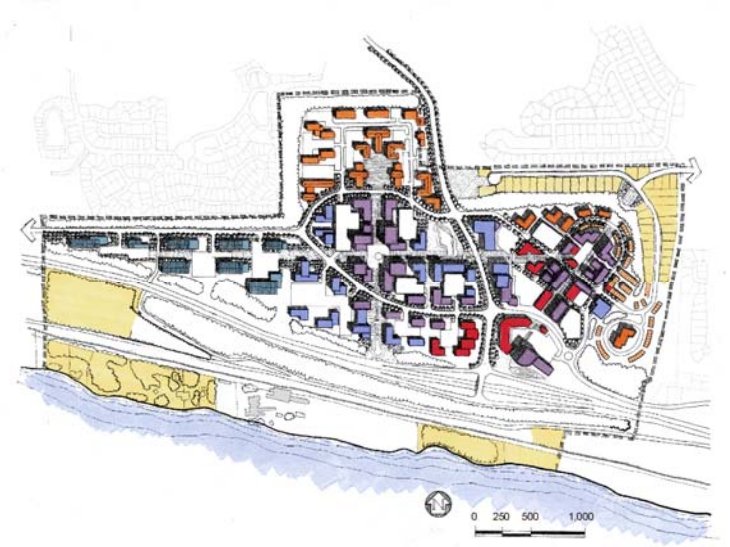
CITY OF VANCOUVER



Riverview Gateway Subarea Plan

February 2, 2009

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I. Executive Summary

Purpose of Plan and Vision

The SE 192nd Avenue/State Route 14 interchange serves as an eastern gateway to the City of Vancouver and surrounding areas. Access is available to downtown Vancouver, Portland airport, and fast growing areas of eastern Vancouver, Camas, and Clark County within minutes. The area's location and physical characteristics provide unique opportunities. North of the SE 192nd Avenue/State Route 14 interchange are the Fisher and WSDOT Quarries, a 186-acre mining site with sweeping views of the Columbia River and unique opportunities for urban development as they transition. South of the interchange is a wooded area including large lot riverfront properties, and the Columbia Vista Mill, all served by the Old Evergreen Highway.

The Riverview Gateway Plan is intended to capitalize on these existing strengths and future opportunities. Within the quarries, the plan envisions a future with a vibrant and urban mix of residential, commercial, office and employment uses, linked by a network of parks, trails, and open spaces with connections to surrounding neighborhoods. Riverfront lands south of SR-14 are intended to remain generally as they are, with opportunities for habitat conservation and trail access where feasible.

Figure 1 on the following page illustrates an example of how the site could be developed over the next 20 years consistent with the community's vision.

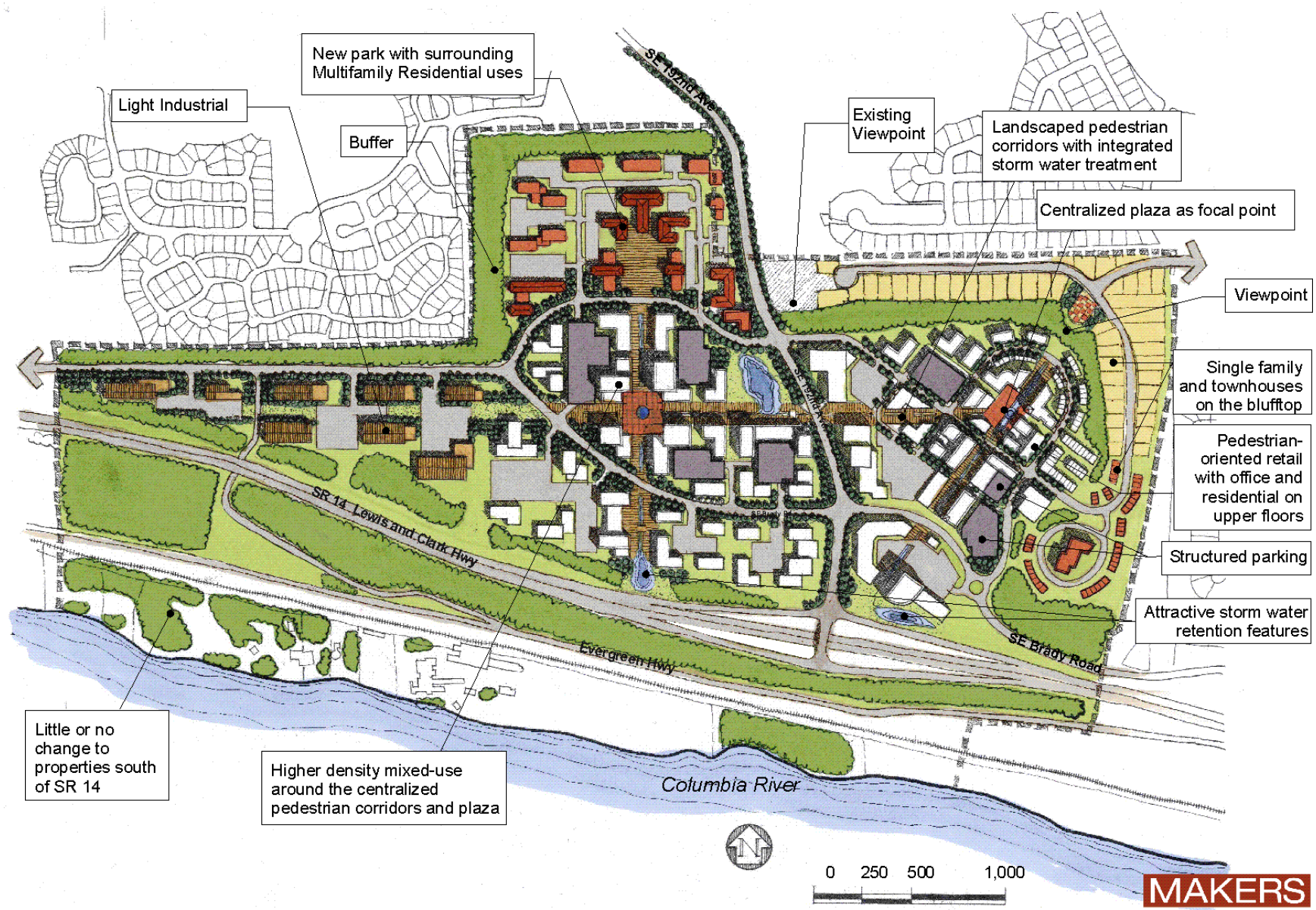


Figure 1. Riverview Gateway Plan Vision: An example of how the area could develop by 2030 consistent with the plan's vision.

Planning Process

The Riverview Gateway Plan was developed following a lengthy planning process. The area was originally designated as one of 15 Urban Centers and Corridors intended for focused planning in the Vancouver Comprehensive Plan in May 2004.

A community kick-off meeting was held in August 2006. A work plan was formulated and Makers Architects and Planners, the lead consultant, was hired in December 2006. The planning team conducted stakeholder interviews beginning in early 2007. Preliminary development alternatives were identified in spring 2007, and a second community meeting held in June 2007. A technical review was conducted by quarry owners and city staff to explore development options for the quarries in summer 2007.

A preferred alternative was identified in October 2007 and publicly circulated for comment, followed by a transportation and public service analysis, and plan refinements. A plan draft was created in summer 2008, and a third community meeting was held in September 2008. An analysis of environmental impacts pursuant to the State Environmental Policy Act (SEPA) and a determination of non-significance was also completed in September 2008 and circulated for comment. Public work sessions and hearings were held before the Vancouver Planning Commission and City Council in the fall of 2008. The Subarea Plan was adopted on February 2, 2009.

Throughout the planning period, information was made available and public comment opportunities were provided through emails, newsletters, and postings to the project website. Neighborhood meeting presentations were made before the Fishers Creek, Old Evergreen Highway, and East Old Evergreen Highway Neighborhood Associations.

Figure 2. Community open house in June 2007.

Figure 3. Provide a dynamic mix of uses.

Figure 4. Take advantage of river views.

Figure 5. Develop a network of trails.

Plan Concepts

The plan's vision emphasizes the following major concepts:

- **A dynamic mix of urban uses.** Providing a lively mix of uses within the quarry area with employment, housing, shopping and recreational opportunities in an urban-scale environment is a top priority. The area will include a full range of uses – from single-family housing in the northeast of the site to industrial uses on the western end. The plan requires the integration of pedestrian-oriented retail and entertainment uses with other activities to promote walking and a vibrant and safe environment. This subarea and its intended mix of uses will be critical to the City's long-term economic health and development.
- **Build on river views and quarry topography as a unique site amenity.** The quarry area is blessed with extraordinary views of the Columbia River and points beyond including Mt. Hood. The quarry activities themselves add to the drama by creating large "bowl" areas that orient towards the river. The cliffs on the north and eastern side of the quarry create a distinctive visual environment and an effective buffer between future uses and surrounding residential neighborhoods. Quarry slopes will be reclaimed once mining activities are concluded as required by state law. Altogether, these physical attributes provide an opportunity to craft a truly distinctive urban environment that takes full advantage of river views and area topography.
- **Connected network of attractive parks, open spaces, and trails.** Development of the quarry provides a rare opportunity to create a vibrant network of parks, trails, and open spaces running through the site and offering connections to surrounding areas. The plan calls for a trail and linear park encircling most of the quarry site along the bluff and portions of SR-14. A series of connected pedestrian/open space corridors will form the backbone of the site that the mixed-use development will be built around and benefit from. Within these corridors will be one or two centralized plaza spaces and a neighborhood park.

- **Efficient multi-modal circulation system**. Several circulation improvements are included to facilitate vehicle, pedestrian, transit and bicycle movement. Some recommended improvements are necessary to improve circulation around and within the planning area while other roads primarily provide access to new development and will be developed by the property owners. Because there is limited access to the site and that is via busy arterials and highways, the circulation system will emphasize pedestrian and bicycle travel and promote opportunities for transit use. This is in keeping with the vision of the area as a vibrant, self-contained urban community.
- **Encourage Low Impact Development Techniques (LID)** to manage storm water, enhance the ecology, and create a distinctive and livable urban environment. To be effective, environmental management and ecological enhancement activities should be combined in a comprehensive strategy that integrates LID techniques to more closely emulate the natural hydrology.
- **Protect the Columbia River Shoreline.** No significant changes in land uses are envisioned south of SR-14 and there will be no public access between the Riverview Gateway area and the riverfront in the immediate future, although water access is desirable in the long term. The Columbia River and trees along its shoreline are important visual resources for the gateway development as well as important to the ecological function of the river. Protection of these natural resources is an important component of the plan.

Figure 6. Design streets and land uses to accommodate transit.

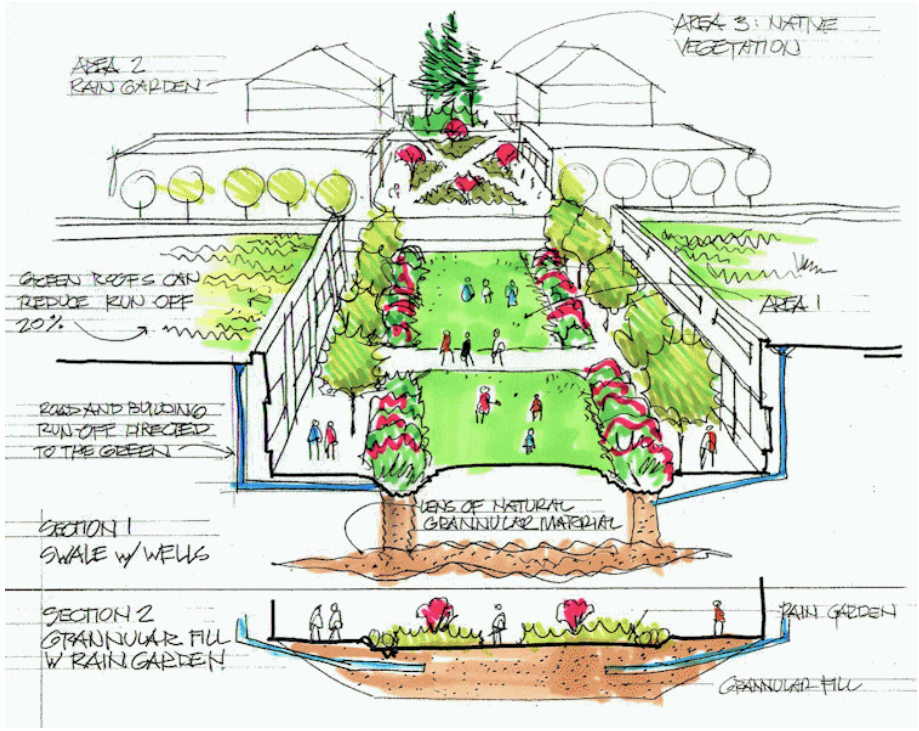


Figure 7. Encourage the integration of low-impact techniques to the envisioned open space corridors.

Phased Implementation of the Quarries

A site as large as this typically does not develop all at one time. The unique physical characteristics combined with the consolidated ownership and provisions allowing for ongoing quarry activities will require a phased approach to the development of the quarry areas. The Riverview Gateway Subarea Plan, Plan District, and Design Guidelines provide the framework for development of this area over time. While development will ultimately be driven by the private property owners of the subarea, ongoing coordination and participation by the City will be critical to achieving the vision for the area.

