



Agenda
City Council Workshop Meeting
Tuesday, January 27, 2015
City Hall Council Chamber | 505 Swift Boulevard

City Council Workshop - 6:00 p.m.

Agenda Items:

1. Proposed Amendments to the Badger Mountain South LUDR (20 minutes)
 - Rick Simon, Development Services Manager
2. Electric Utility Retail Rates Update (30 minutes)
 - Bob Hammond, Energy Services Director
3. Queensgate Corridor Improvements (30 minutes)
 - Pete Rogalsky, Public Works Director
4. Interview Process for Richland Public Facilities District Vacancy (10 minutes)
 - Cindy Johnson, City Manager

Executive Session:

1. Per RCW 42.30.110 (1) (c): Determine Minimum Offering Price For Sale or Lease if Disclosure Would Decrease Price (15 minutes) (Confidential Memorandum Attached to Coversheet)
 - Brian Moore, Business and Economic Development Manager
2. Per RCW 42.30.110 (1) (c): Determine Minimum Offering Price For Sale or Lease if Disclosure Would Decrease Price (15 minutes)
 - Bill King, Community and Development Services Director

Adjournment

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City Council Workshop Meeting
Tuesday, January 27, 2015
City Hall Council Chamber | 505 Swift Boulevard

COUNCIL WORKSHOP COVERSHEET

Council Date: 01/27/2015

Department: Community & Development Services

Key Element: Key 3 - Economic Vitality

Subject:

Proposed Amendments to the Badger Mountain South LUDR (20 minutes)

Summary:

Nor Am, LLC, the owners and developers of the Badger Mountain South Master Planned Community are requesting some amendments to the Master Agreement and Land Use and Development Regulations (LUDR) that are in place to guide the future development of the community. This workshop session is an opportunity for Council to become familiar with the proposed amendments before the item formally comes before Council.

The LUDR amendments are summarized in the attached staff report that was prepared for the Planning Commission. The Commission held a public hearing to consider these amendments on January 14th and have recommended their adoption. The specific LUDR amendments are provided in the second attachment. Proposed changes to the master agreement would mirror those in the LUDR as they relate to required park improvements, would provide some minor clarifications and corrections and would provide some additional flexibility in siting a future electrical substation needed to serve the development.

Attachments:

1. Staff Report to Planning Commission
2. LUDR Amendments

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STAFF REPORT

TO: PLANNING COMMISSION
FILE NO.: Z2015-100

PREPARED BY: RICK SIMON
MEETING DATE: JANUARY 14, 2015

GENERAL INFORMATION:

APPLICANT: NOR AM INVESTMENT, LLC

REQUEST: TEXT AMENDMENTS TO THE LAND USE & DEVELOPMENT REGULATIONS FOR THE BADGER MOUNTAIN SOUTH MASTER PLANNED COMMUNITY.

LOCATION: BADGER MOUNTAIN SOUTH, GENERALLY LOCATED SOUTH OF BADGER MOUNTAIN, EAST OF DALLAS ROAD AND NORTH OF REATA ROAD.

REASON FOR REQUEST

Nor Am Investment, LLC, the owners of the Badger Mountain South master planned community have identified a number of amendments to the Land Use and Development Regulations (LUDR) that would enhance their ability to develop the master planned community in a fashion that is consistent with local market demands.

FINDINGS AND CONCLUSIONS

Staff has completed its review of the proposed zoning amendments to the Badger Mountain South Land Use and Development Regulations (Z2015-100) and submits that:

- 1) The City adopted the Badger Mountain Subarea Plan on September 7, 2010, which includes a detailed master planned community known as "Badger Mountain South".
- 2) The Badger Mountain South master plan includes a finer level of detail than other City planning documents. To fully implement the plan, a more detailed development regulation was needed. Nor Am Investment drafted the Land Use and Development Regulation (LUDR) which was adopted by the City to fully implement the Badger Mountain South master plan.
- 3) The purpose of the LUDR is to:
 - a) Establish neighborhoods with a range of housing styles and types to accommodate a population of diverse ages and incomes;
 - b) Promote health benefits of a walkable, pedestrian environment;
 - c) Establish mixed-use neighborhoods where daily activities can occur within walking distance of most homes;
 - d) Reduce traffic and congestion by creating a traditional neighborhood development street grid;
 - e) Improve the character and quality of the built environment;

- f) Promote building and landscape design that conserve energy, water and other resources;
 - g) Promote lot and block orientation that accommodates passive solar capture; and
 - h) Conserve areas for parks, trails and open spaces by established a connected open space network.
- 4) The LUDR was originally adopted by the City on December 7, 2010, was amended on June 19, 2012 and again on April 15, 2014 and has been used to regulate the development within the Badger Mountain South community.
 - 5) The initial development of the site included a 156 lot residential subdivision known as West Vineyards, which was recorded on April 2, 2013. Veneto Villaggio, a 40 lot commercial binding site plan was recorded in 2014.
 - 6) Prior to the residential and commercial platting activity, Badger Mountain South needed to extend utility services to the site, including construction of over 2.5 miles of sewer main, a similar length of water main along with the construction of a million gallon domestic water reservoir.
 - 7) To date, a total of 15 building permits for single family residences and 1 commercial building (Country Mercantile) have been issued within the Badger Mountain South Master Planned Community.
 - 8) Given the large capital investments made by Badger Mountain South, a faster rate of development is needed in order for the master planned community to be successful.
 - 9) The slow market absorption of the lots within the plat of West Vineyards is at least in part created by LUDR standards that contribute to higher construction costs and more stringent standards than those that are in place in competing market areas.
 - 10) The proposed changes in the LUDR are designed to provide relief from some of the standards that have increased cost and/or restricted choice in the development of single family residences.
 - 11) Additionally, review of the LUDR has revealed that there are a number of minor corrections, clarifications and improvements that constitute desirable improvements to the LUDR.
 - 12) The proposed amendments do not impact the overall intent or purpose of the LUDR. Rather, they provide some relief from standards that result in increased cost of development and expand choice.
 - 13) Based on the above findings and conclusions, adoption of the proposed LUDR would be in the best interest of the community of Richland.

RECOMMENDATION

Staff recommends the Planning Commission concur with the findings and conclusions set forth in Supplemental Staff Report (Z2015-100) and recommend to the City Council adoption of the proposed amendments to the Badger Mountain South Land Use & Development Regulations, as set forth in the draft document.

ATTACHMENTS

- A. Supplemental Information
- B. Proposed LUDR Text Amendments

ATTACHMENT A
(Z2015-100)

SUPPLEMENTAL INFORMATION

BACKGROUND

The Badger Mountain Subarea Plan was officially adopted by City Council on September 7, 2010. A major part of this subarea plan included the master planned community of Badger Mountain South. The development of a master planned community of this scale, nearly 1,500 acres, is unique to the City of Richland. At completion, with 5,000 dwelling units anticipated, it would be more than double the size of the Horn Rapids community. Given the very detailed master planning that the property owner, Nor Am Investment, has completed for this area, and their specific goals for sustainable development, the City's standard zoning regulations were deemed insufficient to implement this master plan. Consequently, Nor Am proposed and the City adopted an alternative and more highly detailed development regulation to fully implement the plan for this master planned community. This document is referred to the "Land Use Development Regulation" (LUDR).

The LUDR was drafted to implement the very specific vision contained in the Badger Mountain South master plan. In many areas, the LUDR includes standards that are not addressed in the City's standard development regulations.

The LUDR has been in place since December of 2010 and was amended in 2012 and again in 2014. The LUDR was used as the guide for development of the first residential project within the Badger Mountain South community which is West Vineyards as well as the first commercial project, Veneto Villaggio.

The developers have made significant investments through the extension of water and sewer mains to serve the development site and the slow rate of development (only 15 homes under construction since the West Vineyards plat was finished in April, 2013) have created a need for a reassessment of the LUDR standards. LUDR changes to make future development more palatable to the existing market and more affordable are the driving force behind the proposed amendments.

PURPOSE

The stated purpose of the LUDR (as listed in Chapter 1) is to:

- a) Establish neighborhoods with a range of housing styles and types to accommodate a population of diverse ages and incomes;
- b) Promote health benefits of a walkable, pedestrian environment;
- c) Establish mixed-use neighborhoods where daily activities can occur within walking distance of most homes;
- d) Reduce traffic and congestion by creating a traditional neighborhood development street grid;

- e) Improve the character and quality of the built environment;
- f) Promote building and landscape design that conserve energy, water and other resources;
- g) Promote lot and block orientation that accommodates passive solar capture; and
- h) Conserve areas for parks, trails and open spaces by established a connected open space network.

SUMMARY OF LUDR CHANGES

The following is a summary of the changes proposed within the LUDR. Many, but not all of these can be classified as clarifications or minor adjustments to existing standards:

- Changes to use tables to allow a wider range of uses in the Neighborhood Collector district, specifically providing for single family residential uses;
- Provisions to allow the administrative approval of sidewalk use licenses within the commercial areas of Badger Mountain South;
- Provisions to allow a maximum of 20% of required off-street parking for commercial uses to be satisfied through the use of compact stalls (8' by 16', rather than the standard 9' by 20');
- Amendments to building height requirements to specify height measured in feet, rather than stories. Example: commercial buildings within the mixed use village must be between 24 and 50 feet in height instead of between 2 and 4 stories);
- Reduction in the number of required off-street parking spaces for commercial uses are to be granted when nearby on-street parking are available, similar to the provision in the City's standard zoning regulations for Central Business District properties;
- New provision to require a 5 foot wide landscape strip between the rear yards of a residential property abutting a collector street;
- In residential areas, side yard setbacks are reduced from 6 feet to 5 feet;
- In residential areas, driveway width is limited to 35 feet or 50% of the lot's street frontage;
- Three car garages would be permitted on residential lots;
- Restrictions limiting the location of off-street parking spaces on a residential lot are eliminated;
- Street cross sections are simplified, but lane widths and configurations are unchanged;
- Maximum length of blocks is increased from 650 feet to 1,000 feet;
- Cul-de-sac streets are permissible in limited circumstances;
- Dead-end alleys up to 150 feet in length are permitted;
- Lots that are directly accessed from the street (non-alley loaded) are permitted on both sides of the same street;
- The prohibition on placing a parking lot in front of a civic building is eliminated;
- Standards for arcades on commercial buildings are reduced from a minimum depth of 12 feet to a minimum depth of 8 feet;

- Standards for galleries on commercial buildings are reduced from a minimum depth of 10 feet to a minimum depth of 8 feet;
- Standards for porches on residential buildings are reduced from a minimum depth of 4.5 feet to a minimum depth of 4 feet;
- The standard specifying the minimum height of a stoop to be 2.5 feet is eliminated;
- The size of required trees are reduced from a caliper of 2 inches to a caliper of 1.5 inches;
- The height of landscape hedges or walls is increased from 3 feet to 4 feet;
- The requirement for landscaping the interior of a parking lot is reduced from 8% to 5%;
- The minimum size requirement for a landscape island within a parking lot is reduced from 100 square feet to 75 square feet;
- The minimum width of a landscape planter is reduced from 7 feet to 5 feet;
- The requirement for landscaping the rear yard of a residential lot is replaced with a requirement that a rear yard shall be at a minimum seeded or mulched;
- The requirement for 3rd party verification requirement for green building compliance is eliminated;
- The requirement for energy star certification on all new construction is eliminated, although compliance with energy star standards is still required;
- The requirement for sustainability plans to be filed for all binding site plan/commercial development is eliminated;
- The residential fencing standards are relaxed to allow for fences to be a maximum of 6' in height, rather than 5' feet;

Other changes would amend the standards of park development that are embedded in the LUDR. Less trail construction, fewer landscape plantings and fewer park amenities would be constructed as the development of Badger Mountain South community occurs.

Park Area	Original Standard			Proposed Revision		
	Primary Trail (lineal feet)	Secondary Trail (lineal feet)	Trees/ Shrubs	Primary Trail (lineal feet)	Secondary Trail (lineal feet)	Trees/ Shrubs
The Ravine	2,500	6,800	60/100	1,500	5,000	60/100
The Reserve	14,000	6,000	350/500	8,000	4,000	120/200
The Orchard Green	10,000	5,200	350/500	5,000	2,000	150/200
Totals	26,500	18,000	760/1100	14,500	11,000	330/500

Other proposed changes to park standards are as follows:

- Required park amenities in The Reserve open space area eliminate a paved activity court and 2 volleyball courts and a community garden. In the Orchard Green area a required water feature would be eliminated;
- Restroom facilities have been eliminated as a requirement from local parks;
- Parkour stations have been added to the menu of required park amenities that are to be provided in local parks;
- The village green park has been eliminated altogether;
- The requirement for block parks (small tracts ranging in size between 5,000 square feet and one acre and generally use for passive open spaces) are eliminated;

Finally, there are proposed changes to some of the maps within the LUDR. Specifically, the Regulating Plan for Land Use and Urban Form (Chapter 2) is revised. The primary change is that additional lands located along collector streets are designated as BMS Neighborhood Collector. Additionally, the Trail Layout and Trail Types Map (Chapter 5) and the Regulating Plan for Streets (Chapter 6) have been modified.

ANALYSIS

The LUDR, adopted in 2010, is the City's first form based code. The LUDR places an emphasis on many smart growth planning principles. It encourages pedestrian activity through the integrated system of pedestrian and bicycle trails throughout the community; it will implement the plan to provide parks, shopping and schools within easy walking distance of every residence; it calls for narrow streets and small lots to slow vehicular traffic and make more efficient use of land; its' overall design encourages public transit; it includes provisions for mixed-use development and standards for building form, design and landscaping; and requires the use of energy conservation measures in the development of new buildings. Many of these standards are not even addressed at all in City Code, so the complexity of the LUDR far exceeds that of the City's standard development regulations.

Of all the changes proposed, the most significant ones allow residential lots that are accessed directly from the street and not from an alley. Combined with provisions that allow for three car garages, these amendments respond directly to the reasons listed by a variety of home builders as to why they have chosen to not build within the Badger Mountain South community. There is apparent resistance to alley loaded lots in our local market at this point. The amendments would still provide for alley loaded lots but they would no longer be mandated.

Elimination of alleys also reduces the costs of development. Cost reduction is another major reason for the proposed LUDR amendments. Required improvements to open space have been significantly reduced. The length of trails required to be constructed within the community is reduced by over 40%. Some required park amenities have

been eliminated, such as the requirement to install restrooms in local parks and the requirement to integrate small block parks into neighborhoods has been eliminated. These changes would not only save construction costs at the time of development, but ongoing maintenance costs as well. The majority of the park and trail system would be privately owned and maintained by the future homeowners association.

In spite of the reductions in required park improvements, the amount of park, open space and trail systems mandated by the LUDR would still exceed the standards that the City requires outside of the Badger Mountain South community. The City's comprehensive plan established a level of service standard of 1.76 acres of neighborhood park land for every 1,000 residents and 2.04 acres of community park land for each 1,000 residents. At full build-out the Badger Mountain South community will contain between 4,150 and 5,000 housing units. Based on current average household size (2.4 persons/dwelling), the estimated population at full build out would range between 9,960 and 12,000 persons, resulting in a need for neighborhood and community park land of 35 acres to 45.6 acres according to the City's current level of service standard.

As part of the master agreement, land for a 30 acre community park and a 6 acre neighborhood park has already been transferred to the City. With the construction of the West Vineyards plat, a local park of 2.2 acres has already been constructed, along with .4 miles of primary trail. With the proposed LUDR amendments, there would still be approximately 10 miles of trail and the construction of local parks would be scattered throughout the community.

Standards associated with energy conservation have also been modified. New building construction must still be built in accordance with a green building rating system, such as Built Green or LEED, but third party verification would no longer be required. Additionally, the requirement for a sustainability plan for each commercial development has been eliminated. The project developers are still committed to sustainability principles and have just recently signed an agreement with Orca Energy, a company that installs geothermal heating/cooling systems.

With all the changes proposed, the basic purposes of the LUDR remain intact. The amendments would help to reduce the overall costs of construction as well as reducing the ongoing maintenance costs of the park and open space system. The changes are designed to make the Badger Mountain South community more attractive in the local market place, which is critical to both the developer and the City, given that the master planned community represents a large percentage of the City's potential future growth area.

SUMMARY

The proposed amendments to the LUDR are in keeping with the purposes of the original LUDR document and are necessary to ensure the viability of the Badger Mountain South master planned community.



LAND USE and DEVELOPMENT REGULATIONS

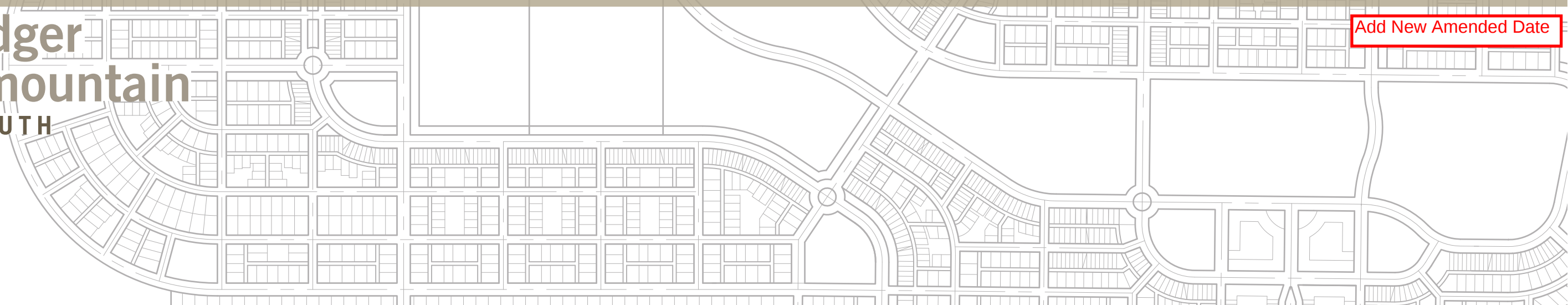
City Of Richland, Washington

Exhibit C to Master Agreement Dated December 7, 2010

Amended Dates: June 19, 2012 and April 15, 2014

badger
mountain
SOUTH

Add New Amended Date





badger mountain SOUTH

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Add AHBL Logo
Update City
Council Names,
Planning
Commission and
City Staff Names.
Add NORAM

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Richland, WA 99352

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Edward Revell - Mayor Pro-Tem
Sandra Kent - Council Member
Phillip Lemley – Council Member
Dave Rose – Council Member
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James Klos – Vice Chair
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Clifford Clark - Commissioner
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Marianne Boring - Commissioner
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Grant Baynes – Fire and Emergency Services
Tony Corsi – Police Services Director
Douglas Strong - Parks and Recreation Director
Phil Pinard - Planning and Capital Projects Manager

Note: Graphics and layout originally prepared
by Johnson Braund Inc.

NOTE: New logo substituted in October 2011

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**INTRODUCTION
HOW TO USE THE
LUDR**

1

Section 1 introduces the intent, purpose, applicability of the Land Use & Development Regulations (LUDR). The organization, use and submittal procedures are outlined.

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1.A INTENT

- 1. Badger Mountain South (BMS), a master-planned community of 1,480 acres is intended to develop with 5,000 homes, businesses and other commercial activities. The Badger Mountain South Land Use Development Regulations (LUDR) are intended to (1) implement the land use elements of the Badger Mountain South Master Agreement approved by the ~~by the~~ City of Richland City Council on December 7, 2010, and (2) realize the goals and objectives which apply specifically to BMS, of the Badger Mountain Subarea Plan, adopted by the City of Richland City Council on September 7, 2010.
- 2. All parcels within the defined boundaries of Badger Mountain South (BMS) are required to follow these regulations which control site design, quality, and compatibility between buildings. The standards of the LUDR further serve to establish and maintain the design character of BMS by describing urban form, building types and site design which reflect important aspects of the desired quality for the development. Persons proposing development must consult the LUDR standards in preparation of plans for review by the City.
- 3. The underlying principle to the LUDR is that uses, buildings and streets are interrelated so there is a strong emphasis in the LUDR on the public realm and on the physical form of buildings. This greater emphasis on the physical form of the built environment is intended to produce streets and other public spaces that are varied, safe and attractive, and to encourage the construction of buildings that enhance the character of the neighborhood and business areas. The LUDR is graphic-intense and includes standards for site design and sustainability as well as graphic direction for height, siting, and building elements.
- 4. A map of the area of Badger Mountain South is shown in the illustration 1.E.

1.B PURPOSE

- 1. The purpose of the LUDR is to:
 - a. Establish neighborhoods with a range of housing types to accommodate a population of diverse ages and incomes;
 - b. Promote health benefits of a walkable, pedestrian environment;
 - c. Establish mixed-use neighborhoods where daily activities can occur within walking distance of most homes;
 - d. Reduce traffic and congestion by creating a traditional neighborhood development street grid;
 - e. Improve the character and quality of the built environment;
 - f. Promote building and landscape design that conserve energy, water and other resources;
 - g. Promote lot and block orientation that accommodates passive solar capture; and
 - h. Conserve areas for parks, trails and open spaces by establishing a connected open space network.

f. In some instances minor inconsistencies from the substantive requirements of the LUDR conditions may be acceptable if they meet certain criteria and represent an equivalent or superior design solution to what would otherwise be achieved by rigidly applying the specific requirements. The processing procedures for minor deviations from the LUDR are as set forth in Section 1.H.

1.C APPLICABILITY OF THE LUDR

- 1. All proposed development shall comply with all applicable LUDR and other Master Agreement provisions. No development permit or development approval shall be issued or approved by the city unless it complies with the applicable requirements of the LUDR and applicable provisions of the Master Agreement.
- 2. Relationship to the Richland Municipal Code
 - a. The LUDR, when accompanied with the other Master Agreement conditions, is designed to establish a set of City regulations that are specific to the Badger Mountain South Master Plan Community. As such, these more specific regulations regarding zoning districts, allowable land uses, permit requirements for allowable land uses, and site design and development standards, will be used instead of the corresponding regulations for other parts of the City.

The City permit processing procedures set forth in the City Code will still be used (see LUDR Section 1.J), with the addition of the Master Agreement Consistency Determination process of LUDR Section 1.H.
 - b. All references to the RMC refer to the RMC as adopted and in effect on the date the LUDR is adopted by the city.
 - c. For subdivisions and short plats, the LUDR and Master Agreement substantive requirements, including the environmental mitigation conditions incorporated into the Master Agreement, shall be used for the review criteria, but the process requirements of RMC title 24 shall be followed along with the provisions of LUDR section 1.J. Compliance with the LUDR and Master Agreement substantive standards for subdivision and short plats shall be deemed to meet the approval criteria set forth in RMC 24.13.060 for short plats, and RMC 24.12.050 and 053, as well as RCW 58.17.100 and RCW 58.17.110.
 - d. For multifamily development containing an aggregate of 7 or more dwelling units regardless of the number of structures, commercial buildings and commercial building complexes, all civic buildings, and all development in a Special District, a site plan review is required. The LUDR and Master Agreement substantive requirements, including the environmental mitigation conditions incorporated into the Master Agreement, shall be used for the review criteria, but the process requirements of RMC chapter 23.48 shall be followed along with the provisions of LUDR section 1.J.
 - e. For binding site plans the LUDR and Master Agreement substantive requirements, including the environmental mitigation conditions incorporated into the Master Agreement, shall be used for the review criteria, but the process requirements of RMC title 24.14 shall be followed along with the provisions of LUDR section 1.J.
- 3. Conditions in Addition to the LUDR.

There may be additional conditions imposed by the Badger Mountain South Home Owners' Associations or Business Owners' Associations through Conditions, Covenants, and Restrictions that relate to land use and development activities such as, but not limited to, architectural style, colors, or other building features. These additional conditions are privately enforced and not subject to the LUDR.
- 4. Conflicts with Other Codes.

Since the City has adopted regulations that are specific to the Badger Mountain South Master Plan Community, if there is a conflict between those specific City regulations applicable to BMS and other City regulations, the BMS regulations shall control. Provided, however, this general principle shall not apply to the following:

 - a. Building Code, RMC Title 21
 - b. Life Safety Code, RMC Title 20

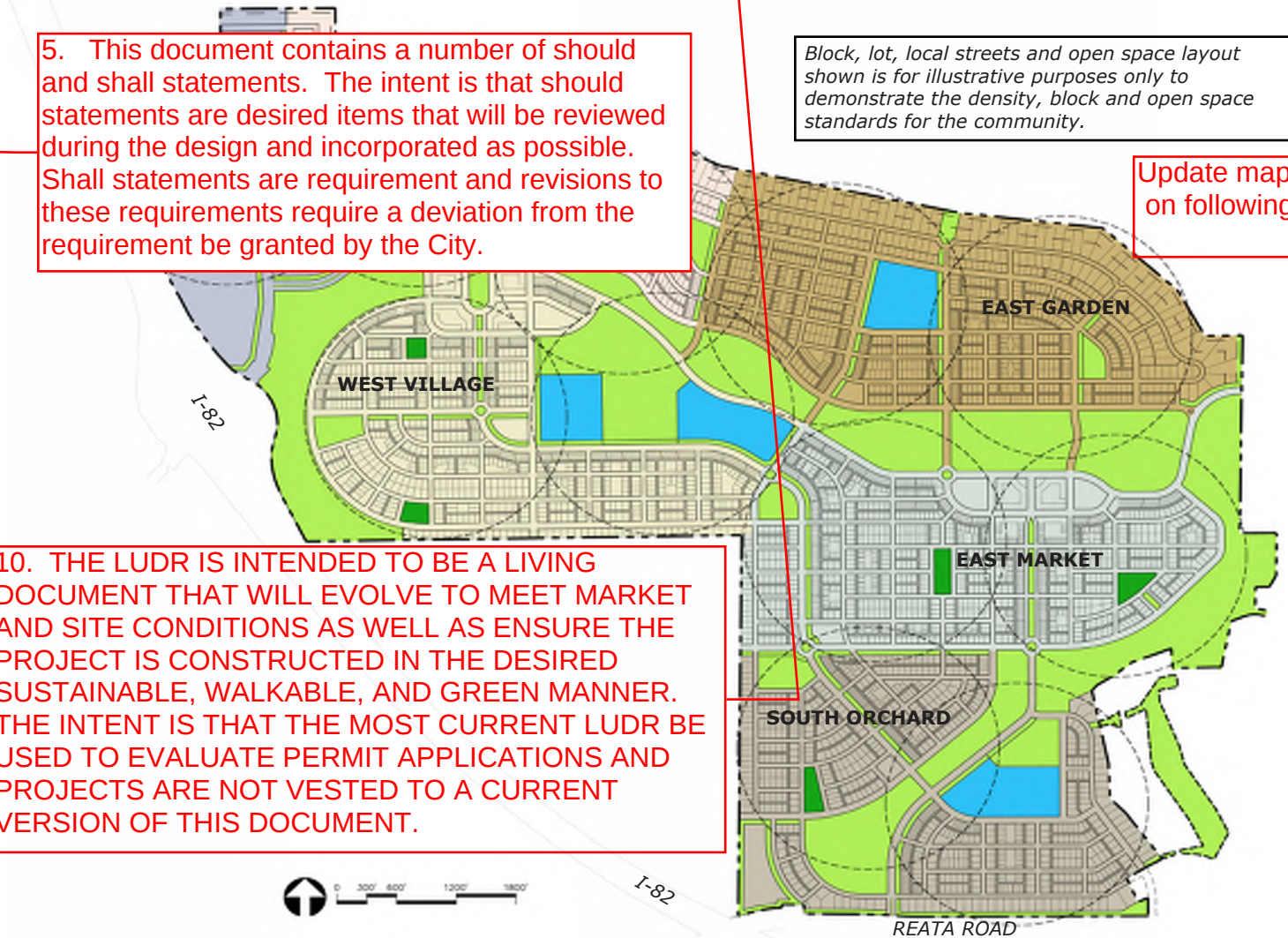
- c. Electrical Code, RMC Title 14
- d. Energy Code, Chapter 19.27A of the Revised Code of Washington.
- e. Sensitive Areas Ordinance, RMC, Chapter 22.10
- 5. State, County, local agency and school district sites and facilities.

The requirements of the LUDR shall apply to all sites and facilities in Badger Mountain South of the State of Washington, Benton County, and any school district or other local agency to the maximum extent allowed by law.
- 6. Civic Buildings and Facilities.

It is intended that the design quality and sustainability components of Civic buildings and facilities exceed the general standard for residential and commercial buildings within Badger Mountain South as set forth in the Building Type standards section 8.D and Sustainable Standards section 12.D.
- 7. Terms

Capitalized terms used throughout the LUDR are defined in Section 14, Glossary. Those terms not defined in Section 14 shall be accorded their commonly accepted meanings. In the event of conflicts between these definitions and those of the RMC, those of the LUDR shall take precedence.

1.E ILLUSTRATIVE PLAN OF BADGER MOUNTAIN SOUTH



- 8. Diagrams and illustrations

Diagrams, photographs and illustrations are an integral part of the LUDR and are used to help explain the guidelines and standards. When in conflict, written text shall take precedence over graphic metrics.
- 9. Appeals

Any decision or determination made by a city official in the administration or application of the provisions of the LUDR may be appealed in the same manner as provided in RMC Section 23.70.1. Responsibility for Administration.

1.D ADMINISTRATION

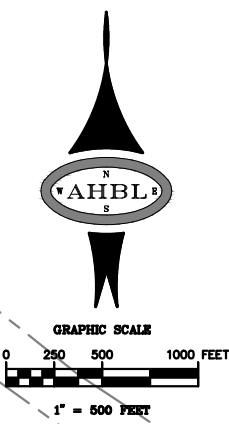
The LUDR shall be administered by the Richland City Manager or his/her designee. The Richland City Council "Council", Planning Commission "Commission" and Development Services Manager "Director" also have designated ~~rolls~~ related to the implementation of the LUDR and are collectively referred to in the LUDR as the "review authority".

roles

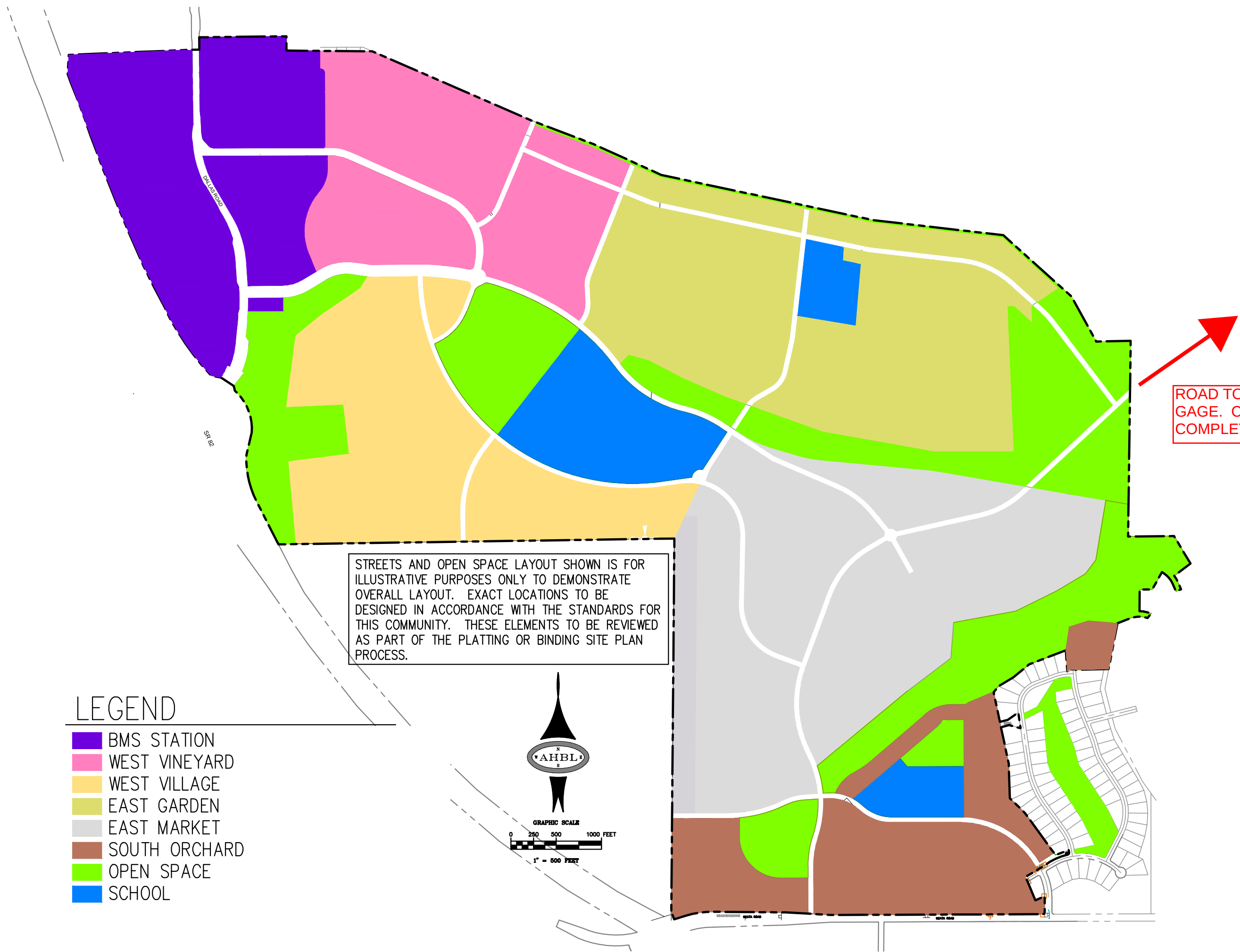
LEGEND

- BMS STATION
- WEST VINEYARD
- WEST VILLAGE
- EAST GARDEN
- EAST MARKET
- SOUTH ORCHARD
- OPEN SPACE
- SCHOOL

STREETS AND OPEN SPACE LAYOUT SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY TO DEMONSTRATE OVERALL LAYOUT. EXACT LOCATIONS TO BE DESIGNED IN ACCORDANCE WITH THE STANDARDS FOR THIS COMMUNITY. THESE ELEMENTS TO BE REVIEWED AS PART OF THE PLATTING OR BINDING SITE PLAN PROCESS.



ROAD TO CONNECT TO GAGE. CONNECTION TO BE COMPLETED BY OTHERS.



1.F REGULATING PLAN AND DISTRICTS

1. Districts and Their Purposes

The area subject to the LUDR shall be divided into the following districts which shall be applied to property within Badger Mountain South as shown on the Regulating Plan for Land Use and Urban Form, 2.B. The Urban Form Standards for Districts, other than Special Districts are included in Section 3. Special District Standards are included in Section 4. All district descriptions below are preceded by the appellation, BMS, which stands for Badger Mountain South.

- a. BMS-VMU District. The Village Mixed Use District is ~~located in the West Village and East Market neighborhoods~~ where mixed-use and multi-family residential buildings are intended to create a pedestrian-oriented urban fabric. The district provides for a variety of non-residential uses and a mix of housing types at higher intensities and densities. Besides accommodating community-serving buildings, it may also serve the daily convenience shopping and service needs of nearby residents. Building types include Civic/ Institutional/Community Buildings, Neighborhood Goods and Services Buildings, Commercial/Mixed-use/Liner, Live/Work, Stacked Units and Row Houses. The landscape style is urban, emphasizing street trees and wide sidewalks.
- b. BMS-NC District. The Neighborhood Collector District is a residential district located in close proximity to parks, trails and greenbelts primarily along Collector streets and neighborhood entry points. It is intended to permit a variety of housing types at medium intensities and densities, with some opportunities for neighborhood-serving retail, businesses, services and cafes. Allowable building types include Civic/Institutional/Community Buildings, Neighborhood Goods and Services Buildings, Commercial/ Mixed-use/Liner, Live/Work, Stacked Units, Row Houses, Courtyard Housing, Mansion Apartments and Duplexes. The landscape style is appropriate to a neighborhood with street trees and sidewalks, or when adjacent to a greenbelt, a wider landscaped treatment with a portion of the community’s trail system.
- c. BMS- NG District. The Neighborhood General District is the primary residential district found in Badger Mountain South. It is intended to permit a variety of housing types at urban intensities and densities. Allowable building types include Civic/Institutional/Community Buildings, Courtyard Housing, Mansion Apartments, all in limited applications, as well as Duplexes, Cottage Courts, Single-Family House, both with alley are limited street access garages and Accessory Units. No house in the BMS-NG District is intended to be farther than three blocks from any park, mini park or other type of open space. The landscape style is appropriate to a neighborhood with street trees and sidewalks.
- d. BMS-NE District. The Neighborhood Edge District is the most restrictive residential district in Badger Mountain South. It is intended to allow a variety of low density and low intensity Single-Family Houses and Accessory Units on larger lots. The landscape style is appropriate to a neighborhood with street trees and sidewalks.

- e. BMS-CIVIC District. The Civic District is intended to accommodate the open space, parks, trails, schools and other civic and community facilities in Badger Mountain South. With the exception of the school site located in the South Orchard neighborhood, school sites are intended to be held in reserve for a neighborhood school until the school district determines the site is not needed or it is used for the development of a private school. If reserved school sites do not develop as schools, other civic or housing uses will be developed there. Standards for civic facilities are intended to create places that are models of sustainable design and development.
- f. BMS-SD-SR District. The Special District - Specialty Retail is intended to be an area for commercial activity that provides an attraction for local, regional and state-wide visitors by accommodating the growing interest in local and regional agricultural products, in particular the state wine industry. It allows wineries and wine making, other retail and commercial, as well as hospitality uses and services. It is intended to develop with an integrated site and amenity design in order to become a community gathering place with its own distinct style.
- g. BMS-SD-CMU District. The Special District - Commercial Mixed-Use is intended to develop as a local destination for employment and shopping. It can accommodate campus-style office developments that provide a significant number of jobs. It also is a place for housing in mixed-use or live/ work buildings at higher intensities and densities found in multi-storied urban building types. It is intended to become the most intensive urban place in Badger Mountain South. The CMU District landscape edge is an urban trail that includes wider sidewalks, street trees and other landscaping and provides pedestrian connectivity to the adjacent neighborhoods.
- h. BMS-SD-DR District. The Special District - Destination Retail -is applied to properties that lie west of Dallas Road. It is intended to become a notable gateway into the city from Interstate 82 by providing an integrated development concept that can accommodate higher intensity development. Development includes a mix of pedestrian-scale retail, big box retail, restaurant, entertainment, vehicle services and urban housing in live/work or commercial mixed-use structures. The landscape style is urban with street trees, sidewalks and landscape parking areas with internal pedestrian connectivity.

7. In some instances minor inconsistencies from the substantive requirements of the LUDR standards may be acceptable if they meet certain criteria and represent an equivalent or superior design solution to what would otherwise be achieved by rigidly applying the specific requirements. Minor deviations to the LUDR may be approved by the Administrative Official following the City's minor amendment process under it's Planned Unit Development Code (RMC 23.50.070).

1.G LAND USES

1. Allowed Land Uses.

- a. A parcel or building in Badger Mountain South shall be occupied by only the land uses identified in Section 2.C. Land Use Table, within the district applied to the site by the Regulating Plan for Land Use and Urban form, Section 2.B. Each land use listed in Section 2.C. is defined in Section 14, Glossary.
- b. Any one or more land uses identified in Section 2.C. Land Use Table, as being allowed within a specific district may be established on any parcel in the district subject to the requirements as listed and the permit requirements of the RMC.

2. Unclassified Uses.

A land use that is not listed in Section 2.C.is not allowed, except as otherwise provided in section 1G.3.

3. Similar and compatible uses.

- a. The Director may determine that a proposed use not listed in Section 2.C. is allowable in compliance with the RMC procedure for similar use determinations; see RMC 23.08.065.
- b. When the Director determines that a proposed, but unclassified, use is similar to a listed use, the proposed use will be treated in the same manner as the listed use in determining where it is allowed, what permits are required, and what other standards of the LUDR and Master Agreement apply.

4. Additional City approval requirements.

Any land use identified in 2.C. may require other City permits, licenses, and approvals, including but not limited to a building permit.

5. ALLOWABLE LAND USES FOR EACH LOT SHALL BE SHOWN ON THE PLAT DOCUMENTS.

1.H BMS MASTER AGREEMENT CONSISTENCY DETERMINATION

- 1. In order to assure that all development activity within Badger Mountain South is consistent with the Master Agreement and the LUDR, all City permits and other approvals for any development within Badger Mountain South, including building permits, must include a Master Agreement Consistency Determination (BMS-MACD) issued by the Planning Manager. A level 1 BMS-MACD is required for all development applications, including building permits, except for final plat approval and issuance of a Certificate of Occupancy. A level 2 BMS-MACD is required for final plat approval and issuance of a final Certificate of Occupancy. The level 2 BMS-MACD can be issued by the City, even if bonding of certain improvements is allowed in lieu of immediate construction, or a temporary certificate is issued, subject to completion of punch list items, so long as the BMS-MACD finds that the development will be consistent with the Master Agreement and LUDR conditions upon the satisfactory completion of the bonded improvements in case of a final plat, and the punch list items in case of a Certificate of Occupancy.
- 2. All builders/developers are strongly encouraged to attend a pre-application meeting with the Badger Mountain South Master Plan Administrator (BMS-MPA). The BMS-MPA is designated by the Badger Mountain South Master Agreement to provide guidance to builders/developers on how to apply the provisions of the LUDR to land use development applications.
- 3. The purpose of the pre-application meeting is to provide a roadmap through the LUDR provisions that apply to a proposal, identify possible changes to a proposal to meet the BMS intent, receive information on the application submittal and next steps, and to answer any other questions.
- 4. A pre-application meeting should occur early in the planning phase when a project proposal is defined enough to provide conceptual plans but still flexible to consider recommendations from the BMS-MPA.
- 5. ~~Once the City has determined a development/building permit application is complete, it shall provide a copy of the complete application to the BMS-MPA. Within 10 business days, the BMS-MPA shall provide the City and the applicant with a BMS Master Agreement Consistency Recommendation (BMS-MACR).~~ The purpose of the BMS-MACR is to provide a written recommendation to the City of Richland Development Services Department that the application/submittal is or is not consistent with the terms and conditions of the BMS Master Agreement and compliant with the provisions of the LUDR. Approvals in accordance with the LUDR are an administrative review unless otherwise noted.
- 6. The BMS-MPA will provide the City and the applicant a BMS-MACR, or if the submittal is found to be inconsistent, will work with the applicant to identify options that meet the LUDR requirements and the applicant’s intent. If the proposal is found to be inconsistent with the LUDR, the BMS-MACR will identify both areas of consistency and areas of inconsistency.
- 7. ~~The BMS-MACR will be identified as either Level 1 or Level 2. All applications except for final plat approval and issuance of Certificate of Occupancy shall require a Level 1 BMS-MACR. A Level 1 BMS-MACR will be provided to the City of Richland Development Services Department to be evaluated along with the applicant’s other RMC required submittals.~~
- 8. A Level 2 BMS-MACR is required prior to final plat approval or issuance of Certificate of Occupancy. A Level 2 BMS-MACR ensures that the final submittal meets the Master Agreement and LUDR requirements. A Level 2 BMS-MACR will be provided to the City of Richland Development Services Department to be evaluated along with the applicant’s other RMC required submittals.

1.I HOW TO USE THE LAND USE AND DEVELOPMENT REGULATIONS

1. The LUDR provides guidance for anyone wanting to develop or build within the Badger Mountain South community. Although complementary to the Richland Municipal Code (RMC), it is organized differently than the RMC. This section of the LUDR explains how to use the code provision contained here.
2. No matter what type of development is proposed, always start with Section 2, Urban Form Districts, Land Uses and Building Types. In Section 2.B, the Regulating Plan for Land Use and Urban Form, is the regulating map of Districts that govern the types of buildings that can be built and the types of uses that can be established. ~~The Civic District contains the locations for schools, open space, parks and community uses. There are two neighborhood-scale mixed-use districts, West Village and East Market, included in the Village Mixed-Use District. There are three principally residential districts called Neighborhood Collector, Neighborhood General and Neighborhood Edge Districts. And there are three Special Districts that function as areas for employment, retail, office and housing.~~
3. Section 2.C, the Land Use Table, shows broad categories of uses that are allowed in each of the districts. Definitions of each use listed with typical examples are included in Section 14, Glossary.
4. Section 2.D, Building Types Table, lists 12 types of buildings that may be constructed and in which district each Building Type is permitted. Photographs of each Building Type are provided in Section 2.E as illustrative examples.
5. The remainder of the LUDR, Sections 3 through 13, identifies standards that apply to development activity including plats, subdivisions, site plans and building. Not all subsequent sections apply to every type of development activity.

1.J SUBMITTAL REVIEW PROCESS

Submittal Review Process							
Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8
Plat or Subdivision (Refer to Section 1.C.2.c)							
Pre-application meeting with MPA to discuss use and compliance with LUDR and Master Agreement.	Prepare Preliminary Plat application using LUDR and Master Agreement standards and RMC Chapter 24.12 requirements.	Submit Preliminary Plat application to City; City forwards a copy to MPA for Level 1 BMS-MACR.	MPA reviews application for consistency with Master Agreement and LUDR; Level 1 BMS-MACR issued to applicant and City.	Follow City Preliminary Plat Process.	Submit Final Plat application to City; City forwards a copy to MPA for Level 2 BMS-MACR.	MPA reviews application for consistency with Master Agreement and LUDR; Level 2 BMS-MACR issued to applicant and City.	Follow City Final Plat Process.
Short Subdivision (Refer to Section 1.C.2.c)							
Pre-application meeting with MPA to discuss use and application of the LUDR and Master Agreement.	Prepare Short Subdivision application using LUDR and Master Agreement standards and RMC Chapter 24.13 requirements.	Submit Short Subdivision application to City; City forwards a copy to MPA for Level 1 BMS-MACR.	MPA reviews application for consistency with Master Agreement and LUDR; Level 1 BMS-MACR issued to applicant and City.	Follow City Short Subdivision Process.			
Binding Site Plan (Refer to Section 1.C.2.e)							
Pre-application meeting with MPA to discuss use and compliance with LUDR and Master Agreement.	Prepare Binding Site Plan application using LUDR and Master Agreement standards and RMC Chapter 24.14 requirements.	Submit Binding Site Plan application to City; City forwards a copy to MPA for Level 1 BMS-MACR.	MPA reviews application for consistency with Master Agreement and LUDR; Level 1 BMS-MACR issued to applicant and City.	Follow City Binding Site Plan Process.			
Site Plan Review (Refer to Section 1.C.2.d)							
Pre-application meeting with MPA to discuss use and compliance with LUDR and Master Agreement.	Prepare Site Plan application using LUDR and Master Agreement standards and RMC Chapter 23.48 requirements.	Site Plan application to City; City forwards a copy to MPA for Level 1 BMS-MACR.	MPA reviews application for consistency with Master Agreement and LUDR; Level 1 BMS-MACR issued to applicant and City.	Follow City Site Plan Review process.			
Building Permit							
Pre-application meeting with MPA to discuss use and compliance with LUDR and Master Agreement.	Prepare Building Permit Application using LUDR and Master Agreement standards.	Submit Building Permit application to City; City forwards a copy to MPA for Level 1 BMS-MACR.	MPA reviews application for consistency with Master Agreement and LUDR; Level 1 BMS-MACR issued to applicant and City.	Follow City Building Permit application process.	Level 2 BMS-MACR issued prior to issuance of a Certificate of Occupancy.		



**URBAN FORM
DISTRICTS,
LAND USES AND
BUILDING TYPES**

2

Section 2 identifies the Urban Form Districts, allowed Land Uses, and associated Building Types for all properties within the Badger Mountain South community.

2.A Introduction.....2-2

2.B Regulating Plan For Land Use and Urban Form.....2-2

2.C Land Use Table.....2-3

2.D Building Type Table.....2-4

2.E Building Type Examples.....2-4

2.A INTRODUCTION

In order to achieve the intent of the LUDR as set forth in Section 1.A, as well as the other provisions of the Master Agreement, Badger Mountain South is divided into eight Urban Form Districts. Each District allows certain types of buildings and uses, identifies development intensity, employs District-specific development standards and defines the relationship of the parcels in the District to public right of ways.

The Districts and boundaries of the Districts are established as shown in Figure 2.B. Regulating Plan for Land Use and Urban Form. ~~When uncertainty exists as to the boundaries of any District shown in Figure 2.B., the rules of construction as identified in RMC 23.08.050 shall apply.~~

The official Badger Mountain South map, called the Regulating Plan for Land Use and Urban Form, is found at Figure 2.B. The boundaries of the Districts shown, govern the uses of land, buildings, and structures within that District. Districts also govern the size of yards, the types of buildings and the heights of those buildings and other structures. These are the regulations that have been established and declared to be in effect on all land included within the boundary of each and every District shown in the official Badger Mountain South map.

DISTRICT LEGEND

The legend identifies the color associated with each District and provides a short introduction to the District intent. The Regulating Plan for Land Use and Urban Form, 2.B, shows where each District is located within Badger Mountain South.

BMS-VMU: VILLAGE MIXED-USE (3.B)

The Village Mixed-Use (VMU) Districts are the most urban areas of Badger Mountain South. They allow commercial uses, housing located above ground floor commercial spaces, Live/Work, Stacked Units and Row Houses.

BMS-NC: NEIGHBORHOOD COLLECTOR (3.C)

The Neighborhood Collector District allows a variety of Multi-family attached housing options as well as smaller scale commercial and Mixed-Uses.

BMS-NG: NEIGHBORHOOD GENERAL (3.D)

The Neighborhood General District makes up the largest area of Badger Mountain South. This District allows Single-Family detached residential with a mix of smaller scale attached housing options.

BMS-NE: NEIGHBORHOOD EDGE (3.E)

The Neighborhood Edge District allows residential uses in detached Single-Family houses and related uses that are compatible and common to Single-Family houses.

BMS-CIVIC (3.F)

The Civic District contains the open space, parks, schools, civic and community spaces. Development in this District is primarily intended for Civic, Community and Institutional Facilities. See also Illustrative Plan for Civic Space Layout, 5.B for detail.

SPECIAL DESIGNATION “-P” OVERLAY DISTRICT

SPECIAL DISTRICT LEGEND

BMS-SD-SR: SPECIALTY RETAIL (4.B)

The Specialty Retail Special District is intended to support the growing interest in local and regional agricultural products, in particular the local wine industry.

BMS-SD-CMU: COMMERCIAL MIXED-USE (4.C)

The Commercial Mixed-Use Special District is a local destination for employment, shopping, dining, entertainment and recreation.

BMS-SD-DR: DESTINATION RETAIL (4.D)

The Destination Retail Special District contains large scale retail uses serving the entire region.

2.B REGULATING PLAN FOR LAND USE AND URBAN FORM

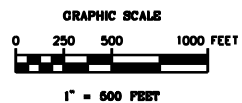


PROCESS: HOW TO USE THE REGULATING PLAN FOR URBAN FORM

- Step 1: Locate on the Regulating Plan, 2.B, where you want to build in the Badger Mountain South community.
- Step 2: To identify which District a property is located in, use the Regulating Plan's color-coded legend. The District designation will determine both which uses are permitted and which Building Types can be constructed.
- Step 3: See the Land Use Table, 2.C, to match your proposed use to the District.
- Step 4: See Building Type Table, 2.D, for the type of structures that are allowed in the District.
- Step 5: Depending on what use or development will occur, and in which District, review Standards in Sections 3 – 13 for applicability.

LEGEND

- BMS-VMU: VILLAGE MIXED-USE
- BMS-NC: NEIGHBORHOOD COLLECTOR
- BMS-NG: NEIGHBORHOOD GENERAL
- BMS-NE: NEIGHBORHOOD EDGE
- BMS-CIVIC
- SPECIAL DESIGNATION OVERLAY (-P)
- BMS-SD-SR: SPECIALTY RETAIL
- BMS-SD-CMU: COMMERCIAL MIXED USE
- BMS-SD-DR: DESTINATION RETAIL



DISTRICT BOUNDARIES ARE ILLUSTRATIVE AND MAY BE ADJUSTED TO MEET SITE CONDITIONS AND PROJECT REQUIREMENTS SO LONG AS THE SPATIAL RELATIONSHIP BETWEEN THE DISTRICTS IS MAINTAINED.



LAND USES ALLOWED BY DISTRICT											
Land Use Types	<i>P= Permitted by right P+Number = see Land Use Notes</i>	BMS-VMU	BMS-NC	-P	BMS-NG	BMS-NE	BMS-CIVIC	-P	BMS SD-SR	BMS SD-CMU	BMS SD-DR
Residential	Single-family	-	P P-1,a		P	P	-	P-30	P	-	-
	Multi-family	P-1	P-2,3		P-3	-	-	P-30	P-4	P-4	P-4
	Senior Housing	P-5	P-5		-	-	-		-	P-6	P-6
	Assisted Living/Nursing Home	P-7	P		-	-	-		-	P	-
	Accessory Unit	-	P-8		P-8	P-8	-	P-30	P	-	-
	Adult Family Home	-	-		P	P	-	P-30	-	-	-
Retail	Neighborhood Retail	P	P-9		-	-	-	-	P	P	P
	General Retail	P	P-9		-	-	-	-	P	P	P
	Large Scale Retail	-	-		-	-	-	-	P-11	P-10	P
	Parking Structures	P-13	-		-	-	-	-	P	P	P
Services	Neighborhood Personal Services	P	P-9/P-12		P-12	P-12	-	P-30	P	P	P
	General Services	P	P-9		-	-	-	-	P-11	P	P
	Eating and Drinking Establishments	P	P-14		-	-	-	-	P	P	P
	Child Care	P-15	P-15/P-16		P-16	P-16	-	P-30	-	P-15	P-15
	Vehicular Services	P-17	-		-	-	-	-	-	P-18	P-18
	Storage	-	-	P-19	P-19	-	-	P-30	-	P-13	P-13
	Hospitality/Lodging	P	-		-	P-20	-	-	P	P	P
Office	Neighborhood Office	P	P-9/P-12		P-12	P-12	-	P-30	P	P	P
	General Office	P	P-9		-	-	-	-	P	P	P
	Accessory Office	P	-		-	-	-	-	P	P	P
Civic	Public Facilities	P	P-9		P-30	-	P	P-30	P	P	P
	Recreation and Cultural Facilities, Public and Private	P	P-9		P-31 P	-	P	P-30	P	P	P
	Place of Worship	- P	P-21		P-	-	P-33	P-29	-	-	-
	Solar Panels or Arrays	P	P		P	P	P-22	P-30	P	P	P
Other	Vineyards and Other Agricultural Uses	-	-		-	P-23	P	P-30	P-24	-	-
	Telecommunications Facilities	P-25	-		-	-	P-32	P-30	-	P-32	P-32
	Parking lots	P-33	P-33		-	-	P-33	P-30	P-33	P-33	P-33
	Drive-through Window Service	P-26	P-9/P-26		-	-	-	-	P-26	P-26	P-26
	Vending Carts	P-27	-		-	-	-	-	P-27	P-27	P-27
	Temporary Uses	P-28	-		-	-	-	P-30	P-28	P-28	P-28
	Special Events	P	-		-	-	P	P-30	P	P	P
	Gambling Premises	-	-		-	-	-		-	-	P

2.C LAND USE TABLE

The Land Use Table categorizes the range of uses or functions which may occupy a building in each of the Districts. The Districts are identified by name and by color-coded legend across the top bar of the table and the uses are identified in the column on the left of the table. These functional classifications are defined and examples are provided in Section 14, the Glossary.

The functional classifications or uses are identified for each District as “P”, permitted by right, or “P-Number” which refers to the numbered Notes Table 2.C.1 below for additional information, restrictions or exclusions. If there is neither reference, the use is not permitted within that District.

The City’s Administrative Official may allow a use that is unlisted in the Land Use Table if all conditions of LUDR 1.G.3 apply.

 Indicates -P Overlay District - see 2.B, Regulating Plan for Land Use and Urban Form for specific locations.

2.C.1 LAND USE TABLE NOTES

1. Multi-family housing includes the following Building Types – Live/Work; Commercial/ Mixed-Use/Liner over commercial or office; Stacked Units; Row Houses.

a. Alley-access, Single-family Building Type is permitted.
2. Multi-family housing includes the following Building Types – Duplex; Mansion Apartment; Courtyard Housing; Row House; Live/Work; Commercial/Mixed-Use/Liner and Stacked Units.
3. Multi-family housing includes: Duplex - up to two per Block face, Courtyard Housing, and Mansion Apartments limited to block ends across from open space.
4. Multi-family housing includes the following Building Types – Live/work; Row house; Commercial/Mixed-use/Liner over commercial and Stacked Units
- ~~5. Senior Housing permitted on corner lots at intersection of two Collector Streets.~~
6. Senior Housing permitted above ground floor commercial or office, or when constructed in a multi-story building.
7. Assisted Living/Nursing Homes permitted on corner lots at intersection of two Arterial Collector Streets.
8. One Accessory Unit, not to exceed 600 sq. ft., per lot is permitted either within the principal structure or an accessory structure. Other provisions of RMC 23.42.020 apply.
- ~~9. Permitted on corner lots of two Collector Streets.~~
10. When one part of a larger office-retail development.
11. When food or winery-related.
12. Permitted when operated as a Home Occupation without any occupational vehicles associated with the Home Occupation, and as otherwise defined and regulated in RMC 23.42.090.

13. When totally enclosed within a building or in a Liner Building Type.
14. For areas other than those across the street from the BMS-VMU District: Eating establishments located in buildings on a corner lot of two Collector Streets, or within a larger building as an ancillary use; not more than one per block; May seat 20 and fewer patrons, not operate between 11 p.m. and 6 a.m., and not sell alcoholic beverages.
15. When licensed as a Child Care Center and meets RMC 23.42.080(A-D, F) requirements. In the BMS-NC District, must be located on corner lots ~~of two Collector Streets.~~
16. When licensed for Family Home Child Care only and meets other requirements of RMC .23.42.080 (A-D, F) requirements.
17. Within the East Market BMS-VMU District when located on an Arterial Collector Street; may include a convenience store as an incidental use. Subject to standards for Neighborhood Goods and Services Building Type, otherwise meet RMC 23.42.270 or 23.42.280 requirements.
18. Subject to standards for Neighborhood Goods and Services Building Type, otherwise meet RMC 23.42.270 or 23.42.280 requirements.
19. In the BMS-NG District only one neighborhood storage area up to 1 acre in size for boats, vehicles and/or recreational vehicles shall be permitted within each of the five residential neighborhoods; no storage of junk, materials or other items permitted. Subject to landscape screening standards found in Sec.11.C.8 and fencing standards found in Section 13.A.3. Storage area larger than 1 acre in size for boats, vehicles and/ or recreational vehicles permitted in BMS-NC-P Overlay District subject to standards in Sec. 3.C.
20. A Bed and Breakfast facility providing a maximum of four rental rooms and subject to the provisions of RMC 23.42.045 (A)-(D).
21. ~~Only on corner lots of two Collector Streets;~~ maximum lot size of 6 acres.

22. Solar panels, or arrays, which serve individual residences or buildings, are permitted accessory uses in all zones. A grouping of multiple solar panels to serve multiple users may be placed within the BMS-Civic Districts, subject to Administrative review that: the size and dimension of the site is adequate; they do not interfere with planned or sited public amenities; and any identified impacts to adjacent properties have been adequately mitigated.
23. Vineyards are considered landscape materials in residential Districts when planted by the homeowner for personal use.
24. Vineyards including wine making facilities, enclosed storage and related production.
25. Micro facilities and Macro facilities permitted as defined and regulated in RMC 23.62.
26. Must meet additional requirements of RMC 23.42.047 ~~and any unique master site plan requirements.~~
27. Subject to standards found in RMC 5.14.
28. When ancillary and seasonal to primary retail.
29. BMS-Civic-P Overlay District: Use restricted to school site until such time as restrictions on land use set forth in the BMS-Master Agreement are removed. At that time, all of the uses that are marked with the ~~p-30~~ footnote are permitted, subject to any further conditions imposed by other applicable footnotes.
30. ~~Block Parks,~~ Local Parks and Greenbelts are allowed to be constructed in the BMS-NG District.
- ~~31. Micro facilities and Macro facilities permitted as defined and regulated in RMC 23.62; Monopoles up to eighty (80) feet permitted as defined in RMC 23.62 and regulated in RMC 23.62.050.~~
32. When accessory to an adjacent use and subject to Section 11.C standards.
33. When co-developed with ~~a school facility.~~ **another facility.**

2.D BUILDING TYPE TABLE

Each District in Badger Mountain South regulates what can happen on the land by how it is to be used and also by Building Types. The table to the right shows which Building Types are allowed in each District and offers illustrative examples of the Building Types in 2.E below.

Each building in the Badger Mountain South community, with the exception of development in the Special Districts, shall be one of the Building Types listed here. The Special Districts included in Section 4 are regulated by use and intent rather than by Building Type.

Other than Special Districts, each Building Type must meet the standards for the District it is located in as described in Section 3, Urban Form Standards by District, as well as the standards as described in Section 8, Building Type Standards.

Process: What do you want to build and how can it be built?

Step 1: Use the Building Type Table, 2.D, to identify the types of buildings that are allowed to be built in each District. The color-coded legend refers to the Districts as identified in 2.B Regulating Plan for Land Use and Urban Form.

Step 2: The Building Type examples in 2.E below illustrate one style of the possible Building Types allowed.

Step 3: See Urban Form Standards by District, Section 3, for standards that apply to all buildings except those in the SD Special Districts. See Section 4 for Special District Standards.

Step 4: See Building Type Standards, Section 8, for standards that apply to particular types of buildings.

Step 5: See additional Standards for Landscaping, Sustainability and Site Improvements, Sections 11-13.

X = Allowed Building Type
-P = Allowed Building Type only in -P Overlay District, if Land Use conditions are met.

2.E BUILDING TYPE EXAMPLES

	BUILDING TYPES ALLOWED BY DISTRICT							
	BMS-VMU	BMS-NC	BMS-NG	BMS-NE	BMS-CIVIC	BMS SD-SR	BMS SD-CMU	BMS SD-DR
BUILDING TYPE								
1. Civic/Community/Institutional Facilities (8.D)	X	X	X		X	Note: Special Districts are not regulated by Building Type. See Section 4 for District intent and standards. See also 8.C for Common Design Standards applicable to all Districts.		
2. Neighborhood Goods & Services Buildings (8.E)	X	X						
3. Commercial / Mixed-Use / Liner (8.F)	X	X						
4. Live/Work Building (8.G)	X	X						
5. Stacked Unit Building (Apartment) (8.H)	X	X						
6. Row House (8.I)	X	X						
7. Courtyard Housing (8.J)		X	X		-P			
8. Mansion Apartment (3 - 6 Plex) (8.K)		X	X		-P			
9. Paired House (Duplex) (8.L)		X	X		-P			
10. Cottage Court (8.M)		X	X		-P			
11A. Single Family House - Alley Access Garage (8.N)		X	X	X	-P			
11B. Single Family House - Street Access Garage (8.O)		X	X	X	-P			
12. Accessory Unit (8.P)		X	X	X	-P			



1. Civic/Community/Institutional



2. Neighborhood Goods & Services



3. Commercial / Mixed-Use / Liner



4. Live/Work Building



5. Stacked Unit Building (Apartment)



6. Row House



7. Courtyard Housing



8. Mansion Apartment



9. Paired House (Duplex)



10. Cottage Court



11. Single Family House



12. Accessory Unit



**URBAN FORM
STANDARDS FOR
DISTRICTS
OTHER THAN SPECIAL DISTRICTS**

3

Section 3 identifies the Urban Form Standards for Districts within the Badger Mountain South community other than Special Districts.

3.A Introduction - Urban Form Standards for Districts.....3-2
3.B BMS Village Mixed-Use District (BMS-VMU).....3-3
3.C BMS Neighborhood Collector District (BMS-NC).....3-4
3.D BMS Neighborhood General District (BMS-NG).....3-5
3.E BMS Neighborhood Edge District (BMS-NE).....3-6
3.F BMS Civic District (BMS-CIVIC).....3-7

3.A INTRODUCTION - URBAN FORM STANDARDS FOR DISTRICTS

The Urban Form Standards for Districts section identifies the District development standards for five of the Districts in Badger Mountain South. Not included here are the standards for the three Special Districts which are found in Section 4.

The Urban Form Standards for Districts are established to provide the Badger Mountain South community with distinctive neighborhoods as reflected by the physical form of the built environment. They are differentiated by type of buildings permitted, building height, intensity and use. As such, these standards “set the table” in each District for the buildings to be constructed there.

The Urban Form Standards for Districts are used in addition to the Building Type Standards found in Section 8. Since the District standards found here are of primary importance in establishing the character and quality of the neighborhoods, they supersede the Building Type Standards when in conflict.

The Urban Form Standards for Districts section identifies specific descriptions for each of the following:

- 1. District Intent
- 2. Building Placement
- 3. Building Profile and Type
 - a. Building Height
 - b. Allowed Building Types
 - c. Allowed Frontage Types
- 4. Parking

URBAN FORM DISTRICT SUMMARY				
BMS-VMU (3.B)	BMS-NC (3.C)	BMS-NG (3.D)	BMS-NE (3.E)	BMS-CIVIC (3.F)
There are two Village Mixed-Use Districts in Badger Mountain South the West Village located closer to Dallas Road, and the East Market, located more centrally. Each is designed to contain a variety of Neighborhood Commercial uses, and residential uses in Mixed-Use, Live/Work, Stacked Units and Row House buildings.	The Neighborhood Collector District is designed to permit a variety of Multi-family housing options and neighborhood-scale commercial Mixed-Uses.	The Neighborhood General District allows primarily Single-family detached homes in a variety of configurations. Also permitted are smaller-scaled Multi-family Building Types.	The Neighborhood Edge District permits detached Single-family residences and related uses that are compatible and common to Single-family houses.	The Civic Districts are the areas where schools, parks, trails, open space and other public and community facilities are located.
				



Illustrative Photo: Mixed-Use Streetscape

1. VILLAGE MIXED-USE DISTRICT INTENT:

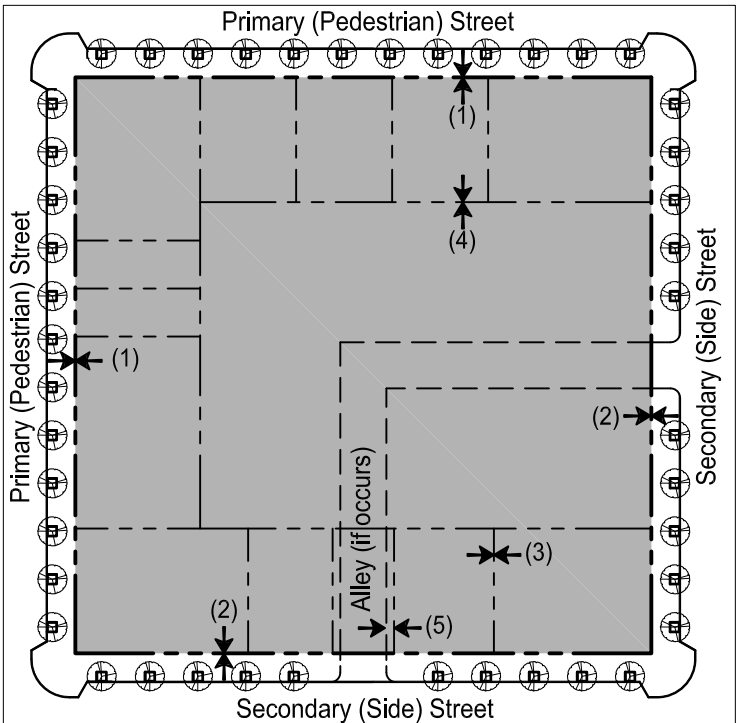
~~Two Village Mixed-Use Districts are located in the Badger Mountain South community: West Village and East Market. These Districts are located along the primary Arterial Collector Streets running east-west and north-south and along major open space, biking and walking trails. The intent of these Districts is to create an active, economically vital, pedestrian-oriented environment where people can shop, work, play and live. Urban Building Types line the blocks providing a variety of ground floor retail, commercial, office uses and upper levels of Multi-family housing, as well as Live/Work, Stacked Units and Row House housing options.~~

~~West Village is located near the Dallas Road entry and across from the Specialty Retail Special District (BMS-SD-SR). The commercial center fronts onto a large Village Green which can support a variety of community and recreational uses.~~

~~East Market is located off of Badger Mountain Parkway and across from the large "Reserve" Greenway Park and proposed community gardens. This smaller commercial District could include a farmer's market and Plaza fronting onto the community gardens.~~

(3) Maximum of 20% of required parking may be compact stalls at a dimension of 8' x 16'.

Requester of encroachment to demonstrate how the requirements of RMC 5.14.050 to the Administrative Official. No hearing shall be required as part of this application.



Building Placement Diagram (Plan View)

2. BUILDING PLACEMENT

a. **Setbacks** (as measured from the property line)
Buildings shall be placed within the shaded area as shown in the building placement diagram.

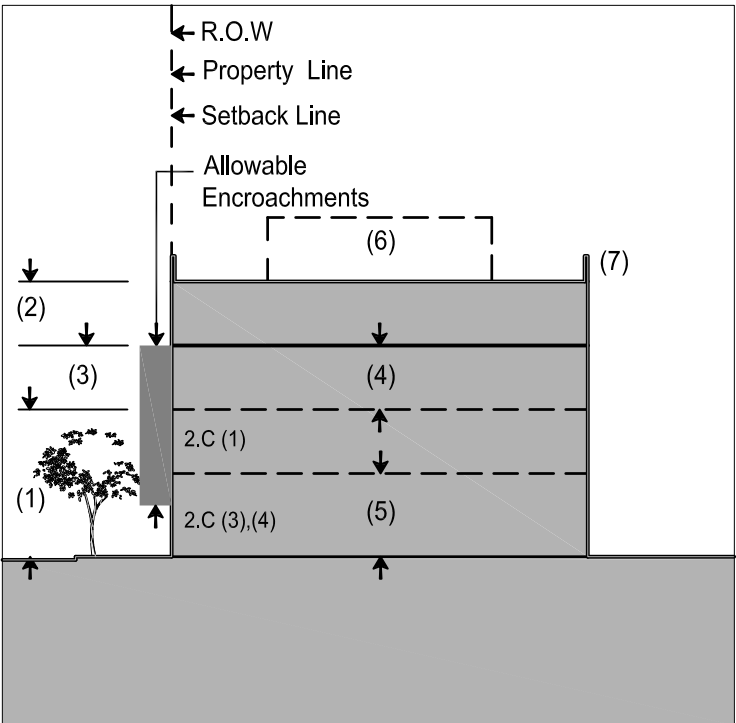
- (1) Front Build-to-Line: 0 ft.
- (2) Side Street Setback: 0 ft.
- (3) Side Yard Setback: 0 ft.
- (4) Rear Setback: 0 ft.
- (5) Alley Setback (if provided) 4 ft. *
- * Alley setback shall be measured from edge of Alley easement.

b. **Percentage of Building Facade at Build-to-Line**

- (1) ~~Primary Street: 100% min.~~
- (2) ~~Secondary Street or Civic Space: 60% min.~~
- (3) Doors along the building facade are allowed to be recessed in alcoves and are not included in percentage calculation.
- (4) The face of structure supporting the allowed Frontage Type, shall be considered as the building facade for Build-to-Line percentage calculations.
- (5) Corner conditions as described in 8.C.5 are excluded from the percentage BTL requirement.

c. **Encroachments**

- Encroachments are allowed subject to the following criteria:
- (1) The following architectural elements are allowed to encroach into required setbacks and/or Public Right of Way (R.O.W.): awnings, galleries, balconies, bay windows, signs, cornices, eaves and similar projected elements.
 - (2) Stairs, ramps and handrails are allowed to encroach into required setbacks only.
 - (3) Overhead encroachments shall have a minimum height clearance of 8 ft.
 - (4) A City of Richland license must be obtained for encroachments that occur over sidewalks or City airspace. See RMC 5.14



Building Profile Diagram (Section View)

3. BUILDING PROFILE AND TYPE

a. **Building Height/Stories**

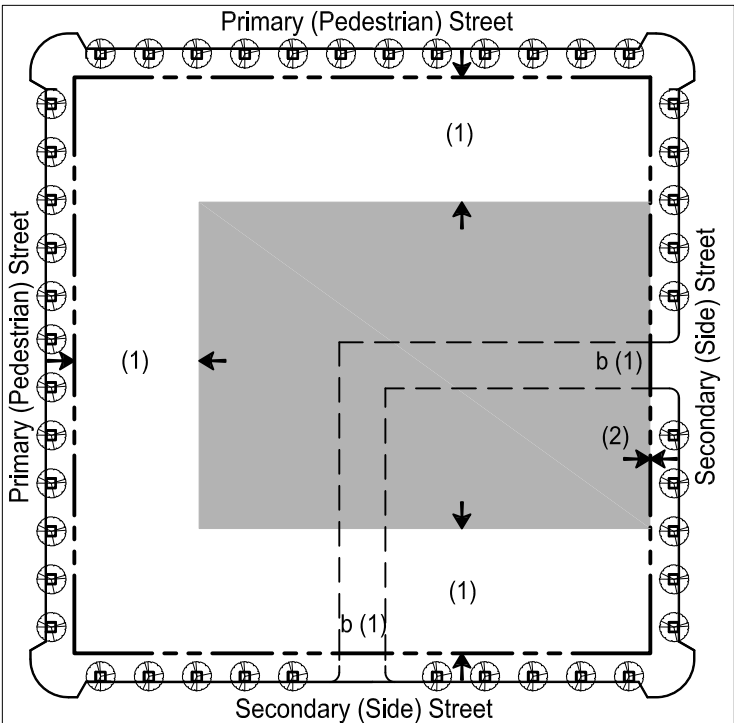
- (1) Minimum Height: ~~2 Stories~~
- (2) Maximum Height: ~~4 Stories~~
- (3) The maximum height shall be reduced to 3 Stories in the following conditions:
 - i. Buildings adjacent to outdoor Civic Spaces, such as Plazas, where solar access would be reduced.
- (4) ~~Story Height: 8 ft. minimum, 14 ft. maximum.~~
- (5) If ground floor commercial space is provided, the ground floor ceiling shall be a minimum of 12 ft. clear height, as measured from finished floor slab to underside of finished ceiling.
- (6) For flat roofs, rooftop equipment may exceed the height limit by 10 ft., provided it is located no closer than 15 ft. to edge of exterior wall, otherwise equipment shall be concealed within the attic space.
- (7) For flat roofs, a parapet is allowed to extend above the maximum height limit by 4 ft.

b. **Allowed Building Types**

- Refer to Section 8 for Building Type standards.
- (1) Civic/Community/Institutional Facilities (8.D)
 - (2) Neighborhood Goods and Services Building (8.E)
 - (3) Commercial / Mixed-Use / Liner (8.F)
 - (4) Live / Work Building (8.G)
 - (5) Stacked Unit Building (on Secondary Streets only) (8.H)
 - (6) Row House (on Secondary streets only) (8.I)

c. **Allowed Frontage Types**

- Refer to Section 9 for Frontage Type standards. Frontage allowed here by District standards shall also be regulated per the Building Type standards in Section 8.
- (1) Storefront (9.B)
 - (2) Arcade (9.C)
 - (3) Gallery (9.D)
 - (4) Forecourt (9.E)
 - (5) Porch (Residential only) (9.G)
 - (6) Stoop (Residential only) (9.H)
 - (7) Greenbelt (9.F)



Parking Placement Diagram (Plan View)

4. PARKING

a. **Parking Placement**

- On grade parking (enclosed or unenclosed) is allowed only in the shaded area as shown in the parking placement diagram.
- (1) On-site parking shall be placed behind the building and screened from view from the Primary (Pedestrian) Streets. Parking lots may only be open (i.e. not behind a building) on one Secondary Street frontage.
 - (2) Surface parking shall be screened from Secondary (Side) Streets by landscaping per 11.C.7.c. or by fencing with landscaping. See section 13.A.2 for fencing standards.

b. **Parking Access**

- (1) Primary (Pedestrian) Streets shall be uninterrupted by vehicles to the maximum extent possible. Parking shall be accessed only from Secondary Streets or from Alleys accessed from Secondary Streets.

c. **Minimum Parking Quantity Requirements**

- (1) Commercial Parking Requirements:
 - i. 1 space per 1000 SF of building area
- (2) Live/Work Parking Requirements:
 - i. <2,500 SF = 1 space per 1,500 SF of bldg. area
 - ii. >=2,500 SF = 1 space per 1,000 SF of bldg. area
- (3) Residential Parking Requirements:
 - i. 1 space per unit
 - ii. 1 space per 2 units is required for Affordable or Senior Housing units.

d. **Miscellaneous**

- (1) See Section 13.D for Common Parking Standards.
- (2) Parking and aisle dimensions per City of Richland standards - see RMC 23.54.

(4) On-street parking can be used in parking calculation using criteria outlined in RMC 23.54.



Illustrative Photo: Neighborhood Mixed-Use and Live/Work Units

1. NEIGHBORHOOD COLLECTOR DISTRICT INTENT

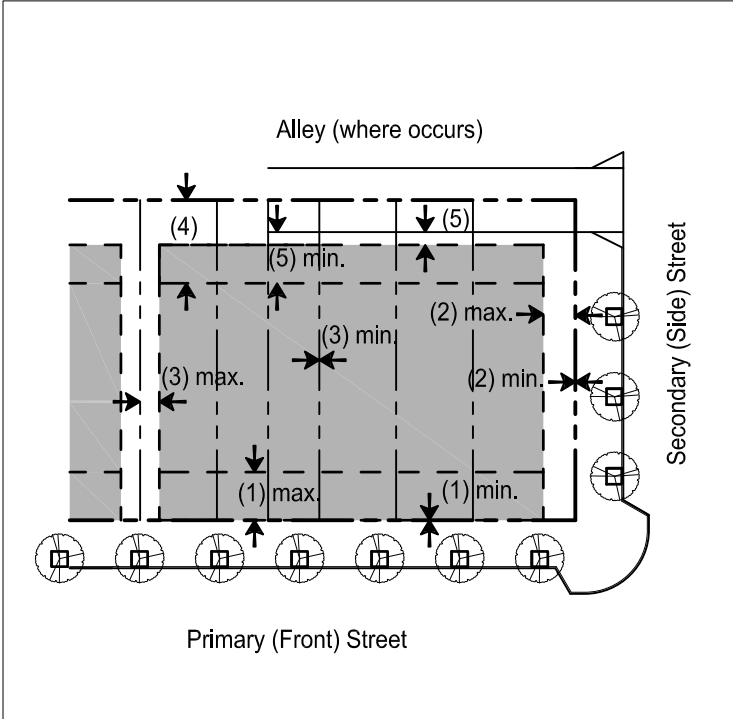
The Neighborhood Collector (BMC-NC) District is found within each of the five residential neighborhoods that comprise Badger Mountain South. These Districts add diversity to the housing found in Badger Mountain South, complement future transit expansion and provide opportunities to establish intergenerational neighborhoods. They are located primarily along Collector Streets and at the primary entrances to the neighborhoods as shown on the Regulating Plan in Section 2.B.

