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II. MULTI-FAMILY RESIDENTIAL DEVELOPMENT

A. Site Design

1. Overall Site Planning

a. Environmentally Sensitive Site Design (II.A.1.a)

Intent - Design development to minimize disturbance to the natural environment and reduce infrastructure costs.

Implementation Methods:

1. Prepare an environmental assessment of the site for use in the site design.
2. Cluster development on areas of the site with the least environmental impact.
3. Environmentally sensitive areas of the site should be identified, fenced off, and protected during any on-site development.
4. Minimize wash crossings and locate them at the narrowest points along the wash.
5. Locate and orient buildings to maintain views of mountain peaks and other scenic resources available from existing residences and roadways.
6. Incorporate and retain features of the natural environment such as watercourses, associated vegetation, mature specimen trees, topographical features, and rock outcroppings.

b. Design in Context (II.A.1.b)

Intent – Design new multi-family development that responds to the surrounding neighborhood, the Sonoran desert, and recognizes Tucson as a unique desert southwestern city.

Implementation Methods:

1. Involve neighbors early in the design process and review and incorporate, if possible, neighborhood recommendations that enhance compatibility with neighborhoods.
2. Energy conservation, passive solar design, and desert compatibility should be key components for development.
3. Develop multi-family residential communities with varied building orientations and setbacks, and strategically placed open space.

c. Site Layout for Visibility and Security (II.A.1.c)

Intent – Design the development adhering to “Safe by Design” criteria.

Implementation Methods:

1. Orient building entryways to be visible from other buildings, apartments, and houses.
2. Discourage the use of screening (landscaping, fences, and screen walls) that blocks visibility and makes two-way surveillance difficult.
3. Provide lighting for trails and bike paths at an appropriate scale.
4. In pedestrian areas, crosswalks, and other areas where pedestrians and vehicles meet, prevent over-illumination and glare, and avoid insufficient or uneven illumination.
5. In pedestrian areas, streets, and parking areas use metal-halide light sources for the visual comfort of pedestrians.
6. Lighting should be shielded with full cutoff and/or mounted below the top of wall, and shielded away from adjacent residential parcels and public roadways.
7. Locate lighting and illuminated signage, particularly entry lighting, so that it does not intrude on adjacent residences.

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2. Open Space and Common Areas

a. Common Areas and Open Space within Developments (II.A.2.a)

Intent – Integrate usable common areas and open space into developments.

Implementation Methods:

1. Include strategically placed open space that provides residents with safe and convenient passive and active recreational opportunities.
2. Orient open space areas so that they are visible and easily accessible for all residents.
3. Provide pedestrian and bicycle paths that connect open space areas within and outside the subdivision. Refer to the City of Tucson Parks and Recreation Strategic Plan and the Eastern Pima County Trail System Master Plan as the bases for connections to recreational and natural trail networks.

b. Detention/Retention Basins (II.A.2.b)

Intent - Design detention/retention basins for multiple uses, such as open space and recreation.

Implementation Methods:

1. Design watercourses and retention/detention areas as functional open space that can accommodate both passive and active recreation.
2. Incorporate the Multiple-Use Concepts and Aesthetic Design Guidelines in Chapter IV of the Stormwater Detention/Retention Manual.
3. Design moderate side slopes (4:1 maximum) to assure accessibility, and avoid rip rap and other materials that inhibit access.
4. Use ground cover, plants, and other materials appropriate for intended uses.



c. Outdoor Recreation Areas (II.A.2.c)

Intent – Outdoor activity areas should be accessible and include improvements that accommodate the residents of the development.

Implementation Methods:

1. Provide outdoor recreational amenities, such as ramadas, benches, turf areas, and play equipment, properly scaled to satisfy residents' needs.
2. Disperse children's play areas and other outdoor recreation areas throughout the development so that they are highly visible and easily accessible for all residents.
3. Connect play areas to other open space and trails within and outside the development.
4. Provide thorn-free shade trees in and around outdoor recreation areas.

3. Pedestrian and Alternative Travel Modes

a. Pedestrian and Bike Access within Development (II.A.3.a)

Intent - Encourage pedestrian and bike access throughout the development.

Implementation Methods:

1. Create pedestrian and bicycle connections within the development.
2. Provide sufficient width along sidewalks, paths, and trails to accommodate landscaping, and to provide visibility and freedom of movement.

b. Pedestrian and Bike Access Within and at Perimeter of Development (II.A.3.b)

Intent - Encourage pedestrian and bike access within the apartment complex and to nearby schools, other public facilities, and neighborhood commercial developments.

Implementation Methods:

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1. Provide convenient and inviting points of access at the project's perimeter to provide appropriate pedestrian and bicycle short cuts based on the site context and adjacent development.
2. Enhance access points along perimeter walls with design details (color, texture, decorative features, etc.), landscaping, and security lighting.
3. Provide safe and convenient pedestrian linkages throughout the development and to off-site pedestrian destinations.
4. Provide access points with sufficient width to accommodate landscaping, and to provide visibility and freedom of movement.

c. Transit Opportunities (II.A.3.c)

Intent - Encourage transit use where service exists, and support transit-ready design where future service is possible.

