

COOPER MOUNTAIN COMMUNITY PLAN ALTERNATIVES EVALUATION REPORT

FEBRUARY
2022



The Cooper Mountain Community Plan is a multi-year effort to plan for the 1,232-acre Cooper Mountain area, which was recently added to Metro's urban growth boundary.



Project Overview

The Cooper Mountain Community Plan will establish a long-term vision for the area's growth and development to support welcoming, walkable neighborhoods that honor the unique landscape and ensure a legacy of natural resource protection and connection. The plan is being created with the community.

Public engagement is intentionally including historically underserved and underrepresented communities to ensure the project incorporates a variety of ideas and feedback. The following pages provide a summary of the plan alternatives and findings from the evaluation process.

Visit us online for the latest information and to sign up for project updates! View additional resources at: www.BeavertonOregon.gov/CM

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Project Goals

- Create equitable outcomes for residents, including historically underserved and underrepresented communities.
- Provide new housing in a variety of housing types and for all income levels.
- Preserve, incorporate, connect, and enhance natural resources.
- Improve community resilience to climate change and natural hazards.
- Provide public facilities and infrastructure needed for safe, healthy communities.
- Provide safe, convenient access to important destinations while supporting transportation options, including walking and biking.
- Provide opportunities for viable commercial uses, including places to work and places to buy goods and services.
- Identify feasible, responsible funding strategies to turn the vision into a reality.



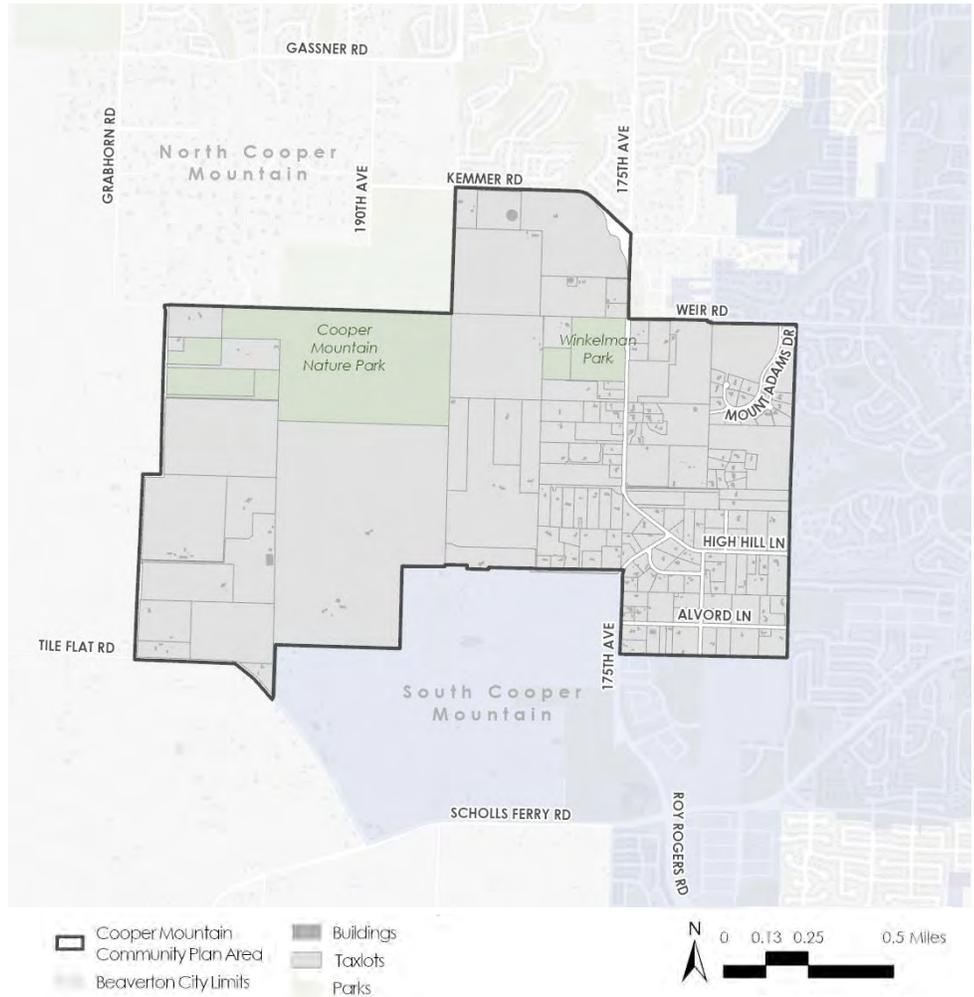
Introduction

The project's focus in 2022 is to create a Community Plan in coordination with City Council, community members, and other stakeholders that achieves the project's goals.

What is this document about?

As part of this community planning process, a series of concept alternatives were reviewed and refined by the Community Advisory Committee (CAC) and Technical Advisory Committee (TAC) in late 2021. These alternatives were then evaluated based on the project goals, objectives, and metrics, which were established by the committees and the project team early in the planning process.

The goals, objectives, and metrics include both **quantitative** and **qualitative** criteria that help us identify how well each alternative performs at creating **opportunities** to provide needed housing; preserve wildlife corridors; protect important natural features and wildlife habitat; build better roadways for pedestrians, bicycle users, people with disabilities, transit users, and automobile drivers; provide new parks and trails; and make equitable new neighborhoods that a variety of races and ethnicities can call home and that are available to a range of incomes. The findings from the evaluation process will help the project team and the community identify important **trade-offs**. Sometimes actions



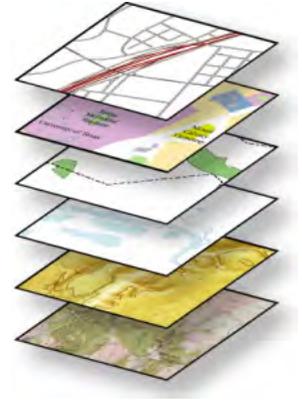
to achieve one goal might have unintended effects on another goal. Some solutions might be impractical or lack sufficient funding. The trade-offs of the plan represent important decisions that will need to be made over the next year of planning.

This report summarizes the alternatives as refined by community input, identifies the key findings resulting from the evaluation process, and describes the implications and trade-offs to be considered.

Plan Alternatives

Plan alternatives are a useful way to bundle the many attributes and layers of the Community Plan into choices for evaluation and informed community dialogue.

Three plan alternatives were developed for the Cooper Mountain Community Plan. These alternatives represent the different ways that Cooper Mountain could grow and develop in the future. Each alternative addresses a variety of attributes, or layers of the plan, including: the amount, type, and location of housing; the amount, scale, and location of commercial uses; facilities for bicycles and pedestrians, trail and road networks, parks, and viewpoints; natural resource protection and habitat connectivity. Other utilities such as water, stormwater, and sewer are being evaluated through a separate but coordinated planning process. The three alternatives are summarized below. For more detailed descriptions of the alternatives and their attributes, see the Technical Appendix to this report.



COMMON ATTRIBUTES OF THE ALTERNATIVES

Several common attributes, or “constants,” are assumed in the three alternatives. These elements include:

- The planned expansion of Cooper Mountain Nature Park
- The McKernan Creek Greenway with riparian area protection
- A robust trail network
- Neighborhood parks serving each future neighborhood area
- Wildlife passages as part of the transportation system
- Planned improvements by Washington County to the regional road network (e.g., the SW 175th Avenue “kink”)
- A high level of pedestrian and bicycle connectivity
- Allowance of middle housing wherever single-detached homes are allowed
- Apartments as a part of the housing mix
- Provision of regulated affordable housing choices
- Low Impact Development Approaches (LIDAs) as part of stormwater management



ALTERNATIVE A **One Center, Connected** **Neighborhoods**

Alternative A provides 3,760 dwellings, the minimum number of housing units required by Metro. It has maximum connectivity for all modes of transportation, market driven housing, varied neighborhoods, and one commercial node. The natural resource protection is per today's standards. It has the lowest overall average density and housing variety of the alternatives, and it is expected to develop similar to South Cooper Mountain in form and character.

ALTERNATIVE B **Two Centers, Multiple** **Complete Neighborhoods**

Alternative B provides 5,000 dwellings. It has significant connectivity where development is focused but lacks some of the roadway connections shown in Alternative A. Alternative B zoning promotes an intentional mix of housing types, parks, and commercial uses within each neighborhood. It has two commercial centers, and more housing density and variety than Alternative A.

ALTERNATIVE C **Two Centers, Natural** **Resource Focus, Complete** **Neighborhoods**

Alternative C provides 6,000 dwellings. There is a focus on natural resource protection and habitat connectivity, which is achieved by limiting new vehicular crossings in natural areas. The zoning promotes housing variety, maximum commercial opportunity, and natural resource protection.

WHY DEVELOP ALTERNATIVES?

Developing alternatives is a process used by many types of organizations to aid in their decision-making. In the community planning context, alternatives are about visualizing different representations of an area's future based on assumptions about existing conditions, local policies and regulations, market trends, and future needs.

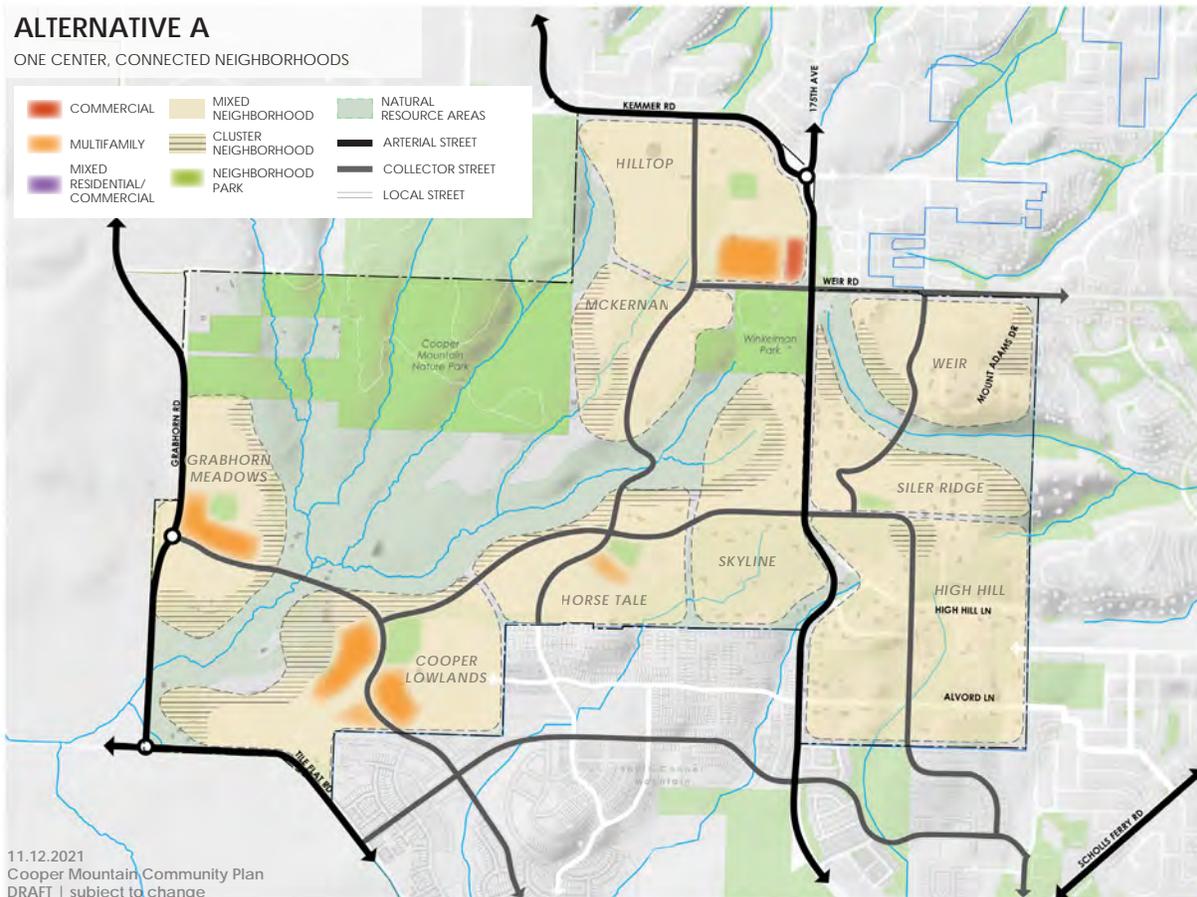


Alternative A

Alternative A provides 3,760 dwellings, the minimum number of housing units required by Metro, and has the lowest overall average density and housing variety of the three alternatives. However, all alternatives will allow middle housing wherever single-detached homes are allowed, apartments as a part of the housing mix, and provision of regulated affordable housing choices. There is one commercial center, an area with a small concentration of commercial uses, located in the Hilltop neighborhood. The commercial area has multi-family housing and open

space nearby. Alternative A provides flexible zoning, which gives property owners and developers the ability to choose which housing types are built. New development is expected to be similar to South Cooper Mountain, though more middle housing will be allowed. This alternative has the largest number of new road connections and offers high active transportation connectivity for people walking or traveling using bicycles or mobility devices. All three alternatives include the planned improvements by Washington County to the regional road network (e.g., the SW 175th Avenue

“kink”). Alternative A provides for approximately one park per neighborhood, and a robust trail network. The natural resource protection is consistent with today’s city standards and will include the planned expansion of Cooper Mountain Nature Park; the McKernan Creek Greenway with riparian area protection; and wildlife passages as part of the transportation system. Low Impact Development Approaches (LIDAs) are assumed to be used as part of stormwater management for all alternatives to reduce runoff, provide flow control and water quality benefits.

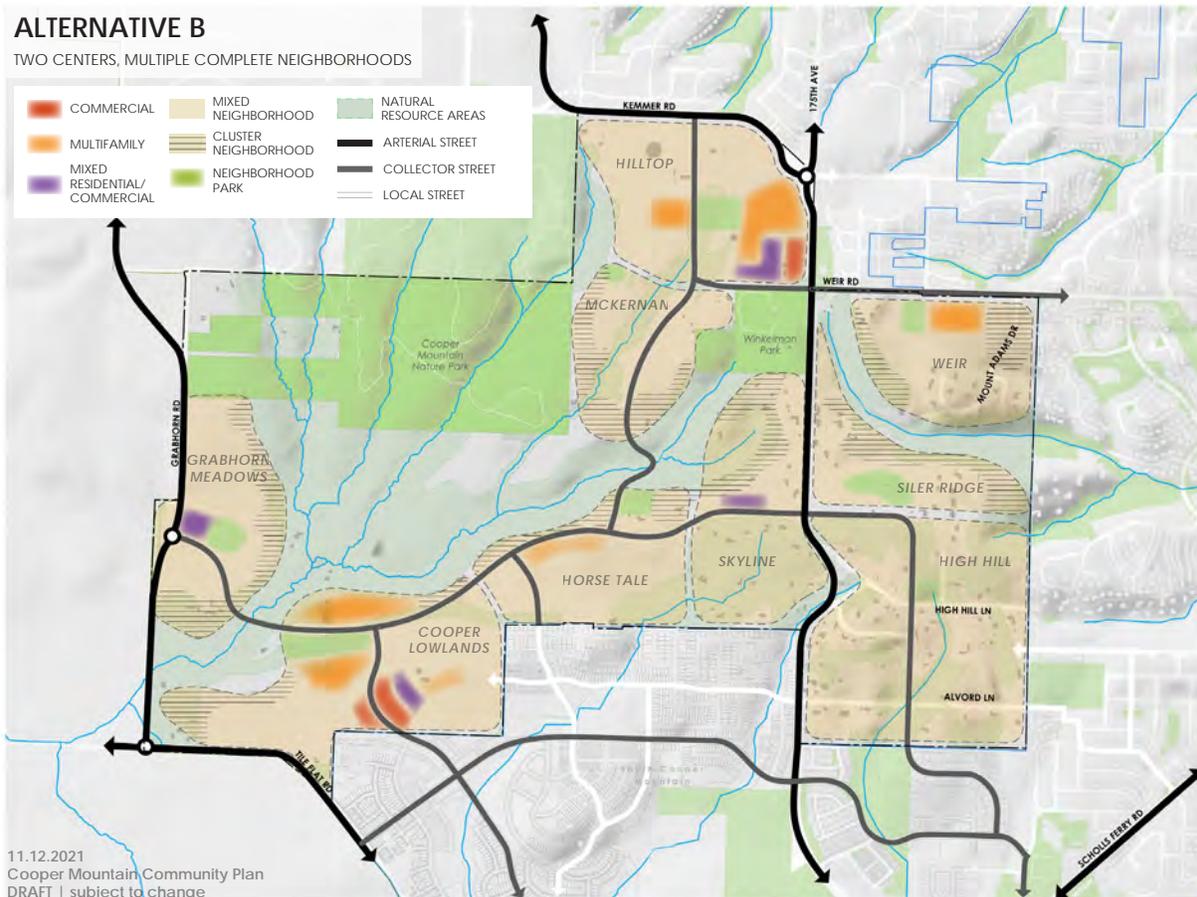


Alternative B

Alternative B has two commercial centers in the Hilltop and Cooper Lowlands neighborhoods and incorporates commercial activity in most neighborhoods. It provides approximately 5,000 dwellings, with more housing variety than Alternative A. Consistent with the other alternatives, middle housing will be allowed wherever single-detached homes are allowed, apartments will be part of the housing mix, and it will provide for regulated affordable housing choices. Zoning in this alternative is intended to promote an intentional mix

of housing types and more commercial availability within neighborhoods. Alternative B has major road connections where development is focused and will provide B has more intentional connections for people walking or traveling with bicycles or mobility devices. It also incorporates the planned improvements by Washington County to the regional road network (e.g., the SW 175th Avenue "kink"). Alternative B provides for approximately one park per neighborhood, and a robust trail network. The natural resource protection is consistent with today's city

standards and will include the planned expansion of Cooper Mountain Nature Park; the McKernan Creek Greenway with riparian area protection; and wildlife passages as part of the transportation system. Low Impact Development Approaches (LIDAs) are assumed to be used as part of stormwater management for all alternatives to reduce runoff, provide flow control and water quality benefits. In addition, some locations may benefit from wider, enhanced stream corridors that accommodate stormwater, wildlife habitat, trails, and utilities.

