



## **Walkability and Placemaking in Tigard**

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## About SCI

The Sustainable Cities Initiative (SCI) is a cross-disciplinary organization at the University of Oregon that promotes education, service, public outreach, and research on the design and development of sustainable cities. We are redefining higher education for the public good and catalyzing community change toward sustainability. Our work addresses sustainability at multiple scales and emerges from the conviction that creating the sustainable city cannot happen within any single discipline. SCI is grounded in cross-disciplinary engagement as the key strategy for improving community sustainability. Our work connects student energy, faculty experience, and community needs to produce innovative, tangible solutions for the creation of a sustainable society.

## About SCYP

The Sustainable City Year Program (SCYP) is a year-long partnership between SCI and a partner in Oregon, in which students and faculty in courses from across the university collaborate with a public entity on sustainability and livability projects. SCYP faculty and students work in collaboration with staff from the partner agency through a variety of studio projects and service-learning courses to provide students with real world projects to investigate. Students bring energy, enthusiasm, and innovative approaches to difficult, persistent problems. SCYP's primary value derives from collaborations resulting in on-the-ground impact and expanded conversations for a community ready to transition to a more sustainable and livable future.

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## About TriMet

The Tri-County Metropolitan Transportation District of Oregon was created by the Oregon Legislature in 1969 to operate and oversee mass transit in the Portland Metropolitan region. This public entity was formed by the legislature as a municipal corporation to replace the multiple private interest mass transit companies that previously operated in Multnomah County, Clackamas County, and Washington County; the counties that make up TriMet.

In addition to operating bus lines, light rail, and paratransit in the defined Tri-Metropolitan district, TriMet also connects to external mass transit services to provide wider blanket coverage for the region. TriMet's nationally recognized transit system provides more than 100 million rides annually, and carries 45% of rush hour commuters going into the downtown Portland area. TriMet not only moves people, but helps build sustainable cities by improving public health; creating vibrant, walkable communities; supporting economic growth; and working to enhance the region's livability.

Several civic leaders have been highlighted as key Figures in the creation, establishment, and ultimate success of TriMet. Governor Tom McCall is credited with the initial call for the creation of the public corporation; other key contributors include Congressman Earl Blumenauer, Rick Gustafson, Dick Feeney, and Mayor Neil Goldschmidt. All were instrumental in shaping the organization itself, as well as the land use, civic development, and transformation policies that make TriMet the success that it is today.

The vision and efforts of these individuals and countless others have borne fruit. Recently, TriMet celebrated the second anniversary of the opening of its most recent light rail line. Since its inauguration the 7.3-mile MAX Orange Line has experienced continued growth, having a six percent year-to-year increase in ridership. Illustrating the holistic approach that has been a part of TriMet from its inception, there have been wider community benefits such as a positive impact on employment and a focus on sustainable practices such as bio-swales, eco-roofs, a first-in-the-nation eco-track segment, solar paneling, and regenerative energy systems.

TriMet is a key partner in the region's Southwest Corridor Plan and Shared Investment Strategy. Eleven partner agencies are participating in planning for a new 12-mile light rail line in southwest Portland and southeast Washington County that will also include bicycle, pedestrian, and roadway projects to improve safety and access to light rail stations. Southwest Corridor stakeholders include Metro (the regional government), Washington County, Oregon Department of Transportation, and the cities of Beaverton, Durham, King City, Portland, Sherwood, Tigard, and Tualatin. This collaborative approach strives to align local, regional, and state policies and investments in the Corridor, and will implement and support adopted regional and local plans. These initiatives and outcomes from participation with the UO's Sustainable City Year Program will help develop ideas that are cost effective to build and operate, provide safe and convenient access, and achieve sustainability goals while supporting the corridor's projected growth in population and employment.

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*This report represents original student work and recommendations prepared by students in the University of Oregon’s Sustainable City Year Program for TriMet’s Southwest Corridor project. Text and images contained in this report may not be used without permission from the University of Oregon.*

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## Executive Summary

TriMet and the city of Tigard partnered with the Department of Planning, Public Policy, and Management and the Sustainable City Year Program to plan for the possibility of extending light rail to the city. The four areas of focus were:

- Affordable housing
- Placemaking in Downtown Tigard
- Placemaking in Tigard Triangle
- The Red Rock Creek Corridor

This report includes the methodology, findings, and recommendations to support growth in Tigard. In each section, the recommendations appear first, followed by research, data, and implementation details. Supplemental materials are found in the Appendix. This format follows the city staff recommendation to focus on innovative ideas that will spur community participation. These ideas include: addressing long-term affordable and stable housing, encouraging arts and events downtown, a Triangle Public Market, creek restoration opportunities, and meaningful public engagement methods.

## Introduction

Walkability is a high priority for city officials and residents. Tigard’s suite of planning documents identify walkability as a core municipal goal; the Tigard Triangle Strategic Plan, in particular, converges around a vision of Tigard as “the most walkable community in the Pacific Northwest.” The availability of easily accessed walking and biking routes and paths will be essential in efforts to create place and identity. Furthermore, restoration efforts that create open space and trails will improve the ecosystem and provide invaluable recreation opportunities. Tigard is positioned for growth—from its proximity to the expanding Portland Metro area, the likelihood of light rail construction, and the desire to be one of the most walkable cities. Careful consideration of concepts explored in this report—placemaking, affordable housing, restoring and preserving natural amenities—will shape the city as an inventive and desirable location within the greater Portland region context.

## Project Scope

The city approached the University of Oregon’s Sustainable City Year Program to conduct a plan and issue analysis in the following topics: inclusive community development, restoration opportunities for Red Rock Corridor, and place identities for downtown and the Triangle.

Groups within the Introduction on to Planning Practice (instructor: Rich Margerum), Introduction to Planning Analysis (instructors: Robert Parker, Elizabeth Goodman), and Human Settlements (instructor: Gerardo Sandoval) courses taught at the School of Planning, Public Policy, and Management (PPPM):

- Studied the city of Tigard through site visit and substantial demographic analysis.
- Conducted an extensive review of planning documents/maps and plans related to each focus area.
- Examined and summarized the region’s history.
- Researched applicable case studies for each focus area.
- Generated ideas and concepts that may be used to address connectivity/walkability, generate community conversations, develop an identity, and provide sufficient affordable housing for residents.



## Site Analyses

The city of Tigard is located ten miles southwest of Portland, Oregon in Washington County. The 51,253 residents have access to a variety of built and natural amenities in the Portland Metro area. A network of transportation systems serve the area, including multiple key freeways, eleven bus lines, and TriMet's Westside Express Service commuter rail. The median household income in this well-connected transportation corridor is \$62,048. Within the last several years, the city of Tigard has recognized its regional assets and opportunities and made concerted efforts to attract businesses and enhance livability. Given its current momentum, the city identified four focus areas for SCI to research: housing affordability, placemaking in the Triangle, placemaking in Downtown Tigard, and restoration in the Red Rock Creek Corridor.

### Tigard Triangle

Approximately eight miles south of Portland, the Tigard Triangle contains 500 acres and is currently home to 1,509 people. The Triangle is among the lowest income within the city, with a median household income of \$34,178 (Appendix B). The area is constrained by three major highways that form its distinct triangle shape.

In August of 2017, voters passed the Tigard Lean Code as a way to spur multi-use and varied



Figure 1: The Triangle is surrounded by three major highways, I-5 to the east, HWY 99W to the north, HWY 217 to the southwest.

Source: [http://www.tigard-or.gov/tigard\\_triangle.php](http://www.tigard-or.gov/tigard_triangle.php)

mixed-use residential and commercial development as a part of the Urban Renewal process. In comparison to current comprehensive plan and zoning, the Lean Code increases areas of Mixed Use designation and reduces General Commercial.

## Red Rock Creek Corridor

The Red Rock Creek is a tributary of Fanno Creek, which spans 15 miles before connecting to the Tualatin River. Utility lines run relatively parallel to the creek, and due to stormwater runoff, the creek suffers from erosion and pollution. Currently, approximately 285 feet of Red Rock Creek run beneath the northern-most section of the Regal Cinema parking lot.

Red Rock Creek runs loosely parallel to Highway 99 and suffers substantial impacts from this auto-centric development pattern, including runoff, erosion, and pollution. The area of the creek that flows through the Tigard Triangle lacks walkable public space and has degraded riparian landscape.

## Downtown Tigard

The historic development patterns of Tigard created a downtown core without a cohesive urban form, or a sense of place. According to the Tigard City Center Urban Renewal Plan (TCCURP), the area is underdeveloped and lacks a mix of high quality commercial, office, residential, and public uses suitable for the city's central business district. Following the planning process through the past decade, we see the introduction and refinement of placemaking identity downtown.

The Downtown Conceptual Connectivity Plan (DCCP) divides the downtown into several sub-districts. We focused on the Main Street Village sub-district. The DCCP defines the Main Street Village sub-district as, "the uses along Main Street from its northern and southern intersections with Pacific Highway/99W." This sub-district's character is defined by its traditional role as Tigard's commercial Main Street, comprised of modestly scaled buildings, prominent pedestrian-oriented sidewalks, and active ground floor uses.

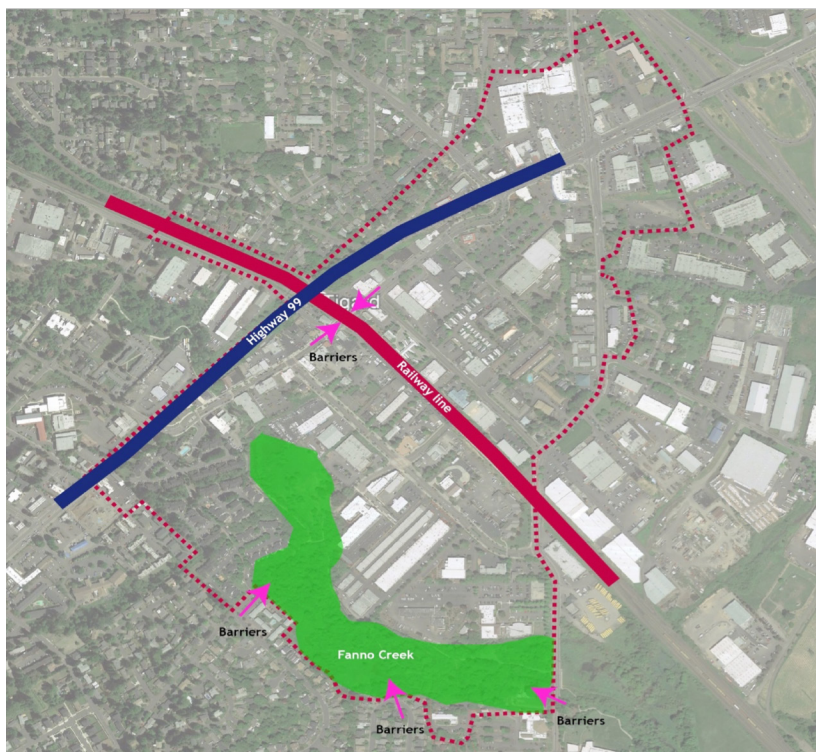


Figure 2: Barriers separating Downtown Tigard from other areas.

Main Street Village has three significant barriers that prevent the flow of people from other areas of the city and downtown: Highway 99, Fanno Creek, and rail crossings (Figure 2). First, Highway 99W, bounding the downtown along its western edge, is a major barrier since it is elevated and blocks vehicle flows to downtown through the Main Street Village. Second, Fanno Creek along with the floodplains obstructs access to and from the southern neighborhoods toward the downtown. Third, the railway line at present does not operate commuter rail and restricts access across it.

## Project Framework

### Potential Light Rail Extension

Although the project is still in the planning and development phase, it is important to consider that TriMet and other Southwest Corridor partners are considering a light rail extension that would connect Portland, Tigard, and Tualatin. All expansion options in the Tigard Triangle travel along the 70<sup>th</sup> street corridor and include either the Baylor/Clinton station, the Beveland station, or both.

According to TriMet, the light rail expansion would involve:

- Quick connection to Downtown Tigard
- 30-minute travel time to downtown Portland
- Trains departing every 6-15 minutes

### What is Placemaking?

The walkability of a street is partially defined by its sense of place. Two groups studied place identity in the Triangle and Downtown Tigard to articulate the important aspects of walkability. The following is the operational definition of placemaking for this report. More research and information can be found in Appendix C.

**Placemaking** is the name given to a series of strategies aimed at creating dynamic and public-oriented space. A successful place is an area where social mixing is easy, encouraged, and does not take extra effort. Normal barriers to participation are removed as much as possible and it is easy to interact with other people and the environment.

As defined in a planning context, placemaking is the action of working with a community to create engaging space utilizing public input and involvement. It can take many forms—public art, park spaces, plazas, and purpose-built spaces are all a form of placemaking. Streets and streetscapes, retail and restaurant spaces, educational institutions, and municipal or public buildings are all candidates for placemaking.

We define **Creative Placemaking** under a standard definition put forth by the National Endowment for the Arts: “In creative placemaking, partners from public, private, nonprofit and community sectors strategically shape the physical and social character of a neighborhood, town, tribe, city or region around arts and cultural activities.”

### Affordable Housing

We hope that Tigard has an opportunity to address current housing issues and the impending affordability crisis, and hope that proactive strategies and policies we recommend throughout this report can help. Particularly in the Triangle neighborhood, there are few constraints for the city to preserve and promote affordable housing units. The Triangle area has underutilized land that could be acquired before market-driven development leads to undesirable outcomes. Once the approval of the light rail extension is announced, property prices near the SW corridor is likely to increase as private developers see potential for huge returns on investments with

the guaranteed transportation route in the area. Even if the light rail is not approved, the urban redevelopment in the Triangle will likely intensify demand for property in the neighborhood.

## Research and Findings

We identified the following housing trends:

- Increasing cost burden for all households, particularly renters, at 53%
- Surging home values, up 60% between 2000-2015
- Rising rent, up 48% between 2000-2015
- Rising rent and home value to income ratios indicate income levels are not keeping up with increasing housing costs
- Population forecasts anticipate substantial regional growth over upcoming decades
- The Hispanic and Latino community is growing at a faster rate than other populations

Our affordable housing recommendations fall under two overarching goals: long-term affordability and stability, and meaningful community engagement. The recommendations are based on recent local and regional socioeconomic trends, site analysis, plan reviews, and case studies. As suggested by Tony Pickett, vice president of master site development at Denver’s Urban Land Conservancy, we believe the city should, “act early and think permanently.”

Compact, affordable housing development in the Triangle could potentially be relatively easy for the city to construct if action is taken before market forces take effect. Infrastructure is already in place and, although it needs repair, does not require a costly complete installation. Further, no more impervious surfaces would need to be created, as nearly half of the Triangle is already paved, and infill development creates even greater potential. Factoring in vacant land in addition to properties for infill, plus Tigard’s encouragement for high density in the Triangle, there is great potential for the city to ensure compact, affordable development and take control of the community’s future outcomes.

Figure 3 displays a visual of the first phase of Tigard’s inclusive development based on the potential to build on existing, naturally occurring low income neighborhood, by pursuing affordable

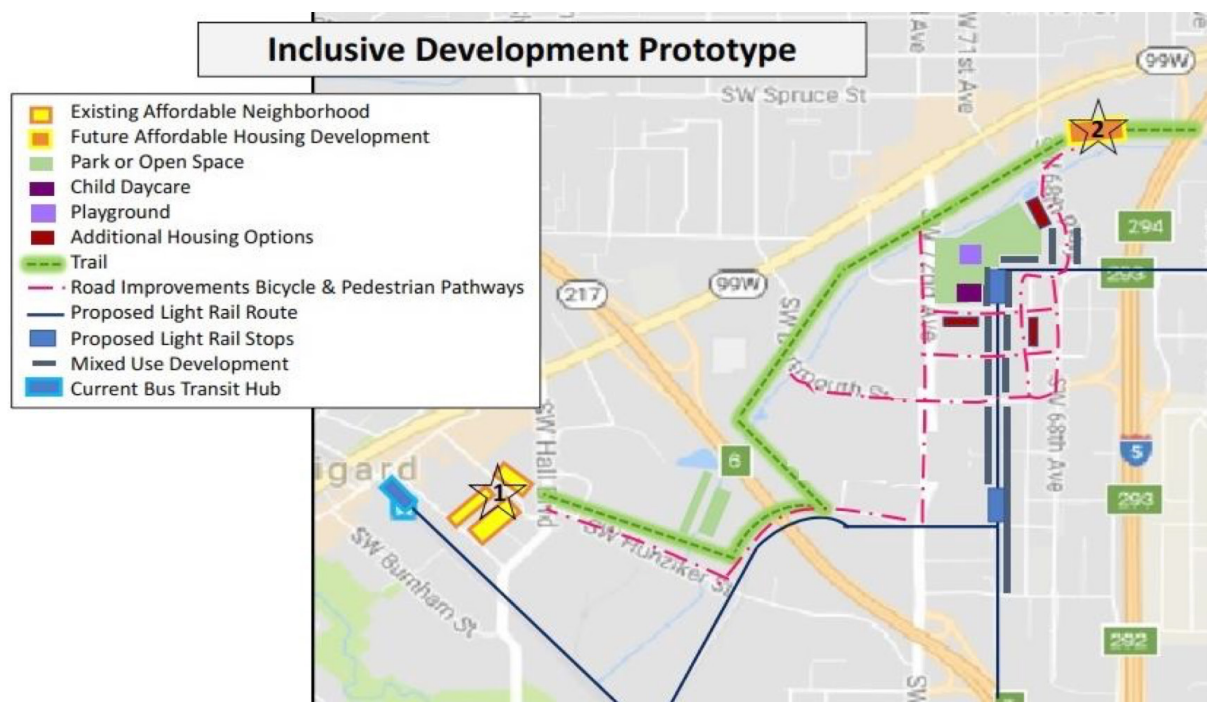


Figure 3: Inclusive Development Map

housing in the northern corner of the Triangle, where a lot has already been purchased by Community Partners for Affordable Housing, with access to not only prospective light rail stations, but recreational trails, employment and education centers, support services, and other socially enriching places, like a playground behind the daycare where residents and families could gather and infuse their sense of identity in the space. The light rail route we show does not create excessive displacement, compared with other proposed routes, and goes around the naturally occurring affordable housing that is just outside the Triangle by the bus terminal.

## Summary of Recommendations

### Accessory Dwelling Units

Accessory dwelling units (ADUs) are secondary dwelling units that occupy the same property as a primary dwelling or residence. While ADUs aren't very common in residential neighborhoods today, they have a long history and have gone by names such as granny flats, mother-in-law/in-law units, basement units, and backyard cottages just to name a few. ADUs have their own kitchen (with appropriate hookups), bedroom or sleeping area, and bathroom. By easing restrictions on the construction of ADUs, the city could create new, affordable options in the housing stock that would both diversify housing choices and promote compact growth. In low density residential areas, the addition of an ADU could improve the efficiency of land use and encourage higher density development on large lots of property that may be underused currently. In addition to supporting high density growth, ADUs can meet the needs of a variety of residents. Further, by adding an ADU, homeowners can generate additional income, making their housing costs more affordable.

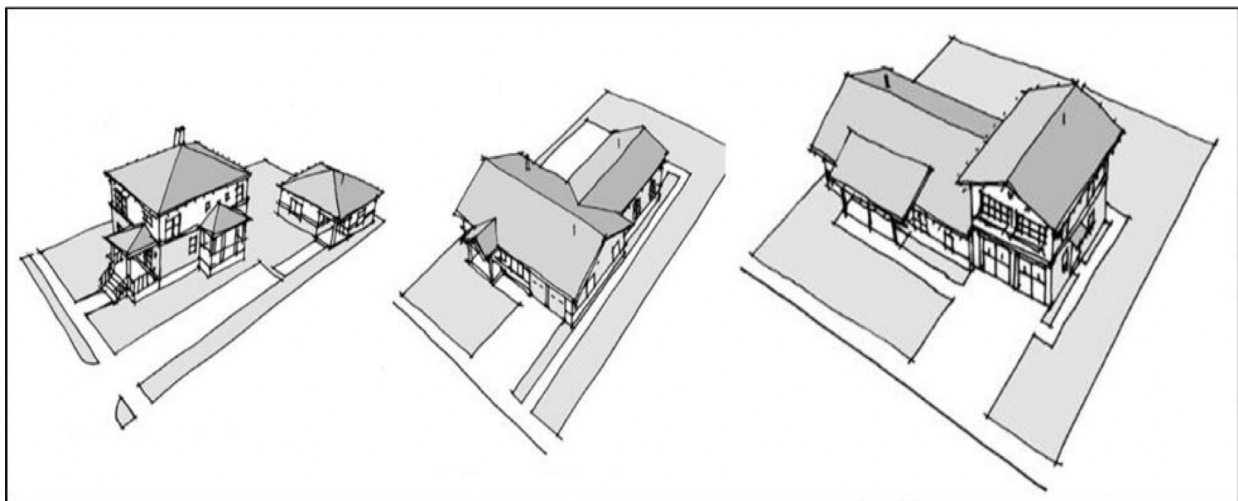


Figure 4: Illustration showing detached, attached, and internal (garage conversion) ADUs.

### Community Land Trusts

Community land trusts (CLT) are an innovative model for land ownership that decouples the ownership of land from the improvements on it. If the city rewrites their code pertaining to the sale and donation of land, property acquisition could be a promising approach to preserve and promote affordability, now and in the future. The utilization of community land trusts can secure that all residents will not only have a stable place to call home by preventing and mitigating displacement, but also offers the benefits of financial and social mobility as well as physical connectivity that will come with the expansion of the light rail and urban renewal

efforts. Naturally occurring affordable housing already exists in the Triangle-Downtown area, and is serving the needs of various low income households. Given the depth of the region's affordability crisis and the level of demand for reasonably priced units, market-based strategies are not enough. The Community Land Trust (CLT) model for preserving affordability will not only prevent market driven displacement for present community members but for future residents of the city as well.

## **Community Engagement**

By incorporating programs such as the Y-Plan and Adelante Mujeres into community engagement strategies, Tigard can strive to empower the previously marginalized Hispanic and Latino population. Ideally, including younger generations in the civic process and generating an interest in urban planning will expand the youth's understanding and dedication to issues such as housing and equity, as well as create a sense of pride in the city and sentimental attachment to the area. As Jane Jacobs emphasized, the involvement of all community members is critical in developing a vision for the future of a city. Providing a voice to these community members will give the city a unique, vital, perspective that may be difficult to find through other avenues. In conclusion, we believe the city of Tigard has a rare opportunity to proactively preserve and promote affordability, particularly in the Triangle and new light rail transportation corridor, by involving vulnerable and marginalized populations in the planning process to create a socially, environmentally, and economically sustainable community with a vibrant sense of place in the future. We hope our proposed objectives and strategies are seriously considered to ensure equity- driven development in the city of Tigard.

## **Goal 1:**

### **Long-Term Affordability and Stability**

#### **Identifying Gaps in Existing/Proposed Strategies**

Our goal of long-term affordability is not only based on the data gathered in Tigard but considering the regional and national crisis that is housing affordability. As Metro has done a significant amount of work diagnosing this problem we found it helpful to orient our own recommendations within Metro's strategies. In its report, Opportunities and Challenges for Equitable Housing, Metro advocates a four-pronged approach as being the most balanced to address the depth of the region's affordability crisis. As Metro is best equipped to diagnose regional trends and evaluate strategies, we will use this framework to help identify gaps in Tigard's housing agenda. Broadly, these strategies are divided into four categories:

- Increase, diversify, and lower the cost of housing
- Leverage growth for affordability
- Maximize and optimize resources
- Mitigate displacement and stabilize communities.

The report offers a number of policy recommendations within each strategy. We will focus on select tactics that Tigard is utilizing, a brief evaluation of their limitations, as well as potential policies we've identified as significant oversights. In this way, this report will argue that certain policies will have greater impact given the financial constraints that exist in tandem with the regional housing trends previously outlined.

#### **1. Diversifying Market-rate Housing**

The first of these strategies is "increase and diversify market-rate housing" by "[eliminating] regulatory barriers and [creating] incentives for diverse market-rate housing"(Oregon Metro).

Tigard's Lean Code is one example of this in that the zoning code changes are intended to streamline the regulatory process and fast-track development. By rezoning the majority of the Triangle area as Mixed-Use Triangle (MUT), the city is breaking with its long-standing suburban tradition of strict division of land uses and regulation on housing types. Even prior to the success of the redevelopment zone, the Tigard Triangle Strategic Plan already contends that townhomes and medium density housing are realistic even within existing market constraints. Thus, the modest change in zoning already offers the potential of increasing the diversity of the housing stock in a city with a long prioritization of single-tract family homes. Data convey that Tigard's housing stock has been growing more standardized since 2000. As single-tract homes tend to be more skewed toward owners, the centrality of single-family tract homes is becoming increasingly exclusive given the high cost of entry into homeownership in Tigard.

Within this goal for housing diversification, the city has also shown strong interest in the utilization of the state's Vertical Housing Program as a means of reducing the costs of development, and therefore opening up the possibility of more high density projects. This is especially significant considering the high expense of structural parking in multi-family residences that the Strategic Plan intends to generate, a cost that would be passed onto residents at the detriment of affordability. This is achieved by granting up to 80-percent real estate tax abatement to the developers/building owners over 10 years. As stated in the plan "by reducing property taxes, the program improves cash flows to the building owner, thereby making projects more feasible." The Triangle area is fairly underdeveloped as is, thus incentivizing private parties to spur investment and activity is a chief concern of the city.

However, these measures only seek to increase density in the downtown and Triangle area. While these programs may lead to some success in increasing the housing stock in these smaller areas of redevelopment they fail to diversify the sea of yellow low-density residential zones that are a majority of the city. Limited expansion of market options within a narrow subset of the municipal area is a limited strategy that does not address abundant opportunities for modest increases in density in the broader city.

## 2. Leveraging Growth

Metro's second strategy is closely related to the first in that it is based on the attempted realignment of market forces to achieve desired ends. While the first strategy was concerned with diversifying housing, Metro's second strategy calls for "[leveraging] growth for affordability" by "[encouraging] for-profit developers to include some income-restricted units in market-rate projects." The Triangle Plan targets direct cash-equivalent subsidies as a possible tool for leveraging growth where financial gaps exist. These might include "development impact fee waivers, public construction of infrastructure (such as utilities or streetscapes), or direct cash subsidies to developers (e.g., grants or forgivable loans through an urban renewal district)." Like the aforementioned strategy, these financial tools are meant to attract developers who do not want to risk investing in an unprofitable area.

Ultimately, the biggest barrier to affordable housing construction, especially considering the type of high density the city hopes to generate, is cost. Higher construction costs typically translate to higher rents as the private developer seeks a certain margin of profit, otherwise the development would not even be considered. Thus, these strategies ultimately appeal to the monetary motivations of the private developer. Within the governing financial logic, more costs in development will be passed onto the resident or renter who will live in the unit.

Consequently, the city is attempting to mitigate costs prior to the assessment of development so that the project expenditures are less and therefore allow for lower housing costs for the tenant. These first two market-oriented approaches, in a way, show Tigard's plans to seek the manufacture of market conditions for sustained investment in the built environment that are

doubtlessly missing from the project area. However, while these market-oriented strategies are important, given the financial constraints of any kind of construction, there are only so many units one can incentivize a developer to set aside as below-market-rate affordable before it starts cutting into profit margins. While it is important to have some mixed income housing in new neighborhoods, the handful of units generated in a new housing development for low income families is only going to be marginal when confronted with the continued demand.

### 3. Optimizing Resources

In the third strategy Metro stresses the need to “maximize and optimize resources” by “[increasing] flexible funding and pursue coordinated investment strategies.” Part of this strategy is the utilization of resources at the federal and state level as well as partnerships with nonprofits to help alleviate rising costs by employing multiple sources of funding.

Barring any radical reorientation of national housing policy and the undoing of budget cuts over the past decades, it seems unlikely that the city should expect any direct funding from federal sources. Between 2002 and 2016, Tigard obtained eight Community Development Block Grants totaling nearly \$1.3 million (Tigard Affordable Housing Strategies). However, these funds were used toward the improvement of public infrastructure rather than utilized to fund housing directly. Beyond the utilization of the federal Low income Housing Tax Credit program, which is to be an expected tax credit pursued by any developer, focus should instead be targeted at the state and local level. There are still significant barriers to acquiring funding for dedicated affordable units, especially for nonprofit developers. We have identified some local nonprofit developers in the area, specifically Community Partners for Affordable Housing (CPAH), who already has four affordable housing developments in the city of Tigard; REACH who was a primary partner in developing the Orchards at Orenco Station project in Hillsboro; and Proud Ground, a community land trust organization with a number of sites in Portland.

In accordance with Oregon state law that allows for property tax exemptions for affordable housing, Tigard began its Nonprofit Corporation Low income Housing Tax exemption in 1996 with the goal of lowering operating costs for nonprofit developers. This property tax exemption is approved in five properties in Tigard, or 276 units of dedicated affordable housing at below 60% AMI. CPAH manages three of these properties (Greenburg Oaks, The Knoll, and The Village at Washington Square). In the 2016-2017 tax year, Tigard went without approximately \$40,000 in property tax revenues from the aforementioned properties. As is recommended in Tigard’s report on Affordable Housing Strategies, these exemptions do not extend to undeveloped land being held for the purpose of future affordable housing development. So even when affordable housing developers act with foresight in acquiring land, as is the case with CPAH recently obtaining a site in the Tigard Triangle on 68th Street, they are still burdened with these costs while funding is acquired.

The city also established the Affordable Housing Assistance program to offset the costs of system development charges (SDCs) for nonprofit developments. In 2007, the program was

### Case Study

Fruitvale Transit Village is a long-standing example of an inclusive and community-oriented process. It only has 10 affordable units allocated for below 80% AMI, after \$100 million in construction costs and a decade of development. This provision is seemingly inadequate when considering that these units are only one and two-bedroom apartments, limiting their availability for cost burdened households. This small number of existing affordable units range all the way up to \$1,029 per month, far from affordable for everyone, and the wait list is over 300 people, an indicator of unmet demand.



amended to donate any of the \$10,000 not allocated that year to the Community Housing Fund to minimize project costs. The fund was not utilized after 2010, and was defunded in 2015. Even so, this fund was nominal with regards to costs of new development. An example is The Knoll project, which opened in 2011 and cost \$10.8 million, \$350,000 of which was paid for by CPAH itself. As noted in Tigard’s report, “given that the more expensive charges cost \$3,000 to \$5,000 per unit, it is likely that the \$10,000 yearly cap on SDC aid was not enough to meaningfully reduce overall costs.” Strategies that involve more generous allocation of funding are thus a higher priority for the authors of this report.

Within the realm of coordinated investment strategies, Tigard has focused heavily on its newly created tax increment financing (TIF) district as a financial tool to catalyze development. While the previous strategies were aimed at incentivizing development, TIF redirects revenue generated off property taxes from new development back into the Triangle in the form of debt repayments on location specific projects. The Urban Renewal Plan outlines the urban redevelopment projects to be carried out with TIF funding; these are primarily focused on the construction/completion of public utilities and street networks. Goal 5 states that the urban renewal plan also intends to “provide financial and technical assistance to new and existing businesses and housing developments that contribute to the Area’s diversity and vitality and help it transform into a mixed-use and pedestrian-oriented district.” Again, this goal is principally focused on addressing the underdeveloped aspects of urban design within the Triangle. Its own phrasing bundles affordable housing and economic development as elements of vibrant place-making—an arrangement that speaks to the plan’s priorities. Given the limitations in coordinating funding and significant gaps for affordable housing investments, it is perhaps advisable that the city specify a specific percentage of the TIF funding to be specifically devoted toward affordable housing development. Portland did this between 2006 and 2011, generating an average of \$30 million a year. The City Council voted to increase funds dedicated toward affordable housing from 30 to 45 percent. Similar utilization of TIF funding would create a substantial fund for the purpose of supporting the creation/preservation of affordable units.

Given the problem of fractured parcelization within the Triangle, the issue of assemblage of land for larger scale multi-family developments is also crucial. The city’s role in acquiring undesirable land and rehabilitating it is unique in comparison to a private developer. As outlined in the accompanying report for the urban renewal plan, about 35 acres of the area are classified as vacant, almost 9.16% of the total area, and a majority of the parcels in the Triangle (53% of the acreage) have improvements that are worth less than the property they are sitting on. Unfortunately, the city has limited its ability to effectively utilize its power of acquisition. While Metro suggests the donation of public surplus land for affordable housing developments, this is prohibited under Tigard Municipal Code Chapter 3.44. In fact, if the city sells any surplus public land it must go the highest bidder, thereby undermining the city’s ability to sell the site to a nonprofit at below market rates.

