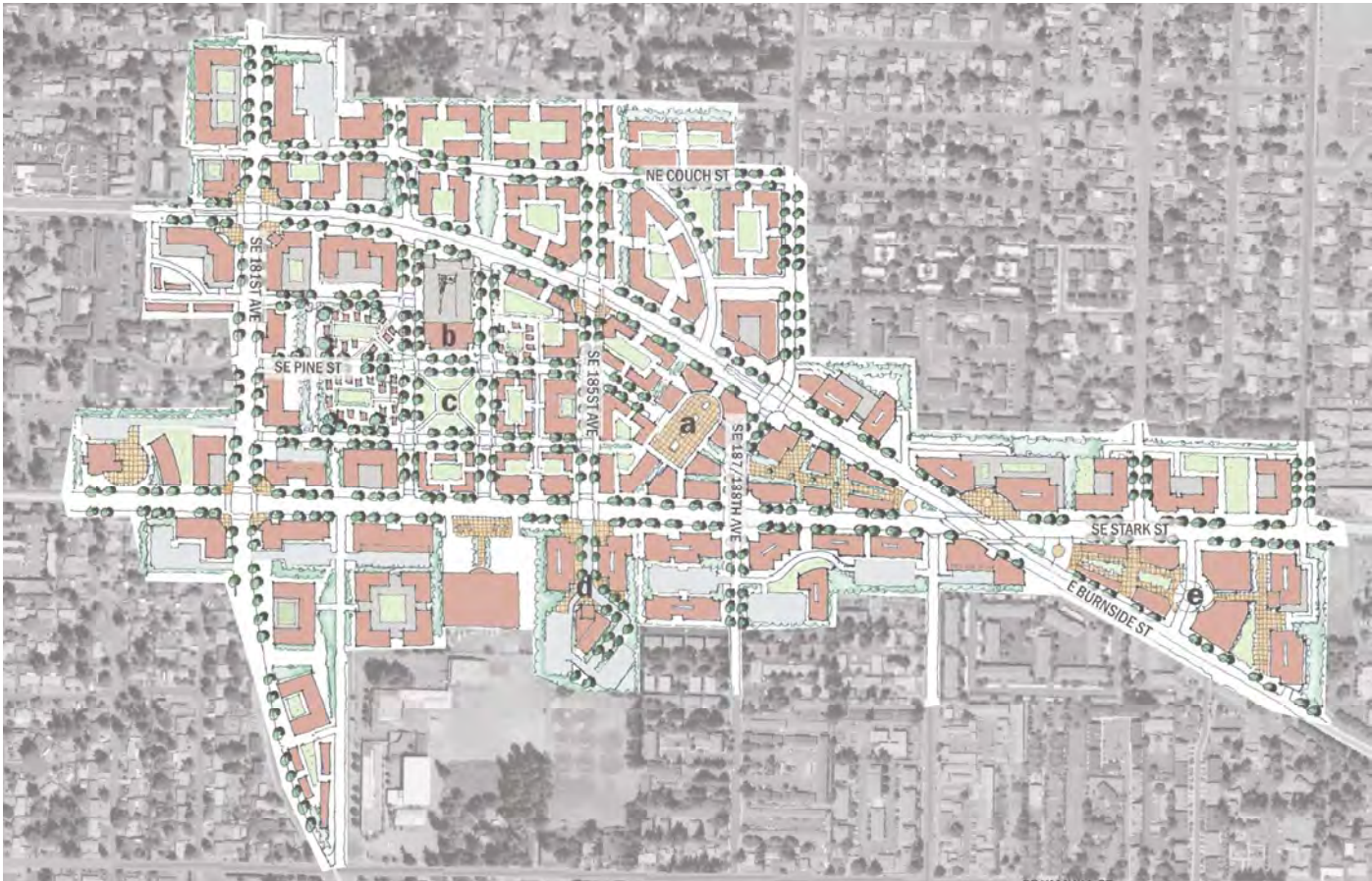


SECTION 7.0500

ROCKWOOD DESIGN DISTRICT DESIGN GUIDELINES AND STANDARDS



DECEMBER 1, 2011
CITY OF GRESHAM

7.0501 INTRODUCTION

A. Applicability:

This section shall apply to all commercial, mixed-use, multifamily, townhouse, and industrial development within the Rockwood Design District. Townhouses shall also follow the applicable standards in **Section 7.0432** Corridor District Townhouse Design Standards. This section also applies to the following institutional uses: Civic Uses, Community Services, Medical, Religious Institutions and Schools.

Section 7.0503 does not apply to single detached dwellings; duplexes; triplexes; quadplexes; cottage clusters; residential homes; park-and-ride facilities; cemeteries and mausoleums; parks, open space and trails; and uses in the “Other” category, including basic utilities, heliports, wireless communications facilities and temporary uses, and similar uses/structures as determined by the Manager or Design Commission. **Section 7.0503** also does not apply to public facilities (as described in Appendix 5: Public Facilities).

Duplexes, Triplexes, and Quadplexes in the Rockwood Design District shall follow the **Section 7.0100** Corridor Design District Design Guidelines and Standards.

Headings in this section apply to (except as exempted above):

All Development: All developments except townhouses and the industrial uses permitted in the Station Center-Ruby Junction land use district.

Commercial and Institutional: All developments that are commercial or institutional uses, including commercial or institutional uses as components of mixed-use structures. However, Parks, Open Spaces and Trails are not included.

Residential Development:

Multifamily Residential: Multifamily, Elderly Housing, and Residential Facilities, unless otherwise specified.

Townhouse: Townhouses.

Existing Development: Guidelines and standards in **Section 7.0503(A)** shall apply as determined by the Manager or Design Commission when the standards can reasonably apply to existing development. For example, landscaping guidelines and standards may apply when new landscaping is being added. Guidelines and standards in **Section 7.0503(B)** apply to buildings that were constructed prior to Dec. 1, 2011, as indicated by the standards under the “Existing Development” heading in those sections. For **Sections 7.0503(A)** and **(B)**, site and building modifications needed to comply with **Section 8.0200** shall comply with applicable guidelines and standards.

Mixed-Use Development: For mixed-use developments, guidelines and standards under the Commercial and Institutional heading apply to those parts of the building designed for those uses, and the guidelines and standards under Multifamily and Townhouse headings apply to those parts of the building designed for those uses. The “All Development” standards apply to the entire building.

Standards and Guidelines with no heading apply to all development.

B. Purpose:

The City has prioritized high-quality design for new development and for redevelopment throughout the city. It is also recognized that Gresham is comprised of many districts and neighborhoods – each one unique with distinct physical, social, and economic conditions and special assets to build upon to attract quality investment. Therefore, certain districts have their own design standards and guidelines to address design concerns that have cultural, architectural, or even market significance to that area.

As part of the 2011 Council Work Plan, the Rockwood Design Standards and Guidelines augment existing Code regulations which apply to the area. These Design Guidelines and Standards provide Rockwood with the regulations that identify good site and building design thereby facilitating the development of high-quality, attractive, innovative, sustainable and livable developments that foster a true sense of community.

C. Design Review Process:

New Rockwood developments, additions and remodels are subject to design review as defined in **Section 7.0500** for the determination of consistency with the Criteria, Guidelines and/or Standards contained in this Code. Projects subject to design review are either reviewed by the Design Commission or reviewed by the Manager. Either the Design Commission or the Manager shall make findings and decisions concerning conformance with the Design Standards or Guidelines based on which review process is selected. Refer to **Article 11** Procedures for review process details.

D. How to Use this Code:**1. Design Review: Two Track Process**

The City has set up two tracks for the Design Review process. Applicants have the choice of complying with either option:

- a. Discretionary Process.** The discretionary process is intended to permit innovative and creative development proposals that might not comply with all or some of the Standards in **Section 7.0500** to be reviewed and permitted if the projects meet the Design Guidelines, Intent Statement and Principles. The aim is to encourage applicants to propose exciting, innovative designs while still ensuring the City's design goals and objectives are met. The Design Commission may waive a Guideline or Guidelines to achieve the flexibility necessary to support a particularly creative proposal. Approval requires that the applicant demonstrate to the Design Commission that the waiver from the Guideline(s) would result in a development that better meets the applicable Design Principles and the Intent Statement preceding the Guidelines.
- b. Clear and Objective Process.** The Clear and Objective Process includes measurable Standards to meet the desired urban form. In the Clear and Objective Process the applicant must meet all relevant Design Standards. Deviation from any of the Standards or referenced Standards in Article 7 will place the application in the Discretionary Process.

2. Rockwood Design Guidelines and Standards Layout:

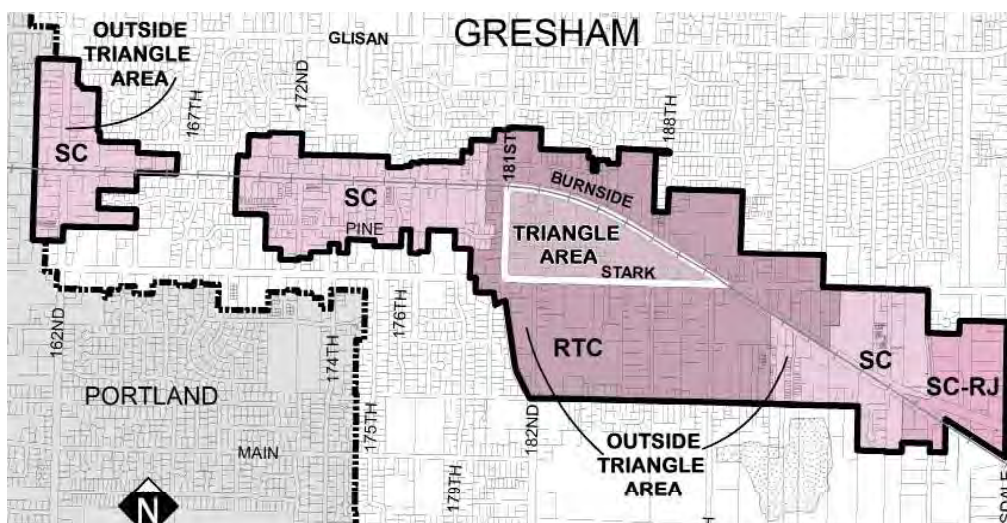
The Rockwood design regulations apply to two primary areas, the Rockwood Triangle Area and the Outside Triangle Area, to recognize the unique characteristics of the two areas. See Figure 7.0501(B).

Rockwood Triangle Area. The Rockwood Triangle Area is defined as the Triangle Area bounded by Stark Street on the south, Burnside on the north, 181st on the west and 190th on the east. This area is located in the center of Rockwood and is to be the cultural and social hub of Rockwood. The Triangle Area is a true community of residences and smaller scale services in a walkable, pedestrian-oriented environment with integrated open spaces.

Outside Triangle Area. The Outside Triangle Area includes all areas outside the Rockwood Triangle Area but still within the Rockwood Design District.

Within each of those two areas there are two categories of Guidelines and Standards:

- a. **Site Design:** Site Design Guidelines and Standards address the organization and arrangement of a development's components. They focus on the location and orientation of buildings, parking, service areas, landscaping and site features such as open space. Good site planning is of critical importance to the design of commercial, mixed-use, civic, industrial and residential development. Excellent site design can improve the aesthetics of a community, minimize a project's impacts on its neighbors, improve the quality of the streetscape, relate to or establish desirable development patterns, promote sustainability and improve neighborhood connectivity.
- b. **Building Design:** Building Design Guidelines and Standards address the massing and exterior architectural elements of buildings – components that define the scale, quality and character of a building, such as roofs, entries, windows, materials and details. Excellent building designs enhance the quality of life for residents and promote sustainability by improving the appearance of the city, by promoting the conservation of natural resources, by establishing a sense of community, and by improving the long-term economic value of the properties.



Guidelines and standards labeled with “INSIDE THE TRIANGLE” apply inside the triangle shown in Figure 7.0501(B). Guidelines and standards labeled with “OUTSIDE THE TRIANGLE” apply in the design district but only outside the triangle in Figure 7.0501(B). Guidelines and standards with neither of those labels apply both inside and outside the triangle.

3. Compliance with other Code sections including but not limited to **Articles 4, 5, 7, 9 and 11.**

4. **Images:**

Most images, including photographs and illustrations, are not part of the Development Code and do not act as Guidelines or Standards. These images are provided to assist readers in envisioning the intent and potential outcomes of the Guidelines and Standards. Images that are not part of the Development Code are labeled as figures and are included in the Code to better illustrate the theory behind the Guidelines and Standards. Images that are part of the Development Code will be labeled with Development Code section numbers.

7.0502 ROCKWOOD DESIGN PRINCIPLES

Site Design Principles

- A. **Physical Environment:** Create a physical environment that fosters a positive image of Rockwood and embraces its unique character thereby allowing businesses to thrive and prosper.
- B. **Sustainability:** Implement measures that promote the efficient use of land and resources by conserving and protecting trees, water and topography; reducing pesticide use; maximizing surface water infiltration; promoting energy conservation; promoting resident health; and other sustainability measures.
- C. **Safe Design:** Design buildings, streets and public places that are safe and inviting for residents and visitors.
- D. **Transportation Modes:** Encourage multimodal design to support transportation choices and access opportunities.
- E. **Open Space:** Develop open spaces where they are needed most and improve access to existing and future parks and public spaces.
- F. **Landscaping:** Incorporate landscape elements such as trees, shrubs, and groundcover into a sustainable landscaping plan that provides an attractive green setting for Rockwood while reinforcing the architecture and softening the building scale.
- G. **Compatibility:** Respect stable neighborhoods.

Building Design Principles

- H. **Architectural Quality:** Create aesthetically pleasing, durable architecture for developments that contributes to the sense of place.
- I. **Sustainable Architectural Design:** Promote sustainable architectural design that promotes energy efficiency, conservation of resources and other sustainability measures.
- J. **Rehabilitation:** Accommodate rehabilitation of existing structures and sites where the structures and sites will contribute in a positive manner to the desired urban form of Rockwood.
- K. **Housing Variety:** Improve the variety of housing types for current and future Rockwood residents.
- L. **High-Quality Materials:** Utilize building materials that are of the highest quality and permanence, and that build a sense of place for Rockwood.

1. INTEGRATED SITE DESIGN

Intent: To design sites in a manner that creates connections to surrounding properties and areas, reducing the distance required to access the site while encouraging walking and alternate modes of transportation. Block structures shall be used to break down the scale of the site, creating an environment which is comfortable for people and allows for improved infill development and redevelopment potential. Internal vehicular circulation shall accommodate pedestrian and vehicular access needs while providing amenities to improve the appearance of the development.

Applicable Rockwood Design Principles from Section 7.0502:

- A. Physical Environment
- B. Sustainability
- D. Transportation Modes
- E. Open Space
- F. Landscaping
- G. Compatibility



Fig. A.1: A pedestrian path connecting a development to surrounding areas.

DESIGN GUIDELINES

All Development

G1. The Standard of **Section 7.0503(A)(1) (S1)** describing the Future Street Plan is required without exception.



Fig. A.1.G1.a: Block structures create pedestrian-scaled and oriented developments.

DESIGN STANDARDS

All Development

S1. All new developments shall be designed in a manner that is consistent with and responds to the City’s approved Future Street Plan. Future Street Plans may be required at the discretion of the Manager and shall be prepared and approved as required by **Section 9.0700**.

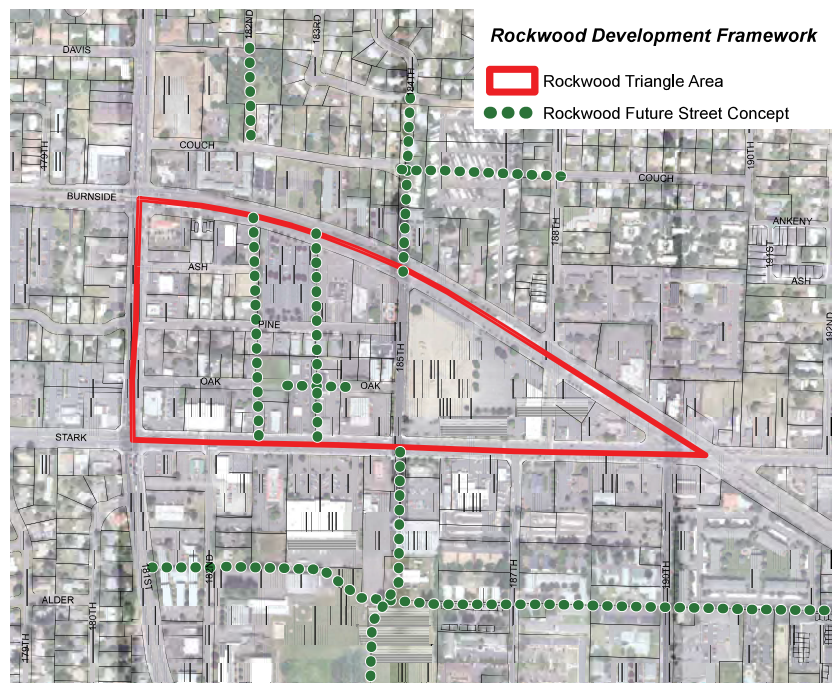


Fig. A.1.S1: Future Street Concept for Rockwood.

1. INTEGRATED SITE DESIGN, CONTINUED

DESIGN GUIDELINES

All Development, Continued

- G2.** Pedestrian, bicycle and vehicular access to adjoining properties and surrounding residential neighborhoods shall occur in appropriate locations to facilitate access and movement in the district.
- G3.** The Standard of **Section 7.0503(A)(1)(S3)** describing public street design is required without exception.



Fig. A.1.G1.b: Large developments shall utilize a network of streets (or drives with a street character) to improve accessibility and connectivity.



Fig. A.1.G4.a: An internal roadway which serves vehicles and pedestrians while supporting adjacent mixed-use development.



Fig. A.1.S4: Pedestrian and vehicular routes are organized to connect to existing circulation patterns.

DESIGN STANDARDS

All Development, Continued

- S2.** Connections to surrounding properties and neighborhoods shall be established and include streets as determined by the Manager and/or pedestrian paths at an average spacing no greater than one every 400 feet or as determined by the Manager.
- S3.** Public streets shall be designed to Public Works Standards when streets are required by the Manager.



Fig. A.1.G4.b: An internal roadway that is integrated into a larger surrounding street system.



Fig. A.1.G4.c: Pedestrian conflicts are minimized by limiting driveways and providing visually distinct crosswalks.

1. INTEGRATED SITE DESIGN, CONTINUED

DESIGN GUIDELINES

All Development, Continued

- G4. Internal drives and walkways within larger developments shall function as pedestrian-friendly streets and establish a human scale block pattern. Shared pedestrian/vehicle (woonerf) streets may be utilized.
 - a. Internal drives shall provide for the functional and visual integration of buildings, services, vehicular access and parking, and pedestrian circulation.
 - b. Internal drives for non-residential and multifamily uses are encouraged to be coordinated with other access drives.
 - c. Driveway access shall be designed to minimize conflicts with pedestrians, and efforts shall be made to limit the number of driveways per block.
 - d. Sidewalks, pedestrian walkways, and drives shall connect to and align with surrounding pedestrian and vehicular circulation patterns.

