
*Development
Guide*

15 August 1990

*Kortsen / Henness
Site Development Plan*

Arizona State Land Department

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A. Introduction

The **Kortsen/Henness Development Guide** is prepared as part of the **Kortsen/Henness Site Development Plan** which is officially approved by the Arizona State Land Commissioner. The Development Guide describes in detail the unique urban design standards that will be utilized as part of the phased implementation of the Site Development Plan. All purchasers and lessees of property will be required to develop in accordance with the Site Development Plan which will include the standards in this document.

This document is organized as described below:

- *Chapter B, Land Use Planning and Zoning Overview:* This section provides a concise overview of the land use and circulation plan included in the Site Development Plan.
- *Chapter C, Circulation System Standards:* This chapter includes design standards addressing the vehicular and non-vehicular circulation components of the Site Development Plan. Vehicular elements include street cross sections, driveway access standards, parking standards, loading and service area requirements and signalized intersection spacing requirements.
- *Chapter D, Utility Standards:* Chapter D includes a discussion of standards directly related to utility equipment screening, etc.
- *Chapter E, Landscape Guidelines:* This chapter includes a detailed presentation of the landscaping guidelines that will be incorporated within the development. Included in this chapter are planting density standards, turf restrictions and plant species guidelines.
- *Chapter F, Park and Open Space Requirements:* This chapter includes a discussion of the minimum park and open space requirements.
- *Chapter G, Drainage Requirements:* This section provides an overview of the minimum drainage requirements necessary for utilization within the project.
- *Chapter H, Urban Design Elements:* This chapter includes guidelines for various types of signage, street furniture, walls and fencing and lighting within the project.
- *Chapter I, Building Development Guidelines:* This section provides general building location, orientation, massing and materials guidelines, as well as standards addressing the screening of mechanical and electrical equipment.

B. Land Use Planning and Zoning Overview

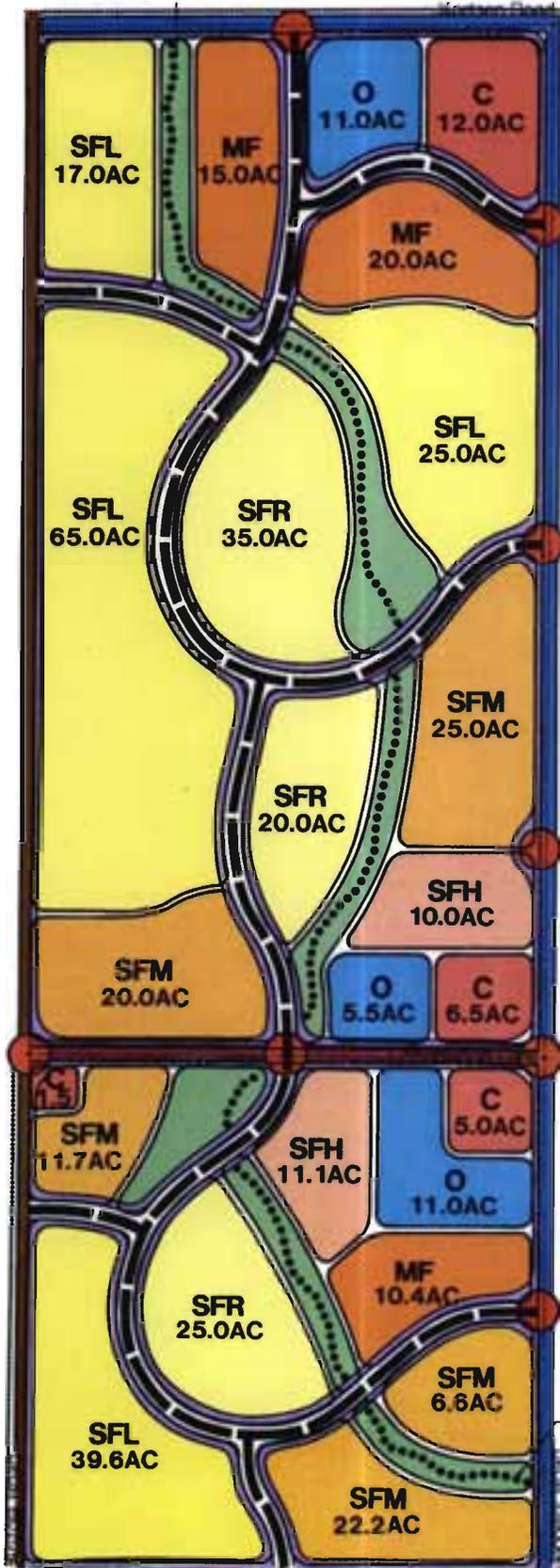
The **Kortsen/Henness Site Development Plan** land use and circulation concept is presented on Figure 1, Land Use and Circulation Plan. The land use plan is the result of extensive market analyses and sound land use planning. Low density single family uses arranged adjacent to a recreational open space corridor form the backbone of the plan. Medium to higher density residential uses on the plan respond to projected market demands in the immediate and longer term future. These medium and higher density residential uses buffer the lower density uses from the commercial and office areas on the corners of the major arterial streets.