#### **4. Mitigating Displacement and Stabilizing Communities**

Metro’s final, and arguably most crucial, strategy toward creating and preserving affordable housing is not prioritized in any of Tigard’s plans or reports. While the first two strategies were market-based approaches, and the third is based on public-private partnerships, the final strategy of “[mitigating] displacement and [stabilizing] communities” calls for the need to “pursue community-informed strategies to mitigate displacement, ensure safe and healthy rental housing, and bridge the homeownership gap for lower-income groups.” This approach is community-driven and requires engagement with the public that move beyond procedural rights. In this regard, there are no proposals for any kind of long-term tools to protect tenant

rights in the future as most goals are focused on simply encouraging density and diversifying the city's housing types.

For the purposes of the remainder of this report, it is crucial that we define displacement. Traditionally, displacement refers to forced removal as a consequence of the slum clearance that stains the legacy of urban renewal and transportation planning. However, we argue that this definition should be broadened. Sandoval and Herrera not only describe this former history but also define gentrification as market-driven displacement. Households who are too financially cost burdened to remain in their homes experience displacement as is anyone who is forcibly removed; the trauma of broken communities is the same regardless of cause. And while the forcible clearance of households can be outright avoided, the volatile consequences of speculative real estate markets cannot. Therefore, the need to mitigate these forces and implement policies to preserve communities is essential, especially within a competitive housing market such as this.

Given the type of investment meant to catalyze development in the greater Triangle-Downtown area, the threat to community stability is especially pressing. Tigard's Development Feasibility Analysis stipulates that "revenues will need to increase (e.g., commercial lease rates, apartment rents) before new development can be supported." In other words, the Triangle Strategic Plan is dependent on appreciating land values to fund its own development, making it very catalytic and potentially contradictory to the entire goal of affordable housing. Inflating land and property values may be in line with goals of economic development, but that may be at the expense of the affordability of the area.

As is demonstrated by the recent postponement of the bond measure vote, the residents of the metro area are concerned with the effect that any new development will have on housing costs. There is growing evidence that proximity to mass transit, in combination with a growing economy and a competitive real estate market, has consequences on housing affordability as well. In a 2011 literature review, Keith Wadrip summarized that research is pointing to a general consensus that proximity to new investments in mass transit translates to higher home values and rents, specifically "around transit stations that are walkable, mixed-use, and pedestrian-oriented." These are precisely the goals of the Triangle Strategic Plan and its prioritization of public funding toward aesthetic improvements.

There are 1,509 people living in the Triangle and the immediately adjacent neighborhoods to the south and west, they are likely to be affected by the joint projects in the area between Tigard and TriMet. While owners may be guaranteed a fair pay regarding the assemblage of their property, the same cannot be said for those who do not have the market security of homeownership. Seventy-four percent of the households in this census tract are renters, almost double the relative percentage in all of Tigard. The area already has cheaper median rent in comparison to the rest of the city; however, because it is disproportionately low income area (with only \$34,178 as the median household income) over half the households in the area are cost burdened as it is. Consequently, Tigard's redevelopment project, in tandem with TriMet's proposed light rail project is poised to target one of the most vulnerable populations in Tigard. Without any policy measures in place to mitigate the inevitable negative effects, displacement threatens to exclude the existing community from these placemaking and transportation projects.

### **Summary of Policy Implications**

Emphasis on market-oriented tools potentially overlooks important opportunities for long-term preservation of affordability and community stability. These financial incentives are largely cash-equivalent subsidies and tax abatements that compensate developers for meeting demand but in no way guarantee long-term stability, especially for vulnerable households like

renters. Even if developers were to build and set aside some units for affordable housing, courtesy of highly subsidized incentives, these units will not necessarily last at their existing rates without any institutionalization of long-term protections of the tenants who will inhabit them. The optimum cost effective strategy here would be to preserve the naturally occurring affordable housing that is already in the area. As cost and the complicated coordination of funding are the most significant barriers to generating affordable units, we propose four strategies that are underutilized or missing from Tigard's affordable housing policies. These strategies are beneficial in that they encourage and preserve long-term affordability without undermining the city's efforts to generate new economic activity in the Triangle and Downtown Tigard:

- Greater allowance for Accessory Dwelling Units (ADUs) as a means of diversifying housing types on underutilized developed land
- Reforming the municipal code to allow for donation of public surplus land
- Preservation of naturally occurring affordable housing through community land trust (CLT) models
- Emergency housing support as a means of preventing displacement of most vulnerable households

## Accessory Dwelling Units

Accessory dwelling units (ADUs) are secondary dwelling units that occupy the same property as a primary dwelling or residence. ADUs take their forms in their relation to the primary residence. They may be formed from within the primary residence, such as in a basement or a certain section of the residence. They may also be formed as part of an attached structure, such as a garage. Finally, ADUs may be a detached structure, independent of the primary residence. The benefits of ADUs are explored in Appendix D. Currently, the Tigard Municipal Code allows for ADU development and has done so since the 1990s. The code was updated in 2014. The development of an ADU ordinance in Tigard ADUs was done with many of the same goals and benefits mentioned in this report. The Tigard Municipal Code states that the desired goals and objectives of implementing Accessory Residential Units is that they “1) increase the amount of affordable housing units 2) increase residential densities with minimal impact on the quality or character of existing neighborhoods and 3) provide needed space for elderly family members, teenagers, and/or returning adult children.” ADU construction in Tigard has been limited. Between 2009 and 2016, a total of 17 ADUs were constructed in Tigard, with eight constructed in one year.

## Problems

One of the possible problems with the ADU ordinance as it stands is the requirement that an ADU must be built either within or as an addition to the primary residence. The Code reads:

“An accessory residential unit may be created within or as an addition to a detached single-family dwelling. For the purposes of this chapter, “addition” means the sharing of a common wall with the primary residence. A garage may not be converted to an accessory residential unit unless it is rebuilt as part of the primary structure.”

This standard does not permit the new construction of a detached accessory dwelling unit on the property of the residence, though the structure may meet all the other standards in the Code. It limits the property owner in a few ways. First, it may force the property owner to forgo living space in the primary residence to construct an ADU – a setup that may not be feasible in many residences. Second, it may force the property owner to make changes to their own

residence during constructing an ADU, as it must be an addition and share a common wall. This could be a strong deterrent to ADU construction. Finally, sharing a wall with an adjacent unit may also deter single-family residents, as some may be accustomed to the privacy of a single-family home.

A second problem that may be hindering ADU development in Tigard is its parking requirement. The Code reads, “In addition to the number of parking spaces required for the primary residence, as established in Chapter 18.765, one parking space shall be provided for the accessory residential unit. This parking space shall be paved and/or covered.” This stipulation provides a logistical challenge. Where does one put an off-street parking space? Widening the driveway may or may not meet the requirement, depending on the space adjacent to the driveway. This regulation may be particularly onerous if a property owner is converting a garage into an ADU and wishes to use existing off-street parking in place of the garage space. Increasing the impervious area of a property also has other environmental consequences, such as increasing runoff from stormwater.

Constructing a parking space also comes with a monetary cost. In Portland, an aboveground space can cost \$78/square foot. If a property owner wishes to construct a 150 square foot parking space, it could cost them \$11,700. This is another disincentive to building an ADU, as it adds even more cost to the project.

## **Proposed Changes to the ADU Policy**

### **Allow Detached Units**

One solution to aid in the increased development of ADUs in Tigard is to allow property owners to construct detached units. That is, allowing ADUs that do not have to share a wall with the primary residence or be constructed within the primary residence. This would allow for more flexibility for property owners interested in building an ADU, giving them the autonomy to decide if a detached backyard unit would be appropriate for the property. It would also allow housing to be developed on an already developed property rather than requiring another site in the city. Should a property owner decide that part of a lot is underutilized, they would be able to use the lot more effectively but would be bound to do so. This change would put Tigard in-step with other Oregon cities—including Beaverton, Portland, and Bend, which give the property owner the option of building attached or detached units.

### **Remove Parking Requirement**

Another solution we suggest for Tigard to encourage ADU development is to remove the current parking requirement of one off-street parking space for the ADU. Parking can be financially and spatially burdensome. Removing the off-street parking space requirement and providing the option for the property owner to create a parking spot or not would allow the property owner to judge whether another spot is necessary. Tigard could perform a parking audit to demonstrate whether additional off-street parking is necessary in certain neighborhoods. However, not requiring an additional parking space for an ADU is common in some other Oregon communities. Portland does not require an additional off-street parking space, though it does require that the parking for the primary residence be retained or replaced if eliminated while creating the ADU. Corvallis does not require an additional parking space for ADUs. Furthermore, the possibility of the southwest corridor light rail extension in Tigard would further provide alternative modes of transportation to automobiles.

### **Sale and Donation of Land**

Land is a valuable commodity. Whether one wants to build a store, factory, school, or housing, acquisition of land is the most important part of this process. Currently in the city of Tigard, there is

a large amount of buildable land available within city limits. The possibility of a light rail extension from Portland through Tigard could make some of this land very valuable in terms of financial value but also its function, opening access via public transit to the larger metropolitan area.

As we have demonstrated, Tigard has a housing affordability problem. Rents and home prices have continued to rise throughout the past decade. Expected population growth could further exacerbate the affordability of homes. More affordable housing is needed, but that first requires the ability to access land. If light rail construction goes through, public entities, such as Tigard, will have to acquire large areas of privately owned land. While Tigard could in theory provide its acquired land for affordable housing, there are currently obstacles in doing so.

## **Tigard City Code**

Tigard's Municipal Code sets the terms under which publicly acquired land will be sold. Under Title 3 (Revenue and Finance) in Chapter 3.44 of the Municipal Code, the process is described: First, a hearing about a particular piece of property is arranged. Then, an appraisal of the property's worth is conducted. Councilors determine whether the sale of the property will go forth and what the 'minimum acceptable terms' for the sale will be. A notice soliciting sealed bids, including details about the property and the 'minimum accepted terms' is then published in the locally circulated newspaper at least once two weeks before the bid deadline date.

If one or more bids are received and the bids at least meet the required minimum acceptable terms, the council must accept the highest bid. The council may adjust the terms of the property if it doesn't sell and hold another sale or shift the responsibility of the property onto a real estate company that can then put it on the market.

## **Affordable Housing Obstacles**

The process by which the city of Tigard disposes of surplus real property is possibly fair and justified. The appraisal is conducted, through which the appraiser likely deduces what the market value of such a piece of property is in the local real estate market. Those who cast bids can either bid at market rate or higher if they decide that the land may possess more value. The bidders compete and in the end the city comes out on top with the property going to the highest bidder. In return, the city may get higher property taxes from a party whose willingness to bid high may indicate a higher return to the public coffers.

Nevertheless, the consideration must be made that those doing the bidding don't start from the same place financially. A private developer is almost certainly going to have more financial pull than a nonprofit or an affordable housing developer. Thus, the developer will almost always be able to outbid other parties for a given piece of land.

## **Recommendations**

Though public surplus real property in Tigard currently goes to the highest bidder after minimum acceptable terms are determined, this doesn't necessarily need to be the case, as there is no state law prohibiting donation or leasing less than market value. In fact, ORS 271.330 section 2(a) reads:

Any political subdivision is granted express power to relinquish the title to any of the political subdivision's property to a qualifying nonprofit corporation or a municipal corporation for the purpose of providing any of the following: (A) Low income housing; (B) Social services; or (C) Child care services.

Donating public land for affordable housing isn't without precedent. Earlier this year, the city of Seattle passed legislation allowing for public surplus land to be sold to affordable housing developers at below market rate. In Washington County, Luke-Dorf is petitioning to have county

land in Beaverton donated to provide for much needed housing for chronically homeless individuals with mental illness.

Given that housing affordability is an ongoing and growing concern in Tigard and the metropolitan Portland region, we first propose that Tigard change its city code to more easily enable the development of affordable housing. This change could manifest in a few ways. The city could amend the code so that selling surplus real property below market rate for the uses mentioned in ORS 271 is permitted. Or, in place of selling the property, the city could also amend the code to allow long-term leases for affordable housing developers in exchange for promises that those uses will remain for the duration of the lease.

With the current amount of buildable, vacant land in the city and with the possibility of light rail construction, Tigard has a unique opportunity to change its current policies and allow for affordable housing development. Allowing affordable housing developers and nonprofit entities to buy or lease publicly held land below market value would not only serve current residents who struggle to find housing they can afford. It would serve future residents who want to make Tigard their new, affordable home.

## **Preserve Naturally Occurring Affordable Housing**

The cost of constructing housing is the largest barrier to creating affordable units. Private developers, ultimately incentivized toward generating surplus capital, will only set aside so many below-market units before the project becomes economically infeasible. Units that are market rate and above are a logical choice for developers who want to see the fastest return from their heavy investment. It is by understanding this constraining financial reality that we propose that the most cost effective strategy may be to preserve already built affordable units that have long lapsed in their purpose of paying off development costs. HUD has approximated that preserving existing units typically costs between one-half and two-thirds the price of new construction. Naturally occurring affordable housing has already filtered down the housing market and is a valuable resource for low income families.

The Tigard Triangle and adjacent neighborhoods are disproportionately low income renters. Some of the light rail alignments of the proposed SW corridor risk flattening naturally occurring affordable rental units where these populations live. This is potentially a missed opportunity, not only because it would displace these households but also, in purely economic terms, eliminating these affordable units from the market will translate to even more cost burdened families and an even greater demand for affordable units. The city's Triangle urban renewal project and TriMet's potential SW Corridor are concerned with the inclusion of affordable housing units, therefore elimination of existing units may not be advisable.

The mere preservation of currently affordable units, however, does not suggest the preservation of affordability. In a recent report on naturally occurring affordable housing in the Portland metro area, Sung and Bates analyze the market for multi-family rental properties in Portland and Tigard. They find that inflating sales prices along the SW Corridor makes multi-family rental properties more susceptible for upscaling, and therefore the potential market-driven displacement of low income renters is even greater. As the amenities and premiums of walkable community near mass transit become more of a selling point for the Triangle, property values and rent costs will likely appreciate, as was intended by the TIF zone. Unlike most homeowners, renters cannot cash in on rising land value and such economic changes may be a threat rather than a boon from the perspective of a non-owner. How then can the city preserve existing affordability for the long-term? We suggest the creation of community land trusts to address long-term affordability in selected sites.

## Community Land Trusts

Community land trusts (CLT) are an innovative model for land ownership that decouples the ownership of land from the improvements on it. A nonprofit organization typically retains the ownership of the underlying land and then leases to homeowners, nonprofits, or businesses at a nominal rate. Affordability is maintained in stipulations in the ground lease. CLTs often employ 99-year leases or, in the case of property owners, resale caps that assures affordability for the new buyer. In this way, affordability is built into the mechanisms of how ownership is held and prevents property from being subject to the volatile fluctuations of speculation in land assets. As argued by Robert Hickey of the Lincoln Institute, with CLT models, “future buyers thus do not have to absorb the cumulative impact of appreciation on the cost of land near transit stations.” In this way, redevelopment can achieve equity by preserving the assets of the community and allowing them to be transferred over to future residents.

Appendix E contains an in-depth case study of a CLT in Denver, CO.

We have identified several factors that the city of Tigard may take into consideration if it chooses to pursue the CLT model of land ownership.

### Early Acquisition

As is evident is the case study of the Urban Land Conservancy (ULC), the capricious nature of speculative land markets gives a narrow window of opportunity to acquire opportunity sites at low cost. As outlined by the Development Feasibility Report, the acreage of the Triangle is underutilized and depreciated. Even without the existence of state intervention to create the urban renewal district or investments in mass-transit, the disparity between potential ground rent and the current return on investments produces “economic conditions that make capital revaluation ... a rational market response” (Smith). As Tigard is creating sufficient monetary incentive to attract significant investment into the Triangle, it should consider that the land market’s competitiveness will likely lead to inflated price tags for lots. The ULC understands this and acts in anticipation to “preserve physical assets that would be lost to the market or otherwise not be available.” Consequently, early land acquisition is essential for any strategy for preserving naturally occurring affordable housing: “a proactive locality that implements a land acquisition strategy before land values increase will have a much greater dollar-for-dollar impact than one that reacts after prices have begun to climb”(Wardrip).

That is why Tigard’s improved capacity to donate/transfer land at below market rates, or even leasing at nominal rates, could play such a crucial role. This relationship between the city and CLTs has the potential to further public goals in a way the city alone cannot offer: “municipal land banks can help shield desirable, transit-accessible properties from the land speculation market, and then transfer these properties to CLTs when additional developments partners are ready to get involved ... CLTs, in turn, offer municipal land banks a means to safeguard transit- accessible properties over time and to ensure that transferred properties deliver ongoing community benefits.” Therefore, we recommend that the city of Tigard acquire sites with the stated purpose of land banking for future affordable housing development, ideally through a CLT model.

### Funding

The limitations of capital are a serious impediment to the construction and/or preservation of affordable homes. Hickey concluded, “increasingly tight competition for public and private funding [can disadvantage CLTs] given their additional complexity [and] upfront need for resources.” This is why the Urban Land Conservancy is so unique: the existence of the Denver Transit Oriented Development (TOD) Fund provides a deep pocket lender that

allows for equitable TOD at a scale that similar organizations in Atlanta and the Twin Cities could not match. Portland allocates a sizable portion of TIF funding specifically toward affordable housing. We suggest that Tigard utilize the fund in a similar manner. By acquiring sites with naturally occurring affordable housing, the city can take steps to preserve affordability where it exists now without the fear of affordability lapsing, as may be the case with market-rate units. Through CLT models, the city can mitigate the consequences of market forces and facilitate moves with local nonprofits to protect current residents from market-driven displacement and preserve the affordability of existing communities for future residents, while still allowing increased investment in the area.

### **Emergency Housing Support**

At the most vulnerable end of the economic spectrum there are families that do not have suitable homes or are in danger of losing them. As our proposal for a CLT is centered on preserving already existing affordable rental units, the question of age of structure and maintenance should be addressed. As units filter down through the market, an increasing rent gap discourages landlords from spending on rehabilitation and this neglect could potentially pose health risks to the tenants inhabiting them. Thus, cities play a crucial role in monitoring the quality of the units in the rental market. The city of Tigard had a number of housing maintenance programs that were defunded in fiscal year 2014-15, or underutilized to the point of irrelevance.

### **Housing Inspection Program**

The report on Tigard's Affordable Housing Strategies lists the Housing Inspection Program as a longstanding city program that gives rental tenants a means of filing complaints against landlords who are noncompliant with building safety codes. Unmaintained, aging units are not only a hazard for tenants, but undermines the goal of preservation by letting units fall into disrepair. While landlords may be unaware, or unwilling, to make certain repairs, tenants have a right to safe housing. However, this resource is very underutilized; trying to access a hotline number or information on the city's website is difficult, if not impossible, to find. We recommend that the city strengthen the Housing Inspection Program and make it accessible on city websites.

### **Rent Assistance**

In some cases, the housing stock may be so under-maintained, or aged, that living in it is not an option for tenants. The Housing Emergency Fund, created in 1999, was available for households in unsafe/uninhabitable rental properties and were in need of assistance in finding new living accommodations. This was the city's chief municipal resource for "people facing safety threats or immediate risk of homelessness in their current living situations." It was defunded in FY 2014-15. We strongly recommend that the city bring back this \$10,000 fund. Washington County's Emergency Rent Assistance program is another resource aimed at providing assistance to tenants in imminent risk of losing their homes because they are financially overburdened. This program is countywide and underfunded, resulting in long waitlists. Beaverton has its own emergency rent program; the FY 2016-17 budget identified \$20,000 in CDBG funds and \$30,000 in General Funds for this program. We recommend that the city create a similar program. Local nonprofits like the Good Neighbor Center offer temporary assistance for homeless families, which the city supports with donations, but this resource should only be regarded as a last resort. Some property managers, and even affordable developers like REACH, do not rent to tenants with recent evictions. Thus, evictions due to financial burden can lead to a vicious feedback loop whereby households are at risk for ongoing homelessness. The city could create a rent program to assist households before they are evicted, rather than after.



## Goal 2: Meaningful Community Engagement

### Purpose

Active community engagement is the backbone of our democracy and is a necessary step in the building of our communities. For Tigard's goals of creating affordable housing and an active community that is engaged with the city, we recommend Tigard reach out to its plurality of residents and solicit their input. It is especially important for affordable housing since having the input of the communities for which housing will be developed can lead to more equitable plans. This approach created more vibrant and successful equitable TOD projects, seen in case studies such as Fruitvale Station in California and the Twin Cities Green Line in Minnesota. Community engagement allows for better local government solutions and involvement that fosters positive partnerships between the city and its residents.

### Case Studies – Positive Community Engagement in Transit-Oriented Development

For case studies positive community engagement, see Appendix F: Twin Cities Green Line and Appendix G for Fruitvale Transit Village.

The Twin Cities Green Line:  
Implications for Tigard

Tigard has been reaching out to the marginalized groups within its community. The Twin Cities Green Line project is a good example of how involving nonprofits, foundations, and advocacy groups—at the local, regional, and national level—can create the type of supported feedback that cannot always be harnessed by individual people because of the systemic issues within our governmental approach to community outreach. This is especially prevalent in affordable housing because the outreach is mostly done by third parties, such as universities, or the affordable housing developers themselves. This potential lack of governmental awareness of these residents' needs can hinder the right development of affordable housing, through regulations, the zoning of land, etc. Tigard could increase and deepen its partnerships with the non-profit groups and affordable housing developers to help address the issue of equitable housing.

### Fruitvale Transit Village: Implications for Tigard

The Fruitvale Station as a prime case study in the implementation of equitable TOD is helpful. The partnership between the city of Oakland, BART, and the community's own Unity Council is evidence of the effectiveness of deliberative community engagement. This achievement is even more noteworthy considering the lack of market feasibility in the area prior to the development of the transit station. While the case study is less applicable in the Triangle in terms of the vast differences in demographic context, Tigard could learn from the vital role played by nonprofit community organizations in catalyzing a development project with a clear emphasis on community-led place-making. This not only included community-based design but also the creation of public spaces and the allocation of space for essential services. The TOD in Fruitvale functioned not merely in the spatial realignment of urban land use but in the alignment of pre-existing social and cultural capital into a distinct community asset. The transformation of a struggling commercial area to a vibrant community focal point lines up with the goals set forth by the Tigard Triangle Strategic Plan and is an example of the often overlooked role that nonprofits can play in revitalization efforts.

The affordable housing crisis and the light rail project are long-term and constantly evolving things that Tigard will need to address for the growing number of residents projected to remain and migrate to Tigard within in the next 20 years, including the increasing percentage of Latino/Hispanic residents. We recommend that Tigard create open lines of dialogue and get the input of this community. Currently, Tigard’s school system reflects the increasing Latino population with more than one-third of its students identifying as Latino or Hispanic. Therefore, the student population is a great resource to promote outreach to the underrepresented Latino community. Involvement through school activities can potentially improve dialogue with the low income population as well, as they might not have the resources to get heavily involved in community planning issues, such as affordable housing and equitable TOD, through other avenues.

An ideal way build and plan a city is to plan for children’s needs in order to create the most inclusive environment. We want to apply this principle to affordable housing. Young people, including those going to college, are part of the community that is impacted by the lack of stable housing that creates high-cost burdens on their families. Moreover, given the timing of the Tigard Triangle and TriMet projects, it is the youth now who will be adults in 10-30 years that will be looking to find an affordable place to live. Young people are ready to learn about and contribute back to their communities while having the time to participate in the process. By engaging with students, parents and other family members are also reached, directly and indirectly. Involving younger residents in civic learning and inspiring new ideas is a great way to create a sense of pride and identity in Tigard, as they could also be future leaders of Tigard.

## **Tigard’s Current Outreach**

Enlisting community input early on and making the community an integral part throughout the process leads to more vibrant and better utilized TOD and overall affordable housing. Tigard has improved its community outreach to all of its residents through different events, such as Tigard’s Budget and Brews event—a monthly social gathering at either a bar or coffee shop where residents and city officials are able to discuss important city-related issues and current events. Tigard, with the assistance of Metro and TriMet, have held meetings about the SW Corridor expansion and affordable housing in Tigard. Their partnerships with various nonprofits and community outreach groups within the city and region, such as the Latino Network and Community Partners for Affordable Housing, have resulted in some great community events, like the 2nd Annual Latino Festival, and affordable housing units around the city. Having various forms of communication, such as general information on their website, Facebook page, and city newsletter Cityscape in both English and Spanish has improved accessibility to important city information. While Tigard is making positive strides towards engaging a larger section of its community members, and we want to help the city reach more of their underrepresented residents, especially the Latino community, through other avenues in order to gain feedback for important decisions.

## **Engaging Community through Youth**

### **Y Plan**

The Y plan national program uses an “award-winning educational strategy that empowers young people to tackle real world problems in their communities through project-based civic learning experiences” (Center for Cities and Schools at UC Berkeley). Communities gain youth-driven data and insight into community problems that create better plans and policies, while developing positive and active civic engagement that promotes college, career, and community readiness skills in the young people that participate. This is especially true for young people from low income and minority communities, as it allows them to participate with city planners and other adults to create plans and policies that solve problems within their

communities. The results are innovative and inclusive solutions that address the needs of normally overlooked segments of the population.

The Y Plan can be adapted to engage all ages of school children and is a proven successful model that creates a project where students identify a challenge, make sense of the problem, create a vision, present to the public/client, and create an action plan. The topics that students tackle with city and community group members are schools, services, and amenities; transportation; public space; and housing.

Currently there are different projects all over the U.S. and a few internationally. In San Francisco, California, a first grade elementary class learned about the Western Tiger Swallowtail butterfly that has made its habitat in the Market Street corridor and thought of ways “to retrofit public spaces along the street to raise awareness about the butterfly and to support its habitat.” They came up with butterfly-themed paths and bus shelters, and pop-up outdoor classrooms and other interpretive features to promote creative interaction about wildlife corridors and nature in the city. Another example is a project by a high school in Brooklyn, New York, where students addressed issues surrounding the support of students living in temporary housing. The students identified that there was a substantial problem with homelessness for students; one out of every nine students experienced homelessness in the last five years, and addressed the problems within the school system to help support these students. They recommended surveys, short-term solutions, such as additional staff to the school library to use during lunch and after school hours, and long-term solutions of having the Department of Education hire more staff to accommodate the growing number of students in temporary housing and to help the families to find housing near their schools without having to be absent from schools. This is a great way to teach people of all ages civic processes and having pride in their contributions as residents of Tigard.

### **Adelante Mujeres**

The second suggestion is a partnership with Adelante Mujeres, a nonprofit based out of Forest Grove that helps empower Latina girls and women. Adelante Mujeres has various school programs, such as the Chicas Youth Development program, that partners with 17 different school districts within Forest Grove, Hillsboro, and Beaverton. The Chicas Youth Development program helps girls and their families in whatever way they can on the road to college and becoming leaders in their communities by becoming advocates for Latina girls throughout their schooling years, from elementary through higher education. They offer field trips to local colleges and weekly workshops that deal with nutrition to help with finding financial support, such as writing scholarship essays. They also offer services to help involve the parents of aspiring college graduates and have workshops that help them deal with their child going off to college and also how to be an advocate within their community. It is a very successful program that has helped many young women go to college and help them and their families become successful advocates and leaders in their communities.

Partnering with Adelante Mujeres can enable to city to use its resources to better engage with the Latino community. Community events can provide opportunities for both informal and formal outreach by city officials. The city can also emulate the structure of Adelante Mujeres to help with the potential implementation of future programs.

### **Individual Programs**

Other strategies are individual projects that would have an impact on gathering information and support from the community. One suggestion is having an inclusive internship program for high school and community college students to work with planners and other city officials on certain outreach or other projects. The Center for Cities + Schools at UC Berkeley has a great internship



Figure 5: The Y-Plan and Adelante Mujeres are two ways that Tigard can engage with youth members of the community. Images from senseofplacelab.com

program called PLUS Fellows that Tigard could consider. The program is a semester or yearlong internship that is overseen by a professor and city official. Older students are becoming, or already are active residents of Tigard and can create more ties to their community through this program. Internships through local government give important resources to the sponsoring agencies. By fostering a higher level of civic involvement, students can gain experience in local government and the city of Tigard will gain a more diverse viewpoint.

Another strategy is holding a photography contest involving different school districts within Tigard and presenting the findings at a Back to School Night. The students can send photos of three things they like and dislike about their neighborhood, which for younger students would involve a lot of input and help by their parents. The photography contest is a great type of community engagement that has been shown to create great feedback for positive and negative aspects of individual areas or whole cities. By presenting the findings at Back to School Night, city officials can get parents' input on the children's findings and come up with some solutions to those issues. This will engage both children and parents and give city officials a great venue to create dialogue for things that were found to be detractions in different neighborhoods and ways to change that.

Our strategies for community engagement involve the city officials going into the communities and actively engaging with the young people living within them because positive, effective engagement includes an exchange of ideas and knowledge by both community members and city officials.

### **Next Steps for inclusive community development in Tigard**

We suggest the city consider the ADU policy of the Tigard Municipal Code to advance affordable housing in Tigard. Currently, the Tigard Municipal Code auctions surplus land to the highest bidder after an appraisal. We suggest that Tigard change its code to allow surplus land to be sold below market rates for the purposes of affordable housing development. Alternatively, we suggest Tigard use inexpensive, long-term leases for affordable housing developers on publicly held land. A community land trust is a cost effective means of preserving the affordability of existing units for perpetuity. As naturally occurring affordable housing already exists in the Triangle-Downtown area, we recommend that the city take steps to acquire sites in partnership with nonprofits to prevent those units from being removed from the market via market-driven displacement. Market-based strategies for generating affordable units are important but are limited given the depth of the region's affordability crisis and the level of demand for reasonably priced units. Private developers can only be incentivized so far given financial constraints. A

community land trust is a proactive model for preserving existing affordable units.

Finally, enlisting community input early on and making the community an integral part throughout the process leads to more vibrant, better-utilized TOD. The city might consider exploring partnerships with organizations such as Y-Plan and Adelante Mujeres to involve and empower underrepresented residents, especially the Latino community, who are a vital part of the emerging redefinition of the region's identity. Community engagement strategies are meant to foster two-way engagement where the community plays a vital role in the reimagining of Tigard.

## Placemaking in Downtown Tigard

In an effort to make Downtown Tigard a place that matches its vision, the city has been implementing key changes to the look and feel of its downtown, with walkable and pedestrian friendly streets, modern city amenities, and excellent transit and trail access. The city may choose to use creative placemaking as a tool to achieve its goal in making its downtown “uniquely Tigard.”

**Creative Placemaking** is an approach that focuses on creating a sense of place for cities, towns, neighborhoods, and streets. It provides communities with a roadmap for understanding what attaches residents to their community and how they can build places with lasting value. The resulting art (in whatever form it may take) creates a vibrant, thriving economy and a more connected community. More in-depth information on creative placemaking is detailed in Appendix C.

The city of Tigard already has many of the ingredients necessary to make a successful and attractive place and has a goal of establishing an identity for the Main Street community downtown. The purpose of this project is to build upon past revitalization efforts in the Main Street Village sub-district of Downtown.

Downtown Tigard can serve as a vibrant core for the city of Tigard and creative placemaking is one possible method to achieve this. Considering changing demographics, economic opportunity, existing build environment, and urban renewal development, we recommend using creative placemaking as a method for community development and implementing three tools of creative placemaking: activating space, creative wayfinding, and developing a community brand for Downtown Tigard.

## Summary of Recommendations

- **Utilize both targeted pop-up space activation and storefront activation.** We recommend city of Tigard start these initial efforts at two sites: the former Car Quest storefront on North Main Street and the future Heritage Trail/Rotary Plaza site.
- **Employ community branding outreach** to understand what connects people to downtown.
- **Encourage creative wayfinding** to direct pedestrians to an activity or event (See Figure 8)

As the city of Tigard moves forward in developing its downtown area, it should do so with a goal of providing visitors the luxury of time well spent. To achieve this goal, we recommend that the city focus heavily on what people will experience, rather than on what buildings would fill the space. By focusing on the human experience, a mixed-use town center can be developed in Downtown Tigard over the next 20 to 30 years.

## Identity Through Place

Creative placemaking uses arts and culture to address the intersection of identity and place when building a vibrant community. As urban renewal continues for Downtown Tigard, we must look to activate the in between spaces. This could be under-used properties or parking lots, areas in planning stages of re-development, or natural gathering places and landmarks.



Figure 6: Vacant and under used sites for additional space activation. Activating this space can be done by installing temporary pop-up shops, pop-up galleries, and hosting cultural and arts celebrations.

These are areas where we express our humanity and create a unique personal identity that connects to Tigard’s Main Street Village. Place-based art projects, such as pop-up events and space activation can bring awareness to a latent or scattered identity within these spaces. Creative placemaking projects help to develop a sense of community, inspire and empower people, address social changes and encourage intergenerational exchange. Moreover, they can act to surface hidden histories, make people interact with their space and surroundings, and uplift voices that are not part of the mainstream. Overall, Creative placemaking can ground people in a sense of place, even if temporary, that can instigate positive memories and identity recall.

### Partnerships and Collaboration

Creative placemaking integrates arts and cultural development into areas of grassroots organizing, community development, planning, design, engineering and policy. These partnerships are based on a shared vision of revitalization and ideally a mutual understanding of creative placemaking theory and methods.

