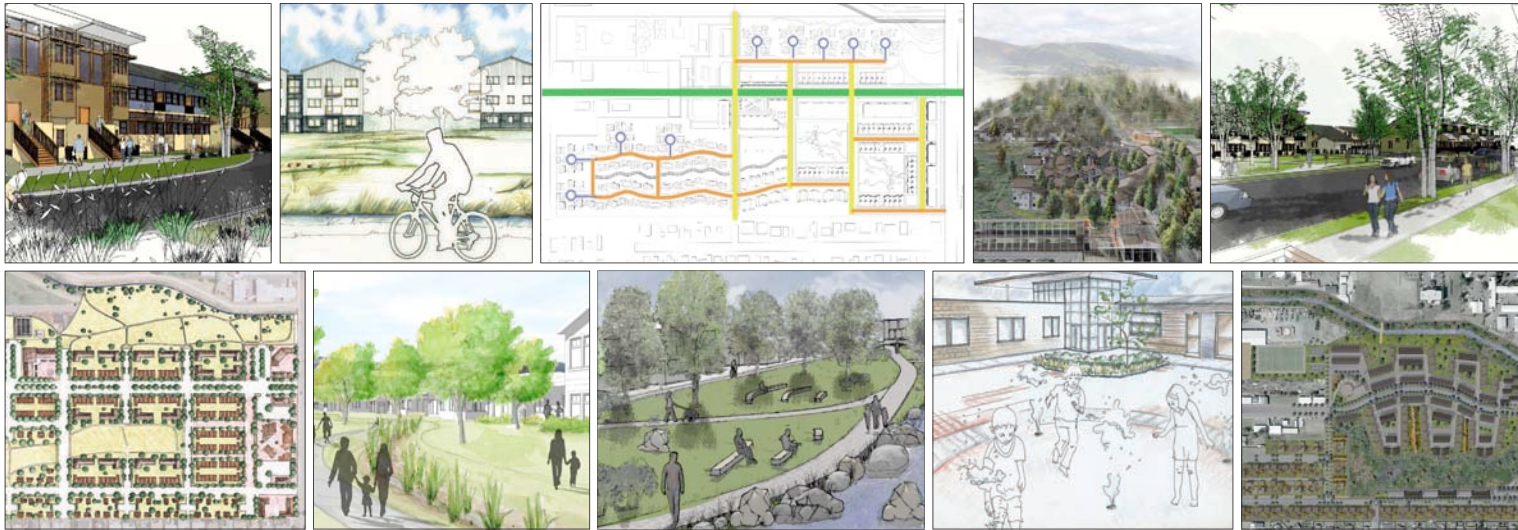


REXIUS REDEVELOPMENT PLAN



Prepared for:

Rexius Sustainable Solutions

Prepared by:

Community Planning Workshop

A Program of the
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INTRODUCTION

In west Eugene, the auto-oriented industrial and strip development pattern has for years inspired projects to address the challenges of accessing locations within the city boundaries while streamlining transportation to communities further west. The people of Eugene recognize that W. 11th Avenue, the major thoroughfare through this part of town and the gateway to the western portion of the county, needs improvement. With community dialogues currently underway (the City's Envision Eugene process) to address how Eugene can accommodate 20 years of projected growth, an opportune time for planning projects in west Eugene exists, particularly as these projects could address transportation and land use efficiencies.

A long-time resident of W. 11th Avenue before it was even a major thoroughfare; Rexius Sustainable Solutions (referred to in this report simply as Rexius) has operated from its location at Bailey Hill and W. 11th Avenue for over 70 years. Rexius is a family-owned company that recycles and processes organic waste into usable products such as mulch and compost. The company provides full-service landscape and irrigation installation and maintenance. The company and its leaders are particularly known for their commitment to community, the environment, and sustainable development.

Despite their history on W. 11th, Rexius feels it is time for their operation to move to a new location more suitable for processing organic by-products. West Eugene has grown considerably over

the last few decades, and Rexius recognizes that its industrial use no longer fits the context of the surrounding area.

In the spirit of enhancing the W. 11th area by relocating their operations, Rexius contracted with the University of Oregon's Community Planning Workshop (CPW) to conduct an exploratory study that examines the issues and opportunities related to site redevelopment and to solicit the community's visions for the site. This project had three components: (1) site reconnaissance; (2) community outreach and site development concepts; and (3) implementation strategies.

The purpose of this study was to understand the factors that affect the site physically, politically, socially, and environmentally and to use this knowledge to inform future site design concepts. These factors present both opportunities and constraints for redevelopment of the site. The concept plans provide options for how the site might be developed. CPW used the concepts, combined with the site analysis, to identify short-term actions Rexius should take to prepare for redevelopment.

As a first step, CPW researched site features through ground level observations, prepared documents, and initiated conversations with local experts. Community involvement included interviews, focus groups, and an open house. A University of Oregon design studio integrated CPW's research and community involvement findings into design concepts.

THE SITE & CONTEXT

HISTORY

The Rexus site lies west of Bailey Hill Road, south of W. 11th Avenue with Amazon Creek forming the northern border of the property. The southern lots that comprise the property remain undeveloped with wetlands and border the residential area along Plumtree Drive. Wallis Street forms the site's western property boundaries. The site includes 11 tax lots totaling 39.73 acres.

The site has been in Rexus ownership for over 70 years. For nearly 40 years, this site was in the country or on the western outskirts of Eugene. Like other places in America, West Eugene typifies suburban development patterns where agricultural uses were replaced with auto-oriented uses. By the mid-1930s the automobile was the primary means of passenger travel in Eugene.

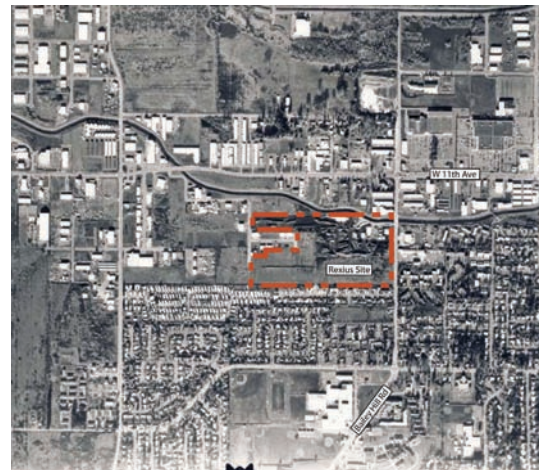
At that time most of Eugene's notable services were much closer to the downtown core than the Rexus site where Sol Rexus operated Rexus Fuel Service.

Figure 1. Site and Context 1936



(Source: University of Oregon, Knight Library)

Figure 2. Site and Context 1994



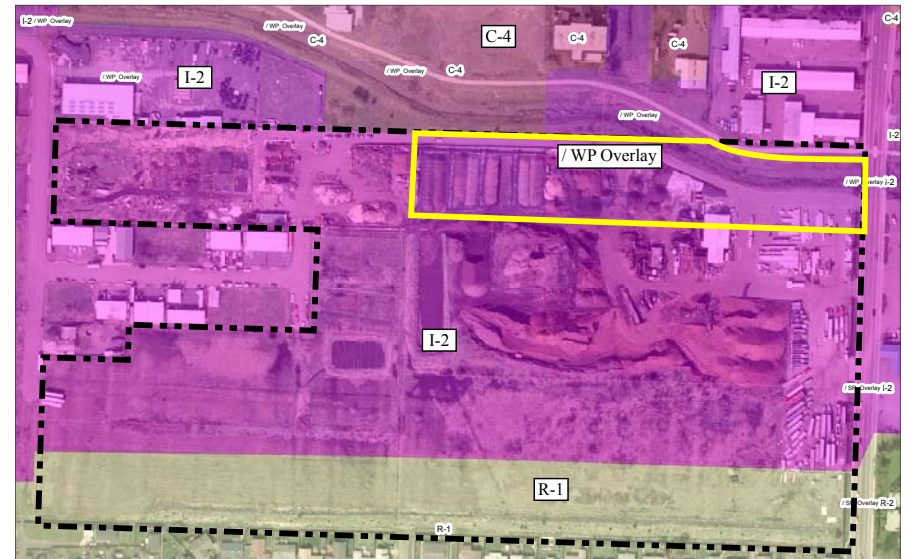
(Source: University of Oregon, Knight Library)

In the latter half of the 1960s, residential development advanced to the east and south of the site while commercial developments slowly replaced agricultural uses to the north. By the 1990s, commercial areas filled in with many of the current uses, generally characterized as big box commercial and auto-oriented uses.

ZONING DESIGNATIONS

Thirty acres of the Rexus site (9 of the 11 tax lots) are designated Light-Medium Industrial and zoned I-2 (light-medium industrial). The remaining 10 acres are designated Low-Density Residential and are zoned R-1 (low-density residential). The two tax lots zoned for residential use are located in the southernmost portions of the site. The north edge of the site borders Amazon Creek and is in the /WP- Waterside Protection Overlay Zone. Figure 3 shows the zoning designations and overlay zone.

Figure 3. Zoning Map with Overlay Zones



(Source: Regional Land Inventory Database. Lane Council of Governments GIS files)

I-2: Light-Medium Industrial

C-4: Commercial/Industrial

R-1: Low-Density Residential

/WP: Waterside Protection Overlay Zone

Neighboring zoning designations include Low and Medium-Density Residential, Commercial/Industrial, and Light Industrial, with a Water Resources Conservation Overlay zone near Amazon Creek. Specifically, Amazon Creek and the commercial strip of W. 11th border the north edge of the site. Light industrial, commercial, and residential uses border the east edge. The south edge abuts residential uses, and more light industrial uses border the site to the west.

THE NEIGHBORHOOD

The racial composition of the neighborhood is fairly homogeneous with 84% of the population identifying as white. Asian and Hispanic or Latino populations are the next highest percentage of identified groups in the neighborhood, each comprising 3.5% to 4% of the Census Block Group population.

