MULTI-FAMILY RESIDENTIAL
DESIGN MANUAL

Avondale

Aspiring. Achieving. Accelerating.

INSIDE FRONT COVER

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RESOLUTION NO. 3589-1019

A RESOLUTION OF THE COUNCIL OF THE CITY OF AVONDALE, ARIZONA, ADOPTING THE MULTI-FAMILY RESIDENTIAL DESIGN MANUAL.

WHEREAS, the City of Avondale Zoning Ordinance establishes the requirement for site plan review and imposes development standards and sets design standards to address a wide range of design, siting and environmental issues related to commercial, industrial and multi-family residential development; and

WHEREAS, the City Council of the City of Avondale (the "City Council") adopted the City of Avondale Commercial, Industrial, and Multi-Family Residential Design Manual by Resolution No. 2724-208 on February 19, 2008, in order to supplement and reinforce the site plan review standards and establish clear and comprehensive design recommendations for all commercial, industrial, and multi-family residential development; and

WHEREAS, the City of Avondale (the "City") desires to revise and update the standards and design recommendations by adopting separate manuals for commercial and industrial and multi-family residential development; and

WHEREAS, on August 12, 2019, the City adopted the Commercial and Industrial Design Manual and now desires to adopt the Multi-Family Residential Design Manual (the "Design Manual").

WHEREAS, the City has engaged the community to introduce the proposed Design Manual and has encouraged participation from both Avondale residents, the Arizona Multihousing Association and the development community; and

WHEREAS, the Design Manual furthers the goals and policies of the City's General Plan and emphasizes visual character, health, environmental conscious design and pedestrian-friendly opportunities to establish a healthy sustainable community; and

WHEREAS, the Planning and Zoning Commission reviewed the proposed Design Manual on September 19, 2019 and recommended approval; and

WHEREAS, the City Council reviewed the Design Manual during its regular meetings on August 12, 2019 and October 28, 2019.

NOW THEREFORE, BE IT RESOLVED BY THE COUNCIL OF THE CITY OF AVONDALE as follows:

SECTION 1. The Multi-Family Residential Design Manual is hereby adopted in substantially the form and substance attached hereto as Exhibit A and incorporated herein by reference.

SECTION 2. The Mayor, the City Manager, the City Clerk and the City Attorney are hereby authorized and directed to take all steps necessary to carry out the purpose and intent of this Resolution.

PASSED AND ADOPTED by the Council of the City of Avondale, Arizona, October 28, 2019.

ATTEST:

Kenneth N. Weise, Mayor

Marcella Carrillo, City Clerk

APPROVED AS TO FORM:

Michael Wawro, City Attorney

Introduction

The City of Avondale encourages the creative and innovative use of current and emerging development practices and seeks to strike a balance between the needs of the multi-family residential development industry and the consumer. The Multi-Family Residential Design Manual (this "Manual") seeks to provide project designers the City's expectations for multi-family residential development.

Purpose and Intent

This Manual is designed to further the goals and policies in the Avondale General Plan 2030. This includes emphasizing visual character, health, environmentally conscious design, and pedestrian-friendly opportunities to establish a healthy sustainable community. The City's Strategic Plan stresses the desire for neighborhoods to become more sustainable by promoting walkable, livable communities that enhance a resident's quality of life. This can be accomplished through plentiful parks and open space, trails, bike paths, active recreational opportunities, conditioned space, and a quality multi-family residential product. Compliance with this Manual is required and will be evaluated during the entitlement and design review process. This Manual is applicable citywide including the within the City Center planning area.

Every project is unique and requires some decisions to be made on a case-by-case basis. While some provisions of this Manual include quantitative standards, most require qualitative interpretation. The Zoning Administrator has the latitude to interpret this Manual and to permit flexibility so long as proposed projects meet the intent of this Manual.

Serving in conjunction with the General Plan, Strategic Plan, Zoning Ordinance, and General Engineering Requirements, this Manual was prepared to promote and create a sense of community, livability, and unique identity for the residents of Avondale. The intent of this Manual is to provide a set of specific criteria that will achieve the City's design expectations by:

- Providing a framework so that multi-family residential developments offer a variety of diverse and attractive building types, floor plans, and architectural styles with attractive building architecture, site design, and functionality.
- Eliminating redundancy within developments, by encouraging a variety of building sizes, building heights, amenities, open spaces, and providing a sense of arrival through entry features, building orientation, building materials and colors, rooflines, theme walls, and entrance gates.
- Providing innovative site design standards that create walkable, safe, pedestrian-friendly, family-friendly, and sustainable developments with usable open space and various amenities.
- Ensuring streets follow the City's hierarchy of classifications and are designed to conform to the City's General Engineering Requirements, maintaining arterial and collector grid systems that are designed to meet the half-mile and one-mile spacing standards.
- Promote unique development design in lieu of a traditional multi-family site layout and building design.
- Provide urban form site and building designs within the City Center planning area with a pedestrian-oriented focus and contemporary and modern urban design that interfaces with and creates a presence on adjacent streets.
- Encourage multi-family residential developments to orient buildings for solar efficiency.

- Provide the option to include a minimum continuous load of 4800VA as part of the electrical service load calculations to allow the inhabitant(s) the installation of a charging station for electric vehicles without the need of upgrading the electrical service of the dwelling. In addition to the spare power capacity, the premise's electrical panel should have at least two spare spaces for the installation of a two-pole breaker for the charging station and conduit routed from the electrical panel to the garage, unless wiring and receptacle for such use are installed.

SUSTAINABLE AND HEALTHY DESIGN

The City of Avondale has a commitment to protecting the environment, improving quality of life, and promoting sustainability. Through the City's General Plan 2030 and the Strategic Plan, sustainable development is a priority which also promotes physical activity and health through design. Conventional design and construction methods produce buildings that can negatively impact the environment as well as occupant health and productivity. These buildings are expensive to operate and contribute to excessive resource consumption, waste generation, and pollution. Architects and designers can help to significantly improve the health and well-being of City of Avondale's population through design. Avondale encourages environmentally-sensitive green building and site design.