DESIGN STANDARDS

All Development, Continued

- S4. Primary internal drives shall be consistent with the section shown in Figure A.1.S5. The addition of a center landscaped median may be permitted at the discretion of the Manager. Primary internal drives shall consist of a 24-foot, two-way drive lane; a sidewalk with a minimum 6-foot amenity zone and a minimum 6-foot clear walk zone shall be provided on each side of the drive.
 - a. The specific drive lanes may be required to be a minimum width of 26 feet to accommodate emergency vehicles as determined by the Manager.
 - b. Primary internal drives may include angled or parallel parking in locations approved by the Manager.
 - c. Where primary internal drives are not adjacent to buildings, the amenity zone and sidewalk may each be reduced to 5 feet in width.



Fig A.1.G4.d: Public streets or private drives with a street character improve the accessibility and appearance of large developments.

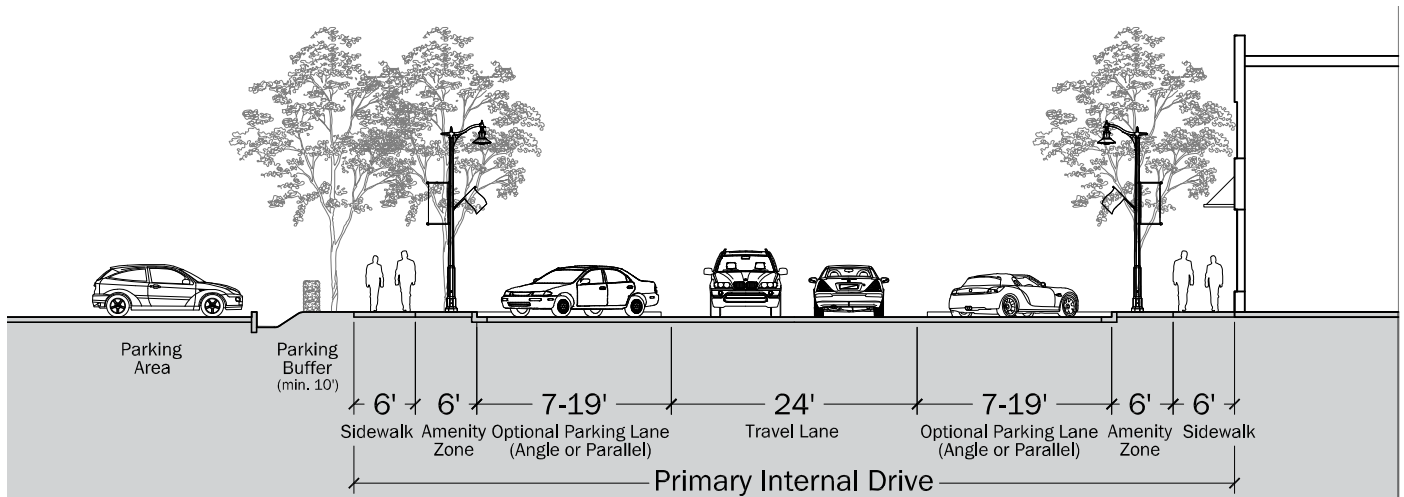


Fig. A.1.S5: Section of Primary Internal Drive. Optional elements labeled as such.

1. INTEGRATED SITE DESIGN, CONTINUED

DESIGN GUIDELINES

All Development, Continued

G5. When parking is present on internal drives, the amenity zone shall be appropriately designed and efforts shall be taken to ensure pedestrian safety when crossing the roadway.

G6. Visually distinct crosswalks shall be provided to enhance the appearance of the development.

DESIGN STANDARDS

All Development, Continued

S5. When primary internal drives include parking:

- a. The amenity zone shall be landscaped and/or paved to match or accent the sidewalk using concrete, decorative paving or paving which allows stormwater infiltration as approved by the Manager.

- b. Bump outs in the street alignment shall be provided at intersections which extend to the depth of the parking lane to lessen crossing distances for the pedestrian. Landscaped areas that do not interfere with clear vision requirements and stormwater infiltration areas may be included in the bump outs.

- c. Where no parking abuts the amenity zone, it may be planted instead of paved.

S6. Crosswalks shall be provided on primary internal drives and shall receive enhanced paving that creates a visual distinction between the crosswalk and the surrounding surfaces, such as scored concrete, brick, stone or concrete pavers or other high-quality material as approved by the Manager. Striping shall not be the sole method of creating visual distinction for the crosswalks.

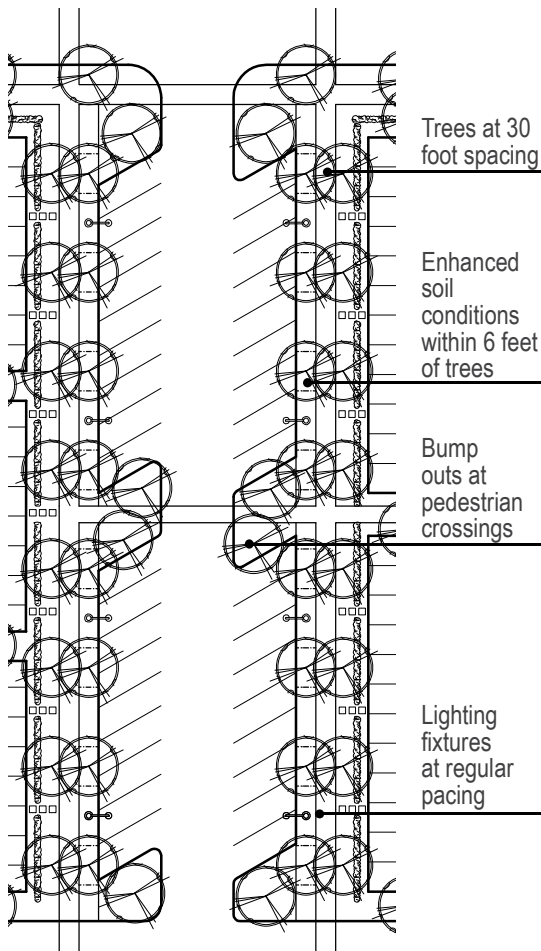


Fig. A.1.S6: Plan of Primary Internal Drive showing optional angle parking.

1. INTEGRATED SITE DESIGN, CONTINUED

DESIGN GUIDELINES

All Development, Continued

G7. Trees shall be planted along internal drives in a pattern consistent with those on public streets.

G8. In limited conditions, a landscaped area may be permitted to substitute for an enhanced internal roadway condition.



Fig. A.1.S7: Bump-outs and crosswalks with decorative paving are present on primary internal drives when parking is included.

DESIGN STANDARDS

All Development, Continued

S7. INSIDE THE TRIANGLE: Shade (or canopy) trees on primary internal drives shall be planted in the amenity zone at an average spacing of 30 feet. All trees planted on the primary internal drives shall be selected from the City of Gresham Recommended Street Trees list. For commercial, employment, live/work and mixed-use developments, the trees shall be of a size no smaller than 3-inch caliper.

OUTSIDE THE TRIANGLE: Shade (or canopy) trees on primary internal drives shall be planted in the amenity zone at an average spacing of 30 feet. All trees planted on the primary internal drives shall be selected from the City of Gresham Recommended Street Trees list. For all development, the trees shall be of a size no smaller than 2.5-inch caliper.

- S8.** When used as a substitute for a primary drive aisle, major landscape divisions shall consist of a 24-foot-wide landscaped area planted with trees, shrubs and ground cover.
- a. This area may be designed to allow for stormwater infiltration.
 - b. A pedestrian walking path may be integrated into this area and, at the discretion of the Manager or Design Commission, may be required if it improves circulation within the site.
 - c. If the walking path is between buildings, the building to building spacing shall be at least 10 feet in width to provide ample space for attractive landscape plantings, natural lighting and adequate open space between buildings.
 - d. Throughout the site, the walkway shall be a minimum 5 feet in width, except as noted in **Sections 7.0503(A)(1)(S8)(c)** and **7.0503(A)(1)(S4)** above.

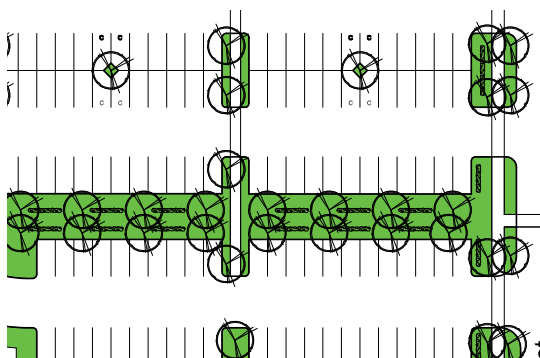


Fig. A.1.S8: Major landscape division used as a substitute for a primary internal drive.

1. INTEGRATED SITE DESIGN, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development

G9. Connections shall be provided to adjacent abutting properties to prevent unnecessary traffic on public streets.

G10. Block sizes of commercial and mixed-use development shall be limited to promote pedestrian connectivity, accessibility and to allow for the infiltration of sunlight and air. Internal roadways and walkways within larger developments shall function as “pedestrian streets,” with the development pattern establishing a human scale block pattern.

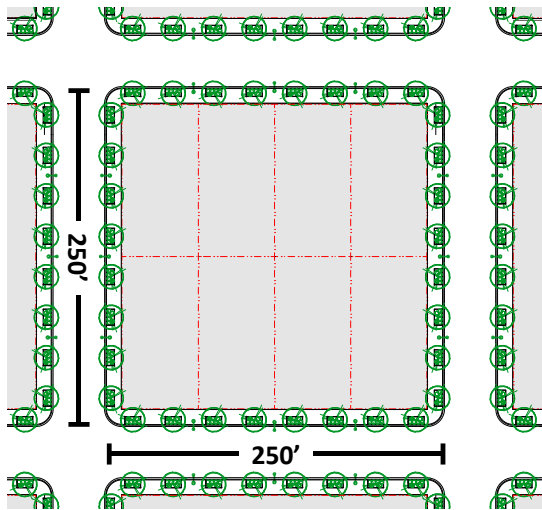


Fig. A.1.S10.a INSIDE THE TRIANGLE: Maximum block size.

DESIGN STANDARDS

Commercial and Institutional Development

S9. INSIDE THE TRIANGLE: When public streets are not present to connect to neighboring commercial properties, vehicular and pedestrian connections shall be provided to existing or future parking areas on adjacent properties as required by **Section 9.0822(A)(8)**.

OUTSIDE THE TRIANGLE: For development sites greater than 400 feet in length, a mid-block pedestrian walkway shall be provided for connections to surrounding streets and nearest transit facilities.

S10. INSIDE THE TRIANGLE: For an individual development, the maximum block length shall be 250 feet by 250 feet from curb to curb. Departures shall be considered by the Manager based on one or more items listed below:

- a. Topography, right-of-way, existing construction or physical conditions, or other geographic conditions that impose an unusual hardship on the project applicant, and an equivalent alternative which can meet the Rockwood Town Center goals and policies, as applicable, is available;
- b. A departure provides the opportunity for a public open space or other public amenity that would otherwise not be possible;
- c. The location of an institutional use that requires a larger block size; or
- d. When a primary internal drive(s) or pedestrian route is used to meet cross circulation Standards as determined by the Manager, the following applies:
 - i. Pedestrian pathways shall be constructed to surrounding areas at an average spacing no greater than one every 400 feet.
 - ii. Roadways shall be designed to look and function like public streets with planting strips, street trees, sidewalks, and parallel parking where appropriate per the Manager.
 - iii. Roadways or pedestrian routes shall be fully accessible to the public.
 - iv. For development sites over 1 acre, a mid-block pedestrian connection shall be provided between the adjacent primary street and secondary street to facilitate pedestrian movement through the Triangle Area.

Continued on following page

1. INTEGRATED SITE DESIGN, CONTINUED

DESIGN STANDARDS

S10. Continued

OUTSIDE THE TRIANGLE: For an individual development, the maximum block length shall be 600 feet by 300 feet from curb to curb. Departures shall be considered by the Manager based on one or more items listed below.

- e. Topography, right-of-way, existing construction or physical conditions, or other geographic conditions that impose an unusual hardship on the project applicant, and an equivalent alternative which can meet the Rockwood Town Center goals and policies as applicable is available;
- f. A departure provides the opportunity for a public open space or other public amenity that would otherwise not be possible;
- g. The location of an institutional campus or other similar community service use that requires a larger block size; or
- h. A primary internal drive(s) or pedestrian route may be used to meet cross circulation Standards as determined by the Manager or Design Commission and as noted below.
 - i. Pedestrian pathways shall be present to surrounding areas at an average spacing of no greater than one every 400 feet.
 - ii. Roadways shall be designed to look and function like public streets with planting strips, street trees, sidewalks, and parallel parking where appropriate per the Manager.
 - iii. Roadways or pedestrian routes shall be fully accessible to the public.
 - iv. For development sites over 1 acre, a mid-block pedestrian connection shall be provided between the adjacent primary street and secondary street to facilitate pedestrian movement.

For an individual development that includes a residential component such as live-work or mixed-use developments, the maximum block length shall be 400 feet by 300 feet from curb to curb. Departures shall be considered by the Manager.

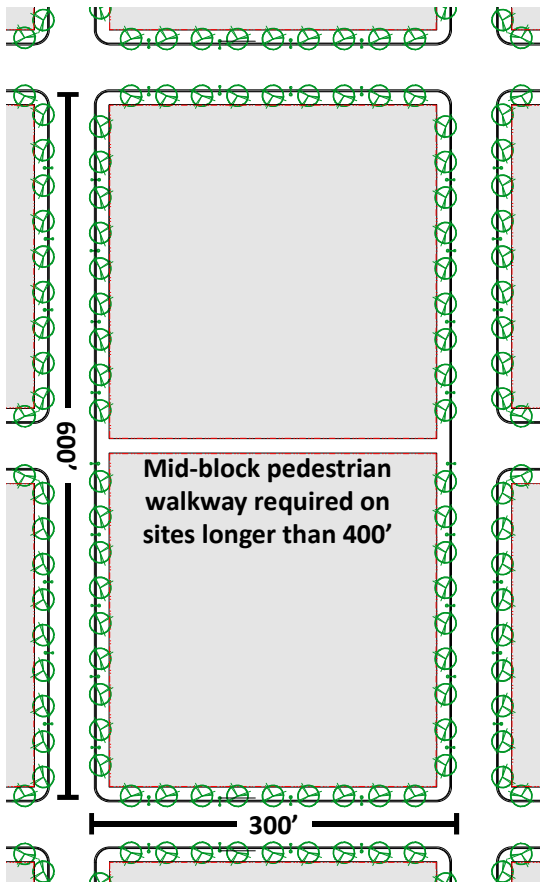


Fig. A.1.S10.b OUTSIDE THE TRIANGLE: Maximum block size for commercial and employment development.

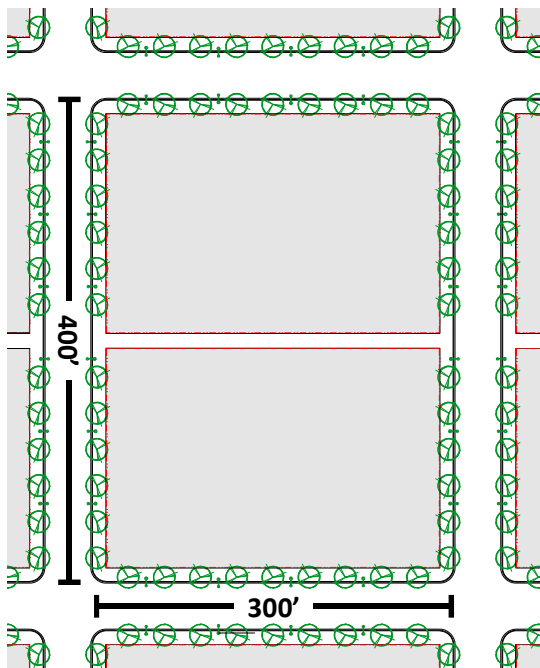


Fig. A.1.S10.c OUTSIDE THE TRIANGLE: Maximum block size: Mixed-use development.



Fig. A.1.S10.d: Primary internal drives may be used to meet circulation standards when configured to look and function like public streets.

1. INTEGRATED SITE DESIGN, CONTINUED

DESIGN GUIDELINES

Residential: Multifamily/Townhouse

G11. Within multifamily developments, block sizes shall be limited to promote pedestrian connectivity, accessibility and to allow for the infiltration of sunlight and air.

G12. Streets that are pedestrian-friendly shall be created where possible. Typical characteristics of people-friendly streets include gracious wide sidewalks, street trees, on-street parking, and buffering between pedestrian areas and travel lanes, for example.

DESIGN STANDARDS

Residential: Multifamily/Townhouse

S11. INSIDE THE TRIANGLE: For an individual development, the maximum block length shall be 250 feet by 250 feet from curb to curb. Departures shall be considered by the Manager based on one or more of the conditions listed in **Section 7.0503(A)(1) (S10)** above.

OUTSIDE THE TRIANGLE: For an individual development, the maximum block length shall be 300 feet by 300 feet from curb to curb. Departures shall be considered by the Manager.

S12. All other Standards from **Section 7.0100** Corridor Design District (excluding those under the heading Commercial, Industrial, and Institutional) and Single Detached Dwelling and Townhouse Standards from **Section 7.0200** and **7.0400** shall apply.

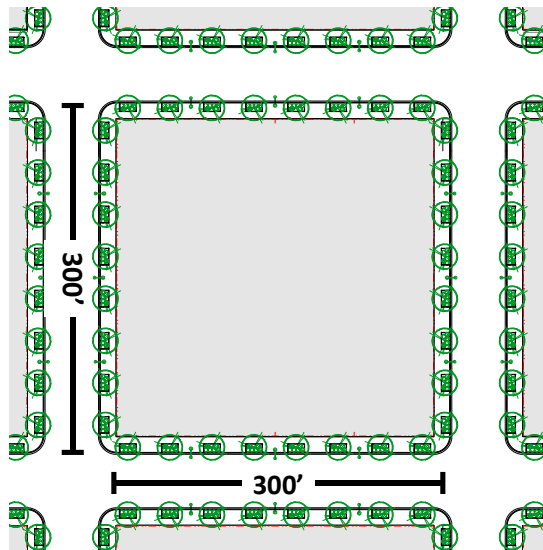


Fig. A.1.S11 OUTSIDE THE TRIANGLE: Maximum block size: Multifamily development.



Fig. A.1.S10.e: A mid-block pedestrian path improves the walkability of dense urban neighborhoods.



Fig. A.1.G12: Streets that include street trees, wide sidewalks and other amenities encourage greater pedestrian usage and are more attractive.

2. BUILDING FRONTAGE AND PLACEMENT

Intent: To ensure buildings are oriented in a manner appropriate to the use and to enhance pedestrian accessibility and place the most visually interesting facade in public view.

