least in part because they are unlikely to have been documented in the historical record. The most impressive physical remains from this period are the stacked basalt masonry walls from the three-story Oregon Woolen Mill established in 1865. While the lower portions of these walls are visible today, future investigations may expose additional features that contribute to interpretation of the mill walls.

The more recent period of industrial development is well documented in Sanborn Fire Insurance maps (available from 1888, 1892, 1900, 1911, and 1925), which provide an invaluable guide to identifying and interpreting archaeological remains uncovered. Because of the site's rich history, strategic archeological monitoring is recommended whenever the disturbance to native soil is proposed. As this site has been heavily manipulated, specific requirements on architectural mentoring will be addressed at the time of individual project review.

Land Use History

City land use files go back only as far as the 1980s. While there are numerous land use review cases in the city's database, relating to this property none have conditions that still apply to the site. File numbers for land use actions on the site are listed below.

Table 3. Land Use Case History

CU 95-13	CU 94-04	CU 83-03	SP 95-41
CU 95-09	CU 88-03	CU 80-06	PA 99-50
CU 95-18	CU 86-04	CU 81-08	PA 05-09
SP 88-6	CU 82-00	CU 93-06	SP 95-41
CU 97-02	CU 95-09	CU 95-13	PA 99-50

The land use actions at the site were for site plan and design review activities related to construction or modification of industrial buildings or uses at the site. None are applicable to the proposed uses or development included in this master plan.

2. Master Plan

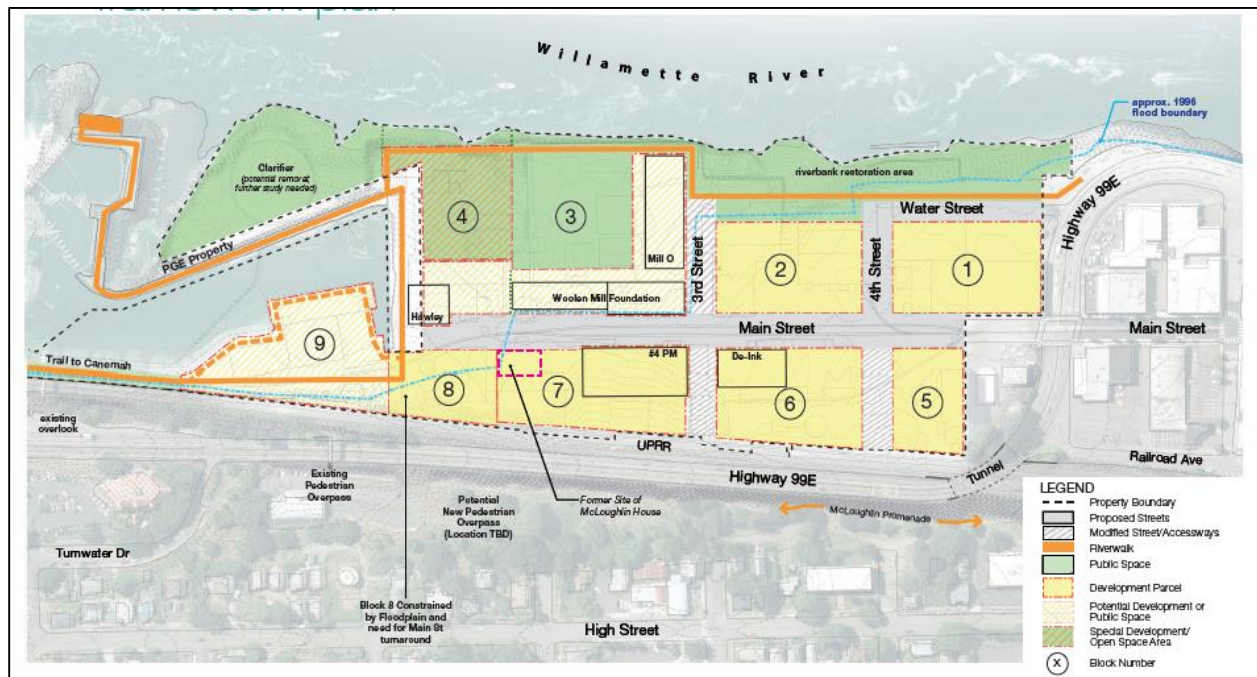


Figure 12. Overall framework plan.

Purpose

The master plan creates a regulatory framework that encourages and enables revitalization of the site, and serves to remove barriers to redevelopment. Finding the right balance between certainty and flexibility for the public and a future owner is a driving goal for the framework plan. The new Willamette Falls Downtown zone and the master plan integrate public access, economic development, healthy habitat, and historic/cultural interpretation, the four core values identified for the project. Changes to the site enabled by this plan will elevate it into a regional amenity and a four-season destination location, stimulate private investment and job creation, improve riparian habitat, and honor the unique heritage of the place. Revamping underlying land use controls help the project move closer toward these goals. Specifically, this master plan delineates areas of the site for re-development, open space, streets, habitat restoration, and public paths and trails.

Site Context

The Willamette Falls Legacy Project site's striking forms and patterns represent centuries of shaping by powerful natural and cultural forces. The power of ancient geomorphology is expressed here in the presence of a complex, thunderous waterfall,

created by basalt flows blocking the course of a mighty river. These falls create an intrinsic sense of place and are a magnet for settlement and human interaction.

The river has two levels at the site, a calm, upper river ideal for travelers to approach and bypass the falls, and a wild, turbulent lower river that carves a channel below a steep riverbank. Millions of years of the river crashing over rock left a flat bench below looming cliffs, an ideal place for people to gather and trade. They gathered to celebrate the rich harvest of fish trying to work their way upstream. Later, they built industries and businesses centered on the transport of goods around the falls and on the use of the roaring volume of water to produce power.

The importance of this place as a transition point along the main transportation artery of a growing territory meant that it also became a destination for settlers and the people who managed this settlement. Long before streets were platted in Seattle, Portland or San Francisco, Oregon City's Main Street extended from the falls, through this site and north through the basalt bench, becoming the spine of a thriving Pioneer community and the legendary end of the Oregon Trail. At the south end of Main Street, a substantial structure has always stood as a sentinel welcoming travelers to the City, marking the furthest extent of settlement and industry at the falls.

As the administrative center of a growing U.S. territory, Oregon City was where the wild landscape was tamed into a network of streets and settled with homesteads. The core of the pioneer-era Oregon City represented this orderly distribution of land, with a grid of streets laid atop the basalt, intersecting with Main Street. As industry thrived in the late 1800s, the old pioneer community shifted away from the crashing water, replaced by larger and larger industrial buildings such as the Oregon Woolen Mills. These were still subordinate to the river's power, located away from violent floodwaters. Over time, the industrial buildings crept riverward, filling in the crevices of ancient waterfall and consuming more and more of the original settlement.

Still, the fundamental organizational element of this site remained, and ever-larger industrial structures continued to line Main Street and the associated grid of streets, creating a sense of enclosure and a continued sense of connection to the City, expressed many times daily as the flow of workers came and went down that street. Subsequent paper mills at this site have grown almost organically, adding a building here and a shed there, yet the underlying grid can still be deciphered. Looming cliffs to the east remain, while the western spread of development has been contained by the rushing waters of the river, accelerated by their descent over the falls.

Future Reviews

This application represents the first stage in approving future development on the site. The proposed zone change establishes underlying uses and development standards.

The general development plan is the first of Oregon City's two-step master planning process. Actual design proposals, within the framework set by this plan, will go through additional land use review.

The second step of the city's master plan process is a detailed development plan. Future development must follow both the zoning code standards and the principles set out in the approved-in-2014 general development plan.

In addition, future development in the Willamette Falls Downtown District must follow design guidelines, with each proposal processed as a Type III land use review that goes before the Oregon City Planning Commission. Only small projects that meet minor site plan and design review thresholds (OCMC 17.62.035) will be processed as a Type II review. For larger projects, a city-assigned Design Evaluation Board will provide feedback on the proposal, making an advisory recommendation to the planning commission via city planning staff.

In short, proposed development in the Willamette Falls Downtown District must comply with: district zoning standards, principles of the master plan including design guidelines, detailed development plan requirements, and any overlay zone requirements. Other layers of regulation that currently apply to the site will remain in place: natural resource, geologic hazard, flood management, and Willamette River Greenway overlays.

To deviate from the standards outlined here, applicants may amend or modify the approved master plan (OCMC 17.65.80). However, the easier path to project approval is follow the direction and principles outlined here.

Plan Boundary and Duration

The master plan boundary includes four contiguous tax lots (2-2E-31BD-0300, 500, 600, and 390). The plan does not include the PGE dam, which zig-zags into the site's south end. It also excludes a property at the northeast corner of the industrial area that is under different ownership, and zoned Mixed Use Downtown.

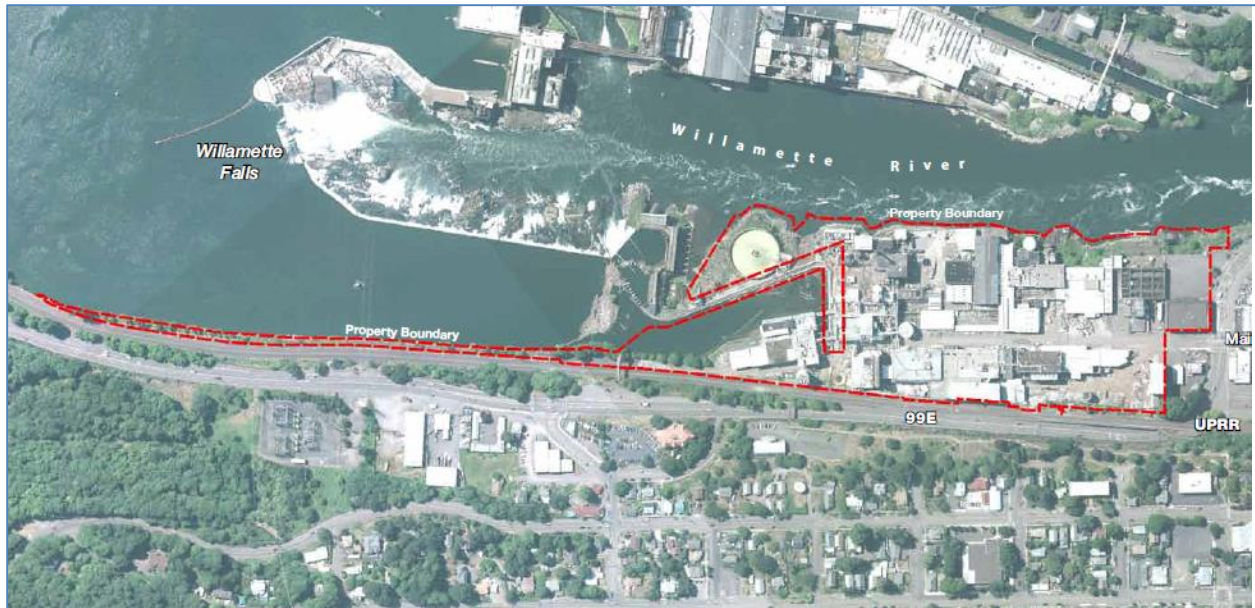


Figure 13. Master Plan Boundary.

The duration of this master plan is proposed to be the full 20 years allowed by Oregon City Municipal Code (“OCMC”) 17.65.050.B. The plan will 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 of 20 years. Because the framework plan is not tied to any specific owner, future development will be subject to the requirements in the master plan and to current municipal code requirements at the time of application.

Connections Into and Through Site

A primary organizing principle of the plan is creating connections into the site, for all different modes of transportation. Through this master plan, the historic street pattern of downtown will be re-established. A pedestrian-friendly network of local streets will link the district with the rest of Oregon City’s downtown. Historic Main Street will continue south across highway 99E and become the spine of the new district. Secondary streets will also follow historic patterns: east-west 4th and 3rd Streets, which follow the numbering convention evident in the existing downtown, and a new Water Street along the riverfront at the site’s north end. Because the site is hemmed in by topography and the river, a vehicular turnaround will be established at the terminus of Main Street at the south end of the district.

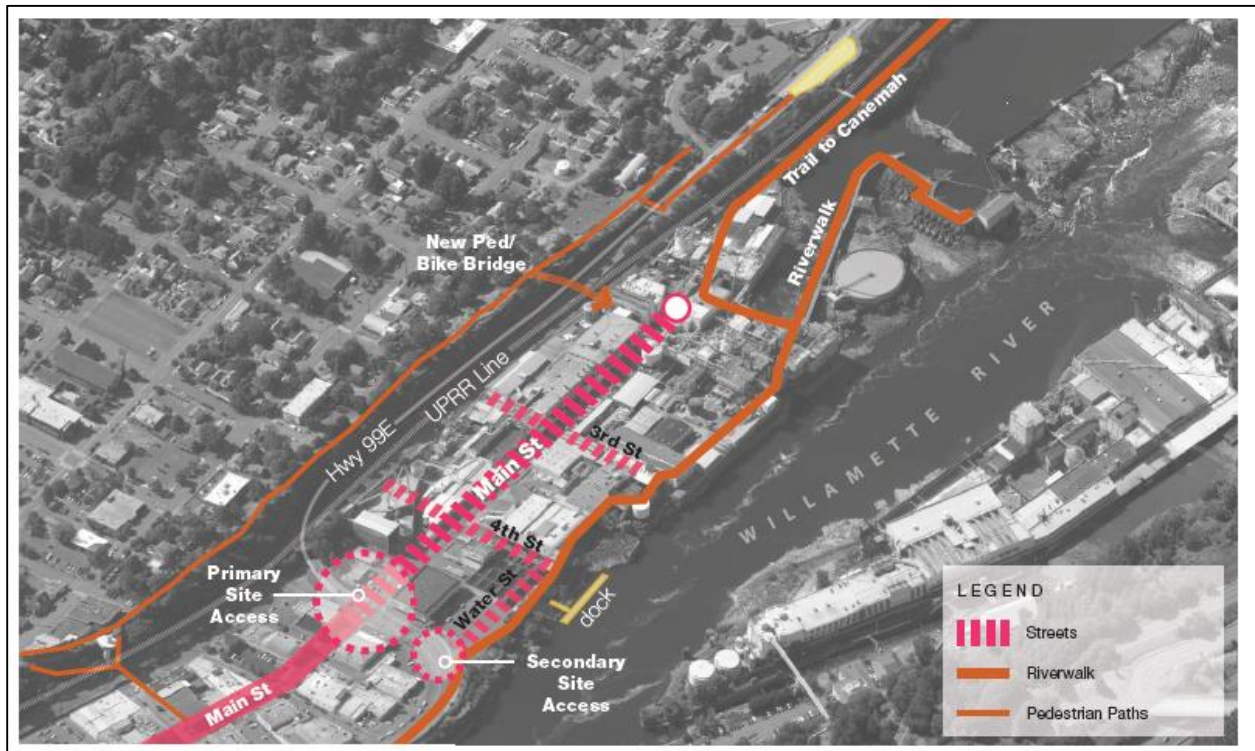


Figure 14. Transportation connections into and through site.

In addition to new streets, public access to the site will include pedestrian and bicycle connections. Continuing the existing Willamette River Terrace walkway along the river, the proposed plan shows a new path along the waterfront. This pedestrian/bike path will be located on the river's edge of existing and future buildings, and at the south end of the district, extend across the top of the dam out to the foundation of Mill A at the edge of the falls. A second leg of this path could follow the perimeter of Block 9 and would then parallel a rail spur to the south, toward Canemah. This path could provide connections to an existing trail network south of the Willamette Falls site.

This plan establishes the expectations for the general location and purpose of connections into and through the site. The final configuration and location of the pedestrian paths and streets will be determined during the development review process and through negotiations for a public easement across the site.

In planning for better site connectivity, the project team reviewed dozens of alternatives and balanced the needs of all modes: bicycle, pedestrian, and motor vehicle. The options for making improvements to the site were developed six general objectives in mind:

- Identify at least one additional site access point for motor vehicles
- Allow for safe left-turns for motor vehicle from McLoughlin Boulevard to Main Street
- Maintain adequate operating conditions at the McLoughlin Boulevard/Main Street intersection
- Create at least one additional safe crossing of McLoughlin Boulevard between Downtown and the site
- Create at least one convenient pedestrian and bicycle overcrossing of McLoughlin Boulevard and the railroad tracks at the south end of the site
- Create a continuous walking and biking connection between the Willamette River Terrace walkway and the site

Out of this analysis was developed a package of improvements to the existing public system of streets, sidewalks, and pedestrian paths which are proposed in the master plan, and will be constructed in combination with new development on the site. The package of improvements assumes increased use of the Willamette Falls site, from workers, residents, and visitors to new buildings and activities. Fortunately, engineering analysis shows that relatively light infrastructure improvements to the south end of the existing downtown and the north end of the new Willamette Falls District can accommodate the potential vehicular and pedestrian traffic in and out of the site.

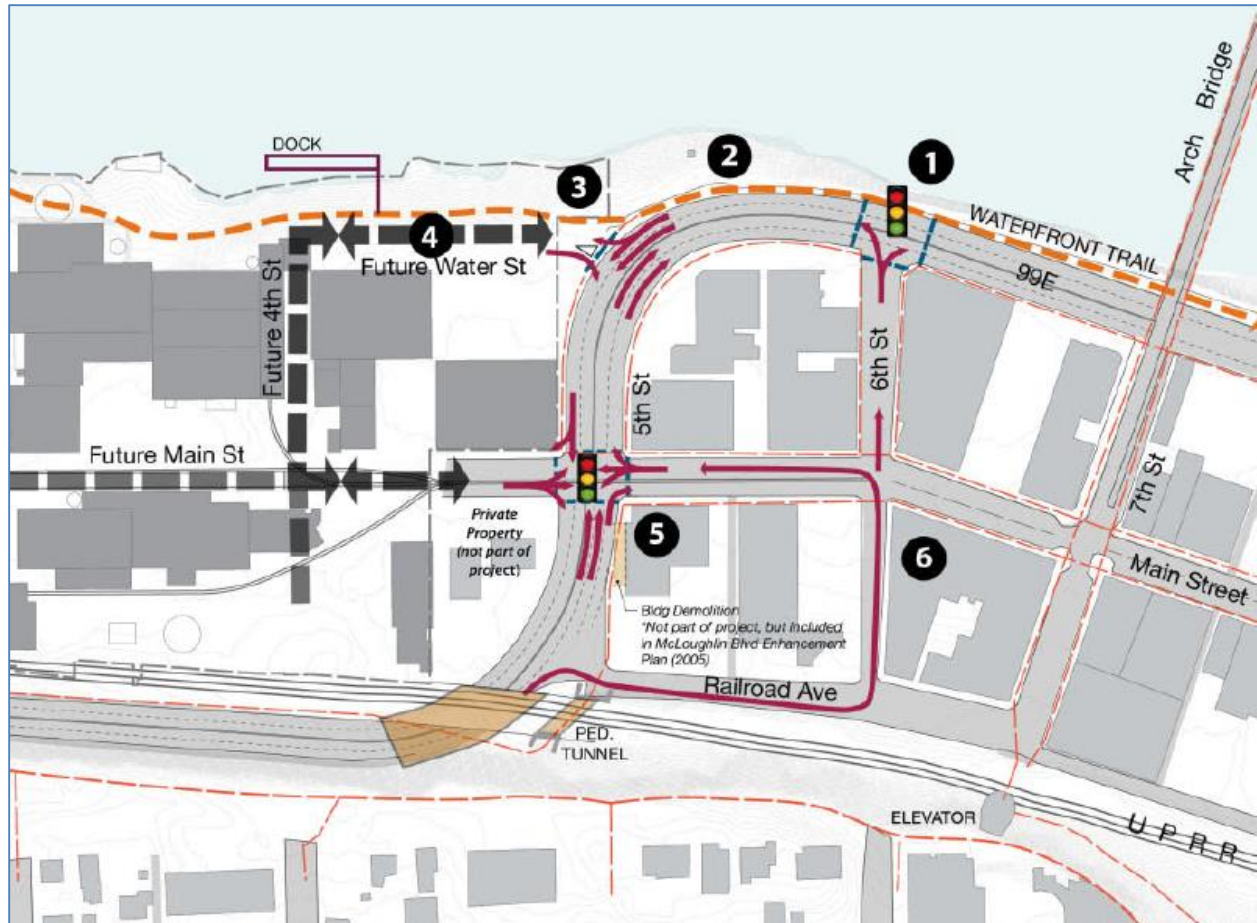


Figure 15. Future transportation improvements at site.

As shown in the diagram above, the package of changes from existing conditions includes the following.

1. A signal at 6th and 99E
2. A shared use path along the riverfront, connecting to the existing waterfront trail
3. Right in/Right out at Water Street
4. Water Street/4th Street connecting into the site
5. A northbound right turn lane at the Main/99E intersection
6. An indirect left turn (jug handle) route into site via Railroad Avenue, 6th Avenue, and Main Street
7. A pedestrian bridge over 99E at the south end of the site (not shown)

These improvements will enable the safe functioning of the transportation system in and around the site, while maintaining the urban design objectives of redevelopment. This conclusion is based on analysis done in cooperation with Oregon City and ODOT officials, and it assumes a high level of development and activity at the site. For motor vehicles, according to the analysis contained in the transportation report, through 2035,

“all study intersections are expected to operate under capacity ... with the increased traffic resulting from the Willamette Falls redevelopment having only minor impacts on the operational results.”

The transportation analysis includes a “toolbox” of multi-modal improvements that could help mitigate potential access and safety impacts generated by new development at the site. Because the size, type, and location of master planned development is not known, a range of options is provided. As individual projects are proposed, the appropriate transportation mitigation could be required.

Table 4. Toolbox of Multi-Modal Improvements

Potential Project	Improvement Type
<i>Walking/Biking</i>	
Install a traffic signal or HAWK signal at the McLoughlin Boulevard/ 6 th Street intersection	Walking/Biking Street Crossing
Upgrade the existing pedestrian crossing under the Oregon City-West Linn Arch Bridge	Walking/Biking Street Crossing
Expand the viaduct and extend the Willamette Riverfront trail west, from 10 th Street into the project site	Walking/Biking Access
Create a new overcrossing of McLoughlin Boulevard, linking the McLoughlin Promenade to the project site for pedestrians and bicyclists	Walking/Biking Access
Create a new overcrossing of the railroad tracks, linking an extended Willamette Riverfront Trail with the Canemah neighborhood	Walking/Biking Access
<i>Safety/Access</i>	
Create a new street connection to McLoughlin Boulevard via Water Street, between Main Street and 6 th Street. Turn movements should be restricted to right-in, right-out only due to limited sight distance. A median barrier may be needed on McLoughlin Boulevard to prevent left-turns. This would also require the construction of the proposed 4 th Street to provide a connection to Main Street	Site Access
Upgrade overhead street lighting inside McLoughlin Boulevard railroad undercrossing tunnel and along the highway fronting the site	Safety

Implement indirect left-turns for both northbound and southbound McLoughlin Boulevard	Safety/ Congestion
Install advanced access signing on both approaches of McLoughlin Boulevard and on side streets to direct visitors	Site Wayfinding
Install advanced signal warning system to warn motorists in advance to a red traffic signal and that they need to prepare to stop. They would continue flashing until the end of the red signal.	Safety
Install an end-of-queue warning system to alert approaching vehicles that the traffic ahead of them is slowing down or has stopped altogether.	Safety/ Queuing

Finally, this land use application also includes a request to create Multi-Modal Mixed Use Area (“MMA”), which is a provision in state law that lets cities increase development in downtown areas. Because MMAs are not subject to the same strict limits on traffic congestion as would be the case elsewhere, these areas must show they soften potential impacts by promoting mixed-use development, active transportation, and transit. These elements include providing pedestrian amenities, a variety of land uses, buildings oriented toward streets, transit access, etc. Oregon City’s existing downtown is included in the request for an MMA. The historic downtown and the new Willamette Falls Downtown District together meet all the standards for an MMA, and the city anticipates the city’s core will continue to attract a significant share of non-car trips.

Development and Open Space Blocks

After the street grid is established and areas prone to frequent flooding are mapped on the site, a schematic plan for the development emerges. First, streets segment the property into regular, development-ready blocks. Areas to the north and farther away from the river edge—that is, outside the flood area—are more appealing building sites. Conversely, the more vulnerable blocks to the south are better suited for park and open space uses with some potential for re-development of existing buildings above the flood plain elevations

The *nature* of development depends on specific future proposals, but the *pattern* of development is directed by this master plan. The blocks created by the street grid can be divided into two categories: development or open space/waterfront. Blocks 3 and 4 are hybrids, designated for waterfront/open space uses but with some room to develop or preserve existing historic structures.

Table 5. Development and Open Space Blocks.

Block	Use Category	Size (acres)	Notes
1	Development	1.17	
2	Development	1.15	
3	Waterfront/ Open Space	2.65	Mill O, Woolen Mill Foundation
4	Waterfront/ Open Space	1.48	Hawley
5	Development	0.62	
6	Development	1.17	De-Ink
7	Development	1.30	#4 Paper Machine
8	Development	0.62	
9	Waterfront/ Open Space	1.45	

Table 6. Summary of District Land Uses

Land Use Category	Acreage	Share of total
Development or Open Space	11.6	53%
Undevelopable (rock outcrops, lagoon, steep riverbank, etc.)	5.8	26%
Streets	3.0	14%
Spur to Canemah	1.5	7%
<i>Total</i>	<i>21.9 acres</i>	<i>100%</i>

Full build-out of the property will add significant new commercial/residential space and activity to Oregon City. For scenario planning, the project team estimated a maximum build-out for the entire site. The results of this exercise showed approximately 835,000 square feet of new development created, not including structured parking. This scenario may be broken out into the following categories:

Table 7. “Full Build-Out” Development Scenario.

Use Category	Quantity
Office/ flex-office/ craft industrial	240,000 square feet
Retail	105,000 square feet
Housing	700 units
Hotel	200 room
<i>Total</i>	<i>835,000 square feet</i>

The timeline for re-development of this site will depend on numerous factors. New construction could be initiated quickly, or be implemented in a longer, more phased approach. Overall redevelopment of the site could potentially extend beyond the 20 year duration of this master plan. The master plan sets out a framework that supports and anticipates this level of development, without regard to timing or sequence. Such redevelopment would bring tremendous new energy and investment to Oregon City and the region.

Parking

The site currently has no public access for vehicles and no public streets, and consequently no publicly available parking. Anticipated development of new buildings, open space, and public attractions mean that numerous people will come to the site, many of whom will drive and need to park. A goal for the project is to have a large percentage of those people use the high-quality transit, pedestrian, and bicycle connections, but the majority of visitors, workers, and residents are expected to arrive by car, and thus will need vehicle storage.

An analysis of parking demand based on the anticipated build-out of the site and city required minimums found that sufficient parking can be provided on site. Parking requirements for the Willamette Falls Downtown District will be the same as those currently in place downtown, which has minimum requirements based on the kind of use proposed, but with an allowance to reduce those minimums by up to 50 percent. Parking supply at full build-out of the site was estimated at 1,150 spaces off-street and 85 on-street.

In addition, each development block in the Willamette Falls district can “park itself,” that is, each block could accommodate its own parking on site, without the need for an

off-site lot or garage. This presumes parking is built within structures, at the back of the new building or on its upper stories. Because the site is located on solid basalt, underground parking is highly unlikely. The following diagram illustrates, in schematic form, how parking structures – shown in light gray – could be integrated into the site, without taking away from the importance of an active streetscape.

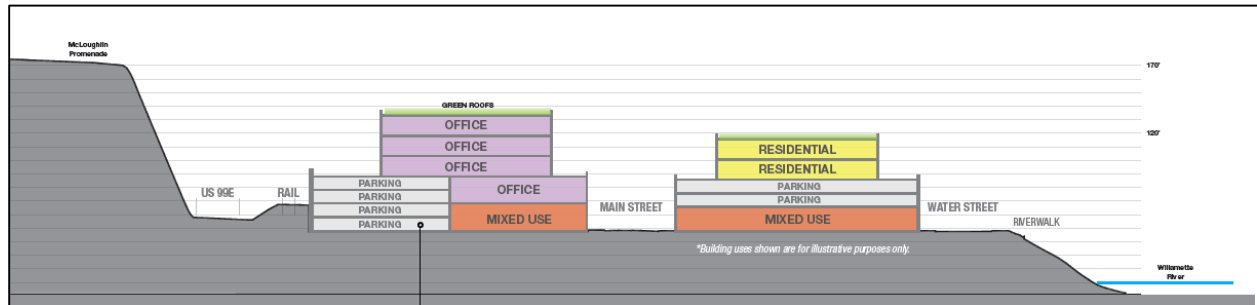


Figure 16. Section through site, showing possible parking locations and other uses.

Opportunities for shared parking abound, both within the district, because of its mix of uses, and outside the district in the existing downtown. Because of the short distances between the Willamette Falls district and the existing downtown, a parking structure on either side of 99E could potentially serve the entire area. Recreational visitors are typically more willing to walk a short distance from parking to see attractions, in this case those related to the falls or as-yet undefined open spaces. Helpfully, the attendance profile of recreational visitors is quite different – *i.e.*, weekends, and off-peak hours – from employment or residential users of the site.

In short, the district's plan for parking is very flexible, and a number of opportunities exist for providing adequate, but not excessive, space for future vehicle storage. The toolbox of options includes:

- A multi-modal district that reduces parking needs
- Shared parking allowed and encouraged within and outside the district
- Structured parking, above or behind main floor uses
- Reductions (up to 50%) allowed from zoning code minimums
- Creation of new on-street parking

Flood Protection

A significant portion of the site is within city-designated flood management area. The proposed plan for locating park and open space uses on blocks closest to the river and below flood elevation protects buildings from catastrophic flood damage. The simplest path to compliance with city and FEMA flood rules is to organize development following the pattern shown in this plan. These guidelines do not forbid all

development from the blocks designated for open space. For example, Block 3 could develop around its edge for the rehabilitation of Mill O, if the habitable areas of the building were elevated above flood level. Other buildings, such as Mill E, Mill G, and Mill H, also have potential for habitable floor heights above the flood plain.



Figure 17. Dashed line indicates approximate 1996 flood plain boundary.

Though the floodplain location and elevations are based on the best available data, more detailed hydrologic analysis will occur at the detailed master plan phase, to provide a clearer definition of the flood area. A more precise measurement of the base flood elevation can determine how far the flood zone extends into the site (horizontally) and the minimum floor elevations (vertically) that are appropriate for future development. In addition, if development does occur within the flood area, city rules require that new fill in the floodplain be balanced by an equal amount of material that is removed from it. Balanced cut and fill should be pursued as a district-wide strategy. Existing structures removed from the flood area should create “credits” for future development. If the clarifier is removed or the river bank is laid back to create enhanced habitat, for example, these removals can be used as credits against new structures in the flood area.

Willamette River Greenway

The entire district is within the Willamette River Greenway, which is a designation to protect the scenic, historic, and recreational qualities of the riverfront. Within this area, a greenway review is required for “all developments and changes or intensification of uses.” Allowed uses in the new Willamette Falls District zone are presumed to be appropriate for lands within the greenway, as long as the development associated with these uses protects the important riverfront qualities.

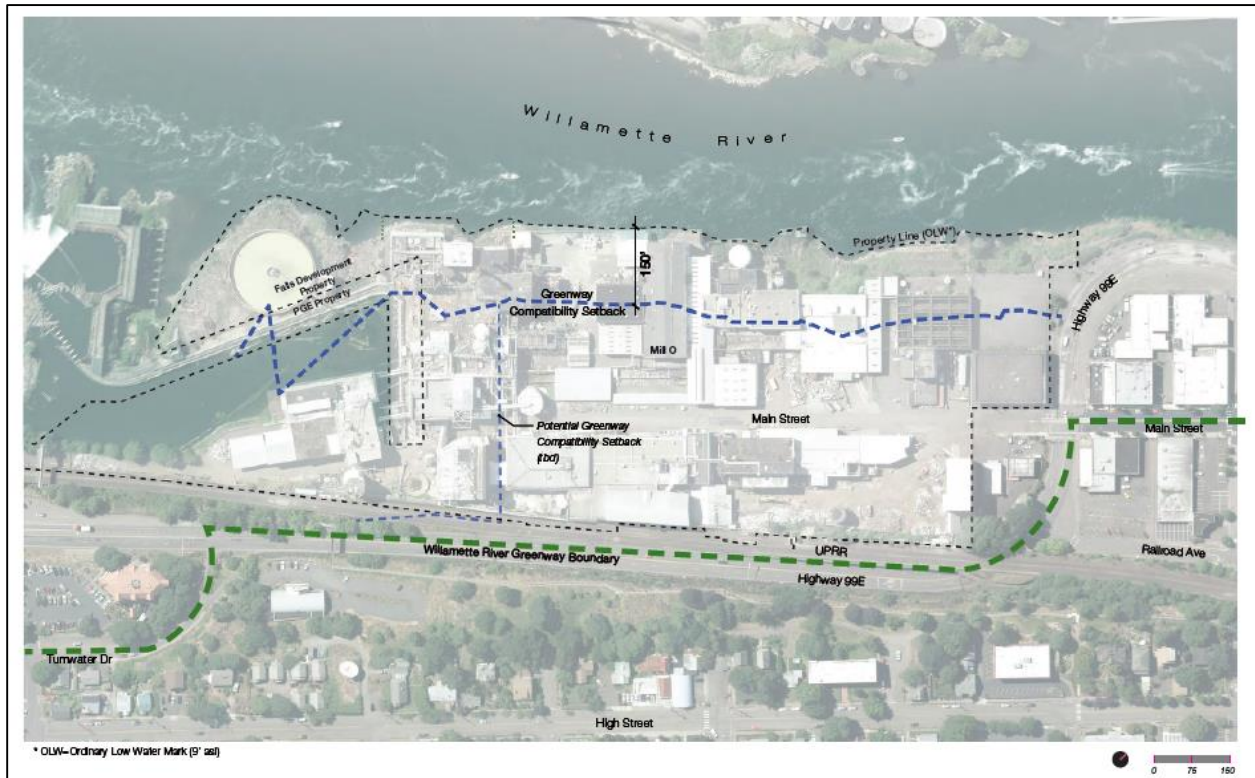


Figure 18. Willamette River Greenway boundary (dashed red line), with compatibility review area (dashed blue line).

When future development is proposed within the district, applicants will need to explain how they meet Willamette River Greenway standards. One of the key elements in this review is the creation of a setback. Separation between new buildings and the river must “protect, maintain, preserve and enhance the natural scenic, historic and recreational qualities of the Willamette River Greenway” (OCMC 17.48.080.E). The extent of building setbacks is not quantified by this master plan. The setback will be determined by the city as part of its review process when a detailed development plan is submitted. Whether the Greenway setback is adequate greatly depends on the nature of each redevelopment project, and cannot be determined district-wide, in advance of specific plans. Therefore, this determination will occur at a later date.

Also, for everything within 150 feet of the ordinary low water line, there is a Greenway “compatibility review” (OCMC 17.48.100.A) that will be part of a future detailed development plan application. This compatibility review emphasizes the landscaped area between the new activity and the river and public access along the riverfront. Both of these criteria would be satisfied by a landscaped riverfront access path. Such a path is shown in schematic form on the general master plan drawings.

Certain kinds of development are prohibited with the Willamette River Greenway, per Oregon City’s zoning code, including “main or accessory residential structures” taller than 35 feet (OCMC 17.48.110). This would also apply to changing the use within an existing structure. This residential restriction creates a potential conflict. Residential uses are allowed outright in the proposed Willamette Falls Downtown District; height limits go up to 80 feet. A new or reconstructed building that is predominantly residential (and therefore defined as a “main residential structure”) proposed to be taller than 35 feet would be prohibited under current rules. It should be noted that prohibition/height limitation is a local condition and not part of state law. No similar limitation on residential building height in the Greenway exists across the river in West Linn, for example.

The master plan anticipates future residential uses on the site, and the possibility a residential structure could be proposed that exceeds this 35 foot threshold. Therefore, this master plan proposes a text amendment to the Greenway code that provides an exception for the height limit, only within the Willamette Falls Downtown District, up to the maximum allowed by the zone. Property within the district is different from other Greenway-overlay property in the city, in that any proposal with the new district will be required to go through a process to show consistency with the master plan and the four core values. This process includes compliance with development standards and design guidelines that are outlined in the plan.

Development of the site as envisioned in the master plan can occur within the Greenway overlay, and continue the protections offered by city code and state law. Specific proposals to provide access and improve the qualities of the riverbank will be evaluated when they are submitted.

The applicant supports a City-initiated, city-wide review of the Greenway code after approval of this application to help further understand the community’s desire for residential units in urban areas that are also located within the Greenway boundary.

Natural Resource Protection

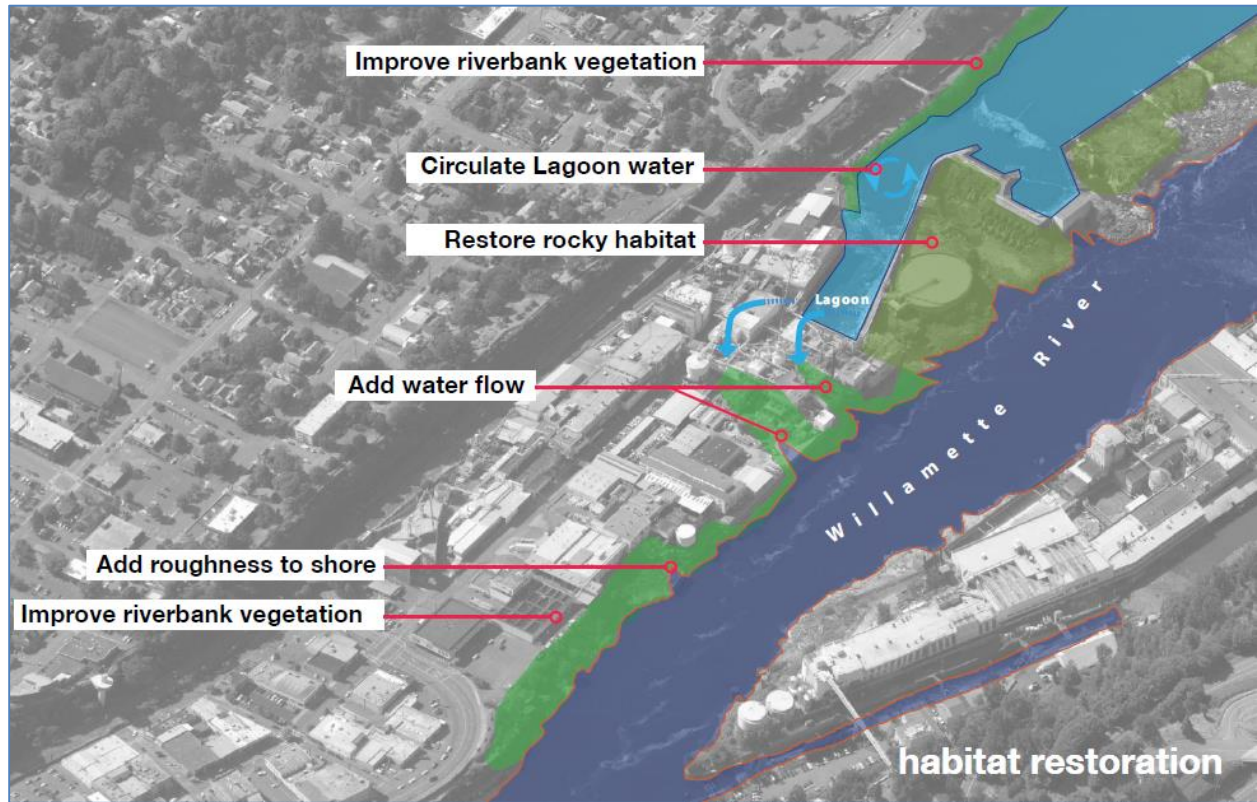


Figure 19. Location of potential enhancements to natural resources.

Natural resources on the site are connected to the riverfront, and the riparian habitat that is associated with it. The master plan identifies areas along the riverbank where habitat enhancements and riparian bank restoration could occur. The general principle advanced by the master plan is for the riverbank to re-establish a rough edge and to meander in a pattern more indicative of its pre-industrial state, in order to allow more opportunities for fish and riparian vegetation to thrive.

Restoration and enhancement opportunities for improving fish and wildlife habitat can also provide improvements for water resources, including stormwater treatment and water quality. Key recommendations include:

Table 8. Natural Resource Enhancement Opportunities.

Expose and restore historical shoreline <ol style="list-style-type: none"> 1. Diversify shoreline habitat 2. Restore ends of tailraces 3. Revegetate shoreline 4. Remove invasive species
Provide stormwater treatment along shoreline and in grotto
Increase circulation in lagoon
Diversify lagoon habitat

Two of the above identified actions would be especially important to improving the habitat values of the Willamette Falls site and its adjunct river corridor. Tail races once carved deep into the site at its southern end, and have been filled in or channelized as industrial development dominated the site. The lagoon, which creates an upper section of river through the site above the dam, provided a place for log processing and storage, acting as a sort of mill pond. This water body is now stagnant. Re-establishing tail races, either in part or in full, to receive greater flows from the lagoon above has multiple environmental benefits. The water quality of the lagoon will improve through circulation of fresh water through the area. Below, greater circulation would aerate water flowing through the tail races, thus providing a more welcoming habitat for fish and other riparian vegetation. The master plan shows this concept, with the understanding that the development of the open space in this location is still undetermined. The design of the open space and development in this area of the site will be determined in a future development application.

The city's Natural Resource Overlay District applies to the entire Willamette Falls District, and its requirements will be met as part of a future detailed development plan application. However, city rules provide an exemption for properties that do not increase impervious surface over existing conditions. This exemption is likely to exist for future development, since there is virtually no pervious surface on the existing site, and any change is likely to result in a net decrease in impervious surface. Nevertheless, satisfying the overall district objectives requires attention to habitat restoration and environmental protection. Healthy habitat is a core value that has been expressed clearly and strongly in all the planning for the site, and reinforced by Oregon City and all the regional partners. Insofar as new development creates impacts on natural resources, it is expected that the city may require environmental enhancements as mitigation for those impacts.

Historic Resource Protection

History and culture have been identified as one of the four key values of this project, and the history of the site is important in both the development of the entire Pacific Northwest. Concrete economic benefits also support the retention and reuse of designated historic resources that cannot be captured by non-historically based development. As identified in the existing conditions section, the analysis of historic resources on the site was developed over a long period of time and throughout a robust public engagement process. Experts and the general public, bolstered by consultations with the Oregon State Historic Preservation Office, considered the relative values of retention vs. redevelopment, and how to incorporate historic structures. Given the character and the benefit that history brings to future redevelopment, the availability of resources and rules to support that reuse were included in building evaluations. Identified preservation incentives include:

1. *Certified Rehabilitation*: Creates a 20% Investment Tax Credit against Federal income tax liability for approved rehabilitation that meets the Secretary of the Interior's Standards, as reviewed by the National Park Service.
2. *Oregon Special Assessment for Historic Properties*: An Oregon-only benefit, Special Assessment creates a reduced basis for the calculation of local property taxes during a ten-year period following enrollment. Essentially the value of a qualified property is "frozen" prior to the beginning of an approved rehabilitation plan and then the property is taxed at the unimproved basis for the decade following the work.
3. *Building Code Relief*: Under the Oregon Structural Specialty Code, buildings that are "designated" as historic resources (*i.e.* listed on the National Register of Historic Places) may be eligible for waiver of certain building code requirements in the interest of retaining or preserving the qualities of the property that make it historic. Such waivers do not allow for reduced fire/life/safety or any other aspect related to public safety, but can often allow for reduced development costs by avoiding some costly construction changes.
4. *Environmental Benefits*: In addition to its potential economic positives, historic preservation, the reuse and purposing of existing structures, has been shown to be a sustainable, environmentally sound, method of development.

The expectation of the master plan is that future development will retain the historic character of the site at a very fundamental level, and incorporate its historic resources into future development plans. Five primary historic structures identified in the plan — De-ink, Mill O, Hawley, Paper Machine #4, and Woolen Mill Foundations — are particularly important, and should be preserved or adaptively reused. Other structures may also be incorporated into the design of a future project, as appropriate, since many

of them give a unique character to the property. A second tier of historic structures are somewhat less prominent, and may be more difficult to re-use in a modern context. These structures are the digesters, the sphere, #1 Paper Machine, boilers, and the Oregon City Flour Mill foundations. Not every building on site is historically notable, and some are not suitable for conversion into modern uses. Preservation and integration of old structures will be highly dependent on future uses and development

Utilities

A conceptual utility plan for future development is included with this plan. The plan supports the location, type, and amount of future development that is anticipated to occur on the site. Broadly speaking, this plan includes:

- Eventual replacement of a 10 inch public water main following its existing route through the site – down the bluff, 3rd Street, then north on Main Street.
- A new sanitary main network along Main, 4th, and Water Streets. It appears that the invert at the Tri-City Service District Willamette Interceptor, about 10 feet below existing grade, is deep enough to allow gravity service to most of the site, save for its extreme southern end.
- Stormwater drainage mains under 3rd and 4th Streets to be maintained and upgraded to current stormwater standards.

Beyond the upgrades to water, sewer, and stormwater mains, new laterals will be installed to support new development as the district grows.

The plan both encourages public-private partnerships for sharing utilities, as the market and future development allows. Sharing utility infrastructure in an “eco-district” model could create collaborations around systems for rainwater harvesting, gray-water recycling, solar energy generation, or lighting, heating, and cooling systems.

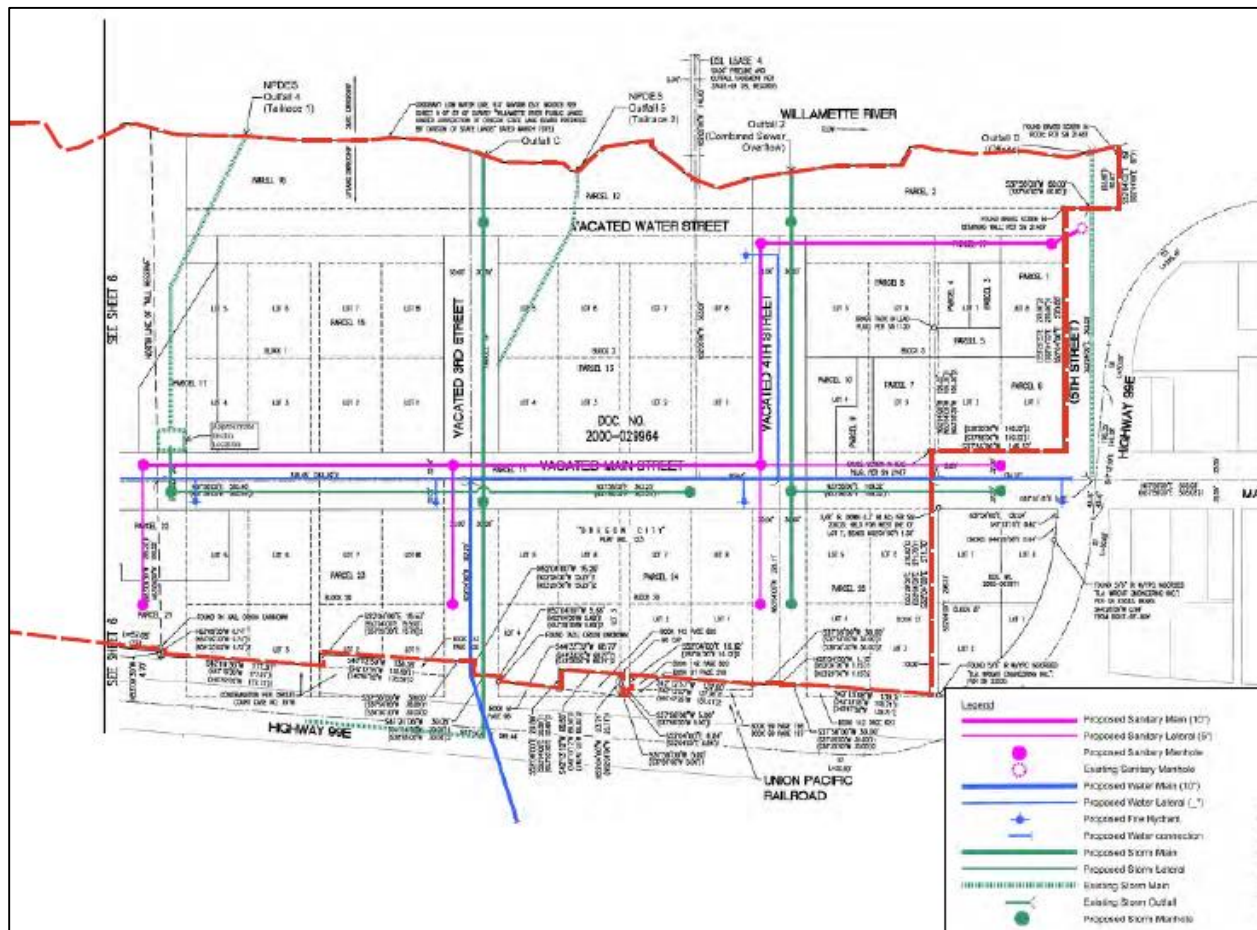


Figure 20. Proposed site utilities.

Development Standards

Development standards for the Willamette Falls Legacy Project site are contained in the new zoning code chapter that control the site, and are summarized, generally, in the table below. These are very close to the current standards for the MUD zone that applies to the rest of downtown Oregon City. The proposed zone change to “Willamette Falls Downtown District” is concurrent with a change to the underlying comprehensive plan map, from Industrial to Mixed-Use Downtown.

Table 9. Development Standards, Willamette Falls Downtown District

Standard	Quantity
Lot area, minimum	None
Floor Area Ratio, minimum	1.0
Building height, minimum	Two entire stories and 25 feet
Building height, maximum	80 feet
Setbacks, minimum	None
Setbacks, maximum	10 feet, provided site plan & design review req. are met
Site coverage, maximum	100 percent
Landscape coverage, minimum	None (landscaping still req. for parking and streets)
Parking	Requirements in OCMC 17.52, but quantity may be reduced by 50%.

These standards provide a canvas for future development. In addition to these standards, projects in the Willamette Falls District will be required to meet design guidelines that are exclusive to this district.

Development Phasing

Unlike a traditional master plan, the proposed plan will not detail the phasing or order of development with precision, and no specific phase is requested for approval in the immediate term. This is because the location and timing of development is controlled by site ownership, market conditions, and public funding. Neither the private or public aspects of the real estate finance issues that will drive site redevelopment have been finalized. This is the role of a funding and sequencing plan, which will address the sticky issues of finance and investment priorities.

However, finance and investment is outside the scope of a zoning master plan, which deals with the spatial aspects and organization of the site. The goal of this master plan is to allow a range of different uses and opportunities for physical development within the district. The plan sets ground rules for future building and open space development, and maximizes flexibility for a variety of favorable outcomes.

Broadly, though, the first phase of development at the site is highly likely to include public access to the falls. The energy and power of the falls has a transformative power

on the public perception of the site and its potential. Bringing the public into the site and out to the falls will hopefully stimulate awareness of the site and promote development of the property.

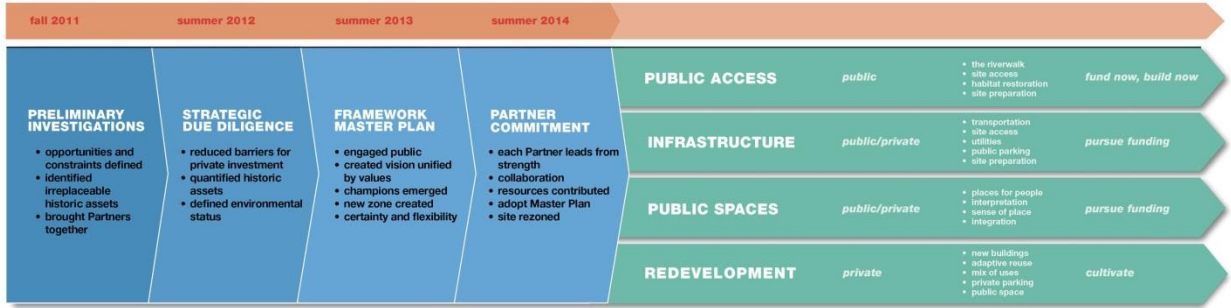


Figure 21. Process diagram anticipating the sequence of development on the site.

Though not strictly sequential, the diagram shown above explains the relationship between private investment in new and rehabilitated buildings and the infrastructure that supports it. Early public participation in financing public access will be joined in later phases by more contingent financing and development of open space and public infrastructure. Overall, the phasing and sequencing of development will be highly dependent on the amount of public and private financing, the source of that money, and market conditions that drive investment.

Development Impacts and Mitigation

A general development plan must show that it “adequately mitigates identified impacts from each phase of development.” As stated in the previous section, this master plan does not have strictly defined phases, since the location and sequence of development has not yet been determined. Impacts on surrounding properties would likely be minor, since the physical and visual access to the site is cut off from the rest of the city by topography, natural features, and transportation corridors. A primary goal of the site is to open up the site for more direct contact and use. Potential impacts from development on the site and mitigation for those impacts is described below.

Aesthetics

Currently, views into the site are limited and views within the site are non-existent because there is no public access. Neighbors have views of the site from above, up on the bluff, and across 99E from the current southern terminus of Main Street. The site is currently occupied by industrial buildings and structures once needed for the paper-making process that was the core of the site’s use for the last 100 years. Development at the industrial site was not subject to any design standards or guidelines. The natural

resource that abuts the property – the Willamette River and its waterfall – is obscured from view by topography and buildings.

A general development plan will improve the appearance of the site by: establishing a framework to organize development in an orderly fashion, encouraging buildings and open space to be of high quality design, and opening up access and views of the river and the falls, which are the core of the property's visual experience. The new rules for the development of the site will make more direct interaction with the site possible, and give ordinary citizens visual access to the waterfall. The plan would anticipate a combination of preservation and new development, which will create a unique sense of place in the district where new and old development complements each other and both fit with the riparian corridor. Overall, views into and around the site will be improved by anticipated new development.

Hydrology and Water Quality

The site is located on a largely impervious, basalt rock shelf, more than half of which is below the floodplain. Runoff from any redevelopment must be managed in accordance with Oregon City stormwater regulations. Due to direct discharge to the Willamette River, no detention will be required. However, standard water quality treatment must be provided. Water quality treatment alternatives include vegetated storm facilities as well as mechanical treatment systems approved by the City. Alternative treatment methods or low impact development strategies may need to be considered due to the shallow or exposed bedrock condition throughout the site.

The existing 18-inch storm main in 3rd Street that conveys public drainage from Highway 99E will be reconstructed to preserve the current conveyance pathway and outfall. Any proposed connections to this line should verify that additional capacity is available and whether outfall improvements may be required.

Because new development, as it arrives at the site, will follow city standards for preserving water quality, no significant negative impacts are anticipated.

The plan generally designates areas of the site that are within the floodplain for open space and waterfront uses. Committing these areas to flood-resilient uses, and requiring construction of new habitable floors to be above the base flood elevation, the site's ability to withstand a major flood event will improve. By complying with the existing flood management overlay standards, new construction and renovation of buildings and provision of open space will result in a safer situation for occupants of the site.

Noise

The existing site zoning allows for heavy industrial uses that were the mainstay of the site for the last 100 years. This generated substantial noise impacts from, most recently, paper making processes. The mill on the West Linn side of the river is still active and generates noise that can be heard from the site and from locations nearby. Since the abandonment of heavy industrial uses on the Oregon City site, major noise impacts have abated. This land use application also includes a change in zoning. The new zone would no longer allow heavy industrial uses which are the source of most of the noise impacts. The new zone does allow limited light industrial uses on a smaller scale. Generally, new uses would be mixed-use, and include an array of commercial, office, and residential uses. These uses are typically quiet, and the net difference in noise would be dramatically lower.

Transportation/Traffic

Through this proposed master plan, the historic street pattern of downtown would be re-established. A pedestrian-friendly network of local streets will link the district with the rest of Oregon City's downtown. In addition to new streets, public access to the site will include pedestrian and bicycle connections. This plan establishes expectations for the general location and purpose of public access. Final configuration and location of paths and streets will be determined when building or open space is proposed.

The transportation analysis assumed full build out of the site at 835,000 square feet of new mixed-use development. This creates impacts on the system by generating 700 new trips at the peak hour. Based on modeling, these trips can be accommodated on the existing transportation network if a number of relatively minor improvements are made to improve safety and flow. A general development plan sets out a package of changes from existing conditions that would mitigate future impacts. They include the following.

- A signal at 6th and 99E
- A shared use path along the riverfront, connecting to the existing waterfront trail
- Creation of a new Water Street connecting into the site
- A northbound right turn lane at the Main/99E intersection
- An indirect left turn (jug handle) entry into site via Railroad Avenue
- A pedestrian bridge over 99E at the south end of the site

These improvements will enable the smooth functioning of the transportation system in and around the site. This conclusion is based on analysis done in cooperation with Oregon City and ODOT transportation officials.

3. Process and Background

Plan Implementation

This application represents the first stage in approving future development on the site. This approval is for a zone change to the site, which establishes underlying uses and development standards, and for the first stage of development approval. Oregon City has a two-step master planning process. This document is a framework for future development, or, in city terms, a general development plan. On the ground changes to the property, that is, actual design proposals for buildings or open space on the blocks laid out in this plan require additional land use review.

Future development actions will be subject to the second step of the city's master plan process, a detailed development plan, per OCMC 17.65. The key criterion that links back to this approval is that detailed development plans must meet the requirements of the approved general development plan. (OCMC 17.65.060.B.1) In other words, the future development will follow the design principles set out in this document, or face a higher and more complex level of scrutiny and review.

In addition, an anticipated condition of approval for this general development plan will require developers of new buildings and open space in the district to provide additional information and be subject to more review that is more than would typically be required in a detailed master plan application. Specifically, development within the Willamette Falls Downtown District must comply with design guidelines, and each detailed development plan will be processed as a Type III land use review that goes before the Oregon City Planning Commission. Small projects that meet the minor site plan and design review thresholds (OCMC 17.62.035) may be processed, using the master plan standards, as a Type II review. For larger projects, the ability to comply with district design guidelines will be assessed by a Design Evaluation Board, a special city-assigned body that will provide broader feedback into the process. The Design Evaluation Board will make its recommendation to the planning commission through city planning staff, and its opinions will be integrated with the detailed development plan land use review.

In short, proposed development in the Willamette Falls Downtown District must address and/or comply with these main categories of city zoning regulations:

1. Comply with use and development standards in the new WFD District.
2. Show consistency with principles of the approved general development plan (*i.e.*, framework plan)

3. Meet detailed development plan requirements (parallel to Site Plan & Design Review)
4. Follow design guidelines in the approved general development plan
5. Meet any overlay zone requirements that apply, *i.e.*,
 - Natural Resources
 - Willamette River Greenway
 - Geologic Hazard
 - Flood Management

These different reviews for new development projects will be consolidated into a single application, reviewed via a Type III planning process, and culminate in a hearing before the Oregon City Planning Commission. The Planning Commission decision may be appealed to the City Commission.

If a proposed development project does not follow the approach outlined in this document, an applicant may amend or modify of the master plan. Alternate designs for the site that do not follow the rules set out in the master plan can be approved, if they can demonstrate that the proposal meets or exceeds the original intent of the Master Plan and Four Core Values. However, the easier path to approval for any project is to use the accumulated knowledge gathered from the public and technical input of the master plan, and follow the direction outlined here.

Public Engagement Summary

This master plan and zone change proposal is the product of an intensive, eight-month long community engagement process that has built a broad base of supporters and champions. Project leaders and staff connected with thousands of participants through in-person conversations and online forums, including discussions with more than 62 local and regional groups ranging from civic to business, environmental and government organizations. Staff spoke one-on-one with hundreds of people of all ages at seven summer events including farmers markets, the Willamette Falls Festival, and Concerts in the Park.

The first of three community interactive events was held at the First City Festival in July 2013 in Oregon City. Participants contributed nearly 1,000 distinct comments and ideas for the site. In July and August more than 2,100 people commented through Metro's regional Opt In Online Opinion Panel and the survey on the project web site. Approximately 130 people learned about the project and shared ideas in small group discussions at the second community interactive event in October at the Museum of the Oregon Territory. A second round of surveys through Opt In and the project website garnered an additional 1,900 responses. Nearly 100 people participated in the third

community event at Ainsworth House and Gardens to review the draft Framework and Demonstration Plans. In addition, nearly three dozen participants signed up to become community champions to support implementation of the Willamette Falls Legacy Project.



Figure 22. Small group discussion at October 10 community event.

The project team continues to stay connected with champions and engage new ones. Hundreds of people stay informed through the project website, Facebook page, Twitter feed, Oregon City News, email newsletter, and weekly online blog. The Facebook page alone reaches more than 1,400 people on a daily basis with updates on events as well as with a photo of the day. Weekly guided tours of the site are just one more way in which members of the public can get involved.

Public response to the Willamette Falls Legacy Project has been enthusiastic and positive. Participants are excited about the opportunity to redevelop the Blue Heron site. During the initial visioning phase community members shared many creative ideas for the site, its uses, and how the four core values of public access, healthy habitat, historical and cultural interpretation, and economic redevelopment can lead to an ideal Willamette Falls future. Taking this information the team developed a series of alternative concepts for the site. Strong consensus across groups emerged about where

development and open space should take place, with emphasis on healthy habitat and historical and cultural interpretation.

Meeting the Four Core Values

The four core values for the site were developed, prior to this planning process, by the project partners: Oregon City, Clackamas County, Metro, State of Oregon, and the bankruptcy trustee for the Blue Heron property. These core values have been a theme of outreach and design since site planning began. Future development applications must show that proposals are consistent with these values.

1. Cultural and Historical Interpretation

The site has enormous historic value to Oregon and to the region shaped by the largest waterfall in the Pacific Northwest. Long an important cultural and gathering place for Native American tribes, and a natural locale for trade and fishing activity, the site had significance centuries before industrial development began here in the early 1800s. For many years there has been no public access to this important historic site. This plan creates new access to the site, enabling citizens to reconnect with the natural beauty of the falls and the industrial history on the property. Interpretive opportunities about the site will be part of future development, and allowed uses specifically include things like interpretive or education centers.

2. Public Access

Though the falls site is one of the most dynamic places along the Willamette River, it has been blocked from public use for more than 150 years. This plan provides new opportunities for Oregonians to connect with the river and to gain access to Willamette Falls. Specifically, a new street network will be established, based on an extension of the historic downtown grid. This network will provide access to and circulation through the site. Because access to the falls is a catalyst for development of the site, a new waterfront pathway will extend all the way to the edge of the falls. This path extends the current Oregon City waterfront walkway. Bringing the public into the site with these new transportation connections opens up the site to visitors and will bring a new dynamism to the area.

3. Healthy Habitat

The master plan identifies both the location and type of restoration projects that will improve the natural resource condition of the site. Though degraded by a century of heavy industrial use, natural resources are present on the property and the riparian setting provides tremendous opportunities for improvement. Future development

could expose and restore the historic shoreline, increase the circulation in the lagoon and diversify habitat, and establish a vegetated buffer along the riverbank. These actions would dramatically improve the riparian resource values and upgrade habitat for fish, birds, and plant communities. Finally, by designating a large area of the site as ideal for open space or park uses, the plan sets a framework for a large reduction in impervious surface and an increase in landscaped area. This would have an overall benefit to the site's natural resource functions. As discussed previously in the document, further refinement of the location and design of specific plan elements may be pursued during a future development review. Any modified design, however, will still be required to meet the intended habitat goals for the site.

4. Economic Development

Fishing, trading, and mills—first grain, then wool, then paper—created economic opportunity at the falls that drove prosperity in Oregon City for centuries. Now that Blue Heron Paper has closed for good, the master plan envisions a district where economic opportunities exist and the district continues to provide jobs to people in the region. The layout of the site put forward in this plan creates development-ready blocks that function for office and employment uses, as well as recreation and retail. A new Willamette Falls Downtown District allows a mix of uses, including light industrial uses that could potentially re-purpose some of the large footprint, large volume buildings on the site. A full-build out of the site—a process that will likely take many years—could contain nearly a million square feet of new development within the district, including retail, residential, office, and other employment uses. At full build-out, the site could create between 600 and 1,100 new full-time jobs. As always, the falls and the river are the economic engine of this development. Open space relating to the river and access to the falls is the main comparative advantage this site holds over any other site in Oregon. The plan encourages private investment and public stewardship of the site in equal measure, and sets up a regulatory framework for future success.

4. District Policies and Design Guidelines

The proposed District Policies and Design Guidelines are mandatory for future development within the Willamette Falls Downtown District, and will be applied during detailed development plan review. Staff, with assistance from a Design Evaluation Board, will make a recommendation on a project to the Planning Commission, which will use the following policies and guidelines in deciding to whether to approve it.

Purpose. The plan policies and design guidelines promote development of high-quality buildings and open space that reinforce the four core values of the site: public access,

economic development, healthy habitat, and cultural and historic interpretation. The guidelines are also intended to promote compatibility with the historic character of the district, while allowing contemporary interpretations of the historic patterns.

Guideline 1. Enhance the Special Character of the Willamette Falls Downtown District.

Principles:

Unique setting. Buildings and landscape elements should establish an aesthetic that considers the site's natural setting and industrial history, and promotes permanence and quality. Design elements to consider are materials, massing, views and viewing areas, building transparency, orientation to public and semi-public spaces, and landscaping.

Celebrate the river and falls. Where appropriate, the unique natural setting of the site should be celebrated by building and open space design. Integrate the experience of the river and the falls through site design. Special attention should be paid to development at the river's edge.

Streets. Re-establishment of the historic street grid is fundamental to the new district. Buildings and open spaces should orient themselves toward or open up to these streets. Special care should be taken for the design of ground floor, street-level uses.

Views. Take advantage of views toward the river and falls. Step structures down to follow natural change in elevation from the basalt bluffs to water's edge. Open up views toward Canemah down Main Street, and toward river from future 3rd and 4th Streets and the Riverwalk.

Materials. Building materials should reflect the industrial character of the site. Proposed materials must be high quality and express a sense of permanence fitting for the industrial history of the site. The first two floors of development especially should use materials that reinforce the high-quality, comfortable pedestrian environment.

Guideline 2. Design for the Comfort and Safety of Pedestrians.

Principles:

Network. Incorporate the pedestrian network that accompanies the street grid and public pedestrian ways into the design of buildings and open spaces. Link pedestrian paths in open space areas to public sidewalks and building entrances. Incorporate main entrances that orient to Main Street.

Visual Interest. Establish areas of visual interest on the ground floor of buildings where they face main streets. Incorporate seating and viewing areas in front of buildings and in open space areas where appropriate.

Natural setting. Locate and design buildings and open space areas to consider effects of sunlight, rain, shadow, wind, and views of the river and the falls. Maximize the amount of direct and indirect sunlight to adjacent public spaces.

Signs. Use pedestrian-scaled signage within the district that offers clear direction into and around the site. Private commercial signage should reflect the pedestrian character of the district and reflect the history of the site. Signage should not obscure or detract from views toward the water or the falls. Conversely, larger publicly-oriented and gateway signage is encouraged when appropriate and complementary to the district.

Lighting. Place and direct outdoor lighting to ensure that the ground level of the building and associated outdoor and pedestrian areas are well lit at night. Integrate exterior lighting so that it does not detract from the uses of adjacent areas. Lighting should be Dark Sky compliant.

Guideline 3. Maintain Downtown Character

Principles:

Continuity. The Willamette Falls District is an extension of the historic downtown. At the same time, the scale of buildings and industrial history of the district should create a different feeling. Buildings and open space areas should pay special attention to the transition between the two downtown districts. New development should consider architectural patterns and materials existing in downtown, and also create a new sense of place.

Block Structures. Respect the block structures of the historic downtown. The pedestrian and vehicular experience of streets and sidewalks should be continuous across the barrier of 99E.

Parking. Locate parking to minimize impact on building appearance, streetscape, and pedestrians. Plan for the primary method of car storage to be within structures. Show that parking can flexibly serve different users, times of day, and could be reconfigured for other purposes. Develop, orient and screen structured parking to complement adjacent buildings. Reduce automobile/pedestrian conflicts around parking areas and support the pedestrian environment.

Guideline 4. Re-Use, Rehabilitate, and Restore Buildings and Structures

Principles:

Key structures. Preservation or rehabilitation of key structures should be a priority in the design of new buildings and open space. Highest value is placed on the following structures: De-Ink Building, #4 Paper Machine, Mill O, Hawley Building, and the Woolen Mill Foundation. If any these key structures must be removed, the applicant must document the specific reason for doing so, and propose mitigation to compensate for the loss of site character.

Other structures. Incorporate remnants, key features or other significant portions of existing structures into project design. The district's 150-year history as a mill site (flour, wool, paper) and a manufacturing center should be celebrated and recognized when new buildings and uses are established.

Archaeology. Incorporate pre-colonial history of the site into new development where appropriate. Monitor archeology when disturbance of native soil is proposed.

Guideline 5. Build for Long-term Use

Principles:

Future development. Locate buildings to allow for infill on adjacent vacant or underdeveloped parcels. Design compatible transitions between buildings and open spaces. Promote visibility and accessibility between open spaces and adjacent uses.

Quality materials. Promote permanence and quality in new development through the use of substantial and attractive building materials. Re-use existing industrial materials where appropriate.

Guideline 6. Incorporate Ecology into Design

Principles:

Riparian edge. Promote healthy habitat when designing new buildings and open space at river's edge. Take advantage of natural resource enhancement opportunities along the riverbank.

Landscape. Integrate and juxtapose ecological landscape elements with the intense urban and industrial history of district. Create continuous canopy of street trees, where practicable. Integrate innovative stormwater treatment systems with the overall site and development site design.

Buildings. Incorporate sustainable building practices into site and building design. Bring features of the site's natural setting inside buildings as a means for better integrating buildings with significant site elements. Consider shared utilities (eco-districts).

Guideline 7. Create a World-Class Riverwalk

Principles:

Riverwalk design. Establish permanent, prominent and breathtaking public access along the riverfront to structures, water, cultural history, and the falls. The riverwalk should be inviting to a wide range of people, including families and children. Allow for multiple, creative and unexpected opportunities to physically and visually connect to the river.

Integration. Integrate riverwalk with private development as it moves through the site, yet maintain its prominence along the river frontage. Reflect unique aspects of the place with unifying design elements integrated throughout and connects people physically and emotionally with the river

Views. Emphasize diverse scenic views of the falls and river from the riverwalk. Include views of the falls that reveal themselves as one proceeds along the riverwalk.

Guideline 8. Create Quality Public Spaces

Principles:

Access to public space. Emphasize arrival by foot, bike or transit while accommodating the automobile. Public spaces should accommodate different ability levels.

Flexibility. Invite flexible programming through site design, rather than being designing for single use. Design for use in multiple ways by many different groups, on seasonal and daily basis. Public space should work at different times of day, weather conditions, and for different users.

Relationship to surroundings. Capitalize on adjacent buildings or natural features to create interesting visual experiences or vistas. Integrate design with adjacent private development. Reflect local character and personality.

5. Zoning Code Language

This application proposed a change to the zoning of the district from Industrial (I) to a newly-created Willamette Falls Downtown District (WFD). The underlying comprehensive plan map designation will also change from Industrial (I) to Mixed-Use Downtown (MUD). The proposed language for the new Willamette Falls Downtown zoning is shown below.

17.35 Willamette Falls Downtown District

17.35.010 Designated.

The Willamette Falls Downtown (WFD) district applies to the historic Willamette Falls site, bordered by 99E to the north and east, and the Willamette River to the west and south. This area was formerly an industrial site occupied by the Blue Heron Paper Mill and is the location of Oregon City's founding. A mix of open space, retail, high-density residential, office, and compatible light industrial uses are encouraged in this district, with retail, service, and light industrial uses on the ground floor and office and residential uses on upper floors. Allowed uses in the District will encourage pedestrian and transit activity. This district includes a Downtown Design overlay for the historic downtown area. Design guidelines for this sub-district require storefront façades along designated public streets featuring amenities to enhance the active and attractive pedestrian environment.

17.35.020 Permitted uses.

Permitted uses in the WFD district are defined as:

- A. Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies, and specialty stores provided the maximum footprint of a freestanding building with a single store does not exceed 40,000 square feet (a freestanding retail building over 40,000 square feet is allowed as long as the building contains multiple tenant spaces or uses);
- B. Industrial uses limited to the design, light manufacturing, processing, assembly, packaging, fabrication and treatment of products made from previously prepared or semi-finished materials, and not to exceed 60,000 square feet;
- C. Research and development activities;
- D. Offices, including finance, insurance, real estate, software, engineering, design, and government;
- E. Restaurants, eating and drinking establishments without a drive through, and mobile food carts;

- F. Parks, playgrounds, outdoor entertainment space, and community or neighborhood centers;
- G. Museums, libraries, and interpretive/education facilities;
- H. Outdoor markets, such as produce stands, craft markets and farmers markets;
- I. Indoor entertainment centers and arcades;
- J. Studios and galleries, including dance, art, film and film production, photography, and music;
- K. Hotel and motel, commercial lodging;
- L. Conference facilities and meeting rooms;
- M. Public and/or private educational or training facilities;
- N. Child care centers and/or nursery schools;
- O. Health and fitness clubs;
- P. Medical and dental clinics, outpatient; infirmary services;
- Q. Repair shops, except automotive or heavy equipment repair;
- R. Residential units – multi-family;
- S. Services, including personal, professional, educational and financial services; laundry and dry-cleaning;
- T. Seasonal sales, subject to Oregon City Municipal Code Section 17.54.060;
- U. Utilities: Basic and linear facilities, such as water, sewer, power, telephone, cable, electrical and natural gas lines, not including major facilities such as sewage and water treatment plants, pump stations, water tanks, telephone exchanges and cell towers.
- V. Veterinary clinics or pet hospitals, pet day care.
- W. Home occupations;
- X. Religious institutions;
- Y. Live/work units;
- Z. Water-dependent uses, such as boat docks.
- AA. Passenger terminals (water, auto, bus, train).
- BB. Existing parking and loading areas, as an interim use, to support open space/recreational uses.

17.35.030 Conditional uses.

The following uses are permitted in this district when authorized and in accordance with the process and standards contained in Chapter 17.56.

- A. Emergency services;
- B. Hospitals;

- C. Assisted living facilities; nursing homes, residential care facilities and group homes for over fifteen patients;
- D. Parking structures and lots not in conjunction with a primary use;
- E. Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies and specialty stores in a freestanding building with a single store exceeding 40,000 square feet;
- F. Public facilities such as sewage and water treatment plants, water towers and recycling and resource recovery centers;
- G. Public utilities and services such as pump stations and sub-stations;
- H. Stadiums and arenas;

17.35.040 Prohibited uses.

The following uses are prohibited in the WFD district:

- A. Kennels;
- B. Outdoor sales or storage that is not accessory to a retail use allowed in 17.35.020 or 030.
- C. Self-service storage;
- D. Distributing, wholesaling and warehousing;
- E. Single-Family and two-family residential units;
- F. Motor vehicle and recreational vehicle repair/service;
- G. Motor vehicle and recreational vehicle sales and incidental service;
- H. Heavy equipment service, repair, sales, storage or rental (including but not limited to construction equipment and machinery and farming equipment)

17.35.070 Willamette Falls Downtown District dimensional standards

- A. Minimum lot area: None.
- B. Minimum floor area ratio (as defined in 17.34.080): 1.0.
- C. Minimum building height: Two entire stories and 25 feet, except for:
 - 1. accessory structures or buildings under 1,000 square feet, and
 - 2. buildings to serve open space or public assembly uses.
- D. Maximum building height: 80 feet.
- E. Minimum required setbacks: None.
- F. Maximum Allowed Setbacks. 10 feet, provided site plan and design review requirements are met.
- G. Maximum site coverage: 100 percent.

- H. Minimum Landscape Requirement: None for buildings. Landscaping for parking areas required per 17.52.
- I. Street standards: per Section 12.04, except where modified by a master plan.
- J. Parking: per Section 17.52, Off Street Parking and Loading. The Willamette Falls Downtown District is within the Downtown Parking Overlay District.

SECTION 2: LAND USE REVIEW FINDINGS

This section provides the findings to support approval of the new development. Quotes from City code and plans are included in *italics*, the applicant response is shown in plain text. Text omitted from quoted codes or plan documents, for brevity's sake, is indicated by three asterisks: ***.

Master Plan (17.65)

Submittal Requirements (Subsection 17.65.50)

The current proposal contains all of the required Master Plan components, addressed in detail in Section 1.

Response: As documented below, the applicant has submitted the components required by Subsection 17.65.50.

Table 10. Submittal Requirements

Component	Response
A. Existing Conditions Submittal Requirements	
1. Narrative statement...	
<i>a. Current uses...</i>	The site is currently a no-longer-operating industrial use. Most recently the site was used as a paper mill.
<i>b. History or background about the mission or operational characteristics of the institution...</i>	The site is not an institution. It is currently owned by the bankruptcy trustee that took control of the site from the Blue Heron Paper operation. Future ownership of the site is not determined, nor is the exact nature of future development.
<i>c. A vicinity map...</i>	Sheet 1 is a vicinity map that shows the site and surroundings.
<i>d. Non-institutional uses</i>	The site is bounded by non-institutional uses. Residential development borders the site to the east, though this is high above the site on the bluff. The river bounds the site to the west and south. To the north, across 99E, is existing downtown Oregon City, which is a commercial district. Aerial photos (Sheet 2) shows surrounding development.
<i>e. Previous land use approvals...</i>	The site has land use approvals that are identified by file number in Section 1. No outstanding conditions apply to the site.
<i>f. Existing utilization of the site...</i>	The site is fully and intensely developed for industrial use, though the mill use is no longer in operation. The south side of the property contains a lagoon and a long rail spur toward Canemah.
<i>g. Site description...</i>	The site is mostly flat, occupying a basalt shelf at the base of a bluff. The site drops off quickly into the Willamette River, which bounds the site to the west. Willamette Falls is located southwest of the site. Buildings and structures relate to the industrial past that occupied the site for the last 100 years, most recently a paper mill. (For further detail, see Section 1.)