The City promotes the following criteria designed to encourage the development of "green" buildings without forcing excessive costs or other burdens upon developers, building owners, or occupants. It is recommended that all projects utilize energy-efficient components and building materials to conserve energy, promote sustainability, and meet the goals and objectives of the City's Strategic Plan and General Plan.

Green Building Options

A "green" building places a high priority on health, environmental, and resource conservation performance over its life-cycle. These priorities expand and complement the classical building design concerns of economy, function, durability, and attractive appearance. Green design emphasizes environmental, resource, and occupant health concerns such as reducing human exposure to noxious materials; conserve non-renewable energy and scarce materials; minimize life-cycle ecological impact of energy and materials used; use renewable energy and materials that are sustainably harvested; protect and restore local air, water, soils, flora, and fauna; and support pedestrians, bicycles, mass transit, and other alternatives to fossil-fueled vehicles. Most green buildings are high-quality buildings that last longer and provide greater occupant satisfaction than standard developments. The City promotes projects building green by incorporating building and site design elements described in this Manual.

Daylight, Views, and Natural Cooling

Examples of design elements to include that encourage passive renewable energy use are as follows:

- Floor plan depth is the most important single consideration that affects the potential for daylighting, exterior views, and natural ventilation. Floor plans with relatively narrow wings, such as I-, H-, U-, or T-shaped plans are good examples of design that ensures most interior spaces have good access to natural light and winds. Courtyards and atria can also be used to bring light and air to surrounding narrow spaces.
- Incorporate light shelves, prismatic glazing, and other reflective systems to redirect daylight and extend naturally lit interior space to 30 to 35 feet deep.
- Bring outdoor air into one side of a space and exhausting it on an adjacent or opposite side for narrow floor plans to increase the potential for effective cross-ventilation and achieve a well-designed natural cooling strategy.

Solar

- Where site conditions permit, provide landscaping or other shade structures to reduce the amount of sun on the building as an effective method of solar control.
- Locate buildings toward the southwest, south, or west sides of a site to provide shade for lower floors from neighboring buildings.
- Orient buildings so that the short wall, narrowest portion of the building, faces west or southwest for the least solar gain in the summer.
- Place vertical space used for circulation and services such as staircases, elevators, electrical cables, water pipes, and risers at the southwest or west ends to buffer interior spaces from afternoon solar gain.
- Solar access should be addressed when designing roofs, walls, windows, and external shading devices.
- Consider solar generation products designed to be incorporated into wall and roof assemblies such as "solar shingles," panels designed to integrate into curtain walls, and etching techniques designed to be used as sunshades.

WATER INFRASTRUCTURE FINANCE AUTHORITY OF ARIZONA (WIFA) GREEN PROJECT RESERVE

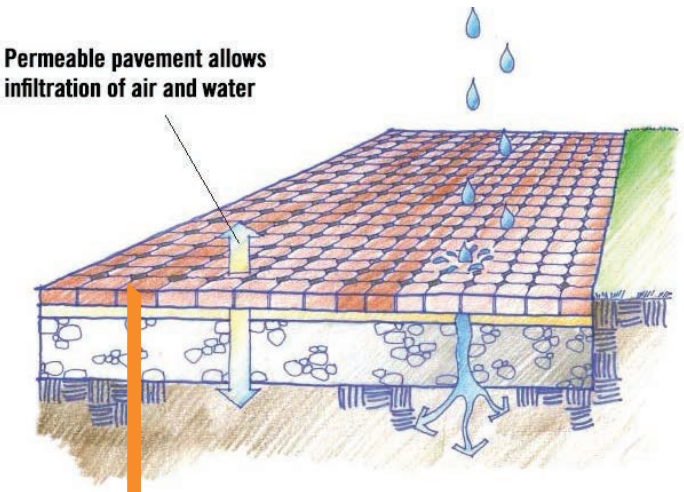
WIFA's green criteria are based on EPA's Clean Water and Drinking Water State Revolving Fund Green Project Reserve criteria. While many traditional projects are intended to protect the environment, these do not necessarily meet the criteria to be considered green. Green projects may be for planning, design, and/or construction activities. Either the entire project or only a component of the project can be identified as green. Multi-family residential developments are highly encouraged to incorporate green stormwater elements. WIFA's Green Stormwater Project examples include:

- Green infrastructure, low impact development, porous pavement, green roofs, stormwater reuse, harvesting, bioretention, curb cuts, riparian improvements, and planter boxes. For more information visit the Environmental Protection Agency (EPA) Green Infrastructure website for design and implementation tools, https://www.epa.gov/green-infrastructure
- Limited water resources can be a barrier to green infrastructure in arid and semiarid regions. Projects should include the following Xeriscape principles to conserve water resources:
  - **Create a plan** that balances water usage, rainwater supply, and demand such as an annual and monthly water budget for native and exotic plant maintenance.
  - **Install low water use plants** to reduce, if not eliminate, the irrigation requirements of green infrastructure practices by using native and drought-tolerant plants.
  - **Install efficient irrigation systems** and group plants according to their water needs, adjusting the frequency and depth of irrigation according to plant type, plant maturity, and season.
  - **Consider soil** amendments by adding organic material to poor soil to aide in retaining soil moisture, sustaining vegetation, and treating stormwater runoff.
  - **Install organic mulches** to increase water retention and pollutant removal while building soil structure and suppressing weeds for desert plantings that are mulch tolerant.