The neighborhood supports affordable housing options and types that accommodate for people of all ages. Housing units occupied by owners out number renter-occupied units by 4.6%. Predominately these owners are married couples, ages 35-44, and of two-person households. Renter-occupied housing units are also predominately married couples, ages 35-44, but with a higher percentage of three-person households.

On average, residential neighborhoods bordering the site were built in the 1970s and consist of three bedrooms, 1.5 baths homes and one to three bedroom apartments. Current house values range from roughly \$100,000 for a two bedroom condo to roughly \$200,000 for a 3-bedroom, 1.5 bath single-family dwelling.

Schools and parks exist in the neighborhoods around the site, generally at some distance or disconnected from the commercial areas. Table 1 generally summarizes these surrounding neighborhood uses. The

Table 1. Neighborhood Amenity Summary

Type of Amenity	Number in the Area	Number within .25 mile of site
Grocery/Food	7	1
Schools	11	
Restaurants	18	6
Medical	1	
Public	1	
Parks	5	
Recreation	1	

(Source: Walkscore.com)

Eugene Parks and Open Space Project and Priority Plan identifies parks, wetlands, and the Fern Ridge Trail as major neighborhood assets in the west Eugene area. The area around the site contains six parks ranging in size and scope from small neighborhood parks with basketball courts and playgrounds to larger open space parks with nature trails.

SURROUNDING TRANSPORTATION INFRASTRUCTURE

The West Eugene Collaborative spent two years analyzing the current conditions of West Eugene, of which the Rexus site is a part. Their findings related to the transportation conditions of the area provide an overview of the transportation issues of the area. The WEC results are summarized below.

Car and Truck Drivers

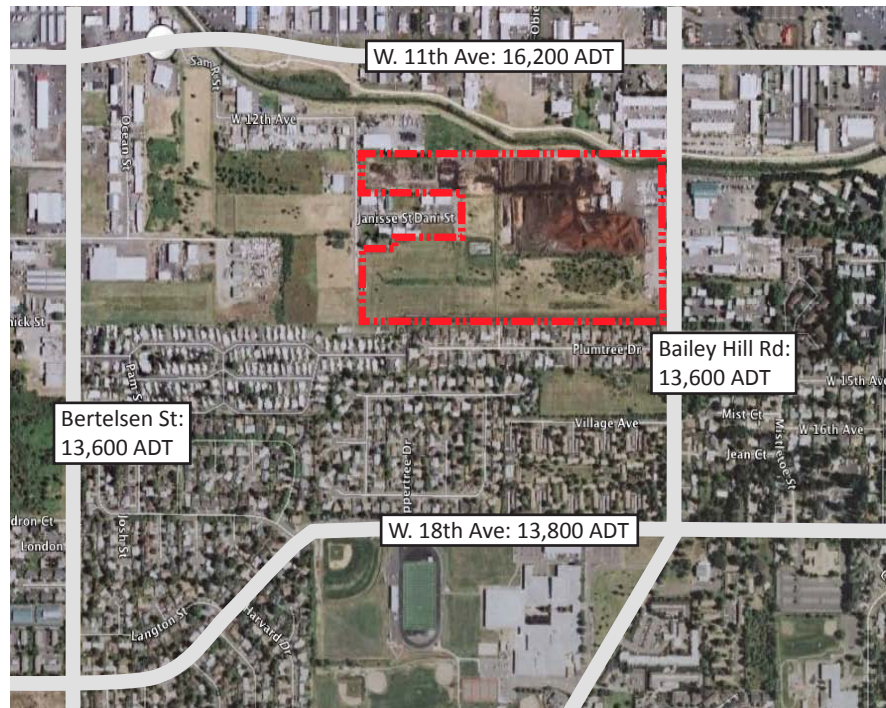
W. 11th Avenue was not designed to handle the traffic it is currently carrying. On a typical day, nearly 25,000 cars and trucks travel W. 11th past Bertelsen, and traffic can be congested during peak travel times. Frequent signals and intersections slow down the smooth flow of traffic. And numerous driveways in and out of business along W. 11th result in stop and go traffic in the outside lanes whenever a vehicle leaves or enters along a driveway.

W. 11th is congested, in part, because it is the major transportation corridor from downtown Eugene to Florence and areas in between. Another reason is the lack of practical alternatives to using W. 11th. Between Roosevelt Boulevard to the north and West 18th Avenue to the south, no streets span the entire distance W. 11th spans. Lastly, a large amount of commercial and retail trade draws people from all over the region.

The congestion, frequent signals, and access management issues create problems for automobile travelers in the area. Moreover, the lack of alternative routes exacerbates the problem.

Figure 4 on the following page shows the Average Daily Traffic (ADT) counts for the major streets surrounding the Rexus Site.

Figure 4. Average Daily Trip (ADT) counts



(Source: The City of Eugene)

Transit

According to LTD, delays for public transit along W. 11th are two-fold, resulting in poor service for bus riders and higher costs for the Lane Transit District. First, traffic along W. 11th slows down buses, resulting in slower service. Second, the longer it takes a bus to complete an entire route, the more buses LTD must run in order to maintain a desired frequency of service, thus increasing LTD costs.

Bicyclists and Pedestrians

The Fern Ridge Path is one of the jewels of the extensive Eugene-Springfield area bicycle system. Bicyclists use it to commute to and from work or school and for recreation. While the Fern Ridge Path serves as a fast and pleasant bypass around the traffic congestion along W. 11th, access to businesses on W. 11th can be difficult and even dangerous.

For pedestrians, including riders getting on or off buses, W. 11th is similarly forbidding. Sidewalks are narrow in spots, leaving a pedestrian caught between fast traffic on one side and buildings built close to the street on the other. This forces pedestrians to walk in dangerous environments with non-existent, discontinuous, or unbuffered sidewalks. In other spots, sidewalks are adequate but are separated from stores and other business by expansive parking lots. Additionally, there are no sidewalks at all along some sections of W. 11th, which is not in compliance with the American's with Disabilities Act (ADA) standards.

The Fern Ridge Path provides needed relief from these conditions for cyclists and walkers to recreate and commute, although elements of the Path come with specific safety and access considerations. Minimal access points to residential areas and businesses on W. 11th create pockets of walkable environments that disconnect residents from ways to safely or efficiently reach neighborhood services.

SITE TRANSPORTATION

The site has minimal existing transportation infrastructure, but generates significant traffic from its operations. These trips include customers, employees, and an array of operations-related vehicle trips from small automobiles to semi-trucks. Rexius estimates average trips at the site at a little less than 67,000 trips per year, or 183 average daily trips. The most substantial portion of these trips derives from community members using the yard waste dumping facility – estimated at 40,000 trips per year. All other trips – which include semi-trucks, baggers, landscape vehicles, and employees – are estimated at 26,600 per year.

Existing transportation infrastructure related directly to the site includes two roads, one bike path, and two intersections. Bailey Hill Road – with an average daily trip count of 13,600 (south of W. 11th) – is the primary through roadway with public access to the site. Bailey Hill Road supports modes of transportation from pedestrians to buses and semi-trucks and functions as a critical link from W. 11th Avenue to W. 18th Avenue. The site can be accessed on the west side by Wallis but that route is not commonly used by Rexius. While not directly on the site, the Fern Ridge Path creates an active transportation thoroughfare directly to the north.

PLANNED TRANSPORTATION LINKAGES

Planned transportation linkages allow for the alignment of a street, possible transit routes, and a pedestrian bridge related to transit infrastructure designs.

West 13th Avenue

The W. 13th Avenue connection through the site to Bailey Hill Road appears in TransPlan and allows for flexible alignment of the street. Any redevelopment application will need to include W. 13th Avenue alignment through the site—which will also serve to relieve some pressure on W. 11th.

EmX

Planning for the West Eugene EmX Extension has been underway for several years. Currently, plans include a route alignment along W. 11th with stops located at Bailey Hill Road, mid-block at Wallis Street, and at Bertelsen Road. Major transit stop locations include Seneca Street – one block east of the site – and Belt Line-Commerce Street – one block west of the site. These plans do not currently consider a W. 13th Avenue route between Bailey Hill and Bertelsen or Beltline Roads. Existing EmX plans for W. 11th include pedestrian access from W. 11th across the Amazon Channel that connects with Wallis Street at the western boundary of the redevelopment site. However, EmX could potentially use this new segment of W. 13th Avenue as an inbound or outbound route to a station terminus at Belt Line.

Pedestrian Bridge

Opportunities exist for Rexus to build a pedestrian bridge across Amazon connecting the site to the Fern Ridge Bike Path. A pedestrian bridge over Amazon Creek could further increase site permeability and connect residents to the south of the site with businesses to the north. Providing such a bridge may also be required to mitigate transportation impacts from the redevelopment.

NATURAL RESOURCES

The most noteworthy natural resources in and around the site are the West Eugene Wetlands and the Amazon Creek. These two naturally occurring features contribute to the environment's ecological health

and to the community's desire to connect with natural open spaces for recreation, social interaction, and educational opportunities.

Wetlands

The West Eugene Wetlands system consists of nearly 3,000-acres of complex wetlands and associated uplands. Conservation and restoration plans for these wetlands began in the early 1990s by the West Eugene Wetlands Partnership with a vision to achieve a balance of development needs and environmental values. The West Eugene Wetlands Plan identifies three classes of wetlands: Protect, Restore, and Develop.

The Rexus site contains approximately 14.05 acres of wetlands. These wetlands are designated as 'Develop (Future Fill)' and can be mitigated on or off site. See Figure 5 for a map of general area where wetlands are located.

Wetlands of low-value, like those on the Rexus site, can be developed after the purchase of wetland credits from an approved mitigation bank and the correct permits obtained from the Oregon Department of State Lands.

