

Design Standards



Town of Oro Valley

Caring for our heritage, our community, our future.



Addendum A

Adopted by Ordinance # 11-20 on July 6, 2011



Chapter 1: Introduction and Administration

- Section 1.1 Introduction and Overview
- Section 1.2 Purpose and Intent
- Section 1.3 Title, Applicability, Interpretation,
- Section 1.4 General Provisions for Design Standards
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Chapter 1: Introduction and Administration

CHAPTER 1 Introduction and Administration

Section 1.1 Introduction & Overview

Design excellence is an expectation in Oro Valley and is evidenced by the richness and quality of the built environment of the community. The Town requires superior design in development through the promotion of the highest quality of design that complements and accents the dramatic natural setting of Oro Valley.

Section 1.2 Purpose and Intent

The purpose of the Design Standards is to define and establish the design aesthetic requirements for project design excellence within Oro Valley. The Standards identify the main components of design contributing to overall project excellence (e.g. color, texture, building articulation and site modulation) and identify methods and design techniques to dramatically enhance these design components.

Section 1.3 Title, Applicability and Interpretation,

1. Title: This Chapter may be cited as the “Design Standards”.
2. Applicability: The provisions of this Chapter shall apply to all new development within the Town of Oro Valley. The provisions of this shall apply to any modification or alteration of any existing building, structure and associated site improvements within Oro Valley, except as expressly provided in this Chapter.
3. Interpretation: When the provisions of this Chapter are interpreted or applied, they shall be held to be the minimum Code requirements for the promotion of the public safety, health and general welfare. As many aspects of design are site and use specific, these provisions be interpreted with some degree of flexibility and interpretations MAY reflect an understanding of this inherent aspect of design review, provided the overall project design meets the intent and purpose of the Design Standards.
4. All projects shall comply with the Oro Valley Zoning Code. These standards are intended to complement the Zoning Code. If any provision of these Design Standards is in conflict with the Zoning Code, the Zoning Code shall prevail.

Section 1.4 General Provisions for Design Standards

1. This section establishes the use and effect of the Design Standards within the Design Review process. Additional provisions of general applicability are listed below relative to the use and effect of photography and the relationship of the Design Standards to the Zoning and Town Code.
2. Design Review: A development application for Design Review approval progresses through two basic steps, Conceptual Design (Zoning Code Section 22.9.) and Final Design Conceptual Design process (Zoning Code Section 22.9.),
 - a. The Conceptual Design process, using the Design Principles in Section 22.9 of the Zoning Code provide foundational elements for broad design assessment of project elements (site, architecture, art and signage) and guide overall project design,

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orientation, theme, character and style. All developments will conform to the adopted Design Principles demonstrate conformance with applicable Design Standards during the Conceptual Design process when the proposed conceptual plan proposes a design element in conflict with an adopted standard.

- b. During the Final Design process, the Design Standards provide design evaluation criteria to achieve refinement of project design elements. All developments shall conform to all adopted Design Standards. The Design Principles shall guide and inform evaluations, recommendations and decisions made as part of the Final Design process to the extent the final design is enhanced through application of an adopted Design Principle.
3. Use and Effect of Photography and Graphics:
 - A. The photography and graphics throughout the Design Standards are intended to illustrate suggested design solutions to achieve compliance with the adopted Design Principles and Design Standards.
 - B. The photographs are an integral part of the Zoning Code and are intended to be illustrative of one or more design concepts. If a conflict exists between the Design Standard and the illustrative photograph, the Design Standard shall prevail.
 - C. The intent of the photography is to illustrate design concepts and should not be interpreted or construed as depicting the desired building height or development intensity of any particular property.
4. Alternative Design Solutions:

The Design Standards provide design guidance to enhance development design components. The methods and techniques provided in this Chapter do not encompass all possible approaches to enhance project design. Unless otherwise specified, alternative approaches to the standards may be approved by the Planning and Zoning Administrator based on a finding that either of the following applies:

 - a. A particular Design Standard does not apply to the proposed land use;
 - b. The proposed alternative design meets the intent and purpose of the adopted Design Standard and constitutes an equivalent or increased standard of design quality. Approval of an alternative approach shall identify the specific alternative element(s) which addresses the intended result of the application of the applicable standard and how it meets the intent.
5. Additional photographic examples are provided in the appendices following each Chapter to further illustrate the design concepts established by the Design Standards.

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Section 1.5 Definitions

1. Articulation: Describes the degree or manner in which a building wall or roofline is made up of distinct parts or elements. A highly articulated wall appearing to be composed of a number of different planes, usually made distinct by their change in direction (projections and recesses) and/or changes in materials, colors or textures.
2. Building Mass: The height, width, and depth of a structure.
3. Cantilever: A projecting beam or other structure supported only at one end.
4. Colonnade: A row of evenly spaced columns usually supporting the base of a roof structure.
5. Corbeling: A projection from the face of a wall used to support a cornice or an arch.
6. Cornice: The horizontal projection at the top of a wall; the top course or molding of a wall when it serves as a crowning member.
7. Cupola: A small, usually domed, structure surmounting a roof.
8. Dentils: A series of small rectangular blocks projecting from a molding or beneath a cornice.
9. Dormer: A projection from a sloping roof that contains a window.
10. Facade Articulation: Stepping back or moving forward a portion of a building's facade for the purpose of breaking up the building's mass.
11. Fenestration: The arrangement, proportioning and design of buildings, windows, and other exterior openings.
12. Hardscape: Hardened surfacing materials such as colored and stamped concrete in order to create visual interest.
13. Human Scale: Human proportioned architectural features and site design elements clearly oriented to human activity.
14. Monolithic: A single large flat surface (façade) without relief.

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15. Mullions: The divisional pieces in a multi-paned window.
16. Parapet: A low wall generally running around the perimeter of a flat roof.
17. Perimeter Wall: A subdivision wall adjacent to a collector or higher street classification, retention area, open space area, multi-use trail area, and/or a wall on the perimeter boundary of the subject development.
18. Pilaster: A column attached to a wall or pier.
19. Pitch: The slope of a roof expressed in terms of ratio of height to span.
20. Portico: A porch or vestibule (lobby or passage between entrance and lobby) roofed and partly opened on at least one side.
21. Precast: Concrete cast in a structural element before being placed in final position. Also commonly referred to as “tilt-up” construction.
22. Projection: Any component, member, or part that juts or is set forward from the general wall surface.
23. Recess: Any surface set inward from the general wall.
24. Roof, Gable: A ridged roof forming a gable at both ends of the building.
25. Roof, Gambrel: A gabled roof with two slopes on each side, the lower steeper than the upper.
26. Roof, Hip: A roof with four uniformly pitched sides.
27. Roof, Mansard: A roof with two slopes on each of four sides, the lower steeper than the upper.

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28. Ridge: The highest line of a roof where sloping planes intersect.
29. Sash: The framework into which window panes are set.
30. Soffit: The underside of a structure, such as the underside of a staircase and archway, or colonnade.

Chapter 2: Non-Residential Design Standards

- Section 2.1 Site Design
- Section 2.2 Architectural Design
- Section 2.3 Landscape Design
- Section 2.4 Special Use Exceptions



Chapter 2: Non-Residential

CHAPTER 2: NON-RESIDENTIAL DESIGN STANDARDS

Applicability: These design standards shall apply to all non-residential developments Oro Valley, including retail commercial, service commercial, office, industrial, educational, institutional, and quasi-public facilities, unless specific Planned Area Development design guidelines apply.

Section 2.1 Site Design

A. Land Use Transitions

Physical and visual transitions shall be provided between different, existing or planned land use categories (commercial, residential, industrial/technical park) through incorporation of the following:

1. Use of transition in grade to reduce the overall scale of the development on less intense land uses (Figure 2-1).
2. Building height and scale shall be used to reduce visual impact.
3. Use of buildings, walls or other structures to visually screen service and loading areas from less intense land uses (Figures 2-2 & 2-3).
4. Outdoor activities that produce noise, light, dust, smoke or odors shall not be placed in proximity to residentially-zoned property.
5. Manufacturing uses shall be placed in a location furthest from residentially-zoned property. When possible, office uses shall be placed adjacent to residentially-zoned property.



Figure 2-1:



Figure 2-2:



Figure 2-3

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B. Building Orientation, Massing, and View Preservation

1. Buildings within multi-building centers shall be arranged and grouped so that their primary orientation complements one another and adjacent existing or planned development through the use of the following methods:
 - a. Buildings to frame and define entry points to the development.
 - b. Buildings, walls and/or structures to create focal point on corner street intersections incorporating art, outdoor spaces and other project unifying elements as appropriate (Figure 2-4).
 - c. Buildings to frame or enclose “main street” pedestrian and vehicle access corridors within the development site.
 - d. Buildings to frame and enclose parking areas or public spaces (including courtyards, pedestrian malls, etc.) on at least two sides.
 - e. Building to create protected outdoor dining or public gathering spaces between buildings (Figure 2-5)
 - f. The relationships of buildings shall be considered to create open spaces and pedestrian continuity.
 - g. Building orientation along roadways should be staggered to create visual interest (Figure 2-6).
2. Significant view corridors of surrounding natural terrain shall be maintained through the following method:



Figure 2-4:



Figure 2-5:



Figure 2-6

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Figure 2-7:



Figure 2-8: .



