



City of Ferndale, Washington

NEIGHBORHOOD CENTERS

Planning Concepts

Urban Planning Studio | Western Washington University | 2025

A WWU Urban Transitions
Studio Publication

Ferndale Neighborhood Centers

DESIGN CONCEPTS

**City of Ferndale,
Whatcom County, WA.**



**College of the Environment
Western Washington University
Bellingham, Washington 98225 USA
Winter Quarter 2025**

A downloadable PDF file of this report is available at:
<https://cenv.wwu.edu/uepp/planning-studio-publications>



Table of Contents

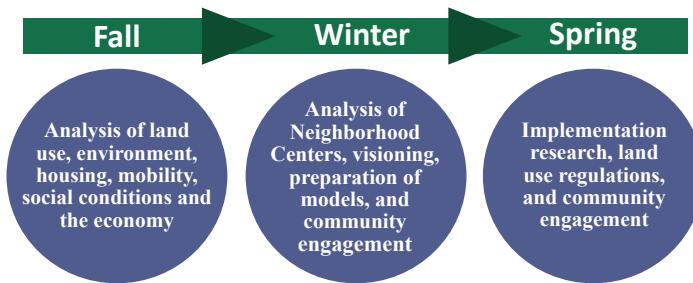


*“The best way to predict the future
is to design it”*

Buckminster Fuller

	Page
1.0 Acknowledgments and Dedication	4
2.0 Message to the Ferndale Community	5
3.0 Introduction: Ferndale Neighborhood Centers	6
4.0 Three Neighborhood Sites	7
4.1 Low Housing Density Alternative	8
4.2 Medium Housing Density Alternative	18
4.3 High Housing Density Alternative	36
5.0 Community Workshop	48
6.0 Planning Concepts: The Neighborhood Centers	58
6.1 North Neighborhood Node	59
6.2 West Neighborhood Node	69
6.3 Portal Way Neighborhood Node	74
7.0 References	84

Planning Studio Sequence



1.0 Acknowledgements

Student Authors:

Jovie Anderson
Lauren Asmussen
Jack Bengston
Brett Bishop
Griffin Carlson
Maisie Gill
Davis Hatton
Eric Hendry
James Hosheit
Joshua Khan
Charlotte King
Mathias King
Terra Kyer
Marie Langer
Angelo Lepore
Ciara Riordan
Samantha Sprague
Lark Troha
Lauren Wright

Western Washington University's Urban Planning Studio would like thank Mayor Greg Hansen for welcoming our city-university partnership to examine alternatives to Ferndale's future development to sustainably meet its projected future population growth requirements.

We especially wish to thank Michael Cerbone, Planning Director, and Kyla Boswell, Assistant Planner, for their continuing support of this investigation and for providing insights and resources throughout the study. Our gratitude is expressed to the community of Ferndale for welcoming us and providing invaluable insights to the community's preferences regarding how Ferndale might grow to accommodate its future population while improving conditions for existing residents.

WWU Faculty Instructor:

Nicholas Zaferatos, PhD, AICP
Professor of Urban Planning

Office of the Mayor

Greg Hansen

Ferndale Community Development

Michael Cerbone, Director
Kyla Boswell, Assistant Planner



Community workshop held on February 13, 2025 at the Pioneer Pavilion Community Center, Ferndale, Wa.

2.0 Message to the Community

The City of Ferndale has estimated its projected housing needs to accommodate future population growth over the next two decades. This planning study evaluated the development potential for several sites located within the city's boundaries and its urban growth areas. The study provides an analysis of the sites' potential to support pedestrian-scale, mixed use development to meet future needs for equitable housing while improving services to residents.

Students in the Planning Studio evaluated the development potential for three site locations. Students relied on data on population growth, Ferndale's public policies, and New Urbanism planning principles that promote increased livability, housing diversity and affordability, and neighborhood-scaled retail services to create a strong sense of place.

The concept of "*complete neighborhoods*" is based on an urban development model that complies with Washington State's Growth Management Act's planning goals as well as best management planning principles. The approach to meeting future growth emphasizes urban development that is both compact and concentrated in distinct neighborhood centers providing a variety of housing and services to benefit current and future residents .

This planning studio is part of a year-long study conducted by WWU seniors in the Urban Planning and Sustainable Development major. In fall quarter 2024, Dr. James Miller instructed Studio I, an analysis of socio-ecological conditions that involved site visits and data collection. A survey and a community workshop was conducted to gain insights and opinions regarding the future development of the city.

Dr. Nicholas Zaferatos instructed this winter 2025 Planning Studio II class, focusing on developing conceptual land use planning alternatives. This report presents the findings from the analysis and proposes three neighborhood centers in Portal Way and in the northern and western edges of the city within the city's urban growth areas.

In spring quarter 2025, Dr. Tammi Laninga, instructing the Planning Studio III class, will address refinements to the planning study based on feedback from community workshops, and develop a phasing and implementation strategy to help guide Ferndale's long term development.

Study Content

This Study includes the following elements:

- Identification and mapping of boundaries for each neighborhood site.
- Calculation of land areas suitable for development.
- Defining the optimal land use mix for each neighborhood site, inclusive of housing, services, retail and recreational uses.
- Evaluating a range of housing densities for each neighborhood site.
- Analyzing density alternatives and housing typologies to meet projected housing demand.
- Defining a range of neighborhood services and service area boundaries.
- Evaluating the use of public rights of ways, public spaces, and critical areas.
- Identifying mobility and connectivity improvements for each neighborhood site to support multi-modal travel.
- Conducting community engagement in surveys and workshops to identify community preferences.
- Formulating conceptual site plans for each neighborhood site.
- Preparing final recommendations, site plans, and an analysis of the housing impacts based on conceptual plans.

3.0 Introduction: Ferndale Neighborhood Centers

This study identified three locations suitable for urban infill. The goal of the study is to meet future housing and employment projected needs for the city while furthering its sustainable development goals. The study's approach emphasize designing "complete communities" on sites that can accommodate diverse housing to meet all income levels while providing job creation and community services to support both current and future residents.

The idea of a "complete community" is based on the principle of compact urban form where most residents can access neighborhood services within a 20-minute walking distance.

The proposed neighborhoods include a North Neighborhood Center site located in the northwest corner of the city. A second Neighborhood Center is proposed for the southwest edge of the city. The final Neighborhood Center along Portal Way incorporates an infill design approach for several of the underutilized parcels and proposes a neighborhood center to support a concentration of higher density housing, community services, and new employment opportunities.

Section 4.0 of this report presents the analysis of three housing density alternatives for each of the neighborhood centers. Housing densities considered ranged from a low of 12-15 units per acre to a high of approximately 30 units per acre. Following the presentation of housing density alternatives at a community workshop

that took place on February 13, 2025, a preference for housing density at between 17-23 units per acre was determined most preferable. The final section 6.0 of this report presents detailed recommendations for neighborhood development at these housing density ranges.



4.0 Three Neighborhood Sites - Three Density Alternatives

This report proposes three distinct neighborhood centers (or neighborhood nodes) with a focus on providing a sufficient and diverse housing supply to accommodate the projected growth that is anticipated in the next 20 years. By 2045 the city anticipates a need for an additional 3,055 housing units. To accommodate future housing demand, this study focuses on establishing neighborhood nodes in three locations: North Neighborhood Node, Portal Way Neighborhood Node, and West Neighborhood Node (figure 4.1).

In addition to addressing the projected increased demand for housing, the neighborhood centers proposed in this study aim to create “complete neighborhoods” by creating diverse and convenient neighborhoods that provide a range of housing types, styles, and sizes, and neighborhood services. Each center contains a variety of housing to meet current and future housing needs.

Complete neighborhoods are based on the “20-minute” design concept that make them vibrant places, and accessible within a 20-minute walk. These include a variety of housing options, access to grocery stores, plazas, parks, local businesses, and other activities and services.

Complete neighborhoods provide a range of benefits, including the creation of local economies that serve both existing residents and future residents.

Neighborhood centers not only improve access to essential services but also encourage a more sustainable lifestyle by reducing travel distances and the environmental impact associated with car dependency. Complete neighborhoods also promote social connection by creating spaces for neighbors to interact. These shared spaces support local businesses and encourage civic engagement.

The inclusion of civic improvements such as protected bike lanes, crosswalks, and sidewalks also improve accessibility to the neighborhood centers from surrounding existing residential communities.

In this section of the study, three housing densities are considered for each of the three proposed neighborhood sites: a low density scenario averaging 15 units per acre, a medium density alternative averaging 23 units per acre, and high density alternatives averaging 30 units per acre..

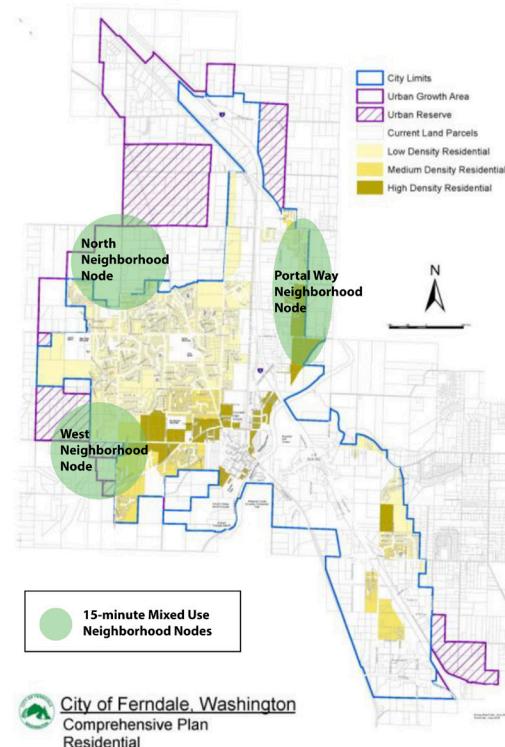


Figure 4.1. Locations for future neighborhood centers.

4.1 Low Housing Density Alternative

Site Boundaries

Determining site boundaries for each of the study sites was based on identifying under-utilized areas in the city and its Urban Growth Areas. In defining the site boundaries, a field survey was conducted to identify largely undeveloped land parcels. Once site boundaries were determined, they were drawn in ArcGIS with land areas calculated. This supported further detailed analysis that considered property valuations, critical areas, and existing and proposed developments in the study areas.

North Node

The North Node is located northwest of the city boundary, extending to Aldergrove Drive (figure 4.1.1). The eastern boundary is Vista Drive, and the western boundary is the edge of the Urban Growth Area (UGA). The pink highlighted area in Figure 1 shows developable properties without the inclusion of critical areas or parcels that are not suitable for further development. Improvements are recommended to the North Node site to provide better multimodal connectivity to existing networks within the city. Further explanation detailing the steps taken to establish the north neighborhood boundary can be found in the Buildable Areas section of this report.

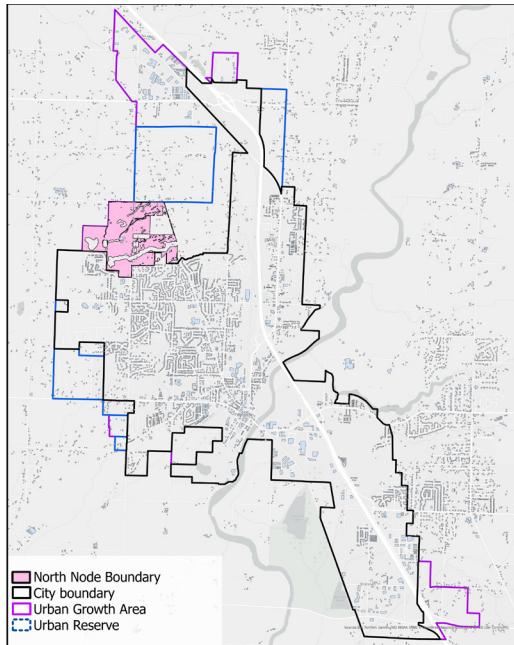


Figure 4.1.1. North Node Site Boundary

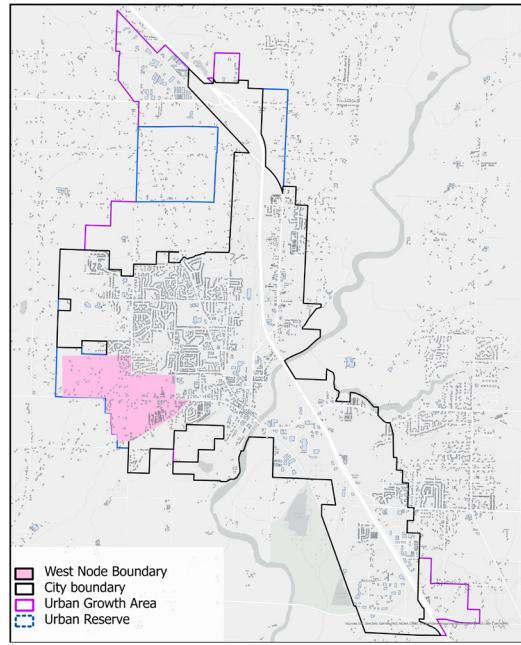


Figure 4.1.2. West Node Site Boundary

West Node

Figure 4.1.2 displays the site boundary of the West Node. The site's eastern boundary lies at the corner of Douglas and Main Streets, continuing down Douglas to South Church Road. The boundary proceeds following the urban reserve boundary before turning north at West 26th Crest. The boundary then connects to Crescent Street and Church Road, continuing east just north of the proposed neighborhood urban center, and follows Hendrickson Avenue south.

Portal Way Node

Figure 4.1.3 displays the site boundary for the Portal Way Node. The site boundary follows the city's boundary on the east and covers District 4 (Portal Way) with Interstate 5 serving as its western boundary. This area was chosen as it is the site of increased housing density and provides an array of commercial services and opportunities for urban infill.

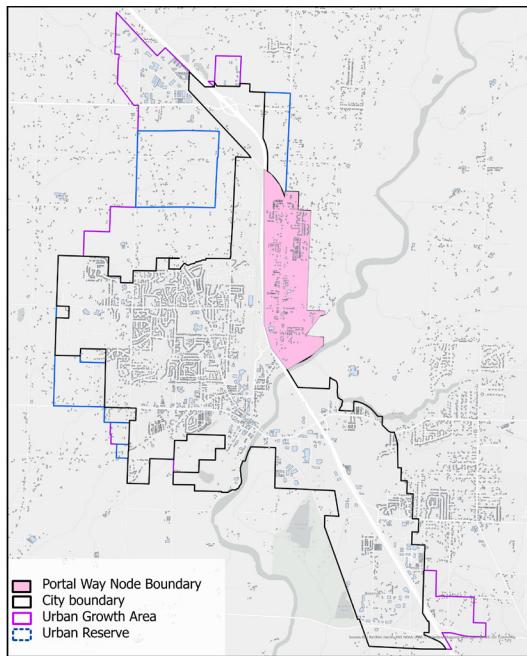


Figure 4.1.3. Portal Way Node Site Boundary

Buildable Areas Methodology

The analysis of buildable areas for each of the three neighborhood nodes is determined by the total gross area of vacant and underutilized parcels. To arrive at this acreage, critical areas (including wetlands) and previously developed parcels were removed from the calculation of gross acres within the boundaries of each of the proposed neighborhood nodes. Mapping of land area within each of the proposed neighborhood study sites including both

critical areas and previously developed parcels. An additional layer was prepared identifying a ratio between the parcel's improvement value and its land value. Where the ratio exceeds 1.2, the parcel was considered utilized, and, along with critical areas, removed from the buildable area analysis. The last step in the analysis of buildable areas removed an additional 20 percent of the remaining acreage to account for future infrastructure improvements, such as roads, public easements, and other public utilities necessary to support future urban development within the site boundaries.

North Node

Figure 4.1.4 shows the North Node boundary with critical areas and parcels of land overlaid. Parcels containing critical areas and previously developed parcels are excluded. The total buildable area for the North Node is 180 acres. Parcels indicated as developable may include streams, riparian areas, and steep slopes in the eastern section of the study site requiring further consideration before development can be permitted.

Table 1. North Node Buildable Area Calculation

Total Site Area	Occupied + Critical Land	Public Assets Reserve	Total Buildable Area
312 acres	87 acres	45 acres	180 acres

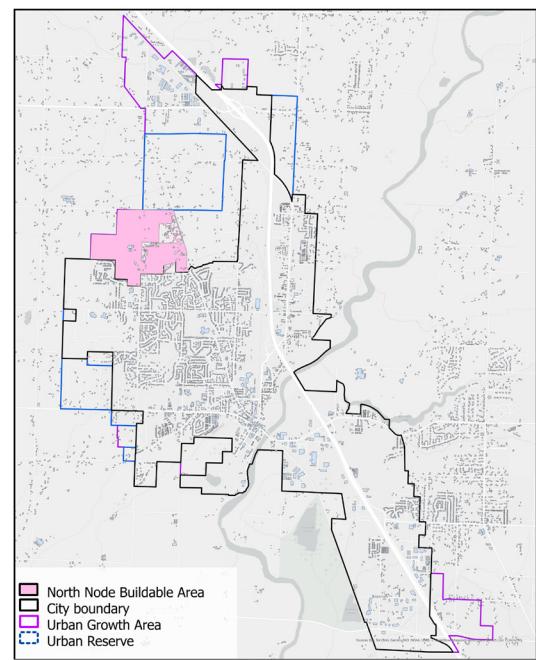


Figure 4.1.4. North Node Buildable Areas

West Node

Figure 4.1.5 represents the West Node's buildable areas, accounting for both occupied structures and critical areas. Previously developed parcels and critical areas were removed from the buildable area calculation, resulting in 200 acres of

Table 2: West Node Buildable Areas Calculation

Total Site Area	Occupied + Critical Land	Public Assets Reserve	Total Buildable Area
463 acres	263 acres	40 acres	160 acres

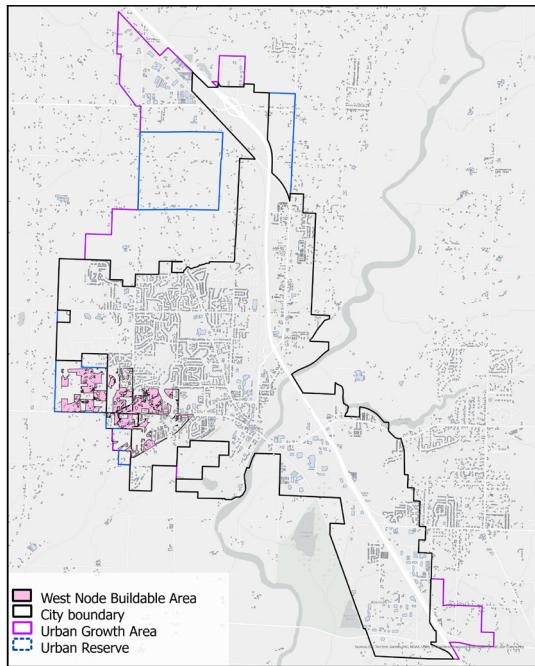


Figure 4.1.5. West Node Buildable Areas

buildable acres. An additional 20 percent of those acres (or 40 acres) are reserved for future public infrastructure resulting in a net buildable area of 160 acres.

Portal Way Node

The topography of the Portal Way Node is primarily flat, with some slopes. Total site area refers to the total acreage within the Portal Way study area. Previously developed parcels and critical lands were removed from the gross buildable area, resulting in 321 potentially buildable acres. After

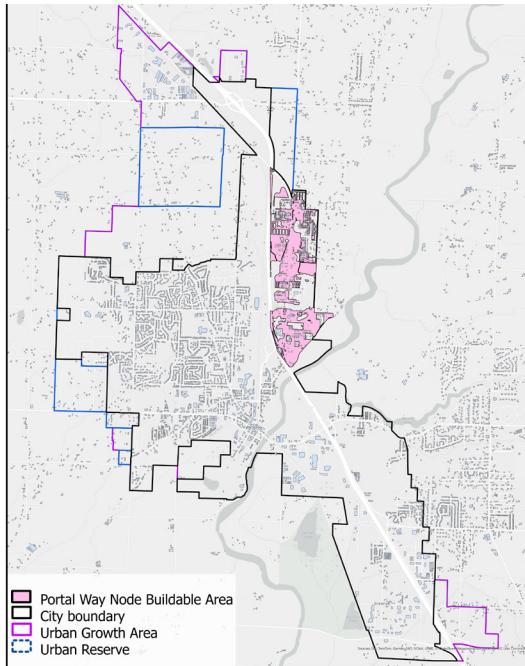


Figure 4.1.6. Portal Way Buildable Areas

deducting 20 percent (64 acres), the net buildable area is calculated at 257 acres.

Table 4.1.1. Portal Way Building Areas Calculations

Total Site Area	Occupied + Critical Land	Public Assets Reserve	Total Buildable Area
611 acres	290 acres	64 acres	257 acres

Elements of Mixed-Use

Mixed-use development incorporates a variety of land uses into compact spaces which allow for greater connectivity

between residences and neighborhood services. Currently, many of the homes in Ferndale are physically separated between adjoining residential projects. Part of the task to creating more sustainable and complete neighborhoods is to incorporate a greater mix of uses and more effective linkages between the proposed neighborhood centers and existing residential communities. Complete neighborhood development helps to achieve several of the city's planning goals:

- The city will promote commercial growth and revitalization that serves residents and strengthens and expands the tax base.
- Encourage the development of a wide range of housing types and densities to meet the differing housing needs of Ferndale residents.
- Encourage environmentally sensitive areas to be left in a natural state.
- Provide for the orderly expansion and development of the city as required to meet the growth needs of the community.

Urban villages are a concept that emphasizes mixed-use development, based on compact neighborhoods designed to promote walkability, transit accessibility, and a sense of community. One of the markers of an urban village is that all the services needed

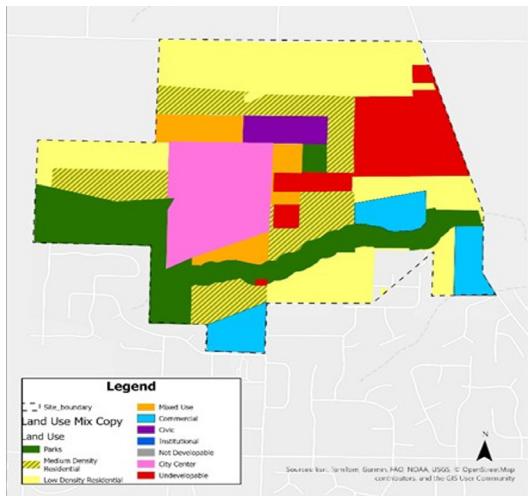


Figure 4.1.7. Draft Site Plan: North Node

in the city are within a 15 to 20-minute walking distance from one's home. Urban villages foster a vibrant environment, reduce urban sprawl, and supports economic development.

North Node

The North Node study area is shown in figure 4.1.7 comprised of a wide range of housing types, characterized by a functional neighborhood center with mixed-use commercial uses. Residential density is gradually reduced outside from the neighborhood center.

The North Node study area contains mostly open space and farmlands with

very low-density single-family homes. The draft conceptual site plan shows a range of land uses proposed for the study area. The planned land uses include a mixed-use neighborhood center to the West of Church Road surrounded by higher density residential, an area designated for civic uses, and gradually lower density surrounding residences. There are two smaller commercial nodes meant to serve the neighborhoods along Church and Vista that could support uses such as a grocery store or small shopping center. The conceptual site plan includes a substantial amount of park/green space, including trails abutting the critical areas that span the east/west portion of the site. The percentage distribution of land use types is shown in Figure 4.1.8.

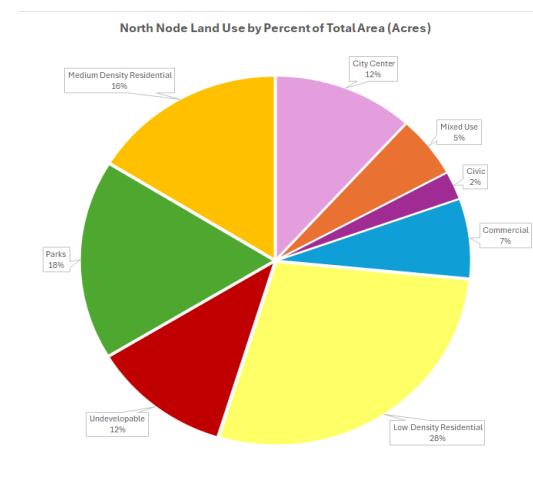


Figure 4.1.8. North Node Land Use by Percentage

West Node

The city currently permits medium and higher density multifamily development in the eastern area of the site, close to downtown. Most of the remaining area of the study site is zoned for residential single-family units. The study identified a 19-acre site to serve as the neighborhood center, providing for multi-story apartments with ground floor retail.

For the areas immediately surrounding the neighborhood center, medium density multifamily housing provides for middle housing options, including townhouses, duplexes, and triplexes providing a greater number of residents with easy access to the neighborhood center services. Due to previously developed parcels and critical areas in the east of this study site, future housing development should be concentrated to the west and southwest of the neighborhood center. The conceptual site plan also proposes an expanded road network and pedestrian sidewalks and paths, as well as neighborhood-scaled parks.

In outer-most locations of the neighborhood, cottage courts or denser single-family housing are recommended providing for a variety of middle housing types.

Portal Way Node

Portal Way Node contains scattered areas of substandard housing located along the Portal Way corridor with several multifamily units along Portal Way. These units are within walking distance of downtown Ferndale or near the bus route operated by the Whatcom Transportation Authority (WTA). Most multi-family dwelling units are in the RM 1.5 zone. There are four mobile home units in the Portal Way node. The concentration of scattered pockets of multifamily units and the absence of mixed-use developments creates the need for developing a wider range of services and housing models along Portal Way. Implementing more mixed-use development will aid the city in promoting commercial growth and revitalization that can serve current and future residents and expand the tax base.

In the proposed conceptual site plan, properties along Portal Way, LaBounty Drive, and Main Street west of Washington Avenue are designated for high-density residential uses that may be used as a buffer or transition area between existing single-family and mixed-use or commercial development. In addition to duplexes, cottage housing, and mixed density Planned Unit Developments, which may be planned between single-family and transition areas, the following housing forms are proposed as the dominant type of development. A list

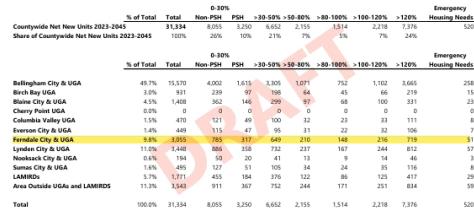
of services recommended for the Portal Way Node include:

- Ground floor retail with upper story residential units within the core.
- An elementary school to service future resident populations.
- Additional multifamily residential units on buildable parcels.
- Retail services including groceries and other supportive commercial services.

Housing Densities

Currently, housing across Ferndale tends to be low-density single-family lots. It is important to consider increased housing

Figure 6. Whatcom County Draft Allocations - Method A



Source: WA Department of Commerce, Leland Consulting Group

Table 4.1.2. Income Needs North Node

Income Level	Total	Non-PSH	PSH	30-50%	50-80%	80-100%	100-120%	>120%	Emergency Units
% of future housing stock allocated to income level	100%	25.6 %	10.4%	21.6%	6.9%	4.8%	7.1%	23.6%	1.7%
# of potential units in North Node	2700	688	280	583	186	129	191	637	45

densities as the city works to accommodate future growth over the coming decades. With the directives provided under the Growth Management Act, the city is challenged to introduce new urban development patterns to accommodate population growth while preventing further expansion beyond the city's boundaries.

In addition to providing an increase in housing density, it is also important to provide a range of housing types to accommodate people in various stages of life and socioeconomic backgrounds. House Bill 1220 requires cities under the Growth Management Act to provide a range of housing types across the Average Median Income (AMI) Band. This means that of the 3,055 additional housing units needed by 2045, different numbers of units will need to be built to meet the range of AMI bands. As seen in the following sections, each of the proposed neighborhoods has the potential to meet the housing demand for the city.

North Node:

Assuming an average housing density of 15 housing units per acre as a “low density” alternative in the study, with 180 buildable acres available, the site provides for up to 2,700 new units. A neighborhood center is proposed on a 23-acre site located in the south-central portion of the neighborhood, along Church Road. Housing types include townhouses, cottage houses, duplexes, and small-lot single-family homes. Multi-unit housing is included in the mixed-use core, while single-family and duplex units are included along the periphery of the study area, as a transitional buffer to existing single family homes.