Applicable Rockwood Design Principles from Section 7.0502:

- A. Physical Environment
- C. Safe Design
- D. Transportation Modes
- E. Open Space



Fig. A.2: Buildings located at the street define the street edge and create a pedestrian-friendly development pattern.

DESIGN GUIDELINES

All Development

G1 and G2. Buildings shall be located to positively define public streets and civic spaces, such as public plazas.

- a. Parking, loading, service and vehicular circulation areas shall be located so as to allow desired uses and activities to face the street and to support pedestrian-oriented streets.
- b. The pedestrian shall have principal access into the building from the sidewalk. Clear pedestrian connections shall be established on-site; for example, direct pedestrians from surface or structure parking to buildings, streets, and public spaces.
- c. As long as street and/or retail continuity is not unduly interrupted, arcades or colonnades, if utilized, shall be integrated along the sidewalk edge.



Fig A.2.S1 OUTSIDE THE TRIANGLE: Commercial buildings shall be placed close to the street with a landscaped area between the building and the sidewalk.

DESIGN STANDARDS

All Development

S1. INSIDE THE TRIANGLE: Along public street frontages, building setbacks shall be dependent upon their street location as follows:

- a. Stark Street - between zero and 5 feet from the right-of-way (min. and max.);
- b. 181st Avenue - between zero and 5 feet from the right-of-way (min. and max.);
- c. Burnside Street - between 10 and 15 feet from the right-of-way (min. and max.);
- d. 185th Ave./187th Ave./Ash Street/Future 182nd and 183rd Avenues - between 10 and 15 feet from the right-of-way (min. and max.);
- e. Pine/Oak Streets - between 10 and 15 feet from the right-of-way (min. and max.);

OUTSIDE THE TRIANGLE: For commercial and institutional development, the front building setbacks shall be a minimum of zero feet to a maximum of 10 feet in the Rockwood Town Center (RTC) and a minimum of zero feet to a maximum of 20 feet in the Station Center (SC) and the Station Center-Ruby Junction (SC-RJ) land use districts. Portions of the building setback greater than 5 feet within this frontage requirement shall be heavily landscaped, meeting requirements set forth in **Section 7.0503(A)(6)**.

S2. Parking, loading service and vehicular circulation areas (except for a side entry drive) shall be behind the maximum setback or behind a line drawn parallel to the street at the point where the building is closest to the street, whichever is closest to the street. In no circumstance shall the parking and loading service be closer than the minimum building setback. For sites with multiple frontages, parking may be allowed up to the minimum setback regardless of building location as approved by the Manager or Design Commission. Standards for minimum building frontage along a street shall be considered when making this determination.

2. BUILDING FRONTAGE AND PLACEMENT, CONTINUED

DESIGN GUIDELINES

All Development, Continued

G3. Sufficient length of buildings shall be present to maintain a continuous building street wall and in general limit spatial gaps to those necessary to accommodate vehicular and pedestrian access in order to define the street edge.

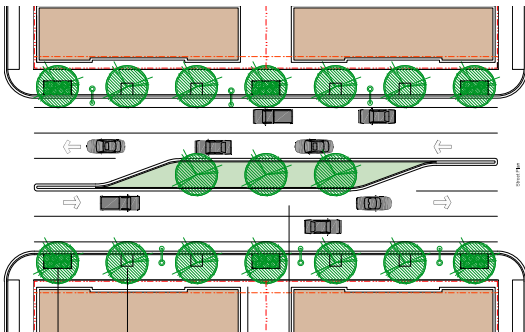


Fig. A.2.S1.a and A.2.S3.a: Stark Street: Zero to 5-foot setback and 90 percent building frontage.

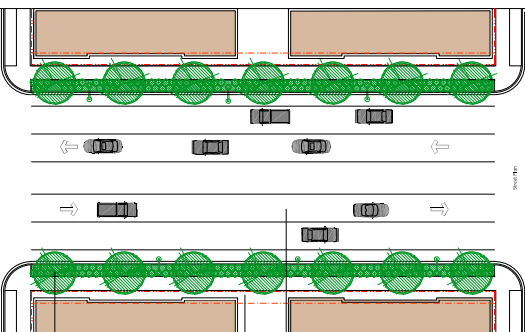


Fig. A.2.S1.b and A.2.S3.b: 181st Avenue: Zero to 5-foot setback and 90 percent building frontage.

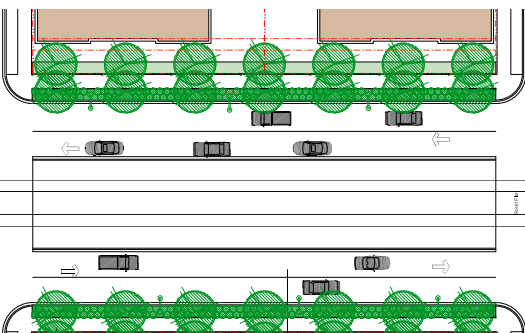


Fig. A.2.S1.c and A.2.S3.c: Burnside Street: 10- to 15-foot setback and 75 percent building frontage.

DESIGN STANDARDS

All Development, Continued

S3. Building Frontage: Building frontage shall be measured by the length of the building present between the minimum and maximum setback. Space attributed to public streets, driveways and primary internal drives and their associated required landscaping shall be subtracted from the total length of the frontage calculations. Commercial, institutional, and mixed-use development frontage on existing or new public streets shall be dependent upon their street location and shall be no less than the following values:

INSIDE THE TRIANGLE:

- a. Stark Street – 90 percent building frontage;
- b. 181st Avenue – 90 percent building frontage;
- c. Burnside Street – 75 percent building frontage;
- d. 185th Ave./187th Ave./Ash Street/Future 182nd and 183rd Avenues – 75 percent building frontage; and
- e. Pine/Oak Streets – 75 percent building frontage.

OUTSIDE THE TRIANGLE: For commercial and institutional development, public street frontages shall be occupied by building facades for a minimum of 60 percent of the frontage length. For residential development (multifamily and townhouse), the residential front building setbacks shall be a minimum of 5 feet to a maximum of 20 feet in RTC, SC and SC-RJ land use districts and public street frontages shall be occupied by building facades for a minimum of 50 percent of the frontage length.

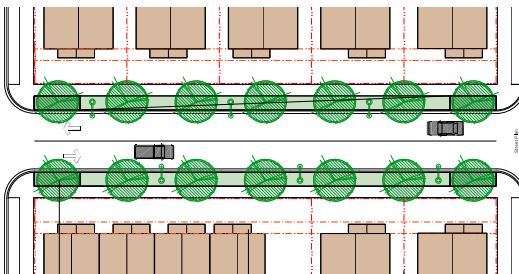


Fig. A.2.S1.d and A.2.S3.d: 185th Ave./187th Ave./Ash Street/Future 182nd and 183rd Avenues: 10- to 15-foot setback and 75 percent building frontage.

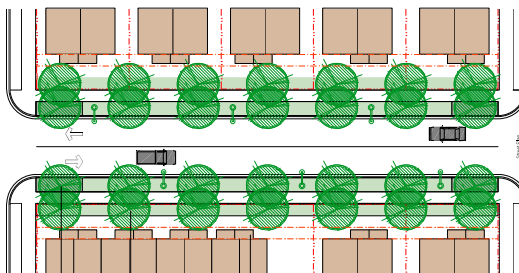


Fig. A.2.S1.e and A.2.S3.e: Pine and Oak Streets: 10- to 15-foot setback and 75 percent building frontage.

2. BUILDING FRONTAGE AND PLACEMENT, CONTINUED

DESIGN GUIDELINES

All Development, Continued

- G4. Greater concentrations of buildings and building mass shall be present at the intersection of streets to better define these areas.
 - a. Buildings that converge along different street types shall provide a graceful transition from taller buildings to lower buildings.
 - b. Buildings at corners may be set back to promote visibility into public open spaces at these locations.

- G5. Developments may pull back from the street edge to accommodate plazas, outdoor cafe areas, or gracious entry fore-courts, provided street continuity is not unduly interrupted along the majority of the block.

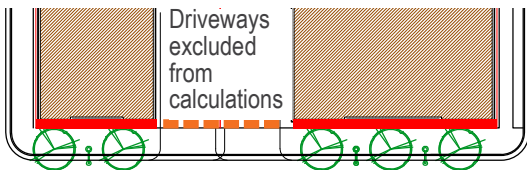


Fig. A.2.S3.f: Diagram showing a 90 percent building frontage configuration with driveways excluded from calculations.



Fig. A.2.G4: A building that transitions height successfully at the corner.

DESIGN STANDARDS

All Development, Continued

- S4. If a building resides on a corner with frontage on both streets, the frontage requirement shall apply to the street with the highest functional classification. One hundred percent of the frontage at street intersections shall be occupied by buildings or pedestrian-oriented open spaces for a minimum distance of 60 feet, as measured along the minimum setback line, except as required to meet clear vision requirements for developments with direct access to a major or standard arterial street.

- S5. Pedestrian-oriented open spaces may count towards the frontage requirement along a street frontage on existing public streets up to 10 percent of the total requirement when:
 - a. Pedestrian-oriented open spaces between the right of way and the building facade as long as the building facade is not more than 40 feet from the right of way. This distance may be increased at the intersection of streets to accommodate clear vision triangles at the discretion of the Manager.
 - b. The space contains vertical elements that screen any off-street parking that would be visible from the street through the open space and define the street edge.
 - c. Parking shall be generally located on the side, interior or rear of the site and shall not be present along the public street frontages. Parking is permitted to front 185th and 187th Streets if a screening wall or hedge at a height of 30 inches is provided as a buffer.



Fig A.2.S3 OUTSIDE THE TRIANGLE: Multifamily buildings shall be placed close to the street, but shallow setbacks are allowed to increase the level of privacy for individual units.

2. BUILDING FRONTAGE AND PLACEMENT, CONTINUED

DESIGN GUIDELINES

All Development, Continued

G6. If an open space is present at an intersection, buildings shall be present on internal open space edges that define and activate the space.

Exception: Civic Uses

G7. Civic buildings shall be placed to provide continuous visual interest to the pedestrian.



Fig. A.2.S5: An open space located at an intersection with its edges defined by buildings on internal site edges.



Fig. A.2.G5: A building which uses an increased setback to accommodate an outdoor cafe.

DESIGN STANDARDS

All Development, Continued

S6. If a pedestrian-oriented open space is present at an intersection of two public streets, its internal site edges shall be lined by buildings for 80 percent of their length.

Exception: Civic Uses

S7. To provide greater flexibility and to emphasize the importance of civic uses, civic buildings do not have to meet the maximum setback requirements so long as parking is not located between the building frontage and the primary street frontage. However, alternative frontage treatments shall meet the following objectives, as determined by the Manager or Design Commission:

- a. The building(s) shall emphasize civic use(s) and shall include visually prominent architecture visible from the adjoining public street of the highest traffic volume street classification;
- b. The site design treatment shall contribute to the desired pedestrian-oriented character of the Triangle Area by providing public open space of a minimum of 600 square feet in size; and
- c. There is a direct and inviting pedestrian connection between the building and the street.

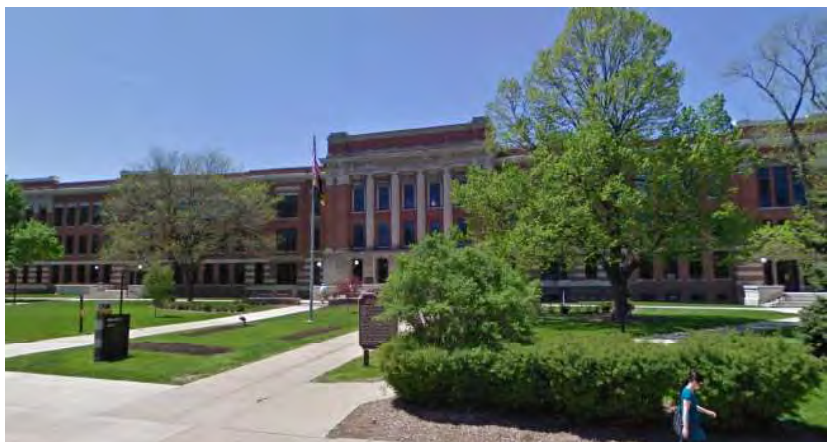


Fig. A.2.S7: Civic buildings may have increased setbacks so long as no parking is located between the building and the street.

2. BUILDING FRONTAGE AND PLACEMENT, CONTINUED

DESIGN GUIDELINES

Residential: Multifamily/Townhouse

- G8.** Buildings shall promote an active street environment that minimizes pedestrian conflicts with drives and the impact of street facing garages.
- G9.** If an open space is present at an intersection, buildings shall be present on internal site edges that define and activate the space.



Fig. A.2.S8: A series of duplex style units with parking located at the rear of the site and not visible from the street.

DESIGN STANDARDS

Residential Development: Multifamily and Townhouse

- S8.** On-site surface parking areas, garages, and vehicular circulation areas shall be located to the side or rear of the building and shall not be present between the building and the street except for individual driveways for Plex and Townhouse style units. Any street-facing garages shall have a maximum width of 50 percent of the overall building width.
- S9.** If a pedestrian-oriented open space is present at an intersection, its internal site edges shall be lined by buildings for 60 percent of their length.



Fig. A.2.G8: Townhouses provide individual unit entries on the street, with parking located to the rear to minimize pedestrian conflicts and impacts from garages.

3. PEDESTRIAN CIRCULATION

Intent: Create a network of pedestrian-oriented connections that supports the larger street and open space network and encourages appropriately scaled and oriented development.

Applicable Rockwood Design Principles from Section 7.0502:

- A. Physical Environment
- B. Sustainability
- C. Safe Design
- D. Transportation Modes
- G. Compatibility



Fig. A.3: A walkway which connects an open space to an abutting mixed-use building.

DESIGN GUIDELINES

All Development

- G1. Section 9.0824** Pedestrian Circulation/ Walkways and **Sections 7.0103(A)(3)** apply.
- G2.** Convenient, direct and accessible pedestrian routes to and from public sidewalks and transit facilities shall be provided.



Fig. A.3.G4: A walkway provides additional connectivity where an automobile connection would not be feasible.

DESIGN STANDARDS

All Development

- S1.** The Standards found in **Section 9.0824** Pedestrian Circulation, **Section 7.0103(A)(3)** and **Section 7.0503(A)(1)** apply.
- S2.** Pedestrian Environment and Access to Transit Facilities
 - a.** Development shall provide convenient, direct, and barrier-free pedestrian circulation between buildings and adjacent light rail stations, park and ride facilities, public sidewalks, and pedestrian routes. All buildings and sites shall orient their on-site pedestrian circulation to the closest adjacent light rail station. Pedestrian activity centers within one-quarter mile walking distance should also be considered in the layout of pedestrian circulation.
 - b.** On-site vehicular and pedestrian circulation design shall minimize vehicular/pedestrian conflicts (e.g. driveway crossings).
 - c.** Enhanced accessible pedestrian spaces and amenities are encouraged, such as plazas, arcades, gallerias, courtyards, outdoor cafes, widened public sidewalks (more than 6 feet wide outside the public right of way), benches, shelters, street furniture, public art, kiosks, and street vending. Covered walks are also encouraged between primary building entries and adjacent public sidewalks and on other on-site walkways.



Fig. A.3.S4.a: A well-landscaped walkway creates a pleasant pathway through a parking area.

3. PEDESTRIAN CIRCULATION, CONTINUED

DESIGN GUIDELINES

All Development, Continued

G3. Well-defined pedestrian walkways from parking areas shall be provided to link to public sidewalks throughout the site.



Fig. A.3.G3: An attractive walkway is provided in a large parking area which connects the building entry to other walkways.

DESIGN STANDARDS

All Development, Continued

S3. For surface parking lots greater than 20 spaces, a safe, attractive pathway consistent with **Section 7.0432(H)(1,2)** shall be provided between the parking areas and the building.



Fig. A.3.S3: A defined walkway links the parking area to the street and sidewalk.

3. PEDESTRIAN CIRCULATION, CONTINUED

DESIGN GUIDELINES

All Development, Continued

- G4.** Pedestrian circulation routes shall comply with the following guidelines:
- a.** Where pedestrian circulation routes, such as mid-block paths, intersect major streets, features shall be present that give prominence to these locations.
 - i.** These elements shall contribute to pedestrian circulation having a higher priority than vehicular circulation in the design and layout of development sites in the Triangle.
 - ii.** Pedestrian and/or bike connections shall connect residential areas, retail centers and open spaces. Pedestrian, bike and visual connections shall also be made wherever auto connections are not feasible.
 - iii.** Clear and safe pedestrian routes shall be provided through parking areas to provide pedestrian access between buildings with minimal conflicts with vehicles. Where walks cross drive aisles, they shall be clearly marked with visually contrasting paving.
 - b.** Pedestrian circulation routes, including sidewalks and mid-block paths, shall be present where necessary to enhance connectivity.

DESIGN STANDARDS

All Development, Continued

- S4.** Where publicly accessible open spaces meet Burnside, Stark or 181st, they shall:
- a.** Incorporate a minimum of one of the following elements from the major or standard arterials and boulevards into the larger Triangle neighborhood:
 - i.** An entry gate feature;
 - ii.** Columns;
 - iii.** Special lighting which compliments the building architecture (at least two lighting features to frame the entry); or
 - iv.** Art work approved by the Manager.



Fig. A.3.S4.c: A key intersection is bordered by a plaza with a fountain, walking paths and a building with a turret fronting the intersection in the background.



Fig. A.3.S4.b: A covered walkway adds prominence to this walkway.

4. PARKING, LOADING, AND SERVICE AREAS

Intent: To ensure buildings are placed in appropriate locations to define the street, create a comfortable pedestrian environment, minimize the visual impact of parking from primary streets and to minimize the negative impacts that required service functions, such as deliveries and trash removal, have on surrounding areas and adjacent properties.

Applicable Rockwood Design Principles from Section 7.0502:

- A. Physical Environment
- C. Safe Design
- D. Transportation Modes



Fig. A.4: Trees, shrubs, and a decorative fence buffer the parking area from an adjacent walkway.

DESIGN GUIDELINES

All Development

- G1.** Surface parking areas and lots, loading service and vehicular circulation areas shall be located at the rear of the site or on the interior of the site and removed from the adjacent light rail station, except as noted in **Section 7.0503(A)(4)(S1)**.
- G2.** The design of surface parking areas, including a landscaped buffer, shall include the following:
 - a. Parking is accessed by common driveways from secondary streets.
 - b. Parking areas are designed as smaller, connected lots rather than large lots.
 - c. Layout shall accommodate pedestrian circulation.
 - d. The functional requirements of parking are balanced with the provision of pedestrian amenities.
 - e. Transition areas between parking and civic, commercial, or residential uses are designed with textured paving, landscaping and street furniture.
 - f. Choice of plantings, buffer width, type of screening, and location and frequency of tree planting are appropriate for a town center setting.
 - g. Drainage improvements are designed as natural landscape features to the greatest extent practical.