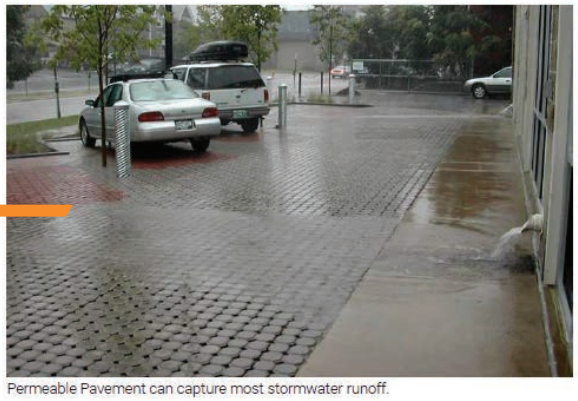
Green Stormwater Infrastructure

Green stormwater infrastructure (GSI) is a cost-effective, resilient approach to manage stormwater by reducing and treating stormwater at its source while delivering environmental, social, and economic benefits. Projects that incorporate GSI, which is a low impact development application, further the City of Avondale's sustainability goals.

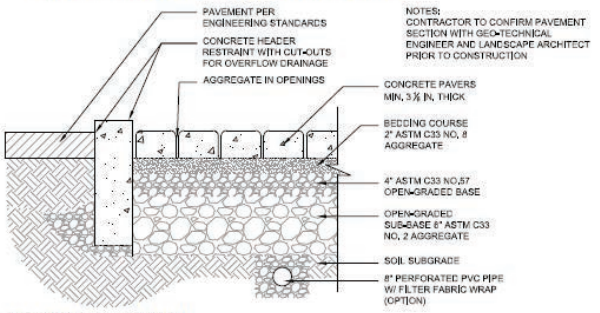
Examples of GSI in commercial and industrial site design include the following:



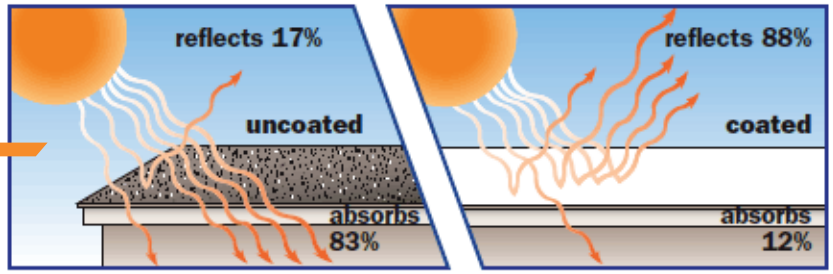
Porous pavement/permeable pavers



Permeable Pavement can capture most stormwater runoff.



Permeable Pavement Detail



Green roofs

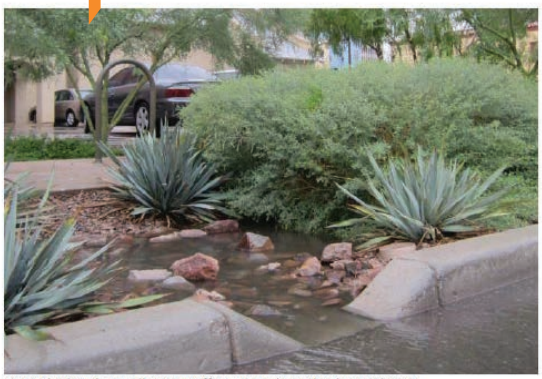
Right-of-way
design features

Bioretention

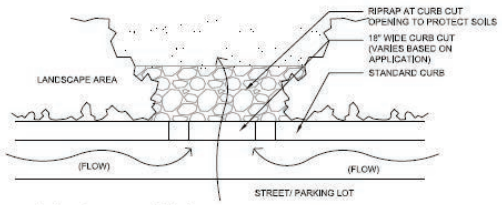
Bioswales

University of Arizona retrofitted their parking lot landscape buffer with a swale to capture runoff.

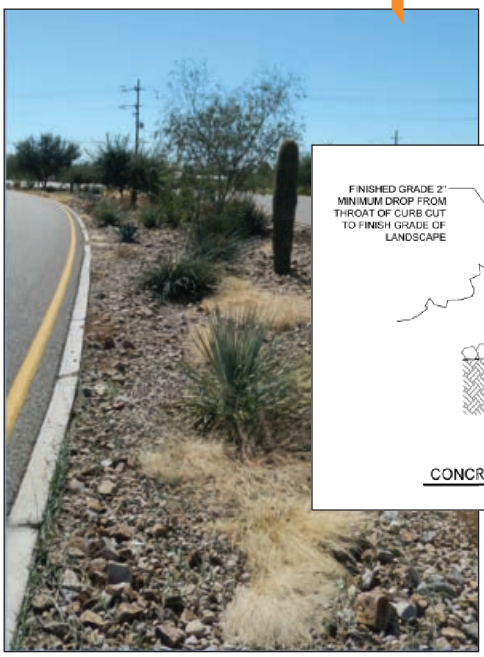
Curb cuts or flush curbs

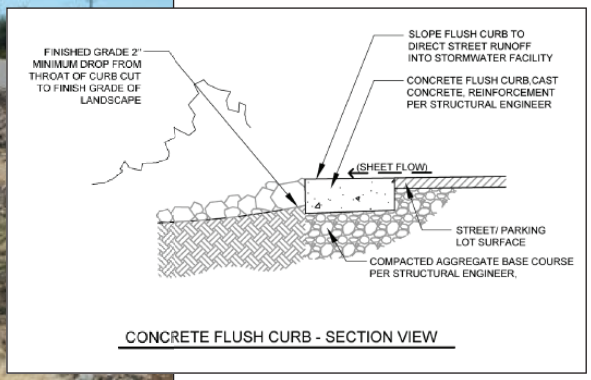


A Standard Curb Cut allows runoff to enter a lower landscaped area.