Implementation Methods:

1. Provide safe, convenient, and direct routes between new developments and existing or planned transit facilities.
2. Provide transit facility enhancements such as pullouts, shade structures, seating, and landscaping, where development abuts an existing or future route or facility.

d. Accessibility (II.A.3.d)

Intent – Design circulation systems, common areas, individual lots, and buildings to be usable by people of all abilities.

Implementation Methods:

1. Minimize obstacles, excessive height transitions, and unnecessary grade changes along routes, pathways, and sidewalks.
2. Provide direct routes that minimize distances between destinations.
3. Provide enough space to accommodate users of all abilities, minimizing hazards and anticipating and allowing for user error.
4. Create easily understandable environments that are simple to navigate and use, and incorporate highly visible paths and clear signage.

4. Vehicular Circulation and Parking

a. Vehicular Traffic (II.A.4.a)

Intent - Minimize the negative impact of vehicular traffic on existing neighborhoods created by new apartment development.

Implementation Methods:

1. Encourage primary vehicular access onto major streets.
2. Minimize interruptions to arterial traffic flow by limiting access points and curb cuts.
3. Include wildlife crossings where appropriate.

b. Parking, Loading, and Maneuvering (II.A.4.b)

Intent - Provide safe vehicular parking, loading, and maneuvering, with attention to functional and aesthetic concerns such as trash removal, emergency access, and reduction of heat build-up.

Implementation Methods:

1. Encourage on-site parking to the rear or side of buildings in order to improve the pedestrian experience and overall street quality.
2. Encourage mixed use and shared parking areas
3. Where existing neighborhood and site conditions dictate a more flexible approach to parking, a portion of the required parking can be on-street if on-street parking would add

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to the urban street character, improve pedestrian and bicycle safety, or is compatible with the neighborhood parking patterns.

c. Parking Reductions (II.A.4.c)

Intent - Reduce excess parking where mixed-use and joint-use of parking spaces are feasible or other criteria are met.

Implementation Methods:

1. Demonstrate that the project is within a designated pedestrian or transit-oriented development.
2. Demonstrate that there will be a decreased demand for parking because of the nature of the market and resident population (age or other demographic criteria).
3. Verify that adjoining uses that share the same parking area have different hours of operation and agree to share parking.

B. Architectural Design

1. Overall Design Context

a. Design Context and Neighborhood Character (II.B.1.a)

Intent –New residential developments should reflect the distinctive character of Tucson as a unique southwest city and the defining elements of the existing neighborhoods.

Implementation Methods:

1. Use building massing and height that express the neighborhood scale, especially along edges and streetscapes, to provide a transition to adjacent development.
2. Visually harmonize higher density residential developments with adjacent residential neighborhoods by repeating characteristic design elements, such as form, scale, pattern, color, material, and texture.
3. Protect the privacy of adjacent single family residential development by orienting balconies so they do not overlook neighboring single story homes.
4. Submit information and photographs of surrounding development to demonstrate compatibility.



b. Sonoran Desert Context, Energy Conservation, and Green Building (II.B.1.b)

Intent – New residential developments should respond to the context of the Sonoran Desert, incorporating energy efficiency and conservation.

Implementation Methods:

1. Consider traditional approaches to building in arid regions, such as: solar orientation; passive heating, cooling, and ventilation; thermal massing; and the use of shade, including awnings, verandas, ramadas, deeply recessed windows, and landscaping.
2. Orient buildings to respond to solar heat gain, and reduce reflectivity and glare by using architectural shading devices such as pronounced eaves, fin walls and/or covered walkways, and low reflective materials.
3. Use building elements, materials, and textures associated with the desert environment.
4. Incorporate outdoor living spaces, such as patios, courtyards, and roof decks. Consider the impact of solar orientation prior in the siting of such areas. Spaces having a southern or western orientation should incorporate landscape and architectural shading.
5. Consider using the LEED (Leadership in Energy and Environmental Design) Green Building Rating System when designing buildings.

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6. Integrate solar panels and other energy conservation equipment into the overall design of the buildings, or screen when possible.

c. Architectural Design for Visibility and Security (II.B.1.c)

Intent – Design buildings to maintain visibility of doors and windows from the street and from within the development thereby aiding surveillance and minimizing crime.

Implementation Methods:

1. Design building entries, individual entryways, and windows to face common areas and to maximize residents' views of their surroundings, especially recreational facilities and playgrounds.
2. Provide lighting at doorways, windows, entryways, and in corridors and service alleys.
3. Design common stairways to serve a limited number of units.
4. Street numbers integrated with the architectural character of the buildings should be clearly visible from public rights of way to aid the general public and emergency services in safely locating residences. In cases where building numbers are not visible from the public rights of way, entry point and on-site wayfinding signage should be provided.
5. Consider painting numbers on rooftops if views from neighboring properties are not adversely affected.