A community-driven model of creative placemaking provides opportunity for future visioning of spaces that is mutually beneficial. Temporary use and activation of space are used by neighborhood members to attract investment and revitalization that is reflective of their identity. Partners such as private developers and small business can see potential uses outside the normal economic development framework.

### Inclusive Main Street

Equity, displacement, and community involvement/engagement have been seen as long-standing issues within the redevelopment process, especially urban renewal. Detrimental outcomes of placemaking, such as wasteful investment, uneven development, social inequality,

and environmental damage, are likely to cause concern among stakeholders, but typically do not receive the attention they deserve.

There are many traditional ways to address these issues, with mixed results. To create a vibrant Main Street that is inclusive, we recommend planners and developers translate the ideas and opportunity equitably through all levels of Tigard's community. Creative placemaking uses arts and culture to bring people together and tools to explore issues of identity, community, and future revitalization. These efforts can target specific populations, geographies and demographics that are historically overlooked or disenfranchised through traditional development efforts.

## **Site Analysis of Main Street**

The historic development patterns of Tigard left the downtown core without a cohesive urban form, or a sense of place for the community. During the relatively recent time of the city's development, automobiles were growing in popularity and becoming the primary mode of transportation for residents in Tigard. Consequently, the automobile was a significant factor in the design of new downtown developments. This resulted in parking areas between buildings on Main Street and created gaps in the street frontage. These gaps limit the walkability of downtown by reducing the ability of pedestrians to comfortably gather and socialize on the street. While the previous development patterns have left a substantial impact on its built environment, Downtown Tigard now has opportunities to fill those vacant gaps and underutilized areas with uses and activities that will draw the community to the area and animate both public and private spaces.

We are focusing on the Main Street Village sub-district. Per the Downtown Conceptual Connectivity Plan, the Main Street Village sub-district is defined by "the uses along Main Street from its northern and southern intersections with Pacific Highway/99W. This sub-district's character is defined by its traditional role as Tigard's commercial Main Street, comprised of modestly-scaled buildings, prominent pedestrian-oriented sidewalks, and active ground floor uses." See Appendix H for more history of Downtown Tigard and related planning efforts.

## **Four Qualities of Place**

### **Sociability**

There is currently a lack of sociable public spaces in the Main Street Village. Specific areas have the potential for sociability. For example, the vacant space adjacent to the railway tracks located centrally along the Main Street can inspire people to use space informally. Tigard, however, lacks a distinct image and does not present comfortable sitting spaces. It is generally not a pleasant experience to be in Main Street Village, especially because of lack of activities to engage in—no plazas or parks, many underutilized parking spaces, and properly located seating—all restrict the users from making a connection with the outdoor environment.

### **Uses and activities**

Main Street accommodates a wide variety of uses and our analysis indicates that it can support further diverse activities in the future. There are predominantly low-to-moderate intensity retail and general service stores on Main Street, with eateries and art galleries scattered between them. Our observations of existing activity in the downtown area show that most activity and social engagement occurs near restaurants, coffee shops, and the art services on Main Street. Between these active spaces, there are vacant parking areas that lie dormant for much of the day, and do not foster a sense of vibrancy or social uses. One recommendation discussed in this report is for the city to take advantage of these existing nodes of activity and use the

vacant areas next to buildings as temporary locations to hold events and create pockets of activity along Main Street by providing a place for people to gather.

## **Access & Linkages**

Main Street forms the central artery that connects every place within this area. Although Main Street is bounded by the Pacific Highway along the northern periphery, two streets passing below the highway meet the area from the north and west, which are Tigard Street and Commercial Street. Main Street is further connected to three major streets along its eastern edge, which are Scoffins Street, Commercial Street, and Burnham Street. Main Street is also easily accessible from the southern residential area.

## **Comfort and Image**

There are at least 14 general stores/shops (cleaners, barber, etc.), 20 services (counseling, insurance, auto repair, etc.), three art/gallery spaces, 11 eateries, and several other buildings along Main Street. However, there is no central public space or rows of diverse mixed-use facilities. Parking lots make Main Street Village feel fragmented. A recent parking study showed that downtown parking in the vicinity of Main Street was nearly 50% vacant—even during the peak period (Tigard HTC Land Use Plan). In terms of the area's potential to activate space, three use categories have been identified, which will be explored further in the following section: food and drink, coffee shops, and art spaces.

## **Main Street Constraints and Opportunities**

Since the proposed approach relies on informal gathering of people in the Main Street Village, it becomes important to consider the constraints and opportunities related to the flow of people from other areas of the city and downtown. In this regard, the three prominent barriers are Highway 99, Fanno Creek, and rail crossings (see Figure 2).

## **Urban Renewal**

Tigard's Main Street Village neighborhood has gone through significant development through urban renewal and has reserved funds to encourage placemaking efforts. Total urban renewal funds used for façade and street style improvements are around \$1.5 million dollars (TDA New Downtown Tigard). It is evident that the city places a high value on establishing community identity and has strong interest in continuing to integrate small, talent-based investments in downtown that will support arts and cultural experiences in Tigard.

## **Arts and Cultural Influence**

Local art is highly regarded in Tigard and this influence can be seen throughout urban renewal projects on Main Street. Tigard Downtown Alliance (TDA) has taken the lead on most arts and placemaking activities in the downtown and Main Street core. The TDA is a nonprofit whose mission is to represent the downtown stakeholders to guide the changes needed for a vibrant and thriving downtown for the benefit of the entire community. They have partnered with the city as a grantee partner and also as the main communication channel for Downtown stakeholders and city officials. In 2015, the TDA installed streetscape features along Main Street to enhance the visitor experience, these include: 20 hanging glass baskets made by a downtown entrepreneur, 10 decorative bike racks, nine benches, two bike tune-up stations, and 20 banners promoting downtown events.

In addition to the street enhancements, TDA has organized arts-based experiences in the Main Street core. The most successful is an annual Art Walk on Main Street in the spring. This event is in its third year and has generated momentum for including the arts within Main Street



redevelopment. Events such as pop-up galleries, urban art panels, and mural demonstrations have proven very popular and continue to be supported by the city.

Tigard has installed three pieces of public sculpture on Main Street, both permanent and on loan. These include the Mobius sculpture in front of Symposium Coffee and Tigard Chamber of Commerce. In 2015, two 16-foot steel tulip sculptures designed by artist Brian Borrello were installed at either end of Main Street where it intersects with Pacific Highway.

Tigard has used these events to increase the activity on Main Street and had great initial success. Our proposals for targeted creative placemaking go even further, using arts and culture to explore the space, identity, and uses of Main Street. Our proposals support TDA's current arts-based initiatives and expand them to become more inclusive and effective within the goals of revitalization efforts. To fully create an authentic and vibrant downtown atmosphere, we suggest that Tigard move beyond its current comfort zone by considering reoccurring creative placemaking events. Such events can activate space while increasing wayfinding and identity to complement the vision of Main Street as a vibrant core.

## Recommendations

Creative placemaking can act as a catalyst to create a vibrant downtown core and spark economic development on Main Street. Research of Tigard's downtown, combined with a review of placemaking literature, found that creative placemaking can be used to achieve Tigard's vision. Three creative placemaking tools to achieve vibrancy downtown include: activating space, creative wayfinding, and developing a community brand for Main Street.

### Activating Space

Public spaces are activated through temporary creative placemaking measures. Activating areas to create great public spaces requires a collective vision and active community collaboration, as built environments alone are not enough to garner a sense of place or a sense of civic pride. Space activation can provide an influx of people, ideas, activity, and engagement with an under- utilized or stagnant space. Like all creative placemaking efforts, space activation is targeted to create change and spur further creative uses. This is wholly different than creating a space for strictly economic or development gains.

To activate the space of Main Street through creative placemaking, we will use two methods: targeted pop-up space activation, and storefront activation. It is our recommendation that the city of Tigard start these initial efforts at two sites: the former Car Quest storefront on North Main ST and the future Heritage Trail/Rotary Plaza site (Figure 7).



Figure 7: Future Rotary Plaza

Temporary, pop-up space activations fit well at the future Rotary Plaza and the adjacent Yen's Chinese Restaurant parking lot sites. Two strengths of this site include the future Heritage Trail and Rotary Plaza development, easy access and location in relation to the Chamber of Commerce and Symposium Coffee-shop, two anchors of the recent downtown development effort. These site locations contain partially paved, city-owned lots, train track crossings, and an under-used parking lot. This site provides a space that could be used for a wide ranging variety of space activation activities including: food cart pods, musical performances, a temporary plaza, and creative play.

We propose embracing the train tracks to spur conversations about Downtown's sense of place. Pop-up space activations rely on cooperation and partnership building, a main tenant of creative placemaking. These partnerships should be seen as inclusive to the needs and wants of the Main Street businesses. The idea is to encourage reoccurring, temporary space activations. Parking lots are a prime candidate for these types of events.

Part two of our space activation activities includes activating vacant store frontage on Main Street. We have chosen to activate the store front on North Main Street, a vacant former Car Quest auto parts store (Figure 8). This is an ideal site for space activation, located in the undeveloped northern end of Main Street and having prime Main Street frontage. It has large, inviting store front windows that would showcase creative placemaking activities. Additionally, the site has a large parking lot for additional pop-up activities and a billboard that has high visibility from Highway 99. The city of Tigard has promoted this property as holding high investment potential through their website and development outreach. We see activation of this storefront as mutually beneficial for residents, developers, and city staff.



Figure 8: Before and after activation of the storefront space

Activating this space can be done by installing temporary pop-up shops, pop-up galleries and hosting cultural and arts celebrations. Artists, makers, and arts organizations are encouraged to occupy the site for short- and long-term space activation. Incentives such as free, shared, or reduced rents can be negotiated through a public-private partnerships and increased collaboration. The city and stakeholders could promote creative placemaking activities through this storefront and treat it as an arts and culture hub. When it proves to be successful, it can be replicated to activate additional vacant storefronts on Main Street.

## Wayfinding

Wayfinding is a creative placemaking strategy that uses maps and graphics to direct pedestrians to an activity or event. Creative signage and installations welcome people to a site and engage the public with their surroundings. Because this signage helps to define a sense of place and gives an identity. Figure 9 shows locations complement the site locations we have identified for space activation



Figure 9: These locations complement the sites we have identified for space activation, as the wayfinding signage is intended to direct the community to activities or events.

## Community Branding

Claiming Downtown Tigard as a destination for residents and visitors through the activation of diverse and underused space that contributes to the positive future of the city of Tigard relies on the public connecting with and knowing the community's brand. Community branding allows for the community to discover the character or identity of a place. One of the defining characteristics of a vibrant urban core is that it has strong connections with the community it intends to serve.

In order for strong connections to occur between a place and the community, a place will need to create a strong emotional connection with the community, while also providing a sense of uniqueness and specificity in order for that place to separate itself from other destinations. In order for a vibrant core to brand itself as destination that provides a unique experience to, and a strong emotional connection with the community, it will have to do two things: clearly communicate its story and connect with the public.

Downtown revitalization and identity incubation occur when a downtown knows the story it wants to tell and then successfully transitions that story into a powerful brand that is connected to the community. Only then can a downtown leverage its strengths and transform into a vibrant core. In order for a downtown to take control and learn its story requires the participation of a diverse array of stakeholders and community members.

"The public sector, businesses, property owners and residents must work in concert to communicate a cohesive and consistent identity."

## Successful community branding follows the CORE Story Framework.

- Characterization
- Objective
- Relationship
- Environment

### Step 1

A downtown should identify the following elements:

- A clear idea of what it is now.
- A clear idea of what it wants to be.
- A clear idea of its strengths.

### Step 2

Conduct public outreach activities such as:

- Downtown Walking Tour
- Fireside Chats with the Mayor or City Manager
- Planner in the Park

### Step 3

Populate the CORE Story Framework with data obtained from public outreach.

### Step 4

Construct a narrative that explains the three elements from Step 1. The narrative obtained is used to create a downtown's urban identity. The narrative is best quantified by using data gathered in Step 3.

A successful community branding exercise will allow both community members and decision makers to not only share a unified community brand for Downtown Tigard, but to also allow them to answer the following five questions regarding Downtown Tigard's future.

- Why would a company want to locate in your town?
- Who might decide to come visit your city?
- How can you become a local hangout?
- Should a lender be willing to risk investing in new development in your city?
- Would a visitor be delighted to spend time in your downtown?

*Read a more detailed explanation in appendix I.*

## Implementation

### Partnerships and Funding

We recommend that the city of Tigard strengthen and build strategic partnerships, outside of local government and developers, to support and enhance their vision of creating a vibrant downtown core. It is not enough to provide surface elements of creative placemaking (creating art objects or street improvements) without organizational partnerships and social structure for it to exist within.

### Tigard Downtown Alliance and City Center Development Agency

Tigard Downtown Alliance (TDA), an independent nonprofit, is the main actor and receiver of urban renewal funds regarding Main Street place improvements. TDA has used placemaking in the context of aesthetic improvements to the streets and building facades. Over a 10-year period, TDA and CCDA have significantly supported and encouraged development of the Main Street Village neighborhood. They have been effective leaders in the downtown redevelopment movement, championing re-development for mutual economic gain. Additional funding sources through the National Endowment for the Arts and Metro grants are detailed in Appendix J.

It can be burdensome to manage creative placemaking efforts alongside economic

development strategy for the future Main Street and downtown. Additionally, current placemaking efforts have been constrained by the mission and capacity of these non-arts based economic development organizations. Tigard's downtown and Triangle are becoming more vibrant. The TDA and CCDA may re-focus economic development goals for these emerging spaces. This would put downtown creative placemaking efforts in danger of losing momentum, as these activities could be cut due to staff capacity, time, or funding concerns. Overall, Tigard would benefit from the creation of an arts and cultural council or association, an organizational center for creative placemaking downtown. The city and partners could easily convert one of the empty storefronts in North Main Street into a center for the arts and creative placemaking downtown. This would show commitment to the community and also provide space for catalytic creative placemaking and creative community development.

## **Timeframe**

Our plan recommendations span the last ten years of the urban renewal funding cycle, from 2017-2027. Building on the first half of development on Main Street, our plan complements Phase II of Main Street urban renewal projects. Our recommendations rely on the increased occurrence of creative placemaking activities. Creative placemaking activities should occur on a regular monthly or weekly basis to be effective. Given the light, quick, and cheap nature of our recommendations, this should not unduly burden the city of Tigard or its partners. Our emphasis on enhancing collaboration and expanding partnerships spreads time investment across stakeholders' schedules and staff capacity.

Staying within the core elements of creative placemaking, our recommendations are targeted and temporary in scope. These tools create specific, moments in time that engage participants sense of place. Creative placemaking's impacts and momentum have a compounding ripple effect, outlasting the initial activities themselves. Space activation, wayfinding and community branding efforts all start with Creative Placemaking and then evolve into what is best for the community.

## **Next Steps for Downtown Tigard**

The city of Tigard is committed to providing its residents with a vibrant and engaging downtown. The 20 to 30-year vision of Downtown Tigard is to be a "vibrant and active urban village at the heart of the community that is pedestrian oriented, accessible by many modes of transportation, recognizes and uses natural resources as an asset, and features a combination of uses that enable people to live, work, play and shop in an environment that is uniquely Tigard."

Avalon Mixed-Used Town Center Development in Alpharetta, Georgia serves as an inspirational case study that may help city staff envision a walkable, bustling downtown in Tigard (Appendix K).

We recommended the city begin implementing creative placemaking strategies to activate space within Main Street. The city should consider holding frequent and routine events to start drawing people to Main Street. City staff can document the creative placemaking strategies used and the outcomes to help understand what activates the community.

## **Placemaking in the Triangle**

As the Portland Metro area prepares for sustained growth, the city of Tigard must address multiple aspects of civic life within the Triangle with a high degree of foresight and sustainability ethic. The Triangle will be a full service urban center that invites all people to live, work, and play. Within a network of open spaces and multi-modal paths, there will be affordable housing and catalytic, sustainable development including a public market.

To create a sense of place in the 500-acre Triangle, we identified the need for an innovative, bustling community gathering point to serve as a social and economic activity hub. We recommend a public market that will function as a platform for small, local entrepreneurs and act as an interactive gathering point within the Triangle. The international nonprofit Project for Public Spaces notes that “successful markets can be anchors of multi-use community destinations.”

The Triangle Public Market concept is a highly adaptable solution to Tigard’s call for identity as an *edge city* in the Portland Metro area. We propose a phased development approach beginning with temporary open-air markets, which will ultimately lead to a permanent market.

The market will serve as a social and economic catalyst but will also need supportive infrastructure and amenities to flourish as a great place. These categories include connectivity, open space, affordable housing options, and adaptive reuse of existing buildings, such as big box stores and parking lots. In this report, we outline a series of short-term and long-term recommendations to transition the Triangle into a vibrant place. The Market is designed to function as the centerpiece of all recommendations, and its ability to thrive will depend on the degree to which the Triangle follows through on past recommendations and those detailed in the following section. Recommendations fit into multiple categories and contain projects that serve many purposes. Together, these categories will create a connected, consistent area with an identity that is unique to the culture within the Triangle.

We propose using the *lighter-quicker-cheaper* approach for short-term projects to achieve results efficiently and generate interest and ideas. *Lighter-quicker-cheaper* projects are fast, simple efforts that have a low approval bar and generally enjoy broad support. They help build energy and enthusiasm about a place and its potential. These projects will set the stage for the long-term vision, which will take time, resources, and citizen involvement to achieve.

## Summary of Recommendations

### Develop mixed-use, mixed income housing that is affordable to all

- Engage the community in meaningful outreach activities to understand perceptions, desires, and needs
- Establish a Resident Advisory Board within the Triangle to represent to the community’s interests in Urban Renewal Projects

### Short-term (1-5 years)

- Enhance the walkability of the streets with pop-up events and markets, creative wayfinding, and street furnishings, and crosswalk improvements
- Form and foster community partnerships with organizations and schools
- Amend the Urban Renewal Plan to include a host of Placemaking project in order to utilize TIF and UR funds.

### Long-term (5+ years)

- Retrofit underutilized structures and spaces such as parking lots and vacant stores Form a public gathering space following a community-driven direction for the public market
- Implement Transit Oriented Design (TOD) projects and station stop communities
- Large infrastructure projects that promote connectivity and accessibility, such as pedestrian bridges over highways



Figure 10: Promoting connectivity and creative identity as a backdrop for the new Triangle Public Market

## Vision

To ensure that we provided recommendations that were compatible with the community's vision we used the five vision goals identified by the community in the Strategic Plan. Additionally, we incorporated Goal 1 of the Comp Plan to ensure that the community would not just be used in the beginning of the process but throughout. This will be discussed further in the Community Involvement Strategy.

- A diverse mix of uses, including housing and businesses, to support those who live and work in the Triangle.
- Improved connectivity for cars, bikes, and pedestrians within the district and to neighboring areas.
- An enjoyable and safe walking environment with shorter blocks, pedestrian-friendly buildings, and pathways between developments. Parks, open spaces, and community gathering places that takes advantage of the areas trees, creeks, and natural landscapes.
- Enhancement and protection of the natural amenities, including restoration of Red Rock Creek as a defining feature for the area.

## Community Involvement Strategy

The value attributed to the making of place through community involvement has long been identified by professionals within the planning field as an important aspect of the planning process. The city of Tigard's history shows it understands the importance of community involvement as an essential part of placemaking; however, as time changes so to must the strategies we use to engage our communities, particularly during the making of place.

- Utilize surveys for community involvement, and keep and maintain collected data
- Establish a special citizen advisory board for the Triangle

These strategies allow Tigard to achieve both the short-term goal of inviting diverse populations to engage with the built and natural environments, as well as, the long-term goal of being a full service walkable urban community. More importantly, these recommendations allow for the community to design an identity for the Triangle through a cultural lens that is unique to their experience, thus promoting a sense of community ownership.

### Utilize Surveys for Community Involvement

Tigard is currently lacking data on community perceptions. We were only able to gather a sense of community feelings through the data made available in the Value of Place report conducted by Portland State University and State of Place. Thus, we recommend that the city of Tigard conduct surveys to obtain data about community needs in the Triangle. We recommend that the city maintain survey data to understand current community needs, and how needs might change over time.

Surveys serve as a form of community involvement and input (Goal 1 of the Tigard Comprehensive Plan) and allow for whomever conducting them (in this case the city of Tigard) to approach decision-making in an unbiased way that relies on objective information. However, the city does not have to conduct surveys in the traditional sense (i.e., door-to-door surveying). Instead, we recommend two approaches: 1) using events (e.g., pop-up events) to engage the community and 2) using the snowball sampling (chain-referral sampling) to engage the community members who only work in the Triangle. Using events to engage the community can be simple. Figure 11 shows an example from Surrey, CA that the city of Tigard could decide to emulate. The city can pose questions on sticky notes to collect feedback. This event is ideal for gathering community perceptions on the current conditions of the Triangle as well as posing questions to understand what people want to see in the future. At this point in the process, it would also be helpful to understand how people spatially identify the boundaries of the Tigard Triangle. The last question on a survey could ask the respondent if they would like to be involved in the urban renewal process, which would enable the city to collect a list of potential names for a Resident Advisory Board.



Figure 11: Surveys are one method to gather input and foster community involvement.



## **Establish a Special Resident Advisory Board for the Triangle**

In previous plans, the city of Tigard has utilized community committees and boards such as the Citizen Advisory Committee and the Technical Advisory Committee to allow for the representation of the community's interests and to provide technical review and advice. Goal 1.1, Policy 3 of the Tigard Comprehensive Plan reads, "The City shall establish special citizen advisory boards and committees to provide input to the City Council, Planning Commission, and City staff." Consistent with this goal, we recommend the city of Tigard create a Triangle Advisory Committee that is representative of and composed of the various ethnicities, age groups, and incomes within the Triangle, and includes people who live in the area as well as people who only commute into the area. This committee would serve until the end of the urban renewal.

These recommendations serve as a framework for how collaboration could look within the Triangle. Additionally, looking at the vision summaries within the Tigard Triangle Strategic Plan and the city of Tigard's Comprehensive Plan, the framework provides a streamlined process for the community to take ownership and design place for how they see fit during the urban renewal process.

While the city has involved the public in the initial process to identify the community's wants, there should be collaboration with the community as well to ensure the community's viewpoint is intertwined in the design and implementation of place. Particularly in the Triangle, we recommend there be a form of collaboration that works to address issues around housing, equity, and affordability for all people.

Within the Triangle there are various groups (nonprofits, housing groups, private business, and local businesses) that the city could collaborate to build capacity with the residents of the Triangle. Economically speaking, many residents within the Triangle are lower income and cost-burdened. Tigard should not displace residents within the Triangle in an effort to create place. Community-led design ensures that the city's solution to some of the most complex problems in planning are addressed through an interdisciplinary form of place governance.

## **Affordable Housing**

One of the most important human rights for people is access to affordable housing that is both satisfactory and well-connected to transportation networks. This is particularly important in the Triangle as 54% of renters are currently cost-burdened, meaning more than 30% of their income goes towards housing. The amount of income spent towards housing is also increasing, income spent on housing rose from 16% to 19% from 2000 to 2015. Additionally, roughly 60% of households are making less than or equal to \$40,000 a year (See Appendix B) indicating that there is currently a high need for affordable housing within the Triangle. It is likely this trend will continue given the fact the Portland Metro area is projected to increase by 725,000 people by 2035.

We believe our recommendations not only align with Goal 10 of the Tigard Comprehensive Plan and the Triangle Public Market, but also take into account the vision of the community that wishes to see mixed-use, mixed income housing that is well connected with the transportation network in the Triangle. In light of the possible light rail extension, the city may choose to prioritize housing centered around future light rail corridors.

## **Mixed-Use and Mixed-Income**

Mixed-use buildings are often the key to revitalizing underdeveloped areas. "A mixed-use development can be broadly defined as any piece of property—be it a single building, a substantially large urban or suburban community, or anything in between—that combines residential, commercial, cultural and/or industrial usage within a relatively small and dense area" (Pinpoint Commercial). Mixed-use facilities provide a wide range of amenities to those who live and work there.

Mixed-income buildings are buildings that incorporate a variety of people on economic spectrum with the intention of addressing poverty. There have been a variety of studies conducted to analyze the benefits of such buildings. One report in particular by the Urban Institute found that benefits include:

- Better quality housing
  - Improved services
  - Increased neighborhood amenities
  - Safer environment relative to what is available in most homogeneously poor areas
- Acceptance of lower-income groups

Because these benefits cannot be activated without community we recommend the city of Tigard leverage mixed-use, mixed income housing to design place through the Power of 10. Housing, if designed properly, cannot only serve as one of those 10 locations we mentioned earlier, but when a variety of uses are included it can also provide 10 different activities to do at its location, for example, sampling food or picking flowers at a public market.

### **Develop Mixed-use, Mixed-income Housing that is Affordable to All**

As mentioned in Section 5 of the city of Tigard’s Population and Housing Review Housing Strategies Report, “While zoning in the Tigard Triangle currently allows for development of residential uses, little housing has been built in the area. City staff reports that most property owners and developers envision the area as a location for large scale retail, commercial or light industrial activities. We recommend that if residential use is part of the community vision for the Tigard Triangle, steps should be taken to ensure it is built in the future. To achieve this goal, it is recommended that specific areas be rezoned for residential use, or, for a mix of uses with a required residential component, rather than recommending that residential uses be a component of each future mixed-use development in the entire area. Future residential areas in the Triangle also should allow for commercial uses that complement or support them.

### **Urban Renewal**

The city of Tigard has rezoned the Triangle to accommodate higher density mixed-use buildings and implemented the Triangle Lean Code as a way to spur new development (Appendix L, Zoning Map). However, we have found little discussion as to how to pay for these new developments.

We recommend using urban renewal funding. Urban renewal funding is typically used to fund infrastructure projects, but there are also opportunities to use this funding to develop affordable housing. Tigard’s Municipal Code was amended in 2015 to allow the city to give surplus property to Urban Renewal Agencies. Additionally, Tigard could use land leases for affordable developers.

### **Inclusionary Zoning**

Additionally, we recommend that the city adopt inclusionary zoning in order to prepare for the rapid growth that will be occurring in the Portland Metro area within the next several years. Inclusionary zoning is a method that cities can use to require or encourage new housing and make a certain percent of housing units affordable to low- or moderate-income residents through incentives (Furman Center). Identified in the city of Tigard’s Population and Housing Review Housing Strategies Report, the following incentives that the city of Tigard can use to achieve affordable housing through inclusionary zoning:

- Consider density and height bonuses and adjustments to parking standards to serve as an incentive to develop higher density, affordable, or other needed types of housing in this area.

- Use permit or fee waivers or tax abatement for eligible affordable housing projects.
- Focus development in areas with existing infrastructure and partnering with developers to fund additional needed infrastructure, where appropriate to reduce overall infrastructure-related costs of development.

Often, when redevelopment is occurring in an area the focus is exclusively on those who can afford to live within an area. However cities have a responsibility, as indicated in their comprehensive plans, to provide housing for all income groups. Given that there is projected to be a lot of development within the Triangle over the next several years we recommend that the city of Tigard work to address housing affordability now rather than later, and work to place future housing near transportation networks. It's important for all people, but particularly, low income people, to not only have affordable housing but also housing that is near a well-connected transportation network to ensure they have access to places such as the Triangle Public Market.

A study conducted by Enterprise Community Partners analyzed the impact of affordable housing on families and communities and found that: "investments in affordable housing produce benefits in the form of jobs, local income, sales, increased property values and property tax revenues."

The share of household budgets allocated for transportation has risen dramatically in the last decade, putting pressure on families to cut down on other necessary expenses. The Center for Housing Policy estimates that for every dollar that incomes have increased in the largest metro areas since 2000, combined housing and transportation costs have risen \$1.75. This underscores the importance of preserving or creating affordable housing near public transit. That affordable housing has a positive effect on surrounding property values and is more likely when it is attractively designed, well maintained, replacing blighted properties and located in strong, mixed-use communities.

We recommend that Tigard use mixed-use, mixed income to provide affordable housing around transportation networks in a way that facilitates the creation of place. Utilizing the Power of 10 not only allows for cross-cultural and cross-income communication but also breaks down stereotypes about groups, to focus on fostering a sense of identity and community for residents. Additionally, affordable housing serves as a catalyst to foster a high quality of life and low carbon footprint within the Triangle

## **Triangle Public Market**

### **Defining a Public Market**

Markets across the world vary greatly according to the characteristics of its location. We will define the Triangle Public Market to enhance and enliven the existing and future community in Tigard. Generally, a public market is defined by its model as a year-round market with a variety of owner-operated shops and stalls.

### **Why a Public Market for the Triangle?**

A public market serves multiple needs and has the opportunity to engage existing and future populations socially, politically, and economically. The 2014 Development Feasibility Analysis Report states that "one-story retail is not likely to be feasible, given current market rents, without subsidies." Furthermore, the Strategic Plan identifies the barriers to small scale retail include limited existing residential densities and a landscape of underdevelopment. Establishing public-private partnerships to support the Triangle Public Market will eliminate the barriers to small entrepreneurs.

Some logical partners to reach out to could include the Chamber of Commerce, Downtown

Alliance, Farmers Market, Broadway Rose Theater Company, and the Historical Association. Within the city, the Committee for Community Engagement, Pedestrian and Bicyclist Subcommittee, and the Youth Advisory Committee could be approached for feedback and to gauge interest in working on the project.

The Market has the potential to have numerous positive impacts on the community in the Triangle. Through the phased-development process, the Market will evolve as a community-oriented urban center that will help spur economic activity and cultivate social capital. The Market is also an opportunity to set a standard for sustainable, urban design.

Tigard already has the foundation to support a Public Market with diverse economic development tools, successful small businesses, and similar pop-up events downtown. Downtown, there are several events and event spaces for Farmer's Markets and other pop-up events. City Hall has rotating food carts outside. Tigard is also home to several start-up businesses who may be interested in the Public Market model. Nothing like this is happening in the Triangle, and that could change in order to attract new residents and businesses and promote the lively space it desires to be. Tigard has many businesses that could be well suited to adopt the public market model and potentially open a stall in the Market:

- Indio Spirits, distillery
- Koi Fusion, food truck
- Patty-cake, Patty-cake, bakery and wholesaler
- Stash Tea Company, retail store and tea bar
- Zuñiga Foods, homemade salsas

Many of these businesses attended the Taste of Tigard, which brought over 3,000 Tigard residents to the Rotary Plaza on a Saturday in June. While some companies have an established community in Tigard's burgeoning downtown, others may be a perfect fit for a stall in the Market. The Triangle provides a market of thousands of employees and students each day. With the right blend of city support and committed businesses, the Public Market will likely thrive in the Triangle.



Figure 12: Food Truck at the Tigard Farmer's Market.

Tigard has multiple business resources online, including resources to start a business in English and Spanish, and links to support women and minority owned operations. Tigard is a city that supports new businesses, and the Triangle is a nexus of opportunity as the Lean Code, placemaking efforts, and well-connected transportation network work together to create an inviting climate for start-ups.

## Phased Development

### Immediate

First and foremost, short-term pop-up markets can pilot the concept with the existing population of approximately 420 residents and 7,700 employees. These temporary events generate excitement and provide an opportunity to engage the public in conversation about their ideas and needs for the community. These markets are temporary, but recurring, and a great way to test different locations and gather community input.

### Mid-term

After gathering and summarizing a community vision and working with stakeholders to identify an optimal location and basic framework, the Triangle Public Market will be ready to upgrade to a permanent home.

Recommendations for the mid-term Public Market:

- Highly accessible by walking, biking, and public transit
- Minimalist structure to allow for multiple uses
- Design that allows for seasonal use
- Integration of natural features, either by integrating existing features or adding rain gardens, edible landscapes, or play spaces

There are more than 9,000 residents within a one-mile radius of the Triangle, and more than 18,000 within what should be a five-minute drive time (Strategic Plan). The mid-term goal is to



Figure 13: Davis Farmers Market

establish the Market in the community and provide an opportunity to engage the surrounding residents during evening and weekend hours.

The goal of the Public Market is to welcome all populations. As a covered structure, the space would be a likely gathering place for transient populations. Rather than exclude these people from the public space, the market could offer positions in maintenance and management during overnight hours. The market could also dedicate landscaped areas around the perimeter as community garden space. This model has worked successfully in many communities to bring people together who would not under normal circumstances interact. While some elements of these programs will require staffing and oversight, the city of Tigard will hopefully see positive gains from building places that are truly for everyone.

## Case Study: The Lot, Bend, OR

The Lot transformed from a vacant space in a mixed-use neighborhood to a thriving market-complete with an all seasons bar encompassed by rotating food trucks. The Lot hosts events on weeknight to bring people in for trivia, open mic, and live music. The structure is minimal, but designed to host groups of all sizes and promote socialization.