<i>h. Existing transportation analysis...</i>	The site is bounded by Oregon Highway 99E to the north and east, with one access point at the corner of Main Street and 99E. No public streets go through the site, and no public parking is available. The site is poorly served by transit: TriMet's line 33 has stops three blocks north in downtown at 7 th and Railroad, and southeast of the site at 2 nd and Tumwater. More information is provided in the transportation report.
<i>i. Infrastructure facilities and capacity...</i>	The site is served by City sanitary sewer and water, and stormwater management. Use of existing public facilities is very low because the mill is not operating and the property is unoccupied.
2. Maps and Plans...	
<i>a. Existing conditions site plan...</i>	Sheets 2 and 3 show existing conditions. This figure contains the applicable items as required. Landscape plans (tree species and location, etc.) are deferred to the detailed development phase, where it is required.
<i>b. Vicinity map...</i>	Sheet 1 shows the site's general location including nearest cross streets, and relationship to the existing downtown.
<i>c. Aerial photo...</i>	Sheet 2 includes an aerial photo that depicts the site and property within 250 feet of the proposed development boundary.
B. Proposed Development Submittal Requirements	
1. Narrative statement...	
<i>a. The proposed duration...</i>	This application proposes a master plan duration of 20 years as permitted by code and detailed in Section 2, Proposed Master Plan.
<i>b. The proposed development boundary...</i>	The boundary includes several contiguous parcels, 2-2E-31BD-00300 and 00500. These are shown on Sheet 4 and discussed in Section 1, Proposed Master Plan
<i>c. A description, approximate location, and timing of each proposed phase...</i>	Development will occur in multiple phases over the 20-year lifespan of the master plan. The precise location and sequence of development is uncertain because public and private investment in the property has not been finalized.
<i>d. An explanation of how the proposed development is consistent with the purposes of Section 17.65 and any applicable overlay district.</i>	<p>The finding for OCMC 17.65.010 below explain how the proposed development is consistent with the purposes of the master plan chapter. That purpose is "foster the growth of major institutions and other large-scale development." The site consists of 22 acres of re-developable land, and this master plan fosters its growth by establishing a framework for the locations of streets, development, and open space areas within the district. Compatibility and design quality is insured through development standards and design guidelines.</p> <p>The site is located in the Willamette River Greenway, Natural Features, and Geologic Hazards Overlays. The purpose of these chapters is stated in OCMC 17.44.010, 17.48.020, and 17.49.010. As part of this master plan, all future development must still meet the regulations of the overlay districts as part of the detailed development plan process. As a result, the plan is consistent with the purposes of these districts.</p>
<i>e. A statement describing the impacts of the proposed development on inventoried Goal 5 natural, historic or cultural resources...</i>	Impacts on inventoried Goal 5 resources will depend on the specifics of actual development, which is not proposed as part of this master plan. This general development plan establishes a framework for future development. When building or open space redevelopment is proposed, these plans must demonstrate compliance with city rules for the protection of Goal 5 resources at that time.

<i>f. An analysis of the impacts of the proposed development on the surrounding community...</i>	Building and open spaces placement, development standards, design guidelines, and environmental enhancement opportunities identified in Section 1 will ensure the development's compatibility with the surrounding community. Transportation impacts from full build-out of the site can be managed with incremental improvements to the existing street network. There will be a net positive impact on natural features, as upgrades will occur with new development. Section 1, Development Impacts and Mitigation, identifies potential impacts on the community.
<i>g. A summary statement describing the anticipated transportation impacts...</i>	The proposed development at maximum build-out will generate approximately 700 p.m. peak hour trips. Parking demand will be 1,000 to 1,100 new spaces. Section 1, Development Impacts and Mitigation summarizes the anticipated transportation impacts.
<i>h. In addition to the summary statement of anticipated transportation impacts, an applicant shall provide a traffic impact study as specified by City requirements...</i>	A traffic impact study prepared by an engineer has been developed for the site, based on broad assumptions about the long term redevelopment of the site. This study summarizes impacts from proposed development, and identifies mitigation measures that will allow the existing transportation system to accommodate anticipated new trips.
<i>i. If an applicant chooses to pursue option h(1)...</i>	The traffic impact study has quantified transportation impacts based on anticipated future development. As discussed in the narrative, this plan includes a range of potential improvements to the area around the site. The study addresses impacts consistent with all phases of the general development plan.
<i>j. The applicant or city staff may propose objective development standards...</i>	Development standards specific to this facility are contained in the new zoning chapter for the Willamette Falls Downtown District. In addition, this application contains design guidelines for future development in the area.
2. Maps and diagrams...	
<i>a. A preliminary site circulation plan...</i>	Sheet 8 shows the circulation patterns on the site. The historic street grid will be re-established on the site, and a pedestrian/bike access will be created along the riverfront and south to Canemah.
<i>b. The approximate location of all proposed streets, alleys, other public ways, sidewalks, bicycle and pedestrian access ways...</i>	The proposal shows the location of all proposed streets and pedestrian/bicycle access ways. The historic street grid will be re-established on the site, and a pedestrian/bike access will be created along the riverfront and south to Canemah.
<i>c. The approximate location of all public facilities to serve the proposed development...</i>	Sheet 10, the proposed utility plan, shows approximate location of water, sanitary sewer, and stormwater management facilities.
<i>d. The approximate projected location, footprint and...</i>	The approximate location and footprint of proposed development is outlined by the framework plan map, Sheet 7. The precise location, footprint, and square feet of structures will depend on future development. The City will review location and building design at detailed development plan review.

e. <i>The approximate locations of proposed parks...</i>	Open space blocks are proposed on the framework plan. These areas are below the floodplain and will develop with a combination of open space/recreation uses and rehabilitated industrial buildings. The exact nature of the open space will be determined at the time of development or purchase of public easements. The natural resources subject to protection are related to the riparian corridor and are subject to the city's natural resource overlay. Historic structures to be preserved are shown Section 1.
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General Development Plan Approval Criteria (Subsection 17.65.50)

17.65.50 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.*

Response: The purpose and intent of Chapter 17.65 is as follows:

17.65.010 - 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.

The Willamette Falls Legacy Project site is a 22 acre site, and has the potential for large-scale development to the benefit of Oregon City and the region. The potential impacts of the redevelopment of the site are favorable with regard to economic development, public access, and new opportunities for people to experience the natural wonder of the largest falls in Oregon. The impacts on surrounding properties with regard to transportation and public infrastructure will be mitigated by incremental offsetting changes to public systems for accommodating new growth, that is, the transportation and public utility improvements that are identified in this plan and will be implemented concurrent with new development. A re-developed and revitalized Willamette Falls District would provide a range of services and employment

opportunities to Oregon City residents--which are as-yet undefined, and contingent on market conditions.

This plan provides the first step in setting the future of the new district and establishes a flexible review process for major new development. This review process includes an assurance of compliance with the principles of and standards within the general development plan, all the requirements and information necessary for the subsequent detailed development plan, and further, compliance with a district-only set of design guidelines that will be approved with the general development plan. Setting up the master plan in this way allows planning and design of individual projects within the larger district to go forward, and gives a clear path to gaining future approval for development of both new buildings and open space. Having set parameters for future development on the site allows for renewal of the area to occur over time, in a phased manner, while assuring consistency with the general principles of the plan, which have been expressed by a broad and inclusive public process that leads up to this document. This general development plan addresses the larger development issues, such as street location, layout of development and open space areas, and infrastructure capacity, while leaving details of building orientation or how uses are mixed until the detailed development phase. Ultimately, the general development plan will foster the growth of the Willamette Falls District by clearly delineating areas for new development and open space, designating public access through a grid of streets and multi-use paths along the waterfront, and setting up a future land use approval process, including new design guidelines, that insure a clear path forward for high-quality future projects.

2. Development shall demonstrate compliance with Chapter 12.04, Streets Sidewalks and Public Places.

Response: The master plan for the new Willamette Falls District establishes street locations and dimensions that are generally consistent with OCMC 12.04. The primary facilities that will be established over the life of the master plan are a new Main Street, Water Street, 3rd and 4th Streets, and a multi-use pedestrian and bicycle path along the waterfront and potentially south toward Canemah. The grid of public streets is the continuation and re-creation of the historic pattern that already exists in downtown Oregon City. This network of streets was vacated to make way for large-scale industrial development. As the site re-develops with uses that do not have the same need for very large footprint structures like paper-making machines, the site can again benefit from the accessibility that can be provided by a continuous street network.

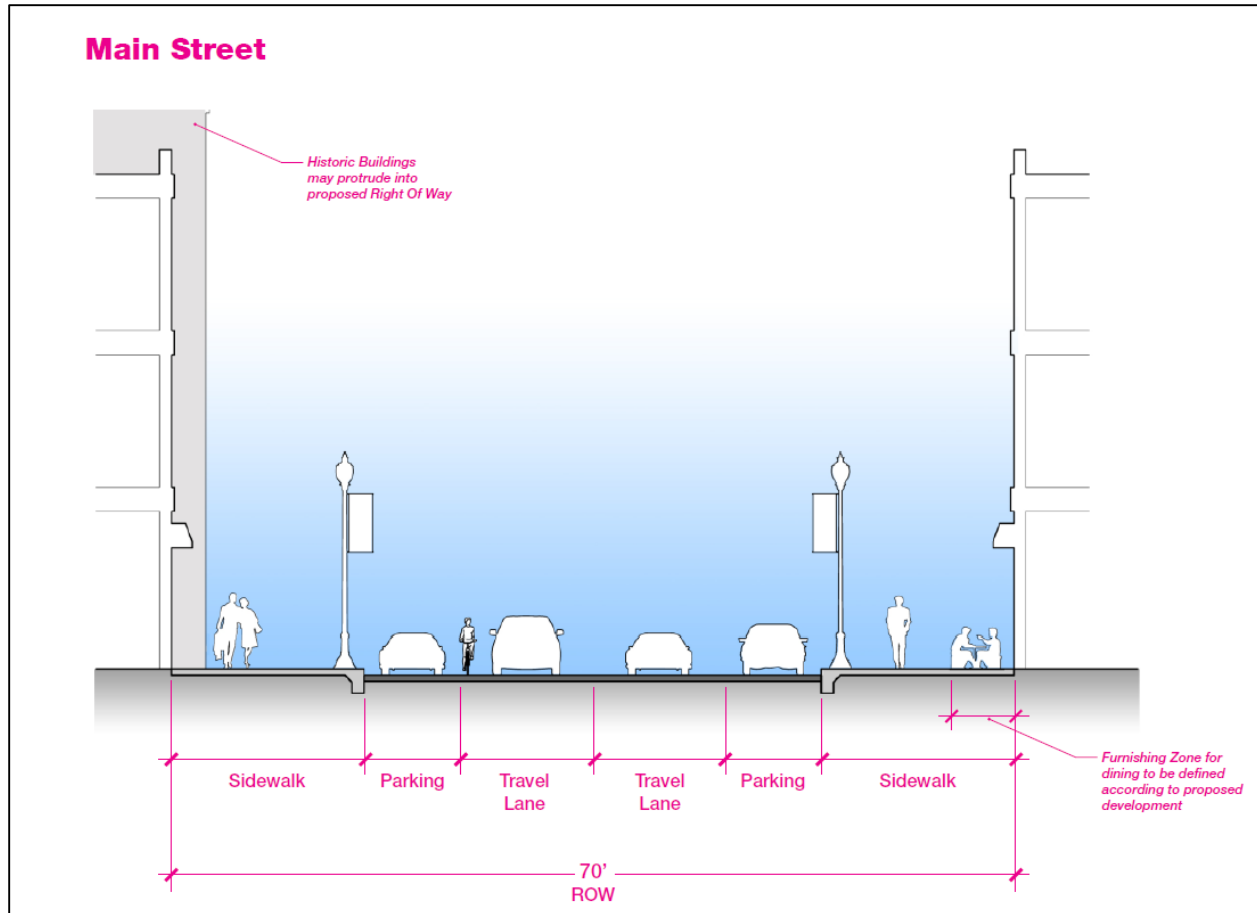


Figure 23. Main Street typical cross section.

Main Street is a “collector” street and future development of this street will comply with these standards with one exception. Rather than a city-designated 12 foot sidewalk, the standard profile will include minimum 16 foot sidewalks. This dimension could be reduced for a specific development application to accommodate a special condition such as to protect the façade of an existing historic building. This change will accommodate an expected level of pedestrian activity that is forecast for the new district, and is in response to the current experience of Main Street in downtown Oregon City, where street furniture and signage has often left the through-zone for pedestrian traffic seeming congested.

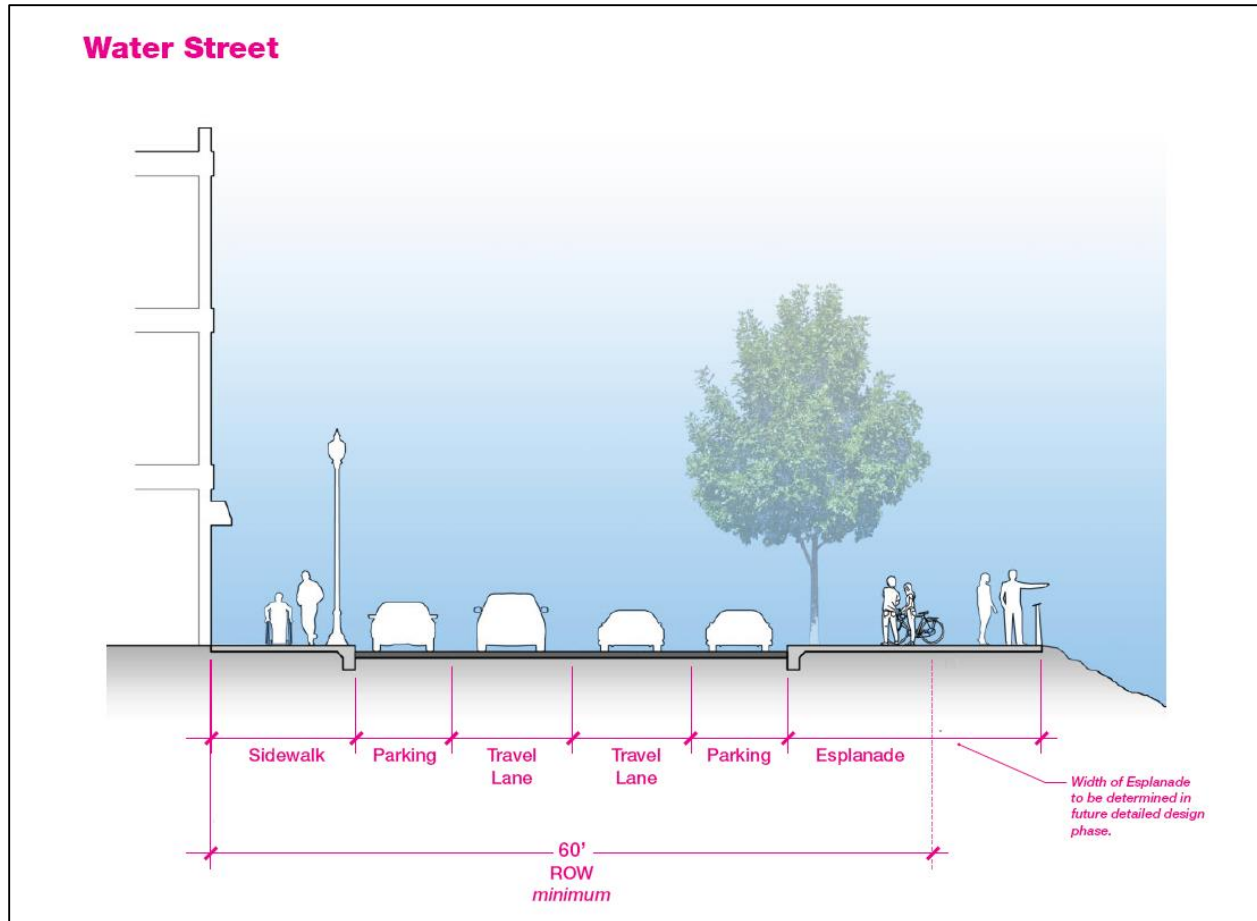


Figure 24. Water Street typical cross section.

Water Street is a new street that will be classified as a “local street” and comply with the design standards for that classification as contained in 12.04. Likewise, 3rd and 4th Streets will also be designated as local streets. These streets have the most flexibility depending on the nature of future development, since they are short segments, bounded by 99E and basalt cliffs to the east, and the river to the west. These streets could be established in a traditional section, or as shared streets (“woonerf”), or as stubs into a parking structure.

For all streets within the district, the requirement for street trees will be modified as part of this master plan approval. The entire Willamette Falls Downtown District is on a basalt shelf that has only a shallow layer of soil—if any—that is a poor environment for growing trees. A continuous canopy of street trees is strongly encouraged, and should be installed wherever it is feasible. In locations where underlying basalt does not allow standard street tree installation, an alternative approach will be allowed. Design guidelines proposed with the plan will encourage streetscapes to have a lively vegetative presence regardless of the underlying soil conditions, whether in planters or using smaller trees and shrubs.

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: As part of the pre-application meeting, city and area service providers provided information in response to the applicant's request regarding water, sanitary, storm, and other public services. The responses from the city, and other information is summarized below:

Water supply: The existing water system consists of a connection to a 10-inch water main extending south from Main Street. It is known that the new pipe extends to the location of the pressure-reducing valve ("PRV") vault near the south end of the office building (SW corner of Hwy 99 and Main St.). The 10-inch main continues south down the extension of Main St. to about the middle of the site, then it turns east and goes under buildings, the railroad tracks and highway 99E, and goes up the cliff to connect to the City grid system at another PRV station. There are other smaller pipes on-site that extend from the 10-inch main.

Concurrent with future development, all of the on-site pipe from the PRV station on Main Street will be replaced. (The existing pipe is old, leaking and is either cast iron or steel.) The southern connection to the City water grid will also be replaced including the crossing of the railroad and highway, extension up the cliff and the PRV station. It would be beneficial for this connection to occur further south on the site in order to avoid dead-end lines. The water distribution system should be modeled to determine the best place to complete the southern loop, and to determine if additional City water system improvements are required east of the highway to support the fire flow requirements. It is assumed the 3,000 gpm fire flow will be required. The water distribution system should be modeled to determine if an extension of the 10-inch line from Main Street will be sufficient to provide the flow. The loop through the site may or may not be required for fire flow.

Near the southern end of the site there is another private water line that crosses the railroad and highway, and extends to the top of the cliff where there is a tank that is currently used to provide fire flow. It is assumed that this system will eventually be abandoned and demolished.

Police: Police service will be the responsibility of Oregon City Police, who currently serve the site. The city has not indicated the need for any significant change in levels of police services due to the redevelopment of the site.

Fire: Fire protection will be the responsibility of the Oregon City Fire Department, who currently serve the site. As the site redevelops, new and rehabilitated buildings will

comply with modern building codes that include fire protection and water supply that meets fire flow standards. Streets within the district will be constructed to city standards that accommodate fire fighting equipment. The city has not indicated the need for any significant change in levels of fire services due to the long term redevelopment of the site.

Sanitary sewer: There is existing private sanitary sewer collection system on site which is a gravity system consisting of 8 and 12 inch pipe. It connects directly to the Water Environment Services owned interceptor on Highway 99E near the location of the future Water Street. A portion of the private pipe is located beneath the water filtration plant.

The existing private system on site is old, the condition is unknown and is at least partially inaccessible. This system will need to be abandoned, perhaps removed, and replaced. As the site is relatively flat it may be difficult to provide gravity sanitary sewer service to the south end of the site. This would need to be investigated as actual development plans are pursued. There will need to be coordination with WES with regard to connection to their interceptor line. This may include an evaluation of capacity of the line with regard to the potential sanitary sewer flows at the site.

Storm drainage: Existing water quality facilities have been installed as temporary measures until development occurs. The temporary measures include gabions with filter material at one tailrace and the pipe gallery; retention and settling in the grotto; and rain gardens in totes for the roof drains. There are two outfalls on the site that are essentially pass through facilities that convey City and ODOT storm water. One is located at approximately mid site (north to south), and the other is at the south end discharging to the pond above the dam. The submerged outfall to the lagoon is believed to be damaged and would require repair or replacement to make the system fully functional. It appears that a portion of the storm water from the ODOT line is diverted to the sanitary sewer which flows directly to the WES interceptor pipe. This needs to be verified, and rectified. In future conditions, storm water may be directed away from the sanitary sewer.

The site has been cleaned up such that storm water from the site can be discharged to the Willamette River without further environmental remediation. Future storm water systems will only need to meet the City standards. Due to the direct discharge to the Willamette River detention will not be required. Standard water quality treatment will be required.

New facilities will need to provide for collection and treatment prior to discharge. Alternative treatment methods such as low-impact design methods may need to be considered due to the nature of the site (bedrock at the surface or near).

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 city's mechanism for inventorying and protecting Goal 5 resources on the site is through the Natural Resources Overlay District. 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. Resources on this site are related to its proximity to the Willamette River and the associated NROD district boundary reflects the riparian resources. The city's Natural Resource Overlay District applies to the entire Willamette Falls District, and its requirements will be met as part of any future detailed development plan application.

Though the site is on the banks of the river, the entire developed area of the site and covered with impervious surface. The NROD chapter provides an exemption for properties that do not increase impervious surface over existing conditions (17.49.080.J). This exemption is likely to be invoked for future development, since there is virtually no pervious surface on the existing site. Because the property is completely built out with decades of industrial development In fact, changes to the site will likely increase pervious surface in the district.

Nevertheless, satisfying the overall district objectives requires attention to habitat restoration and environmental protection. To that end, the master plan identifies restoration and enhancement opportunities for the site that will improve riparian conditions and fish and wildlife habitat. These enhancement actions can also provide improvements for water resources, including stormwater treatment and water quality. The existing conditions and menu of proposed, high-value site improvements is outlined in a natural resources assessment prepared by ESA in October 2012, "Willamette Falls Legacy Project: Habitat and Water Resources Opportunities," which is included as an appendix. In addition, Metro scientists have done two years of study about the healthy habitat elements of the site, and further refined the list of environmental restoration targets at the site. These inputs have created key recommendations for enhancing the site's natural resource values:

- Expose and restore the historical shoreline
- Diversify habitat, restore tailraces, revegetate, remove invasive species
- Provide stormwater treatment along shoreline and in grotto
- Increase circulation in lagoon
- Diversify lagoon habitat

Two of the above identified actions would be especially important to improving the habitat values of the Willamette Falls site and its adjunct river corridor. Tail races once carved deep into the site at its southern end have been filled in or channelized as industrial development dominated the site. The intake basin (*i.e.*, lagoon), which creates an upper section of river through the site above the dam, provided a place for water transportation into the site from upstream. This water body is now stagnant. Re-establishing the mill races, either in part or in full, to receive greater flows from the lagoon has multiple environmental benefits. The water quality of the lagoon improves by circulating fresh water through the area. Greater circulation would aerate water flowing through the tail races, thus providing a more welcoming habitat for fish and other riparian vegetation. The master plan shows this concept, with the understanding that the development of the open space in this location is still undetermined. The design of the open space and development in this area of the site will be determined in a future development application.

There are currently no locally designated historic structures (OCMC 17.40) located on the property. The Willamette Falls site is not currently located within a local or National Register Historic District. However, a report was prepared by a preservation specialist in 2002 for Portland General Electric & the Blue Heron Paper Company, in cooperation with the West Linn Paper Company. Oregon SHPO indicated that some of the buildings located on site are contributing historic structures that are eligible for listing on the National Register of Historic Places.

In the spring of 2012, the City of Oregon City provided updated survey data to the 2002 Determination of Eligibility, including additional information on the 1950s structures in the Oregon Historic Site Database. In the fall of 2012, the Oregon State Historic Preservation Office issued a Revised Determination of Eligibility for the site that concurred with the updated information and, due to the salvage work onsite, indicated that the site was no longer eligible for listings as a National Register District. Therefore, all of the buildings were reviewed individually for eligibility. The results of this review are included as an appendix to this application.

Buildings listed in the National Register of Historic Places, either individually or as a contributing building in a historic district, are eligible to take advantage of the 20% Federal Tax Credit Program and the State Special Assessment Program. A future property owner may choose to nominate some or all of the historic contributing buildings to take advantage of both programs.

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 project's anticipated impact and associated mitigation measures were discussed above in Section 1, Proposed Development Impacts and Mitigation. The following table summarizes the discussion of impacts.

Table 11. Development Impacts and Mitigation

Impact category	Impact from Master Planned development	Summary of Proposed Mitigation
Aesthetics	New mixed use development and open space waterfront areas.	Impact is positive, no mitigation required.
Environmental Resources	Riparian corridor already badly degraded from years of heavy industrial use. New development subject to NROD and protects sensitive resources.	Plan includes enhancement opportunities to: expose and restore historical shoreline (diversify habitat, restore mill races, revegetate); provide stormwater treatment along shoreline and in grotto; increase circulation in lagoon and diversify habitat; establish vegetated buffer upslope.
Cultural Resources	Open up access to highly significant Native American site.	Impact is generally positive, no mitigation required. Future development will coordinate with tribes to assess impacts.
Hydrology and Water Quality	Site already heavily impervious because of basalt shelf and industrial development. No increase in impervious surface anticipated.	Areas in floodplain generally designated for open space uses
Noise	Reduced noise impacts from what is allowed under current zoning, because of conversion to mixed use development.	Impact is positive, no mitigation required.
Transportation/Traffic	Additional vehicle and pedestrian traffic from development of new buildings and open space uses.	Package of improvements in and near site to mitigate impacts. Includes: signal at 6 th and 99E, shared use path on waterfront, Water Street access, northbound right at Main/99E intersection, indirect left into site via Railroad, and ped bridge over 99E at south end of site.

6. The proposed general development plan is consistent with the Oregon City Comprehensive Plan and its ancillary documents.

Response: The following comprehensive plan goals and policies have been determined to be applicable to the general development plan and are addressed below

Introduction

Statements of Principle

Oregon City's Comprehensive Plan is founded on a number of principles, which shape the City Commission's vision for the future growth and development of the city. The principles help determine the scope of issues, concerns, and actions that will guide development, and they are reflected in the plan's goals and policies. Statements of these principles, listed below, are not legally binding. They are instead intended to help citizens understand the kind of city this plan will help to achieve.

*Promote sustainability and sustainable development. ****

*Contain urban development. ****

*Promote redevelopment. ****

*Protect natural resources. ****

*Foster economic vitality. ****

*Provide efficient and cost-effective services. ****

*Ensure a sense of history and place. ****

Response: The proposed general development plan for the Willamette Falls Downtown District is consistent with the above statements of principle because it takes a comprehensive approach to the redevelopment and revitalization of the district. The plan promotes sustainability by incorporating protections and enhancement for the site's riparian values, promoting the adaptive reuse of existing historic buildings on the site, and creating a pedestrian-friendly street and pathway network that will minimize car travel. It contains urban development by anticipating highly urban uses and building types downtown, which is the most central area of the city and will reinforce the core of the city. It promotes redevelopment by establishing a clear set of rules for buildings and open space, and designating more than six acres of the site for new development, and laying out the anticipated network of transportation and utility connections that will accompany future development. It protects natural resources by identifying a list of resource enhancement opportunities and requiring compliance with existing city rules for environmental protection. It fosters economic vitality by designating land for redevelopment consistent with current market realities, and providing more certainty for private and public investment on the site with regard to the spatial organization of the property. It provides efficient and cost-effective services because it promotes the redevelopment of 22 acres adjacent to the core of the city where it is easiest to provide utilities and other public services. It ensures a sense of history and place by designating specific buildings and structures for historic preservation, reestablishing the historic street grid, and requiring that new development show respect for the natural, territorial, and industrial history of the site.

Section 2: Land Use

Industrial Land

There is often pressure to convert industrially zoned land to easily developable sites and other uses. The goals of the City are to protect existing industrial land from conversion, where appropriate, to annex industrial land and expand the Urban Growth Boundary to add urbanizable industrial land to the inventory, and to ensure that public facilities can serve future development.

- *Industrial (I) – uses related to manufacturing, processing and distribution of goods. Employment-based uses are encouraged. Intensive or heavy industrial uses are allowed in certain zones. Zones in the Comprehensive Plan Land-Use Map district are designed to comply with requirements of Title 4 of Metro’s Urban Growth Management Functional Plan (1998).*
- *Mixed Use Downtown (MUD) – urban density, mixed uses that are conducive to pedestrian and transit uses. This category is intended to be used to implement the Oregon City Downtown Community Plan (1999), the Oregon City Waterfront Master Plan (2002), and Metro’s Regional Center concept, particularly in terms of connecting the Downtown with the waterfront. A design overlay is included in this area and is intended to promote development consistent with Oregon City’s traditional Downtown form.*

Response: The proposed plan is for re-development of the formerly industrial site, and is concurrent with a zone change from industrial to a mixed-use zone that supports a wider range of uses including office, craft industrial, commercial, and residential uses. This is consistent with comprehensive plan policy 2.2.12, “Ensure a master plan is developed at the Blue Heron Paper Company site ... which addresses transitioning the overall site from industrial to non-industrial land uses.” The industrial history of the site is rooted in its proximity to the falls as a source of power. Being close to hydro-power is no longer a necessary requirement for desirable industrial land. Moreover, the location of this site has numerous challenges that have rendered it less appealing for industrial use than other site’s within the city: limited transportation access, more than half the property being within the floodplain, and the presence of existing mill infrastructure. Finally, the city currently has in its inventory adequate and industrial land in areas with many fewer constraints.

Goal 2.1 Efficient Use of Land

Ensure that property planned for residential, commercial, office, and industrial uses is used efficiently and that land is developed following principles of sustainable development.

Policy 2.1.1

Create incentives for new development to use land more efficiently, such as by having minimum floor area ratios and maximums for parking and setbacks.

Policy 2.1.2

Encourage the vertical and horizontal mixing of different land-use types in selected areas of the city where compatible uses can be designed to reduce the overall need for parking,

create vibrant urban areas, reduce reliance on private automobiles, create more business opportunities and achieve better places to live.

Policy 2.1.3

Encourage sub-area master planning for larger developments or parcels, including re-development, where it may be feasible to develop more mixed uses, or campus-style industrial parks, with shared parking and landscaping areas. Allow developments to vary from prescriptive standards if planned and approved under this provision.

Policy 2.1.4

Use redevelopment programs such as urban renewal to help redevelop underutilized commercial and industrial land.

Response: The proposed plan for the Willamette Falls District will use land efficiently because it provides for a range of uses to mix on the same site at urban densities, and in a location that is close to existing development and public services. The new zone that is being created for this area encourages efficient use of land by establishing a minimum floor area ratio, no minimum setback, and very low parking minimums. The historic street grid that will be re-established on the site likewise creates a very rational and efficient division of the site into development blocks that are well suited for mixed use development of many different kinds, while providing sufficient access to each area of the site. The range of uses that are allowed and anticipated to occur at the site--employment, residential, commercial--will create a vibrant urban setting that drives economic development and also reduces the need for parking and automobile travel. The large scale nature of this development area and its current status as being in a single ownership provides unique opportunities for shared parking and common landscape areas. The areas proposed in the master plan for open space which are closest to the river (and below the floodplain) are an example of a common open space that efficiently serves the whole district.

Goal 2.2 Downtown Oregon City

Develop the Downtown area, which includes the Historic Downtown Area, the "north end" of the Downtown, Clackamette Cove, and the End of the Oregon Trail area, as a quality place for shopping, living, working, cultural and recreational activities, and social interaction. Provide walkways for pedestrian and bicycle traffic, preserve views of Willamette Falls and the Willamette River, and preserve the natural amenities of the area.

Policy 2.2.1

Redefine the Metro Regional Center concept to recognize the unique character of Oregon City while being in accordance with Metro's 2040 Growth Concept.

Policy 2.2.2

Support multi-modal transportation options throughout the Regional Center and to other Regional and Town Centers.

Policy 2.2.3

Develop and promote a vision for the economic development and redevelopment of the Downtown area that solidifies the Oregon City Downtown Community Plan and Oregon City Waterfront Master Plan.

Policy 2.2.4

Target public infrastructure investments and create public/private partnerships to leverage maximum benefits from public investment and to help ensure that the Regional Center develops to its maximum capacity and realizes its full potential.

Policy 2.2.5

Encourage the development of a strong and healthy Historic Downtown retail, office, cultural, and residential center.

Policy 2.2.6

Working with major stakeholders, develop and implement a strategy to help the Historic Downtown Area enhance its position as a retail district. Such a strategy might include funding for a “Main Street” or similar program.

Policy 2.2.9

Improve connectivity for vehicles, bicycles, and pedestrians within the Oregon City Downtown community and waterfront master plan areas and improve links between residential areas and the community beyond.

Policy 2.2.11

Investigate an interpretive scheme that incorporates the End of the Oregon Trail Interpretive Center, the waterfront, and Downtown. Describe environmental, social, and historic aspects including the concept of a greenway along Abernethy Creek and nearby structures of historic significance.

Policy 2.2.12

Ensure a master plan is developed at the Blue Heron Paper Company site at such time as the property owner proposes a large-scale development, which addresses transitioning the overall site from industrial to non-industrial land uses.

Policy 2.2.13

Monitor the redevelopment within the Downtown Design District and investigate the need to require retail and service uses on the first floor and limit residential and office uses to the second floor and above.

Response: The proposed plan for the Willamette Falls Downtown District extends the existing downtown further to the south. The new district is anticipated to have a similar mixed-use feel as downtown, but also have larger buildings and a wider range of uses that are reflective of the industrial and employment history of the area. The change in zoning will allow for a wide range of uses within the area that are typical of Oregon City’s downtown, shopping, employment, culture and recreation, and also potentially light industrial uses. The plan creates a network of multi-use paths for pedestrian and bicycle traffic, and preserves the natural amenities of the site, which are largely related to the river. Most of all, the redevelopment and opening up of this district will preserve and enhance views of Willamette Falls and the Willamette River, by creating public access to the historic center of the region in a way that has not been possible for the last 100-plus years.

The master plan supports Metro's Regional Center concept by increasing development and multi-modal transportation options within an existing downtown. The proposed new development will be well-served by existing services that are already present on site or close to it. Connectivity to the existing downtown and its surrounding areas will be vastly improved by the anticipated transportation improvements including a riverfront pathway that will provide access up to the edge of the falls.

The most directly applicable policy is 2.2.12, "Ensure a master plan is developed at the Blue Heron Paper Company site at such time as the property owner proposes a large-scale development, which addresses transitioning the overall site from industrial to non-industrial land uses." This is exactly the purpose of this land use application, as it sets out the rules and expectations for the long term conversion and redevelopment of the site from its former industrial use to that of a district more consistent with the mixed use character reflective of the existing historic downtown.

Goal 2.3 Corridors

Focus transit-oriented, higher intensity, mixed-use development along selected transit corridors.

Policy 2.3.1

Ensure planning for transit corridors includes facilities and access management, aesthetics (including signage and building facade improvements), infill and redevelopment opportunities, high-density residential development, and business assistance to existing businesses.

Response: This site is bounded by a transit corridor, on Highway 99E, which is served by TriMet's line 33 bus. The site itself is not open to the public, nor is it currently in use as an employment center, so it is not served in any real way by transit. There is a stop three blocks north of the site in the downtown at 7th and Railroad, and southeast of the site at 2nd and Tumwater. Nevertheless, with the anticipated redevelopment of the site, transit access into and through the site is likely to improve. Overall, the development standards and requirements for the site are highly supportive of transit-oriented development.

Goal 2.6 Industrial Land Development

Ensure an adequate supply of land for major industrial employers with family-wage jobs.

Policy 2.6.1

Work with Metro to ensure that there is enough land available within the Urban Growth Boundary to meet the need for industrial and/or commercial may be appropriate to annex. The selection of these areas will be based on market factors, protection of environmentally sensitive areas, compatibility with development. If there is not enough, identify areas outside the boundary that adjoining and nearby uses, public facilities and infrastructure, proximity to expressways and transit, site requirements of specific types of industries, and the desires of the property owners.

Policy 2.6.2

Ensure that land zoned or planned for industrial use is used for industrial purposes, and that exceptions are allowed only where some other use supports industrial development. New non-industrial uses should especially be restricted in already developed, active industrial sites.

Policy 2.6.3

Protect the city's supply of undeveloped and underdeveloped land zoned for industrial uses by limiting non-industrial community uses, such as schools, parks, and churches on such properties and by limiting larger commercial uses within those areas.

Policy 2.6.4

Protect existing and planned undeveloped and underdeveloped industrial lands from incompatible land uses, and minimize deterrents to desired industrial development.

Policy 2.6.5

Ensure that land-use patterns create opportunities for citizens to live closer to their workplace.

Policy 2.6.6

Identify industrial uses that could partner with Clackamas Community College as training centers and future employers of students graduating from CCC.

Policy 2.6.7

Establish priorities to ensure that adequate public facilities are available to support the desired industrial development.

Response: The plan will re-develop a formerly industrial site, and is proposed concurrent with a zone change from industrial to a mixed-use zone that supports a wide range of uses including office, craft industrial, commercial, and residential uses. This change is consistent with the comprehensive plan policy most clearly directed at the site, policy 2.2.12, which states, "Ensure a master plan is developed at the Blue Heron Paper Company site ... which addresses transitioning the overall site from industrial to non-industrial land uses." This policy must be balanced against policies for preserving industrial land within the city. The decision to convert this land to mixed-use is the result of an analysis of its highest and best use, and that proximity to hydro-power is no longer a necessity for industrial users. Constraints on the site--limited access, floodplain, existing mill infrastructure--make it even more challenging for industrial development. The new Willamette Falls Downtown District will still allow craft industrial or light industrial uses such as small-scale apparel manufacturing or beer brewing. Finally, the city currently has in its inventory adequate and industrial land in areas with many fewer constraints.

Goal 5.1 Open Space

Establish an open space system that conserves fish and wildlife habitat and provides recreational opportunities, scenic vistas, access to nature and other community benefits.

Policy 5.1.2

Manage open space areas for their value in linking citizens and visitors with the natural environment, providing solace, exercise, scenic views and outdoor community benefits.

*Conserve open space along creeks, urban drainage ways, steep hillsides, and education.
Built features in open space sites should harmonize with natural surroundings.*

Response: The proposed framework plan for the site designates identifies area near the waterfront and below the flood zone for open space uses. Because these areas are closest to the river and within the flood zone, they will be amenable to the values identified above. Some of this area is currently open water or cliff-top and thus unbuildable. A wide range of possibilities for the construction of these open space blocks could improve fish and wildlife habitat by roughening the shoreline and re-employing the mill races that have been hidden or covered over by decades of industrial development. Recreational opportunities could be created that will allow people to circulate through the district on a riverfront path to the edge of the falls, and beyond to Canemah. A planned waterfront path reaches its terminus at the edge of the falls, which is one of the most spectacular scenic vistas in the State of Oregon. Shoreline restoration and enhancement and the presence of a riverfront path will allow people access to this natural resource in a way that has not been possible for over 100 years. In all the anticipated options for development of the open spaces, citizens and visitors will be able to connect with the natural environment and gain access to views and the outdoors.

Goal 5.2 Scenic Views and Scenic Sites

Protect the scenic qualities of Oregon City and scenic views of the surrounding landscape.

Policy 5.2.1

Identify and protect significant views of local and distant features such as Mt. Hood, the Cascade Mountains, the Clackamas River Valley, the Willamette River, Willamette Falls, the Tualatin Mountains, Newell Creek Canyon, and the skyline of the city of Portland, as viewed from within the city

Policy 5.2.2

Maximize the visual compatibility and minimize the visual distraction of new structures or development within important viewsheds by establishing standards for landscaping, placement, height, mass, color, and window reflectivity.

Response: The plan protects the scenic qualities of the city by setting up a framework that will prioritize public access and help bring citizens and visitors to the falls. The most significant feature of the site, its presence at the edge of the falls, is currently obscured by industrial buildings and the lack of access. The proposed plan will create new access, and new buildings will comply with a proposed design guideline that insures respect for the views. Development standards in the new zone and compliance with design guidelines address the details of future development.

Goal 5.3 Historic Resources

Encourage the preservation and rehabilitation of homes and other buildings of historic or architectural significance in Oregon City.

Policy 5.3.4

Support the preservation of Oregon City's historic resources through public information, advocacy and leadership within the community, and the use of regulatory tools and incentive programs.

Policy 5.3.8

Preserve and accentuate historic resources as part of an urban environment that is being reshaped by new development projects.

Response: This plan identifies buildings of historical significance on the site and designates them for preservation or rehabilitation as part of any redevelopment project. Four buildings and a foundation (of the 50-plus structures on the site) are identified as highest value considering their historicity and potential for re-use. Four other buildings are designated as worth saving, either whole or in part, but of less importance than the top tier. Elements or pieces of other buildings on the site have value, but will be more difficult to save. This plan lays out the regulatory tools and incentive programs for historic preservation. As part of the plan and as also promoted by the design guidelines, new development projects will emphasize and accentuate the historic value of the site and integrate these resources into the new setting.

Goal 5.4 Natural Resources

Identify and seek strategies to conserve and restore Oregon City's natural resources, including air, surface and subsurface water, geologic features, soils, vegetation, and fish and wildlife, in order to sustain quality of life for current and future citizens and visitors, and the long-term viability of the ecological systems.

Policy 5.4.1

Conserve and restore ecological structure, processes and functions within the city to closely approximate natural ecosystem structure, processes, and functions.

Policy 5.4.2

Cooperate with Clackamas County, Metro and other agencies to identify and protect wildlife habitat, distinctive natural areas, corridors and linkages and other ecological resources within the Urban Growth Boundary and incorporate the information into the Urban Growth Management Agreement with Clackamas County.

Policy 5.4.4

Consider natural resources and their contribution to quality of life as a key community value when planning, evaluating and assessing costs of City actions.

Policy 5.4.5

Ensure that riparian corridors along streams and rivers are conserved and restored to provide maximum ecological value to aquatic and terrestrial species. This could include an aggressive tree and vegetation planting program to stabilize slopes, reduce erosion, and mitigate against invasive species and stream impacts where appropriate.

Policy 5.4.6

Support and promote public education, interpretation, and awareness of the city's ecological resources.

Policy 5.4.8

Conserve natural resources that have significant functions and values related to flood protection, sediment and erosion control, water quality, groundwater recharge and discharge, education, vegetation and fish, and wildlife habitat.

Policy 5.4.9

Protect and enhance riparian corridors along streams in Oregon City to increase shade, reduce streambank erosion and intrusion of sediments, and provide habitat for a variety of plants, animals, and fish.

Policy 5.4.10

Encourage and promote the restoration of the hydrologic and ecological character and function of streams and wetlands that have been degraded by channeling or eliminated from the landscape by routing into culverts.

Policy 5.4.16

Protect surfacewater quality by:

- *providing a vegetated corridor to separate protected water features from development*
- *maintaining or reducing stream temperatures with vegetative shading*
- *minimizing erosion and nutrient and pollutant loading into water*
- *providing infiltration and natural water purification by percolation through soil and vegetation.*

Response: This plan identifies both the location and type of restoration projects that will improve the natural resources present on the site. Though degraded by a century of heavy industrial use, the riparian setting provides tremendous opportunities. As listed in the plan, future development could expose and restore the historical shoreline, increase the circulation in the lagoon and diversify habitat, and establish a vegetated buffer along the riverbank. These actions would dramatically improve resource values and upgrade habitat for fish, birds, and plant communities. Finally, by designating a large area of the site as ideal for open space or park uses, the plan sets a framework for a large reduction in impervious surface and an increase in landscaped area. This would have an overall benefit to the site's natural resource functions.

Goal 6.1 Air Quality

Promote the conservation, protection and improvement of the quality of the air in Oregon City.

Policy 6.1.1

Promote land-use patterns that reduce the need for distance travel by single occupancy vehicles and increase opportunities for walking, biking and/or transit to destinations such as places of employment, shopping and education.

Policy 6.1.2

Ensure that development practices comply with or exceed regional, state, and federal standards for air quality.

Response: This plan creates a multi-modal district with a mix of uses that will reduce the need for distance travel. By placing a range of uses together within close distance, and accessible by non-auto methods of travel, air quality will be protected. All

development in the district will be subject to current regional, state, and federal air quality standards.

Goal 6.2 Water Quality

Control erosion and sedimentation associated with construction and development activities to protect water quality.

Policy 6.2.1

Prevent erosion and restrict the discharge of sediments into surface- and groundwater by requiring erosion prevention measures and sediment control practices.

Policy 6.2.2

Where feasible, use open, naturally vegetated drainage ways to reduce stormwater and improve water quality.

Response: The city's existing erosion control standards in OCMC 15.48 are to be used for any future construction or development on the site. This will reduce or eliminate discharge of sediment. Stormwater planters will be incorporated into site design as feasible, although the solid basalt base for the site offers little natural ability for water to be absorbed.

Goal 7.1 Natural Hazards

Protect life and reduce property loss from the destruction associated with natural hazards.

Policy 7.1.1

Limit loss of life and damage to property from natural hazards by regulating or prohibiting development in areas of known or potential hazards.

Policy 7.1.5

Minimize the risk of loss of life and damage to property from flooding by limiting development in the 100-year floodplain and by ensuring that accepted methods of flood proofing are used.

Policy 7.1.6

Encourage the use of land and design of structures that are relatively unaffected by the periodic effects of flooding, such as parking and other uses not normally occupied by humans.

Policy 7.1.7

Prohibit uses in areas subject to flooding that would exacerbate or contribute to hazards posed by flooding by introducing hazardous materials, filling or obstructing floodways, modifying drainage channels, and other detrimental actions.

Response: As a riverfront site, 12.5 acres of the 22 acre site is located within the 100 year floodplain. This plan outlines a design that protects life and reduces property loss by locating open space and waterfront uses within areas most vulnerable to flooding. This insures that those areas likely to flood are occupied by land and structures unaffected by flooding, like open spaces or unoccupied areas underneath buildings. Though some building development could occur within these zones, especially if it relates to the

adaptive reuse of historic structures, any construction would be subject to the city's Flood Management Overlay District rules (OCMC 17.42). These rules require flood proofing and balanced cut and fill.

Goal 8.1 Developing Oregon City's Park and Recreation System

Maintain and enhance the existing park and recreation system while planning for future expansion to meet residential growth.

Policy 8.1.1

Provide an active neighborhood park-type facility and community park-type facility within a reasonable distance from residences, as defined by the Oregon City Park and Recreation Master Plan, to residents of Oregon City.

Policy 8.1.3

Develop regional and community parks in such a way that revenue-producing amenities are included to bring in a revenue stream to partially fund maintenance of the parks system.

Response: The proposed plan areas of the site well-suited for open space or waterfront uses. A large portion of this area is expected to be developed into a regional, neighborhood or community park-like facility that would be available for use by all residents of Oregon City and the region. Design of the facility or funding for it is still uncertain, but the plan clearly designated land close to the river for this use. Depending on the nature of the open space facility, this could include a revenue-producing amenity that offsets maintenance costs.

Goal 9.1 Improve Oregon City's Economic Health

Provide a vital, diversified, innovative economy including an adequate supply of goods and services and employment opportunities to work toward an economically reasonable, ecologically sound and socially equitable economy.

Policy 9.1.1

Attract high-quality commercial and industrial development that provides stable, high-paying jobs in safe and healthy work environments, that contributes to a broad and sufficient tax base, and that does not compromise the quality of the environment.

Policy 9.1.2

Contribute to the health of the regional and state economy by supporting efforts to attract "traded sector industries" such as high technology and production of metals, machinery, and transportation equipment. (Traded sector industries compete in multi-state, national, and international markets and bolster the state's economy by bringing money in from sales of goods and services outside of the state.)

Response: The proposed mix of uses, including employment, office, residential, retail, and light industrial uses, will allow a wide range of businesses and employers to locate at the Willamette Falls site, thereby building toward a strong local economy. The site has been an economic engine for the city for more than a century. While future development is expected to be at a smaller scale in a variety of businesses and

industries, the framework established by this plan will nevertheless create fertile ground for high-quality commercial development.

Goal 9.6 Tourism

Promote Oregon City as a destination for tourism.

Policy 9.6.1

Protect historic, recreational, and natural resources as the basis for tourism, such as the Historic Downtown Area.

Policy 9.6.2

Ensure land uses and transportation connections that support tourism as an important aspect of the City's economic development strategy. This could include connections to the End of the Oregon Trail Interpretive Center and the train depot.

Policy 9.6.3

Provide land uses in the Downtown Historic Area, 7th Street corridor, and the End of the Oregon Trail Interpretive Center that support tourism and visitor services.

Policy 9.6.4

Encourage and support citywide events that would attract visitors and tie to the historic attractions of the city. Preserve tourism-related transportation services like the Oregon City Elevator and trolley.

Policy 9.6.5

Encourage river-related tourism facilities and services, such as docking facilities, river transit and river tours.

Policy 9.6.6

Encourage private development of hotel, bed and breakfast, restaurant facilities and other visitor services.

Response: The master plan has been structured to be especially responsive to tourism, and anticipates that the site will be a regional destination that could attract visitors and outside investment on a large scale, to the benefit of the entire city. The core attraction of the site is its namesake and a spectacular natural feature: the second largest falls, by volume, in North America, behind only Niagara Falls. The key component of this master plan is public access to the site, giving the greater public a chance to access the falls for the first time in 100 years. A waterfront pathway that leads to the falls is expected to be a major attraction. Facilities and uses that support this attraction are allowed in the new district, and will build out as people begin to discover the site. Also, planned open space blocks that will be most visited and shared by the public are oriented toward the falls. The plan therefore explicitly encourages river-related tourism and facilities to support it.

Goal 9.8 Transportation System

Recognize the importance of the land use-transportation link and encourage businesses to locate in areas already served by the type of transportation system they need.

Policy 9.8.1

Through coordination with TriMet and local employers, encourage and promote the use of mass transit to travel between residential areas and employment areas.

Policy 9.8.2

Participate in regional efforts to encourage employers to promote telecommuting and other flexible work arrangements.

Policy 9.8.4

Promote “shared parking” and transportation demand management techniques such as transit vouchers, car or van pooling, and flexible schedules and telecommuting options to reduce peak hour trips.

Policy 9.8.6

Encourage the provision of multi-modal transportation to support major existing employers.

Policy 9.8.7

Assess methods to integrate the pedestrian, bicycle and elevator transportation modes into the mass transit system.

Response: The new Willamette Falls District has been planned to be a multi-modal area that has a high level of pedestrian and bicycle amenities, a mix of land uses in close proximity, and high densities that will support convenient and efficient transportation, and reduce peak hour trips. Transit stops that are close to but not on the site may one day be brought into the property, and the rich network of pedestrian and bicycle connections will complement transit opportunities. The parking plan for the site explicitly encourages shared parking both within and outside the district.

Goal 10.1 Diverse Housing Opportunities

Provide for the planning, development and preservation of a variety of housing types and lot sizes.

Policy 10.1.3

Designate residential land for a balanced variety of densities and types of housing, such as single-family attached and detached, and a range of multi-family densities and types, including mixed-use development.

Response: There is no housing currently on the site, because it is not allowed by the existing General Industrial zoning. The proposed change in zoning will allow for multi-family residential uses. This is just one of many uses in what is anticipated by the master plan to be a mixed use zone with office, recreational, retail, and employment uses. Re-establishing a regular street grid makes development blocks that are well-suited for many types of development, including housing.

Goal 10.2 Supply of Affordable Housing

Provide and maintain an adequate supply of affordable housing.

Policy 10.2.1

Retain affordable housing potential by evaluating and restricting the loss of land reserved or committed to residential use. When considering amendments to the Comprehensive Plan Land-Use Map, ensure that potential loss of affordable housing is replaced.

Response: By changing from a zone where housing is prohibited to one in which housing is an allowed use, this land use action creates an opportunity for new housing at any price level. Regardless of the affordability of potential future housing on the site, increasing supply will reduce price pressure on other units in the city. Affordable housing potential, as described in Policy 10.2.1, is increased by creating land where it could be built.

Goal 12.1 Land Use-Transportation Connection

Ensure that the mutually supportive nature of land use and transportation is recognized in planning for the future of Oregon City.

Policy 12.1.1

Maintain and enhance citywide transportation functionality by emphasizing multi-modal travel options for all types of land uses.

Policy 12.1.3

Support mixed uses with higher residential densities in transportation corridors and include a consideration of financial and regulatory incentives to upgrade existing buildings and transportation systems.

Policy 12.1.4

Provide walkable neighborhoods. They are desirable places to live, work, learn and play, and therefore a key component of smart growth.

Response: The Willamette Falls District is a multi-modal district that has a high level of pedestrian and bicycle amenities, a mix of land uses in close proximity, and high densities that will enhance convenient and efficient transportation choices. The development standards, use provisions, and design standards that are part of the district's regulatory scheme will promote mixed uses and higher residential densities, along with walkable neighborhoods.

Goal 13.1 Energy Sources

Conserve energy in all forms through efficient land-use patterns, public transportation, building siting and construction standards, and city programs, facilities, and activities.

Policy 13.1.1

Maintain the historic use of Willamette Falls as an energy source for industrial and commercial development.

Response: Willamette Falls is no longer used as an energy source for industrial and commercial development, but the proposed plan does not interfere with or preclude future use of the falls for this purpose. PGE will retain its current ownership of the dam on the Oregon City side of the falls. It has the authority to use the dam to create and/or transmit hydro power in the future.

*Goal 13.2 Energy Conservation**Plan public and private development to conserve energy.**Policy 13.2.3**Plan for complementary mixed uses when considering annexation of new, under- or undeveloped areas so that new urban residential areas have closer access to jobs and services.**Policy 13.2.5**Construct bikeways and sidewalks, and require connectivity of these facilities to reduce the use of petroleum-fueled transportation.*

Response: Development on the site is organized to accommodate a wide range of complementary mixed uses: office and other employment, retail, residential, and recreational. The planned network of sidewalks on the street network and a multi-use path along the riverfront will create connectivity throughout the site. Buildings are expected to be multi-story, multi-use structures, which are more energy-efficient than the same uses in detached buildings. Taken together, these plan elements will help conserve energy.

*Goal 15.1 Protect the Willamette River Greenway**Ensure the environmental and economic health of the Willamette River by adopting goals, policies and procedures that meet LCDC Statewide Planning Goal 15, Willamette River Greenway.**Policy 15.1.1**Protect the significant fish and wildlife habitat of the Willamette River by maximizing the preservation of trees and vegetative cover.**Policy 15.1.2**Preserve major scenic views, drives and sites of the WRG.**Policy 15.1.3**Encourage access to and along the river consistent with the Oregon City Park and Recreation Master Plan and the Oregon City Waterfront Master Plan.**Policy 15.1.4**Restrict new substations and power line towers in the WRG and river view corridor.**Policy 15.1.5**Protect and maintain parks and recreation areas and facilities along the Willamette River to minimize effects in the WRG, in accordance with the Oregon**City Park and Recreation Master Plan and the Oregon City Waterfront Master Plan.**Policy 15.1.6**Review uses proposed for inside the Willamette River Greenway Compatibility Review Boundary for consistency with local goals and policies for that area.*

Response: The entire Willamette Falls District is within the Willamette River Greenway, protects the scenic, historic, and recreational qualities of the riverfront. Allowed uses in

the new zone are appropriate for lands within the greenway, as long as the development associated with these uses protects the important riverfront qualities.

The plan requires that applicants meet Willamette River Greenway standards, including a setback that keeps structures separated from the river. Separation between buildings and the river must be found to “protect, maintain, preserve and enhance the natural scenic, historic and recreational qualities of the Willamette River Greenway” (17.48.080.E)

For everything within 150 feet of the ordinary low water line, there is a Greenway “compatibility review” (17.48.100.A) that will be part of a future detailed development plan application. This compatibility review emphasizes landscaped area between the new activity and the river and public access along the riverfront.

The application also proposes a text amendment to the Willamette River Greenway code that would allow main or accessory residential structures in the Willamette Falls District taller than 35 feet. Development within the district (which is entirely covered by the Greenway overlay) will maintain compliance with this planning goal because it is also subject to land use review through the master plan requirements. New development must show that it is consistent with the master plan and the four core values for the site, and comply with development standards and design guidelines. This process will protect the stated values of the Greenway.

Modifications and Adjustments to Master Plan Process

The general development requests two adjustments to development standards, as permitted during the master plan process. First, the applicant requests that future detailed development plans be reviewed through a Type III, rather than a Type II process, as would otherwise be required in OCMC 17.65.040.C. The reason for this change is that the proposed general development plan is less specific than usual for a master plan, because it is designed to be a flexible framework plan for future development. The shape of new buildings and open space on the site will evolve depending on the direction of a future developer, combined with a funding and financing plan that is not yet determined. The proposed plan offers a great deal of flexibility for a range of positive outcomes. However, that flexibility requires greater scrutiny and discretion by Oregon City at the next stage of the development process, more than can appropriately be decided by staff. One of the key elements of future review will be compliance with the design guidelines contained in this approval, for which planning staff anticipates incorporating the advice of the design community as part of the review. Also, future detailed plans will have to comply with multiple kinds of review, as described in Section 1 of this application: compliance with underlying zoning, consistency with this general development plan and design guidelines, the equivalent of site plan and design review, and compliance with rules for four overlay

zones that might apply depending on location. Given the depth and complexity of a future development review, and the importance of this site to the City, future detailed development plans should be reviewed as a Type III process, which automatically is considered by the Planning Commission.

One exception to the above adjustment request – that all detailed development plans be elevated to Type III review – is for smaller projects, specifically those that meet all the requirements for minor site plan and design review (OCMC 17.62.035). In these limited situations, the detailed development plan may remain as a Type II review, but is still subject to the same standards identified in this master plan.

The second adjustment to the master plan process relates to the timing of which regulations apply. Although the master plan chapter allows development to freeze regulations in time as of the date of general development plan approval, the applicant requests that future plans instead be subject to the land use regulations in effect on the date those plans are submitted.

Overall, through the duration of this master plan, the principle of redevelopment of historic and non-historic structures on the site is vested by this framework plan. Current rules allow, for example, renovation of waterfront structures if habitable areas are above flood elevation, Greenway compatibility standards are met, natural resources are protected, etc. The proposed modification – allowing future applications to be subject to development standards that are current – should not be construed to override the principle that redevelopment is permitted and encouraged. As long as proposals comply with all the standards of the master plan, and can meet development standards, they may be approved.

The timeframe for this approval is 20 years long. The site will build out in different stages, over a long period of time. In addition, properties on the site, depending on location, could be subject to multiple different sections of the Oregon City Municipal Code: rules for master plans, site plan and design review, and four different overlay zones. For ease of review by city staff, and so that future developers do not have to comb through old codes to find out which version is applicable, this general development plan streamlines the review by making future applications subject to regulations in effect at the date of detailed development plan submittal. This is specifically allowed by the master plan chapter (17.65.090), and requires no specific criteria/findings for approval.

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 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: The requirement that detailed development review is subject to a Type II process is an “applicable development regulation” as stated above, because it is contained in OCMC 17.65.040.C. The request to increase the level of review from Type II to Type III is not specifically listed under subsection (A), but this list is not exhaustive, as evidenced by the “but are not limited to” clause. The adjustment request is processed concurrently with the general development plan. An ancillary effect of this change will be that detailed development plans will be under a Type III review – with the exception of those small changes that can meet the minor site plan and design review thresholds – regardless of whether they also request an adjustment to a development standard.

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 request is to increase the level of review for detailed development plans from a Type II to a Type III process, with a minor exception for those small projects that meet minor site plan and design review thresholds. Such a change to the master plan process is not listed as a prohibited adjustment in this section, and is therefore allowed to proceed.

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: The purpose of the master plan regulation is as follows.

17.65.010 - 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.

The change to procedure that requires upgrading review from Type II to Type III is at the request of the applicant and serves to improve the level of scrutiny and insure the efficient growth of development on the site. The relatively open nature of the general development plan as a framework addresses “the larger development issues” but leaves specifics to a later date. The location and design of new buildings and open space on the site depends on the direction of a future owner, and a funding and financing plan that is not yet in place. The flexibility and discretion offered by the plan requires greater scrutiny by Oregon City at the detailed plan stage. Given the depth and complexity of a future development review, and the importance of this site to the city, future detailed development plans should be reviewed as a Type III process, which automatically goes to the Planning Commission. By doing so, the change helps facilitate an efficient and flexible review process, and provides more certainty for both future developers and the city.

Small projects that meet minor site plan and design review thresholds (OCMC 17.62.035) may still be processed as a Type II review. These projects will still be subject to the standards and conditions of the general development plan approval.

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. This criterion does not apply.

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

Response: The proposed change is procedural, and will have no effect on city designated Goal 5 resources. This criterion does not apply. To the extent that a future development application might impact Goal 5 resources, the increased level of scrutiny offered by a Type III rather than Type II review could potentially protect these resources more thoroughly than without the proposed change.

4. Any impacts resulting from the adjustment are mitigated; and

Response: The proposed change is procedural, and will have no on-the-ground impacts, and therefore nothing that needs to be mitigated. The change is merely to upgrade the level of review for future detailed development applications, from a Type II to a Type III land use review.

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

Response: The proposed change applies to the entire area covered by the master plan, which includes areas within the Natural Resource Overlay District. However, this change is strictly procedural, increasing the level of land use review for future projects from Type II to Type III, and therefore has no impacts on the resource and resource values. Because there are no significant detrimental environmental impacts, this criterion does not apply.

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

Response: The proposed change is procedural, and merely increases the level of public review from Type II to Type III. This is a minor change to procedure and is consistent with the Oregon City Comprehensive Plan. Insofar as any findings are required to satisfy this criterion, the findings for consistency of the master plan under OCMC 17.65.050.C.6 also are incorporated here, by reference, for the adjustment.

17.65.090 Regulations that apply.

An applicant is entitled to rely on land use regulations in effect on the date its general development plan application was initially submitted, pursuant to ORS 227.178(3), as that statute may be amended from time to time. After a general development plan is approved, and so long as that General Development Plan is in effect, an applicant is entitled to rely on the land use regulations in effect on the date its general development plan application was initially submitted, as provided above, when seeking approval of detailed development plans that implement an approved general development plan. At its option, an applicant may request that a detailed development plan be subject to the land use regulations in effect on the date its detailed development plan is initially submitted.

Response: The applicant requests that future detailed development plans be subject to the land use regulations in effect on the date its detailed development plan is initially submitted. Because this master plan may have multiple ownerships over the life of the plan, and because the financial and funding mechanisms are not yet in place for all district development, the level of detail and certainty is less than would be expected in a more traditional master plan. This approval has a 20 year lifespan. The site will build out in different stages, over a long period of time. In addition, properties on the site, depending on location, could be subject to multiple different sections of the Oregon City Municipal Code: rules for master plans, site plan and design review, and four

different overlay zones. For ease of review by city staff, and so that future developers do not have to comb through old codes to find out applicable language, this general development plan prefers the ease of making future applications subject to whatever land use regulations are in effect at the date of detailed development plan submittal.

Zone Change (17.68)

17.68.010 Initiation of the amendment.

A text amendment to this title or the comprehensive plan, or an amendment to the zoning map or the comprehensive plan map, may be initiated by:

- A. A resolution request by the city commission;*
- B. An official proposal by the planning commission;*
- C. An application to the planning division presented on forms and accompanied by information prescribed by the planning commission.*
- D. A Legislative request by the Planning Division.*

All requests for amendment or change in this title shall be referred to the planning commission.

Response: This zone change and comprehensive plan amendment results from an application to the planning division per 17.68.010.C above.

17.68.020 Criteria.

The criteria for a zone change are set forth as follows:

- A. The proposal shall be consistent with the goals and policies of the comprehensive plan.*

Response: Consistency with comprehensive plan goals and policies for the zone change was addressed in the findings for the general development plan, OCMC 17.65.50(C)(6), earlier this document. The plan goals and policies, and the applicant response to these policies, were selected and responded to in consideration of the whole proposal, both master plan and zone change. Therefore, rather than duplicate the entire section of policies and responses, this response incorporates those findings by reference. Based on the findings contained in that section, this parallel criterion for the zone change is met.

B. That public facilities and services (water, sewer, storm drainage, transportation, schools, police and fire protection) are presently capable of supporting the uses allowed by the zone, or can be made available prior to issuing a certificate of occupancy. Service shall be sufficient to support the range of uses and development allowed by the zone.

Response: As part of the pre-application conference, city and area service providers provided information in response to the applicant's request regarding water, sanitary, storm, and other public services. The responses from the city, and other information is summarized below:

Water supply: The existing water system consists of a connection to a 10-inch water main extending south from Main Street. It is known that the new DI pipe extends to the location of the PRV vault near the south end of the office building (SW corner of Hwy 99 and Main St.). The 10-inch main continues south down the extension of Main St. to about the middle of the site, then it turns east and goes under buildings, the railroad tracks and highway 99E, and goes up the cliff to connect to the City grid system at another PRV station. There are other smaller pipes on-site that extend from the 10-inch main.

Concurrent with future development, all of the on-site pipe from the PRV station on Main Street will be replaced. (The existing pipe is old, leaking and is either cast iron or steel.) The southern connection to the City water grid will also be replaced including the crossing of the railroad and highway, extension up the cliff and the PRV station. It would be beneficial for this connection to occur further south on the site in order to avoid dead-end lines. The water distribution system should be modeled to determine the best place to complete the southern loop, and to determine if additional City water system improvements are required east of the highway to support the fire flow requirements. It is assumed the 3,000 gpm fire flow will be required. The water distribution system should be modeled to determine if an extension of the 10-inch line from Main Street will be sufficient to provide the flow. The loop through the site may or may not be required for fire flow.

Near the southern end of the site there is another private water line that crosses the railroad and highway, and extends to the top of the cliff where there is a tank that is currently used to provide fire flow. It is assumed that this system will eventually be abandoned and demolished.

Sanitary sewer: There is existing private sanitary sewer collection system on site which is a gravity system consisting of 8 and 12 inch pipe. It connects directly to the WES interceptor on Highway 99E near the location of the future Water Street. A portion of the private pipe is located beneath the water filtration plant.

The existing private system on site is old, the condition is unknown and is at least partially inaccessible. This system will need to be abandoned, perhaps removed, and replaced. As the site is relatively flat it may be difficult to provide gravity sanitary sewer service to the south end of the site. This would need to be investigated as actual development plans are pursued. There will need to be coordination with WES with regard to connection to their interceptor line. This may include an evaluation of capacity of the line with regard to the potential sanitary sewer flows at the site.

Storm drainage: Existing water quality facilities have been installed as temporary measures until development occurs. The temporary measures include gabions with filter material at one tailrace and the pipe gallery; retention and settling in the grotto;

and rain gardens in totes for the roof drains. There are two outfalls on the site that are essentially pass through facilities that convey City and ODOT storm water. One is located at approximately mid site (north to south), and the other is at the south end discharging to the pond above the dam. The submerged outfall to the pond is believed to be damaged and would require repair or replacement to make the system fully functional. It appears that a portion of the storm water from the ODOT line is diverted to the sanitary sewer which flows directly to the WES interceptor pipe. This needs to be verified, and rectified. In future conditions, storm water should be directed away from the sanitary sewer.

The site has been cleaned up such that storm water from the site can be discharged to the Willamette River without further environmental remediation. Future storm water systems will only need to meet the City standards. Due to the direct discharge to the Willamette River detention will not be required. Standard water quality treatment will be required.

New facilities will need to provide for collection and treatment prior to discharge. Alternative treatment methods such as LID methods may need to be considered due to the nature of the site (bedrock at or near the surface).

Transportation: A transportation study included with the application studied access to the site and evaluated a full-build out scenario. It assumed a mix of uses as allowed by the proposed zoning, and a network of streets and pedestrian facilities to serve the site as outlined in the master plan. Final configuration and location of paths and streets will be determined when building or open space is proposed.

Based on modeling, these trips can be accommodated on the existing transportation network if a number of relatively minor improvements are made to improve safety and flow. This general development plan sets out a package of changes from existing conditions that will mitigate future impacts. They include the following.

- A signal at 6th and 99E
- A shared use path along the riverfront, connecting to the existing waterfront trail
- Creation of a new Water Street connecting into the site
- A northbound right turn lane at the Main/99E intersection
- An indirect left turn (jug handle) entry into site via Railroad Avenue
- A pedestrian bridge over 99E at the south end of the site

These improvements will be built incrementally, as development occurs, and will enable the smooth functioning of the transportation system in and around the site. This conclusion is based on analysis done in cooperation with Oregon City and ODOT transportation officials.

Schools: Housing is allowed in the Willamette Falls Downtown District, but the quantity of housing units to be constructed will depend on future action by a developer. The type and number of units has a large influence on how many school-aged children will live in the district. Because the district is not exclusively residential, and only multi-family housing is allowed as a housing type, a significant increase in school-attending children is not expected, and the existing school system could handle any increased enrollment.

Police: Police service will be the responsibility of Oregon City Police, who currently serve the site. The city has not indicated the need for any significant change in levels of police services due to the redevelopment of the site.

Fire: Fire protection will be the responsibility of the Oregon City Fire Department, who currently serve the site. As the site redevelops, new and rehabilitated buildings will comply with modern building codes that include fire protection and water supply that meets fire flow standards. Streets within the district will be constructed to city standards that accommodate fire-fighting equipment. The city has not indicated the need for any significant change in levels of fire services due to the long term redevelopment of the site.

C. The land uses authorized by the proposal are consistent with the existing or planned function, capacity and level of service of the transportation system serving the proposed zoning district.

Response: The proposed zoning allows a wide range of uses on the site, encouraging the development of a mixed use area that is similar to that of the existing downtown. The historic street pattern of downtown will be re-established, linking the district to the rest of the city with a pedestrian-friendly network of local streets. In addition to new streets, public access to the site will include pedestrian and bicycle connections. Final configuration and location of the pedestrian paths and streets will be determined when building or park space development on the site is proposed.

Improvements to the existing public system of streets, sidewalks, and pedestrian paths will be constructed in combination with new development on the site. The package of improvements assumes increased use of the Willamette Falls site, from workers, residents, and visitors to new buildings and activities. A transportation analysis performed for the zone change and master plan showed that relatively light infrastructure improvements to the south end of the existing downtown and the north end of the new Willamette Falls District can accommodate the potential vehicular and pedestrian traffic in and out of the site. The package of changes is listed in Section 1 of this document, and includes new signalization on 99E, a shared use path on the riverfront, creation of a new Water Street connection, modifications to the Main Street/99E intersection geometry, and a pedestrian bridge over 99E at the south end of the site.

These improvements will enable the functioning of the transportation system in and around the site at the planned capacity and level of service. This conclusion is based on analysis done in cooperation with Oregon City and ODOT transportation officials, and assumed high levels of development and activity at the site.

D. Statewide planning goals shall be addressed if the comprehensive plan does not contain specific policies or provisions which control the amendment.

Response: Comprehensive Plan goals and policies were addressed previously in the section under the master plan approval, 17.65. The following statewide planning goals are applicable to the change in zoning, and are satisfied by the proposal.

Goal 1. Citizen Involvement

The zone change and master plan is the outcome of an extensive public engagement process. This process has reached out to thousands of Oregonians, as has been described in detail in Section 1.

Goal 2. Land Use Planning

The zone change and master plan establishes an orderly, fact-based, rational process for development on the site, in conformance with existing land use planning codes and policies in Oregon City. The creation of a new zone and the master plan that applies to the site are existing, adopted policies within the city code.

Goal 5. Natural Resources, Scenic and Historic Areas, and Open Spaces

The zone change and master plan protect all identified Goal 5 resources through a combination of: delineating areas for open space development, listing historic resources for future protection, identifying opportunities for enhancement, and improving public access to the resources. Existing city protections of Goal 5 resources will remain in place, specifically, compliance with the Natural Resources Overlay District, OCMC 17.49.

Goal 6. Air, Water and Land Resources Quality

The change to base zoning on the site that this application requests does not change existing city protections provided by overlays for natural resources, stormwater rules, or other environmental protections. These are specifically enhanced by the city code's acknowledged compliance with Metro code Title 3 and Title 13.

Goal 7. Areas Subject to Natural Hazards

The change to base zoning on the site that this application requests does not change existing city protections provided the city's Geologic Hazards Overlay, OCMC 17.44. These city rules are consistent with Goal 7 and protect development from inappropriate development on steep slopes.

Goal 8. Recreational Needs

The proposed zoning change allows parks and open areas as an allowed use, and the master plan anticipates new public access and open space areas for recreation. Access to the falls and to the river resource is a core element of the master plan that will be enabled by the new zoning.

Goal 9. Economic Development

The proposed mix of uses allowed in the new zone, including employment, office, retail, and light industrial uses, will allow a wide range of businesses and employers to locate at the site, thereby building toward a strong local economy. The framework established by this plan will create fertile environment for high-quality commercial development and jobs.

Goal 10. Housing

The proposed change in zoning allows for multi-family residential uses, which is appropriate for a downtown location. Under current industrial zoning, housing is not an allowed use. Re-establishing a regular street grid will makes development blocks that are well-suited for the development of housing, as well as other types of development.

Goal 11. Public Facilities and Services

Public facility provision is addressed in the response to criterion 17.68.020.B above. Briefly, all future development in the zone will meet current Oregon City code.

Goal 12. Transportation

A transportation study included with the application studied access to the site and evaluated a full-build out scenario. It assumed a mix of uses as allowed by the proposed zoning, and a network of streets and pedestrian facilities to serve the site as outlined in the master plan. Final configuration and location of paths and streets will be determined when building or open space is proposed.

Based on modeling, these trips can be accommodated on the existing transportation network if a number of relatively minor improvements are made to improve safety and flow. Improvements will be built incrementally, as development occurs, and will enable the smooth functioning of the transportation system in and around the site. This conclusion is based on analysis done in cooperation with Oregon City and ODOT transportation officials.

Goal 13. Energy Conservation

Mixed-use development encouraged by the new zone is more energy efficient than other development patterns. The zoning and the master plan for the site is organized to accommodate a wide range of complementary mixed uses: office and other employment, retail, residential, and recreational. Buildings are expected to be multi-story, multi-use structures, which are more energy-efficient than the same uses in detached buildings. Taken together, these plan elements will help conserve energy.

Goal 15. Willamette River Greenway

The entire Willamette Falls District zoning designation is within the Willamette River Greenway, which protects the scenic, historic, and recreational qualities of the riverfront. The base zoning requested does not change that future development is subject to city rules for Willamette River Greenway standards, including a setback that keeps structures separated from the river. Separation between buildings and the river must be found to “protect, maintain, preserve and enhance the natural scenic, historic and recreational qualities of the Willamette River Greenway” (17.48.080.E) Also, for everything within 150 feet of the ordinary low water line, there is a Greenway “compatibility review” (17.48.100.A) that will be part of a future development application.

Modification to Street Standards

This general development plan application includes two modifications to the street standards contained in OCMC 12.04.180. Because of the unique character of the district, this application requests that the minimum sidewalk width of Main Street through the site, which is classified as a collector street, be increased from 10.5 feet to 16 feet. This is based on an observation by the city that the current 12 foot width of the sidewalks on Main Street frequently results in a congested condition for pedestrians, especially in locations where “sandwich” type sign boards, newspaper boxes, café tables, or other street furniture is present. The additional width will provide a livelier streetscape in the new district that will also have sufficient space for a pedestrian “through zone.” Without this modification, the city would have no basis to compel future development to provide the desired sidewalk width. The city may approve a reduction from this

requested sidewalk width for unique conditions, such as to allow for the encroachment of a historic building façade.

Secondly, the geology of the area requires a modification of the typical requirement in OCMC 12.04.180 for street trees to always be planted on both collectors and local streets. A continuous canopy of street trees should be planted if at all feasible. However, the entire Willamette Falls Downtown District is on a basalt shelf that has only a shallow layer of soil—if any—that is a poor environment for growing trees. In some locations, underlying conditions may make installing tree wells and meeting typical street tree impractical. Nevertheless, design guidelines included with the plan will encourage streetscapes to have a lively vegetative presence, in planters above ground or integrated into facing buildings. This modification will apply both to collectors (Main Street) and local streets (3rd, 4th, Water) in the district.

12.04.007 Modifications.

The review body may consider modification of this standard resulting from constitutional limitations restricting the city's ability to require the dedication of property or for any other reason, based upon the criteria listed below and other criteria identified in the standard to be modified. All modifications shall be processed through a Type II Land Use application and may require additional evidence from a transportation engineer or others to verify compliance. Compliance with the following criteria is required:

A. The modification meets the intent of the standard;

Response: Two modifications are proposed, for increased sidewalk width and for not requiring street trees in areas that have little to no soil or cannot support the inclusion of planter vaults. The intent of the street design standards is found in OCMC 12.04.175.

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, overlay districts, 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. 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...[***]*

Increasing the width of proposed Main Street's sidewalk through the district was considered "in relation to:... public convenience and safety for all modes of travel." City of Oregon City planning and engineering staff have observed that the presence of street furniture, sign boards, and other amenities in the sidewalk area reduces the capacity of the sidewalk to accommodate people walking through. A minor increase in width can increase the "through zone" of the sidewalk and create a livelier and more comfortable pedestrian environment, which is an essential component of the planned mixed use area. This has the effect of improving the "proposed use of land to be served by the streets."



Figure 25. Pedestrian traffic in downtown Oregon City.

Modifying the requirement for street trees is a necessity given the unique topography and soil conditions of the Willamette Falls District. In this sense, the modification was

considered “in relation to:... topographical conditions,” per the statement of intent. “Topographical or other conditions” make matching the pattern of street development that is typical of downtown and other local area streets an unreasonable burden. Despite the modifying the street trees requirement, trees will still be installed if it is practical to do so. If local conditions prevent street trees, the street design will still maintain a lively vegetative presence by using planters or other ways of bringing green into the streetscape.

B. The modification provides safe and efficient movement of pedestrians, motor vehicles, bicyclists and freight;

Response: The express purpose of the modification for wider sidewalks is to provide for more efficient movement of pedestrians. The rest of the right of way will be unchanged from existing standards, so this should have no effect on other modes. On balance, therefore the movement of all users will be improved. The exception for street trees in the right of way due to localized soil conditions has no impact on the safety or efficiency of any user.

C. The modification is consistent with an adopted plan; and

Response: The modifications to street standards are still consistent with the city’s TSP, and have virtually no effect on any of the principles espoused in that plan. As a result of this planning process, it is expected that the Oregon City Commission will adopt the findings of the new zone and master plan that contains the modification, thereby making the change consistent with the Willamette Falls District master plan.

D. The modification is complementary with a surrounding street design; or, in the alternative;

Response: The proposed modifications are complementary with the street designs in the existing downtown, in that the general dimensions and appearance of the streetscape will be very similar, with only minor changes to improve pedestrian throughput and respond to local soil conditions. The alignment, overall right of way width, continuous storefront pattern, and provision of streetscape amenities are complementary to the surrounding street design.

E. If a modification is requested for constitutional reasons, the applicant shall demonstrate the constitutional provision or provisions to be avoided by the modification and propose a modification that complies with the state or federal constitution. The city shall be under no obligation to grant a modification in excess of that which is necessary to meet its constitutional obligations.

Response: The modification is not requested for constitutional reasons.