Neighborhood/community commercial uses are located at the intersections of the major arterial streets so as to take advantage of high visibility and convenience to the major transportation network. A larger commercial node is located at the intersection of Kortsen and Henness Roads in anticipation of a future interchange at Interstate 10 and Kortsen Road. A small convenience commercial node is located at the intersection of Arizola Road and Cottonwood Lane. This smaller node will probably be one of the initial commercial areas to develop because of proximity to existing water, wastewater and transportation infrastructure and because of immediate market demands.

The landscaping, urban design, building design and circulation system guidelines included in this document create the threads that tie the development together. It is anticipated that these guidelines will result in an attractive, financially successful development thereby setting the standard for future development in the area.

PARK/OPEN SPACE 37.1AC

Land Use and Circulation Plan



Land Use	Section 15		Section 22		Total Acres	Total Dev.
	Gross Acres	Dev.	Gross Acres	Dev.		
Single Family Rural (Min. 10,000 S.F. Lots)	55.0	240 DU	25.0	110 DU	80.0	350 DU
Single Family Low (Min. 7,000 S.F. Lots)	107.0	665 DU	39.6	246 DU	146.6	911 DU
Single Family Medium (Min. 5,000 S.F. Lots)	45.0	392 DU	40.5	353 DU	85.5	745 DU
Single Family High (1/3,000 S.F. Lots)	10.0	145 DU	11.1	161 DU	21.1	306 DU
Multi-Family (1/2,000 S.F. Lots)	35.0	763 DU	10.4	227 DU	45.4	990 DU
Office	16.5	216,000SF	11.0	144,000SF	27.5	360,000SF
Commercial	18.5	201,500SF	6.5	71,000SF	25.0	272,500SF
Park/Open Space	37.1		19.3		56.4	
TOTAL	324.1	2,205DU/ 417,500SF	163.4	1,097DU/ 215,000SF	487.5	3,302DU 632,500SF

Circulation

-  Major Arterial Street (Kortsen Rd., Henness Rd.)
130' Right-of-Way
-  Minor Arterial Street (Cottonwood Ln.)
110' Right-of-Way
-  Major Collector (Arizona Rd.)
80' Right-of-Way
-  Secondary Collector Street
80' Right-of-Way
-  Potential Signalized Intersection Locations
-  Pedestrian Circulation System
-  Pedestrian/Bicycle Path System
-  Class III : Bike Route

Source: BRW Inc., August 1990

PARK/OPEN SPACE 19.3 AC

McMurray Boulevard

Kortsen/Henness Casa Grande Site Development Plan

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C. Circulation System Guidelines

Circulation system guidelines include design standards for vehicular and non-vehicular circulation systems in the **Kortsen/Hennessy Site Development Plan**. The vehicular transportation system is intended to provide a logical balance between the need for mobility and accessibility throughout the project. The non-vehicular circulation system provides pedestrians and bicyclists with alternative, internally - oriented routes, which are also integrated with the area-wide system. The circulation standards are designed to promote the safe and convenient movement of motor vehicles and limit vehicular/pedestrian conflicts. This section of the Development Guide is presented in the following two sections:

- Vehicular Circulation
- Non-Vehicular Circulation

C.1. Vehicular Circulation Guidelines

The vehicular circulation system guidelines for the Site Development Plan are presented in the following five subsections:

- Arterial and Collector Street Cross Sections
- Vehicular Access Standards
- Parking Standards
- Loading and Service Area Guidelines
- Signalized Intersection Location Guidelines

C.1.1 Arterial and Collector Street Cross Sections

The functional classification system identified in the **City of Casa Grande Master Thoroughfare Plan and Transportation Study** provides the basis of the arterial and collector street cross sections in the Site Development Plan. The cross sections presented on Figures 2 and 3, Arterial and Collector Street Cross Sections, illustrate the proposed pavement, median, sidewalk and right-of-way widths, as well as additional landscape areas/easements contiguous to these street rights-of-way. A description of the streets affected by these cross sections is presented below:

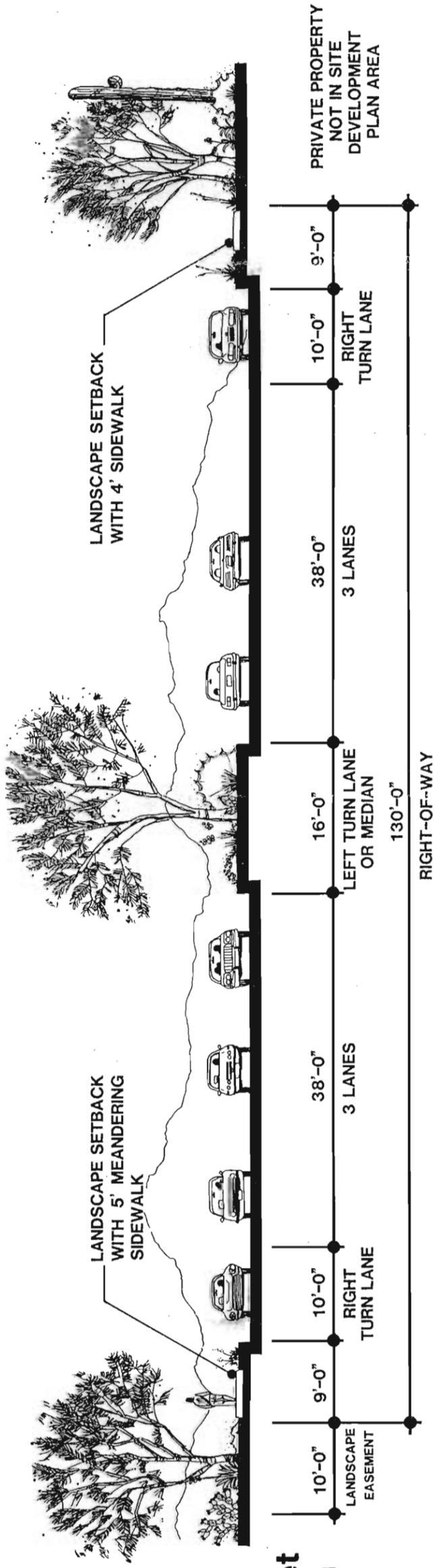
- Kortsen Road and Hennessy Road - These two major arterials are planned as six lane divided roadways for the northern and eastern boundaries of the site. Each roadway is within a 130-foot right-of-way. A ten (10) foot wide landscaping easement shall be located contiguous to the right-of-way fronting the project site. The median, right-of-way behind the curb and contiguous landscaping easement shall be landscaped per Chapter E, Landscaping Guidelines, of this Development Guide.
- Cottonwood Lane - This is the only minor arterial within the Site Development Plan area. Cottonwood Lane will be a four lane divided roadway within 110-foot of right-of-way. A ten (10) foot landscaping easement will be located on both north and south sides of the right-of-way through the Site Development Plan area. The median, landscaping area behind the curb within the street right-of-way and landscaping easements shall be landscaped per Chapter E, Landscaping Guidelines, of this Development Guide.

- Arizola Road - Arizola Road is planned to be a major collector forming the western site boundary. This facility will include an undivided pavement width of 67-feet within 80-feet of right-of-way. A landscape easement ten (10) feet in width will be located on the eastern edge of the street right-of-way. This landscaping easement and the landscaping area behind the curb within the street right-of-way shall be landscaped per Chapter E, Landscaping Guidelines of this Development Guide.
- McMurray Boulevard - McMurray Boulevard is planned to be a major collector within 80-feet of right-of-way. This facility may include a landscaped median but the actual design will be determined at a later date. A landscape easement ten (10) feet in width will be located on the northern side of the right-of-way. This landscaping easement and the landscaping area behind the curb within the street right-of-way shall be landscaped per Chapter E, Landscaping Guidelines, of this Development Guide.
- Collector Streets Internal to the Project - All collector streets internal to the project shall be within an 80-foot right-of-way. At the intersections with arterial streets, the collector street shall be divided by a median with a curb-to-curb width of 67-feet. The median shall be a left turn only lane if warranted by traffic volumes. Away from the arterial street intersections, the curb-to-curb width of 67-feet shall transition to a width of 47-feet. The roadway will not include a median with a 47-foot pavement width.

As presented on Figure 4, Collector Street Landscaping Easement Transition, a ten (10) foot landscape easement will be contiguous to the collector street at the arterial street intersection. This landscape easement will transition back to the 80-foot right-of-way at a rate consistent with the narrowing of the curb-to-curb width of the street. The median, landscaping area behind the back-of-curb within the right-of-way and the landscaping easement shall be landscaped per Chapter E, Landscaping Guidelines, of this Development Guide.