The Lot characteristics:

- Along pedestrian routes and close to residential
- Open-containers allowed (within The Lot)
- Variety of events to attract different groups
- Family- and dog-friendly

Anticipated Challenges of mid-term implementation :

- Securing the structure at night
- Managing noise during late or early hours
- Securing a partner who will maintain the community vision
- Management of the facilities and tenants



Figure 14: The Lot in 2012



Figure 15: The Lot in 2013

## Long-term

According to Durhan-Jones, author of *Retrofitting Suburbia*, there are one thousand or more “ghost-boxes” (former big-box stores) now present in the U.S. “While these empty or declining structures may once have been the pride of the municipalities in which they were built—providing significant tax revenue, jobs, and consumer choice—today they lower property values, spread blight, and diminish opportunities.”

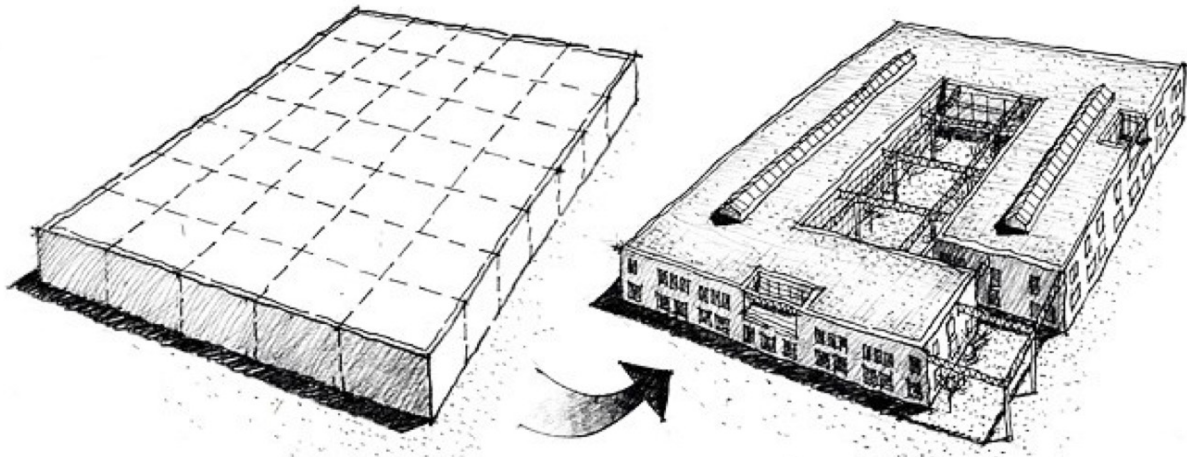


Figure 16: There are at least one thousand “ghost-boxes” throughout the United States.

Many of these long-standing chains are overloaded with debt, often from leveraged buyouts led by private equity firms. There are billions in borrowing on the balance sheets of troubled retailers, and sustaining that load is only going to become harder – even for healthy chains (Townsend). As some stores vacate their locations, communities are faced with an opportunity and a challenge. These stores have large footprints, more parking than they need, single-story structures, and lack connectivity to the grid. In cities that have already seen stores leave, these sites have been transformed into schools, libraries, and mixed-use main streets by retrofitting the existing infrastructure and reconnecting to the transportation network.

“Suburban retrofits further contribute to economic sustainability by reversing the blight associated with vacant properties ... Living in a transit-served location also allows a household to concentrate its wealth in real estate, which is likely to appreciate, rather than in automobiles, which depreciate.”

A Public Market Renovation provides the community with several points mentioned by Durhan-Jones:

- Public space
- Improved pedestrian connections and encourage higher density living
- Positive identity to previously amorphous suburban municipalities
- Reduced impervious surfaces and the inclusion of trees, parks and greens

Furthermore, she highlights three significant demographic trends that indicate how promising retrofitting may be as a means to increase the economic, social, and environmental sustainability of American suburbs:

- Baby boomers prefer to “age in place,” but this population is not well-served in car-oriented suburbs
- Suburbs have an existing supply of single-family houses, but there is a growing demand for multi-family units
- Dynamic culturally diverse environments are attractive to this young, creative, increasingly diverse populations

In the long-term, the public market could “age in place” in its mid-term location, or if the opportunity presents itself, relocate to a vacant big-box store. The mid-term location could function as a park or event space, and still host some stalls or food trucks at certain times.

Recommendations for the long-term public market

- Highly accessible by walking, biking, and public transit
- Home-grown aesthetic
- Landscape that is harmonious with public use and the regional climate  
Distinctive signage to orient visitors and create identity
- Meets residents' needs, through family-friendly, culturally relevant offerings
- Regional draw in the Portland Metro area
- Visible from transit areas  
Focus on the agricultural bounty of the Willamette Valley



Figure 17: LA Public Market  
Source: Los Angeles, Images: Ratkovich Company / Jerico Development

## Implementation

### Community Engagement

The Triangle Public Market will be a multi-year project that will involve trial and error. We recommend beginning the process with pop-up events that emphasize creative engagement techniques to get the community excited. For these processes, there is no idea too big or small for the Triangle. The responses will inform the community vision. At a point when the market plan is progressing, the establishment of a Visioning Committee for the project will help ensure that the community is satisfied with the results. This group might include people elected or volunteer citizens who were engaged by pop-up markets, business owners, and community members.

### Visioning Committee

- Understand and advocate for community values. This may happen in a variety of ways, from informal conversations to a public charrette. Support planners in identifying suitable sites.
- Forge partnerships with community groups, such as neighborhood and merchant associations.



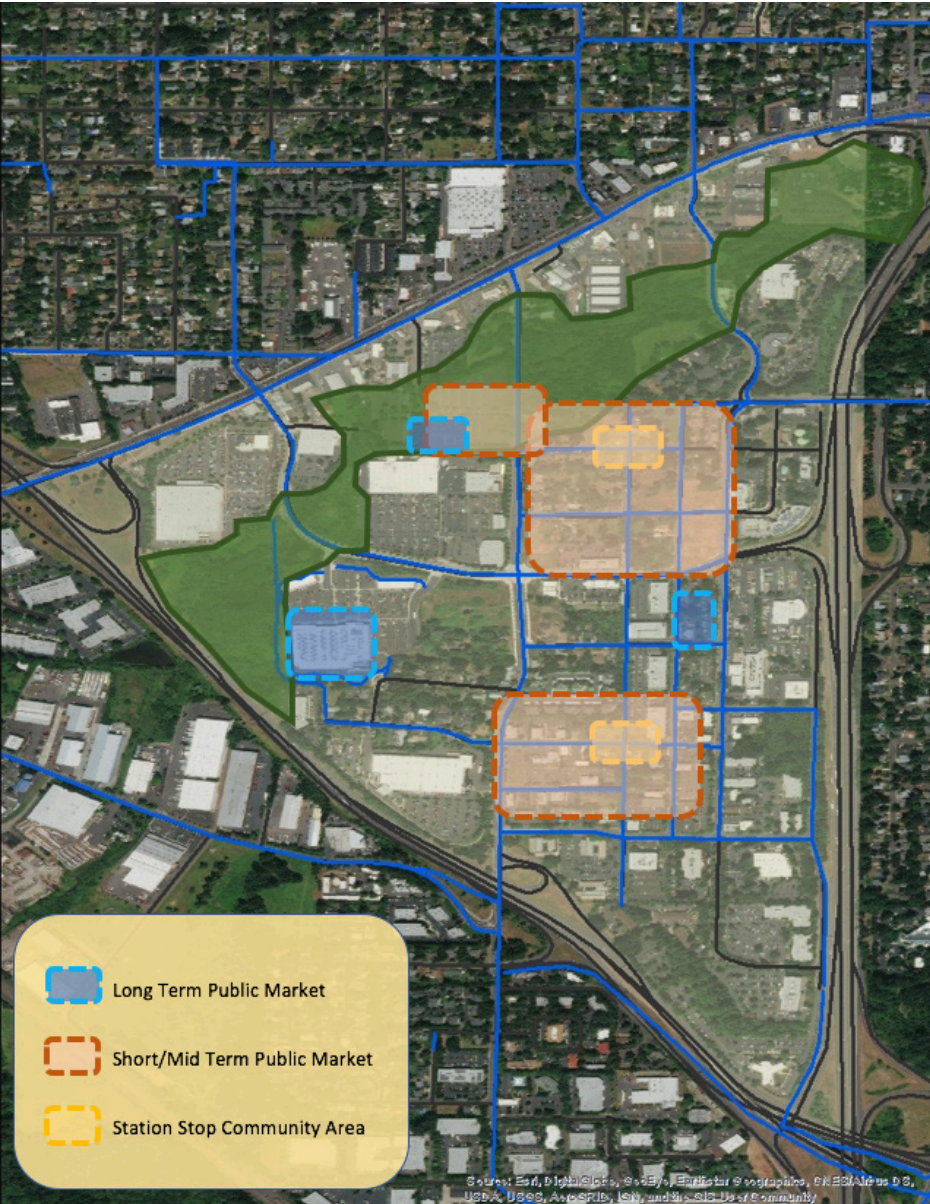


Figure 18: Proposed Public Market Phased Development

**Market Management**

- Develop a mission.
- Open to different types of vendors – those selling food, dry goods, or crafts.
- Develop partnerships and programs to make the market economically accessible, such as accepting SNAP, WIC, or Double-Up Food Bucks ([www.doubleupfoodbucks.org](http://www.doubleupfoodbucks.org)).
- Dedicate space for those who are experimenting with business and for those in “temporary but periodic businesses.”
- “Structure and enforcement should invite experimentation” (Morales).
- Develop the Public Market concept, including a merchandising plan, market design, operating proforma, sponsorship and management plan, and leasing strategy (PPS). Coordinate and manage tenants, marketing, and operation (PPS).
- Monitor and evaluate programs and policies.

## Business Incubation and Community Development

- Assess market demand, vendor interest, and shopper interest. Advertise and promote the Public Market.
- Establish information channels so that potential service providers can more easily address merchants. Create resources and support services to support new and growing businesses.
- Support fledgling businesses to transition to “brick and mortar” storefronts.

## Baseline Site Conditions

- Accessible—consider neighborhood intersections and station stops to capture foot traffic.
- Existing utilities and infrastructure.
- Minimal ecological encroachment.
- Visible from multiple vantage points.

A key consideration for the public market will be to determine the most effective financial model. Some markets rely on outside funding to operate, while others are able to become self-sufficient. Both models are functional, depending on the communities’ needs. Creating a market that functions as a community destination will add to its bottom line. In addition to these financial considerations, we recommend the use open space, connectivity, transit-oriented development, and art to possibly help contribute to making a dynamic public market.

## Open Space and Trails

### Short-term

- Community involvement projects such as replanting, partnering with schools to design interpretive signs, developing wayfinding signage, and pop-up events to generate interest in future park sites.

### Long-term

To preserve, restore, and celebrate natural areas, creating a network of open spaces that are accessible within a 10-minute walk from anywhere in the Triangle.

- Red Rock Creek corridor will be restored and expanded to serve both a natural and recreational amenity. Trails through the park will serve both recreational and commuter movement through the Triangle. Red Rock Creek will be a defining characteristic of the Triangle.
- Existing natural areas will be developed into appealing parks with amenities such as picnic tables, shelters, restrooms, and play areas. Particular sites of interest are in the southern and eastern zones of the Triangle.
- Certain streets will be developed as linear parks, or “greenways,” with features such as native planting, street furniture, paths, and interpretive signage.
- Gathering spots such as amphitheaters or stages will be incorporated into conducive areas.
- Open space development will work in conjunction with plans for storm water management, restoration, day-lighting of covered water, and other ecological improvements.

- Open spaces will be accessible to all users, regardless of age or ability.
- Open spaces will be connected through network of pedestrian and bicycle paths.

See Appendix M for Proposed Open Space Network map.

## Connectivity

In all of our recommendations, we emphasize the importance of connectivity in both the short- and the long-term. Walkability, multi-modal connectivity, and access are important features within multiple planning documents associated with the Triangle. For example, the Tigard Triangle Strategic Plan lays out goals and strategies for making the Tigard Triangle “...an active multi-modal district...”

The most robust strategy that encompasses not only strategic goals established in the Tigard Triangle Strategic Plan and other planning documents but also citizen involvement is the Value of Place Report. Our recommendations include work by Delta Planning, Portland State University, the city of Tigard, and State of Place. It includes recommendations drawn from interviews with residents and visitors alike.

We suggest that the recommendations laid out in the Value of Place Reports “Alternative 2: Neighborhood Centers” be implemented with some slight changes to incorporate elements of the reports “Preferred Alternative” and accommodate the eventual Triangle Public Market (see Appendix N for the connectivity maps).

Using quantified data gathered through public input walkability and pedestrian amenities, along with other attributes, were scored on a block by block basis. Though the Triangle, in general, receives low scores for amenities, certain areas are very walkable. This is the result of intermittent pedestrian infrastructure, but low traffic in high scoring areas and high traffic in low scoring areas. In general, the Triangle lacks pedestrian amenities. Mixed-use development beginning in the station stop communities of Baylor/ Clinton and Beveland should be initial starting points and the eventual goal for all connectivity projects.



Figure 19: Granville Island Public Market  
Source: [thingstodoinvancouverbc.com](http://thingstodoinvancouverbc.com)

## Recommendations

The Value of Place gives significant attention given to the 70th Street corridor. We also suggest focusing on this area, as it has been identified as a transit route and has potential for a pedestrian walkway or linear park. Work can begin on this immediately and can be amended in the event of light rail expansion. Other primary interest areas are intersections along the 72nd Avenue corridor and the Baylor/Clinton and Beveland areas. These improvements should be carried out as soon as possible to improve mobility in the short-term.

### Transit Oriented Development

Transit-oriented Development (TOD) is an increasingly popular trend within the planning and development world. It creates vibrant, compact, and walkable, mixed-use communities focused around train, bus, and other forms of public or mass transit. It addresses increased access to pedestrian infrastructure and amenities. If done correctly, it creates more equitable and diverse communities accessible to all income levels and demographics.

TOD utilizes robust and varied outreach, and community oversight and involvement.

- Organized community groups and an active local constituency.
- A willing local government and receptive development principles and players.
- Culturally literate and relevant policy.

The Triangle is one of the low income areas in the city of Tigard. TOD can be a boon to a local economy but can also be a powerful force of gentrification. In order to ensure displacement is minimal, or avoided all together, we suggest the city consider the needs of all income levels in housing development:

- Housing is mixed-use, mixed-income, and accessible.  
All cultures, ethnicities, and identities feel welcomed.
- Design standards and uses are diverse, varied, and accessible.
- At all levels the local community are involved.
- In the Triangle, TOD can be employed in the immediate to identify potential community hubs located along existing transit routes as well as proposed light rail expansion routes.

Community hubs such as plazas, parks, open areas, and the development of the Triangle Public Market can act as attractions and development hubs for TOD strategies.

### Potential Station Stops in the Triangle

TriMet has identified two potential station stops in the Triangle:

- Baylor or Clinton and 70th Avenue in the north
- Beveland and 70th Avenue in the south

Potential station stops are the ideal places to begin building communities and implementing placemaking and TOD strategies. However, it is important to remember that TOD does not wholly depend on the expansion of the light rail. Though probable expansion is not inevitable in this orientation, TOD can be placed around:

- Improved pedestrian and multi-modal linkages.
- Bus or other rapid transit access.
- More efficient use of existing transportation infrastructure.

The city of Tigard High Capacity Transit Land Use Plan outlines a potential vision for these proposed stations areas in the Triangle.

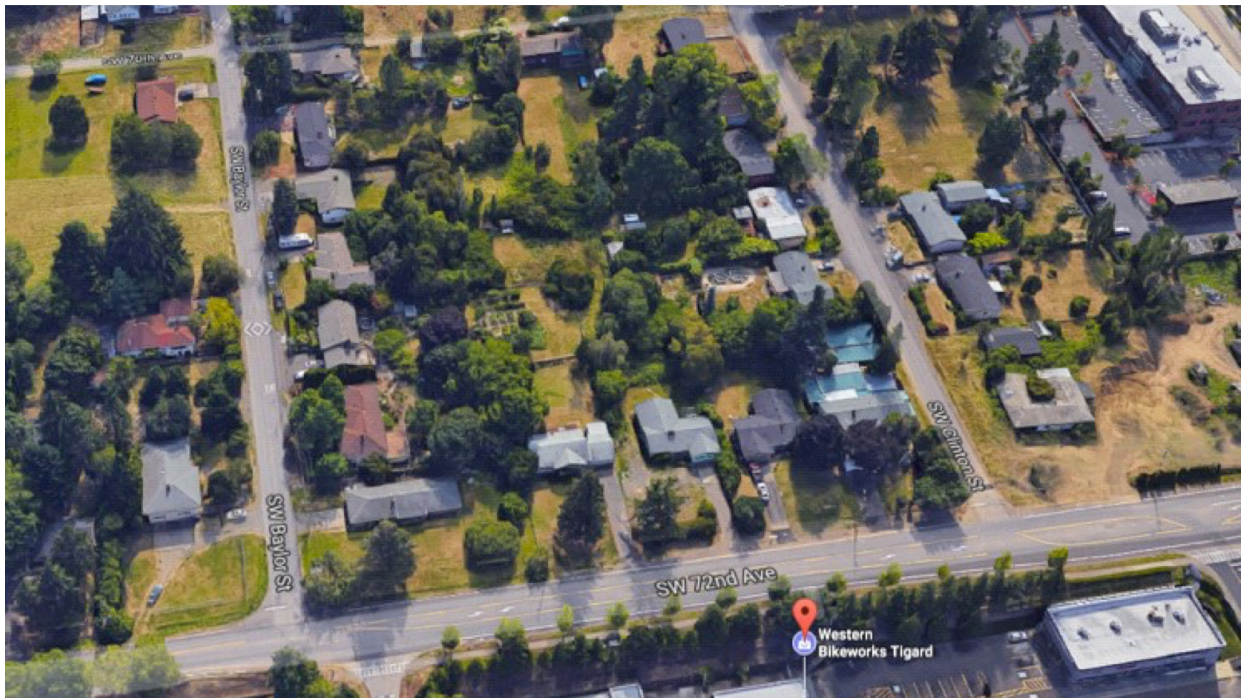
## Station Stop Communities

The Baylor/Clinton and Beveland street corridors have been identified as potential station stops in a light rail expansion.

**Baylor/Clinton** in the north is the center of single family home residential and home to the majority of buildable and redevelopable lands according to the 2017 Buildable Lands Inventory conducted by the city of Tigard in compliance with Oregon State Goal 10.

- Vacant lands/ underutilized can be acquired using urban renewal funds.
- Identified lands can be developed into transit hubs, open space, or sold for development with certain stipulations.
- Housing should be preserved where possible. Mixed-use mixed income infill development should be priority.

The Baylor/Clinton corridor contains an abundance of vacant land and the majority of the single-family home construction in the Triangle. It currently has limited pedestrian infrastructure. Streets are narrow and lack sidewalks. Blocks are large and at times incomplete, limiting walking connectivity and mobility. However, according to the State of Place Report, streets in this area receive high safety ratings due to low traffic and a residential nature, and high marks for Urban form resultant due to the traditional single-family home neighborhood layout. Yet, there is limited proximity to goods and services, or connectivity to the larger Triangle.



*Figure 20: Baylor streetview looking east from the intersection of 72nd. Typical neighborhood form in this area is devoid of larger pedestrian infrastructure such as sidewalks.*

**Beveland Street** in the southern end of the Triangle is the existing commercial and small business hub. The majority of office development, small businesses, and small commercial development is found here. There are two colleges nearby and apartment housing directly north of Beveland Street. Focusing additional TOD and commercial development here builds on what is already present and provides a platform for increased mixed-use infill.

- Increasing transit and pedestrian infrastructure amenities builds larger connectivity networks allowing people to move freely and easily from home, work, and commercial places.
- Underutilized parking lots and lands are places to focus for increased residential and commercial development.
- The community center and hub should be the station and the immediate surrounding area or developments such as public markets and community spaces directly adjacent or a short distance away.



Figure 21: Beveland Street View

Beveland and the surrounding area is the hub of commercial activity in the southern Triangle. The majority of small business and office developments are found here, two different colleges are nearby, and there is apartment housing in the vicinity. Many streets in this area receive high State of Place Index scores for Personal Safety and already have existing pedestrian infrastructure such as sidewalks and some street amenities.

### Recommendations

- Increasing street amenities and adding pedestrian infrastructure where absent will increase accessibility and index scores. Underutilized parking areas are prime locations for dense infill and mixed-use development.
- Beveland Street between 72nd Avenue and 70th Avenue receives an index score of 35 (State of Place). This is typical of this area, with scores ranging between 30 and 42. Pedestrian amenities and connectivity scores are highest in this area showing potential for great pedestrian interaction.

### Station Stop Corridor in the Triangle

The area between Baylor/Clinton and Beveland Street should be the focus of increased pedestrian and multi-modal connectivity projects. The twofold results will be increased mobility



Figure 22: Station Stop Corridor

between the two community hubs, and a reduction on reliance on automobile travel. Getting people out of their cars and interacting with the land, and each other, is an important step to creating healthy and dynamic communities.

**Implementing Transit Oriented Development**

TOD strategies provide a template for creating vibrant and livable communities in the Triangle. The two corridors and station stop community sites examined have all the necessary ground work to begin building dense, walkable, sites centered around vibrant public space and a multitude of retail and restaurant options.

The Portland Metro area has a series of TOD guidelines and a larger investment program that Tigard can take advantage of and use as a template for future design and layout. Some of these guidelines are addressed within the High Capacity Transit Land Use Plan. Under this framework Tigard, would be designated as an emerging transit related community. The Triangle is in a prime location to absorb population growth from the larger Portland Metro area and areas within the Triangle have already been identified as potential stations in the event of a light rail expansion. This allows Tigard city government and local authorities to take advantage of certain Metro resources and planning assistance programs. While Metro and Metro TOD funding programs cannot take full responsibility for TOD strategies and promotion, they can provide a powerful tool for communities to use a template. The chart to the right lists activities appropriate for various community TOD typologies.

This assessment helps guide investments as communities move along the spectrum from long range planning activities to infill and enhancing present development.

Metro also provides a series of grant opportunities available to developers and municipalities for projects ranging from TOD infrastructure improvements to placemaking. These resources can support Tigard as it moves closer to realizing TOD and station stop community developments.



## Connectivity and Accessibility

### Long-term Vision

- Transit oriented development
- Access in and out of the Triangle  
A significant constraint to life in the Triangle are the three large highways that disconnect it from neighboring areas. Creating safe access points is crucial for the future of the Triangle, as it will become more inviting to outside visitors and less constricting to residents. Access can include safer street level pedestrian crossings as well as highway overpasses and underpasses.

### Bike- and Car Share Systems

- Establish a service in which bicycles are made available for shared use to individuals on a very short-term rental basis. Bike share schemes allow people to borrow a bike from point 'A' and return it at point 'B.' Many bike-share systems offer plans that make the first 30-45 minutes of use either free or very inexpensive, encouraging its use as transportation.
- Develop a system of car-sharing within the Triangle. This could be in the form of a commercial business or the users may be organized as a company, public agency, cooperative, or other type of grouping. Car-shares provide an affordable means for residents to make an occasional vehicle trip while mostly living a car-free life style. They also can reduce the number of vehicles present in the Triangle, leaving more space for other development and open-space.

### Active transportation incentives

- Utilize programs such as Bike Benefits ([bikebenefits.org](http://bikebenefits.org)) that partner with local businesses to give discounts to customers arriving by bike. This system has proven to increase both bike transportation, commercial activity, and customer loyalty.

### Station stop development

- Develop hubs of residential and commercial activity near proposed station stops. This will condense usage and make daily commutes more efficient and enjoyable.

### Metro offers the following framework for developing TOD communities:

- An assessment tool designed to classify community amenities and readiness for TOD strategies.
- Planning partnership programs to build TOD communities and ensure readiness for expanded transit opportunities.
- Working with long range planning strategies to build robust communities and increase partnerships and connectivity.
- Catalyze and Connect. After planning has begun and strategic interventions have been identified as catalytic forces Metro and local government partners are able to focus resources on building connected and robust communities.
- Finally, Infill and Enhance. Once a TOD community has been established and is functioning Metro resources can be used to enhance local amenities, invest in "proto-typical" projects, and programs to reduce auto dependence. Specific resources can be used to focus on low to moderate income housing and mixed-use, mixed income developments.



## Triangle shuttle

- Develop and convenient, accessible shuttle that circulates between major points such as transit hubs, the public market, and Downtown Tigard.

## Short-Term Vision:

- Enact pop-up bike lanes to experiment with route design, generate interest in local biking, and start unveiling the future of Triangle transit.
- Create network of wayfinding signage to communicate distances and destinations with people at the pedestrian and bicyclist level.
- Start adding street furnishings, such as benches, lighting, trash cans, etc., and amenities to meet pedestrian/bicyclist needs.
- Construct pedestrian safety features and traffic calming measures to intersections, such as raised crossings and intersections (which both increase pedestrian visibility and slow down cars), pedestrian head start intervals, protected left turns, and “no turn on red” signs. Stage events that promote streets as places, such as closing streets to car traffic for a festival or taking over parking spaces to create temporary installations. Pop-up events provide “testing” time for a design and allow for the community to feel a sense of ownership. These events also allow for the community to embrace unique cultural programming.

## Arts and Innovation

Long-term goal: Foster community-based creativity and develop a distinct home grown aesthetic.

The city of Tigard may choose to develop a local task force or neighborhood group to promote arts and innovation in the Triangle. Goal 1 of the Tigard Comprehensive Plan includes establishing special citizen advisory boards and committees to provide input to the city council, planning commission, and city staff. A group of dedicated citizens can oversee the development and implementation of creative projects. This could start as a volunteer group and potentially build into a formal organization, employing local residents. The citizen’s association



Figure 23: Arts and Innovation  
Source: UMass Amherst, Arts Extension Service

“Forum Vauban,” is an excellent example. This group applied to coordinate the participatory design process in Vauban, Germany and was established as a legal body to oversee design of the project until completion (See Appendix O for Vauban case study). Characteristics of using arts and innovation to develop a unique community aesthetic include:

- Utilize buildings that reflect community
- Utilizing general form code and ecological standards, new development should use citizen input to create individualized buildings. The Triangle has the opportunity to be known as a district that encourages innovative design, rather than uniform suburban development.
- Maker spaces and work-live buildings can be a cost effective way to promote local creativity and encourage an influx of dynamic residents.
- Coordinate with the Downtown Tigard Alliance to create a complementary system of local art initiatives that include linkages to downtown arts identity.

### **Designs by local students.**

Partner with schools, including elementary through college, to create designs that reflect the local community. Group projects and design contests not only engage the community, but are a successful way to generate unique work at minimal cost.

Adaptive Reuse. Creatively redevelop underutilized areas and structures for community needs. If some big box stores fold, as studies predict, these buildings can be repurposed as public markets, community centers, housing, schools, libraries, art studios, design contest sites, athletic facilities, museums, and so much more!

- Provide a unique sense of identity, transition, and anticipation through gateways.
- Incorporate architectural features and signage to serve as gateways.
- Maximize the use of bridges and overpasses to offer connection in and out of the Triangle
- Include public art or sculptural displays into the design of a gateway.

### **Short-term**

- Administer community surveys and community engagement at events to understand the desired aesthetics of the local residents.
- Partner with local students and artists to develop creative wayfinding, street furnishings, neighborhood branding, and street art.
- Use pop-up events such as art making or live music to generate activity and excitement about future site development. Sites could include the large parking lot at the Regal Tigard 11 Movie Theater and the vacant lots in the Baylor/Clinton area.

### **Next Steps for Placemaking in the Triangle**

Placemaking does not take place over night, but there are several *lighter-quicker-cheaper* opportunities to begin activating space in the Triangle. Pop-up events can be used to generate interest and identify people who are interested in being involved in the community engagement process. In addition to planning one-time events, the city has an opportunity to engage in transit-oriented development to prepare for future light rail extension. There are numerous well thought out connectivity plans that will encourage people to use active modes of transportation around Tigard. The city can consider these plans in a new light after reviewing the placemaking ideas for downtown and the Triangle.

For a look at a public market that truly active a community and shaped its identity, city staff might be interested in reading the case study of Granville Island Public Market in Vancouver (Appendix P).

## Red Rock Creek

Our vision situates Red Rock Creek as a vital cultural and ecological component of Tigard and the larger riparian network. The unique character of cities in the Pacific Northwest evokes integration of urban amenities with the natural environment. In Oregon’s metropolitan areas, the enduring dream of a city in the forest drives decisions about infrastructure and community character alike. Our plan hope to give Tigard an opportunity that only happens once in a generation—to create a city that champions this urban identity, that actualizes the concepts of “sustainable growth”, “connectivity”, and “walkability.” Tigard has the opportunity to be among the most iconic cities in the Northwest, with open space, urban forests, and connectivity as the axis on which the community’s identity revolves. Well connected urban trails occupy a critical role in the marriage of the city with the forest by enabling constituents to interface with the natural environment as they perform day-to-day tasks. Facilitating habitual, everyday intimacy between citizen and landscape reinforces a culture of stewardship and serves to intertwine municipal and natural features.

The role of Tigard and the Portland Metro area in the regional economy and watershed will only grow in the future, and the relationship between people and how we live in urban spaces will inform that growth; how we enjoy and draw life from the land is only going to become more important as we face climate change and population growth. Coupling the development of a multi-use trail along Red Rock Creek with restoration of the creek itself can instigate and sustain this kind of meaningful connection between people and place in the Tigard Triangle.

A multi-use trail along a restored Red Rock Creek would facilitate active transportation connectivity to the broader network of trails, sidewalks, bike lanes, and public transit routes in the Southwest Corridor. As a component of a 1,200 mile system of regional trails, a creek trail through the Tigard Triangle can expand access and use of existing trails, while incentivizing denser and more pedestrian-friendly development in the Triangle itself. An active transit corridor along Red Rock Creek would promote Tigard’s constituent-indicated goal of becoming a more walkable, active community. Restoring creek health enhances the integrity of the greater watershed, while the trail facilitates citizens’ bonds to the natural landscape. This bond nurtures a civic culture of connectivity that extends beyond linkages to trail and transportation networks and connects citizens to the very landscape that comprises the region.

## Summary of Recommendations

Our vision merges restoration with trail development and open space, revitalizing the natural landscape while expanding public access to that landscape. Integrating active transportation goals with creek restoration will ensure that the Red Rock Creek trail optimally fulfills its potential to serve as a vibrant component of several interrelated networks, among them riparian, railway, transit, and open space. We envision a clean, healthy creek, vegetated by native plants, and connected with its floodplain. This creek would fulfill an array of ecosystem services, reducing on street flooding and balancing distribution of sediment. We envision a trail that follows the length of the creek as it passes through the Tigard Triangle, facilitating safe crossings and convenient, comfortable access to the Triangle’s businesses and employment centers. Strategic pedestrian and cyclist amenities could invite constituent use and enjoyment, with signage apprising users of sensitive ecologies and restoration efforts.

## Restoration in the Triangle

Tigard’s official plans and actual projects evidence their interest in restoration. Our plan for restoration builds off the city of Tigard’s objectives. The Tigard Comprehensive Plan’s Goal 5: Natural Resources, Areas, and Open Spaces and Goal 6: Environmental Quality, envisions more effective preservation of natural resources, including the restoration of ecological

functions. The Comprehensive Plan guides Tigard’s land use policy to protect and enhance vegetation, use watershed-based conservation strategies, remove invasive species, preserve riparian buffers, and restore or enhance stream corridors. Goal 2: Land Use Planning, focuses on the city’s urban forest canopy, a critical aspect of urban character as well as stormwater management (Tigard Comprehensive Plan).

The 2015 Tigard Triangle Strategic Plan and city of Tigard Stormwater Master Plan provide specific recommendations to associate stream restoration with recreational development, as well as to address scouring along sewer lines. The plan also advocates for the development of a green street system in the Triangle to incorporate stormwater mitigation into the open space network.

Tigard’s Stormwater Management Master Plan highlights opportunities to address existing creek conditions, proposing a series of capital improvement projects to enhance watershed function, slow stormwater, provide riparian habitat, and manage sediment deposition (City of Tigard Stormwater Management Master Plan, August 2017). This document provides invaluable information on the exact condition of the creek, floodplain, and wetlands in the Triangle. The Tigard Stormwater Management Plan and similar urban creek restoration projects inspire our recommendations for bank stabilization, grade controls, floodplain reconnection, wetland enhancement, daylighting, sediment storage, native tree and shrub planting, and low impact development strategies. The plan’s 18 proposed capital improvement projects address watershed quality and manage stormwater through property acquisition, floodplain connectivity, increased capacity, structural grade controls, sewer line protection, daylighting, and other riparian or wetland enhancements (Tigard Stormwater Management Plan).

The city has an opportunity to address channel erosion, reduced water quality, flooding, and downstream sedimentation in Red Rock Creek system. Development of impervious services in the watershed precipitates these issues (FTCWMP, 2008): Increasingly heavy stormwater flows over the past 30 years have eroded banks, threatened sewer lines near the creek bed, and degraded water quality downstream (City of Tigard Stormwater Management Master Plan, August 2017). Eroded soils have blocked culverts and filled in wetlands, reducing stormwater retention capacity of the system and impacting aquatic habitat (FTCWMP, 2008). Creek restoration can also be integrated into transit oriented development to promote the use of open, natural areas and foster an active community (Appendix Q).