Flood Management Overlay (17.42)

17.42.020 Applicability.

A. This chapter shall apply to development in the flood management overlay district, which may also be referred to as the "floodplain overlay district" in this code. The flood management overlay district includes all areas of special flood hazards and all flood management areas within the city. The overlay district restricts the uses that are allowed in the base zone by right, with limitations, or as provisional uses.

B. The flood management areas which have been mapped include the following locations:

1. Land contained within the one hundred-year floodplain, flood area and floodway as shown on the Federal Emergency Management Agency flood insurance maps dated June 17, 2008, including areas of special flood hazard pursuant to Section 17.42.040 and the area of inundation for the February 1996 flood; and
2. Lands that have physical or documented evidence of flooding within recorded history based on aerial photographs of the 1996 flooding and/or the water quality and flood management areas maps.

C. The standards that apply to the flood management areas apply in addition to state or federal restrictions governing floodplains or flood management areas.

Response: 12.5 acres of the Willamette Falls District is within the city-defined flood management area as shown in the map below:

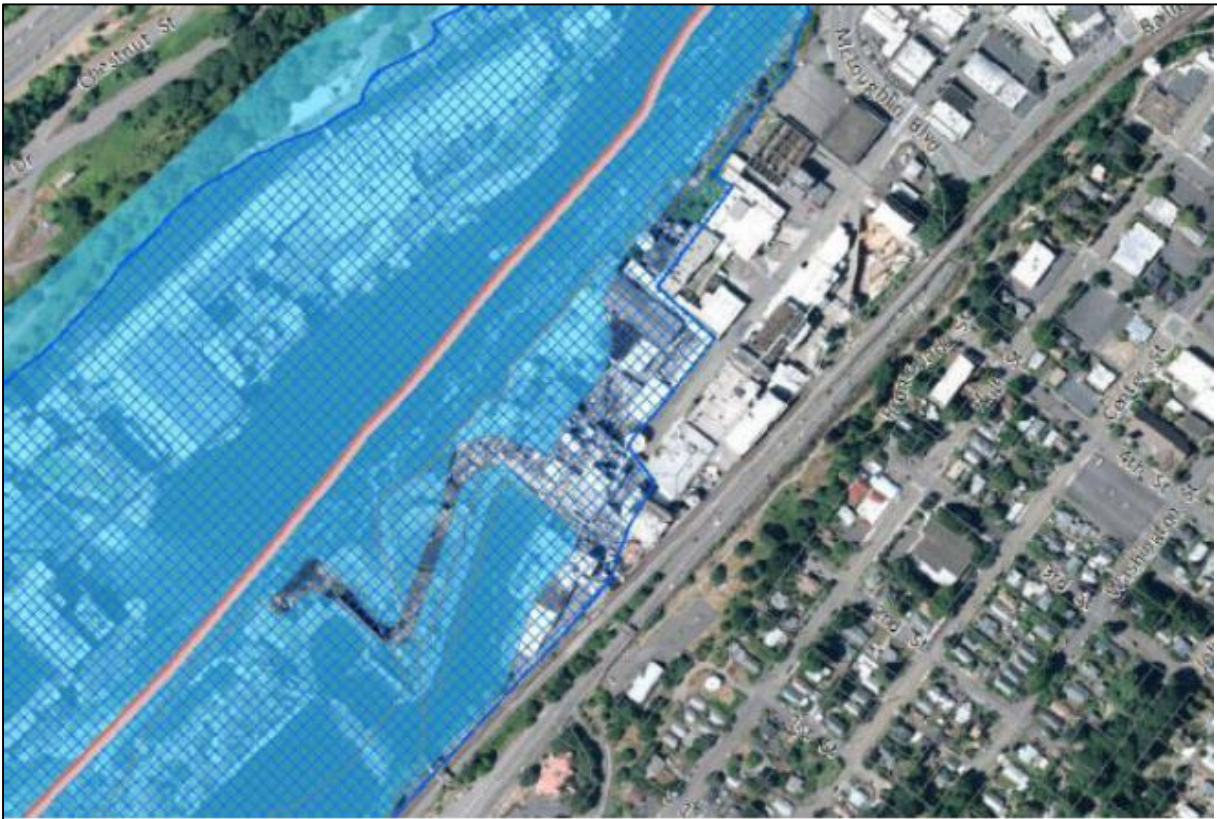


Figure 26. Flood Management Overlay Zone.

17.42.080 Administration.

This chapter establishes a flood management overlay district, which is delineated on the water quality and flood management areas map attached and incorporated by reference as a part of this document.

A. The following maps and studies are adopted and declared to be a part of this chapter. These maps are on file in the office of the city recorder:

- 1. The Water Quality and Flood Management Areas Map, dated June 7, 1999;*
- 2. The Federal Insurance Administration, Flood Insurance Rate Maps for Clackamas County, Oregon and Incorporated Areas dated June 17, 2008;*

B. Applicants are required to provide the city with a delineation of the flood management areas on the subject property as part of any application. An application shall not be complete until this delineation is submitted to the city.

C. The city shall review the water quality and flood management areas maps during periodic review as required by ORS 197.633 (1997).

D. Development Permit.

1. A development permit shall be obtained before construction or development begins within any portion of the flood management overlay district. The permit shall be for all structures, including manufactured homes and all other development, including fill and other activities, as set forth in Chapter 17.04 (Definitions).

2. Application for a development permit shall be made on forms furnished by the community development department. Requirements may include, but are not limited to: plans in duplicate drawn to scale showing the nature, location, dimensions and elevations of the area in question; existing or proposed structures, fill, storage materials, drainage facilities; and the location of the foregoing.

3. The following information is specifically required:

- a. Elevation in relation to mean sea level of the lowest floor (including basement) of all structures;*
- b. Elevation in relation to mean sea level to which any structure has been floodproofed;*
- c. Certification by a registered professional engineer or architect that the floodproofing methods for any nonresidential structure meet the floodproofing criteria in Section 17.42.170E.5.; and*
- d. Description of the extent to which any watercourse will be altered or relocated as a result of proposed development.*

Response: No specific development projects are proposed as part of this general development plan application. Rather, this application addresses the framework for future development, but does not request permits for work in the flood management area. As such, this chapter continues to apply to the district after the change in zoning and approval of the master plan. As part of the future detailed development plan application, which is required for any development in this district, compliance with the standards of this chapter will be required. Specifically, it is expected that the city will require a hydrologic analysis of the area to be developed that creates a more precise measurement of both the horizontal extent of the floodplain area and the vertical elevation of the floodplain as it relates to existing structures.

17.42.160 Flood management area standards.**A. Uses Permitted Outright:**

1. Excavation and fill required to plant any new trees or vegetation.
2. Restoration or enhancement of floodplains, riparian areas, wetland, upland and streams that meet federal and state standards provided that any restoration project which encroaches on the floodway complies with the requirements of Section 17.42.190 (Floodways).

B. Provisional Uses.

1. All uses allowed in the base zone or existing flood hazard overlay zone are allowed in the flood management overlay district subject to compliance with the development standards of this section.

C. Prohibited Uses.

1. Any use prohibited in the base zone;
2. Uncontained areas of hazardous materials as defined by the Department of Environmental Quality.

D. Site Development Standards. All development in the floodplain shall conform to the following balanced cut and fill standards: ***

E. Construction Standards.

1. Anchoring. ***
2. Construction Materials and Methods. ***
3. Utilities. ***
4. Residential Construction. ***
5. Nonresidential Construction. ***

Response: As stated above, all future development in the Willamette Falls District is subject to the Flood Management Overlay District rules, which include these area standards. All of the uses written into the new Willamette Falls Downtown District designation will be allowed in the flood zone, “subject to compliance with development standards” for flood protection. These include provisions for anchoring, construction materials, utilities, and residential and non-residential construction.

Geologic Hazard Overlay District (17.44)**17.44.025 When required; regulated activities; permit and approval requirements.**

No person shall engage in any of the following regulated activities within the adopted Oregon City Geologic Hazards Overlay Zone as defined in section 17.04.515 of the Oregon City Municipal Code without first obtaining permits or approvals as required by this chapter:

- A. Installation or construction of an accessory structure greater than 500 square feet in area;
- B. Development of land, construction, reconstruction, structural alteration, relocation or enlargement of any building or structure for which permission is required pursuant to the Oregon City Municipal Code;
- C. Tree removal on slopes greater than 25 percent where canopy area removal exceeds 25 percent of the lot.

D. Excavation which exceeds two feet in depth, or which involves twenty-five or more cubic yards of volume;

The requirements of this chapter are in addition to other provisions of the Oregon City Municipal Code. Where the provisions of this chapter conflict with other provisions of the Oregon City Municipal Code, the provisions that are the more restrictive of regulated development activity shall govern.

Response: As clearly shown on city maps, a large portion of the site is within a Geologic Hazard Overlay District.



Figure 27. Geologic Hazard Overlay District.

Consequently, the regulations within this chapter apply and future development proposals will be required to respond to the standards within it. As with the other overlay zones, the development standards are intended to apply to the specifics of a proposal to develop land, not to general plans such as the first step of a two-step master plan. Therefore, the rules of this chapter will be addressed as part of a future development application.

17.44.050 Development – Application requirements and review procedures and approvals.

Except as provided by subsection B. of this section, the following requirements apply to all development proposals subject to this chapter:

A. A geological assessment and geotechnical report that specifically includes, but is not limited to:

1. Comprehensive information and data regarding the nature and distribution of underlying geology, the physical and chemical properties of existing soils and groundwater; an opinion of site geologic stability, and conclusions regarding the effect of geologic conditions on the proposed development. In addition to any field reconnaissance or subsurface investigation performed for

*the site, the following resources, as a minimum, shall be reviewed to obtain this information and data: ****

- 2. Information and recommendations regarding existing local drainage, proposed permit activity impacts on local drainage, and mitigation to address adverse impacts;*
- 3. Comprehensive information about site topography;*
- 4. Opinion as to the adequacy of the proposed development from an engineering standpoint;*
- 5. Opinion as to the extent that instability on adjacent properties may adversely affect the project;*

Response: To reiterate, all the protections of this chapter will be in effect when a detailed development plan application is requested. The information required at that time will include a geotechnical study, as listed in this section.

17.44.060 Development standards.

Notwithstanding any contrary dimensional or density requirements of the underlying zone, the following standards shall apply to the review of any development proposal subject to this chapter. Requirements of this chapter are in addition to other provision of the Oregon City Municipal Code. Where provision of this chapter conflict with other provision of the Oregon City Municipal Code, the provisions that are more restrictive of regulated development activity shall govern.

17.44.090 Stormwater drainage.

The applicant shall submit a permanent and complete stormwater control plan. The program shall include, but not be limited to the following items as appropriate: curbs, gutters, inlets, catch basins, detention facilities and stabilized outfalls. Detention facilities shall be designed to city standards as set out in the city's drainage master plan and design standards.

17.44.100 Construction standards.

During construction on land subject to this chapter, the following standards shall be implemented by the developer:

- A. All development activity shall minimize vegetation removal and soil disturbance and shall provide positive erosion prevention measures in conformance with OCMC Chapter 17.47 – Erosion and Sediment Control.*

Response: The above quoted and truncated sections are to indicate that, as stated, all future development must comply with the standards of this chapter. That includes numerous standards related to slope stability, drainage, soil disturbance, vegetation removal, and cut and fill provisions. It also regulates stormwater methods and erosion and sediment control. None of these protections are altered as part of this application.

Willamette River Greenway Overlay (17.48)

Future development in the district must meet Willamette River Greenway standards. One of the key elements in this review is a setback separating structures from the river. Separation between buildings and the river, which will be determined at the detailed development plan phase, must “protect, maintain, preserve and enhance the natural scenic, historic and recreational qualities of the Willamette River Greenway” (OCMC 17.48.080.E)

For everything within 150 feet of the ordinary low water line, there is a Greenway “compatibility review” (17.48.100.A) that will be part of a future detailed development plan application. This compatibility review emphasizes landscaped area between the new activity and the river and public access along the riverfront. Both of these criteria would be satisfied by a landscaped riverfront access path. Such a path is shown in schematic form on the general master plan drawings.

17.48.070 Development standards – Specific use.

In approving any development or change or intensification of use, the approving officer or body shall apply the following standards:

Considerations for Specific Uses.

- A. With respect to recreational uses only: the considerations set forth in section C.3.b of Goal 15.*
- B. With respect to those fish and wildlife habitats identified in the city comprehensive plan only: the considerations set forth in section C.3.d. of Goal 15.*
- C. With respect to those scenic qualities and views identified in the city comprehensive plan only: the considerations set forth in section C.3.e. of Goal 15.*
- D. With respect to timber resources only: the considerations set forth in section C.3.h. of Goal 15.*
- E. With respect to aggregate extraction only: the considerations set forth in section C.3.i. of Goal 15.*

Response: To the extent that any of the above identified uses are proposed or located on the site, the applicable Goal 15 standards will apply. The greenway overlay does not restrict uses on the property, generally. Rather, uses that are allowed are listed in the underlying zone.

17.48.080 Development standards – General considerations.

The following considerations shall be applicable to all Willamette River Greenway permits.

- A. Access. Adequate public access to the Willamette River shall be considered and provided for.*
- B. Protection and Safety. Maintenance of public safety and protection of public and private property, especially from vandalism and trespass, shall be provided for to the maximum extent practicable.*

C. Vegetative Fringe. The natural vegetative fringe along the Willamette River shall be protected and enhanced to the maximum extent practicable.

D. Directing Development Away from the River. Development shall be directed away from the Willamette River to the greatest possible degree, provided that lands committed to urban uses within the Greenway may continue as urban uses, subject to the nonconforming use provisions of Chapter 17.58 of this title.

E. A Greenway Setback. In each application, the approving officer or body shall establish a setback to keep structures separated from the Willamette River in order to protect, maintain, preserve and enhance the natural scenic, historic and recreational qualities of the Willamette River Greenway, as set forth in the city comprehensive plan; provided, however, that the requirement to establish such setbacks shall not apply to water-related or water-dependent uses.

F. Other Applicable Standards. The Oregon Department of Transportation Greenway Plan, the Greenway portions of the city comprehensive plan, the Willamette River Greenway statutes and the provisions of Statewide Planning Goal 15, shall also be considered in actions involving Willamette River Greenway permits.

Response: Future development applications will be subject to these development standards. At that time, a review can include the fact that this general development plan proposes a multi-use pedestrian path along the riverfront that would satisfy the consideration under subsection (A). Likewise, the design of the path will determine protection and safety under subsection (B). The vegetative fringe consideration in subsection (C) can also be achieved by some of the environmental enhancements listed in this plan and be used to satisfy requirements under the Natural Resources Overlay District. The size of the setback and the extent to which development will be “directed away from the Willamette River to the greatest possible degree” in subsections (D) and (E) will be determined at the time a project is proposed, acknowledging the fact that the entire district is committed to urban uses.

17.48.100 Compatibility review.

A. In all areas within one hundred fifty feet of the ordinary low-water line of the Willamette River, hereinafter referred to as the “compatibility boundary,” the provisions of this subsection shall be applicable to all developments and changes or intensification of uses, so as to ensure their compatibility with Oregon's Greenway statutes, and to assure that the best possible appearance, landscaping and public access be provided.

B. All development or changes or intensifications of uses in the compatibility area shall be approved only if the following findings be made by the planning commission.

1. That to the greatest extent possible, the development or change or intensification of use provides for the maximum possible landscaped area, open space or vegetation between the activity and the river.

2. That to the greatest degree possible, necessary public access is provided to and along the Willamette River by appropriate legal means.

C. Procedure for action on compatibility review shall be as set forth in Section 17.48.060 and shall include application of the relevant use management considerations and requirements provided in Sections 17.48.070 and 080. The planning commission, after notice and public

hearing held pursuant to Chapter 17.50 shall approve issuance, approve issuance with conditions or disapprove issuance of the Willamette River Greenway conditional use permit. The application shall be accompanied by the fee listed in Chapter to defray the costs of publication, investigation and processing.

Response: The compatibility review described in this section will be required at the time of detailed development review. Two elements of this plan, if incorporated, would support a finding of compatibility for a future project. First, “maximum possible landscaped area, open space or vegetation between the activity and the river” could be achieved by riparian enhancements which are identified in this master plan. Riverbank improvements would also help satisfy the requirements of the Natural Resources Overlay District. Second, “necessary public access...to and along the Willamette River” is shown, schematically, on the master plan by way of a multi-use riverfront path that leads from a re-established Water Street and south along the PGE dam to the edge of the falls.

17.48.110 Prohibited activities.

The following are prohibited within the Willamette River Greenway:

- A. Any main or accessory residential structure exceeding a height of thirty-five feet;*
- B. Structural bank protection, except rip rap or a channelization used as an emergency measure only to protect existing structures. Any such rip rap or channelization to stabilize undeveloped sites shall be prohibited as well;*
- C. Subsurface sewage disposal drainfields within one hundred feet of the ordinary mean low-water line of the Willamette River.*

Response:

Structural bank protection is not anticipated on the site, nor is subsurface sewage disposal. Residential development in mixed use structures is expected to occur at the site. The residential restriction in subsection (A) creates a potential conflict. Residential uses are allowed outright in the proposed Willamette Falls Downtown District; height limits go up to 80 feet. A new or reconstructed building that is predominantly residential (and therefore defined as a “main...residential structure”) proposed to be taller than 35 feet would be prohibited under current rules. Also, this prohibition/height limitation is a local restriction, and not part of state law. For example, no similar limitation on residential building height in the Greenway exists in West Linn. Many existing buildings on the site currently exceed this height. Buildings in which residential is not the “main” use, and residential buildings shorter than 35 feet, and non-residential development, are not subject to this restriction.

Residential uses and structures are anticipated to be constructed on the site under the master plan, and are therefore allowed under the new zoning code chapter. It is likely that new residential buildings could exceed this 35 foot threshold. Therefore, in order to make way for this potential development outcome, this application proposes a text

amendment to the Greenway code. The amendment provides an exception to the height limit, only within the Willamette Falls Downtown District, up to the maximum allowed by the zone. Property within this district is different from other Greenway-overlay property in the city, in that any proposal with the new district will be required to go through a process to show consistency with the master plan and the four core values. This process includes compliance with development standards and design guidelines that are outlined in the plan.

Regulatory elements of future reviews that will protect the Willamette River Greenway and the riverfront character of the site, including for residential structures taller than 35 feet, include:

- Design Guideline 1, which includes the following principle: “Views. Take advantage of views toward the river and falls. Step structures down to follow natural change in elevation from the basalt bluffs to water’s edge.”
- Design Guideline 3, “Maintain Downtown Character,” which acknowledges the unique industrial scale and history of the site, but also emphasizes a smooth transition in architecture and urban design between the existing downtown and the new district.
- Greenway review standards. 17.48.080(D) directs development away from the river “to the greatest possible degree,” in most cases, and 17.48.080(E) establishes a riparian setbacks that preserve “the natural scenic, historic, and recreational qualities” of the greenway.
- Compatibility review. Projects within 150 feet of the low water line must comply with a compatibility review that requires “maximum possible” landscaped area close to the river, and necessary public access to and along the river.

In combination, these regulatory requirements will protect the principles of the greenway for all buildings at least as well as a blanket restriction on residential building height.

The applicant also supports a future, City-initiated, city-wide review of the Greenway code to help further understand the community’s desire for residential units in urban areas that are also located within the Greenway boundary.

Natural Resources Overlay (17.49)

As clearly shown on city maps, the entire Willamette Falls District is within the NROD. Consequently, future applications for development at the site will be subject to the requirements of 17.49. The standards for developing buildings or other structures within this overlay are specific to actual development proposals, not concept planning, so review under this chapter will be done at the time a detailed development plan is proposed.

In anticipation of future development, the master plan identifies both the location and type of restoration projects that will improve the natural resource condition of the site. Though degraded by a century of heavy industrial use, natural resources are present on the property and the riparian setting provides tremendous opportunity for restoration. Future development could expose and restore the historical shoreline, increase the circulation in the lagoon and diversify habitat, and establish a vegetated buffer along the riverbank. These actions would dramatically improve the riparian resource values and upgrade habitat for fish, birds, and plant communities. Finally, by designating a large area of the site as ideal for open space or park uses, the plan sets a framework for a large reduction in impervious surface and an increase in landscaped area. This would have an overall benefit to the site's natural resource functions.

17.49.080 Uses allowed outright (exempted).

The following uses are allowed within the NROD and do not require the issuance of an NROD permit:

A. Stream, wetland, riparian, and upland restoration or enhancement projects as authorized by the city.

I. Routine repair and maintenance of existing structures, roadways, driveways and utilities.

J. Replacement, additions, alterations and rehabilitation of existing structures, roadways, utilities, etc., where the ground level impervious surface area is not increased.

K. Measures mandated by the City of Oregon City to remove or abate nuisances or hazardous conditions.

L. Planting of native vegetation and the removal of non-native, invasive vegetation (as identified on the Oregon City Native Plant List), and removal of refuse and fill, provided that:

- 1. All work is done using hand-held equipment;*
- 2. No existing native vegetation is disturbed or removed; and*
- 3. All work occurs outside of wetlands and the top-of-bank of streams.*

Response: The most significant element of the NROD rules as it relates to the Willamette Falls district is the exemption contained in 17.49.080.J, which exempts from NROD permits development “where ground level impervious surface area is not increased.” This exemption applies even to “replacement” of existing structures. Virtually the entire area where new development will occur in the Willamette Falls

District—where structures and other development will be replaced—is impervious surface. This is the result of more than a century of urban development, most recently for heavy industrial uses. Nearly every developed square foot of the site is either paved, covered by a building. Because the site is built on top of a basalt shelf, even those areas without buildings or paving are impervious. In the long run the anticipated development of open space on the site (per the framework plan’s designation of more than 5 acres of the site for some kind of waterfront or open space use), and the anticipated habitat and shoreline restoration opportunities identified in the master plan will result in a site that has significantly more impervious surface than exists under current conditions.

Nevertheless, healthy habitat is a core value for the site that has been repeatedly expressed by all the partners in the planning of this site, and other regulations will encourage restoration of the natural resource values. The enhancements identified in the master plan are a starting point for the restoration of the site’s unique setting and natural resources.

Finally, several other uses identified above could occur at the site and would be exempt from NROD permits: natural resource enhancement projects, routine maintenance and repair, and nuisance abatement. These categories—combined with any development that doesn’t increase impervious surface—are likely to cover virtually all potential projects at the site.

17.49.[0]90 Uses allowed under prescribed conditions.

The following uses within the NROD are subject to the applicable standards listed in Sections 17.49.100 through 190 pursuant to a Type II process:

A. Alteration to existing structures within the NROD when not exempted by Section 17.49.080, subject to Section 17.49.13

D. Land divisions when not exempted by Section 17.49.080, subject to the applicable standards of Section 17.49.160

E. Trails/pedestrian paths when not exempted by Section 17.49.080, subject to Section 17.49.170 (for trails) or Section 17.49.150 (for paved pedestrian paths).

F. New roadways, bridges/creek crossings, utilities or alterations to such facilities when not exempted by Section 17.49.080.

G. Roads, bridges/creek crossings Subject to Section 17.49.150

H. Utility lines subject to Section 17.49.140

I. Stormwater detention or pre-treatment facilities subject to Section 17.49.155

J. Institutional, industrial or commercial development on a vacant lot of record situated in an area designated for such use that has more than seventy-five percent of its area covered by the NROD, subject to subsection 17.49.120B.

K. City, county and state capital improvement projects, including sanitary sewer, water and storm water facilities, water stations, and parks and recreation projects.

Response: In the event that a future development proposal under the master plan cannot show that it is exempt, it would be “allowed under prescribed conditions” and subject to all the standards of this chapter. Because future development actions in the plan are subject to detailed development plan approval under a Type III process, the NROD review would occur concurrent with this process.

Multi-Modal Mixed Use Area (OAR 660-012-0060)

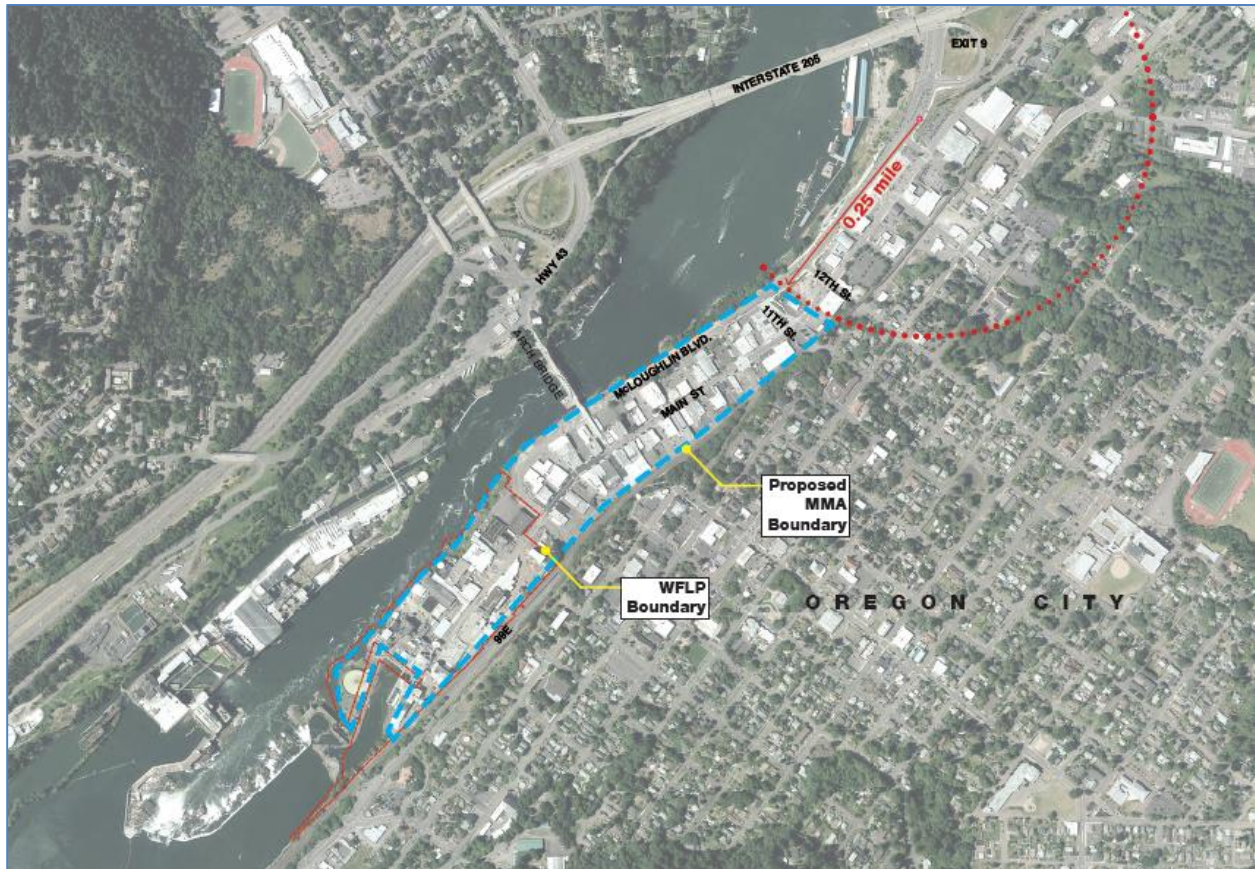


Figure 28. Proposed MMA boundary.

When a city proposes changes to its Comprehensive Plan, state law requires transportation impacts of that change to be analyzed. The Transportation Planning Rule (“TPR”), OAR 660-012-0060, outlines the analysis. The purpose of the TPR is to maintain a balance between allowed land uses and the transportation system necessary to support them. The rule assesses whether changes create a “significant impact” on the system. If so, mitigation must be proposed that brings the conditions back to the same level (or better) than the no-build condition.

However, as of 2012, new TPR regulations allow more leeway for projects that are located in areas designated as “Mixed-use Multi-modal Areas” (“MMA”). Cities can rezone areas for more intensive use without the impact analysis that would typically be required if that area is within an MMA. Specifically, Section 10 of the rule now authorizes a local government to amend local land use provisions without applying the TPR performance standards, if the amendment meets two specified requirements:

1. The amendment must be a map or text amendment affecting only land entirely within a multimodal mixed-use area (MMA); and
2. The amendment must be consistent with the definition of an MMA and consistent with the function of the MMA as described in the findings designating the MMA.

Because it offers flexibility for future development, this application requests the creation of a new MMA that encompasses the existing downtown area of Oregon City and the newly rezoned Willamette Falls Downtown District. The city anticipates demand for more mixed-use development in the new Willamette Falls district and the existing downtown, which is already zoned mixed-use.

A key requirement for an MMA is that it be more than $\frac{1}{4}$ mile from freeway on ramps. The proposed boundary’s north edge is at 12th Street, which is farther than $\frac{1}{4}$ mile from the nearest I-205 ramp. In fact, there are two freeway interchanges near the downtown—one over the river in West Linn, and one north of downtown on Highway 99E—but both are more than $\frac{1}{4}$ of a mile distance by road from the proposed MMA boundary. At this time, these freeway interchanges have enough transportation capacity, but with additional development, there could be some traffic capacity issues at some intersections in the area. Oregon City wants to strengthen their downtown and provide for additional development and visitors to a newly designated open space along the Willamette River overlooking Willamette Falls. Without the freedom offered by an MMA, Oregon City is concerned that the old system of mitigating for significant impacts would require major, expensive, impractical upgrades to create more automobile capacity. These upgrades could be more than Oregon City can afford, especially because the area’s unique topography (cliffsides, riverfront, basalt rock) would drive up infrastructure costs.

Oregon City has used the Model Development Code that was jointly developed by the Oregon Department of Transportation and Department of Land Conservation and Development as a reference to create zoning in the existing Mixed Use Downtown District and for the newly created Willamette Falls Downtown District. The existing Municipal Code has been updated and refined over the last nine years to better meet the intent of a multi-modal Regional Center.

The Willamette Falls Downtown (WFD) district is designed to apply within the historic Willamette Falls downtown area, between McLoughlin Boulevard and the Willamette River. This area was formerly an industrial site occupied by the Blue Heron Paper Mill. A mix of open space, retail, high-density residential, office and light industrial uses are encouraged in this district, with retail and service uses on the ground floor and office and residential uses on the upper floors. Allowed uses in the District will encourage pedestrian and transit activity. This district includes a Downtown Design overlay for the historic downtown area. The design standards for this sub-district require a continuous storefront façade featuring streetscape amenities to enhance the active and attractive pedestrian environment.

The existing mixed-use downtown (MUD) district applies within the traditional downtown core along Main Street and includes the “north-end” area, generally between 5th Street and Abernethy Street, and some of the area bordering McLoughlin Boulevard. Land uses are characterized by high-volume establishments constructed at the human scale such as retail, service, office, multi-family residential, lodging or similar as defined by the community development director. A mix of high-density residential, office and retail uses are encouraged in this district, with retail and service uses on the ground floor and office and residential uses on the upper floors. The emphasis is on those uses that encourage pedestrian and transit use. This district includes a Downtown Design District overlay for the historic downtown area. Retail and service uses on the ground floor and office and residential uses on the upper floors are encouraged in this district. The design standards for this sub-district require a continuous storefront façade featuring streetscape amenities to enhance the active and attractive pedestrian environment.

OAR 660-012-0060 Findings

(10)(b)(A) Requires the MMA to be an area “With a boundary adopted by a local government as provided in subsection (d) or (e) of this section and that has been acknowledged.”

Response: Figure 28 shows the proposed boundary around the MMA area. The proposed area includes all of downtown Oregon City, including the existing downtown and the new Willamette Falls Downtown District. The boundary follows 11th Street to the north, Railroad Avenue and 99E to the east, the lagoon to the south, and the Willamette River to the west. Through the adoption and acknowledgement of this proposed MMA boundary in the Oregon City Comprehensive Plan, this requirement can be met.

(10)(b)(B) Requires MMAs to be located “Entirely within an urban growth boundary.”

Response: Downtown Oregon City is entirely within the city's urban growth boundary. The UGB is shown below in purple. The Willamette Falls Downtown District is identified with a red dot. The MMA area includes the Willamette Falls Downtown District and the existing downtown, just north of the district, both of which are within Oregon City's UGB.

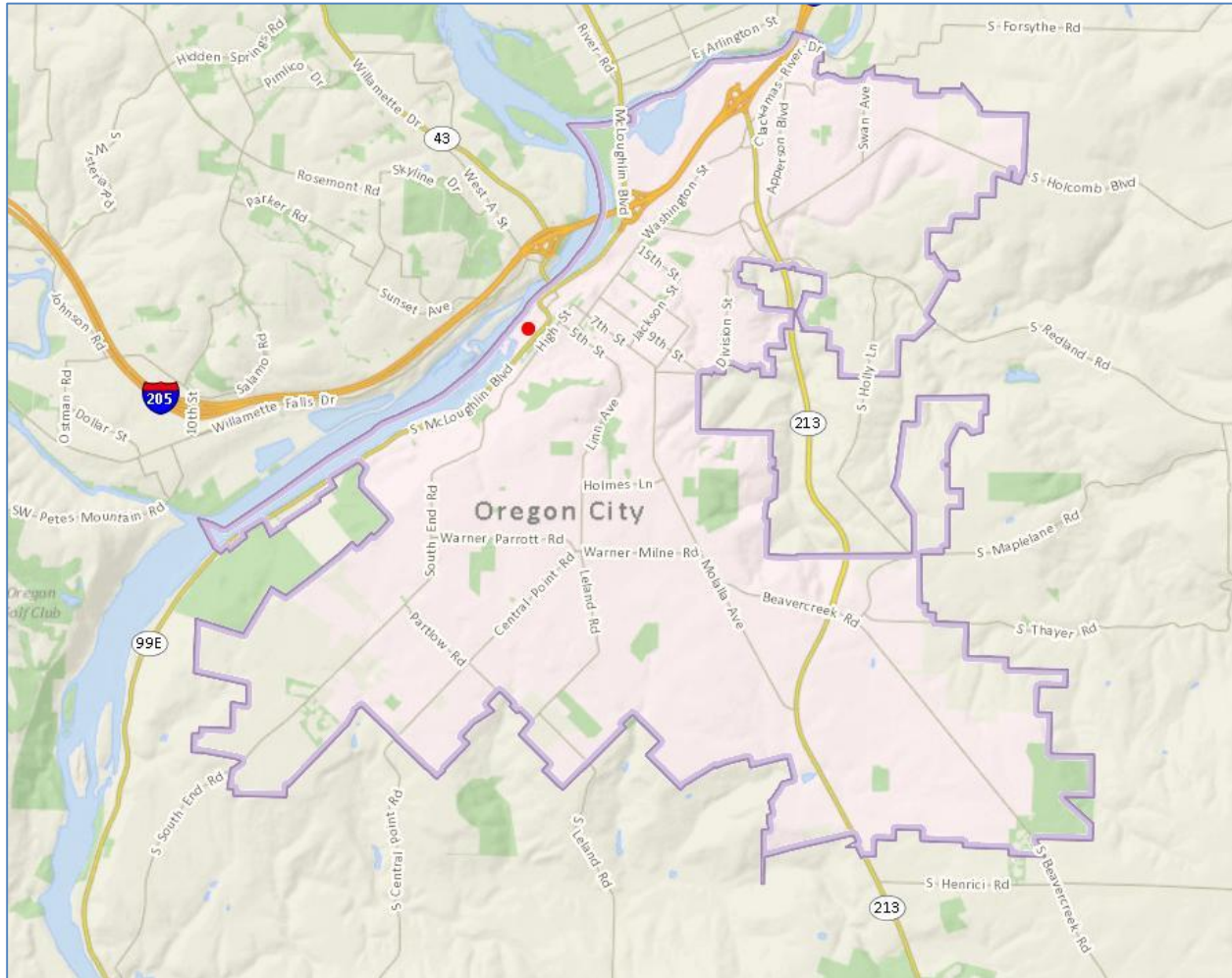


Figure 29. Oregon City urban growth boundary.

(10)(b)(C) Requires MMAs to have “adopted plans and development regulations that allow the uses listed in paragraphs (8)(b)(A) through (C) of this rule and that require new development to be consistent with the characteristics listed in paragraphs (8)(b)(D) through (H) of this rule.”

Response: The proposed language for a Willamette Falls Downtown District is included with this application and contained in Section 1 of this application. The zoning district regulations address allowed and prohibited uses, minimum FAR, height, and other development standards. A set of plan policies and design guidelines is also anticipated to be approved with the master plan and will apply to development on the site. These

plans will constitute “adopted plans and development regulations” as described in this standard. The existing downtown, which is also part of the proposed MMA, is within the city’s Mixed Use Downtown District (OCMC 17.34). The MUD chapter regulates new development consistent with the uses and characteristics identified. In total, the proposed WFDD and the existing MUD satisfy the requirements of this rule.

(8)(b)(A) Requires MMAs to allow “A concentration of a variety of land uses in a well-defined area, including the following:”

Response: The MMA is centered on Main Street, south from 11th street, through downtown and into the proposed through the Willamette Falls Downtown District. This area includes a variety of retail, office, and civic uses, with allowances for higher-density residential, craft industrial, and recreational attractions. The downtown, due to geography and the historic development of the area, is well-defined with denser development than in other areas of Oregon City.

(8)(b)(A)(i) Requires MMAs to allow “Medium to high density residential development (12 or more units per acre).”

Response: Multifamily residential development is allowed in the proposed MMA, both in both in the existing MUD and proposed WFDD. Within the stated limits on height, there is no restriction on the density of residential units. Ultimately, the number of units on a site and the overall residential density will be is dictated by proposed development, but the zone encourages higher densities by incorporating a minimum FAR, expansive height limits, and reduced parking requirements.

(8)(b)(A)(ii) Requires MMAs to allow “Offices or office buildings.”

Response: Office uses are allowed in the proposed MMA, both in the existing MUD (17.34) and the proposed Willamette Falls Downtown District.

(8)(b)(A)(iii) Requires MMAs to allow “Retail stores and services.”

Response: Retail and service uses are allowed in the proposed MMA, both in the existing MUD (17.34) and the proposed Willamette Falls Downtown District.

(8)(b)(A)(vi) Requires MMAs to allow “Restaurants”

Response: Restaurants are allowed in the proposed MMA, both in the existing MUD (17.34) and the proposed Willamette Falls Downtown District.

(8)(b)(A)(v) Requires MMAs to allow “Public open space or private open space which is available for public use, such as a park or plaza.”

Response: Public and private open spaces for public use are allowed in the proposed MMA, both in the existing MUD (17.34) and the proposed Willamette Falls Downtown District. The new Willamette Falls District master plan designates more than five acres of land for open-space and waterfront uses.

(8)(b)(B) Requires MMAs to “Generally include civic or cultural uses.”

Response: Civic and cultural uses are allowed in the proposed MMA, both in the existing MUD (17.34) and the proposed Willamette Falls Downtown District.

(8)(b)(C) Requires MMAs to allow “A core commercial area where multi-story buildings are permitted.”

Response: The proposed MMA is centered on the existing Main Street core commercial areas, on which there are existing multi-story buildings in a historic downtown center, which includes the Main Street core commercial area. There are existing multi-story buildings on Main Street, both north and south of McLoughlin Boulevard. Building height limits in the existing downtown vary, but go up to 75 feet. The new Willamette Falls district allows buildings up to 80 feet.

(8)(b)(D) Requires MMAs to have development standards where “buildings and building entrances oriented to streets.”

Response: Any new development in the existing MUD zone must go through site plan and design review (17.62), which requires that all new buildings oriented to streets. OCMC 17.62.055(D)(1) through (3) requires “the front most architecturally significant facade shall be oriented toward the street and shall be accessed from a public sidewalk,” and “primary building entrances shall be clearly defined and recessed or framed by a sheltering element.” OCMC 17.62.050.A.2 also requires parking areas to be located behind buildings, below buildings, or on one or both sides of buildings.

New development in the proposed WFDD zone is subject to a detailed development review, the second step of a master planned development. This review requires compliance with the same standard in 17.62 for buildings to face streets and de-emphasize parking, per 17.65.060(B)(3).

(8)(b)(E) Requires MMAs to have “street connections and crossings that make the center safe and conveniently accessible from adjacent areas.”

Response: The proposed MMA is located within an historic downtown grid of streets that is either existing or will be re-established on the Willamette Falls property. Accessibility for the existing downtown will not change, and with development of the

Willamette Falls area, this adjacent area will re-create a connected downtown street grid, resulting in a safer and greater public access. Existing streets in the downtown area of the MMA have sidewalks on both sides of the street; this condition will be a requirement of development in the new Willamette Falls District. There are crosswalks throughout the MMA and strong pedestrian connections planned from the historic downtown across 99E.

(8)(b)(F) Requires MMAs to have “a network of streets and, where appropriate, accessways and major driveways that make it attractive and highly convenient for people to walk between uses within the center or neighborhood, including streets and major driveways within the center with wide sidewalks and other features, including pedestrian-oriented street crossings, street trees, pedestrian-scale lighting and onstreet parking.”

Response: The proposed MMA is a series of blocks within a street grid. The proposed MMA is approximately 15 blocks long and two blocks wide. Approximately 90 percent of streets have sidewalks on both sides of the street. Most intersections within the existing downtown are marked, and crossing distances are short. Downtown has a strong, pedestrian oriented streetscape. A map of the proposed MMA showing the local street network is included as an exhibit.

(8)(b)(G) Requires MMAs to have “one or more transit stops (in urban areas with fixed route transit service).”

Response: TriMet serves the proposed MMA with its Line 33 and Line 99 bus service, with multiple stops within the district. The Oregon City Transit Center is within the proposed MMA, 11th Street and Main Street. Oregon City’s TSP (2013 update) identifies downtown as a regional transit hub.

(8)(b)(H) Requires regulations within MMAs to “limit or do not allow low-intensity or land extensive uses, such as most industrial uses, automobile sales and services, and drive-through services.”

Response: Industrial uses are not permitted in the MUD zone district, and only light industrial or craft industrial uses such as brewpubs or apparel studios are allowed in the WFDD zone. These uses are size-limited. Automotive sales, service, rental and repair are only as a conditional use, as are drive-through uses.

(10)(b)(D) requires MMAs to have “land use regulations that do not require the provision of off-street parking, or regulations that require lower levels of off-street parking than required in other areas and allow flexibility to meet the parking requirements (e.g. count on-street parking, allow long-term leases, allow shared parking).”

Response: The off-street parking requirement in both the MUD and proposed WFDD zones are unique in Oregon City in that they allow reduction from the city's existing standard by up to 50 percent. Likewise, there is flexibility within both districts for shared parking between uses, and for sharing parking between the two zoned areas. On street parking in both zones may count toward the minimum standard when it is on the street face abutting the proposed land use. A change in use of an existing building within the MUD zone is exempt from constructing additional parking. In this respect the MMA area requires lower levels of off-street parking than required in other areas.

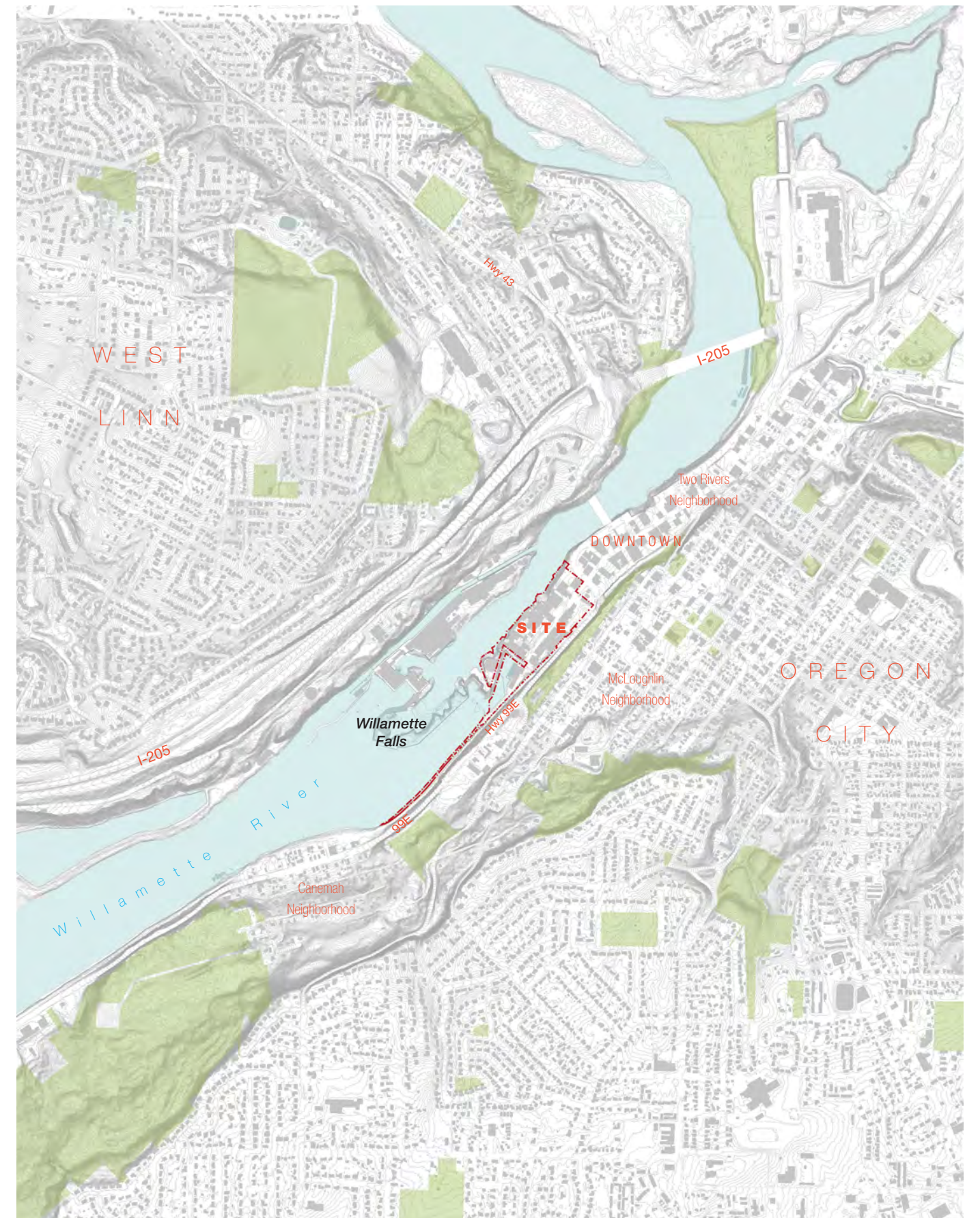
(10)(b)(E) Requires the MMA to be "located in one or more of the categories below:

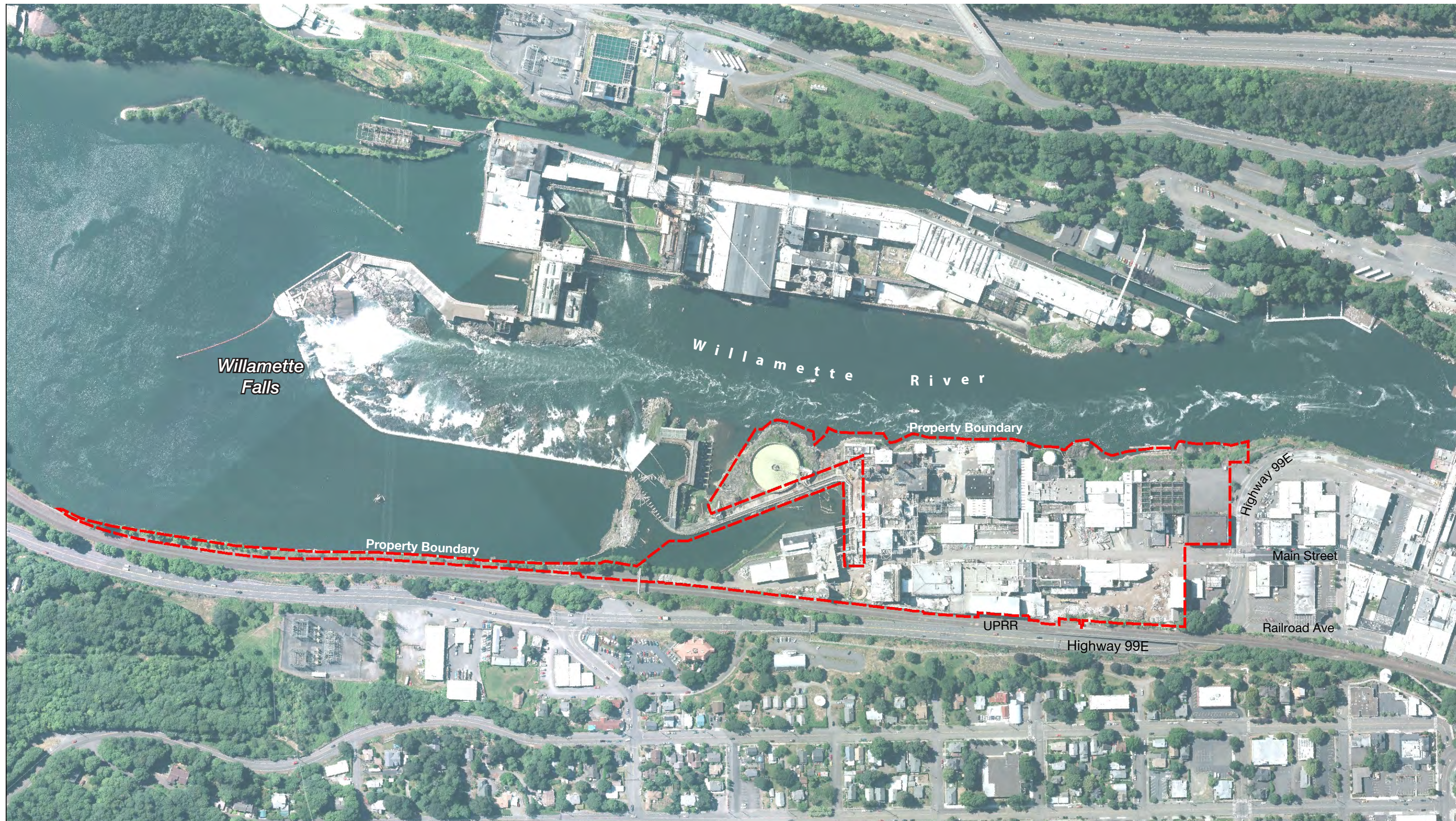
(i) At least one-quarter mile from any ramp terminal intersection of existing or planned interchanges;

(ii) Within the area of an adopted Interchange Area Management Plan (IAMP) and consistent with the IAMP; or

(iii) Within one-quarter mile of a ramp terminal intersection of an existing or planned interchange if the mainline facility provider has provided written concurrence with the MMA designation as provided in subsection (c) of this section."

Response: The proposed MMA is more than ¼ mile from any ramp terminal intersection of the existing I-205 interchange. Subsection (i) is satisfied and this requirement is met.





2 Willamette Falls Legacy Project: General Development Plan Existing Conditions: Aerial Photo



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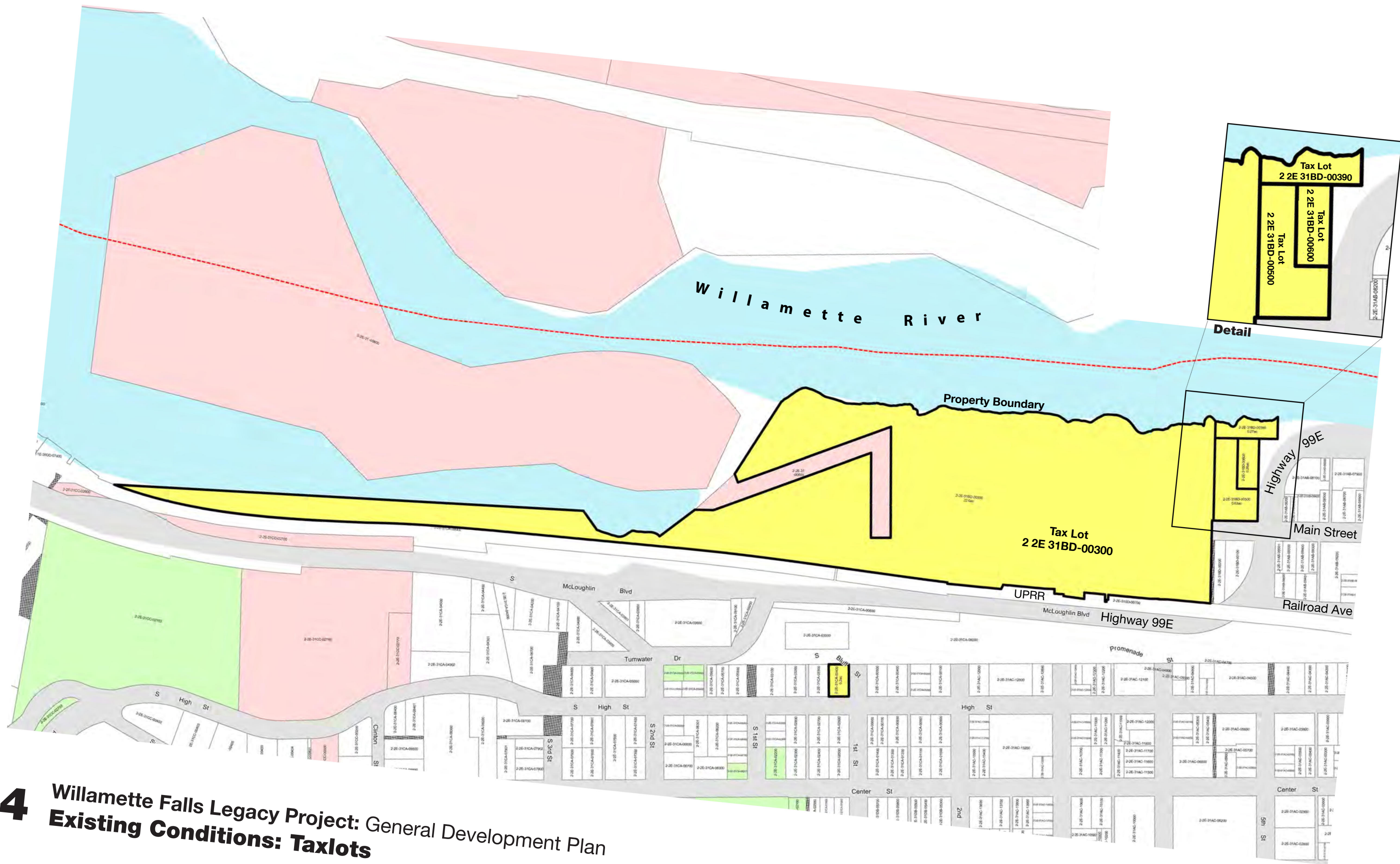


3 Willamette Falls Legacy Project: General Development Plan

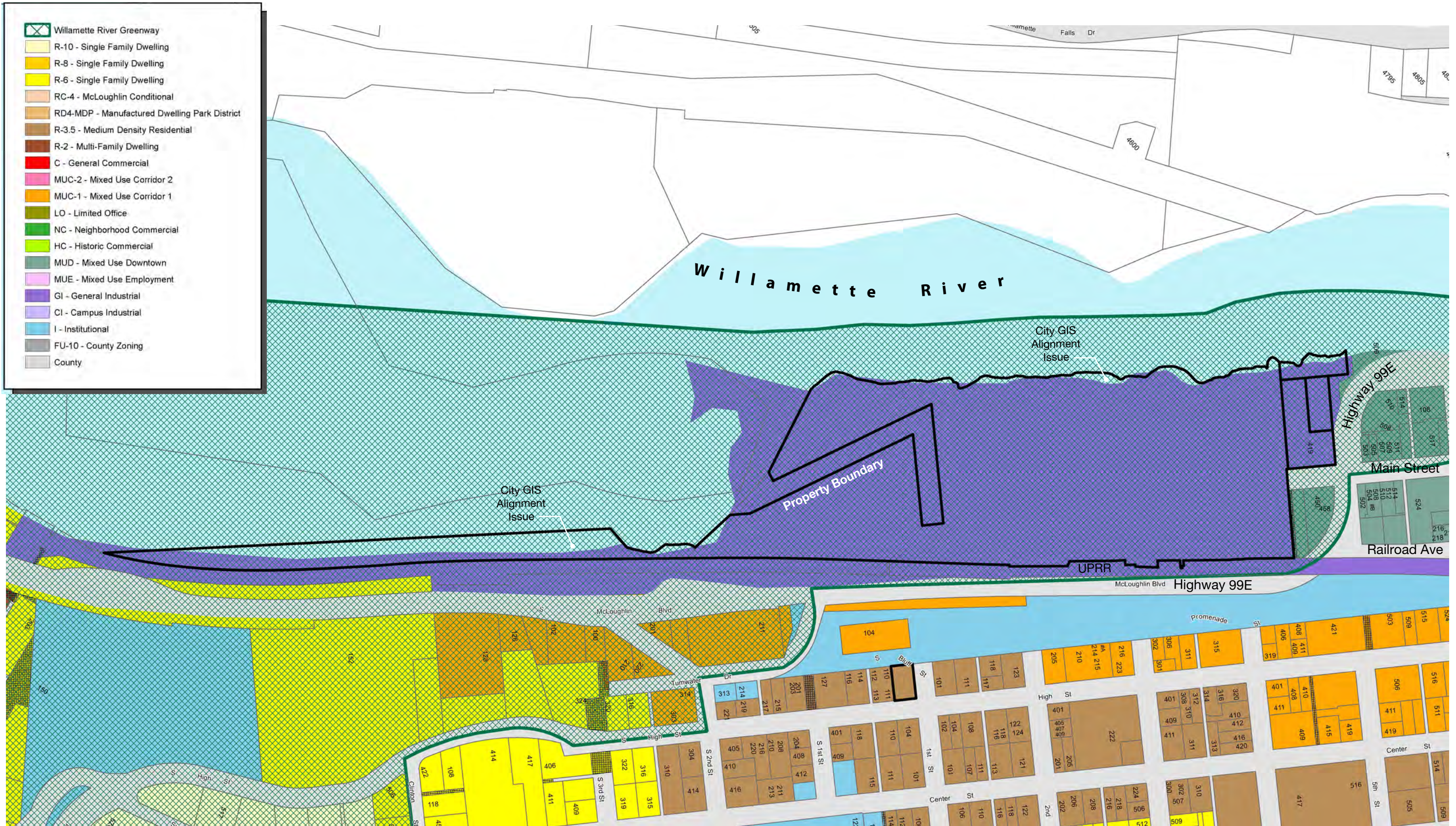
Existing Conditions: Topography



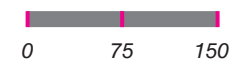
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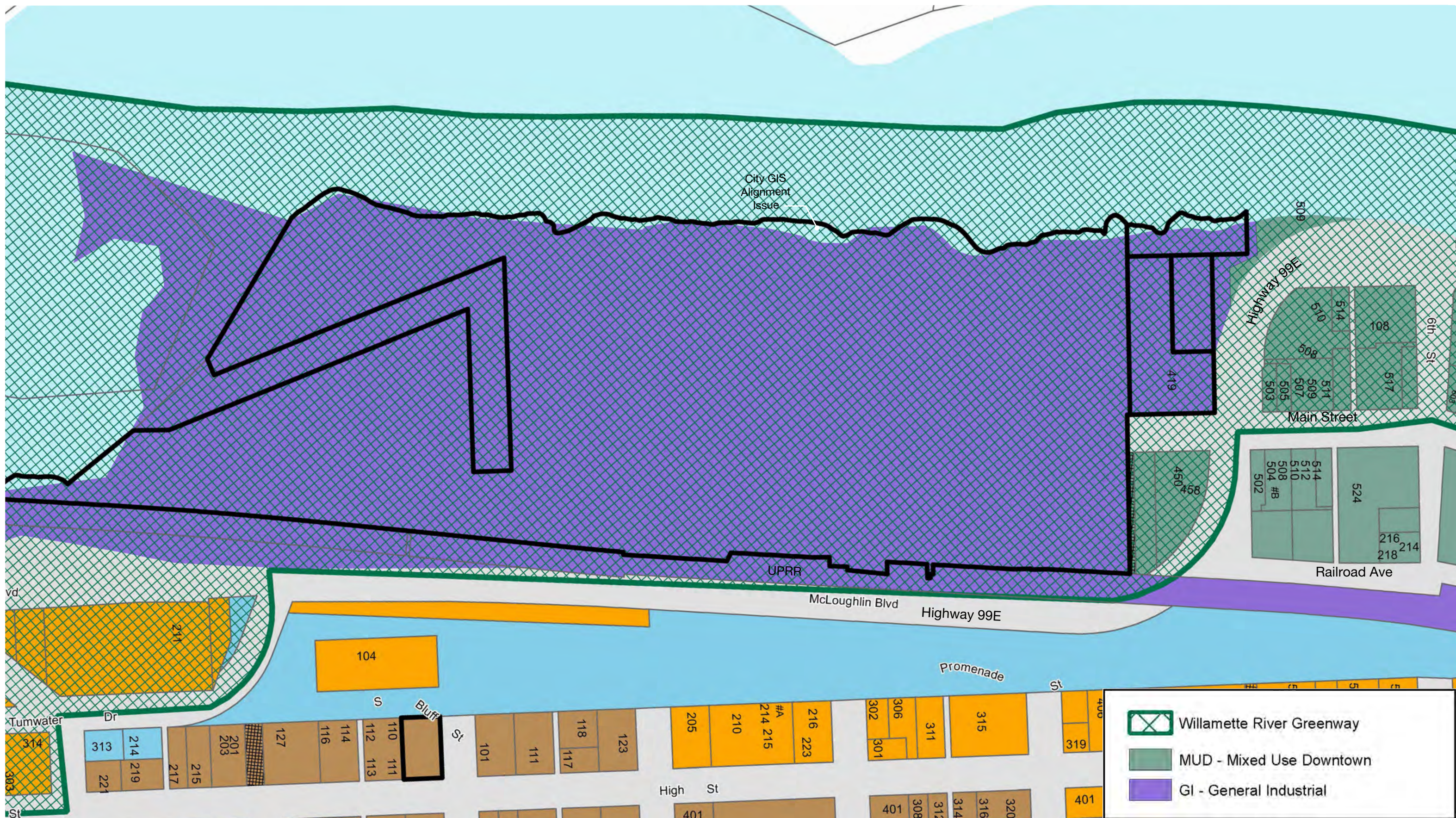
4 Willamette Falls Legacy Project: General Development Plan
Existing Conditions: Taxlots



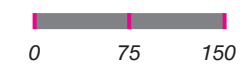
5 Willamette Falls Legacy Project: General Development Plan Zoning and Willamette River Greenway



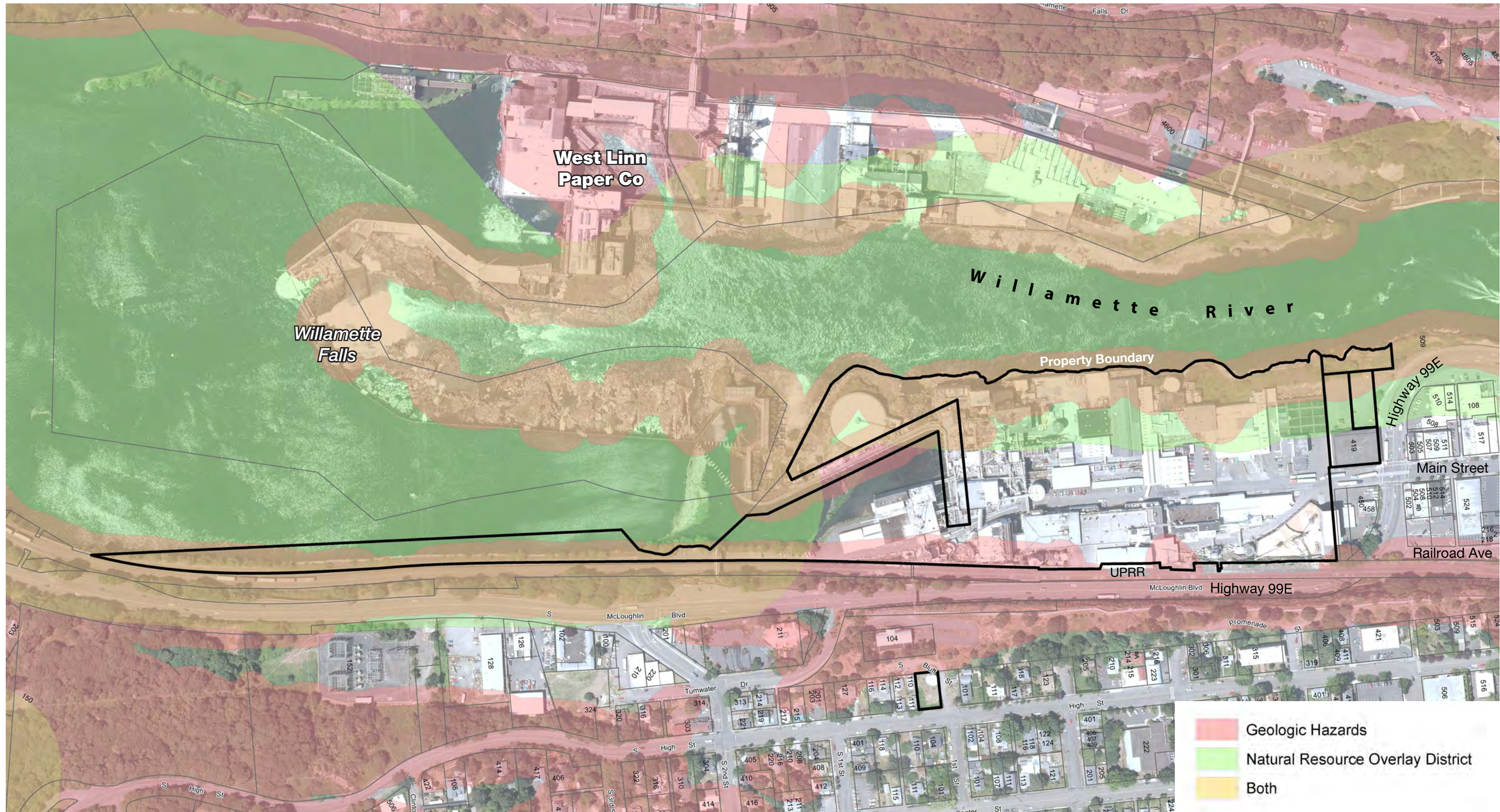
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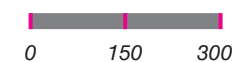
Willamette Falls Legacy Project: General Development Plan



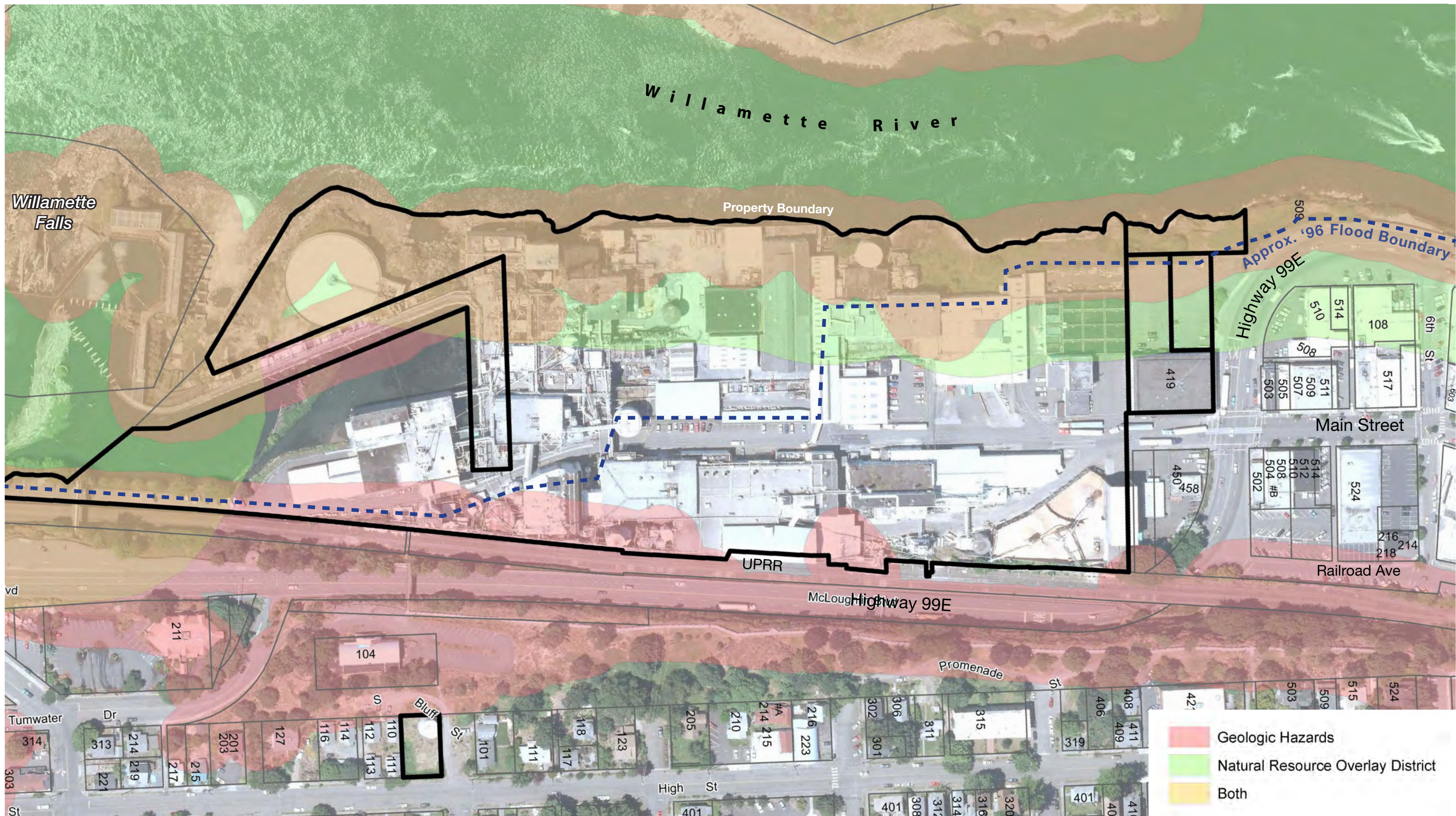
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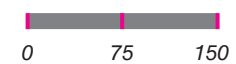
6 Willamette Falls Legacy Project: General Development Plan Geologic Hazards and Natural Resource Overlay



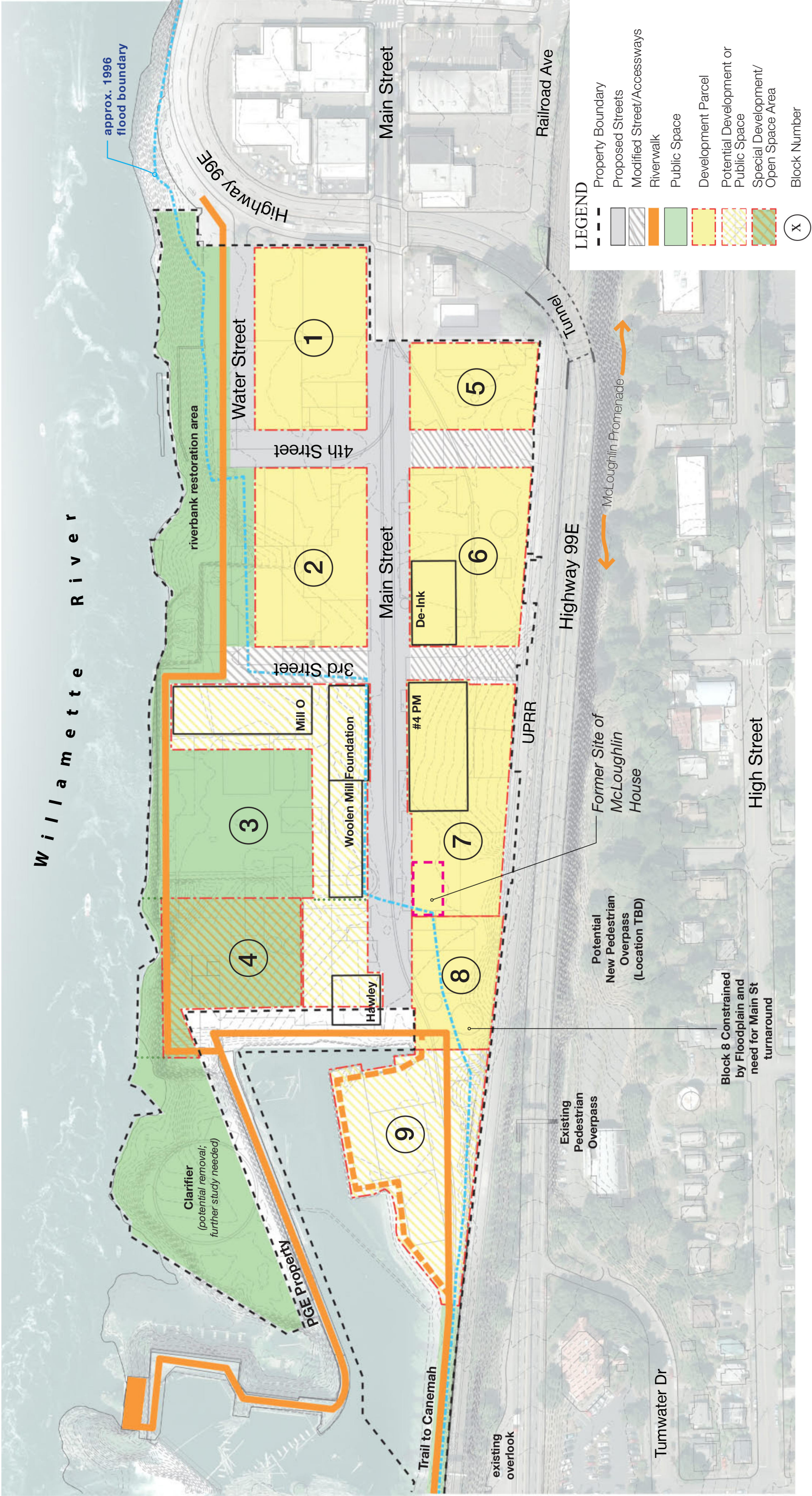
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Willamette Falls Legacy Project: General Development Plan



July 2014



7 Willamette Falls Legacy Project: General Development Plan Framework Master Plan



July 2014

Motor Vehicle Related Objectives:

Objective A: Identify at least one additional site access point for motor vehicles

Objective B: Allow for safe left-turns for motor vehicle from McLoughlin Boulevard to Main Street

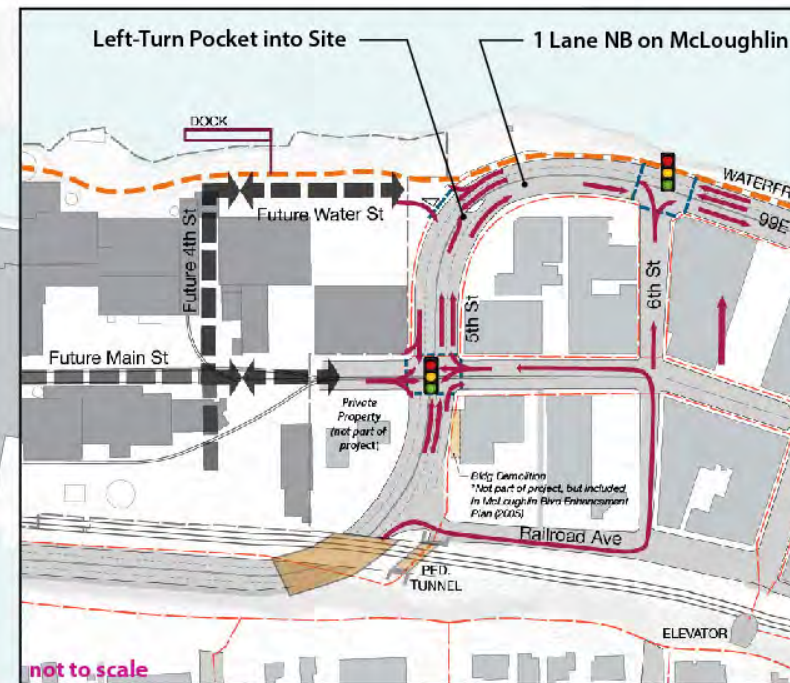
Objective C: Maintain adequate operating conditions at the McLoughlin Boulevard/Main Street intersection

Walking/Biking Related Objectives:

Objective D: Create at least one additional safe crossing of McLoughlin Boulevard between Downtown and the site

Objective E: Create at least one convenient pedestrian and bicycle overcrossing of McLoughlin Boulevard and the railroad tracks at the south end of the site

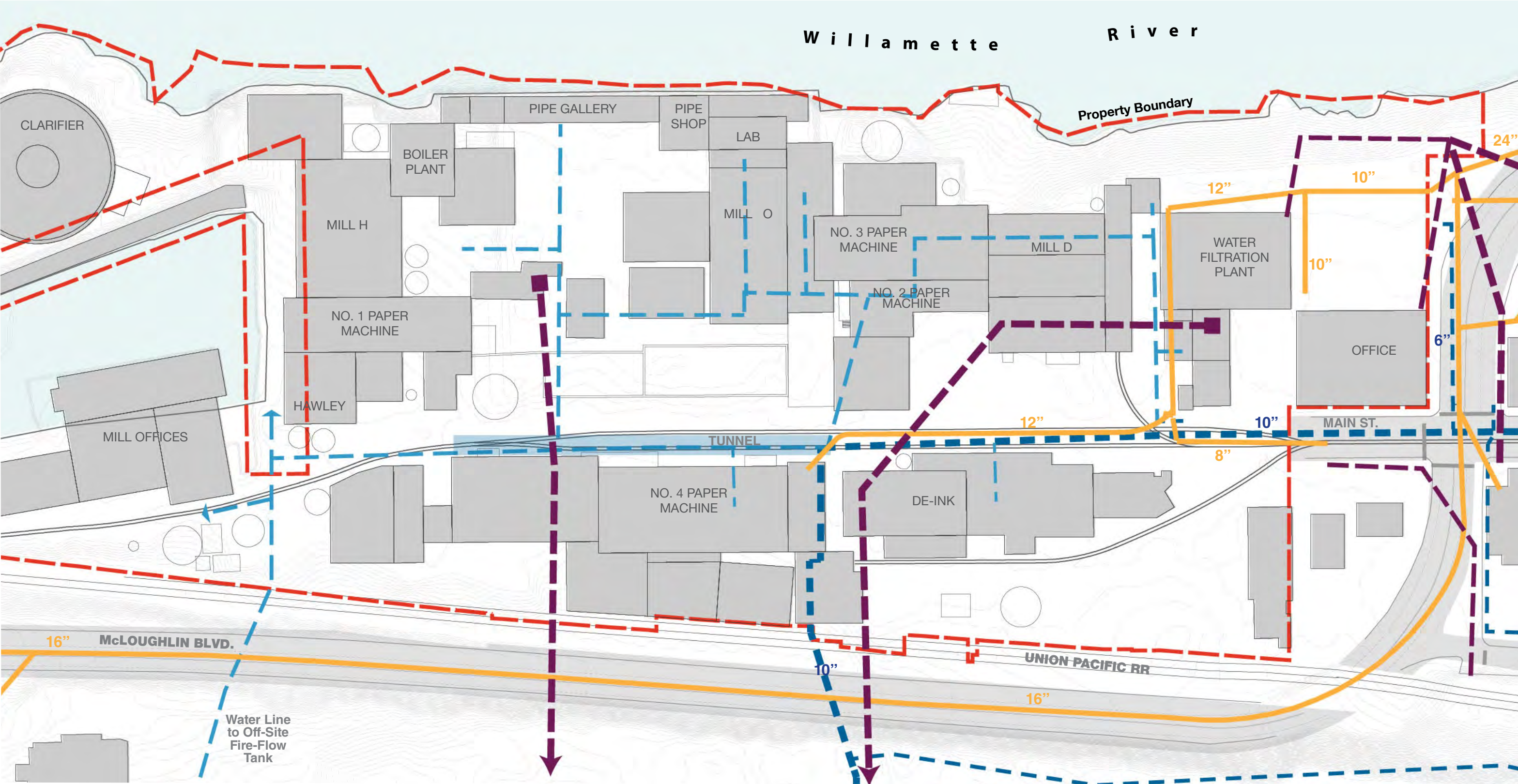
Objective F: Create a continuous walking and biking connection between the Willamette River Trail and the site



OPTION: Remove 1 NB Lane on McLoughlin, shift lanes to enhance Pedestrian Walkway along Willamette River

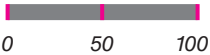
- 1 Signal at 6th
- 2 Shared Use Path along River
- 3 Right-In/Right Out at Water St
- 4 Water Street/4th Connection into Site
- 5 Main Street Intersection
- 6 Indirect Left Turns
- 7 Pedestrian Bridge to Site





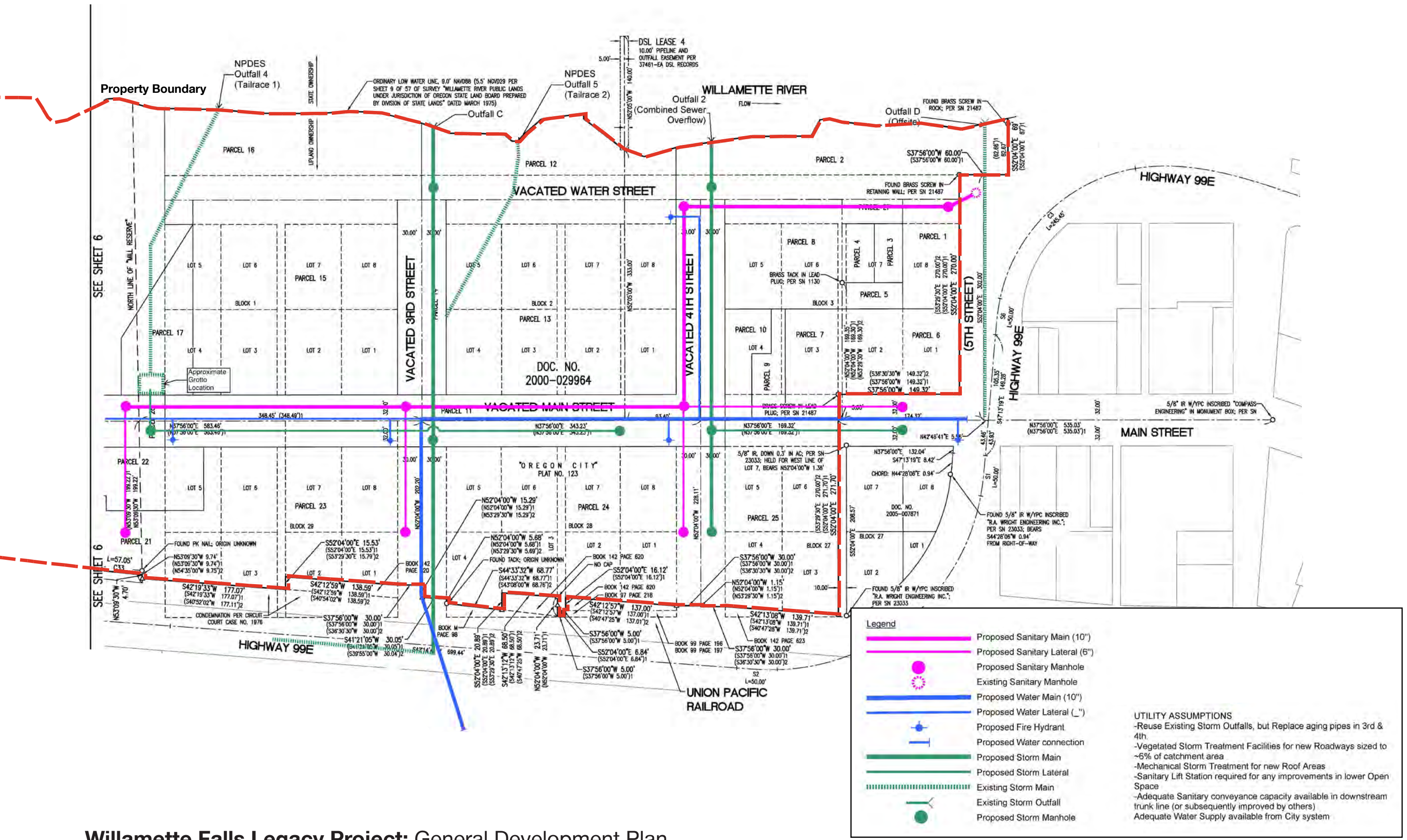
LEGEND

- Sewer Line
- Water Line **(Assumes that process water lines have been cut/alterd, so not shown)*
- Remnant Site Water Line
- Power Line



July 2014

10 Willamette Falls Legacy Project: General Development Plan Proposed Utilities



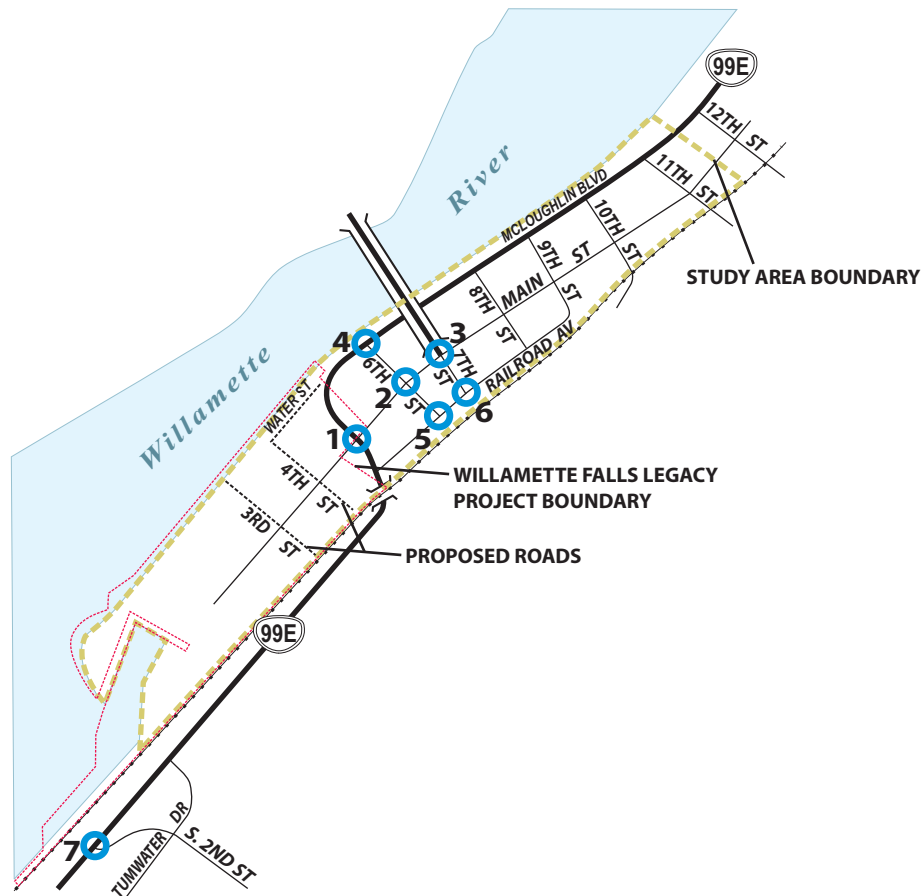


Transportation Analysis Attachments

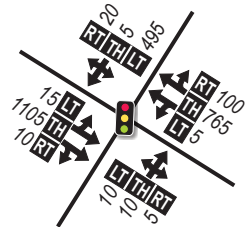


Section I: Motor Vehicle Volumes (PM Peak)

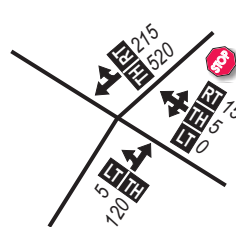




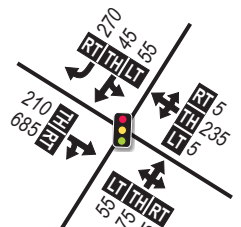
1. Main St./McLoughlin Blvd.