Table 4.1.3. West Node Income Needs

Income Level	Total	Non-PSH	PSH	30-50%	50-80%	80-100%	100-120%	>120%	Emergency Units
% of future housing stock allocated to income level	100%	25.6%	10.4%	21.6%	6.9%	4.8%	7.1%	23.6%	1.7%
# of potential units in West Node	2,000	512	208	432	138	96	142	472	34

Table 4.1.4. Portal Way Node Income Needs

Income Level	Total	Non-PSH	PSH	30-50%	50-80%	80-100%	100-120%	>120%	Emergency Units
% of future housing stock allocated to income level	100%	25.6%	10.4%	21.6%	6.9%	4.8%	7.1%	23.6%	1.7%
# of potential units in Portal Way Node	3852	986	400	832	265	184	273	909	65

Table 4.1.2 projects the housing allocation for the North Node by percent Area Median Income (AMI) based on Whatcom County’s housing distribution model as required by Washington State Growth Management Act (GMA).

West Node

The proposed neighborhood center in the West Node is a 19-acre site on the corner of Church and Mountain View Roads. Directly adjacent to this site, approved permits provide for a 300+ unit apartment complex, which will contribute to densifying the neighborhood center. Building three-story mid-rise apartments or townhomes at a density of 20 units per acre could provide about 300 new units. Within the quarter mile

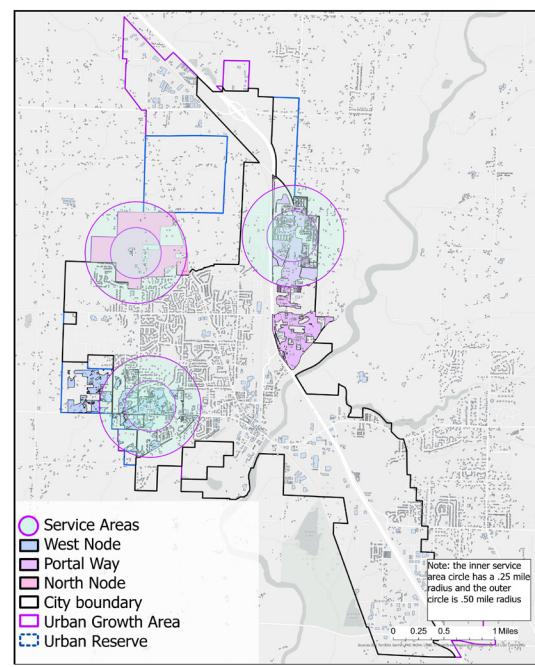


Figure 4.1.9. All Nodes service area

service area surrounding the site and within the areas currently zoned for medium density multifamily units, townhomes, duplexes, triplexes and cottages could also be provided at a density average of 15 units per acre, resulting in approximately 900 total units. It is estimated that an additional 500-700 housing units at a density of 8-10 units per acre could further be accommodated on available sites. In total, the 160 acres of buildable land in the node shows the potential to accommodate about 2,000 units, averaging 12.5 units per acre.

Portal Way Node

According to the current Ferndale comprehensive plan, there is a focus on “closing gaps between housing along Portal Way and LaBounty Drive and other community assets, such as trails, parks, or schools. Assuming a housing density of 15 units per acre, with 256 buildable acres available, the Portal Way Node is estimated to accommodate about 3,852 units. The proposed urban center for the Portal Way node is comprised of 2.56 acres, located adjacent to Trigg Road and Baltic Way. Housing types are projected to include townhouses, cottage houses, duplexes, and small-lot single family homes.

Service Area

North Node

Existing residents that can be served within $\frac{1}{4}$ -mile walking distance to the proposed neighborhood core includes 15 existing homes. Within a $\frac{1}{2}$ -mile walking distance, 312 existing homes are served. The mixed-use neighborhood center provides services to North Node residents along with residents located adjacent to the neighborhood.

West Node

Currently, about 1,200 housing units are located within $\frac{1}{2}$ -mile of the proposed West Node Center. However, the current road and pedestrian network makes access to the center by method other than cars very

difficult. As connectivity improvements are made, area residents will have better access into the neighborhood center.

Most of the properties located within the node are located within $\frac{1}{2}$ -mile radius of the proposed neighborhood center. As a result, most future residents and many existing residents may benefit from the services provided in the neighborhood core. When the area is fully built out, approximately 3,000 total housing units could potentially be provided within a $\frac{1}{2}$ -mile service area.

Portal Way Node

Approximately 700 existing units would have walkability access to the proposed neighborhood center. The proposed plan for the neighborhood center recommends the addition of a future elementary school to meet expanding resident needs. Currently, all schools serving this area are located west of I-5, presenting a significant barrier to safe and timely pedestrian access. The lack of a local school along Portal Way necessitates lengthy commutes, relying on vehicular transportation. Integrating a school in the proposed core would alleviate reliance on vehicular transportation, providing convenient and safe access to a school that fosters community integration.

Currently, Portal Way exhibits characteristics of low walkability, which

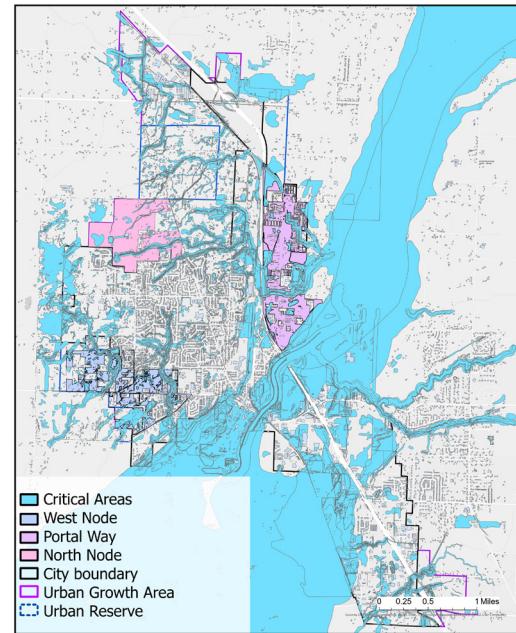


Figure 4.1.10. Critical Areas

impacts transportation options and community cohesion. A proposed trail network aims to address these deficiencies by providing safe and accessible pedestrian and bicycle infrastructure.

Public Assets

Public assets include public rights of ways, public spaces and critical areas that contribute to creating complete neighborhoods. Public spaces are places where people can gather and spend time within their neighborhood. Incorporating

public spaces into each neighborhood node is an important element to creating a complete neighborhood. Critical areas as well can be thoughtfully incorporated into each neighborhood center to include public access to streams and wetlands that could be enjoyed as parks and open green spaces. Figure 4.1.10 depicts Ferndale's critical areas.

North Node

The North Node is located entirely within City of Ferndale's District 3, which has been set aside by the city for future development. Public assets in place are currently limited, with stormwater facilities present. Public roads include Church, Aldergrove, and Vista. The North node site has several major critical areas that span a large portion of our longitudinal sectors of the study area. Within these critical areas, several stream channels exist that can be incorporated into public assets for use by residents as trailway.

West Node

The West Node comprises two of the city's eight planning districts. District 2, which contains areas outside of the city limits but within the urban growth area and reserve, is less developed than District 5, which includes public transit routes, schools, roads, and utilities services. No city utilities are currently available in District 1 and are not expected to become available

until annexation occurs. The extension of public facilities, including water, sewer and adequate fire flow is required to support development in this area.

District 5 is more developed and contains most of the West Node boundary and much of Ferndale's single-family development to the north of the node. Water, sewer, and storm facilities are available utilities in this area. Five elementary schools, two middle schools, Ferndale High School, and Clearview Alternative High School are located nearby. The school district will accommodate new growth either through the expansion of current schools, or the construction of new schools. The district also has seven parks and multiple trails. Both districts contain critical areas, including a stream, small wetlands and a number of steep slopes. Critical areas were removed from the buildable calculations.

Portal Way Node

The Portal Way Node is located entirely within City of Ferndale's District 4 and includes public transit routes, roads, various utilities, and parks. Utilities that currently exist within Portal Ways District 5 include water supply, sewer, and stormwater systems.

Bus routes available in the Portal Way node include the 70X route which has multiple

stops along Portal Way and Route 55. Route 70X is a weekday commute-hour-only route from Blaine to downtown Bellingham. Route 55 is a midday local route connecting Blaine, Birch Bay, Ferndale and Bellingham with two trips on weekdays and Saturdays. There are no schools located in the Portal Way Node, however there are multiple school bus stops along Portal Way.

Publicly owned parcels in the Portal Way Node include Oxford Park, Vanderyacht Park, and Griffintown Park. Vanderyacht Park is in the southern portion of the Portal Way District along the western bank of the Nooksack River and continues on into the Downtown District. Griffintown Park lies along 2nd Avenue and serves as a buffer to the BNSF railway and open space for the Griffintown sub-district.

The Portal Way Node contains several waterways and wetlands that could be utilized for recreation. Probable wetlands also run through the central part of the Portal Way Node between Kaas road and Newkirk Road near the stream that runs through this area. Small streams are also located between I-5 and Malloy Ave in the central part of the node. In the northern portion of the node, probable wetlands are located on either side of I-5.

Connectivity

Multimodal connectivity in Ferndale is limited throughout the city. Currently the Whatcom Transit Authority has limited service in the city with Portal Way as the only area that is well serviced. The North Node is not currently serviced and only parts of the West Node are serviced. Throughout Ferndale many roads lack sidewalks and bike paths.

Improving connectivity is crucial to create more complete neighborhoods, as improved connectivity allows residents to get around without relying on the automobile. During a community event held in 2024, residents noted that there are not enough sidewalks for their children to use to safely walk or bike to school. Other residents noted that they would like to be able to walk or bike around their neighborhoods but are restricted due to the lack of sidewalks and bicycle lanes.

North Node

Connectivity in the North Node is proposed with multiple recommended improvements. Emphasis is placed on creating accessibility for pedestrians with sidewalk infrastructure, bicycle pathways, and safe vehicular use with road improvements and the use of traffic calming devices. Increased connectivity of park systems is proposed to include walking and bicycle paths. A street grid network is proposed in a large portion

of the study site to improve connectivity. A transit station with expanded bus service throughout the study area is also proposed as urban development increases.

West Node

As the West Node is developed, several improvements to mobility will be necessary to promote livability. Currently, there are no bus routes that serve District 2, however, Route 27 has a transit stop at Main Street and Church Road.

The West Node also includes District 5, which is serviced by bus Route 27 connecting Ferndale and Bellingham. The existing transit facilities serve as an asset to this neighborhood, but only run once per hour, Monday through Saturday. Further coordination with WTA will be needed to supply adequate public transit to this area as it develops.

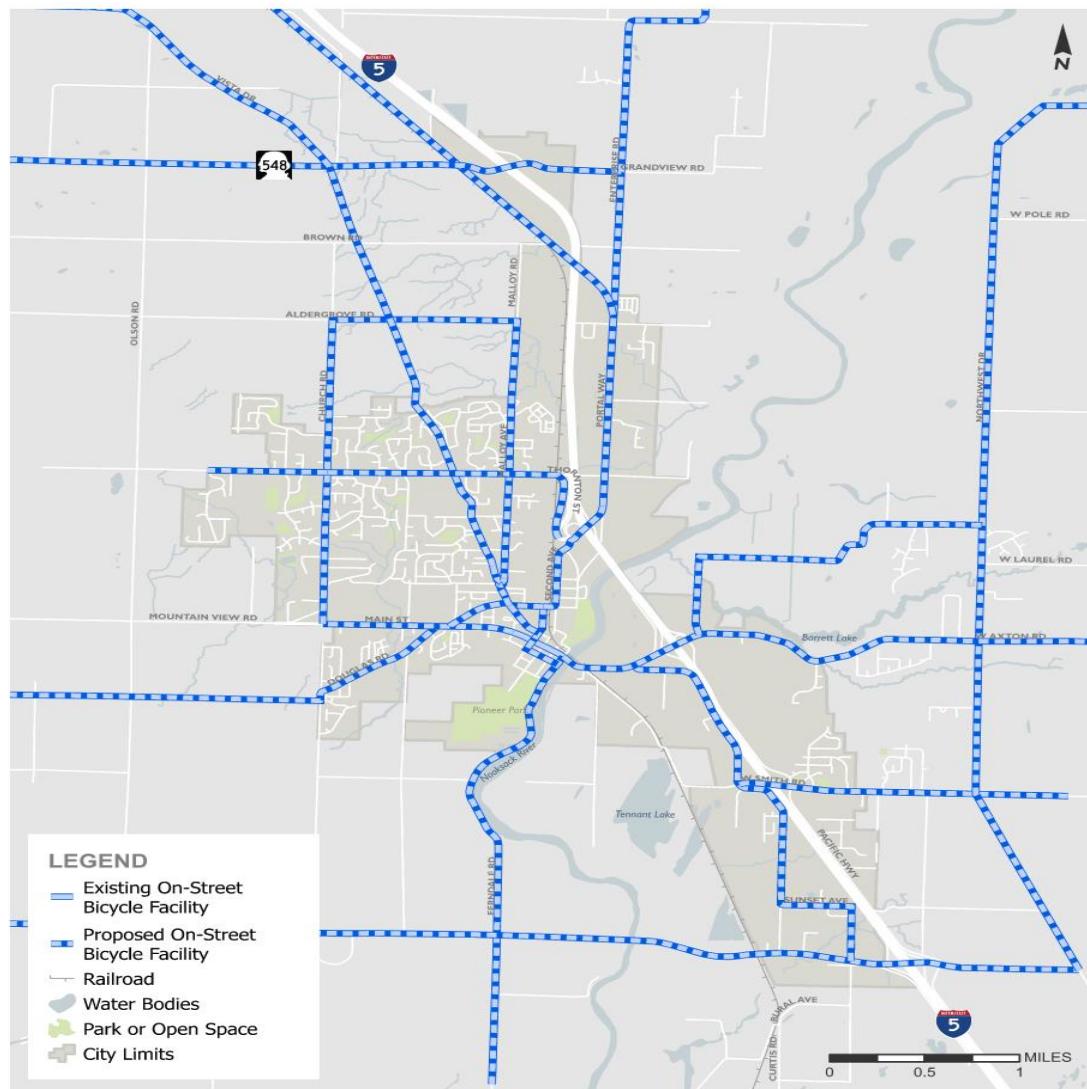
Overall connectivity of roads within the node is currently poor. Nearly every residential road connects to Douglas, Church or Mountain View Roads, making travel between otherwise nearby streets difficult. This is particularly pronounced in the subdivisions south of Mountain View Road, where there is only a single connection via Douglas Road. Additional connectivity for pedestrians is necessary as the area develops. The city is planning to connect the

currently separate Church and South Church Roads by 2036, increasing connectivity between Douglas Avenue and Main Street and providing an additional route for residents of the subdivisions south of Main Street. This connection can provide vehicle and non motorized connectivity in the area.

Portal Way Node

According to the current Ferndale comprehensive plan, most of the city's population is near schools and parks. Yet several of Ferndale's fastest-growing neighborhoods (Douglas Road, Portal Way, Smith Road) are not within walking distance. With anticipated residential growth along Portal Way, prioritizing pedestrian mobility and multimodal transportation options is essential for future planning.

Current public transit service to the Portal Way Node is limited. Options available are Route 70X and Route 55. Increasing and expanding route frequency are recommended to improve public transportation accessibility for Portal Way residents. Increasing pedestrian and bicycle infrastructure can serve as an asset to the Portal Way Node and enhance community cohesion. The neighborhood plan proposes further sidewalk enhancements, crosswalk improvements, pedestrian infrastructure and traffic calming measures.



Bicycle Systems Plan
Ferndale Transportation Element Update

FIGURE
15

transpogroup 7T

Figure 4.1.11. Bicycle Systems Plan.
The Transpo Group

4.2 Medium Housing Density Alternative

The following provides a conceptual analysis of the projected medium housing density development within the three neighborhood nodes. The report intends to guide sustainable and equitable development based on best practices by assessing buildable areas, proposing land use types and density distributions, and enhancing connectivity, public assets, and services within the nodes and into the surrounding community. The contents of the analysis and recommendations is then applied to develop conceptual site plans for each node.

Boundaries and Buildable Areas

Each neighborhood boundary was drawn and its buildable area calculated (each density analysis in this section shows slightly different neighborhood boundary sites). This capacity analysis shown in table 4.2.1 calculated the amount of developable land for each node after removing currently developed parcels and critical areas.

Table 4.2.1: Neighborhood Node Developable Areas

Node	Total Area (acres)	Developable Area (acres)
Portal Way	468	237
West Node	292	128
North Node	252	195

Mixed-Use Development Strategy

Mixed-Use strategies and best practices were distilled from the Citizens Guide to



Figure 4.2.1. Mt. Baker view from Portal Creek Park (2022)

LEED for Neighborhood Development (LEED-ND) for the purposes of applying them to the design of each neighborhood node. Key land use principles include compact development, access to civic spaces, enhanced walkability, and a mixed-use center. The proposed land use distributions for each node are:

- *Portal Way*: A mixed-use corridor composed of residential (35%), commercial/light manufacturing (20%), mixed-use center (10%), recreational/public (10%), civic/institutional (5%), and infrastructure (20%).
- *West Node*: A residential-focused area integrating commercial and civic uses, composed of residential (60%), commercial (10%), mixed-use center (5%), recreational/public (5%), civic/institutional (5%), and infrastructure (15%).
- *North Node*: A planned urban village

composed of residential (40%), commercial/light manufacturing (15%), mixed-use center (10%), recreational/public (10%), civic/institutional (10%), and infrastructure (15%).

Housing Density and Typologies

An average/target density of 23 units per acre (DU/acre) is applied to all nodes, resulting in an approximate total unit yield of 6,381 total housing units for the combined three neighborhood sites. Housing typologies include townhomes, stacked flats, cottage housing, and single-family homes, all of which can meet the various income bands identified by the Washington Department of Commerce.

Service Area

A typology of a 20-minute walking distance from the neighborhood mixed-use framework is proposed. The service population served within the 20-minute walking distance—including existing residential population and future residences proposed in this study are identified. Additionally, new services such as education, healthcare, and groceries are presented for each node.

Public Assets

Each node builds on the current public assets of each neighborhood and works to incorporate new public assets such as green

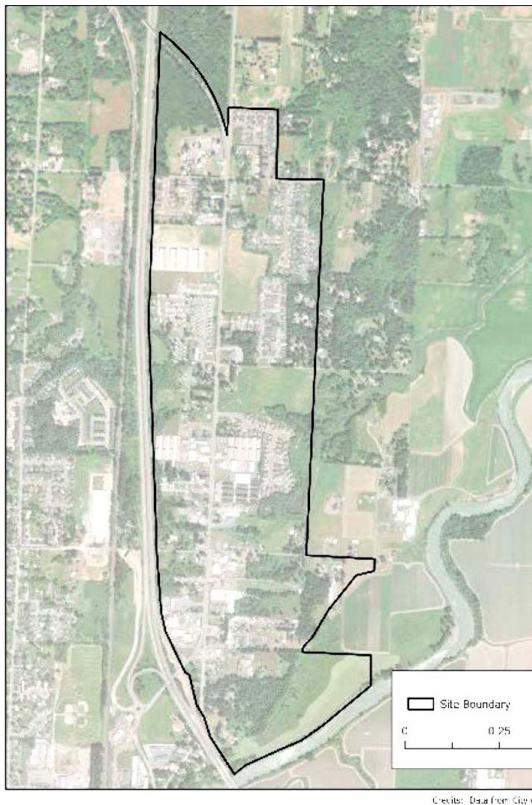


Figure 4.2.2. Portal Way Site

spaces, multi-use paths, public plazas, and complete streets. This section describes these existing and proposed assets and emphasizes their expected impact on the surrounding node.

Connectivity

There are opportunities for improving connectivity in and between all nodes

as well as to Ferndale's city center and other destinations throughout the city. Key recommendations include enhancing pedestrian and bicycle access, improving transit services, implementing traffic management strategies, and promoting intermodal connectivity throughout.

Site Boundaries

Portal Way

The site boundary follows Ferndale's city limits along the Interstate-5 corridor, creating a natural framework for understanding the land use, connectivity, and development potential within northern Ferndale. Interstate-5 and Portal Way serve

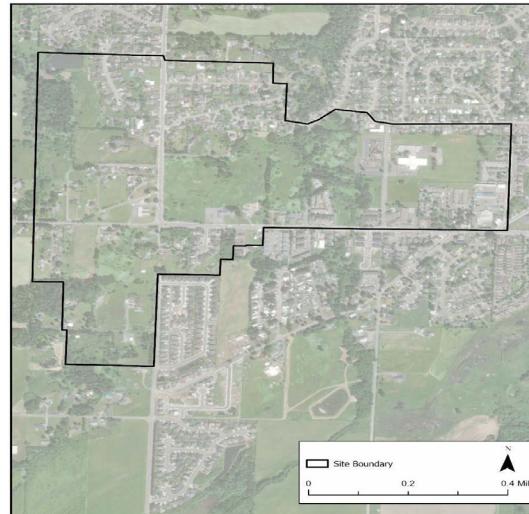


Figure 4.2.3. West Node Site

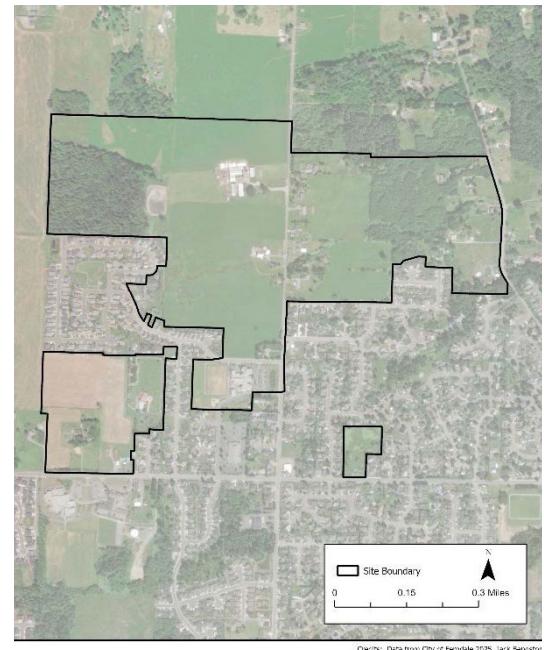


Figure 4.2.4. North Node Site

as a vital transportation corridor that shape access and connectivity for the area. Major roads are also incorporated such as Trigg Road and Newkirk Road, which serve as critical access points for potential growth. These intersections provide opportunities for enhanced connectivity and support efficient movement within the node and surrounding regions.

West Node

The West Node site boundary sits on the western edge of Ferndale city limits and

incorporates parts of the Urban Growth Area (UGA) and Urban Growth Reserve as well. Much of Ferndale's west side contains a significant level of development, mostly as single-family homes, rendering much of this side unavailable for additional development other than the introduction of accessory dwelling units (ADUs) that could support greater urban densities. Many of the parcels that have yet to be developed in this area are located within critical wetland areas and therefore are considered ineligible for development.

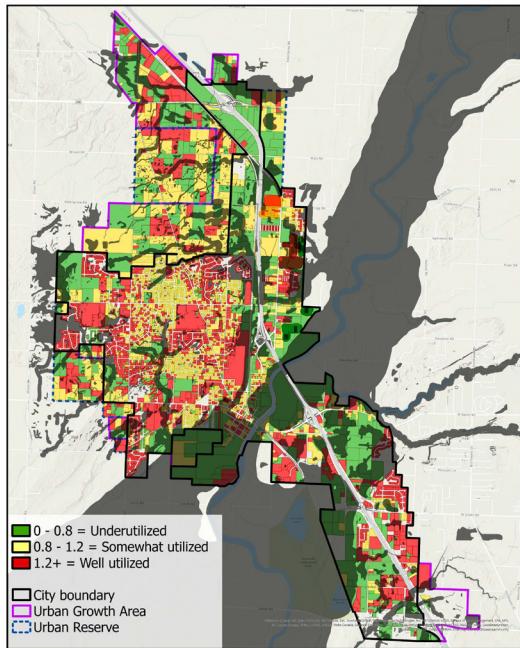


Figure 4.2.5. Ferndale Buildable Areas Map

The boundary was chosen because there is less development in these areas and most parcels do not contain important critical areas. The properties located within the proposed neighborhood boundary provides opportunities for infill housing, a mixed-use neighborhood commercial center, a new elementary school to service west-side residents, and potential for an urgent care/small medical clinic. A goal of this neighborhood plan is to also extend services to the existing residential neighborhoods adjacent to the proposed site.

North Node

This neighborhood site encompasses largely undeveloped parcels with access to existing services. The North Node features areas of highly utilized land juxtaposed with large, undeveloped parcels. The North node site is shown to include two additional parcels outside the neighborhood boundary. These sites are included in the study as they provide additional infill development potential within the 20-minute service area to the neighborhood center.

Introduction to Buildable Areas

In Identifying the development potential for these sites, a quantitative and qualitative analysis was conducted for each parcel in the study area. Figure 4.2.5 shows each tax parcel in the city and compares the assessed value of improvements to land value.

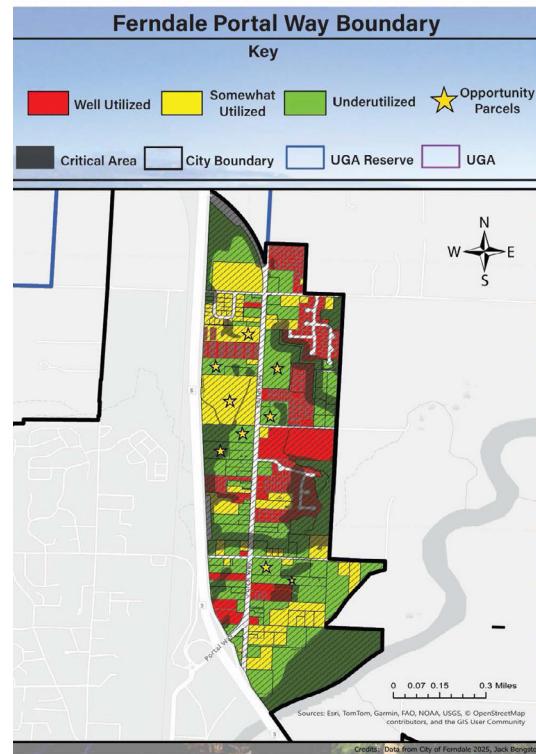


Figure 4.2.6. Portal Way Buildable Areas Map

The analysis establishes a mathematical relationship to demonstrate the utility for any given parcel. Parcels shown in green represent a land-value ratio of 0-0.8, where the land value greatly outweighs the market improvement value and thus is optimal for development or infill. Parcels in yellow represent a land-value of .81-1.2, where the improvement value and land value

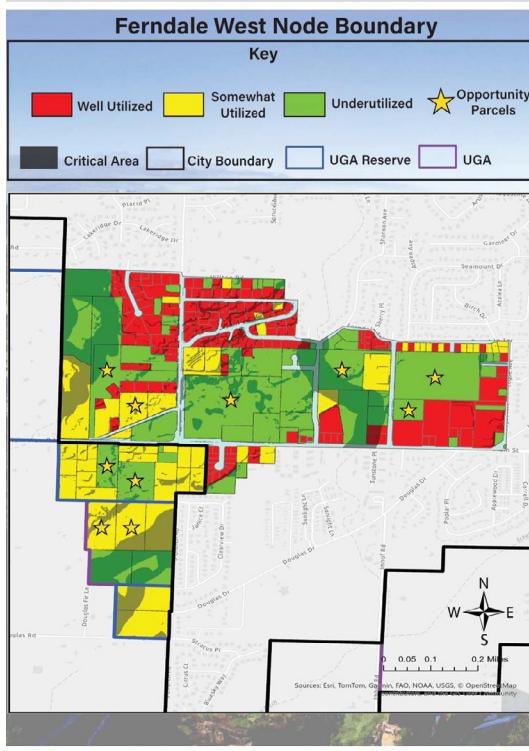


Figure 4.2.7. West Node Buildable Areas Map

are relatively similar, with potential for additional development. Parcels shown in red represent a land value greater than 1.21 current improvement values outweigh the land value. By interpreting the current land-value ratios, we can identify where future development may occur to ensure that each parcel is being utilized to its fullest capacity.