Figure 2-9

- a. Plot significant view corridors during initial planning to identify primary vistas of the Catalina and Tortolita mountain ranges.
- b. Significant view corridors, including Oracle Road and Tangerine Road, shall be considered through the use of building orientation, building height reduction and grade transitions.

C. Entries and Circulation

1. Developments shall provide well defined major entrances to enhance circulation, establish unified project identify and create sense of arrival. All major entrances shall incorporate the following:
 - a. Landscaped median that separates ingress and egress lanes, where feasible.
 - b. Gateway monument or other significant entrance feature architecturally integrated with the overall design theme for the development (Figure 2-7).
 - c. Use of ground material texture and color changes such as specialty pavers or stamped colored concrete to define main project entrances and primary circulation routes (Figure 2-8).
2. Pedestrian and vehicular circulation shall be coordinated and designed to complement adjacent buildings by utilizing the following:
 - a. All parking areas shall allow safe and attractive pedestrian circulation.
 - b. Crosswalks shall be constructed of raised and/or textured concrete or equivalent materials as approved by the Town Engineer.

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- c. Where appropriate, separated and/or covered walkways shall be incorporated to enhance pedestrian environment and minimize circulation conflicts. Shaded seating areas should be provided as appropriate along walkway (Figure 2-9 & 2-10).
- d. Establishment of a hierarchy of primary and secondary drives to provide safe and efficient circulation throughout the site.
- e. An on-site perimeter ring road is required as the primary circulator around the property with vehicular and pedestrian linkages to parking areas and buildings for larger projects, including technology parks, employment centers, medical campuses, and large-scale retail centers.

D. Parking

1. In addition to the parking requirements contained in the Town's Off-Street Parking Requirements, the following design elements shall be incorporated into the development plan or plat where possible:
 - a. Provide buildings, screen walls, berms or landscaping between parking areas and streets (Figure 2-11).
 - b. Parking shall be placed to the rear and side of the buildings to the greatest extent feasible.
 - c. Large parking fields shall be broken up into smaller areas through the use of building placement, landscaping, pedestrian walkways and grade transitions.

E. Walls and Fences

1. Walls and fences shall be designed to reflect the design, color and materials of the



Figure 2-10



Figure 2-11:



Figure 2-12:

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Figure 2-13:



Figure 2-14:



Figure 2-15:

overall project theme and design elements.

2. Walls and fences shall incorporate wall plane and height variation methods to create visual interest where possible. Columns, piers, and other design elements from the building architecture shall be incorporated into wall design as an overall project unifying method (Figure 2-12).

F. Project Signs and Identification

1. All projects shall comply with Chapter 28, Signs, of the Oro Valley Zoning Code.
2. Project identification and sign elements shall incorporate architectural treatment and project unifying elements which are integrated with the overall design of the project in terms of style, materials, color and theme (Figure 2-13).
3. Developments shall use architectural elements such as towers, obelisks, monuments, gateway arches to establish a unified project identity. These elements should be replicated in the overall design template for the development (Figure 2-14).
4. Location and placement of building mounted signs shall be integrated into building architecture. Building signs shall be consistent in terms of materials and construction (Figure 2-15).
5. As feasible, sign colors shall utilize the project color palette approved as part of the Conceptual Design for the project.
6. Colored sign banding and colored light elements utilizing corporate colors shall be permitted provided the colors are consistent with

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G. Public Art

1. Public art shall be integrated into the overall design of the project and shall be located in areas of high visibility and use such as courtyards, seating areas and along public roadways (Figure 2-16).
2. In addition to the public art requirements contained in Section 27.3 of the Zoning Code, additional artistic elements such as sculptures, fountains, themed architectural details, and architecturally enhanced benches, walls and gates are strongly encouraged which contribute to the overall project theme and enhance the pedestrian experience. Murals may be considered not be visible from the public street unless specifically approved as part of the Conceptual Design for the project (Figure 2-17).

H. Thematic Elements:

1. The color, material and design of pedestrian elements and project infrastructure shall exhibit a coordinated and unified design theme which reinforces the overall theme of the project. Such elements and project infrastructure include, but are limited to the following: benches, bollards, light fixtures, garbage containers, walls, directional signs and bicycle racks (Figure 2-18).

I. Drive-Through Design

1. Drive-throughs shall be located and designed to not be dominant feature viewed from adjacent roadways through the use of the following:
 - a. Drive-throughs shall not be located adjacent to the roadway unless no other functional design solution can be identified.



Figure 2-16:



Figure 2-17:



Figure 2-18

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Figure 2-19:



Figure 2-20:



Figure 2-21

result in drive-throughs facing adjoining residential areas.

- b. Use landscaping, screen walls and/or berms to screen from adjacent roadways.
- c. Buildings and canopies shall integrate drive-throughs as an architecturally integrated element of a building (Figure 2-19).

J. Loading, Utility and Service Areas

1. Visual impact of loading, utility and service areas shall be minimized through incorporation of the following methods:
 - a. Screen walls and/or building enclosures shall screen all loading areas and shall be architecturally treated consistent with the building design elements.
 - b. Refuse enclosures and service areas shall be located away from residential areas in a manner to reduce visibility of these areas from adjoining streets and property. Screening techniques such as walls and landscaping shall be utilized to reduce visual impact of these areas (Figure 2-20 & 2-21).
 - c. Roll-up doors shall be oriented away and/or screened from less intense adjacent uses and shall be painted a color consistent with primary or accent colors of the building.
 - d. Consideration should be given to the location of site utility infrastructure such as electrical boxes electrical panels, backflow preventers and appropriate methods employed to minimize the visibility of this infrastructure, while providing for necessary

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- e. Above ground utility infrastructure shall be painted to match the project, where technically feasible, to minimize visual impact.
- f. Service and refuse areas of nearby buildings within the project shall be clustered together when possible.

K. Grading and Drainage

1. Site grading shall conform to existing natural grades, contours and existing site conditions to the greatest extent possible. Building pads, drive aisles and parking areas should be separated to provide grade transitions which follow existing natural topography.
2. Driveways and roads shall conform to the natural contours of the land.
3. The following methods shall be used to minimize impacts created by cut and fill slopes unless determined to be technically unachievable by the Town Engineer:
 - a. All exposed disturbed areas shall be revegetated with plant material and treated to create a natural appearance (Figure 2-22 & 2-23).
 - b. Tops and toes of slopes shall be rounded to smoothly transition with the natural grades.
 - c. Retaining walls may be used when necessary to reduce excessive amount of slope area and/or preserve existing vegetation (Figure 2-24).
4. Retaining walls shall be designed with the following elements:



Figure 2-22:



Figure 2-23



Figure 2-24:

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Figure 2-25:



Figure 2-26:



Figure 2-27

- a. Color and texture shall complement the associated architecture and/or character of surrounding natural areas.
- b. As appropriate, utilize multiple walls (terracing) with 4' wide minimum planting areas between terraces to provide a grading transition.

L. Natural Features and Open Space

Intent: Natural features, including drainage corridors, vegetation, and habitat, shall be preserved to the greatest extent possible by use of the following:

1. Significant environmental features shall be identified and preserved on the development plan or plat, and shall be designated as open space during master planning (Figure 2-25).

M. Pedestrian Amenities

1. Developments shall provide pedestrian amenities and connections within the development. The following features are required unless functionally equivalent amenities are approved by the Planning and Zoning Administrator:
 - a. Provide shade structures (may include awnings, overhangs, colonnades, etc.) in areas of high pedestrian activity (Figure 2-26).
 - b. Provide pedestrian connections at intersections, public rights-of-ways and adjacent land uses via trails and/or sidewalks.
 - c. Provide pedestrian connections to trail networks, parks and public amenities (Figure 2-27).

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- d. Provide shade trees at all seating areas using landscape or other structures (Figure 2-28).
- e. Features such as walk-up ATM's, vending machines and other similar uses shall be integrated into the building and embody the aesthetic elements of the building.
- f. Pedestrian scale features at the ground level, such as planters and benches, are encouraged.



Figure 2-28

N. Mixed Use Design

1. In zones where enabled (including R-6, R-S, and C-N), a vertical (multiple uses within the same building) or horizontal (multiple uses in separate buildings on the same property) is encouraged. Mixed use developments shall provide the following elements:
 - a. Clearly defined pedestrian walkways and paths between buildings (Figure 2-29).
 - b. When residential is provided, community common area(s) and open space shall be provided in a publicly accessible plaza, forecourt or courtyard that visually and functionally links the residential buildings to non-residential buildings.
 - c. Building design, façade articulation and rhythm shall follow an identifiable architectural theme utilizing a complimentary variety of architectural features, materials and colors to unify the project while avoiding monotony in design.