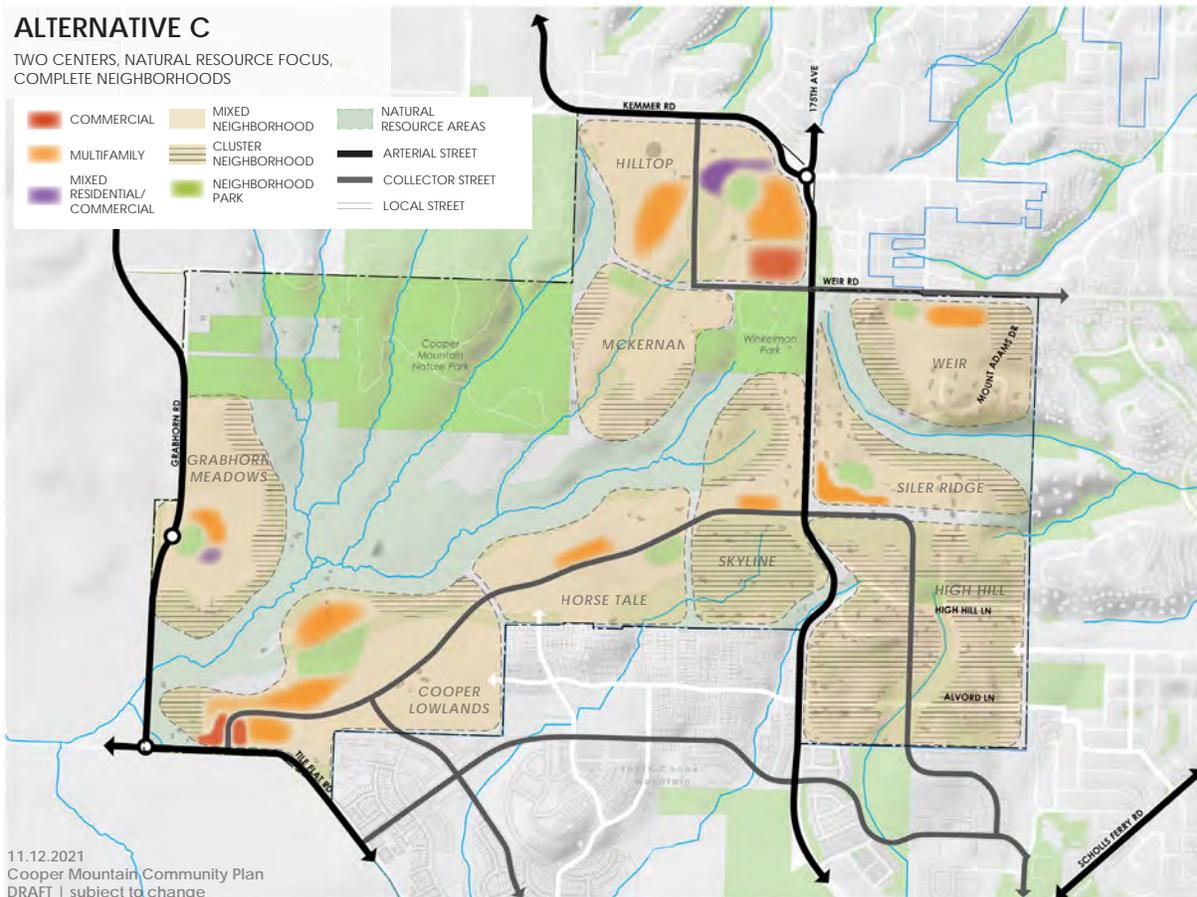


Alternative C

Alternative C provides approximately 6,000 dwellings, with the greatest variety in housing types. Consistent with the other alternatives, middle housing will be allowed wherever single-detached homes are allowed, apartments will be part of the housing mix, and it will provide for regulated affordable housing choices. This alternative also has two commercial centers in the Hilltop and Cooper Lowlands neighborhoods and incorporates commercial activity in all neighborhoods. The zoning promotes housing variety with requirements for

housing mix at higher densities, and more commercial options that maximize small-scale commercial uses and entrepreneurial opportunities. Connections for people walking and biking will rely more heavily on the use of protected or separated bicycle and pedestrian facilities such as multi-use paths because Alternative C has the fewest number of new road connections and vehicular creek crossings. Alternative C provides for approximately one park per neighborhood, as well as one larger community park, connected by a robust trail network. There is a focus on natural resource protection

and habitat connectivity in Alternative C, with the highest level of resource protection due to limited vehicular crossings in natural areas. This alternative will also include the planned expansion of Cooper Mountain Nature Park; the McKernan Creek Greenway with riparian area protection; and wildlife passages as part of the transportation system. Stormwater management will focus on creating wider, enhanced stream corridors that accommodate stormwater, wildlife habitat, trails, and utilities. Low Impact Development Approaches (LIDAs) are also assumed to be used as needed.



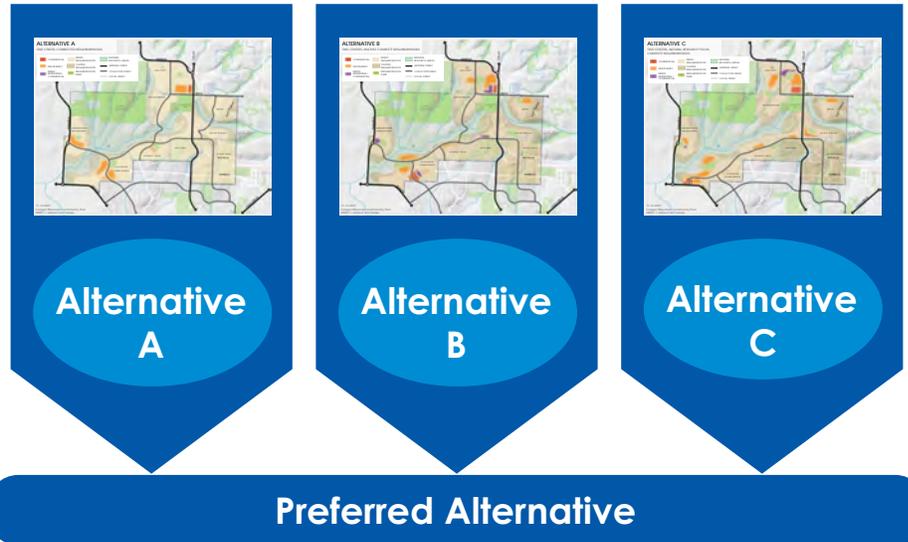
Alternatives Evaluation

The evaluation process is intended to identify potential trade-offs, support community discussion and move toward development of a “preferred alternative” to guide the plan.

Overview and Intent

The evaluation is intended to support informed decision-making about which attributes of the plan are preferred and how they might be implemented. The evaluation is not intended to be a competition of “winners and losers.” The intent is to identify the best performing alternative attributes, understand the “difference makers” among the criteria, and support the discussion of potential trade-offs.

The findings discussed in this report will help the city prepare the “preferred alternative,” which will likely be a combination of the alternative attributes, new ideas that emerge through discussion, and refinements that help create a cohesive



and implementable plan. In the preferred alternative, all of the layers of the plan—land use, transportation, natural resources, utilities, funding, etc.—must work in a mutually supportive and equitable

manner. The remainder of this section is organized by the eight project goals listed on page 1. The full set of goals, objectives, and metrics is also included in the Technical Appendix to this report.



Making Equitable Places

What will help create an equitable community?

The Community Plan is being developed using a racial equity approach. The first goal of the Community Plan is to “create equitable outcomes for residents, including historically underserved and underrepresented communities.” To meet this goal, an equity lens is applied throughout this evaluation. Many of the choices in this planning effort and plan implementation have equity implications. These include:

- The amount, types, and costs of new housing created in the Cooper Mountain area.
- Access to parks, nature, public facilities, and other amenities for all community members.
- A transportation system that is designed to meet the needs for people walking, biking, taking transit, and people with disabilities.

- Opportunities to engage in commerce and entrepreneurship.



This project uses a racial equity lens to prioritize work that increases access and opportunities for historically underrepresented communities, particularly people of color, immigrants and refugees, to play an integral role in shaping our city's future. Throughout this report you will see the **EQUITY LENS** icon indicating a particular equity issue or trade-off.

In reviewing this document, you may identify other issues and trade-offs that we've missed—your input is welcome and needed! These materials will be part of upcoming public engagement efforts in 2022. Reach out to project staff or stay tuned for more opportunities to engage.



DEFINING EQUITY

Equity is when structural barriers that have historically disadvantaged certain groups are removed and everyone has access to the opportunities and tools they need to thrive. Equity is measured in outcomes and is achieved when one's identity can no longer predict their success.



EQUALITY



EQUITY



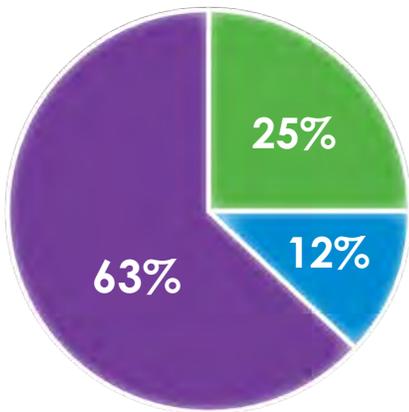
Places to Live

What variety of homes will be in Cooper Mountain's neighborhoods?

The project team evaluated three alternatives for housing in Cooper Mountain, described below and detailed in the Technical Appendix to this report. The options range from the minimum required number of housing units required by Metro (Alternative A) to alternatives (Alternatives B and C) that would provide more total housing, more middle housing, and increased percentages of attached housing types. This range helps test the feasibility and impacts of different housing choices and acknowledges that state law requires the city to allow attached and middle housing (duplexes, triplexes, quadplexes, townhouses and cottage clusters) in neighborhoods where single-detached homes are allowed. The amount and approximate mix are those that would be guided by the Community Plan. It should be noted that neighborhoods could have more housing than expected if developers decide to build more middle housing types.

Alternative A

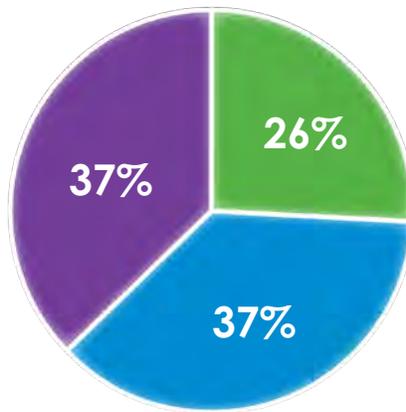
Alternative A provides 3,760 dwellings. About two thirds of this housing is assumed to be single detached dwellings.



25% Multi-Dwelling Units
12% Attached/Middle Housing Units
63% Single-Dwelling Detached Units

Alternative B

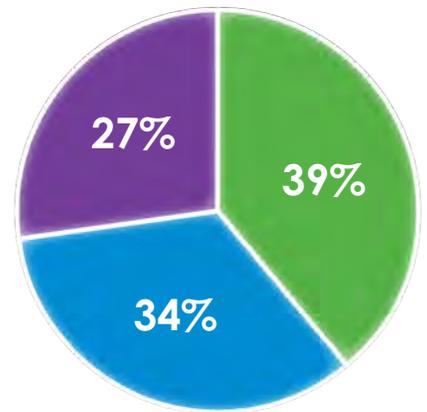
Alternative B provides about 5,000 new dwellings, with a greater proportion of attached and middle housing units.



26% Multi-Dwelling Units
37% Attached/Middle Housing Units
37% Single-Dwelling Detached Units

Alternative C

Alternative C provides about 6,000 new dwellings, with an emphasis on multifamily housing and middle/attached units.

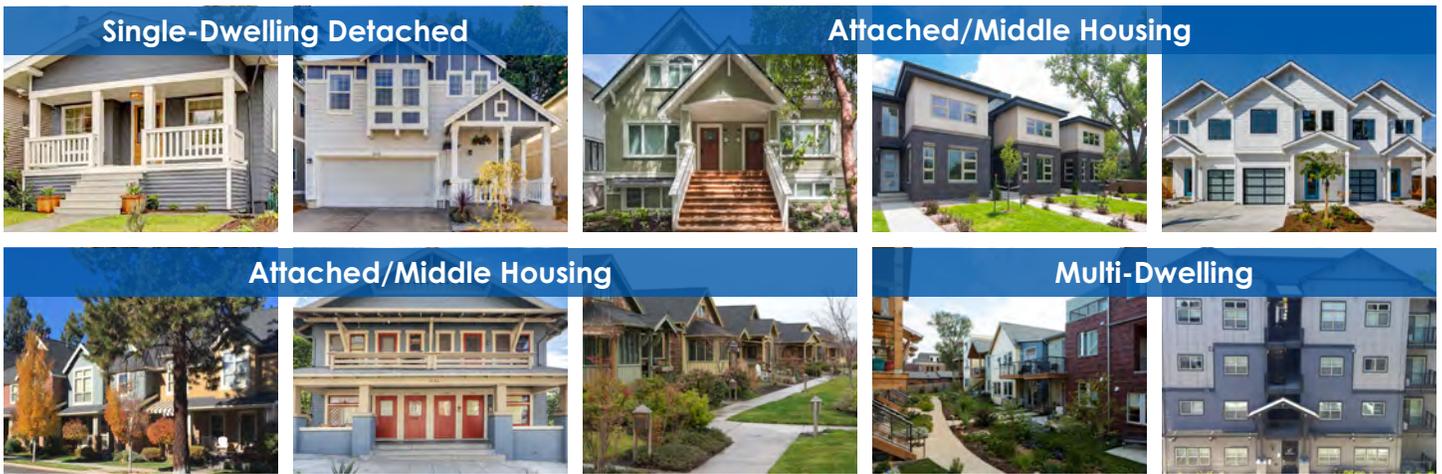


39% Multi-Dwelling Units
34% Attached/Middle Housing Units
27% Single-Dwelling Detached Units

Attached/Middle Housing means townhomes, quadplexes, triplexes, duplexes, and cottage clusters.