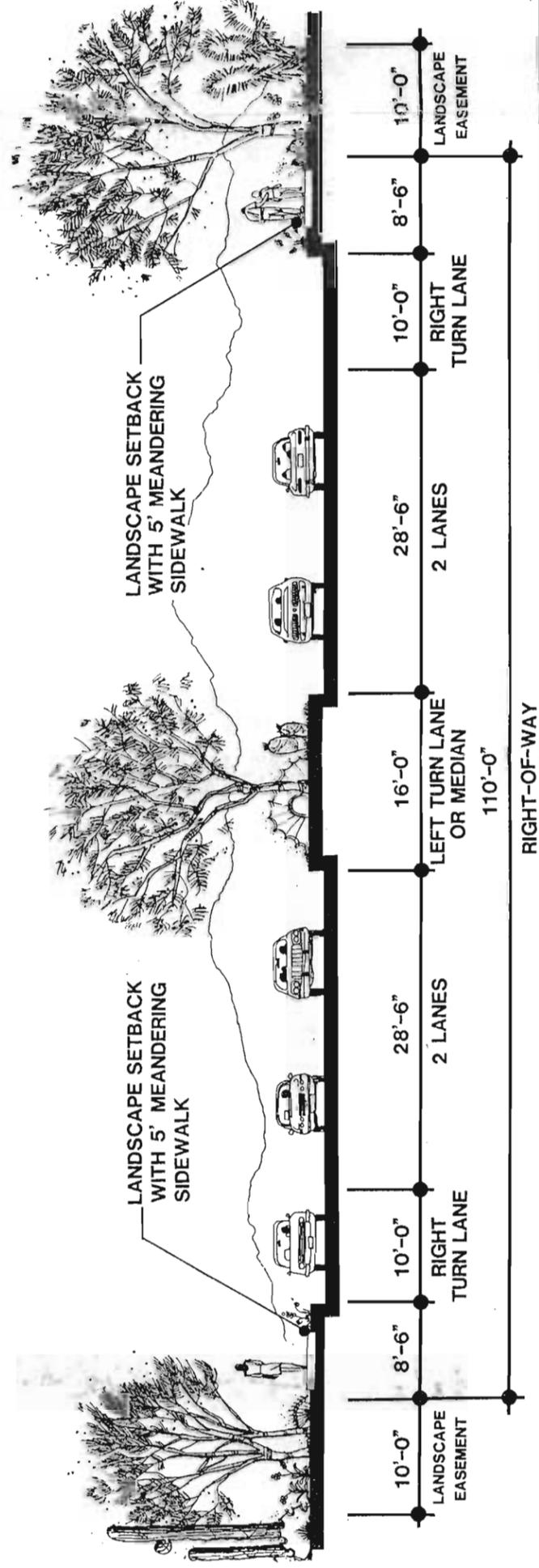
- Local Streets - All local streets shall be designed with street rights-of-way and pavement widths as specified in the **Casa Grande Master Thoroughfare Plan and Transportation Study**. All local streets shall have public utility easements ten (10) feet in width established on both sides of each street.