Figure 2-29:

O. Main Street / Town Center Design

1. In areas where main street / town center design is intended by zoning and desired, the

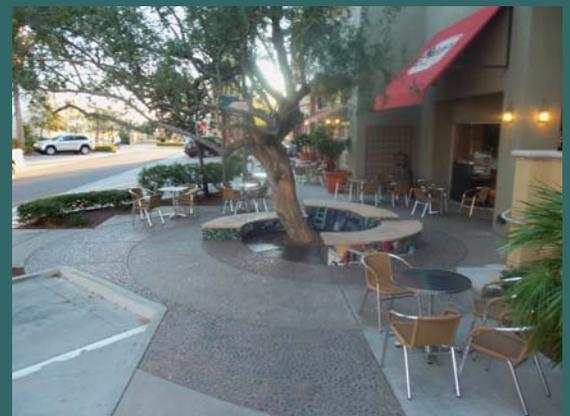


Figure 2-30:

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Figure 2-31



Figure 2-32



Figure 2-33

- a. Buildings shall be placed on street edge.
- b. On-street parking.
- c. The sidewalk shall be widened to accommodate wider sidewalks, street trees, pedestrian amenities and outdoor cafes and gathering areas (Figure 2-30).
- d. Vertical or horizontal integration of mixed land uses (Figure 2-31).
- e. Strong connection to large open gathering areas, AND plazas (Figure 2-32 & 2-33).
- f. Walkable pedestrian scale development.

P. Senior Housing/Assisted Living Design

1. Independent living, assisted living, and skilled nursing facilities, including continuum of care facilities, shall provide the following features and amenities:
 - a. Paved, lighted, ADA-accessible walkways between all common facilities and residential buildings.
 - b. Shaded seating areas shall be provided along all walkways with a minimum of two (2) adequately separated seating areas provided along any walkway over 400 feet.
2. Projects are encouraged to provide pockets of landscaped open space between buildings and to provide a serene, attractive campus atmosphere.
3. Buildings shall be arranged as to maximize views, including mountain views and open space and common area views, from residen-

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tial units.

Q. Crime Prevention Through Environmental Design (CPTED)

Site planning shall consider the following CPTED elements:

1. Natural surveillance

Natural surveillance increases the threat of apprehension for unauthorized persons by taking steps to increase the perception that people and suspicious activities can be seen. Natural surveillance occurs by designing the placement of physical features, activities and people in such a way as to maximize visibility (Figure 2-34) and foster positive social interaction among legitimate users of private and public space. Potential offenders feel increased scrutiny and limitations on their escape routes and are discouraged from entering or remaining in such an area. The following natural surveillance considerations shall be integrated into the site and building or home design:

- A. Design streets and pathways to maximize pedestrian and bicycle traffic.
- B. Building design should incorporate visual access (i.e. windows, peepholes and security cameras) on facades oriented to parking lots, sidewalks and other less visible and trafficked areas such as loading docks (Figure 2-35).
- C. Landscape designs should provide surveillance, especially in proximity to designated points of entry and other undefined opportunistic points of entry (Figure 2-36).



Figure 2-34



Figure 2-35:



Figure 2-36:

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Figure 2-37



Figure 2-38



Figure 2-39:

D. Place lighting along pathways and other pedestrian-use areas (Figure 2-37).

E. Incorporation of windows (faux or real) into facades oriented toward these areas shall be considered to increase visibility and discourage unauthorized activities in these areas.

2. Natural access control

Natural access control limits the opportunities for criminal activity by incorporating design entrances, exits, fencing, lighting and landscape should be strategically placed to limit access or control flow of persons into, out of, and through a development. The following natural access considerations shall be integrated into the site and home or building design:

A. Points of entry should be clearly identifiable.

B. Use hostile vegetation containing spines, thorns or sharp leaves or other plant types to discourage intrusion.

C. Avoid design features that provide access to roofs or upper levels.

R. Miscellaneous Requirements:

1. Wireless communication antenna shall utilize the verticality provided by buildings and shall be incorporated into building design when applicable and appropriate. Visual impact of antenna and towers shall be reduced through the use of concealment methods including alternative designs and co-location on vertical elements of the development such as power poles, light poles and flagpoles (Figure 2-38).

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2. Shopping cart corrals and storage areas shall be visually screened through the use of screen walls, landscaping or enclosed within the building architecture (Figure 2-39).
3. Bicycle parking shall be located in a shaded area conveniently accessible to building entrances and bicycle storage facilities shall incorporate complementary design, colors, and materials of the overall project.

Section 2.2 Architectural Design

A. Building Design

1. General Considerations

- a. The scale of development shall be appropriate to the land use type (e.g. commercial office, retail, light industrial) and promote human scale development through the following methods:
 - (1). Buildings shall be designed at the ground or pedestrian level to provide human scale. This may be achieved by using the appropriate sizing and locations of openings, level of architectural detail, articulation and use of textures (Figure 2-40).
 - (2). Buildings design shall reflect consideration of superior and desirable design elements of adjacent development when applicable and appropriate.
 - (3). Buildings shall be designed to be compatible with the natural environment (Figure 2-41).



Figure 2-40: .



Figure 2-41:



Figure 2-42:

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Figure 2-43:



Figure 2-44:



Figure 2-45:

b. Project design shall consider and integrate all elements by:

- (1). Provide consistent architectural treatments, articulation, and fenestration to present a coherent design theme for all sides of a building (Figure 2-42).
- (2). Incorporating accessory structures (screen walls, canopies, carports, parking structures, and signage structures) and shall reflect the character of the primary building(s) in terms of scale, materials, colors and style.

B. Roofs

1. Variations in roof lines shall be used to add interest and reduce the scale of larger buildings. Roofs shall consist of one or a combination of the following:
 - a. Sloping roofs
 - b. Parapets
 - c. Overhanging eaves
 - d. Material Variations
2. Parapets shall contain varied rooflines and/or incorporation of sloped roof elements. Parapets shall incorporate design elements, including pre-cast elements, projecting cornices, lentils and caps (Figure 2-43 & 2-44).
3. Rooftop mechanical equipment shall be screened or installed in a manner to fully conceal and to prevent obstruction or distraction of other views. Screening shall be consistent with building design. Materials and color shall be of low reflectivity (Figure 2-45).
4. Roof access should be provided with roof hatches, roof ladders and roof drains/

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downspouts shall be architecturally integrated into the building.

C. Building Styles and Historic Context

1. Design shall consider the context and architectural vernacular of the region. The architectural vocabulary shall contain forms or include appropriate elements which draw influences from traditional southwestern styles such as, but not limited to: Southwest Traditional, Territorial, Pueblo, Spanish Colonial or Tuscan.
2. While a single style or combination of the above styles is not required, the use of or a contemporary interpretation of historic styles is strongly encouraged (Figure 2-46).
3. Coordinate the design of retail complexes that involve multiple buildings to achieve visual compatibility.
4. Prototypical corporate architecture shall be modified to reflect the design and style of the overall project and shall incorporate consistent colors, material and architectural elements of the overall project. Single use sites shall reflect local design and style influences which moderate corporate influenced design and style (Figure 2-47).

D. Building Size and Mass

1. The visual impact of development shall be moderated to reduce the apparent scale and mass of building form. Consistent roof plan variation, wall plane articulation and consistent architectural treatment is required on all exterior facades to reduce scale and mass and provide visual interest (Figure 2-48) the following methods are encouraged:



Figure 2-46:



Figure 2-47:



Figure 2-48:

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Figure 2-49:



Figure 2-50:



Figure 2-51

- a. Divide mass of large buildings into basic geometric components to modulate the overall building form.
- b. Use of architectural treatment at the base of a building to create visual interest and grounding of the building.
- c. Use of wall plane changes, fenestration placement, colonnades, building form recesses, overhangs, and other architectural features to define central portion of building. Increase textures and high level finishes, such as stone, at the pedestrian level (Figure 2-49) .
- d. Use of varied roof planes, varied roof forms and well defined architectural treatments such as deep overhangs and cornices at top of building (Figure 2-50).
- e. Break up long continuous building surfaces with off-sets or contrasting forms at regular intervals. Off-sets or vertical elements shall be of sufficient size and depth to effectively mitigate the visual impact of the horizontal line and mass (Figure 2-51)
- f. Ground level facades that face public streets and/or primary parking areas shall have one-story pedestrian scale features on at least 2/3 of the horizontal length of the side of a building. Features may include windows, entry areas, arcades and/or overhangs (awnings, trellis, etc.).
- g. Use of color, textures or materials changes to articulate wall planes.
- h. Building entries shall be clearly articulated and a pedestrian scale maintained by the use of low level detail, textures, covered or

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or recessed areas.

