

AmberGlen Community Plan Zones and Development Regulations

DESIGN AND SUSTAINABILITY STANDARDS

Draft: June 8, 2011

Note: This module includes only Section XII (Design and Sustainability Standards). The entire table of contents is provided below to illustrate how this new material relates to the draft material reviewed previously. Section numbers and page numbers also correspond to the structure of the overall document for consistency.

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XII. DESIGN AND SUSTAINABILITY STANDARDS

A. SITE PLANNING

1. Purpose

- (a)** Promote a compact, pedestrian and transit-oriented environment in the city's regional centers;
- (b)** Establish a connected framework of streets, pathways, access lanes, parks, plazas, and natural areas to provide access to nature, recreation, and social opportunities, and to efficiently manage water; and
- (c)** Promote the use of innovative, sustainable, aesthetic, and distinctive approaches to standard site elements as a key character-defining feature of the AmberGlen area.
- (d)** To enable the use of area-wide approaches and collaborative approaches involving two or more contiguous property to meet site planning requirements.

2. Connectivity and Circulation (Lots, Blocks, and Circulation)³⁷

(a) General

- (1)** Network of streets shall form an interconnected pattern with multiple intersections and resulting block dimensions as specified in 2.(b)(1), below.
- (2)** General location and hierarchy of streets to be guided by the Transportation Concept Map contained in the Community Plan (See Figure 1).
- (3)** Administrative provision for varying street locations and block dimensions if through-routes are preserved.
- (4)** More flexibility for varying the location of local streets.

(b) Lots and Blocks

(1) Block Configuration

- i.** Blocks shall generally be square or rectangular, but may vary due to natural features or site constraints.
- ii.** To facilitate the use of passive solar technology, streets and access lanes shall create block and lot configurations to foster development oriented along an east-west longitudinal axis to the maximum extent feasible.

³⁷ While some of this material was previously located in Section V, all of the materials on lots, blocks, and connectivity has been consolidated here for discussion. They will remain consolidated and will appear either here or in Section V in the final regulations.

(2) Maximum Block Size

- i. Maximum block dimensions of 225 to 400 feet with flexibility to accommodate blocks up to 600 feet if a Green Access Lane is provided to maintain pedestrian and bicycle connectivity. This would allow two smaller conceptual blocks, as illustrated on the Concept Plan to be combined into a single block.
- ii. Blocks measured from street edge to street edge, regardless of whether the street is public or private.

(3) Mid-Block Pedestrian Connections (Green Access Lanes)

- i. Blocks that exceed 400 feet in length or width shall provide a mid-block pedestrian connection in the form of a Green Access Lane as generally illustrated in 3.(a)(8)vii., below.
- ii. Administrative provisions to allow variations in width to respond to varied site conditions.

(4) Lot and Block Access

- i. Blocks may include drives, driveway entrances, or Green Access Lanes with one of the following configurations: “H”; “T”; or Mid-Block Access (Pedestrian and Vehicular) (Graphic to be added to illustrate typical block access configurations)³⁸
- ii. Cross reference to current Section 137.XVII (Lot Access).
- iii. Prohibit the creation of flag lots in all RC districts.

(c) Pedestrian and Bicycle Connectivity and Circulation

- (1) Require an interconnected network of on-site pedestrian/bicycle accessways to allow direct access to and between:
 - i. Primary building entrances;
 - ii. Sidewalks/walkways on adjacent properties and streets that extend to the boundaries shared with the development;
 - iii. Adjacent or on-site bus or LRT stops;
 - iv. Adjacent or on-site parks, trail systems, community gardens, open space areas, greenways, or other public or civic uses;
 - v. Existing or planned Green Access Lanes (on-site); and
 - vi. Any existing or planned Greenway Trails.

³⁸ The design alternatives for Green Access lanes will be refined beyond the single design shown in the Concept Plan, based on examples from Vancouver, the Pearl District, Portland South Waterfront, and Old Pasadena. All will incorporate storm water management and landscaping.

- (2) All required on-site walkways shall be constructed with permeable pavement or permeable walkway materials where site conditions are favorable to stormwater infiltration.
- (3) Cross reference to Green Access Lane requirements in XI.3.(a). below in lieu of Pedestrian/Bicycle Accessways standards in Draft CDC.

(d) Special Development Standards at or Near Minor or Major Transit Stops

- (1) Some but not all of the standards from the Draft CDC will be included, to avoid overlap with other regulations specific to the RC districts.

3. Street Design and Character

(a) Street Classifications⁴²

- (1) The general location and classification of arterial, collector, and neighborhood streets shall be consistent with the Streetscape Framework map. (See Figure 2).
- (2) Individual street elements (e.g. sidewalks, bike facilities, landscape areas, etc.) shall be generally consistent with the street cross-sections below, but may be adjusted administratively based on site specific engineering, terrain, soils, or site constraints.⁴⁴
- (3) Detailed roadway specifications such as utility easements, construction materials, design speeds, fire clear lanes, and other elements not addressed by the cross sections shall be consistent with the performance standards and requirements outlined in Section 137.XVI⁴⁵.
- (4) Where site conditions are favorable to stormwater infiltration, as shown on the city’s storm water, streets, and open space master plan, “green streets” designs may be utilized. In these cases, deviation from the street standards shown on the adopted street cross-sections above may be permitted by the City. Permissible design elements and facilities include, but are not limited to, minimizing paving and/or using pervious paving materials, maximizing street tree coverage, using multi-functional open drainage systems, using vegetated roundabouts, and minimizing the negative effects of stream crossings.⁴⁶
- (5) Individual street or access lane segments or features may be either publicly or privately owned, as determined during the development review and approval process.

⁴² Throughout this document, references to integration of storm water management features in street, sidewalk, or bicycle facility designs are subject to confirmation, revision, or deletion based on the City’s forthcoming storm water, streets, and open space master plan.

⁴⁴ The definition of “bicycle facilities” will include both traditional on-street bike lanes and grade-separated bike tracks.

⁴⁵ Draft 2 of the Development and Design Standards and Guidelines (May 2011) posed the question whether these standards were necessary to carry forward or whether they are now covered by the TSP. We have referenced them here until resolution of this question can be confirmed.