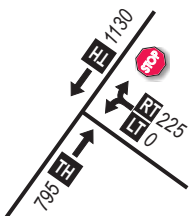
2. Main St./6th St.



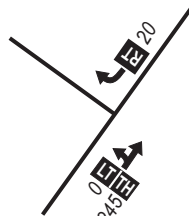
3. Main St./7th St.



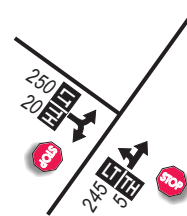
4. McLoughlin Blvd./6th St.



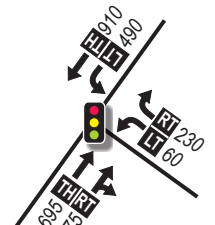
5. Railroad Ave./6th St.



6. Railroad Ave./7th St.



7. McLoughlin Blvd./S 2nd St.



LEGEND

- Study Intersection
- Stop Sign
- Traffic Signal
- Lane Configuration
- 000 - PM Peak Hour Traffic Volumes
- Volume Turn Movement
Left•Thru•Right

DKS



No Scale

Figure A1

**2013 EXISTING
TRAFFIC VOLUMES
(WEEKDAY PM PEAK)**

Section 2: Vehicle Queuing



Table A1: Weekday PM Peak Hour Vehicle Queuing

Intersection (traffic control)	Approach	Available Storage	2035 Baseline Conditions	2035 with Willamette Falls Redevelopment	Expected Impact of 95% Vehicle Queues
1 Main Street/ McLoughlin Boulevard (signalized)	Northbound (McLoughlin)	200 feet*	500 feet	>1000 feet	Queue extends into tunnel**
	Southbound (McLoughlin)	>1,000 feet	700 feet	725 feet	N/A
	Eastbound (Main Street)	325 feet	100 feet	275 feet	N/A
	Westbound (Main Street)	300 feet	350 feet	425 feet	Queue expected to extend through Main/6 th Street intersection
2 Main Street/ 6 th Street (unsignalized)	Westbound (6 th Street)	225 feet	275 feet	275 feet	2035 queue expected to impact 6 th / Railroad intersection
3 Main Street/ 7 th Street (signalized)	Northbound (Main Street)	200 feet	250 feet	250 feet	2035 queue expected to extend through Main/6 th Street intersection
	Southbound (Main Street)	300 feet	225 feet	325 feet	2035 queue expected to extend through Main/8 th Street intersection
	Eastbound (Arch Bridge)	>1,000 feet	850 feet	850 feet	N/A
	Westbound (7 th Street)	200 feet	225 feet	225 feet	2035 queue expected to impact 7 th / Railroad intersection
4 McLoughlin Boulevard/ 6 th Street (unsignalized)	Westbound (6 th Street)	225 feet	125 feet	150 feet	N/A
5 6 th Street/ Railroad Avenue (unsignalized)	Northbound (Railroad)	325 feet	275 feet	325 feet	N/A
6 7 th Street/ Railroad Avenue (unsignalized)	Northbound (Railroad)	200 feet	200 feet	225 feet	2035 queue expected to impact 6 th / Railroad intersection
7 McLoughlin Boulevard/S 2 nd Street (signalized)	Northbound (McLoughlin)	>1,000 feet	325 feet	325 feet	N/A
	Southbound (McLoughlin)	>1,000 feet	675 feet	450 feet	N/A

Bolded red values indicates 95% vehicle queue exceeds available storage

* There is over 1,000 feet of available storage to the next intersection (S. 2nd Street), however, the tunnel is only about 200 feet from Main Street, limiting vehicle stopping sight distance for northbound traffic on McLoughlin Boulevard.

**This scenario assumed left turns from the highway were still allowed (no mitigations were assumed)



Queuing and Blocking Report
2035 PM Peak Hour - Baseline Conditions

2/21/2014

Intersection: 1: Main Street & McLoughlin Blvd

Movement	SE	SE	NW	NW	NE	SW
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	610	618	563	595	113	313
Average Queue (ft)	454	469	243	279	45	269
95th Queue (ft)	687	698	456	493	95	350
Link Distance (ft)	498	498	2325	2325	248	295
Upstream Blk Time (%)	27	30				9
Queuing Penalty (veh)	192	214				51
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Main Street & 6th Street

Movement	NW	NE	SW
Directions Served	LTR	LT	TR
Maximum Queue (ft)	234	296	198
Average Queue (ft)	118	134	55
95th Queue (ft)	264	313	167
Link Distance (ft)	200	295	190
Upstream Blk Time (%)	28	7	2
Queuing Penalty (veh)	18	12	12
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Main Street & 7th Street

Movement	SE	NW	NE	SW	SW
Directions Served	TR	LTR	LTR	LT	R
Maximum Queue (ft)	771	214	215	254	100
Average Queue (ft)	738	111	191	102	86
95th Queue (ft)	842	221	237	212	116
Link Distance (ft)	725	198	190	264	
Upstream Blk Time (%)	55	14	55	1	
Queuing Penalty (veh)	0	40	131	3	
Storage Bay Dist (ft)					75
Storage Blk Time (%)				10	13
Queuing Penalty (veh)				32	13

Queuing and Blocking Report
2035 PM Peak Hour - Baseline Conditions

2/21/2014

Intersection: 4: Main Street & 8th Street

Movement	SE	SE	SW
Directions Served	LT	R	LT
Maximum Queue (ft)	51	65	121
Average Queue (ft)	20	29	7
95th Queue (ft)	49	57	59
Link Distance (ft)	194	194	291
Upstream Blk Time (%)			0
Queuing Penalty (veh)			0
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Main Street & 9th Street

Movement	NB	NB	SB	SB	NE	SW
Directions Served	L	TR	L	R	LT	TR
Maximum Queue (ft)	36	118	51	60	17	9
Average Queue (ft)	13	56	18	23	1	0
95th Queue (ft)	39	95	48	54	10	7
Link Distance (ft)	177	177	195	195	291	186
Upstream Blk Time (%)						
Queuing Penalty (veh)						
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 6: McLoughlin Blvd & 6th Street

Movement	NW	NW	SW	SW
Directions Served	L	R	T	T
Maximum Queue (ft)	59	179	512	527
Average Queue (ft)	13	69	169	175
95th Queue (ft)	54	127	589	601
Link Distance (ft)		202	586	586
Upstream Blk Time (%)		0	12	13
Queuing Penalty (veh)		0	83	92
Storage Bay Dist (ft)	100			
Storage Blk Time (%)	6	3		
Queuing Penalty (veh)	13	0		

Queuing and Blocking Report
2035 PM Peak Hour - Baseline Conditions

2/21/2014

Intersection: 7: McLoughlin Blvd & 8th Street

Movement	NE	NE	SW	SW
Directions Served	T	TR	LT	T
Maximum Queue (ft)	33	55	242	254
Average Queue (ft)	3	4	97	69
95th Queue (ft)	30	38	255	248
Link Distance (ft)	586	586	287	287
Upstream Blk Time (%)			2	4
Queuing Penalty (veh)			18	27
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: McLoughlin Blvd & 9th Street

Movement	NB	NE	NE	SW	SW
Directions Served	LR	T	TR	LT	T
Maximum Queue (ft)	137	157	172	267	254
Average Queue (ft)	41	14	20	91	61
95th Queue (ft)	101	76	95	256	232
Link Distance (ft)	195	287	287	280	280
Upstream Blk Time (%)	0	0	0	2	3
Queuing Penalty (veh)	0	0	0	16	22
Storage Bay Dist (ft)					
Storage Blk Time (%)					
Queuing Penalty (veh)					

Intersection: 9: McLoughlin Blvd & 10th Street

Movement	NB	NB	NE	NE	SW	SW	SW
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	159	290	292	298	380	418	289
Average Queue (ft)	69	136	160	177	214	153	119
95th Queue (ft)	132	242	297	317	376	358	295
Link Distance (ft)	391	391	280	280		398	398
Upstream Blk Time (%)			1	2	0	6	6
Queuing Penalty (veh)			8	13	0	0	0
Storage Bay Dist (ft)					280		
Storage Blk Time (%)					5	7	
Queuing Penalty (veh)					35	29	

Queuing and Blocking Report
2035 PM Peak Hour - Baseline Conditions

2/21/2014

Intersection: 11: Railroad Avenue & 6th Street

Movement	NE	NE	SW
Directions Served	L	T	R
Maximum Queue (ft)	68	336	109
Average Queue (ft)	10	62	24
95th Queue (ft)	46	281	99
Link Distance (ft)		366	148
Upstream Blk Time (%)		10	4
Queuing Penalty (veh)		0	1
Storage Bay Dist (ft)	50		
Storage Blk Time (%)	7	13	
Queuing Penalty (veh)	20	4	

Intersection: 12: Railroad Avenue & 7th Street

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	170	213
Average Queue (ft)	81	92
95th Queue (ft)	140	189
Link Distance (ft)	198	148
Upstream Blk Time (%)	2	16
Queuing Penalty (veh)	7	51
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Railroad Avenue/9th Street & 8th Street

Movement	SE
Directions Served	L
Maximum Queue (ft)	59
Average Queue (ft)	24
95th Queue (ft)	53
Link Distance (ft)	204
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report
2035 PM Peak Hour - Baseline Conditions

2/21/2014

Intersection: 14: McLoughlin Blvd & S 2nd Street

Movement	WB	WB	NE	NE	SW	SW
Directions Served	L	R	T	TR	L	T
Maximum Queue (ft)	249	460	285	285	784	804
Average Queue (ft)	184	161	246	238	394	325
95th Queue (ft)	282	412	289	308	662	668
Link Distance (ft)		450	234	234	2325	2325
Upstream Blk Time (%)		4	25	20		
Queuing Penalty (veh)		0	0	0		
Storage Bay Dist (ft)	225					
Storage Blk Time (%)	12	0				
Queuing Penalty (veh)	31	0				

Zone Summary

Zone wide Queuing Penalty: 1189

Queuing and Blocking Report

2035 PM Peak Hour - Build Conditions with Willamette Falls

2/21/2014

Intersection: 1: Main Street & McLoughlin Blvd

Movement	SE	SE	NW	NW	NE	SW
Directions Served	LT	TR	LT	TR	LTR	LTR
Maximum Queue (ft)	632	623	2100	2099	282	312
Average Queue (ft)	575	578	1623	1630	264	270
95th Queue (ft)	718	710	2760	2763	319	424
Link Distance (ft)	503	503	2357	2357	265	295
Upstream Blk Time (%)	68	72	3	8	58	47
Queuing Penalty (veh)	523	554	17	37	240	285
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 2: Main Street & 6th Street

Movement	NW	NE	SW
Directions Served	LTR	LT	TR
Maximum Queue (ft)	231	311	213
Average Queue (ft)	124	275	186
95th Queue (ft)	276	376	263
Link Distance (ft)	200	295	190
Upstream Blk Time (%)	34	34	40
Queuing Penalty (veh)	14	108	306
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 3: Main Street & 7th Street

Movement	SE	NW	NE	SW	SW
Directions Served	TR	LTR	LTR	LT	R
Maximum Queue (ft)	783	216	210	278	100
Average Queue (ft)	741	128	193	195	78
95th Queue (ft)	840	236	256	337	137
Link Distance (ft)	725	198	190	264	
Upstream Blk Time (%)	89	22	69	28	
Queuing Penalty (veh)	0	58	247	110	
Storage Bay Dist (ft)					75
Storage Blk Time (%)				45	14
Queuing Penalty (veh)				132	19

Queuing and Blocking Report
2035 PM Peak Hour - Build Conditions with Willamette Falls

2/21/2014

Intersection: 4: Main Street & 8th Street

Movement	SE	SE	SW
Directions Served	LT	R	LT
Maximum Queue (ft)	43	151	276
Average Queue (ft)	18	55	114
95th Queue (ft)	47	152	336
Link Distance (ft)	194	194	291
Upstream Blk Time (%)		4	23
Queuing Penalty (veh)		1	85
Storage Bay Dist (ft)			
Storage Blk Time (%)			
Queuing Penalty (veh)			

Intersection: 5: Main Street & 9th Street

Movement	NB	NB	B18	SB	SB	NE	SW
Directions Served	L	TR	T	L	R	LT	TR
Maximum Queue (ft)	69	120	18	46	74	45	171
Average Queue (ft)	25	50	0	17	33	3	60
95th Queue (ft)	91	94	9	48	111	28	202
Link Distance (ft)	177	177	273	194	194	291	172
Upstream Blk Time (%)	2				2		24
Queuing Penalty (veh)	3				0		0
Storage Bay Dist (ft)							
Storage Blk Time (%)							
Queuing Penalty (veh)							

Intersection: 6: McLoughlin Blvd & 6th Street

Movement	NW	NW	SW	SW
Directions Served	L	R	T	T
Maximum Queue (ft)	69	149	712	678
Average Queue (ft)	35	66	571	573
95th Queue (ft)	107	156	904	900
Link Distance (ft)		202	586	586
Upstream Blk Time (%)		8	57	63
Queuing Penalty (veh)		15	428	475
Storage Bay Dist (ft)	100			
Storage Blk Time (%)	27	1		
Queuing Penalty (veh)	60	0		

Queuing and Blocking Report

2035 PM Peak Hour - Build Conditions with Willamette Falls

2/21/2014

Intersection: 7: McLoughlin Blvd & 8th Street

Movement	NE	NE	SW	SW
Directions Served	T	TR	LT	T
Maximum Queue (ft)	55	64	346	347
Average Queue (ft)	5	9	237	233
95th Queue (ft)	30	42	420	430
Link Distance (ft)	586	586	287	287
Upstream Blk Time (%)			17	17
Queuing Penalty (veh)			132	135
Storage Bay Dist (ft)				
Storage Blk Time (%)				
Queuing Penalty (veh)				

Intersection: 8: McLoughlin Blvd & 9th Street

Movement	NB	NB	NE	NE	SW	SW
Directions Served	L	R	T	TR	LT	T
Maximum Queue (ft)	103	48	79	104	302	310
Average Queue (ft)	35	15	6	9	209	205
95th Queue (ft)	90	44	43	53	389	408
Link Distance (ft)	194	194	287	287	268	268
Upstream Blk Time (%)					17	18
Queuing Penalty (veh)					133	139
Storage Bay Dist (ft)						
Storage Blk Time (%)						
Queuing Penalty (veh)						

Intersection: 9: McLoughlin Blvd & 10th Street

Movement	NB	NB	NE	NE	SW	SW	SW
Directions Served	L	R	T	TR	L	T	T
Maximum Queue (ft)	261	320	281	279	395	452	441
Average Queue (ft)	106	143	144	154	305	314	302
95th Queue (ft)	215	259	272	282	513	562	566
Link Distance (ft)	391	391	268	268		398	398
Upstream Blk Time (%)	1	0	1	1	2	35	41
Queuing Penalty (veh)	0	0	5	7	0	0	0
Storage Bay Dist (ft)					280		
Storage Blk Time (%)					7	49	
Queuing Penalty (veh)					62	205	

Queuing and Blocking Report
2035 PM Peak Hour - Build Conditions with Willamette Falls

2/21/2014

Intersection: 11: Railroad Avenue & 6th Street

Movement	NE	NE	SW
Directions Served	L	T	R
Maximum Queue (ft)	37	244	92
Average Queue (ft)	7	95	31
95th Queue (ft)	37	334	116
Link Distance (ft)		335	148
Upstream Blk Time (%)		21	9
Queuing Penalty (veh)		0	3
Storage Bay Dist (ft)	50		
Storage Blk Time (%)	8	25	
Queuing Penalty (veh)	21	2	

Intersection: 12: Railroad Avenue & 7th Street

Movement	SE	NE
Directions Served	LR	LT
Maximum Queue (ft)	146	217
Average Queue (ft)	66	107
95th Queue (ft)	131	222
Link Distance (ft)	198	148
Upstream Blk Time (%)	4	28
Queuing Penalty (veh)	13	81
Storage Bay Dist (ft)		
Storage Blk Time (%)		
Queuing Penalty (veh)		

Intersection: 13: Railroad Avenue/9th Street & 8th Street

Movement	SE
Directions Served	L
Maximum Queue (ft)	52
Average Queue (ft)	20
95th Queue (ft)	49
Link Distance (ft)	204
Upstream Blk Time (%)	
Queuing Penalty (veh)	
Storage Bay Dist (ft)	
Storage Blk Time (%)	
Queuing Penalty (veh)	

Queuing and Blocking Report

2035 PM Peak Hour - Build Conditions with Willamette Falls

2/21/2014

Intersection: 14: McLoughlin Blvd & S 2nd Street

Movement	WB	WB	NE	NE	SW	SW
Directions Served	L	R	T	TR	L	T
Maximum Queue (ft)	247	424	294	287	508	369
Average Queue (ft)	179	147	247	239	268	170
95th Queue (ft)	277	359	308	311	451	344
Link Distance (ft)		447	234	234	2357	2357
Upstream Blk Time (%)		2	34	35		
Queuing Penalty (veh)		0	0	0		
Storage Bay Dist (ft)	225					
Storage Blk Time (%)	8	4				
Queuing Penalty (veh)	16	8				

Zone Summary

Zone wide Queuing Penalty: 4682

Queuing and Blocking Report

2035 PM Peak Hour - Build Conditions with Willamette Falls with Signal at 6th

2/24/2014

Intersection: 6: McLoughlin Blvd & 6th Street

Movement	NW	NW	NE	NE	SW	SW
Directions Served	L	R	T	T	T	T
Maximum Queue (ft)	123	193	402	404	507	518
Average Queue (ft)	40	39	107	114	221	237
95th Queue (ft)	111	126	331	337	618	624
Link Distance (ft)		202	524	524	586	586
Upstream Blk Time (%)		2	4	0	9	10
Queuing Penalty (veh)		6	20	0	65	76
Storage Bay Dist (ft)	100					
Storage Blk Time (%)	8	1				
Queuing Penalty (veh)	16	1				

Section 3: Multimodal Improvements Framework

Each potential solution was evaluated to see how the objectives match the perceived project benefits and shortfalls. Overall, 33 different options were evaluated, as summarized below.

- Objective A: Identify at least one additional site access point for motor vehicles
 - Option A1: Water Street connection to McLoughlin Boulevard, right-in, right-out access only
 - Option A2: Water Street connection to McLoughlin Boulevard, full access with a traffic signal
 - Option A3: Railroad Avenue overcrossing of McLoughlin Boulevard into the site
 - Option A4: Tumwater Drive overcrossing of McLoughlin Boulevard into the site
 - Option A5: South 2nd Street extension into the site from McLoughlin Boulevard
- Objective B: Allow for safe left-turns for motor vehicle from McLoughlin Boulevard to Main Street
 - Option B1: Indirect left-turns for northbound McLoughlin Boulevard traffic via Railroad Avenue-6th Street-Main Street; southbound McLoughlin Boulevard traffic via Water Avenue extension-Main Street
 - Option B2: Indirect left-turns for northbound McLoughlin Boulevard traffic via 6th Street-Main Street; southbound McLoughlin Boulevard traffic via Water Avenue extension-Main Street
 - Option B3: Widen McLoughlin Boulevard to 5-lanes to add a left-turn lane at Main Street
 - Option B4: Shift the McLoughlin Boulevard striping to allow for a short northbound left-turn pocket to the site
 - Option B5: Reconfigure the existing McLoughlin Boulevard street width to provide one travel lane in each direction and a center turn lane/median
 - Option B6: Reconfigure the existing McLoughlin Boulevard street width to provide one northbound travel lane, two southbound travel lanes and a center turn lane/median.
 - Option B7: Reconfigure the existing McLoughlin Boulevard street width to provide one southbound travel lane, two northbound travel lanes and a center turn lane/median.
 - Option B8: Reconfigure the existing McLoughlin Boulevard street width to provide one travel lane in each direction and a center reversible peak period travel lane



- Objective C: Maintain adequate operating conditions at the McLoughlin Boulevard/Main Street intersection
 - Option C1: Add a southbound right-turn lane into the site
 - Option C2: Add a northbound right-turn lane to Main Street
 - Option C3: Add left-turn lanes from Main Street to McLoughlin Boulevard
 - Option C4: Add left-turn lanes from McLoughlin Boulevard to Main Street
 - Option C5: Indirect left-turns for northbound McLoughlin Boulevard traffic via Railroad Avenue-6th Street-Main Street; southbound McLoughlin Boulevard traffic via Water Avenue extension-Main Street
 - Option C6: Indirect left-turns for northbound McLoughlin Boulevard traffic via 6th Street-Main Street; southbound McLoughlin Boulevard traffic via Water Avenue extension-Main Street
 - Option C7: Indirect left-turns for northbound McLoughlin Boulevard traffic via a new traffic signal at the Water Street extension/McLoughlin Boulevard intersection; southbound McLoughlin Boulevard traffic via Water Avenue extension-Main Street
 - Option C8: Indirect left-turns for westbound Main Street traffic via a new traffic signal at the 6th Street/McLoughlin Boulevard intersection
 - Option C9: Indirect left-turns for westbound Main Street traffic via the potential Railroad Avenue overcrossing of McLoughlin Boulevard
- Objective D: Create at least one additional safe crossing of McLoughlin Boulevard between Downtown and the site
 - Option D1: Water Street connection and traffic signal at McLoughlin Boulevard
 - Option D2: Install traffic signal at the 6th Street/McLoughlin Boulevard intersection
 - Option D3: Railroad Avenue overcrossing of McLoughlin Boulevard into the site
- Objective E: Create at least one convenient pedestrian and bicycle overcrossing of McLoughlin Boulevard and the railroad tracks at the south end of the site
 - Option E1: Tumwater Drive overcrossing of McLoughlin Boulevard into the site
 - Option E2: South 2nd Street extension into the site from McLoughlin Boulevard
 - Option E3: Extend/improve the existing McLoughlin Boulevard overcrossing into the site
 - Option E4: Create a new overcrossing between the McLoughlin Promenade and the site
- Objective F: Create a continuous walking and biking connection between the Willamette River Trail and the site



- Option F1: Expand the McLoughlin Boulevard viaduct and construct a shared-use path along the Willamette River
- Option F2: Reconfigure the existing McLoughlin Boulevard street width to provide one travel lane in each direction, a center turn lane/median, and a shared-use path along the Willamette River (must occur with Option B5)
- Option F3: Reconfigure the existing McLoughlin Boulevard street width to provide one northbound travel lane, two southbound travel lanes, and a shared-use path along the Willamette River (must occur with Option B6)
- Option F4: Reconfigure the existing McLoughlin Boulevard street width to provide one southbound travel lane, two northbound travel lanes, and a shared-use path along the Willamette River (must occur with Option B7)



Section 4: HCM Reports



















HCM Signalized Intersection Capacity Analysis

1: Main Street & McLoughlin Blvd

McLoughlin (ORE 99E)

2013 PM Peak Hour - Existing Conditions

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	15	1105	10	5	765	100	10	10	5	495	5	20
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	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.98			0.97			0.99	
Flt Protected		1.00			1.00			0.98			0.95	
Satd. Flow (prot)		3497			3402			1738			1546	
Flt Permitted		0.94			0.95			0.85			0.72	
Satd. Flow (perm)		3291			3231			1509			1500	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	15	1139	10	5	789	103	10	10	5	510	5	21
RTOR Reduction (vph)	0	1	0	0	14	0	0	3	0	0	1	0
Lane Group Flow (vph)	0	1163	0	0	883	0	0	22	0	0	535	0
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	4%	4%	4%	2%	2%	2%
Parking (#/hr)	0									5	5	5
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		37.7			37.7			27.3			27.3	
Effective Green, g (s)		38.2			38.2			27.3			27.3	
Actuated g/C Ratio		0.52			0.52			0.37			0.37	
Clearance Time (s)		4.5			4.5			4.0			4.0	
Vehicle Extension (s)		8.0			8.0			5.0			5.0	
Lane Grp Cap (vph)		1710			1679			560			557	
v/s Ratio Prot												
v/s Ratio Perm		c0.35			0.27			0.01			c0.36	
v/c Ratio		0.68			0.53			0.04			0.96	
Uniform Delay, d1		13.1			11.7			14.7			22.6	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		2.2			1.1			0.1			28.7	
Delay (s)		15.3			12.8			14.8			51.3	
Level of Service		B			B			B			D	
Approach Delay (s)		15.3			12.8			14.8			51.3	
Approach LOS		B			B			B			D	
Intersection Summary												
HCM 2000 Control Delay		21.8			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.80										
Actuated Cycle Length (s)		73.5			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		83.7%			ICU Level of Service			E				
Analysis Period (min)		15										
Description: McLoughlin&Main												
c Critical Lane Group												

Two Way Analysis cannot be performed on Signalized Intersection.

HCM 2010 TWSC
2: Main Street & 6th Street

McLoughlin (ORE 99E)
2013 PM Peak Hour - Existing Conditions


















Intersection									
Int Delay, s/veh	0.3								
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER
Vol, veh/h	0	0	0	0	5	15	5	120	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	5	16	5	126	0
Major/Minor				Minor1			Major1		
Conflicting Flow All				798	911	145	774	0	-
Stage 1				137	137	-	-	-	-
Stage 2				661	774	-	-	-	-
Critical Hdwy				6.42	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1				5.42	5.52	-	-	-	-
Critical Hdwy Stg 2				5.42	5.52	-	-	-	-
Follow-up Hdwy				3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver				355	274	902	842	-	0
Stage 1				890	783	-	-	-	0
Stage 2				514	408	-	-	-	0
Platoon blocked, %									
Mov Cap-1 Maneuver				353	0	888	842	-	-
Mov Cap-2 Maneuver				353	0	-	-	-	-
Stage 1				885	0	-	-	-	-
Stage 2				514	0	-	-	-	-
Approach				NW			NE		
HCM Control Delay, s				9.2			0.4		
HCM LOS				A					
Minor Lane/Major Mvmt	NEL	NET	NWLn1	SWL	SWT	SWR			
Capacity (veh/h)	842	-	888	1437	-	-			
HCM Lane V/C Ratio	0.006	-	0.024	-	-	-			
HCM Control Delay (s)	9.3	0	9.2	0	-	-			
HCM Lane LOS	A	A	A	A	-	-			
HCM 95th %tile Q(veh)	0	-	0.1	0	-	-			

Intersection			
Int Delay, s/veh			
Movement	SWL	SWT	SWR
Vol, veh/h	0	520	215
Conflicting Peds, #/hr	6	0	19
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	547	226
Major/Minor	Major2		
Conflicting Flow All	126	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1460	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1437	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Approach	SW		
HCM Control Delay, s	0		
HCM LOS			
Minor Lane/Major Mvmt			

HCM Signalized Intersection Capacity Analysis

3: Main Street & 7th Street

McLoughlin (ORE 99E)
2013 PM Peak Hour - Existing Conditions

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	210	685	5	235	5	55	75	5	55	45	270
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
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frpb, ped/bikes		0.98			1.00			1.00			1.00	0.94
Flpb, ped/bikes		1.00			1.00			1.00			1.00	1.00
Frt		0.90			1.00			1.00			1.00	0.85
Flt Protected		1.00			1.00			0.98			0.97	1.00
Satd. Flow (prot)		1659			1593			1835			1556	1312
Flt Permitted		1.00			0.99			0.84			0.83	1.00
Satd. Flow (perm)		1659			1574			1574			1327	1312
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)	0	221	721	5	247	5	58	79	5	58	47	284
RTOR Reduction (vph)	0	160	0	0	1	0	0	2	0	0	0	219
Lane Group Flow (vph)	0	782	0	0	256	0	0	140	0	0	105	65
Confl. Peds. (#/hr)			1	1								29
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Parking (#/hr)				10	10						10	5
Turn Type		NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		6			2			4			8	
Permitted Phases				2			4			8		8
Actuated Green, G (s)		28.8			28.8			10.9			10.9	10.9
Effective Green, g (s)		28.8			28.8			10.9			10.9	10.9
Actuated g/C Ratio		0.60			0.60			0.23			0.23	0.23
Clearance Time (s)		4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)		1001			950			359			303	299
v/s Ratio Prot		c0.47										
v/s Ratio Perm					0.16			c0.09			0.08	0.05
v/c Ratio		0.78			0.27			0.39			0.35	0.22
Uniform Delay, d1		7.1			4.5			15.6			15.4	14.9
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		4.0			0.2			0.7			0.7	0.4
Delay (s)		11.1			4.6			16.3			16.1	15.3
Level of Service		B			A			B			B	B
Approach Delay (s)		11.1			4.6			16.3			15.5	
Approach LOS		B			A			B			B	
Intersection Summary												
HCM 2000 Control Delay			11.6									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.67									
Actuated Cycle Length (s)			47.7								8.0	
Intersection Capacity Utilization			73.9%									ICU Level of Service D
Analysis Period (min)			15									
Description: 7th (Bridge) & Main												
c Critical Lane Group												

Two Way Analysis cannot be performed on Signalized Intersection.

HCM 2010 TWSC
4: Main Street & 8th Street

McLoughlin (ORE 99E)
2013 PM Peak Hour - Existing Conditions

Intersection									
Int Delay, s/veh	1.5								
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER
Vol, veh/h	5	5	40	0	0	0	0	75	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	5	5	42	0	0	0	0	79	5
Major/Minor	Minor2			Major1					
Conflicting Flow All	482	484	347				347	0	0
Stage 1	400	400	-				-	-	-
Stage 2	82	84	-				-	-	-
Critical Hdwy	6.42	6.52	6.22				4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-				-	-	-
Critical Hdwy Stg 2	5.42	5.52	-				-	-	-
Follow-up Hdwy	3.518	4.018	3.318				2.218	-	-
Pot Cap-1 Maneuver	543	483	696				1212	-	-
Stage 1	677	602	-				-	-	-
Stage 2	941	825	-				-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	532	0	696				1212	-	-
Mov Cap-2 Maneuver	532	0	-				-	-	-
Stage 1	663	0	-				-	-	-
Stage 2	941	0	-				-	-	-
Approach	SE			NE					
HCM Control Delay, s	10.8			0					
HCM LOS	B								
Minor Lane/Major Mvmt	NEL	NET	NER	SELn1	SWL	SWT	SWR		
Capacity (veh/h)	1212	-	-	673	1513	-	-		
HCM Lane V/C Ratio	-	-	-	0.078	0.017	-	-		
HCM Control Delay (s)	0	-	-	10.8	7.4	0	-		
HCM Lane LOS	A	-	-	B	A	A	-		
HCM 95th %tile Q(veh)	0	-	-	0.3	0.1	-	-		

Intersection			
Int Delay, s/veh			
Movement	SWL	SWT	SWR
Vol, veh/h	25	330	0
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	26	347	0
Major/Minor	Major2		
Conflicting Flow All	84	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1513	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1513	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Approach	SW		
HCM Control Delay, s	0.5		
HCM LOS			
Minor Lane/Major Mvmt			

Intersection									
Int Delay, s/veh	5.1								
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER
Vol, veh/h	20	10	260	15	0	15	5	75	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	92	92	92	92	92	92	92	92	92
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	22	11	283	16	0	16	5	82	0
Major/Minor	Minor1	Minor2		Major1					
Conflicting Flow All	459	462	82	598	451	359	370	0	0
Stage 1	92	92	-	359	359	-	-	-	-
Stage 2	367	370	-	239	92	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	512	497	978	414	504	685	1189	-	-
Stage 1	915	819	-	659	627	-	-	-	-
Stage 2	653	620	-	764	819	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	498	495	978	289	502	685	1189	-	-
Mov Cap-2 Maneuver	498	495	-	289	502	-	-	-	-
Stage 1	911	816	-	656	627	-	-	-	-
Stage 2	637	620	-	534	816	-	-	-	-
Approach	NB			SB			NE		
HCM Control Delay, s	11.3			14.6			0.5		
HCM LOS	B			B					
Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR	
Capacity (veh/h)	1189	-	-	889	406	1515	-	-	
HCM Lane V/C Ratio	0.005	-	-	0.355	0.08	-	-	-	
HCM Control Delay (s)	8	0	-	11.3	14.6	0	-	-	
HCM Lane LOS	A	A	-	B	B	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	1.6	0.3	0	-	-	

Intersection			
Int Delay, s/veh			
Movement	SWL	SWT	SWR
Vol, veh/h	0	320	20
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	92	92	92
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	348	22
Major/Minor	Major2		
Conflicting Flow All	82	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1515	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1515	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Approach	SW		
HCM Control Delay, s	0		
HCM LOS			
Minor Lane/Major Mvmt			

Intersection						
Int Delay, s/veh	1.6					
Movement	NWL	NWR	NET	NER	SWL	SWT
Vol, veh/h	0	225	795	0	0	1130
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	0	232	820	0	0	1165
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1402	410	0	0	820	0
Stage 1	820	-	-	-	-	-
Stage 2	582	-	-	-	-	-
Critical Hdwy	6.86	6.96	-	-	4.16	-
Critical Hdwy Stg 1	5.86	-	-	-	-	-
Critical Hdwy Stg 2	5.86	-	-	-	-	-
Follow-up Hdwy	3.53	3.33	-	-	2.23	-
Pot Cap-1 Maneuver	130	588	-	-	798	-
Stage 1	391	-	-	-	-	-
Stage 2	519	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	130	588	-	-	798	-
Mov Cap-2 Maneuver	130	-	-	-	-	-
Stage 1	391	-	-	-	-	-
Stage 2	519	-	-	-	-	-
Approach	NW	NE	SW			
HCM Control Delay, s	15.1	0	0			
HCM LOS	C					
Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT	
Capacity (veh/h)	-	-	588	798	-	
HCM Lane V/C Ratio	-	-	0.394	-	-	
HCM Control Delay (s)	-	-	15.1	0	-	
HCM Lane LOS	-	-	C	A	-	
HCM 95th %tile Q(veh)	-	-	1.9	0	-	












HCM research expects at least one 'Stop' controlled approach at the intersection.

Intersection						
Int Delay, s/veh	1.1					
Movement	NBL	NBR	NET	NER	SWL	SWT
Vol, veh/h	15	20	1005	5	25	1155
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	21	1058	5	26	1216
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	1722	532	0	0	1063	0
Stage 1	1061	-	-	-	-	-
Stage 2	661	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	80	492	-	-	651	-
Stage 1	294	-	-	-	-	-
Stage 2	475	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	70	492	-	-	651	-
Mov Cap-2 Maneuver	70	-	-	-	-	-
Stage 1	294	-	-	-	-	-
Stage 2	417	-	-	-	-	-
Approach	NB	NE	SW			
HCM Control Delay, s	40.7	0	0.8			
HCM LOS	E					
Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT	
Capacity (veh/h)	-	-	137	651	-	
HCM Lane V/C Ratio	-	-	0.269	0.04	-	
HCM Control Delay (s)	-	-	40.7	10.8	0.6	
HCM Lane LOS	-	-	E	B	A	
HCM 95th %tile Q(veh)	-	-	1	0.1	-	

HCM Signalized Intersection Capacity Analysis

9: McLoughlin Blvd & 10th Street

McLoughlin (ORE 99E)
2013 PM Peak Hour - Existing Conditions

						
Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	20	330	975	50	390	1160
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	1.00	1.00	0.95		1.00	0.95
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	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1719	1562	3442		1770	3539
Flt Permitted	0.95	1.00	1.00		0.21	1.00
Satd. Flow (perm)	1719	1562	3442		399	3539
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	21	340	1005	52	402	1196
RTOR Reduction (vph)	0	61	2	0	0	0
Lane Group Flow (vph)	21	279	1055	0	402	1196
Confl. Peds. (#/hr)	2	2		2	2	
Heavy Vehicles (%)	5%	3%	4%	4%	2%	2%
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	4	5	6		5	2
Permitted Phases		4			2	
Actuated Green, G (s)	6.2	24.1	73.4		95.3	95.3
Effective Green, g (s)	6.2	24.1	73.9		95.3	95.8
Actuated g/C Ratio	0.06	0.22	0.67		0.87	0.87
Clearance Time (s)	4.0	4.0	4.5		4.0	4.5
Vehicle Extension (s)	2.3	2.3	6.1		2.3	6.1
Lane Grp Cap (vph)	96	399	2312		568	3082
v/s Ratio Prot	0.01	c0.11	0.31		0.12	0.34
v/s Ratio Perm		0.06			c0.50	
v/c Ratio	0.22	0.70	0.46		0.71	0.39
Uniform Delay, d1	49.6	39.6	8.5		7.2	1.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	0.7	4.6	0.7		3.6	0.4
Delay (s)	50.3	44.3	9.2		10.8	1.8
Level of Service	D	D	A		B	A
Approach Delay (s)	44.6		9.2			4.0
Approach LOS	D		A			A

Intersection Summary

HCM 2000 Control Delay	10.7	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.75		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	64.4%	ICU Level of Service	C
Analysis Period (min)	15		
Description: 10th & McLoughlin			
c Critical Lane Group			

Two Way Analysis cannot be performed on Signalized Intersection.

HCM research expects at least one 'Stop' controlled approach at the intersection.

HCM research expects at least one 'Stop' controlled approach at the intersection.

Intersection									
Intersection Delay, s/veh	10.6								
Intersection LOS	B								
Movement	SEU	SEL	SER	NEU	NEL	NET	SWU	SWT	SWR
Vol, veh/h	0	250	20	0	245	5	0	0	0
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	263	21	0	258	5	0	0	0
Number of Lanes	0	1	0	0	0	1	0	0	0

Approach	SE	NE
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		SE
Conflicting Lanes Left	0	1
Conflicting Approach Right	NE	
Conflicting Lanes Right	1	0
HCM Control Delay	10.6	10.5
HCM LOS	B	B

Lane	NELn1	SELn1
Vol Left, %	98%	93%
Vol Thru, %	2%	0%
Vol Right, %	0%	7%
Sign Control	Stop	Stop
Traffic Vol by Lane	250	270
LT Vol	5	0
Through Vol	0	20
RT Vol	245	250
Lane Flow Rate	263	284
Geometry Grp	1	1
Degree of Util (X)	0.353	0.374
Departure Headway (Hd)	4.835	4.74
Convergence, Y/N	Yes	Yes
Cap	745	759
Service Time	2.867	2.77
HCM Lane V/C Ratio	0.353	0.374
HCM Control Delay	10.5	10.6
HCM Lane LOS	B	B
HCM 95th-tile Q	1.6	1.7

Two Way Analysis cannot be performed on an All Way Stop Intersection.

Intersection	
Int Delay, s/veh	0

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	35	0	0	255	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	37	0	0	268	0	0

Major/Minor	Minor2	Major1
Conflicting Flow All	268	0
Stage 1	0	-
Stage 2	268	-
Critical Hdwy	7.12	-
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	6.12	-
Follow-up Hdwy	3.518	-
Pot Cap-1 Maneuver	685	-
Stage 1	-	-
Stage 2	738	-
Platoon blocked, %		-
Mov Cap-1 Maneuver	685	-
Mov Cap-2 Maneuver	685	-
Stage 1	-	-
Stage 2	738	-

Approach	SE	NE
HCM Control Delay, s		0
HCM LOS	-	

Minor Lane/Major Mvmt	NEL	NET	SELn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

HCM Signalized Intersection Capacity Analysis

14: McLoughlin Blvd & S 2nd Street

McLoughlin (ORE 99E)
2013 PM Peak Hour - Existing Conditions



Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	60	230	695	75	490	910
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	1.00	1.00	0.95		1.00	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	1.00	0.85	0.99		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1687	1549	3349		1770	1827
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1687	1549	3349		1770	1827
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	62	237	716	77	505	938
RTOR Reduction (vph)	0	45	6	0	0	0
Lane Group Flow (vph)	62	192	787	0	505	938
Confl. Peds. (#/hr)		1		1	1	
Heavy Vehicles (%)	7%	4%	6%	6%	2%	4%
Turn Type	Prot	pm+ov	NA		Prot	NA
Protected Phases	4	5	6		5	2
Permitted Phases		4				
Actuated Green, G (s)	6.8	37.1	30.1		30.3	64.4
Effective Green, g (s)	6.8	37.1	30.9		30.3	65.2
Actuated g/C Ratio	0.08	0.46	0.39		0.38	0.82
Clearance Time (s)	4.0	4.0	4.8		4.0	4.8
Vehicle Extension (s)	2.3	2.3	4.8		2.3	4.8
Lane Grp Cap (vph)	143	795	1293		670	1489
v/s Ratio Prot	c0.04	0.09	0.24		c0.29	c0.51
v/s Ratio Perm		0.03				
v/c Ratio	0.43	0.24	0.61		0.75	0.63
Uniform Delay, d1	34.8	13.0	19.7		21.6	2.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.2	0.1	1.2		4.5	1.1
Delay (s)	36.0	13.0	20.9		26.1	4.0
Level of Service	D	B	C		C	A
Approach Delay (s)	17.8		20.9			11.7
Approach LOS	B		C			B
Intersection Summary						
HCM 2000 Control Delay			15.3		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.69			
Actuated Cycle Length (s)			80.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			62.4%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

















Two Way Analysis cannot be performed on Signalized Intersection.

HCM Signalized Intersection Capacity Analysis

1: Main Street & McLoughlin Blvd

Willamette Falls Legacy Project

2035 PM Peak Hour - Baseline Conditions

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	15	1410	15	5	855	160	65	10	5	530	40	10
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	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		1.00			0.98			0.99			1.00	
Flt Protected		1.00			1.00			0.96			0.96	
Satd. Flow (prot)		3497			3377			1739			1553	
Flt Permitted		0.94			0.95			0.70			0.70	
Satd. Flow (perm)		3287			3201			1259			1500	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	15	1454	15	5	881	165	67	10	5	546	41	10
RTOR Reduction (vph)	0	1	0	0	17	0	0	2	0	0	1	0
Lane Group Flow (vph)	0	1483	0	0	1034	0	0	80	0	0	596	0
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	4%	4%	4%	2%	2%	2%
Parking (#/hr)	0									5	5	5
Turn Type	Perm	NA		Perm	NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		
Actuated Green, G (s)		44.5			44.5			37.0			37.0	
Effective Green, g (s)		45.0			45.0			37.0			37.0	
Actuated g/C Ratio		0.50			0.50			0.41			0.41	
Clearance Time (s)		4.5			4.5			4.0			4.0	
Vehicle Extension (s)		8.0			8.0			5.0			5.0	
Lane Grp Cap (vph)		1643			1600			517			616	
v/s Ratio Prot												
v/s Ratio Perm		c0.45			0.32			0.06			c0.40	
v/c Ratio		0.90			0.65			0.15			0.97	
Uniform Delay, d1		20.5			16.6			16.7			25.9	
Progression Factor		1.00			1.00			1.00			1.00	
Incremental Delay, d2		8.5			2.0			0.3			28.5	
Delay (s)		29.0			18.6			17.0			54.5	
Level of Service		C			B			B			D	
Approach Delay (s)		29.0			18.6			17.0			54.5	
Approach LOS		C			B			B			D	
Intersection Summary												
HCM 2000 Control Delay		30.0			HCM 2000 Level of Service			C				
HCM 2000 Volume to Capacity ratio		0.93										
Actuated Cycle Length (s)		90.0			Sum of lost time (s)			8.0				
Intersection Capacity Utilization		92.2%			ICU Level of Service			F				
Analysis Period (min)		15										
Description: McLaughlin&Main												
c Critical Lane Group												

Two Way Analysis cannot be performed on Signalized Intersection.

HCM 2010 TWSC
2: Main Street & 6th Street

Willamette Falls Legacy Project
2035 PM Peak Hour - Baseline Conditions

Intersection									
Int Delay, s/veh	0.7								

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER
Vol, veh/h	0	0	0	0	5	60	5	180	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	0	5	63	5	189	0

Major/Minor	Minor1			Major1		
Conflicting Flow All	913	1016	208	816	0	-
Stage 1	200	200	-	-	-	-
Stage 2	713	816	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	304	238	832	812	-	0
Stage 1	834	736	-	-	-	0
Stage 2	486	391	-	-	-	0
Platoon blocked, %					-	
Mov Cap-1 Maneuver	302	0	819	812	-	-
Mov Cap-2 Maneuver	302	0	-	-	-	-
Stage 1	828	0	-	-	-	-
Stage 2	486	0	-	-	-	-

Approach	NW	NE
HCM Control Delay, s	9.8	0.3
HCM LOS	A	

Minor Lane/Major Mvmt	NEL	NET	NWLn1	SWL	SWT	SWR
Capacity (veh/h)	812	-	819	1363	-	-
HCM Lane V/C Ratio	0.006	-	0.084	-	-	-
HCM Control Delay (s)	9.5	0	9.8	0	-	-
HCM Lane LOS	A	A	A	A	-	-
HCM 95th %tile Q(veh)	0	-	0.3	0	-	-

Intersection

Int Delay, s/veh

Movement	SWL	SWT	SWR
Vol, veh/h	0	580	195
Conflicting Peds, #/hr	6	0	19
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	611	205

Major/Minor	Major2		
Conflicting Flow All	189	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1385	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1363	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-

Approach SW

HCM Control Delay, s 0


















HCM LOS

Minor Lane/Major Mvmt

HCM Signalized Intersection Capacity Analysis

3: Main Street & 7th Street

Willamette Falls Legacy Project
2035 PM Peak Hour - Baseline Conditions

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	270	725	5	280	5	130	105	5	55	45	305
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
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frpb, ped/bikes		0.98			1.00			1.00			1.00	0.92
Flpb, ped/bikes		1.00			1.00			1.00			1.00	1.00
Frt		0.90			1.00			1.00			1.00	0.85
Flt Protected		1.00			1.00			0.97			0.97	1.00
Satd. Flow (prot)		1669			1594			1827			1556	1285
Flt Permitted		1.00			0.99			0.77			0.76	1.00
Satd. Flow (perm)		1669			1576			1453			1220	1285
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)	0	284	763	5	295	5	137	111	5	58	47	321
RTOR Reduction (vph)	0	115	0	0	1	0	0	1	0	0	0	240
Lane Group Flow (vph)	0	932	0	0	304	0	0	252	0	0	105	81
Confl. Peds. (#/hr)			1	1								29
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Parking (#/hr)				10	10						10	5
Turn Type		NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		6			2			4			8	
Permitted Phases				2			4			8		8
Actuated Green, G (s)		43.7			43.7			17.4			17.4	17.4
Effective Green, g (s)		43.7			43.7			17.4			17.4	17.4
Actuated g/C Ratio		0.63			0.63			0.25			0.25	0.25
Clearance Time (s)		4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)		1055			996			365			307	323
v/s Ratio Prot		c0.56										
v/s Ratio Perm					0.19			c0.17			0.09	0.06
v/c Ratio		0.88			0.31			0.69			0.34	0.25
Uniform Delay, d1		10.6			5.8			23.4			21.2	20.6
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		8.9			0.2			5.6			0.7	0.4
Delay (s)		19.5			6.0			29.0			21.8	21.1
Level of Service		B			A			C			C	C
Approach Delay (s)		19.5			6.0			29.0			21.2	
Approach LOS		B			A			C			C	
Intersection Summary												
HCM 2000 Control Delay			19.0									HCM 2000 Level of Service B
HCM 2000 Volume to Capacity ratio			0.83									
Actuated Cycle Length (s)			69.1								8.0	
Intersection Capacity Utilization			85.2%									ICU Level of Service E
Analysis Period (min)			15									
Description: 7th (Bridge) & Main												
c Critical Lane Group												

Two Way Analysis cannot be performed on Signalized Intersection.

HCM 2010 TWSC
4: Main Street & 8th Street

Willamette Falls Legacy Project
2035 PM Peak Hour - Baseline Conditions

Intersection									
Int Delay, s/veh	1.8								

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER
Vol, veh/h	15	10	45	0	0	0	0	105	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	11	47	0	0	0	0	111	5

Major/Minor	Minor2			Major1		
Conflicting Flow All	545	548	379	379	0	0
Stage 1	432	432	-	-	-	-
Stage 2	113	116	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	499	444	668	1179	-	-
Stage 1	655	582	-	-	-	-
Stage 2	912	800	-	-	-	-
Platoon blocked, %					-	-
Mov Cap-1 Maneuver	488	0	668	1179	-	-
Mov Cap-2 Maneuver	488	0	-	-	-	-
Stage 1	641	0	-	-	-	-
Stage 2	912	0	-	-	-	-

Approach	SE	NE
HCM Control Delay, s	11.7	0
HCM LOS	B	

Minor Lane/Major Mvmt	NEL	NET	NER	SELn1	SWL	SWT	SWR
Capacity (veh/h)	1179	-	-	612	1473	-	-
HCM Lane V/C Ratio	-	-	-	0.12	0.018	-	-
HCM Control Delay (s)	0	-	-	11.7	7.5	0	-
HCM Lane LOS	A	-	-	B	A	A	-
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	-	-

Intersection			
Int Delay, s/veh			
Movement	SWL	SWT	SWR
Vol, veh/h	25	360	0
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	26	379	0
Major/Minor	Major2		
Conflicting Flow All	116	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1473	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1473	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Approach	SW		
HCM Control Delay, s	0.5		
HCM LOS			
Minor Lane/Major Mvmt			

HCM 2010 TWSC
5: Main Street & 9th Street

Willamette Falls Legacy Project
2035 PM Peak Hour - Baseline Conditions

Intersection									
Int Delay, s/veh	6								
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER
Vol, veh/h	20	10	325	25	0	25	5	115	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	11	342	26	0	26	5	121	0
Major/Minor	Minor1		Minor2			Major1			
Conflicting Flow All	514	511	121	676	500	368	379	0	0
Stage 1	132	132	-	368	368	-	-	-	-
Stage 2	382	379	-	308	132	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	471	466	930	367	473	677	1179	-	-
Stage 1	871	787	-	652	621	-	-	-	-
Stage 2	640	615	-	702	787	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	451	464	930	227	471	677	1179	-	-
Mov Cap-2 Maneuver	451	464	-	227	471	-	-	-	-
Stage 1	867	783	-	649	621	-	-	-	-
Stage 2	615	615	-	436	783	-	-	-	-
Approach	NB			SB			NE		
HCM Control Delay, s	12.4			17.5			0.3		
HCM LOS	B			C					
Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR	
Capacity (veh/h)	1179	-	-	855	340	1467	-	-	
HCM Lane V/C Ratio	0.004	-	-	0.437	0.155	-	-	-	
HCM Control Delay (s)	8.1	0	-	12.4	17.5	0	-	-	
HCM Lane LOS	A	A	-	B	C	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	2.2	0.5	0	-	-	

Intersection			
Int Delay, s/veh			
Movement	SWL	SWT	SWR
Vol, veh/h	0	340	20
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	358	21
Major/Minor	Major2		
Conflicting Flow All	121	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1467	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1467	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Approach	SW		
HCM Control Delay, s	0		
HCM LOS			
Minor Lane/Major Mvmt			

Intersection

Int Delay, s/veh 1.5

Movement	NWL	NWR	NET	NER	SWL	SWT
Vol, veh/h	5	200	930	0	0	1435
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	97	97	97	97	97	97
Heavy Vehicles, %	3	3	3	3	3	3
Mvmt Flow	5	206	959	0	0	1479

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	1699	479	0
Stage 1	959	-	-
Stage 2	740	-	-
Critical Hdwy	6.86	6.96	4.16
Critical Hdwy Stg 1	5.86	-	-
Critical Hdwy Stg 2	5.86	-	-
Follow-up Hdwy	3.53	3.33	2.23
Pot Cap-1 Maneuver	82	530	707
Stage 1	330	-	-
Stage 2	430	-	-
Platoon blocked, %	-	-	-
Mov Cap-1 Maneuver	82	530	707
Mov Cap-2 Maneuver	82	-	-
Stage 1	330	-	-
Stage 2	430	-	-

Approach	NW	NE	SW
HCM Control Delay, s	18.9	0	0
HCM LOS	C		

Minor Lane/Major Mvmt	NET	NER	NWLn1	SWL	SWT
Capacity (veh/h)	-	-	468	707	-
HCM Lane V/C Ratio	-	-	0.452	-	-
HCM Control Delay (s)	-	-	18.9	0	-
HCM Lane LOS	-	-	C	A	-
HCM 95th %tile Q(veh)	-	-	2.3	0	-












HCM research expects at least one 'Stop' controlled approach at the intersection.

Intersection						
Int Delay, s/veh	4					
Movement	NBL	NBR	NET	NER	SWL	SWT
Vol, veh/h	15	20	1105	10	40	1475
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	21	1163	11	42	1553
Major/Minor	Minor1	Major1	Major2			
Conflicting Flow All	2029	587	0	0	1174	0
Stage 1	1168	-	-	-	-	-
Stage 2	861	-	-	-	-	-
Critical Hdwy	6.84	6.94	-	-	4.14	-
Critical Hdwy Stg 1	5.84	-	-	-	-	-
Critical Hdwy Stg 2	5.84	-	-	-	-	-
Follow-up Hdwy	3.52	3.32	-	-	2.22	-
Pot Cap-1 Maneuver	50	453	-	-	591	-
Stage 1	258	-	-	-	-	-
Stage 2	374	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	24	453	-	-	591	-
Mov Cap-2 Maneuver	24	-	-	-	-	-
Stage 1	258	-	-	-	-	-
Stage 2	181	-	-	-	-	-
Approach	NB	NE	SW			
HCM Control Delay, s	171	0	3			
HCM LOS	F					
Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT	
Capacity (veh/h)	-	-	52	591	-	
HCM Lane V/C Ratio	-	-	0.709	0.071	-	
HCM Control Delay (s)	-	-	171	11.6	2.8	
HCM Lane LOS	-	-	F	B	A	
HCM 95th %tile Q(veh)	-	-	2.9	0.2	-	

HCM Signalized Intersection Capacity Analysis

9: McLoughlin Blvd & 10th Street

Willamette Falls Legacy Project
2035 PM Peak Hour - Baseline Conditions

						
Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	75	355	1090	35	420	1440
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	1.00	1.00	0.95		1.00	0.95
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	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1719	1561	3453		1770	3539
Flt Permitted	0.95	1.00	1.00		0.16	1.00
Satd. Flow (perm)	1719	1561	3453		291	3539
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	77	366	1124	36	433	1485
RTOR Reduction (vph)	0	19	2	0	0	0
Lane Group Flow (vph)	77	347	1158	0	433	1485
Confl. Peds. (#/hr)	2	2		2	2	
Heavy Vehicles (%)	5%	3%	4%	4%	2%	2%
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	4	5	6		5	2
Permitted Phases		4			2	
Actuated Green, G (s)	9.6	34.9	62.6		91.9	91.9
Effective Green, g (s)	9.6	34.9	63.1		91.9	92.4
Actuated g/C Ratio	0.09	0.32	0.57		0.84	0.84
Clearance Time (s)	4.0	4.0	4.5		4.0	4.5
Vehicle Extension (s)	2.3	2.3	6.1		2.3	6.1
Lane Grp Cap (vph)	150	552	1980		583	2972
v/s Ratio Prot	0.04	c0.14	0.34		c0.17	0.42
v/s Ratio Perm		0.08			c0.45	
v/c Ratio	0.51	0.63	0.58		0.74	0.50
Uniform Delay, d1	48.0	32.0	15.0		19.0	2.4
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	1.8	1.8	1.3		4.7	0.6
Delay (s)	49.8	33.8	16.3		23.7	3.0
Level of Service	D	C	B		C	A
Approach Delay (s)	36.6		16.3			7.7
Approach LOS	D		B			A
Intersection Summary						
HCM 2000 Control Delay			14.2		HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio			0.76			
Actuated Cycle Length (s)			110.0		Sum of lost time (s)	12.0
Intersection Capacity Utilization			69.5%		ICU Level of Service	C
Analysis Period (min)			15			
Description: 10th & McLoughlin						
c Critical Lane Group						

Two Way Analysis cannot be performed on Signalized Intersection.

HCM research expects at least one 'Stop' controlled approach at the intersection.

HCM research expects at least one 'Stop' controlled approach at the intersection.

Two Way Analysis cannot be performed on an All Way Stop Intersection.

Two Way Analysis cannot be performed on Signalized Intersection.

HCM research expects at least one 'Stop' controlled approach at the intersection.

HCM research expects at least one 'Stop' controlled approach at the intersection.

Intersection									
Intersection Delay, s/veh	12.3								
Intersection LOS	B								
Movement	SEU	SEL	SER	NEU	NEL	NET	SWU	SWT	SWR
Vol, veh/h	0	295	35	0	290	20	0	0	0
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	311	37	0	305	21	0	0	0
Number of Lanes	0	1	0	0	0	1	0	0	0

Approach	SE	NE
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		SE
Conflicting Lanes Left	0	1
Conflicting Approach Right	NE	
Conflicting Lanes Right	1	0
HCM Control Delay	12.3	12.2
HCM LOS	B	B

Lane	NELn1	SELn1
Vol Left, %	94%	89%
Vol Thru, %	6%	0%
Vol Right, %	0%	11%
Sign Control	Stop	Stop
Traffic Vol by Lane	310	330
LT Vol	20	0
Through Vol	0	35
RT Vol	290	295
Lane Flow Rate	326	347
Geometry Grp	1	1
Degree of Util (X)	0.453	0.472
Departure Headway (Hd)	5	4.894
Convergence, Y/N	Yes	Yes
Cap	718	733
Service Time	3.051	2.941
HCM Lane V/C Ratio	0.454	0.473
HCM Control Delay	12.2	12.3
HCM Lane LOS	B	B
HCM 95th-tile Q	2.4	2.5

Two Way Analysis cannot be performed on an All Way Stop Intersection.

Intersection	
Int Delay, s/veh	0

Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	40	0	0	315	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	0	0	332	0	0

Major/Minor	Minor2	Major1
Conflicting Flow All	332	0
Stage 1	0	-
Stage 2	332	-
Critical Hdwy	7.12	-
Critical Hdwy Stg 1	-	-
Critical Hdwy Stg 2	6.12	-
Follow-up Hdwy	3.518	-
Pot Cap-1 Maneuver	621	-
Stage 1	-	-
Stage 2	681	-
Platoon blocked, %		-
Mov Cap-1 Maneuver	621	-
Mov Cap-2 Maneuver	621	-
Stage 1	-	-
Stage 2	681	-

Approach	SE	NE
HCM Control Delay, s		0
HCM LOS	-	

Minor Lane/Major Mvmt	NEL	NET	SELn1
Capacity (veh/h)	-	-	-
HCM Lane V/C Ratio	-	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th %tile Q(veh)	-	-	-

HCM Signalized Intersection Capacity Analysis

14: McLoughlin Blvd & S 2nd Street

Willamette Falls Legacy Project
2035 PM Peak Hour - Baseline Conditions



Movement	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	215	250	860	190	510	1225
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	1.00	1.00	0.95		1.00	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	1.00	0.85	0.97		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1687	1545	3300		1770	1827
Flt Permitted	0.95	1.00	1.00		0.95	1.00
Satd. Flow (perm)	1687	1545	3300		1770	1827
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	222	258	887	196	526	1263
RTOR Reduction (vph)	0	27	13	0	0	0
Lane Group Flow (vph)	222	231	1070	0	526	1263
Confl. Peds. (#/hr)		1		1	1	
Heavy Vehicles (%)	7%	4%	6%	6%	2%	4%
Turn Type	Prot	pm+ov	NA		Prot	NA
Protected Phases	4	5	6		5	2
Permitted Phases		4				
Actuated Green, G (s)	21.2	64.5	50.9		43.3	98.2
Effective Green, g (s)	21.2	64.5	51.7		43.3	99.0
Actuated g/C Ratio	0.17	0.50	0.40		0.34	0.77
Clearance Time (s)	4.0	4.0	4.8		4.0	4.8
Vehicle Extension (s)	2.3	2.3	4.8		2.3	4.8
Lane Grp Cap (vph)	278	825	1330		597	1410
v/s Ratio Prot	c0.13	0.09	0.32		0.30	c0.69
v/s Ratio Perm		0.05				
v/c Ratio	0.80	0.28	0.80		0.88	0.90
Uniform Delay, d1	51.4	18.4	33.8		40.0	10.8
Progression Factor	1.00	1.00	1.00		1.00	1.00
Incremental Delay, d2	14.1	0.1	4.1		14.1	8.2
Delay (s)	65.5	18.5	37.9		54.1	19.0
Level of Service	E	B	D		D	B
Approach Delay (s)	40.3		37.9			29.3
Approach LOS	D		D			C

Intersection Summary

HCM 2000 Control Delay	33.7	HCM 2000 Level of Service	C
HCM 2000 Volume to Capacity ratio	0.91		
Actuated Cycle Length (s)	128.2	Sum of lost time (s)	12.0
Intersection Capacity Utilization	83.1%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

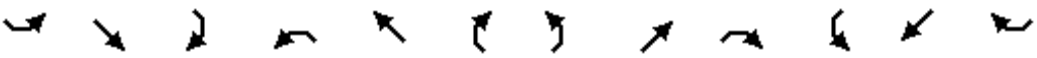
Two Way Analysis cannot be performed on Signalized Intersection.

HCM Signalized Intersection Capacity Analysis

Willamette Falls Legacy Project

1: Main Street & McLoughlin Blvd

2035 PM Peak Hour - Build Conditions with Willamette Falls (with 6th Signal)

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑			↑↑			↑↓			↑↓	
Volume (vph)	0	1510	105	0	835	95	135	230	65	380	130	10
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	
Lane Util. Factor		0.95			0.95			1.00			1.00	
Frpb, ped/bikes		1.00			1.00			1.00			1.00	
Flpb, ped/bikes		1.00			1.00			1.00			1.00	
Frt		0.99			0.98			0.98			1.00	
Flt Protected		1.00			1.00			0.98			0.96	
Satd. Flow (prot)		3466			3410			1758			1568	
Flt Permitted		1.00			1.00			0.80			0.48	
Satd. Flow (perm)		3466			3410			1425			1500	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	0	1557	108	0	861	98	139	237	67	392	134	10
RTOR Reduction (vph)	0	5	0	0	8	0	0	6	0	0	1	0
Lane Group Flow (vph)	0	1660	0	0	951	0	0	437	0	0	535	0
Confl. Peds. (#/hr)	1		1	1		1	1		1	1		1
Heavy Vehicles (%)	3%	3%	3%	4%	4%	4%	4%	4%	4%	2%	2%	2%
Parking (#/hr)	0									5	5	5
Turn Type		NA			NA		Perm	NA		Perm	NA	
Protected Phases		6			2			4			8	
Permitted Phases							4			8		
Actuated Green, G (s)		59.2			59.2			42.3			42.3	
Effective Green, g (s)		59.7			59.7			42.3			42.3	
Actuated g/C Ratio		0.54			0.54			0.38			0.38	
Clearance Time (s)		4.5			4.5			4.0			4.0	
Vehicle Extension (s)		8.0			8.0			5.0			5.0	
Lane Grp Cap (vph)		1881			1850			547			576	
v/s Ratio Prot		c0.48			0.28							
v/s Ratio Perm								0.31			c0.36	
v/c Ratio		0.88			0.51			0.80			0.93	
Uniform Delay, d1		22.1			16.0			30.1			32.4	
Progression Factor		0.76			1.00			1.00			1.00	
Incremental Delay, d2		5.5			1.0			9.1			22.3	
Delay (s)		22.3			17.0			39.2			54.7	
Level of Service		C			B			D			D	
Approach Delay (s)		22.3			17.0			39.2			54.7	
Approach LOS		C			B			D			D	
Intersection Summary												
HCM 2000 Control Delay			27.8									HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio			0.90									
Actuated Cycle Length (s)			110.0								8.0	Sum of lost time (s)
Intersection Capacity Utilization			107.1%									ICU Level of Service G
Analysis Period (min)			15									
Description: McLaughlin&Main												
c Critical Lane Group												

Two Way Analysis cannot be performed on Signalized Intersection.

HCM 2010 TWSC
2: Main Street & 6th Street

Willamette Falls Legacy Project
2035 PM Peak Hour - Build Conditions with Willamette Falls (with 6th Signal)

Intersection									
Int Delay, s/veh	1.4								

Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER
Vol, veh/h	0	0	0	50	5	35	5	320	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	6
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	Free
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	0	0	53	5	37	5	337	0

Major/Minor	Minor1			Major1		
Conflicting Flow All	1013	1184	356	837	0	-
Stage 1	347	347	-	-	-	-
Stage 2	666	837	-	-	-	-
Critical Hdwy	6.42	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-	-	-	-
Critical Hdwy Stg 2	5.42	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	265	189	688	797	-	0
Stage 1	716	635	-	-	-	0
Stage 2	511	382	-	-	-	0
Platoon blocked, %					-	
Mov Cap-1 Maneuver	263	0	677	797	-	-
Mov Cap-2 Maneuver	263	0	-	-	-	-
Stage 1	710	0	-	-	-	-
Stage 2	511	0	-	-	-	-

Approach	NW	NE
HCM Control Delay, s	19	0.1
HCM LOS	C	

Minor Lane/Major Mvmt	NEL	NET	NWLn1	SWL	SWT	SWR
Capacity (veh/h)	797	-	352	1203	-	-
HCM Lane V/C Ratio	0.007	-	0.269	-	-	-
HCM Control Delay (s)	9.5	0	19	0	-	-
HCM Lane LOS	A	A	C	A	-	-
HCM 95th %tile Q(veh)	0	-	1.1	0	-	-


















Intersection			
Int Delay, s/veh			
Movement	SWL	SWT	SWR
Vol, veh/h	0	470	325
Conflicting Peds, #/hr	6	0	19
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	495	342
Major/Minor	Major2		
Conflicting Flow All	337	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1222	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1203	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Approach	SW		
HCM Control Delay, s	0		
HCM LOS			
Minor Lane/Major Mvmt			

HCM Signalized Intersection Capacity Analysis

Willamette Falls Legacy Project

3: Main Street & 7th Street

2035 PM Peak Hour - Build Conditions with Willamette Falls (with 6th Signal)

												
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	275	725	5	285	5	160	190	5	65	65	310
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
Lane Util. Factor		1.00			1.00			1.00			1.00	1.00
Frpb, ped/bikes		0.98			1.00			1.00			1.00	0.91
Flpb, ped/bikes		1.00			1.00			1.00			1.00	1.00
Frt		0.90			1.00			1.00			1.00	0.85
Flt Protected		1.00			1.00			0.98			0.98	1.00
Satd. Flow (prot)		1669			1594			1836			1560	1269
Flt Permitted		1.00			0.87			0.77			0.71	1.00
Satd. Flow (perm)		1669			1388			1442			1135	1269
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)	0	289	763	5	300	5	168	200	5	68	68	326
RTOR Reduction (vph)	0	108	0	0	1	0	0	1	0	0	0	228
Lane Group Flow (vph)	0	944	0	0	309	0	0	372	0	0	136	98
Confl. Peds. (#/hr)			1	1								29
Heavy Vehicles (%)	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
Parking (#/hr)				10	10						10	5
Turn Type		NA		Perm	NA		Perm	NA		Perm	NA	Perm
Protected Phases		6			2			4			8	
Permitted Phases				2			4			8		8
Actuated Green, G (s)		49.5			49.5			24.6			24.6	24.6
Effective Green, g (s)		49.5			49.5			24.6			24.6	24.6
Actuated g/C Ratio		0.60			0.60			0.30			0.30	0.30
Clearance Time (s)		4.0			4.0			4.0			4.0	4.0
Vehicle Extension (s)		3.0			3.0			3.0			3.0	3.0
Lane Grp Cap (vph)		1006			836			432			340	380
v/s Ratio Prot		c0.57										
v/s Ratio Perm					0.22			c0.26			0.12	0.08
v/c Ratio		0.94			0.37			0.86			0.40	0.26
Uniform Delay, d1		14.9			8.3			27.1			22.9	21.8
Progression Factor		1.00			1.00			1.00			1.00	1.00
Incremental Delay, d2		15.5			0.3			16.0			0.8	0.4
Delay (s)		30.4			8.6			43.2			23.7	22.2
Level of Service		C			A			D			C	C
Approach Delay (s)		30.4			8.6			43.2			22.6	
Approach LOS		C			A			D			C	
Intersection Summary												
HCM 2000 Control Delay			27.9									HCM 2000 Level of Service C
HCM 2000 Volume to Capacity ratio			0.91									
Actuated Cycle Length (s)			82.1								8.0	
Intersection Capacity Utilization			91.6%								F	
ICU Level of Service												
Analysis Period (min)			15									
Description: 7th (Bridge) & Main												
c Critical Lane Group												

Two Way Analysis cannot be performed on Signalized Intersection.