Standard Curb Cut Detail (Plan)





CONCRETE FLUSH CURB - SECTION VIEW

- Riparian improvements
- Active rainwater harvesting

For more information visit the Environmental Protection Agency (EPA) Green Infrastructure website for design and implementation tools. https://www.epa.gov/green-infrastructure

Green Pavement Surfaces

- Utilize impervious pavement, concrete and asphalt, only where regular car, bus, and/or truck traffic is expected. In other locations, install surfaces that encourage non-automobile traffic and allow stormwater infiltration.
- For parking and highly used bicycle and pedestrian areas, utilize porous asphalt, paver blocks, or large aggregate concrete. Crushed stone or brick is recommended for lightly used pedestrian paths.
- Where impervious surfaces are required, recycled asphalt and recycled concrete are encouraged.
- Provide curb cuts and slope hardscape landscaping features to allow water flow to permeable surfaces.

Sustainable Roof

Consider the following parameters for designing a sustainable roof:

- For a minimum of seventy-five (75) percent of the total roof surface, a Solar Reflectance Index (SRI) of 78 or higher for a roof with a slope of 2:12 or less, or 29 or higher for a roof with a slope greater than 2:12.
- For a minimum of seventy-five (75) percent of the total roof surface, provide a combined vegetated roof with rainwater collection system and SRI compliant roof.
- For a minimum of fifty (50) percent of the total roof surface, a vegetated roof.
- For a minimum of fifty (50) percent of the total roof surface, a rainwater collection system connected to an irrigation system or other building system through piping.

DESIGN REVIEW

An applicant who desires to change only a portion of their existing building should comply with all design guidelines related to the portion changed. If proposed modifications affect more than fifty (50) percent of any façade visible to public parking areas or public right-of-way, or City staff determines that the proposed changes are significant, the project will be evaluated to determine if all items discussed in this Manual have been considered.

The following will require submittal of a site plan and design review application:

- Changes to a site's grading and drainage
- Installation of new or changes to existing site or building lighting
- Re-configuration or modifications of parking and circulation areas
- Exterior building alterations, including paint color changes
- New fences and walls
- Changes to landscape design, except for dead plant replacement

Appeals

An appeal of the City's Development Review Committee's design review decision may be submitted to the Planning Division within fifteen (15) business days of Committee's decision and accompanied by a nonrefundable application fee. Upon written request of the applicant, the Zoning Administrator shall schedule the appeal hearing for a regularly scheduled Planning Commission. The Planning Commission shall review the site plan and design review application and make a decision as to whether the required findings have been met and approve, approve with stipulations, or deny the appeal. A majority vote of the Planning Commission shall be necessary to make a finding on the appeal

SITE DESIGN

Providing a unique sense of place with each multi-family residential development should be taken into consideration during the design process. Appropriately scaled buildings that transition from existing and planned land uses and concentrate on the natural environment and outdoor venues that promote a neighborhood feel and community interaction is the priority.

The following site and building design elements include written and illustrated design concepts related to the basic quality of site layout and building architecture to achieve high quality multi-family residential development.

This portion of the Manual addresses each of these elements in general terms and establishes the basic principles for good design which should be incorporated into all projects. Items contained in this section should not be viewed as standing alone but rather in concert with the more specific guidelines found in the subsequent sections of this Manual. Developers will be provided flexibility in how to arrange their projects to best utilize space and optimize project features.

Site Design

A. Design entrances with a strong sense of arrival and place incorporating decorative gates, walls, pavement, landscape planters, and the like.

B. Streets should be designed to contain entry landscape medians at all collector/arterial, collector/collector, and collector/local intersections.

C. Maximize the number of units that front onto common open spaces and maximize opportunities for view corridors.

D. When siting buildings, highlight view corridors of prominent natural features, such as the Estrella Mountains, from streets, backyards, and open space.

E. Stagger buildings throughout a development to avoid a monotonous streetscape and incorporate patios, courtyards, porches, and other design features.

F. Site buildings within the City Center planning area to strongly interface with streets and provide direct pedestrian access to plazas, open spaces, retail, office, and activity areas.

G. Locate activity centers, parks, or plazas central to the project allowing for a short walk to the City of Avondale's Zoom service, transit bus stop and/or bus shelter.

H. Plan streets to efficiently connect all parts of the neighborhood, integrate all modes of transportation, simplify circulation patterns, and connect with adjacent streets through shaded corridors.

I. Provide direct vehicular, bicycle, and pedestrian connections to adjacent residential and non-residential areas through trail development and buffered bike lanes.

J. Use traffic calming measures such as islands or traffic circles to slow vehicular speeds.

K. Provide trash receptacles, benches, and pedestrian scale lighting along trails, near barbecues, playgrounds, sports courts, and other active open spaces.

L. Incorporate residentially-scaled LED street lights and accent paving at entries and crosswalks throughout the development and incorporate LED lights in all common areas.
   - Provide decorative lighting on all buildings and pedestal lighting throughout the project.
   - Design site lighting and parking area lighting so that it does not shine on adjacent uses.

M. Provide direct access for pedestrians to parks, commercial centers, and schools without exiting onto the main roadway. Place pedestrian gates appropriately to ensure safe pedestrian access. Discretion and flexibility in choosing how and where to install pedestrian connections will be provided.

N. Incorporate accent paving material at all entrances and auto courts.

O. Enhance the transition between multi-family residential and existing single-family residential areas to achieve maximum compatibility through height transitions, setbacks, buffers, and screening.

P. Provide amenities such as community centers, pools, splash pads, sports activities, internal trails, event spaces, dog parks, and other unique features.
   - Centrally locate multi-purpose buildings, community swimming pools, and other amenities so all units are in close – proximity and allow residents ease of access.

Q. Incorporate trees with wide canopies in close proximity to pedestrian seating areas.

R. Provide appropriate guest parking spaces and parking areas for useable open space areas in addition to required parking for individual units.