Multi-Dwelling means apartments and condominiums.





What have we learned?

- All alternatives have a mix of detached, attached, and multi-unit housing types. Higher intensity housing in each alternative is generally in places with flatter ground, outside environmentally sensitive areas (see “Places for Nature” for more discussion), and with few existing residences.
- **Alternative A** assumes a zoning and development approach that is consistent with the city’s existing practice and similar to development in South Cooper Mountain. In this approach, the city defines zones, lot sizes, and densities to ensure enough housing is produced to implement the Community Plan. There is flexibility for developers and property owners to choose the locations, types, and amount of housing. South Cooper Mountain neighborhoods have areas that are distinctly single-detached homes, townhomes, and apartments—close to each other but separated into different areas.
- **Alternatives B and C** are intended to result in more housing choice than Alternative A. They represent a new approach to housing, consistent with the recommendations of the city’s [Housing Options Project](#). By regulating the building envelope, rather than the type of housing provided, developers may provide more middle housing than typically seen under the city’s current development rules. The city may go further in requiring certain proportions of housing types in each development or neighborhood, requiring a variety of housing sizes and types on individual blocks, or similar measures to ensure a wide range of housing is provided.
- Each alternative assumes that 10 percent of the total housing units in Cooper Mountain to be regulated affordable housing units. With a greater amount of total housing, the total number of regulated affordable housing units increases. Details of how these units are delivered and what their level of affordability will be addressed in future planning and implementation efforts for the preferred alternative.
- The Horse Tale and Skyline neighborhoods have many existing residences, significant tree canopy, and steep slopes. The amount and type of future housing capacity in these areas will depend on incremental development over time (known as infill) and site-specific conditions on individual tax lots. Alternative A assumes a lower level of total development in these neighborhoods but may have a higher environmental impact due to limited tree protection standards. In contrast, Alternative C assumes significantly more infill development, but would protect some of the existing tree canopy through required “clustering” of new homes.



The development pattern shown in this graphic is typical in areas like South Cooper Mountain, where the housing mix includes several types of housing organized into distinct blocks. This type of pattern tends to be the result of master-planned communities that are implemented incrementally in segments by different developers. This pattern of development is what you might expect to see in Alternative A.



This development pattern represents a very deliberate housing mix, with smaller groups of different housing types distributed in smaller block faces, and intentional design on coordinated building form. This type of pattern tends to be the result of a master plan completed by a single developer. This type of pattern is more representative of what you might expect to see in Alternatives B and C.



Implications for the Plan

Alternative A assumes no additional policy direction from the City of Beaverton regarding the required housing mix, beyond what is required to meet state middle housing rules. This alternative would provide single-detached dwelling, multi-dwelling and attached/middle housing (likely townhomes). The distribution of housing types is flexible and left mainly to property owners and developers. Housing types like cottage clusters, -plexes, and other innovative forms are less “tried and true” and may not be provided in this alternative. Based on this, a relatively high percentage of single-detached homes is expected.

Alternative B envisions housing outcomes that focus on variety, middle housing and attached housing forms in many of Cooper Mountain’s future neighborhoods. New policy and zoning standards would be needed to achieve these outcomes. The distribution of the various housing types throughout the plan area results in a the most balanced percentage of housing types—single-detached dwellings, attached/middle housing, and multi-dwelling.

Alternative C would also utilize new policy and code standards to achieve a relatively high level of variety, middle housing and attached housing. Alternative C provides additional locations for multi-dwelling housing and assumes a relatively high level of new development in existing neighborhoods like Skyline and High Hill, as compared to Alternatives A and B. The result is not only more housing, but the highest proportion of attached housing of the three alternatives.

Which alternative, or combination, best implements the project goals? Key considerations, choices and trade-offs include:

The number of total housing units.

Should the overall amount of housing be more than the Metro minimum of 3,760 dwellings? If so, where on the spectrum from 3,760 to 6,000 dwellings is the appropriate plan?

- Providing more total housing units can expand housing choices for people with different housing needs and incomes.
- Planning for more housing makes efficient use of the city’s land supply and can reduce infrastructure costs for each unit.
- Housing outcomes need to be balanced with development feasibility, location, and other development impacts.

An intentional approach to housing mix.

New policy and zoning standards will be required to provide a greater mix of housing types within neighborhoods as anticipated by Alternatives B and C.

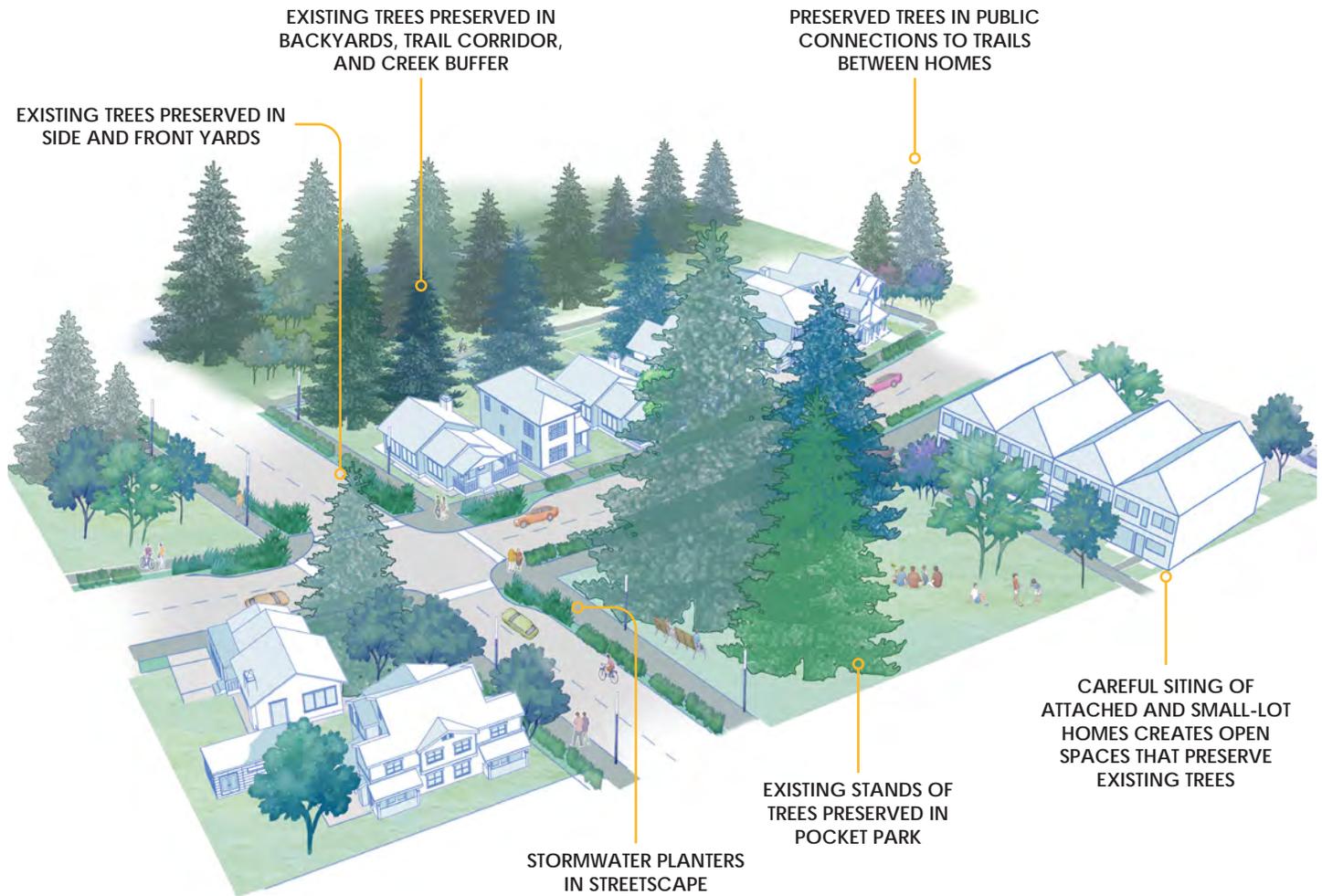
- Should the plan establish policy to guide the mix of housing types in each neighborhood?

Matching housing type and location.

- What is the appropriate distribution of higher density residential development (such as apartments), to provide access to nature, help to support commercial areas, and attract future transit service?
- In areas with existing residential development, such as the Skyline and High Hill neighborhoods, what is the appropriate approach to infill and protection of natural resources such as wildlife corridors and tree canopy?
- Should a concept of “clustering” housing be implemented in areas such as the Skyline and High Hill neighborhoods?” An illustration of the concept is shown on page 15.



The following graphic illustrates the principles of “clustering” housing in new neighborhoods so that development preserves existing mature trees or other important natural features.





EQUITY LENS: The city has a goal of 10 percent regulated affordable housing units, mostly rental with some home ownership opportunities. The amount, location, and level of affordability of these units will be determined as the plan takes shape and will depend on finding land and securing adequate funding.



PRIORITIES FOR IMPLEMENTATION

Housing Mix. The intended housing variety of Alternatives B and C will require new policies and code standards to achieve that outcome.

Housing Location. Some locations lend themselves to lower-cost market rate and regulated affordable housing. These areas tend to be flatter, have fewer natural resource constraints, and are not already divided into smaller lots. This is generally because funds for providers of affordable housing are limited and necessitate the search for sites with lower development costs.

Equitable Allocation of Infrastructure Costs. New neighborhoods require roads, trails, water, sewer, and stormwater infrastructure to serve them. This planning effort will include a Funding Plan to determine how this infrastructure will be paid for. These funding decisions can have equity implications, depending on how different types of housing and other uses are required to contribute via System Development Charges (SDCs).

Planning for all ages and abilities. Beaverton has a need for homes that are accessible for people as they age and for people with disabilities. New homes can be designed to accommodate these needs—the city intends to work with developers and track the number of accessible units.

Places to Work and Shop

Where will shops, restaurants, services, and small businesses be located?

Providing opportunities for commercial uses and services in the Cooper Mountain area will help create a more complete community where residents can meet more of their daily needs nearby. In addition to commercial nodes with commercial zoning, alternatives B and C would include flexible zoning in some neighborhoods that, in addition to residential, would allow small-scale retail, offices, services and in-home businesses within neighborhoods.

Table 1: Commercial Areas

	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C
LOCATION	5-acre node at Weir/175th	5-acre node at Weir/175th 5-acre node in Cooper Lowlands (allowed but not required) Some flexible zoning to allow small-scale commercial in neighborhoods	10-acre node at Weir/175th 5-acre node at Tile Flat Some flexible zoning to allow small-scale commercial in neighborhoods (more than Alternative B)
POTENTIAL TENANTS	Restaurant/cafes, services, personal care and fitness, small retail, medical/dental offices, co-located with community uses	Restaurant/cafes, services, personal care and fitness, small retail, medical/dental offices, co-located with community uses	Grocery store or similar small anchor at Weir/175th with restaurants, services, personal care and fitness, small retail, medical/dental offices, co-located with community uses Tile Flat commercial location more likely to serve nearby neighborhoods and traffic passing by on Tile Flat/Grabhorn
MARKET FEASIBILITY (likelihood the market will support)	Supported by existing and new households in the market area, but would likely be built after most residential development	Weir site supported by market, but would likely be built after most residential development Less feasible at Cooper Lowlands; may compete with South Cooper Mountain Main Street	Shopping center larger than 5 acres with small anchor tenant at Weir/175th may be viable if a similar center does not locate in South Cooper Mountain or River Terrace, but would likely be built after most residential development Less feasible at Tile Flat location, except for small-scale commercial that serves traffic passing by (less than 5 acres)

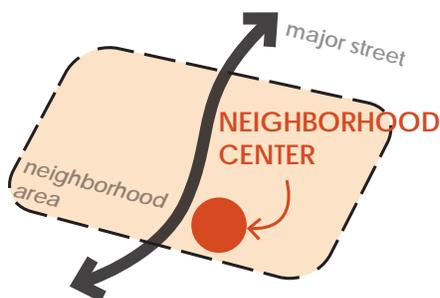


What have we learned?

- The market feasibility for at least a small commercial area at 175th/Weir is strong. Its inclusion supports several other project goals and community feedback to date, including: a welcoming and inclusive neighborhood has close-by access to services; the hilltop areas is further from planned commercial uses in South Cooper Mountain and will benefit from local services; and commercial use will help create a destination that could be served by transit in the future.
- The viability of a commercial site of approximately 10 acres at SW 175th/Weir requires further discussion and study. ECONorthwest notes there is likely market support for one grocery-anchored site in the larger Cooper Mountain-South Cooper Mountain-River Terrace area, but that viability is questionable for two such centers.
- Commercial nodes elsewhere in the study area as shown in Alternatives B and C are less likely to be supported by the market. The interior location in Alternative B would have excellent walkable access from nearby neighborhoods, but might not attract enough customers because it is not visible from a busier road with more potential customers driving by. The Tile Flat location has good exposure and visibility to pass-by traffic, but its location at the edge of the urban area limits the number of potential customers from nearby neighborhoods. These sites may compete with the Hilltop location and other commercial nodes in South Cooper Mountain and elsewhere. Another potential option is to apply zoning that allows both residential and commercial so businesses can locate there if it is deemed a viable location.
- It is difficult to evaluate the likelihood of small-scale businesses starting up in otherwise mostly residential neighborhoods. Small businesses in their own space within neighborhoods are more common when converting existing homes than for new greenfield development. Home-based businesses (e.g., in-home childcare, sole proprietors who work from their home) may be more likely in this context. But flexible zoning that allows both residential and commercial uses would allow businesses to react to market demand because the space could change between uses over time.