## **Creek Flow and Capacity Recommendations**

Successful restoration projects in the Portland area provides a toolbox of enhancement methods for the Red Rock Creek riparian corridor. We recommend combining techniques used by Johnson Creek, Westside Trail, Restoration Creek, South Ash Creek, Newell Canyon Creek, and other local projects to address structural creek restoration in the Triangle. This five phase structural project will work in conjunction with invasive plant management, the addition of native species to the urban canopy, and low impact development techniques. Projects proposed in the Tigard Stormwater Master Plan inspire these five phases.

Because urban forests, stormwater, and the creek corridor are managed by different departments and addressed by a variety of plans and codes, Tigard should create a “Triangle and Red Rock Creek Restoration Master Plan” to coordinate interrelated watershed restoration and open space efforts. In doing so, Tigard can coordinate with stakeholders and potential partners to begin this restoration project in earnest, starting with on the ground structural changes to address flooding and sewer line exposure. Subsequent monitoring and removal of invasives and low impact development initiatives throughout the Triangle will aid in stormwater management while improving infrastructure aesthetic.

We propose starting **Phase 1** at the most upstream portion of the creek’s course through the Triangle.

Here it flows beneath I-5 into a roughly five-acre woodland between the highway and SW 68th Parkway, dropping steeply as it travels downstream. Unmanaged stormwater has incised the creek, here, creating vertical banks (Stormwater Management Plan). This contributes to downstream flooding, erosion, sedimentation, and reduced water quality by increasing quantity and speed of stormwater flow. We propose the acquisition and management of the woodland, enabling the city to build a series of structural grade controls to mitigate problems downstream. The Portland Bureau of Environmental Services project to restore the two small tributaries to South Ash Creek uses a similar strategy to improve watershed health through the entire downstream system by targeting upstream locations.

## Illinois River Site 5: Tahlequah – Kaufmann

Boulders & logs in new  
channel



Figure 24: Phase 1 of Red Rock Creek enhancement.

Grade controls encompass a variety of alterations to stabilize both streambed and channel by slowing water flow, including creek realignments, rock structures, concrete weirs, and log jams (USDA NRSC National Engineering Handbook Technical Support 14G- Grade Controls). The NRCS National Engineering Handbook presents detailed information on grade stabilization techniques, confirming that, “Grade control is an essential component to stabilize a degrading stream,” and that these techniques have been very successful in severely incised channels (USDA NRSC National Engineering Handbook Technical Support 14G-1) Figure 13 illustrates structural grade controls created from a combination of man-made and natural materials—specifically boulder, gravel fill, geotextiles, and logs. A Metro grant funded a similar project in Johnson Creek at Milwaukie Riverfront Park, where logjams and stone riffles were constructed to expand fish habitat and slow flows (Yuxing Zheng, Restoring Rivers, Metro News, April 20th, 2016).

**Phase 2** would address the creek as it flows through an eight-acre woodland between 68th Parkway and 72nd Avenue. Due to critical bank incision, the creek no longer interacts with its natural floodplain, threatening a nearby sewer line, exacerbating downstream sedimentation, and compromising riparian habitat (see Appendix O, Phase 2: Floodplain Disconnection for illustration of channel incision and floodplain disconnection).

Gaining access to these 8-acres through easements or land acquisition will allow the city to add streambed fill and structural grade controls to reconnect the creek to its floodplain. In Portland's Dickinson Park, BES plans to reconnect tributaries of South Ash Creek to their natural floodplains using similar structural controls, re-grading land adjacent to riparian and wetland areas to bring channels closer to their flood-plains (BES, Dickson Park Stream Enhancement Project,2017). According to the 2005 Portland Watershed Management Plan, connectivity between waterways and their natural floodplains provides habitat benefits for terrestrial and aquatic animals, slows stormwater, and reduces flooding (Portland Watershed Management Plan page 43). The 2001 Johnson Creek Restoration Plan argues that "Re-establishing floodplain connections... restores processes important for slowing velocities, lowering local water surface elevation, and detaining floodwaters via depression storage, infiltration, and decreased travel time."



*Figure 25: Phase 2 of Red Rock Creek enhancement. Examples of Grade Control.  
Source: Jennings Environmental LLC*

Stephens Creek in southwest Portland is also paralleled by a sewer line. Like in Red Rock Creek, storm flows eroded the banks and streambed, exposing a 60-year old sewer pipe (Mark Peters, Working for clean rivers: Burlingame Sewer Repair and Streambank Enhancement Project Update, Portland Bureau of Environmental Services, April 2012). Portland BES worked to repair the sewer line and improve stream conditions simultaneously. In 2006 they repaired the sewer pipe, then in the following years reconstructed the streambed and channel, removed invasive plants, and restored native vegetation (Peters, 2012). Structural grade control and floodplain reconnection techniques like rock weirs and bank stabilization mitigated the effects of high storm flows (Peters, 2012).

**Phase 3** addresses Red Rock Creek as it flows south of SW 72nd Avenue through a slim riparian corridor paralleled by commercial parking lots, piped underground for 300 feet as it meanders underneath a section of pavement (Tigard Stormwater Management Plan). The water moves much faster through the smooth, straight pipe than it does through natural channels, substantially altering stream function (BES, Restoration Creek Daylighting Albert Kelley Park, 2017). Previously constructed rock grade controls fail to adequately slow stormwater in this portion of above ground creek (Tigard Stormwater Management Plan, 2017). We propose additional grade controls in the creek leading up to the piped section, as this creek

segment will continue to receive heavy stormwater flows from the parking lots on either side. We also recommend daylighting, regrading, and planting native vegetation for the 300 feet of piped stream, which will reduce stormwater velocities, and improve aquatic habitat. Portland BES daylighted a section of Restoration Creek in Albert Kelley Park in Summer 2017, restoring not only the stream channel but areas for native plant vegetation (BES, Restoration Creek Daylighting Albert Kelley Park, 2017). Portland BES plans to support the existing and thriving Oregon white oak and ponderosa pine ecosystem in the park by planting native trees, wetland plants, and shrubs around the daylighted segment of Restoration Creek (BES, Restoration Creek Daylighting Albert Kelley Park, 2017).

The State of Watersheds Report, FTCWMP, and Johnson Creek Restoration Plan, recommend daylighting piped waterways where feasible to improve habitat and water quality. Between 2013 and 2017, roughly 300 feet of tributary to Tryon Creek were daylighted through Portland's Spring Garden Park as part of a BES project (BES, Spring Park Daylighting, 2017). This project slowed and treated stormwater runoff by directing it through five connecting rain gardens, allowing water to soak into the ground while soil and plants filter pollutants. While the high proportion of impervious surface in the Triangle constrains daylighting possibilities in the Triangle, these successful daylighting efforts illustrate potential benefits.

**Phase 4** addresses the section of waterway that flows from the Regal Cinemas parking lot toward SW Dartmouth Street, sandwiched between the WinCo and Babies "R" Us parking lots. Here, unmitigated runoff has caused serious erosion, blocking the culvert downstream, causing flooding, and threatening to expose an existing sewer line (Tigard Stormwater Management Master Plan). We propose implementation of the Tigard Stormwater Management Plan's suggestions for 500 feet of new structural grade controls along this reach of the creek. Temporary attempts to stabilize the banks near existing sewer lines with Evironlock soil bags have been destabilized by further erosion, illustrating the necessity for more permanent restoration in this location (Tigard Stormwater Management Master Plan, 2017). Eroded soils from the creek block the culvert that runs underneath SW Dartmouth Street, causing localized flooding onto the sidewalk and road during storm events.

Small culverts often fill with sediment, which causes flooding and impedes aquatic species. For example, the culvert that conducts Tryon Creek under SW Boones Ferry Road hinders fish passage and cannot handle storm flows. The culvert also obstructs a local trail, forcing users to cross a busy street (City of Portland BES, Boones Ferry Road Culvert Project, 2017). The Portland BES spearheaded a project to replace the culvert with a bridge on SW Boones Ferry Road over Tryon Creek. This project will also incorporate trail improvements and work to protect an exposed sewer pipe, as is needed in the Triangle. Initiatives in Johnson Creek, Fanno Creek, Crystal Springs, Tryon, and Richardson Creek systems have removed or widened culverts. The Portland Watershed Management Plan and FTCWMP identify culverts as major impediments to wildlife, and causes of flooding in the Fanno Creek watershed. For example, in Portland, on SW 45th Avenue, a small and old culvert carrying Fanno Creek is



Figure 26: Daylighting in Albert Kelley Park  
Source: Portland BES

currently being replaced to improve streamflow and aquatic habitat (Portland BES, Culvert Replacement at SW 45th Avenue and Fanno Creek, November 21, 2017).

**Phase 5** addresses the potential restoration of two wetland areas. Wetlands are integral to both stormwater management and wildlife in the Triangle. Because wetlands store water, decrease flows, and mitigate downstream flooding, the management of wetlands through acquisition, preservation, and enhancement is as an important restoration strategy in the Willamette River Watershed. (Willams and Associates, Ltd., An Evaluation of Flood Management Benefits through Floodplain Restoration on the Willamette River, Oregon, 1996) The Johnson Creek Restoration Plan presents strategies still practiced today, like constructing wetlands where existing wetland function has been degraded and enhancing existing wetlands. (Johnson Creek Restoration Plan, 2001) Wetland preservation addresses several restoration goals: improving wildlife habitat, providing water quality benefits, and stormwater retention capacity. Many former wetland areas in the Fanno Creek watershed have been filled or drained, so efforts to maintain and enhance existing wetlands are critical to restoration efforts in the Triangle (FTCWMP, 2005).

Wetland habitats on Red Rock Creek, downstream of SW Dartmouth Street on either side of Highway 217, present opportunities to store sediment and slow stormwater through a series of excavated wetland sedimentation ponds and structural grade controls.

The construction of grade controls mimicking beaver dams works with excavation to encourage the dispersal of flows into the wetland (Stormwater Management Master Plan). Like most wetlands in the Fanno Creek watershed, the functionality of these areas has diminished as sediment deposition from upstream has steadily increased (Portland Watershed Management and Stormwater Management Plan). Detention ponds create expand sediment deposition spaces, slow stormwater, and more effectively distribute flow into the surrounding floodplain, all the while providing habitat. The Johnson Creek Restoration plan provides detailed recommendations for this kind of wetland restoration. They suggest an average of 3.5 feet of excavation, an inflow channel to direct stormwater from the creek into the wetland, an outlet channel that limits the outflow rate, regrading to increase flow into the wetland, and an emergency spillway to manage overflow (Johnson Creek Restoration Plan, 2001). This plan also advocates that invasive vegetation be removed to allow for re-vegetation of the area with native wetland riparian trees and plants.

One project in the Brookside Wetlands in the Johnson Creek Watershed, started in 1997, included removal of roughly 90,000 cubic yards of sediment to increase wetland capacity by 35-acre feet of floodwater (BES, Brookside Wetland Project, 2009). Westminster, Colorado's transit-oriented development included creation of a flood control pond through excavation and rerouting of Little Dry Creek. This established pond/wetland habitat, space for sediment deposition, increased stormwater capacity, and recreational opportunities. The ongoing and recently finished Portland BES Mason Flats and Oaks Bottom Habitat Enhancement Projects also feature excavation or regrading of existing channels to restore wetlands (Portland BES, Watershed Services, 2017).

We believe that although done individually, "These sites may be small ...their cumulative benefits could lead to a substantial amount of storage and habitat throughout the watershed" (Johnson Creek Watershed Restoration Plan). In this case, a wetland restoration project benefits water quality, habitat, and stormwater management in the Triangle.

## **Riparian Vegetation**

Native plants provide habitat, slow runoff, trap sediments, and absorb pollutants (Portland Watershed Management Plan). Much of the Fanno Creek watershed has been cleared of vegetation (Portland Watershed Management Plan). According to the city of Tigard



Stormwater Master Plan, Red Rock Creek lacks shade due to canopy reduction, heating water temperatures and impeding the creek's ability to support certain aquatic species, especially fish. Canopy gaps, soil, construction, and other habitat disturbances common in urban areas like the Triangle present opportunities for invasive species, like Himalayan blackberry, English ivy, and reed canary grass, to gain proliferate and alternative ecosystems. Invasives, "Species that spread at such a rate that they cause harm to human health, the environment, and/or the economy" cause serious problems throughout the country (Tigard Urban Forestry Master Plan, 2009). According to the U.S. Fish and Wildlife Service, invasive species cause more wildlife population decline than any other factor, causing a minimum \$34 billion in damage and control costs each year in the U.S. (U.S. Fish and Wildlife Service, The cost of invasive species. 2012. U.S. Fish and Wildlife Service). Unhealthy, fragmented habitat faces the most threat from invasive species. An important aspect of combating invasive species will be supporting native plants and existing urban canopy.

The city of Tigard Comprehensive Plan acknowledges the role of Tigard's urban forest in defining the city's character. Goal 2: Land Use Planning features a section dedicated entirely to the urban canopy, emphasizing the cultural, economic, and environmental benefits of this vegetation. However, as of 2007, forest covered only 24% of the city, below the American Forest projected goals of 40% goal for Pacific Northwest cities. Analysis by the Tigard Urban Forestry Master Plan (TUFMP) in 2009 found that 40% tree cover in Tigard is indeed a feasible goal.

The city seeks to frame future land use decisions around protection and enhancement of urban vegetation, arguing that it provides shade, habitat, community attractiveness, improved water quality and soil stability (Tigard Comprehensive Plan). The Triangle contains pockets of the city's larger urban forest in the form of riparian corridors, street trees, residential yards, and forest fragments.

Although Clean Water Services (CWS) protects the vegetated corridors buffering bodies of water, usually by holding easements to maintain these areas, most of the Triangle's trees don't stand on land with CWS easements. In fact 78% of Tigard's trees are on private property. (TUFMP, 2009) The city aspires to monitor and manage existing vegetation resources, but has relatively limited regulatory purview over vegetation on private land beyond development permits (Tigard Comp Plan).

The Tigard Urban Forestry Management Plan (TUFMP) community survey established that 88% of Tigard residents want citywide requirements for the preservation of trees and planting of new trees during development. Fifty-seven percent said they would support new regulations, even if they limited the size of developments. Seventy-four percent of respondents believed more street trees will benefit Tigard, while 56% supported funding increases for urban forestry programs through additional fees and taxes (TUFMP, 2009).

While the city has been proactive in protecting and enhancing vegetation on public land, maintenance of city-owned natural areas, parks, and street trees are split among several departments, requiring coordination (TUFMP, 2009). The TUFMP suggests the city hire a "Greenspace Coordinator" to specifically address policy and land use that affects the urban canopy and other natural resources. This proposed position, as well as the TUFMP itself, represent a great start to the process of consolidating city policy of native and invasive vegetation by establishing common goals and recommending more effective regulations.

We recommend a detailed vegetation inventory, subsequent plan, and program for the management of invasive plants in conjunction with structural restoration efforts. As the city works through the five-phase structural creek enhancements, it must also revegetate any disturbances caused by regrading, excavation, and structural grade controls. Enhancing the creek's riparian buffer with native species will prevent the proliferation of invasive species. The maintenance of native trees throughout the Triangle will also contribute to stormwater

management in the creek, while adding to the region's robust native tree canopy.

The Metro Region has a record of revegetation and invasive species management projects. From 2014-2017 Metro conducted 12,000 acres of weed assessments, with another 12,000 acres of weed treatment underway (Metro Natural Area Annual Report 2017). On a city-wide scale, the Portland BES Watershed Revegetation Program, which began in 1995, provides an example of a large scale effort to use revegetation to mitigate stormwater pollution, enhance habitat, improve water quality, and control erosion (Portland BES, What We Do: Revegetation Program, 2017). During the 1997 Brookside Wetlands Project, BES planted about 30,000 native woody plants, more than 10,000 native wetland plugs, and 100 pounds of native grass seed after wetland excavation. (BES, Brookside Wetland Project, 2009) In Dickinson Park, Watershed Revegetation planted 3,000 tree and shrub seedlings in February 2015 (BES, Dickinson Park Stream Enhancement Project, 2017) .Projects in Restoration Creek, Albert Kelly Park, and Oak Bottom demonstrate a robust, consistent regional precedent for using native revegetation to enhance restoration (BES, Albert Kelly Park Daylighting Project, 2017; BES, Oak Bottom Habitat Enhancement Project, 2017).

At the Killin Wetlands Natural Area about four miles west of Banks, Metro revegetated former pastures near wetlands areas they acquired in 2012 (Killin Wetlands Access Master Plan, 2012). In 2015, Metro also restored a small aspen forest, a rare native habitat, by strategically removing Douglas firs and cottonwoods to let aspens fill in the newly created gaps (Kate Holleran, Restoration of rare aspen grove brings more color to Killin Wetlands, Sept 27, 2016, Metro News). In Milwaukie's Spring Park Natural Area the North Clackamas Parks & Recreation District used a \$125,000 Metro grant in part to restore native wetland and riparian plants (Metro News Article). Another Metro project in Oregon City's Newell Creek Canyon prioritizes invasive species control and planting of native species (The Newell Creek Canyon Master Plan, 2017).

We base our proposal for vegetation management in the Triangle off of suggestions from the Tigard UFMP, and techniques used in other projects throughout the Metro Region. We propose a concerted effort to increase urban forestry and invasive plant outreach to business owners and landowners, alongside a tree planting campaign, and tighter regulations to protect existing vegetation. The forestry plan set out goals for no net loss of tree canopy between 2007 and 2015, and achieving 32% citywide tree canopy by 2027 (UFMP, 2009). We propose the city draft a similar master plan for vegetation management specifically in the Triangle, setting goals for net urban canopy and invasive species mitigation. This plan should also identify funds and city personnel to address these issues.

The city of Portland and Metro have pursued aggressive invasive management and native plant support. Tigard must continue this comprehensive effort, especially as disturbances from development, population growth, and climate change create more opportunities for invasive plant species (JJ Hellman, JE Byers, BG Bierwagen, JS Dukes, "Five potential consequences of climate change for invasive species", Conservation Biology, June 22nd, 2008). With roughly 82% of the Fanno Creek Watershed zoned as single family residential, successful invasives management implicates cooperation with private landowners (USDA-Forest Service, Guide To Noxious Weed Prevention Practices, July 5th, 2001) .

Successful invasive management and revegetation necessitates a comprehensive approach. Agencies, volunteers, and local organizations remove invasive species and plant native species in the same site multiple times, monitoring with groups like Portland Environmental Services Watershed Revegetation Program. Revegetation and invasive management in the Red Rock Creek watershed must occur over an extended period of time to accommodate both monitoring and management. Because healthy native plant communities fundamentally aid stormwater management, erosion control, water quality, and habitat provision, we recommend that the city begin comprehensive documentation and management of invasive species along Red Rock Creek.

## Low Impact Development in the Triangle

Work in the creek and the riparian corridor alone will not adequately restore and enhance the waterway. Most of the stormwater finding its way into Red Rock Creek flows over impervious surfaces, which direct runoff into the waterway unhindered and polluted by gasoline and other man-made substances. Runoff direction results in extremely fast flows during storm events; Red Rock Creek allegedly rose eight feet in 15 minutes (Tigard Stormwater Master Plan).

The term low impact development (LID) refers to “systems and practices that use or mimic natural processes that result in the infiltration, evapotranspiration, or the use of stormwater in order to protect water quality and associated habitat” (EPA, Polluted Runoff: Nonpoint Source Pollution–LID, 2017). When lacking extensive natural features, like urban streams, forests, and wetlands, to manage stormwater naturally, LID, or green infrastructure, can reduce flooding and erosion, provide slower and cleaner stormwater to creeks, and add wildlife habitat and urban green space (Portland Community Watershed Stewardship Program, St. Mary Ethiopian Orthodox Church Parking Lot Rain Garden, 2014).

We recommend that the city encourage the use of LID techniques like rain gardens, bioswales, filter strips, eco-roofs, green streets, or permeable pavements when possible for all future public developments in the Triangle, while using grants and code to encourage private developments to do the same. Figure 27 shows an example of LID techniques. Tigard’s Comprehensive Plan endorses the use of LID to reduce runoff impacts from new and existing development through programs like tree planting, vegetated swale construction, or stream and wetland enhancements.

Although minimum landscaping requirements and stormwater management regulations for private properties encourage green infrastructure, some of the largest and most impactful LID projects in the Metro Region stem from multi-jurisdictional efforts that united multiple stakeholders and community members. Landscaping regulations can be found throughout Development and Municipal Codes, sometimes lacking specificity or conflicting with one another (UFMP, 2009). In 2009, the UFMP recommended code revisions to improve the quality and protection of the city’s streetscapes through tree planting and native vegetation. Tigard also “Encourage(s) tree preservation and landscaping plan as part of all development and infrastructure projects,”



Figure 27: Green infrastructure on the University of Oregon Campus.  
Source: Riley Clark-Long

although encouragement only goes so far without code to underscore enforcement (Tigard Comprehensive Plan). The Comprehensive Plan also recommends that the city “Adopt natural resource and habitat friendly development standards that utilize incentives for developers to incorporate green concepts into their design” as part of their strategy to more effectively manage stormwater. The Triangle Strategic Plan envisions LID in the Triangle, proposing new sidewalks feature street trees or rain gardens as curb buffers. The Strategic Plan proposes combining street redesign projects with green infrastructure.

LID can mitigate the negative impact of impervious areas and “promote the natural movement of water within an ecosystem or watershed” (EPA, Polluted Runoff: Nonpoint Source Pollution–LID, 2017). Applied on a watershed scale and combined with structural adjustments and revegetation, green infrastructure can help maintain or regain hydrologic and ecological functions.

A look at previous or ongoing LID projects in the Metro Region provides a sampling of potential strategies for the Triangle. In 2013-2014, on the banks of Johnson Creek near Lents, members of St. Mary Ethiopian Orthodox Church worked with the Johnson Creek Watershed Council, Green Lents, and Depave to address flooding (Portland BES, Community Watershed Stewardship Program–St. Mary Ethiopian Orthodox Church Parking Lot Rain Garden, 2014). As seen in Figures 43-45, 2,500 square feet of asphalt were replaced with a native plant rain garden to absorb parking lot runoff. The gardens not only prevented flooding events in the church and parking lot, but also slowed and captured runoff from the otherwise impervious surfaces. (See Appendix R)

### **Community Watershed Stewardship Program Projects**

In a multi-jurisdictional project, Portland BES and ODOT constructed a series of terraced rain garden near Interstate 5 in SW Portland, actually the largest rain garden project in the city. (Portland BES, I-5 and SW 26th Avenue Terraced Rain Gardens Project, 2017) The gardens collect runoff from roughly 24 acres, protecting water quality in nearby Tryon Creek. Before, urban runoff quickly flowed into Tryon Creek, transporting pollutants, causing erosion, and downstream sedimentation. The gardens slow runoff and absorb pollutants. The gardens were planted with an astounding 11,000+ native trees and shrubs. When planning and implementing green streets, or roadways deliberately designed to provide stormwater management (EPA, Learn About Green Streets, 2017), we recommend modeling design after nearby Multnomah Village. Here, green street facilities treat over 800,000 gallons of stormwater near the



*Figure 28: Rain gardens can slow water runoff as well as absorb pollutants.  
Source: Portland BES*

headwaters of Tryon and Vermont Creeks (BES, Multnomah Village Green Streets, 2013). Stormwater management through LID techniques complements creek restoration efforts, reducing flow speeds and improving water quality. These green infrastructure projects add to the existing native canopy in the city and provide habitat. As evidenced by projects in the Portland Metro region, stormwater management succeeds with community engagement and partnerships, addressing neighborhood and watershed issues simultaneously. We recommend the city fund a program similar to the Community Watershed Grant Program in Portland to encourage local and neighborhood groups and nonprofits to spearhead stormwater projects. We also recommend that the city partner with ODOT (and in the future, potentially TriMet) to pursue LID projects near and around major sources of impervious surfaces in the Triangle

## Trail Construction

The city of Tigard intends to reconnect Red Rock Creek with its floodplain (Stormwater Master Plan). Rejoining the creek and floodplain would shift flooding from the streets of Tigard –namely SW Dartmouth Street–to the banks of the creek and any at-grade pathways or trails. This flooding, in combination with the patches of riparian habitat along the path of the Creek, will necessitate the use of an elevated path/ trail to ensure optimal, continued use of the pedestrian amenity.

Ample literature regarding trails in general, as well as trails within riparian corridors, affirm best practices. Metro’s Recreation Ecology Literature Review compiles this information and reveals a consensus that trails construction and use can damage or eliminate vegetation, wildlife habitat, soils, and degrade water quality. To mitigate and manage these effects, Metro produced a Green Trails guidebook. Recommendations for best practices outlined in this guide include:

## Best Practices for Trails

- Avoid and minimize impacts to sensitive areas where practicable.
- Avoid tree removal with careful trail routing.
- Avoid impacts to water bodies, wetlands and seeps; maintain or establish recommended buffers; and use boardwalks or bog bridges (where appropriate) to cross wet areas.
- Modify design to provide wildlife passage at wildlife crossings.
- Prohibit bicycle use in sensitive areas. Enforce this design with gates or other structures to physically restrict their use.
- Keep trails to a minimum and narrower in sensitive areas.
- Site trails along already disturbed areas including social trails and maintenance vehicle paths.
- Locate thorny plant material or boulders to reinforce trail boundary, close inappropriate social trails and discourage off-trail travel.
- Remove weedy non-native plants within 10 feet on either side of the trail, revegetate with native plants and restore disturbed areas with native plants.
- Plant taller native shrubs to create buffers to screen the trail from sensitive habitat areas.
- Provide spur trails and viewing blinds to provide visual access at specified locations to minimize impacts to wildlife.
- Use appropriate trail construction techniques and materials to minimize impact to habitat.
- Use Metro’s Green Trails recommendations for preventing erosion, providing bioswales.
- (Metro’s Smith & Bybee Wetlands Trail Feasibility Study) focus on low to moderate income housing and mixed-use, mixed income developments.

- Rather than placing a trail along a stream, consider routing the trail outside of the riparian area and creating a spur trail(s) to the stream.
- Minimize the number of stream crossings.
- Use fish and wildlife-friendly culvert designs.
- A raised trail in a wet area, such as a boardwalk, will keep people on the trail. (Metro's Recreation Ecology Literature Review)

West of Portland Community College's Sylvania campus, the creek passes through areas with slopes at a 15%-29% grade on either side of I-5, and slopes at a 10% grade approaching SW 72nd Avenue. For this, The International Mountain Biking Association recommends:

- "Half rule: A trail's grade should never exceed half the grade of the sidehill upon which it is located. Trail grade is calculated by dividing total elevation gain by total length of the uphill section times 100 to obtain percent.
- Sustainable trail grade: Follow the 10 percent average guideline.

### **Maximum sustainable trail grade**

Typically the maximum sustainable trail grade is approximately 15 percent for a short distance, but is site-specific and may be substantially lower or occasionally higher (Metro's Recreation Ecology Literature Review).

As the regulatory authority managing surface water within Washington County, including the Red Rock Creek corridor, Clean Water Services (CWS) also provides guidance for trail construction. CWS has created a set of rules and standards to protect vegetated and sensitive areas. It allows multi-modal trail crossings of vegetated corridors, but under stipulation that "trails have to be designed and constructed to protect water quality and mitigate any impacts to public stormwater systems. Vegetated swales and/or dry basins are required to provide on-site treatment of all stormwater runoff from paved trails." Additionally, invasive non-native species ought be removed and a 50 percent tree cover should be maintained (Council Creek Regional Trail Master Plan). Trail design guidelines for Portland's Parks and Recreation designate boardwalks as Trail Detail 03 and suggest the use of wood or plastic lumber for construction. Plastic lumber is more expensive, but more long-lasting, durable, and less slippery. If wood is selected for use, these guidelines recommend that wire mesh be attached to reduce the risk of slipping (Trail Design Guidelines for Portland's Park System).

In 1903 John Charles Olmsted proposed that Portland create a "system of public squares, neighborhood parks, playgrounds, scenic reservations, rural or suburban parks, and boulevards and parkways." As part of this he envisioned a 40-mile loop encircling the city. Today that loop is nearly complete and provides space for people to escape the urban life and enjoy nature by hiking, biking, walking, using a wheelchair, or pushing a stroller. "The loop includes accessible trails and nature trails along forest hillsides and overlooking wetlands and wildlife" (40-Mile Loop Land Trust).

In 1992 Metro upped the ante and declared in its Greenspaces Master Plan that it would call for "a cooperative regional system of natural areas, open space, trails, and greenways for wildlife and people" in the metropolitan area that would "protect and manage significant natural areas through a partnership with governments, nonprofit organizations, land trusts, businesses and citizens." The system's primary purpose was to preserve the diversity of plant and animal life in the urban environment, using watersheds as the basis for ecological planning and restoration of green and open spaces in neighborhoods (Houck, Biodiversity Planning, 2012).

By 2015, Metro's Urban Growth Boundary has come to encompass three counties, 24 cities, and 1,714,066 residents. To serve these residents it has proposed a system of trails that would span 1,000 miles. This is especially important due to the rate at which the population of the

Metro region is growing—6.7% between 2010 and 2015. By comparison, population growth for the area was 2.2% in the 1970s and 2.4% in the 1990s (Nick Christensen, “Portland region grows to 2.35 million residents, Census estimates, with newcomers leading the way”).

New residents relocate based on employment, climate, and regional culture. A key factor of the Pacific Northwest’s identity are the physical and cultural connections between the urban environment and the natural environment. A regional network of trails is integral to maintaining that identity. Additionally, trails serve the communities they pass through by improving residents’ health and lowering transportation costs. Additionally, they contribute to the economic well-being of communities by:

- Increasing property values
- Attracting educated workers and talent
- Creating business booms
- Attracting tourists

(Metro, “Trails: building blocks for healthier, wealthier communities”)

As of November 2017, 365 miles of trails have been completed or are near completion in the Metro region.

The trail we have proposed for the Red Rock Creek corridor would add 1.5 miles to that total. This may seem small, but for the 50,276 residents who called Tigard home in 2015, this trail represents access to the broader trail network.

The Triangle is bounded by three highways, prohibiting access for those without cars. The possibility of expansion of the TriMet light rail system into Tigard offers a unique, once-in-a-generation opportunity to enhance connectivity and access to recreational opportunities. The Red Rock Creek trail corridor offers easier access into and out of the Triangle for transit users, pedestrians, and cyclists. Two locations within the Triangle have been identified by both Trimet and Tigard as potential stations:

- Baylor Street and 70th Avenue
- Beveland Street and 70th Avenue

The station at Baylor Street and 70th Avenue would be a mere five-minute walk from the Creek, allowing for easy access to the Creek Trail as well as the businesses, public spaces, and neighborhoods to which the trail would connect. Within the Triangle these connections include, but are not limited to, retail, housing, dining, and additional recreation opportunities such as a dog park and bikeways.

Our hope, however, is for a regionally connected trailway to overcome the Triangle’s highway barriers and improve access into and out of the Triangle. Our priorities for trail connectivity outside of the Triangle are:

- To carry over I-5 to the Portland Community College Sylvania (PCC-S) campus in the Northeast
- To pass over Highway 217 to the Fanno Creek Trailway (FCT) in the Southwest

### **Connectivity Inside the Triangle**

In creating these connections, we envision enhanced access to the Triangle for students as a means of contributing to the identity and economy of the Triangle as a place for students to relax before, between, or after classes. They can stroll or cycle along the trailway. They could shop for groceries, clothing, and/or other goods. They may choose to settle into a cozy cafe for a coffee or tea while studying. We envision a trail that not only draws student commerce into the Triangle, but serves to reinforce the Triangle as a vibrant, collegiate community.