While understanding the quantitative

elements of each parcel is vital, understanding the qualitative features is also important. Figure 4.2.11 shows the location of critical areas throughout Ferndale. Critical areas are spaces that are impacted by environmental conditions that can make it difficult to build, such as steep slopes or floodplains, or are vulnerable ecological values like creeks and wetlands. While there are methods for building in accordance with these critical areas, development in these locations is typically more expensive or poses a threat to important natural habitat. For these reasons, understanding the presence of critical areas in tandem with the land-improvement value ratios of each parcel is key for identifying the capacity of future development in an area.

Development Capacity Within Nodes

The information from the Buildable Areas Maps (figures 4.2.6-8) guided the designation of neighborhood boundaries. Each of the three sites offer opportunities for new neighborhood development to serve current and future residents over the next several decades.

Figure 4.2.6 shows the proposed Portal Way neighborhood boundary. Similar to the previously displayed figures, this map shows parcels that have been identified for the Portal Way neighborhood, their associated land-improvement value ratios, and the

location of critical areas. Incorporating almost the entire area east of I-5, this study site consists of approximately 468 acres. After removing utilized parcels and critical areas, the study site provides approximately 237 acres of developable land.

Figure 4.2.7 depicts the proposed West neighborhood node. Like the previous figures, the map demonstrates the parcels that have been identified for the West

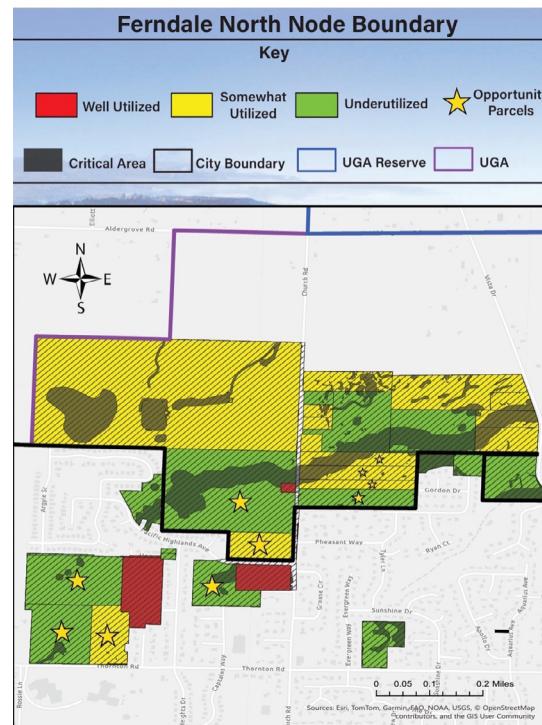


Figure 4.2.8. North Node Buildable Areas Map

Table 4.2.2. Opportunity Parcels

Opportunity Parcels													
	Prop_ID	GEOID	Value_Ratio	OBJECTID	prop_id	geo_id	market_land_val	market_improvement_val	market_val	Shape_Length	Shape_Area	Est. Acres	
North Node													
	86860	3.9E+15	0.35	52605	86860	3.9E+15	\$544,170.00	\$191,311.00	\$735,481.00	2757.79	429428.36	9.86	
	86886	3.9E+15	0.00	52627	86886	3.9E+15	\$903,970.00	\$0.00	\$903,970.00	3079.88	562166.17	12.91	
	86948	3.9E+15	1.07	52691	86948	3.9E+15	\$505,952.00	\$542,768.00	\$1,048,720.00	2235.55	256948.58	5.90	
	87181	3.9E+15	0.00	52677	87181	3.9E+15	\$400,271.00	\$0.00	\$400,271.00	2415.84	275212.31	6.32	
	87189	3.9E+15	0.20	52836	87189	3.9E+15	\$530,978.00	\$105,617.00	\$636,595.00	4881.22	1278278.13	29.35	
	87214	3.9E+15	0.98	52875	87214	3.9E+15	\$341,432.00	\$333,186.00	\$674,618.00	1948.12	212155.65	4.87	
	92875	3.9E+15	0.93	56392	92875	3.9E+15	\$347,679.00	\$322,186.00	\$669,865.00	2669.71	200926.47	4.61	
	92879	3.9E+15	0.60	56393	92879	3.9E+15	\$360,173.00	\$214,392.00	\$574,565.00	2774.64	262197.03	6.02	
	92880	3.9E+15	0.82	56394	92880	3.9E+15	\$307,700.00	\$251,740.00	\$559,440.00	2548.60	130883.56	3.80	
	92882	3.9E+15	1.10	56396	92882	3.9E+15	\$316,222.00	\$348,693.00	\$664,915.00	2655.00	192110.22	4.41	
West Node													
	88246	3.9E+15	0.97	53430	88246	3.9E+15	\$401,580.00	\$387,769.00	\$789,349.00	1505.61	131697.90	3.02	
	88484	3.9E+15	0.00	53657	88484	3.9E+15	\$257,985.00	\$0.00	\$257,985.00	1673.02	142248.08	3.27	
	88490	3.9E+15	1.20	53661	88490	3.9E+15	\$343,574.00	\$497,776.00	\$841,350.00	1984.23	218761.57	5.02	
	88478	3.9E+15	1.20	53547	88478	3.9E+15	\$343,574.00	\$785,507.00	\$1,129,081.00	1987.89	220007.78	5.05	
	88491	3.9E+15	0.00	53662	88491	3.9E+15	\$144,375.00	\$0.00	\$144,375.00	1899.10	221602.44	5.09	
	94085	3.9E+15	0.00	57405	94085	3.9E+15	\$389,164.00	\$0.00	\$389,164.00	2695.55	286492.64	6.58	
	94394	3.9E+15	0.00	57482	94394	3.9E+15	\$625,742.00	\$0.00	\$625,742.00	1244.00	96077.82	2.21	
	94470	3.9E+15	0.27	57698	94470	3.9E+15	\$1,644,390.00	\$450,449.00	\$2,094,839.00	3209.67	622650.50	14.29	
	193700	3.9E+15	0.00	116797	193700	3.9E+15	\$2,969,746.00	\$0.00	\$2,969,746.00	4807.11	280766.37	18.84	
	178124	3.9E+15	0.00	107466	178124	3.9E+15	\$399,931.00	\$0.00	\$399,931.00	4645.95	337215.59	7.74	
Portal Way													
	92194	3.9E+15	0.09	55911	92194	3.9E+15	\$566,637.00	\$48,424.00	\$615,061.00	2387.47	216739.34	4.98	
	92199	3.9E+15	0.39	55915	92199	3.9E+15	\$1,181,667.00	\$455,796.00	\$1,637,463.00	2448.42	301695.88	6.93	
	92202	3.9E+15	1.05	55918	92202	3.9E+15	\$1,819,458.00	\$1,901,367.00	\$3,720,825.00	3823.79	920403.51	21.13	
	92349	3.9E+15	0.50	55960	92349	3.9E+15	\$801,635.00	\$401,679.00	\$1,203,314.00	1899.61	208698.49	4.79	
	92538	3.9E+15	0.00	55840	92538	3.9E+15	\$1,316,950.00	\$0.00	\$1,316,950.00	3563.58	536691.23	12.32	
	95565	3.9E+15	0.41	58563	95565	3.9E+15	\$404,821.00	\$166,657.00	\$571,478.00	2912.86	217516.08	4.99	
	95557	3.9E+15	0.69	58527	95557	3.9E+15	\$742,264.00	\$509,811.00	\$1,252,075.00	1672.74	168107.80	3.86	
	95671	3.9E+15	0.00	58567	95671	3.9E+15	\$92,189.00	\$0.00	\$92,189.00	1667.35	143076.39	3.28	
	179139	3.9E+15	0.00	107976	179139	3.9E+15	\$791,431.00	\$0.00	\$791,431.00	2578.40	201264.84	4.62	
	190440	3.9E+15	1.10	114680	190440	3.9E+15	\$2,825,000.00	\$0.00	\$2,825,000.00	2577.06	315213.30	7.24	

neighborhood node, their associated land improvement value ratios for each parcel, and the location of critical areas. Located on the western edge of the city boundary and including portions of the UGA and Urban Growth Reserve, the West neighborhood node totals approximately 292 acres. After removing the utilized parcels and critical areas, the West node site contains an estimated 128 acres of developable land. While many of the underutilized parcels (shown in green) are located within critical areas, there remains a considerable amount of land suitable to accommodate urban infill.

Figure 4.2.8 shows the proposed North neighborhood node. This map shows the parcels in the North neighborhood node, their associated land-improvement value ratio, and the location of critical areas. Located on the northern edge of the city boundary, the total acreage of the North neighborhood node is approximately 252 acres with a net developable area of about 195 acres.

Parcel Information

Table 4.2.2 presents the analysis of opportunity parcels for the North, West,

and Portal Way nodes, detailing the specific acreage of each parcel, the property ID, the land-improvement value ratio, and information used to reflect the development capacity for each of the three study sites. This table is color coded to depict the associated land improvement value ratio utility for each parcel as well as color coded acreage. Parcels with acreage between one and five are shown in blue, while parcels with acreage greater than five are shown in orange. Classifying parcels by acreage helps identify parcels that could be of high potential based on their size.

Elements of Mixed Use

Defining the land use mix of the three neighborhood nodes provides for more balanced, complete, and equitable communities. By applying mixed-use development principles, each of these study sites can contribute to the civic functions and quality of life in a neighborhood as well as foster social and economic development.

Using the Citizens Guide to LEED for Neighborhood Development (LEED-ND) as well as planning best practices, optimal land use mixes are defined. These principles are applied to each neighborhood node to recommend the proposed land use mix. The following eight principles are used to determine optimal land use mix for each of the three neighborhood nodes (Welch).

Compact Development

Compact Development ensures efficient land use by integrating all the land uses (residential, retail, civic, infrastructural) necessary for complete development within a small, walkable area. Neighborhoods that make efficient use of land help limit the spread of suburban sprawl, which consumes and fragments the rural landscape along with watersheds, wildlife habitat, and prime farmland. Efficient neighborhood design means that destinations like schools, shops, and parks can be closer together, making walking and cycling possible.

Mixed-Use Center

Related to compact development, creating a center with multiple uses is essential for creating accessible communities with diverse activities. This principle states that “Uses can be mixed within the same neighborhood—such as when homes are located next to a corner store—or even within the same building—such as live-work spaces or ground-level shops with housing or office space above them.”

Access to Civic and Public Spaces

Land use planning must account for community access to public and civic spaces in order to provide services and promote social interaction and cohesion. A sustainable neighborhood offers public facilities and services for residents and

visitors to meet a community’s cultural, social, spiritual, and physical needs.

Local Food Production

Local food production within the region is vital to building sustainable communities. Additionally, areas for local food sales, such as farmers markets and community gardens help foster self-sufficient development.

Housing Diversity and Affordability

As required by the state and directed by the county, housing is to be allocated by income band to ensure equal access based on need, creating a more inclusive, socially sustainable housing environment. A neighborhood with a wide range of housing types and sizes reinforces stability by allowing people to stay in the same community throughout different stages of their lives (Welch).

Proximity to Jobs and Amenities

Good land use practices also sites employment opportunities and services within a reasonable, ideally walkable distance from residential uses. Such a land use mix minimizes commute and driving times and facilitates access to employment and essential services, such as healthcare and groceries.

Access to Recreation and Schools

Recreational facilities and educational

institutions are integral to the function and quality of life of the built environment.

Walkability and Reduced Parking

A key aspect of sustainable and cohesive land use is the reduction of parking standards, thereby increasing the walkability of communities. By planning land use around walkability, it ensures that development will be pedestrian friendly and reduces the reliance on personal motorized transport.

Proposed Land Use Mix for Each Node

Applying these principles, a proposed land use mix for each node is proposed in the following section.

Portal Way

Portal Way should be developed as a vibrant, mixed-use corridor and social hub that prioritizes compact development, ground floor commercial, walkability, and connectivity. This development can have approximately the following land use distribution.

Land Use Distribution

(total developable area: 237 acres):

- Residential (35%): 82.95 acres + Mixed Use (MU) (23.70) = 106.65 acres
- By income band (median state income):
 - Non-PSH: 26.96 acres
 - PSH: 10.89 acres

- 30-50%: 22.63 acres
- 50-80%: 7.21 acres
- 80-100%: 5.09 acres
- 100-120%: 7.42 acres
- >120%: 24.70 acres
- Emergency Units: 1.75 acres
- *Commercial/Light Manufacturing (20%):* $47.40 \text{ acres} + \text{MU} = 71.1 \text{ acres}$
- *Mixed-Use (MU) Center (all uses, 10%):* 23.70 acres
- Recreational/Public (10%): 23.70 acres
- Civic/Institutional (5%): 11.85 acres
- Infrastructure (20%): 47.40 acres

Design Features

Residential: Residential areas include a mix of housing typologies that meet the needs of a range of incomes, as required by state law. Residential parcels can be developed in a compact and interconnected manner with nested blocks and pedestrian paths to the mixed-use center.

Commercial/Light Manufacturing: Commercial zones can host a collection of small businesses, small retail, restaurants, and some light manufacturing that can be sited along Portal Way. Street frontage with no setback are required in some areas, improving walkability and accessibility along Portal Way. Light manufacturing make efficient use of buffers and landscaping to reduce its effect on nearby zones.

Mixed-Use Center: The central node of the neighborhood serves as the focal point of Portal Way, and features residential, commercial, public, and civic land uses. With ground level commercial and residential and office units on upper floors, the center provides public space for community events and civic services.

Recreational/Public: The node includes a large central park with community amenities such as playgrounds, fields, and trails, as well as community garden. Smaller neighborhood parks should connect to the large park via greenways, which also provide biking access, linking residential, commercial, and public spaces together to increase connectivity.

Civic/Institutional: Civic spaces provide space for the community to interact and build a sense of neighborhood identity. Such uses may include a community center, meeting rooms, recreational programming and a branch libraries.

Infrastructure: Improved infrastructure along Portal Way and surrounding streets should include protected bike lanes, off-street pathways for pedestrians, tree planting, and well-lit sidewalks along major roadways. Roads should be designed to calm traffic to support a safe living environment.

Pedestrian crosswalks in multiple locations along Portal Way, as well as pedestrian and bicycle access to downtown, are provided.

West Node

West Node can be developed as a residential focused but commercially connected community with improved access to parks and services. The development includes the following land use distribution.

Land Use Distribution

(total developable area: 128 acres):

- Residential (60%): $76.8 \text{ acres} + \text{MU} (6.4) = 83.2 \text{ acres}$
- By income band (median state income):
 - Non-PSH: 21.03 acres
 - PSH: 8.49 acres
 - 30-50%: 17.66 acres
 - 50-80%: 5.62 acres
 - 80-100%: 3.97 acres
 - 100-120%: 5.79 acres
 - >120%: 19.27 acres
 - Emergency Units: 1.36 acres
- Commercial (10%): $12.8 \text{ acres} + \text{MU} = 19.2 \text{ acres}$
- Mixed-Use (MU) (all uses, 5%): 6.4 acres
- Recreational/Public (5%): 6.4 acres
- Civic/Institutional (5%): 6.4 acres
- Infrastructure (15%): 19.2 acres

Design Features

Residential. Residential areas include a mix of housing typologies that cater to a mix of income bands. Residential parcels should be developed in an interconnected manner with nested blocks and paths to community assets such as the neighborhood center.

Commercial. Commercial zones can host a collection of small retail shops and restaurants. Commercial and mixed-use buildings can emphasize sustainable design and parking sited behind buildings to reduce visual clutter and prioritize the pedestrian experience.

Mixed-Use Center. The central node of the neighborhood serves as the focal point for West Node, and features residential, commercial, public, and civic land uses. With ground level commercial and residential units on upper floors, the center provides a public space for community activities or events, and several civic services/institutions.

Recreational/Public. Recreational areas within the node can include several medium sized parks with amenities such as playgrounds, fields, and trails, as well as community gardens. Neighborhood parks connect to each other via greenways, which provide biking access, linking residential, commercial, and public spaces together.

Civic/Institutional. Civic spaces provide public spaces for the community and build a sense of neighborhood pride. Such uses may include a community center with meeting rooms and recreational programming.

Infrastructure. Improved infrastructure along major roadways and surrounding side streets should include protected bike lanes, off-street pathways for pedestrians, and well-lit sidewalks along major roadways and roads designed to calm traffic to support a safe living environment. Improvements includes connecting Church Road to increase connectivity.

North Node

North Node is proposed as a new urban village, complete with a diverse mix of residential, commercial, civic, and recreational uses, as well as a larger mixed-use center to serve the node and surrounding neighborhoods' needs. This development should include the following land use distribution.

Land Use Distribution

(total developable area: 195 acres):

- Residential (40%): $77.87 \text{ acres} + \text{MU} (19.46) = 97.33 \text{ acres}$
- By income band (median state income):
 - Non-PSH: 24.60 acres
 - PSH: 9.93 acres
 - 30-50%: 20.65 acres

- 50-80%: 6.58 acres
- 80-100%: 4.64 acres
- 100-120%: 6.77 acres
- >120%: 22.54 acres
- Emergency Units: 1.60 acres
- Commercial/Light Manufacturing (15%): $29.20 \text{ acres} + \text{MU} = 48.66 \text{ acres}$
- Mixed-Use (MU) Center (all uses, 10%): 19.46 acres
- Recreational/Public (10%): 19.46 acres
- Civic/Institutional (10%): 19.46 acres
- Infrastructure (15%): 29.34 acres

Design Features

Residential. Residential areas include a mix of housing typologies (defined in the next section) and serve a mix of income bands. Residential parcels should be developed in an interconnected manner with nested blocks and pedestrian paths to the mixed-use center and recreational areas.

Commercial/Light Manufacturing

Commercial zones host a range of small businesses, small retail, restaurants, and potentially some larger scale commercial that will be sited near or along Church or Vista Dr. Street frontage with no setback should be required in dense commercial areas, providing walkability and accessibility to new neighborhood assets. Light manufacturing uses may be appropriately sited and buffered from other uses and can deploy other screening

measures such as landscaping to reduce its effect on surrounding parcels.

Mixed-Use Center. This central node of the neighborhood serves as the community hub and features residential, commercial, public, and civic land uses. The center should be connected to the surrounding neighborhood with pedestrian and bike access, as well as to transit stops and regional trails.

Recreational/Public. Recreation within the node include several large parks with community amenities such as playgrounds, fields, and trails, a community garden, and potentially a community pool. Smaller neighborhood parks should connect to the larger park system and regional trails via greenways.

Civic/Institutional. Civic spaces provide a public space for the community to interact and build a sense of neighborhood pride. Uses include a community center.

Infrastructure: Improved infrastructure along major roadways and side streets should be complete with protected bike lanes, off-street paths for pedestrians, and well-lit sidewalks along roadways. Utilities should be improved to increase sustainability and reduce visibility, and roads should be designed to calm traffic.

Housing Densities

Defining housing density is an integral part in determining the functionality and sustainability of future development of Ferndale. Density is often seen as a threat to an established community identity, loss of privacy, infrastructure capacity and overall quality of life. However, increased housing density has been proven to provide many benefits including reduced urban sprawl, enhanced access to services, increased walkability and transit use, and improved social connection.

The majority of Ferndale is zoned Residential Single-Family Medium as four to seven units per net acre. The city also has adopted the Residential Multi-Family – Medium Density (RMM) that permits 10-30 units per acre, with the purpose of serving as a transition zone between single-family residential areas and higher-density multifamily, mixed-use, or commercial zones.

This planning study proposes an average density of 23 dwelling units per acre. The RMM zoning standards will be important as we move forward in this section regarding housing density in Ferndale.

Projected Density

Each Node of development shows differences in density distribution

and housing unit count depending on the availability of developable lands. Density can be calculated in net or gross density formulas. Net density provides a more realistic, and accurate number to development potential because the calculation excludes areas like streets, open spaces, and unusable lands. In this case, the study uses Net Density. The tables below illustrate projected housing density in each of the three nodes.

Table 4.2.3. Portal Way Unit Estimate

Portal Way	Housing Units	Net Density
Developable Residential Lands: 106.65 acres	2,229 units	23 DU/acre

Table 4.2.4. West Node Unit Estimate

West Node	Housing Units	Net Density
Developable Residential Lands: 83.2 acres	1,914 units	23 DU/acre

Table 4.2.5. North Node Unit Estimate

North Node	Housing Units	Net Density
Developable Residential lands: 298.5 acres	2,238 units	23 DU/acre

Total Number of Housing Units at 23 DU/AC = 6,381 total units

Table 4.2.6. Portal Way Housing Allocation by Income

Portal Way		
Income Band	Acres allotted per income Band	Housing unit count at 23 DU/acre per income band
Non-PSH	26.96	620.08
PSH	10.89	250.47
30-50%	22.63	520.49
50-80%	7.21	165.83
80-100%	5.09	117.07
100-120%	7.42	170.66
>120%	24.70	568.1
Emergency Units: 4.90 acres	1.75	40.25

Table 4.2.7. West Node Housing Allocation by Income

West Node		
Income Band	Acres per income Band	Housing units at 23 DU/acre
Non-PSH	21.03	483.69
PSH	8.49	195.27
30-50%	17.66	406.18
50-80%	5.62	129.26
80-100%	3.97	91.31
100-120%	5.79	133.17
>120%	19.27	443.21
Emergency Units: 4.90 acres	1.36	31.28

Table 4.2.8. North Node Housing Allocation by Band

North Node		
Income Band	Acres per income Band	Housing unit at 23 DU/acre
Non-PSH	24.60	565.8
PSH	9.93	228.39
30-50%	20.65	474.95
50-80%	6.58	151.34
80-100%	4.64	106.72
100-120%	6.77	155.71
>120%	22.54	518.42
Emergency Units: 4.90 acres	1.60	36.8

Table 4.2.9. North Node Housing Type Mix

Income Band	Housing Type Mix	Units	% of Total Units	Ferndale % Allocated
Non-PSH	30% town-homes, 70% multifamily	565	25.2%	25.7%
PSH	100% apartments	228	10.2%	10.4%
30-50%	40% multifamily, 60% apartments	474	21.2%	21.6%
50-80%	50% town-homes, 50% multifamily	151	6.7%	6.9%
80-100%	60% town-homes, 40% duplexes	106	4.7%	4.8%
100-120%	70% town-homes, 30% single-family	155	6.95%	7.1%
>120%	60% single-family, 40% townhomes	518	2.32%	23.5%
Emergency Units	100% apartments	36.8	.2%	.2%
Total Units		2,238		

Housing Typologies

The study proposes housing at a density level of 23 DU/acre. The three nodes of development have different acreage allocated for residential development. Types may vary between the 3 study sites. Some typologies may better complement the existing residential character of Ferndale. Figure 4.2.11 is a diagram of images illustrating various housing typologies appropriate in each site.

The tables below allocate housing types by income band for each site. Additionally, the tables analyze the percentage of total projected units per income band with the city's percentage of units allocated per income band.

Service Area

The Portal Way node focuses on improving connectivity and essential services in Ferndale. Within a ¼-mile radius, the center of the node serves 119 parcels. The inclusion of an elementary school in this area would not only increase access to education but also encourage more walkable

and family-friendly neighborhoods. A 24/7 urgent care facility would ensure that medical services are available within the community, reducing the need for long trips for medical care. Expanding trails and parks would connect residents to nature by providing access to the Nooksack River and surrounding green spaces. This would enhance the pedestrian experience for residents and create safe areas for recreation. Additionally, new sidewalks and bike lanes would enhance pedestrian and cyclist safety, supporting a gradual transition toward multimodal transportation.

The development in the North Node emphasizes the creation of a walkable neighborhood with access to essential services with the creation of a new “destination street.” This street serves as both an arterial road and public space featuring amenities such as outdoor dining and farmers markets. Investment in greenways in this region should prioritize multimodal transport and promote active transportation.

West Node’s character as a residential district makes it ideal for creating a complete and connected neighborhood. The proximity to downtown also provides opportunities to connect land uses through bike and pedestrian routes to create better integration with the surrounding area.

Table 4.2.10. Portal Way Housing Type Mix

Income Band	Units	Housing Type Mix	% of Total Units	Ferndale % Allocated
Non-PSH	620	40% town-homes, 60% multifamily	27.8%	25.7%
PSH	250	100% apartments	11.2%	10.4%
30-50%	520	40% multi-family, 60% apartments	23.3%	21.6%
50-80%	165	50% town-homes, 50% small multi-family	7.4%	6.9%
80-100%	117	60% town-homes, 40% duplexes	5.3%	4.8%
100-120%	170	70% town-homes, 30% single-family	7.7%	7.1%
>120%	568	60% single-family, 40% townhomes	25.5%	23.5%
Emergency Units	40	100% apartments	1.8%	.2%
Total Units	2,229 units			

Table 4.2.11. West Node Housing Type Mix

Income Band	Units	Housing Type Mix	% of Total Units	Ferndale % Allocated
Non-PSH	484	30% town-homes, 70% multifamily	25.3%	25.7%
PSH	195	100% apartments	10.2%	10.4%
30-50%	406	40% multifamily, 60% apartments	21.2%	21.6%
50-80%	129	50% town-homes, 50% multifamily	6.8%	6.9%
80-100%	91	60% town-homes, 40% duplexes	4.7%	4.8%
100-120%	133	70% town-homes, 30% single-family	7%	7.1%
>120%	443	60% single-family, 40% townhomes	23.2%	23.5%
Emergency Units	31.28	100% apartments	1.6%	.2%
Total Units	1,914 units			



Figure 4.2.9. Variety of Housing Typologies

Public Assets

The North, Portal, and West neighborhood nodes contain critical environmental features, public rights-of-way, and limited public spaces to support sustainable growth. Ferndale has room for increased greenway networks, additional public amenities, and expanded multimodal transportation options.

A network of wetlands and flood zones constrains some development potential, while also presenting an opportunity for ecological preservation and green amenities. The adjacent map shows existing wetlands, parks and agricultural uses within the Ferndale UGA.

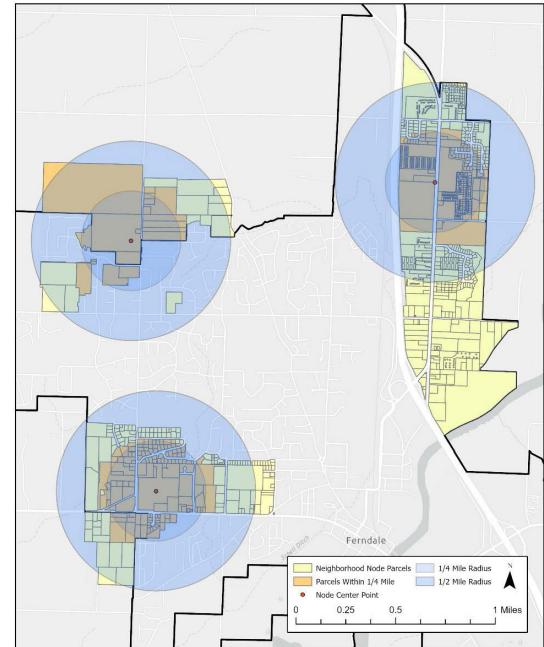


Figure 4.2.10. Neighborhood Node Service Area

Portal Way Node

The Portal Way node's current public infrastructure focuses on vehicular traffic, with inconsistent sidewalks and limited multimodal transportation options for more cohesive public spaces. At the southeast end of the node, the Nooksack floodplain limits future development but presents the opportunity for trail networks. Mitigation efforts, such as buffer zones and low-impact development techniques, are essential to preserve the area's natural features while accommodating future growth.

Portal Way is a key arterial road providing significant public right-of-way infrastructure. Although the existing mode of transportation is largely vehicular, bicycle infrastructure improvement can promote active transportation. Improving sidewalks, bike lanes, and crosswalks along Portal Way can enhance accessibility and encourage alternative transportation. The Portal Node has some existing public spaces, but they are not well-integrated into the community. Investing in park enhancements and creating additional green spaces would improve the area's livability.

West Node

The West Node contains environmental constraints that impact development feasibility and necessitate thorough environmental assessments. Sustainable stormwater management practices and conservation-focused planning will be key to minimizing ecological disruption.