- i. Multi-level buildings should incorporate step(s) in vertical plane to reduce the building scale.
2. Building scale and mass can be moderated through the use of fenestration and door openings also contribute to overall proportion of building elements and provide balance to solid wall planes.
 - a. Windows, doors and other elements shall be designed to complement the overall architectural design in terms of materials, shape and proportion (Figure 2-52).
 - b. Windows and doors shall incorporate pronounced framing and other design elements which accentuate the opening. Window surrounds, arches, mullions shall be incorporated as appropriate to create visual interest and reduce the scale of the overall building façade.
 - c. Building entry points shall be emphasized and defined through incorporation of architectural treatments and elements such as accentuated building forms, porticos, columns, piers and recessed openings. Recessed openings should be articulated through the use of decorative casing (Figure 2-53).
 - d. Glazing shall not dominate the façade area, unless sufficient shading is provided, such as through the use of shade structures or deep set windows with mullions (Figure 2-54).

E. Colors and Materials



Figure 2-52:



Figure 2-53



Figure 2-54

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Figure 2-55



Figure 2-56



Figure 2-57

1. The colors and materials of the proposed architecture shall reflect consideration of the natural environment and built character of nearby development when applicable and appropriate. Colors and materials should be influenced by and demonstrate consideration of superior and desirable design elements, including adjacent development when applicable and appropriate.
2. Building colors and materials shall relate to one another and the natural environment on the basis of pigment, color value, and/or intensity. In scenic corridors, earth tones and pastels shall be utilized, especially in areas of high visibility. Desert/mountain colors that blend with the natural background are encouraged.
3. Primary colors should be used judiciously and typically as accents only (Figure 2-57).
4. In locations upslope from the ultimate scenic corridor roadway right-of-way, richer, earth tone or geologic colors and rougher textures are required, especially those which complement background views; downslopes, darker earth colors with more dense landscaping clusters.
5. Color palettes should establish a diverse range of colors for visual interest and variety.
6. Color banding is permitted provided the colors are consistent with the overall approved color palette for the center or complex.
7. In more private areas, away from scenic corridors, homeowners and business owners are permitted more latitude in color selections.
- 8.

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8. Foreground colors should harmonize and blend with existing vegetation, natural rock/earth forms or built background.
9. Commercial building materials shall be appropriate to the architectural style and vernacular of the development and be of high quality and proven durability in the Sonoran Desert environment. Permitted primary materials include the following:
 - a. Exterior materials including brick, cement hard coat stucco, brick, adobe, natural stone, textured concrete, textured and split face or ground face concrete masonry units (Figure 2-58).
 - b. Pitched roof materials including concrete and clay tile roofs and standing seam metal roofs.
 - c. Accent materials such as brick, stone and masonry shall be incorporated in proportionate quantities to the overall building elevation.
10. The following accent materials are encouraged:
 - a. Mosaic tile (Figure 2-59)
 - b. Wood
 - c. Architectural metal, including weathering steel or rust finished metal
11. The following materials shall only be used as minor accent materials on the building façade and in no case should be the sole façade material:
 - a. Pre-fabricated metal wall panels
 - b. Un-textured or unarticulated tilt-up concrete panels



Figure 2-58



Figure 2-59



Figure 2-60

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Figure 2-61



Figure 2-62



Figure 2-63

12. At least three (3) substantially different materials shall be utilized on all facades of the building (Figure 2-60).

F. Mechanical Equipment

Mechanical equipment shall be screened from public view and ground mounted equipment is encouraged. Screening shall be accomplished through the use of landscaping, walls, parapets, undergrounding and/or concealed placements.

G. Energy Conservation

1. Architectural design should consider the desert climate and energy conservation by utilizing one or more of the following design solutions:
 - a. Provide shade for exterior walls through the use of roof overhangs, exterior shading devices and inset windows (Figures 2-61, 2-62 & 2-63).
 - b. Design outdoor spaces so they are protected from summer sun exposure.
 - c. Use materials and colors that minimize heat absorption without reflecting.
2. Consideration shall be given to passive solar heating and heat gain avoidance.
3. Shade devices should be provided on all south and west facing elevations.
4. Active water harvesting elements shall be permitted in less visible areas. Freestanding cisterns shall be designed to complement the building design, materials and color and/or screened from view.

Chapter 2: Non-Residential

Section 2.3 Landscape Design

Intent: Landscaping shall be designed to preserve natural existing vegetation and to enhance and complement the project architecture and the surrounding environment, utilizing native Sonoran Desert species.

A. Preservation of Existing Landscape

1. Existing natural landscaping and habitat shall be preserved to the greatest extent possible by the following:
 - a. Encourage clustering of buildings to preserve sensitive areas (landscaping and habitat) and maximize open space (Figure 2-64)
 - b. Identify specimen plants and incorporate into landscape plans (Figure 2-65).

B. Landscape Themes and Character

1. Landscaping shall enhance visual character and provide amenities for pedestrians through the use of the following:
 - a. Consider landscaping as an integral element of the project when site planning.
 - b. Provide landscaping to highlight the built environment.
 - c. Use landscaping to help define pedestrian circulation.
 - d. Accentuate building and project entrances with landscaping (Figure 2-66).
 - e. Provide accent landscaping and hardscaping at intersections to create focal point for development.
 - f. Use trees and plant materials to maximize shade for pedestrians (Figure 2-67).
 - g. Provide landscape perimeter treatments that transition between urban and open/



Figure 2-64



Figure 2-65



Figure 2-66

Chapter 2: Non-Residential



Figure 2-67



Figure 2-68



Figure 2-69

- rural space to reduce harsh edges.
- h. Plant trees to provide shade for pedestrians, automobiles and western facing structural elements.
- i. Screen undesirable views with plant materials and berms.
- j. Create a sense of enclosure in seating and gathering areas, such as plazas and courtyards by using landscaping (Figure 2-68).

C. Drainage and Detention Areas

The following design standards shall be utilized where technically feasible. Exceptions to the following standards must be approved by the Town Engineer.

1. Drainage swales shall be treated as a landscape element and integrated into the overall site and planting designs:
 - a. Use indigenous rock and planting materials within drainage swales (Figure 2-69).
 - b. Design swales to appear as natural land forms by varying widths and flowing with the natural contours when possible.
2. Detention areas shall have a natural appearance by using one or more of the following design standards:
 - a. Blend detention areas with existing landforms by using freeform designs.
 - b. Construct spillways with indigenous rock and natural materials (Figure 2-70).
 - c. Create interest by using local rocks and boulders in varying sizes.
 - d. Design slopes that are gentle and rounded, not abrupt.
 - e. Use indigenous riparian planting materials.
 - f. Integrate retention areas into the Open Space plan whenever possible and/or utilize as a wetland habitat.

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- g. Rainwater collection may be an ancillary use of on-site retention.

D. Plant Materials

Design of landscaping shall enhance local character and provide amenities for pedestrians. Larger specimen plants shall be placed in prominent locations to add visual interest to the property and may serve to define entrances and pathways (Figure 2-71).

Section 2.4 Special Use Exceptions for Office, Institutional, Tech Park, and Industrial Uses

The Design Standards established within Sections 2.1 through 2.3 shall apply to office, institutional, tech park and industrial uses, except as modified by this section.

1. Walls planes shall be articulated utilizing the methods provided in Section 2.2.D., with the exception that Section 2.2.D.1.e shall not be applicable.
2. Variations in roof parapets heights and inclusion of architectural elements to reduce the mass of office, institutional, tech park and industrial buildings shall be employed.
3. Pre-cast walls shall incorporate reveals, recessed panels, recessed windows and/or molding to articulate monolithic wall planes. Pre-cast buildings shall incorporate conventional building materials such as stucco, plaster, glass, stone, brick or decorative masonry to enhance and articulate the building façade (Figure 2-73 & 2-74).
4. Glazing may exceed the threshold established by Section 2.2.D.2.d. provided glazing is accented or framed with proportionate use of metal or other building materials to interrupt long expanses of glass (Figure 2-75)



Figure 2-70



Figure 2-71



Figure 2-72

Chapter 2: Non-Residential



Figure 2-73



Figure 2-74



Figure 2-75

5. Parking structures shall be integrated into the overall design and shall be architecturally consistent with the primary building in terms of color, material, and scale.
6. Where applicable and feasible, buildings shall be oriented to internalize service and loading areas between buildings to reduce visibility of these areas.