DESIGN STANDARDS

All Development

- S1.** Off-Street parking, loading service and vehicular circulation area is prohibited between the building and the street or primary internal drive. Exceptions to this Standard include developments which front on 185th and 187th Avenues, which must provide a 30 inch decorative wall or hedge to buffer the parking area. Parking and maneuvering areas, except spaces designated for park and ride or kiss and ride use, should be located on portions of the site that are furthest in walking distance from an adjacent rail station.
- S2.** All off-street surface parking shall have a landscaped buffer in compliance with **Section 9.0823** Landscaping of Parking Lots between the back of the sidewalk and the parking area.



Fig. A.4.G1: A multifamily development with buildings lining the perimeter of the block and parking located in an internal area.

4. PARKING, LOADING, AND SERVICE AREAS, CONTINUED

DESIGN GUIDELINES

All Development, Continued

- G3. Surface parking areas shall not be located adjacent to street intersections. Structured parking facilities with active ground floor uses may locate in these areas.
- G4. Structured parking shall meet the following guidelines:
 - a. Below grade and structured parking facilities are especially encouraged.
 - b. Parking facilities shall be located and oriented to the rear or interior of the property to minimize negative visual impacts. Parking garages shall incorporate active uses at the ground level along public streets, especially at corners.
 - c. Structured parking layouts shall provide pedestrian circulation and connections with building uses.
- G5. The number of vehicular access points shall be minimized by locating vehicular entries on alleys and secondary streets. Pedestrian safety measures shall be provided, such as signage, textured surfaces at entries, and other design techniques.



Fig. A.4.G4: A parking structure with retail uses on the ground floor.

DESIGN STANDARDS

All Development, Continued

- S3. Parking lots shall not be located adjacent to street intersections. Parking structures may be located at street intersections provided commercial uses occupy the ground floor at the street corner. The depth of the commercial space shall be at least 30 feet and its total length per side shall be at least 50 feet.
- S4. Structured parking facilities shall be designed to accommodate commercial or residential uses on the ground floor level, be concealed within the site, or shall be located under or above the ground floor of buildings. Where structured parking is provided on the ground floor, residential or retail uses shall be provided along the street front with parking facilities placed behind the uses and away from streets. Structured parking on upper floors along streets shall be allowed if the facade meets articulation standards and transparency standards set forth in Sections 7.0503(B)(1), 7.0503(B)(4) and 7.0503(B)(5). Ground level structured parking exposed to the street shall be prohibited except for the following:
 - a. Required driveways; and
 - b. Where the design features add visual interest to the pedestrian; and
 - c. When unwanted views into garages are minimized; and
 - d. When the requirements of Sections 7.0503(B)(1) and 7.0503(B)(4) are met.
- S5. Where alleys are present, vehicular access shall be from the alley where practical.



Fig. A.4.G2: A landscaped area is used to divide a large parking area into series of smaller lots.

4. PARKING, LOADING, AND SERVICE AREAS, CONTINUED

DESIGN GUIDELINES

All Development, Continued

- G6. Service areas shall be located away from public view to the greatest degree possible and shall minimize visual, acoustic and lighting impacts on surrounding areas.
 - a. The use of liner spaces to screen service areas on the side or behind a building facing a street is encouraged.
 - b. The operations within service areas shall respect adjoining property owners and not create undue negative impacts.
 - c. Service and loading areas shall not be highly visible from a light rail station or transitway.
 - d. Section 7.0503(A)(4)(S6)(d) shall be met.

DESIGN STANDARDS

All Development, Continued

- S6. When dedicated loading facilities are required, loading areas shall be located at the rear of the building or as approved by the Manager or Design Commission. If loading areas cannot be located at the rear of the building, they may be placed along the building’s side and recessed from the front facade a distance which minimizes visual impacts and prevents vehicles from extending onto adjacent walkways. Required loading area dimensions can be found in Section 9.0840.
 - a. Dedicated loading such as loading docks shall be screened parallel to the building wall with liner spaces or walls integrated into the building and no less than 16 feet in height. This area may count towards the frontage requirement if it meets the Standards within the Facade Composition and Building Articulation described in Sections 7.0503(B)(1) and 7.0503(B)(4). The liner spaces or walls shall fully conceal service vehicles except at the entry in order to allow for safe vehicular movement while exiting.
 - b. Liner spaces and screening walls shall include articulation, materials and detailing identical to the principal building.
 - c. Service and loading areas shall be visually screened from a light rail station or transit way.
 - d. When located next to residential areas, service vehicles shall not be left idling in excess of 10 minutes between the hours of 10 p.m. and 6 a.m. Signage shall be posted in a visible location within the loading area to inform drivers of this requirement.



Fig. A.4.S6.a: A loading area that is incorporated into the side of a building, but located away from the entry and other active areas.



Fig. A.4.S6.b: Screening wall of a loading area using similar materials and articulation as the primary structure.

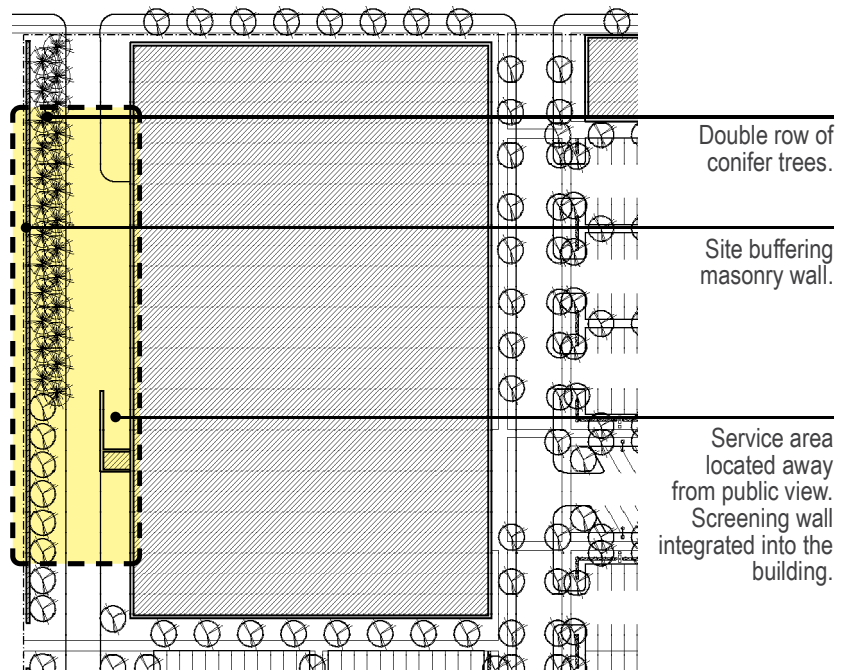


Fig. A.4.S6.c: Site design diagram showing a potential service area configuration.

4. PARKING, LOADING, AND SERVICE AREAS, CONTINUED

DESIGN GUIDELINES

All Development, Continued

- G7. Service areas in public view, such as dumpster enclosures, shall be attractively designed in a manner that complements surrounding buildings.
- G8. Service area screening shall incorporate strategies which provide year-round screening and buffering such as walls, intensive landscaping and berms. Screening shall be present along the site perimeter and intensified at service areas to mitigate any potential visual or acoustic impacts on surrounding properties.



Fig. A.4.G6: Service areas located away from public areas of the site.



Fig. A.4.G8: A service area is screened by walls with a character similar to the adjacent building.

DESIGN STANDARDS

All Development, Continued

- S7. In addition to requirements stated in Section 7.0212 Solid Waste and Recycling Collection Area, the collection areas shall be entirely screened and enclosed by a masonry wall of at least 6 feet in height that is designed using materials and detailing which are identical to the main building.
- S8. Loading and Service Area Perimeter Site Screening.
 - a. In addition to buffering and screening requirements specified in Section 9.0110, a 6- to 8-foot foot masonry wall, 2.5-inch caliper trees and shrubs capable of reaching 5 feet within five years of planting are required.
 - b. When dedicated loading facilities abut or face residential properties, an additional five evergreen trees per 100 feet shall be planted along the perimeter buffer within line of sight of the opening of the dedicated loading facility in order to provide year-round screening. This requirement will be waived if liner spaces are used in place of a screening wall.



Fig. A.4.S7: A masonry enclosure screens dumpsters while complimenting the design of the building.



Fig. A.4.S8: Conifer trees provide year-round screening to service and loading areas.

4. PARKING, LOADING, AND SERVICE AREAS, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development

G9. Parking located at the street frontage on the side of a building shall be minimized.

Residential Development: Multifamily and Townhouse

G10. Parking located at the street frontage on the side of a building shall be minimized.



Fig. A.4.S9 OUTSIDE THE TRIANGLE: A limited amount of parking may be placed on the side of a building at the street edge when screening is present.

DESIGN STANDARDS

Commercial and Institutional Development

S9. Required off-street parking shall be located to the rear, interior, side, on top of or beneath the structure.

INSIDE THE TRIANGLE: Parking located to the side of the building shall be limited to 10 percent of the overall frontage.

OUTSIDE THE TRIANGLE: Parking located to the side of the building shall be limited to 40 percent of the overall frontage.

Residential Development: Multifamily and Townhouse

S10. INSIDE THE TRIANGLE: In addition to requirements specified in **Section 7.0103(A)(4)** Parking, Loading, and Service Areas for multifamily and townhouse style developments and **Section 7.0432(F)** Vehicular Circulation and Parking, required off-street parking shall be located to the rear, interior, side, on top of or beneath the structure. Parking located to the side of the building shall be limited to the area along the street not required for building frontage and landscaping.

OUTSIDE THE TRIANGLE: In addition to requirements specified in **Section 7.0103(A)(4)** Parking, Loading, and Service Areas for multifamily and townhouse style developments, required off-street parking shall be located to the rear, interior, side, on top of or beneath the structure. Parking located to the side of the building shall be limited to 50 percent of the overall frontage.



Fig. A.4.S10 OUTSIDE THE TRIANGLE: An internal parking area is visible behind townhouses which line the street.

5. OPEN SPACES

Intent: To create a network of pedestrian spaces that supports the larger street and open space network. Open spaces shall be developed as a focal point of large development, encouraging pedestrian activity in highly visible locations.

Applicable Rockwood Design Principles from Section 7.0502:

- A. Physical Environment
- B. Sustainability
- D. Transportation Modes
- E. Open Space
- F. Landscaping



Fig. A.5: A pedestrian-oriented open space 20 feet in width.

DESIGN GUIDELINES

All Development

G1. Sites abutting or facing a light rail station shall be linked for pedestrians as directly as possible with attractive open space.

Commercial and Institutional Development

G2. Well-defined open spaces, such as on-site plazas, interior courtyards, patios, terraces and gardens, are critical to the Triangle’s public realm and are especially encouraged in association with large developments. The total amount of open spaces shall relate to the size of the overall development.

G3. The dimensions of outdoor spaces shall be sufficient to encourage usage and activity. They shall be proportioned and designed to be comfortable for human activity and social interaction – standing, sitting, talking.

DESIGN STANDARDS

All Development

S1. Sites abutting or facing a light rail station shall be linked as directly as possible by a continuous on-site landscaped courtyard plaza or square that leads directly to the station or public walkways accessing the station. Areas for the courtyards, plazas, or squares must contain seating and landscaped areas with trees.

Commercial and Institutional Development

S2. For sites larger than 20,000 square feet, developments shall include pedestrian-oriented open space of a size no less than 4 percent of all ground floor commercial space on site, or 1,000 square feet, whichever is less. Publicly accessible open spaces may count toward landscaped area requirements and may count toward building frontage for the development site if the pedestrian-oriented open space has a clear visual and physical connection to the street.

S3. Publicly accessible open spaces shall have a minimum width of 20 feet and a minimum depth of 20 feet unless otherwise approved by the Manager or Design Commission due to site constraints such as site size, site shape or topography.



Fig. A.5.S4.a: A pedestrian-oriented open space visible from the street and within 50 feet of the building entry.

5. OPEN SPACES, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued

G4. Open spaces shall be sited in accordance with the location and scale of adjacent streets, buildings, and uses; for instance, on-site plazas shall not unduly interrupt the retail continuity of streets in the Triangle. Publicly accessible open spaces intended for public use shall be located at or near street grade to promote physical and visual connection to the street.



Fig. A.5.G5.a: A public space which captures rainwater for irrigation of landscaping on site.



Fig. A.5.S5.a: Decorative paving improves the appearance of this open space.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

S4. Publicly accessible open spaces shall be visible from a public street frontage or primary internal drive and a building entrance shall be located within 40 feet of a pedestrian-oriented open space.

- a. At the discretion of the Manager or Design Commission, open space may be located on other areas of the site in order to preserve a natural feature of the site but must remain visible from the adjacent buildings. Direct pedestrian access to active open space areas of the site shall be provided if the spaces are not accessible via other circulation routes.
- b. Spaces may be located above or below grade provided they are publicly accessible during normal business hours.
- c. Publicly accessible open spaces located between a building and a sidewalk shall provide direct pedestrian access to the abutting building.



Fig. A.5.G4: A public space adjacent to the street and at the same grade ensures physical and visual connection to the street and accessibility of all users.



Fig. A.5.S4.b: Building entries are easily accessible from the street via walkways through the open space.

5. OPEN SPACES, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued

- G5. Publicly accessible open spaces shall be designed with strategies and features that encourage activity within the space.
 - a. Incorporate features that advance sustainable principles, such as use of gray water, solar collection for powering pumps or lighting, rain gardens, pervious paving, containers for recycling, and benches made from recycled materials.
 - b. Design spaces with safety in mind: on-site plazas shall promote visibility from the street and provide lighting to enhance nighttime security.
 - c. Encourage the presence of uses that will activate outdoor space and complement street activity, such as locating retail, outdoor cafes, and vendors within a plaza or around its perimeter.
 - d. Add a focal element, such as a sculpture, fountain, or other art piece to draw people into the space.
 - e. Link adjoining outdoor spaces with comfortable paths and walks to create a network of spaces.



Fig. A.5.G5.b: A fountain is used as a focal point of a public space and encourages activity.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

- S5. Publicly accessible open spaces shall incorporate at a minimum the following:
 - a. At least 30 percent of the area shall be planted with trees, shrubs, groundcover and perennial landscape plantings and shall meet the landscape standards of **Section 7.0503(A)(6)**.
 - b. At least 50 percent of the area shall be hardscaped with decorative paving.
 - c. There shall be at least one bench or seating unit for each 200 square feet of area (seating may be grouped into benches or ledges).
 - d. Structural soil, silva cells or approved special soil treatment that is at least 24 inches deep shall be used as soil base for trees in plazas to prevent soil compaction and to encourage tree root growth.
 - e. Pedestrian-scaled lighting fixtures no taller than 18 feet.
 - f. One element with sustainability attributes such as rain gardens, green roofs and walls, commercial grade solar powered lights or equipment, pervious paving, or other elements as determined by the Manager or Design Commission.
 - g. One artistic design element such as decorative paving patterns, ornamental art features, creative lighting elements, etc. or other elements as approved by the Manager or the Design Commission.



Fig. A.5.G5.c: An open space intended for dining with tables and chairs encourages activity next to a cafe.



Fig. A.5.S5.b: A pedestrian space incorporates pervious paving and other stormwater management techniques.

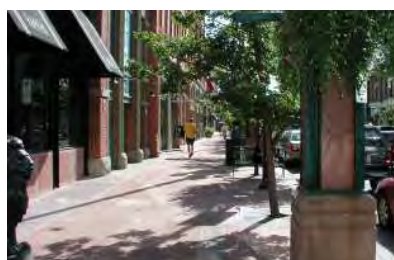


Fig. A.5.G6: Enhanced sidewalks greatly contribute to the appearance of large developments and may count toward open space requirements.



Fig. A.5.S6.a: Sidewalks comprised of brick pavers greatly enhance the character of the streetscape.

5. OPEN SPACES, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued

G6. Greatly enhanced streetscapes may count as open spaces if they contain amenities that significantly improve the character of the street.



Fig. A.5.S6.b: Sidewalks that received additional design features may be counted as pedestrian-oriented open spaces.



Fig. A.5.S6.c: A streetscape which features decorative paving, trees in planters, benches and pedestrian-level light fixtures compliments the abutting building with high levels of transparency and frequent entries.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

- S6. Sidewalks and amenity zones on public streets and primary internal drives that receive enhanced design and intensive streetscaping may be counted toward the pedestrian-oriented open space requirement under the following conditions:
- a. All designs within the public right-of-way must meet the Public Works Standards or receive a Design Modification.
 - b. Enhanced streetscape shall be present for a consecutive distance of 400 feet on one side abutting the street or primary internal drive or for 200 feet abutting both sides of a public street or primary internal drive. Enhanced streetscape does not have to meet the minimum pedestrian-oriented open space dimensional requirements.
 - c. Buildings in this area shall contain transparent glazing for 60 percent of the area between the heights of 2 feet and 12 feet.
 - d. Only areas directly in front of buildings and areas which meet the Public Works Standards or receive a Design Modification shall count toward this requirement.
 - e. Enhanced streetscapes shall include a minimum of three of the following requirements to qualify:
 - i. Provide sidewalks and amenity zones with decorative paving for the required length as stated above in this section. Decorative paving includes stone pavers, brick pavers, decorative concrete pavers, or other pavement treatments as approved by the Manager or Design Commission.
 - ii. INSIDE THE TRIANGLE: Provide trees of 3-inch minimum caliper and other landscape plantings located in the amenity zone. Trees shall be spaced an average of no greater than 30 feet apart.
OUTSIDE THE TRIANGLE: Provide trees of 2.5-inch minimum caliper and other landscape plantings in decorative raised planters located in the amenity zone. Trees shall be spaced an average of no greater than 30 feet apart.
 - iii. Decorative benches or other durable, permanent seating features shall be placed within the amenity zone with an average placement of two seats per 50 linear feet of sidewalk.
 - iv. Include one public art piece per 200 feet of sidewalk.
 - v. Decorative pedestrian level lighting no taller than 18 feet placed within the amenity zone and at consistent spacing.

5. OPEN SPACES, CONTINUED

DESIGN GUIDELINES:

Residential Development: Multifamily and Townhouse

G7. Publicly accessible open space serving multifamily development shall follow the Guidelines specified in **Section 7.0103(A)(5)** and the following Guidelines:

- a. Provide at least one landscaped common open space in multifamily building developments for use by residents. The open space shall be easily accessible to all residents and contain areas of hardscape pavement and landscape plantings. This space may count as part of the required landscaped space.
- b. Open space shall be provided through ground level courtyards, residential courtyards at upper levels, or rooftop decks and gardens.
- c. Common open spaces shall provide amenities to accommodate a variety of ages and activities to enhance the livability in the Triangle.
- d. Incorporate communal garden spaces that use rain water and allow residents to grow vegetables and flowers.
- e. Open spaces shall be easily visible and accessible from adjacent residential units on the same site for safety and accessibility. Provide an appropriate level of pedestrian lighting and avoid safety risks associated with areas hidden from view.
- f. Open spaces shall not be located next to dumpster enclosures, loading/service areas or other incompatible uses.

DESIGN STANDARDS

Residential Development: Multifamily and Townhouse

S7. Multifamily Residential Open Space Standards, **Section 7.0103(A)(5)**, shall apply.



