

#### PLANNING COMMISSION

#### Meeting Agenda Monday – September 14, 2015 7:00 PM

#### City Council Chambers – 155 NW 2<sup>nd</sup> Avenue

#### **Commissioner John Savory (Chair)**

Commissioner Shawn Hensley (Vice Chair)

Commissioner John Serlet

Commissioner Kristene Rocha

Commissioner Tyler Smith

Commissioner (Vacant)

- 1. CALL TO ORDER
  - a. Pledge of Allegiance and Invocation
- 2. CITIZEN INPUT ON NON-AGENDA ITEMS
- 3. MINUTES
  - a. Planning Commission Minutes, August 24, 2015 (Available 9-9-15)
- 4. PUBLIC HEARING
  - a. Consider a legislative and quasi-judicial amendment application to adopt The North Redwood Development Concept Plan (NRDCP), update the Comprehensive Plan text, and to modify several sections of the City's Land Development and Planning Ordinance Plan in order to implement the NRDCP (CPA 15-02/TA 15-01).
- 5. NEW BUSINESS
- 6. FINAL DECISIONS

(Note: These are final, written versions of previous oral decisions. No public testimony.)

- a. North Redwood Development Concept Plan Final Findings (CPA 15-02/TA 15-01)
- 7. ITEMS OF INTEREST/REPORT FROM STAFF
  - a. Next Regular Planning Commission meeting scheduled for Monday, September 28, 2015
- 8. ITEMS OF INTEREST/GUIDANCE FROM PLANNING COMMISSION
- 9. ADJOURNMENT

The meeting location is accessible to persons with disabilities. A request for an interpreter for the hearing impaired or for other accommodations for person with disabilities should be made at least 48 hours before the meeting at 503-266-7001.

A copy of this agenda can be found on the City's web page at <a href="www.ci.canby.or.us">www.ci.canby.or.us</a> City Council and Planning Commission

Meetings are broadcast live and can be viewed on OCTS Channel 5. For a schedule of the playback times, please call 503-263-6287.

#### **PUBLIC HEARING FORMAT**

The public hearing will be conducted as follows:

STAFF REPORT

QUESTIONS (If any, by the Planning Commission or staff)

OPEN PUBLIC HEARING FOR TESTIMONY:

**APPLICANT** (Not more than 15 minutes)

**PROPONENTS** (Persons in favor of application) (Not more than 5

minutes per person)

**OPPONENTS** (Persons opposed to application) (Not more than 5

minutes per person)

**NEUTRAL** (Persons with no opinion) (Not more than 5 minutes per person)

REBUTTAL (By applicant, not more than 10 minutes)

CLOSE PUBLIC HEARING (No further public testimony allowed)

QUESTIONS (If any by the Planning Commission)

DISCUSSION (By the Planning Commission)
 DECISION (By the Planning Commission)

All interested persons in attendance shall be heard on the matter. If you wish to testify on this matter, please step forward when the Chair calls for Proponents if you favor the application; or Opponents if you are opposed to the application; to the microphone, state your name address, and interest in the matter. You will also need to sign the Testimony sheet and while at the microphone, please say your name and address prior to testifying. You may be limited by time for your statement, depending upon how many people wish to testify.

**EVERYONE PRESENT IS ENCOURAGED TO TESTIFY, EVEN IF IT IS ONLY TO CONCUR WITH PREVIOUS TESTIMONY.** All questions must be directed through the Chair. Any evidence to be considered must be submitted to the hearing body for public access.

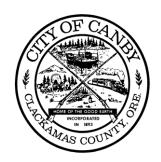
Testimony and evidence must be directed toward the applicable review criteria contained in the staff report, the Comprehensive Plan, or other land use regulations which the person believes to apply to the decision.

Failure to raise an issue accompanied by statements or evidence sufficient to afford the decision-maker and interested parties an opportunity to respond to the issue, may preclude appeal to the City Council and the Land Use Board of Appeals based on that issue.

Failure of the applicant to raise constitutional or other issues relating to proposed conditions of approval with sufficient specificity to allow the local government to respond to the issue may preclude an action for damages in circuit court.

Before the conclusion of the initial evidentiary hearing, any participant may ask the hearings body for an opportunity to present additional relevant evidence or testimony that is within the scope of the hearing. The Planning Commission shall grant such requests by continuing the public hearing or leaving the record open for additional written evidence or testimony. Any such continuance of extension shall be subject to the limitations of the 120-day rule, unless the continuance or extension is requested or agreed to by the applicant.

If additional documents or evidence are provided by any party, the Planning Commission may, if requested, allow a continuance or leave the record open to allow the parties a reasonable opportunity to respond. Any such continuance or extension of the record requested by an applicant shall result in a corresponding extension of the 120-day time period.



#### **STAFF REPORT**

TITLE: Adoption of the North Redwood Development Concept Plan, Amendments and

Additions to Selected Sections of Canby's Comprehensive Plan and Land

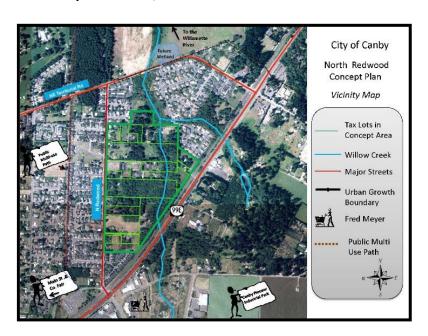
**Development and Planning Ordinance** 

FILE #: CPA 15-02/TA 15-01

STAFF: Matilda Deas, AICP, Senior Planner

DATE OF REPORT: September 4, 2015

DATE OF HEARING: September 14, 2015



#### I. REQUEST

This is a legislative and quasi-judicial amendment application to adopt the North Redwood Development Concept Plan (NRDCP), update the Comprehensive Plan text,

and to modify several sections of the City's Land Development and Planning Ordinance Plan in order to implement The NRDCP.

#### II. APPLICABLE REGULATIONS

#### **City of Canby General Ordinances:**

16.88.160	Amendments to text of title
16.88.180	Comprehensive Plan Amendments (Legislative and Quasi-judicial)
16.16.030	Development Standards for the R-1 (low density) Zone
16.18.030	Development Standards for the T 1.5 (medium density) Zone
16.84.040	Standards and Criteria for Annexation
16.13	Plan Districts (proposed new section of LDPO)

#### III. MAJOR APPROVAL CRITERIA

#### Section 16.88.160 Amendments to Text of Title

In judging whether or not this title should be amended or changed, the Planning Commission and City Council shall consider:

- A. The Comprehensive Plan of the City, and the plans and policies of the county, state, and local districts, in order to preserve functions and local aspects of land conservation and development;
- B. A public need for the change;
- Whether the proposed change will serve the public need better than any other change which might be expected to be made;
- D. Whether the change will preserve and protect the health, safety and general welfare of the residents in the community;
- E. Statewide planning goals.

#### Section 16.88.180 Comprehensive Plan Text Amendments (Legislative)

The proposed text amendments to the Comprehensive Plan are legislative in nature. The changes update the Comprehensive Plan to reflect information in the newly adopted NRDCP. The NRDCP will be the guiding document for the development of properties located within the Plan if and when properties are successfully annexed into the City Limits. In judging whether a legislative plan amendment shall be approved, the Planning Commission and City Council shall consider:

- A. The remainder of the Comprehensive Plan of the City, as well as the plans and policies of the county, state or any local school or service districts which may be affected by the amendment;
- B. A public need for the change;

- C. Whether the proposed change will serve the public need better than any other change which might be expected to be made;
- D. Whether the change will preserve and protect the health, safety and general welfare of the residents in the community;
- E. Statewide planning goals.

Section 16.88.180 Comprehensive Plan Map Amendments (Quasi-judicial)
In judging whether a quasi-judicial plan amendment shall be approved, the Planning
Commission and City Council shall consider:

- A. The remainder of the Comprehensive Plan of the City, as well as the plans and policies of the county, state, or any local school or service districts which may be affected by the amendments.
- B. Whether all required public facilities and services exist, or will be provided concurrent with the anticipated development of the area.

#### IV. PROJECT OVERVIEW AND BACKGROUND

The 66 acre area that comprises the North Redwood Development Concept Plan (NRDCP) area is identified on the City of Canby Annexation Development Map as an area required to have a Development Concept Pan (DCP) adopted by the City Council prior to granting a change in zoning classification for newly annexed properties. A DCP is intended to address City of Canby infrastructure requirements and ensure properties within a DCP develop public infrastructure in an efficient and effective manner.

The NRDCP area is currently outside of Canby's City Limits, but within our Urban Growth Boundary. The NRDCP area includes 23 tax lots, varying in size between one and ten acres, with 18 property owners. The current zoning is Rural Residential Farm Forest 5-Acre (RRFF-5) governed by Clackamas County. If at some future date property owners choose to apply for annexation into Canby City Limits and are successful, Canby's Comprehensive Plan Zoning would apply. Applying City Zoning could result in a minimum of 213 and a maximum of 289 new residential lots being created. 60% (46 acres) would be R-1 (low density); 32% (19 acres) would be R 1.5(medium density); and 8% (2 acres) would be R-2 (high density). The NRDCP assumes newly annexed properties will conform to the City's Comprehensive Plan Zoning. No rezoning is being proposed.

The area also includes Willow Creek and its associated wetlands and the steep slopes adjacent to the creek. Willow Creek flows through the City's Willow Creek Wetlands and continues on to empty into the Willamette River. N Redwood Street on the western edge of the project area, and NE Territorial to the north of the project, area are both designated as Collector streets. Properties east of Willow Creek have limited access from OR 99E across UPRR. The Canby Fire District would like to maintain this

crossing as an emergency access. UPRR would prefer to close the access. Discussions are ongoing, and the Fire District has stated they can still serve the area if UP closes the access when the area is redeveloped.

Developing a concept plan for an area with numerous property owners, multiple zoning designations and complex natural resource features is challenging. Several past attempts to develop a concept plan for the area have not been successfully completed. Fortunately the City was able to obtain financial assistance from the Transportation Growth Management (TGM) program to engage a consultant team with relevant experience, to assist with the successful completion of a plan. The development of the recommended NRDCP has been a ten month process. Project oversight and guidance throughout the process has been provided by a Project Management Team; a Technical Advisory Committee; a Stakeholder Advisory Committee, property owners; City Council and Planning Commission Workshops; and input from public meetings the public outreach component for the project is documented in the NRDCP appendices.

#### V. PROPOSED AMENDMENTS

The recommended NRDCP proposes amendments to sections of the Comprehensive Plan and the Land Development and Planning Ordinance (LDPO) that are necessary in order to implement the NRDCP. No text is being eliminated, rather additional text is being proposed, including a new section of the LDPO that addresses Plan Districts. Plan districts are often used to implement concept plans and similar planning documents. A plan district is a geographic area for which special zoning regulations have been created by the city, either through adoption of a community plan or, as in this case, a DCP. The plan district regulations apply in addition to the regulations in the underlying base zone. For the NRDCP, the plan district would allow some additional flexibility for lot sizes and contain approval criteria to ensure new subdivisions and developments are consistent with the essential elements identified in the DCP (road networks and open space, for example).

The Planning Department anticipates there will be additional concept plans adopted in the future, and we currently have no section of our code that specifically addresses concept plans. Hence the proposed new Plan District section.

The proposed text amendments to both the Comprehensive Plan and the Land Development and Planning Ordinance are set forth in Attachment "2" attached.

#### VI. COMPREHENSIVE PLAN CONSISTENCY ANALYSIS

Many of the Comprehensive Plan's goals and policies are not germane to this application. The applicable policies are addressed below:

**Public Facilities and Services.** The public infrastructure assessment and recommendations section of the NRDCP addresses the public facilities and services policies of the Comprehensive Plan.

**Environmental Concerns Element.** Willow Creek, the associated wetlands, and the adjacent steep slopes will be protected as part of the City's Park System.

**Land Use Element.** The NRDPC specifically addresses the Goal of the Land Use Element of the Comprehensive Plan which is:

"To guide the development and uses of land so that they are orderly, efficient, aesthetically pleasing, and suitably related to one another"

The purpose of the NRDCP is to provide guidance for the efficient and orderly development of the area and through the proposed implementation measures assures that all elements are aesthetically pleasing and relate to one another.

**Transportation Element.** Staff will propose a Transportation System Plan (TSP) amendment in the near future that will complete the required amendments to ensure that the implementation of the NRDCP will have no conflicts with the City's adopted TSP.

**Citizen Involvement Element.** The Citizen Involvement Element has been met via the public hearing for this application; the public meetings throughout the development of the Plan; and the review and endorsement of the NRDCP by the TAC, SAC, the Project Management Team, the Project Consultants, and City staff. Opportunities for citizen involvement have been extensive and are documented in the appendices of the NRDCP.

**Conclusion Regarding Consistency with the Policies of the Canby Comprehensive Plan:** 

Staff concludes that the proposed Comprehensive Plan Amendment and Text Amendments are consistent with the remaining policies of the Comprehensive Plan.

## VII. CONSISTENCY WITH THE CRITERIA FOR LEGISLATIVE COMPREHENSIVE PLAN AMENDMENT/TEXT AMENDMENT

A. The remainder of the Comprehensive Plan of the City, as well as the plans and policies of the county, state or any local school or service districts which may be affected by the amendment;

The commentary under section VI of the staff report addresses the remainder of the Comprehensive Plan.

#### B. A public need for the change;

Chapter 16.84.040 1(b) states that:

"For newly annexed properties that are within the Boundaries of a DCP area as designated on the City of Canby Annexation Development Map:

A Development Concept Plan shall be adopted by the Canby City Council prior to granting change in zoning classification."

As stated previously the N Redwood area has challenges that have precluded property owners from successfully completing the required DCP for this area. The need is real and this recommended NRDCP satisfies the code requirements.

## C. Whether the proposed change will serve the public need better than any other change which might be expected to be made;

As this is a code requirement, no other changes are expected to be made. Past difficulties with completing the required DCP for this area indicate the recommended NRDCP will serve the public better than continued attempts by private parties to develop a DCP.

## D. Whether the change will preserve and protect the health, safety and general welfare of the residents in the community;

Staff believes this criterion has been met, as detailed above.

#### E. Statewide Planning Goals.

The following Statewide Planning Goals apply to this application:

#### Goal 1: Citizen Involvement.

The Planning Commission will make a recommendation to the City Council on this application in a public hearing which was noticed in the Canby Herald and by notices sent to affected property owners within 500 feet of the NRDCP area. Furthermore, there has been extensive public participation as documented in the appendices of the recommended NRDCP.

#### Goal 5: Open Spaces, Scenic and Historical Areas and Natural Resources.

Willow Creek, the associated wetlands, and the adjacent steep slopes will be protected as part of the City's Park System.

#### Goal 8: Recreation Needs.

The recommended NRDCP proposes a linear park and trail system to serve both the residents in the NRDCP but the broader community.

#### Goal 11: Public Facilities and Services.

The proposed NRDCP sets forth recommendations for the efficient and effective provision of public infrastructure to serve the plan area.

#### **Goal 12: Transportation**

The recommended NRDCP proposes a pedestrian and bicycle friendly internal road system which includes a neighborhood connector that can provide convenient public transit access through the area.

## VII. <u>CRITERIA FOR QUASI-JUDICIAL COMPREHENSIVE PLAN AMENDMENT/MAP AMENDMENT</u>

A. The remainder of the Comprehensive Plan of the City, as well as the plans and policies of the county, state, or any local school or service districts which may be affected by the amendments.

Staff believes that this criterion has been met as detailed above.

B. Whether all required public facilities and services exist, or will be provided concurrent with the anticipated development of the area.

The NRDCP addresses future infrastructure requirement and recommendation. Facilities and services will be provided concurrent with future development. Service providers reviewed the initial concept plan and noted no problems with future capacities.

#### VIII. RECOMMENDATION

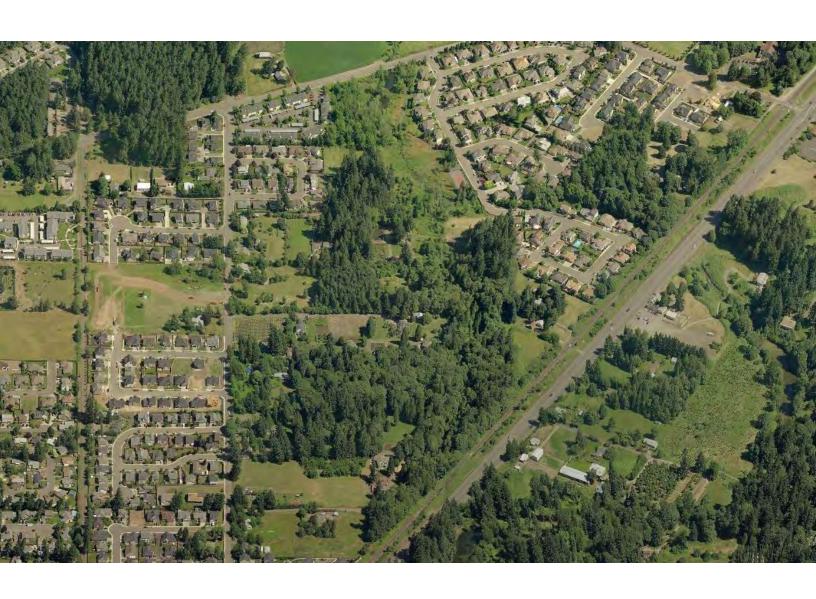
Based on the findings and conclusions presented in this report, and without benefit of a public hearing, staff recommends that the Planning Commission advance a recommendation of approval on to the City Council on CPA 15-02/TA 15-01

#### Attachments

- Recommended NRDCP
- 2. Proposed Code and Comprehensive Plan Amendments
- Additional public comments

# NORTH REDWOOD DEVELOPMENT CONCEPT PLAN Recommended Development Concept Plan Deliverable 6E

September 4, 2015





## Oregon Dept of Transportation Transportation and Growth Management File Code 1A-13

#### **ODOT Project Manager**

Lidwien Rahman ODOT Region 1

#### **Consultant Project Manager**

Chris Maciejewski DKS Associates

#### **City of Canby Project Manager**

Matilda Deas

#### **Consultant Team**

Walker Macy: Planning and Urban Design

Ken Pirie, Project Manager Mike Zilis, Landscape Architect Saumya Kini, Urban Designer Thomas Fischer, Landscape Designer

#### **DKS Associates:** Transportation Planning

Brad Coy Steve Boice

#### Angelo Planning Group: Land Use Planning

Matt Hastie, Associate Serah Breakstone

#### **Leland Consulting Group:** Real Estate Strategy

and Municipal Finance
Brian Vanneman, Principal

#### **OTAK:** Civil Engineering

Kevin Timmins, Principal Kristen Ballou, Civil Engineer Rose Horton, Civil Engineer

#### Cogan Owens Cogan: Public Engagement

Steve Faust, Associate Principal

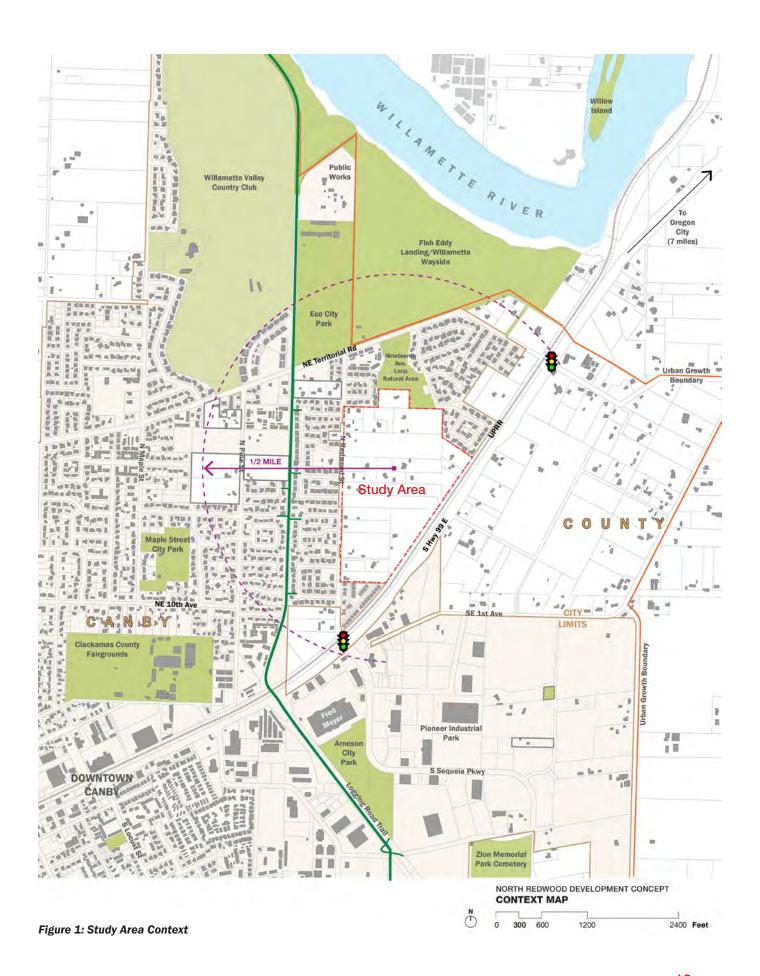
## **Project Purpose and Transportation Relationship and Benefit**

The North Redwood Development Concept Plan (Project) will provide a preferred alternative for development of a 66-acre site with multiple property owners. The Project will develop conceptual infrastructure and financing options for achieving urban housing densities while protecting the site's natural resources. The Project will also determine a supportive transportation system, increase travel options, and identify optimal access locations for emergency service providers. The recommended plan and any code amendments must be consistent with local and state policies, plans, and rules including the Transportation Planning Rule. The Project must meet the City of Canby's (City) Municipal Code requirement for an adopted Development Concept Plan (DCP) prior to post-annexation zone change requirements.



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Innovative land planning with diverse housing types



Integrated natural areas



A walkable, connected neighborhood

#### **Overview**

This report summarizes the Development Concept Plan (DCP) for the 66-acre Canby North Redwood Study Area. This concept includes a cohesive and coordinated circulation system, an efficient approach to meeting the new community's infrastructure needs, housing types matching the city's Comprehensive Plan, and natural resource protection integrated with public parks.

The concept is structured using innovative development parameters: specifically, clustering of density, the use of flexible blocks, and incorporating a significant open space into the community using city park acreage dedication requirements. Eventual development on individual properties will require earnest efforts to match key street and open space locations but will otherwise have an element of flexibility for the owners to develop new neighborhoods according to their individual intentions.

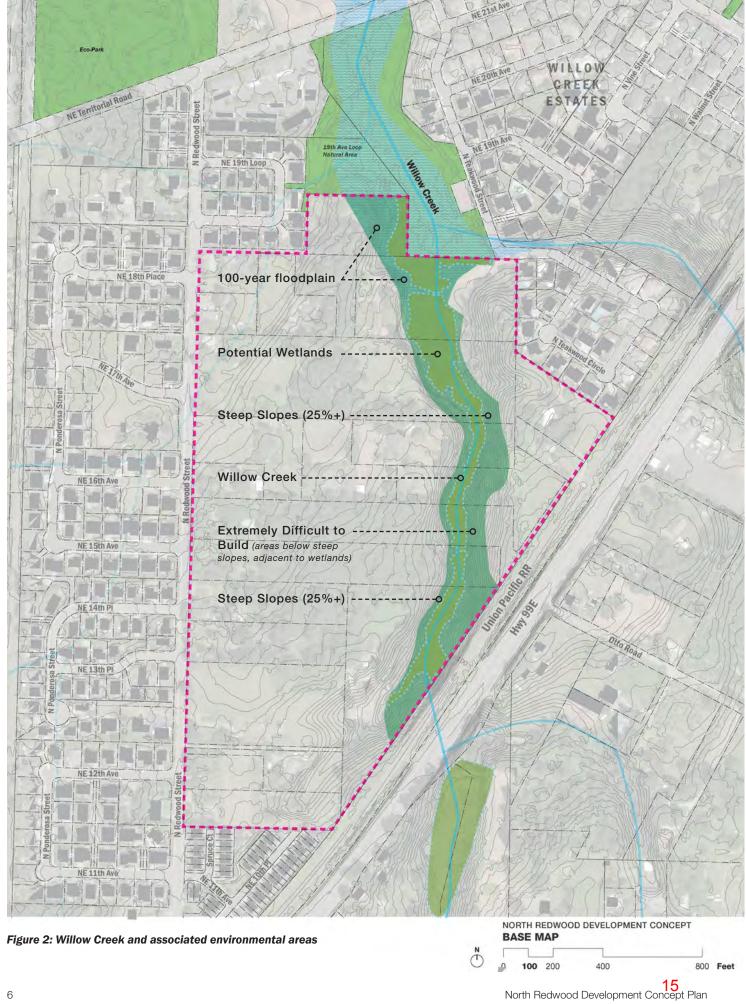
The following report provides a summary of the proposed DCP, as well as a summary of city code changes, Transportation System Plan updates and required infrastructure upgrades to serve the new community. A proposed funding approach is also included.

#### **Concept Plan Criteria**

The Development Concept Plan is guided by several criteria, outlined in Memo #4. To the extent possible, the plan seeks to foster development of a neighborhood that meets the following:

- Integrated with existing city fabric of Canby
- Walkable and cohesive
- A plan with all parcels integrated
- A plan with impacts distributed equitably to individual parcels
- Allowing for different owners' timing of development
- Reasonable costs of infrastructure and roads
- Connected with safe streets
- Transit-friendly
- Allows emergency access
- Connects trails to natural areas
- Protects Willow Creek
- Provides public, accessible parks
- Demonstrates innovative land planning

The DCP satisfies these criteria, as noted on page 11 of this report.



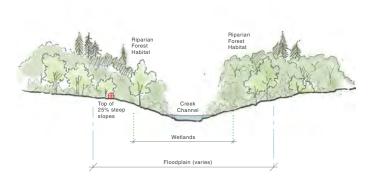


Figure 3: Cross-section at a typical location along Willow Creek showing associated environmental areas



Willow Creek existing condition, showing invasive species in the riparian area. Restoration of the creek's banks is recommended.

#### **ODFW Recommendations**

- 1) Work towards maximizing protection of the stream corridor, provide a suitable riparian vegetation buffer on both sides, and retain natural function of the stream;
- Retain as much of a stream-side buffer as possible so wildlife can move in and out of the area postdevelopment
- 3) Identify large legacy trees and snags in the tract, and try to design the development in a way that leaves these trees standing, as old mature trees provide unique habitat to certain species of wildlife survival
- 4) Provide suitable fish passage, consistent with ODFW standards and criteria, at all new stream crossings.

(Tom Murtagh, District Fish Biologist, 8/4/2015)

#### **Natural Conditions**

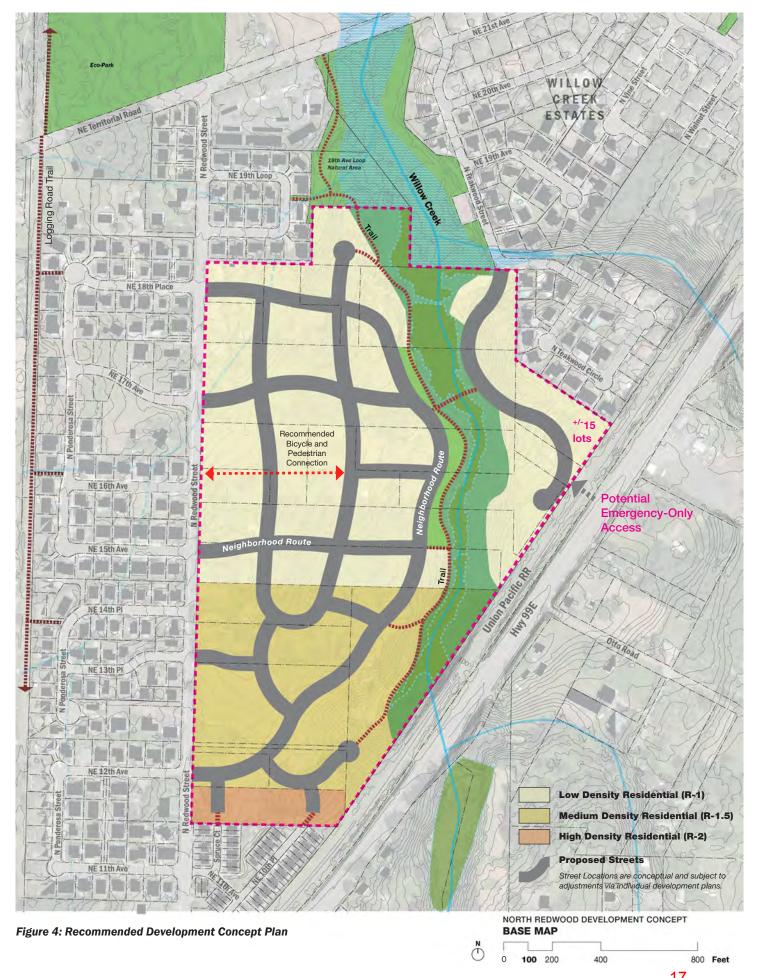
The Willow Creek corridor has the potential to become a natural, visual and recreational amenity for the future community. It also provides potential space for stormwater treatment and an important habitat corridor. The creek channel through the study area has relatively high water quality and well-vegetated slopes, but requires some restoration to remove invasive species and enhance fish habitat. The creek is considered by ODFW to be a trout stream, but is not used by ESA-listed species (see recommendations at bottom left.) The creek corridor is essentially unbuildable, given current regulations protecting wetlands and floodplains and the challenges of building in steep slopes. The City does not recognize Willow Creek as a protected Goal 5 resource, so new City setbacks would not be applied, although development regulations will still protect these sensitive areas to an extent.

A preliminary reconnaissance of properties adjacent to Willow Creek found the likely presence of about 3 acres of intermittent wetlands, whose approximate boundaries are mapped in Figure 2. More defined boundaries would be determined through a more detailed wetland delineation required at the time that individual parcels are developed.

A FEMA 100-year floodplain extends into two parcels in the northern portion of the study area. This mapped floodplain is a result of the 1996 flood that backed up along the Willow Creek corridor, inundating NE Territorial Road. There are roughly 1.3 acres of study area within the floodplain (nearby property owners in Willow Creek Estates have petitioned FEMA for a flood map revision to remove the floodplain from their properties – this may also be an option for study area owners.)

Finally, there are steep slopes on both the west and east banks of Willow Creek. Slopes over 25% are challenging to develop and should remain undisturbed when adjacent to wetlands and streams in order to avoid erosion. There are approximately 2.6 acres of these steep slopes included in the green area shown in Figure 2. Additional steep slopes can be included within large lots, behind homes and potentially protected within conservation easements.

The combination of these sensitive areas, along with adjacent land between wetlands and slopes, is shown on Figure 2. As described on page 12, this approximately 9.5-acre area can form the core of a future open space that satisfies City regulations for park dedication while transferring some severely-constrained land from private to public ownership.



Element	Square Feet	Acres
Roadways * (Alleys not included)	664,414	15.25
Natural Area	412,809	9.47
Developed Park	42,906	0.98
Low-Density Residential Land	1,122,963	25.78
Medium-Density Residential Land	522,270	11.99
High-Density Residential Land	80,355	1.84
		65.31ac total *

<sup>\*</sup> Study Area is 66 acres. Total acreage shown reflects deduction of 20' for additional North Redwood ROW

Table 1: Areas in Recommended DCP

#### **Recommended Development Concept Plan**

The proposed Development Concept Plan (DCP) provides a logical development concept for a new 'green' community with distinct character. It allows for phased, efficient development and can be adjusted according to individual landowner preferences.

The DCP creates clear connections to the existing city fabric and provides a coherent grid of streets within the study area that will serve to create a more cohesive community than if roads were built on a piecemeal basis. The road alignments strive to respect existing topography, and by doing so, may minimize future development costs from grading.

The DCP is based on the flexible block structure described on page 10, which maximizes options for landowners to develop their properties in future according to their individual development strategy and market research. Each block can be developed with or without rear alleyway access, depending on developer preferences. Future development proposals will be evaluated by the City according to how they adhere to the principles and general urban form of the DCP.

The acreages shown in Table 1 represent the areas in the DCP. These areas, using maximum densities suggested in the City's Comprehensive Plan zoning designations, would result in 289 new lots. Using the minimum densities, it would result in 213 lots. The expected city zoning categories will be R-1, R1.5 and R-2 for the Comp Plan zones of LDR, MDR and HDR, respectively.

Higher density options would result in lower shared costs per unit, as the community's infrastructure needs would be identical for either density.\*

<sup>\*</sup>Original projections for this study area in the 2010 TSP and Canby Comprehensive Plan envisioned up to 350 lots in the area, but this number did not account for the deduction of land for open space around Willow Creek environmental areas.

#### Plan Flexibility for Development

The Recommended Development Concept Plan is structured using flexible block sizes to ensure that future development can provide a wide variety of lot sizes and housing types within the proposed zoning.

Studying best practices from other high-quality master-planned developments, a prototypical block size with a width range of 280', measured from the center of one local street to the center of the next street, was used to guide the layout of the concept plan (Figure 5). A variety of lot sizes are possible within this prototypical block. Due to allowance for topography and plan urban design, the blocks shown on the DCP are not exactly each 280'. An overall block length of more than 600 feet should be avoided. Bike and pedestrian connections should be provided at least every 330' according to the TSP.

Also possible are blocks with or without rear 20-ft alleyways (Figures 6a and 6b). Although there are few new developments with rear alleys in Canby, this is an increasingly popular tool for regional developers who seek a more walkable, attractive streetscape and more curb appeal for new homes. Rear alleys also provide an efficient and less visually-intrusive place to locate utilities.

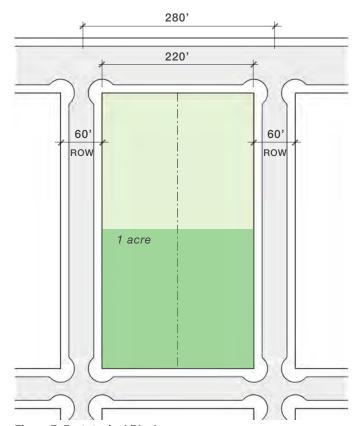


Figure 5: Prototypical Block

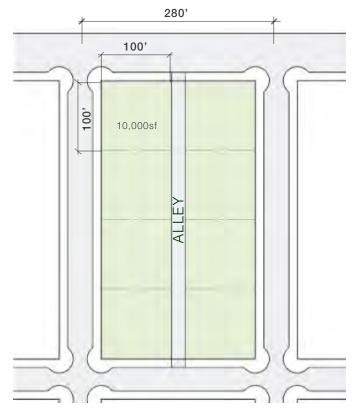


Figure 6a: Large Lots (LDR) with alley

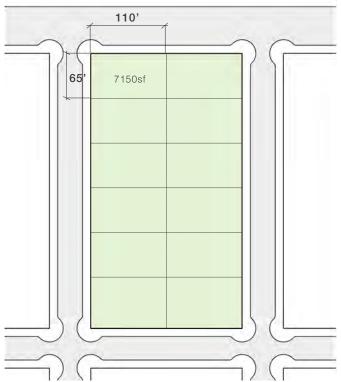


Figure 6b: Large Lots (LDR) no alley; garages in front of homes



Low Density Residential 7,000-10,000 square foot lots (4-6 du/acre) Approximately 155 units on Recommended DCP (at 6du/ac) (Approximately 103 units at 4du/ac)



5,000-6,500 square foot lots (7-9 du/acre)

Approximately 108 units on Recommended DCP (at 9du/ac)

(Approximately 84 units at 7du/ac)



High-Density Residential 3,000 square foot lots (14 du/acre)

Approximately 26 units on Recommended DCP

#### **Concept Plan Evaluation Criteria**

The Development Concept Plan substantially meets all of the evaluation criteria, as described below. Meeting some of the criteria will be dependent on subsequent planning work and individual actions by developers and the City of Canby.

Criteria	How DCP Meets Criteria	
Integrated with existing city fabric of Canby	Plan connects to North Redwood Street in 5 locations, matching existing intersections and extending the city grid	
Walkable and cohesive	Streets, connected across parcels, will meet City standards, with generous sidewalks. Proposed walking trail traverses study area.	
A plan with all parcels integrated	Plan strives to maximize development potential of all parcels, including those with natural features and access restrictions	
Impacts distributed equitably	Funding plan will propose how to share costs and impacts of plan elements that benefit all owners.	
Different owners' timing of development	Plan can proceed according to the priorities of a range of owners	
Reasonable costs of infrastructure and roads	Most roads are narrower local streets. Total road area is 23% of study area, which is within comparable levels of other communities.	
Connected with safe streets	Local streets have sidewalks. Certain North Redwood intersections should consider enhanced pedestrian crossings at key locations.	
Transit-friendly	Neighborhood Routes in plan could accommodate a future transit route.	
Allows emergency access	Plan proposes a new emergency access across UPRR to serve area east of Willow Creek.	
Connects trails to natural areas	A new trail system is proposed on the west edge of the Willow Creek Natural Area.	
Protects Willow Creek	Yes, within natural area	
Provides public, accessible parks	One neighborhood park proposed. Willow Creek open space will be public.	
Innovative land planning	Yes	

#### **Parks and Open Spaces**

Future development in the North Redwood area will be required by city code to dedicate a certain amount of parks and open space (*Division XI: Parks, Open Space and Recreation Land, Chapter 16.120*). This is consistent with the criteria outlined on page 5 for the creation of a livable community.

The acreage required for dedication is calculated using the formula below, applied to new construction:

## (Maximum units in a plat) x (persons/unit) x 0.01 = acreage to be dedicated

Potential park acreages can be calculated for each density in the DCP as follows:

<u>LDR/R-1</u>: 25.78 ac 25.78 ac / 7000 sf minimum lot size = 155 units 155 x 2.7 people per unit = 419 419 x 0.01 = 4.2 park acres.

MDR/R1.5: 11.99 ac 11.99 ac / 5000 sf minimum lot size = 108 units 108 x 2.7 people per unit = 292 292 x 0.01 = 2.9 park acres.

HDR R-2: 1.84 ac 1.84 ac / 3000 sf minimum lot size = 26 lots 26 x 2.7 people per unit = 70  $70 \times 0.01 = 0.70$  park acres.

#### **TOTAL POTENTIAL PARK ACREAGE: 7.8 ACRES**

This figure will obviously be subject to refinement as individual developers submit applications. The City of Canby does not typically accept unbuildable natural areas as dedicated park lands under the above formula; however, the city has indicated a willingness to accept land dedicated along Willow Creek, which is a significant benefit to potential future developers.

The DCP shows the green corridor in Figure 2 incorporated into the plan (see Figure 7 on facing page). There are an additional 1.7 acres of natural area than required by code shown within this environmental area. Protection of this extra acreage can also be accomplished by potentially including it in lot sales, with conservation easements.



Neighborhood Park with play area and shelter



Multi-use trail through natural area



A boardwalk trail could be built near wetlands or along Willow Creek



A bicycle and pedestrian bridge can link the area's neighborhoods across Willow Creek

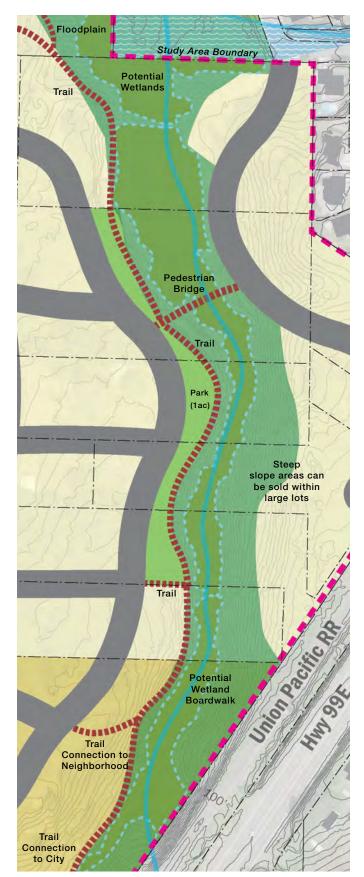


Figure 7: Recommended DCP -- Open Space detail

#### **Parks and Open Spaces**

The Recommended DCP illustrates a framework for a new 9.5-acre public natural area along Willow Creek, including the constrained and ecologically-sensitive lands described on Figure 2. This area is more acreage than the approximately 7.8 acres required for dedication by developers (see facing page); some of the sensitive land could be protected within conservation easements on private lots. A strategy to equitably divide this natural area dedication among property owners, including those not adjacent to Willow Creek, is included on page 36 of this report.

(Given the shortfall in parks maintenance funding in Canby, an agreement could be arranged for a developer to fund a set number of years of maintenance, while the City works to secure more sustainable parks maintenance funding.)

Additional park land of approximately 1 acre, envisioned as a potential neighborhood pocket park, is included to provide some developed park space as a neighborhood amenity. In the DCP, this park is shown as a linear park at the top, west edge of the Willow Creek 'ravine', providing a more developed foreground to the wilder natural area. This park land could include neighborhood amenities such as a play area and picnic shelter. Alternatively, future plan refinements could consider locating such a park in a more central location, surrounded by housing.

A trail is proposed along the Willow Creek open space, through the neighborhood park and linking to existing and future natural areas like Willamette Wayside to the north, as well as to Fred Meyer and downtown Canby to the south. This trail can take a variety of forms according to context, with a boardwalk through wetland or flood prone areas, and a simple paved multi-use path (see Fig 8 below) in other areas such as the neighborhood park edge.

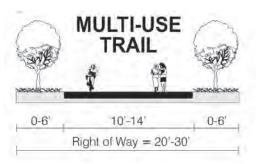


Figure 8: Canby TSP Multi-Use Trail Cross-Section

#### **Plan Connectivity**

The DCP provides several connections to Canby's existing city fabric, with extensions to existing streets on the west side of North Redwood in five locations (NE 18th PI, NE 17th, NE 15th, NE 13th and NE 12th). This grid of streets will maximize circulation choices for future residents and provide safer, more walkable non-collector streets for residents, potentially reducing overall vehicle miles traveled.

North Redwood Street is currently only improved to City standards on its west half. When individual development proposals are submitted, the City will require half-street dedication from adjacent property owners along North Redwood of approximately 10' to 30' to allow the street to be improved to Collector standard as shown in the TSP (see cross-section on page 16). As a project with citywide importance, it will need to be funded through a combination of developer contributions and public capital improvement budgets, and the precise cross-section will be determined with City and neighborhood input. Adding sidewalks to the east edge of North Redwood will improve safety and allow pedestrian access to city parks north of Territorial, as well as the Fred Mever (and Orange Line commuter bus service) to the south of Highway 99E.

An internal loop Neighborhood Route (Fig 9 at right) is a key 'wayfinding' and placemaking component, looping from NE 18th Place, along the edge of the Willow Creek open space, then continuing south to North Redwood between NE 13th and NE 12th. This route would be the most likely option for future transit access, although the existing Dial-A-Ride service in Canby could serve all of the streets in the DCP. Other internal streets shown are advisory and will be located according to future individual development plans.

Approximately 11-15 large lots on the east side of Willow Creek will be connected to Teakwood Street and Willow Creek Estates to the north. The 15 lots would generate approximately 110-150 daily trips (11 peak AM hour trips, and 15 peak PM hour trips.) The City's threshold for evaluating impacts to local neighborhood streets is 30 peak hour trips and 300 daily trips, so this would not reach that threshold. The local street serving these lots would require a stop sign where it meets Teakwood Street.

An emergency route, with a locked gate preventing pedestrian or bicycle access, would be desirable across the UP rail line to access Hwy 99E, closing the existing driveway (photo at right). Discussions about this crossing have been initiated with UPRR.

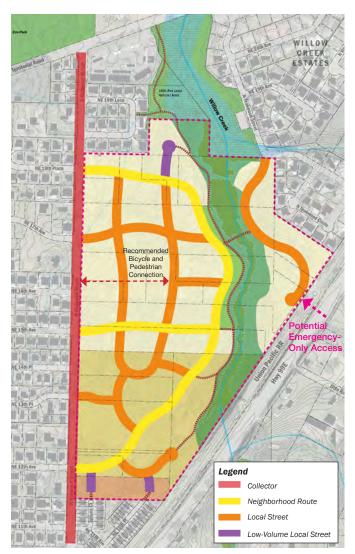


Figure 9: Recommended DCP Street Plan



Existing driveway across UP railroad, accessing three parcels



Figure 10: Typical Local Street Cross-Section



Typical local street in a new planned community, matching the Canby TSP local street standard on page 16



Typical local street with mature street trees

#### Street Design

Roadways in this plan will be neighborhood routes and local streets, with design standards described in the TSP and on the following page. These streets are intended to be relatively narrow in order to reduce speeds and promote neighborhood livability while also reducing development costs and city maintenance.

The three-dimensional street section at left (Fig. 10) is another way of illustrating the proposed street design, showing how on-street parking, while serving adjacent residents, also serves to slow traffic speed by narrowing the perceptual width of the street. Travel lanes of 10' in each direction allow a clear 20' zone for fire and emergency access. Neighborhood routes have slightly wider travel lanes to allow delivery truck and transit vehicle access.

Key to neighborhood livability is to separate sidewalks from roadways with a generous, 8'-wide planting strip, within which street trees should be planted. Stormwater treatment facilities can also be located in these strips, if needed (see photo at left). These planting strips enhance pedestrian comfort and safety, while the street trees will eventually provide a proven increase in property values by forming a shaded canopy over the street and adding to the curb appeal of homes.

The plan presents some single-sided streets along Willow Creek, which provide significant value to homes with a frontal view of the open space and help to create a distinct identity for the neighborhood. This arrangement also has public safety benefits, as the open space and associated trail can be monitored by street users and from nearby homes. In most cases, streets within the neighborhood will be double-sided to maximize development efficiency where no natural amenities are present.

#### Recommended Changes to the 2010 TSP

This DCP has been prepared with careful consideration of the 2010 Canby TSP and meets the goals and standards outlined in that document. The primary change recommended to the 2010 TSP has already been initiated by the City of Canby, with ODOT's assistance, and involves removing the proposed Otto Road collector connection. The TSP document itself will be updated with 5 new figures:

Fig 7-1: Functional Classification

Fig 7-2a: Truck Routes (Existing System)

Fig 7-2b: Truck Routes (Financially-Constrained System)

Fig 7-8: Local Street Connectivity (see below)

This figure has also been updated to reflect the North Redwood Street and North Teakwood Street connectivity proposed in this Draft DCP

Fig 7-9: Traffic Control Plan

Existing street cross-sections in the TSP (see Figure 10 below) will be appropriate for the DCP. In all sections, street trees are indicated as optional. However, it is strongly recommended that an 8' planting strip be provided for street trees on all future streets in the study area.

For the half-street improvements required to bring North Redwood Street into compliance as a Collector as shown in the TSP, an additional 10'-30' of property will need to be dedicated from properties on the east edge of North Redwood Street. A center turn lane or median will not be required for the Collector, and no new stop signs are expected to be needed on North Redwood Street.

COLLECTOR

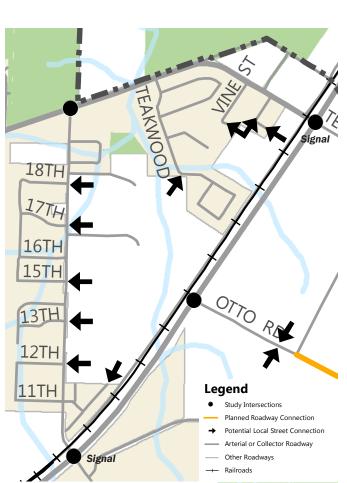


Figure 11: Transportation System Plan revised Fig 7-8 (detail)

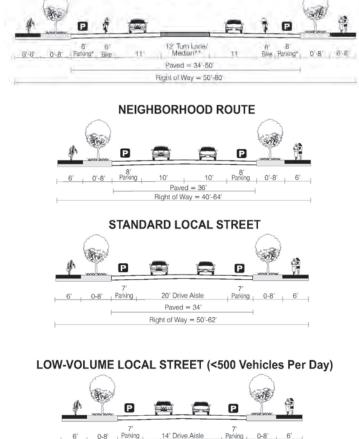


Figure 12: Canby Transportation System Plan street sections

Paved = 28'

Right of Way = 40'-60

#### **Recommended Code Changes**

The following is an assessment of existing code provisions and recommended code amendments that will support the North Redwood Development Concept Plan. Generally, as the North Redwood community develops, a certain amount of flexibility will be needed in order to protect the area's natural resources while also distributing development capacity across the area in a reasonable, equitable manner. The ability for developers to be creative in terms of lot size, shape and layout will be important to ensure that open spaces can be preserved as a community amenity while still maximizing allowable densities.

Overall, the Canby zoning code currently includes provisions that support this kind of flexibility to a significant degree; therefore, the recommended revisions are relatively minimal. Where new language is suggested, it is presented in underline format.

#### Lot Size Averaging

Lot size averaging allows the city to permit lot sizes that do not meet the minimum and maximum lot size standards in the low and medium density residential zones. This provision allows some flexibility in lot sizes in order to protect natural resources; lots can be smaller or larger as appropriate to work around areas of wetlands, parks and other desired open spaces. Existing language for lot size averaging in the R-1 zone is below. The language for the R-1.5 zone is similar.

### Section 16.60.030 Development Standards for the R-1 (low density) Zone

- B. Lot area exceptions:
- 1. The Planning Commission may approve an exception to the minimum and maximum lot area standards in subsection 16.16.030.A as part of a subdivision or partition application when all of the following standards are met:
- a. The average area of all lots created through the subject land division, excluding required public park land dedications, surface water management facilities and similar public use areas, shall be no less than seven thousand square feet and no greater than ten thousand square feet. Non-required significant natural resource areas shall be included in the average lot size calculation to enable a transfer of density onto buildable portions of the site. Required areas include identified parks, wetland areas, riparian corridors, and other areas in which building is not permitted under local, state, or federal laws or regulations;

- b. No lot shall be created that contains less than six thousand square feet;
- c. The lot area standards for two-family dwellings, as provided in Sections 16.16.010 and 16.16.020, shall be met; and
- d. As a condition of granting the exception, the city will require the owner to record a deed restriction with the final plat that prevents the re-division of oversized lots (e.g., ten thousand square feet and larger), when such re-division would violate the average lot area provision in subsection 16.16.030.B.1.a. All lots approved for use by more than one dwelling shall be so designated on the final plat.
- 2. A public benefit must be demonstrated in order to allow more than ten percent of the lots to be outside of the minimum and maximum lot areas in subsection 16.16.030.A.
- 3. The Planning Commission may modify the maximum lot area requirements in 16.16.030.A if these cannot be met due to existing lot dimensions, road patterns, or other site characteristics.

In the high density (R-2) zone, there are no minimum or maximum lot size standards. Instead, lot size is regulated through minimum density standards in combination with lot width and depth standards.

The lot size averaging provisions require that the overall average lot size still be consistent with the minimum and maximum lot size standard for that zone. It also includes a limit on how small a lot can be (no smaller than 6,000 s.f. in the R-1 zone and 4,000 in the R-1.5 zone). However, the alternative lot layout provisions discussed in the next section allow a further reduction of average lot size. Used in combination, the lot averaging and alternative lot layout provisions provide a high degree of flexibility and are sufficient to support innovative development in the North Redwood area.

One potential revision to the lot size averaging provision is to clarify the language in subsection 1(b) above that states a lot smaller than 6,000 square feet may not be created. This appears to conflict with the alternative lot layout standard that allows a 5,000 square foot reduction in the average lot size. The language could be revised as follows:

b. No lot shall be created that contains less than six thousand square feet, <u>unless the alternative lot</u> layout option provided in Section 16.64.040 is used:

A similar revision could be made in the R-1.5 zone.

Another suggested revision relates to the language that defines what a "required" area is when determining what should be included in the average lot size calculations. The city has indicated a willingness to accept dedication of the natural resources area (creek, associated buffer and slopes) in lieu of its standard parkland dedication in the North Redwood area. If that is the case, then the dedicated land should be included in the lot size averaging calculation in order to achieve the intended benefit. To allow this possibility, the language could be revised as follows:

a. The average area of all lots created through the subject land division, excluding required public park land dedications, surface water management facilities and similar public use areas, shall be no less than seven thousand square feet and no greater than ten thousand square feet. Non-required significant natural resource areas shall be included in the average lot size calculation to enable a transfer of density onto buildable portions of the site. Required areas include identified parks, wetland areas, riparian corridors, and other areas in which building is not permitted under local, state, or federal laws or regulations. For land in the North Redwood DCP area, the Planning Commission may allow public park land dedications to be included in the lot size averaging calculation in order to achieve community development goals and allow protection of natural resources:

#### **Alternative Lot Layouts**

Chapter 16.64 Subdivisions contains provisions for alternative lot layouts that provides additional flexibility to preserve natural resources and contiguous open spaces. If the alternative lot layout option is used, the average minimum lot size may be reduced by 5,000 square feet after subtracting access tracts. Overall development densities must not exceed the maximum density standard for the zone. Language from the alternative lot layout provisions is as follows:

#### Section 16.64.040 Lots

- 3. Alternative lot layout. Applicants may deviate from standard lot setbacks and dimensions to accommodate dedicated interconnected open space or other natural areas. Clustered housing, lot-size averaging, and a mixture of approaches where building lots can be grouped into a smaller portion of the total development, reserving the remainder for open space or other natural areas. Alternative development layouts shall not exceed the underlying maximum density allowed by the zone.
- 4. When using the alternative lot layout option, the following must be met:
- a. The arrangement of the alternative lot layout shall be designed to avoid development forms commonly known as linear, straight-line or highway strip patterns.
- b. To the maximum extent possible, open space and natural areas, where used, shall be continuous, interconnected, and concentrated in large usable areas.
- c. Where possible, open space shall be connected to adjacent off-site open space areas.
- d. Open space and natural areas shall be maintained permanently by the property owner or the property owner's association.

Use of this provision would allow lots as small as 2,000 square feet in the R-1 zone and would result in no minimum lot size in the R-1.5 zone, thus providing a developer the flexibility to cluster lots in order to protect natural resources. The alternative lot layout also allows deviation from the required setbacks and lot width and frontage standards. No revisions to the alternative lot layout provisions are recommended.

#### **Planned Unit Developments**

Planned Unit Development (PUD) provisions could be used for a variety of purposes in the North Redwood area. They would allow for lot size averaging, alternative lot layouts, and protection of natural areas, with the development potential in those areas captured in the developable portion of a site. While use of the city's PUD process would provide opportunities for more development flexibility, such processes are most effective when applied to larger properties or developments. As a result, they would be most applicable on larger properties in the study area and/or in areas where property ownership can be consolidated. No revisions to the PUD provisions are recommended.

#### **Annexation**

The existing code contains provisions for annexation of new properties into the city boundary. For properties that are within a designated Development Concept Plan (DCP) area, a DCP must be adopted by the city before a zone change will be approved for a newly annexed property. The language is as follows:

#### Section 16.84.040 Standards and Criteria for Annexation

- A. The following criteria shall apply to all annexation requests.
- 1. The City of Canby Annexation Development Map shall determine which properties are required to submit either (See Figure 16.84.040):
- b. A Development Concept Plan (DCP) binding for all properties located within the boundaries of a designated DCP area as shown on the City of Canby Annexation Development Map. A Development Concept Plan shall address City of Canby infrastructure requirements including:
- 1. Water
- 2. Sewer
- 3. Stormwater
- 4. Access
- 5. Internal Circulation
- 6. Street Standards
- 7. Fire Department requirements
- 8. Parks and open space

For newly annexed properties that are within the boundaries of a DCP area as designated on the City of Canby Annexation Development Map: A Development Concept Plan shall be adopted by the Canby City Council prior to granting a change in zoning classification.

While this language ensures that a DCP be adopted prior to a zone change, it does not specify that zone changes occurring after annexation must be consistent with the DCP. To address this, the standards and criteria section could be revised as follows:

#### Section 16.84.040 Standards and Criteria for Annexation

A. The following criteria shall apply to all annexation requests.

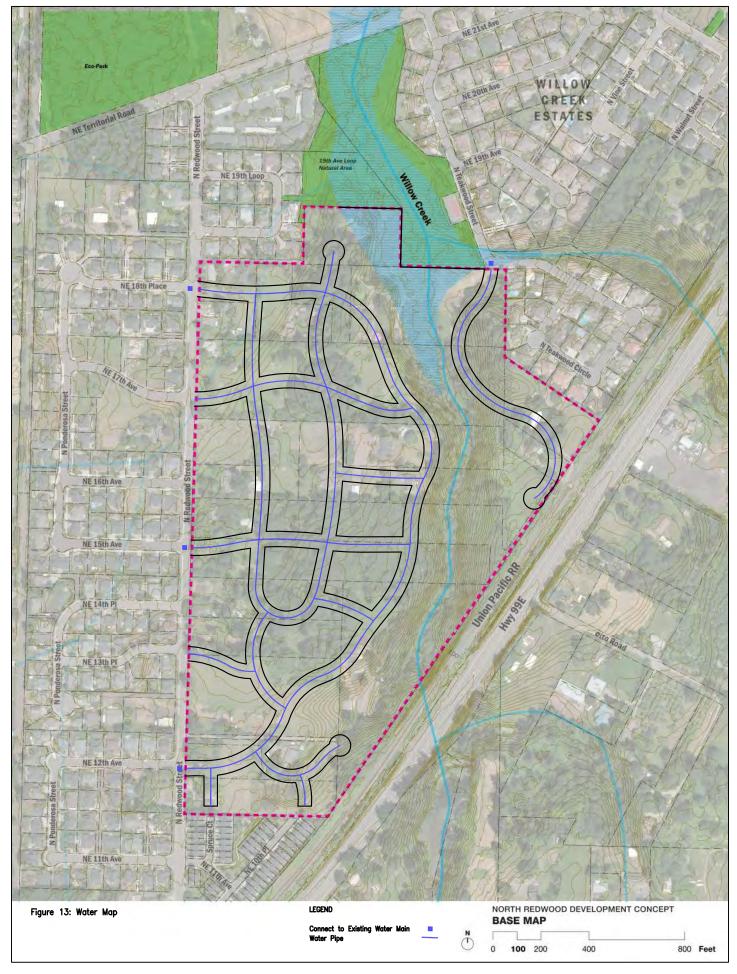
...

8. Statement indicating the type and nature of any comprehensive Plan text or map amendments or Zoning text or map amendments that may be required to complete the proposed development.

Proposed zoning must be consistent with zoning identified in any applicable adopted Development Concept Plan.

## **Infrastructure**

(Recommended Changes to City Facility Plans and Standards)



#### Infrastructure: Water

Water within the City of Canby is provided by Canby Utility. Canby Utility completed a Water System Master Plan in 2010. The system analysis in the master plan included all areas within the Urban Growth Boundary, which includes the North Redwood site.

Waterlines adjacent to the project include an existing 12-inch waterline in N. Redwood Street and an 8-inch line in N. Teakwood Street. A 14-inch transmission line is located in NE Territorial Road to the North.

The North Redwood site can be served by Canby Utility via connections to the existing waterlines in N. Redwood Street and N. Teakwood Street. The project site is bisected by Willow Creek. Areas west and east of Willow Creek would be served via separate connections to the existing water system.

Proposed development west of Willow Creek can be served by connections to the existing 12-inch line in N. Redwood Street. A minimum of two connections to the N. Redwood Street waterline is recommended in order to provide a looped water system. The actual locations of the connections to the existing waterline may vary depending on the order in which properties develop. In addition, looping of waterlines within the proposed development is recommended.

Proposed development east of Willow Creek can be served by a connection to the existing water line in N. Teakwood Street. Based on the existing development adjacent to the North Redwood site, there will likely not be an opportunity to loop the water lines east of Willow Creek.

Figure 13 shows existing waterlines in the vicinity of the North Redwood site, proposed connections to serve the site, and a schematic layout of the water system within the preferred alternative.



#### **Infrastructure: Sanitary Sewer**

Sanitary sewer service is provided by the City of Canby. Systems are required to be approved by and to comply with the requirements of Oregon Department of Environmental Quality.

The North Redwood Site can be delineated into two sanitary sewer basins:

• Basin 1: West of Willow Creek

Basin 2: East of Willow Creek

Figure 14 shows each of the sanitary basins, potential sanitary sewer routes based on the preferred alternatives, and a potential pump station location.

#### Basin 1

Basin 1 contains the area east of North Redwood Street and west of Willow Creek. An existing 15-inch sanitary sewer line located N. Redwood Street will serve this basin. According to as-built records, the existing sewer line is approximately 8-feet deep. Any areas uphill of N Redwood Street can feed into this line via gravity. Based on GIS contour information. the ground within the project site generally slopes from the ridge above Willow Creek to North Redwood Street at approximately 1.5 percent. There is a sizeable area within Basin 1 that has a 2 to 4 foot depression, which would need to be filled in order to provide gravity sewer service to the area. Developable areas immediately adjacent to Willow Creek would likely require a pressure sewer and a small lift station in order to provide service to the area.

Multiple connections to the existing sewer line are proposed for the preferred alternative. Planning for multiple connections will allow for increased flexibility in the order in which individual properties can develop. Depending on the order in which properties develop, there may be more or less connections to the existing system that shown in Figure 14.

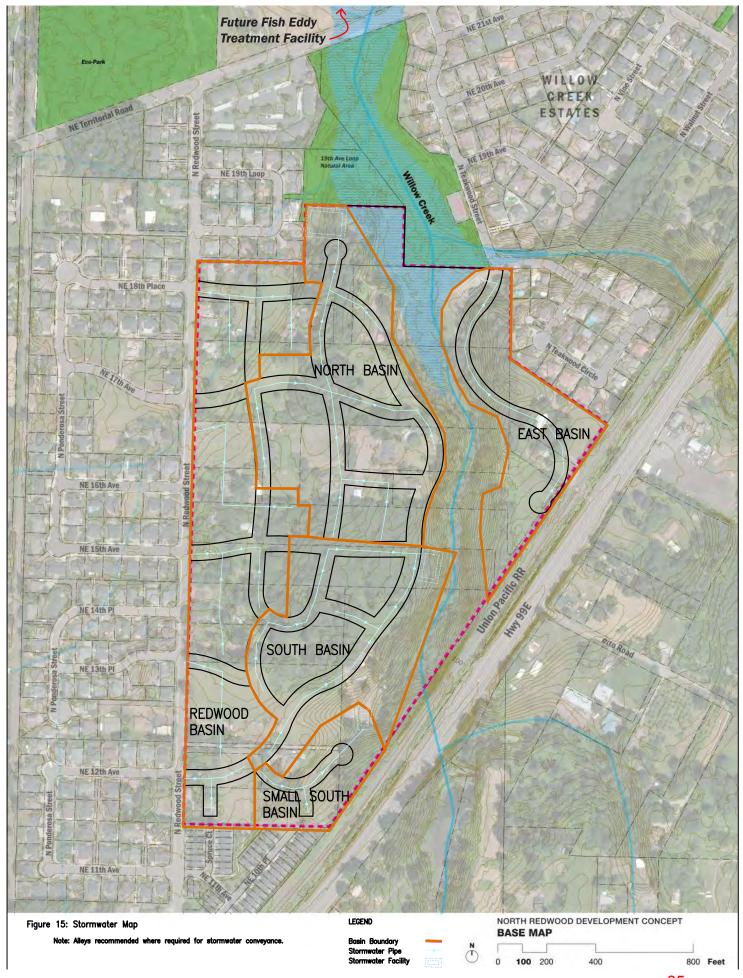
Project Memo #5 describes the possibility of providing a sewer connection for the northernmost parcel in the project site via a gravity connection to an existing sewer line in NE 19th Loop. However, further analysis of the preferred alternative shows that a gravity connection cannot be made to NE 19th Loop. It does appear that with some fill in this area, a gravity connection could be made within Basin 1 for this area. An alternative to filling this development area would be a pressure sewer system that connects to Basin 1.

Capacity of the existing line in N. Redwood Street should be verified prior to development.

#### Basin 2

Basin 2 contains the area within the North Redwood project site that lies east of Willow Creek. This area will be served via a connection to an existing sanitary sewer line in N Teakwood Street. Flow from the Teakwood Street sewer line flows to the existing Willow Creek Pump Station located at NE Territorial Road at Willow Creek.

The elevation and capacity of the existing sewer lines should be verified prior to development. In addition, the existing Willow Creek Pump Station should be evaluated to determine if it has capacity for the additional flow.



Typical LIDA facilities: Swale



Typical LIDA facilities: Water Quality Pond



Typical LIDA facilities: Residential rain garden

#### Infrastructure: Stormwater

The City of Canby Public Works Design Standards (Sections 4.109, 4.309, and 4.310) provide criteria for the design of water quality treatment facilities for storm water runoff. Acceptable methods of treatment include vegetated swales, extended dry ponds, constructed wetlands, Low Impact Development Approaches (LIDA), or proprietary treatment devices. Although all of these methods are acceptable forms of treatment, the City encourages the use of LIDA facilities for water quality treatment of stormwater.

In addition, stormwater quantity management will be required for all runoff from all development within the North Redwood Development Concept Plan area unless it can be demonstrated that there are no adverse downstream impacts. Prior to development. a downstream analysis should be performed to determine if water quantity management is required, per the City of Canby Public Works Design Standards, Section 4.205. If deemed necessary, the volume to be detained will be the volume necessary to limit the post-developed site peak discharge rate to predeveloped runoff rates for all storm events with a recurrence interval less than or equal to 25 years (2, 5, 10, and 25-year storm events). Detention and retention facilities are both acceptable methods of water quantity management. In accordance with City of Canby Standards, facilities shall be designed per CWS Design and Construction Standards, Chapter 4.

Storm sewer conveyance facilities shall be designed for the 10-year design storm event. According to the City of Canby Design Standards (section 4.206), peak design flows for conveyance can be calculated using the rational method, the SCS Curve Number method, or the Santa Barbara Urban Hydrograph method.

#### **Other Potential Design Standards**

Many development projects result in impacts to jurisdictional wetlands or waterways. These impacts trigger a State and Federal permitting process with the Oregon Department of State Lands and U.S Army Corps of Engineers, respectively, through a Joint Permit Application.

The federal wetland permitting process for impacts to jurisdictional wetlands or waterways (i.e. Willow Creek) in the North Redwood Concept Plan area will likely require Endangered Species Act (ESA) consultation as part of the permitting process.

Through the ESA Consultation process, the National Marine Fisheries Service (NMFS) will require a higher level of stormwater management than would be required by the City of Canby and by the Clean Water Services Design & Construction Standards. Design for stormwater management would follow the more stringent standards set by the US Army Corps' "Standard Local Operating Procedures for Endangered Species (SLOPES) for Stormwater, Transportation, and Utilities". Based upon current information from NMFS, they would expect:

- 1) Stormwater quality facilities are sized to treat a volume equal to 50% of the cumulative rainfall from the 2-year, 24-hour precipitation falling on all contributing impervious areas from the development.
- 2) Stormwater quantity facilities are designed to maintain the frequency and duration of flows generated by storms falling between the lower discharge endpoint (42% of 2-year event) and the upper discharge endpoint (10-year event).

#### **Existing Topography and Soils**

West of Willow Creek, the site topography generally slopes from the ridge above Willow Creek west to N Redwood Street. In addition, the site generally slopes from south to north. East of Willow Creek, the site generally slopes from east to west, toward Willow Creek, and also from south to north.

According to the NRCS Soil Survey, the majority of the site is Latourell Loam soils, which is in Hydrologic Soils Group B. Group B soils are generally well draining and are suitable for infiltration. Smaller portions of the site are Amity Silt Loam (Hydrologic Group C/D) and McBee Silty Clay Loam (Hydrologic Group C). Hydrologic Group C and D soils are moderately to poorly drained soils and are generally unsuitable for infiltration. Information from the NRCS Soil Survey can be found in Memo #2, page 8.

Although the NRCS data shows that the majority of the site is well draining, staff at the City have received reports from neighboring property owners noting that the soils in this area do not drain well. Before infiltration is chosen as an option for this site, a geotechnical investigation and infiltration testing should be conducted.

#### **Existing Facilities**

There is an existing storm drain pipe in N Redwood Street which has excess capacity equivalent to approximately 11.8 acres of impervious surface. This storm drain was constructed as part of an advanced financing district for the neighborhood east of N Redwood Street. Utilization of this storm drain by the North Redwood project site may require that developers contribute to the cost that was incurred by the neighboring property owners for the construction of this line.

The N Redwood storm drain discharges to the Fish Eddy site. According the City's stormwater master plan, a treatment wetland will be constructed as part of the restoration of the Fish Eddy property. The treatment wetland will provide water quality treatment and detention for runoff that utilizes the N Redwood storm drain line and future Willow Creek Drainage.

Existing pipes in N Redwood Street should be surveyed to determine the elevation of the existing storm sewer in order to evaluate the extent to which the North Redwood Concept Plan area can drain to the existing N Redwood Street storm sewer conveyance system.

Willow Creek bisects the site approximately 1,000 feet east of N Redwood Street. Willow Creek flows north through the 19th Avenue Natural Area and discharges through a weir structure to two 36-inch diameter culverts under NE Territorial Road. North of Territorial Road, Willow Creek enters the Fish Eddy site on its way to the Willamette River. In accordance with City standards, stormwater treatment is required prior to discharging runoff into Willow Creek.

#### Hydrology

The hydrologic computations focus on the quality and quantity control system design storms, which use the 2-year, 10-year, and 25-year frequency, 24-hour duration design storm events and the Santa Barbara Urban Hydrograph (SBUH) method. Rainfall depths for the storm events of interest, obtained from the ODOT 24-hour isopluval maps and listed in Table 2, were applied to the NRCS Type 1A rainfall distribution.

Recurrence Interval	Precipitation Depth (in)		
2-Year	2.40		
10-Year	3.40		
25-Year	3.80		

**Table 2: Precipitation Depths for 24-Hour Duration Storm Events** 

Runoff Curve Numbers (CN), listed in Table 3 for impervious and pervious surfaces, were selected using the TR-55 runoff curve number table.

Category	Cover Type	Hydrologic Soil Group	Curve Number
Impervious Area	Pavement, roofs, sidewalks	C, B	98
Pre-development Pervious Area	Woods/ grass Comb, Fair	В	65
Pre-development Pervious Area	Woods/ grass Comb, Fair	С	76
Pre-development Pervious Area	Woods/ grass Comb, Fair	D	82
Post-development Pervious Area	50-75% Grass Cover, Fair	В	69
Post-development Pervious Area	50-75% Grass Cover, Fair	С	79
Post-development Pervious Area	50-75% Grass Cover, Fair	D	84

**Table 3: Runoff Curve Numbers** 

In accordance with City of Canby Standards, water quality facilities shall be designed per CWS Design and Construction Standards, Chapter 4. Stormwater facilities shall be designed for a dry weather storm event totaling 0.36 inches of precipitation falling in four hours with an average storm return period of 96 hours.

#### **Stormwater Basins and Management**

The basin east of Willow Creek is approximately 7.6 acres. Stormwater runoff will be conveyed north and receive treatment and quantity control in a stormwater facility before being discharged into Willow Creek.

The existing storm drain in N Redwood Street should be utilized for areas of the site that, for topographic reasons, cannot be conveyed to Willow Creek. A maximum of 11.8 acres of impervious area or street right-of-way can be conveyed to N Redwood Street. If the drainage area directed to N Redwood Street contained both right-of-way and lot runoff, then an equivalent area of approximately 18 acres (assuming 60% impervious) could be conveyed to N Redwood Street. The basin that is expected to drain to N Redwood Street is 17.8 acres. It is assumed that connections to the existing system in N Redwood Street can be made at a depth of five feet. Treatment of this runoff would occur at the Fish Eddy site, as part of the treatment wetland capital improvement project.

A small 3.7 acre basin at the south end of the site and west of Willow Creek is in a low area that cannot be drained northward. Stormwater runoff will be conveyed east and receive treatment and quantity control in a stormwater facility before being discharged into Willow Creek.

An 11.7-acre basin is south of the main East-West Neighborhood route. Stormwater runoff will be conveyed north and east to receive treatment and quantity control in a stormwater facility before being discharged into Willow Creek.

The basin north of the main East-West Neighborhood route is 15.7 acres. Stormwater runoff will be conveyed north and east to receive treatment and quantity control in a stormwater facility before being discharged into Willow Creek. Portions of this basin will need to be filled to maintain positive flow to the north.

Existing and proposed condition peak runoff rates were calculated using HydroCAD v10.0 software. Table 4 summarizes peak runoff rates, and calculations are included in Appendix D.

The detention facilities with a water quality swale in the bottom have four feet of detention depth and one foot of freeboard with side slopes of 3H:1V. Table 5 summarizes the pond areas and volumes.

Catchment/ Facility ID	Top Surface Area (sf)	Pond Volume (cf)
Basin East	4,960	11,700
Basin Small South	3,740	10,100
Basin South	9,670	30,100
Basin North	17,680	57,400

Table 5: Detention Basin Volumes

Catchment/ Facility ID	Peak Flow Rate (cfs)						
	<b>2</b> -ye	ear 10-year		25-year		ar	
	Existing	Proposed	Existing	Proposed	Existing	Proposed	Proposed (Detained)
Basin Redwood	0.39	1.36	1.17	8.75	1.8	10.45	NA
Basin East	0.15	1.29	0.43	2.46	0.72	2.99	0.62
Basin Small South	0.07	1.15	0.24	1.85	0.41	2.15	0.38
Basin South	0.23	3.11	0.70	5.12	1.18	6.00	1.15
Basin North	0.32	3.96	0.83	6.66	1.22	7.84	1.08

**Table 4: Facility Flow Control Summary** 

#### Infiltration

If a geotechnical analysis concludes that infiltration is appropriate for this site, it can be used as a method of storm water retention and disposal. Individual lot drainage can be disposed of on site. Right-of-way runoff could be infiltrated through a combination of LIDA facilities and drywells or retention ponds. If the geotechnical analysis concludes that infiltration is not appropriate for this site, stormwater would need to be conveyed to Willow Creek for disposal. The use of infiltration drywells to dispose of stormwater will trigger a different permitting process. Stormwater infiltration drywells are considered an underground injection control (UIC) and are regulated by the Safe Drinking Water Act. DEQ administers a permitting process for UICs.

# **Planning Level Infrastructure Costs**

Table 6 below shows conceptual level unit costs for many of the elements that will be required for the development of this site.

Item	Unit Cost	Assumptions		
Streets	\$490/LF	This cost includes base rock, AC pavement, curb and gutter, and sidewalks as well as grading of both streets and lots. The cost does not include street trees, landscaping, or retaining walls. Cost is based on dollars per linear foot of street.		
Storm Drain Conveyance	\$150/LF	This cost includes pipe, inlets, and manholes. The cost does not include water quality or quantity management facilities. Unit cost is based on total street length.		
Stormwater Management Facilities	\$15,000/acre	This cost is based on dollars per acre of overall development. It includes water qua and water quantity facilities.		
Sanitary Sewer Conveyance	\$130/LF	This cost includes pipe, manholes, and laterals for gravity and pressure sewer conveyance. The cost does not include pump stations. Unit cost is based on total street length.		
Sanitary Sewer Pump Station	\$150,000/each	This cost includes a small sanitary sewer pump station. Unit cost is based on total street length.		
Waterline	\$100/LF	This cost includes pipe, fittings, and fire hydrants. The cost does not include water services and meters. Unit cost is based on total street length.		
Franchise Utilities and Street Lights	\$130/LF	This costs includes conduit for franchise utilities, vaults and street lights. Unit cost is based on total street length.		
Vehicular Bridge over Willow Creek	\$1,000,000 - \$1,200,000/each	Cost is for a 44 ft wide single span bridge. Costs vary with length of structure. The low end is for a 110' long bridge; high end is for a 150' long structure.		
Pedestrian Bridge over Willow Creek	\$65,000 - \$265,000/ each	Cost is for a 10 ft wide weathering steel truss type bridge with a concrete deck. Costs vary with length of structure, which depends on where the pedestrian bridge will be located. The low end is for a 40' long structure; high end is for a 120' long structure.		

Table 6: Conceptual Unit costs for North Redwood development

Table 7, below, shows the above unit prices applied to the preferred alternative to arrive at a total cost of development for the North Redwood Concept Plan.

Item	Quantity	Unit	Unit Cost*	Total Cost
Streets	11,450	LF	\$490	\$5,610,500
Storm Drain	11,450	LF	\$150	\$1,717,500
Sanitary Sewer	11,450	LF	\$130	\$1,488,500
Waterline	11,450	LF	\$100	\$1,145000
Franchise Utilities	11,450	LF	\$130	\$1,488,500
Stormwater Management Facilities	56.8	Acre	\$15,000	\$852,000
Sanitary Sewer Pump Station	1	Each	\$150,000	\$150,000
Pedestrian Bridge	1	Each	\$265,000	\$265,000
Total Cost				\$12,717,000

**Table 7. Preferred Alternative Planning Level Infrastructure Costs** 

\*Typical subdivision costs were developed from construction costs of a recent 16.3 acre single family subdivision in Washington County.

Bridge costs were developed from costs of structures of similar size and type. All costs assume dry weather construction and rock excavation is not included.

Costs include 30% contingency. Costs are construction costs and do not include soft costs such as engineering and permit fees.

# **Implementation and Funding**

# **Options** (text to be refined; also please see Appendix A Funding Toolkit)

The following is a summary of infrastructure cost sharing options that could be considered for this study area. Please see the Funding Toolkit in Appendix A for more detail. It will be challenging to equitably distribute the costs and benefits of development in the study area, given the number of property owners and the wide range of property sizes and access to existing infrastructure. We recommend that a more thorough funding plan be conducted as a follow up to this Concept Plan; this funding plan may require additional engineering, costing, and financial analysis.

#### Plan Considerations

From an infrastructure funding point of view, the North Redwood DCP should locate roadways and other infrastructure (particularly sewer and water lines in road rights of way) along property lines whenever possible. Another alternative is to locate infrastructure in the middle of larger properties. Infrastructure that is located in these ways maximizes the amount of developable property.

In addition, linear, parcel-based infrastructure makes it clearer which property owners will be responsible for paying for individual segments. This can avoid challenges; for example, if an intermediary owner does not wish to develop, they can effectively preclude other owners from developing.

When possible, roadways should also be laid out so that they do not disproportionately burden certain property owners. For example, if possible, roads should not run through small properties because (in the absence of a district funding solution) this will disproportionately increase such owners' infrastructure costs while reducing their potential revenues (residential lot or home sales). This is less of an issue on larger properties, where roads will be needed and there is more developable land.

#### **Cost Sharing Between Two Property Owners**

When roadways straddle property lines, each property owner is responsible for building and paying for one-half of the roadway infrastructure. Sometimes, the first-in developer will build the entire roadway and place a reimbursement district or latecomer agreement on the other property owner(s), which requires the latecomer property owners to pay

their share of infrastructure costs at the time of development. Such a reimbursement district must be approved by the City. Since such an agreement would likely be between just a few property owners, it is not considered in the "district" funding tools summarized below.

#### **Summary of District Funding Options**

One or more "district funding tools" will likely be needed to fund some improvements. These options are listed below and described in Appendix B. The first three options may be initiated by either property owners/developers, or the City, while Urban Renewal and the City's CIP can only be implemented at the discretion of the City.

- Local Improvement District (LID)
- Advance Finance District (AFD)
- Urban Renewal
- City of Canby Capital Improvement Projects (CIP)

#### **District Funding: Uses of Funds**

Our recommendation is that one or more of the district funding tools listed above be implemented in order to pay for a set of "district infrastructure." As used here, the term "district infrastructure" means transportation, sewer, water, stormwater, or parks/ open space that benefit most or all of the properties within the study area, and whose costs should not reasonably be paid by one property owner.