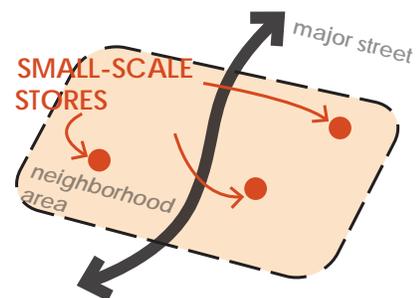
NEIGHBORHOOD CENTERS

Larger nodes of activity with commercial zoning
Deliberately placed in areas with more people travelling by



DISTRIBUTED SMALL-SCALE BUSINESSES

Smaller sites may have commercial zoning in a limited area or flexible zoning that allows both small-scale businesses and residential uses in an area
Distributed throughout neighborhoods



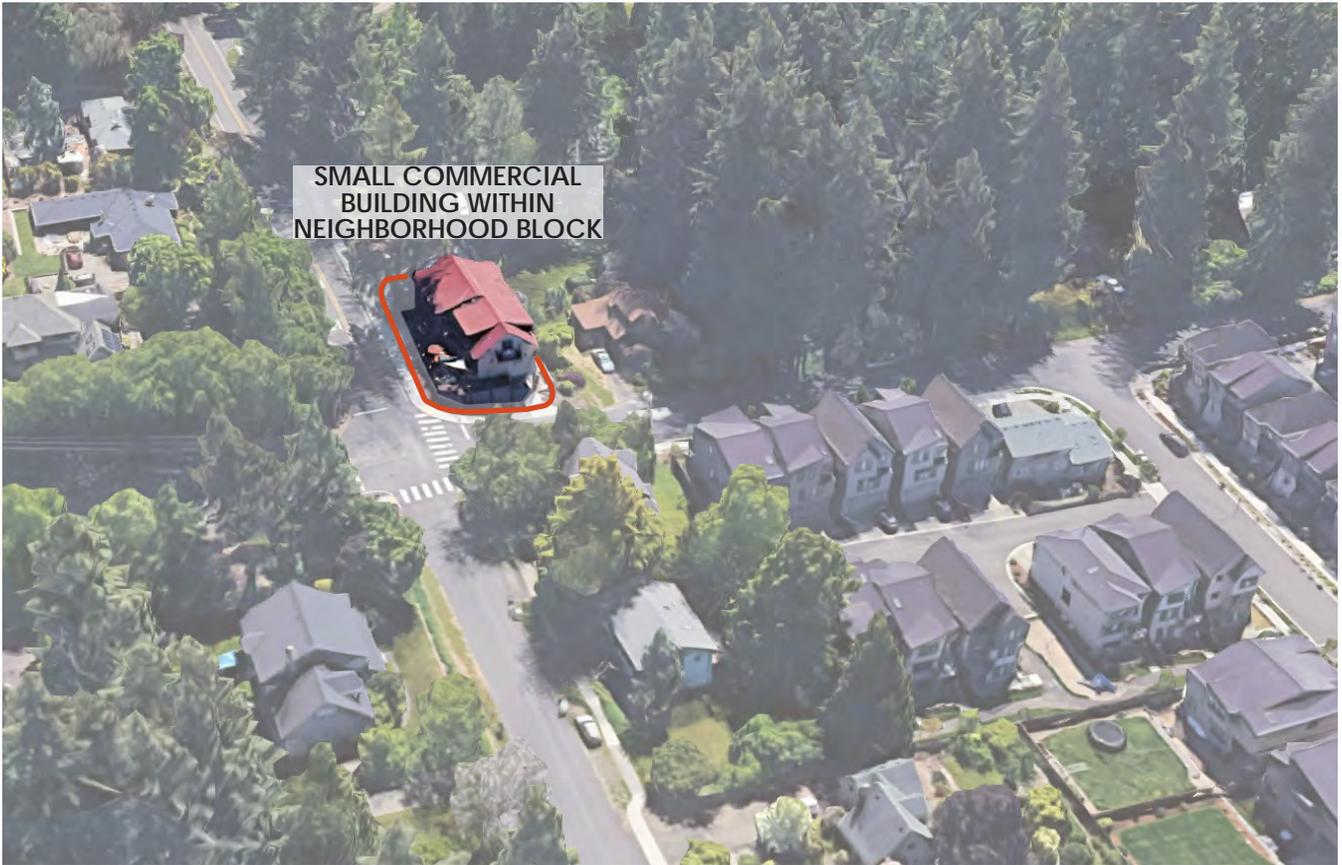
LARGE COMMERCIAL NODE (APPROXIMATELY 10 ACRES)



SMALL COMMERCIAL NODE (APPROXIMATELY 5 ACRES)



SMALL-SCALE COMMERCIAL BUILDING



Implications for the Plan

Which alternative, or combination of ideas, best implement the project goals for commercial opportunities?

Key considerations, choices, and trade-offs include:

Commercial area at SW

175th/Weir: A smaller node, approximately 5 acres, is viable, supportive of the commercial project goal and consistent with community support for commercial area(s) in Cooper Mountain. There is an opportunity to co-locate community uses at this same location to strengthen the creation of a neighborhood gathering place.

There is an option to designate a larger area, approximately 10 acres,

at this location to provide sufficient acreage for an anchor store, such as a grocery store). A hybrid approach would be to designate 5 acres for commercial uses and an adjacent 5 acres that are flexible for commercial or other uses.

Commercial nodes in Cooper

Lowlands: The evaluation identified challenges for the interior and Tile Flat commercial nodes shown in Alternatives B and C. Options for these commercial areas include: (a) Retaining one or both of them with flexible zoning that would allow commercial, multi-dwelling residential, or a combination thereof; or (b) Removing these commercial nodes and designating them for multi-dwelling residential use instead.

Small-scale businesses with neighborhoods:

The concept of dispersed small-scale commercial uses and allowance for more in-home entrepreneurship opportunities has generally been supported in community discussions to date. For greenfield settings like Cooper Mountain, there is little recent precedent from which to learn. Options could include the city making home-based businesses more flexible, allowing small-scale commercial activity that fits in well with homes in some areas, or identifying specific locations where businesses are allowed within neighborhoods.





EQUITY LENS: Planning for land uses and community design that is accessible to people who have previously been excluded or underserved is a priority for the City of Beaverton. When asked about what makes a welcoming and inclusive community, community members have emphasized being able to access goods and services locally, the importance of community gathering places, and support for the concept of small-scale businesses within Cooper Mountain's future neighborhoods. These priorities suggest that multiple and dispersed opportunities for commercial uses will further the goals for equitable planning for Cooper Mountain. In addition to the land use and community design element of the Community Plan, the city has identified a priority of supporting women-owned, BIPOC-owned, and culturally-specific businesses within the plan area. Working with local economic development groups can help foster entrepreneurship for historically disadvantaged groups.



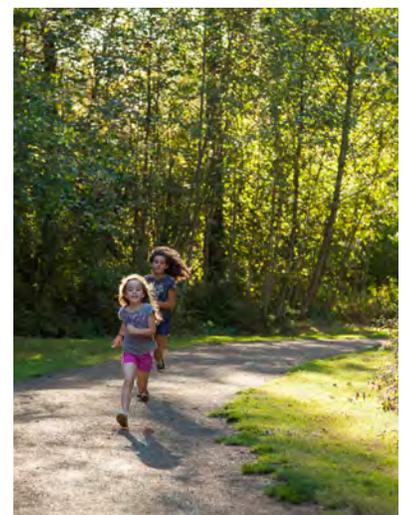
Places to Play

Where will parks and plazas be located?

In all alternatives, each of the nine neighborhoods in Cooper Mountain will be served by at least one neighborhood park. The average size of these neighborhood parks increases in Alternatives B and C to better serve the larger populations assumed. In addition to neighborhood parks, Alternative C will include one 10-acre community park, tentatively identified in the Cooper Lowlands area. Urban plazas located in or near commercial nodes are also assumed in each alternative. Table 2 summarizes the distribution of parks and open spaces assumed for each alternative. These assumptions were identified in close coordination with the Tualatin Hills Park & Recreation District (THPRD).

Table 2: Parks and Plazas

	ALTERNATIVE A	ALTERNATIVE B	ALTERNATIVE C
NEIGHBORHOOD PARK	One park per neighborhood 16.5 acres total	One park per neighborhood 26 acres total	One park per neighborhood 33 acres total
COMMUNITY PARK	None assumed	None assumed	One 10-acre community park
NATURE PARK	Planned expansion of Cooper Mountain Nature Park	Planned expansion of Cooper Mountain Nature Park	Planned expansion of Cooper Mountain Nature Park
URBAN PLAZA	One quarter-acre plaza	Two half-acre plazas (one acre total)	Two one-acre plazas (two acres total)



A Range of Parks for Cooper Mountain

In Cooper Mountain, a range of parks will be provided to ensure that all neighborhoods have equitable access to places to play, exercise, and connect with nature. To that end, the plan alternatives include the following types of parks and open spaces:

Neighborhood Park

- Usually 2-8 acres in size
- Serves the local neighborhood area, with a park located within a half-mile walk of all residences (taking into consideration barriers to walkable access such as high-speed streets)
- Generally, includes play areas, small active recreation areas, green space, and opportunities for passive recreation
- The Cooper Mountain alternatives anticipate nine new neighborhood parks (one in each neighborhood)



Community Park

- At least 10 acres in size
- Serves the greater community or regional area
- Designed to meet a wide variety of community recreational needs, including active and passive recreational opportunities
- In Cooper Mountain, Alternative C includes one community park in Cooper Lowlands



Nature Park

- Varies in size
- Serves the greater community or regional area
- Balances access to and preservation of natural features, habitat areas, and wildlife corridors
- In Cooper Mountain, the existing Nature Park will be expanded south toward McKernan Creek in all three alternatives



Urban Plaza

- Varies in size, but typically 1 acre or less
- Located in more urban settings with higher densities, ideally as part of or near nodes of commercial activity
- Designed as public gathering spaces that foster community interaction and civic pride
- In Cooper Mountain, at least one urban plaza located near the commercial node is assumed in each alternative



Trailhead Park

- Small open spaces located at the entrance to a recreational trail
- May include amenities such as wayfinding, restrooms, play equipment, or open lawn areas
- In Cooper Mountain, trailhead parks may be located at the key entry points to the trail network in Cooper Mountain Nature Park



What have we learned?

- Each of the alternatives was designed to have at least a small Neighborhood Park within each neighborhood. This leads to the intended outcome of most housing units being within a short walk of a park. The differences in the alternatives are the sizes of parks and total acreage for Neighborhood Parks. Looking ahead, the parks would also have different programming (play areas, fields, etc.) tailored to their location, context, and community input.
- Some of the parks will be able to serve as viewpoints, capturing one of Cooper Mountain's special assets for enjoyment by community members. Identifying opportunities for viewpoints and policies to guide implementation is an important role for the Community Plan.
- Parks can serve as a central (not always centrally located) design feature within neighborhoods, yet acquiring suitable park sites is a challenge during the development process. THPRD has noted that identifying park locations early in the planning process can help secure key locations and ensure parks are not an afterthought relegated to less desirable pieces of land.
- The Community Park associated with Alternative C was added based a need for a Community Park cited by THPRD. The 10-acre size and inclusion only in Alternative C reflects the challenges of finding larger and flatter acreages in the project area. The flatter land is needed to accommodate a sports field on a portion of the park. Committee and community members have noted the Cooper Lowlands and Horse Tale neighborhoods as potential locations for a Community Park. Development of larger Neighborhood Parks within Cooper Mountain can partially fulfill the need if a Community Park is not located within the project area. However, residents will have to travel to adjacent parts of Beaverton or Tigard to access the nearest Community Parks.
- Cooper Mountain Nature Park fulfills the role of a Nature Park for Cooper Mountain. As the plan moves forward, there is the opportunity to knit together a system of greenspaces, including Cooper Mountain Nature Park, the McKernan Creek Greenway, the undeveloped natural areas within and adjacent to the neighborhoods, new parks, and the trail system.



NEIGHBORHOOD PARK LOCATED CENTRAL TO A NEIGHBORHOOD



Public pedestrian pathways connect toward other areas and destinations in the neighborhood

Various types of homes face the park from across neighborhood streets with convenient and safe crosswalks

Park is located centrally to a neighborhood within walking distance from many homes

COMMUNITY PARK INTEGRATED WITHIN A NEIGHBORHOOD

Pedestrian walkways connect to surrounding neighborhood

Athletic fields located on existing flat areas to avoid major re-grading

Small commercial node nearby a community park provides supporting services and activities



Parking areas designed to prioritize pedestrians and park activity

Park located close to regional transportation routes to allow greater community access



Implications for the Plan

Which alternative, or combination of ideas, best implement the project goals for park opportunities?

Key considerations, choices, and trade-offs include:

Neighborhood Parks. The Neighborhood Parks shown on the alternatives were prepared in collaboration with agency partners and designed to implement THPRD park planning standards. Each alternative results in a network of neighborhood

parks that provide walkable and equitable access by future residents throughout the planning area.

Viewpoints. There is an opportunity to identify specific areas where viewpoints can be provided. Examples include potential parks within the Hilltop, McKernan, Horse Tale and Grabhorn Meadows neighborhoods.

Community Park. Options for a Community Park (at least 10 acres in size) include:

- Plan to locate a Community Park in the Cooper Lowlands or Horse Tale neighborhood areas.
- Increase the size of Neighborhood Parks if a Community Park is not planned for the area.
- Identify potential Community Park locations outside the planning area that could serve future residents of Cooper Mountain.



EQUITY LENS:

Equitable access to parks is a high priority

for the city. In these alternatives, new parks are located to provide convenient access from all neighborhoods, particularly for people living in attached and multifamily housing. The details of park design can have equity implications: do people of all races feel welcome, and are their interests considered when developing a program for park activities? The city will work with THPRD to ensure that the land acquisition and design of Cooper Mountain's parks meets the city's equity goals.

PRIORITIES FOR IMPLEMENTATION

Accessibility. ADA Accessibility for parks, trails, and other community amenities is a priority for the city. Steep slopes within the plan area will make this challenging in some locations. The city will work with THPRD and its other partners to create places that are accessible to people with mobility issues.

Equity in park design. The city will work with THPRD to ensure that Cooper

Mountain parks are designed for people of all races, ages, and abilities.

Land acquisition for parks. Further work and discussion is needed to determine how and when park sites will be acquired, particularly Neighborhood Parks. Park sites may have different characteristics depending on their intended use and can serve as a central feature for the neighborhood it serves.



Connecting People and Places

What path, bikeway, transit, and street connections will be made?

This section discusses Cooper Mountain's transportation system and how the alternatives help meet the goal to "Provide safe, convenient access to important destinations while supporting transportation options, including walking and biking."

Walking, Biking, and Trails

What have we learned?

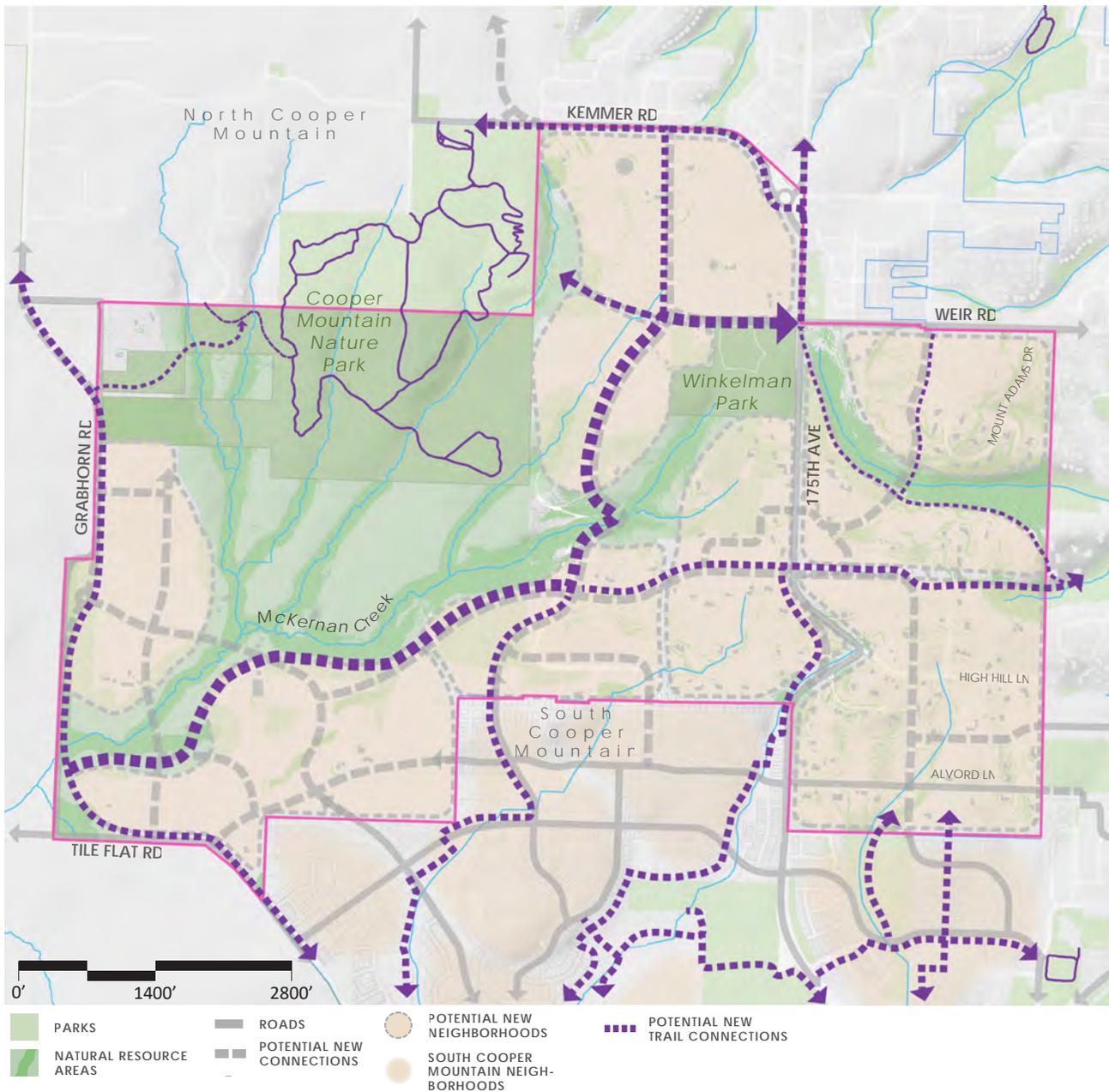
The Community Plan will have a connected and coordinated network of walking routes, bikeways and trails - tailored to Cooper Mountain's hilly setting. The intent is to provide travel options for all ages and abilities, reduce reliance on auto travel, and support the creation of an equitable and accessible community. Most of the pedestrian and bicycle routes will be built as part of the street network. Alternative A has the most extensive on-street pedestrian and bicycle system because it has all four of the potential new collector routes. Alternatives B and C have fewer collector streets, but not less pedestrian and bicycle connectivity. They would have equally robust pedestrian and bicycle networks that are achieved through additional off-street paths, pedestrian bridges and similar facilities. Alternatives B and C will require focused strategies to ensure full implementation of the off-street bike and pedestrian network.