HCM 2010 TWSC
4: Main Street & 8th Street

Willamette Falls Legacy Project
2035 PM Peak Hour - Build Conditions with Willamette Falls (with 6th Signal)

Intersection									
Int Delay, s/veh	1.5								
Movement	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER
Vol, veh/h	15	10	40	0	0	0	0	190	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	16	11	42	0	0	0	0	200	5
Major/Minor	Minor2			Major1					
Conflicting Flow All	677	679	421				421	0	0
Stage 1	474	474	-				-	-	-
Stage 2	203	205	-				-	-	-
Critical Hdwy	6.42	6.52	6.22				4.12	-	-
Critical Hdwy Stg 1	5.42	5.52	-				-	-	-
Critical Hdwy Stg 2	5.42	5.52	-				-	-	-
Follow-up Hdwy	3.518	4.018	3.318				2.218	-	-
Pot Cap-1 Maneuver	418	374	632				1138	-	-
Stage 1	626	558	-				-	-	-
Stage 2	831	732	-				-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	408	0	632				1138	-	-
Mov Cap-2 Maneuver	408	0	-				-	-	-
Stage 1	610	0	-				-	-	-
Stage 2	831	0	-				-	-	-
Approach	SE			NE					
HCM Control Delay, s	12.5			0					
HCM LOS	B								
Minor Lane/Major Mvmt	NEL	NET	NER	SELn1	SWL	SWT	SWR		
Capacity (veh/h)	1138	-	-	550	1366	-	-		
HCM Lane V/C Ratio	-	-	-	0.124	0.019	-	-		
HCM Control Delay (s)	0	-	-	12.5	7.7	0	-		
HCM Lane LOS	A	-	-	B	A	A	-		
HCM 95th %tile Q(veh)	0	-	-	0.4	0.1	-	-		

Intersection			
Int Delay, s/veh			
Movement	SWL	SWT	SWR
Vol, veh/h	25	400	0
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	26	421	0
Major/Minor	Major2		
Conflicting Flow All	205	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1366	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1366	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Approach	SW		
HCM Control Delay, s	0.5		
HCM LOS			
Minor Lane/Major Mvmt			

HCM 2010 TWSC
5: Main Street & 9th Street

Willamette Falls Legacy Project
2035 PM Peak Hour - Build Conditions with Willamette Falls (with 6th Signal)

Intersection									
Int Delay, s/veh	6.5								
Movement	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER
Vol, veh/h	20	10	345	25	0	20	5	200	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	21	11	363	26	0	21	5	211	0
Major/Minor	Minor1		Minor2			Major1			
Conflicting Flow All	647	647	211	824	637	416	426	0	0
Stage 1	221	221	-	416	416	-	-	-	-
Stage 2	426	426	-	408	221	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-
Pot Cap-1 Maneuver	384	390	829	292	395	637	1133	-	-
Stage 1	781	720	-	614	592	-	-	-	-
Stage 2	606	586	-	620	720	-	-	-	-
Platoon blocked, %								-	-
Mov Cap-1 Maneuver	370	388	829	160	393	637	1133	-	-
Mov Cap-2 Maneuver	370	388	-	160	393	-	-	-	-
Stage 1	777	716	-	611	592	-	-	-	-
Stage 2	586	586	-	342	716	-	-	-	-
Approach	NB			SB			NE		
HCM Control Delay, s	14.8			23.7			0.2		
HCM LOS	B			C					
Minor Lane/Major Mvmt	NEL	NET	NER	NBLn1	SBLn1	SWL	SWT	SWR	
Capacity (veh/h)	1133	-	-	756	240	1360	-	-	
HCM Lane V/C Ratio	0.005	-	-	0.522	0.197	-	-	-	
HCM Control Delay (s)	8.2	0	-	14.8	23.7	0	-	-	
HCM Lane LOS	A	A	-	B	C	A	-	-	
HCM 95th %tile Q(veh)	0	-	-	3.1	0.7	0	-	-	

Intersection			
Int Delay, s/veh			
Movement	SWL	SWT	SWR
Vol, veh/h	0	385	20
Conflicting Peds, #/hr	0	0	0
Sign Control	Free	Free	Free
RT Channelized	-	-	None
Storage Length	-	-	-
Veh in Median Storage, #	-	0	-
Grade, %	-	0	-
Peak Hour Factor	95	95	95
Heavy Vehicles, %	2	2	2
Mvmt Flow	0	405	21
Major/Minor	Major2		
Conflicting Flow All	211	0	0
Stage 1	-	-	-
Stage 2	-	-	-
Critical Hdwy	4.12	-	-
Critical Hdwy Stg 1	-	-	-
Critical Hdwy Stg 2	-	-	-
Follow-up Hdwy	2.218	-	-
Pot Cap-1 Maneuver	1360	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Platoon blocked, %		-	-
Mov Cap-1 Maneuver	1360	-	-
Mov Cap-2 Maneuver	-	-	-
Stage 1	-	-	-
Stage 2	-	-	-
Approach	SW		
HCM Control Delay, s	0		
HCM LOS			
Minor Lane/Major Mvmt			

HCM Signalized Intersection Capacity Analysis

Willamette Falls Legacy Project

6: McLoughlin Blvd & 6th Street

2035 PM Peak Hour - Build Conditions with Willamette Falls (with 6th Signal)



Movement	NWL	NWR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	135	200	980	0	0	1505
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Total Lost time (s)	4.0	4.5	4.0			4.0
Lane Util. Factor	1.00	1.00	0.95			0.95
Frt	1.00	0.85	1.00			1.00
Flt Protected	0.95	1.00	1.00			1.00
Satd. Flow (prot)	1490	1333	3505			3505
Flt Permitted	0.95	1.00	1.00			1.00
Satd. Flow (perm)	1490	1333	3505			3505
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	139	206	1010	0	0	1552
RTOR Reduction (vph)	0	46	0	0	0	0
Lane Group Flow (vph)	139	160	1010	0	0	1552
Heavy Vehicles (%)	3%	3%	3%	3%	3%	3%
Parking (#/hr)	10	10				
Turn Type	Prot	Perm	NA			NA
Protected Phases	8		2			6
Permitted Phases		2				
Actuated Green, G (s)	15.5	85.5	85.5			86.0
Effective Green, g (s)	16.0	85.5	86.0			86.0
Actuated g/C Ratio	0.15	0.78	0.78			0.78
Clearance Time (s)	4.5	4.5	4.5			4.0
Vehicle Extension (s)	3.0	3.0	3.0			3.0
Lane Grp Cap (vph)	216	1036	2740			2740
v/s Ratio Prot	c0.09		0.29			c0.44
v/s Ratio Perm		0.12				
v/c Ratio	0.64	0.15	0.37			0.57
Uniform Delay, d1	44.3	3.1	3.7			4.7
Progression Factor	1.00	1.00	0.36			0.74
Incremental Delay, d2	6.4	0.3	0.3			0.2
Delay (s)	50.7	3.4	1.6			3.7
Level of Service	D	A	A			A
Approach Delay (s)	22.5		1.6			3.7
Approach LOS	C		A			A
Intersection Summary						
HCM 2000 Control Delay			5.2		HCM 2000 Level of Service	A
HCM 2000 Volume to Capacity ratio			0.58			
Actuated Cycle Length (s)			110.0		Sum of lost time (s)	8.0
Intersection Capacity Utilization			55.7%		ICU Level of Service	B
Analysis Period (min)			15			
c Critical Lane Group						

Two Way Analysis cannot be performed on Signalized Intersection.

HCM research expects at least one 'Stop' controlled approach at the intersection.

Intersection

Int Delay, s/veh 7

Movement	NBL	NBR	NET	NER	SWL	SWT
Vol, veh/h	15	20	1155	10	35	1540
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	0	-	-	0
Grade, %	0	-	0	-	-	0
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	16	21	1216	11	37	1621

Major/Minor	Minor1	Major1	Major2
Conflicting Flow All	2105	613	0 0 1226 0
Stage 1	1221	-	- - - -
Stage 2	884	-	- - - -
Critical Hdwy	6.84	6.94	- - 4.14 -
Critical Hdwy Stg 1	5.84	-	- - - -
Critical Hdwy Stg 2	5.84	-	- - - -
Follow-up Hdwy	3.52	3.32	- - 2.22 -
Pot Cap-1 Maneuver	44	435	- - 564 -
Stage 1	242	-	- - - -
Stage 2	364	-	- - - -
Platoon blocked, %			- - - -
Mov Cap-1 Maneuver	~ 15	435	- - 564 -
Mov Cap-2 Maneuver	~ 15	-	- - - -
Stage 1	242	-	- - - -
Stage 2	124	-	- - - -

Approach	NB	NE	SW
HCM Control Delay, s	\$ 375.9	0	3.9
HCM LOS	F		

Minor Lane/Major Mvmt	NET	NER	NBLn1	SWL	SWT
Capacity (veh/h)	-	-	33	564	-
HCM Lane V/C Ratio	-	-	1.116	0.065	-
HCM Control Delay (s)	-	-	\$ 375.9	11.8	3.7
HCM Lane LOS	-	-	F	B	A
HCM 95th %tile Q(veh)	-	-	4	0.2	-

Notes

~: Volume exceeds capacity \$: Delay exceeds 300s +: Computation Not Defined *: All major volume in platoon

HCM Signalized Intersection Capacity Analysis

Willamette Falls Legacy Project

9: McLoughlin Blvd & 10th Street

2035 PM Peak Hour - Build Conditions with Willamette Falls (with 6th Signal)



Movement	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	100	360	1160	15	420	1475
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	1.00	1.00	0.95		1.00	0.95
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	1.00	0.85	1.00		1.00	1.00
Flt Protected	0.95	1.00	1.00		0.95	1.00
Satd. Flow (prot)	1719	1561	3464		1770	3539
Flt Permitted	0.95	1.00	1.00		0.14	1.00
Satd. Flow (perm)	1719	1561	3464		252	3539
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	103	371	1196	15	433	1521
RTOR Reduction (vph)	0	16	0	0	0	0
Lane Group Flow (vph)	103	355	1211	0	433	1521
Confl. Peds. (#/hr)	2	2		2	2	
Heavy Vehicles (%)	5%	3%	4%	4%	2%	2%
Turn Type	Prot	pm+ov	NA		pm+pt	NA
Protected Phases	4	5	6		5	2
Permitted Phases		4			2	
Actuated Green, G (s)	11.2	37.1	60.4		90.3	90.3
Effective Green, g (s)	11.2	37.1	60.9		90.3	90.8
Actuated g/C Ratio	0.10	0.34	0.55		0.82	0.83
Clearance Time (s)	4.0	4.0	4.5		4.0	4.5
Vehicle Extension (s)	2.3	2.3	6.1		2.3	6.1
Lane Grp Cap (vph)	175	583	1917		564	2921
v/s Ratio Prot	0.06	c0.14	0.35		c0.18	0.43
v/s Ratio Perm		0.08			c0.45	
v/c Ratio	0.59	0.61	0.63		0.77	0.52
Uniform Delay, d1	47.2	30.4	16.8		22.3	2.9
Progression Factor	1.00	1.00	0.76		1.00	1.00
Incremental Delay, d2	3.8	1.4	1.5		5.8	0.7
Delay (s)	51.0	31.8	14.3		28.1	3.6
Level of Service	D	C	B		C	A
Approach Delay (s)	36.0		14.3			9.0
Approach LOS	D		B			A

Intersection Summary

HCM 2000 Control Delay	14.3	HCM 2000 Level of Service	B
HCM 2000 Volume to Capacity ratio	0.78		
Actuated Cycle Length (s)	110.0	Sum of lost time (s)	12.0
Intersection Capacity Utilization	72.1%	ICU Level of Service	C
Analysis Period (min)	15		
Description: 10th & McLoughlin			
c Critical Lane Group			

Two Way Analysis cannot be performed on Signalized Intersection.

HCM research expects at least one 'Stop' controlled approach at the intersection.

Intersection									
Intersection Delay, s/veh	12.7								
Intersection LOS	B								
Movement	SEU	SEL	SER	NEU	NEL	NET	SWU	SWT	SWR
Vol, veh/h	0	310	35	0	295	25	0	0	0
Peak Hour Factor	0.92	0.95	0.95	0.92	0.95	0.95	0.92	0.95	0.95
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	326	37	0	311	26	0	0	0
Number of Lanes	0	1	0	0	0	1	0	0	0

Approach	SE	NE
Opposing Approach		
Opposing Lanes	0	0
Conflicting Approach Left		SE
Conflicting Lanes Left	0	1
Conflicting Approach Right	NE	
Conflicting Lanes Right	1	0
HCM Control Delay	12.8	12.6
HCM LOS	B	B

Lane	NELn1	SELn1
Vol Left, %	92%	90%
Vol Thru, %	8%	0%
Vol Right, %	0%	10%
Sign Control	Stop	Stop
Traffic Vol by Lane	320	345
LT Vol	25	0
Through Vol	0	35
RT Vol	295	310
Lane Flow Rate	337	363
Geometry Grp	1	1
Degree of Util (X)	0.472	0.497
Departure Headway (Hd)	5.04	4.929
Convergence, Y/N	Yes	Yes
Cap	711	726
Service Time	3.097	2.982
HCM Lane V/C Ratio	0.474	0.5
HCM Control Delay	12.6	12.8
HCM Lane LOS	B	B
HCM 95th-tile Q	2.5	2.8

Two Way Analysis cannot be performed on an All Way Stop Intersection.

Intersection						
Int Delay, s/veh	0					
Movement	SEL	SER	NEL	NET	SWT	SWR
Vol, veh/h	40	0	0	335	0	0
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Stop	Stop	Free	Free	Free	Free
RT Channelized	-	None	-	None	-	None
Storage Length	0	-	-	-	-	-
Veh in Median Storage, #	0	-	-	0	0	-
Grade, %	0	-	-	0	0	-
Peak Hour Factor	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	42	0	0	353	0	0
Major/Minor	Minor2	Major1				
Conflicting Flow All	353	0	0	0		
Stage 1	0	-	-	-		
Stage 2	353	-	-	-		
Critical Hdwy	7.12	-	-	-		
Critical Hdwy Stg 1	-	-	-	-		
Critical Hdwy Stg 2	6.12	-	-	-		
Follow-up Hdwy	3.518	-	-	-		
Pot Cap-1 Maneuver	602	-	-	-		
Stage 1	-	-	-	-		
Stage 2	664	-	-	-		
Platoon blocked, %				-		
Mov Cap-1 Maneuver	602	-	-	-		
Mov Cap-2 Maneuver	602	-	-	-		
Stage 1	-	-	-	-		
Stage 2	664	-	-	-		
Approach	SE	NE				
HCM Control Delay, s		0				
HCM LOS	-					
Minor Lane/Major Mvmt	NEL	NET	SELn1			
Capacity (veh/h)	-	-	-			
HCM Lane V/C Ratio	-	-	-			
HCM Control Delay (s)	0	-	-			
HCM Lane LOS	A	-	-			
HCM 95th %tile Q(veh)	-	-	-			

HCM Signalized Intersection Capacity Analysis

Willamette Falls Legacy Project

14: McLoughlin Blvd & S 2nd Street

2035 PM Peak Hour - Build Conditions with Willamette Falls (with 6th Signal)



Movement	WBL	WBR	SBL	SBR	NEL	NER
Lane Configurations						
Volume (vph)	235	240	520	1220	860	195
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	1.00	1.00	1.00	1.00	0.97	
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	1.00	0.85	1.00	0.85	0.97	
Flt Protected	0.95	1.00	0.95	1.00	0.96	
Satd. Flow (prot)	1687	1545	1770	1553	3235	
Flt Permitted	0.95	1.00	0.95	1.00	0.96	
Satd. Flow (perm)	1687	1545	1770	1553	3235	
Peak-hour factor, PHF	0.97	0.97	0.97	0.97	0.97	0.97
Adj. Flow (vph)	242	247	536	1258	887	201
RTOR Reduction (vph)	0	28	0	34	12	0
Lane Group Flow (vph)	242	219	536	1224	1076	0
Confl. Peds. (#/hr)		1	1			1
Heavy Vehicles (%)	7%	4%	2%	4%	6%	6%
Turn Type	Prot	pm+ov	Prot	Prot	Prot	
Protected Phases	4	5	5	2	6	
Permitted Phases		4				
Actuated Green, G (s)	23.5	71.6	48.1	116.2	64.1	
Effective Green, g (s)	23.5	71.6	48.1	117.0	64.9	
Actuated g/C Ratio	0.16	0.48	0.32	0.79	0.44	
Clearance Time (s)	4.0	4.0	4.0	4.8	4.8	
Vehicle Extension (s)	2.3	2.3	2.3	4.8	4.8	
Lane Grp Cap (vph)	266	786	573	1223	1413	
v/s Ratio Prot	c0.14	0.09	0.30	c0.79	0.33	
v/s Ratio Perm		0.05				
v/c Ratio	0.91	0.28	0.94	1.00	0.76	
Uniform Delay, d1	61.5	23.0	48.7	15.8	35.3	
Progression Factor	1.00	1.00	1.00	1.00	1.00	
Incremental Delay, d2	31.8	0.1	22.6	26.0	2.9	
Delay (s)	93.3	23.1	71.3	41.7	38.1	
Level of Service	F	C	E	D	D	
Approach Delay (s)	57.8		50.6		38.1	
Approach LOS	E		D		D	

Intersection Summary

HCM 2000 Control Delay	47.6	HCM 2000 Level of Service	D
HCM 2000 Volume to Capacity ratio	1.01		
Actuated Cycle Length (s)	148.5	Sum of lost time (s)	12.0
Intersection Capacity Utilization	82.5%	ICU Level of Service	E
Analysis Period (min)	15		
c Critical Lane Group			

Two Way Analysis cannot be performed on Signalized Intersection.

MEMORANDUM

DATE: February 24, 2013

TO: Christina Robertson-Gardiner, City of Oregon City

FROM: Carl Springer, DKS Associates
Kevin Chewuk, DKS Associates

**SUBJECT: Oregon City Willamette Falls Legacy Project
Draft Transportation Analysis**

P13114-000

This memorandum presents the multimodal transportation system analysis for the Willamette Falls Legacy Project study area. This transportation element refines the 2013 Transportation System Plan (TSP) based on the latest growth estimates and goals for the project site. The outcome includes a toolbox of potential multi-modal transportation improvements for the site, along with a list of required amendments to the TSP to implement them.

Study Purpose

The 23 acres of industrial uses encompassing the Willamette Falls Legacy Project site is intended to be rezoned as part of this study and made available for housing and economic development. Prior to establishing and as a part of adopting the needed zoning to allow for development in suitable areas, the city undertook a visioning and master planning process, which included an identification of potential multi-modal transportation improvements for the site.

As part of this effort, the city chose to establish a Multi-modal Mixed-Use Area (MMA) encompassing downtown Oregon City, generally bounded by 12th Street to the north, Tumwater Drive to the south, the bluff to the east, and the Willamette River to the west (see Figure 1). The transportation assessment will be evaluated within the MMA boundary, which includes the Willamette Falls Legacy Project site. The following 7 intersections have been identified as study intersections (see Figure 1), with their intersection control listed:

1. Main Street/McLoughlin Boulevard (signalized)
2. Main Street/6th Street (unsignalized)
3. Main Street/7th Street (signalized)
4. McLoughlin Boulevard/6th Street (unsignalized)
5. 6th Street/Railroad Avenue (unsignalized)
6. 7th Street/Railroad Avenue (unsignalized)
7. McLoughlin Boulevard/S 2nd Street (signalized)

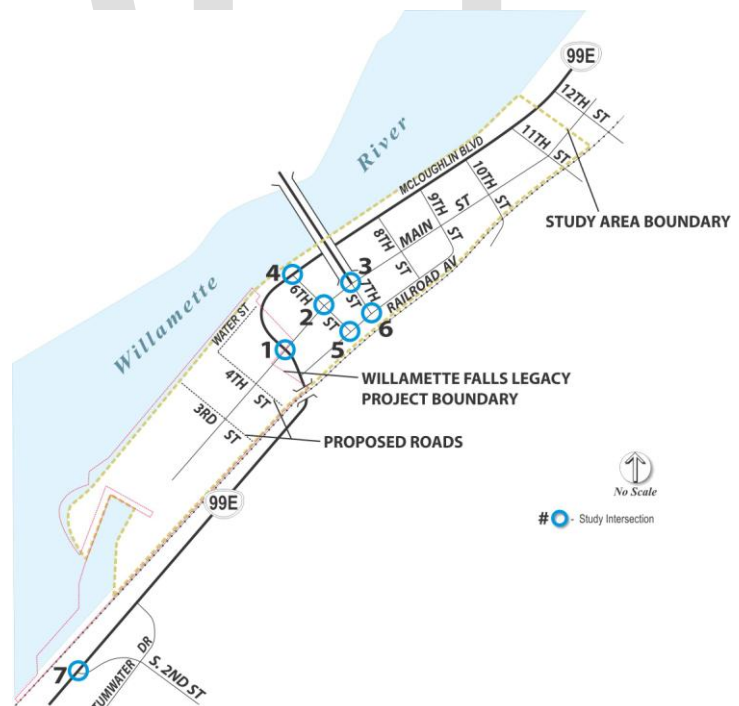


Figure 1: Study Area

Existing Transportation Infrastructure

To address the changing transportation needs within the study area associated with redevelopment of the Willamette Falls Legacy Project site, we must first look at the existing and future travel conditions. The existing transportation system was reviewed to document the walking, biking, driving and transit infrastructure. Shortfalls and limitations into how people can travel within the study area (such as lack of bike lanes or sidewalks) was also identified. Solutions for the transportation infrastructure that are determined to not maintain acceptable service levels for residents will be provided later in this document.

Roadways

Located between the Willamette River and the Union Pacific Railroad tracks, the Willamette Falls Legacy Project site has limited accessibility. Motor vehicle access to the project site is limited to Main Street, which run north-to-south through Downtown Oregon City across McLoughlin Boulevard and into the Willamette Falls Legacy Project site. A new site access is proposed just to the north of Main Street, referred to as Water Street (see Figure 1). This new street connection to McLoughlin Boulevard will likely be limited to right-in, right-out access, but will generally provide internal site circulation to Main Street, and offer drivers along southbound McLoughlin Boulevard another option to access the site.

The only street providing for higher capacity north-to-south motor vehicle movement through the study area is McLoughlin Boulevard, which is classified by the Oregon Department of Transportation (ODOT) as a Regional Highway. It also has a Special Transportation Area (STA) designation from 14th Street to Railroad Avenue. This street connects the study area to Interstate 205, located roughly one-half mile to the north. Access across the Willamette River is limited to two bridges, the Oregon City-West Linn Arch Bridge and the Interstate 205 Abernethy Bridge. Drivers in the study area wishing to reach the top of the bluff are limited to 12th Street, 10th Street and S. 2nd Street.

In addition to these routes, Main Street, Railroad Avenue and 7th Street provide collector connections between McLoughlin Boulevard and Oregon City-West Linn Arch Bridge. Most of the remaining streets in the study area are non-through routes. These streets generally provide circulation between McLoughlin Boulevard, Main Street, or Railroad Avenue and the abutting land uses and generally have less capacity. The major characteristics of the roadways in the study area are summarized in Table 1, with lane configurations and traffic controls for study intersections illustrated in Figures A1 and A2 in the appendix.



Table 1: Study Area Roadway Characteristics

Roadway (limits)	Existing Classification*	Cross section	Posted Speed	Pedestrian Facilities	Bike Facilities
McLoughlin Boulevard					
(12 th Street to 10 th Street)	Regional Highway	4 lanes	30 mph	Sidewalk on east side; shared-use path on west side	Shared-Use Path on west side
(10 th Street to Main Street)	Regional Highway; STA	4 lanes	30 mph	Sidewalks on both sides	None
(Main Street to S. 2 nd Street)	Regional Highway	4 lanes	30 mph	Sidewalk on west side	None
Main Street					
(12 th Street to McLoughlin Boulevard)	Mixed-Use Collector	2 lanes	25 mph	Sidewalks on both sides	Shared Street with Sharrows
(McLoughlin Boulevard to Dead End)	Mixed-Use Local Street	2 lanes	25 mph	None	None
6th Street (McLoughlin Boulevard to Railroad Avenue)	Mixed-Use Local Street	2 lanes	25 mph	Sidewalks on both sides	None
7th Street (Main Street to Railroad Avenue)	Mixed-Use Collector	2 lanes	25 mph	Sidewalks on both sides	Shared Street with Sharrows
8th Street (McLoughlin Boulevard to Railroad Avenue)	Mixed-Use Local Street	2 lanes	25 mph	Sidewalks on both sides	None
9th Street (McLoughlin Boulevard to Railroad Avenue)	Mixed-Use Local Street	2 lanes	25 mph	Sidewalks on both sides	None
10th Street (McLoughlin Boulevard to Railroad Crossing)	Mixed-Use Major Arterial	3 lanes	25 mph	Sidewalks on both sides	None
12th Street (McLoughlin Boulevard to Railroad Crossing)	Mixed-Use Collector	2 lanes	25 mph	Sidewalks on both sides	None
S. 2nd Street (McLoughlin Boulevard to High Street)	Mixed-Use Minor Arterial	2 lanes	25 mph	Sidewalks on both sides	None

Source: *Oregon Highway Plan and 2013 Oregon City Transportation System Plan



Pedestrian/Bicycle

McLoughlin Boulevard and Main Street generally provide the only existing pedestrian connections to the project site. The existing conditions of these streets, together with several local streets, creates the context of the bicycle and pedestrian environment in the project area. Table 1 shows the roadways with pedestrian and bicycle facilities.

Main Street has low motor vehicle travel speeds (25 mph), wide sidewalks, and a buffer between the sidewalk and traveled way via on-street parking and street trees, providing a comfortable walking environment for pedestrians from McLoughlin Boulevard to 12th Street. The slow travel speeds also make it conducive for shared biking travel, with the presence of sharrows further alerting drivers to share the street with bicyclists.

McLoughlin Boulevard generally provides a less comfortable walking and biking connection to the project site. It has comparable motor vehicle travel speeds to Main Street (30 mph versus 25 mph), but has much higher motor vehicle traffic volumes (21,000 to 23,000 vehicles per day). Sidewalks are provided on both sides of McLoughlin Boulevard north of Main Street and one side south of Main Street, however they generally abut directly up to the motor vehicle traveled way.

No facilities are provided for bicyclists along McLoughlin Boulevard, with the exception of a short segment between 12th Street and 10th Street, where the Willamette River Trail, located between McLoughlin Boulevard and the Willamette River, provides for shared walking and biking travel and connects the I-205 shared-use path at Clackamette Park to downtown Oregon City via Jon Storm Park and the newly enhanced pedestrian accessible Willamette Terrace located near 12th Street.

Most of the remaining streets in the study area provide adequate accommodations for pedestrian users via sidewalks on both sides of the street. While accommodations for bicycle users are not typical on these streets (with the expectation of sharrows along 7th Street), they are generally low-volume, low-speed local streets that are suitable for shared bicycle travel.

There are pedestrian crosswalks at a large number of intersections in the study area, particularly in downtown where pedestrian activity is the highest. However, the need for additional or improved crossings of McLoughlin Boulevard is desired, where high motor vehicle volumes and speeds make the crossings difficult.



The sidewalks along McLoughlin Boulevard often abut directly to the motor vehicle travel way



Signalized crossing opportunities of McLoughlin Boulevard are limited. They are available at several intersections in downtown, including at 10th Street and 12th Street. South of 10th Street, signalized crossing opportunities are not available for nearly a quarter mile, via a pedestrian activated signal under the Oregon City-West Linn Arch Bridge, and again via the traffic signal at Main Street. South of downtown, a pedestrian bridge over McLoughlin Boulevard is available just to the north of Tumwater Drive (at the end of the McLoughlin Promenade) and a signalized pedestrian crossing is available at 2nd Street. No additional marked pedestrian crossings (signalized or unsignalized) of OR 99E are available south of 2nd Street through the Canemah neighborhood, a distance of over a half mile.

The 2013 Oregon City TSP Update proposed bike facilities along several streets in the study area, including the installation of sharrows along Railroad Avenue and 12th Street. It also proposed extending the Willamette River Trail south, from 10th Street through the Willamette Falls Legacy Project site to the Canemah neighborhood. In addition, the need for a second pedestrian and bicycle bridge over McLoughlin Boulevard has been identified by the project team, connecting the project site to the McLoughlin Promenade. These potential improvements have been incorporated into the vision for the study area.

Transit

Transit service is provided in the study by TriMet via seven fixed bus routes connecting Oregon City to the rest of the Portland Metropolitan area, and an Americans with Disabilities Act (ADA) paratransit service. In addition, seasonal transit service is provided to residents and tourists via the Oregon City Trolley, and regional service is provided via the Canby Area Transit system, South Clackamas Transportation District and Amtrak.

The Oregon City Transit Center, located on Main Street between Moss Street and 11th Street, offers a transfer point between the seven TriMet fixed bus routes, the Oregon City Trolley and the regional bus service to Canby. The transit center offers a shelter, bench and rentable bike lockers for riders.

Bus stops in the study area are located along Main Street, Railroad Avenue, and S. 2nd Street. Potential transit users in the Willamette Falls Legacy Project site would be about a quarter-mile from the closest bus stops at the Main Street/8th Street or Railroad Avenue/7th Street intersections.



*Oregon City Transit Center on Main Street in
Downtown*



Freight

Efficient truck movement plays a vital role in the economical movement of raw materials and finished products. The designation of through truck routes provides for this efficient movement, while at the same time maintaining neighborhood livability, public safety, and minimizing maintenance costs of the roadway system. McLoughlin Boulevard through the study area is not classified by ODOT as a freight route, but it is designated as a truck route by the federal government. Federal Truck Routes generally require 12-foot travel lanes, but allow 11-foot travel lanes within STA's with lower trucks volumes. McLoughlin Boulevard has an STA designation between 14th Street and Railroad Avenue. Heavy vehicles account for approximately three to five percent of the traffic on McLoughlin Boulevard through the study area during an average weekday.

Rail

Railroad tracks are available in the study area, between the Willamette Falls Legacy Project site and McLoughlin Boulevard and between Railroad Avenue and the bluff. The tracks are owned by Union Pacific Railroad and are currently utilized by freight and Amtrak passenger trains. ODOT estimates that about six passenger trains and between 20 and 25 freight trains pass through the study area each day.¹ A gated at-grade railroad crossing is located at 10th Street, while grade separated crossings are located at 12th Street and McLoughlin Boulevard in the study area.

Water

The study area is bordered by the Willamette River on the west side. This waterway generally only serves recreational needs. The Willamette Falls Locks, located just south of Downtown Oregon City on the west side of the Willamette River, provides a canal passage for boaters wishing to travel around Willamette Falls.

Multi-modal Mixed-Use Area (MMA)

As indicated earlier in this document, Oregon City is establishing a Multi-modal Mixed-Use Area (MMA) encompassing the study area (see Figure 1). Until recently, policies implementing the transportation system have placed high importance on movement of motor vehicles. This is accomplished through transportation system performance provisions in the Transportation Planning Rule (TPR) that are implemented almost entirely through state and local volume-to-capacity ratios or level-of-service (LOS) standards. By adopting an MMA designation, the City is adopting a different set

¹ ODOT Intercity Passenger Rail Study, ODOT Rail Division, June 2009 Draft.



of values that places importance on multimodal travel and a compact, mixed-use pattern of development.

It is important to understand that the MMA designation only applies to land use decisions that involve zone changes. It does not affect development applications that are permitted with existing zoning, in which case, the prevailing mobility standard still applies (in the downtown regional center area, the maximum allowed congestion is represented by a volume-to-capacity ratio of 1.10).

In return for the additional flexibility in development that the MMA designation provides, there is a trade-off in the amount of motor vehicle congestion and longer travel times that may result. Within the MMA, low intensity and automobile-related types of development are no longer permitted in favor of pedestrian oriented development. While congestion impacts considered through mobility performance measures will not be part of the approval criteria for future plan or land use regulation amendments in MMA areas, ODOT and the City still have a responsibility for addressing safety and operation of all their facilities. For this reason, the transportation infrastructure in the study area was evaluated with a variety of measures in order to document the existing deficiencies of the transportation system. Information reviewed included safety of the roadways and intersections and motor vehicle operational performance.

Safety

Safety of the roadways and intersections in the study area was assessed through collision data to identify deficiencies. The data along the roadways and intersections was reviewed to identify potential patterns for motor vehicle, pedestrian, and bicyclist collisions.

Collision data from the past five years (2008 to 2013) was obtained from ODOT for all roadways in the study area, in addition to the seven study intersections (see Table 2). Over the past five years, 126 collisions, or an average of 25 per year, were identified. A majority of these (76 of the 126) were either rear-end or turning type and most occurred along McLoughlin Boulevard, with only about 20 percent (25 of the 126 collisions) occurring along other roadways within the study area.

Of the 101 collisions along McLoughlin Boulevard over the past five years, nearly 20 percent (or 19 collisions) occurred near the railroad undercrossing and unsignalized Railroad Avenue intersection, approximately 200 feet south of the Main Street intersection. Of the collisions at this intersection, seven were rear-end type, with most occurring along the northbound direction of McLoughlin Boulevard. This may indicate that drivers are caught off guard by stopped vehicles on the highway from Main Street. Another seven of the collisions were sideswipes, and an additional three involved drivers striking the wall of the tunnel. This may indicate that drivers are not properly maneuvering through the narrow tunnel at times.

The severity of the collisions was generally low, with most (107 of the 126 collisions) involving either property damage only (no injuries) or minor injuries. There were eight collisions involving major



injuries, eleven involving moderate injuries, and no fatalities over the past five years. Most of the major or moderate injury collisions occurred along McLoughlin Boulevard, one at the 6th Street, six at the Main Street, four at the Railroad Avenue, three at the South 2nd Street, and three at the Tumwater Drive intersections.

Pedestrian/Bicycle Collisions: There was one crash involving a pedestrian and none involving a bicyclist over the past five years in the study area (2008 to 2013). A pedestrian was involved in a crash at the McLoughlin Boulevard/6th Street intersection in 2009, suffering minor injuries. Although no crashes were reported at the pedestrian activated signal under the Oregon City-West Linn Arch Bridge over the past five years, it was noted during field observations that the crossing is difficult to see for drivers at times due to shadows and lighting issues.

Safety Priority Index System (SPIS): SPIS is a method developed by ODOT for identifying hazardous locations on state highways. The score for each 0.10-mile segment of highway is based on three years of crash data, considering crash frequency, rate, and severity. SPIS compares each segment to the overall safety of the highways throughout the state.

According to ODOT's 2010 SPIS ratings, two 0.10-mile segments of McLoughlin Boulevard through the study area rank among the top ten percent of the most hazardous sections of state highways in Oregon. The identified locations are summarized below.

- McLoughlin Boulevard from 11th Street to 9th Street

This segment of McLoughlin Boulevard includes several accesses within a short distance. In addition, a portion of this segment has two travel lanes in each direction with no left turn lanes, and requires drivers wanting to turn left from McLoughlin Boulevard into a driveway or street to stop in the travel lane when yielding to oncoming traffic. These factors could be contributing to the amount of collisions.

- McLoughlin Boulevard from 6th Street to one-tenth of a mile south of Railroad Avenue

This segment includes several accesses over a short distance, a narrow tunnel and two curves that generally limit sight distance for drivers along McLoughlin Boulevard. These factors could be contributing to the high amount of collisions. As detailed above, 20 percent of the collisions that occurred along McLoughlin Boulevard through the study area over the past five years occurred within this segment near the railroad undercrossing tunnel.



Table 2: Study Intersection Collision Summary

	Intersection (traffic control)	Total Collisions (2008 to 2013)	Collision Severity			Pedestrians or Cyclists Involved	
			Property Damage Only	Minor Injury	Moderate Injury		Severe Injury
1	Main Street/ McLoughlin Boulevard (signalized)	28	20	6	1	1	0
2	Main Street/ 6th Street (unsignalized)	1	1	0	0	0	0
3	Main Street/ 7th Street (signalized)	2	2	0	0	0	0
4	McLoughlin Boulevard/ 6 th Street (unsignalized)	8	7	1	0	0	1
5	6th Street/ Railroad Avenue (unsignalized)	1	1	0	0	0	0
6	7th Street/ Railroad Avenue (unsignalized)	0	0	0	0	0	0
7	McLoughlin Boulevard/S 2nd Street (signalized)	18	15	3	0	0	0

Motor Vehicle Operations

Motor vehicle operations were evaluated by analyzing the performance of the study intersections. Since the impacts of rezoning the Willamette Falls Legacy Project site are no longer required to be monitored through mobility targets with an MMA designation, the intersection operations are being provided to assess the safety aspects resulting from the potential increase in motor vehicle congestion with the redevelopment of the Willamette Falls Legacy project site. Two methods to gauge intersection operations include volume-to-capacity (v/c) ratios and level of service (LOS).

- Volume-to-capacity (V/C) ratio: A decimal representation (between 0.00 and 1.00) of the proportion of capacity that is being used (i.e., the saturation) at a turn movement, approach leg, or intersection. It is determined by dividing the peak hour traffic volume by the hourly capacity of a given intersection or movement. A lower ratio indicates smooth operations and minimal delays. As the ratio approaches 1.00, congestion increases and performance is reduced. If the ratio is greater than 1.00, the turn movement, approach leg, or intersection is oversaturated and usually results in excessive queues and long delays.

Metro's mobility targets for streets in the study area are based on v/c ratios. During the highest one-hour period of the day a maximum v/c ratio of 1.10 shall be maintained at all intersections. ODOT applies the same maximum value for the highway in the downtown area. For signalized intersections, this standard applies to the intersection as a whole. For unsignalized intersections, this standard applies to the worst movement. These mobility targets would only be applied in the



study area for future developments (outside of the Willamette Falls Legacy Project site) that do not require a zone change.

- Level of service (LOS): A “report card” rating (A through F) based on the average delay experienced by vehicles at the intersection. LOS A, B, and C indicate conditions where traffic moves without significant delays over periods of peak hour travel demand. LOS D and E are progressively worse operating conditions. LOS F represents conditions where average vehicle delay has become excessive and traffic is highly congested.

The motor vehicle performance evaluation utilized 2000 Highway Capacity Manual methodology² for signalized intersections and 2010 Highway Capacity Manual methodology³ for unsignalized intersections. During the evening peak hour, all study intersections are expected to operate under capacity (or a v/c ratio of 1.00) through 2035 (see Table 3). Each of the signalized study intersections are expected to operate with v/c ratios above 0.90 by 2035, with the increased traffic resulting from the Willamette Falls redevelopment having only minor impacts on the operational results.

Table 3: Study Intersection Traffic Operational Analysis

Intersection (traffic control)*		2013 Existing Conditions		2035 Baseline Conditions		2035 with Willamette Falls Redevelopment	
		Volume/ Capacity	Level of Service	Volume/ Capacity	Level of Service	Volume/ Capacity	Level of Service
1	Main Street/ McLoughlin Boulevard (signalized)	0.80	C	0.93	C	0.97	D
2	Main Street/ 6th Street (unsignalized)	0.02	A	0.08	A	0.09	A
3	Main Street/ 7th Street (signalized)	0.67	B	0.83	B	0.91	C
4	McLoughlin Boulevard/ 6th Street (unsignalized)	0.39	C	0.45	C	0.48	C
5	6th Street/ Railroad Avenue (unsignalized)**	-	-	-	-	-	-
6	7th Street/ Railroad Avenue (unsignalized)	0.37	B	0.47	B	0.50	B
7	McLoughlin Boulevard/S 2nd Street (signalized)	0.69	B	0.91	C	0.92	D

Note: * V/C ratio, LOS and delay reported as the intersection average at signalized locations and worst stop controlled approach at unsignalized locations

** Intersection is uncontrolled at each approach and therefore, operational results are not possible.

² 2000 *Highway Capacity Manual*, Transportation Research Board, Washington DC, 2000

³ 2010 *Highway Capacity Manual*, Transportation Research Board, Washington DC, 2010



Motor Vehicle Queuing

Motor vehicle queuing is expected in the downtown area as compared to other parts of the City. Given the high tolerance for peak hour congestion, on-street parking and more walking and biking activity, vehicle queuing is one sign of a healthy downtown area. That said, it is important to consider cases where substantial recurring queues may heighten safety issues by backing into adjacent intersections or into areas along McLoughlin Boulevard with limited sight distance for drivers. To understand those cases in the downtown, the vehicle queues were analyzed during the p.m. peak hour. An estimate of the 95th percentile vehicle queues at the study intersections was made using SimTraffic modeling software. The 95th percentile is the queue length that would not be exceeded in 95 percent of the queues formed during the peak hour. Queuing results are summarized in Table A1 in the appendix.

It was determined that the 95th percentile queue during the p.m. peak hour at several approaches would be expected to impact adjacent intersections (based on forecasted traffic volumes). Most of the impacts from the queues would be to intersections along Main Street, although the 95th percentile queues never reach the highway.

The queue from the northbound approach to the Main Street/ McLoughlin Boulevard intersection is expected to extend beyond the railroad undercrossing tunnel by 2035 and get even longer with the Willamette Falls redevelopment. The main cause for the lengthened queue is the increase demand for left-turns from northbound McLoughlin Boulevard to Main Street, in addition to more traffic accessing or leaving the Willamette Falls site from Main Street. Potential solutions to address this issue are discussed later in this document.

Multimodal Improvements Framework

The potential multimodal improvements identified later in this document were developed with a framework of various objectives. Each potential solution was evaluated to see how the objectives match the perceived project benefits and shortfalls. Overall, 33 different options were evaluated, with multiple options identified under each objective. Each of the options considered can be found in the appendix. The six objectives utilized to develop the multimodal improvements are shown below:

- **Objective A: Identify at least one additional site access point for motor vehicles**

Main Street currently serves as the only access point to the Willamette Falls Legacy Project site. Another access point is needed to serve some of the expected traffic demand associated with the Willamette Falls Legacy Project redevelopment

- **Objective B: Allow for safe left-turns for motor vehicle from McLoughlin Boulevard to Main Street**

The segment of McLoughlin Boulevard at the Main Street intersection has two travel lanes in each direction with no left turn lanes, and requires drivers wanting to turn left from McLoughlin



Boulevard to Main Street (both towards Downtown or the Willamette Falls Legacy Project site) to stop in the travel lane when yielding to oncoming traffic. Today, this is not a significant issue due to the limited demand for the movement, however, the left-turn demand is expected to increase with the Willamette Falls Legacy Project redevelopment. As discussed earlier, this could potentially cause increased queuing at the intersection, thus increasing the risk for rear-end collisions along McLoughlin Boulevard.

- **Objective C: Maintain adequate operating conditions at the McLoughlin Boulevard/Main Street intersection**

The McLoughlin Boulevard/Main Street intersection is expected to operate roughly seven percent below capacity (v/c of 0.93) by 2035 before the Willamette Falls Legacy Project redevelopment. The increased traffic demand after redevelopment at the site could cause additional delay at the intersection, reducing available capacity to about three percent (v/c of 0.97 before any mitigation).

- **Objective D: Create at least one additional safe crossing of McLoughlin Boulevard between Downtown and the site**

Those walking or biking to the site from Downtown currently have one convenient and safe crossing, via the Main Street signalized intersection. Another safe crossing is needed to serve some of the expected walking and biking demand associated with the Willamette Falls Legacy Project redevelopment

- **Objective E: Create at least one convenient pedestrian and bicycle overcrossing of McLoughlin Boulevard and the railroad tracks at the south end of the site**

Those walking or biking at the south end of the site currently have two safe and convenient crossings of McLoughlin Boulevard, via the S. 2nd Street signalized intersection and a highway overcrossing from the McLoughlin Promenade. However, access to the site is still limited by the railroad tracks. An overcrossing is needed to provide a direct link between the McLoughlin Promenade and the project site.

- **Objective F: Create a continuous walking and biking connection between the Willamette River Trail and the site**

- The Willamette River Trail could potentially provide shared regional walking and biking access to the Willamette Falls Legacy Project site. However, the Willamette River Trail currently drops to a narrow sidewalk at the McLoughlin Boulevard/10th Street intersection. An extension of the trail south, through the project site and to the Canemah neighborhood, was envisioned in the Metro Regional Trail and Greenways Plan, the McLoughlin Boulevard Enhancement Plan, and the 2013 Oregon City Transportation System Plan. For this extension to occur, either the McLoughlin Boulevard viaduct would need to be expanded, or the existing street width of McLoughlin Boulevard would need to be redesignated. One opportunity could involve redesignating the shoulder lane northbound on the highway to become a right-turn only lane at Main Street. The lane striping change and overhead lane signage would occur just north of the traffic signal at 2nd



Street to give motorists adequate time to move to the appropriate lanes. North of Main Street on the highway, there would be a single northbound lane until 8th Street when the striping would transition back to its current cross-section. The excess width could potentially be used for an extension of the Willamette River Trail into the project site. This concept would not alter lanes for the southbound direction.

Willamette Falls Redevelopment

Land use is a key factor in developing a functional transportation system. The amount of land that is planned to be developed, the type of land uses, and how the land uses are mixed together have a direct relationship to the expected demands on the transportation system. Understanding the amount and type of land use is critical to maintaining or enhancing transportation system operations.

The 23 acres of industrial uses encompassing the Willamette Falls Legacy Project site is intended to be rezoned as part of this study and made available for housing and economic development. In addressing changing transportation needs in the study area, the impact of the increased vehicle trip generation on the surrounding transportation system, as a result of the proposed rezone, will be evaluated through the year 2035. The new information obtained from this system analysis will be used to develop a toolbox of transportation improvements. The result will be a toolbox of potential multi-modal transportation improvements for the site that will serve as the foundation for future development.

Estimating Driving Trips

A determination of future street network needs requires the ability to accurately forecast travel demand resulting from estimates of future population and employment for the Willamette Falls Legacy Project site, and the rest of the City and Metro region. The objective of the transportation planning process is to provide the information necessary for making decisions about how and where improvements should be made to create a safe and efficient transportation system that provides travel options.

The travel demand forecasting process generally involves estimating travel patterns for new development based on the decisions and preferences demonstrated by existing residents, employers and institutions around the region. Travel demand models are mathematical tools that help us understand future commuter, school and recreational travel patterns including information about the length, mode and time of day a trip will be made. The latest travel models are suitable for motor vehicle and transit planning purposes, and can produce total volumes for autos, trucks and buses on each street and highway in the system. Model forecasts are refined by comparing outputs with observed counts and behaviors on the local. This refinement step is completed before any evaluation of system performance is made. Once the traffic forecasting process is complete, the 2035 volumes are used to determine the areas of the street network that are expected to be congested and that may need



future investments to accommodate growth. The forecasted traffic volumes can be found in Figure A2, in the appendix.

Land Use and Motor Vehicle Trip Assumptions

Since the ultimate build-out of the Willamette Falls Legacy Project site is currently unknown, a high and low land use scenario was developed to identify minimum and maximum development potential of the site. The high land use scenario consisted of about 240 housing units and over 1,600 employees, while the low land use scenario included about 215 households and over 1,200 employees. Taking a conservative approach, the transportation impacts of redeveloping the Willamette Falls Legacy Project site were based on the high land use scenario to represent the reasonable worst case. For the recent update to the Oregon City TSP, vehicle trips within the Willamette Falls Legacy Project site were estimated based on around 240 fewer housing units and with over 1,350 fewer employees (as shown in Table 4).

Vehicle trips that would be generated by the Willamette Falls Legacy Project site were estimated by applying the Metro Regional Travel Forecast model trip generation rates by land use type. Overall, the Willamette Falls Legacy Project site is expected to generate about 700 motor vehicle trips during the p.m. peak hour, or 560 more than what was assumed in the 2013 TSP.

Table 4: Land Use Assumptions for the Willamette Falls Legacy Project Site

Scenario	Housing Units	Retail Employees	Other Employees	PM Peak Hour Vehicle Trips Ends
2035 Baseline*	0	0	289	140
2035 with Willamette Falls Redevelopment	240	219	1,453	700

* The 2035 Baseline scenario was assumed for the 2013 Oregon City TSP

Trip Distribution

Trip distribution involves estimating how site generated traffic will leave and arrive at the proposed site. The trip distribution for the Willamette Falls Legacy Project site was derived from the Metro Regional Travel Demand Model. Of the site generated trips, the following distribution is expected during the p.m. peak period:

- 40 percent are expected to come via McLoughlin Boulevard to/from the north
- 25 percent across the Oregon City-West Linn Arch Bridge
- 15 percent between areas to the south via McLoughlin Boulevard



- 15 percent via Main Street Downtown, north of the Oregon City-West Linn Arch Bridge.

Multi-Modal Street System

The 2013 Oregon City TSP classified the street system into a hierarchy organized by function and street type (representative of their places). These classifications ensure that the streets reflect the neighborhood through which they pass, consisting of a scale and design appropriate to the character of the abutting properties and land uses. The classifications also provide for and balance the needs of all travel modes including pedestrians, bicyclists, transit riders, motor vehicles and freight. Within these street classifications, context sensitive design may result in alternative cross-sections. The Oregon City multi-modal street system was modified to reflect the proposed zoning designations in the Willamette Falls Legacy Project site.

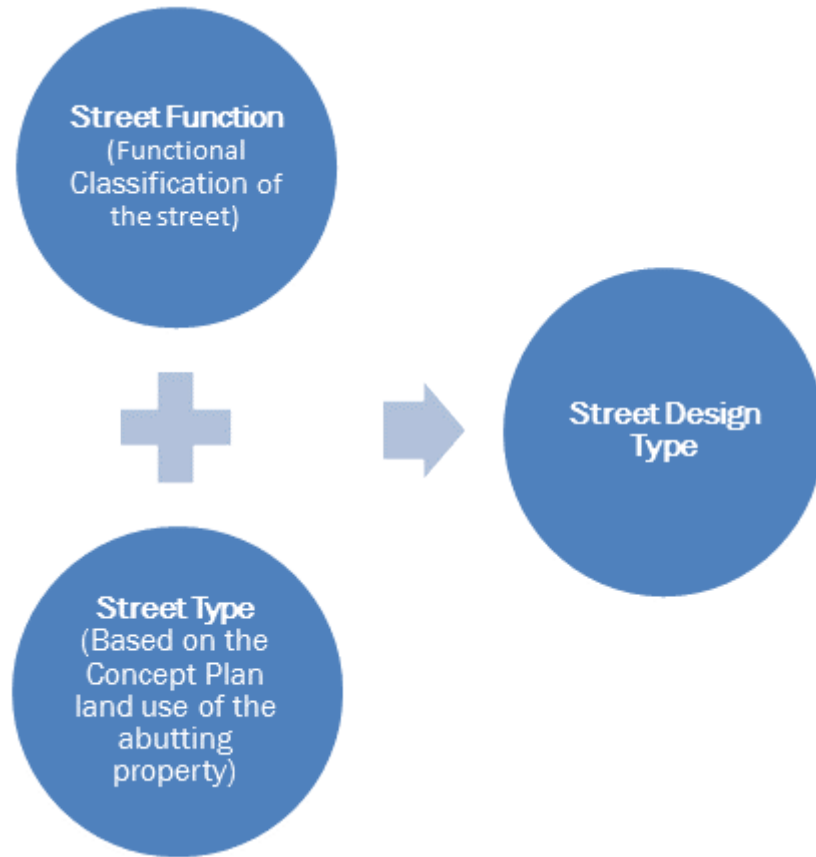


Figure 2: Oregon City Multi-Modal Street System

Multi-Modal Street Function

The functional classification of roadways is a common practice in the United States. Traditionally, roadways are classified based on the type of vehicular travel it is intended to serve (local versus through traffic). In Oregon City, the functional classification of a roadway the level of mobility for all travel modes, defining its design characteristics (such as minimum amount of travel lanes), level of access and usage within the City and region. The street functional classification system recognizes that individual streets do not act independently of one another but instead form a network that works



together to serve travel needs on a local and regional level. From highest to lowest intended usage, the classifications are freeway, expressway, major arterials, minor arterials, collectors and local streets. Roadways with a higher intended usage generally provide more efficient motor vehicle traffic movement (or mobility) through the City, while roadways with lower intended usage provide greater access for shorter trips to local destinations.

Two classifications were designated for the Willamette Falls Legacy Project site, including Collector Street (Main Street), and local streets (Water Street, 4th Street, and 3rd Street).

Multi-Modal Street Type

Oregon City further classifies the roadways within the City based on the neighborhood it serves and the intended function for pedestrians, bicyclists and transit riders in that specific area. Within the context of Oregon City's multi-modal street system, the street type of a roadway defines its cross-section characteristics and determines how users of a roadway interact with the surrounding land use. Since the type and intensity of adjacent land uses and zoning directly influence the level of use by pedestrians, bicyclists and transit riders, the design of a street (including its intersections, sidewalks, and transit stops) should reflect its surroundings.

The street types strike a balance between street functional classification, adjacent land use, zoning designation and the competing travel needs by prioritizing various design elements. All streets in the Willamette Falls Legacy Project site were designated as Mixed-Use Streets, with Main Street also designated as a Shared Street.

- **Mixed-Use Streets** typically have a higher amount of pedestrian activity and are often on a transit route. These streets should emphasize a variety of travel choices such as pedestrian, bicycle and transit use to complement the development along the street. Since mixed-use streets typically serve pedestrian oriented land uses, walking should receive the highest priority of all the travel modes. They should be designed with features such as wider sidewalks, traffic calming, pedestrian amenities, transit amenities, attractive landscaping, on- street parking, pedestrian crossing enhancements and bicycle lanes.
- **Shared Streets** are roadways where bicyclists and motorists share the same travel lane. The most suitable roadways for shared bicycle use are those with low speeds (25 mph or less) and low traffic volumes (3,000 vehicles per day or fewer). These streets serve to provide continuity to other bicycle facilities (e.g. bicycle lanes) and should include shared lane markings. Common practice is to sign the route with standard Manual on Uniform Traffic Control Devices (MUTCD) green bicycle route signs with directional arrows. Shared roadways can also be signed with innovative signing that provides directional information in terms of bicycling minutes or distance (e.g., "Transit Center, 3 minutes, ½ mile").



Design Types of Streets

Design of the streets in Oregon City requires attention to many elements of the public right-of-way and considers how the street interacts with the adjoining properties. The design of streets varies based on the functional classification and street type. Overall, there are three different design types for streets in the Willamette Falls Legacy Project site, including Mixed-Use Collector, Mixed-Use Local Street and Mixed-Use Local Street with Esplanade, as shown in Figures 3a to 3c.

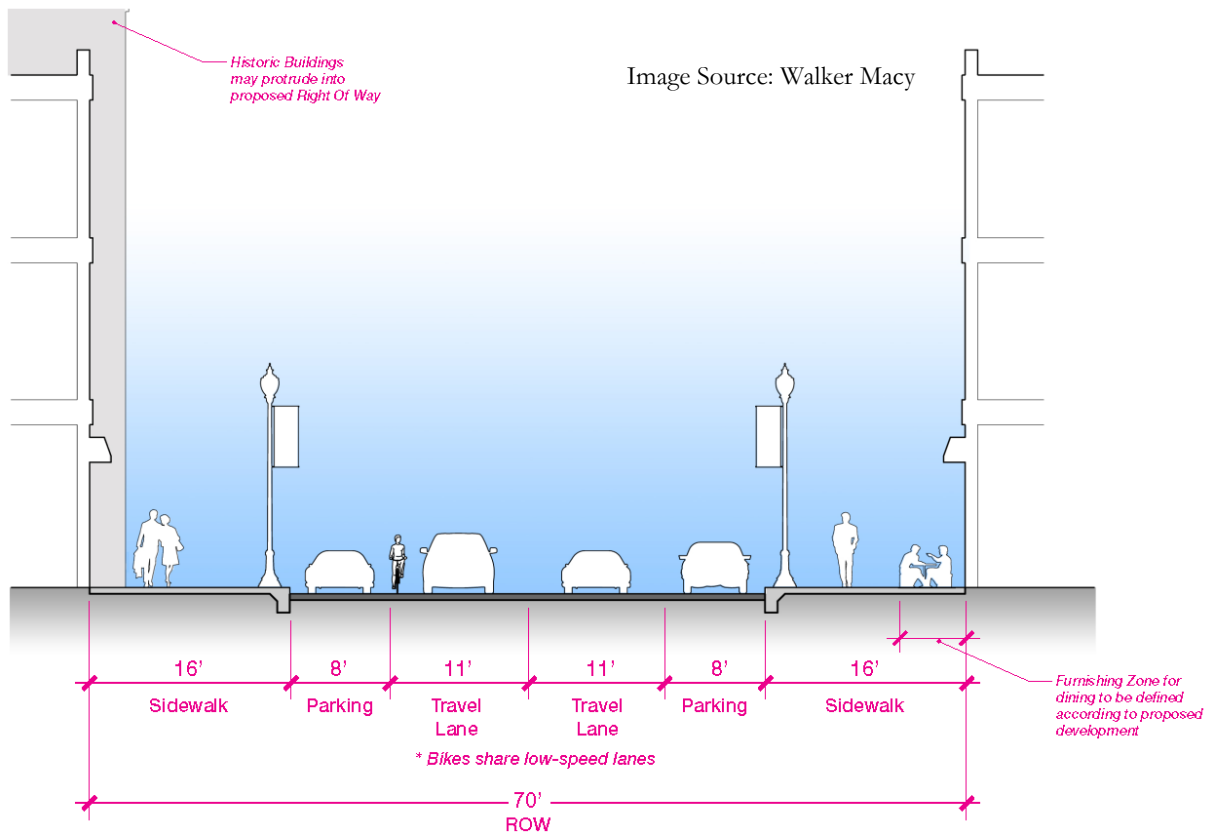


Figure 3a: Mixed-Use Collector Street (Main Street)



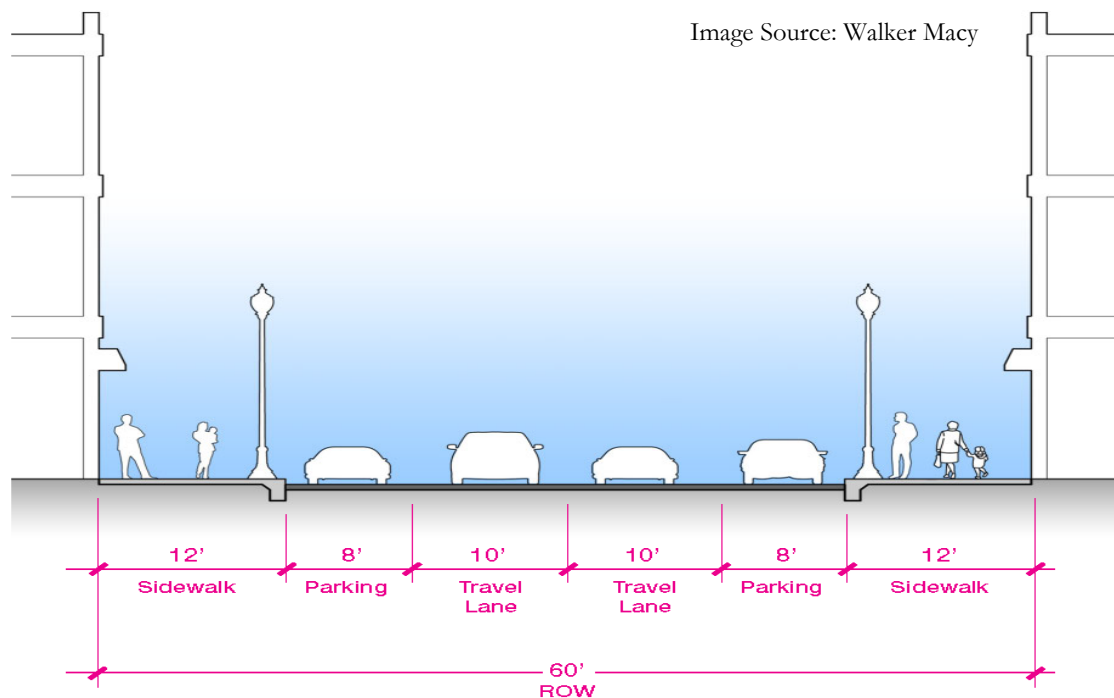


Figure 3b: Mixed-Use Local Street (3rd and 4th Streets) System

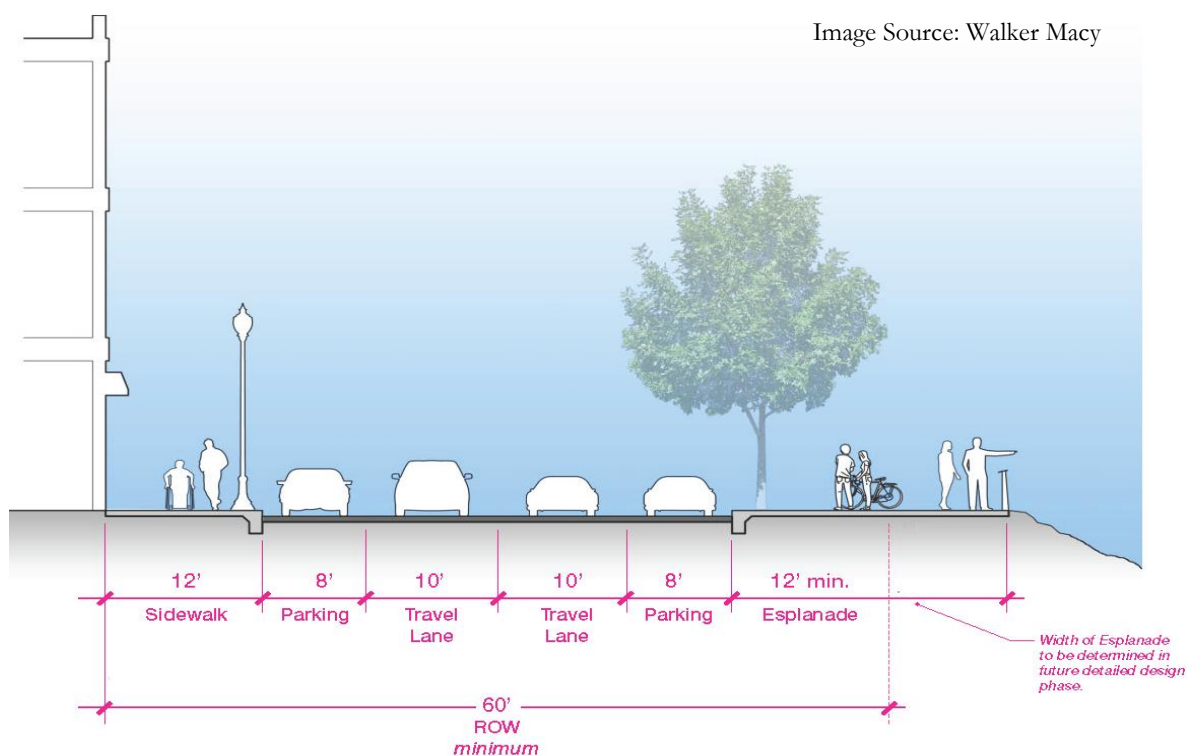


Figure 3c: Mixed-Use Local Street with Esplanade (Water Street)



Future Transit

While transit service is not currently provided in the Willamette Falls Legacy Project site, it is provided in Downtown Oregon City, with potential transit users being roughly about a quarter-mile from the nearest bus stops at the Main Street/8th Street or Railroad Avenue/7th Street intersections.

The Willamette Falls Legacy Project site redevelopment sets the stage for future transit, recognizing that the type and extent of service improvements will play out over time. Specifics of transit service will depend on the actual rate and type of development built, TriMet resources and policies, and, consideration of local options. The land use designations in the Willamette Falls Legacy Project site make transit a viable option in the future. The City should work with TriMet and developers within the area to facilitate transit.

One conceptual option has been identified:

- A route modification to the existing bus service between the Oregon City Transit Center and Clackamas Community College (Route 33) that would extend the route south from the McLoughlin Boulevard/Main Street intersection into the project site. The route would travel to the proposed 4th Street, before heading west towards the proposed Water Street and finally returning to McLoughlin Boulevard where it would continue on its normal route. A bus stop could be provided near the proposed Main Street/4th Street intersection.

Multi-modal Transportation Improvements

Residents, employees and visitors to the Willamette Falls Legacy Project site will be able to safely and efficiently travel between destinations via any number of active transportation modes, such as walking, or biking. A system of on-street sidewalks and bikeways, and shared use paths will provide quality access to key destinations—improving the overall health and livability of the neighborhood.

Walking and Biking Facilities

The proximity to the Willamette Falls and the potential for a riverfront Esplanade drawing people to a larger community park is a significant asset for the future of the Willamette Falls Legacy Project site. To better serve the access needs of existing and future residents to these scenic natural and recreational areas, a high quality network of low-stress pedestrian and bicycle facilities is envisioned. For pedestrians, this means that sidewalks will be provided on all proposed streets—completely separate from the motor vehicle travelway. For bicyclists, Main Street will include shared lane markings to demonstrate where bicyclists should operate on the roadway—outside the parking lane door zone—and alert motorists to expect bicyclists on the roadway. Wayfinding signage will also be developed to highlight key destinations, such as parks and shopping, and the best routes for pedestrians and bicyclists. These signs will improve destination and route finding for residents and visitors alike, encouraging exploration and activity.



Both the trail and on-street pedestrian and bicycle network are context sensitive, addressing the urban character of the Willamette Falls Legacy Project site, while also meeting the expressed community desire to have increased opportunities for walking and biking. Moreover, these networks will be fully integrated with the existing trail and bikeway network and the planned active transportation projects in the Metro Regional Trail and Greenways Plan, including the Willamette River Trail which currently extends to 10th Avenue north of the project site. These measures help ensure that existing and future residents, employees, and visitors of the Willamette Falls Legacy Project site can access goods and services, without the need for an automobile, within and outside of the area.

Shared Use Paths

Figure 4 illustrates the conceptual drawing of an extended Willamette River Trail into the project site and further south to the Canemah neighborhood. The emphasis of this alignment is on connecting residents to existing and future trails, as defined in the Metro Regional Trail and Greenways Plan, as well as key destinations within and near to the Willamette Falls Legacy Project site. Trail access to important viewsheds in the Willamette Falls Legacy Project site will also be taken advantage of. For example, an extended Willamette River Trail could provide a connection to a possible observatory

deck of the fall. An extended Willamette River Trail will vary by context—anything from an elevated structure to concrete shared use paths for pedestrians and bicyclists. On the proposed Water Street, there is also the potential to designate a path through an adjacent

shared-use path. User comfort on these trails will be maximized due to the physical distance and separation from motor vehicle traffic.



Figure 4: Conceptual Drawing of the Proposed Water Street with the Riverfront Esplanade

Street Extensions

Several street extensions will be needed to support growth in the Willamette Falls Legacy Project site. This includes a new site access to McLoughlin Boulevard, midway between Main Street and 6th Street. However, this street connection will likely be restricted to right-in, right-out access at McLoughlin



Boulevard due to limited sight distance on the curve. Additional streets to be constructed include 4th Street, which will connect Water Street to Main Street, and 3rd Street, which will primarily serve as a connector street for adjacent development.

Toolbox of Multi-modal Transportation Improvements

A toolbox of potential multi-modal transportation improvements is presented and discussed below (see Table 5). These options were identified to help mitigate potential safety and congestion impacts related to the redevelopment of the Willamette Falls Legacy Project site. Since the ultimate build-out of the site is unknown at this point, a range of options has been provided. These options should be explored and evaluated further as individual development occurs within the project site.

Left-turns from McLoughlin Boulevard to Main Street

To improve safety at the McLoughlin Boulevard and Main Street intersection, it is recommended that left-turns eventually be prohibited from the highway to Main Street. Highway widening to add left-turn lanes would likely impact existing businesses and there would likely not be enough distance between the railroad undercrossing tunnel and Main Street to provide enough left-turn storage to safely accommodate drivers wishing to access the site along northbound McLoughlin Boulevard. It is recommended that access be satisfied via indirect left-turns at the intersection. This would require advanced access signing on both approaches of McLoughlin Boulevard and on side streets to direct visitors to the project site.

For southbound McLoughlin Boulevard traffic the following options are recommended:

- Indirect left-turns via Water Avenue extension-Main Street.

For northbound McLoughlin Boulevard traffic the following options are recommended to be considered further:

- Indirect left-turns via Railroad Avenue-6th Street-Main Street.

This option may require improved turn radius from highway to Railroad Avenue to reduce observed safety conflicts.

- Indirect left-turns via 6th Street-Main Street.

This option would require converting 6th Street to one-way eastbound, instead of one-way westbound.

For northbound McLoughlin Boulevard traffic the following options should be explored further:

- Indirect left-turns via Main Street-6th Street-to a potential Railroad Avenue overcrossing of McLoughlin Boulevard.

This option would require converting 6th Street to one-way eastbound, instead of one-way westbound, and would require an overcrossing of McLoughlin Boulevard near Railroad Avenue. The existing connection of Railroad Avenue to McLoughlin Boulevard would need to be closed,



with the existing northbound traffic on Railroad Avenue re-routed to Main Street. This would create significant congestion impacts at the Main Street/7th Street intersection due to the resulting increase in the left turn demand from Main Street to the Oregon City-West Linn Arch Bridge.

Queuing at the McLoughlin Boulevard and Main Street intersection

As detailed earlier in this document, the segment of McLoughlin Boulevard at the Main Street intersection has two travel lanes in each direction with no left turn lanes, and requires drivers wanting to turn left from McLoughlin Boulevard to Main Street (both towards Downtown or the Willamette Falls Legacy Project site) to stop in the travel lane when yielding to oncoming traffic. The left-turn demand is expected to increase with the Willamette Falls Legacy Project redevelopment and potentially cause increased queuing at the intersection, thus increasing the risk for rear-end collisions along McLoughlin Boulevard. In addition to the indirect left turns discussed above, a few additional options are available.

- Advanced warning sign, Option 1: Installing advanced warning lights with a "Prepare to Stop" information sign before approaching the Main Street signalized intersection on McLoughlin Boulevard. It should generally be installed to help alert motorists of the traffic signal which may not be visible to due to road geometries and the railroad undercrossing tunnel.

It could help warn motorists in advance to a red traffic signal and that they need to prepare to stop. The lights would start flashing three seconds before the downstream traffic signal turns yellow. They would continue flashing until the end of the red signal. Hence, when the advanced warning lights are flashing, motorists should get ready to stop.

There is generally limited opportunities to install signage along McLoughlin Boulevard, south of the railroad undercrossing tunnel due to the location of the bluff to the east and elevated sidewalk on the west side, so implementation could be challenging.

- Advanced warning sign, Option 2: Installing end-of-queue warning systems to alert approaching vehicles that the traffic ahead of them is slowing down or has stopped altogether. The system keep motorists informed as construction impacts their travel time.

Radar detection devices are mounted in areas with potential queuing and limited sight distance and measure the speeds of approaching vehicles. Data from multiple sensors are analyzed and, as vehicles slow down, an algorithm triggers a message for display on a message signs located upstream of the traffic signal. As a result, motorists are warned well in advance of the slow-down as its happening.

Again, there is generally limited opportunities to install message boards along McLoughlin Boulevard, south of the railroad undercrossing tunnel due to the location of the bluff to the east and elevated sidewalk on the west side, so implementation could be challenging.

- Highway road diet: Redesignate the shoulder lane northbound on the highway to become a right-turn only lane at Main Street. The lane striping change and overhead lane signage would occur



just north of the traffic signal at 2nd Street to give motorists adequate time to move to the appropriate lanes. North of Main Street on the highway, there would be a single northbound lane until 8th Street when the striping would transition back to its current cross-section. The shoulder lane could be re-purposed for wider sidewalks or other non-motor vehicle amenities. This concept would not alter lanes for the southbound direction.

Create at least one additional safe crossing of McLoughlin Boulevard between Downtown and the site

Those walking or biking to the site from Downtown currently have one convenient and safe crossing, via the Main Street signalized intersection. Another safe crossing is needed to serve some of the expected walking and biking demand associated with the Willamette Falls Legacy Project redevelopment. Three options are presented below:

- Install a traffic signal or HAWK signal at the McLoughlin Boulevard/ 6th Street intersection
 Queuing and limited sight distance for northbound McLoughlin Boulevard traffic could potentially limit the ability to install a signal at 6th Street. Forecasted queues in 2035 would extend nearly 325 feet in the northbound direction along McLoughlin Boulevard from the proposed signal at 6th Street. This queue would extend around the curve, to the approximate location of the proposed Water Street intersection (which will be limited to right-in, right-out only). Although, advanced warning devices could potentially be installed to alleviate this issue. Installing a signal here could also attract some of the left-turn demand for the Main Street to southbound McLoughlin Boulevard movement. The queues from the McLoughlin Boulevard/Main Street intersection could potentially back up to 6th Street, which could further encourage drivers to re-route to the potential signal at 6th Street.
- Upgrade the existing pedestrian crossing under the Oregon City-West Linn Arch Bridge
 The current crossing has visibility and lighting issues. Upgrading the crossing with improved lighting and potentially advanced warning devices could improve this crossing.



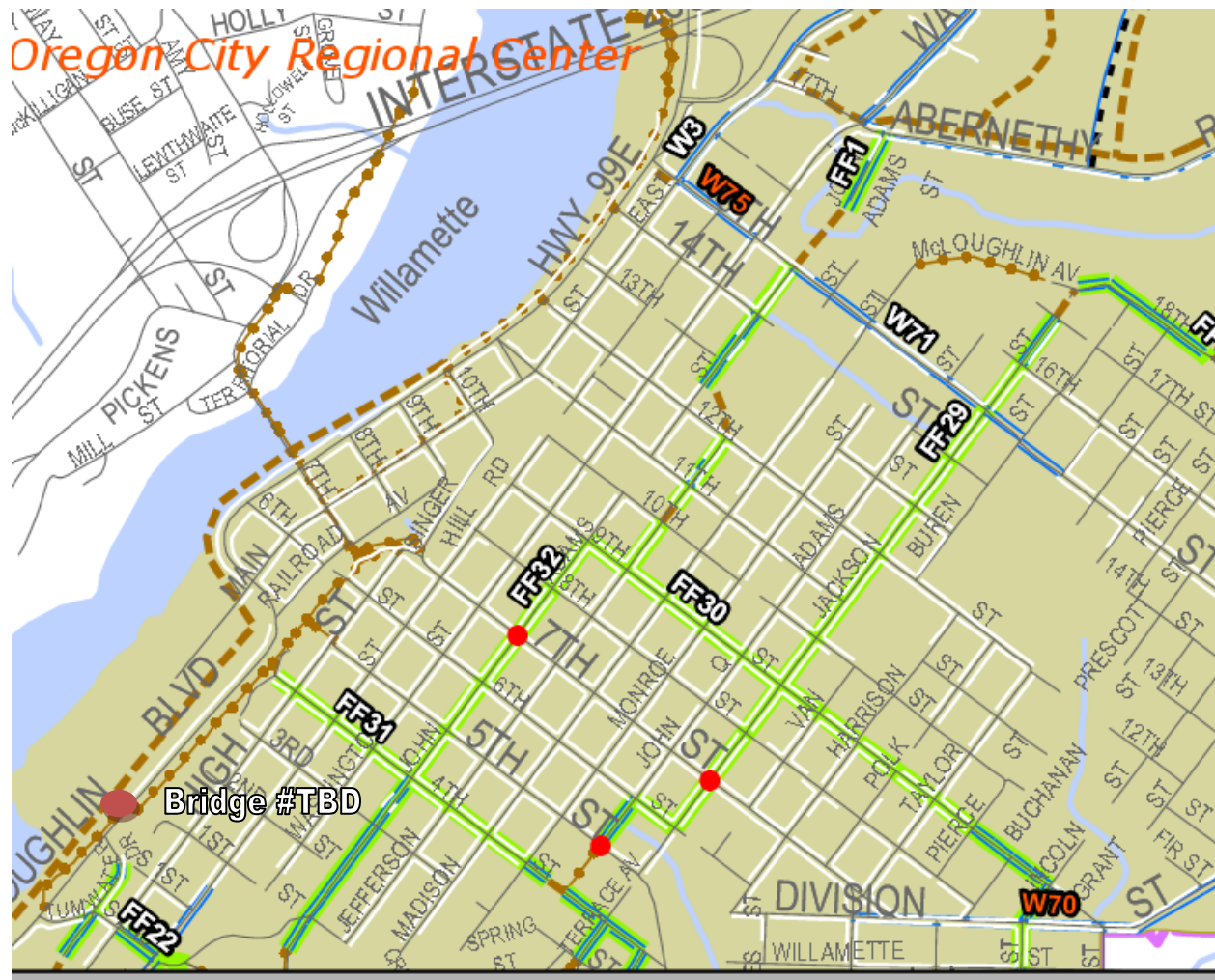
Table 5: Toolbox of Potential Access and Safety Improvements

Potential Project	Improvement Type
Walking and Biking Improvements	
Install a traffic signal or HAWK signal at the McLoughlin Boulevard/ 6 th Street intersection	Walking/Biking Street Crossing
Upgrade the existing pedestrian crossing under the Oregon City-West Linn Arch Bridge	Walking/Biking Street Crossing
Expand the viaduct and extend the Willamette Riverfront trail west, from 10 th Street into the project site	Walking/Biking Access
Create a new overcrossing of McLoughlin Boulevard, linking the McLoughlin Promenade to the project site for pedestrians and bicyclists	Walking/Biking Access
Create a new overcrossing of the railroad tracks, linking an extended Willamette Riverfront Trail with the Canemah neighborhood	Walking/Biking Access
Safety and Access Improvements	
Create a new street connection to McLoughlin Boulevard via Water Street, between Main Street and 6 th Street. Turn movements should be restricted to right-in, right-out only due to limited sight distance. A median barrier may be needed on McLoughlin Boulevard to prevent left-turns. This would also require the construction of the proposed 4 th Street to provide a connection to Main Street	Site Access
Upgrade overhead street lighting inside McLoughlin Boulevard railroad undercrossing tunnel and along the highway fronting the site	Safety
Implement indirect left-turns for both northbound and southbound McLoughlin Boulevard	Safety/ Congestion
Install advanced access signing on both approaches of McLoughlin Boulevard and on side streets to direct visitors	Site Wayfinding
Install advanced signal warning system to warn motorists in advance to a red traffic signal and that they need to prepare to stop. They would continue flashing until the end of the red signal.	Safety
Install an end-of-queue warning system to alert approaching vehicles that the traffic ahead of them is slowing down or has stopped altogether.	Safety/ Queuing



The following project will be added to the 2013 Oregon City TSP

Project #	Project Description	Project Extent	Project Elements	Priority
TBD	Pedestrian and Bike connection and enhancement	McLoughlin Promenade to mill site	Pedestrian and bike bridge over 99E to former blue Heron Paper Mill	Medium -term





Concept Plan Civil Narrative

Willamette Falls Legacy Project
February 3, 2014

Site Utilities

Existing utilities throughout the redevelopment area are mostly private lines to support the prior industrial Blue Heron Paper Mill operations, with limited public water and storm infrastructure within the vacated right-of-ways. Regardless, the existing utilities are predominantly antiquated and in poor condition, and unsuitable for reuse. Since the secondary mill operation utilities will be removed as part of the redevelopment, the existing infrastructure described below focuses on the tailraces, public utilities and private utilities in the right-of-way. The proposed infrastructure improvements are shown in the attached Conceptual Utility Plan and described in more detail below.