The Neighborhood Collector District is a primarily Multi-family residential area, intermixed with areas of single-family, alley-accessed houses, that provides a wide variety of housing. Mixed-Use and Live/Work Buildings in this District provide the flexibility for these areas to accommodate neighborhood-scale commercial uses that respond to the evolving needs of the community as it grows. Stand-alone, smaller-scale Neighborhood Goods and Services Buildings that serve the needs of the residents, such as churches and day cares, are encouraged in this District.

is primarily residential that provides a variety of housing

Section 3.C.A provides Urban Form Standards for Commercial and Multi-family uses in the BMS-NC District. Section 3.C.B provides Urban Form Standards for Single Family Residential uses in the BMS-NC District.

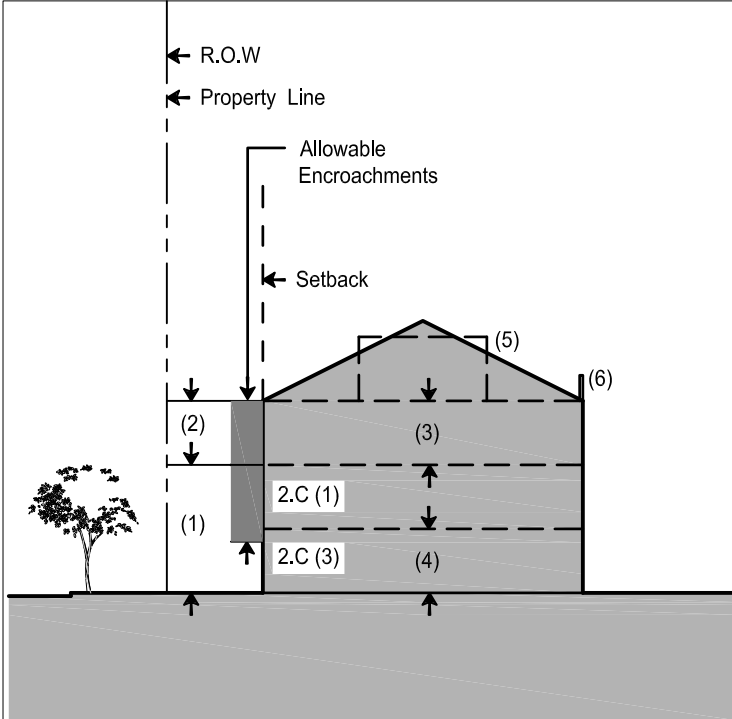
Requester of encroachment to demonstrate how the requirements of RMC 5.14.050 are met to the Administrative Official. No hearing shall be required as part of this application.



Building Placement Diagram (Plan View)

2. BUILDING PLACEMENT

- a. **Setbacks** (as measured from the property line)
Buildings shall be placed within the shaded area as shown in the building placement diagram. Parking garages shall be placed per item 4a. Parking Placement.
- (1) Front Build-to-Line: i. Ground floor commercial: 0 ft. ii. Ground floor residential: 10 ft.
 - (2) Side Street Setback: i. Ground floor commercial: 0 ft. ii. Ground floor residential: 10 ft.
 - (3) Side Yard Setback: 0 ft. min.; 6 ft. max.
 - (4) Rear Setback (w/o Alley): 15 ft. min.
 - (5) Alley Setback: 4 ft. OR 16 ft. min.*
* Alley setback is measured from edge of Alley easement. To ensure that parking locations off Alley are adequate, buildings shall either be placed at 4 ft. (no parking) OR 16 ft. (parking).
- b. **Percentage of Building Facade at Build-to-Line:**
- (1) Primary Street: 60% min.
 - (2) Secondary Street or Civic Space: 60% min.
 - (3) Doors along the building facade are allowed to be recessed in alcoves.
 - (4) The face of structure supporting the allowed Frontage Type, shall be considered as the building facade for build to line percentage calculations.
 - (5) Corner conditions as described in 8.C.5 are excluded from the percentage BTL requirement.
- c. **Encroachments**
Encroachments are allowed subject to the following criteria:
- (1) The following architectural elements are allowed to encroach into required setbacks and/or Public Right of Way (ROW): awnings, galleries, balconies, bay windows, signs, cornices, eaves and similar projected elements.
 - (2) Stairs, ramps and handrails are allowed to encroach into required setbacks only.
 - (3) Overhead encroachments shall have a minimum height clearance of 8 ft.
 - (4) A City of Richland license must be obtained for encroachments that occur over sidewalks or City airspace. See RMC 5.14.



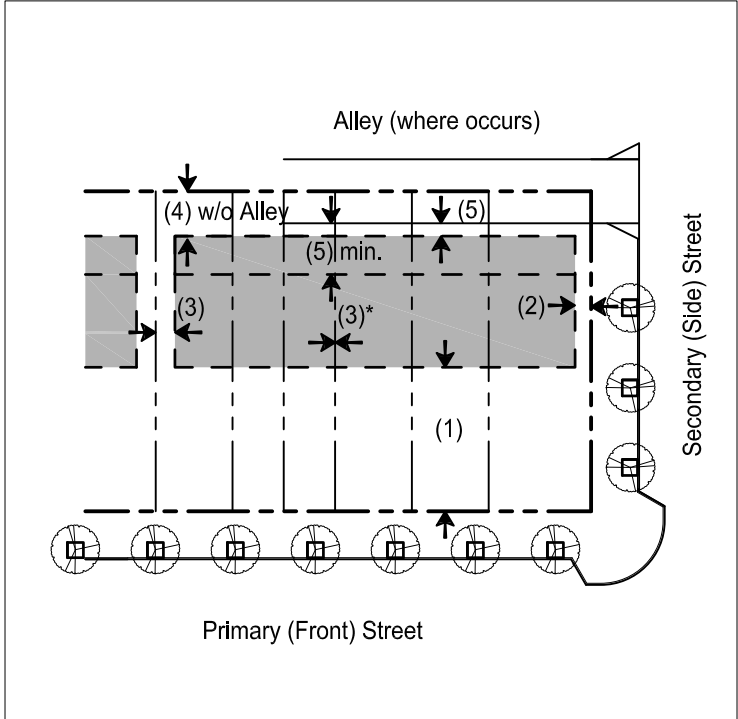
Building Profile Diagram (Section View)

3. BUILDING PROFILE AND TYPE

- a. **Building Height/Stories**
- (1) ~~Minimum Height: 2 Stories~~ 35 feet as defined per RMC.
 - (2) Maximum Height: 3 Stories
 - (3) ~~Story Height: 8 ft. minimum, 12 ft. maximum.~~
 - (4) If ground floor commercial space is provided, the ground floor ceiling shall be a min. of 10 ft. clear height as measured from finished floor slab to underside of finished ceiling.
 - (5) For flat roofs, rooftop equipment may exceed the height limit by 10 ft., provided it is located no closer than 15 ft. to edge of exterior wall, otherwise equipment shall be concealed within the attic space.
 - (6) For flat roofs, a parapet is allowed to extend above the maximum height limit by 4 ft.
- b. **Allowed Building Types**
Refer to Section 8 for Building Type standards.
- | | |
|--|-------|
| (1) Civic/Community/Institutional Facilities | (8.D) |
| (2) Neighborhood Goods and Services Building | (8.E) |
| (3) Commercial / Mixed-Use / Liner Building | (8.F) |
| (4) Live / Work Building | (8.G) |
| (5) Stacked Unit Building (Apartment) | (8.H) |
| (6) Row House | (8.I) |
| (7) Courtyard Housing | (8.J) |
| (8) Mansion Apartment | (8.K) |
| (9) Paired House (Duplex) | (8.L) |
- c. **Allowed Frontage Types**
Refer to Section 9 for Frontage Type standards. Frontage allowed here by District standards shall also be regulated per the Building Type standards in Section 8.
- | | |
|----------------------------------|-------|
| (1) Storefront (commercial only) | (9.B) |
| (2) Gallery | (9.D) |
| (3) Arcade | (9.C) |
| (4) Forecourt | (9.E) |
| (5) Porch | (9.G) |
| (6) Stoop | (9.H) |
| (7) Greenbelt | (9.F) |

(4) On-street parking can be used in parking calculation as outlined in RMC 23.54.

(3) Maximum of 20% of required parking may be compact stalls at a dimension of 8' x 16'.



Parking Placement Diagram (Plan View)

4. PARKING

- a. **Parking Placement**
On grade parking (enclosed or unenclosed) is allowed only in the shaded area as shown in the parking placement diagram.
- (1) Front setback: 50% lot depth
 - (2) Side street setback: 5 ft. min.
 - (3) Side yard Setback: 0 ft. min.*, or 6 ft. min.
* Requires 10 ft. min. separation to building on adjacent parcel or zero lot line /partywall condition.
 - (4) Rear Setback: 15 ft. min.
 - (5) Alley Setback: 4ft. OR 16 ft. min.
- b. **Parking Access**
- (1) Parking shall be accessed from rear Alleys.
 - (2) For commercial building sites where Alleys are not provided, parking shall be accessed from a Secondary Street.
- c. **Minimum Parking Requirements**
- (1) Commercial Parking Requirements:
 - i. 1 space per 1000 SF of bldg. area.
 - (2) Live/Work Parking Requirements:
 - i. <2,500 SF = 1 space per 1,500 SF of bldg. area.
 - ii. =>2,500 SF = 1 space per 1,000 SF of bldg. area.
 - (3) Minimum Residential Parking Requirements:
 - i. 1 space per unit.
 - ii. Minimum 1 space per 2 units provided for Affordable or Senior Housing units.
 - iii. Outside parking or storage of boats and recreational vehicles is only permitted within a garage or other permitted accessory structure, or within designated Neighborhood or Community Storage Areas.
- d. **Miscellaneous**
- (1) For multi-family and commercial development, see Section 13.D for Common Parking Standards.
 - (2) Parking and aisle dimensions per City of Richland standards - see RMC 23.54.



Illustrative Photo: Single-Family Houses and Local Park

1. NEIGHBORHOOD GENERAL DISTRICT INTENT

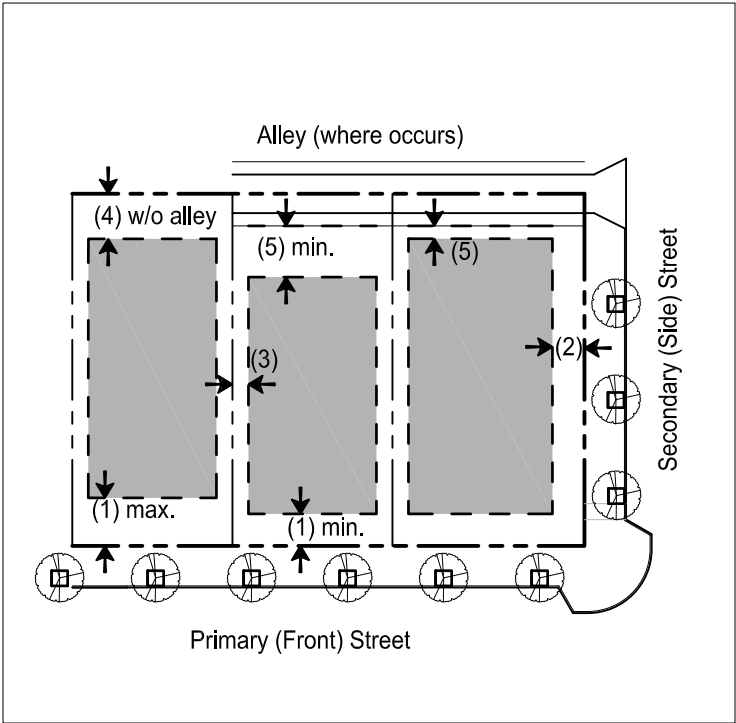
The Neighborhood General (BMC-NG) District comprises the majority of the Badger Mountain South community. This District is primarily residential in character. A variety of housing options are provided to meet the needs of the community. The residents of these Districts are within walking distance of schools, parks, trails and commercial centers supporting the vision of the community.

Single-family houses are accommodated on a variety of lot sizes allowing a range of housing options from cottages to large detached structures. Smaller-scale Multi-family housing options such as Mansion Apartments, Duplexes and Courtyard Housing, are also accommodated when certain siting conditions are met.

Additional housing units are permitted in this District through the use of Accessory Units.

1. This Section provides Urban Form Standards for Single Family Residential uses in the BMS-NC District. Section 3.C.A provides Urban Form Standards for Commercial and Multi-family uses in the BMS-NC District.

(4) The driveway width within the right of way (ROW) shall not exceed of 50% of the primary street frontage or a maximum width of 35 feet on any single family lot to ensure that on street parking within the development. Driveways may flare out once outside the ROW or access tract.



Building Placement Diagram (Plan View)

2. BUILDING PLACEMENT

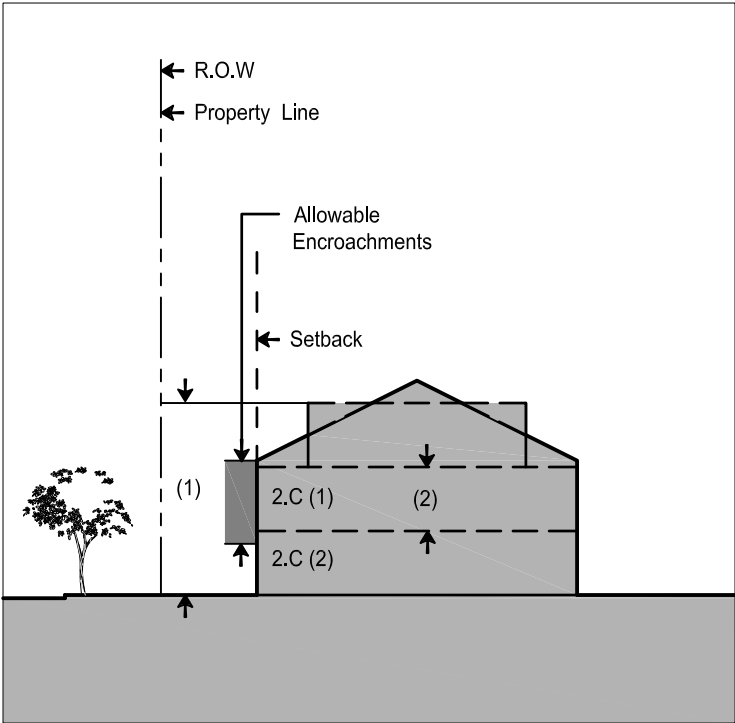
- a. Setbacks** (as measured from the property line)
- Buildings shall be placed within the shaded area as shown in the building placement diagram. Parking garages shall be placed per item 4a. Parking Placement.
- | | |
|--------------------------|--------------------------|
| (1) Front Build-to-Line: | 10 ft. min.; 20 ft. max. |
| (2) Side Street Setback: | 10 ft. min. |
| (3) Side yard Setback: | 5 6 ft. min. ** |
| (4) Rear Setback: | 15 ft. min. |
| (5) Alley Setback: | 4 ft. OR 16 ft. min.* |

* Alley setback is measured from edge of Alley easement. To ensure that parking locations off Alley are adequate, buildings shall either be placed at 4 ft. (no parking) OR 16 ft. min. (parking).

** Structures may be built with no setback on one side: (i) when having a shared common wall at the property line with each structure on an adjacent lot under separate fee ownership; and (ii) when multiple, successive structures on a block face are each placed on the lot with no setback on one side; in this case the other Sideyard setback will be 12 ft. min.

- b. Min. Percentage of Building Facade at Build-to-Line:**
- | | |
|--------------------------------------|------|
| (1) Primary Street: | None |
| (2) Secondary Street or Civic Space: | None |

- c. Encroachments**
- Encroachments are allowed subject to the following criteria:
- The following architectural elements are allowed to encroach into required setbacks: awnings, balconies, bay windows, cornices, eaves and similar projected elements, stairs, ramps and handrails.
 - Overhead encroachments shall have a minimum height clearance of 8 ft.



Building Profile Diagram (Section View)

3. BUILDING PROFILE AND TYPE

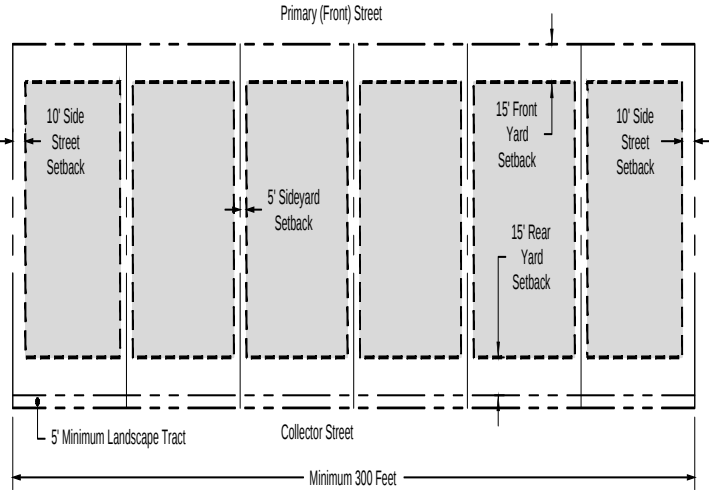
- a. Building Height/Stories**
- | | |
|---------------------|--------------------------------|
| (1) Maximum Height: | 2.5 Stories |
| (2) Story Height: | 8 ft. minimum, 10 ft. maximum. |
- b. Allowed Building Types**
- Refer to Section 8 for Building Type standards.
- | | |
|--|-------|
| (1) Civic/Community/Institutional Facilities * | (8.D) |
| (2) Courtyard Housing | (8.J) |
| (3) Mansion Apartment | (8.K) |
| (4) Paired House (Duplex) | (8.L) |
| (5) Cottage Court | (8.M) |
| (6) Single-Family House - Alley Access | (8.N) |
| (7) Single-Family House - Street Access | (8.O) |
| (8) Accessory Unit | (8.P) |
- *Only when located in a Local Park

- c. Allowed Frontage Types**
- Refer to Section 9 for Frontage Type standards. Frontage allowed here by District standards shall also be regulated per the Building Type standards in Section 8.
- | | |
|---------------|-------|
| (1) Forecourt | (9.E) |
| (2) Greenbelt | (9.F) |
| (3) Porch | (9.G) |
| (4) Stoop | (9.H) |

4. PARKING

- a. Parking Placement**
- On-grade parking (enclosed or unenclosed) is allowed only in the shaded area as shown in the parking placement diagram.

(3) For street access lots with rear yards facing a collector street, a five-foot minimum landscape tract shall be located between the rear property line and the collector street. The block length shall be a minimum of 300 feet. The tract shall be planted per 11.C.7.c. See Building Placement Diagram (rear yard facing collector street).



Building Placement Diagram (Plan View)
Rear Yard Facing Collector Street

- | | |
|--------------------------|------------------------------|
| (1) Front setback: | 50% lot depth* |
| (2) Side street setback: | 5 ft. min. |
| (3) Side yard Setback: | 0 ft. min. **, or 6 ft. min. |
| (4) Rear Setback: | 15 ft. min. |
| (5) Alley Setback: | 4 ft. OR 16 ft. min. |
- * Where front drive garages are allowed by Building Type, front setback shall be 24 ft. min.
- ** Requires 10 ft. min. separation to buildings on adjacent parcel or zero lot line/partywall condition.

b. Parking Access

- Parking shall be accessed from rear Alleys, if provided.
- Parking access from street must meet Block Standards set forth in Section 7.C.4 and Building Type standards in Section 8.O Single-Family House-Street Access.

c. Parking Requirements

- Residential Parking Requirements:
 - 1 space per unit minimum.
 - 1 space per 2 units minimum is required for Affordable or Senior Housing units.
- Maximum 2 car garage door frontage on front load lots. On alley access lots, and front load lots developed with side-yard garage, or when developed with one garage bay recessed a minimum 8 ft. from the other garage bays and the house has a front porch of at least 80 sq. ft., 3 car garage door frontages are permitted.
- Outside parking or storage of boats and recreational vehicles is only permitted within a garage or other permitted accessory structure, or within designated Neighborhood or Community Storage Areas.

d. Miscellaneous

- For multi-family and commercial development, see Section 13.D for Common Parking Standards.
- Parking and aisle dimensions per City of Richland standards - see RMC 23.54.



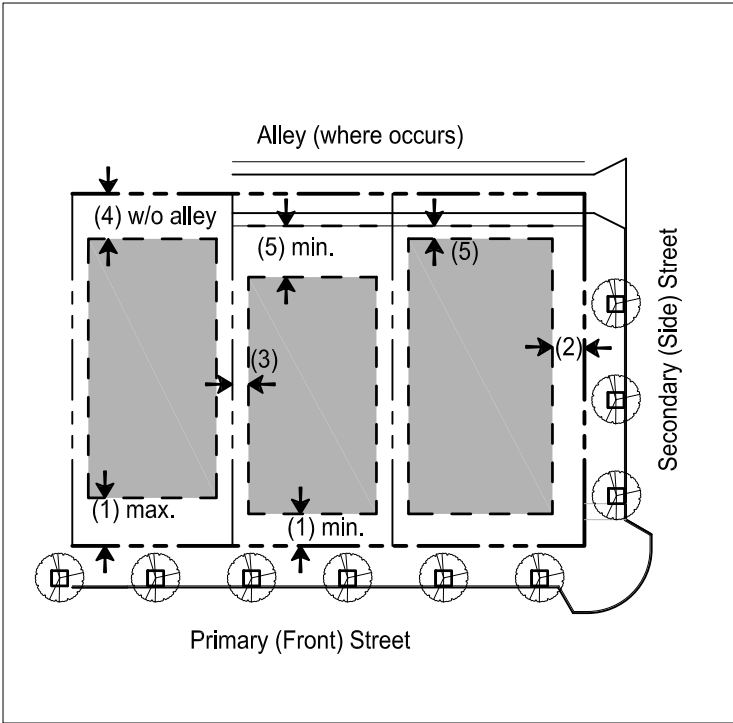
Illustrative Photo: Single-Family Houses and Local Park

1. NEIGHBORHOOD GENERAL DISTRICT INTENT

The Neighborhood General (BMC-NG) District comprises the majority the Badger Mountain South community. This District is primarily residential in character. A variety of housing options are provided to meet the needs of the community. The residents of these Districts are within walking distance of schools, parks, trails and commercial centers supporting the vision of the community.

Single-family houses are accommodated on a variety of lot sizes allowing a range of housing options from cottages to large detached structures. Smaller-scale Multi-family housing options such as Mansion Apartments, Duplexes and Courtyard Housing, are also accommodated when certain siting conditions are met.

Additional housing units are permitted in this District through the use of Accessory Units.

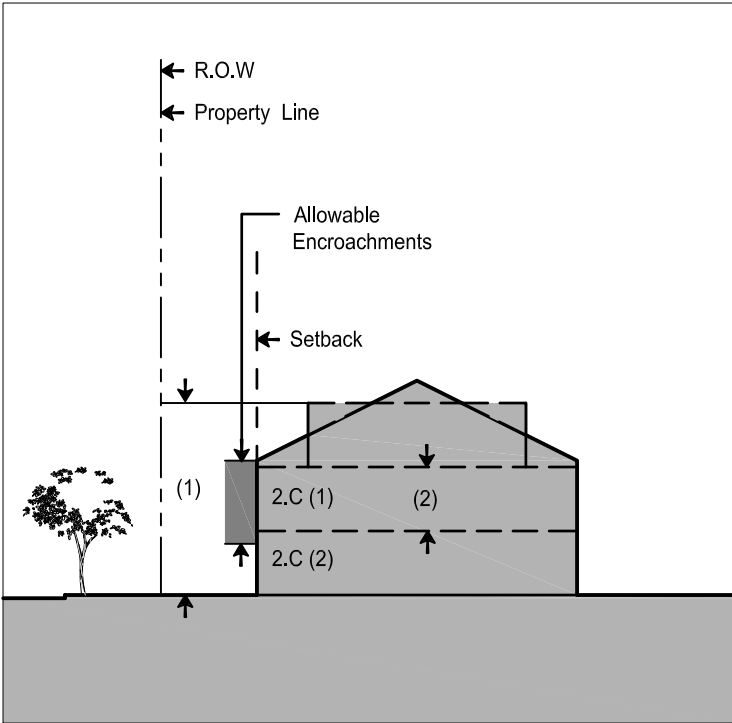


Building Placement Diagram (Plan View)

2. BUILDING PLACEMENT

- a. **Setbacks** (as measured from the property line)
- Buildings shall be placed within the shaded area as shown in the building placement diagram. ~~Parking garages shall be placed per item 4a. Parking Placement.~~
- | | |
|--------------------------|--------------------------|
| (1) Front Build-to-Line: | 10 ft. min.; 20 ft. max. |
| (2) Side Street Setback: | 10 ft. min. |
| (3) Side yard Setback: | 5 6 ft. min. ** |
| (4) Rear Setback: | 15 ft. min. |
| (5) Alley Setback: | 4 ft. OR 16 ft. min.* |
- * Alley setback is measured from edge of Alley easement. To ensure that parking locations off Alley are adequate, buildings shall either be placed at 4 ft. (no parking) OR 16 ft. min. (parking).
- ** Structures may be built with no setback on one side: (i) when having a shared common wall at the property line with each structure on an adjacent lot under separate fee ownership; and (ii) when multiple, successive structures on a block face are each placed on the lot with no setback on one side; in this case the other Sideyard setback will be 12 ft. min.
- b. **Min. Percentage of Building Facade at Build-to-Line:**
- | | |
|--------------------------------------|------|
| (1) Primary Street: | None |
| (2) Secondary Street or Civic Space: | None |

- c. **Encroachments**
- Encroachments are allowed subject to the following criteria:
- The following architectural elements are allowed to encroach into required setbacks: awnings, balconies, bay windows, cornices, eaves and similar projected elements, stairs, ramps and handrails.
 - Overhead encroachments shall have a minimum height clearance of 8 ft.



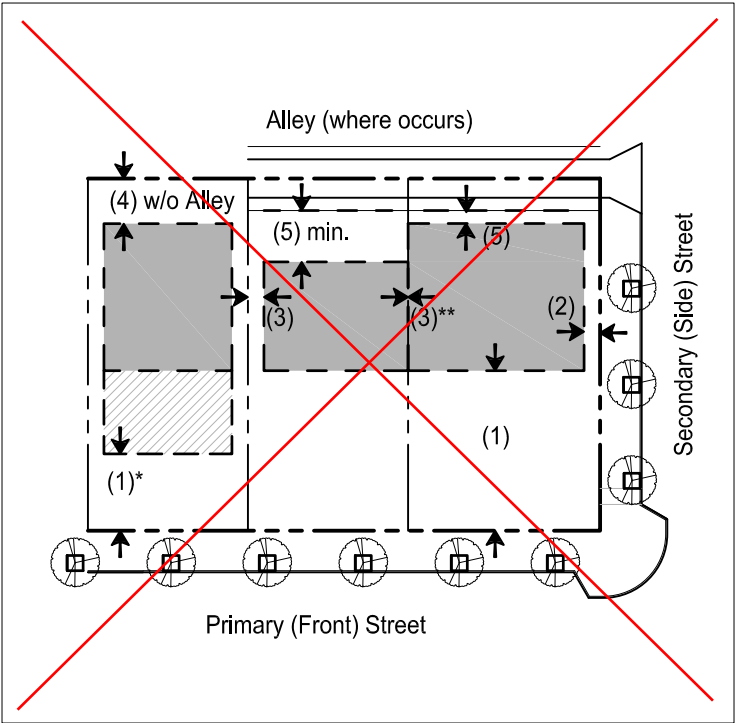
Building Profile Diagram (Section View)

3. BUILDING PROFILE AND TYPE

- a. **Building Height/Stories**
- (1) Maximum Height: ~~2.5 Stories~~ **30 feet as defined in RMC.**
- (2) ~~Story Height: 8 ft. minimum, 10 ft. maximum.~~
- b. **Allowed Building Types**
- Refer to Section 8 for Building Type standards.
- | | |
|--|-------|
| (1) Civic/Community/Institutional Facilities * | (8.D) |
| (2) Courtyard Housing | (8.J) |
| (3) Mansion Apartment | (8.K) |
| (4) Paired House (Duplex) | (8.L) |
| (5) Cottage Court | (8.M) |
| (6) Single-Family House - Alley Access | (8.N) |
| (7) Single-Family House - Street Access | (8.O) |
| (8) Accessory Unit | (8.P) |
- *Only when located in a Local Park
- c. **Allowed Frontage Types**
- Refer to Section 9 for Frontage Type standards. Frontage allowed here by District standards shall also be regulated per the Building Type standards in Section 8.
- | | |
|---------------|-------|
| (1) Forecourt | (9.E) |
| (2) Greenbelt | (9.F) |
| (3) Porch | (9.G) |
| (4) Stoop | (9.H) |

4. PARKING

- a. **Parking Placement**
- ~~On-grade parking (enclosed or unenclosed) is allowed only in the shaded area as shown in the parking placement diagram.~~



Parking Placement Diagram (Plan View)

- (1) ~~Front setback: 50% lot depth*~~
- ~~* Where front drive garages are allowed by Building Type, front setback shall be 24 ft. min.~~
- (2) ~~Side street setback: 5 ft. min.~~
- (3) ~~Side yard Setback: 0 ft. min. **, or 6 ft. min.~~
- ~~** Requires 10 ft. min. separation to buildings on adjacent parcel or zero lot line/partywall condition.~~
- (4) ~~Rear Setback: 15 ft. min.~~
- (5) ~~Alley Setback: 4 ft. OR 16 ft. min.~~

b. **Parking Access**

- Parking shall be accessed from rear Alleys, if provided.
- Parking access from street must meet Block Standards set forth in Section 7.C.4 and Building Type standards in Section 8.O Single-Family House-Street Access.

c. **Parking Requirements**

- Residential Parking Requirements:
 - 1 space per unit minimum.
 - 1 space per 2 units minimum is required for Affordable or Senior Housing units.
- Maximum **2** car garage door frontage on front load lots. On alley access lots, and front load lots developed with side-yard garage, or when developed with one garage bay recessed a minimum 8 ft. from the other garage bays and the house has a front porch of at least 80 sq. ft., 3 car garage door frontages are permitted.
- Outside parking or storage of boats and recreational vehicles is only permitted within a garage or other permitted accessory structure, or within designated Neighborhood or Community Storage Areas.

d. **Miscellaneous**

- For multi-family and commercial development, see Section 13.D for Common Parking Standards.
- Parking and aisle dimensions per City of Richland standards - see RMC 23.54.

(4) The driveway width within the right of way (ROW) shall not exceed of 50% of the primary street frontage or a maximum width of 35 feet on any single family lot to ensure that on street parking within the development. Driveways may flare out once outside the ROW or access tract.

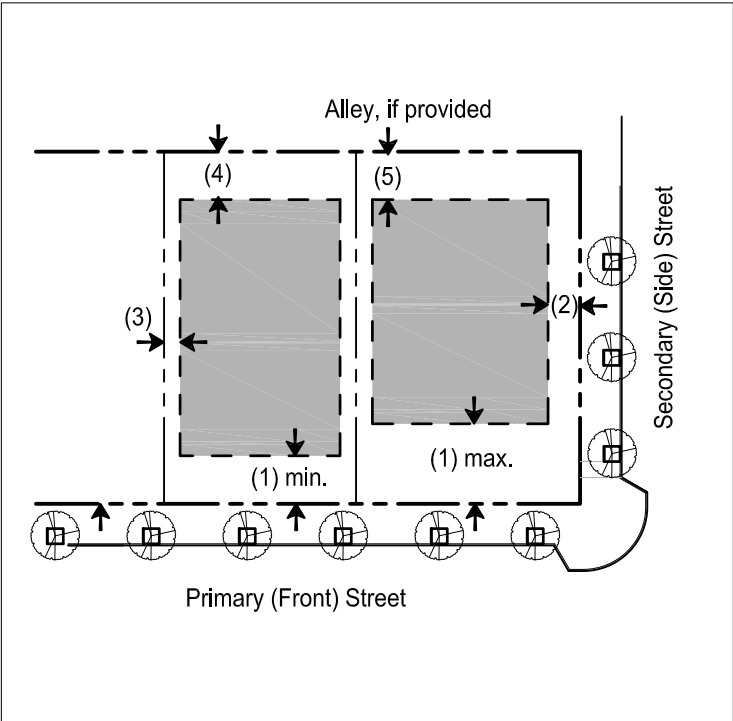


Illustrative Photo: Single Family Homes fronting on Open Spaces

1. NEIGHBORHOOD EDGE DISTRICT INTENT

The Neighborhood Edge (BMC-NE) District is solely residential in character. The houses and lots in this District tend to be a larger scale than the Neighborhood General District. These Districts are typically located along the periphery of the community.

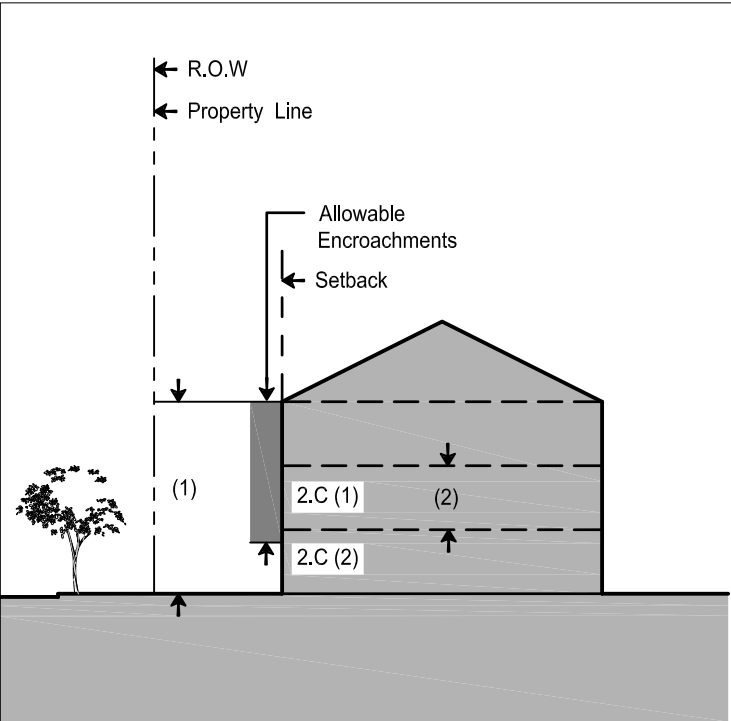
Single-family houses and lots are provided in a range of sizes up to large custom homes on 1/4 to 1 acre lots. Houses are typically accessed by streets, on lots without Alleys. Lots are larger to accommodate front street access driveways. Setbacks are deeper to create a more verdant character.



Building Placement Diagram (Plan View)

2. BUILDING PLACEMENT

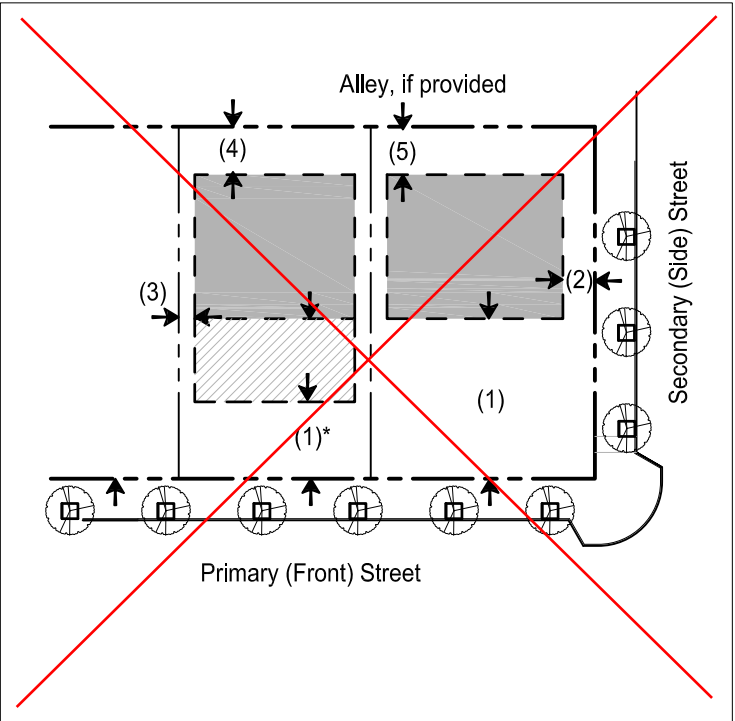
- a. Setbacks** (as measured from the property line)
- Buildings shall be placed within the shaded area as shown in the building placement diagram. ~~Parking garages shall be placed per item 4a. Parking Placement.~~ **35 ft.**
- (1) Front Build-to-Line: 15 ft. min.; ~~25 ft. max.~~ *
 - * Maximum setback does not apply to lots => 1/4 acre.
 - (2) Side Street Setback: 10 ft. min.
 - (3) Side yard Setback: 6 ft. min.
 - (4) Rear Setback: 15 ft. min. **
 - ** For lots in the BMS-NE District that border commercial orchards active at the time these development standards are adopted, no residential structures or swimming pools shall be located within 150 feet, measured from the rear property line, bordering such uses. If active agricultural uses cease, then this requirement shall no longer apply.
 - (5) Alley Setback: 4 ft. OR 16 ft. min. (if provided)*
 - * Alley setback is measured from edge of Alley easement. To ensure that parking locations off Alley are adequate, buildings shall either be placed at 4 ft. (no parking) OR 16 ft. (parking).
- b. Min. Percentage of Building Facade at Build-to-Line:**
- (1) Primary Street: None
 - (2) Secondary Street or Civic Space: None
- c. Encroachments**
- Encroachments are allowed subject to the following criteria:
- (1) The following architectural elements are allowed to encroach into required setbacks: awnings, balconies, bay windows, cornices, eaves and similar projected elements, stairs, ramps and handrails.
 - (2) Overhead encroachments shall have a minimum height clearance of 8 ft.



Building Profile Diagram (Section View)

3. BUILDING PROFILE AND TYPE

- a. Building Height/Stories**
- (1) Maximum Height: ~~3 Stories~~ **30 ft. as defined in RMC.**
 - (2) ~~Story Height: 8 ft. minimum, 12 ft. maximum.~~
- b. Allowed Building Types**
- Refer to Section 8 for Building Type definitions and standards.
- (1) Single-Family House - Alley Access (8.N)
 - (2) Single-Family House - Street Access (8.O)
 - (3) Accessory Unit (8.P)
- An Accessory Storage Structure is allowed on lots .25 acre or greater if the following conditions are met:
- (1) The maximum size, per floor, of the Accessory Storage Structure shall be less than 60% of the square foot footprint of the corresponding floor of the principal structure;
 - (2) The design and massing of the Accessory Storage Structure shall be compatible with the principal structure;
 - (3) The maximum width of the Accessory Storage Structure shall be no greater than the width of the principal structure;
 - (4) Maximum number of stories permitted is 2, but in all cases not taller than the principal structure;
 - (5) The Accessory Storage Structure is located in the rear yard and meets all side yard setback requirements.
- f. Allowed Frontage Types**
- Refer to Section 9 for Frontage Type standards. Frontage allowed here by District standards shall also be regulated per the Building Type standards in Section 8.
- (1) Forecourt (9.E)
 - (2) Porch (9.G)
 - (3) Stoop (9.H)



Parking Placement Diagram (Plan View)

4. PARKING

- a. Parking Placement**
- ~~On-grade parking (enclosed or unenclosed) is allowed only in the shaded area as shown in the parking placement diagram.~~
- (1) ~~Front setback: 50% lot depth*~~
 - ~~* Where front drive garages are allowed by Building Type, front setback shall be 24 ft. min.~~
 - (2) ~~Side street setback: 10 ft. min.~~
 - (3) ~~Side yard Setback: 6 ft. min.~~
 - (4) ~~Rear Setback: 15 ft. min.~~
 - (5) ~~Alley Setback: 4 ft. OR 16 ft. min. (if provided).~~
- b. Parking Access**
- (1) Parking may be accessed from streets.
 - (2) Parking may be accessed by Alleys, if provided.
- c. Parking Requirements**
- (1) Residential Parking Requirements: 1 space per unit minimum.
 - (2) Maximum 3 car garage door frontage.
 - (3) Outside parking or storage of boats and recreational vehicles is only permitted within a garage or other permitted accessory structure, or within designated Neighborhood or Community Storage Areas.



Illustrative Photo: Playground in Local Park

1. CIVIC DISTRICT INTENT

The Civic District contains all of the open space in the Badger Mountain South community, as well as the schools, civic and community facilities located throughout the neighborhoods. This District encompasses 30% of the Badger Mountain South overall site and is one of the most significant features supporting the vision of a walkable and sustainable community. This District provides both passive and active open space areas supporting a variety of activities and uses. It also contains the trail network providing a pedestrian scale, walkable, safe, and healthy means of travel throughout the site.

Buildings in this District are primarily intended for Civic, Community or Institutional uses. These built structures may include playgrounds, picnic shelters, bathroom facilities, and open space maintenance structures, as well as significant institutional, community and civic buildings. Due to the wide range of buildings with unique disposition and configurations, some of the typical Urban Form Standards for Districts do not apply to this District.

Refer to Section 5 Civic Space Standards for Open Space Standards within this District.



Illustrative Photo: School / Institutional Facility

2. BUILDING PLACEMENT

- a. Setbacks*** (as measured from the property line)
- | | |
|--------------------------|--------|
| (1) Front Build-to-Line: | None * |
| (2) Side Street Setback: | None * |
| (3) Side yard Setback: | None * |
| (4) Rear Setback: | None * |
| (5) Alley Setback: | None * |
- *Civic sites are often located along the BMS Trail and Greenbelt open space network, see 5.B for Greenbelt locations and 5.K for Trail layout. When a trail is shown on a proposed Civic site, buildings must be setback to allow the continuation of the trail through the property, see 5.L for Trail Type standards. When adjacent sites also contain a Greenbelt, the minimum building setback shall match the dimension of the Greenbelt, see 5.H.
- b. Min. Percentage of Building Facade at Build-to-Line:**
- | | |
|----------------------------------|------|
| Primary Street: | None |
| Secondary Street or Civic Space: | None |
- c. Encroachments**
- Encroachments are allowed subject to the following criteria:
- (1) The following architectural elements are allowed to encroach into required setbacks and/or Public Right of Way (R.O.W.): awnings, galleries, balconies, bay windows, signs, cornices, eaves, flags and similar projected elements.
 - (2) Stairs, ramps and handrails are allowed to encroach into required setbacks only.
 - (3) Overhead encroachments shall have a minimum height clearance of 8 ft.
 - (4) A City of Richland license must be obtained for encroachments that occur over sidewalks or City airspace. See RMC 5.14.



Illustrative Photo: Community Building

3. BUILDING PROFILE AND TYPE

- a. Building Height/Stories**
- (1) Maximum Height: ~~2.5 Stories~~ when adjacent to Neighborhood General District (BMS-NG).
 - (2) Maximum Height: ~~3 Stories~~ when adjacent to Village Mixed Use (BMS-VMU) and Neighborhood Collector (BMS-NC) Districts.
 - (3) ~~Story Height: 8 ft. minimum, 14 ft. maximum.~~
 - (4) If ground floor community space is provided, the ground floor ceiling shall be a minimum of 10 ft. clear height, as measured from finished floor slab to underside of finished ceiling.
 - (5) For flat roofs, rooftop equipment may exceed the height limit by 10 ft, provided it is located no closer than 15 ft. to edge of exterior wall, otherwise equipment shall be concealed within the attic space.
 - (6) For flat roofs, a parapet is allowed to extend above the maximum height limit by 4 ft.
 - (7) Towers, spires, flag poles or other architectural elements may extend 12 ft. above height limit.
- b. Allowed Building Types**
- Refer to Section 8 for Building Type standards.
- (1) Civic/Community/Institutional Facilities (8.D)
- c. Allowed Frontage Types**
- Frontage Types do not apply in Civic Districts.

40 feet as defined by RMC.



Illustrative Photo: Civic Building

4. PARKING

- a. Parking Placement**
- (1) Front setback: Not allowed.
 - (2) Side street setback: 15 ft. min.
 - (3) Side yard Setback: 15 ft. min.
 - (4) Rear Setback: 15 ft. min.
- b. Parking Access/Location**
- (1) ~~Parking is not allowed to be located in front of building.~~
 - (2) ~~Parking shall be screened from view from primary streets.~~
 - (3) ~~Minimum parking setbacks allows for landscape screening.~~
- b. e. Parking Requirements**
- (1) Parking Requirements: Maximum 3 spaces per 1,000 SF of bldg. area.
 - (2) Within the Greenway Parks only, on-site parking shall be allowed for Civic space uses that may not be associated with a building; total parking quantity to be determined by user demand. Available on-street parking within 600 feet of the proposed use must be counted towards satisfying the parking demand.
 - (3) Parking requirements for Public Parks shall be as required per the City of Richland Parks, Trails and Open Space Master Plan.
 - (4) Parking requirements for schools shall be as required per the respective school authorities.
- C. d. Miscellaneous**
- (1) See Section 13.D for Common Parking Standards.
 - (2) Parking and aisle dimensions per City of Richland standards - see RMC 23.54.
 - (3) Maximum of 20% of required parking may be compact stalls at a dimension of 8' x 16'.

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**SPECIAL
DISTRICT
STANDARDS**

4

Section 4 identifies the standards and requirements for each Special District within Badger Mountain South.

4.A	Introduction.....	4-2
4.B	Specialty Retail (BMS-SD-SR).....	4-2
4.C	Commercial Mixed-Use (BMS-SD-CMU).....	4-3
4.D	Destination Retail (BMS-SD-DR).....	4-3

4.A INTRODUCTION

This section of the LUDR identifies the Special District development standards. Special Districts are unique areas that by intent, function, disposition or configuration play an important role in establishing the vision of the Badger Mountain South community.

The Special Districts are identified in Section 2.B – Regulating Plan for Land Use and Urban Form, with the following color-legend:

- Special District - Specialty Retail (BMS-SD-SR)
- Special District - Commercial Mixed-Use (BMS-SD-CMU)
- Special District - Destination Retail (BMS-SD-DR)

Because of the unique nature of the Special Districts, development within these areas is guided by the intent, guidelines and/or standards as follows for each District.

Although the Special Districts are not regulated by Building Types, the Common Design Standards in Section 8.C are applicable to these Districts.

4.B BADGER MOUNTAIN SOUTH SPECIAL DISTRICT- SPECIALTY RETAIL (BMS-SD-SR)

SEE REGULATING PLAN FOR LOCATION



Illustrative Sketch: Birds-eye View of Specialty Retail Village



Illustrative Sketch: Outdoor Plaza, Cave Entrance, and Vineyard



Illustrative Photo: Wine Cave Storage

1. SPECIAL DISTRICT - SPECIALTY RETAIL INTENT

The Special District - Specialty Retail (BMS-SD-SR) is intended to support and provide development opportunities for the growing interest in local and regional agricultural products, in particular the local wine industry. As such it serves both the City of Richland as well as the region.

It is also intended to:

- a. Provide a gathering place for group events, festivals and other community-wide activities;
- b. Provide sites for: vineyards, wine caves, wineries, tasting rooms, wine making, other specialty brewing and craft distilling, the sale of other agricultural-related products, education, retail and hospitality that support this focus; and
- c. Showcase innovative sustainable design features in both building and site design.

are encouraged to

2. SPECIALTY RETAIL DISTRICT STANDARDS

- a. Each building design shall include sustainable features ~~that are transparent to the visitor and identified with appropriate signage.~~ Refer to Section 12 for Sustainable Standards.
- b. Buildings ~~shall~~ be sited to take advantage of views.
- c. Pedestrian connectivity between development sites shall be emphasized ~~with the use of unique pavement treatments.~~
- d. Spaces between buildings shall be considered for design purposes as common spaces to be shared among all users in the District and should be designed to function in this way.
- e. Service areas shall be integrated into the building design to provide screening for equipment, recycling, trash and similar.
- f. Buildings may vary in height between one to three stories; daylight basements are not included in the story count. Landmark structures such as a clock or bell tower may have a maximum height of 80 ft. and no signage shall be permitted above street level.
- g. Exterior lighting shall meet the Badger Mountain South Light Standards, Section 12.C.3.
- h. Landscaping shall meet the Common and Commercial Landscape Standards in Section 11.
- i. Parking per Common Parking Standards, Section 13.D.
- j. See also Section 8.C for Common Design Standards for all Districts.

or landscape treatments shall be encouraged.

, unless necessary for essential uses such as utility services, waste collection, or delivery service.

4.C BADGER MOUNTAIN SOUTH
SPECIAL DISTRICT - COMMERCIAL MIXED-USE (BMS-SD-CMU)

SEE REGULATING
PLAN FOR LOCATION



Illustrative Photo: Outdoor Restaurant Plaza / Urban Trail

1. SPECIAL DISTRICT - COMMERCIAL MIXED-USE INTENT

The Special District - Commercial Mixed-Use (BMS-SD-CMU) comprises approximately 45 acres between Dallas Road and the Special District -Specialty Retail. The District can accommodate a wide variety of uses as it is intended to be a major employment center for the City of Richland and a destination for shopping, higher-level education, dining, office uses and other employment centers, Multi-family/Mixed-Use housing, entertainment and recreation. Public facilities, including transit centers, may also be accommodated in this District.

To further the walkable and sustainable goals of Badger Mountain South, the design of the Special District - Commercial Mixed-Use will ensure that pedestrian are accommodated between buildings or groups of buildings, that public plazas and other community features will be developed as part of the overall development plan, and that connectivity will be maintained to adjoining Districts.



Illustrative Photo: Office above Retail Streetscape

2. SPECIAL DISTRICT-COMMERCIAL MIXED-USE STANDARDS

- a. Enhance pedestrian experience:
 - i. Entries: functional entries must enhance pedestrian experience by fronting onto public space.
 - ii. Sidewalks: Provide continuous sidewalks along all street frontages and between buildings and blocks.
 - iii. Plazas and common spaces: shall be provided with appropriate amenities including benches, trash and recycling containers and bike racks. Plazas shall be designed to create a unique development identity and are encouraged to also include public art. Refer to Section 5.E for Plaza standards.
 - iv. Maximize views to Badger Mountain.
- b. Signage, landscaping, and building architectural features will be complementary and will emphasize the District as the entryway to the City of Richland.
- c. Service areas shall be integrated into the building design to properly screen it from the center plaza and public streets. This includes areas for trash, recycling and equipment storage.
- d. Building Heights:
Four (4) stories with a maximum height limit of 55 ft.; daylight basements are not included in the story height. Landmark structures such as a clock or bell tower may have a maximum height of 80 ft. At least 50 percent of the first story of building is dedicated to commercial space.
- e. Landscaping shall meet the Common and Commercial Landscape Standards, Section 11.
- f. Sustainable Standards per Section 12.
- g. Exterior lighting shall meet the Badger Mountain South Light Standards, Section 12.C.3.
- h. Other Site Improvements as appropriate and identified in Section 13.
- i. Parking per Common Parking Standards, Section 13.D.
- j. See also Section 8.C for Common Design Standards for all Districts.

4.D BADGER MOUNTAIN SOUTH
SPECIAL DISTRICT - DESTINATION RETAIL (BMS-SD-DR)

SEE REGULATING
PLAN FOR LOCATION



Illustrative Photo: Outdoor Retail Plaza

1. SPECIAL DISTRICT -DESTINATION RETAIL INTENT

The Special District - Destination Retail (BMS-SD-DR) includes more than 80 acres west of Dallas Road at Interstate 82. The District is highly visible to motorists on the freeway and has direct access from the existing I-82 on-ramp.

It is the intent of the Special District - Destination Retail is to accommodate a wide variety of uses both for the community and for the region with an integrated development concept. Development may include an open air shopping village with large-scale retail, restaurants, hotels, entertainment and Mixed-Use, Multi-family housing.



Illustrative Photo: Cinema Complex

2. SPECIAL DISTRICT - DESTINATION RETAIL STANDARDS

- a. All standards of the BMS-SD-CMU District apply.
- b. When Mixed-Use development or Live/Work housing is provided, attention shall be given to provide appropriate residential amenities such as decks, gardens, and segregated open space restricted to the residential units.
- c. Internal circulation for the development as a whole within the District shall be considered in order to provide appropriate access to Dallas Road, safe pedestrian accommodation, adequate space for common areas including plazas or other seating, and the efficient use of parking.

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**CIVIC
SPACE
STANDARDS**

5

Section 5 describes regulations for the civic open space throughout the Badger Mountain South community.

5.A	Civic Space Introduction.....	5-2
5.B	Illustrative Plan for Civic Space Layout.....	5-2
5.C	Greenway Parks.....	5-3
5.D	Local Parks.....	5-4
5.E	Plaza/ Town Square.....	5-4
5.F	Village Green.....	5-4
5.G	Block Parks.....	5-5
5.H	Greenbelts.....	5-5
5.I	Public Parks and School Open Space.....	5-5
5.J	Trails Introduction.....	5-6
5.K	Illustrative Plan For Trail Layout and Trail Types.....	5-6
5.L	Trails.....	5-7

5.A CIVIC SPACE INTRODUCTION

The Illustrative Plan for Civic Space Layout includes most of the types of open space, parks, trails and community facilities that will be constructed in Badger Mountain South. It is intended to illustrate that these places and spaces are interwoven into each neighborhood although the exact locations are not yet identified. Final locations will be based upon the blocks, Building Types and final street grid that are established. This extensive network of common spaces is an important component of creating a walkable and sustainable community.

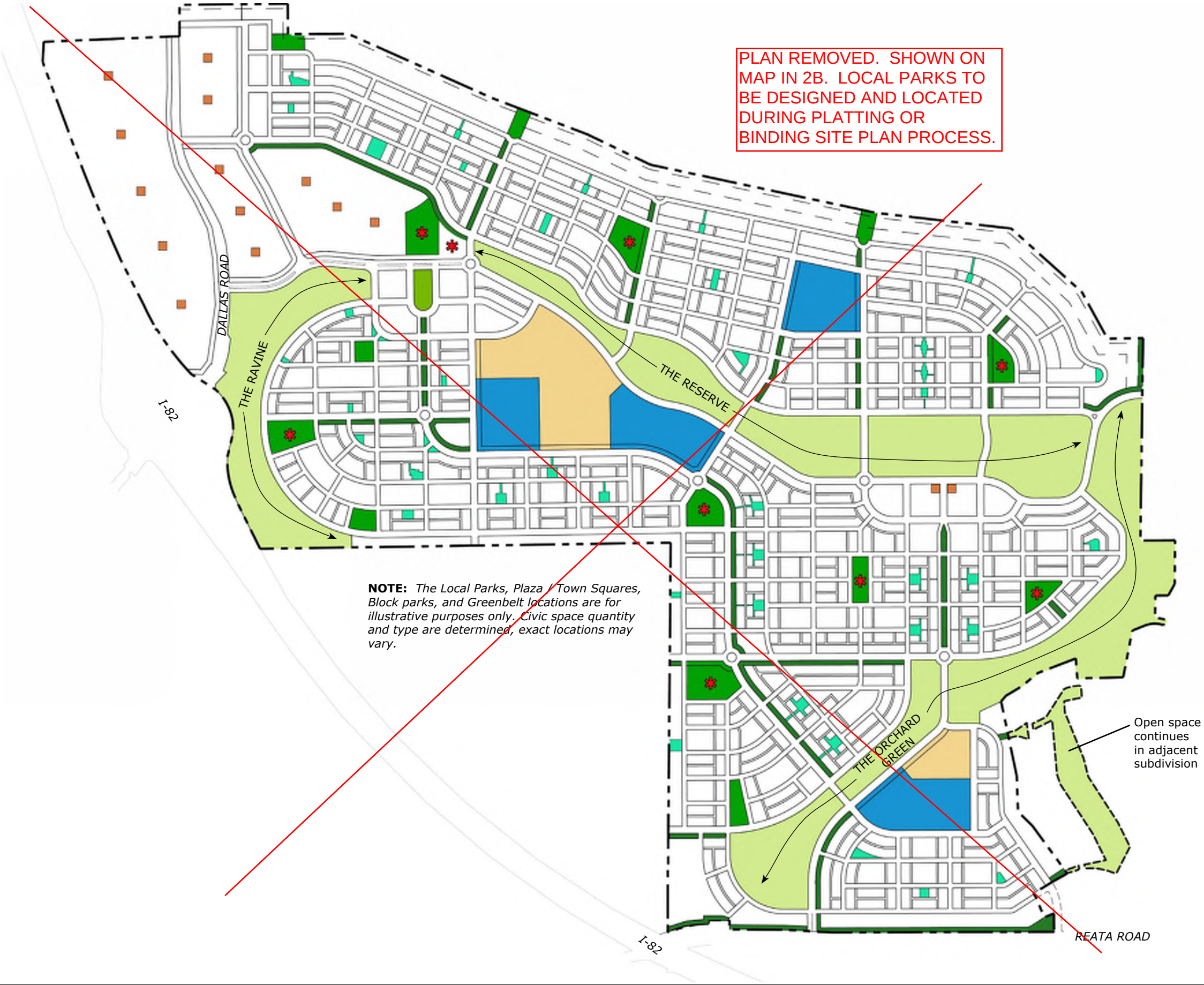
Most of the areas illustrated here and described in this Section 5 will be sited at time of platting. For city-owned facilities or properties developed as part of a public school system or by any other public entity, those public bodies will identify the planning, programming and timing of development of those spaces.

All of the plazas and other common areas to be constructed within the commercial Districts are not shown here. These areas will be further defined at the time of site plan review.

CIVIC SPACE LEGEND

- GREENWAY PARKS
- LOCAL PARKS
- VILLAGE GREEN
- BLOCK PARKS
- GREENBELTS
- PUBLIC PARKS
- RESERVED SCHOOL SITES
- PLAZA / TOWN SQUARES
- CIVIC/COMMUNITY FACILITIES

5.B ILLUSTRATIVE PLAN FOR CIVIC SPACE LAYOUT



REMOVE GRAPHIC

5.C GREENWAY PARKS



Illustrative Photo: Picnic Area in Greenway Park

1. GREENWAY PARKS

- a. Intent** - There are three large Greenway Parks in Badger Mountain South as identified on the Illustrative Plan for Civic Space Layout, 5.B. The Greenway Parks are intended to be generally non-irrigated areas naturalized with drought tolerant grasses and other plantings. However, they may also contain irrigated areas of gardens, orchards and vineyards, as well as trails and other amenities as described below. These parks provide the opportunity for biking or walking the entire community without having to use the city streets. Each of the three Greenway Parks contains some unique feature or amenity in addition to features common to all.

b. Common Standards

- (1) Primary and Secondary Trails as indicated on the Illustrative Plan for Trail Layout and Trail Types (5.K), and Standards for Trails (5.L).
- (2) Recycled, composite-plastic trash and recycling containers located at the main entrances to the Greenway Parks.
- (3) Graded areas hydro-seeded with drought tolerant meadow seed mix with temporary irrigation until established.
- (4) Shade trees and drought-tolerant shrubs, as listed in Section 11 – Landscape Standards, will be planted in identified pockets of the Greenway Parks and provided with temporary irrigation.
- (5) Identifying signage will be provided at each major entrance to the Greenway Parks.
- (6) On-site parking may be provided as determined by proposed use and anticipated demand. Parking requirements per BMS-Civic District, see Section 3.F.

2. THE RAVINE

- a. Location** - Western edge of the West Village Neighborhood. See Illustrative Plan for Civic Space Layout, 5.B.
- b. Size**
- (1) Minimum: 40 acres
 - (2) Maximum: 50 acres



Illustrative Photo: Secondary Trail in Greenway Park

c. General Character

- (1) Minimize impacts to the existing ravine and associated rolling topography.
- (2) ~~Extensive~~ trail and exercise system.
- (3) Provide trail connections to adjacent West Village Neighborhood.
- (4) Intended activities include general exercise and fitness with recreational biking, jogging, walking, roller blading, and skating.

d. Standards

- (1) Minimum Width: 150 feet
- (2) Maximum Width: None

e. Additional Required Amenities:

- (1) Minimum ~~2,500 LF~~ - Primary Trail with lighting.
- (2) Minimum ~~6,800 LF~~ - Secondary Trail.
- (3) Site Furnishings including benches, trash and recycling receptacles and bike racks, per Section 13.C standards.
- (4) (100) shrubs
- (5) (60) 1-1/2" cal. shade trees
- (6) Landscape improvements including hydro-seeded meadows, shade trees and shrubs.
- (7) Multi-station exercise course.

3. THE RESERVE

- a. Location** - Primary open space in East Market Neighborhood, running west into the West Vineyard Neighborhood. See Illustrative Plan for Civic Space Layout, 5.B.
- b. Size**
- (1) Minimum: 80 acres
 - (2) Maximum: 90 acres
- c. General Character**
- (1) Vast primary open space running between town centers that serves the entire community.
 - (2) Predominantly passive recreation and naturalistic landscape separating multiple parks, community gardens, and other use areas.
 - (3) Provides grand entry opportunity at the Badger Mountain South east entrance.



Illustrative Photo: Trail Network in Greenway Park

- (4) Intended activities include general exercise and fitness with recreational biking, jogging, walking, roller blading, skating, children's play areas, a variety of active recreation and gardens.

d. Standards

- (1) Minimum Width: 150 Feet
- (2) Maximum Width: None

e. Additional Required Amenities:

- (1) Minimum ~~14,000 LF~~ - Primary Trail with lighting.
- (2) Minimum ~~6,000 LF~~ - Secondary Trail.
- (3) Site furnishings including benches, trash and recycling receptacles, bike racks, and picnic tables, per Section 13.C standards.
- (4) (500) shrubs
- (5) (350) 1-1/2" cal. shade trees
- (6) Landscape improvements including hydro-seeded meadows, shade trees and shrubs.
- (7) Dog park minimum 1.5 acres with perimeter fencing, (1) shade structures, and access to water (potable and irrigation).
- (8) Open play field of minimum 3 acres with a permanent irrigation system.
- (9) Children's playground with creative play structures for two distinct age ranges and associated seating areas.
- (10) Three picnic areas located adjacent to activity centers with benches, tables and associated landscaping.
- ~~(11) Paved activity court and (2) sand volleyball courts.~~
- ~~(12) Community Garden with irrigation, perimeter fencing and raised planter beds.~~

4. THE ORCHARD GREEN

- a. Location** - Primary open space in South Orchard Neighborhood, running northeast into the East Market Neighborhood. See Illustrative Plan for Civic Space Layout, 5.B.
- b. Size**
- (1) Minimum: 80 acres
 - (2) Maximum: 90 acres



Illustrative Photo: Community Orchard in Greenway Park

c. General Character

- (1) Defining open space for the South Orchard Neighborhood.
- (2) Provides opportunity for orchards, vineyards, and other agricultural uses.
- (3) Provides grand entry corridor at the Badger Mountain South, south entrance.
- (4) Intended activities include general exercise and fitness with recreational biking, jogging, walking, roller blading, skating, children's play areas, a variety of active recreation, gardens, and other agriculture.

d. Standards

- (1) Minimum Width: 150 Feet
- (2) Maximum Width: None

e. Additional Required Amenities:

- (1) Minimum ~~10,000 LF~~ - Primary Trail with lighting.
- (2) Minimum ~~5,200 LF~~ - Secondary Trail.
- (3) Minimum 3,000 LF - Equestrian Trail.
- (4) Site Furnishings including benches, trash and recycling receptacles, bike racks, and picnic tables, per Section 13.C standards
- (5) (500) shrubs
- (6) (350) 1-1/2" cal. shade or fruit-bearing trees
- (7) Landscape improvements including hydro-seeded meadows, shade trees and shrubs.
- (8) Gardens, vineyards, or orchards with irrigation and fencing if necessary; raised planter beds provided for community pea patch.
- (9) Gravel or wood chip path system, benches, storage building and water source.
- (10) Dog park minimum 1.5 acres with perimeter fencing, (1) shade structures and access to water (potable and irrigation).
- (11) Open play field of minimum 3 acres with a permanent irrigation system.
- (12) Three picnic areas located adjacent to activity centers with benches, tables and associated landscaping.
- ~~(13) Water Feature located at south end to serve as a community entry feature and using on-site recycled and/or recirculating water.~~

5.D LOCAL PARKS



Illustrative Photo: Pool at Local Park

1. DESCRIPTION - LOCAL PARKS

- a. Definition** - A community space designed for both structured and passive play areas and activities. Each Local Park will contain a pedestrian path system, open lawn areas and associated planting beds (with permanent irrigation), benches, drinking fountain(s) and trash/recycling receptacles. At least one Local Park is located within each of the five Badger Mountain South residential neighborhoods.
- b. Location** - See 5.B, Illustrative Plan for Civic Space Layout; actual location determined at time of platting.
- c. Size**
 - (1) Minimum: 1 acre
 - (2) Maximum: 5 acres
- d. Standards**
 - (1) Civic/Community Facility to be located in Local Parks as shown on 5.B, Illustrative Plan for Civic Space Layout; facility type to be determined.
 - (2) On-site parking shall only be allowed if associated with a Civic/Community Facility. Parking quantity by BMS-Civic District, refer to Section 3.F.
 - (3) Irrigated lawn areas, shrub planting beds and 15 shade trees per acre, minimum 2" caliper.
 - (4) Landscaping and irrigation will be based on Landscape Guiding Principles, Section 11.B.
 - (5) Landscape materials to be selected from 11.F. Drought Tolerant and Native/Naturalized Plant List and/or 11.G Refined Plant List.
 - (6) ~~Unless otherwise provided, restroom facilities will be provided to serve parks over three acres.~~
 - (7) Shade structures. Local Parks less than 3 acres in size shall include (1) one shade structure; Local Parks 3 acres and larger shall include two (2) shade structures.
 - (8) See Section 13.C for Site Improvement standards for:
 - i. Pedestrian-scale lighting
 - ii. Benches and/or removable seating
 - iii. Tables
 - iv. Trash/recycling receptacles
 - v. Bike racks



Illustrative Photo: Playground at Local Park

e. Additional Required Amenities:

- (1) Each Local Park less than 3 acres will contain at least (3) three of the following additional amenities:
 - i. Picnic area(s) with tables/benches
 - ii. Playground with (2) multi-age structures/equipment. (Counts as meeting two additional amenities.)
 - iii. Fenced community garden
 - iv. Open play field
 - v. Sport Court
 - vi. Or equivalent amenity
- (2) Local Parks 3 acres and larger will contain (3) items from above list, and (1) or more of the following:
 - i. Playground with (one) play structure
 - ii. Covered gazebo/picnic shelter
 - iii. Community swimming pool
 - iv. Aquatic spray park
 - v. Community building with restrooms
 - vi. Tiered-lawn amphitheater
 - vii. Sand volleyball court
 - viii. Water feature/fountain element

1 1/2"

ix. parkour stations
x. or other equivalent amenities

5.E PLAZA/TOWN SQUARE



Illustrative Photo: Plaza open space

1. DESCRIPTION - PLAZA/TOWN SQUARE

- a. Definition** - A "hardscape" open space designed as a community gathering space and supports amenities to commercial development. Plazas are intended to be incorporated into all commercial Districts within Badger Mountain South. The size and location of Plazas will be determined at time of site plan review as the developer of commercial spaces shall identify and design Plaza and/or common open space areas within each commercial development.
- b. Location** - All Commercial, retail and mixed-use areas; actual location determined at time of platting.
- c. Size**
 - (1) Minimum width: 20 ft.
 - (2) Minimum depth: 20 ft.
- d. Standards**
 - (1) Plaza/Town Squares will be spatially defined by building frontages, and located at intersections of Primary Pedestrian Streets.
 - (2) Landscaping and irrigation will be based on Landscape Guiding Principles, Section 11.B.
 - (3) Landscape materials to be selected from Section 11.F. or 11.G and will include 5 shade trees per acre, minimum 2" caliper.
 - (4) Decorative landscape planters, see Section 11.C.
 - (5) Electrical power sources as required.
 - (6) See Section 13.C for Site Improvement standards for:
 - i. Specialty paved surfaces
 - ii. Pedestrian-scale lighting
 - iii. Benches and/or removable seating
 - iv. Tables
 - v. Trash/recycling receptacles
 - vi. Bike racks
- e. Additional Required Amenities:**

Each Plaza/Town Square will contain at least (1) one of the following additional amenities;

 - (1) Water features/interactive fountains
 - (2) Kiosks
 - (3) Public art, per Section 13.C.10

5.F VILLAGE GREEN



Illustrative Photo: Village Green open space

1. DESCRIPTION - VILLAGE GREEN

- a. Definition** ~~The Village Green is the centerpiece of the West Village urban core. It will be a high quality, highly detailed park intended as a gathering place for community wide events and activities. The space will consist primarily of a large open lawn area bordered with planting beds and rows of shade trees with large canopies. It will also include paved plazas with site furnishings and may include specialty design features.~~
- b. Location** ~~West Village Mixed-Use center, See Illustrative Plan for Civic Space Layout, 5.B.~~
- c. Size**
 - (1) ~~Minimum: 2 acres~~
- d. Standards**
 - (1) ~~May be bordered by streets on one or more sides.~~
 - (2) ~~Irrigated lawn areas and shrub planting beds; shade trees, minimum 2" caliper, shall border lawn areas and planting beds.~~
 - (3) ~~Landscaping and irrigation will be based on Landscape Guiding Principles, Section 11.B.~~
 - (4) ~~Landscape materials to be selected from 11.F. Drought Tolerant and Native/Naturalized Plant List and/or 11.G Refined Plant List.~~
 - (5) ~~Electrical power sources as required.~~
 - (6) ~~See Section 13.C for Site Improvement standards for:~~
 - i. ~~Specialty paved surfaces~~
 - ii. ~~Pedestrian-scale lighting~~
 - iii. ~~Benches and/or removable seating~~
 - iv. ~~Tables~~
 - v. ~~Trash/recycling receptacles~~
 - vi. ~~Bike racks~~
- e. Additional Required Amenities:**

~~The Village Green will contain at least (2) two of the following additional amenities;~~

 - (1) ~~Themed water feature/interactive fountain~~
 - (2) ~~Staging areas for arts/crafts fairs, movie night, etc.~~
 - (3) ~~Raised planters/seal walls~~
 - (4) ~~Community kiosk~~
 - (5) ~~Public art, per Section 13.C.10~~

5.G BLOCK PARKS



Illustrative Photo: Block Park

1. DESCRIPTION - BLOCK PARKS

- a. Definition** - A small open space intended to provide structured and/or passive play areas and/or areas for quiet reflection. The landscaping may include lawn areas with formal or informal tree and shrub plantings. Hardscape areas with seating and a pedestrian path system should also be included. See Section 7.D for Block Open Space standards.
- b. Location** - Block Parks are required to be distributed throughout all of the Neighborhood Sectors. They shall be located such that no dwelling shall be more than 3 blocks away from any type of open space.
- c. Size**
 - (1) Minimum: 5,000 square feet
 - (2) Maximum: 1 Acre
- d. Standards**
 - (1) Landscaping and irrigation will be based on Landscape Guiding Principles, Section 11.B.
 - (2) Landscape materials to be selected from 11.F Drought-Tolerant and Native/Naturalized Plant List and/or 11.G Refined Plant List.
 - (3) Lawn areas, and a minimum of one shrub planting bed area with one shrub for each 250 square feet of Block Park.
 - (4) One tree for each 2,500 square feet of Block Park.
 - (5) All Block Parks must also contain the following elements which conform to Section 13.C for Site Improvement standards:
 - i. Pedestrian scale lighting
 - ii. Minimum (1) Benches and/or removable seating
- e. Additional Required Amenities:**

Each Block Park, except those located within three blocks of a Local Park or a City Park, will contain at least (2) two of the following additional amenities:

 - (1) Specialty paved surfaces
 - (2) Soft surface playground with (one) play structure
 - (3) Picnic table
 - (4) Open play field
 - (5) Sport Court
 - (6) Pea patch gardens
 - (7) Other equivalent amenity

5.H GREENBELTS



Illustrative Photo: Primary Trail in Greenbelt

1. DESCRIPTION - GREENBELTS

- a. Definition** - A wide, landscape buffer or linear green space intended to soften street impacts, provide connectivity to neighborhoods, provide entry monument opportunity, and screening. Often Greenbelts will include segments of the Primary or Secondary Trail system. Greenbelts may also be located within a wide median, called a Greenbelt Median.
- b. Location** - See 5.B, Illustrative Plan for Civic Space Layout.
- c. Size**
 - (1) Building Frontage Greenbelt: 28 ft. minimum width
 - (2) Greenbelt Medians: 60 ft. minimum width
 - (3) All other locations: 25 ft. minimum width
- d. Standards**
 - (1) Landscaping and irrigation will be based on Landscape Guiding Principles, Section 11.B.
 - (2) Landscape materials to be selected from 11.F and 11.G
 - (3) Hydro-seeded lawn and meadow areas, evergreen and deciduous tree(s) and shrub planting beds.
 - (4) Provide permanent, drip irrigation system.
 - (5) Provide 1-1/2" cal. shade trees
 - (6) Vehicular access shall not be allowed across a Greenbelt more frequently than every 200 ft. or as required for fire and emergency access.
 - (7) Primary/Secondary Trails (most locations) - See 5.K, Illustrative Plan for Trail Layout and Trail Types.
 - (8) Where buildings front onto a Greenbelt, a 8 ft. min. sidewalk located along the property line will be provided per Greenbelt Frontage Type 9.F.
 - (9) All Greenbelts, except where the Greenbelt abuts residential use properties, must also contain the following elements which conform to Section 13.C for Site Improvement standards for:
 - i. Pedestrian-scale lighting, unless adequate lighting is provided by street lighting from the adjacent Right of Way (Primary Trails only)
 - ii. Benches - (1) one minimum every 1/2 mile
 - iii. Once trash and one recycling receptable (may be a single unit with segregated elements) every mile, or located as required to facilitate servicing.
- e. Additional Required Amenities:**

Each Greenbelt will contain at least (2) two of the following additional amenities every 1 mile:

 - (1) Mile marker indication element
 - (2) Public art, per Section 13.C.10

5.I PUBLIC PARKS AND SCHOOL OPEN SPACE



Illustrative Photos: Multiple Amenities in Public Parks and Schools

1. DESCRIPTION - PUBLIC PARKS AND SCHOOL OPEN SPACE

- a. Definition** - The Badger Mountain South community will contain (2) two park facilities developed, owned and operated by the City of Richland - a 30-acre Community Park and a 6-acre Neighborhood park. The community will also contain properties that are developed as public or private school sites which will include extensive outdoor play and recreation areas. Areas identified for the (2) City parks and the school sites are indicated on the 5.B, Illustrative Plan for Civic Space Layouts.
- b. Location**
 - (1) City of Richland Community Park - West Village neighborhood.
 - (2) City of Richland Neighborhood Park - South Orchard neighborhood.
 - (3) (2) School Sites - West Village neighborhood.
 - (4) School Site - East Garden neighborhood.
 - (5) Kennewick School District Site - South Orchard neighborhood.
- c. Size**
 - (1) Community Park: 30 Acres minimum
 - (2) Neighborhood Park: 6 Acres minimum
 - (3) School Sites: 12-15 Acres (each) minimum
- d. Standards**
 - (1) Richland City Parks will be developed and comply with the Parks, Trails and Open Space Master Plan.
 - (2) School facilities will be developed and comply with the standards and requirements of the respective school authorities.
- e. Additional Required Amenities:**
 - (1) Not identified

(2) Greenbelt: 20 ft minimum width
(3) Along rear yards and BM-NC district: 5 ft minimum width

adjacent

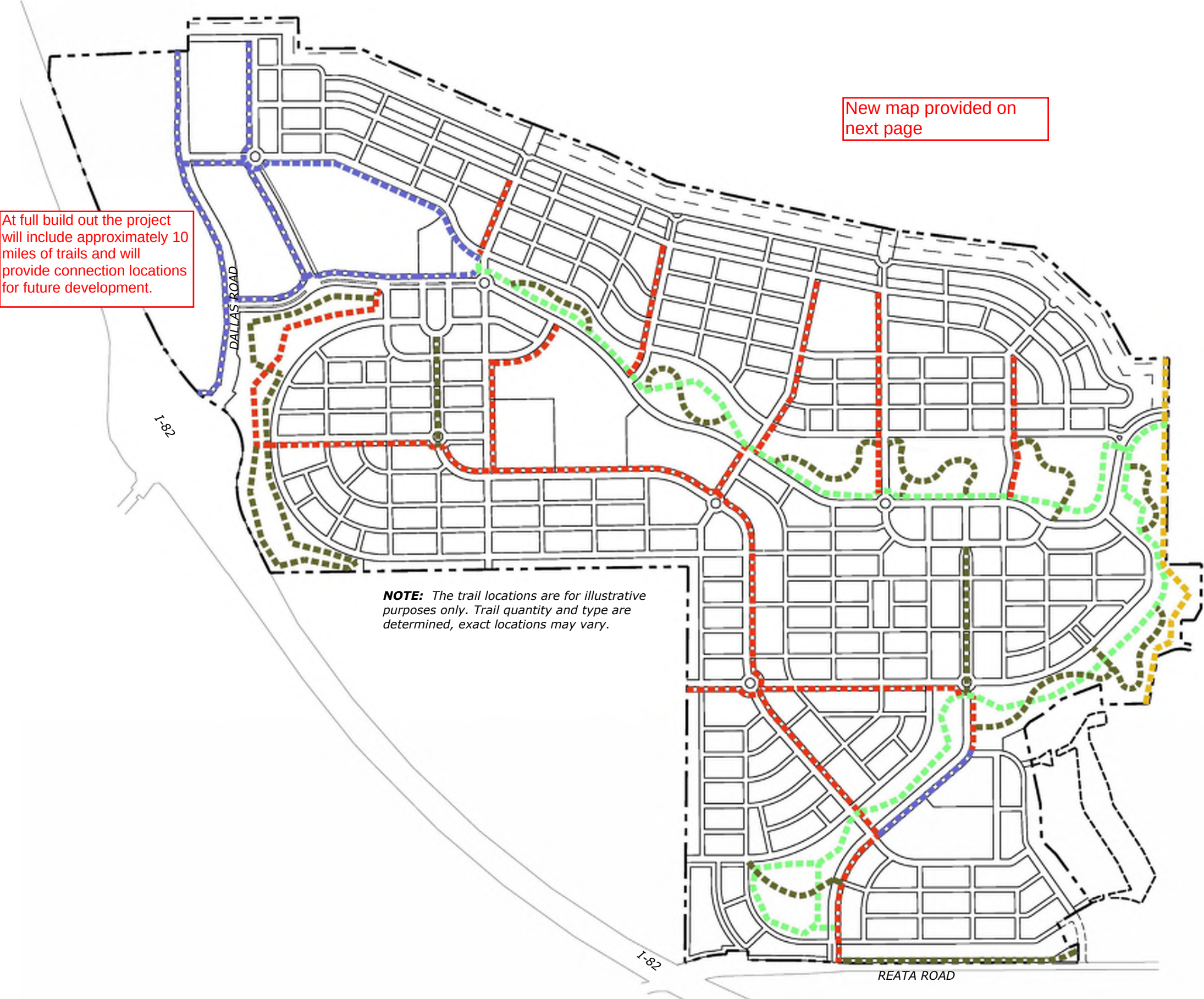
5.J TRAILS INTRODUCTION

The Illustrative Plan for Trail Layout and Trail Types identifies the location of the proposed trail system in Badger Mountain South. Four types of trails will be built within the community – Urban Trails located within the commercial centers, paved Primary and City Primary Trails for multi-uses, soft-surface Secondary Trails for walking and jogging, and an Equestrian Trail connection located at the eastern edge of the community that will link to an existing equestrian trail. ~~There will be approximately 20 miles of trails of all types when the trail system is complete.~~

Two Trail Types are located in the Greenway Parks: City Primary Trails and Secondary Trails. These trails are intended to be the cross-community trail system that links all neighborhoods within Badger Mountain South. The City Primary Trail meanders within the Greenway Parks, sometimes near the adjoining streets, but primarily away from the streets and within the Greenway Park itself. Secondary Trails act as connector trails which link one side of the Greenway Park to the other or to the City Primary Trail.

adjoining

5.K ILLUSTRATIVE PLAN FOR TRAIL LAYOUT and TRAIL TYPES

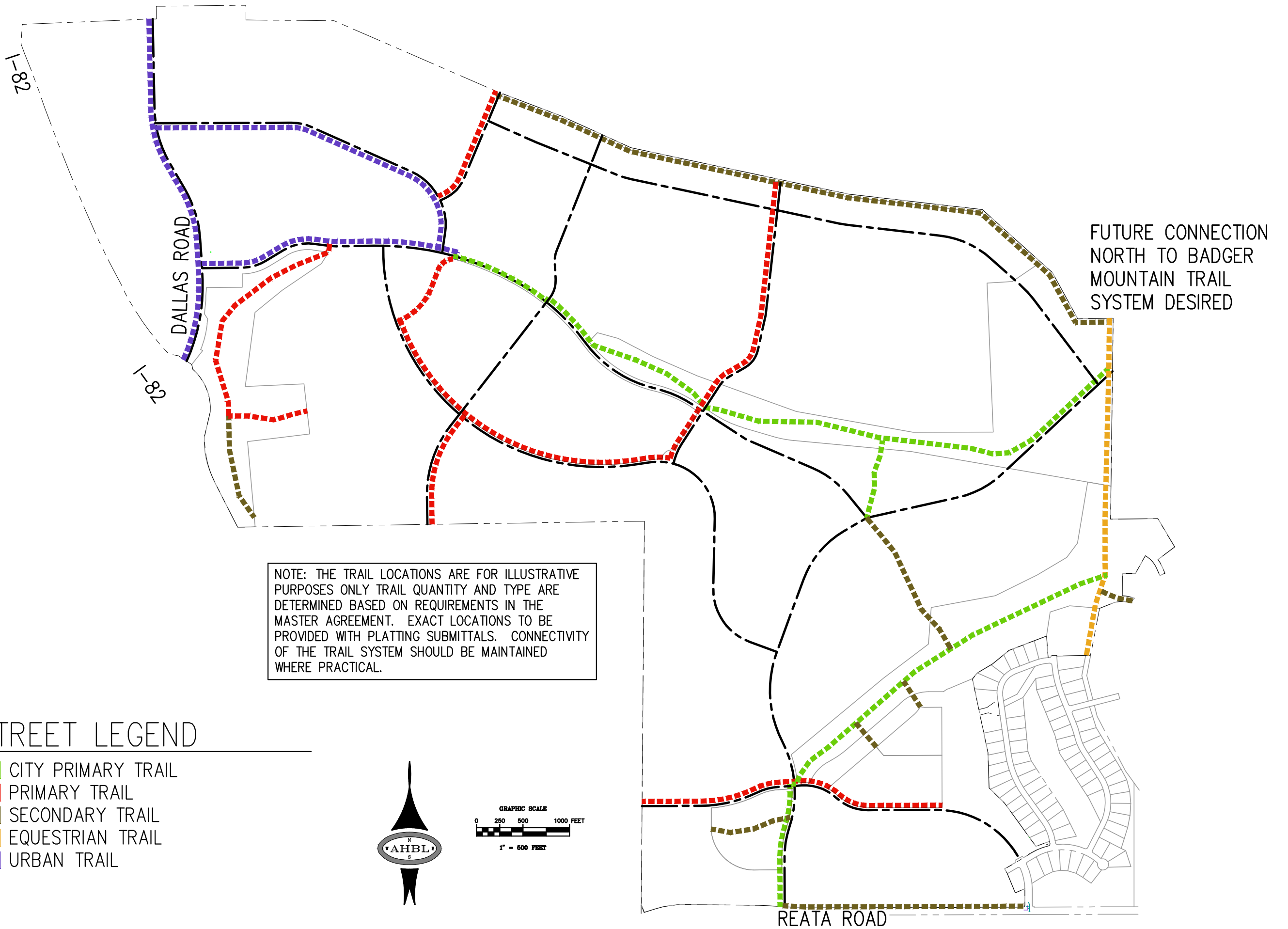
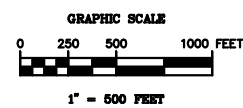


TRAIL LEGEND

- CITY PRIMARY TRAIL
- PRIMARY TRAIL
- SECONDARY TRAIL
- EQUESTRIAN TRAIL
- URBAN TRAIL

STREET LEGEND

- CITY PRIMARY TRAIL
- PRIMARY TRAIL
- SECONDARY TRAIL
- EQUESTRIAN TRAIL
- URBAN TRAIL



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STREET STANDARDS

6

Section 6 describes regulations for street layout and circulation throughout the Badger Mountain South community.