The draft trail system shown below for Cooper Mountain is intended to be part of the transportation system and a recreational asset. The trail plan doesn't differ substantially between the alternatives. A signature trail, common to all

alternatives, is the McKernan Creek Regional Trail. This trail is part of the McKernan Creek Greenway, which integrates adjacent natural resources and storm water improvements into a nearly two-mile long continuous

greenspace connecting many parts of Cooper Mountain. In coordination with THPRD and Metro, the plan will also consider future trail connections to the Cooper Mountain Nature Park.



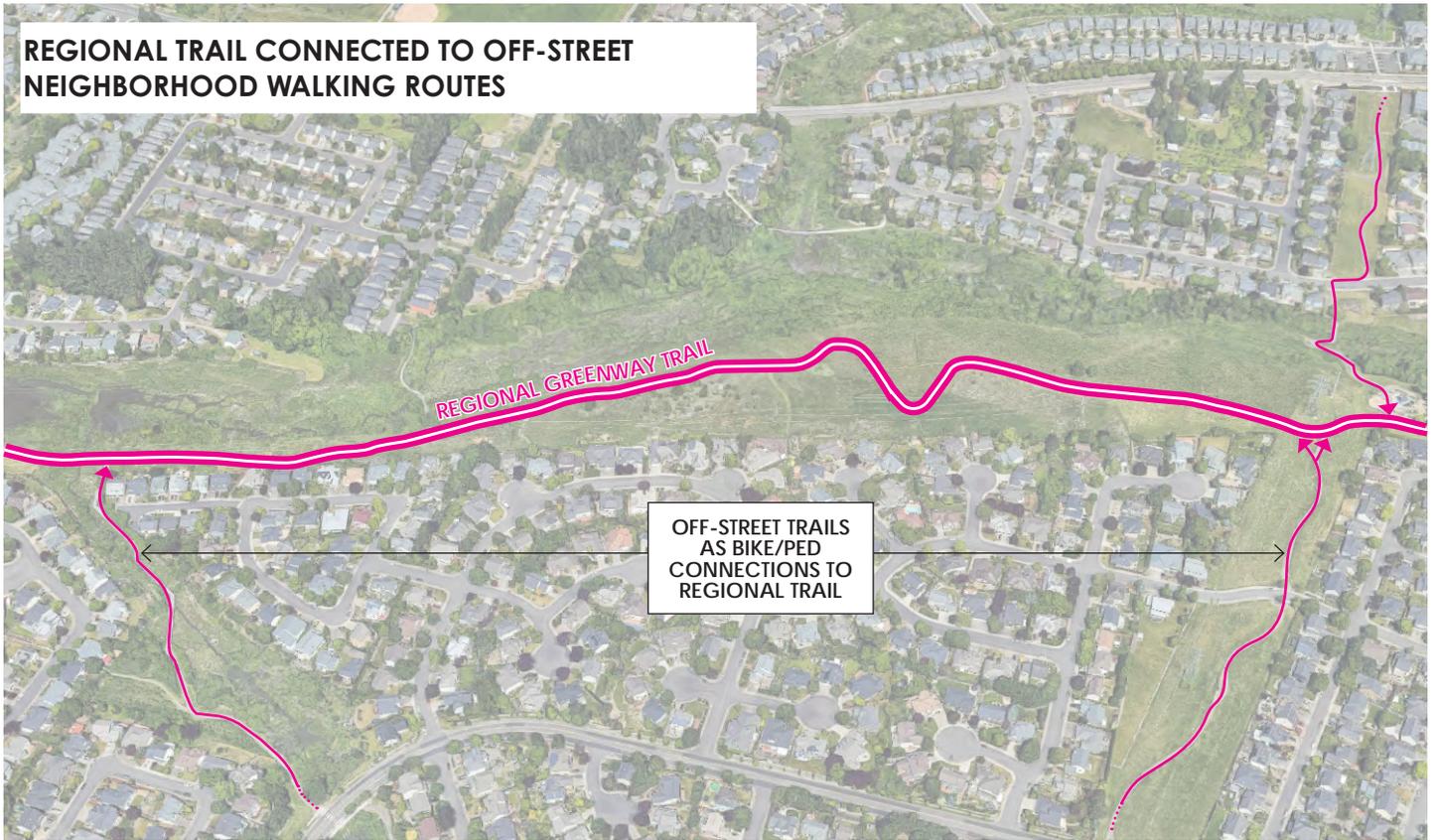
**REGIONAL TRAIL CONNECTED TO ON-STREET
NEIGHBORHOOD WALKING ROUTES**



**LOCAL STREETS
AS BIKE/PED
CONNECTIONS TO
REGIONAL TRAIL**



REGIONAL TRAIL CONNECTED TO OFF-STREET NEIGHBORHOOD WALKING ROUTES



TRAILHEAD PARKS



Making Cooper Mountain Transit-Ready

A successful transit plan requires land uses and densities that produce transit riders, destinations for those people to travel to on transit, transit-supportive community design, and roadways that can accommodate transit vehicles. Even though the timing and location of future transit is unknown for Cooper Mountain, the Community Plan seeks

to be “transit-ready” for the future. Transit routes and stops are anticipated for the plan’s commercial areas, multi-family areas, and public facilities such as Mountainside High School.

Key transit destinations in the Cooper Mountain area have been identified for each alternative. They are shown in the maps below and described

briefly here, along with their implications. In each case, the South Cooper Mountain Main Street and Mountainside High School, near the intersection of Scholls Ferry Road and Mountainside Way, are noted as two key transit destinations just outside the Community Plan’s study area.

WHAT IS A MOBILITY HUB?

Mobility hubs are places where people can easily access a variety of ways to travel and transfer from one to the other. For example, a hub could have transit stops, bike/scooter rental, and places to meet for commuting or ride sharing. They also might be located near homes and commercial destinations, or other places that many people want to visit. Conceptual mobility hubs have been identified in the planning to date. More work is needed as the plan evolves into the preferred alternative.



Source: Cascades East Transit

Alternative A:
Areas of commercial activity and multifamily residences are the best candidates for transit hubs.

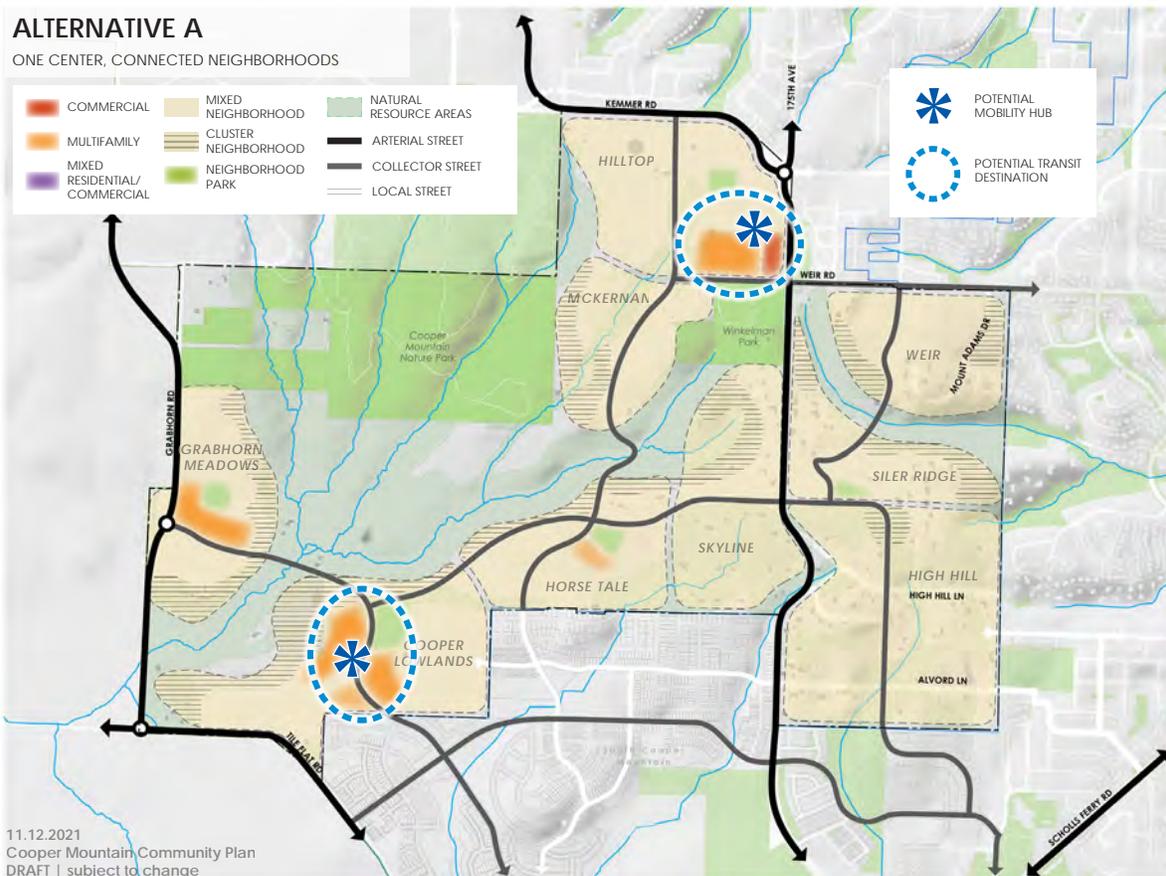
- Commercial node at 175th/Weir
 - Multifamily area, parks, and Mckernan Creek Greenway trailhead in the Cooper Lowlands Neighborhood

Alternative B:
Additional residential density and second commercial location are more likely to support additional transit destinations.

- Commercial node at 175th/Weir
 - Commercial node in Cooper Lowlands
 - Multifamily area in the Horse Tale neighborhood

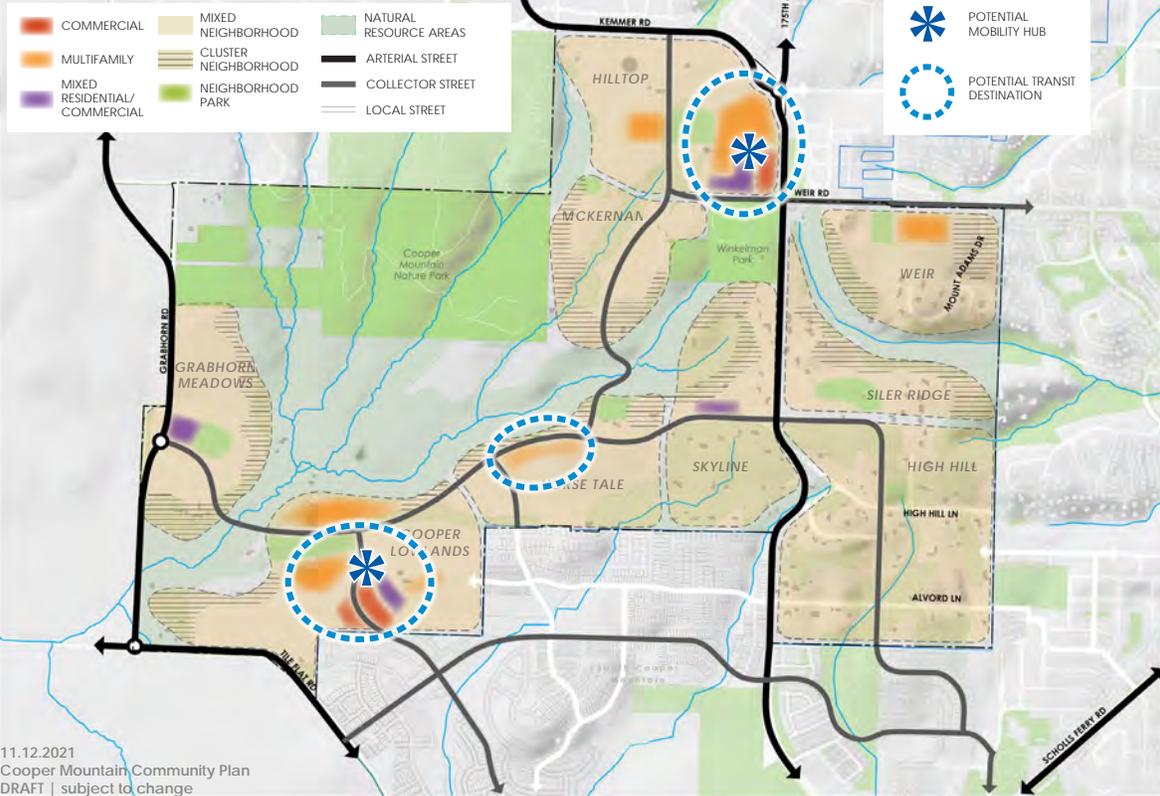
Alternative C:
Additional residential density is more likely to support additional transit destinations.

- Commercial node at 175th/Weir
- Kemmer Road
 - Commercial node at Tile Flat
 - Grabhorn Meadow center



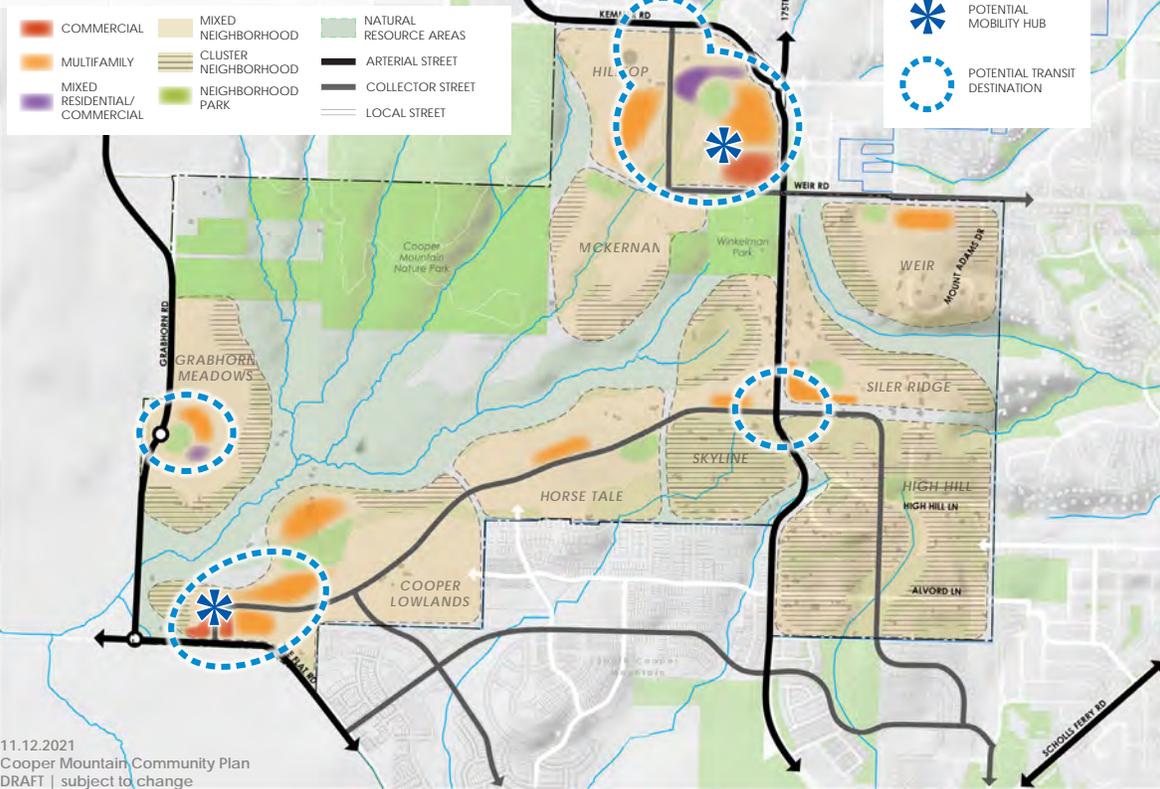
ALTERNATIVE B

TWO CENTERS, MULTIPLE COMPLETE NEIGHBORHOODS



ALTERNATIVE C

TWO CENTERS, NATURAL RESOURCE FOCUS,
COMPLETE NEIGHBORHOODS



What have we learned?