The proposed neighborhood park is an example of something all future residents will benefit from, not just those who live on the property where it will be built. In addition, it would not be fair to require one property owner to build such a park since they would then bear a disproportionate share of infrastructure costs.

District infrastructure can be contrasted with "local" infrastructure, which largely benefits an individual's property, is required as a condition of development in order for homes to be built on that property, and is approximately the same size and cost as the infrastructure on other properties. A road on an individual's property is an example, since that road

would be required in order for development to occur.

We recommend that one or more of the district funding tools listed above be implemented in order to pay for the following "district" infrastructure:

#### Parks This section replaced by Leland Memo pg 340

- Neighborhood Park, including the cost of land (approximately 1 acre, with the value to be based on an appraisal), and improvements to the park (e.g., landscaping, play structures,
- Willow Creek Natural Area. The district should also pay for land and improvement costs within the 7.8-acre Willow Creek Natural Area. However, the value of this property will be considerably lower than the land to be purchased for the Neighborhood Park, since much of this land is sloped or wetland and therefore cannot be developed. Nonetheless, the land likely has some value for recreation, enjoyment, agriculture, or other purposes. For the purposes of this analysis, a planning-level value estimate of \$2.50 per square foot is used; an appraisal or other valuation will be required in order to establish the land's value. In addition, the cost of improvements in this park are expected to be lower since the improvements will be simpler.

#### A summary of preliminary planning-level cost estimates is included below.

The parks-associated assessment payments that property owners make into an LID or AFD will be creditable against the parks Systems Development Charges (SDCs) that they owe at the time of development (typically building permits). Thus, the cost of the parks infrastructure shown above will be offset against future SDCs owed.

A pedestrian bridge is planned and will benefit most of the properties in the subject area. The estimated cost is \$265,000.

A sewer pump station is planned and will benefit most of the properties in the subject area. The estimated cost is \$150,000.

**Total District Costs: Based on the above costs, the** total amount to be funded by the district funding mechanism would be \$4,215,000, not inclusive of administrative and financing costs. Note that the costs listed on page 32 include some elements that individual properties will have to bear costs for.

# **Appendices**

### Appendix A: Meeting Notes & Memos

There are a number of supporting memos and meeting minutes that should be consulted as background information for this DCP. These files are attached as a combined Appendix A in the pages that follow.

#### **Project Memos:**

Memo #1: Project Planning and Implementation

**Memo #2: Existing Conditions** 

Memo #3: Development Rights and Best Development

**Practices** 

Memo #4: Evaluation Criteria

Memo #5: Alternative DCPs

**Project Website Input (Deliverable 1D)** 

**Comprehensive Plan and Zoning Code Amendments** 

**Funding Toolkit** 

#### **Meeting Notes:**

Stakeholder Interview Summary (Deliverable 2D)

Project Management Team (PMT) #1

Project Management Team (PMT) #2

Project Management Team (PMT) #3

Project Management Team (PMT) #4

#### **Committee Meeting Notes:**

Technical Advisory Committee (TAC) #1

Technical Advisory Committee (TAC) #2

Stakeholder Advisory Committee (SAC) #1

TAC/SAC Presentation and Notes

Stakeholder Advisory Committee (SAC) #2

TAC/SAC Presentation and Notes

Stakeholder Advisory Committee (SAC) #3

Technical Advisory Committee (TAC) #3

Combined TAC/SAC Presentation and Notes

#### **Public Event Summaries/Materials:**

Public Event #1

Public Event #2

### Appendix B: Phasing

There are many different ways in which this DCP could proceed. Development of the community will depend primarily on how property owners in the area proceed based on their willingness to develop, market readiness and availability of financing.

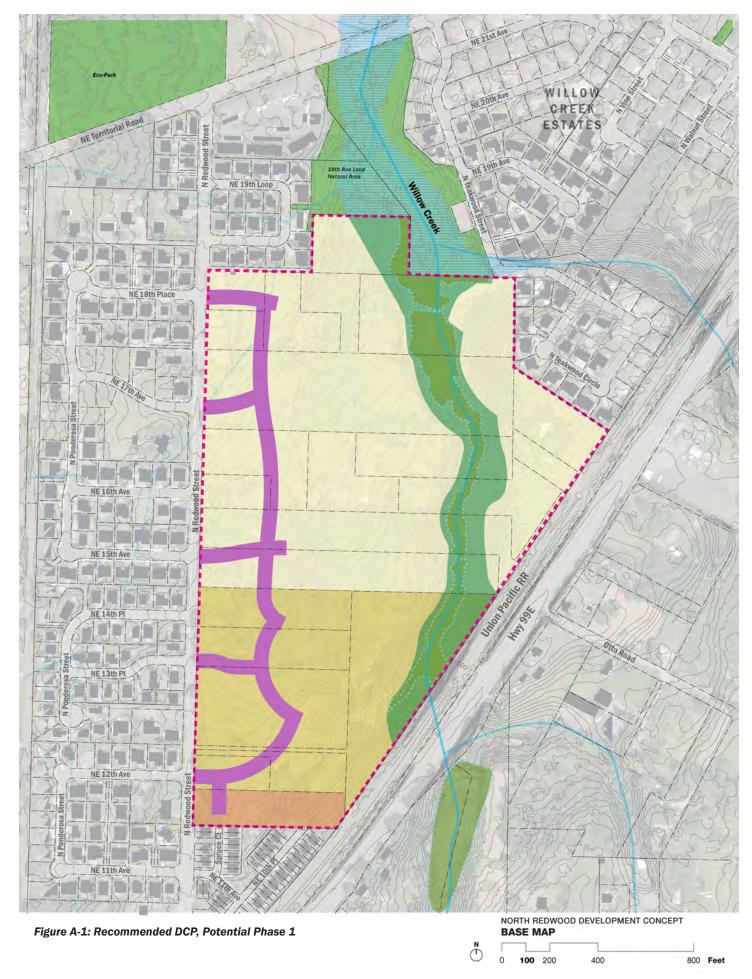
Some owners towards the center and east of the study area may not be able to develop until other parcels closer to North Redwood Street proceed. Such timing issues can potentially be resolved through a Development Agreement between different parties, which would presumably incorporate agreements on shared funding of major streets and infrastructure.

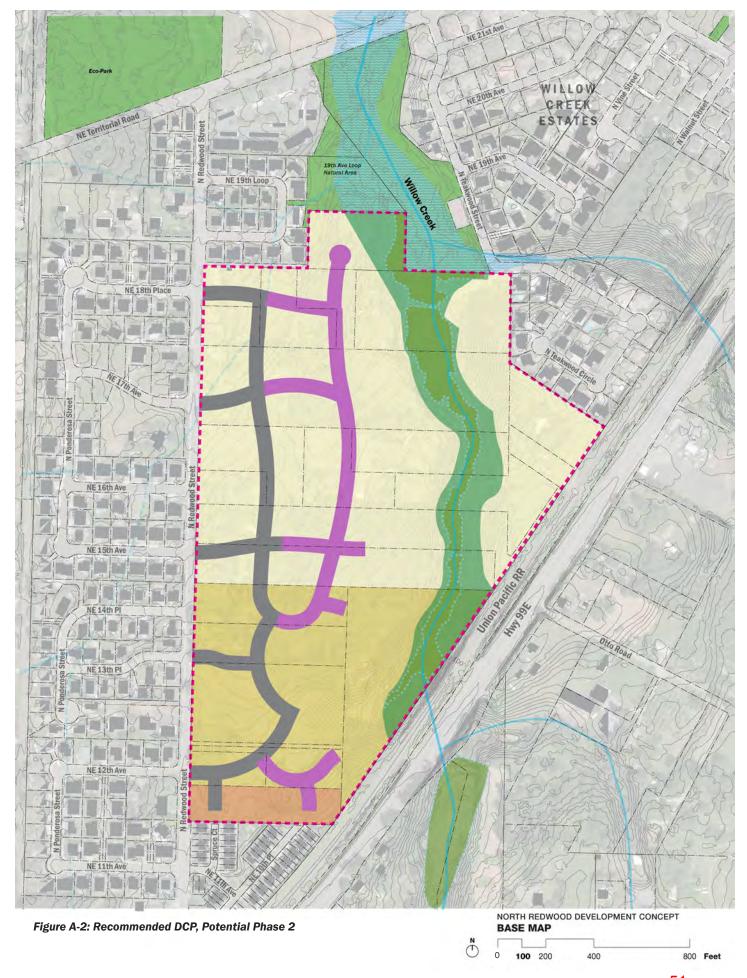
The following pages demonstrate how the study area could theoretically develop in three broad phases, beginning along North Redwood and proceeding eastward. The figures show new streets for each phase in purple. Larger investments in parks, open spaces and trails would wait until development reached those areas and more units have paid into a fund to finance public improvements.

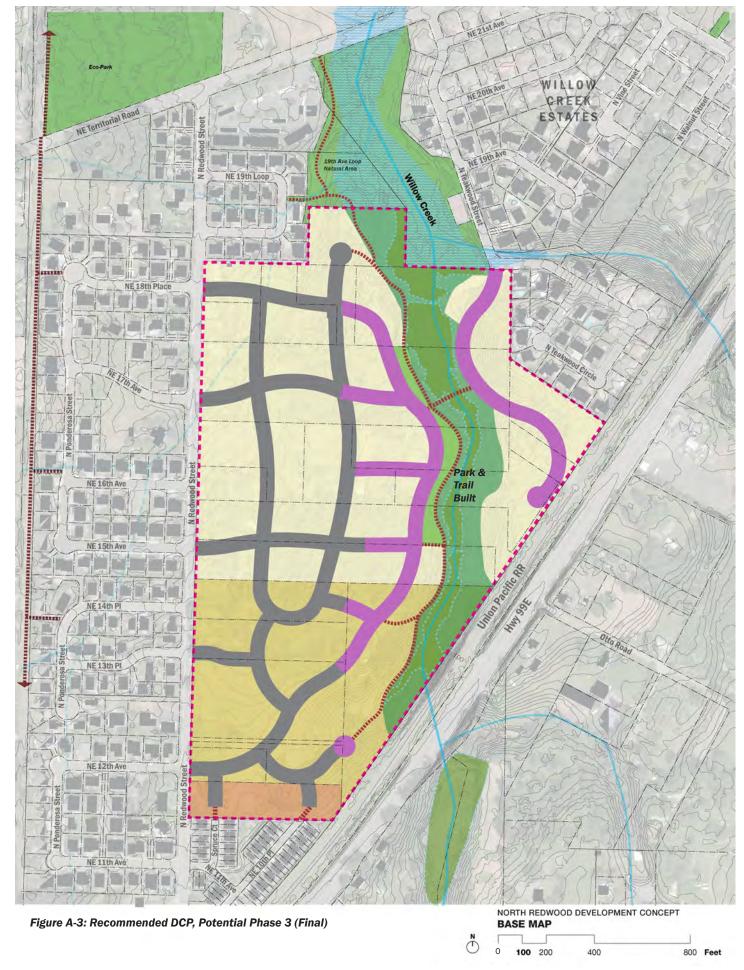
Another approach would suggest that properties along Willow Creek are the most valuable and could develop first. This would require extension of roadways deep into the study area, potentially without adjacent development. The value of the larger lots along the Creek may outweigh this disadvantage. Development of the area east of Willow Creek could proceed independently of the timing of changes on the west bank. The key triggers to development east of the creek will be agreement with UPRR on an emergency crossing and finalizing the connection to Teakwood Road.

Regardless of what phasing approach is pursued by property owners, there are a number of actions that should be pursued prior to development. These include:

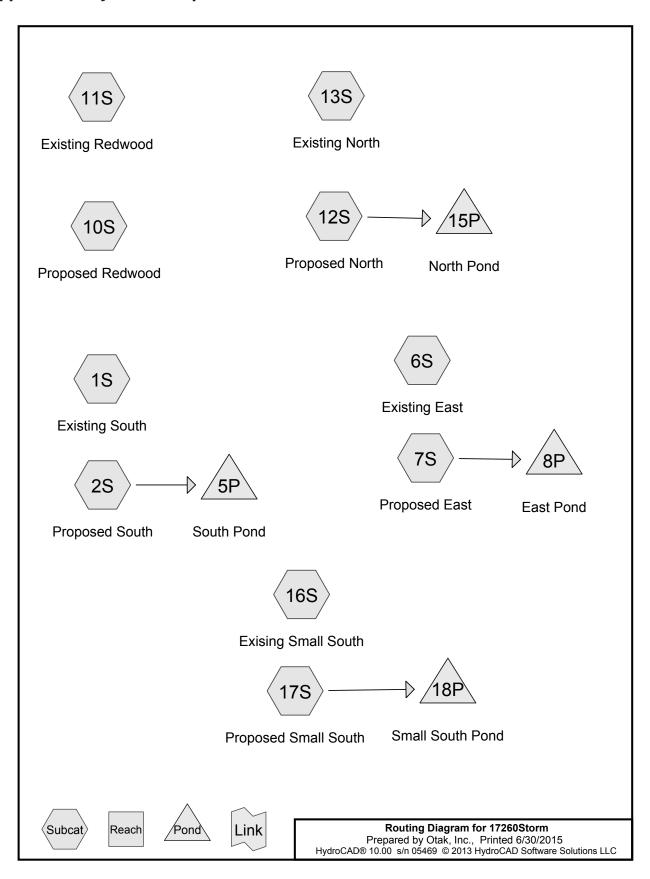
- 1. Property owner agreement on pursuing annexation
- 2. Annexation vote
- 3. Finalize funding plan and developer agreement between majority of property owners
- 4. Refinement of DCP, updated as property owners refine individual plans
- 5. Initial utility design and mass grading plan
- 6. Access planning and design for UPRR crossing, Teakwood access and new intersections on North Redwood
- 7. Restoration plan for Willow Creek
- 8. Design and land acquisition for North Redwood widening, to collector standard







# Appendix C: HydroCAD report



Outflow=0.82 cfs 1.224 af

Outflow=0.80 cfs 1.595 af

# 17260Storm

Prepared by Otak, Inc.

HydroCAD® 10.00 s/n 05469 © 2013 HydroCAD Software Solutions LLC

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing South

Runoff Area=11.660 ac 0.00% Impervious Runoff Depth=0.26"

Flow Length=928' Tc=14.4 min CN=65/0 Runoff=0.23 cfs 0.254 af

Subcatchment2S: Proposed South

Runoff Area=11.670 ac 49.27% Impervious Runoff Depth=1.26"

Flow Length=1,140' Tc=9.2 min CN=69/98 Runoff=3.11 cfs 1.226 af

Subcatchment6S: Existing East

Runoff Area=7.620 ac 0.00% Impervious Runoff Depth=0.26"
Flow Length=1,394' Tc=17.6 min CN=65/0 Runoff=0.15 cfs 0.166 af

Subcatchment7S: Proposed East Runoff Area=7.620 ac 29.79% Impervious Runoff Depth=0.91" Flow Length=1,200' Slope=0.0350 '/' Tc=7.4 min CN=69/98 Runoff=1.29 cfs 0.578 af

Subcatchment10S: Proposed Redwood Runoff Area=22.830 ac 37.36% Impervious Runoff Depth=1.07" Flow Length=620' Tc=7.2 min CN=70/98 Runoff=4.91 cfs 2.030 af

Subcatchment11S: Existing Redwood Runoff Area=17.810 ac 0.00% Impervious Runoff Depth=0.32" Flow Length=650' Tc=29.3 min CN=67/0 Runoff=0.39 cfs 0.469 af

Subcatchment12S: Proposed North Runoff Area=15.890 ac 45.94% Impervious Runoff Depth=1.22" Flow Length=1,475' Tc=10.4 min CN=70/98 Runoff=3.96 cfs 1.613 af

Subcatchment13S: Existing North

Runoff Area=15.730 ac 0.00% Impervious Runoff Depth=0.29"

Flow Length=1,405' Tc=46.6 min CN=66/0 Runoff=0.32 cfs 0.377 af

Subcatchment16S: Exising Small South Runoff Area=3.730 ac 0.00% Impervious Runoff Depth=0.26" Flow Length=609' Tc=10.9 min CN=65/0 Runoff=0.07 cfs 0.081 af

Subcatchment17S: Proposed Small South Runoff Area=3.730 ac 55.76% Impervious Runoff Depth=1.38" Flow Length=475' Tc=5.9 min CN=69/98 Runoff=1.15 cfs 0.428 af

Pond 5P: South Pond Peak Elev=112.03' Storage=0.297 af Inflow=3.11 cfs 1.226 af

Pond 8P: East Pond Peak Elev=89.55' Storage=0.089 af Inflow=1.29 cfs 0.578 af Outflow=0.45 cfs 0.578 af

Pond 15P: North Pond Peak Elev=101.82' Storage=0.545 af Inflow=3.96 cfs 1.613 af

Deal Flour 107 101 Character 0.000 of Inflormat 1.5 of 0.400 of

Pond 18P: Small South Pond

Peak Elev=107.18' Storage=0.098 af Inflow=1.15 cfs 0.428 af Outflow=0.30 cfs 0.428 af

Total Runoff Area = 118.290 ac Runoff Volume = 7.222 af Average Runoff Depth = 0.73" 78.08% Pervious = 92.360 ac 21.92% Impervious = 25.930 ac

### Appendix C: HydroCAD report

17260Storm

North Redwood Concept Plan Type IA 24-hr 10yr Rainfall=3.40" Printed 6/30/2015

Prepared by Otak, Inc. HydroCAD® 10.00 s/n 05469 © 2013 HydroCAD Software Solutions LLC

Page 3

Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SBUH method, Split Pervious/Imperv.
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing South Runoff Area=11.660 ac 0.00% Impervious Runoff Depth=0.70"

Flow Length=928' Tc=14.4 min CN=65/0 Runoff=0.70 cfs 0.680 af

Subcatchment2S: Proposed South Runoff Area=11.670 ac 49.27% Impervious Runoff Depth=2.01"

Flow Length=1,140' Tc=9.2 min CN=69/98 Runoff=5.12 cfs 1.959 af

Subcatchment6S: Existing East

Runoff Area=7.620 ac 0.00% Impervious Runoff Depth=0.70"

Flow Length=1,394' Tc=17.6 min CN=65/0 Runoff=0.43 cfs 0.445 af

Subcatchment7S: Proposed East Runoff Area=7.620 ac 29.79% Impervious Runoff Depth=1.57" Flow Length=1,200' Slope=0.0350 '/' Tc=7.4 min CN=69/98 Runoff=2.46 cfs 0.998 af

Subcatchment10S: Proposed Redwood Runoff Area=22.830 ac 37.36% Impervious Runoff Depth=1.78"

Flow Length=620' Tc=7.2 min CN=70/98 Runoff=8.75 cfs 3.379 af

Subcatchment11S: Existing Redwood Runoff Area=17.810 ac 0.00% Impervious Runoff Depth=0.79" Flow Length=650' Tc=29.3 min CN=67/0 Runoff=1.17 cfs 1.179 af

Subcatchment12S: Proposed North Runoff Area=15.890 ac 45.94% Impervious Runoff Depth=1.97" Flow Length=1,475' Tc=10.4 min CN=70/98 Runoff=6.66 cfs 2.604 af

Subcatchment13S: Existing North

Runoff Area=15.730 ac 0.00% Impervious Runoff Depth=0.75"

Flow Length=1,405' Tc=46.6 min CN=66/0 Runoff=0.83 cfs 0.979 af

Subcatchment16S: Exising Small South Runoff Area=3.730 ac 0.00% Impervious Runoff Depth=0.70" Flow Length=609' Tc=10.9 min CN=65/0 Runoff=0.24 cfs 0.218 af

Subcatchment17S: Proposed Small South Runoff Area=3.730 ac 55.76% Impervious Runoff Depth=2.16" Flow Length=475' Tc=5.9 min CN=69/98 Runoff=1.85 cfs 0.672 af

Pond 5P: South Pond Peak Elev=113.42' Storage=0.559 af Inflow=5.12 cfs 1.959 af

Outflow=1.09 cfs 1.956 af

Pond 8P: East Pond Peak Elev=90.94' Storage=0.204 af Inflow=2.46 cfs 0.998 af

Outflow=0.63 cfs 0.998 af

Pond 15P: North Pond Peak Elev=103.28' Storage=1.064 af Inflow=6.66 cfs 2.604 af

Outflow=1.11 cfs 2.572 af

Pond 18P: Small South Pond Peak Elev=108.46' Storage=0.187 af Inflow=1.85 cfs 0.672 af

Outflow=0.38 cfs 0.672 af

Total Runoff Area = 118.290 ac Runoff Volume = 13.113 af Average Runoff Depth = 1.33" 78.08% Pervious = 92.360 ac 21.92% Impervious = 25.930 ac

# 17260Storm

Prepared by Otak, Inc.

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Time span=0.00-48.00 hrs, dt=0.05 hrs, 961 points
Runoff by SBUH method, Split Pervious/Imperv.

Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing South

Runoff Area=11.660 ac 0.00% Impervious Runoff Depth=0.91"

Flow Length=928' Tc=14.4 min CN=65/0 Runoff=1.18 cfs 0.889 af

Subcatchment2S: Proposed South

Runoff Area=11.670 ac 49.27% Impervious Runoff Depth=2.33"

Flow Length=1,140' Tc=9.2 min CN=69/98 Runoff=6.00 cfs 2.270 af

Subcatchment6S: Existing East

Runoff Area=7.620 ac 0.00% Impervious Runoff Depth=0.91"

Flow Length=1,394' Tc=17.6 min CN=65/0 Runoff=0.72 cfs 0.581 af

Subcatchment7S: Proposed East Runoff Area=7.620 ac 29.79% Impervious Runoff Depth=1.86" Flow Length=1,200' Slope=0.0350 '/' Tc=7.4 min CN=69/98 Runoff=2.99 cfs 1.182 af

Subcatchment10S: Proposed Redwood Runoff Area=22.830 ac 37.36% Impervious Runoff Depth=2.08" Flow Length=620' Tc=7.2 min CN=70/98 Runoff=10.45 cfs 3.962 af

Subcatchment11S: Existing Redwood Runoff Area=17.810 ac 0.00% Impervious Runoff Depth=1.02" Flow Length=650' Tc=29.3 min CN=67/0 Runoff=1.80 cfs 1.519 af

Subcatchment12S: Proposed North Runoff Area=15.890 ac 45.94% Impervious Runoff Depth=2.29" Flow Length=1,475' Tc=10.4 min CN=70/98 Runoff=7.84 cfs 3.027 af

Subcatchment13S: Existing North

Runoff Area=15.730 ac 0.00% Impervious Runoff Depth=0.97"
Flow Length=1,405' Tc=46.6 min CN=66/0 Runoff=1.22 cfs 1.269 af

Subcatchment16S: Exising Small South Runoff Area=3.730 ac 0.00% Impervious Runoff Depth=0.91" Flow Length=609' Tc=10.9 min CN=65/0 Runoff=0.41 cfs 0.284 af

Subcatchment17S: Proposed Small South Runoff Area=3.730 ac 55.76% Impervious Runoff Depth=2.49" Flow Length=475' Tc=5.9 min CN=69/98 Runoff=2.15 cfs 0.775 af

Pond 5P: South Pond

Peak Elev=114.03' Storage=0.690 af Inflow=6.00 cfs 2.270 af
Outflow=1.18 cfs 2.266 af

Pond 8P: East Pond Peak Elev=91.57' Storage=0.268 af Inflow=2.99 cfs 1.182 af Outflow=0.70 cfs 1.182 af

Pond 15P: North Pond Peak Elev=103.93' Storage=1.317 af Inflow=7.84 cfs 3.027 af Outflow=1.22 cfs 2.983 af

Deal: Flow 400 001 04---- 0 004 of Juffeye 0.45 of 0.775 of

**Pond 18P: Small South Pond**Peak Elev=108.98' Storage=0.231 af Inflow=2.15 cfs 0.775 af Outflow=0.40 cfs 0.775 af

Total Runoff Area = 118.290 ac Runoff Volume = 15.758 af Average Runoff Depth = 1.60" 78.08% Pervious = 92.360 ac 21.92% Impervious = 25.930 ac





LANDSCAPE ARCHITECTURE

URBAN DESIGN

PLANNING

# MEMORANDUM

To: Matilda Deas Topic: Project Website Date: 01/30/2015

From: Ken Pirie Project: Canby North Redwood Project #: 3077

Distribution: Basecamp

#### **North Redwood Development Concept Plan**

**Project Website Input** 

The project website for this effort serves an important function, as a primary source of information to property owners and the public. The following are suggested design elements and content to ensure that the website serves this project and the City's goals effectively.

#### **General Website Placement and Design**

The website should be easy to find, via the main home page of the City's Planning Department site. Larger font in a prominent location and a 'clickable' hyperlink should make it simple for visitors to find project information. Visitors should not need to scroll down to find this link.

#### Website Design

Once in the project site itself, a large, attractive graphic should be placed to add visual interest to the page and encourage readers to stay. We suggest an aerial photo, which will be provided in a separate email. Additional site photos can be included, either on the project site (at the bottom), or via another hyperlink.

#### Content

We suggest that introductory text should be placed here for general public information. See the end of this memo for suggested text. Font size for text should be large enough to read but not overwhelmingly large and should match official city fonts elsewhere on the website.

There should also be a location or separate tab on the site that allows interested parties to access maps of the study area and eventually, Final Project Memos, in PDF format. (We will strive to ensure that the file sizes for these are not over 10MB, to ensure ease of download.)

#### Schedule

Key dates (and times/locations) for upcoming project meetings and milestones should be placed in a prominent location, preferably in a sidebar. Project agendas and materials can eventually be posted next to these dates. These milestones should remain after they have passed, to allow for meeting summaries to be posted below. We also suggest that the overall project Schedule should be accessible via a hyperlink on this project site.

#### **Public Comment**

We do not recommend including a comment option for this website, but we do recommend that Matilda Deas' email and phone number be placed on the site so citizens can email their comments or call Matilda directly to discuss the project.

This link leads to a website for a recent Walker Macy project in Oregon City, which displays many of the elements described above:

http://www.orcity.org/community/willamette-falls-legacy-project

#### **Suggested Introductory Text for website**

#### **Project Study Area**

The Project Study Area is 66 acres and is bounded by OR99E and the Union Pacific Railroad on the east and south, NE Territorial Road on the north, and N Redwood Street on the west (see map). The Project Study Area consists of 23 tax lots, varying in size between one and ten acres with 18 property owners, including a single family that owns 7 lots.

#### **Project Purpose**

The North Redwood Development Concept Plan will provide a preferred alternative for development of this site with multiple property owners. The project will develop conceptual infrastructure and financing options for achieving urban housing densities while protecting the site's natural resources. The Project will also determine a supportive transportation system, increase travel options, and identify optimal access locations for emergency service providers.

The City has recently conducted a survey of community values documented in "Canby Community Visioning 2013". These documented Community Values will be applied to the Project and include:

- Develop multi-purpose trails complete the Emerald Necklace and look for opportunities for external connections.
- Upgrade parks in order to provide expanded recreation opportunities for all ages, abilities, ethnicities and interests.
- Citizens and visitors in Canby should feel completely safe in their home or on foot, bicycle or auto within and across all areas of the City. Canby will have a safe attractive system of roads that are well maintained and support the efficient movement of people, goods and services.
- Keep small town feel by promoting connectivity with community and businesses.

#### **Zoning and DCP**

The Project Study Area is located in unincorporated Clackamas County inside the Canby Urban Growth Boundary and is within the boundaries of a designated DCP Area. Upon voter approved annexation, developments located within a designated DCP area are required to have a DCP adopted by the City Council prior to granting a change to urban zoning classifications. The Project Study Area's current zoning is Rural Residential Farm Forest 5-Acre District (RRFF-5) governed by the Clackamas County Zoning and Development Ordinance.

#### **Natural Resources**

The Project Study Area has significant natural resources including Willow Creek, a year-round flowing creek that empties a mile north into the Willamette River. Willow Creek is a designated Goal 5 resource. It is anticipated that Willow Creek will receive some of the Project Study Area's storm water runoff and carry it to the future, City owned tertiary wetland storm water facility to the north. It is anticipated that protection would occur as part of the mandatory

park land dedication provision under City Ordinance No. 1157. A linear public park may be a key feature of the DCP in order to meet Project Objectives.

#### **Project Objectives:** To develop a DCP that:

- Identifies a mix of residential uses and densities that complement the existing character of the surrounding area;
- Identifies a comprehensive multi-modal transportation network and circulation plan that provides connections to the existing transportation system and promotes alternative modes of transportation;
- Identifies infrastructure to serve future development and provides mechanisms for an equitable distribution of cost among property owners in the Project Study Area;
- Protects the significant natural resources in the Project Study Area while providing for storm water management and recreational amenities;
- Includes a financing plan focusing on the provision of public infrastructure, including phased development strategies;

#### **Public Involvement**

The Public Involvement process for North Redwood will allow the community an opportunity to provide input into the planning process. Meaningful involvement means that:

- potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health;
- the public's contribution can influence the regulatory agency's decision;
- the concerns of all participants involved will be considered in the decision making process; and
- the decision makers seek out and facilitate the involvement of those potentially affected.

end

To: Matilda Deas Topic: PMT #2 Meeting Notes Date: 01/29/2015

From: Ken Pirie Project: Canby North Redwood Project #: 3077

### North Redwood Development Concept Plan

Distribution:

**Project Management Team Meeting #2** 

Basecamp

#### Attendees:

Ken Pirie, Walker Macy Mike Zilis, Walker Macy Brian Vanneman, Leland Consulting Group Matilda Deas, City of Canby Seth Brumley, ODOT

- The team reviewed the general discussion from morning stakeholder interviews. Feedback was positive. Main concerns from property owners were the potential for park land along Willow Creek and how that impacts their property, as well as possible road connectivity for the study area.
- Matilda will initiate a conversation with owners of the ponds south of Hwy 99E to see what they intend to do with their ponds. Draining them could help with stream and fisheries health
- Matilda is working with Seth Brumley, Chris from DKS & Avi at ODOT on officially removing Otto Road from TSP and completing an associated Comp. Plan amendment
- TAC and SAC meetings on February 9th. Matilda will send rosters for each group before meeting. Location is still being determined. Hope Village may be an option.
- Walker Macy (WM) will send a Draft Presentation to Matilda by Thursday February 5<sup>th</sup>.
- WM will print handouts of TAC/SAC presentation for the meetings and provide a final PDF for the project website.
- WM will also prepare a package of maps for the website
- Matilda asked that we NOT use the term Smart Growth, instead use Walkable Neighborhoods or Traditional Neighborhoods
- Canby Public Works Engineer thinks there's a place in the study area that is feasible for bridge
- Discussion of how to share costs and impacts of development

- Development pays its own way in Canby--developers would dedicate parkland and the city would look for grants to build parks
- (Traditionally a city takes SDCs to buy park land but here it's different)
- The City is suffering from a maintenance funding shortfall
- City has a lot of \$ to build parks, but NO maintenance \$ (only 3 parks staff)
- Park dedication assumes useable park and assumes city "would be nice" to property owners by accepting wetlands for park space in lieu of active play grounds or sports fields
- Plan's park dedication could be in lieu money, to improve nearby parks
- Could an HOA pay for parks maintenance?
- Meeting ended with discussion of afternoon stakeholder interviews.

end

To: Matilda Deas Topic: Stakeholder Interview Summary Date: 02/09/2015

From: Ken Pirie Project: Canby North Redwood Project #: 3077

#### North Redwood Development Concept Plan

Distribution: Basecamp **Stakeholder Interview Summary** 

The following points were raised by Study Area stakeholders during a full day of stakeholder interviews on Thursday, January 29, 2015. Comments have not been attributed to specific interviewees to preserve confidentiality.

#### **Property Owner General Input**

- Many intend to sell their land as developable property
- Several owners have farm deferral property taxes
- If developed would want to see a walkable neighborhood
- No more apartments
- General agreement with Comprehensive Plan Zoning
- Area on east side of creek will be tough to develop; steep slopes and proximity to UP Railroad
- City could do better job of sharing information

#### **Connectivity and Traffic**

- No traffic issues: this area is not congested
- Only hassle is lack of storage between intersection signal and RR tracks
- Plan roadway connections carefully
- Don't want wide roads in this plan
- Don't believe bridging creek is economically feasible. Some believe that properties on east side of creek should bear more expense for a bridge
- If a new connection is proposed across Willow Creek, need to find a highbanked area for crossing
- Always supposed to be a road connection to Teakwood neighborhood. This
  connection will be contentious but Fire Department wants it
- Closing RR crossing to three lots on east side would avoid horns

#### Market

- · Recent increase in home prices due to rising land values
- Very little starter homes
- Low Density Residential will sell well
- Not huge demand for large estate lots; eliminates 80% of market
- Short supply of buildable lots; not much supply to accommodate market
- Lot more valuable to have higher density. Some owners would like more HDR
- Duplexes accepted in City but stigma against townhouses
- RR is loud. Even with berm and walls, it still rattles homes
- Amenity of Willow Creek for larger lots, place those next to the creek
- Industrial center successful in bridging jobs to City to potentially employ locals

#### **Process**

- Property owners can't annex until the DCP completed and adopted
- Owners then make annexation request
- City then takes it to vote of people once city council okays that it makes sense
- Voter approved annexation-has taken "Act of God"-might be tough
- In Canby all annexations have to date all passed or all failed—it's cyclical
- Once annexed, some big name developers will show up
- Annexation of entire area might be more efficient and more equitable
- Wouldn't want city to annex whole area. "Property taxes would quadruple"
- New homes wouldn't be built for 18 months, if annexation happened today

#### Willow Creek

- Hydrology of creek has changed dramatically
- High-water table along Willow Creek
- Dam at Territorial needs to be removed (dam put in by former farmer)
- Used to be a pond south of Territorial, but filled in with silt and reed grass
- Creekbed was once gravel
- Beaver and Nutria activity
- Willow Creek HOA will 'react heavily' to any changes in greenbelt
- Stormwater runoff impacts to creek
- 1996 Flood was the depth of a car on Territorial Road
- When it rains badly, N. Redwood floods
- Boggy land in NW part of study area (as well as Willow Creek)
- Crayfish and fish (trout) used to be in creek-Willow Creek natural area
- Habitat restoration needed

#### **Trails and Parks**

- Park in Willow Creek—concerns about safety and liability
- Go beyond stream setbacks plus extra land for park dedication
- Topography and Drainage challenges for trail
- Expensive to build and maintain a boardwalk
- Property owner opposition "what benefit is to me?"
- Connect to old Logging Road Trail this is a better idea
- City doesn't maintain 19th Ave. Natural Area—no money. Need a volunteer friends group to maintain city parks
- Set aside \$ instead of land because the city can't take care of what they have

#### Utilities

- Stormwater main down Redwood
- Owners to W. of N. Redwood didn't get fully reimbursed by stormwater reimbursement district (10 years, expired)
- Dry well retention doesn't work at end of 10th Place; overflowing into study area
- Good, well-drained soils in most of study area
- Fred Meyer and Industrial Park have increased stormwater flow into Willow Creek
- Check which lots are served by PGE vs the local PUD

#### end



# Memorandum

**Date:** February 12, 2015

**To:** Matilda Deas, City of Canby

cc: Ken Pirie, Walker Macy

Seth Brumley, Oregon Department of Transportation

**From:** Matt Hastie

Re: Canby North Redwood Concept Plan – Project Memo #1: Project Planning

and Implementation Processes

#### Overview

The overall goal of this project is to develop a conceptual plan for future development of the project area. The Plan will identify approximate locations of future roads, sidewalks, trails and other transportation facilities, including how emergency service providers would access the area. The Plan will identify key natural resource areas that should be managed to protect natural resource values, provide access to nature and serve as amenities for future residents. The Plan also will identify needed infrastructure improvements and financing options for them. The recommended Plan and any implementing strategies or requirements must be consistent with local and state policies and plans. One of the most important objectives of the process will be to determine how to collectively achieve community goals for the area, while benefiting future residents, not being overly burdensome on current property owners, and distributing benefits and costs to all area property owners in an equitable manner.

Planning Process and Opportunities for Public Involvement

The Planning process is illustrated in the diagram on the following page. The process will include the following steps:

- Review and assessment of conditions, opportunities and constraints in the study area
- Creation of criteria that will be used to evaluate different future development alternatives, including consistency with community values and priorities
- Development, review and refinement of different development planning alternatives
- Evaluation of development alternatives and selection of a preferred alternative
- Identification of strategies for implementing the preferred alternative, including how to equitably distribute costs and benefits among property owners and other existing and future city residents
- Preparation of a proposed North Redwood Concept Plan and proposed amendments to other city plans and policies needed to implement the Concept Plan

Ultimately, annexation of properties within the area must be approved by Canby voters before any future urban development can occur. In addition, development will need to be consistent with a variety of local city and state standards, including city and state building codes, land division requirements and standards for construction of transportation, sewer, water and stormwater management facilities.

Opportunities for property owners and other community members to engage in the planning process are extremely important. The diagram below indicates a number of opportunities for Canby residents and property owners to be engaged. Those opportunities include:

- Stakeholder and Technical Advisory Committee Meetings. The Stakeholder Advisory Committee will include local property owners and other Canby citizens, providing an opportunity for them to help guide the planning process. Meetings of this group and the project's Technical Advisory Committee will be open to the public, providing additional opportunities for other Canby residents to be involved.
- **Public Events**. The project team will conduct two public events in March and April or May of 2015 to share preliminary recommendations with community members and seek their feedback.
- Planning Commission and City Council Meetings. The project team will conduct work sessions and hearings with the City Council to discuss and recommend adoption of the Concept Plan and implementing amendments to the City's Comprehensive Plan, Transportation System Plan and Development Code. All of these meetings will be open to the public and provide opportunities for citizens to comment on the proposals.
- Informational materials. Throughout the process, City staff will provide Canby citizens with
  information about the project and opportunities to participate via the City's Web site, direct
  communication with people expressing an interest in the project, and information provided to local
  newspapers and radio stations.

#### Community Values

It is essential that future development in this area supports the values of Canby's residents and business owners. The City recently completed a community "visioning" process which identified a variety of community values and priorities and strategies for implementing them. Values particularly relevant to this process include the following:

- Develop multi-purpose trails complete the Emerald Necklace and look for opportunities for external connections
- Keep small town feel by promoting connectivity with community and businesses
- Create pleasant, livable neighborhoods with tree lined, wide, safe streets; well-designed homes on various sized lots
- Maintain a safe attractive system of roads that are well maintained and support the efficient movement of people, goods and services
- Have a Public Transportation System that is reliable, frequent, flexible, cost-effective and meets the needs of the community

#### Existing Zoning and Development Code Requirements

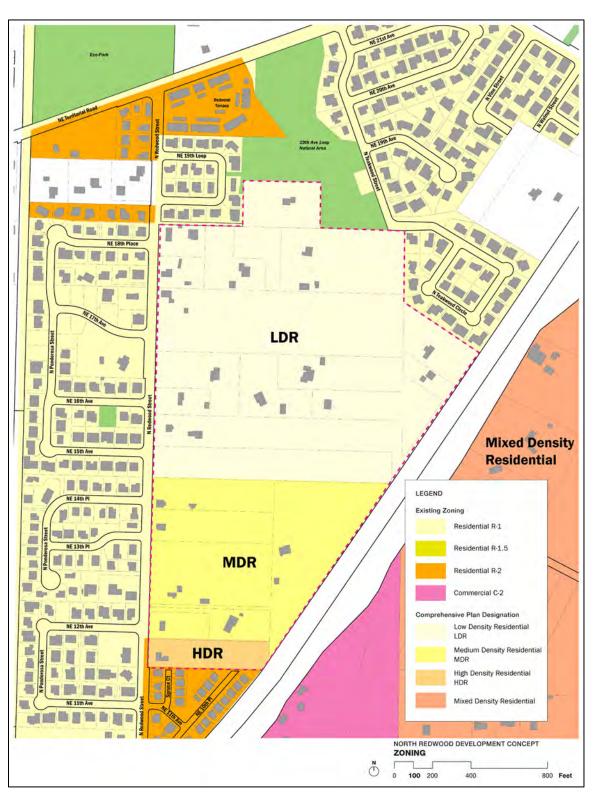
Currently land in the study area has not yet been annexed to the City and has a Clackamas County zoning designation of Rural Residential Farm Forest 5-Acre District (RRFF-5). Primary uses allowed by this zoning designation include rural home sites with a minimum of 5 acres for newly created lots, farm uses, and forest uses.

The project area is within the City of Canby's urban growth boundary (UGB) and the City has applied Comprehensive Plan designations for future development. If successfully annexed into the City, based on those Comprehensive Plan designations, approximately 46 acres (60%) would be zoned R-1 (low density residential); 19 acres (32%) would be zoned R 1.5 (medium density residential); and 2 acres (8 %) zoned R-2 (high density residential). A map illustrating these Comprehensive Plan designations is included on the following page.

A variety of development code provisions will be important to review and consider in developing the North Redwood Concept Plan, including but not limited to those summarized in the following table:

Standards	LDR/R-1	MDR/R-1.5	HDR/R-2
Uses allowed outright	Single family homes Accessory dwellings	Single family homes Accessory dwellings Duplexes Tri-plexes	Single family homes Accessory dwellings Duplexes Tri-plexes Townhouses Apartments/ condominiums
Uses allowed under some conditions	Duplexes Non-residential uses such as churches, day-care facilities, schools and others	Four-family dwellings Townhouses Non-residential uses allowed in the R-1 zone	Non-residential uses allowed in the R-1 zone
Lot size	7,000-10,000 square feet (sf) for single-family homes	5,000-6,500 sf for single- family homes Minimum density of 6 housing units per acre for 2, 3 and 4-family homes	Minimum density of 14 housing units per acre
Maximum building height	35 feet	35 feet	35 feet or taller depending on distance from R-1 zones

In addition to the basic standards summarized in the table above, various design standards apply to different types of housing. For single family housing, design standards apply to the design and location of garages, entrances to the home, and other design features found on the front side of the house (e.g., windows and doors, use of dormers, eaves, etc.). For multi-family dwellings (e.g., apartments), additional standards also apply to features such as landscaping, location and design of parking areas, screening of storage and utility facilities, variation in design and use of design features that will reduce impacts on the natural environment.



# NORTH REDWOOD DEVELOPMENT CONCEPT PLAN

**Deliverable 1C: Project Memo #2** 

# **Existing Conditions**

February 2015

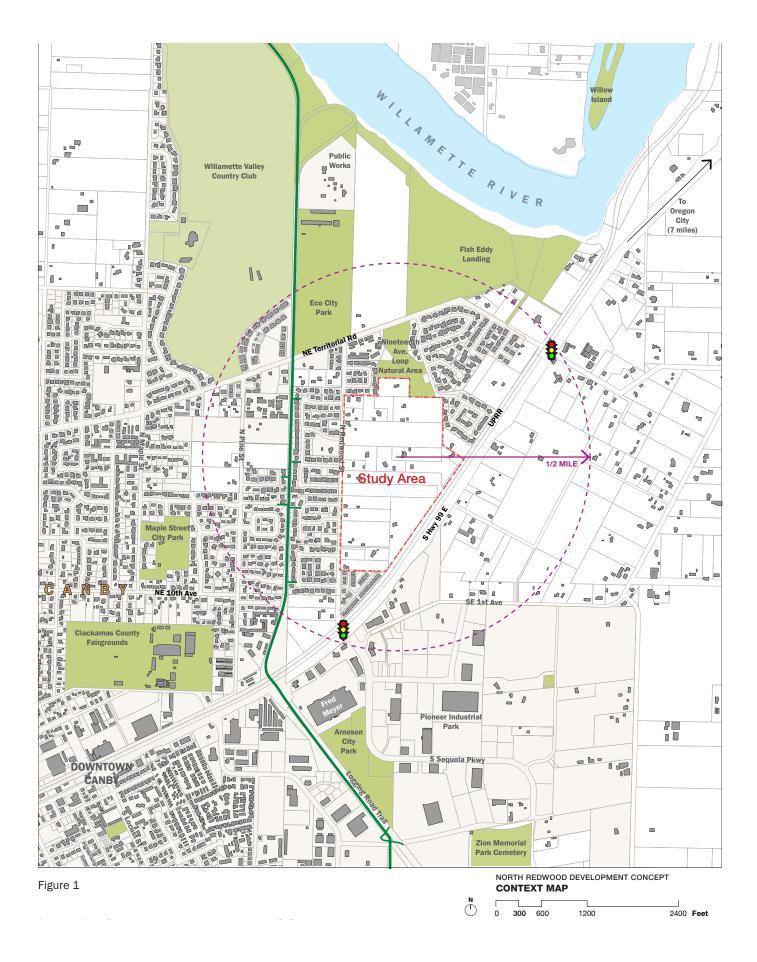




LANDSCAPE ARCHITECTURE

URBAN DESIGN

PLANNING





#### Overview

The City of Canby is a relatively small but rapidly growing community in the northern Willamette Valley of Oregon. Located less than 30 miles from the business centers of both Portland and Salem, Canby has experienced considerable demand for housing. Canby is expected to continue to be a place where people will be attracted to live. The extent of open space and protected farmland separating Canby from the Portland Metropolitan Area will help to maintain the unique small town character which continues to attract new residents seeking an alternative to an urban life style.

Canby has experienced cyclical but fairly steady growth for a number of years. The City of Canby's population is projected to show an 80% increase by 2035 with the addition of 4,951 new households and 3,490 new jobs (Metro Gamma Travel Forecast 2012). To accommodate this growth, the City will require incremental expansion. The 66-acre North Redwood site, on the northeast edge of the city, located in unincorporated Clackamas County inside the Canby Urban Growth Boundary, will likely absorb part of Canby's future growth. Annexation of the site requires citywide voter approval and also requires the City Council to adopt a Development Concept Plan (DCP) of which this Memo is one component.

In addition to conceptual land use and density alternatives, the DCP will also study the site's natural resources and consider how to protect these resources. The Plan will also build on the 2010 Transportation System Plan (TSP) and consider a supportive transportation system, opportunities for increased travel options, and optimal access locations for emergency service providers.

This memorandum outlines the existing conditions, opportunities, and constraints in the study area relevant to achieving project objectives. It also synthesizes existing plans, with an emphasis on embodying Canby's Community Values, protecting its natural resources, and creating a safer and more efficient transportation network in order to inform recommendations for conceptual development alternatives.



#### **Site Context**

The study area, on the northeast edge of the City, is bounded by OR99E and the Union Pacific Railroad to the east and south, NE Territorial Road on the north and N Redwood Street on the west (Figures 1 and 2). The study area is within a half-mile walking distance of several significant open spaces along the Willamette River that will potentially be developed with further amenities in the future. It is also located in a prime position to create a link in the "Emerald Necklace", a conceptual open space and trail loop (envisioned by the City) that links parks, schools, and other public facilities. To the west of the site, the Old Logging Road Trail, a multi-use path, connects Baker Prairie Middle School at the south to City-owned open space on the banks of the Willamette River. Its proximity to the Pioneer Industrial Park employment center represents a potential draw for future homebuyers who wish to live close to their workplaces.

#### **Planning and Regulatory Context**

[Readers should refer to the 2007 Comprehensive Plan for an overall policy framework for future growth in Canby.]

The study area has been identified since the first Comprehensive Plan's release in 1984, as a logical location for future urban growth. Currently land in the study area has not yet been annexed to the City and has a Clackamas County zoning designation of Rural Residential Farm Forest 5-Acre District (RRFF-5). Primary uses allowed by this zoning designation include rural home sites with a minimum of 5 acres for newly created lots, farm uses, and forest uses.

The project area is within the City of Canby's urban growth boundary (UGB) and the City has applied Comprehensive Plan designations for future development. If successfully annexed into the City, based on those Comprehensive Plan designations, approximately 46 acres (60%) would be zoned R-1 (low density residential); 19 acres (32%) would be zoned R 1.5 (medium density residential); and 2 acres (8%) zoned R-2 (high density residential).

#### **Canby Community Visioning**

In 2013, the City of Canby adopted a Community Vision that communicates the needs and priorities of its citizens, around four priority areas: Community, Parks and Recreation, Transportation and Public Safety, and Growth and Economic Development. The study area presents a number of opportunities for future urbanization to fulfill these community aspirations. For example, adequate development of bicycle and pedestrian infrastructure could make central Canby, employment and large format retailers easily-accessible from the study area, connecting residents to local businesses. Future development could provide key connections between residences and the Old Logging



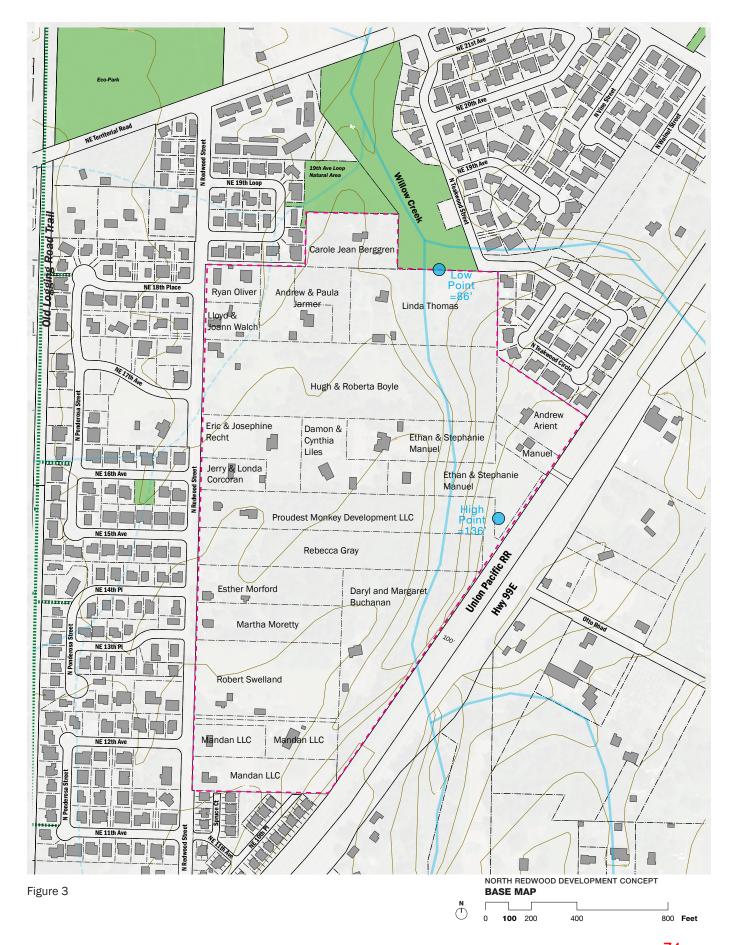
View north of NE Territorial Road toward Eco Park and City-owned open space on the banks of the Willamette River



19th Avenue City Park viewed from study area's eastern perimeter

Road trail, fulfilling the community's desire for greater trail and off-street connections. It could also connect residents to a future bicycle trail leading northeast along US 99E to Oregon City and Willamette Falls.

In terms of Transportation, the study area should have high-quality pedestrian and bicycle infrastructure to promote active transportation. Safe, attractive streets also help achieve Growth and Economic Development goals. Development should exemplify "pleasant, livable neighborhoods with tree-lined, wide, safe streets", including homes of high-quality construction. High-caliber development can help attract residents that are drawn to Canby's employment opportunities and quality of life.



#### Site Character

This study area is situated in a bend of the Willamette River, with a rich nearby network of public open spaces and natural areas that will provide an identity and sense of place to future residents. North across NE Territorial Road, there are potential connections to the densely-forested Eco Park and the Willamette Wayside Natural Area. The site's topography is relatively flat, but slopes gently from the west and east toward the canyon of Willow Creek, which itself flows north to the Willamette. The high point on site is 136' above sea level (across from Otto Road) and the low point is 86', next to Willow Creek. Within the site, there is an opportunity for views into the Willow Creek drainage and a possible future linear park or trail along its course.

#### **Edges and connections**

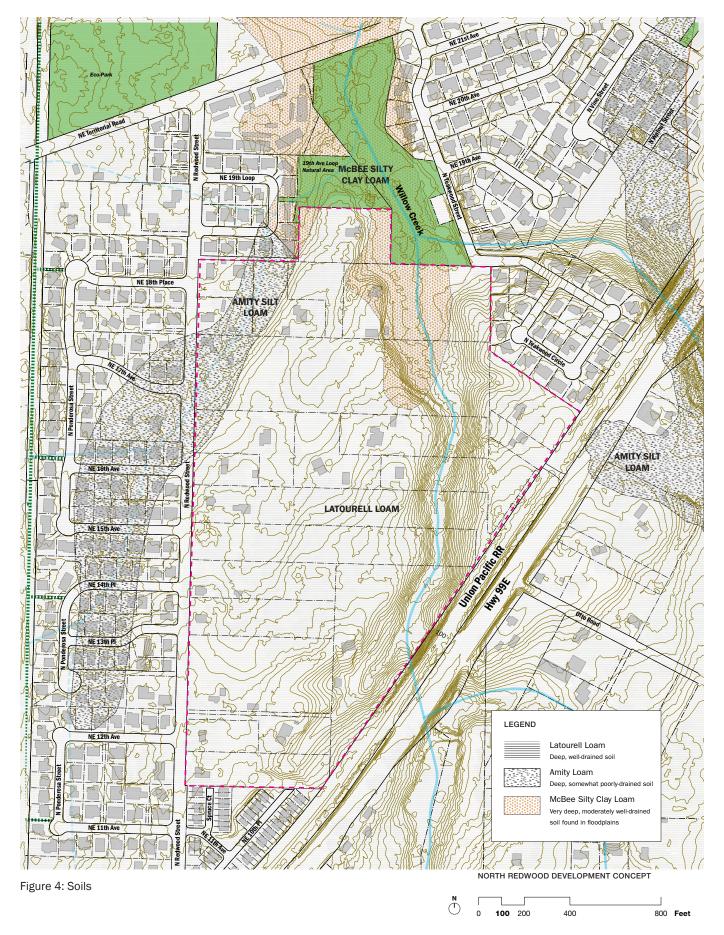
The site's proximity to the multi-use path along Old Logging Road creates an opportunity to link the site to regional amenities including parks, schools, and employment centers. OR 99E connects the site to Oregon City seven miles to the north and provides direct access to downtown Canby to the south. However, its high speeds and traffic volume – along with the active United Pacific Railroad line that runs alongside it – represent a physical and noise barrier between the site and the Pioneer Industrial Park to the south. Currently, only one property has driveway access across the railroad to the highway. This edge of the site will need attention to safety, access, and noise concerns. A significant residential edge to the west will require privacy and adjacency considerations when planning future development.



Recent clearing of existing trees by current property owner in study area



The Union Pacific Rail Road and OR99E border the study area to the south, creating a barrier



#### **Environmental Context and Natural Resources**

To the north, the site is bordered by 19th Avenue City Park, creating a quiet edge. This natural area contains a portion of Willow Creek and acts as a buffer between the site and NE Territorial Road. Dense vegetation surrounds Willow Creek's passage through the site. Existing properties are currently accessed using private drives from the perimeter of the site, and most of the core of the land area is covered with tree stands; however, property owners have recently cleared some of these trees. Much of the site's vegetated area contains invasive species such as English Ivy and Himalayan Blackberry.

Willow Creek is a significant natural resource that runs through the site from south to north. As a spring-fed stream with an associated 100-year floodplain, Willow Creek is protected under Clackamas County Zoning and Development Ordinance Sections 703 and 704. The creek, in addition to being a visual amenity that can attract homebuyers, could potentially be central to stormwater catchment from the site's developed area. The City's parkland dedication development standards provide a tool to ensure some protection of the natural area along its banks. Federally-designated wetland areas exist upstream from site to the south, but there is no recognized wetland within the study area.

Soils in the study area (Figure 4) are primarily Latourell Loam, a well-drained, deep soil that is suitable for development. Amity Silt Loam and McBee Silty Clay Loam, the remaining two soil types, exist on several lots at the north end of the site. These soils are associated with Willow Creek and its drainages, and are largely encompassed by vegetated buffer areas. Currently, the site is densely vegetated, particularly along the banks of Willow Creek. According to County data, no heritage trees exist on site – however, existing trees can be a significant resource that improve property values and enhance the character of new development. A 2010 Portland-area study found that each street tree adds an average of \$8,870 to the sale price of a house. <sup>1</sup>



The small canyon created by Willow Creek runs through the site from south to north

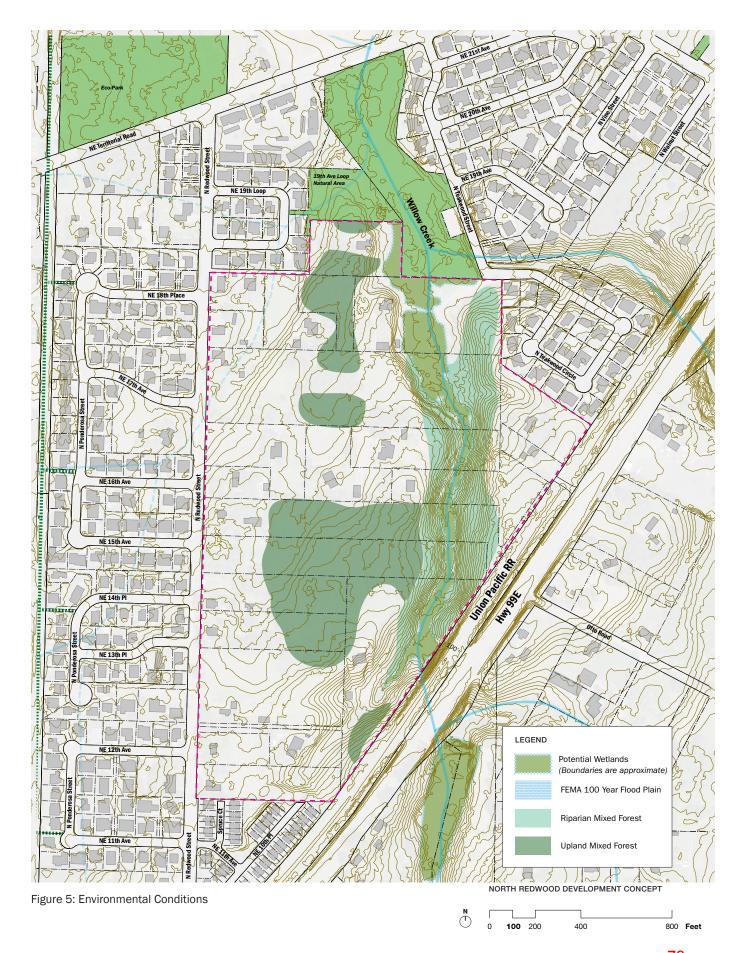


Federally-designated wetland upstream (south) from study area



The center of the site is densely vegetated, creating a distinct visual character, but invasive ivy dominates

Donovan, Geoffrey H., and David T. Butry. "Trees in the city: Valuing street trees in Portland, Oregon." *Landscape* and *Urban Planning* 94.2 (2010): 77-83.



#### Site Habitat and Wetland Assessment

Pacific Habitat Services conducted a reconnaissance-level site assessment on February 3, 2015 to determine the approximate location and quality of wetlands and other natural resources along the Willow Creek riparian corridor. While the US Army Corps of Engineers' 1987 Wetland Delineation Manual and the more recent Western Mountains, Valleys and Coast Region regional supplement provide the guidelines and methodology for defining the regulatory boundaries of wetlands and other waters, this study only utilized those guidelines to roughly approximate the wetland boundaries.

Determining the precise limits of state and federally regulated wetlands would require more extensive soils and vegetation sampling by a wetland specialist on a lot by lot basis, a service needing to be arranged, as desired, by individual landowners. (Note that once any wetland delineation has been conducted and the boundaries approved by the Oregon Department of State Lands, those findings are valid for a period of 5 years.)

Wetlands

Wetlands within the study area are primarily confined to the lower slopes and relatively broad floodplain of the Willow Creek ravine (Figure 5). These riparian wetlands occur within a mostly closed canopy forest in the southern portion of the study area, transitioning to a more open, scrub-shrub to emergent wetland as one nears the northern study area boundary. Reed canarygrass becomes the dominant groundcover species in these more open areas.

Soils within the Willow Creek ravine vary from deep silt loams high in organic matter on the lower slopes and slightly elevated floodplain terraces, to cobbly loams subject to seasonal stream overflows within the floodway. The lower terraces were saturated at or near the surface at the time of the site visit.

#### **Willow Creek**

Willow Creek is a perennial stream that flows roughly south to north through the mostly forested ravine. During the site visit the flows were inundating much of the broad ravine bottom, nearly to the base of slope in some areas, with the active channel often poorly defined in those areas. Approximately 0.60 inch of rain fell in the 2 days prior to the site visit.

While the primary streamflows originate from a culvert beneath Hwy. 99E, flows are augmented by a smaller unnamed spring-fed stream that joins Willow Creek within TL 100. Additional seasonal springs were observed to discharge to the creek from near the base of the ravine on other parcels as well.

Water quality appears to be relatively high, presumably due to relatively well vegetated slopes within the watershed. The spring inputs may help to maintain these clear flows as well. Clackamas County currently regulates Willow Creek under their Rivers and Stream Conservation Areas (RSCA) ordinance. Willow Creek in the study area is subject to a 50' riparian protection setback on either side of the creek, as measured from the mean high water line. Once this area is brought into the City of Canby, it will be the City's discretion whether these setbacks are adopted, or new ones created.



Figure 6: Excerpt from Clackamas County RSCA map. Yellow line denotes Willow Creek, subject to 50' setbacks from mean high water.

### **Table 1: Current Vegetation List**

Table 1 provides a partial species list for the Willow Creek riparian area, along with whether the species is native or has been introduced to the site. Several species may be considered especially noxious or invasive, and may justify control efforts over time.

Species Name	Common Name	Native/	
		Introduced?*	
TREES			
Abies grandis	Grand fir	N	
Acer macrophyllum	Bigleaf maple	N	
Alnus rubra	Red alder	N	
Fraxinus latifolia	Oregon ash	N	
Populus balsamifera ssp. trichocarpa	Black cottonwood	N	
Pseudotsuga menziesii	Douglas fir	N	
Thuja plicata	Western red cedar	N	
CLIDLIBC / WOODY VINEC		ļ	
SHRUBS/ WOODY VINES	1,6	1	
Acer circinatum	Vine maple	N	
Berberis aquifolium	Tall Oregon grape	N	
Corylus cornuta/ C. avellana?	hazelnut	N/I	
Crataegus monogyna	One-seed hawthorn	I I	
Hedera helix	English ivy	*	
llex aquifolium	English holly	1	
Oemleria cerasiformis	Indian plum	N .	
Prunus avium	Sweet cherry	1	
Rubus armeniacus	Himalayan blackberry	*	
Rubus leucodermis	White stem raspberry	N	
Rubus spectabilis	Salmonberry	N	
Rubus ursinus	California dewberry	N	
Salix spp.	Willows	N	
Sambucus racemosa	Red elderberry	N	
Symphoricarpos albus	Common snowberry	N .	
Vinca sp.	periwinkle		
HERBS			
Agrostis spp.	Bentgrass	I	
Arum italicum	Italian arum	I	
Callitriche sp.	Water starwort	N/I?	
Cardamine oligosperma	Little western bittercress	N	
Carex hendersonii	Henderson's sedge	N	
Carex leptopoda	Dewey's sedge	N	
Carex obnupta	Slough sedge	N	
Cirsium spp. (C. arvense, C. vulgare)	Canada and bull thistles	*	
Daucus carota	Queen Anne's lace	I	
Equisetum arvense	Field horsetail	N	
Galium aperine	Bedstraw	I	
Geranium robertianum	Herb Robert	I	
Geum macrophyllum	Large leafed avens	I	
Holcus lanatus	Common velvetgrass	I	
Lapsana communus	Nipplewort	1	
Leucanthemum vulgare	Oxeye daisy	I	
Lysichiton americanum	Skunk cabbage	N	
Nasturtium officinale	Watercress	I	
Oenanthe sarmentosa	Water parsley	N	
Phalaris arundinacea	Reed canarygrass	*	
Polystichum munitum	Swordfern	N	
Polypodium glycorrhiza	Licorice fern	N	
Ranunculus repens	Creeping buttercup	I	
Scirpus microcarpus	Small fruited bulrush	N	
Solanum dulcamera	Climbing nightshade	I	

<sup>\*</sup>These species tend to be especially invasive in disturbed habitats, warranting control efforts whenever possible.

Table 1. Partial Species List (compiled during site visit February 3, 2015)

### **Vegetation Communities Wetlands (Forested to Emergent)**

Vegetation within the Willow Creek ravine bottom has been greatly influenced by the availability of seasonal moisture in these areas. The primary woody species actually growing in the ravine bottom include red alder, salmonberry, and vine maple. Willows were also observed near the northern limits of the study area as the ravine broadens into a larger, more open bottomland dominated by reed canarygrass. Notable wetland herbaceous species (besides reed canarygrass) include slough sedge, water parsley, skunk cabbage, and watercress; these species are primarily located in areas subject to shallow seasonal inundation from stream flooding. (Figure 5)

Scattered stands of willow, cottonwood, and Oregon ash become more evident in the mostly open areas to the north of the study area.

#### **Riparian Mixed Evergreen-Deciduous Forest**

Riparian forest habitat quality is moderately high due to good structural diversity. The mixed evergreen-deciduous canopy is relatively mature and well developed, and includes western red cedar, red alder, Douglas fir, bigleaf maple, and black cottonwood. Several windthrown trees and standing snags provide added habitat structure to the stand as well.

The riparian understory, however, is of somewhat lower quality due to extensive infestation by non-native shrubs (esp. English ivy). The ivy in particular crowds out many other native shrubs and groundcover species, eliminating sources of food and cover for a variety of wildlife species. In addition, its presence in many of the tree crowns threatens the longterm health of these trees.

#### **Upland Mixed Evergreen-Deciduous Forest**

Several parcels also include relatively dense stands of upland forest that are comprised of either a mixed evergreen-deciduous canopy (typically Douglas fir and bigleaf maple), or are mostly Douglas fir. Portions of at least two lots have been subject to recent logging activity, with many of the deciduous trees left standing. In addition, smaller mixed tree stands (comprised of a variety of native as well as non-native species) are scattered about the residential lots as well, often with houses nestled among the trees.

#### **Developed/Landscaped**

The developed or landscaped areas within the study area include previously cleared land that is now either occupied by structures, access roads, or driveways, or is maintained in an open condition (periodically mowed lawn or pasture, scattered landscape plantings, etc.). These conditions are typical of much of the study area outside the Willow Creek ravine.

#### **Riparian Habitat Enhancement Opportunities**

The best opportunities for enhancing the Willow Creek riparian corridor within the study area will likely require some control of invasive non-native species. Such control efforts would open up areas of the understory that could then be enhanced by planting native species adapted to the site conditions.

As previously mentioned, English ivy dominates large areas of the forest understory and has infested many tree crowns as well. Unfortunately, attempting to control this vine alone constitutes a huge undertaking that could readily use up available resources, so may be best approached on a phased or limited control basis. The most immediate control effort with long term benefits would be to girdle the aerial vines in order to limit damage to the trees. Controlling the ivy groundcover could then be approached more gradually or in limited areas as resources allow.

Shade-tolerant native shrub plantings typically have a better chance of competing with the ivy than do herbaceous species, with the possible exception of sword fern. In addition, plantings of shade tolerant conifers (especially western red cedar, western hemlock, and grand fir) can provide additional year round cover near the creek.



Figure 7: Willamette Wayside Master Plan concept (2004)

#### **Parks and Open Space Plans**

Goals 6 and 7 of Canby's Park and Recreation Master Plan (PRMP), updated in 2000, recommend acquisition to meet a community standard of 10 acres of developed park land per 1,000 residents (at an average of 2.7 persons per single family home), while requiring "[allocation of] land for neighborhood parks in rapidly developing areas on the edges of the City". Chapter 16.120 of the city's Title 16 implements the Comp Plan and Park and Recreation Master Plan's policies, by outlining parkland dedication standards for new development (or SDC cash dedicated in lieu). The basic formula for this parkland dedication is:

### (Maximum units in a plat) x (persons/unit) x 0.01 (acreage to be dedicated)

(Using a conservative benchmark to test this formula, if we were to imagine that the entire study area was eventually zoned at R-1, with a minimum lot area of 7000sf, then that would theoretically result in approx 300 units on 66 acres (accounting for roughly 20% of a site as roads). If we multiply this number by an average of 2.7 persons/unit, we get a total theoretical future population of 810. Multiplying this by the acreage ratio, results in a theoretical park acreage in the study area of about 8 acres. Clearly, since the future zoning will likely be for higher densities, the potential future park space may be higher.)

The PRMP led to the creation of a Parks Acquisition Plan in 2001. This document recommends that vacant land in the site area be considered first for parks acquisition (currently, only two tax lots in the study area, a total of 5.9 acres, are vacant). The Acquisition Plan found that the study area and surrounding neighborhoods have a projected parks deficit of 44.1 acres at full build-out. Development of the North Redwood site provides an opportunity to set aside land for parks. Local residents interviewed for this study expressed concern at the City's lack of dedicated funding for maintenance of existing parks properties in the city.

The study area is one of these developing areas on the City's edge – and any development proposals will need to include dedicated park space. Certain factors are listed for consideration, including the fact that no more than 25% of the dedicated land can be in floodplain or steep slopes. There are also standards for obtaining credit for private park land provided. (see the box at right for park dedication standards)

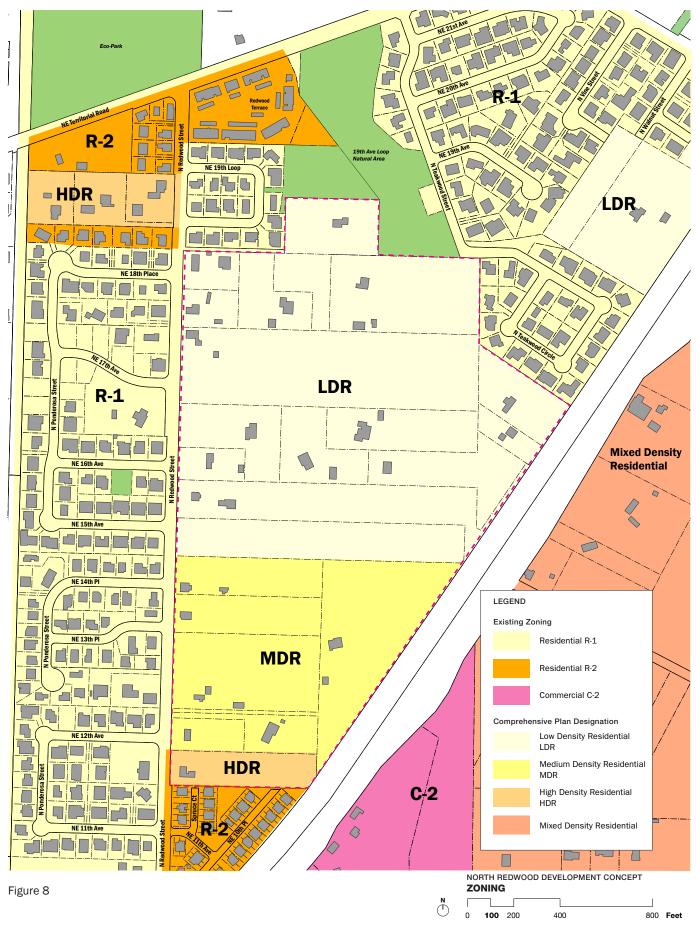
In 2004, the Willamette Wayside Plan (Figure 7) outlined comprehensive recommendations for the development of the City-owned Fish Eddy property and adjacent open space areas. These included a future trail connection to Molalla State Park and future bicycle and pedestrian access through Eco Park to the river – these types of improvements and amenities would provide direct benefit to development in the study area.

Title 16 includes the following factors for the City to consider when deciding whether to accept land offered as part of proposals, or to accept cash in lieu. These factors are shown below.

- 1. The topography, geology, public streets access to, parcel size, shape, and location of land in the development available for dedication:
- 2. Relationship of site to surrounding land uses and the surrounding transportation system;
- 3. Potential adverse/beneficial effects on environmentally sensitive areas:
- 4. Compatibility with the Park and Recreation Master Plan and Park and Open Space Acquisition Plan, Public Facilities element of the Comprehensive Plan, Transportation System Plan and the City of Canby Parks Capital Improvement Plan in effect at the time of dedication:
- 5. Opportunity for preservation of natural and historical features, scenic viewpoints, watershed environments, and sections of land for wildlife habitat.
- 6. Connections with, and continuity of, open space links, trails, and other major components of the open space system for parks.
- 7. Availability of previously acquired property;
- 8. Opportunity for shared use with other community facilities;
- 9. Opportunity for future expansion of the site; and
- 10. The feasibility of dedication.



Willamette Wayside Plan site



#### **Land Use Context**

As noted above, the site is currently zoned with a County designation of Rural Residential Farm Forest 5-Acre District (RRFF-5), but its comprehensive plan zoning designates 60% of the area as low-density residential (7,000 to 10,000 s.f. lot area), 32% as medium-density residential (5,000 to 6,5000 s.f. lot area), and 8% as high-density residential (minimum 14 du/acre). The small, high-density area is directly adjacent to an existing pocket of high-density residential bordering OR 99E to its south, called Garden Crossing. The study area is generally zoned on a transect, with higher density at the south closer to downtown and retail services and lower density toward the natural areas to the north (Figure 8).

There are 23 tax lots on the site and 18 property owners (Figure 9, right). Total real market value for both land and structures for all properties is estimated at \$6,720,607. Only two lots do not have existing structures. (Table 2)

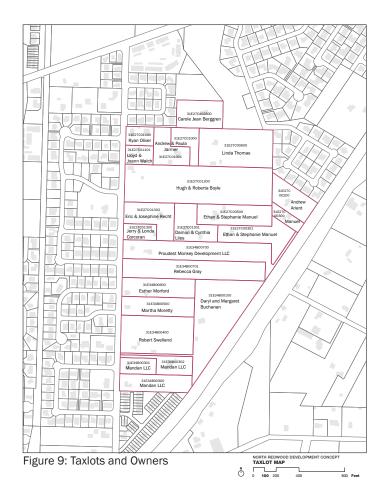
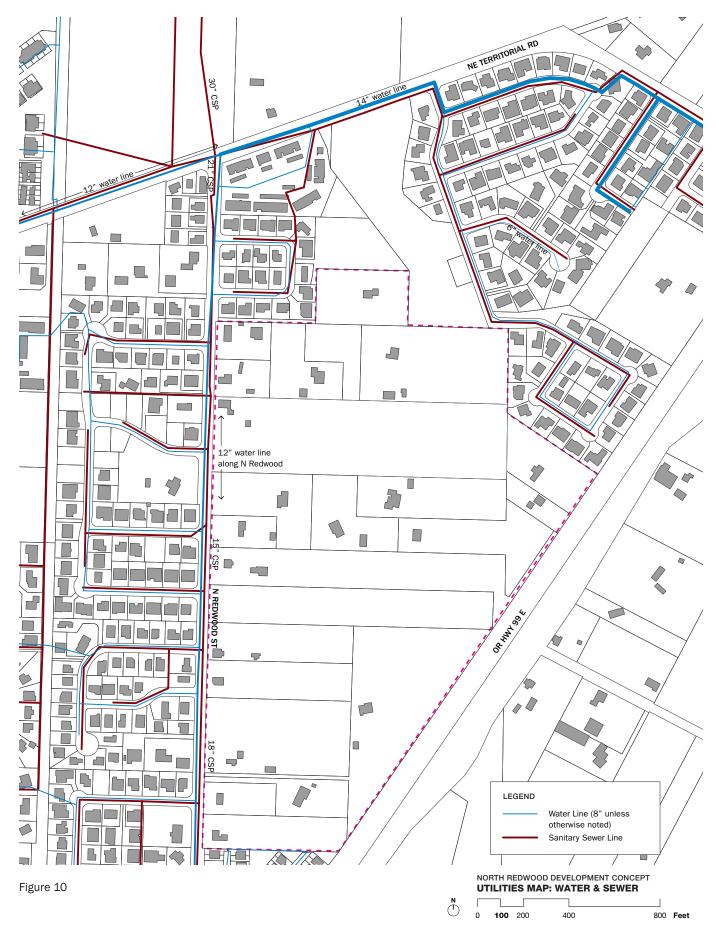


Table 2: Buildable land within the study area.

Taxiot ID	Owner	Site Address	Year Built	Acreage
31E27C 00200	Andrew D Arient	22781 S Hwy 99E 97013-2565	1979	2.0
31E27C 00300	Ethan & Stephanie Manuel	22881 S Hwy 99E 97013-2525	1944	0.7
31E27C 00301	Ethan & Stephanie Manuel	1650 N Redwood St 97013-2413	1992	2.7
31E27C 00500	Ethan & Stephanie Manuel	1612 N Redwood St 97013-2413	1964	2.7
31E27C 00600	Linda J Thomas	1864 N Redwood St 97013-2417	1987	4.9
31E27C 01000	Andrew J & Paula J Jarmer	(No Situs) 97013	No Structure	1.2
31E27C 01001	Andrew J & Paula J Jarmer	1860 N Redwood St 97013-2417	1989	1.8
31E27C 01100	Ryan T Oliver	1850 N Redwood St 97013-2417	2006	0.9
31E27C 01101	Lloyd A & Joann Walch	1794 N Redwood St 97013-2415	1925	0.9
31E27C 01200	Hugh R & Roberta M Boyle	1758 N Redwood St 97013-2415	1925	9.8
31E27C 01300	Jerry & Londa Corcoran	1586 N Redwood St 97013-2411	1936	0.9
31E27C 01301	Damon K & Cynthia L Liles	1608 N Redwood St 97013-2413	1992	2.1
31E27C 01302	Eric W & Josephine B Recht	1594 N Redwood St 97013-2411	1992	2.4
31E27CA02800	Carole Jean Berggren	1868 N Redwood St 97013-2417	1939	2.3
31E34B 00100	Daryl S & Margaret J Buchanan	1260 N Redwood St 97013-2407	2002	6.8
31E34B 00300	Mandan LLC	1176 N Redwood St 97013-2404	1976	2.2
31E34B 00301	Mandan LLC	1212 N Redwood St 97013-2407	1955	1.0
31E34B 00302	Mandan LLC	1234 N Redwood St 97013-2407	1977	1.4
31E34B 00400	Robert W Swelland Jr	1268 N Redwood St 97013-2407	1935	4.8
31E34B 00500	Martha Anne Moretty	1350 N Redwood St 97013-2408	1940	2.4
31E34B 00600	Esther L Morford	1382 N Redwood St 97013-2408	1940	2.4
31E34B 00700	Proudest Monkey Development LLC	1548 N Redwood St 97013-2411	1920	5.2
31E34B 00701	Rebecca S Gray	1440 N Redwood St 97013-2410	No Structure	4.7
		TOTAL	_	66.4



#### Infrastructure

#### **Sanitary Sewer**

Sanitary sewer service is provided by the City of Canby. Systems are required to be approved by and to comply with the requirements of Oregon Department of Environmental Quality.

An existing sanitary sewer line is located in N Redwood Street, along the western project boundary (Figure 10). According to as-built information, the existing sewer line adjacent to the project is a 15-inch line and is approximately 8-foot deep. Beyond the project, the line increases in size to 21-inch and 30-inch as it reaches the wastewater treatment plant. The ability to connect to this line via gravity sewer would need to be evaluated based on proposed site grading to determine if the depth would allow for a gravity connection to the sewer. In addition, the capacity of this line should also be evaluated.