Coordination of phased development to achieve the subarea plan vision is much easier if owners prepare and execute a master plan to guide the process over time. Since neither of the two owners are ready to begin redevelopment at the time of adoption of this plan, master planning will be required prior to any new urban development or use. Preparation of a master plan for the entire area is encouraged, but at a minimum, master plans must cover the full Fisher or WSDOT quarries identified on Figure 10.

Master planning is also necessary to ensure that the desired mix of uses fit well together. Mining activities will continue on at least a portion of the site for more than a decade, and could continue on up to 30 acres indefinitely. Master planning is necessary in order to ensure that there is appropriate buffering between resource extraction and redeveloped areas.

II. Plan Context

Project Site and History

The project area consists of two distinct areas near the Columbia River in eastern Vancouver. Immediately north of SR-14 along SE 192nd Avenue is a 186-acre rock quarry, which is excavated below its surroundings. The western half of the quarry is owned by Pacific Rock Products, a subsidiary of CEMEX, and is usually referred to as Fisher Quarry. The eastern half of the quarry, which includes lands on both sides of SE 192nd Avenue, is currently owned by Weston Investments, and is known as the WSDOT Quarry after its previous owners. It has previously been referred to as the Smith Quarry.

Figure 8. Aerial perspective of the quarries as seen from the east.

Immediately south of SR-14 are larger, heavily wooded residential lots and open spaces adjacent to the Columbia River, and the Columbia Vista Mill, a specialty lumber mill with docking facilities. These properties are accessed by the Old Evergreen Highway, a two-lane roadway.

The site's location has played a major role in its history. Riverfront development and mining in the quarry dates back over 100 years under various ownerships. The area has served as a major source of materials for road construction, and of jetty rock used for building seawalls, including the jetties at the mouth of the Columbia River. Much of the quarry material has been transported via barge on the Columbia River, from a landing at the Columbia Vista Mill site, which began operation as a wood-processing mill in 1956. The Old Evergreen Highway was originally constructed in the 1920s. The other major roadways currently serving the subarea are newer. SR-14, originally known as the Lewis and Clark Highway, was constructed in its present freeway form in the 1950's. SE 192nd Avenue, and its intersection with SR-14, was constructed in 2006.

Figure 9. Columbia Vista Mill.

Figure 10. Riverview Gateway planning area and quarry sites. The arrows and corresponding numbers refer to the location and views of the photos in this report (by figure numbers).

The planning area is in the process of completing annexation to the City of Vancouver. The eastern WSDOT quarry was annexed to Vancouver in July 2005. Fisher Quarry and the subarea plan lands south of SR-14 received a formal Notice of Intent to annex in August 2006. City staff are currently working with property owners to acquire the required level of support to complete the annexation process.

Mining activity in 2008 is primarily focused on rock excavation in the eastern quarry by Rinker Materials, under an agreement with Weston Investments. Excavation occurs primarily by blasting of explosives, for which Rinker Materials provides advance telephone notice to surrounding residences. Most excavated materials are processed through an on-site rock crusher, and eventually transported from the site for road construction purposes. A limited amount of ornamental rock is also being quarried.

Figure 11. Quarry activities will continue on some portions of the site

Surrounding Neighborhoods

The project area is nestled within a predominantly residential area at the southeastern edge of the City of Vancouver bordering Camas. To the northwest, north, northeast and east of the planning area are newer single-family residential subdivisions, somewhat isolated from the site due to their higher elevation. Directly north of the planning area along SE 192nd Avenue are open areas, and residential and commercial developments leading up to the Hewlett Packard campus north of SE 34th Street. Abutting the southern end of the planning area to the east and west along the Columbia River are wooded, large lot residences.

Figure 12. Adjacent single-family neighborhoods.

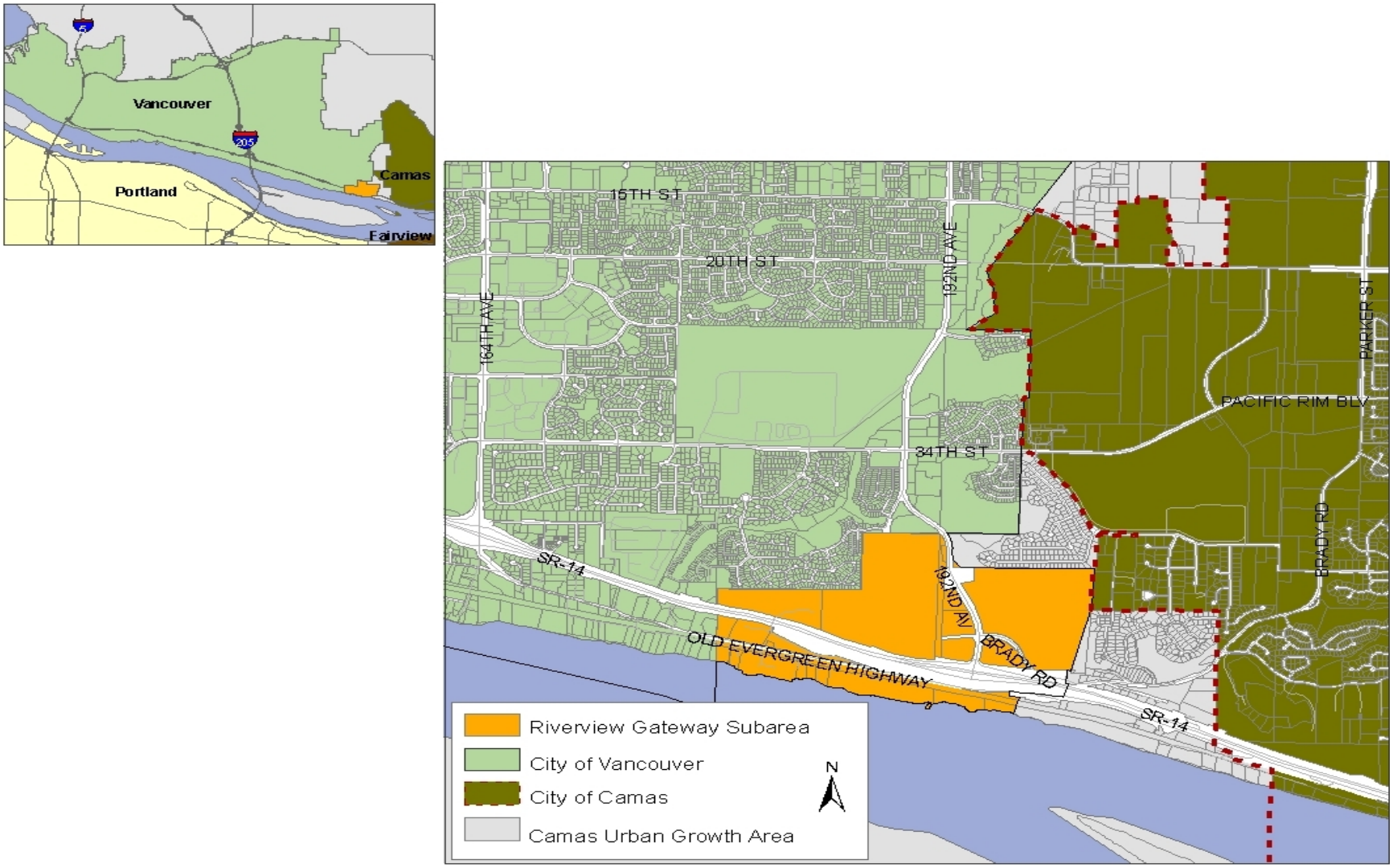


Figure 13. Riverview Gateway Subarea within the larger region.

Market Conditions and Projections

Although real estate development and investment activity has slowed at present, the site has locational advantages and desirable characteristics that would be valued by multiple uses in the near future and for the longer-term. The large size of the site presents a rare opportunity for development amidst growing urban areas.

Residential

Residential demand has been strong in recent years for multiple housing products suitable for the site. Recent financial market problems and subsequent changes in markets and financing programs have resulted in slower growth in housing prices and fewer transactions. The Vancouver-Portland region remains a desirable place to live with a strong growth outlook, and the regional housing market has fared better than many areas in the country.

Population growth and household formation have continued to be strong and forecasts show continued long-term growth in the region. This site's slopes and views offer a range of potential housing options that would blend in well with a mixed-use plan and provide a good buffer to single-family housing surrounding the site, primarily to the north. The slopes may also offer more affordable structured parking solutions.

Retail

Rapid household growth in the county continues to drive retail development. Retail absorption and rental rates are high in the market. The site's visibility from the highway and proximity to housing growth would be valued highly by retailers. Higher-value retailers could be attracted to the location by the presence of more up-scale residential and office uses. Furthermore, retail and entertainment uses play an important role in increasing the activity and vibrancy of a community, and thus can support the value of other uses through their presence.

Office

Conditions appear favorable for continued consideration of office development and business parks. Decreasing vacancy rates for office and business parks region-wide, combined with increasing employment trends suggest strong long-term demand for employment centers.

Rapidly growing occupations in computers and mathematics suggest a strong labor supply for Information Services and computer-related divisions of other sectors. Tech employment at the site would complement similar activity nearby in the eastern portion of the City.

The office market in Vancouver is smaller and commands lower rents than in Portland. Office users might pay higher rents for high-quality space located in a vibrant new community with great views and other amenities.

Industrial

Industrial uses would value the site for its many connections to key transportation infrastructure. Regional freeway access and potential rail connections could serve heavier and light industrial needs. Market trends suggest current strong markets for industrial uses. Long-term forecasts, however, suggest that continued attrition of industrial-related sectors would challenge full absorption of a site this large. As the area develops into a more residential and commercial center, competition with other product types such as residential or office that can afford higher rents would also challenge the ability of industrial uses to develop on this site.

The site's ability to compete regionally for absorption in business and industrial activity will impact its viability. Portland's industrial and business parks, flex space, office space and retail activity are important to consider as market drivers and competitors. In particular, Vancouver areas east of I-5 could compete directly with Portland locations near I-205.

III. Plan Elements

This chapter describes the elements that make up the Riverview Gateway Plan. The elements include **Land Use and Urban Design**, **Transportation**, and **Open Space, Trails, and Public Facilities**. Each element includes a discussion of the overarching objective; relevant conditions, challenges, and opportunities; strategy; goals and policies; and recommended implementation actions.

Land Use and Urban Design

Objectives

Within the quarry area, the Riverview Gateway Plan includes compact future urban development with a well designed mixture of office, retail, housing, light industrial and open spaces and public uses. The uses will be linked within a walkable, pleasantly landscaped setting. These objectives are intended to help the area realize its potential as an attractive business and residential gateway to the City of Vancouver, and support the City's Comprehensive Plan goals encouraging efficient land use patterns that reinforce a sense of community, and can be readily provided with public services.

South of SR-14, the plan envisions maintaining current large lot residences and associated residential zoning, and allowing for continued operation of the Columbia Vista Mill in a wooded environment along the Columbia River. Opportunities for additional conservation or trail access will be pursued where feasible.

Figure 14. The Riverview Gateway Plan envisions a compact mixture of urban uses in a pedestrian-friendly setting.

Conditions, Challenges, and Opportunities

The site's location and unique characteristics provide great opportunities for a wide range of uses. However, there are a number of challenges associated with most of these uses for a variety of reasons. This section looks at the current conditions, challenges, and opportunities associated with the use types that are being considered for the subarea.

Figure 15. Office uses can be intermixed with retail.

Office Uses

The quarry site's location with great access to downtown Vancouver and Portland Airport and substantial view opportunities make it attractive to office uses. Office uses are a high priority of the City, which desires to achieve a better jobs-to-housing balance and has a Comprehensive Plan policy mandating no net loss of family wage employment capacity. There are a number of high-tech business parks in the suburban neighborhoods north of the site. Unlike those single use business parks, this plan requires integrating office uses with pedestrian-oriented retail and housing in a vibrant and more urbanized setting. With ever increasing fuel costs and an increasing desire to live, work, and play in the same community and/or neighborhood, it is hoped that this configuration will be successful in attracting office tenants.

Figure 16. The quarry sites provide an excellent opportunity for pedestrian-oriented retail uses, including restaurants, specialty retailers, and entertainment-oriented uses.

Retail

Although secondary to employment focus, the quarry sites present an opportunity to create pedestrian-oriented retail in a mixed-use setting. While the Riverview Gateway's location at the SR-14 and SE 192nd Avenue interchange would be attractive to traditional suburban retailers, participants in the planning process felt that the site was too valuable to allow such uses. Besides, there are already plenty of those types of development in the area. Within a mixed-use setting, there would be a greater opportunity for restaurants, specialty retailers, and entertainment-oriented uses. Larger retailers could be acceptable if their facilities are smaller scale and designed to successfully integrate into this mixed-use setting.

Housing

While both the City and surrounding neighborhoods offer plenty of housing, there is a desire for a greater mix of housing types – particularly in a setting that is pedestrian oriented and features a mixture of uses. Below are some key issues that have an influence on the type and mix of housing in the planning area:

- Accessible site. The planning area's location adjacent to SR-14 just east of Interstate 205 provides for great access to services, employment, and amenities within the region.
- Distinctive land forms and views. The topography of the quarry area provides considerable opportunities for housing. The bluff top lends itself well to lower intensity single family development and perhaps townhouses due both to the views and to adjoining single family neighborhoods. The quarry basin provides opportunities for a wide variety of housing types – from townhouses to mid-rise construction to take advantage of significant view opportunities. The tall height of the quarry walls ensures that in many places, buildings as high as 10 stories would not block existing river views from the bluff top. Also, quarry activities could be coordinated with the long-term development plan to maximize development opportunities – particularly with the configuration of streets and off-street parking.
- Community character. Since the surrounding area has been developed as a predominately low-density suburb, there are naturally concerns that more intensive multifamily development will change the character of the community. The contrast between the current character of the surrounding developments and images of the higher intensity mixed-use development envisioned for the quarry basin can be notable. The community character issue is particularly important on the edges of the site, which is addressed in the subarea plan through the location of residential uses at the northern border abutting local neighborhoods. Quarry site topography also serves as a visual and noise buffer to existing neighborhoods, and can moderate impacts of differing residential densities.