Figure 5. Wetland Area (in Red) on Rexus Site



(Source: West Eugene's Wetland Plan. Map 3: Wetland Designations Map)

Amazon Creek

Before any development of Eugene as a city, the Amazon Creek was a natural drainage course from Eugene's South Hills to the Long Tom River. In the 1950s the Army Corps of Engineers performed major construction on the creek's channels, intending to increase mitigation of stormwater flow from surrounding developments and prevent flooding. These practices produced a channel that is relatively straight and flat with few riffle/pool structures. Since that time a number of segments of the Amazon Creek have undergone major enhancement efforts starting with the Amazon Creek Enhancement Project in 1996. The restoration projects included channel widening, levee removal, addition of side channels, and riparian and wetland restoration. This enhancement project additionally introduced large angular basaltic riprap to the creek bottom to reduce flow velocities, reduce channel incision and improve the aggradation of this section of the creek. These enhancements have significantly improved the ecological and water quality of Amazon Creek.

As noted in the Zoning Designations section the Waterside Protection Overlay zone is over Amazon Creek and seeks to protect water quality, riparian areas, and adjacent wetlands by maintaining a setback. Amazon creek is a perennial waterway, requiring a minimum buffer setback of 60' from the top of the bank where it is within the floodway and 40' where it is outside the floodway.

Additionally, specific practices are not allowed in the /WP Overlay Zone. Examples include storage of chemical herbicides, pesticides or fertilizers or other toxic materials; dumping of refuse or compost; construction of septic drain fields; and channelizing or straightening of natural drainage-ways. Activities such as removal of refuse, removal of non-native or invasive plant species, and planting of native plants are allowed with a permit.

Flooding

Two major types of flooding could occur on this site: riverine and urban flooding. The site is subject to flooding in the northern portion of the property from the Amazon Creek. A small portion of the site sits in Zone AE, which is inside the 100-year flood zone. The rest of the site sits in Zone X, which is outside of the area of identified flood hazard (see Figure 7). Flooding may also occur from the type of soils present on the site.

According to the United States Department of Agriculture's Natural Resources Conservation Services web soil survey, three soil types are found within the site boundaries: '85- Natroy Silty Clay Loam', '87- Natroy-Urban Land Complex', and '106A- Pengra-Urban Land Complex, 1 to 4 percent slopes' (also see Figure 7). All three of these soils are hydric soils. These upper soils are prone to future flooding and ponding as well. Further compaction from industrial use may further worsen the ability for stormwater runoff to percolate into these soils.

Figure 7. Flood Hazard Zones & Soil Map



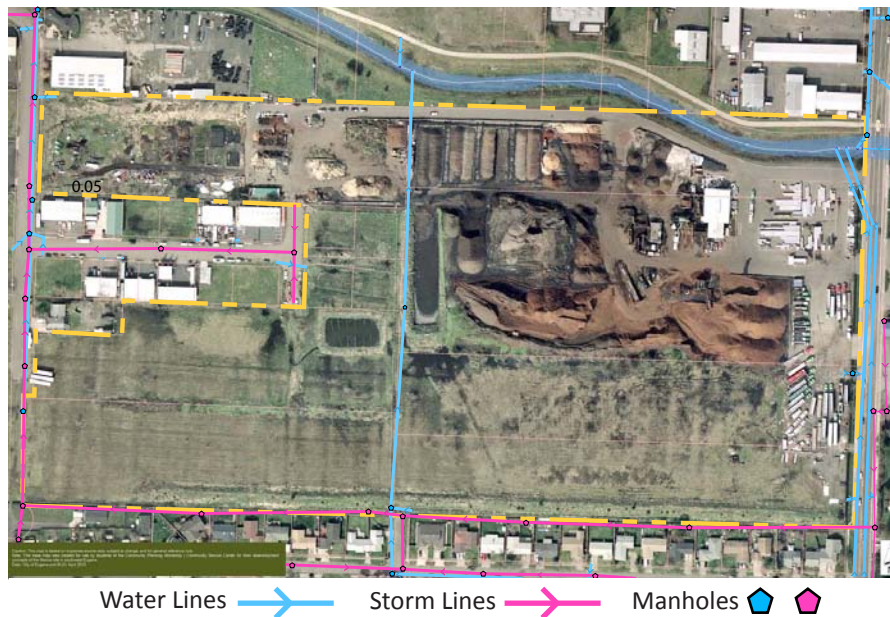
(Source: Federal Emergency Management Agency flood plane zones & Eugene Natural Resources Conservation Services, Web Soil Survey, National Cooperative Soil Survey)

- A: Areas of 100-year flood; No base flood elevations determined
- AE: Areas of 100-year flood; Bas flood elevations determined
- FW: Floodway
- X5: Areas of 500-year flood
- Soil boundaries within Rexus Site
- '106A: Pengra-Urban Land Complex, 1 to 4 percent slopes'
- '87: Natroy-Urban Land Complex'
- '85: Natroy Silty Clay Loam'

UTILITIES

The Rexius site lies in close proximity to existing urban infrastructure for storm water services, water, electricity, natural gas, wastewater, and sewers. Developed lots surround the site and include commercial, residential, and industrial uses, all of which make use of these urban services. Given the location of the Rexius site within the infrastructure grid, these systems are within easy access for connections required by redevelopment. In addition, a proposal for W. 13th Ave to go through the site could include any necessary upsizing adjustments needed for the increased capacity.

Figure 8. Storm and Waste Water Lines



(Source: Lane Council of Governments GIS files)

CONCLUSION

Site-level analysis includes an overview of historical trends related to the site and follows with data and descriptions of land use, transportation, natural resources, and utilities infrastructure. This analysis yielded site specific issues and opportunities to consider in the redevelopment.

The current industrial designation and zoning of the majority of the site presents a barrier to redevelopment. One of the reasons Rexius is moving is because it does not fit the context of the surrounding area; the same would be true of most other industrial development. As such, the designation and zoning of the site must be changed to permit appropriate uses on the site.

The site is surrounded by an auto-orientated development pattern. This pattern, and a lack of east-west road connections, has resulted in traffic congestion and many areas that do not support multi-modal transportation. As the site sits between residential development to the south and commercial development to the north it could increase the connectivity of the area and allow for easier walking or biking to the commercial area. Planned transportation linkages in and around the site have the potential to mitigate current and future traffic impacts as well as increase the accessibility of the commercial area to the north.

The natural features of the site present some barriers to redevelopment. Primarily, the on-site wetlands must be mitigated through the purchase of mitigation credits. These credits can be expensive and significantly change the cost of redevelopment. The Waterside Protection Overlay zone restricts uses on the northeastern portion of the site. Amazon Creek and hydric soils that comprise the site also make it prone to flooding in some areas. However, the creek, nearby parks and the Fern Ridge bike path are all assets that the redevelopment could capitalize on.

By drilling down to the specifics, the descriptive foundation and preliminary analysis of technical issues and opportunities exists to substantiate the findings contained in the following chapters detailing the implications for redevelopment on the site and potential design concepts.

GUIDING PRINCIPLES

The Guiding Principles are Rexius' articulated values and priorities for the redevelopment of the site. The purpose of developing these Guiding Principles is to provide guidelines that demonstrate Rexius' prioritized goals. These principles both help shape and narrow the field of potential redevelopment solutions and provide a framework for the process of taking the site from its current use to the ground breaking of its new use.

These Principles are the product of a collaborative process facilitated by CPW. CPW first created a survey for Rexius shareholders to identify their core values. Using survey responses, CPW drafted the Guiding Principles and then worked with Rexius shareholders further to refine and prioritize them. Listed to the right are the six Guiding Principles and associated strategies. These principles are a result of Rexius' process of balancing external opportunities with internal values.

PRINCIPLE #1 FINANCIAL FEASIBILITY

- Prioritize financial feasibility, reality, and success
- Focus on both the short-term & long-term financial returns
- Incorporate Triple-Bottom Line approaches
- Integrate cost efficiency

PRINCIPLE #2 LAND USE AND CHARACTER

- Develop a model West Eugene community
- Create a distinctive, attractive community
- Create a sense of place
- Employ mixed-use approaches
- Improve housing in West Eugene -- affordability, type, quality, variety -- and increase density

PRINCIPLE #3 COMMUNITY

- Collaborate with community
- Consider community values

PRINCIPLE #4 TRANSPORTATION & CONNECTIVITY

- Promote multiple forms of transportation
- Create direct access to transportation
- Create connections through site and to downtown
- Promote walkability

PRINCIPLE #5 ENVIRONMENTAL SITE DESIGN

- Improve quality of Amazon Creek and open space
- Enhance natural habitats
- Respect natural areas
- Xeriscape and use native landscaping
- Treat stormwater
- Consider site permeability

PRINCIPLE #6 ENVIRONMENTAL BUILDING DESIGN

- Consider environmental design elements:
 - Energy conservation
 - Water conservation
 - Non-toxic materials
 - Energy production

DESIGN CONCEPTS

As a way to encompass the issues and opportunities for the Rexus redevelopment within a realistic financial framework, CPW collaborated with a University of Oregon joint architecture and landscape architecture design studio. Five student design teams were given the challenge to integrate the Rexus' guiding principles and the findings from CPW's site analysis and public involvement into design concepts.

The following concepts are the students' visions for the site that capture the needs of the local and future residents and the requirements for making the redevelopment a viable and vibrant community. The student teams relay their design intentions through day-in-the-life stories and descriptive narratives alongside their recommendations for zone changes and transportation routes.