The Street Standards Section includes a Regulating Plan for Streets that maps out the street and Edge Types for the Badger Mountain South community.

6.A	Introduction	6-2
6.B	Regulating Plan for Streets.....	6-2
6.C	4-Lane Arterial Collector Street.....	6-3
6.D	2-Lane Arterial Collector Street.....	6-3
6.E	Collector Street.....	6-4
6.F	16 ft. Local Street.....	6-4
6.F.1	ALTERNATE - 12 ft. Local Street.....	6-5
6.G	Rear Alley.....	6-5
6.H	Roundabout.....	6-6

6.A INTRODUCTION

Section 6 identifies the street layout for the arterial collectors, the proposed layout for the internal collector streets and the right-of-way standards for each street type in the Badger Mountain South community. ~~The grid street system is a major component of creating a walkable and sustainable community.~~

Section 6 also introduces the concept of “edge types” which are the pedestrian and landscape elements within the right-of-way. An edge type will be one of four styles that vary based on the adjoining land use. Any street may have different edge types if the land uses on either side of the street are different or if one side of the street is an element of the identified trail system. The standards for each street and edge type are identified in Sections 6.C. through 6.F. Note that collector street section widths may be increased when needed to manage higher traffic volumes. Internal site access ways are permitted subject to City review for adequate emergency and refuse collection access.

~~Section 7 provides the Block Standards for the Badger Mountain South community. When platting, the Block Standards in 7.C, will guide the determination of overall street grid while Section 6 identifies the right of way design.~~

~~Designated Primary (Pedestrian) Streets and Secondary (Side) Streets located within the BMS VMU Districts are identified in the Illustrative Neighborhood Plans 7.G and 7.J.~~

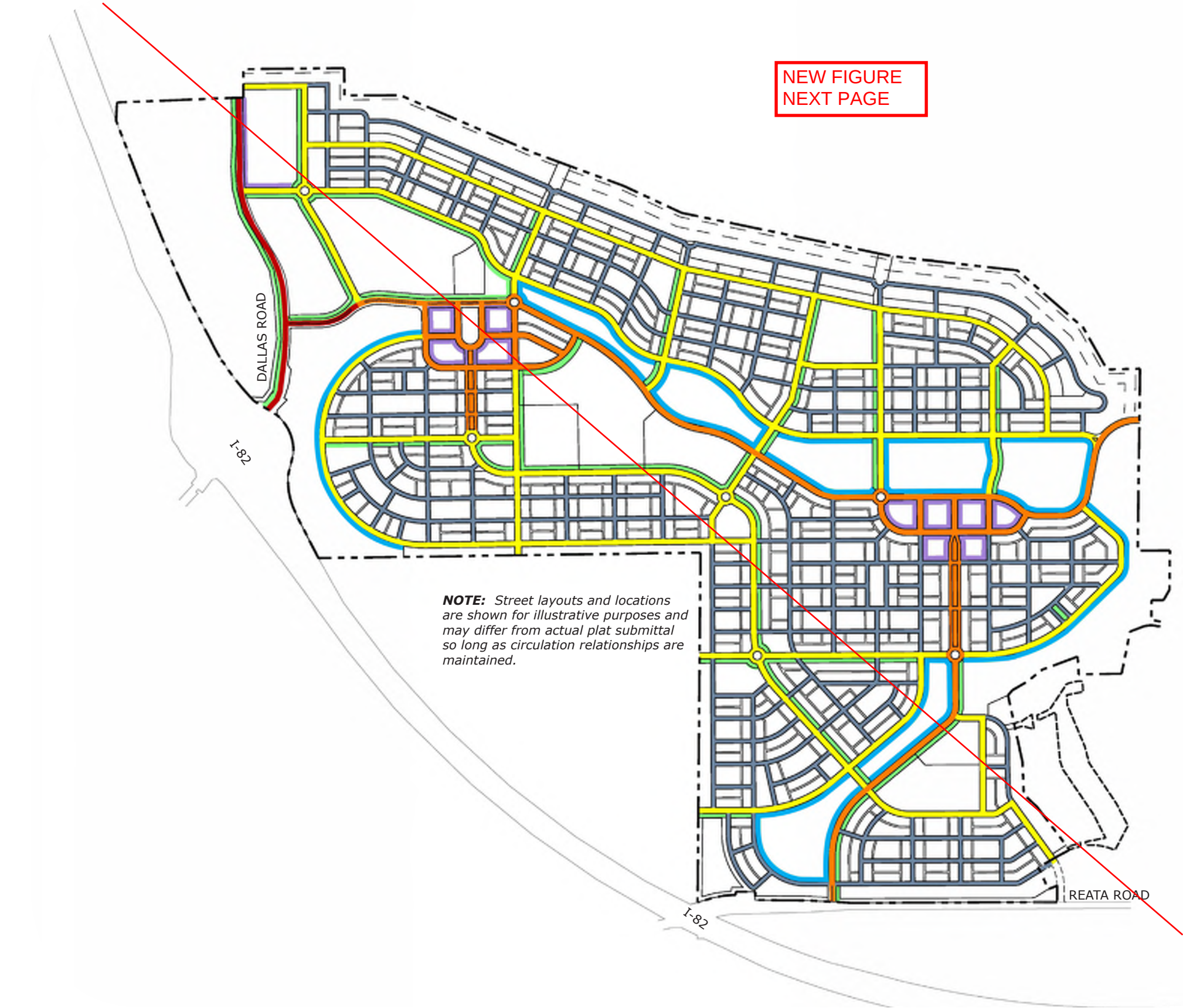
STREET LEGEND

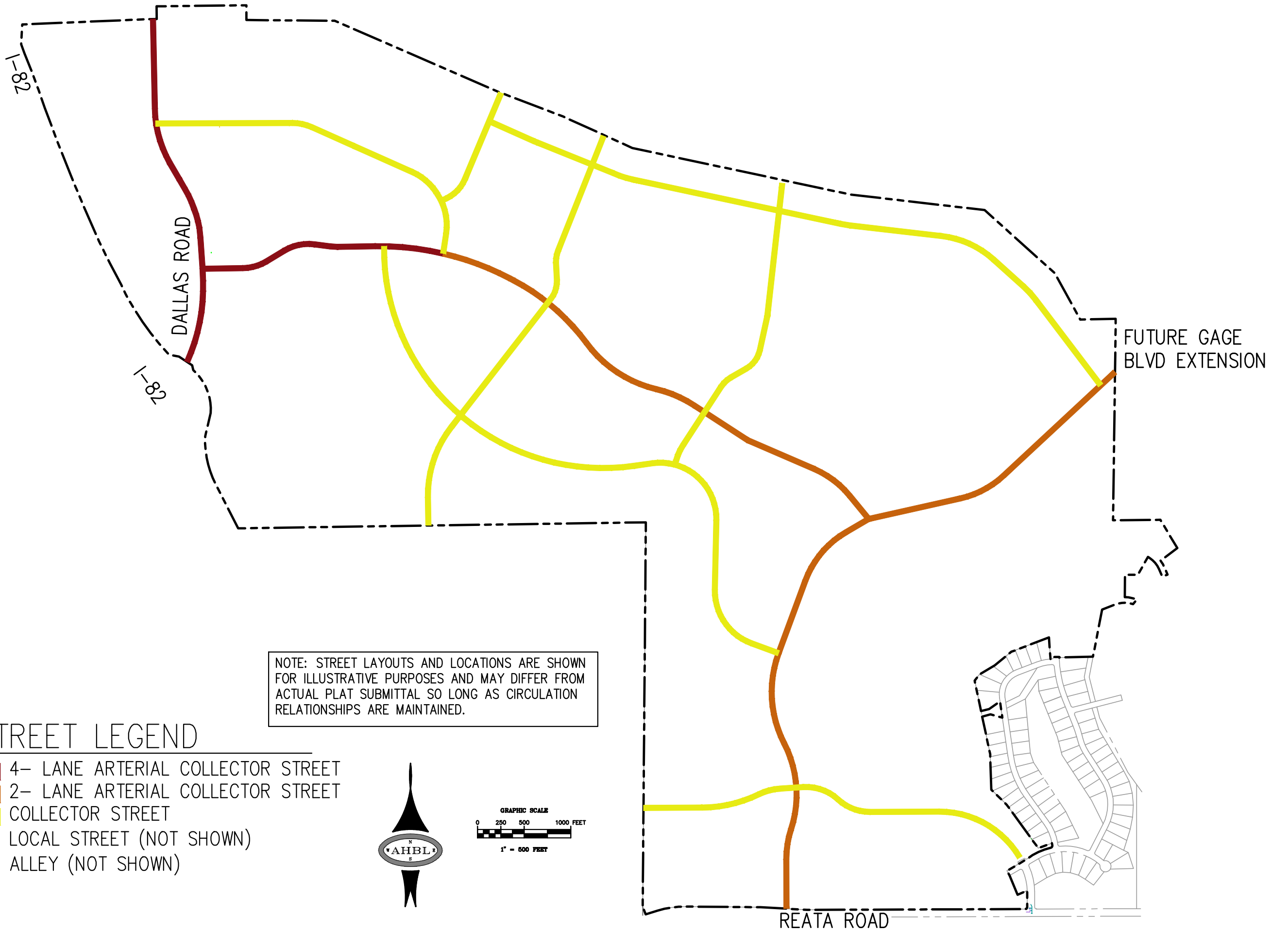
- 4-Lane Arterial Collector Street
- 2-Lane Arterial Collector Street
- Collector Street
- Local Street Not Shown
- Alley Not Shown

EDGE TYPE LEGEND

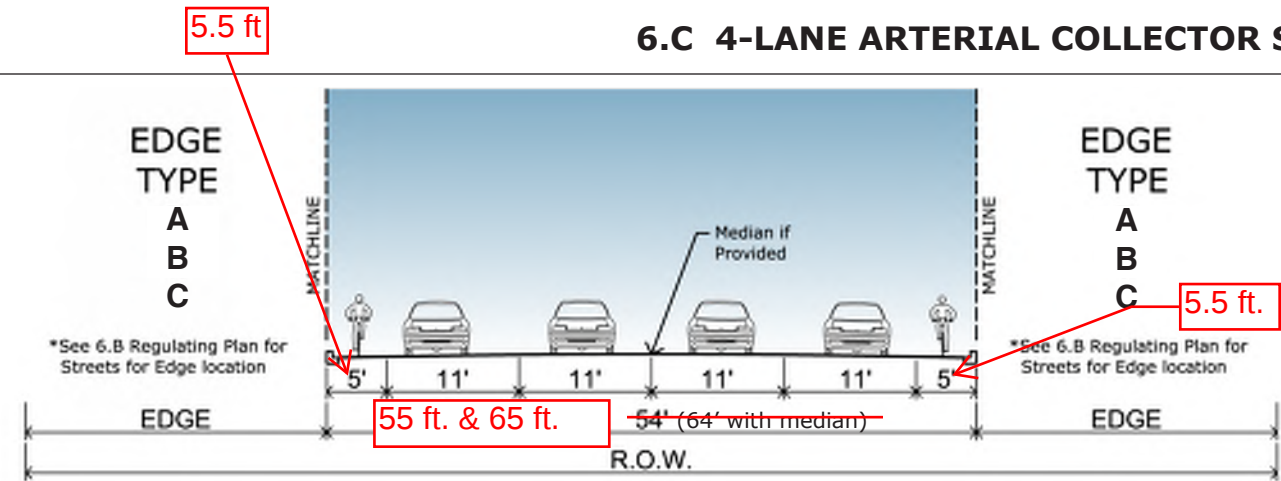
- EDGE TYPE A: Sidewalk
- EDGE TYPE B: Trail in adjacent open space or 8ft. non-meandering Trail adjacent to developed lot.
- EDGE TYPE C: Urban
- EDGE TYPE D: Greenway Park Edge

6.B REGULATING PLAN FOR STREETS

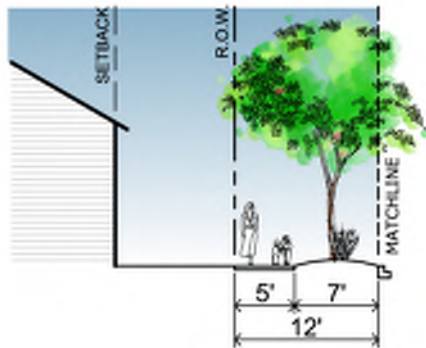




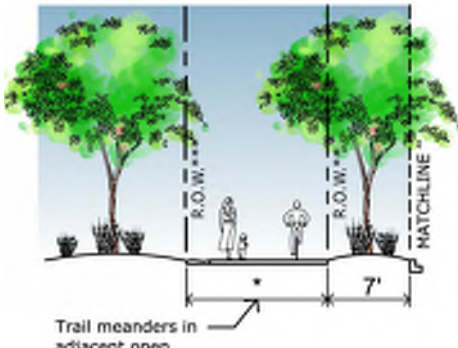
6.C 4-LANE ARTERIAL COLLECTOR STREET



KEY	
	See 6.B Regulating Plan For Streets
APPLICATION	
Thoroughfare Type	4-Lane Arterial Collector
Design Speed	35 mph
Posted Speed	35 mph
Pedestrian Crossing Time	14.3 Sec.
OVERALL WIDTHS	
Pavement Width	54 ft.
Total R.O.W.	Edge + 54 ft.(+median, if provided)+ Edge
See totals by Edge Type below	
LANES	
Traffic	11 ft.
Bicycle	5 ft.
Parking	None
Median (Where shown on 6.B)	add 10 ft.
INTERSECTIONS	
Curb Radius	20 ft. Typ.

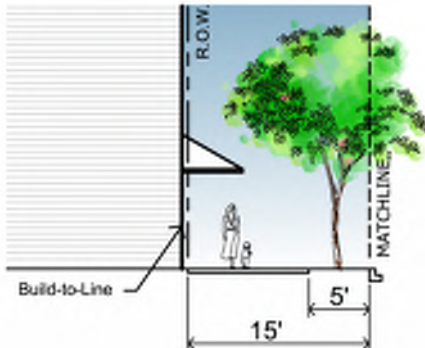


EDGE TYPE A



EDGE TYPE B

* See Illustrative Plan for Trail Layout and Trail Types, 5.K
** ROW adjacent to 7' planter when ROW abuts green space.
*** ROW includes trail and 20' planter when adjacent to building lot.



EDGE TYPE C

*Unless otherwise dictated by site constraints

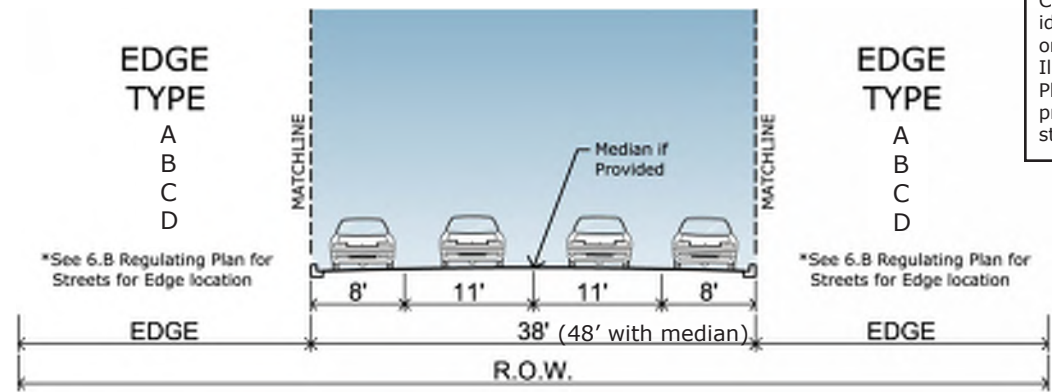
KEY	
	See 6.B Regulating Plan For Streets
EDGES	
Curb Type	Curb
Planter Type	7 ft. Continuous
Landscape Type	Medium Trees @ 30 ft. O.C. Average
Walkway Type	5 ft. Sidewalks
Frontage Type	Residential Dwelling Units
1/2 R.O.W.	28 ft.
R.O.W. - Edge 'A' Both Sides	56 ft.
R.O.W. - Edge 'A' + Edge 'B'	51 ft.

KEY	
	See 6.B Regulating Plan For Streets
EDGES	
Curb Type	Curb
Planter Type	7 ft. continuous when adjacent to green space and 20 ft. continuous when adjacent to building lot; May also utilize planter beds or tree grates along Urban Trail or Plaza frontages
Landscape Type	Tree and Spacing Varies
Walkway Type	Meandering Trail in adjacent open space type, or, 8 ft Trail when 20 ft Greenbelt Condition applies
Frontage Type	Greenbelt or Open Space
** / ***	
1/2 R.O.W.	26 / 51 ft.
R.O.W. - Edge 'B' Both Sides	52 / 102 ft.
R.O.W. - Edge 'B' + Edge 'A'	57 / 82 ft.
R.O.W. - Edge 'B' + Edge 'C'	60 / 85 ft.

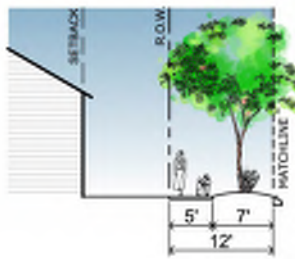
KEY	
	See 6.B Regulating Plan For Streets
EDGES	
Curb Type	Curb
Planter Type	5 ft. Tree Grate
Landscape Type	Small/Medium Trees @ 25 ft. O.C. Average
Walkway Type	15 ft. Sidewalks
Frontage Type	Commercial / Multi-family Residential
1/2 R.O.W.	42 ft.
R.O.W. - Edge 'C' Both Sides	84 ft.
R.O.W. - Edge 'C' + Edge 'B'	76 ft.

1/2 R.O.W.	42 ft.
R.O.W. - Edge 'C' Both Sides	84 ft.
R.O.W. - Edge 'C' + Edge 'B'	76 ft.

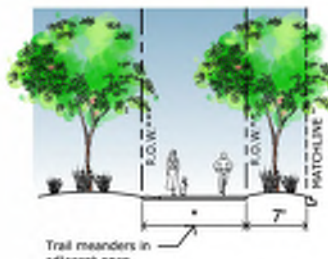
6.D 2-LANE ARTERIAL COLLECTOR STREET



KEY	
	See 6.B Regulating Plan For Streets
APPLICATION	
Thoroughfare Type	2-Lane Arterial Collector
Design Speed	35 mph
Posted Speed	25 mph
Pedestrian Crossing Time	6.3 Sec.
OVERALL WIDTHS	
Pavement Width	38 ft.
Total R.O.W.	Edge + 38 ft.(+median, if provided)+ Edge
See totals by Edge Type below	
LANES	
Traffic	11 ft.
Parking	8 ft.
Median	(Where shown on 6.B) add 10 ft.
Greenbelt Median (5.H)	(See 5.B for locations) add 60 ft.
INTERSECTIONS	
Curb Radius	20 ft. Typ.

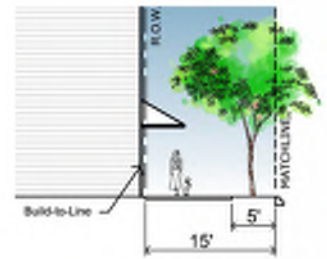


EDGE TYPE A



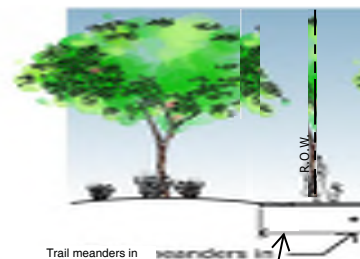
EDGE TYPE B

* See Illustrative Plan for Trail Layout and Trail Types, 5.K
** ROW adjacent to 7' planter when ROW abuts green space.
*** ROW includes trail and 20' planter when adjacent to building lot.



EDGE TYPE C

*Unless otherwise dictated by site constraints



EDGE TYPE D

KEY	
	See 6.B Regulating Plan For Streets
EDGES	
Curb Type	Curb
Planter Type	7 ft. Continuous
Landscape Type	Medium Trees @ 30 ft. O.C. Average
Walkway Type	5 ft. Sidewalks
Frontage Type	Residential Dwelling Units
1/2 R.O.W.	31 ft.
R.O.W. - Edge 'A' Both Sides	62 ft.
R.O.W. - Edge 'A' + Edge 'B'	57 ft.
R.O.W. - Edge 'A' + Edge 'C'	65 ft.

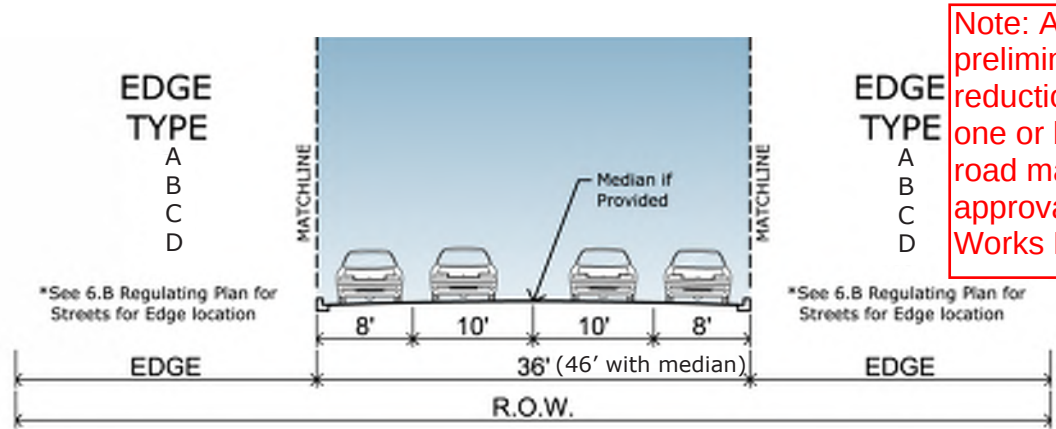
KEY	
	See 6.B Regulating Plan For Streets
EDGES	
Curb Type	Curb
Planter Type	7 ft. continuous when adjacent to green space and 20 ft. continuous when adjacent to building lot; May also utilize planter beds or tree grates along Urban Trail or Plaza frontages
Landscape Type	Tree and Spacing Varies
Walkway Type	Meandering Trail in adjacent open space type, or, 8 ft Trail when 20 ft Greenbelt Condition applies
Frontage Type	Greenbelt or Open Space
** / ***	
1/2 R.O.W.	26 / 51 ft.
R.O.W. - Edge 'B' Both Sides	52 / 102 ft.
R.O.W. - Edge 'B' + Edge 'A'	57 / 82 ft.
R.O.W. - Edge 'B' + Edge 'C'	60 / 85 ft.

KEY	
	See 6.B Regulating Plan For Streets
EDGES	
Curb Type	Curb
Planter Type	5 ft. Tree Grate
Landscape Type	Small/Medium Trees @ 25 ft. O.C. Average.
Walkway Type	15 ft. Sidewalks
Frontage Type	Commercial / Multi-family Residential
1/2 R.O.W.	34 ft.
R.O.W. - Edge 'C' Both Sides	68 ft.
R.O.W. - Edge 'C' + Edge 'A'	65 ft.
R.O.W. - Edge 'C' + Edge 'B'	60 ft.

KEY	
	See 6.B Regulating Plan For Streets
EDGES	
Curb Type	Curb
Planter Type	Irregular spaced groupings of plant materials
Landscape Type	Primarily evergreen trees and other plantings
Walkway Type	Meandering Trail in adjacent Greenway Park
Frontage Type	Open Space
1/2 R.O.W.	19 ft.
R.O.W. - Edge 'D' + Edge 'A'	50 ft.
R.O.W. - Edge 'D' + Edge 'B'	70 ft.

Note: In BMS-VMU Districts, 2-Lane Arterial Collector Streets are identified as either Primary or Secondary. Refer to Illustrative Neighborhood Plans 7.G and 7.J for proposed locations of these street designations.

6.E COLLECTOR STREET

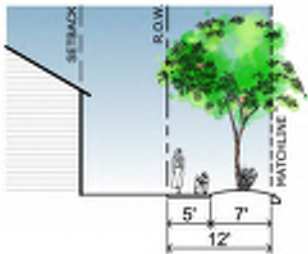


Note: At time of preliminary plat, a reduction of parking from one or both sides of a road may be allowed with approval from the Public Works Director.

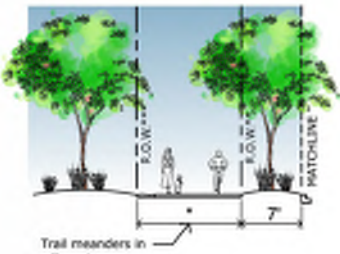
KEY	
	See 6.B Regulating Plan For Streets
APPLICATION	
Thoroughfare Type	Neighborhood Collector
Design Speed	35 mph
Posted Speed	25 mph
Pedestrian Crossing Time	5.7 Sec.
OVERALL WIDTHS	
Pavement Width	36 ft.
Total R.O.W.	Edge + 36 ft.(+median, if provided)+ Edge
See totals by Edge Type below	

LANES	
Traffic	10 ft.
Parking	8 ft.
Median (Where shown on 6.B)	add 10 ft.
INTERSECTIONS	
Curb Radius	20 ft. Typ.

20' minimum



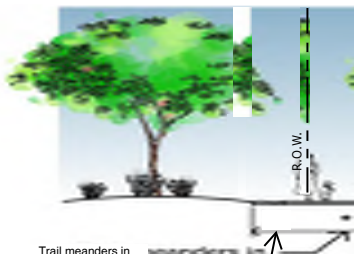
EDGE TYPE A



EDGE TYPE B



EDGE TYPE C



EDGE TYPE D

*Unless otherwise dictated by site constraints

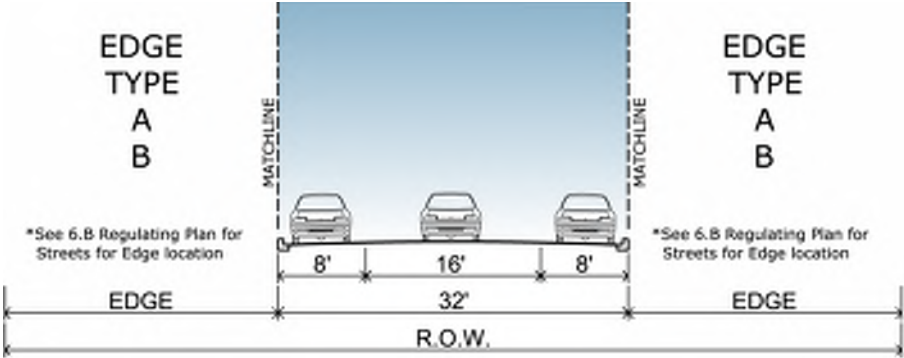
KEY	
	See 6.B Regulating Plan For Streets
EDGES	
Curb Type	Curb
Planter Type	7 ft. Continuous
Landscape Type	Medium Trees @ 30 ft. O.C. Average
Walkway Type	5 ft. Sidewalks
Frontage Type	Residential Dwelling Units
1/2 R.O.W.	31 ft.
R.O.W. - Edge 'A' Both Sides	62 ft.
R.O.W. - Edge 'A' + Edge 'B'	57 ft.
R.O.W. - Edge 'A' + Edge 'C'	65 ft.

KEY	
	See 6.B Regulating Plan For Streets
EDGES	
Curb Type	Curb
Planter Type	7 ft. continuous when adjacent to green space and 20 ft. continuous when adjacent to building lot; May also utilize planter beds or tree grates along Urban Trail or Plaza frontages
Landscape Type	Tree and Spacing Varies
Walkway Type	Meandering Trail in adjacent open space type, or, 8 ft Trail when 20 ft Greenbelt Condition applies
Frontage Type	Greenbelt or Open Space
1/2 R.O.W.	26 / 51 ft.
R.O.W. - Edge 'B' Both Sides	52 / 102 ft.
R.O.W. - Edge 'B' + Edge 'A'	57 / 82 ft.
R.O.W. - Edge 'B' + Edge 'C'	60 / 85 ft.

60 ft.

6.F 16 FT. LOCAL STREET

Note: At time of preliminary plat, a reduction to a 12 ft. pavement width per 6.F.1 ALTERNATE, may be allowed with approval by the City of Richland Public Works Director, subject to such conditions as are deemed necessary to provide a safe transition between pavement widths and to provide safe and adequate intersection turning movements.

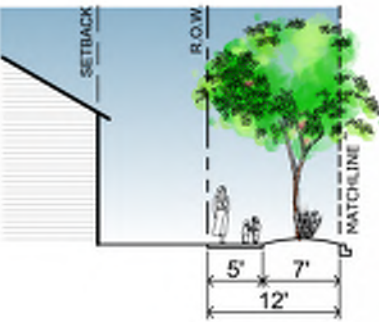


KEY	
	See 6.B Regulating Plan For Streets
APPLICATION	
Thoroughfare Type	Neighborhood
Design Speed	25 mph
Posted Speed	25 mph
Pedestrian Crossing Time	3.4 Sec.
OVERALL WIDTHS	
Pavement Width	32 ft.
Total R.O.W.	Edge + 32 ft. + Edge
See totals by Edge Type below	

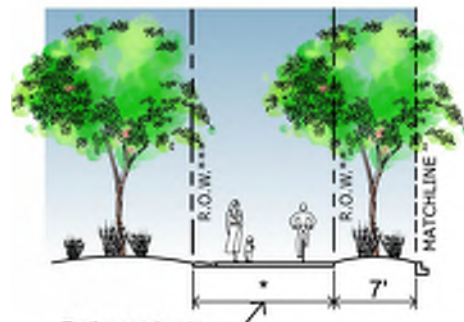
LANES	
Traffic	10 ft.
Parking	8 ft.
Median	None

INTERSECTIONS	
Curb Radius	20 ft. Typ.

20' minimum



EDGE TYPE A

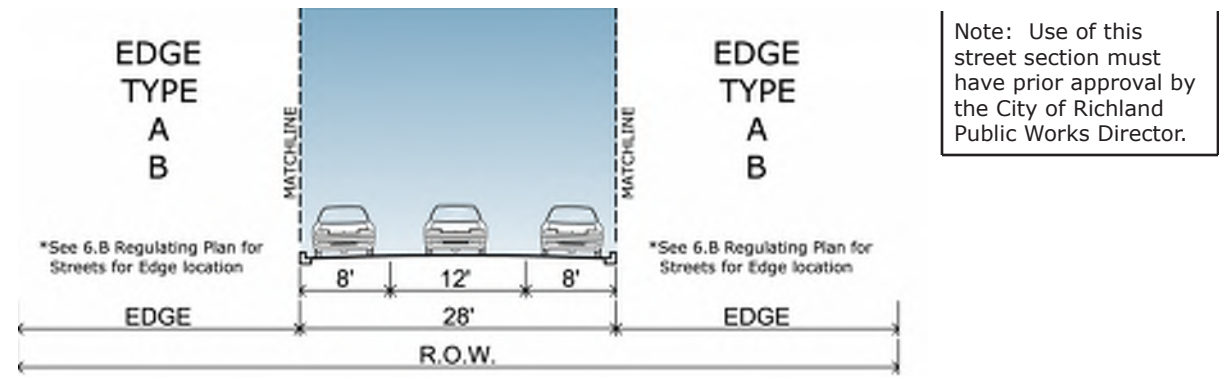


EDGE TYPE B

KEY	
	See 6.B Regulating Plan For Streets
EDGES	
Curb Type	Curb
Planter Type	7 ft. Continuous
Landscape Type	Medium Trees @ 30 ft. O.C. Average
Walkway Type	5 ft. Sidewalks
Frontage Type	Residential Dwelling Units
1/2 R.O.W.	28 ft.
R.O.W. - Edge 'A' Both Sides	56 ft.
R.O.W. - Edge 'A' + Edge 'B'	51 ft.

KEY	
	See 6.B Regulating Plan For Streets
EDGES	
Curb Type	Curb
Planter Type	7 ft. continuous when adjacent to green space and 20 ft. continuous when adjacent to building lot; May also utilize planter beds or tree grates along Urban Trail or Plaza frontages
Landscape Type	Tree and Spacing Varies
Walkway Type	Meandering Trail in adjacent open space type, or, 8 ft Trail when 20 ft Greenbelt Condition applies
Frontage Type	Greenbelt or Open Space
1/2 R.O.W.	26 / 51 ft.
R.O.W. - Edge 'B' Both Sides	52 / 102 ft.
R.O.W. - Edge 'B' + Edge 'A'	57 / 82 ft.
R.O.W. - Edge 'B' + Edge 'C'	60 / 85 ft.

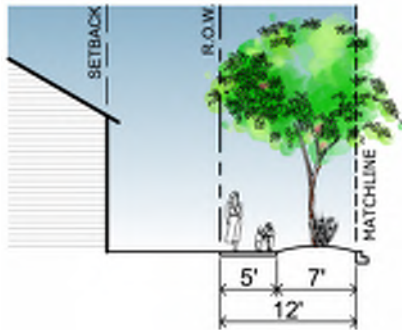
6.F.1 ALTERNATE - 12FT. LOCAL STREET



KEY	
	See 6.B Regulating Plan For Streets
APPLICATION	
Thoroughfare Type	Neighborhood
Design Speed	25 mph
Posted Speed	25 mph
Pedestrian Crossing Time	3.4 Sec.
OVERALL WIDTHS	
Pavement Width	28 ft.
Total R.O.W.	Edge + 28 ft. + Edge
See totals by Edge Type below	

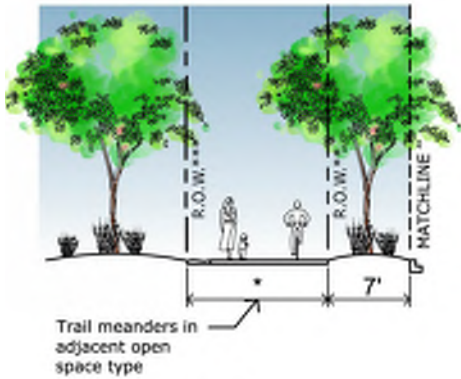
LANES	
Traffic	10 ft.
Parking	8 ft.
Median	None

INTERSECTIONS	
Curb Radius	20 ft. Typ.



EDGE TYPE A

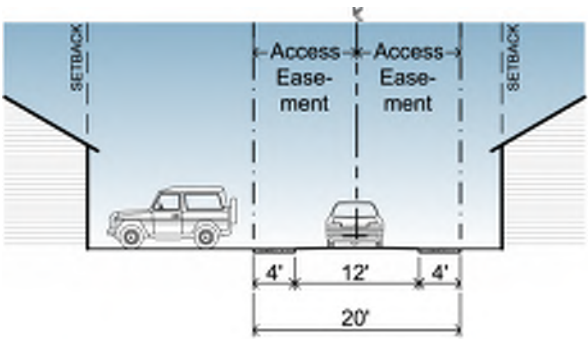
KEY	
	See 6.B Regulating Plan For Streets
EDGES	
Curb Type	Curb
Planter Type	7 ft. Continuous
Landscape Type	Medium Trees @ 30 ft. O.C. Average.
Walkway Type	5 ft. Sidewalks
Frontage Type	Residential Dwelling Units
1/2 R.O.W.	26 ft.
R.O.W. - Edge 'A' Both Sides	52 ft.
R.O.W. - Edge 'A' + Edge 'B'	47 ft.



EDGE TYPE B

KEY	
	See 6.B Regulating Plan For Streets
EDGES	
Curb Type	Curb
Planter Type	7 ft. continuous when adjacent to green space and 20 ft. continuous when adjacent to building lot; May also utilize planter beds or tree grates along Urban Trail or Plaza frontages
Landscape Type	Tree and Spacing Varies
Walkway Type	Meandering Trail in adjacent open space type, or, 8 ft Trail when 20 ft Greenbelt Condition applies
Frontage Type	Greenbelt or Open Space
** / ***	
1/2 R.O.W.	26 / 51 ft.
R.O.W. - Edge 'B' Both Sides	52 / 102 ft.
R.O.W. - Edge 'B' + Edge 'A'	57 / 82 ft.
R.O.W. - Edge 'B' + Edge 'C'	60 / 85 ft.

6.G REAR ALLEY



KEY	
	See 6.B Regulating Plan For Streets
APPLICATION	
Thoroughfare Type	Alley
Movement Type	Yield
Design Speed	10 mph
Posted Speed	10 mph
Pedestrian Crossing Time	3.4 Sec.

LANES	
Traffic	12 ft.
Parking	None
Median	None
Ownership	Private

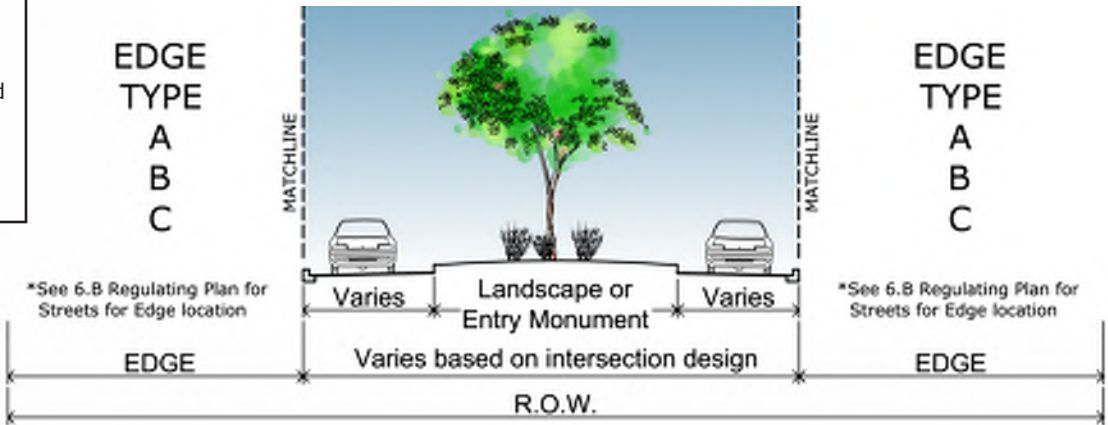
INTERSECTIONS	
Curb Radius	20 ft. Typ.

ACCESS EASEMENT	
From Rear Yard Property Line	10 ft.

OVERALL WIDTHS	
Pavement Width	12 ft.
Shoulder Width	4 ft.
Total Width	20 ft.

6.H ROUNDABOUT

Note:
Roundabouts
are allowed at
intersections and
will be built per
City of Richland
Public Works
Standards.



KEY

○ See 6.B Regulating Plan For Streets

APPLICATION

Thoroughfare Type	Yielding roundabout
Design Speed	25 mph
Posted Speed	25 mph
Pedestrian Crossing Time	Varies based on location

OVERALL WIDTHS

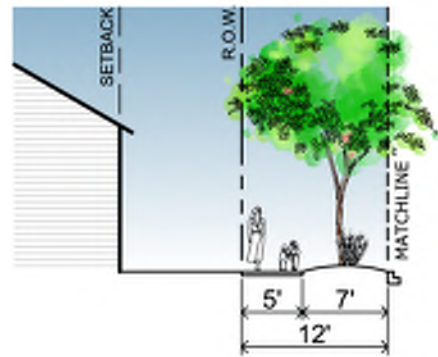
Pavement Width	Varies
----------------	--------

LANES

Traffic	Varies based on intersection design
---------	-------------------------------------

INTERSECTIONS

Curb Radius	Varies based on intersection design
-------------	-------------------------------------



EDGE TYPE A

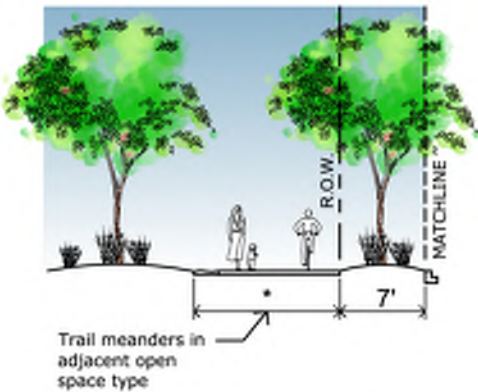
KEY

	See 6.B Regulating Plan For Streets
--	-------------------------------------

EDGES

Curb Type	Curb
Planter Type	7 ft. Continuous
Landscape Type	Medium Trees @ 30 ft. O.C. Average
Walkway Type	5 ft. Sidewalks
Frontage Type	Residential Dwelling Units

1/2 R.O.W.	Varies
R.O.W. - Edge 'A' Both Sides	Varies
R.O.W. - Edge 'A' + Edge 'B'	Varies
R.O.W. - Edge 'A' + Edge 'C'	Varies



EDGE TYPE B

*See Illustrative Plan For Trail Layout and Trail Types, 5.K

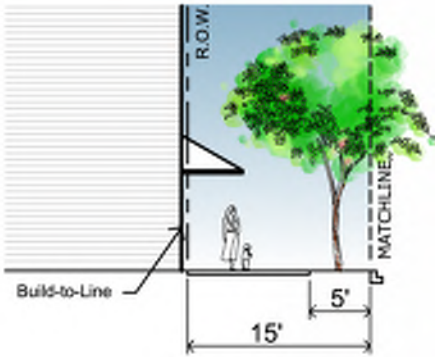
KEY

	See 6.B Regulating Plan For Streets
--	-------------------------------------

EDGES

Curb Type	Curb
Planter Type	7 ft. Continuous
Landscape Type	Tree and Spacing Varies
Walkway Type	Meandering Trail in adjacent open space
Frontage Type	Greenbelt or Open Space

1/2 R.O.W.	Varies
R.O.W. - Edge 'B' Both Sides	Varies
R.O.W. - Edge 'B' + Edge 'A'	Varies
R.O.W. - Edge 'B' + Edge 'C'	Varies



EDGE TYPE C

KEY

	See 6.B Regulating Plan For Streets
--	-------------------------------------

EDGES

Curb Type	Curb
Planter Type	5 ft. Tree Grate
Landscape Type	Small/Medium Trees @ 25 ft. O.C. Average
Walkway Type	15 ft. Sidewalks
Frontage Type	Commercial / Multi-family Residential

1/2 R.O.W.	Varies
R.O.W. - Edge 'C' Both Sides	Varies
R.O.W. - Edge 'C' + Edge 'A'	Varies
R.O.W. - Edge 'C' + Edge 'B'	Varies



**BLOCK STANDARDS
AND
PROJECT TARGETS**

7

Section 7 establishes the framework for creating the pedestrian-scaled, walkable community of Badger Mountain South by outlining the process for using Block Standards to subdivide land. Illustrative Neighborhood Plans and density targets are provided to ensure that community goals are met.

7.A	Introduction	7-2
7.B	Process for Subdividing Land	7-2
7.C	Block Standards	7-3
7.D	Block Open Space Standards.....	7-3
7.E	Project Density and Open Space Targets.....	7-4
7.F	Illustrative Neighborhood Master Plan.....	7-4
7.G	Illustrative West Village Plan.....	7-5
7.H	Illustrative West Vineyard Plan/ Targets.....	7-6
7.I	Illustrative East Garden Plan/ Targets.....	7-7
7.J	Illustrative East Market Plan/ Targets.....	7-8
7.K	Illustrative South Orchard Plan/ Targets.....	7-9

7.A INTRODUCTION

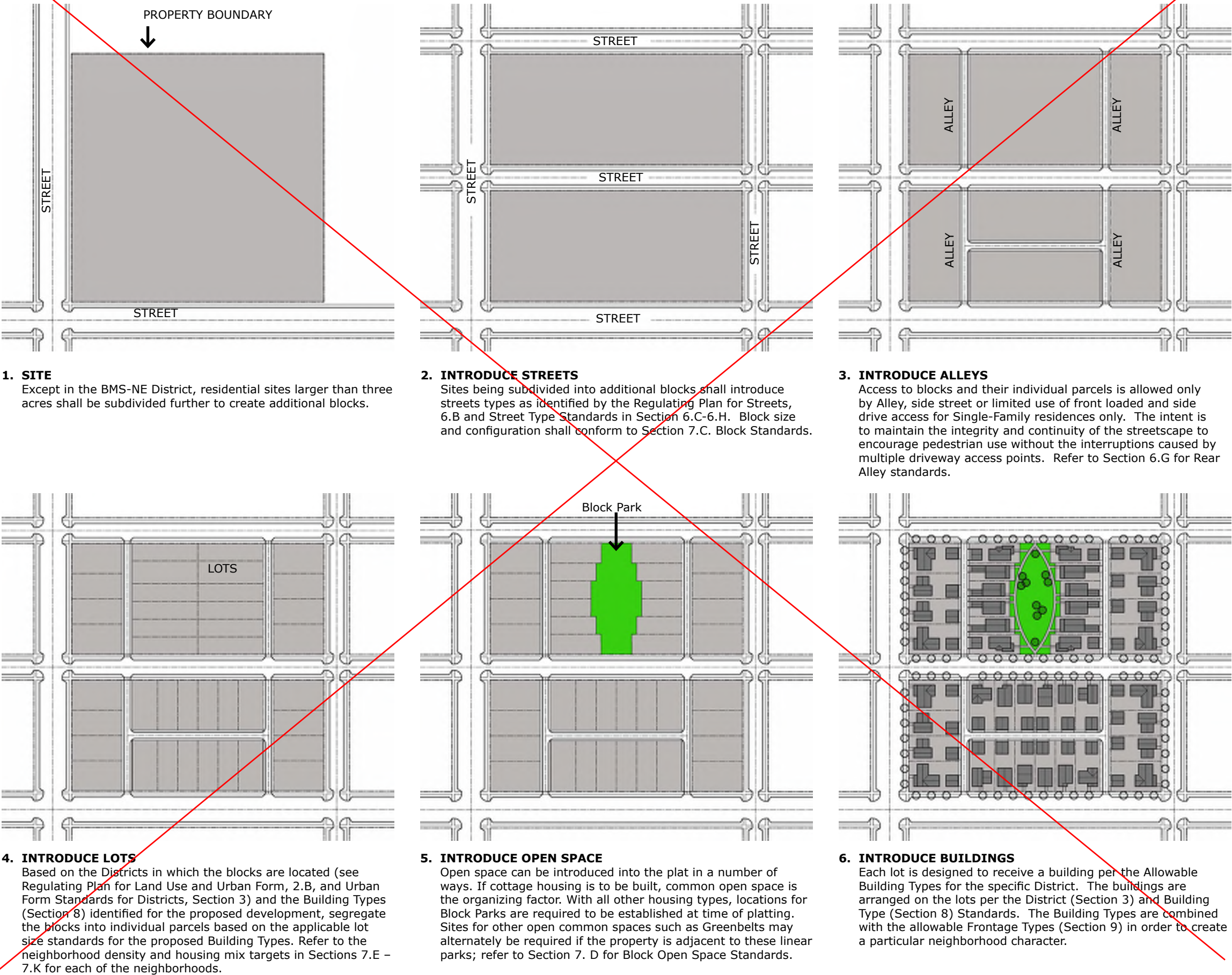
Section 7 provides the standards to follow when subdividing property in Badger Mountain South. These standards are intended to create an urban infrastructure of ~~small~~, walkable blocks interspersed with parks and open space within a traditional neighborhood street grid. These elements of the block standards are important components of creating a walkable and sustainable community in Badger Mountain South.

The actual platting and subdivision process begins with a pre-application meeting with the MPA and then follows the City of Richland process as described in RMC Title 24; these steps are illustrated in Section 1.J Submittal Review Process.

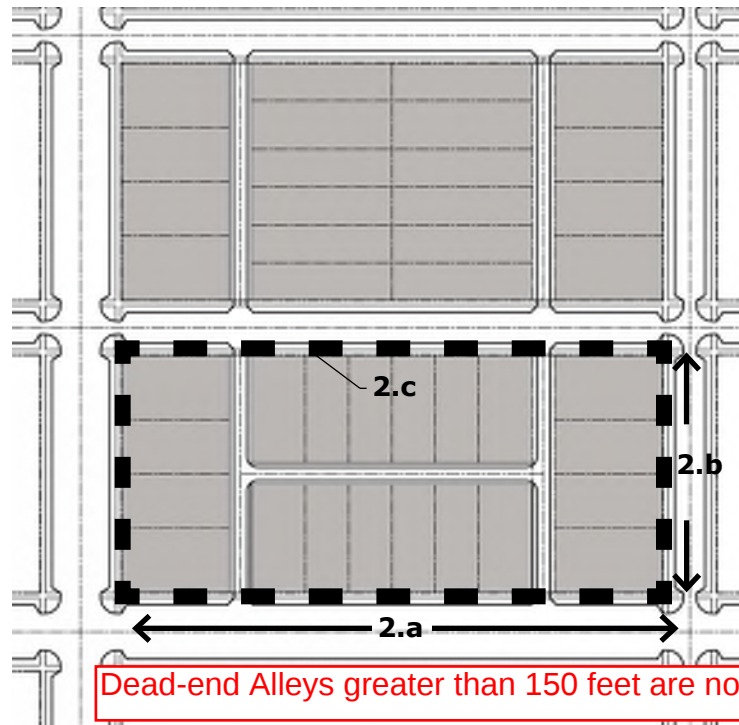
When creating a residential subdivision, it is important to understand the Building Type intended to be constructed as well as the District in which the properties is found. Both the District and the Building Types establish particular standards that will influence the lot sizes created during the platting process. District standards are identified in Section 3, Urban Form Standards by District, and Building Type standards are identified in Section 8, Building Type Standards.

Badger Mountain South has also established density and open space targets for each of the five residential neighborhoods; these are discussed in Sections ~~7.E~~ ~~7.K~~. These targets are set to ensure that the community can meet its intended goals of diversity in housing types and prices, and provide opportunities for the establishment of intergenerational neighborhoods as reflected in the diversity of housing built here. The density and open space targets are monitored by the City of Richland Development Services Department during plat and subdivision review.

7.B PROCESS FOR SUBDIVIDING LAND



7.C BLOCK STANDARDS



Block Diagram

1. INTENT

The layout of an interconnected street network composed of small blocks are a crucial component to creating a walkable community. The intent of these standards is to create a pedestrian environment that has limited interruptions from vehicles, and allows for maximum connectivity to the surrounding neighborhood areas and amenities.

2. BLOCK DIMENSIONS

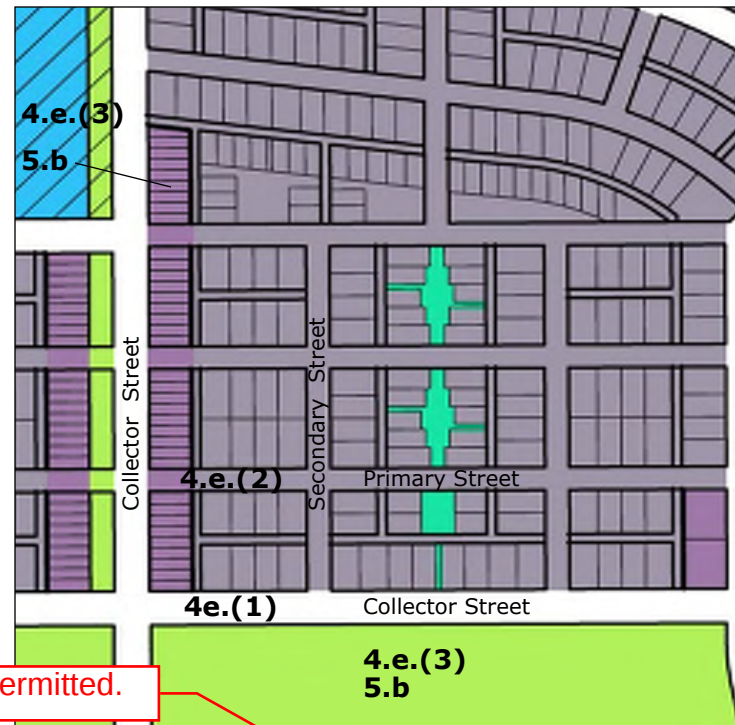
- a. Length: 1,000 650 ft., maximum *
- b. Depth: 350 ft., maximum
- c. Perimeter: 2000 ft., maximum
- d. Irregular Shaped Blocks: apply perimeter standard.

3. STREET NETWORK

- a. A simple grid street and block network is preferred.
- b. The street and block network is not required to be orthogonal in response to site features and/or topographical constraints, however streets are required to be interconnected.
- c. Neighborhoods are further organized into Neighborhood Sectors to help ensure that density, Parks and Block Open Spaces are well distributed throughout the neighborhoods. The street network shall connect Neighborhood Sector to Sector, as well as between neighborhoods.
- d. Street stubs are required when adjacent sites are vacant.
- e. Cul-de-sacs are prohibited.
- f. All buildings must face a street, or shared open space.

4. ALLEYS / STREET ACCESS

- a. In order to maintain a pedestrian environment with limited interruptions from cars, Alleys are the preferred method of access to lots.
- b. Alleys are required to be used in the following Districts:
 - (1) Village Mixed-Use (BMS-VMU), except for Commercial/ Mixed-Use / Liner Building Type which may utilize the entire block.
 - (2) Neighborhood Collector (BMS-NC), except for commercial sites with Neighborhood Goods and Services Building Type.



Typical Blocks with Alleys and Limited Blocks with Street Access Only

- c. Alleys are required in the Neighborhood General District (BMS-NG) for lots less than 50 ft. in width.
- d. No dead-end Alleys are permitted.
- e. Blocks with direct street access lots (i.e. without Alleys) are to be limited in use per the following criteria:
 - (1) Direct street access lots are permitted onto a Collector Street when they are (i) located in the BMS-NE District; (ii) when they are in the BMS-NG District and are located along the perimeter of the BMS project boundary; or (iii) when they are located in the BMS-NG District where that district abuts the BMS-NE District.
 - (2) In order to maintain a pedestrian environment with limited interruptions from cars on at least one side of the street, no two blocks across a street may be street accessed, except in the BMS-NE District. This standard shall not apply when one of the following conditions exist: when blocks are 325 ft. or less in length; or, when grade differences across blocks exceed 4 ft. provided that on blocks that exceed 325 ft., no two parallel streets may abut blocks that have street accessed lots on all block faces.
 - (3) Due to increased pedestrian traffic, street accessed blocks are not allowed across from Civic spaces.
 - (4) Access to individual parcels for Civic/Community/ Institutional Facilities or Commercial uses may be from a Collector Street if it is considered a Secondary Street.

5. BLOCK CONFIGURATION

- a. In order to create neighborhood diversity, a minimum number of Building Types per block are required as follows:

Refer to Section 2.D for all of the Building Types that are allowed in each District.

 - (1) Village Mixed-Use (BMS-VMU): 2 Types/Block
 - (2) Neighborhood Collector (BMS-NC): 2 Types/Block
 - (3) Neighborhood General (BMS-NG): 2 Types/Block
- b. Blocks adjacent to the Civic District (BMS-CIVIC) are required to have lots fronting onto the Civic space.
- c. Introduce required Block Open Space per 7.D.

e. Cul de sacs are discouraged but will be allowed where necessary due to site constraints or to enhance the walkable community by limiting vehicle access.

7.D BLOCK OPEN SPACE STANDARDS



Example: Block Park transition between Districts/ Mid-Block Parks

1. INTENT

Block Open Space shall be provided through the introduction of the Block Park. Block Parks are a type of shared community space that provides small-scale gathering places for the immediate neighbors; they are intended to be provided throughout each neighborhood as identified below. The shared courtyard of a Cottage Court development shall be considered a Block Open Space and shall only be required to meet the standards found in Section 8.M.

2. BLOCK OPEN SPACE DIMENSIONS

- a. Width: 50 ft., minimum *

* Width is allowed to narrow to 15 ft. minimum to create a sense of enclosure or entry from street or to provide a linear Block Park experience.
- b. Irregular Shaped Blocks: apply average width.
- c. Size: Varies, 5,000 SF minimum, 1 acre maximum.

3. BLOCK OPEN SPACE STANDARDS

- a. See Section 5.G for additional Block Park Standards.
- b. Refer to sections 7.G -7.K for Open Space Area Targets per Neighborhood.
- c. Block Open Spaces are required to be distributed throughout all of the Neighborhood Sectors. They shall be located such that no dwelling shall be more than 3 blocks away from any type of open space. The proximity to a Greenbelt or other major open space may be considered within the determination of meeting this standard.
- d. Block Open Spaces are open to the public and should be designed to be welcoming to all residents.
- e. In order to maximize visibility and security, it is preferred that lots front onto adjacent Block Parks but they may also adjoin a Block Park along a Sideyard setback or be located across the street from a Block Park.



Example: Corner Block Parks on irregular shaped blocks

4. BLOCK OPEN SPACE DESIGN GUIDELINES

- a. Maximize the use of Block Parks to provide a transition between Districts.
- b. Maximize the placement of Block Parks at terminated vistas of streets to maximize visibility of open space.
- c. Maximize connections between Block Parks, residences and neighborhood amenities.
- d. Mid-Block Block Parks can extend the entire depth of the block providing green connections through the neighborhood.
- e. Block Parks offer solutions for development of irregular shaped blocks.
- f. Block Parks open to the corner intersection maximizes the exposure of the open space and are desirable.

7.E PROJECT DENSITY AND OPEN SPACE TARGETS

The Badger Mountain South community is composed of five residential neighborhoods – West Vineyard, East Garden, West Village, East Market and South Orchard – and one commercial campus called Badger Mountain Station. These areas are shown in Section 7.F, Illustrative Neighborhood Master Plan.

Figure 7.F. is illustrative in that it portrays one way that the Badger Mountain South community could develop using the standards found in the LUDR. It shows the distribution of parks and open space in relation to the neighborhoods, the layout of streets and the areas designated for commercial and employment activity. However the exact configuration of lots within blocks and the local street locations could vary based on market or upon site conditions.

The LUDR is designed to have the flexibility to meet changing conditions, but with standards that result in a community with all the elements shown in this Illustrative Neighborhood Master Plan image.

Each residential neighborhood is organized by two Pedestrian Sheds and several Neighborhood Sectors. The "Pedestrian Shed" is a planning concept that is used to measure walkability within the neighborhood. The Pedestrian Shed represents a 5 minute walk in a quarter mile radius. The more diversity in types of activities within the area of a Pedestrian Shed means the more interesting the neighborhood will be to those who walk there.

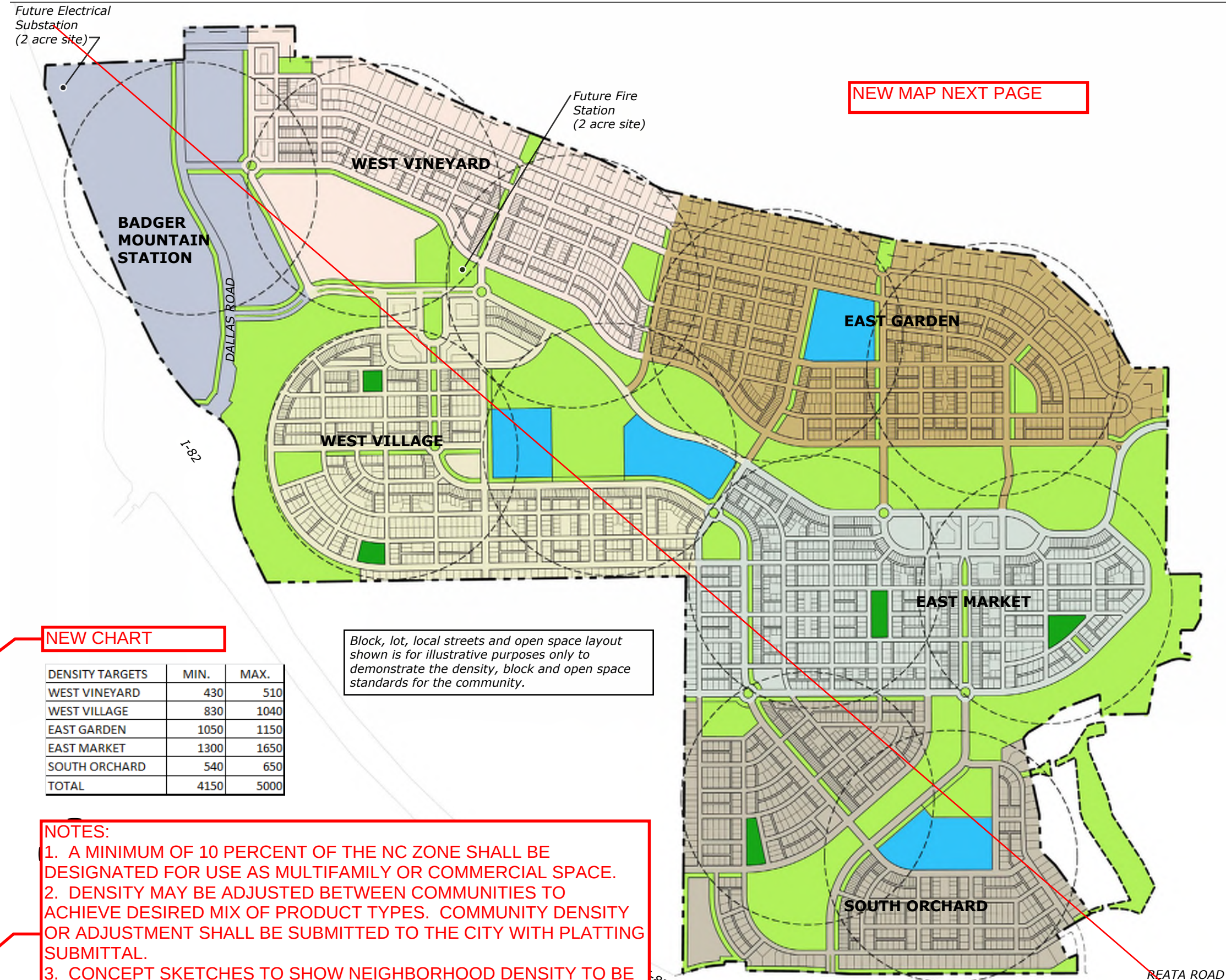
The Neighborhood Sectors are geographical boundaries based on the proposed street network. They are intended to assist with the geographic distribution of smaller-sized common open spaces and parks based on density, as well as on the location of larger common amenities such as the Greenway Parks. The Neighborhood Sectors are also used to help identify the targeted proportion of the overall community goal of 60 percent Single-family housing to 40 percent Multi-family housing.

~~The Neighborhood Sectors are not displayed in 7.F, Illustrative Neighborhood Master Plan, but are shown in the five illustrative Neighborhood Plans and Density/Open Space Targets beginning in Section 7.G and following through Section 7.K. These illustrative neighborhood plans are provided to give more detail about density targets and siting of common open space, but do not necessarily illustrate the lot and block configuration to be built.~~

A summary of the density targets for each of the residential neighborhoods is provided below. The targets are described as a minimum and a maximum number of units because each neighborhood contains Districts that allow for more than one Building Type. Since each Building Type can impact neighborhood density differently, density is provided as a range of numbers of units. Construction of a variety of Building Types provides the opportunity to create interesting and diverse neighborhoods while also offering the flexibility to adjust to market demands over the build-out of the community. This flexibility is an important component to creating a walkable and sustainable community. The density targets will be monitored by the City of Richland to ensure that project goals are met over time.

DENSITY TARGETS:		Min.	Max.
7.G	WEST VILLAGE	1,188 units	1,320 units
7.H	WEST VINEYARD	810 units	900 units
7.I	EAST GARDEN	783 units	870 units
7.J	EAST MARKET	1,035 units	1,150 units
7.K	SOUTH ORCHARD	684 units	760 units
TOTALS:		4,500 UNITS	5,000 UNITS

7.F ILLUSTRATIVE NEIGHBORHOOD ~~MASTER~~ PLAN



NEW CHART

DENSITY TARGETS	MIN.	MAX.
WEST VINEYARD	430	510
WEST VILLAGE	830	1040
EAST GARDEN	1050	1150
EAST MARKET	1300	1650
SOUTH ORCHARD	540	650
TOTAL	4150	5000

NOTES:

1. A MINIMUM OF 10 PERCENT OF THE NC ZONE SHALL BE DESIGNATED FOR USE AS MULTIFAMILY OR COMMERCIAL SPACE.
2. DENSITY MAY BE ADJUSTED BETWEEN COMMUNITIES TO ACHIEVE DESIRED MIX OF PRODUCT TYPES. COMMUNITY DENSITY OR ADJUSTMENT SHALL BE SUBMITTED TO THE CITY WITH PLATTING SUBMITTAL.
3. CONCEPT SKETCHES TO SHOW NEIGHBORHOOD DENSITY TO BE PROVIDED TO SHOW THAT PROPOSED DENSITY CAN BE ACHIEVED.
4. THE LOCATION OF ALL PARKS SHALL BE REVIEWED AS PART OF THE PLATTING PROCESS.

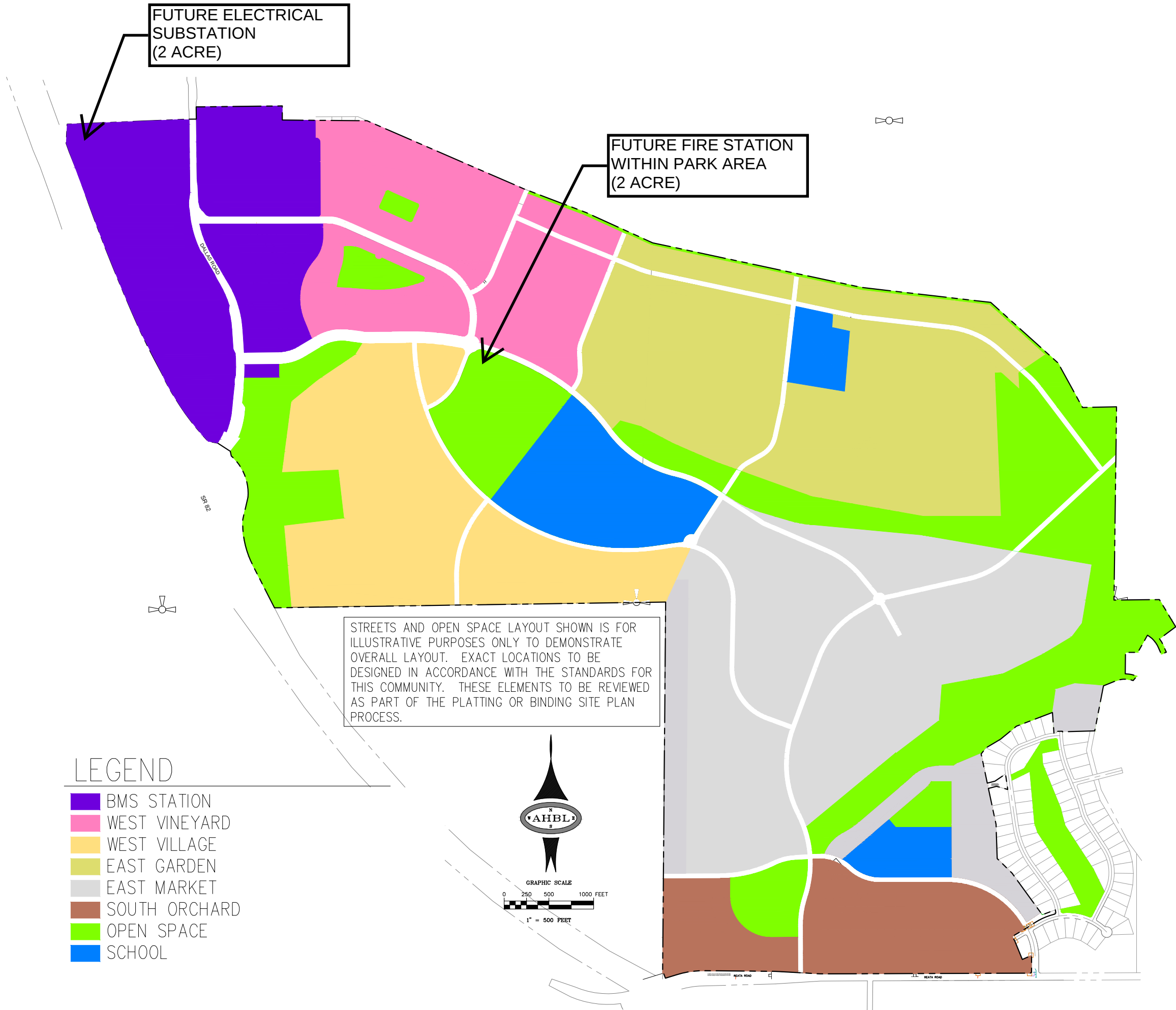
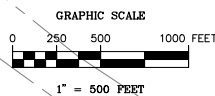
FUTURE ELECTRICAL
SUBSTATION
(2 ACRE)

FUTURE FIRE STATION
WITHIN PARK AREA
(2 ACRE)

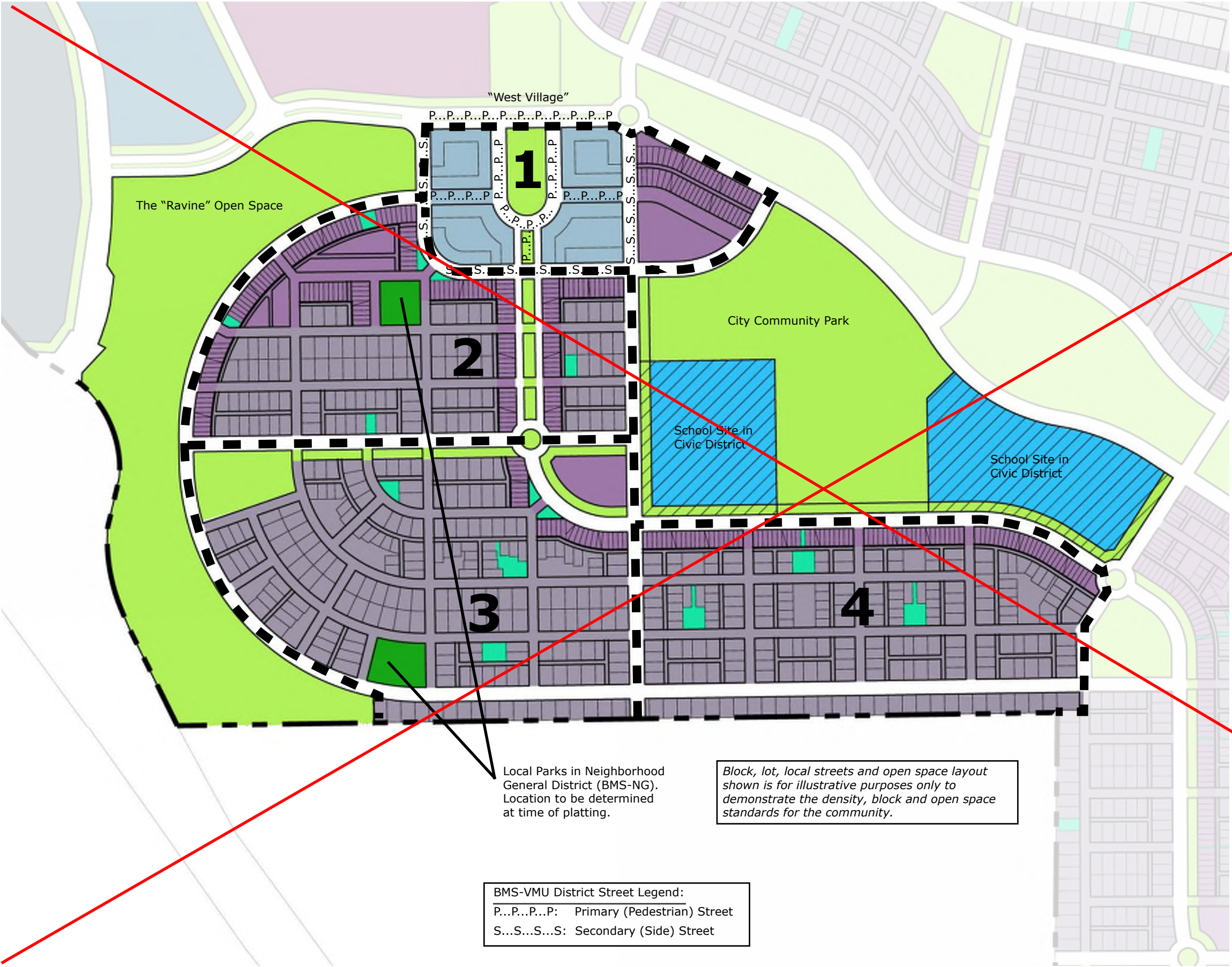
STREETS AND OPEN SPACE LAYOUT SHOWN IS FOR
ILLUSTRATIVE PURPOSES ONLY TO DEMONSTRATE
OVERALL LAYOUT. EXACT LOCATIONS TO BE
DESIGNED IN ACCORDANCE WITH THE STANDARDS FOR
THIS COMMUNITY. THESE ELEMENTS TO BE REVIEWED
AS PART OF THE PLATTING OR BINDING SITE PLAN
PROCESS.