⁴⁶ From draft CDC. This language has been folded in with Section 137.XVI, referenced above in the draft CDC. It appears to have originated from the Subdivision regulations.

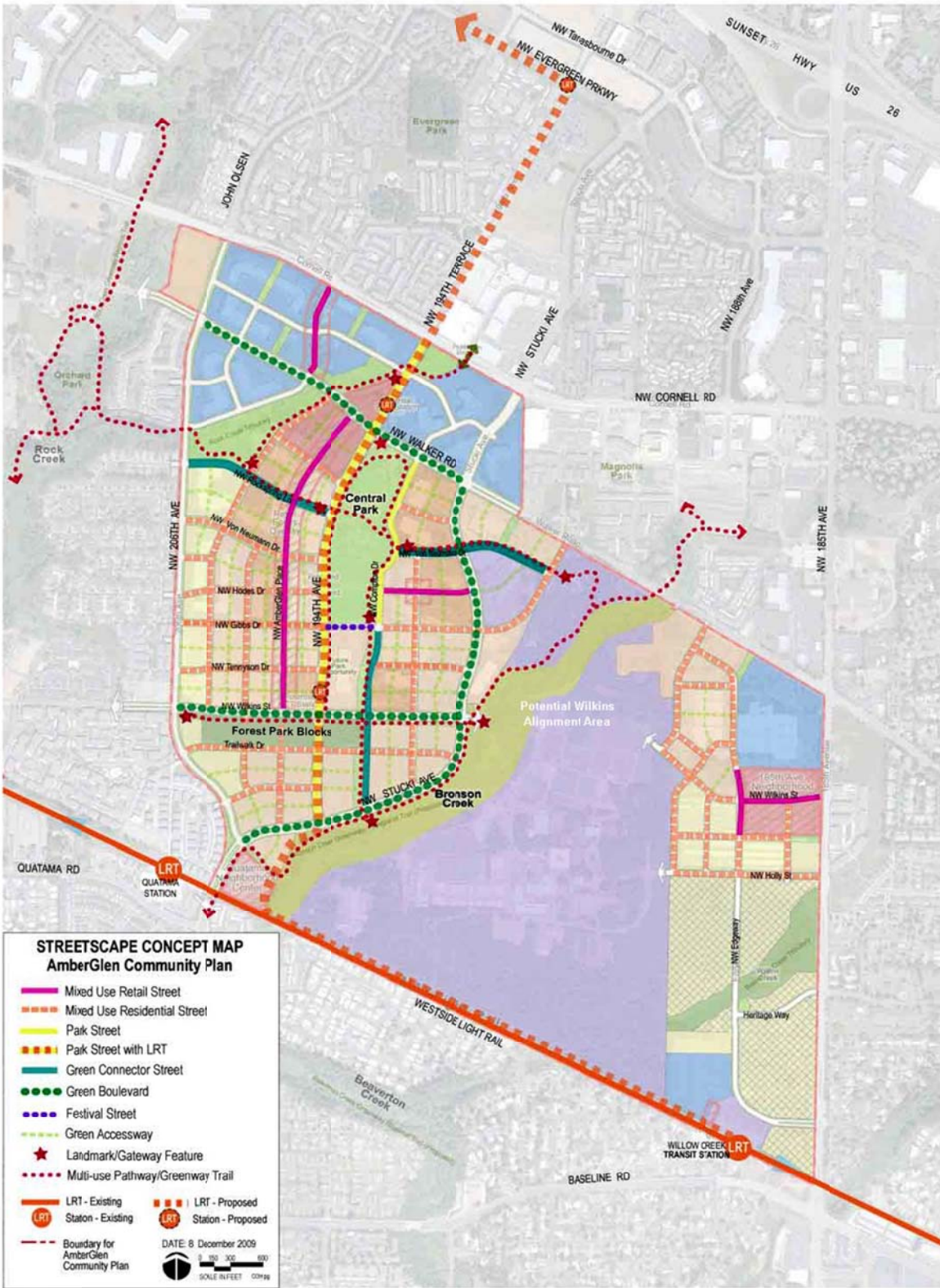
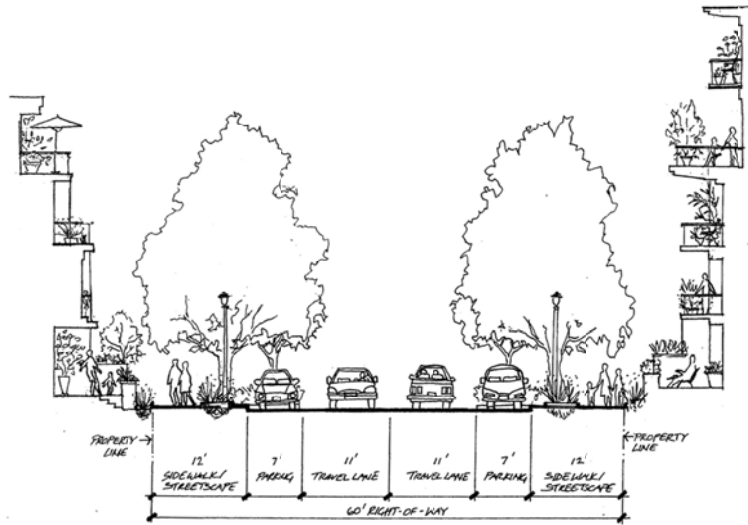


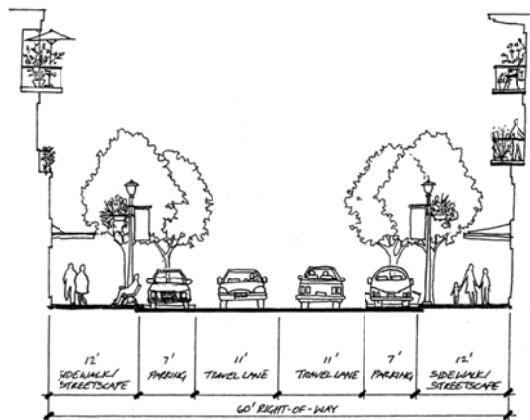
Figure 2—Streetscape Concept Map from Community Plan – to be simplified