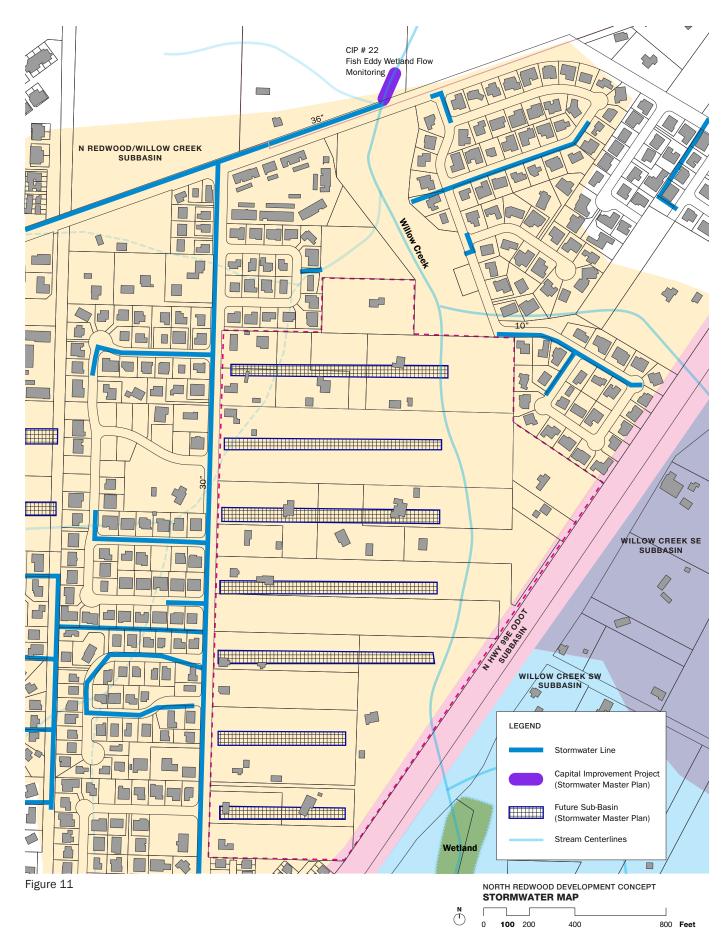
There are also existing sanitary sewer lines in N Teakwood Street at the northwest corner of the project site. The flow from the Teakwood Street sewer line flows to the Willow Creek Pump Station located at NE Territorial Road at Willow Creek. These lines should be evaluated to determine if the invert elevations are such that our project could connect, as well as if there is enough capacity in the existing lines to serve the project site. In addition, the pump station should be evaluated to determine if it has the capacity for additional flow.

#### Water

Water within the City of Canby is provided by Canby Utility. Canby Utility completed a Water System Master Plan in 2010. The system analysis in the master plan included all areas within the Urban Growth Boundary, which includes the project site.

Waterlines adjacent to the project include an existing 12-inch waterline in N. Redwood Street and an 8-inch Line in N. Teakwood Street. A 14-inch transmission line is located in NE Territorial Road to the North. (Figure 10)

The Water System Master Plan notes several improvements that should be made to support future development. Improvements include an additional water supply source, a new 3.0 MG reservoir, and looping of existing water transmission lines. According to the Master Plan, these improvements are long term improvement goals scheduled for the years 2021 to 2030. Discussions with Canby Utility indicate that these improvements would not prohibit the development of this site. If the capital improvement projects are required to be able to serve the site, Canby Utility would time the improvements of those projects to occur along with development.



#### Storm Water Master Plan

The City of Canby Public Works Design Standards require water quality and quantity treatment be provided for storm water runoff. Water quality treatment is to be provided per the Clean Water Services (CWS) design standards. Acceptable methods of treatment include vegetated swales, extended dry ponds, wetlands, LIDA treatment facilities, or proprietary treatment devices. Water quantity treatment is required unless it can be demonstrated that there are no adverse downstream impacts. Developed site peak discharge rates shall not exceed pre-developed rates for all storm events with a recurrence interval less than or equal to 25 year. Detention and retention facilities are both acceptable methods of water quantity treatment. Facilities shall be designed in accordance with CWS design standards.

Canby's 2013 Storm Water Master Plan makes stormwater management recommendations based on the assumption that the site and other areas zoned in the comprehensive plan will develop as zoned. The site is part of the Redwood/Willow Creek drainage basin. The existing basin has an impervious area of 22.2 acres. This would increase to approximately 34 acres with development. Modeling showed that the Willow Creek system, including existing conveyance pipes in N Redwood Street, has adequate capacity for the additional runoff. Seven future sub-basins are proposed within the site area. (Figure 11)

The N Redwood/Willow Creek drainage basin is planned to be part of the Fish Eddy Wetland Capital Improvement Project. As part of this project, a "treatment wetland will be part of a restoration of the entire Fish Eddy property to native seasonal wetland and wet prairie habitat." Storm water treatment will occur in a proposed treatment wetland. The Storm Water Master Plan anticipates that the runoff from development west of N Redwood Street will be piped to the existing conveyance system in N Redwood Street. This conveyance line discharges into the Fish Eddy property north of NE Territorial Road. Existing pipes in N Redwood Street should be evaluated based elevation of the existing pipes and the ability to drain this area to the N Redwood Street conveyance system, as well as the capacity of the existing conveyance lines.

Willow Creek crosses the site approximately 1000 feet east of N Redwood Street. Runoff from development between Willow Creek and Hwy 99 would be discharged directly into Willow Creek, which flows to the Willow Creek Wetlands and discharges through a weir structure to two 36-inch culverts under NE Territorial Road.

#### **Franchise Utilities**

The project is within the service provider area for the following utilities:

- Electric Canby Utility
- Natural Gas NW Natural
- Telephone Canby Telcom
- · Cable Wave Broadband

Canby Utility has indicated there are several locations in the vicinity of the project that could be used to provide power. When the site annexes into the district, they will be charged a fee from PGE, who provides power to Canby Utility, in accordance with their Service Territory Agreement. Canby Utility assesses that cost back to the property as part of the development cost. The amount of the fee is variable depending on the proposed use and type of development.

NW Natural has an existing 2-inch gas line in N Redwood Street for the length of the project site. In addition, a 2-inch line extends into the site to serve approximately five existing tax lots. NW Natural has indicated that they would be able to serve this site in the future.

Canby Telcom has verified that the project is located within their service district and can provide service to the site. In addition to phone service, Canby Telcom can also provide customers with internet and cable television services.



Location of proposed Fish Eddy treatment wetland

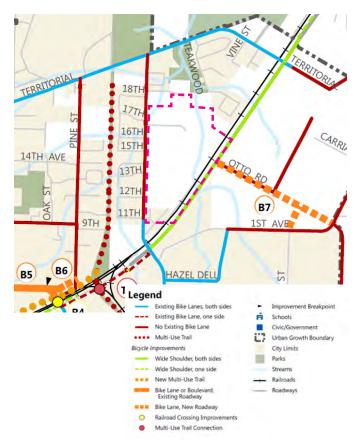


North Redwood Street

22



Financially Constrained Pedestrian Improvements (TSP Figure 5-1)



Financially Constrained Bicycle Improvements (TSP Figure 6-1)

#### 2010 Transportation System Plan Summary

The 2010 Canby Transportation System Plan (TSP) identified specific transportation improvement projects and programs needed throughout Canby to guide the City's transportation investment. These projects and programs support the City's goals and policies, serve planned growth through the year 2030, and improve safety and mobility for all travel modes in Canby. The TSP addressed all areas of Canby, including the North Redwood development area.

The sections from the 2010 TSP that are most applicable to the current North Redwood planning effort are summarized in the paragraphs below. Corresponding clips of figures—which are zoomed in on the project area—are also provided.

The majority of North Redwood Street only includes sidewalks along one side of the street (typically the west side). While no standalone project was identified as part of the TSP, sidewalks should be provided on both sides of North Redwood Street in conjunction with any roadway improvements so that the street meets Canby's Cross-Section Standards (see TSP Figure 7-5). It will also be beneficial to consider pedestrian crossings of North Redwood Street to facilitate connections to the Molalla Forest Road multi-use trail, which has multiple connection points to the neighborhoods on the west side of North Redwood Street. These improvements will help connect to the surrounding pedestrian network.

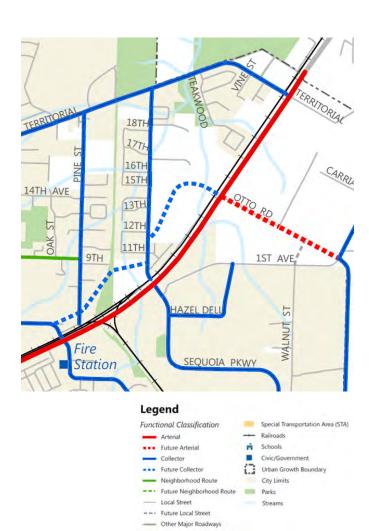
Other nearby pedestrian improvement needs include sidewalk infill on Territorial Road between Holly Street and Highway 99E (TSP Project S8) and sidewalks on the north side of Highway 99E (not a financially-constrained TSP project).

The only portion of North Redwood Street with bike lanes is the newer 500-foot section on the south end between Highway 99E and NE 11th Avenue. Because North Redwood Street is classified as a Collector street, it should include bike lanes on both sides of the road in conjunction with any roadway improvements to meet Canby's Cross-Section Standards. The bicycle network will also benefit from improved street crossings of North Redwood Street near connections to the Molalla Forest Road multi-use trail.

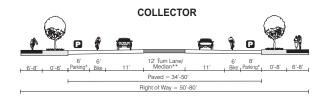
#### **Functional Classification and Cross Sections**

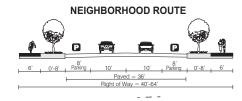
Canby's functional classification hierarchy includes Arterials, Collectors, Neighborhood Routes, and Local Streets. North Redwood Street and Territorial Road are classified as Collectors, while Highway 99E is an Arterial. The potential future Otto Road extension would also be a Collector, while all the remaining streets that may be constructed in the project site would likely become local streets.

The Canby TSP provides Standard Cross-Sections for each of the City's functional classifications. The Collector cross-section includes two travel lanes with an optional center turn lane that may be used for turning vehicles or a pedestrian island. It also includes bike lanes and sidewalks along with optional on-street parking. Neighborhood Traffic Management (NTM) may also be used under special conditions.



Functional Classification (TSP Fig 7-1)





- Notes:

  "On-Street Parking may be provided on neither, one, or both sides. Where turn lanes are provided, on-street parking should not be allowed.

  "Turn Lane/Nedian section is optional and may consist of one of the following:

  A. 12 Left-Turn Lane or "No-Way Left-Turn Lane with No Raised Median

  B. 10 Raised, Landscaped Median with "S ny Distance on Either Side

  C. 10' Pedestrian Refuge (Level with Roadway) with 1' Shy Distance on Either Side

TSP Figure 7-5

#### **Low Impact Street Design Characteristics**

Characteristic	Collectors	Neighborhood Routes	
Vehicle Lane Widths	10-11 ft.	10 ft.	
On-Street Parking	8 ftOptional	8 ft At least one side	
Bicycle Lanes (minimum)	5-6 ft.	None	
Sidewalks (minimum)	6-8 ft.	6 ft.	
Buffer/Planter Strip	0-8 ft	0-8 ft	
Turn Lane/Median	12 ftOptional	None	
Neighborhood Traffic Management (NTM)	Under Special Conditions	Under Special Conditions	
Transit	As appropriate	As appropriate	
Turn Lanes	When Warranted	When Warranted	

"Low Impact" standards require demonstration of hardship or other exceptional circumstances resulting from conditions of the adjacent properties and must be approved by City Staff.





TSP Figure 7-2a Truck Routes (Existing System)

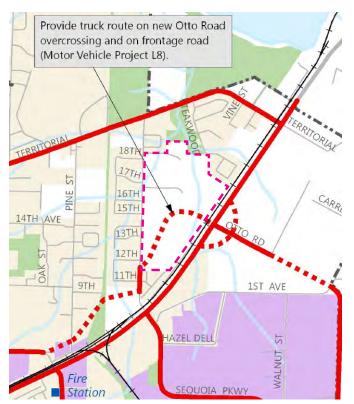
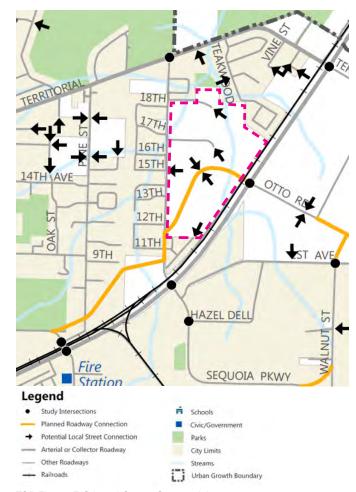


Figure 7-2b Truck Routes (Financially Constrained System)

#### **Truck Routes**

Highway 99E and Territorial Road are currently designated as truck routes. North Redwood Street is not a truck route, but a new Otto Road overcrossing (included as part of the Preferred Solution package) is intended to become a truck route and may require use of a short section of North Redwood Street. The purpose of having Otto Road become a truck route would be to provide access to the Clackamas County fairgrounds. Truck access to the fairgrounds now occurs on Pine Street; however, the TSP identifies the potential closure of the Pine Street crossing, at which time the Otto Road overcrossing and frontage road would fill this need.





TSP Figure 7-8 Local Street Connectivity

#### **Local Street Connectivity**

The TSP also specifies the general locations where new local streets should be installed as the project site develops. The arrows in the figure represent potential connections and the general direction for the placement of the connection.<sup>2</sup> The purpose of these connections is to ensure that the new development site accommodates future local circulation between adjacent neighborhoods to improve connectivity for all modes of transportation. The guidelines that should be followed when selecting local street connections includes:

- Provide full street connections with spacing of no more than 500 feet between connections, except where prevented by barriers
- Provide bike and pedestrian access ways with spacing of no more than 300 feet, except where prevented by barriers (bike and pedestrian access ways should be considered at the end of cul-de-sacs)
- Limit use of cul-de-sacs and other closed-end street systems to situations where barriers prevent full street connections or to locations where pedestrian/ bike accesses are to be provided (approximately halfway between vehicular accesses)
- Include no close-end street longer than 150 feet or having no more than 30 dwelling units
- Include street cross-sections demonstrating dimensions of ROW improvements, with streets designed for posted or expected speed limits

Topography, railroads, and environmental conditions (such as wetland areas) limit the level of connectivity in Canby. Some stub end streets may become cul-de-sacs, extended cul-de-sacs, or only provide local connections. Pedestrian connections from the end of any stub end street that results in a cul-de-sac will be mandatory as future development occurs (with the exception of locations where topography, railroads, and environmental conditions make such connections infeasible). The goal is to improve city connectivity for all modes of transportation as feasible.

Other local street connections may be required as the City conducts development review.



TSP Figure 7-10 Financially Constrained Motor Vehicle Improvements

### Financially Constrained Motor Vehicle Improvements

Based on the City's existing and future motor vehicle needs, multiple improvement projects were identified throughout Canby. The only motor vehicle project in the immediate project vicinity is the potential Otto Road Overcrossing, which includes a bridge over both Highway 99E and the adjacent Union Pacific Railroad along with a frontage road connecting to North Pine Street. This project would reduce congestion on Highway 99E through Canby but was not included in the financially-constrained solutions package. It is beyond the financial projections for the City and would require significant property and building acquisitions.

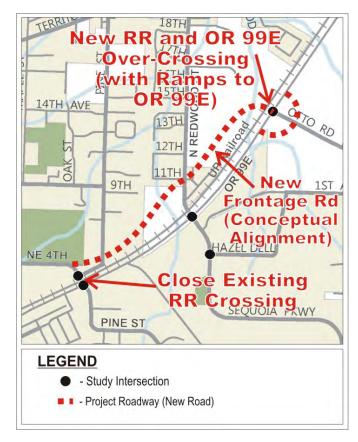


Figure 7-12 Preferred Package Additions (Otto Rd Overcrossing)

#### **Neighborhood Traffic Management (NTM)**

Neighborhood Traffic Management (NTM) is a term used to describe traffic control devices typically used in residential neighborhoods to slow traffic or possibly reduce the volume of traffic. The City of Canby currently has limited NTM elements, mainly the use of narrow road widths that manage vehicle speed. However, the TSP recognized that as traffic congestion increases in the future, protecting the livability of neighborhoods may become an increasing need that requires the ability to mitigate impact.

An important consideration of NTM is the need to manage vehicle speeds and volumes with the need to maintain mobility, circulation, and function for service providers (e.g. emergency response). Table 7-5: Allowed Traffic Calming Measures by Roadway Functional Classification lists common NTM applications and suggests which devices may be supported by the Canby Fire District. If NTM is considered for North Redwood Street or any local streets planned for the project site, then coordination will be needed with emergency agency staff to ensure public safety is not compromised.

Table 7-5: Allowed Traffic Calming Measures by Roadway Functional Classification

	Is Measure Supported? (per Roadway Classification) <sup>a</sup>			
Traffic Calming Measure	Arterial	Collector	Neighborhood Route/ Local Street	
Curb Extensions	Supported	Supported		
Roundabouts	Supported	Supported		
Medians and Pedestrian Islands	Supported	Supported	Calming measures are supported on roads that have connectivity (more	
Pavement Texture	Supported	Supported		
Speed Hump	Not Supported	Not Supported		
Raised Crosswalk	Not Supported	Not Supported		
Speed Cushion (provides emergency pass-through with no vertical deflection)	Not Supported	Not Supported	than two accesses) and are accepted and field tested by the Canby	
Choker	Not Supported	Not Supported	Fire District.	
Traffic Circle	Not Supported	Not Supported		
Diverter (with emergency vehicle pass through)	Not Supported	Supported		
Chicanes	Not Supported	Not Supported		

<sup>&</sup>lt;sup>a</sup> Traffic calming measures are supported with the qualification that they meet Canby Fire District guidelines including minimum street width, emergency vehicle turning radius, and accessibility/connectivity.

#### **Access Spacing Standards**

Access spacing standards along City roadways is another important consideration when developing or redeveloping a parcel of land. Table 7-2 of the Canby TSP specifies access spacing standards for City roadways based on functional classification. Non-conforming access should work to achieve a condition as close to standard as possible. For example, consolidated or shared accesses should be explored; however, parcels shall not be landlocked by access spacing policies.

#### **Mobility Standards**

The Canby TSP specifies the mobility standards for signalized, all way stop, or roundabout intersections as level of service D and a volume to capacity ratio equal to or less than 0.85. The standards for unsignalized two way stop control intersections are level of service E and a volume to capacity ratio equal to or less than 0.90.

Table 7-2: Access Spacing Standards for City Street Facilities<sup>a</sup>

Street Facility	Maximum spacing <sup>b</sup> of roadways	Minimum spacing <sup>b</sup> of roadways	Minimum spacing <sup>b</sup> of roadway to driveway <sup>c</sup>	Minimum Spacing <sup>b</sup> driveway to driveway <sup>c</sup>
Arterial	1,000 feet	660 feet	330 feet	330 feet or combine
Collector	600 feet	250 feet	100 feet	100 feet or combine
Neighborhood/Local	600 feet	150 feet	50 feet	10 feet

<sup>&</sup>lt;sup>a</sup> Exceptions may be made in the downtown commercial district, if approved by the City Engineering or Public Works Department, where alleys and historic street grids do not conform to access spacing standards.

<sup>&</sup>lt;sup>b</sup> Measured centerline to centerline

<sup>&</sup>lt;sup>c</sup> Private access to arterial roadways shall only be granted through a requested variance of access spacing policies when access to a lower classification facility is not feasible (which shall include an access management plan evaluation)



To: Matilda Deas Topic: Evaluation Criteria Date: 02/13/2015

From: Ken Pirie Project: Canby North Redwood Project #: 3077

#### North Redwood Development Concept Plan

Distribution: Basecamp Memo #4: Evaluation Criteria

The following draft criteria have been established by the consultant team as an initial guide in the development of alternative plans for the North Redwood study area. The following criteria will be revised in the next 2 months with public, agency and stakeholder input. These criteria will be used, together with this input, as an objective way of determining the most appropriate plan for the area.

- The North Redwood Development Concept Plan (the Plan) should create a plan that feels like an extension of Canby
- The Plan should eventually result in a cohesive neighborhood, instead of several uncoordinated and disconnected subdivision plats
- All parcels in the study area should be well-integrated into the Plan, so that
  they can share in the amenities provided and not be adversely affected by
  neighboring properties' development.
- The Plan must minimize undue impacts to individual parcels and allow for innovative cost and benefit sharing arrangements such as a Reimbursement District.
- The Plan should not preclude incremental development in different parts of the study area, according to different owners' priorities
- The Plan's infrastructure should entail reasonable costs of improvements that do not burden future development
- The Plan should result in a clear, connected and safe street system which is balanced between spaces for cars, bicycles and walking
- The Plan should accommodate the potential for future bus transit to serve residents on certain key streets.
- Clear emergency access to and from the new neighborhood must be maintained in the Plan
- A trail and sidewalk system in the Plan area should connect to natural areas like Willow Creek, the 19<sup>th</sup> Ave Natural Area, the Old Logging Road Trail and Eco-Park
- The Plan should provide for the protection of Willow Creek, at a minimum using existing RSCA setbacks regulated currently by Clackamas County
- New public parks should be provided in the plan and integrated within neighborhoods, not relegated to left-over spaces on the margins of the Plan.
- The Plan should allow for Willow Creek and associated wetlands to be protected through the clustering of dwellings (within the Comprehensive Plan's desired density ranges)
- The Plan must meet city, state, county and other applicable regulations

end



# Mayor's Welcome & Introductions

- Canby Vision
- What is a DCP
- Annexation Process
- Committee Roles

the garden spot

come to

Project Schedule 2014	2015
North Redwood Development Concept Plan Canby, OR	JAN FEB MAR APR MAY JUN JUL AUG SEP
I. Project Kickoff	Public Events  SAC  TAC  Stakeholder Interviews
II. Develop Project Foundation	Planning Commission  City Council  Project Management Team
III. Confirm DCP Framework	O (1) Milestone
IV. Develop Alternative DCPs	
V. Present Alternative DCPs	2 Contingent
VI. Recommended DCP	0
VII. Adoption	

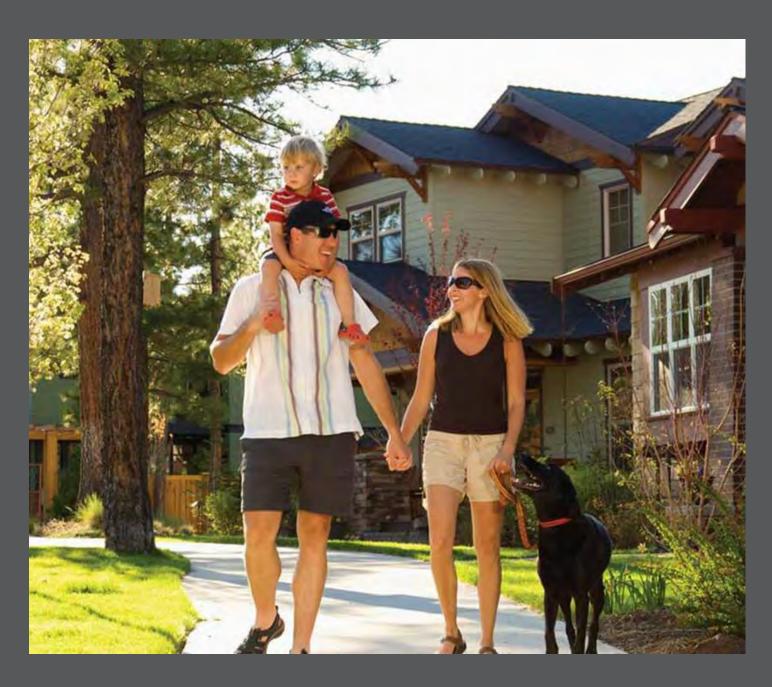
### **Committee Rules**

### **SAC** members:

- Share the available speaking time so that all SAC members can be heard
- Be respectful of a range of opinions
- Focus on successfully completing the agenda
- Avoid side discussions when others are speaking
- Strive for consensus

### **Concept Plan Criteria**

- 1. Extension of Canby
- 2. A walkable neighborhood
- 3. All parcels integrated in plan
- 4. Minimize impacts to individual parcels
- 5. Clear, connected and safe streets
- 6. Connect trails to natural areas
- 7. Public parks
- 8. Transit-friendly
- 9. Emergency access
- 10. Protection of Willow Creek
- 11. Innovative land planning
- 12. Reasonable costs of infrastructure and roads
- 13. Meet regulations





Walkable



**Disconnected** 



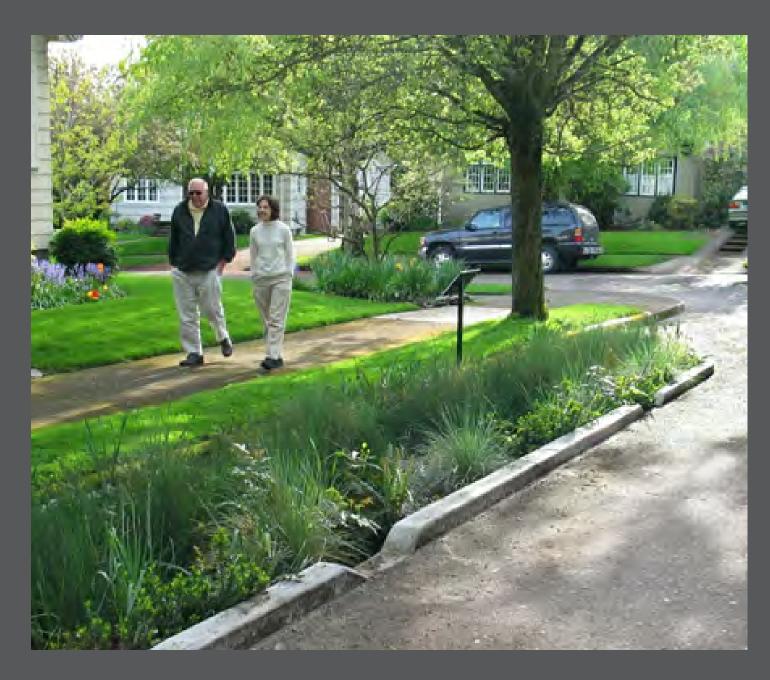
**Connected and Safe** 



**Disconnected** 



**Connected and Safe** 



Low-Impact



Access to Open Space & Nature

## WALKABLE NEIGHBORHOOD PRINCIPLES



Trees enhance value



**Sense of Community** 

## WALKABLE NEIGHBORHOOD PRINCIPLES



**Integrated Parks** 





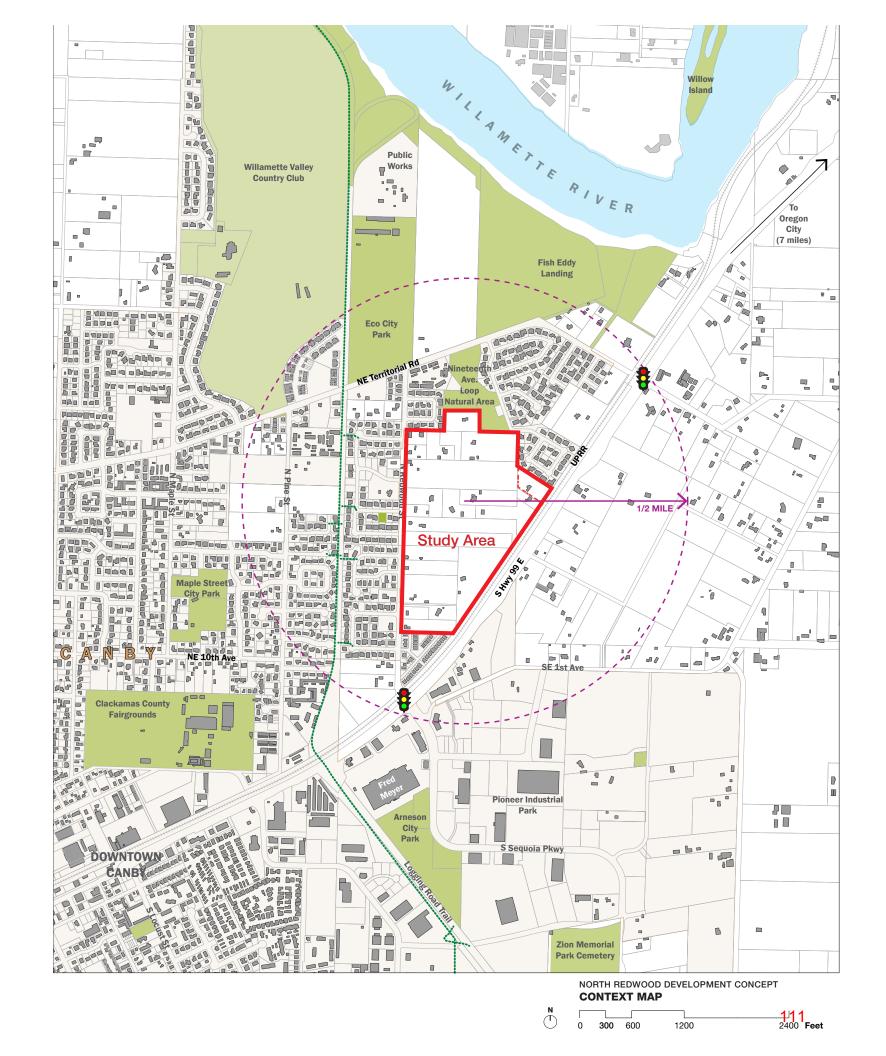




Mix of Housing

## Context





## **Study Area**







## **Site Character**



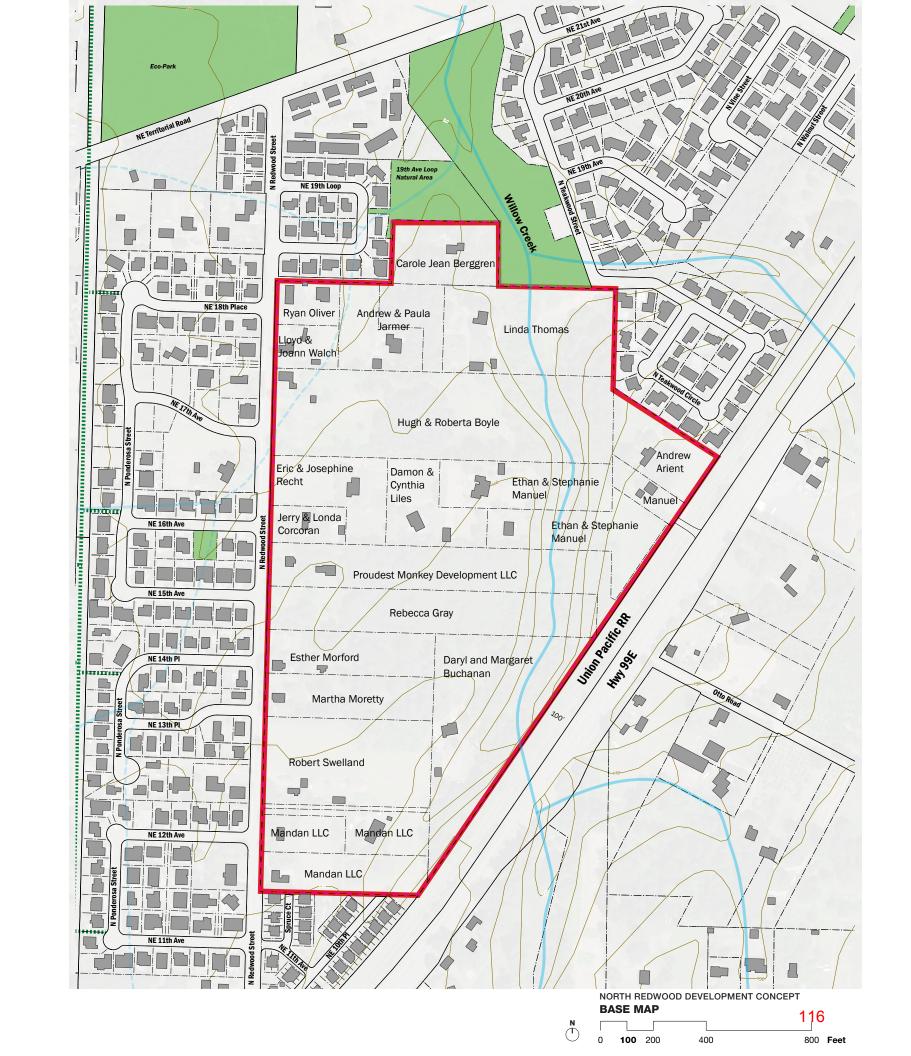






## **Property Owners**

23 taxlots 18 owners



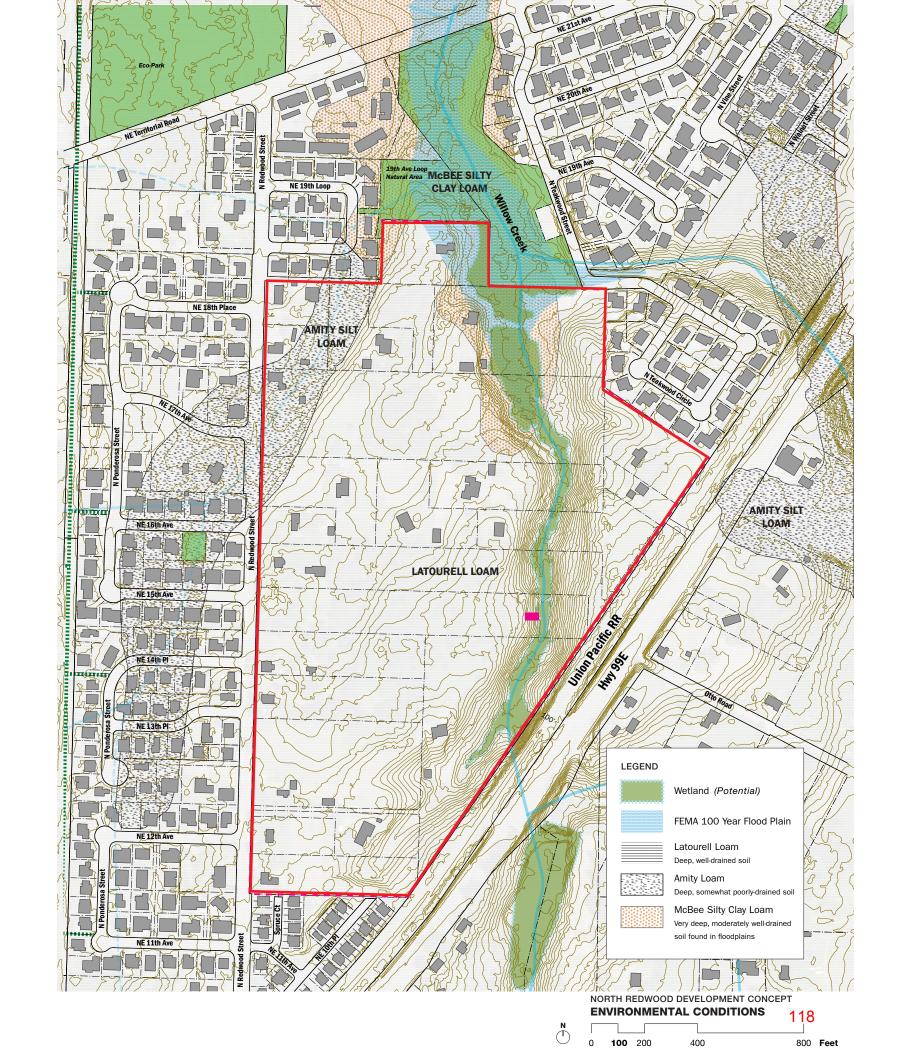
## Interviews

## What we heard: (12 interviews)

- Many intend to sell their land as developable property
- General agreement with Comprehensive Plan Zoning
- Want a walkable, connected neighborhood
- Area on east side of creek tough to develop
- Concerns about cost and impact of bridging creek
- Low Density residential will sell well
- Short supply of buildable lots in Canby
- But not huge demand for large estate lots
- RR is loud. Closing RR crossing on east side might avoid horns
- If a park in Willow Creek—concerns about safety and liability
- Concerns about City's parks maintenance budget
- Go beyond stream setbacks plus extra land for park dedication
- Habitat restoration needed
- Topography and drainage challenges for trail
- Hydrology of creek has changed dramatically
- Dam at Territorial needs to be removed
- Stormwater runoff impacts to creek
- When it rains heavily, North Redwood Street floods

## **Natural Conditions**

- Reconnaissance-level site assessment
- Willow Creek ponding, poorlydefined channel
- Springs and seeps
- Water quality relatively high, well vegetated slopes in the watershed
- Mixed conifer-broadleaf canopy
- Riparian habitat quality moderately high due to good structural diversity
- Riparian understory infested with ivy, threat to habitat and trees
- Reed canarygrass in wetlands
- Well-drained soils



## Natural Conditions







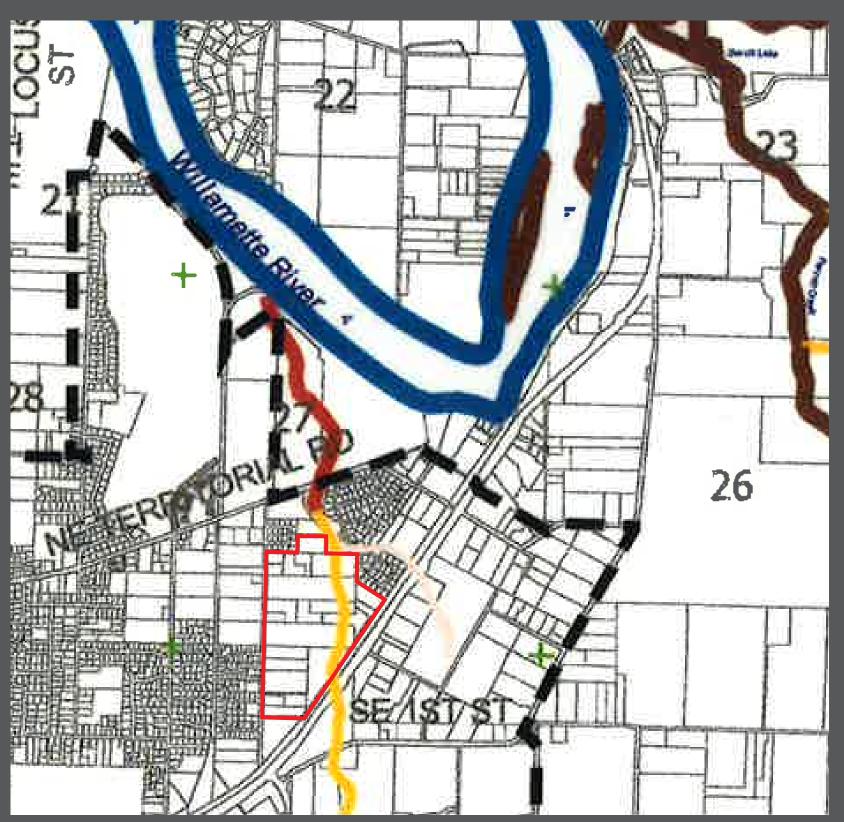


## Willow Creek

### Clackamas County Setbacks:

From Willamette River to NE Territorial Rd, Medium Stream (Red), requires a 70 foot setback on either side from the mean high water line.

South of NE Territorial Road, Small Stream (Yellow), requires a **50 foot setback on either side** from the mean high water line

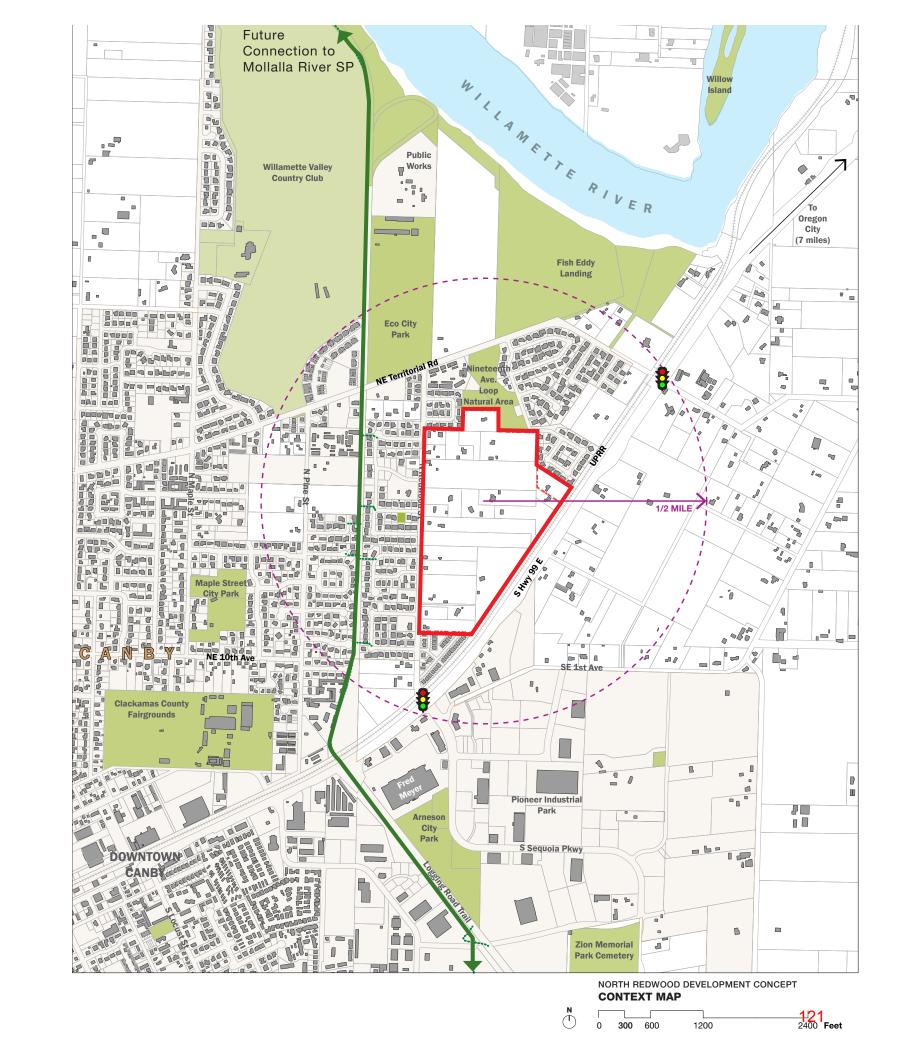


## **Parks & Trails**





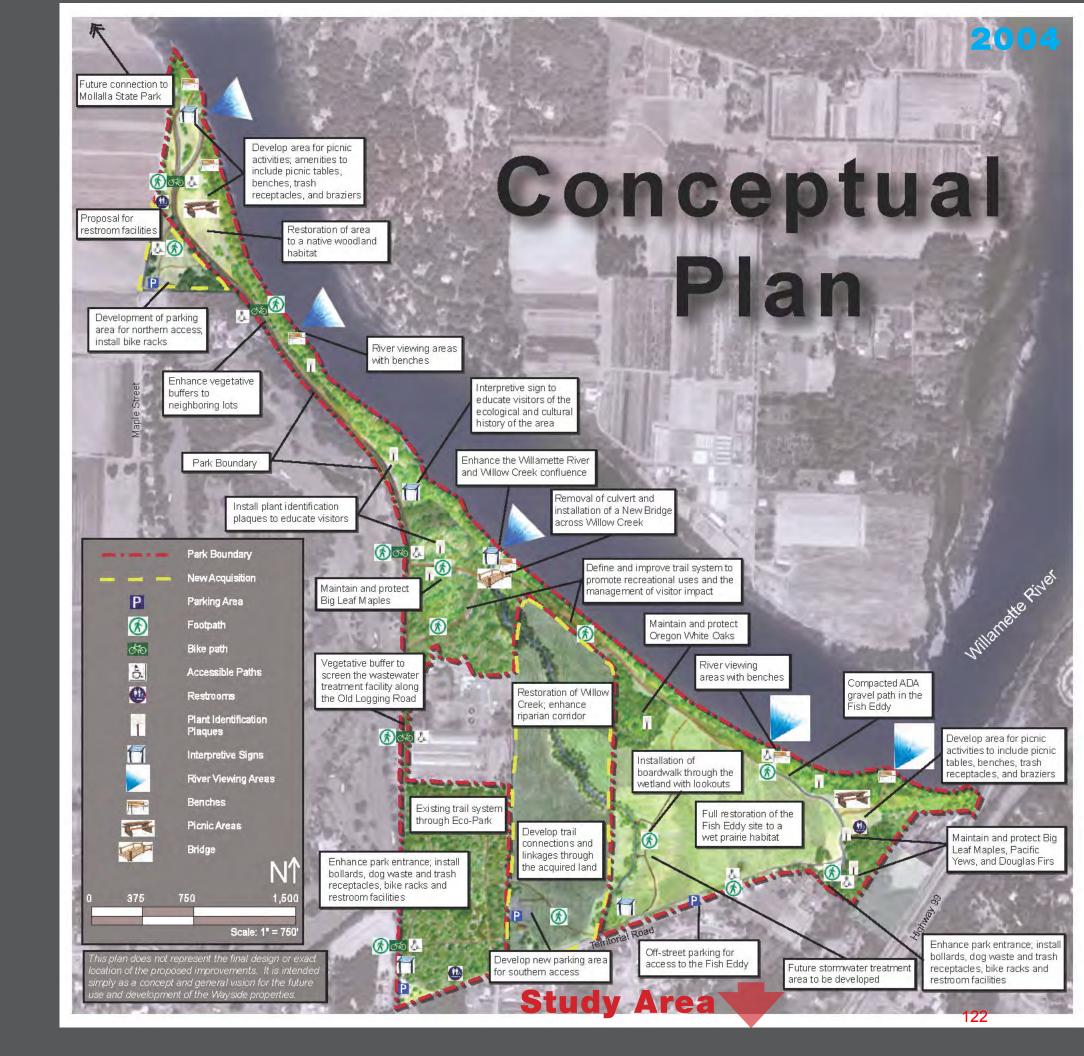




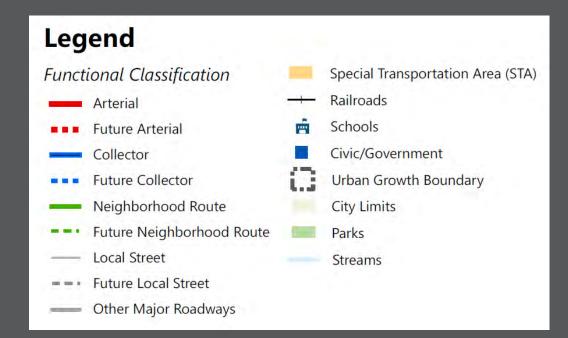
## Willamette Wayside





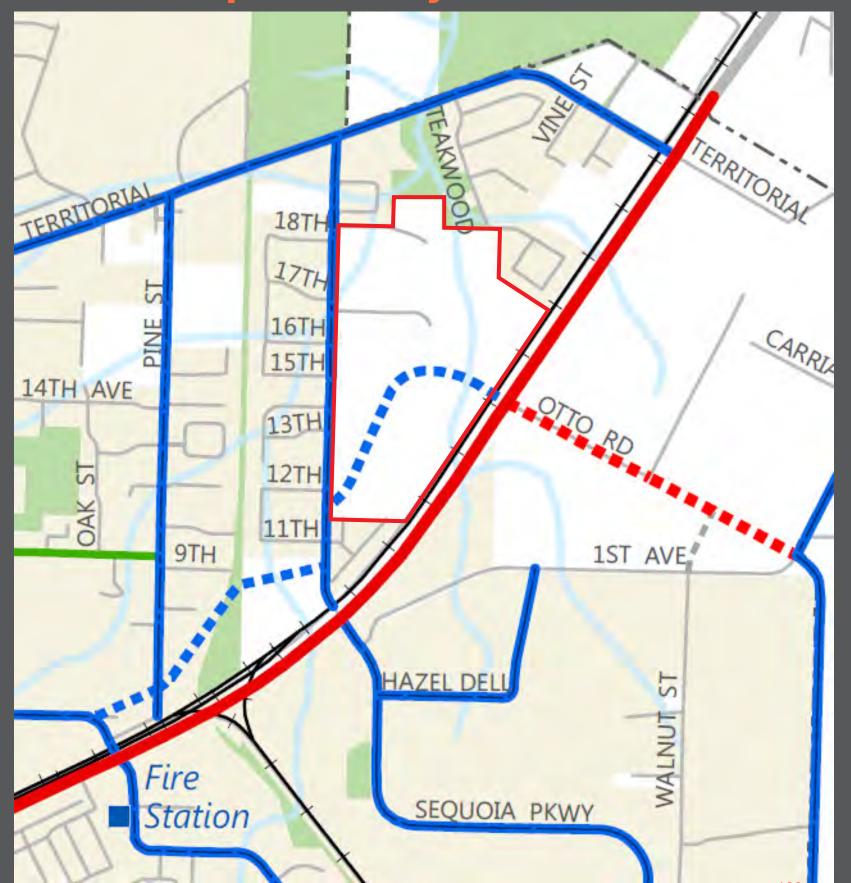


## **Transportation**



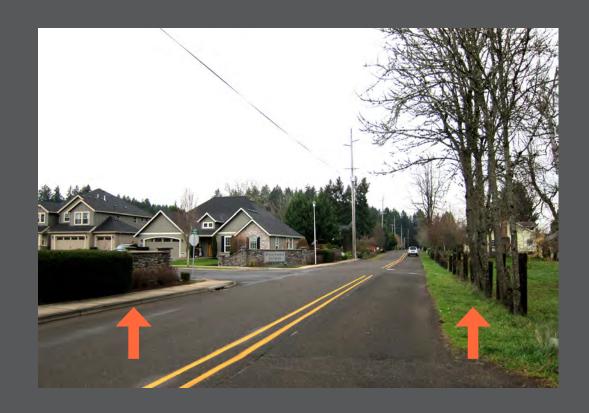


## 2010 Transportation System Plan

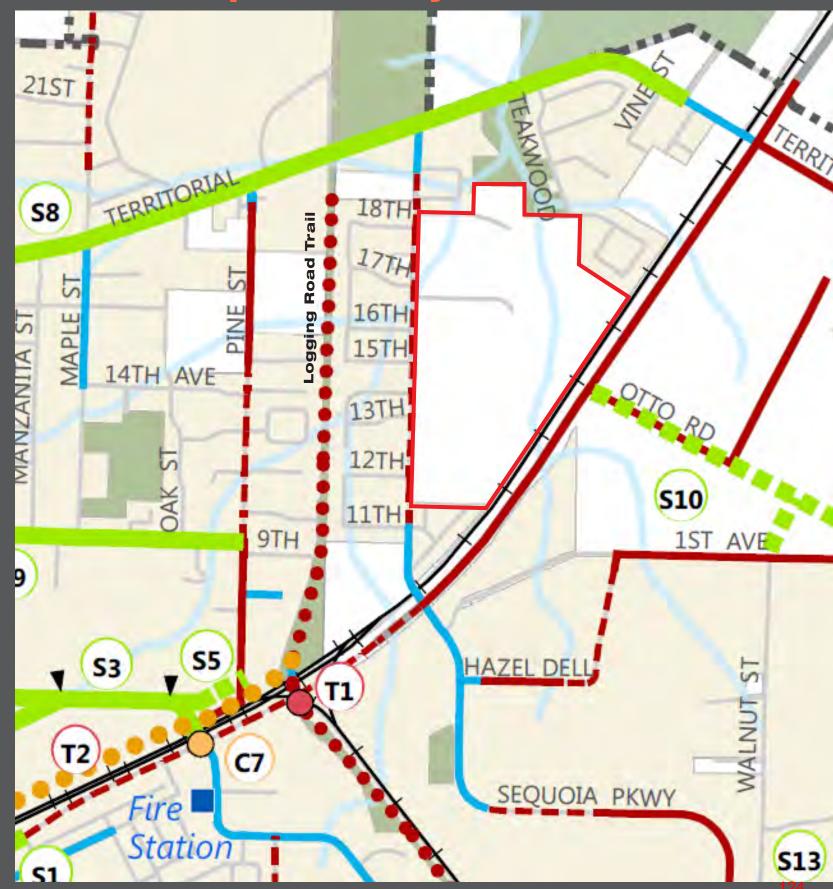


## **Transportation**

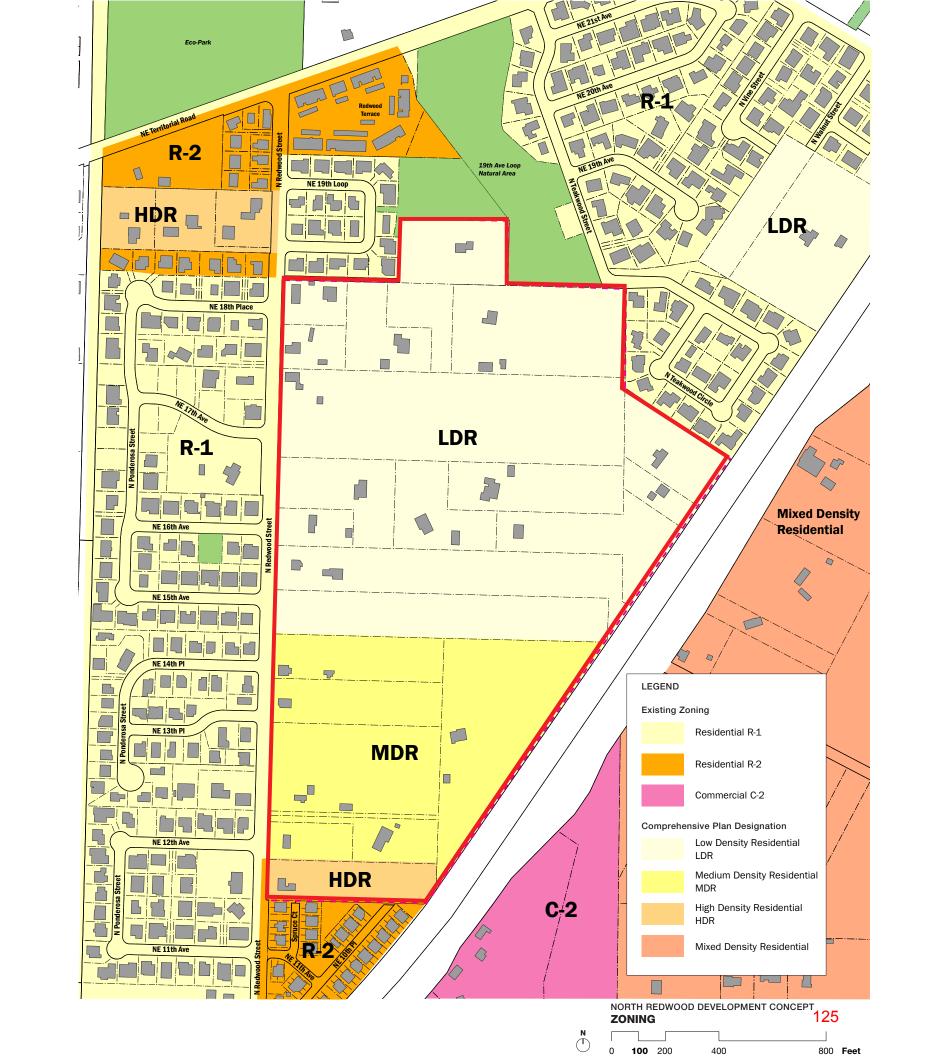




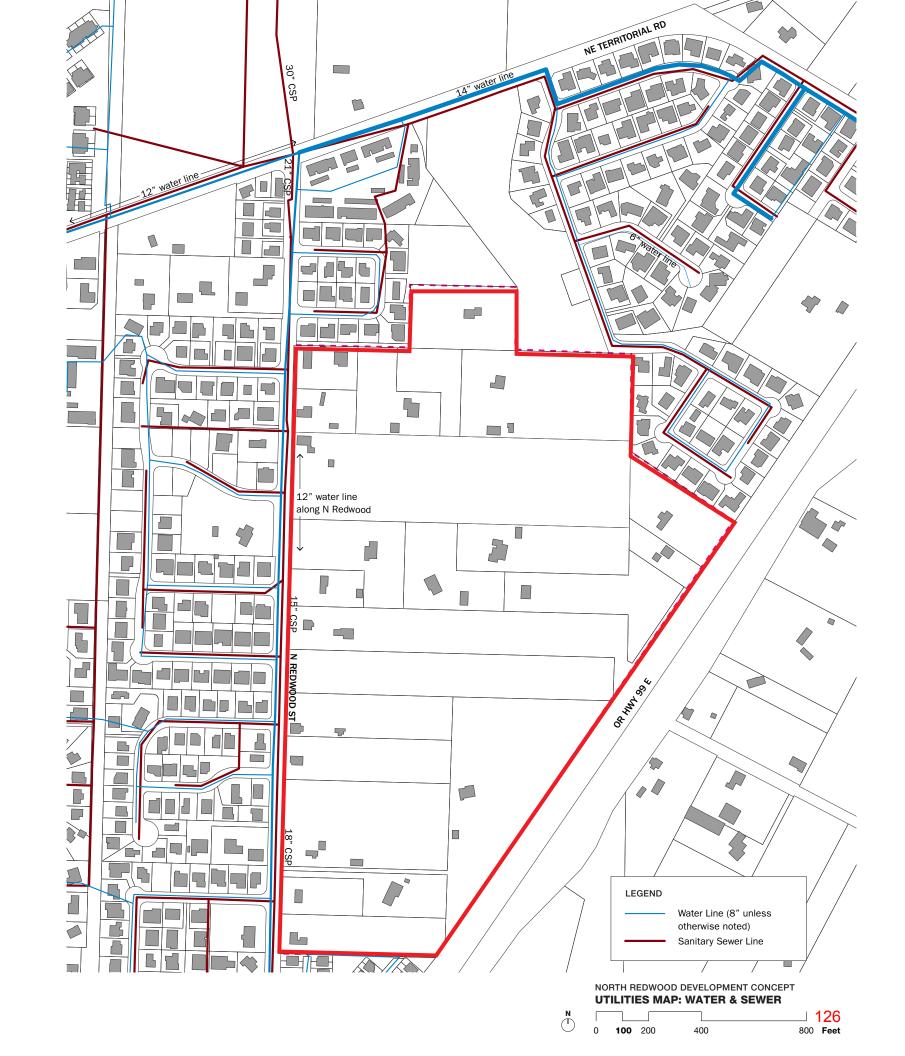
### **2010 Transportation System Plan**



## Zoning



# **Utilities:**Water & Sewer



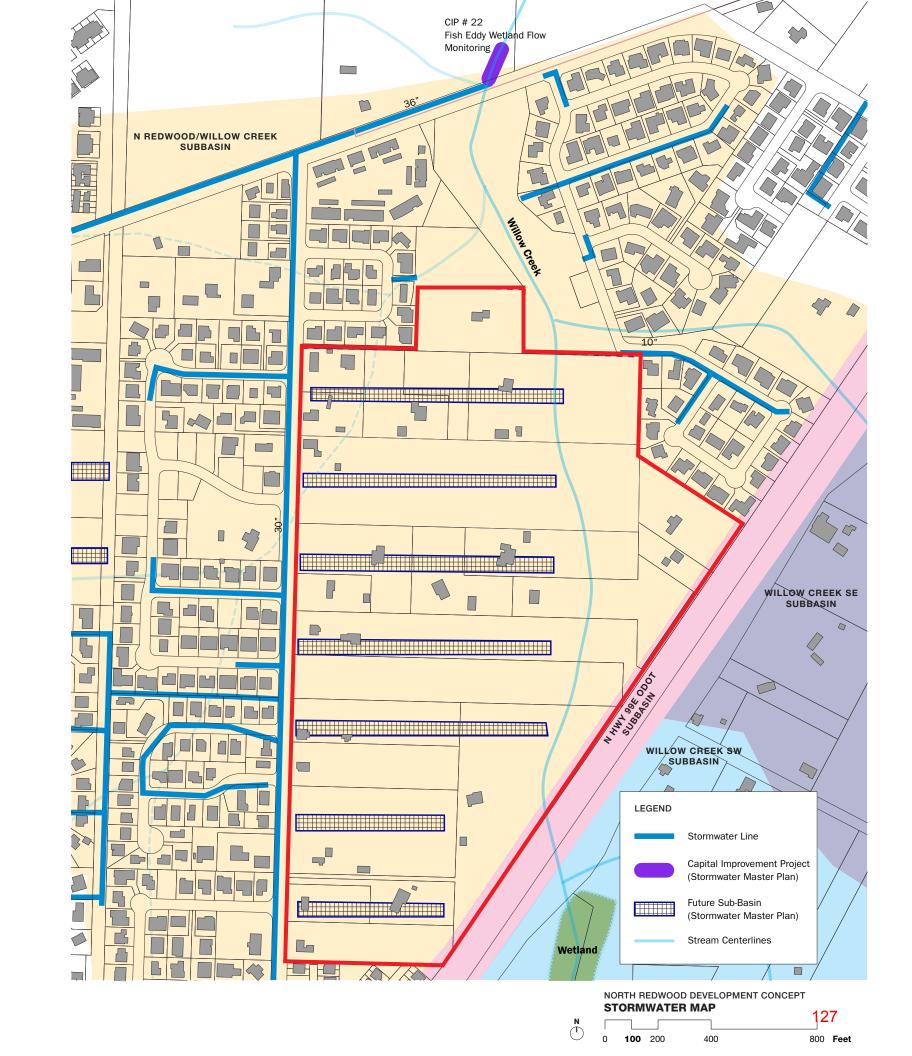
## **Utilities:** Stormwater





Low Impact Design





# Demographics

Key:

Low

High

Compared to the other geographical areas.

Compared to nearby Cities and the 10-mile radius "primary market area" (PMA), Canby features:

- Larger average household & family sizes (2.8 vs. 2.3 for Wilsonville). (However, 55% of all households are 1 or 2 person households.)
- More children and people over
   65
- More middle income households—65 percent of the households make between \$35,000 and \$150,000

Source: ESRI, Leland Consulting Group

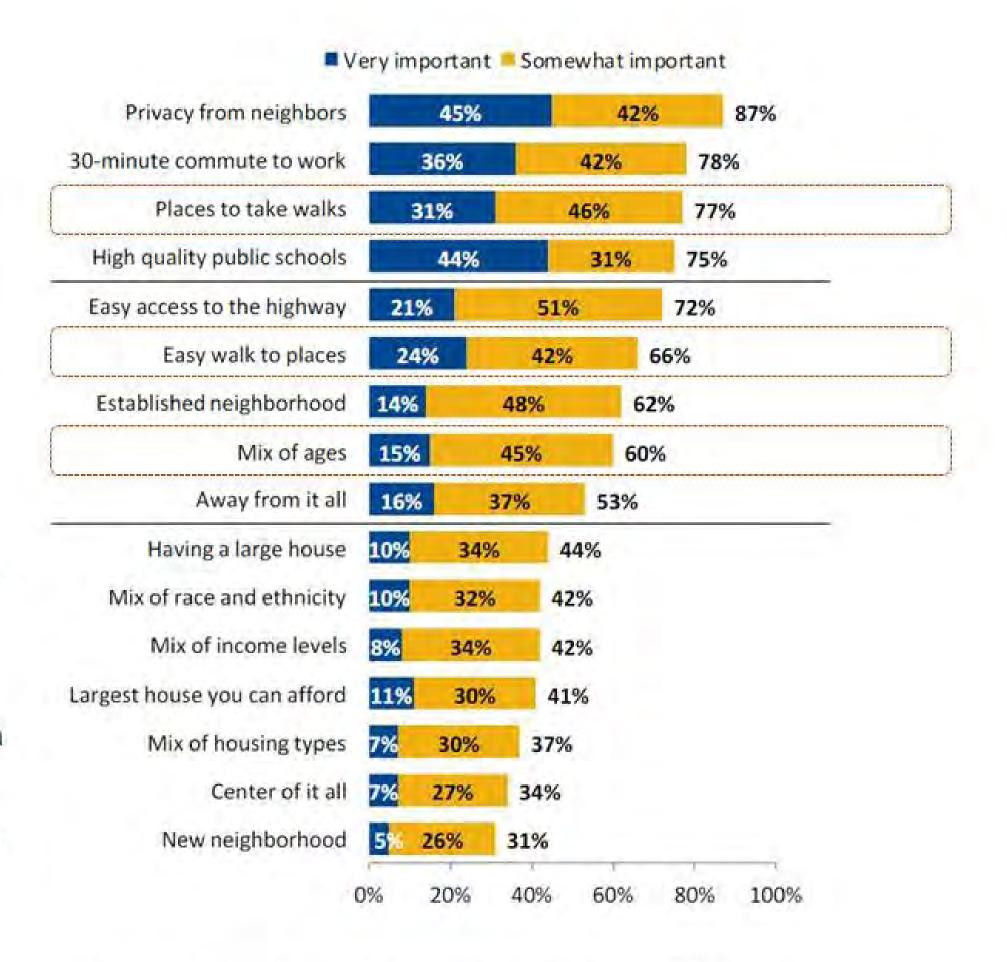
DEMOGRAPHICS (2014 estimate unless otherwise noted)	City of Canby	Wilsonville	Oregon City	10 mile Radius
	13.00	24 225		
Total Population	15,926	21,235	33,024	211,678
Population by Age	250/	240/	220/	220/
0 to 24	35%	31%	33%	32%
25 - 34	12%	16%	13%	12%
35 - 44	12%	14%	14%	13%
45 - 54	13%	13%	14%	15%
55 - 64	12%	11%	13%	14%
65+	16%	15%	14%	14%
Households by Tenure	5,987	9,199	13,470	84,831
Owner Occupied Housing Units	61%	43%	59%	64%
Renter Occupied Housing Units	34%	51%	33%	31%
Vacant Housing Units	5%	6%	7%	6%
Households by Income				
Occupied housing units	5,706	8,638	12,487	79,996
<\$15,000	10%	12%	13%	9%
\$15,000 - \$24,999	10%	9%	9%	8%
\$25,000 - \$34,999	8%	10%	9%	8%
\$35,000 - \$49,999	14%	12%	13%	12%
\$50,000 - \$74,999	20%	14%	19%	17%
\$75,000 - \$99,999	15%	14%	15%	14%
\$100,000 - \$149,999	17%	20%	17%	19%
\$150,000 - \$199,999	4%	5%	3%	7%
\$200,000+	3%	4%	2%	6%
Households by Size (2010 Census)				
1 to 2 Person Households	55%	68%	58%	58%
3 to 4 Person Households	31%	25%	32%	32%
5+ Person Households	14%	7%	10%	10%
Average Household Size	2.8	2.3	2.6	2.6
Average Family Size	3.26	2.97	3.06	3.08
Median Household Income	\$57,818	\$59,812	\$56,210	\$67,405
Per Capita Income	\$26,590	\$31,995	\$26,735	533,703
Population by Race	1000000		3-2-2-20	
White alone	80%	84%	91%	87%
Hispanic origin	23%	13%	8%	128%

# Community Preferences

"In deciding where to live, indicate how important each of the following would be to you?"

Survey participants rate the importance of walkability over other features such as having a large house.

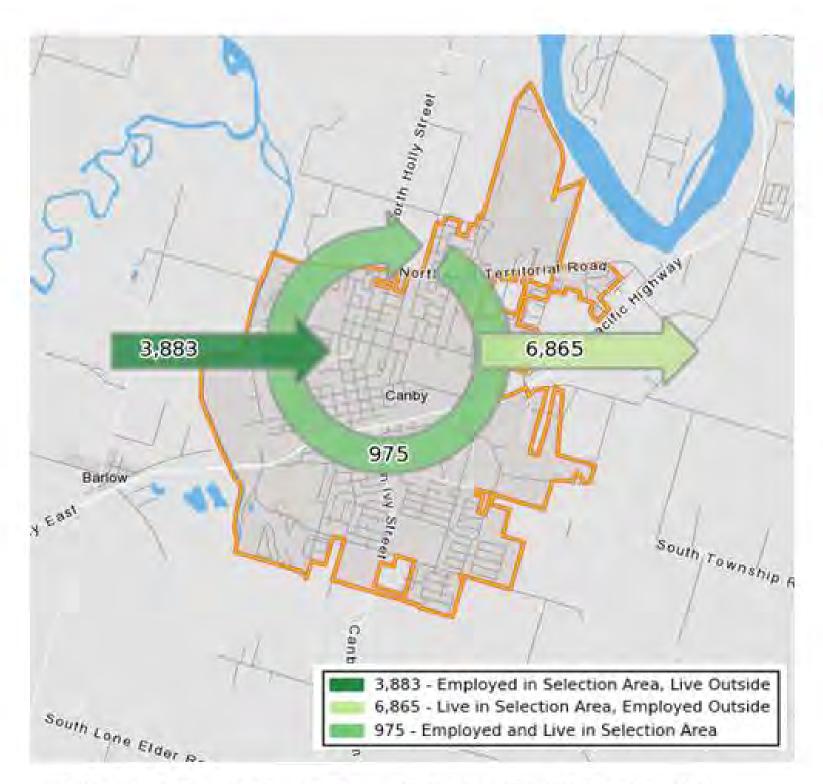
As Oregon's population gets older, a mix of ages is important to residents, and also from a public policy perspective. 65+ households who move are more likely to downsize to smaller homes.



# Canby Commute Patterns

- Of the 7,840 residents of Canby who are employed, 88 percent commute to jobs elsewhere. Canby is in part a "bedroom community" since most residents commute to jobs throughout the metropolitan area.
- However, it is also an employment center: about 3,900 workers commute to Canby from other locations.
- 975 people work and live in Canby.

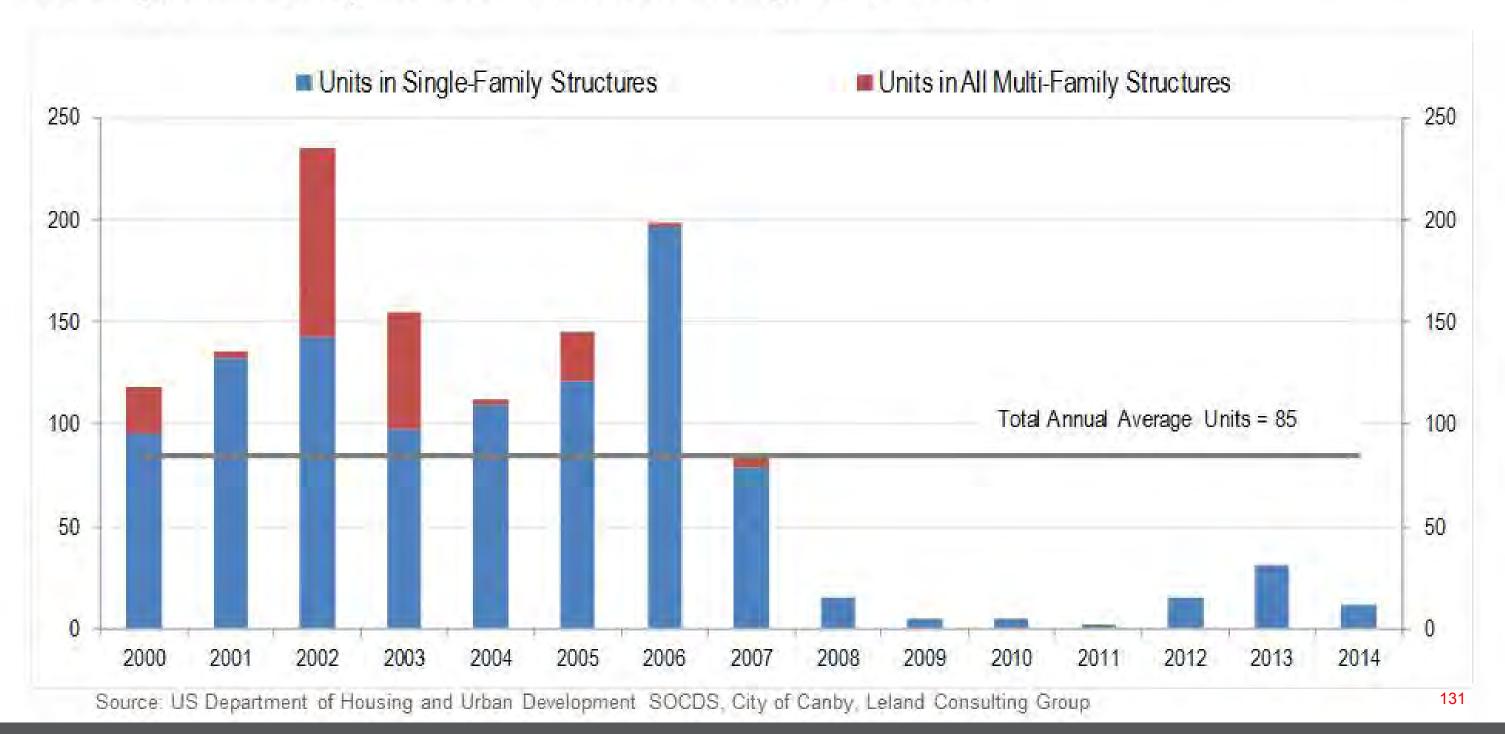
Where Residents of Canby Work	Count	Share
Total All Jobs	7,840	100%
All Other Locations	3,638	46%
Portland	1,296	17%
Canby	975	12%
Wilsonville	390	5%
Oregon City	287	4%
Tigard	287	4%
Tualatin	281	4%
Beaverton	220	3%
Eugene	172	2%
Hillsboro	164	2%
Milwaukie	130	2%



US Census Bureau, Center for Economic Studies, LEHD OntheMap, 2011

# Building Permits in Canby

From 2000 to 2014, an average of 85 housing units per year have been permitted in Canby. Building permit activity has been well below average since 2008.



# Canby Number of Homes Sold and Average Sale Price

Seventy percent of the new homes sold in Canby are single family detached homes, with sales prices that average \$149 per square foot for a one story and \$112 per square foot for a two story. Duplexes and Townhomes are owner-occupied housing types that are more likely to be affordable to middle and lower-income households.

On average, 37 new homes have been sold annually in Canby since 2003, although sales have been well below that average since the housing market crashed in 2008.

Housing Type	Number Sold 2003-2014	Percent Average of Total Sales Pri Price		Average Price per sf
One Story Detached	39	10%	\$355,662	\$149
Two Story Detached	224	60%	\$349,908	\$112
Duplex	38	10%	\$172,668	\$176
Townhome - 2 Story	68	18%	\$204,001	\$141
Townhome - 3 Story	4	1%	\$202,550	\$96
Total	373		\$305,171	\$146

Year Sold	Number Average Sold Closing Price		
2004	54	\$251,430	
2005	49	\$237,040	
2006	148	\$332,660	
2007	59	\$352,392	
2008	17	\$298,306	
2009	15	\$262,167	
2010	1	\$555,000	
2012	7	\$250,859	
2013	12	\$311,087	
2014	11	\$324,096	
Total	373	\$305,171	
Annual Average	37		

Source: Metrostudy, Leland Consulting Group

# Housing Demand of Current Canby Residents by Price Range

Given the household income distribution of current Canby residents, the chart below shows an estimated range of new home purchase prices. An annual household income of greater than \$75,000 is needed to afford the average price of new homes being sold in Canby.

The primary market opportunity and demand going forward is likely to be for single family detached housing of 5,000+ SF lots being purchased by households in the \$75,000+ income categories.

There is likely a market opportunity for developers to develop additional small-lot and attached housing, since none has been built since 2008, and there demand exists in the lower-middle household income categories.

Household Income Category		Percent of Number of Households Households	Est Percent Owners	Number of Owner HHs	Home Purchase Price Range			
							(Low)	(High)
\$0	10	\$15,000	10%	559	10%	56	\$0	\$55,000
\$15,000	10.2	\$25,000	10%	571	25%	143	\$55,000	\$95,000
\$25,000	(4)	\$35,000	8%	457	50%	228	\$95,000	\$135,000
\$35,000	-	\$50,000	14%	805	60%	483	\$135,000	\$190,000
\$50,000	-	\$75,000	20%	1,130	70%	791	\$190,000	\$285,000
\$75,000	-	\$100,000	15%	850	80%	680	\$285,000	\$380,000
\$100,000	14	\$150,000	17%	947	85%	805	\$380,000	\$570,000
\$150,000	1.2-	\$200,000	4%	245	90%	221	\$570,000	\$760,000
\$200,000	+		3%	148	95%	141	\$760,000	4

Source: ESRI, Leland Consulting Group NOTE: Assumes a 10% down payment, and a 30 year mortgage at 4.25% interest rate, and a maximum mortgage payment to gross income ratio of 25% including home insurance and property taxes.

# Potential Funding Mechanisms

How to equitably distribute the costs and benefits, so that no single property owner bears too much of the burden without receiving some of the benefits?

Potential funding mechanisms to be explored:

- Reimbursement District
- Advance Finance District
- SDCs and SDC credits
- Capital Improvement Program (CIP)
- Local Improvement District (LID)
- Transfer of Development Rights (TDR)

# DISCUSSION

Is our information accurate?

Are we missing anything?

What clarifications do you need?