KORTSEN ROAD LOOKING WEST / HENNESSY ROAD LOOKING NORTH

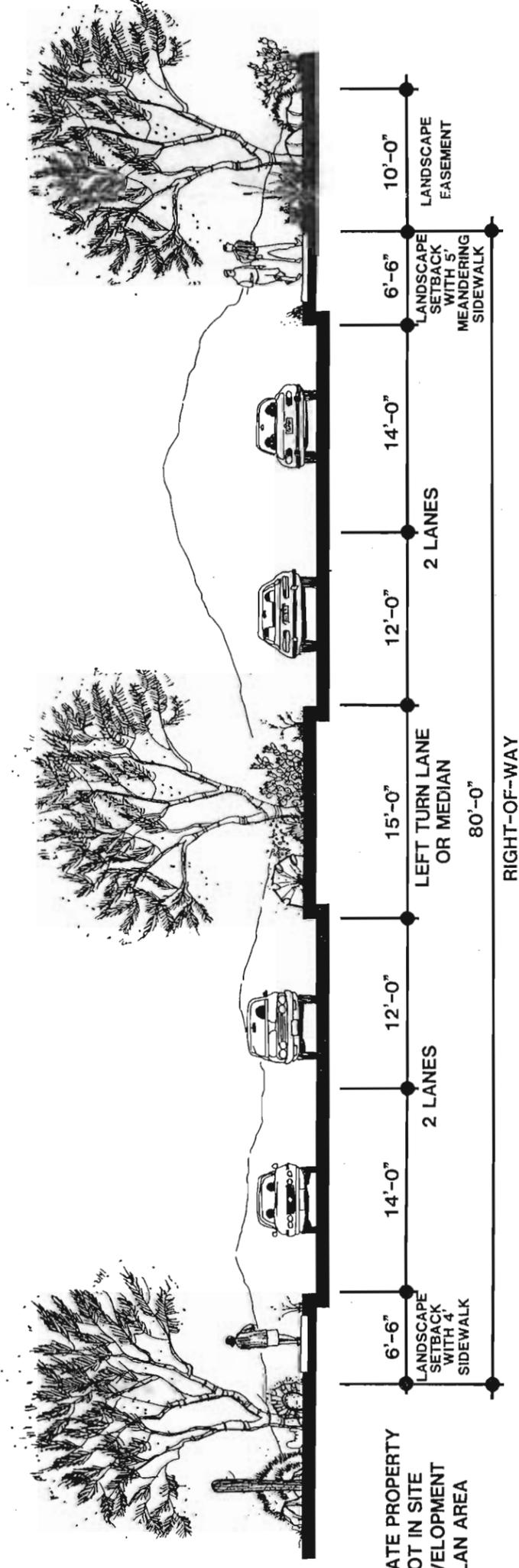


Major Arterial Street Cross-Section

COTTONWOOD LANE

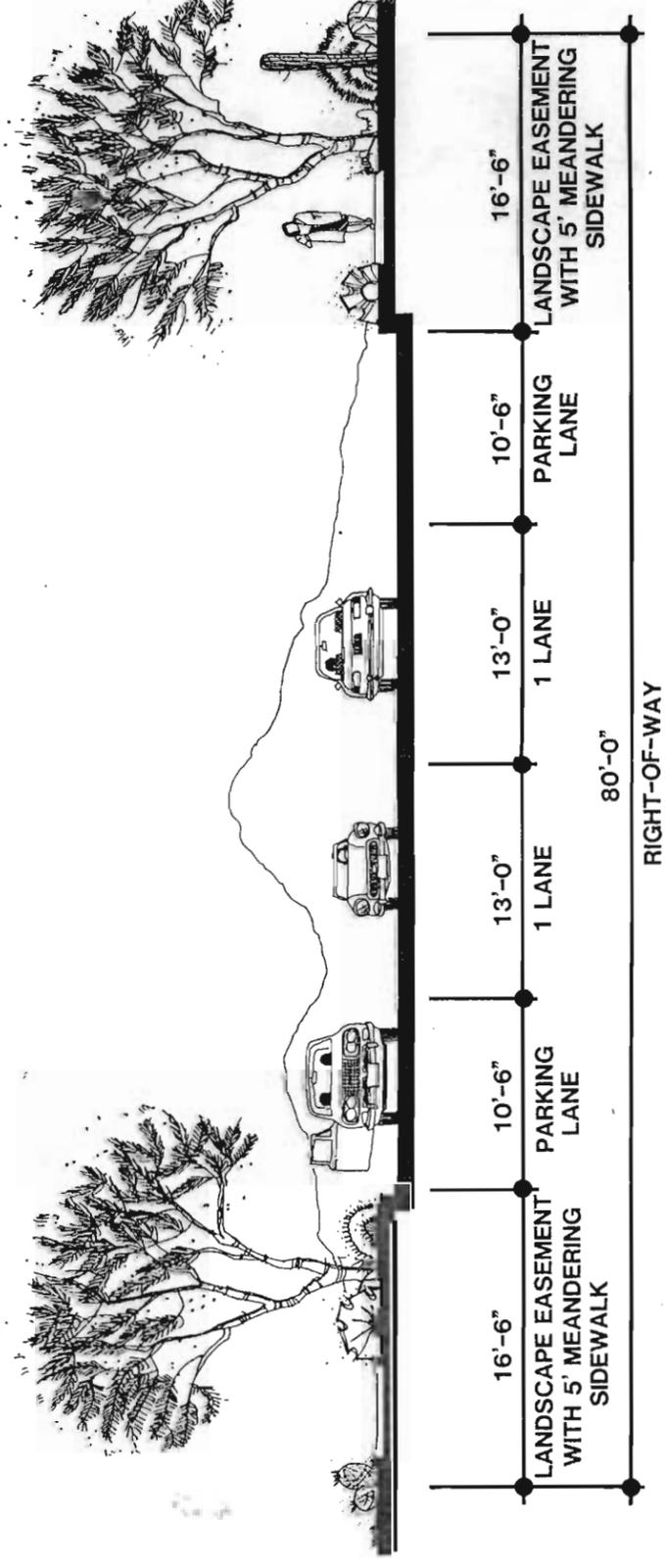


Minor Arterial Street Cross-Section



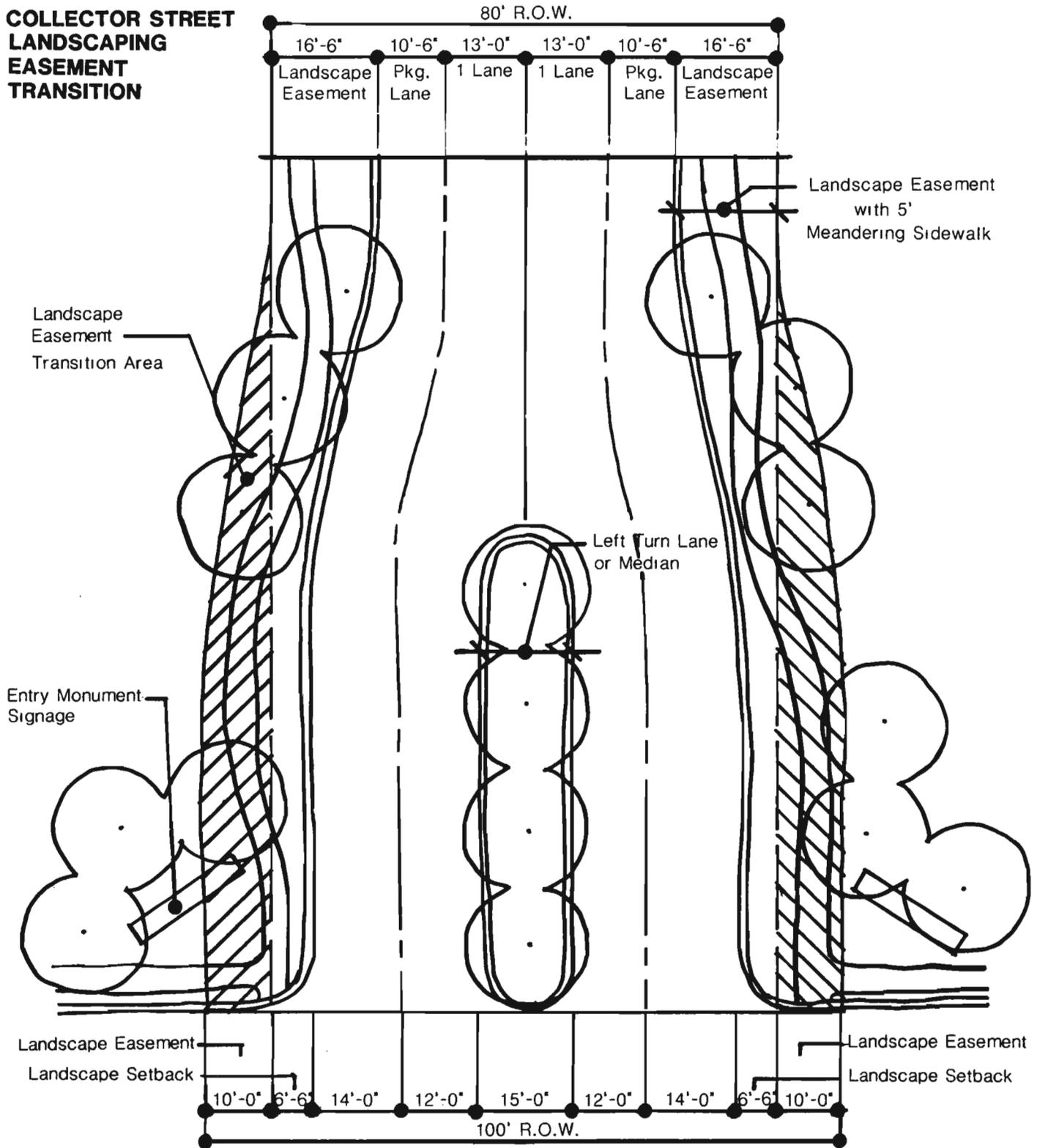
Major Collector Street Cross-Section

INTERNAL TO PROJECT SITE



Minor Collector Street Cross-Section

**COLLECTOR STREET
LANDSCAPING
EASEMENT
TRANSITION**



***Kortsen/Henness Casa Grande
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C.1.2 Vehicular Access Standards

Vehicular access to commercial and higher density areas within the project are limited in order to minimize disruption of traffic flow throughout the development. Driveway access distances from street intersections shall be subject to the following minimum dimensions as shown in Table 1, Driveway Access, unless different standards are adopted by the City of Casa Grande.

Table 1
Driveway Access

Intersecting Street	Distance from Intersection on Collector Streets ¹		Distance from Intersection on Arterial Streets ¹	
	Res. Area	Commercial Area	Res. Area	Commercial Area
Arterial	100'	150'	200'	300'
Collector	100'	150'	150'	150'
Local	60'	100'	100'	150'

Notes: ¹ Minimum distance from nearest curb face of intersecting street.

Source: City of Casa Grande Zoning Ordinance
2 November 1987

C.1.3 Parking Standards

The purpose of the parking standards are to promote the safe and convenient movement of motor vehicles, limit vehicular/pedestrian conflicts and to create an aesthetic character by screening paved areas to soften the visual impact of the parking areas. The **Casa Grande Zoning Ordinance** shall specify the minimum standards allowed. Additional guidelines are listed below.

- The number of parking spaces shall, at a minimum, comply with the minimum number and size of paved off-street parking requirements included in the **Casa Grande Zoning Ordinance**.
- All parking lot and ancillary circulation areas shall be contained within the boundaries of each site. Parking will not be permitted within any arterial or major collector street right-of-way. Parking will be permitted on secondary collector streets no closer than 200 feet from an arterial street intersection. Parking will be permitted on local streets per the **Casa Grande Zoning Ordinance** standards.