- (6) Within all RC districts, except RC-RP, ornamental street lights required when public right of way improvements are required as part of a development.⁴⁷
- (7) Within the RC-MU, RC-NC, and RC-AC districts, bulb-outs or curb extensions required at all intersections when public right-of-way improvements are required as part of a development. Design to be approved by the Review Authority.⁴⁸
- (8) Conceptual cross-sections for each of the Street Classifications are included below (from the Community Plan) to illustrate the desired character of each street. A definition or description that includes intent and a breakdown of typical street element dimensions will be added as a starting point for conceptual design purposes.

i. Mixed Use Retail Street



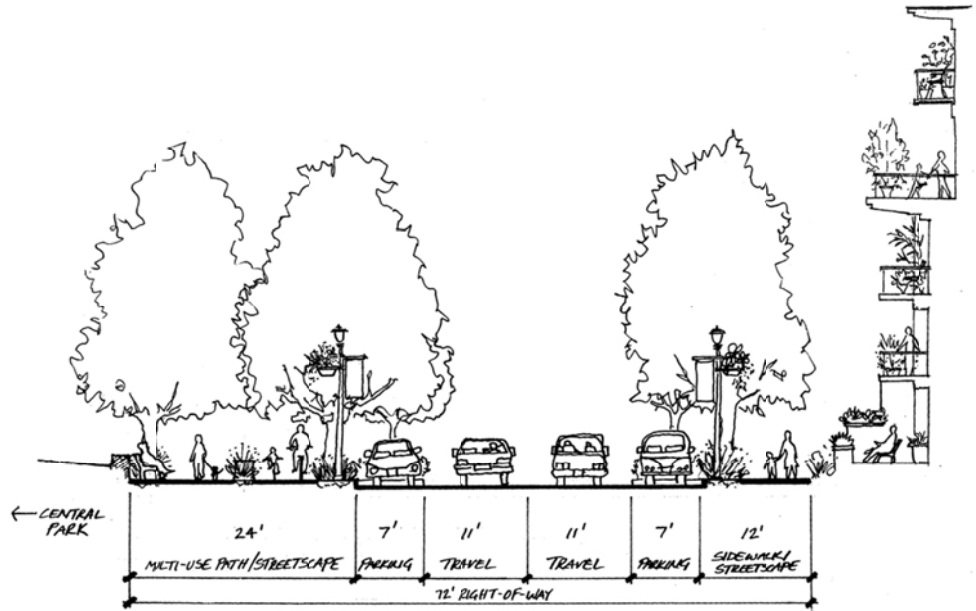
ii. Mixed Use Residential Street



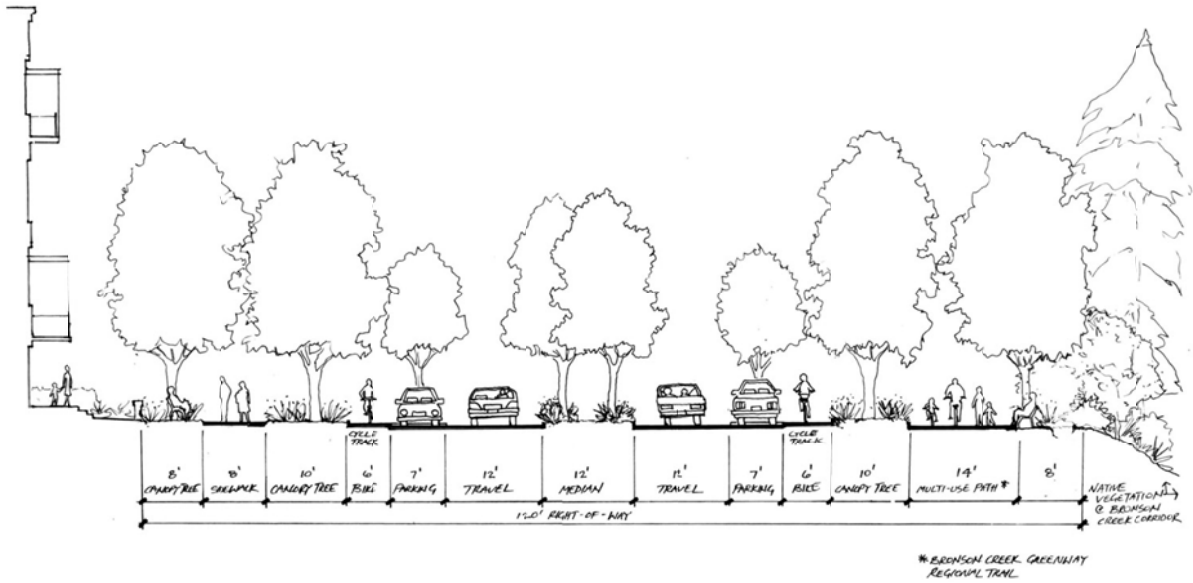
⁴⁷ Similar requirement in Volume I and draft CDC for MUN/MUC districts.

⁴⁸ Similar requirement in Volume I and draft CDC for MUN/MUC districts.