What opportunities or challenges do you see for the project?

http://www.ci.canby.or.us/N\_Redwood/north\_redwood\_plan.htm

# CONTACT: Senior Planner Matilda Deas 503-266-0723

To: Matilda Deas Topic: SAC #1 Meeting Notes Date: 02/09/2015

From: Ken Pirie Project: Canby North Redwood Project #: 3077

Distribution: Basecamp

### North Redwood Development Concept Plan

Stakeholder Advisory Committee Meeting (#1) Notes (See consultant presentation on Basecamp)

- Stormwater will be a big issue. Attendee was glad to see this being addressed.
- School growth? How to accommodate 240-300 households?
- What are expected routes to get kids to schools? Crossing Hwy 99 is a big challenge to school walkability
- School bus service—local standards are-1 mile for elementary schools and 1.5 miles for high school students (threshold for busing)
- City park site north of Territorial—is this a possible school site?
- Important to coordinate development to avoid a "patchwork" quilt of subdivisions
- For criteria list, suggest "incremental" development rather than "phased"
- Parks funding—is it possible for the City to collect in-lieu payment for development to help the City maintain their existing parks? Can SDCs be applied directly to properties in the study area or vicinity (Noted that SDCs are for acquisition and development only, never maintenance). City to research.
- Possible creek and wetlands land may be able to be dedicated to park requirements
- Question—what is the source of Willow Creek? This was explained—the creek is spring-fed from the area just to the south of Hwy 99E.
- If one owner develops large lots, does that squeeze others into smaller lots?-Answer is no.

end

To: Matilda Deas Topic: TAC #1 Meeting Notes Date: 02/09/2015

From: Ken Pirie Project: Canby North Redwood Project #: 3077

Distribution: Basecamp

### **North Redwood Development Concept Plan**

Technical Advisory Committee Meeting (#1) Notes (See consultant presentation on Basecamp)

- Curt McLoud noted that stormwater will need to flow to Willow Creek away from Redwood Street because that street apparently has no capacity for water. Need to use creek or new pipe to send water north to future treatment facility
- This is not what it is stated in the 2013 Stormwater Master Plan (Kennedy Jenks). City and OTAK will verify what is possible.
- City uses Clean Water Services standards for stormwater treatment, but there
  are no standards at this point for public street stormwater treatment. Only
  15,000sf can drain into a single Low Impact (LIDA) facility such as a swale.
- No EPA treatment mandate for Water Quality in Canby—just quantity
- Stormwater must be treated and detained on private property
- There is anecdotally poor drainage on site so dry wells may be challenging. This should be verified before actual development commences.
- City and consultant team to verify DSL rules for stormwater flow into wetlands.
   Can it be done with pre-treatment swales? Does it depend on class of wetland?
- 50' creek setback (County regs) will not apply when this area is annexed, but City may adopt their own setbacks
- ODFW involvement should be included in TAC to advise on protection and restoration of Willow Creek
- There is currently an Advanced Finance District in city ordinances, very similar to Reimbursement District
- If one project criteria is that this plan be connected and walkable, there needs to be a connection to the Teakwood/Willow Creek neighborhood to the NE. They will likely oppose this connection.
- Need to have an alternative at minimum that makes a connection to Teakwood, which could benefit this neighborhood
- Concerns about adding 9 ac to City parks when there are undeveloped parks in Canby due to lack of money.
- There are private parks in the City. Could an HOA build and maintain parks?
   Does it cause problems if/when the HOAs dissolve? City to research, with City attorney.
- This study area may be different. With an active and robust community, there
  may be more pride in parks built and maintained via HOA
- Committee noted that stakeholders did not express a preference for large Estate lots, when other sources in the City express a need for this.

end

To: Matilda Deas Topic: PMT #3 Meeting Notes Date: 03/17/2015

From: Ken Pirie Project: Canby North Redwood Project #: 3077

#### Attendees:

Ken Pirie
Matilda Deas
(Canby)
Ludwien Rahmin
(ODOT)
Avi Tayar (ODOT)
Seth Brumley
(ODOT)
Distribution:

Basecamp

### **North Redwood Development Concept Plan**

Project Management Team (PMT) Meeting (#3) Notes

- Matilda reported that several people have been calling her to ask about the project but there has not been any negative feedback. Many are very excited about the potential for the project
- Discussion about amending the City of Canby's TSP to remove the Otto Road overcrossing. ODOT provided instructions for Matilda to prepare a 1-page memo requesting the amendment. Matilda will work with Chris Maciejewski on this.
- Public Event #1 is April 14<sup>th</sup>. Matilda will advertise this event on the city's website and create a flyer to be distributed across the City in various venues. Matilda will also talk to the local newspaper editor to get a story about the project and the event in the paper the week before (April 6-10)
- Format of the 1-hour Open House event will include an informal mingling for 10 minutes as people view stations, followed by a 20-minute presentation by Walker Macy on the project and existing conditions, followed by 30 minutes of people visiting 4-5 topic stations and discussing with project team and staff. Walker Macy will produce comment cards. Notes will also be taken with flip charts and post-it notes on maps.
- Matilda will invite Mayor and City Councillors to the event.
- Discussion of stormwater treatment issue raised by TAC, whether the pipe under North Redwood Street can be used by future development. The city's stormwater master plan says there is ample capacity, but Curt McCloud, city engineer of record, says otherwise. Issue should be resolved before public event. Matilda will work with City Administrator and OTAK is available to assist Matilda if necessary.
- Discussion of April 27<sup>th</sup> Planning Commission. Technically, this should be prior to TAC and SAC #2, to approve plan criteria. It was decided to instead invite the PC to attend the City Council meeting on April 15<sup>th</sup>.
- There was a Milestone built into the project, whereby ODOT approves continuing the project. This will be sought after the April 15<sup>th</sup> City Council, if that proves that there is political will to continue this DCP effort.
- Seth discussed amending the schedule for this project, to make the end date September 30<sup>th</sup>, instead of June 30<sup>th</sup>. All parties agreed this was acceptable and advisable.

#### end

### NORTH REDWOOD DEVELOPMENT CONCEPT PLAN

**Project Memo #3 (Deliverable 2A)** 

### **Development Rights and Best Development Practices**

February 27 2015







LANDSCAPE ARCHITECTURE

URBAN DESIGN

PLANNING



#### Overview

This document is intended to provide local property owners in the North Redwood Study Area, nearby neighbors and City officials with a contextual picture of the types of development that are currently allowed, needed, and most appropriate for this potential new community. The first sections address real estate market conditions and demographics, followed by a review of base case vested development rights, a concise analysis of innovative development options such as density bonuses and transfer of development rights. The document also includes a brief review of key principles of walkable neighborhood development that can be considered for potential future development guidelines or standards to ensure a high-quality, economically-viable and sustainable community.

### Real Estate Market Context

This market assessment provides a brief overview of the housing market in Canby compared to surrounding communities. Key findings of the real estate market assessment include:

- The zoning and comprehensive plan designations in the North Redwood Area are generally appropriate. Canby is a residential community, with three times as many homes as jobs, and North Redwood is a good site for housing. 88 percent of Canby residents commute to jobs outside the City, mostly to the north and west, so North Redwood is a convenient location.
- Canby is a middle income community. The
  majority of homes at North Redwood should be
  priced to sell to households who earn between
  \$50,000 and \$150,000 per year. The most
  common home sold in Canby in the last decade
  is a single family detached home for about
  \$350,000, though detached and attached
  homes sell for less.
- Over the past decade, about 70 percent of the for-sale homes built and sold in Canby have been detached, single family homes, and about 30 percent have been attached—duplexes or townhomes. Ideally, North Redwood would contain a range of housing options that can appeal to a wide range of households—large and small, young and old, at a range of incomes. This will speed sales and the success of the neighborhood.

 The number of single-family home sales in Canby has dropped significantly since its peak in 2006. In that year, 197 homes sold; in 2013, 31 homes sold. North Redwood will fare better if the market regains some of its strength since quicker sales leads to residential projects that perform better economically and can support the cost of infrastructure.

### **Demographics**

Compared to Wilsonville, Oregon City and a 10-mile radius from Canby, the City of Canby is different in the following ways:

- Larger households and families. Canby has larger household (2.77 persons per household) and family (3.26) sizes, with more children and more adults over the age of 65 than the other geographies.
- Over half of all Canby households are 1 or 2
   person households. Even though the households
   are larger in Canby, 55 percent of all households
   are comprised of only 1 or 2 people. This is
   significant, although not as high as Wilsonville
   (68 percent).
- Canby is largely a middle income community. Nearly half (49 percent) of the households have an annual income between \$35,000 and \$100.000.
- Canby is a residential community. Canby has about 15,900 residents and about 4,800 jobs that are located within the community, or about three residents for every job. 6,800 residents (88 percent) commute to jobs in other communities throughout the region, while about 1,000 remain in Canby to work.
- Current housing demand by price range.
  Given Canby's current households by income,
  the following table shows an estimate of
  the approximate number of owner occupied
  households that could afford housing within a
  certain price range. As shown below, the income
  groups that represent the deepest markets for
  homebuilders are Canby households earning
  between \$50,000 and \$150,000 per year;
  these households are estimated to make
  up approximately 51 percent of all current
  homeowners, and a larger share of new-home
  buyers.

Household Income		Percent of	Number of Households	Est Percent	Number of Owner HHs	Home Purchase Price Range		
Category			Households	Households	Owners	Owner nns	(Low)	(High)
\$0	-	\$15,000	10%	559	10%	56	\$0	\$55,000
\$15,000	-	\$25,000	10%	571	25%	143	\$55,000	\$95,000
\$25,000	-	\$35,000	8%	457	50%	228	\$95,000	\$135,000
\$35,000	-	\$50,000	14%	805	60%	483	\$135,000	\$190,000
\$50,000	-	\$75,000	20%	1,130	70%	791	\$190,000	\$285,000
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\$100,000	-	\$150,000	17%	947	85%	805	\$380,000	\$570,000
\$150,000	-	\$200,000	4%	245	90%	221	\$570,000	\$760,000
\$200,000	+		3%	148	95%	141	\$760,000	+

Source: ESRI, Leland Consulting Group. May not sum correctly due to rounding.

Table 1. Housing Demand of Current Canby Residents by Price Range

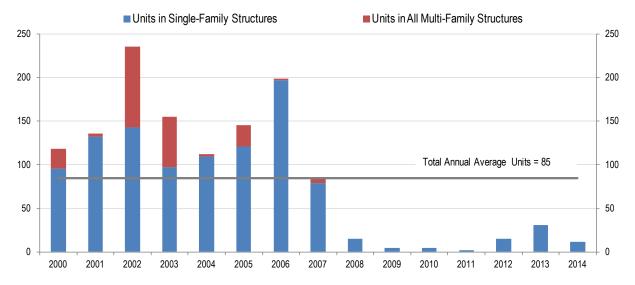
### **Housing Market**

Existing Housing Stock. This section provides a brief overview of the existing housing stock in Canby based on American Community Survey estimates from 2008 to 2012.

- Mostly single family detached. Sixty-four percent of the current housing stock in Canby is detached single family housing, which is more than Wilsonville (39 percent), but less than Oregon City and the 10-mile radius (both have 68 percent).
- Single family attached. Single family attached homes, duplexes, and 3 to 4 unit multifamily comprises roughly 13 percent of the housing stock in Canby, which is on par with Wilsonville (15 percent) and Oregon City (12 percent).
- More mobile homes. Canby has more mobile home units than other market areas, 8 percent compared to only 1 percent in Wilsonville.
- Canby's housing stock nearly doubled from 1990 to 2009. Although 19 percent of Canby's housing was built prior to 1969, nearly half of the current housing stock in Canby was built in the two decades from 1990 to 2009. Less than one percent has been added since 2010, due to the housing bust and subsequent recession.

New Home Sales Activity. This section provides information based on historical building permit activity and new home sales from 2003 to 2014 provided by Metrostudy, a third party information provider.

- Building permits. From 2000 to 2014, an average of 85 housing units per year have been permitted in Canby. Building permit activity has been well below that average since 2008 with only 12 units (all single family) permitted in 2014.
- New home sales. Like many communities throughout the nation, Canby experienced a housing boom from 2005 to 2007 with nearly 150 new homes sold during the peak in 2006, with an average sales price of \$332,000. Average sales prices continued to climb into 2007 when they topped \$352,000 but have fallen well below that average since then, except for 2010 when there was only one new home
- Market Cycles. The impact of the housing boom and great recession is shown in Table 2 at Darcy's Country Estates, one of Canby's larger new residential neighborhoods. In 2006, at the peak of the housing boom, 68 homes were sold at Darcy's. In 2008, only one home sold. In each of the last three years, four homes sold. If only four homes sold at Darcy's each year over the life time of the project, it would



Source: US Department of Housing and Urban Development SOCDS, City of Canby, Leland Consulting Group

Figure 2. Building Permits, City of Canby

take 34 years for the project to sell out—far too long. The "velocity" of home sales is important, since developers need to recoup their upfront infrastructure costs relatively quickly. Home sales in Canby will need to pick up again before large scale developments such as North Redwood are possible.

- Single family. Seventy percent of the new homes sold in Canby since 2003 are single family detached, mostly two-story. Overall homes average \$149 per square foot for a one story and \$112 per square foot for a two story detached home. The average sales price of new single family homes is around \$350,000. This average new home price would require an annual household income in the \$75,000 to \$100,000 range.
- Duplexes and Townhomes. Duplexes and townhomes make up roughly 30 percent of the new home sales in Canby. These attached housing products have a lower average sales price, ranging from \$173,000 for a duplex to \$204,000 for a townhome, than detached housing. A two story townhome had the lowest sale price of all of the ownership housing products at \$125,000. A household with an annual income of close to \$35,000 could meet the threshold to purchase a home at this minimum price range. Therefore, duplexes and townhomes have the potential to be more affordable housing types.
- Home and lot size. The size of new homes in Canby average as much as 2,400 square feet for a two story detached home to as little as 1,400 square feet for a two story townhome. Lot sizes average less than 3,000 square feet for duplexes and townhomes and as much as 8,000 for detached single family homes. The largest lot size for a new home sold since 2003 was just over an acre. The smallest lot size was just under 1,150 square feet for a townhome and just over 1,200 square feet for a single family detached lot.
- Only three developments with active sales since 2012. Since 2012, only 23 new homes have been sold in only three different housing developments: Darcy's Country Estates, Dinsmore Estates West and Northwood Estates Phase 1. Northwood estates is closest in proximity to the study area. Average sales price ranged between \$340,000 and \$355,000. For a complete set of tables on new home sales, see Tables 3 through 5 and Figure 3.

Table 2. Home Sales by Year, Darcy's Country Estates

Year	Number of Sales
2005	1
2006	68
2007	18
2008	1
2012	4
2013	4
2014	4
Total	100

Total Lots 136

Source: Metrostudy, Leland Consulting Group

Table 3. New Home Sales by Housing Type, Number Sold and Sales Price, City of Canby

Housing Type	Number Sold 2003-2014	Percent of Total	Max Sale Price	Average Sales Price	Minimum Sale Price	Average Price per sf
One Story Detached	39	10%	\$728,144	\$355,662	\$190,008	\$149
Two Story Detached	224	60%	\$274,950	\$349,908	\$146,175	\$112
Duplex	38	10%	\$482,869	\$172,668	\$194,900	\$176
Townhome - 2 Story	68	18%	\$270,000	\$204,001	\$125,000	\$141
Townhome - 3 Story	4	1%	\$203,600	\$202,550	\$200,000	\$96
Total	373			\$305,171		\$146

Source: Metrostudy, Leland Consulting Group

Table 4. New Home Sales by Home Size and Lot Size, City of Canby

Housing Type	Home Size (sf)			Lot Size (sf)		
	Min	Avg	Max	Min	Avg	Max
One Story Detached	1,371	2,038	3,226	5,062	7,925	9,673
Two Story Detached	1,211	2,399	4,373	3,168	6,979	46,912
Duplex	1,505	1,505	1,505	1,740	2,315	3,442
Townhome - 2 Story	1,146	1,434	2,030	1,606	2,325	4,619
Townhome - 3 Story	2,101	2,101	2,101	2,578	2,854	3,129

Source: Metrostudy, Leland Consulting Group

Table 5. New Home Sales by Development, Number Sold, and Average Sales Price, City of Canby

Development	Total Number Sold 2012-2014	Average Annual Sales	Average Sale Price	Housing Type
Darcys Country Estates	12	4	\$340,084	Townhomes - 2 & 3 Story
Dinsmore Estates West	6	2	\$340,084	One & Two Story Detached
Northwood Estates 1	5	1.7	\$355,251	One & Two Story Detached

Source: Metrostudy, Leland Consulting Group

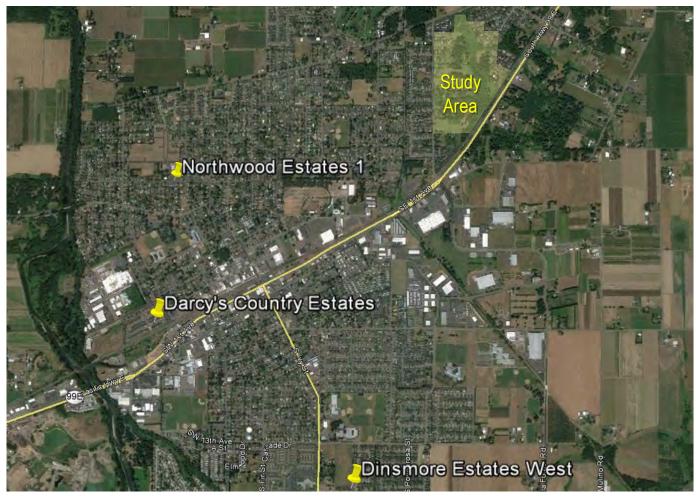
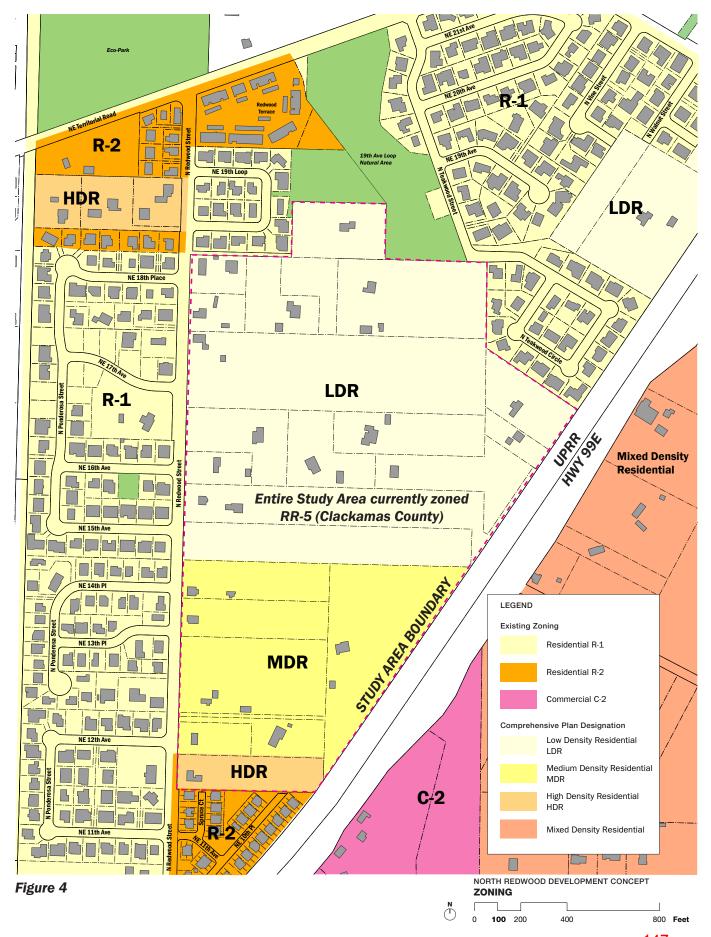


Figure 3. Developments with New Home Sales, 2012-2014

Source: Metrostudy, Google Earth, Leland Consulting Group



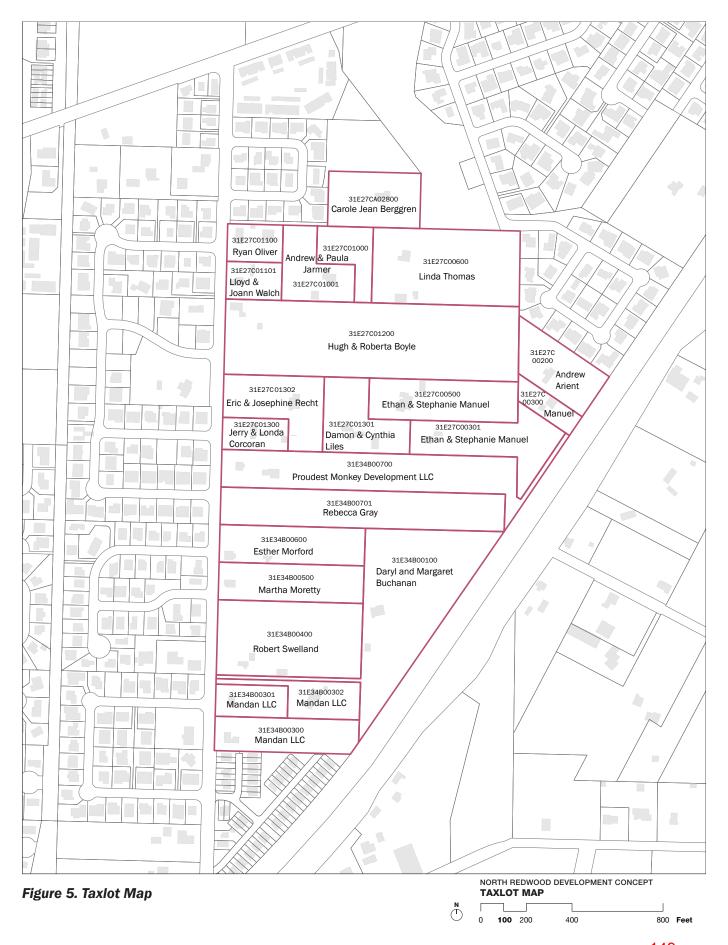
#### **Base Case Vested Development Rights Analysis**

The project study area currently lies outside the city limits of Canby (Figure 1). As a result, rural residential County zoning is currently applied to the area. Until the area is annexed to the City, the area can only be developed consistent with County zoning requirements (Figure 4). Once a Development Concept Plan is prepared and adopted and the area is annexed, urban zoning - consistent with the City's Comprehensive Plan designations - can be applied, and development can occur at urban densities. Current County zoning requires a minimum lot size of five (5) acres for each dwelling. However, existing lots smaller than five acres in size ("lots of record") also are allowed to include a single dwelling. These development rights apply to each tax parcel, even in cases where multiple parcels are under the same ownership.

Table 6 (below) summarizes the amount of development possible (or "vested") for each parcel in the study area. As the table (and *Figure* 5) indicates, all but two of the properties currently include a dwelling. None of the properties are large enough to subdivide into two or more 5-acre lots (since all are less than 10 acres in size). As a result, there is no additional vested capacity on any of the parcels that currently include an existing dwelling. The only additional vested capacity in the area is represented by the two properties without structures, each of which could be developed with one dwelling as lots of record even though they are smaller than the five-acre minimum lot size threshold.

Table 6. Vested Development per Parcel

Taxlot	Size (acres)	Existing dwellings	Total dwellings vested
31E27C 00200	2	1	1
31E27C 00300	0.7	1	1
31E27C 00301	2.7	1	1
31E27C 00500	2.7	1	1
31E27C 00600	4.9	1	1
31E27C 01000	1.2	0	1
31E27C 01001	1.8	1	1
31E27C 01100	0.9	1	1
31E27C 01101	0.9	1	1
31E27C 01200	9.8	1	1
31E27C 01300	0.9	1	1
31E27C 01301	2.1	1	1
31E27C 01302	2.4	1	1
31E27CA02800	2.3	1	1
31E34B 00100	6.8	1	1
31E34B 00300	2.2	1	1
31E34B 00301	1	1	1
31E34B 00302	1.4	1	1
31E34B 00400	4.8	1	1
31E34B 00500	2.4	1	1
31E34B 00600	2.4	1	1
31E34B 00700	5.2	1	1
31E34B 00701	4.7	0	1
Total	66.2	21	23



#### **Base Development Practices**

A variety of best development practices could be implemented in this area to ensure that development meets the project and community goals and is both sustainable and efficient. A number of practices also could result in greater value for property owners and a more equitable cost-sharing arrangement.

**Transfer of Development Rights.** This strategy is used in different parts of the United States to transfer the potential for development from one property to another. Transfer of Development Rights (TDR) programs have been used primarily to transfer development rights from areas with development constraints or where preservation of natural or other resources is a key policy objective, into areas where a higher level of density is desired. For example, TDRs have been used as part of farmland preservation programs in Maryland, and to protect natural areas in King County, Washington, Fort Collins, Colorado and Lake Tahoe, California, among other locations. Theoretically, a TDR program could be used here to transfer development rights from individual properties within this area either to other properties in the study area or to properties in a "receiving area" outside of the study area.

TDR programs are only successful under certain conditions. In general, these conditions include the following:

- TDRs are authorized by state law
- The governing jurisdiction has the administrative capacity to manage a TDR program
- The jurisdiction can map both sending and receiving areas
- There is a financial market for increased development rights
- There are identified receiving area where greater density is desired and viable

While some of the above conditions would be met here, others would be challenging at best, and we foresee a number of potential roadblocks to use of this strategy in Canby, including:

- Establishment of receiving areas. To date, the City has not identified any receiving areas outside the study area where additional residential density is desired. Within the study area, there may be locations where additional development capacity or density could be provided however, it is likely that this would be inconsistent with the current set of Comprehensive Plan designations or could result in something of a patchwork development pattern.
- Administrative capacity and cost-effectiveness.
   While the City may have the capacity to
   administer a TDR program, it will take a
   significant amount of work to establish such
   a program and a certain amount of work to
   administer it. Given that the study area is
   relatively small, this may not be a cost-effective
   approach for the City. TDR programs are typically
   applied to very large areas. For example,
   King County's TDR program has been used to
   transfer development rights for several thousand
   dwellings and several hundred acres of land.
- Lack of Oregon precedent. To date, there has been very little application of TDR in an urban setting. Recent pilot programs by the state have focused on transferring development rights from rural areas outside urban growth boundaries to areas targeted for higher density within urban areas.

As a result of these potential obstacles, implementation of a TDR program is not recommended for the North Redwood area in Canby.

Density Bonuses or Transfers. Density transfers or bonuses are another possibly simpler way to transfer density from constrained or other areas within the study area to areas where more development could occur. For example, within a given parcel, the City could allow property owners or developers to transfer density from a constrained portion of the property (e.g., within riparian, steeply sloped or wetland area) to the unconstrained portion of the site. In doing so, the City could allow for a denser level of development on the unconstrained portion of the property while ensuring that the overall density of development for the entire property does not change. The City's existing code currently allows this to some degree through lot size averaging and alternative lot layout provisions (16.16.030 B). This also could be done through targeted amendments to the City's development code or through use of a planned unit development (PUD) process, as described further below.

Density bonuses also can be used to essentially transfer or allow more dense development in certain portions of the study are while limiting development in constrained areas. Density bonuses are provided in exchange for other development practices that meet community or project goals, such as protecting additional open space or implementing low impact development practices (16.64.80 D). Clustering of density is already allowed as part of the City's PUD provisions.

#### Parcel Consolidation and/or Planned Unit

**Developments.** As discussed above, Planned Unit Development (PUD) provisions could be used for a variety of purposes in the North Redwood area. They would allow for lot size averaging, alternative lot layouts, and protection of natural areas, with the development potential in those areas captured in the developable portion of a site. While use of the City's PUD process would provide opportunities for more development flexibility, such processes are most effective when applied to larger properties or developments. As a result, they would be most applicable on larger properties in the study area and/or in areas where property ownership can be consolidated.

Consolidation of individual properties would be very advantageous to meeting future development objectives in the North Redwood area. The relatively small average parcel size in this area - coupled with the varying sizes, shapes and configurations of lots and locations of dwellings - can make efficient, logical development of homes, roads, pathways and open spaces a challenge in this area. Consolidating properties would remove existing parcel lines as a constraint to planning and development and allow property owners and developers to apply development provisions to one or more larger areas. This can increase the number of options for how future development can be configured, providing opportunities for a more cohesive, logical development pattern. As a result, it also would allow property owners to spread costs of infrastructure over one or more larger areas and likely reduce the average cost per unit, due to lower costs for a more efficient system and the ability to develop a somewhat larger number of homes.

However, in the absence of parcel consolidation, the property owners have the opportunity to work together through the DCP process to share the costs and benefits of development and locate new development and associated public facilities in a way that results in more cohesive, logical and efficient development. This in turn will enhance the value of the area for the community as a whole and for individual property owners. However, this will require crafting and implementing a set of cost-sharing and development coordination arrangements.

#### **Best Development Practices**

A number of principles, strategies, and best practices in neighborhood planning and design can be employed to increase long-term sustainability and viability of development projects. Four key principles are outlined in the following pages.



Houses with their front doors and porches directly facing the street provide a pleasant pedestrian experience and a safe and friendly environment for children to play. Garages should be set back or accessed from rear alleys.

Tree-lined streets and wide sidewalks help create an attractive, walkable neighborhood.





School

**Disconnected streets** create challenging routes to schools and other neighborhood amenities, reducing neighborhood walkability.



A connected grid of streets allows multiple direct routes for residents to safely walk or bike to schools, parks or natural areas.

#### 2 low impact development (LID)



Bioswales not only treat stormwater, but also provide a pleasant edge to residential streets and give a neighborhood distinctive character (Image from Low Impact Development Handbook, University of Arkansas)



Stormwater treatment planters should be integrated in street and parking lot design wherever possible to reduce utility infrastructure costs and improve the aesthetic appeal of these public areas.



Bioswales in a residential development treat stormwater runoff from the street and sidewalk.



Street trees help intercept rainwater and reduce and delay the amount of rainfall reaching stormwater facilities.



Protected site natural areas can contribute to reducing the impacts of stormwater runoff



Preserving existing trees where possible can significantly enhance the value of new development.



The integration of small "pocket parks" and other flexible open spaces into neighborhoods allows for recreation close to home.



The design and siting of parks and open spaces should complement and give character to the surrounding development and help to create desirable urban form.



Community gardens can provide a greenspace near housing that serves diverse needs and takes advantage of fertile soils.

# 3 integrating natural resources

#### 4 housing types



Example of existing small lot single-family development in Canby



"Cottage"-style housing is an attractive option for single-family development, allowing shared open spaces.



Small lot single-family development with garage tucked behind the unit creates a more attractive street frontage.



Example of large-lot single family development (10,000 sf).



Example of medium-density singlefamily development with reduced size garage and front porch directly facing the street.

#### **Infrastructure Funding Tools**

This section presents a preliminary list of infrastructure funding tools that could be considered for the study area. These tools are important, since it will be challenging to equitably distribute the costs and benefits of development in the study area, given the number of property owners and the wide range of property sizes and levels of access to existing infrastructure.

Reimbursement District. One or more capital improvements are identified by the City or developers, along with the district (area) within which properties benefit from the improvement. All property owners are assessed a pro rata fee that corresponds to the benefits they will enjoy from the improvement(s), typically on a per unit or square foot basis. These "latecomer" reimbursement fees are paid by later developers to the party that initiated the district at the time of project permitting, and are typically in addition to any SDCs owed. Districts can be initiated by either developers or the City.

In this way, a structure can be devised whereby both early- and later-phase developers pay the same amount. The City or early-phase developers pay directly by building and paying for the infrastructure, and later-phase developers reimburse the initial builder.

One drawback to developer-initiated reimbursement districts is that they typically close or "sunset" after 10 to 15 years, after which no further fees can be received, and therefore the entities that pay for the capital improvement cannot be certain that they will be paid back in full; repayment depends on how fast the district develops. Cities can extend reimbursement districts beyond this time frame, and can extend developer-initiated districts.

Models for this type of arrangement is the Coffee Lake Drive Sewer Improvements Reimbursement District formed by the City of Wilsonville in 2012; and a reimbursement district that was formed in advance of the Woodburn Outlet Mall. In the latter case, any development that followed the outlet mall's construction owed a portion of the I-5 interchange improvement costs to the outlet mall's developer.

Local Improvement District (LID). Property owners within a defined district are assessed a fee based on the proportional benefits they receive from the district. This fee is established at inception of the district and may be paid upfront or financed over time. In contrast to a Reimbursement District, property owners must begin paying the fee at the time of district creation, not at the time they permit their property for development. The advantage of this method is considerable additional security such bonds can be issued against future LID revenues; whereas Reimbursement District revenues are too uncertain to support bonds.

LIDs (not to be confused with low impact development) typically require the approval of a majority of the affected property owners in the district via a vote; however, exact implementation procedures are based on City ordinance. Owners benefit from paying costs over time and the City's access to a lower interest rate. See ORS 223.387 for details on LIDs.

Advance Finance District. Similar to LIDs in that the district distributes the cost of infrastructure commensurate with benefit to individual properties. A critical difference is that developer/property owner payments are due at the time of service connection rather than immediately at the time of district formation. According to the City, an Advance Finance District was implemented by the City in order to fund a sewer line in North Redwood Street.

**Development Agreements.** An agreement between the City, one or more developers, and sometimes other parties, that can define a range of roles and responsibilities, including responsibility for infrastructure funding. Development Agreements can address complicated situations in which a series of actions is required from multiple parties. Examples of this type of arrangement include the City of Wilsonville's agreements with the developers of the Villebois Community. The Portland Development Commission (PDC) has used development agreements in numerous projects including Hoyt Street Yards/The Pearl District and South Waterfront. A development agreement could make use of one or more of the other funding tools described here.

Capital Improvement Program. Cities typically maintain multi-year capital improvement programs (CIP), which include prioritized, multi-year list of the transportation, sanitary sewer, water, stormwater, parks, and potentially other infrastructure that will be funded and built. Typically, the CIP includes projects that have a citywide benefit, or a benefit beyond a single local development. CIPs are typically funded from Systems Development Charges (SDCs), as well as General Fund sources, grants and loans, intergovernmental transfers, and other sources. It is possible that one or more improvements in the North Redwood Area could be included in the City's CIP; however, the consultant team is not aware of any improvements within the study area that will have significant benefits beyond the study area itself.

Systems Development Charges. SDCs are assessments made by local governments on new real estate development. SDCs provide a mechanism for local governments to pay for infrastructure needs associated with growth without raising taxes or fees for services. Government entities levy impact fees against developers at the time of development to cover the additional costs to serve the new development. Impact fees typically cannot be used to correct existing deficiencies in public facilities.

While SDCs are important and would be collected as the area develops, they are likely to be directed to the City's CIP and the projects of citywide importance that the CIP funds, rather than projects in the North Redwood area. In most cases, developers would pay SDCs in addition to any of the other district fees described above, if one of those funding districts were implemented.

**Other Funding Tools.** Other funding tools may be available to the City, but are not believed to be well suited for the North Redwood Area. These include:

- Additional Government Grants and Loans. No known grant or loan programs are suitable for the infrastructure required in the North Redwood area.
- Urban Renewal/Tax Increment Financing. The creation of a new urban renewal district is time consuming; may require support from

- other taxing jurisdictions such as the County and School District; and is usually associated with special areas where development serves a larger public goal, such as downtowns and waterfront areas.
- County Service District (e.g. Road District). An area-specific tax levy can be assigned to an area in order to fund needed infrastructure. This has been used in large areas that are planned for new residential and commercial development, particularly the North Bethany area in Washington County. However, a service district requires voter approval, and the creation of a new political body to manage the district. Such a new taxing district may have an impact on the funds generated by other overlapping taxing districts, if all levies combined exceed Measure 5 limits. This issue would need to be analyzed in more detail if this funding option is selected.

end





LANDSCAPE ARCHITECTURE

URBAN DESIGN

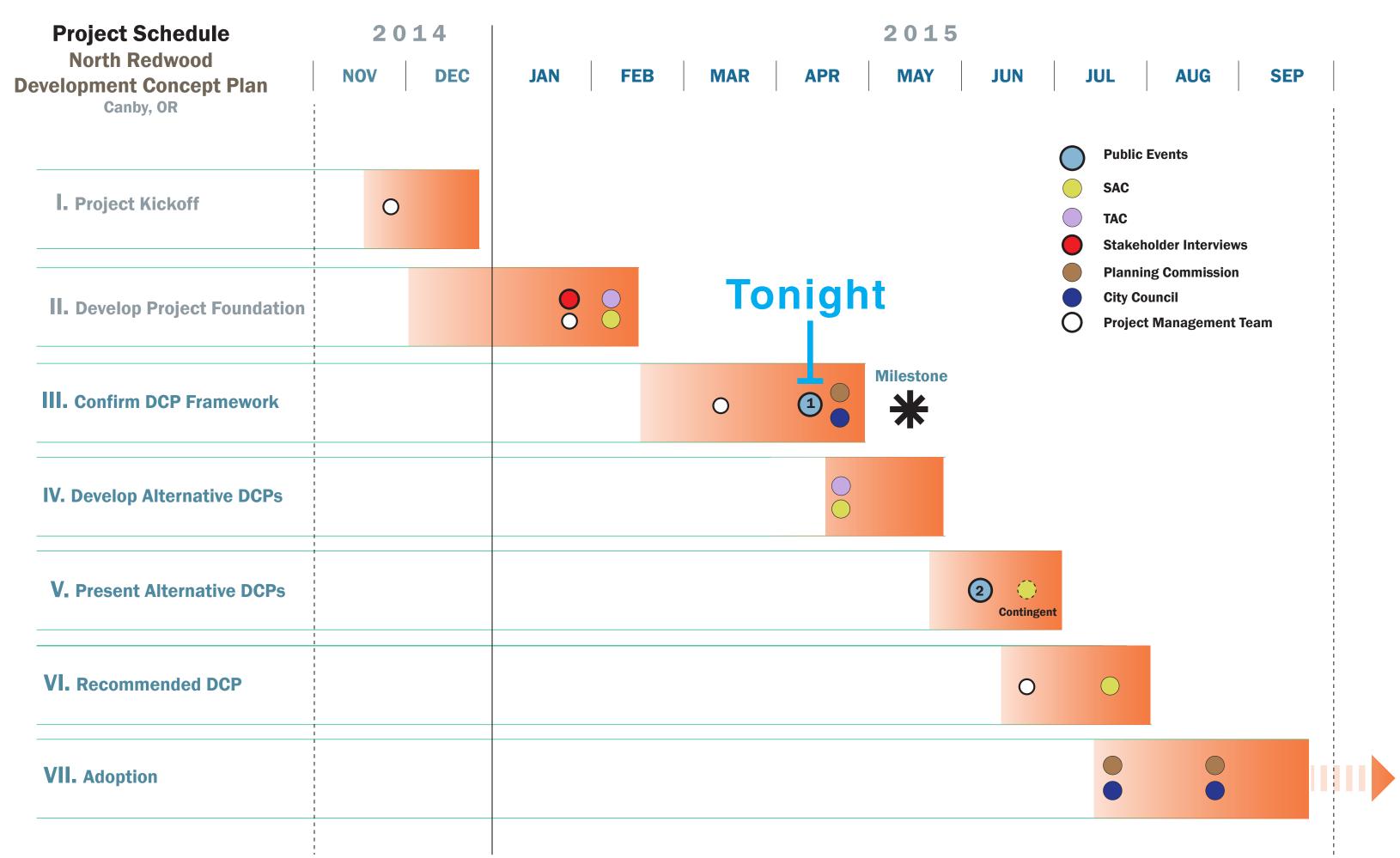
PLANNING



# Mayor's Welcome & Introductions

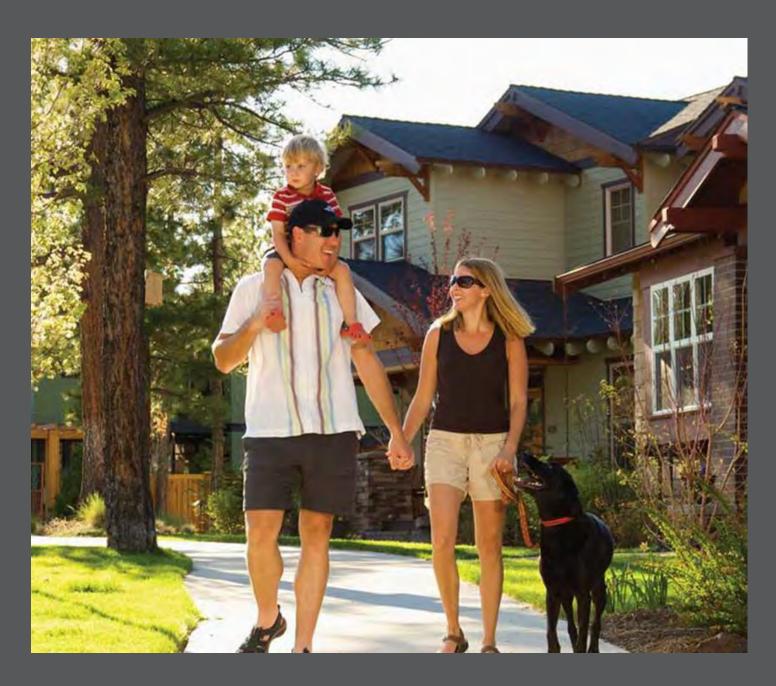
- Canby Vision
- What is a DCP
- Annexation Process

come to



#### **Concept Plan Criteria**

- 1. Integrated with existing city fabric of Canby
- 2. A walkable, cohesive neighborhood
- 3. All parcels integrated in plan
- 4. Distribute impacts equitably to individual parcels
- 5. Allow for different owners' timing of development
- 6. Reasonable costs of infrastructure and roads
- 7. Clear, connected and safe streets
- 8. Transit-friendly
- 9. Emergency access
- 10. Connect trails to natural areas
- 11. Protect Willow Creek
- 12. Public, accessible parks
- 13. Innovative land planning
- 14. Meet regulations





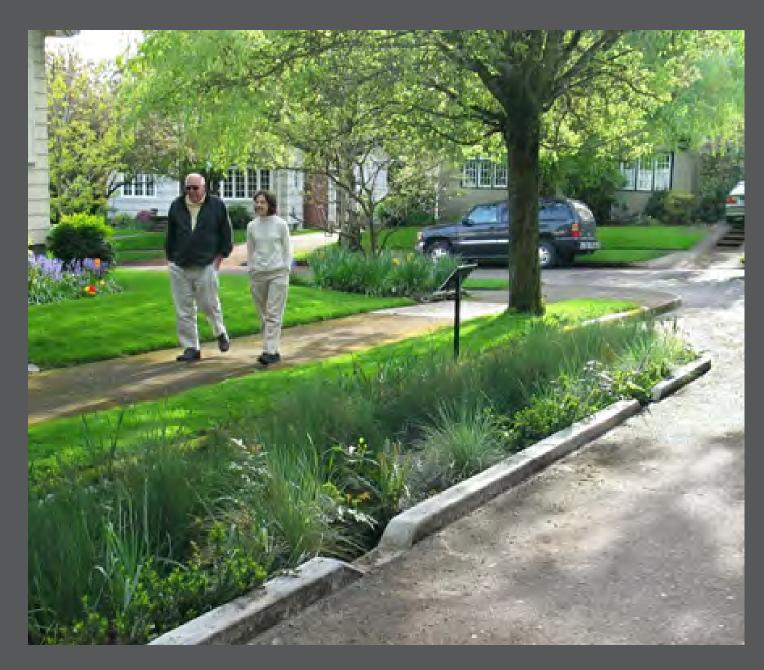
Walkable



**Disconnected** 



**Connected and Safe** 



**Integrated Stormwater Treatment** 



Access to Open Space & Nature



**Trees Enhance Livability** 



Sense of Community



**Integrated Parks** 







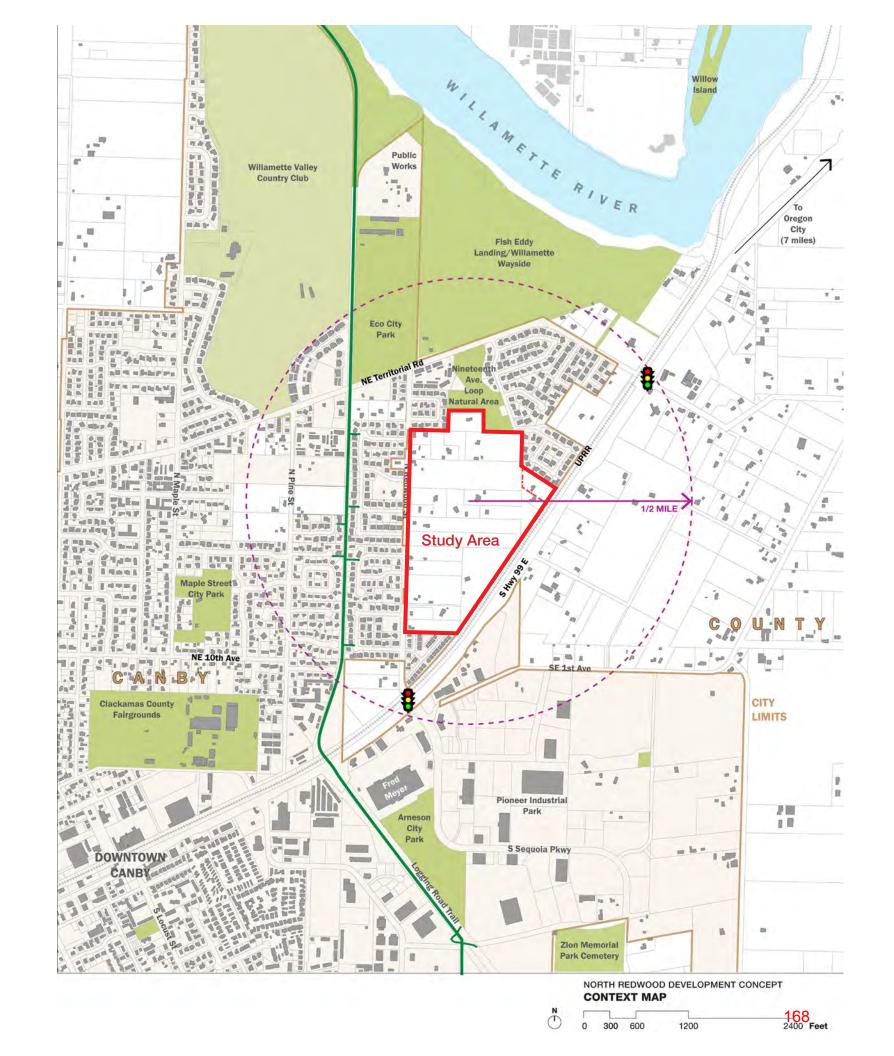


**Provide Housing Choices** 

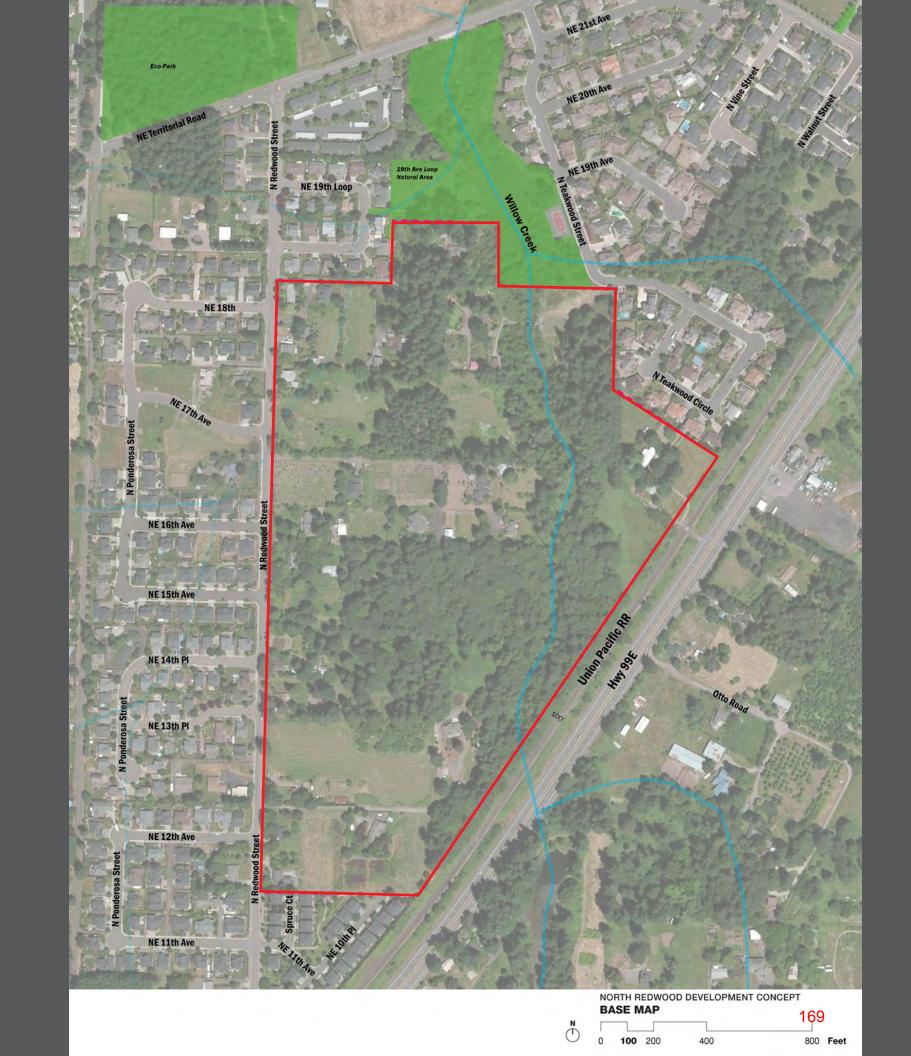
#### Context





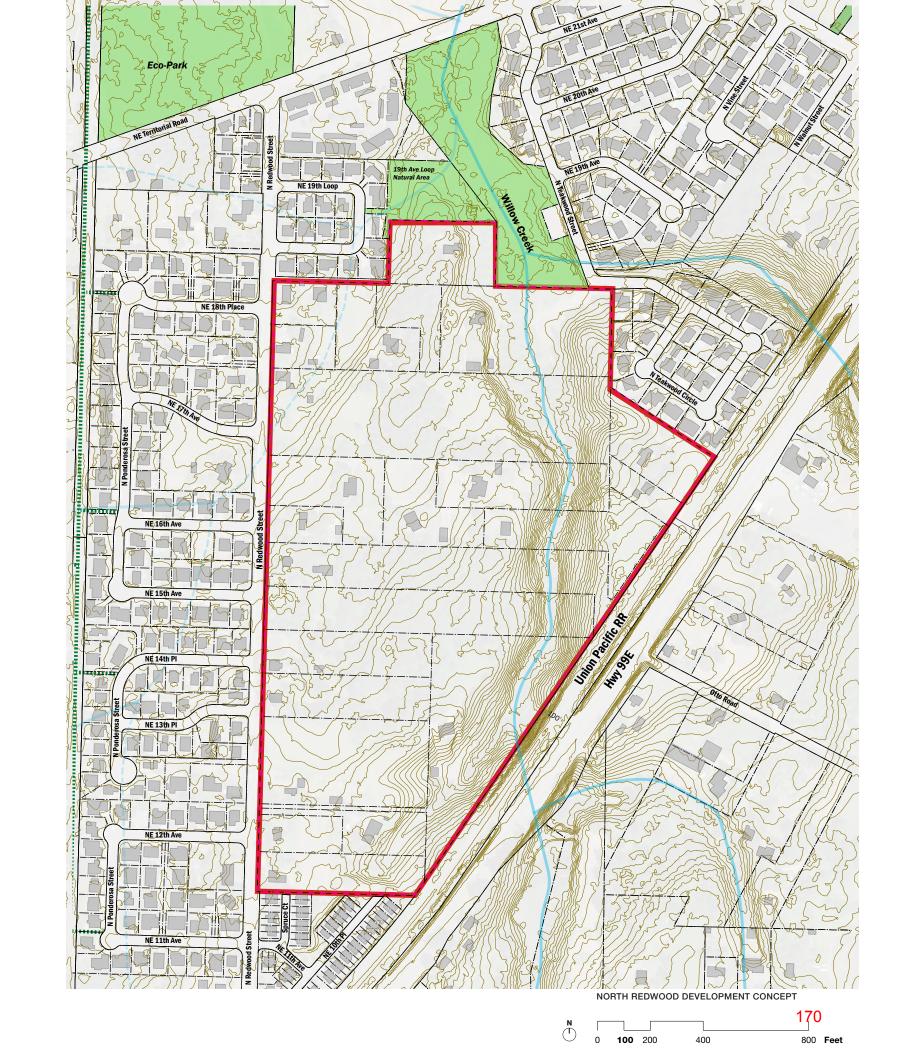


# **Study Area**



# **Property Owners**

23 taxlots18 owners







# **Site Character**





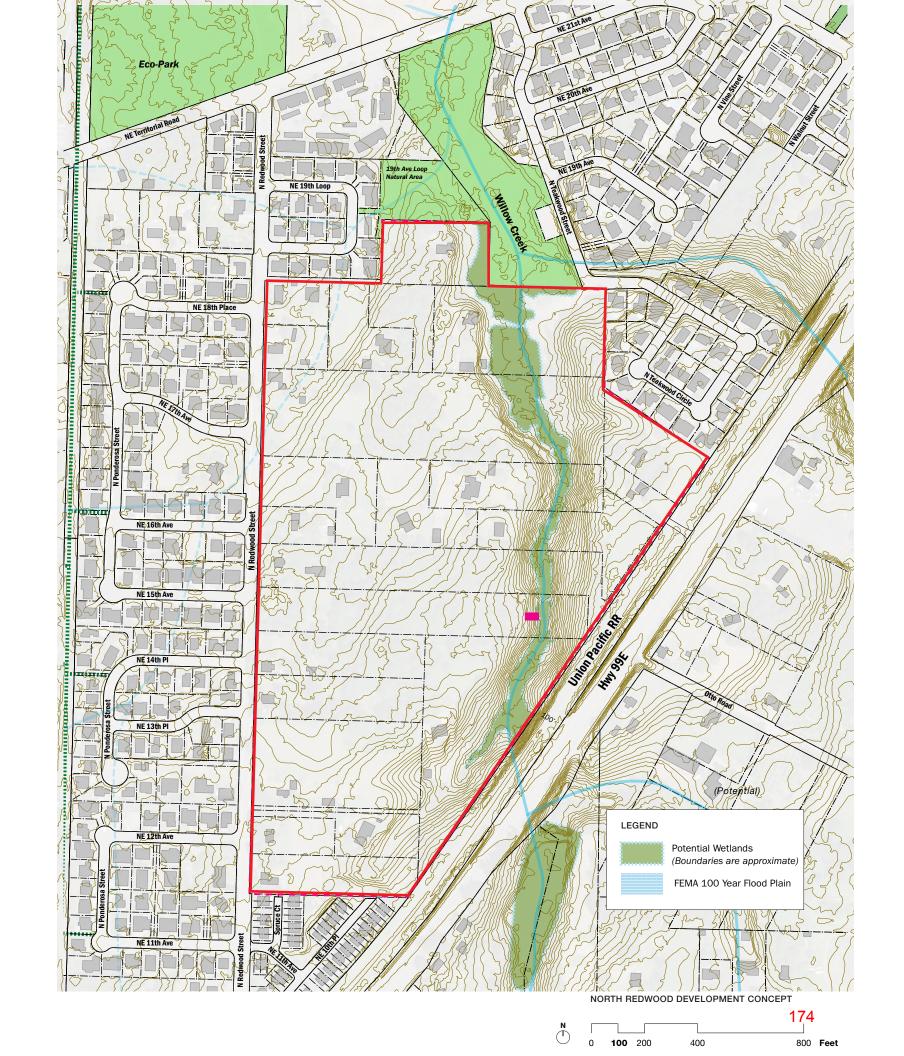




#### **Natural Conditions**

Reconnaissance-level review

- Willow Creek ponding, poorlydefined channel
- Springs and seeps
- Well-drained soils
- Water quality relatively high, well vegetated slopes in the watershed
- Habitat quality moderately high
- Riparian understory infested with ivy, threat to habitat and trees
- Reed canarygrass in wetlands



## **Natural Conditions**



Invasive Ivy in Willow Creek area



Mixed Forest next to Willow Creek



Willow Creek



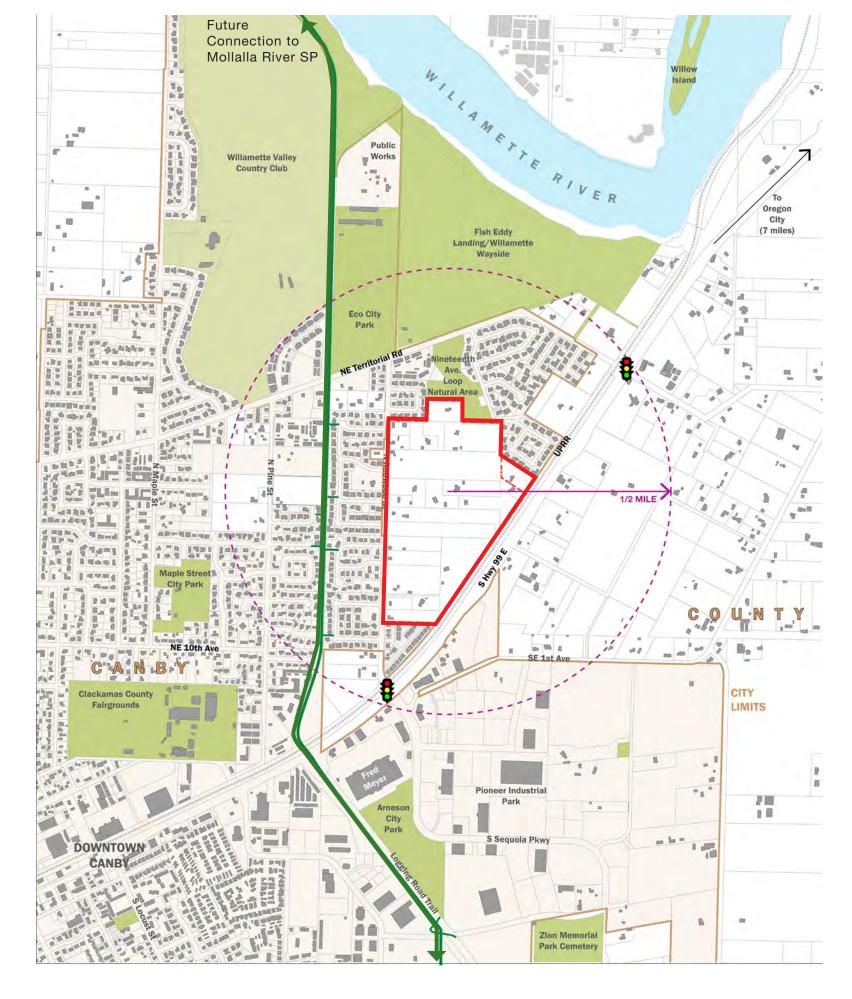
19th Avenue Natural Area (with invasive canarygrass)

#### **Parks & Trails**





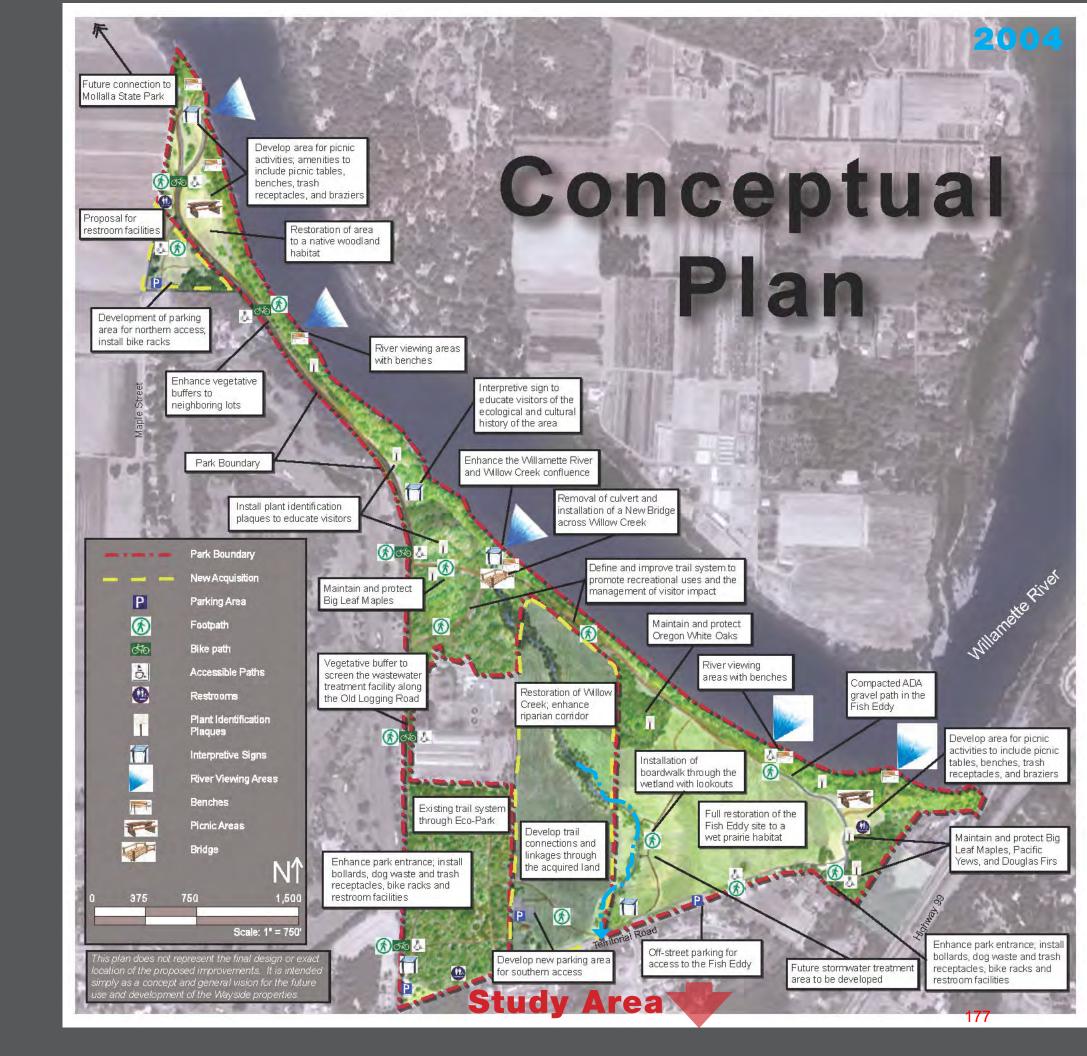




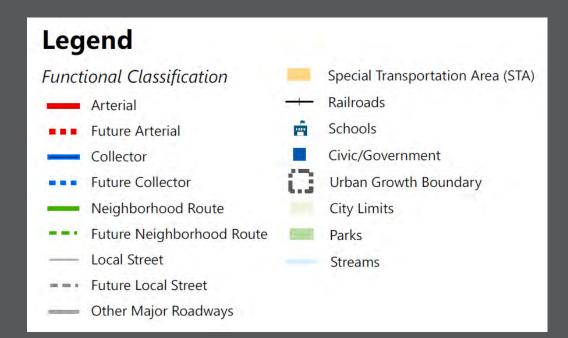
# Willamette Wayside







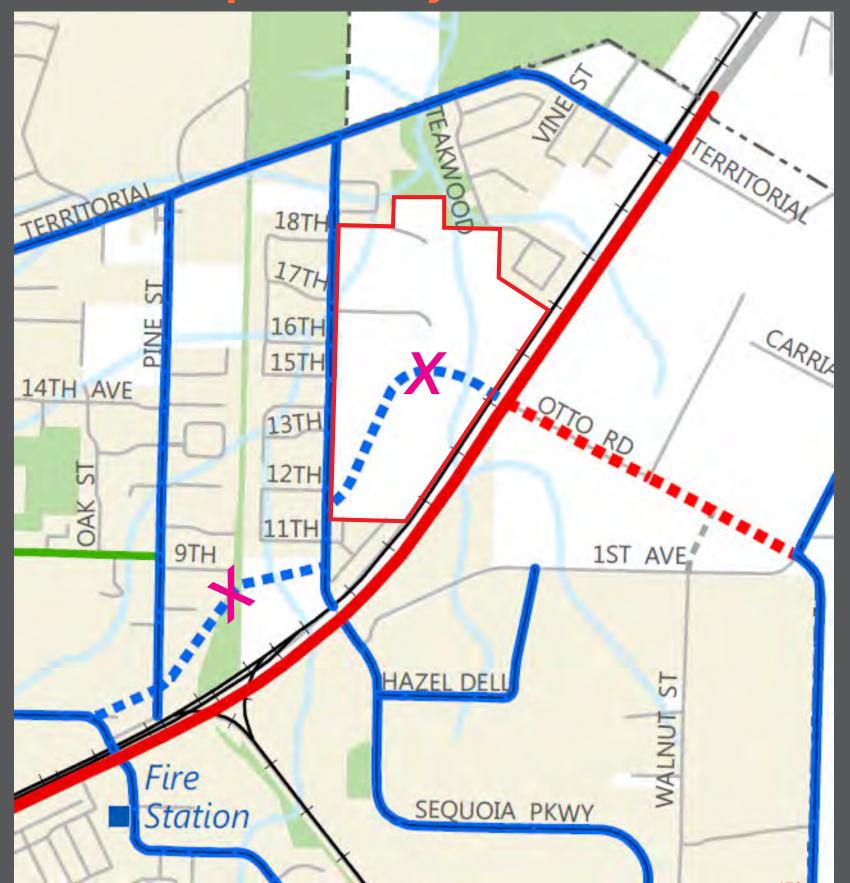
#### **Transportation**



#### **Otto Road**

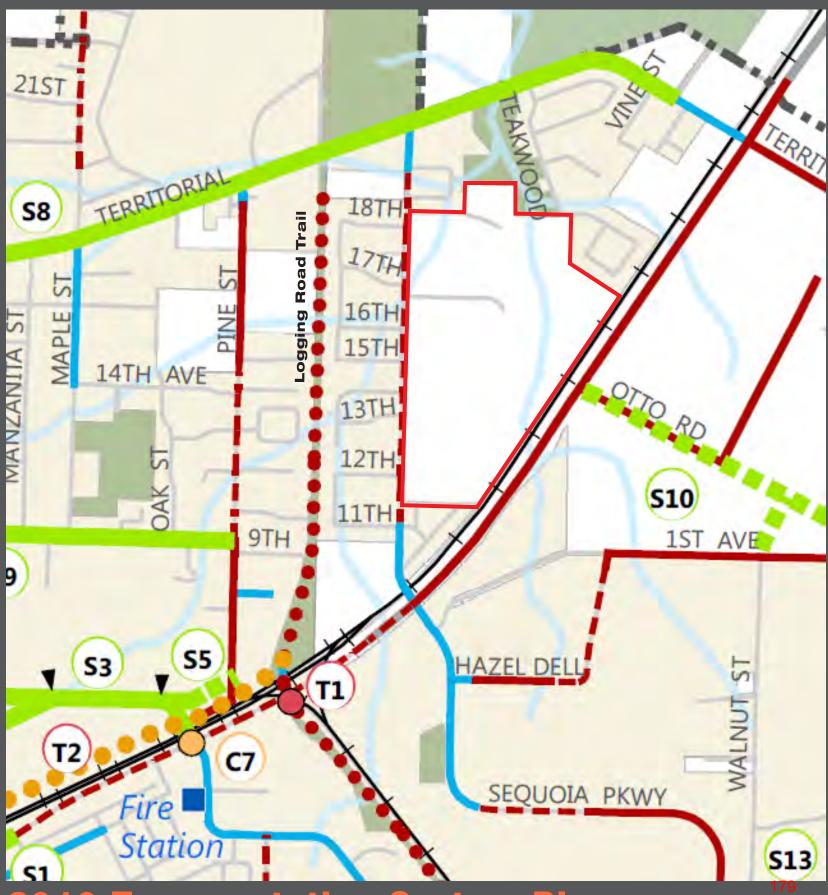


#### 2010 Transportation System Plan



#### **Bike/Ped Transportation**





2010 Transportation System Plan

#### **Potential Connections**

grid. Not all connections will be required. TSP suggests minimum spacing of pedestrian and bicycle connections at roughly 300', and of vehicle connections at 600', depending on site conditions.



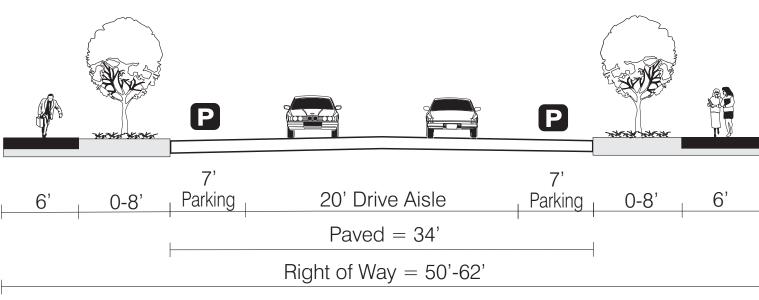
#### **Street Design**

#### N Redwood St Sidewalks (Collector)

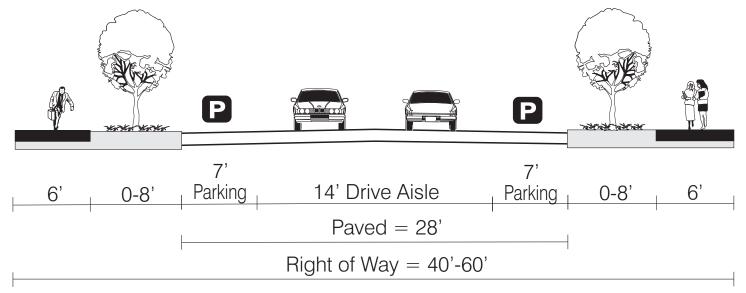


- N Redwood: collector street standards apply
- Internal streets: local street standards apply

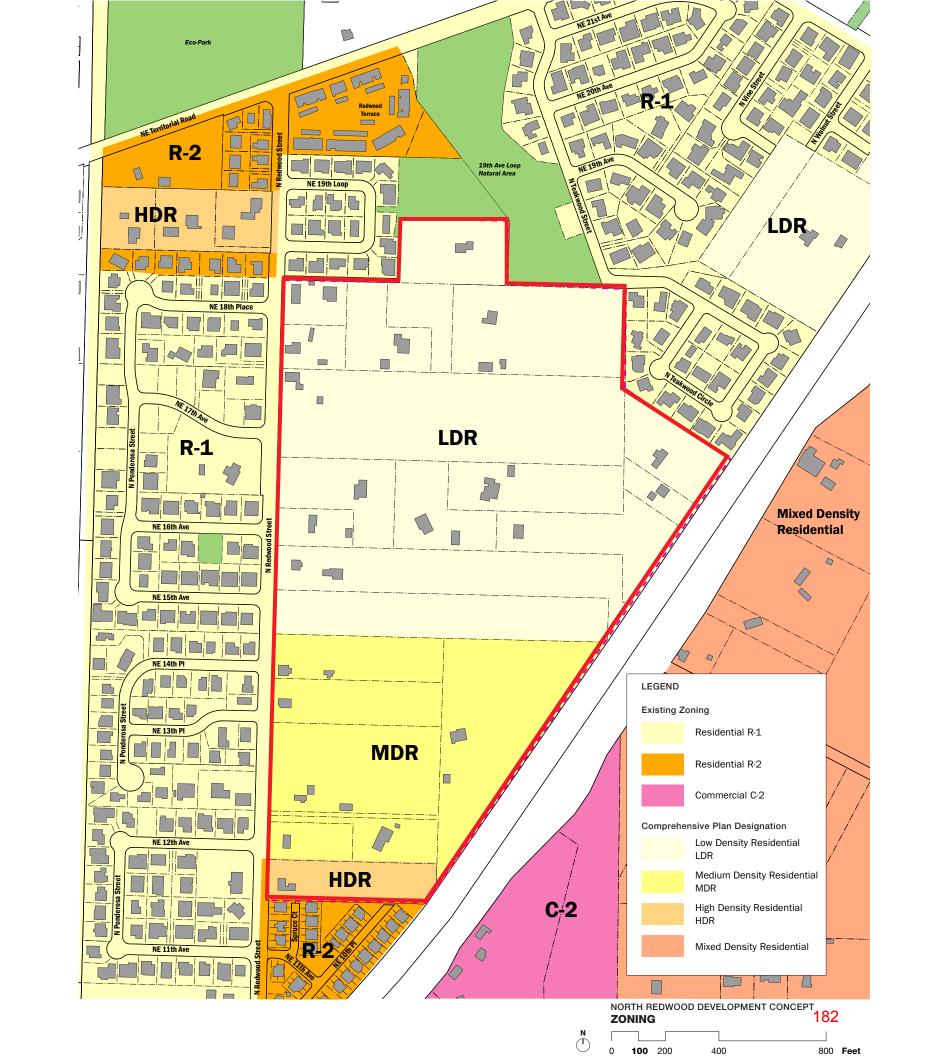
#### STANDARD LOCAL STREET



#### LOW-VOLUME LOCAL STREET (<500 Vehicles Per Day)



#### Zoning



## Potential Funding Mechanisms

How to equitably distribute the costs and benefits, so that no single property owner bears too much of the burden without receiving some of the benefits?