Appendix 2-1 Building Orientation



Appendix 2-2 Project Entries



Appendix 2-3 Walls and Fences



Appendix 2-4 Project Signs



Appendix 2-5 Loading, Utility & Service Areas



Appendix 2-6 Main Street



Appendix 2-7 Building Mass/Façade Articulation



Appendix 2-8 Roof Planes



Appendix 2-9 Fenestration



Appendix 2-10 Color & Materials



Appendix 2-11 Office/Tech Park



Appendix 2-12 Non-Corporate Architecture



Appendix 2-13 Public Art



Appendix 2-14 Artistic Elements



Appendix 2-15 Artistic Elements



Appendix 2-16 Plazas and Courtyards



Appendix 2-17 Miscellaneous Examples



Chapter 3: Residential Design Standards

- Section 3.1 Site Planning
- Section 3.2 Architectural Design
- Section 3.3 Landscape Design



Chapter 3: Single-Family Residential

Chapter 3: Single-Family Residential Development Design Standards

Applicability: These development design standards shall apply to all single-family attached and detached residential projects and housing types within the Town of Oro Valley, including production home subdivisions and custom homes, unless specific Planned Area Development design guidelines apply.

Section 3.1 Site Planning

A. Neighborhood Design

Residential developments shall be designed to maximize privacy, convenience and safety of residents, preserve natural features and resources, and promote efficient and convenient multi-modal access to adjacent roads, neighborhoods, amenities, services, and employment (Figure 3-1).

1. Open space shall be used to enhance and organize the community through use of one or more of the following design strategies:
 - a. Place open space elements visible from roadways within residential areas.
 - b. Clustering of lots to preserve open space.
 - c. Provide open space at project entries (Figure 3-2).

B. Street Character

1. Street character should be diverse in residential areas. Diverse is defined as providing safety, interest and variety while maintaining a harmonious context (Figure 3-3).



Figure 3-1



Figure 3-2



Figure 3-3

Chapter 3: Single-Family Residential



Figure 3-4



Figure 3-5



Figure 3-6

2. Street trees, landscape themes, varied setbacks or architectural treatments shall be used to provide individual street character (Figure 3-4).
3. Varied lot widths and setbacks are encouraged.
4. Development design should incorporate focal points such as open space, common area, park, or mountain views.
5. Except on lots less than 50 feet wide, at least two (2) potential garage orientation placements, including front and side or rear loading, are required.

C. Entry Design

1. Residential developments shall provide well defined entry features at all major entrances. Entries shall be defined using the following:
 - a. Landscaped median that separates ingress and egress lanes (Figure 3-5)
 - b. Development sign or monument at the entry (Figure 3-6).
 - c. Other approved features that define the entrance and provide a visual gateway to the development

D Roadway Network

1. The residential roadway network shall be appropriate in terms of scale and capacity for a residential neighborhood. Street width should reflect adjacent land use. Narrower streets are encouraged, as approved by the Town Engineer, to reduce

Chapter 3: Single-Family Residential

2. Provisions for bicycle circulation shall be provided to tie into existing bikeways on collector and arterial roads (Figure 3-7).
3. Way finding shall be provided for subdivisions over 40 acres using the following:
 - a. Directional signage
 - b. Themed landscaping along roadways (Figure 3-8)
4. Pedestrian and vehicular connections shall be provided between neighborhoods, unless a natural barrier such as a wash or topography creates an impediment or if waived by the Town Engineer.
5. Local streets shall not exceed 600 linear feet without a curve or break in circulation, such as a traffic circle, unless approved by the Town Engineer.

E. Grading and Drainage

1. The following design standards shall be utilized unless an exception is granted by the Town Engineer.
2. Detention areas shall have a natural appearance by using one or more of the following design standards:
 - a. Blend detention areas with existing landforms by using freeform designs.
 - b. Construct spillways with indigenous rock and natural materials (Figure 3-10).



Figure 3-7



Figure 3-8



Figure 3-9

Chapter 3: Single-Family Residential



Figure 3-10



Figure 3-11



Figure 3-12

- c. Create interest by using rocks and boulders in varying sizes.
 - d. Design slopes that are gentle and rounded, not abrupt.
 - e. Use indigenous riparian plant materials.
 - f. Integrate retention areas into the Open Space plan whenever possible and/or utilize as a riparian habitat.
3. Grading plans shall utilize “land form” grading that mirrors and blends with natural grades, contours and existing site conditions (Figure 3-11)
 4. Driveways and roads shall complement the natural contours of the land
 5. The following methods shall be used to minimize impacts created by cut and fill slopes unless determined to be technically unachievable by the Town Engineer:
 - a. All exposed disturbed areas shall be revegetated with plant material and treated to create a natural appearance.
 - b. Tops and toes of slopes shall be rounded to smoothly transition with the natural grades.
 - c. Retaining walls may be used to reduce excessive amount of slope area and/or preserve existing vegetation, as determined by the Town Engineer (Figure 3-12).
 6. Retaining walls shall be designed with the following elements:

Chapter 3: Single-Family Residential

- a. Color and texture shall be consistent with associated architecture and/or character of surrounding natural areas.
- b. As appropriate, utilize multiple walls (terracing) with 4' wide minimum planting areas between terraces (Figure 3-14).
- c. Incorporate natural features as open space during site planning.
- d. Maintain integrity of hillsides and ridge-lines.

F. Utilities and Mechanical Equipment

1. All mechanical equipment, including air conditioners and pool equipment, shall be fully screened from view of adjacent properties and/or street by an architecturally appropriate screening method.
2. Gas meters and electrical service panels shall be placed as to minimize visibility from the street and screened from view as feasible, while maintaining access to the meters or panels.

G. Natural Features and Open Space

1. Natural features, including drainage corridors, vegetation and habitat, shall be preserved to the greatest extent possible by use of the following:
 - a. Significant environmental features, shall be identified and conserved as open space on the development plan or plat.

H. Walls and Screening



Figure 3-13



Figure 3-14



Figure 3-15

Chapter 3: Single-Family Residential



Figure 3-16



Figure 3-17



Figure 3-18

1. Walls may be used as a design element in the community to provide project identity, security, and noise attenuation (Figure 3-15).
2. Establish a “theme” for the development that includes wall design. Methods to distinguish walls include (Figure 3-16):
 - a. Use colors and materials that are consistent with the architectural themes and material and color palette of the buildings within the development.
 - b. Comprehensively design walls and fences within a development using materials and colors coordinated with architectural and signage elements (Figure 3-117).
3. Break up long, solid perimeter walls by using the following techniques:
 - a. Wall segments greater than the minimum lot width for the applicable zoning district shall utilize at least two of the following features (Figure 3-18)
 - (1). Decorative features: caps, patterns, and variation in textures or materials.
 - (2). Use of swales, berms and landscaping.
 - (3). Undulations or offset areas.
 - (4). Vary setbacks.
4. Alternatives to solid walls include earthen berms, dense landscaping, view walls (walls with wrought iron or a combination of wrought iron and solid wall) and decorative fencing (Figure 3-19). Alternatives must be approved by the Planning and Zoning Administrator.

Chapter 3: Single-Family Residential

I. Crime Prevention Through Environmental Design (CPTED)

Site planning shall consider the following CPTED elements:

1. Natural Surveillance

Natural surveillance increases the threat of apprehension for unauthorized persons by taking steps to increase the perception that people and suspicious activities can be seen. Natural surveillance occurs by designing the placement of physical features, activities and people in such a way as to maximize visibility and foster positive social interaction among legitimate users of private and public space. Potential offenders feel increased scrutiny and limitations on their escape routes and are discouraged from entering or remaining in such an area. The following natural surveillance considerations shall be integrated into the site and building or home design:

- a. Design streets and pathways to maximize pedestrian and bicycle traffic (Figure 3-20).
- b. Place windows overlooking sidewalks, parking lots, common areas, and recreational areas (Figure 3-21).
- c. Landscape designs should provide surveillance, especially in proximity to designated points of entry and other undefined opportunistic points of entry.
- d. Place lighting along pathways and other pedestrian-use areas, including recreational areas (Figure 3-22)

2. Natural access control



Figure 3-19



Figure 3-20



Figure 3-21

Chapter 3: Single-Family Residential



Figure 3-22



Figure 3-23



Figure 3-24

Natural access control limits the opportunities for criminal activity by incorporating design entrances, exits, fencing, lighting and landscape should be strategically placed to limit access or control flow of persons into, out of, and through a development. The following natural access considerations shall be integrated into the site and home or building design:

- a. Use a single, clearly identifiable, point of entry for recreation and common areas (Figure 3-23).
- b. Use hostile vegetation containing spines, thorns or sharp leaves or other plant to discourage intrusion (Figure 3-24).
- c. Avoid design features that provide access to roofs or upper levels

Section 3.2 Architectural Design

Intent: to promote coherent, context appropriate designs excellence based upon a common set of design principles which include consideration of the climate and historic context and design that is responsive to the climate, history, environment, and natural setting of Oro Valley.

A. Energy Conservation

1. Architectural design shall consider the climate and energy conservation by utilizing one or more of the following design solutions:
 - a. Provide shade for exterior walls, especially on the south and west elevations, through the use roof overhangs, exterior shading devices or inset windows.
 - b. Designs should utilize porches, architecturally integrated shade structures and

Chapter 3: Single-Family Residential

awnings, and patios to provide shade and reduce solar gain through windows and doorways (Figure 3-25).