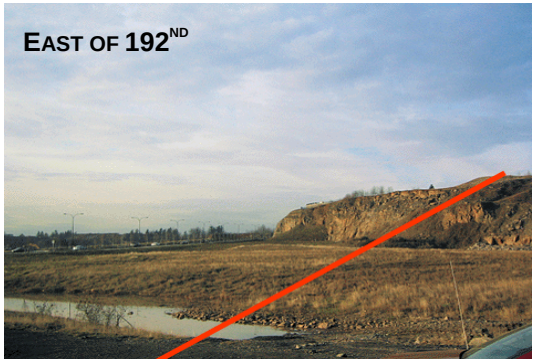
Figure 17. The quarry areas can accommodate a variety of housing types, including apartments over retail, low-rise multifamily buildings, and townhouses.

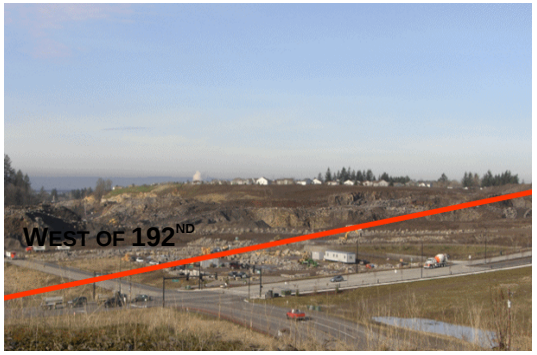
- Traffic congestion. Even with SR-14 and the recent SE 192nd Avenue extension, the area's roadway network and limited current public transit options, combined with increasing regional traffic congestion, have often created arguments in favor of limiting new residential development. On the other hand, the concentration of housing in a mixed-use configuration offers an opportunity to reduce the need for vehicular trips out of the City.
- Changing demographics and urban interests. There is strong interest in providing for a greater diversity of housing types from a multitude of viewpoints:
  - *Downsizing empty nesters.* Vancouver will see an increasing number of empty nester residents. Regional trends show that empty nesters are increasingly interested in downsizing to dwelling units in locations that are close to restaurants, parks, and amenities and without the large yard to maintain.
  - *Keeping young professionals in Vancouver.* Like most suburban communities dominated by detached single family housing, children who grow up in the community often leave the area once they enter the work force either due to lack of affordable housing options or lack of amenities (more often both). In this case, younger people often move to Portland's neighborhoods where there is a greater diversity of housing and significant public and cultural amenities. And now, younger people are increasingly moving to downtown Vancouver for the same reasons. This planning area provides an opportunity to provide the necessary diversity of housing and the urban amenities that young professionals are seeking.
  - *Local workers.* Current area workers and future Riverview Gateway area employees would like to live in this area – perhaps within walking distance of their jobs. This includes office workers as well as service workers, retail employees, and perhaps teachers, if a school is built in the area.

Figure 18. Emphasize design with interesting pedestrian spaces.

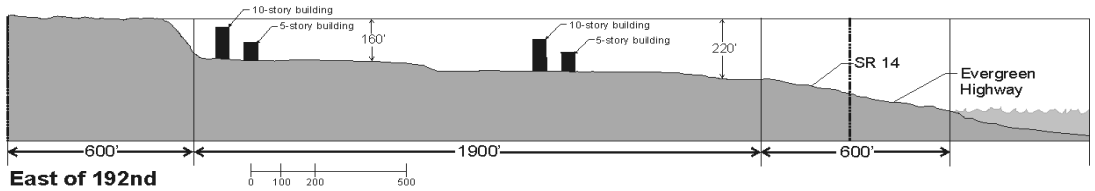
Development Character and Building Heights

The undeveloped quarry sites represent an empty pallet upon which there is a unique opportunity for the Riverview Gateway to develop its own distinct architectural character and style. Pursuant to the planning process, there is a strong interest in emphasizing design that is oriented to the pedestrian and represents an attractive gateway to the City of Vancouver. The quarry topography also provides an opportunity to develop taller buildings that can take advantage of views yet minimize negative impacts on adjacent properties. Figure 19 below illustrates the typical height of five and ten-story buildings with respect to the bluff height (typically 150 to 160 feet higher than the quarry basin). However, the Overlook park facility north of the WSDOT Quarry, and the potential trail along the Fisher Quarry northern bluff, and some of the homes behind it currently have scenic views or partial views. The views are of the quarries in the foreground, the Columbia River in the middle ground, and the Oregon horizon and in some cases Mt. Hood in the background. These amenities should be balanced with the overall subarea development vision.





Site Sections



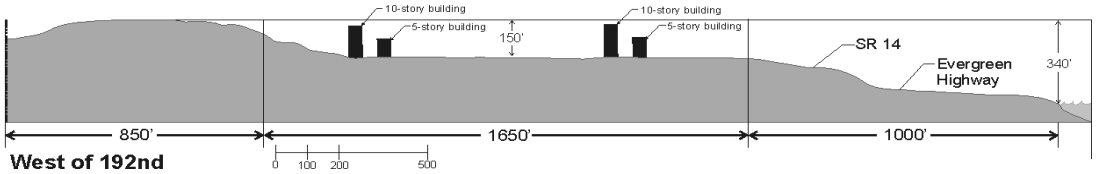


Figure 19. Illustrating typical height of buildings with respect to quarry bluff height.

Strategy

Master Planning For Quarry Sites

Creating a cohesive mixed-use development is much simpler if a single or small number of entities can design and construct the whole development. Coordinated planning will be necessary to, at a minimum:

1. **Construct an efficient roadway system and key external linkages.**
2. **Coordinate storm water management through an integrated regional system.**
3. **Integrate trails, open spaces, and pedestrian-oriented areas.**
4. **Locate higher intensity uses to minimize impacts and maximize compatibility.**

Therefore, the plan's implementation will require master planning prior to urban development in each of the quarry sites. (Note: Until urbanization occurs, currently allowed mining activities can occur without master planning, but will require review under Vancouver zoning standards). Each master plan must be consistent with the policy direction of the Subarea Plan, and must meet the specific requirements and standards of the Riverview Gateway Plan District (VMC 20.680). Illustrations of design techniques that can be used to meet these policies and requirements are contained in the Riverview Gateway Design Guidelines. These provisions were crafted to create a framework with flexibility in the configuration, intensity, and design of uses consistent with the plan's objectives. This approach is critical given the site's size, location, current quarry use, unique physical attributes, infrastructure needs, and ever changing market conditions and demographic trends.

Each resulting master plan will include information on key aspects of site development, including the following:

- Amounts and locations of proposed land uses.
- Roads and connections to activities.

- Open space and pedestrian connections.
- Surface water management facilities and practices.
- Maximum height and bulk of buildings.
- Landscape concept or guidelines.
- Architectural concept or guidelines.

The master plan will also include a process for amending the development plan to allow some flexibility as development proceeds.

Land Use and Zoning

Figure 20 shows the Comprehensive Plan designations for the Riverview Gateway planning area.

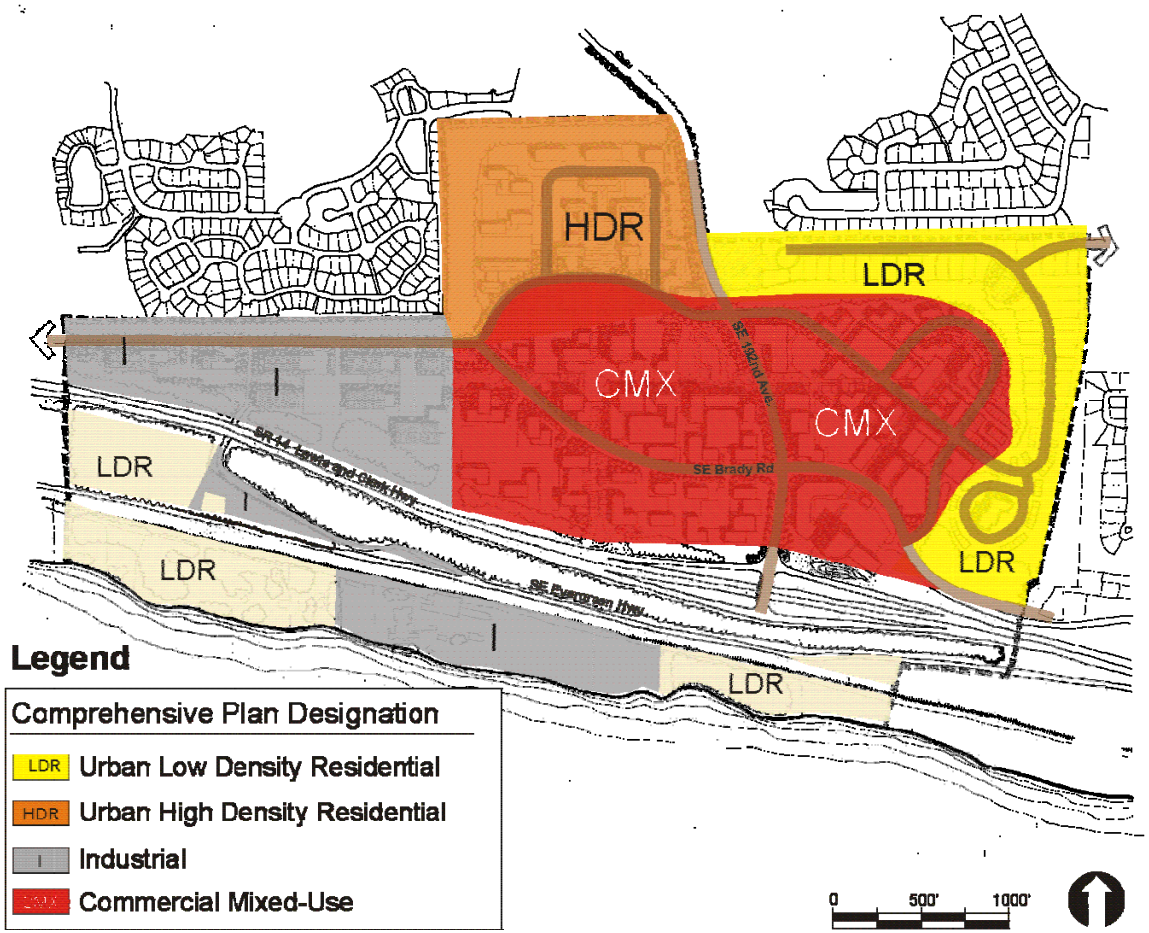


Figure 20. Proposed Riverview Gateway Comprehensive Plan designations.

A new plan district has been created for the quarry area north of SR-14. Master planning will be required to determine exact placement of uses, buildings, access and circulation, open spaces. Within the plan district, three subareas are envisioned, reflecting the Comprehensive Plan designations:

- Residential uses to the north and east, adjacent to existing neighborhoods;
- A high-intensity mix of commercial, office, residential uses and open spaces around SE 192nd Avenue; and
- Lower intensity industrial and office uses on the western edge of the site.

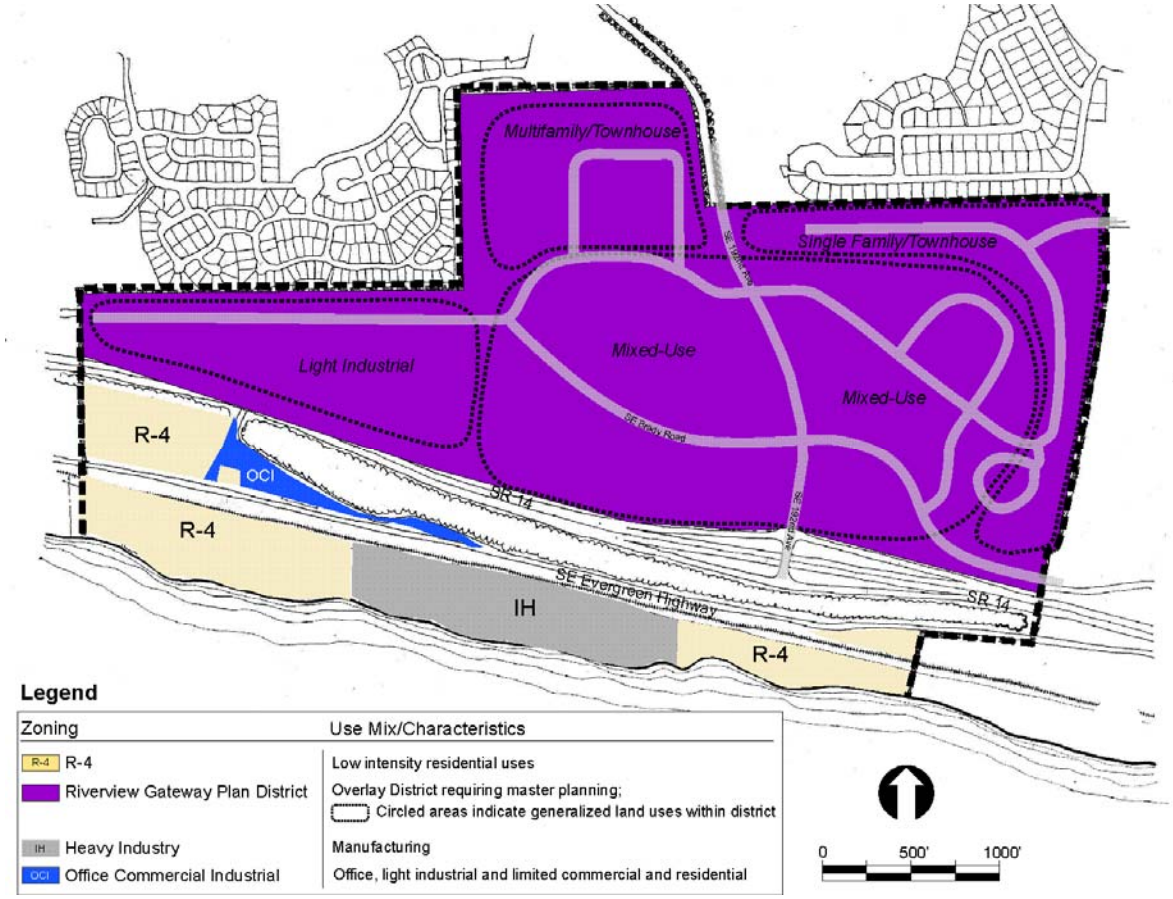


Table 1 on the following page shows the growth expected to result when the Riverview Gateway planning area fully redevelops as envisioned. More detail about the assumptions is provided in the appendices to this plan.