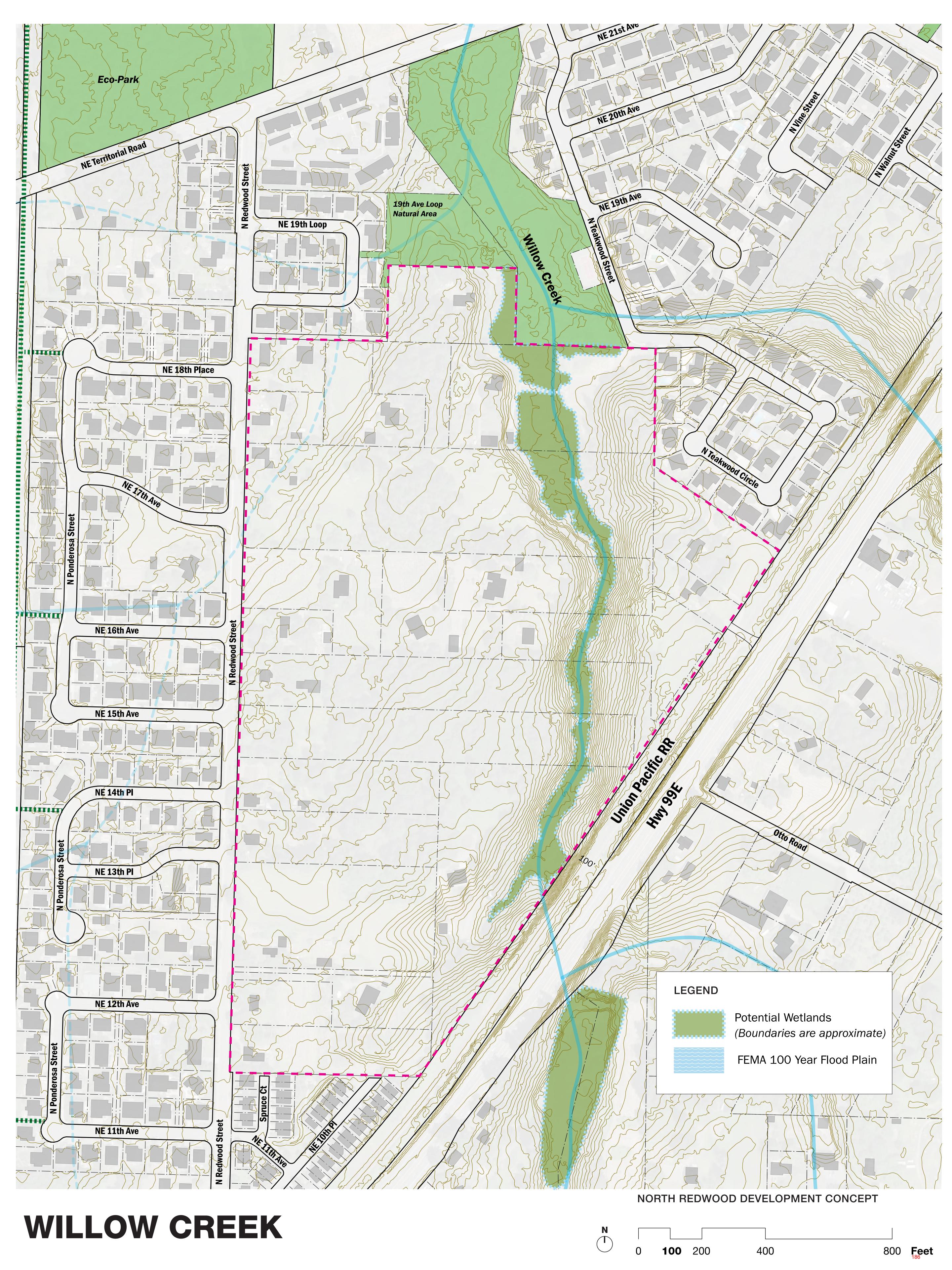
#### Potential funding mechanisms to be explored:

- Reimbursement District
- Advance Finance District
- SDCs and SDC credits
- Capital Improvement Program (CIP)
- Local Improvement District (LID)
- Transfer of Development Rights (TDR)



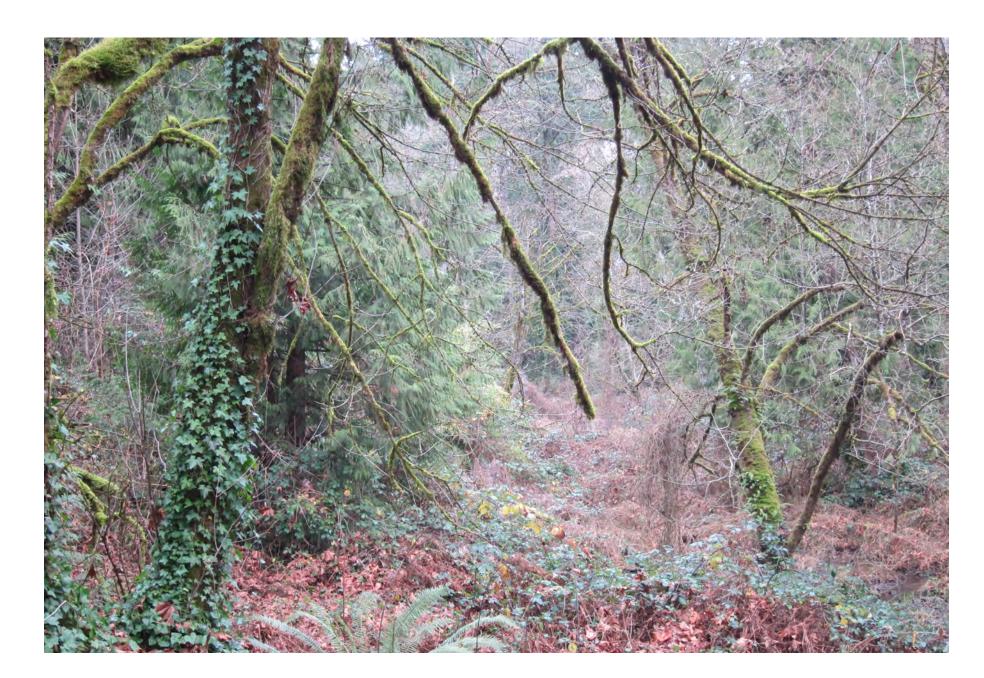
http://www.ci.canby.or.us/N\_Redwood/north\_redwood\_plan.htm

# CONTACT: Senior Planner Matilda Deas 503-266-0723











# WILLOW CREEK



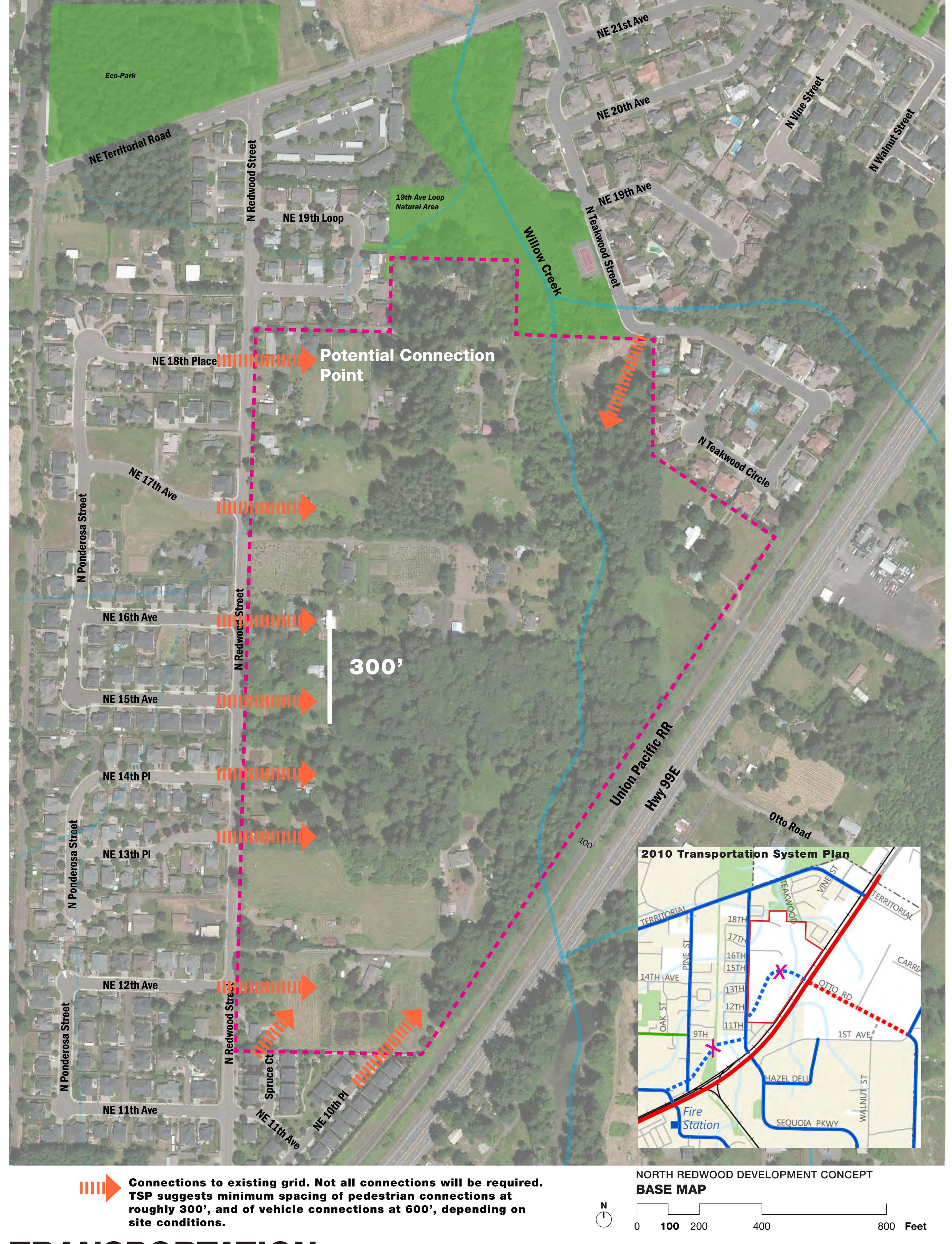


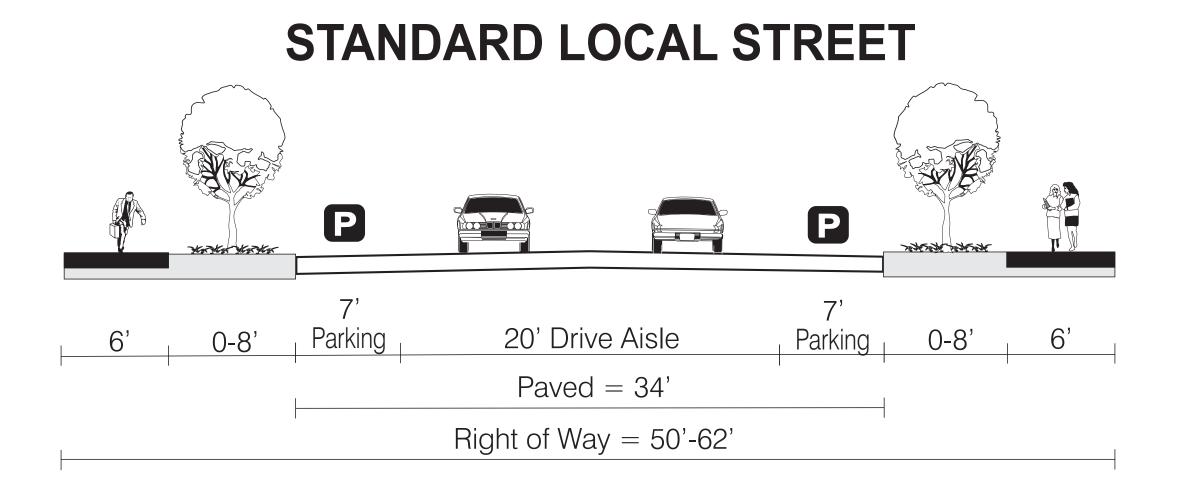




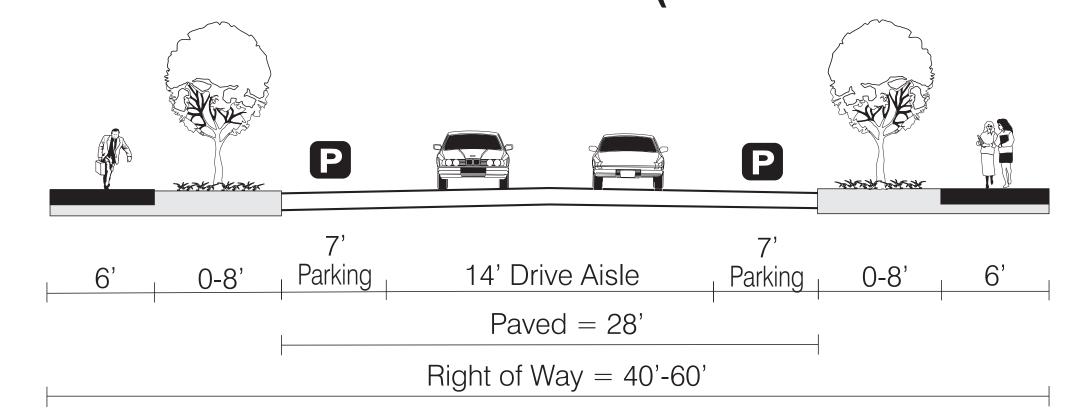








## LOW-VOLUME LOCAL STREET (<500 Vehicles Per Day)

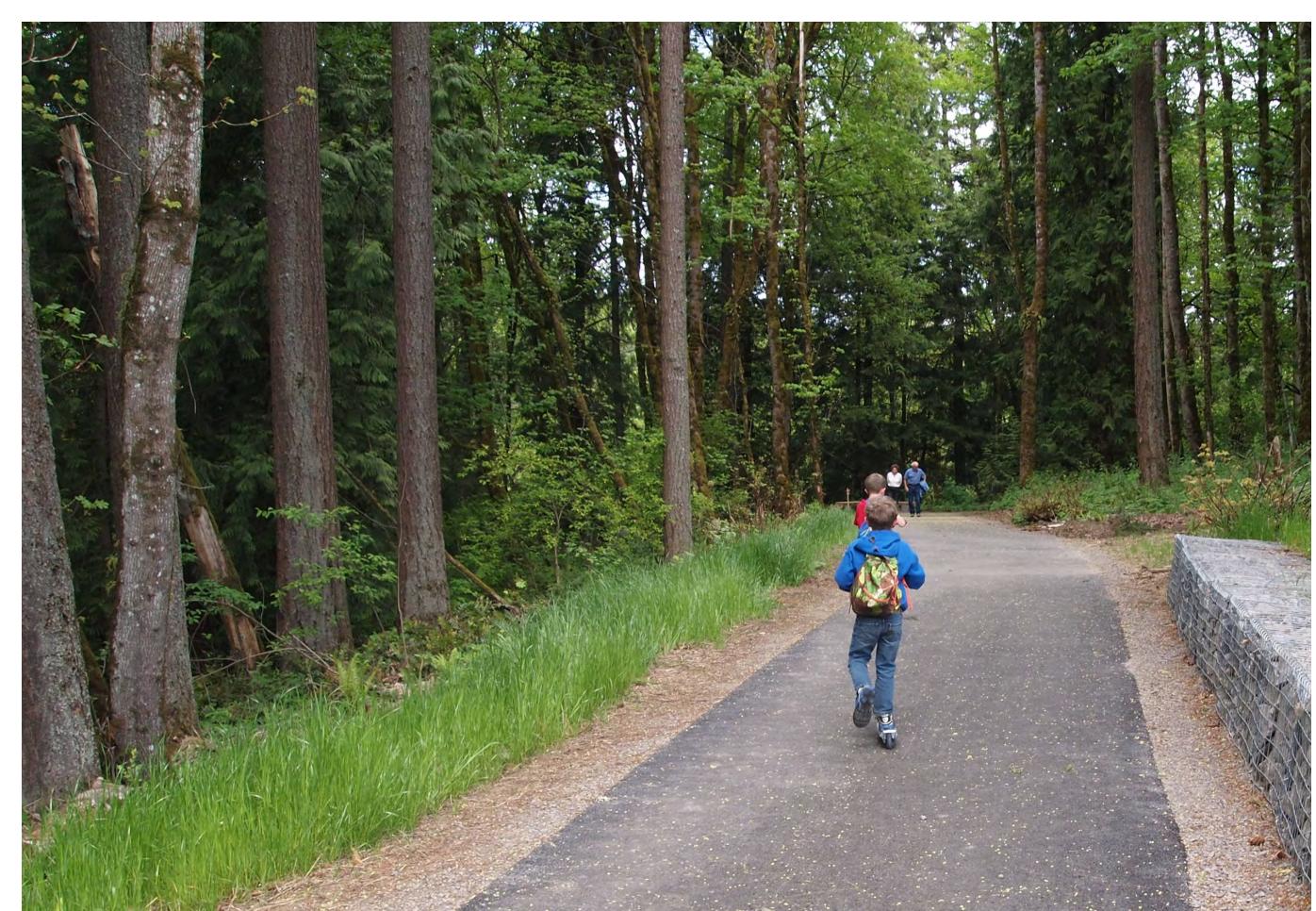












# STREETS & TRAILS













# LOW IMPACT DEVELOPMENT

# North Redwood Development Concept Plan

#### **Project Purpose**

The North Redwood Development Concept Plan will provide a preferred alternative for development of this site with multiple property owners. The project will develop conceptual infrastructure and financing options for achieving urban housing densities while protecting the site's natural resources.

#### **Project Study Area**

The Project Study Area is 66 acres and is bounded by OR99E and the Union Pacific Railroad on the east and south, NE Territorial Road on the north, and N Redwood Street on the west (see map on back). The Project Study Area consists of 23 tax lots, varying in size between one and ten acres with 18 property owners, including a single family that owns 7 lots.

#### Zoning

The Project Study Area's current zoning is Rural Residential Farm Forest 5-Acre District (RRFF-5) governed by Clackamas County. The Project Study Area is located in unincorporated Clackamas County inside the Canby Urban Growth Boundary and is within the boundaries of a DCP area (Development Concept Plan area). **Upon voter approved and owner-requested annexation**, developments located within a designated DCP area are required to have a DCP adopted by the City Council prior to granting a change to city zoning.

#### **Natural Resources**

The Project Study Area has significant natural resources including Willow Creek, a year-round flowing creek that empties a mile north into the Willamette River. Willow Creek is a designated Goal 5 resource. It is anticipated that Willow Creek will receive some of the Project Study Area's storm water runoff and carry it to the future, City owned tertiary wetland storm water facility to the north. It is anticipated that protection of the Creek would occur as part of the mandatory park land dedication provision under City code.

### **Project Objectives**

#### To develop a DCP that:

- Identifies a mix of residential uses and densities that complement the existing character of the surrounding area;
- Identifies a comprehensive multi-modal transportation network and circulation plan that provides connections to the existing transportation system and promotes alternative modes of transportation;
- Identifies infrastructure to serve future development and provides mechanisms for an equitable distribution of cost among property owners in the Project Study Area;
- Protects the significant natural resources in the Project Study
   Area while providing for storm water management and recreational amenities;
- Includes a financing plan focusing on the provision of public infrastructure, including phased development strategies

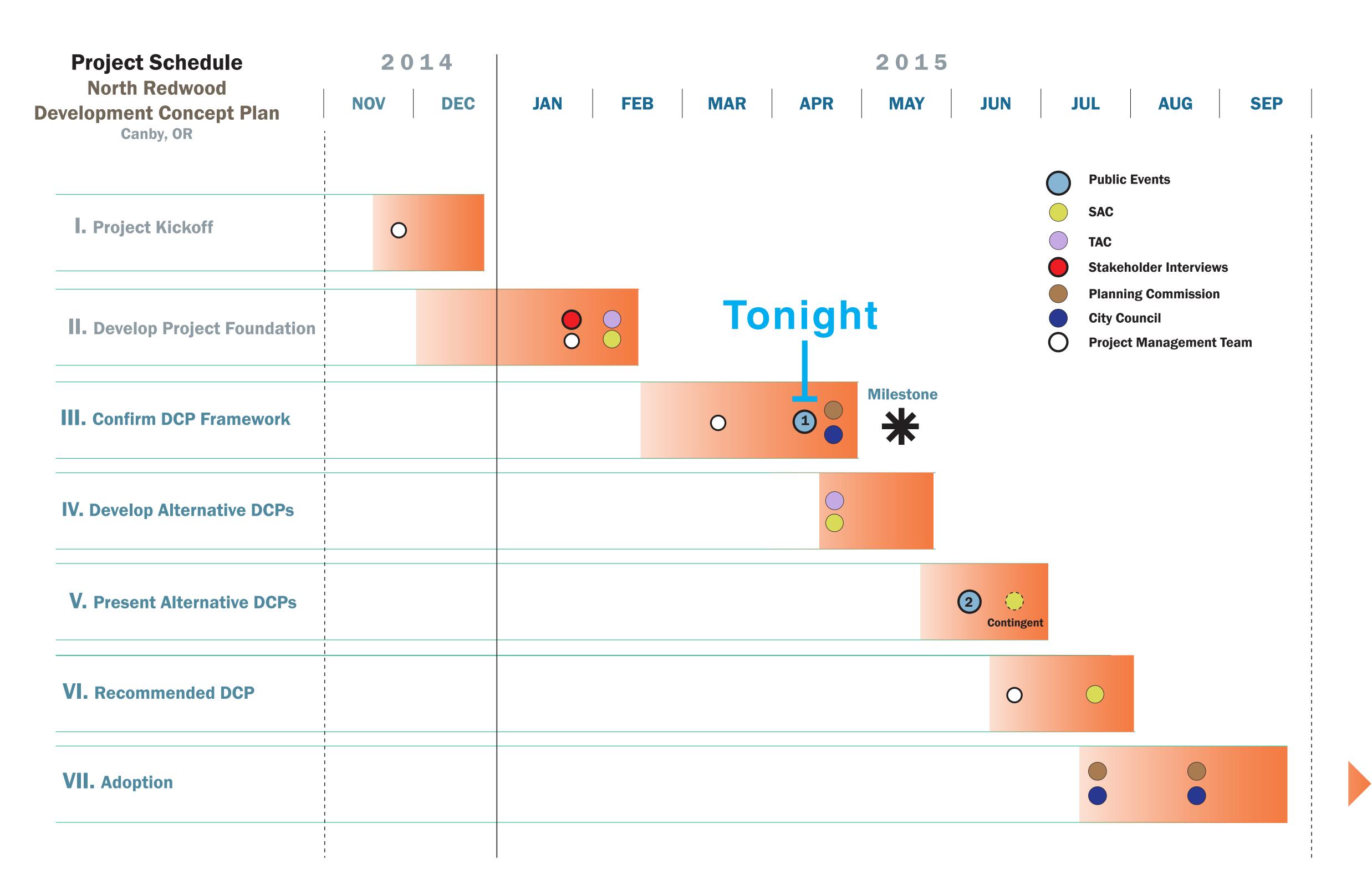
#### **Public Involvement**

The Public Involvement process for North Redwood will allow the community an opportunity to provide input into the planning process. Meaningful involvement means that:

- Potentially affected community residents have an appropriate opportunity to participate in decisions about a proposed activity that will affect their environment and/or health;
- The public's contribution can influence the regulatory agency's decision;
- The concerns of all participants involved will be considered in the decision making process; and
- The decision makers seek out and facilitate the involvement of those potentially affected.

Upcoming Meetings

City Council Briefing, April 15th Stakeholder Advisory Committee Meeting #2, April 27th Open House #2, June 2015 (tbd)





Project Schedule  North Redwood  Development Concept Plan  Canby, OR  2 0 1 4  NOV  DEC	2015           JAN         FEB         MAR         APR         MAY         JUN         JUL         AUG         SEP	
I. Project Kickoff  O  II. Develop Project Foundation	Public Events  SAC  TAC  Stakeholder Interviews  Planning Commission  City Council  Project Management Team	
III. Confirm DCP Framework	Milestone  ***********************************	
IV. Develop Alternative DCPs	Today	
V. Present Alternative DCPs	Contingent	
VI. Recommended DCP	0	
VII. Adoption		
		1

#### **Committee Rules**

#### **SAC** members:

- Share the available speaking time so that all SAC members can be heard
- Be respectful of a range of opinions
- Focus on successfully completing the agenda
- Avoid side discussions when others are speaking
- Strive for consensus

#### **Study Area**



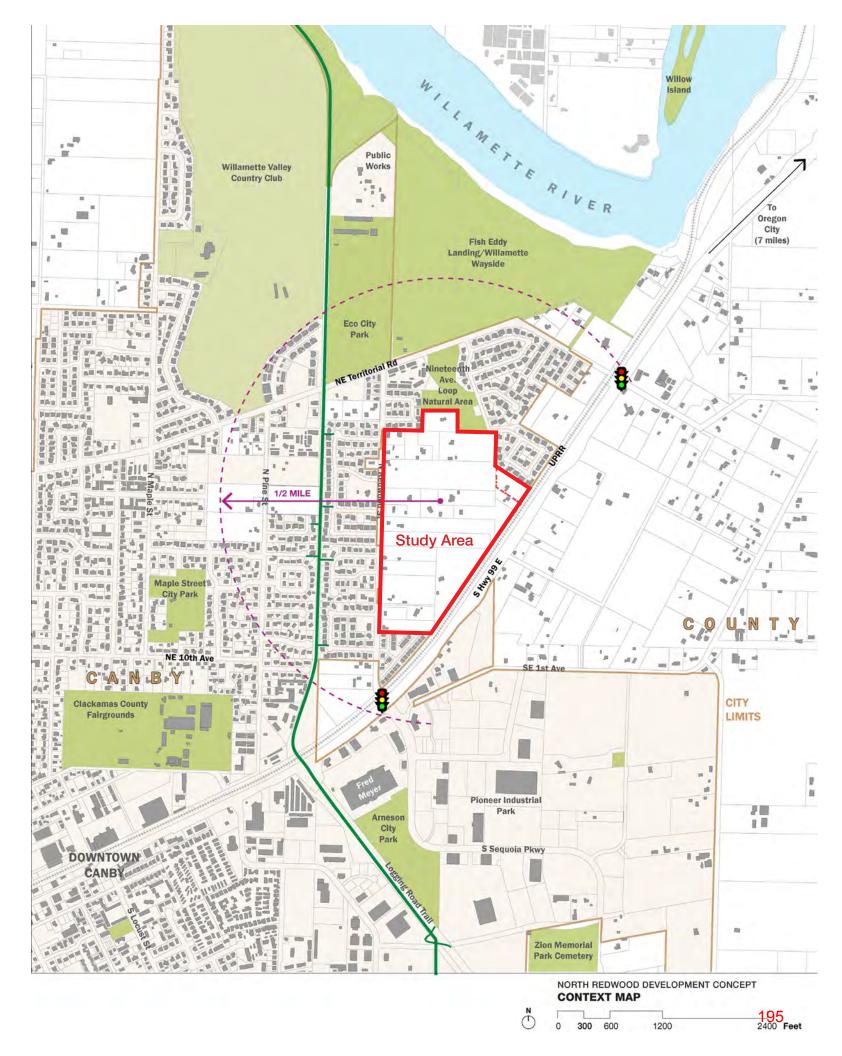






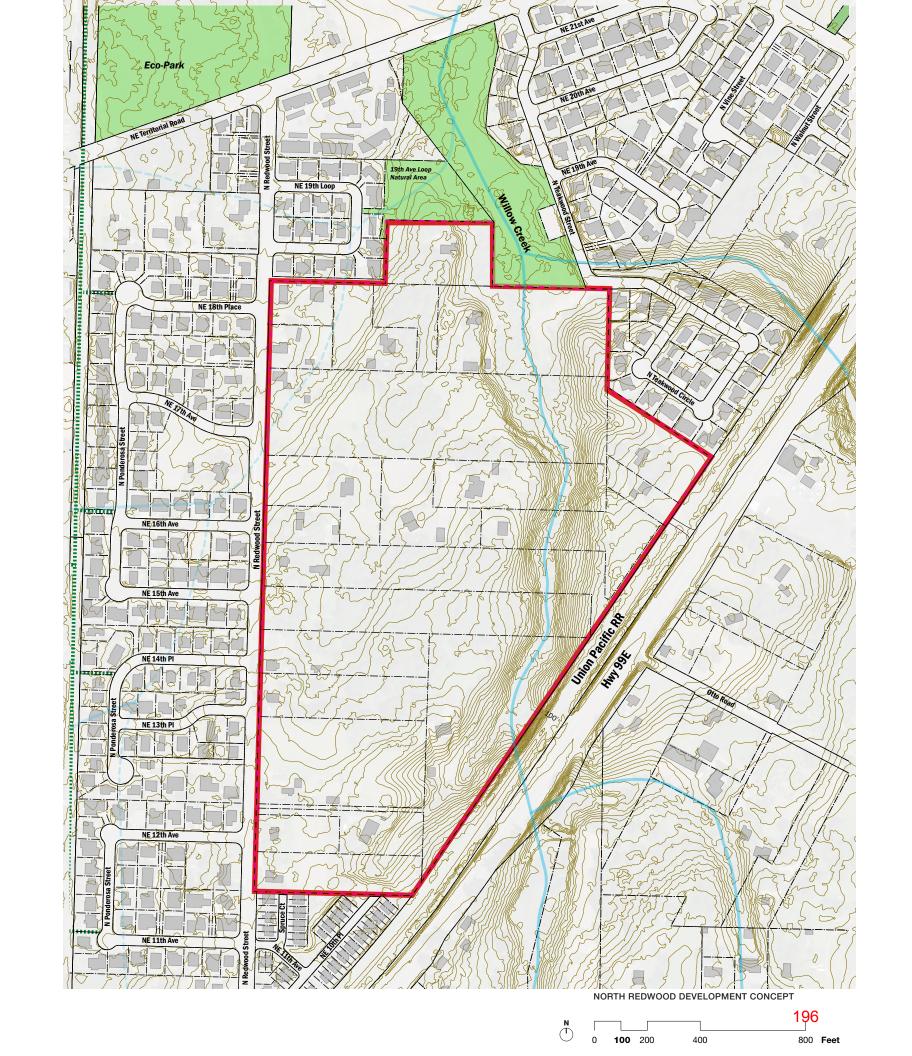






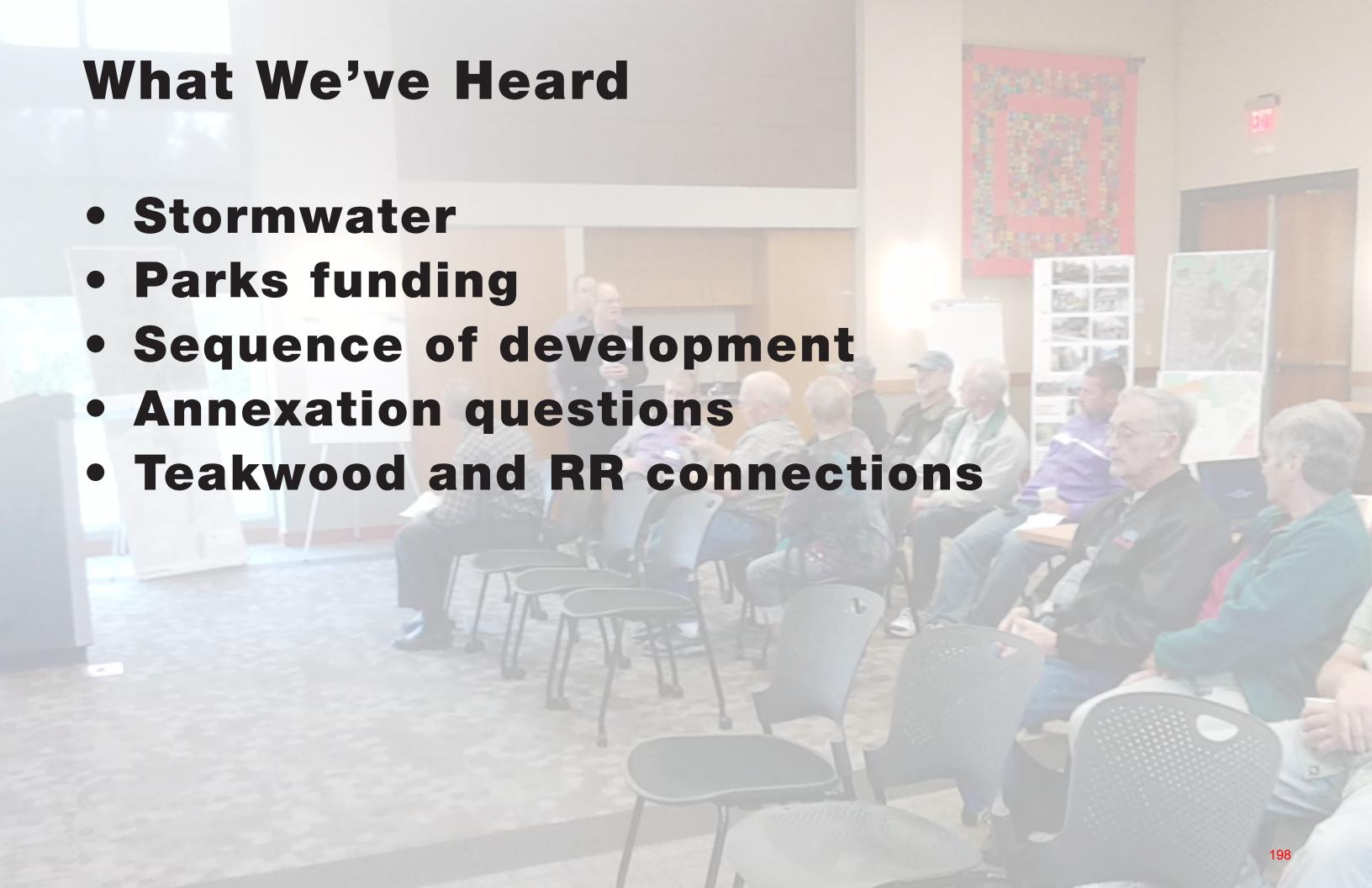
#### **Property Ownership**

23 taxlots18 owners66 acres



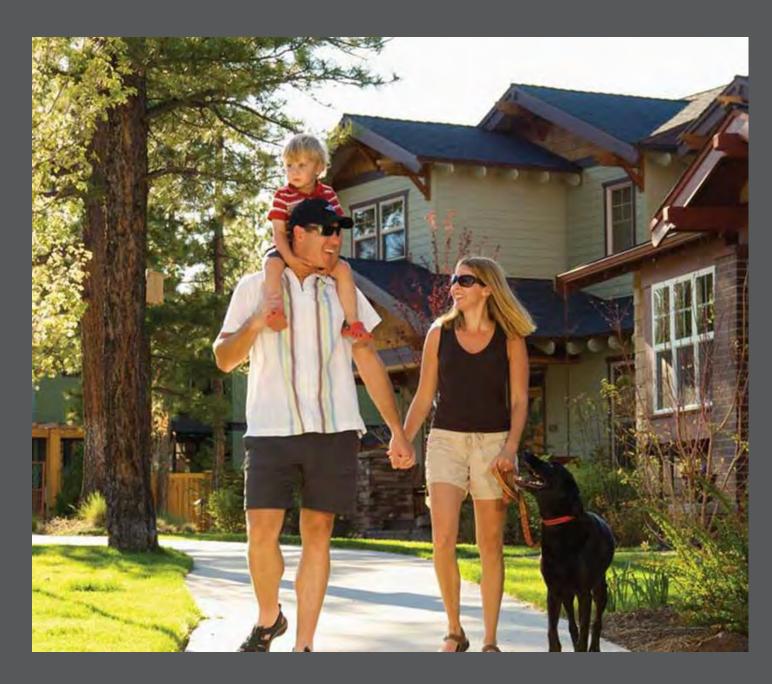
## What's Happened So Far

- Existing Conditions Inventory
- Best Development Practice Analysis
- Stakeholder Interviews
- TAC and SAC #1 (Feb 9)
- Public Event #1 (Apr 14)
- City Council/Planning Commission (Apr 15)



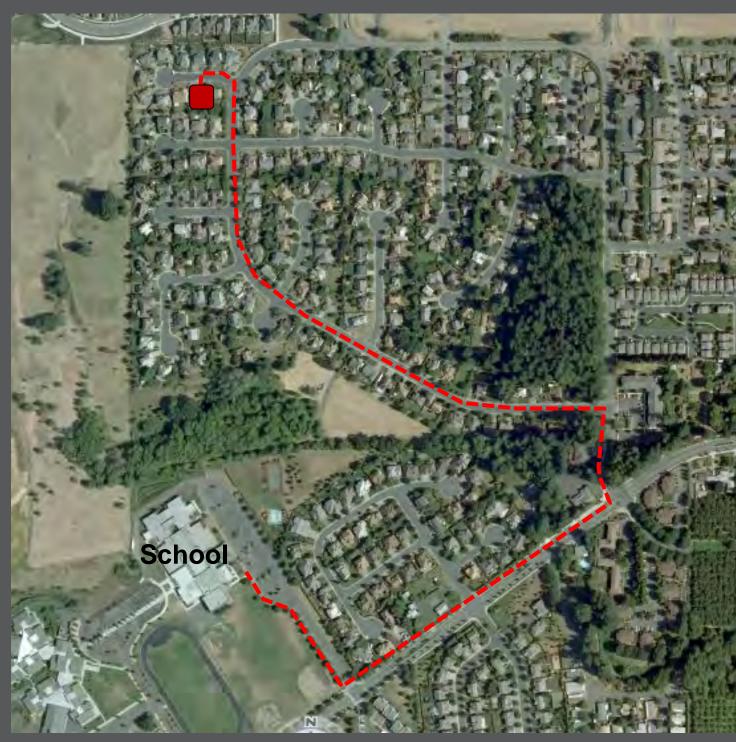
#### **Concept Plan Criteria**

- 1. Integrated with existing city fabric of Canby
- 2. A walkable, cohesive neighborhood
- 3. All parcels integrated in plan
- 4. Distribute impacts equitably to individual parcels
- 5. Allow for different owners' timing of development
- 6. Reasonable costs of infrastructure and roads
- 7. Clear, connected and safe streets
- 8. Transit-friendly
- 9. Emergency access
- 10. Connect trails to natural areas
- 11. Protect Willow Creek
- 12. Public, accessible parks
- 13. Innovative land planning
- 14. Meet regulations





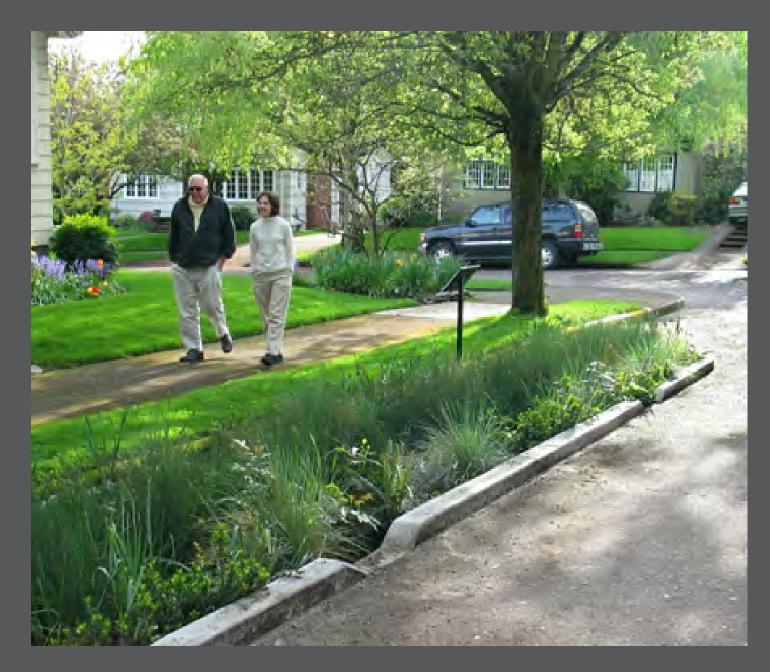
Walkable



**Disconnected** 



**Connected and Safe** 



**Integrated Stormwater Treatment** 



Access to Open Space & Nature



**Trees Enhance Livability** 



**Sense of Community** 



**Integrated Parks** 







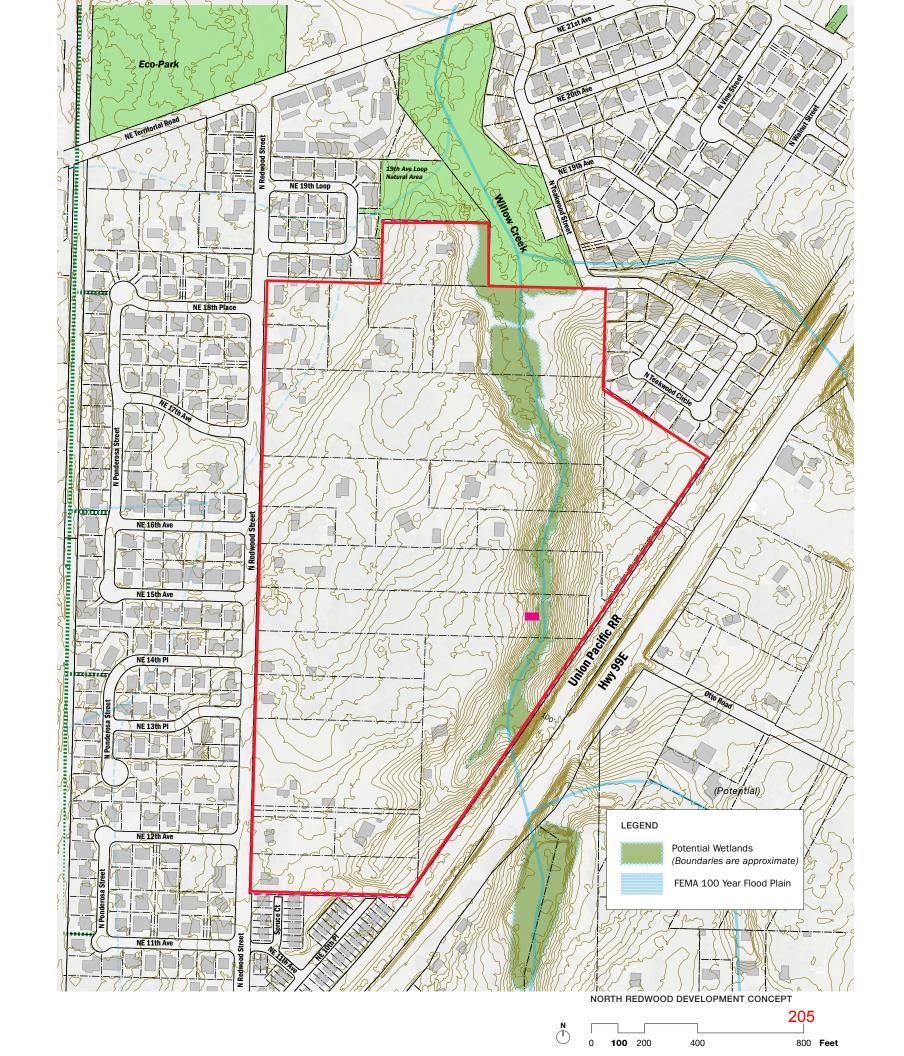


**Provide Housing Choices** 

#### **Natural Conditions**

Reconnaissance-level review

- Willow Creek ponding, poorlydefined channel
- Springs and seeps
- Well-drained soils
- Water quality relatively high, well vegetated slopes in the watershed
- Habitat quality moderately high
- Riparian understory infested with ivy, threat to habitat and trees
- Reed canarygrass in wetlands
- Recommend ODFW involvement



# **Environmental Factors**



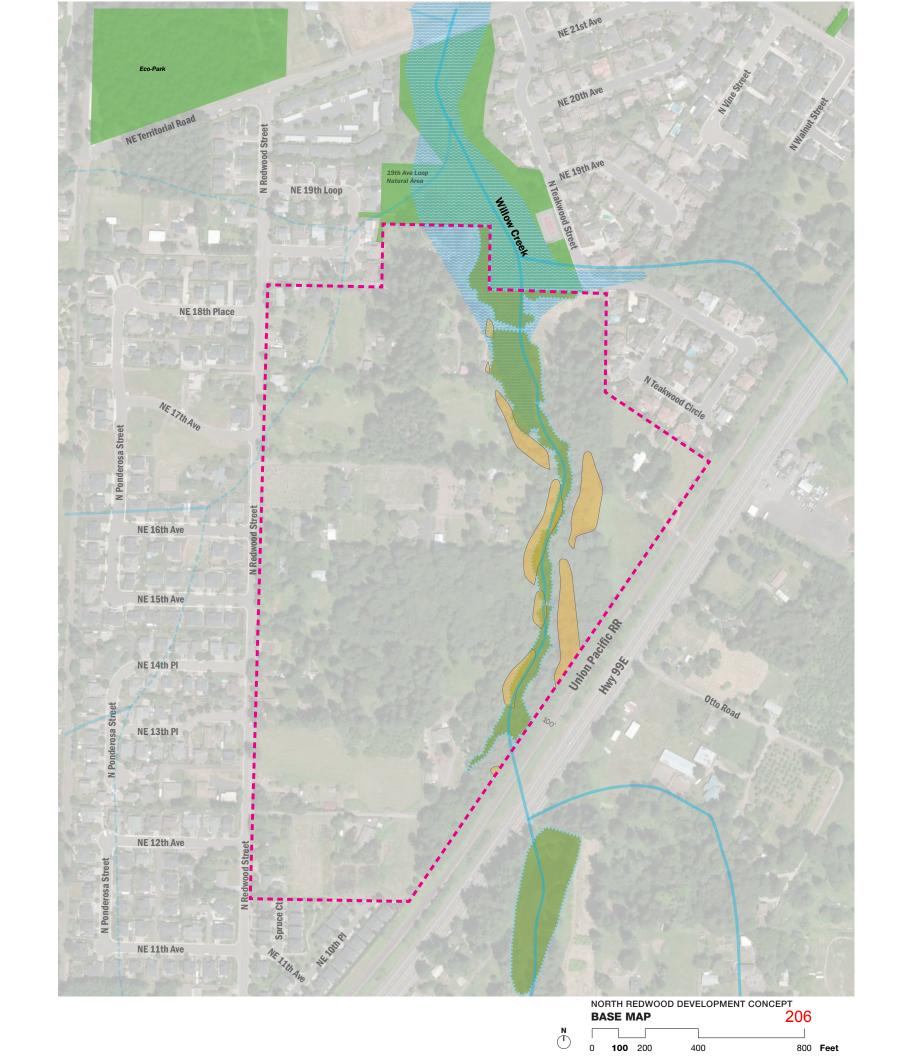
~2.6 ac

Wetland

~3 ac

FEMA 100-yr Flood (not incl wetland)

~3 ac



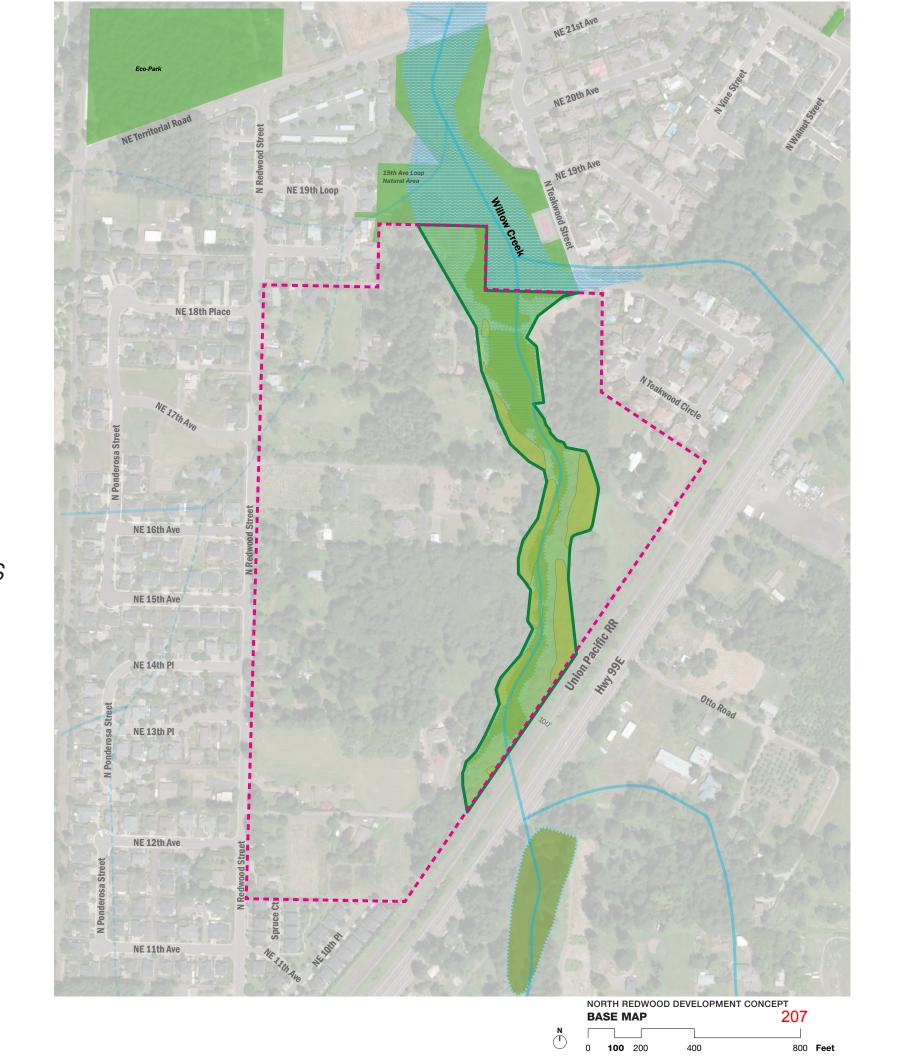
# **Environmental Factors**



Combined
Willow Creek
Environmental Areas

(includes lowland areas adjacent to wetlands. No setbacks assumed yet but this area is approx 50' setback)

~9.2 ac



#### Park Formula

# (Maximum units in a plat) x (persons/unit) x 0.01 (acreage to be dedicated)

```
LDR/R-1: 36.3 ac (total acres minus streets)
36.3 ac / 7000 sf minimum lot size = 226 units
226 x 2.7 people per unit = 610
610 \times 0.01 = 6.1 \text{ park acres.}
MDR/ R1.5: 15 ac (total acres minus streets)
15 ac / 5000 sf minimum lot size = 131 units
131 x 2.7 people per unit = 353
353 \times 0.01 = 3.5 \text{ park acres.}
HDR R-2: 1.8 ac (total acres minus streets)
1.8 ac / 3000 sf minimum lot size = 26 lots
28 x 2.7 people per unit = 71
58 \times 0.01 = 0.7 park acres.
```

#### POTENTIAL PARK ACREAGE: 10.3 acres

## Canby - Traditional Block



## West of N Redwood - Typical Block

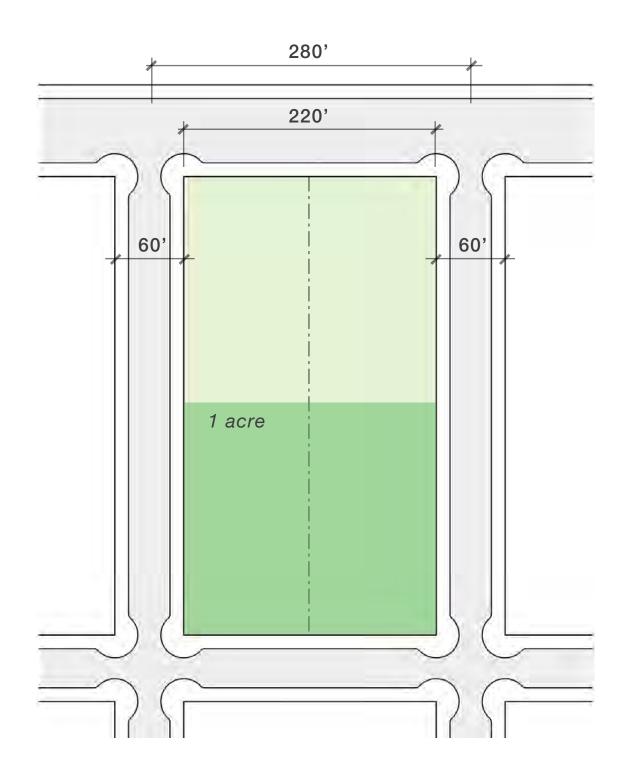


400'

## New Community - 280' blocks

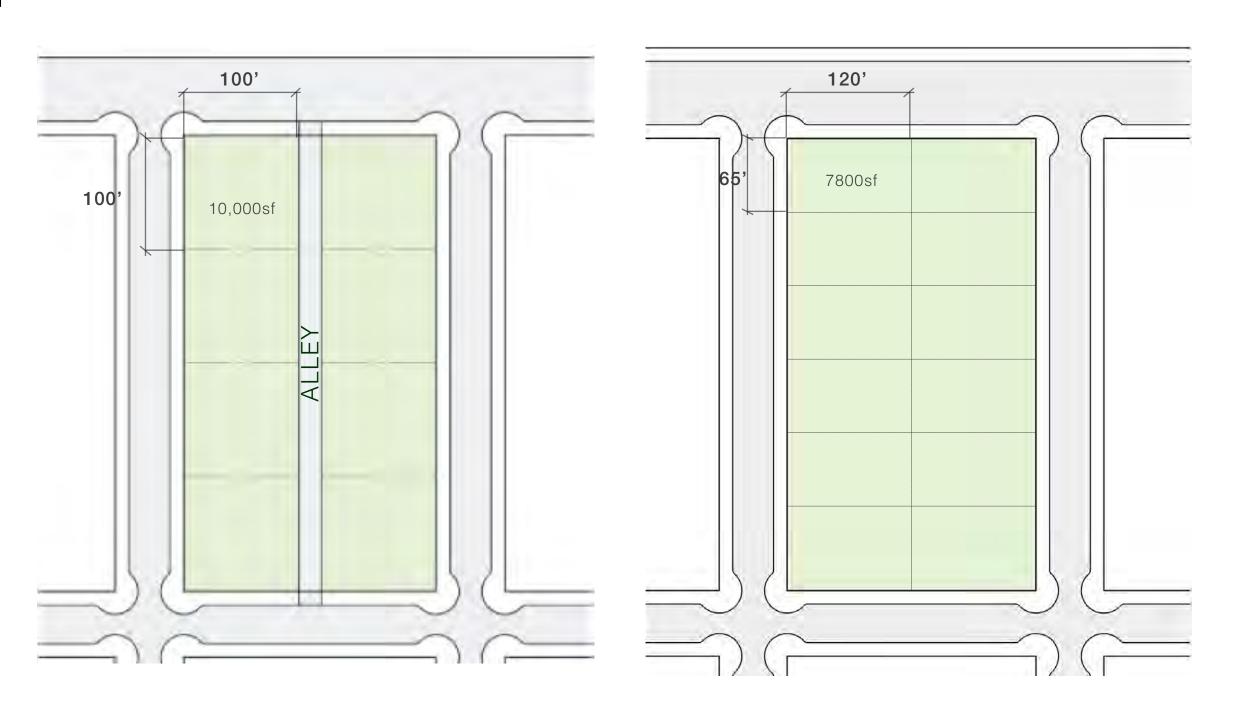


## A Block Prototype



## Large Lots (LDR)

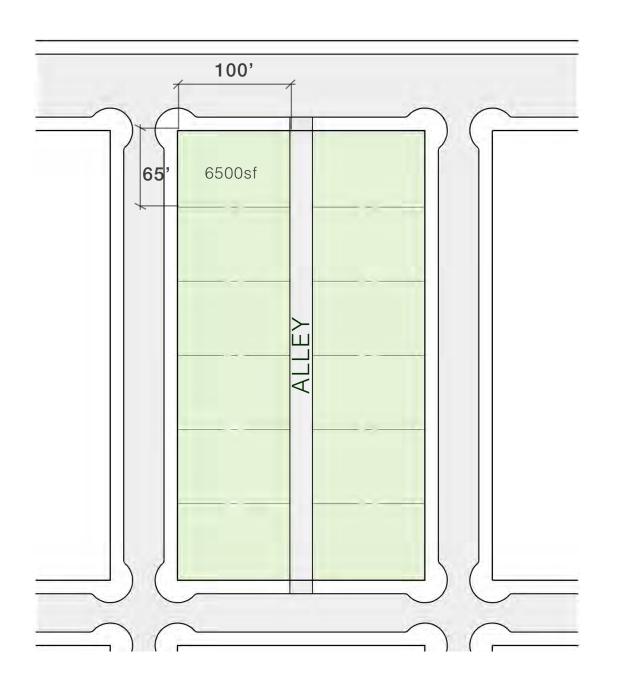
- 8-12 lots (4-6/ac)
- 7,000 10,000 sf



## Medium Lots (MDR)

- 12-16 lots (6-8/ac)
- 5,000 6,500 sf

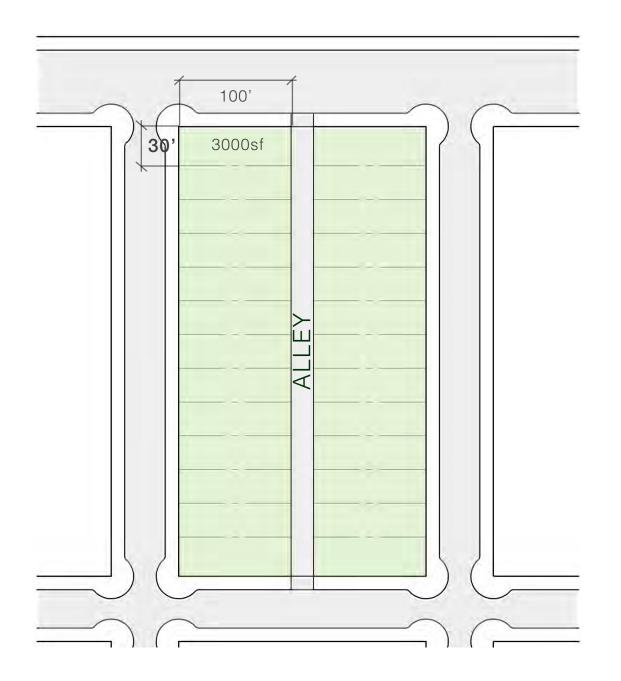




## Small Lots (HDR)

- 26 lots shown
- ~ 3,000 sf (min. 14 du/ac)





## Canby New Home Sales, Lot and Home Size

The average size of new homes built in Canby between 2003 and 2014 average as much as 2,400 square feet for a two story detached home to as little as 1,400 square feet for a two story townhome.

Lot sizes average less than 3,000 square feet for duplexes and townhomes and as much as 7,900 for detached single family homes.

Housing Type	Home Size (sf)			Lot Size (sf)		
	Min	Avg	Max	Min	Avg	Max
One Story Detached	1,400	2,000	3,200	5,100	7,900	9,700
Two Story Detached	1,200	2,400	4,400	3,200	7,000	46,900
Duplex	1,500	1,500	1,500	1,700	2,300	3,400
Townhome - 2 Story	1,100	1,400	2,000	1,600	2,300	4,600
Townhome - 3 Story	2,100	2,100	2,100	2,600	2,900	3,100

Source: Metrostudy, Leland Consulting Group

# Housing Demand of Current Canby Residents by Price Range

Given the household income distribution of current Canby residents, the chart below shows an estimated range of new home purchase prices. An annual household income of greater than \$75,000 is needed to afford the average price of new homes being sold in Canby.

The primary market opportunity and demand going forward is likely to be for single family detached housing of 5,000+ SF lots being purchased by households in the \$75,000+ income categories.

There is likely a market opportunity for developers to develop additional small-lot and attached housing, since none has been built since 2008, and there demand exists in the lower-middle household income categories.

Household Income Category			Percent of Households	Number of Households	Est Percent Owners	Number of Owner HHs	Home Purchase Price Range	
							(Low)	(High)
\$0		\$15,000	10%	559	10%	56	\$0	\$55,000
\$15,000	P.2.	\$25,000	10%	571	25%	143	\$55,000	\$95,000
\$25,000	(4)	\$35,000	8%	457	50%	228	\$95,000	\$135,000
\$35,000	-	\$50,000	14%	805	60%	483	\$135,000	\$190,000
\$50,000	-	\$75,000	20%	1,130	70%	791	\$190,000	\$285,000
\$75,000		\$100,000	15%	850	80%	680	\$285,000	\$380,000
\$100,000	12	\$150,000	17%	947	85%	805	\$380,000	\$570,000
\$150,000	4,3-	\$200,000	4%	245	90%	221	\$570,000	\$760,000
\$200,000	+		3%	148	95%	141	\$760,000	+

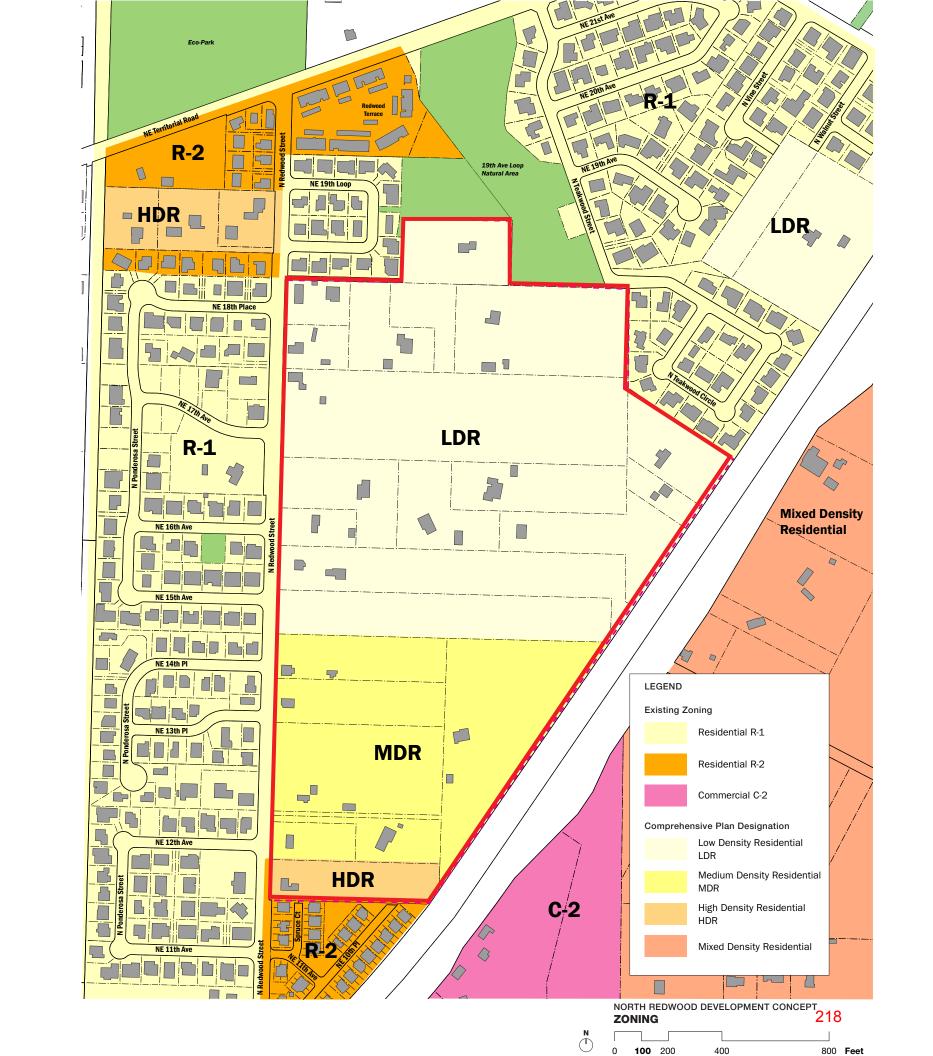
Source: ESRI, Leland Consulting Group NOTE: Assumes a 10% down payment, and a 30 year mortgage at 4.25% interest rate, and a maximum mortgage payment to gross income ratio of 25% including home insurance and property taxes.

# Zoning

LDR: 45.4 ac

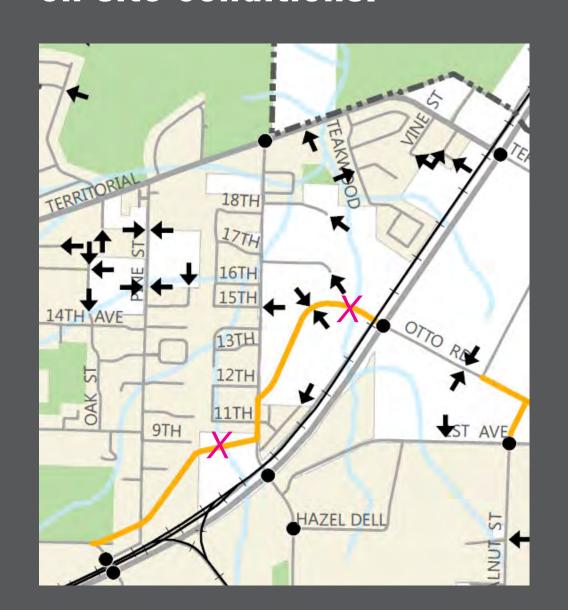
MDR: 18.8 ac

HDR: 2.2 ac



### **Potential Connections**

Connections to existing grid. Not all connections will be required. TSP suggests minimum spacing of pedestrian and bicycle connections at roughly 300', and of vehicle connections at 600', depending on site conditions.





## Concept 1

"Grid"

**Total Road Acreage: 14.9 acres** (20-25% typical)

**Total Park Acreage: 10.3 acres** 

(Environmental Areas plus 1 acre pocket neighborhood park)

LDR: 45.4 ac

MDR: 18.8 ac

HDR: 2.2 ac

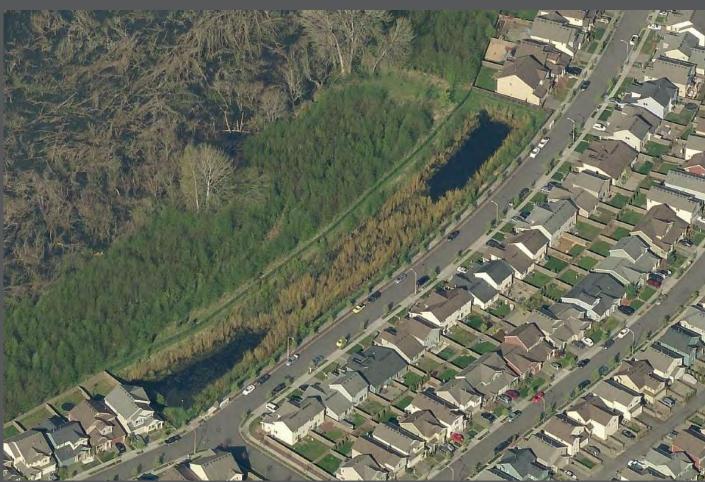


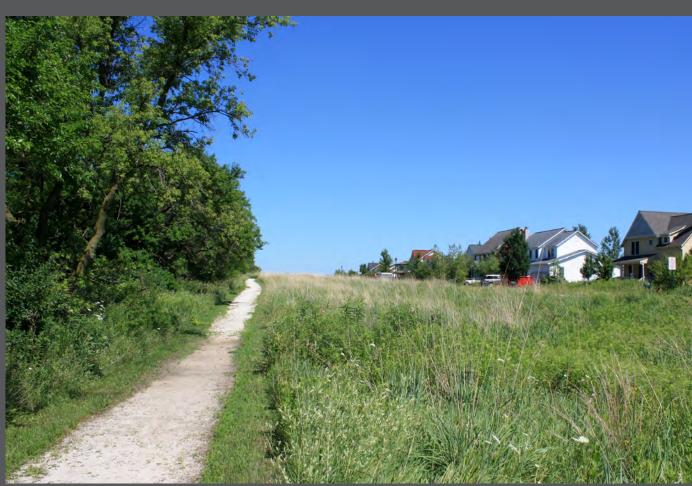












## Concept 2

"Relaxed Grid"

**Total Road Acreage: 16.6 acres** 

**Total Park Acreage: 9.9 acres** 

LDR: 45.4 ac

MDR: 18.8 ac

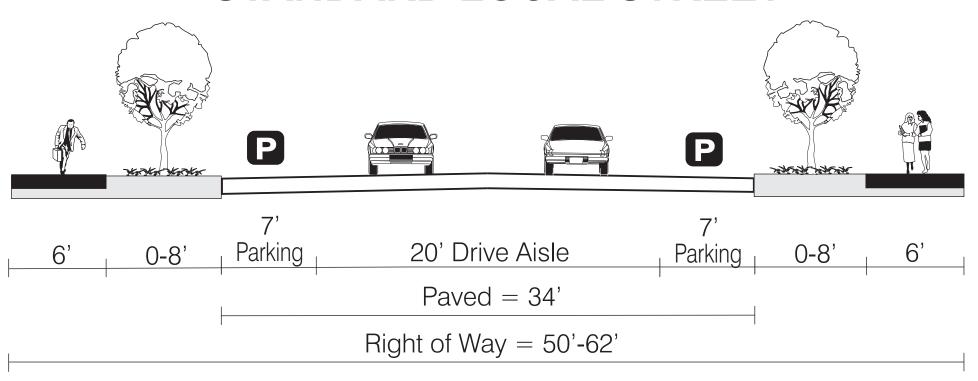
HDR: 2.2 ac



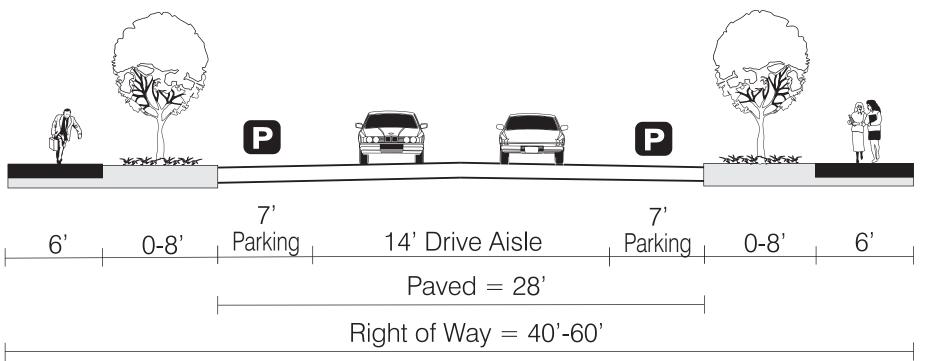


## **Streets**

### STANDARD LOCAL STREET



## LOW-VOLUME LOCAL STREET (<500 Vehicles Per Day)



# **Streets**



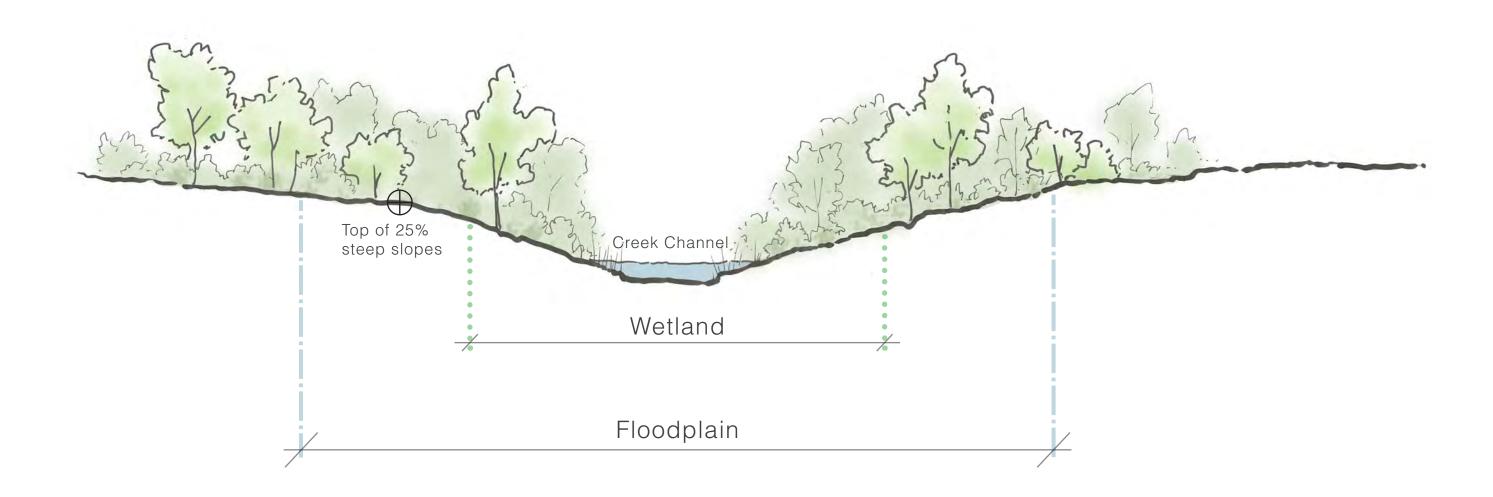




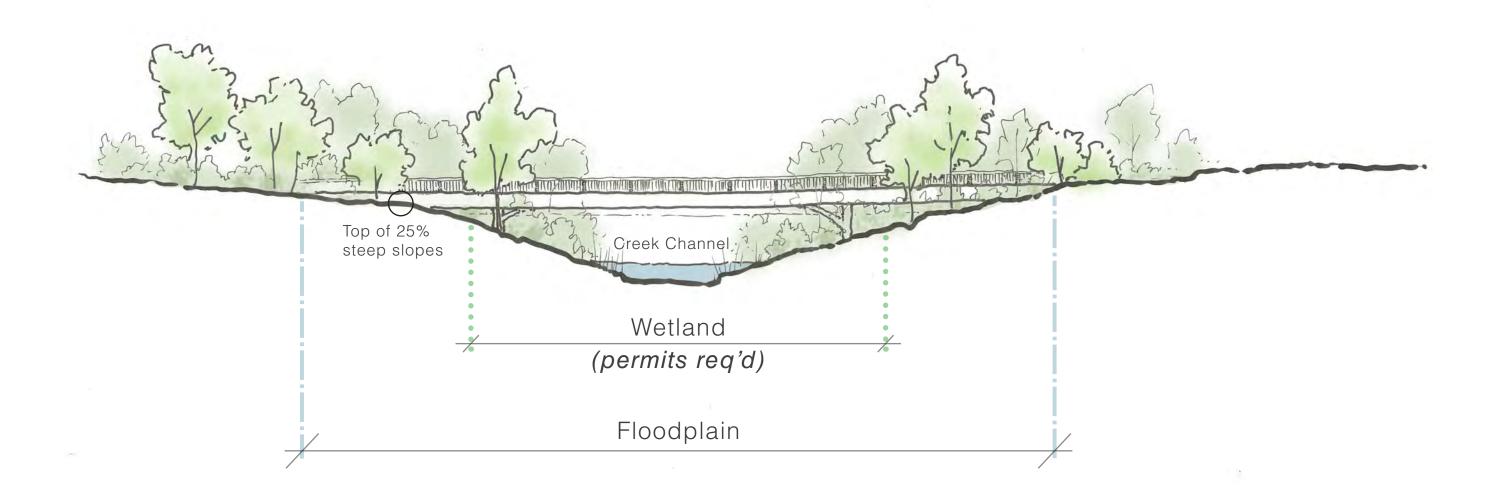


curb-cuts

# Willow Creek (typical condition)



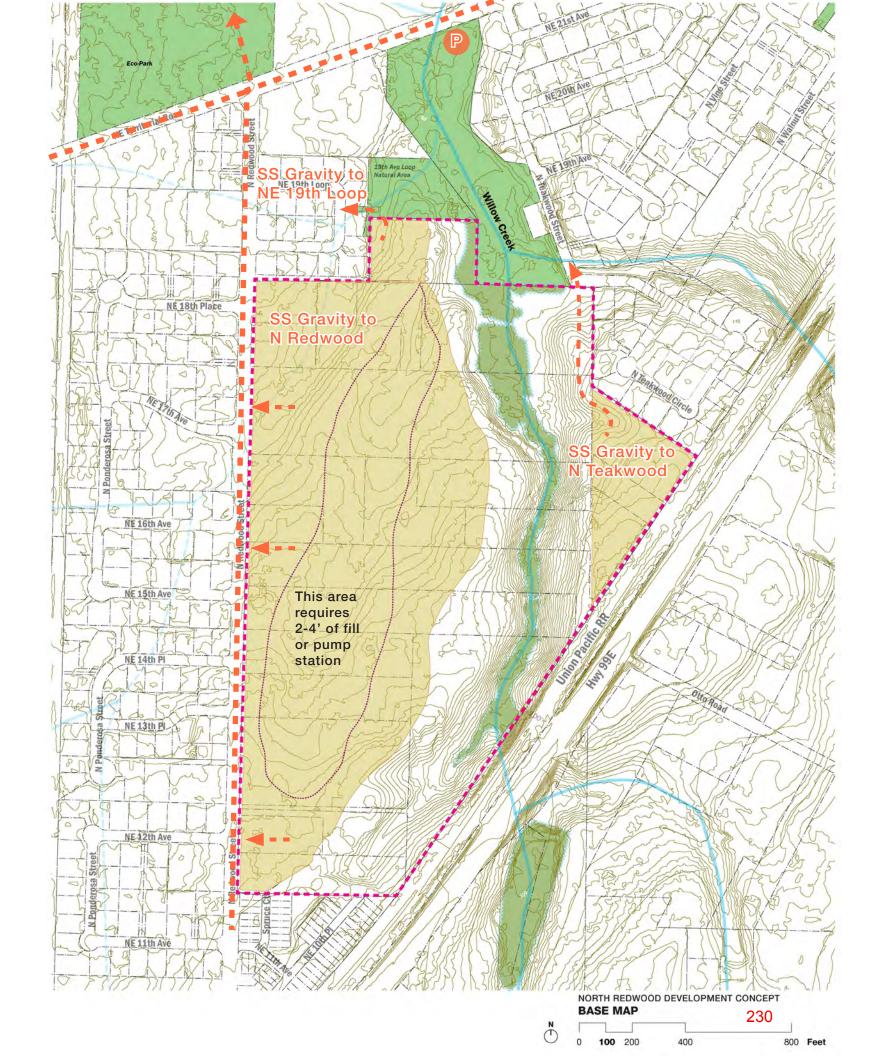
# Willow Creek Bridge



(110' long: Rough cost~\$1 million)

### Sewer





# Stormwater Approach

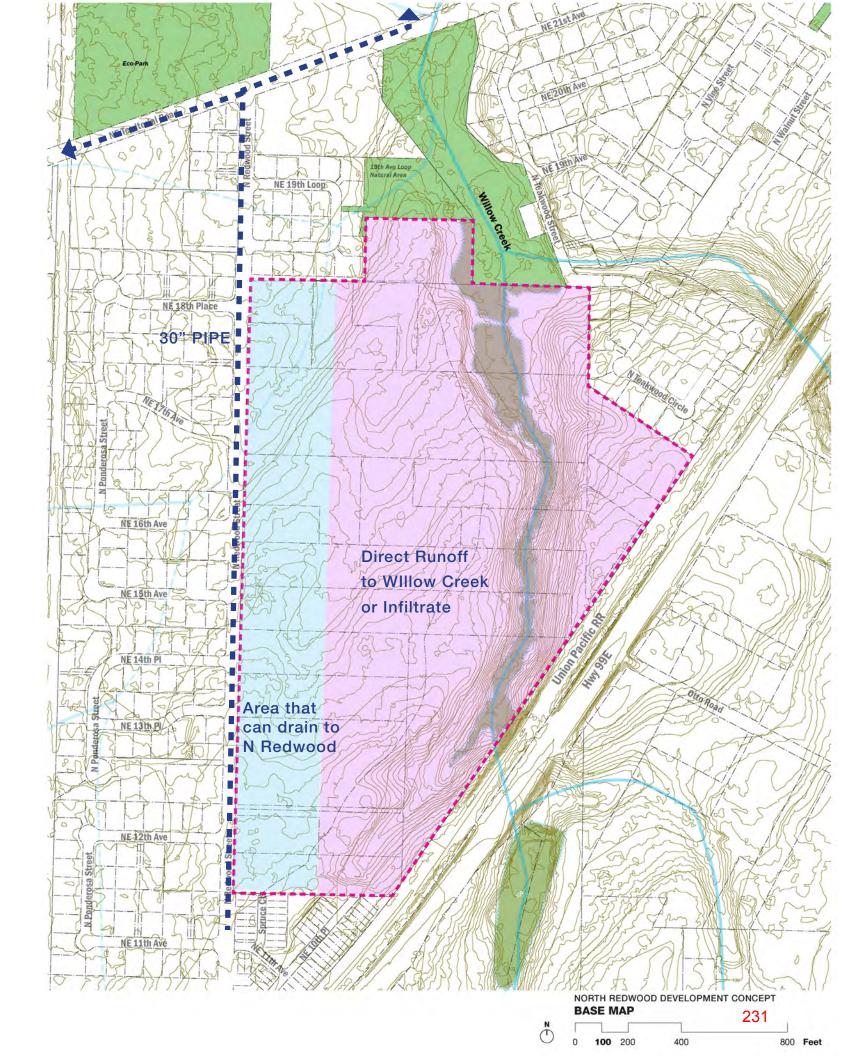








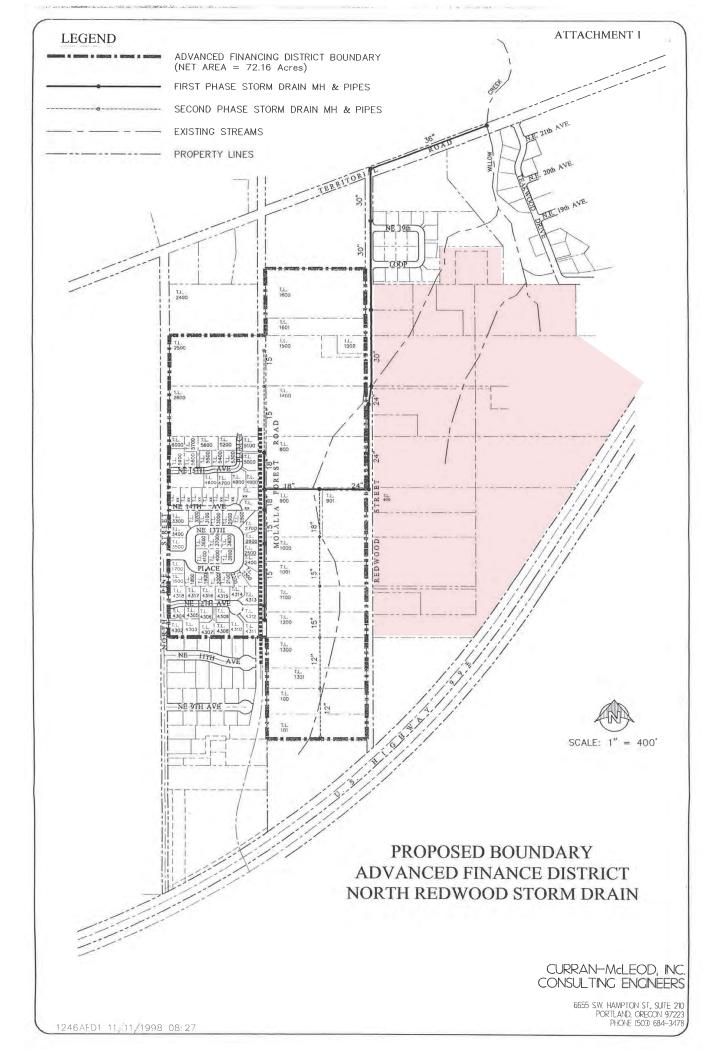




### **Tools to Share Costs and Benefits of Growth**

- Transfer of Development Rights –not strongly recommended
- Density Transfers lot size averaging, alternative lot layouts allowed now; additional code provisions possible
- Density Bonuses –not currently allowed (except through height bonuses); additional code provisions possible
- Planned Unit Developments allowed now; good tool for consolidated properties
- Property Consolidation, Master Planning Concept Plan helps mimic this process without sale, consolidation of property
- Advance Financing Districts used previously; allows for sharing infrastructure costs (Canby Code 4.12)
- Local Improvement District

### **Advance Financing Districts**



233



To: Matilda Deas Topic: TAC #2 Meeting Notes Date: 04/27/2015

From: Ken Pirie Project: Canby North Redwood Project #: 3077

Distribution: Basecamp

#### **North Redwood Development Concept Plan**

Technical Advisory Committee Meeting (#2) Notes (See consultant presentation on Basecamp)

Committee discussion included:

#### Parks:

- Is there enough park land in the plan to fulfil future community needs?
- City has adequate supply, according to Matilda but maintenance of existing parks is the main challenge. City is exploring options on how to address the maintenance funding gap
- Providing at least 10 acres in the study area meets standards in the City's park system plan but it would be acceptable if a property owner/developer wished to provide more, as an amenity to residents (provided that those additional acres can be maintained appropriately)
- Is transit access covered? CAT representative not present at the meeting; there is not a proposed line through the area yet but this can be revisited at a later date once development is proposed. There is a Dial-a-Ride service

#### Concepts:

- In Concept 1, trail should be extended south towards Fred Meyer, to the extent practicable; trail north should extend to the cul-de-sac and beyond, through the 19<sup>th</sup> Avenue Natural Area if possible
- Committee asked if alleyways were assumed for all blocks. They are optional and possible in most blocks; consultants noted that, while prevalent in many area new communities, they have yet to be built in the Canby area so there may be a process of educating home builders and buyers to the benefits
- The access options were discussed; a cul de sac off Teakwood would serve approximately 15 lots. It is not cost-effective to build an expensive bridge across Willow Creek to serve these lots. Fire dept representative present indicated that he would be supportive of an emergency-only access point across the Union Pacific rail line, connecting to a cul-de sac serving lots east of Willow Creek.
- He would also be supportive, if a bridge was built across the creek, of an emergency-only access into the Teakwood subdivision.