LEGEND

- BMS STATION
- WEST VINEYARD
- WEST VILLAGE
- EAST GARDEN
- EAST MARKET
- SOUTH ORCHARD
- OPEN SPACE
- SCHOOL



7.G ILLUSTRATIVE WEST VILLAGE NEIGHBORHOOD PLAN / DENSITY AND OPEN SPACE TARGETS



1. NEIGHBORHOOD INTENT

The West Village neighborhood contains the West Village Mixed-Use commercial center, Village Green, 30 acre City Community Park and two potential school sites, as well as "The Ravine" Greenway Park. It has a large concentration of higher density Multi-family dwelling units located within the Village Mixed Use District (BMS-VMU) and in the Neighborhood Collector Districts (BMS-NC) providing a population to support the commercial activities of the neighborhood, future transit, as well as providing a range of affordable housing options.

In order to ensure that the density and Block Open Space are well distributed, the neighborhood is divided into Sectors. Neighborhood Sectors are typically bounded by Collector Streets and are identified on the plan by number and   

2. APPLICABLE DISTRICTS

The Neighborhood includes the following Urban Form Districts, refer to Section 3 for standards:

- a.  VILLAGE MIXED-USE (BMS-VMU) 3.B
- b.  NEIGHBORHOOD COLLECTOR (BMS-NC) 3.C
- c.  NEIGHBORHOOD GENERAL (BMS-NG) 3.D
- d.  CIVIC (BMS-CIVIC) 3.F

3. TARGET NEIGHBORHOOD DENSITY (Residential Units)

Development that occurs within each Neighborhood Sector should be within the following density targets:

- a. Sector 1: 293 Units Minimum 325 Units Maximum
- b. Sector 2: 378 Units Minimum 420 Units Maximum
- c. Sector 3: 243 Units Minimum 270 Units Maximum
- d. Sector 4: 274 Units Minimum 305 Units Maximum
- e. Total: 1,188 Units Minimum 1,320 Units Maximum

4. TARGET NEIGHBORHOOD HOUSING MIX

Development that occurs within each Neighborhood Sector should provide the following housing mix as allowed by District and selected Building Type Standards:

- a. Sector 1: 100% Multi-Family 0% Single-Family
- b. Sector 2: 68% Multi-Family 32% Single-Family
- c. Sector 3: 11% Multi-Family 89% Single-Family
- d. Sector 4: 28% Multi-Family 72% Single-Family
- e. Total: 55% Multi-Family 45% Single-Family

5. OPEN SPACE AREA TARGETS

The following open space is required in addition to that included in the Civic District (BMS-CIVIC). Location to be determined at time of platting.

- a. Two Local Parks (3 acres total) are required to be located  in the Neighborhood General District (BMS-NG). Refer to Section 5.D for standards.
- b. Block Open Space shall be distributed throughout each of  the Neighborhood Sectors as follows: Refer to Section 7.D for standards.
 - i. Sector 1: 0.0 acre min.
 - ii. Sector 2: 0.9 acre min.
 - iii. Sector 3: 0.9 acre min.
 - iv. Sector 4: 0.9 acre min.
 - v. Total: 2.7 acres min.

7.H ILLUSTRATIVE WEST VINEYARD NEIGHBORHOOD PLAN / DENSITY AND OPEN SPACE TARGETS

1. NEIGHBORHOOD INTENT

The West Vineyard Neighborhood contains the Specialty Retail - Special District, Local Park as well as a portion "The Reserve" Greenway Park. Higher density Multi-family housing options and neighborhood-scaled commercial uses are provided in the Neighborhood Collector Districts (BMS-NC) which serve as a transition between the adjacent commercial areas and the residential areas of the neighborhood. A variety of Single-Family housing options are anticipated from urban scaled lots in the Neighborhood General District (BMS-NG) to large estate lots in the Neighborhood Edge Districts (BMS-NE). The Fire Department has selected a 2-acre site in this neighborhood for a fire station, as shown on the illustrative plan.

In order to ensure that the density and Block Open Space are well distributed, the neighborhood is divided into sectors. Neighborhood Sectors are typically bounded by Collector Streets and are identified on the by number and   

2. APPLICABLE DISTRICTS

The Neighborhood includes the following Urban Form Districts, refer to Section 3 for Standards:

- a.  NEIGHBORHOOD COLLECTOR (BMS-NC) 3.C
- b.  NEIGHBORHOOD GENERAL (BMS-NG) 3.D
- c.  NEIGHBORHOOD EDGE (BMS-NE) 3.E
- d.  SPECIALTY RETAIL (BMS-SD-SR) 4.B
- e.  CIVIC (BMS-CIVIC) 3.F

3. TARGET NEIGHBORHOOD DENSITY (Residential Units)

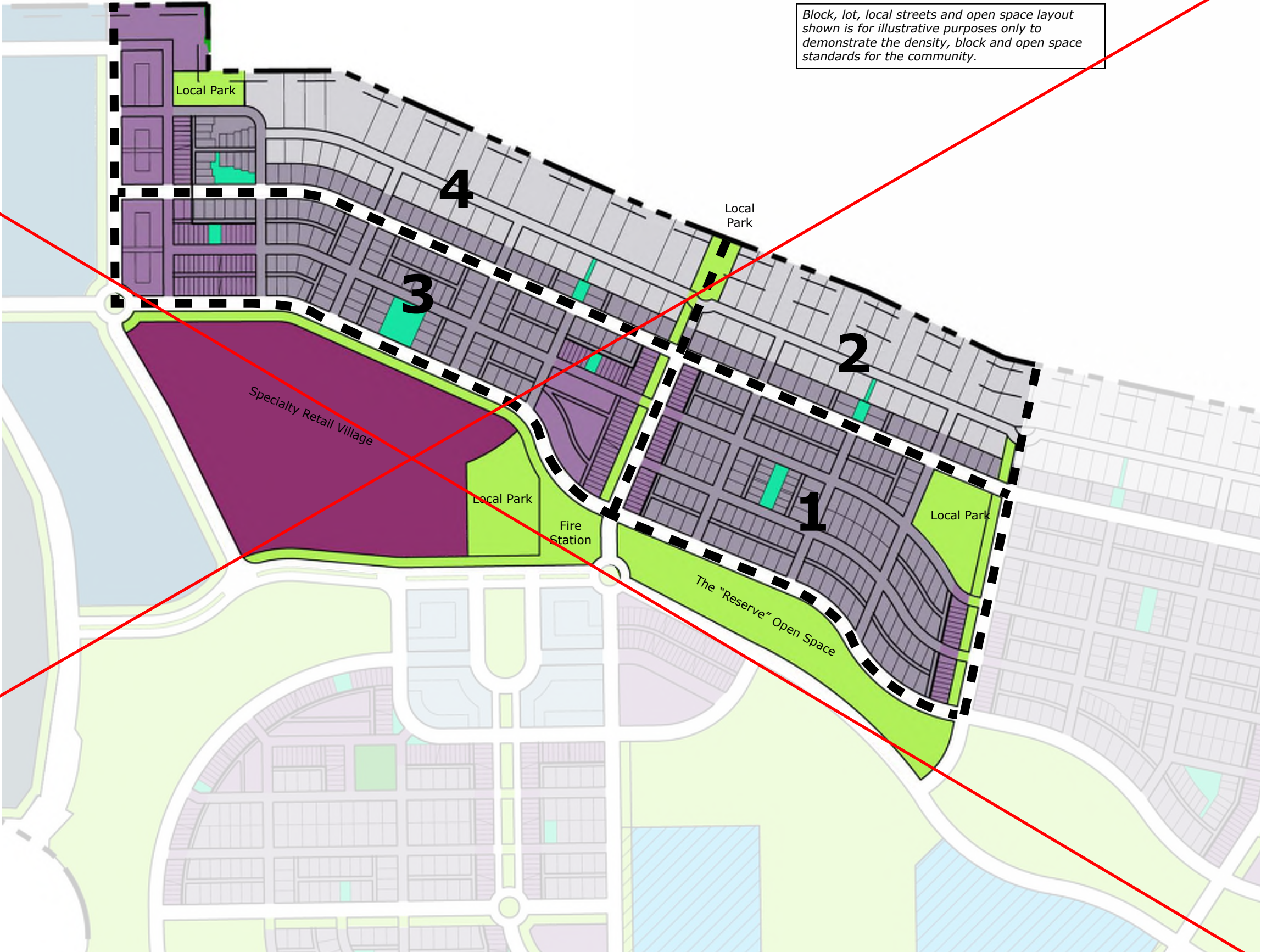
- Development that occurs within each Neighborhood Sector should be within the following density targets:
- a. Sector 1: 175 Units Minimum 195 Units Maximum
 - b. Sector 2: 54 Units Minimum 60 Units Maximum
 - c. Sector 3: 356 Units Minimum 395 Units Maximum
 - d. Sector 4: 225 Units Minimum 250 Units Maximum
 - e. Total: 810 Units Minimum 900 Units Maximum

4. TARGET NEIGHBORHOOD HOUSING MIX

- Development that occurs within each Neighborhood Sector should provide the following housing mix as allowed by District and selected Building Type Standards:
- a. Sector 1: 23% Multi-Family 77% Single-Family
 - b. Sector 2: 0% Multi-Family 100% Single-Family
 - c. Sector 3: 73% Multi-Family 27% Single-Family
 - d. Sector 4: 62% Multi-Family 38% Single-Family
 - e. Total: 54% Multi-Family 46% Single-Family

5. OPEN SPACE AREA TARGETS

- The following open space is required in addition to that included in the Civic District (BMS-CIVIC). Location to be determined at time of platting.
- a. Block Open Space shall be distributed throughout each of the Neighborhood Sectors as follows: Refer to Section 7.D for standards.
 - i. Sector 1: 0.4 acre min.
 - ii. Sector 2: 0.2 acre min.
 - iii. Sector 3: 0.7 acre min.
 - iv. Sector 4: 0.5 acre min.
 - v. Total: 1.8 acres min.



7.I ILLUSTRATIVE EAST GARDEN NEIGHBORHOOD PLAN / DENSITY AND OPEN SPACE TARGETS



1. NEIGHBORHOOD INTENT

The East Garden Neighborhood contains a proposed school site and Local Parks, as well as a large portion "The Reserve" Greenway Park and proposed community gardens. Multi-family housing options and neighborhood-scaled commercial uses are provided in the Neighborhood Collector Districts (BMS-NC) along the Collector Street entrances to the neighborhood. A variety of Single-Family housing options are anticipated from urban scaled lots in the Neighborhood General District (BMS-NG) to large estate lots in the Neighborhood Edge Districts (BMS-NE).

In order to ensure that the density and Block Open Space are well distributed, the neighborhood is divided into sectors. Neighborhood Sectors are typically bounded by Collector Streets and are identified on the by number and ■ ■ ■

2. APPLICABLE DISTRICTS

The Neighborhood includes the following Urban Form Districts, refer to Section 3 for Standards:

- a. ■ NEIGHBORHOOD COLLECTOR (BMS-NC) 3.C
- b. ■ NEIGHBORHOOD GENERAL (BMS-NG) 3.D
- c. ■ NEIGHBORHOOD EDGE (BMS-NE) 3.E
- d. ■ CIVIC (BMS-CIVIC) 3.F

3. TARGET NEIGHBORHOOD DENSITY (Residential Units)

Development that occurs within each Neighborhood Sector should be within the following density targets:

- a. Sector 1: 50 Units Minimum 55 Units Maximum
- b. Sector 2: 270 Units Minimum 300 Units Maximum
- c. Sector 3: 58 Units Minimum 65 Units Maximum
- d. Sector 4: 95 Units Minimum 105 Units Maximum
- e. Sector 5: 234 Units Minimum 260 Units Maximum
- f. Sector 6: 76 Units Minimum 85 Units Maximum
- g. Total: 783 Units Minimum 870 Units Maximum

4. TARGET NEIGHBORHOOD HOUSING MIX

Development that occurs within each Neighborhood Sector should provide the following housing mix as allowed by District and selected Building Type Standards:

- a. Sector 1: 0% Multi-Family 100% Single-Family
- b. Sector 2: 17% Multi-Family 83% Single-Family
- c. Sector 3: 0% Multi-Family 100% Single-Family
- d. Sector 4: 43% Multi-Family 57% Single-Family
- e. Sector 5: 17% Multi-Family 83% Single-Family
- f. Sector 6: 0% Multi-Family 100% Single-Family
- g. Total: 16% Multi-Family 84% Single-Family

5. OPEN SPACE AREA TARGETS

The following open space is required in addition to that included in the Civic District (BMS-CIVIC). Location to be determined at time of platting.

- a. Block Open Space shall be distributed throughout each of the Neighborhood Sectors as follows: Refer to Section 7.D for standards.
 - i. Sector 1: 0.11 acre min.
 - ii. Sector 2: 0.72 acre min.
 - iii. Sector 3: 0.14 acre min.
 - iv. Sector 4: 0.00 acre min.
 - v. Sector 5: 0.65 acre min.
 - vi. Sector 6: 0.18 acre min.
 - vii. Total: 1.8 acres min.

7.J ILLUSTRATIVE EAST MARKET NEIGHBORHOOD PLAN / DENSITY AND OPEN SPACE TARGETS

1. NEIGHBORHOOD INTENT

The East Market Neighborhood contains the East Market Mixed-Use Center, Local Parks as well as a portion "The Orchard Green" Greenway Park. It has a large concentration of higher density Multi-family dwelling units located within the Village Mixed Use District (BMS-VMU) and in the Neighborhood Collector Districts (BMS-NC) providing a population to support the commercial activities of the neighborhood, future transit, as well as providing a range of affordable housing options. The Neighborhood Collector Districts provide a transition between the commercial and residential areas of the neighborhood. The proximity of the East Market to the proposed community gardens in the "Reserve" and proposed community orchard in the "Orchard Green" makes it ideally suited for a Farmer's Market which would provide a unique amenity for this neighborhood's village center.

In order to ensure that the density and Block Open Space are well distributed, the neighborhood is divided into sectors. Neighborhood Sectors are typically bounded by Collector Streets and are identified by number and color.

2. APPLICABLE DISTRICTS

The Neighborhood includes the following Urban Form Districts, refer to Section 3 for Standards:

- a. VILLAGE MIXED-USE (BMS-VMU) 3.B
- b. NEIGHBORHOOD COLLECTOR (BMS-NC) 3.C
- c. NEIGHBORHOOD GENERAL (BMS-NG) 3.D
- d. CIVIC (BMS-CIVIC) 3.F

3. TARGET NEIGHBORHOOD DENSITY (Residential Units)

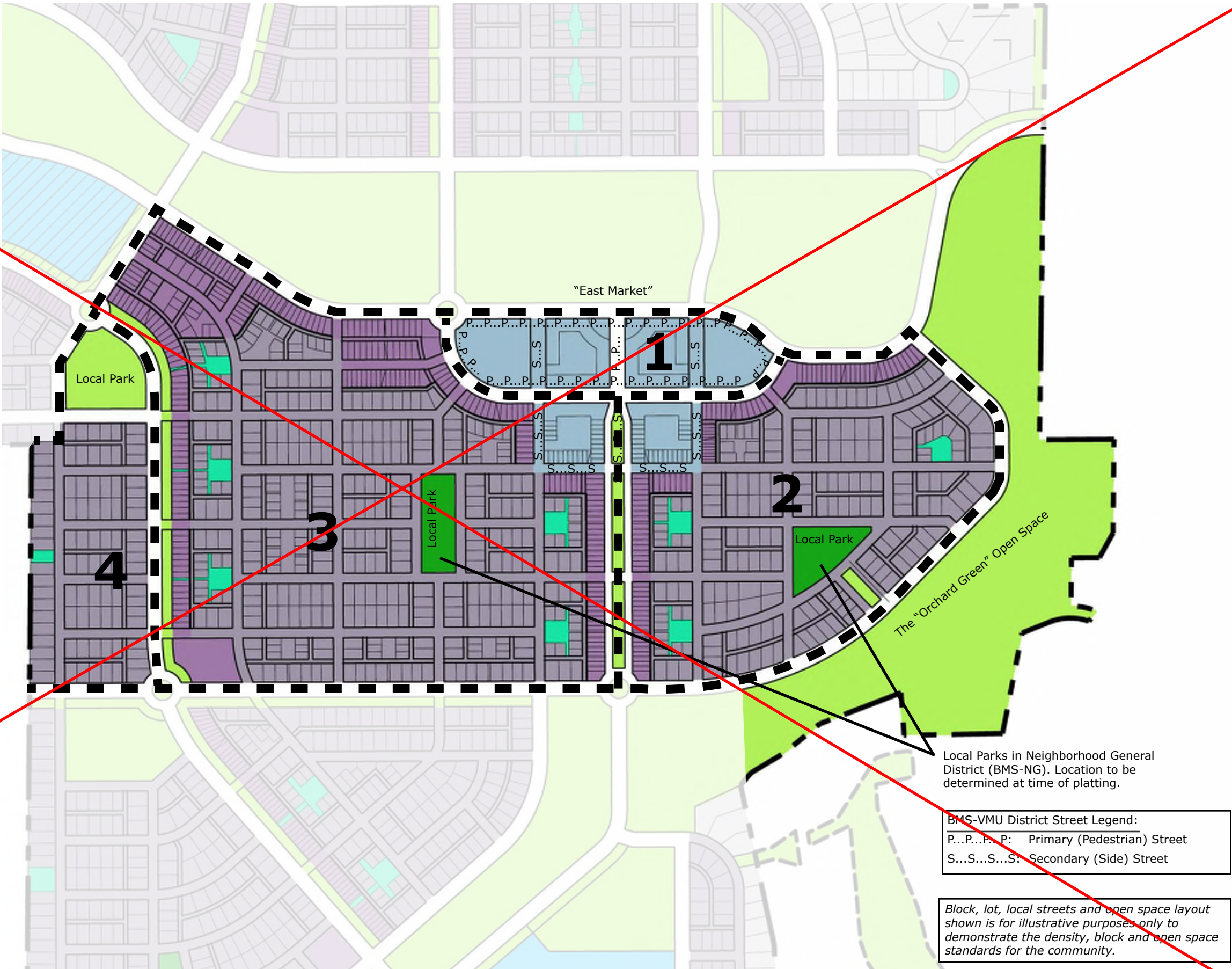
- Development that occurs within each Neighborhood Sector should be within the following density targets:
- a. Sector 1: 99 Units Minimum 110 Units Maximum
 - b. Sector 2: 293 Units Minimum 325 Units Maximum
 - c. Sector 3: 562 Units Minimum 625 Units Maximum
 - d. Sector 4: 81 Units Minimum 90 Units Maximum
 - e. Total: 1,035 Units Minimum 1,150 Units Maximum

4. TARGET NEIGHBORHOOD HOUSING MIX

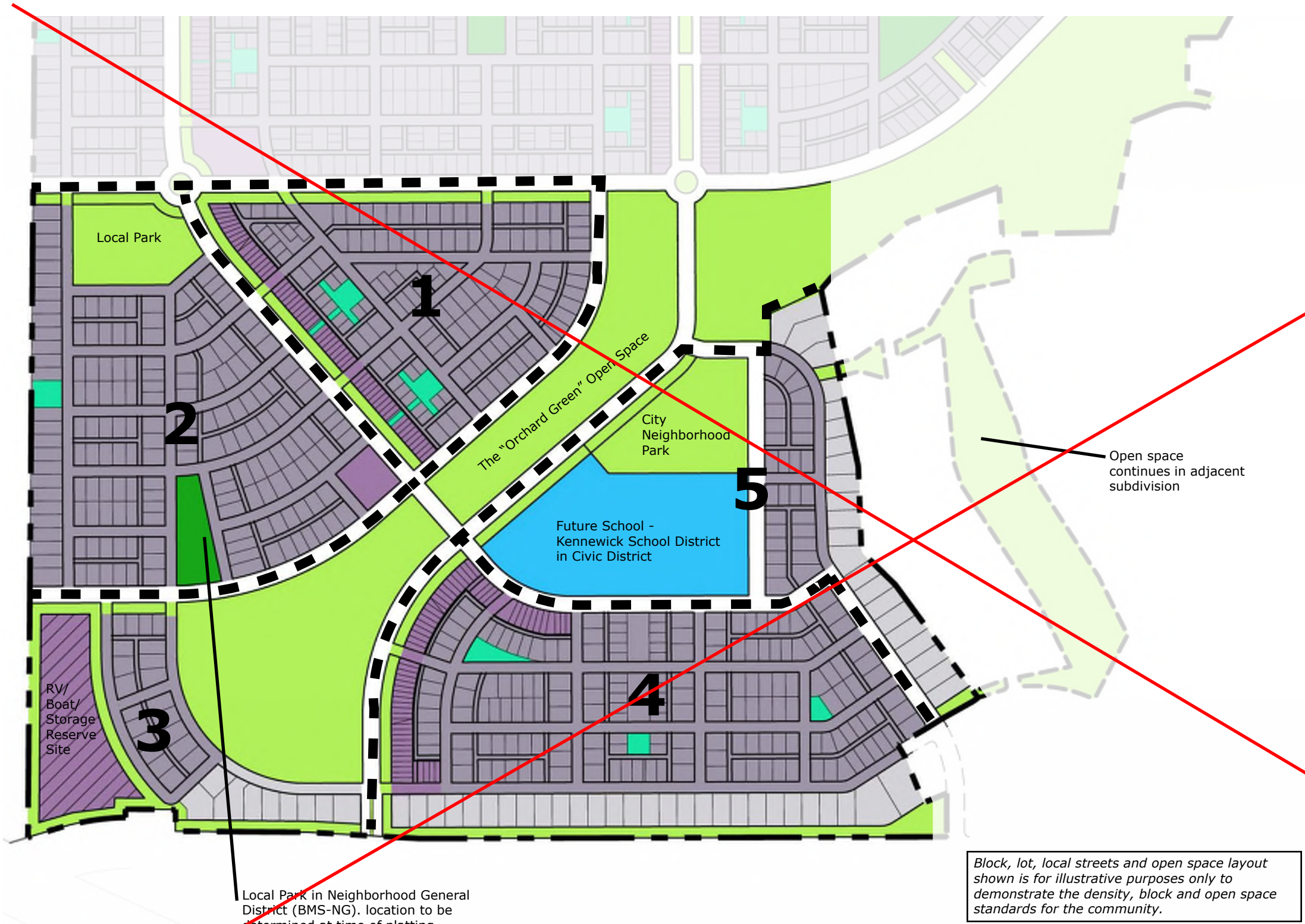
- Development that occurs within each Neighborhood Sector should provide the following housing mix as allowed by District and selected Building Type Standards:
- a. Sector 1: 100% Multi-Family 0% Single-Family
 - b. Sector 2: 38% Multi-Family 62% Single-Family
 - c. Sector 3: 46% Multi-Family 54% Single-Family
 - d. Sector 4: 0% Multi-Family 100% Single-Family
 - e. Total: 45% Multi-Family 55% Single-Family

5. OPEN SPACE AREA TARGETS

- The following open space is required in addition to that included in the Civic District (BMS-CIVIC). Location to be determined at time of platting.
- a. Two Local Parks (3.7 acres total) are required to be located in the Neighborhood General District (BMS-NG). Refer to Section 5.D for standards.
 - b. Block Open Space shall be distributed throughout each of the Neighborhood Sectors as follows: Refer to Section 7.D for standards.
 - i. Sector 1: 0.00 acre min.
 - ii. Sector 2: 0.75 acre min.
 - iii. Sector 3: 1.44 acre min.
 - iv. Sector 4: 0.11 acre min.
 - v. Total: 2.30 acres min.



7.K ILLUSTRATIVE SOUTH ORCHARD NEIGHBORHOOD PLAN / DENSITY AND OPEN SPACE TARGETS



1. NEIGHBORHOOD INTENT

The South Orchard Neighborhood contains a school site, Local Parks and City Neighborhood Park, as well as a large portion "The Orchard Green" Greenway Park and proposed community orchards. Higher density Multi-family housing options and neighborhood-scaled commercial uses are provided in the Neighborhood Collector Districts (BMS-NC) along the major Collector Streets passing through the Neighborhood. A variety of Single-Family housing options are anticipated from urban scaled lots in the Neighborhood General District (BMS-NG) to large estate lots in the Neighborhood Edge Districts (BMS-NE). If the community desires, a site is reserved for a community-wide RV/Boat/Storage facility adjacent to Reata Road.

In order to ensure that the density and Block Open Space are well distributed, the neighborhood is divided into sectors. Neighborhood Sectors are typically bounded by Collector Streets and are identified by number and

2. APPLICABLE DISTRICTS

The Neighborhood includes the following Urban Form Districts, refer to Section 3 for Standards:

- a. NEIGHBORHOOD COLLECTOR (BMS-NC) 3.C
- b. NEIGHBORHOOD GENERAL (BMS-NG) 3.D
- c. NEIGHBORHOOD EDGE (BMS-NE) 3.E
- d. CIVIC (BMS-CIVIC) 3.F

3. TARGET NEIGHBORHOOD DENSITY (Residential Units)

Development that occurs within each Neighborhood Sector should be within the following density targets:

- a. Sector 1: 180 Units Minimum 200 Units Maximum
- b. Sector 2: 171 Units Minimum 190 Units Maximum
- c. Sector 3: 27 Units Minimum 30 Units Maximum
- d. Sector 4: 259 Units Minimum 288 Units Maximum
- e. Sector 5: 47 Units Minimum 52 Units Maximum
- f. Total: 684 Units Minimum 760 Units Maximum

4. TARGET NEIGHBORHOOD HOUSING MIX

Development that occurs within each Neighborhood Sector should provide the following housing mix as allowed by District and selected Building Type Standards:

- a. Sector 1: 30% Multi-Family 70% Single-Family
- b. Sector 2: 0% Multi-Family 100% Single-Family
- c. Sector 3: 0% Multi-Family 100% Single-Family
- d. Sector 4: 22% Multi-Family 78% Single-Family
- e. Sector 5: 0% Multi-Family 100% Single-Family
- f. Total: 16% Multi-Family 84% Single-Family

5. OPEN SPACE AREA TARGETS

The following open space is required in addition to that included in the Civic District (BMS-CIVIC). Location to be determined at time of platting.

- a. One Local Park (1.7 acres total) is required to be located in the Neighborhood General District (BMS-NG). Refer to Section 5.D for standards.
- b. Block Open Space shall be distributed throughout each of the Neighborhood Sectors as follows: Refer to Section 7.D for standards.
 - i. Sector 1: 0.5 acre min.
 - ii. Sector 2: 0.2 acre min.
 - iii. Sector 3: 0.0 acre min.
 - iv. Sector 4: 0.7 acre min.
 - v. Sector 5: 0.0 acre min.

vi. Total: 1.4 acres min.

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**BUILDING
TYPE
STANDARDS**

8

Section 8 identifies the design standards for each of the Building Types allowed within the Districts that make up Badger Mountain South.

8.A Introduction	8-2
8.B Building Types Summary.....	8-2
8.C Common Design Standards for all Districts.....	8-3
8.D Civic/Community/Institutional.....	8-4
8.E Neighborhood Goods and Services Buildings.....	8-5
8.F Commercial/ Mixed-Use / Liner.....	8-6
8.G Live/Work	8-7
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8.K Mansion Apartment	8-11
8.L Paired House (Duplex).....	8-12
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8.P Accessory Unit	8-16

8.A INTRODUCTION

This Section identifies the design standards for each of the Building Types allowed within the Districts that make up Badger Mountain South. These standards ensure that the proposed development is consistent with the Badger Mountain South community goals for building form, character and quality.

Building Types are defined in this code primarily by the physical form of the building and secondarily by its use or function. Specific placement and configuration of building or groups of buildings are regulated to create certain physical spaces between and within the buildings. The intent of this Section is to provide ~~a fine-grained integration of a variety of Building Types, often within the same block, to create a diverse urban fabric for the community.~~

A community composed of a variety of Building Types provides a range of housing prices, proximity to neighborhood services and amenities and the potential to establish intergenerational neighborhoods, ~~all vital elements of good urbanism.~~

The individual Building Type Standards are preceded by Section 8.C., Common Design Standards applicable to all Districts. The Common Design Standards identify principles or unifying features that will be applied to all Building Types in any District. These standards further the goal of creating a walkable and sustainable community.

The Building Type Standards that follow include:

- 1. Building Type Description
- 2. Applicable Districts
- 3. Streetscape
- 4. Lot Size
- 5. Access
- 6. Building Size and Massing
- 7. Frontages
- 8. Landscape Standards
- 9. Sustainable Standards
- 10. Site Improvement Standards
- 11. Parking
- 12. Accessory Units (where applicable)

Each building in the Badger Mountain South community, with the exception of development in the Special Districts, shall be one of the Building Types listed here and shall be designed in compliance with the standards of this Section. The Special Districts included in Section 4 are not regulated by Building Type, however Section 8.C Common Design Standards, applies to all Districts, including Special Districts.

In addition to the standards in this Section, each Building Type is subject to the requirements of the applicable Urban Form Standards for Districts in Section 3 and the applicable Frontage Type Standards in Section 9. As previously noted on page 3-2, since the Urban Form Standards for Districts found in Section 3 are of primary importance in establishing the character and quality of the neighborhoods, they supersede the Building Type Standards when in conflict.

Section 3 Urban Form Standards for Districts identify the intent of the District and regulate the building placement on lot (setbacks and encroachments), building profile and type (building height, Building Types and Frontage Types) and parking (placement, access and requirements).

Section 9 Frontage Type Standards define the various allowed Frontage Types and identifies the required configuration (depth, width, height, components, etc) of each type.

8.B BUILDING TYPES SUMMARY

SUMMARY OF TYPE CHARACTERISTICS					BUILDING TYPES ALLOWED BY DISTRICT							
BUILDING TYPE	MULTI-FAMILY	MIXED-USE	LOT WIDTH Min. - Max.	STORIES Max.	BMS-VMU	BMS-NC	BMS-NG	BMS-NE	BMS-CIVIC	BMS-SD-SR	BMS-SD-CMU	BMS-SD-DR
8.D CIVIC/COMMUNITY/INSTITUTIONAL FACILITIES	NO	NO	No Limit	3	X	X	X		X	Note: Special Districts are not regulated by Building Type. See Section 4 for District intent and standards. See also 8.C for Common Design Standards applicable to all Districts.		
8.E NEIGHBORHOOD GOODS AND SERVICES BUILDING	NO	NO	300 ft. Max.	3	X	X						
8.F COMMERCIAL / MIXED-USE / LINER	YES	YES	25 ft. -400 ft. Min - Max	4	X	X						
8.G LIVE/WORK BUILDING	YES	YES	24 ft. Min.	3	X	X						
8.H STACKED UNIT BUILDING	YES	NO	200 ft. Max.	3	X	X						
8.I ROW HOUSE / TOWN HOUSE	YES	NO	16 ft. Min.	3	X	X						
8.J COURTYARD HOUSING	YES	NO	125 ft. Min.	2-5		X	X		-P			
8.K MANSION APARTMENT (3 - 6 PLEX)	YES	NO	70 ft. -100 ft. Min - Max	2-5		X	X		-P			
8.L PAIRED HOUSE (DUPLEX)	YES	NO	50 ft. -70 ft. Min - Max	2-5		X	X		-P			
8.M COTTAGE COURT	NO	NO	35 ft. Min.	2		X	X		-P			
8.N SINGLE-FAMILY HOUSE - ALLEY ACCESS GARAGE	NO	NO	40 ft. Min.	2-5		X	X	X	-P			
8.O SINGLE-FAMILY HOUSE - STREET ACCESS GARAGE	NO	NO	50 ft. Min.	2-5		X	X	X	-P			
8.P ACCESSORY UNIT	NO	NO	35 ft. Min.	2		X	X	X	-P			

X= Allowed Building Type
-P = Allowed only in -P Overlay District, if land use conditions, as found in 2.C. Land Use Table are met.

HEIGHT (COLUMN TO BE
UPDATED BASED ON
DESCRIPTION REVISIONS)

8.C COMMON DESIGN STANDARDS FOR ALL COMMERCIAL DISTRICTS AND PROJECTS



Illustrative Photo: Commercial Plaza



Illustrative Photo: Mixed-Use Street Frontage



Illustrative Photo: Corner Condition



Illustrative Photo: Courtyard Design

1. SITE DESIGN GENERAL

- a. Site buildings to respond to unique site conditions such as non-rectangular lots, location on prominent intersections, unusual topography, views and other natural features.
- b. Maximize opportunities for usable, attractive, well-integrated open space.
- c. Site design shall account for solar access and shading at exterior open space.
- d. Minimize the height of retaining walls and/or reduce their visual impact by means of textured surface, inlaid materials, green screens and other types of landscaping.
- e. Entries shall be clearly identifiable from the street.
- f. Provide buffers at residential entries at sidewalks and within mixed-use frontages by means of entry courtyards, porches or stoops as well as landscaping.

2. WALKABLE DESIGN – PROMOTE PEDESTRIAN SAFETY

- a. Provide a linked, safe pedestrian circulation pathway.
- b. Link public open space with entries, courts and plazas.
- c. Minimize crossing sidewalks with vehicle access.
- d. Access parking from Alleys or Secondary (Side) Streets where Alleys are not present. **are encouraged.**
- e. Vehicular access to lots from streets is limited per the criteria in Section 7.C.4.e.
- f. Sidewalks wider than the 15 feet standard and/or plazas at Mixed-Use and commercial frontages are encouraged.

3. ACTIVE STREET ENVIRONMENT – ENCOURAGE AN ACTIVE STREET LIFE

- a. ~~Provide overhead weather/sun protection~~ at non-residential uses. **are encouraged.**
- b. Provide transparency into and from non-residential uses by maximizing the use of the Storefront Frontage Type (9.B).
- c. Encourage sidewalk activities that support street life where appropriate, such as outdoor dining, indoor-outdoor commercial/retail space, public plazas and outdoor seating.

4. LOCATION OF VEHICLE PARKING / TRASH AND RECYCLING / UTILITY STRUCTURES AND BUILDING SERVICE AREAS

- a. Locate and screen parking lots, trash and utility structures to avoid visibility from the public way.
- b. At corner lot conditions, provide screening by means of a garage, fencing and/or landscaping.
- c. Loading docks, overhead doors, except those serving as architectural feature in retail or dining establishments, and other service entries are allowed only from a Service Street, Alley or parking area.

5. CORNER CONDITIONS

Design of buildings on corner sites shall respond to their unique community location and visibility as follows:

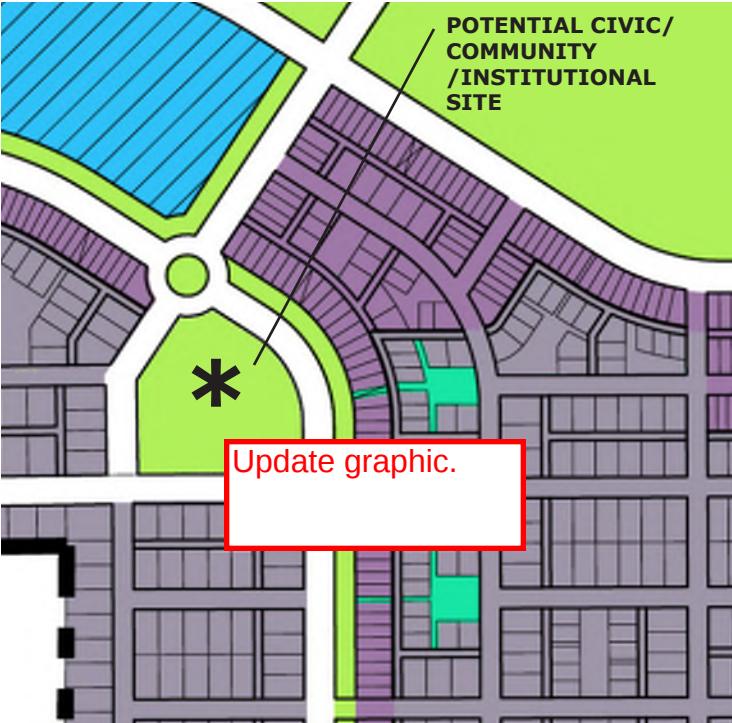
- a. Buildings on corner lots must address both streets.
- b. Give special consideration to corners such as angled or curved facade addressing the corner, a recessed entry, wrap around storefront, porch, tower or similar architectural treatment.
- c. Side street facing end elevations to include appropriate articulation, windows and architectural elements, similar to the front elevation.
- d. Give special consideration to the landscape design on corners such as a prominent landscape element, outdoor plaza hardscape or the inclusion of public art.

SEE SECTION 3-3 FOR ROW ENCROACHMENT SUBMITTAL REQUIREMENTS.

6. SAFETY AND SECURITY

- a. Provide lighting where appropriate and necessary for pedestrian safety.
- b. Design site layouts for “eyes-on-the-street” providing natural surveillance.
- c. Follow CPTED guidelines (Crime Prevention Through Environmental Design) for clear visibility of the front door, appropriate lighting, and clear transition between public and private spaces.
- d. Provide safe accessible pathways connecting interior parking courts with street frontages.

8.D CIVIC/COMMUNITY/INSTITUTIONAL FACILITIES



Illustrative Diagram: Civic/Community/Institutional Siting

1. TYPE DESCRIPTION

Civic /Community/Institutional Facilities are important structures that help define the neighborhoods and places where they are built. Buildings of this type include schools, public safety buildings, libraries, recreation and other community buildings. Facilities of this type are provided with prominent sites to reflect the building's importance to the community. These sites are distributed throughout the neighborhoods, often at major intersections, terminated vistas or in a larger Local Park.

2. APPLICABLE DISTRICTS

- a. Civic District (BMS-CIVIC) (3.F)
- b. Village Mixed-Use (BMS-VMU) (3.B)
- c. Neighborhood Collector (BMS-NC) (3.C)
- d. Neighborhood General* (BMS-NG) (3.D)

* Type Allowed in BMS-NG District only when located in a Local Park.

3. STREETScape

- a. In general, Civic, Community and Institutional Facilities are intended to be high profile buildings considering their symbolic presence in the community. The character and function of these Building Types must communicate their symbolic presence and role in the community.
- b. Civic, Community and Institutional Facilities will have more open space around them, more landscaping, are associated with public gathering areas and shall be sited along major vehicle and pedestrian circulation routes.
- c. Civic, Community and Institutional Facilities must achieve a higher standard of design, character and detailing than any other building in the community.
- a. Only the most durable and long lasting materials shall be used in these Building Types.

C.



Illustrative Photo: School / Institutional Building

4. LOT SIZE

- a. Width: No limits
- b. Depth: No limits
- c. See applicable District Standards in Section 3 for required setbacks and Build-to-Lines.

5. ACCESS

- a. Walkable Design: Careful attention must to be given to safe and convenient access and circulation for pedestrians. Consideration must be given to the site selection, placement and access along the community trail network to maximize pedestrian and bicycle access to the facility, see Section 5.K Illustrative Plan for Trail Layout and Trail Types.
- b. The main building entry shall front onto a Collector Street. In the BMS-NG District, where a Civic/Community/Institutional Facility may be located in a Local Park surrounded by Local Streets only, the main building entry must be placed along the Primary (Front) Street. The Primary Street shall be established by the blocks on either side of the Local Park.
- c. Vehicular access shall be from a Secondary (Side) street or Alley.
- d. Services, including utility access, above ground equipment and trash containers shall be located to the rear of the building.

6. BUILDING SIZE AND MASSING

- a. Maximum number of stories: 3
- b. Towers, spires, flag poles or other architectural elements may extend 12 ft. above height limit.
- c. Ground floor ceiling height shall be a minimum of 10 ft. clear to accommodate assembly uses.
- d. Refer to Section 3 for additional District-specific building height standards.

Civic/community/institutional facilities may be located in a Local Park.



Illustrative Photo: Community Building

7. FRONTAGES

- a. Due unique nature of this Building Type, specific Frontage Types are not applicable.
- b. Frontages should clearly express the public nature of the facility with a well defined entry and transparency to community uses.
- c. Refer to Section 3 for applicable District standards for allowed encroachments into required setbacks.

8. LANDSCAPE STANDARDS

- a. The Common Landscape standards in 11.C and the Civic Landscape standards set forth in Section 11.D are applicable to Civic/Community/Institutional Facilities.

9. SUSTAINABLE STANDARDS

- a. The Common standards in 12.C and the Non-Residential Sustainable standards set forth in Section 12.D are applicable to Civic/Community/Institutional Facilities.

10. SITE IMPROVEMENT STANDARDS

- a. The Standards set forth in Section 13 are applicable to Civic/Community/Institutional Facilities.

wherever practical.

is encouraged to

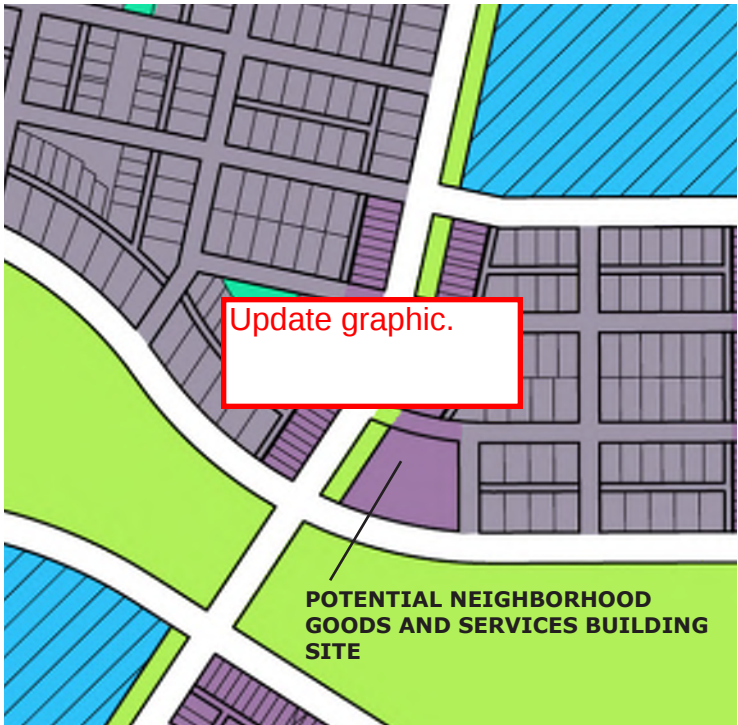


Illustrative Photo: Civic Building

11. PARKING

- a. ~~Parking in front of the building is not permitted.~~
- b. Commercial parking quantity requirements by District - See Section 3.
- c. Surface parking lots shall be kept to the minimum size required. Parking shall be screened from streets by either placement behind a structure, by fencing per Section 13.A.2 and/or landscaped per section 11.C.7.c.
- d. See Section 13.D for Common Parking Standards.
- e. Refer to Section 3 for additional District-specific parking standards.

except as provided in section 8.C.6.



Illustrative Diagram: Neighborhood General District Siting

1. TYPE DESCRIPTION

The Neighborhood Goods and Services Buildings are intended to be stand-alone structures, 30,000 square feet and smaller, that contain uses that support the needs of the neighborhoods in which they are located. Typical examples of this type of building are pharmacies, daycare centers, churches, medical clinics and other office buildings.

2. APPLICABLE DISTRICTS

- a. Village Mixed-Use (BMS-VMU) (3.B)
- b. Neighborhood Collector (BMS-NC) (3.C)

3. STREETScape

- a. The scale of the buildings and associated parking shall retain a neighborhood scale.
- b. In the Neighborhood Collector District (BMS-NC), the building shall be sited on corner lots at the intersection of two Collector Streets along the main gateway entry points to the neighborhoods.

is encouraged to



Illustrative Photo: Neighborhood Daycare

4. LOT SIZE

- a. Width: Maximum 300 ft.
- b. Depth: Maximum None
- c. See applicable District Standards in Section 3 for required setbacks and Build-to-Lines.

5. ACCESS

- a. The main building entry shall front onto the Collector Street.
- b. Services, including utility access, above ground equipment and trash containers shall be located to the rear of the building or off of the Alley, if provided.
- c. See Section 3 for additional District-specific building height standards.

generally

6. BUILDING SIZE AND MASSING

- a. Maximum number of stories: 3
- b. Massing and scale compatible with surrounding neighborhood.
- c. See Section 3 for additional District-specific building height standards.



Illustrative Photo: Neighborhood Church

7. FRONTAGES

- a. Allowed Frontage Types and Referenced Sections for the Neighborhood Goods and Services Building are:
 - (1) Storefront (9.B)
 - (2) Arcade (9.C)
 - (3) Gallery (9.D)
 - (4) Forecourt (9.E)
 - (5) Greenbelt (9.F)
- b. Refer to Section 9 for Frontage Type definitions and standards.
- c. Due to the general nature of this Building Type, other Frontages may be allowed if they promote an active, pedestrian-oriented streetscape.
- d. Refer to Section 3 for applicable District standards for allowed encroachments into required setbacks.

8. LANDSCAPE STANDARDS

- a. The Common Landscape standards in 11.C and the Commercial Landscape standards set forth in Section 11.D are applicable to Neighborhood Goods and Services Buildings.

9. SUSTAINABLE STANDARDS

- a. The Common standards in 12.C and the Non-Residential Sustainable standards set forth in Section 12.D are applicable to Neighborhood Goods and Services Buildings.

10. SITE IMPROVEMENT STANDARDS

- a. The Standards set forth in Section 13 are applicable to Neighborhood Goods and Services Buildings.



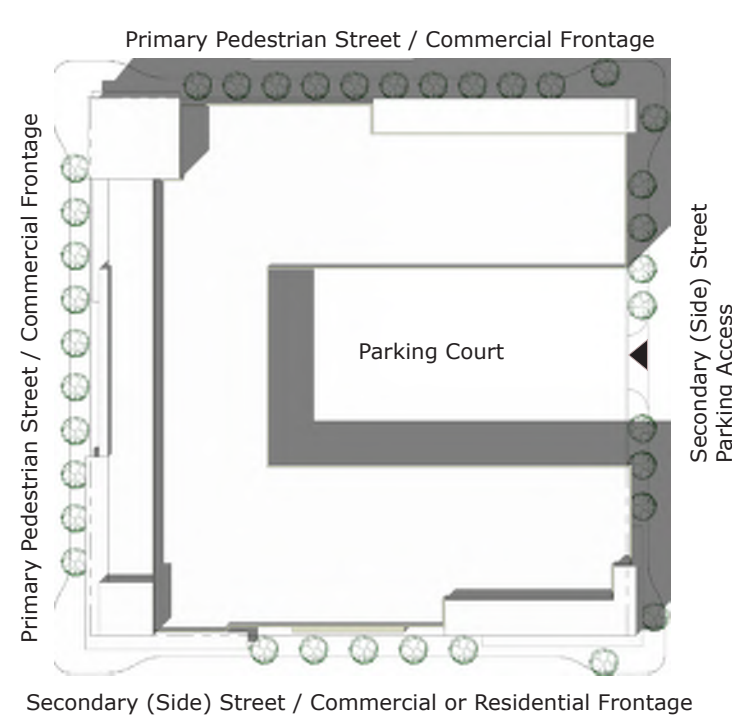
Illustrative Photo: Neighborhood Retail

11. PARKING

- ~~a. Parking in front of the building is not permitted.~~
- b. Commercial parking quantity requirements by District - See Section 3.
- c. Surface parking lots shall be kept to the minimum size required. Parking shall be screened from the streets by either placement behind a structure, by fencing per Section 13.A.2 and/or landscaped per Section 11.C.7.c.
- d. See Section 13.D for Common Parking Standards.
- e. Refer to Section 3 for additional District-specific parking standards.

except as provided in section 8.C.6.

8.F COMMERCIAL / MIXED-USE / LINER



Illustrative Plan Diagram

1. TYPE DESCRIPTION

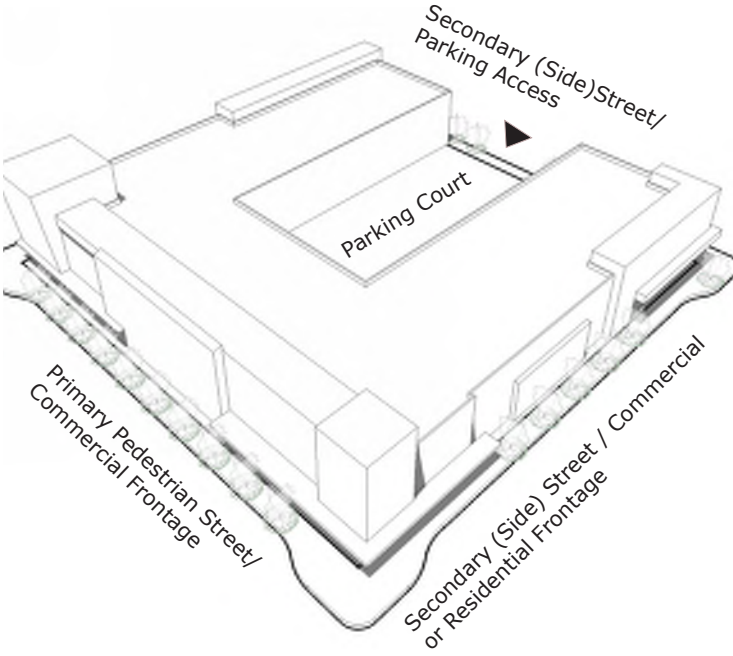
The Commercial / Mixed-Use / Liner Building Type is utilized to define the commercial street/block frontage in the Badger Mountain South Village Mixed-Use centers. In this type the building lines the block face, while concealing parking behind to create a pedestrian friendly environment and to promote an active commercial streetscape. This Building Type can accommodate a variety of ground floor commercial occupancies including: retail, service, and office uses. Ground floor residential units may be provided on Secondary Streets. Upper floors may contain these same uses, or residential units in either stacked flat, or townhouse configurations.

2. APPLICABLE DISTRICTS

- a. Village Mixed-Use (BMS-VMU) (3.B)
- b. Neighborhood Collector (BMS-NC) (3.C)

3. STREETScape

- a. The ground floor commercial component shall promote an active pedestrian environment through the use of large storefront windows, merchandise display, outdoor dining, overhead weather protection and wide sidewalks, etc. The pedestrian environment is uninterrupted by vehicles to the maximum extent possible.
- b. Ground floor residential uses are allowed on Secondary Street frontages only and may be Live/Work, loft, townhouse or similar configurations with direct street access.
- c. Ground floor residential units shall be setback from the property line horizontally a minimum of 5 ft. with a landscape buffer. Porch or Stoop frontage may extend to the Build-to-Line.
- d. In order to maximize "eyes-on-the-street" and an active streetscape, balconies and patios are encouraged for residential street frontages.
- e. Variety in building height is encouraged along a block face.



Illustrative Axonometric Diagram

4. LOT SIZE

- a. Width: Minimum 25 ft., Maximum 400 ft.*
*Maximum 150 ft. in BMS-NC District.
- b. Depth: None
- c. See applicable District Standards in Section 3 for required setbacks and Build-to-Lines.

5. ACCESS

- a. The main entrance to the ground floor commercial component shall be accessed directly from and face the primary street.
- b. The commercial component access shall comply with one of the allowed frontage types.
- c. The commercial frontage shall be uninterrupted by vehicle access. Parking and services shall be located behind the building and be accessed from a secondary street.
- d. Ground floor residential uses must provide access directly from the street. Secondary access may be provided by an interior corridor.
- e. Upper level uses shall be accessed by a separate street level entry lobby.
- f. Elevator access should be provided to upper levels, as required by the International Building Code (IBC).
- g. Services, including utility access, above ground equipment and trash containers shall be located behind the building and screened from view.

access for delivery truck / service vehicles should

wherever practical.



Illustrative Photo: Commercial Mixed-Use Varied Streetscape

6. BUILDING SIZE AND MASSING

- a. Maximum number of stories: 4, or as limited by District-specific standards.
- b. Ground floor commercial space shall have a minimum depth of 30 ft.
- c. Refer to Section 3 for additional District-specific building height standards.

7. FRONTAGES

- a. Allowed Frontage Types for Commercial / Mixed-Use / Liner Buildings are:
 - (1) Storefront (9.B)
 - (2) Arcade (9.C)
 - (3) Gallery (9.D)
 - (4) Forecourt - Limited to one per block face. (9.E)
 - (5) Porch (residential use only) (9.G)
 - (6) Stoop (residential use only) (9.H)
- b. Refer to Section 9 for Frontage Type definitions and standards.
- c. Refer to Section 3 for applicable District standards for allowed encroachments into required setbacks.

8. LANDSCAPE STANDARDS

- a. The Common standards in 11.C and Commercial Landscape standards set forth in Section 11.D are applicable to Commercial / Mixed-Use / Liner Buildings.

9. SUSTAINABLE STANDARDS

- a. The Common standards in 12. C and Non-residential Sustainable standards set forth in Section 12.D are applicable to Commercial / Mixed-Use / Liner Buildings.



Illustrative Photo: Residential Units above Retail Frontage

10. SITE IMPROVEMENT STANDARDS

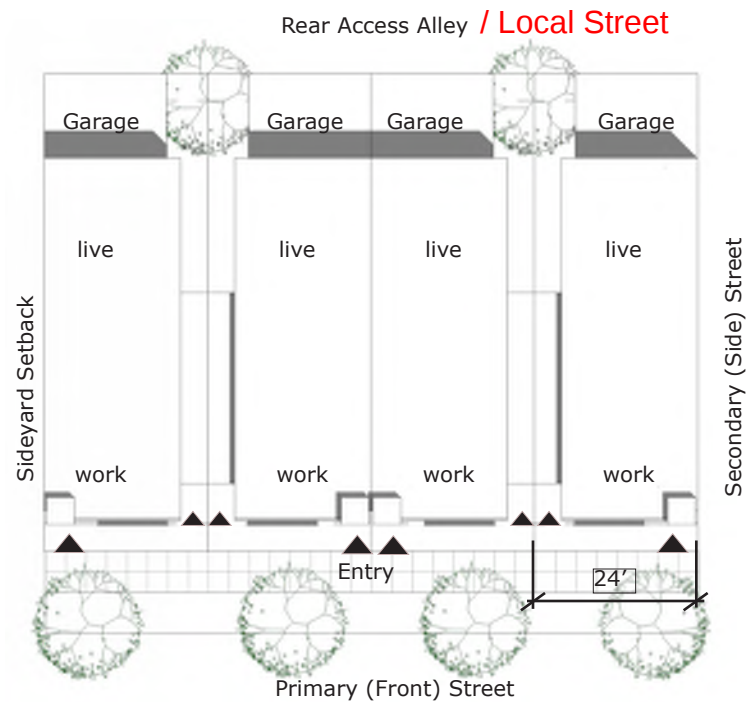
- a. The Standards set forth in Section 13 are applicable to Commercial / Mixed-Use / Liner Buildings.

11. PARKING STANDARDS

- a. Parking may be provided in a surface parking court or in a structured parking garage located behind the building frontage.
- b. Commercial parking quantity requirements by District - See Section 3.
- c. Residential parking quantity requirements by District - See Section 3.
- d. Tandem parking stalls are allowed to be used for individual residential units only.
- e. Parking shall not be visible from the Primary Street (i.e. screened by the building). Parking shall be screened from Secondary Streets by either placement behind a structure, by fencing per Section 13.A.2 and/or landscaped per Section 11.C.7.c.
- f. See Section 13.D for Common Parking Standards.
- g. Refer to Section 3 for additional District-specific parking standards.

Off-street parking should

should



Illustrative Plan Diagram

1. TYPE DESCRIPTION

The Live/Work Building Type contains integrated housing units and working spaces, occupied and utilized by a single household, in either a Single-Family or Multi-family (side by side) configuration. The work component portion of the building is located at ground level with direct sidewalk access.

2. APPLICABLE DISTRICTS

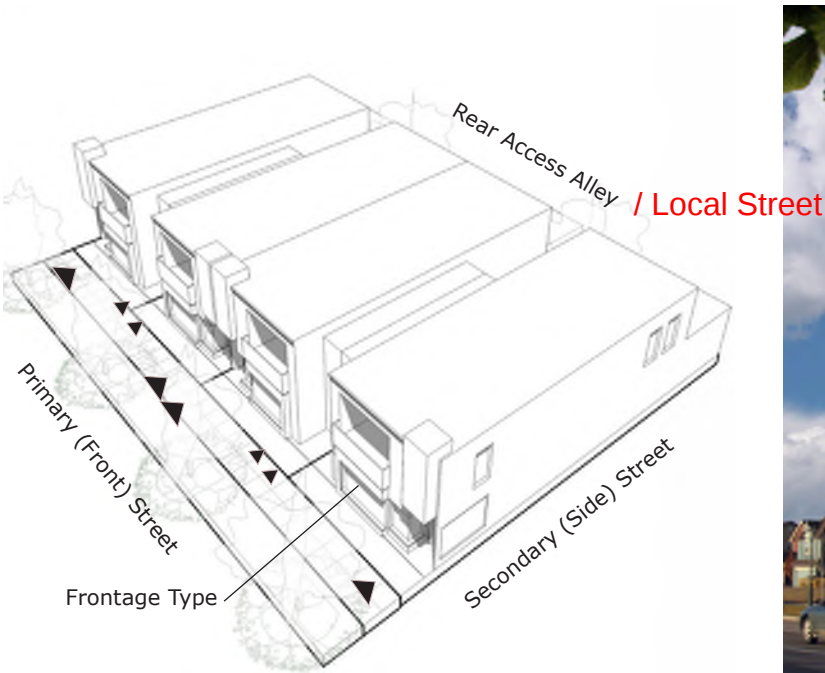
The Live/Work Building Type is allowed in:

- a. Village Mixed-Use (BMS-VMU) (3.B)
- b. Neighborhood Collector (BMS-NC) (3.C)

3. STREETScape

- a. The ground floor work component portion of the building shall promote an active commercial environment with large windows, signage, overhead weather/sun protection, etc.
- b. In the BMS-NC District, a landscaped separation between buildings of at least 12 ft. wide is ~~required~~ every 200 ft., or 8 units, whichever is less.
- c. Variety in building height is encouraged along a block face.
- d. ~~Place garages for end units toward the street to shield any adjacent surface parking.~~

encouraged



Illustrative Axonometric Diagram

4. LOT SIZE

- a. Width: Minimum 24 ft.
- b. Depth: Minimum 90 ft.
- c. See applicable District Standards in Section 3 for required setbacks and Build-to-Lines.

5. ACCESS

- a. The main entrance to the ground floor work component shall be accessed directly from and face the Primary (Front) Street. Corner buildings may have access on Secondary (Side) Street.
- b. The work component access shall comply with one of the allowed frontage types.
- c. Residential units may be accessed by a separate entrance and by a stair. If a separate entrance is provided, the residential access shall be secondary to the work component access.
- d. Garages and services shall be accessed from a rear Alley. ~~This type is not allowed on a lot without an Alley.~~
- e. Services, including utility access, above ground equipment and trash containers shall be located off of the Alley.

6. BUILDING SIZE AND MASSING

- a. Maximum number of stories: 3
- b. The massing of the overall primary facade of the building shall be designed such that each individual unit/work component is clearly expressed.
- c. Refer to Section 3 for additional District-specific building height standards.



Illustrative Photo: Urban Character Live/Work Building

7. FRONTAGES

- a. Each Live/Work unit shall provide a ground floor level work component fronting on the primary street. The work component shall be a minimum of 12 ft. in depth and 100% of Frontage (less residential entry and stair, if provided).
- b. The work component shall not be used as a part of the residential unit.
- c. Each dwelling unit shall have an individual entry access frontage.
- d. Allowed Frontage Types for Live/Work units are:
 - (1) Storefront (9.B)
 - (2) Arcade (9.C)
 - (3) Gallery (9.D)
 - (4) Forecourt (9.E)
 - (5) Porch (9.G)
 - (6) Stoop (9.H)
- e. Refer to Section 9 for Frontage Type definitions and standards.
- f. Refer to Section 3 for applicable District standards for allowed encroachments into required setbacks.

8. LANDSCAPE STANDARDS

- a. The Common Landscape standards in 11.C apply to all Live/Work Buildings.
- b. The Commercial Landscape standards set forth in Section 11.D are applicable to Live/Work Buildings in the BMS-VMU District.
- c. The Multi-family Landscape standards set forth in Section 11.E are applicable to Live/Work Buildings in the BMS-NC District.



Illustrative Photo: Residential Character Live/Work Building

9. SUSTAINABLE STANDARDS

- a. The Common standards in 12.C and the Residential Sustainable standards set forth in Section 12.E are applicable to Live/Work Buildings.

10. SITE IMPROVEMENT STANDARDS

- a. The Standards set forth in Section 13 are applicable to Live/Work Buildings.

11. PARKING

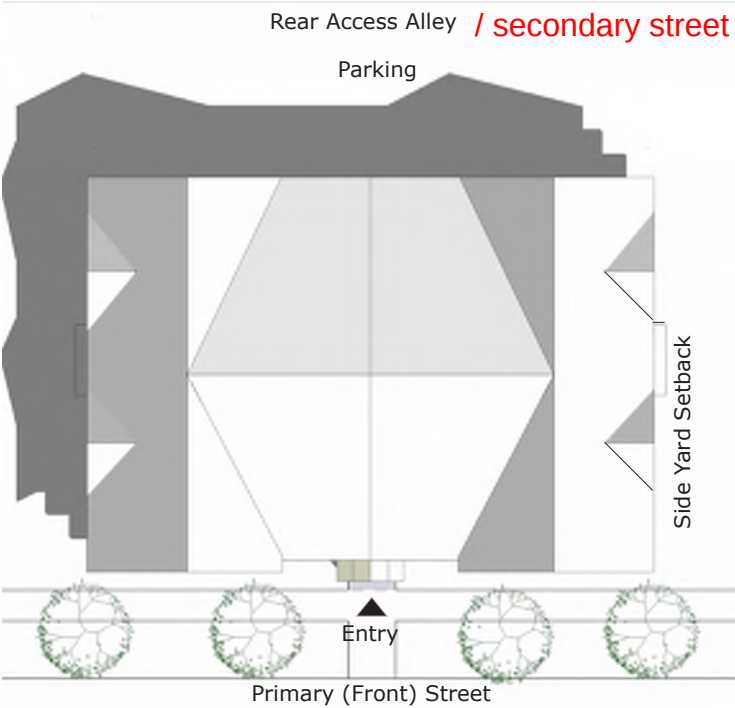
- a. At least one required parking space shall be in a garage, either attached to or detached from the dwelling and accessed from an Alley. / Local Street.
- b. Commercial parking quantity requirements by District - See Section 3.
- c. Residential parking quantity requirements by District - See Section 3.
- d. Tandem parking stalls are allowed to be used for individual Residential units only.
- e. Surface parking, if provided ~~shall~~ be screened from the Primary and Secondary streets by either placement behind a structure, by fencing per section 13.A.2 and/or landscaped per Section 11.C.7.c.
- f. See Section 13.D for Common Parking Standards.
- g. Refer to Section 3 for additional District-specific parking standards.

should

District

/ Local street.

8.H STACKED UNIT BUILDING



Illustrative Plan Diagram

1. TYPE DESCRIPTION

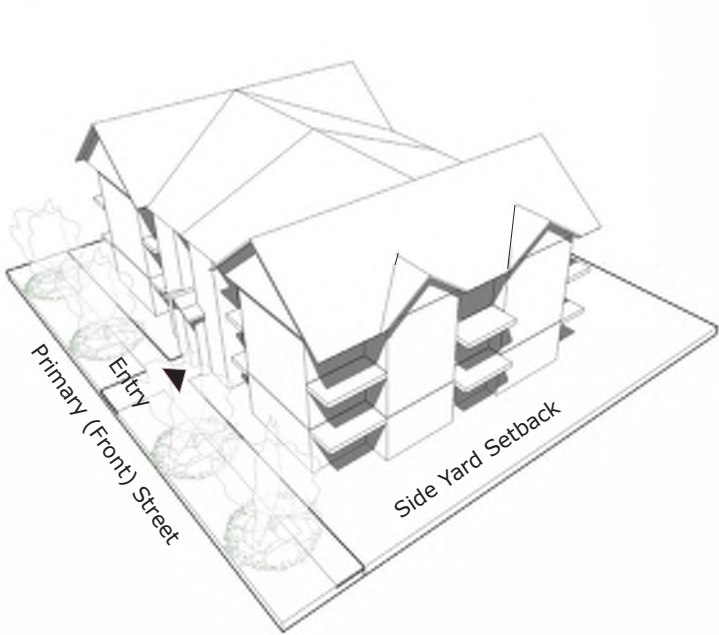
The Stacked Unit Building Type, commonly known as an Apartment, is a Multi-family residential only structure consisting of a number of dwellings units arranged side by side and stacked on multiple floors. Unit types may be either single level (flats) or multi-floor (townhouse).

2. APPLICABLE DISTRICTS

- a. Village Mixed-Use (BMS-VMU) (3.B)
- b. Neighborhood Collector (BMS-NC) (3.C)

3. STREETSCAPE

- a. In the BMS-VMU District, Stacked Unit Buildings ~~are only allowed on Secondary (Side) Streets and~~ require ground floor units to have direct street access. Secondary access may be provided through interior corridor.
- b. In order to provide an active pedestrian oriented streetscape in the BMS-NC District, ground floor residential units are encouraged to provide access directly from the street. Secondary access may be provided through interior corridor.
- c. In order to maximize "eyes-on-the-street" and an active streetscape, balconies and patios are encouraged at street frontages.
- d. Variety in building height, materials and colors is encouraged along a block face.



Illustrative Axonometric Diagram

4. LOT SIZE

- a. Width: Minimum None, Maximum 200 ft.
- b. Depth: Minimum 90 ft.
- c. See applicable District Standards in Section 3 for required setbacks and Build-to-Lines.

5. ACCESS

- a. The main entrance lobby to the building shall be accessed directly from and face the Primary (Front) Street.
- b. Ground floor residential units may either be accessed directly from the street and/or from an interior corridor, as required per District.
- c. Upper floor units in the BMS-VMU District ~~shall~~ be accessed from an interior corridor.
- d. Upper floor units in the BMS-NC District may be accessed from an interior corridor or from exterior stairs (walk-up).
- e. Elevator access may be provided to upper levels, as required by the International Building Code (IBC).
- f. Garages and services shall be accessed from a rear Alley. This type is not allowed on a lot without an Alley.
- g. Services, including utility access, above ground equipment and trash containers shall be located off of the Alley.

6. BUILDING SIZE AND MASSING

- a. Maximum number of stories: 3
- b. Refer to Section 3 for additional District-specific building height standards.



Illustrative Photo: Contemporary Apartment Building

7. FRONTAGES

- a. The main entrance shall be prominent along the street facing facade. Ground floor units with direct street access shall utilize an allowed Frontage Type.
- b. Allowed Frontage Types for Stacked Units are:
 - (1) Forecourt (9.E)
 - (2) Greenbelt (9.F)
 - (3) Porch (9.G)
 - (4) Stoop (9.H)
- c. Refer to Section 9 for Frontage Type definitions and standards.
- d. Refer to Section 3 for applicable District standards for allowed encroachments into required setbacks.

8. LANDSCAPE STANDARDS

- a. The Common standards in 11.C and Multi-family Landscape standards set forth in Section 11.E.2 are applicable to Stacked Unit Buildings.

9. SUSTAINABLE STANDARDS

- a. The Common standards in 12. C and Residential Sustainable standards set forth in Section 12.E are applicable to Stacked Unit Buildings.

10. SITE IMPROVEMENT STANDARDS

- a. The Standards set forth in Section 13 are applicable to Stacked Unit Buildings.



Illustrative Photo: Traditional Walk-up Apartment Building

11. PARKING

- a. Parking may be provided in a surface parking lot, below grade parking structure or in detached parking garages accessed from the Alley.
- b. Residential parking quantity requirements by District - See Section 3.
- c. Dwellings have indirect access to their parking stalls .
- d. Tandem parking stalls are allowed to be used for individual residential units.
- e. Surface parking, if provided, ~~shall~~ be screened from the Primary and Secondary Streets by either placement behind a structure, by fencing per Section 13.A.2 and/or landscaped per Section 11.C.7.c.
- f. See Section 13.D for Common Parking Standards.
- g. Refer to Section 3 for additional District-specific parking standards.

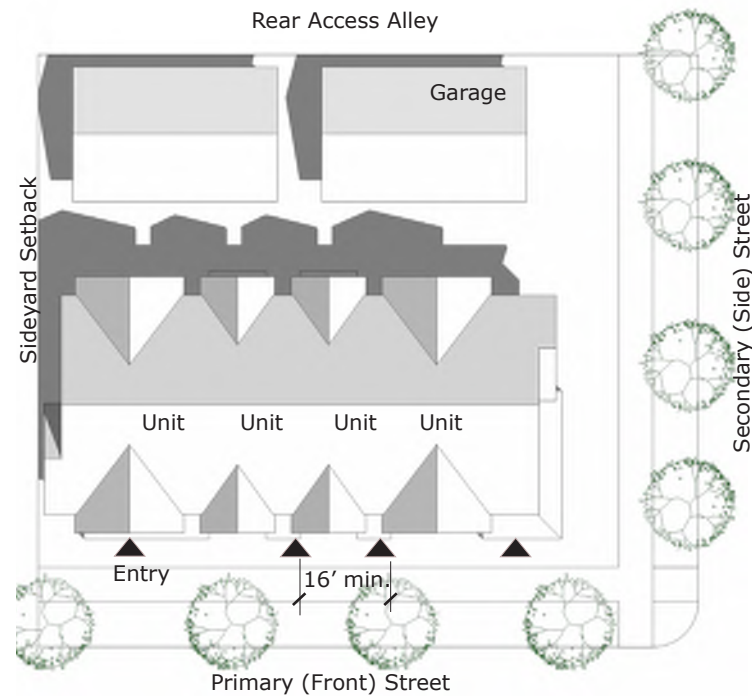
/ Local Street.

may

should

/ Local Street.

/ Local Street.



Illustrative Plan Diagram

1. TYPE DESCRIPTION

The Row House Building Type is a structure of townhouse (multi-level) unit types arranged side by side in a zero lot line configuration. Residential units in Row Houses have individual entrances along the frontage. Entry porches, stoops and raised front yards create a strong presence along the streetscape.

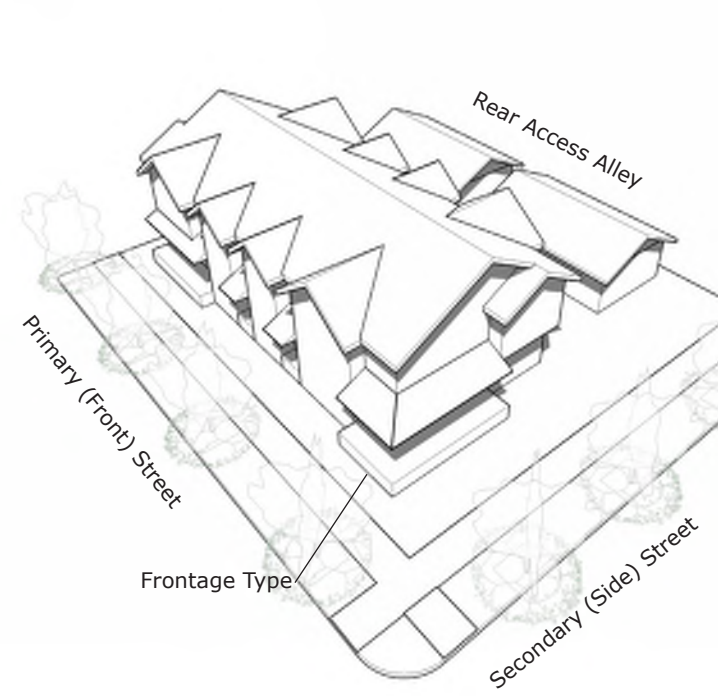
2. APPLICABLE DISTRICTS

The Row House Building Type is allowed in:

- a. Village Mixed-Use (BMS-VMU) (3.B)
- b. Neighborhood Collector (BMS-NC) (3.C)

3. STREETScape

- a. Break up long lines of Row Houses to provide visual relief and pedestrian access to Alleys.
- b. Provide a landscaped separation between buildings of at least 12 ft. wide every 200 ft. or 8 units, whichever is less.
- ~~c. Do not place separations where Row Houses create terminated vistas at a perpendicular street.~~
- d. Corner lots should be wider to accommodate the side street setback along the street and to allow for building articulation and side porches.
- e. Variation in building height, materials and colors is required for multiple row house buildings along a streetscape.
- f. Place garages for end units toward the street to shield any adjacent surface parking.



Illustrative Axonometric Diagram

4. LOT SIZE where applicable.

- a. Width: Minimum 16 ft.
- b. Depth: Minimum 70 ft. (with attached garage)
- c. See applicable District Standards in Section 3 for required setbacks and Build-to-Lines.

5. ACCESS

- a. The main entrance to each unit shall be accessed directly from and face the Primary (front) street. Corner buildings may have access on Secondary (side) street.
- b. Primary access shall comply with one of the allowed frontage types.
- c. Garages and services ~~shall be accessed from a rear Alley. This type is not allowed on a lot without an Alley.~~ are encouraged to
- d. Services, including utility access, above ground equipment and trash containers shall be located off of the Alley.

6. BUILDING SIZE AND MASSING or screened from Primary (front) street.

- a. Maximum number of stories: 3
- b. In a three story building, a townhouse dwelling may be stacked over a ground floor flat. The flat must be accessed by it's own front door at the frontage, and the townhouse dwelling shall be accessed by a separate door and stair.
- c. In a three story building, a townhouse dwelling may be stacked over a garage. The garage must be separated from the street frontage by a habitable space at least 10' in depth.
- d. The massing of the overall primary facade of the building shall be designed such that each unit is clearly expressed.
- e. Refer to Section 3 for additional District-specific building height standards.



Illustrative Photo: Traditional Row House

7. FRONTAGES

- a. Each Row House ground floor level shall be designed so that ~~living areas (i.e. living room, family room, dining room, office/den), rather than sleeping rooms, service rooms or garage, are oriented~~ habitable space is oriented toward the fronting Primary Street or open space.
- b. Each dwelling unit shall have an individual entry access Frontage.
- c. Allowed Frontage Types for Row Houses are:
 - (1) Forecourt (9.E)
 - (2) Greenbelt (9.F)
 - (3) Porch (9.G)
 - (4) Stoop (9.H)
- d. Refer to Section 9 for Frontage Type definitions and standards.
- e. Refer to Section 3 for applicable District standards for allowed encroachments into required setbacks.

8. LANDSCAPE STANDARDS

- a. The Common standards in 11.C and Multi-family Landscape standards set forth in Section 11.E.2 are applicable to Row Houses.

9. SUSTAINABLE STANDARDS

- a. The Common standards in 12. C and Residential Sustainable standards set forth in Section 12.E are applicable to Row Houses.

10. SITE IMPROVEMENT STANDARDS

- a. The Standards set forth in Section 13 are applicable to Row Houses.

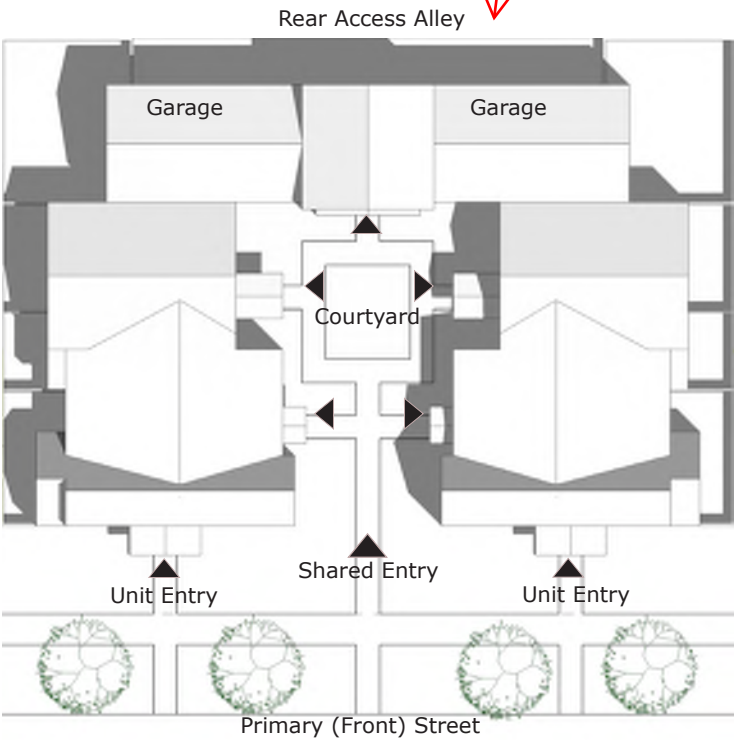


Illustrative Photo: Contemporary Row House with Stoop Frontage

11. PARKING

- a. At least one required parking space shall be in a garage, either attached to or detached from the dwelling ~~and accessed from an Alley.~~
- b. Additional parking may be provided in a surface parking lot accessed from the Alley. / Local Street.
- c. Residential parking quantity requirements by District - See Section 3.
- d. Dwellings may have direct or indirect access to their parking stalls.
- e. Tandem parking stalls are allowed to be used for individual residential units.
- f. Surface parking, if provided, shall be screened from the Primary and Secondary Streets by either placement behind a structure, by fencing per Section 13.A.2 and/or landscaped per Section 11.C.7c.
- g. See Section 13.D for Common Parking Standards.
- h. Refer to Section 3 for additional District-specific parking standards.

8.J COURTYARD HOUSING



Illustrative Plan Diagram

1. TYPE DESCRIPTION

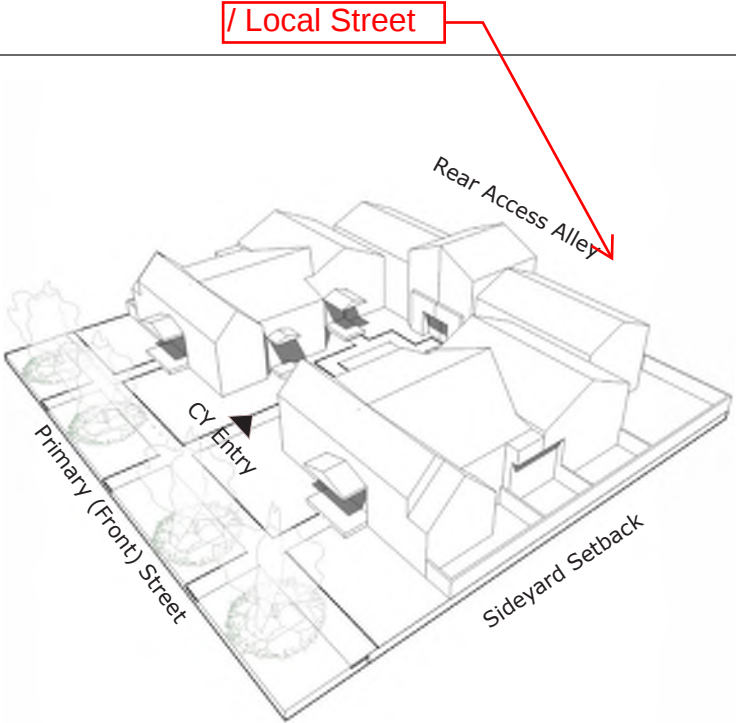
The Courtyard Housing Building Type consists of Multi-family residential units arranged around a central court. The court is open to the facing street. Residential units may be in stacked units, townhouses, or both.