Figure 21. Proposed Riverview Gateway Plan zoning and subareas.

Table 1. Potential future development levels in the quarry sites.
(Estimated yields are for planning purposes, not minimum requirements.)

Fishers Quarry

AREA/DESIGNATION	ACREAGE	DEVELOPMENT INTENSITY						
		FAR[1]	Building SF				Jobs[2]	Dwelling Units[3]
			Com./Retail	*Office*	*Industrial*	*Residential*		
HDR (Residential)	19.0	0.76	0	0	0	620,730	0	346
CMX (Mixed-Use)	28.5	1.28	538,729	432,878	0	593,392	2,621	330
I (Industrial)	20.0	0.36	0	0	304,920	0	336	0
Subtotal	67.5	0.85	538,729	432,878	304,920	1,214,122	2,957	675
Park/Open Space	6.3							
Buffer	17.2							
Roads	10.0							
Total	100.0							

WSDOT Quarry

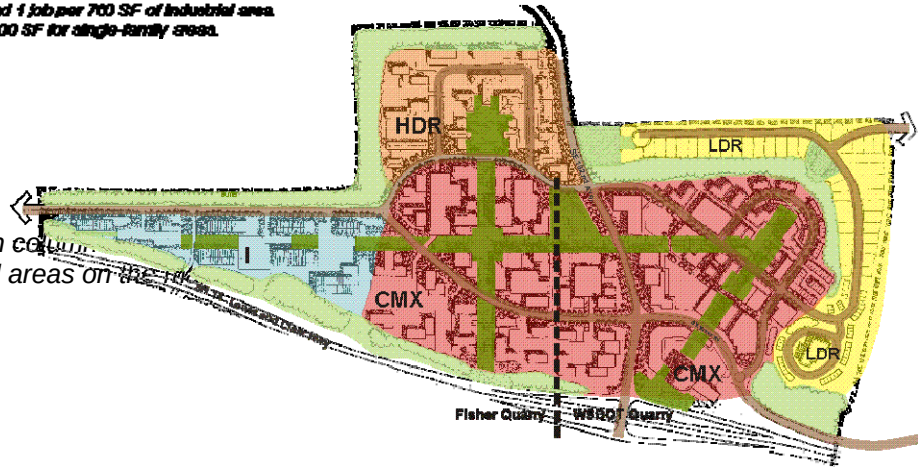
AREA/DESIGNATION	ACREAGE	DEVELOPMENT INTENSITY						
		FAR[1]	Building SF				Jobs[2]	Dwelling Units[3]
			Com./Retail	*Office*	*Industrial*	*Residential*		
HDR & LDR (Residential)	20.0	0.60	0	0	0	436,600	0	169
CMX (Mixed-Use)	36.0	1.08	768,726	426,630	0	470,400	2,966	281
Subtotal	56.0	0.86	768,726	426,630	0	906,000	2,966	450
Park/Open Space	4.4							
Buffer	10.8							
Roads	16.5							
Total	88.5							

Total Both Quarries	ACREAGE	DEVELOPMENT INTENSITY					
		Building SF				Jobs[2]	Dwelling Units[3]
		Com./Retail	*Office*	*Industrial*	*Residential*		
	186.5	1,307,455	861,508	304,920	2,120,122	5,923	1,125

Notes

1. *FAR refers to floor area ratio or the total building square footage divided by the square footage of the site.*
2. *Assumes 1 job per 300 SF of office building area, 1 job per 500 SF of commercial/retail area, and 1 job per 700 SF of industrial area.*
3. *Assumes an average gross dwelling unit size of between 1600 SF for mixed-use buildings to 3200 SF for single-family areas.*

Colors under the Area/Designation column correspond to colored areas on the map.



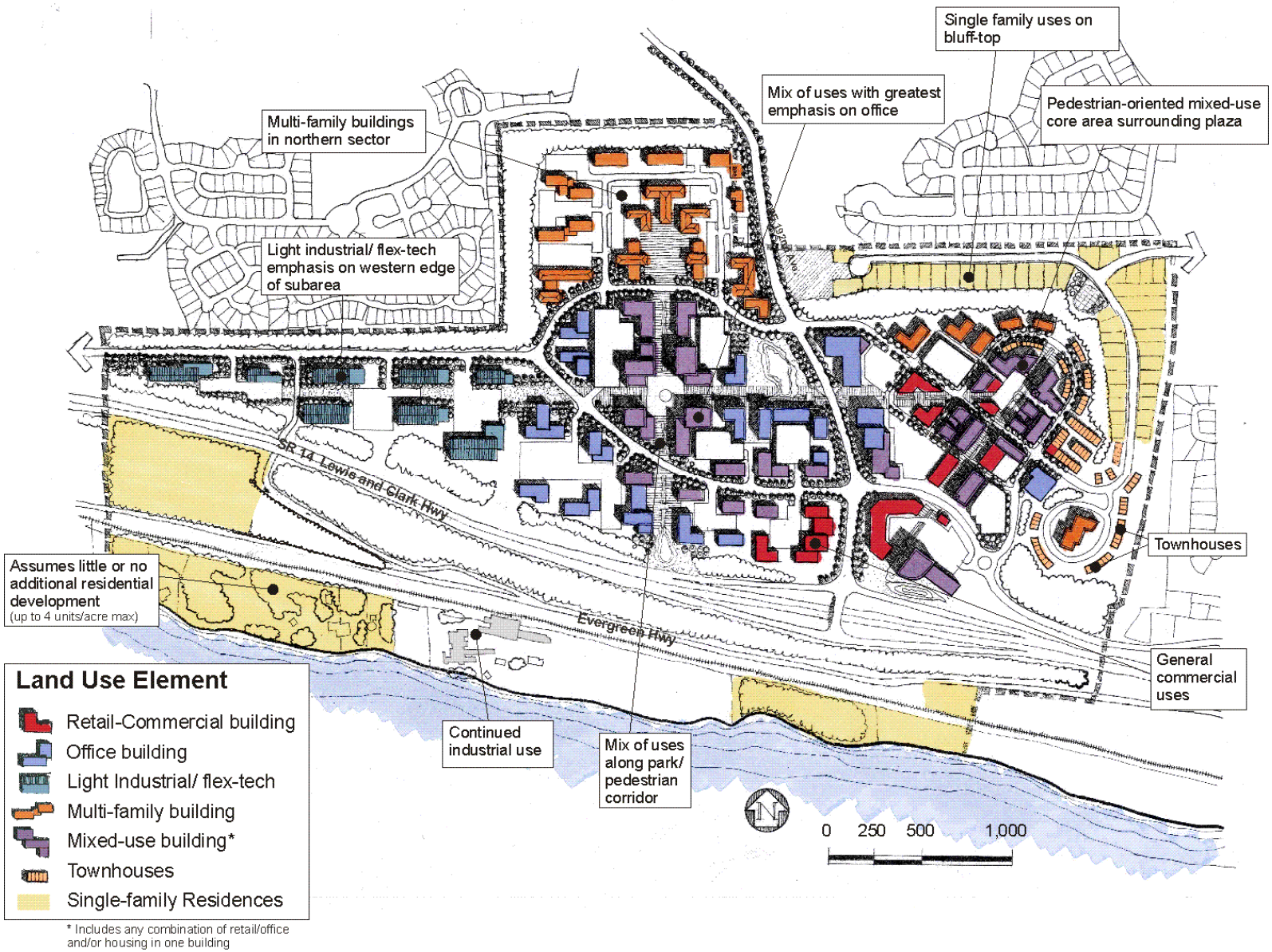


Figure 22. Envisioned land use configuration within the planning area. Specific building footprints are provided as an example.

Residential designations and uses specified in Figures 20 through 22 are sited along most of the northern and eastern edges of the quarries. The northern edge of Fisher Quarry provides a good spot for multifamily uses and townhouses, as they are buffered from adjacent single family uses by topography but would be walking distance to future commercial uses. Single family uses are most appropriate on top of the bluff east of SE 192nd Avenue, both for compatibility reasons (adjacent to other single family) and access limitations (which restrict most of the area in a long dead-end street). Townhouses are a good housing type option for the southern end of the bluff at the east edge of the WSDOT quarry, where they are closer in proximity to retail and mixed-use areas.

Figure 23. Single-family uses are acceptable on top of the bluff east of SE 192nd Avenue.

The areas around and east of SE 192nd Avenue should become the focal point for pedestrian activity in the quarry sites. A mix of commercial, office, residential, and other uses connected by open spaces corridors and an active pedestrian environment are envisioned. Mixing of uses is envisioned within individual buildings in some cases as well as among buildings throughout the site.

Figure 24. The plan envisions office buildings mixed with retail and multifamily uses in the core areas.

As noted above, some adjustments to configuration of uses are expected to occur through the master planning process to fit to the final roadway, trail, and open space layout, developer vision, and evolving market conditions.

Figure 25. The mixed-use area east of SE 192nd Avenue should become the focal point for pedestrian activity and feature a centralized plaza space.

Design Standards and Guidelines

In order to ensure that the quarry site achieves its potential and proposed uses are fully integrated, a short list of standards addressing key design-related issues is included in the zoning code requirements for the Riverview Gateway. These standards are part of the essential requirements that must be addressed in subsequent master plans for the site.

The mandatory code standards are supported by advisory design guidelines. The guidelines provide intent statements, additional design criteria, good and bad design examples, and plenty of illustrations. Applicants for master plans and subsequent developments will use the manual for guidance on how to comply with the standards. The manual will also provide design criteria for other ways of meeting the mandatory standards.

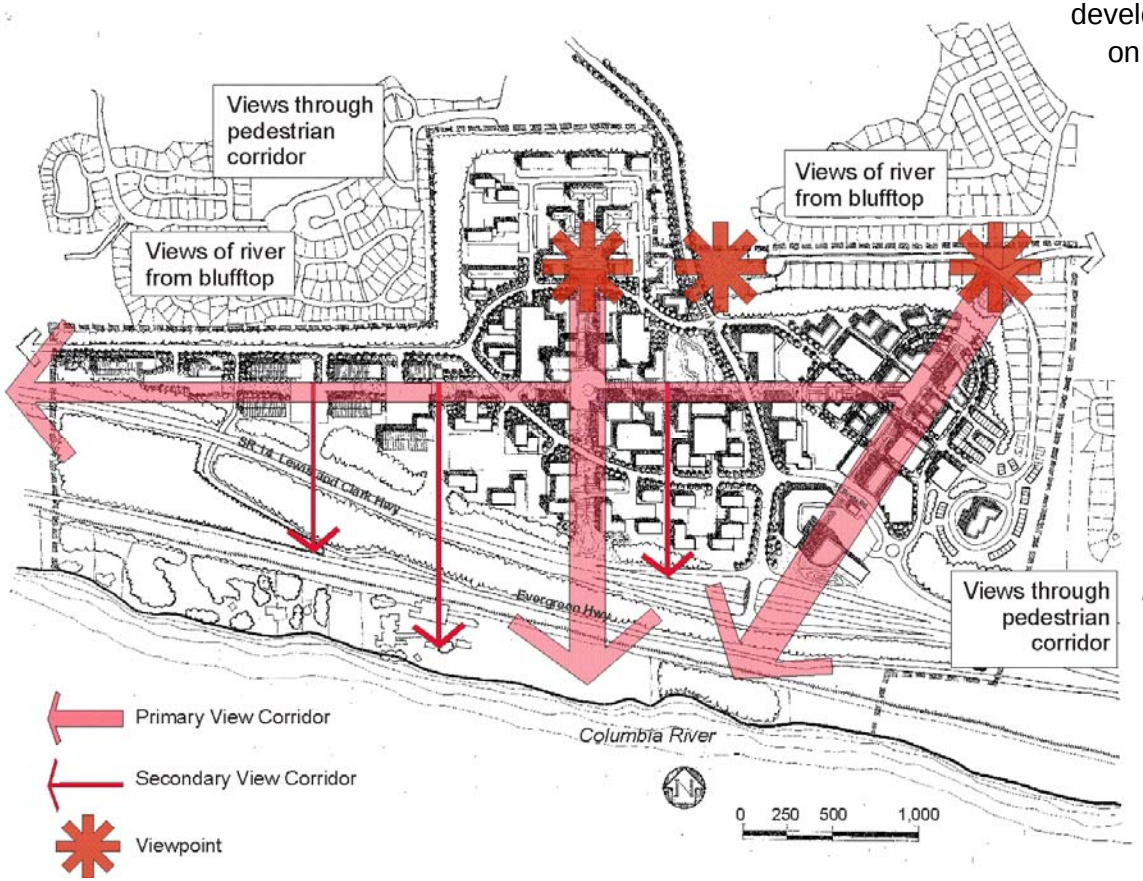


Figure 26. The open space corridors will also function as view corridors. Both of the north-south corridors will enhance river view opportunities for development. The east-west corridors provide a physical connection across the planning area and enhance solar access to uses. The design guidelines will provide criteria for meeting these view corridor objectives.