S. Provide loading and/or delivery areas for package delivers, mobile order deliveries, and ride sharing services.

T. Screen parking areas from street views with solid masonry screen walls. Screening needs to include walls a minimum of three (3) feet up to four (4) feet in height, three (3) foot high berms, or a combination of both.

U. Perimeter walls on property lines around the development need to be a minimum of six (6) feet up to eight (8) feet in height.

V. All walls need to be architecturally integrated with the development's architectural style through materials, paint colors, form, and character.

W. Provide covered parking canopies designed with colors, forms, and/or materials consistent with the building architecture.

X. Provide garages for developments with more than 100 units. Garages should be attached and account for a minimum of twenty-five (25) percent of the required parking, excluding guest parking. Incorporate a portion of the garages under the living quarters to minimize standalone, long garage buildings.

LOW IMPACT DEVELOPMENT

Low Impact Development (LID) is an approach to land development or redevelopment that works with nature to manage stormwater as close to its source as possible. LID looks at stormwater as a resource rather than a waste product and employs strategies such as bioretention facilities, rain gardens, vegetated rooftops, rain barrels, and permeable pavements to create functional and appealing site drainage. By implementing LID principles and practices, water can be managed in a way that reduces the impact of built areas and promotes the natural movement of water within an ecosystem or watershed.

GI/LID Practices \ Benefits	REDUCES STORM-WATER RUNOFF		INCREASES AVAILABLE WATER SUPPLY		IMPROVES COMMUNITY LIVABILITY			
	Reduces Flooding	Improves Stormwater Quality	Reduces Potable Water Demand	Provides Storage for Future Use	Reduces Urban Heat Island	Provides Vegetation for Shade	Improves Aesthetics	Provides Wildlife Habitat
STORMWATER HARVEST-ING BASINS	●	●	●	○	●	●	●	●
SWALES	●	●	●	○	●	●	●	●
BIORETENTION SYSTEMS	●	●	●	○	●	●	●	●
INFILTRATION TRENCHES	●	●	◒	○	◒	◒	◒	◒
DRY WELLS	●	●	○	○	○	○	○	○
CISTERNS	◒	◒	●	●	○	◒	○	○
PERVEOUS PAVEMENT	●	●	○	○	◒	○	◒	○

● Yes ◒ In Some Cases ○ No

LID practices provide multiple benefits for the environment and the community to maximize mutual environmental, social, and economic benefits. A LID feature may benefit property value and increase customer attraction, provide services which contribute to ecosystem health, and can be utilized as a community gathering or recreational space for residents.

Design Features

Multi-family residential developments should consider the following retention basin design elements.

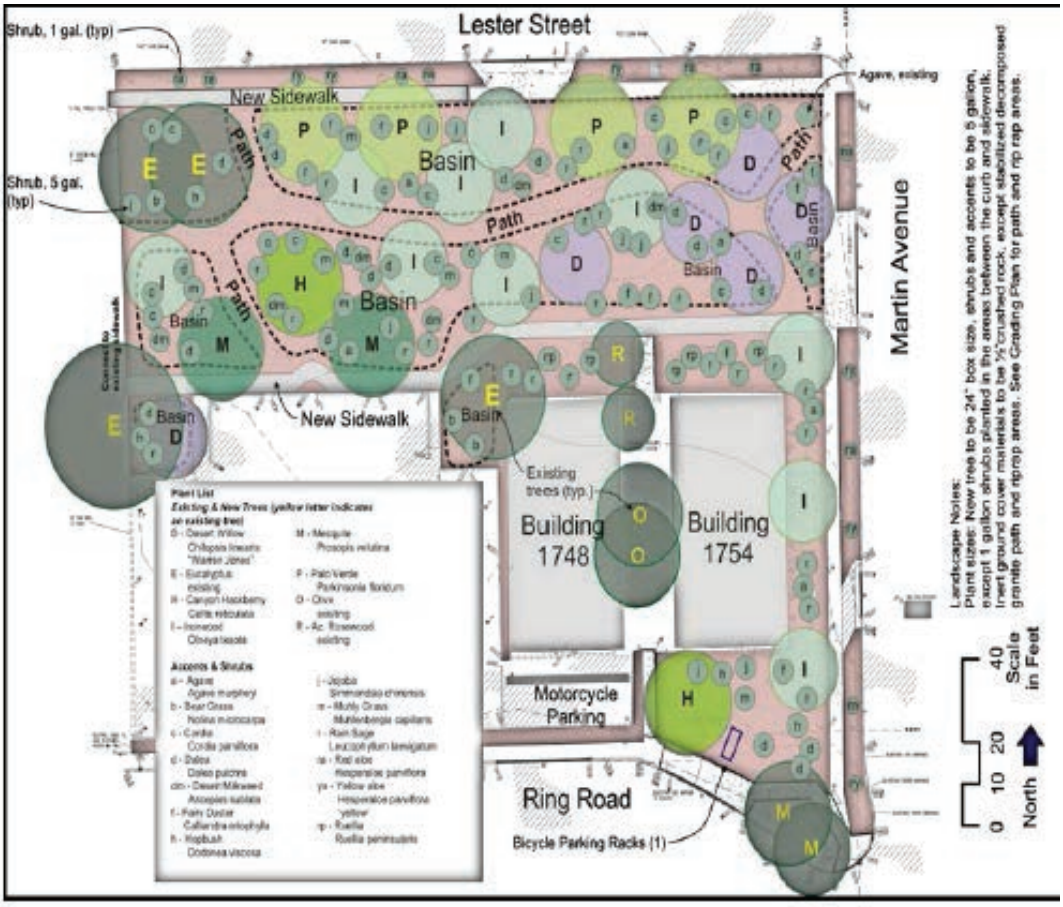
A. Incorporate rain gardens placed between buildings to collect stormwater from rooftops and parking areas.

B. Meander retention areas paired with recreational pathways through the development to create a connected green-space amenity such as a greenbelt to encourage maximum recreational use.