The West Node's transportation infrastructure is limited, with few arterial roads and a prevalence of cul-de-sacs. This urban layout reduces connectivity and can hinder future development. Strategic road extensions and improvements are needed to create a cohesive transportation network. The West Node is well situated for the development of a community center, an amenity that was in high demand at the

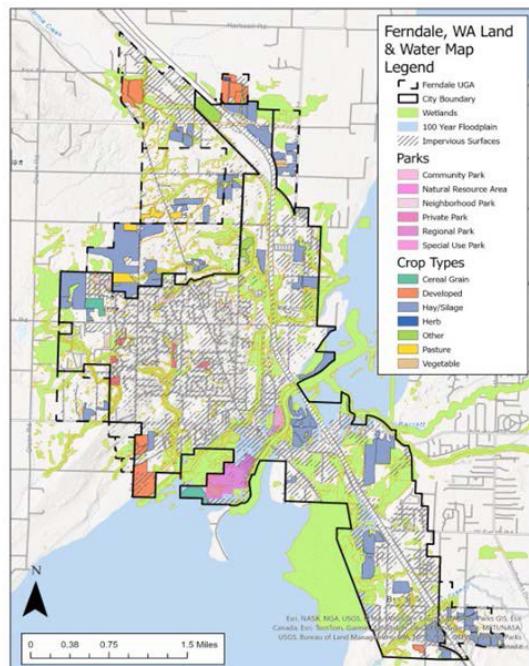


Figure 4.2.11. Environmental resources

2024 community engagement event. A new community center, potentially including a pool, could serve as a central gathering place for residents.

North Node

The North Node contains a network of streams and wetlands, posing an opportunity for green space development. Buffer zones and habitat restoration would help protect these critical areas while allowing for controlled growth, as well as a trail along the stream located in the node. Public rights-

of-way in the North Node are primarily composed of residential streets with limited connectivity. Expanding the road network and incorporating pedestrian-friendly infrastructure would enhance accessibility and support future development.

Public spaces in the North Node are limited. Adding parks and community gathering spaces would provide much-needed amenities for residents. Additionally, establishing new educational facilities, such as a library or school, could support the growing population in this area.

Overall Recommendations:

To enhance current residents' quality of life and support population growth across all three nodes, the following public asset improvements are recommended:

- Community center with a pool. At the 2024 community engagement event, residents expressed a desire for a community pool.
- Establishing a medical center with urgent care and primary care services would improve healthcare access for residents in all three nodes.
- Increasing the network of trails and pedestrian pathways. Residents expressed that Ferndale's natural beauty was inaccessible, and all 3 nodes have opportunities for improved green space

- Ferndale's development opportunities include critical areas that require protection and integration with future development.
- With forecasted population growth, new educational facilities, such as a library and schools, should support population growth in each neighborhood node.

Connectivity

Ferndale residents primarily use personal vehicles for transportation. The city predicts personal vehicles will remain the dominant mode of travel for residents. Other modes of transportation are less developed. The road network is sprawling and meanders aside from a few dedicated arterials. Many cul-de-sacs function as dead ends. As the city grows there will be a strain on existing road networks which will require greater investments in infrastructure.

Ferndale is served by Whatcom County Transit Authority (WTA) with two bus routes. Route 27 forms a one-way clockwise loop around town back to Bellingham. Route 75 follows Portal Way, then continues up I-5 to Blaine. Both routes stop at Ferndale Station Park-and-Ride, which is on the east side of I-5, disconnecting it from the rest of the town. Route 27 runs at 1 hour frequency on weekdays and offers no counterclockwise service, making the route less useful to those near the loop. Route 75 runs at a variable



Figure 4.2.12. WTA Ferndale Bus Routes

frequency on weekdays ranging from 30 minutes to over two hours depending on the time of day.

The city has a fragmented sidewalk network and only one bike route along a segment of Main Street through downtown. Both underdeveloped networks would require upgrades to separate bike users from personal vehicles.

Portal Way Recommendations

Intensified development along Portal Way would benefit from lowered speed limits. This would improve safety and potential congestion by increasing reaction times for drivers, lowering the following distance needed, and reducing the severity of crashes.

Portal Way functions as the backbone of the neighborhood and should move toward becoming a multi-model arterial with implementation bike lanes and additional accessible multi-model paths for residents. Inspiration can be taken from Bellingham's Urban Villages program for Samish Way and Seattle's People Streets and Public Spaces program, which sets "destination streets" that provide additional uses for transportation corridors.

Additional recommendations for Portal Way

- A two-way bike lane along Portal would use low-profile barriers to increase safety with a physical barrier without causing significant visual disruption. Connecting to existing infrastructure southbound, the bike lane could continue under the I-5 interchange and connect to 2nd Ave and Griffintown Park.
- A path system would provide connections beyond Portal such as access to the Nooksack River and other parks and, under I-5, to Vanderyacht Park.
- Improvements to Bus Shelters including ADA platforms for varied-ability users. In addition to route 75, a new circular bus route serving Ferndale would increase frequency along Portal but allow for access to additional

destinations in Ferndale, potentially connecting to other nodes. As density increases in the area riders would benefit from increased frequency like the WTA GO-Line system which used shared routes to create sub-15-minute frequency.

- At critical points along Portal Way, Rapid Flash Beacons and traffic calming measures, including center islands, daylighting, bump outs, and bioswales.
- Reconfiguration of the Thorton Street Overpass with a pedestrian bridge spanning I-5 and connecting at Newkirk Road, which would also see substantial improvements to connectivity including sidewalks and bike infrastructure.

West Node Recommendations

Alternative methods for connectivity with services in the neighborhood like an emphasis on multi-model pathways, easements, and trails would be effective ways to increase connectivity and not disrupt existing developments. Greenspace with clustered development could provide for improved connectivity.

Identifying and improving the most deficient sidewalks and use of bike lanes where possible and making improvements would also substantially help improve mobility alternatives. Considering extension of Main Street bike lanes would require

redevelopment of Mountain View and Church Roads. Connecting Church Road and S. Church Road would make navigating this node easier as current traffic routing to main and Douglas would create additional congestion if infill development were implemented

North Node Recommendations

The North Node features greenfields, it would be suitable for a development that follows principles of New Urbanism. Applying these principles could provide more effective access to goods and services within the neighborhood without dependence on personal vehicles. Seattle's People Streets provide useful guidance for the future development of this node with the inclusion of "destination streets" – spaces that can exist as a permanent or temporary pedestrian plaza in a neighborhood's core.

A destination street could include Church Road and feature elements like outdoor dining structures, farmers markets, parades, and other events. A public greenway through the critical area of the neighborhood could provide additional connections through the neighborhood separated from personal vehicles. Along the main arterials, sidewalk improvements are recommended, and safety improvements to side streets may provide more suitable bike infrastructure. Additional connectivity elements such as bus route

extensions, increases in frequency, or new bus routes would also be recommended.

Additional Recommendations for North Node

- High intensity multi-model paths in core development with alleyways, fire lanes, and additional paths connecting to other streets.
- Improvements to WTA route 27 such as creating a bi-directional loop along Thorton Street, extending the route to Aldergrove Road, and creating a circulator route around the city.
- Sidewalks improvements along arterials, basic bicycling infrastructure along arterials with greater focus on neighborhood greenways.
- Multi-use of greenways to create network of trails and paths for residents to use throughout the neighborhood.

Conceptual Site Plans

Conceptual site plans for the three Neighborhood Nodes are based on a projected "medium" housing density. Conceptual site maps are shown with a brief narrative of key components of the plan (see figures 4.2.13-15).

Portal Way

The Portal Way Node is envisioned as a vibrant, mixed-use commercial corridor that works to embrace multi-modal connectivity, spatial equity, and compact development. With a total development area of 237 acres and significant natural and capital assets, the node can integrate currently diverse land uses along with new land uses into a balanced and sustainable community. Residential areas, which account for 45 percent of the land (including mixed-use areas) are proposed to incorporate diverse housing types and income levels, ensuring inclusivity and affordability, and the nodes 30 percent commercial (including mixed-use areas) support the denser growth with compact small businesses and shops. The Mixed-Use Center and its pedestrian corridor serves as the central point of the node, and integrating retail, office, residential, public, and civic uses into one vibrant community space. New public spaces and services that include parks, library branches, and urgent cares can be added and connected by safe multi-modal routes to increase accessibility.

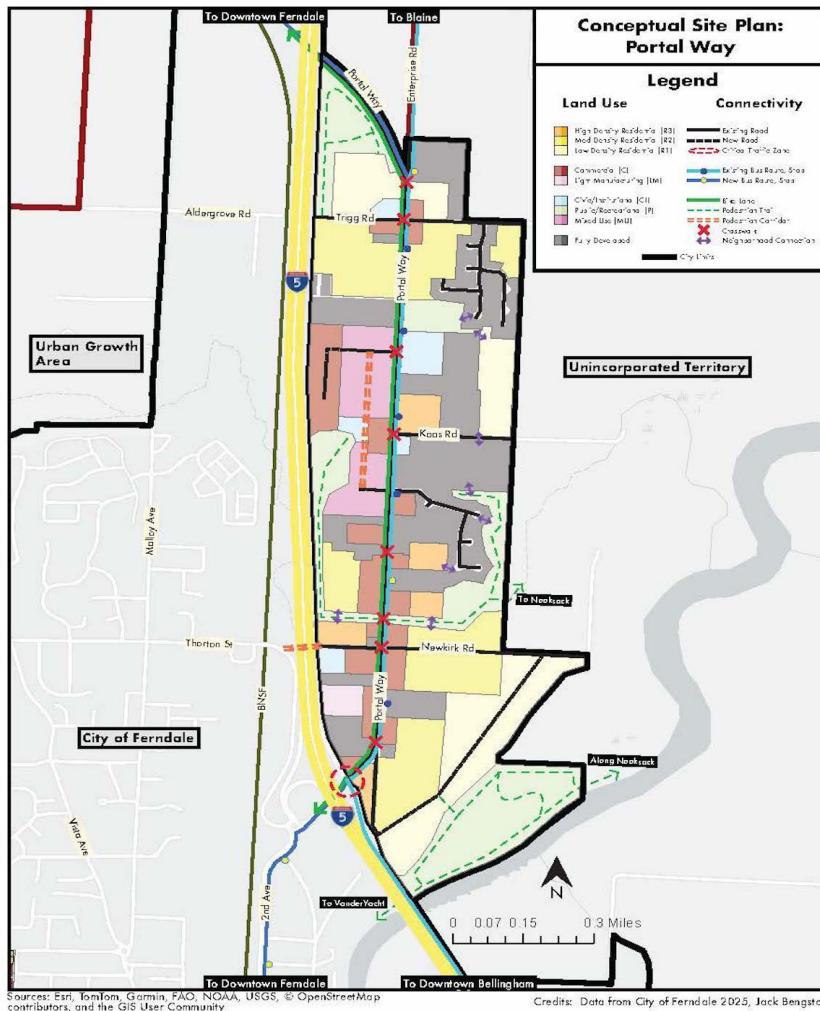


Figure 4.2.13. Portal Way Conceptual Site Plan

West Node

The West Node is envisioned as a connected, mixed-use neighborhood that serves the existing surrounding community, while supporting long term population growth. With 83 acres of developable land, the current landscape is predominantly residential, characterized by single-family homes. The proposed site plan introduces diverse housing typologies to accommodate varying income levels and increased housing density, supporting mixed-use commercial uses. A site on Mountain View Road serves as the primary commercial center, that can offer retail, office, healthcare, and public services. Multi-modal transportation improvements are recommended and critical areas should be preserved as parks and open spaces. The West Node development concept can enhance housing diversity, provide commercial and community services, and maintain vital environmental resources.

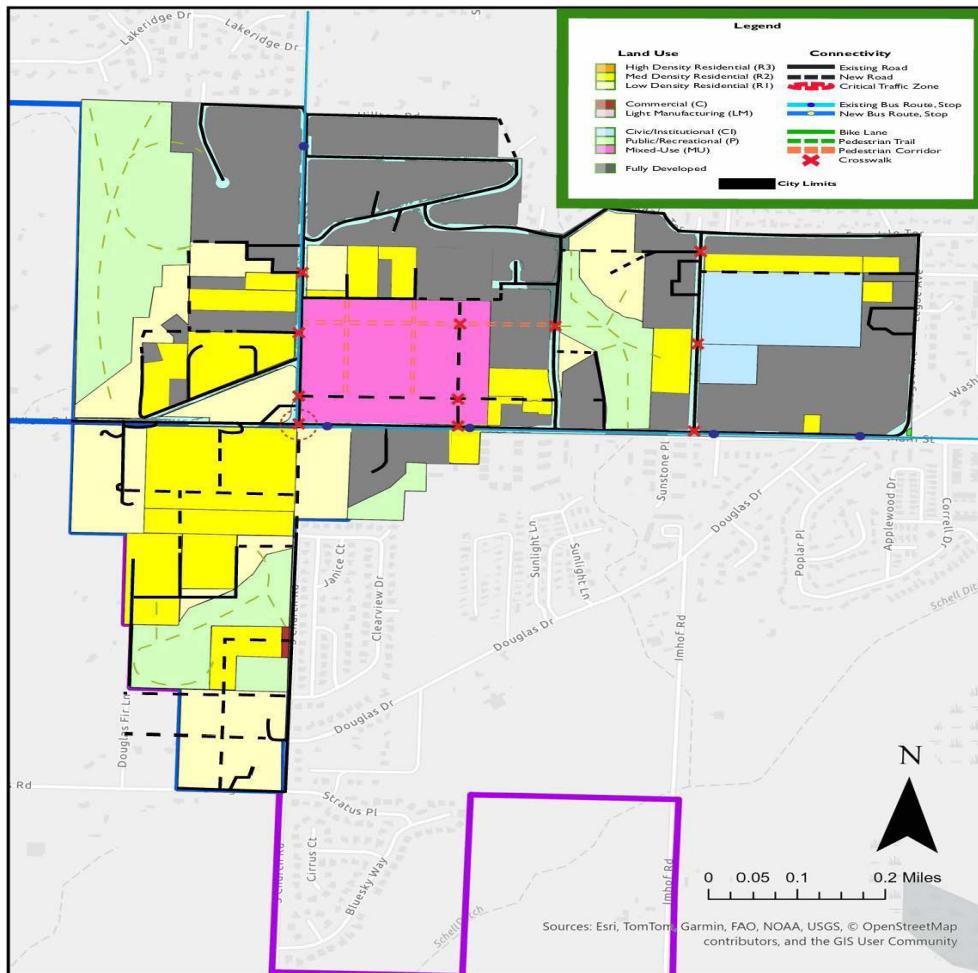


Figure 4.2.14. West Node Conceptual Site Plan

North Node

The North Node neighborhood development concept emphasizes environmental resources within a New Urbanism street design pattern. With 195 acres in consideration for development there are opportunities to introduce diverse forms of housing, commercial, and mixed-use development with emphasis on access to greenspace and multi-modal connections.

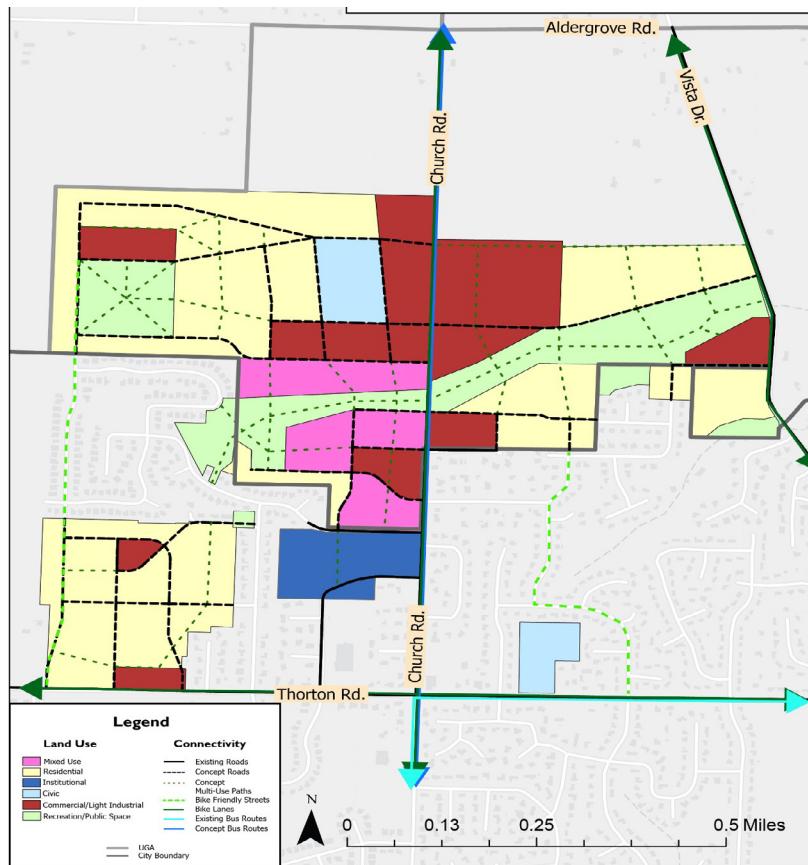


Figure 4.2.15. West Node Conceptual Site plan

4.3 High Housing Density Alternative

This report presents a residential high-density scenario for the North, West, and Portal Way neighborhood nodes. These study sites have been identified by the city as opportunities for expansion with commercial, mixed-use, and an increased residential density.

By planning for an average of 30 dwelling units/acre, each node is shown to have a capacity to far exceed the 3,055 housing units that Ferndale is projected to require over a 20 year period.

Overview

North Neighborhood Node

The north node, as defined by the boundaries presented in figure 4.3.1, provides a unique opportunity for greenfield development within the city's urban growth area (UGA). To ensure that all aspects of a mixed-use development are considered in the plan, phased development is recommended for the 222 acre site. A neighborhood core is recommended as part of the first phase of development and consists of just over ten acres. In this phase, retail, commercial, recreational, residential, and civic services can serve as the foundation for the future neighborhood.

West Neighborhood Node

Lying west of Ferndale's downtown along Mountain View Road, the West Node is

comprised of a 200-acre site that can serve as a multi-use neighborhood center to provide grocery, green space, commercial developments and increased residential density supporting the existing residential developments located to the north and south of the site (figure 4.3.2). The West Node could connect these currently divided subdivisions as well as provide missing housing types that may better serve diverse communities. The area contains largely underdeveloped parcels but also includes critical areas and some challenging topography with steep slopes.

Portal Way Neighborhood Node

To the East of Interstate 5, the main arterial street in Ferndale is Portal Way. In recent years, medium-density residential development has been expanding at a rapid pace along this corridor. The area suffers from a lack of connectivity, an auto-oriented streetscape, and disjointed developments. The neighborhood node (figure 4.3.3) proposes a mixed-use corridor that incorporates parks, civic facilities, mixed uses, and a range of residential densities. This study proposes connectivity improvements along Portal Way and between the site and Ferndale's downtown.

These three nodes form a cohesive urban development plan for the city in the coming decades. By increasing housing density and

planning with complete communities in mind, the city can enhance the health, safety, and quality of life for current and future residents.

Buildable Areas Analysis

Buildable areas are parcels of land suitable to accommodate future development and exclude sites with significant environmental constraints or other restrictions. These developable areas were identified by applying a land-to-improvement value ratio to identify parcels with low-valued improvements. Each parcel was then verified by field survey. The areas considered buildable do not include areas containing existing development or environmentally critical areas.

North Node

The site boundary encompasses 222 acres. By excluding critical areas and currently developed parcels within the site boundaries, the site provides about 187 acres of buildable land. Twenty percent of the buildable land supply is dedicated to future roadways and other public uses. The net area of developable land is 149 acres.

West Node

The entire West Node Site contains approximately 200 acres, with 97 acres deemed as developable. The developable parcels are depicted in Figure 4.3.5. Over

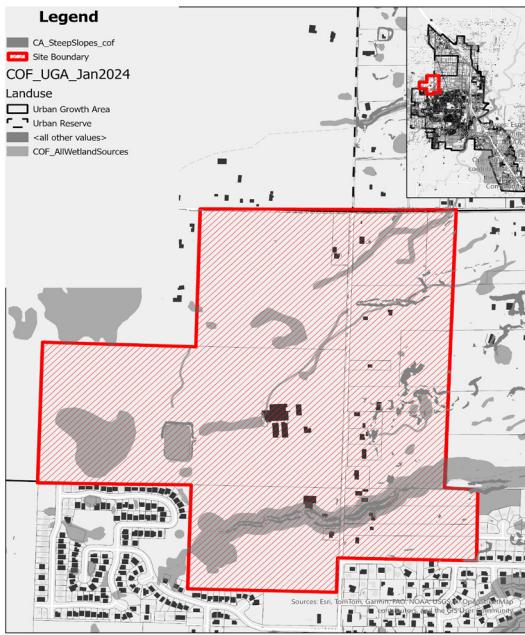


Figure 4.3.1. North Node Boundary

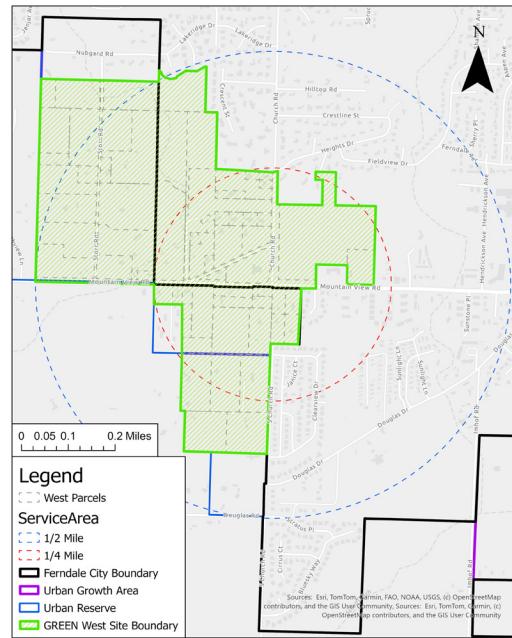


Figure 4.3.2. West Node Site Boundary Map

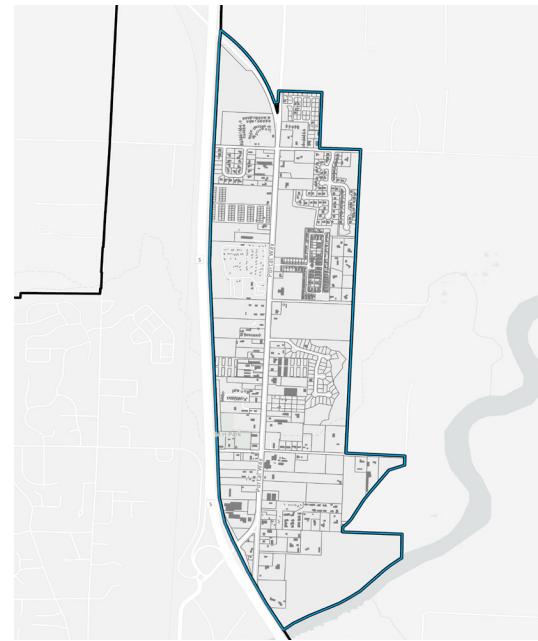


Figure 4.3.3. Portal Way Node Boundary

An additional 20 percent is removed from the total acreage to provide for future public rights of way. A net total of 77.57 acres, or nearly 39 percent of the total site area, is assumed to be available for development.

Portal Way Node

After calculating the Land to Improvement Value Ratio (LIR) for the site, the analysis indicates that the Portal Way corridor contains a developable area of 220 acres, or 47.49% of the land area within the neighborhood node.

Land Use Mix

In modeling high-density residential scenarios for the three neighborhood nodes, an emphasis is placed in incorporating mixed-uses to meet the day-to-day needs of current and future residents. Mixed-use developments concentrate retail, residential, commercial, civic and recreational facilities and services in a compact urban form. The design concept aims to improve connectivity, encourage active transportation, and aid in the creation of a neighborhood identity. Due to the state's

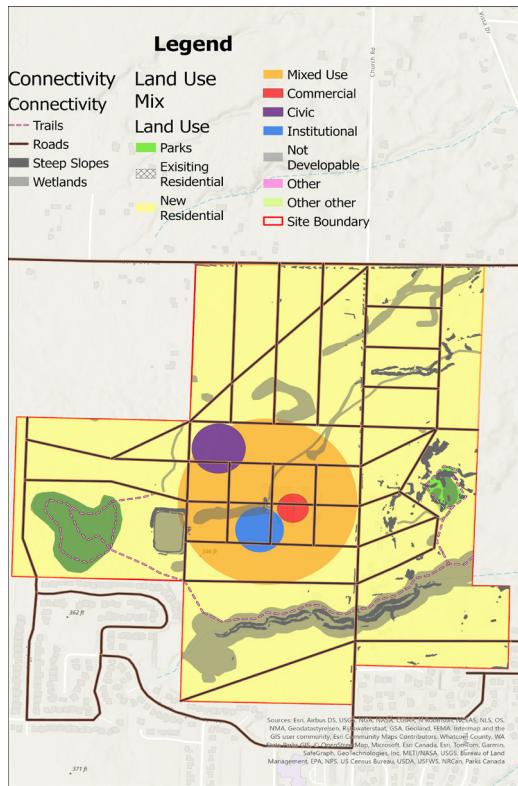
priorities for encouraging a diversity of housing types, it is necessary to provide housing choices that serve all income levels.

North Node

A conceptual site plan is proposed for each of the study sites. North node's site plan is shown in figure 4.3.7. Most of the proposed site plans consist of a combination of medium and high-density residential developments. A mixed-use core provides apartment units at a density close to 40 dwelling units per acre (DU/acre). Located

outside the neighborhood core, residential densities decrease to between 28 to 35 DU/acre and provide a transition to the existing lower density residences abutting the study site.





core serve as multi-use buildings that consist of a mix of commercial, residential, and services. The building typology includes buildings with commercial ground floor uses and apartments on upper floors. These residential units have the most direct access to the services offered in the neighborhood center and are most likely to provide the most affordable forms of housing.

Portal Way Node

The proposed plan integrates the existing landscape of Portal Way while prioritizing new services and expanded residences. New infill development is focused on underutilized or vacant parcels. The envisioned corridor aims to incorporate elements for a complete neighborhood where shops, restaurants, and public spaces blend seamlessly along with housing to create a lively, safe, and walkable environment.

The high-density plan can accommodate 3,519 new units, or approximately 9,818 residents. To achieve this, 58 percent of the corridor's land is planned for residential uses, including existing and new residential developments and mixed-uses. The 83 acres of existing residential areas consist of a mix of single-family homes on large plots and newer subdivisions. The plan envisions increased connectivity by integrating these subdivisions with commercial and recreational spaces, making everyday amenities easily accessible. While most single-family homes are anticipated to remain, the plan proposes to upzone properties to allow for denser development over time. New residential areas will emphasize missing middle housing options, addressing Ferndale's need for diverse and affordable living spaces.

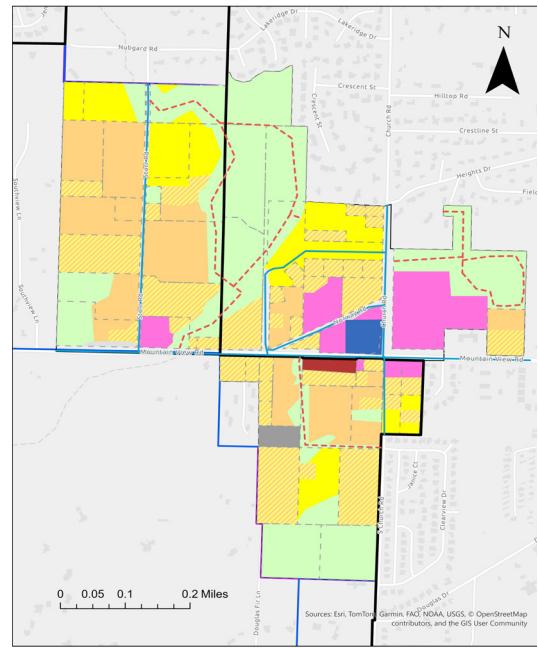


Figure 4.3.8. West Node Conceptual Site Plan

Mixed-Uses

The conceptual plan for the central corridor features a dynamic mixed-use zone. This layout reduces car dependency and improves the streetscape and pedestrian experience. Residents in this zone benefit from access to restaurants, shops, offices, and essential services. The mixed-use design encourages economic vitality by attracting businesses that cater to both residents and visitors.

Parks/Open Space

The Portal Way corridor includes over 100 acres of green space, promoting recreation and sustainability. A major feature includes a proposed new park at the southern end of the corridor, offering public access to the Nooksack River. As this area lies within the 100-year floodplain and is prone to extreme flooding, the park serves as a natural buffer, protecting residents from flood hazards.

Additional public spaces include a large park at the Northern end of Portal Way and a pedestrian pathway along the stream north of Newkirk Road, which preserves the stream's riparian zone. Smaller pocket parks are strategically distributed throughout the corridor, including a park adjacent to a proposed institutional area and another park within 300 feet of the neighborhood center. These parks connect to the Nooksack riverfront park via pedestrian paths, forming a cohesive network of accessible green spaces. This distribution ensures that no resident is more than a short walk from a park.