The quarry site's streets, trails, and open space network are the big picture items that frame development. The subarea plan emphasizes a hierarchy of attractive and connected streets (see the Transportation chapter for more details) and trails and a comprehensive system of usable open space that contributes to the development setting and helps to accomplish environmental goals (see the Environmental Chapter and the Open Space, Trails, and Public Facilities Chapter). These features may be refined at the master planning stage.

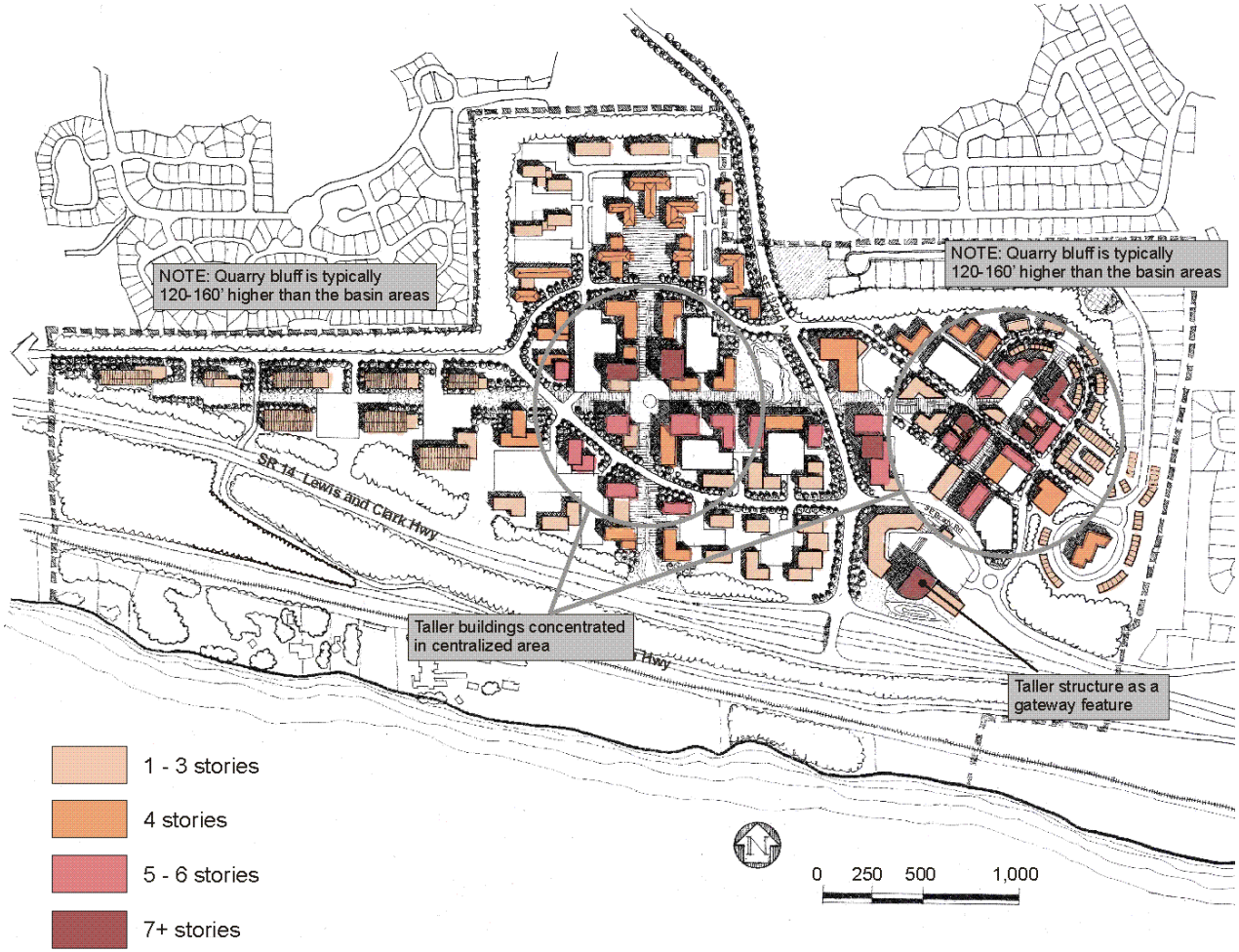


Figure 27. Conceptual building heights map. This example is intended to be a desirable configuration of building heights and not a specific requirement for the quarry sites' development. Specific limits based on elevation will be established by zoning standards.

Goals and Policies

Goal LU-1 **Promote the orderly transition from mining to a mix of uses on the quarry sites**

Figure 28. Promote the vertical mix of uses in buildings.

Figure 29. Provide a variety of housing types that complement the pedestrian-oriented mixed-use setting.

- Quarry use: Recognize the contribution of the quarries to the city's development and protect them as the site transitions to other uses.
- Mixed-use: Promote the vertical mix of uses in individual buildings in most areas. Allow for a horizontal mix of complementary uses in select areas.
- Professional office: Maximize opportunities for office development – particularly where it can be integrated with other uses.
- Light industrial: Allow for industrial uses, primarily in the western portion of Fisher Quarry, that provide moderate to high employment.
- Retail: Promote pedestrian-oriented retail integrated with office and/or residential. Place strict limitations on the amount of single purpose auto-oriented retail. Prohibit large scale retail uses unless they are successfully integrated into a mixed-use setting and served primarily by structured parking. Limit types of commercial uses to those supportive of desired pedestrian-oriented character of area.
- Residential: Provide for a variety of housing types. Single family detached and townhouses are appropriate for the bluff above the WSDOT quarry. Multifamily uses are appropriate for the northern portion of Fisher Quarry and may be integrated with retail and office uses in centralized areas of both quarry sites.
- Public/arts/cultural uses. Opportunities for art, learning, and cultural activities should be provided as part of the mix of uses.

Goal LU-2 **Promote water-dependent or water-related uses along the riverfront and other uses south of SR-14 that protect the area's sensitive natural resources and can be accommodated by the area's limited infrastructure**

- Encourage water related or dependent uses along the riverfront, consistent with Vancouver's Shoreline Management Master Plan.
- Protect existing industrial uses along the riverfront until and unless property owners choose to change.
- Maintain existing low intensity residential uses along the riverfront.
- Protect sensitive environmental conditions south of SR-14, particularly steep slopes, springs, creeks and riparian areas.

Goal LU-3 **Create a unique "sense of place" reflected in site design, building and landscape forms, and the public realm within the quarry sites and establish the area as an attractive eastern gateway to the city**

- Encourage compact and urban forms of development.
- Arrange building heights to maximize view opportunities in the quarries while minimizing visual impacts to surrounding properties.
- Provide for a hierarchy of integrated public and private open spaces throughout the area.
- Provide for centralized focal plaza spaces within mixed-use areas on each side of SE 192nd Avenue.
- Provide for usable open space for multifamily uses that contributes to the setting for development.
- Incorporate open space buffers to surrounding uses and the freeway to minimize impact to surrounding neighborhoods and enhance the appearance of the Riverview Gateway area.
- Provide an attractive and connected system of sidewalks, trails, and pathways throughout the quarry sites.

Figure 30. Emphasize landscaping as a prominent design element of development.

Figure 31. Orient development to streets.

Figure 32. Promote the retention of rock quarry walls, where feasible, to create a truly distinctive visual urban environment.

- Emphasize landscaping as a prominent design element of development.
- Emphasize human scale, façade articulation, fine detailing, quality building materials, and an inviting appearance in new buildings.
- Orient development to adjacent streets and public open spaces by providing inviting entries and transparent windows facing the street/public open space.
- Promote parking configurations that minimize impacts to the pedestrian environment.
- Promote convenient vehicular circulation without negatively impacting the pedestrian environment and visual character of the area.
- Provide for appropriate transitions between dissimilar uses and intensities.
- Emphasize design techniques that enhance personal safety.
- Locate and design service elements and mechanical equipment to minimize impacts to the visual environment and surrounding uses.
- Aesthetics should be an important design criterion in the design of public infrastructure, including streets, utilities, and public facilities.
- In the design of streets, consider the sequential visual experience of motorists, cyclists, and pedestrians traveling along the street.
- Take maximum advantage of natural assets, such as topography, vegetation, and views.
- Promote retention of the quarry's rock walls, where feasible, to create a truly distinctive visual environment.
- Building forms and layouts should take advantage of views.
- Promote the use of distinctive design treatments along SE 192nd Avenue and other highly visible locations (including street corners and special view terminus sites).
- Provide public art and places for cultural and community events.

Goal LU-4 **Promote quality development that serves as a model for sustainable development for the city and the region**

- Encourage transit-oriented development.
- Provide a network of green infrastructure that maximizes natural management of storm water, captures pollution, and improves water quality.
- Encourage energy efficient development.
- Provide for attractive trails, sidewalks, and streets that promote walking and bicycling.

Goal LU-5 **Develop a regulatory program that balances predictability with flexibility, is fair to all, and promotes desired development**

- Use master planning to direct the phased development in the quarry sites, consistent with the goals and policies of this plan.
- Recognizing that market dynamics create new development, the implementation strategy, including development regulations, should be written to afford a reasonable degree of flexibility while addressing important public policy issues.
- Design standards and guidelines should be established to direct new development in a way that is consistent with the Riverview Gateway Plan vision.

Implementation Actions

LU-1 Adopt Riverview Gateway zoning, development standards, and design guidelines. Together, these components will guide the development in the planning area.

LU-2 Maintain ongoing coordination with quarry owners to coordinate development of site infrastructure.

Transportation

Objectives

Transportation improvements are a critical element of the Riverview Gateway Plan. Success will depend on strategic improvements to the regional roadways which traverse the district, and creation on a rational hierarchy of collector and local roadways, and external street and trail linkages to surrounding neighborhoods to create multi-modal cross circulation within the district. The transportation strategy is intended to provide safe, efficient, and attractive connections to uses and amenities and minimize congestion and environmental impacts within the planning area and in surrounding areas. The plan also promotes bicycle and pedestrian access, both as a means of transportation and recreation, and provides for development that is conducive to walking, biking, and transit use.

Conditions, Challenges, and Opportunities

Community Connections

The quarry area is separate and distinct from the surrounding residential areas due to its current use, topography, and lack of circulation connections. This plan provides an opportunity to greatly enhance these connections by providing local roadways, trails, and sidewalks that access the site, both from the arterials (SE 192nd Avenue and Brady Road) and from the surrounding neighborhoods—the northeast connection to Camas at SE 40th Street, the north/northwest connection from SE 41st Drive, the connection along the Brady Road extension to the west of the site, and explore a possible regional trail connection under SR-14 to the Evergreen Highway. These connections are essential to integrate quarry development with the surrounding neighborhoods, and to prevent it from becoming a typical suburban node, separate from surrounding land uses.

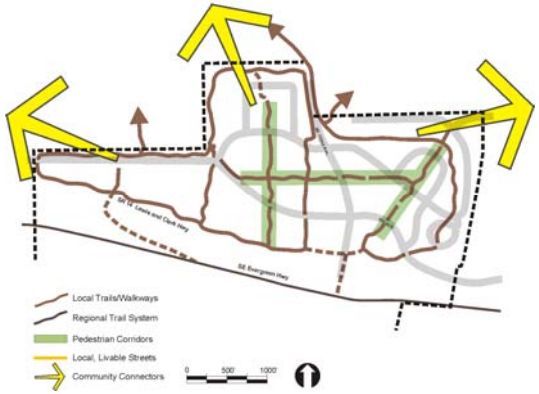


Figure 33. Opportunity for community connections.