2. APPLICABLE DISTRICTS

- a. Neighborhood Collector (BMS-NC) (3.C)
- b. Neighborhood General (BMS-NG) (3.D)

3. STREETScape

- a. The shared courtyard shall be partially or wholly open to the street.
- b. Portions of buildings adjacent to the frontage line shall address the street with building entries, allowed frontage types and windows such that it is considered a front facade.



Illustrative Axonometric Diagram

4. LOT SIZE

- a. Width: Minimum 125 ft.
- b. Depth: Minimum 100 ft.
- c. See applicable District Standards in Section 3 for required setbacks and Build-to-Lines.

5. ACCESS

- a. The main entry to each ground floor unit is directly off the common courtyard, or from the Primary (front) street.
- b. Upper level residential units shall be accessed by a courtyard level lobby or open stair.
- c. Garages and services shall be accessed from a rear Alley. ~~This type is not allowed on a lot without an Alley.~~
- d. Services, including utility access, above ground equipment and trash containers shall be located off of the Alley.

6. BUILDING SIZE AND MASSING

- a. Maximum number of stories: 2.5
- b. The overall scale of the building shall be minimized through the expression of individual units or unit stacks, designed to a house scale.
- c. Allow for maximum exposure to sunlight in the courtyard through building siting and massing.
- d. Varied building heights are encouraged in the courtyard arrangement and should be utilized to maximize solar exposure to the courtyard.
- e. Refer to Section 3 for additional District-specific building height standards.



Illustrative Photo: Courtyard Apartments - Stacked Flats

7. FRONTAGES

- a. For Courtyard Housing, Frontages shall also apply to the internal courtyard facades.
- b. Allowed Frontage Types for Courtyard Housing Units are:
 - (1) Porch (9.G)
 - (2) Stoop (9.H)
- c. Refer to Section 9 for Frontage Type definitions and standards.
- d. Refer to Section 3 for applicable District standards for allowed encroachments into required setbacks.

8. LANDSCAPE STANDARDS

- a. The Common standards in 11.C and Courtyard Landscape standards set forth in Section 11.E.3 are applicable to Courtyard Housing.

9. SUSTAINABLE STANDARDS

- a. The Common standards in 12. C and Residential Sustainable standards set forth in Section 12.E are applicable to Courtyard Housing.

10. SITE IMPROVEMENT STANDARDS

- a. The Standards set forth in Section 13 are applicable to Courtyard Housing.

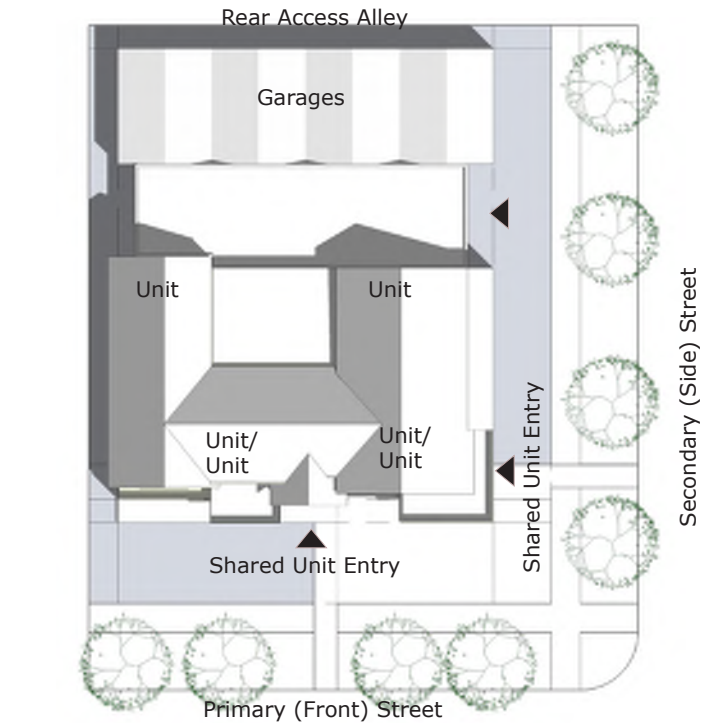
/ Local Street.



Illustrative Photo: Courtyard Apartments - Townhouses

11. PARKING

- a. Parking may be provided in a surface parking lot or in attached or detached parking garages accessed from the Alley.
- b. Residential parking quantity requirements by District - See Section 3.
- c. Dwellings may have direct or indirect access to their parking stalls.
- d. Tandem parking stalls are allowed to be used for individual residential units.
- e. Surface parking, if provided, shall be screened from the Primary and Secondary Streets by either placement behind a structure, by fencing per Section 13.A.1 and/or landscaped per Section 11.C.7c.
- f. Parking is not allowed in the Courtyard.
- g. See Section 13.D for Common Parking Standards.
- h. Refer to Section 3 for additional District-specific parking standards.



Illustrative Plan Diagram

1. TYPE DESCRIPTION

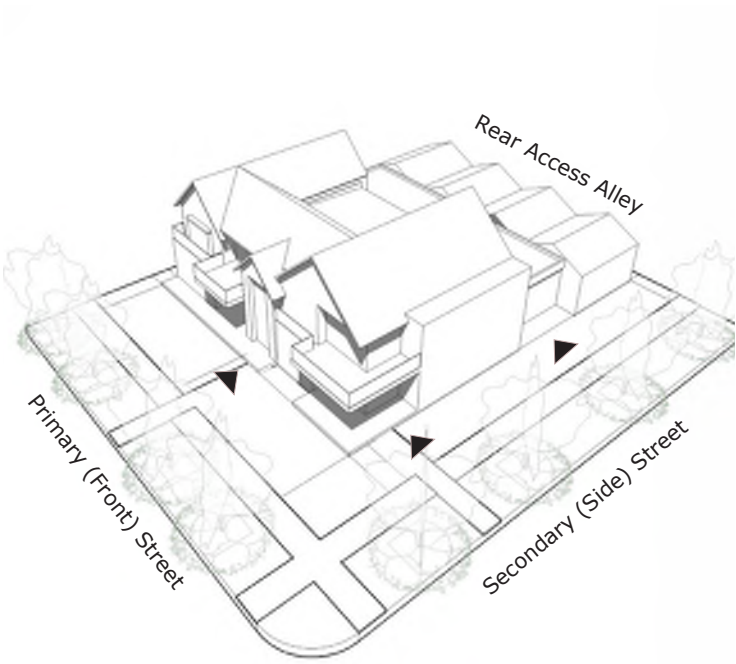
The Mansion Apartment Building Type combines 3 to 6 residences within one structure designed to resemble a large Single-Family “mansion” in a typical neighborhood setting. The units may include stacked flats and/or townhouse units. This Building Type allows for Multi-family, higher density housing to be integrated within Single-Family residential neighborhoods, offering a variety of housing types and affordable options within the neighborhood.

2. APPLICABLE DISTRICTS

- a. Neighborhood Collector (BMS-NC) (3.C)
- b. Neighborhood General (BMS-NG) (3.D)

3. STREETScape

- a. Mansion Apartments shall be designed to be compatible with adjacent Single-Family houses.
 - (1) Mid-block: limited to a maximum of 4 units.
 - (2) Corner: limited to a maximum of 6 units.
- b. In order to maintain the scale of a large Single-Family House, entries to multiple units shall be combined to limit the number of individual entries visible from the street.
 - (1) Mid-block: 2 entries max. at street frontage.
 - (2) Corner: Must utilize both street frontages for entry locations.
- c. Mansion Apartments located in the Neighborhood General District (BMS-NG) shall be sited to lessen the impact on surrounding Single-Family homes as follows;
 - (1) Limited to block ends.
 - (2) Must be sited across from an open space.
- d. Each unit shall have one outdoor space directly accessible from a living area. The space may be provided as a covered porch, patio or balcony and must be at least 6 ft. deep and a total of 72 SF minimum.



Illustrative Axonometric Diagram

4. LOT SIZE

- a. Width: Minimum 70 ft. , Maximum 100 ft.
- b. See applicable District Standards in Section 3 for required setbacks and Build-to-Lines.

5. ACCESS

- a. The main entrances to dwelling units shall be accessed directly from and face the Primary (Front) Street. Corner buildings shall also have access on Secondary (Side) Street.
- b. When located on a corner, Frontage Types and entries shall be provided on both elevations facing the street.
- c. Street frontage entries to multiple units shall be combined: 3-4 units = 2 entries max, 5-6 units = 3 entries max.
- d. If a surface parking lot is provided, the rear facade must also contain unit entries. These entries may be in addition to the maximum street frontages entries.
- e. Garages and services shall be accessed from a rear Alley. This type is not allowed on a lot without an Alley.
- f. Services, including utility access, above ground equipment and trash containers shall be located off of the Alley.

6. BUILDING SIZE AND MASSING

- a. Maximum number of stories: 2.5
- b. Building shall be designed to a scale and massing appropriate for a large Single-Family house.
- c. Refer to Section 3 for additional District-specific building height standards.

7. FRONTAGES



Illustrative Photo: Corner Lot Mansion Apartment (6 units max.)

a. Allowed Frontage Types for Mansion Apartment are:

- (1) Forecourt (9.E)
- (2) Greenbelt (9.F)
- (3) Porch (9.G)
- (4) Stoop (9.H)
- b. Refer to Section 9 for Frontage Type definitions and standards.
- c. Refer to Section 3 for applicable District standards for allowed encroachments into required setbacks.

8. LANDSCAPE STANDARDS

- a. Since this Multi-family Building Type is designed to be integrated into a Single-Family neighborhood, the Common standards in 11.C and the Single-Family Landscape standards set forth in Section 11.E.1 are applicable to Mansion Apartment Buildings.

9. SUSTAINABLE STANDARDS

- a. The Common standards in 12. C and Residential Sustainable standards set forth in Section 12.E are applicable to Mansion Apartment Buildings.

10. SITE IMPROVEMENT STANDARDS

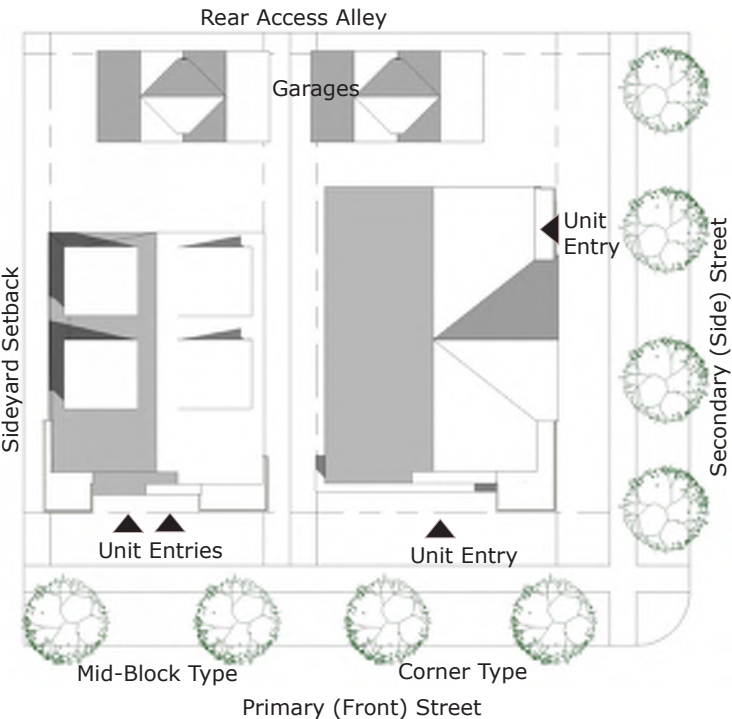
- a. The Standards set forth in Section 13 are applicable to Mansion Apartment Buildings.



Illustrative Photo: Mid Block Mansion Apartment (4 units max.)

11. PARKING

- a. Parking may be provided in a surface parking lot, in attached or detached parking garages accessed from the Alley.
- b. Residential Parking quantity requirements by District - See Section 3.
- c. Dwellings may have direct or indirect access to their parking stalls.
- d. Tandem parking stalls are allowed to be used for individual residential units.
- e. Surface parking, if provided, shall be screened from the Primary and Secondary Streets by wither placement behind a structure, by fencing per Section 13.A.1 and/or landscaped per Section 11.C.7.c.
- f. See Section 13.D for Common Parking Standards.
- g. Refer to Section 3 for additional District-specific standards.



Illustrative Plan Diagram

1. TYPE DESCRIPTION

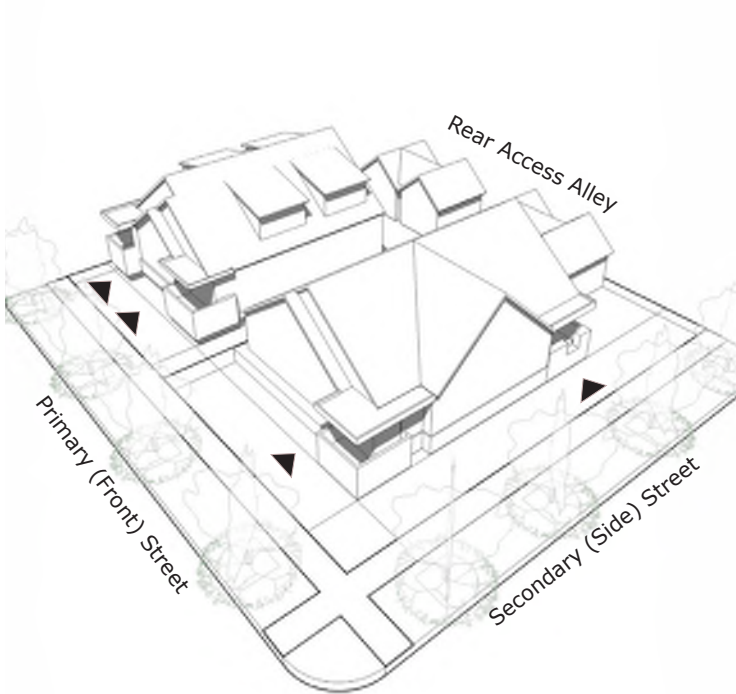
The Paired House Building Type, also known as a Duplex, combines two residences within one structure designed to resemble a Single-Family house in a typical neighborhood setting. The units may include stacked flats or side by side townhouse units. This Building Type allows for smaller scale Multi-family housing to be integrated within Single-Family residential neighborhoods, offering a variety of housing types and affordable options within the neighborhood.

2. APPLICABLE DISTRICTS

- a. Neighborhood Collector (BMS-NC) (3.C)
- b. Neighborhood General (BMS-NG) (3.D)

3. STREETScape

- a. In order to maintain the scale and context of a Single-Family house, entries to multiple units shall utilize one Frontage Type.
- b. The use of corner lots for Paired Houses is encouraged. Corner lots are ideally suited for the Building Type providing for individual unit entries on both street frontages and allowing this Multi-family housing type to blend more easily with adjacent Single-Family houses.
- c. On any block that contains four or fewer lots, Paired Houses are limited to one per block and the lot upon which the Paired House is allowed must be identified on the plat face.



Illustrative Axonometric Diagram

4. LOT SIZE

- a. Width: Minimum 50 ft. , Maximum 70 ft. See section 5.c below for alternate width conditions.
- b. Depth: Minimum 100 ft.
- c. See applicable District Standards in Section 3 for required setbacks and Build-to-Lines.

5. ACCESS

- a. For mid-block buildings, the main entrances to units shall be accessed directly from and face the street. The mid-block units may have separate entries or may be combined in a single exterior entry. The main entrances to dwelling units shall be accessed directly from and face the Primary (front) street.
- b. Corner sites must utilize both street frontages for separate unit entries.
- c. The preferred access for garages and services is the rear Alley. When built on streets with front access residences, lot must be a minimum width of 100 ft. and driveways set apart by 30 ft., or, lot may be 80 ft. minimum width with shared drive to rear garage (side yard driveway access). When built on a corner lot condition, maximum width will be 74 ft. to allow a 10 ft. side yard.
- d. Services, including utility access, above ground equipment and trash containers shall be located off of the Alley, where present.

6. BUILDING SIZE AND MASSING

- a. Maximum number of stories: 2.5
- b. Building shall be designed to a scale and massing appropriate for a Single-Family house.
- c. Individual units may either be expressed or designed to resemble one large Single-Family house.
- d. Refer to Section 3 for additional District-specific building height standards.



Illustrative Photo: Corner Lot Duplex

7. FRONTAGES

- a. Allowed Frontage Types for Paired House are:
 - (1) Forecourt (9.E)
 - (2) Greenbelt (9.F)
 - (3) Porch (9.G)
 - (4) Stoop (9.H)
- b. Refer to Section 9 for Frontage Type definitions and standards.
- c. Refer to Section 3 for applicable District standards for allowed encroachments into required setbacks.

8. LANDSCAPE STANDARDS

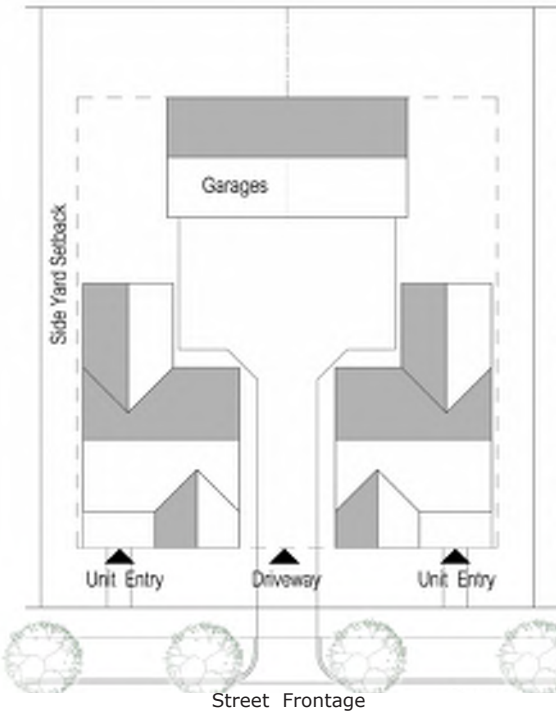
- a. Since this Multi-family Building Type is designed to be integrated into a Single-Family neighborhood, the Common standards in 11.C and the Single-Family Landscape standards set forth in Section 11.E.1 are applicable to Paired Houses.

9. SUSTAINABLE STANDARDS

- a. The Common standards in 12. C and Residential Sustainable standards set forth in Section 12.E are applicable to Paired Houses.

10. SITE IMPROVEMENT STANDARDS

- a. The Standards set forth in Section 13 are applicable to Paired Houses.



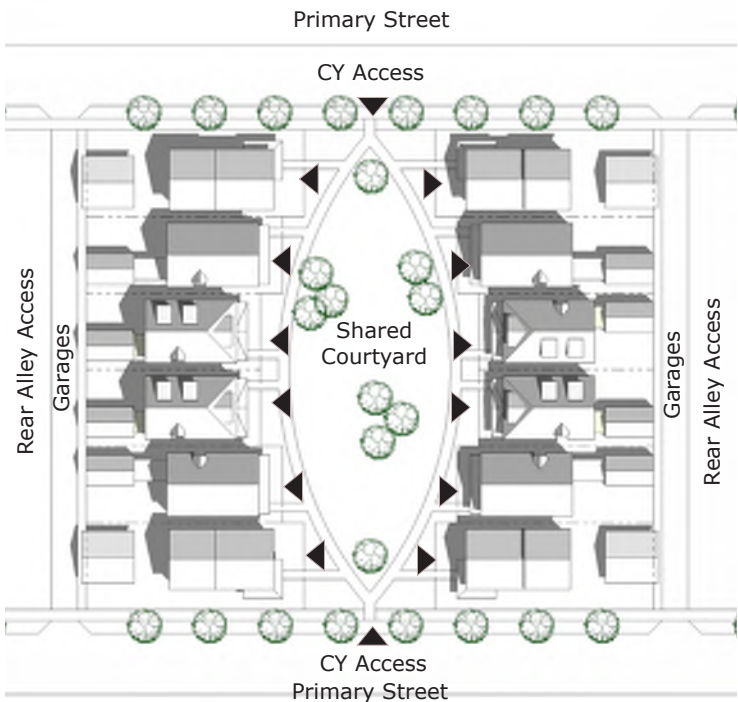
Illustrative Diagram: Mid-Block Duplex

11. PARKING

- a. Parking may be provided in attached or detached parking garages accessed from the Alley where provided. When built on a front load lot, garages shall be set back a minimum of 4 ft. from the front door or 16 ft. or more from the main front facade (side yard driveway access).
- b. Residential Parking quantity requirements by District - See Section 3.
- c. Dwellings may have direct or indirect access to their parking garages.
- d. Tandem parking stalls are allowed to be used for individual residential units.
- e. See Section 13.D for Common Parking Standards.
- f. Additional surface parking, with a minimum depth of 20 ft., may be provided adjacent to garage. Parking shall be screened from the Primary or Secondary streets by either placement behind a structure, by fencing per Section 13.A.1 and/or landscaped per Section 11.C.7.c.
- g. Refer to Section 3 for additional District-specific parking standards.

12. ACCESSORY UNITS

- a. Accessory Units are allowed for the Paired Building Type. See Section 8.P for Accessory Unit Building Type Standards.



Illustrative Plan Diagram - Through Block Court

1. TYPE DESCRIPTION

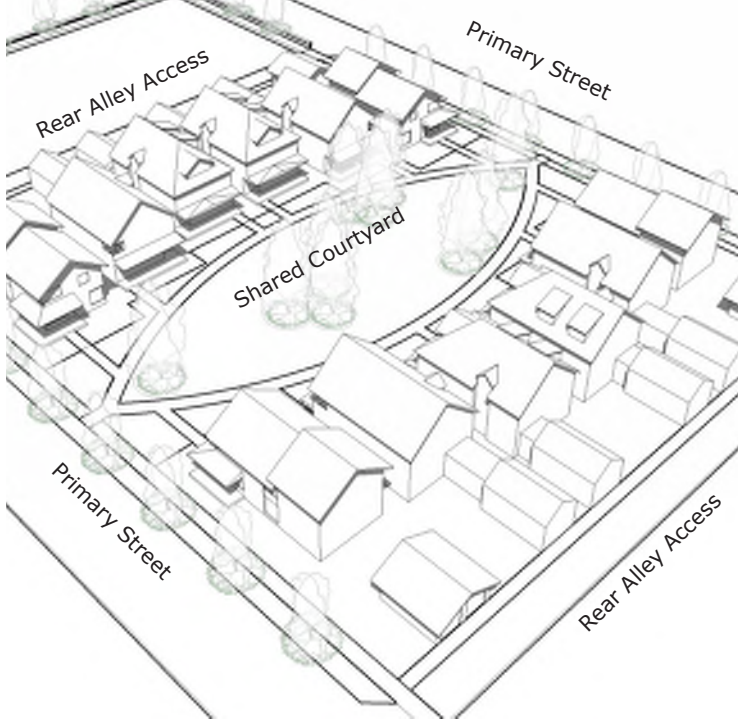
The Cottage Court Building Type consists of free-standing Single-Family residences arranged around a common, shared courtyard. A shared common building may also be provided. House and lot sizes are smaller in comparison to others in the neighborhood. The trade-off for smaller lots is the large common courtyard which may contain a variety of uses: tot lot playground, community gardens, landscaped open space, etc.

2. APPLICABLE DISTRICTS

- a. Neighborhood General (BMS-NG) (3.D)

3. STREETScape

- a. The courtyard shall be either partially or wholly open to the street. The street frontage may be open or maintained by a hedge or low fence. The courtyard entry may be defined by an arbor or similar element but should not be gated.
- b. The courtyard may span an entire block width to provide a mid-block pedestrian connection.
- c. Cottage courts may be wholly open to the street in a corner configuration, serving as a open space to the neighborhood.
- d. Consider locating courtyard open space at terminated vistas at perpendicular streets.
- e. The shared open space and individual houses of Cottage Courts can soften the transition between Districts of higher densities (i.e. BMS-NC to BMS-NG).
- f. Cottage Courts offer solutions for development of irregular shaped blocks.
- g. Portions of buildings adjacent to the street frontage shall address the street with corner elements (i.e. wrap around porch), articulation and windows similar to a front facade.



Illustrative Axonometric Diagram - Through Block Court

4. LOT SIZE

- a. Width: Minimum 35 ft.
- b. Depth: Minimum 70 ft.
- c. See applicable District Standards in Section 3 for required setbacks and Build-to-Lines.

5. ACCESS

- a. The main entrances to dwelling units shall be accessed directly from the courtyard. Units that are adjacent to the street frontage may be accessed from the street (i.e. corner porch).
- b. Garages and services shall be accessed from an Alley. This type is not allowed on a lot without an Alley.
- c. Services, including utility access, above ground equipment and trash containers shall be located off of the Alley.

6. BUILDING SIZE AND MASSING

- a. Maximum number of stories: 2
- b. Massing of houses shall be of a smaller scale, compact configuration.
- c. Allow for maximum exposure to sunlight in the courtyard through building siting and massing.
- d. Refer to Section 3 for additional District-specific building height standards.



Illustrative Photo: Mid Block Cottage Court

7. FRONTAGES

- a. For Cottage Courts, Frontages shall also apply to the internal courtyard facades.
- b. Allowed Frontage Types for Cottage Courts are:
 - (1) Porch (9.G)
 - (2) Stoop (9.H)
- b. Refer to Section 9 for Frontage Type definitions and standards.
- c. Refer to Section 3 for applicable District standards for allowed encroachments into required setbacks.

8. LANDSCAPE STANDARDS

- a. The Common standards in 11.C and the Courtyard Landscape standards set forth in Section 11.E.3 are applicable to Cottage Courts.

9. SUSTAINABLE STANDARDS

- a. The Common standards in 12. C and Residential Sustainable standards set forth in Section 12.E are applicable to Cottage Courts.

10. SITE IMPROVEMENT STANDARDS

- a. The Standards set forth in Section 13 are applicable to Cottage Courts.



Illustrative Photo: Corner Block Cottage Court

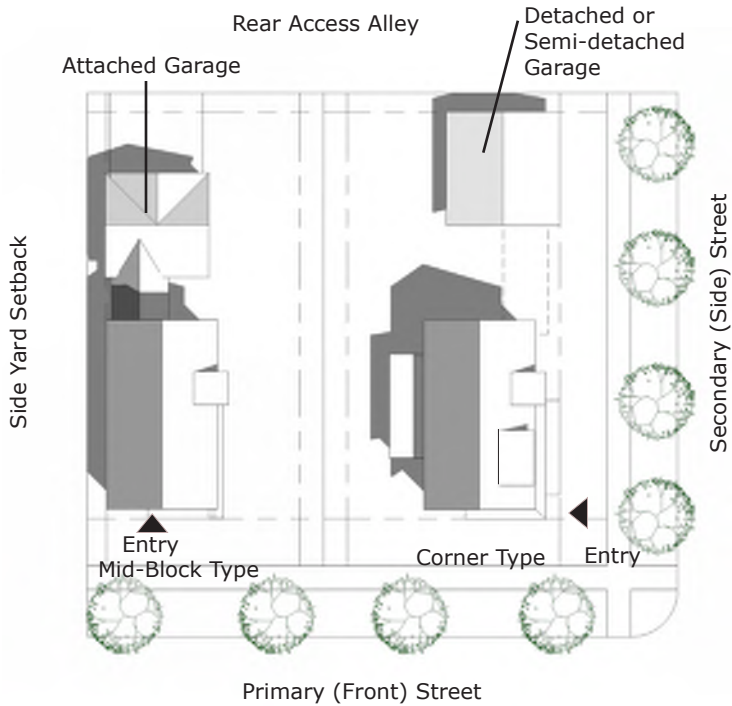
11. PARKING

- a. Parking may be provided in attached or detached parking garages accessed from the Alley.
- b. Small surface lots may be provided off of Alley for additional parking.
- c. Residential Parking quantity requirements by District - See Section 3.
- d. Dwellings may have direct or indirect access to their garages.
- e. Tandem parking stalls are allowed to be used for individual residential units.
- f. Additional surface parking may be provided adjacent to garage for Accessory Unit or Home Occupation use. Parking shall be setback 20 ft. from Alley easement.
- g. Surface parking, if provided, shall be screened from the Primary and Secondary Streets by either placement behind a structure, by fencing per Section 13.A.1 and/or landscaped per Section 11.C.7.c.
- h. Parking is not allowed in the Courtyard.
- i. See Section 13.D for Common Parking Standards.
- j. Refer to Section 3 for additional District-specific building height standards.

12. ACCESSORY UNITS

- a. Accessory Units are allowed for the Cottage Court Building Type. See Section 8.P for Accessory Unit Building Type Standards.

8.N SINGLE-FAMILY HOUSE - ALLEY ACCESS



Illustrative Plan Diagram

1. TYPE DESCRIPTION

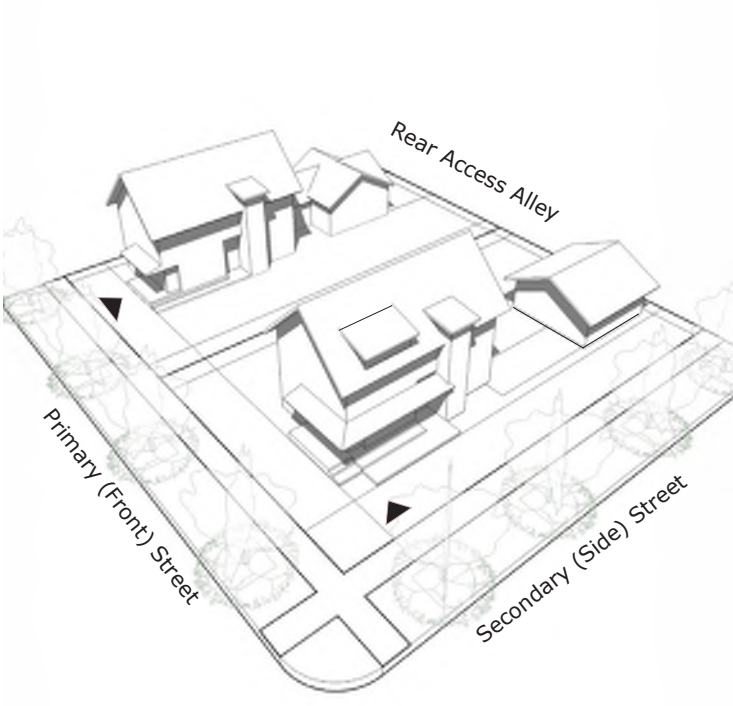
The Single-Family House - Alley Access Building Type is a structure that accommodates one primary residence. Garages are accessed by a rear Alley. Home Occupations may also be allowed per District standards. A variety of lot sizes will allow for a diverse range of Single-Family homes in order to respond to the needs of different households, house sizes and affordability levels.

2. APPLICABLE DISTRICTS

- a. Neighborhood Collector (BMS-NC) (3.C)
- b. Neighborhood General (BMS-NG) (3.D)
- c. Neighborhood Edge (BMS-NE) (3.E)

3. STREETScape

- a. Streetscape diversity is achieved through different models and architectural styles.
- b. Each block face shall contain at least three different models. Different models are defined as those with significant variation in floor plan configuration and minor variation in size or number of bedrooms.
- c. Each of the three models must have at least two architectural styles and color schemes. To further differentiate models, vary wall colors and materials.
- d. Not more than two of the same model with the same architectural style can be used on a block face.
- e. Variety in building height is encouraged along a block face.



Illustrative Axonometric Diagram

4. LOT SIZE

- a. Width: Minimum 40 ft.
- b. Depth: Minimum 100 ft.
- c. See applicable District Standards in Section 3 for required setbacks and Build-to-Lines.

5. ACCESS

- a. The main entry to the building shall be accessed directly from and face the Primary (Front) Street. Corner buildings may have access on Secondary (Side) Street.
- b. Garages and services shall be accessed from a rear Alley. This type is not allowed on a lot without an Alley.
- c. Services, including utility access, above ground equipment and trash containers shall be located off of the Alley.

6. BUILDING SIZE AND MASSING

- a. Maximum number of stories: 2.5
- b. Height may be increased to 3 stories in the BMS-NE District.
- c. Refer to Section 3 for additional District-specific building height standards.



Illustrative Photo: Corner Lot Single-Family House

7. FRONTAGES

- a. Allowed Frontage Types for Single-Family Houses are:
 - (1) Forecourt (9.E)
 - (2) Porch (9.G)
 - (3) Stoop (9.H)
 - (4) Greenbelt Frontage (9.F)
- b. Refer to Section 9 for Frontage Type definitions and standards.
- c. Refer to Section 3 for applicable District standards for allowed encroachments into required setbacks.

8. LANDSCAPE STANDARDS

- a. The Common standards 11.C and the Single-Family Landscape standards set forth in Section 11.E.1 are applicable to Single-Family Houses.

9. SUSTAINABLE STANDARDS

- a. The Common standards in 12. C and Residential Sustainable standards set forth in Section 12.E are applicable to Single-Family Houses.

10. SITE IMPROVEMENT STANDARDS

- a. The Standards set forth in Section 13 are applicable to Single-Family Houses.



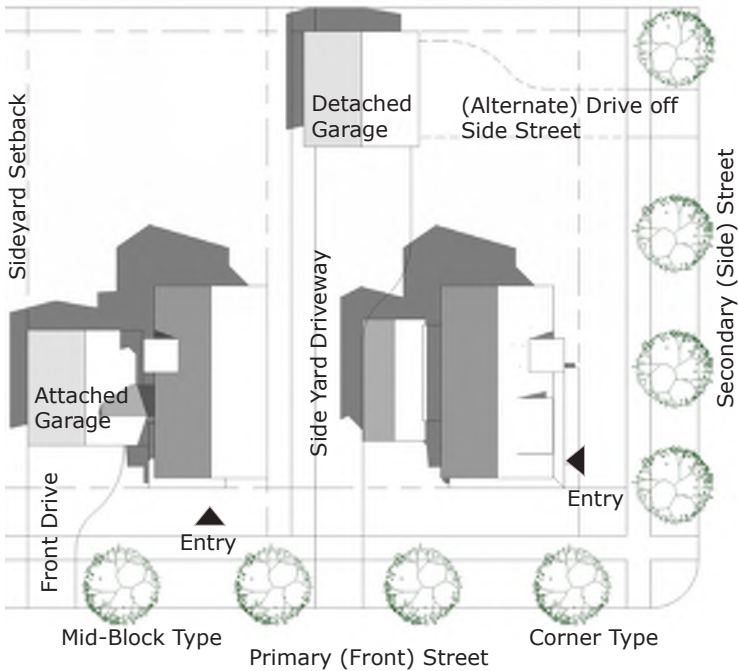
Illustrative Photo: Mid-Block Single-Family House

11. PARKING

- a. Residential Parking quantity requirements by District - See Section 3.
- b. Parking may be provided in attached, semi-detached, or detached garages accessed from the Alley. The use of each these garage types are encouraged within a block to create a varied and more interesting Alley.
- c. Dwellings have direct or indirect access to their garages.
- d. Parking may be provided in Tandem stalls.
- e. Garages shall either be setback 4 ft. from Alley easement (no parking) OR Garages may be setback 16 ft. or more from Alley easement to allow surface parking in front of garage. Setbacks between 4 ft. and 16 ft. are not allowed due to potential parking encroachment in the Alley.
- f. Additional surface parking, with a minimum depth of 20ft., may be provided adjacent to garage. Parking shall be screened from the Primary and Secondary Streets by either placement behind a structure, by fencing per Section 13.A.1 and/or landscaped per Section 11.C.7.c.
- g. Refer to Section 3 for additional District-specific parking standards.

12. ACCESSORY UNITS

- a. Accessory Units are allowed for the Single-Family House - Alley Access Building Type. See Section 8.P for Accessory Unit Building Type Standards.



Illustrative Plan Diagram

1. TYPE DESCRIPTION

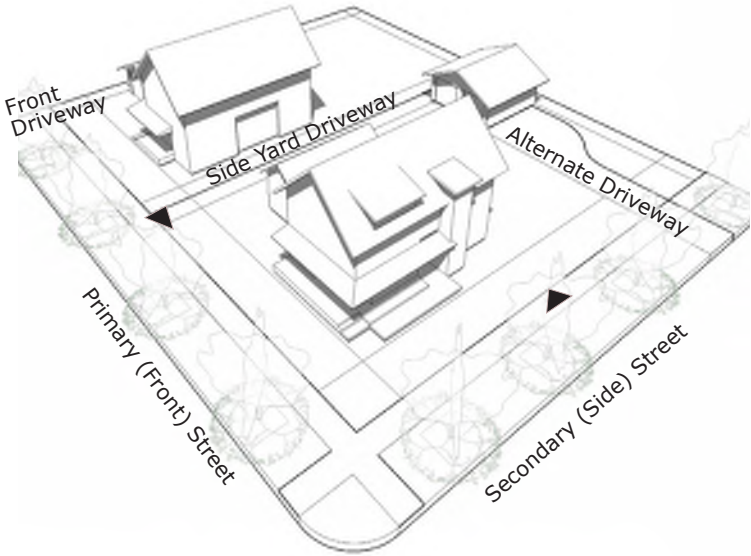
The Single-Family House - Street Access Building Type is a structure that accommodates one primary residence. Garages are accessed from the street by a side yard or front driveway. This type cannot be used if a rear Alley is provided. Home Occupations may also be allowed per District standards. A variety of lot sizes will allow for a diverse range of Single-Family homes in order to respond to the needs of different households, house sizes, and affordable levels.

2. APPLICABLE DISTRICTS

- a. Neighborhood General (BMS-NG) (3.D)
- b. Neighborhood Edge (BMS-NE) (3.E)

3. STREETScape

- a. Street Access Houses require a design and layout that lessens the visual impact of the garages from the street. The preferred solution is the side yard driveway.
- b. Streetscape diversity is achieved through different models and architectural styles. Each block face shall contain at least three different models. Different models are defined as those with significant variation in floor plan configuration and minor variation in size or number of bedrooms.
- c. Each of the three models must have at least two architectural styles and color schemes. To further differentiate models, vary wall colors and materials.
- d. Not more than two of the same model with the same architectural style can be used on a block face.
- e. Variety in building height is encouraged along a block face.



Illustrative Axonometric Diagram

4. LOT SIZE

- a. Width: Min. 50 ft. ~~for side yard drive, 60 ft. for front drive~~
- b. Depth: Minimum 100 ft.
- c. See applicable District Standards in Section 3 for required setbacks and Build-to-Lines.

5. ACCESS

- a. The main entry to the building shall be accessed directly from and face the Primary (Front) Street. Corner buildings may have access on Secondary (Side) Street.
- b. Garages and services shall be accessed from the street in either a side yard driveway or front driveway condition. On corner lots the garage may be accessed from the Secondary (side) Street.
- c. A minimum of 40% per block face of Single-Family - Street Access Houses shall have a side yard driveway condition.
- d. A maximum of 60% per block face of Single-Family - Street Access Houses may have a front driveway condition.
 - (1) Garages shall be setback a minimum of 24 ft. from the property line.
- e. Driveways shall be placed a minimum of 30 ft. apart unless combined into a shared driveway condition.
- f. Services, including utility access, above ground equipment and trash containers shall be located off of the street and screened from view.

6. BUILDING SIZE AND MASSING

- a. Maximum number of stories: 2.5
- b. Height may be increased to 3 stories in the BMS-NE District.
- c. Garages shall be secondary to the front elevation of the house and in no case may the garage be more than 40 percent of the structure facade.
 - (1) Detached or semi-detached garages shall be set to the



Illustrative Photo: Side Yard Driveway Access

- rear of the lot with a side yard driveway. Corner lots may have driveway access from the Secondary (side) Street.
- (2) Attached garages with a front driveway condition shall be setback a minimum of 4 ft. from the front facade, or reduced (1) story minimum in height from the main portion of the house. When otherwise permitted, attached garages with a front driveway condition may have three bays when one of the bays is recessed a minimum of 8 ft. from the other garage bays and when a Porch Frontage Type is used with a porch at least 80 sq. ft. in size, (See Section 9.G).
- (3) Attached garages at corner lots may be accessed from the secondary side street, however the Primary (front) Street facing facade shall have articulation and windows, similar to the front facade.
- (4) If an attached garage is setback 16 ft. or more from the main facade of the house, or if the conditions of c(5) below are met, it shall be considered as a side yard driveway condition per 5.c. block face percentage calculation.
- (5) A garage may be part of a front facade when the garage has a side driveway condition. With a side driveway condition, the garage portion of the facade facing the street will feature design elements to match the residence. These elements may include similar window types, an upper story, and/or further architectural articulation complementary to the principal structure.
- d. Refer to Section 3 for additional District-specific building height standards.

7. FRONTAGES

- a. Allowed Frontage Types for Single-Family Houses are:
 - (1) Forecourt (9.E)
 - (1) Porch (9.G)
 - (2) Stoop (9.H)



Illustrative Photo: Front Driveway Garage

- b. Refer to Section 9 for Frontage Type definitions and standards.
- c. Refer to Section 3 for applicable District standards for allowed encroachments into required setbacks.

8. LANDSCAPE STANDARDS

- a. The Common standards 11.C and the Single-Family Landscape standards set forth in Section 11.E.1 are applicable to Single-Family Houses.

9. SUSTAINABLE STANDARDS

- a. The Common standards in 12. C and Residential Sustainable standards set forth in Section 12.E are applicable to Single-Family Houses.

10. SITE IMPROVEMENT STANDARDS

- a. The Standards set forth in Section 13 are applicable to Single-Family Houses.

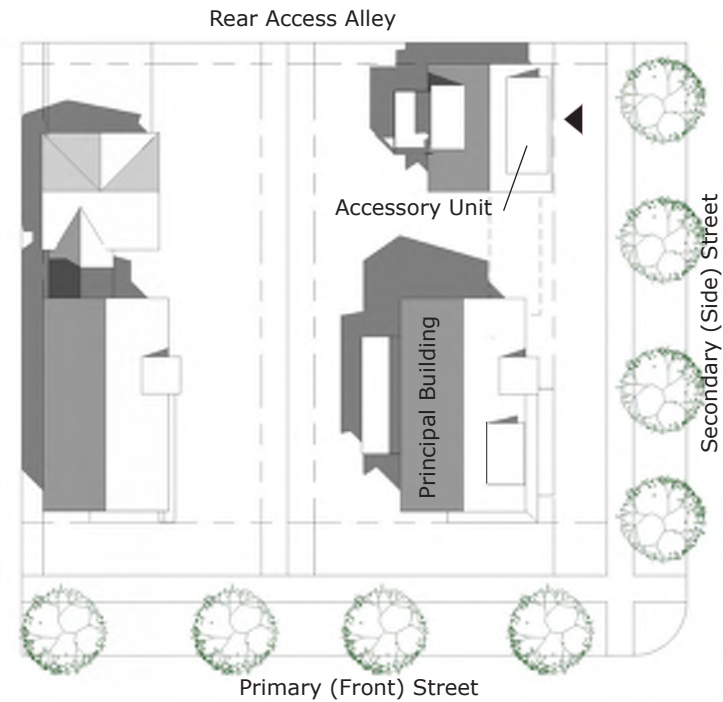
11. PARKING

- a. Residential Parking quantity requirements by District - See Section 3.
- b. Parking may be provided in attached, semi-detached, or detached garages accessed from the street.
- c. Dwellings have direct or indirect access to their garages.
- d. Parking may be provided in Tandem stalls.
- e. Refer to Section 3 for additional District-specific parking standards.

12. ACCESSORY UNITS

- a. Accessory Units are allowed for the Single-Family House - Street Access Building Type. See Section 8.P for Accessory Unit Building Type Standards.

8.P ACCESSORY UNIT



Illustrative Plan Diagram

1. TYPE DESCRIPTION

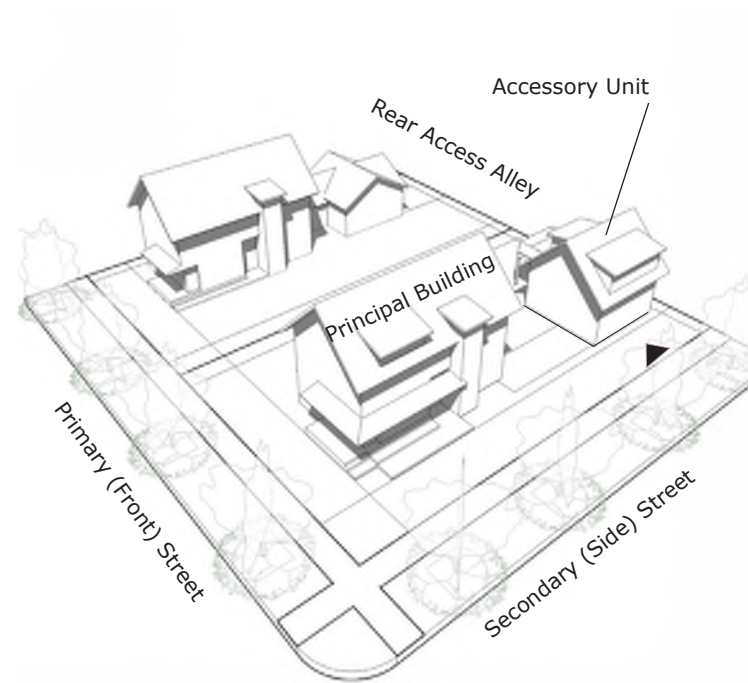
The Accessory Unit Building Type is a structure that accommodates accessory uses above a detached or semi-detached garage or within the principal building. The Accessory Unit is located on a lot which also contains the principal building. The Accessory Unit can be used as an accessory (rental) dwelling, home office, or simply additional living space. The units may contain permanent provisions for working, living, sleeping, eating cooking and sanitation. Dwelling units in the Accessory Unit Type are not included in the density counts for the community.

2. APPLICABLE DISTRICTS

- a. Neighborhood General (BMS-NG) (3.D)
- b. Neighborhood Edge (BMS-NE) (3.E)

3. STREETScape

- a. Corner lot Accessory Units are ideally suited for Home Occupation uses due to visibility from the street.
- b. Accessory Units enliven the Alley streetscape with activity and architectural interest, however their use is limited to avoid intense density in Alleys.



Illustrative Axonometric Diagram

4. LOT SIZE

- a. Width: Minimum per Principal Building Type
- b. Depth: Minimum per Principal Building Type
- c. See applicable District Standards in Section 3 for required setbacks and Build-to-Lines.

5. ACCESS

- a. The unit is located above a detached or semi-detached garage. Access to the upper level unit may be by an open or enclosed stair.
- b. The main entry to the unit must be separate from the garage below and direct to the exterior.
- c. The entry may be accessed from the Alley, side street, rear or sideyard of the main house.
- d. Where an Alley is present, parking and services shall be located off of the Alley.

6. BUILDING SIZE AND MASSING

- a. Maximum number of stories: 2, but in all cases not taller than the principal structure.
- b. The maximum size of an Accessory Unit above a detached or semi-detached garage is 600 SF.
- c. The maximum size of an Accessory Unit attached to the principal structure is 440 SF.
- d. The design and massing of the Accessory Unit shall be compatible with the principal building.
- e. Accessory Units are limited to 50% per block face.
- f. Refer to Section 3 for additional District-specific building height standards.



Illustrative Photo: Corner Lot / Alley Access Accessory Unit

7. FRONTAGES

- a. Frontage Types are not applicable for Accessory Units.
- b. Refer to Section 3 for applicable District Standards for allowed encroachments into required setbacks.

8. LANDSCAPE STANDARDS

- a. The Common standards 11.C and the Single-Family Landscape standards set forth in Section 11.E.1 are applicable to Accessory Units.

9. SUSTAINABLE STANDARDS

- a. The Common standards in 12. C and Residential Sustainable standards set forth in Section 12.E are applicable to Accessory Units.

10. SITE IMPROVEMENT STANDARDS

- a. The Standards set forth in Section 13 are applicable to Accessory Units.



Illustrative Photo: Street Access Accessory Unit

11. PARKING

- a. Residential Parking quantity requirements by District - See Section 3.
- b. Parking standards for the principal building apply.
- c. At Alley conditions one additional surface parking stall may be provided adjacent to garage for Accessory Unit or Home Occupation use. Parking shall be setback 20 ft. from Alley easement and shall be screened from the Primary and Secondary Streets by either placement behind a structure, by fencing per Section 13.A.1 and/or landscaped per Section 11.C.7.c.
- d. Refer to Section 3 for additional District-specific parking standards.



**FRONTAGE
TYPE
STANDARDS**

9

Section 9 identifies design standards for the Frontage Types permitted in each district.

9.A Introduction	9-2
9.B Storefront	9-2
9.C Arcade	9-2
9.D Gallery	9-2
9.E Forecourt	9-3
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9.A INTRODUCTION

1. Purpose

This Section identifies the design standards for each of the Building Types allowed within the Districts that make up the Badger Mountain South community. These regulations ensure that the proposed development is consistent with the project goals for building form, character and quality.

The Building Type Standards include:

- Type Description
- Required Lot Size
- Pedestrian Access
- Allowed Frontage Types
- Vehicle Access and Parking,
- Open Space Requirements
- Landscape Requirements
- Building Size and Massing
- Allowed Architectural Styles

2. Applicability

Each proposed building shall be designed in compliance with the standards of this Section for the applicable Building Type. Civic, Community and Institutional Buildings, as well as stand-alone Commercial Buildings are exempt from these standards due to their unique disposition and application. These building types shall be approved under special review by the Master Plan Architect (MPA).

3. Allowable Building Types by District

Each proposed building shall be designed as one of the types allowed by the Allowed Building Type by District Table in Section 2.3 and the Building Type Standards Summary Table Section 7.2.

In addition to the standards in this Section, each Building Type is subject to the requirements of the applicable District standards in Section 3, the applicable Frontage Type Standards in Section 8, as well as the Architectural Standards in Section 9..

Section 3 District Standards identify the Intent of the District and regulate the Building Placement on Lot (Setbacks & Encroachments), Building Profile and Type (Building Height, Building Types and Frontage Types) and Parking (Placement, Access & Requirements).

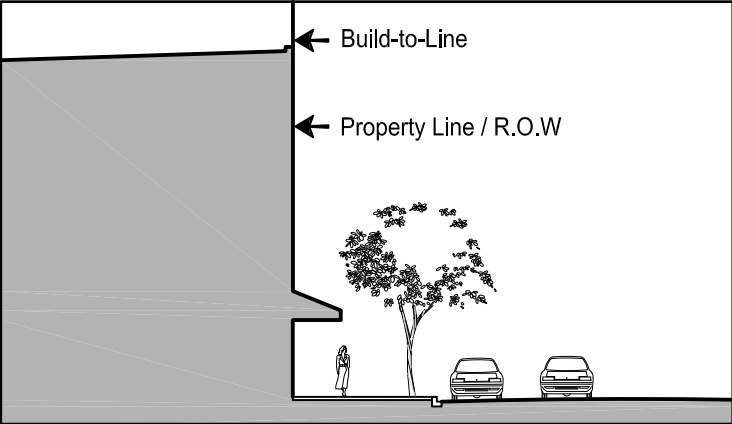
Section 8 Frontage Type Standards define the various allowed Frontage Types and identifies the required configuration (depth, width, height, components, etc) of each type.

Section 9 Architectural Standards identifies and defines the allowed Architectural Styles for development within the Badger Mountain South community.

9.B Storefront



Illustrative Photo: Commercial Streetscape Storefront Frontage



Standards Diagram Section - Storefront

1. DESCRIPTION

The Storefront Frontage Type is appropriate for Districts and Building Types that contain ground floor commercial and retail uses. This Frontage Type includes large areas of transparent glazing and doors. The main facade of the building is at or near the Build-to-Line. Canopies and awnings overlap the sidewalk along the majority of the Frontage and are wide enough to provide overhead weather protection and pedestrian scale at the street level.

2. APPLICABLE DISTRICTS

- a. Village Mixed-Use (BMS-VMU) (3.B)
- b. Neighborhood Collector - Commercial (BMS-NC) (3.C)

3. APPLICABLE BUILDING TYPES

- a. Neighborhood Goods and Services Buildings (8.E)
- b. Commercial / Mixed-Use/ Liner (8.F)
- c. Live/Work Building (8.G)

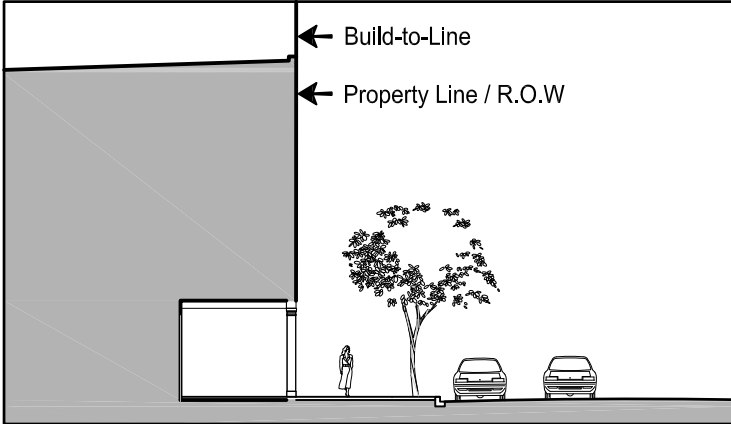
4. STANDARDS

- a. Placement: At or near Build-to-Line, per District.
- b. Windows and Doors: At least 75% of the first floor wall area along the primary frontage shall have transparent glazed openings between 2 ft. and 9 ft. above the sidewalk level. The Storefront shall provide clear views of merchandise displays within the space a min. of 4 ft. in depth. Entrances are at sidewalk grade.
- c. Elements: Canopies and awnings shall overlap the sidewalk 5 ft. min. in depth and provide 8 ft. min. /16 ft. max. clear height, as measured above the adjacent sidewalk. A City of Richland Sidewalk Use Licence is required for elements that extend over a public sidewalk.
- d. Cafe seating and merchandise display is encouraged on the sidewalk in front of the Storefront. Five ft. of unobstructed sidewalk must be provided between the curb line and the outdoor seating area.

9.C ARCADE



Illustrative Photo: Outdoor Dining at Arcade Frontage



Standards Diagram Section - Arcade

1. DESCRIPTION

The Arcade Frontage Type is appropriate for Districts and Building Types that contain ground floor commercial and retail uses. Arcade Frontage includes a colonnade supporting habitable commercial or residential space above. The colonnade provides pedestrian shelter and opportunities for covered outdoor dining and merchandise display.

2. APPLICABLE DISTRICTS

- a. Village Mixed-Use (BMS-VMU) (3.B)
- b. Neighborhood Collector - Commercial (BMS-NC) (3.C)

3. APPLICABLE BUILDING TYPES

- a. Neighborhood Goods and Services Buildings (8.E)
- b. Commercial / Mixed-Use/ Liner (8.F)
- c. Live/Work Building (8.G)

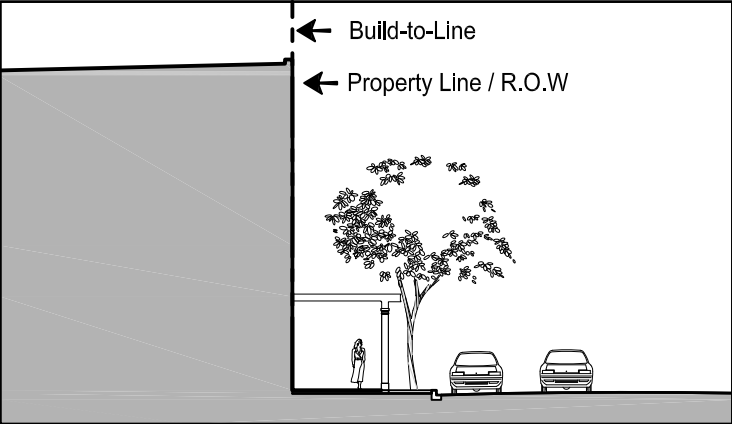
4. STANDARDS

- a. Placement: At or near Build-to-Line, per District.
- b. a. Windows and Doors: Storefronts shall correspond to colonnade spacing. The Storefront shall provide clear views of merchandise displays within the space. Entrances are at sidewalk grade.
- c. b. Elements: Arcade shall be no less than 8 ft. wide and 10 ft. tall.
- d. e. Cafe seating and merchandise display is encouraged in the Arcade. A City of Richland Sidewalk Use License is required for use of a public sidewalk.

9.D GALLERY



Illustrative Photo: Gallery Frontage Streetscape



Standards Diagram Section - Gallery

1. DESCRIPTION

The Gallery Frontage Type is appropriate for Districts and Building Types that contain ground floor commercial and retail uses. Gallery Frontage includes a colonnade supporting a roof or balcony above. The colonnade covers the sidewalk and provides pedestrian shelter and opportunities for covered outdoor dining and merchandise display.

2. APPLICABLE DISTRICTS

- a. Village Mixed-Use (BMS-VMU) (3.B)
- b. Neighborhood Collector - Commercial (BMS-NC) (3.C)

3. APPLICABLE BUILDING TYPES

- a. Neighborhood Goods and Services Buildings (8.E)
- b. Commercial / Mixed-Use/ Liner (8.F)
- c. Live/Work Building (8.G)

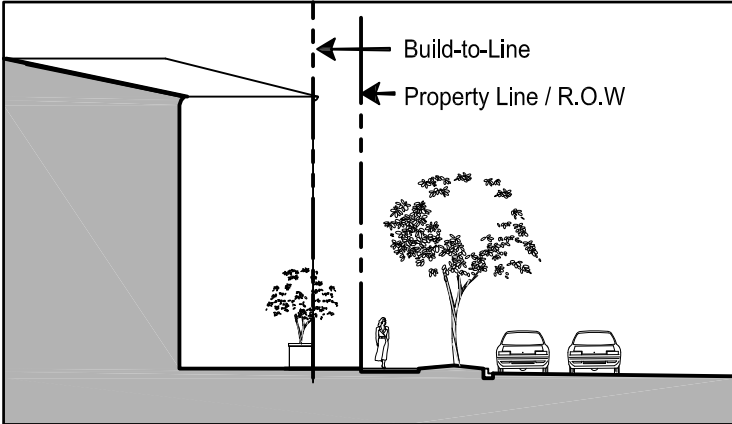
4. STANDARDS

- a. Placement: Colonnade may overlap the width of the sidewalk to within 5 ft. of the curb. Overlap of R.O.W. requires easement.
- b. Windows and Doors: Storefronts shall correspond to colonnade spacing. The Storefront shall provide clear views of merchandise displays within the space. Entrances are at sidewalk grade.
- c. Elements: Gallery shall be no less than 8 ft. wide and 10 ft. tall.
- d. Cafe seating and merchandise display is encouraged in the Gallery. A City of Richland Sidewalk Use License is required for use of a public sidewalk.

9.E FORECOURT



Illustrative Photo: Residential Entry Court



Standards Diagram Section - Greenbelt

1. DESCRIPTION

The Forecourt Frontage Type is appropriate for either residential or commercial Districts and Building Types. This Frontage includes a small court space that is setback while the majority of the building is placed at or near the frontage line. The Forecourt may be used as an entry court and shared garden space for residential uses, or as additional shopping or restaurant seating areas within commercial districts. This type should be used sparingly along a block frontage.

2. APPLICABLE DISTRICTS

- Village Mixed-Use (BMS-VMU) (3.B)
- Neighborhood Collector (BMS-NC) (3.C)
- Neighborhood General (BMS-NG) (3.D)
- Neighborhood Edge (BMS-NE) (3.E)

3. APPLICABLE BUILDING TYPES

- All Building Types (Section 8)

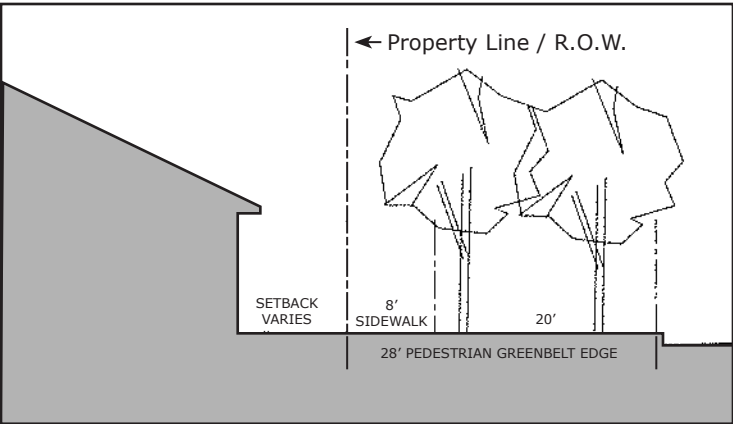
4. STANDARDS

- Placement: Court space shall front onto a street. The proportions and solar orientation should be carefully considered for user comfort.
- Windows and Doors: Entrances are at sidewalk grade.
- Elements: A small wall, hedge or fence shall be placed along the frontage line where it is not defined by a building; see Fencing Standards, section 13.A.
- Large trees placed in the Forecourt may overhang the sidewalks.

9.F GREENBELT



Illustrative Photo: Row Houses on Greenbelt



Standards Diagram Section - Greenbelt

1. DESCRIPTION

The Greenbelt Frontage Type is located per the Regulating Plan for Civic Spaces (5.B) primarily along Collector streets and serve as a "green connection" and trail network to amenities throughout the community. This Frontage Type serves as a buffer from the Collector Streets.

2. APPLICABLE DISTRICTS

- Neighborhood Collector (BMS-NC) (3.C)
- Neighborhood General (BMS-NG) (3.D)

3. APPLICABLE BUILDING TYPES

- All Building Types allowed in District (Section 8)

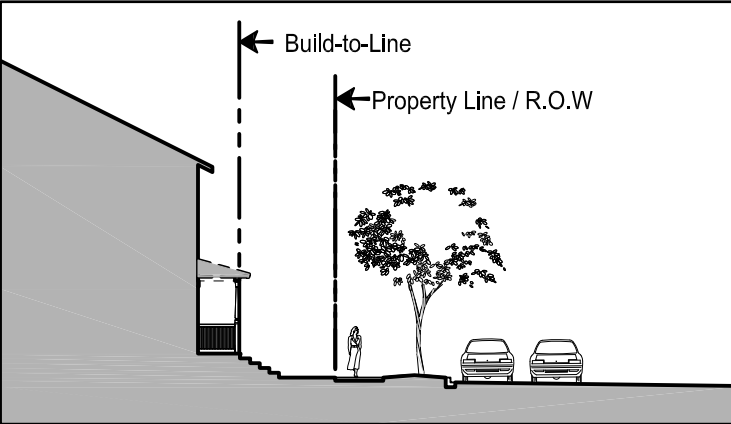
4. STANDARDS

- Placement: The Greenbelt frontage creates a deep landscaped setback from the street. Buildings fronting on the greenbelt may have any of the allowable frontages for the Building Type (i.e. Porch, Stoop, etc.)
- Windows and Doors: Entrances may be at or above sidewalk grade.
- Elements: Frontage onto Greenbelt may be undefined or defined by fence or hedge.
- An 8 ft. min. wide sidewalk located along the property line will provide the public access for adjacent buildings.
- A Primary or Secondary Trail will meander through the Greenbelt, see 5.K Illustrative Trail Layout Plan. When a Primary Trail is co-located within a Greenbelt, the Trail shall take on the development standards of the Greenbelt and no additional sidewalk is required.
- The Greenbelt shall be a minimum of 28 ft. deep along building Frontages.
- See Section 5.H for additional Greenbelt standards.

9.G PORCH



Illustrative Photo: Single-Family Front Porches



Standards Diagram Section - Porch

1. DESCRIPTION

The Porch Frontage Type is appropriate for all residential Districts and Building Types. This Frontage includes a covered roof area enclosing an outdoor room deep enough for seating. The Porch provides a transition between public and private space and creates opportunity for interaction between neighbors.

2. APPLICABLE DISTRICTS

- Village Mixed-Use - Residential only (BMS-VMU) (3.B)
- Neighborhood Collector (BMS-NC) (3.C)
- Neighborhood General (BMS-NG) (3.D)
- Neighborhood Edge (BMS-NE) (3.E)

3. APPLICABLE BUILDING TYPES

- All Residential Building Types (8.F-8.O)

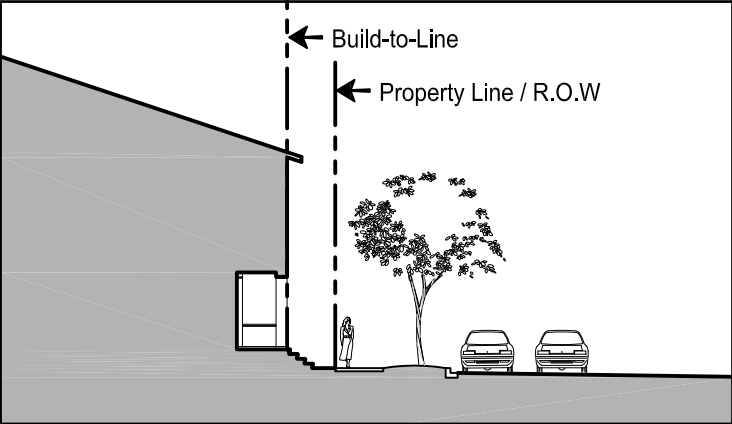
4. STANDARDS

- Placement: Building front shall be placed back far enough to allow for a Porch and stair, if required. Stair may encroach into required setback.
- Windows and Doors: Entrances may be at or above sidewalk grade.
- Elements: Porch shall be no less than 6 ft. deep to allow for usable seating area. However, the Porch may be reduced to a depth of 4.5 ft. to meet house and architectural style requirements. Upper floor decks are permitted above the Porch.

4



Illustrative Photo: Row House Stoop Frontages



Standards Diagram Section - Stoop

1. DESCRIPTION

The Stoop Frontage Type is appropriate for Districts and Building Types that contain higher density housing where the ground floor residential use is close to the frontage line and raised from the street for privacy. This Frontage includes an exterior stair and landing and may be covered.

2. APPLICABLE DISTRICTS

- Village Mixed-Use - Residential only (BMS-VMU) (3.B)
- Neighborhood Collector (BMS-NC) (3.C)
- Neighborhood General (BMS-NG) (3.D)
- Neighborhood Edge (BMS-NE) (3.E)

3. APPLICABLE BUILDING TYPES

- All Multi-Family Building Types (8.F-8.M)
- Single-Family Homes, if appropriate for style (8.N-8.O)

4. STANDARDS

- Placement: Building facade may be setback the depth of the entry stair from the sidewalk. Stair may encroach into required setback.
- Windows and Doors: Entrances are raised 2 ft. - 5 ft. above sidewalk grade, where feasible.
- Elements: The Stoop may include a covered roof, awning, or door may be inset within the building front.

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**LANDSCAPE
STANDARDS**

11

Section 11 describes the landscape guidelines and standards for the Badger Mountain South community.

11.A	Introduction.....	11-2
11.B	Guiding Principles.....	11-2
11.C	Common Standards Applicable to all Districts.....	11-3
11.D	Civic and Commercial District Standards.....	11-4
11.E	Residential Standards.....	11-4
11.F	Drought Tolerant and/or Native/Naturalized Plant List.....	11-5 - 11-11
11.G	Refined Plant List.....	11-12-11-15

11.A INTRODUCTION

The landscape guidelines and standards which follow are intended to complement the natural beauty of the Badger Mountain Preserve, help define the Badger Mountain South neighborhoods and commercial areas and provide a visually pleasant gateway into the City of Richland.

The landscape character of the Badger Mountain South community as identified in these standards borrows heavily from the precedent of the original shrub-steppe landscape found here. However that historical character is joined with other opportunities for a more refined and urban landscape pattern that relates to edges of uses and defines spaces into activity areas.

This section is divided into the following sub-sections: Guiding Principles, which suggest the overall orientation for all landscape applications; Common Standards, which apply to all Districts; District-specific landscape standards; and finally extensive plant lists of materials suitable in a variety of situations.

11.B GUIDING PRINCIPLES



1. WATER CONSERVATION

- a. Drought tolerant plants.
- b. Native/naturalized plants, suitable for site.
- c. Plants grouped into areas of similar water needs.



3. REFINED LANDSCAPE

- a. Design active use areas with soft ~~native plant~~ edge to frame in activity and blend in with ~~native~~ character.
- b. Provide drought tolerant, low grow lawn in active open space as needed for use.



WATER CONSERVATION continued

- d. Design for low maintenance.
- e. Drip irrigation shall be primary irrigation system throughout community.
- f. Lawn to be drought tolerant.



4. TREES

- a. Encourage street tree organization in grouped spacing; vary pattern.
- b. ~~Street~~ trees in green belts arranged in varied pattern.
- c. Encourage use of trees to promote shade, air quality, and diverse ecosystems.



2. REGIONAL LANDSCAPE CHARACTER

- a. Establishment of regional landscape character is encouraged.



5. ENGAGE ALL SENSES

- a. Design with five senses in mind.
- b. Plants should be:
 - Colorful
 - Fragrant
 - Have varied texture
 - Layer plants of different structure for sound variation
 - Edible



Water Conserving Street Frontage Landscape

Alley Landscape

1. GENERAL STANDARDS

- Landscape design should be both aesthetic and functional.
- Landscape design should enhance the building architecture and frame significant architectural elements.
- Landscape design may be informal, as applied to large use areas, or refined, as applied in commercial and residential districts.
- The use of trellises, arbors, planters, low walls and similar, are encouraged and when used should complement the building style.
- Mature tree height should be accounted for when locating trees near any utility and otherwise planted 10-feet from all utilities.
- Landscaping within a Clear Vision Triangle must not be higher than 18-inches when mature.
- Plant materials should be selected from the Drought Tolerant and/or Native/naturalized Plant List and Refined Plant List, Sections 11.F-11.G. Plants not selected from the lists must be native, naturalized, drought tolerant, and/or suitable in Tri-Cities Region USDA Hardiness Zone.
- Water conservation may be achieved by a combination of any of the following techniques:
 - Group plants into areas of similar water need;
 - Locate plants based on solar orientation, exposure and drainage patterns;
 - Amend soil based on existing conditions;
 - Design for low maintenance; and
 - Select plant materials from the approved plant lists.

2. IRRIGATION

- Irrigate street frontage, alley, front, front/side yard transition, rear, side yard, and greenbelt landscape using a drip or sub-surface irrigation system, until plants are established. Spray irrigation system exceptions may be granted for Usable Lawn areas only.
- Use rain or moisture sensor with automatic control as needed.

3. STREET FRONTAGE / MEDIAN LANDSCAPE

- Street tree planting is required along all public streets and medians. Builders must provide street trees aligned in

unless otherwise dictated by site constraints

a. At a minimum, all landscape design must conform with the requirements of RMC 23.54 Off-Street Parking and Landscaping

or other COR approved equivalent.

- clusters of varied spacing or equal spacing depending on the street character.
- When street trees are planted with equal spacing, spacing shall be 30 ft. o.c., typ. or as noted in Section 6: Street Standards per Edge Type 6.C-6.H.
- When street trees are planted in clusters of varied spacing, street trees shall be a minimum of 20 ft. o.c. in groupings of 3 or 5.
- Street tree minimum size at installation as follows:
 - Arterial Street - 2" caliper 1.5
 - Collector Street - 2" caliper 1.5
 - Local Street - 2" caliper 1.5
- Street trees must be parallel to the curb and centered in the landscape planter.
- Street frontage landscape planter shall consist of low maintenance, drought tolerant ornamental grasses, shrubs, or groundcover not to exceed 24" ht., or 18" ht. within 20 ft. of all intersections.
- See Section 6: Street Standards for width and location of street frontage landscape planter per Edge Type 6.C-6.H.
- Medians shall be a minimum width of 10 feet. Landscape shall consist of low maintenance, drought tolerant ornamental grasses, shrubs, or groundcover not to exceed 24" ht., or 18" ht. within 20 ft. of all intersections.

4. ALLEY LANDSCAPE

- A 4 ft. wide shoulder is provided on either side of the paved Alley per Section 6.G. The intent of this shoulder is to provide space for cars to pull over to pass in a two-way traffic condition, and for landscaping in the Alley. Consideration of the Alley design should include both landscape beds and drivable shoulders.
- 4 ft. wide shoulder in Alley shall be either planted with evergreen low maintenance drought tolerant shrubs suitable for the small space, or 6" depth crushed gravel suitable for driving surface, where applicable.
- Plant shrubs minimum 2 ft. from fence line.
- Plants located in alley planter shall screen utility structures. Screen plants shall not hinder access to said utility structures.

5. HEDGE/WALL

- Hedges and walls may be used to create privacy and extend into the landscape as a complimenting feature to the building architecture.
- Hedges shall be composed of evergreen shrubs, not to exceed 3 ft. ht., See 11.G - Refined Plant list for Evergreen Hedge Plants.
- Walls shall consist of stone, masonry, or building materials that complement the principal structure, not to exceed 3 ft. ht.

6. DECORATIVE LANDSCAPE PLANTERS

- Will be free standing, and made of commercial grade materials and designed for heavy public use.
- The landscape planter design and style shall be a reflection of the neighborhood character to which they reside.
- Landscape planters shall include hardware or other deterrents for skateboards.

7. PARKING LOT LANDSCAPE

- Requirements
 - Landscaping shall:
 - Be located to break up large expanses of pavement, both internally and at perimeters;
 - Define and delineate driveways, parking stalls and pedestrian walkways;
 - Screen parking lots from adjacent properties and street frontages;
 - Be disbursed throughout the lot;
 - Be comprised primarily of deciduous trees for shading, with understory of shrubs and groundcover plants.
 - Interior landscaping
 - A minimum eight percent (8%) of the total paved parking area (including parking stalls, driveways and walkways) shall be landscaped;
 - Required perimeter and building foundation landscaping shall not be considered as part of the Interior Landscaping requirements. Exception: Where a required planter island abuts a required perimeter landscape area, the perimeter landscape may be widened but no additional planter landscape area is required.
 - Interior Landscaping requirements will NOT apply to parking lots containing ten (10) or fewer parking stalls;
 - All planter islands will be protected by a continuous, raised concrete curb;
 - Planter islands shall be a minimum width of seven (7) feet (inclusive of curbing) and the full depth of the adjacent parking stalls (minimum 100 square feet);
 - Interior planter islands will contain a minimum of (1) deciduous shade tree and complemented with shrubs and groundcover not to exceed 3 feet in mature height;
 - Every eight parking stalls will be broken up with a planter island, if the row of parking contains a maximum of ten stalls, no interior island is required;
 - A planter island is required at the ends and corners of every row of parking stalls;
 - Planters located at the ends and corners of parking rows shall contain a minimum of 400 square feet for every two rows of parking, or 200 square feet per planter for each individual row of parking. At least (1) deciduous shade tree with complimenting shrubs and groundcover will be located in each 200 square foot planter, (2) shade trees for the (2) planters.
 - Use of "turf" lawn is prohibited in interior landscape islands.
 - Irregular- shaped planter islands shall contain the minimum 100 square feet of landscape area and protect the full depth of adjacent parking stalls.

5 feet

11.C COMMON STANDARDS APPLICABLE TO ALL DISTRICTS

- Perimeter Landscaping Abutting Adjacent Properties and Public Rights-of-Way
 - Minimum landscape strip of 7 feet in width is required along all sides abutting adjoining properties.
 - Minimum landscape strip of 10-feet in width is required along all sides abutting a public right-of-way.
 - All perimeter landscape strips shall be planted with one type or a combination of tree types - small coniferous evergreen trees; small deciduous accent trees; and large deciduous shade trees.
 - Tree shall be planted at average 20 ft. on center spacing in row(s) or informal groupings.
 - The "understory" planting will include one of the following three options and will form a solid screen and cover within two (2) years of planting:
 - A combination of shrubs and groundcover planted in a formal hedge planting and with a mature, minimum height of 18" and maximum height of 3-feet.
 - Segmental, solid screen wall - min. 30"/max.42" high (durable materials/no exposed wood), combined with wall-clinging plants and/or low shrub planting.
 - Earth mounded berm - min. 30"/max. 42" high, covered with an "informal" arrangement of low shrubs and groundcover (BMS-SD-DR District only).
 - All planter islands will be protected by a continuous, raised concrete curb;
 - Coordinate proposed tree and shrub locations and plant species with existing trees and shrubs on adjacent properties.
 - If proposed parking lot abuts an existing hedge, wall or screen planting that satisfies the requirements of this section, perimeter planting requirements MAY be relaxed. Provide adjacent plant location(s), plant types and sizes as part of the proposed landscape treatment.
 - Use of "turf" lawn is prohibited in perimeter landscape strips.
- Maintenance
 - It will be the Owner's responsibility to maintain all landscape elements on their property.
 - Landscaping will be kept in good condition, free of debris and refuse.
 - Live plant material shall be kept alive in a healthy and thriving condition.
 - Use of a temporary or permanent, drip or other approved water-conserving irrigation system, is required.
- Certificate of Occupancy
 - The installed landscape will be inspected and no certificates of occupancy will be issued unless and until the landscaping meets all the requirements of the approved Landscape Plan and the LUDR - Section 11.
 - If the landscaping cannot be installed safely and insure survival due to the time of year or other good cause, a temporary certificate of occupancy may be issued for a maximum period of 6 months. The owner shall furnish a satisfactory "bond" assurance for that 6-month period, guaranteeing installation of the approved landscaping.

8. NEIGHBORHOOD AND COMMUNITY STORAGE AREA SCREENING

- Neighborhood Storage Areas must be fenced per Section 13.A.3, Community Storage Facility per 13.A.4.
- Between the sidewalk and the fence, or the fence and the side or rear setbacks, an evergreen hedge shall be planted, per Section 11.G., and irrigation provided. The plantings shall be of sufficient size and quantity to reasonably be expected to provide 100% screening within three years of planting.
- Storage Facility screening only applies to BMS-NG and BMS-NC-P districts.