- c. Utilize materials and colors that minimize heat absorption without otherwise violating reflectivity regulations (Figure 3-26).
2. Subdivision lot configuration shall consider passive solar heating during the winter, solar heat gain avoidance during the warm season, and natural ventilation and daylighting throughout the year.

B. Home Design

1. Single-family homes shall be arranged and grouped so that their primary orientation complements one another and adjacent, existing development (Figure 3-27).
2. Building mass shall be broken up by utilizing one or more of the following:
 - a. Break up mass of large buildings by dividing into basic geometric components (one story at pedestrian entrances), with intersecting wall planes.
 - b. Break up long contiguous building surfaces with off-sets or contrasting forms at regular intervals along the primary façade.
 - c. Vary roof line silhouettes (Figure 3-28).
 - d. Glazing shall not dominate façade area, unless sufficient shading is provided.
3. Designs should incorporate a diversity of authentic traditional and contemporary Southwestern design elements and materials and shall be appropriate to the Sonoran Desert context and natural environment. This shall be



Figure 3-25



Figure 3-26



Figure 3-27

Chapter 3: Single-Family Residential



Figure 3-28



Figure 3-29



Figure 3-30

- a. Front façades shall incorporate a range of architectural details and massing arrangements that provide an attractive, architecturally cohesive streetscape (Figure 3-28).
 - b. Windows shall be recessed from the building wall, or casement windows, lintels above the windows or pop outs around the window frame shall be provided.
4. Project design shall consider and integrate all elements by:
- a. Considering the design of all sides of a building (“four-sided architecture”). All four sides of the building shall provide adequate architectural treatments, articulation, and fenestration to present a coherent design theme. Side walls of homes do not require substantial building projections, but shall include elements consistent with the front façade of the home such as lintels, pop-outs and other methods of architecturally enhance the side walls of homes.
 - b. Accessory structures (structures other than the primary building(s) such as screen walls, signage structures) shall reflect the character of the primary building (s) or development theme in terms of scale, materials, colors and style (Figure 3-31).
 - c. Coordinate similar project types on adjoining parcels, e.g. commercial at an intersection. This means that certain design elements such as site walls, open space, colors or landscape elements should be similar. Compatibility and visual coherence is desired, not necessarily sameness.
 - d. Rooftop mechanical equipment, vents and

Chapter 3: Single-Family Residential

ducts shall be screened or painted to match the roof color. Screening shall be consistent with building design. Low reflectivity materials are preferred.

5. Building materials shall be of high quality and appropriate to the architectural style and vernacular of the development. The following guidelines shall be followed:
 - a. Materials, including stucco, brick, adobe, natural stone, textured concrete or textured and split face concrete masonry units shall predominate (Figure 3-32).
 - b. Smooth-faced concrete, board and batten, untreated concrete block or metal buildings shall be used judiciously as accent materials and shall not predominate (Figure 3-33).
6. Building articulation should add three dimensional interest to the façade. Details should be integrated and not appear “tacked on”.

C. Home/Building Styles and Historic Context

1. Design shall consider the context and architectural vernacular of the region. The architectural vocabulary should contain forms or include appropriate elements which draw influences from traditional Southwestern styles such as, but not limited to: Southwest Traditional, Territorial, MISSION, Pueblo, Spanish Colonial or Tuscan (Figure 3-34).
2. While a single style or combination of the above styles is not required, the use of a contemporary interpretation of historic styles is strongly encouraged (Figure 3-35).

D. Home/Building Size and Mass



Figure 3-31



Figure 3-32



Figure 3-33

Chapter 3: Single-Family Residential



Figure 3-34



Figure 3-35



Figure 3-36

1. Apparent size and mass of two-story buildings shall be mitigated using the following strategies:
 - a. The second story should have less area than the first so as to provide setbacks from the first to the second story in order to reduce building mass.
 - b. Second story setbacks and articulation are required for corner lots and for lots with exposure to arterial and collector streets.
 - c. Break up long continuous building surfaces with off-sets or differentiated forms (Figure 3-36).
 - d. Vary roof line silhouettes.
2. Residential building materials shall be proven durability in the Sonoran Desert environment. Permitted primary materials include the following:
 - a. Exterior materials including brick, cement hard coat stucco, adobe, natural or simulated (cultured) stone, textured concrete textured and split face or ground face concrete masonry units, and other appropriate materials (Figure 3-37)
 - b. Pitched roof materials including concrete and clay tile roofs and standing seam metal roofs.
 - c. The architecture submittal shall contain a sample and specifications of the material (s).
3. The following accent materials are encouraged as appropriate:

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- a. Stone veneer (genuine stone or high quality cultured stone materials) (Figure 3-38)
 - b. Brick or split face masonry block
 - c. Wood (Figure 3-39)
 - d. Metal accents, including tin, architectural metal, including weathering steel or rust finished metal
4. The following materials are prohibited:
- a. Asphalt shingle roofs
 - b. Wood sheet or vinyl siding materials
 - c. Highly reflective or mirrored glass panels

E. Diversity of Home Design

1. All residential subdivisions with 30 or more lots shall contain a minimum of three (3) unique home designs with at least two (2) elevations of a different architectural style (Figure 3-40)
2. Two-story homes shall not be located on corner lots. No more than 2 two-story homes shall be located side by side on the same street. Two-story homes shall be limited to no more than 60% of the lots within the development.
3. Alternate approaches can be approved that include staggered front building setbacks in sufficient proportion to provide a varied street scape appearance. Alternative approaches shall establish substitute limitations on two-story homes to reduce the scale and massing along the streetscape.



Figure 3-37



Figure 3-38



Figure 3-39

Chapter 3: Single-Family Residential



Figure 3-40



Figure 3-41



Figure 3-42

F. Garage Layout

1. The following methods shall be utilized to de-emphasize garages along streetscapes:
 - a. For lots 50 feet wide and greater, the garage door should consist of not more than 50% of the total building frontage (Figure 3-41).
 - b. Garages may project no more than five (5) feet in front of the primary front elevation of the house, unless side-entry. Low walls, courtyards or other acceptable design elements may be used to satisfy this requirement.
 - c. Garage doors shall vary in style, color, and materials as appropriate to the architecture of the home design.
2. The following optional methods are encouraged and shall be considered in the subdivision and home design:
 - a. Garages for three cars should have the third portion offset from the other two (Figure 3-42).
 - b. Side entry garages should have fenestration (e.g. windows) on the elevation facing the street.
 - c. Garages may be recessed from living areas (Figure 3-43)
 - d. Garages may be placed at rear of lot ("rear loading").

G. Architectural Compatibility

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1. Projects proposed within an existing context of a built neighborhood, master planned community (MPC), or planned area development (PAD) should be compatible with the existing structures, where a consistent context exists. This does not apply when there is an intended change of character. Compatibility shall consider the following:
 - a. The roof shape, type, and pitch shall be coordinated with the predominate forms and types in the surrounding built environment.
 - b.
 - b. The proportion and scale of the proposed development shall be considered in the evaluation of compatibility (Figure 3-44).
 - c. Fenestration, including the number, size and spacing of glazing and doors in a façade should be similar to other buildings in the area (Figure 3-45).

H. Colors and Materials

1. Colors shall relate to one another and the natural environment on the basis of pigment, color value, and/or intensity.
 - a. At least two (3) color schemes, each containing a minimum of three (3) related hues, shall be submitted with the model home architectural elevations.
 - b. The same color scheme and elevation may not be repeated in adjacent homes or homes directly across the street from one another.
 - c. External material colors, including the main body color, trim and accent colors, roofs, window frames, and doors, shall not exceed 40% Light Reflectivity Value (LRV) (Figure 3-46).



Figure 3-43



Figure 3-44



Figure 3-45

Chapter 3: Single-Family Residential



Figure 3-46



Figure 3-47



Figure 3-48

3. Foreground colors must harmonize and blend with existing vegetation, natural rock/earth forms or built background (Figure 3-48).

Section 3.3 Landscape Design

Landscaping within common areas shall be designed to preserve natural existing vegetation and to enhance and compliment the project architecture and the surrounding environment, utilizing native Sonoran Desert species.

A. Preservation of Existing Landscape

Existing natural landscaping and habitat shall be preserved to the greatest extent possible by the following:

1. Clustering of lots to preserve sensitive areas .
2. Identify specimen plants and incorporate into landscape plans (Figure 3-49).

B. Landscape Themes and Character

1. Landscaping shall enhance visual character and provide amenities for pedestrians through the use of the following:
 - a. Consider landscaping as an integral element of the project when site planning (Figure 3-50).
 - b. Provide landscaping to highlight the built environment.
 - c. Use landscaping to help define pedestrian circulation.
 - d. Provide accent landscaping and hardscaping at strategic key intersections and at major residential entries (Figure 3-51).