Fig. A.5.G7: A large shared open space serves as a small park for residents of this multifamily development.



Fig. A.5.S7: A shared open space which is fronted by several multifamily buildings.

6. LANDSCAPING

Intent: To integrate landscaping into open spaces, parking areas and general site design to contribute to an attractive and sustainable development that enhances the overall character of the area. To minimize negative environmental impacts from development by utilizing sustainable building techniques which reduce stormwater runoff, heat island effects and pollution associated with energy usage and transportation.

Applicable Rockwood Design Principles from Section 7.0502:

- A. Physical Environment
- B. Sustainability
- C. Safe Design
- E. Open Space
- F. Landscaping
- I. Sustainable Architectural Design



Fig. A.6: A variety of appropriate plant material creates attractive landscaped areas.

DESIGN GUIDELINES

All Development

- G1.** Licensed Design Professional. The landscape plan shall be created by a licensed design professional such as a Landscape Architect, Architect or Civil Engineer. The landscape plan shall exhibit the following characteristics:
- a. The overall design of the site and the design of the proposed landscape materials shall achieve unique, attractive and significant landscaping on the site as a whole;
 - b. The proper type, spacing, height, placement and location of plant materials shall be provided to ensure that the intent of this ordinance is met;
 - c. The choice and selection of plant materials shall insure that root systems will not interfere with public utilities and so that fruit and other debris, except leaves, will not constitute a nuisance within public rights-of-way or to abutting property owners;
 - d. The choice and selection of plant materials shall ensure that the type of plantings selected will be of a type that will survive and thrive in the area in which they are to be located; and
 - e. The proper relationship between deciduous and evergreen plant materials shall exist so as to ensure that the desired buffering effect will be accomplished.

DESIGN STANDARDS

All Development

- S1.** A professional licensed Landscape Architect shall complete and stamp the landscape plan for the development.



Fig. A.6.G1: Building base plantings create an attractive transition between the structure and the ground.

6. LANDSCAPING, CONTINUED

DESIGN GUIDELINES

All Development, Continued

- G2. New development shall preserve trees and other environmental features of the site. The standard in **Section 7.0503(A)(6)(S2)** is required without exception.
- G3. Water conservation measures and on-site treatment and infiltration of stormwater shall be incorporated in new development.
 - a. Landscape practices and strategies that reduce wasteful water practices shall be included in all developments in a creative way.
 - b. Consider using porous paving systems to allow for stormwater infiltration and reduce the urban heat island effect in the summer.
 - c. High efficiency irrigation strategies shall be utilized to minimize potable water usage.
 - d. Consider using green roof systems to collect and evapo-transpire rainwater, reducing runoff as well as heating and cooling loads.

DESIGN STANDARDS

All Development, Continued

- S2. New development shall retain healthy, regulated trees at 8 inches or greater or replace them at a ratio of three new trees for every one healthy, existing regulated tree removed. Regulated trees must be healthy as determined by a consulting arborist, a qualified arborist or a registered consulting arborist.
- S3. Water conservation and treatment shall be promoted through a minimum of two of the following:
 - a. An irrigation system that minimizes water usage by incorporating at least one of the following:
 - i. A rain sensor to prevent watering during a rain event;
 - ii. Water conserving rotor irrigation heads; or
 - iii. A drip irrigation system.
 - b. On-site rain gardens and stormwater facilities that are designed in accordance with Gresham’s Stormwater Management Manual;
 - c. Art elements, fountains or other features that use rainwater to activate public spaces;
 - d. A system that collects rainwater from a minimum of 50 percent of the total roof area for reuse (i.e. site irrigation or grey water re-use);
 - e. Permeable paving over at least 40 percent of all paved surfaces;
 - f. Other Low Impact Development (LID) features that capture and filter runoff into the ground approved by the Manager or Design Commission.



Fig. A.6.S1.a: A well-maintained landscape enhances the visual appeal of developments.



Fig A.6.G3.a: A modular vegetated roof system reduces stormwater and insulates the roof surface.



Fig. A.6.S1.b: A landscaped area which utilizes a variety of complimentary plant material and defines the street and creates an edge to a pedestrian plaza..

6. LANDSCAPING, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development

G4. Commercial and mixed-use development shall follow Landscape Guidelines specified in **Section 7.0103(A)(6)(G1)** through **(G5)**. The Standards of **Section 7.0103(A)(6)(S11)** regarding the maintenance agreement are required without exception.



Fig. A.6.S3.a: A stormwater swale within a parking lot filters and manages the pavement run-off.



Fig A.6.S3.b: A public art piece collects rain water and discharges it into a stormwater area.



Fig A.6.S3.c: Permeable pavement allows water to infiltrate the soil thereby reducing stormwater discharge.

DESIGN STANDARDS

Commercial and Institutional Development

S4. Site Landscaping.

INSIDE THE TRIANGLE: **Section 7.0103(A)(6)(S1)** through **(S5)** and **(S11)** Corridor Design Standards - Landscaping shall apply to all new commercial developments, except as noted in **Section 7.0503(A)(6)** regarding the percentage of site landscape to be provided and the tree caliper requirements.

OUTSIDE THE TRIANGLE: **Section 7.0103(A)(6)(S1)** through **(S5)** and **(S11)** Corridor Design Standards - Landscaping shall apply to all new commercial developments, except as noted in **Section 7.0503(A)(6)** regarding the percentage of site landscaping to be provided.



Fig A.6.G3.b: An open space which incorporates stormwater infiltration facilities.



Fig A.6.G3.c: This green roof provides an attractive, sustainable habitat for wildlife.

6. LANDSCAPING, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued

- G5. Site shall utilize a range of landscape materials, such as trees, evergreen shrubs, groundcovers and seasonal flowers, in sufficient quantity to provide for color and enhanced visual interest on site.
 - a. Separation of active and passive uses is encouraged through placement of planters, street furniture and landscaping. Planters or large pots with small shrubs and seasonal flowers can be used to create protected sub-areas within the plaza with pedestrian seating.
 - b. Creative use of plant materials such as climbing vines or trellises is also encouraged.
 - c. Screen views of automobiles from public view and adjacent sensitive land uses with dense planting.
 - d. Use landscaping to minimize the expansiveness of surface parking lots. Shade surface parking and reduce heat build-up with rows of mature canopy trees.
 - e. Use of native plantings is encouraged where practical.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

S5. Site Landscaping. A minimum of 15 percent of the gross site area shall be landscaped.

INSIDE THE TRIANGLE: Up to 5 percent of the required landscape area can be paved walks, pedestrian plazas, etc.

OUTSIDE THE TRIANGLE: Up to 20 percent of the required landscape area can be paved walks, pedestrian plazas, etc.



Fig. A.6.G5.b: Trees and other landscaping screen parking areas from an adjacent walkway while shading pavement and reducing the associated heat island effect.



Fig. A.6.G5.a: Planters with trees are used to provide privacy to residential development.



Fig. A.6.G5.c: Dense plantings are used to enhance the appearance of an entry to a parking area.

6. LANDSCAPING, CONTINUED

DESIGN GUIDELINES

Residential Development: Multifamily and Townhouse

- G6.** Multifamily development shall follow guidelines specified in **Section 7.0103(A)(6)**. In addition, the use of turf lawn, as the urban core of the district, shall be minimized except within open play areas within multifamily developments.
- G7.** Parking areas shall be effectively landscaped to reduce the visual impact on surrounding areas, improve the appearance of the lots from within their perimeter and to minimize heat islands and high-temperature run-off.

DESIGN STANDARDS

Residential Development: Multifamily and Townhouse

- S6.** Site Landscaping. The standards of **Section 7.0103(A)(6)** shall be met with the exception that a minimum of 15 percent of the gross site area shall be landscaped. Up to 5 percent of the required landscape area can be paved walks, pedestrian plazas, etc.
- S7.** **Section 9.0823** Landscaping of Parking Lots shall be met. The following additional standards supplement this section.
 - a.** Parking lot landscaping shall include one tree for every six parking stalls.
 - b.** Perimeter Screening. Surface parking lots shall be screened to a height of 3 feet using at least one of the following:
 - i.** A combination of evergreen and deciduous shrubs spaced no more than 3 feet apart planted in an area at least 5 feet wide.
 - ii.** Ornamental masonry wall clad with brick or tile.
 - iii.** A combination of a masonry wall and ornamental fencing.



Fig. A.6.S7: An attractively landscaped parking area of a multifamily building includes trees, shrubs and a sculpture.

7. SITE LIGHTING

Intent: To create a safe and attractive environment by incorporating lighting and Crime Prevention Through Environmental Design (CPTED) principles while providing an attractive visual site design element.

Applicable Rockwood Design Principles from Section 7.0502:

- A. Physical Environment
- C. Safe Design
- D. Transportation Modes

TABLE 7.0503.A.7: SITE ILLUMINATION VALUES

Area of Illumination	Illumination Level (Foot-Candles) ¹
Primary Internal Drives	1.0 minimum with an average of 3.5
Parking Areas	0.5 minimum
Loading and Unloading Areas	0.5 minimum
Open Spaces	0.5 minimum with an average of 1.5
Walkways	0.5 minimum with an average of 1.5
Building Entrances - Frequent Use	1.0 minimum with an average of 3.5
Building Entrances - Infrequent Use	1.0 minimum with an average of 2.0

Table Notes:

¹See 7.0503(A)(7)(S1)(d)



Fig. A.7.G1.a: Illumination levels shall be appropriate for the area and not detract from surrounding areas.



Fig. A.7.G1.b: Storefronts and wall sconces create appropriate illumination levels on a pedestrian walkway.

DESIGN GUIDELINES

All Development

- G1.** Lighting fixtures shall provide appropriate illumination levels for all areas of the site, creating inviting spaces and enhancing the safety of the site during evening hours.
- a. Lighting fixtures shall not create negative impacts on surrounding properties or unnecessary glare within the site
 - b. Landscaping shall be sufficiently low as not to block lighting and therefore surveillance opportunities.
 - c. Paths between buildings and parking areas shall be well lit, clear, and direct to ensure safe pedestrian access.

Continued on following page

DESIGN STANDARDS

All Development

- S1.** The site shall be designed to achieve uniform illumination levels with a minimum glare to adjacent properties in order to create a comfortable environment that promotes safety. The following areas shall be illuminated during the hours of darkness: primary internal drives, parking area, loading and unloading areas, pedestrian walkways, pedestrian-oriented open spaces, and building entries.
- a. The following illumination levels plus those stated in the **Table 7.0503.A.7** shall act as minimum Standards for all exterior lighting.
 - b. Maximum average lighting will be governed by the six-to-one ratio of maximum average to minimum illumination of the surface being lit as stated in **Table 7.0503.A.7**.
 - c. Generally, maximum illumination at the property line shall not exceed one-half foot-candle. However, where a site abuts a non-residential district, maximum illumination at the property line shall not exceed 1 foot-candle.

Continued on following page

7. SITE LIGHTING, CONTINUED

DESIGN GUIDELINES

All Development, Continued

G1. Continued

- d. Blind corners shall be avoided by installing mirrors or by designing curves, angles or windows in place of 90-degree corners.
- e. Building facades facing parking areas shall have entrances and enough activity and transparency to provide natural surveillance.

G2. Lighting fixtures shall not create unnecessary upward directed illumination which contributes to sky-glow.



Fig. A.7.G1.c: Light fixtures on the ground prevent landscaping elements from blocking light and creating dark spots.

G3. Light fixtures shall reflect a pedestrian scale and be appropriately scaled for their use.

- a. Fixtures shall be composed of durable materials.



Fig. A.7.G2: Light fixtures can highlight architectural features but caution should be used to prevent sky-glow.

DESIGN STANDARDS

All Development, Continued

S1. Continued

- d. Average foot-candles shall be the average amount of light at 3-foot height above a surface as determined using a photometric plan with 1 foot grid spot foot-candle readings. Minimum illumination shall be the minimum light measured in foot-candles at the point of least illumination when measured at 3 feet above ground level.
- e. The Manager or Design Commission may modify these levels if such modifications are deemed necessary and appropriate for the use and surrounding area.

S2. Developments shall use full cut-off lighting fixtures to avoid off-site lighting, night sky pollution and shining lights into residential units.

- a. Fixtures shall have a cut-off angle of 90 degrees as measured perpendicular to the ground.
- b. No direct light source shall be visible at the property line (adjacent to residential) at 3 feet in height.
- c. Shielded lighting along primary internal drives shall be provided and shall not exceed 25 feet in height, or a height determined by the Manager.
- d. The Manager or Design Commission may choose to waive or alter cut-off requirements of this section when appropriate historic or decorative fixtures are proposed (e.g. use of decorative up-lighting to illuminate the underside of a canopy or columns on a facade, where a canopy or roof projection restricts the projection of the light into the night sky or bollards).

S3. Light fixtures shall not exceed 25 feet in height.

- a. Weather- and vandalism-resistant covers shall protect lighting devices.



Fig. A.7.S1: Storefronts and exterior light fixtures create uniform illumination levels at the building entry.

1. BUILDING MASSING AND ARTICULATION

Intent: To improve the appearance and reduce the visual scale of large buildings by interrupting long expanses of walls and to incorporate contextually sensitive design features and strategies which add depth, details and interest to enliven wall planes and create attractive building facades.

Applicable Rockwood Design Principles from Section 7.0502:

- G. Compatibility
- H. Architectural Quality
- J. Rehabilitation
- L. High-Quality Materials



Fig B.1.G2: Massing changes create attractive facades and visual interest in the building.

DESIGN GUIDELINES

All Development

- G1.** Buildings shall be designed with volumes to maintain a compatible scale with their surroundings. Volumes shall reinforce a human scale within the built environment so people do not feel dwarfed by the building structure.
- G2.** The massing changes shall create an attractive building with enhanced visual interest for the public.



Fig. B.1.S1: Multiple volumes are required for larger footprint buildings.

DESIGN STANDARDS

All Development

- S1.** The minimum building mass or volume change shall be at least 25 percent of the total volume of the overall building.
- S2.** The changes in mass shall be visible from the public street.



Fig B.1.S2: Changes in building mass are visible from the street.

1. BUILDING MASSING AND ARTICULATION, CONTINUED**DESIGN GUIDELINES****All Development, Continued**

- G3.** Tall buildings shall maintain a sense of human scale through the use of design strategies that reduce perceived mass of the upper levels and establish a distinct base, middle, and cap.

DESIGN STANDARDS**All Development, Continued**

- S3.** Buildings greater than four stories in height shall provide an upper-floor articulation strategy or strategies on facades visible from streets, plazas and shared open spaces:
- a.** Buildings five or six stories tall shall provide at least one of the following:
 - i.** Completely recess the top one or two floors a minimum of 6 feet.
 - ii.** Set back at least 50 percent of the top one or two floors for a minimum of 10 feet.
 - iii.** Provide a change of materials visible from the pedestrian level on the top one or two floors.
 - iv.** Provide a minimum facade transparency of 70 percent or greater per floor on the top one or two floors.
 - v.** Provide canopies, balconies, a prominent cornice line or other similar projecting or recessed facade treatments that establish a horizontal datum below the top one or two floors across a minimum of 50 percent of the facade width.
 - vi.** Establish a prominent roof line or significant variation in roof lines visible from the pedestrian level.
 - vii.** Other strategy as determined by the Manager or Design Commission.
 - b.** Buildings seven stories and taller shall provide at least two of the following:
 - i.** Completely recess the top two floors a minimum of 10 feet.
 - ii.** Set back at least 50 percent of the top two floors for a minimum of 15 feet.
 - iii.** Provide a change of materials visible from the pedestrian level on the top two floors.
 - iv.** Provide a minimum transparency level on the top two floors of 70 percent of the facade area for each floor.
 - v.** Provide canopies, balconies, prominent cornice lines, or other similar projecting or recessed facade treatments that establish a horizontal datum below the top two floors across a minimum of 65 percent of the facade width.
 - vi.** Establish a prominent roof line or significant variation in roof lines visible from the pedestrian level.
 - vii.** Other strategy as determined by the Manager or Design Commission.

1. BUILDING MASSING AND ARTICULATION, CONTINUED

DESIGN GUIDELINES

All Development, Continued

Prominent Facades

- G4.** Highly visible facade sections, including corners and facades fronting public spaces, shall be designed as a distinct, prominent element of the building while complementing the remainder of the design.
- G5.** Prominent facade sections shall have forms which are distinct from adjacent wall sections, responding to highly visible areas of the site.



Fig B.1.S5.a: A tower form on a building fronting a major intersection adds prominence to the location.



Fig B.1.S6.a: A unique canopy adds interest to highly visible areas.

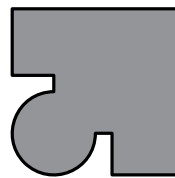
DESIGN STANDARDS

All Development, Continued

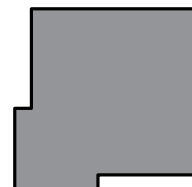
Prominent Facade Sections

- S4.** Prominent facade sections shall include design elements that establish prominence in the building, responding to unique site configurations including street corners and the terminus of streets or primary internal drives. The orientation, massing and articulation of buildings shall place strong visual emphasis on these areas.
- S5.** Prominent facade sections shall include one of the following profiles (in plan view) for at least one story of the building:
 - a.** Curved or hinged corner or wall section;
 - b.** A form which is projected or recessed from both abutting facades;
 - c.** Beveled or mitered corner; or
 - d.** Alternative configurations approved by the Manager or Design Commission, such as cantilevered forms.

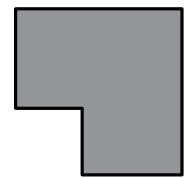
Corner Configurations



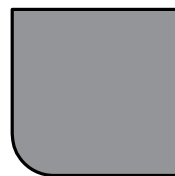
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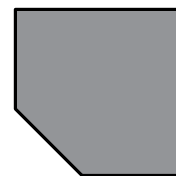
Projected



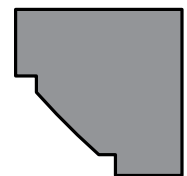
Recessed



Curved



Beveled



Mitered

Wall Configurations



Curved

Projected

Recessed

Fig B.1.S5.b: Prominent Facade Sections Profiles

1. BUILDING MASSING AND ARTICULATION, CONTINUED

DESIGN GUIDELINES

All Development, Continued

Prominent Facades, Continued

G6. Prominent facade sections shall include design elements and details which add visual interest to these areas.



Fig B.1.S6.b: A building which terminates the view of a major street is enhanced by high-levels of details within the facade.

G7. Materials on and surrounding prominent facade sections shall be attractive and of high-quality.



Fig B.1.S6.c: Higher bays, which extend two-stories in height, emphasize a highly-visible facade section.