Institutional

With 29 percent of Ferndale's population under 18 years old, an estimated 2,857 children at full build-out are expected to reside in the Portal Way neighborhood. To meet educational needs, the plan designates 5.63 acres for a new elementary school. The

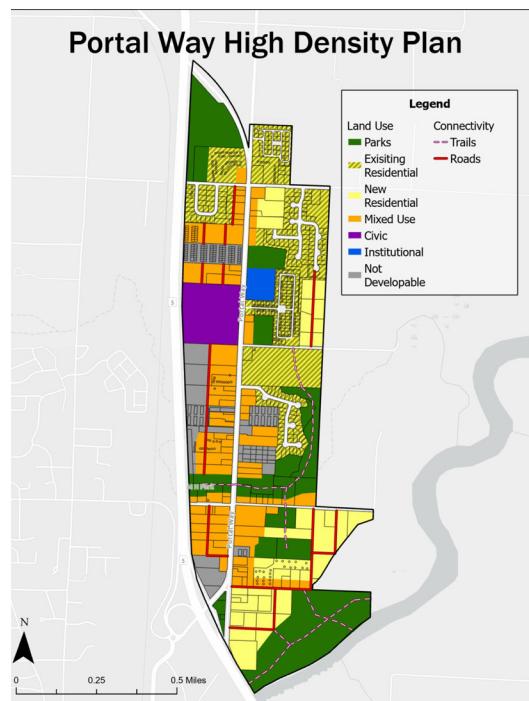


Figure 4.3.9. Portal Way Conceptual Site Plan

Table 4.3.1: Portal Way Land Use Mix

	Park/ Open Space	Existing Residential	New Residential	Mixed Use	Civic	Institutional	Not Developable
Sq. Acres	108.75	83.25	64.70	81.93	21.16	5.63	30.96
Percent of Area	27%	21%	16%	21%	5.5%	1.5%	8%

school is shown centrally located within the corridor, making it accessible by walking and biking.

Civic

Directly across from the school, a civic space is recommended to serve as the heart of the Portal Way neighborhood. Designed to be flexible, this space can accommodate gatherings, events, and recreational activities. The civic area features a mix of buildings with covered and outdoor spaces.

Housing Densities

The plan aims for an average housing density of 30 dwelling units per acre. The density, typology, and distribution of housing between each node will vary based on the unique characteristics of each node.

North Node

At the neighborhood core, housing densities may range between 35 and 40 DU/acre. This neighborhood core should contain all the elements for a complete neighborhood. Three to four-story multifamily housing types with first floor commercial spaces are recommended for the neighborhood core.

The North node is comprised of greenfield development. This requires careful development phasing over several decades for efficient urban services delivery. The neighborhood core provides the foundation for a “complete neighborhood” and should represent the first phase of development.

Figure 4.3.10 shows how the North node could develop in four phases over several decades. The first phase, outlined in red, consists of the mixed-uses providing services and higher density housing. The second phase provides high-density housing with close proximity to the core. The third and fourth phases contain successively lower density residential development. The total possible units at these densities is 4,458 units.

Table 4.3.2: North Node Phased Development

	Phase 1	Phase 2	Phase 3	Phase 4
Acres	11	36	38	64
Units	40 DU/a = 444	35 DU/ a=1273	30 DU/ a= 1141	25 DU/ a=1600

West Node

The West Node has identified 40 acres of land available for high-density development (40 units per acre) within the neighborhood center, which can accommodate 2,400 units in mid-rise apartments and 440 units of courtyard apartments. There are 17.5 acres of land suitable for residential development

outside of the neighborhood center, which can be used to support single-family homes. Additionally, a transition zone between these two densities consists of 20 acres suitable for 300 units of cottage housing, which can be diversified with other housing typologies such as townhomes.

Table 4.3.3: West Node Housing Breakdown by Income

Average Median Income	% of Population	# of Units / 3,000
Extremely Low (<30% AMI)	10.35	310.5
Very Low (31% - 50% of AMI)	14.29	428.7
Low (51% - 80% of AMI)	15.84	475.2
Moderate (81% - 95% of AMI)	20.37	611.1
Middle (96% - 120% of AMI)	39.16	1174.8

Table 4.3.4 breaks down the number of units available to each income bracket in Ferndale. For reference the AMI of Ferndale is \$84,537 as of 2022. (COF Comprehensive Plan, Chapter 3: Housing).

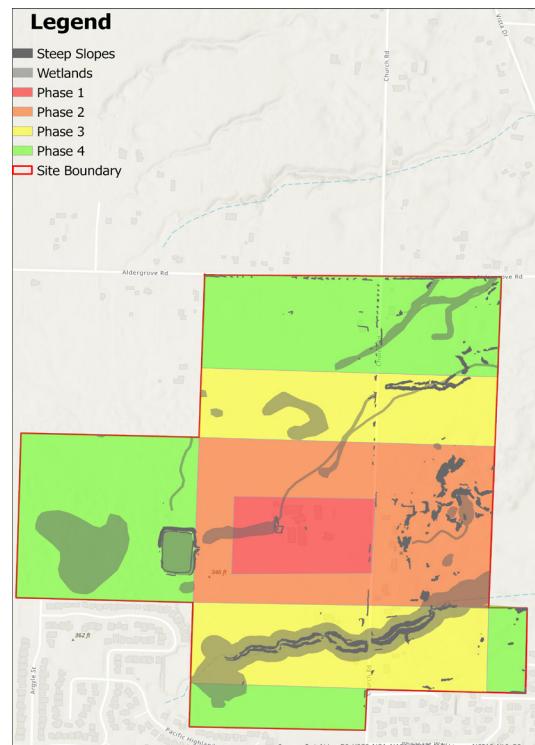


Figure 4.3.10. North Node Phased Development

Table 3.4.4. West Node Housing Breakdown by Density

	Acres of land available	Units	Housing Typology
High Density (40 units per acre)	40	2840	Midrise and courtyard apartments
Low Density (15 units per acre)	17.5	30	Single-family residential
Transitional Zone	20.07	300	Cottage housing and townhomes
Total	77.57	3170	

Portal Way Node

Portal Way offers an opportunity to build on existing multifamily development to increase overall residential density and introduce a mixed-use neighborhood central



Figure 4.3.11. JHP Architecture



Figure 4.3.12. MRSC



Figure 4.3.13. MRSC

core. The planning concept proposed incorporates a variety of housing types, including the detached single-family and mobile and manufactured homes, along with townhouses and higher-density mixed-use residential development. The neighborhood core is located near the intersection of Portal Way and Newkirk Road at the southern end of the node. Commercial and residential areas are integrated with parks and trails providing connectivity to public spaces.

An average density of 38 DU/acre for mixed-use areas could produce 2,490 units and a density of 20 DU/acre for residential areas could support 1,035 units. In total, the plan anticipates a capacity for 3,519 new housing units. After determining the acreage available for infill development, allocations to various land uses are distributed. Housing scenarios are considered in Table 4.3.5 and 4.3.6 that display examples of density distribution options.

Service Area

The service area for each neighborhood node provides services within a 15–20 minute walking distance to existing and future residents. The neighborhood core is designed to provide commercial services and public amenities and the highest density of residential housing.

The $\frac{1}{2}$ -mile radius from the North node core

Table 4.3.5. Portal Way Illustration of Density by Housing Type

Illustration of Density by Housing Type	
	15 DU/Acre in Sudbury, MA (Source: Southeastern Regional Planning & Economic Development District)
	34 DU/Acre in Redmond, WA (Source: Municipal Research and Services Center)
	The left column of this chart displays varying residential densities. The development pictured on the top left utilizes a variety of middle housing types (duplex, triplex, etc.) to maintain a small-town character while increasing residential density above what is typical for single-family homes on individual lots. On the left middle is a development that utilizes attached and detached multifamily units to increase density to 20 dwelling units/acre. On the bottom left, a small apartment complex displays a density of 25 units/acre. This development is less visually appealing but does an effective job displaying medium-high density.
	The image on the top right of the chart is a mixed-use development in Redmond, Washington with a density of 34 dwelling units/acre. Developers were able to maintain a relatively secluded small-town character while increasing uses and density, partially by maintaining small trees throughout the site. Although I would have liked to display images of mixed-use densities at 38 and 42 DU/acre, appealing and accurate images were difficult to come by, and I plan to include further representation in future reports.

would provide access to a significantly large number of existing and future residents. The West Node also serve a large number of existing residential developments lying to the north and south. Upwards of 300 residences are located within half a mile from the neighborhood core. Under the plan proposal, an additional 2,575 units are expected within the Portal Way neighborhood at full build out.

Table 4.3.6: West Node Density by Housing Type

 Exploring the Benefits of Mid-rise Apartments Swiftlane	MIDRISE APARTMENTS 119-150 units per acre 20 acres at 120 units per acre could produce 2,400 units	This is the highest-density option and will be located at the center of the neighborhood node, along main streets Mountain View Rd and Church Rd.
 1484 S Beverly Dr, Los Angeles, CA 90035	COURTYARD APARTMENTS 19-25 units per acre 20 acres at 22 units per acre could produce 440 units	This medium-density housing model is best suited for transitioning away from the neighborhood center. This will be found in the neighborhood center along Mountain View Rd and Church Rd, ideally on the East side of the site boundary.
 Cottage clusters: Portland's chance to build community in a new way by Portland For Everyone Medium	COTTAGE HOUSING 15-22 units per acre 15 acres at 20 units per acre could produce 300 units	This medium-density housing model will be best located just outside of the neighborhood center. This will transition the commercial area into single-family residential while retaining an increased density. This will also likely be found further West on the site due to its retaining of single-family home identity.
 What is a Single-Family Home?	SINGLE FAMILY RESIDENTIAL 10-12 units per acre 15 acres at 12 units per acre could produce 30 units	This low-density housing model is best suited for transition between existing developments and the proposed neighborhood node. These would be located along the furthest West and North edges of the West site node.

Public Assets

North Node

The north node site currently offers few public facility assets, as the UGA is largely undeveloped or in agricultural use. There is a significant number of critical areas that can be integrated into the plan as open space and recreational uses while protecting these critical areas.

Church Road provides primary access with no sidewalks within the site boundaries. The closest public transportation service is

provided by the Whatcom Transit Authority (WTA) bus line on Church and Thorton Roads.

There are several important public resources located south of the site, including two elementary schools and a middle school that can provide, at least during the initial period of development, public educational services to the site. Adjacent to the site also features several family farms and small businesses on Aldergrove Road, adding to the rural character of the neighborhood and promoting local food production. Churches located on Church Road provide places for worship and community gatherings.

West Node

The West Node site is served by several community assets that include:

- Assisted living facility at 2543 Mountain View Road Grace Retirement home.
- Triumph Lutheran Church at 5719 Church Road
- Ferndale Seventh-day Adventist Church at 2488 Main Street
- Bus service at Mountain View Road and Church Road

In addition, the site offers potential for expanded trail systems. Integrating the many green spaces is vital to maintain the

critical areas while expanding recreational opportunities.

Portal Way Node

The Portal Way neighborhood contains several valuable assets to support an increased future population. Unity Care NW provides a variety of healthcare services on a sliding fee scale. Ferndale Family Dental and Progressive Dental Lab provide necessary dental health services. Los Cabos Latin Mart, Quick-E Mart convenience store, and India Fiji Supermarket provide shopping resources and support locally owned businesses. These businesses serve as a model for neighborhood-scale commercial development that should be further expanded as the study site continues to grow.

Several housing developments have been recently built or permitted in the last decade, setting a precedent for higher-density residential along Portal Way. The area's proximity to the rural areas outside of Ferndale city limits and the Nooksack River create a green border and offer opportunities for public green space access. The conceptual plan identifies additional public services to support a future population, including a neighborhood elementary school along with new civic spaces.

Connectivity

North Node

Currently, the north Node site has a few points of connectivity. Church road connects to Aldergrove, which connects to Vista. Vista is a focal point for many commercial activities. There are a minimal number of sidewalks in that area due to its rural nature. As the area transitions to a 15 minute walkable neighborhood, the provision of improved pedestrian facilities is essential. The plan should emphasize improvements to multi-modal movement to include extensive sidewalks and bike lanes, particularly for safe access to the area's public schools and to connect existing residences to the proposed neighborhood center. The extensive pattern of cul-de-sac streets to the south of the site should be examined for ways to provide connectivity between communities.

Additionally, WTA's Route 27 Bus Line that extends to Church and Thornton Roads should be extended further North to Aldergrove or by introducing alternative lines to provide more mode choices within new developments. This would also provide better connections to the Elementary School and Middle School that are situated on Church Road.

West Node

Mountain View Road, which runs in an east-west direction, is the primary road in the West Node area. Where it branches off to Church Road, Bus Route 27 has a designated bus stop ideal for serving the proposed neighborhood center. Improvements to the pedestrian infrastructure will be necessary for the increased foot-traffic that is anticipated along Mountain View Road. A roundabout at Mountain View Road and Church Road, where the city is already planning to add a through-street, is recommended. This intersection serves as one of two connections from Douglas to Mountain View Road, anticipating its heavy traffic, and the short connection to the neighborhood center provides opportunities for pedestrian access. A

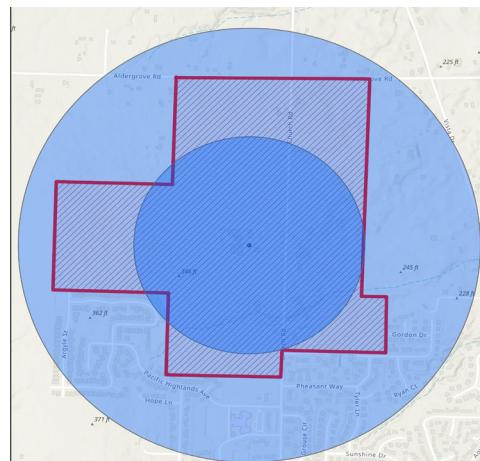


Figure 4.3.14. North Node 1/4 and 1/2 mile radius.

roundabout at this location would slow traffic and increase safety for pedestrians. Sidewalks and crosswalks should be added to the intersection and the through-streets at Church Road and Mountain View Road.

A series of trails connecting planned residential developments within the West Node and the neighborhood center is proposed. Specifically, the apartments on the same block as the neighborhood center, East of Church Road, would benefit from a direct connection via foot path.

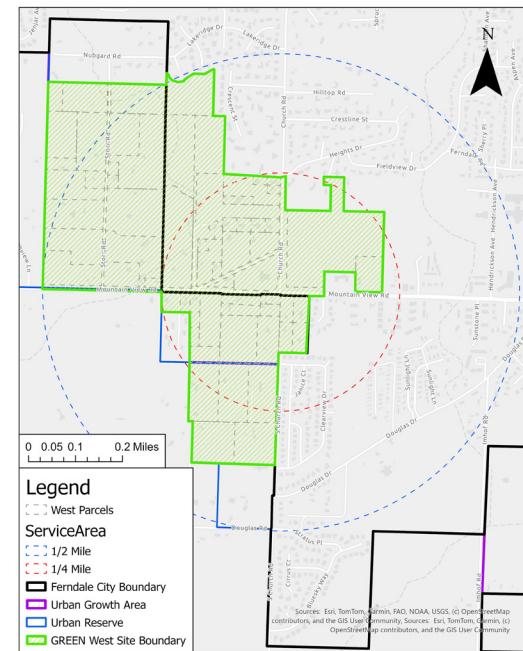


Figure 4.3.15. West Node 1/4 mile and 1/2 mile radius.

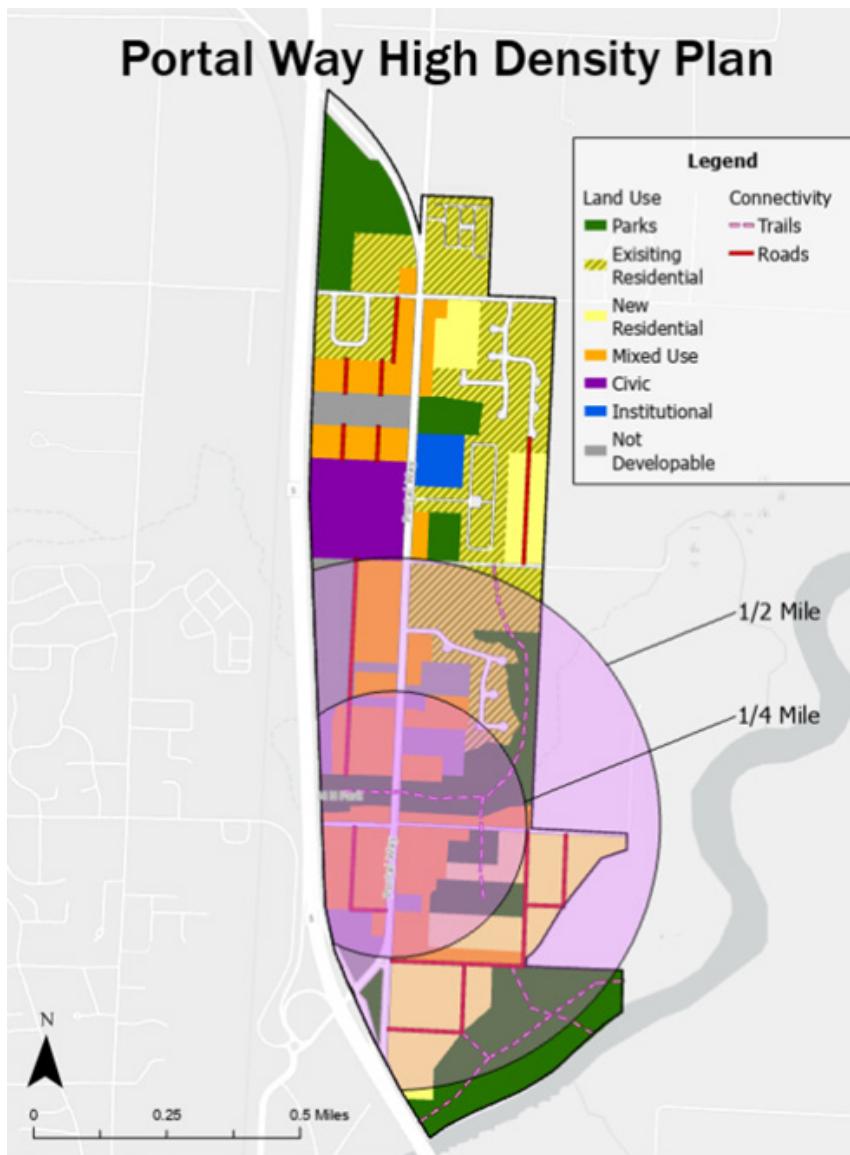


Figure 4.3.16. Portal Way Service Area

There are a few notable areas where road quality visibly drops off after exiting Ferndale city limits. One example is between Nubgaard Road and Lakeridge Dr. There are various other locations such as W. 26th Crest and Salty View Lane, generally located along the Northern border of the node boundary, which need improvement for continuity into the West Node.

Portal Way Node

This node centers along the Portal Way corridor, which contains several residential roads and through-streets intersecting it. The speed limit on Portal Way is 35 miles per hour, but the wide streets and shoulders, lack of visual stimuli on either side of the road, and absence of street calming features fails to slow traffic. Portal Way is unfriendly for both pedestrians and cyclists. While sidewalks exist in certain locations, the pedestrian system is inconsistent and often requires walking on the road shoulder. There are no bike lanes on Portal Way and the lack of traffic-calming measures makes it dangerous for cyclists. A single WTA bus route runs along Portal Way from Bellingham to Blaine/Birch Bay (Route 75), however, bus service is infrequent.



Figure 4.3.17. Maritime Heritage Park in Bellingham (City of Bellingham)

With the increases in housing density, commercial development, and services proposed for the Portal Way node, increased multimodal connectivity should be prioritized with the addition of safe pedestrian and cyclist infrastructure on and around Portal Way.

An increase in WTA service as well as the addition of bus shelters at stops nearest to the core of the node would also improve multimodal connectivity. The proposed plan also expands the street network to create a grid-like street system, further increasing connectivity. The addition of public trails systems along critical areas can further increase connectivity and provide new recreational opportunities for current and future residents.

Portal Way lacks traffic lights, stop signs, and marked pedestrian crossings. The addition of traffic control measures can slow cars driving through Portal Way to create a safer pedestrian district. The addition of traffic lights at the intersections of Portal Way and Newkirk Road and Trigg Road, along with marked crosswalks and pedestrian signals, can encourage greater pedestrian movement. The intersection between Kaas Road and Portal Way should be evaluated as a three-way stop. Overall, connectivity improvements should aim to narrow the width of the Portal Way



Figure 4.3.18. Protected bike lane in Bothell, WA (Source: City of Bothell Bike Plan)

roadway dedicated to cars and transform the streetscape to improve pedestrian and cyclist safety. Incorporating street trees, streetlights, and parking lanes that also protect cyclists and pedestrians will help to slow traffic and increase safety.

Summary

This analysis examined high density options for each of the three potential “neighborhood nodes.” With a little over 3,000 dwelling units expected to be needed over the next two decades, each of the

individual neighborhood nodes has the potential to accommodate a far greater amount of residential development at the high density scenario, averaging 30 units per acre.

Key features proposed in each of the proposed neighborhood nodes include providing for mixed-uses for the residential development and a commercial and civic services neighborhood center to create a new urban pattern based on three satellite neighborhood centers located to the east, west, and north of Ferndale. The neighborhood urban design concept supports sustainable development in Ferndale while meeting long term growth demands by creating housing for all income brackets.

5.0 Community Workshop

Winter Community Engagement Event

Visual Preference Survey

A visual preference survey presented to the community with 48 photos representing diverse housing typographies and urban designs. Photos were organized into eleven categories; mixed use, multiplex medium, multiplex large, duplex, triplex, townhomes, garden housing, cottage court, street design, plazas, and park design. Participants ranked each photo on a scale of “love”, “like”, “neutral”, “dislike”, and “hate”. Verbal feedback was also recorded.

The visual preference survey rating scale (a range of 1-5) was quantified as follows: Love = 2, Like = 1, Neutral = 0, Dislike = -1, Hate = -2. Votes for each photo were averaged, with positive scores (up to 2) indicating overall approval and negative scores (down to -2) indicating disapproval. The further a score is from 0, the stronger the sentiment. The sample size of survey responses is too small to accurately represent the opinions of the Ferndale community but the results are indicative of preliminary trends and sentiments.

Results

Although some individual photos received negative average scores, every category garnered a positive average score between 0 and 1, indicating approval for every housing



Image 1



Image 11



Image 28



Image 15



Image 31



Image 18

Figure 5.1. Examples from Visual Preference Survey



typology. Cottage court received the highest average score of 0.9, while multiplex large apartments received the lowest score of 0.1. Parks received the highest total score of 1.4.

The three highest scoring housing photos (shown to the left) were images 1 (mixed use), 28 (garden housing), and 31 (cottage housing). The three least favorable images were 11 (multi-plex large), 15 (duplex), and 18 (triplex) shown below.

Voting trends and verbal feedback revealed the most desired features of new development to be architectural variety, landscaping, and continuity with existing homes. Many respondents commented on a dislike of street-facing garages and visible parking lots. Across categories, respondents favored Craftsman and traditional architecture and over modern architecture. Even when participants disliked a particular

photo, they still agreed that integrating new housing with existing styles was most important. Participants often noted dislike of ‘repetitive’ housing. Participants liked all photos of parks, and critiqued plazas as being ‘too open’ and ‘not green enough’.

This feedback indicates the importance of presenting the community with visually appealing development proposals. The results of the survey will be considered in prioritizing variety, landscaping, and human-scale housing at all levels of density. Civic spaces should emphasize ample green spaces and new parks should be promoted.

The complete ratings of images in located in the appendix to this section.

Ideation

The ideation workshop consisted of a map activity that encouraged community

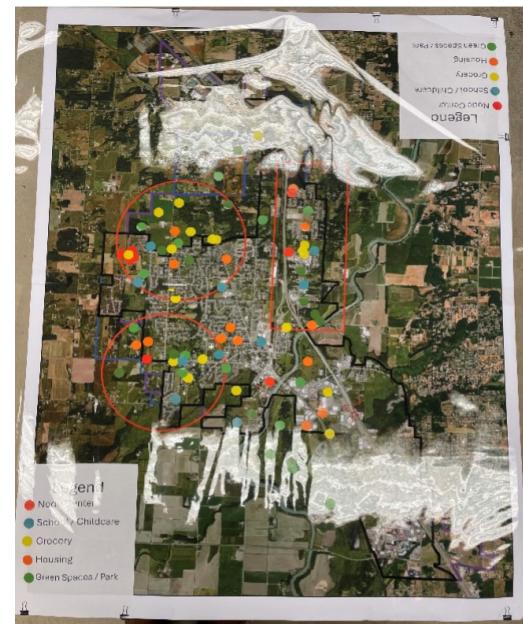


Figure 5.2. Ideation Mapping

participants to imagine where they would like to see more community services. The map featured an aerial photograph of Ferndale’s city limits, urban growth boundary and the urban reserve. The ideation map included a legend associating the color of dot sticker with its meaning.

The activity encouraged community participants to think about where they desired services within the city. It was intended to invoke imagination as well as conversation about Ferndale's future. Conversations around the map provided valuable qualitative information. From these conversations, key and recurring comments included:

- A need for more grocery stores throughout Ferndale.
- Portal Way area is growing, increasing the need for greater access to services.
- Access to natural areas is important. Retaining access to green spaces is highly important, and ideas included:
 - A riverwalk path to Hovander Park.
 - A pedestrian bridge connecting Hovander Park and the downtown
 - Creating a biking and pedestrian trail system along the Nooksack River and connecting throughout the city.
- More housing is needed, diverse housing types are preferred.
- Establishing additional access roads, especially in the West and Portal Way areas.

A standout comment that came up in the activity was the need for multi-generational housing. This comment reflects on the

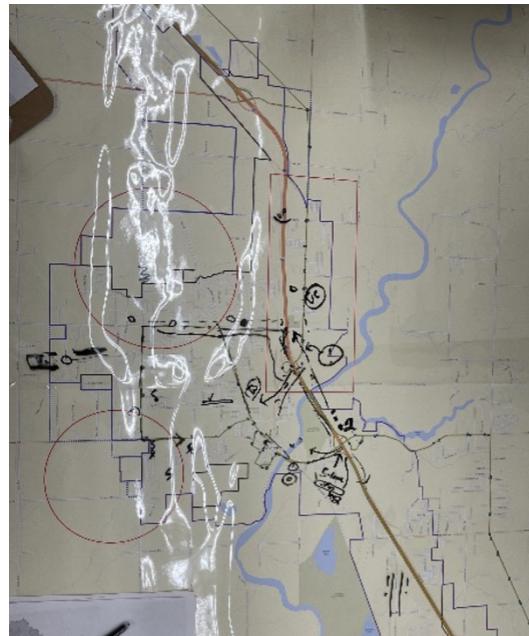


Figure 5.3. Ideation mapping table 1

relationship of housing types to supporting community values, and how to integrate design that accommodates diverse ways of living. The ideation workshop provided guidance on citizens' preferences, and identified site locations for various improvements.

Mobility

For the mobility engagement activity, participants were asked to respond to questions by a show of hands, as well as to identify areas of concern onto a dry



Figure 5.4. Ideation mapping table 2

erase film overlaying the Ferndale UGA and Whatcom Transit Authority (WTA) map. Participants were asked to draw their commute routes and preferred WTA routes, including recommendations for way stops, additional speed bumps, and sidewalks. The map overlays shown above include participant notations from two of the five workshop sessions. Dotted lines indicate locations for footpaths. "S" indicates areas that need sidewalk improvements, circles show locations of participants' residences. Circles with letters inside indicate locations

that could have improved access.

The accessibility activity asked participants to rate 3 categories of their regular commute on a scale of 1 to 5, 1 being inaccessible without a car and 5 being easily and safely accessed using the existing sidewalks and infrastructure. The survey provides insights to residents' travel experiences.

In addition to survey questions and an interactive map, the workshop provided

anecdotal feedback through conversation with the community, making note of comments that were often affirmed among the different sessions. The main ideas fell into three categories for improvements: Public Transit, Pedestrian and Bike Safety, and Traffic and Road Connections.