C. Contour the sides and bottoms of the basins to create a natural looking appearance. Use varied slopes and curvilinear edges to create a more natural looking facility instead of rectangular forms and long stretches.

D. Utilize permeable pavers for parking spaces to allow stormwater to seep directly through the pavers into the underground storage system.

E. Maximize water permeability by minimizing soil disturbance and compaction in planned landscape areas, reducing paved areas, using permeable paving materials, and preserving open space drainageways when feasible.



F. Avoid water features at entry areas unless it is specifically a rainwater harvesting feature designed to reduce on-site potable water demands.

G. Incorporate plants and design themes to support naturalistic landscapes that provide a sense of place in concert with the local natural environment.

H. Group plants with similar water needs together.

I. Utilize low water use native or desert-adapted drought tolerant plants incorporating at least seventy-five (75) percent of selected plants being local native species to promote a sense of place.

J. All man-made slopes should receive erosion control from plantings and from terracing.

K. Incorporate one (1) Xeriscape landscape example into open spaces.

L. Each valve should irrigate a landscape zone with similar site, slope and soil conditions and plant materials with similar watering needs. Turf and non-turf areas need to be irrigated on separate valves as well as drip emitters and sprinklers.

M. Irrigation system layout, irrigation type, zone treatment for trees, and water use need to be part of the site plan review process.

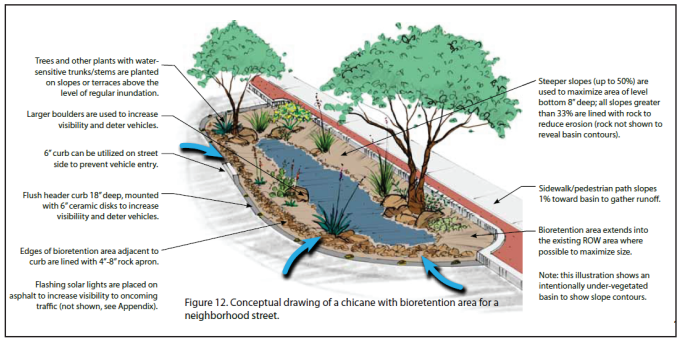


Figure 12. Conceptual drawing of a chicane with bioretention area for a neighborhood street.

N. Maximize water permeability by reducing paved areas using permeable paving materials and preserving open space drainage ways when feasible.

O. All common landscaped areas, tracts and retention basins need to be owned and maintained by the Property Management Company or Property Owners Association (POA).

Landscape

A. All new developments need to be designed in accordance with the Street Tree Master Plan and provide full canopy coverage over walkways.

B. Provide enhanced landscaping including six (6) large specimen trees, and landscaped medians at entries.

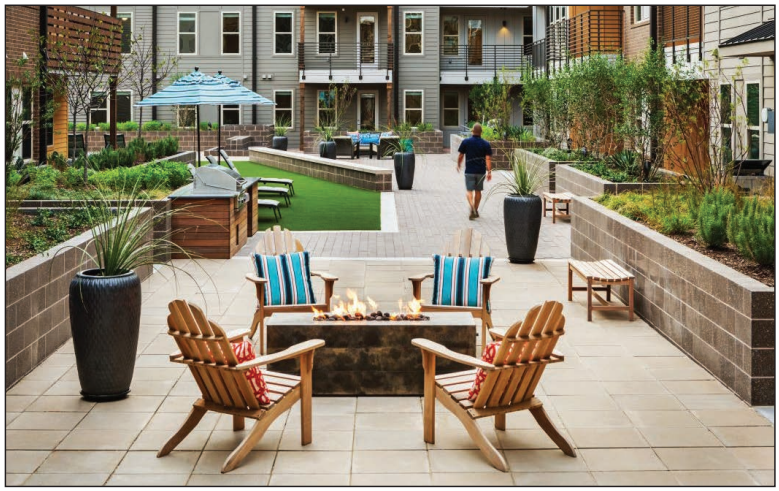
C. To ensure effective management of stormwater and healthy growth of native vegetation, all landscape areas should, to the extent practicable, be part of the drainage infrastructure and make all conveyance features landscape amenities utilizing LID design.

D. Provide a minimum twelve (12) foot wide landscape tract, inclusive of public utility easement, along buildings adjacent to a street side yard.

E. Provide a variety of planting palettes that soften the development, reinforce the building design and add variety to the streetscape.

F. For greater shading and cooling, plant a multi-layered composition of shrubs and small trees with a minimum height of ten (10) feet and a width of four (4) feet next to buildings.

Open Space and Amenities



The City expects developments to provide residents a special and unique sense of place with open space that takes advantage of the natural environment that surrounds Avondale, including the Estrella Mountains, the Gila and Agua Fria Rivers, and other beautiful natural landscapes. Multi-family residential communities can create an outdoor lifestyle with useable open spaces, community centers, community pools, sports activities, and internal trails. Open space is considered the common area portion of a multi-family residential development, located outside of required setbacks, where there are no buildings, driveways, or parking. Usable open space is considered any area on a site that is designed to be used for recreational or gathering purposes, viewed as an amenity to the residents, not solely a retention basin, and matches the scale of the development.

A. A multi-generational approach should be considered when designing open space to promote resident interaction and recreation for all age groups. Co-locating physical activity spaces for children and parents or guardians can simultaneously promote physical activity in different age groups.

B. Devote a minimum of twenty (20) percent of the site area to usable open space.

C. Preserve or create natural terrain in children's outdoor play areas.

D. Aggregate open space in one large area rather than dispersing into smaller pieces and provide residents with access to open space within a 5-minute walk.