DESIGN STANDARDS

All Development, Continued

Prominent Facade Sections, Continued

S6. Prominent facade sections shall include distinctive architectural expressions in its facade, including at least two of the following:

- a. Operable entry within 10 feet of the building corner or within the terminating view;
- b. Tower forms with an increase in height no less than 10 percent of the adjacent wall height;
- c. Windows of an increased size, quantity or distinct character that results in a higher level of transparency than adjacent facade sections;
- d. Increased glazing and transparency, with the full height of the wall area composed of no less than 30 percent transparent glass. For the purposes of measurement, this area shall be no less than 20 feet in length on a wall section at the terminus of a primary internal drive or public street or 10 feet in length along each facade when located at a corner of a building;
- e. Marquee or expressive canopies with colors and materials distinctive from the rest of the building;
- f. Special paving such as scoring or pavers; or
- g. Focal point such as a fountain or sculpture.
- h. Higher bays which may include multiple floor levels and are a minimum 14 feet or change in bay size which is reflected in the facade, not exceeding 30 feet;
- i. Change in building base and/or cornice treatments that result in an increased level of detail from surrounding facade sections;
- j. Cupola; or
- k. Turret.

S7. Primary Materials, as defined in **Section 7.0503(B)(7)**, shall be used for no less than 80 percent of the street-facing facades. Primary material usage on the remainder of the facade shall be measured independently and shall follow standards specified in **Section 7.0503(B)(7)**.

1. BUILDING MASSING AND ARTICULATION, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development

- G8.** The quantity of masses required shall be sufficient to add interest to buildings of that scale.
- G9.** Buildings shall not include long, monotonous, uninterrupted walls and shall utilize design strategies which create depth and add interest to the facade. Changes in masses shall be sufficient to provide visual distinction between wall planes.
- G10.** Buildings shall utilize building masses to frame and define streets and public spaces, establishing more prominence at these locations.
- G11.** Building masses shall emphasize highly visible areas including street intersections.

DESIGN STANDARDS

Commercial and Institutional Development

- S8.** Buildings shall have a quantity of masses which correspond to the footprint size:
 - a.** Buildings with footprints up to and including 30,000 square feet may consist of one mass or building volume.
 - b.** Buildings with footprints greater than 30,000 square feet shall be comprised of at least two masses or building volumes.
- S9.** Masses shall be attributed to distinct building volumes, jogs in the facade, or other changes in the facade as approved by the Manager. Changes in mass shall include a change in depth greater than that used for articulating features as specified in **Sections 7.0503(B)(1) and 7.0503(B)(4)**.
- S10.** Buildings which are required to have multiple masses shall place the tallest mass within the setback area specified in **Section 7.0503(B)(2)**.
- S11.** When the building is on the corner of two streets, the tallest mass shall be within the setback area of the primary street or at the corner.



Fig B.1.S8: A building with a large footprint is divided into multiple masses, each greater than 25% of the footprint.



Fig B.1.G9: Changes in massing create depth in the facade and are sufficient to provide visual distinction between wall planes.



Fig B.1.S11: The tallest mass of the building is placed along the primary street on which the building is located.

1. BUILDING MASSING AND ARTICULATION, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued

G12. Commercial, institutional, and mixed-use buildings shall not include long, monotonous, uninterrupted walls and shall utilize design strategies which create depth and add interest to the facade. Changes in depth shall be sufficient to provide visual distinction between wall planes.

- a. **INSIDE THE TRIANGLE:** Articulating elements shall provide surface relief, depth and shadows to the facade by being recessed and/or projected.

OUTSIDE THE TRIANGLE: Articulating elements shall provide surface relief, depth and shadows to the facade by being recessed or projected.

- b. Changes in building depth shall reinforce and create a consistent street wall.



Fig B.1.G10: Changes in building massing frame the public space and highlight important locations, such as street intersections.

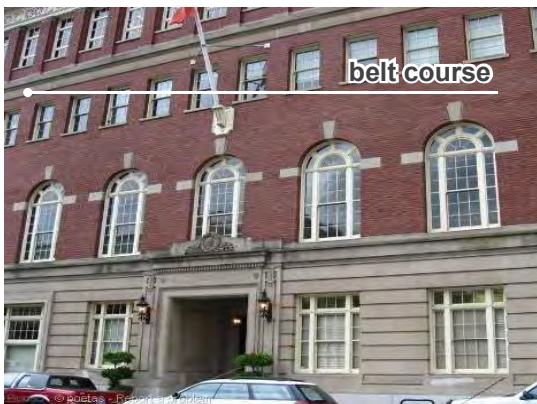


Fig B.1.S12.a: This building has a belt course running across the building above the third story windows.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

S12. INSIDE THE TRIANGLE: Commercial, institutional, and mixed-use buildings: Building walls shall be articulated with design features which add visual interest and prevent the appearance of blank walls. Facades visible from streets, public spaces and parking areas shall utilize at least one of the following strategies:

- a. A repeating pattern of wall recesses and/or projections that has a relief of at least 12 inches (such as recessed structural bays or recessed window openings between columns). Wall recessions and projections shall be at intervals of not greater than 30 feet with customer entries and those facing the street and at intervals not greater than 100 feet on remaining facades; or
- b. Changes in wall plane with a depth of at least 24 inches which respond to the building module. These changes in wall plane shall occur at intervals of not less than 25 feet and not more than 100 feet.

OUTSIDE THE TRIANGLE: Commercial, institutional, and mixed-use building walls shall be articulated with design features which add visual interest and prevent the appearance of blank walls. Facades visible from streets, public spaces and parking areas shall utilize at least one of the following strategies:

- c. Changes in plane with a depth of at least 24 inches at intervals of not less than 30 feet and not more than 90 feet. Changes in plane attributed to required changes in building mass shall not count toward this requirement; or
- d. A repeating pattern of wall recesses and projections at intervals of not less than 30 feet and not more than 90 feet. These recesses and projections shall have a relief no less than 16 inches.



Fig. B.1.S12 OUTSIDE THE TRIANGLE: A repeating pattern of wall recesses at window openings articulates the building facade.



Fig B.1.S12.b: Major vertical mullions, in conjunction with a change in plane, visually break up an all glass facade.

1. BUILDING MASSING AND ARTICULATION, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued

G13. Commercial and institutional spaces shall have adequate first-floor heights to convey the existence of commercial or institutional space on the ground floor and provide a comfortable, leasable retail, service or working environment with opportunities for light to enter the space from the street and sidewalk.



Fig B.1.G12.a INSIDE THE TRIANGLE: Horizontal elements, including a series of belt courses, the cornice and the bulkhead, establish rhythm in the storefront.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

S13. Commercial and institutional ground-floor heights shall be a minimum of 12 feet from the top of the floor to the lowest structural element of the ceiling. One-story buildings (or portions of buildings) shall have a front facade elevation of at least 15 feet, including roof forms, for at least 60 percent of the facade length.



Fig. B.1.G12.b OUTSIDE THE TRIANGLE: Changes in wall plane are used to create visual interest and reduce the perceived scale of wall planes.



Fig. B.1.G12.c: Recessed windows create depth in the facade.

1. BUILDING MASSING AND ARTICULATION, CONTINUED

DESIGN GUIDELINES

Residential Development

G14. Multifamily buildings shall follow the Guidelines specified in **Section 7.0103**.

Existing Development

G15. Existing Buildings: Existing buildings shall follow the appropriate building facade Guidelines when changes to the building facade are reviewed for a permit.

G16. Existing buildings shall follow the above Guidelines when changes are made to the building envelope.

G17. New additions to historic buildings shall complement the original facade without competing with it.

DESIGN STANDARDS

Residential Development

S14. Multifamily buildings shall follow the Standards specified in **Section 7.0103**.

Existing Development

S15. Renovations which modify the exterior building facades and require a permit shall follow **Sections 7.0503(B)(1)** at the discretion of the Manager. Renovations which do not change the existing exterior building facade are exempt from the Standards specified in **Sections 7.0503(B)(1)** Facade Composition and Building Articulation.

S16. Renovations of existing buildings with footprints over 30,000 square feet that add 5,000 square feet of footprint or greater shall have no less than two masses at the discretion of the Manager. Renovations which do not change the existing building envelope are exempt from Standards specified in Building Massing.

S17. New additions to buildings designated as historic on the City of Gresham’s Historic and Cultural Landmarks List shall be complementary and a separate distinct mass from the existing building.



Fig B.1.G12: A mixed-use building which utilizes a variety of design strategies to add depth and interest to the facade.



Fig B.1.S12: A building which is designed with pilasters and belt courses to enhance the facades.

2. ROOFS

Intent: To minimize negative environmental impacts from development by utilizing sustainable building techniques which reduce stormwater runoff, heat island effects and pollution associated with energy usage and transportation.

Applicable Rockwood Design Principles from Section 7.0502:

- B. Sustainability**
 - I. Sustainable Architectural Design**



Fig. B.2.S1: A flat roof is painted white for a high SRI value.

DESIGN GUIDELINES

All Development

- G1.** Buildings with low-sloped roofs shall use design strategies to minimize heat islands and reduce energy usage associated with solar gain attributed to the roof surface.

DESIGN STANDARDS

All Development

- S1.** All low-sloped roof surfaces (pitches less than or equal to 2:12) shall utilize a “white roof” with a Solar Reflectance Index (SRI) of 78 or greater, exclusive of space dedicated to mechanical systems, vegetated roof surfaces or solar panels.

3. ENTRIES

Intent: To orient buildings appropriately to enhance pedestrian accessibility and place the most visually interesting facade in public view, and to ensure building entries establish prominence in the facade and are an attractive component of the buildings while promoting pedestrian comfort, safety, and orientation.

Applicable Rockwood Design Principles from Section 7.0502:

- A. Physical Environment
- C. Safe Design
- D. Transportation Modes
- G. Compatibility
- H. Architectural Quality
- L. High-Quality Materials



Fig. B.3: A commercial building with an entry located at the corner.

DESIGN GUIDELINES

All Development

- G1.** All buildings shall be oriented toward and accessed from the street. If a building has frontage on more than one street, it shall be oriented and designed to provide reasonable pedestrian access along the most active street frontages. Buildings shall address transit facilities.
- G2.** Buildings shall generally orient an entry to the intersection of public streets if located on a corner. Addressing shall be posted as required in **Section 7.0503(B)(3)(S2)**.
- G3.** Pedestrian circulation routes shall connect to building entries.

DESIGN STANDARDS

All Development

- S1.** Each building shall provide at least one entry facing the primary street on which the building is located. The primary street shall be the street of highest functional classification or Design Street as determined by the Manager or Design Commission. For sites abutting or facing a light rail station or abutting a street containing a transit way, at least one primary building entry and facade shall face the station or transit way street.
- S2.** If a building is located at the intersection of two streets classified as a major or standard arterial, boulevard or Design Street, an entry shall be located at the building corner or within 10 feet of the corner. The full address assigned by the Manager shall be posted on or near the entrance not bearing the assigned street address. Failure to post an address as assigned by the Manager shall constitute a violation of Code.
- S3.** Pedestrian circulation routes shall connect to all public building entries.



Fig. B.3.G2: A corner entry on a building located at the intersection of two streets.



Fig. B.3.G1: A building oriented toward the street with entries present on the sidewalk.

3. ENTRIES, CONTINUED

DESIGN GUIDELINES

All Development, Continued

- G4.** Building entries shall be designed as a distinct, prominent element of the building which complements the remainder of the design.
- G5.** Entries shall include a change in form of sufficient dimension to visually distinguish the entry from the remainder of the building facade.
- G6.** Entries shall include design features and strategies which highlight these areas of the facade.



Fig B.3.G4: Building entries shall be a prominent element in the facade.



Fig B.3.G5: An entry courtyard is used to distinguish it from the rest of the facade.



Fig B.3.S6: A change of materials highlights the entries to this traditional storefront.

DESIGN STANDARDS

All Development, Continued

- S4.** Building entries shall feature a design that demonstrates visual prominence and architectural emphasis. Primary building entrances shall be open to the public during all business hours.
- S5.** Building entries shall include a visible change in building form from adjacent facade sections with a change in depth of at least 12 inches. This could include recessed building entries, changes in mass or smaller changes in wall plane.
- S6.** Building entry features shall include two of the following features in the entry design to highlight the entry:
 - a.** Oversized entry door(s) of a minimum height of 8 feet;
 - b.** Change in material, color, texture, pattern or articulation at the entry;
 - c.** Projecting entry including porches, canopies and articulated lintels above the doorway;
 - d.** Change in roof form such as but not limited to a curved, straight or sloped roof;
 - e.** Enhanced building ornamentation in the entry area, in addition to that required in other sections of the Code, including but not limited to:
 - i.** Ornamental glazing, such as sidelights, flanking the doorway that is a minimum width of 1 foot and is the full height of the doorway;
 - ii.** Ornamental railings leading to the entry;
 - iii.** Ornamental balustrades;
 - iv.** Wall sconces on each side of the entry; and
 - v.** Flanking columns.
 - f.** Distinct and decorative stone, masonry or tile paving pattern on the adjacent entry private sidewalk section. The size and design of the paving pattern shall correspond to the geometry established in the entry feature;
 - g.** An entry courtyard of a minimum dimension of 500 square feet where the minimum dimensions for either length or width is 20 feet. The courtyard shall provide year-round site furnishings like benches, tables and sitting areas; prominent landscape features such as integrated planters, trellis or arbors; or
 - h.** Water feature.

3. ENTRIES, CONTINUED

DESIGN GUIDELINES

All Development, Continued

G7. Materials on and surrounding the entry feature shall be attractive and of high-quality.

G8. Entries shall provide pedestrians protection from weather.

Commercial and Institutional Development

G9. Entries shall meet the requirements of **Section 7.0503(B)(3)(S9)**.

DESIGN STANDARDS

All Development, Continued

S7. Buildings shall utilize attractive and high-quality materials surrounding the entry.

- a.** Building entry doors shall be of high-quality materials such as commercial-grade solid wood, decorative glass, or other materials as approved by the Manager or Design Commission.
- b.** Within 30 feet along the length of the facade from each side of the entry doors, the building shall utilize only primary materials as specified in **Section 7.0503(B)(7)**.

S8. Buildings shall provide weather protection in the form of a canopy, awning or other feature to a depth of at least 4 feet.

Commercial and Institutional Development

S9. Primary building entrances shall be open to the public during all business hours.



Fig B.3.G7: Areas surrounding the entry shall utilize high-quality materials such as brick.



Fig B.3.S5: A small projection, complimented by a taller parapet and unique windows, gives prominence to the entry.



Fig B.3.S8: A recessed entry and continuous roof provides weather protection.



Fig B.3.S6: An entry courtyard with landscaped features adds prominence to the building's entry.

3. ENTRIES, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued

G10. Buildings with long street frontages or multiple street-facing tenant spaces shall provide additional entries to ensure reasonable pedestrian access and improve the appearance of the building and the public realm.

G11. Buildings located at the rear of the site shall provide entries that correspond with pedestrian circulation routes, such as the intersection of public streets, primary internal drives and other pedestrian connections.

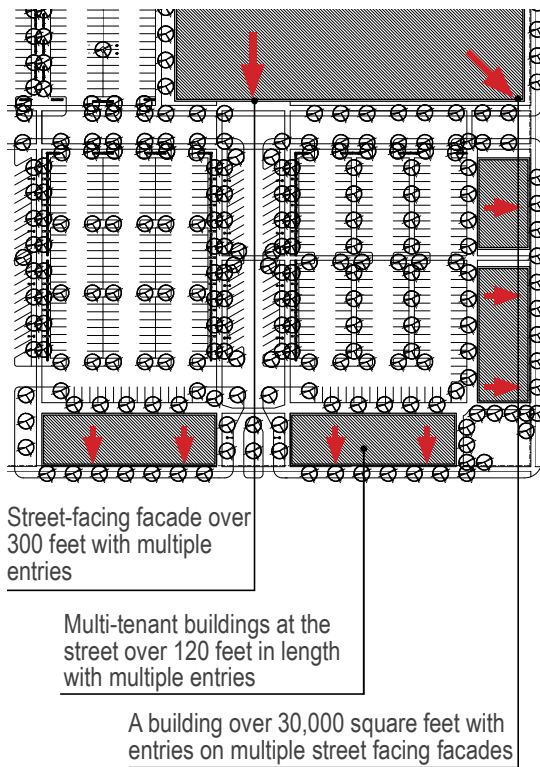


Fig. B.3.S10.a: Site diagram illustrating potential entry configuration of multiple buildings on a site.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

S10. Additional entries on a single building facade shall be required as follows:

- a. When a building faces a public street or primary internal drive and its length exceeds 300 feet, the building shall provide at least two operable entries on that street-facing facade.
- b. When a multi-tenant building facade exceeds 120 feet in length with multiple tenant spaces located at the street edge, a minimum of two entries shall be provided on that facade. At the discretion of the Manager or Design Commission, a covered breezeway through the building may count as one entry for the purposes of this requirement.

S11. Buildings located at the rear of the site along public streets or primary internal drives shall provide entries as noted in **Section 7.0503(B)(3)(S1)-(S3) and (S10)** above.

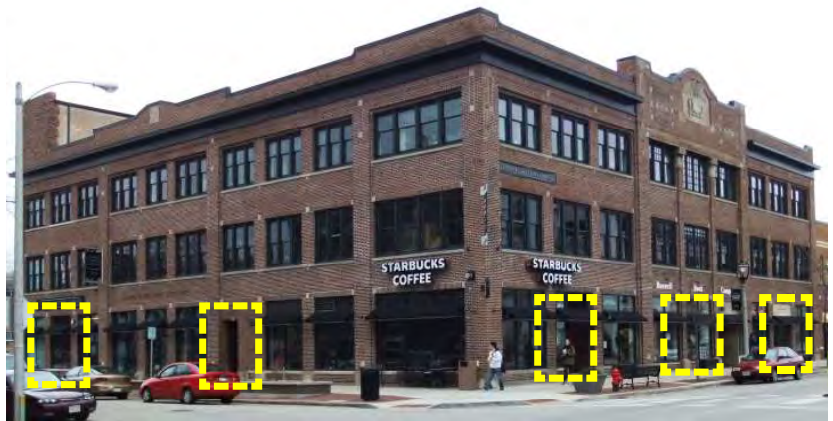


Fig. B.3.G10: A mixed-use building with entries for each ground floor retail tenant and separate entrances for upper level uses.

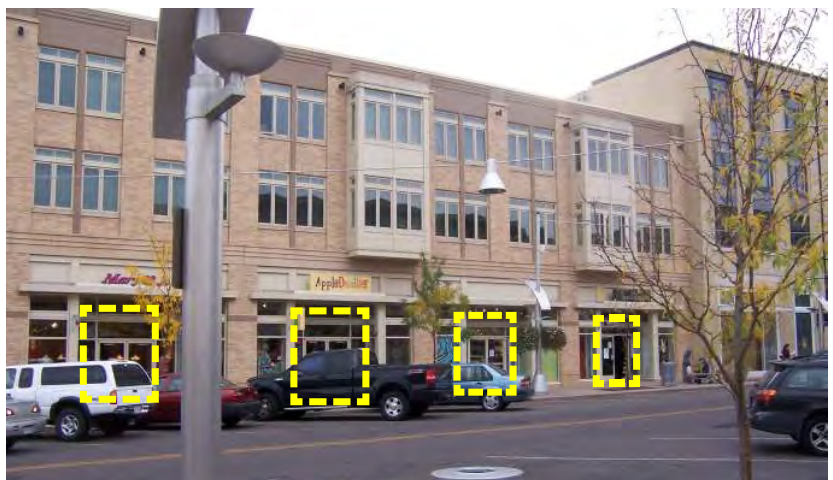


Fig. B.3.S10.b: A multi-tenant building over 120 feet in length with multiple street-facing entries.