Pedestrian and Bicycle Access

In addition to an emphasis on connections to the surrounding community and an extensive trail and open space network, the envisioned compact and coordinated mixed-

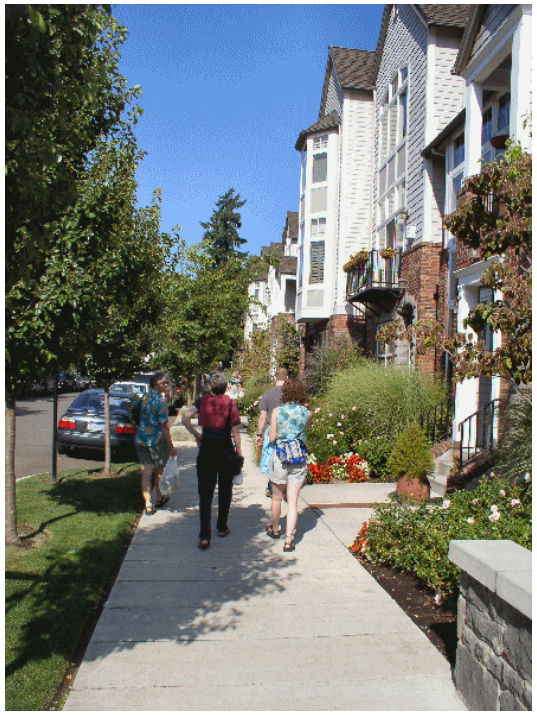


Figure 34. Comfortable sidewalks within an engaging streetscape environment invite walking.

use development within the quarry area provides an opportunity to reduce vehicular trips by locating uses close to one another and thus encouraging walking and bicycling. However, creating an environment conducive to and convenient for bicycling and walking takes more than simply dense adjacent uses. The infrastructure must be designed with pedestrian and bicyclists in mind. Below are some key questions to ask:

- Are the sidewalks wide enough?
- Do they feel safe (are they detached from the roadway)?
- Is it possible to use transit to access the site, and convenient to get around after arriving?
- Are there benches and other relief amenities such as occasional rain covers?
- Is the street level activity interesting and engaging?
- Are pedestrian crossings well marked, and safe?
- Have commercial and residential land uses provided adequate and convenient bicycle parking?

Each of these issues should be specifically addressed through the master planning process in order to achieve the goals of the plan, and to meet the transportation demand from site development.

Transit Access

C-TRAN is the transit service provider in Clark County. While there are no routes that currently provide service to the Riverview Gateway planning area, the site's location at the interchange of SR-14 and SE 192nd Avenue and the compact mixed-use development that's envisioned provides a great opportunity for future transit use and connections to other regional urban areas and destinations. With both SE 192nd Avenue and Brady Road serving a large catchment area for access to SR-14 and regional trips, the planning area might be a good location to consider a park and ride facility. Such a facility could serve residences, shoppers, or entertainment uses in the evening and commuting workers during the day. Compact and coordinated mixed-use development at the site will conducive to transit use and should enhance the local transit market.

Transportation Demand Management (TDM)

TDM refers to a variety of strategies that reduce congestion on our transportation corridors. TDM emphasizes commute options, including the use of carpools, vanpools, buses, bicycling, walking, compressed or varied work hours, or working from home. Due to the relative isolation of this site and anticipated development levels, the vehicle trip generation demands will be significant. In order to dampen the impact to the transportation system, integration of an overall TDM plan will be needed. TDM strategies will be particularly critical in planning area given the constraints of the city and region's roadway network and the cost to add capacity to the roadway network. Coordination of a district level TDM strategy with the City's current Commute Trip Reduction program offers an opportunity for synergy.

Vehicle Access

While the quarry area is bisected by two arterials and is directly served by the SE 192nd Avenue / SR-14 interchange, there are significant operational challenges to providing service to the Riverview Gateway planning area. The core arterial facilities, Brady Road and SE 192nd Avenue, serve a large catchment area and provide essential capacity just where it is needed—at the freeway interchange. The planning area, because it surrounds the interchange, needs capacity on those same facilities. The challenge is to provide vehicle capacity, especially peak hour vehicle capacity, to serve site development without unduly degrading the arterial level of service.

Parking

Urban development envisioned under the subarea plan will require substantial parking. Much of this should be within and underneath structures. While this is more expensive, it provides for more compact, walkable development, frees up buildable land, and provides substantial environmental benefits. The new roadways needed for the planning area's development also provide a good opportunity for on-street parking. Compact and coordinated mixed-use development can also provide opportunities for shared parking facilities. Such facilities may be shared between public and private uses – and between different private uses.

Figure 35. Examples of buildings with structured parking.

Figure 36. Desirable cross-section for a "Main Street."

Strategy

The Riverview Gateway Plan's transportation strategy emphasizes a combination of compact and coordinated development with a broad range of street improvements, new street configurations, and trails to provide a safe, efficient, and attractive circulation system. Figure 37 below identifies key actions needed to implement this plan's vision.

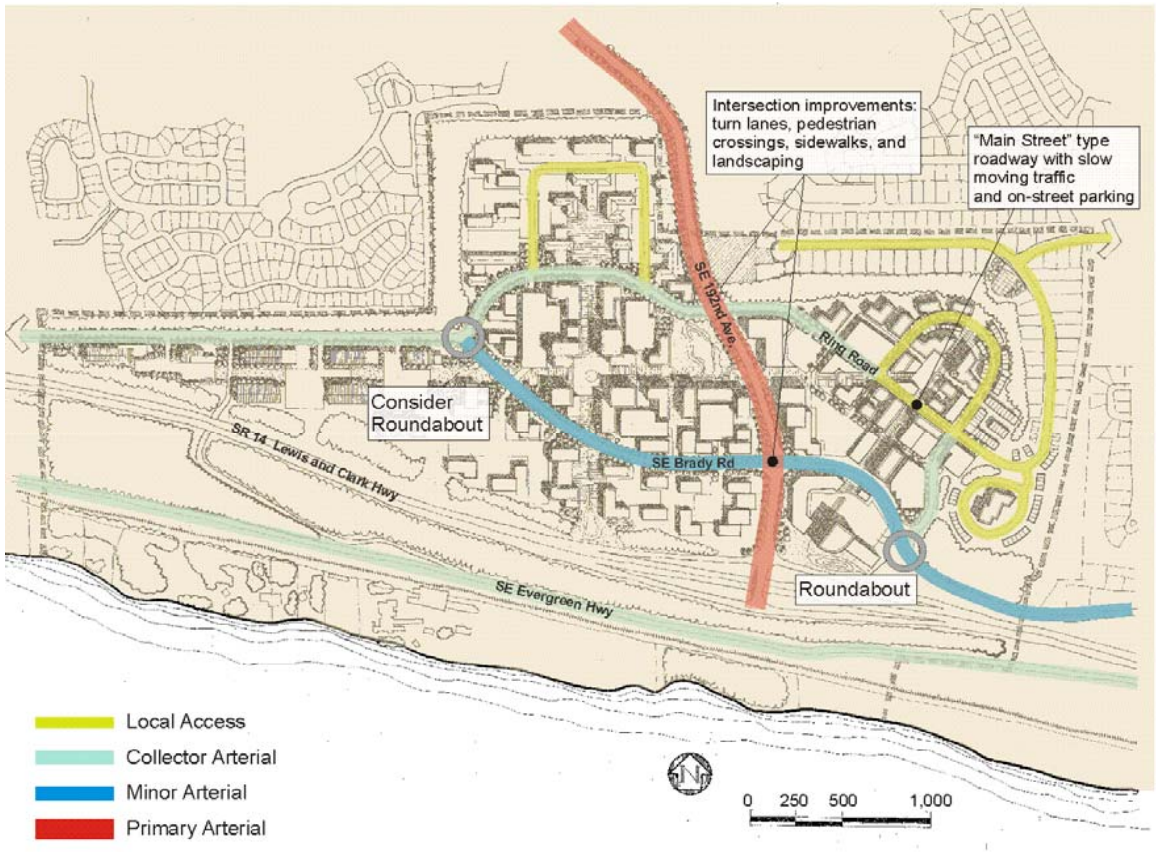


Figure 37. Proposed Riverview Gateway circulation system map showing arterials and core roadway infrastructure.

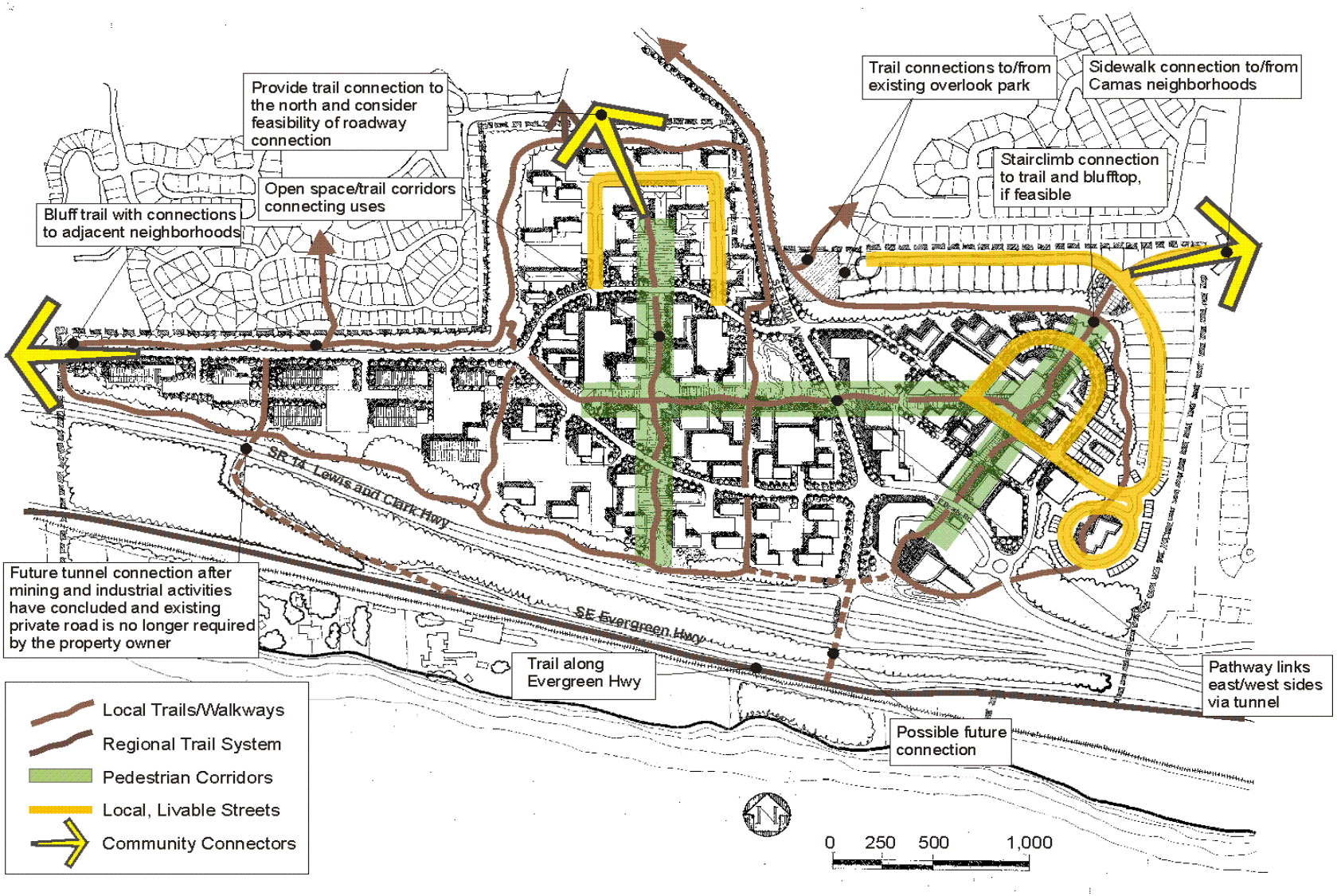


Figure 38. Riverview Gateway community connections.

Circulation Goals and Policies

Transportation goals for the sub-area are drawn from existing Vancouver Comprehensive Plan policies. Those policies set a broad framework for how streets are built and describe the elements that are to be considered in developing the City's transportation system. The Riverview Gateway transportation strategy provides unique opportunities to integrate specific elements of the existing policies in order to achieve the desired goals of this plan. The Comprehensive Plan goals and policies which relate to the Riverview Gateway Plan are as follows:

Figure 39. Provide attractive connections that promote walking.

Goal T-1 **Connectivity:** Develop a transportation grid that provides good connections to surrounding land uses and activity centers and allows for multiple circulation routes to/from each location. Close gaps and complete system connections through the development and capital improvement processes.

- Create an attractive, safe, and convenient road and trail network that promotes walking, bicycling, and other non-motorized forms of transportation.
- Establish streetscape design standards to encourage pedestrian and bicycle use.
- Provide pedestrian street crossing improvements on all SE 192nd Avenue intersections. In addition to crosswalk improvements, explore the feasibility of a pedestrian underpass connecting mixed-use areas east and west of SE 192nd Avenue.
- Establish street and trail linkages to the surrounding neighborhoods to reduce the relative isolation of the plan district and create opportunities for reduced reliance on auto access along the major roadways.

Goal T-2 **Land use and transportation integration:** Develop and implement innovative transportation investment, design, and program incentives to achieve the urban environment envisioned in the Comprehensive Plan.

- Promote transit-oriented development on the quarry sites.
- Provide design standards and guidelines for new development that promote pedestrian and transit access.

Goal T-3 **Livable streets:** Design streets and sidewalks and manage vehicular traffic to encourage livability, interaction, and sense of neighborhood or district ownership in linkage with adjacent land uses. Encourage multi-modal travel, and provide accessible, human scale opportunities for transferring between travel modes.

- Establish and maintain a connected hierarchy of streets that accommodates desired land uses and human activities.
  - Enhance SE 192nd Avenue and Brady Road to serve envisioned planning area development and accommodate a variety of travel modes.
  - Develop a new connector road system that links quarry site development and reduces pressure on existing roadways.
  - Develop a connected system of local access roads that serve planned development.
- Provide transportation facilities that create a unique character for the area.
  - Utilize the minimum required street widths to minimize paved surfaces and enhance the visual and pedestrian environment.
  - Establish street design standards to create distinctive streetscape, lighting, crosswalk, landscaping, street trees, and street furniture design.
  - Construct utilities underground.