CONCEPT I: 'COMMON WATERS'

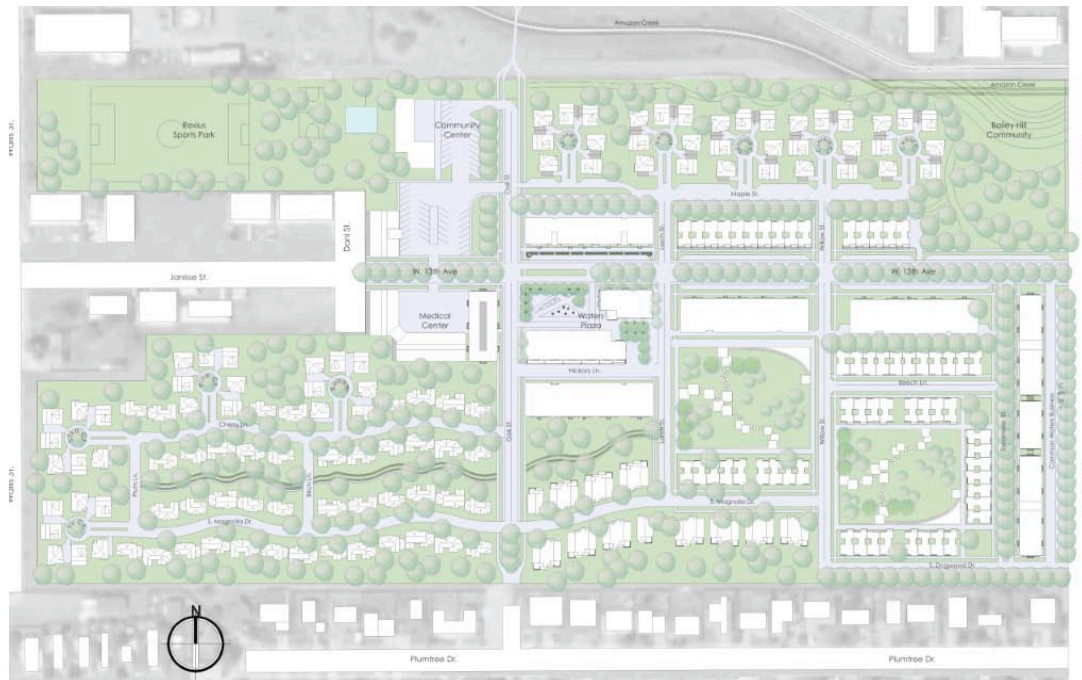
DESIGN TEAM:

Laura Culver • Colin McNamara • Timothy Kremer

VISION STATEMENT

The driving force behind Common Waters is that many of the day-to-day needs of community members (whether he or she is a child, a young adult, or an elderly individual) can be met within the neighborhood. If you're interested in going for a walk, you can enjoy a nice stroll through your naturalistic backyard to the wetlands park. If you're looking for a cup of coffee or a fresh loaf of bread, simply head over to the plaza where you can buy a beverage and breathe the fresh air in the outdoor seating area. Meanwhile, for those looking to burn off some steam after a long day at work, the community center offers many recreational opportunities. You might even run into a friend and get a chance to catch up on each other's day. And for those who just want to relax at home, the various housing options at Common Waters have been designed with human comfort in mind. Just sit back, relax, and enjoy the abundant natural lighting and comfortable layout of your home.

Site Plan



PROGRAM

Land Use

This concept plan for the redevelopment of the Rexius site would require the site be re-zoned into several different zoning categories. Primarily this would include residential zones. The areas in the southwest and northeast of the site would be zoned low-density residential, gradually building up to high-density residential in the central plaza. In addition, the strip along Bailey Hill Road would be re-zoned as commercial/office space (medium-high density), and the plaza as mixed-use retail/residential. Finally, the southern portion of the site, near Dani Street, would require a re-zoning to accommodate a medical facility.

Land Use and Trip Counts

Type of Use/ITE Code	Units	Proposed	Expected Daily Trips
Single Family Detached 210	DU	106	1,014
Apartment 220	DU	165	1,109
Townhouse 230	DU	60	352
Commercial/Retail 820	TSF Gross*	12	515
Office 710	TSF Gross	25	275
Medical Office 720	TSF Gross	16	578
Light Industrial 110	TSF Gross	0	0
Community Center 495	TSF Gross	5	139
TOTAL		---	3,982

*TSF Gross = Gross Square Feet (in thousands)

Transportation

The streets in Common Waters follow a fairly basic grid with some minor modifications. One modification is the addition of 13th Avenue through the site linking Bailey Hill Road to Janise Street, which currently dead-ends into the western edge of the site. This new tree-lined boulevard would provide additional east-west access to the site and surrounding neighborhoods. There is a secondary street that runs parallel to and south of W. 13th Avenue, which serves the southern cul-de-sac communities. The streets that access the front of the townhomes (along the wetlands parks) are one-way and intended for local traffic only, with parallel parking on one side. The streets surrounding the single-family homes are curved and designed to break up the monotony of a typical residential development. Note the street in the existing neighborhood to the south is not connected to the street system in Common Waters. Our proposed

infrastructure, however, has the main north-south road lining up with the vacant lot in the existing neighborhood to prepare for future development in which the neighborhoods might be connected.

Pedestrians have the option to walk along sidewalks that line every street. In the areas with houses, backyards flow together to form a planted semi-wild area where water is collected and diverted to the wetland parks. Here, individuals can walk along the waterway to the parks or to any given road to join up with a sidewalk. There is also a path along the Amazon Creek, which has undergone further improvements with native plants and aesthetically attractive landscaping. Furthermore, five-foot wide dedicated bike lanes are located along 13th Avenue and streets.

Circulation Diagram



Natural Features

Two acres of wetlands have been preserved and enhanced on the site. The remaining 12 acres will be mitigated off-site through a mitigation bank.

The area along the Amazon Creek has been set aside as an open park space, for residents and the wider community to enjoy. A bike path runs along the creek, and several homes' backyards face this open space. A bridge at the end of the main north-south street connects pedestrians to the Fern Ridge bike path and to the Common Waters community. If the city were to join forces with the developer to de-channelize Amazon Creek, it has the potential to become something both highly functional and beautiful.

Precedents for this type of work can be found with the restorations and enhancements of the Los Angeles River and the River Walk in San Antonio. We would recommend increasing vegetation, adding places to sit with both ramps and steps to help comply with ADA standards (think Pioneer Courthouse Square), and making this part of an effort to improve Amazon Creek as a whole. Hopefully the improvements of this stretch of the Amazon could serve as an example for how to improve the stream as a whole and further connecting this natural asset with community members and visitors.



Pedestrian paths and swales between single-family homes



Townhomes surrounding preserved wetland park

CONCEPT 2: 'HERITAGE PLACE WEST'

DESIGN TEAM: Sherri Brown • Dara Haagens
Alex Rosenthal • Courtney Skoog

VISION STATEMENT

Heritage Place West is a healthy-living community connecting people and places through neighborhoods, nature, and social gathering spaces that are attractive to people of all ages and backgrounds. An urgent care facility and medical offices provide the commercial anchor while amenities such as a small market, community center, on-site childcare, and a range of retirement options promote intergenerational living. Connectivity is also enhanced through ready access to walking paths, bike paths, and public transportation, thus encouraging physical activity and minimizing dependence on automobiles. Readily accessible on-site natural features such as the Amazon Creek and existing wetlands are preserved, enhanced and linked through green bridging. A tree-lined main street, courtyards, and plazas create a sense of place and additional nodes for connection. Dwellings are designed to maximize daylight and views. Additionally, a range of rental and purchase option homes including single-family homes, townhomes, apartment homes, and mixed-use provide a spectrum of choices for the diverse needs of Eugene's West 11th community and beyond.

Site Plan

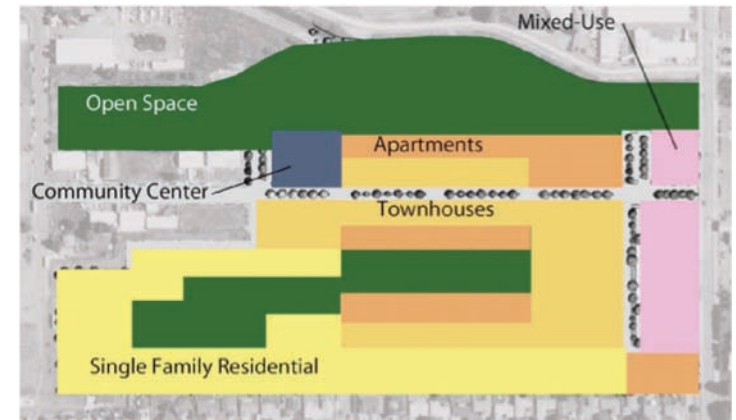


PROGRAM

Land Use

This concept would require a change in zoning. We suggest changing the current zoning to include C-1 or C-2 neighborhood commercial and General Office along Bailey Hill. The rest of the community would be primarily R-3, as the density is well above six units per acre.

Land Use Diagram



Land Use and Trip Counts

Type of Use/ITE Code	Units	Proposed	Expected Daily Trips
Single Family Detached 210	DU	88	842
Apartment 220	DU	173	1,163
Townhouse 230	DU	140	820
Commercial/Retail 820	TSF Gross*	14	601
Office 710	TSF Gross	11	121
Medical Office 720	TSF Gross	7	253
Light Industrial 110	TSF Gross	0	0
Community Center 495	TSF Gross	2	64
TOTAL		---	3,800

*TSF Gross = Gross Square Feet (in thousands)