Access to the Fanno Creek Trailway (FCT) would create a more holistic trail network within

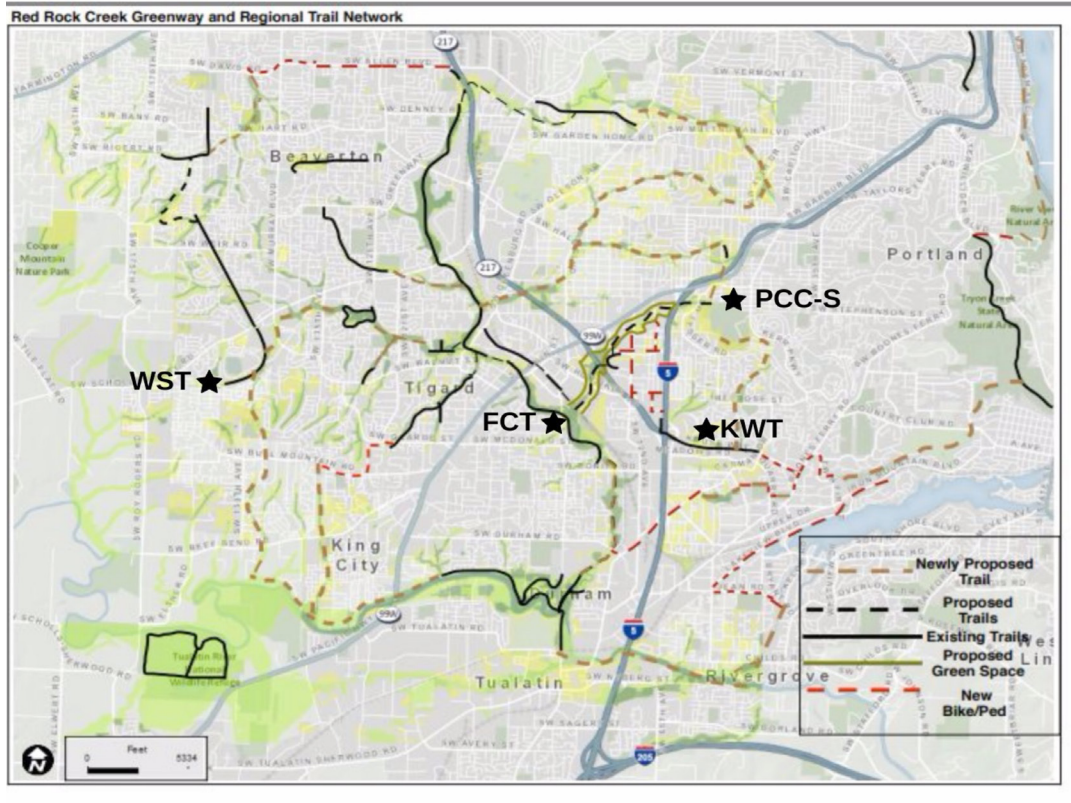


Figure 29: Locations and Trails that would Connect to the Red Rock Creek Trailway,

Tigard, but would also provide access to the Triangle from users neighboring cities who already utilize the FCT. A regional network would also allow users of the West Side Trailway (WST) and the Kruse Way Trail (KWT) increased ease of access to the Triangle area. This would likewise benefit Tigard’s local commerce and economy.

We envision a Tigard Triangle with an active, vibrant population cycling and walking on safe, tree-lined streets to access a variety of shops, services, and public spaces. Tigard’s suite of planning documents identify walkability as a core municipal goal; the Tigard Triangle Strategic Plan, in particular, converges around a vision of Tigard as “the most walkable community in the Pacific Northwest.” As the Triangle continues to improve its walkability, the Red Rock Creek trail could function as an integral component within a network of complete streets. Complete streets provide safe, comfortable access for pedestrians, cyclists, transit users, and motorists regardless of age, identity, and ability (Smart Growth America). The trail we envision is accessible to cyclists and pedestrians of all identities, and links to existing and incoming bicycle and pedestrian thoroughfares.

The creek intersects with existing bike lanes on 68th Parkway and Dartmouth Street. Bike lanes on 72nd Avenue do not run the full length of the street, but could connect with the creek if extended north from Southwest Baylor.

Providing bike lanes on all through-roads in the Triangle would optimize route options, and enhance cyclist access to the Red Rock Creek trail. As Tigard expands active transit infrastructure, the city should prioritize bicycle thoroughfares that can connect existing bike lanes, and ensure that street network redesign accommodates complete streets. Critical connections for initial development include closing gaps on 72nd Avenue, ensuring safe connectivity to bike lanes parallel to Highway 99, and completing connections down 68th Parkway to bike lanes along Kruse Way.



The only public transit that currently intersects with the Triangle is TriMet's number 12 bus line, which has thirteen stops along Highway 99. While 68th Parkway and Dartmouth Street have sufficient sidewalks that could connect a trail to bus stations, sidewalks on 72nd Avenue have substantial gaps, presenting potential hazards to pedestrians.

Part of facilitating a more walkable Triangle may include street network redesign. We envision a vital Triangle in which every street is comfortable and accessible for pedestrians and cyclists. Although expanding bicycle and pedestrian infrastructure onto existing streets would go a long way toward realizing this vision, repatterning the street network to connect blocks would facilitate more route options, reduce congestion, and encourage active transit use (Transportation and Growth Management). The Tigard Triangle Lean Code suggests connecting Atlanta, Baylor, and Clinton Streets through to 72nd Avenue, connecting Elmhurst Street through to 66th Avenue, and connecting 70th Avenue through to Hampton Street.

Metro's proposed complete street projects target disadvantaged neighborhoods and minority communities. Metro solicits constituent input by facilitating connections between citizen and stakeholder organizations and public transportation authorities to ensure that plans and proposals adequately suit the needs of all involved parties. Ongoing expansion of complete street infrastructure in Portland's Brentwood-Darlington neighborhood seeks to connect gaps in the bike lane network and improve pedestrian safety with sidewalk infill (Metro, "Active Transportation & Complete Streets Projects").

The Neighborhood Streets Project established a guidebook for neighborhood street design, which urges the construction of narrow streets as a means of discouraging unsafe automobile speed, and enhancing pedestrian and cyclist safety and comfort. As Tigard continues to redevelop the Triangle, considering the impact of street width on transportation patterns may enable more focused, strategic street design (Neighborhood Street Design Guidelines).

Other elements of street redesign that would improve the Triangle's pedestrian access include re-orienting business frontages toward the street, locating parking behind or beneath buildings, encouraging greater density and mix of land use, and expanding publicly accessible spaces. The application of these strategies in the Triangle can ensure that a multi-use trail along Red Rock Creek is optimally usable, and serves the greatest possible proportion of Tigard's commuters and recreational users. Other considerations in creating a more active, transit friendly area surrounding Red Rock Creek include reduction of crossing distances, timing and phasing lights to accommodate crossing.

## **Trail Infrastructure Amenities**

Trail amenities encourage user comfort and accessibility. Where the trail intersects with street development, native street trees can meaningfully add to the urban arboreal canopy, creating shade and aesthetic pleasure for pedestrians and cyclists, while also reducing runoff by catching and absorbing rain before it reaches the ground. The use of native species would preserve and potentially help to restore the integrity of local ecosystems, while partial absorption of runoff would support creek restoration goals.

## **Signage**

Effective, well-place signage would play a critical role in wayfinding, user safety, as well as in education and public relations. Signage can also enhance user safety by alerting pedestrians and cyclists to potential hazards, including steep banks, erosion risks, and dangerous at-grade crossings. Based on traffic volume, the intersection of the trail with Dartmouth Street may be a point of particular concern.

## Wayfinding and Safety

Successful execution of connectivity relies on aptly placed and easily interpretable signage. Best practices for wayfinding signage include clear visual syntax, simplification of choices at decision points, and consistency with other area signs. Decision points for Red Rock Creek trail include the intersections of the trail with 68th Parkway, 72nd Avenue, 74th Avenue, and Dartmouth Street. Additional intersections may require signage as the Tigard Triangle adopts street network redesign recommendations from the Lean Code, Strategic Plan, and other documents. Other wayfinding signage might indicate connectivity to the broader network of area trails, including the FCT system.

## Education and Public Relations

Educational signage could serve to reduce off-trail user impacts by highlighting sensitive ecologies, such as woodlands or wetlands. Informing trail users about the restoration work in progress may sustain, if not improve, public support for the project. Encouraging public advocacy for local restoration projects is an important means of reinforcing the connection between Tigard's urban and ecological identities. The more intimately and enthusiastically Tigard's constituents are connected to the natural features of the landscape, the more Tigard will embody the ideal of a city within a forest. Educational signage can play an important role in stoking this intimacy.

Educational signage could likewise inform citizens of development and redevelopment resulting from tax increment financing. Further, given the long duration of project timelines, signage is one avenue for apprising users of the project's progress; informing constituents of construction itineraries and objectives could also provide a basis for informed, meaningful constituent involvement in decision-making processes. This manner of signage could serve to enhance public opinion of ongoing redevelopment and restoration efforts and ensure that the public is assured of a return on their investment.

## Parks and Open Space

The Tigard Triangle has the potential to become a regionally recognized social and ecological node for residents and wildlife. Its central location and surrounding transportation networks provide a unique opportunity for recreation and habitat restoration. There is a strong precedent for integrating public spaces with restoration. Ecologically, you cannot have one without the other (Manito Park History).

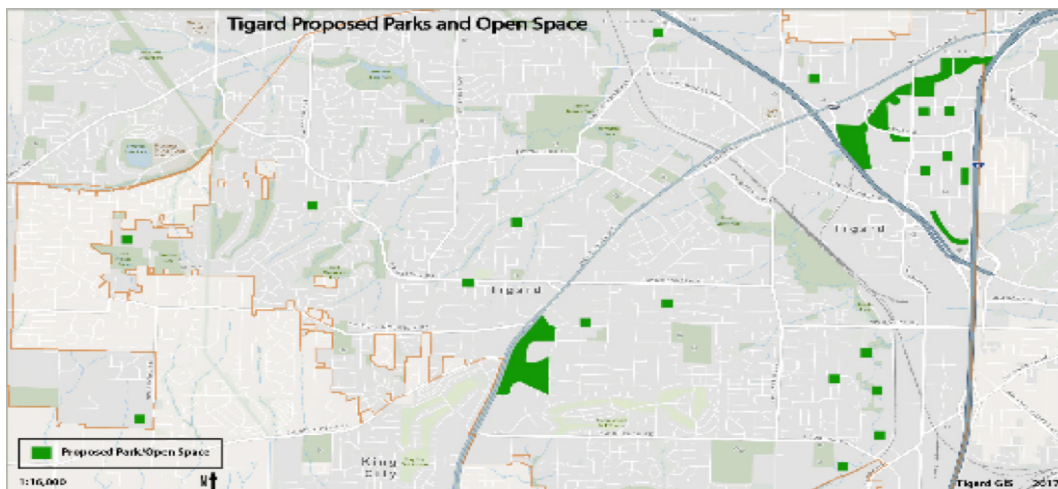


Figure 30: Proposed Parks and Open Space for Tigard Triangle.  
Source: city of Tigard GIS

## Population on Growth and Community

While there are many parks in Tigard, none exist in the Triangle. The Strategic Plan identifies six potential park spaces in the Triangle, which we also propose:

- Red Rock Creek Corridor
- Intersection of SW Dartmouth Street and SW 74th Avenue
- Intersection of SW Baylor Street and SW 69th Avenue
- Intersection of SW Elmhurst Street and SW 69th Avenue
- Intersection of SW Franklin Street and SW 67th Avenue
- Corridor south of SW 68th Parkway

The Parks Master Plan asserts that if Tigard wishes to achieve its desired amount of parkland and open space, additional land for parks and open space will be required. The Tigard Comprehensive Plan describes a goal of 11 acres of parkland per thousand people and to develop neighborhood parks within a half mile of every resident. According to 2028 population projections, an additional 245 acres of parkland is necessary to accommodate this goal. With the potential for incoming light rail development and concomitant impacts on population, this number could increase.

The additional parks, trails, and linkages proposed in this document have the potential, along with the light rail system, to spur economic activity and growth. It is Tigard's duty to channel that growth, and to regard the proposals in this plan and other city planning documents as an asset to the community. For the last 60 years the United States has created a built environment focused on the automobile. The need to accommodate access, parking, storage, and flow of vehicles has dominated community design decisions, to the detriment of parks and green space. Being a green city helps attract economic opportunities and young, highly educated people—the so-called and sought after “creative class.” These innovative community members would be assets to help propel Tigard's vision of becoming the most walkable city in the northwest.

## Recreation and Health

Park and green space provides an opportunity for physical activity that not only fights obesity and related ailments, but also reduces healthcare costs, increases work productivity, and improves longevity. Depression, obesity, and diabetes are chronic illnesses directly related to the physical inactivity and unhealthy eating habits associated with a sedentary lifestyle (See Appendix S).

## Habitat

New development causes habitat loss, and Tigard could be a champion of the urban tree canopy among Atlanta, Guangxi, and Vancouver. Improving wildlife habitats and reducing habitat fragmentation by providing continuous ribbons of green infrastructure, Tigard could be a national or even global leader for sustainable urban growth. Several bird species travel through Tigard as they migrate along the Pacific Flyway each year. Providing vegetation for these bird species would improve birds' likelihood of surviving the migration and provide a more robust ecological network.

## Valuation

Assigning a dollar figure to the benefits of green space is key to understanding the importance of connectivity, walkability, and parks. Tigard could prepare a Return on Environment Report, which quantifies the value of natural ecosystem services (See Appendix T for a case study on Dauphin County's Return on Environment Report).

## Real Property Values

The following summary of the economic benefits of greenways was prepared by the National Trails Training Partnership and the American Trails group and posted on their website (<http://www.americantrails.org>). This summary of findings cites specific examples and was based on a report entitled Economic Impacts of Protecting Rivers, Trails, and Greenway Corridors, prepared by the National Park Service in 1990 (See Appendix U).

## Phasing

Implementation of our plan will not happen in one immediate action. It will be a long process requiring the coordination and cooperation of numerous agencies and jurisdictions. Our plan involves many moving pieces, some of which may be achieved in the short-term, some of which may require more mid- or long-term planning.

We imagine the realization of our vision of a regional trail network, of which the Red Rock Creek corridor is a major component, occurring like the reading of a story, where each new chapter builds upon the actions and victories of its predecessors.

We foresee the story unfolding through three main acts. In Act I we begin with the restoration of the habitat along the creek. This includes removal of invasive plant species, repopulation of native plant species, reconnection of the creek to its natural floodplain, and creation of low impact green infrastructure. Together, these actions will serve to mitigate flooding due to storms, erosion of the creek's upper banks, and sedimentation of the creeks lower plains.

In Act II construction of trails along the creek corridor within the Tigard Triangle limits occurs. This could happen alongside restoration efforts or follow in restoration's wake. Connectors such as highway overpasses will be developed to allow ease of access between the communities residing within and without the Triangle's boundaries. Other jurisdictions may build additional trailways within the Metro region. Preferably these trails are built concurrently to the Red Rock Creek trail.

Lastly, Act III sees the culmination of these efforts as the fruition of not just Olmsted's original 40-mile loop but the 1000-mile regional trailways network that Metro envisioned in its 1992 Master Plan.

The phases just described are only one possible version of the story. The reality is that the success of this plan depends on the intermingling of many factors, including: funding, policy, community support, political backing, and feasibility.

## Zoning

In conformity with the Comprehensive Plan, the Zoning Map guides development throughout the city. Tigard's zoning districts are classified into Residential, Commercial, Industrial, and Parks zoning designations. There are also two overlay zoning districts--Historic District Overlay and Planned Development Overlay.

In order to help facilitate our vision, we propose a zone change along the Rock Creek Corridor. Currently the corridor is zoned General Commercial with a Planned Development Overlay. The Planned Development Overlay provides flexibility on some traditional development regulations. We suggest a zoning amendment along this corridor to Parks and Recreation (PR) in order to protect the natural character of the creek, prevent future development along the riparian buffer, and to set a precedent of conservation and sustainability.

## Land Acquisition

Rezoning an entire corridor of General Commercial zoning to Parks and Recreation is by no means a simple task. Strategies of land acquisition and partnerships must be considered

in order to effectively amend the zoning of this area. The city of Canby, Oregon presented several strategies for land acquisition for parks and recreation (Canby Park and Open Space Acquisition Plan).

## **Short-term strategies**

Staff can immediately act upon the strategies in the short-term category. However, before action is taken, staff should consider the time and effort necessary to proceed with each strategy.

### **Partnerships**

Get respected community members on board by building trust through outreach. Partnering with Watershed Councils for local contacts is effective for outreach (Interview with Ryland Moore, Executive Director of McKenzie River Trust, 2001).

Other benefits of partnerships include:

- Efficiency improvement by removal of service duplication or use of complementary assets to deliver services.
- Enhanced stability because future service is more secure when multiple parties are vested and committed to a project.
- Organizational legitimacy of one or more partners.
- Ability to pursue projects that the city may not have the resources to complete.
- Identification of opportunities through partner organizations.

The key problem with partnerships is there is no guarantee of success. Developing projects with partners requires considerable time and energy. Moreover, partnerships, while being a sound land acquisition strategy, should not be mistaken for stable funding sources.

### **Grants**

Many granting organizations throughout the country fund park acquisition and improvement. Grants are a good strategy to supplement park acquisition funds, although they are not stable funding sources. Most have lengthy processes that will require staff time and effort. A benefit of grant proposals is that they can foster partnerships between agencies, organizations, and the city.

## **Long term strategies**

### **Parks and recreation districts**

One benefit associated with forming a park and recreation district is that city staff will give control of parks and recreation to another organization, reducing strain on city resources and personnel. However, this could be a drawback as the city loses control over park acquisition and maintenance. Another benefit of a park and recreation district is the potential formation of a permanent tax base from property tax assessments.

### **Land trusts**

Land trusts use many tools to help landowners protect their land's natural or historic qualities. Conservation easements are one such tool used to protect land while still allowing landowners to maintain ownership of their properties. A landowner can donate, sell, or exchange part of their land rights to a trust, in cooperation with the city. There is a tax incentive to donate the land as a charitable gift, although it is the responsibility of the landowner to pursue the tax deduction.

## Bonds

To issue long-term debt instruments, a municipality obtains legal authorization from either the voters or its legislative body to borrow money from a qualified lender. Usually, the lender is an established financial institution, such as a bank; an investment service that may purchase bonds as part of its mutual fund portfolio; or, sometimes, an insurance company.

## Levies

A local option levy for capital improvements provides for a separate property tax levy outside the city's permanent rate limit. This levy may be used to fund a capital project or a group of projects over a specified period of time, up to 10 years. Revenues from these levies may be used to secure bonds for projects, or to complete one or more projects on a "pay as you go" basis.

The advantages of levies include reduced interest, increased flexibility, enhanced debt capacity, improved borrowing terms, and increased fiscal responsibility. The major disadvantages of this approach are insufficient funding, intergenerational inequity (if, for example, long-term facilities are paid for disproportionately by current users), inconsistency of funding requirements, and use of accumulated reserves. Appendix V details more investment strategies.

## Suggestions for Public Input

Our plan seeks to build upon the foundation established by the Tigard Triangle Strategic Plan and the Tigard Park System Master Plan. Significant public outreach has already been conducted to build these two plans.

To create a publicly-supported parks plan, the city sought to engage a broad spectrum of residents regarding their needs, preferences, attitudes, and vision for parks and recreation services. In 2008 the city successfully received input from residents and visitors through:

- A Community Intercept Event
- Community Questionnaire (online and print)
- A Park and Recreation Needs Assessment Phone Survey
- Two Community Workshops
- Stakeholder Interviews
- A Recreation Provider Focus Group

The Strategic Plan sought to identify places and methods for development, growth, and to fulfill resident needs in Tigard. The plan was developed in relation to theoretical incoming high-capacity transit. In 2013, planners established a strategy to encourage public participation and gather feedback. Methods used to garner input included:

- Public Open Houses
- News Releases
- A Project Website
- Social Media
- Expert Interviews with transit-oriented development experts and local landowners

Groups who guided and contributed to input included:

Community Stakeholders

- Interested Citizens via the Citizen Advisory Committee
  - Local, regional, and state Agencies via the Technical Advisory Committee
- As a Master Plan is developed for the Red Rock Creek corridor, we advise that Tigard communicate with the above mentioned groups to provide guidance for public input events.

This should occur at multiple occasions throughout the project. Importantly, these outreach methods should be employed for at least a year before drafting a Plan, and again intermittently throughout the course of drafting so as to keep interested parties informed and involved as content changes occur.

## Next Steps for Red Rock Creek Corridor

Our plan to connect Red Rock Creek to public space in Tigard, Beaverton, Portland, Tualatin, Lake Oswego, and beyond expands on the nearly century old vision for a network of riparian parkways throughout Portland. Our concept seeks to address walkability, connectivity, and multimodality. The Metro area has been long known for its iconic open space, which fundamentally shapes the identity of the region. This is Tigard's opportunity to create and protect that iconic open space within the Triangle. By developing a greenway along Red Rock Creek, Tigard can not only provide active-transit infrastructure, but also identify and implement opportunities for creek restoration and public engagement with the land's natural features. In the face of inevitable strains from population growth and climate change in the near future, acting quickly to provide resilient, connected and enhanced watersheds must remain a priority. Incorporating best practices including appropriate signage, pedestrian and cyclist amenities, and optimal construction techniques can ensure constituents use the greenway, are safe doing so, and that the corridor enhances the natural landscape. Restoration efforts, including regrading, streambed fill, and planting native vegetation, will mitigate or correct development-induced strains on the riparian landscape. This plan will require negotiation of established zoning code, and in many places will require zoning changes. Route options vary by cost, continuity, and restoration potential. Considering the greenway's opportunities and constraints holistically will ensure that its development best accommodates citizen values. Planning with the city's existing natural features, we envision an additional enhanced and protected link in the greater urban forest, serving those living and working in the Triangle and Metro region. Appendix W contains a detailed implementation matrix.

## Conclusion

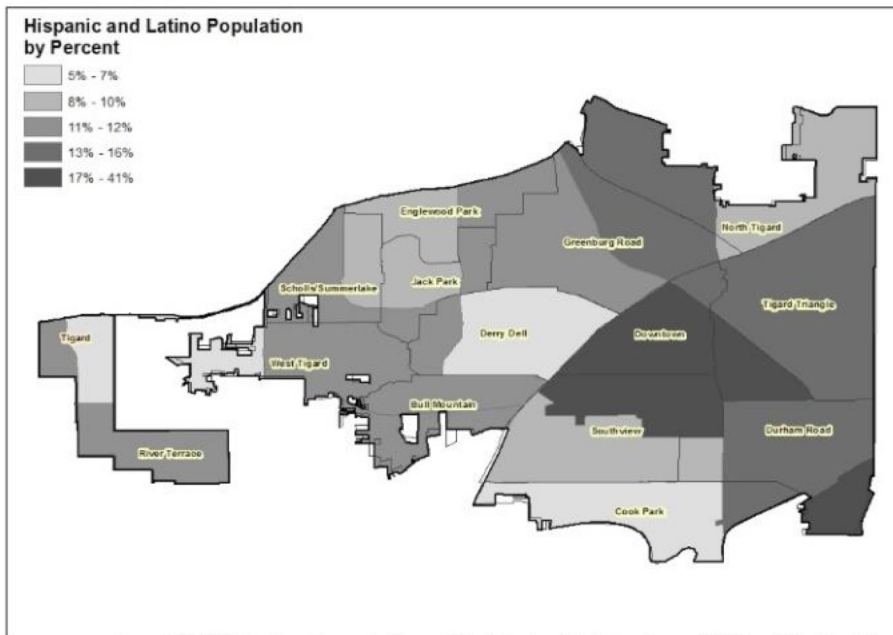
There are several moving parts to each section and set of recommendations. Student groups found that there are significant opportunities for the city of Tigard leverage using urban renewal funds. Ideas such as creative placemaking, pop-up events, and wayfinding will improve walkability and help foster a sense of community identity. Thoughtful approaches to housing and restoration will welcome new residents to the area and enhance livability.

Tigard aspires to be the most walkable city in the Pacific Northwest. Barriers to walkability in Tigard include lack of connectivity, significant parking availability, and scarce destinations. Student groups found that there are tremendous opportunities for this vision to be realized using forward thinking methodologies like transit-oriented development and wayfinding. Utilizing creative placemaking downtown and pop-up events in the Triangle will create destinations that will get people out of their cars and engaging with the community.

To begin to use the recommendations in this report, city staff should identify innovative opportunities to engage the community in conversation about housing, downtown, the Triangle, and Red Rock Creek. The research, suggestions, and implementation ideas for each focus area can serve as a jumping off point for elected officials, city staff, and residents to set projects in motion. Students hope that this report be a valuable resource to the city of Tigard in their efforts to become the most walkable city in the Pacific Northwest.

# Appendix A: Hispanic and Latino Population

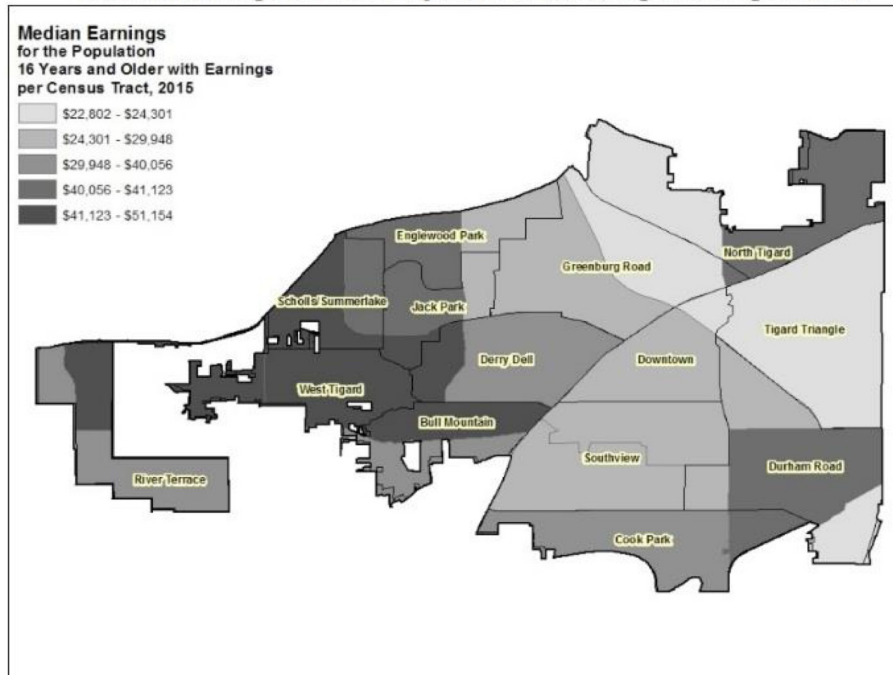
2015 Hispanic and Latino Population by Percent, Tigard, OR



Source: 2011-2015 American Community Survey 5-Year Estimates, US Census Bureau, 2016 Open Data, City of Tigard

# Appendix B: Median Earnings in Tigard

Median Earnings in Dollars by Census Tract, Tigard, Oregon, 2015



Source: 2011-2015 American Community Survey 5-Year Estimates, US Census Bureau



# Appendix C: Placemaking

## Placemaking and the Project for Public Spaces (PPS)

Placemaking is the name given to a series of strategies aimed at creating dynamic and public-oriented space. A successful place is an area where social mixing is easy, encouraged, and does not take extra effort. Normal barriers to participation are removed as much as possible and it is easy to interact with other people and the environment.

- As defined in a planning context, placemaking is the action of working with a community to create engaging space utilizing public input and involvement.
- It can take many forms and often does. Public art, park space, plazas, and purpose build space are all a form of placemaking.
- It is not restricted exclusively to open or plaza space. Any area that is regularly interacted with and has people present is a candidate for placemaking.
- Streets and streetscapes, retail and restaurant spaces, educational institutions, and municipal or public buildings are all candidates for placemaking.

Placemaking entered the American planning lexicon in the 1960's when thinkers like Jane Jacobs and William H. Whyte introduced the idea that designing urban space for people rather than just cars and commercial created more functional space. In many ways the concept of placemaking as a return to the original urban form prior to the industrial age. It brings people back into public space as the focus of activity and amenities and deemphasizes modern more impersonal modes of transport and commerce.

Placemaking as a practice is truly the art of community engagement. A successful place needs to take the desires of resident populations and projected future populations into account. Placemaking goes far beyond the physical: function must always outweigh form. A place can be constructed from the ground up, and it can also be created using what already exists. In each, however, maintaining robust, inclusive, and constant public engagement and participation is paramount.

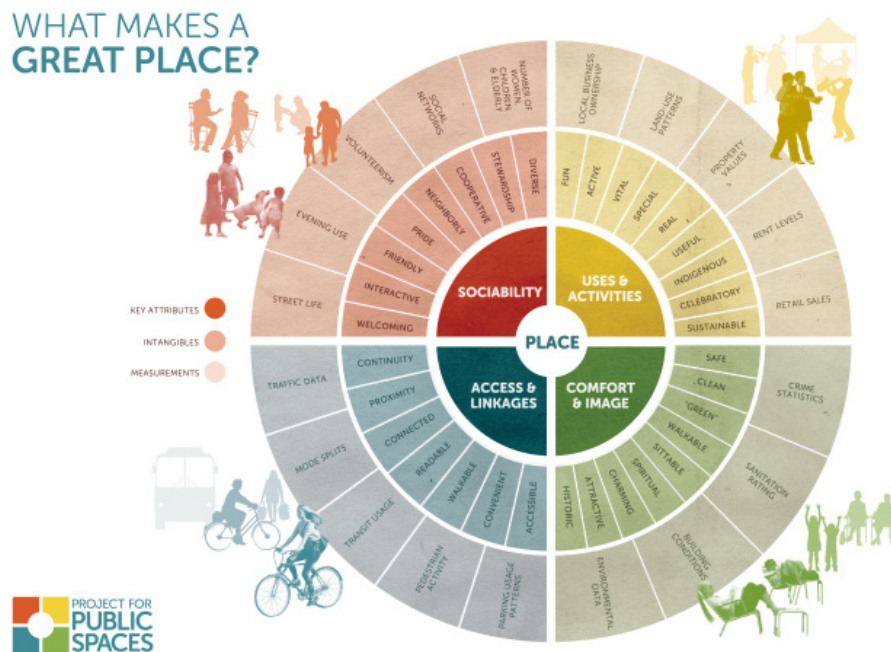


Figure 31: The Project for Public Spaces' definitions of the four qualities of place.

Throughout our recommendations we have employed principals outlined by the Project for Public Spaces, which since 1975 has been a leader in the movement to consider place and the people in design.

The Project for Public Spaces is a nonprofit based in New York City, New York that has worked in all 50 states and 43 countries worldwide to showcase how positive public involvement can create and revitalize dynamic public space. The Project for Public Spaces identifies four key qualities of place:

#### 1. Sociability

The key to attaining sociability is a place's capacity to support the informal gathering of people and making it a regular destination where you go to see friends and strangers.

#### 2. Uses and Activities

Good places provide reasons for people to stay for prolonged periods of time. If a place lacks uses to be engaged with and activities to participate in, it does not provide a sense of place for the visitor.

#### 3. Access and Linkages

Good places provide a visitor with visual and physical accessibility, mostly through walkable and bikeable linkages. A key indicator of whether a place will thrive depends on how people arrive at the place from other areas of the downtown and the city and then access the internal streets.

#### 4. Comfort and Image

Comfort and Image are related to the character of the space in terms of being attractive to stay and the visitor having a good impression of the place. This specific quality is responsible for the visitors' decision to stay in a place for prolonged periods of time.

### **What Makes a Great Place?**

Project for Public Spaces defines the attributes of a successful place as:

- Accessible and well connected to other important places in the area.
- Comfortable and projects a good image.  
People are drawn to participate in activities there.
- Sociable place where people like to gather, visiting it again and again.

### **The Powers of 10+**

PPS has developed a series of strategies and guidelines that are very helpful when considering place and place making that are very applicable to Urban Renewal efforts in the Tigard Triangle.

One of the most powerful is the concept of the Powers of 10+.

- If the goal is to create a dynamic and engaging place have a one dominant activity or use dominate a single place. There should be a diversity of uses, activities, and attractions to keep a place lively and vibrant.
- The Powers of 10+ provides a flexible framework that can be suited to any space no matter how big or how small.
- The idea is that each destination of 10 sub-destinations within it and each sub-destination has 10 distinct things to do, interesting features, or attractions to keep people there and engaged.

In the Tigard Triangle, the powers of 10+ could take many forms. The primary draw may be the development of a Public Market, a station or transit stop community, or a particular event, but in each of those locations there can be a multitude of other draws and things to do.

Building a vibrant and dynamic community can start in the immediate and continue for the long term. In truth the act of placemaking is never done; as spaces, urban environments, and neighborhoods area are always evolving causing the sense of place evolves with them. As long as people are continuously invested a place can continue to be successful.



Figure 32: The Project for Public Spaces' Power of 10+ model.

### Urban Magnets

An additional strategy employed within our recommendations, particularly that of a public market, is that of urban magnets. An urban magnet is defined as a purpose built space centered on a particular activity or user group engaged in an activity visibly and enthusiastically.

A public market, such as that we are proposing, can act as an urban magnet. Other places such as parks, music spaces, purpose built retail or food areas, or other event space can all function as an urban magnet. The space and size can vary, but people are the key to activating a magnetic environment. The idea is simply that people draw in more people. In this way, urban magnets act as a catalyst for increased activity in the public realm.

### Six Elements that Contribute to an Urban Magnet:

1. The activity based subculture. The foundation being the activity and the group of people engaged in it.
2. Specialty retail that relates to the activity or group(s) involved.
3. Production space related to the activity.
4. Employment centers and opportunities. These can take many forms but are required to drive area employment and an influx of people.
5. Programmed community events. Pop up events, and regular community events are key to keeping excitement and involvement high.
6. Urban form and design that facilitates easy gathering and mixing.