3. ENTRIES, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued

G12. Mixed-use buildings shall have distinct entries for each component of the mixed use.

Additional Guidelines Applicable to Buildings Greater than 30,000 Square Feet

G13. When a building faces multiple streets, entries shall be provided on multiple frontages to enhance the accessibility and walkability of the development.

Residential Development

G14. Multifamily building entries shall incorporate transparent elements to allow residents to view in and out before opening doors.

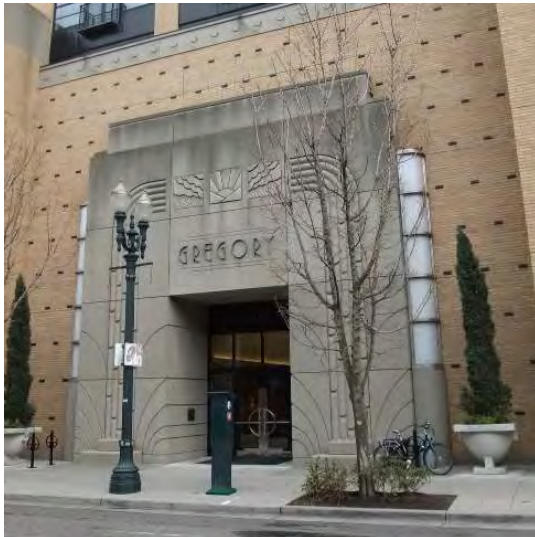


Fig B.3.S14: Clear entry doors allow residents of multifamily buildings to look out before exiting.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

S12. When part of a mixed-use development, residential and other non-retail commercial uses shall have a distinct entry that is not shared with a retail use. A shared lobby space may serve multiple users of the same type. Required residential and non-retail entries shall be on and face a public street and may count toward the building entry requirement.

Additional Standards Applicable to Buildings Greater than 30,000 Square Feet

- S13.** Each building shall provide at least one entry on each street frontage it faces except as follows:
- a. If the building has three street frontages, the building shall have a minimum of two frontages with operational entries.
 - b. If the building has four or more street frontages, the building shall have a minimum of three frontages with operational entries.
 - c. Corner entries facing two street frontages shall count as an entry on each frontage.

Residential Development

- S14.** Multifamily buildings shall follow entry design Standards specified in **Section 7.0103**. In addition, the following Standards shall apply:
- a. Exterior corridors, exit ways and stairs visible from the street are not permitted, except for the main entry stair leading to the building entrance.
 - b. Building entries, including those that access the parking area, shall be designed with transparent glass that allows users to look out prior to exiting the building.

3. ENTRIES, CONTINUED

DESIGN GUIDELINES

Residential Development: Multifamily and Townhouse

G15. Residential buildings shall be oriented to and accessible from the street. Building entries may either face the street or face a common area that is prominently located and visible from the street.



Fig. B.3.S15.a: A courtyard residential building with multiple ground floor entries.

DESIGN STANDARDS

Residential Development: Multifamily and Townhouse

S15. Residential buildings shall incorporate entries as follows:

- a. For buildings without a courtyard:
 - i. The primary entry or entries for all ground-floor units abutting the street shall open directly onto the street right-of-way, not to the interior of the site or to a parking lot. Secondary entrances may face parking lots or other interior site areas.
 - ii. The primary entry for dwellings with frontage on both a public street and an alley shall be oriented to the street, not to the alley.
- b. For buildings with a central courtyard space: The primary entry or entries for all ground-floor units abutting the street or courtyard shall open directly onto the street right-of-way or onto a central courtyard. Secondary entrances may face parking lots or other interior site areas. A second entrance facing the street right-of-way shall present the same finished appearance as the primary entry and shall not include rear fenced-in patios or sliding glass doors.



Fig. B.3.S15.b: Townhouses with each unit entry facing the street and connected to the sidewalk.

3. ENTRIES, CONTINUED

DESIGN GUIDELINES

Residential Development: Multifamily and Townhouse, Continued

- G16.** Transitions. The development shall promote security by permitting passive surveillance while providing a sense of privacy for the residents and a distinction between the public sidewalk realm and the private unit realm.
- a. Residential units located at the sidewalk level shall be connected to the sidewalk while providing a degree of visual privacy for residents. A separation between the first floor and the street level where residential uses occupy the first floor shall be provided to create layers (such as gardens, stoops, and porch railings) that mark the transition between public and private spaces.
 - b. Within the setback area, the setback shall convey a residential character, with planting or hardscape, and may not be used for storage or service access. Fences and railings shall not create a visual barrier.

Existing Development

- G17.** Existing Buildings: Existing building entries that are renovated and require a permit shall comply with the appropriate Guidelines and Standards specified in this section.



Fig. B.3.S16.a: Townhouses which have elevated stoops as transition elements.

DESIGN STANDARDS

Residential Development: Multifamily and Townhouse, Continued

- S16.** Ground floor residential units shall incorporate a minimum of one of the following transition elements:
- a. Front porch that is 6 feet deep and 3 feet above grade;
 - b. Stoop that is a minimum of 3 feet above grade and 4 feet wide;
 - c. Front landscape courtyard; or
 - d. A 30 inch decorative iron or metal garden fence or decorative brick or stone wall.



Fig. B.3.G16: Townhouses which include landscaping and an increase in grade from street level to ensure privacy.

Existing Development

- S17.** When existing building entries are renovated and require a permit, the buildings shall comply with all entry Standards. If the building exterior is not changed and the entry feature does not include a change in form, these entry Standards shall not be required.



Fig. B.3.S16.b: Landscaping behind a decorative metal fence defines private space at the street edge.

4. FACADE COMPOSITION AND GROUND LEVEL DETAILS

Intent: To incorporate contextually sensitive design features and strategies which add depth, details and interest to enhance and enliven wall planes, add visual interest, reduce the scale of long wall sections, and create attractive building facades. To minimize negative environmental impacts from development by utilizing sustainable building techniques which reduce stormwater runoff, heat island effects and pollution associated with energy usage and transportation.

Applicable Rockwood Design Principles from Section 7.0502:

- A. Physical Environment
- B. Sustainability
- C. Safe Design
- F. Landscaping
- G. Compatibility
- H. Architectural Quality
- I. Sustainable Architectural Design
- J. Rehabilitation
- L. High-Quality Materials



Fig B.4.S3.a: Solar shades are used to minimize summer heat gain while allowing passive heating in the winter.

DESIGN GUIDELINES

All Development

- G1.** Mechanical Screening: The Standard in **Section 7.0503(B)(4)(S1)** is required. Utilities shall be screened from the public realm and the internal public or private areas.
- G2.** Mechanical equipment and individual through wall units shall not detract from building architecture and facade composition and shall be designed to minimize their visibility. Equipment shall not project beyond the adjacent finished wall plane and shall be screened and integrated into the building’s overall architectural design, facade composition, and detailing.

DESIGN STANDARDS

All Development

- S1.** Mechanical and communication equipment and components shall be screened so they are not visible from streets and other street level public spaces, including alleys. They shall be screened in a manner that is compatible with the architectural character of the building. Appropriate screening for rooftop equipment includes parapet walls or architecturally compatible fabricated enclosures such as panels and walls. The Manager may require a review of rooftop equipment screening by requesting sight line studies. Utilities such as transformers, heating and cooling, electric meters and other utility equipment shall not be located within 5 feet of the front entrances and shall be screened with evergreen landscape materials of a height and spacing at time of planting that will screen with equipment or with fencing that is opaque and screens the equipment.
- S2.** Packaged Terminal Air Conditioners, Packaged Terminal Heat Pumps and similar systems with through-wall heating/cooling that are visible, including from internal public or private areas, shall not be allowed.

4. FACADE COMPOSITION AND GROUND LEVEL DETAILS, CONTINUED

DESIGN GUIDELINES

All Development, Continued

G3. Developments shall utilize strategies that reduce water and energy usage attributed to site and building development, building use and the transportation of building users while not detracting from good site and building design. Healthy and sustainable communities shall be created that incorporate “best practices” such as LEED™ to conserve natural resources and reduce energy usage and carbon emissions.



Fig B.4.S3.b: This Hydrotech™ roof-top garden provides attractive functional open space while saving building energy costs.



Fig B.4.S3.c: These green roof gardens help purify the urban air and lower urban air temperatures.

DESIGN STANDARDS

All Development, Continued

- S3.** Energy conservation in site and building development shall be promoted through sustainable building techniques and design strategies specified in this section.
- a.** The minimum quantity of required sustainable building techniques and design strategies shall be as follows:
 - i.** Commercial, employment, live/work, mixed-use, and civic developments shall include a minimum of one sustainable building technique and design strategy.
 - ii.** Commercial buildings over 30,000 square feet shall include a minimum of two sustainable building techniques and design strategies.
 - b.** Sustainable building techniques and design strategies shall include any of the following:
 - i.** Solar energy panels installed on the roof or other location shall be approved by the Manager or Design Commission depending on the procedure type. Solar energy panels shall be integrated into the building design or shall be designed to have minimal adverse visual impacts on other surrounding areas (such as by screening from view at street level) and yet not interfere with the purpose of the solar panels. The quantity of solar energy panels shall:
 - a.** Generate 10 percent of the typical energy usage for the building in renewable energy at a minimum. The typical energy model for the building shall be determined by referencing the LEED™ standards; or
 - b.** Comprise an area equivalent to a minimum of 20 percent of the roof area.
 - ii.** A vegetated roof surface comprising a minimum of 30 percent of the roof area.
 - iii.** One of the following passive energy reduction design strategies:
 - a.** Include protected double door vestibule on the north and east sides of the structure or add an effective windbreak such as a wall;
 - b.** Orient the long axis of the building east and west, with unobstructed solar access to the south wall and roof; or
 - c.** Locate the windows to take advantage of passive solar collection and include architectural shades/reflectors (such as window overhangs) that reduce summer heat gain while increasing natural illumination and encouraging passive solar heating in the winter.

Continued on next page

4. FACADE COMPOSITION AND GROUND LEVEL DETAILS, CONTINUED

DESIGN GUIDELINES

All Development, Continued



Fig B.4.S3.d: A skylight is the primary means of illumination in the center of this pedestrian mall.



Fig B.4.S3.e: An electric vehicle charging station located in a highly visible place encourages its use.

DESIGN STANDARDS

All Development, Continued

S3. Continued

b. Continued

- iv.** Skylights or another daylighting system which illuminates 75 percent of the building floor area, with skylights occupying a minimum of 3 percent of the roof area with spacing between the skylights not greater than 1.4 times the ceiling height.
- v.** Provide alternative transportation infrastructure including:
 - a.** An on-site alternative fuel refueling station (such as an electric, biodiesel, or natural gas fueling station, etc.) An electric fueling station must be within sight of a functional building entry; and
 - b.** Bicycle facilities including employee showers and changing areas.
- vi.** Source sustainable and local building materials from within 500 miles of the development site for no less than 20 percent of the total construction materials.
- vii.** At least 20 percent of trees, 20 percent of shrubs, and 20 percent of groundcover plants shall be food-producing perennial species, such as named varieties of cherries, apples, hazelnuts, blueberries, strawberries, etc. Parking lot and street trees shall be selected from the Recommended Parking Lot and Street Tree Lists.
- viii.** Another sustainable element approved by the Manager.



Fig B.4.S3.f: A large green roof reduces heat islands, minimizes stormwater and provides residents with a roof-top amenity in this mixed-use development.

4. FACADE COMPOSITION AND GROUND LEVEL DETAILS, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development

G4. Commercial, institutional, and mixed-use buildings shall create a rhythm of repeating elements that help establish continuity in the facade.



Fig B.4.S5.a: An example of ornamental brickwork in a mixed-use building.

G5. Street-facing facades shall have additional design elements at the street level to add interest, enhance the building appearance, establish greater depth in the facade and enliven the pedestrian realm. These features shall complement those used to satisfy the Guidelines and Standards of **Section 7.0503(B)(1) Building Massing and Articulation**.



Fig B.4.S4: In addition to changes in wall plane, pointed and round arches over windows enhance the facade.



Fig. B.4.S5.b: An outdoor seating area adds interest and creates opportunities for pedestrian activity.

DESIGN STANDARDS

Commercial and Institutional Development

S4. All facades shall establish a rhythm by repeating design elements at regular spacing along the length and/or height of the facade. All facades in the Triangle Area shall contain at least one of the following design features:

- a. Columns or pilasters with plinths at regular intervals no greater than 30 feet apart.
- b. Major vertical mullions of at least 6 inches in width, and larger than other mullions in the same window opening, on all-glass facades.
- c. Vertical reveals no less than 6 inches.
- d. Belt courses above ground floor level and along the entire facade.
- e. Lintels or arches over the windows and doors.

S5. Commercial, institutional, and mixed-use building facades facing public streets shall contain additional ground level details that further enliven the pedestrian realm and create attractive building fronts.

INSIDE THE TRIANGLE: Building facades facing public streets in the Triangle Area shall contain at least three of the following design features:

- a. Medallions at regular intervals no greater than 30 feet.
- b. Transom windows above storefront windows and doors.
- c. Projecting sills, a minimum of 2 inches from the window pane.
- d. Lintels or arches (including but not limited to flat, segmented and round arches) over windows and doors.
- e. Ornamental brick or tile work, such as a herringbone pattern, on a minimum of 5 percent of the ground level facade.
- f. Pedestrian-scaled lighting fixtures or wall-mounted projecting lighting fixtures such as wall sconces at regular spacing no greater than 30 feet.
- g. Awnings, canopies or solar shades/reflectors placed over windows, doors or outdoor spaces with a minimum projection of 4 feet.
- h. Projecting signs or banners oriented toward pedestrian walks.
- i. Outdoor seating areas enclosed by a fence, wall or landscaping at a height of 30 inches.
- j. Planter boxes, a minimum of 6 square feet, and not in an accessible pedestrian walk.
- k. Other feature approved by the Manager or Design Commission.

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4. FACADE COMPOSITION AND GROUND LEVEL DETAILS, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued



Fig B.4.G5: The ground level is enhanced by features including light fixtures, an awning over the door and transom windows.



Fig. B.4.S5.c: Projecting sills and wall-mounted lighting fixtures add detail to this commercial building's facade.



Fig B.4.S5.d: Large awnings shade windows and provide weather protection on the ground level of a commercial building.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

S5. Continued

OUTSIDE THE TRIANGLE: Buildings facades facing public streets in the Outside Triangle Area shall contain at least two of the following design features:

- l.** Medallions at regular intervals no greater than 30 feet;
- m.** Transom windows above storefront windows;
- n.** Projecting sills, a minimum of 4 inches from the window pane;
- o.** Lintels or arches (including but not limited to flat, segmented and round arches) over windows and doors;
- p.** Ornamental brick or tile work, a minimum of 5 percent of the ground level facade;
- q.** A minimum of two pedestrian-scaled lighting fixtures or wall-mounted projecting lighting fixtures such as wall sconces at regular spacing no greater than 30 feet;
- r.** Awnings, canopies or solar shades/reflectors placed over windows, doors or outdoor spaces with a minimum projection of 4 feet;
- s.** Projecting signs or banners oriented toward pedestrian ways such as sidewalks not larger than 16 square feet;
- t.** Outdoor seating areas enclosed by a fence, wall or landscaping of a height of 30 inches;
- u.** Planter boxes, a minimum of 6 square feet, not in a pedestrian way; or
- v.** Other feature approved by the Manager or Design Commission.



Fig B.4.S5.e: Transom windows, projecting signage and a seating area enhance the facade's ground level.

4. FACADE COMPOSITION AND GROUND LEVEL DETAILS, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued

- G6.** Storefront windows shall utilize a bulkhead or other design feature to transition the building to the ground and establish depth and interest in the facade.
- G7.** Buildings shall feature an architecturally distinct base to address and enhance the meeting of the building and ground.



Fig B.4.G7: A defined base transitions the building facade to the ground and complements other features on the building.



Fig B.4.S7: A building base which utilizes a change in material. A full story base may be appropriate on taller multi-story buildings.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

- S6.** Ground floor storefront windows shall be designed with bulkheads between 1 foot and 2 feet above ground level.
- S7.** Building Base: Building facades shall include design elements which establish a building base. Building bases shall consist of a visible change in the building facade, and include one of the following:
 - a. A change in material;
 - b. Texture;
 - c. Pattern;
 - d. Ornamentation; or
 - e. A change in depth no less than 4 inches. The required change in depth for bases may be reduced to 2 inches when they intersect other articulating features, such as pilasters, in order to provide visual distinction.



Fig B.4.S8: Integrated planters may be used in place of a building base.

4. FACADE COMPOSITION AND GROUND LEVEL DETAILS, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued

G8. Building bases shall be proportional to the size of the building and shall be visually pleasing.

G9. Commercial, institutional, and mixed-use buildings shall be designed to allow easy access between public areas and the building's interior.

Residential Development

G10. Multifamily buildings shall follow the Guidelines specified in **Section 7.0103**.

G11. Multifamily buildings shall contain features and design strategies that create defensible space and a separation between public and private spaces.



Fig B.4.S11: An elevated landscaped area and a decorative wall create a division between public and private space.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

S8. Building Base: The building base shall be a minimum height no less than 5 percent of the facade height and shall not exceed 20 percent of the facade height. At the discretion of the Manager or Design Commission, multi-story buildings of three levels or greater may have a building base equal to the wall area attributed to the ground floor. A landscape area at the base of the building with plant material at least 5 percent of the facade height may count toward the building base requirement.

S9. On street-facing facades, ground floor commercial, employment and live/work uses shall be at the sidewalk elevation.

Residential Development

S10. Multifamily buildings shall follow the Standards specified in **Section 7.0103**.

S11. When multifamily space is present on the ground floor, one of the following features shall be present on street facing facades:

- a. Building base landscaping no less than 5 feet deep.
- b. On street frontages, a space-defining decorative fence, wall, hedge or retaining wall 30 inches in height located at the property line or setback no more than 5 feet.



Fig B.4.G11: Townhouses that are elevated above grade and have large front porches. This strategy reinforces ownership and encourages eyes on the street.

4. FACADE COMPOSITION AND GROUND LEVEL DETAILS, CONTINUED

DESIGN GUIDELINES

Residential Development, Continued

G12. Provide a transitional design feature(s) between public spaces and residential spaces at the ground floor to distinguish between public and private realms.

Existing Development

G13. Existing Buildings: Existing buildings shall follow the appropriate building facade and ground level details Guidelines when changes to the building facade are reviewed for a permit.