Figure 40. Create livable streets with attractive sidewalks, landscaping, lighting, and pedestrian-oriented development.

Goal T-4 **Multi-modal:** All city streets shall be designed to achieve safety and accessibility for all modes. Arterial streets shall provide facilities for automobile, bike, pedestrian and transit mobility, and shall include landscaping and adequate lighting.

- Provide for planning area circulation while addressing safety and minimizing impacts to surrounding neighborhoods.
  - Provide for a safe and convenient network of roadways to serve envisioned development.
  - Limit the placement of buildings or other development features that inhibit the desired connectivity of the circulation network.
  - Minimize new access points off of 192nd Avenue.
  - Establish speed limits appropriate for the design of each roadway.

Goal T-5 **Safety:** Ensure high safety standards for motorists, pedestrians, and bicyclists through the development and capital improvement processes.

- Allocate city capital resources to high risk and collision locations—for motorists, bicyclists, and pedestrians.
- Incorporate context sensitive design solutions in the design of streets.
- Integrate passive traffic calming methods and designs into the local street network.

Goal T-6 **Accessibility:** Build an accessible transportation system focused on inter-modal connectivity and removing barriers to personal physical mobility.

- Promote the use of transit and the expansion of transit service to serve envisioned development.
  - Provide for compact mixed-use centers that can effectively be served by transit.
  - Design collectors and arterials to accommodate transit use.
  - Work with local transit agencies to enhance transit service to and within the area.

- Street designs and land use configurations to facilitate logical flow and universal access for all user and age groups, and in particular ensure safe and accessible corridors for users of mobility devices and residents choosing to age in place.

Figure 41. Landscape/trellis features enhance the visual character of this parking garage.

Goal T-7 **Vehicle miles traveled:** Use transportation and land use measures to maintain or reduce single occupant motor vehicle miles traveled per capita to increase system efficiency and lower overall environmental impacts.

- Conduct Transportation Demand Management activities.
- Prepare a plan district TDM plan with considerations for trip reduction targets as part of the master planning process.
- Coordinate TDM planning with the Citywide Commute Trip Reduction program.

Goal T-8 **Parking:** Adopt coordinated parking standards which maintain neighborhood integrity, promote the use of a multi-modal transportation system, encourage desired economic development and growth throughout the entire urban area, and which economize the use of urban land by reducing the need for any excess provision of surface parking.

- Provide for minimum and maximum parking requirements for envisioned land uses.
- Adopt standards to provide for shared parking between non-residential uses.
- Minimize the impacts of parking facilities on the area's visual environment.
  - Adopt regulations to emphasize structured parking over surface parking.
  - Adopt design guidelines that seek to locate and design parking facilities to minimize visual impacts on the pedestrian environment.
  - Configure land uses and development to encourage forms of non-motorized transportation and transit use, thus reducing the need for vehicular parking.

Implementation Actions

T-1 **Enhance and extend the Riverview Gateway area roadway network in conjunction with phased master planned development.** This includes:

- SE 192nd Avenue: New intersection, turn lanes, pedestrian crossing improvements, and streetscape improvements.
- Brady Road: Travel and turn lanes, intersection(s), roundabout(s), sidewalks, and streetscape.
- East-west ring road: Designed as a collector arterial and linking development on both sides of SE 192nd Avenue.
- Local access roads designed as “livable” streets incorporating on-street parking to the extent feasible, low impact development techniques, landscaping elements, passive traffic calming, and generous sidewalks.
- Connections to adjacent neighborhoods to the west, north, and east.

T-2 **Implement parking management in the mixed-use areas.** A parking management strategy/program for employers in the mixed-use areas should be developed and implemented in conjunction with master planned development.

T-3 **Explore opportunities to construct a tunnel under SE 192nd Avenue to enhance bicycle and pedestrian connectivity within the quarry areas.** The tunnel should be roughly half-way between Brady Road and the new east-west ring road.

T-4 **Coordinate with C-Tran on an ongoing basis to provide transit service to the planning area.** Consider options for a park and ride (structured) lot that could be integrated and complementary to other master planned development.

Open Space, Trails, and Public Facilities

Objectives

The Riverview Gateway vision for the quarry areas emphasizes establishing a hierarchy of interconnected public and private open spaces, ranging from an active central plaza to less formal gathering areas, trail corridors, small neighborhood park spaces, perimeter buffer areas, along with a larger lot, wooded areas south of SR-14 and along the Columbia River. These facilities are critical to establishing a vibrant, healthy, mixed-use community. Walkability, in particular, is a proven means to fight cardiovascular disease and obesity, and this plan's emphasis on trails and sidewalks will result in a healthier community.

Conditions, Challenges, and Opportunities

The quarry sites present tremendous new opportunities to establish a vibrant network of trails, open spaces, and other public facilities. The bluff atop the quarry provides a premier opportunity for a trail corridor. Not only will the trail have tremendous views, the bluff corridor can also effectively serve as a buffer between quarry land uses and adjacent residential neighborhoods, and provide connections to those neighborhoods. Within the quarry basin, there is an opportunity to configure development around a connected network of more urbanized trails and open spaces. Public spaces and park and recreation amenities can be designed to meet the needs of those living, working, or shopping in the area and beyond. The large land ownerships of the quarry also enable coordinated development around such a trail/open space system. Park Impact Fee credits are available for the dedication of land which meets documented park and open space needs, and for improvements meeting adopted park and open space standards.

Figure 42. The quarry's topography provides a tremendous opportunity for a distinctive and connected trail system.

Because the area has been in industrial and resource use for years, no specific provisions have been made as part of facility plans to accommodate redevelopment of the area. As redevelopment occurs, transportation, park and school impact fees will be collected. There may be a need to provide space for schools, libraries, fire stations or other public facilities. This will be determined during future master plan review.

Figure 43. Existing quarry berms may be used to support a trail in conjunction with master planned development as conditions allow.

Figure 44. Provide a variety of open spaces with multifamily development.

Strategy

The Riverview Gateway's dominant, identity-giving characteristic will be its network of trail corridors, open spaces, and perimeter buffer area. These features will be major selling points for its residential, commercial, and office uses. The system will not only provide ample recreational opportunities for planning area residents, shoppers, and workers, it will become an attractive recreation feature for surrounding neighborhoods, the City of Vancouver, and the City of Camas. Also, the trail and open space system serves as an important structural, form-giving element, organizing development, and providing access. Park and recreation amenities should be located in convenient proximity to the residential areas in each of the quarries. The system consists of the elements described below and illustrated in the map in Figure 48. Opportunities for connections to the Camas trail system and walkways should also be pursued where feasible.

Perimeter Buffer

Because blasting is used to dislodge rock from the quarry, large berms have been provided adjacent to residential areas north of the quarry to buffer the homes from noise, dust and debris, and views of quarry operations. After mining operations are completed there is an opportunity to use the berm areas for trails, with views of the new community, the Columbia River, and beyond. Such a trail could link the new development to adjacent neighborhoods as well as providing a recreational amenity for residents of the new development. Design, construction details and relation of the trail to nearby residences would be addressed at the master plan stage.

Residential Courts, Greens, and Gardens

Residential development in the quarry areas should include common open space as described in the Riverview Gateway Design Guidelines. The Crime Prevention Through Environmental Design (CPTED) guidelines are particularly applicable. These open spaces should be connected, wherever feasible, to internal and public pathways. A small park (2 to 3 acres) should be integrated with multifamily development in the northern portion of the Fisher Quarry. Other open spaces may be a combination of active recreation, passive recreation, and natural areas and could provide storm water management and other ecological functions as well. Certain park, open space and recreation improvements may be eligible for Park Impact Fee Credits – primary

consideration is given to facilities which meet adopted and approved standards, and which fall outside of normal amenities such as landscaping buffers, public sidewalks, building entrance courtyards, etc.

Internal Trails and Pedestrian Walkways

The development of the quarry areas offers a significant opportunity to develop critical pedestrian and bicycle links that will benefit this part of the community. Two different types of pedestrian and bicycle facilities are recommended:

- **Trail Corridors.** Constructed as part of private development, these trails provide connections primarily for those living, working, or visiting the development, although they will be accessible to the general public. These trails should be connected with the perimeter buffer trail at strategic points and provide east-west and north-south connections through each quarry site's development. The central east-west corridor should connect both sides of SE 192nd Avenue via a safe and well-lit tunnel under the roadway. These corridors should be designed as shared-use paths as identified in the Vancouver Walkway and Bicycles Master Plan, which are typically 10-16 feet wide. They should link parks, plazas, and other common open spaces in the planning area. The location and design of trails in mixed-use areas should be identified in the master plans for these areas.
- **Streets with Sidewalks and Bicycle Lanes.** Streets would include relatively wide sidewalks (6 to 12 feet wide overall, and at least 8 feet wide in high-use areas), bicycle lanes to the extent feasible, and substantial street trees separating vehicular traffic from pedestrians. Generally, streets so designated connect other citywide bicycle/pedestrian routes or provide convenient non-motorized circulation within the center.

Figure 45. An example of a small park appropriate for the multifamily area envisioned for the northern portion of Fisher Quarry.

Figure 46. Pedestrian/park corridor example.

Columbia Riverfront Lands

Opportunities for parks, recreation, open space, bicycle and pedestrian connectivity and trails can extend to the southern reaches of the sub-area along the Columbia River. While significant obstacles currently exist which prevent public access to this area, the City should continue to pursue opportunities to work with area landowners to examine and explore water access in a part of the community with limited public ownership and public access along the Columbia River. The effort could extend to conservation and natural resource protection, while still allowing for moderate and appropriate public access opportunities.

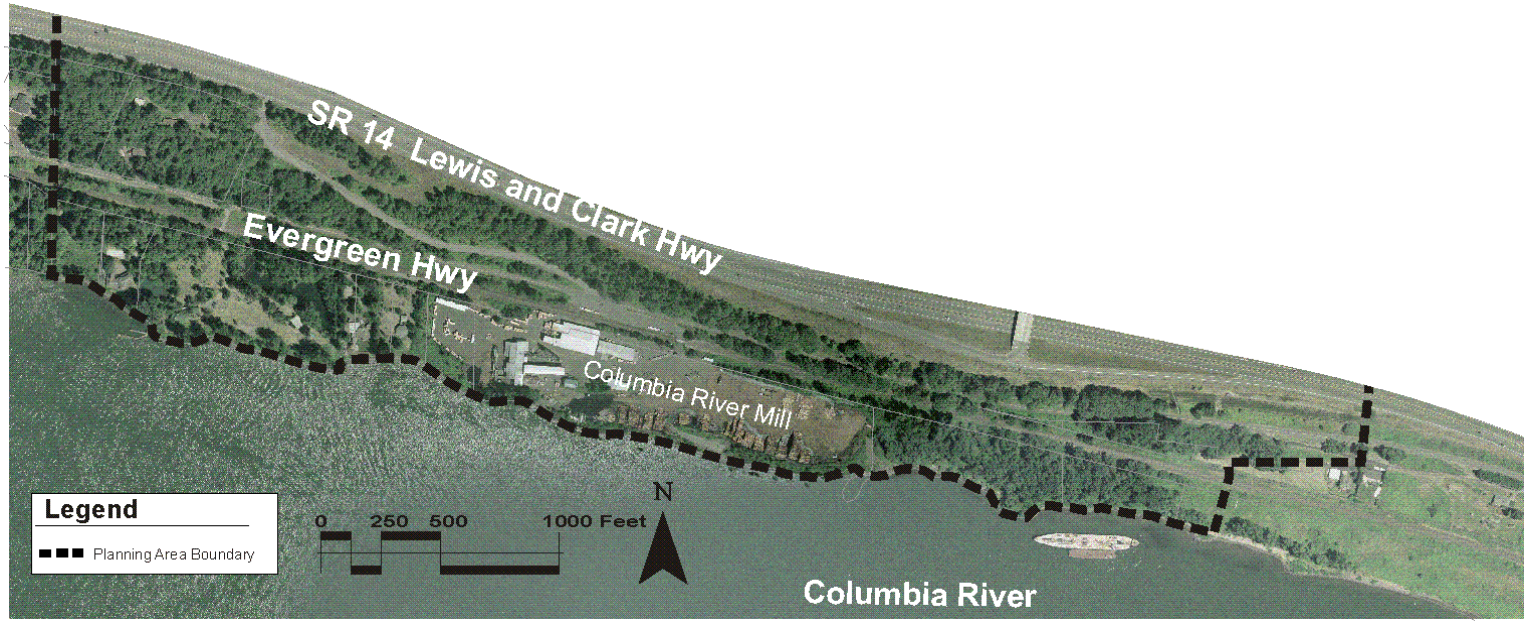


Figure 47. Current conditions along the riverfront.