11.D CIVIC AND COMMERCIAL DISTRICT STANDARDS



Commercial Facility

1. APPLICABLE DISTRICTS

- a. Village Mixed-Use (BMS-VMU) (3.B)
- b. Neighborhood Collector - Commercial (BMS-NC) (3.C)
- c. Civic (BMS-CIVIC) (3.F)
- d. Special Districts:
 - (BMS-SD-SR) (4.B)
 - (BMS-SD-CMU) (4.C)
 - (BMS-SD-DR) (4.D)

2. SUBMITTAL PROCESS

- a. All development permit applications for civic, commercial, and multi-family buildings are required to submit a landscape plan. A "landscape" plan will include all areas of plazas, hardscape gathering places as well as planted areas; these areas will all count towards meeting the overall landscape requirements.
- b. Civic and commercial development proposals will include 10 percent Landscape Coverage of the site. The Master Developer of a commercial area may set aside common areas that meet this requirement rather than meeting it on a parcel by parcel basis.
- c. Multi-family structures that are over 50 units and use stacked units or courtyard building types are required to have designated children play areas of 10 square feet per unit, unless developed as Senior Housing. Play areas will meet Block Park standards and amenities, Section 5.G. D

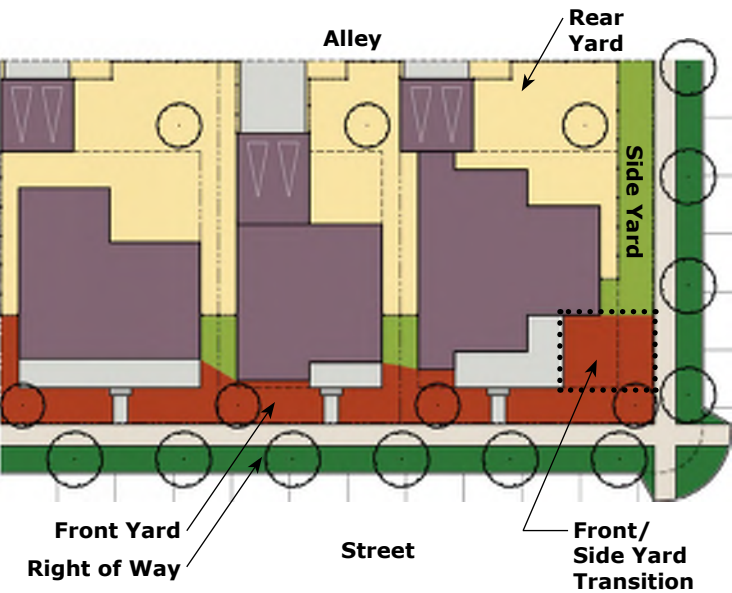
3. RIGHT OF WAY STANDARDS

- a. Street trees - Required, See Street Frontage Landscape, Section 11.C.3
- b. Sidewalk - Required, See Section 6: Street Standards

4. PARKING LOT LANDSCAPE STANDARDS

- a. See Common Parking Lot Landscape Standards, Section 11.C.7

11.E RESIDENTIAL STANDARDS



1. SINGLE FAMILY RESIDENTIAL

a. Applicable Districts

- (1) Neighborhood General (BMS-NG) (3.D)
- (2) Neighborhood Edge (BMS-NE) (3.E)

b. Right of Way

- (1) Street trees - See Street Frontage Landscape 11.C.3
- (2) Sidewalk - See Section 6: Street Standards

c. Front Yard

- (1) Front yard tree per lot - 1 required.
- (2) Use of perennials, ornamental grasses, shrubs, vines, groundcovers, and/or Usable Lawn.
- (3) Entry walk - 4 ft. wide minimum.

d. Front/Side Yard Transition

- (1) Front yard tree per lot - 1 encouraged.
- (2) Informal or formal landscape design: 100% Landscape Coverage.
- (3) Use of perennials, ornamental grasses, shrubs, vines, groundcovers, and/or Usable Lawn.

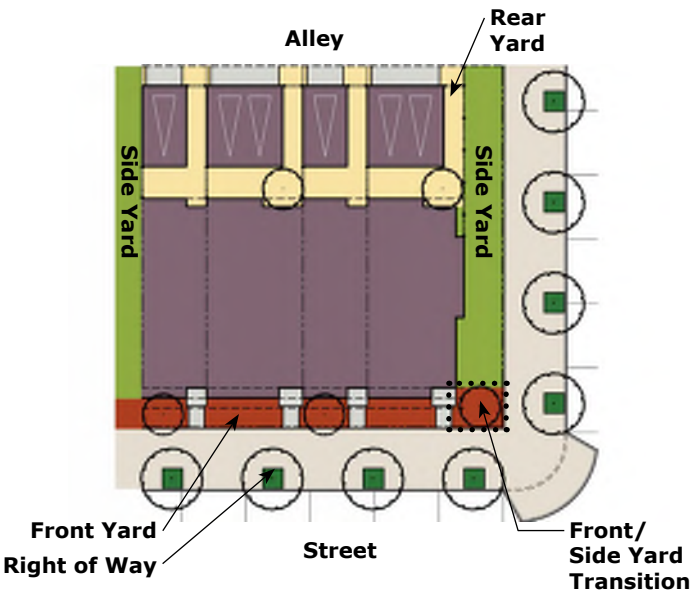
e. Side Yard

- (1) Side yard visible from the street: 60% Minimum Landscape Coverage.
- (2) Corner lot side yard: 100% Landscape Coverage.
- (3) Use of perennials, ornamental grasses, shrubs, vines, groundcovers and / or useable lawn.

f. Rear Yard

- (1) Alley load lot: Ornamental Trees - 1 required.
- (2) See Alley Landscape for more information 11.C.4
- (3) Non-alley load lot: Ornamental Trees - 1 encouraged.

- (1) At a minimum, the rear yard shall be seeded or mulched for a stabilized surface.
- (2) Where rear yards abut a collector street, a 5-foot landscape buffer shall be provided. For buffer planting requirements, see 11.C.7.c



2. MULTI-FAMILY RESIDENTIAL

a. Applicable Districts

- (1) Village Mixed-Use (residential ground floor) (BMS-VMU) (3.B)
- (2) Neighborhood Collector (BMS-NC) (3.C)
- (3) Neighborhood General (BMS-NG) (3.D)

b. Right of Way

- (1) Street trees - See Street Frontage Landscape 11.C.3
- (2) Sidewalk - See Section 6: Street Standards

c. Front Yard

- (1) Front yard tree per lot - 1 required in areas without zero lot line condition. At zero lot line conditions, 1 tree per every 2 units is required.
- (2) Use of perennials, ornamental grasses, shrubs, vines, groundcovers, and/or Usable Lawn.
- (3) Entry walk - 5 ft. wide minimum.

d. Front/Side Yard Transition

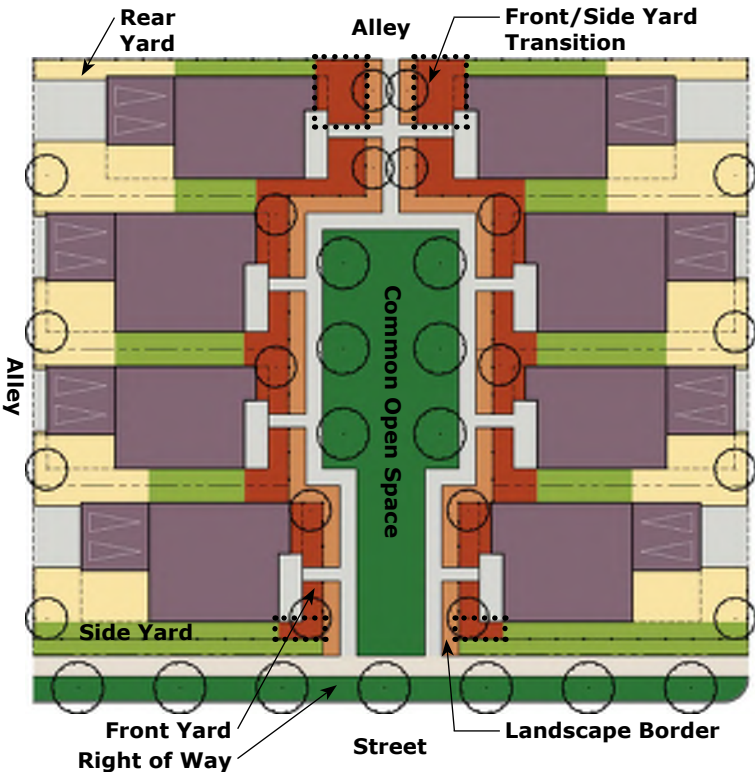
- (1) Front yard tree per lot - 1 encouraged.
- (2) Informal or formal landscape design: 100% Landscape Coverage.
- (3) Use of perennials, ornamental grasses, shrubs, vines, groundcovers, and/or useable lawn.

e. Side Yard

- (1) Side yard visible from the street: 60% Minimum Landscape Coverage.
- (2) Corner lot side yard: 100% Landscape Coverage.
- (3) Use of perennials, ornamental grasses, shrubs, vines, groundcovers and / or useable lawn.

f. Rear Yard

- (1) Alley load lot: Ornamental Trees - 1 per every 2 units required.
- (2) See Alley Landscape for more information 11.C.4
- (3) Non-Alley load lot: Ornamental Trees - 1 encouraged.



3. COURTYARD RESIDENTIAL

a. Applicable Districts

- (1) Neighborhood Collector (BMS-NC) (3.C)
- (2) Neighborhood General (BMS-NG) (3.D)

b. Right of Way

- (1) Street trees - See Street Frontage Landscape 11.C.3
- (2) Sidewalk - See Section 6: Street Standards

c. Front Yard

- (1) Front yard tree per lot - 1 required.
- (2) Use of perennials, ornamental grasses, shrubs, vines, groundcovers, and/or Usable Lawn.
- (3) Entry walk - 4 ft. wide minimum.

d. Front/Side Yard Transition

- (1) Informal or formal landscape design: 100% Landscape Coverage.
- (2) Use of perennials, ornamental grasses, shrubs, vines, groundcovers, and/or Usable Lawn.

e. Side Yard

- (1) Side yard visible from common courtyard/green or street: 60% Minimum Landscape Coverage.
- (2) Corner lot side yard: 100% Landscape Coverage.
- (3) Use of perennials, ornamental grasses, shrubs, vines, groundcovers and / or useable lawn.

f. Rear Yard

- (1) Alley load lot: Ornamental Trees - 1 required.
- (2) See Alley Landscape for more information 11.C.4
- (3) Canopy/Ornamental tree - 1 required.

g. Common Open Space

- (1) Canopy trees at 30 ft. o.c.
- (2) Ornamental trees @ 20 ft. o.c.
- (3) Use of perennials, ornamental grasses, shrubs, vines, groundcovers, and/or Usable Lawn.
- (4) Sidewalk width - 5 ft. wide minimum.

h. Landscape Border

- (1) Use of ornamental trees, perennials, ornamental grasses, shrubs, vines, and/or groundcovers.

Drought Tolerant and/or Native/Naturalized Plant List provides a cohesive list of plant materials that are suited for the Tri-Cities region, and should be used as a guideline for landscape design. This list contains plants that are Drought Tolerant and/or Native or Naturalized. Each plant is designated as either N=Native or Naturalized, * = Drought Tolerant, or both. The large open space areas of Badger Mountain South will primarily consist of plant materials from this list.

11.G *Refined Plant List* identifies plant materials to be used in areas of specific use such as: parks, community gardens, residential landscapes, and similar circumstances.

The (2) plant lists are intended to be used interchangeably, and should be used in harmony with one another for site specific landscape design intent.

NOTE:

- All plant materials are suitable for the Tri-Cities region based on USDA Hardiness Zone
- All plant materials on "USDA Plants Database, Washington State - Listed Noxious Weeds" list are PROHIBITED
- Edible plants are allowed, but not present on plant list. Edible plants shall be used where desired.

N = Native or Naturalized Plant Materials

***** = Drought Tolerant Plant Materials

DECIDUOUS TREES

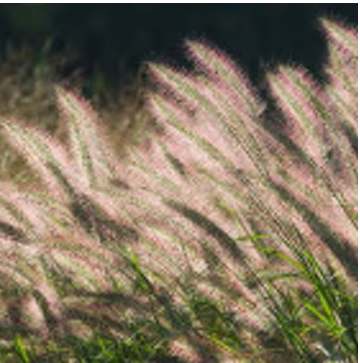
Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Acer campestre</i>	Hedge Maple	35' X 25'	1-1/2" Caliper	Sun	*
<i>Acer ginnala</i>	Amur Maple	15-20' X 15-20'	1-1/2" Caliper	Sun/Pt. Shade	*
<i>Acer glabrum</i>	Rocky Mountain Maple	20-30' X 20'	1-1/2" Caliper	Sun/Pt. Shade	* N
<i>Acer negundo</i> 'Sensation'	Sensation Box Elder	40' X 30'	1-1/2" Caliper	Sun/Pt. Shade	N
<i>Acer platanoides</i> 'Cleveland'	Cleveland Norway Maple	50' X 40'	1-1/2" Caliper	Sun/Pt. Shade	N
<i>Acer saccharum</i>	Sugar Maple	60' X 40'	1-1/2" Caliper	Sun/Pt. Shade	N
<i>Aesculus glabra</i>	Horsechestnut	25-35' X 15-25'	1-1/2" Caliper	Sun/Pt. Shade	*
<i>Alnus cordata</i>	Italian Alder	40' X 25'	1-1/2" Caliper	Sun	*
<i>Betula occidentalis</i>	Water Birch	12-15' X 12-15	1-1/2" Caliper	Sun	N
<i>Catalpa speciosa</i>	Western Catalpa	40-70' X 40-50'	1-1/2" Caliper	Sun	*
<i>Celtis occidentalis</i>	Common Hackberry	50-60' X 40-50'	1-1/2" Caliper	Sun/Pt. Shade	*
<i>Cercis occidentalis</i>	Western Redbud	10-15' X 10-15'	1-1/2" Caliper	Sun/Pt. Shade	*
<i>Cotinus coggygia</i>	Common Smoke Tree	10-15' X 10-15'	4-6' ht.	Sun	*
<i>Crataegus douglasii</i>	Black Hawthorn	10-20' X 20'	1-1/2" Caliper	Sun	* N
<i>Crataegus monogyna</i>	English Hawthorn	30' X 8'	1-1/2" Caliper	Sun	* N
<i>Fraxinus pennsylvanica</i>	Green Ash	50-60' X 30-40'	1-1/2" Caliper	Sun	*
<i>Ginkgo biloba</i>	Maiden Hair Tree	30-50' X 15-25'	1-1/2" Caliper	Sun	*
<i>Gleditsia t. var. inermis</i>	Thornless Honey Locust	35-70' X 25-35'	1-1/2" Caliper	Sun	*
<i>Gymnocladus dioica</i>	Kentucky Coffee Tree	50-60' X 30-40'	1-1/2" Caliper	Sun/Pt. Shade	*
<i>Koelreuteria paniculata</i>	Golden Raintree	20-30' X 25-35'	1-1/2" Caliper	Sun	*
<i>Morus alba</i>	White Mulberry	30-50' X 30-50'	1-1/2" Caliper	Sun/Pt. Shade	*
<i>Nyssa sylvatica</i>	Sour Gum	30-50' X 15-25'	1-1/2" Caliper	Sun	*
<i>Populus tremuloides</i>	Quaking Aspen	20-60' X 15-30'	1-1/2" Caliper	Sun	* N
<i>Prunus avium</i>	Sweet Cherry	15-30' X 15-30'	1-1/2" Caliper	Sun	N
<i>Prunus emarginata</i>	Bitter Cherry	15-30' X 15-30'	6-8' ht.	Sun	N
<i>Prunus padus</i>	European Bird Cherry	15-30' X 15-30'	1-1/2" Caliper	Sun	*
<i>Prunus tomentosa</i>	Nanking Cherry	15-30' X 15-30'	6-8' ht.	Sun	N
<i>Prunus virginiana</i>	Chokecherry	20-30' X 10-15'	6-8' ht.	Sun	* N
<i>Quercus bicolor</i>	Swamp White Oak	50-60' X 50-60'	1-1/2" Caliper	Sun	*



Meadow Sage



Oregon Grape



Fountain Grass



Moonshine Yarrow



Nootka Rose

Other COR approved plants may also be used.

- Washington State University - Drought Tolerant Plants. By Tonie Fitzgerald, Revised January 2005. Washington State University, U.S. Department of Agriculture, and Spokane County.
- Benton County - Vascular Plant List. By R. Savers (1986), K. Beck (1994-1997), F. Caplow (1994-1997), and J. Downs (2003-2004).
- Native Plants of Eastern Washington: The Natural Way to Grow. By Washington Native Plant Society, Columbia Basin Chapter; <http://www.wnps.org/cbasin/index.html>
- Washington State University - Recommended Trees for the Mid-Columbia Region. By Washington State University, September 2009.

11.F DROUGHT TOLERANT AND/OR NATIVE/NATURALIZED PLANT LIST continued

DECIDUOUS TREES continued

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Quercus garryana</i>	Garry Oak	40-90' X 30-60'	1-1/2" Caliper	Sun	* N
<i>Quercus macrocarpa</i>	Burr Oak	60-75' X 30-40'	1-1/2" Caliper	Sun	*
<i>Robinia pseudoacacia</i>	Black Locust	40-75' X 30-60'	1-1/2" Caliper	Sun	N
<i>Salix babylonica</i>	Weeping Willow	30-40' X 35'	1-1/2" Caliper	Sun	N
<i>Salix scouleriana</i>	Scouler's Willow	30' X 30'	1-1/2" Caliper	Sun	N
<i>Sophora japonica</i>	Japanese Pagoda Tree	50-70' X 50-70'	1-1/2" Caliper	Sun/Pt. Shade	*
<i>Sorbus aucuparia</i>	European Mountain Ash	20-40' X 15-25'	1-1/2" Caliper	Sun/Pt. Shade	*
<i>Tillia tomentosa</i>	Silver Linden	40-50' X 20-30'	1-1/2" Caliper	Sun	*
<i>Ulmus pumila</i>	Siberian Elm	50' X 40'	1-1/2" Caliper	Sun	*

EVERGREEN TREES

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Juniperus occidentalis</i>	Western Juniper	50-60' X 30-50'	6-8' ht.	Sun	N
<i>Juniperus scopulorum</i>	Rocky Mountain Junier	10-30' X 8-15'	6-8' ht.	Sun	* N
<i>Picea abies</i>	Norway Spruce	60' X 25'	6-8' ht.	Sun/Pt. Shade	*
<i>Picea pungens</i>	Colorado Blue Spruce	50-75' X 25'	6-8' ht.	Sun/Pt. Shade	*
<i>Pinus aristata</i>	Bisltecone Pine	20-30' X 10-15'	6-8' ht.	Sun	*
<i>Pinus flexilis</i>	Limber Pine	30-55' X 15-25'	6-8' ht.	Sun	*
<i>Pinus nigra</i>	Austrian Pine	40-60' X 20-30'	6-8' ht.	Sun	*
<i>Pinus ponderosa</i>	Ponderosa Pine	80-100' X 25-30'	6-8' ht.	Sun/Pt. Shade	* N
<i>Pinus strobus</i>	White Pine	50-80' X 20-40'	6-8' ht.	Sun	*
<i>Thuja occidentalis</i>	American Arborvitae	20-30' X 10-15'	6-8' ht.	Sun/Pt. Shade	N
<i>Tsuga canadensis</i>	Canadian Hemlock	40-70' X 25-35'	6-8' ht.	Sun/Pt. Shade	N

SHRUBS

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Amelanchier alnifolia</i>	Serviceberry	10-12' X 20'	30-36" ht./sp.	Sun/Pt. Shade	* N
<i>Aronia arbutifolia</i>	Red Chokeberry	6-8'	30-36" ht./sp.	Sun/Pt. Shade	*
<i>Artemisia tridentata</i>	Big Sagebrush	4-15' X 3-10'	30-36" ht.	Sun	* N
<i>Artemisia tripartita</i>	Three-Tip Sage	Varies	30-36" ht.	Sun	N
<i>Atriplex canescens</i>	Four-wing Saltbush	3-6' X 4-8'	18-24" ht.	Sun	* N
<i>Berberis hematocarpa</i>	Red Barberry	3-6'	18-24" ht.	Sun/Pt. Shade	*
<i>Berberis t. 'Crimson Pygmy'</i>	Crimson Pygmy Japanese Barberry	1' X 3'	12-18" ht.	Sun	*
<i>Berberis thunbergii</i>	Japanese Barberry	4-6' X 4-6'	18-24" ht.	Sun	*
<i>Caragana arborescens</i>	Siberian Pea Shrub	15' X 20'	30-36" ht./sp.	Sun	*
<i>Caragana frutex</i>	Russian Pea Shrub	10' X 8'	30-36" ht./sp.	Sun	*
<i>Caryopteris x clandonensis</i>	Blue Mist	2' X 2'	12-18" ht.	Sun	*
<i>Ceratoides lanata</i>	Winter Fat	1-3' X 1-3'	12-18" ht.	Sun	*
<i>Cercocarpus ledifolius</i>	Curl-Leaf Moutain Mahogany	5-12' X 5-12'	30-36" ht.	Sun	*
<i>Chamaebatiera millifolium</i>	Fernbush	6-8' X 6-8'	24-30" ht.	Sun	*
<i>Chrysothamnus viscidiflorus</i>	Green Rabbitbrush	6' X 3'	18-24" ht.	Sun	* N
<i>Chrysothamnus nauseaus</i>	Rabbitbrush	6' X 3'	18-24" ht.	Sun	*

SHRUBS continued

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Cornus stolonifera</i>	Redtwig Dogwood	7-9' X 12'	24-30" ht./sp.	Sun or Shade	N
<i>Corylus cornuta californica</i>	Western Hazelnut	5-12' X 5-12'	30-36" ht./sp.	Sun/Pt. Shade	N
<i>Cotinus coggyria</i>	Smoke Tree	12-15' X 12-15'	30-36" ht./sp.	Sun	*
<i>Cotoneaster acutifolius</i>	Peking Cotoneaster	6-10' X 6-10'	30-36" ht./sp.	Sun	*
<i>Cotoneaster adpressus</i>	Cotoneaster	1' X 6'	12-18" sp.	Sun/Pt. Shade	*
<i>Cotoneaster apiculatus</i>	Cranberry Cotoneaster	3' X 6'	18-24" ht./sp.	Sun	*
<i>Cotoneaster divaricatus</i>	Spreading Cotoneaster	6' X 6'	24-30" ht./sp.	Sun	*
<i>Cotoneaster horizontalis</i>	Rock Cotoneaster	2-3' X 15'	12-18" sp.	Sun/Pt. Shade	*
<i>Ephedra viridis</i>	Mormon Tea	3-4' X 3-4'	12-18" ht./sp.	Sun	*
<i>Eriogonum niveum</i>	Snow Buckwheat	1-2' X 1-2'	12-18" sp.	Sun	N
<i>Eriogonum sphaerocephalum</i>	Rock Buckwheat	1-2' X 1-2'	12-18" sp.	Sun	N
<i>Falugia paradoxa</i>	Apache Plume	4-6' X 5'	24-30" ht./sp.	Sun	*
<i>Forestiera neomexicana</i>	New Mexican Privet	12-18' X 12'	30-36" ht./sp.	Sun/Pt. Shade	*
<i>Genista tinctoria</i>	Woadwaxen	6' X 6'	30-36" ht./sp.	Sun	*
<i>Hippophae rhamnoides</i>	Sea Buckthorn	8-10' X 8-10'	30-36" ht./sp.	Sun	*
<i>Holodiscus discolor</i>	Ocean Spray	3' X 4'	24-30" ht./sp.	Part Shade	*
<i>Juniperus horizontalis</i>	Creeping Juniper	1' X 8-10'	12-18" sp.	Sun/Pt. Shade	*
<i>Kolkwitzia amabilis</i>	Beauty Bush	10-12' X 10-12'	30-36" ht./sp.	Sun/Pt. Shade	*
<i>Lavendula sp.</i>	Lavender	2' X 2'	12-18" ht./sp.	Sun	*
<i>Ligustrum vulgare</i>	Common Privet	15' X 12'	30-36" ht./sp.	Sun/Pt. Shade	*
<i>Lindera benzoin</i>	Spicebush	6-12' X 6-12'	30-36" ht./sp.	Sun	*
<i>Lonicera maachii</i>	Amur Honeysuckle	10-15'	30-36" ht./sp.	Sun/Pt. Shade	*
<i>Mahonia repens</i>	Creeping Mahonia	1' X 3'	12-18" sp.	Sun/Pt. Shade	*
<i>Microbiota decussata</i>	Siberian Carpet Cypress	1' X 7-8'	12-18" sp.	Sun or Shade	*
<i>Myrica pensylvanica</i>	Bayberry	9' X 5-12'	30-36" ht./sp.	Sun/Pt. Shade	*
<i>Philadelphus lewisii</i>	Mock Orange	5-10' X 5-12'	30-36" ht./sp.	Lt. Shade	N
<i>Philadelphus microphyllus</i>	Littleleaf Mock Orange	4-5' X 4-5'	24-30" ht.	Sun/Pt. Shade	* N
<i>Physocarpus opulifolius</i>	Common Ninebark	9' X 10'	30-36" ht.	Sun/Pt. Shade	*
<i>Pinus mugo mugo</i>	Mugo Pine	2-6' X 12'	18-24" ht./sp.	Sun/Pt. Shade	*
<i>Potentilla fruticosa</i>	Cinquefoil	1-4' X 2-4'	12-18" ht./sp.	Sun/Pt. Shade	*
<i>Prunus besseyi</i>	Hanson's Bush Cherry	4-6' X 4-6'	24-30" ht.	Sun	*
<i>Rhamnus frangula</i>	Alder Buckthorn	10-12' X 10-12'	30-36" ht./sp.	Sun	*
<i>Rhus aromatica 'Gro-Low'</i>	Gro-Low Sumac	2-3' X 6-8'	12-18" sp.	Sun/Pt. Shade	*
<i>Rhus glabra</i>	Smooth Sumac	10-20'	30-36" ht./sp.	Sun	* N
<i>Rhus typhina</i>	Staghorn Sumac	15' X 15'	30-36" ht./sp.	Sun/Pt. Shade	*
<i>Ribes aureum</i>	Golden Currant	3-6' X 3-6'	24-30" ht.	Part Shade	* N
<i>Rosa nutkana</i>	Nootka Rose	6' X 4'	24-30" ht.	Sun/Pt. Shade	*
<i>Rosa rubrifolia</i>	Redleaf Rose	6' X 5'	24-30" ht.	Sun/Pt. Shade	*
<i>Rosa rugosa</i>	Rugosa Rose	3-6' X 3-6'	24-30" ht.	Sun	*
<i>Rubus deliciosus</i>	Thimbleberry	3-5' X 6'	24-30" ht./sp.	Sun/Pt. Shade	*
<i>Salvia dorrii</i>	Desert Sage	1-3' X 2-4'	12-18" ht.	Sun	N
<i>Sambucus cerulea</i>	Blue Elderberry	10-15' X 10'	30-36" ht./sp.	Sun/Pt. Shade	N
<i>Sambucus nigra</i>	Black Elder	Varies	24-30" ht.	Sun/Pt. Shade	N
<i>Spiraea x vanhouttei</i>	Vanhoutte Spirea	6' X 8'	30-36" ht./sp.	Sun/Pt. Shade	*
<i>Symphoricarpos albus</i>	Common Snowberry	2-6' X 2-6'	12-18" ht.	Sun/Pt. Shade	N
<i>Symphoricarpos x chenaultii</i>	Chenault Coralberry	2-6' X 2-6'	12-18" ht.	Sun/Pt. Shade	*

11.F DROUGHT TOLERANT AND/OR NATIVE/NATURALIZED PLANT LIST continued

SHRUBS continued

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Syringa vulgaris</i>	Common Lilac	8-20' X 6-15'	30-36" ht./sp.	Sun	*
<i>Taxus cuspidata</i>	Japanese Yew	10-25' X 5-12'	24-30" ht.	Sun/Pt. Shade	*
<i>Viburnum lantana</i>	Wayfaring Tree	10-20' X 10-20'	30-36" ht.	Sun/Pt. Shade	*
<i>Viburnum trilobum</i>	Cranberry Bush	10' X 8	30-36" ht.	Sun/Pt. Shade	*
<i>Yucca sp.</i>	Yucca	1-7' X 1-4'	18-24" ht.	Sun	*

BUNCHGRASSES

NOTE: Min. size 4" pots, typ. Upon approval from Master Landscape Architect, plugs or seed may be used.

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Achnatherum hymenoides</i>	Indian Ricegrass	12-24"	4" pots	Sun	N
<i>Elymus elymoides</i>	Squirreltail	12-24"	4" pots	Sun	N
<i>Festuca idahoensis</i>	Idaho Fescue	12-24"	4" pots	Sun/Pt. Shade	N
<i>Hesperostipa comata</i>	Needle & Thread Grass	24-36"	4" pots	Sun	N
<i>Leymus cinereus</i>	Basin Wildrye	4-6'	4" pots	Sun	N
<i>Poa secunda</i>	Sandberg's Bluegrass	8-12"	4" pots	Sun	N
<i>Pseudoroegneria spicata</i>	Bluebunch Wheatgrass	12-36"	4" pots	Sun	N
<i>Sporobolus cryptandrus</i>	Sand Dropseed	12-24"	4" pots	Sun	N

GROUNDCOVERS

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Aegopodium variegatum</i>	Bishop's Weed	6" X 12'	4" pots	Sun/Pt. Shade	*
<i>Archostaphylos uva-ursi</i>	Kinnikinnick	3-6' X 2-3'	4" pots	Sun/Pt. Shade	* N
<i>Campsis radicans</i>	Trumpet Creeper	6" X 40'	4" pots	Sun/Pt. Shade	*
<i>Cerastium tomentosum</i>	Snow-In-Summer	6-8" X 15'	4" pots	Lt. Shade	*
<i>Delosperma cooperi</i>	Purple Hardy Ice Plant	3" X 24"	4" pots	Lt. Shade	*
<i>Delosperma nubigenum</i>	Yellow Hardy Ice Plant	1" X 36"	4" pots	Lt. Shade	*
<i>Galium odoratum</i>	Sweet Woodruff	3" X 12'	4" pots	Shade	*
<i>Helianthemum nummularium</i>	Sunrose	6-8" X 36"	4" pots	Sun	*
<i>Mahonia repens</i>	Creeping Mahonia	12" X 36"	4" pots	Sun/Pt. Shade	*
<i>Marrubium rotundifolia</i>	Silver Edged Horehound	10" X 18"	4" pots	Sun	*
<i>Ruschia pulvinaris</i>	Creeping Shrubby Ice Plant	3" X 14"	4" pots	Sun	*
<i>Sedum spurium</i>	Two-Row Stonecrop	3-6" X 12-24"	4" pots	Sun	*
<i>Thymus serpyllum</i>	Creeping Thyme	3" X 36"	4" pots	Lt. Shade	*
<i>Thymus serpyllum</i> 'Reiter'	Reiter Creeping Thyme	3" X 36"	4" pots	Lt. Shade	*
<i>Thymus pseudolanuginosus</i>	Woolly Thyme	2-3" X 36"	4" pots	Lt. Shade	*
<i>Veronica oltensis</i>	Thyme-Leaf Speedwell	1" X 24"	4" pots	Sun	*
<i>Veronica pectinata</i>	Blue Woolly Speedwell	ground hugging	4" pots	Sun/Pt. Shade	*
<i>Vinca major</i>	Periwinkle	8" X 36"	4" pots	Sun/Pt. Shade	*

PERENNIALS

NOTE: Min. size 4" pots, typ. Upon approval from ~~Master Landscape Architect~~, plugs or seed may be used.

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Achillea ageratifolia</i>	Greek Yarrow	4-10"	4" pots	Sun	*
<i>Achillea f. 'Moonshine'</i>	Moonshine Yarrow	24"	4" pots	Sun	*
<i>Achillea millefolium</i>	Common Yarrow	36"	4" pots	Sun	* N
<i>Adenophora liliifolia</i>	Lady Bells	18" X 12"	4" pots	Sun/Pt. Shade	*
<i>Agastache sp.</i>	Hyssop	18-30" X 18"	4" pots	Sun/Pt. Shade	*
<i>Agastache canna</i>	Wild Hyssop	24-36" X 18"	4" pots	Sun/Pt. Shade	*
<i>Alchemilla molis</i>	Lady's Mantle	12-18" X 12-15"	4" pots	Sun/Pt. Shade	*
<i>Allium sphaerocephalum</i>	Round-Headed Garlic	24" X 36"	4" pots	Sun/Pt. Shade	N
<i>Anaphalis margaritacea</i>	Pearly Everlasting	20" X 20"	4" pots	Sun	*
<i>Antennaria dioica 'Rosea'</i>	Pink Pussytoes	4-12" X 8-12"	4" pots	Sun	*
<i>Anthemis tinctoria</i>	Golden Marguerite	24-36" X 24-36"	4" pots	Sun	*
<i>Arabis caucasica</i>	Wall Rockcress	6" X 18"	4" pots	Sun	*
<i>Artemisia abrotantum</i>	Southernwood	36" X 36"	4" pots	Sun	*
<i>Artemisia 'Powis Castle'</i>	Silver Sage	36" X 36"	4" pots	Sun	*
<i>Artemisia rigida</i>	Stiff Sage	Varies	4" pots	Sun	N
<i>Artemisia stellerana</i>	Dusty Miller	30" X 36"	4" pots	Sun	*
<i>Asclepias tuberosa</i>	Butterfly Weed	36" X 12"	4" pots	Sun	*
<i>Aster tataricus</i>	Tatarian Aster	5-7' X 3'	4" pots	Sun/Pt. Shade	*
<i>Atriplex confertifolia</i>	Shadscale	1-3' X 1-3'	4" pots	Sun	N
<i>Aurinia saxatilis</i>	Basket-Of-Gold	12-18" X 12-15"	4" pots	Sun/Pt. Shade	*
<i>Balsamorhiza careyana</i>	Carey's Balsamroot	Varies	4" pots	Sun	N
<i>Balsamorhiza sagittata</i>	Arrowleaf Balsamroot	Varies	4" pots	Sun	N
<i>Baptisia australis</i>	Blue False Indigo	3-6' X 4'	4" pots	Sun	*
<i>Bergenia cordifolia</i>	Heartleaf Bergenia	18" X 12"	4" pots	Shade	*
<i>Berlandiera lyrata</i>	Chocolate Flower	18-36" X 18-36"	4" pots	Sun	*
<i>Brunnera macrophylla</i>	Brunnera	18" X 24"	4" pots	Sun/Pt. Shade	*
<i>Calamintha grandiflora</i>	Calamint	24" X 24"	4" pots	Sun/Pt. Shade	*
<i>Callirhoe involucrata</i>	Poppy Mallow	6" X 24-36"	4" pots	Sun/Pt. Shade	*
<i>Calylophus hartwegii</i>	Sundrops	12" X 24"	4" pots	Sun/Pt. Shade	*
<i>Calylophus serrulatus</i>	Dwarf Snowdrops	18" X 18"	4" pots	Sun/Pt. Shade	*
<i>Campanula rotundifolia</i>	Bellflower	12-24"	4" pots	Sun/Pt. Shade	*
<i>Catananche caerulea</i>	Cupid's Dart	12" X 12"	4" pots	Sun	*
<i>Centranthus ruber</i>	Red Valerian	36" X 36"	4" pots	Sun/Pt. Shade	*
<i>Coreopsis grandiflora</i>	Sunray	12-24" X 36"	4" pots	Sun	*
<i>Coreopsis verticillata 'Moonbeam'</i>	Moonbeam Coreopsis	18-24"	4" pots	Sun	*
<i>Coronilla varia</i>	Crown Vetch	18-24" X 48"	4" pots	Sun	*
<i>Dianthus barbatus</i>	Sweet William	20" X 12"	4" pots	Lt. Shade	*
<i>Dianthus plumarius</i>	Cottage Pink	10-18" X 20"	4" pots	Lt. Shade	*
<i>Echinacea purpurea `</i>	Purple Coneflower	24-48"	4" pots	Sun	*
<i>Epimedium alpinum</i>	Alpine Epimedium	6-9"	4" pots	Sun/Pt. Shade	*
<i>Erigeron speciosus</i>	Fleabane	24" X 24"	4" pots	Sun/Pt. Shade	*
<i>Eriogonum umbellatum</i>	Sulfur Flower	6-12" X 12-24"	4" pots	Sun	*
<i>Eryngium bourgatii</i>	Sea Holly	24"	4" pots	Sun	*

11.F DROUGHT TOLERANT AND/OR NATIVE/NATURALIZED PLANT LIST

continued

the BMS-MPA

PERENNIALS continued

NOTE: Min. size 4" pots, typ. Upon approval from Master Landscape Architect, plugs or seed may be used.

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Erysimum cheiri</i>	English Wallflower	12-30" X 12-18"	4" pots	Sun/Pt. Shade	*
<i>Euphorbia polychroma</i>	Cushion Spurge	18" X 24"	4" pots	Sun/Pt. Shade	*
<i>Filipendula vulgaris</i>	Dropwort	24-36"	4" pots	Sun	*
<i>Gaillardia aristata</i>	Blanket Flower	24-30" X 24"	4" pots	Sun	*
<i>Gaillardia x grandiflora</i> 'Goblin'	Goblin Blanket Flower	12" X 18"	4" pots	Sun	*
<i>Geranium sanguineum</i>	Bloody Cranesbill	8-18" X 24-30"	4" pots	Sun/Pt. Shade	*
<i>Grayia spinosa</i>	Hopsage	Varies	4" pots	Sun	N
<i>Helianthus maximiliani</i>	Sunflower	10' X 3'	4" pots	Sun	*
<i>Hemerocallis sp.</i>	Daylily	Varies	4" pots	Sun	*
<i>Hesperaloe parviflora</i>	Red Yucca	3-4' X 3-4'	4" pots	Sun/Pt. Shade	*
<i>Heuchera sanguinea</i>	Coral Bells	12-18" X 12-15"	4" pots	Sun/Pt. Shade	*
<i>Hyssopus officinalis</i>	Hyssop	18-24" X 36"	4" pots	Sun/Pt. Shade	*
<i>Kniphofia uvaria</i>	Red-Hot Poker	2-4'	4" pots	Sun	*
<i>Lamium maculatum</i>	Dead Nettle	8" X 36"	4" pots	Shade	*
<i>Lewisia rediviva</i>	Bitterroot	2" X 4"	4" pots	Sun/Pt. Shade	*
<i>Liatris spicata</i>	Gayfeather	4' X 2'	4" pots	Sun	*
<i>Limonium platyphyllum</i>	Statice	30" X 36"	4" pots	Sun	*
<i>Linum perenne</i>	Perennial Blue Flax	24" X 18"	4" pots	Sun	*
<i>Liriope spicata</i>	Creeping Lily Turf	8-10" X 18"	4" pots	Shade	*
<i>Lobularia maritima</i>	Sweet Alyssum	Varies	4" pots	Sun/Pt. Shade	*
<i>Lupinus leucophyllus</i>	Velvet Lupine	Varies	4" pots	Sun/Pt. Shade	N
<i>Lychnis chalcedonica</i>	Maltese Cross	24-36" X 12"	4" pots	Sun/Pt. Shade	*
<i>Monarda fistulosa</i>	Bee Balm	24-48" X 12"	4" pots	Lt. Shade	*
<i>Narcissus sp.</i>	Daffodil	12-18" X 12"	4" pots	Sun/Pt. Shade	*
<i>Nepeta x faassenii</i>	Catmint	12" X 18"	4" pots	Sun/Pt. Shade	*
<i>Oenothera macrocarpa</i>	Ozark Sundrops	6" X 24"	4" pots	Sun/Pt. Shade	*
<i>Opuntia polycantha</i>	Starvation Pricklypear	Varies	4" pots	Sun	N
<i>Papaver orientale</i>	Oriental Poppy	12-24" X 12-24"	4" pots	Sun	*
<i>Penstemon sp.</i>	Beard Tongue	Varies	4" pots	Sun/Pt. Shade	*
<i>Penstemon strictus</i>	Rocky Mountain Penstemon	24-36" X 24"	4" pots	Sun/Pt. Shade	*
<i>Perovoskia atriplicifolia</i>	Russian Sage	3-5' X 3-4'	4" pots	Sun	*
<i>Phlox subulata</i>	Moss Pink	6" X 18"	4" pots	Sun/Pt. Shade	*
<i>Pulsatilla vulgaris</i>	Pasque Flower	9-12" x 6-10"	4" pots	Sun/Pt. Shade	*
<i>Ratibida columnifera</i>	Mexican Hat	30" X 12"	4" pots	Sun	*
<i>Rudbeckia hirta</i>	Black-Eyed Susan	3-4' X 2'	4" pots	Sun	*
<i>Salvia nemerosa</i>	Meadow Sage	18-36" X 24-36"	4" pots	Sun	*
<i>Salvia officinalis</i>	Garden Sage	18-24" X 12-18"	4" pots	Sun	*
<i>Santolina chamaecyparissus</i>	Lavender Cotton	24" X 36"	4" pots	Sun	*
<i>Sanvitalia procumbens</i>	Creeping Zinnia	4-6" X 18"	4" pots	Sun	*
<i>Saponaria ocymides</i>	Soapwort	12" X 36"	4" pots	Sun	*
<i>Scutellaria resinosa</i>	Skullcap	6-8" X 12"	4" pots	Sun/Pt. Shade	*
<i>Sedum</i> 'Ruby Glow'	Ruby Glow Stonecrop	8" X 15"	4" pots	Sun	*
<i>Sedum spectabile</i>	Showy Stonecrop	18-24" X 10-15"	4" pots	Sun/Pt. Shade	*

the BMS-MPA

11.F DROUGHT TOLERANT AND/OR NATIVE/NATURALIZED PLANT LIST continued

PERENNIALS continued

NOTE: Min. size 4" pots, typ. Upon approval from ~~Master Landscape Architect~~, plugs or seed may be used.

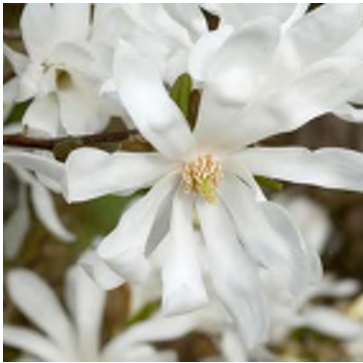
Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Sempervivum sp.</i>	Hen & Chicks	2-4" X 6-12"	4" pots	Lt. Shade	*
<i>Sphaeralcea incana</i>	Orange Mallow	24-48" X 24"	4" pots	Sun	*
<i>Stachys byzantina</i>	Lamb's Ear	18" X 36"	4" pots	Sun/Pt. Shade	*
<i>Tanacetum vulare</i>	Tansy	36" X 24"	4" pots	Sun	*
<i>Teucrium x lucidrys</i>	Germander	12" X 24"	4" pots	Sun	*
<i>Thymus vulgaris</i>	Common Thyme	12" X 24"	4" pots	Lt. Shade	*
<i>Thymus vulgaris</i> 'Orange Balsam'	Orange Balsam Thyme	6-8" X 15"	4" pots	Lt. Shade	*
<i>Veronica sp.</i>	Speedwell	Varies	4" pots	Sun	*

11.G REFINED PLANT LIST

- NOTE:**
- All plant materials are suitable for the Tri-Cities region based on USDA Hardiness Zone
 - All plant materials on "USDA Plants Database, Washington State - Listed Noxious Weeds" list are PROHIBITED
 - Edible plants are allowed, but not present on plant list. Edible plants shall be used where desired.
- N** = Native or Naturalized Plant Materials
- *** = Drought Tolerant Plant Materials

DECIDUOUS TREES

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Acer circinatum</i>	Vine Maple	15' X 15'	6-8' ht., multi-stem	Sun/Pt. Shade	N new leaves tinted red, great in native garden
<i>Acer griseum</i>	Paper Bark Maple	5-20' X 5-20'	4-6' ht., multi-stem	Sun/Pt. Shade	beautiful reddish bark peels away in thin sheets
<i>Acer palmatum</i>	Japanese Maple	5-20' X 5-20'	4-6' ht., multi-stem	Sun/Pt. Shade	leaves deep cut toothed lobes, colors from reds, oranges, greens, variegated
<i>Acer rubrum</i>	Red Maple	30-60' X 15-30'	1-1/2" Caliper	Sun	amazing bright red fall color, fast growing
<i>Amelanchier grandiflora</i>	Serviceberry	20' X 15'	1-1/2" Caliper	Sun	fragrant white flowers in spring, blue edible berries following, orange fall color
<i>Betula jacquemontii</i>	Jacquemonti Birch	40-60' X 30'	1-1/2" Caliper	Sun	narrow habit, striking white bark
<i>Betula nigra</i> 'Summer Cascade'	Summer Cascade Birch	40-60' X 30'	1-1/2" Caliper	Sun	narrow habit, creamy brown exfoliating bark, gold fall color
<i>Carpinus betulus</i> 'Frans Fontaine'	Columnar European Hornbeam	35' X 15'	1-1/2" Caliper	Sun	narrow dense habit, furrowed gray bark, yellow or dark red fall color
<i>Catalpa speciosa</i>	Catalpa	15-25' X 15-25'	1-1/2" Caliper	Sun/Lt. Shade	round habit, upright trumpet shaped white flowers in late spring and summer
<i>Cercidiphyllum japonicum</i>	Katsura	20-40' X 20-30'	1-1/2" Caliper	Sun/Lt. Shade	foliage changes color from red-purple to blue-green in summer, then yellow in fall
<i>Cercis canadensis</i>	Eastern Redbud	15-25' X 15-25'	1-1/2" Caliper	Sun/Lt. Shade	profuse vibrant sweet pea shaped pink flower clusters in early spring
<i>Cornus florida</i>	Flowering Dogwood	15-30' X 15-30'	1-1/2" Caliper	Sun	flower clusters amongst white to pink-red bracts in spring, before leaves emerge
<i>Cornus kousa</i>	Kousa Dogwood	15-25' X 15-25'	6-8' ht., multi-stem	Sun/Lt. Shade	top of branches covered with white to pink-red flowers in late spring, leaves below
<i>Crataegus laevigata</i>	English Hawthorn	18-25' X 15-20'	1-1/2" Caliper	Sun	dainty white flower clusters after leaf out in spring, showy red fruit summer & fall
<i>Fraxinus angustifolia</i> 'Raywood'	Raywood Ash	25-35' X 25'	1-1/2" Caliper	Sun	compact, delicate lacy small leaves, round headed, compact, fast growing
<i>Gleditsia triacanthos</i>	Honey Locust	30-50' X 25-35'	1-1/2" Caliper	Sun	many bright green oval leaflets compose long fern like leaves, yellow fall color
<i>Liriodendron tulipifera</i>	Tulip Tree	50-60' X 40'	1-1/2" Caliper	Sun	unique saddle shaped leaves, beautiful yellow tulip shaped flowers in spring
<i>Liquidambar styraciflua</i> 'Clydesform'	American Sweetgum	30' X 15'	1-1/2" Caliper	Sun	furrowed bark, profuse hanging seed pods; purple, yellow, or red fall color
<i>Magnolia x soulangeana</i>	Saucer Magnolia	15-25' X 15-25'	6-8' ht., multi-stem	Sun	large fragrant tulip shaped white to pink-red purple flowers in late winter
<i>Magnolia stellata</i>	Star Magnolia	10' X 20'	4-6' ht., multi-stem	Sun	profuse white star like flowers in late winter to early spring, slow growing
<i>Malus sp.</i>	Flowering Crabapple	10-25' X 10-25'	1-1/2" Caliper	Sun	showy white to pink-red flowers in spring, followed by small showy edible red fruit
<i>Oxydendrum arboreum</i>	Sourwood	15-30' X 20'	1-1/2" Caliper	Sun	all year interest, pyramidal habit, leaves vary in season, fragrant bell white flowers
<i>Prunus cerasifera</i> 'Newport'	Flowering Plum	15-30' X 15-20'	1-1/2" Caliper	Sun	fragrant, single white to light pink flowers, dark purple foliage in summer
<i>Prunus serrulata</i> 'Kwanzan'	Flowering Cherry	10-25' X 10-25'	1-1/2" Caliper	Sun	narrow inverted cone shaped habit, large double pink flower clusters
<i>Prunus x yedoensis</i>	Yoshino Flowering Cherry	25-40' X 25-30'	1-1/2" Caliper	Sun	single white to light pink flowers in early spring, fast growing
<i>Pyrus calleryana</i> 'Chanticleer'	Flowering Pear	30-40' X 15-20"	1-1/2" Caliper	Sun	narrow pyramidal habit, showy white flowers in early spring, orange fall color
<i>Stewartia sp.</i>	Stewartia	25-40' X 25-30'	1-1/2" Caliper	Sun/Pt. Shade	single white camelia like flowers in summer, smooth flaking bark in winter
<i>Styrax japonicus</i>	Japanese Snowdrop Tree	15-25' X 10-15'	6-8' ht., multi-stem	Sun/Pt. Shade	fragrant hanging clusters of white flowers, leaves curl upward, in spring
<i>Tilia cordata</i> 'Corzam'	Corinthian Linden	45' X 15'	1-1/2" Caliper	Sun	dense pyramid habit, leaves yellow in fall, fragrant clusters of yellow flowers in summer
<i>Zelkova serrata</i>	Sawleaf Zelkova	50-60' X 50-60'	1-1/2" Caliper	Sun	narrow oval sawtoothed green leaves, yellow to dark red fall color



Star Magnolia



Bird's Nest Spruce



Winged Euonymus



Maiden Hair Grass



Sedum

EVERGREEN TREES

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Calocedrus deccurrens</i>	Incense Cedar	50-70' X 10-15'	6-8' ht.	Sun	* dense narrow pyramidal habit, reddish brown bark, small duckbill shaped cones
<i>Chamaecyparis obtusa</i> 'Gracilis'	Hinoki False Cypress	20' X 4-10'	4-6' ht.	Sun/Pt. Shade	slender upright habit, yellow foliage, dwarf varieties allowed
<i>Cupressocyparis x leylandii</i>	Leylandi Cypress	15-30' X 8-15'	4-6' ht.	Sun	slender upright pyramidal habit, gray-green foliage, smal scaley cones
<i>Picea abies</i>	Norway Spruce	60' X 25'	6-8' ht.	Sun/Pt. Shade	* pyramidal habit, deep green foliage, hardy & wind resistant
<i>Picea pungens</i>	Colorado Blue Spruce	50-75' X 25'	6-8' ht.	Sun/Pt. Shade	* broad pyramidal habit, dark green to blue green foliage
<i>Pinus nigra</i>	Austrian Pine	40-60' X 20-30'	6-8' ht.	Sun	* stout uniform pyramidal habit, 3-6.5" long dark green in 2 needle bundles
<i>Pinus strobus</i>	White Pine	40-60' X 20-30'	6-8' ht.	Sun	symmetrical pyramidal habit, 3-5.5" long blue green in 5 needle bundles
<i>Pinus sylvestris</i> 'Fastigiata'	Scotch Pine	40-60' X 20-30'	6-8' ht.	Sun	dense narrow column habit, 1.5-3" long blue green in 2 needle bundles
<i>Thuja occidentalis</i>	American Arborvitae	20-30' X 10-15'	6-8' ht.	Sun/Pt. Shade	N dense narrow cone habit, dark green color throughout winter
<i>Tsuga canadensis</i>	Canadian Hemlock	40-70' X 25-35'	6-8' ht.	Sun/Pt. Shade	N dense pyramidal habit, branchlets droop, dark green needles

SHRUBS

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Aronia melanocarpa</i> 'Autumn Magic'	Black Chokeberry	3-5' X 3-5'	24-30" ht.	Sun/Pt. Shade	deciduous, spreading habit, serrated leave, edible black fruit, white/pink flower clusters
<i>Berberis thunbergii</i>	Japanese Barberry	4-6' X 4-6'	24-30" ht.	Sun	* deciduous, slender arching spiny branches, color varies based on variety
<i>Berberis t.</i> 'Crimson Pygmy'	Crimson Pygmy Japanese Barberry	1' X 3'	12-18" sp.	Sun	* deciduous, dwarf, deep red color in full sun
<i>Calluna vulgaris</i>	Scotch Heather	1-2' X 2'	12-18" sp.	Sun	evergreen, tiny scalelike green leaves, spikes covered in bell shaped flowers
<i>Chaenomeles sp.</i>	Flowering Quince	2-6' X 2-4'	24-30" ht./sp.	Sun	deciduous, habit varies, vibrant single to double flowers in late winter
<i>Chamaecyparis lawsoniana</i> 'Ellwoodii'	Dwarf Port Orford Cedar	6-8' X 2'	30-36" ht.	Sun	evergreen, dense compact habit, blue green foliage
<i>Cornus stolonifera</i>	Redtwig Dogwood	7-9' X 12'	30-36" ht.	Sun or Shade	N deciduous, open spreading habit, brilliant red fall foliage & winter twigs
<i>Cotinus coggyria</i>	Smoke Tree	12-15' X 12-15'	30-36" ht.	Sun	* deciduous, broad urn habit, round green to purple leaves, flower airy plumes
<i>Cotoneaster acutifolius</i>	Peking Cotoneaster	6-10' X 6-10'	30-36" ht.	Sun	* deciduous, fountain shaped habit, glossy green foliage, black fruit
<i>Cotoneaster parneyi</i>	Parneyi Cotoneaster	6' X 6'	30-36" ht./sp.	Sun/Pt. Shade	* evergreen, arching habit, dark green foliage, white flower clusters, red fruit
<i>Cotoneaster mircophyllus</i>	Rockspray Cotoneaster	2-3' X 15'	12-18" sp.	Sun/Pt. Shade	* evergreen, horizontal habit, tiny dark green leaves, white flowers, red fruit
<i>Daphne x burkwoodii</i>	Burkwood Daphne	3-4' X 3-4'	24-30" ht./sp.	Sun/Lt. Shade	evergreen, erect compact habit, abundant fragrant white to pink flower clusters
<i>Deutzia gracilis</i>	Slender Deutzia	2-4' X 3-4'	18-24" ht./sp.	Sun/Lt. Shade	deciduous, graceful arching habit, green toothed leaves, clusters of white flowers
<i>Erica sp.</i>	Heath	1-2' X 2'	12-18" sp.	Sun/Pt. Shade	evergreen, round habit, small needlelike leaves, abundant small bell flowers
<i>Euonymus alatus</i> 'Compacta'	Winged Euonymus	4-6' X 4-6'	24-30" ht.	Sun	deciduous, round habit, green wing shaped leaves, vibrant red-orange fall color
<i>Euonymus fortunei</i>	Winter Creeper	2-5' X 3-6'	24-30" ht./sp.	Sun/Pt. Shade	evergreen, habit varies, green to purple to yellow to variegated foliage color
<i>Forsythia hybrids</i>	Forsythia	5-9' X 4-8'	24-30" ht.	Sun	deciduous, fountain shaped habit, green foliage, bright yellow flowers along stems
<i>Hydrangea macrophylla</i>	Garden Hydrangea	4-8' X 4-8'	24-30" ht.	Pt. Shade	deciduous, round habit, green toothed foliage, huge flower clusters, color varies
<i>Hydrangea paniculata</i>	Panicle Hydrangea	5-10' X 5-10'	30-36" ht.	Pt. Shade	deciduous, upright spreading habit, oval green leaves, elongated flower clusters
<i>Ilex crenata</i> 'Convexa'	Compact Japanese Holly	4-6' X 4-6'	24-30" ht.	Sun/Pt. Shade	evergreen, dense round to erect habit, small green leaves, black berries
<i>Juniperus scopulorum</i> 'Skyrocket'	Skyrocket Juniper	10-15' X 2-3'	30-36" ht.	Sun/Pt. Shade	* evergreen, narrow columnar habit, blue-gray foliage
<i>Lavendula sp.</i>	Lavender	2' X 2'	12-18" ht.	Sun	* evergreen, round habit, small aromatic gray-green foliage, fragrant flowers
<i>Lonicera pileata</i>	Privet Honeysuckle	2-3' X 8'	18-24" sp.	Sun/Pt. Shade	* evergreen, spreading habit, green foliage, small fragrant white flowers, berries
<i>Paeonia sp.</i>	Peony	2-4' X 2-4'	12-18" ht./sp.	Sun/Pt. Shade	deciduous, arching habit, green divided leaves, amazing single or double flowers
<i>Perovskia atriplicifolia</i> 'Blue Spire'	Russian Sage	2-4' X 2-4'	12-18" ht./sp.	Sun	* evergreen, upright habit, gray-green foliage, tall showy purple flower stems
<i>Philadephus lewisii</i>	Mock Orange	4-10' X 4-10'	30-36" ht.	Sun/Pt. Shade	deciduous, fountain shaped habit, abundant fragrant white flowers
<i>Picea abies</i> 'Nidiformis'	Bird's Nest Spruce	3-5' X 4-6'	18-24" ht.	Sun	evergreen, low dense habit, gray-blue foliage, needles in star shapes whorl
<i>Pieris japonica</i>	Lily-of-the-Valley Shrub	2-6' X 2-6'	24-30" ht.	Sun/Pt. Shade	evergreen, upright habit, bronze new foliage to green, drooping flower clusters
<i>Pinus mugo mugo</i> 'Pumilio'	Dwarf Mugo Pine	4-8' X 4-8'	18-24" ht./sp.	Sun/Pt. Shade	* evergreen, round compact habit, dark green foliage
<i>Rosa nutkana</i>	Nootka Rose	6' X 4'	24-30" ht.	Sun/Pt. Shade	* deciduous, arching habit, deep pink flowers in spring, showy rose hips follow
<i>Rosa rugosa</i>	Rugosa Rose	3-6' X 3-6'	24-30" ht.	Sun	* deciduous, open habit, single to double flowers in spring-fall, huge red rose hips

SHRUBS continued

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Salvia argentea</i>	Silver Sage	1-2' X 2'	12-18" ht.	Sun	deciduous, upright habit, gray-green foliage, hooded white flowers on stems
<i>Sedum 'Autumn Joy'</i>	Autumn Joy Stonecrop	1-2' X 2'	12-18" ht.	Sun/Pt. Shade	* succulent, upright habit, green foliage, clusters of pink flowers in late summer
<i>Spiraea japonica</i>	Spiraea	2-5' X 2-5'	18-24" ht.	Sun	deciduous, upright habit, toothed foliage, 8" clusters of pink flowers summer-fall
<i>Syringa vulgaris</i>	Common Lilac	8-20' X 6-15'	30-36" ht.	Sun	* deciduous, open upright habit, profuse fragrant conical shaped flower clusters
<i>Viburnum plicatum tomentosum</i>	Doublefile Viburnum	4-6' X 4-6'	24-30" ht.	Sun	deciduous, tiered habit, dull dark green foliage, white snowball flower clusters
<i>Yucca filamentosa</i>	Adam's Needle Yucca	1-7' X 1-4'	12-18" ht./sp.	Sun	* evergreen, stiff round habit, dark green foliage, 3-5' tall white flower clusters

GROUNDCOVERS

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Aegopodium variegatum</i>	Bishop's Weed	6"	1 gal.	Sun/Pt. Shade	* perennial, light green edged white 3 leaflet leaves, fast growing
<i>Archostaphylos uva-ursi</i>	Kinnikinnick	3-6' X 2-3'	1 gal.	Sun/Pt. Shade	* N evergreen, small glossy dark green leaves, white or pink flowers, red fruit
<i>Cerastium tomentosum</i>	Snow-In-Summer	6-8"	1 gal.	Lt. Shade	* perennial, silver gray leaves, small white flowers in summer, fast growing
<i>Galium odoratum</i>	Sweet Woodruff	3"	1 gal.	Shade	* perennial, aromatic green whorl leaves, tiny white flower clusters summer
<i>Helianthemun nummularium</i>	Sunrose	6-8" X 36"	1 gal.	Sun	* evergreen, gray-green leaves, single or double vibrant or light color flowers
<i>Juniperus horizontalis</i>	Creeping Juniper	1' X 8-10'	18-24" sp.	Sun/Pt. Shade	* evergreen, feathery gray-green foliage, fast growing
<i>Mahonia repens</i>	Creeping Mahonia	12" X 36"	1 gal.	Sun/Pt. Shade	* evergreen, spiny edged leaves to divided blue-green leaflets, flower clusters
<i>Sedum spurium</i>	Two-Row Stonecrop	3-6" X 12-24"	1 gal.	Sun	* succulent, dark green or bronze leaves, clusters of pink flowers in summer
<i>Thymus serpyllum</i>	Creeping Thyme	3" X 36"	1 gal.	Lt. Shade	* perennial, round dark green leaves, purple flowers in summer
<i>Thymus pseudolanuginosus</i>	Woolly Thyme	2-3" X 36"	1 gal.	Lt. Shade	* perennial, walkable mat habit, woolly gray leaves, pink flowers in midsummer
<i>Veronica pectinata</i>	Blue Woolly Speedwell	ground hugging	1 gal.	Sun/Pt. Shade	* perennial, small deeply cut gray leaves, profuse deep blue flowers in spring
<i>Vinca minor</i>	Dwarf Periwinkle	4" X 36"	1 gal.	Sun/Pt. Shade	* evergreen, trailing dark green leaves, lavender-blue 5 petal flowers in spring

ORNAMENTAL GRASSES

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Bouteloua curtipendula</i>	Sideoats Grama Grass	1-2' X 2'	1 gal.	Sun	* narrow gray-green leaf clumps, one-sided flowering stems in summer
<i>Bouteloua gracilis</i>	Blue Grama Grass	1-2' X 1'	1 gal.	Sun	* inflorescence of flowers at right angles, red in summer, bleached to white
<i>Calamagrostis x acutiflora</i>	Feather Reed Grass	2-6' X 2-3'	1 gal.	Sun/Pt. Shade	* evergreen, erect clump of narrow green leaves, upright flower stems
<i>Carex morrowii expallida</i>	Variegated Japanese Sedge	1-2' X 2'	1 gal.	Sun/Pt. Shade	mounding habit, green and white striped drooping leaves
<i>Deschampsia cespitosa</i>	Tufted Hair Grass	1-2' X 2'	1 gal.	Sun/Pt. Shade	narrow dark green leaf clumps, airy inflorescences in late spring to early summer
<i>Festuca glauca</i>	Blue Fescue	1' X 1'	1 gal.	Sun	* dense extremely fine blue-silver leaves, flower spikes in summer
<i>Heloctotrichon sempervirens</i>	Blue Oat Grass	2-3' X 2-3'	1 gal.	Sun	* narrow fountain like blue-gray leaf clumps, wispy straw colored flower clusters
<i>Imperata cylindrica</i>	Japanese Blood Grass	1-2' X 1'	1 gal.	Sun/Pt. Shade	upright medium leaf clumps, green at base, red at tip & intensifies in summer-fall
<i>Miscanthus sinensis</i>	Maiden Hair Grass	2-3' X 2-3'	1 gal.	Sun/Pt. Shade	* mounding green leaf clumps, colorful flower plumes in summer-fall
<i>Pennisetum alopecuroides</i>	Fountain Grass	2-3' X 2-3'	1 gal.	Sun/Pt. Shade	* bright green leaf clumps, pinkish to oat colored rabbit tail-like flower plumes
<i>Pennisetum setaceum</i>	Fountain Grass	2-4' X 2-3'	1 gal.	Sun/Pt. Shade	* green leaf clumps, copper-pink to purplish tall flower plumes
<i>Pennisetum setaceum 'Rubrum'</i>	Red Fountain Grass	2-4' X 2-3'	1 gal.	Sun/Pt. Shade	* reddish bronze leaf clumps, copper-pink to purplish tall flower plumes
<i>Stipa tenuifolia</i>	Silky Thread Grass	2' X 1'	1 gal.	Sun	* green leaf clumps, large feather-like straw colored inflorescences
<i>Stipa tenuissima</i>	Mexican Feather Grass	1-2' X 1-2'	1 gal.	Sun/Pt. Shade	* bronze to green leaf clumps, airy feather-like straw colored inflorescences

VINES

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Akebia quinata</i>	Fiveleaf Akebia	15-30'	1 gal.	Sun or Shade	deciduous, deep green leaflets, wine purple clusters of vanilla scented flowers
<i>Campsis radicans</i>	Trumpet Vine	30'	1 gal.	Sun/Pt. Shade	* deciduous, green multiple leaflets, 3" long orange tubular flowers with red lobes
<i>Clematis armandii</i>	Evergreen Clematis	20-35'	1 gal.	Sun	* evergreen, divided glossy green leaves, fragrant white flower clusters
<i>Clematis ligusticifolia</i>	Clematis	20'	1 gal.	Sun	* deciduous, green lobed leaves, multiple flower colors & sizes
<i>Hydrangea anomala petiolaris</i>	Climbing Hydrangea	20-30'	1 gal.	Sun/Pt. Shade	* deciduous, green heart shaped leaves, large white lace-cap flowers
<i>Lonicera japonica</i>	Japanese Honeysuckle	20-30'	1 gal.	Sun/Pt. Shade	* semievergreen, oval deep green leaves, fragrant two-lobed pink-white flowers
<i>Lonicera sempervirens</i>	Trumpet Honeysuckle	10-20'	1 gal.	Sun/Pt. Shade	semievergreen, whorls of orange-yellow to red trumpet shaped flowers in spring
<i>Parthenocissus tricuspidata</i>	Boston Ivy	50'	1 gal.	Sun or Shade	* glossy toothed edged 3-lobed leaves, orange to wine red fall color
<i>Wisteria sinensis</i>	Chinese Wisteria	Varies	1 gal.	Sun or Shade	* green leaves divided into 7-13 leaflets, profuse violet-blue drooping flowers

ROCK GARDEN PLANTS

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Achillea millefolium</i>	Common Yarrow	30-36" X 24"	1 gal.	Sun	* perennial, erect habit, narrow green-gray leaves, flat topped white flowers
<i>Aethionema schistosum</i>	Stonecress	5-10" X 12"	1 gal.	Sun	* perennial, erect habit, narrow gray-blue leaves, fragrant soft pink flowers
<i>Anacyclus depressus</i>	Mount Atlas Daisy	3" X 15"	1 gal.	Sun	* perennial, spreading habit, gray fine leaves, daisylike flowers in summer
<i>Armeria maritima</i> 'Compacta'	Common Thrift	6" X 12"	1 gal.	Sun	* perennial, compact habit, thinleaves, pink globe of flower clusters atop stem
<i>Delosperma cooperi</i>	Purple Hardy Ice Plant	3" X 24"	1 gal.	Lt. Shade	* succulent, spreading habit, cylindrical green leaves, purple flowers in summer
<i>Delosperma nubigenum</i>	Yellow Hardy Ice Plant	1" X 36"	1 gal.	Lt. Shade	* succulent, low habit, cylindrical green leaves turn red in fall, yellow flowers
<i>Iberis sempervirens</i>	Evergreen Candytuft	8-18" X 8-18"	1 gal.	Sun/Pt. Shade	* evergreen perennial, glossy dark green leaves, white flower clusters
<i>Linum flavum</i> 'Compactum'	Compact Golden Flax	6" X 6"	1 gal.	Sun	* perennial, erect habit, green leaves, yellow 5 petal flowers in spring-summer
<i>Penstemon rupicola</i>	Rock Penstemon	4" X 18"	1 gal.	Sun/Pt. Shade	* perennial, trailing habit, small round blue-green leaves, bright pink flowers
<i>Phlox subulata</i>	Moss Pink	6" X 18"	1 gal.	Sun/Pt. Shade	* perennial, spreading habit, needlelike evergreen leaves, pink-lavender flowers
<i>Sedum spathifolium</i> 'Cape Blanco'	Cape Blanco Sedum	3" X 12"	1 gal.	Sun/Pt. Shade	* succulent, spreading habit, spoon shaped blue-green leaves tinged red-purple
<i>Sedum</i> 'Vera Jameson'	Vera Jameson Sedum	8-12" X 15"	1 gal.	Sun/Pt. Shade	* succulent, spreading habit, purple stems w/ pinkish purple leaves, pink flowers

EVERGREEN HEDGE PLANTS

Botanical Name	Common Name	Ht. X Sp.	Min. Size	Sun/Shade	Special Features
<i>Berberis x gladwynensis</i> 'William Penn'	William Penn Barberry	4-5' X 4-5'	24-30" ht.	Sun	broad glossy leaf, fast growth, dense foliage, pretty yellow flowers
<i>Buxus sempervirens</i> 'Suffruticosa'	True Dwarf Common Boxwood	4-5' X 4-5'	24-30" ht.	Sun or Shade	slow growth, small waxy dense form and texture leaf
<i>Daphne x burkwoodii</i>	Burkwood Daphne	3-4' X 3-4'	24-30" ht./sp.	Sun/Lt. Shade	erect compact habit, abundant fragrant white to pink flower clusters
<i>Euonymus fortunei</i>	Winter Creeper	2-5' X 3-6'	24-30" ht./sp.	Sun/Pt. Shade	habit varies, green to purple to yellow to variegated foliage color
<i>Ilex crenata</i> 'Convexa'	Compact Japanese Holly	4-6' X 4-6'	24-30" ht.	Sun/Pt. Shade	dense round to erect habit, small green leaves, black berries
<i>Juniperus x pfitzeriana</i> 'Armstrongii'	Armstrong Juniper	4-5' X 4-5'	24-30" ht.	Sun	upright habit, true green foliage, compact growth
<i>Taxus baccata</i> 'Adpressa'	Dwarf English Yew	4-5' X 6-8'	24-30" ht.	Sun or Shade	dense habit, rich dark green needles, compact growth, red fruit
<i>Thuja occidentalis</i> 'Hetz Midget'	Dwarf Arborvitae	3-4' X 3-4'	24-30" ht.	Sun/Pt. Shade	globe habit, dense green foliage, maintains form
<i>Viburnum hybrids</i> 'Conoy'	Conoy Evergreen Viburnum	4-5' X 4-5'	24-30" ht.	Sun/Pt. Shade	dense habit, dark green foliage with white on underside, fragrant flowers, red berries

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SUSTAINABILITY
STANDARDS

12

Section 12 describes regulations for Sustainability throughout the Badger Mountain South community.

12.A	Introduction.....	12-2
12.B	Sustainability Principles.....	12-2
12.C	Common Standards.....	12-2
12.D	Non-Residential Standards.....	12-3
12.E	Residential Standards.....	12-3

12.A INTRODUCTION

- This section provides sustainability goals for Badger Mountain South.
- In Badger Mountain South, sustainable development means development that looks to the long-term social and environmental health of the community. It is the key concept to what is unique about this community of homes, businesses, schools and play fields.
 - The standards and requirements of previous sections of the LUDR relate to the concept of sustainability through the following ways:
 - Compact Design**

Compact design is a recognized element of sustainable development because it allows a reduction of infrastructure, yields a higher proportion of contiguous preserved open space, facilitates transit use, and is more conducive to walking.
 - Mix of Uses**

Permitting a mix of land uses in close proximity creates attractive places to live, provides employment, business and shopping opportunities in close proximity to residences, and encourages alternatives to driving.
 - Connectivity**

Connected open space in Badger Mountain South will provide over 400 acres of parks, trails, and open space connecting neighborhoods, schools, and businesses.
 - Walkability**

Each neighborhood in Badger Mountain South is designed to create multiple destinations within a five-minute walk. The street and trail network provides safe accommodations for pedestrians and easy access to (proposed) neighborhood schools.
 - Housing Choice**

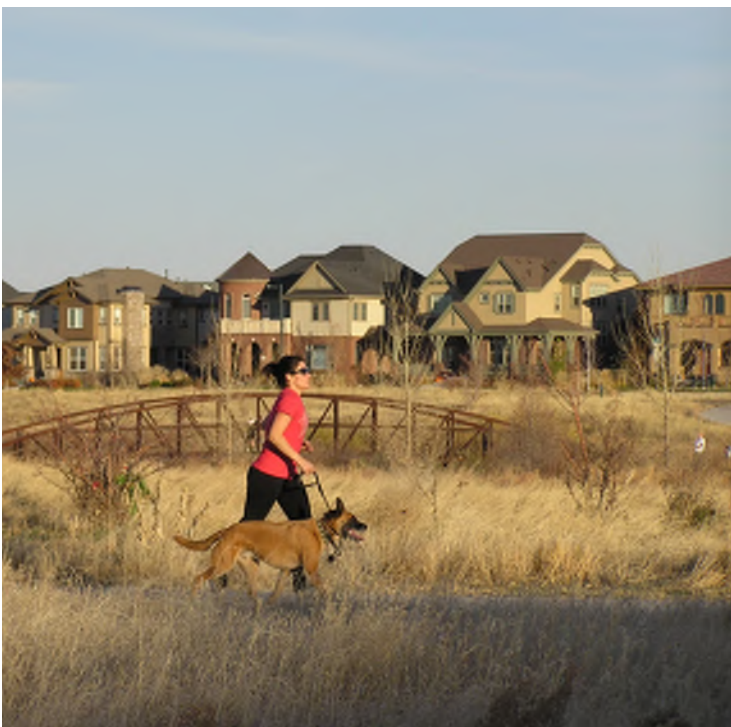
Badger Mountain South will provide a range of housing types and affordability levels to accommodate most any household and to facilitate the creation of intergenerational neighborhoods.
 - Transportation Choice**

The street and trail network will provide multiple ways into the community for vehicles, bicyclists, pedestrians and transit. As build out occurs, transit expansion will likely follow.
 - In this section of the LUDR, more specific direction is provided to address energy and other resource conservation through standards that apply to all buildings and sites. These standards are guided by sustainability principles which follow. At their best, sustainability principles, when applied as standards to the built environment, reconnect people to their community and provide attainable performance targets without limiting innovation.
 - National, sustainable design certifications, including but not limited to, Energy Star, Built Green and LEED, are rating systems that provide guidance to developers and builders to help achieve the sustainability intent of the Badger Mountain South community.

12.B SUSTAINABILITY PRINCIPLES

- ENERGY:**
 - Promote energy conservation in all aspects of development and life cycle operation.
 - Promote production and use of renewable energy.
- WATER:**
 - Promote water conservation in all aspects of development and life cycle operation.
 - Promote re-use, recycling and ground water recharge of rain water and grey water.
- TRANSPORTATION:**
 - Promote pedestrian, bicycle and community transit modes of transportation.
 - Promote a compact, walkable and mixed-use pattern of development.
- EXTERIOR LIGHTING:**
 - Minimize light trespass from the building and site to achieve:
 - Energy savings
 - Night-sky ambience; and
 - Increased visibility, safety, and security by reducing glare.
- RECYCLING:**
 - Promote reduction in waste during development and life cycle operation.
 - Promote reuse of materials during construction.
 - Promote recycling of materials during development and life cycle operation.
- HEALTHY LIFESTYLE:**
 - Promote an active, healthy lifestyle by connecting areas of activity with non-motorized means of circulation.
 - Promote opportunities for active recreation through community-wide trail system as well as provisions for parks and play areas in each neighborhood.
- BUILDING MATERIALS:**
 - Choose building materials and systems that:
 - Protect and promote indoor air quality;
 - Contain recycled content, or can be recycled;
 - Are extracted, processed, and manufactured regionally;
 - Utilize renewable, salvaged, or FSC Certified materials
- URBAN AGRICULTURE:**
 - Integrate opportunities for community gardening within each neighborhood.

12.C COMMON STANDARDS



Illustrative Photo: Walkable and Sustainable Community

The following Common Standards are applicable to all development within Badger Mountain South. Refer to Section 12.D and 12.E for additional standards specific to use or to District.

- ENERGY**

compliance

 - Achieve Energy Star Certification applicable for the year of construction.
 - Include passive and/or active means of allowing for both solar gain where used for passive solar heating as well as sun protection from unwanted solar heat gain.
 - Include building space, conduits and roof support for future addition of solar hot water or photovoltaic systems on every building. When provided, the use of geo-thermal may substitute for the above requirement. Geo-thermal wells and realated infrastructure is permitted in all setback areas.
- GREEN BUILDING COMPLIANCE**
 - Achieve certification at the minimum level for which third-party verification is required for certification by one of the following green building rating systems or their equivalent:
 - Built Green – as promoted by the local building trade organization
 - LEED – as promoted the U.S. Green Building Council (www.usgbc.org)
 - Green Globes – as promoted by the Green Building Initiative (www.thegbi.com)
 - National Green Building Standards – 2008 (www.nahbgreen.org) for residential only
 - ~~All required 3rd party verification shall be done by an entity approved for 3rd party verification by the rating system for which compliance is sought. The obligation of 3rd party verification, and the expense of verification, shall be borne by the property owner of the property for which the permit was obtained.~~

3. EXTERIOR LIGHTING
Goals: Nighttime building illumination should be elegant and reinforce prominent building design elements yet avoid off-site lighting and night sky pollution. Technologies to reduce light



Illustrative Photo: Sustainable Community

pollution include full cutoff luminaires, low-reflectance, and low-angle spotlights. Computer modeling of commercial project's site lighting is encouraged.

- For all buildings except Low Rise Residential (under four stories):
 - Submit a Lighting Plan, depicted on the site plan, for all projects with four or more exterior fixtures. The Lighting Plan must include all elements as found in the Glossary for "Lighting Plan".
 - Lighting power densities must not exceed ANSI/ASHRAE/IESNA Standard 90.1-2010.
 - Meet exterior lighting control requirements from ANSI/ASHRAE/IESNA Standard 90.1 - 2010.
 - Follow all the requirements that applies to the development proposed as found in ANSI/ASHRAE/IESNA Standard 90.1 - 2010.
- For all Low Rise Residential Buildings (under four stories):
 - Lighting fixtures shall have translucent covers that eliminate glare and have full cutoff features/shielding to prevent direct light from the fixture to shine beyond the property limits where the fixture is installed.
 - Lights of less than 15 watts used for holiday decoration are exempt.
 - Lighting for U.S. flags intended to be properly displayed at night is exempt.

- 4. REACH CODES**
- Projects that achieve Passive House Certification shall be deemed compliant with the energy conservation requirement.
 - Projects that achieve Living Building Challenge shall be deemed compliant with both the energy conservation requirement, and the green building requirement.