- Parking shall be provided to accommodate, at a minimum, all parking needs for employees, visitors and company vehicles according to the parking requirements in the **Casa Grande Zoning Ordinance**.

- Parking spaces shall be designated for the handicapped and located near building entrances in conformance with the current Federal, State and City codes in effect at the time of construction of each site.
- Parking dimensions shall meet the minimum standard requirements of the City of Casa Grande for stall, aisle and driveway design.
- Commercial and multi-family parking areas shall be set back a minimum of twenty (20) feet from all public street rights-of-way, a minimum of ten (10) feet from all side and rear yard property lines (if not adjacent to a public street right-of-way), joint driveways and internal private access roads.
- Commercial area visitor drop-off zones and parking stalls, as well as handicapped parking stalls, shall be provided near visitor entrances.
- Commercial and multi-family parking areas shall be screened from public streets by appropriate landscaping and screening.
- In commercial and multi-family parking areas, a five (5) foot wide landscape island must be provided at minimum intervals of every 100 feet, or twelve parking spaces, and at the ends of all rows of parking.

C.1.4 Loading and Service Area Guidelines

The purpose of the loading and service area guidelines is to provide for the design of loading and servicing areas in a functional and aesthetically pleasing manner. The guidelines are presented below:

- Loading and service areas shall be visually screened and oriented away from existing residences, public streets, building entries and adjacent buildings.
- Loading and service areas shall be designed as an integral part of the building architecture.
- Loading and service areas shall be designed so that the entire loading vehicle maneuvering and service operation is conducted within the confines of the building site, including service vehicle circulation. Trash containers are to be located within the building or are to be contained within a screened enclosure on all sides, including the top.
- Off-street loading facilities and berth requirements shall conform, at a minimum, to the regulations included in the **Casa Grande Zoning Ordinance**.