This information is based on site visit observations and review of previous studies, including the *Willamette Falls Legacy Project Site Stabilization and Building Assessment Report* dated January 2013, Oregon City Webmaps, the *Blue Heron Paper Mill Utility Analysis* by AKS dated November 30, 2011, and the *Willamette Falls Legacy Project Habitat and Water Resources Opportunities* report by ESA dated October 2012. A pre-application meeting was also held on December 4, 2013, to discuss potential utility improvements that would be required.

Water & Fire

Existing Water

A 10-inch cast iron public water main runs through the northern end of the site and is the primary supply to downtown Main Street. The existing main hangs vertically off the bluff, east of Highway 99E before crossing below the highway and the railroad where it enters the site at the vacated 3rd Street right-of-way. The main follows 3rd Street and turns north along Main Street, and continues north to downtown. Pressure reducing valves are located at the top of the bluff and near the intersection of Main Street and Highway 99E.

The vertical line hanging off the bluff was recently repaired in late 2013 by Oregon City crews after a cold snap froze the line and caused a leak. Oregon City is evaluating long term replacement alternatives for this line to be implemented in the next 10-20 years.

Existing Fire Protection

There is a separate, private 8-inch water line that enters the site further south, supplied from a 100,000 gallon storage tank on the bluff off High Street. This line supplies fire sprinkler systems on most, if not all of the existing buildings. It too hangs vertically off the bluff, east of Highway 99E before crossing below the highway. The line is exposed again on the west side of the highway above the railroad. It remains exposed as it drops to pass below the rail where it enters the site at the vacated 2nd Street right-of-way.



A thorough assessment of the private fire suppression pipe network connections and condition of the pipes was not conducted. Some of the distribution lines were observed hanging from the structurally supported portion of Main Street and lower levels of the buildings, but the system was not mapped. Further study is warranted to assess the system, if it is to be maintained to provide continued fire protection to the existing buildings before redevelopment.

Approximately 14 fire hydrants are located throughout the site, presumably fed from private water mains extending from the 10-inch public line within the vacated right-of-way noted above. The existing lateral locations are not shown on the maps and should be located prior to demolition.

Proposed Water

The existing 10-inch public water main should be replaced in coordination with Oregon City Water to maintain water service to downtown. It is anticipated the new line will follow the existing route through the site. New 8-inch or 10-inch laterals will extend south in Main street from 3rd Street to 1st street as well as west in 4th Street to serve future development and support fire flows to hydrants.

Proposed Fire Protection

Fire hydrants will be provided in accordance with the Oregon Fire Code. A minimum of six hydrants will be required for the site. More may be required based on the fire-flow requirements for future development. Based on initial discussions with the City, it is anticipated a 3,000 gpm fire flow will be required. The hydrants will be fed off the new main or laterals noted above.

As discussed above with Existing Fire Protection, the private fire distribution system can be abandoned and removed as the existing buildings are demolished. Fire protection for the new buildings will be served from the new water mains.

Sewer

Existing Sanitary Sewer

A 12-inch sanitary line flows north in Main Street from 3rd and 4th Street. An 8-inch line also flows south in Main from 5th to 4th Street where it ties into the 12-inch line. There are other secondary sewer lines from the northern part of the site that connect to this system. The main continues west in 4th Street and north in Water Street before it ties into the Tri-City Service District Willamette Interceptor at the intersection of Water Street and Highway 99E.

During a site visit, it was verified that an existing storm manhole at 3rd Street and Main had been modified to divert low flows from an 18-inch storm line flowing west in 3rd Street to the 12-inch sanitary line flowing north. During larger storm events, the flow would overtop the weir to the existing storm outfall at the river.

While the paper mill was operational, there was a network of private sanitary lines that collected and conveyed the industrial waste water to the clarifier, before being pumped across the river. Much of this

system was removed during the salvage operation and construction of the Interim Stormwater Post-Closure Plan to retrofit the side drainage to the tailraces.

Proposed Sanitary Sewer

A new sanitary main network should be anticipated throughout the site to serve the new development. It appears that the invert at the Tri-City Service District Willamette Interceptor, about 10-feet below existing grade, is deep enough to allow gravity service to most of the redevelopment. Lift stations may be required for services at lower park improvement areas or if basement parking is proposed below street grades.

Storm

Existing Storm Drain

Two storm mains pass through the site and discharge to the Willamette River: an 18-inch main in 3rd Street that discharges to Outfall C (City ID 40016) and a 12-inch main in 4th Street that discharges to NPDES Outfall 2 (City ID 40017).

The 18-inch main in 3rd Street conveys stormwater from Highway 99E and the storm network on the bluff to the south. It is unknown if any portions of the site currently discharge into this storm main. As noted above in the Existing Sanitary Sewer section, the storm manhole at 3rd Street and Main has been modified to divert low flows from the 18-inch line to the 12-inch sanitary line flowing north. During larger storm events, the flows overtop the weir to the existing storm outfall at the river.

The 12-inch main in 4th Street collects surface runoff from the site, north of 3rd Street.

The site also contains three tailraces that outfall to the Willamette River: Tailrace H that discharges into NPDES Outfall 3, Tailrace 1 that discharges into NPDES Outfall 4, and Tailrace 2 that discharges into NPDES Outfall 5. These tailraces are remnants of natural flow channels that were disturbed with construction of the dam and development of the original paper mill site. Tailrace 1 passes through the Grotto at Main and 2nd Street. Flow to these tailraces is mostly limited to site runoff after the construction of the Interim Stormwater Post-Closure Plan. Temporary measures provided to filter runoff prior to discharge to the river will have to be maintained through redevelopment.

The conveyance capacity of these five conveyance systems will need to be preserved during development. If development impacts any of these outfalls, an adequately sized subsurface conveyance system will be required to preserve the existing flow path to the river.

Proposed Storm Drain

Runoff from any redevelopment must be managed in accordance with Oregon City stormwater regulations. Due to direct discharge to the Willamette River, no detention will be required. However, standard water quality treatment must be provided. Water quality treatment alternatives include vegetated storm facilities as well as mechanical treatment systems approved by the City. Alternative treatment methods or low impact development strategies may need to be considered due to the shallow or exposed bedrock condition throughout the site.

The existing 18-inch storm main in 3rd Street that conveys public drainage from Highway 99E will be reconstructed to preserve the current conveyance pathway and outfall. Any proposed connections to this line should be coordinated with Oregon City to verify additional capacity is available and whether outfall improvements may be required.

A new storm conveyance system network should be constructed within the roadway section adequately sized to convey the 25-year modeled storm event. Efforts should be made to reuse existing Outfall 2 at the end of 4th Street as well as the tailraces to mitigate the permitting effort required for new outfalls. Opportunities to enhance the grotto and provide improved water quality should be evaluated further.

As discussed briefly above, for any redevelopment where fill displaces any of the tailraces, an adequately sized storm conveyance system should be installed to preserve capacity.

Structures with Higher Priority for Preservation

(Category A in 2013 Assessment and Category B with historic significance and high re-use potential)

# on Map	Building Name	Purpose of Building	Category <i>(from 2013 Building Assessment)</i>	Date of Construction	National Register Status	Within Floodplain	Building Rating Historic		Building Rating Structural		Building Rating Reuse Potential		Redevelopment Issues	Master Plan Concentration
							H-SI	H-SC	S-EC	S-RP	RU-B	RU-P		
1	Blue Heron Paper Office Building (Post Office)	Office Space	B	1932/1970	Potentially eligible	No	-2	-3	0	0	-1	+1	Simple re-use potential of open office plan. Site is prominent and easily redeveloped with more density than a 2-story bldg. Building also sits at gateway to the site and new use should serve as connection to historic downtown.	Preservation to be determined through market viability in future redevelopment process
2	Water Filtration Plant	Filter Plant	B	1953	Potentially eligible	No	+1	-2	n/a	n/a	n/a	n/a	Specialized building function not conducive to redevelopment of existing structure	Preservation to be determined through market viability in future redevelopment process
9	Mill D Warehouse	2 Story concrete structure used for painting and storage	A	1910-1916	Potentially eligible	Partial	+2	+3	-0.5	+0.5	+1	0	Specialized building function not conducive to redevelopment of existing structure	Preservation to be determined through market viability in future redevelopment process
12	No. 2 Paper Machine	Industrial	A	1910	Potentially eligible	Partial	+1	+2	n/a	n/a	0	+2	Structure is part of larger group but stone wall elements may add character to redeveloped site	Elements of structure to be considered for incentives or regulatory protection
13	No. 3 Paper Machine	Industrial	A	1913	Potentially eligible	Partial	+3	+3	-2.5	-2	0	0	Structure is part of larger group but stone wall elements may add character to redeveloped site	Preservation to be determined through market viability in future redevelopment process
18	Mill 'O'	Storage	A	1918	Potentially eligible	Partial	+3	+3	-2	-1.5	-2	+2	Unique footprint and structure may challenge redevelopment but waterfront location and open space adjacency may make site attractive	Building identified for rehabilitation/ adaptive reuse through the master planning process
19	Carpentry Shop	Carpentry	B	Pre 1911	Potentially eligible	Partial	+1	-1	-2	-1.5	-1.5	+1	Structure is within area designated for major public open space	Preservation to be determined through market viability in future redevelopment process
23	North Woolen Mill Stone Walls and Foundations	Woolen Mill	A	1860s-1870s	Potentially eligible	Partial	+2	+3	n/a	n/a	+1	+3	Stone walls add historic character and portions or all should be incorporated into the redevelopment of this site	Elements of structure to be considered for incentives or regulatory protection
25	South Woolen Mill Stone Walls and Foundations	Woolen Mill	A	1860s-1870s	Potentially eligible	Partial	+2	+3	n/a	n/a	+1	+3	Stone walls add historic character and portions or all should be incorporated into the redevelopment of this site	Elements of structure to be considered for incentives or regulatory protection
28	Mill 'G'	Recovery Boiler	B	1950's	Potentially eligible	Yes	-1	+0.5	n/a	n/a	n/a	n/a	Structure is metal frame on concrete floors surrounding large WW2-era multi-story boilers. Potential for boilers to become focal point of future open space, but no re-use potential otherwise.	Elements of structure to be considered for incentives or regulatory protection
29	Mill G Boiler Plant	Recovery Boiler	B	1950s	Potentially eligible	Yes	-1	+0.5	n/a	n/a	n/a	n/a	Same as above.	Elements of structure to be considered for incentives or regulatory protection
32	Hawley Building	Office	A	1917	Potentially eligible	Partial	+3	+3	-1	0	+0.5	+2.5	Iconic structure with prominent location for views to and from the building. Large window opportunities. Small floor plates. Will need stair and elevator additions and code updates.	Building identified for rehabilitation/ adaptive reuse through the master planning process
33	Hawley/#1PM Finishing Rm		A	1923	Potentially eligible	Partial	+3	+3	0	+0.5	+1	+2.5	Open structure could be combined with redevelopment of Hawley Bldg. Lagoon-front location may be more prominent in future	Elements of structure to be considered for incentives or regulatory protection

# on Map	Building Name	Purpose of Building	Category (from 2013 Building Assessment)	Date of Construction	National Register Status	Within Floodplain	Building Rating Historic		Building Rating Structural		Building Rating Reuse Potential		Redevelopment Issues	Master Plan Concentration
							H-SI	H-SC	S-EC	S-RP	RU-B	RU-P		
39	Sulphite Plant	Entire Building	B	1916 (Southern) 1956 modified	Potentially eligible	No	+1	+1	n/a	n/a	-2	-2.5	Occupies prime redevelopment site. Proximity to RR line and retaining wall requirements on east side of this parcel to be determined.	Preservation to be determined through market viability in future redevelopment process
40	Digesters	Entire Building	B	1890 / 1910	Potentially eligible	No	+2	+3	n/a	n/a	-2	-2.5	Occupies prime redevelopment site. No potential to reuse building for habitable income producing space. Recommend that a portion of the structure/elements be left for future interpretation if possible. Proximity to RR line and retaining wall requirements on east side of this parcel to be determined.	Elements of structure to be considered for incentives or regulatory protection
42	No. 4 Paper Machine	Main Building	A	1928	Potentially eligible	No	+3	+3	-1	-0.5	+1	+2.5	Occupies prime redevelopment site. West facade could be retained and incorporated onto new building behind existing facade.	Building identified for rehabilitation/ adaptive reuse through the master planning process
42A	No. 4 Paper Machine	South Addition	A	1928	Potentially eligible	No	+2	+3	-1.5	-0.5	-1	+2	Iconic building defines Main Street.Occupies prime redevelopment site but west facade could be retained and incorporated onto new building behind existing facade.	Preservation to be determined through market viability in future redevelopment process
44	No. 4 Finishing Room / Warehouse		A	1928	Potentially eligible	No	+2	+3	-0.5	+0.5	0	+1	Occupies prime redevelopment site and is adjacent to railroad ROW. Proximity to RR line and retaining wall requirements on east side of this parcel to be determined.	Preservation to be determined through market viability in future redevelopment process
45	No. 4 Finishing Room / Warehouse		A	1911	Potentially eligible	No	+3	+3	-2	-1	-0.5	0	Occupies prime redevelopment site and is adjacent to railroad ROW. Proximity to RR line and retaining wall requirements on east side of this parcel to be determined.	Preservation to be determined through market viability in future redevelopment process
46	No. 4 Finishing Room / Warehouse	South Addition	A	1925	Potentially eligible	No	+2	+3	-2	-1	-0.5	0	Occupies prime redevelopment site and is adjacent to railroad ROW. Proximity to RR line and retaining wall requirements on east side of this parcel to be determined.	Preservation to be determined through market viability in future redevelopment process
49	Mill 'B' - Deink	Entire Building	A	1927	Potentially eligible	No	+3	+3	-1	-0.5	+1.5	+2.5	Iconic building defines Main Street.Occupies prime redevelopment site but facade could be incorporated into new building	Building identified for rehabilitation/ adaptive reuse through the master planning process

Structures with Higher Priority for Preservation



1. BH Office Bldg



2. Water Filtration Plant



9. Mill D



12. #2 Paper Machine



13. #3 Paper Machine



18. Mill O



19. Carpentry Shop



23, 25. Woolen Mill Foundations



28, 29. Mill G/Boilers



32. Hawley Office Building



33. Hawley/#1 Paper Machine



39. Sulphite Plant

Structures with Higher Priority for Preservation



40. Digesters



42. #4 Paper Machine



42A. #4 Paper Machine South



44-46. Finishing Room/Warehouse



49. De-Ink



Sulphite Sphere



#2 Mill Wheels



Mill G Boilers

Structures with Lower Priority for Preservation
(Category B in 2013 Assessment with low re-use potential)

# on Map	Building Name	Purpose of Building	Date of Construction	National Register Status	Within Floodplain
2A	Water Filtration Plant	"Stair / Elevator Tower"	1953	ES	No
3	Water Filtration Plant	Control Tower	1953	ES	No
4	Fire Station	One Story Addition - South	1955	NP	No
5	Office	Restroom Addition - East	1953	NP	No
6	Guard Shack	Entire Building	1953	NC	No
7	Mill "'D' - North Train Siding on 4th Street	Entire Structure	1947	ES	No
8	Mill 'D' - Metal Roof west end of 4th St	Entire Structure	TBD	ES	No
10	Mill 'D' Warehouse	No. 3 Finishing	"1910 - 1916"	ES	No
11	Mill "D' Warehouse	No. 2 Finishing	1925	ES	No
14	No. 3 Paper Machine	West Additions	"Post 1962, Post 1972"	ES	Partially
15	Butler Building east of No. 2 Paper Machine	Entire Building	1970's	NC	No
16	Roof Structure over 3rd St Access	West	"Post 1972"	NP	Partially
17	Roof Structure over 3rd St. Access	East	"Post 1962"	NP	Partially
20	Pipe Shop	Entire Building	1960's	NC	Yes
21	Millwright Shop	Entire Building	1960's	NC	Yes
22	Auto Shop		mid-1950s	NC	Yes
24	North Woolen Mill Roof Structure	Shelter	unknown	NC	Yes
26	South Woolen Mill Roof Structure	Shelter	unknown	NC	Yes
27	South Substation	South Substation	"Post 1962"	NC	Yes
30	Mill 'H'	Deink / THP Area	1950's	NP	Yes
31	Mill 'H'	"THP Reject Refining"	"1970-1979"	NP	Yes
34	# 1 PM Bleach Plant		1960	NC	Yes
35	#1 PM Rewind		1960	NC	Yes
36	Mill 'E'	Main Building	1945	NC	Yes
37	Mill 'E'	West Addition	"1944-45; 1970's"	NC	Yes
38	Mill 'E'	Weld Shop	1970's	NC	Yes
41	Save All	Entire Building	"Post 1972"	NP	No
43	#4 PM North Addition		Unknown	NC	No
47	Shipping Shed	Shed	1977	NC	No
48	North Substation	Power	1927	NC	No
50-51	De-Ink ONP Repulper	Shed	1953, 1960s	NC	No
52	PGE Dam * <i>Not on site and not part of planning process</i>		1943	ES	No
53	Pipe Chase		1967	NP	Yes
54	Clarifier Control		1967	NP	Yes
55	Clarifier		1967	NP	Yes
56	Sulphite Sphere		Post 1947	NC	Yes
57	Tile Tanke		Varies	NC/NP	Varies

APPENDIX D
SHPO DETERMINATION OF ELIGIBILITY



Oregon

John A. Kitzhaber, MD, Governor

Parks and Recreation Department

State Historic Preservation Office

725 Summer St NE, Ste C

Salem, OR 97301-1266

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www.oregonheritage.org

September 20, 2012



Ms. Christina Robertson-Gardiner
City of Oregon City Planning
PO Box 3040
Oregon City, OR 97045-0304

RE: SHPO Case No. 12-0225
Blue Heron Mill Site
Updated Determination of Eligibility
Oregon City, Clackamas County

Dear Christina,

Thank you for submitting the updated survey data for the buildings at the former Blue Heron Paper Mill site at Willamette Falls in Oregon City. Our comments are detailed below:

Overall, it appears there is no eligible historic district at the site. While a district approach to eligibility would normally make the most sense for a property like this, it is difficult for the site to convey the historic paper-making processes because there have been so many additions and alterations over time to accommodate modern products and technologies. For this reason, we assessed each building and structure for individual eligibility, and based our concurrences on the information received by your office in February 2012.

All properties are located at 419 Main Street, Oregon City. National Register status codes are as follows:

Eligible/Significant = ES

Not Eligible/Non-Contributing = NC

Not Eligible/Out of Period = NP

Undetermined/Lack of Info = UN

- No. 4 Paper Machine Building - ES
- Mill "H" - NP
- Mill "D" Warehouse - ES
- Blue Heron Paper Office Building - UN
- Security/First Aid Building - NP
- Butler Building - NC
- No. 3 Paper Machine Building - ES



- Mill "O" – ES
- Carpentry Shop - ES
- Pipe Shop - NC
- Millwright Shop - NC
- Auto Shop - NC
- Woolen Mill Foundation - ES
- Water Filtration Plant - ES
- Mill "G" Boilers - ES
- No. 1 Paper Machine Building - ES
- Mill #1 Finishing Room - ES
- Mill "E" - NC
- Sulphite Plant - ES
- No. 4 Paper Machine Warehouse - ES
- Digesters - ES
- North Substation - NC
- South Substation - NC
- Mill "B " – ES
- De-ink ONP Repulper – NC
- Clarifier – NP
- Willamette Falls Dam – ES
- No. 2 Paper Machine Site – ES

Future investigations may reveal additional information about the properties listed above. If that happens we can always adjust the concurrences if necessary. For now, though, this is our assessment of the structures on the Blue Heron site, which matches up pretty well with your findings, with a few exceptions. Please give me a call if you have any questions or comments. Otherwise, I'm sure we will be in touch as we move toward a treatment plan or agreement document.

All best,



Chrissy Curran
Associate Deputy SHPO
(503) 986-0684
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APPENDIX E
NATIONAL PARK SERVICE, SEVEN ASPECTS OF INTEGRITY



NATIONAL REGISTER BULLETIN

GUIDELINES FOR EVALUATING AND DOCUMENTING HISTORIC AIDS TO NAVIGATION TO THE NATIONAL REGISTER OF HISTORIC PLACES

[Previous](#)[Table of Contents](#)[Next](#)

U.S. Department of the Interior, National Park Service

INTEGRITY

The National Register traditionally recognizes a property's integrity through seven aspects or qualities: location, design, setting, materials, workmanship, feeling, and association. These qualities should also be discussed under the Statement of Significance, Section 8 of the registration form.

Location

Location is the place where the historic property was constructed or the place where the historic event took place. Integrity of location refers to whether the property has been moved or relocated since its construction. A property is considered to have integrity of location if it was moved before or during its period of significance. Relocation of an aid during its active career if the move enhanced or continued its function is not a significant loss of integrity. For example, in 1877, the 1855-built Point Bonita Light was relocated from a high bluff to a rocky promontory to improve its visibility to mariners. Aids to navigation relocated to serve new purposes after being decommissioned suffer a serious loss of integrity of location, but are not automatically precluded from listing.

Design

Design is the composition of elements that constitute the form, plan, space, structure, and style of a property. But properties change through time. Lighthouses may be raised or shortened; buildings may be added or removed from a light station; sound signal equipment and optics may change to reflect advancing technology. Changes made to continue the function of the aid during its career may acquire significance in their own right. These changes do not necessarily constitute a loss of integrity of design. However, the removal of equipment that served as the actual aid to navigation--a fog signal, lens and lamp, or the distinctive daymarkings on a tower--has a considerable impact on the property. Removal of an optic from a lighthouse, a fog horn or bell from its building, or painting over a historic lighthouse's pattern has a serious adverse effect on its design integrity. The design integrity

of light stations is reflected by the survival of ancillary buildings and structures. The decision to nominate a station should include an assessment of the design integrity of the property as a complex. The loss or substantial alteration of ancillary resources, such as keeper's quarters, oil houses, cisterns, and tramways, for example, may constitute a significant loss of design integrity.

Setting

Setting is the physical environment of a historic property that illustrates the character of the place. Integrity of setting remains when the surroundings of an aid to navigation have not been subjected to radical change. Integrity of setting of an isolated lighthouse would be compromised, for example, if it were now completely surrounded by modern development.

Materials

Materials are the physical elements combined in a particular pattern or configuration to form the aid during a period in the past. Integrity of materials determines whether or not an authentic historic resource still exists.

Workmanship

Workmanship is the physical evidence of the crafts of a particular culture or people during any given period of history. Workmanship is important because it can furnish evidence of the technology of the craft, illustrate the aesthetic principles of a historic period, and reveal individual, local, regional, or national applications of both technological practices and aesthetic principles.

Feeling

Feeling is the quality that a historic property has in evoking the aesthetic or historic sense of a past period of time. Although it is itself intangible, feeling is dependent upon the aid's significant physical characteristics that convey its historic qualities. Integrity of feeling is enhanced by the continued use of an historic optic or sound signal at a light station. The characteristic flashing signal of a light adds to its integrity. While sounds themselves, such as the "Bee-oooohhhh" of a diaphone, cannot be nominated to the National Register, they enhance the integrity of feeling. The mournful call of fog horns on San Francisco Bay is an integral part of experiencing life there.

Association

Association is the direct link between a property and the event or person for which the property is significant. A period appearance or setting for a historic aid to navigation is desirable; integrity of setting, location, design, workmanship, materials, and feeling combine to convey integrity of association.

APPENDIX F
HISTORIC ASSESSMENT MEMO



KRAMER & COMPANY

Historic Preservation Consultants

386 NORTH LAUREL
ASHLAND, OREGON 97520

LETTER REPORT: 120301.01

DATE: NOVEMBER 20, 2012

SUBJECT: WILLAMETTE FALLS LEGACY PROJECT
SITE STABILIZATION AND BUILDING ASSESSMENT
HISTORIC ASSESSMENT MEMO

1. INTRODUCTION:

The assessment of historic resources located at the former Blue Heron Paper Mill site was prepared at the request of the Partners and is an element of a multi-disciplinary evaluation of the property. Historic significance of the site was first acknowledged by Oregon SHPO in 2003 as a component of the Willamette Falls Industrial Area, which was evaluated as a potential National Register historic district. Any future development or modification will likely require review under ORS 358.653 and Section 106 of the National Historic Preservation Act of 1996 (36 CFR 800 et. seq) for potential impacts on historic resources.

Prepared under contract, findings related to historic resources are based upon both on-site and documentary evaluation that began in May 2012. This analysis is inherently limited by the lack of specific planning for the future of the site, including any targeted uses or master development plan. Primarily intended to help guide decision-making, this historic assessment therefore takes a broad view of likely opportunities and issues based on site conditions and the physical characteristics of identified resources.

Based on the information provided, including the four adopted Partner values [History/Culture, Economics, Public Access, and Habitat Restoration], and the qualities of the site and its structures, the historic assessment process began with certain assumptions. These are;

1. Not all buildings on the site are of historic value or utility.
2. Some buildings, though historic, are intrinsically difficult or impractical to reuse.
3. Major buildings and structures can be salvaged and repurposed to other uses ranging from housing to retail.
4. A mixture of public access/habitat and public/private building rehabilitation is a logical strategy to meet partner goals.

5. Future use opportunities at this point, by design, must be general in nature and will remain so until a master plan is developed.

Based on the above assumptions and in association with the other members of the assessment team, all built resources on the project site were evaluated using standard practice for significance and integrity. The specific focus was largely on individual potential for listing on the National Register of Historic Places and future opportunities for adaptive reuse, although some value in the collective character of the site was incorporated into the process.

2. PRIOR WILLAMETTE FALLS EXPERIENCE:

Kramer & Company first evaluated the Blue Heron Paper Mill project site as part of the Portland General Electric (PGE) Company's relicensing process. Initial studies were undertaken in 1997-1998, with the intent of determining the potential historic significance of the T. W. Sullivan Hydroelectric Plant, located at West Linn, along with identifying any other historic resources within the Area of Potential Effect. PGE and its multiple predecessor companies dating back to the 1860s Oregon Steam Navigation Company and the development of the Willamette Falls Locks have a long association with the development on both sides of the river at the Willamette Falls.

After completion of that initial study, documentation continued as a part of PGE's formal Federal Energy Regulatory Commission [FERC] licensing process. Research into the development of the paper operations at the Falls included specific study of the Blue Heron plant as it relates to the former Hawley Powerhouse (later known as the Smurfit Powerhouse). Smurfit had transferred ownership of the powerhouse to PGE and its operation (and eventual closure) was included as part of FERC relicensing. Our role in the FERC process culminated in the preparation of a "Request for Determination of Eligibility" or DOE, on the Willamette Falls Industrial Area. This was the first academic effort to catalog all of the individual built resources lining the Willamette River between the dam and the Oregon City bridge. That document, based on research conducted on-site and in the archives of the Smurfit (Blue Heron) and West Linn paper companies, as well as PGE's own archive, was completed in 2002. The DOE was formally approved by the Oregon State Historic Preservation Office in 2003 and has served as the baseline document for all subsequent historic evaluation of the Blue Heron property.

Other work at the Falls has included numerous review and compliance documentation for PGE, relating to their operation and modification of the dam and the Sullivan plant, historical background and analysis for the West Linn Paper Company, and the revision and expansion of the National Register of Historic Places documentation on the Willamette Falls Locks, for the Willamette Falls Heritage Foundation.

3. SITE HISTORY

Located at a natural up and downstream stopping point on the river, the area around the Willamette Falls was a natural locale for Native American trade and fishing activity centuries before the arrival of Euro-Americans in the early 19th century. Settlement, and industrial development began here in 1829 when what was almost certainly the first permanent water-powered sawmill in the Oregon Territory was established by Dr. John McLaughlin. The need to portage around the falls and the availability of waterpower they offered made the site logical for settlement. Oregon City, later to become the Territorial Capital, was founded in 1829. As the “end” of the Oregon Trail, the city was incorporated in 1844. By the mid-19th century what is now the Willamette Falls Legacy Project Site lined both sides of the main commercial corridor, Main Street, in Oregon City, leading to various water-powered industrial facilities including saw and flour mills, that were powered by small timber dams and millraces cut into bedrock. Among these early industries, most significantly for this study, was the Oregon City Woolen Mill, established in 1865. By the turn of the century the giant three-story woolen mill, along with other smaller industrial users, lined Main Street west of 4th Street extending out to the enlarged Willamette Falls Dam, constructed 1889-1890 to power hydroelectric development. Throughout the late 19th and early 20th centuries, large-scale industrial users co-existed with typical “Main Street” businesses, including grocery stores, barbers, hotels, saloons, and banks, lining Main Street within what is now the Willamette Falls Legacy Project Site.

Paper manufacturing, which began across the river in West Linn, expanded to Oregon City in 1908 when Willard P. Hawley, formerly the plant manager at West Linn, purchased several water rights and established his own manufacturing plant at the base of the dam, on the site of the old Portland Flouring Mill. The Hawley Pulp and Paper Company grew significantly and by the mid-1920s occupied large portions of Main Street on either side of the Woolen Mill and across the street, on the east side, flanking the railroad/trolley line that still ran down this block of Main Street.

Continued expansion saw the Hawley company, and then later Publishers Paper and others, completely absorb all of Main Street south of 4th Street, resulting in the closure of the public right of way. The original plat, with Main Street and the numbered cross-streets, was vacated within the mill site. Despite the property's location, immediately adjacent to the downtown core of Oregon City, public access and any direct connection to the site, and to the falls, was almost entirely eliminated in favor of the industrial development. Expansion and new industrial construction associated with the paper mill, including water management and treatment facilities, continued into the 1970s. The Blue Heron Paper Company remained in operation until early 2011. Its closure ended more than a century of paper-making activity in Oregon City.

4. EXISTING DESIGNATION STATUS

As the result of its long association with the development of industry and its role in the history of both Oregon and Oregon City, the area bordering the Willamette River at the Willamette Falls has been previously evaluated for historic significance. Portions of the property, as discussed below, have been "Determined Eligible" for listing on the National Register. Any future development that constitutes a Federal undertaking, including federal funding, permit, or other activity, will require formal project review under Section 106 of the National Historic Preservation Act of 1966 (36 CFR 800 et. seq.). For more information see www.achp.gov/106_summary.html). Activity effecting historic resources, as per the Memorandum of Agreement between the City of Oregon City and Oregon SHPO, are additionally subject to review under ORS 358.653.

1. NR-STATUS: As the result of the DOE process, undertaken as part of the PGE FERC relicensing, the Willamette Falls Industrial Area was first "Determined Eligible" for listing as a "historic district" on the National Register in May 2003. That document identified forty-six (46) built resources on both sides of the river, including twenty-three (23) located on the Oregon City side, within the project area. Within the Willamette Falls Legacy Project Site itself the 2003 DOE request identified thirteen (13) resources as "Historic Contributing" within the District and thus considered "eligible" for listing on the NRHP.

It is important to understand that the DOE process, by design, was comparatively superficial, looking largely at the associative values of the structures with less attention to their physical/structural character.

Resources that are physically connected, which constitutes the bulk of the project, were typically evaluated as a group, rather than as individual components. For example, the Mill D Warehouse, evaluated as a single resource in May 2003, is now better understood to consist of multiple independent elements, identified in the current project as Buildings 7, 8, 9, 10, and 11, not all of which are appropriately considered historic or significant. Similarly Paper Machine No. 4, identified as a single resource in 2003, is now understood to contain buildings numbered 42a, 42, 43, 44, 45, 46 and 47. This is not to say that the DOE is in error, merely that the finer focus of the current project has allowed both internal inspection of these structures as well as a more detailed analysis of their development history and serial construction.

2. SHPO-Oregon City Agreement: Given that the Willamette Falls Industrial Area determination looked at a larger area, including both the Oregon City and West Linn properties above the Willamette Falls, as well as the Willamette Falls Dam itself, the entire Willamette Falls Industrial Area covered by the DOE was evaluated for listing on the National Register as a "Historic District." The reduced study area of Willamette Falls Legacy Project Site, limited to the Oregon City portion of the Willamette Falls Industrial Area, logically brought the concept of eligibility for a historic "district" for the former Blue Heron site into question. Accordingly, the City of Oregon City re-evaluated the site in February 2011 and completed an updated survey in May 2012. SHPO and Oregon City concluded that the Willamette Falls Legacy Project Site was not eligible for listing as a National Register *District*. They agreed, however, that multiple structures within the project area were eligible for such designation *individually*. Sixteen built resources were determined Eligible/Significant, including all the previously evaluation "contributing" buildings. The Blue Heron Paper Office Building (Building No., 1), was evaluated as "undetermined" due to lack of information and the remaining buildings and structures on the site were found either Not Eligible/Not Contributing or Not Eligible/Out of Period.

5. LEGACY PROJECT PROCESS AND FINDINGS (2012)

As part of the current study, the history and character of all built resources at the Willamette Falls Legacy Project Site was again reviewed and re-evaluated, to

inform the multi-disciplinary approach of the Project. This included cursory archival review, building upon the May 2003 DOE designations and the additional data developed by Partner staff prior to our involvement. Team field visits allowed a far greater understanding of individual resource character and integrity to original design than had previously been the case. Three separate field visits in May and June, 2012 informed the evaluation process.

All structures and most of the associated elements thereof were given names and numerical identification by Partner staff, providing the organizational structure for the Project evaluation process. While somewhat variable, as elements were either identified or combined, this system provided a baseline of fifty-seven (57) individual resources subject to evaluation. In consultation with Diloreto (reuse) and KPFF (structural), it was determined that the most beneficial method of evaluation was to create three individual categories (Historic, Reuse, Structural) each of which was divided into two non-combined component parts, to assess issues related to the particular discipline. Each component part allowed for a six-point range (+3 to -3) reflecting both positive and negative aspects (see Appendix C, "Building and Evaluation Criteria and Assessment"). NO qualitative value was included between the disciplines (i.e. a "3" in historic did not cancel or trump a "-(3)" in structural or reuse).

The overall team intent was to provide an accurate assessment, from multiple viewpoints, as to the inherent strengths and deficits of each individual building or structure. It is acknowledged that in general numerical evaluation of historic significance result in problematic "grey area" assessments and that standard industry practice requires that no *historic resource* is considered "more historic" or "less historic" than any other. The use of value-based evaluation here is simply meant to provide some guidance *within the project* as to the comparative individual and collective role specific structures play in forming and supporting character. In other words, all identified resources otherwise meeting NR evaluation standards for both integrity and significance are assumed to be historically significant and considered eligible for listing at either the local or national levels. Project evaluations, while taking into account that status, look more closely at the role, or potential role, historic character might play in a future development opportunity.

HS-I evaluations of individual significance, from a National Register standard, document the relative potential for listing in our professional opinion. In addition to association with the significant industrial activities, the evaluation

process included an assessment of integrity (retention of those qualities that accurately relate the significant association). Integrity is not an analog for “condition” (i.e. a building with a poor roof and foundation, is in poor condition, but may still be entirely intact and so retain high integrity). **HS-C** evaluations attempt to capture the comparative value of individual resources *within the character of the site*. This is considered to be an important element in maintaining the historic industrial character for whatever future uses are determined appropriate.

As the evaluation criteria informed the design of the project scenarios, all aspects (Historic, Reuse, Structural) of an individual resource were considered equally. This naturally resulted in historically significant resources being eliminated from both scenarios. This was not to ignore their acknowledged historic significance, but rather a assessment of their lack of reuse potential or structural/design characteristics that complicate any logical future. An example is Building 40, the Digesters, which although among the oldest elements of the Hawley plant to survive, are inherently difficult to repurpose due to a narrow footprint and limited structural system. Building 40 is therefore, despite its historic significance, was not included in either Scenario 1 or 2. Conversely a non-historic structure like Building 7, the metal canopy over 4th Street, is in and of itself of little historic value but has the potential to add character and complexity to adjacent historic resources 09-11. This resulted in its retention in Scenario 2. And finally, it should be noted that inclusion, or exclusion, from either scenario neither assures a building’s retention or removal. Those decisions will await a plan, and developer, for the future of the Willamette Falls Legacy Project Site.

6. COLLECTIVE/SITE CONTEXT

Although analysis of resources at Willamette Falls Legacy Project Site is, in general, individually focused and the potential for “District” designation was not considered integral as the result of the SHPO-Oregon City Programmatic Agreement, the collective nature of the site was nevertheless recognized and is considered a potentially valuable asset in maintaining historic setting for any future use. The complex, multi-component nature of the built resources at the Willamette Falls Legacy Project Site site support and reinforce the site’s history by relating two elements of its history as described below;

Main Street: The linear placement of structures aligned to Main Street and the numerical cross-streets (3rd and 4th) reinforce the important and idiosyncratic development concepts associated with the history of industrial development

within Oregon City's downtown commercial core. The "street wall" formed by the vertical facades of Paper Machine No. 4 and the Mill B DeInker/Pulper (Building Nos. 42 and 49, respectively, including 42a), fronting along the Main Street right-of-way and rail track reflect and reinforce that history. So too do the loading docks lining buildings 9, 10 and 11, beneath the non-historic canopy, Resource No. 7.

Industrial Character: A second and less obvious element of the site's history is reflected by the complex inter-related nature of its structures from both a functional and visual standpoint. Functionally, occupied spaces flow together through multiple levels of connectivity internally, with connected floors, basements and spaces serving an internal connections and equipment corridors. Visually the additive, serial, construction that characterizes many of the resources partially obscures their individual character through appendage and attachment. This effect is even further compounded by extraneous surface-mounted mechanical equipment, including piping, conduits, filters, tanks, and vertical towers that project and connect walls and roof-levels into a shaggy, rough-edged, amalgam that reduces the individual visual impact or prominence of any particular element. That can be either positive, in the case of multiple historic structures joined into a whole, or negative, as in the case of a non-historic structure that is scaled, and located, in such a way as to completely obscure a historic structure. An example of this effect is evident in the relationship between Building 50 (Repulper) and Building 49 (DeInker), the latter of which is largely hidden by the much larger volume of the non-historic construction (Building 50) to its north.

7. INCENTIVES TO SUPPORT ADAPTIVE REUSE

Given the historic character and the potential benefit that the history of the site might bring to any future redevelopment, the availability of multiple benefits to support that reuse have been considered for all building evaluations. While history and culture have been identified as one of the four key values of the Partners, and while the history of the site is important in both the development of Oregon and Oregon City, there are concrete economic values available to support the retention and reuse of designated historic resources that cannot be captured by non-historically based development. These economic incentives include;

1. Certified Rehabilitation: Creates a 20% Investment Tax Credit against Federal income tax liability for approved rehabilitation that meets the Secretary of the Interior's Standards, as reviewed by the National Park Service. Cert Rehab credits have supported billions of dollars in rehab work nationwide, with notable examples in Portland including the Brewery Blocks and the White Stag Block. Cert Rehab can be a key element in supporting adaptive reuse in that the credit may be taken for a wide variety of costs associated with converting spaces to new uses. This includes costs associated with mechanical systems, electrical and plumbing, structural upgrades, ADA-compliant access, and many other costs that are outside what is typically considered "restoration." More information is available at the following website.
http://cms.oregon.gov/oprd/HCD/SHPO/docs/hpti_09_brochure.pdf
2. Oregon Special Assessment for Historic Properties: An Oregon-only benefit, Special Assessment creates a reduced basis for the calculation of local property taxes during a ten-year period following enrollment. Essentially the value of a qualified property is "frozen" prior to the beginning of an approved rehabilitation plan and then the property is taxed at the unimproved basis for the decade following the work. While the value of the Special Assessment benefit has been somewhat reduced by other changes in Oregon tax policy, the program remains a valuable tool for large scale rehabilitation work, especially when used in tandem with the Federal Certified Rehabilitation benefit. More information is available at the following website.
http://cms.oregon.gov/OPRD/HCD/SHPO/Pages/tax_assessment.aspx
3. Code Relief: Under the Oregon Structural Specialty Code, buildings that are "designated" as historic resources (i.e. listed on the National Register of Historic Places) may be eligible for waiver of certain building code requirements in the interest of retaining or preserving the qualities of the property that make it historic. Such waivers do not allow for reduced fire/life/safety or any other aspect related to public safety, but can often allow for reduced development costs by avoiding some costly construction changes. (See Oregon Specialty Code Section 3409.1, "Historic Buildings").
4. Environmental Benefits: In addition to its potential economic positives, historic preservation, the reuse and purposing of existing structures, has been shown to be a sustainable, environmentally sound, method of

development. This is a process that can be summed up in the popular catch phrase “The greenest building is the one that is already standing.” Often energy use calculations look only at *operating* costs, the amount of energy a building will require for heating, cooling, lighting and other mechanical processes during its lifetime. This entirely ignores the energy that is required to build (or to demolish) an existing, often reusable, structure. In short, an existing building reflects or contains the considerable energy that was required to create it. Its demolition will require even more energy, while additionally adding to the growing issues of solid waste management. Conversely, the reuse of buildings conserves all of that *embodied energy* and avoids, or significantly reduces, the energy impact of demolition. Rehabilitation can typically improve the energy performance of existing structures and so bring operating expenses into line with new energy-efficient construction. This is especially true when it involves masonry structures and often, as in the case of the large industrial volumes at the Willamette Falls Legacy Project Site, can be accomplished in highly cost-effective way.

Every building is a storehouse of non-recoverable energy. This is the energy that has been spent in its construction, as well as the manufacture and transportation of materials. A “teardown” not only discards the embodied energy of the existing building, but spends that energy again (and likely more, as teardowns average over double the square footage of the structure being replaced) on a new home or other building. If you’re building green, embodied energy analysis begs the question: where is the energy savings? (www.thegreenestbuilding.com)

The environment benefit of historically-based development also brings significant economic value. According to www.thegreenestbuilding.com, a typical 100,000 square foot industrial structure contains 97,000,000 MBTU of embodied energy and its demolition would require more than 1,200,000,000 MBTU to raze and haul away the debris. This is equivalent to the energy of approximately 850,000 gallons of gasoline or, at current gas prices (\$4 per gallon), about 3.4 million dollars.

For more information on embodied energy and the environment benefits of historic preservation, see <http://www.planetizen.com/node/36253>, <http://earth911.com/news/2009/02/23/the-greenest-building/> or <http://www.eco-structure.com/historic-preservation/reconciling-preservation-and-sustainability.aspx>.

5. Intangible Benefits: Cultural tourism, relying on the inherent draw of historic places, provides a marketable asset that can serve to strongly differentiate and enhance a project when compared with all-new construction. The National Trust's "Main Street" program provides nationwide examples of historic preservation as a successful economic development model (See www.MainStreet.org). The re-use of industrial and non-retail commercial facilities such as those at Willamette Falls Legacy Project Site offer unique opportunities and a high degree of flexibility due to large scale and structural design. Similar industrial structures have been successfully repurposed for everything from housing and retail, to restaurants, performance/civic spaces, and more. Northwest examples include the Brewery Block in Portland, Pier 56 in Seattle, and, most especially, the Steam Plant Square project, in Spokane, Washington, where a former generation facility has been repurposed into retail shops, a brewpub/restaurant and meeting spaces while retaining a high degree of its industrial character (<http://www.steamplantsquare.com/>).

5. SUMMARY:

The Willamette Falls Legacy Project Site, located on the bank of the Willamette River downstream from the Willamette Falls, is among the most historic spots in Oregon history. In addition to its long and significant role in Native American tradition, the site was settled by Dr. John McLaughlin, the "Father of Oregon" and served as the birthplace of industry in the Oregon Territory. When Andrew Jackson was serving as the seventh President of the United States, water-powered industry was underway on the project site. Today, many of the built resources on the property date from the Hawley Pulp and Paper Company or earlier, with a strong and significant association to Oregon's industrial history. Many of these resources are considered eligible for listing on the National Register.

The future of the Willamette Falls Legacy Project Site is unclear, as is whether the Metro partners or some other entity will assume ownership during its next phase of history. Whatever that future looks like, and under whatever auspices, the site's built resources and history are valuable assets from a cultural, economic and environmentally sustainable development standpoint. A repurposed Willamette Falls Legacy Project Site, retaining a strong connection to its past and creatively transformed to new uses can continue the important role this property has played in Oregon City, and in the state, for more than 180 years.

Final

WILLAMETTE FALLS LEGACY PROJECT

Habitat and Water Resources Opportunities

Prepared for
Metro
Regional Services

October 2012



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Opportunities for Water Resources and Fish & Wildlife Habitat

Metro is determining the potential of the Willamette Falls Legacy Project (Project) site in providing four values that are important to the partners involved in the purchase and redevelopment:

1. Economic Development
2. Cultural and Historic Values
3. Public access to the Willamette River and Falls
4. Water Quality and Wildlife Habitat Values

This technical memo is focused on identifying water quality and wildlife habitat values, keeping in mind the other three values identified by the partners. Existing conditions are described for habitat areas to set context and provide decision-makers with key information to decide how to approach and prioritize restoration and enhancement activities. Then, opportunities for improving water resources and fish and wildlife habitat are discussed, including descriptions of potential benefits to site users. We conclude with a brief statement to the Project on how building reuse scenarios currently being considered may influence habitat opportunities on this site.

Currently, habitats on the Project site are relatively small and fragmented in part due to the presence of major highways along the river (I-205 and SR 99E), the railroad, and urban development on the shores. Habitat types identified on this site include: Willamette River shoreline, tailraces, lagoon, grotto, and the developed area (Figures 1 and 2). The shoreline is comprised of two sections - the shoreline downstream of the falls and the shoreline upstream of both the falls and lagoon. The lagoon is connected to the Willamette River and is part of the shoreline; however, it is described separately because it has a different water regime and restoration potential.

Restoration and enhancement opportunities for improving fish and wildlife habitat can also provide improvements for water resources, including stormwater treatment and water quality. Opportunities were identified through review of existing documents, site reconnaissance, familiarity with other habitats in the river, and discussion with Metro employees about site potential. Those opportunities identified here are potential actions that can be begun or completed in the near-term. Detailed plans or costs associated with actions are not identified at this stage. Additional opportunities are provided for the shoreline that may be more extensive or not considered until redevelopment planning occurs. Key recommendations include:

- Expose and restore historical shoreline
 - Diversify shoreline habitat for salmonids, lamprey and shorebirds
 - Restore of the ends of tailraces to provide diverse habitat
 - Revegetate shoreline
- Provide stormwater treatment along the shoreline and in the grotto
- Increase circulation in the lagoon to improve water quality
- Diversify lagoon habitat
- Establish vegetated buffer upslope

Additional opportunities are discussed that may be more intensive or considered at a later time when redevelopment plans are underway. Specific recommendations are provided below.

Regional Setting

Geology and Soils

The Blue Heron site is located on the right bank of the Willamette River immediately downstream of Willamette Falls. The falls demarcate a topographic break in the Willamette River, where it cuts across a resistant bedrock outcropping and drops 30-40 feet (height varying seasonally). The site is mostly underlain with basalt bedrock similar to the falls. Small waterfalls and channels cross the southern portions of the site. A narrow terrace runs along the river between steep bluffs 80-100 feet tall. At the top of the bluff is a second terrace approximately 3,000-4,000 feet wide. Historically, the shoreline was nearly vertical with alcoves.

Soils on the terrace below the Blue Heron Mill on the downstream end of the site consist of fine sandy loam of the Newberg series, a common soil along rivers in the Willamette Valley. Newberg soils are deep and well drained, and subject to inundation during flooding, slow runoff, and becoming droughty in the summer (Soil Survey Staff 2012). It is a common soil for agriculture and pasture, supporting native vegetation such as Oregon ash, Oregon white oak, Douglas-fir, willows, and numerous shrubs and grasses. Soils on the steep basalt slopes surrounding the site and overlaying the rocky outcroppings consists of Witzel very stony silt loam (Soil Survey Staff 2012). Witzel soils are also well drained, but shallow and generally support vegetation associated with drier conditions such as Douglas-fir, poison-oak, snowberry, baldhip rose and other shrubs and grasses.

Hydrology and Water Quality

Historically, the Willamette River regularly flooded due to rain-on-snow events. Construction of dams and reservoirs upstream of the project site, river straightening, and wood removal have altered the frequency, magnitude, and duration of flooding experienced on the site. Willamette River flow rates downstream of the project site (which includes Clackamas River) ranges from an average of 8,350 cfs in August to 73,200 cfs in December (PGE 2004; USGS Station 14211720). However, high flows can exceed 150,000 cfs, generally between November and February. Winter and spring flooding can overwhelm the falls, even transforming them into rapids. High water can also inundate the project site, as was demonstrated during the 100-year flood event that occurred in 1996. The river below the falls is tidally influenced, with an average change in water level of approximately 3 to 4 feet twice each day (PGE 2004).

Settlers used the river as a transportation corridor and as the population grew the river was used for industrial processes and waste discharge (PGE 2004). By the beginning of the twentieth century, most of the dense industrial development at the site or along the river had already occurred. During the 1960s and 1970s, the Environmental Protection Agency (EPA) started a clean-up program to reduce point source pollution, improve water quality, and protect beneficial uses of the river. Currently, the Willamette River is 303(d) listed for biological criteria, aldrin, dieldrin, DDT/DDE, iron, and PCBs (ODEQ 2010).

In addition to characterizing water quality some of these studies have also evaluated potential influences of the dam and PGE facilities. These studies indicate that water passing by the project site has increased pH and high concentrations of sodium and dissolved oxygen (DO) (PGE 2004). Dams and flashboards likely reduce sediment transport through the reach, some of which may be contaminated (PGE 2004). Dams and flashboards may also affect water temperature, DO and dissolved gas supersaturation above and below the falls, which could be affecting the presence of algal blooms and fish diseases (PGE and Smurfit 1998). However, low biochemical demand for oxygen in the river has been indicated since the 1950s, which may be due in part to decomposition of organic matter within bottom sediment where there are higher concentrations of mud and silt (PGE and Smurfit 1998, PGE 2004).

Fish and Wildlife Habitat

Pre-settlement, tribal groups fished at the Willamette Falls (Photo 1). In the vicinity of the project area, a large variety of fish species occur including at least six federally listed, threatened, endangered, or sensitive species. Historically, Willamette Falls has been a natural barrier to upstream migration during summer and fall low flows. Higher flows in the winter decreased the height of the falls, allowing some anadromous fish to move upstream. Now with the PGE dams in place, fish passage is provided by a fish ladder operated and maintained by Oregon Department of Fish and Wildlife (ODFW). Anadromous fish present in the Willamette River include: spring and fall run Chinook salmon (*Oncorhynchus tshawytscha*), summer and winter steelhead (*O. mykiss*), coastal cutthroat trout (*O. clarkia*), Coho salmon (*O. kisutch*), white sturgeon (*Acipenser transmontanus*), Pacific lamprey (*Entosphenus tridentatus*), and bull trout (*Salvelinus confluentus*). Fall run Chinook and summer steelhead are two runs of non-endemic salmonids introduced into the upper Willamette River. The majority of smolts migrate down past the falls from February to June, including wild spring Chinook salmon, hatchery and wild steelhead, coho salmon, fall Chinook salmon, and Pacific lamprey. There is a second peak of wild spring Chinook salmon smolts in October and November. Gulls, mergansers, cormorants, and great blue herons congregate in the spring and fall to feed on out-migrating juvenile salmon at the falls (Normandeau Associates 2011). Besides native migratory species, 23 introduced species are found within the lower Willamette River, including sockeye salmon (*O. nerka*), brown trout (*Salmo trutta*), brook trout (*Salvelinus fontinalis*), American shad (*Alosa sapidissima*), and multiple warm water game fish such as bass (*Micropterus* spp.), crappie (*Pomoxis* spp.) and catfish (*Ictalurus* and *Americus* spp.).



Photo 1. Postcard showing historic picture of tribal use of Willamette Falls (postcard dated 1952, date of photo unknown).

Stranding of adult salmonids and adult Pacific lamprey can happen in the large scour pools below the falls, especially when flashboards are installed on the dam and flows stop for a short period (PGE 2004). These fish are attracted to the natural pools in the tailwater of the falls and the no longer active man-made fish ladder pools

created in the 1880s. Changes to the amount of spill over the falls also can strand fish in the pools. Pacific lamprey, spring Chinook salmon, and summer steelhead have the greatest stranding potential due to the timing of their migration with flashboard installation (Chinook migration done by July 31, summer steelhead all summer and early fall, Pacific lamprey summer and early fall) (PGE 2004).

Significant reductions in wildlife use have been occurring in this site for over a century due to habitat losses associated with conversion of forests to agricultural use in the early 1800s, followed by increasing development through the 19th and 20th centuries (Hazra 2000). Riparian forests in the project vicinity have been disturbed to varying degrees by historic and/or current management of adjacent lands. Dominant species in nearby riparian forests include red alder (*Alnus rubra*), black cottonwood (*Populus trichocarpa*), Oregon ash (*Fraxinus latifolia*), and big-leaf maple (*Acer macrophyllum*). Douglas-fir (*Pseudotsuga menziesii*) and Oregon white oak (*Quercus garryana*) are also present on drier sites. Understory species vary with red-osier dogwood (*Cornus stolonifera*), willows (*Salix* spp.), and salmonberry (*Rubus spectabilis*) along the river margin and Armenisan blackberry (*Rubus armeniacus*) thickets occur along roadways and in sunny openings. Ocean spray (*Holodiscus discolor*), snowberry (*Symphoricarpos albus*), and rose (*Rosa* spp.) are common where soils are drier. Hazelnut (*Corylus cornuta*) and Douglas hawthorn (*Crataegus douglasii*) are scattered.

In a landscape context, the habitat areas currently found on-site, though relatively small in size and fragmented with low structural and species diversity, still provide some habitat functions in the region (PGE 2004). Because of the small size and fragmentation, these habitats are subject to edge effects (i.e. influence from recreation, residential and industrial use) as well as island effects. Habitats with a high edge to interior ratio are generally occupied by species with small home ranges, broad habitat requirements, and a relatively high tolerance to human activity. Several studies demonstrate that species breeding in small habitat patches have lower reproductive success than species in larger habitat patches due to higher rates of predation and disturbance from adjacent human activities. Riverside habitat is extremely important to birds, even small patches, due to the relative scarcity in the region. Without small connector patches, connectivity along the river, a critical migratory bird corridor, is lost.

Shoreline and Tailraces

Existing Conditions

Hydrology and Water Quality

The Blue Heron site occupies approximately 4,500 feet (0.85 miles) of shoreline on the right bank of the Willamette River (Photo 2). Five outfalls and three tailraces emerge at the shoreline. Much of the naturally steep shoreline has been modified by years of development and industrial uses and is now lined with fill, pipes, and other structures.



Photo 2. Looking downstream at the rocky shoreline and adjacent structures (08/03/2012).

Three tailraces exist onsite – Tailrace H, Tailrace #1 and Tailrace #2 (Figure 2). Historically, an alcove existed where Tailrace #1 exited into the Willamette River and all three were likely old flow channels of the Willamette River that were activated during high flows. During the early industrial activity at the site, these tailraces were used to channel water for industrial use. Over time, all three tailraces were filled in with mixed rock and in some cases walled in with brick and concrete. Using part or all of the previously existing tailrace locations, water was originally routed through the site from Intake 2, 3, 4 using wooden flumes. Flumes were replaced with pipes and water that entered Intake 2, 3, 4, was routed through the site and exited at the shoreline.

Fish & Wildlife

Development close to the shoreline on this site in combination with development of the left bank of the Willamette River across from the project site, provides limited opportunities for fish resting in this reach of the river and no connectivity of habitat along the shoreline (Photos 2 & 3). Resting places are important for migrating fish as fatigue is one of the major stressors affecting pre-spawning mortality. Having resting places below major passage challenges, such as the Willamette Falls, could help reduce fatigue. Some fish use of the shoreline for resting during migration may be expected during the out-migration of smolts in the spring and fall. With the exception of the backwater lagoon, there are few side channels or alcoves in this reach of the river that could serve as refugia for juvenile salmon during high flows in the mainstem. Downstream passage is provided at the T.W. Sullivan development and used to be provided at the Blue Heron Paper Company (BHPC) powerhouse over 16 weeks of the peak outmigration period when BHPC shut down its turbines. BHPC sometimes shut the turbine down in the fall as well.



Photo 3. View of left bank of Willamette River across from project area (08/03/2012).

Currently, the proximity of tall buildings and the vertical slopes of portions of the shoreline limit wildlife use. Despite development and lack of significant vegetation in and around the project area, several wildlife species are expected to use the shoreline either seasonally or year-round including: shorebirds, wading birds, gulls, ducks, geese, and diving birds. Wading birds and other water birds would likely use the rocky shoreline during migration to wintering grounds. An example of a shorebird species that would use the rocky shoreline and that would benefit from restoration of the shore (i.e. removal of existing buildings to expose underlying bedrock) is the spotted sandpiper. The spotted sandpiper, often seen singly, forages for invertebrates in shallow water as well as among rocks and cobbles along the shoreline. The spotted sandpiper breeds in Oregon and is commonly seen along the Willamette River as well as other freshwater shorelines of Oregon. Undisturbed shoreline habitat suitable for shorebirds is becoming increasingly rare. Further, the Willamette Valley south of the project site is considered important wintering habitat for waterfowl and shorebirds (USGS 2006).

Other wildlife that may use the site includes songbirds and small to medium size mammals. A few common songbird species and non-native bird species such as European starling and house sparrow are expected to forage and roost on-site. Breeding opportunities are limited on-site for native songbirds, but non-native starlings and house sparrows will nest in crevices and nooks of structures. Species such as river otter, muskrat, long-tailed weasel, raccoon and other mammals are expected to use the site for foraging or loafing as they move through the Willamette Basin and into tributary drainages.

Upstream of the falls, the shoreline in the project area consists of a strip of shrubs, saplings and occasional mature trees, such as big-leaf maple and red alder, on the riverbank down slope of an access road and the railroad tracks (Figure 1, Photo 4). The limited riparian vegetation on site is part of the Willamette greenway and provides a linkage to riparian forests upstream of the project area. At this location, riparian vegetation is expected to provide some perching habitat for piscivorous birds including the belted kingfisher, osprey and bald eagle, as well as

limited foraging and perching habitat for songbirds and woodpeckers. Osprey and bald eagle breed in the project vicinity but no suitable nesting habitat is located on the Blue Heron project site due to the lack of large trees. At least two osprey nests are documented within one mile of the project area (PGE 2004). Osprey will nest on channel markers or open platforms over the water whereas bald eagles typically construct nests at the tops of tall trees with a commanding view of the surrounding landscape.



Photo 4. Looking southeast at the shoreline upstream of the dam (08/03/2012).

The shoreline downstream of the falls is a narrow band of riprap, rock, concrete, and natural basalt cliffs in between the water's edge and industrial buildings (Photo 1). The basalt cliffs have potential for cliff swallow nesting habitat and are possibly used by peregrine falcons. During low water, pockets of sand and mud are exposed at the base of the steep banks. Riparian vegetation is absent in some areas and patchy in others with a few clusters of shrubs, saplings, and occasional trees at the top of the banks. Weedy herbs and forbs also occur in patches along the shoreline. Invasive plants, such as Armenian blackberry, morning glory, and English ivy were observed in small pockets along the shoreline.

The basalt outcrops and rocky substrate along the shoreline contribute to the mosaic of rocky habitats located to the north and south of the project site in and along the Willamette River (Photo 5). Historically, they would have served as look-out sites for large mammalian predators or as perching habitat for birds of prey. Denning sites for furbearers are limited along the cliffs and rocky shore, although some avian species may be able to nest in some of the cliff faces including swallows and possibly the belted kingfisher. Native herbs and forbs adapted to rocky, dry conditions would have grown in the crevices and pockets in the cliff faces. Native plant diversity is relatively high on some of the undeveloped rock islands in the area upstream of the site, which support drought-tolerant species such as Oregon white oak, Pacific madrone as well as native wildflowers and other herbaceous plants including *Delphinium*, sedums, and *Brodiaea* (Houck and Cody 2000).



Photo 5. Rocky outcroppings between Building 31 and the clarifier (08/03/2012).

Tailraces would have historically been habitat for shorebirds and fish. However, due to the heavy industrial impacts and small dams that direct water on the tailraces, they no longer support wildlife.

Opportunities

Opportunities identified below are potential actions that can be initiated or completed in the near-term.

Hydrology and Water Quality

Provide Stormwater Treatment Along Shoreline – There are multiple opportunities on the project site for treating stormwater to improve water quality discharging from the site that may also be beneficial to wildlife by restoring and enhancing the shoreline. Stormwater generated on-site can be routed to passive stormwater treatment facilities located along the shoreline (ESA 2012). These facilities can be constructed at grade or in vertical structures, which can mimic historic basalt bricks and mortar. Some of these facilities, such as vegetated swales and rain gardens can also provide habitat for macroinvertebrates, amphibians, and pollinators. The treatment facilities can discharge to the Willamette River via the existing trailraces or seep out to the natural riparian and rock areas following treatment.

Much of the natural bank habitat along some areas of the Willamette have been replaced by artificial habitats including riprap, which previous studies have shown to decrease aquatic species richness and diversity in the middle Willamette River (Friesen 2005). In addition, some studies concluded larval and juvenile salmonid densities were lower at some sites in the Willamette River as a result of unfavorable conditions created by riprapped banks. Riprap and concrete should be removed where feasible, especially in locations where soils exist over bedrock and infiltration could be encouraged. Revegetating with native trees, such as red alder, big-leaf maple, black cottonwood, and native shrubs such as red-osier dogwood, salmonberry, or Douglas hawthorn can

reduce impervious surface area on the site, provide a place for localized stormwater infiltration, and provide shade along the bank. Additionally, the presence of a vegetated buffer along the upper shoreline will provide a barrier (sound and visual) to the site from passing trains.

Any stormwater treatment provided that could remove currently untreated stormwater discharges to the Willamette River would be beneficial to all native fish species. In particular, stormwater runoff from roadways is known to result in increased dissolved copper and zinc loading within receiving waters as well as increased loading of petroleum hydrocarbons, which at varying concentrations can have both immediate and long-term adverse effects such as pre-spawn mortality, reduced respiration, and behavioral effects.

Fish & Wildlife

Expose and Restore Historic Shoreline – Restoration and enhancement of existing shoreline habitat could best be achieved by making available as much of the historic shoreline as possible and restoring the riparian community along the shoreline (Figure 3). By removing buildings and platforms along the shoreline, valuable shoreline habitat would be exposed below the falls for fish, invertebrates, small mammals and birds. Buildings that could be removed to help achieve that goal include the clarifier, Building 31, the Boiler Plant (29) and Recovery Boiler (28), Pump #1, the Pipe Tunnel (53) and associated structures, Pipe Shop and Building 14.

Removal of the clarifier would restore unique basalt rock outcroppings along the falls (Photos 5 & 6). With removal of industrial structures, there may be opportunities to promote shorebird habitat and local native wildflower species diversity on the outcroppings. Birds would be provided with undisturbed habitat. Invasive plant species found on the site, such as Armenian blackberry and English ivy should be removed and replaced with native plants with a higher habitat value.



Photo 6. Rocky shoreline habitat between the clarifier and dam taken from upstream of the clarifier looking downstream (08/03/2012).

Shoreline habitat between the PGE dam and the clarifier could be enhanced through the removal of industrial remains, and utilization of the remaining historic dam and pipeworks to create resting zones for fish (Photo 6). Water trickles over the spillway in the summer, providing fresh water to the pools below. Shallow water present at this location may promote macroinvertebrates and the shorebirds that feed on them, such as sandpipers. Stranding is a possibility in shallow pools below the falls; therefore, steps should also be taken to discourage stranding.

Under Building 31 is a unique rocky outcropping and the end of Tailrace H (Photo 7). Daylighting the end of the tailrace provides additional habitat for fish as well as opportunities for infiltration with the addition of a swale. Depending on the amount of water traveling through the tailrace and daylighting plans, the type of swale or channel created at the end of the tailrace, and protection needed from destabilizing the shoreline will vary. If some of the fill at the end of the tailrace is excavated, exposing a short length of channel, it would provide an alcove from the main channel and diversify the shoreline.



Photo 7. Tailrace H, where it exits the site at the shoreline (08/03/2012).

Removal of the pipe tunnel and associated buildings, as well as the boilers, would enhance shoreline habitat connectivity between tailraces and downstream of the project site (Photo 8). Further, Tailrace #1 emerges at the shoreline under these buildings and could be daylighted without extensive fill removal near shore. However, due to the expense and challenges with removing the retaining wall behind the pipe tunnel and fill behind the wall, exposing a narrower band of shoreline may be the only feasible short-term opportunity for restoring the historic shoreline.



Photo 8. Shoreline showing pipe tunnel and associated buildings, looking downstream (08/03/2012).

Removal of Building 14 would allow for the daylighting of Tailrace #2 back from the shoreline and the establishment of a riparian community and swale at the end of the tailrace. Tailrace #2 is already the location of a small alcove, which can be enhanced to provide resting places for fish, as well as habitat for small mammals, amphibians, and invertebrates (Photo 9).



Photo 9. Small alcove at the end of Tailrace #2 (08/03/2012).

Where buildings and riprap are removed, large wood habitat structures can be placed and the banks can be revegetated to promote more diverse habitat along the shoreline and refugia for migrating fish such as salmonids and lamprey. Any riparian vegetation improvements, especially planting of native conifers will benefit salmonids and other species by providing shade by helping to maintain an appropriate localized thermal regime, increasing cover, organic input, and to some extent increasing the food or prey base of aquatic species by providing a source of terrestrial prey (insects). Large wood plays an important role in development of complex stream habitats through creation of pools, retention of spawning gravels, velocity breaks, and increased cover.

Revegetate Shoreline Upstream of Falls – Upstream of the falls, the narrow band of shoreline vegetation can be widened where possible, with non-natives removed and a native shrub layer encouraged (Figure 3, Photo 10). Industrial trash should be removed and pavement disassembled. Opportunities for improving future raptor habitat are available on-site and include installing native trees along the upper shoreline or erecting a nesting platform for use by osprey. Increasing the shrub and tree layer along the shoreline would also improve foraging and stop-over habitat for songbirds such as Wilson’s warbler, yellow warbler, evening grosbeak, and western tanagers.



Photo 10. Shoreline upstream of the lagoon, looking upstream (08/03/2012).

Additional Opportunities

Opportunities identified below are potential actions that can be begun or completed once redevelopment planning occurs. Both opportunities require more knowledge of how the site will be used in the future.

Daylight Tailrace #1 – To promote fish passage through the site around the PGE dam, Tailrace #1 could be daylighted through the site, past the grotto and up to the lagoon. Historically, the shoreline reached up past the grotto (Figure 3). Daylighting can consist of creating a step-cascade feature from the dam past the grotto. Depending on which buildings remain, water can be routed to the top of the historic Tailrace #1 through a channel or flume routed around the buildings.

One of the challenges to daylighting Tailrace #1 is that the tailrace between the grotto and the Pipe Tunnel has been filled in with mixed rock. Contamination levels of the fill are unknown, though plans are being discussed to test the tailrace sediment. The upper part of the tailrace from Intake 2, 3, 4 to the grotto was not significantly filled, though buildings are above at least part of the tailrace.

An alternative to daylighting the entire tailrace would be to daylight up to the grotto. Upstream of the grotto, provide underground pipe flow or flow through a flume. Though this would not provide fish passage, it would open up habitat opportunities to fish, connect the grotto to the river, and provide a water feature through the site.



Photo 11. Recreational opportunities due to interest in the falls, looking upstream towards the falls (08/03/2012).

Lagoon

Existing Conditions

Hydrology and Water Quality

An approximately 14.7 acre settling lagoon is located on the upstream end of the project site (Figure 1). Historically, the lagoon was constructed for and used to collect logs for floating downriver. More recently, Blue Heron used the lagoon for mill operations by opening Intake 2, 3, 4. Additionally, water flows over the dam spillway. Depths are estimated to be approximately 5-6 feet and there is not significant circulation of flows. Shallow depths leading to warm temperatures and use by waterfowl may be responsible for algae blooms in the lagoon (Photo 12).



Photo 12. Algae in lagoon viewed from downstream end of PGE dam (08/03/2012).

Fish & Wildlife

The lagoon provides slow-moving, open-water habitat for ducks, geese and other waterbirds (Photos 13 & 14). Clusters of wood and debris as well as tufts of vegetation are scattered along the periphery of the lagoon. Vegetation covers an estimated 5 to 10 percent of the lagoon and is a mix of floating aquatic plants, algae, and weedy herbs and forbs along the fringes as well as a few shrubs and saplings growing out of a berm in the lagoon. A dense mat of vegetation has formed at the north end of the lagoon and consists of marsh pennyroyal (*Hydrocotyle ranuncuuloides*), an introduced aquatic perennial; water-parsley (*Oenanthe sarmentosa*), a semi-aquatic plant; bitter nightshade (*Solanum dulcamara*), an invasive plant; and yellow touch-me-not (*Impatiens Capensis*).



Photo 13. Lagoon, looking downstream, with partially submerged logs (08/03/2012).



Photo 14. Lagoon, looking upstream at partially submerged wood, spit of land extending in to lagoon, and trees along shoreline at upstream end (08/03/2012).

Dabbling ducks, geese, great blue heron, green heron, and a few diving-ducks are expected to forage and loaf in the lagoon. These species include the common mallard, Canada goose, wigeon, common merganser, and double-crested cormorant are expected to forage in the lagoon. Migrating waterfowl would likely use the lagoon in small numbers. The slow-moving, open water provides foraging habitat for aerial insectivores such as swallows and bats. The size and configuration of the lagoon as well as the low species richness of aquatic plants and shoreline diversity limit the habitat value of the area for waterbirds and semi-aquatic mammals such as river otter and muskrat. The lagoon is not expected to provide suitable breeding habitat for native amphibians due to the vertical, manmade shoreline of the lagoon and current lack of oviposition sites (i.e. sedges, rushes). Native pond turtles are not expected to occur in the lagoon in significant numbers due to the relative isolation of the lagoon and developed surroundings; however some basking sites are currently present. The American bullfrog, an introduced species, may be present in the lagoon and would further lower the quality of habitat for native amphibians through displacement and predation.

The lagoon is expected to provide refugia for juvenile salmon and steelhead during high flows, but is not expected to provide suitable rearing habitat during the warm summer months. Introduced, warm-water fish species are likely present in the lagoon throughout the year, such as bass and crappie. These species are present in the pool above the dam, as are catfish and walleye (*Sander vitreus*) (PGE 2004). Native resident fish that are documented in the mainstem channel and that are likely present in the lagoon include species with broad habitat requirements: northern pikeminnow (*Ptychocheilus oregonensis*), redbelt shiner (*Richardsonius balteatus*), peamouth (*Mylocheilus caurinus*), and chiselmouth (*Acrocheilus alutaceus*) (PGE 2004).

Opportunities

Opportunities identified below are potential actions that can be begun or completed in the near-term.

Hydrology and Water Quality

Stormwater generated along Highway 99 is currently routed over the railroad tracks and into the lagoon. The stormwater basin is relatively small in size and could be routed into a swale placed in the wide landing west of Buildings 36, 37, and other associated structures (Figure 3).

Lagoon Overflow - Algae blooms and stagnant water in the lagoon can be addressed by providing more circulation of water through the lagoon (Figure 3). Blue Heron mill used 50 cfs for process water from the lagoon. This flow rate is more water than necessary for returning the lagoon to a flow-through backwater instead of a pond-like water body; therefore calculation of turnover rate and residence time of water could provide an estimate of the amount of flow needed to enhance circulation through the lagoon. The flashboard weir on the dam can be incrementally lowered to spill water and increase movement of water through the lagoon (Photo 15). A study of the water turnover rates in the lagoon would be necessary to determine how much water would need to be spilled to promote adequate circulation of water. Spilled water from the dam would also provide flow over the rocky outcroppings below (Photo 4).



Photo 15. Flashboard weir on the PGE dam (08/03/2012).

Though spilling over the flashboard weir will promote movement of water, the primary build-up of algae is between the dam on the downstream end of the lagoon and Buildings 36, 37 and other associated structures. If buildings are not to be removed, circulation can be promoted in this part of the lagoon by releasing water into Intake 2, 3, 4 at the dam. This water would be routed down one of the tailraces, such as Tailrace #1 and can flow through the grotto or otherwise down the tailrace. Though the majority of migratory fish do not use the lagoon, the entrance to Intake 2, 3, 4 should be properly screened to prevent fish passage.

Fish & Wildlife

Enhance Wildlife Habitat in Lagoon – To enhance the lagoon to promote fish and wildlife, effort can be made to remove invasive plants and promote riparian and aquatic plant communities. To improve water quality conditions and promote macroinvertebrate and bird habitat, native riparian trees and shrubs such as those described above, can be planted along the shoreline. Woody plants along the edge of the lagoon will provide shade, organic input, and structural diversity for resident or migratory passerines and raptors. Significant plantings along the shoreline may in time somewhat decrease habitat suitability for waterfowl which prefer wide expanses of open-water; however, large numbers of waterfowl are not anticipated to be using the lagoon due to its small size. Adding large wood along the shoreline or at key places, such as along the spit of land running through the center of the lagoon, can diversify habitat and provide roosting sites for birds and additional basking sites for turtles. Native aquatic plants could be promoted along the margins of the lagoon, including cattail, grasses and sedges. Enhancement of the aquatic plant community would increase shoreline structure and foraging opportunities for waterfowl. Aquatic plants such as bulrushes, sedges, and some native *Polygonum* species have high food value for waterbirds.

Grotto

Existing Conditions

Hydrology and Water Quality

Adjacent to Tailrace #1, there remains a grotto with shallow standing water at the base, approximately 20 feet x 20 feet in shape (Photo 16). The grotto remains in place likely acting as stormwater catchment, with drainage piped to the shoreline. Information is lacking on the water quality and accumulated sediments of the grotto. Given its location along natural drainage flow lines, the grotto could be retrofitted to provide water quality treatment. This option is explored further in ESA's Interim Stormwater Management Plan.



Photo 16. Looking down at grotto from street level (05/14/2012).

Fish & Wildlife

The grotto is a biological island within the project site, approximately 200 feet from the shoreline or lagoon. This site is not used by fish, but may have limited use by macroinvertebrates or birds. Due to the steep descent into the grotto, mammalian use is expected to be negligible or non-existent. Native ferns and Armenian blackberry are growing on the stone walls at the grotto opening.

Opportunities

Opportunities identified below are potential actions that can be begun or completed in the near-term.

Hydrology and Water Quality

Enhance Grotto to Provide Stormwater Treatment – The grotto can be enhanced to provide microhabitat for invertebrates and native cliff-dwelling plants as well as a historically significant viewpoint. Because of its proximity to Tailrace #1 and low elevation it may also be incorporated into the stormwater management plan for the site. Adjacent to the grotto is the skeleton of a building sometimes referred to as the Roman Ruins (Photos 16 & 17). The grotto can be converted into a rain garden to provide localized treatment of stormwater. The grotto provides easy access to a stormwater treatment site for visitors and can be a good location to provide educational signage and information about urban stormwater treatment.



Photo 17. Historic building foundations adjacent to the grotto (08/03/2012).

Developed Area

Existing Conditions

Hydrology and Water Quality & Fish and Wildlife Habitat

Very little native vegetation is present in the developed area, thus it provides low quality habitat due to the lack of significant amounts of food or cover. Where pockets of soil have developed or cracks have appeared in the pavement, vegetation is primarily weedy forbs and grasses. Buildings, bridges and other structures can contribute elements of structural diversity. They provide cover, resting and/or nesting opportunities primarily for non-native birds such as European starlings, house sparrow and rock dove (pigeon), but also provide habitat for native species including swifts, swallows, crows, gulls and bats. For piscivorous or insectivorous species that forage in or over water, proximity of structures to water increases its value as habitat because the distance from cover to foraging opportunities is relatively short.

Opportunities

Opportunities identified below are potential actions that can be begun or completed once redevelopment planning occurs. Both opportunities require more knowledge of how the site will be used in the future.

Hydrology, Water Quality, Fish and Wildlife Habitat

Establish Upslope Vegetation Buffer By Oregon City – In some cases buildings are immediately adjacent to the railroad tracks, however with removal or redevelopment there may be limited opportunities to create a vegetation buffer between the site and the tracks (Figures 1,2, and 3). At this location from the river, an Oregon white oak community would provide a visual and sound barrier from highway and railroad traffic, as well as resources for birds. Further, it would provide some vegetated connection between the riparian corridor and urban habitat.

Onsite Re-greening – Once redevelopment planning is underway, we encourage the planting of native trees and shrubs throughout the site to promote connectivity of habitat for birds and insects. Vegetated buffers along roadways, parking lots, buildings, and the edges of the project area reduce impervious surface and promote infiltration of stormwater. Further, vegetation can provide sound and visual barriers from highway and railroad traffic while also enhancing habitat connectivity along the river.

Summary

Existing habitat conditions on the project site are limited by development of the site and surrounding area. Salmonids and lamprey are known to pass through this part of the Willamette River, but don't currently have adequate resting habitat before attempting to pass through the falls. Shorebirds have also been observed using the falls and adjacent lands, but access to rocky outcroppings has been limited compared to the historical extent.

Redevelopment of the site under Metro's project objectives presents opportunities to integrate the cultural and historical features of the industrial site with natural and historic functions. Removal of select shoreline buildings will expose historic buildings to the waterfront and views of the Willamette Falls. Meanwhile, restoration and enhancement of the shoreline, tailraces, and lagoon would provide essential shoreline habitat otherwise missing from this stretch of the Willamette River. Providing wildlife habitat can also provide improvements for water resources, including stormwater treatment and water quality issues associated with the lagoon.

Conclusions for WFLP

Fish and wildlife habitat opportunities will not be greatly influenced by the two scenarios being described by the Willamette Falls Legacy Project Team (Appendix A). Key historic buildings are not located within the historic shoreline, therefore keeping historic buildings in place would not influence opportunities to enhance and restore the shoreline. If clusters of buildings are selected to remain, but the clusters are focused around the key historic buildings, the same situation is true. Neither scenario would impact enhancement of the lagoon or grotto.

Depending on scenario selected and redevelopment plans, there may be some impacts on the re-greening efforts of the site and stormwater drainage, thus stormwater treatment plans. Any future effort to daylight Tailrace #1 would be impacted by Scenario 2, where by keeping a cluster of buildings around key historic structures, a length of Tailrace #1 near the grotto would remain under Building 32.