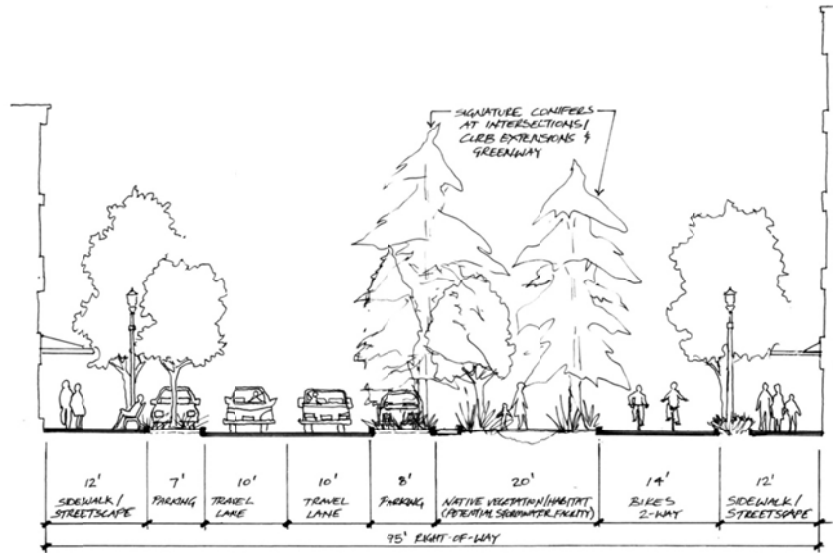
iii. Park Street



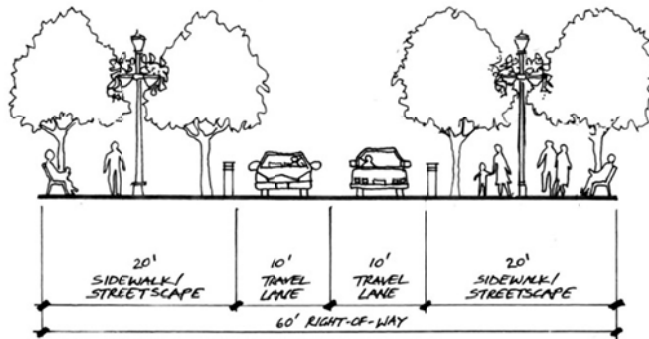
iv. Green Boulevard



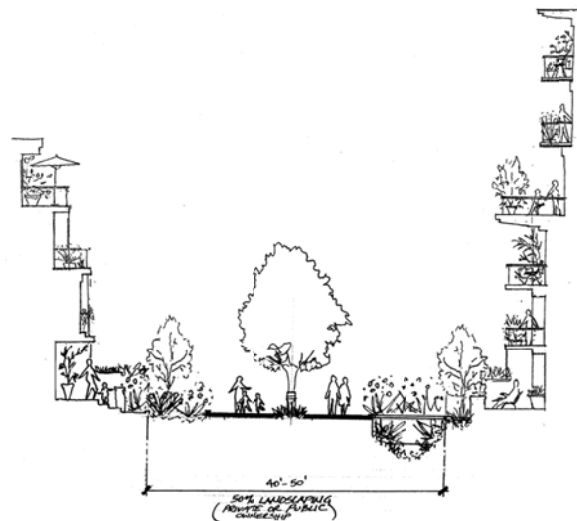
v. Green Connector Street



vi. Festival Street



vii. Green Access Lane



- (9) Administrative provisions for varying street elements will be provided to allow flexibility in accommodating unique site considerations while retaining the desired character and functionality of each street classification as envisioned by the Community Plan.
- (10) A high degree of flexibility will be provided for varying the location and cross section of Green Access Lanes and Festival Streets.
- (11) Proposed variations in street elements will also be reviewed for consistency with the City of Hillsboro Transportation System Plan Update, as amended.

(b) Cul-de-Sacs

- (1) Cul-de-sacs or dead end streets are not permitted.
- (2) Administrative provisions to address exceptions in the case of barriers such as topography or pre-existing development, or where regulations implementing Title 3 of the adopted Metro Urban Growth Management Functional Plan or City Goal 5 Resource Protection requirements limit connectivity.⁵⁰
- (3) Require a Green Access Lane in instances when a street connection cannot reasonably be provided.

(c) Street Elements

Specifications for street elements not addressed above shall be addressed as follows:

(1) Sidewalks

Sidewalks shall be constructed in accordance with Section 137.XV (Sidewalks) and 3.(b) (Street Classifications), above. If standards conflict, the more restrictive standard shall apply.

(2) Planting/Furnishing Zone

Planting/Furnishing Zones shall be landscaped in accordance with Section 8 (Landscaping and Stormwater Management).

(3) Safe Routes to School

Require compliance with safe routes to school standards if applicable.

4. Preservation of Mature Trees

These standards are currently contained in Section 137.XIII (Minimum Landscaping, Natural Resource and Mature Tree Preservation) Requirements, but will be split into separate sections in the CDC. Rather than reference the existing standards, we will incorporate the draft language from the new CDC for use in the RC districts in the interim and address landscaping and natural resource protection separately. This section will include requirements as follows:

⁵⁰Reference to Metro and Goal 5 adapted from 17.51.420 (Connectivity Standards) in draft CDC.

- (a) Require development to be planned, sited, and constructed to avoid the destruction of trees eight-inch caliper or greater and specimen trees (as defined).
- (b) Replacement required if preservation is determined to be impracticable or unsafe.
- (c) Protection of mature trees/specimen trees required during construction.
- (d) Allow exceptions due to safety concerns, tree health, lack of practicable alternatives for building or construction access, grade changes, etc.

5. Usable Open Space⁵²

Minimum requirements reflect the urban character desired in the plan area, with an emphasis on creating active, pedestrian gathering spaces or “third places” along major street frontages. Because of the extensive work performed to reform these standards for the new CDC, we will incorporate those draft provisions along with some modifications.

(a) Usable Open Space Required

Usable open space required for RC districts varies based on gross site acreage and development type as specified in Table 143-XII-1.

- (1) Allow/encourage projects larger than 4 acres (or roughly 2 blocks) to aggregate usable open space requirements into one or more designated usable open space sites, common areas, or pocket parks.
- (2) Phasing requirements to be addressed based on Draft CDC⁵³.
- (3) Require a percentage of required usable open space to be allocated at key locations and to have public access:⁵⁴
 - i. Along Mixed-Use Retail Streets;
 - ii. Within the RC-NC and RC-AC districts.
- (4) In RC districts where outdoor seating for eating and drinking establishments are a permitted or conditional use, 65 percent of the area designated for seating may be credited towards the usable open space requirements.

⁵² Since Usable Open Space is generally a site planning concern, we recommend consolidating the standards currently shown in Section VI (Minimum Usable Open Space) into this Section VII.A.5, which will also avoid addressing the same topic in two different sections of the RC regulations. Section 17.55.110 of the draft CDC consolidates open space requirements from Volume I, Volume II, and Subdivisions. Because of the extensive work done on this topic as part of the CDC update, we propose carrying forward the general structure and requirements as proposed while incorporating exceptions and supplemental standards to address the nuances of the RC districts. A general outline of draft CDC requirements is provided here for reference. Detailed requirements will be included in Task 5.