Transit service will depend on many factors, some of which are outside of the City of Beaverton's control. Generally, having a greater number of potential transit users and a greater number of transit destinations will increase the likelihood that transit will be provided in the future. Planning for roads to accommodate transit and safe and comfortable pedestrian activity will help enable future transit service to the area. The street network associated with Alternative A is the most supportive of future "internal" transit routes due to its connectivity. The land uses associated with Alternatives B and C provide more density and more potential transit destinations, which could attract transit service in the future



EQUITY LENS: Creating a transportation system that is accessible to people who have previously been excluded or underserved is a priority for the City of Beaverton. Creating a robust pedestrian and bicycle network, and planning for future transit, are the foundation of creating an equitable transportation plan. Additionally, new streets in the Cooper Mountain area need to provide for safe and comfortable travel for all community members. This will be a challenge due to the slopes, curves and high traffic volumes on the existing arterials such as SW 175th Avenue. New standards in the Development Code and/or Engineering Design Manual may be needed to provide the type of safety and design treatments needed to support equitable transportation investments.



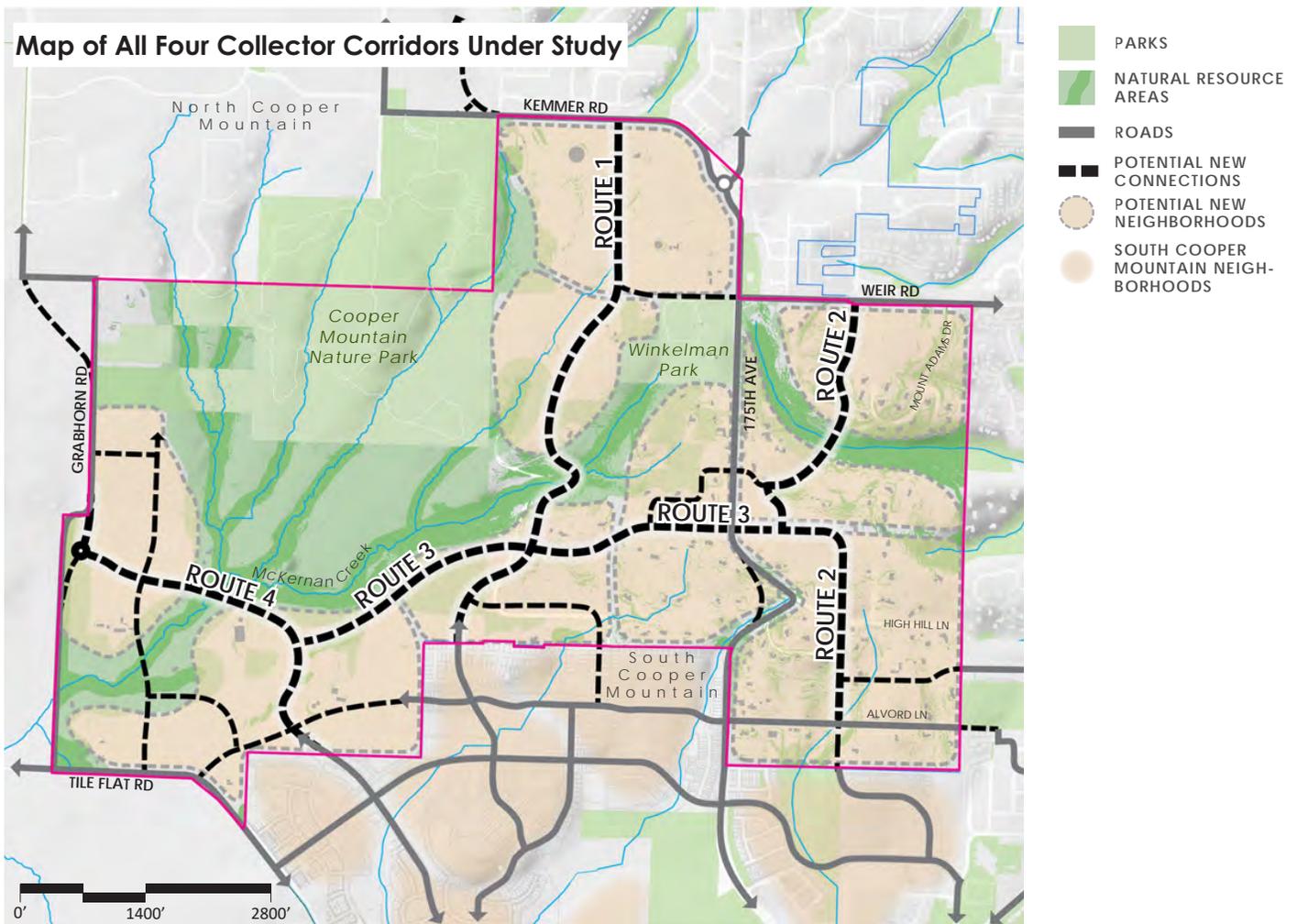
What are the street options?

The three alternatives implement the project's transportation goal and include different ways to meet it. Common elements of the alternatives include: a priority for equitable outcomes in transportation investments and improvements; provision of transportation facilities that improve safety and serve all modes of travel; transportation options that reduce reliance on auto travel; and implementation of key projects

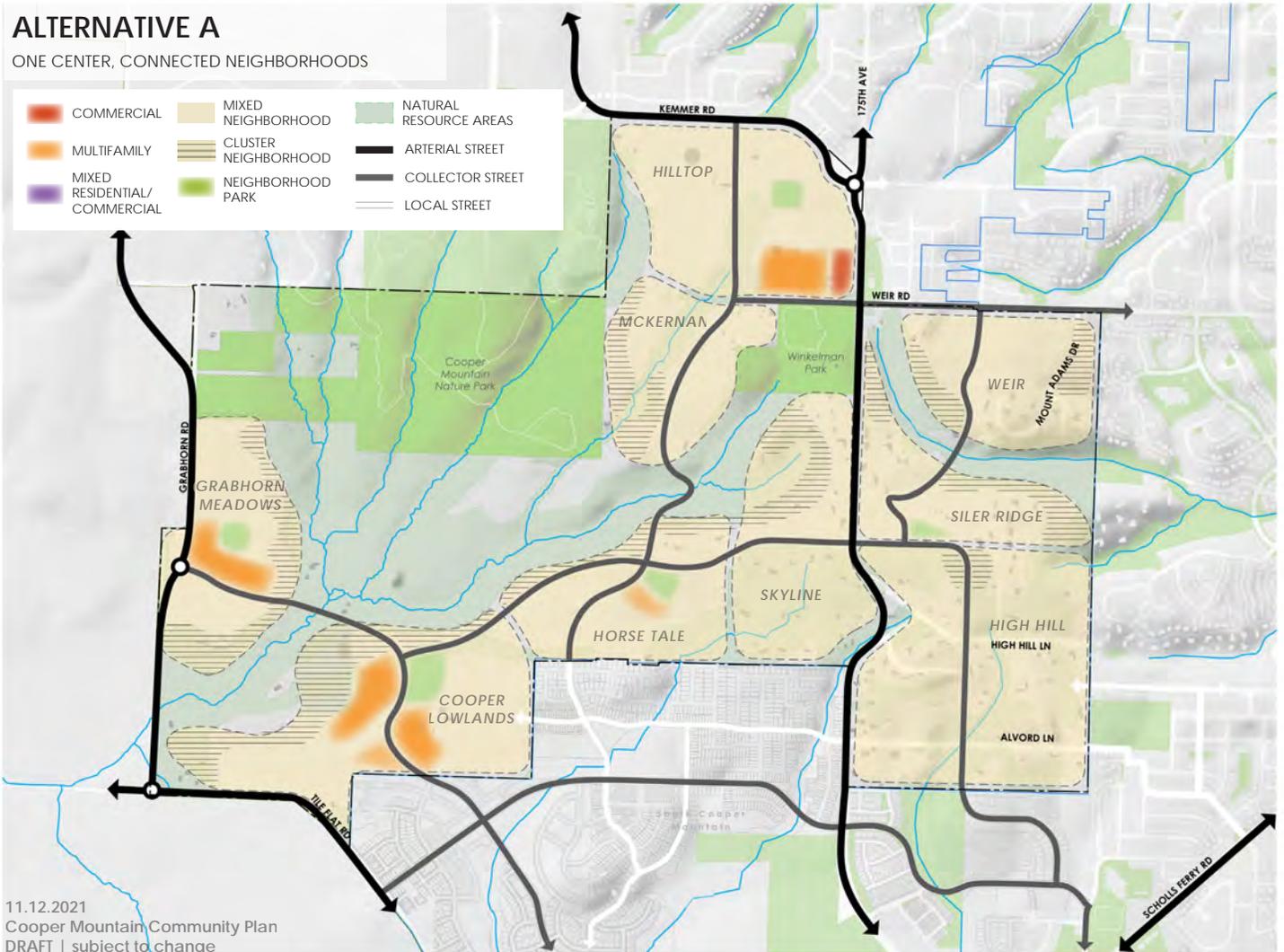
and improvements that are already planned (e.g. the SW 175th Avenue "Kink" project).

The scenarios differ regarding the extent of new collector streets, which are 2 or 3-lane streets that connect neighborhoods. After the collector system is determined, "neighborhood routes" will be added to the plan to further define local connectivity. Local streets will be planned and built through future

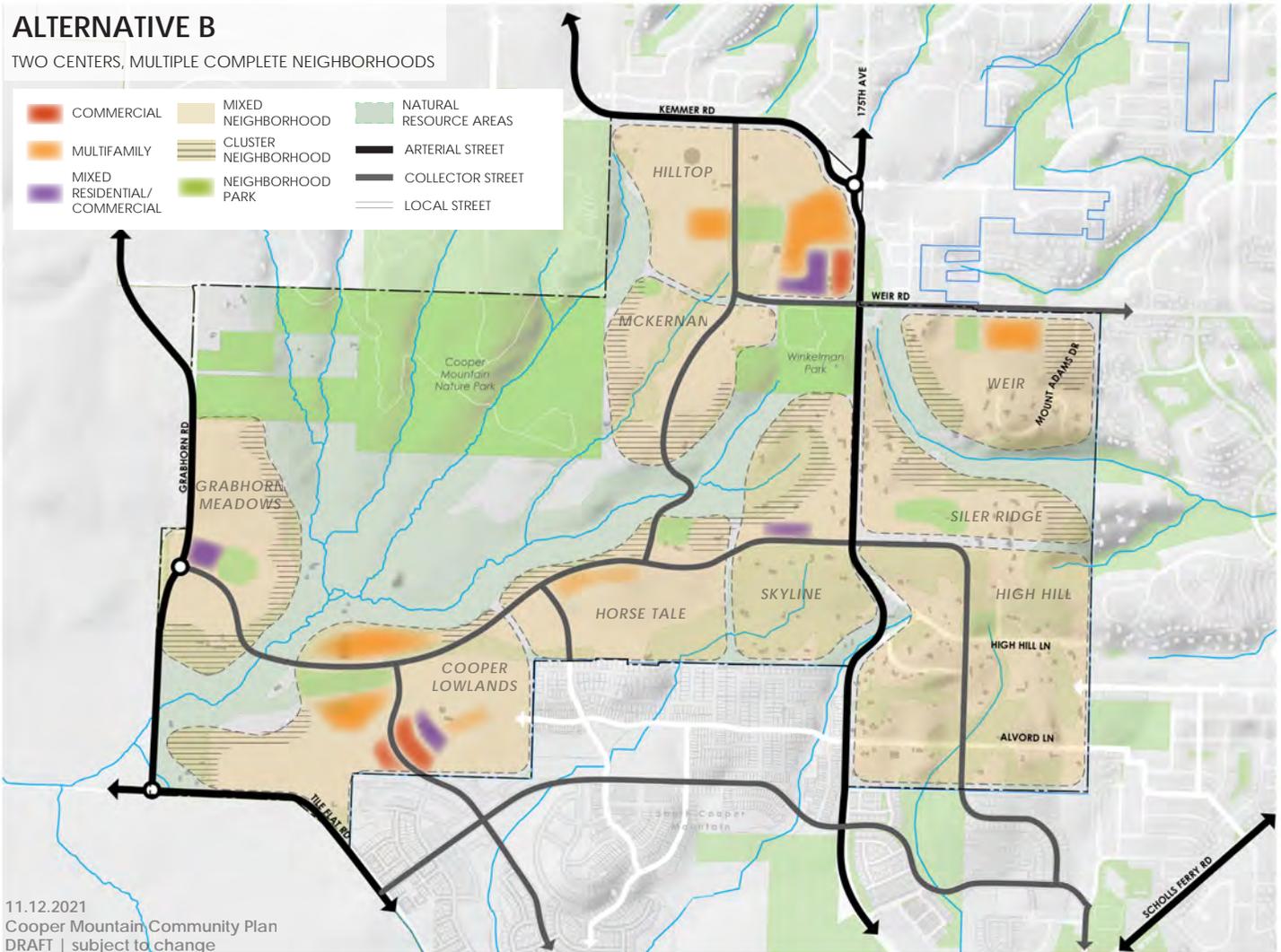
development review or master planning. As described further below, the alternatives differ in their connectivity for collector streets. However, it is important to note that pedestrian and bicycle connections would be provided between all neighborhoods when streets do not connect through. For example, two pedestrian-bicycle bridges are assumed across McKernan Creek in Alternative C.