- 5. RECOMMENDED ELEMENTS (NOT REQUIRED)**
- Solar Hot Water system
 - Photovoltaic system
 - LEED Platinum

12.D NON-RESIDENTIAL STANDARDS



Illustrative Photo: Commercial Facility w/ Solar Array Entry Canopy

- 1. Compliance with the Common Standards, 12.C. **compliant**
- 2. Commercial building shall be Energy Star ~~certified every two (2) years.~~ **should attempt to**
- 3. Civic buildings ~~must~~ meet LEED Silver standard or equivalent rating in an alternate green building rating system.
- 4. Schools: All K-12 schools that receive funding from the Office of the Superintendent of Public Instruction must be built either to the Washington Sustainable Schools Protocol (WSSP) or LEED Silver standard.
- 5. Provide shared parking within Mixed-Use development projects.
- 6. Parking must be organized so that no one surface parking area in any development is larger than two (2) acres. In large developments with multiple surface parking areas, each area shall be defined through the use of landscape and pedestrian access ways.
- 7. ~~A Sustainability Plan which details the means and methods to meet the applicable 12.D.Sustainability Principles is required for all commercial development. A Sustainability Plan shall be a condition of binding site plan approval, or other initial entitlement approval, and shall govern all commercial development within the area of approval.~~

12.E RESIDENTIAL STANDARDS



Illustrative Photo: Single Family Home with Rooftop Solar Array

- 1. Compliance with the Common Standards, 12.C.
- 2. In order to reduce the energy demand for domestic hot water usage, install one of the following Energy Star - Residential Water Heater Systems:
 - a. Whole-Home Gas Tankless Water Heater
 - b. Gas Condensing Water Heater
 - c. Heat Pump Water Heater
 - d. Solar Water Heater with convention storage or tankless backup system"
 - e. Or other equivalent system

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SITE
IMPROVEMENT
STANDARDS

13

Section 13 describes regulations for the Site Improvements throughout the Badger Mountain South community.

13.A	Fencing.....	13-2
13.B	Signage.....	13-3-13-5
13.C	Site Furnishings and Hardscape.....	13-6
13.D	Common Parking Standards.....	13-7

13.A FENCING



Side and Rear Yard Fencing



Wing Fencing with Gate



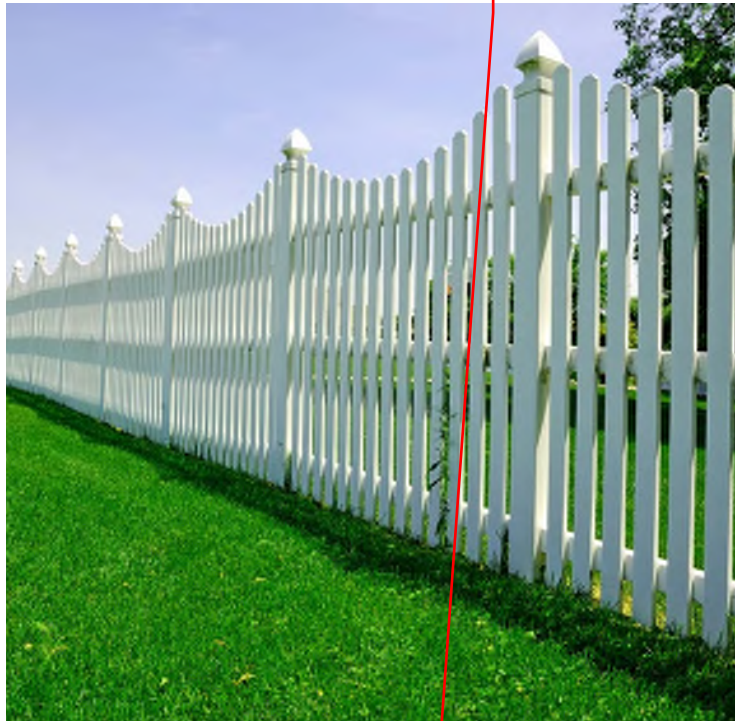
Front Yard Fencing



Corner Lot Fencing



Iron Fencing



Painted Wood Fencing



Picket Fencing

1. RESIDENTIAL

a. General Considerations

- (1) A fence is defined as a structural or ornamental barrier separating one exterior space from another. The intent is to create good neighbor fences and make alleys people-friendly by allowing homeowners to view activities in the alley.
- (2) The heights or elevations of any wall or fence shall be measured from the existing natural elevations of the property at or along the applicable points or lines.
- (3) Cyclone, metal mesh, and chain link fences are prohibited. Fences must be constructed of grade #2 (or better) no-hole cedar, masonry, recycled plastic, iron, powder coated steel, or aluminum.
- (4) Privacy screening may be permitted for Hot Tubs/Spas and for enclosed courtyards on lots less than 61 ft. in width, or on alley lots up to 70 ft. when an alley adjoins the side yard.

b. Standards

- (1) Side, rear yard, and Alley fences shall be a maximum of 5 ft. in height. An allowance will be granted for homeowner's who request a 6 ft. ht. fence. All solid or 0% transparent fences shall consist of 42 inches height solid fencing, with an 18 inches height articulation on top of fence, for a maximum total fence height of 5 ft. Articulation shall be a minimum of 50% transparent, composed of the same material as the fence. Height shall be measured from the Natural Grade.
- (2) Front fences.
 - i. Any fence extended beyond the front of the house, must not exceed 3 ft. in height.
 - ii. Painting of front fences is allowed when painted to complement the exterior color of the residential structure. Any painted fence must be maintained so as to conform to the standards established for fences.
- (3) No tree, whether in a setback or on private property, shall be used for the attachment or support of any fence or privacy screen.

- (4) Fences taller than 3 ft. along rights of way or pedestrian trails shall be at least 3 ft. away from the edge of the sidewalk or trail.
- (5) Fence company signs may not be affixed to fences.
- (6) Fencing around recreational facilities in private areas will be judged on an individual basis, taking into consideration such factors as location, exposure to public view, and natural screening in the immediate vicinity.
- (7) At corner lots and pedestrian paths, 5 ft. fencing on side yard may be installed with a minimum 3 ft. setback. In addition, landscaping shall be installed along the street side fence that will reach a minimum 3 ft. height within 3 years.
- (8) Fencing in Courtyard Housing and Cottage Court front yards shall be a maximum of 3 ft. high.
- (9) Hedges may be established as a fence along the front yard or corner lot side yard when the maximum height of the plant materials is maintained at 3 ft. or less.
- (10) When trash receptacles, recycling containers and similar are stored outside of a building or other structure, they must be screened with a sight obscuring fence which matches the style and materials of other fencing on the lot and must be one foot high than the object being screened.
- (11) Wing Fences.
 - i. Must be located 10 ft. back from front of building, or at a significant architectural feature, perpendicular to the building.
 - ii. On corner lots, wing fencing may be located at the rear corner of the building, or at a significant architectural feature, perpendicular to the building. The wing fencing may not be located closer than 20 ft. from the corner of the building.
 - iii. Must be level along fence top rail; grade adjustments must be made as bottom rail or stepping fence sections.
- (12) Enclosed Courtyard Screen.
 - i. A solid or semi-solid partition constructed of the same or similar materials as the principal structure and either partially or completely surrounding an outdoor living space.

- ii. May extend into the front yard setback no more than 4 ft. beyond the front facade/front porch of the principal structure, but in no event beyond the minimum build to line.
- iii. Must be decoratively embellished on the exterior when a solid screen is built.
- iv. Maximum height of 5 ft.

2. COMMERCIAL DISTRICT FENCING AND LANDSCAPE/RETAINING WALLS

a. General Considerations

- (1) Fences and landscape/retaining walls will be reviewed as part of the landscape plan submittal for development applications. A fence is defined as a structural, functional or ornamental barrier separating one exterior space from another.
- (2) The heights or elevations of any wall or fence shall be measured from the existing natural elevations of the property at or along the applicable points or lines.
- (3) No cyclone, metal mesh, or chain link fences are allowed except as noted below and except that fence posts may be metal or steel enclosed in wood and as noted below. Freestanding concrete and masonry walls shall be minimum 8 inches thick. Wood shall be painted unless natural cedar or redwood is used. Site wall materials should generally match building materials. Metal and iron fencing shall be configured in predominately vertical elements; all metal surfaces shall be painted.

b. Standards

- (1) Acceptable materials for Fences and Landscape/Retaining Walls are as follows:
 - i. Brick, concrete and stone masonry;
 - ii. Architecturally detailed exposed cast-in-place concrete;
 - iii. Stucco, cement based;
 - iv. Wood pickets, lattice and boards; use #2 or better no-hole cedar;
 - v. Painted wrought iron, powder coated steel, or aluminum;
 - vi. Chain link, for rear property lines in the BMS-SD-DR District only;

is encouraged to

but in no event exceed 40 percent of the width of the lot.

finished grade

finished grade

3. NEIGHBORHOOD STORAGE AREA FENCING

- a. Fencing and Screening Required: Fencing and screening is required around all portions of the lot utilized for the outdoor storage as allowed per Land Use Table, Section 2.C. All fencing and screening shall be installed in accordance with the following requirements:
 - (1) Building setbacks. All Neighborhood Storage Areas must be fenced with a secured, black chain link fence placed 10 ft. from the front sidewalk, 6 ft. from side property line, 6 ft. from rear property line.
 - (2) Minimum Fence Height. Fencing of outdoor storage areas shall be constructed to a minimum height as follows:
 - i. 6 ft. in height in BMS-NG district.
 - (3) These standards supersede the parking placement standards by District, section 3.
- b. Landscape screening, See 11.C.8 for storage facility screening.
- c. Maintenance Required. Fences, walls and landscaping surrounding outdoor storage areas shall be well maintained and kept free of litter, posters, signs and trash.

vinyl coated

4. COMMUNITY STORAGE FACILITY FENCING

- a. Community Storage Facility fencing and screening shall comply with all Neighborhood Storage Area Standards in 13.A.3 except that:
 - (1) Minimum Fence Height. Fencing of outdoor storage areas shall be constructed to a minimum height of 8 ft. tall in the BMS-NC-P Overlay District.

unless otherwise approved by the City.

or as approved by the City.

1. SIGNAGE STANDARDS - ALL DISTRICTS

- Signs erected in Badger Mountain South must comply with the standards set forth in the LUDR and the application processes and permits identified in RMC 27.04.
- a. General Considerations
- (1) Badger Mountain South signage goals are as follows:
 - i. Provide effective way-finding for all visitors and others to the community;
 - ii. Provide visibility for commercial and other business uses;
 - iii. Encourage signage that is expressive of the image of the community; and
 - iv. Express timeless design that is harmonious with buildings and open spaces.
 - (2) Signs shall be designed and installed to enhance both the building and the streetscape. Creative, detailed, artistic and unique signage is encouraged.
 - (3) The use of icons, symbols, graphic logos or designs that represent a service or occupation are preferable to standardized corporate logos.
 - (4) All exterior signs shall comply with the City of Richland Sign Code. All signs must be professionally designed and installed, and must be well maintained.
- b. Construction Signs
- (1) One sign, identifying the builder/general contractor, is permitted during the course of construction. The sign must be single-sided and may include the builder's logo, company name and phone number and be of his own design and choice of colors. Architect/designer identification may be incorporated into this sign but may not be a separate sign attached to the builder sign.
 - (2) Builder signs shall be limited to 48 inches x 48 inches in size, installed with a single or double post no higher than 66 inches (measured from existing grade) and mounted so that the bottom of the sign is within 18 inches of the surrounding grade and must be placed parallel to the road. Signs must be removed as soon as the building is occupied or when construction is completed. Builder/architect information boxes are permitted during the course of construction. No separate subcontractor or consultant signs are allowed.
- c. For Sale and For Lease Signage
- (1) One "for sale" or "for lease" sign is permitted for each building or each group of attached buildings or group of zero lot line buildings. The maximum sign size is 4 ft. by 4 ft.. These signs shall be mounted so that the bottom of the sign is within 18 inches of the surrounding grade (signs must be placed parallel to the street frontage and the sign may be located inside the building). For Sale / For Lease signs must be well maintained and professionally produced.
- d. Special Event Signage
- (1) A sign which is to be displayed for a limited period of time only, not to exceed 20 days, and includes, but is not limited to, banners, pendants, streamers, fabric signs, clusters of flags, subject to RMC 27.08.010F(2).
- e. Signs Permitted by Right
- (1) Home occupation signs no larger than 2 sq. ft.
 - (2) Only one movable A-frame sign is permitted per business to be displayed only during the hours of 8:00 a.m. to 9:00 p.m. or to closing, whichever is earlier, on days the business displaying such sign is open and, which shall not exceed 6 sq. ft. in size per face and shall not exceed 4 ft. in height.
 - (3) Bus shelter signs including a directory of sponsors, bus route maps/information and art work in bus shelters, not to exceed 4 sq. ft..



Commercial Building Sign



Awning Signage



Directory Signage



Monument Signage



Projecting Signage



Wall Signage

- (4) Flags of country, state, city or other governmental body, and not to exceed 25 sq. ft. in area.
 - (5) Garage/yard sale. Two movable signs allowed per sale, not to exceed 6 sq. ft. per sign face; not to be posted for longer than three days prior to sale; and not be placed on public utility poles.
 - (6) Real estate signs. Directional arrow signs are to be used solely for directing people to a house for sale or lease, or a condominium unit for sale. They may not be used for advertising of sale or lease opportunities of commercial property. They may not be used for any properties outside the City limits.
- f. Sign Lighting
- (1) Signs may not be top lit with single or multiple sources. The light source may not be visible from any public right of way and may not shine up into the night sky. Seasonal decorative lighting is permitted.
- g. Removal of Abandoned Signs
- (1) It is the responsibility of the property owner to remove any abandoned sign within two days of the cessation of its use.
- h. Removal of Non-Conforming Signs
- (1) Any signs which are deemed to be nonconforming will be removed and held for 14 days; after which time they will be destroyed, if not retrieved by the responsible party.
- i. Neighborhood and Entry Way Signage
- (1) Neighborhood identification and/or entry way signage must meet the standards found for Monument Signage, Section 13.B.3.d.(1).
- j. Prohibited Signs
- (1) Internally illuminated signs, with the exception of neon signs.
 - (2) Inflatable balloon or balloon-like figures greater than 36 inches in any dimension of animals or any other objects or characters.
 - (3) Signs on roofs, chimneys and balconies.
 - (4) Pole signs and other freestanding signs over 6 ft. in height.
 - (5) Billboards.
 - (6) Off-site signs or advertising.
 - (7) Flashing, animated, blinking, moving or mobile signs including portable reader board signs.
 - (8) Sign on or affixed to a rock, tree or other natural feature.
 - (9) Private sign placed in right-of-way.
 - (10) Banners, except for public events.

2. SIGNAGE STANDARDS: BMS-SD-DR, BMS-SD-SR, AND BMS-SD-CMU DISTRICTS

- a. Awning Signage
- (1) Maximum sign area shall be 6 sq. ft. on the main awning face or 3 sq. ft. of the awning valance.
 - (2) Lettering and signboard may be integrated along the valance or awning fascia.
 - (3) No backlit awning signs are permitted.
- b. Building Signage Allowance
- (1) Each commercial building may have a maximum of two signs to identify the name of the building. These signs must be integral to the architecture and building design and convey a sense of permanence. Typically these signs are secondary or tertiary building elements as seen on historic urban buildings. Buildings on corner lots may have a maximum of three signs.
 - (2) Building signs must conform to the following:
 - i. Maximum sign area shall be no more than 20 sq. ft. per building face except when the sign includes a company logo in which case it may increase in area to 36 sq. ft.
 - ii. Maximum sign height shall be 18 ft. above the sidewalk to the top of the sign (measured from the top of the sign to the lowest point on the sidewalk directly below the sign) unless signage is positioned on a cupola or other architectural feature that extends beyond the ordinary roof height.
- c. Directory Signage
- (1) Each building may have one directory sign immediately adjacent to the front/main entry and to any rear entry to the building.
 - (2) Directory signs shall be limited to 12 sq. ft. in area, and their design shall integrate with the color and materials of the building.
- d. Marquee Sign
- (1) Where movie theater use or Gambling Premise use is permitted within District, a projecting marquee sign up to 120 sq.ft. per two sides, may be attached to building facade.
- e. Monument Signage
- (1) General Standards Applicable to all Monument Signs:
 - i. Monument signs need to be located within a landscaped planter. The minimum area of the planter shall be equal to the total area of the sign located within the planter.
 - ii. The exterior finish, color and materials of the sign cabinet need to complement the colors and materials of the building that the advertised business occupies.

- iii. Monument signs for multiple-tenant commercial centers with 6 or more tenant spaces shall focus on identifying the name of the center and/or its largest tenants, rather than on all tenants.
 - iv. No monument signs are permitted in line of sight triangles next to driveway locations. The line of sight measures 7 ft. by 50 ft..
 - v. No monument signs are permitted in the line of sight triangles adjacent to a corner. This line of sight triangle measures 25 ft. by 25 ft..
 - vi. When more than one monument sign is permitted on any parcel, the signs may be located no closer than 300 ft. from one another.
 - vii. All monument signs need to include numeric street address of the property upon which it is located. The numbers used to identify the address shall be no less than 9 inches and no more than 15 inches in height.
 - viii. All background surfaces must be of an opaque material that does not emit light.
- (2) Monument Sign Standards:
- i. Individual Business: An individual business located on a separate lot and not legally part of a multi-business development may use one monument sign as either a primary sign or a secondary sign. The sign may not be located closer than 3 ft. from any property line. The overall height of the sign, not including the base measurement, shall not exceed 12 ft., except in the BMS-DR District where the overall height of the sign shall not exceed 20 ft.. No more than 1 monument sign shall be erected for any 1 business. No sign shall obstruct the view of motor vehicle operators entering or leaving any parking area, service drive, private driveway, street, alley or other thoroughfare.



Awning Signage



Directory Sign



Monument Sign



Blade or Projecting Signage



Wall Signage



Window Signage



Public Way-Finding Signage



Monument Signage

2. SIGNAGE STANDARDS: BMS-SD-DR, BMS-SD-SR, AND BMS-SD-CMU DISTRICTS continued

- ii. Multi-business Development: Monument signs are permitted for the purpose of identifying the development and the tenant or occupants of any multi-business development. A development shall mean one or more buildings under a common development scheme or common ownership. One monument sign may be erected for the purpose of identifying the development and some or all of the tenants or occupants of the development at each point of vehicle entrance from public right-of-way to such development. A monument sign shall not exceed 12 ft. in height and 120 sq. ft. total for all faces with a maximum of 60 sq. ft. for any 1 face, except in the BMS-DR District where the overall height of the sign shall not exceed 20 ft. in height and 200 sq. ft. total for all faces with a maximum of 100 sq. ft. for any one face. For retail developments with 6 or more tenants, at least 25 percent of each sign face shall identify the development. For retail development with fewer than 4 tenants, identification of the development is not required, but if the retail development is identified on the sign then at least 25 percent of each sign face shall identify the development. Each panel identifying a tenant shall be at least 14 inches high with letters and/or logo at least 8 inches high. Neither the portion of the sign structure providing support nor the frame shall be counted in determining the square footage of the sign.
- iii. Each sign shall be located at least 3 ft. from any vehicle entrance. No sign shall obstruct the view of motor vehicles operators entering or leaving any parking area, service drive, private driveway, street, alley, or other thoroughfare.
- f. Projecting and Blade Signage
 - (1) Maximum sign area shall be 4 sq. ft. (per side).
 - (2) The sign must be located with the lower edge of the signboard no closer than 8 ft. to the sidewalk and the top of the sign no more 14 ft. above the sidewalk.
 - (3) For multi-story buildings, at the ground floor tenant space signage, the top signboard edge shall be no higher than the sill or bottom of the average second story window height.
 - (4) Distance from building wall to signboard shall be a maximum of 6 inches.
 - (5) Maximum signboard width shall be 3 ft. with no dimension to exceed 3 ft.
 - (6) Occupants/tenants above the street level are prohibited from having projecting blade signage.

- g. Tenant/Occupant Signage
 - (1) Each building may have a total of 2 signs per tenant/occupant identifying the leased/occupied space. These signs must be located on or immediately adjacent to the primary entry to the tenant's/occupant's space. Tenants/occupants may select from the following sign types: Awning, Projecting/Blade or Wall.
 - (2) Tenants/occupants may also have one street level storefront (window, glass door or A-board) sign.
- h. Wall Signage
 - (1) Unless regulated elsewhere in the LUDR, maximum sign area shall be a maximum of 20 sq. ft..
 - (2) The sign shall be located on the tenant's portion of the building. Maximum sign height for multiple story buildings shall be 14 ft. above the sidewalk to the top of the sign The maximum sign height for single story buildings is 18 ft. above the sidewalks to the top of the sign. The measurement is from the top of the sign to the lowest point on the sidewalk directly below the sign.
 - (3) Applied lettering may be substituted for wall signs. Lettering must fit within the size criteria above.
 - (4) Wall signs that are designed as a mural or other artistic application may be larger in size. Only the portion of the painted wall mural which contains a logo, trademark or other commercial message shall be governed by the requirements in Section 13. B.2.g. Wall preparation, anti-graffiti coating and ultraviolet coating, for walls with southern exposure, shall be required.
- i. Window Signage
 - (1) Maximum sign area shall be 4 sq. ft.
- j. Portals, Gateways, and Entries Signage.
 - (1) Neighborhood identification or entry way signage signs must meet the standards of Monument Signage, Section 13.B.3.d.(1), unless intended to be constructed as public art or include other significant architectural features, or,
 - (2) Entryway sign into the community or neighborhood which arch over the public-right-of-way. Must meet the following standards:
 - i. Any sign over a city street must be a minimum of 16 ft. from the street surface.
 - ii. Signs and sign-supporting structures shall be listed by a recognized testing laboratory and constructed in compliance with the requirements of the International Building Code as adopted by the City.
 - iii. Signs must possess unique architectural features such as materials, artwork or lettering, and may be constructed as part of a major entryway into the community.

- iv. Sign base may be surrounding by landscape materials.
- v. Applicable standards and licensing requirements in RMC 5.14 apply.

3. SIGNAGE STANDARDS: BMS-VMU DISTRICT

- a. Awning Signage
 - (1) Maximum sign area shall be 3 sq. ft. on the main awning face or 1.5 sq. ft. of the awning valance.
- b. Building Signage Allowance
 - (1) Each building may have a maximum of two signs to identify the name of the building. These signs must be integrated within the architectural element to which they reside, to convey permanence and create historic precedence. Typically these signs are secondary or tertiary building elements as seen on historic commercial/industrial buildings.
 - (2) Building signs must conform to the following:
 - i. Maximum sign area shall be no more than 4 sq. ft.
 - ii. The sign shall be located between 14 and 18 ft. above the sidewalk to the top of the sign (measured from the top of the sign to the lowest point on the sidewalk directly below the sign).
- c. Directory Signage
 - (1) Each building may have one directory sign immediately adjacent to the front/main and to any rear entry to the building.
 - (2) Directory signs shall be limited to 12 sq. ft. in area, and their design shall integrate with the color and materials of the building.
- d. Monument Signage
 - (1) Individual Business: An individual business located on a separate lot and not legally part of a multi-business development may use one monument sign as either a primary sign or a secondary sign. The sign may not be located closer than 3 ft. from any property line. The overall height of the sign shall not exceed 10 ft.. No more than one monument sign shall be erected for any one business. No sign shall obstruct the view of motor vehicle operators entering or leaving any parking area, service drive, private driveway, street, alley or other thoroughfare. Each lot, less than 39,000 sq. ft. as originally platted, may have one monument sign. The monument sign may be a maximum of 9 sq. ft., not including the sign base, and have no dimension exceeding 5 ft., including the sign base. Sign height, including the sign base, will be measured from original grade. The sign must be located within 25 ft. of the primary vehicular entry and within 10 ft. of the front property line.

- (2) Multi-business Development: Monument signs are permitted for the purpose of identifying the development and the tenant or occupants of any multi-business development. A development shall mean one or more buildings under a common development scheme or common ownership. One monument sign may be erected for the purpose of identifying the development and some or all of the tenants or occupants of the development at each point of vehicle entrance from public right-of-way to such development. A monument sign shall not exceed 10 ft. in height and 100 sq. ft. total for all faces with a maximum of 50 sq. ft. for any one face.
- (3) For retail developments with 4 or more tenants, at least 25 percent of each sign face shall identify the development. For retail development with fewer than 4 tenants, identification of the development is not required, but if the retail development is identified on the sign then at least 25 percent of each sign face shall identify the development. Each panel identifying a tenant shall be at least 14 inches high with letters and/or logo at least 8 inches high. Neither the portion of the sign structure providing support nor the frame shall be counted in determining the square footage of the sign.
- (4) Each sign shall be located at least 3 ft. from any vehicle entrance. No sign shall obstruct the view of motor vehicles operators entering or leaving any parking area, service drive, private driveway, street, alley, or other thoroughfare.
- e. Projecting and Blade Signage
 - (1) Maximum sign area shall be 2 sq. ft. (per side).
 - (2) The sign must be located with the lower edge of the signboard no closer than 8 ft. to the sidewalk and the top of the sign no more 14 ft. above the sidewalk.
 - (3) For multi-story buildings, at the ground floor tenant space signage, the top signboard edge shall be no higher than the sill or bottom of the average second story window height.
 - (4) Distance from building wall to signboard shall be a maximum of 6 inches.
 - (5) Maximum signboard width shall be 2 ft. with no dimension to exceed 3 ft.
 - (6) The second story tenants are prohibited from having projecting blade signage.
- f. Tenant/Occupant Signage
 - (1) Each building may have a total of 1 sign per tenant/occupant identifying the leased/occupied space. This sign must be located on or immediately adjacent to the primary entry to the tenant's/occupant's space. Tenants/occupants may select from the following types: Awning, Projecting/Blade, Neon, Wall and Window.

3. SIGNAGE STANDARDS: BMS-VMU DISTRICT continued

- g. Wall Signage
- (1) Unless regulated elsewhere in the LUDR, maximum sign area shall be 1% of the tenant’s portion of the ground floor area or 10 sq. ft., whichever is less.

(2) Wall sign shall be located on the tenant’s portion of the building. Maximum sign height shall be 14 ft. above the sidewalk to the top of the sign (measured from the top of the sign to the lowest point on the sidewalk directly below the sign).

(3) Applied lettering may be substituted for wall signs. Lettering must fit within the size criteria above.

(4) Wall signs that are designed as a mural or other artistic application may be larger in size. Only the portion of the painted wall mural which contains a logo, trademark or other commercial message shall be governed by the requirements in Section 13. B.2.g. Wall preparation, anti-graffiti coating and ultraviolet coating, for walls with southern exposure, shall be required.

(5) Wall sign shall be located on the tenant’s portion of the building. Maximum sign height shall be 18 ft. above the sidewalk to the top of the sign (measured from the top of the sign to the lowest point on the sidewalk directly below the sign).

(6) Applied lettering may be substituted for wall signs. Lettering must fit within the size criteria above.
- h. Window Signage
- (1) Maximum sign area shall be 4 sq. ft.

4. SIGNAGE STANDARDS: COMMUNITY FACILITIES/PLACE OF WORSHIP

- a. Each noncommercial use, such as places of worship, schools, city parks, fire stations, police stations, municipal buildings, public libraries, community centers, and other similar noncommercial uses, may have no more than one monument or one wall sign for each street frontage. A monument sign shall not exceed 24 sq. ft. in area per face, shall be setback a minimum of 2 ft. from the property line, and shall not exceed 5 ft. in height. A wall sign shall not exceed 32 sq. ft. in area and shall not exceed 15 ft. in height. All community facilities/ place of worship signs shall be designed in keeping with the character of the neighborhood and shall be constructed of durable materials.
- b. Public way-finding and site feature identification signs are permitted in Civic Districts and do not count as part of the noncommercial square footage.

5. SIGNAGE STANDARDS: BMS-NC, NG AND NE DISTRICTS

- a. Live/work signage.
- A sign up to 3 sq. ft. containing the name of the proprietor, business and/or a graphic image representing the business shall be allowed. The sign shall be attached to the dwelling, be compatible with the architectural character of the neighborhood and shall not be illuminated or backlit. Only one sign shall be allowed.
- b. Bed and Breakfast and home occupation signage.
- (1) A bed and breakfast operation as a home occupation, and all other home occupations, shall be allowed a sign up to 2 sq. ft., containing only the name of the proprietor or the name of the residence. The sign shall be attached to the dwelling, be compatible with the architectural character of the neighborhood and shall not be illuminated or backlit. Only one sign shall be allowed.
- c. Day care and adult family home signage.
- (1) Licensed family day care and adult family home centers shall be allowed a sign up to 2 sq. ft., containing only the name of the proprietor or the name of the residence. The sign shall be attached to the dwelling and shall not exceed 2 sq. ft. in area. The sign shall be compatible with the architectural character of the neighborhood and shall not be illuminated or backlit. Only one sign shall be allowed.

(2) Licensed day care centers on lots one acre and larger may have one monument sign that meets the standards in 13.B.3.d.1.
- d. Senior housing, nursing homes and assisted living facilities signage. Signage shall conform to the sign standards for the VMU District, 13.B.3.

6. SIGNAGE STANDARDS: VEHICULAR SERVICE STATION

- a. Vehicular service stations selling motor fuel to the public, including those with convenience stores, accessory restaurants or other retail, self-service car washes, and facilities having service bays for vehicle service and repair, may have primary signs as shown on Vehicular Service Station Signage Chart, this page:
- b. Motor Fuel Sales as Secondary Use: Any business selling motor fuel to the public as a secondary use may have:
- (1) One permanently mounted fuel price sign. Such sign shall not exceed 10 ft. in height and 15 sq. ft. in area for each face with a maximum of 2 faces. Such sign may be incorporated with the monument sign allowed the primary use; however, in no instance may the fuel price sign itself exceed 10 ft. in height and 15 sq. ft. in area for each face with a maximum of 2 faces.

(2) One canopy logo sign per street frontage providing direct vehicular entrance to the fuel station.
- c. Movable fuel price signs are not allowed.
- d. Applicability: Signage required by state and/or federal laws and/or regulations concerning pump inspections, safety warnings, or other mandated materials are exempt from the provisions of this section.

7. VEHICULAR SERVICE STATION SIGNAGE CHART

Class	Sign Type	Maximum Number	Maximum Sign Area	Maximum Sign Height	Location	Lighting ¹
Station Identification and Pricing ²	Integrated with Monument sign subject to standards in 13.B.	One per street frontage ³	50 sq. ft. per face, two faces maximum.	10 ft..	At least 2 ft. from any property line.	Allowed.
Canopy Logo	Wall	One per street frontage, not to exceed a total of two.	12 sq. ft.	2 ft..	Shall be on the face of the canopy covering the pump island(s).	Allowed.
Car Wash	Wall or painted wall	One	15 sq. ft.	2 ft..	Shall be on the car wash structure.	Not allowed.
Accessory Retail or Restaurant	Wall	One	20 sq. ft. or 10% of the facade area, whichever is more.	3 ft..	Shall be above the primary entrance, or on the facade of the tenant space.	Allowed.
Convenience Store	Wall	One	20 sq. ft. or 10% of the facade area, whichever is more.	See other standards for Wall Signs; 13.B.2 and 13.B.3.		

Footnotes:

1. See sign illumination provisions in Section 12.C.3.

2. The sign(s) may include the identification of the service station and fuel prices. No other price signs are allowed.

3. Only one pricing sign integrated with the monument sign allowed.

13.C SITE FURNISHINGS AND HARDSCAPE

1. INTRODUCTION

- a. Site furnishings are the man-made articles that are found in a District to service the needs of the public. The appearance and identity of Badger Mountain South will benefit from the unifying of site furnishings throughout the community, although consideration may be given to the selection of unique site furnishings to create distinct identities for each of the five residential neighborhoods. Careful attention to detail and quality will help people feel more comfortable and at home in all areas, whether it be in one of the commercial districts or within the shared Civic spaces. Whether it is a picnic table or a trash can, each functional component adds to the experience of Badger Mountain South.

2. GENERAL DESIGN STANDARDS AND PRINCIPLES (BMS-SD-SR, CMU, DR, AND BMS-CIVIC DISTRICTS)

- a. Five overriding principles guide the implementation of Badger Mountain South Site Furnishing and Hardscape Standards:
 - (1) Fitness with Site and Context - Site furnishings and hardscapes should fit harmoniously with the structures and outdoor spaces in each commercial development and strengthen the sense of place for employees, users and visitors. Fitness implies sensitivity to scale, materials, pattern, texture and form to achieve a balance between variety and unity.
 - (2) Functionality - Site furnishings and hardscapes must effectively meet the pragmatic needs of their users. They need to be designed for serviceability over time. In addition, site furnishings should be designed for flexibility and adaptability since user needs may vary and evolve over time.
 - (3) Economy - It is important that site furnishings are constructed and maintained over their life cycle in a cost effective manner.
 - (4) Quality - Strong design control is required to achieve a high quality environment and implement the intent of the Badger Mountain South Master Plan.
 - (5) Sustainability - The spirit of sustainability is embedded in the effective implementation of the proposed standards. Encouraging eco-friendly materials and technologies and reducing the consumption of energy and non-renewable resources will provide benefits for the natural environment and the quality of the Badger Mountain South built environment.

3. HARDSCAPE STANDARDS

- a. Concrete Finishes for all hardscape surfaces may include:
 - (1) Broom Finish - Medium broom finish, or matched to existing concrete in the area.
 - (2) Exposed Aggregate - If exposed aggregate is used, the aggregate surface shall provide a slip resistance, but not uneven that could cause a trip hazard. Small size aggregate, such as pea gravel – ½ inch or less - may be used.
 - (3) Colored concrete - Color concrete shall be integral to the concrete;
 - (4) Patterned Concrete - Raised pattern shall not be a trip hazard or maintenance issue.
- b. Pavers, if used, must comply with the following:
 - (1) All pavers shall be installed on an engineered sub-base such as concrete or cement stabilized sand in areas with occasional vehicular traffic.
 - (2) Clay pavers should be able to withstand vehicular traffic/ emergency vehicle traffic.
 - (3) Pavers manufactured from material such as limestone, granite, etc., may be used if the surface is can be textured to provide a slip resistant finish.



Bench

4. BENCH STANDARDS

- a. Benches shall be of commercial grade construction. Bench frames shall be ductile iron, concrete or steel.
- b. Seat and backs shall be low maintenance materials such as concrete, powder coated metal or recycled material designed for this purpose. Wood should be hardwood such as Ipe, Maple, and Mahogany. Seat and backs constructed out of recycled plastic materials should have a reinforcing spine and fasteners.
- c. Benches may be constructed as a piece of public art in which case materials appropriate to the artwork may be used.
- d. Placement of benches should not obstruct pedestrian or emergency vehicular traffic. Benches in turf or planter areas shall be placed on a reinforced concrete or paver area with a minimum clearance of 6 inches between edge of bench and edge of concrete.
- e. At accessible locations, access for wheelchairs should be provided along the front and side of bench per ADA standards.
- f. Benches should be anchored to pavement or use in ground installation. Solid concrete benches should not need to be anchored.
- g. Benches shall be maintained to be free of chipped, faded, peeling paint/ coating. Concrete benches shall be free of chips and cracks. Any chips, cracks, peeling coatings shall be repaired as per manufacturer’s recommendations.
- h. Benches for specific areas: Each Neighborhood in Badger Mountain South may have a unique style of bench specific to that area. New benches shall match the existing style of the area once established.



Trash Receptacle

5. TABLE STANDARDS

- a. Tables for any outdoor areas shall meet the ADA Standards.
- b. Tables in Civic Districts:
 - (1) Tables shall be commercial grade material for low maintenance, ease of clean up, vandal resistance, and weather resistance.
 - (2) Placement of tables shall not obstruct pedestrian and emergency vehicles. Provide adequate space around table for seating and passage
 - (3) Tables shall be permanently anchored by either in-ground or surface mount system.
 - (4) Tables shall be placed on hardscape such as concrete, pavers, etc., wide enough for the table and circulation around the table and accessible by connection to sidewalks or other paving / circulation areas.
- c. Tables in Commercial Districts:
 - (1) Tables with chairs, fixed or movable, can be used for outdoor eating establishments. Tables and chairs shall be commercial grade material that can be maintained and cleaned efficiently.

6. TRASH RECEPTACLES

- a. Trash receptacles and recycling bins will be provided in every commercial and Civic District development.
- b. Trash receptacles should be placed with the trash container closest to the area highest in traffic.
- c. Locations in Civic Districts will be determined to facilitate servicing.
- d. Trash receptacles should be compatible with building or other site furnishings.
- e. Trash receptacles should be fire-proof, and should not allow water run into them or have drainage openings at their base.

7. TREE GRATES

- a. Shall be provided at base of street trees along arterial collector streets, except where frontage also includes a Trail Type, in BMS-SD, CMU, DR, and BMS-VMU Districts and shall be made from commercial grade metals. Tree grates may also be used in the BMS-NC District at street frontages along ground floor commercial uses.



Public Art

- b. Size - 5 ft. x 5 ft. minimum dimension
- c. Tree grate design shall reflect the neighborhood character in which it resides.

8. MISCELLANEOUS GUIDELINES

- a. Dog Waste Disposal: Dog waste disposal bag dispensers shall be standardized and located at the entrance to each greenbelt, greenway and in areas designated as Dog Parks.
- b. Bike Racks: Bike racks shall be constructed of durable materials.
- c. Bollards:

major entrances as located by the City

 - (1) Bollards are installed to provide controlled entrance to pedestrian only areas and to provide protection to equipment and buildings when in proximity to vehicular traffic.
 - (2) Bollards may be fixed or removable as required by the City of Richland Public Safety officials.
- d. Maintenance: Provide a readily available water supply for cleaning and maintenance of paved surfaces, site furnishings, trash receptacles, and other non-planted areas.

9. LIGHTING STANDARDS

- a. See Section 12.C.3 for Exterior Lighting

10. PUBLIC ART

- a. Public art located within Badger Mountain South is intended to give the community distinguishing character and display creativity, making it a unique place to live.
- b. Diversity in art style, scale, type, and creativity is highly encouraged.
- c. Location - public art in civic open space is allowed and encouraged (i.e. parks, trails, plazas, greenways, civic facilities, etc...)
- d. Artistic or creative improvements to all site features are encouraged.
- e. Art may provide function as well as aesthetics to the site or building to which it resides.
- f. Public art may be featured in roundabouts with other appropriate landscape materials.



Parking Lot

- 1. MATERIALS**
 - a. A parking and circulation area must be hard-surfaced and conform to any applicable City of Richland Development Standards. For purposes of this section, the term hard-surfaced may also include pavers, stones, bricks or other similar materials placed to support vehicle circulation, but that may also allow rain and other water to penetrate the surface (i.e., “grasscrete”).
- 2. ENTRANCES AND EXITS**
 - a. The Director of Public Works shall fix the location, width, and manner of approach of vehicular ingress and egress from a parking area. The Director of Public Works may require the property owner to alter ingress or egress as necessary to control traffic in the interest of public safety and general welfare.
- 3. COMBINED DRIVEWAY**
 - a. The owners of adjoining properties shall provide combined driveways wherever practical. In conjunction with approval of a development, the City may require a property owner to provide an access and circulation easement to an abutting owner where joint access is reasonable to serve future development.
- 4. INTERNAL WALKWAYS**
 - a. The property owner shall install internal walkways in each new development in the BMS-SD-SR, CMU, and DR Districts. In addition, schools in all land use districts shall install internal walkways in each new facility.
 - b. The property owner shall provide internal walkways around the building to the extent necessary to assure safe access to the building from parking areas, adjacent properties, and public sidewalks or street rights-of-way and to assure consistency with the requirements of the LUDR.
 - c. Internal walkways must be a minimum of 5 ft. wide, exclusive of parked car overhangs. Where necessary to ensure 5 ft. of unobstructed walkway, wheel stops are required.



Internal Walkways

- 5. SHARED USE OF PARKING**
 - a. General. The ~~Director~~ **administrative official** may approve shared use of parking facilities located on separate properties if:
 - (1) A convenient pedestrian connection between the properties exists; and
 - (2) The availability of parking for all affected properties is indicated by directional signs.
 - (3) Where the uses to be served by shared parking do not overlap their hours of operation, the property owner or owners shall provide parking stalls equal to the greater of the applicable individual parking requirements.
 - (4) Where the uses to be served by shared parking have overlapping hours of operation, the property owner or owners shall provide parking stalls equal to the total of the individual parking requirements. If the following criteria are met, that total is reduced by 10 percent:
 - i. The parking areas share a property line;
 - ii. A vehicular connection between the lots exists;
 - iii. A convenient, visible pedestrian connection between the lots exists;
 - iv. The availability of parking for all affected properties is indicated by directional signs.
 - b. Non-residential projects also review parking Sustainability Standards found in Section 12.D.
 - c. See Section 11.C.7 for Parking Lot Landscape requirements.

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GLOSSARY

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The Glossary provides definitions of terms and phrases used in the LUDR that are technical or specialized, or that may not reflect common usage. If any definitions in this Section conflict with definitions in the City of Richland Municipal Code, these definitions shall govern for the purposes of the LUDR.

GLOSSARY

ANSI/ASHRAE/IESNA. American National Standards Institute / American Society of Heating, Refrigerating, and Air-conditioning Engineers / Illuminating Engineering Society of North America. (3) National building, sustainable, and lighting standards used by designers and builders to create a quality safe built environment.

Accessory Office. An office that serves the principal use of a building or structure.

Accessory Unit/Structures. Any use and/or structure that is customarily part of and clearly incidental and secondary to the principal residence and does not change the character of the residential use. May contain a separate residential unit either contained wholly within a principal single-family residential structure, or attached to or above a garage (maximum floor area of 600 square feet). An accessory dwelling unit is not included in Maximum Density Limitations. An Accessory unit/building may also be used for Home Occupation uses as identified elsewhere in the LUDR and that meet the requirements of RMC 23.42.09. An accessory unit or structure with a maximum floor area of 600 sq. ft. is allowed for a winery use.

Accessory Storage Structures. A supplemental building designed for the storage of boats / RVs or to be used as a personal worksop; in all cases not for the commercial repair or maintenance of vehicles of any type. It may also include an Accessory Unit that meets the standards and definition for Accessory Units (LUDR 8.P). Only permitted in the BMS-NE District on lots .25 acre or larger and having a principal structure.

Adult Family Homes. A regular family abode in which a person or persons provides personal care, special care, room, and board to more than one but not more than six adults who are not related by blood or marriage to the person or persons providing the services.

Alcoholic Beverages Sales. The retail sale of beer, wine and /or spirits in sealed containers for off-site consumption, either as part of another retail use, or as a primary business activity.

Alley. A private way permanently reserved as a secondary means of access to abutting property.

Arterial Collector Street. Streets that serve to interconnect and support the principal arterial highway system. They link major commercial, residential, industrial and institutional areas. Arterial streets are typically spaced about one mile apart. Access control is the key feature of an arterial route.

Assisted Living/Nursing Home. State-licensed, multi-family, residential structure which provides supervision or assistance for persons with special needs including help with tasks such as bathing, dressing, and medication management; may also supply specialized nursing services.

ATM. An automated teller machine (computerized, self-service machine used by banking customers for financial transactions, including deposits, withdrawals and fund transfers, without face-to-face contact with financial institution personnel), located outdoors at a bank, or in another location. Does not include drive-up ATM's.

Axonometric Diagram. Illustration of the spatial form of a building or structure.

Badger Mountain South. Also referred to as BMS, is a master planned community within the boundaries as described in the Master Agreement and subject to the terms and conditions found within the Master Agreement.
Bank, Financial Services. Financial institutions including: banks

and trust companies, credit agencies, holding (but not primarily operating) companies, lending and thrift institutions, other investment companies, securities/commodity contract brokers and dealers, security and commodity exchanges, vehicle finance (equity) leasing agencies. Does not include check-cashing stores. (See also, "ATM")
Bar, Tavern. A business where alcoholic beverages are sold for on-site consumption, which are not part of a larger restaurant. Includes bars, taverns, pubs, and similar establishments where any food service is subordinate to the sale of alcoholic beverages. May also include beer brewing as part of a micro-brewery ("brew pub"), and other beverage tasting facilities.

Bed & Breakfast Inn (B&B). A one-family detached dwelling unit occupied by a resident owner/manager within which up to four rental bedrooms are made available for overnight accommodation; requires a City of Richland Special use permit.

Block Park. See Block Open Space.

Block Open Space. A type of shared community space that provides small-scale gathering and play space for residents in the nearby vicinity. Block Open Spaces to range in size from 5,000 square feet to less than 1 acre and are required to be distributed throughout each of the neighborhoods; also called Block Parks.

Building Type. A structure defined by the combination of configuration, form, and function.

Build-to-Line (BTL). A setback dimension, along which a building facade or percentage of building facade, must be placed.

Child Care Center. A premise licensed by the state of Washington and receiving more than twelve (12) children for care during all or part of a day or night; must meet RMC 23.42.080 requirements.

Child Care (Family Home). A residential premise, state-licensed for Family Home Child Care, to provide direct care, supervision and early learning opportunities for twelve or fewer children, in the home of the licensee where the licensee resides and is the primary provider; must meet RMC 23.42.080 requirements; may alternatively be licensed for adult daycare for periods less than 24 hours.

Civic Uses. A category that includes public uses and other private uses which focus on improving the quality of day-to-day community life by providing a location for assembly, discourse, worship, education, sustainability features, recreation, farmers' markets and community-oriented entertainment venues.

Civic/Community/Institutional Facilities. A Building Type that includes schools, public safety buildings, libraries, recreation and other public or private buildings of similar nature.

Clear Vision Triangle. A triangle with 2-sides of the triangle formed by the two intersecting ROW lines, extending 20 feet back from their point of intersection with the third side formed by drawing a line connecting the two points located 20 from the point of intersection.

Collector Street. Streets that provide both access and circulation within and between residential and commercial/industrial areas. Collectors differ from arterials in that they provide more of a citywide circulation function and do not require as extensive control of access (compared to arterials) and penetrate into residential neighborhoods.
Commercial. A term defining workplace, office and retail use

collectively.

Common Courtyard. A entry court, forecourt or courtyard shared by multiple residential units or commercial spaces.
Community Storage Facility. An area within the South Orchard Neighborhood that is intended to serve the entire BMS community for storage of vehicles, boats and recreational vehicles; may also include inside storage and an accessory caretaker unit.

Consistency Determination. A document, also known as the Badger Mountain South Master Agreement Consistency Recommendation (BMS-MACR), provided by the MPA to the City and to the applicant upon receipt and review of any development or building application in Badger Mountain South. The Consistency Determination may be either a Level 1 or Level 2 BMS-MACR. Level 1 BMS-MACR is issued for all applications except for final plat approval and issuance of Certificate of Occupancy. A Level 2 BMS-MACR is required prior to final plat approval or issuance of Certificate of Occupancy. The BMS-MACR ensures that the development and building submittals meet the Master Agreement and LUDR requirements.

Corner Element. A prominent architectural element, such as a tower, corner bay window (chamfered or round) or significant façade articulation, designed to accent the corner of a building and typically used to terminate a view or mark an important entrance.

Cottage Court. A Building Type consisting of free-standing Single-Family residences arranged around a common, shared courtyard. A shared common building may also be provided.

Courtyard Housing. A Building Type consisting of Multi-family residential units arranged around a central Court.

Day Care Center: Child or Adult. A state-licensed facility that provides non-medical care and supervision for adult clients or minor children for periods of less than 24 hours for any client. These facilities include the following, all of which are required to be licensed by the Washington State Department of Social Services.

Development. All divisions of land for whatever purpose, site plan, binding site plan and any other uses or activities as defined in RMC 23.06.270.

Director. The Community Development Director of the City of Richland, or his or her duly appointed representative.

District. The distinct areas within BMS to which specific land use and development regulations apply in order to achieve the intent and purpose of the LUDR and the Master Agreement.

Drive-through Window Service. A facility which by design allows the transfer or goods or services to those while still in a vehicle.

Duplex. A Building Type consisting of a single structure containing two dwelling units, neither of which is an accessory dwelling unit; also known as a Paired House.

Eating and Drinking Establishments. A retail business selling ready-to-eat food and or beverages for on or off premise consumption; may include sales of alcoholic beverages and provide entertainment. May include beer or other alcohol brewing and beverage tasting facilities.

Edge Type. The pedestrian and landscape elements within the

right-of-way. Includes the area between the property line and the curb line on either side of the street (drive lanes and parking).

Estate Lots. Lots ranging in size from ¼ to 1+ acre, located in the Neighborhood Edge District.
Facade. The vertical surface of a building, generally set facing a street ("front façade").

Farmer's Market. The temporary use of a site for indoor and/or outdoor sales of food and farm produce items, in compliance with the Washington State Farmer's Market Manual, and Washington State Department of Health Food Handler's requirements.

Floor Finish Level. (See Ground Floor Finish Level).

Frontage. A strip or extent of land abutting on a street or other public right-of-way.

Frontage Types. The building architectural element that resides between the public right-of-way and the private property affiliated with the building. Frontage Types combined with the public realm create the apparent streetscape. Frontage Types are listed in Section 9: Frontage Types.

Gallery. A roofed promenade extending along the façade of a building and supported by columns on the outer side.

Gambling Premises. An establishment, as permitted by state law, which includes, but is not limited to, any building, room, enclosure, vehicle or other place used or intended to be used for gambling activity and/or containing a gambling device for such purposes.

General Retail. Stores and shops intended to serve the City as destination retail, rather than convenience shopping. Examples of these stores and lines of merchandise include:

Art galleries; retail; art supplies, including framing services; books, magazines, and newspapers; camera and photographic supplies; clothing, shoes, and accessories; collectibles (cards, coins, comics stamps, etc.); drug stores and pharmacies; dry goods; fabric and sewing supplies; furniture and appliance stores; hobby materials; home and office electronics; jewelry; luggage and leather goods; musical instruments; parts; accessories; small wares; specialty grocery store; specialty shops; sporting goods and equipment; stationery; toys and games; variety stores; videos, DVD's, records, and CD's, including rental stores with no outside storage.

General Office. An office use that typically occupies an area of greater than 5,000 square feet and more than twenty (20) employees at a given location. Typical examples include: professional offices for architects, engineers, doctors, dentists, chiropractors, lawyers, accountants, veterinarians or similar professions.

General Retail. A retail use involving the sale of goods or merchandise to residents living in the community, many of whom will access the store by vehicle. A use in this category typically occupies an area between 5,000 and 30,000 square feet. Typical examples include: banks, bookstores larger than 5,000 sq. ft.; pharmacy; sporting goods stores, grocery store, and other stores selling similar goods.

General Services. A Service Use offering daily conveniences to residents living in the community. A use in this category typically occupies an area between 5,000 and 30,000 square feet. Typical

examples include: business support services, coin-operated laundry, salons, spas, and health clubs, medical services/doctors’ offices, movie theaters, video arcades, bowling, meeting facility; funeral home (except within the Mixed-Use Districts).

Greenbelt. A linear green open space adjacent to a street that consists of trails, trees, perennials, ornamental grasses, shrubs, and/or groundcover. Often includes a part of the community trail network.

Green Building Certification. Certification by a nationally recognized sustainable program (i.e. LEED , or Built-Green, Energy Star, etc.) demonstrating compliance with specific program requirements.

Ground Floor Ceiling Height. Height from finished floor to finished ceiling of primary rooms on the ground floor not including secondary rooms such as bathrooms, closets, utility rooms, and storage spaces.

Ground Floor Finish Level. Height difference between adjacent public walk and the ground floor. In the case of a loading dock frontage that serves as the public Right-of-Way, the Floor Finish Level is the height of the walk above the adjacent street.

Height. A limit to the vertical extent of a building that is measured in number of stories. Height limits do not apply to masts, belfries, clock towers, chimney flues, water tanks, elevator bulkheads, and similar structures, which may be of any height approved by the Director.

Home Occupation. An occupation or business activity conducted within a dwelling unit by a member or members of the family who occupy the dwelling, where the occupation or business activity is clearly incidental and secondary to the use of the dwelling for living purposes and the residential character of the dwelling is maintained; requires City of Richland application processed at time of business license application.

Hospitality/Lodging. A facility, typically a hotel or motel, with guest rooms, with or without kitchen facilities, rented to the general public for transient overnight stay. May also include ancillary uses related to the principal use including spas and other personal services, eating facilities, swimming pools, retail and similar. Also permitted in the NE District when operated and licensed as a Bed and Breakfast facility.

Landmark Structure. A monument, building or edifice that is easily recognizable due to unique physical features or site prominence and that adds to the identifying characteristics of an area.

Landscape Coverage. The extent to which the planted landscape area is covered with plant material.

Landscape Planter. Planted area of landscape materials lying between hard surfaces such as between the street and a trail or sidewalk, or within a plaza hardscape.

Lighting Plan. The Lighting Plan is a required element of submittal for all buildings, except low rise residential (under four stories), proposing four or more exterior fixtures. The Plan must include the following information:

1. Type and number of luminaire equipment (fixtures), including the “cut off characteristics”, indicating manufacturer and model number(s).
2. Lamp source type (bulb type, i.e. high pressure sodium), lumen output, and wattage.
3. Mounting height with distance noted to the nearest property line for each luminaire.

4. Types of timing devices used to control the hours set for illumination, as well as the proposed hours when each fixture will be operated.
5. Total Lumens for each fixture, and total square footage of areas to be illuminated. For projects that are in commercial zones, the lumens per net acre to be lit, need no exceed 25,000 lumens.
6. A Calculation Summary indicating food-candle levels on the lighting plan, noting the maximum, average and minimum, as well as the uniformity ratio of maximum to minimum, and average to minimum levels.
7. Lighting manufacturer-supplied specifications (“cut sheet”) that include photographs of the fixtures, indicating the certified “cut off characteristics” of the fixture.
8. Foot-candle distribution, plotting the light levels in foot-candles on the ground, at the designated mounting heights for the proposed fixtures. Maximum illuminance levels should be expressed in foot-candle measurements on a grid of the site showing foot-candle readings in every five or ten-foot square. The grid shall include light contributions from all sources (i.e. pole mounted, wall mounted, sign, and street lights.) Show foot-candle renderings five feet beyond the property lines.

Liner Building. A structure that conceals a larger building such as a parking garage, or surface parking lot that is designed for ground floor occupancy by commercial or office uses, with upper floors also configured for those uses, or for residential use.

Large-Scale Retail. A retail use involving the large scale sale of goods to residents living within the region. These uses are almost exclusively accessed by automobile and therefore additional consideration should be given to parking and traffic issues when developing this use. The goods or merchandise sold may be of the same type or a variety of types and typically occupy an area greater than 30,000 square feet.

Live/Work Unit. An integrated housing unit and working space, occupied and utilized by a single household in a structure that has been designed or structurally modified to accommodate joint residential occupancy and work activity, and which includes:

Complete kitchen space and sanitary facilities in compliance with the Building Code; and

At least one resident in each live/work unit shall maintain a valid business license, if required, for a business on the premises.

Uses prohibited in Live/work Units: The following uses and activities are prohibited within a Live-Work Unit:
(1) amusement and recreation uses;
(2) adult entertainment uses;
(3) pet stores, kennels, animal hospitals;
(4) gun and firearms sales;
(5) automotive service stations, and motor vehicle repair garages; and
(6) liquor sales.

Local Parks. A community space between one (1) to five (5) acres in size that is developed to serve a neighborhood for both structured and passive play areas and activities.

Local Streets. Streets that have the sole function of providing access to immediately adjacent land.

Lodging – Hotel. A facility (typically a hotel or motel) with guest rooms or suites, with or without kitchen facilities, rented to the general public for transient lodging. Hotels typically include a variety of services in addition to lodging; for example, restaurants, meeting facilities, personal services, etc. Also includes accessory guest facilities such as swimming pools, tennis courts, indoor

athletic facilities, accessory retail uses, etc.

Lot. A measured parcel of land having fixed boundaries and designated on a plot of survey. A lot may be divided by a street or Alley.

LUDR. The Badger Mountain South Land Use and Development Regulations included as Exhibit C in the Master Agreement.

Marquee Sign. A projecting sign structure over the entrance of a building and typically used for movie theaters or similar venues; may have two-faces and may also include lighting but not movable or flashing lights.

Master Agreement. The document entitled “Agreement Between the City of Richland and NorAm Investment LLC, regarding the Development of the Walkable and Sustainable Community known as Badger Mountain South” and approved by the City of Richland City Council on December 7, 2010, and adopted by City of Richland Resolution No. 77-10.

Master Plan Administrator (MPA). A professional appointed by NorAm Investment LLC, or its successor, as outlined in the Master Agreement, to review all applications for plats, subdivisions, site plans, and development permits in Badger Mountain South as part of the application submittal to the City of Richland. The MPA is responsible for ensuring the intent of the LUDR is met in all applications and will provide to the City and to the applicant a Consistency Recommendation (BMS-MACR) to be included in the materials reviewed by the City of Richland Development Services Department. The roles and responsibilities of the MPA are considered synonymous with the Master Agreement Administrator, MAA, as found in the Master Agreement.

Mansion Apartments. A Building Type that combines 3 to 6 residences with one structure designed to resemble a large Single-Family house in a typical residential neighborhood setting.

Mixed-Use Building. More than one type of use in a building or set of buildings. This may be a combination of residential, commercial, industrial, office, institutional, or other land uses.

Mixed-Use Development. A mixed-use development is a real estate project with planned integration of some combination of retail, office, residential, hotel, recreation or other functions. It is pedestrian-oriented and contains elements of a live-work-play environment. It maximizes space usage, has amenities and architectural expression and tends to mitigate traffic and sprawl.

Multi-family residential structure. A structure containing two or more dwelling units in which the units may or may not share a common wall with the adjacent (horizontally or vertically) unit(s) or have individual entrances from the outside.. Multi-family Building Types include: Paired Housing (Duplex); Live/Work; Stacked Units (Apartment); Row House; Courtyard Housing; Mansion Apartment (3 to 6 units); and Mixed-Use buildings which contain dwelling units above or behind commercial space within the same building.

Natural Grade. The site topography which exists at the time a lot is sold to the first owner by the project developer or builder; fill material subsequently brought to a site does not modify this original grade.

Neighborhood Goods and Service Buildings. A Building Type that includes stand alone structures, 30,000 SF or smaller that contain uses that support the needs of the neighborhoods in which they are located. Typical examples include pharmacies, daycare centers, churches, medical clinics and other office buildings.

Neighborhood Office. An Office Use that typically occupies an area of 5,000 square feet or less and involves twenty (20) or fewer employees at a given location. Typical examples include: professional offices including accountants, doctors, lawyers, engineers or other similar professions, or small-scale business services.

Neighborhood Personal Services. A Service Use that offers daily conveniences to residents in adjacent neighborhoods. A use in this category typically occupies an area of less than 5,000 square feet. Typical examples include: spa, cleaning and garment services, beauty and barber shops, shoe repair, travel agencies, finance, real estate and insurance; and health and educational services.

Neighborhood Retail. An establishment engaged in selling new goods or services to the general public and rendering services incidental to the sales of such goods. A use in this category typically occupies an area of less than 5,000 square feet. Typical examples include: ATM (automatic teller machine); art galleries; specialty shops; variety stores; coffee shop, food markets and convenience stores; pet stores and grooming with no boarding; artisan or crafts sales, assembly or fabrication; photography studios; dance, music, and martial arts studios, excluding any type of adult business.

Neighborhood Sector. Geographical boundaries based on the proposed street network intended to assist with the distribution of residential density, housing mix and Block Open Space.

Neighborhood Storage Area. An area up to one acre in size designated by the master developer as the area for storage of recreational vehicles, boats, and cars for the purpose of providing storage for an individual neighborhood.

Night Club. A facility serving alcoholic beverages for on-site consumption, and providing entertainment, examples of which include live music and /or dancing, comedy, etc. Does not include adult oriented businesses.
Office. Business, Service and Professional, Administrative.

Paired House. See Duplex.

Park, Playground. An outdoor recreation facility that may provide a variety of recreational opportunities including playground equipment, open space areas for passive recreation and picnicking, and sport and active recreation facilities; may be developed as a private or public facility.

Parking Facility, Public or Commercial. Parking lots or structures operated by the City, or a private entity, providing parking for a fee. Does not include towing, impound and storage facilities.

Parking lots. A paved area designated for the parking of motor vehicles.

Pedestrian Street. See Primary Street.

Place of worship. A permanently located structure or group of structures which is utilized for the purposes of conducting religious worship, services or ceremonies. May also contain ancillary uses including graded educational facilities, day care facilities or multi-purpose facilities. For the purposes of this code, Places of Worship are included in the Neighborhood Goods and Services Building Type.

Primary Street. Streets designated within the Village Mixed-Use Districts where vehicular access points are restricted and active

retail, commercial and office Storefront Frontages are required. Also called Pedestrian Street. In all other Districts, primary streets are designated along building frontages, i.e. front street.

Public Facilities. Any building or use often supplied by a governmental organization. Typical examples include: schools; water, power and sewer facilities; fire and police substations. May include ambulance; libraries; farmers markets; transit centers and bus stops; business incubator buildings; outdoor amphitheater; and similar uses. Private schools, not owned by a governmental organization are included in this use category.

Public Safety Facility. A facility operated by a public agency including fire stations, other fire preventive and fire fighting facilities, police and sheriff substations and headquarters, including interim incarceration facilities. May include ambulance dispatch on the same site.

Reader Board. A sign or part of a sign on which the letters are readily replaceable such that the copy can be changed from time to time at will.

Recreation and Cultural Facilities, Public and Private. Any building or use intended for passive or physical recreational activities or activities that advance the arts, and related accessory structures. Typical examples include: trails; playgrounds and play equipment; health clubs and gyms; swimming pools; public restroom facilities; plazas; gardens; picnic shelters; water spray park; sports fields and courts; dog parks; outdoor amphitheater; skate park; fountains and other water features; facility parking; maintenance buildings only as ancillary structures to the park located in, and similar uses.

Regulating Plan. A plan of the proposed community which identifies the boundaries where different rules of Development apply. **Residential.** Premises used primarily for human habitation. Units shall not be less than 440 square feet in net area.

Restaurant, Café, Coffee Shop. A retail business selling ready-to-eat food and/or beverages for on- or off-premise consumption. These include eating establishments where customers are served from a walk-up ordering counter for either on- or off-premise consumption ("counter service"); and establishments where customers are served food at their tables for on-premise consumption ("table service"), that may also provide food for take-out, but does not include drive-through services, which are separately defined and regulated.

Row House. A Building Type consisting of townhouse (multi-level) units arranged side by side in a zero lot line configuration. Residential units in Row Houses have individual entrances along a Frontage.

Secondary Street. Streets designated within the Village Mixed-Use Districts where vehicular access points and ground floor residential units are allowed. In all other Districts, secondary streets are designated along building side yards, i.e. side street.

Senior Housing. Multi-family residential structures that are designed as independent living accommodations for those 55 years of age or older; may include congregate dining.

Service Street. A paved vehicular thoroughfare which provides access to delivery trucks and other service vehicles; shall be accessed from a Secondary (side) Street.

Setback. The mandatory distance between a property line and a

building or appurtenance.

Shared Parking. Any parking spaces assigned to more than one use, where persons utilizing the spaces are unlikely to need the spaces at the same time of day.

Side Yard Driveway Condition. For Single-family Houses with Street Access, a drive lane up to 10 ft. in width that runs parallel to the side ywar setback and extends not less than 30 ft from the front property line when the garage is located in the lot rear. When the garage is part of the front facade, driveway access is provided to teh garage in a side yard driveway. In both conditions, the driveway may widen to 20 ft., and may encroach into the side yard setback, to provide access to the garage.

Single-Family Residential Structure. One primary residence per lot; may include one Accessory Unit.

Solar (or Photovoltaic) Collectors or Array. A linked collection of photovoltaic modules, which are in turn made of multiple interconnected solar cells. By their modularity, they are able to be configured to supply most loads. When placed in the BMS-NC, BMS-NE or BMS-NG Districts, a Solar Collector may be roof mounted when it does not extend above the roof peak nor extend above the roof surface more than 24” measured perpendicular to the roof, or it may be ground-mounted when installed in side or rear yards only and screened from public streets.

Special Districts. An area that, by its intrinsic function, disposition or configuration, should not conform to the District standards established for the proposed community.

Special Events. Activities of limited duration including concerts, tournaments, festivals and similar public gatherings.

Stacked Unit Building. A Building Type, commonly known as an apartment, that is a Multi-family, residential only, structure consisting of a number of dwelling units arranged side by side and stacked on multiple floors.

Storage. A building or facility that is designed to leave or place materials or other items in.

Storage, Outdoor. The storage of various materials outside of a structure. **Storefront.** The portion of a frontage that is composed of the display window and/or entrance and its components including windows, doors, transoms and still pane that is inserted into various Frontage Types, such as a Storefront, Arcade or Gallery, to accommodate retail.

Story. A habitable floor level within a building, typically 8 ft. to 14 ft. high from floor to ceiling. A half story is a conditional space that rests primarily underneath the slope of the roof, usually having dormer windows and occupying about half the area of the floor or floors below. Individual spaces, such as lobbies and foyers may exceed one story in height. The number of stories are measured from the sidewalk of the primary street.

Street Frontage Landscape. Landscaping in the public right-of-way along streets and medians.

Sustainability Plan. A document submitted with an initial commercial entitlement application which identifies the means and methods to address Sustainability Principles, as found in Section 12.B. The Plan will specify each principle, determine applicability, and identify actions to address each relevant item.

Tandem Parking. One (1) car parked behind another where aisles are not provided. A maximum of two cars are allowed in tandem configuration for individual residential units only. Tandem parking may be located in a garage or as surface parking.

Telecommunication Facility. A use of land that includes buildings, cabinets, structures, and facilities, including generating and switching stations, repeaters, antennas, transmitters, receivers, towers, and all other buildings and structures relating to low power mobile voice transmission, data transmission, video transmission and radio transmission, or wireless transmission.

Temporary Uses. A use of limited duration including: Christmas tree sales in any district for a period not to exceed 60 days; Contractors office and equipment sheds containing no sleeping or cooking accommodations accessory to a construction project and to continue only during the duration of such project; Promotional activities of retail merchants involving the display of goods and merchandise may be conducted outside of enclosed buildings or for a period of not more than six consecutive weeks in any six month period. Retail business may display only merchandise that is for sale within the building in the area immediately adjacent to the building. These provisions shall in no way be deemed to authorize the outdoor display of or sale of salvage material or similar display or sale in any district.

Unclassified Uses. Uses not listed in 2.C. Land Use Table and which do not meet the criteria for similar and compatible uses specified in 1.G.3.

Urban Form Standards. Establish the specific physical and use parameters for each District including; building placement, building profile and Type, Frontages and parking.

Usable Lawn. The minimum lawn area that is allowed in the Badger Mountain South community is an area 10 ft. minimum in any direction.

Use Table - 2.C Land Use Table. A matrix which identifies broad categories of land uses that are permitted in each BMS District. The land uses listed in the Use Table are further expanded with examples in Section 14- Glossary.

Upper Floor Ceiling Height. Height from finished floor to finished ceiling of primary rooms on the upper floors not including secondary rooms such as bathrooms, closets, utility rooms, and storage spaces.

Vehicular Services. A business involving the servicing of vehicles and/or the storage and distribution of gasoline. Incidental uses may include a convenience store, the sale of propane and kerosene, automotive repair, car wash, and tire sales. **Vending Carts.** Portable retail and food concessions, usually with wheels, including sales of coffee, flowers, ice cream, hot dogs, other food items and similar.

Vineyards. A plantation of grape-bearing vines, grown mainly for wine making, but also raisins, table grapes, and non-alcoholic grape juice. Vineyards for personal uses in residential districts are permitted as landscape; when planted in commercial districts vineyards must be part of an overall landscape plan that is reviewed by the MPA.

Wing Fence. A fence that extends perpendicular from the side of the house to the side yard fencing between lots.



Agenda
City Council Workshop Meeting
Tuesday, January 27, 2015
City Hall Council Chamber | 505 Swift Boulevard

COUNCIL WORKSHOP COVERSHEET

Council Date: 01/27/2015

Department: Energy Services

Key Element: Key I - Financial Stability & Operational Effectiveness

Subject:

Electric Utility Retail Rates Update (30 minutes)

Summary:

Richland Energy Services Department (RES) staff have been working with the Utility Advisory Committee (UAC) since last March, 2014 on a five year forward retail rate program for the City's electric utility. In past years, the cost of service analysis (COSA) has been performed just on a one-year basis and is very limited in being able to provide City Council and the utility customers with good planning information. RES Director Hammond provided City Council with a status update at the June 24, 2014, Council workshop. Since that time, RES / UAC have further refined the forward rate program and are ready to recommend 2015 retail rate increases for City Council consideration.

At workshop on January 27, 2015, Director Hammond will be joined by UAC Chairman Dave Larkin to provide a summary of the work done to-date on retail rates and to explain and answer questions from City Council members regarding the 2015 retail rate recommendations. The attached power point presentation will be used to guide the RES / UAC presentation.

Attachments:

- I. PowerPoint Presentation

Richland City Hall is ADA accessible with special parking and access available at the entrance facing George Washington Way. Requests for sign interpreters, audio equipment, and/or other special services must be received 48 hours prior to the City Council Workshop by calling the City Clerk's Office at 942-7388.

Electric Utility Retail Rates

Presented To Richland City Council

Workshop Meeting – January 27, 2015

Bob Hammond: Energy Services Director

Dave Larkin: Chair – Utility Advisory Committee

Electric Utility Retail Rates

- Cost of Service Analysis (COSA) Performed each Spring and Updated Regularly During each Year
- COSA Identifies if Adequate Revenues will be Captured at Existing Rates to Cover Projected Expenditures
- COSA is Performed from a System-wide Basis and For Each Customer Rate Classification
- In 2014 First Longer Range (5 Year) COSA Performed
- Revenue/Expense Estimates are Heavily Dependent on Load Projections

Electric Utility Retail Rates

- Assumptions and Industry Standards Used to Allocate all Expenses to Respective Rate Classes – “Cost Causation”
- Rate Recommendations Consider Cash Reserve Position of Utility
- Rate Recommendations Include all State and City Taxes
- City’s Utility Occupation Tax - New Base for Assessment as Identified by the State Auditor starting July 2015
- City’s Utility Occupation Tax Assessed at Full Citizen-Passed Rate of 8.5% Starting in 2016

Electric Utility Retail Rates

2015 Year COSA – Deficit (Surplus) Including Taxes

- ❖ ***System-wide: \$3.03 MM (5.9%) to Meet \$58.86 MM Total Revenue Need***
- ❖ Residential: \$1.79MM (7.4%)
- ❖ Small General Service: \$768k (18.3%)
- ❖ Medium General Service: \$55k (0.6%)
- ❖ Large General Service: \$318k (4.5%)
- ❖ Small Industrial: (-\$74k) (-3.2%)

Electric Utility Retail Rates

2015 Year COSA – Deficit (Surplus) Including Taxes

- ❖ Large Industrial: \$13k (0.3%)
- ❖ Small Irrigation: \$44k (37.9%)
- ❖ Large Irrigation: \$56k (5.9%)
- ❖ Street Lighting: \$38k (10.9%)
- ❖ Security Lighting: \$31k (26.5%)
- ❖ Traffic Lighting: \$10k (36.2%)
- ❖ Cable: (-\$1.4k) (-3.2%)

Electric Utility Retail Rates

What Did the 2015 Year COSA Reveal?

- ❖ \$3 million System – Wide Deficit (\$300k due to changes in how City utility tax is assessed)
- ❖ 4 Customer Classes Being Subsidized by Others (SGS, Small Irrigation, Security Lights, Traffic Lights)
- ❖ Residential (\$1.8 million), Small General (\$768k), and Large General (\$318k) Account Collectively for 95% of System – Wide Deficit

Electric Utility Retail Rates

Summary of Detailed Policy Discussion with UAC

- General Blending of Tier 1 and 2 Power Costs (Exception for Future New Large Loads)
- Use of Minimum Systems Analysis to Allocate to Demand Charge vs. Customer Charge
- Review of Utility Cash Position (Whether to Recover Full Deficit vs. One Time Spending Down of Cash Reserves)
- Revenue Bonding – Scope / Structure of Bonds and Debt Service Coverage Ratios

{Note: Objective of this discussion is to jointly (RES staff and UAC) propose recommended electric utility rate changes to City Council.}

Electric Utility Retail Rates

Summary of Detailed Policy Discussion with UAC

- Capital Program - Level of Rate Financed Capital (Proposed to Set at Level of Existing System Improvement Costs)
- Implications on Establishing Cap Increase and/or Zero Floor
- Rate Design Considerations (Energy, Demand, Customer Charge)
- Correcting Customer Class Subsidization
- Should Any Customer Pay Less Than Utility's Marginal Cost
- Customer Bill Sensitivity Analysis

{Note: Objective of this discussion is to jointly (RES staff and UAC) propose recommended electric utility rate changes to City Council.}

Electric Utility Retail Rates

Five Year Forward Rate Program – Drivers / Strategies

- Spend Down Cash to Reserve Levels by January 2019
- Maintain Adequate Debt Service Coverage Ratios
- Avoid / Mitigate Customer Class Subsidization
- Avoid Double Digit System-wide Rate Increases
- Regular Schedule of Increases For Customer Planning
- Schedule Revenue Bonding for 4thQ 2015 and 2017
- Manage Cash Flow by Adjusting Capital Program, Using Refunding Resolution, and Contingency Use of Conservation Loan Reserve Funds
- Implement Required Utility Tax Changes

Electric Utility Retail Rates

Results of 5 Year Forward Rate Programming

July 2015 Rate Recommendations to City Council:

- * Utility Tax Changes - New Gross Base for Assessment = 0.6% Revenue Increase
- * 10% Rate Adjustments for 4 Classes Identified in COSA as Being Subsidized = 0.9% Revenue Increase (Small General Service, Small Irrigation, Security Lights, Traffic Lights)
- * Minor Rate Design Changes
- * Total Tax and Rate Increases = \$425,000
- * Remaining 2015 COSA Requirement from Cash Reserves
- * Use Cash Reserves to Supplement 2013 Bond Proceeds for Capital Projects Until Reimbursed by 4thQ 2015 Bond Funds

Electric Utility Retail Rates

Results of 5 Year Forward Rate Programming

January 2016

- * Assume Implementing Utility Tax Assessment at the Full 8.5% in RMC
5.20.100 = 0.9% (\$486k) Revenue Increase
- * COSA Results in 10% System-Wide Deficit (\$5 million)
- * Assume 9.5% Rate Increase to Meet Cash Reserve Levels
- * Customer Class Breakout to Address Subsidization
- * Rate Financed Capital Remains at Level of System Improvement Costs
- * Rate increase would include some rate design changes to capture more revenues through fixed system charges

(Note: COSA is a moving target so updated information will be included when we begin processing (May / July UAC meetings and July 2015 Council workshop) proposed 2016 rate increases.)

Electric Utility Retail Rates

Results of 5 Year Forward Rate Programming

July 2017 Anticipated Rate Increase

- * Assume 9.5% Rate Increase to Meet Cash Reserve Levels and Build Additional Cash from Rates to be Used for Capital Project Funding Beginning in 2018
- * Customer Class Breakout to Address COSA Cost Causation Principles
- * Rate Financed Capital Remains at Level of System Improvement Costs for 2017, then to Level of 100% Asset Depreciation Expense Beginning in 2018
- * \$9 million Revenue Bond Funds Secured in 3rd Quarter 2017

(Note: COSA is a moving target so updated information will be included when we begin processing proposed July 2017 rate increases first through UAC and then for City Council consideration.)

Electric Utility Retail Rates

Results of 5 Year Forward Rate Programming

January 2019 Anticipated Rate Increase

- * Assume 8.0% Rate Increase to Meet Full COSA Identified Expense Recovery Needs
- * Customer Class Breakout to Address COSA Cost Causation Principles
- * Rate Financed Capital Remains at Level of 100% Asset Depreciation Expense
- * Potential Bonding to Fund Capital Program TBD
- * Anticipated Rate Design Changes to Meet Smart Grid Opportunities

(Note: COSA is a moving target so updated information will be included when we begin processing proposed January 2019 rate increases first through UAC and then for City Council consideration.)

Electric Utility Retail Rates

Key Anticipated Milestones in 2015

- ❖ Council Workshop – January 27th
- ❖ First Reading and Public Hearing for Proposed July 2015 Rate Increases – February 17th
- ❖ Second Reading and Ordinance Passage for Proposed July 2015 Rate Increases – March 3rd
- ❖ Council Workshop to Discuss Proposed January 2016 Rate Increases – July 28th
- ❖ First Reading and Public Hearing for Proposed January 2016 Rate Increases – August 18th
- ❖ Second Reading and Ordinance Passage for Proposed January 2016 Rate Increases – September 1st

Electric Utility Retail Rates

SUMMARY AND QUESTIONS

- * UAC at January 13th meeting endorsed the proposed 2015 rate increases and gave thumbs up to the approach RES staff is using for 5 year rate program analysis.
- * COSA is a moving target so updated information will be included when we begin processing each and every future proposed rate increase, first through UAC and then for City Council consideration.
- * The 5 year rate program is intended only to provide RES staff, CM, City Council, and electric utility rate customers with first level planning information.
- * QUESTIONS for RES Staff or UAC?



Agenda
City Council Workshop Meeting
Tuesday, January 27, 2015
City Hall Council Chamber | 505 Swift Boulevard

COUNCIL WORKSHOP COVERSHEET

Council Date: 01/27/2015

Department: Public Works

Key Element: Key 2 - Infrastructure & Facilities

Subject:

Queensgate Corridor Improvements (30 minutes)

Summary:

The purpose of this workshop item is to give Council a first touch on the results of an engineering planning study for future Queensgate Drive Improvements from the I-182 interchange to Shockley Road and to explain staff's intended public outreach with the study. Staff is not seeking any specific guidance from Council at this time because staff intends to bring recommendations for Council action based on the study and input received through the public outreach efforts. Input from Councilmembers based on their review of the study is welcome.

The study evaluates the traffic capacity needs of this segment of Queensgate Drive based on current and expected development and compares functionality of intersections with traffic signals with those controlled by roundabouts. Access control features and bicycle / pedestrian features are also evaluated.

Staff will present a summary of issues covered in the study and staff's intended public outreach efforts.