DESIGN STANDARDS

Residential Development, Continued

- S12.** Multifamily space on the ground floor, excluding mixed-use buildings with commercial ground floors, shall provide a transition between public space and private space by incorporating a minimum of one of the following transition elements:
- a. Elevate the first floor a minimum of 3 feet above grade. Entries may be at grade; or
 - b. Set back the building an additional 5 feet beyond the minimum setback or recess the first floor an additional 5 feet beyond the second-floor facade; or
 - c. Provide a front porch that is a minimum of 48 square feet with minimum dimensions to fit a 5-foot by 6-foot rectangle inside the porch area; or
 - d. Provide a front landscaped courtyard of at least 60 square feet separated by a minimum 30-inch-tall hedge or decorative fence; or
 - e. Provide raised planter(s) between 18 inches and 30 inches in height and 4 feet in depth as measured from the point of the planter nearest the front property line. The planter(s) shall occupy at least 50 percent of the frontage of each unit and be planted with perennial landscaping; or
 - f. Other strategy as determined by the Manager or Design Commission.

Existing Development

S13. Renovations which modify the exterior building facades and require a permit shall follow this section at the discretion of the Manager. Renovations which do not change the existing exterior building facade are exempt from Standards specified in this section.

5. TRANSPARENCY

Intent: To create visual interest on building facades by providing views into active spaces and by allowing for passive surveillance of exterior areas while providing for daylighting of interior spaces.

Applicable Rockwood Design Principles from Section 7.0502:

- A. Physical Environment
- B. Sustainability
- C. Safe Design
- H. Architectural Quality
- J. Rehabilitation
- L. High-Quality Materials



Fig B.5.G1: Ground floor windows are recessed from the building wall to create depth.

DESIGN GUIDELINES

All Development

G1. Windows shall be designed to establish a sense of depth and create shadows within the facade.

Commercial and Institutional Development

G2. INSIDE THE TRIANGLE: Buildings that face the most active streets with the highest street classifications shall contain the highest levels of transparency at the pedestrian level.

OUTSIDE THE TRIANGLE: Commercial buildings that face the most active streets with the highest street classifications shall contain higher levels of transparency at the pedestrian level.



Fig B.5.S2.a: High levels of transparency are required between the heights of 2 and 12 feet on street facing facades.

DESIGN STANDARDS

All Development

S1. Windows shall be recessed a minimum of 4 inches from the building plane.

Commercial and Institutional Development

S2. INSIDE THE TRIANGLE: Street-facing facades of buildings that face Stark or 181st Street shall be composed of clear glass for a minimum of 60 percent of the ground floor between the heights of 2 feet and 12 feet.

OUTSIDE THE TRIANGLE: Street facing facades of commercial, institutional, and mixed-use buildings that face Stark or 181st Street shall be composed of clear glass for 60 percent of the ground floor between the heights of 2 feet and 12 feet.



Fig B.5.S1: Storefront windows recessed to establish depth.

5. TRANSPARENCY, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued

G3. INSIDE THE TRIANGLE: Buildings that face less active streets shall contain high levels of transparency at the pedestrian level on facades which face the street.

OUTSIDE THE TRIANGLE: Commercial, institutional, and mixed-use buildings shall contain high levels of transparency at the pedestrian level on facades which face the street.

G4. Non-street facing facades which have entries shall have sufficient levels of transparency to ensure the safety of these areas by allowing for natural surveillance.



Fig B.5.S2.b: High levels of transparency are required between the heights of 2 and 12 feet on street-facing facades.



Fig B.5.G3 OUTSIDE THE TRIANGLE: Facades facing the primary street of the site shall have the highest level of transparency.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

S3. INSIDE THE TRIANGLE: Street-facing facades other than the buildings that face 181st or Stark Street shall be composed of clear glass for a minimum of 50 percent of the ground floor between the heights of 2 feet and 12 feet, except as noted below.

OUTSIDE THE TRIANGLE: Street-facing facades of commercial, institutional, and mixed-use buildings, other than those that face 181st or Start Street, shall be composed of clear glass for 50 percent of the ground floor between the heights of 2 feet and 12 feet.

S4. INSIDE THE TRIANGLE: Non-street-facing facades that face parking areas or other frequently used outdoor spaces, as determined by the Manager, shall be composed of clear glass for a minimum of 25 percent of the ground floor between the heights of 2 feet and 12 feet to allow for passive surveillance of these areas. Landscaping and other features between the facade and these areas shall be designed so as not to obstruct views from interior spaces.

OUTSIDE THE TRIANGLE: Non-street-facing facades that face a parking area or other frequently used outdoor space, as determined by the Manager, shall be composed of clear glass for a minimum of 25 percent of the ground floor between the heights of 2 feet and 12 feet to allow for passive surveillance of these areas. Landscaping and other features between the facade and these areas shall not obstruct views from interior spaces.



Fig B.5.G4: Non-street facing facades shall include transparency to allow passive observation of the parking area.

5. TRANSPARENCY, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued

G5. Upper building stories shall provide clear glass windows.

G6. INSIDE THE TRIANGLE: Windows shall reinforce a vertical proportion on the facade and not contribute to a dominant horizontal geometry in the building.

OUTSIDE THE TRIANGLE: Vertical window openings are preferred; however, window openings may exhibit a horizontal proportion.



Fig B.5.S5 and B.5.S6.a: The upper level incorporates vertically-oriented windows to increase transparency and prevent a dominant horizontal geometry in the facade.

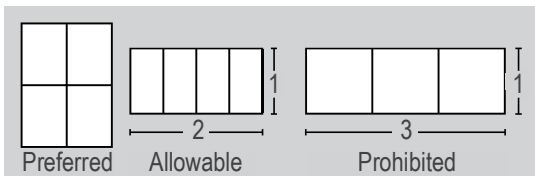


Fig B.5.S6.b: Window proportions are preferred to be vertical. Horizontal proportions are allowable up to 2:1.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

S5. INSIDE THE TRIANGLE: Upper levels of street facing facades shall be composed of clear glass for 25 percent of the wall area above the ground floor, excluding roof shapes and parapets.

OUTSIDE THE TRIANGLE: Upper levels of street facing facades shall be composed of clear glass for 20 percent of the wall area above the ground floor, excluding roof shapes and parapets.

S6. Window openings are preferred to exhibit a vertical proportion. Window openings shall not exhibit a horizontal proportion greater (more horizontal) than two-to-one.



Fig B.5.G5.a OUTSIDE THE TRIANGLE: Upper levels as well as the ground floor shall include high levels of transparency.



Fig B.5.G5.b: Upper levels as well as the ground floor shall include high levels of transparency.

5. TRANSPARENCY, CONTINUED

DESIGN GUIDELINES

Commercial and Institutional Development, Continued

G7. INSIDE THE TRIANGLE: When buildings require specific areas not to be transparent, a limited amount of displays that are integrated into the building may substitute for transparent glazing.

OUTSIDE THE TRIANGLE: When buildings require specific areas to not be transparent, a limited amount of displays that are integrated into the building may substitute for transparent glazing. Objects which obstruct views between interior and exterior spaces shall be limited to ensure visibility.

G8. Glass shall not be mirrored or tinted to prevent views into spaces. Glass shall be as clear as possible while meeting applicable energy codes.



Fig B.5.S8: Only clear glass shall count toward the transparency requirement.

DESIGN STANDARDS

Commercial and Institutional Development, Continued

S7. Visual Connectivity: The following Standards ensure true visual connectivity between interior and exterior spaces:

a. INSIDE THE TRIANGLE: Ground floor windows shall provide views into active spaces such as storefronts, offices, lobbies, etc. At the discretion of the Manager or Design Commission, display windows that do not provide views into the building may count towards the required transparency if the display extends a minimum of 4 feet into the building and contains three-dimensional (3D) objects, such as product displays. Window boxes added to the exterior of the building are not permitted.

OUTSIDE THE TRIANGLE: At the discretion of the Manager or Design Commission, display windows that do not provide views into the building may count towards the required transparency if the display extends a minimum of 4 feet into the building and contains three-dimensional (3D) objects, such as product displays. Window boxes added to the exterior of the building are not permitted.

b. INSIDE THE TRIANGLE: Up to 25 percent of the required ground floor transparent area may be attributed to display windows as described in this section.

OUTSIDE THE TRIANGLE: Up to 50 percent of the required ground floor transparent area may be attributed to display windows as described in this section.

S8. To meet the clear, transparent glass requirement, storefront windows shall have a Visible Transmittance (VT) value of 60 percent or greater.



Fig B.5.S7: A limited amount of displays which extend into the building may count toward the transparency requirement.

5. TRANSPARENCY, CONTINUED

DESIGN GUIDELINES

Residential Development

- G9.** When the common areas of multifamily buildings do not require privacy, they shall have high levels of transparency.
 - a.** Multifamily building entries shall provide sufficient transparency at the entry to enhance safety.

Existing Development

- G10 and 11.** Existing buildings under renovation which require a permit shall maximize transparency if windows are being replaced.



Fig B.5.S11: A renovated building in which windows were reinstalled.

DESIGN STANDARDS

Residential Development

- S9.** Multifamily buildings shall follow transparency Standards specified in **Section 7.0103**. In addition, the following Standards shall apply:
 - a.** Ground floor spaces of multifamily buildings attributed to common areas, such as lobbies, shared community rooms, fitness rooms, etc., shall be composed of clear glass for a minimum of 40 percent of the wall area between the heights of 2 feet and 10 feet.
 - b.** Building entries that access the parking area shall be designed with transparent glass that allows users to look out prior to exiting the building.
 - c.** Accessory, non-residential buildings, such as recreation or community centers, which abut a public street right-of-way, shall have at least 20 percent of the ground floor wall area facing the street in transparent windows, doorways, or display areas, including an entry opening directly onto the abutting street.

Existing Development

- S10.** Existing buildings with levels of transparency less than the amount specified shall not lessen the amount of transparency during renovations which require a permit if the exterior building facade is altered.
- S11.** When changes are being made to the facade of existing buildings, window openings which have been replaced with other materials (brick, block or other materials) and are visible from the street shall have transparent windows reinstalled in these locations.



Fig B.5.S9: Lobbies and other common areas shall have increased levels of transparency in multifamily buildings.

6. GATEWAYS

Intent: To enhance important intersections and locations within Rockwood through strategies such as creating a strong architectural building statement, making changes to building form, and enhancing building details and landscape.

Applicable Rockwood Design Principles from Section 7.0502:

- A. Physical Environment
- E. Open Space
- H. Architectural Quality



Fig B.6.S2: Facade sections fronting the Gateway intersections shall be at least 3 occupiable stories.

DESIGN GUIDELINES

All Development

- G1.** Gateways shall mark prominent intersections which are highly visible within Rockwood as shown in **Fig. B.6.G1**.
 - a. 181st and Burnside
 - b. 181st and Stark
 - c. Burnside and Stark
- G2.** Buildings surrounding these intersections shall be of a sufficient height to emphasize the hierarchy of these places. These buildings shall be generally taller than the surrounding buildings.
- G3.** To create pedestrian activity and additional interest in these areas, building entries shall be prominently located to emphasize the gateways.



Fig B.6.G3: Building entries shall be very close to gateway intersections to encourage pedestrian activity in these areas.

DESIGN STANDARDS

All Development

- S1.** The following intersections as shown in **Fig. B.6.G1** shall be considered Gateways and shall follow the Design Standards on private property as specified in this section:
 - a. 181st and Burnside
 - b. 181st and Stark
 - c. Burnside and Stark
- S2.** Building Scale: Building massing shall respond to the importance of these areas. Building masses facing and abutting these intersections shall be taller than adjacent facade sections and no less than three occupiable stories. An occupiable story may include a mezzanine if the facade contains elements such as windows that would indicate the presence of a second level. The three-story mass shall extend no less than 60 feet along each street frontage.
- S3.** Building Entries: Buildings shall have an entry accessible from the gateway. The building entry shall be no more than 10 feet from the building corner.

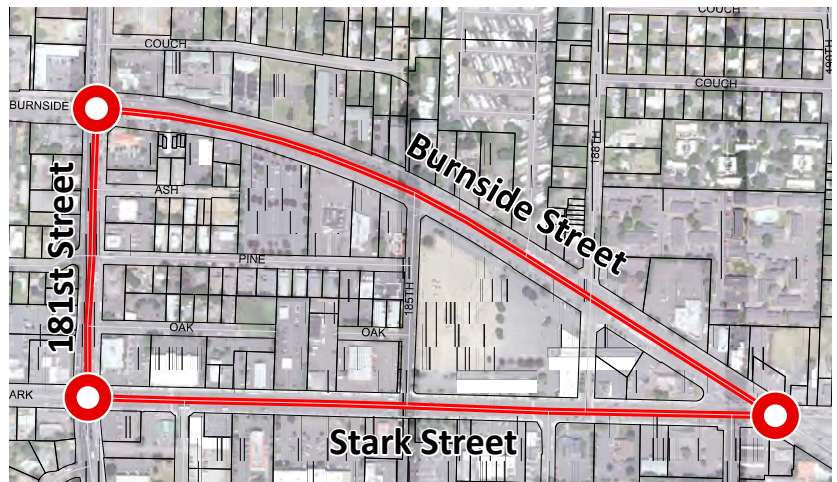


Fig B.6.G1: The location of Gateway intersections establish the Triangle Area within Rockwood and establish prominence at these intersections.

6. GATEWAYS, CONTINUED

DESIGN GUIDELINES

All Development, Continued

- G4.** Building facades shall utilize high-quality materials to create attractive, durable and timeless buildings.

- G5.** Landscape plazas may be developed to add pedestrian spaces in areas that would be difficult to otherwise develop. The plazas shall be designed to encourage pedestrian gathering and utilization.



Fig B.6.G4.a: Stone and other high-quality materials are appropriate for highly visible gateway buildings.



Fig B.6.S4: High-quality materials, including brick, stone and glass, are used on facades facing important intersections.



Fig B.6.S5: Landscaped plazas with pedestrian amenities encourage activity at the Gateways.

DESIGN STANDARDS

All Development, Continued

- S4.** Primary Materials, as defined in **Section 7.0503(B)(7)**, shall be used for no less than 80 percent of the street-facing facades. Primary material usage on the remainder of the facade shall be measured independently and shall follow the Standards specified in **Section 7.0503(B)(7)**.

- S5.** Landscaped Plazas: Because of irregular parcels created by the orientation of Burnside and Stark, landscaped plazas may be developed in place of buildings and count toward the building frontage requirement at the gateways. These plazas shall include the following features:
 - a.** At least 20 percent of the area shall be hardscaped with decorative paving;
 - b.** At least 30 percent of the area shall be landscaped with trees, shrubs, groundcover and perennial landscape plantings;
 - c.** Pedestrian-scaled lighting fixtures shall be no taller than 18 feet;
 - d.** An average of at least one bench or seating unit for each 200 square feet of area shall be provided (seating may be grouped into benches or ledges);
 - e.** One element with sustainability attributes (such as but not limited to rain gardens, solar powered lights or equipment, or pervious pavement) shall be provided; and
 - f.** An element that provides a focal point to the space shall be provided, such as but not limited to:
 - i.** An artistic design element such as a decorative paving pattern, a pair of ornamental lighting elements, etc.;
 - ii.** A clock tower;
 - iii.** A water feature;
 - iv.** An art installation as approved by the Design Commission; or
 - v.** Other features as approved by the Design Commission or Manager.



Fig B.6.G4.b: Glass and other high-quality materials are appropriate for highly visible gateway buildings.

7. MATERIALS

Intent: To promote the use of high-quality, durable and attractive materials in buildings which contribute to the aesthetic quality of the development and to the urban design fabric of the community.

Applicable Rockwood Design Principles from Section 7.0502:

- C. Safe Design
- H. Architectural Quality
- I. Sustainable Architectural Design
- J. Rehabilitation
- L. High-Quality Materials



Fig B.7.G1.a: Finished wood complements the brick, concrete, and glass structure.

DESIGN GUIDELINES

All Development

G1. Materials:

- a. The predominant building materials shall be high-quality, durable and attractive.
- b. The predominant building material may be complemented with other secondary materials which may not be appropriate on large areas of the facade.
- c. Accent materials, which would generally not be acceptable on large areas of the facade, may be used in limited areas of the facade to highlight architectural features.

G2. Prohibited Materials: Materials identified as prohibited in **Table 7.0503.B.7** shall not be used on any building.

G3. Fencing shall be durable, maintainable and attractive.

Existing Development

G4. Existing Buildings: Renovated facade sections shall utilize high-quality, attractive and durable materials.

G5. When buildings are renovated, high-quality original materials shall be exposed.

DESIGN STANDARDS

All Development

S1. Materials:

- a. Buildings shall utilize primary materials for no less than 65 percent of each building facade area.
- b. Secondary materials are prohibited as primary cladding on building facades and shall not be allowed on more than 35 percent of each building facade area.
- c. Accent materials are permitted on no greater than 5 percent of each facade as trims or accents (e.g. flashing, projecting features, ornamentation, etc.).

S2. Buildings shall not utilize materials listed as prohibited.

S3. Fencing materials shall be durable, maintainable and attractive.

Existing Development

S4. Existing Buildings: If renovations include facade modifications, modified sections shall comply with standards specified in **Section 7.0503(B)(7)**.

S5. Existing brick and stone buildings undergoing facade renovations shall remove any paint, paneling or other covering applied to these materials to reveal original surfaces.

7. MATERIALS, CONTINUED



Fig B.7.G1.b: A brick storefront enhanced with ceramic tiles highlighting the windows.



Fig B.7.G1.c: Stone can create a simple yet elegant facade.

TABLE 7.0503.B.7: PRIMARY, SECONDARY, ACCENT, AND PROHIBITED MATERIALS

P: Primary Material
 S: Secondary Material
 A: Accent Material
 N: Prohibited Material or Prohibited Fencing Type

Material	Commercial, Mixed-Use, or Civic		Multifamily Residential
Brick (full dimensional)	P	P	P
Stone/masonry ¹	P	P	P
Stucco ²	P	P	P
Glass (transparent, spandrel)	P	P	P
Finished wood, wood veneers, and wood siding	P	P	P
Factory or naturally finished flat, profiled, fluted, or ribbed metal ³ panels	P	P	P
Fiber reinforced cement siding and panels	S	P	P
Concrete blocks with integral color (ground, polished, or glazed finishes)	S	S	S
Concrete (poured in place or precast)	S	S	S
Ceramic tile	S	S	S
Standing seam metal ³	S	S	S
Other material as approved by the Manager or Design Commission	P/S	P/S	P/S
Concrete blocks with integral color (split face finish)	A	A	A
Corrugated metal	A	A	A
Glass block	A	A	A
Vegetated wall panels or trellises	A	A	A
Vinyl siding	N	N	N
T-111 Plywood	N	N	N
Exterior Insulation Finishing System (EIFS)	N	N	N
Plastic or vinyl fencing	N	N	N
Chain link fencing	N	N	N

Table 7.0503.B.7 Notes:

¹ Stone shall be natural, not manufactured or panelized, and shall have sufficient depth to clearly project beyond adjacent wall planes, such as with the use of full bed depth stone.

² See **Section 3.0103** definition for more information on Stucco application requirements.

³ Metals shall be of a size, thickness and detailing that will remain free of visual defects and visual distortion such as oil canning, ski sloping, and shadowing.