Public Transit

Many residents wanted improved bus service. A direct bus line to Bellingham was a reoccurring suggestion, along with increasing WTA service to run every 30

minutes instead of every hour. Community members also liked the idea of an afterhours Ferndale express bus to improve access to important services, and the new Unity Care Health facility on Portal Way was suggested as a stop for a shuttle route.

Pedestrian and Bike Safety

Sidewalks and safe walking routes were a popular concern, especially near schools and shopping areas. Residents wanted ADA accessible sidewalks, putting an emphasis on connectivity between sidewalks. It was noted that where there are shoulder-less roads, sidewalks are not getting used. Speed bumps, roundabouts, and flashing pedestrian crossing lights were suggested to reduce car speeds and create a sense of safety when walking. Many residents were excited about expanding trails to connect different parts of the city, spanning from within city limits to the Nooksack River. Additionally, connectivity improvements for bicyclists and pedestrians were suggested to link Main Street to areas near the beginning of Portal Way.

Traffic and Road Connections

School drop-off and pick-up times cause a lot of congestion in residential areas, and many residents believe that better sidewalks, more frequent bus service, and improvements to support walking and biking could help. There were also concerns

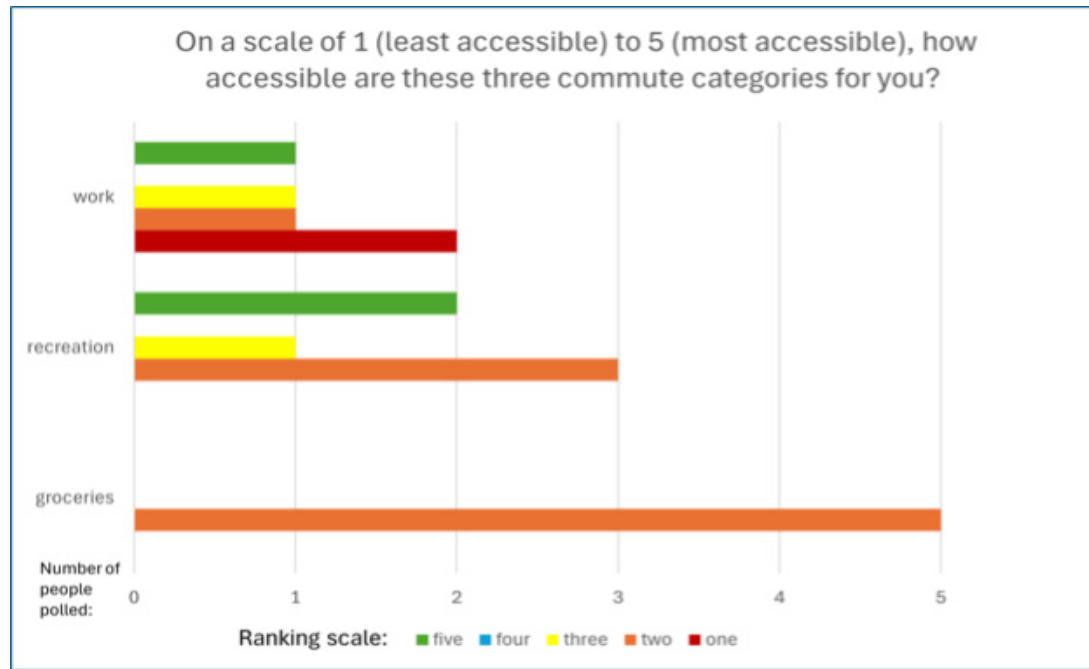


Figure 5.5. Mobility mapping

about speeding at intersections. Downtown road improvements, including shoulder widening and surface improvements were desired. In the Clearview Street residential development, there is an opportunity to connect to Mountain View Drive using a footpath or a new road connection to increase connectivity. Connectivity to Interstate 5 as well as an underpass were identified as desirable at the current dead ends of Aldergrove and Trigg Roads abutting the freeway.

Housing Density Preferences

For each neighborhood node, three housing density alternatives (low, medium, and high) were presented to workshop participants followed with discussions about topics relevant to each neighborhood concept presented.

Portal Way Neighborhood Node

For the Portal Way Node, participants indicated a preference for the medium density option.

Table 5.1

Low Density	Medium Density	High Density
33%	40%	27%

Concerns voiced by residents include:

- *Traffic Impacts at the Roundabout.*



- Most participants are concerned that increasing density along Portal Way will make traffic, particularly at the southern roundabout/highway exit, significantly worse, hindering connectivity. This concern prompts our master design to implement traffic mitigation strategies such as improved multimodal transit and traffic flow management, potentially adding free right turn lanes to the roundabout.
- Lack of Services on Portal Way.* There are not currently enough services to support increased density along portal way. This includes services like schools, grocery facilities, and healthcare, as well as public and civic spaces for community gatherings and recreational opportunities. Residents were particularly concerned about providing enough services for children and families.
- Housing Affordability and Typology.* There is a concern that new housing will not be affordable, and the housing that is affordable will not be able to house families as they will be small apartments. This concern draws attention to the need for diverse and integrated housing typologies that are affordable to the demographic that need them. For this reason, a focus on affordable multi-bedroom housing units should be considered.

- Pedestrian Infrastructure Support.* Community participants felt that the pedestrian and bicycle infrastructure on Portal Way was lacking and were in support of a protected bike lanes on Portal Way, as well as pedestrian infrastructure projects such as a pedestrian overpass and corridor.
- The 15 Minute City Concept.* The 15 minute city received mixed results. While some individuals liked the idea of accessing all their goods and services within walking distance, others found it somewhat difficult to support, likening it to restricting movement. This response may indicate the need to rebrand the idea of the 15-minute city to emphasize freedom to choose rather restriction of movement.
- Mixed-Use Development.* Several residents reported enjoying the look of mixed-use buildings and would support the expansion of such typologies. A mixed-use concept was proposed in which zoning mixed-uses along greenways to create density along with amenities and providing accessibility to the largest natural amenity in the city, the river.
- Preserving Existing Affordable Housing.* There is concern about retaining affordable housing that already exists along Portal Way, as well as building new emergency housing for

those who cannot afford traditional housing arrangements. This concern is specifically about the manufactured home park located on the north side of the node, and advocates for more informal housing options that fill the affordability gap.

West Neighborhood Node

Table 5.2

Low Density	Medium Density	High Density
19%	44%	37%

Concerns voiced by residents include:

- Traffic and Infrastructure.* Emphasis was placed on potential traffic increases caused by new developments and a lack of connectivity between existing neighborhoods to the North and South of the site. Infrastructure is a significant factor as the area is not walkable or bikeable because of the lack of sidewalks and bike lanes. There is support for both road and pedestrian connectivity improvements but concern that new developments and an associated growing population will increase traffic volume downtown if additional routes are not created. The location of the mixed-use center relative to other areas of the node was supported, and some nearby residents expressed

interest in utilizing new commercial spaces.

- *Housing Typology.* Residents really like cottage housing. They recognize the need for affordable housing in Ferndale and are open to developments that are denser than traditional single-family homes if they are well designed. There is concern about high-density being executed poorly and disrupting the character of Ferndale, especially with this site being located close to downtown. Many were critical of newer developments within the city for their appearance and lack of green space. However, there was interest in keeping density within the city to preserve the rural character of surrounding areas. The highest density areas being limited to specific, small, street-fronted mixed-use areas was favorable.
- *Green Space.* The creation of new trails and parks received almost unanimous support. This element will likely influence perceptions of future higher density development as many residents stated that they see public green space as important for determining the quality of the future neighborhood. Several participants stated that they would use the proposed new trails both for travel and recreation needs.

North Neighborhood Node

Table 5.3

Low Density	Medium Density	High Density
47%	44%	9%

Concerns voiced by residents include:

- *Density and Fragmentation.* Residents were split between medium and lower density, with little support for high densities. There was also interest in focusing on development within city limits. A question asked was whether a new neighborhood core would fragment the community. Other residents argued that having neighborhoods with distinct identities could benefit Ferndale. Currently, downtown has the most well defined neighborhood character. A newer neighborhood could include creativity in its form that includes integration of goods and services. There were positive comments in reference to Bellingham's York Neighborhood with Nelson's Market and Barkley Village.
- *Goods and Services.* Residents were in strong support of affordable groceries on the north side of town, they mentioned the grocery chain Bi-Mart, a member run affordable grocer, and other stores. They also expressed concern about a lack of healthcare. Residents mentioned
- an urgent clinic may be most suitable. Residents responded favorably to the layout of Barkley Village, using a grocery store with surrounding smaller commercial development to create a center. Another point made was that Ferndale schools are approaching capacity on the north side. The Ferndale school district does not have current expansion plans, additional infrastructure may need to be built to support future capacity.
- *Children and Youth.* Multiple participants expressed concerns for children. Considering the number of schools in the area the neighborhood would be a suitable fit for a multitude of uses that could cater to this demographic. For younger children, a YMCA or community center may be appropriate to provide structured activities. There was interest in a community swimming pool.
- *For Adolescents.* The city severely lacks activities. A movie theatre, a videogame arcade, and additional places for people to congregate indoors may be desirable. An indoor atrium space with a variety of commercial spaces may provide additional opportunities. This could include a food court, a plaza, or some other kind of space that allows adolescents to have some level of

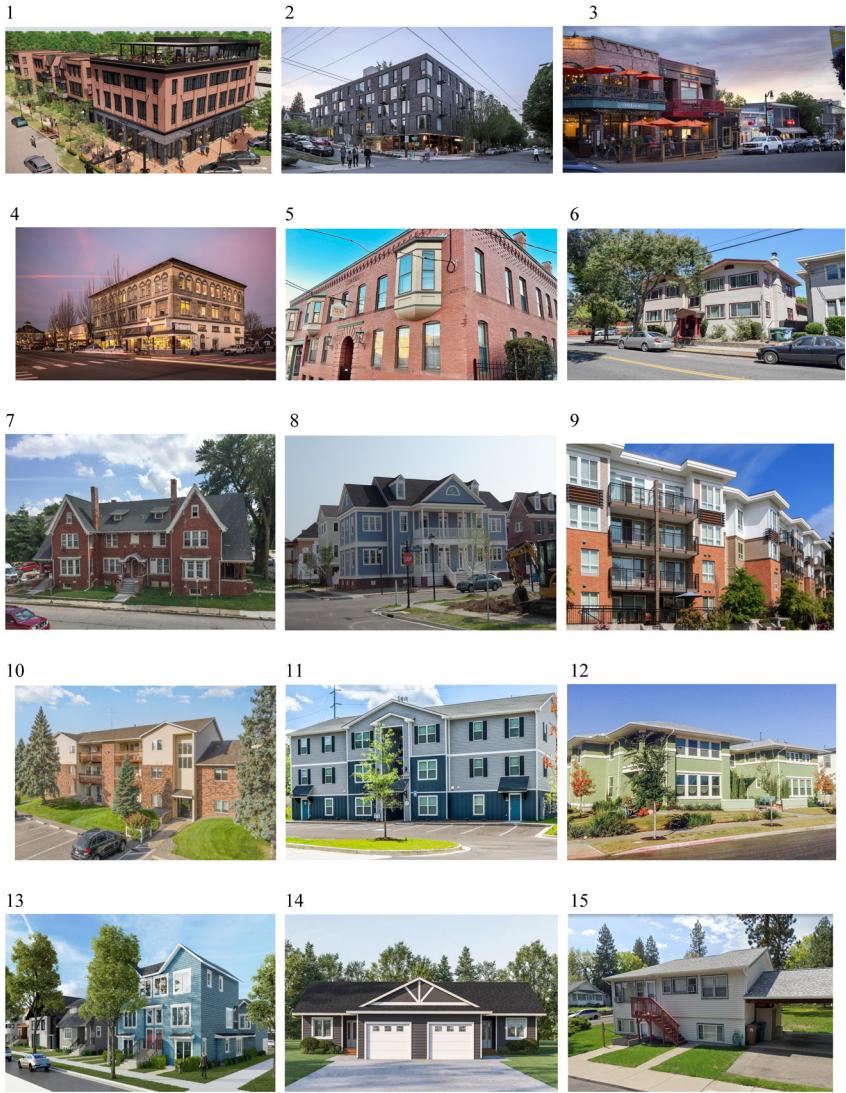
independence but still feel safe.

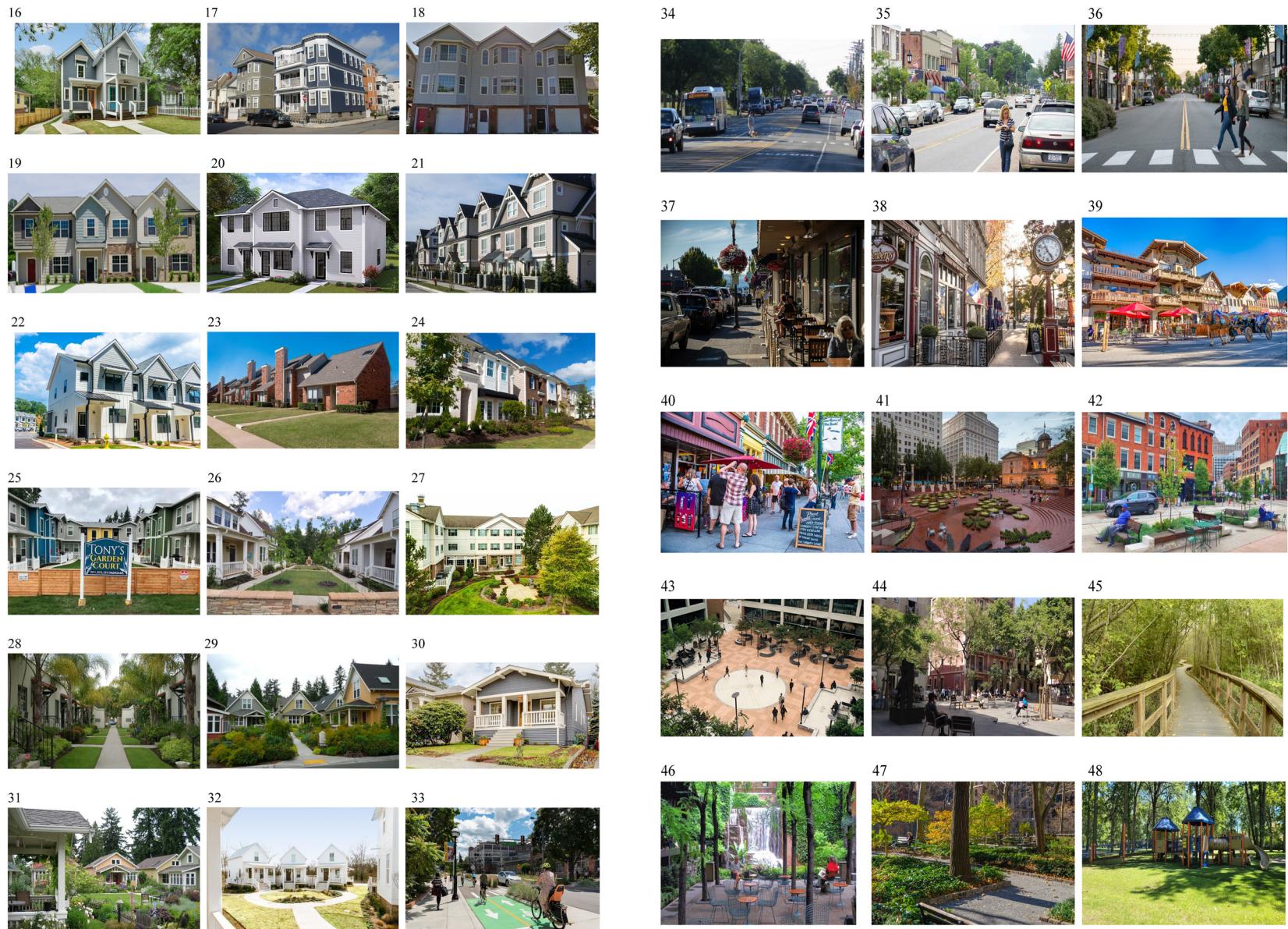
- *Walkability and Greenways.* There was strong support for greenways and parks. Across all three site design alternatives, residents liked the greenway network proposal. There is demand for more walkability at all levels of the neighborhood. This can include bike-friendly streets and more intensive protections for bikers along arterials. Neighborhood community gardens were also supported.
- *Affordability and Families.* Several residents expressed concerns with the quality of development citing recent construction in Ferndale. Residents had negative reactions to large scale developments and property management. Some residents vocalized the need to support future generations. This includes a path towards home ownership. While Ferndale has been referred to as a bedroom community, there should be new employment options for new and existing residents within the city. For higher-density development, there should be rental options for family and multi-family homes. Multiple residents complained there are too many existing apartments with a dormitory-like single bedroom or studio configuration.

Appendix 1: Visual Preference Survey: ScoringResults

	Love (2)	Like (1)	Neutral (0)	Dislike (-1)	Hate (-2)	Average	Sum	Type
1	11	2	3	3	1	1.0	20	Mixed
2	4	5	4	3	4	0.1	20	Mixed
3	10	4	0	4	1	0.9	19	Mixed
4	10	5	4	0	1	1.2	20	Mixed
5	7	4	7	1	2	0.6	21	Med multi
6	5	1	8	2	4	0.1	20	Med multi
7	9	8	1	2	1	1.0	21	Med multi
8	7	3	6	2	3	0.4	21	Med multi
9	7	4	1	3	3	0.5	18	large multi
10	2	7	5	3	3	0.1	20	large multi
11	4	1	1	7	8	-0.7	21	large multi
12	9	3	4	0	4	0.7	20	large multi
13	7	7	4	2	1	0.8	21	duplex
14	4	5	6	3	3	0.2	21	duplex
15	1	5	3	4	6	-0.5	19	duplex
16	10	3	5	1	1	1.0	20	duplex
17	8	4	2	1	5	0.5	20	triplex
18	2	4	3	5	5	-0.4	19	triplex
19	10	6	1	2	1	1.1	20	triplex
20	3	8	3	2	5	0.1	21	triplex
21	3	6	4	5	2	0.2	20	town
22	2	7	5	2	4	0.1	20	town
23	8	4	2	2	2	0.8	18	town
24	9	5	2	3	1	0.9	20	town
25	5	4	1	5	5	-0.1	20	garden
26	10	4	3	2	1	1.0	20	garden
27	5	3	6	2	5	0.0	21	garden
28	12	3	1	3	1	1.1	20	garden
29	10	5	2	3	0	1.1	20	cottage
30	9	4	6	1	1	0.9	21	cottage
31	15	2	1	2	0	1.5	20	cottage
32	6	3	2	6	3	0.2	20	cottage
33	10	3	3	0	3	0.9	19	street
34	1	3	3	6	6	-0.7	19	street
35	3	4	6	3	2	0.2	18	street
36	9	3	4	1	2	0.8	19	street
37	1	8	8	2	1	0.3	20	street
38	7	6	5	1	1	0.9	20	street
39	8	4	2	3	3	0.6	20	street
40	8	5	2	3	1	0.8	19	street
41	10	3	4	1	3	0.8	21	plaza
42	10	6	1	1	2	1.1	20	plaza
43	4	8	2	2	4	0.3	20	plaza
44	10	3	4	0	1	1.2	18	plaza
45	15	4	1	0	0	1.7	20	park
46	14	3	3	1	0	1.4	21	park
47	12	6	3	0	0	1.4	21	park
48	7	8	4	1	0	1.1	20	park

Appendix 2: Visual Preference Survey: Image



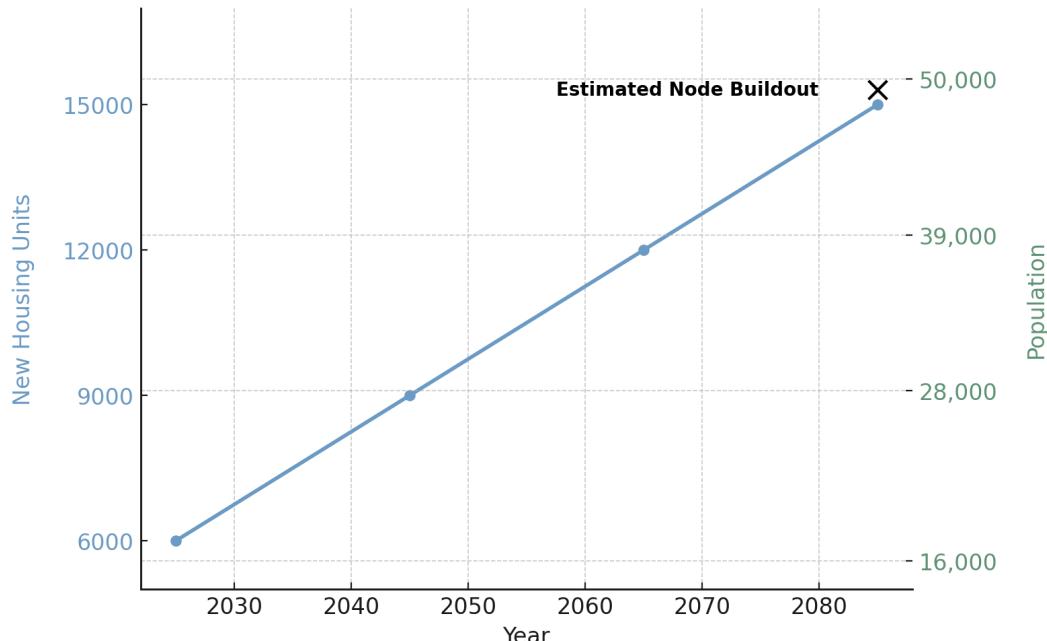


6.0 Planning Concepts: The Neighborhoods Centers

In the next 20 years the City of Ferndale is anticipating an increase in population of 10,961 which will require an additional 3,055 units of housing. Knowing that this growth is coming gives Ferndale a unique opportunity to plan for the anticipated growth to ensure that adequate housing, employment, services, and recreation opportunities are provided. This study presents an urban design proposal to meet the city's future growth needs by focusing future growth in three locations to serve as mixed-use neighborhoods.

The combined three neighborhood sites are estimated to have the capacity to accommodate housing, employment centers, recreational areas, and other activities to serve as "complete communities" while meeting the growth needs of the city far exceeding the 20 year projection that the city is required to accommodate, as reflected in the table below. This suggests that there is little need for further expansion of city boundaries beyond the annexation of certain parcels within Ferndale's current urban growth area.

Population and Housing Projections for Ferndale Through 2085 and Estimated Node Buildout Capacity



Projections are based on Whatcom County 20-year estimates.

Neighborhood Site	Total Potential Housing Units
North Neighborhood	3,093 units
West Neighborhood	1,594 units
Portal Way Neighborhood	4,653 units
Total Units	9.340 units

The land use capacity analysis presented in this report found that the city has sufficient capacity to meet its projected future growth, assuming that principles of sustainable community development are adopted. The study projects a capacity to meet future growth demands over the next six decades, based on the current rate of growth.

6.1 The North Neighborhood Center



Figure 6.1.1 North Neighborhood Master Site Plan

The North Neighborhood Node can accommodate the highest level of new development among the three Neighborhood Nodes. Much of the proposed North Node is compromised of undeveloped land or small-scale farms and, in total, encompasses an area of approximately 180 acres. Much of this land is relatively flat and includes large parcels fostering a development opportunity due to fewer individual parcels to coordinate.

As compared to the other neighborhood nodes (Portal Way and West), the North Node has offers good potential for new development and thus feasible to accommodate a complete community. Providing a complete community within the North Node serves both future residents of the North future neighborhood in addition to existing residents in the surrounding communities south of the Node.

Engagement

It will be essential to continue community outreach events to ensure the preferences of current residents are understood in finalizing land use policies and plans for establishing new neighborhood communities. Two community events have been held in Ferndale to gather information and insights from the community. The first event that occurred in fall 2024 focused primarily to inform the public about Ferndale's projected

growth of nearly 11,000 residents in the next 20 years. Residents shared their preferences for housing densities and typologies. The community workshop illustrated how future housing could be supported in the city. Another activity allowed residents to identify locations where goods and services should be provided. Residents also reflected how they individually move throughout the city by various mobility modes, including by car, bike, walking, or public transit.

This preliminary information was then considered in formulating the proposed Neighborhood planning concepts. The second community engagement that took place in winter 2025 presented the three Neighborhood Node locations showing three different levels of housing density (low, medium, high) and participants identified their preferred level of density for each node. Both Portal Way and the West Node were preferred to reflect the medium density level of about 23 units per acre. The North Node was preferred by residents at a slightly lower density level at an average of 18 units per acre.

Site Design

Figure 6.1 shows the site boundary for the North Neighborhood Node. The site boundary for the North node lies between two major roads as its perimeter to the north (Aldergrove Drive) and east (Vista Drive), forming edges to the neighborhood

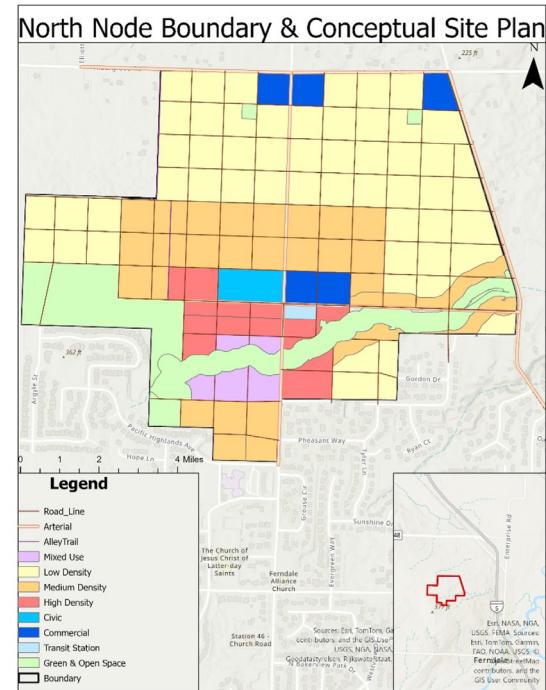


Figure 6.1.2. Final Boundary & Conceptual Site Plan

boundary. To the west, the site is bordered by the boundary of the urban growth area (UGA). The southern edge of the site abuts well established residential communities. A design goal for the node is to increase connectivity between Church Road, a central arterial, and Vista, a major arterial road. This is achieved by implementing a traditional grid street pattern that is laid out in an east-west orientation.



Figure 6.1.3. Aerial perspective view of North Neighborhood Node at full build-out.

The mixed-use core of the North Neighborhood Node is surrounded by higher density residential development. The neighborhood core contains the highest residential density in mix-use buildings, civic services, including a transit center and commercial uses. Two additional yet

smaller commercial areas are proposed in the northern edge of the site. A greenbelt runs through the entire core of the site providing recreational opportunities and pedestrian pathways for access to the core from adjacent residences.

Housing Impact

Housing Calculations

Each residential zone has a variety of housing types that will support Ferndale's goal for accommodating an additional 3,055 housing units over the next 20 years. The lowest-density zone accommodates 1,319 housing units projected. The average density in the low-density zone is 10 units per acre.

The medium density zone can accommodate approximately 1,205 housing units at an average density of 18 units per acre. The higher-density zone is projected to accommodate 290 housing units with an average density of 22 units per acre. The mixed-use zone is estimated to accommodate a 183 housing units at an average density of 22 units per acre. Emergency housing is also provided in the civic center.

Ferndale Total AMI Housing Needs %								
Total	% Non-PSH	% PSH	30-50%	50-80%	80-100%	100-120%	>120%	Emergency
100%	25.6%	10.3%	21.2%	6.9%	4.8%	7%	23.5%	1.6%

Ferndale Total AMI Housing Needs								
Total Units	% Non-PSH	% PSH	30-50%	50-80%	80-100%	100-120%	>120%	Emergency
3055	785	314	649	210	148	216	719	51

North Neighborhood Low Density Housing								
Total Units	Non-PSH	PSH	30-50%	50-80%	80-100%	100-120%	>120%	Emergency
1319	339	137	282	92	64	93	312	N/A

North Neighborhood Medium Density Housing								
Total Units	Non-PSH	PSH	30-50%	50-80%	80-100%	100-120%	>120%	Emergency
1205	318	128	264	86	60	87	262	N/A

North Neighborhood High Density Housing								
Total Units	Non-PSH	PSH	30-50%	50-80%	80-100%	100-120%	>120%	Emergency
385	99	40	82	27	19	27	91	N/A

North Neighborhood Mixed Use Housing								
Total Units	Non-PSH	PSH	30-50%	50-80%	80-100%	100-120%	>120%	Emergency
183	47	19	39	13	9	13	43	N/A

North Neighborhood Total Potential Housing Units								
Total Units, All Densities				3,093 units				

Site	Mixed Use Core	Commercial Core	North Commercial	Total
Square Footage	82,468	92,148	26,835	201,451
Business Units	41	46 units	13 units	100 units
Jobs	328	368 jobs	104 jobs	800 jobs

Employment

Employment impact is calculated by dividing the projected total square footage of commercial space by 2,000 square feet to estimate the number of commercial units. Eight persons are assumed to be employed at each business. A range of commercial uses provide jobs at varying levels of expertise. Providing employment within the node is an important feature where residents can live and work within the neighborhood.