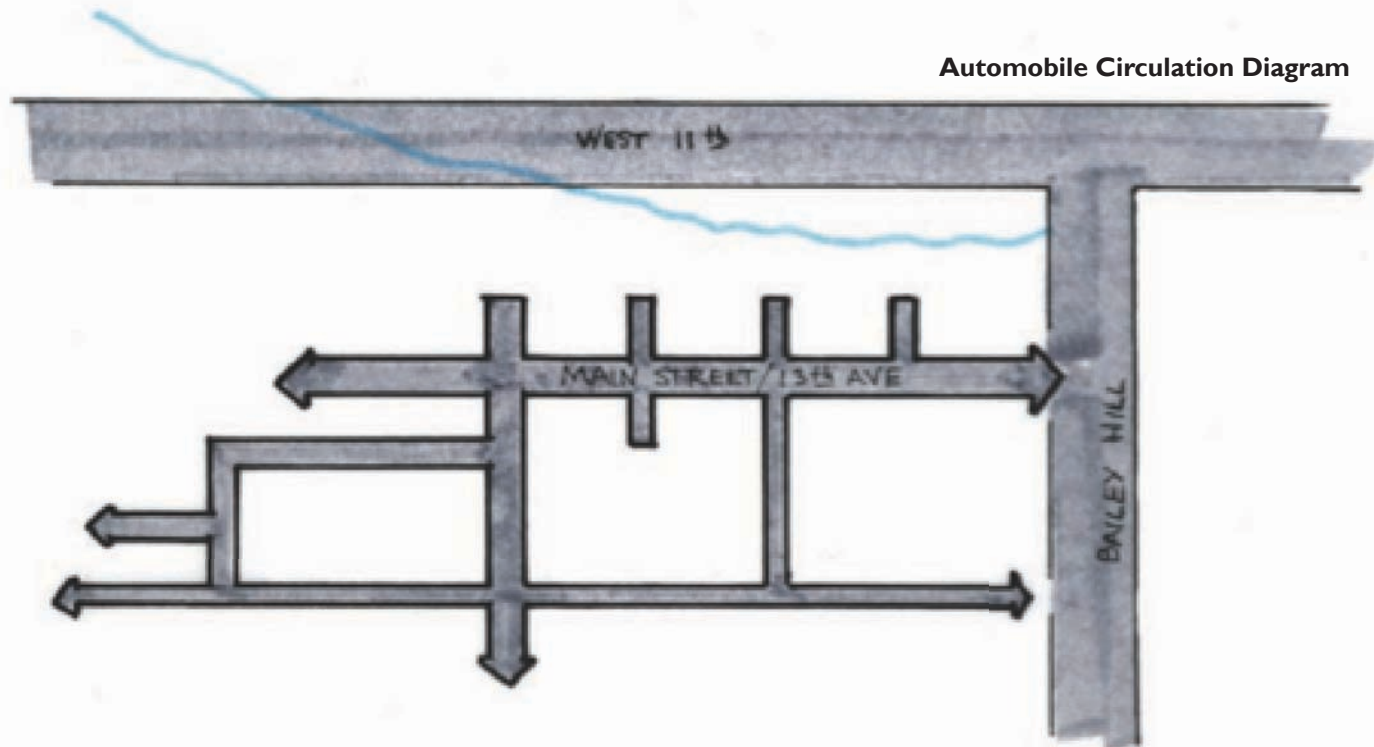
Transportation

Our design puts a high value on creating a street network that echoes the grid that exists in older neighborhoods of Eugene, including the Southeast, Jefferson, Friendly Street, and Downtown neighborhoods among others. We feel it's important that the new neighborhood at the Rexius site be connected to existing neighborhoods and infrastructure as much as possible, despite the disconnected precedent in the area. By offering many potential connecting points, future changes to the street network will be made more easily.

Our design is based around the idea of "Main Street" on the new linkage of W. 13th Avenue. This street would see the most traffic, and although we propose mid-density townhouses for the street, W. 13th Ave would also be a logical extension to commercial or retail development on the adjoining

Bailey Hill Road. Secondary streets that run parallel and perpendicular to W. 13th Ave are narrower, quieter, and host a range of residential building types, from apartments to single-family detached houses.

A key concept to our design is to promote walking and bicycling. The site's proximity to the Fern Ridge Bicycle Path promotes walking and biking as a means to recreate as well as commute to and from the neighborhood. We have included paths that traverse a public park along the Amazon Creek to the north of the site, as well as paths in portions of the restored wetland toward the center of the site. We have deliberately integrated bicycle paths into the street network to promote a coexistent attitude in the neighborhood. Bicycle lanes run on either side of W. 13th Ave, while cars and cyclists mix on the smaller streets.



Natural Features

Our design reflects the mitigation of approximately nine acres of wetlands off-site, while restoring five acres in the heart of the neighborhood for wildlife and plant habitats and open space.

We feel that restoring Amazon Creek and associated habitats is an important precedent to set in West Eugene. This project presents the opportunity

to treat the creek as a great amenity for residents and visitors, as well as an ecological amenity for Eugene as a whole. By keeping buildings at a distance from the creek channel the creek's slopes can be restored to be more gradual and planted with a diversity of native plants found in riparian and floodplain areas.



View from bike path along swale



Children playing in courtyard garden

CONCEPT 3: 'BAILEY CREEK'

DESIGN TEAM: Chris Murray • Brian Lawler
Shane O'Neil • Stephanie Christie

VISION STATEMENT

The Bailey Creek Community acts as a transition between existing uses of commercial (currently to the north of W. 11th Avenue) and residential (to the south along W. 18th Avenue) and prominent natural features within the site. This design concept integrates a sense of humanity and order to an otherwise disjointed area. The prominent natural features (the on-site wetlands to the south and the Amazon creek on the northern edge) provide a unique opportunity to change the way that natural features such as these are treated in the urban context of Eugene. Rather than tucking them away and isolating them from their surroundings, these features are brought to light and turned into the focus of civic life. This ultimately influences the way buildings interact with the land and the way streets form neighborhoods. Vibrant open spaces, public amenities that meet the needs of the community, homesteads that nurture a sustainable lifestyle, and the elegantly articulated connections that bind them all together are key components of this vision.

PROGRAM

Land Use

The following description covers our suggestions for the redevelopment of the Rexus site: The west side of Bailey Hill Road is lined with commercial retail and office buildings, which are across from existing commercial buildings to the east. At the entrance from Bailey Hill onto the new W. 13th Avenue, immediately on either side are mixed-use buildings with retail space on the ground floor and apartments above. At the intersection of W. 13th Avenue and the new north-south road, which leads into the single-family detached housing area and borders the suburbs to the south, the wetlands can be seen to the southwest and the townhouses to the northwest. Across the wetlands, in the southwest corner, is the health and wellness center. Further down W. 13th Avenue from the intersection is a four-story mixed-use apartment building occupying the northwest corner of the wetlands area. Farther to the northwest is the co-housing community, which consists of many two- and three-story townhouses and two community buildings, that contain spaces for community members to prepare, cook, and eat food with others.

Site Plan



Land Use and Trip Counts

Type of Use/ITE Code	Units	Proposed	Expected Daily Trips
Single Family Detached 210	DU	39	373
Apartment 220	DU	100	672
Townhouse 230	DU	130	762
Commercial/Retail 820	TSF Gross*	40	1,718
Office 710	TSF Gross	20	220
Medical Office 720	TSF Gross	28	1,012
Light Industrial 110	TSF Gross	0	0
Community Center 495	TSF Gross	4	111
TOTAL		---	4,756

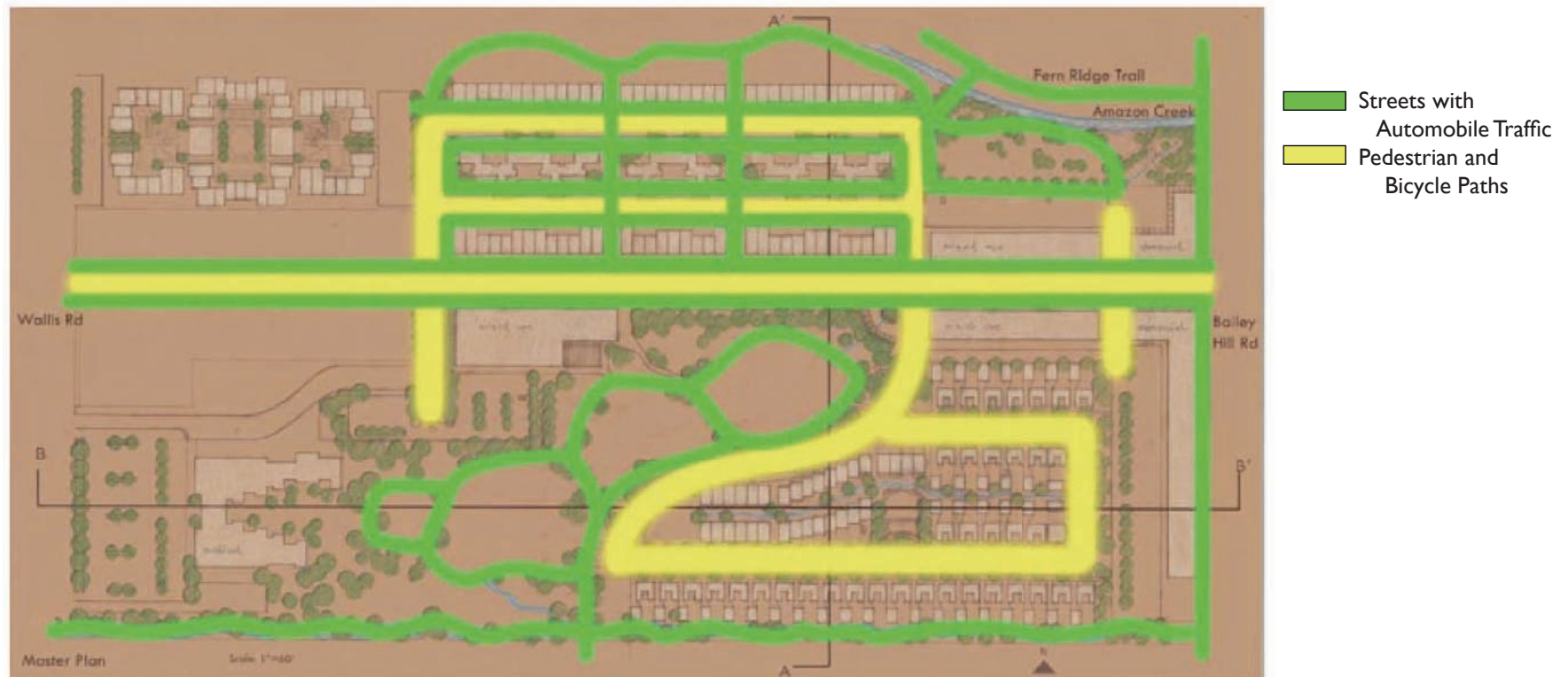
*TSF Gross = Gross Square Feet (in thousands)

Transportation

The main street cutting through the middle of the site is W. 13th Avenue, which connects Bailey Hill Road on the east edge of the site to Wallis Road on the west. The road servicing the single-family detached housing in the southern part of the site does not connect through to the neighborhood directly south, but has the opportunity to connect to Plumtree Drive. The two northern roads, parallel to W. 13th Avenue, service the townhomes and "L-units", while providing parking and a friendly, safe, and walkable

area. Along the northern roads are sidewalks and paths that connect to the Fern Ridge Path, which runs along the southern bank of the Amazon Creek. This same path connects to W. 13th Avenue and then continues on to connect a series of smaller paths within the site through the wetlands. This series of paths then continues to connect the single-family detached housing to the existing suburban context to the south.