⁵³ 17.55.100.G (Usable Open Space in Phased Developments)

⁵⁴ Although this is not required in the Draft CDC, we propose that a certain amount of open space be required in key locations such as along Mixed-Use Retail Streets to address the desire for “third places” while providing additional flexibility on how private open space is credited towards minimum requirements.

- (5) Usable open spaces may be either publicly or privately owned, as determined during the review and approval process.

**Table 143-XII-1
Minimum Usable Open Space Requirements⁵⁵**

Gross Project Acreage	MU-N and MU-C	All Other Standard Zones (see notes)	SCC-DT	All Other SCPA Zones	RC Zones
<.25	Residential portion = 100 sq. ft/du; non-residential portion = none	SFR = none; townhouse and MFR = 100 sq. ft./du	5%	Residential = 100 sq. ft/du; Non-Residential = none.	Residential = 100 sq. ft/du; Non-Residential = none.
.25 to 1.0		SFR = none; townhouse and MFR = 100 sq. ft./du	5%	Residential = 100 sq. ft/du; Non-Residential = 5%	Residential = 100 sq. ft/du; Non-Residential = 5%
1.01 to 5.0		5%	5%	5%	100 sq. ft/du (for residential buildings or mixed-use buildings with a residential component) or 5%; whichever is greater.
5.1 – 15.0		7.5%	5%	7.5%	
15.1 – 25.0		10.0%	5%	10.0%	
25.1 – 50.0		12.5%	5%	15%	
51 – 69		SFR = 12.5%; townhouse and MFR = 15.0%	5%	13.5%	
70 – 99			5%	12.5%	
100 –149			5%	11.5%	
150 or more			5%	10.0%	
Notes	May be either common/shared (see subsection ___) or private (see subsection ___)	Applies to residential zones only.	May be either common/shared (see subsection ___) or private (see subsection ___)	Shall be common/shared (see subsection ___)	May be either common/shared (see subsection ___) or private (see subsection ___)

(b) Usable Open Space Standards⁵⁶

(1) Types of Spaces

Types of spaces (public and private) that may be counted towards minimum open space requirements include:

⁵⁵ Table based on draft CDC to provide context on variations in minimum open space requirements for other districts. Proposed minimum open space requirements reflect a balance between the flat minimum percentage proposed for DT district, the emphasis on residential uses in MU districts and the very fine-grained tiered approach used for the SCPA requirements. Initial percentages of required minimum usable open space included in the development standards varied by RC district and in some instances were higher than what is proposed above. This more general approach emphasizes the importance of OS for developments or buildings with a residential component.

⁵⁶ Section 17.55.110.D.1.provides guidance on the types of improvements that should be integrated as part of usable open space areas, but does not address, at a broader level, the types of spaces that are desirable. Language similar to this will address the gap.

- i. Plazas, patios, pocket parks, and other community gathering spaces that provide opportunities for outdoor seating, dining, and social interaction;
- ii. Courtyards, balconies and yards intended for individual units;
- iii. Community gardens or similar spaces designated for Urban Agriculture uses;
- iv. Playgrounds;
- v. Recreational facilities;
- vi. Habitable, landscaped roofs (may include “green roof” treatments);
- vii. Green Access Lanes; or
- viii. Similar gathering space as approved by the Review Authority.

(2) Exclusions and Exceptions

- i. Parking strips; foundation landscaping around buildings; sidewalks and parking areas; small, oddly-shaped and/or otherwise unusable remnant parcels; and unimproved land within the development site unless it is located within a publicly accessible natural or wildlife viewing area may not be counted toward usable open space.
- ii. To meet social objectives served by usable open space, interior, multi-purpose community space for private or public use may be counted toward usable open space requirement.

(3) Pedestrian-Oriented Features

Require a variety of pedestrian-oriented features be incorporated in usable open space areas:

- i. Benches or low walls with seating areas;
- ii. Free standing planters and/or raised planting beds;
- iii. Public art or sculpture;
- iv. Water features and/or drinking fountains;
- v. Outdoor dining areas;
- vi. Play structures;
- vii. Weather canopies or sunshades; or
- viii. Other pedestrian-oriented features as approved by the Review Authority.

(4) Dimensions

- i. A table will be inserted to address the minimum size and configuration of specific types of usable open space areas such as balconies, private yards, courtyards, plazas, sidewalk adjacent areas, etc.

(5) Location

Usable open space must be provided in locations that:

- i. Enhance opportunities for recreation and access to nature; or
- ii. Enhance opportunities for interaction between residents, tenants, and/or the public; or
- iii. Provide opportunities for passive recreation.

6. Landscaping and Stormwater Management⁵⁸

(a) General

(1) Landscaping and stormwater management facilities for each development shall be designed as a visually and physically integrated system that:

- i. Enhances the character of the public and private realm;
- ii. Creates an inviting, year-round environment for pedestrians;
- iii. Utilizes Low Impact Development Approaches (LIDAs), in locations determined to be appropriate in the storm water, streets, and open spaces master plan, to reduce runoff from hard surfaces and reduce contaminants in stormwater;
- iv. Considers the potential aesthetic functions of stormwater management systems.

(2) Stormwater management requirements based on Draft CDC with additional standards as follows:

- i. Require all development to incorporate Low Impact Development Approaches (LIDAs) to stormwater management in accordance with the techniques and specifications provided in the Clean Water Services Low Impact Development Approaches Handbook, as amended. Specific approaches shall be selected based on their suitability to the soil and drainage characteristics of individual development sites and the appropriateness of that site as confirmed by the storm water, streets, and open spaces master plan.

⁵⁸ We propose combining these two topics since the integration of these two site elements is a key character-defining feature of the Community Plan and reinforces the Plan’s emphasis on sustainable development features. Basic requirements would be based on the draft CDC, with a number of additions to address specific AmberGlen objectives related to sustainable development practices. In addition, all storm water management features need to comply with the Clean Water Services Design and Construction Standards Manual, as amended, which applies throughout the city. The material in this section will need to be finalized and revised based on the forthcoming storm water, streets, and open space master plan.