Chapter 3: Single-Family Residential

- e. Place plant materials on a site to maximize shade for pedestrians.
 - f. Provide landscape perimeter treatments that transition between urban and open/rural space to reduce harsh edges.
 - g. Plant trees to provide shade for pedestrians, automobiles and western facing structural elements.
 - h. Create a sense of enclosure in seating and gathering areas, such as plazas and courtyards by using landscaping.
2. Design of landscaping shall enhance character and provide amenities for pedestrians. Larger specimen plants shall be placed in prominent locations to add visual interest to the property and may serve to define entrances and pathways.



Figure 3-49



Figure 3-50

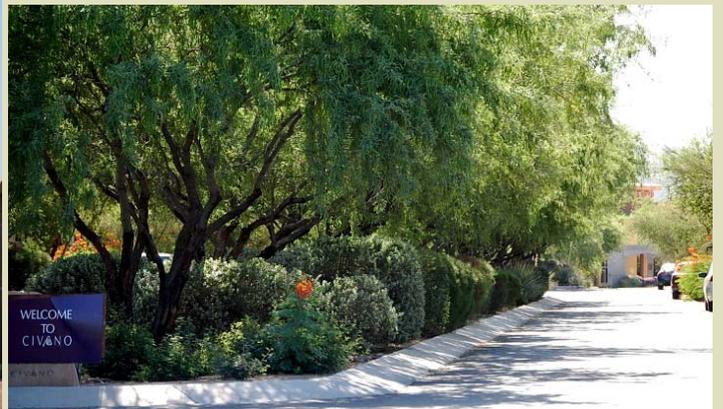


Figure 3-51

Appendix 3-1 Single Family Residential Examples



infrastructure cost, calm traffic, enhance pedestrian safety, and improve neighborhood livability.



Appendix 3-2 Single Family Residential Examples



Chapter 4: Multi-Family Design Standards

Section 4.1 Site Design

Section 4.2 Architectural Design

Section 4.3 Landscape Design





Chapter 4: Multi-Family Residential Development



Figure 4-1

Chapter 4: Multi-Family Residential Development Design Standards

Applicability: These Multi-Family Residential Development Design Standards shall apply to all multi-family attached and detached residential projects and housing types within the Town of Oro Valley, including townhomes, apartments, condominiums and attached single-family residential development 2 or more unless specific Planned Area Development design guidelines apply.

Section 4.1 Site Design

Intent: to promote context appropriate, well-integrated site designs based upon a common set of design standards which include consideration of the existing topography, context, and natural setting to achieve a functional, efficient, and environmentally sensitive design.

A. Site Layout

1. Multi-family residential developments shall be designed to maximize privacy, convenience and safety of residents, preserve natural features and resources, and promote efficient and convenient multi-modal access to adjacent roads, neighborhoods, amenities, services, and employment (Figure 4-1).
2. Open space shall be used to enhance the community through use of one or more of the following design strategies:
 - a. Place open space elements to be visible from roadways within residential areas.
 - b. Place paved lighted, ADA-accessible walkways between all common facilities and residential buildings.
 - c. Place pockets of landscaped open space or common areas between buildings and



Figure 4-2



Figure 4-3

Chapter 4: Multi-Family Residential Development

to provide a serene, attractive residential atmosphere (Figure 4-3).

3. Buildings shall be arranged as to maximize views, including mountain views, open space and common area views, from residential units (Figure 4-4).
4. Multi-family developments shall maintain a residential character by utilizing and emulating residential architectural themes and elements, including styles, features and materials from the Residential Development Design Standards (Chapter 3).

B. Entry Design

1. Multi-Family Residential developments shall provide well defined entry features at all major entrances using one or more of the following:
 - a. Landscaped median that separates ingress and egress lanes
 - b. Development sign or monument at the entry (Figure 4-5)
 - c. Other approved features that define the entrance and provide a visual gateway to the development (Figure 4-6)

C. Roads, Drives, and Circulation

1. Provisions for bicycle parking shall be provided in proximity to dwellings.
2. Way finding shall be provided for developments over 80 units using of the following:
 - a. Directional signage (Figure 4-7)



Figure 4-4



Figure 4-5



Figure 4-6

Chapter 4: Multi-Family Residential Development



Figure 4-7



Figure 4-8



Figure 4-9

- b. Themed landscaping along drives or roadways
- 3. Pedestrian connections shall be provided from buildings to common areas, sidewalks, trails, and to other buildings or portions of the development.

D. Grading and Drainage

- 1. The following design standards shall be utilized to the extent technically feasible. Exceptions to the following standards must be approved by the Town Engineer.
 - 2. Detention or water harvesting areas shall have a natural appearance by using one or more of the following design standards:
 - a. Blend detention areas with existing landforms by using freeform designs
 - b. Construct spillways with indigenous rock and natural materials (Figure 4-8).
 - c. Create interest by using rocks and boulders in varying sizes.
 - d. Design slopes that are gentle and rounded, not abrupt.
 - e. Use indigenous riparian plant materials (Figure 4-9).
 - f. Integrate retention areas into the Open Space plan whenever possible and/or utilize as a riparian habitat.
 - 3. Grading plans shall utilize “land form” grading that mirrors and blends with natural grades, contours and existing site conditions (Figure 4-10).

Chapter 4: Multi-Family Residential Development

4. Driveways and roads shall complement the natural contours of the land.
5. The following methods shall be used to minimize impacts created by cut and fill slopes unless determined to be technically unachievable by the Town Engineer:
 - a. All exposed disturbed areas shall be revegetated with plant material and treated to create a natural appearance (Figure 4-11).
 - b. Tops and toes of slopes shall be rounded to smoothly transition with the natural grades.
 - c. Retaining walls may be used when necessary to reduce excessive amount of slope area and/or preserve existing vegetation.
6. Retaining walls shall be designed with the following elements:
 - a. Color and texture shall be compatible with associated architecture and/or character of surrounding natural areas.
 - b. As appropriate, utilize multiple walls (terracing) with 5' wide minimum planting areas between terraces (Figure 4-12).
 - c. Preserve washes and significant resource areas.
 - d. Incorporate natural features as open space during site planning.
 - e. Maintain profile of hillsides and ridgelines.



Figure 4-10



Figure 4-11



Figure 4-12

Chapter 4: Multi-Family Residential Development



Figure 4-13



Figure 4-14



Figure 4-15

E. Utilities, Mechanical Equipment, and Service Yards

1. All service yards containing mechanical equipment, including air conditioners and pool equipment, shall be fully screened from view by an architecturally appropriate screening material.
2. Gas meters and electrical service panels shall be placed as to minimize visibility from the street and be screened from view by landscaping as feasible (Figure 4-13).
3. All trash refuse enclosures shall be screened on four sides by a solid opaque screen wall. Gates shall be architecturally compatible with the colors, materials, and style of the project (Figure 4-14).

F. Natural Features and Open Space

1. Natural features, including drainage corridors, and vegetation, shall be preserved to the greatest extent possible by use of the following and in full accordance with the Environmentally Sensitive Lands requirements of the Zoning Code:

G. Walls and Screening

1. Walls shall be used as an element in the project to provide project identity, security, and noise attenuation (Figure 4-15).
2. Establish a “theme” for the development that includes wall design. Methods to distinguish walls include:
 - a. Use colors and materials that are consistent with the architectural themes and material and color palette of the buildings

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within the development.

- b. Comprehensively design walls and fences within a development using materials and colors coordinated with architectural and signage elements.
3. Break up long, solid walls by using the following techniques:
- a. Wall segments greater than 40 feet shall utilize at least two of the following features:
 - (1). Decorative features: caps, patterns, and variation in textures or materials (Figure 4-16).
 - (2). Use of swales, berms and landscaping.
 - (3). Undulations or offset areas (Figure 4-17).
 - (4). Vary setbacks.
 4. Alternatives to solid walls include earthen berms, dense landscaping, view walls (walls with wrought iron or a combination of wrought iron and solid wall) and decorative fencing. Alternatives must be approved by the Planning and Zoning Administrator (Figure 4-18).