Circulation Diagram



Natural Features

As it is today, the Amazon Creek creates the northeastern border of the site and a large swath of wetlands inhabits the southern half, but they exist as mere objects tucked away from their surroundings. This isolation of such potent natural features is not unique to the Rexius site however, and can be found in the relationship between the Amazon Creek and downtown neighborhoods of Eugene as every structure appears to disregard the Creek's presence. Instead of adopting Eugene's typical approach to how water plays a role within a neighborhood, we chose to celebrate the natural resources

running through our site and treat them as focal points for social activity, human interaction and day-to-day life. It therefore became imperative to maintain the integrity of the existing natural features while creating a livable and walkable environment for the surrounding neighborhood. In doing so, we've overlaid an urban fabric upon a natural system of wetlands, saving six acres of the wetlands on-site and mitigating the remaining eight acres of wetlands off-site. Capitalizing on the site's pre-existing assets, we integrated on-site stormwater management with pedestrian access and public open spaces, permeating the site and creating a unique character for the area.



Residential neighborhood and streets



Residential street

VISION STATEMENT

The guiding principle of Confluence West is the coming together (or confluence) of healthy people, a healthy environment, and a healthy economy, to create a robust, vibrant community and a unique sense of place in West Eugene.

PROGRAM

Land Use

Currently, the Rexus site is zoned I-2 (Light Industrial). Our concept would require a shift in zoning to include a blend of the following designations: C-1 (Neighborhood Commercial), GO (General Office), PL (Public Land), R1 (Low-Density Residential), R1.5 (Rowhouse), R2 (Medium-Density Residential), R3 (Limited High-Density Residential), PR (Park, Recreation, and Open Space), and NR (Natural Resource). This blend would be a mix of existing area zoning conditions and complement the existing residential/commercial mix in the immediate and adjacent neighborhoods and business centers. This proposal recommends an eventual shift away from the current light industrial character of the site toward a more integrated residential/commercial character.

Site Plan



Land Use and Trip Counts

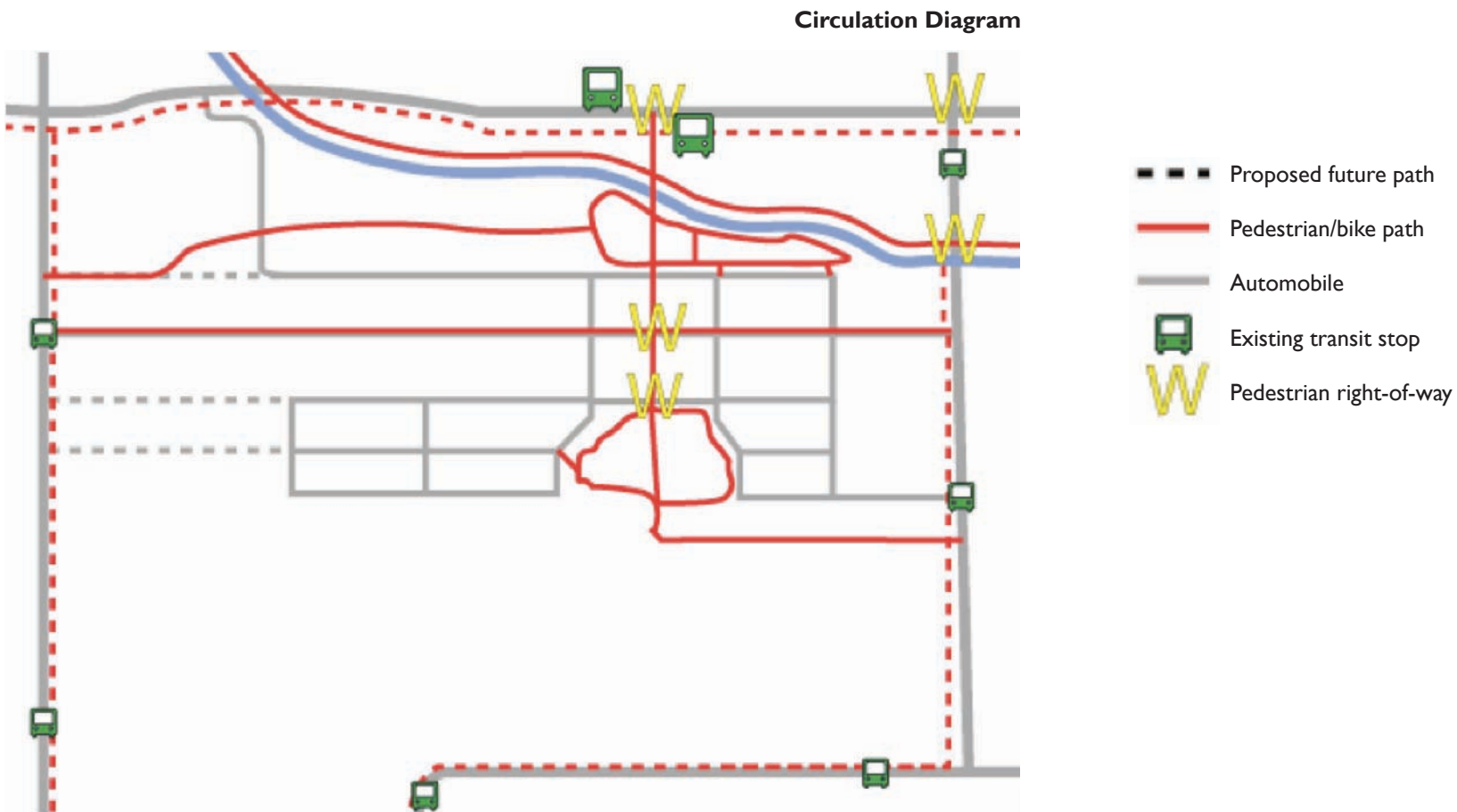
Type of Use/ITE Code	Units	Proposed	Expected Daily Trips
Single Family Detached 210	DU	87	833
Apartment 220	DU	74	497
Townhouse 230	DU	79	463
Commercial/Retail 820	TSF Gross*	90	3,865
Office 710	TSF Gross	110	1,211
Medical Office 720	TSF Gross	76	2,746
Light Industrial 110	TSF Gross	0	0
Community Center 495	TSF Gross	5	139
TOTAL		---	9,754

*TSF Gross = Gross Square Feet (in thousands)

Transportation

The Confluence West proposal would integrate W. 13th Avenue to provide connectivity through the site and relieve the extra burden caused by the additional residential and business traffic. Our proposal would seek to create “safe streets” throughout the community by using best practices as defined in Metro’s “Livable Streets” publication. These practices include the creation of pinch points, curb cuts, bump-outs, bike lanes, wide crosswalks, wide and planted medians and boulevards, and other methods designed to slow traffic and make streets safe for cars, bicycles, and pedestrians.

Bicycle paths connect throughout the site to the existing neighborhoods to the south of the community and retail and amenities on W. 11th Ave. Bike paths within Confluence West also connect with the Fern Ridge Bike Path. The bicycle paths should ideally be six feet wide or more to accommodate anticipated bicycle traffic. Pedestrian pathways wind through the site’s natural, residential, and business districts. A network of raised boardwalk paths criss-cross through the wetland areas. Ample sidewalks and planned density combine to make walking a realistic option throughout the site. Walking paths also connect to retail on W. 11th Avenue.



Natural Features

Six acres of wetlands are mitigated on site, and eight are mitigated off site. Plans for Amazon Creek include connecting the Creek with the wetlands via a series of water features throughout the site. This connection will emphasize the Creek as a major asset to the site, and will necessitate further development and improvements to the creek, including widening the creek, decreasing the slope of the creek banks on either side, and adding native plantings and pathways to and nearby the Creek.



People strolling through townsquare



View of single-family neighborhood

CONCEPT 5: 'HERON LANDING'

DESIGN TEAM: Zachary Katz • Corey Templeton
Iman Rejaie • Nate Poel • Christopher McLean

VISION STATEMENT

The driving force of our scheme is to create and preserve local natural amenities and give as much access to them as possible both for the residents and the surrounding communities. We do this by expanding the Amazon Creek corridor to form a healthier, more natural environment and accommodate active recreation along the water. Residences are laid out along a zigzagging street that is placed at the proper angle to allow a maximum number of views to the open space. This setup also allows green fingers to weave in and through the development ensuring a close relationship between the residents and their natural surroundings while still allowing for density.

All of our facilities are designed to respond to market and social trends as the neighborhood ages. Houses along the new W. 13th Avenue corridor are able to convert their first-story to a shop if and when the market allows for it. Single-family residential homes can accommodate accessory dwelling units, which could effectively double the number of units in the neighborhood.

Site Plan



PROGRAM

Land Use

This concept would require mixed-use zoning for the majority of the site. The southern edge and southwest corner would require zoning to match the low-density neighborhoods south of the site. Directly across the street from the single-family homes and just south of the wetland would begin a multi-family zoning that would reach all the way up to the no-build buffer around the creek. In the middle of this multi-family zone, along the curved W. 13th Avenue face, would require a mixed-use zone for the shop house option to go into effect when the community could support such ventures. Along the eastern edge the zoning would be commercial, which includes the proposed medical center. The northwest corner would be the only portion maintaining its current zoning pattern, for purpose of the “wait and see” principle – to see what the other light industrial businesses and property values do when the project gets underway. This would allow for potential adjustment to its adjacent lots for a larger project in the future, rather than squeezing a new zone into a tight space with little access.