Attachments:

- I. Queensgate Drive Planning Study

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Queensgate Drive Corridor Traffic Study

January 2015

Prepared for:
City of Richland

Prepared by:



J-U-B ENGINEERS, Inc.
2810 W. Clearwater Avenue, Suite 201
Kennewick, Washington 99336

Queensgate Drive Corridor Traffic Study

January 2015



Spencer Montgomery
Vijay Kornala, PE, PTOE
Rick Door, PE



J-U-B ENGINEERS, Inc.
2810 W. Clearwater Avenue, Suite 201
Kennewick, Washington 99336

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Appendices

Appendix A – Corridor Aerial Photos with Lane Configurations
Appendix B – Traffic Counts
Appendix C – 2014 Detailed Summary of Level of Service Analysis and Capacity Worksheets
Appendix D – Development Assumptions for Area South of Keene Road
Appendix E – Percentages of Traffic Entering/Exiting the Study Area
Appendix F – 2034 Detailed Summary of Level of Service Analysis and Capacity Worksheets
Appendix G – Columbia Park Trail Signal Warrant Analysis
Appendix H – Cost Estimates
Appendix I – Alternatives Evaluation

Introduction and Background

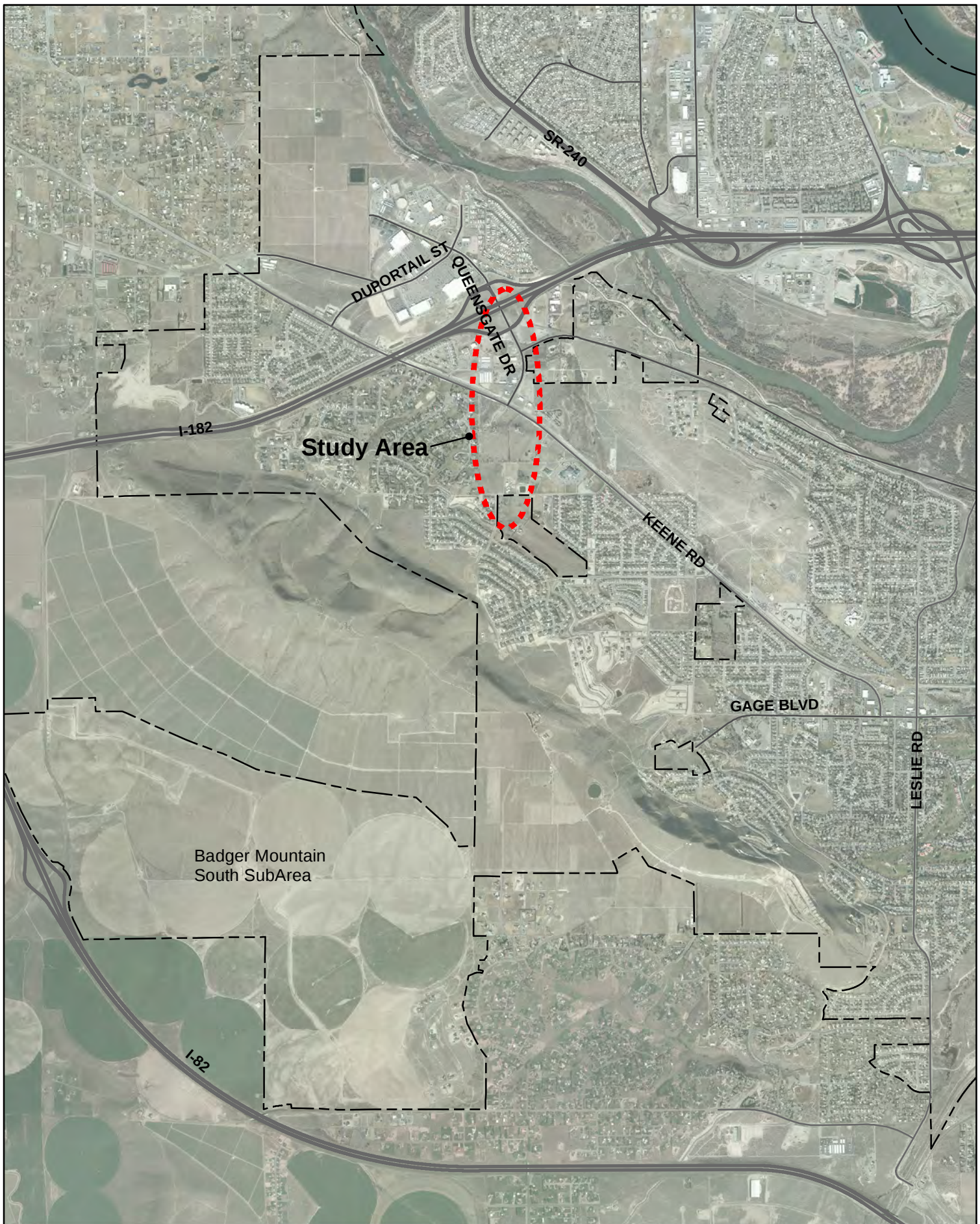
Queensgate Drive in the City of Richland, Washington is a north-south roadway which currently connects Keene Road to Duportail Street and provides access to Interstate I-182. The long range Regional Transportation Plan for Queensgate Drive is to extend south to connect to Shockley Road and eventually extend to the Badger Mountain South area and connect to Rachel Road providing access to Leslie Road. For this study the corridor evaluated is Shockley Road to Interstate I-182. The Vicinity Map showing the study area is shown in Figure 1. Full corridor aerial photos of the study area with lane configurations are included in Appendix A.

For several years the City of Richland has recognized the need to improve the roadway network in the south Richland area to serve growth. A South Richland Collector Impact Fee was established that includes both intersection improvements at Keene Road/Queensgate Drive as well as the extension of Queensgate Drive to the south to Shockley Road. With the increase in development in south Richland and the Cityview area north of I-182, along with specific private interest to develop the area south of Keene Road opposite the Queensgate Drive corridor, the City of Richland has an interest to determine long range needs in the Queensgate Drive corridor.

J-U-B Engineers was hired to provide traffic forecasts, traffic operational analysis and conceptual layout of improvements to the Queensgate Drive/Keene Road intersection to accommodate 20 year growth projections. The extension of a fourth leg to the south to provide a missing roadway link and connect Queensgate Drive to Shockley Road as well as potential roadway improvements between Keene Road and I-182 were also included in the study. The provision of the Queensgate pathway from Keene Road to I-182 and potential right-of-way needs was also important in this evaluation. This study evaluates the following intersections along the Queensgate Drive corridor:

- I-182 Westbound Ramps
- I-182 Eastbound Ramps
- Columbia Park Trail
- Jericho Road
- Keene Road
- Future intersection between Keene Road and Shockley Road
- Shockley Road

The results of this study will be used to guide roadway improvements associated with development in the corridor. It is also anticipated that the cost estimates prepared as part of this study will be used to update costs included in the South Richland Collector Impact Fee and that a pro-rata share of these costs will be assigned to future development.



Existing Conditions

This section will document existing conditions with respect to roadway characteristics, bicycle/pedestrian facilities, transit, traffic volumes and traffic operations.

Roadway Characteristics

Key roadways are described below. Intersection lane configurations and traffic control are shown in Figures 2 and 3 along with AM and PM peak hour traffic volumes discussed below.

Queensgate Drive is a two lane minor arterial that has left-turn lanes at intersections. The speed limit is 35 MPH in the study area with most of the segment having no sidewalk but does include streetlights. There is curb on both sides of the road from Keene Road to Jericho Road, with a sidewalk on a portion of the west side in the same segment. The bridge over I-182 is currently striped to have two southbound lanes and one northbound lane, with 8 foot shoulders. North of I-182 Queensgate Drive is a 5 lane roadway with a two-way left-turn lane, curb, gutter, sidewalks and streetlights.

Interstate-182 is an east-west limited access freeway providing 4 travel lanes for through traffic in the vicinity of Queensgate Drive. The speed limit is 70 MPH. It connects to I-82 to the west and to the City of Pasco to the east. Access to I-182 to/from Queensgate Drive was modified to include a westbound to southbound loop ramp due to heavy westbound exiting traffic going south on Queensgate Drive. The northern ramp for westbound traffic is a unique intersection in that no movements are stop controlled. The westbound to northbound movement has a dedicated receiving lane, as does the westbound to southbound loop ramp. The south ramp for eastbound traffic is signalized.

Columbia Park Trail is a 2 lane minor arterial roadway with six foot shoulders, no curb or sidewalk and a speed limit of 40 MPH.

Jericho Road is a narrow 2 lane local roadway with a 25 MPH speed limit, no pavement markings, no shoulders or sidewalks. To the east of Queensgate Drive it is a dead end, to the west it provides a connection to Keene Road.

Keene Road is a 5 lane principal arterial roadway that includes a two-way left-turn lane, curbs, gutter and streetlights. West of Queensgate Drive there is sidewalk on the south side, but to the east there are no sidewalks, however on the north side is a separated bike path the entire length of Keene Road. The speed limit is 45 MPH

Shockley Road is a two lane major collector roadway with a speed limit of 25 MPH. There are curb, gutter and sidewalks and streetlights to the east of the study area, but in the vicinity of Queensgate Drive it has no curb or sidewalk. The Queensgate intersection is uncontrolled having only two legs.

Duportail Street, although not specifically in the study area, is an important consideration in this study. It exists as a 5 lane facility including a two-way left-turn lane west of Queensgate Drive and connects to Keene Road. The speed limit is 30 MPH and the facility has curbs and streetlights with sidewalks where development has occurred. East of Queensgate Drive Duportail also exists as a 5 lane roadway but is discontinuous. The City has been working for several years to provide a third crossing of the Yakima River with Duportail Street to connect to SR 240 and provide improved access to downtown Richland.

Bicycle/Pedestrian Facilities

In addition to the minimal sidewalks mentioned above, some additional facilities are provided for bicycles and pedestrians. The Benton Franklin Council of Governments provides information for the entire region that identifies bicycle trails, and two types of bicycle routes: “Best Choice” or “Caution”. In the vicinity of the study area there is a separated Bike/Pedestrian Trail that parallels Keene Road on the north side. There is also a pathway that begins northeast of Columbia Park Trail and follows the south side of I-182 to the east. Queensgate Drive is identified as a Bike Route – Caution route.

Transit

Ben Franklin Transit provides fixed-route transit service as well as Dial-a-Ride service for the disabled traveler in the region. Current fixed route service in the study area is provided by three routes, each of which provides hourly service on Queensgate Drive. Routes 39H and 110 traverse Queensgate Drive between Duportail Street and Columbia Park Trail, serving the commercial area west of Queensgate Drive north of I-182 and the residential areas to the southeast and connecting with other routes at the Three Rivers Transit Center in Kennewick. Route 39K travels on Queensgate Drive between Duportail Street and Keene Road and then eastward as well to the Three Rivers Transit Center. Although no routes currently use Keene Road west of Queensgate Drive, a recent roadway widening project there included a bus pull-out for westbound buses west of Queensgate Drive.

Turning Movement Counts

L2 Data Collection is a firm that specializes in traffic data collection using video detection equipment. Due to the number of intersections and two within WSDOT limited access, this method was the most cost effective for this study. L2 collected AM and PM peak period turning movement counts at the study intersections from 7:00 – 9:00 AM April 23, 2014 and from 4:00 – 6:00 PM April 22, 2014. Detailed intersection turn movement counts are provided in Appendix B of this report. The City of Richland provided all day traffic counts for Columbia Park Trail and Queensgate Drive. The AM peak hour occurred between 8:00 – 9:00 AM while the evening peak occurred between 5:00 – 6:00 PM. The AM and PM peak hour traffic volumes are shown in Figure 2 and Figure 3 respectively.

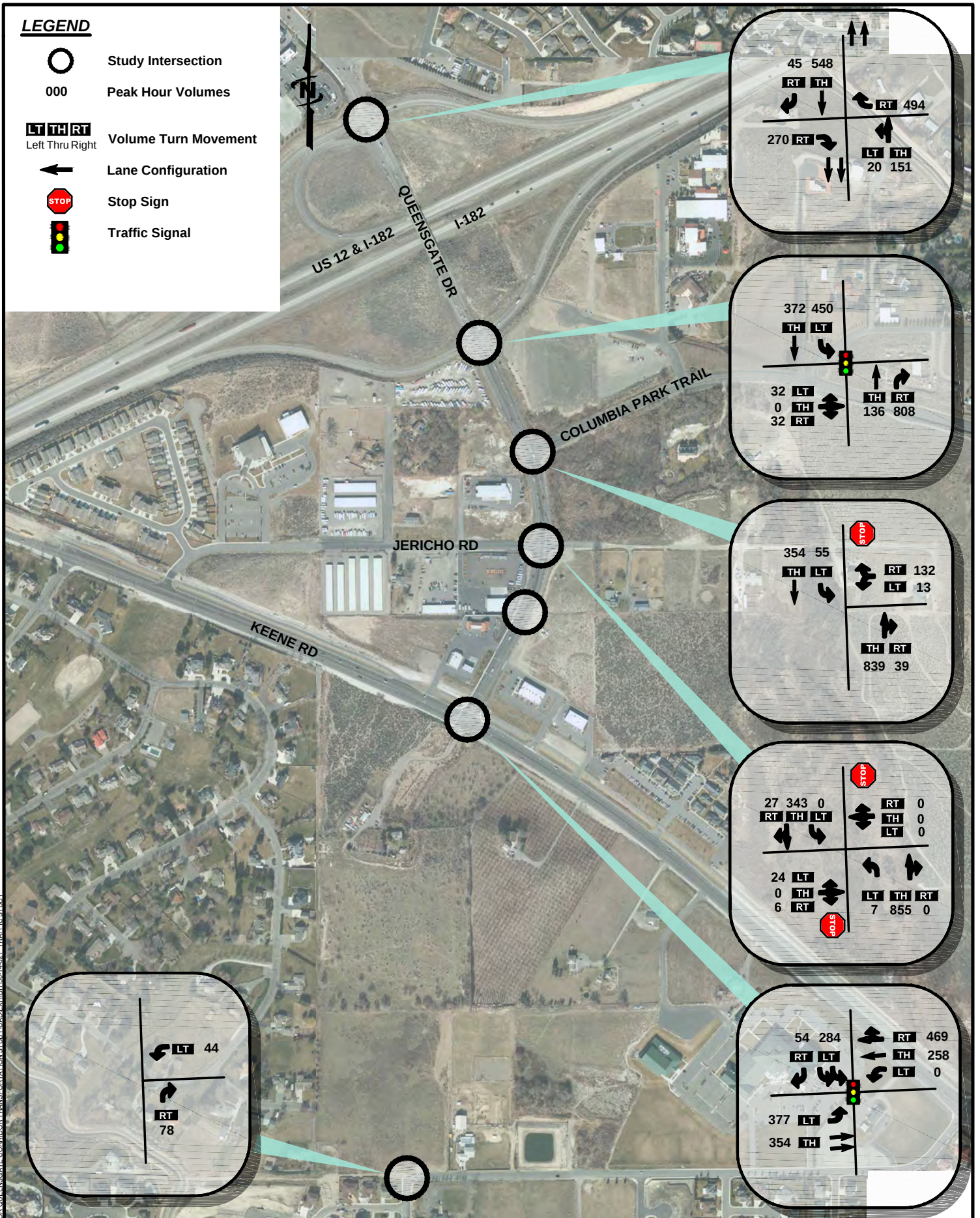
Traffic Operational Analysis

The analysis of Level-of-Service (LOS) is a means of quantitatively describing the quality of operational conditions of a roadway segment or intersection and the perception by motorists and passengers. Service levels are identified by letter designation, A – F, with LOS “A” representing the best operating conditions and LOS “F” the worst. Each LOS represents a range of operating conditions and one or more measures of effectiveness (MOE’s) are used to quantify the LOS of a roadway element. For intersections the MOE used is average control delay (seconds) per vehicle. While there are several methodologies for estimating the LOS of intersections, the most commonly used is presented in the Highway Capacity Manual and is the methodology used in this study (HCM 2010). The Highway Capacity Manual LOS criteria for signalized and unsignalized intersections are summarized in Table 1.

The signalized method is based on the capacity available to service the various movements at a signalized intersection based on the amount of green time provided for each movement, the impacts of any conflicting movements, etc. For unsignalized intersections delay is based on the availability of gaps in the major street traffic flow to allow minor street movements to occur. Delay results in driver frustration and anxiety, loss of time, unnecessary fuel consumption, and contributes to pollution. The

LEGEND

-  Study Intersection
-  Peak Hour Volumes
-  Volume Turn Movement
Left Thru Right
-  Lane Configuration
-  Stop Sign
-  Traffic Signal



Engineers • Surveyors • Planners

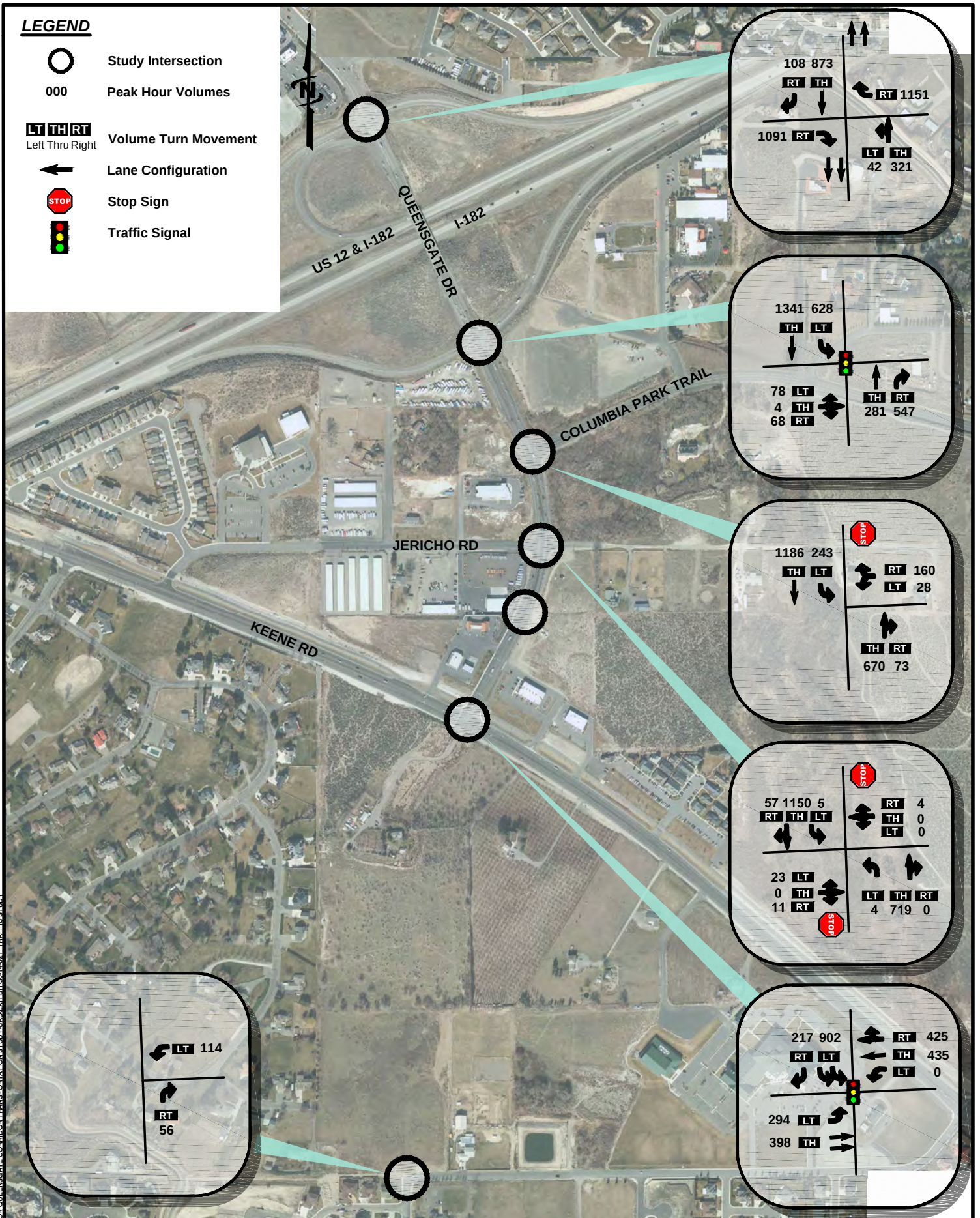
2014 AM PEAK
TRAFFIC VOLUMES

FIGURE
2

QUEENSGATE DRIVE CORRIDOR
TRAFFIC STUDY

LEGEND

-  Study Intersection
- 000** Peak Hour Volumes
- LT TH RT**
Left Thru Right Volume Turn Movement
-  Lane Configuration
-  Stop Sign
-  Traffic Signal



minimum acceptable Level of Service for the City of Richland and the Tri-Cities Metropolitan Area as adopted by the Benton Franklin Council of Governments is LOS D.

Table 1. Level of Service Criteria for Intersections

Level of Service (LOS)	Average Control Delay (seconds/vehicle)	
	Signalized Intersections	Unsignalized Intersections
A	<=10	<=10
B	>10 - < 20	>10 - < 15
C	>20 - < 35	>15 - < 25
D	>35 - < 55	>25 - < 35
E	>55 - < 80	>35 - < 50
F	>80	>50

Source: *Highway Capacity Manual 2010*, Transportation Research Board, National Research Council, Washington, D.C., 2010.

An evaluation of existing traffic operations was performed for the AM and PM peak hours using SYNCHRO modeling software for signalized intersections and the Highway Capacity Software for STOP controlled intersections. This software accounts for existing lane configurations as well as traffic signal timings that were provided by the City of Richland and the Washington State Department of Transportation. Table 2 shows the results of the analysis and delay for overall average intersection delay as well as the worst approach for each intersection. The delay and level of service summary, as well as queue lengths for all movements of each intersection, AM and PM peak are included in Appendix C.

Table 2. Summary of 2014 Peak Hour Delay (sec) and Level of Service

Intersection	AM Peak Hour		PM Peak Hour	
	Overall	Worst	Overall	Worst
	Intersection	Approach	Intersection	Approach
Queensgate Dr/I-182 WB ramps	*(1)	NBL--9/A	*(1)	NBL--11.1/B
Queensgate Dr/I-182 EB ramps	4.9/A	WB--11.1/B	15/B	SB--18/C
Queensgate Dr/Columbia Park Trail	*	WB--33.5/D	*	WB--674/F
Queensgate Dr/Jericho Rd	*	EB-- 38.5/E	*	EB-->197.8/F
Queensgate Dr/Keene Rd	35.7/D	EB-- 40.3/E	49.2/D	EB--44.1/D
Queensgate Dr/Shockley Road	*	(2)	*	(2)

LEGEND

35.7/D Delay and Level of Service using existing lane configurations

* Uncontrolled Movements (major street through) not provided for overall intersection Analysis for Two way Stop Controlled Intersections

NB = northbound, SB = southbound, WB = westbound, EB = eastbound

Notes:

- (1) Intersection currently has no movements that are stop controlled. Only the NBL turn is yield.
- (2) Intersection currently has only 2 legs and is uncontrolled.

As shown in the table, all intersections function acceptably during the AM peak hour, however the two stop controlled intersections function with LOS “F” during the PM peak hour and function poorly. The delay shown in the table indicates that based on a single approach lane both the eastbound Jericho Road and westbound Columbia Park Trail approaches to Queensgate Drive have excessive delay and LOS “F”. The delay may not be as poor as shown because these intersections have a wide turning radius for right turns and in reality many vehicles are able to bypass left turning vehicles.

Although not evident in the capacity analysis, it should be noted that the northbound movement in the morning through the corridor regularly backs up from the I-182 eastbound ramps. The more than 800 vehicles northbound turning right onto the I-182 eastbound ramp must share the signal cycle with the 450 southbound left turning vehicles also entering the ramp.

2034 Traffic Volumes Forecasts

This section will discuss the methodology of forecasting future traffic volumes.

Roadway and Demographic Conditions

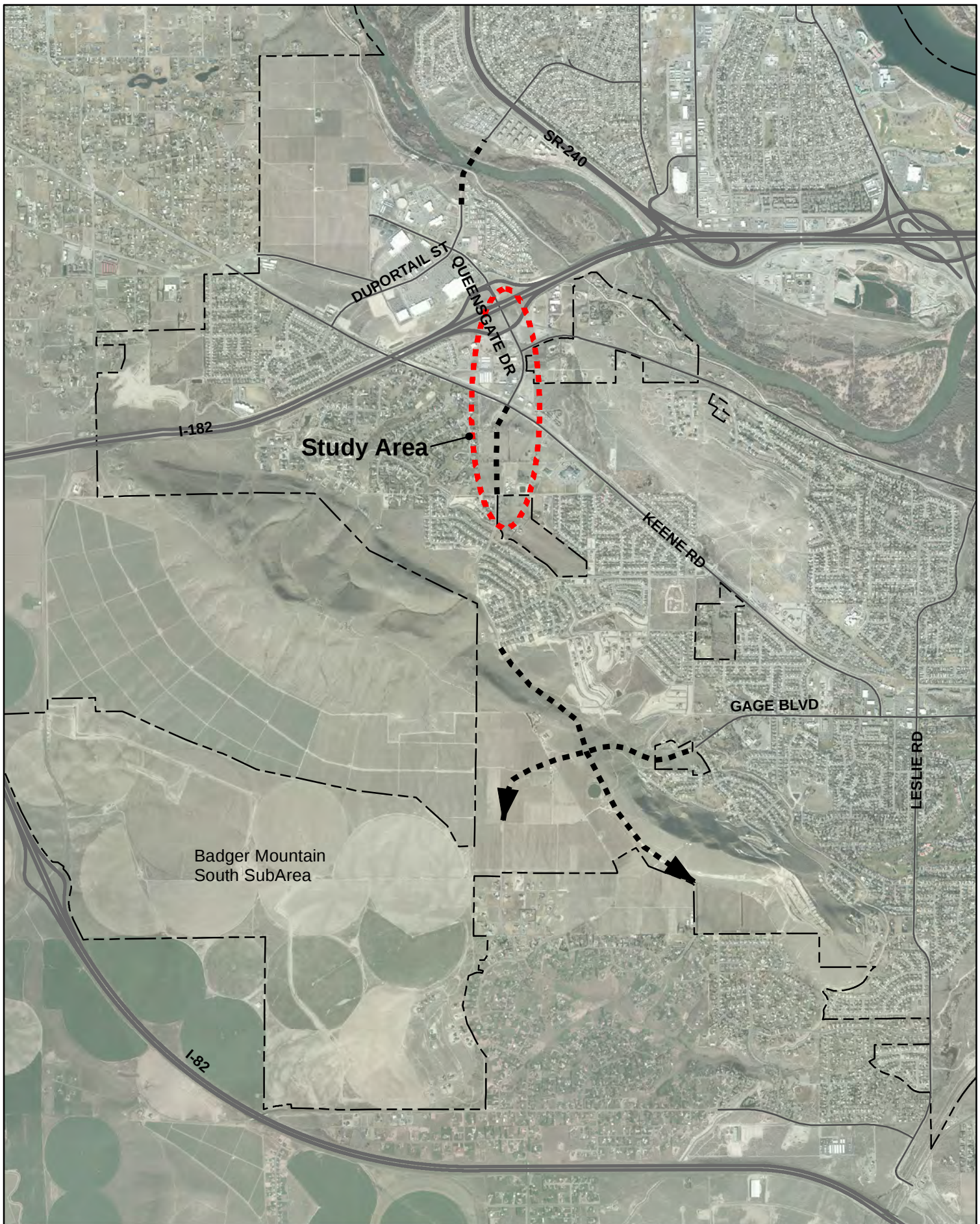
For this traffic study a 20 year forecast of traffic volumes at study intersections was created in order to prepare and evaluate needed improvements to service the traffic volumes. The methodology to prepare those forecasts is presented below.

As a tool in preparing the Regional Transportation Plan, the Benton Franklin Council of Governments maintains a set of regional computerized transportation models. The model is developed using current traffic data and land uses in the region (representing year 2010) using Transportation Analysis Zones (TAZs) that are defined with various attributes describing the number and type of households and employees as well as other land uses within each zone. The model is calibrated for existing conditions using Federal Highway Administration procedures and methods. Once calibrated, changes in assumptions for future land uses and roadway networks can be made to determine the potential impacts of developments and/or roadway scenarios. Land use assumptions representing future conditions are developed to determine various impacts on the roadway network at a regional level. The future year model representing the year 2030 developed by BFCOG represents the best land use and roadway assumptions available at the time it was created.

The assumptions included in the regional model, pertinent to this study, include the following:

- Build-out of the Badger Mountain South Sub area, including development of nearly 2,500 acres with over 3,200 homes and many businesses.
- Duportail Bridge will be constructed and provide direct access to Queensgate Drive north of I-182 and a connection to/from SR 240 to the northeast.
- Queensgate Drive will be extended south from Keene Road to Gage Blvd and beyond to connect to Rachel Road, providing access to the Badger Mountain South Subarea.
- Gage Boulevard will be extended west to provide access to the Badger Mountain South Subarea and a connection to Dallas Road.

Additions to the roadway network by the year 2034 that were used for this analysis, along with the Badger Mountain South Subarea are shown in Figure 4.



Forecasting Methodology

It must be recognized that although traffic models are calibrated within acceptable ranges, the model is a tool in transportation planning and traffic forecasting. The BFCOG model is a PM peak hour model that provides roadway segment volumes (not specific turn movement volumes). Professional judgment should be used in interpreting model outputs. To arrive at reasonable estimates of traffic volumes for the year 2034, the following methodology was used:

- A cordon line was used to analyze traffic entering and traffic exiting the study area.
- The regional model was examined to compare 2010 ground counts to 2010 model volumes.
- Growth in the model from year 2010 and 2030 passing through the cordon were also calculated at approximately 25%.
- The City of Richland had collected turning movement counts at study intersections in 2006. These counts were compared with 2014 turning movement counts collected as part of this study and growth rates were determined for traffic entering the cordon line for the study area. The historical growth rate at study intersections during those 8 years was nearly 15.5% or slightly less than 2% per year.
- This growth rate applied over 20 years equates to 38.9% growth by year 2034. This was felt more appropriate than the 25% rate obtained from the model given the historical rates.
- Since this study assumes major roadway network changes to occur, including the Duportail Bridge and Queensgate Extension to the south, an estimate of percentages of traffic entering and exiting the study area on various roadways was made using the regional model as a basis, but comparing the 2010 model to 2010 ground counts and 2014 turning movement counts.
- Target roadway segment approach volumes were converted into turn volumes. A balancing of volumes around the study area considered the following factors:
 - Target inbound and outbound percentages of traffic at each study intersection.
 - Total entering and exiting volume crossing the cordon line around the study area
 - Existing turn movement percentages
- To account for traffic volumes at the new commercial access intersection to Queensgate Drive south of Keene Road, additional traffic was added to account for the fact that when the regional model was created the area was zoned residential. Trip generation for the area was performed using information from the owner of the property that identifies various acreages of land uses. Development assumptions information is included in Appendix D. Trips were added to the network using similar percentages of inbound/outbound trips. As a worst case scenario, it was assumed that all trips to the area south of Keene Road would have to use this new intersection. This situation will be discussed in further detail later in this report.
- Once PM volumes were finalized, AM target percentages for inbound and outbound volumes were prepared evaluating the existing AM percentages and adjusting for the new roadway network components, while comparing differences between existing AM and PM percentages of entering and exiting traffic and examining the forecasted PM percentages of entering and exiting traffic.
- AM peak hour turning movement volumes were prepared in a similar manner as the PM using similar growth rates and target percentages of entering/exiting traffic across the cordon line.

Figure 5 shows the percentages used to prepare the 2034 traffic volumes. Actual volumes used in the analysis are included in Appendix E.

The resulting traffic volumes at the study intersections for 2034 AM Peak Hour and 2034 PM Peak Hour are shown in Figure 6 and Figure 7 respectively.



LEGEND



Study Intersection

000

Peak Hour Volumes

LT TH RT
Left Thru Right

Volume Turn Movement



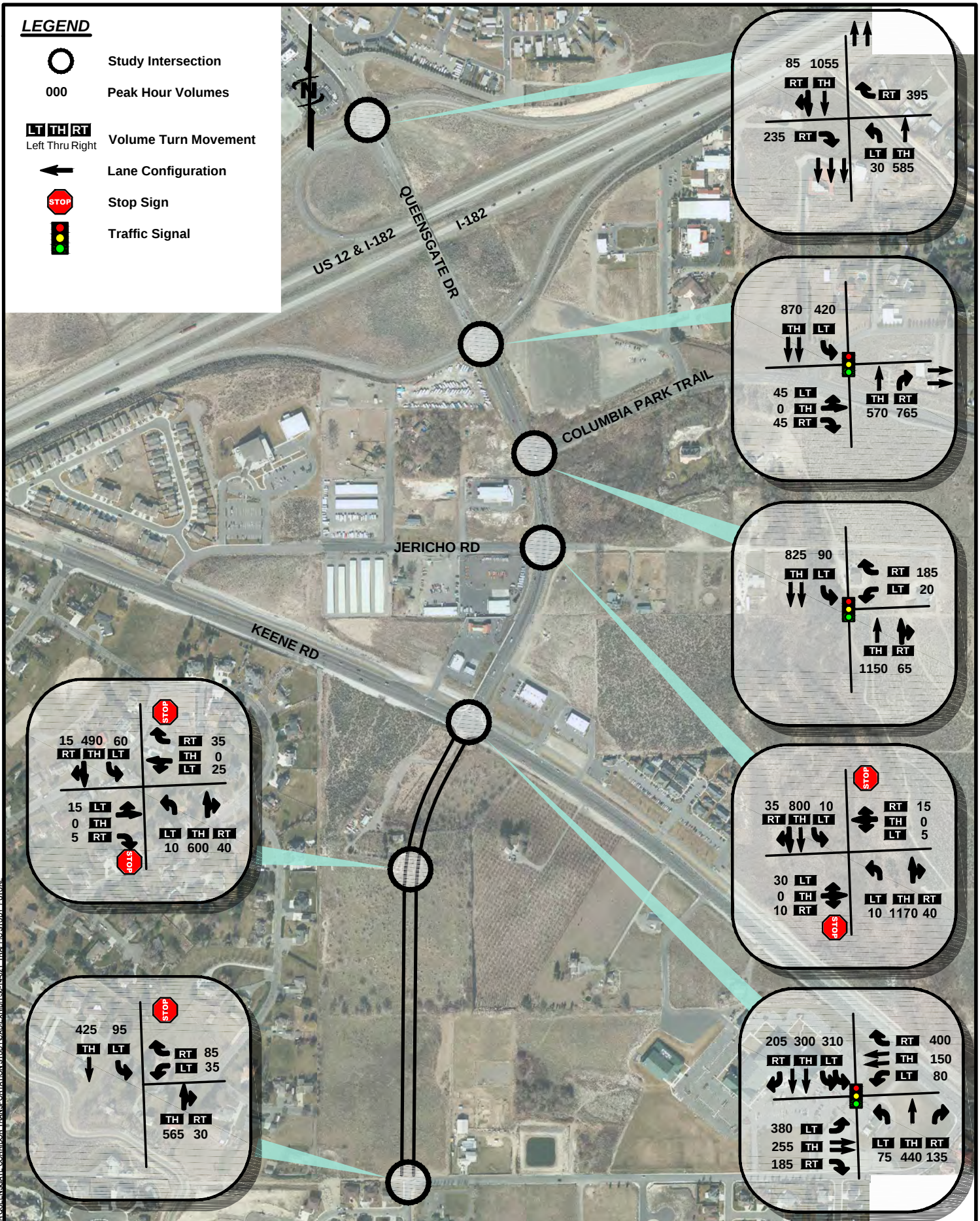
Lane Configuration



Stop Sign



Traffic Signal



Engineers • Surveyors • Planners

2034 AM PEAK HOUR
VOLUMES

FIGURE
6

QUEENSGATE DRIVE CORRIDOR
TRAFFIC STUDY

LEGEND



Study Intersection

000

Peak Hour Volumes

LT TH RT
Left Thru Right

Volume Turn Movement



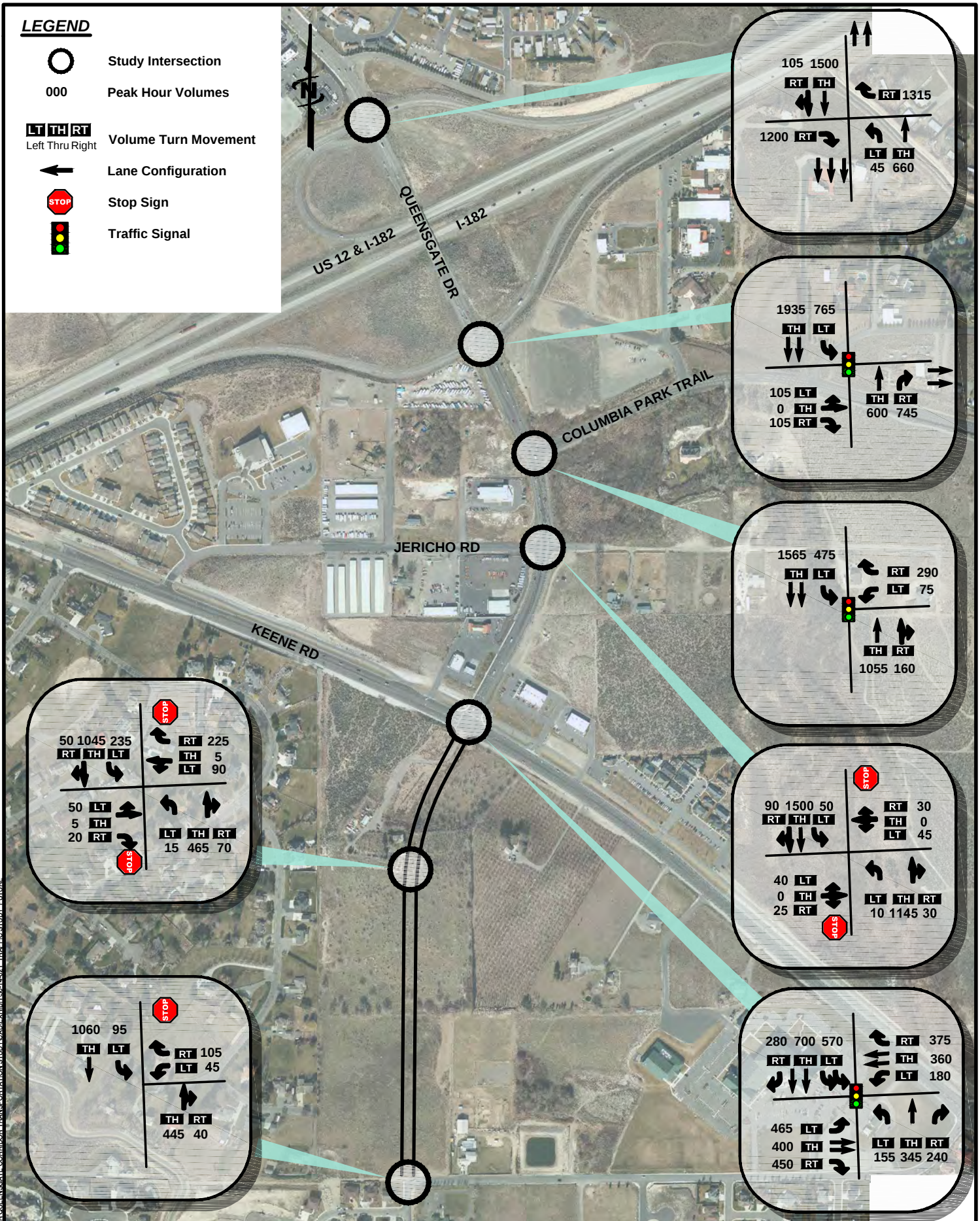
Lane Configuration



Stop Sign



Traffic Signal



Engineers • Surveyors • Planners

2034 PM PEAK HOUR
VOLUMES

FIGURE
7

QUEENSGATE DRIVE CORRIDOR
TRAFFIC STUDY

As shown in the 2034 traffic projections, a significant shift in traffic patterns is anticipated to occur with the new roadway network and regional growth. In the morning, some traffic will continue north on Queensgate Drive past I-182 to access the shopping areas north of the Interstate as well as to access Duportail Street, rather than to turn right onto eastbound I-182. In the evening a similar situation will occur, with southbound through movement at I-182 on Queensgate Drive growing.

Interim Traffic Volumes Discussion

A brief discussion is warranted regarding the phasing of the network and interim traffic volumes. As discussed above, the 2034 traffic volumes include substantial assumptions. Discussions with City staff regarding roadway improvements and the development of the Badger Mountain South area, the order of improvements will likely proceed in the following manner:

1. Badger Mountain South will develop to some extent and Queensgate Drive will be extended south of the limits of this study to climb the hill and provide a third access to the area. (Currently access is provided via Dallas Road to the west and Reata Road to the southeast which are not connected.)
2. Traffic volumes on Queensgate Drive will increase to beyond the volumes identified in this study and capacity issues will arise. Under this scenario, some traffic from the southeast on Keene Road and Gage Blvd will access Badger Mountain South via Queensgate Drive using Shockley Road.
3. Increasing development of Badger Mountain South and high traffic volumes on Queensgate Drive will cause the need to extend Gage Boulevard to the west to provide a fourth access to Badger Mountain South.

An additional comment regarding the traffic forecast worth noting is that although the forecasts include build-out of the Badger Mountain South area by year 2034, the actual build-out of the area will depend largely on the rate of development and market forces that contribute to development. It could conceivably take much longer than 20 years for the Badger Mountain South area to completely develop. The developer agreement requires traffic analysis to be performed by the developer at key milestones of the development.

2034 Traffic Operations

This section will describe the traffic operations and improvements required to provide acceptable Levels of Service in the corridor based on the traffic volumes forecast presented in the previous chapter. Two improvement scenarios, as well as potential phasing possibilities are considered:

- 1) traditional improvements including traffic signals and additional lanes, and
- 2) roundabouts at some intersections and additional lanes where appropriate.

Future traffic volumes were input into the Synchro model to determine the lane configurations that would be required to provide acceptable Levels of Service for the traffic signalization scenario. Sidra software was used to evaluate traffic operations at the intersections of Queensgate Drive at Columbia Park Trail, Keene Road and Shockley Road under the roundabout scenario. A summary of delay and LOS, as well as the intersection improvements that will be required under the two scenarios in order to provide acceptable LOS are provided in Table 3. A more detailed summary of individual movement delay and queue lengths for each intersection, as well as the detailed LOS worksheets are provided in Appendix F.

The project team identified lane configurations and roadway geometry required for LOS mitigation for the year 2034. For signalized intersections additional lanes for turning movements and queuing length requirements dictate the intersection layout. For roundabouts an iteration of trials is required to determine the need for single or double lanes and the size of the roundabout (inscribed diameter) is a variable in capacity determination.

The improvements required under the traffic signalization scenario are shown conceptually in Figures 8 – 10, while improvements under the roundabout scenario are shown conceptually in Figures 11 – 13, with each set of graphics dividing the corridor up into three segments:

- Keene Road north to the I-182 westbound ramps
- Queensgate Drive/Keene Road intersection
- Keene Road south to Shockley Road

Considerations for each study intersection and the results of the analysis are discussed individually below. Access to adjacent parcels in the corridor will be an important consideration as the City moves forward with improvements. A proper balance between moving traffic through this arterial corridor versus providing access to adjacent property will be critical in preserving the integrity of the traffic operations in the corridor and protecting future investments in the corridor. Coordination with property owners in the corridor will be important in selecting appropriate access management strategies.

It should be noted that the traffic signalization scenario and the roundabout scenario are not mutually exclusive. The City of Richland could decide to select improvements from either scenario or a combination of improvements from the two scenarios to address the future capacity needs at intersections throughout the corridor.

Queensgate Drive between Keene Road and Columbia Park Trail will need to be widened/restriped to provide 4 lanes two northbound and two southbound. The existing pavement width may only require restriping. Left turns to/from Queensgate Drive would be prohibited by construction of a raised median, converting all accesses to right-in/right-out.

Table 3. Summary of 2034 Peak Hour Delay (sec) and Level of Service

Intersection	Intersection Control	AM Peak Hour		PM Peak Hour	
		Overall Intersection	Worst Approach	Overall Intersection	Worst Approach
Queensgate Dr/I-182 WB ramps	None	*(1) (2)	NBL—12/B	*(1) (2)	NBL—17.2/C
Queensgate Dr/I-182 EB ramps	Signal	7.1/A (3)	NB--8.8/B	27.6/C (3)	NB--36.1/D
Queensgate Dr/Columbia Park Trail	Signal	6.3/A (2)(4)	WB--21.1/C	20.5/C (2)(4)	WB--34.4/C
	Roundabout	4.2/A (5)	WB--8.9/A	10/A(5)	NB--16.3/B
Queensgate Dr/Jericho Rd	TWSC	*	EB—84.3/F	*	EB-->1452/F
	TWSC	*(6)	WB—13.2/B	*(6)	EB—18/C
	Signal	1.7/A (4)	EB--22.8/C	5.1/A (4)	WB--50/D
Queensgate Dr/Keene Rd	Signal	29.7/C	NB-- 42.2/E	45/D	NB--52.5/D
	Roundabout	8.9/A (5)(7)	WB-- 11.7/B	19.1/B (5)(7)	NB--34.3/D
Queensgate Dr/Commercial Drive	TWSC	*	EB-- 17.5/C	*	WB-->999/F
	Signal	5.1/A (4)	EB—29.8/C	16.8/B (4)	EB--48.2/D
Queensgate Dr/Shockley Road	TWSC	*	WB-- 15.8/C	*	WB--20.1/C
	Roundabout	2.7/A (8)	SB-- 7.9/A	4.9/A (8)	WB--6.7/A

LEGEND

40.3/E Delay and Level of Service using existing lane configurations

30.5/C (1) Delay and Level of Service with modifications listed below

* Uncontrolled Movements (major street through) not provided for overall intersection Analysis for Two-way Stop Controlled Intersections

NB = northbound, SB = southbound, WB = westbound, EB = eastbound

TWSC = Two-way Stop Control

Notes:

- (1) Intersection currently has no movements that are stop controlled. Only the NBL turn is yield.
- (2) Includes additional southbound thru lane and northbound left turn lane
- (3) Includes exclusive NBR turn lane and additional SB thru lane and EB departure lane to receive NBR turn lane.
- (4) Includes traffic signal
- (5) Includes 2 lane roundabout
- (6) Eliminates all left turns from intersection, converted to right turns and U-turns in roundabout option.
- (7) Includes new south leg with 3 lanes for LT, TH and RT, 2 SB thru lanes and exclusive EB and WB RT lanes.
- (8) Includes roundabout with 2 SB entry lanes



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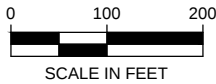
KEENE ROAD TO I-182 WESTBOUND RAMPS
SIGNALIZED IMPROVEMENTS OPTION

FIGURE 8

QUEENSGATE CORRIDOR STUDY



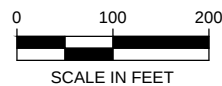
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QUEENSGATE DRIVE / KEENE ROAD INTERSECTION
 SIGNALIZED IMPROVEMENTS OPTION

FIGURE 9

QUEENSGATE CORRIDOR STUDY



SHOCKLEY ROAD TO KEENE ROAD
SIGNALIZED IMPROVEMENTS OPTION

FIGURE 10

QUEENSGATE CORRIDOR STUDY



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SCALE IN FEET

KEENE ROAD TO I-182 WESTBOUND RAMPS
ROUNDABOUT IMPROVEMENTS OPTION

FIGURE 11

QUEENSGATE CORRIDOR STUDY



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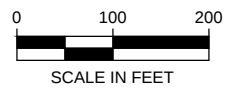
QUEENSGATE DRIVE / KEENE ROAD INTERSECTION
 ROUNDABOUT IMPROVEMENTS OPTION

FIGURE 12

QUEENSGATE CORRIDOR STUDY



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 File: 30-14-021 ROUNDABOUT OPTION LAYOUT



SHOCKLEY ROAD TO KEENE ROAD
ROUNDABOUT IMPROVEMENTS OPTION

FIGURE 13

QUEENSGATE CORRIDOR STUDY

Queensgate Drive / Westbound I-182 Ramps Intersection

As mentioned earlier, this intersection is rather unique in that none of the movements at the intersection are stop controlled. The westbound I-182 ramps currently consist of a westbound off ramp, westbound to southbound loop ramp, and westbound on ramp as well as one lane each direction on Queensgate Drive plus an added departure lane northbound and southbound that comes from the freeway ramps. The existing lane configurations are shown in Appendix A, Figure 1.

Under either the traffic signal or roundabout alternatives, minor widening and restriping will be necessary at this intersection to accommodate an additional southbound lane on Queensgate Drive as well as an exclusive northbound left turn lane. One of the southbound lanes would become an exclusive left turn lane at the I-182 Eastbound on-ramp, as shown in Figures 8 or 11. To accommodate the additional southbound through lane the striping on the bridge over I-182 will need to be reconfigured to reduce the shoulder width to two feet so that a fourth travel lane can be provided. Further design analysis and coordination with WSDOT will be needed for a design deviation request to allow reduced shoulder widths and avoid widening the I-182 structure. One lane would serve northbound traffic while one lane would serve the southbound left turn at the eastbound I-182 ramps and two lanes would serve southbound through traffic, one of which would come from the westbound to southbound loop ramp.

Queensgate Drive / Eastbound I-182 Ramps Intersection

This intersection currently has one through lane in each direction on Queensgate Drive, with an exclusive southbound left turn lane. The intersection is currently signalized.

Under both the traffic signal or roundabout alternatives, this intersection would remain signalized. This intersection will require minor widening to provide dedicated eastbound off ramp right-turn lane. Widening will be required for a second southbound through lane on Queensgate Drive. The outside northbound through lane on Queensgate Drive is proposed to become a dedicated right-turn lane for the eastbound on ramp which will also require widening on the ramp to the point where the eastbound ramp lanes merge.

Queensgate Drive between the Eastbound I-182 Ramps and Westbound I-182 Ramps will require four lanes consisting of one northbound lane, two southbound lanes, and one southbound left-turn lane to go to the eastbound I-182 on ramp. The current roadway consists of two southbound lanes and one northbound lane.

For many years the City of Richland and the Washington State Department of Transportation have known that at some point in the future this interchange would require additional improvements. The first of these improvements was the westbound to southbound loop ramp. Consideration was given to alternate configurations at this intersection, including dual southbound left turns or a southbound to eastbound loop ramp. Challenges with each of these scenarios will require additional analysis if pursued. Three challenges with adding a second southbound left turn lane include:

- 1) the length of the second lane would be short without widening the structure over I-182
- 2) it does not provide significant additional capacity primarily due to the loss of the protected/permitted phasing of the signal that would no longer apply
- 3) a potential third lane to the eastbound on-ramp would be required to allow the northbound right turn a dedicated lane as well.

Two challenges that come with considering a southbound to eastbound loop ramp, which removes the significant number of vehicles included in the conflict of the northbound through and the southbound left turn movements are:

- 1) A significant weaving movement between the southbound through on Queensgate Drive and the westbound to southbound loop ramp.
- 2) Completion of the merging of the loop ramp with the eastbound I-182 mainline prior to the structure over the Yakima River.

Columbia Park Trail/Queensgate Drive

This intersection currently has 1 lane in each direction on Queensgate Drive with an exclusive southbound left turn lane and a single westbound approach lane. The intersection is stop controlled.

Existing delay on Columbia Park Trail is below acceptable LOS. Therefore at some point in the future the City will need to consider improvements to the intersection in order to provide acceptable LOS. A traffic signal warrant analysis was conducted. Due to the high westbound right turns for the minor street approach, it was assumed that an exclusive westbound right turn lane would be provided with any future improvements. As such, it was felt that this particular signal warrant analysis was most appropriate to be performed evaluating the southbound left turn conflict with the northbound through trips. Based on the analysis, the intersection meets 4 hours of the condition A warrant, and 3 hours of warrant A and B combined. Based on historic growth rates and projecting the growth rate of this study into the future, and assuming similar hourly distributions of traffic, it is anticipated that the intersection would meet the combined Condition A and B warrant in year 2018. See Appendix G for the signal warrant analysis.

For the traffic signal option, Queensgate Drive will require widening to accommodate a second through lane in each direction. Columbia Park Trail would also require minor widening to provide an exclusive westbound right-turn lane.

For the roundabout option an additional lane north-south on Queensgate Drive would be required, but no southbound left turn lane is needed. Two westbound approach lanes would also be provided, with one lane for left turns and the other for right turns.

Jericho Road/Queensgate Drive

Jericho Road currently has single lane approaches to Queensgate Drive both from the west and the east. It provides left turn lanes from Queensgate Drive to Jericho Road. The east leg is a county road and designated as a dead end. Long term traffic projections indicate that the delay at the Jericho Road/Queensgate Drive intersection will fall below acceptable LOS, even with a two-way left turn lane on Queensgate Drive which would allow for a two-stage gap acceptance for left turns from Jericho Road.

Since there is limited development anticipated to take access from Jericho Road, it is not anticipated that a traffic signal warrant would ever likely be met in the future. Thus, at this intersection it is recommended that alternatives for providing for the minor street left turns be pursued. Essentially, by restricting the Jericho Road approaches to Queensgate Drive to right-in-right out only, acceptable LOS

can be provided. Thus, left turns will need to be accommodated through other means. Some examples could include:

- Allow/facilitate U-Turns at the intersections to the right, assisting the traveler to make a right turn then a U-Turn and proceed in the direction desired if a left turn were allowed.
- Provide frontage or backage roads to allow left turns to be made from adjacent intersections.

Future planning and public outreach will be needed before an access management solution can be proposed. This study identifies possible mitigations as a starting point for future analysis, but is not intended to represent a recommendation as the only solution.

Keene Road/Queensgate Drive

The existing Keene Road/Queensgate Drive intersection has only three legs, forming an inverted "T" intersection, shown in Appendix A Figure 2. As described earlier, Queensgate Drive will be extended to the south to provide the fourth leg, which will add to the roadway network in south Richland as well as provide access to adjacent undeveloped land. Eventually Queensgate Drive will be extended further to provide access to the Badger Mountain South Subarea.

In the traffic signal option, to accommodate the volumes shown in the 2034 AM and PM peak hour forecasts, this new leg will require five lanes at the intersection consisting of one northbound through lane, one right-turn lane, and one left-turn lane and two southbound through lanes. The north leg of the intersection will need to be widened to accommodate the two southbound thru lanes as well as dual southbound left turn lanes and an exclusive right turn lane. Keene Road will need to be widened to provide a westbound right-turn lane and an eastbound right-turn lane as shown in Figure 9.

Conversion of the existing Queensgate Drive / Keene Road intersection to a two-lane roundabout would include the extension of Queensgate south to provide a fourth leg. To accommodate future traffic, this new leg will require five lanes at the intersection consisting of two northbound lanes, two southbound lanes, and one eastbound to southbound slip lane which would merge with the outside southbound through lane. The north leg of the roundabout would also consist of five lanes at the roundabout consisting of two northbound departure lanes, two southbound lanes and one southbound to westbound right turn lane that would merge with the westbound lanes. The East leg of the roundabout consists of two eastbound and two westbound lanes. The west leg will consist of five lanes including two eastbound lanes, two westbound lanes and an eastbound to northbound slip lane. These improvements are shown in Figure 12.

Queensgate Drive between Keene Road and Columbia Park Trail will need to be widened/restriped to provide 4 lanes two northbound and two southbound. The existing pavement width may only require restriping except the immediate approaches to the roundabouts. A raised median to restrict left turns in the corridor is recommended.

Access near the Intersection

There are four existing driveways that provide access to the two parcels on the northwest and northeast corners of the intersection of Keene Road/Queensgate Drive that can be seen in figures 9 and 12. The driveway on Keene Road east of Queensgate Drive is restricted to westbound right turns into and right turns out of the business.

Traffic operations for the intersection and observation of existing conditions indicate that the southbound queue approaching the intersection during peak times extends back from the intersection so as to block access to the driveway on the west side of Queensgate Drive north of Keene Road, making it difficult for traffic northbound on Queensgate Drive to turn left into the business there. This traffic is almost exclusively coming from westbound Keene Road and ideally should continue through Queensgate Drive and make a right turn into the business.

In the future this condition will only worsen as queues get longer and are of longer duration. It may be desirable to restrict this access to southbound right turns in and right turns out only, to eliminate the need for northbound traffic to stop in the flow of traffic while waiting for an opportunity to turn left into the property. This will promote safety and improve traffic operations. Future planning, public outreach and property owner coordination will be needed before an access management strategy for the corridor can be finalized.

Phasing of Intersection Improvements

As was mentioned earlier, the 20-year traffic volume projections include build-out of the Badger Mountain South Subarea. The actual Build-out year will depend largely on the rate of development and market forces that contribute to development. It could conceivably take much longer than 20 years to achieve build-out of the area that will access Queensgate Drive south of Keene Road. The Developer Agreement requires additional traffic analysis to be performed at key milestones of the development.

Forecasts for the year 2034 were prepared using the best tools available. However, there is a certain level of uncertainty that enters into the final projections used, especially given the fact that non-existent roadways at both ends of the study area are part of the forecasting process. With this in mind, and the fact that additional studies will be performed long before build-out of the Badger South Subarea, it is recommended that intersection improvements at the Keene Road/Queensgate Drive intersection be phased. Phased improvements for the signalized option and the roundabout option are shown in Figures 14 and 15 respectively.

Essentially the difference in the phased improvements is to initially construct a single receiving lane on the south leg and only provide for a single southbound through lane, and also not include the eastbound exclusive right turn lane. At some point in the future, when volumes warrant the need, the southbound right turn lane in the phased improvements could be converted to a through lane, with a new right turn lane added. The initial southbound through lane would continue through the intersection but then would become the left turn lane at the next intersection. An additional receiving lane on the south leg would need to be constructed for 200 - 300 feet. The eastbound right turn lane could be added in the future as well. Additional right-of-way, beyond the 70' identified in the existing developer agreement would be required on the west side of the south leg for 200 – 300 feet.

For the roundabout option, initial construction could include two entry lanes on each approach with two exit lanes on each approach as well, except for the south leg could have a single exit lane from the roundabout. At some point in the future a third approach lane for right turns could be added for the southbound and eastbound approaches, as could a second exiting lane to the south leg. Slightly more right-of-way may be required in the southwest quadrant of the intersection for the full-build concept than for the signalized option, but since roundabout entry lanes are not required to be perpendicular to cross streets, some flexibility with respect to the location of the roundabout could reduce the overall right-of-way needs. This is especially true in this case because the City has a very wide right-of-way corridor because of the abandonment of the railroad on the north side of Keene Road.



QUEENSGATE DRIVE / KEENE ROAD INTERSECTION
PHASED SIGNAL

FIGURE 14

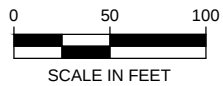
QUEENSGATE CORRIDOR STUDY

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QUEENSGATE DRIVE / KEENE ROAD INTERSECTION
PHASED ROUNDABOUT

FIGURE 15

QUEENSGATE CORRIDOR STUDY

Commercial Access/Queensgate Drive

This intersection to be provided on the new segment of Queensgate Drive south of Keene Road will provide access to both sides of Queensgate Drive. The west leg will be a local roadway that will connect to the Country Ridge subdivision and provide access to the commercial property on the southwest corner of Keene Road/Queensgate Drive. As prescribed in the Developer Agreement for this property, the access will be no closer than 300 feet to the existing stubbed Lariat Drive on the east side of Country Ridge. It is assumed that this section of Queensgate, south of the new intersection will be constructed with a two-way left-turn lane to facilitate access to adjacent properties, the agreement is that a 70' right-of-way will be provided. North of this intersection Queensgate Drive will require side by side left turn lanes as opposed to a two-way left turn lane. It is assumed that the distance between this intersection and Keene Road is approximately 1200 feet.

The commercial access intersection will require two approach lanes from both the east and west sides, the analysis performed included an exclusive westbound right turn lane and eastbound left turn lane, with the through lanes being shared with the westbound left turn and the eastbound right turn. These improvements are shown in Figures 10 and 13.

For the purposes of this analysis, a worst case scenario was assumed that included no additional access to the properties to the north of this intersection. Under that assumption, and all the assumptions included in the development of the 2034 traffic volumes, this intersection would fail as a stop controlled intersection and would require a traffic signal at some point in the future, likely many years into the future. The initial construction of a stop controlled intersection will likely serve for many years. As the property is developed, consideration to additional accesses should be given. For example, an additional access on Keene Road placed opposite the second access to the east of Queensgate Drive may function very well as a full access. If provided as a full access, any westbound left turns into the commercial property would remove left turns at both the intersection of Keene Road/Queensgate Drive as well as the southbound left turn from Queensgate Drive into the commercial property. Likewise, any right turns out of the property would eliminate westbound right turns from the commercial driveway onto northbound Queensgate Drive as well as northbound right turns onto Keene Road.

Similarly, an access to Keene Road west of Queensgate Drive, even if it were just right-in/right-out, would reduce eastbound left turns at this new intersection and could potentially postpone or eliminate the need for traffic signalization at this location.

If the roundabout option at Keene Road/Queensgate Drive were selected, then during peak times when traffic is heavy, any left turns from the commercial driveway could be made as right turns and then U-turns at Keene Road to go south in the desired direction of the traveler. A right turn into the property would remove some right turns at the intersection of Queensgate Drive/Keene Road and potentially reduce the need for the long-term exclusive eastbound right turn lane.

In summary, there are many unknowns with respect to the development of the property south of Keene Road. Three major factors will play a role as to whether ultimately a traffic signal will be required at this location:

- 1) Trip generation assumptions that are typical of commercial property were used, but until a specific proposal is prepared by developers, the actual total trip generation is yet to be realized.

- 2) Total traffic that will access the Badger Mountain South will significantly influence the through trips on Queensgate Drive. This factor will determine the gaps in traffic for side street trips.
- 3) How many and what types of accesses are included with future development proposals.

Shockley Road

The Shockley Road/Queensgate Drive intersection is currently uncontrolled. With only two legs essentially it functions as a single roadway that has a bend in it.

When Queensgate Drive is extended to connect the existing section north of Keene Road to the section south of Shockley Road it will become a T intersection and will require Shockley Road to be stop controlled and Queensgate Drive to be the through leg.

It is anticipated that the future Queensgate Drive Extension from Shockley Road to a new future development intersection south of Keene Road will be three lanes consisting of one lane each direction and a center two-way left-turn lane. The T intersection with Shockley Road will function acceptably on opening day with a single westbound approach lane, however in order to service the 2034 projected volumes an additional westbound approach lane would be required to provide an exclusive lane for both left turns and right turns.

Consideration was given to constructing a roundabout at this intersection as well, to serve multiple functions. First, since there is a significant downgrade on Queensgate Drive northbound south of the intersection, it would serve as a traffic calming feature. Also, it would reduce delay on the Shockley Road approach compared to the stop controlled configuration. In order to provide acceptable Levels of Service the roundabout would need to have two southbound entry lanes. This additional capacity is required due to the fact that the southbound approach, which has a significant PM peak hour volume approaching capacity, would need to yield to the westbound approach, whereas in the stop controlled configuration the southbound through movement is freeflow.

Bicycle and Pedestrian Accommodations

There is currently a shared use pathway along the north side of Keene Road that is continuous for several miles in each direction. The City of Richland plans to provide a connection from this path to another existing pathway northeast of the Queensgate Drive/Columbia Park Trail intersection that terminates at a Park and Ride facility.

Under either the traffic signal or roundabout alternatives some modifications at the Queensgate Drive/Keene Road intersection will be required to accommodate the existing pathway. Regarding the connection of the pathway to the north, it was determined that the pathway will fit within existing right of way on the east side of Queensgate Drive. Due to roadside topography and potential wetland features, it is recommended that the section of the path between Jericho Road and Columbia Park Trail be placed adjacent to the northbound lanes of Queensgate Drive. An eight foot wide pathway is shown on Figures 8 and 11.

Due to the high volumes of traffic projected on Queensgate Drive, consideration of a pedestrian underpass to facilitate that movement may be warranted. An estimated cost is included in the list of potential project improvements.

Project Improvements and Cost Estimates

The following section will summarize the construction and preliminary engineering budget costs of the improvements needed for each major component of corridor improvements for each scenario. Right-of-way and access mitigation costs are dependent on negotiations and public involvement and therefore are not yet defined. Potential additional right-of-way areas are identified on the conceptual layouts. Without the benefit of surveys, profiles, grades and geometric roadway design exact areas are beyond the scope of this study. Costs should only be used for comparative purposes in terms of magnitude of impacts between the roundabout and signal options. Details for the budget level cost estimates presented below are included in Appendix H. It should be reiterated that although presented below as a traffic signal or roundabout option, the two alternatives are not mutually exclusive.

Signalized Corridor Option Costs

1. Columbia Park Trail to Skyline Drive widening and restriping \$550,000
2. Widening I-182 EB On-Ramp \$510,000
3. Construct Signal at Queensgate Drive/Columbia Park Trail \$660,000
4. Widening/restriping corridor Keene Road to Columbia Park Trail \$250,000
5. Reconstruct Signal at Queensgate/Keene Road \$1.06 million
 - a. Cost of signal includes portion new south leg channelization.
 - b. Requires additional right-of-way beyond that identified in the developer agreement
 - c. Phased Option without the eastbound Keene Road to southbound Queensgate Drive right turn lane and the second southbound through lane reduces cost by \$240,000
6. Construct new roadway Keene Road to Shockley Road \$1.41 million
7. Construct Tee Intersection at Queensgate Drive / Shockley Road \$240,000
8. Construct Shared Use Path Keene Road to Columbia Park Trail \$175,000
9. Optional - Pedestrian Underpass for Keene Road Pathway \$1.71 million

Roundabout Corridor Option Costs

1. Columbia Park Trail to Skyline Drive widening and restriping \$550,000. Requires minor additional right-of-way
2. Widening I-182 EB On-Ramp \$510,000
3. Construct roundabout at Queensgate Drive/Columbia Park Trail \$740,000
4. Widening/restriping corridor Keene Road to Columbia Park Trail \$250,000
5. Construct Roundabout at Queensgate/Keene Road \$1.86 million
 - Cost of roundabout includes portion of new south leg channelization.
 - Requires additional right-of-way beyond that identified in the developer agreement
 - Phased Option without the eastbound Keene Road to southbound Queensgate Drive right turn lane and the second southbound through lane reduces cost by \$175,000
6. Construct new roadway Keene Road to Shockley Road \$1.41 million
7. Construct Roundabout at Queensgate Drive / Shockley Road \$525,000, Requires additional right-of-way beyond that identified in the developer agreement.
8. Construct Shared Use Path Keene Road to Columbia Park Trail \$175,000
9. Optional - Pedestrian Underpass for Keene Road Pathway \$1.71 million

Summary and Recommendations

Queensgate Drive in the City of Richland, Washington is a north-south roadway which currently connects Keene Road to Duportail Street and provides access to Interstate I-182. The long range regional transportation plan for Queensgate Drive is to extend south to connect to Shockley Road and eventually extend to the Badger Mountain South subarea and connect to Rachel Road providing access to Leslie Road. The provision of the Queensgate pathway from Keene Road to I-182 and potential right-of-way needs was also important in this evaluation. For this study the corridor evaluated is Shockley Road to Interstate I-182, including the following intersections:

- I-182 Westbound Ramps
- I-182 Eastbound Ramps
- Columbia Park Trail
- Jericho Road
- Keene Road
- Future intersection between Keene Road and Shockley Road
- Shockley Road

Study results will be used to guide roadway improvements associated with development in the corridor. It is also anticipated that the cost estimates will be used to update costs included in the South Richland Collector Impact Fee and that a pro-rata share of these costs will be assigned to future development.

2034 Traffic Forecasts

Traffic forecasts for year 2034- were prepared using historical growth rates and examining the regional travel model to assist with the redistribution of traffic given the expansion of the roadway network near the study area to include the Duportail Extension to the northeast and the Queensgate Extension to the south. It also includes full development of the Badger Mountain South Subarea

Given the substantial assumptions necessary in the 20-year forecasts, it is important to note that due to implementation phasing of the regional roadway network, it is possible that traffic volumes on Queensgate Drive south of Keene Road could exceed the 20 year forecast for a period of time until the network is fully completed.

Also worth noting is that although the forecasts include build-out of the Badger Mountain South area by year 2034, the actual build-out of the area will depend largely on the rate of development and market forces that contribute to development. It could conceivably take much longer than 20 years for the Badger Mountain South area to completely develop. The developer agreement requires traffic analysis to be performed by the developer at key milestones of the development.

Traffic Operations

Anticipated traffic operations for both a roundabout and traffic signal at three intersections of Queensgate Drive at Columbia Park Trail, Keene Road and Shockley Road were performed to determine improvements that would be needed under those two scenarios to achieve acceptable Levels of Service. Access management will also be important in the consideration of future design. In order to preserve future investment in the corridor an access management plan should be prepared involving the public and property owners in the corridor. This will affect both existing driveways near the intersection of Keene Road/Queensgate Drive as well as the ultimate treatment of Jericho Road.

Due to the assumptions associated with the long-range traffic forecasts, phasing of improvements at the Keene Road/Queensgate Drive intersection were prepared, essentially postponing some of the potential improvements that would be needed closer to the build-out of Badger Mountain South.

Careful consideration of access to the property to the south of Keene Road should also be given during development of that property. The 20 year traffic projections indicate the need for a traffic signal at the driveway, however this was under the worst case scenario of a single access point. If strategically located secondary accesses are provided then it is likely that a signal may not be necessary.

Project Improvements

In addition to the intersection improvements described below, the Queensgate Corridor will require an additional through lane northbound from Keene Road to the I-182 eastbound ramps, a raised median, and an additional southbound through lane from north of the I-182 westbound ramps to Keene Road.

Signalized Corridor Option Costs

1. Columbia Park Trail to Skyline Drive widening and restriping \$550,000
2. Widening I-182 EB On-Ramp \$510,000
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7. Construct Roundabout at Queensgate Drive / Shockley Road \$525,000, Requires additional right-of-way beyond that identified in the developer agreement.
8. Construct Shared Use Path Keene Road to Columbia Park Trail \$175,000
9. Optional - Pedestrian Underpass for Keene Road Pathway \$1.71 million

Each alternative has positive features as well as drawbacks with respect to benefits and impacts. Table 4 was prepared that summarizes some of the major features of the two intersection alternatives. It is anticipated that the results of this traffic operations analysis will be incorporated into more detailed evaluation that will likely include the following as well as other issues:

- right-of-way impacts
- costs
- pedestrian impacts
- coordination with I-182 interchange
- long-term maximum capacity
- public acceptability

Table 4. Comparison of Alternatives

Feature	Traffic Signal Option	Roundabout Option
Level of Service (PM Peak Hour)	<u>Columbia Park Trail</u> overall = C, 21 seconds worst movement (WB)= C, 34 seconds <u>Keene Road</u> overall = D, 45 seconds worst movement (NB) = D, 52 seconds <u>Shockley Road (Unsignalized)</u> overall average delay = 2 seconds worst movement (WB) = C, 20 sec.	<u>Columbia Park Trail = A, 9 seconds</u> overall = A, 10 seconds worst movement (NB)= B, 16 seconds <u>Keene Road</u> overall = B, 19 seconds worst movement (NB) = C, 34 seconds <u>Shockley Road</u> overall = A, 5 seconds worst movement (WB) = A, 7 sec.
Bicycle/Pedestrian Accommodations	signal stops traffic with ped button, requires pedestrians on pathway to cross up to six lanes of traffic at once	Only have to cross one direction at a time, requires pedestrians on pathway to cross no more than 3 lanes of traffic at once
Access Management	Would require additional access for Jericho in the form of frontage or backage roads.	facilitates U-turns, more easily accommodates access management
Right-of-Way	Some additional right-of-way required at Keene Road/Queensgate Drive intersection beyond what is included in Developer Agreement	Minimal additional right-of-way required at Columbia Park Trail. Additional right -of-way required at both Keene Road and Shockley Road beyond what is included in the Developer Agreement
Cost (Excluding Right-of-Way)	Columbia Point Trail = \$660,000 Keene Road \$1.06 million Shockley Road \$240,000	Columbia Park Trail = \$740,000 Keene Road \$1.86 million Shockley Road \$525,000
Other	Pedestrian call would increase delay	Traffic calming benefits at Shockley Road. reduces conflict points at intersections, eliminates crossing movements lessens crash severity

Recommendations

The consultant team has prepared the recommendations presented below based on a technical perspective. Before finalization of any preferred alternative a public process should be undertaken to identify issues and concerns with property owners and receive comments and questions from the general public as well. Input received may adjust the concepts prepared as part of this study and could be incorporated into the final design package.

It is recognized that with any selected alternative that there are trade-offs with respect to costs, right-of-way impacts, traffic operations, bicycle/pedestrian accommodations, access management, safety and other factors. Evaluation criteria are typically not given the same value by evaluators nor by different stakeholders, thus the consultant team individually weighted and scored the six features presented in Table 4. The averages of these weightings and scores were used to determine a team recommendation and are included in Appendix I.

The improvements identified in the northern portion of Figure 11 from north of I-182 to Keene Road are recommended, including:

- Widening of Queensgate Drive north of the I-182 overpass to include a second southbound through lane and an exclusive northbound left turn lane at the westbound I-182 on-ramp.
- Restriping of the bridge over I-182 to accommodate 4 lanes, consisting of one northbound lane, two southbound through lanes, and one southbound left-turn lane to go to the eastbound I-182 on-ramp.
- Add a second lane to the I-182 eastbound on-ramp to accommodate a free-flow northbound right turn. This improvement, in conjunction with the restriping of the overpass over I-182, is considerably less costly than the alternative of either adding a loop ramp for southbound Queensgate Drive to eastbound I-182, and appears to have the desired operational benefits.
- Widen Queensgate Drive to 4 lanes between the I-182 eastbound ramps and Keene Road. (This would remove the existing left turn lanes at Jericho Road and Columbia Park Trail, see discussion on access management below.) One northbound lane is dropped at the I-182 eastbound on-ramp. Left turns to/from Queensgate Drive would be prohibited by construction of a raised median, converting all accesses to right-in/right-out. With the recommended roundabouts at the Keene Road and Columbia Park Trail intersections, those side street left turns out could be converted to right turns and U-turns. Left turns in would be converted to U-turns and right turns.
- Construct a 2-lane roundabout at Queensgate Drive/Columbia Park Trail. Minor right-of-way may be needed on the northeast and southeast corners.
- Extend the existing pathway from the current terminus near Keene Road as a separated pathway north to Jericho Road and between Jericho Road and Columbia Park Trail place the pathway closer to the curb to minimize the challenges with the topography and soils on the east. It may be desirable to extend the pathway north of Columbia Park Trail and connect with the existing pathway that parallels the I-182 on-ramp and begins approximately 300' east of Queensgate Drive.

The phased roundabout improvements at Queensgate Drive/Keene Road identified in Figure 15 are also recommended, including:

- Two approach lanes for each of the 4 legs of the intersection, with the northbound, westbound and eastbound approaches having shared through/left turn lanes and shared through/right turn lanes, and the southbound approach having an exclusive left turn lane and a lane for shared through/right turns.
- Additional right of way in the southeast corner and in the southwest corner for potential future needs should be preserved beyond that called for in the developer agreement. This will accommodate expansion of the roundabout to include an additional southbound departure lane that would receive a second through lane and an exclusive eastbound right turn lane.
- Reconfigure the existing pathway on the north side of Keene Road to accommodate the roundabout.

The improvements shown in the southern portion of Figure 10 from south of Keene Road to Shockley Road are also recommended, including:

- Unsignalized intersection control at the two new intersections.
- 4 lanes north of the new commercial intersection south of Keene Road, with one dedicated lane for northbound left turns at Keene Road, one lane for northbound through/right turns at Keene Road, one southbound left turn lane into the future commercial area, and one southbound lane for through/right turns.
- Two approach lanes for both the east and west legs at the new intersection, one for right turns and one for shared through/left turns.
- A three lane section from south of the new commercial access to Shockley Road including a two-way left-turn lane.
- Two approach lanes for westbound Shockley Road, one lane each for left turns and right turns.

An access management plan for the entire corridor should be prepared, to determine where and what type of accesses are permitted. It may be desirable to include a raised center median between Keene Road and the I-182 eastbound ramps. This would preserve the investment in the corridor to promote traffic flow and safety while minimizing the reduced capacity associated with increased access in arterial corridors. The roundabout option selected for both the Keene Road and Columbia Park Trail intersections provides the following benefits:

- Allows a narrower footprint for Queensgate Drive (4 lanes instead of 5).
- Eliminates the need for left turns to/from side streets and driveways.
- Side street left turns are converted to right turns and U-turns at the roundabouts.

Queensgate Drive Corridor Traffic Study

Appendices

Appendix A – Corridor Aerial Photos with Lane Configurations

Appendix B – Traffic Counts

Appendix C – 2014 Detailed Summary of Level of Service Analysis and Capacity Worksheets

Appendix D – Development Assumptions for Area South of Keene Road

Appendix E – Percentages of Traffic Entering/Exiting the Study Area

Appendix F – 2034 Detailed Summary of Level of Service Analysis and Capacity Worksheets

Appendix G – Columbia Park Trail Signal Warrant Analysis

Appendix H – Cost Estimates

Appendix I – Alternatives Evaluation



Agenda
City Council Workshop Meeting
Tuesday, January 27, 2015
City Hall Council Chamber | 505 Swift Boulevard

COUNCIL WORKSHOP COVERSHEET

Council Date: 01/27/2015

Department: City Manager

Key Element: Key I - Financial Stability & Operational Effectiveness

Subject:

Interview Process for Richland Public Facilities District Vacancy (10 minutes)

Summary:

Attachments:

Richland City Hall is ADA accessible with special parking and access available at the entrance facing George Washington Way. Requests for sign interpreters, audio equipment, and/or other special services must be received 48 hours prior to the City Council Workshop by calling the City Clerk's Office at 942-7388.



Agenda
City Council Workshop Meeting
Tuesday, January 27, 2015
City Hall Council Chamber | 505 Swift Boulevard

COUNCIL WORKSHOP COVERSHEET

Council Date: 01/27/2015

Department: Community & Development Services

Key Element: Key 4 - Targeted Investments

Subject:

Per RCW 42.30.110 (1) (c): Determine Minimum Offering Price For Sale or Lease if Disclosure Would Decrease Price (15 minutes) (Confidential Memorandum Attached to Coversheet)

Summary:

Executive Session Topic: 650 George Washington Way Development Proposal

Attachments:

Richland City Hall is ADA accessible with special parking and access available at the entrance facing George Washington Way. Requests for sign interpreters, audio equipment, and/or other special services must be received 48 hours prior to the City Council Workshop by calling the City Clerk's Office at 942-7388.



Agenda
City Council Workshop Meeting
Tuesday, January 27, 2015
City Hall Council Chamber | 505 Swift Boulevard

COUNCIL WORKSHOP COVERSHEET

Council Date: 01/27/2015

Department: Community & Development Services

Key Element: Key 3 - Economic Vitality

Subject:

Per RCW 42.30.110 (1) (c): Determine Minimum Offering Price For Sale or Lease if Disclosure Would Decrease Price (15 minutes)

Summary:

Executive Session topic is on the Project Sunrise.

Attachments:

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