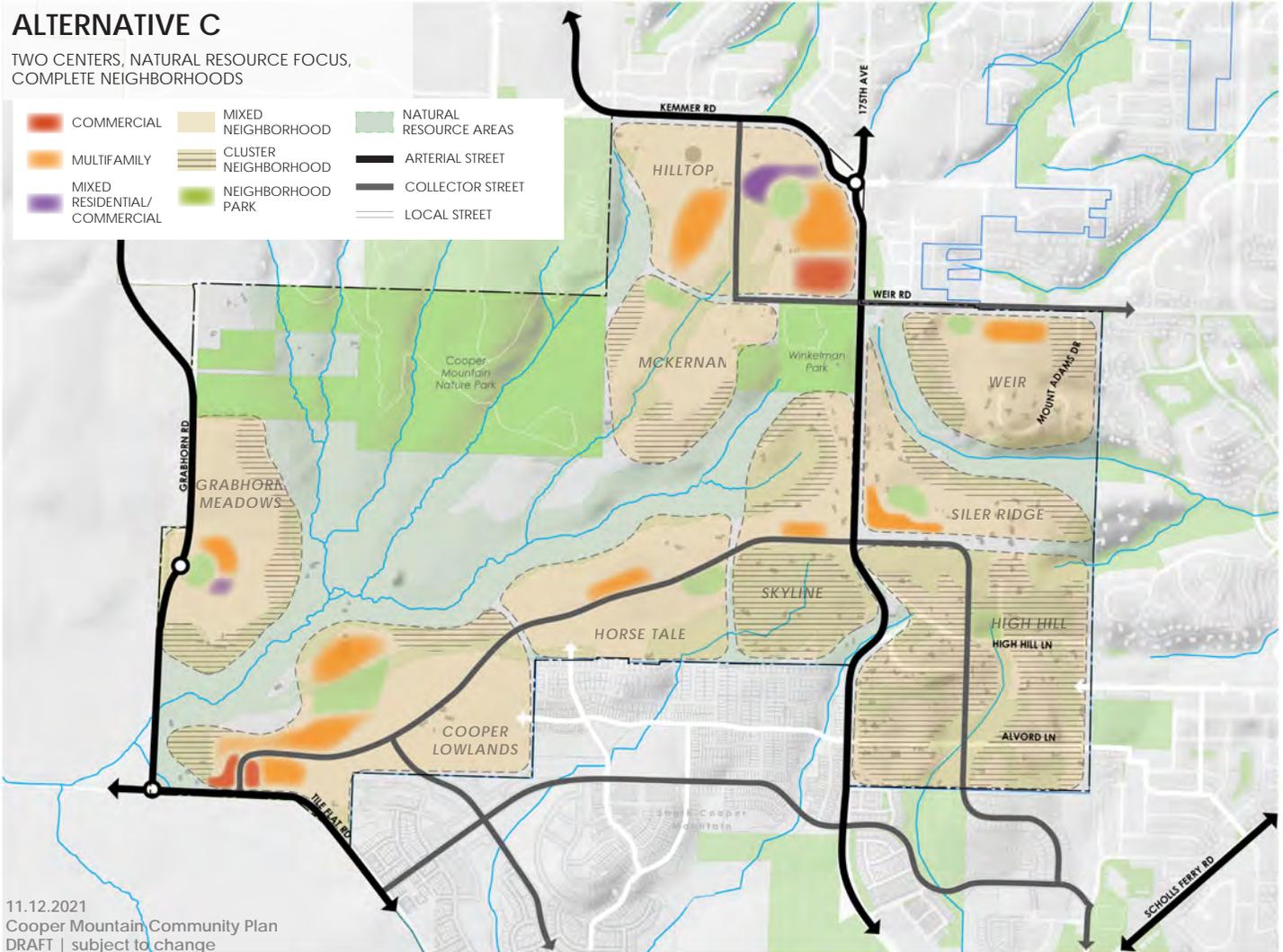
Alternative A would build Collector Routes 1, 2, 3, and 4. All neighborhoods are interconnected and provide alternative north-south routes to SW 175th Avenue for local trips. It results in two new vehicular crossings of McKernan Creek and one vehicular crossing of Summer Creek. Pedestrian routes, bicycle routes, and trails would connect all neighborhoods.



Alternative B would build Collector Routes 1, 3, and 4. The southern part of Route 2 would likely be built as a local neighborhood route. The Hilltop, Weir, and McKernan neighborhoods have alternative north-south routes to SW 175th Avenue for local trips. This alternative results in one new vehicular crossing of upper McKernan Creek and one crossing of lower McKernan Creek to Grabhorn Meadows. Pedestrian routes, bicycle routes, and trails would connect all neighborhoods.



Alternative C would build the southern parts of Collector Routes 1, 3, and 4 (south of the creeks). The southern portion of Route 2 would likely be built as a local neighborhood route. The Hilltop, Weir, and McKernan neighborhoods would rely on SW 175th Avenue for local north-south trips. There would be no vehicular creek crossings of Summer Creek or McKernan Creek (i.e. no vehicular connection to the Grabhorn Meadow neighborhood other than via Grabhorn Road). Pedestrian routes, bicycle routes, and trails would connect all neighborhoods. Alternative C is designed to minimize the impact on natural resources by focusing the new collector routes to the south of the creeks and major resource areas.



What have we learned?

The three collector street alternatives have different impacts on natural resources.

- **Alternative A** has the highest impact on natural resources (as a trade-off to its higher vehicular connectivity) because it has more area dedicated to roads and includes three new creek crossings (two across McKernan Creek and one new crossing of Summer Creek).
- **Alternative B** does not include the northern part of Route 2 (Summer Creek crossing), so its natural resource impacts are less than Alternative A.
- **Alternative C** has the lowest impact on natural resources (as a trade-off to its lower vehicular connectivity) because it focuses the collector system south of the creeks, with no vehicular creek crossings. As noted,

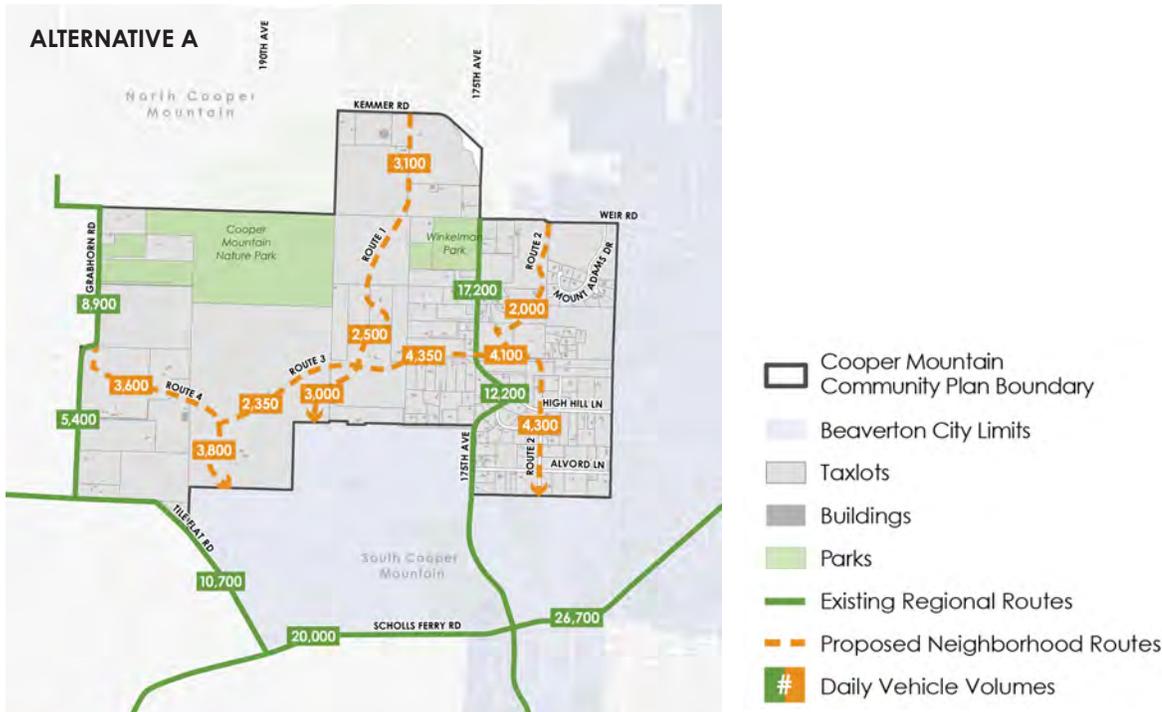
pedestrian and bicycle connections (including bridges) are assumed to be built where collector streets are not provided. The off-street path in upper McKernan Creek would be approximately 1,200 feet in length, as measured from the southern end of the McKernan neighborhood to Route 3.

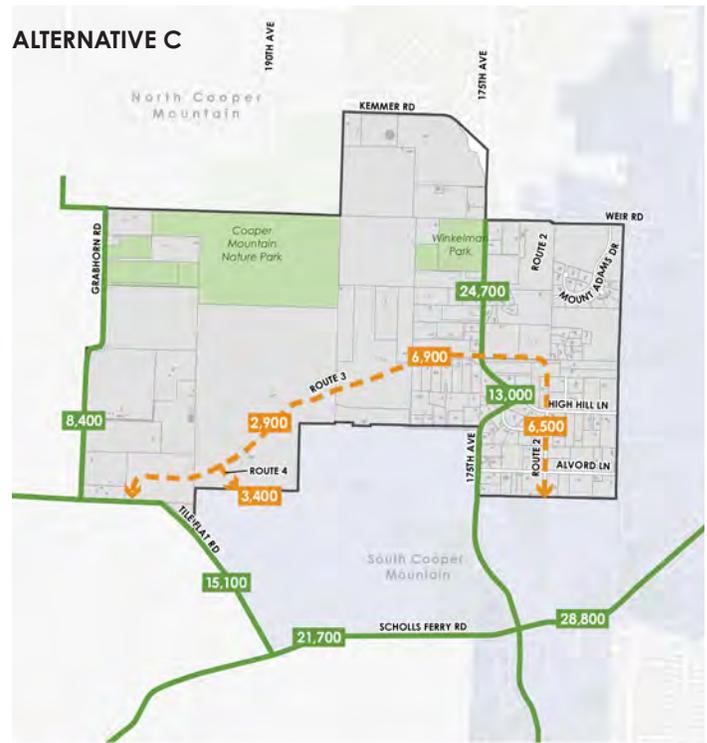
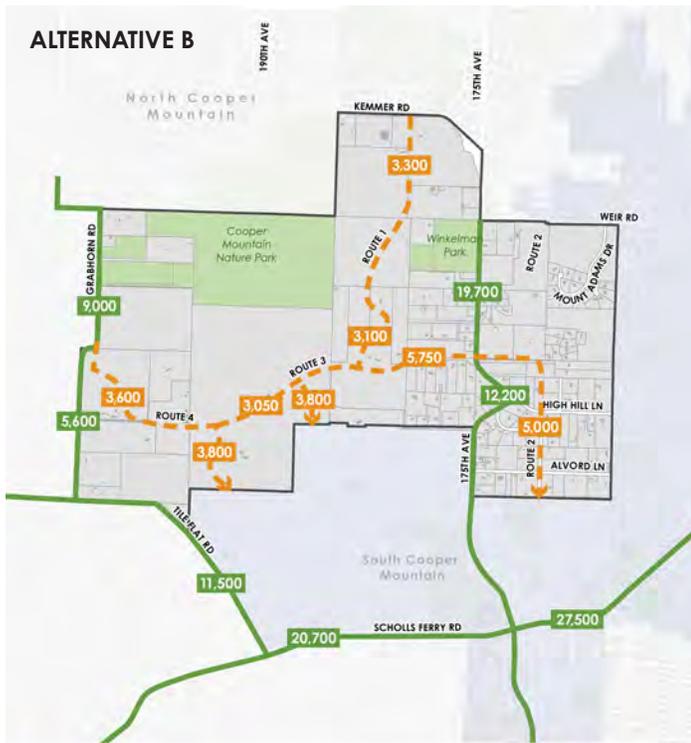
A transportation impact “Sensitivity Analysis” was conducted to evaluate the differences in vehicular trip distribution between the three alternatives (see Technical Appendix). In addition to the three alternatives, a fourth conceptual option (Alternative B's collector network with Alternative C's land use) was also evaluated. Key findings include:

- The proposed collector routes (all three alternatives) will serve primarily local trips

and inter-neighborhood connectivity. Regional through-trips will still utilize the arterial network of SW 175th, Tile Flat, and Grabhorn Roads.

- The three alternatives have very different outcomes for their impact on the arterial system, depending on where trips are measured. In general, Alternative A has the most inter-neighborhood street connectivity and therefore the least potential for local trips to use the arterial streets. Alternative C has the least inter-neighborhood street connectivity and the highest potential for local trips to use the arterial streets. The number of total housing units is higher in Alternative C, which also contributes to the higher number of vehicular trips documented in the analysis.





The Sensitivity Analysis memo also observes:

- “If fewer collector routes are provided and the intensity of land use increases (Alternatives B and C), some routes (particularly Route 2 and 3) will carry slightly more traffic on collector roadways but will be well below the maximum recommended traffic volume of 10,000 trips for a two-lane collector.”
- “Beyond the traffic modeling, the corridors provide several benefits to the Cooper Mountain community, including resiliency, multi-modal alternatives, connectivity, and equitable access. The resultant connected network also increases the options for transit to serve the area in the future.
- “The corridors will also provide pedestrian, bicycle, and emergency

vehicle access to and through Cooper Mountain. Compared to the arterials, well-designed collector roadways can provide a more comfortable user experience and a lower level of stress for cyclists and pedestrians. They allow direct access between neighborhoods, which results in shorter local trips compared to have to drive “out and around” using an arterial such as SW 175th Avenue. More direct connectivity will reduce circulation around the area for many travelers, which will reduce total vehicle miles travelled – a positive outcome from the perspective of reducing climate change impacts.”

Regardless of what collector alternative is selected, a highly connected and well design system of pedestrian

and bicycle facilities will be needed. In addition to a strong commitment to active transportation (e.g. transit, walking and biking), measures will be required to ensure safety and operational measures are implemented, particularly for the arterial improvements.

The Cooper Mountain Utility Plan is evaluating different utility alignments based on the three collector route alternatives. Where there is potential for creek crossing, a street bridge is generally a better option for utilities than no bridge or a pedestrian bridge. Utility planning is ongoing and more coordination will occur as the project moves forward.

Funding will be a key consideration for the various collector options.



Implications for the Plan

Which alternative, or hybrid of ideas, best implements the project goal for transportation?

Key considerations, choices and trade-offs include:

The pedestrian, bicycle and trail plan:

The plan for safe and comfortable connections within and between neighborhoods – both on-street facilities and off-street trails – is more of a constant across all alternatives than a set of options. Specific issues include:

- Additional trail access to the Nature Park – Continued discussion is needed regarding whether a southern trail connection should be planned into Cooper Mountain Nature Park. Managing access to the Nature Park will help minimize impacts to wildlife and natural resources. However, the neighborhoods south of the Nature Park will be densely populated and it may be difficult to prevent people from blazing their own trails.
- Implementation of pedestrian-bicycle bridges – In alternatives where collector streets do not cross McKernan Creek (2 locations) and Summer Creek (1 location), the intent is to provide pedestrian-bicycle bridges. Such

improvements will require a focused implementation effort to ensure safe and convenient connections between neighborhoods for people walking or biking.

Transit: For the reasons discussed above, Alternatives B and C have higher levels of potential transit ridership and a greater number of transit destinations. However, Beaverton will advocate for future transit service under all of the alternatives, including Alternative A. Regardless of other land use and transportation decisions taken in this plan, the city will continue to coordinate with TriMet about the possibility and implementation of future transit through the area. Mobility hubs are a relatively new concept for transportation planners – they are an idea for the city to consider in plan implementation.

The collector network: The extent and alignment of new collector streets is a very consequential issue for Community Plan. The key choices and issues, organized by route, are listed below.

- Route 1 – Should the middle section, between Route 3 and the Weir Road extension, be included in the plan as a collector street? Key considerations are:

- The primary benefits of making the connection are inter-neighborhood connectivity, fewer local trips on SW 175th Avenue, and a continuous parallel route from SW Kemmer to SW Scholls Ferry Road. The utility team has mentioned potential utility routing benefits as well.
 - The primary drawbacks of making the connection are environmental impacts from the creek crossing, road development in a relatively steep area, and the additional costs associated with the bridge and adjacent roadway sections.
 - If this section is not built as a street, the city would plan and implement a pedestrian-bicycle connection with bridge.
- Route 2 – Should the northern section, between SW Siler Ridge Road and SW Weir Road, be included in the plan as a collector route? Key considerations include:
 - Transportation analysis shows the northern section of Route 2 to be relatively unimportant to inter-neighborhood connectivity and reduced



reliance on SW 175th Avenue.