(b) Landscaping⁶¹**(1) General⁶²**

- i. Require any portion of a site not occupied by buildings, parking, improvements, or protected natural resources to be landscaped.
- ii. Property between the public sidewalk and an adjacent building must be landscaped or hardscaped.⁶³
- iii. Meet ASHRAE standard 189.1, Sections 6.3.1 for site water use reduction or LEED-ND site water conserving standards.
- iv. Specify plant coverage vs. number of plants overall (with the exception of street trees).
- v. Cross reference to Crime Prevention Through Environmental Design (CPTED) guidelines regarding location of landscaping to preserve site lines from sidewalks and parking areas to building entryways.

(2) Landscape Materials

- i. Include a list of permitted landscaping materials specific to the RC district in order to reinforce distinct district character. That list will incorporate elements of the current Clean Water Services Design and Construction Standards non-regulatory list of materials, materials consistent with Low Impact Development Approaches (including native and drought tolerant species), balance between deciduous and conifer species, and species with edible products to promote sustainability .
- ii. Prohibit use of invasive plants.
- iii. Landscaped areas shall include a mixture of planted areas and hardscape elements as an overall landscape framework (walls; seating; raised planters; and pervious paving, rain gardens and other stormwater facilities that can serve multiple purposes, and other similar features).⁶⁷
- iv. Landscaped areas covered by lawn shall be limited to areas designated for usable open space and/or active recreation.

(3) Credits

- i. Allow existing vegetation, stormwater management facilities, and usable open space compliant with other sections of this code to be counted as landscape materials.⁶⁸

⁶¹ Basic landscape provisions in the draft CDC to be used as a starting point and supplemental standards added to reinforce the objectives of the AmberGlen Plan. Usable open space is intended to contribute to the overall character of the streetscape.

⁶² Images to be added to convey integrated approach to landscaping/stormwater management.

⁶³ This requirement is not currently addressed under landscaping, but as part of 17.53.120 (Improvements between Streets and Buildings) in the Draft CDC.

⁶⁷ These are included in In the list of Habitat Friendly Development tools listed in Section 131B of the current code.

⁶⁸ These are included in In the list of Habitat Friendly Development tools listed in Section 131B of the current code.

- ii. LIDAs used to manage stormwater may be included as landscape materials must be visually attractive and integrated into the landscape or usable open space concept.

(4) Maintenance

- i. Provisions requiring sustainable maintenance of planted materials, including drip (rather than spray) irrigation as appropriate, integrated pest management, organic natural controls, and duty to replace diseased or dead materials that were required as part of development approval.

(c) Street Trees⁶⁹

- (1) Requirements apply to all Land Divisions and Major Development Projects, which include, or will be required to provide, street trees on public street frontages.
- (2) Tree species shall be selected from the list provided in the Clean Water Services Design and Construction Standards regulations, as modified to improve sustainability and establish a distinct RC district character.
- (3) The minimum diameter or caliper size at planting, as measured 4 feet above grade, shall be 2 ½ inches.
- (4) Planting areas shall contain a minimum of 16 square feet, or typically 4 feet by 4 feet.
- (5) Street tree spacing shall be based upon the type of tree(s) selected and the canopy size at maturity as shown in the following table. Table shall generally require the following spacing except where planting a tree would conflict with existing trees, sidewalks, pathways, retaining walls, utilities and similar physical barriers:
 - i. 1 tree per lot frontage up to 40 feet;
 - ii. 2 trees per lot frontage 40 to 100 feet;
 - iii. Otherwise 30 feet on center.

(d) Vehicle Parking Lot Screening and Landscaping⁷²

(1) Perimeter Landscape Screening

Perimeter planter strip required based on location (varies in width from 4 to 10 feet).⁷³

⁶⁹ Based on Section 17.51.450.

⁷² Parking lot landscaping standards contained in 138.VIII (Location and Design of Off-Street Parking) have been simplified in the draft CDC. We recommend that the draft standards be carried forward in the RC districts with the exceptions noted above under General Landscaping Standards, subject to further staff review

⁷³ These are included in the list of Habitat Friendly Development tools listed in Section 131B of the current code.

(2) Interior Parking Area Landscaping

Landscaped islands covering 10% of parking lot area are required and may be applied towards compliance with (b).1.ii., above.

(3) General Parking Lot Landscaping Standards⁷⁵

- i. Minimum of 70 percent of required landscaped areas to be covered by plant material.
- ii. Design planting islands as bioretention cells to promote management of parking lot runoff within landscaped areas, where soil conditions are appropriate as shown in the storm water, streets, and open space master plan.⁷⁶
- iii. Lawn prohibited as a ground cover in parking lot islands.

(e) Vehicle Parking Surface Lot Improvements

- (1) All required parking areas shall have a durable, dust-free surfacing of asphaltic concrete, Portland Cement, or other approved materials.⁷⁷
- (2) All parking areas shall be graded toward the site interior, to prevent storm water drainage across over public sidewalks or onto any abutting public or private property.
- (3) Where practicable landscape islands shall be installed at a lower elevation than paved parking areas and if curbing between the two is used it shall include openings to allow storm water to enter the landscaped areas.
- (4) Where site conditions are favorable, require use of pervious surfacing techniques and other low impact development approaches. For the purposes of this subsection, required parking areas include parking spaces, access aisles and drives and loading areas.
- (5) Reduce minimum parking space dimensions to support promote the management of parking lot runoff within interior landscaping⁷⁸

7. Fencing and Walls

- (a)** Maximum heights for front and side/rear yard fences established for each RC district.
- (b)** Prohibitions on fences of chain link, industrial materials, and unprocessed waste materials.⁷⁹

⁷⁵ Images to be incorporated to convey key concepts.

⁷⁶ These are included in the list of Habitat Friendly Development tools listed in Section 131B of the current code.

⁷⁷ This may be moved to Section VIII (Parking and Loading) in the final regulations.

⁷⁸ Portland adopted updated standards that reduce parking space dimensions to 16 feet x 18½ feet for 90-degree parking and reduce aisle width to 20 feet. This provision will be moved to Section VIII (Parking and Loading) in the final draft.