Land Use and Trip Counts

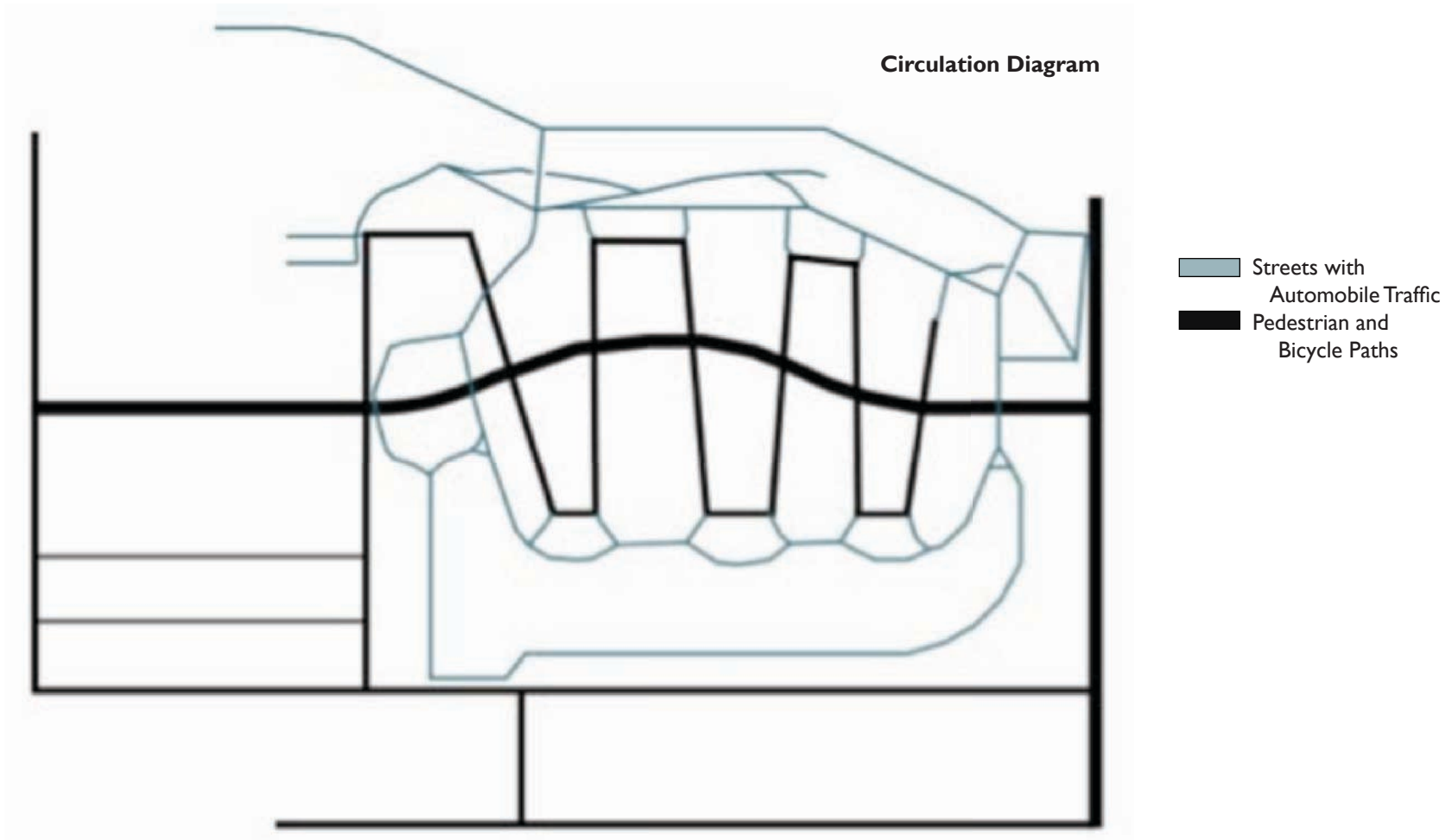
Type of Use/ITE Code	Units	Proposed	Expected Daily Trips
Single Family Detached 210	DU	92	880
Apartment 220	DU	220	1,478
Townhouse 230	DU	119	697
Commercial/Retail 820	TSF Gross*	11	472
Office 710	TSF Gross	9	99
Medical Office 720	TSF Gross	11	397
Light Industrial 110	TSF Gross	10	70
Community Center 495	TSF Gross	11	302
TOTAL		---	4,095

*TSF Gross = Gross Square Feet (in thousands)

Transportation

Heron Landing places its entire focus on being flexible with a goal of answering an unpredictable future. The streets of Heron Landing respond to this ideal by aiding pedestrians, bicyclists, and homeowners, not the car. West 13th Avenue, which runs east to west through the site, contains two inner car lanes flanked by parallel parking, which is further flanked by a bicycle lane, which is protected by the parked cars. West 13th responds to the high speeds and monotony found on E. 13th with a large curve that

also gives symmetry to the fingers of housing on both sides. These fingers break down the restrictions of a road in that they are all 15-foot one-way streets lined with five-foot sidewalks at the same grade this system would provide bikers and homeowners free range over the street and sidewalk. Large bike paths traverse the entire site, creating freeway-like routes for avid bicyclists.



Natural Features

Our vision keeps 5.49 acres of the wetlands and mitigates the remaining 8.51 acres off site. We decided to make the creek more accessible by widening the creek's banks to 80 feet on one side. This will make the creek ADA accessible and create spaces where people can interact with the creek. This will also help with less erosion with the creek habitat.



Public park along Amazon Creek



Aerial view looking west over site

CONCLUSION

These five design concepts developed by the University of Oregon's joint architecture and landscape architecture studio incorporate the elements of Rexus' Guiding Principles, pertinent data gathered during CPW's Site Analysis, and Rexus' expressed interest in creating a community-supported, environmentally responsible, and model development plan for west Eugene. These plans demonstrate varying ways the site's redevelopment can successfully incorporate a balance of land uses, multi-modal transportation, and natural resources into a livable development.

IMPLICATIONS

Through site research and community input, the following implications arise related to the Rexus site and redevelopment scenarios. Some implications have the potential to halt redevelopment of the site while others can be seen as opportunities uncovered by the research.

The design concepts presented in this book have considered these implications, except Transportation Infrastructure and Trip Caps, and incorporated elements to address these topics.

IMPLICATIONS

LAND USE

Metro Plan Amendment and Zone Change

The Rexius site is currently designated as Light-Medium Industrial and Low Density Residential under the Metro Plan, and zoned as I-2 and R-1 in the City of Eugene Zoning, which limits uses on the site. I-2 zoning permits auto repair and manufacturing, small amounts of office related to the manufacturing, and a small amount of eating and drinking establishments. No more than 20% of floor area may be allocated towards the office and eating and drinking establishments. No residential uses are permitted but horticultural uses, churches, libraries, athletic facilities, and government uses (e.g., fire station) are permitted. R-1 zoning permits dwellings at a density of up to 10 units per acre and a very limited range of non-residential uses.

To redevelop the Rexius site with mixed use commercial, higher density housing, or a major transit center, both a plan designation change and zone change are necessary. These changes will require a legislatively processed plan amendment, which can take several months to a year to complete and requires City Council approval. However, the recently completed Eugene Comprehensive Land Assessment (ECLA) process showed that there is a surplus of industrial land in the UGB which is favorable to this site being rezoned.

After reviewing the limitations of the present zoning designations and considering the potential of the Rexius site toward meeting city and metro plan goals, viable options for changes in zoning designations include C-2 Community Commercial, R-2 Medium-Density Residential, and R-3 Limited High-Density Residential. These zones could work with a PUD overlay to provide increased flexibility.

Other options include Opportunity Siting, a program adopted by the city to identify key sites around the city where infill is appropriate, and to encourage more dense development. Additionally, a Special Area zone could be employed and has the advantage of customizing the code to fit the intent of the site plan. This approach would require a separate legislative process to develop and review the new zone.

Eugene is currently in the Envision Eugene planning process in which the City will make decisions about how to accommodate for the

projected population increase of 35,000 people over the next 20 years. Coordination with Envision Eugene could be beneficial to the development of the Rexius site and provide a unique opportunity to highlight the value of the site and elevate it in the eyes of the Eugene City Council. Coordination with Envision Eugene could make the plan amendment more seamless. City staff indicated that the Rexius redevelopment does not have to be on the exact timeline of Envision Eugene for coordination to be successful.

Strengthen Identity in the Area

The pattern of land uses that exist around the site are a combination of strip commercial, industrial, residential, and natural features. West Eugene is said by most to lack a neighborhood identity or feeling. The site location embodies the potential to become a visual or cultural anchor in an otherwise monotonous setting. Development could create the infrastructure of a neighborhood core or gathering place centered on community-oriented amenities. Redevelopment could also address social sustainability by building bridges between diverse communities. In one sense, these could be literal bridges, including paths between the existing residential and commercial communities. In another sense, these bridges could include relationship and rapport building among neighboring property owners and community groups.

Increase Amenities in the Neighborhood

The area around the site lacks certain public amenities which could be addressed by the redevelopment. There are no community centers, public libraries, or cultural centers. Limited medical facilities and one recreation center (US Sports Plex) exist in the area. Generally, the Metro Plan states that the area needs more community amenities. These amenities could also include restaurants as many of the food options in the area are fast food.

Moreover, one of the goals of the Eugene Neighborhood and Parks Plan is to provide a metropolitan park where the Ridgeline trail and wetlands are connected. The Rexius site is in a prime location to connect the Ridgeline Trail to Bertelsen Natural Area wetlands. Other goals in the Parks Plan are to acquire and develop more neighborhood parks, to develop a community center, to develop a swimming pool, to

create fun destination points along the Fern Ridge Bike Path, extend the Fern Ridge Bike Path, include better north-south connections, and connect neighborhood parks to each other. All of these recreational amenities could be possible on the Rexius site. Development of any of these facilities would require close coordination with the City.