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Figures

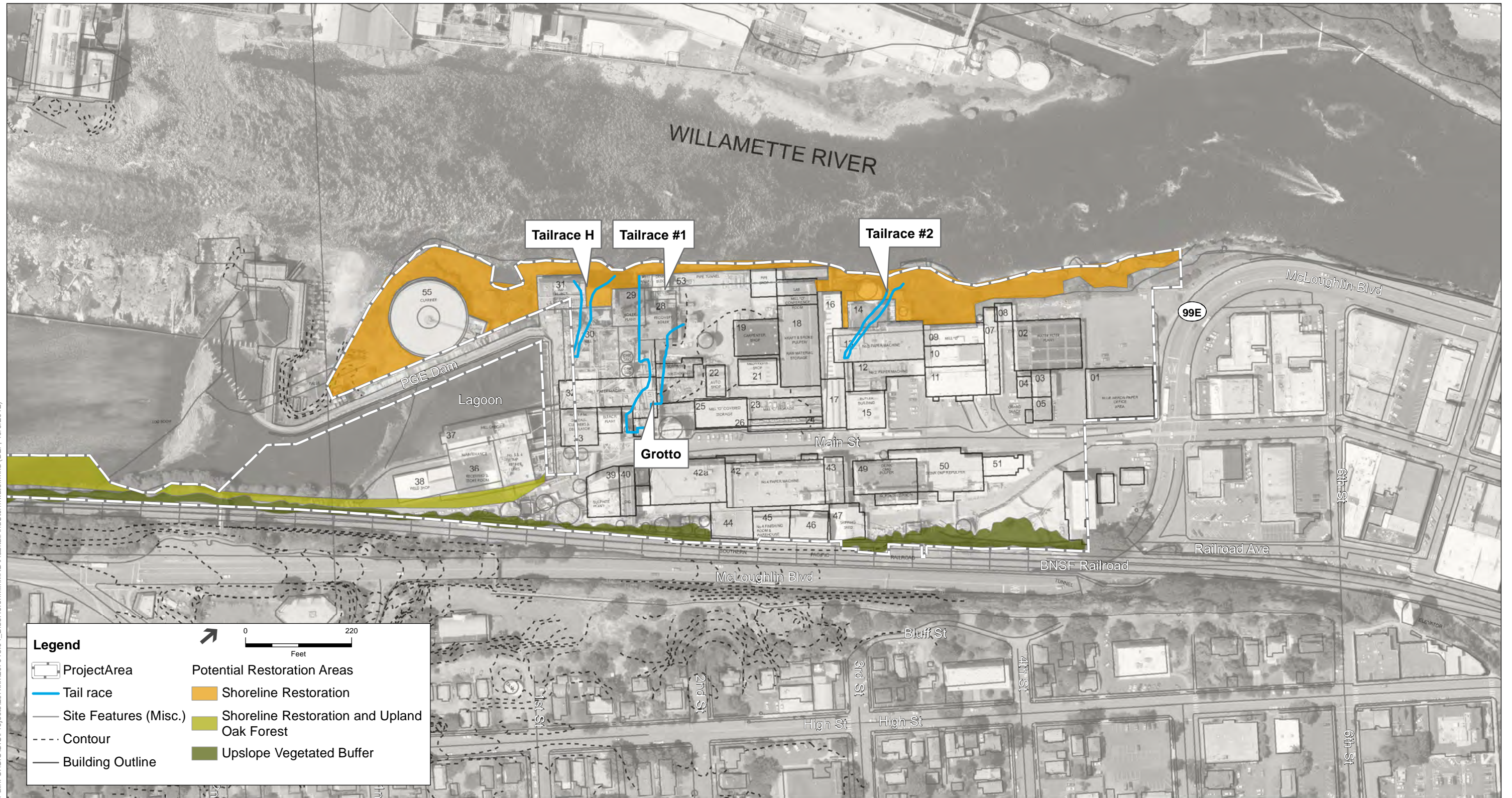


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SOURCE: ESA, 2012; Sanborn Maps 1888-1900, Oregon City CAD, Aerial (USGS, 2010)

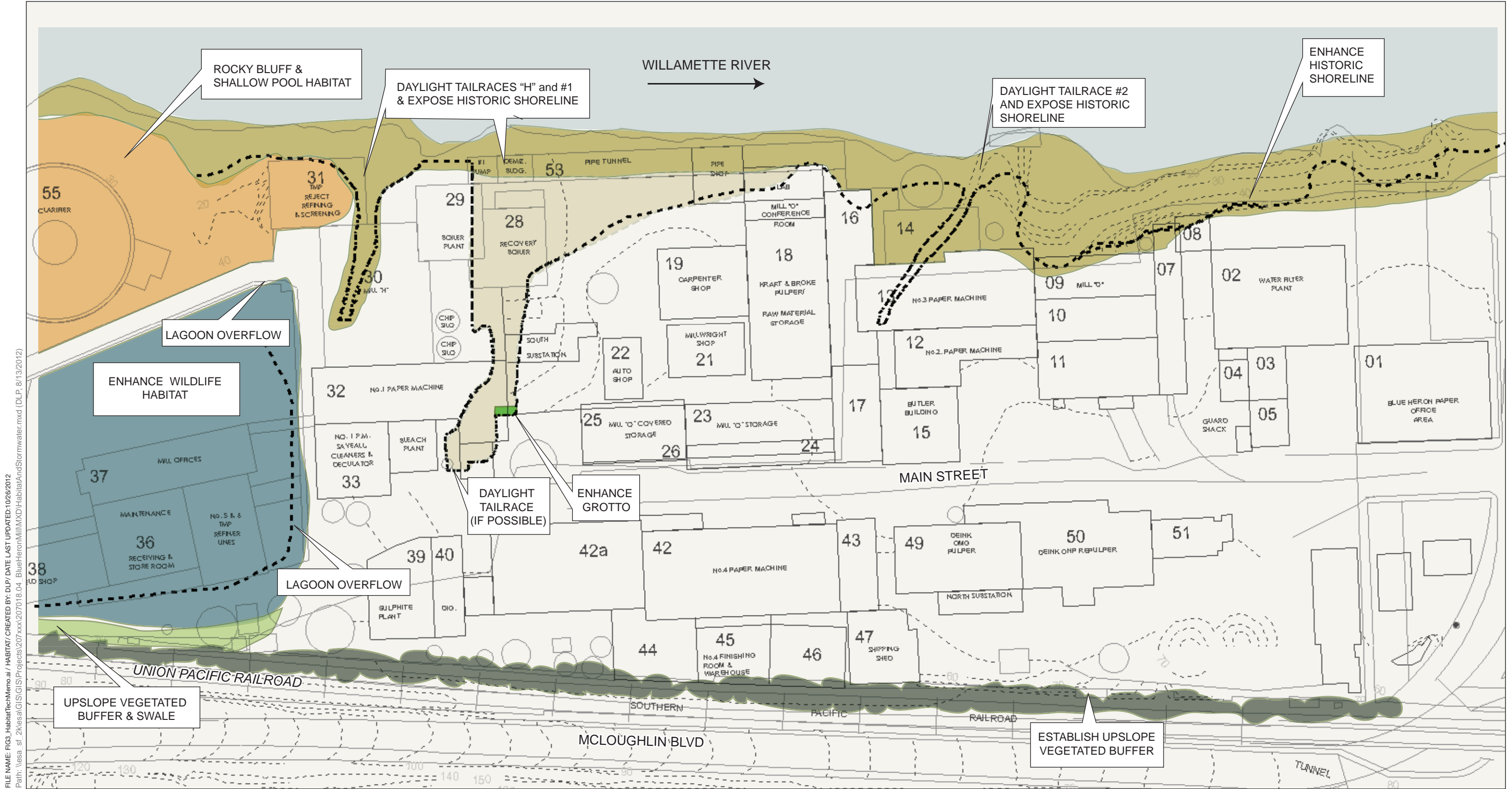
Blue Heron Mill . 207018.04
Figure 1
 Habitat Restoration Opportunities
 Southern Project Area
 Oregon City, Oregon

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SOURCE: ESA, 2012; Sanborn Maps 1888-1900, Oregon City CAD, Aerial (USGS, 2010)

Blue Heron Mill . 207018.04
Figure 2
Habitat Restoration Opportunities
Northern Project Area
Oregon City, Oregon



FILE NAME: FIG3_HabitatTechMemo.ai / HABITAT/ CREATED BY: DLP / DATE LAST UPDATED: 10/26/2012
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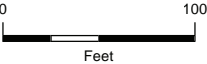
Legend

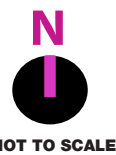
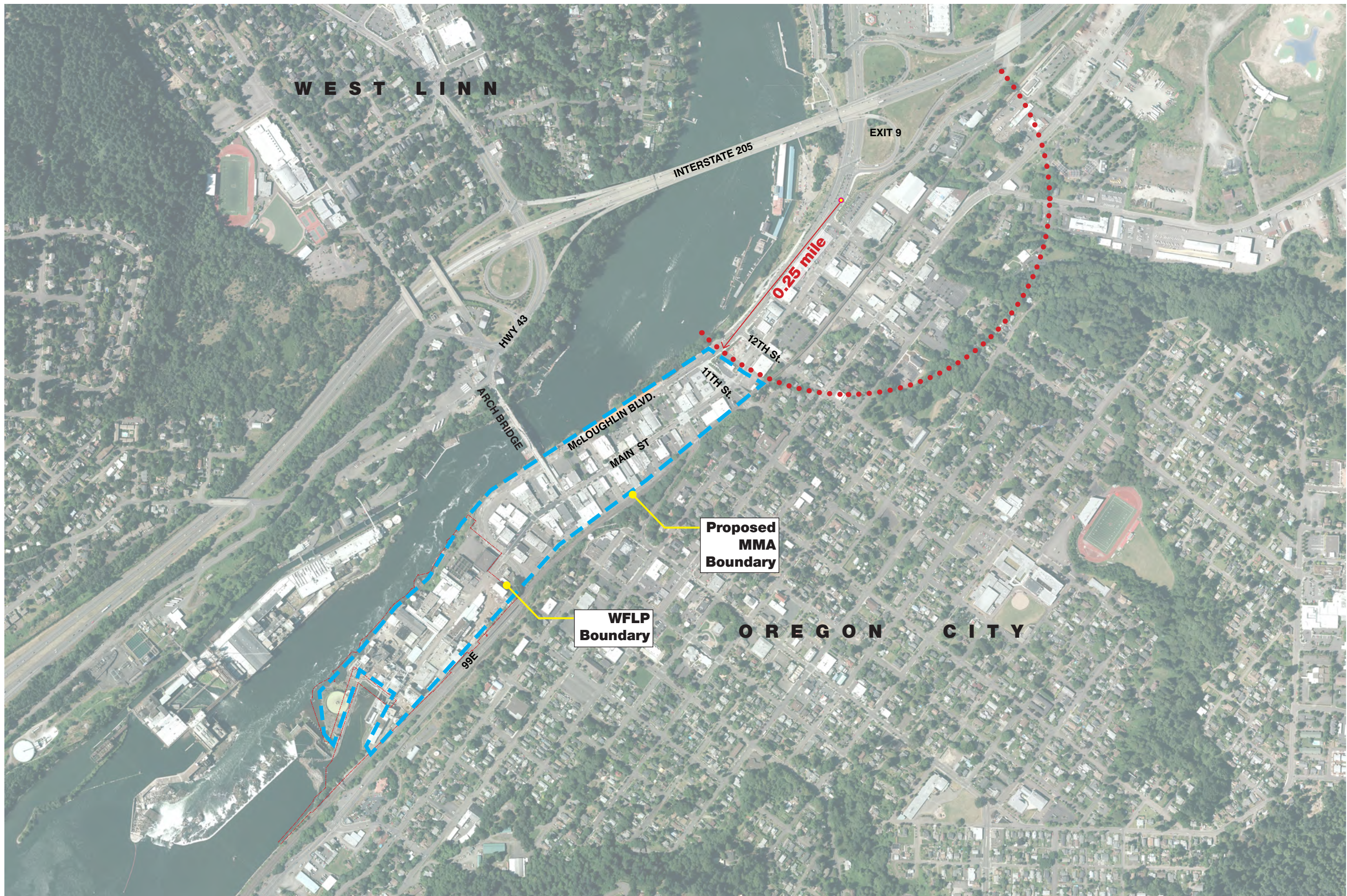
- Tail race
- - - 1900 Shoreline
- Buildings

Habitat Restoration Opportunities

- Shoreline
- Rocky Bluff & Shallow Pool Habitat
- Upslope Vegetated Buffer
- Upslope Vegetated Buffer & Swale
- Backwater Lagoon

Blue Heron Mill . 207018.04
Figure 3
 Habitat Restoration Opportunities
 Oregon City, Oregon





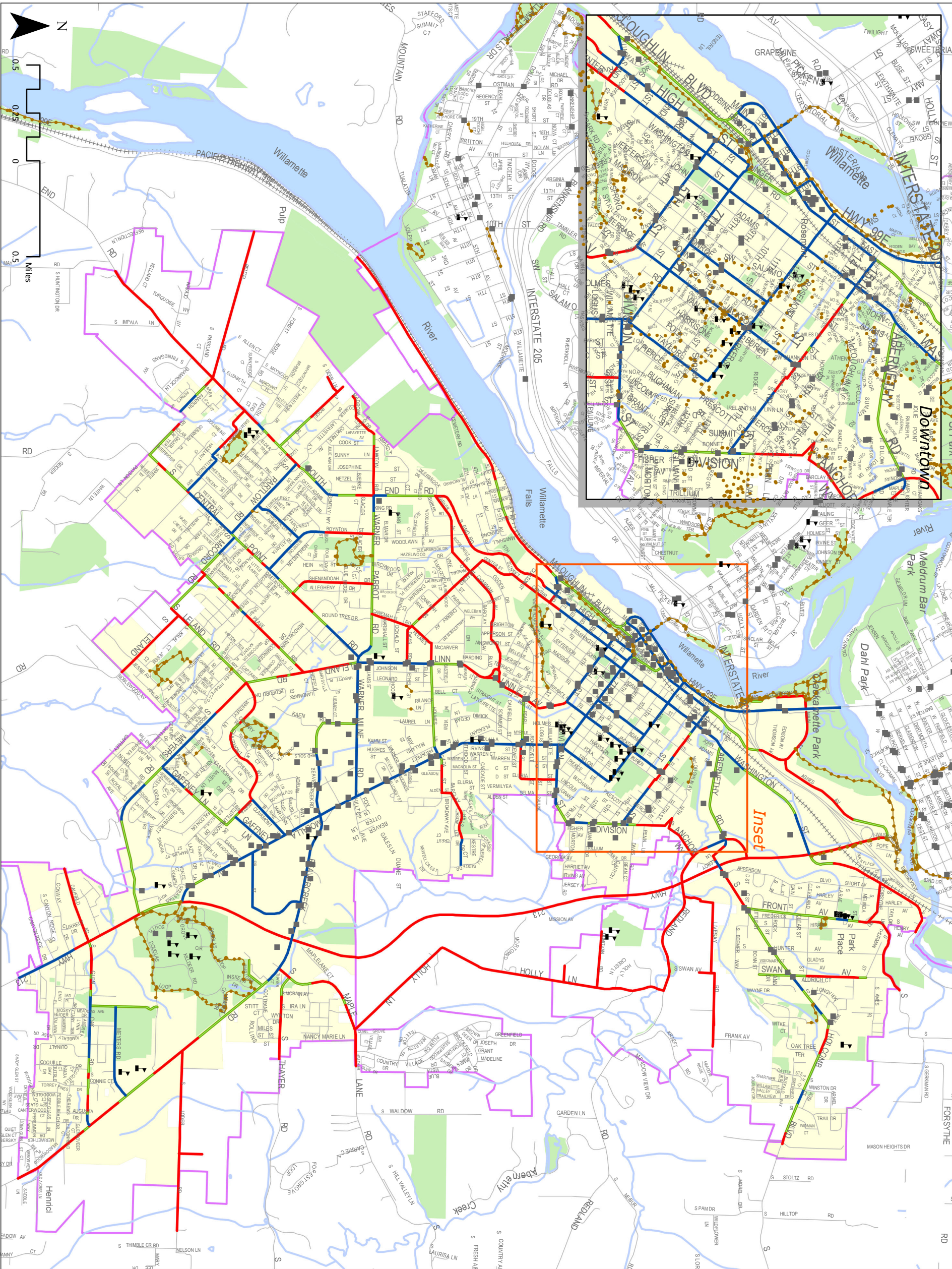


FIGURE 2

Existing Pedestrian Facilities

Legend

Sidewalk Facilities

- Sidewalk Both Sides
- Sidewalk One Side
- No Sidewalk

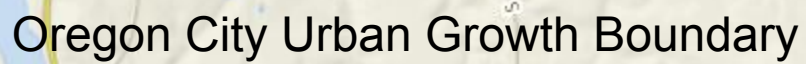
- School
- Activity Generator

- Existing Trails

- Parks and Open Spaces

- Railroad
- City Limit
- Urban Growth Boundary
- City Limit

Pedestrian facilities were not inventoried on all local streets.



Chapter 17.34 "MUD"—MIXED-USE DOWNTOWN DISTRICT

Chapter 17.34 "MUD"—MIXED-USE DOWNTOWN DISTRICT [15](#)

Sections:

[17.34.010 Designated.](#)

[17.34.020 Permitted uses.](#)

[17.34.030 Conditional uses.](#)

[17.34.040 Prohibited uses.](#)

[17.34.050 Pre-existing industrial uses.](#)

[17.34.060 Mixed-use downtown dimensional standards—For properties located outside of the downtown design district.](#)

[17.34.070 Mixed-use downtown dimensional standards—For properties located within the downtown design district.](#)

[17.34.080 Explanation of certain standards.](#)

17.34.010 Designated.

The mixed-use downtown (MUD) district is designed to apply within the traditional downtown core along Main Street and includes the "north-end" area, generally between 5th Street and Abernethy Street, and some of the area bordering McLoughlin Boulevard. Land uses are characterized by high-volume establishments constructed at the human scale such as retail, service, office, multi-family residential, lodging or similar as defined by the community development director. A mix of high-density residential, office and retail uses are encouraged in this district, with retail and service uses on the ground floor and office and residential uses on the upper floors. The emphasis is on those uses that encourage pedestrian and transit use. This district includes a Downtown Design District overlay for the historic downtown area. Retail and service uses on the ground floor and office and residential uses on the upper floors are encouraged in this district. The design standards for this sub-district require a continuous storefront façade featuring streetscape amenities to enhance the active and attractive pedestrian environment.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009)

17.34.020 Permitted uses.

Permitted uses in the MUD district are defined as:

- A. Any use permitted in the mixed-use corridor without a size limitation, unless otherwise restricted in Sections 17.34.020, 17.34.030 or 17.34.040
- B. Hotel and motel, commercial lodging;
- C. Marinas;
- D. Religious institutions;
- E. Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies, specialty stores provided the maximum footprint of a freestanding building with a single store does not exceed sixty thousand square feet (a freestanding building over sixty thousand square feet is allowed as long as the building contains multiple stores);

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Chapter 17.34 "MUD"—MIXED-USE DOWNTOWN DISTRICT

F. Live/work units.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009)

17.34.030 Conditional uses.

The following uses are permitted in this district when authorized and in accordance with the process and standards contained in Chapter 17.56.

- A. Ancillary drive-in or drive-through facilities;
- B. Emergency services;
- C. Hospitals;
- D. Outdoor markets that do not meet the criteria of Section 17.34.020
- E. Parks, playgrounds, play fields and community or neighborhood centers;
- F. Parking structures and lots not in conjunction with a primary use;
- G. Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies and specialty stores in a freestanding building with a single store exceeding a foot print of sixty thousand square feet;
- H. Public facilities such as sewage and water treatment plants, water towers and recycling and resource recovery centers;
- I. Public utilities and services such as pump stations and sub-stations;
- J. Distributing, wholesaling and warehousing;
- K. Gas stations;
- L. Public and or private educational or training facilities;
- M. Stadiums and arenas;
- N. Passenger terminals (water, auto, bus, train);
- O. Recycling center and/or solid waste facility.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009)

17.34.040 Prohibited uses.

The following uses are prohibited in the MUD district:

- A. Kennels;
- B. Outdoor storage and sales, not including outdoor markets allowed in Section 17.34.030
- C. Self-service storage;
- D. Single-Family and two-family residential units;
- E. Motor vehicle and recreational vehicle repair/service;
- F. Motor vehicle and recreational vehicle sales and incidental service;
- G. Heavy equipment service, repair, sales, storage or rental² (including but not limited to construction equipment and machinery and farming equipment)

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009)

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17.34.050 Pre-existing industrial uses.

Tax lot 5400 located at Clackamas County Tax Assessors Map #22E20DD, Tax Lots 100 and two hundred located on Clackamas County Tax Assessors Map #22E30DD and Tax Lot 700 located on Clackamas County Tax Assessors Map #22E29CB have special provisions for industrial uses. These properties may maintain and expand their industrial uses on existing tax lots. A change in use is allowed as long as there is no greater impact on the area than the existing use.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009)

17.34.060 Mixed-use downtown dimensional standards—For properties located outside of the downtown design district.

- A. Minimum lot area: None.
- B. Minimum floor area ratio: 0.30.
- C. Minimum building height: Twenty-five feet or two stories except for accessory structures or buildings under one thousand square feet.
- D. Maximum building height: Seventy-five feet, except for the following locations where the maximum building height shall be forty-five feet:
 - 1. Properties between Main Street and McLoughlin Boulevard and 11th and 16th streets;
 - 2. Property within five hundred feet of the End of the Oregon Trail Center property; and
 - 3. Property within one hundred feet of single-family detached or detached units.
- E. Minimum required setbacks, if not abutting a residential zone: None.
- F. Minimum required interior side yard and rear yard setback if abutting a residential zone: Fifteen feet, plus one additional foot in yard setback for every two feet in height over thirty-five feet.
- G. Maximum Allowed Setbacks.
 - 1. Front yard: Twenty feet provided the site plan and design review requirements of Section 17.62.055 are met.
 - 2. Interior side yard: No maximum.
 - 3. Corner side yard abutting street: Twenty feet provided the site plan and design review requirements of Section 17.62.055 are met.
 - 4. Rear yard: No maximum.
 - 5. Rear yard abutting street: Twenty feet provided the site plan and design review requirements of Section 17.62.055 are met.
- H. Maximum site coverage including the building and parking lot: Ninety percent.
- I. Minimum landscape requirement (including parking lot): Ten percent.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009)

17.34.070 Mixed-use downtown dimensional standards—For properties located within the downtown design district.

- A. Minimum lot area: None.
- B. Minimum floor area ratio: 0.5.

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- C. Minimum building height: Twenty-five feet or two stories except for accessory structures or buildings under one thousand square feet.
- D. Maximum building height: Fifty-eight feet.
- E. Minimum required setbacks, if not abutting a residential zone: None.
- F. Minimum required interior and rear yard setback if abutting a residential zone: Twenty feet, plus one foot additional yard setback for every three feet in building height over thirty-five feet.
- G. Maximum Allowed Setbacks.
 - 1. Front yard setback: Ten feet provided the site plan and design review requirements of Section 17.62.055 are met.
 - 2. Interior side yard setback: No maximum.
 - 3. Corner side yard setback abutting street: Ten feet provided the site plan and design review requirements of Section 17.62.055 are met.
 - 4. Rear yard setback: No maximum.
 - 5. Rear yard setback abutting street: Ten feet provided the site plan and design review requirements of Section 17.62.055 are met.
- H. Maximum site coverage of the building and parking lot: One hundred percent.
- I. Minimum Landscape Requirement. Development within the downtown design district overlay is exempt from required landscaping standards in Section 17.62.050A.1. However, landscaping features or other amenities are required, which may be in the form of planters, hanging baskets and architectural features such as benches and water fountains that are supportive of the pedestrian environment. Where possible, landscaped areas are encouraged to facilitate continuity of landscape design. Street trees and parking lot trees are required and shall be provided per the standards of Chapter 12.08 and Chapter 17.52

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009; Ord. No. 13-1003, § 1(Exh. 1), 7-17-2013)

17.34.080 Explanation of certain standards.

- A. Floor Area Ratio (FAR).
 - 1. Purpose. Floor area ratios are a tool for regulating the intensity of development. Minimum FARs help to achieve more intensive forms of building development in areas appropriate for larger-scale buildings and higher residential densities.
 - 2. Standards.
 - a. The minimum floor area ratios contained in sections 17.34.060 and 17.34.070 apply to all non-residential and mixed-use building developments.
 - b. Required minimum FARs shall be calculated on a project-by-project basis and may include multiple contiguous blocks. In mixed-use developments, residential floor space will be included in the calculations of floor area ratio to determine conformance with minimum FARs.
 - c. An individual phase of a project shall be permitted to develop below the required minimum floor area ratio provided the applicant demonstrates, through covenants applied to the remainder of the site or project or through other binding legal mechanism, that the required density for the project will be achieved at project build out.
- B. Building height.

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1. Purpose.

- a. The Masonic Hall is currently the tallest building in downtown Oregon City, with a height of fifty-eight feet measured from Main Street. The maximum building height limit of fifty-eight feet will ensure that no new building will be taller than the Masonic Hall.
- b. A minimum two-story (twenty-five feet) building height is established for the Downtown Design District Overlay sub-district to ensure that the traditional building scale for the downtown area is maintained.

(Ord. No. 08-1014, §§ 1—3(Exhs. 1—3), 7-1-2009)

FOOTNOTE(S):

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Editor's note— Ord. No. 08-1014, adopted Jul. 1, 2009, repealed Chapter 17.34 in its entirety and enacted new provisions to read as herein set out. Prior to amendment, Chapter 17.34 pertained to similar subject matter. See Ordinance Disposition List for derivation. ([Back](#))

Proposed Zoning Code Language for Willamette Falls Downtown District

17.35 Willamette Falls Downtown District

17.35.010 Designated.

The Willamette Falls Downtown (WFD) district applies to the historic Willamette Falls site, bordered by 99E to the north and east, and the Willamette River to the west and south. This area was formerly an industrial site occupied by the Blue Heron Paper Mill and is the location of Oregon City's founding. A mix of open space, retail, high-density residential, office, and compatible light industrial uses are encouraged in this district, with retail, service, and light industrial uses on the ground floor and office and residential uses on upper floors. Allowed uses in the District will encourage pedestrian and transit activity. This district includes a Downtown Design overlay for the historic downtown area. Design guidelines for this sub-district require storefront façades along designated public streets featuring amenities to enhance the active and attractive pedestrian environment.

17.35.020 Permitted uses.

Permitted uses in the WFD district are defined as:

- A. Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies, and specialty stores provided the maximum footprint of a freestanding building with a single store does not exceed 40,000 square feet (a freestanding building over 40,000 square feet is allowed as long as the building contains multiple tenant spaces or uses);
- B. Industrial uses limited to the design, light manufacturing, processing, assembly, packaging, fabrication and treatment of products made from previously prepared or semi-finished materials, and not to exceed 60,000 square feet;
- C. Research and development activities;
- D. Offices, including finance, insurance, real estate, software, engineering, design, and government;
- E. Restaurants, eating and drinking establishments without a drive through, and mobile food carts;
- F. Parks, playgrounds, outdoor entertainment space, and community or neighborhood centers;
- G. Museums, libraries, and interpretive/education facilities;

- H. Outdoor markets, such as produce stands, craft markets and farmers markets;
- I. Indoor entertainment centers and arcades;
- J. Studios and galleries, including dance, art, film and film production, photography, and music;
- K. Hotel and motel, commercial lodging;
- L. Conference facilities and meeting rooms;
- M. Public and/or private educational or training facilities;
- N. Child care centers and/or nursery schools;
- O. Health and fitness clubs;
- P. Medical and dental clinics, outpatient; infirmary services;
- Q. Repair shops, except automotive or heavy equipment repair;
- R. Residential units – multi-family;
- S. Services, including personal, professional, educational and financial services; laundry and dry-cleaning;
- T. Seasonal sales, subject to Oregon City Municipal Code Section 17.54.060;
- U. Utilities: Basic and linear facilities, such as water, sewer, power, telephone, cable, electrical and natural gas lines, not including major facilities such as sewage and water treatment plants, pump stations, water tanks, telephone exchanges and cell towers.
- V. Veterinary clinics or pet hospitals, pet day care.
- W. Home occupations;
- X. Religious institutions;
- Y. Live/work units;
- Z. Water-dependent uses, such as boat docks.
- AA. Passenger terminals (water, auto, bus, train).
- BB. Existing parking and loading areas, as an interim use, to support open space/recreational uses.

17.35.030 Conditional uses.

The following uses are permitted in this district when authorized and in accordance with the process and standards contained in Chapter 17.56.

- A. Emergency services;
- B. Hospitals;
- C. Assisted living facilities; nursing homes, residential care facilities and group homes for over fifteen patients;
- D. Parking structures and lots not in conjunction with a primary use;

- E. Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies and specialty stores in a freestanding building with a single store exceeding 40,000 square feet;
- F. Public facilities such as sewage and water treatment plants, water towers and recycling and resource recovery centers;
- G. Public utilities and services such as pump stations and sub-stations;
- H. Stadiums and arenas;

17.35.040 Prohibited uses.

The following uses are prohibited in the WFD district:

- A. Kennels;
- B. Outdoor sales or storage that is not accessory to a retail use allowed in 17.35.020 or 030.
- C. Self-service storage;
- D. Distributing, wholesaling and warehousing;
- E. Single-Family and two-family residential units;
- F. Motor vehicle and recreational vehicle repair/service;
- G. Motor vehicle and recreational vehicle sales and incidental service;
- H. Heavy equipment service, repair, sales, storage or rental (including but not limited to construction equipment and machinery and farming equipment)

17.35.070 Willamette Falls Downtown District dimensional standards

- A. Minimum lot area: None.
- B. Minimum floor area ratio (as defined in 17.34.080): 1.0.
- C. Minimum building height: Two entire stories and 25 feet, except for:
 - 1. accessory structures or buildings under 1,000 square feet, and
 - 2. buildings to serve open space or public assembly uses.
- D. Maximum building height: 80 feet.
- E. Minimum required setbacks: None.
- F. Maximum Allowed Setbacks. 10 feet, provided site plan and design review requirements are met.
- G. Maximum site coverage: 100 percent.
- H. Minimum Landscape Requirement: None for buildings. Landscaping for parking areas required per 17.52.
- I. Street standards: per Section 12.04, except where modified by a master plan.

- J. Parking: per Section 17.52, Off Street Parking and Loading. The Willamette Falls Downtown District is within the Downtown Parking Overlay District.

Public Engagement Summary

This Willamette Falls Legacy Project vision strategy is the result of an intensive, nine-month long community engagement process, that has built a broad base of supporters and champions. Project leaders and staff connected with thousands of participants through in-person conversations and online forums, including discussions with more than 62 local and regional groups ranging from civic to business, environmental and government organizations. Staff spoke one-on-one with hundreds of people of all ages at seven summer events including farmers markets, West Linn's Centennial Celebration and Concerts in the Park.

The first of three community interactive events was held at the First City Festival in July 2013 in Oregon City where participants contributed nearly 1,000 distinct comments and ideas for the site. In July and August more than 2,100 people commented through Metro's regional Opt In Online Opinion Panel and the online survey on the project website. Approximately 130 people learned and shared ideas in small group discussions at the second community interactive event in October at the Museum of the Oregon Territory. A second round of surveys through Opt In and the project website garnered an additional 1,900 responses. Nearly 100 people participated in the third community event at Ainsworth House and Gardens to review the draft Master Framework and Demonstration Plans. In addition, nearly three dozen participants signed up to become community champions to support implementation of the Willamette Falls Legacy Project.

The project team continues to stay connected with champions and engage new champions each week. Hundreds of people stay informed through the project website, Facebook page, Twitter feed, Oregon City News, email newsletter, and weekly online blog. The Facebook page alone reaches more than 1,400 people on a daily basis with updates on events as well as with a photo of the day. Weekly guided tours of the site are just one more way in which members of the public can get involved.

On March 6th, approximately three hundred supporters from throughout the region gathered at Keen Headquarters in Portland to celebrate the vision and spread the word about this historic opportunity. The number of Community Champions soared to more than one hundred people as elected officials and residents alike pledged their support to help implement the vision.





HERITAGE
• R E S E A R C H •
A S S O C I A T E S , I N C
ARCHAEOLOGY & HISTORY

TO: Ken Pirie, AICP, LEED, AP ND
Walker/Macy
111 SW Oak St.
Portland, OR 97204

FROM: Rick Minor, PhD, RPA
Heritage Research Associates, Inc.
1997 Garden Avenue
Eugene, OR 97403

DATE: January 8, 2014

SUBJECT: Willamette Falls Legacy Project: Archaeology Issues and Potential

The Willamette Falls Legacy Project represents an unparalleled opportunity to contribute to knowledge about the prehistory and history of one of the most significant places in the Pacific Northwest through archaeological research and recovery efforts during redevelopment of this industrial waterfront site. This site has long been a setting for human activities, beginning with Native American occupation in the prehistoric period, continuing with Euro-American use for residential, commercial, and industrial purposes in the 19th and early 20th centuries, and ending as an industrial complex in use as recently as 2011. The more recent activities are documented in historical records, at least to some extent, and are reflected as well in the industrial buildings that still stand on the site.

Archaeology enters the picture, and becomes the major mechanism for learning about the past, when written records are unavailable, or where historical accounts are lacking in detail. Thus, archaeology has a major role to play in documenting, reconstructing, and interpreting the legacy of human occupation and activity for the entire span of prehistoric Native American occupation, and for at least the first hundred years or so of Euro-American settlement and development, at Willamette Falls.

Because the property has been privately held since 1829, and intensively developed as an industrial site since that time, no archaeological investigations have yet been conducted. Although a variety of sources—previous archaeological investigations at sites adjacent to falls, Native American folklore and ethnographic accounts, and historical narratives and records—point to the property at Willamette Falls as a “high potential” area for archaeology, the specific details of the archaeological record on the property are yet to be revealed.

The objective of archaeological investigations is to determine if prehistoric or historical archaeological sites eligible for inclusion on the National Register of Historic Places (NRHP) are present and whether they may be affected by the proposed redevelopment. Such studies ensure compliance with federal regulations including Section 106 of the National Historic Preservation Act (NHPA), if applicable, and with Oregon state laws requiring identification and protection of archaeological resources.

The main issues in regards to archaeology revolve around (1) how to identify significant archaeological remains below the ground surface, especially during the course of demolition and construction of new developments on the site; (2) how to determine which archaeological remains can be set aside and preserved for investigation at a later date and/or for interpretation of the site to the public; and (3) how best to go about recovering archaeological remains subject to destruction to maximize information recovery and interpretive potential.

Importance of Archaeological Monitoring

Archaeological sites and, in particular Indian burials, are protected under Oregon state law (ORS 97.740–97.760, 358.905–358.955, and 390.235), and by federal regulations where federal funds or permits are involved (e.g., 36 CFR 800). Disturbance of graves is specifically prohibited, even through accidental discovery and even if reviewing agencies have concurred that a specific project is in compliance with applicable state and federal regulations.

Most archaeological survey reports conclude with a recommendation to the following effect: “If archaeological resources are inadvertently encountered during the course of construction, all earth disturbance in the vicinity of the find should be halted immediately in accordance with state and federal laws. A qualified archaeologist should be consulted to investigate and evaluate the discovery and to recommend subsequent courses of action in consultation with SHPO and the appropriate tribes.”

For projects where buried archaeological resources are likely, there are two major shortcomings in this approach: (1) the determination that archaeological resources have been encountered is made by someone (often the operator of heavy machinery) not trained in archaeology, often leading to destruction of the resources; and (2) there is a delay between the time the discovery is reported to SHPO and when an archaeologist arrives on the scene to evaluate the find. In the event that the existence of an archaeological resource is verified, a further delay occurs before a State of Oregon archaeological permit is granted and archaeological investigations can begin.

Although monitoring by an archaeologist is not specifically mentioned in the ORS requirements, archaeological monitoring has become a standard recommendation and practice in situations where the discovery of archaeological remains is anticipated. As elsewhere, but particularly at Willamette Falls, the importance of having an archaeologist

on-site to monitor during demolition and construction excavations cannot be emphasized too strongly. Decisions as to whether structural remains and/or artifacts exposed during these activities are important, and worth stopping excavation for, cannot be left up to the excavator operator or any other non-archaeologist.

ORS 358.920 states that “a person may not excavate, injure, destroy or alter an archaeological site or object or remove an archaeological object located on public or private lands in Oregon...” Based on the known earlier use by Native Americans, and the overwhelming documentary information pertaining to occupation and development by Euro-Americans in the historic period, the Willamette Falls Legacy project area in essence represents one extensive archaeological site awaiting documentation. Accordingly, it would be part of due diligence for any organization or developer to have an archaeological monitor in place during ground-disturbing activities to ensure compliance with the ORS requirements.

Native Americans at Willamette Falls

Falls on major rivers were perhaps the single most desirable setting for Native American settlements in prehistoric times. Anadromous fish congregating below falls awaiting favorable river conditions for moving upstream could be easily taken by Native fishermen. Some of the earliest evidence of prehistoric peoples in the Pacific Northwest has been found at archaeological sites at falls on the Columbia River, most notably at the Fivemile Rapids site near The Dalles, where the record of occupation extends back 10,000 years. A similar very long record of Native American occupation may be in evidence at Willamette Falls.

Prehistoric settlements at falls served as important trading centers for Native Americans. The best documented of these trading centers was at The Dalles, where evidence of intense long-distance trade dates at least as far back as 3,000 to 4,000 years ago. Next to The Dalles, Willamette Falls is often cited as the second most important trading center in the Pacific Northwest. Currently, petroglyphs carved into bedrock are the only physical evidence attesting to the presence of Native Americans on the Willamette Falls Legacy property (recorded with SHPO as archaeological site 35CL236). Willamette Falls is mentioned prominently in the oral literature of Native peoples. Archaeological evidence of Native American activity almost certainly will be found during redevelopment.

Euro-Americans at Willamette Falls

The Willamette Falls Legacy Project also presents an exceptional opportunity to obtain new information about the long record of Euro-American settlement and develop at Willamette Falls through historical archaeology. In 1829 Dr. John McLoughlin of the Hudson’s Bay Company constructed the first permanent water-powered sawmill in Oregon Territory on this site. Oregon City was founded in the same year, incorporated in 1844, and served as the capital of Oregon Territory from 1848 to 1851. The original

street grid is still discernible among the industrial structures and buildings covering the site today. Residential structures on this site, including hotels and houses, including John McLoughlin's home, were among the earliest constructed in an urban context in Oregon.

By the mid-19th century, both sides of the main commercial corridor, Main Street, were lined with various water-powered industrial facilities including saw and flour mills powered by small timber dams and millraces cut into bedrock. Among these early industries was the three-story Oregon City Woolen Mill, established in 1865. The stacked basalt masonry walls from this mill are among the oldest remaining built resources on the property. The earliest settlement and development, from 1829 to the 1880s, is poorly documented in the historical record, and archaeology can make substantial contributions to our understanding of how development proceeded on this site.

By the turn of the 20th century, various industries lined Main Street west of 4th Street extending out to the enlarged Willamette Falls Dam, constructed from 1889 to 1890 to power hydroelectric development. Detailed information on the location and size of these industries shown on Sanborn Fire Insurance maps (available from 1888, 1892, 1900, 1911, and 1925) can be used to identify and interpret archaeological remains associated with late 19th and early 20th century activity and occupation on this site.

Geoarchaeological Investigations

Structures and pavements associated with the most recent industrial complex cover most of the ground surface on the property. In similar urban and industrial contexts elsewhere, archaeological deposits containing artifacts and cultural features have been found in well preserved condition sealed below concrete and asphalt surfaces. Little is currently known about the nature, depth, and age of deposits on the property in which archaeological resources may potentially be found.

Efforts to identify strata buried deep below the ground surface that may potentially contain evidence of human occupation thousands of years old require an integration of archaeology and geology, generally referred to as the geoarchaeological approach. Before any ground disturbing activities are conducted, geoarchaeological investigations, which typically involve trenching and coring, are recommended to obtain baseline information on the deposits that can be used in planning future archaeological investigations.

Historical records document periodic inundation of the property to varying extents by Willamette River flood waters. The elevation of the 1996 flood (51.00 ft) is being used as a guide for future development. Archaeological remains may potentially be found anywhere on the property, but they may be more likely to be preserved in the portion of the site above this elevation.

Archaeological Field Investigations

Archaeological investigations in urban and industrial settings require different procedures and techniques than those employed at conventional archaeological sites where manual excavations are the norm. As a result of repeated episodes of construction and demolition over time, archaeological deposits commonly accumulate to considerable depths in these settings. As well, the presence of often massive stone, brick, and concrete structural remains severely limits use of manual excavations until these remains have been removed. Accordingly, there is a long history of the employment of mechanical equipment in urban and industrial archaeology for removal of recent structural remains, building debris, and introduced fill material to expose buried archaeological deposits.

The repeated demolition of older structures and construction of new ones in urban and industrial settings generally leads to the formation of complex archaeological deposits. In these contexts, there is less concern with recovering individual artifacts from mixed and disturbed deposits. Instead, the focus is on identifying cultural features containing discrete archaeological deposits from which assemblages of associated artifacts can be recovered. Most informative are “shaft features” such as wells, privies, cellars, and trash pits used for refuse disposal, which typically yield an abundance of artifacts from which the lifeways of past peoples can be reconstructed.

The approach implemented successfully at other historical archaeological sites involves the monitoring of mechanical excavations by small teams of archaeologists. When archaeological remains are exposed, an immediate assessment is made, and the excavator is either allowed to proceed or asked to move temporarily to another area. While excavations proceed elsewhere, the archaeological team documents the finds using traditional manual excavation methods. Depending on the number and complexity of the cultural features found, more archaeologists can be added to keep the demolition/construction excavations running smoothly.

This approach obviously places an emphasis on the understanding and cooperation of the excavation contractor. Contracts between the developer and excavation contractor should contain a clause requiring cooperation with the team of archaeologists. Demolition and construction at Willamette Falls will expose archaeological remains and, despite the best efforts of the archaeologists, delays may occur. Unless an area can be set aside and preserved, there will be only one chance to document the features exposed and recover associated artifacts before their destruction. While recognizing the needs of an excavation contractor to adhere to a schedule as closely as possible, it is essential that the archaeologists have the time to do their job correctly.

Archaeological Analysis and Curation of Artifacts

Archaeological investigations in urban and industrial sites tend to recover very large numbers of artifacts, especially when the occupants used wells, privies, and cellars for

disposing of trash. A single privy excavation may recover 10,000 artifacts. As a result of the large numbers of artifacts recovered, analysis of these materials requires a significant investment of time. While most people envision time spent in the field as the major cost element, time spent analyzing recovered materials and preparing a report on the excavations in the lab is actually the major expense in historical archaeology.

The system used in cataloguing artifact collections has important ramifications for their use by researchers in the future. It is probably only a slight exaggeration to say that every archaeological organization has developed its own artifact catalogue system. Use of SHARD (Sonoma Historic Artifact Research Database) is strongly recommended at Willamette Falls. Developed at Sonoma State University and endorsed by the Society for Historical Archaeology, this catalogue system is formatted specifically for use with mid-19th to early 20th century artifacts. Use of SHARD will allow comparison of the artifact assemblages recovered at Willamette Falls with databases from historical archaeological sites across the United States.

Archaeological investigations at Willamette Falls are expected to recover substantial collections of prehistoric and historical artifacts. These investigations will be conducted under one or more State of Oregon permits, one stipulation of which requires curation of artifact collections at the Museum of Natural and Cultural History at the University of Oregon (or another approved repository). Currently, the cost of curation is \$400/ft³. In view of the likelihood that artifact collections of substantial size will be recovered (e.g., potentially encompassing several hundred cubic feet), curation costs in connection with archaeological projects at Willamette Falls should not be underestimated.

Concluding Remarks

The Willamette Falls Legacy Project has demonstrated a commitment to high standards during the broader historic preservation process. In view of the long history of human activity at Willamette Falls, a similar commitment to high standards should be required in addressing archaeological resources encountered during redevelopment at this location. While some of the archaeological issues raised in this memorandum may seem daunting, none are insurmountable. All of these issues have been addressed at similar large-scale development projects at sensitive archaeological and historic sites elsewhere in the United States.

The Willamette Falls Legacy Project represents a unique opportunity to obtain a substantial amount of information about a place that was, and continues to be, highly meaningful to Native Americans, as well as of great importance in the history of Euro-American settlement and development in Oregon. Through the recovery and interpretation of the archaeological evidence from the various periods of human activity represented, the Willamette Falls Legacy Project can make significant contributions to Native American and Euro-American cultural history that will be valued and appreciated by later peoples long after the property has been redeveloped.



NOTICE OF PUBLIC HEARING

Mailed on August 4, 2014

You are receiving this notice because you own or rent property within the vicinity of the former Blue Heron paper mill in Oregon City. Through the **Willamette Falls Legacy Project**, the new owner of the 22-acre property is proposing to change the zoning and land use designation of the property and adopt a Master Plan to guide future development of the site. For more information about the Willamette Falls Legacy Project, please see www.rediscoverthefalls.com, the additional information in this notice, or www.orcity.org/planning/landuse.

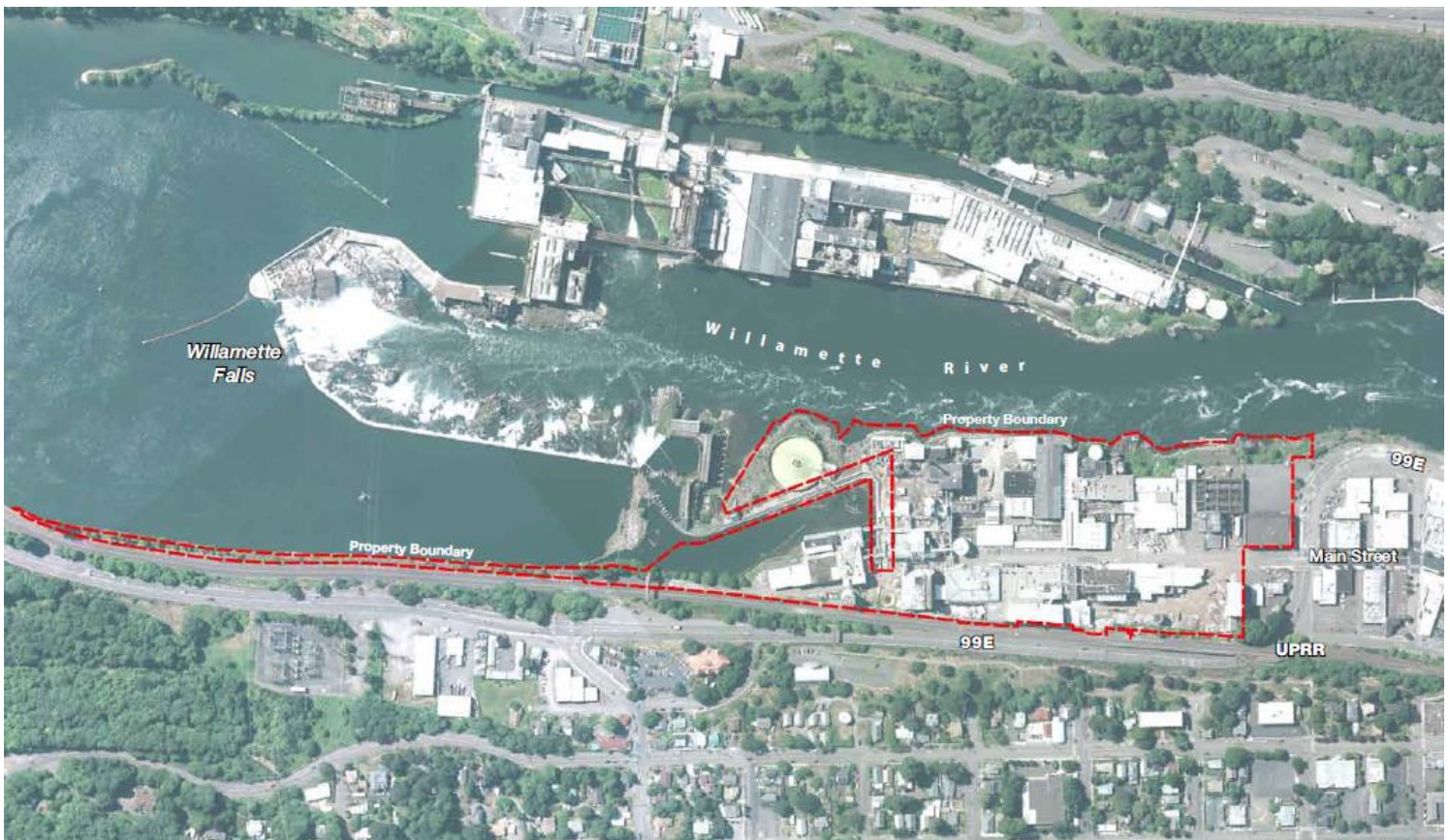
HEARING DATES:	On Monday, September 8, 2014 at 6:00 p.m., September 15, 2014 , at 6:00 p.m. and September 22, 2014 at 7:00 p.m. the City of Oregon City Planning Commission will conduct public hearings and on October 15, 2014, November 5, 2014, and November 19, 2014 the City of Oregon City – City Commission will conduct public hearings at 7:00 p.m. in the Commission Chambers at City Hall, 625 Center Street, Oregon City 97045. Any interested party may testify at the public hearings or submit written testimony at or prior to the close of the hearings. Email comments to wflp-publiccomments@orcify.org .
FILE NUMBER:	Master Plan: CP 14-02, Zone Change and Text Amendment: ZC 14-03, Comprehensive Plan Map Amendment and amendments to ancillary documents of the Comprehensive Plan: PZ 14-01 and creation of a Multi-modal Mixed Use Area (MMA)
APPLICANT/ OWNER:	Falls Legacy LLC c/o George Heidgerken 3303 S. 35 th St. Tacoma, WA 98409
REPRESENTATIVE:	Ben Schonberger, AICP Winterbrook Planning 310 SW 4th Avenue, Suite 1100 Portland, Oregon 97204
REQUEST:	Proposed Zone Change and Text Amendment, Comprehensive Plan Map Amendment and amendments to ancillary documents, and Master Plan to create a framework for future development of the former Blue Heron site. No specific construction projects are proposed in this application. Future development can include a combination of open space, commercial, recreational, residential, and employment uses, with provisions for public access, cultural and historic interpretation, and enhancement of riparian resources. Please see www.rediscoverthefalls.com or www.orcity.org/planning/landuse for detailed information.
LOCATION: (see enclosed map)	419 Main Street, and no address, in Oregon City, OR 97045 2-2E-31BD-00300, 500, 600, 390
CONTACT PERSON:	Kelly Moosbrugger, Planner (503) 496-1540, kmoosbrugger@orcify.org
NEIGHBORHOOD:	Two Rivers Neighborhood Association
CRITERIA:	Oregon City Municipal Code. The City Code Book is available on-line at www.orcity.org <ul style="list-style-type: none"> • 17.50 - Administration and Procedures • 12.04 – Street, Sidewalks and Public Places • 12.08 – Public and Street Trees • 17.36 - "GI"—General Industrial District • 17.68 – Zone Changes • 17.65 – Master Plans • 17.49 - Natural Resource Overlay District • 17.42 - Flood Management Overlay District • 17.48 - Willamette River Greenway • 17.44 - Geologic Hazards Overlay District • 17.62 - Site Plan and Design Review

- 17.52 – Off-street Parking and Loading

These applications are subject to the Administration and Procedures section of the Oregon City Code set forth in Chapter 17.50. The applications and all documents and evidence submitted by or on behalf of the applicant are available for inspection at no cost at the Oregon City Planning Division, 221 Molalla Avenue, Suite 200 from 8:00 AM-5:00 PM, Monday - Thursday. The staff report, with all the applicable approval criteria, will also be available for inspection seven days prior to the hearing. Copies of these materials may be obtained for a reasonable cost in advance. Any interested party may testify at the public hearing and/or submit written testimony at or prior to the close of the record before the Planning Commission. Written comments must be received by close of business at City Hall 10 days before the scheduled hearing to be included and considered in the staff report. Written comments received within 10 days of the hearing will be provided to the Planning Commission at the hearing. If the Planning Commission denies the application, any party with standing (i.e., anyone who appeared before the Planning Commission either in person or in writing) may appeal the Planning Commission denial to the City Commission. If the Planning Commission votes to approve the application, that decision will be forwarded as a recommendation to the City Commission for final consideration. In either case, any review by the City Commission will be on the record and only issues raised before the Planning Commission may be raised before the City Commission. Failure to raise an issue with sufficient specificity will preclude any appeal on that issue. Parties with standing may appeal the decision of the City Commission to the Land Use Board of Appeals. Any appeal will be based on the record. The procedures that govern the hearing will be posted at the hearing and are found in OCMC Chapter 17.50 and ORS 197.763.

A city-recognized neighborhood association requesting an appeal fee waiver 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 pursuant to OCMC 17.50.190(C)(5) to and 17.50.290(C).

VICINITY MAP



Oregon City Municipal Code

Chapter 17.48 WRG Willamette River Greenway Overlay District

17.48.010 Designated.

This chapter shall apply to all development, changes of use or intensification of use in that area designated WRG Willamette River Greenway on a special city zoning map.

17.48.020 Purpose.

The purpose of this chapter is to:

- A. Protect, conserve, enhance and maintain the natural scenic, historical, agricultural, economic and recreational qualities of land along the Willamette River;
- B. Maintain the integrity of the Willamette River by minimizing erosion, promoting bank stability and maintaining and enhancing water quality and fish and wildlife habitats;
- C. Implement the Willamette River Greenway goal and the Willamette River Greenway portions of the city comprehensive plan.

17.48.040 Uses allowed.

All uses permitted pursuant to the provisions of the underlying zoning district are permitted on lands designated WRG; provided, however, that any development, change of use or intensification of use shall be subject, in addition to the provisions of the underlying district, to the provisions of this chapter.

17.48.050 Permit required--Exceptions.

A Willamette River Greenway permit shall be required for all developments and changes or intensification of uses, except the following:

- A. The propagation of timber or the cutting of timber for public safety or personal use, except the cutting of timber along the natural vegetative fringe along the river;
- B. Gravel removal from the bed of the Willamette River when conducted under a permit from the state;
- C. Customary dredging and channel maintenance;
- D. Placing by a public agency of signs, markers, aids and similar structures to serve the public;
- E. Activities to protect, conserve, enhance and maintain public recreation, scenic, historical and natural uses on public lands;
- F. Acquisition and maintenance of scenic easements by the Oregon Department of Transportation;
- G. Partial harvesting of timber shall be permitted beyond the natural vegetative fringe and those areas not covered by a scenic easement and when the harvest is consistent with an approved plan under the Oregon Forest Practices Act. Commercial forest activities and harvesting practices providing for vegetative buffers, shading, soil stabilization, and water filtering effects required under the Oregon Forest Practices Act;
- H. The use of a small cluster of logs for erosion control;
- I. The expansion of capacity or the replacement of existing communication or energy

- distribution and transmission systems, except utility substations;
- J. The maintenance and repair of existing flood control facilities;
- K. Uses lawfully existing on the effective date of the provisions codified in this chapter; provided, however, that any change or intensification of use or new development shall require a Willamette River Greenway permit.

17.48.060 Administrative procedure.

Except as specifically provided for in Section 17.48.090, the procedure for action on a Willamette River Greenway permit shall be as provided for under the administrative action provisions in Chapter 17.50. In addition to those provisions, however, notice of a pending Willamette River Greenway permit under Sections 17.48.070 through 17.48.090 or of a compatibility review hearing under Section 17.48.100, shall be given to all persons requesting the same and paying a reasonable fee therefore, as determined by the Community Development Director.

17.48.070 Development standards--Specific use.

In approving any development or change or intensification of use, the approving officer or body shall apply the following standards:

Considerations for Specific Uses.

- A. With respect to recreational uses only: the considerations set forth in section C(3)(b) of Goal 15.
- B. With respect to those fish and wildlife habitats identified in the city comprehensive plan only: the considerations set forth in section C(3)(d) of Goal 15.
- C. With respect to those scenic qualities and views identified in the city comprehensive plan only: the considerations set forth in section C(3)(e) of Goal 15.
- D. With respect to timber resources only: the considerations set forth in section C(3)(h) of Goal 15.
- E. With respect to aggregate extraction only: the considerations set forth in section C(3)(i) of Goal 15.

17.48.080 Development standards--General considerations.

The following considerations shall be applicable to all Willamette River Greenway permits.

- A. Access. Adequate public access to the Willamette River shall be considered and provided for.
- B. Protection and Safety. Maintenance of public safety and protection of public and private property, especially from vandalism and trespass, shall be provided for to the maximum extent practicable.
- C. Vegetative Fringe. The natural vegetative fringe along the Willamette River shall be protected and enhanced to the maximum extent practicable.
- D. Directing Development Away from the River. Development shall be directed away from the Willamette River to the greatest possible degree, provided that lands committed to urban uses within the Greenway may continue as urban uses, subject to the nonconforming use provisions of Chapter 17.58 of this title.
- E. A Greenway Setback. In each application, the approving officer or body shall establish a setback to keep structures separated from the Willamette River in order to protect,

maintain, preserve and enhance the natural scenic, historic and recreational qualities of the Willamette River Greenway, as set forth in the city comprehensive plan; provided, however, that the requirement to establish such setbacks shall not apply to water-related or water-dependent uses.

- F. Other Applicable Standards. The Oregon Department of Transportation Greenway Plan, the Greenway portions of the city comprehensive plan, the Willamette River Greenway statutes and the provisions of Statewide Planning Goal 15, shall also be considered in actions involving Willamette River Greenway permits.

17.48.090 Procedure.

The planning director shall make findings, and may impose reasonable conditions to carry out this chapter, regarding all general, and any applicable specific, considerations of this section. The Community Development Director shall then give notice of a pending Willamette River Greenway permit application, and proposed action thereon, in the manner provided for, and to those persons for whom notice shall be given, under Chapter 17.50 of this code, and to all other interested persons who wish to be notified and who pay a reasonable fee for such notification. If no interested person requests a hearing on such permit application within ten days of giving notice, the application shall be approved, either with or without conditions, or denied, as proposed by the Community Development Director and in accordance with the findings required by this subsection. If there be objection, the matter shall be heard by the planning commission as an administrative action.

17.48.100 Compatibility review.

- A. In all areas within one hundred fifty feet of the ordinary low-water line of the Willamette River, hereinafter referred to as the "compatibility boundary," the provisions of this subsection shall be applicable to all developments and changes or intensification of uses, so as to ensure their compatibility with Oregon's Greenway statutes, and to assure that the best possible appearance, landscaping and public access be provided.
- B. All development or changes or intensifications of uses in the compatibility area shall be approved only if the following findings be made by the planning commission.
 - 1. That to the greatest extent possible, the development or change or intensification of use provides for the maximum possible landscaped area, open space or vegetation between the activity and the river.
 - 2. That to the greatest degree possible, necessary public access is provided to and along the Willamette River by appropriate legal means.
- C. Procedure for action on compatibility review shall be as set forth in Section 17.48.060 and shall include application of the relevant use management considerations and requirements provided in Sections 17.48.070 and 17.48.080. The planning commission, after notice and public hearing held pursuant to Chapter 17.50 shall approve issuance, approve issuance with conditions or disapprove issuance of the Willamette River Greenway conditional use permit. The application shall be accompanied by the fee listed in Chapter 17.52 to defray the costs of publication, investigation and processing.

17.48.110 Prohibited activities.

The following are prohibited within the Willamette River Greenway:

- A. Any main or accessory residential structure exceeding a height of thirty-five feet; except for

areas located within the Willamette Falls Downtown District.

- B. Structural bank protection, except rip rap or a channelization used as an emergency measure only to protect existing structures. Any such rip rap or channelization to stabilize undeveloped sites shall be prohibited as well;
- C. Subsurface sewage disposal drainfields within one hundred feet of the ordinary mean low-water line of the Willamette River.

17.48.120 Additional procedural requirements.

In addition to the requirements of Chapter 17.50, the following procedural requirements shall be applicable to all matters arising out of Section 17.48.070 through 17.48.100:

- A. Applications submitted for review under Sections 17.48.070 through 17.48.100 shall be accompanied by such materials as are reasonably necessary for adequate review, including, as necessary:
 - 1. A site and landscaping plan showing existing vegetation and development and location of proposed development for activities;
 - 2. Elevations of any proposed structures;
 - 3. Materials list for any proposed structures, including type and colors of siding and roofing; and
 - 4. Cross-sections of any area within the vegetative fringe where grading, filling, timber harvesting or excavating will occur.
- B. 1. Written notice, including a copy of the application, shall be sent immediately upon receipt to the Oregon Department of Transportation by certified mail, return receipt requested. The Oregon Department of Transportation shall have seven working days from the date of mailing to respond before a decision be rendered.
- 2. Written notice shall be given to the Oregon Department of Transportation by certified mail, return receipt requested, within seven days of the entry of a final order on the disposition of all applications made under Sections 17.48.070 through 17.48.100

17.35 Willamette Falls Downtown District

17.35.010 Designated.

The Willamette Falls Downtown (WFD) district applies to the historic Willamette Falls site, bordered by 99E to the north and east, and the Willamette River to the west and south. This area was formerly an industrial site occupied by the Blue Heron Paper Mill and is the location of Oregon City's founding. A mix of open space, retail, high-density residential, office, and compatible light industrial uses are encouraged in this district, with retail, service, and light industrial uses on the ground floor and office and residential uses on upper floors. Allowed uses in the District will encourage pedestrian and transit activity. This district includes a Downtown Design overlay for the historic downtown area. Design guidelines for this sub-district require storefront façades along designated public streets featuring amenities to enhance the active and attractive pedestrian environment.

17.35.020 Permitted uses.

Permitted uses in the WFD district are defined as:

- A. Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies, and specialty stores provided the maximum footprint of a freestanding building with a single store does not exceed 40,000 square feet (a freestanding retail building over 40,000 square feet is allowed as long as the building contains multiple tenant spaces or uses);
- B. Industrial uses limited to the design, light manufacturing, processing, assembly, packaging, fabrication and treatment of products made from previously prepared or semi-finished materials, and not to exceed 60,000 square feet;
- C. Research and development activities;
- D. Offices, including finance, insurance, real estate, software, engineering, design, and government;
- E. Restaurants, eating and drinking establishments without a drive through, and mobile food carts;
- F. Parks, playgrounds, outdoor entertainment space, and community or neighborhood centers;
- G. Museums, libraries, and interpretive/education facilities;
- H. Outdoor markets, such as produce stands, craft markets and farmers markets;
- I. Indoor entertainment centers and arcades;
- J. Studios and galleries, including dance, art, film and film production, photography, and music;
- K. Hotel and motel, commercial lodging;
- L. Conference facilities and meeting rooms;
- M. Public and/or private educational or training facilities;
- N. Child care centers and/or nursery schools;

- O. Health and fitness clubs;
- P. Medical and dental clinics, outpatient; infirmary services;
- Q. Repair shops, except automotive or heavy equipment repair;
- R. Residential units – multi-family;
- S. Services, including personal, professional, educational and financial services; laundry and dry-cleaning;
- T. Seasonal sales, subject to Oregon City Municipal Code Section 17.54.060;
- U. Utilities: Basic and linear facilities, such as water, sewer, power, telephone, cable, electrical and natural gas lines, not including major facilities such as sewage and water treatment plants, pump stations, water tanks, telephone exchanges and cell towers.
- V. Veterinary clinics or pet hospitals, pet day care.
- W. Home occupations;
- X. Religious institutions;
- Y. Live/work units;
- Z. Water-dependent uses, such as boat docks.
- AA. Passenger terminals (water, auto, bus, train).
- BB. Existing parking and loading areas, as an interim use, to support open space/recreational uses.

17.35.030 Conditional uses.

The following uses are permitted in this district when authorized and in accordance with the process and standards contained in Chapter 17.56.

- A. Emergency services;
- B. Hospitals;
- C. Assisted living facilities; nursing homes, residential care facilities and group homes for over fifteen patients;
- D. Parking structures and lots not in conjunction with a primary use;
- E. Retail trade, including grocery, hardware and gift shops, bakeries, delicatessens, florists, pharmacies and specialty stores in a freestanding building with a single store exceeding 40,000 square feet;
- F. Public facilities such as sewage and water treatment plants, water towers and recycling and resource recovery centers;
- G. Public utilities and services such as pump stations and sub-stations;
- H. Stadiums and arenas;

17.35.040 Prohibited uses.

The following uses are prohibited in the WFD district:

- A. Kennels;
- B. Outdoor sales or storage that is not accessory to a retail use allowed in 17.35.020 or 030.

- C. Self-service storage;
- D. Distributing, wholesaling and warehousing;
- E. Single-Family and two-family residential units;
- F. Motor vehicle and recreational vehicle repair/service;
- G. Motor vehicle and recreational vehicle sales and incidental service;
- H. Heavy equipment service, repair, sales, storage or rental (including but not limited to construction equipment and machinery and farming equipment)

17.35.070 Willamette Falls Downtown District dimensional standards

- A. Minimum lot area: None.
- B. Minimum floor area ratio (as defined in 17.34.080): 1.0.
- C. Minimum building height: Two entire stories and 25 feet, except for:
 - 1. accessory structures or buildings under 1,000 square feet, and
 - 2. buildings to serve open space or public assembly uses.
- D. Maximum building height: 80 feet.
- E. Minimum required setbacks: None.
- F. Maximum Allowed Setbacks. 10 feet, provided site plan and design review requirements are met.
- G. Maximum site coverage: 100 percent.
- H. Minimum Landscape Requirement: None for buildings. Landscaping for parking areas required per 17.52.
- I. Street standards: per Section 12.04, except where modified by a master plan.
- J. Parking: per Section 17.52, Off Street Parking and Loading. The Willamette Falls Downtown District is within the Downtown Parking Overlay District.

Willamette Falls Downtown District Policies and Design Guidelines

The District Policies and Design Guidelines are mandatory for future development within the Willamette Falls Downtown District, and will be applied during detailed development plan review.

Purpose. The plan policies and design guidelines promote development of high-quality buildings and open space that reinforce the four core values of the site: public access, economic development, healthy habitat, and cultural and historic interpretation. The guidelines are also intended to promote compatibility with the historic character of the district, while allowing contemporary interpretations of the historic patterns.

Guideline 1. Enhance the Special Character of the Willamette Falls Downtown District.

Principles:

Unique setting. Buildings and landscape elements should establish an aesthetic that considers the site's natural setting and industrial history, and promotes permanence and quality. Design elements to consider are materials, massing, views and viewing areas, building transparency, orientation to public and semi-public spaces, and landscaping.

Celebrate the river and falls. Where appropriate, the unique natural setting of the site should be celebrated by building and open space design. Integrate the experience of the river and the falls through site design. Special attention should be paid to development at the river's edge.

Streets. Re-establishment of the historic street grid is fundamental to the new district. Buildings and open spaces should orient themselves toward or open up to these streets. Special care should be taken for the design of ground floor, street-level uses.

Views. Take advantage of views toward the river and falls. Step structures down to follow natural change in elevation from the basalt bluffs to water's edge. Open up views toward Canemah down Main Street, and toward river from future 3rd and 4th Streets and the Riverwalk.

Materials. Building materials should reflect the industrial character of the site. Proposed materials must be high quality and express a sense of permanence fitting for the

industrial history of the site. The first two floors of development especially should use materials that reinforce the high-quality, comfortable pedestrian environment.

Guideline 2. Design for the Comfort and Safety of Pedestrians.

Principles:

Network. Incorporate the pedestrian network that accompanies the street grid and public pedestrian ways into the design of buildings and open spaces. Link pedestrian paths in open space areas to public sidewalks and building entrances. Incorporate main entrances that orient to Main Street.

Visual Interest. Establish areas of visual interest on the ground floor of buildings where they face main streets. Incorporate seating and viewing areas in front of buildings and in open space areas where appropriate.

Natural setting. Locate and design buildings and open space areas to consider effects of sunlight, rain, shadow, wind, and views of the river and the falls. Maximize the amount of direct and indirect sunlight to adjacent public spaces.

Signs. Use pedestrian-scaled signage within the district that offers clear direction into and around the site. Private commercial signage should reflect the pedestrian character of the district and reflect the history of the site. Signage should not obscure or detract from views toward the water or the falls. Conversely, larger publicly-oriented and gateway signage is encouraged when appropriate and complementary to the district.

Lighting. Place and direct outdoor lighting to ensure that the ground level of the building and associated outdoor and pedestrian areas are well lit at night. Integrate exterior lighting so that it does not detract from the uses of adjacent areas. Lighting should be Dark Sky compliant.

Guideline 3. Maintain Downtown Character

Principles:

Continuity. The Willamette Falls District is an extension of the historic downtown. At the same time, the scale of buildings and industrial history of the district should create a different feeling. Buildings and open space areas should pay special attention to the transition between the two downtown districts. New development should consider architectural patterns and materials existing in downtown, and also create a new sense of place.

Block Structures. Respect the block structures of the historic downtown. The pedestrian and vehicular experience of streets and sidewalks should be continuous across the barrier of 99E.

Parking. Locate parking to minimize impact on building appearance, streetscape, and pedestrians. Plan for the primary method of car storage to be within structures. Show that parking can flexibly serve different users, times of day, and could be reconfigured for other purposes. Develop, orient and screen structured parking to complement adjacent buildings. Reduce automobile/pedestrian conflicts around parking areas and support the pedestrian environment.

Guideline 4. Re-Use, Rehabilitate, ~~and~~ Restore and Interpret Buildings and Structures

Principles:

Key structures. Preservation or rehabilitation of key structures should be a priority in the design of new buildings and open space. Highest value is placed on the following structures: De-Ink Building, #4 Paper Machine, Mill O, Hawley Building, and the Woolen Mill Foundation. If any these key structures must be removed, the applicant must document the specific reason for doing so, and propose mitigation to compensate for the loss of site character.

Other structures. Incorporate remnants, key features or other significant portions of existing structures into project design. The district's 150-year history as a mill site (flour, wool, paper) and a manufacturing center should be celebrated and recognized when new buildings and uses are established.

Archaeology. Incorporate pre-colonial history of the site into new development where appropriate. Monitor archeology when disturbance of native soil is proposed.

Interpretation. Weave interpretive elements throughout the site to provide multiple and diverse opportunities to learn and reflect on the site's history.

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Guideline 5. Build for Long-term Use

Principles:

Future development. Locate buildings to allow for infill on adjacent vacant or underdeveloped parcels. Design compatible transitions between buildings and open spaces. Promote visibility and accessibility between open spaces and adjacent uses.

Quality materials. Promote permanence and quality in new development through the use of substantial and attractive building materials. Re-use existing industrial materials where appropriate.

Guideline 6. Incorporate Ecology into Design

Principles:

Riparian edge. Promote healthy habitat when designing new buildings and open space at river's edge. Take advantage of natural resource enhancement opportunities along the riverbank.

Landscape. Integrate and juxtapose ecological landscape elements with the intense urban and industrial history of district. Create continuous canopy of street trees, where practicable. Integrate innovative stormwater treatment systems with the overall site and development site design.

Buildings. Incorporate sustainable building practices into site and building design. Bring features of the site's natural setting inside buildings as a means for better integrating buildings with significant site elements. Consider shared utilities (eco-districts).

Guideline 7. Create a World-Class Riverwalk

Principles:

Riverwalk design. Establish permanent, prominent and breathtaking public access along the riverfront to structures, water, cultural history, and the falls. The riverwalk should be inviting to a wide range of people, including families and children. Allow for multiple, creative and unexpected opportunities to physically and visually connect to the river.

Integration. Integrate riverwalk with private development as it moves through the site, yet maintain its prominence along the river frontage. Reflect unique aspects of the place

with unifying design elements integrated throughout and connects people physically and emotionally with the river

Views. Emphasize diverse scenic views of the falls and river from the riverwalk. Include views of the falls that reveal themselves as one proceeds along the riverwalk.

Guideline 8. Create Quality Public Spaces

Principles:

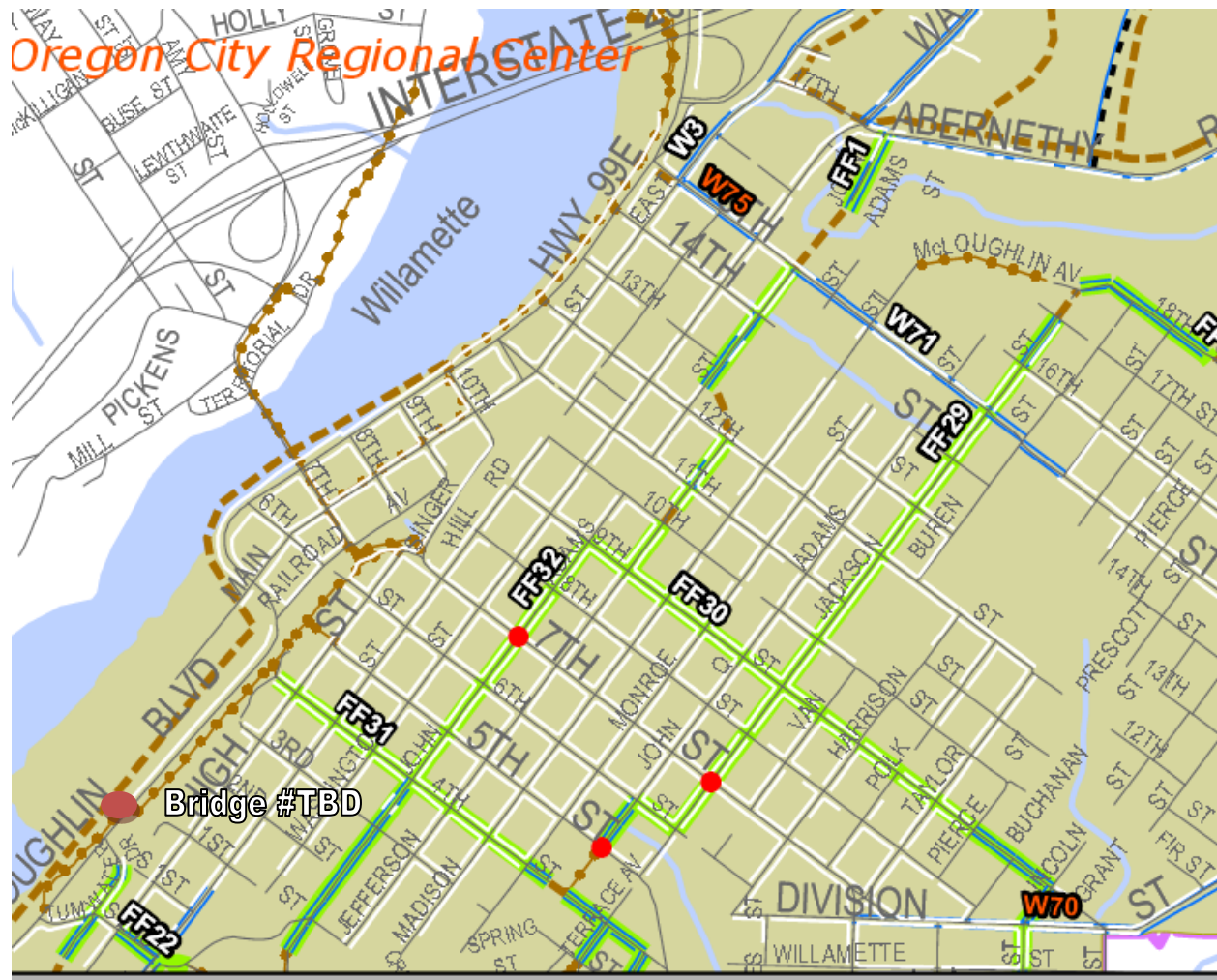
Access to public space. Emphasize arrival by foot, bike or transit while accommodating the automobile. Public spaces should accommodate different ability levels.

Flexibility. Invite flexible programming through site design, rather than being designing for single use. Design for use in multiple ways by many different groups, on seasonal and daily basis. Public space should work at different times of day, weather conditions, and for different users.

Relationship to surroundings. Capitalize on adjacent buildings or natural features to create interesting visual experiences or vistas. Integrate design with adjacent private development. Reflect local character and personality.