Models of North Neighborhood Node



Figure 6.1.4. View of low density residential block featuring townhomes, duplexes, triplexes, single family, ADUs and cottage style housing.



Figure 6.1.5. Site plan view of low-density zone. Bike Sharrows encourage drivers to be mindful of bicyclists and sidewalks are 6 foot widths.



Figure 6.1.6. The medium density zone averages 18 units per acre. The area has a wide variety of housing types to accommodate various income bands. Cross walks and protected bike lanes ensure safer travel.



Figure 6.1.7. The medium density street design includes Sharrows (for bicyclist access on surface streets), a six-foot Bioswale, and a six-foot wide sidewalk

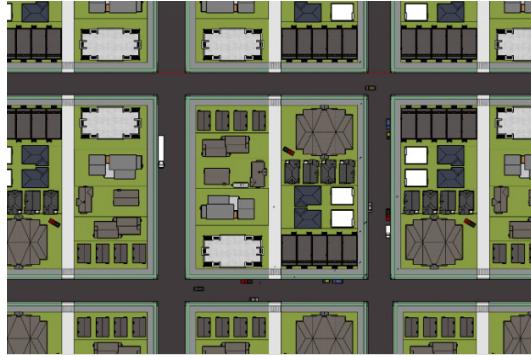


Figure 6.1.8. High density plan view showing a variety of housing types meeting a wide range of incomes. Alleyways provide for access throughout the neighborhood.



Figure 6.1.10. High Density Street View in the neighborhood mixed use commercial core.



Figure 6.1.9. Plan view of mixed-use development has a combination of commercial, residential, and leisure spaces. There is a functional greenway, and a small neighborhood park. The average units per acre is 22, with a combination of high-density housing types, and commercial buildings with residential units.



Figure 6.1.11. View of the mixed-use zone showing a variety of housing types surrounding the greenway. In the background commercial mixed-use buildings are visible.



Figure 6.1.12. Neighborhood Commercial plan view features businesses nestled into low-density residential.



Figure 6.1.14 View of commercial zone at Vista and Church Road. A cyclist in the protected bike lane.

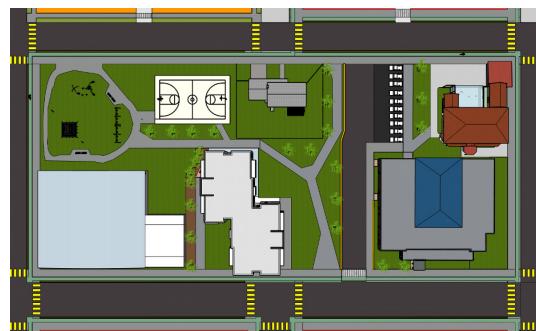


Figure 6.1.16. Plan view of a civic area in the neighborhood core, featuring a playground, indoor aquatic center, emergency housing, a library, and a day care facility.



Figure 6.1.13. Neighborhood commercial site on the northern portion of the North neighborhood provides services to residents located further from neighborhood core. This zone would be suitable for convenience stores, a pharmacy, cafes or local restaurants. This example features a pocket park and space for food trucks.



Figure 6.1.15. Street infrastructure includes a five-foot wide sidewalk, a five-foot wide bike lane, and a two-foot wide barrier for bike lane.



Figure 6.1.17. Street View of Transit Station in core.

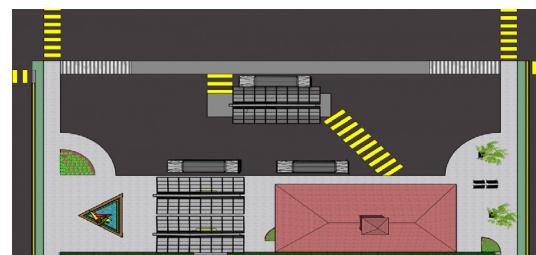


Figure 6.1.18. Plan view of transit station. The proposed transit zone is located in close proximity to the mixed-use core.

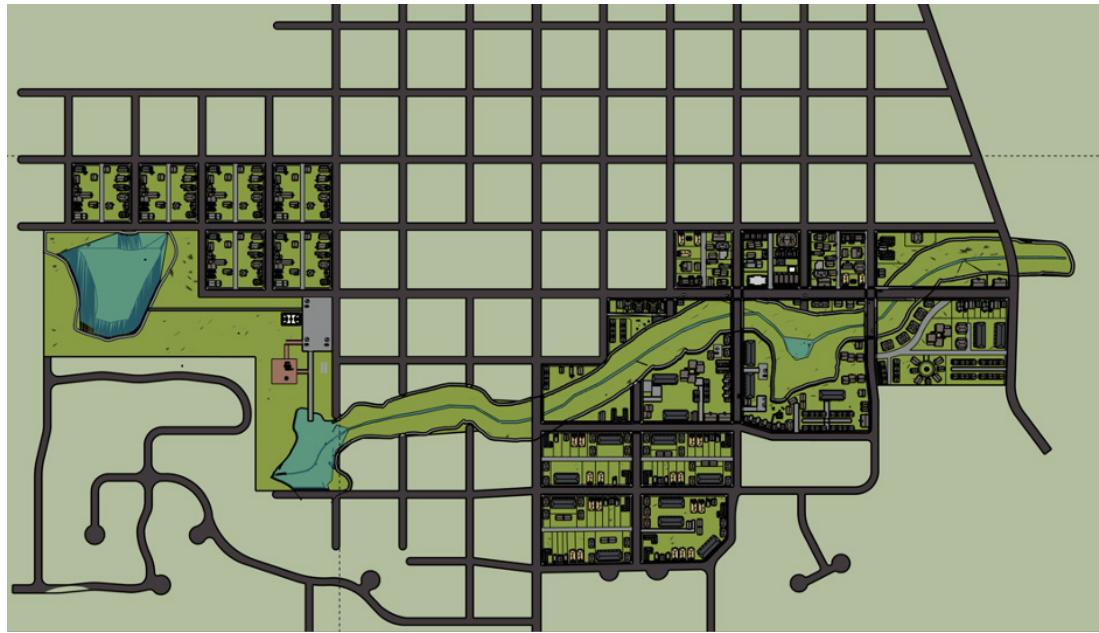


Figure 6.1.19. Stream-front extent. Due to the unique shape of the greenway, the blocks within the city center street grid respect the configuration of the stream. The recessed ravine mimics the stream channel.

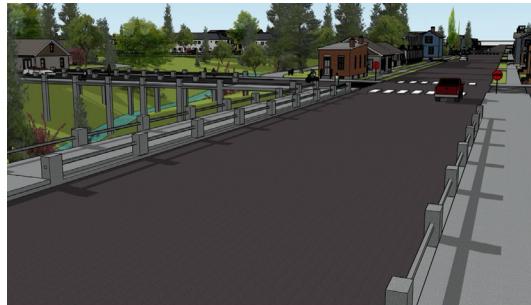


Figure 6.1.20. Bridge over stream channel. The greenway corridor contains middle density residences at 18 units an acre and a variety of housing typologies. A trail systems runs along the entire stream channel.



Figure 6.1.21. Communal green space adjacent to the neighborhood core..



Figure 6.1.22 Watercolor Rendering of Greenway.



Figure 6.1.22. AI Rendering of park scene.



Figure 6.1.23. Typical residential streetscape.

Street Types

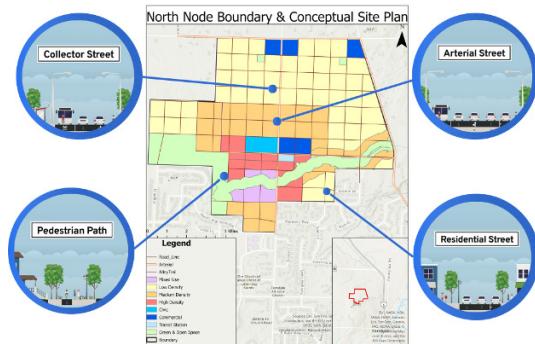
Pedestrian Paths. North Neighborhood Node developments and critical areas lend themselves to increased connectivity using footpaths. The above pedestrian path prioritizes lighting and a marked paved bike lane to provide safety.

Residential Street. On residential streets, lower traffic allows for a two-lane street layout and on street parking. To promote walkability, residential streets include 8 foot wide sidewalks, low intensity lighting and greenery.

Collector Street. Connector streets could include a shared bike and bus lane to curb congestion during peak hours. Sidewalk connectivity and lighting helps provide a sense of pedestrian safety.

Arterial Street. On arterial streets, turn lanes can supplement intersections, maintaining a consistent flow of traffic. Wide sidewalks, bike lanes, bus stops, and green features can boost storefront pedestrian traffic while providing alternatives to single vehicle transportation. Complete streets in mixed-use areas both reduce traffic and boost a sense of community through walkability.

Street Type Locations



Residential Street

Conclusion

The purpose of this section is to illustrate the development potential for the North Neighborhood Node. A complete neighborhood is attained by providing a wide variety of housing types, places to shop, employment opportunities, and places to recreate. The city's 20 year projected housing need is estimated at 3,055 housing units. The North Neighborhood Node could accommodate most of the projected demand by providing about 3,0932 housing units and employment opportunities for an estimated 800 jobs. Green spaces across the Node provide residents with ample recreational choices. The North Neighborhood Node provides services beyond its neighborhood to surrounding residences, helping Ferndale to become a more complete city.

6.2 The West Neighborhood Center



View looking south down the Church Road extension through the commercial center.

This section details WWU's Urban Planning Studio's site proposal for the Ferndale West Node, one of three nodes proposed to accommodate future development. The city anticipates a need for 3,055 new housing units by 2045 and intends to accommodate much of this new housing in three designated nodes, the North and Portal Way Nodes in addition to the West Node presented here. The plan proposes to create "complete communities" with housing and land use diversity providing residents with a variety of accessible services. These neighborhoods contain spaces to shop, work, and socialize, available to all residents. Guiding design principles for the West Node site emphasize the integration of diverse housing types, a central neighborhood

commercial center, and the enhancement of natural areas.

Ferndale's citizens identified a preference for medium density (23 units/acre) within the West Node at the community outreach event, which was then applied as the target density for this plan. This proposal provides an adequate supply of housing units and population base to support commercial services. Additionally, new parks and trails contribute to new recreational opportunities while protecting natural and critical areas from development.

Site Description

The West neighborhood, centered around the intersection of Mountain View and



Figure 6.2.1. West Neighborhood Site Boundary.

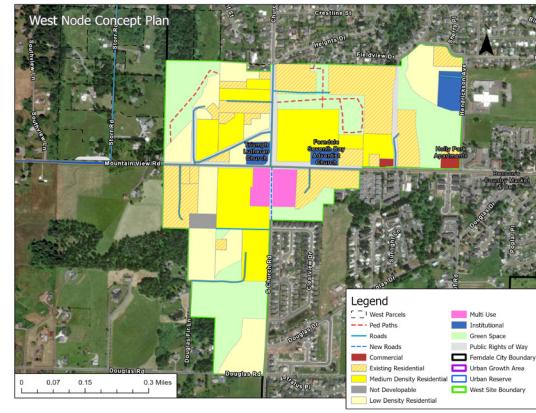


Figure 6.2.2. Proposed Land Use

Church Roads, serve as the primary arterials that connect the neighborhood to the city. From the intersection of Mountain View and Church, the boundary extends about a quarter mile in each direction. The areas around Douglas Drive were omitted from the site boundary due to the lack of developable lands and the presence of extensive critical

Housing Unit Calculations

Table 1: Projected Employment Growth

Total Commercial Square Feet	Number of Retail Units (SF/2000)	Projected Employment
62,230 Sq. Ft.	31	250 Jobs

Table 2: Total Projected Housing Units at 23 dwelling units/1 acre

West Node	Housing Units	Net Density (units/acre)
Developable Lands: 66 acres	1,594 units	24 DU/AC

Table 3: West Node Housing Allocation by Income Band

West Node		
Income Band	Acres allotted per Income Band	Housing units (23 DU/AC)
Non-PSH	14.6	336.7
PSH	5.9	136.2
30-50%	12.2	281.5
50-80%	3.9	90.2
80-100%	2.7	62.6
100-120%	4.0	92.0
>120%	13.4	307.3
Emergency Units	0.08	1.8

areas. Areas with existing development, as well as critical areas unsuitable for building, were removed from the final site boundaries. The proposed West neighborhood center is

Table 4: Housing Projections by Income Band

Income Band	Units	Housing Type Mix	% of Units	Ferndale % Allocated
Non-PSH	336.7	30% townhomes, 70% small multifamily	21.2%	25.7%
PSH	136.2	100% apartments	8.5%	10.4%
30-50%	281.5	40% small multifamily, 60% apartments	17.7%	21.6%
50-80%	90.2	50% townhomes, 50% small multifamily	5.6%	6.9%
80-100%	62.6	60% townhomes, 40% duplexes	3.9%	4.8%
100-120%	92.0	70% townhomes, 30% single-family	5.8%	7.1%
>120%	307.3	60% single-family, 40% townhomes	19.3%	23.5%
Emergency Units	1.8	100% apartments	.1%	.2%
Total Units	1,594 units			

divided by South Church Road, providing about seven acres on either side of the road for locating a mixed use commercial core

Table. West Node Residential Densities

West Node Residential Densities	North of Mountain View	South of Mountain View	Total	Percent of Total Units
Developable Residential Acreage	33.95 acres	32.47 acres	66.42 acres	-
Unit Type				
Single Family	34	78	112	7%
Townhomes	164	128	292	18.3%
Multi-Family	108	312	420	26.3%
Apartments	492	278	770	48.3%
Total Units	798	796	1,594 units	-
Actual DU/AC	23.5 DU/AC	24.5 DU/AC	24 DU/AC	-

Master Site Plan

The land use plan in figure 6.2.2 details the types and densities of development intended for each sector of the node. Housing is comprised of low and medium densities. In the medium density sectors, apartments and townhouses are recommended; in lower density sectors, single and multi-family dwellings are recommended. Located at the center of the neighborhood is a multi-use commercial center, providing commercial uses, higher density residential, and community facilities. Existing institutions, such as the two existing churches on Mountain View Road and existing commercial uses are identified in blue and

Table 4: Modeled Residential Densities for Northwest Corner

Residential Acreage	Total Units	Single Family	Townhomes	Multi-family	Apartments	Actual DU/AC
15.36	336	34	50	108	144	22
Percentage of Total Units		10%	15%	32%	43%	

Table 5: Modeled Residential Densities for Southwest Node

Residential Acreage	Total Units	Single Family	Townhomes	Multi-family	Apartments	Actual DU/AC
32.47	796	78	128	312	278	24
Percentage of Total Units		10%	16%	39%	35%	

Table 6: Modeled Residential Densities for Northeast Corner

Residential Acreage	Total Units	Single Family	Townhomes	Multi-family	Apartments	Actual DU/AC
18.59	462	0	114	0	348	24.95
Percentage of Total Units	100%	0%	24.7%	0%	75.3%	

red respectively in figure 6.2.2. Green space is aligned with critical areas to provide new pedestrian paths. The neighborhood node is comprised of 201 acres of developable land.

Housing Impact

When fully built-out, the mixed-use site center provides approximately 62,230 square feet of commercial space spread across seven acres. These commercial spaces can support average sized retail units

of about 2,000 square feet each, providing about 31 retail units. Assuming average of 8 employees per retail unit, approximately 250 new jobs are projected in the Neighborhood.

Guiding principles for the design of the West Neighborhood emphasize a mix of diverse housing types, a mixed use neighborhood center to serve existing and future residents, and the preservation and enhancement of natural resources. Ferndale citizens

identified a preference for medium density (23 units/acre) for the West Node at a community outreach event that was used as the target overall density for this plan. The neighborhood proposal aims to supply an adequate level of housing and a population base to support future commercial uses. Proposed infrastructure improvements provide opportunities for multi-modal movement as an alternatives to private vehicle travel. Parks and trails contribute to new recreational opportunities while enhancing natural areas.

The Northeast sector of the node consists of primarily low-rise apartment buildings. The balance of proposed housing in this sector consists of townhomes units. Much of the proposed housing is intended to be either permanent affordable or priced at a rate that is affordable to those making the average or below average median income.

Neighborhood Model

The West Node is divided into three planning sectors - Northeast, Northwest, and South. These sectors are divided by Mountain View Road to the north and south and Church Road to the east and west. Each sector is connected by proposed street grid systems and is oriented around a Mixed-Use center located at the southern intersection of Church and Mountain View roads.

South Sector and the Mixed-Use Center

The South sector of West Node, located south of Mountain View Road, contains the mixed-use center. It is divided by South Church Road, creating two mixed-use areas on the east and west sides of the road. Combined, the sites are about 6 acres in size. The mixed-use center east of South Church is designed around a community center with street-front commercial facing South Church and Mountain View. The street-front commercial buildings also have interior oriented commercial spaces. The two larger buildings on the corner of the mixed-use

center provide first-floor commercial space, as well as about 20 apartment units per building. In total, the mixed use center space accommodates about 78 housing units comprised of 40 apartment units and 38 duplex units. The center also provides opportunities for leisure activities including an urban-scaled park, a playground, community gardens, and a play field.

On the west side of Church Road is an L-shaped commercial development with street frontage and an open courtyard

centered around a public plaza and abutted by townhome development. Just south of this development, the streetscape shifts into traditional block-based development consisting of townhomes and cottage homes. Proposed roads create additional streets between Douglas Road to Mountain View Road. Church Road is proposed to include a buffer between vehicle traffic and bike lanes. Mountain View Road is also proposed to have bike lanes in both directions, detailed in the Street Types in this report.



Figure 6.2.3. West Section Commercial Core



Figure 6.2.4. East Section of Commercial Core



Figure 6.2.5. Another View the South East commercial center.



Figure 6.2.6. View of Northeast Sector of West Neighborhood



Figure 6.2.7. Shared green space in Cottage Housing



Figure 6.2.8. Public space between Apartment Units.



Figure 6.2.9. Typical Street View.

Northwest Sector.

Located north of Mountain View Road and west of Church Road, this sector consists of 10 medium-density residential blocks. Housing typologies consist of apartments, townhomes, and cottage homes. Proposed developments include space for parking, playgrounds, and communal green space.

Northeast Sector

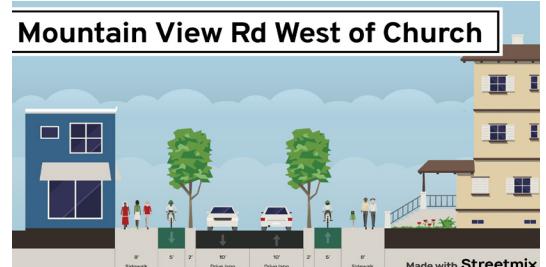
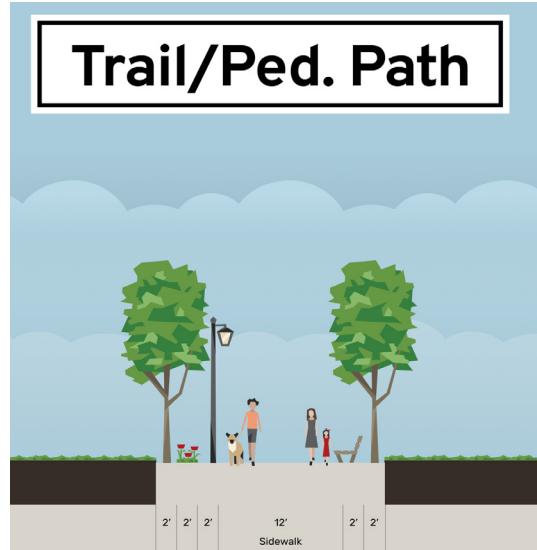
The Northeast sector of the West Node, located north of Mountain View Road and east of Church Road, is a residential district comprised of residential infill sites including three-story apartment blocks and two-story townhomes adjacent to existing single-family residences. The development pattern is designed around block development. A connector road is proposed from the North into this neighborhood and from Church Road to connect to the proposed development of Rosemary Heights. This sector has the highest number of residential units.



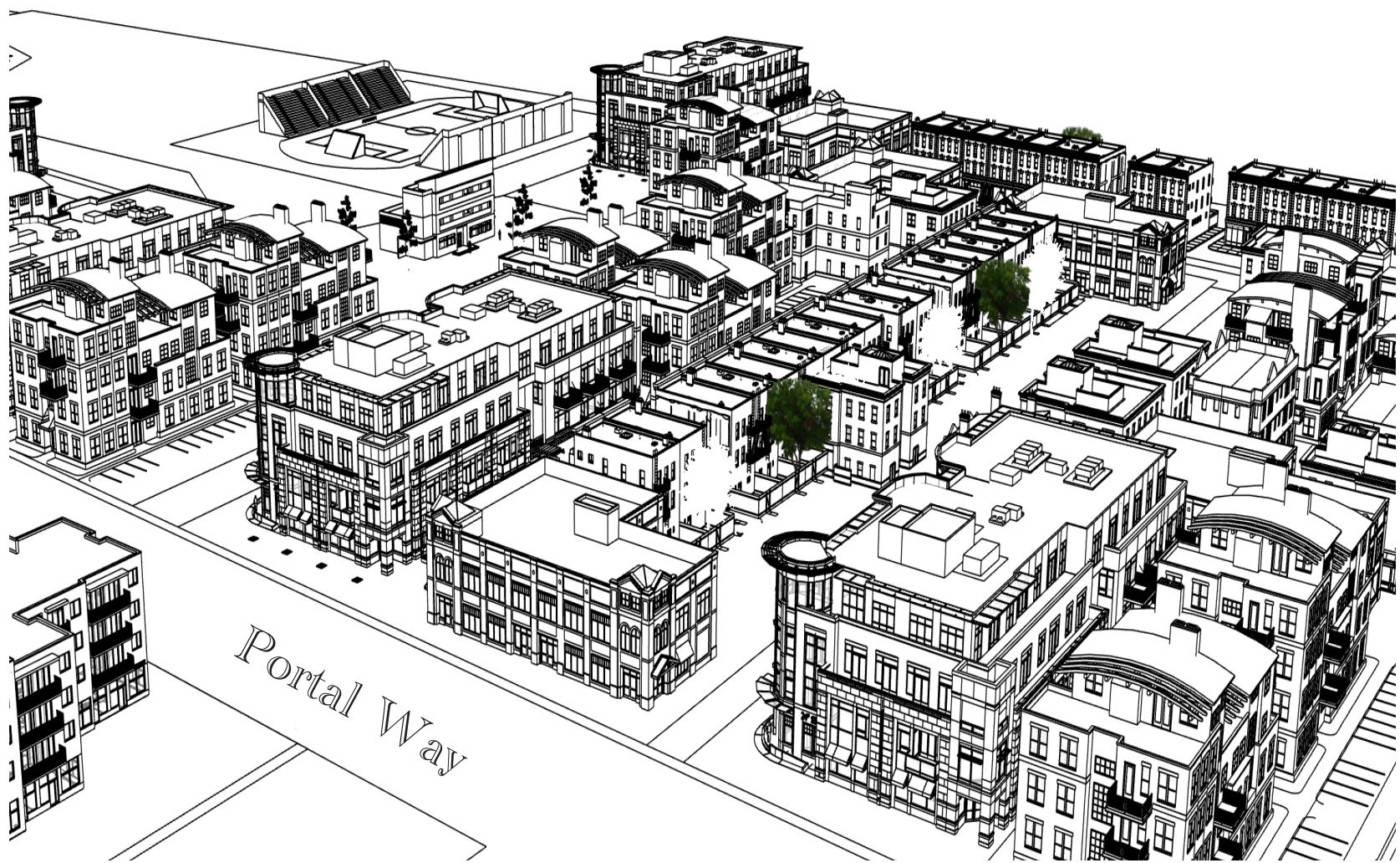
Figure 6.2.11. Perspective View Northeast Sector

Street Types

The following figures on the right depict street elevations for various street sections in the West neighborhood. Each featuring sidewalks, a vegetative buffer, and in several cases, parking on both sides of a two-lane street.



6.3 The Portal Way Neighborhood Center



This section presents a development plan for the Portal Way corridor, identified by the City of Ferndale as an opportunity for improvement and expansion. The site design includes mixed-use commercial uses fronting Portal Way and 4,653 new housing units in a range of densities and housing typologies. The proposed development provides several recommended civic facilities including an elementary school, library branch, emergency housing facility, urgent care, and a civic center. The entire corridor is connected by a network of new bike lanes, pedestrian paths, and bus routes to enable multi-modal transportation for all residents and visitors.

Neighborhood Context and Site Description

The Portal Way study area encompasses 468 acres, with 350 acres identified as developable land, including parks. The study area is located along the Interstate 5 corridor, providing connectivity between Ferndale and surrounding areas. Portal Way is an arterial road within this corridor, shaping future development opportunities.

The surrounding area features a mix of land uses, including light industrial, commercial, and residential zones. As Ferndale continues to grow, the Portal Way study area presents an opportunity for mixed-use development, increased housing, and enhanced public

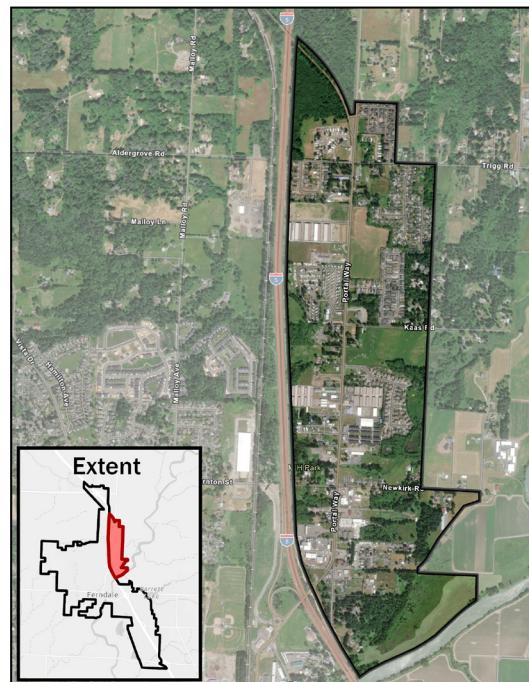


Figure 6.3.1. Portal Way Site Boundary

spaces. With investments in infrastructure, multimodal transportation, and increased housing stock, Portal Way could increase connectivity, attract new businesses, and provide housing opportunities for future growth.

Figure 6.3.2 shows proposed Portal Way land utilization. This map highlights parcels identified for future development opportunities based on land utilization, land improvement value ratios, and critical area

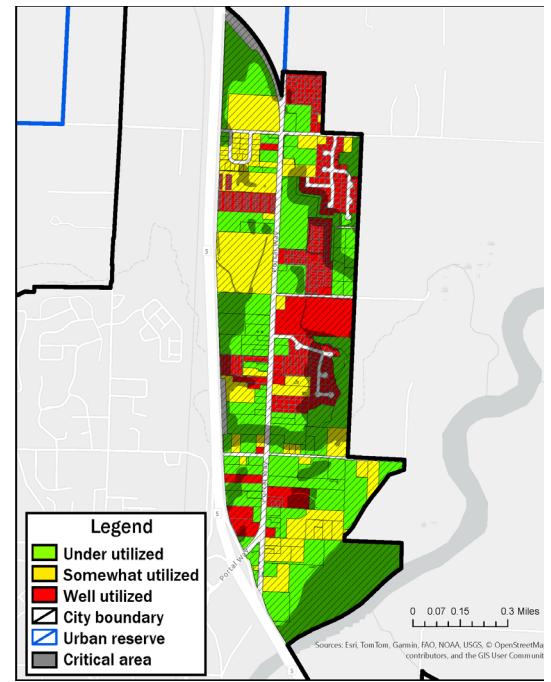


Figure 6.3.2. Portal Way Land Utilization

designations. The map categorizes parcels into well utilized, somewhat utilized, and underutilized areas, representing different levels of existing development and the potential for future land use improvements. Well utilized parcels are primarily composed of existing residential, commercial, and industrial developments that currently contribute to the study area's economic base. Somewhat utilized parcels are those with low density uses, vacant structures, or under used commercial properties, making them

ideal for redevelopment, infill housing, and mixed-use development. Underutilized land is comprised of vacant parcels or parcels containing minimal existing structures. These provide the greatest potential for high density residential development, a commercial core, and community amenities. Development constraints in the study area include wetlands, floodplains, and other environmentally sensitive lands which must be preserved. These areas limit construction but offer potential for use as parks, trails, and green spaces. After accounting for pre-developed and critical areas, the Portal Way site contains 350 acres of developable land. This offers significant potential for urban infill, expansion of mixed-use development, and infrastructure improvements.