The combination of access to wholesome foods, places to recreate and exercise, and nearby health care services contributes to overall healthy living. The Rexius redevelopment could encourage the combination of all these factors on the site to interconnect the residential and commercial areas for optimal community health.

Variety of Housing Options

Though the area around the site contains a variety of housing in types and cost, land use inventories suggest a lack of housing in Eugene to accommodate future population growth. The Rexius site has the capability to support a varied range of housing types for the expanding population. Housing also presents several opportunities to challenge gentrification. Repeated assertions from stakeholders that the Rexius redevelopment allow for long-term tenancy and affordability reflects values shared by many who live in proximity to the site and who care about how the site's opportunities address community goals and policies. Moreover, in recognition that Eugene's population will age and that the existing population has proportionally high representation from single mothers, providing for a variety of housing options will allow people to stay in their homes for long periods of time, cater to age diversity (children to seniors), and ensure that the people living in the area can continue to do so. Providing mixed housing types and affordability also enables access for special needs populations.

TRANSPORTATION

Transportation Infrastructure Improvements & Trip Caps

The Rexius site borders one side of a mega-block that measures approximately one mile wide by half a mile long. The four streets that border the block are either major or minor arterials, meaning they are designed to expedite regional travel and efficiently move traffic to and from major commercial centers. With W. 11th and W. 18th as the only east-west street connections in west Eugene, traffic multiplies on

these streets. According to City staff there is not much extra capacity on W. 11th and it will fail within the 20-year plan horizon. The area is also prone to access management and safety issues resulting in hostile bicycle and pedestrian environments which discourage their use and further exacerbates the problem. Transit inefficiencies in the area also lead to the experience and perception of unreliable bus service for daily commuting. In essence, some areas around the site do not support multi-modal transportation and result in heavy reliance on the automobile in those areas.

A change of use on the Rexius site will most likely result in increased trips on these streets. Rexius is responsible for finding solutions to mitigate transportation issues that could arise from the redevelopment. The designation and zoning are tied to the transportation effects. A plan amendment signals the potential involvement of the Oregon Department of Transportation (ODOT) under the Transportation Planning Rule (TPR; OAR 660-012); however, developing the existing portion of the site zoned R-1 would not trigger their involvement.

ODOT holds jurisdiction over the intersections of W. 11th and Beltline and Garfield and 7th Avenue. ODOT will look at the site development concepts and provide a Traffic Impact Analysis scope (to be included in the Traffic Impact Analysis currently being conducted for Rexius by JRH). ODOT looks at the existing worst case scenarios for trip generation under the current zoning and the reasonable worst case scenario under the new zoning. Then ODOT would make a determination about whether or not the redevelopment would be impacting the two state facilities listed above. If so, ODOT would engage Rexius in dialogue about mitigation or institute a trip cap for the site. Mitigation could mean a broad range of projects or making improvements to the ODOT controlled intersections. A trip cap means that the new development can only produce a certain number of trips unless identified transportation improvements are made.

The City can also impose required improvements to the surrounding transportation infrastructure to mitigate traffic impacts. There are a range of solutions for minimizing some of the impacts of additional trips. Possible improvements could include: the extension of Wallis Street, a bridge across Amazon, a signal at Bailey Hill, and the future W. 13th Avenue and also at the future 13th and Bertelsen. However, some of these improvements could be incorporated into the City's Capital Improvement Plan and the City would take on the financial burden for their implementation. For example, the Arterials and Collectors plan states that W. 13th Avenue should be extended through the Rexus site. Rexus is responsible for dedicating full right of way for a major collector through the site but will receive SDC credits for extending the street. The City is interested in working with Rexus on these solutions and should be engaged when the concept for the site is further developed. The scoping and coordination to test the transportation assumptions and impact methodologies is important and should be considered early in the redevelopment process.

Redefine Development Patterns of the Area

The land use and development pattern around the site tends to be auto-oriented with minimal pedestrian infrastructure. Wide roads, heavy traffic, and non-existent or non-continuous sidewalks characterize the commercial area. An interesting, human-scale development would foster an activated pedestrian space and encourage multi-modal transportation through the site. Automobiles would be de-emphasized.

The Lane Transit District plans to extend EmX (Eugene's Bus Rapid Transit System) route out to West Eugene. Planning for the West Eugene EmX Extension has been underway for several years. Currently, plans include route alignment along W. 11th with stops located at Bailey Hill Road, mid-block at Wallis Street, and at Bertelsen Road. Major transit stop locations include Seneca Street – one block east of the site – and Beltline-Commerce Street – one block west of the site. Transit plans do not currently consider a W. 13th Avenue route between Bailey Hill and Bertelsen or Beltline Roads. Existing EmX plans for W. 11th include pedestrian access from W. 11th across the Amazon Channel that connects with Wallis Street at the western boundary of

the redevelopment site. However, EmX could potentially use this new segment of W. 13th Avenue as an inbound or outbound route to a station terminus at Belt Line.

Moreover, advocating for a higher level of accessibility on transit facilities that serves the area signals a socially sensitive approach, provides for cost-effective commuting for diverse populations, contributes to the appeal of the area as a transit hub, and highlights the integration of the three legs of sustainability, all within a potentially distinctive west Eugene community.

A human scale development would be consistent with the Transportation Goals in the Eugene-Springfield Metro Plan to:

1. Provide an integrated transportation and land use system that supports choices in modes of travel and development patterns that will reduce reliance on the automobile and enhance livability, economic opportunity, and the quality of life.
2. Enhance the Eugene-Springfield metropolitan area's quality of life and economic opportunity by providing a transportation system that is:
 - Balanced
 - Accessible
 - Efficient
 - Safe
 - Interconnected
 - Environmentally responsible
 - Supportive of responsible and sustainable development
 - Responsive to community needs and neighborhood impacts
 - Economically viable and financially stable

More Connections with Neighbors and Amenities

Many of the adjacent neighborhoods are comprised of cul-de-sacs that lack automobile and pedestrian connections from one development to the next as well as to the surrounding commercial areas, parks, and schools. The site can potentially connect surrounding residential uses

with the commercial assets on W. 11th, Amazon Creek, schools, parks, open spaces, and the Fern Ridge Bike Path. Developers could work with existing neighborhoods to open up potential gateways to the site and create clear, enjoyable walking paths through the site. A pedestrian bridge over Amazon Creek could further increase site permeability.

NATURAL RESOURCES

Preserve and Enhance Amazon Creek

The Waterside Protection Overlay Zone (/WP), which is over the northeastern corner of the site, prevents development within a designated buffer encompassing the Amazon Creek. The City maintains this buffer zone to protect water quality and wildlife in and around the creek and prevent private property damage due to floods and storms. The /WP allows for landscaping and restorations within the overlay zone. This allowance provides many opportunities on site to turn the Amazon Creek into an aesthetically and ecologically viable amenity to the development and neighboring communities and businesses.

Restore or Mitigate Wetlands

The 14.05 acres of wetlands on the site present a constraint for the redevelopment. The permitting process for the development of any proportion of acreage is not extensive but takes time and must be completed before any development breaks ground.

These remnant wetlands could create opportunities for ecological restorations. A restoration could consist of any portion of the 14.05 acres wetlands on site. A restored wetland within the development could provide spaces for viewing and learning about natural systems. This space could become an asset to a residential development, commercial district, and surrounding areas. Mitigation of this wetland offsite is another option and provides an opportunity to support the enhancement of outlying and viable wetlands and to reconstruct aesthetically beautiful, man-made stormwater facilities onsite. The purchase of mitigation credits from an approved wetland mitigation bank prior to the development will be required to offset the loss of ecological services provided by the wetlands.

Consider the Lack of Soil Permeability

The hydric soils comprising the site must be considered in the site design due to their lack of permeability. Permeability primarily presents an issue during the rainy months of December and January and will require attention during outdoor space layout and grading to prevent on site flooding and ponding. Even though these soils present concerns for stormwater drainage on the site, they do not present concerns for the development of the site. This site can be fully developed, where zoning permits.

Mitigate for Natural Hazards

Two natural hazards have the greatest potential to affect the site: floods and winter storms. The northeastern portion of the site (near Amazon Creek) lies in the 100-year floodplain. For mitigation planning purposes, it is important to recognize that flood risk is not limited to areas designated as floodplains. Stormwater systems often only handle 2-year or 5-year flood events and rarely handle rainfall events greater than 10-year or 15-year events.

Winter storms, which bring snow, ice, and high winds can cause significant effects on life and property. Ice, wind, and snow can affect the stability of trees, power, telephone lines, and TV and radio antennas.

These natural hazards can present opportunities for an educational aspect to the site, especially in terms of showcasing stormwater. A design that creatively and aesthetically manages stormwater systems could become a learning tool for residents and/or visitors to the site and help create a unique character.

UTILITIES & INFRASTRUCTURE

On-Site Treatment of Stormwater

The proximity of the Rexius site to the Amazon Creek could create an issue with storm water treatment. The redevelopment is required to adequately treat storm water on site before reaching the Creek. Waste lines are absent through the site and will need to be developed appropriately with future uses. Permitting issues may also arise in regard to storm water. To reduce costs, improve water quality, and decrease the volume and rate of storm water runoff, storm water drainage on the site (e.g., bioswales) should be considered.

Rexius could plan for the redevelopment to act as a product demonstration in site permeability, green roofs, and landscaping techniques that help with storm water treatment and irrigation of hydric soils.

CONCLUSION

This report presents results from an exploratory study of the issues and opportunities related to the redevelopment of the Rexius site. Through site analysis, community involvement, and meetings with city staff many factors were identified that could aid or constrain the redevelopment. These factors are embodied in five distinct design concepts that Rexius can use to model the redevelopment. The implications presented here should be considered as Rexius moves forward with a development partner.