- The steep slopes and environmental impacts are high compared to the transportation benefit. Removing this connection may benefit the Summer Creek habitat area with little impact to the overall transportation system.
- Route 3 – Should this alignment be at the edge of the resource area (like Alternatives A and B) or shifted south to allow development on both sides of the street (as shown in Alternative C)?
 - Considerations include: the location of a potential water reservoir south of McKernan Creek; utility alignments; and the relationship to the McKernan Creek Greenway.
- Route 4 – Should the Route 4 crossing of lower McKernan Creek be included in the plan?
 - The primary benefit of making the connection is neighborhood connectivity between the Cooper Lowlands neighborhood, South Cooper Mountain, and the Grabhorn Meadow neighborhood. There is a location for the crossing that has an existing driveway – more study is needed to understand the pros and cons of this location.
 - Absent this connection, more people will use SW Tile Flat and SW Grabhorn Roads for local trips.
 - The main drawbacks of making the connection are impacts to high value natural resource areas and costs associated with the McKernan Creek bridge crossing.
 - If a street connection is not made, a pedestrian-bicycle bridge and connection would be built in its place.

Wildlife crossings – New bridges (vehicular or pedestrian-bike) should be designed for safe passage of wildlife. There are several potential locations: 2 along McKernan Creek; 1 along Summer Creek (although this crossing has a low need and likelihood for development); improvement of Grabhorn Road at McKernan Creek; and potential improvements along SW 175th Ave and Kemmer Road. The city will need natural resource expertise and consultation with agency partners to inform the engineering design process for road projects to ensure wildlife connectivity is maintained.



Places for Nature & People

How will we protect important natural resources and provide equitable access to nature?

Natural Resource Protection and Enhancement Strategies

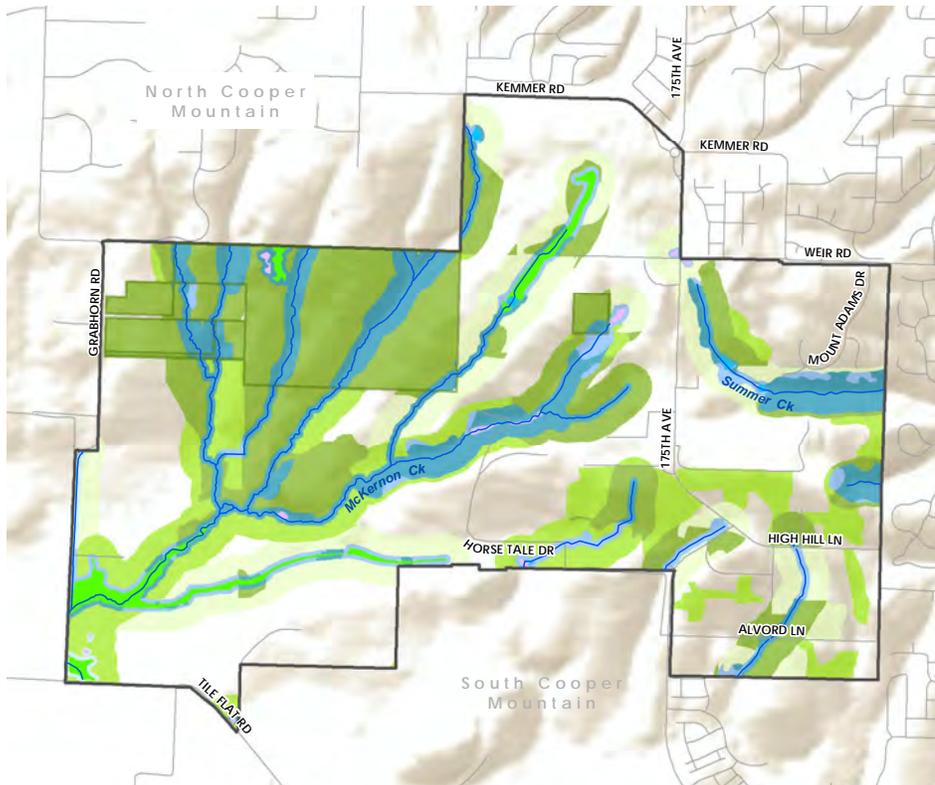
Cooper Mountain is home to many important natural resources, including sensitive riparian and upland habitat areas, wetlands, mature trees, McKernan Creek and its tributaries, the headwaters of Summer Creek, a network of wildlife corridors, and Cooper Mountain Nature Park.

Protecting and enhancing the unique natural environment of Cooper Mountain is a key element of this plan. As a baseline, identified riparian and upland habitats are protected in all three alternatives. Additionally, the plan anticipates protected wildlife corridors, creation

of the McKernan Creek Greenway, road crossings that accommodate wildlife passage, and access to nature throughout the plan. Alternatives B and C includes additional natural resource protection through clustering a residential development in selected areas of the plan.

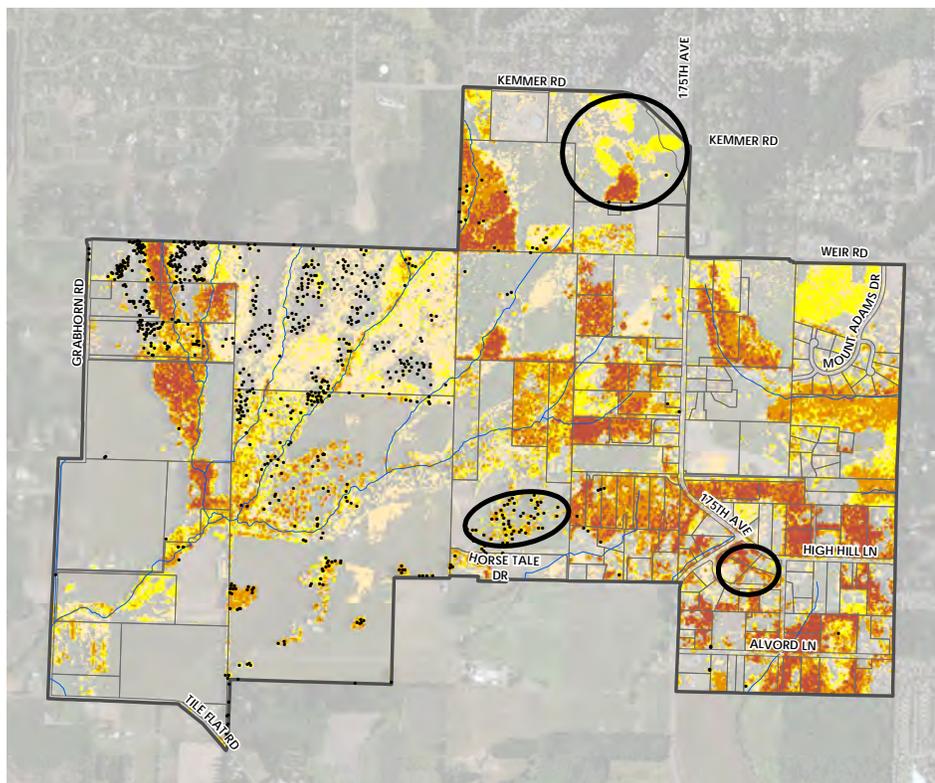


RIPARIAN AND UPLAND HABITAT



- Cooper Mountain Community Plan Boundary
- Riparian Wildlife Habitat Quality**
 - Class 1
 - Class 2
 - Class 3
- Upland Wildlife Habitat Quality**
 - Class A
 - Class B
 - Class C
- Metro Property
- LWI Stream
- Wetland
- Probable Wetland
- Open Water

TREE CANOPY HEIGHT & WHITE OAK LOCATIONS



- Cooper Mountain Community Plan Boundary
- White Oak Tree Location
- LWI Stream
- Taxlots
- Tree Height (ft)**
 - >20 ft to 40 ft
 - >40 ft to 60 ft
 - >60 ft to 100 ft
 - >100 ft (max. 174 ft)
- Trees no longer present
- Data Sources
 - Tree Height: DOGAMI Lidar Data, DEA
 - White Oak: Oakquest 2018 v.3 (databasin.org)

Stormwater Strategies

The city is taking a coordinated approach to preparing the Community Plan and Utility Plan, including innovative approaches to stormwater management. Managing stormwater in Cooper Mountain through a holistic approach will be a critical element of protecting the area's natural environment. Multiple stormwater strategies will likely be needed for Cooper Mountain. These strategies include traditional on-site detention for individual properties, regional ponds that serve multiple properties, and "Resilient Stream Corridors," which use natural processes to "slow the flow" of runoff.

A well-managed resilient stream corridor will prevent damage to sensitive habitat areas and utilities alike, while also creating new enhanced wildlife habitat and enabling wildlife movement through preserved corridors. Resilient stream corridors also have the

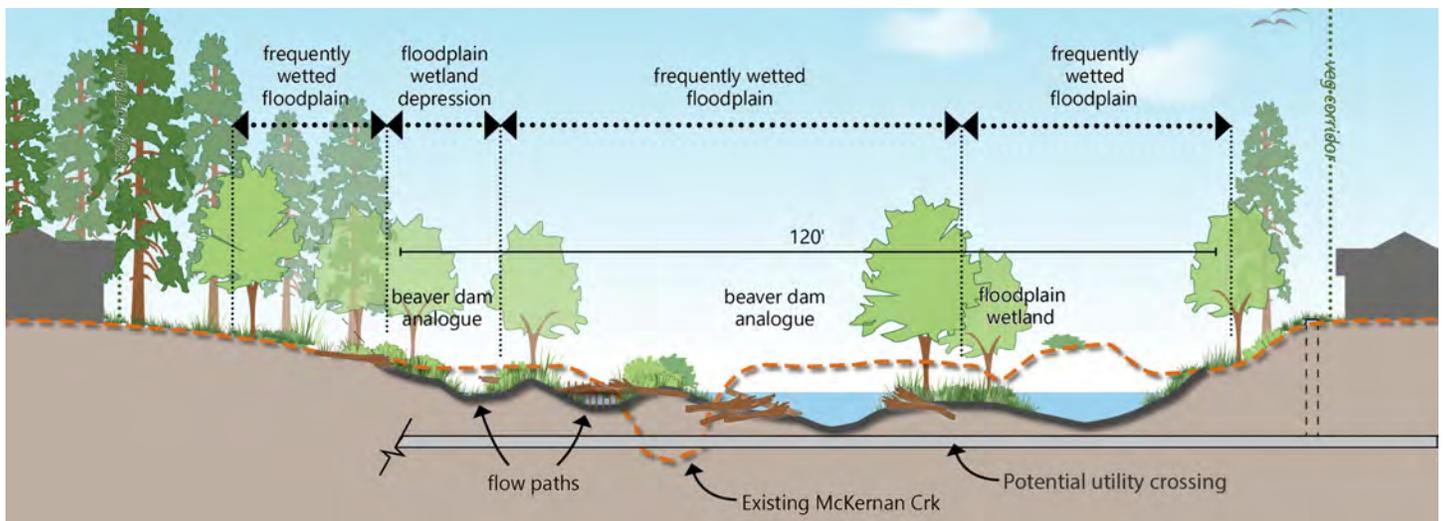
Traditional On-Site and Regional Stormwater Detention



benefit of providing access to nature for residents and visitors through well-placed trails and boardwalks that can be incorporated as part of the stream corridor. Alternative A assumes a "business as usual" approach to stormwater management

using traditional approaches like on-site detention and regional ponds. Alternatives B and C may also use these approaches, but they are also assumed to integrate the "Resilient Stream Corridor" approach to varying degrees.

RESILIENT STREAM CORRIDOR



What have we learned?

- Due to Cooper Mountain's recent history of farming, much of the area's remaining tree canopy is located along creek corridors, in and around Cooper Mountain Nature Park, and in areas with existing homes. Feedback received from the community so far has indicated that preserving existing mature trees and tree canopy is a priority. Tree preservation as part of development review, new street trees, new open spaces, and landscaping as part of slope protections can increase the overall tree canopy of many neighborhoods over time.
- White Oak trees are a particular priority for protection. Many of the White Oaks in Cooper Mountain exist in the Nature Park, though some small stands and individual mature trees remain elsewhere in the area. An inventory of Oregon White Oaks was created in 2018, but since that time many of the trees (outside of those in the Nature Park) have been removed—a process that is likely to continue unless the Community Plan makes a targeted effort to reserve them.
- The highest-quality habitat areas (Class 1 and 2 riparian areas and Class A and B upland areas) are protected from development by existing regional rules. Alternative C provides additional protection for habitat areas through buffers, where housing is “clustered” away from identified natural habitat areas. This approach reflects feedback received from the community that the city needs to balance development capacity with environmental protection.
- The lower part of McKernan Creek, at the confluence of the creek and its tributaries, is a particularly important location for natural habitat and a priority for protection. If the Route 4 collector is extended to SW Grabhorn Road, the crossing should be in the least impactful location (at an existing crossing point).
- Multiple stormwater strategies will be needed for Cooper Mountain, including some traditional on-site detention and regional ponds. These facilities could be co-located with other utilities such as parks and trails to maximize the amenity and minimize costs. Some locations in Cooper Mountain may benefit from wider, enhanced stream corridors that are designed to accommodate stormwater, wildlife habitat, trails, and utilities; however, this approach may not be suitable for all properties.



Implications for the Plan

Which alternative, or combination of ideas, best implement the project goals for park opportunities?

Key considerations, choices and trade-offs include:

- **Tree Canopy:** The city could consider tree canopy goals for Cooper Mountain, potentially on a neighborhood-by-neighborhood basis, to acknowledge the importance of existing mature trees and areas of tree canopy as important natural habitats.
- **Stream Crossings:** Environmental considerations are part of the choices about which stream crossings should be built and how they should be designed. Any stream crossings—and especially the connection between Grabhorn Meadow and Cooper Lowlands neighborhoods that crosses the sensitive natural resources at lower McKernan Creek—should take into consideration the

movement of wildlife as well as people. Improvements to existing crossings, such as the one at Grabhorn Road, could also be considered to make them safer for wildlife. Alternative A would locate two new crossings of McKernan Creek – representing two new crossings along approximately two miles of total stream corridor. Alternatives C illustrates an approach that would emphasize natural resource values by not including the two crossings in Alternative A. The trade-offs to be weighed and balanced include consideration of natural resource impact, connectivity for vehicular movement (pedestrian/bike connections are assumed), routing of utilities, and funding for potential bridges.

- **Access to Cooper Mountain Nature Park:** Discussions to date have focused on trail connections to the Nature Park that are in the more northern areas of the plan. A trail connection

from the Cooper Lowlands neighborhood to the Nature Park was deleted because of the high resource values in the southern area of the Nature Park. To implement this choice, there will need to be management that prevents or mitigates future residents of the Cooper Lowlands area “blazing trails” into the Nature Park.

- **Stormwater:** The city will continue evaluating the resilient stream corridors approach for Cooper Mountain. Although the cost of resilient stream corridors may be higher initially due to the need for up-front public investment and land acquisition, the long-term benefits to the natural environment are significant. Co-locating stormwater facilities with other amenities such as parks and trails could provide a cost-sharing benefit. Ultimately, a combination of stormwater strategies will be needed to serve Cooper Mountain.



EQUITY LENS: Balancing goals related to the protection of natural resources with goals related to providing a variety of housing types in all neighborhoods is an important consideration, and a key trade-off to be evaluated through this community plan. For example, the High Hill and Skyline neighborhoods have significant amounts of existing tree canopy. Building new homes typically requires the removal of at least some existing trees. While there are workarounds, such as building or site design tailored to each site to preserve existing trees, these approaches typically add to development costs, thereby increasing the cost of homes for future residents. Equitable access to nature is another important trade-off to consider, particularly when thinking about future access to Cooper Mountain Nature Park. Preservation of important and sensitive natural habitats in the Nature Park will require careful management of trails and human access to the park.



Next Steps

How can you get involved?

We'd like to hear your thoughts on the three alternatives for Cooper Mountain. The results of this evaluation will be discussed with the Beaverton community in upcoming months. To learn about opportunities to get involved, visit www.BeavertonOregon.gov/CM or contact Cassera Phipps, Senior Planner, cphipps@BeavertonOregon.gov.

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