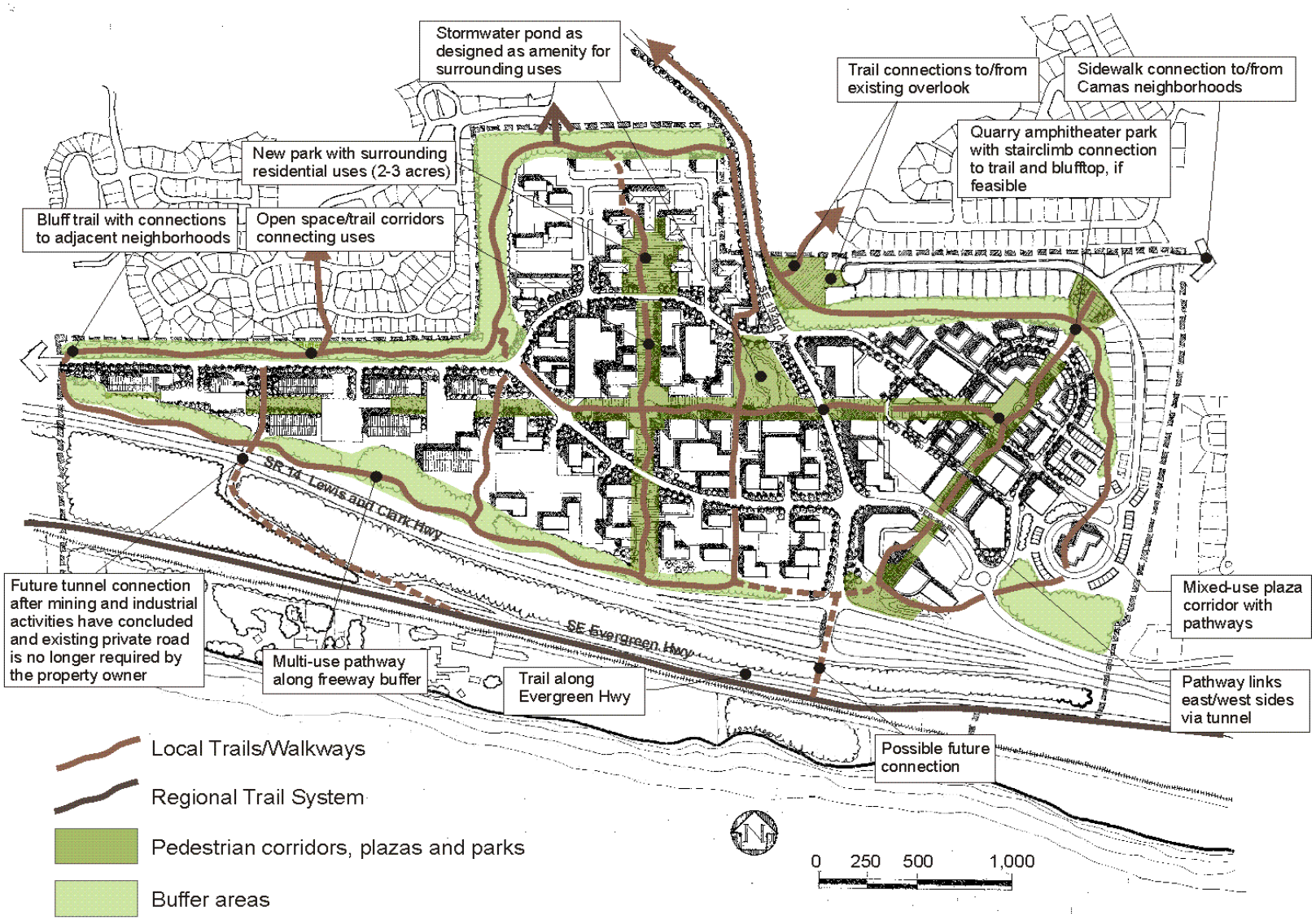


Figure 48. Parks, trails, and open spaces.

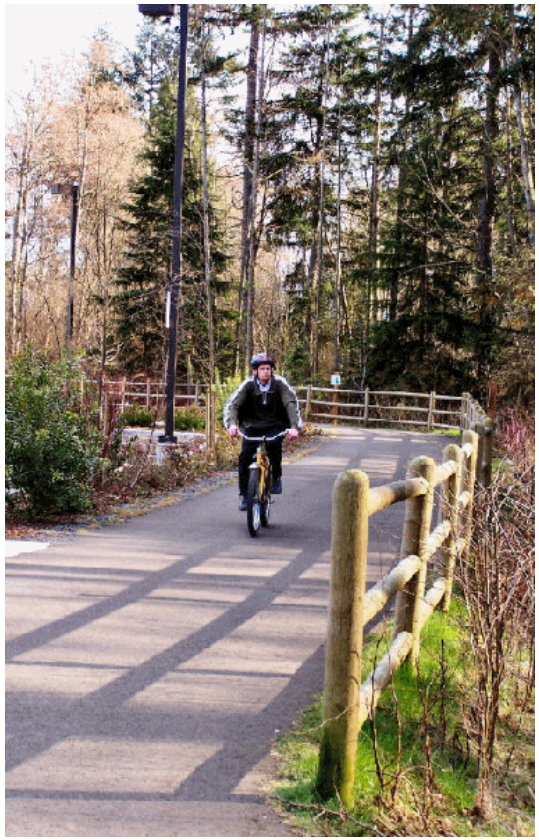


Figure 49. Trail example.

Goals and Policies

Goal OS-1. Create a hierarchy of interconnected public and private open spaces, ranging from active centralized plazas to less formal gathering areas, quiet residential parks, and natural open spaces.

- Usable open space should meet the acreage assumptions shown on Table 1. Open spaces, parks and trails should be configured generally as indicated in Figure 48, allowing for adjustments in the master planning process. Provision of more open space and a variety of different types of parks, open space, and recreation areas is encouraged.
- Master plans for each of the mixed-use nodes should include a publicly accessible open space that meets the City's design guidelines.
- A variety of small open spaces should be developed in each quarry area as part of private development to serve local needs.

Goal OS-2. Construct a network of trails and pathways in the quarry areas that connect with surrounding neighborhoods.

- Multi-purpose trails, pathways, and sidewalks connecting to adjacent neighborhoods should be developed. (See also the **Transportation** element.)

Goal OS-3. Construct a set of high-quality community, public service and recreational facilities to serve city residents

- Community facilities are critical to the vibrancy of the planning area and should be included in early planning.

Implementation Actions

OS-1 Construct trails, plazas, and parks in conjunction with master planned development. Siting and construction of parks and recreation amenities should not be undertaken at the last moment. The City should partner with the developers to ensure that parks and trails are available as the different phases of development occur.

OS-2 Maintain ongoing communication with public service providers to determine whether on-site facilities may be needed with envisioned master planned development.

Environment

Objectives

- Create a sustainable urban center, preferably certified as LEED-ND.
- Minimize impacts to surrounding neighborhoods and the Columbia River shoreline.
- Mitigate the environmental challenges of the site.

Conditions, Challenges, and Opportunities

The natural bluff that once stood where the quarries are today has been removed and the area sculpted by decades of mining activity. This man-made setting will affect redevelopment of the site, including noise amplification by the rocky bowl-shaped site, gorge winds, and the potential for radon gases from the rock itself.

Environment Goals and Policies

Goal E-1 **Incorporate exemplary environmental stewardship in the Riverview Gateway to the extent that it is a model for the region.**

- Encourage green building techniques, low-impact development techniques and other mechanisms to minimize environmental impacts in all aspects of development.
- Consider noise impacts of ongoing mining activities and from the shape and rock walls of the site as development occurs and provide noise abatement for residential and community uses.
- Use native plant materials and minimize irrigation of landscaped areas.
- Avoid long straight streets and building walls that could create a wind tunnel effect and encourage a variety of building sizes and shapes as well as landscaping to limit wind impacts.

- Consider solar orientation, district-scale energy and other means to reduce energy usage in Riverview Gateway development.
- Consider treating and reusing water from buildings to support landscaped areas.

Goal E-2 **Employ a variety of environmental management and low-impact development measures to improve ecological functions, such as the protection of surface and ground water quality and habitat.**

- Regional storm water management systems that incorporate low impact development techniques should be designed and constructed as part of the master planning and development of the site.
- Ensure that development of the site does not adversely affect water supplies or quality of springs and creeks south of SR-14.
- Innovative environmental management techniques should be employed where appropriate.

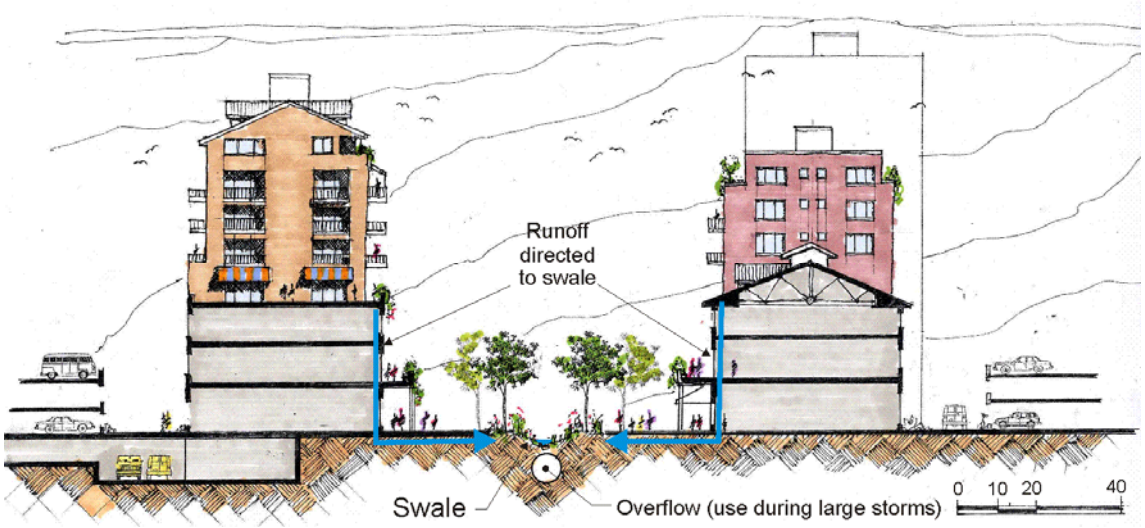


Figure 50. Cross-section of a pedestrian corridor emphasizing its storm water management function.

Implementation Actions

Figure 51. Example of a rain garden/swale.

E-1 Require master plans to address energy efficiency, water usage and sustainable storm water management. As part of the storm water management plans, evaluate the feasibility of the envisioned open space corridors to treat storm water through the use of attractive bio-swales and low impact development techniques.

E-2 Emphasize ecological functions and low impact development in design guidelines.

E-3 Ensure that environmental impacts of all master plans and development projects within the subarea are disclosed consistent with SEPA review requirements.

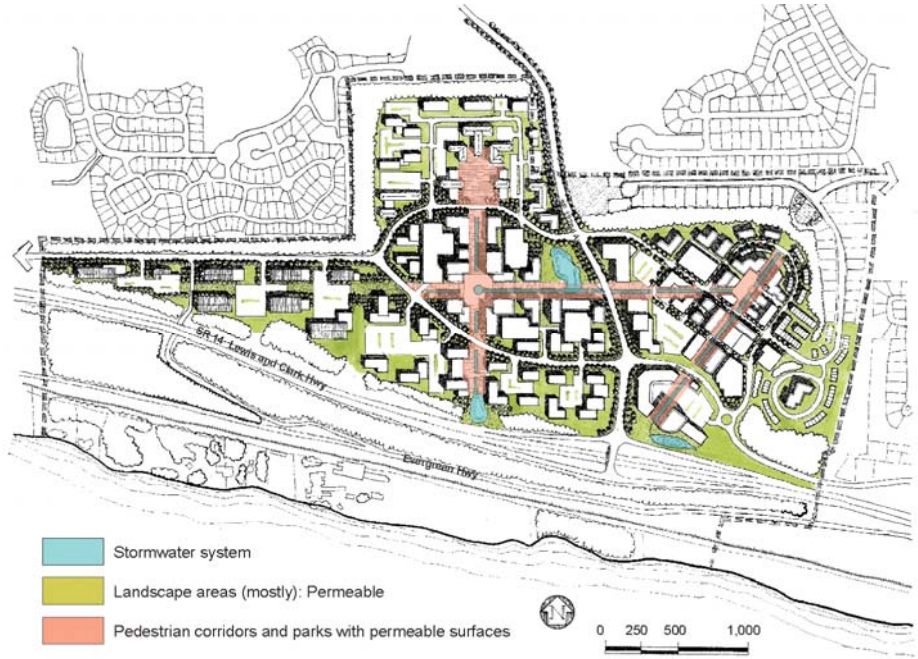


Figure 52. Green infrastructure concept example for quarry sites.

IV. Implementation

Implementation of the Riverview Gateway vision will be challenging due to the infrastructure needs of urban development and activities needed to ready the quarry sites for urban development. However, the subarea's consolidated land ownership makes coordinated implementation much easier than if the quarry sites were held by multiple property owners. Consequently, implementation of the vision will require assertive action on the part of the City that combines regulatory standards and coordinated public/private infrastructure planning and investment. Once the regulatory framework is in place, development will largely depend on the actions of the property owners and local market conditions.

The regulatory measures will build on the City's current codes, adding more specific standards and guidelines to address site planning, design, access, open space, and design quality objectives.

The development of integrated mixed-use nodes on the quarry sites will require master planning and considerable public/private coordination. The Riverview Gateway Subarea Plan District (VMC 20.680) establishes the process and standards for master planning of the quarries.

Infrastructure will be funded jointly by the City, service providers, and private development. Developers will pay for development costs; the City will pay for those elements where the general public enjoys the benefits; and funding will be allocated according to the relative amount of public and private benefits arising from a specific road, utility, or amenity construction.

Thinking in broad terms, there are roughly two phases or steps of public actions to consider. The first step, to be accomplished in 2008 and 2009, is to adopt this plan and implementing regulations, including a process for master planning the quarry sites. The second phase is to partner with the developers to achieve the plan vision and monitor success. Revisions to the plan and regulations may be needed as a result of ongoing monitoring.

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