2. Architectural Elements

a. Elevations and Façades (II.B.2.a)

Intent – Encourage an attractive streetscape, entryways, and higher quality multi-family development. Provide architecture that is visually interesting from all sides for apartment buildings, and vary building placement and façade treatment, especially when adjacent to a major street.

Implementation Methods:

1. Vary building and site orientation, rear and side setbacks, and architectural features and elements, such as façade treatments, window placement, and detailing, to create visual interest.
2. Design side and rear building facades with attention to architectural detail comparable to the front facade. This is particularly important if rear and side facades are visible from streets or adjacent properties.
3. Configure multi-story components to minimize or eliminate tall, unarticulated exposures.

b. Roof and Parapet Design, Roof Lines, and Rooftop Equipment (II.B.2.b)

Intent - Encourage a high quality and visually interesting roof horizon. Encourage the design of roofs and parapet walls for functional uses and aesthetic screening of mechanical equipment on rooftops.

Implementation Methods:

1. Roof features and parapets should complement the character of adjoining neighborhoods.
2. Vary roof lines and surfaces, especially where building heights exceed 20 feet, in order to reduce the apparent scale of the structure and to preserve mountain peak views.
3. Incorporate roof elevation offsets, pop-ups, parapet offsets, and other massing effects to reduce monotony.
4. Use three-dimensional cornice treatments, parapet wall details, overhanging eaves, and other techniques to enhance architectural character.

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5. In higher density residential or mixed-use development consider using the roof for project amenities, such as roof gardens, terraces, and outdoor eating areas.
6. Integrate solar panels and other mechanical equipment into the overall design of the buildings and screen these elements from adjacent views through ground placement, parapets, or other design features.

C. Landscape Design and Screening

1. Landscape Design

a. Sonoran Desert Landscape Character (II.C.1.a)

Intent - Promote enhanced landscaping in multi-family developments that reflects the Sonoran desert environment as a means to moderate climate, decrease urban heat build up, conserve water, improve energy efficiency, and enhance the visual character of the development and the adjacent streetscape.

Implementation Methods:

1. Create landscape design and planting schemes of primarily Sonoran Desert plants, and incorporate xeriscape principles.
2. Incorporate the water-harvesting principles and techniques in the City of Tucson Water Harvesting Guidance Manual (March 2003).
3. Incorporate rocks and boulders, earthen berms, and grading treatments to increase visual interest and promote water harvesting.
4. Use reclaimed water for irrigation whenever possible.

b. Placement of Trees (II.C.1.b)

Intent - Provide a pleasant microclimate for pedestrians and increase the aesthetic appeal of the development and adjacent streets.

Implementation Methods:

1. Provide trees for accent and visual interest, with spacing determined by the requirements of the tree species, the mature canopy, and the context.
2. Locate trees along streets, sidewalks, walkways, and pedestrian paths to provide shade for pedestrians, with spacing that will form a continuous canopy along at least one side of the street or walkway.
3. Cluster trees at plaza areas, common areas, or other gathering places.
4. Locate trees to provide shade on south, east, and west elevations to cool buildings and reduce energy costs.

c. Plant Materials (II.C.1.c)

Intent - Provide landscape continuity, appropriate to the site context, using predominantly xeriscape plants and minimal irrigation.

Implementation Methods:

1. Select “primary” and “secondary” trees from the City’s drought tolerant plant list to create a varied but unified landscape design.
2. Provide accent plants at entryways, intersections of roads, etc.
3. Use trees, shrubs, and ground cover that display an assortment of form, texture, color, and seasonal variety.

d. Planting for Visibility and Security (II.C.1.d)

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Intent - Select and position plant materials to maintain visibility within common areas and around buildings.

Implementation Methods:

1. Maintain tree canopies near buildings, along walkways, and in common areas and playgrounds at least six feet from the base of the trunk, and plant larger specimens in those locations.
2. Integrate free-standing entry and monument signs into the overall landscape plan so they are not obscured when plants reach maturity.

2. Screening and Buffering

a. Screening (II.C.2.a)

Intent - Use landscape, grading, and walls to screen unattractive uses.

Implementation Methods:

1. Screen trash and recycling collection areas, outside storage, utility, other free-standing equipment, and water pumping stations by integrating them into the design of the development, including the use of using minimum six-foot-high masonry walls, and incorporating other materials that are consistent with those used throughout the development.

b. Mitigating Impacts of Free-standing Walls (II.C.2.b)

Intent – Reduce the impact of freestanding walls along the edges of development and increase their visual appeal.

Implementation Methods:

1. Where perimeter walls abut designated open areas, common areas, and trail systems, the masonry portion of the wall is not to exceed three feet in height, except for pillars, with wrought iron or other similar open fencing materials on top. (For safety reasons, swimming pools adjacent to rights-of-way or open space may be screened with solid walls).
2. Break up long wall expanses with contrasting elements and materials, such as pilasters, columns, decorative caps, and open fencing materials.
3. Use two or more decorative materials, such as tile, stone, or brick and/or incorporate a visually interesting design on the wall surface.
4. Use graffiti-resistant paint on all walls accessible from a public right-of-way.