Urban magnets can be big or small, but they act as a draw and a way to get people in a space to socialize and engage.

## Creative Placemaking

Transforming an area into a vibrant core requires the area to be more than just a space. It requires the area to provide a sense of place to its users whether they are residents or visitors. Forming a sense of place requires the right urban form and the four qualities of a successful place. A strong sense of place “is what encourages visitors to return, motivates them to tell others about the great experience they had when visiting, and may even entice them to consider a permanent move to [the] community” (Neumann). In order to understand how an area can provide a sense of place to its users, it is important to understand what makes people happy with their communities. “People with the most favorable opinions of their cities were more likely to have positive assessments of local social offerings, such as entertainment venues and places to meet, openness, or how welcoming a place is, and the area’s aesthetics, or its physical beauty and green space” (Knight Foundation).

Creative placemaking is an approach that focuses on creating a sense of place for cities, towns, neighborhoods, and streets. The purpose of creative placemaking is to provide communities with a framework to activate space and to learn what activities provide people with the experience of a time well spent. Essentially creative placemaking works toward creating quality places where people and businesses want to be. A space activated by creative placemaking has the ability to “foster entrepreneurs and cultural industries that generate jobs and income, spin off new products and services, and attract and retain unrelated businesses and skilled workers.”

Creative placemaking seeks to provide communities with a roadmap for understanding what attaches residents to their community and how they can build places with lasting value.

“In creative placemaking, partners from public, private, nonprofit, and community sectors strategically shape the physical and social character of a neighborhood, town, city, or region around arts and cultural activities. Creative placemaking animates public and private spaces, rejuvenates structures and streetscapes, improves local business viability and public safety, and brings diverse people together to celebrate, inspire, and be inspired.”

Creative placemaking is a catalyst used in sustainable community development that is human-centric, comprehensive, and locally informed.

Creative placemaking provides communities with two key “ripple effect” benefits that are valued by citizens and community leaders.

- The arts create a vibrant, thriving economy: neighborhoods are livelier, communities are revitalized, and tourists are attracted to the area, etc.
- The arts create a more connected community: diverse groups share common experiences, hear new perspectives, understand each other better.

In order to ensure the creative placemaking “ripple effect” does not lead to gentrification and/or create inequitable places, creative placemaking efforts should be transparent, community-centric and inclusive of all races, religions, countries of origin, sexual orientations, genders, and income levels.

### What Does Creative Placemaking Do?

Creative placemaking is a process that cities and organizations can use immediately to stabilize, re-energize, or incubate identity into a city, town, neighborhood, or street. Creative placemaking has the potential to breathe new life into a place because it connects people of all backgrounds with the goal of providing increased and more equitably shared prosperity for cities and neighborhoods.

To transform an area into a vibrant core in a meaningful way, creative placemaking activities bring together diverse stakeholders to intentionally integrate the arts into city renewal efforts.

Using various tools and techniques, creative placemaking attracts people to a space using the arts to reflect and enhance a community’s shared vision of revitalization. Ultimately, community members, stakeholders and community leaders can use the strengths of creative placemaking as a community development tool to increase the four qualities of place within their cities, towns, neighborhoods, and streets. This encourages the development of a vibrant core and a sense of place that makes people well connected to their communities. The National Endowment for the Arts has identified two key impacts creative placemaking can make on a community:

1. Foster Economic Development	2. Foster Leadership in Globally Competitive Industries
Recirculates residents’ incomes locally at a higher rate	Movies Broadcasting
Re-uses vacant and underutilized land, buildings, and infrastructure	Publishing News Media
Creates jobs in construction, local businesses, and cultural activity	Musical recordings and videos Social Media
Expands entrepreneurial ranks of artists and designers	Advertising Design services
Trains the next generation of cultural workers	Architecture Video games
Attracts and retains non-arts-related businesses and skills	Culinary Arts

Figure 33: Impacts of creative placemaking as defined by the National Endowment for the Arts.

**What Does Creative Placemaking Look Like?**

The goal of creative placemaking is to revitalize a community by creative initiatives that animate places and spark economic growth. Effective creative placemaking works as a community development tool that fully engages community and allows them to “reimagine the possibilities of disused spaces.” Reactivating disused space through creative placemaking “presents unique opportunities for public conversation around patterns of urban development,



neglect, and reinvention, among local residents who are directly effected by these trends.” Creative placemaking has the ability to address several different areas of a community. Four different areas creative placemaking addresses are:

- Identity through place
- Partnerships and collaboration
- Inclusive main street
- Place-keeping

### **Creative Placemaking in Tigard**

Creative placemaking exists in contrast to creating economic development-based ‘arts district’ or ‘creative class’ magnets, a common process of many traditional arts initiatives. The two most common types of arts-led development are the creative city approach and community development approach. The creative city approach focuses on the economic role of the arts, primarily as consumer activities such as retail, galleries, and arts-based leisure. This creative city approach is used to attract new, affluent people to an area, attracted by arts-based initiatives.

In contrast, the community development perspective takes a ground-up approach, building collective action for community change. This varies by shifting concern from strict economic viability to using the arts to actively engage the community within the development process. Current placemaking and arts activities in Tigard follow the traditional creative city approach. Tigard’s current urban renewal efforts model Main Street as ready for redevelopment, mostly catering to the needs of developers. We suggest expanding the role of arts in Tigard to include creative placemaking for wider community development goals. Our approach is a hybrid of the creative city and community development model, balancing Tigard’s current development needs and it achieves its vision for establishing a sense of place and a vibrant core. We recommend three (3) creative placemaking tools used to incubate a sense of place:

- Activating space
- Wayfinding
- Community branding

### **Creative Placemaking in Main Street Village**

Creative placemaking brings together diverse stakeholders in innovative ways, reaching further than standard planning meetings or a community open house. Engaging people through arts and culture provides insight into the many layers of identity within a community.

Furthermore, creative placemaking brings together arts and cultural to provide a positive disruption within a space, creating “social friction.” This idea of social friction is based on providing special context for the surprise and disruption that art creates, and its contributions to an intentional, inclusive community. This includes having a variety of activities and mixed-uses, that attract a diverse amount of people for different reasons, at different times of the day. This mirrors the Project for Public Spaces call for spaces that are “flexible enough to make room for many different communities and encourage connections between them.”

Creative placemaking can provide an opportunity to express opinions and gain a voice within re-development processes. Using creative placemaking to identify community needs and promote enfranchisement provides community agency in the event of future gentrification and displacement efforts.

## Placekeeping

Creative placemaking addresses aspects of placekeeping and equity in meaningful ways. Within creative placemaking practice, shifting vocabulary and theory from placemaking to placekeeping has been of recent debate. Placekeeping acts as a substitute to placemaking and provides greater acknowledgment to the existing 'place' inherent in a space. placekeeping allows for the greater emphasis on a strong connection with, and respect for, the cultural memory of local people.

Providing opportunity for local-led, participatory projects can reduce gentrification, a common negative impact of placemaking. Decentralization of power places agency into community leaders, who have better sense of a community's cultural needs. This includes engaging with placekeeping actions such as stewardship, collective action and listening, rather than making a place primarily through the tools of city planners.

The city of Tigard has prepared several plans over the years that are each focused on building a distinctive, cohesive and functional downtown that is uniquely Tigard. Our recommendations in this report build upon the city's existing plans for downtown revitalization. We acknowledge the importance of these detailed plans, but we also see value in activating the vacant and underused spaced downtown now. We recommend creative placemaking as a strategy to achieve this.

## Appendix D: Benefits of Accessory Dwelling Units

### Increased Housing Supply and Choice

Accessory dwelling units are a viable option for increasing and diversifying the housing stock in Tigard. Goal 10 of the Oregon statewide planning goals, in referring to comprehensive plans of municipalities, reads that "...plans shall encourage the availability of adequate numbers of needed housing units at price ranges and rent levels which are commensurate with the financial capabilities of Oregon households and allow for flexibility of housing location, type and density." As previously mentioned, the population of Washington County is forecasted to increase substantially in the next 30 years. As more residents move to both Washington County and Tigard, the area will simply need more housing units to keep up. If housing units are not constructed, it is expected that prices will spike as more residents compete for fewer units, further increasing the cost burden of current renters and homeowners. However, if additional units are added to the existing housing stock, Tigard could mitigate the influx of demand and keep prices lower than they would have been otherwise. In theory, as the supply of housing is increased, prices should drop. Affordable housing supply is desperately needed in Tigard. As of 2016, Metro reported that Tigard had only 705 regulated affordable housing units. This does not match the 7,560 cost burden renters and homeowners living in Tigard.

Not only is there not enough housing in Tigard to meet the needs of low income households, but the housing that is available is predominately single-family homes. Second to single family homes are multi-family units. Chapter 1.3 of Metro's Regional Framework Plan asserts all cities and counties in the region provide an array of housing choices. ADUs provide a choice that is not currently available to Tigard residents. They offer one that is apartment-sized and priced but with the character and in the context of residential neighborhoods.

### Increase density and manage growth

ADUs are one way in which Tigard could meet Oregon's statewide planning goals. Goal 14 of the Oregon statewide planning goals is "To provide for an orderly and efficient transition from rural to urban land use, to accommodate urban population and urban employment inside urban growth boundaries, to ensure efficient use of land, and to provide for livable communities."

Tigard was only established as a city in 1961. Consequently, nearly all of its housing stock follows mostly post World War II development models. Its neighborhoods are zoned primarily for low density residential neighborhoods. Most of the residential neighborhoods are zoned R- 4.5 and R-3.5, which stipulate minimum lot sizes of 7,500 and 10,000 square feet. Incorporating density into these contexts can be a challenge both spatially and politically. Lots are often too small to site medium to large scale multi-family housing. Politically, constructing multi-family housing, or even more than one large structure in a low density residential zone can elicit negative reactions from residents. Expanding the Urban Growth Boundary (UGB) to provide for more housing can further exacerbate sprawl and traffic while diminishing farm and forest land.

Accessory dwelling units are one tool to use land within city limits more efficiently. They require small amounts of land upon which they can be built, which is plentiful in low density residential areas with existing residences. Their scale fits into that of the predominate low density residential zones in Tigard. As small units, their impact on increasing traffic in low- density residential will potentially be minimal due to low tenant numbers.



Figure 34: Potential locations of ADUs in Tigard

## Addressing Generational Housing Needs

Housing needs and desires change as residents pass through different stages of life. A couple with children who buys a four-bedroom, single-family home in their early 30s may want something different while in their 60s or 70s. The needs of other members within families other than the homeowners may also change over time. ADUs provide ways to accommodate for those needs.

ADUs also provide an affordable, alternative housing option for young adults. Millennials, or, those born between roughly 1980 and 2000, are increasingly saddled with student loan debt, with the figure reaching an average of over \$37,000 per student in 2016.<sup>43</sup> More millennials are delaying buying a house, a car, or getting married. Some are moving back home with their parents to save on living expenses, though various reasons are given for this trend. An ADU can provide living space and privacy for one or more young adults while they save money and plan for their future. Young adults who prefer residential settings, but aren't yet ready to buy a home, can still partake in the setting while enjoying the benefit of lower costs.

### Older Adults

As the U.S. population continues to get older, so too will Tigard's. Currently, the city has a substantially larger percentage of the population over 60 years of age compared to the Washington County region. What housing options will be available for this group in 20 or 30 years? How will their needs have changed? For older adults, aging in place is the preferred



option of over 90 percent of older adults because many are emotionally attached to and supported by social networks within their communities.

ADUs can help older adults stay in a few ways. Older residents could either rent out the primary residence, possibly to family members, while living in the ADU. Additionally, an older adult could stay in the primary residence while renting the ADU to a family member, caretaker, or someone interested in renting the ADU. This could help seniors avoid social isolation, maintain family ties, and earn rental income from the ADU into their retirement years. ADUs could thus serve as an alternative to assisted living or nursing homes, which can be expensive for seniors and their family members.

## Appendix E Denver Case Study

The Urban Land Conservancy (ULC) in Denver offers a unique example of how CLTs, in partnership with the city, can foster equitable communities that ensure that all residents share in the benefits of mobility and connectivity that mass transit brings.

Denver initiated its FasTracks program in 2004 with the goal of creating multi-modal, regional public transit network. Because the city estimated that 110,000 households would seek out housing near the proposed transit lines, with a high proportion of low income households not likely to be addressed by private development, an emphasis on equitable TOD was an early concern. ULC is a local nonprofit whose stated mission is to “[acquire, preserve, and develop] real estate to under-served areas for long term community benefit ... by making sound real estate investments that include land banking and land trusts.” In partnership with Enterprise Community Partners, the city and County of Denver, and private investors, they created the country’s first TOD Fund—“a \$15 million loan fund to enable the purchase and holding of land near planned transit sites for up to five years.” In addition to creating 455 affordable units, they have preserved 214 affordable units through community land trusts.

Jody Apartments was a 62-unit garden-style apartment 300 feet from the proposed Sheridan station on the West Rail line. In anticipation of future appreciation of property value, Urban Land Conservancy acquired the apartments, rehabilitated them, and created a CLT by leasing the apartments to another local nonprofit, NEWSSED, with a 99-year ground lease. In accordance with the ULC’s mission, this purchase was made in anticipation of future market forces; the purchase was made in 2007 and the light rail was not completed until 2013. Of these 62 units, 52 units are permanently affordable, and 12 of those are maintained as affordable for below 30% median household income for the area. In Hickey’s comparative case study of CLTs in Atlanta, Denver, and the Twin Cities, he concludes that “without CLTs, each region lacks adequate mechanisms for ensuring that affordable living options will be in place after its transit system is built out, and for addressing the potential displacement of lower income households in transit neighborhoods.”

### Sources

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Hickey, “The Role of Community Land Trusts.”

## **Appendix F: Twin Cities Green Line**

### **Overview**

From 2011 to 2014, there were 2,375 subsidized long-term affordable housing units built along the Green Line Corridor, and many more units that were preserved. The Big Picture Project is very successful in being well on its way to achieving the goals it set out in 2010. The Big Picture Project’s baseline goal by 2020 is 2,540 affordable housing units, which is defined as housing for those with less than or equal to 60% annual median income (AMI). These strategies allowed for the preservation of existing affordable housing and the creation of new affordable housing that would remain affordable for the next 10-99 years.

The implementation of the Big Picture Project led to many affordable housing options and it would have not been as successfully accomplished without the input and support by the nonprofit organizations, foundations, and public residents. The Central Corridor Funders Collaborative was launched in 2006 and has 14 foundations that have helped raise money, write grants, and involve different groups within the community to help make this project and the creation of affordable housing possible.

Advocacy groups were instrumental in the community engagement process throughout the construction of the Green Line. The Central Corridor Funders Collaborative and other nonprofits in the area representing marginalized communities, such as the Asian Economic Development Corp. and the St. Paul NAACP, helped voice concerns over the light rail line and its impacts on displacement and community resources.

These organizations and others created the “Stop for Us” campaign to get more stops located in the lower income and higher minority areas along the Green Line Corridor. Initially, the light rail would have only stopped every mile in the areas of low income neighborhoods. This is because the project was required to pass a rigid cost formula test in order to get federal funding. Those few stops wouldn’t have been helpful to these communities and in fact would have created more harm because of the disruption to and displacement of homes and businesses. The issues were at the federal level and as such the local organizers ended up helping to push the change of federal regulations around this issue and the Green Line added more stops in low income neighborhoods.

The advocacy on behalf of the communities that were under represented, but in the most need of a light rail helped create a more productive and equitable light rail. Having added those stations, there was a more diverse ridership based on income and race that could properly utilize the light rail system. These stations also led to more affordable housing units being built because there were more chances for walkability to a nearby station and created more micro-economies that spring up around the stations in lower income areas.

## **Appendix G: Fruitvale Transit Village**

### **Overview**

The project originally started out in 1991 as a proposal for a multi-level parking garage adjacent to the Fruitvale BART station, utilized primarily by affluent residents of nearby Alameda Island who were attracted to the station because of its free parking. Strong community backlash, led by the neighborhood’s own community-based organizations like the Unity Council, prompted a reevaluation of the project to better align to the community’s needs. The result was a four-

acre mixed-use, mixed income transit village comprised of 37 market-rate apartments, 10 affordable housing units, office space, 20 majority-local retail spaces, a health clinic, a public library, a seniors' center, and a Head Start children's' center. All this is oriented around an open public paseo that connects the BART station to International Boulevard, the main commercial corridor in the area. The creation of a vibrant public space was a catalyst for the resurgence of business activity. While prior to the project's development, the retail vacancy rate in the area was at a staggering 40%, now the rate is near 1%.

The Fruitvale Transit Station is a case study in how public involvement can be a driving stimulus in an otherwise overlooked opportunity for urban revitalization. The entire existence of this TOD project owes its realization to the community-led opposition to the proposed parking garage project. Central to this story is the role played by the community-based organization in Fruitvale: "the Unity Council's leadership role in the project helped ensure that the community's own vision for the transit station and its surrounding area served as the guiding principles for the planning and design process." Early in the project's conception, the council held a series of workshops for the people of the community to help reach a consensus on a conceptual site plan incorporating the residents' development preferences and perceived negative and positive qualities of the neighborhood. This seemingly procedural process would be foundational for the community's perceived stake in the project as it moved forward. As argued by Sandoval and Herrera, the organization took on a more top-down approach toward the project's development, but its perceived legitimacy and role as mediator between the city and the community made it a crucial determining factor in the implementation of the entire project. Thus, while a strong community-based organization may not have aligned to more aspirational values of a direct participatory process, it did facilitate the amplification of marginalized voices. In the same way that municipalities serve a key role in assembling and funneling available political and financial capital, community-based organizations assemble and funnel the existing community resources. Sandoval and Herrera go on to say that "transportation planners cannot view all neighborhoods as clean slates," and that "each neighborhood has a particular history and its own form of community-based assets."

By incorporating a number of community services, the transit station clearly denotes itself as an anchor for multi-faceted local activity. While other mixed-use facilities might focus merely on the blend of housing, retail, and office space, the Fruitvale Transit Station also houses a health clinic, handicapped accessible affordable housing units, a public library, a seniors' center, and a Head Start children's' center. Returning to Sandoval and Herrera, this outcome was a clear consequence of the role played by the Unity Council as a vocal advocate for the needs of the community: "The more equitable outcomes depend on both the process and context of these particular neighborhoods, and how planners incorporate the various forms of political, financial, and cultural capital that exist in these communities into the planning and implementation of TOD projects." Instead of focusing solely on the need for economic revitalization in the area, public facilities to address the day-to-day needs of the community were created.

## **Appendix H: Downtown Planning History**

Tigard's Downtown Urban Renewal efforts have not suffered from a lack of planning. Many plans have been written with Tigard Downtown Urban Renewal in mind. These include: Tigard City Comprehensive Plan (TCCP), Tigard Downtown Improvement Plan (TDIP), and Tigard City Center Urban Renewal Plan (TCCURP). The predominant theme in each plan relates to the connectivity of people to places and activities, and creating a vibrant, attractive urban village in the "heart of the community". There is a well-articulated vision of the downtown core as an active, multi-use space that is supportive of the local economy. Following the planning process through the past decade, we see the introduction and refinement of placemaking identity downtown.

The TDIP aims to provide the blueprint for the evolution of Downtown Tigard into a vital, vibrant, mixed-use and pedestrian-friendly environment over the next twenty to thirty years. A lengthy grant and planning process resulted in the TDIP.

The TDIP sets forth a vision to create, “a vibrant and active urban village at the heart of the community that is pedestrian-oriented...recognizes and uses natural resources as an asset, and features a combination of uses that enable people to live, work, play, and shop in an environment that is uniquely Tigard.” The TDIP promotes a vision, guiding principles and concepts, preferred design concept, catalyst projects and preliminary implementation strategy of Downtown Tigard Urban Renewal. This plan specifically outlines recommendations on: “strengthening image and sense of place” and the creation of a “brand Tigard” working group.

According to the TCCURP, the area is underdeveloped and lacks a mix of high quality commercial, office, residential, and public uses suitable for the city’s central business district. One of the main purposes of the plan is to attract private investment.

Within goals four and five of the TCCURP we see the ‘Main Street Village’ take form. Plan objectives outline ideas to attract visitors to downtown, create visually appealing destinations; invest in streetscape and open space within downtown. The TCCURP outlines specific urban renewal projects, such as “conversion of existing north rail corridor into a multi-use pedestrian trail”, which is now the Heritage Trail Project, a main space activation site within our creative placemaking recommendation.

The city of Tigard has prepared several plans over the years that are each focused on building a distinctive, cohesive and functional downtown that is uniquely Tigard. Our recommendations in this report build upon the city’s existing plans for downtown revitalization. We acknowledge the importance of these detailed plans, but we also see value in activating the vacant and underused spaced downtown now. We recommend creative placemaking as a strategy to achieve this.

## **Appendix I: CORE Story Framework**

Successful community branding follows the CORE story framework

- Characterization
- Objective
- Relationship
- Environment

### **Step 1**

A downtown must identify the following elements:

- A clear idea of what it is now.
- A clear idea of what it wants to be.
- A clear idea of its strengths.

### **Step 2**

Conduct extensive public outreach activities.

The framework is most effective when “ it is populated with data garnered from extensive public outreach, so that a story emerges from the words of local residents, business owners, property owners, and public-sector stakeholders.”

- Downtown walking tour: Allows community members and stakeholders to communicate their thoughts and feelings collectively after experiencing a portion of downtown firsthand.
- Fireside chats with the mayor or city manager: Allows community members and

stakeholders to comfortably share their vision for the downtown with a decision maker directly.

- Planner in the park: Allows community members and stakeholders ask questions to a well-informed member of the community.

### Step 3

Populate the CORE Story Framework with data obtained from extensive public outreach.

#### Characterization

Characterization refers to the part of a story that is told through the physical presence of a character. For a city, characterization is everything that your city presents to the world physically, such as streets, buildings, signage, lighting, homes, yards, parks, and natural environment. Physical communications also contribute to this element of story through brochures, billboards, print ads, and TV advertising. All of these things play a role in how a downtown presents itself. The physical portion of a place's story is broadcasting itself 365 days a year and cannot really be "turned off." Happily, it can often be changed for the better through techniques of changing color and improving facades.

#### Objective

Objective is the heart of story framework. For a downtown, objective refers to understanding the experience that downtown intends to provide and the role that downtown plays in the city as a whole. What does a place stand for? What is it about? What motivates it? These things should be clear when spending time in a downtown.

#### Relationship

You can tell a lot about a city by the relationships they maintain. What are your most popular events? The most beloved businesses? Who in the community connects with downtown? These ties are areas of strength that should be further engaged and linked together because ultimately, a downtown should reflect the fabric of the community in which it resides, and this comes from relationships. The human experience should be palpable in a downtown and you begin with who already has a strong feeling of kinship to the core. A downtown is interested in who doesn't relate to it as a place, because these groups represent opportunities to forge new connections and build new markets.

#### Environment

Environment is just as important as the other elements in the story framework. We all know the expression that context is everything. Well, it's true. Context is everything. And, you can't change a place's "where," so understanding it and leveraging it, are paramount for planning and economic success. In considering environment, we want to think about these questions: what is the setting for your city? What is special about it? How does it relate to neighboring environments? Is it a commercial area, residential, or mixed-use? What type of land use toolkits are being applied to this environment?

### Step 4

Construct a narrative that explains the three elements from Step 1. The narrative obtained is used to create a downtown's urban identity. The narrative is best quantified by using data gathered in Step 3.

Downtown Tigard does not function as vibrant urban core not because it has been forgotten but because it is an unfinished place that has not yet evolved into its urban identity. Community branding using the CORE Story Framework is a great way for Downtown Tigard to discover its urban identity and tell its story. As a creative placemaking tool, community branding provides the community a chance to discover main street and what it has to offer currently and in the future. A successful community branding exercise will allow both community members and decision makers to not only share a unified community brand for Downtown Tigard, but to also allow them to answer the following five questions regarding Downtown Tigard's future.

- Why would a company want to locate in your town?
- Who might decide to come visit your city?
- How can you become a local hangout?
- Should a lender be willing to risk investing in new development in your city?
- Would a visitor be delighted to spend time in your downtown?

## **Appendix J: Funding Opportunities**

### **National Endowment for the Arts**

The National Endowment for the Arts (NEA) has been instrumental in assisting towns and communities build their “brand” and develop innovative programming around arts and culture. The organization attributes creative placemaking to any community-based, art-infused strategy that inspires dynamic public spaces which build on existing creative energies in the community. They are therefore inclusive and diverse in nature.

The NEA created an “Our Town” initiative, which awards grant funding to creative placemaking projects that strategically link communities and local governments with artists designers, and art organizations to improve quality of life, create sense of place, and revitalize local economies. The NEA is a crucial strategic partner within Tigard's creative placemaking efforts.

### **Metro Placemaking Grants**

In 2016, Metro started a new grant program that awards funding to community-driven projects that foster civic pride and stimulate economic development. This program specifically supports projects that build on local and cultural assets that foster a community's connection to a place and to each other. Metro is targeting this year's grant funding to projects that are located in the Southwest Corridor, and cities that will be affected by the extension of TriMet light rail line, including Tigard, Tualatin, Sherwood, Durham and unincorporated Washington County. The three (3) creative placemaking strategies outlined in this report could be eligible for funding. Examples of projects eligible for funding include:

Project Types Examples	
Repurposing Public Spaces	Turning underused public right-of-way into active plazas; turning a parking space into a parklet
Enlivening Spaces with Art and Activity	Bringing art programming into vacant storefronts; holding a cultural festival in a public space
Activating Streets	Intersection or crosswalk murals; seating in a curbside space
Sparking Dialogue & Raising Awareness	Murals depicting pressing community issues, such as displacement; celebrating the cultural assets of a neighborhood
Temporary-to-Permanent Placemaking	Changing the function or form of a public space to allow community members to be designers; testing the space to allow time to work out design considerations
Urban Interventions	Temporary zoning and/or transportation grace periods from existing regulations to explore permanent regulatory changes
Community Visioning Through Placemaking	Using art to invite people to envision how they would use a public space or the changes they want to see in their neighborhoods

Figure 36: Types of projects that are eligible for Metro placemaking grants.  
Source: [www.oregonmetro.gov](http://www.oregonmetro.gov) "2018 Community Placemaking grant cycle"

The award cycle for Metro’s placemaking grants opens in January 2018, and a total of \$160,000 is available, with \$60,000 dedicated specifically to projects proposed in the Southwest Corridor. This grant offers a great opportunity for Tigard to implement creative placemaking strategies on Main Street and be supported by the greater Metro area.

## Appendix K: Alpharetta, Georgia Case Study

### Avalon Mixed-Used Town Center Development

The affluent community of Alpharetta, Georgia is located in the northern suburbs of Atlanta. Despite the high paying tech jobs and several comfortable upscale residential areas in the community, residents rarely spend their time or money in the area on leisure related activities. Residents are known to spend a significant amount of time in their cars traveling to other parts of the metro area in search of restaurant and entertainment experiences and services. The main contributing factor of Alpharetta area residents seeking to spend their time and money elsewhere is that Alpharetta has been characterized as having a distinct lack of pedestrian scale development that is neither walkable or inviting.

To address Alpharetta’s car centric behavior and lack of walkability to restaurant and entertainment experiences and services, “Avalon was conceived and developed to address this gap in the market.” Avalon is designed as a multi-use pedestrian-centric town center that seeks to offer several of the same or similar lifestyle and community amenities to Alpharetta residents that were previously available only in areas accessed by car. The developer, North American Properties (NAP), pitched the Avalon development as being “the South’s first ‘urbanurb,’ a

walkable, urban experience in a suburban setting, with a blend of curated uses that maximize the energy level of the property throughout the day and into the evening.”

In designing Avalon, NAP approached the project with the goal of providing “the luxury of time well spent.” To achieve this goal NAP focused heavily on what people would experience rather than on what buildings would fill the space. In focusing on the human experience as opposed to the built form, Avalon was designed as a mixed-use town center that would be completed in two phases. Phase I includes 390,500 square feet of experiential shopping and dining options mixed with multi-family rental housing, single family for sale housing, and office uses. Phase II will add more retail, office space and apartment rentals, in addition to a 330-key hotel and conference center. Essentially NAP has designed Avalon to “serve both those who wan[t] to live and work in a more walkable setting and those from the surrounding residential areas who wan[t] to visit, shop, dine, and enjoy entertainment. . .”

## Observations and Lessons Learned

### 1. Experiential Mixed-Use Development.

Assessing Avalon as a mixed-use town center development against the current literature on mixed-use development, placemaking, and pleasant cities confirms that the Avalon is the gold standard for experiential mixed-used development, and suburban placemaking.

The Urban Land Institute, in an article on town centers and walkable urbanism in suburbia, explained that “though the town center concept is not new, it is being reinvented and adapted to a variety of contexts.” In the context of an automobile-centric affluent area, Avalon is a mixed-use town center that has quickly transformed what was once a sprawling nondescript suburban neighborhood on the outer rim of Atlanta, into what is now North Fulton County’s living room. By focusing on a diverse mix of uses—experiential shopping and dining, multi-family rental housing, single family for sale housing, office, hotel, and conference center—Avalon has become a “major attraction and destination for residents, businesses, and visitors in the Alpharetta area.” By approaching mixed-use through what NAP calls “urbanburb” development, Avalon was transformed into a well designed public realm. An “urbanburb” development creates an experience that caters to people on a more human level by providing a denser, more vibrant place to live work and play. Essentially the “urbanburb” is the defining aspect of Avalon and serves as the anchor development. By creating a distinctive public realm that is able to create and hold energy on the property, Avalon has positioned itself to elevate and enrich the area locally and regionally in unique ways.

The Avalon is an excellent example of how placemaking can transform a city and neighborhood and provide for human needs. The Avalon was able to recognize and develop on the positive potential they saw in the space and transform it into a good place. NAP was able to turn the Avalon into a successful place because it chose to build community before anything else. NAP also decided to put “heart share over market share as a measure of success.” Essentially NAP developed Avalon with the goal to not just build a place where people have a reason to extend their dwell time, but to also to provide users with the luxury of time well spent. NAP was able to learn what visitors need to experience in a place for them to consider their time well spent because they engaged with the community before they built anything. NAP employed the creative placemaking tool of community branding to work from the bottom up and engage with the community to learn what people wanted and needed, to provide visitors with a very human-centric experience. NAP sought to create a sense of place by working “tirelessly with the surrounding community, forging strong relationships both online and in real life with the people who call the area home, and collaborating and co-creating with neighbors, city influencers and local organizations from day one.”



In his book, *Walkable City-How Downtown Can Save America, One Step at a Time*, Jeff Speck talks about how pedestrian accessibility and walkability in the city are essential as well as a key point to visitors and residents experiencing comfort in the city. The Avalon provides a clear example on how mixed-use town centers can be appealing to both public and private investors. With mixed-use development being met with skepticism at the public and private level in the past, the Avalon shows that when a property is developed to the appropriate size, scale and performance of an area, the development adds to the local character and works to enhance the public realm.

In the process of making a space a more pleasant place to live, planners and developers should aim beyond merely providing sufficient space for movement and enable people to have direct contact with the society around them. To achieve this direct contact with society a pleasant place to live requires varied and complex city life. Single use and private places do not offer the pedestrian scale and walkability needed for a place to be both inviting and vibrant enough to attract the prolonged use of consumers. The Avalon provides ample pedestrian accessibility and walkability that allows the visitor to dwell comfortably in the place regardless of the activity they are engaged in.

In *The Image of the City*, Kevin Lynch stresses the importance of making a place vibrant, lively and memorable to both the visitor of the place and to those who passing by. By providing a place that fits into the current market and matches the character of the area, the Avalon follows Lynch's advice in needing to make a place vibrant, lively and memorable from every perspective. The Avalon demonstrates that experiential mixed-use developments, when done well, draw people in who want to be there and who may use the space of several different purposes because it is a vibrant and will provide the visitor with lasting memories.

Suburbia is often characterized as facing challenges associated with having a heavy dependence on automobiles, lack of pedestrian scale, lack of walkability and public meeting places, and lack of social cohesion. Crafting ways to accommodate future growth and address suburbia's known challenges, while also trying to make suburbia work in a better, more efficient and humane way is the key issue facing developers, planners and public officials today.

Providing feasible solutions to the challenges that the suburbs bring can be overwhelming and unattainable for some areas that are looking to revitalize their public spaces and breathe new life into their communities. The Avalon is an excellent example of the feasibility of suburban placemaking in modern America. The Avalon demonstrates that suburban placemaking is a possibility and that when it is done well it pays off both financially and in advancing human capital.

## **Success of Implementation**

Developing Avalon as a mixed-use town center that focuses on providing quality human experiences, by generating a sense of "time well spent" in the visitor, rather than focusing on the buildings in the development, has been widely successful. Avalon has been recognized by the Urban Land Institute Atlanta (ULI Atlanta) as the "Project of the Year" in 2015. The "Project of the Year" award is ULI Atlanta's most prestigious award. ULI awards are significant in that they "illustrate that well-designed, well-built projects and initiatives can thrive even in the most challenging of economic times. Winners . . . show the best in creativity, innovation, and long-term thinking." The fact that the Avalon has been recognized as the "Project of the Year" speaks volumes. The award highlights the fact the suburban placemaking through mixed-use development is possible. Reviewing the development from three additional aspects, financial return, visitor use, and project emulation, further demonstrates why Avalon is such a successful place. Each measuring stick demonstrates how the Avalon has raised the bar for mixed-use developments.