Site and Master Plan

The land use master plan outlines proposed developments and areas for preservation within the site. Mixed-use developments front Portal Way, establishing a commercial corridor with commercial retail and services at street level and housing on upper stories, providing residents with access to retail shopping and service. Civic spaces, including an elementary school, urgent care, emergency housing, and a library are located within the Portal Way urban core. The civic center, replacing the current RV park, serves as the neighborhood hub. This pedestrian and bicycle-only area provides space for

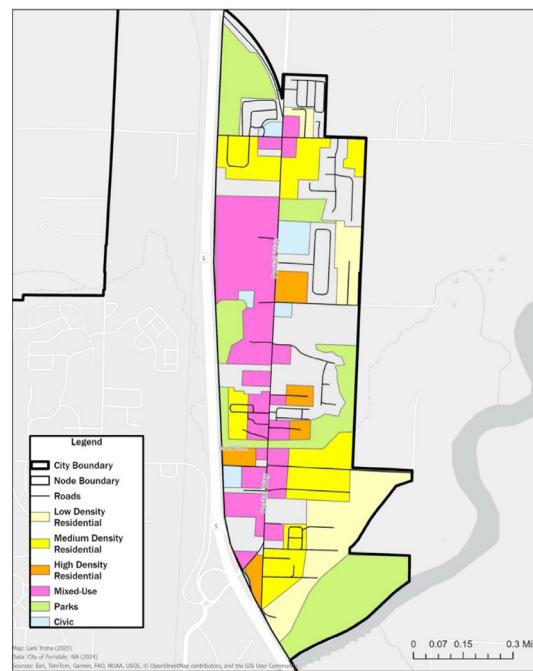


Figure 6.3.3. Portal Way Proposed Land Use

shopping, recreation, and community gatherings.

Existing low density residential parcels should be upzoned and in-filled over time to support higher-density and diversified housing types. The highest density is designated nearest Portal Way, gradually tapering to blend into the existing single family residential neighborhood. The plan prioritizes connectivity, with interconnected street grids, expanded transit access, and

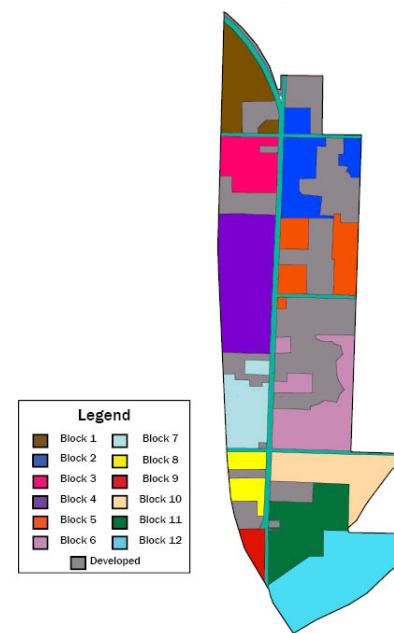


Figure 6.3.4. Portal Way Block Map

dedicated bike and pedestrian infrastructure linking key destinations. The plan creates opportunities for economic growth by creating new commercial space and job opportunities in the commercial corridor. Environmentally sensitive areas are preserved as parks, with five new parks connected by a trail system. Together, these elements create a walkable, connected, and lively community that balances growth and preservation.

Master Plan Overview

To create a comprehensive neighborhood model, the site was subdivided into 12 sections, or blocks (table 6.3.5). Block four is the mixed-use center of the study area and the site of the neighborhood civic center.

See section four for housing and commercial space calculations by block.

Table 6.3.1: Land Use Distribution by Type

Land Use	Percent of Total Area	Acreage
Residential	37.63	131.76
Mixed-Use	17.68	61.91
Recreational/Public	27.69	96.93
Civic/Institutional	3.46	12.11
Infrastructure	13.54	47.40
Total	100	350.11

Table 6.3.2: Residential and Mixed-Use Acreage by Income Distribution

Income Band	Acreage
Non-PSH	48.98
PSH	19.76
30-50%	41.07
50-80%	13.1
80-100%	9.24
100-120%	13.47
>120%	44.86
Emergency Units	3.18
Total	193.66

Land Use Distribution

The total acreage in Table 6.3.2 is the sum of all residential and mixed-use designated land. Income is based on median state-wide income.

Housing and Retail Impact Analysis

The development plan increases housing supply and affordability through upzoning, infill, and the provision of middle housing. Middle housing, including duplexes, townhomes, and small apartments, provide more options between single-family homes and larger apartment complexes. Design emphasis is placed on created home ownership opportunities for a wider range of income levels. In accordance with House Bill 1110, a portion of new units will be reserved as affordable housing for low-income residents. High-density housing along Portal Way can maximize efficient land use and reduce cost, while a gradual transition into low density middle housing integrates new developments into existing neighborhoods. This approach aims to create a more accessible, diverse, and affordable housing market.

Table 6.3.3. Total Housing Units, Employment

Total Housing Units	4,653 units
Average Density (Units/Acre)	27 Units/Acre
Total Commercial (Sq. Footage)	864,725 sq. ft.
Total New Jobs:	3,515 jobs

Table 6.3.4. Housing Units by Density

Unit Density (Units/Acre)	Number of Units
Low (15-18 Du/Acre)	747
Medium (20-23 Du/Acre)	1,682
High (including mixed use) (28-30 Du/Acre)	2,224

Overall Housing Unit Calculation by Block
Using a block unit analysis shown in Table 6.3.5, residential density and commercial area is estimated for each block in Portal Way. Average weighted density is calculated by multiplying density of each residential land use by its number of units, summing these values, and dividing by total units. The formula is: Weighted Average Density = $\sum (Units \times Density) / \sum Units$.

Table 6.3.5. Retail Employee Count by Block

Block #	Square Footage	Number of Employees
1	0	40 (+ Urgent Care)
2	19,920	80
3	11,390	46
4	488,500	1,954 (+ Civic Center)
5	0	50 (+ School, Library)
6	101,300	405
7	44,720	179
8	139,770	559 (+ Emergency Housing)
9	10,780	43
10	42,600	136
11	5,745	23
12	0	0

Table 6.3.6. Total Housing Types, Units and Densities by Block

Block #	Housing Types	Total Units	Acres	Average Weighted Density (Du/Ac)
1	N/A	0	23.04	0
2	Mixed Use Apartments, Duplexes, Multiplexes, Townhouses	454	26.16	24.35
3	Mixed Use Apartments, Duplexes, Townhomes, Courtyard apartments, Stacked Flats	412	17.22	24.33
4	Mixed Use Apartments, Stacked Flats	1075	45.11	31
5	Apartments, Stacked Flats, Duplex, Cottage, Small Lots	356	21.76	24.28
6	Mixed Use Apartments, Stacked Flats, Multiplexes, Townhomes, Small Lots	546	34.3	32.84
7	Mixed Use Apartments, Stacked Flats, Fourplex, Townhomes, Multiplexes, Small Lots	376	18.43	26.36
8	Mixed Use Apartments, Emergency Housing	162	10.73	15.12
9	Mixed Use Apartments, Stacked Flats, Multiplexes	126	3.39	40.06
10	Mixed Use Apartments, Townhouses, Duplexes, Cottages, Small Lots	486	27.81	18.1
11	Mixed Use Apartments, Triplex, Fourplex, Townhouses, Duplexes, Cottages, Small Lots	487	24.63	22.18
12	Duplexes, Cottages, Small Lots	173	49.53	17

Affordability by Income Bands

The mix of housing types and densities within the development plan is intended to provide affordable housing mixes for residents of all incomes. The following table and accompanying narrative provide further clarification on how various housing types meet demand at every income level.

The housing mix in Table 6.3.6 ensures access to safe and stable housing for all income levels. Emergency and supportive

housing caters to individuals experiencing homelessness, housing instability, or earning below 30% AMI. Apartments and small multi-unit housing (Duplex, Triplex, Fourplex) offer rental opportunities for low-to moderate-income households. Mid-sized housing options, such as cottages, mixed-use residential, and townhomes, bridge the gap between rentals and home ownership. Single-family homes primarily serve households earning 100-120% AMI and above. By incorporating a diverse range of housing types, the master site plan proposes housing for every income level in one diverse community setting. It is noted that housing types can be modified to make more housing types affordable, such as dividing a three floor townhouse into 3 units.

Table 6.3.7. Housing Type by Average Median Income (AMI) Range

Housing Type	Targeted Income Levels (AMI %)
Emergency/Supportive Housing	Below 30% AMI
Apartments	30-50% AMI, 50-80% AMI
Fourplex	50-80% AMI, 80-100% AMI
Triplex	50-80% AMI, 80-100% AMI
Duplex	50-80% AMI, 80-100% AMI, 100-120% AMI
Cottage	80-100% AMI, 100-120% AMI
Mixed-Use Residential	50-80% AMI, 80-100% AMI, 100-120% AMI
Townhomes	80-100% AMI, 100-120% AMI
Single Family/Small Lot	100-120% AMI, Above 120% AMI

Three Dimensional Model

The following images represent imagined perspective views and street scapes from various viewpoints throughout the Portal Way Neighborhood site.

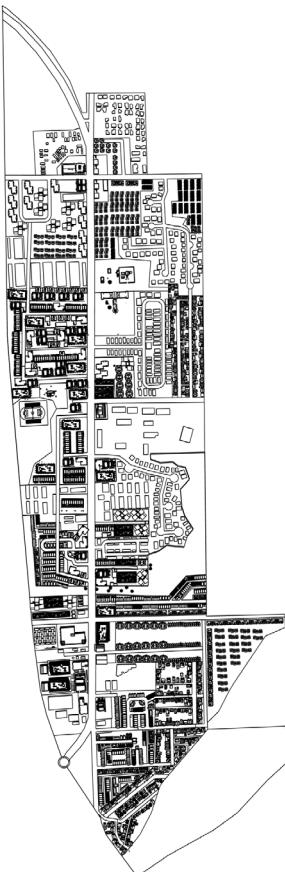


Figure 6.3.5. Portal Way aerial view showing development infill potential.

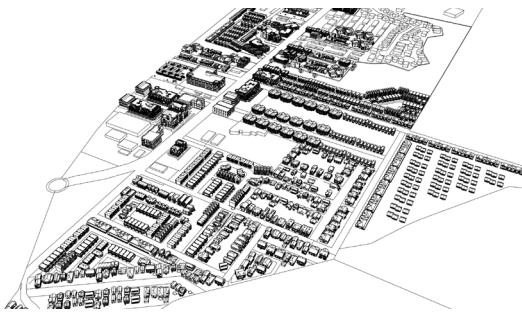


Figure 6.3.6. South Portal Way aerial view.



Figure 6.3.7. Central Portal Way aerial view.

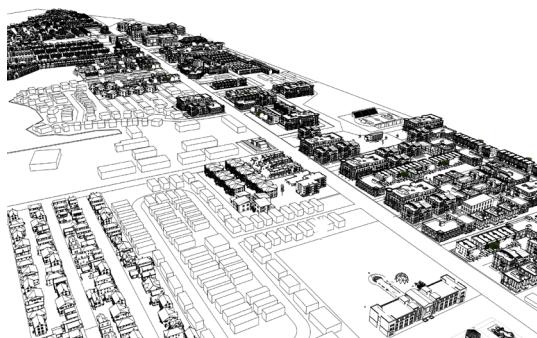


Figure 6.3.8. Portal Way aerial view looking south.



Figure 6.3.9. Parks and public spaces.



Figure 6.3.10. Mixed-use street-view. Human-scale Street corridors create a welcoming environment for shoppers and passers-by.

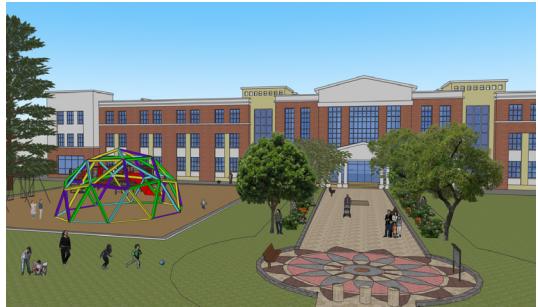


Figure 6.3.11. Elementary school scene.



Figure 6.3.12. A Proposed Urgent Care, street-view. The center provides neighborhood medical services.



Figure 6.3.13. Civic center street-view.



Figure 6.3.14. A Proposed Library, street-view.



Figure 6.3.15. Emergency housing next to Mixed Use development. Tiny homes provide shelter for Ferndale's most vulnerable population.



Figure 6.3.16. Lower density housing creates a transition to Ferndale's existing residential character while providing middle housing options and home ownership opportunities.



Figure 6.3.17. A typical medium density street.



Figure 6.3.18. High density housing.

Street Network and Typologies

Multimodal transportation Network

Portal Way is the primary arterial within the study site. Access to multimodal transportation options centers along this corridor. The right-of-way of Portal Way is 90 feet wide, as measured between the East and West property lines, providing ample space for street improvements. Newkirk, Kaas, and Trigg Roads are East-West collector roads. The site contains multiple minor residential roads which are targeted for improvement. An increase in bus stops and frequency of bus service is critical to facilitate densification along Portal Way. Busses should arrive at 15 minute intervals during peak hours, and half hour intervals during non-peak hours. Busses should stop at or near every residential and collector road intersecting Portal Way. All bus stops should be covered and clearly marked.

Street Elevations and Classifications

Figure 6.3.20 displays a proposed street elevation for Portal Way, anchored by two ten-foot driving lanes. Wide sidewalks are separated from the street with street trees on the east side, with intermittent bus stops. On the west side of Portal Way, the plan includes two-way protected bike lanes, which are separated from the sidewalk and street with a vegetative buffer.

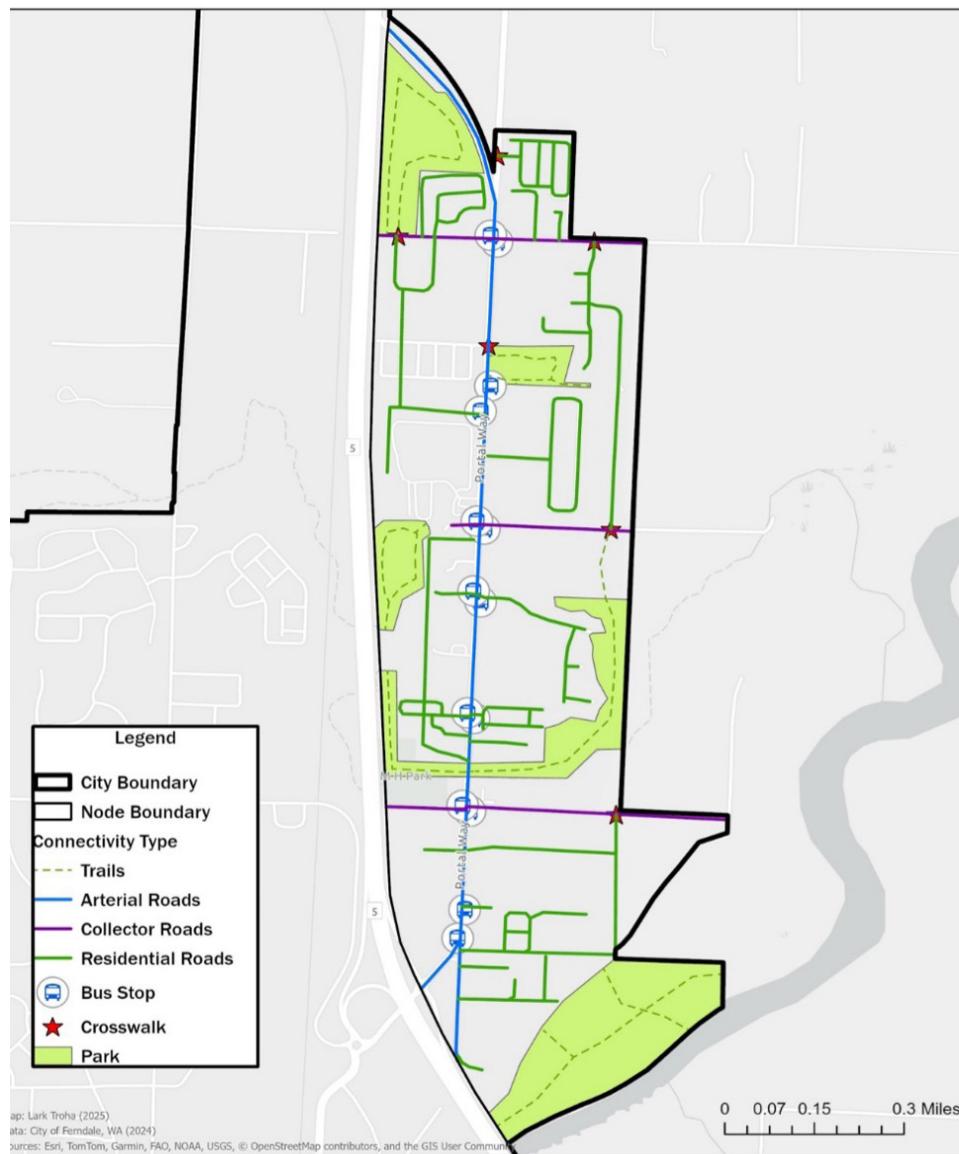


Figure 6.3.19. Portal Way Connectivity Map



Figure 6.3.20. Portal Way Street Elevation

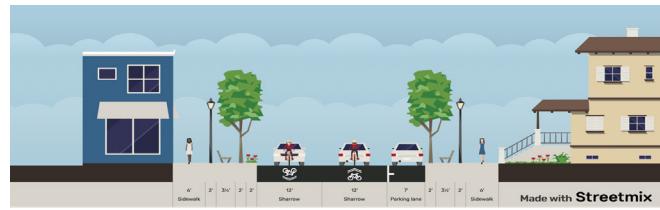


Figure 6.3.21. Connector Road Street Elevation

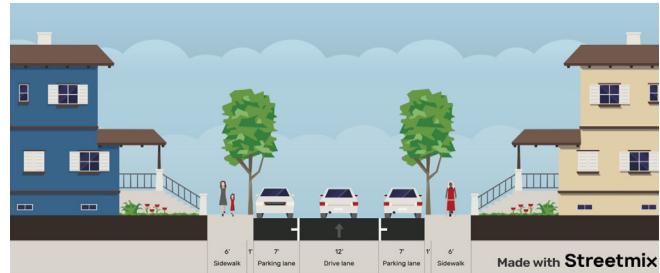


Figure 6.3.22. Portal Way Residential Street Elevation

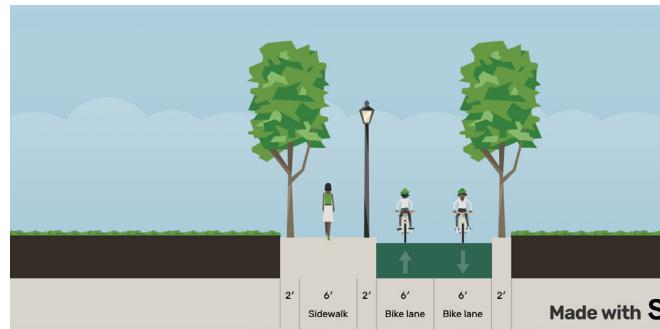


Figure 6.3.23. Typical Pedestrian Path Elevation

The collector roads Newkirk, Kaas, and Trigg Roads, each measure 60 feet wide. The addition of bicycle and pedestrian improvements will enhance these streets for pedestrian use and connect residential areas to commercial and transit services along Portal Way. The center of the street features two 12 foot wide driving lanes and a 7 foot parallel parking lane on one side.

The proposed development plan expands residential roads by connecting dead ends to create a grid-like street network. Residential street corridors are recommended at 40 feet wide to maintain connectivity and scale at the neighborhood level. Sidewalks are separated from the street with trees, and parallel parking lanes line each side of the street. The street contains one 12 foot wide two way driving lane, suitable for low-traffic, low-speed roads.

The conceptual development plan proposes the construction of non-motorized pedestrian paths with path lighting, a two way bike lane, and a sidewalk that connects Ferndale's city center to the neighborhood center as well as to other segments of the City.

Conclusion and Next Steps

The Portal Way plan provides a vision for balancing future growth with accessible housing, economic development, and sustainability. The plan strengthens Ferndale's economic base while expanding housing opportunities and public amenities by integrating mixed-use spaces, multimodal transportation, and affordable residences.

Key Takeaways

- *Land Utilization & Building Potential*
- Of the 468 acre study area, 350 acres are designated as developable land, with opportunities for medium and high-density housing, street front commercial space, and community amenities.
- *Housing & Affordability* - The plan diversifies housing options, increasing density along Portal Way while promoting affordability through middle housing, home ownership opportunities, and inclusionary zoning.
- *Transportation & Connectivity* - Multimodal transportation, expanded transit, and upgraded roads ensures accessibility and supports higher-density development.

- *Economic & Civic Investments* - The plan fosters job creation and small business growth within the commercial corridor, while civic services, including a new elementary school, library, emergency housing, urgent care, and a civic center, enhance community wellbeing.
- *Environmental Preservation* - Wetlands, floodplains, and other critical areas are conserved and integrated into parks and trails system within the overall development to increase access to green spaces and protect areas sensitive to development.

Implementation Considerations

- *Zoning & Policy Updates* - Revisions to zoning regulations and density allowances will be needed to support mixed-use and infill development.
- *Infrastructure Investment* – Street improvements, transit expansion, and utility upgrades are required to support further growth and ensure long-term viability.
- *Phased Development* - A phased approach will ensure housing, commercial spaces, and civic amenities are delivered in conjunction with increased market demand and infrastructure capacity.

References

- Bailey, R. (2024, March 6). Mt. Baker from Ferndale [Online forum post]. FocalWorld. <https://www.focalworld.com/threads/mt-baker-from-ferndale.25253/>
- City of Bellingham. (2021). Barkley Neighborhood Plan. City of Bellingham. <https://cob.org/services/planning/urban-villages/barkleyuv>
- City of Bellingham. (2021). Bellingham municipal code: Chapter 20.28 – Infill toolkit. Retrieved from <https://www.codepublishing.com/WA/Bellingham>
- City of Bellingham. (2012). Fairhaven neighborhood/subarea plan. Retrieved from <https://cob.org/wp-content/uploads/fairhaven.pdf>
- City of Bellingham. (2014). Samish Way urban village subarea plan. Retrieved from <https://www.cob.org>
- City of Bellingham. (n.d.). Samish Way Urban Village Subarea Plan. Retrieved from <https://cob.org/wp-content/uploads/final-master-plan-swuv.pdf>
- City of Bothell, WA. (2022, November). Bothell Citywide Bike Plan [Review of Bothell Citywide Bike Plan]. <https://www.bothellwa.gov/DocumentCenter/View/16168/Bike-Plan>
- City of Boulder. (2011). Greenways Master Plan. City of Boulder. <https://bouldercolorado.gov/media/407/download?inline>
- City of Ferndale. (2019). Official Zoning.
- City of Ferndale. (2016). Comprehensive Plan. City of Ferndale. <https://www.cityofferndale.org/commdev/comprehensive-plan-2/>
- City of Ferndale. (2024). Ferndale Municipal Code. City of Ferndale. <https://www.codepublishing.com/WA/Ferndale/>
- City of Ferndale. (2024). HAPT modification methodology and draft housing allocations (Draft v6). Retrieved from chrome-extension://efaidnbmnnibpcajpcglclefindmkaj/<https://www.cityofferndale.org/wp-content/uploads/2024/06/HAPT-Modification-Methodology-and-Draft-Housing-Allocations-DRAFT-v6-2024-06-07-1.pdf>
- City of Melrose. (n.d.). Updated architectural designs. City of Melrose. Retrieved from https://www.cityofmelrose.org/sites/g/files/vyhlif3451/f/pages/2_-_updated_architectual_designs.pdf
- Grant, J. L. (2023). Complete Community: Planning Theory From Practice. *Journal of the American Planning Association*, 90(2), 213–229. <https://doi.org/10.1080/01944363.2023.2207619>
- Fesler, S. (2024, February 6). State improves model code to promote middle housing. *The Urbanist*. <https://www.theurbanist.org/2024/02/06/state-improves-model-code-to-promote-middle-housing/>
- Header image of Portal Creek Park. Source: Portal Creek Park (2022), retrieved from <https://www.portalcreekpark.com/files/2022/08/header-portal-creek.jpg>.
- Housing and Retail Data: <https://wwu2.sharepoint.com/:x/s/FerndaleStudio24-25/ET9flknLMHxAkhTpjnnLtYBcDWGAKP9GaJJr1JVv17j5g?e=fjdMuR>

- JHP Architecture/Urban Design. (n.d.). JHP Architecture. Retrieved from <https://jhparearch.com/density>
- Kuhlman, K., Lange, M., Freimund, J., & Gabrisch, G. (2016). Lummi Nation Strategic Energy Plan 2016-2026. Water Resources Division Lummi Natural Resources Department. www.lummi-nsn.gov/userfiles/1_Strategic%20Energy%20Plan%20.pdf
- Google. (n.d.) Retrieved November 4, 2022 from <https://www.google.com/maps/@48.7313989,-122.6625574,2043m/data=!3m1!1e3>
- Kuhlman, K., Lange, M., Freimund, J., & Gabrisch, G. (2016). Lummi Nation Strategic Energy Plan 2016-2026. Water Resources Division Lummi Natural Resources Department. https://www.lummi-nsn.gov/userfiles/1_Strategic%20Energy%20Plan%20FINAL.pdf
- Lummi Indian Business Council. (2016). Lummi nation atlas: An overview of the history, natural and economic resources, and culture of the Lummi nation. https://lummi-nsn.gov/userfiles/63_2016LummiAtlas.pdf
- Leyland Consulting Group. (2024, June 7). Housing Allocation Methodology: Modify Housing for All Planning Tool (HAPT) for UGAs and Initial Housing Unit Targets for UGAs. Whatcom County Comprehensive Plan; City of Ferndale.
- MRSC. (2017, April). Visualizing compatible density. Municipal Research and Services Center. Retrieved from <https://mrsc.org/stay-informed/mrsc-insight/april-2017/visualizing-compatible-density>
- National Highway Traffic Safety Administration. (n.d.). Lower speed limits. U.S. Department of Transportation. Retrieved from <https://www.nhtsa.gov/book/countermeasures-that-work/pedestrian-safety/countermeasures/legislation-and-licensing/lower-speed-limits>
- Natural Resources Defense Council. (2010). A citizen's guide to LEED for neighborhood development: How to tell if development is smart and green. Natural Resources Defense Council. https://www.nrdc.org/sites/default/files/citizens_guide_LEED-ND.pdf
- Seattle Department of Transportation. (n.d.). Seattle people streets. [City of Seattle]. from <https://www.seattle.gov/documents/departments/sdot/stp/peoplestreets.pdf>
- U.S. Green Building Council. (2013, November). LEED v4: Neighborhood Development Guide. USGBC. <https://www.usgbc.org/guide/nd>
- Whatcom Transportation Authority. (2024). Ferndale - Routes 27 & 75. <https://dr5gnyelrgfrf.cloudfront.net/files/66848e4a16517e0008d80c70/FerndaleMap.JPG>
- Whatcom Transportation Authority. (2024). Fixed Route Map. Whatcom Transportation Authority. <https://www.ridewta.com/fixed-route-map/>
- Welch, A., Benfield, K., & Raimi, M. (n.d.). A citizen's guide to LEED for neighborhood development: How to tell if development is smart and green. U.S. Green Building Council.

W W U U r b a n T r a n s i t i o n s S t u d i o

City of Ferndale, Washington

**NEIGHBORHOOD
CENTERS**

Planning Concepts

*Western Washington University
Department of Urban and Environmental Planning and Policy
College of the Environment
2025*