#### Stormwater:

- Future stormwater treatment facility is planned north of Territorial
- DSL representative at meeting stated that untreated runoff cannot be directed into a waterway like Willow Creek or adjacent wetlands
- Will require pre-treatment within the new neighborhoods, according to Clean Water Services standards.
- City and DSL to coordinate further to describe regulatory parameters of stormwater on site.

end

To: Matilda Deas Topic: SAC #2 Meeting Notes Date: 04/27/2015

From: Ken Pirie Project: Canby North Redwood Project #: 3077

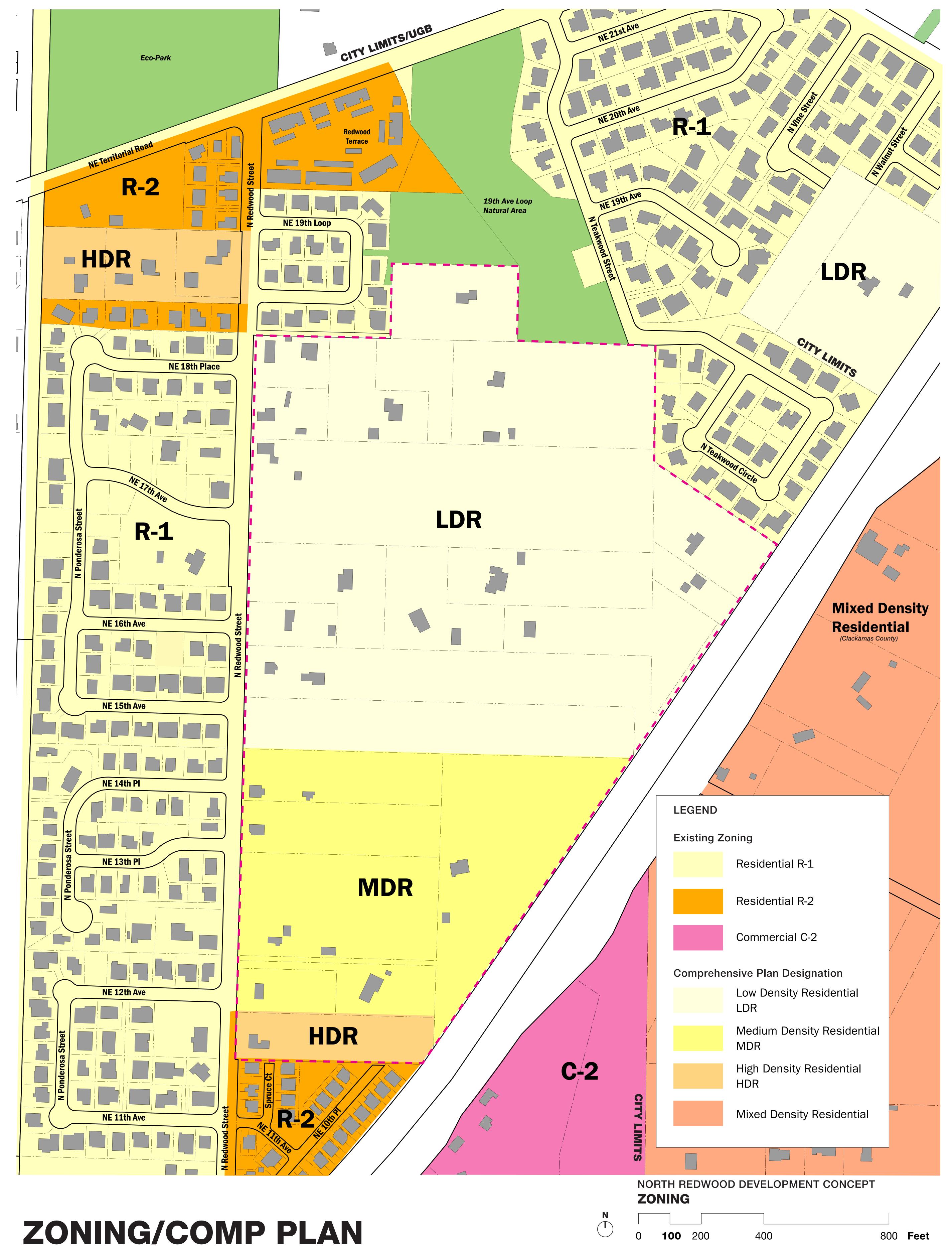
Distribution: Basecamp

#### **North Redwood Development Concept Plan**

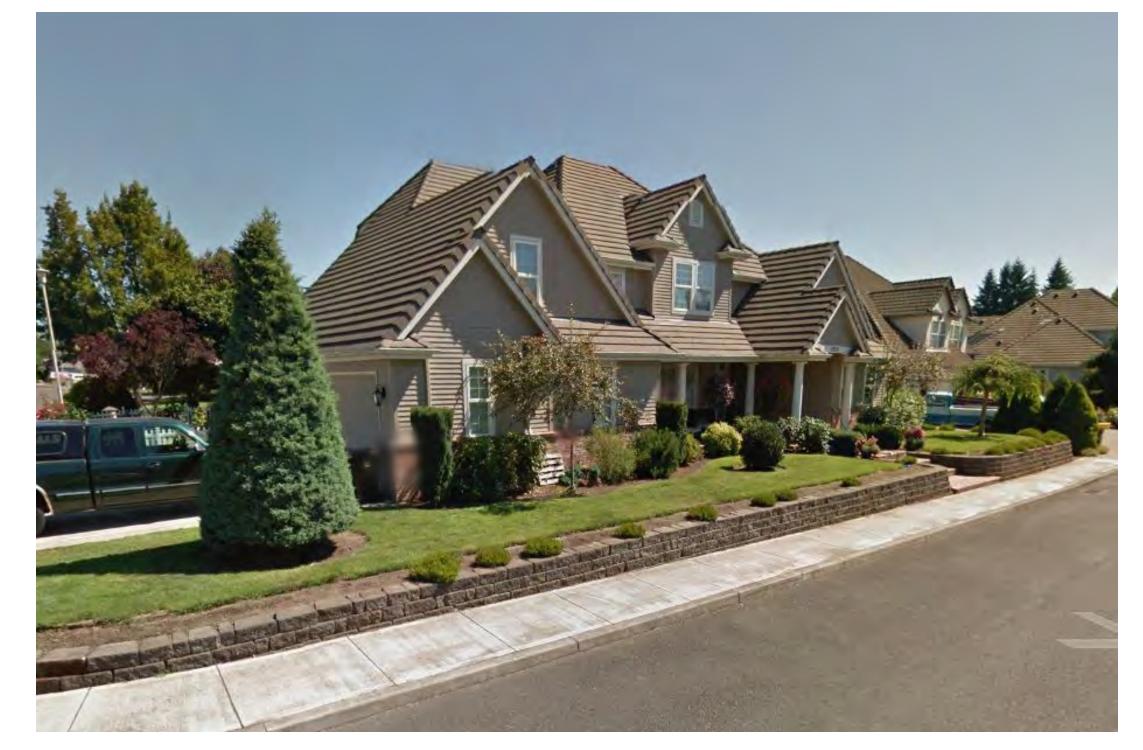
Stakeholder Advisory Committee Meeting (#2) Notes (See consultant presentation on Basecamp)

#### Concepts:

- Is it efficient to include one-sided roadways in the plan, facing open space? If there are homes on both sides, what is the condition to the rear of the lots, with fences? It may be more secure to have full visibility from a public street into the wetland/park area, as opposed to backyards
- Discussion of access options. With emergency access across the railroad, will probably need to restrict pedestrian and bicycle access, for rail safety.
- Fire Dept representative noted that stopped trains block north-south access in Canby about 10 times per year. Fire Dept can use Logging Road trail to avoid this in an emergency
- Concept 2, the Relaxed Grid, was preferred, due to lower impacts and costs without major bridge. The bike/ped bridge in this option would benefit all residents
- Consider buffering homes along railroad east of Willow Creek. Could you shift density away from that area?
- Avoid offset roads—try to line up new roads in the area with existing roads west of North Redwood to consider sight distances.
- Is there flexibility for block layouts for property owners? Yes, the ones shown are simply prototypes.
- Make sure the final plan is clear that future developers can propose alternative plans within the overall framework
- Will there be more detail on intersection design at a later stage? Yes.
- Will there be annexation before development? Matilda answered that yes, this plan is required before voter-approved annexation. The City will use this plan as a template, but will allow flexibility. Key things that will be less flexible include major road locations (not all roads), stormwater management approach, parks and open space locations and a phasing approach that ensures that no property owners are restricted from future development
- With this plan, there may be possibility of non-contiguous annexations, again, if no property owners are restricted from future development
- Be sure to involve Oregon Dept of Fish and Wildlife on future plans for Willow Creek—lot of restoration required
- How will City maintain open spaces/parks? end







LDR

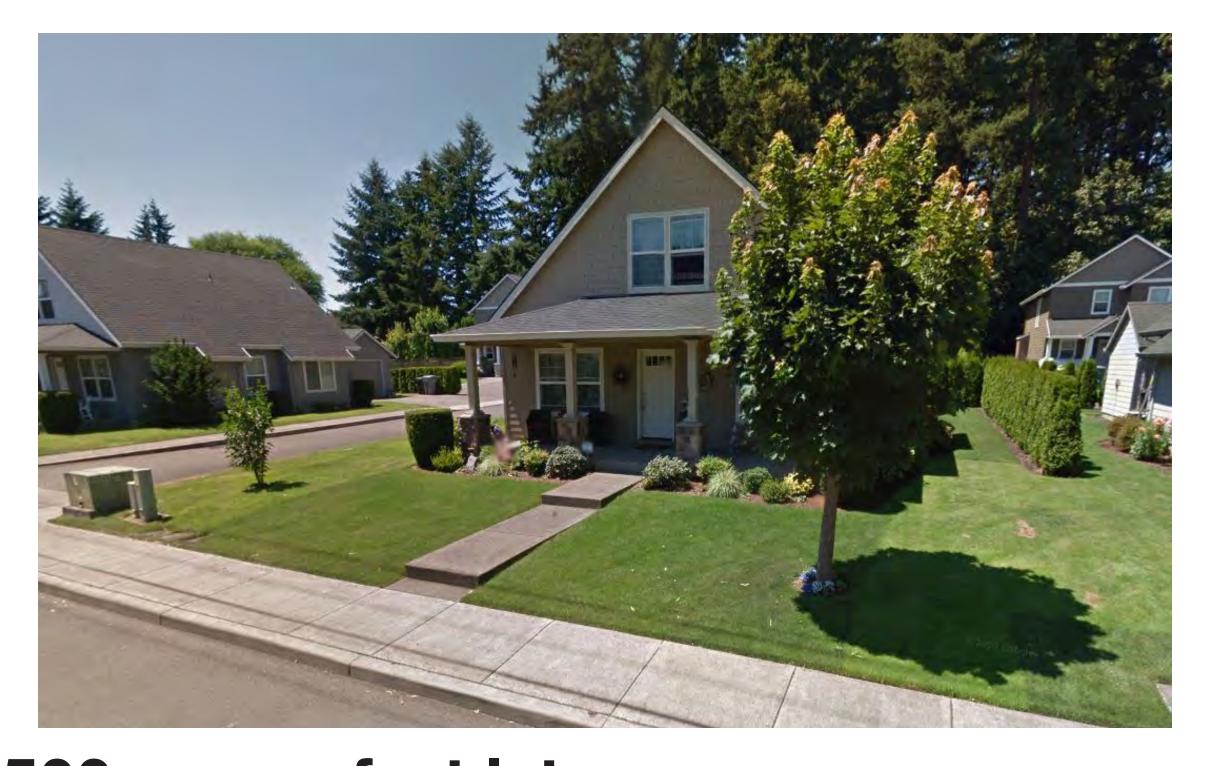
Low Density Residential 7,000-10,000 square foot lots (4-6 du/acre)

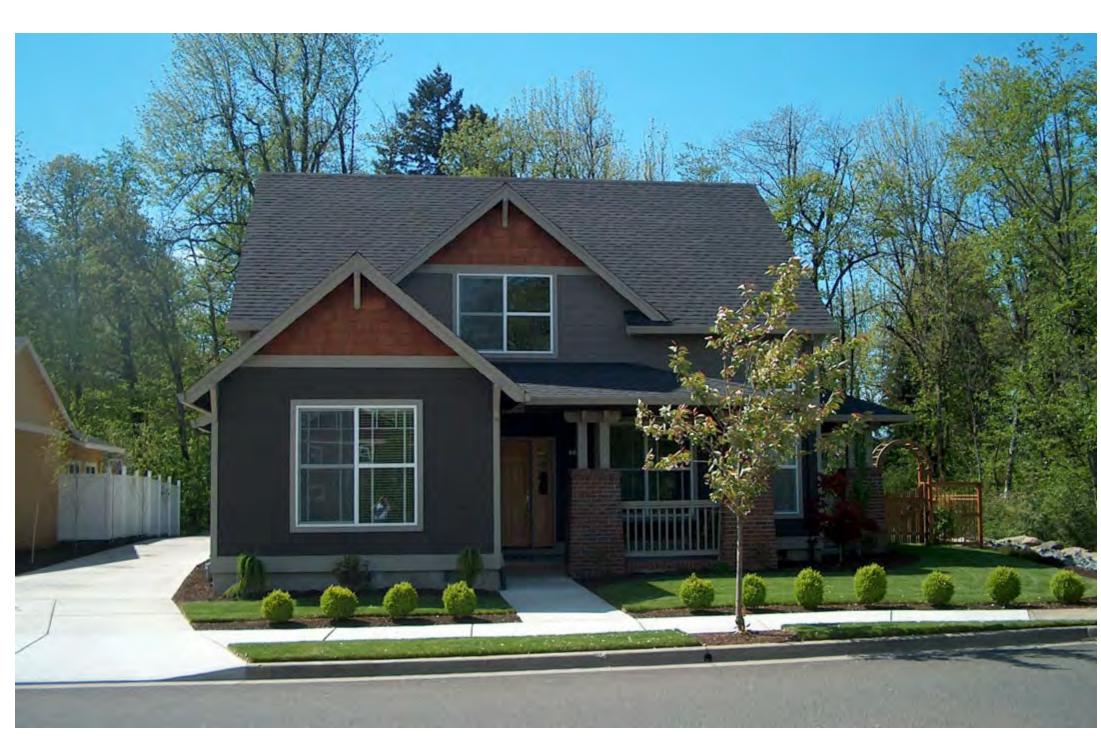




MDR

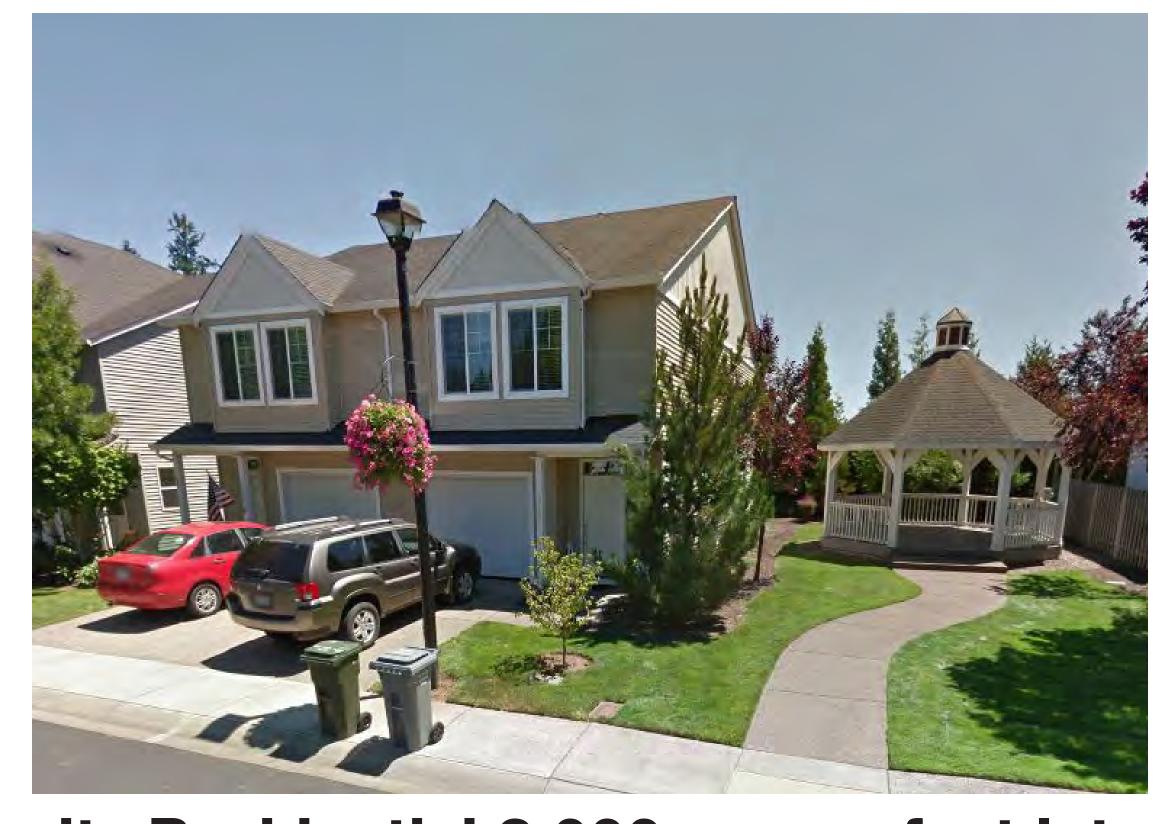
Medium Density Residential 5,000-6,500 square foot lots (7-9 du/acre)

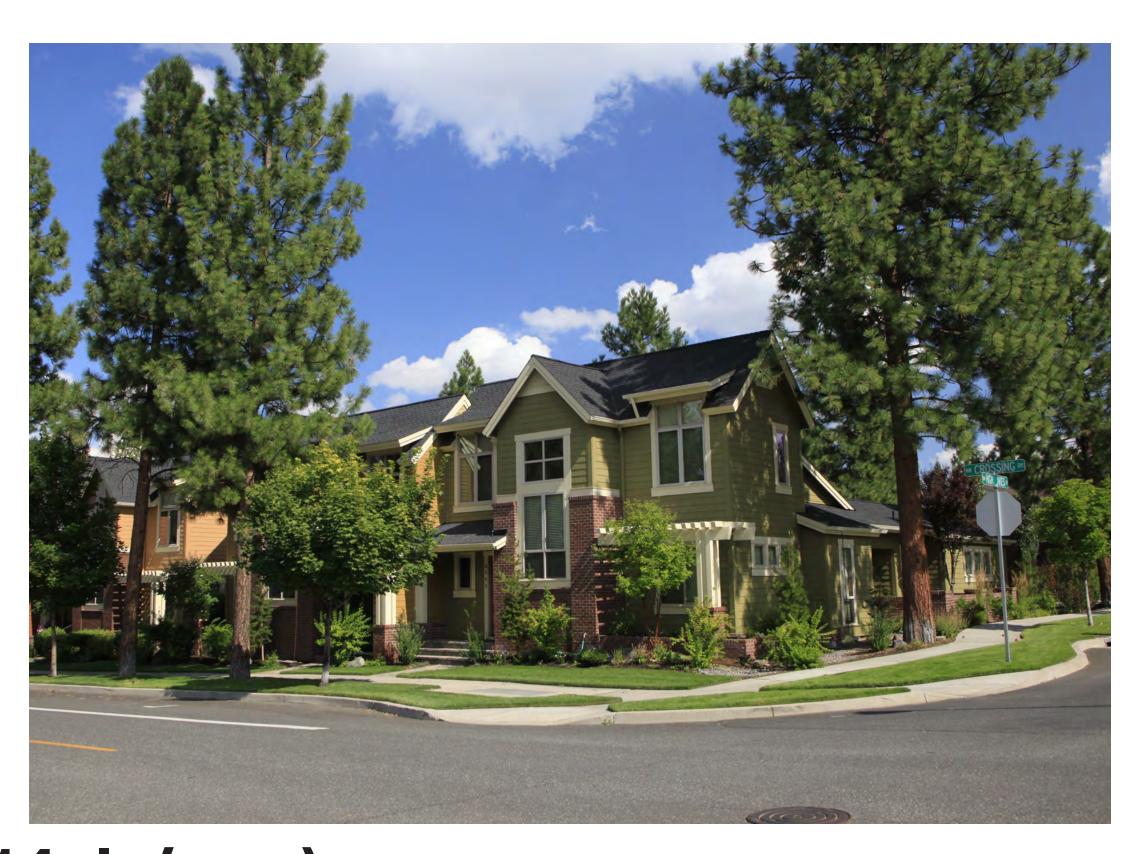




MDR

5,000-6,500 square foot lots





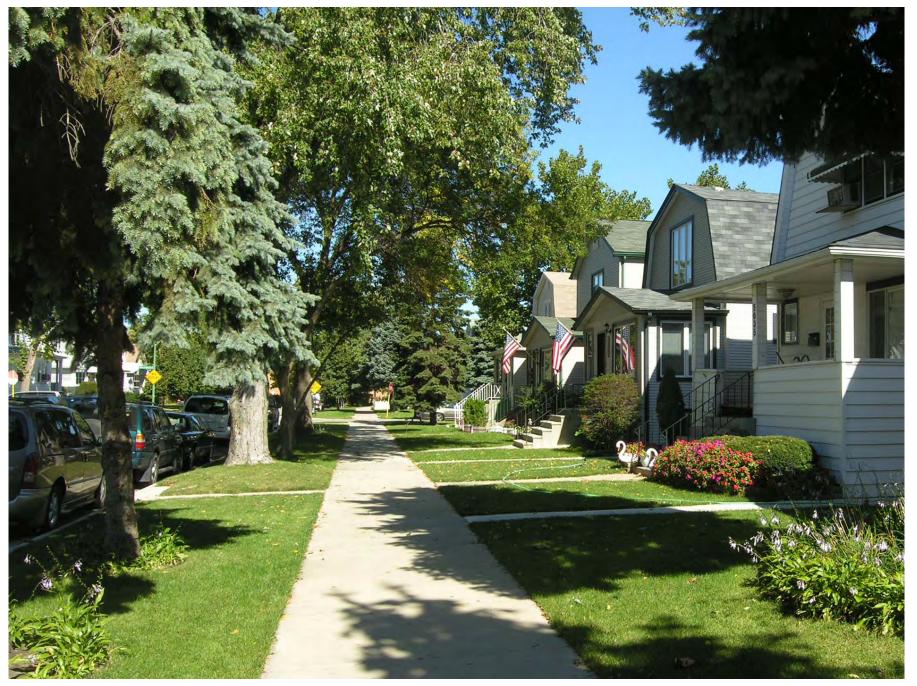
HDR

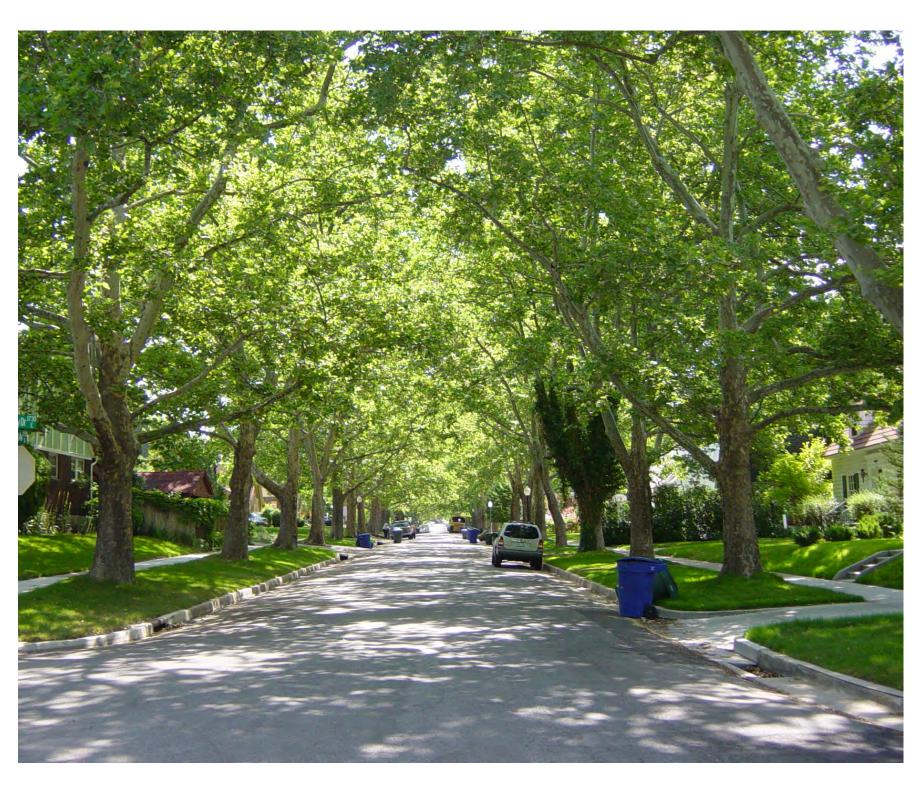
High-Density Residential 3,000 square foot lots (14 du/acre)

# HOUSING CHOICES

# A walkable, cohesive neighborhood









Clear, connected and safe streets

Connect trails to natural areas and protect Willow Creek





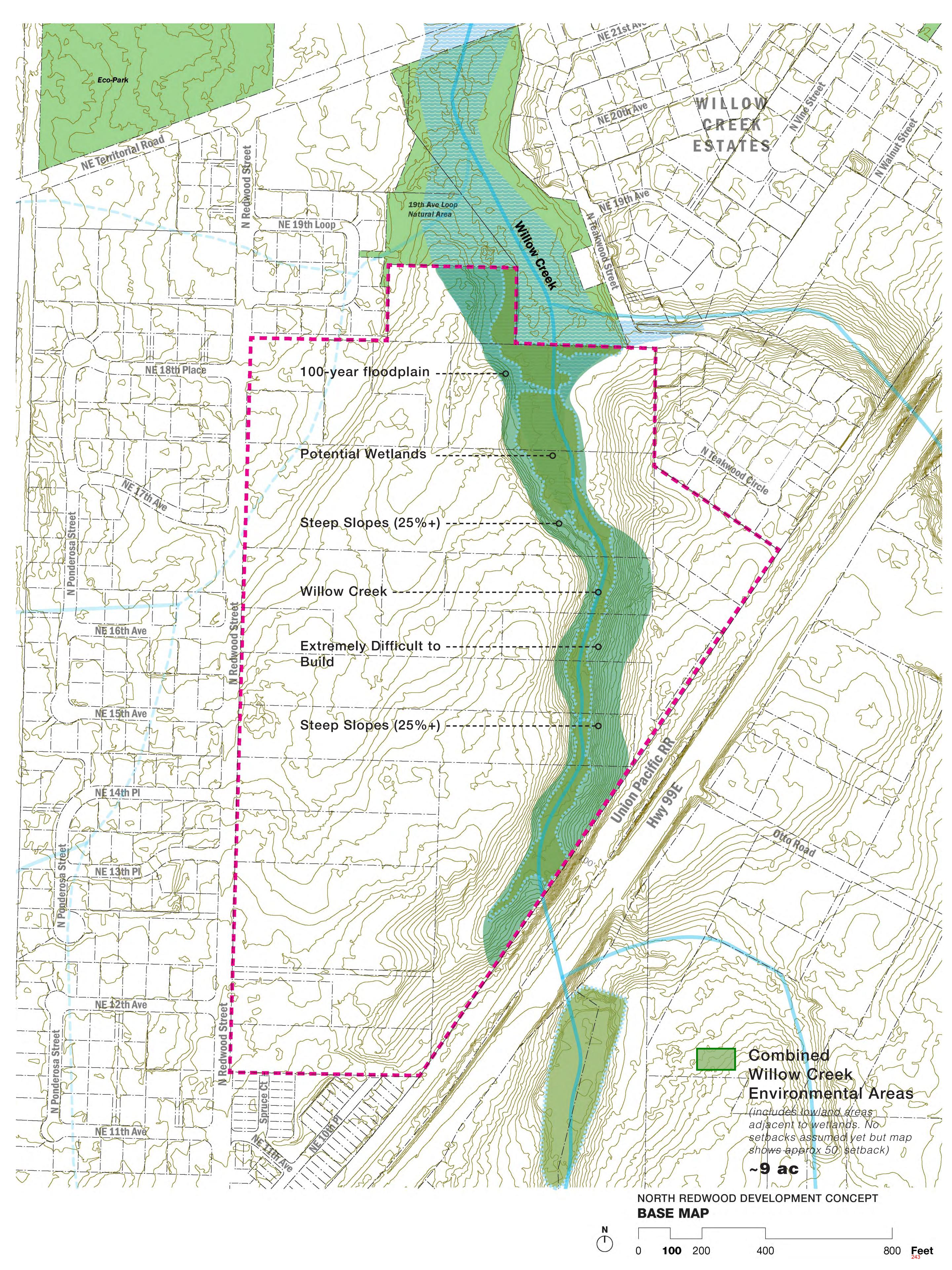




Public parks & open spaces

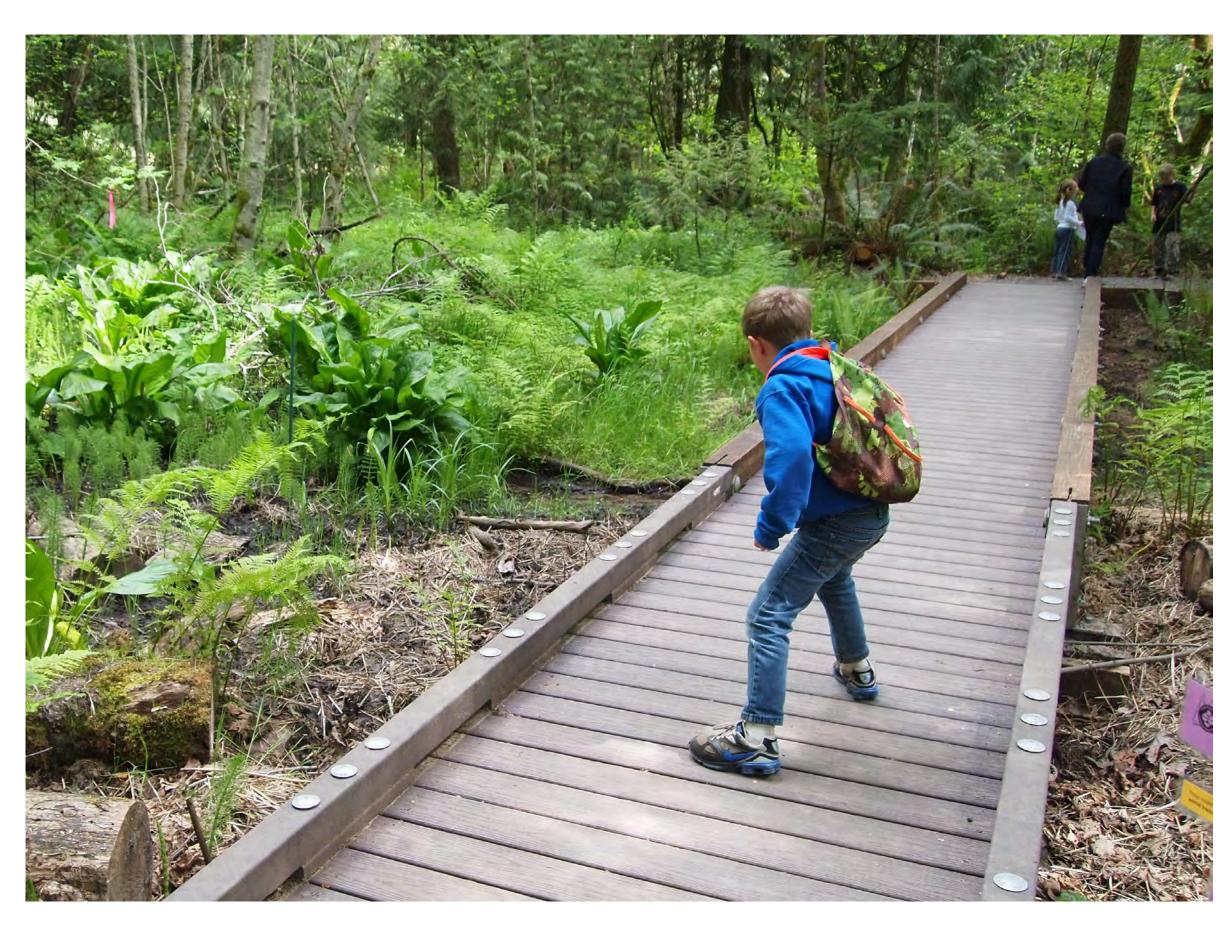


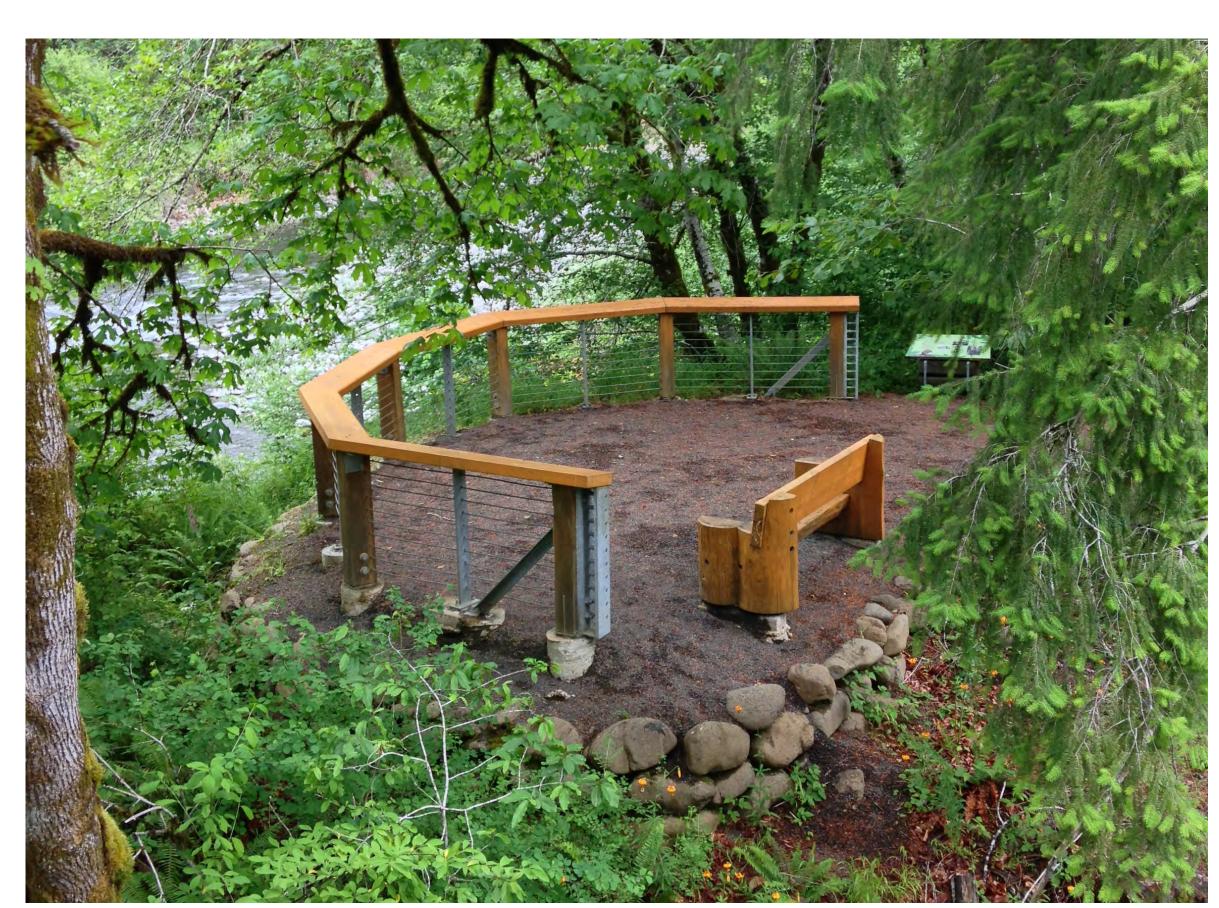












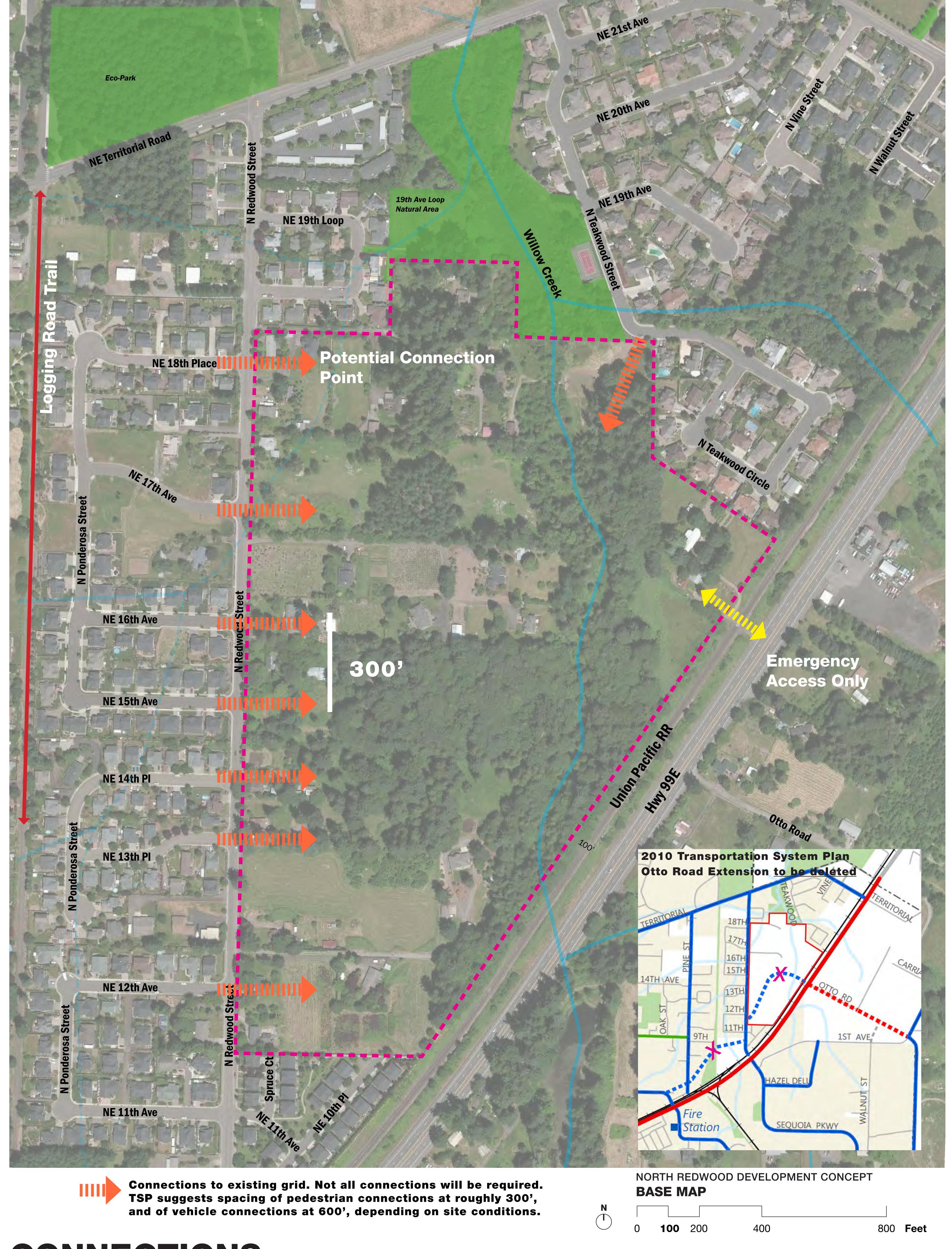




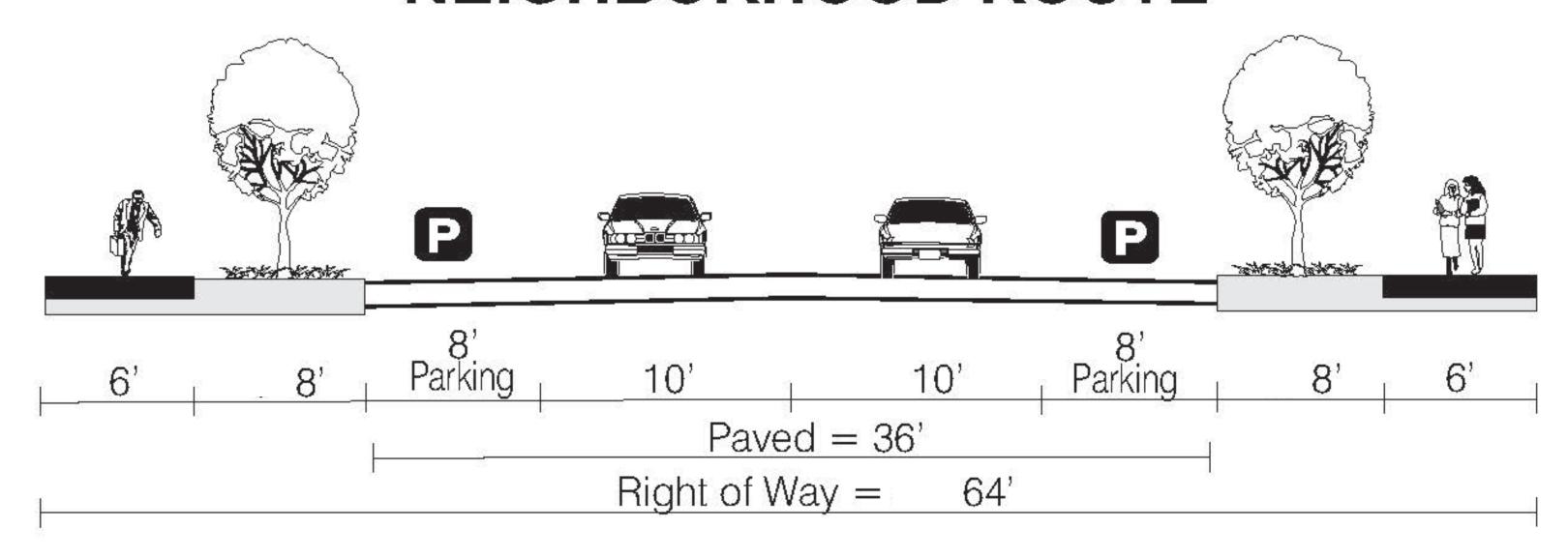




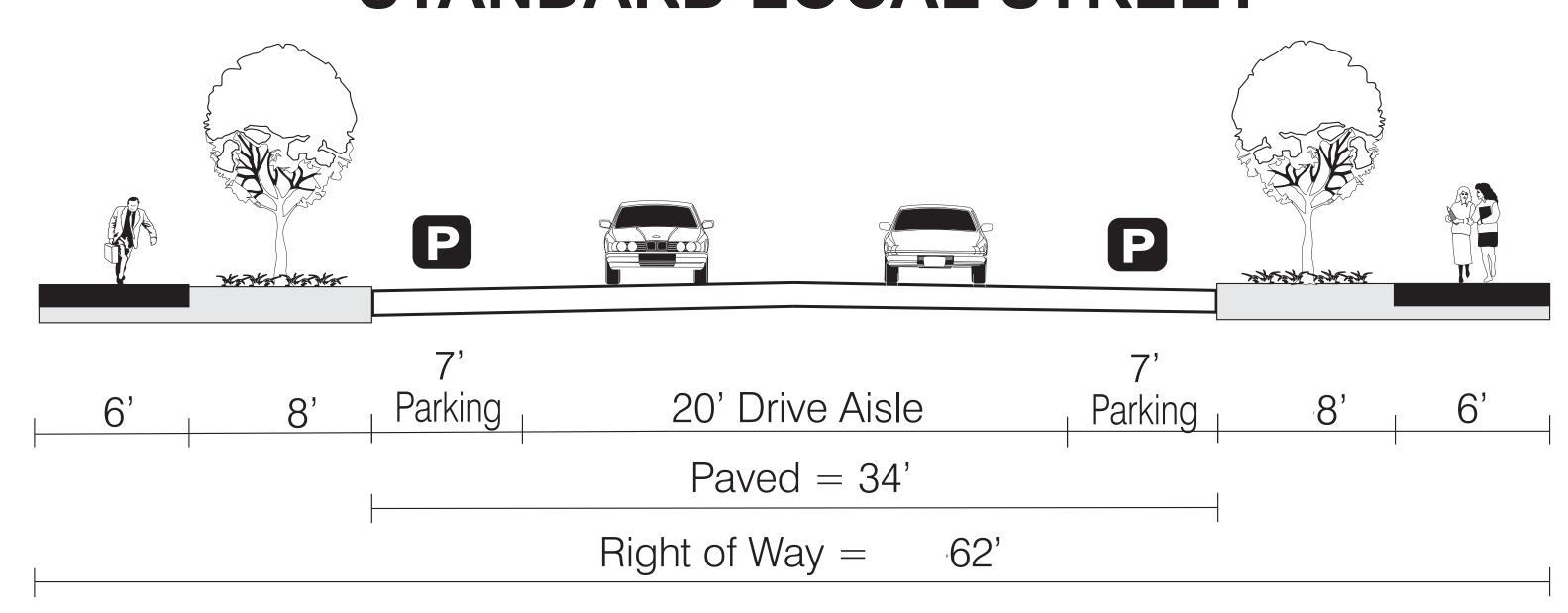
WILLOW CREEK PARK and NATURAL AREA

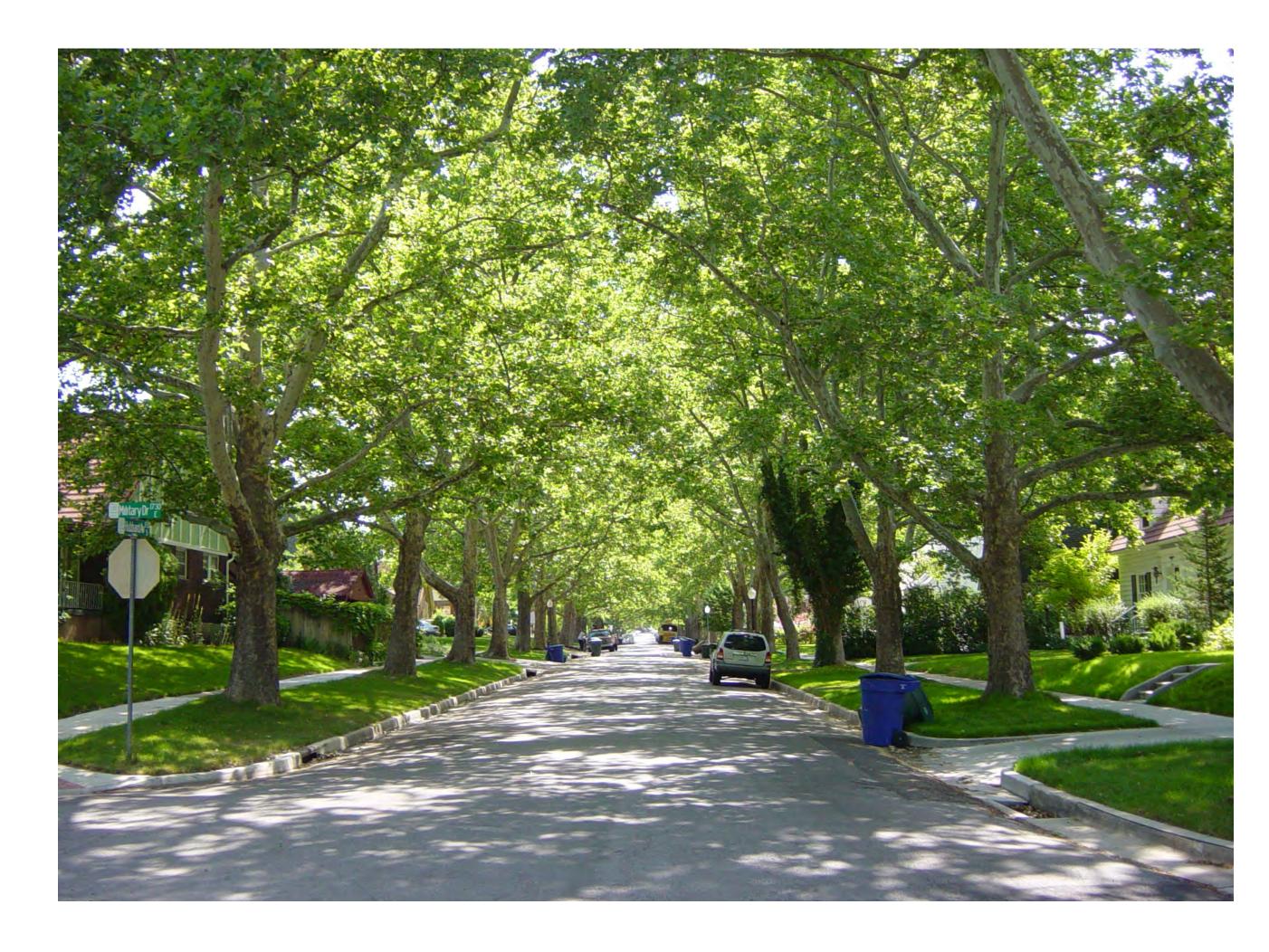


# NEIGHBORHOOD ROUTE



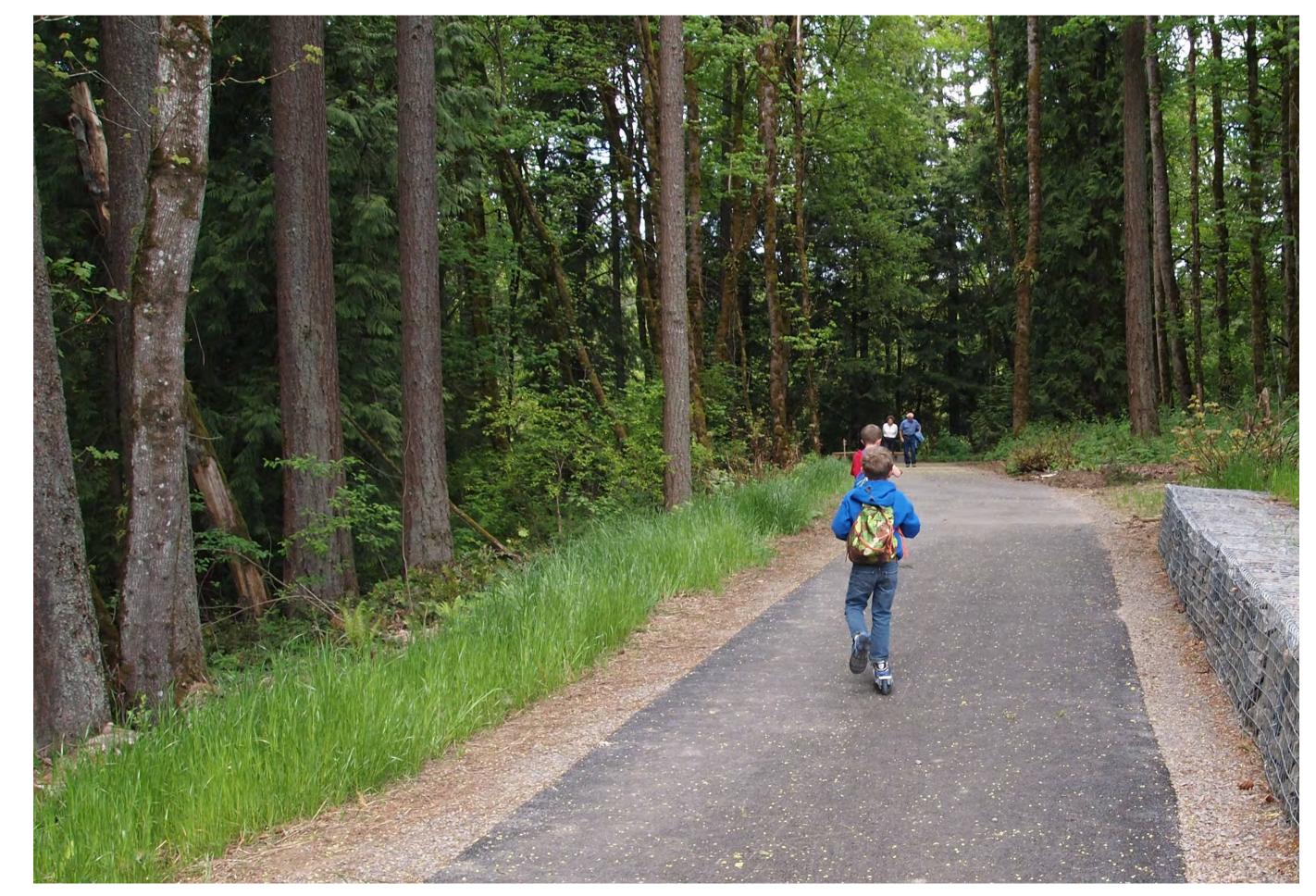
# STANDARD LOCAL STREET











STREETS & TRAILS





Swales





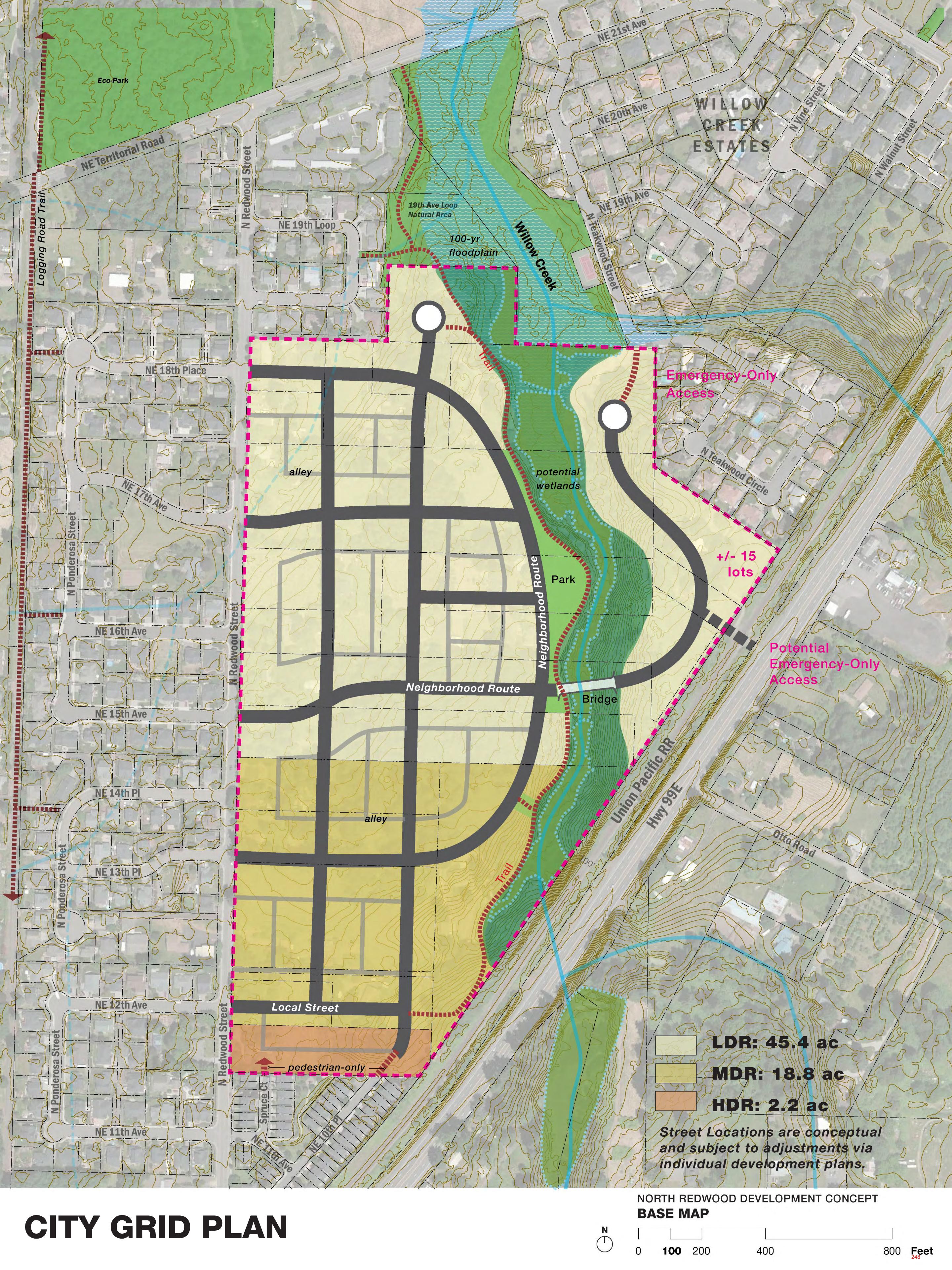
**Detention & Retention Ponds** 

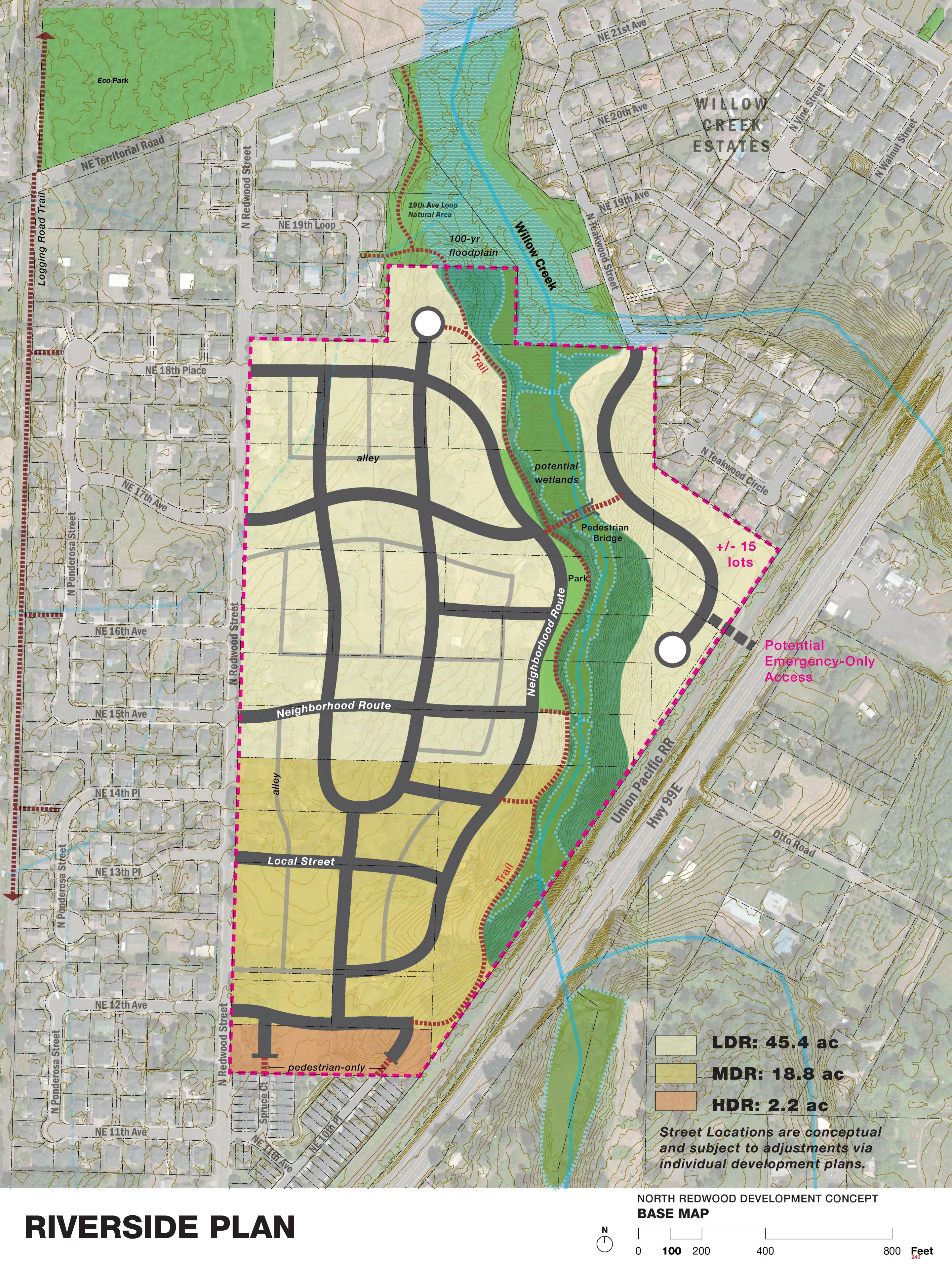




Water Quality Planters

# LOW IMPACT STORMWATER FACILITIES





# North Redwood Development Concept Plan

# **Project Purpose**

The North Redwood Development Concept Plan will provide a preferred alternative for development of this site with multiple property owners. The project will develop conceptual infrastructure and financing options for achieving urban housing densities while protecting the site's natural resources.

# **Project Study Area**

The Project Study Area is 66 acres and is bounded by OR99E and the Union Pacific Railroad on the east and south, NE Territorial Road on the north, and N Redwood Street on the west (see map on back). The Project Study Area consists of 23 tax lots, varying in size between one and ten acres with 18 property owners, including a single family that owns 7 lots.

# Zoning

The Project Study Area's current zoning is Rural Residential Farm Forest 5-Acre District (RRFF-5) governed by Clackamas County. The Project Study Area is located in unincorporated Clackamas County inside the Canby Urban Growth Boundary and is within the boundaries of a DCP area (Development Concept Plan area). **Upon voter approved and owner-requested annexation**, developments located within a designated DCP area are required to have a DCP adopted by the City Council prior to granting a change to city zoning.

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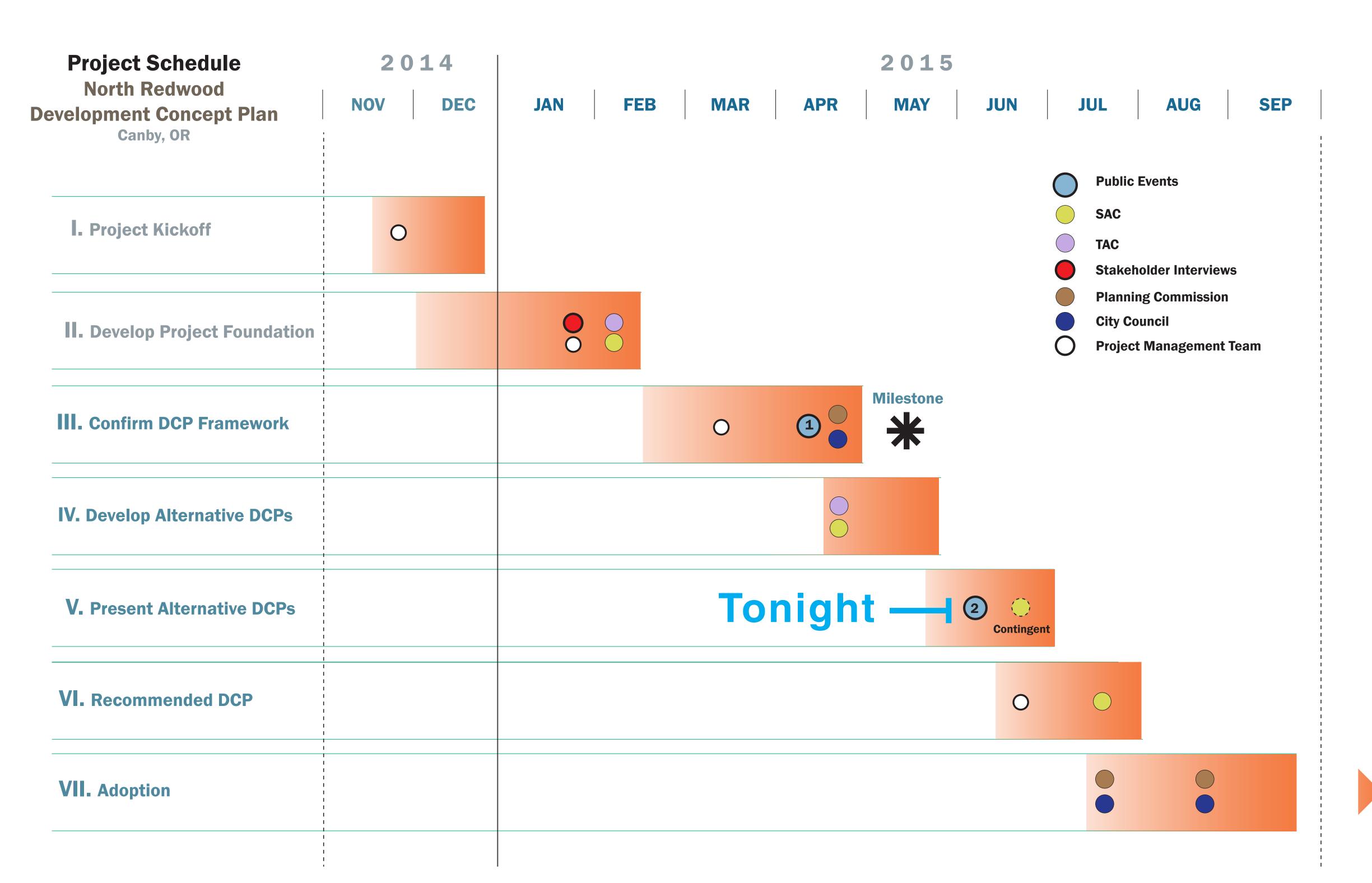
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- The public's contribution can influence the regulatory agency's decision;
- The concerns of all participants involved will be considered in the decision making process; and
- The decision makers seek out and facilitate the involvement of those potentially affected.

### Upcoming Meetings

Stakeholder Advisory Committee Meeting #3, July 14th City Council and Planning Commission, August 5, 2015 Project Adoption, end of August 2015







2014 NOV DEC	JAN	FEB	MAR	APR	2015 MAY	JUN	1	UL AUG SEP	
0								Public Events  SAC  TAC  Stakeholder Interviews  Planning Commission	
	<b>9</b> 8						0	City Council Project Management Team	
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	NOV DEC	NOV DEC JAN	NOV DEC JAN FEB	NOV DEC JAN FEB MAR	NOV DEC JAN FEB MAR APR	NOV DEC JAN FEB MAR APR MAY	NOV DEC JAN FEB MAR APR MAY JUN	NOV DEC JAN FEB MAR APR MAY JUN J	NOV DEC JAN FEB MAR APR MAY JUN JUL AUG SEP  Public Events SAC TAC Stakeholder Interviews Planning Commission City Council Project Management Team

# What's Happened So Far

- Existing Conditions Inventory
- Best Development Practice Analysis
- Stakeholder Interviews
- TAC and SAC #1 (Feb 9)
- Public Event #1 (Apr 14)
- City Council/Planning Commission (Apr 15)
- TAC and SAC #2 (April 27)

## **Study Area**



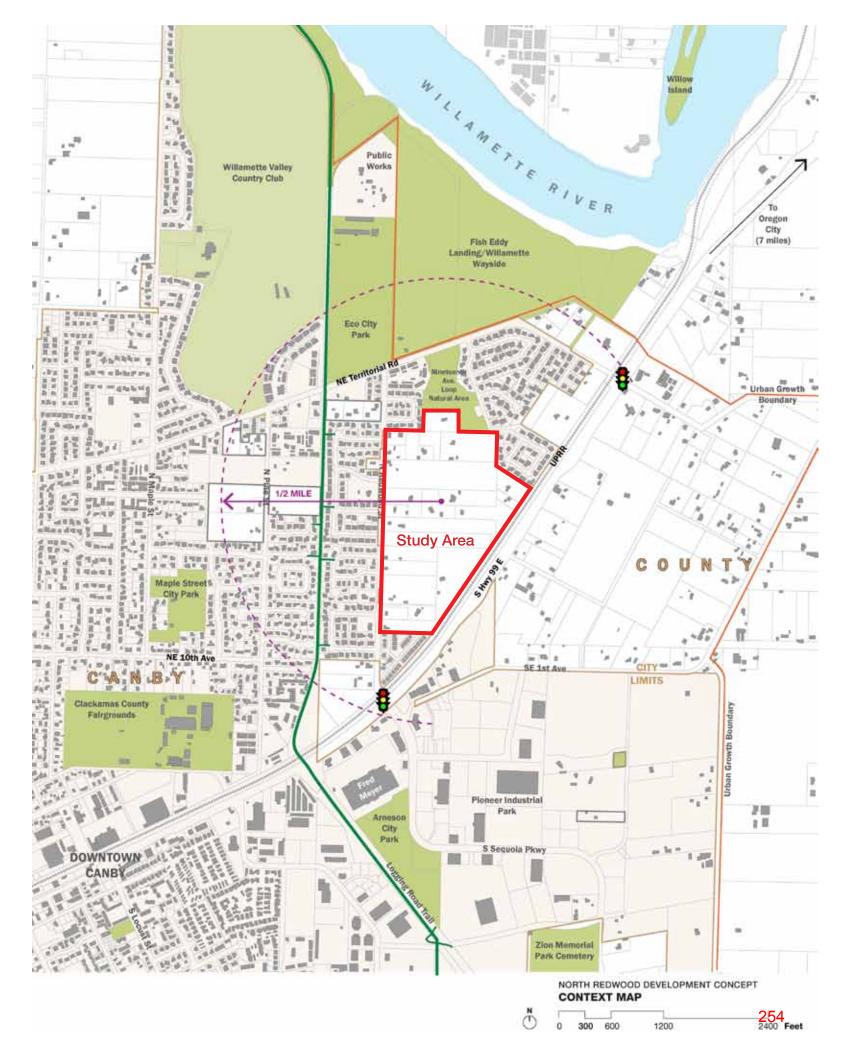












# **Property Ownership**

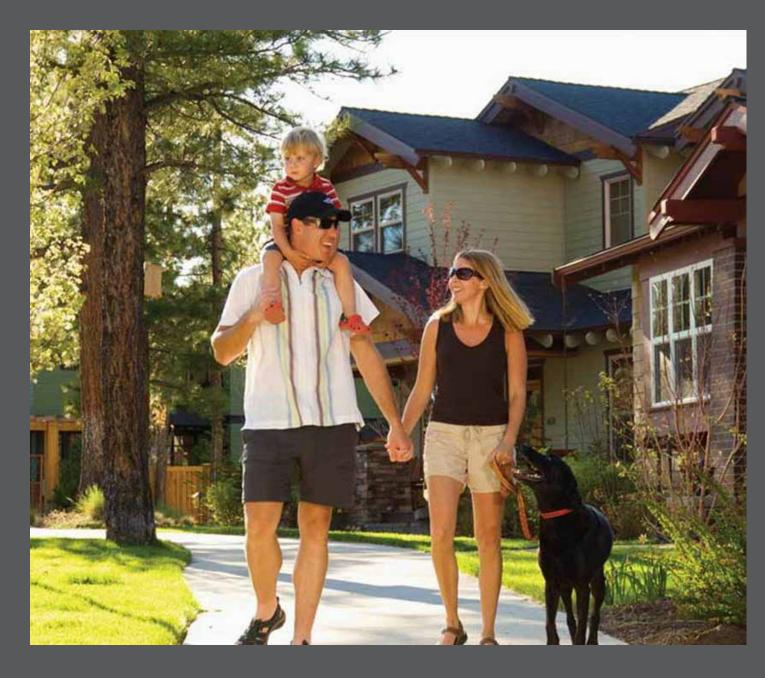
23 taxlots18 owners66 acres





#### **Concept Plan Criteria**

- 1. Integrated with existing city fabric of Canby
- 2. A walkable, cohesive neighborhood
- 3. All parcels integrated in plan
- 4. Distribute impacts equitably to individual parcels
- 5. Allow for different owners' timing of development
- 6. Reasonable costs of infrastructure and roads
- 7. Clear, connected and safe streets
- 8. Transit-friendly
- 9. Emergency access
- 10. Connect trails to natural areas
- 11. Protect Willow Creek
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- 13. Innovative land planning
- 14. Meet regulations





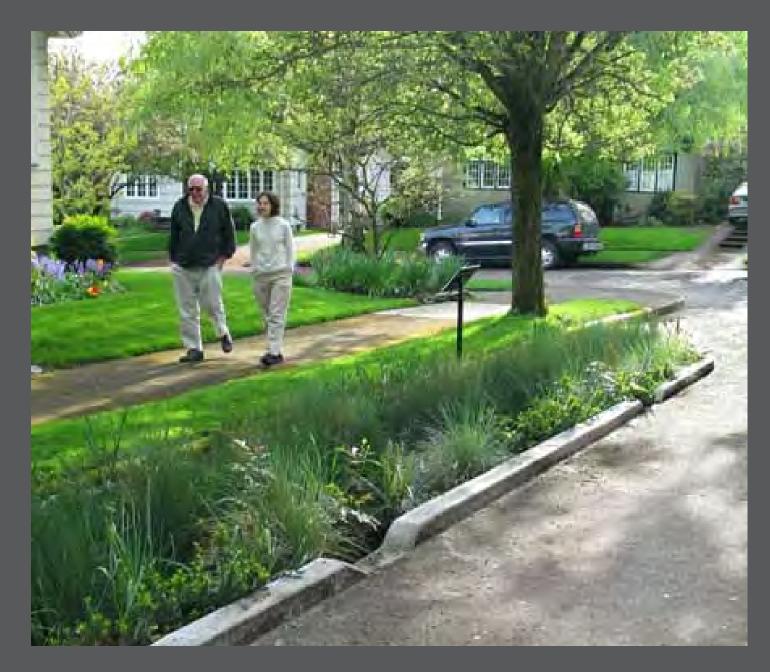
Walkable



**Disconnected** 



**Connected and Safe** 



**Integrated Stormwater Treatment** 



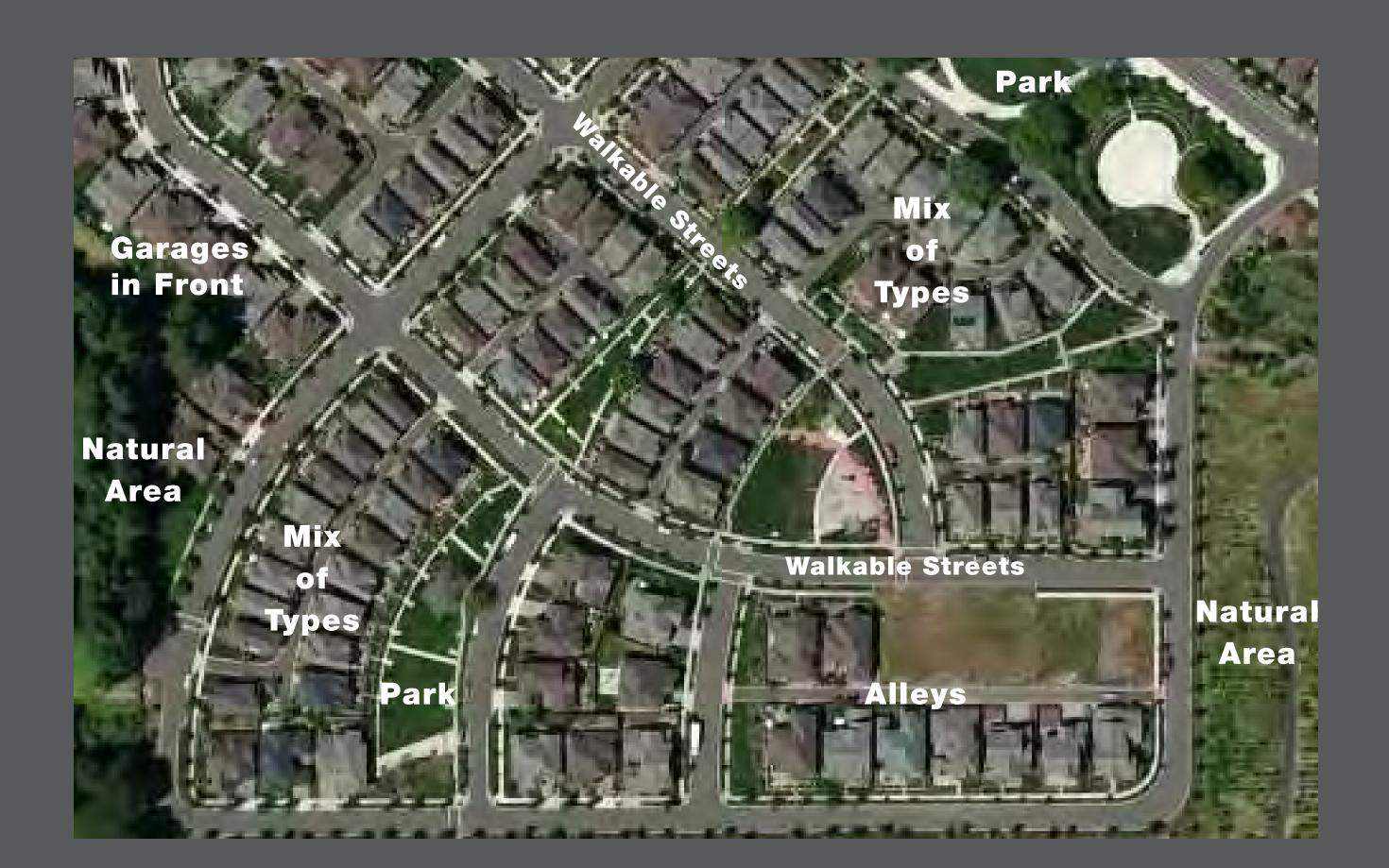
Access to Open Space & Nature



**Trees Enhance Livability** 



**Sense of Community** 





Large Lot (7,000-10,000sf)



**Medium Lot (5,000-6,500sf)** 



**Small Apartment or Townhouse** 



Large Lot (7,000-10,000sf)



**Medium Lot (5,000-6,500sf)** 



**Duplex/Small Lot (3,000sf)** 

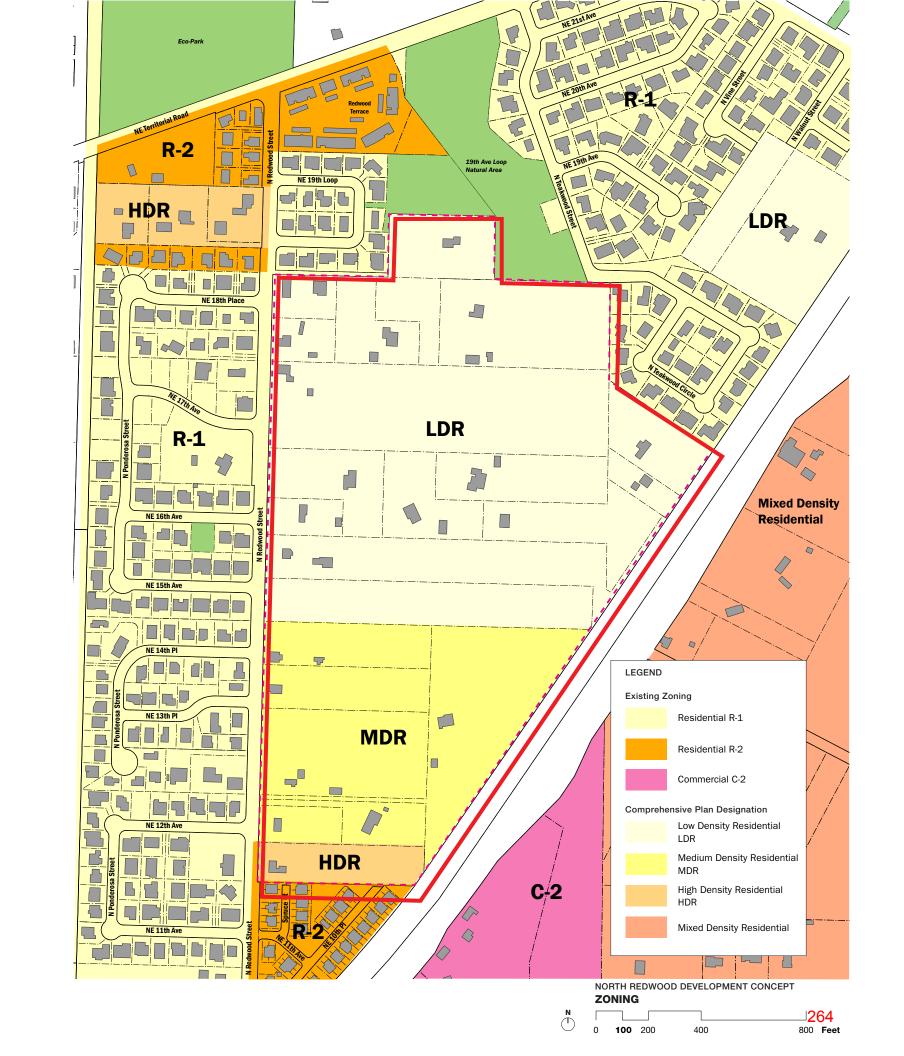
#### **Provide Housing Choices**

#### Zoning

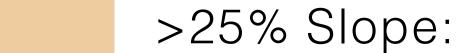
LDR: 45.4 ac

MDR: 18.8 ac

HDR: 2.2 ac



# **Environmental Factors**



~2 ac

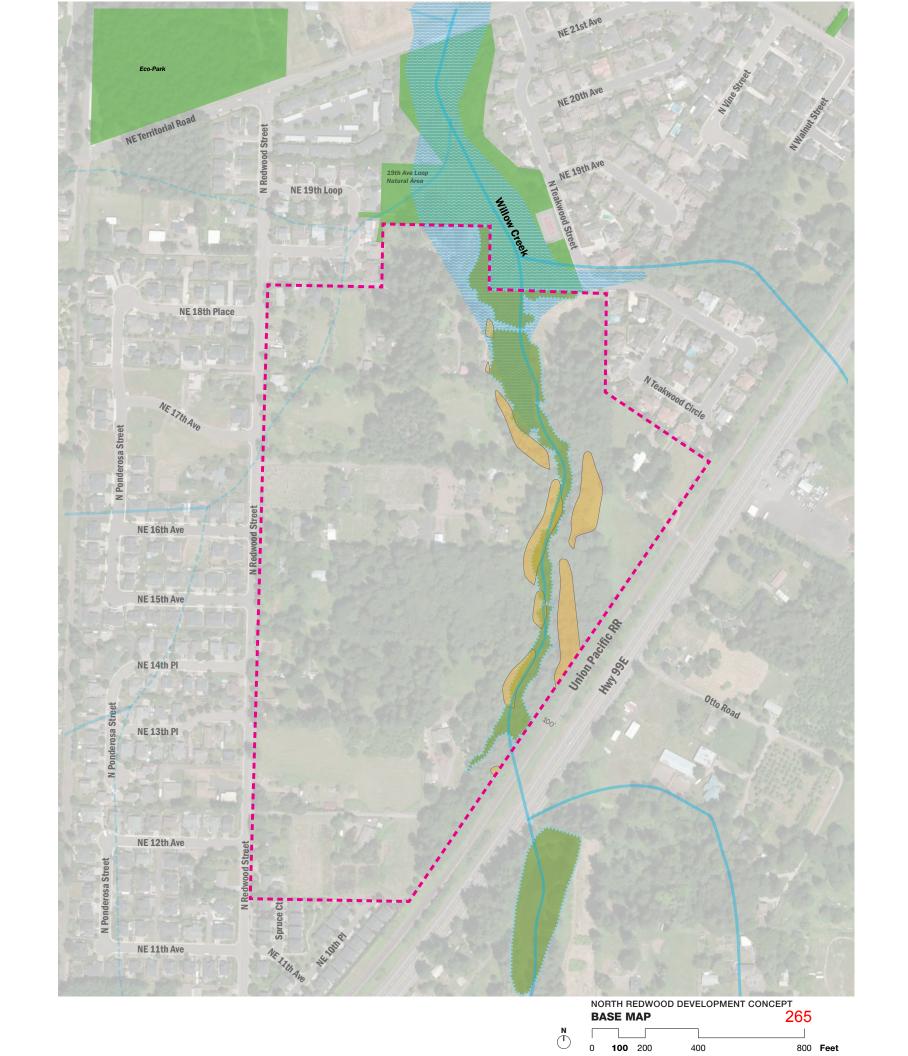
Potential Wetland

~3 ac

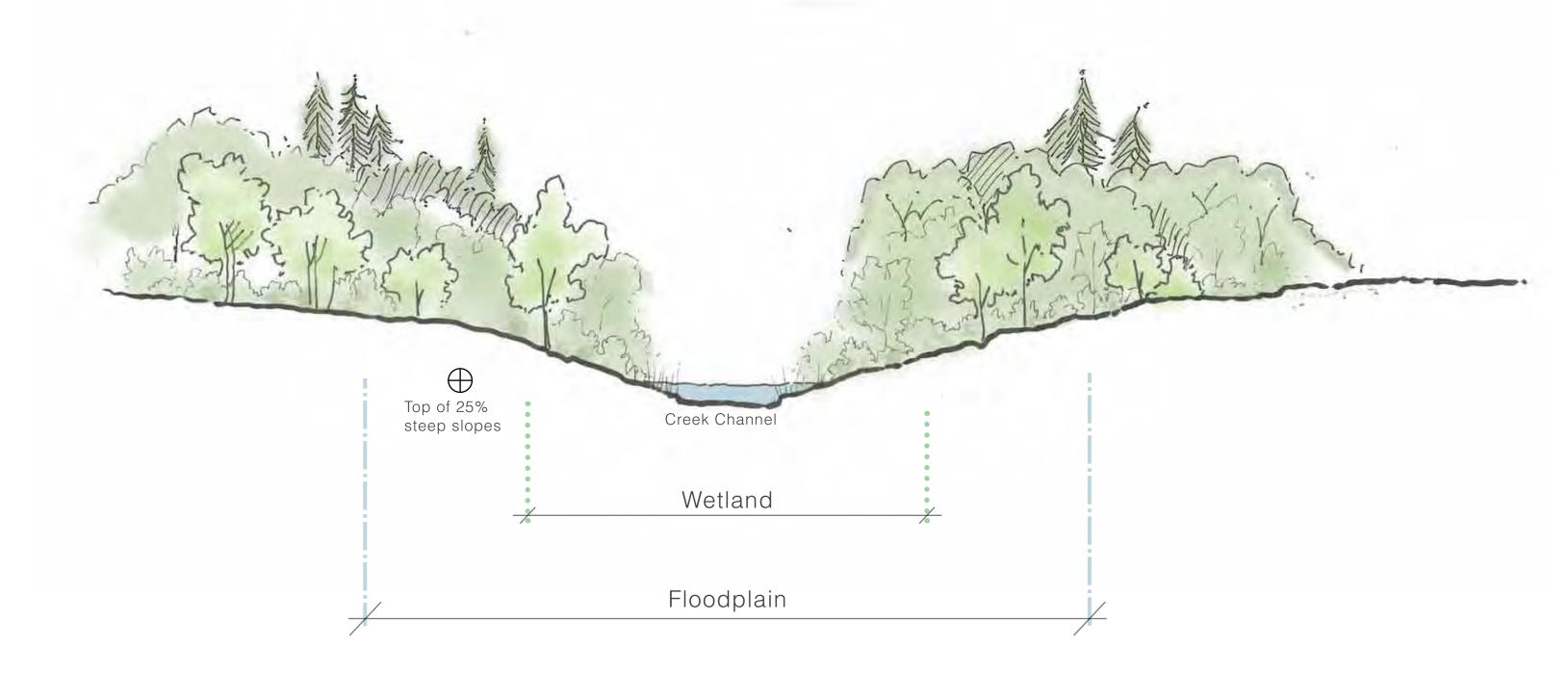
FEMA 100-yr Flood (not incl wetland)

~1.3 ac

Additional lowlands ~1 ac



# Willow Creek (typical condition)



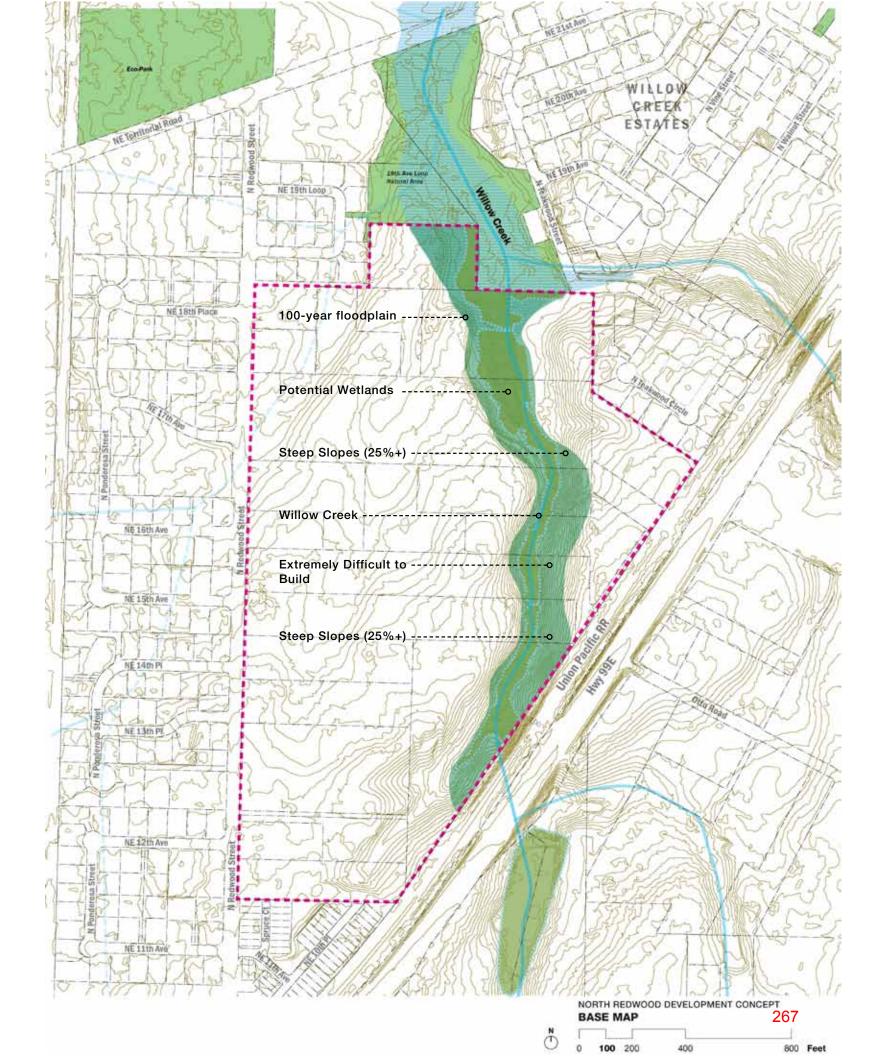
# **Environmental Factors**



Combined
Willow Creek
Environmental Areas

(includes lowland areas adjacent to wetlands. No setbacks assumed yet but this area is approx 50' setback)

~9 ac



#### Park Formula

# (Maximum units in a plat) x (persons/unit) x 0.01 (acreage to be dedicated)

```
LDR/R-1: 36.3 ac (total acres minus streets)
36.3 ac / 7000 sf minimum lot size = 226 units
226 x 2.7 people per unit = 610
610 \times 0.01 = 6.1 \text{ park acres.}
MDR/ R1.5: 15 ac (total acres minus streets)
15 ac / 5000 sf minimum lot size = 131 units
131 x 2.7 people per unit = 353
353 \times 0.01 = 3.5 \text{ park acres.}
HDR R-2: 1.8 ac (total acres minus streets)
1.8 ac / 3000 sf minimum lot size = 26 lots
28 x 2.7 people per unit = 71
58 \times 0.01 = 0.7 park acres.
```

#### POTENTIAL PARK ACREAGE: 10.3 acres

# Open Space Edges





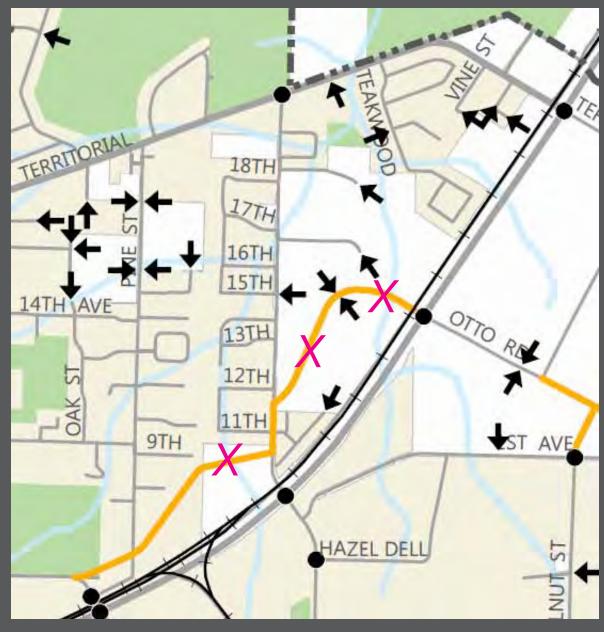




#### Connections

Not all connections will be required.