Financial measurements indicate that when Avalon is fully completed it is projected to generate 4,000 new jobs in retail, hotel service, and office jobs. In addition to creating jobs, Avalon is projected to generate extensive tax revenue, \$21 million annually in sales tax, \$4.5 million in property tax, and \$1.8 million in hotel taxes. Currently Avalon is performing well for private and public stakeholders. The values across all uses implemented in Avalon are 30-75 percent above market. Retail space within the Avalon is 98 percent occupied and has minimal turnover. Additionally, property beyond Avalon is benefiting through increased activity and higher rents. Since its opening, Avalon has hosted over 200 community and charitable events, which has raised over \$250k for local nonprofit organizations. Overall, the current and projected financial success experienced by all stakeholders is proof that experiential mixed-use developments can provide both a sense of place and capital for an area.

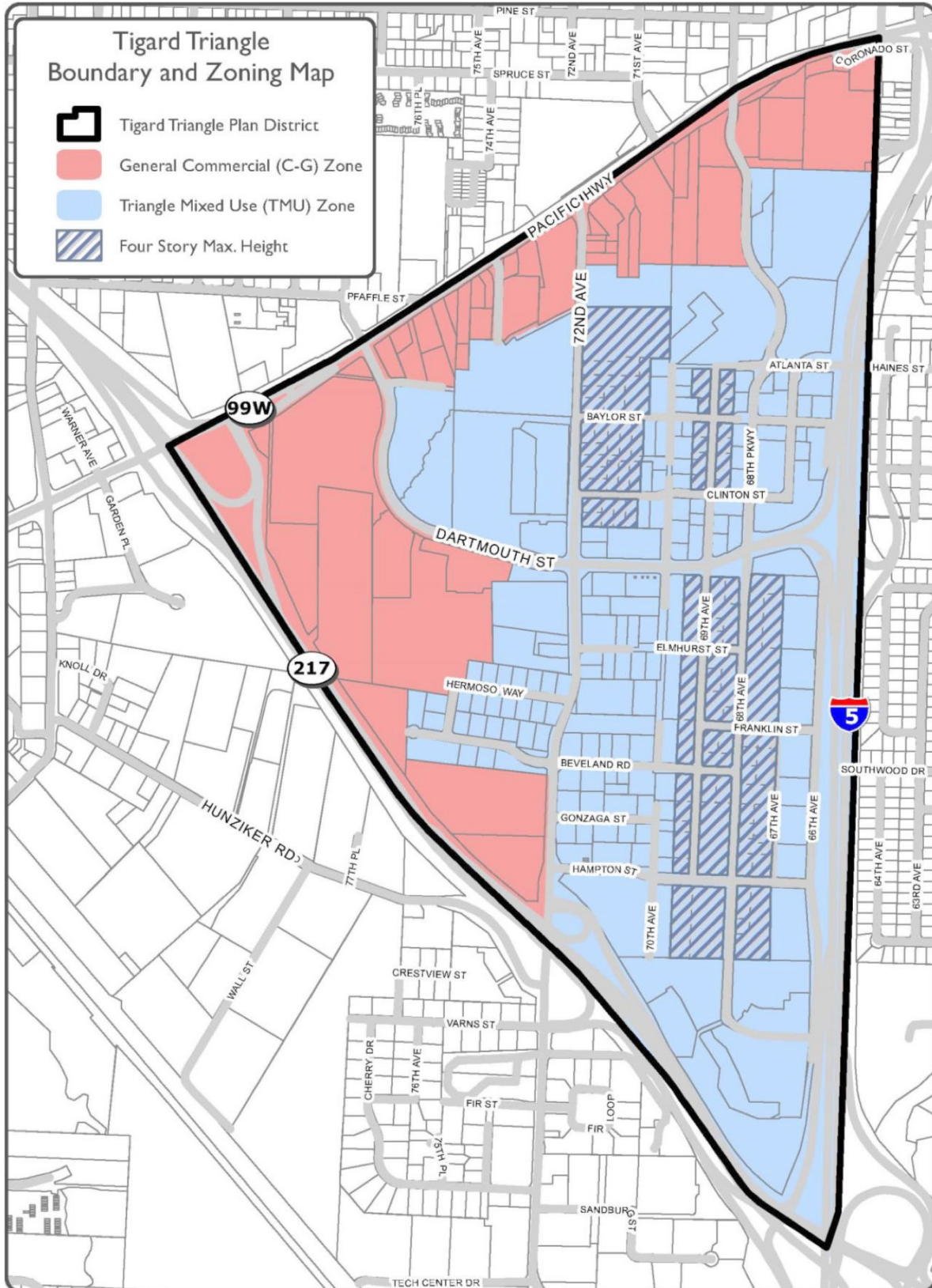
Visitor use measurements show that visitors experience the Avalon across multiple uses on an 18-hour cycle. The diversity of uses available to guests, residents and office tenants are so intertwined that people are drawn to circulate from place to place which in turn creates a vivid and vibrant streetscape for much of the day. Because visitors are able to use the Avalon on a pedestrian scale, pedestrians are provided with a sense of place in Avalon through a strong street-level experience. Avalon has such a distinct public realm that invites and allows the visitor to participate in the space across a spectrum of multiple uses comfortably. In addition to drawing in local visitors, Avalon is also becoming a successful tourist destination. Landowners and municipalities from around the United States are starting imitate Avalon style experiential mixed-use development. The most recent example is in Gwinnett County, Georgia. Gwinnett County has developed a unique public-private partnership with NAP, and is scheduled to start an extensive mixed-use development on its Infinite Energy Center property, which will employ Avalon style mixed-use development elements.

### **Implications for Downtown Tigard**

The Avalon Case Study should be used by the city of Tigard as a template for revitalizing Downtown Tigard. Downtown Tigard is a prime geographic location for an experiential mixed-use development. Downtown Tigard has excellent automobile and mass-transit access, in addition to engaging walking trails via Fanno Creek and the future Heritage Trail and Rotary Plaza. Much like Alpharetta, Georgia was, Tigard is home to and largely affluent community that chooses to drive out of the area to engage in dining and entertainment activities rather than utilize the amenities found downtown. It is arguable that residents do not see the dining and entertainment opportunities currently offered downtown as being able to provide an experience they would consider being “time well spent.”

As the city of Tigard engages in efforts to transform Downtown Tigard into a “vibrant and active urban village ... that is uniquely Tigard,” they should consider courting developers that will provide a mixed-use development that is a co-created space with community. A mixed-use town center development that is co-created with the Tigard community and matches the market will provide for the needs of current and future residents. Overall, the Avalon case study demonstrates that it is possible for the city of Tigard to transform its downtown into something successful and unique by providing residents and visitors with a place to gather and create memories with families and friends. The city’s desired downtown place that is “uniquely Tigard” is attainable through experiential mixed-use developments that are well designed and provide the visitor with an experience they consider “time well spent”.

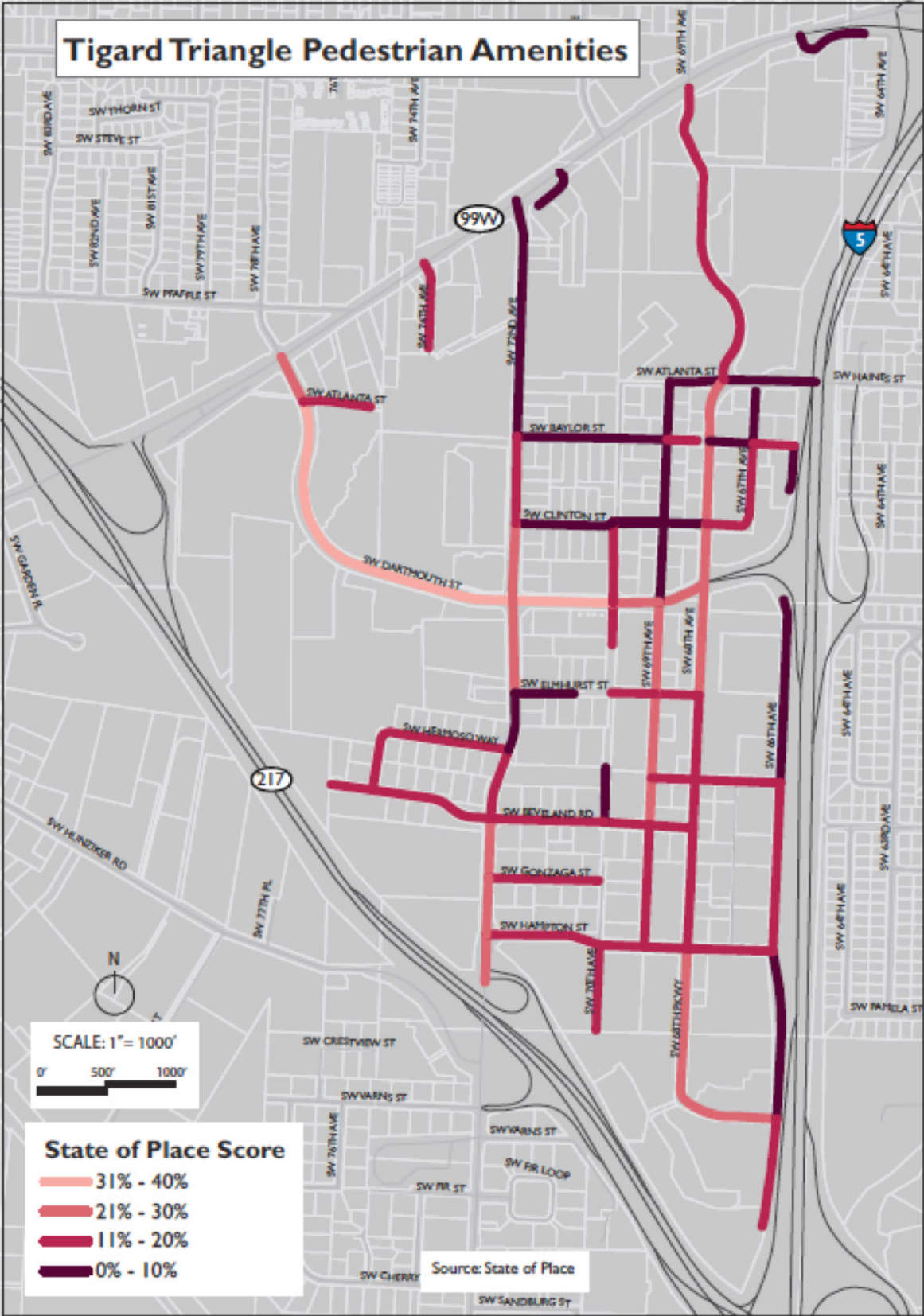
# Appendix L: Inclusionary Zoning Map



# Appendix M: Open Space Map



# Appendix N – Connectivity Maps



## Appendix O: Vauban, Freiburg, Germany Case Study

### The World's Most Successful Model for Sustainable Urban Development?

The Vauban district is a much celebrated example of what a strong vision, ecological ethic, and creative reuse can accomplish. Vauban is a neighborhood near Freiburg designed as a “sustainable model district” built on a former French military site. The main tenets of Vauban that apply to the Tigard Triangle are its walkability, adaptive reuse, citizen involvement, open space, and sustainable building. Vauban is also an excellent model of the system of incentives created for both the private and public sectors, where neither burdens the cost of development alone.

### Participatory Design

Each individual piece of development, consisting of a superblock of old army buildings around a semi-public space, was undertaken by *Baugruppen*, or co-housing groups. This created a richness in variation that creates unique character and interest. The detail is especially glorified in the semi-public areas and play spaces, where creativity runs wild and becomes a child's paradise.

### Active Transportation Policies

All homes are within easy walking distance of tram stops and the town layout promotes multi-modal transportation by using the concept of “filtered permeability,” which restricts cars in certain areas. Most residential streets are known as *stellplatzfrei*- which literally means “free from parking spaces.” While vehicles are permitted down these streets for slow speed pick-ups and delivery, they are prohibited from parking. Personal car ownership is de-incentivized by yearly fees and the well-established community car-share system. The effect of this set of plans and policies is neighborhoods are conducive to safe walking, bicycling, outdoor play, interaction with neighbors, saved money, and reduced carbon footprint.

## Appendix P: Granville Island Public Market, Vancouver Case Study

As the manufacturing industry left Granville Island in 1960's, the area was left in disrepair with high levels of pollution. In the 1970's when the Canadian Housing and Mortgage Commission gained ownership, the stakeholders agreed to redevelop with the vision of creating a “people place.” Under this loose framework, the island began to attract artisan communities and the Public Market was a great contribution to the place. Granville Island and its Public Market are considered an urban magnet within the Vancouver metro area.

Characteristics:

- Powers of 10+
- Iconic design that reflects industrial and maritime history
- Tourist destination and beloved by locals
- Vibrant arts community, with multiple indoor and outdoor performances and public installations
- Challenges:
  - Unable to attract businesses and visitors to active the space at night
- Lacking infrastructure for transit, walking, and biking to the island
- Stagnant rental income
- Parking management



Figure 37: The Granville Island Public Market

Although Granville Island is in many ways a drastically different place than the Triangle, there are key lessons to be learned from their successes and shortcomings. Granville Island is taking future action to ensure that active modes of transportation are the first way people think to travel. This includes transit and pedestrian infrastructure and reclaiming some street and parking areas for public plazas. Similar to the Triangle, public space in Granville Island is empty at night because there are no residents on the island. Initially, the largest customer base will be the thousands of employees commuting to and from the Triangle during the day. However, by employing the seasonal design and event opportunities on weeknights, the market will eventually be a destination for projected increase of Tigard residents.

## Appendix Q: Creek Restoration and Transit-oriented Development

Ongoing transit-oriented development in Westminster, Colorado provides an excellent example of integration of urban redevelopment and creek restoration. As part of a light rail extension to connect Denver and Boulder, the Denver Regional Transportation District (RTD) lengthened service of the B-Line 11 miles northwest to the city of Westminster. (RTD, Fast Tracks Fact Sheet, January 11, 2016) The Westminster light rail Station opened in summer 2016, although the city and RTD had already begun to redevelop the area as a transit-oriented district. The city designated the Westminster Station area as an overlay district to promote economic activity, create open spaces, restore natural areas, and foster an active community (City of Westminster, Westminster Station Area Specific Plan District, March 13th, 2017).

Throughout much of its route in Westminster, the B-Line parallels Little Dry Creek, a small stream in the Platte River watershed. (RTD, Fast Tracks Fact Sheet, January 11, 2016) Due to their similar sizes and urban locations, little Dry Creek and Red Rock Creek experience similar challenges and opportunities. Because the station sits adjacent to the creek, the city has visions for 37.5 acres of open space, multi-use trails, educational facilities, art installations, restored wetlands, and a new lake. In 2015, the city realigned Little Dry Creek near the station, reducing flood elevation and forming a 2.5-acre flood control pond “making it a naturally sustainable creek in an ecological, urban corridor... [bringing] nature back into play” (Briggs, “Westminster moving earth, water to leverage areas near rail station,” 2015).



Figure 38: Creek Restoration and TOD in Westminster, Colorado.  
 Source: Westminster Station Park Plan, Matrix Design Group

Westminster restored Little Dry Creek with priority for ecological and human need, first addressing flooding, stream function, and habitat before integrating public open space amenities. Working in conjunction with restoration efforts, the city has begun construction of a nature playground, providing new open space to children and families by using existing natural areas near the creek (Peyton Garcia, “Westminster welcomes hub of tree houses in new nature playground”, Denver Post, September 20th, 2017).

Next, they will start work on “an overlook and sun terrace, trail upgrades, event amenities like a stage area and pavilion, transit district improvements, public art and xeric garden” (Kevin M. Smith, “Natural park to highlight Westminster’s train station”, The Westminster Window, June 19, 2017). Finally, the city will build a pavilion and fishing pier by the pond. Most of Westminster’s recreation projects will use riparian areas or newly created wetland and lake habitat to integrate restored open space with vibrant, public station areas. Westminster’s multifaceted, ecologically sensitive approach provides an example of effective integration of open space and restoration in an urban transit oriented development.

## Appendix R: St. Mary Ethiopian Church Rain Garden Project Case Study

This project represents an example of direct community participation in LID. Using a grant from the Community Watershed Stewardship Program (CWSP), fundraising and volunteers organized by the Johnson Creek Watershed Council, and tools borrowed from Green Lents Community Tool Garden, the project demonstrates the efficacy of collaborative LID projects. Local food security organization Outgrowing Hunger used of a Community Watershed Stewardship grant to make improvements to the East Portland Neighborhood Gardens, including rainwater capture for irrigation as well as watershed and garden educational programs (Portland BES, Community Watershed Grant Program, 2017). The Community





Figure 39: Collaborative LID projects at St. Mary Ethiopian Church  
Source: Floodlist.com and Depave

Watershed Program Grant (CWPG) provides \$10,000 Stewardship Grants and Native Mini-Plant Grants of \$500 to community groups in the city of Portland. This grant program successfully funds LID projects spearheaded by local nonprofits, neighborhood groups, and individuals. The city awards CWSP equitably, involving and benefiting diverse communities in watershed stewardship.

## Appendix S: Recreation and Health

The U.S. Department of Health and Human Services, Center for Disease Control and Prevention (CDC) reports that in the past 30 years, the prevalence of obesity amongst adults aged 20-74 has increased from 15.0% to 32.9%, and the estimated cost of obesity in the United States in 2000 was about \$117 billion (Clinton County Greenway and Open Space Plan).

Community parks provide a variety of active and passive recreational opportunities for all age groups. These parks are generally larger in size and serve a wider base of residents than neighborhood parks. Community parks often include developed facilities for organized group activities, as well as facilities for individual and family activities. Community parks also provide opportunities for environmental education and community social activities. Inclusion of community park development in Tigard's network of open space can optimize the community benefits of these spaces.

With increasing obesity rates among children and adults, adverse health conditions stemming from extra pounds have become an epidemic in America. More parks, and improved access to them, is of tantamount importance to helping decrease obesity rates. (Markian Hawryluk, "Oregon obesity rates highest in West")

Results for both models indicated that access to both parkland and recreation programs reduce risk of overweight and obesity as measured by BMI attained at age 18 (Wolch et al, "Childhood obesity and proximity to urban parks and recreational resources: A longitudinal cohort study").

An aggregate measure of green space is not significant to explain the BMI, but forestland is. This suggests that different types of green spaces have distinct effects on body weight and that it is important to treat green spaces distinctly when analyzing their impacts on body weight-related public health indicators. In particular, green spaces with higher potential to be used for outdoor recreation seem more important to help reduce body weight (Ghimire et al, "Green Space and Adult Obesity in the United States").

The character of a neighborhood has a significant effect on residents' physical activity. People in communities with abundant green-space generally enjoy better health.

### **How Can Trails and Greenways Help Make a Healthier Community?**

Trails and greenways create healthy recreation and transportation opportunities by providing people of all ages with attractive, safe, accessible places to bike, walk, hike, jog, skate or ski. In doing so, they make it easier for people to engage in physical activity.

Trails connect people with places, enabling them to walk or cycle to run errands or commute to work. A majority of the daily trips people make are short, providing an opportunity for physical activity that can be built into the daily routine.

Trails and greenways provide natural, scenic areas that cause people to actually want to be outside and physically active. Cities, such as Chattanooga, Tennessee and Providence, Rhode Island have transformed unsightly urban decay into inviting and popular greenways and walkways that make their communities more livable and walkable. Both cities promote their riverside greenways to attract visitors, businesses and residents.

Trails connect neighborhoods and schools so children can cycle or walk to their

friend's homes or to school, especially in communities that lack sidewalks. In Denver, the Weir Gulch Trail provides a safe neighborhood route for elementary-aged children, the trail's primary users.

In an age of expensive indoor gyms and health clubs, trails and greenways offer cost effective places to exercise. Like gyms and health clubs, they also serve as a place where people can see and interact with other people exercising. Researchers have found that a lack of this type of social support is often a barrier to participation in exercise.

A North Carolina State University study conducted to gauge potential use of a trail in Cary, North Carolina, found that 72 percent of respondents indicated it was likely the trail would provide a place for them to exercise, and 57 percent said they likely would exercise more if the trail were created. Even if only half those respondents actually end up increasing their exercise because of the trail, the impact on public health is substantial.

*Health and Wellness Benefits, Rails to Trails Conservancy*

People who use parks and open spaces are three times more likely to achieve recommended levels of physical activity than nonusers.

People prefer nearby, attractive, and larger parks and open spaces for their activity.

Childhood obesity has more than tripled in the past 30 years. Active living is one solution to turn back this trend. Tree lawns contribute to perceptions of more walkable streets, which can promote more physical activity in children and youth (University of Washington, "Active Living").

## **Appendix T: Dauphin County, PA Case Study**

Dauphin County, PA developed a Return on Environment report that found that the recreational, property value, and natural system services that open spaces provide, like habitat, flood protection, water quality and supply, pollination, and soil control, provided benefits that estimated nearly \$1 billion annually.

### **Dauphin County's Return on Environment Report—Natural System Service Benefit Categories**

#### **Water Supply and Groundwater**

Pennsylvania cover types (e.g., forests and wetlands) and their underlying soils help ensure

that rainwater is stored and released gradually to streams and rivers, rather than immediately flowing downstream as runoff. As Dauphin County grows, the value of infiltration and quality water to residents will continue to be very high. The sources for this eco-price were investment in water supply and the market price of municipal water supply in Maryland and Pennsylvania.

### **Nutrient Uptake**

Forests and wetlands provide a natural protective buffer between human activities and water supplies, helping to filter out pathogens, excess nutrients, metals and sediments. Waste assimilation benefits were derived by the amount of forest wetland and riparian buffer cover. The nutrient category included fourteen eco-prices. Eleven are prices per pound of nutrient removed. These were averaged with the cost of implementing Best Management Practices (BMP). The category also includes is the price of nitrogen in the PA nutrient trading market.

### **Stormwater and Flood Mitigation**

Many natural landscapes provide a buffering function that protects humans from destructive activities. Forests, wetlands, riparian buffers, and floodplains mitigate the effects of floods by slowing, trapping, and containing stormwater. The stormwater and flood mitigation category consists of 27 eco-prices, 24 of which are stormwater best management practices that were averaged together.

### **Biological Control**

Native birds and insects dynamically regulate and control invasive and unwanted species, such as pests, weeds, and disease vectors (e.g., mosquitoes). This eco-price is based on a valuation study.

### **Wildlife Habitat**

Contiguous patches of land cover with sufficient area allow naturally functioning ecosystems and support a diversity of sustainable plant and animal life. Intact forests and wetlands function as critical population sources for plant and animal species that humans value for both aesthetic value and functional reasons. Native vegetation supports 29 times more biological diversity than non-native plants.

The eco-price associated with biodiversity and wildlife habitat was assumed to be investments made to preserve natural lands or habitats and the tax benefit gained by doing so. The habitat category includes five instances of investments in wildlife habitat and the calculated average yearly tax benefit of donating land for conservation. The yearly value per acre is estimated to be this tax benefit plus the average annualized value of the conserved land.

### **Habitat Regeneration**

Natural habitats regenerate. Forests and wetland habitat regeneration is the act of renewing habitat cover by naturally establishing young plants promptly after the previous habitat has been altered. This eco-price is based on two valuation studies.

### **Aquatic Habitat**

The Pennsylvania Fish and Boat Commission (PFBC) has created a wild trout designation and biomass classification system. PFBC also secures fines from activities that kill fish. Fines vary by species and size of fish. Based on the average size and fine for different stream classifications, an eco-price was developed for each exceptional value and high quality stream classification.

## Pollination

Pollination is essential for native vegetation and many agricultural crops and substitutes for local pollinators are increasingly expensive. Pennsylvania has been experiencing a severe “bee colony collapse.” Forests and meadows provide pollination service benefits, which are a form of insurance for farmers and nature in the event that bee collapse continues to be an issue. This eco-price is based upon a valuation study.

## Soil Retention

Soils provide many of the services mentioned above, including water storage/filtration, waste assimilation and a medium for plant growth. Natural systems create and enrich soil through weathering and decomposition and retain soil by preventing it from being washed away. Four eco-prices are included in the soils category: two are costs of erosion and two are costs associated with preventing erosion.

## Appendix U: Real Property Values

Many studies demonstrate that parks, greenways and trails increase nearby property values, thus increasing local tax revenues. Such increased revenues often offset greenway acquisition costs.

- “California’s Secretary for the State Resources Agency estimated that \$100 million would be returned to local economies each year from an initial park bond investment of \$330 million” (Gilliam, 1980).
- A greenbelt in Boulder, Colorado increased aggregate property values for one neighborhood by \$5.4 million, resulting in \$500,000 of additional annual property tax revenues. The tax alone could recover the initial cost of the \$1-5 million greenbelt in three years (Cornell, Lillydahl, and Singel, 1978).
- In the vicinity of Philadelphia’s 1,300 acre Pennypack Park, property values correlate significantly with proximity to the park. In 1974, the park accounted for 33 percent of the value of land 40 feet away from the park, 9 percent when located 1,000 feet away, and 4.2 percent at a distance of 2,500 feet (Hammer, Coughlin and Horn, 1974). Spending by local residents on greenway related activities helps support recreation related business and employment, as well as businesses patronized by greenway and trail users.
- Residents are increasingly spending vacations closer to home, thus spending increasing amounts of vacation dollars within the boundaries of the state (NPS 1990).
- In 1988, recreation and leisure was the third largest industry in California. More than \$30 billion is spent each year by Californians on recreation and leisure in their state. This amounts to 12 percent of total personal consumption (California Department of Parks and Recreation, 1988). Commercial Uses Greenways often provide business opportunities, locations and resources for commercial activities such as recreation equipment rentals and sales, lessons, and other related businesses.
- Along the lower Colorado River in Arizona, 13 concessionaires under permit to the Bureau of Land Management generate more than \$7.5 million annually, with a major spinoff effect in the local economy (Bureau of Land Management, 1987).
- Golden Gate National Recreation Area has contracts with ten primary concessionaires. Total 1988 gross revenues for these concessionaires were over \$16 million, over 25 percent of which was spent on payroll (NPS, 1990). Tourism Greenways are often major tourist attractions which generate expenditures on lodging, food, and recreation related services. For example, tourism is Maryland’s second largest and most stable industry, and is projected to become its largest.

- A poll conducted by the President’s Commission on Americans Outdoors found that natural beauty was the single most important criterion for tourists in selecting outdoor recreation sites (Scenic America, 1987). Maryland’s Department of Economic and Employment Development estimated the annual value of tourism and commercial activities directly related to the Chesapeake Bay was \$31.6 billion in 1989 (DEED 1989).
- The San Antonio Riverwalk is considered the anchor of the \$1.2 billion tourist industry in San Antonio, Texas. A user survey concluded that the Riverwalk is the second most important tourist attraction in the state of Texas (NPS 1990).
- The Governor’s Committee on the Environment reported in 1988 that the governors of five New England states officially recognized open space as a key element in the quality of life in their region. They credited that quality of life with bringing rapid economic growth and a multi-billion dollar tourism industry to the region (Governor’s Committee on the Environment, 1988).” (<http://www.americantrails.org>)

## Appendix V: Investment Strategies

Because creek restoration and trail construction represent an overlap of a variety of multi-agency, multi-jurisdictional visions, the city of Tigard should consider soliciting funding from a wide variety of federal, state, regional, and local sources. The potential for this project to fulfill objectives for public and active transit, transportation, parks, trails, and nature implicates a diversity of funding mechanisms including—but not limited to—grants, tax increment financing, capital improvement funds, public-private partnerships, and system development fees.

In developing broad plans for funding the Red Rock Creek trail construction and restoration, Tigard might partially model plans after Metro’s shared investment strategy recommendations for the Southwest Corridor. This document indicates that different development standards are required for on and off-street active transit infrastructure, and notes that—as such—different funding sources are appropriate for each. This distinction may prove advantageous in soliciting funds for on and off-street components of the trail.

Based on a series of proposed capital improvement projects, the city of Tigard’s Stormwater Master Plan estimates total restoration costs at \$13.9 million. The Tigard Triangle Strategic Plan estimates trail construction costs at \$1.24 million, and parks and open space projects at approximately \$700,000 per park.

### Federal Sources

Federal funding for trail construction may be available through the Recreational Trails Program. Jodi Bellefeuille works as the grant coordinator for the Recreational Trails Program in Oregon, and can be contacted at [jodi.bellefeuille@oregon.gov](mailto:jodi.bellefeuille@oregon.gov) for more information. The Five Star/ Urban Waters Restoration Grant Program, administered by the National Fish and Wildlife Foundation, offers modest grant funding to “diverse local partnerships for wetland, forest, riparian and coastal habitat restoration, stormwater management, outreach and stewardship with a particular focus on water quality, watersheds and the habitats they support.” These grants propose integration of ecological and community benefits, and as such may be suitable for the multi-benefit project of creek restoration and trail construction with Red Rock Creek.

### State and Regional Sources

If Tigard elects to incorporate recreational camping facilities into its open space plans for the Red Rock Creek corridor, the city might consider applying for county opportunity grant money through Oregon’s Parks and Recreation Department. Another possibility for state administered grant funding is the Land & Water Conservation Fund (LWCF) Program, which “[provides] matching grants to state and local governments for a acquiring and developing public outdoor

recreation areas and facilities.” (Oregon Parks and Recreation) LWCF money is available for both land acquisition and development. Based on project costs, which exceed \$1 million, project management may also consider seeking capital construction / acquisition funds through the Oregon Department of Administrative Services. Capital construction / acquisition funding requests are coordinated by the Planning and Construction Management Program.

### **Local Sources**

Given population projections, the Tigard might consider using system development charges to partially fund construction costs. With creek restoration efforts benefiting multiple infrastructure investments—including stormwater, sewage, and transportation—improving runoff and active transportation networks within the Triangle is apt to support growth while preserving the utility of the systems that are already in place. The city of Tigard currently applies system development charges for city and country transportation systems, parks, sewer, and water quality—all systems that would benefit from the implementation of this project.

Tigard has already recognized its commitment to improving the Triangle by identifying the area as an urban renewal district and garnering public approval of tax increment financing (TIF) for the development of an “active, pedestrian-oriented, mixed-use community with comfortable and interesting streets, buildings, parks, open spaces and community gathering places.” (MIG) With Red Rock Creek as a pivotal opportunity to meet many of these goals, this project may be an effective and appropriate use of TIF money.

Grant funding programs in cities like Portland finance community and neighborhood organization led low impact development (LID) projects, which work alongside government initiatives to manage stormwater. Tigard might consider establishing a grant program for community led green infrastructure initiatives, which will fund small LID projects across the city. As the Triangle continues to develop, the existence of a LID grant might provide additional stormwater management capacity to already extant street tree and landscaping city codes.

## Appendix W: Implementation Matrix

	Short (1-5 yrs)	Medium (6-10 yrs)	Long (11-20 yrs)	Primary Responsible Parties	Partners	Funding
<b>Regulatory</b>						
Zoning amendment along Red Rock Creek Corridor from C-G	✓			City of Tigard, Metro	Neighborhood and business groups, property owners	N/A
<b>Research</b>						
Return On Environment Report	✓			City of Tigard or DLCD	Audubon Society, Environmental nonprofits	State and federal grants
<b>Restoration</b>						
Draft Triangle and Red Rock Creek Restoration Plan	✓			City of Tigard planning staff, CAC, City Council	Metro Trimet	City funds, Metro grants
Structural Creek Changes		✓		City of Tigard or Trimet	CWS, ODOT	Capital Improvement Funds (CIP), Urban Waters Restoration
Vegetation Inventory and Management			✓	City of Tigard	CWS	Metro Region grants, general fund
Low Impact Development Grant	✓			City of Tigard	Wetland Conservancy Tualatin River Watershed Council, Depave	Tax Increment Financing, general fund
Park Implementation			✓	City of Tigard, Metro	Property owners, Land Trusts	State and County funds, grants
LID Projects (ongoing)			✓	City of Tigard	Trimet and ODOT	TIF, CIP, general fund
<b>Infrastructure</b>						
Trail segment from RRC to PCC		✓		City of Tigard, private developers, volunteers	Residents and businesses, property owners	Federal and state grants, city funds
Trail segment from RRC to Fanno Creek		✓		City of Tigard, private developers, volunteers	Residents and businesses, property owners	Federal and state grants, city funds
Pedestrian overpass over I-5			✓	City of Tigard, private developers, Metro, ODOT	Residents and businesses, property owners	Federal and state grants, city funds
Pedestrian overpass over 217			✓	City of Tigard, private developers, Metro, ODOT	Residents and businesses, property owners	Federal and state grants, city funds