C.1.5 Signalized Intersection Guidelines

Signalized intersections within the Site Development Plan shall comply with all City standards and shall be located at intersections with a minimum of one quarter mile spacing.

C.2 Non-Vehicular Circulation Guidelines

The non-vehicular circulation system includes both pedestrian and bicycle path components. The pedestrian circulation system will consist of meandering sidewalks along both sides of all arterial and collector streets. A pedestrian/bicycle pathway system is located within the linear open space corridor. The bicycle system also includes designated bike routes which share streets with vehicular traffic and link with the City's area-wide system of bicycle routes, lanes and trails.

C.2.1 Pedestrian Circulation System Guidelines

- Sidewalks, five (5) feet in width, shall meander within public rights-of-way on both sides of arterial and collector streets. Where possible, sidewalks shall be separated from the roadway travel lanes by a landscaped area.
- Sidewalks, four (4) feet in width, shall be located along local streets.
- A combination pedestrian/bicycle path, a minimum of eight (8) feet in width, shall be located within the recreational open space corridor throughout the project. The path shall be constructed of bituminous asphalt or other permanent surface.

C.2.2 Bicycle Circulation System Guidelines

- Bicycle routes along designated collector and arterial streets shall be appropriately signed to alert drivers to the potential presence of bicyclists and to guide bicyclists through the project.
- The eight (8) foot combination bicycle/pedestrian path in the recreational open space corridor shall be appropriately signed and illuminated.

D. Utility Standards

The existing and proposed utilities within the **Kortsen/Henness Site Development Plan** include wastewater, water, electricity, natural gas, telephone and solid waste disposal facilities. All utilities, both public and privately owned, must comply at a minimum with the standards required by the City of Casa Grande and those established in this section of the Development Guide.

- All public utilities shall be located within public street rights-of-way.
- Electrical power lines (less than 69 kv), telephone lines, and cable TV lines, must be installed underground and within rights-of-way, where appropriate.
- Appropriate screening of all existing or proposed utility equipment shall be the responsibility of both the developer and utility company.
- All screening devices shall be in compliance with the **Casa Grande Zoning Ordinance**.
- A public utility easement ten (10) feet in width shall be established along both sides of all local streets.

E. Conceptual Landscape Guidelines

The landscape guidelines are designed to reinforce the land use, circulation, and urban design principles established for the **Kortsen/Henness Site Development Plan**. The purpose of these landscape guidelines is to develop an overall image of quality for the project. This identity will be created and reinforced through the use of consistent design techniques and landscape materials throughout the development. A Sonoran Desert theme will be accomplished with the use of low water using desert plant materials and restrictions on the use of turf. The Sonoran Desert concept is reflective of the surrounding natural character and helps to conserve the diminishing water supply. The plant materials consist of low maintenance species to minimize maintenance, a variety of species which provide color throughout the year, and species which are primarily disease and drought resistant.

This section includes a general outline of landscape concepts for the entry nodes, street landscape easements, multi-family and commercial area perimeter edge treatments, residential lot treatments, and open space/pedestrian corridor treatments as presented on Figure 5, Conceptual Landscape Plan. The guidelines established for these areas comprise the remainder of this section and are organized as follows:

- Entry Node Treatments
- Streetscape Treatments
- Perimeter Edge Treatments
- Residential Lot Treatments
- Open Space/Corridor Treatments
- Recommended Plant List

E.1. Entry Node Treatments

The entry nodes identified on Figure 5, Conceptual Landscape Plan shall accentuate the project's image. The entry nodes shall consist of project signage and intensified landscaping.

The signage monuments for the project shall be ground mounted, low scale aesthetic signage reflecting the overall image desired of the development. The style, materials and quality of the monuments will also be representative of the project's identity.

The entry nodes shall include more formal and intensified landscape treatments to identify these areas as the main entrances to the project. Taller trees with seasonal color planted densely together with generous plantings of ground cover and medium scale shrubs will result in a desired image and project identity. The plant list includes recommendations of appropriate materials for the entry nodes.

E.2 Streetscape Treatments

The streetscape guidelines proposed for designated arterial, collector and local street rights-of-way are in accordance with the classification system developed in the City's Master **Thoroughfare Plan and Transportation Study**. This Development Guide requires a ten (10) foot landscape easement along all arterial and major collector streets within the Site Development Plan as defined in the following section:

E.2.1 Arterial Streetscape Corridors

The arterial streets located contiguous to the project site include Kortsen Road, Henness Road and Cottonwood Lane. These landscaped arterial corridors and contiguous landscaping easements will provide both functional and aesthetic treatments along the perimeters as well as through the project. These streets will be landscaped with moderate scale trees to allow filtered views into the project site.