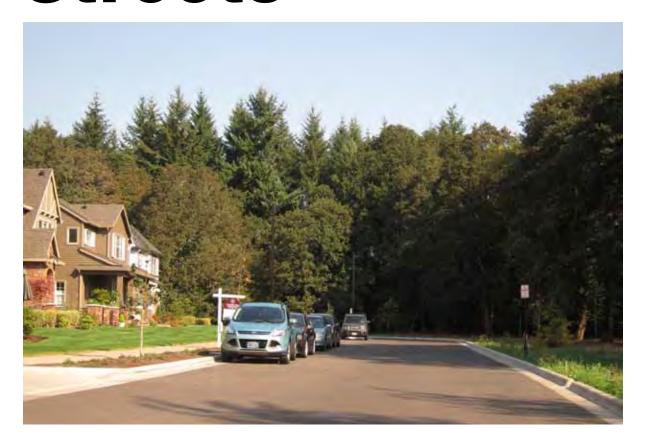
(Also potential Logging Rd Trail connections.)



Otto Road - deleted

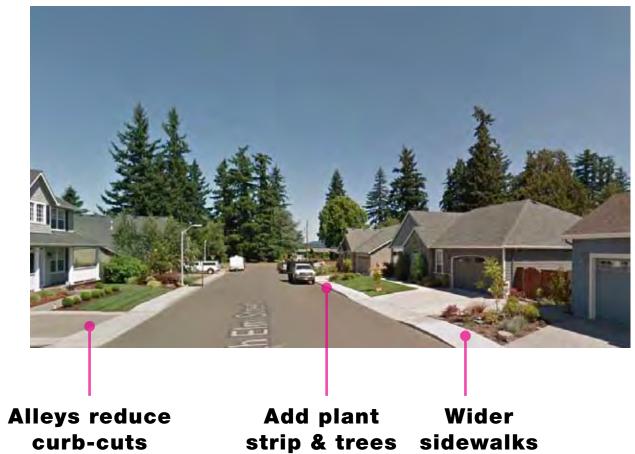


## **Streets**



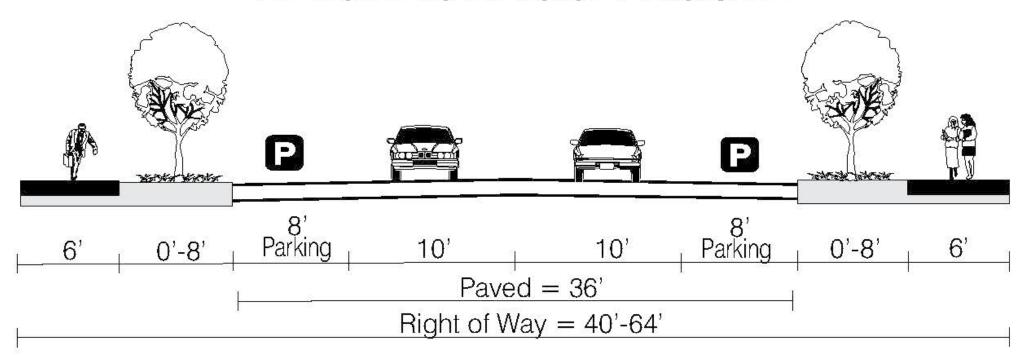




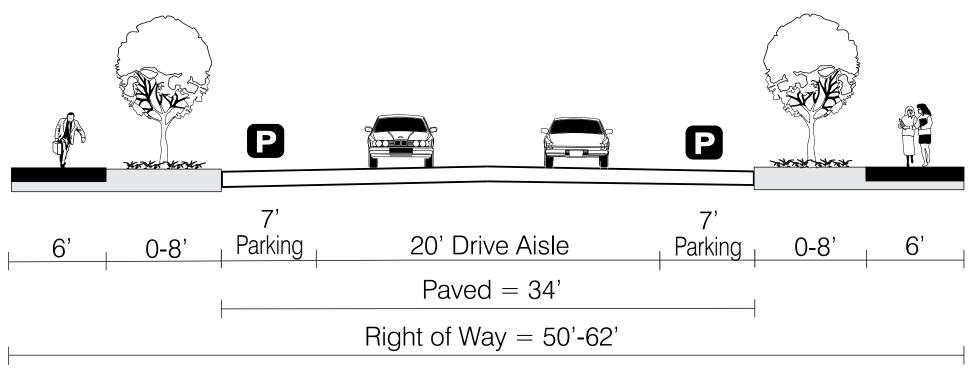


#### **Streets**

#### **NEIGHBORHOOD ROUTE**

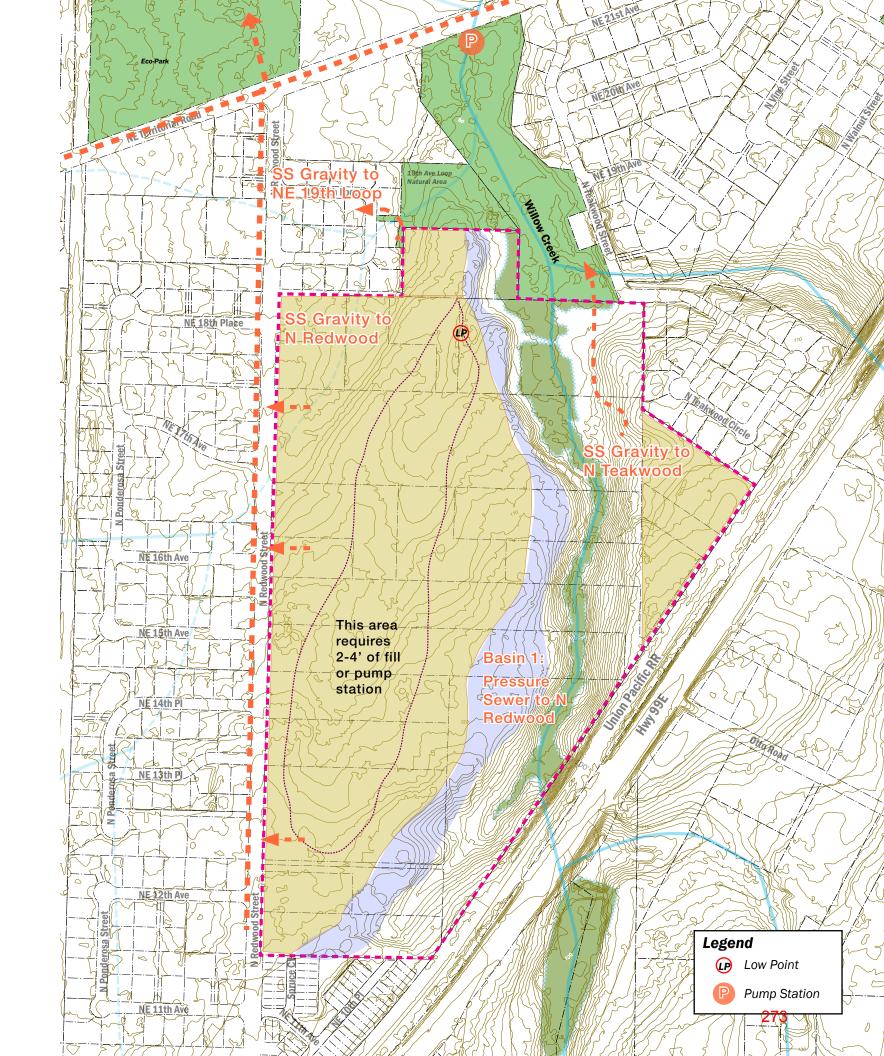


#### STANDARD LOCAL STREET



#### Sewer





## Stormwater Approach

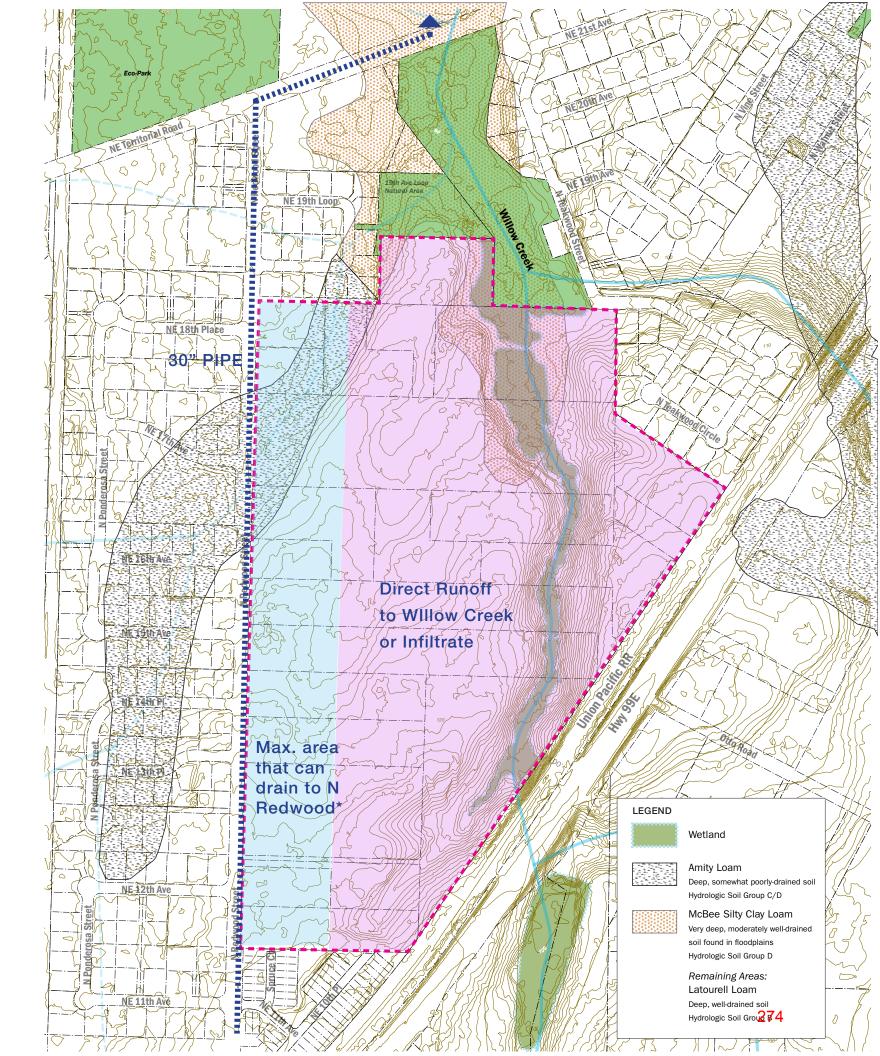












#### Concept 1

"City Grid"

Total Road Acreage: 15 acres (22%)

(20-25% typical)

Total Park Acreage: +/-10 acres

(Environmental Areas plus 1 acre pocket neighborhood park)

LDR: 45.4 ac

MDR: 18.8 ac

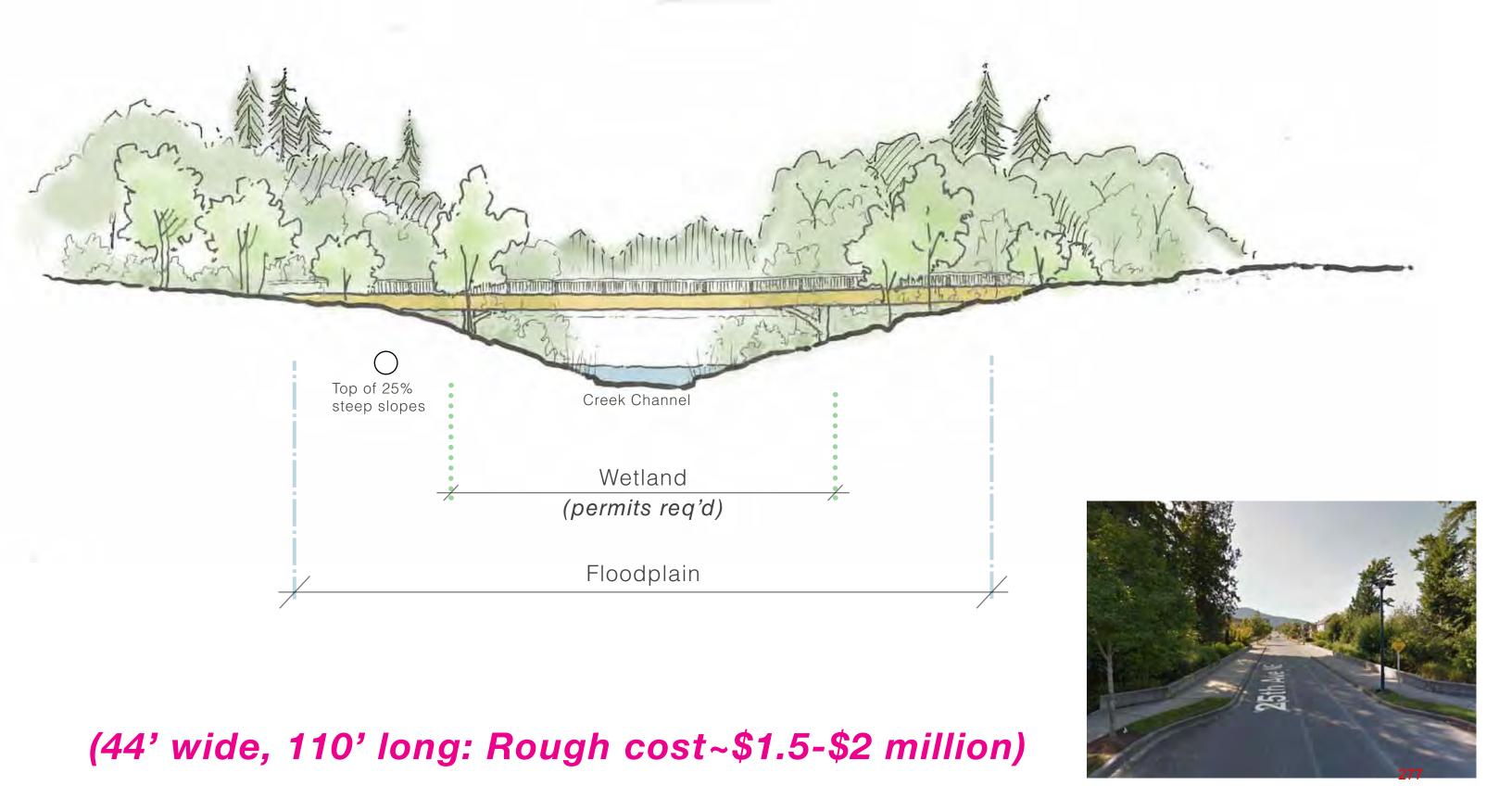
HDR: 2.2 ac

(all include open space areas)





# Willow Creek Road Bridge









#### Concept 2

"Riverside": PREFERRED

Total Road Acreage: 14 acres (21%) (20-25% typical)

Total Park Acreage: +/-10 acres

#### **Key Benefits:**

- Cheaper bridge cost
- Minor Impacts to Willow Creek Estates
- Roads aligned with natural features

LDR: 45.4 ac

MDR: 18.8 ac

HDR: 2.2 ac

(all include open space areas)





#### **Concept Plan Criteria**

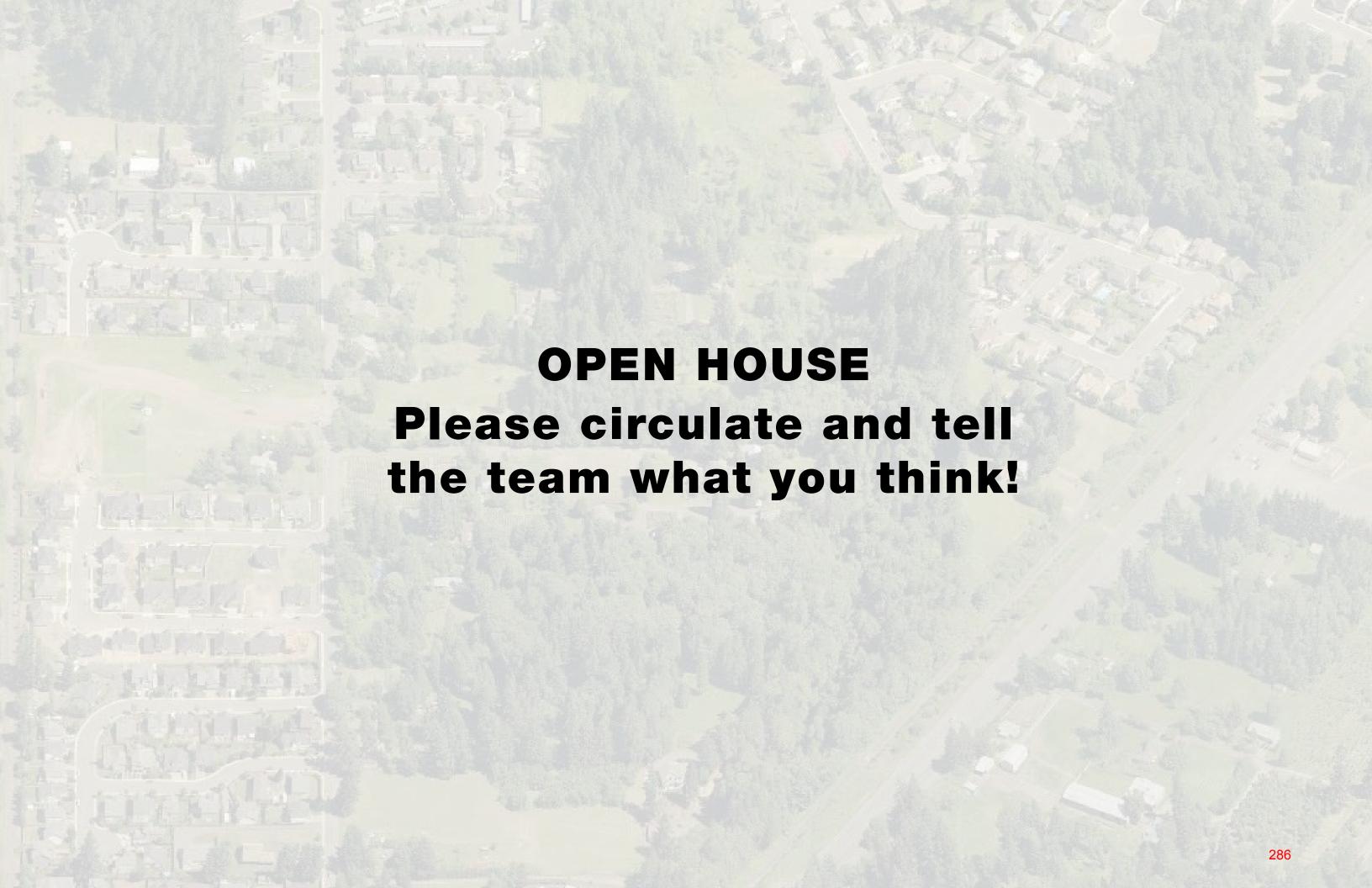
- 1. Integrated with existing city fabric of Canby
- 2. A walkable, cohesive neighborhood
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- 14. Meet regulations

#### **Concept Plan Criteria**

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#### **Tools to Share Costs and Benefits of Growth**

- Density Transfers lot size averaging, alternative lot layouts allowed now; additional code provisions possible
- Density Bonuses –not currently allowed (except through height bonuses); additional code provisions possible
- Planned Unit Developments allowed now; good tool for consolidated properties
- Property Consolidation, Master Planning Concept Plan helps mimic this process without sale, consolidation of property
- Advance Financing Districts used previously; allows for sharing infrastructure costs (Canby Code 4.12)
- Local Improvement District



To: Matilda Deas Topic: Public Event #2 Meeting Notes Date: 06/23/2015

From: Ken Pirie Project: Canby North Redwood Project #: 3077

Distribution:
Basecamp

#### **North Redwood Development Concept Plan**

**Public Event #2 Notes** 

#### Land Use and Plan Alternatives Boards

- Concerns about wildlife crossing of Teakwood Road and from development
- Concerned about increased traffic in Willow Creek Estates
- No major benefits to Willow Creek Estates from an emergency rail crossing (some but not a lot)
- Like visual access to open space
- Potential impacts on streets, sewer, etc. in Willow Creek Estates
- Differing opinions re: impact on properties
- Pedestrian bridge and trails add value, but possible adverse impacts if development not done right
- Prop owners east of Willow Creek knew they had access issues when they bought;
   why not leave that area alone as open space
- Can study area be required to have similar CC& R's as Willow Creek Estates?
- Parks are further from HDR land—shouldn't they be closer?
- Is a linear park in the Riverside option a suggestion? Is it flexible?
- Can city pay for road on west side and be repaid as development occurs?
- Suggest HDR next to RR as buffer
- House in path of road on map. What happens to house? Is it possible to shift road locations to allow development to avoid intervening property owners?
- How to address differences in amount of land covered by natural areas for different properties?
- Constrained land has less value than flat ground. How to assign value? Natural areas have some value—as an amenity, stormwater, etc.
- One of the maps shows a slightly different study area boundary than the others.
- What are the next steps in the process?

#### Parks and Natural Areas Boards

- Concerns about width and limits of creek (beaver habitat)
- Pedestrian bridge and paths in park at Willow Creek Estates often flood
- Creek flooding concerns
- 19th Avenue Natural Area is more 'wetland' than creek-substantial width
- At one time, there were fish (non-salmonid) in the northern portion of Willow Creek in the study area.

#### Transportation Boards (this is a written summary from Steve Boice, DKS)

- Concerns that pedestrian bridge and emergency access may lead to more crime
- Primary concern is the increase in traffic along N Teakwood St with the relaxed grid option. The 15 houses would generate approximately 143 daily trips, 11 am peak hour trips, and 15 pm peak hour trips. This level of traffic increase would not trigger the neighborhood traffic management thresholds (30 peak hour or 300 daily trips) but it might be worth doing a volume/speed count on Teakwood to put this number in perspective. Local residential street volumes should not increase above 1,200 daily vehicles and speeds should not exceed 28 mph. It appears that approximately 80 homes may already use Teakwood so the ADT could be in range of 700-800. This would give residents a sense of what is out there.
- Concerned with the alignment of the new street where it intersects N Teakwood St at the horizontal curve. We need to make sure that adequate intersection sight distance would be provided. The drawing is conceptual.
- Concerned with the pavement condition along Redwood. Noted that the street is continuously filled with potholes. I believe this street is under County jurisdictionresidents would like to see the City take over.
- Concerned with the landscape median at the intersection of Territorial/Teakwood.
   Sounds like this gets continuously hit and prevents moving vans from travelling though this intersection. If moving vans won't access, how will construction vehicles access and how will it be maintained?
- Additional note provided by Matt Hastie. The three property owners west of the railroad currently pay the railroad an access fee. Would the city assume that cost if that area were redeveloped?

end

To: Matilda Deas Topic: PMT #4 Meeting Notes Date: 06/22/2015

From: Ken Pirie Project: Canby North Redwood Project #: 3077

#### North Redwood Development Concept Plan

Distribution:

**Project Management Team Meeting #4** 

Basecamp

#### Attendees:

Ken Pirie, Walker Macy Thomas Fischer, Walker Macy Matt Hastie, Angelo Planning Group Matilda Deas, City of Canby Lidwien Rahman, ODOT

- The team reviewed the draft presentation for Public Event #2. Key comments focused on providing clarity on the following presentation elements:
  - Emergency Access: due to difficulty in Union Pacific RR negotiations, team was advised to be cautious when presenting options for emergency access across the railroad's property.
  - Add apartments and townhomes as use in HDR zone
  - Always note that wetlands shown are "potential" and not delineated officially at this point
  - Clarify transportation-related slides for laypersons
  - Match comp plan zone boundaries exactly on Alternatives
  - Add more realistic bridge costs, to include soft cost figures (\$1.5-\$2 million)
  - Organize presentation for logical progression with common elements preceding Alternatives
  - PMT also provided direction on best way to structure public event as open house

end

To: Matilda Deas Topic: PMT #1 Meeting Notes Date: 11/20/2014

From: Ken Pirie Project: Canby North Redwood Project #: 3077

#### North Redwood Development Concept Plan

Attendees:

Ken Pirie, Walker Macy Matilda Deas, City of Canby Seth Brumley, ODOT

Distribution:

Basecamp

**Project Management Team Meeting #1** 

- City has intern who can help with GIS (Jamie Taylor). Also need to set up Basecamp
- Politics in the City are getting better, less conservative
- Smart new City Administrator, Rick Robinson, came from Redding
- There is a problem in the City with parks, there is no money for parks maintenance-(Matilda is also Parks planner.)
- No public works director in Canby currently

#### **Public Engagement**

- Stakeholder Interviews--who to interview?
- Who should be on Stakeholder Advisory Committee?
- Alan Manuel is landowner and developer, assembling land
- WM will talk to team member Cogan Owens Greene re: SAC strategy and ground rules
- For open houses, try to split into smaller groups vs. open forum has worked in Canby before and gives quieter folks a voice

#### **Parks and Natural Areas**

- Parks would accept Willow Creek and wetlands for development
- Big nut is how to equitably share park dedication when some properties include a large percentage of the Willow Creek area but some don't.
- Tree protection? City doesn't have stomach--Council won't even buy easements
- Open to creative carrots w/protecting trees and keeping trees as street trees
- No Goal 5 resources in study area (on Molalla River mainly)
- Clackamas County has stronger regulations
- Get around lack of protection by encouraging set aside as parks

#### **Utility Information**

- Sewer pipes-should be on GIS
- Water is Canby Utility
- PGE services site
- Stormwater MP: Tertiary stormwater treatment will be increasingly required and is described in the recent stormwater master plan. Opportunities for educational and recreational amenity
- Explain LID and narrow streets: "It can be done, it's not weird."

end

## NORTH REDWOOD DEVELOPMENT CONCEPT PLAN

**Project Memo #5 (Deliverable 5C)** 

## **Alternative Development Concept Plans**

June 24, 2015





LANDSCAPE ARCHITECTURE

URBAN DESIGN

PLANNING

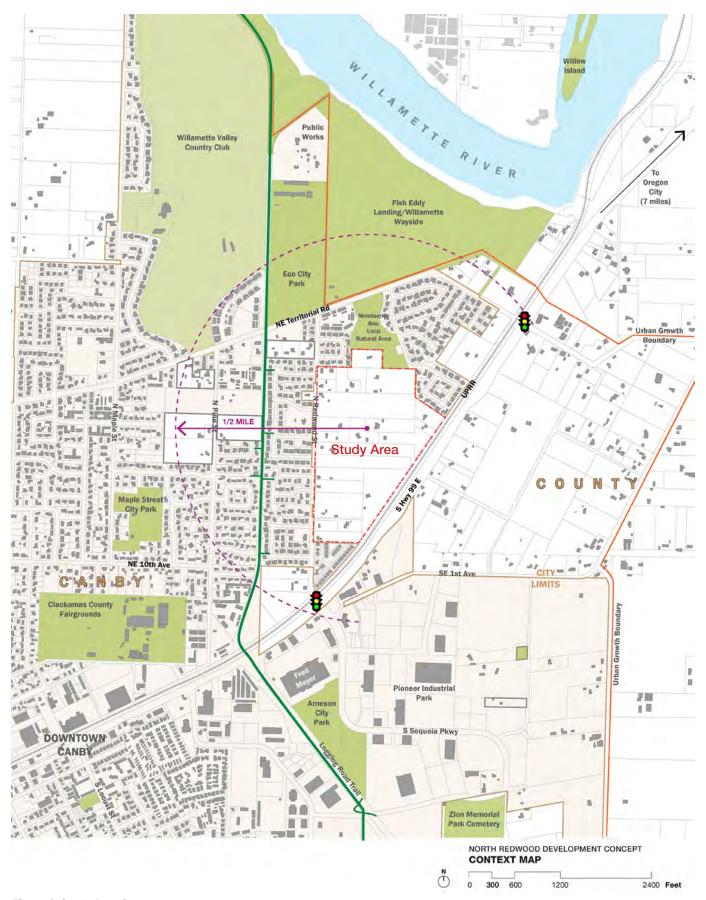


Figure 1: Study Area Context



Innovative land planning with diverse housing types accessed by rear alleyways.



A connected, cohesive neighborhood



A walkable neighborhood

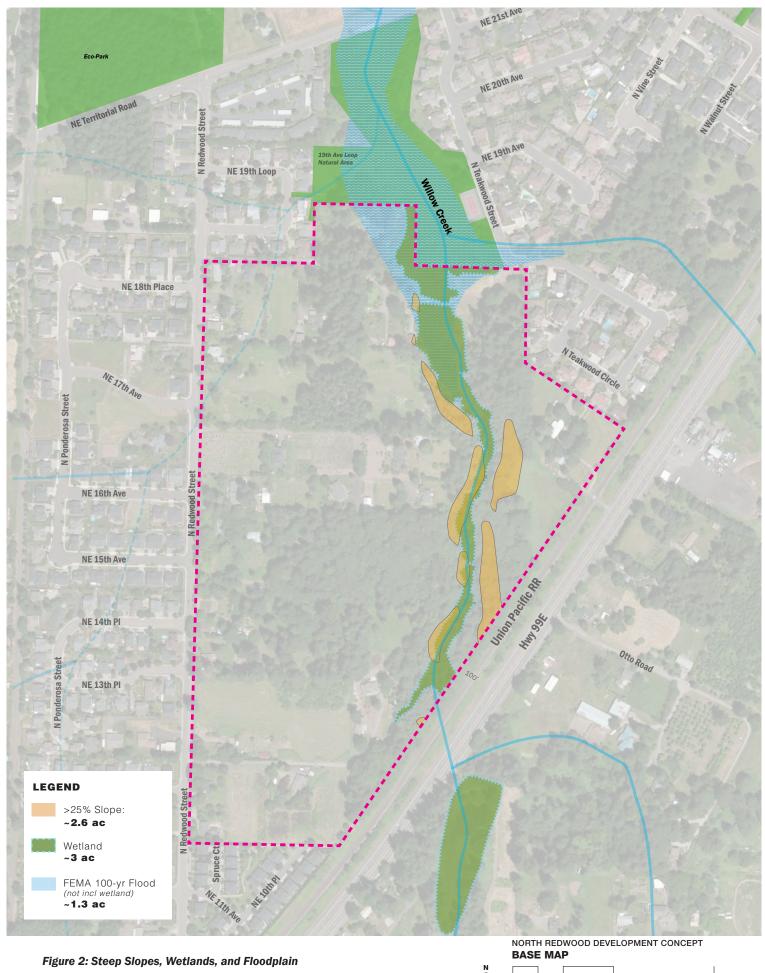
#### **Overview**

This memo describes and explains two alternative Development Concept Plans for the Canby North Redwood Study Area. Each concept offers different approaches to circulation, infrastructure needs, location of housing types, and natural resource protection. Additionally, each concept is structured using development parameters: specifically, clustering of density, prototypical block sizes, and park acreage requirements. These concepts are intended to guide the final Development Concept Plan. Eventual development by individual properties will be required to match key street and open space locations but will otherwise have an element of flexibility for the owners to develop new neighborhoods according to their individual intentions.

#### **Concept Plan Criteria**

Each alternative Development Concept Plan is guided by the following criteria, outlined in Memo #4. To the extent possible, the alternative plans seek to foster development of a neighborhood that is:

- Integrated with existing city fabric of Canby
- Walkable and cohesive neighborhood
- · A plan with all parcels integrated
- A plan with impacts distributed equitably to individual parcels
- Allowing for different owners' timing of development
- Reasonable costs of infrastructure and roads
- Connected with safe streets
- Transit-friendly
- Allows emergency access
- Connects trails to natural areas
- Protects Willow Creek
- Provides public, accessible parks
- Demonstrates innovative land planning





#### **Natural Conditions**

The Willow Creek channel through the study area has relatively high water quality and well-vegetated slopes, although there is an understory of invasive species such as English Ivy and Himalayan blackberry. The creek corridor is essentially unbuildable, given current regulations. There is a 50' setback required by Clackamas County, which won't automatically apply to the creek upon annexation. The City does not recognize Willow Creek as a protected Goal 5 resource so new City setbacks would not be applied, although development regulations will still protect these sensitive areas to an extent.

Despite being unbuildable, the corridor has the potential to be a visual and recreational amenity for the future community, as well as providing potential space for stormwater treatment. In addition, as the following pages explain, the creek and associated natural area can potentially serve as park land dedicated to the Clty of Canby as part of land use regulations.

A preliminary reconnaissance of properties adjacent to Willow Creek found the likely presence of approximately 3 acres of wetlands, whose approximate boundaries are mapped in Figure 2. More defined boundaries would be determined through a more detailed wetland delineation required at the time that individual parcels are developed.

Within the northern parcels of the study area, the FEMA 100-year flood plain extends south roughly 200-300 feet. This floodplain condition is a result of the 1996 flood that backed up along the Willow Creek corridor, covering Territorial Road. There are roughly 1.3 acres within the floodplain.

Finally, there are steep slopes on both the west and east banks of Willow Creek. Slopes over 25% are challenging to develop and should remain undisturbed when adjacent to wetlands and streams in order to avoid erosion. There are approximately 2.6 acres of these steep slopes.

The combined acreage of these sensitive areas,, along with adjacent land between wetlands and slopes, is shown on Figure 3. This 9-acre area can form the core of a future open space that satisfies City regulations for park dedication.

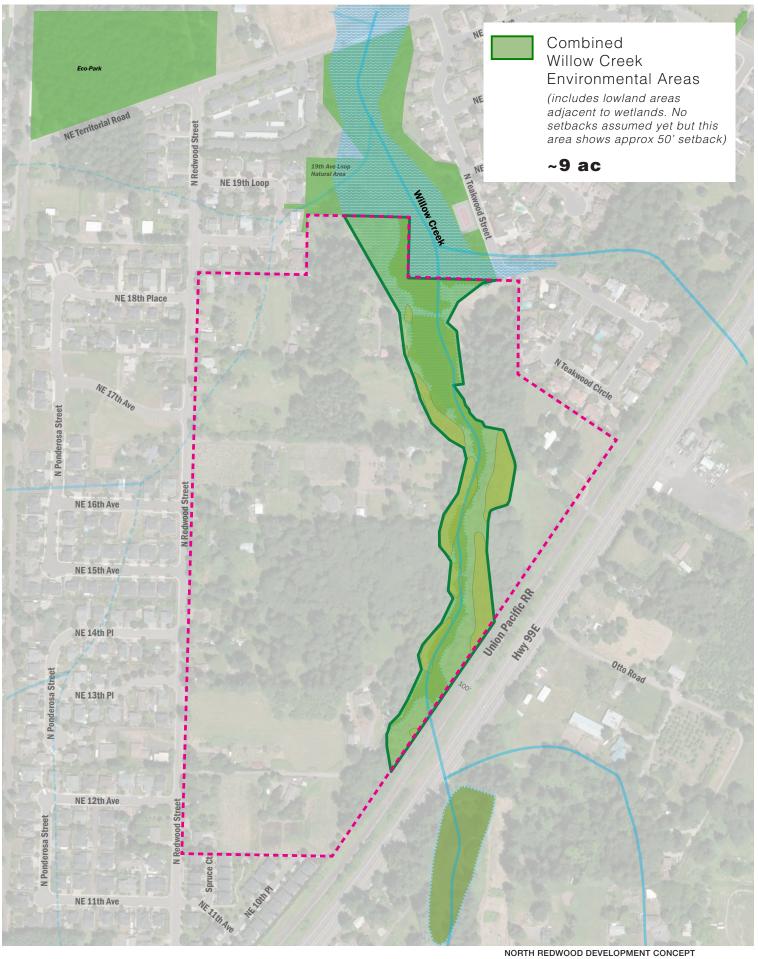


Figure 3: Willow Creek Environmental Area





A natural area with wetlands can be accessed with a boardwalk, minimizing impacts to the natural resource whille allowing residents to enjoy the space.



A pocket park with gazebo can provide a community gathering space.



A trail is proposed along the Willow Creek corridor.

#### **Parks and Open Spaces**

Future development in the North Redwood Study Area will be required to dedicate a certain amount of parks and open space, which is consistent with the principles outlined on page 3 for the creation of a livable community.

The acreage required for dedication is calculated using the formula below, applied to new construction:

### (Maximum units in a plat) x (persons/unit) x 0.01 = acreage to be dedicated

To account for the various densities included in the City of Canby Comprehensive Plan zoning for this Study Area, approximate acreages of Low Density Residential, Medium Density Residential, and High Density Residential were calculated (not including street area, subtracted as a 20% deduction from gross acreages). Park acreages were then calculated for each as follows:

<u>LDR/R-1</u>: 36.3 ac (total acres minus streets) 36.3 ac / 7000 sf minimum lot size = 226 units  $226 \times 2.7 \text{ people per unit} = 610$   $610 \times 0.01 = 6.1 \text{ park acres}.$ 

MDR/ R1.5: 15 ac (total acres minus streets) 15 ac / 5000 sf minimum lot size = 131 units 131 x 2.7 people per unit = 353 353 x 0.01 = 3.5 park acres.

<u>HDR R-2</u>: 1.8 ac (total acres minus streets) 1.8 ac / 3000 sf minimum lot size = 26 lots 28 x 2.7 people per unit = 71  $58 \times 0.01 = 0.7$  park acres.

#### **TOTAL PARK ACREAGE: 10.3 ACRES**

The City of Canby does not typically accept unbuildable natural areas as dedicated park lands under the above formula, however, the city has indicated a willingness to accept land dedicated along Willow Creek, which is a significant benefit to potential future developers.

The plan alternatives in the following pages show the green corridor in Figure 3 incorporated consistently within the two plans. Additional park land of approximately 1-2 acres, which can serve as a potential neighborhood pocket park, is shown in both Alternatives, to make up the difference between the core 9 acre natural area and the 10+ acres required by code. Alternatively the City could accept Park System Development Charges to make up the difference.

#### **Development Parameters**

The alternative Development Concept Plans are structured partly using the two parameters described below:

#### **Prototypical Block Sizes**

Studying the range of traditional block sizes from Canby (top right), new community block sizes in Canby (center right), and best practices from other well-designed developments (bottom right), a prototypical block size with a width range of 280', measured from the center of oen street to the center of the next street was used to guide the layout of each concept plan. A variety of lot sizes are possible within this prototypical block.

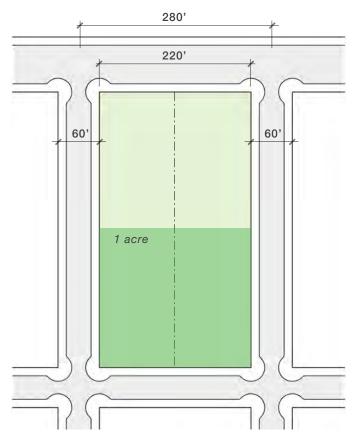


Figure 4: Prototypical Block



Traditional Canby Neighborhood



New Canby Neighborhood (since 2000)



Wilsonville New Neighborhood (since 2005)

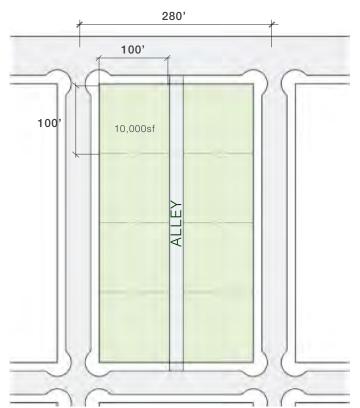


Figure 5a: Large Lots (LDR) with alley

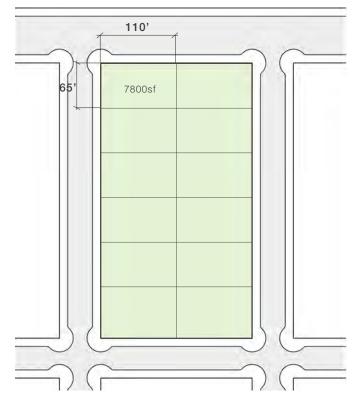


Figure 5b: Large Lots (LDR) no alley; garages in front of homes



Large Lot



Large Lot

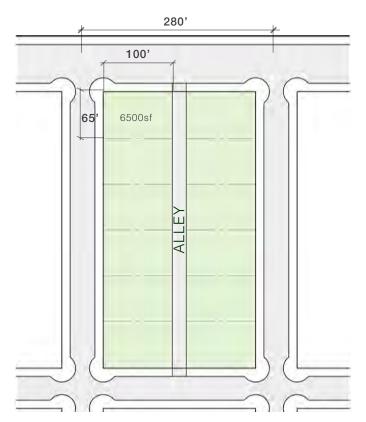


Figure 6: Medium Lots (alley is optional)



Medium Lot



Medium Lot



Medium Lot

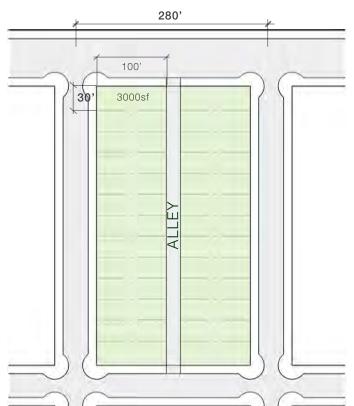


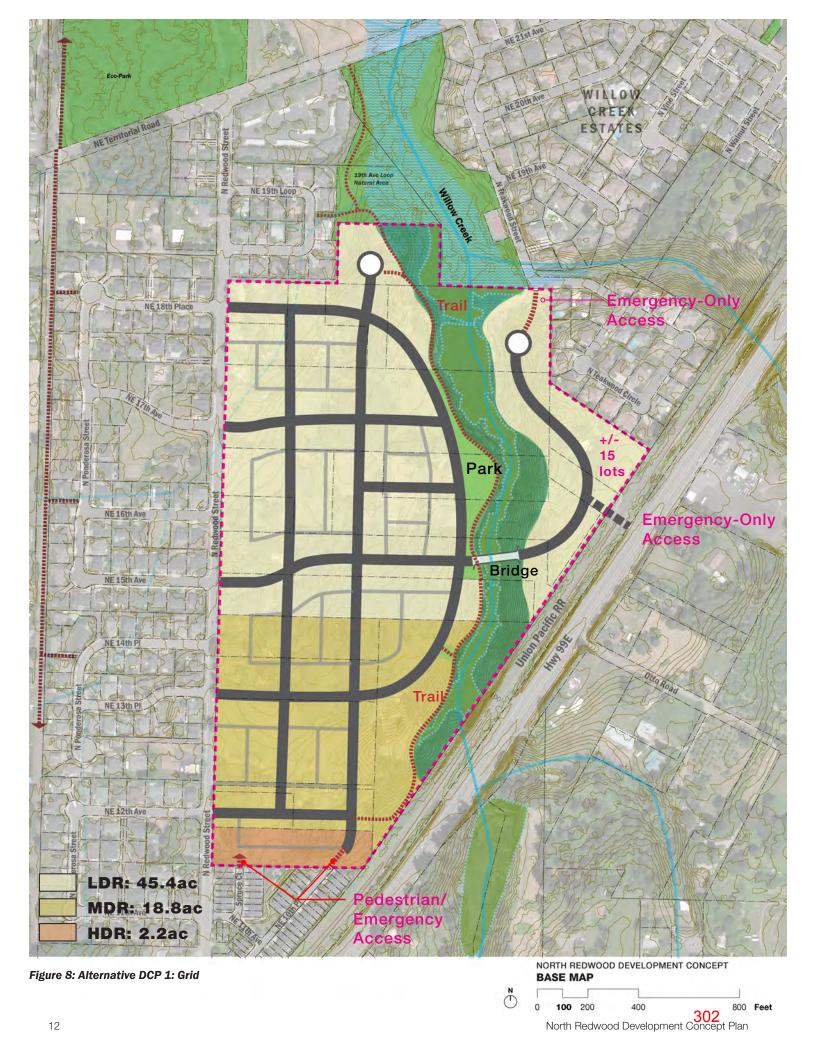
Figure 7: Small/Duplex Lots (alley is optional)



Duplex (HDR) Lot



Cottage/Cluster Housing



#### Alternative DCP 1: Grid

This Alternative concept, which is based on the preceding block structure, is intended to be a seamless addition to Canby's existing city fabric, with extensions to existing streets on the west side of North Redwood in 5 locations (NE 18th, NE 17th, NE 15th, NE 13th and NE 12th). One of those connections, NE 15th Avenue, is envisioned as a Neighborhood Route, which links through the heart of the community and across a proposed bridge across Willow Creek, which connects to the lots on the east side of the creek. Access to Willow Creek Estates to the north will be for emergency vehicles only, using a gate similar to the one shown at right in Wilsonville. Another emergency route, without pedestrian or bicycle access, would be desirable across the UP rail line to access Hwy 99E, closing the existing driveway.

An internal loop road is also a key component, looping from NE 18th Place, along the edge of the Willow Creek open space, crossing the NE 15th connector then continuing south to NE 13th. Other internal streets shown are advisory and will be located according to future individual development plans.

This steel or concrete arch bridge would require significant further design and will be an expensive investment, costing roughly \$1.2 million. It will require environmental permits due to likely wetland and riparian impacts. Figure 9b below is a conceptual sketch of the bridge crossing Willow Creek.

A trail is proposed, along the Willow Creek open space, connecting to a small neighborhood park and to existing and future natural areas to the north, as well as to Fred Meyer and downtown Canby to the south via NE 12th.



Emergency Access at a new neighborhood

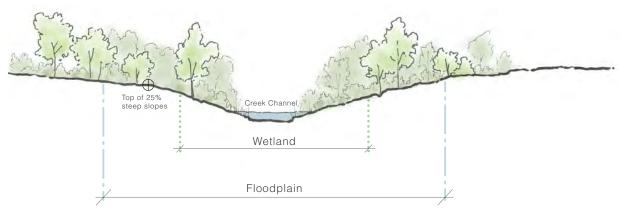


Figure 9a: Willow Creek Cross-section

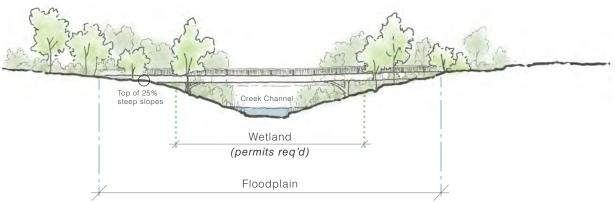
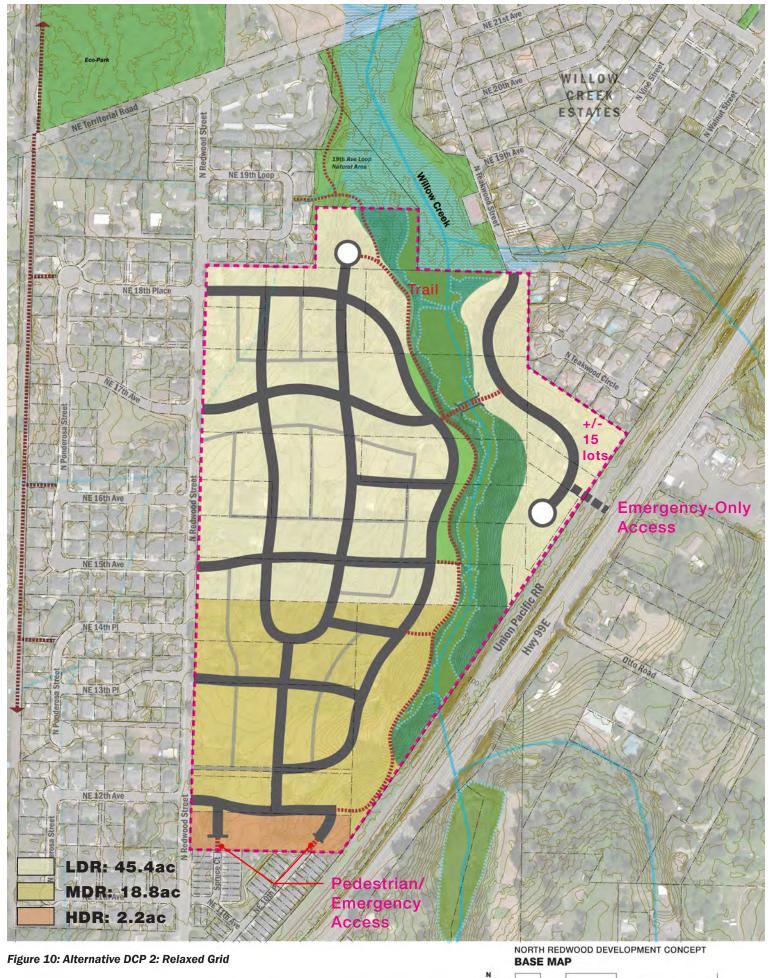


Figure 9b: Willow Creek Cross-section with proposed bridge



100 200 400 800 Feet North Redwood Development Concept Plan



Pedestrian and bicycle bridge over Willow Creek



Typical neighborhood street, with mature street trees.



The plan presents some single-sided streets along Willow Creek, which provide significant value to homes with a frontal view of the open space. This arrangement also has public safety benefits, as the open space and associated trail can be monitored from street users and nearby homes.

#### Alternative DCP 2: Relaxed Grid

This Alternative concept, which is based on the block structure described earlier, still provides several connections to Canby's existing city fabric, with extensions to existing streets on the west side of North Redwood in 4 locations (NE 18th, NE 17th, NE 15th and NE 13th). An internal loop road is a key component, looping from NE 18th Place, along the edge of the Willow Creek open space, then continuing south to North Redwood between NE 13th and NE 12th. Other internal streets shown are advisory and will be located according to future individual development plans.

Approximately 15 large lots on the east side of Willow Creek will be connected to Teakwood Street and Willow Creek Estates to the north. An emergency route, without pedestrian or bicycle access, would be desirable across the UP rail line to access Hwy 99E, closing the existing driveway.

A trail is proposed, along the Willow Creek open space, connecting to a small neighborhood park and to existing and future natural areas to the north, as well as to Fred Meyer and downtown Canby to the south.

Roadways in both this and Alternative DCP 1 will be neighborhood routes and local streets, described in the TSP and shown below. These streets are intended to be relatively narrow, to reduce speeds while also reducing development costs. The eastward extension of NE 15th, as a main entrance into the area and the road along the edge of Willow Creek would be considered Neighborhood Routes, reflecting their important role as wayfinding circulators.

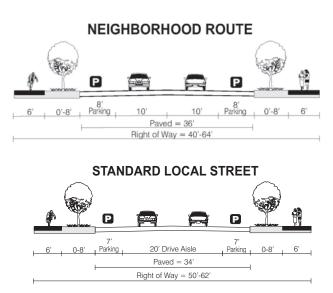


Figure 11: Canby Transportation System Plan street sections

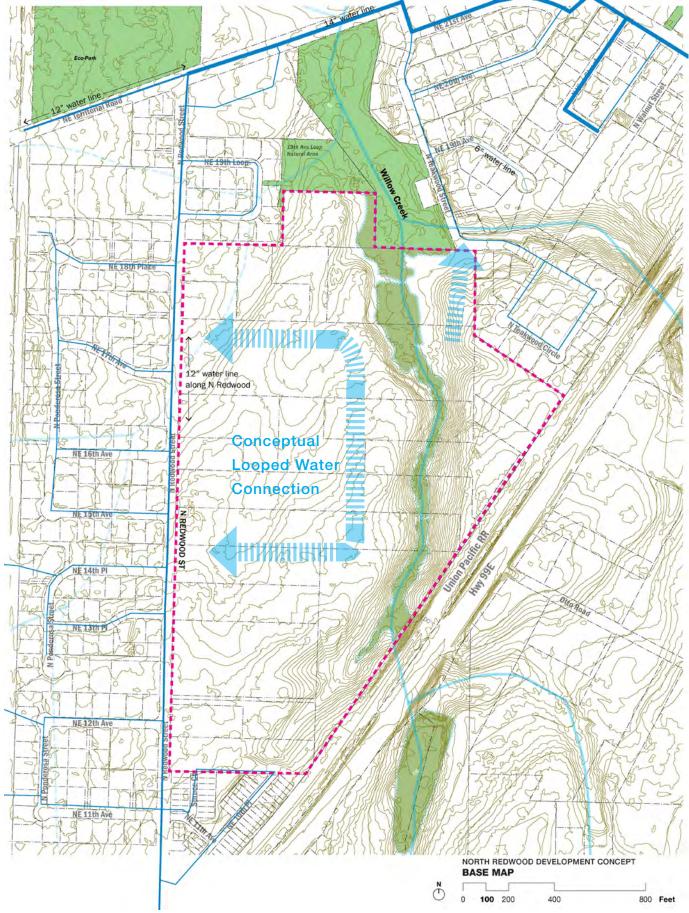


Figure 12: Existing Water Lines near study area

#### Infrastructure: Water

Water within the City of Canby is provided by Canby Utility. Canby Utility completed a Water System Master Plan in 2010. The system analysis in the master plan included all areas within the Urban Growth Boundary, which includes the North Redwood site.

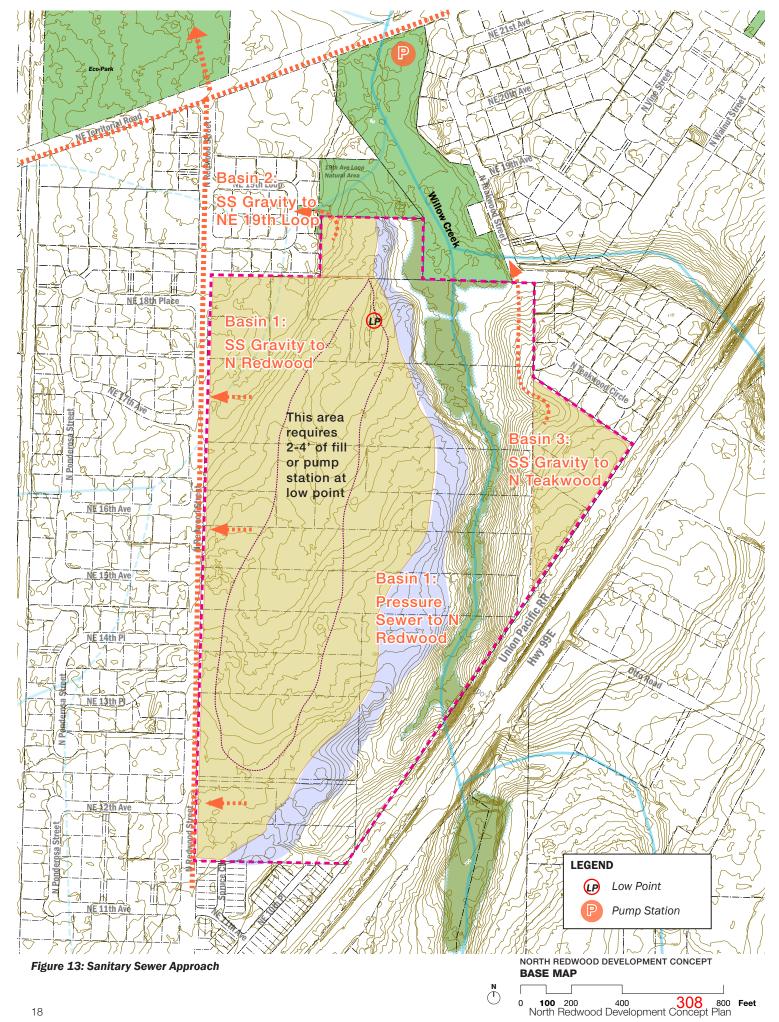
Waterlines adjacent to the project include an existing 12-inch waterline in N. Redwood Street and an 8-inch line in N. Teakwood Street. A 14-inch transmission line is located in NE Territorial Road to the North.

The North Redwood site can be served by Canby Utility via connections to the existing waterlines in N. Redwood Street and N. Teakwood Street. The project site is bisected by Willow Creek. Areas west and east of Willow Creek would be served via separate connections to the existing water system.

Proposed development west of Willow Creek can be served by connections to the existing 12-inch line in N. Redwood Street. A minimum of two connections to the N. Redwood Street waterline is recommended in order to provide a looped water system. In addition, looping of waterlines within the proposed development is recommended.

Proposed development east of Willow Creek can be served by a connection to the existing water line in N. Teakwood Street. Based on the existing development adjacent to the North Redwood site, there will likely not be an opportunity to loop the water lines east of Willow Creek.

Figure 12 shows existing waterlines in the vicinity of the North Redwood site along with proposed connections to serve the site.



#### Infrastructure: Sewer

Sanitary sewer service is provided by the City of Canby. Systems are required to be approved by and to comply with the requirements of Oregon Department of Environmental Quality.

The North Redwood Site can be delineated into three sanitary sewer basins:

- Basin 1: West of Willow Creek
- Basin 2: Northern most parcel adjacent to 19th Ave Natural Area
- Basin 3: East of Willow Creek

#### Basin 1

Basin 1 contains the area east of North Redwood street and west of Willow Creek, excluding the northern most parcel within the project site. An existing 15-inch sanitary sewer line located N. Redwood Street will serve this basin. According to asbuilt records, the existing sewer line is approximately 8-feet deep. Any areas uphill of N. Redwood Street can feed into this line via gravity. Based on GIS contour information, the ground within the project sight generally slopes from the ridge above Willow Creek to North Redwood Street at approximately 1.5 percent. There is a sizeable area within Basin 1 that has a 2 to 4 foot depression, which would need to be filled in order to provide gravity sewer service to the area. Developable areas immediately adjacent to Willow Creek would likely require a pressure sewer and a small lift station in order to provide service to the area.

Capacity of the existing line in N. Redwood Street should be verified prior to development.

#### Basin 2

Basin 2 is the northernmost parcel in project site. This site is lower in elevation than Basin 1 and it is unlikely that this site could be served via gravity to the existing N. Redwood line. There is an existing sewer in NE 19th Loop that could be accessed via a new sewer line extending from Basin 2 into the 19th Avenue Natural Area. If a gravity connection cannot be made to this line, an alternative option is a pressure sewer system that connects to Basin 1.

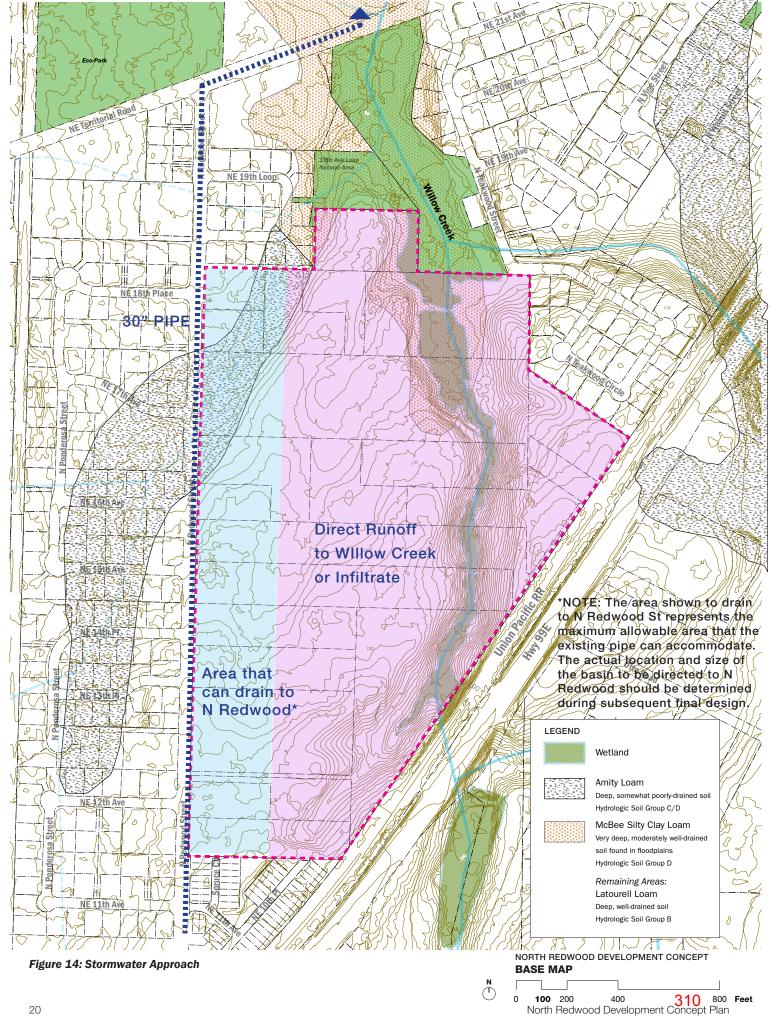
The elevation and capacity of the existing 19th Loop line should be verified prior to development.

#### Basin 3

Basin 3 contains the area within the North Redwood project site that lies east of Willow Creek. This area will be served via a connection to an existing sanitary sewer line in N Teakwood Street. Flow from the Teakwood Street sewer line flows to the Willow Creek Pump Station located at NE Territorial Road at Willow Creek.

The elevation and capacity of the existing sewer lines should be verified prior to development. In addition, the existing Willow Creek Pump Station should be evaluated to determine if it has capacity for the additional flow.

Figure 13 shows each of the three basins and describes how they will be served.



#### Infrastructure: Stormwater

#### City of Canby Design Standards

One of the Concept Plan Criteria, as developed by the project team, is to protect Willow Creek. As such, all runoff from the development of the North Redwood Concept Plan area to be discharged into Willow Creek should be treated for stormwater quality prior to discharge. The City of Canby Public Works Design Standards (Sections 4.109, 4.309, and 4.310) provides criteria for the design of water quality treatment facilities for storm water runoff.

The City of Canby Public Works Design Standards follows the requirements of the Clean Water Services (CWS) Design and Construction Standards, Chapter 4 for water quality treatment. Acceptable methods of treatment include vegetated swales, extended dry ponds, constructed wetlands, Low Impact Development Approaches (LIDA), or proprietary treatment devices. Although all of these methods are acceptable forms of treatment, the City encourages the use of LIDA facilities for water quality treatment of stormwater.

In addition, Stormwater quantity management will be required for all runoff from the development of the North Redwood Concept Plan area unless it can be demonstrated that there are no adverse downstream impacts. Prior to development, a downstream analysis should be performed to determine if water quantity treatment is required, per the City of Canby Public Works Design Standards, Section 4.205. If water quantity treatment is necessary, the volume to be detained will be the volume necessary to limit the developed site peak discharge to pre-developed rates for all storm events with a recurrence interval less than or equal to 25 years (2, 5, 10, and 25-year storm events). Detention and retention facilities are both acceptable methods of water quantity treatment. In accordance with City of Canby Standards, facilities shall be designed in per CWS Design and Construction Standards, Chapter 4.

Storm sewer conveyance facilities shall be designed for the 10-year design storm event. According to the City of Canby Design Standards (section 4.206), peak design flows for conveyance can be calculated using the rational method, the SCS Curve Number method, or the Santa Barbara Urban Hydrograph method.

#### **Other Potential Design Standards**

Many development projects result in impacts to jurisdictional wetlands or waterways. The impacts trigger a State and Federal permitting process with the Oregon Department of State Lands and U.S Army Corps of Engineers, respectively.

The federal wetland permitting process for impacts to jurisdictional wetlands or waterways (i.e.-Willow Creek) in the North Redwood Concept Plan area will likely require Endangered Species Act (ESA) consultation as part of the permitting process.

Through the ESA Consultation process, the National Marine Fisheries Service (NMFS) will expect that stormwater management will be provided to a higher level of stormwater management than would be required by the City of Canby and the Clean Water Services Design & Construction Standards.

Based upon current information from NMFS, they would expect:

- Stormwater quality facilities are sized to treat the volume of water equal to 50% of the cumulative rainfall from the 2-year, 24hour precipitation falling on all contributing impervious areas from the development.
- Stormwater quantity facilities are designed to maintain the frequency and duration of flows generated by storms falling between the lower discharge endpoint (42% of 2-year event) and the upper discharge endpoint (10-year event).

#### **Existing Topography and Soils**

West of Willow Creek, the site topography generally slopes from the ridge above Willow Creek west to N. Redwood Street. In addition, the site generally slopes from south to north. East of Willow Creek, the site generally slopes from east to west, toward Willow Creek, and also from south to north.

According to the NRCS Soil Survey, the majority of the site is Latourell Loam soils, which is in Hydrologic Soils Group B. Group B soils are generally well draining and are suitable for infiltration. Smaller portions of the site in are Amity Silt Loam (Hydrologic Group C/D) and McBee Silty Clay Loam (Hydrologic Group C). Hydrologic Group C and D soils are moderately to poorly drained soils and generally aren't suitable for infiltration. Information from the NRCS Soil Survey can is shown on Figure 14.

Although the NRCS data shows that the majority of the site is well draining, staff at the City has received reports from neighboring property owners noting that the soils in this area do not drain well. Before infiltration is chosen as an option for this site, a geotechnical investigation and infiltration testing should be conducted.

#### **Existing Facilities**

There is an existing storm drain pipe in N. Redwood Street which has excess capacity equivalent to approximately 11.8 acres of impervious surface. This storm drain was constructed as part of an advanced financing district for the neighborhood east of N. Redwood Street. Utilization of this storm drain by the North Redwood project site may require that developers contribute to the cost that was incurred by the neighboring property owners for the construction of this line.

The N. Redwood storm drain discharges to the Fish Eddy site. According the City's stormwater master plan, a treatment wetland will be constructed as part of the restoration of the Fish Eddy property. The treatment wetland will provide water quality treatment and detention for runoff that utilizes the N. Redwood storm drain line and future Willow Creek Drainage.

Existing pipes in N Redwood Street should be surveyed to determine the elevation of the existing storm sewer in order to evaluate the extent to which the North redwood Concept Plan area can drain to the existing N Redwood Street storm sewer conveyance system.

Willow Creek bisects the site approximately 1,000 feet east of N Redwood Street. Willow Creek flows north through the 19th Avenue Natural Area and discharges through a weir structure to two 36-inch culverts under NE Territorial Road. North of Territorial Road, Willow Creek enters the Fish Eddy site on its way to the Willamette River. In accordance with City standards, storm water treatment is required prior to discharging runoff into Willow Creek.

#### **Proposed Storm Water Alternatives**

#### **East of Willow Creek**

Stormwater runoff east of Willow Creek will be conveyed and discharged into Willow Creek. Runoff should be treated for water quality prior to discharging into Willow Creek. Alternatives for types of water quality treatment are described in the design standards section above. If the downstream analysis deems it necessary, water quantity treatment shall also be provided prior to discharging to the creek.



Typical LIDA facilities: Planter

#### West of Willow Creek

The existing storm drain in N. Redwood Street should be utilized for areas of the site that, for topographic reasons, cannot be conveyed to Willow Creek. A maximum of 11.8 acres of impervious area or street rights-of-ways can be conveyed to N. Redwood Street. If only right-of-way is conveyed to N. Redwood Street, runoff from individual lots would need to be retained and infiltrated on site. Conversely, if the drainage area directed to N. Redwood Street contained both right-of-way and lot runoff, then an equivalent area of approximately 18 acres (assuming 60% impervious) could be conveyed to N. Redwood Street. Treatment of this runoff would occur at the Fish Eddy site as part of the treatment wetland capital improvement project.

The remaining area west of Willow Creek, approximately 37 acres, would be conveyed and discharged into Willow Creek. Runoff should be treated for water quality prior to discharging into Willow Creek. Alternatives for types of water quality treatment are described in the design standards section above. If the downstream analysis deems it necessary, water quantity treatment shall also be provided prior to discharging to the creek.

#### Infiltration

If a geotechnical analysis concludes that infiltration is appropriate for this site, it can be used as a method of storm water disposal. Individual lot drainage can be disposed of on site. Right-of-way runoff could be infiltrated through a combination of LIDA facilities and drywells or retention ponds. If the geotechnical analysis concludes that infiltration is not appropriate for this site, stormwater would need to be conveyed to Willow Creek for disposal. The use of infiltration to dispose of stormwater will trigger a different permitting process. Stormwater infiltration is considered an underground injection control (UIC) and is regulated by the Safe Drinking Water Act. DEQ administers a permitting process for UICs.

#### **Stormwater Quality Treatment**

The City of Canby encourages the use of Low Impact Development Approaches (LIDA) storm water facilities. The City of Canby references the CWS design standards for facility design. LIDA facilities that would be appropriate for this site include, but are not limited to, infiltration planters/rain gardens and/or flow through planters. LIDA facilities are typically smaller facilities dispersed throughout the development. For instance, a rain garden could collect runoff at each street intersection. The runoff is treated in the

rain garden, and if existing soils are suitable, runoff infiltrates into the ground. If necessary, an overflow is provided that collects runoff that is unable to infiltrate. The treated water would then be conveyed to its discharge point at Willow Creek.

Traditional stormwater treatment methods such as water quality swales or extended dry ponds could also be utilized for this site. In this case, stormwater would be collected and conveyed in a piped system to a single treatment facility located near Willow Creek. At least one facility would be needed on either side of Willow Creek.