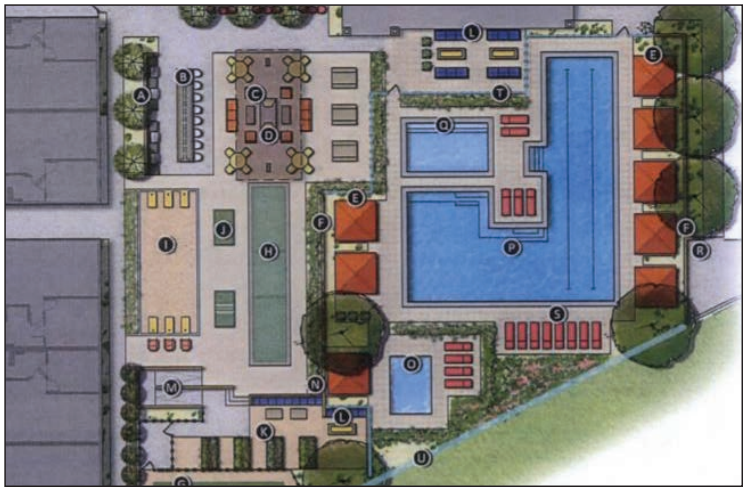
E. Provide drinking fountains to encourage the consumption of tap water for rehydration.

F. New playgrounds should also be designed to reflect the changing knowledge about injury prevention.

G. Turf should only be used in open space areas and not used on slopes greater than four feet of horizontal distance per one-foot vertical change (4:1).

H. Locate tree plantings adjacent to all roadways throughout a development in common areas to soften the streetscapes.

I. Usable open space may include:
   1. Community pools and splash pads
   2. Clubhouses/community center
   3. Play areas
   4. Private parks and trails
   5. Community gardens
   6. Dedicated park sites
   7. Multi-use paths
   8. Improved utility corridors
   9. Sports courts
   10. Seating areas
   11. Picnic ramada areas with barbecues outside of retention areas
   12. Pickle ball, putting greens, or other similar sports amenities
   13. Tot lots
   14. Resort-style amenities, entertainment areas
   15. Rooftop entertainment spaces



J. Provide a clubhouse and community pool for developments over 50 units.

K. Provide parking in proximity to a main, centralized community open space.

L. Design multi-use trails a minimum of (ten) 10 feet in width, lighted with low level security lights, and connect through the neighborhood as a greenbelt.

M. Site buildings at a maximum of one-quarter of a mile from a park or usable open space amenity.

N. Provide pedestrian amenities such as benches, trash receptacles, bicycle racks, and pedestrian scale lighting along trails and near the tot lots, sport courts, and other active open spaces.

O. Plant tree species with wide canopies near pedestrian seating to provide cover from the sun and cover all playground areas with shade structures.

P. Locate LED decorative lighting throughout the development in open space areas.

BUILDING DESIGN

The design and style of multi-family residential developments have evolved into full service, resort-style luxury living where clubhouses and pools, and community space is the central feature of the project. In general, this section is intended to promote that type of project in Avondale where high-quality architecture is the priority and enhances the living experience for residents, promotes a sense of community and interaction, and establishes a unique neighborhood identity. Creativity and variety are encouraged to create a sense of place that residents enjoy. Multi-family residential in the context of urban development centers should be designed to create visually interesting, consistent, and high-quality development linking commercial land uses with residential development and creating a walkable neighborhood near local amenities and services.

Special attention needs to be given to roof styles, asymmetrical design, building massing, window and door treatments, building materials, paint colors, private open space through balconies and patios, stairwell integration, garage door design, garage access, shade features, and rooftop amenities. Defining and establishing the character of a development can be addressed through many design elements as described below.

A. Design buildings with multiple unit square footages and number of bedrooms that accommodate a variety of choices for the prospective homeowner or renter.

B. Articulate all façades, including variation in massing, roof forms, and wall planes, as well as surface articulation with a separation of twenty (20) feet or more between buildings.

C. Multi-family units need to step-down/step-back in height when adjacent to detached single-family residential subdivisions.

D. Carriage style garages or tuck under designs are encouraged to reduce standalone, long garage buildings.

E. Incorporate architectural elements and details that add visual interest, scale, and character to all four-sides of buildings.

F. Vary building elevation designs having differences in the horizontal and vertical massing elements, building composition, building elements, building materials, and paint colors; however, design theme and architectural style may warrant more similar looking buildings.

G. Design buildings within the City Center planning area to be attractive and present contemporary and modern style architectural designs using materials appropriate for this style of architecture. Natural materials, vertical and horizontal elements, unique forms, and vibrant colors are encouraged.

H. Incorporate pavers or other similar treatments to all driveways.

I. Utilize high-quality, durable, natural materials. Synthetic materials are acceptable if they are sustainable products.

J. Utilize contrasting, but complementary, colors for trim, windows, doors, and key architectural elements.

K. Roof materials and colors need to be consistent with the desired architectural style and may include clay tile, slate, barrel, flat, or cool roof tile.

- The colors of roofing materials need not be altered by staining or painting.
- Roof materials need to exhibit earth-tone colors and be non-reflective in muted tones. Acceptable roof materials include: clay tile, slate tile, barrel tile, flat tile, cool roof tile.

L. The roofline may be changed by the following options:

- Alternating the ridgeline between parallel and perpendicular to the street.
- Alternating the roof type between gable and hip.
- Alternating the roofline pitch by a minimum of three units vertical, for example 3:12 to 6:12.
- Alternating between two- to three-story units.

M. The design, color, and materials of accessory structures needs to be architecturally tied to the main structure.

N. Metal flashing, vents, pipes, gutters, electrical panels and other exposed metal must be painted to match the color of the house and avoid exposed metal flues.

O. Design chimneys as an architectural element.

P. Buildings located along public streets need to be designed to give prominence to the street frontages, especially at the corner of two street frontages. This prime exposure warrants greater architectural design.

Q. Design entries as the dominant feature, clearly articulated, with enhanced pedestrian space that reflects the style of the building.