- (c) Administrative procedure for exceptions to fence/wall height limits and materials.

8. Exterior Lighting

- (a) Applicability and exemptions
- (b) Full shielding required and light trespass on adjacent properties prohibited.
- (c) Maximum pole heights for residential and non-residential sites – generally 20 feet for residential areas and 35 feet for non-residential and mixed use areas.
- (d) Maximum lighting levels at property lines – generally shall not increase lighting level more than 1 footcandle 10 feet beyond property line.
- (e) Minimum lighting efficiency standards.

Table 143-XII-2: Minimum Lighting Efficiency Standards

	RC-MD	All Other MD Districts
Maximum permitted initial lamp lumens per sq. ft.	9.7 lumens/sq. ft.	13.9 lumens/sq. ft.
Maximum lamp allowance	44,000 lumens	60,000 lumens
Minimum lumens per watt of energy consumed (as documented by manufacturers specifications or results of an independent testing laboratory)	80 lumens/watt	80 lumens/watt

- (f) General up-lighting of facades or features prohibited.⁸⁰

9. Off-Street Parking Location and Design

- (a) Based on standards in Section 138.VIII (Location and Design of Off-Street Parking) with the following exceptions:
 - (1) Move standards related to the design of structured parking to Building Design and Character section and incorporate graphics to support.
 - (2) Cross reference to Development Standards for RC districts (Front Property Line Coverage).

⁷⁹ Additional regulations may contain an additional list of prohibited or required materials where fences are within a stated distance of street frontages and visible from those frontages in order to promote distinctive RC district character.

⁸⁰ Staff is considering whether additional design guidance on lighting is needed for the RC districts.

10. Drive-Through Facilities⁸²

- (a) Cross reference to standards in current Section 138.IX.C (Drive-Through Uses). which addresses stacking, location of service windows, pedestrian circulation, etc.
- (b) May limit drive-through uses to sites adjacent to Cornell Road, Walker Road, 185th Avenue, and 205th Avenue, but need to determine whether this would present any issues related to the TSP or TPR.⁸³

11. Outdoor Display and Storage

- (a) Based on draft CDC standards.
- (b) In all RC zones except the RC-RP district, permanent outdoor display or storage of materials or equipment by commercial uses is prohibited. The term “equipment” as used in this subsection does not apply to motor vehicles licensed for street use and regularly used in the conduct of business.
- (c) Within the RC-RP district, outdoor storage of inventory or equipment is permitted, but is only allowed adjacent to a transit street, major pedestrian route, or light rail station site if no other practicable location is available and screening is provided.

12. Outdoor Dining and Sales Areas

- (a) Based on new draft CDC standards.
- (b) In all RC districts except the RC-MD, outdoor seating and outdoor sales may be located between the back of curb and the back of the sidewalk, provided that they have a Street Vendors License, they are only present when the related business is open for business (unless otherwise permitted by a Street Vendor License), and 5 ft of clear walkway for pedestrians is preserved.

⁸² Even though the standards for drive-throughs, outdoor display/storage, and outdoor eating each concern one distinct accessory use, we have included them in this section rather than as Use-Specific Standards in Article IV, for two reasons. First, this matches the structure of the draft new CDC, which will make it easier to incorporate these provisions when that is adopted. Second, the new CDC lists accessory uses by primary use (not by zoning district). To be consistent with that approach, we will not be including a table of accessory uses to non-residential primary uses in Section IV, so there will not be a table in which we can cross-reference these standards if they were located in Section IV.

⁸³ This provision is under review by staff.

B. BUILDING DESIGN AND CHARACTER⁸⁴**1. Purpose**

- (a) Establish a distinctive character and quality of development that is unique to the City's Regional Centers.
- (b) Promote the use of sustainable building materials and development practices.

2. Applicability⁸⁵

- (a) Applies to all development in the RC districts except the RC-RP district.

3. Ground Floor Windows and Building Facades

- (a) Require minimum transparency levels for ground story uses on Mixed-Use Retail Streets and internal pedestrian streets within RC-NC and RC-AC districts.

4. Massing and Form

- (a) Height transitions required between RC-MU, RC-OR and lower-scale adjacent RC-MD, RC-AC, RC-NC, and RC-RP districts and adjacent to central park. Generally, portions of buildings within 100 feet of district boundary may be no taller than maximum height in adjacent RC-MD, RC-AC, RC-NC, and RC-RP districts. Portions of buildings within 200 feet of central park may be no taller than 10 stories.
- (b) Bulk plane requirements would apply to east/west streets in the RC-MU district to preserve views to park and to preserve solar access at street level and for upper units.
- (c) Maximum tower cross-sections and separation distance for solar access – Generally, cross-section of portions of buildings taller than 10 stories shall not exceed 25,000 sq. ft., and length of tower at longest point shall not exceed 200% of width of tower at widest point.
- (d) Building frontage requirements, generally requiring a building to occupy at least 50% of the lot frontage on the primary fronting street, and 80% of frontage on Mixed Use Retail streets.

⁸⁴ This section is under continued review by staff, and transitions between residential and non-residential uses may be addressed in more detail.

⁸⁵ For the purposes of these building design standards, residential buildings are combined with mixed-use and non-residential development to support the urban development character defined by the Community Plan. Where exceptions are needed to address distinct building types (e.g., townhomes) they will be noted.

5. Design and Character

(a) Building Entries and Orientation⁸⁷

- (1) All ground floor tenant spaces with at least 25 feet of frontage must have at least one building entrance (that opens directly to the outside) oriented towards the adjacent street. If building has frontage on more than one street, corner entrance or main entrance on one of the two frontages must be provided.
- (2) In RC-NC and RC-AC districts require buildings to frame or enclose major intersections, pedestrian “main streets”, parking areas, and other site features. Multiple building entrances required to serve these locations.
- (3) Require east-west orientation of buildings for solar access on all streets except for Mixed-Use Retail Streets.