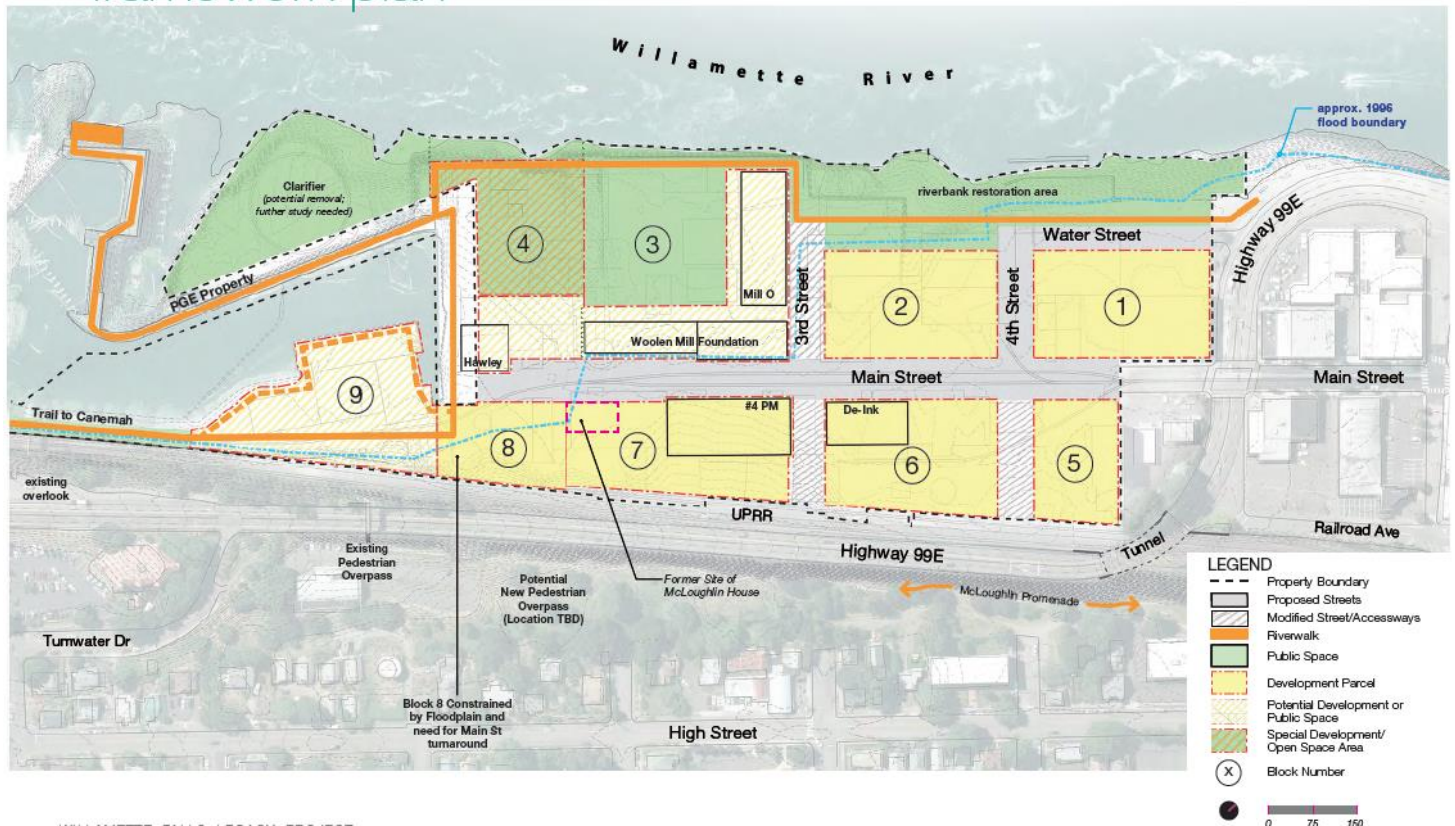
The following project will be added to the 2013 Oregon City TSP

Project #	Project Description	Project Extent	Project Elements	Priority
TBD	Pedestrian and Bike connection and enhancement	McLoughlin Promenade to mill site	Pedestrian and bike bridge over 99E to former blue Heron Paper Mill	Medium -term



Amendment to Ancillary Documents of the Comprehensive Plan

framework plan



Trails Master Plan 2004	Adopt the Riverwalk as part of the Willamette Greenway Trail as conceptually shown in the Framework Master Plan
Parks Master Plan 2008	Identify the conceptual open space/habitat restoration area along and including the Riverwalk as a future public park
Parks Master Plan 2008	Identify the conceptual public space identified in blocks 3 and 4 as a separate public park. Final location to be determined in subsequent development applications

Date	Name/Organization	Comment Summary
8/22/2014	Restore Oregon	The Master Plan is on track to tell the story of the District by seeking to retain the most important and viable structures, honoring cultural significance of the site to Native Americans, opening public access. Urge the property owner to seek National Register designation of the eligible structures.
8/25/2014	Willamette Falls Heritage Area Coalition	The mill site is the centerpiece of the heritage area. WFHAC supports the balanced and flexible approach and the efforts to retain historic structures.
8/26/2014	Architecture Foundation of Oregon	Support the four core values, the balance created between cultural and historic preservation and environmental and public access to the falls. Support the retention of the 4 large industrial buildings and the woolen mill foundation in concert with the robust master plan design policies. Support adaptive reuse approach.
8/29/2014	Oregon City Business Alliance	Full support of the plan, primarily focused on economic development. Appreciate the balance of certainty and flexibility to prepare the site for investment and jobs.
8/30/2014	Oregon City Farmers Market Board	Strong support for public access and adaptive re-use. Warehousing in conjunction with light manufacturing or processing should be permitted - Warehousing is currently listed as prohibited in the new zone. All the buildings eligible for the national register should be preserved. The Pullary/Picking House (building #19) is the oldest building on the site and very significant.
8/12/2014	Clackamas River Water	The application falls outside CRW's boundary.
8/6/2014	Unicorn Horn Inc	Want floating barges above the falls and floating sidewalks with a separate area for people powered wheeled turbines.
8/26/2014	Heather Tremko	This is an important project for the city county and state. Hope to preserve some of the woolen mill.
8/26/2014	Susan Liston	I hope the areas shaded public space/development remain public space. It is rewarding to see something as beautiful as the falls in Oregon City being brought back so that we all might share it again.
8/27/2014	Craig Lewis	Exciting vision - hope to see it come to fruition.
8/28/2014	Holly Hein	Expand the role of the tribes, would like to see the site as active in native culture.



August 22, 2014

Mayor Neeley, City Commissioners, and Planning Dept.
City of Oregon City
625 Center St
Oregon City, OR

Dear Friends,

I am writing to express appreciation and support for the approach being taken to preserve the historic structures on the former Blue Heron site. Having participated at various points in the process over the last two years, including serving on the selection panel for the Master Plan consulting firm, I recognize the unique complexities of the site and its buildings, and have been impressed with the thoughtful work done thus far.

Restore Oregon serves as a statewide advocate for Oregon's historic resources and works extensively on issues pertaining to the revitalization of historic districts. One of our overarching mantras is that both the restoration of existing structures and new infill development should TELL THE STORY OF THE DISTRICT. From what we see, the Master Plan is on track to do just that.

- It seeks retention of the most important and viable historic structures, including the woolen mill foundations, and seeks to incorporate elements of secondary buildings in a creative way.
- It acknowledges that both flexibility and high standards are necessary to adaptively reuse these purpose-built structures.
- It honors the cultural significance of Willamette Falls to Native Americans, as well as the territorial settlement and industrial history.
- It opens public access to the site's multi-layered history and natural resources.

We urge the property owner to pursue National Register designation of the historic structures that are eligible and anticipate that the accompanying historic tax credits will play a key role in financing their preservation and reuse.

Restore Oregon looks forward to the day when the Willamette Falls site becomes a fully realized landmark destination, cultural gem, and regional economic catalyst. The city and its staff is to be commended for its efforts.

Sincerely,

Peggy Moretti
Executive Director



WILLAMETTE FALLS HERITAGE AREA COALITION

August 25, 2014

TO: OC Planning Commission

RE: *CP 14-02 -Willamette Falls Legacy Project Master Plan*

As our organization completes the Feasibility Study to designate the area around Willamette Falls as a 'national heritage area,' and a 'state heritage area,' the former Heron mill site is a key component of the future envisioned by our organization.

As the centerpiece of the heritage area, the mill site holds key opportunities for economic revitalization, cultural interpretation, heritage preservation, and public access.

We support the balanced and flexible approach reflected in the Master Plan and applaud the public outreach the team has organized and implemented. We support all efforts to retain historic structures that will continue to tell the authentic and nationally significant story of the Birthplace of Industry in the Western United States. From the woolen mill foundations to riverside restoration, the redevelopment of this place must honor the cultural importance it has held for Native Americans, pioneering settlers and builders, as well as the creators of western government, commerce, education, and industry.

Just as we envision that heritage area designation will benefit the region, the changes to the site enabled by the Master Plan will also benefit the region, transform the local area, stimulate private investment, improve the environment, and focus attention on the unique cultural heritage of a singular and special place.

We look forward to approval of the Master Plan and the beginnings of a new chapter of history at this site.

Sincerely,

Alice Norris

Alice Norris
President, Willamette Falls Heritage Area Coalition



architecture foundation of oregon

connecting Oregonians with our designed environments

afo supports Oregon's quality of life and creates awareness of our designed environments through education, advocacy, philanthropy and inspiration

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Bart Ricketts

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Damin Tarlow
Jeff Thiede
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Carl Vance

Executive Director

G. Jane Jarrett

Assoc. Dir. - Architects in Schools

Kim Ruthardt Knowles

Associate Director

Susan Myers

PO Box 40230
Portland, OR 97240
503-542-3825
www.af-oregon.org

August 26, 2014

Oregon City Planning and City Commissions
PO Box 3040
Oregon City, OR 97045

Re: CP 14-02 -Willamette Falls Legacy Project Master Plan

Dear Commissioners,

Thank you for this opportunity to express our support for the Willamette Falls Legacy Project Master Plan.

The Board of Directors of the Architecture Foundation of Oregon has been interested in this project since the Blue Heron Paper Company ceased operation in 2011. Our Foundation is dedicated to connecting Oregonians with our designed environments, and it would be difficult to find a location in Oregon with greater capacity to help our citizens understand the relationship between the built and natural environments, and our responsibility to preservation, stewardship and considered development.

As Oregon's population continues to grow and our land is increasingly built upon, thoughtful, considered decisions about the buildings and infrastructure placed in our world are essential. Oregon is a very special, almost sacred place. Putting a shovel in the land, felling a tree, erecting or altering a structure are privileges that come with responsibility for ecological consciousness, and for the visual, spatial and tactile impact the built environment has on our daily lives. Shadows can be cast, pathways blocked, and connections broken as changes are made. Yet few are aware of this responsibility, or how they can support and assure positive change.

The Willamette Falls Legacy Project provides a near perfect incubator for increasing this awareness. Many of our members have toured the site with project staff and elected officials. We have been astounded by the natural beauty, the cultural and industrial history and the promise of the site, as we suspect all visitors must experience.

We strongly support the Four Core Values adopted by the Project Partners and believe they have been responsibly incorporated in the Project Master Plan. We are particularly supportive of the balance created between cultural and historic preservation and environmental and public access to the Falls. We support the retention of the four large industrial buildings and the woolen mill foundations in concert with robust master plan design policies which maintain flexibility for the site. And, we support the flexible adaptive reuse approach to allow a creative and flexible approach to site redevelopment.

Finally, we want to acknowledge our deep respect for the tremendous work undertaken by the Project Partners staff, contractors and elected officials. Your process to date and the spirit with which it has been carried out is exemplary, and we hope it will long be held up for a model of public works in Oregon and elsewhere.

Sincerely,

Architecture Foundation of Oregon



Bart Ricketts
President



Jeffrey Stuhr, AIA
Civic Engagement Chair



Jane Jarrett
Executive Director



29 August 2014

City Commissioners of the City of Oregon City
Planning Commission for the City of Oregon City

Re: CP 14-02

The mission of the Oregon City Business Alliance (OCBA) is to promote and advocate for a diverse, healthy, and growing economy in Oregon City.

The OCBA fully supports the Willamette Falls Legacy Project. The re-development of the falls area and the former mill site will possibly be the signature historic event of this century.

While we appreciate the breadth and depth of the Project's partners in soliciting public input regarding the possibilities the site offers, and we appreciate the adherence to the core values of Historical and Cultural Interpretation, Public Access, Healthy Habitat, and Economic Redevelopment, we are primarily focused on the latter of these values: Economic Redevelopment.

For over a century of industrialization and, indeed, for countless centuries before that for the native population, this area has been the central hub of all economic development and growth of the region. We particularly appreciate the project's goal of "certainty and flexibility" which will prepare the site for private *and* public investment, creating jobs and prosperity for the region.

The re-development of the Willamette Falls area is in harmony with the mission of the OCBA and our Board of Directors is committed to supporting the Legacy Project's ultimate success.

On behalf of the entire OCBA Board of Directors, thank you for your attention to our comments. We are anxiously awaiting real progress towards realizing the full potential of this historic area.

Sincerely,

A handwritten signature in black ink, appearing to read "William Gifford".

William Gifford, President
Oregon City Business Alliance
PO Box 1593, Oregon City, OR 97045
WilliamG@ocbusinessalliance.com

Aug. 30th 2014

Dear Oregon City Planning and City Commissions ,

In reference to CP 14-02 -Willamette Falls Legacy Project Master Plan, the Master Plan has been exceptionally well done by City Staff and all four values have been addressed. The tours, the meetings and the information gathered and released have made the process informative and transparent. The Oregon City Farmers Market Board and I are excited to see this project take form. We look forward to being included in discussions later on about the development of a designated space for the year-round Farmers Market.

The only comments I would like to make are the following:

- 1)In reference to providing enough flexibility to encourage private investment on the site, removing regulatory and other barriers to redevelopment: On page 64 of the pdf, the proposed zoning prohibits warehousing. Light manufacturing or small-scale food processing (and therefore possibly some kind of warehousing connected to them) would be an excellent use at this site, providing living wage jobs. I think it's too early to start prohibiting this use unless it applies to "stand alone" warehousing.
- 2)In reference to retaining site authenticity: The 13 or so buildings (out of 55 on the site) that are determined to be eligible for the National Register of Historic Places should all be included in the plan and preserved. History is what Oregon City and particularly this site is about.
- 3) I do not believe the Pullery or Picking House is listed as eligible for the Register, yet is the oldest building on the site. (#19 on the map on pdf page 9) I think it's called the Carpentry Shop now. This is where the wool was "pulled" from the sheep skins and this building would have been integral to the Woolen Mills operation, and therefore is very much part of the history of the site.

The Oregon City Farmers Market strongly supports the public access to the riverfront and the Falls. This will be a huge draw and bring customers required to sustain commercial ventures within the City, including the Farmers Market. Knowing that adaptive re-use is the most sustainable form of development, I look forward to seeing exceptionally creative design and uses of the buildings and land in this project.

Sincerely,

Jackie Hammond-Williams.
Manager , Exec. Director. OCFM.



LAND USE TRANSMITTAL

IN-HOUSE DISTRIBUTION

- ☐ Building Official
- ☐ Development Services Manager
- ☐ Public Works Operations
- ☐ City Engineer
- ☐ Public Works Director
- ☐ GIS
- ☐ Parks Manager
- ☐ Addressing
- ☐ Police
- ☐ Traffic Engineer

MAIL-OUT DISTRIBUTION

- ☐ CICC
- ☐ Neighborhood Association Chair
- ☐ Neighborhood Association Land Use Chair
- ☐ Clackamas County - Transportation
- ☐ Clackamas County - Planning
- ☐ Fire Chief
- ☐ ODOT - Sonya Kazen
- ☐ ODOT – Loretta Kiefer
- ☐ School District# 62
- ☐ Tri-Met
- ☐ Metro - Ray Valone
- ☐ Oregon City Postmaster
- ☐ DLCD

COMMENTS DUE BY:

August 27, 2014 for inclusion in the staff report

HEARING DATE:

On Monday, September 8, 2014 at 6:00 p.m., September 15, 2014, at 6:00 p.m. and September 22, 2014 at 7:00 p.m. the City of Oregon City Planning Commission will conduct public hearings and on October 15, 2014, November 5, 2014, and November 19, 2014 the City of Oregon City – City Commission will conduct public hearings at 7:00 p.m. in the Commission Chambers at City Hall, 625 Center Street, Oregon City 97045.

HEARING BODY:

___Staff Review; ___PC; ___HRB; ___x___CC

FILE # & TYPE:

Master Plan: CP 14-02, Zone Change and Text Amendment: ZC 14-03, Comprehensive Plan Map Amendment and amendments to ancillary documents of the Comprehensive Plan: PZ 14-01 and creation of a Multi-modal Mixed Use Area (MMA)

PLANNER:

Kelly Moosbrugger and Christina Robertson-Gardiner

APPLICANT:

Falls Legacy LLC c/o George Heidgerken

REQUEST:

Proposed Zone Change and Text Amendment, Comprehensive Plan Map Amendment and amendments to ancillary documents, and Master Plan to create a framework for future development of the former Blue Heron site.

ZONING:

“GI” General Industrial

LOCATION:

419 Main Street, and no address, in Oregon City, OR 97045
2-2E-31BD-00300, 500, 600, 390

This application material is referred to you for your information, study and official comments. If extra copies are required, please contact the Planning Department. Your recommendations and suggestions will be used to guide the Planning staff when reviewing this proposal. If you wish to have your comments considered and incorporated into the staff report, please return the attached copy of this



OREGON CITY

Community Development – Planning

221 Molalla Ave. Suite 200 | Oregon City OR 97045
Ph (503) 722-3789 | Fax (503) 722-3880


form to facilitate the processing of this application and will insure prompt consideration of your recommendations. Please check the appropriate spaces below.

- ☒ The proposal does not conflict with our interests.
☐ The proposal conflicts with our interests for the reasons attached.
☐ The proposal would not conflict our interests if the changes noted below are included.


This development falls outside the boundary of Clackamas River Water


Signed Betty A. Johnson


PLEASE RETURN YOUR COPY OF THE APPLICATION AND MATERIAL WITH THIS FORM.


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 Inbox (1)


 Junk E-Mail


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 Reply




 Reply to All

 Forward

 Move

 Delete

Close

We are interested in Participation

Brooks [brooks97238@yahoo.com]

Sent: Wednesday, August 06, 2014 11:58 AM

To: [wflp publiccomments](#)



Dear Oregon City;


We would partisan the city government to allow us to place permanent floating barges between property above the falls and the new development of the Falls location to be used as floating sidewalks from the very top of the falls to the property, to be used for pedestrian foot traffic with a separate area for people powered wheeled vehicles and as a generation of power (barge bottom and piling mounted large hydrokinetic turbine arrays). The property also connects to the walk way along hwy 99 that goes back into Oregon City.


Best Wishes

Unicorn Horn Inc


unicornhorninc@gmail.com


 


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Office Outlook Web Access

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Willamette Falls project



Heather Tremko [honeydays@yahoo.com]


Sent: Tuesday, August 26, 2014 3:29 PM


To: [wflp publiccomments](#)

I'm so excited to see this project move forward. It can't come quickly enough. This is such an incredibly important project for the city, county, and state. I hope there is a way to preserve some of the wool mill.


Heather Tremko
Oregon City


 


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Master Plan

Susan Liston [sliston7@gmail.com]

Sent: Tuesday, August 26, 2014 7:07 PM



To: [wflp publiccomments](#)


It is beautiful. I hope the areas shaded public space/development remain public space. Recently read an article on the success of an experiment in prisons to connect hardened criminals so violent they had to remain in solitary confinement. By providing a "blue room" where these men could take a time out to experience the sounds/sights of nature via video projection, objectionable behavior was significantly modified. As our population becomes ever denser, we all need more shared open space.

I live in Gladstone and walk the river as often as possible to experience the trees, water, and wildlife. I grew up in Oak Grove near the Willamette. I've watched our population grow and our natural areas are disappear. It is rewarding to see something as beautiful as the falls in Oregon City being brought back so that we all might share it again. After all, it was once a shared and sacred space to those so often overlooked souls who originally inhabited all of this beautiful land.


Susan Liston
Gladstone, OR

PS A huge thank you to all those who came together and cooperated to arrive at this Master Plan. I'm very grateful!


 


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Submitted On	Submitted By	Name	Position/ Company (if applicable)	Email	Address	Comment
2014-08-27T13:09:22	159.191.229.90	Craig Lewis		caltam1@netzero.net	1842 SE hazel St. Portland OR 97214 US	An exciting vision who's time has come. I hope it is not long before it comes to fruition.


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
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Willamette Falls as a contemporary, not just historical, tribal site

Holly Hein [hollyhein@gmail.com]



Sent: Thursday, August 28, 2014 6:30 PM


To: [wflp publiccomments](#)

I was pleased to see in the planning document that Grande Ronde, Siletz, and other tribal bodies are listed as important stakeholders and holders of knowledge. However, I got the feeling that their role was seen as historical and archaeological consultants. I would like to see it expanded so that Willamette Falls is once again a current and active site of Native culture. In other words, I don't want it developed for a white audience with interpretive signs about its bygone Native significance, but rather restored in a way that is actively helpful to current area Native elders, youth, and families.

I leave it to the tribes to explore what this would mean in practical terms, because I'm not part of those communities. But I think it's important.

Thank you for your consideration.
Holly Hein
6230 SE Reedway St.
Portland OR 97206
(503) 771-7149

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MEMORANDUM

TO: Honorable Mayor Neeley and City Commission
FROM: Carrie Richter, Deputy City Attorney
DATE: March 26, 2014
RE: Willamette Legacy Project Master Plan Review Process

We have been asked to consider whether the City's review of redevelopment applications for the Willamette Falls site is properly viewed as legislative or quasi-judicial. Although the applications have not been filed, the anticipated components of the proposal include: (1) a General Development Plan, the first step for implementing a Master Plan; (2) a comprehensive plan text and map amendment creating the Willamette Falls Downtown District along with corresponding zoning code and map amendments; and (3) applying the Willamette Falls Downtown District to the 22 acres of land owned by a single property owner, the bankruptcy trustee for the Blue Heron Paper Mill.

Legal Analysis

Oregon City Municipal Code provisions do not distinguish whether the proposal, when considered as a whole, is quasi-judicial or legislative.

The Oregon City Municipal Code (OCMC) distinguishes quasi-judicial from legislative matters by categorizing them as Type III or Type IV decisions. A Type III decision is made by the Planning Commission that is then appealable to the City Commission for review. OCMC 17.50.030(C). Type III decisions are adjudicative in nature, require an unbiased decision-maker and disclosure of all ex parte contacts into the record. ORS 197.763, 227.180. A Type IV decision is characterized by the Planning Commission making a recommendation to the City Commission that is then reviewed and implemented by the City Commission. OCMC 17.50.030(D). Type IV decisions are legislative and implement policy where it is assumed that lobbying of decision-makers will occur.

OCMC 17.65.040(B) provides that the first step of a Master Plan approval, a General Development Plan "shall be reviewed through a Type III procedure." A Master Plan approval may extend for up to twenty years. A Master Plan is dissimilar from a concept plan in that it does not become part of the comprehensive plan but remains in place until it expires, is amended or a subsequent land use approval serves to remove it.

A plan or zoning map or text amendment may be initiated by the City Commission, a recommended proposal by the planning commission or through the filing of an application by a



property owner. OCMC 17.68.010. Finally, OCMC 17.50.170 describes legislative actions as those that “involve the adoption or amendment of the city's land use regulations, comprehensive plan, maps, inventories and other policy documents that affect the entire city or large portions of it.”

If the application for Willamette Falls included only a request for a General Development Plan, it would most certainly be a Type III decision and quasi-judicial in nature. Whether a plan or zoning text or map amendment is processed as a Type III, quasi-judicial, or Type IV, legislative decision depends on whether the City is making or applying policy, and whether the decision affects the entire city or large portions of it. Here, although the City is making policy with the creation of the Willamette Falls Downtown District, it will be applied to only 22 acres of the City and it will affect a single property owner.

The City's Analysis of the *Strawberry Hill* factors support the conclusion that the contemplated Willamette Falls proposal should be treated as a quasi-judicial decision.

Every decision is either legislative or quasi-judicial; it cannot be both. *NWDA v. City of Portland*, 47 Or LUBA 533, 569 (2004). As shown in the code analysis above, the decision is not that clear cut when elements of both policy making and master planning are at issue. The three factors that LUBA and the courts use to distinguish quasi-judicial from legislative decisions under the Oregon Supreme Court case *Strawberry Hill 4 Wheelers v. Benton Co. Bd. Of Comm.*, 287 Or 591, 602-603, 601 P2d 769 (1979) are as follows:

1. Is the process bound to result in a decision?
2. Is the decision bound to apply preexisting criteria to concrete facts?
3. Is the action directed at a closely circumscribed factual situation or a relatively small number of persons?

The more definitely the questions are answered in the negative, the more likely the decision under consideration is a legislative land use decision. *Valerio v. Union County*, 33 Or LUBA 604, 607 (1997). These factors do not include consideration of the significance of the decision, whether it will establish a long-term direction for the City or how long the decision will stay in effect.

Here, all three factors suggest that these approvals will be quasi-judicial in character. First, it is assumed that the applications will be signed and submitted by the bankruptcy trustee. A request for development initiated by a property owner rather than by the city council are more likely to result in a decision and are thus, more likely quasi-judicial. See *Strawberry Hill*, 287 Or at 606. Further, this request will include a master plan proposal to be processed as a Type III decision which will ultimately require a decision.



Second, OCMC 17.65.050(C) and 17.68.020 contain specific criteria for approving a General Development Plan and zoning text and map amendments. Therefore, with regard to the master plan and application of the Willamette Falls Downtown District, the City's decision must be evaluated against existing code criteria. This leaves the final component of the decision, the creation of Willamette Falls Downtown District and its application to the Willamette Falls property. Decisions about whether and what type of plan designation to create carries a great deal of policy discretion and is not bound by particular OCMC provisions. Instead, a comprehensive plan text and map amendment is reviewed for consistency against the statewide planning goals. ORS 197.175(2)(a). The difficulty with factor 2 is that pre-existing criteria are generally present in all land use decisions. *Valerio v. Union County*, 33 Or LUBA at 607; *Churchill v. Tillamook County*, 29 Or LUBA 68, 71 (1995); *Friends of Cedar Mill v. Washington County*, 28 Or LUBA 477, 482 (1995). Further, although a new planning and zoning district is created, the new district is not only discrete and focused on a single property. Further, the proposal will largely mirror the City's existing mixed use downtown districts. This is not a case where large sections of the zoning code will be amended which could affect a large number of people in the future.

Finally, although this decision has significant impact for the future development of the City and a large number of persons may have an interest in the outcome, there can be no possible dispute that a plan and zone amendment is "directed at" a 22-acre parcel in single ownership. LUBA has similarly held that a decision that amends the comprehensive plan and zoning maps for a 20-acre parcel in single ownership is properly viewed as a quasi-judicial decision. *Sullivan v. Polk County*, 49 Or LUBA 543, 551 (2005).

Here the first and third factors support a conclusion that the challenged decision is quasi-judicial and the second factor, when considered in connection with the third factor, strongly suggests the same conclusion, since one can hardly imagine a more closely circumscribed factual situation or a smaller number of directly affected persons. Applying the *Strawberry Hill* factors as whole suggests that creation and application of the Willamette Falls Downtown District to 22-acre property, along with the adoption of a concurrent General Development Plan is quasi-judicial decision making.

Conclusion

Although the creation of the Willamette Falls Downtown District does include some policy making components, overall this decision is more likely quasi-judicial in character in that it requires the application of specific criteria and affects a single, closely circumscribed factual situation. Providing the procedural protections required by a quasi-judicial process is the most conservative course in any event and will result in a decision by unbiased decision-makers that is not susceptible to a further procedural challenge. Although ex parte contacts will have to be disclosed, the obligation to track and disclose such contacts does not begin until the applications are filed. City staff and this office stand ready to advise and assist the Planning Commission and the City Commission in this regard.



MEMORANDUM

TO: Tony Konkol, Community Development Director
CC: Christina Robertson-Gardiner, Planner
John Lewis, Public Works Director
Todd Martinez, Project Engineer
FROM: Aleta Froman-Goodrich, P.E., City Engineer
DATE: August 25, 2014
SUBJECT: Willamette Falls Legacy Project, Public Works Engineering Findings and Recommendations for Conditions of Approval
PLANNING CP 14-02 Master Plan
FILES: ZC 14-03 Zone Change
PZ 14-01 Comprehensive Plan Map Amendment

Public Works Engineering staff has reviewed the application submitted for the Willamette Falls Legacy Project for the proposed Zone Change, ZC 14-03, and Master Plan, CP 14-02, that will create a framework for future development of the former Blue Heron site. This memorandum specifically comments on the public services for water and fire protection, sanitary sewer, storm drainage, and streets.

Staff has provided the following findings and recommendations based on the applicant's responses to code criteria as well as other application material related to the public services. For reference, these are the primary applicable code sections:

17.65.50 General Development Plan

C. Approval Criteria for a General Development Plan.

2. Development shall demonstrate compliance with Chapter 12.04, Streets Sidewalks and Public Places.

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.

17.68.020 Criteria.

The criteria for a zone change are set forth as follows:

B. That public facilities and services (water, sewer, storm drainage, transportation, schools, police and fire protection) are presently capable of supporting the uses allowed by the zone, or can be made available prior to issuing a certificate of occupancy. Service shall be sufficient to support the range of uses and development allowed by the zone.

PUBLIC FACILITIES AND SERVICES

WATER

Findings:

Existing Water System

The existing public water system serving the former Blue Heron site consists of an onsite 10-inch cast iron (CI) water main that connects to a bi-directional pressure reducing valve (PRV) station at the north end of the property in Main Street just south of the intersection of Highway 99E (5th Street) and Main Street. The 10-inch CI water main extends south from the PRV station in the alignment of Main Street to approximately the middle of the property just south of where 3rd Street would be located. Then the 10-inch CI turns easterly in a location under the existing building and continues easterly under the railroad tracks and Hwy 99E. On the east side of Hwy 99E, the water main transitions from underground to above ground and is located vertically on the bluff wall, attached with pipe supports, from Hwy 99E at the bottom to the McLoughlin Promenade at the top where the water main transitions back to underground. The 10-inch water main continues easterly underground from the bluff wall to a second PRV station at 3rd Street just westerly of High Street. The 10-inch main is the source of water supply to the former Blue Heron's large metered water service and onsite private water system.

The 3rd/Bluff PRV station is the primary source of water supply to the 10-inch main. The station contains two PRVs that control the flow of water from the upper pressure zone to the lower pressure zone with one small PRV providing water service during normal operating conditions and one large PRV providing higher flows during fire flow conditions. During normal operating conditions the 10-inch system is a dead end main served by the 3rd/Bluff PRV and providing water to the onsite metered service. The 5th/Main PRV operation is bi-directional and only provides flow to the 10-inch main during fire flow conditions. It should be noted that the operational parameters of the PRV stations were designed and set based on the operational needs of the former Blue Heron site. The PRV stations need to be evaluated for operational changes based on the proposed redevelopment uses of the site.

The 2012 Water Master Plan evaluated the fire flow capacity of the 10-inch main onsite using a hydraulic model. The estimated available fire flow at 20 psi residual pressure is 2,450 gallons per minute (gpm). The former Blue Heron site's required fire flow was 5,000 gpm. For the site's fire protection needs, the public system is supplemented by an onsite private water system. This private system includes a fire protection system and potable water system. The private fire system facilities include a tank on a property at the westerly corner of High Street and 1st Street, with a private fire main that extends from the tank, down the bluff wall, crosses under Hwy 99E and the railroad tracks, with a network of fire mains onsite that provide flow to onsite private fire hydrants and sprinkler systems located inside the existing buildings. It is assumed as the site redevelops, the private system will be abandoned, removed and/or demolished including the private fire system facilities.

The referenced public 10-inch CI and steel water mains are old, in poor condition and need to be replaced. The above ground steel main failed in December 2013 with leaking pipes and the City made temporary repairs to keep the pipeline in service. The referenced PRV stations are also old and have operational and maintenance problems with the 3rd/Bluff PRV station needing to be replaced.

The capacity of the existing public 10-inch system with two PRV stations is not adequate to provide the commercial fire flow requirement of 3,000 gpm at 20 psi residual pressure. Due to the existing system's deficiencies, there needs to be a hydraulic analysis performed to determine what water system improvements are needed to provide the fire flow requirements as required by the Uniform Fire Code and Clackamas Fire District #1 for the range of uses and overall development proposal.

During the interim period, between approval of the Master Plan and the first development land use application, it is important to document the plan of how the existing onsite private water system will be operated and maintained, when the large metered service is anticipated to be removed, and what the fire protection requirements are for the existing buildings on the site.

Recommended Conditions of Approval:

1. Within six (6) months from the date of the land use approval for CP 14-02 Master Plan, the applicant shall develop, finalize and submit to the City an interim water utility plan for the private onsite water system. The private system currently provides both domestic water service and fire flow protection to the entire site. The interim water utility plan shall include:
 - a. Detailed operational and maintenance plan for the private water system during the interim period.
 - b. Water System Pipe Schematic showing the private system schematically that will be operation during the interim period, including from the City's metered connection to the ends of the operational pipe segments, primary isolation valves, fire hydrants, sprinkler systems and other notable appurtenances.
 - c. Collaboration with the City's Public Works Operations and Engineering staff regarding the interim operations and maintenance of the private water system.
 - d. Collaboration with Clackamas Fire District #1's (CCFD#1) to determine the minimum fire flow requirements for the existing buildings onsite and how the private system will comply with the requirements.
 - e. Concurrence from the City and CCFD#1 on the final interim water utility plan.
2. Prior to site development and concurrent with the first development land use application, the applicant shall develop an overall water utility plan for providing a public water system that provides both potable water service and fire flow protection to the entire site. The overall water utility plan shall require final approval by the City and include:
 - f. Compliance with City Standards including Public Works Utility Standards

- g. Compliance with Clackamas Fire District #1's (CCFD#1) and Uniform Fire Code requirements for the site's maximum fire flow based on the overall site development plan and any other conditions of approval as applicable.
 - h. A looped system providing two sources of supply with consideration of one source being located at the southern end of the site about where the existing pedestrian bridge crosses over Hwy 99E and the railroad tracks. This existing bridge is planned to be replaced sometime in the future with a new pedestrian bridge and consideration should be made for making the new bridge dual purpose and incorporate public utility crossings such as a new water pipeline.
 - i. Evaluation of the existing water distribution system using City's approved hydraulic network model to determine what new water system improvements are needed to provide adequate service pressures during normal operating conditions, fire flows as required by CCFD#1, and PRV station operational parameters based on the redevelopment needs of the site. Note: The existing PRV operational parameters may not work for the proposed redevelopment and be required to change.
 - j. Evaluation to determine if the City's designated "Paper Mill" pressure zone can be rezoned and made part of the "Lower" pressure zone and whether the PRV station at 5th/Main St is needed with the overall redevelopment plan.
 - k. Phasing plan for new water improvements, including consideration of when existing water facilities will be abandoned, removed and/or replaced, how fire protection will be provided to existing buildings that are remaining in place during that development phase, how the new system will operate during that development phase if there are old water facilities still needed to be operational, replacing and/or upgrading PRV stations, installation of new public water mains, fire hydrants and metered services located within future public streets meeting separation standards from other utilities as applicable.
 - l. Consideration of completely abandoning the private system with the first phase development and what new water improvements are needed to accomplish this.
3. Prior to building permits for the first site development, the plan will be implemented as approved.

SANITARY SEWER

Findings:

Existing Sanitary Sewer System

There is an existing private sanitary sewer collection system on site which is a gravity system consisting of 8-inch and 12-inch pipe. This system connects directly to the Tri-City Service District (TCSD) interceptor system located on Highway 99E near the location of the future Water Street. A portion of the private pipe is located beneath the water filtration plant.

The existing private system on site is old, the condition is unknown and is at least partially inaccessible. This system will need to be abandoned in place and/or removed, and replaced with a public sanitary sewer system complying with City standards and located in future public right-of-way. As the site is relatively flat, it may be difficult to provide gravity sanitary sewer service to the south end of the site.

The City's 2014 Sanitary Sewer Master Plan (SSMP) that is being adopted, includes an evaluation of the capacity of the Tri-City interceptor sewers along Hwy 99E. A number of the Tri-City sewers were found to be surcharging under both existing and future conditions. Water Environment Services (WES) manages and operates the Tri-City interceptor system. There will need to be coordination with WES and WES approvals regarding the connection to the Tri-City interceptor system with future sanitary sewer system improvements.

Recommended Conditions of Approval:

1. Prior to site development and concurrent with the first development land use application, the applicant shall develop an overall sanitary sewer utility plan for providing a public sanitary sewer system to the entire site. The overall sanitary sewer utility plan shall require final approval by the City and include:
 - a. Compliance with City Standards including Public Works Utility Standards
 - b. Capacity evaluation of existing sanitary sewer collection system using City's approved hydrologic/hydraulic model due to the proposed wastewater flow contribution from the entire development, including consideration of the TCSD surcharged interceptor sewers predicted in the 2014 SSMP and potential need for backflow protection improvements due to negative impacts from TCSD surcharged system.
 - c. Phasing plan for abandonment, removal, and/or replacement of existing sewer facilities, and new public sanitary sewer extensions with lateral services located within future public streets meeting separation standards from other utilities as applicable.
2. Prior to building permits for the first site development, the plan will be implemented as approved.

STORM DRAINAGE

Findings:

Existing water quality facilities have been installed as temporary measures until development occurs. The temporary measures include gabions with filter material at one tailrace and the pipe gallery; retention and settling in the grotto; and rain gardens in totes for the roof drains. There are two existing outfalls on the site located within the redevelopment area, one at approximately 3rd Street and the second at 4th Street.

The 3rd St outfall and pipe conveyance system collects storm water runoff through Oregon Department of Transportation (ODOT) Hwy 99E from Tumwater Drive to 3rd Street and conveys the flows downstream to the pipe system onsite along 3rd Street to the 3rd St outfall. Confirmation was made that one of the onsite manholes along this conveyance system at the intersection of 3rd St and Main St has been changed with the addition of a weir to direct the storm water flow into the onsite sanitary sewer system which flows directly to the TCSD interceptor pipe. This storm water issue further exacerbates the surcharging condition in the TCSD interceptor sewers and needs to be rectified.

The 4th St outfall system appears to collect onsite drainage and convey this through a pipe system to the outfall. There is a third outfall at the south end of the site discharging storm water to the pond above the dam from the Oregon Department of Transportation (ODOT) Hwy 99E and City 2nd St/High St stormwater systems. The outfall is submerged in the pond and this section is believed to be damaged, requiring repairs and/or replacement to make the system fully functional.

There is a fourth outfall at the north end of the site where the future Water Street intersects Hwy 99E (5th St). The 5th/Water outfall system collects and conveys stormwater from Railroad Ave, along the site's frontage on 5th St to the outfall. There appears to be operational problems with this system that include surcharging of the catch basins in the intersection of Main St and Hwy 99E. The site contributes stormwater runoff to this system. This problem will need to be evaluated for existing deficiencies in the system.

The site has been cleaned up such that storm water from the site can be discharged to the Willamette River without further environmental remediation. Due to the direct discharge to the Willamette River detention will not be required. Standard water quality treatment will be required per the City's stormwater management standards.

Recommended Conditions of Approval:

1. Prior to site development and concurrent with the first development land use application, the applicant shall develop an overall stormwater management plan for the entire site. The plan shall require final approval by the City and include:
 - a. Compliance with City Standards including Public Works Utility Standards
 - b. New stormwater facilities that provide for collection and treatment prior to discharge.
 - c. Consideration of alternative treatment methods such as LID due to the nature of the site (bedrock at or near the existing ground surface).
 - d. Evaluation of existing stormwater system along frontage of site and determination of what improvements are needed to fix any deficiencies found.
 - e. Phasing plan as applicable and meeting the needs for phased redevelopment of the site.
2. By September 30, 2015, the applicant shall rectify the stormwater issue at the referenced manhole at Main St/3rd St intersection and separate the storm system from the sanitary sewer system. The resolution shall include collaboration and coordination with ODOT to determine what improvements are necessary for the separation of systems, City and ODOT approval of the plan, and implementation.

STREETS

Findings:

The master plan for the new Willamette Falls District establishes street locations and dimensions that are generally consistent with OCMC 12.04. The primary facilities that will be established over the life of the master plan are a new Main Street, Water Street, 3rd and 4th Streets, and a multi-use pedestrian and bicycle path along the waterfront and potentially south toward Canemah.

The grid of public streets is the continuation and re-creation of the historic pattern that already exists in downtown Oregon City. This network of streets was vacated to make way for large-scale industrial development. As the site re-develops with uses that do not have the same need for very large footprint structures like paper-making machines, the site can again benefit from the accessibility that can be provided by a continuous street network.

Main Street is a “collector” street and future development of this street will comply with these standards with one exception. Rather than a city-designated 12 foot sidewalk, the standard profile will include minimum 16 foot sidewalks. This dimension could be reduced for a specific development application to accommodate a special condition such as to protect the façade of an existing historic building. This change will accommodate an expected level of pedestrian activity that is forecast for the new district, and is in response to the current experience of Main Street in downtown Oregon City, where street furniture and signage has often left the through-zone for pedestrian traffic seeming congested.

Water Street is a new street that will be classified as a “local street” and comply with the design standards for that classification as contained in 12.04. Likewise, 3rd and 4th Streets will also be designated as local streets. These streets have the most flexibility depending on the nature of future development, since they are short segments, bounded by 99E and basalt cliffs to the east, and the river to the west. These streets could be established in a traditional section, or as shared streets, or as stubs into a parking structure.

For all streets within the district, the requirement for street trees will be modified as part of this master plan approval. The entire Willamette Falls Downtown District is on a basalt shelf that has only a shallow layer of soil—if any—that is a poor environment for growing trees. A continuous canopy of street trees is strongly encouraged, and should be installed wherever it is feasible. In locations where underlying basalt does not allow standard street tree installation, an alternative approach will be allowed. Design guidelines proposed with the plan will encourage streetscapes to have a lively vegetative presence regardless of the underlying soil conditions, whether in planters or using smaller trees and shrubs.

Recommended Conditions of Approval:

1. Prior to site development and concurrent with the first development land use application, the applicant shall develop an overall street utility plan for the entire site. The plan shall require final approval by the City and include:
 - a. Compliance with City Standards including Public Works Utility Standards
 - b. Consideration of design exceptions and alternative streetscape elements if the site conditions (bedrock at or near the existing ground surface) do not allow for City Standards to be met.
2. Phasing plan as applicable for phased redevelopment of the site.

REPLINGER & ASSOCIATES LLC
TRANSPORTATION ENGINEERING

August 27, 2014

Ms. Christina Robertson-Gardiner
City of Oregon City
PO Box 3040
Oregon City, OR 97045

SUBJECT: REVIEW OF TRANSPORTATION STUDIES – LEGACY FALLS – MASTER PLAN: CP 14-02, ZONE CHANGE AND TEXT AMENDMENT: ZC 14-03, COMPREHENSIVE PLAN MAP AMENDMENT AND AMENDMENTS TO ANCILLARY DOCUMENTS OF THE COMPREHENSIVE PLAN: PZ 14-01, AND CREATION OF A MULTI-MODAL MIXED USE AREA (MMA)

Dear Ms. Robertson-Gardiner:

In response to your request, I have reviewed the materials submitted in support of the proposed master plan, zone change and multi-modal mixed use area for the Legacy Falls site. The relevant materials included the *Oregon City Willamette Falls Legacy Project Draft Transportation Analysis* (TA) and appendices. The TA is dated February 24, 2013 and was prepared under the direction of Carl Springer, PE of DKS Associates. In addition, I reviewed design concepts for the intersection of Highway 99E with Railroad Avenue and Water Avenue.

The site covered by the proposed action is the former Blue Heron Paper facility, which is bounded by the Willamette River, Highway 99E and the railroad tracks. The site is approximately 23 acres. The traditional industrial use is proposed to be replaced by a mix of uses including passive recreation or open space, housing, and employment.

The TA addresses build-out of the site with a planning horizon year of 2035. Formal phasing of development has not been analyzed. The subsequent submittal of a detailed development plan may propose specific phasing for development of the site.

The TA provides a basis upon which the development proposal can be evaluated for transportation impacts and conformance with master plan criteria.

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 20 peak hour trips. The engineer evaluated traffic patterns and traffic volumes and evaluated 7 locations. The key intersections were:

- Main Street/McLoughlin Boulevard (Highway 99E) (signalized)
- Main Street/6th Street (unsignalized)
- Main Street/7th Street (signalized)
- McLoughlin Boulevard/6th Street (unsignalized)
- 6th Street/Railroad Avenue (unsignalized)

- 7th Street/Railroad Avenue (unsignalized)
- McLoughlin Boulevard/S 2nd Street (signalized)

The study area is appropriate.

- 2. Traffic Counts.** The traffic counts used in the analysis were conducted at various times and were adjusted to represent 2013 conditions. Based on previous analyses of the Highway 99E corridor, which show the PM peak hour to be considerably higher than the AM peak hour, the traffic analysis was conducted for the PM peak period only. The counts appear reasonable.
- 3. Trip Generation.** Two scenarios were utilized to analyze the range of development of the site. The high land use scenario consisted of about 240 housing units and over 1,600 employees, while the low land use scenario included about 215 households and over 1,200 employees. Taking a conservative approach, the transportation impacts of redeveloping the Willamette Falls Legacy Project site were based on the high land use scenario to represent the reasonable worst case.

The worst case development scenario is forecast to produce 700 PM peak hour trips.

- 4. Trip Distribution.** The trip distribution was based on an analysis of traffic patterns and results of the modeling for the Transportation System Plan. The trip distribution shows traffic being disbursed as follows:
 - 40 percent are expected to come via McLoughlin Boulevard to/from the north
 - 25 percent across the Oregon City-West Linn Arch Bridge
 - 15 percent between areas to the south via McLoughlin Boulevard
 - 15 percent via Main Street Downtown, north of the Oregon City-West Linn Arch Bridge.

The trip distribution seems reasonable.

- 5. Traffic Growth.** As described above, the planning horizon year used for the analysis was 2035. The baseline used for 2035 was established in the TSP. Traffic generated by the proposed development was added to the baseline volumes. The traffic growth assumptions and methodology appear reasonable.
- 6. Analysis.** Traffic volumes were calculated for the intersections described in #1, above. Except for the intersection of 6th Street and Railroad Avenue, which has no control and no conflicting traffic movements, the level of service (LOS) and the volume-to-capacity ratios were provided for comparison with city and ODOT operational standards. As noted above, the analysis was undertaken for the PM peak hour. The analysis included year 2013 background conditions, 2035 baseline conditions and year 2035 with build-out of the site.

As described in the TA, special rules apply for areas designated as a Multi-Modal Mixed-Use Area (MMA), a designation that is being proposed concurrently with the adoption of the master plan and rezoning. Motor vehicle operations were evaluated by analyzing the performance of the study intersections. Since the impacts of rezoning the Willamette Falls Legacy Project site

are no longer required to be monitored through mobility targets with an MMA designation, the intersection operations are being provided to assess the safety aspects resulting from the potential increase in motor vehicle congestion with the redevelopment of the Willamette Falls Legacy project site.

According to the TA, a modest degradation of performance is predicted between 2013 and 2035 due to background growth and some additional degradation is predicted with the proposed development. Details can be found in Table 3 of the TA. The results for most intersections are not reported here because they do not apply with the proposed MMA designation. The intersection of Highway 99E and South Second Street is calculated to operate at v/c of 0.69 under existing conditions; 0.91 under 2035 background conditions; and 0.92 under 2035 with the development. The increase in v/c of 0.01 associated with the development is not considered significant.

In lieu of the traditional use of mobility standards to show adequacy of the transportation system, the key criterion used in an area with MMA designation is safety. That issue has been dealt with at length in the TA. Key features include an emphasis on multi-modal streets; improved pedestrian crossings at multiple locations; and mitigation measures to address problems created by left turns from Highway 99E at Main Street. The emphasis on this issue and the mitigation measure appear to satisfy the expectations associated with an MMA.

- 7. Turn Lanes at Site Entrance(s).** The intersection of Highway 99E and Main Street serves as the principal site access. As discussed below, a high number of crashes have been reported at this intersection. One of the key goals of the study of the Willamette Falls site was to address this safety concern. Evaluation of turn lanes was undertaken. Due to physical constraints, the solution proposed for this location is the eventual elimination of left turns from Highway 99E at Main Street. These movements are accommodated by proposals to redirect traffic to Railroad Avenue, thus eliminating the northbound left-turn movement. These alternative routing schemes mitigate for the safety problems and satisfy the requirement for provision of turn lanes.
- 8. Crash Information.** The TA provided a comprehensive summary of crash history at the study area intersections. Two of the seven locations had a significant number of crashes with 30 reported at the intersection of Highway 99E and Main Street and 28 reported at the intersection of Highway 99E and South Second Street. Problems in the vicinity of Main Street include limited sight distance, the tunnel south of Main Street and the curvature of the roadway. Mitigation proposed to address this safety problem includes changing traffic patterns to eliminate left turns from Highway 99E, improved tunnel illumination, and Intelligent Transportation System (ITS) warning systems to alert drivers to excessive speeds, stopped vehicles ahead, etc.
- 9. Pedestrian and Bicycle Facilities.** The TA provides a good summary of the existing facilities. The TA also describes how existing streets in the study area can be configured as multi-modal streets, with wider sidewalks, improved crossings, and similar features. The extension of the Riverwalk, a facility to enhance pedestrian activity, to the site from the north is also proposed as part of the implementation of the development.

With the development of the Willamette Falls site, a grid street system featuring multi-modal features including wide sidewalks and other elements to encourage non-motorized travel is expected to be implemented. In connection with site plans or a detailed development plan, additional attention should be paid to the design and construction of facilities to enhance movement and safety of bicyclists and pedestrians.

10. Site Plan and Access. As described above, Main Street serves as the principal access point for the site. As part of the master plan, Water Avenue will also be upgraded to provide improved access for southbound traffic on Highway 99E.

11. Intersection Spacing. The development plan does not create any new intersections external to the site. Because of the new traffic patterns proposed in connection with the elimination of left turns from Highway 99E to Main Street, modifications are proposed for the intersections of Highway 99E with Railroad Avenue and with Water Avenue. The modification of the intersection with Railroad Avenue will feature an alignment more perpendicular to Highway 99E, a short deceleration lane for traffic exiting Highway 99E, and a marked pedestrian crosswalk. The modification of the intersection with Water Avenue will be designated for right-in, right-out movements and will feature a pork-chop island or barrier median.

With the development of the Willamette Falls site, a grid street system is expected to be implemented in connection with renovation of buildings or the construction of new ones. In connection with site plans or a detailed development plan, additional attention should be paid to the design features of the new streets and intersection spacing within the 23-acre site.

12. Sight Distance. Known problems on Highway 99E in the area include sight distance limitations caused by the curvature of the roadway and the tunnel. Mitigation for these issues is proposed including improved illumination in the tunnel and implementation of various Intelligent Transportation Systems to warn of slower traffic or stopped traffic ahead. These mitigation measures are part of the solution to sight distance problems and crashes at the intersection of Highway 99E with Main Street.

Sight distance issues within the boundaries of the development may also need to be addressed in connection with site plans or submittal of a detailed development plan that supports establishment of additional streets and intersections with the site.

13. Consistency with the Transportation System Plan (TSP). The development proposal is mostly consistent with the Transportation System Plan. Amendment of the TSP includes the addition of new projects, including modifications to Highway 99E in the vicinity of the site. These consist of illumination improvements, Intelligent Transportation System improvements, and modification of the intersections of Highway 99E with Railroad Avenue and Water Avenue.

For subsequent land use actions, site plans or detailed development plans should provide additional documentation of consistency with the TSP, such as street design features, connectivity, intersection spacing and the provision of facilities to enhance pedestrians' and bicyclists' movements and safety.

14. Conclusions and Recommendations. The TA provides a detailed analysis of the impact of redevelopment of the former Blue Heron site with a mix of uses including open space, housing and employment. It provides documentation of:

- The performance of key intersections in the vicinity of the site during the PM peak hour in 2013 and 2035.
- Crash statistics at key study area intersections and a series of mitigation measures to address problems at the intersection of Highway 99E and Main Street.
- Proposed changes to traffic patterns to eliminate left turns from Highway 99E to Main Street.
- Proposed improvements at the intersection of Highway 99E with Water Avenue.
- Proposed improvements at the intersection of Highway 99E with Railroad Avenue.
- An overall plan to upgrade streets in the vicinity to multi-modal streets.
- Enhancement of pedestrian facilities including an extension of Riverwalk to the site.

Conclusion and Recommendations

I find that the TA provides an adequate basis upon which to assess the impacts of the redevelopment proposal.

I think that the TA provides sufficient documentation and mitigation measures showing that the transportation needs and safety associated with an MMA will be satisfied. I concur with the recommendations for the eventual prohibition of turns from Highway 99E to Main Street and the reconfiguration of the intersections of Highway 99E with Railroad Avenue and with Water Avenue. In addition, I concur with the focus on constructing multi-modal streets in the area that will seek to enhance the connection between the downtown area and the site. I concur with various elements, such as the extension of the Riverwalk and enhanced pedestrian crossings, to facilitate and encourage non-motorized travel in the area as a means of satisfying transportation needs.

As noted in several places above, some additional documentation associated with features on or adjacent to the site will be needed in connection with site plans or a detailed development plan.

I recommend that approval of the master plan, the rezoning, and designation of the MMA 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 the impacts become significant.

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

Ms. Christina Robertson-Gardiner
August 27, 2014
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Oregon Revised Statute 358.653

Protection of Publicly Owned Historic Properties

Fact Sheet

Oregon Revised Statute (ORS) 358.653 is an Oregon state law obligating state agencies and all “political subdivisions” of the state—including counties, cities, universities, school districts, and local taxing districts—to consult with the State Historic Preservation Office (SHPO) to avoid inadvertent impacts to historic properties for which they are responsible. Impacts are usually the result of construction projects (additions, remodeling, etc.), but may also include the transfer of properties out of public ownership.

The statute does not provide many specifics, and there are currently no clarifying administrative rules, so, as a practical matter, SHPO follows a “lite” version of a similar federal law, Section 106 of the National Historic Preservation Act. In cases where federal funds, permits, or licenses are used, ORS 358.653 is superseded by Section 106.

This statute relates primarily to historic buildings and structures, but includes all real property that has historic significance. Protection of archaeological sites, on both public and private lands, is addressed by several other state and federal laws. See the Archaeological Services section on the SHPO’s website (oregonheritage.org) for guidance on how to comply with these laws if your project involves ground disturbance.

Who needs to comply with ORS 358.653?

Any public entity, including state government, counties, cities, universities, and local taxing districts such as hospitals, schools, irrigation, and fire departments.

What qualifies as a “historic property”?

Any property listed in the National Register of Historic Places or eligible for listing in the National Register qualifies for consideration under this statute. Given that only a relative handful of eligible properties have actually gone through the formal designation process, most of the properties that fall under this statute are not officially designated landmarks. In general, historic properties that meet the 50-year guideline, retain their historic appearance for the most part, and meet one of four qualifying criteria for significance set forth by the National Register.

What types of projects need review?

Any project that involves a property that meets the 50-year guideline at the time of construction of the project must be reviewed under ORS 358.653. Projects include any work that physically impacts a property. For buildings, this includes, but is not limited to, window replacement, roof replacement, new additions, and major interior modifications. (Maintenance activities such as painting, cleaning, and repairing are generally exempt.) The statute also applies if an agency is selling or transferring a property out of public ownership. Proposed demolition, of course, is also subject to review.

Why should my agency comply with the law?

ORS 358.653 does not include any penalties at this time for non-compliance, however, any agency failing to meet its obligations under this law is vulnerable to challenges by aggrieved

parties, resulting in project delays, increased administrative costs, increased staff time, and even legal fees.

How do I consult with the SHPO?

Consultation is easy and can be accomplished quickly without unnecessary project delays.

1. Determine if the property is at least 50 years old. If yes, proceed to steps below. If no, then no further action is needed unless the property is close to 50 years old and has exceptional characteristics of design or historical associations. Contact the SHPO for guidance on this issue.
2. Complete an Oregon SHPO Clearance Form (available on the Review & Compliance page of the SHPO's website: oregonheritage.org). Agencies will need to determine if their building is listed in the National Register **or** is eligible for listing. Please contact the Oregon SHPO for guidance on this process if not using a professional consultant.

Agencies also need to determine if the proposed project will affect the historic characteristics of the property. Be sure to include maps, photos, and drawings as necessary to illustrate what your project involves. In the event of a property sale or transfer, conveyance into private ownership is generally considered a negative impact to the property because it leaves the property without benefit of public stewardship.

3. Submit all materials to the SHPO. The review process takes up to 30 calendar days, usually less.
4. If the SHPO agrees that the property is not historic, or if it is historic and the project will not have negative impacts, the consultation process with the SHPO is complete.
5. If there will be negative impacts to the historic property, options for avoiding those impacts should be explored. Often, relatively minor changes in the work plan can minimize or eliminate negative impacts.
6. If impacts cannot be avoided then they must be "mitigated." Mitigation is negotiated between the SHPO and the agency, often with the involvement of the local government's landmark commission or historic preservation staff. Mitigation may include documentation, public education, protective covenants, or other historic preservation work that "gives back" to the community.

Don't forget the local government's historic preservation review.

If the historic property in question is locally listed as a landmark or listed in the National Register, it typically falls under the purview of the local landmarks board. Contact the local planning department to determine if your property is subject to local review.

Additional questions?

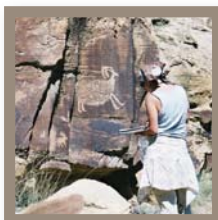
Please contact Ian Johnson at the SHPO: (503) 986-0678 or ian.johnson@state.or.us.

Protecting Historic Properties

ADVISORY COUNCIL ON HISTORIC PRESERVATION

Protecting Historic Properties:

A CITIZEN'S GUIDE TO SECTION 106 REVIEW



WWW.ACHP.GOV

Preserving America's Heritage

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COVER PHOTOS:

Clockwise, from top left: Historic Downtown Louisville, Kentucky; Section 106 consultation at Medicine Lake, California; bighorn sheep petroglyph in Nine Mile Canyon, Utah (photo courtesy Jerry D. Spangler); Worthington Farm, Monocacy Battlefield National Historic Landmark, Maryland (photo courtesy Maryland State Highway Administration).

About the ACHP

The mission of the Advisory Council on Historic Preservation (ACHP) is to promote the preservation, enhancement, and productive use of the nation's historic resources and advise the President and Congress on national historic preservation policy.

The ACHP, an independent federal agency, also provides a forum for influencing federal activities, programs, and policies that affect historic properties. In addition, the ACHP has a key role in carrying out the Preserve America program.

The 23-member council is supported by a professional staff in Washington, D.C. For more information contact:

Advisory Council on Historic Preservation
1100 Pennsylvania Avenue, NW, Suite 803
Washington, D.C. 20004
(202) 606-8503
www.achp.gov

Introduction

Proud of your heritage? Value the places that reflect your community's history? You should know about Section 106 review, an important tool you can use to influence federal decisions regarding historic properties. By law, you have a voice when a project involving federal action, approval, or funding may affect properties that qualify for the National Register of Historic Places, the nation's official list of historic properties.

This guide from the Advisory Council on Historic Preservation (ACHP), the agency charged with historic preservation leadership within federal government, explains how your voice can be heard.

Each year, the federal government is involved with many projects that affect historic properties. For example, the Federal Highway Administration works with states on road improvements, the Department of Housing and Urban Development grants funds to cities to rebuild communities, and the General Services Administration builds and leases federal office space.

Agencies like the Forest Service, the National Park Service, the Bureau of Land Management, the Department of Veterans Affairs, and the Department of Defense make decisions daily

about the management of federal buildings, parks, forests, and lands. These decisions may affect historic properties, including those that are of traditional religious and cultural significance to federally recognized Indian tribes and Native Hawaiian organizations.

Projects with less obvious federal involvement can also have repercussions on historic properties. For example, the construction of a boat dock or a housing development that affects wetlands may also impact fragile archaeological sites and require a U.S. Army Corps of Engineers permit. Likewise, the construction of a cellular tower may require a license from the Federal Communications Commission and might compromise historic or culturally significant landscapes or properties valued by Indian tribes or Native Hawaiian organizations for traditional religious and cultural practices.

These and other projects with federal involvement can harm historic properties. The Section 106 review process gives you the opportunity to alert the federal government to the historic properties you value and influence decisions about projects that affect them.

Public Involvement Matters



Dust from vehicles may affect historic sites in Nine Mile Canyon, Utah. (photo courtesy Jerry D. Spangler; Colorado Plateau Archaeological Alliance)

What is Section 106 Review?

In the National Historic Preservation Act of 1966 (NHPA), Congress established a comprehensive program to preserve the historical and cultural foundations of the nation as a living part of community life. Section 106 of the NHPA is crucial to that program because it requires consideration of historic preservation in the multitude of projects with federal involvement that take place across the nation every day.

Section 106 requires federal agencies to consider the effects of projects they carry out, approve, or fund on historic properties. Additionally, federal agencies must provide the ACHP an opportunity to comment on such projects prior to the agency's decision on them.

Section 106 review encourages, but does not mandate, preservation. Sometimes there is no way for a needed project to proceed without harming historic properties. Section 106 review does ensure that preservation values are factored into federal agency planning and decisions. Because of Section 106, federal agencies must assume responsibility for the consequences of the projects they carry out, approve, or fund on historic properties and be publicly accountable for their decisions.

Conservation



The National Soldiers Monument (1877) at Dayton (Ohio) National Cemetery was cleaned and conserved in 2009 as part of a program funded by the American Recovery and Reinvestment Act. (photo courtesy Department of Veterans Affairs)

Understanding Section 106 Review

Regulations issued by the ACHP spell out the Section 106 review process, specifying actions federal agencies must take to meet their legal obligations. The regulations are published in the Code of Federal Regulations at 36 CFR Part 800, "Protection of Historic Properties," and can be found on the ACHP's Web site at www.achp.gov.

Federal agencies are responsible for initiating Section 106 review, most of which takes place between the agency and state and tribal or Native Hawaiian organization officials. Appointed by the governor, the State Historic Preservation Officer (SHPO) coordinates the state's historic preservation program and consults with agencies during Section 106 review.

Agencies also consult with officials of federally recognized Indian tribes when the projects have the potential to affect historic properties on tribal lands or historic properties of significance to such tribes located off tribal lands. Some tribes have officially designated Tribal Historic Preservation Officers (THPOs), while others designate representatives to consult with agencies as needed. In Hawaii, agencies consult with Native Hawaiian organizations (NHOs) when historic properties of religious and cultural significance to them may be affected.

To successfully complete Section 106 review, federal agencies must do the following:

- ▶ gather information to decide which properties in the area that may be affected by the project are listed, or are eligible for listing, in the National Register of Historic Places (referred to as "historic properties");
- ▶ determine how those historic properties might be affected;
- ▶ explore measures to avoid or reduce harm ("adverse effect") to historic properties; and
- ▶ reach agreement with the SHPO/THPO (and the ACHP in some cases) on such measures to resolve any adverse effects or, failing that, obtain advisory comments from the ACHP, which are sent to the head of the agency.

What are Historic Properties?

In the Section 106 process, a historic property is a prehistoric or historic district, site, building, structure, or object included in or eligible for inclusion in the National Register of Historic Places. This term includes artifacts, records, and remains that are related to and located within these National Register properties. The term also includes properties of traditional religious and cultural importance to an Indian tribe or Native Hawaiian organization, so long as that property also meets the criteria for listing in the National Register.

The National Register of Historic Places

The National Register of Historic Places is the nation's official list of properties recognized for their significance in American history, architecture, archaeology, engineering, and culture. It is administered by the National Park Service, which is part of the Department of the Interior. The Secretary of the Interior has established the criteria for evaluating the eligibility of properties for the National Register. In short, the property must be significant, be of a certain age, and have integrity:

- ▶ **Significance.** Is the property associated with events, activities, or developments that were important in the past? With the lives of people who were historically important? With distinctive architectural history, landscape history, or engineering achievements? Does it have the potential to yield important information through archaeological investigation about our past?
- ▶ **Age and Integrity.** Is the property old enough to be considered historic (generally at least 50 years old) and does it still look much the way it did in the past?

During a Section 106 review, the federal agency evaluates properties against the National Register criteria and seeks the consensus of the SHPO/THPO/tribe regarding eligibility. A historic property need not be formally listed in the National Register in order to be considered under the Section 106 process. Simply coming to a consensus determination that a property is eligible for listing is adequate to move forward with Section 106 review. (For more information, visit the National Register Web site at www.cr.nps.gov/nr).

When historic properties may be harmed, Section 106 review usually ends with a legally binding agreement that establishes how the federal agency will avoid, minimize, or mitigate the adverse effects. In the very few cases where this does not occur,

the ACHP issues advisory comments to the head of the agency who must then consider these comments in making a final decision about whether the project will proceed.

Section 106 reviews ensure federal agencies fully consider historic preservation issues and the views of the public during project planning. Section 106 reviews do not mandate the approval or denial of projects.



SECTION 106: WHAT IS AN ADVERSE EFFECT?

If a project may alter characteristics that qualify a specific property for inclusion in the National Register in a manner that would diminish the integrity of the property, that project is considered to have an adverse effect. Integrity is the ability of a property to convey its significance, based on its location, design, setting, materials, workmanship, feeling, and association.

Adverse effects can be direct or indirect and include the following:

- ▶ physical destruction or damage
- ▶ alteration inconsistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties
- ▶ relocation of the property
- ▶ change in the character of the property's use or setting
- ▶ introduction of incompatible visual, atmospheric, or audible elements
- ▶ neglect and deterioration
- ▶ transfer, lease, or sale of a historic property out of federal control without adequate preservation restrictions

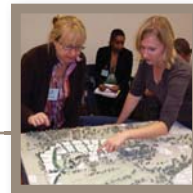
Determining Federal Involvement

If you are concerned about a proposed project and wondering whether Section 106 applies, you should first determine whether the federal government is involved. Will a federal agency fund or carry out the project? Is a federal permit, license, or approval needed? Section 106 applies only if a federal agency is carrying out the project, approving it, or funding it, so confirming federal involvement is critical.

Historic



Falls of Clyde, in Honolulu, Hawaii, is the last surviving iron-hulled, four-masted full rigged ship, and the only remaining sail-driven oil tanker. (photo courtesy Bishop Museum Maritime Center)



IS THERE FEDERAL INVOLVEMENT? CONSIDER THE POSSIBILITIES:

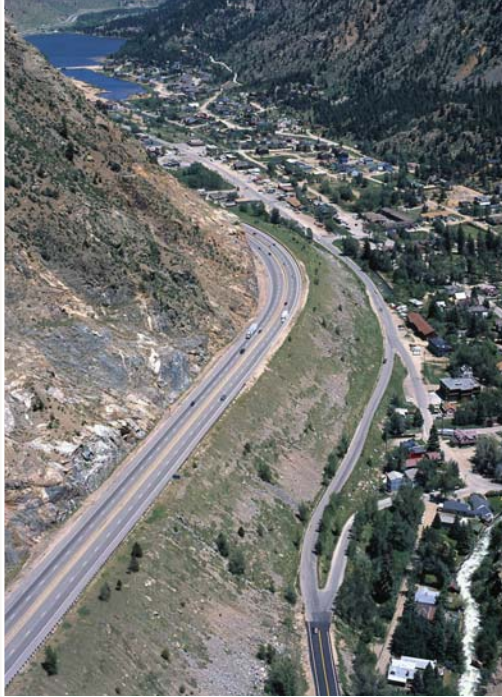
Is a federally owned or federally controlled property involved, such as a military base, park, forest, office building, post office, or courthouse? Is the agency proposing a project on its land, or would it have to provide a right-of-way or other approval to a private company for a project such as a pipeline or mine?

Is the project receiving federal funds, grants, or loans? If it is a transportation project, frequent sources of funds are the Federal Highway Administration, the Federal Transit Administration, and the Federal Railroad Administration. Many local government projects receive funds from the Department of Housing and Urban Development. The Federal Emergency Management Agency provides funds for disaster relief.

Does the project require a federal permit, license, or other approval? Often housing developments impact wetlands, so a U.S. Army Corps of Engineers permit may be required. Airport projects frequently require approvals from the Federal Aviation Administration.

Many communications activities, including cellular tower construction, are licensed by the Federal Communications Commission. Hydropower and pipeline development requires approval from the Federal Energy Regulatory Commission. Creation of new bank branches must be approved by the Federal Deposit Insurance Corporation.

Federal Funds



Interstate 70 at the Georgetown-Silver Plume National Historic Landmark, Colorado (photo courtesy J.F. Sato & Associates)

Sometimes federal involvement is obvious. Often, involvement is not immediately apparent. If you have a question, contact the project sponsor to obtain additional information and to inquire about federal involvement. All federal agencies have Web sites. Many list regional or local contacts and information on major projects. The SHPO/THPO/tribe, state or local planning commissions, or statewide historic preservation organizations may also have project information.

Once you have identified the responsible federal agency, write to the agency to request a project description and inquire about the status of project planning. Ask how the agency plans to comply with Section 106, and voice your concerns. Keep the SHPO/THPO/tribe advised of your interest and contacts with the federal agency.

MONITORING FEDERAL ACTIONS

The sooner you learn about proposed projects with federal involvement, the greater your chance of influencing the outcome of Section 106 review.

Learn more about the history of your neighborhood, city, or state. Join a local or statewide preservation, historical, or archaeological organization. These organizations are often the ones first contacted by federal agencies when projects commence.

If there is a clearinghouse that distributes information about local, state, tribal, and federal projects, make sure you or your organization is on its mailing list.

Make the SHPO/THPO/tribe aware of your interest.

Become more involved in state and local decision making. Ask about the applicability of Section 106 to projects under state, tribal, or local review. Does your state, tribe, or community have preservation laws in place? If so, become knowledgeable about and active in the implementation of these laws.

Review the local newspaper for notices about projects being reviewed under other federal statutes, especially the National Environmental Policy Act (NEPA). Under NEPA, a federal agency must determine if its proposed major actions will significantly impact the environment. Usually, if an agency is preparing an Environmental Impact Statement under NEPA, it must also complete a Section 106 review for the project.



Working with Federal Agencies

Throughout the Section 106 review process, federal agencies must consider the views of the public. This is particularly important when an agency is trying to identify historic properties that might be affected by a project and is considering ways to avoid, minimize, or mitigate harm to them.

Agencies must give the public a chance to learn about the project and provide their views. How agencies publicize projects depends on the nature and complexity of the particular project and the agency's public involvement procedures.

Public meetings are often noted in local newspapers and on television and radio. A daily government publication, the *Federal Register* (available at many public libraries and online at www.gpoaccess.gov/fr/index.html), has notices concerning projects, including those being reviewed under NEPA. Federal agencies often use NEPA for purposes of public outreach under Section 106 review.

Federal agencies also frequently contact local museums and historical societies directly to learn about historic properties and community concerns. In addition, organizations like the National Trust for Historic Preservation (NTHP) are actively engaged in a number of Section 106 consultations on projects around the country. The NTHP is a private, non-profit membership organization dedicated to saving historic places and revitalizing America's communities. Organizations

like the NTHP and your state and local historical societies and preservation interest groups can be valuable sources of information. Let them know of your interest.

When the agency provides you with information, let the agency know if you disagree with its findings regarding what properties are eligible for the National Register of Historic Places or how the proposed project may affect them. Tell the agency—in writing—about any important properties that you think have been overlooked or incorrectly evaluated. Be sure to provide documentation to support your views.

When the federal agency releases information about project alternatives under consideration, make it aware of the options you believe would be most beneficial. To support alternatives that would preserve historic properties, be prepared to discuss costs and how well your preferred alternatives would meet project needs. Sharing success stories about the treatment or reuse of similar resources can also be helpful.

Applicants for federal assistance or permits, and their consultants, often undertake research and analyses on behalf of a federal agency. Be prepared to make your interests and views known to them, as well. But remember the federal agency is ultimately responsible for completing Section 106 review, so make sure you also convey your concerns directly to it.

Learn About the Project



Hangar I, a historic dirigible hangar at Moffett Field at NASA Ames Research Center; California

Influencing Project Outcomes

In addition to seeking the views of the public, federal agencies must actively consult with certain organizations and individuals during review. This interactive consultation is at the heart of Section 106 review.

Consultation does not mandate a specific outcome. Rather, it is the process of seeking, discussing, and considering the views of consulting parties about how project effects on historic properties should be handled.

To influence project outcomes, you may work through the consulting parties, particularly those who represent your interests. For instance, if you live within the local jurisdiction where a project is taking place, make sure to express your views on historic preservation issues to the local government officials who participate in consultation.



Residents in the Lower Mid-City Historic District in New Orleans express their opinions about the proposed acquisition and demolition of their properties for the planned new Department of Veterans Affairs and Louisiana State University medical centers which would replace the facilities damaged as a result of Hurricane Katrina.

WHO ARE CONSULTING PARTIES?



You or your organization may want to take a more active role in Section 106 review, especially if you have a legal or economic interest in the project or the affected properties. You might also have an interest in the effects of the project as an individual, a business owner, or a member of a neighborhood association, preservation group, or other organization. Under these circumstances, you or your organization may write to the federal agency asking to become a consulting party.

The following parties are entitled to participate as consulting parties during Section 106 review:

- ▶ Advisory Council on Historic Preservation;
- ▶ State Historic Preservation Officers;
- ▶ Federally recognized Indian tribes/THPOs;
- ▶ Native Hawaiian organizations;
- ▶ Local governments; and
- ▶ Applicants for federal assistance, permits, licenses, and other approvals.

Other individuals and organizations with a demonstrated interest in the project may participate in Section 106 review as consulting parties "due to the nature of their legal or economic relation to the undertaking or affected properties, or their concern with the undertaking's effects on historic properties;" Their participation is subject to approval by the responsible federal agency.

When requesting consulting party status, explain in a letter to the federal agency why you believe your participation would be important to successful resolution. Since the SHPO/THPO or tribe will assist the federal agency in deciding who will participate in the consultation, be sure to provide the SHPO/THPO or tribe with a copy of your letter. Make sure to emphasize your relationship with the project and demonstrate how your connection will inform the agency's decision making.

If you are denied consulting party status, you may ask the ACHP to review the denial and make recommendations to the federal agency regarding your participation. However, the federal agency makes the ultimate decision on the matter.

Consulting party status entitles you to share your views, receive and review pertinent information, offer ideas, and consider possible solutions together with the federal agency and other consulting parties. It is up to you to decide how actively you want to participate in consultation.

Get Involved



Section 106 consultation with an Indian tribe

MAKING THE MOST OF CONSULTATION

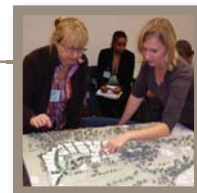
Consultation will vary depending on the federal agency's planning process and the nature of the project and its effects.

Often consultation involves participants with a wide variety of concerns and goals. While the focus of some may be preservation, the focus of others may be time, cost, and the purpose to be served by the project.

Effective consultation occurs when you:

- ▶ keep an open mind;
- ▶ state your interests clearly;
- ▶ acknowledge that others have legitimate interests, and seek to understand and accommodate them;
- ▶ consider a wide range of options;
- ▶ identify shared goals and seek options that allow mutual gain; and
- ▶ bring forward solutions that meet the agency's needs.

Creative ideas about alternatives—not complaints—are the hallmarks of effective consultation.



How the ACHP Can Help

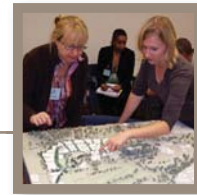
Under Section 106 review, most harmful effects are addressed successfully by the federal agency and the consulting parties without participation by the ACHP. So, your first points of contact should always be the federal agency and/or the SHPO/THPO.

When there is significant public controversy, or if the project will have substantial effects on important historic properties, the ACHP may elect to participate directly in the consultation. The ACHP may also get involved if important policy questions are raised, procedural problems arise, or if there are issues of concern to Indian tribes or Native Hawaiian organizations.

Whether or not the ACHP becomes involved in consultation, you may contact the ACHP to express your views or to request guidance, advice, or technical assistance. Regardless of the

scale of the project or the magnitude of its effects, the ACHP is available to assist with dispute resolution and advise on the Section 106 review process.

If you cannot resolve disagreements with the federal agency regarding which historic properties are affected by a project or how they will be impacted, contact the ACHP. The ACHP may then advise the federal agency to reconsider its findings.



CONTACTING THE ACHP: A CHECKLIST

When you contact the ACHP, try to have the following information available:

- ▶ the name of the responsible federal agency and how it is involved;
- ▶ a description of the project;
- ▶ the historic properties involved; and
- ▶ a clear statement of your concerns about the project and its effect on historic properties.

If you suspect federal involvement but have been unable to verify it, or if you believe the federal agency or one of the other participants in review has not fulfilled its responsibilities under the Section 106 regulations, you can ask the ACHP to investigate. In either case, be as specific as possible.

Collecting Comments



A panel of ACHP members listen to comments during a public meeting.

When Agencies Don't Follow the Rules

A federal agency must conclude Section 106 review before making a decision to approve a project, or fund or issue a permit that may affect a historic property. Agencies should not make obligations or take other actions that would preclude consideration of the full range of alternatives to avoid or minimize harm to historic properties before Section 106 review is complete.

If the agency acts without properly completing Section 106 review, the ACHP can issue a finding that the agency has prevented meaningful review of the project. This means that, in the ACHP's opinion, the agency has failed to comply with Section 106 and therefore has not met the requirements of federal law.

A vigilant public helps ensure federal agencies comply fully with Section 106. In response to requests, the ACHP can investigate questionable actions and advise agencies to take corrective action. As a last resort, preservation groups or individuals can litigate in order to enforce Section 106.

If you are involved in a project and it seems to be getting off track, contact the agency to voice your concern. Call the SHPO or THPO to make sure they understand the issue. Call the ACHP if you feel your concerns have not been heard.

Following Through

Stay Informed



Milton Madison Bridge over the Ohio River between Kentucky and Indiana (photo courtesy Wilbur Smith Associates/Michael Baker Engineers)

After agreements are signed, the public may still play a role in the Section 106 process by keeping abreast of the agreements that were signed and making sure they are properly carried out. The public may also request status reports from the agency.

Designed to accommodate project needs and historic values, Section 106 review relies on strong public participation. Section 106 review provides the public with an opportunity to influence how projects with federal involvement affect historic properties. By keeping informed of federal involvement, participating in consultation, and knowing when and whom to ask for help, you can play an active role in deciding the future of historic properties in your community.

Section 106 review gives you a chance to weigh in when projects with federal involvement may affect historic properties you care about. Seize that chance, and make a difference!

Contact Information

Advisory Council on Historic Preservation

Office of Federal Agency Programs
1100 Pennsylvania Avenue, NW, Suite 803
Washington, D.C. 20004
Phone: (202) 606-8503
Fax: (202) 606-8647
E-mail: achp@achp.gov
Web site: www.achp.gov

The ACHP's Web site includes more information about working with Section 106 and contact information for federal agencies, SHPOs, and THPOs.

National Association of Tribal Historic Preservation Officers

P.O. Box 19189
Washington, D.C. 20036-9189
Phone: (202) 628-8476
Fax: (202) 628-2241
E-mail: info@nathpo.org
Web site: www.nathpo.org

National Conference of State Historic Preservation Officers

444 North Capitol Street, NW, Suite 342
Washington, D.C. 20001
Phone: (202) 624-5465
Fax: (202) 624-5419
Web site: www.ncshpo.org
For the SHPO in your state, see www.ncshpo.org/find/index.htm

National Park Service

Heritage Preservation Services
1849 C Street, NW (2255)
Washington, D.C. 20240
E-mail: NPS_HPS-info@nps.gov
Web site: www.nps.gov/history/hps

National Register of Historic Places
1201 Eye Street, NW (2280)
Washington, D.C. 20005
Phone: (202) 354-2211
Fax: (202) 371-6447
E-mail: nr_info@nps.gov
Web site: www.nps.gov/history/nr

National Trust for Historic Preservation

1785 Massachusetts Avenue, NW
Washington, D.C. 20036-2117
Phone: (800) 944-6847 or (202) 588-6000
Fax: (202) 588-6038
Web site: www.preservationnation.org

The National Trust has regional offices in San Francisco, Denver, Fort Worth, Chicago, Boston, and Charleston, as well as field offices in Philadelphia and Washington, D.C.

Office of Hawaiian Affairs

711 Kapi`olani Boulevard, Suite 500
Honolulu, HI 96813
Phone: (808) 594-1835
Fax: (808) 594-1865
E-mail: info@oha.org
Web site: www.oha.org

Beneath the Surface



Ohio Department of Transportation workers made an unanticipated archaeological discovery while working just north of Chillicothe along state Route 104. It is a remnant of an Ohio & Erie Canal viaduct. (photo courtesy Bruce W. Aument, Staff Archaeologist, ODOT/Office of Environmental Services)

TO LEARN MORE

For detailed information about the ACHP, Section 106 review process, and our other activities, visit us at www.achp.gov or contact us at:

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