R. Wrap balconies and porches around corner units to enhance the side elevations.

S. Mixed-use buildings with multi-family residential and commercial uses should include first floor window fenestration with greater amounts of glazing, and floor heights should be at least 15 feet or greater floor-to-floor.

T. Compose a building to appear as multiple buildings or units through use of different building materials and paint colors to emphasize the appearance that smaller buildings were built next to one another rather than a single building.

U. Make stairs wide enough to accommodate travel in groups and in two directions and incorporate appealing finishes, and LED lighting.

V. Increase stair use by locating a highly visible and appealing stair within the building orientation areas and points of decision and along the principal paths of travel.

W. Provide for fire-rated glass enclosures for stairs instead of traditional opaque enclosures.

X. For attached multi-family housing types such as townhomes and condominiums, locate units' primary entrance on front elevations.

Y. Incorporate balconies, porches, and patios onto or within the building form, providing a minimum of eighty (80) square feet for each balcony or patio per unit.

Z. Incorporate stylized garage doors reflecting the building's architectural style.

Architectural Elements and Details

Each building should utilize a variety of the following elements to enhance the building's character:

1. Recessed or projecting balconies
2. Awnings
3. Porches
4. Columns
5. Decorative doors and windows
6. Exterior moldings
7. Roof overhangs
8. Stucco
9. Masonry
10. Wood or metal accents
11. Decorative lighting
12. Ledges
13. Arched windows
14. Shutters
15. Treated heavy timber exposed rafters and brackets
16. Load-bearing masonry, brick or stone
17. Neutral stone in full-size blocks, not veneer
18. Copper or galvanized metal gutters, roof drain downspouts, metal roofing on awnings
19. Tie and rod assembly metal canopies for shade
20. Board and batten or concrete-composite siding.
21. Reveal lines
22. Decorative metal fence panels for accent elements and/or plantings

Walls and Entry Areas

A. Entry features need to reflect the overall architectural identity, character, and theme of the development.

B. Design entry landscape medians at a minimum of seven (7) feet wide to accommodate planting of trees, LID design, and stormwater retention.

C. Design entry gates and walls to be compatible with overall design intent of the development and create a dramatic identify for the community.

D. Include enhanced wall materials such as stone, brick, tile, metal, cladding, or other sustainable materials on entry features and perimeter walls.

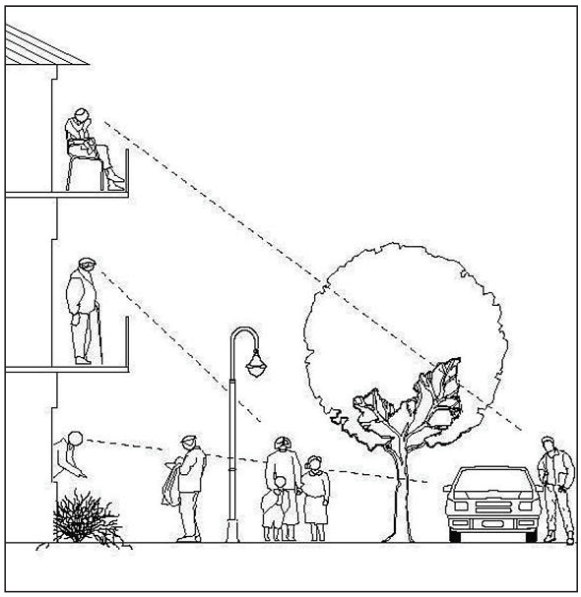
E. Other unique identifying features may be proposed subject to approval by the Zoning Administrator.

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

Crime Prevention Through Environmental Design, or CPTED (pronounced sep-ted), is a crime prevention philosophy based on the theory that proper design and effective use of the built environment can lead to a reduction in the fear and incidence of crime. It focuses on the positive use of a space and natural elements to maintain a sustainable quality of life for intended users, while offering a sense of security by increasing the difficulty for criminal or abnormal activities. The principles of CPTED, which are natural access control, natural surveillance, territoriality, and maintenance, when integrated with the principles of physical security present a unique approach to minimizing crime opportunities. This may be accomplished through the design elements described in this Manual.

Natural Surveillance

Design the placement of physical features and design for informal and/or programmed activities in such a way as to maximize visibility and foster positive social interaction and activity among legitimate users of the space. Creating environments that allow the opportunity for people to engage in their normal behavior and to observe the space around them limits the potential for crime to occur.



Natural Access Control

Strategically locate entrances and exits, fencing, lighting, and landscaping to control or limit the flow of or access. Most criminal intruders will try to find a way into an area where they will not be easily observed. Limiting access and increasing natural surveillance keeps them out altogether or marks them as an intruder.

Natural Territorial Reinforcement

Design buildings, fences, pavement, signs, lighting, and landscaping to express ownership and define public, semi-public and private spaces, so that natural territorial reinforcement occurs. An environment designed to clearly delineate private space does two things. First, it creates a sense of ownership. Owners or renters have vested interest and are more likely to challenge intruders or report them to the police. Second, the sense of ownership within a community or space creates an environment where "strangers" or "intruders" stand out and are more easily identified.

Maintenance

CPTED and the "Broken Window Theory" suggests that one "broken window" or nuisance, if allowed to exist, will lead to others, and ultimately to the decline of an entire neighborhood. Neglected and poorly maintained properties, lighting, landscaping, or open space areas can increase the level for criminal activity.

Site features within a multi-family residential development must be maintained always to include paving surfaces, landscaping, walls, gates, entry features, light poles, signs, paint, stone or brick, seating furniture, and other related items typically found within multi-family residential developments.

The best time to apply this philosophy is in the design phase before a building is constructed. These elements can be successfully applied later but retrofitting an existing environment can sometimes be costly. The use of CPTED standards will deter crime and reduce fear by minimizing criminal opportunity and fostering positive social interaction throughout a community.

INSIDE BACK COVER

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Avondale

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