(b) Ground Story Windows

- (1) Based on current Section 138.VI (Ground Floor Windows and Building Facades). Require minimum transparency levels for ground story uses on Mixed-Use Retail Streets and internal pedestrian streets within neighborhood or community commercial centers.
- (2) Incorporate pedestrian-oriented standards from Section IV.

(c) Façade Articulation and Design

- (1) Based on current Section 138.VI (Ground Floor Windows and Building Facades) and XII (Streetscape Design Standards and Guidelines), but tailor to specific types of frontages and districts and to Mixed-Use Retail Streets.

(d) Visitability⁸⁹

- (1) In buildings containing more than 50 dwelling units, at least 10% of the dwelling units shall be visitable units.

(e) Materials

- (1) Residential standards based on current Section 138.XII (Streetscape Design Standards and Guidelines).

⁸⁷ Based on Section 138.V (Building Entries and Orientation) with proposed additions specific to RC districts.

⁸⁹ While all ADA-compliant units are also visitable, only a fraction of multi-family units are required to comply with ADA requirements. Visitability requirements are used to extend some of the ADA requirements to a broader range of units at relatively low cost. While ADA aims primarily at accessibility to those with physical challenges, visitability aims primarily at ensuring that the housing stock is usable by the population as it ages. A visitable dwelling unit is one that contains: (a) a step-free or accessible ground floor entrance on an accessible route that complies with ANSI A117.1 - 1998 section 4.8, and that has a maximum slope not to exceed 1:12; (b) all ground floor building entrance and ground floor interior doors, except those serving pantries and closets, with a minimum net clear opening of 32 in. when opened 90 degrees; (c) all ground floor interior doors equipped with levered hardware; and (d) all ground floor interior hallways with a minimum width of not less than 36 in., with ramped or beveled changes at door thresholds, and (e) at least one ground floor bathroom with toilet and sink designed and constructed so those using wheelchairs or walkers can enter and close the door behind them.

- (2) Non-residential façade standards shall require primary façade materials to be used on at least 80% of the façade and shall be either durable, natural materials, such as stone, brick; wood lap siding, shingled or panel siding, glass, or similar synthetic materials approved by the Review Authority. The remaining 20% of the façade may be non-primary materials. Industrial materials such as untreated wood products and industrial materials are prohibited.

6. Structured Parking⁹¹

- (a) Structured parking shall be integrated with the overall design of the building it is intended to serve primarily through the use of visually similar architectural features and façade materials.
- (b) Free-standing parking structures shall be designed to complement surrounding buildings in terms of their scale, design elements, building materials, and orientation on the site.
- (c) Vehicle access from Mixed-Use Retail Streets prohibited; access must be from other frontages to the lot or parcel.
- (d) Ground floor facades on arterial and collector streets shall be constructed to accommodate ground floor non-residential uses (13 ft. minimum clear height and 15 ft. minimum depth).
- (e) Require the integration of pedestrian-oriented design elements to screen cars and provide visual interest. Provide a menu of options that includes: Ornamental ironwork panels for window openings and/or garage entrance gates, integrated planting systems, public art, green roofs, and others features. (Photo examples to be incorporated)

7. Green Building Requirements

- (a) All new construction of residential structures of three stories or less shall meet both of the following standards:
 - (1) The structure shall meet Energy Star construction standards or shall exceed ASHRAE 90.1-2004 energy efficiency standards by 15%; and
 - (2) The structure shall meet ASHRAE standard 189.1, Section 6.3.1 for building water use.
- (b) All new construction of residential structures of four stories or more, and all new construction of mixed use or non-residential structures shall meet one of the following two standards.

⁹¹ This section based on standards in Section 138.VIII (Location and Design of Off-Street Parking). We propose moving them here since they relate directly to building design, and incorporating supporting images.

- (1) The structure shall receive basic LEED certification⁹³; or
- (2) The structure shall meet ASHRAE standard 189.1, Sections 6.3.1, 6.3.2, 7.4.2, 7.4.3, and 7.4.6 for building water use reduction, building envelope design, HVAC equipment, and lighting.
- (3) In all new construction projects valued at over \$250,000, as established by the building permit application
- (4) At least 50% of the construction material value shall include at least 25% recycled content.
- (5) At least 50% of construction debris shall be recycled in a facility located within 100 miles of the project site.

C. SUSTAINABILITY/ECO-DISTRICT STRUCTURE

While the primary focus of the Regional Center zoning and development standards is on site-specific development and redevelopment, additional cost savings and resource efficiencies may be achievable through the use of district structures including most or all of the RC-zoned lands.

1. Functions and Services

- (a) Preliminary review suggests that additional cost-savings and resource conservation might be realized through the use of a district structure for the following types of services:
 - (1) Electrical energy;
 - (2) Building heat and cooling;
 - (3) Gray water reuse;
 - (4) Storm water management; and/or
 - (5) Transportation Demand Management.
- (b) In addition, any future district formed in the Regional Center area could absorb some or all of the current responsibilities of property owners’ associations already existing in the area and/or could undertake marketing efforts to create a distinct identity for the area. If an urban renewal district is created to include some or all of the Regional Center area, the district structure could be coordinated with the urban renewal district or the urban renewal district could be created to provide some or all of these sustainability/eco-district services.

2. Structure

Any future district to provide these services would need to be created at the option of, and with the consent of, the property owners included in the district.

⁹³ The LEED level will be established to provide a comparable level of performance to the ASHRAE standards that follow.

3. Incentives to Create District⁹⁴

Because the proposed Regional Center zone districts may substantially increase the development potential and value of the Regional Center lands, the City may in the future condition its financial participation in Regional Center improvements on the formation of a district or coordinate its participation with supporting activities conducted by the district. The City may also condition its approval of an urban renewal district for the Regional Center lands on the creation of a supporting district or the inclusion of sustainability/eco-district services in the urban renewal district plan.

⁹⁴ Four organizations (ICLEI USA, the U.S. Green Building Council, the Center for American Progress and the National League of Cities are currently Beta testing a STAR rating system designed to measure the sustainability of entire communities (as opposed to individual buildings and developments). One opportunity is for Hillsboro to set up a program to test the AmberGlen area as if it were a freestanding community and track its performance over time as a way to focus on sustainability and create a distinct image for AmberGlen.