Based upon the project criteria of protecting Willow Creek, and the City of Canby's requirement to provide stormwater treatment, all runoff should be treated prior to entering Willow Creek.



Typical LIDA facilities: Swale



Typical LIDA facilities: Water Quality Pond

## Planning Level Rough Infrastructure Costs

Below are conceptual level unit costs for many of the elements that will be required for the development of this site.

Item	Unit Cost	Assumptions						
Streets		This cost includes base rock, AC pavement, curb and gutter, and sidewalks as well as						
	\$490/LF	grading of both streets and lots. The cost does						
		not include street trees, landscaping, or						
		retaining walls. Cost is based on dollars per						
		linear foot of street.						
Storm Drain	\$150/LF	This cost includes pipe, inlets, and manholes.  The cost does not include water quality or						
Conveyance	\$130/LI	quantity management facilities.						
Stormwater		This cost is based on dollars per acre of overall						
Management	\$15,000/acre	development. It includes water quality and						
Facilities		water quantity facilities.						
	\$130/LF	This cost includes nine, manholes, and laterals						
Sanitary Sewer Conveyance		This cost includes pipe, manholes, and laterals for gravity and pressure sewer conveyance. The						
		cost does not include pump stations.						
		· ·						
Sanitary Sewer	\$150,000/each	This cost includes a small sanitary sewer pump						
Pump Station	, ,	station.						
Waterline	¢400 // F	This cost includes pipe, fittings, and fire						
	\$100/LF	hydrants. The cost does not include water services and meters.						
Franchise Utilities		This costs includes conduit for franchise						
and Street Lights	\$130/LF	utilities, vaults and street lights.						
and otroot Eighto		Cost is for a 44 ft wide single span bridge.						
Vehicular Bridge	\$1,000,000 -	Costs vary with length of structure. The low end						
over Willow Creek	\$1,200,000/each	is for a 110' long bridge; high end is for a 150'						
		long structure.						
		Cost is for a 10 ft wide weathering steel truss type bridge with a concrete deck. Costs vary						
Pedestrian Bridge	\$65,000 - \$265,000/each	with length of structure, which depends on						
over Willow Creek		where the pedestrian bridge will be located.						
		The low end is for a 40' long structure; high end is for a 120' long structure.						

## **Tools to Share Costs and Benefits of Growth**

The project team has studied a number of approaches that could be used to more equitably allocate the costs and benefits of development within the North Redwood area. These tools will be assessed in more detail during the next phase of the project and a more specific set of recommendations will be provided. Following is a brief summary of the tools.

#### **Transfer of Development Rights**

This approach allows for density to be transferred from a "sending area" to a "receiving area." It has been used in other part of the United States and was studied for potentially application in Canby. However, its use here is not recommended for the following reasons:

- There is a relative lack of precedent and experience implementing this tool in Oregon for this purpose.
- Designating sending receiving areas for development rights would be challenging.
- These programs are typically costly and somewhat complicated to administer and the relative cost/benefit to implement a program for a single area is relatively low.

#### **Density Transfers**

Density could be transferred within a specific property or development. Most often, density would be transferred out of constrained areas (e.g., riparian, floodplain, wetland or sloped areas in the Willow Creek corridor) and onto the developable portions of the site. The City's existing development code already allows lot size averaging and alternative lot layouts allowed which help meet these objectives. Additional code provisions could be adopted to increase the ability to transfer density.

#### **Density Bonuses**

Density bonuses could be used to transfer or allow more dense development in certain portions of the study area, such as in exchange for protecting additional open space, implementing low impact development practices or meeting other project goals. The City currently allows for height bonuses in some areas but does not allow for density bonuses. Implementing density bonuses would require amendments to the City's development code.

#### **Planned Unit Developments**

This tool is used now and allows for lot size averaging, alternative lot layouts, and protection of natural areas, with the development potential in those areas captured in the developable portion of a site good tool. It is most effective when used for larger developments and would work best if combined with consolidating multiple properties in the study area. Only minor changes, if any, to existing code requirements would be needed for this approach. Master Planning for specific sites would be a similar approach.

#### **Local Improvement District**

Property owners within a defined district are assessed a fee based on the proportional benefits they receive from the district. The fee is established at inception of the district and may be paid upfront or financed over time. In contrast to a Reimbursement District, property owners must begin paying the fee at the time of district creation, not at the time they permit their property for development.

#### **Advance Financing or Reimbursement Districts**

With this approach, one or more capital improvements are identified by the City or developers, along with the district (area) within which properties benefit from the improvement. All property owners are assessed a pro rata fee that corresponds to the benefits they will enjoy from the improvement(s), typically on a per unit or square foot basis.

Calculated "latecomer" reimbursement fees are paid by later developers, to the party that initiated the district at the time of project permitting, and are typically in addition to any system development charges (SDCs) owed. Districts can be initiated by either developers or the City.

This approach is similar to LIDs in that the costs of infrastructure are distributed relative to the benefit to individual properties. This approach has previously been implemented by the City in order to fund a sewer line in North Redwood Street.

#### **Developer Agreements**

This is an agreement between the City, one or more developers, and sometimes other parties, that can define a range of roles and responsibilities, including responsibility for infrastructure funding. Development Agreements can address complicated situations in which a series of actions is required from multiple parties. This approach has been used by a number of other cities in the region, including Portland, Wilsonville and Hillsboro.





LANDSCAPE ARCHITECTURE

URBAN DESIGN

PLANNING



Project Schedule	2014						2015					
North Redwood evelopment Concept Plan Canby, OR	NOV DEC	JAN	FEB	MAR	APR	MAY	JUN		JUL /	AUG	SEP	
I. Project Kickoff	0								Public Event SAC TAC Stakeholder Planning Co	Interviews		
II. Develop Project Foundation		0						0	City Council		m	
III. Confirm DCP Framework				0	<b>a</b>							
IV. Develop Alternative DCPs												
V. Present Alternative DCPs							02					
VI. Recommended DCP									0	■Tod	lay	
VII. Adoption												
											318	3

# **Key Topics Today** Proposed Plan Utilities Connections Funding Next Steps and Implementation

# **Committee Rules**

# **SAC** members:

- Share the available speaking time so that all SAC members can be heard
- Be respectful of a range of opinions
- Focus on successfully completing the agenda
- Avoid side discussions when others are speaking
- Strive for consensus

# What's Happened So Far

- Existing Conditions Inventory
- Best Development Practice Analysis
- Stakeholder Interviews
- TAC and SAC #1 (Feb 9)
- Public Event #1 (Apr 14)
- City Council/Planning Commission (Apr 15)
- TAC and SAC #2 (April 27)
- Public Event #2 (Jun 23)
- Draft DCP (Jun 30)

# **Study Area**



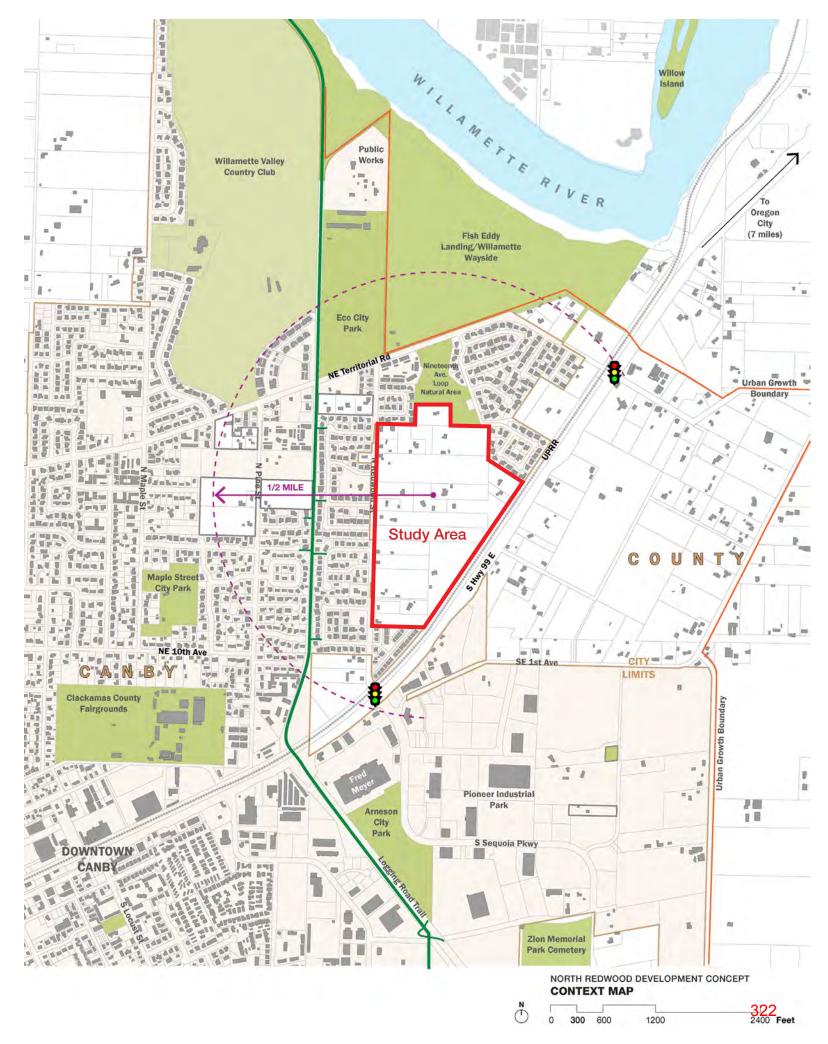






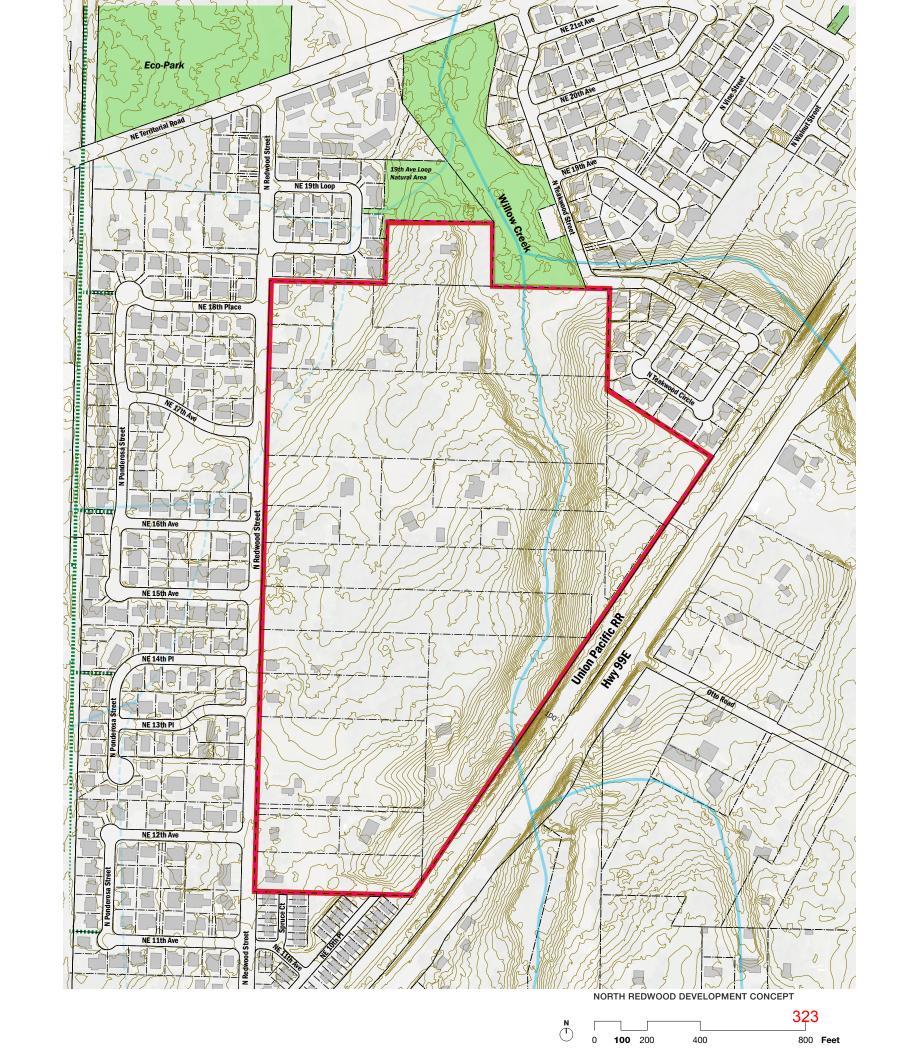






# **Property Ownership**

23 taxlots18 owners66 acres



# **Concept Plan Criteria**

- 1. Integrated with existing city fabric of Canby
- 2. A walkable, cohesive neighborhood
- 3. All parcels integrated in plan
- 4. Distribute impacts equitably to individual parcels
- 5. Allow for different owners' timing of development
- 6. Reasonable costs of infrastructure and roads
- 7. Clear, connected and safe streets
- 8. Transit-friendly
- 9. Emergency access
- 10. Connect trails to natural areas
- 11. Protect Willow Creek
- 12. Public, accessible parks
- 13. Innovative land planning
- 14. Meet regulations

## Neighborhood Design Principles



### **Environmental Areas**



Combined
Willow Creek
Environmental Areas
(9.3ac)

(No setbacks assumed yet but this area is approx 50' setback)

>25% Slope:

~2.6 ac

Potential Wetland

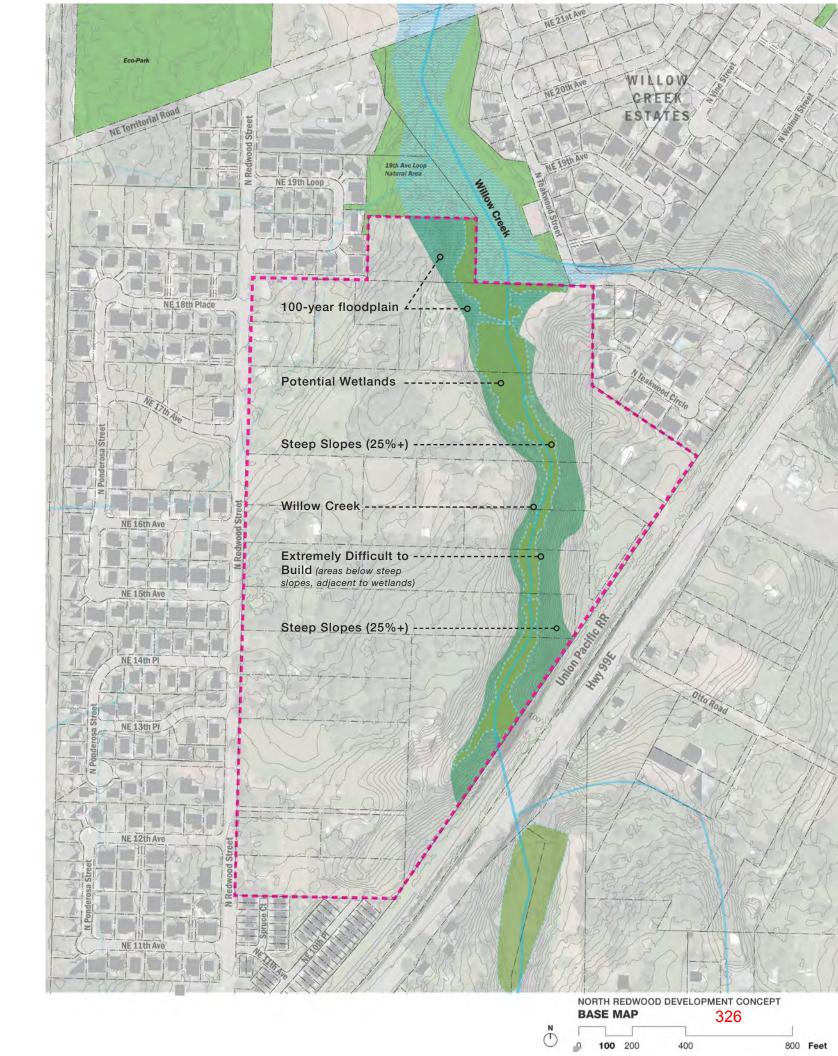
~3 ac

FEMA 100-yr Flood (not incl wetland)

~1.3 ac

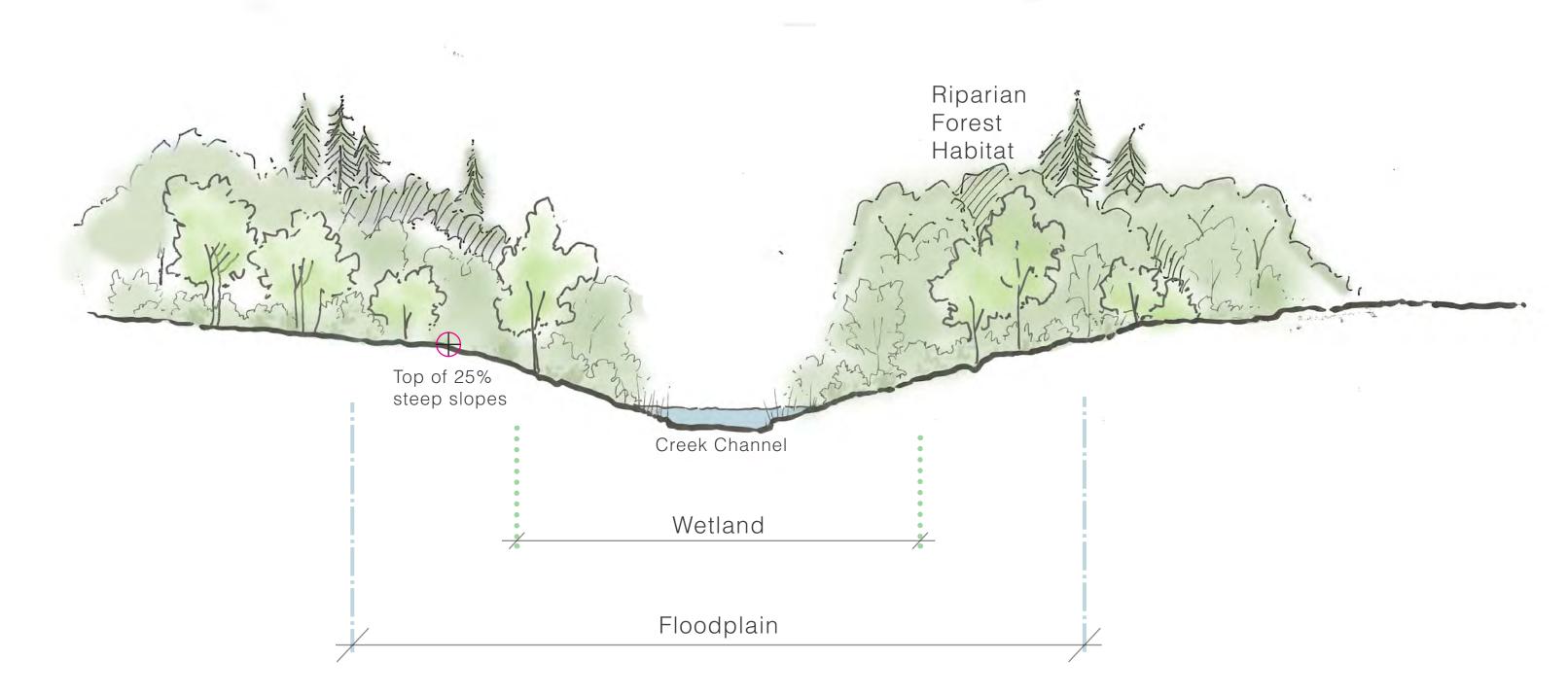
Additional lowlands

~2.4 ac



### Willow Creek

(typical condition)

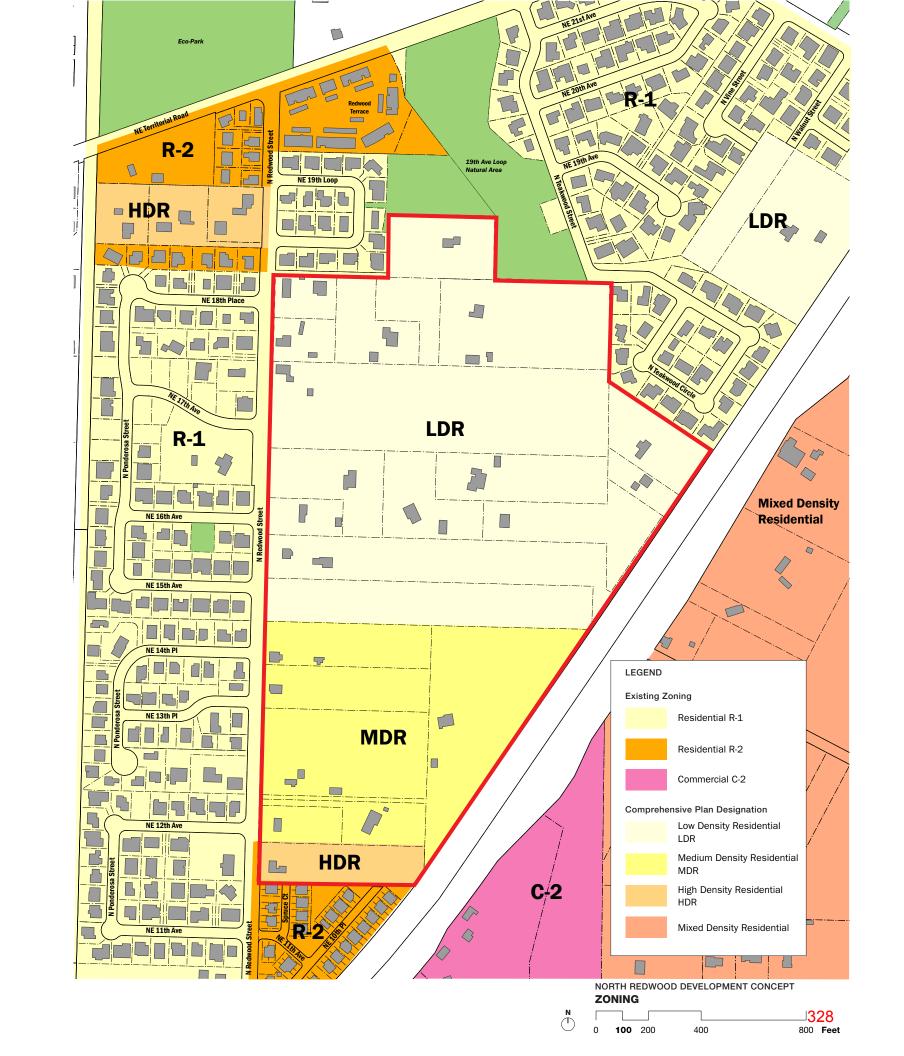


## Zoning

LDR: 45.4 ac

MDR: 18.8 ac

HDR: 2.2 ac

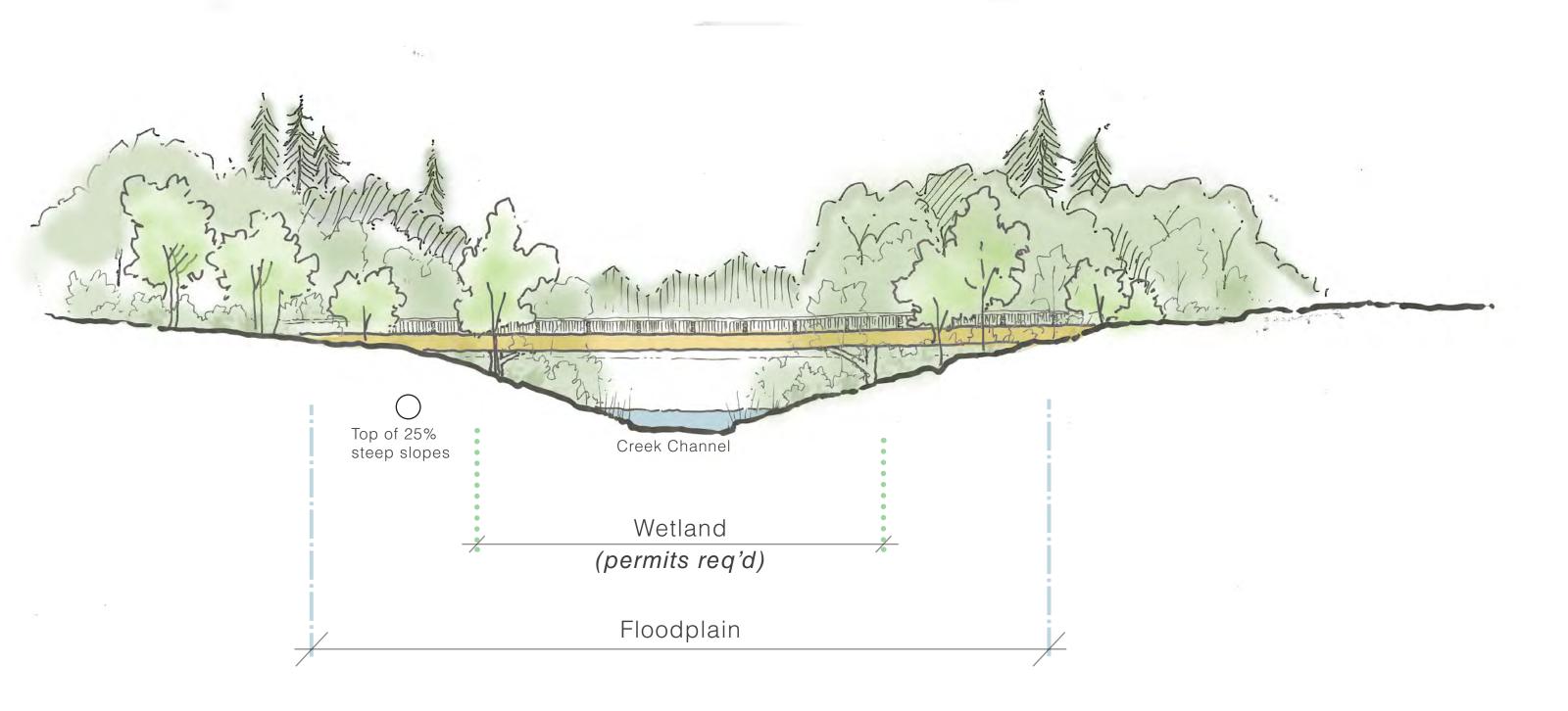


## **Alternative Concept 1**

"City Grid"



# Willow Creek Road Bridge



(44' wide, 110' long: Rough cost~\$1.5-\$2 million)



# Recommended Concept

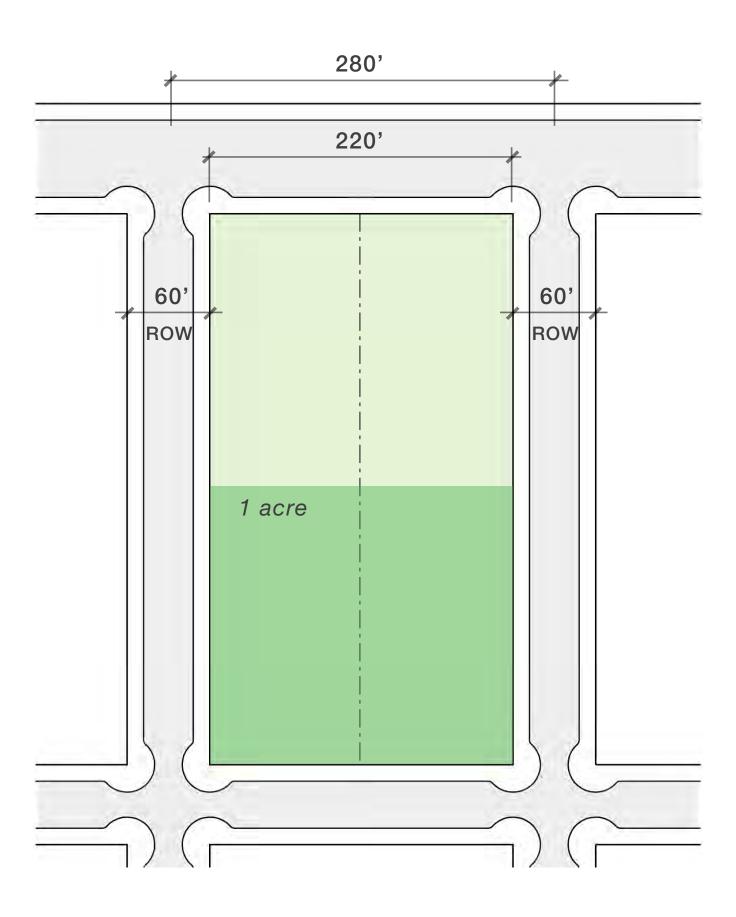
Element	Square Feet	Acres
Roadways *	664,414	15.42
Natural Area	412,809	9.3
Developed Park	42,906	0.98
Low-Density Residential Land	1,122,963	25.78
Medium-Density Residential Land	522,270	11.99
High-Density Residential Land	80,355	1.84
Alleys are not included		65.31ac total *

<sup>\*</sup> Study Area is 66 acres. Total acreage shown reflects deduction of 20' for additional North Redwood ROW





## **Blocks**



## HOUSING CHOICES (213 - 289du)



Large Lot (7,000-10,000sf)



Large Lot (7,000-10,000sf

Approximately 155 units (at 6du/ac) (Approximately 103 units at 4du/ac)



**Medium Lot (5,000-6,500sf)** 



Medium Lot (5,000-6,500sf)

Approximately 108 units (at 9du/ac) (Approximately 84 units at 7du/ac)



**Small Apartment or Townhouse** 



Duplex/Small Lot (3,000sf)

**Approximately 26 units** 

# **Conceptual Lot Layout**

(237 Total Lots)





### **Medium and HDR Lots**

(96 R-1.5, 26 R-2)



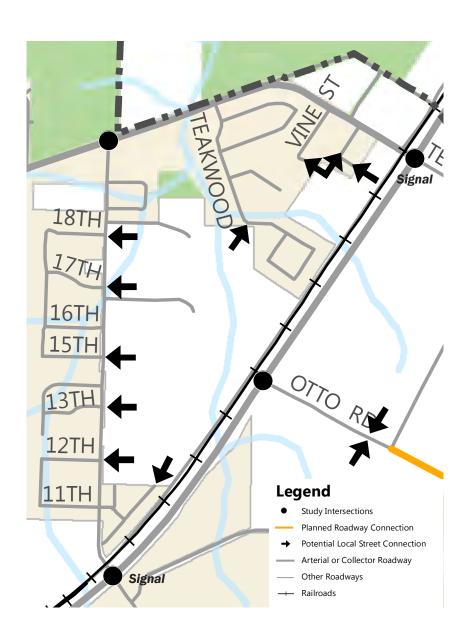
## **Streets**



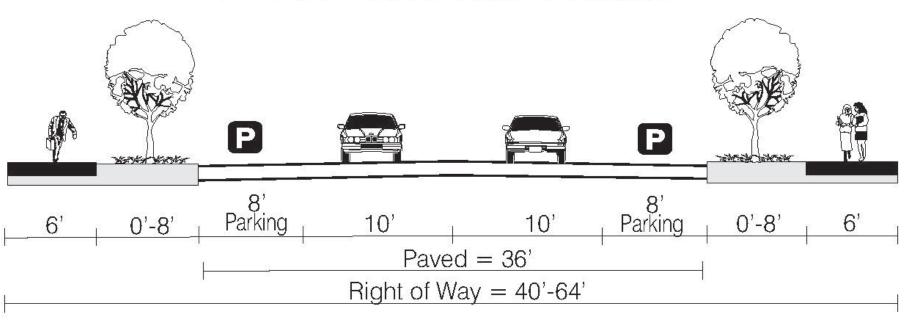




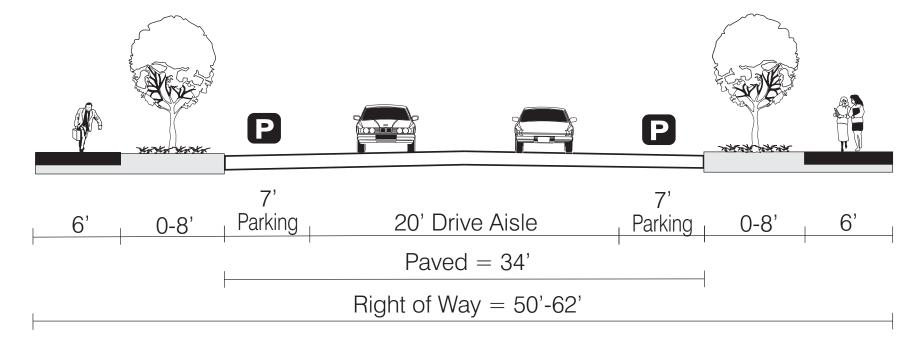
### **Streets**



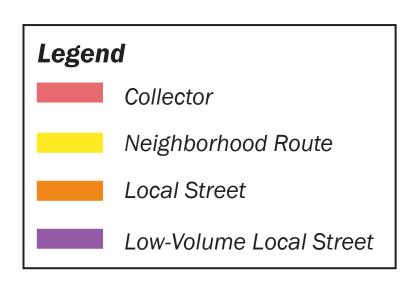
#### **NEIGHBORHOOD ROUTE**

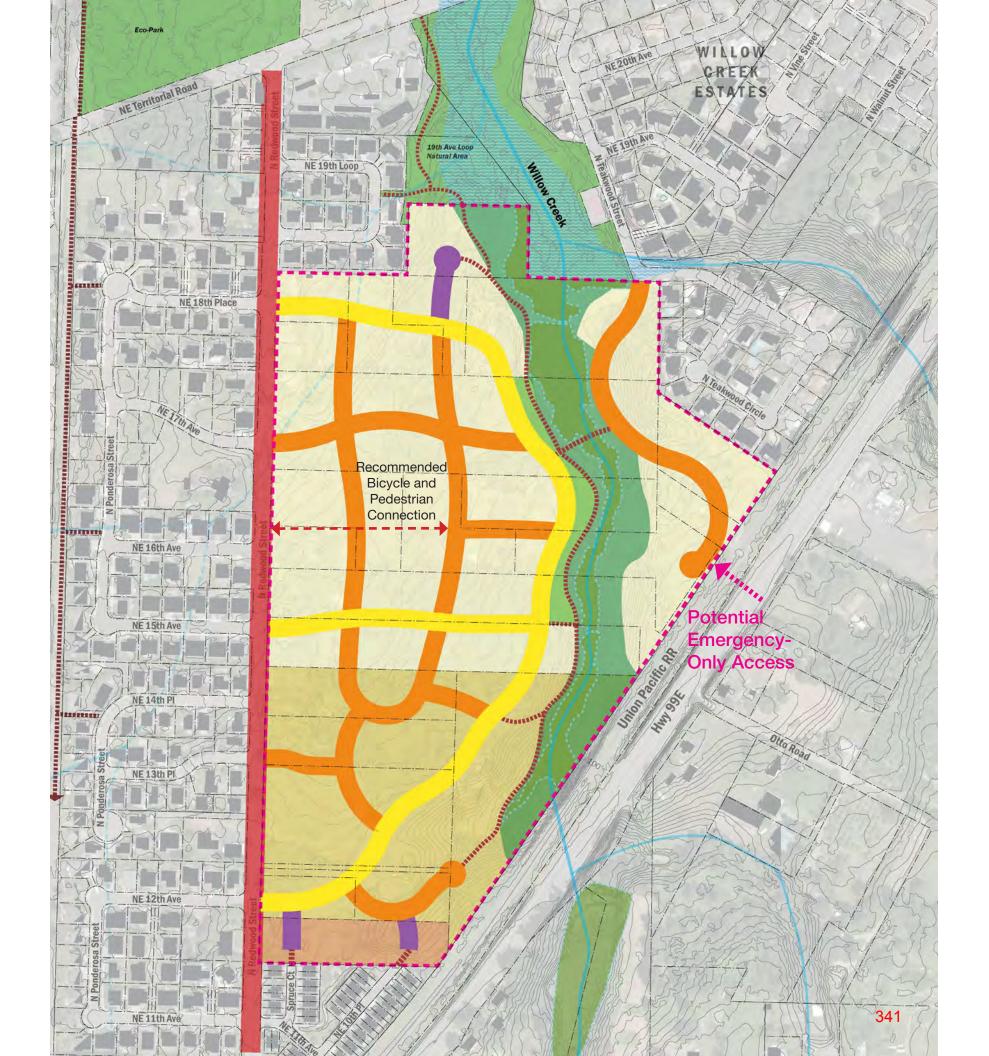


#### STANDARD LOCAL STREET



## **Streets**







#### **Teakwood Traffic Volumes**

Daily 24-hour traffic volumes were collected on Teakwood Street just south of the intersection with Territorial Road (see figure at right).

The table below lists the estimated daily traffic on Teakwood Street that would result from the new North Redwood Concept Plan Area development (which would include between 11 and 15 single-family homes). The new trip estimates are based on trip rates provided by the Institute of Transportation Engineers (ITE), which assumes 9.52 trips per day per single-family residence. This is a more conservative rate than is currently being exhibited by the area (i.e., 85 homes with 550 daily vehicles = 6.47 daily trips her home, which is approximately



30% lower than the ITE daily trip rate). Therefore, if the new residences have similar traffic patterns as the existing neighborhood, then it is possible that the additional traffic from the new development area may be around 30% lower than what the table below suggests. Regardless, the total traffic on Teakwood Street following the new development is expected to only be approximately 50-60% of the City's local residential street threshold of 1,200 daily vehicles.<sup>2</sup>

**Table 1: Estimated Daily Traffic on Teakwood St Resulting from New Development** 

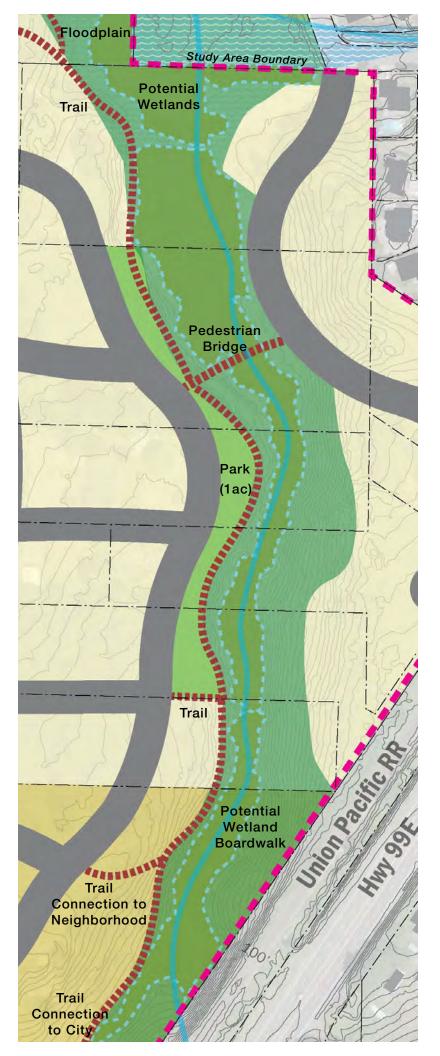
Neighborhood	Number of	Trip Methodology	Daily Traffic Volume Estimates		
Area	Homes		Northbound	Southbound	Total
Existing Neighborhood	85 homes	Tube Count (June 29, 2015)	270 veh	280 veh	550 veh
New Development (Eastern Section of North Redwood Concept Plan Area)	11 - 15 homes	Estimate (ITE Daily Trip Rate of 9.52 trips/home) <sup>a</sup>	55 - 75 veh	55 - 75 veh	110 - 150 veh
Total	96 - 100 homes		325 - 345 veh	335 - 355 veh	660 - 700 veh

<sup>&</sup>lt;sup>a</sup> Daily trip rates for new development provided in *Trip Generation*, 9<sup>th</sup> *Edition*, Institute of Transportation Engineers (ITE), 2012. Volumes are rounded up to the nearest 10 trips.

<sup>&</sup>lt;sup>1</sup> Trip Generation, 9<sup>th</sup> Edition, Institute of Transportation Engineers, 2012.

<sup>&</sup>lt;sup>2</sup> Local residential street threshold is identified in the *Canby Transportation System Plan (TSP)*, December 2010, Page 7-30

## **Parks**









## Water



### Sewer



### Stormwater













Criteria	How DCP Meets Criteria
Integrated with existing city fabric of Canby	Plan connects to North Redwood Street in 5 locations, matching existing intersections and extending the city grid.
Walkable and cohesive	Streets, connected across parcels, will meet City standards, with generous sidewalks. Proposed walking trail traverses study area.
A plan with all parcels integrated	Plan strives to maximize development potential of all parcels, including those with natural features and access restrictions.
Impacts distributed equitably	Funding plan will propose how to share costs and impacts of plan elements that benefit all owners.
Different owners' timing of development	Plan can proceed according to the priorities of a range of owners.

Criteria	How DCP Meets Criteria
Reasonable costs of infrastructure and roads	Most roads are narrower local streets. Total road area is 23% of study area, which is within comparable levels of other communities.
Connected with safe streets	Local streets have sidewalks. Certain North Redwood intersections should consider enhanced pedestrian crossings at key locations.
Transit-friendly	Neighborhood Routes in plan could accommodate a future transit route.
Allows emergency access	Plan proposes a new emergency access across UPRR to serve area east of Willow Creek.
Connects trails to natural areas	A new trail system is proposed on the west edge of the Willow Creek Natural Area.



North Redwood Development Concept Plan

# **Funding Evaluation**

PREPARED FOR

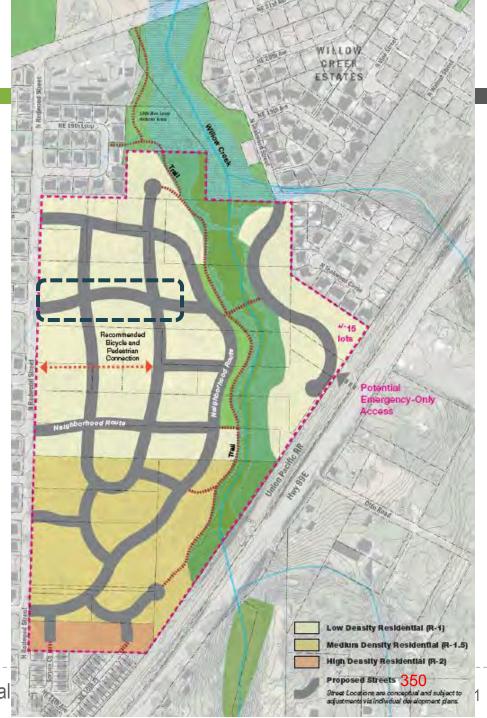


PREPARED BY



#### Infrastructure

- Most infrastructure paid for by developers / property owners at time of development
  - Local roads
  - Sewer
  - Water

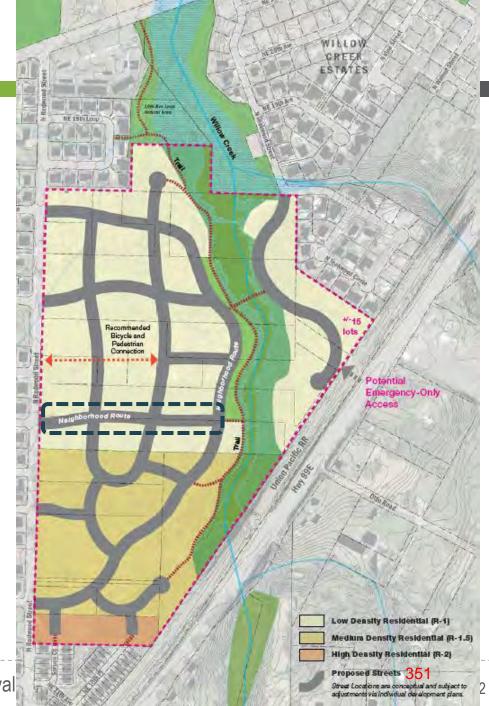


#### Infrastructure

- Infrastructure on property lines:
  - Each property owner responsible for half street improvement

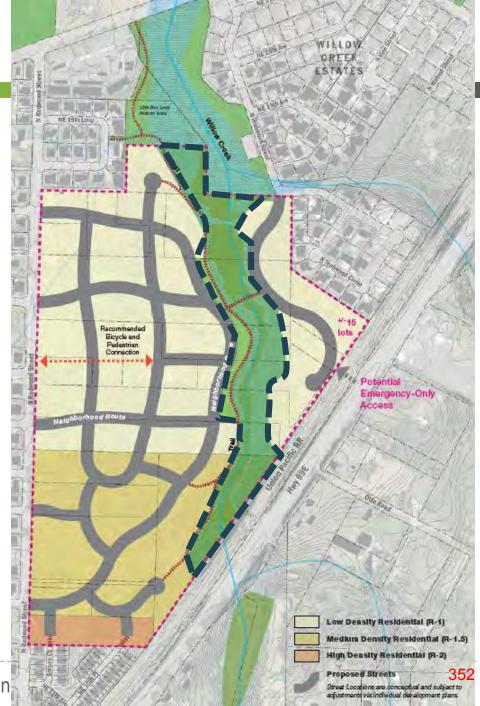
#### Options

- First-in may build half street
- Reimbursement district
- Property consolidation
- Infrastructure routes can be adjusted assuming the plan's principles remain

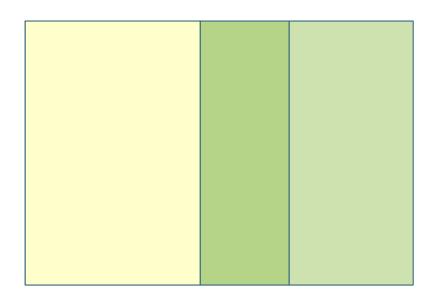


#### **Parks**

- "District" infrastructure:
  - Benefits the entire North Redwood area; costs disproportionately fall on certain sites



## Parks: Illustrative Property



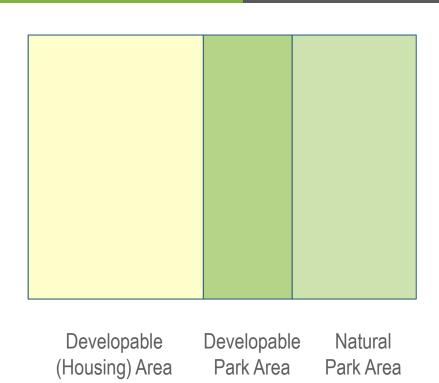
Developable (Housing) Area

Developable Park Area

Natural Park Area

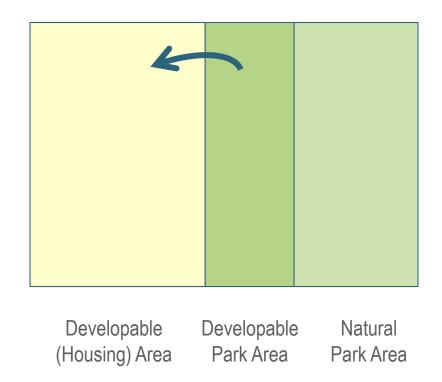
## Parks: Illustrative Property

- Appraisal, delineation of:
  - Natural Park Area
  - Developed Park Area
- Value of natural & developable park area is part of property owner's required park contribution
  - Owner receives SDC/dedication credits
  - If total SDC/dedication value contributed is greater than SDCs /dedication owed, owner is compensated
- Property owner reimbursement mechanism TBD



## Parks: Illustrative Property

- Density transfer available from Developed Park to Developable area
  - City contributes provides development rights
  - Property owner contributes property



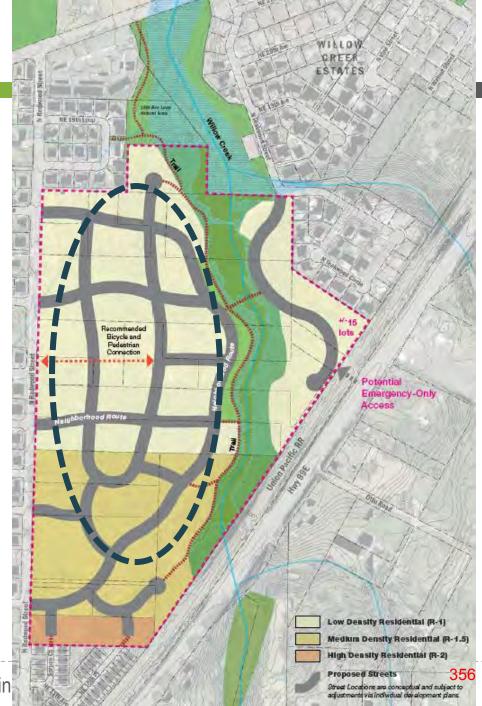
#### Other Infrastructure

#### Pump Station

 Similar property owner reimbursement via SDC credits and latecomer payment are possible

#### Reimbursement District Resources

- Wilsonville, Section 3.116
   <a href="http://www.ci.wilsonville.or.us/DocumentCenter/View/34">http://www.ci.wilsonville.or.us/DocumentCenter/View/34</a>
- Clackamas County Sewer Assessment Districts http://www.clackamas.us/wes/faq.html#37
- Grants Pass
   https://www.grantspassoregon.gov/482/Reimburse ment-Districts



#### **Development Code Amendments**

Goal: Allow for a transfer of density between constrained and unconstrained areas of a given property

#### Approach:

- Use existing Lot Size Averaging and Alternative Lot Layout provisions
- Amend existing requirements to:
  - Allow density transfer from required protection areas; and/or
  - Reduce allowed lot sizes for R1 zone for properties where density transfer occurs
- Incorporate density transfer in calculation of open space dedication reimbursement amount

#### **Discussion**

- Do you support the DCP as proposed?
- What changes to the plan would you suggest?
- Is the funding proposal acceptable?
- Do you understand how the DCP will guide future development efforts?

Please attend upcoming City Council and Planning Commission meetings

## Creating a Livable New Community









To: Matilda Deas Topic: Combined TAC/SAC #3 Meeting Date: 07/14/2015

Notes

From: Ken Pirie Project: Canby North Redwood Project #: 3077

Distribution: Basecamp

#### **North Redwood Development Concept Plan**

Combined Technical and Stakeholder Advisory Committee Meeting (#3) Notes (See consultant presentation on Basecamp)

- Has the City contacted ODFW to discuss Willow Creek? This is historically a fishbearing streams and city should coordinate early with agencies to avoid surprises to future development efforts. (Matilda Deas indicated that she will contact)
- Can owners assume that stormwater will be piped to detention facilities?
   (OTAK representative indicated that yes, and that LIDA facilities will help filter stormwater before detention facilities).
- Will detention handle both private onsite water and streets? Yes
- · Will there only be park SDCs or others?
- Question for City Council & Planning Commission: City needs to determine how to maintain current and future parks.
- Funding questions, based on Brian Vanneman presentation:
  - Timing of SDC reimbursement?
  - Will it be possible to challenge appraised values? Yes, there can be two different appraisals and a third appraiser can act as neutral balance to determine appropriate land value.
  - o Are there other alternatives to share costs?
  - How much density can be transferred? (Can there be lots as small as 2500 sf in R1? Probably not that small, given adjacency to larger lots)
- Team has done good job, this is a good plan for public, with "sweeping" streets, parks, trails, etc, but in one owner's opinion, plan may be harder for developers to implement. Owner would like lot density bonus (10% suggested) for his land to do some of the creative land planning proposals.
- One stakeholder believed that trails should be lighted, others differed
- Trails should also be planned and engineered before development occurs to understand the route and property impacts
- Will PC/CC work session on August 5th be open to public? Will public comment be allowed?

#### Next Steps and Follow-up items:

- Angelo Planning Group to update code amendments to reflect current proposed approach and/or modify approach, including:
  - o Allow transfer of density from constrained portion of site or dedicated park area (perhaps only up to a certain threshold per the bullet below)

- Assume minimum average lots after density transfer of 5,000 sf in R1 and 3,500 in R2; no change needed in MFR zone
- Clarify that density transfer can occur within a development site which may include multiple contiguous taxlots/parcels – note this in the Plan and follow up with property owner Manuel to clarify this
- City to follow up with ODFW re: stormwater drainage to Willow Creek and consistency with ODFW requirements
- Clarify in the DCP (if needed) that stormwater detention is sized to include runoff from streets and private development; incorporate other information provided on this topic in response to questions yesterday, if needed
- Identify approach for addressing comments re: agreement on land valuation associated with park and open space dedication and reimbursement
- Somewhere in DCP or cover memo to PC and CC, identify other issues that need to be addressed which were raised at yesterday's meeting, including:
  - o Importance of City meeting its commitments to build parks and trails
  - Timing of planning and construction of parks and trails
  - Parks maintenance funding (will be a stumbling block to future development until resolved)
  - Future detailed design of and location of parks and trails (e.g., lighting of trails, types of facilities included in dedicated park areas, ability to be flexible on location of developed park, etc.)
  - Flexibility of land plan and how City will assess future changes to DCP framework.
  - Property owner/developer desire for overall density bonus (probably would require a Comp Plan policy amendment)
  - Desire for opportunities for property owners and other community members to attend and provide comments at joint PC/CC work session

end



## Memorandum

**Date:** September 2, 2015

**To:** Matilda Deas, City of Canby

cc: Ken Pirie, Walker Macy

Seth Brumley, Oregon Department of Transportation

**From:** Matt Hastie and Serah Breakstone

Re: Canby North Redwood Development Concept Plan – Comprehensive Plan and

**Zoning Code Amendments** 

#### Overview

This memo presents recommended Comprehensive Plan and Zoning Code amendments intended to implement the Canby North Redwood Development Concept Plan (DCP). Where new language is suggested, it is presented in <u>underline</u> format. Where irrelevant language has been omitted, an ellipsis (...) is used.

#### **Comprehensive Plan Amendments**

#### LANDUSE ELEMENT

. . .

### <u>POLICY NO. 7: CANBY SHALL STRIVE TO ENSURE THE EFFICIENT AND EFFECTIVE PROVISION OF INFRASTRUCTURE TO SERVE NEWLY ANNEXED AREAS.</u>

#### **IMPLEMENTATION MEASURES:**

A) The City of Canby's annexation Development Map shall be used to identify properties required to adopt a Development Concept Plan (DCP) or Development Agreement (DA) prior to annexation

#### **Code Amendments**

#### New Plan District

The following presents a new North Redwood Plan District for adoption as Section 16.13 of the Canby Zoning Code. As this represents an entirely new section of code, the underline format is not used.

### Chapter 16.13 PLAN DISTRICTS

Sections
16.13.010 North Redwood Plan District
16.13.020 Placeholder for future plan districts

#### 16.13.010 North Redwood Plan District

#### A. Purpose

The North Redwood Plan District implements the North Redwood Development Concept Plan (NRDCP) and is intended to ensure that development within the North Redwood area is consistent with the land use pattern and transportation network established by the NRDCP. The North Redwood Plan District is also intended to provide some flexibility for new development in order to protect natural resources and emphasize the Willow Creek corridor as a community amenity.

#### **B.** Applicability

The standards and regulations in this chapter apply to all land within the North Redwood Plan District as shown on the City of Canby's North Redwood Plan District Map.

The provisions in this chapter apply in addition to standards and regulations established in the base zone and other applicable sections of the Canby Zoning Code. Where standards in this chapter conflict with standards in other sections of the Canby Zoning Code, this section will supersede.

#### C. Approval criteria

The following criteria must be satisfied prior to approval of any new subdivision or Planned Unit Development within the North Redwood Plan District as they apply to the area proposed for development.

- 1. Generally, new road alignments should be consistent with those identified on Figure 9 of the DCP. Changes to the identified road alignments may be approved to allow for topographic or other conditions.
- There shall be a minimum of five connections to existing roads on the east side of North Redwood Street, built to the City's Local Street standard. To the extent possible, additional connections should not create offset intersections and should meet spacing standards in the Transportation System Plan.
- A cul-de-sac shall only be allowed when environmental or topographical constraints, or compliance with other standards in this code preclude street extension and through circulation. The map in Figure 9 of the DCP identifies three locations where cul-de-sacs could be allowed.
- 4. One loop road shall be built through the North Redwood community, connecting NE 18th Place to NE 12th Avenue. The loop road shall be built to the City's Neighborhood Route standards. Where possible, the loop road should travel adjacent to Willow Creek and provide access to Willow Creek trailheads and open space.
- 5. Where possible, other local streets in North Redwood should intersect with the loop road identified in (3) above.
- At least one additional local street shall traverse the study area from north to south, connecting the area zoned for low density residential with the area zoned for high density residential.

- 7. Future local streets should be located to split parcel lines where feasible.
- 8. The land east of Willow Creek shall be accessed from an extension of North Teakwood Street and terminate in a cul-de-sac, hammerhead, or other appropriate turnaround.
- 9. Block size shall be consistent with the following:
  - Block widths should be approximately 280 feet whenever possible.
     Alternate block widths may be approved to allow for topographical variations
  - ii. Overall block length shall not exceed 600 feet
  - iii. A bicycle/pedestrian connection shall be provided at least every 330 feet, consistent with provisions in the Canby Transportation System Plan (TSP)
- 10. The park and open space corridor along Willow Creek, as identified in Figure 7 of the DCP, shall be provided through required land dedication for parks.
- 11. Applicants must demonstrate that future adjacent projects will be able to connect to proposed roads and other infrastructure in a way that will be consistent with the North Redwood DCP.
- **D.** Lot area exceptions and lot size averaging.

The following exceptions to the City's lot size standards and lot size averaging provisions will be allowed for developments in the North Redwood Plan District.

- 1. The Planning Commission may allow public park land dedications to be included in the lot size averaging calculation in order to achieve community development goals and allow protection of natural resources.
- 2. The resulting average lot size shall not be less than 5,000 square feet in the R1 zone.
- 3. The resulting average lot size shall not be less than 4,000 square feet in the R1.5 zone.
- 4. Individual lot sizes may be less than prescribed in Sections 16.16.030 and 16.18.030 alternative lot layout option provided in Section 16.64.040 is used.

#### Lot Size Averaging

#### Section 16.16.030 Development Standards for the R-1 (low density) Zone

- B. Lot area exceptions:
- 1. The Planning Commission may approve an exception to the minimum and maximum lot area standards in subsection 16.16.030.A as part of a subdivision or partition application when all of the following standards are met:
  - a. The average area of all lots created through the subject land division, excluding required public park land dedications, surface water management facilities and similar public use areas, shall be no less than seven thousand square feet and no greater than ten thousand square feet. Non-required significant natural resource areas shall be included in the average lot size calculation to enable a transfer of density onto buildable portions of the site. Required areas include identified parks, wetland areas, riparian corridors, and other areas in which building is not permitted

under local, state, or federal laws or regulations. For land in the North Redwood DCP area, the Planning Commission may allow public park land dedications to be included in the lot size averaging calculation in order to achieve community development goals and allow protection of natural resources; in this case, the resulting average lot size shall not be less than 5,000 square feet.

b. No lot shall be created that contains less than six thousand square feet, unless the <u>alternative lot layout option provided in Section 16.64.040 is used;</u>

#### Section 16.18.030 Development Standards for the R-1.5 (medium density) Zone

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  - b. No lot shall be created that contains less than four thousand square feet, unless the alternative lot layout option provided in Section 16.64.040 is used;

#### Annexation

#### Section 16.84.040 Standards and Criteria for Annexation

A. The following criteria shall apply to all annexation requests.

...

8. Statement indicating the type and nature of any comprehensive Plan text or map amendments or Zoning text or map amendments that may be required to complete the proposed development. <u>Proposed zoning must be consistent with zoning</u> identified in any applicable adopted Development Concept Plan.



North Redwood Development Concept Plan

# **Funding Evaluation**

PREPARED FOR

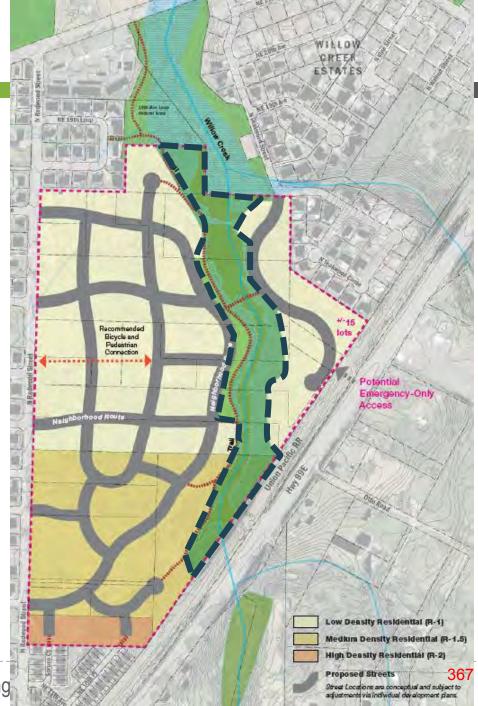


PREPARED BY



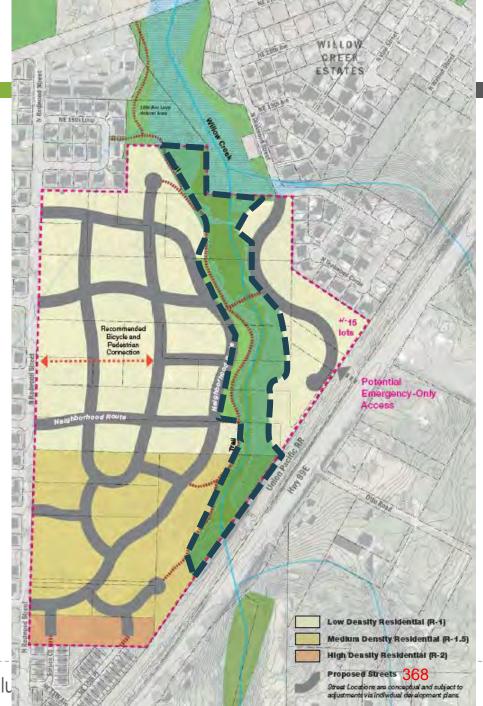
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- "District" infrastructure:
  - Benefits the entire North Redwood area;
  - Unless planned for as part of DCP, costs could disproportionately fall on certain sites

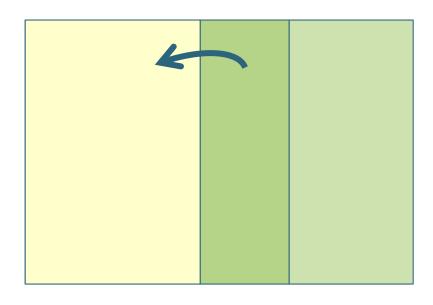


### Parks

- NR Strategy:
- Create "NR Parks Account"
- Developers contribute to parks system via
  - Parks SDC or
  - Land dedication
- Each property owner contributes \$5,265 in value



## **Example Property: Density Transfer**



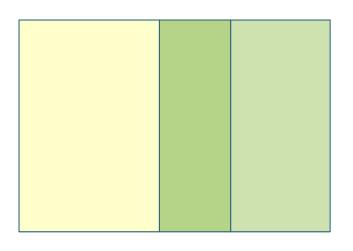
Developable (Housing) Area

Developable Park Area

Natural Park Area

## Parks Fund: Property Owners' Contribution

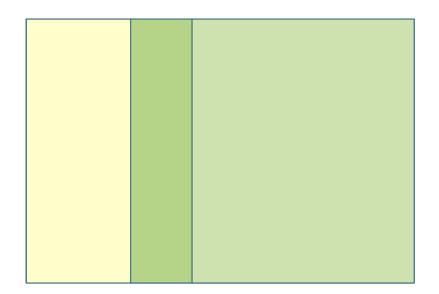
	Appraised value of natural park area
+	Appraised value of developable park area
-	Value of residential transfer from developable area
=	Value of NR Parks land dedication
-	SDCs owed
=	Net NR Parks contribution



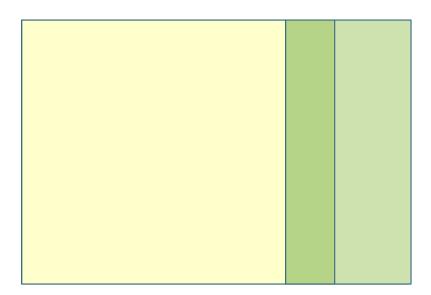
Developable Natural Park Area Park Area

## **Example Property**

If property owner's land contribution is



Greater than SDCs owed, NR Account reimburses land owner

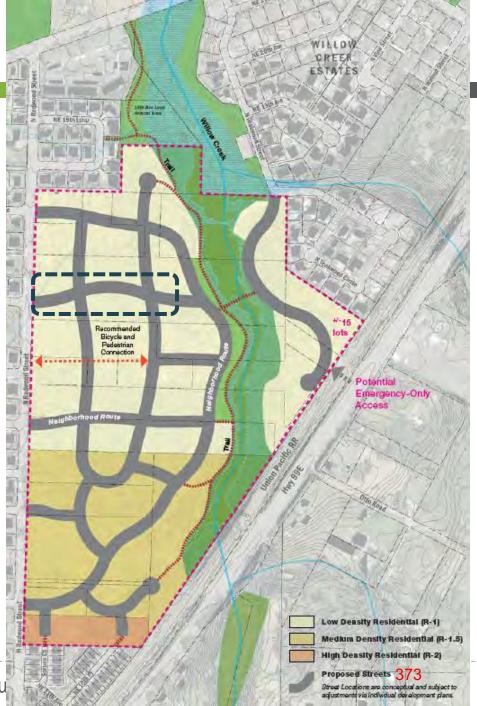


Less than SDCs owed, NR property owner contributes some land and some SDCs



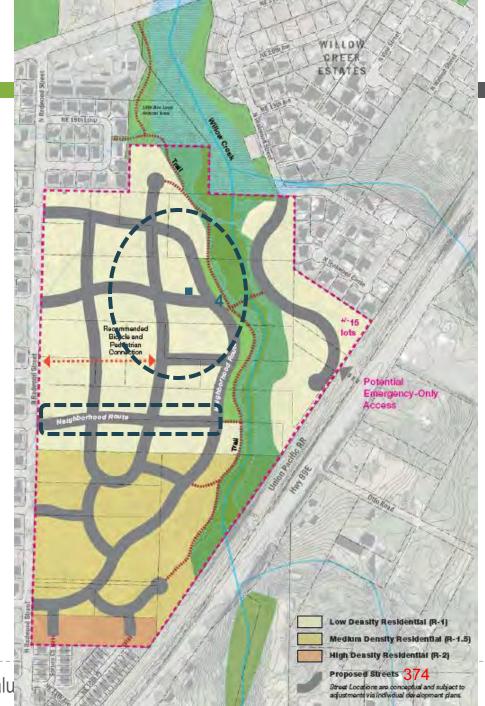
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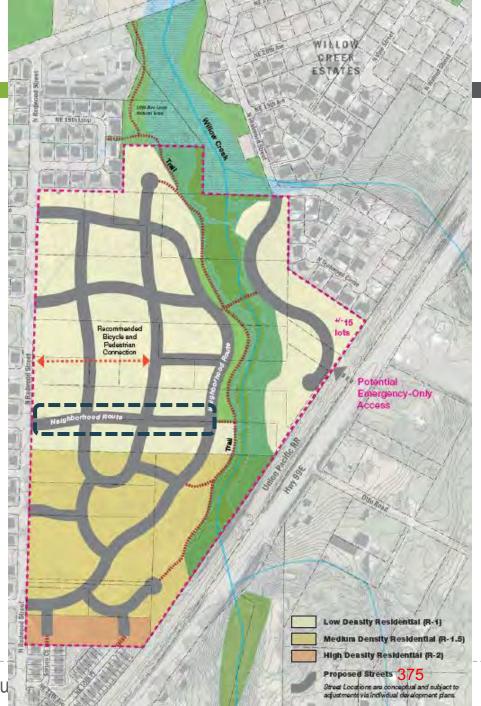
## Infrastructure

- Infrastructure shared by multiple property owners:
  - Roads
  - Stormwater facilities
  - Pump Station



## Infrastructure

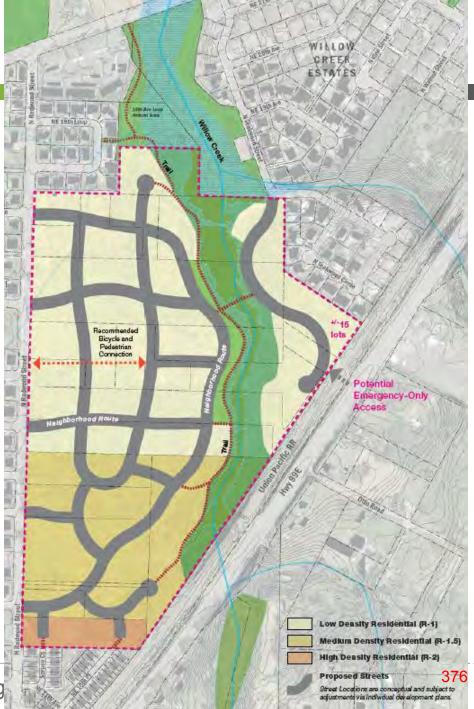
- Options for infrastructure shared by multiple property owners:
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### Other Infrastructure

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- Methods for Financing Transportation Infrastructure, ODOT, 2010
   <a href="http://library.state.or.us/repository/2010/201010261">http://library.state.or.us/repository/2010/201010261</a>
   316072/index.pdf
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## Memorandum

**Date:** September 2, 2015

To: Matilda Deas, City of Canby cc: Ken Pirie, Walker Macy

Seth Brumley, Oregon Department of Transportation

From: Matt Hastie and Serah Breakstone

Re: Canby North Redwood Development Concept Plan - Comprehensive Plan

and Zoning Code Amendments

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#### Lot Size Averaging

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To the Canby City Council and Planning Commission

RE: Redwood St Master Plan Workshop August 5, 2015

As a "Stakeholders" in the area being considered for the Redwood St. Master Plan we ask the City Council and Planning Commission take to following concerns into consideration in your discussion for the implementation of this Master Plan.

1) Concerns over the Storm water plan

To Date, ODFW has not been asked to comment on the City's Plan to utilize Willow Creek in the storm water plan.

- A) Willow Creek was a fish bearing stream prior to the dam being built for irrigation purposes.
- B) The dam in Willow Creek located on City property in "Willow Creek Park", South of Territorial Rd should be removed. Willow Creek Park and the stream and wetlands continue to fill with invasive vegetation and silt/sand because of the slowed water movement and lack of maintenance in the park and what used to be an area of open water is no longer visible as it is inundated with plant species.
- c) Cleanup Willow Creek in Willow Creek Park to allow for fish movement again
- D) Silting/Sand in creek since 2006 possibly from previous "Garden Crossing" development at Redwood St and Hwy 99. Their storm detention and "filter system" utilized several thousand yards of sand in a pit with the outflow going into Willow Creek. This may be the source of all the sand in the Creek. ODFW indicated during a field visit in 2007 that there is not a natural source upstream in Willow Creek which would cause sand deposits.

How does the City propose to protect the Creek and wetlands from runoff such as oil and antifreeze from cars and other contaminants which might enter the storm water system from the new streets and other impermeable surfaces from development if the creek is utilized for storm drainage? What good will the parks and walking paths be next to a contaminated creek and wetlands void of wildlife.

2) Park Dedication: The current "Master Plan being considered includes new Park dedication" which would include all of Willow Creek, the Wetlands adjoining the Creek and some steep areas which would be difficult to develop. When looking at this plan on paper it would appear to be a wonderful idea. HOWEVER, in prior meetings with "Stake Holders" considering this master Plan, multiple comments were made about how the City hasn't maintained the parks they have so why does the City want more parks. If the park plan is put into place and land is dedicated to a Park, we feel the end result will be what we now see in the Willow Creek Park. Invasive plants taking over the area to the point that the vines are growing into the middle of the creek and the creek and open water areas are no longer visible, dying trees which eventually fall over and become overgrown with vines and what will become another eyesore in a new community. The City staff, when asked if there are funds available or a plan in place to build and maintain the proposed parks areas, staff has indicated the City does not have funds available. Furthermore, the staff, when asked about the clean up and development of the Willow Creek Park to the North of the proposed Master Plan and other "future park" areas that have been dedicated during previous subdivision developments and never improved, staff has indicated there are not any funds available at this time to develop or maintain these parks.

If the City adopts this Master Plan as proposed, the plans for the City Park and walking path, etc contained within the Master Plan will become a matter of Public Record and will become an "overlay" for any developments in the area. As a property owner and possibly future developer of lots in this area, the proposed "Park Plan", if you take into consideration of how the City has built and maintained parks in the past, will put us and all other property owners which border this proposed "Park", in jeopardy of either not being able to sell the lots we develop because we will have to disclose that the park and pathways may never be developed or if we do sell them, be placed in a position of misrepresentation, if the park areas are not built in a timely manner and maintained properly in the future.

We would propose two options to the City Council and Planning Commission for consideration to address these concerns.

**OPTION 1)** Keep the "Park Plan" in the Master Plan but if doing so, the City will enable the Master Plan consulting firm to project the costs of completing all of the improvements for the Park and walking path within the Master Plan and the City set aside funds earmarked for these improvements. The improvements shall be built and completed by the City within 6 months of the final plat approval of each section of Creek frontage within the area. If the City does not currently have these funds available, the City shall obtain a grant or other source of funds in order to secure funding for the project prior to the adoption of the Master Plan. If the City is unable to secure this financing within one year, the park plan will be removed from the Master Plan and the Master Plan adopted.

**OPTION 2)** Remove the "Park Plan" from the Master Plan and the developers will then have the option of including these area's in either "Common area's" to be developed within each subdivision or include these area's in the overall subdivision lot configuration which will leave these area's in private ownership. The developers could then pay a "Park Dedication fee" in lieu of land dedication, (based on the appraised value of these area's) to the City, which the City could then use these funds to develop and maintain the existing approximately 10 Acres of parks in the Willow Creek and 19<sup>th</sup> Loop Park's which border the Master Plan area to the North.

We are very much in favor of a Master Plan for the area so as to insure a cohesive and attractive developed area within the City. We do, however, want to be sure the end result of the Master Plan is one the residents of the City will be able to enjoy and benefit from over the long term.

Respectfully.

Daniel Webb

1864 N. Redwood St.

Canby

Planning Director, Bryan Brown Senior Planner, Matilda Deas Planning Commission City Council

August 31, 2015

#### Subject:

Comments on Comprehensive Plan Amendment and Text Amendments (CPA 15-02/TA 15-01) North Redwood Development Concept Plan

My concern relates to the access and development of the property on the east side of Willow Creek.

I would think that prior to considering the concept plan for development of the land on the east side of Willow Creek, it is necessary to either (1) get written approval from the Railroad for at least emergency access across the railroad tracks; or (2) get written concurrence from the Canby Fire Department that they would approve a plan with only a single access point for emergency vehicles. Otherwise it would seem the recommended option for access to the property on the east side is not actually a viable option.

Without an emergency access across the railroad tracks, the "recommended" plan for property on the east side of Willow Creek would be a single access to Teakwood Street. It was my understanding that the Canby Fire Department had previously indicated a single access to the property would not meet their needs.

From the public meetings I understand that there were two "options" considered for the access to develop the land on the east side of Willow Creek. As I understood the options one would include a bridge across Willow Creek plus emergency only access to Teakwood Street at the north end of the area, as well as emergency-only access across the railroad tracks at the south end of the area. The second option would be no bridge across Willow Creek, but would have vehicular access to Teakwood Street at the north end of the area, and emergency-only access across the railroad tracks at the south end of the area. It is my understanding that this was the "preferred" option that would be recommended

It was my understanding at the time of the public meeting, that the Canby Fire Department would be requiring at least two emergency vehicle access points for the land on the east side of Willow Creek. However I also understood that the Railroad wanted to close the current access across the tracks at the south end, and not allow any emergency access across the tracks if the property is developed.

Updated information received while preparing these comments:
During the process of drafting this letter I received a phone call from Matilda Deas.
She stated that there had been conversations with Canby Fire Department this morning. She indicated that although the Canby Fire Department would still like at least emergency-only access across the tracks on the south end of the area, that if that is not possible, the Fire Department would not require a second access point for the east-side property. If the Canby Fire Department is willing to sign off with a single access that would seem to make the preferred option viable even if the Railroad denies access across the tracks.

However if the Railroad continues to refuse at least emergency access across the tracks, and if Canby Fire Department is not willing to commit to accept a single access point to the property on the east-side of Willow Creek, it would seem the "preferred" plan for the east-side property may not be viable. It would seem to be appropriate to have this matter signed off by either the Railroad or Canby Fire Department prior to adopting the Concept Plan.

Please be clear, I am not suggesting a bridge be constructed across Willow Creek. Rather I am simply suggesting that the City knows for sure whether the Railroad will approve emergency access across the tracks, or if the Railroad refuses access, that the Canby Fire Department will accept a single access point at Teakwood Street.

Thank you for the opportunity to provide comments on the North Redwood Development Concept Plan.

Roger Skoe 1853 N. Teakwood Circle Canby, OR 97013

Ph: 503 266-1321

e-mail: skoe@canby.com

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## BEFORE THE PLANNING COMMISSION OF THE CITY OF CANBY

A LEGISLATIVE AND QUASI-JUDICIAL
AMENDMENT TO ADOPT THE NORTH
REDWOOD DEVELOPMENT CONCEPT PLAN,
AND AMEND SECTIONS OF THE
COMPREHENSIVE PLAN AND LAND
DEVELOPMENT AND PLANNING
ORDINANCE

FINDINGS, CONCLUSION, & FINAL ORDER
CPA 15-02/TA 15-01
(City of Canby)

#### **NATURE OF APPLICATION**

This is a legislative and quasi-judicial amendment to adopt North Redwood Development Concept Plan, and to amend sections of the Comprehensive Plan and Land Development and Planning Ordinance in order to implement the North Redwood Development Concept Plan.

#### **HEARINGS**

The Planning Commission held public hearings and considered this application at its September 14, 2015 meeting.

#### **CRITERIA AND STANDARDS**

In judging whether or not to approve amendments to the Comprehensive Plan and the Land Development and Planning Ordinance, the Planning Commission determines whether criteria from the Land Development and Planning Ordinance are met. Applicable criteria and standards were reviewed in the September 4, 2015 staff report and presented at the September 14, 2015 meeting of the Planning Commission.

#### **FINDINGS AND REASONS**

The Planning Commission, after holding a public hearing on September 14, 2015, and considering the September 4, 2015 staff report, deliberated and reached a decision on September 14, 2015. The Commission adopted the findings and conclusions contained in the September 4, 2015 staff report.

#### **CONCLUSION**

The Planning Commission of the City of Canby concludes that based on public testimony, the recommendations and conclusions contained in the staff report, and Commission deliberations at the public hearing, that the proposal to adopt the North Redwood Development Concept Plan and amend sections of the Comprehensive Plan and Land Development and Planning Ordinance is in conformance with the applicable criteria.

#### **ORDER**

**THE PLANNING COMMISSION** of the City of Canby recommends that the City Council **approve** CPA 15-02/TA 15-01

I CERTIFY THAT THIS ORDER approving CPA 15-02/TA 15-01 was presented to and APPROVED by the Planning Commission of the City of Canby.

<b>DATED</b> this 14TH day of September, 2015		
John Savory Planning Commission Chair	Matilda Deas, AICP Senior Planner	
Laney Fouse (Attest) Meeting Recorder	-	

**ORAL DECISION: September 14, 2015** 

Name	Aye	No	Abstain	Absent
John Savory				
Shawn Hensley				
John Serlet				
Larry Boatright				
Kristene Rocha				
Tyler Smith				
Vacant				

#### **WRITTEN DECISION: September 14, 2015**

Name	Aye	No	Abstain	Absent
John Savory				
Shawn Hensley				
John Serlet				
Larry Boatright				
Kristene Rocha				
Tyler Smith				
Vacant				