H. Crime Prevention Through Environmental Design (CPTED)

Site planning shall consider the following CPTED elements:

1. Natural surveillance



Figure 4-16



Figure 4-17



Figure 4-18

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Figure 4-19



Figure 4-20



Figure 4-21

Natural surveillance increases the threat of apprehension for unauthorized persons by taking steps to increase the perception that people and suspicious activities can be seen. Natural surveillance occurs by designing the placement of physical features, activities and people in such a way as to maximize visibility and foster positive social interaction among legitimate users of private and public space. Potential offenders feel increased scrutiny and limitations on their escape routes and are discouraged from entering or remaining in such an area. The following natural surveillance considerations shall be integrated into the site and building or home design (Figure 4-19):

- A. Design drives, streets and pathways to maximize pedestrian and bicycle traffic.
 - B. Place windows overlooking sidewalks, parking lots, common areas, and recreational areas (Figure 4-20).
 - C. Landscape designs should provide surveillance, especially in proximity to designated points of entry and other undefined opportunistic points of entry (Figure 4-21).
 - D. Place lighting along pathways and other pedestrian-use areas, including recreational areas.
2. Natural access control

Natural access control limits the opportunities for criminal activity by incorporating design entrances, exits, fencing, lighting and landscape should be strategically placed to limit access or control flow of persons into, out of, and through a development. The following

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- A. Where feasible, use a single, clearly identifiable, point of entry.
- B. Use hostile vegetation containing spines, thorns or sharp leaves or other plant types to discourage intrusion.
- C. Avoid design features that provide access to roofs or upper levels

Section 4.2 Architectural Design

Intent: to promote coherent, context appropriate designs excellence based upon a common set of design principles which include consideration of the climate and historic context and design that is responsive to the climate, history, environment, and natural setting of Oro Valley.

A. Building Design

1. Multi-family buildings shall be arranged and grouped so that their primary orientation provides privacy, maximizes views, and visually blends and functions well with adjacent, existing development. Consideration should be given to multi-story buildings overlooking existing single-family residential developments so that windows, balconies, or patios do not compromise privacy for existing residents.
2. Designs should incorporate a diversity of authentic traditional and contemporary Southwestern design elements and materials and shall be appropriate to the Sonoran Desert context and natural environment. This shall be achieved by (Figure 4-25)
 - a. Front façades that incorporate a range of architectural details and massing arrangements for each dwelling unit or building that, together, provide an attractive, architecturally cohesive streetscape.



Figure 4-24

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Figure 4-25



Figure 4-26



Figure 4-27

- b. Building entries should be easily identifiable.
 - c. Recess windows from the building wall, or casement windows, lintels above the windows or pop outs around the window frame shall be provided (Figure 4-26).
 - d. Design buildings to be consistent with appropriately scaled surrounding or adjacent structures.
3. Project design shall consider and integrate all elements by:
 - a. Consider the design of all sides of a building (“four-sided architecture”). All four sides of the building shall provide adequate architectural treatments, articulation, and fenestration to present a coherent design theme.
 - b. Accessory structures such as screen walls, signage structures and parking canopies shall reflect the character of the primary building(s) or development theme in terms of scale, materials, colors and style (Figure 4-28).
 - c. Coordinate similar project types on adjoining parcels. This means that certain design elements, such as site walls, open space, colors or landscape elements can be similar. Compatibility and visual coherence is desired, not necessarily sameness.
 - d. Rooftop mechanical equipment, vents and ducts shall be screened or painted to match the roof color and building architecture and shall not be visible generally. Low reflectivity (<40% L.R.V.) materials are preferred.

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4. Building materials shall be of high quality and appropriate to the architectural style and vernacular of the development. The following guidelines shall be followed:
 - a. Substantial materials, including stucco, brick, adobe, natural stone, textured concrete or textured and split face concrete masonry units shall predominate.
 - b. Smooth-faced concrete, board and batten, untreated concrete block or metal shall be used judiciously as accent materials and shall not predominate.
5. Building articulation should add three dimensional interest to the façade. Details should be integrated and not appear “tacked on” (Figure 4-29)

B. Building Styles and Historic Context

1. Design shall consider the context and architectural vernacular of the region. The architectural vocabulary should contain forms or include appropriate elements which draw influences from traditional Southwestern styles such as, but not limited to: Southwest Traditional, Territorial, Pueblo, Spanish Colonial or Tuscan (Figure 4-30).
2. While a single style or combination of the above styles is not required, the use of a contemporary interpretation of historic styles is strongly encouraged.

C. Building Size and Mass

1. Apparent size and mass of multi-story buildings shall be mitigated using the following



Figure 4-28



Figure 4-29



Figure 4-30

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Figure 4-31



Figure 4-32



Figure 4-33

strategies:

- a. Break up mass of large buildings by dividing into basic geometric components (one story at pedestrian entrances), with intersecting wall planes (Figure 4-31).
 - b. Emphasize the horizontal, but break up long continuous building surfaces with offsets or contrasting forms at regular intervals along the primary façade.
 - c. Vary roof line silhouettes (Figure 4-32).
 - d. Glazing shall be limited to no more than 50% of the façade area, unless shading is provided (Figure 4-33).
2. Multi-family residential building materials shall be of high quality and proven durability in the Sonoran Desert environment. Permitted primary materials include the following:
 - a. Exterior materials including cement hard coat stucco, brick, adobe, natural or simulated (cultured) stone, textured concrete textured and split face or ground face concrete masonry units, and (Figure 4-34)
 - b. Pitched roof materials including concrete and clay tile roofs and standing seam metal roofs,
 - c. The architecture submittal shall contain a sample and specifications of the material (s),
 - d. Other equivalent materials may be approved by the Planning and Zoning Administrator.
 3. The following accent materials are encouraged as appropriate:

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- a. Stone veneer (genuine stone or high quality cultured stone materials Figure 4-35)
- b. Brick or split face masonry block
- c. Wood (Figure 4-35)
- d. Metal accents, including tin, architectural metal, including weathering steel or rust finished metal (Figure 4-36)

4. The following materials are prohibited:

- a. Asphalt shingle roofs
- b. Wood sheet or vinyl siding materials
- c. Highly reflective or mirrored glass panels

D. Architectural Compatibility

1. Projects proposed within an existing context of a built neighborhood, master planned community (MPC), or planned area development (PAD) should be compatible with the existing structures, where a consistent context exists. This does not apply when there is an intended change of character. Compatibility shall consider the following:
 - a. The roof shape, type, and pitch shall be coordinated with the predominate forms and types in the surrounding built environment.
 - b. The proportion and scale of the proposed development shall be considered in the evaluation of compatibility.
 - c. Fenestration, including the number, size



Figure 4-34



Figure 4-35



Figure 4-36

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Figure 4-37



Figure 4-38



Figure 4-39

and spacing of windows and doors in a façade should be similar to other buildings in the area (Figure 4-38)

E. Colors and Materials

1. Colors shall relate to one another and the natural environment on the basis of pigment, color value, and/or intensity.
 - a. The color palette must include a minimum of three (3) related or complementary hues and shall be submitted with the conceptual architectural elevations (Figure 4-39).
 - b. The same color scheme should not be repeated in adjacent buildings or buildings directly across the street.
 - c. External material colors, including the main body color, trim and accent colors, roofs, window frames, and doors, shall not exceed 40% Light Reflectivity Value (LRV).
2. Vibrant, non earth tone colors must not be visible from scenic corridors.

F. Energy Conservation

1. Architectural design shall consider the climate and energy conservation by utilizing one or more of the following design solutions:
 - a. Provide shade for exterior walls, especially on the south and west elevations, through the use roof overhangs, exterior shading devices or inset windows (Figure 4-40).
 - b. Designs should utilize porches, architecturally integrated shade structures and awnings, and patios to provide shade and

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reduce solar gain through windows and doorways (Figure 4-41).

- c. Utilize materials and colors that minimize heat absorption without reflecting (Figure 4-42).
2. Consideration shall be given to passive solar heating and solar heat gain avoidance.

Section 4.3 Landscape Design

Landscaping within common areas shall be designed to preserve natural existing vegetation and to enhance and complement the project architecture and the surrounding environment, utilizing native Sonoran Desert species.

A. Preservation of Existing Landscape

Existing natural landscaping and habitat shall be preserved to the greatest extent possible by the following:

1. Clustering of buildings to preserve sensitive areas (landscaping and habitat) and maximize open space.
2. Identify specimen plants and incorporate into landscape plans (Figure 4-43).

B. Landscape Themes and Character

1. Landscaping shall enhance visual character and provide amenities for pedestrians through the use of the following:
 - a. Consider landscaping as an integral element of the project when site planning.
 - b. Use landscaping to help define pedestrian



Figure 4-40



Figure 4-41



Figure 4-42

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Figure 4-43



Figure 4-44



Figure 4-45

circulation (Figure 4-44).

- c. Provide accent landscaping and hardscaping at strategic key intersections and at major residential entries (Figure 4-45).
 - d. Place plant materials on a site to maximize shade for pedestrians.
 - e. Provide landscape perimeter treatments that transition between urban and open/rural space to reduce harsh edges by utilizing the same native vegetation found in the open/rural space.
 - f. Plant trees to provide shade for pedestrians, automobiles and western facing structural elements.
 - g. Create a sense of enclosure in seating and gathering areas, such as plazas and courtyards by using landscaping (Figure 4-46).
2. Design of landscaping shall provide shade and visual amenities for pedestrians. Larger specimen plants shall be placed in prominent locations to add visual interest to the property and may serve to define entrances and pathways.

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Figure 4-46

Appendix 4-1 Multi Family Residential Examples



Appendix 4-2 Multi Family Residential Examples