This Development Guide requires at least one, 15 gallon canopy tree planted every thirty (30) linear feet or 500 square feet of landscape area (the landscape area in the street right-of-way behind the curb, plus the landscape easement and the median). Ground level landscaping will also be used to soften architectural edges, act as a transition between buildings and spaces, and provide aesthetic enhancements. A minimum of 40 percent of the landscaping area in the median, landscape area behind the curb in the street right-of-way and the landscape easement shall be covered in drought tolerant shrubbery or ground cover within the first year of construction of the roadway. The remaining landscape area must be in decomposed granite. Table 2, Recommended Plant List, includes plant materials appropriate for these landscape areas to achieve a consistent streetscape image.

The arterial street corridors include a meandering pedestrian circulation system allowing access into and through the site at key pedestrian nodes.

E.2.2 Collector Streets

Arizola Road and McMurray Boulevard are ~~is~~ proposed as a major collector streets. ~~located contiguous to the western project boundary.~~ An additional ten (10) foot landscape easement will be required along the east side of Arizola Road and the north side of McMurray Boulevard. Internal to the project, collector streets will have landscaping easements only at the intersections with arterial streets, ~~and~~ Arizola Road and McMurray Boulevard.

Collector streets provide access to parcels throughout the site. A cohesive identity shall be achieved by the landscape treatment, generous setbacks, landscape easements and pedestrian systems along these streets.

A consistent design theme will be maintained throughout on all internal collector streets. Plant material sizes, densities and coverages shall be the same as described in Section E.2.1, Arterial Streetscape Corridors, of this Development Guide. Plants will be low maintenance with emphasis on low water use, and in accordance with the list of low water using plant materials included on the plant list.

E.3 Perimeter Edge Treatments

The perimeter edges of multi-family, office and commercial areas require specific guidelines to buffer adjacent developments. The perimeter edges will define project boundaries both physically and visually by these landscape treatments. Screen edges will be used to visually block any undesirable views such as parking lots, utility equipment and trash receptacles from adjacent users.

A twenty (20) foot landscape buffer is required adjacent to residential areas and along public rights-of-way which abut these land uses. The landscape buffer shall be planted with two (2) inch caliper trees, a minimum of thirty (30) feet apart. A minimum of 50 percent of the buffer must be covered in drought tolerant shrubs or ground cover within one year of construction of the multi-family, commercial or office use.

Landscaped perimeter edges will provide both functional and aesthetic treatment on all perimeters of the multi-family, office and commercial uses. Project identification and association will also be achieved through the landscape treatments provided in these areas. Landscaping will also be used to soften architectural edges, act as a transition between buildings and spaces and provide aesthetic enhancements.

E.4 Commercial and Multi-Family Parking Area Requirements

These guidelines, at a minimum, will meet the requirements of the **Casa Grande Zoning Ordinance**, and are more restrictive in some areas as presented below. In commercial and multi-family parking areas, one 15 gallon tree in a landscape island five (5) feet wide will be required every 100 linear feet or twelve parking stalls. One-hundred percent of the landscape is land shall be planted in drought tolerant shrubbery or ground cover within one (1) year of construction of the commercial or multi-family use. Appropriate plant materials are recommended on the plant list.

E.5 Commercial Lot Landscape Requirements

All areas outside of perimeter buffer zones and parking lots shall be landscaped with drought tolerant plant species listed in this document. A minimum of one 15 gallon tree must be planted per 500 square feet of landscape area. A maximum of 10 percent of site lot areas may be in turf.

E.6 Residential Lot Landscape Requirements

A minimum of one 2-inch caliper tree is required in the front yard of each residential lot. Turf areas will be limited to 20 percent of the site lot area. Furthermore, a maximum of 25 percent of the front yard landscapable area (excluding driveways and sidewalks) may be in turf. Other permitted residential lot plant species are listed in Section E.8, Recommended Plant List, of this document.

E.7 Open Space/Pedestrian Corridor Landscape Guidelines

The vegetative character of the open space system will be a lush, arid landscape treatment. These corridors will provide a pedestrian linkage through the site allowing connections between the various land uses. The open space will also act as a buffer between adjacent land uses.

The landscape treatment of these open space/pedestrian corridors will consist of a naturalistic and informal character. One 15 gallon tree shall be planted for every 500 square feet of landscape area. A minimum of 50 percent of the open space corridor must be planted with drought tolerant shrubbery or ground cover within one year of construction of the adjacent land use. The remaining 50 percent may be planted in turf or landscaped with decomposed granite.

The pedestrian corridors provide efficient access for pedestrian circulation throughout the development along the internal open space system. Access points along the collectors provide ease of entry to the system. Two neighborhood parks and intimate public gathering areas should be created at the appropriate designated locations. The use of a coordinated system of street furniture will enhance the image in these spaces. All furniture must be contextually compatible, easily maintained and well designed. Adequate illumination of pathways, and gathering areas will ensure the safety of pedestrians.

E.8 Recommended Plant List

A list of recommended plant materials has been prepared for the Site Development Plan. In an effort to retain the natural desert character of the area and establish water conserving landscapes the plant materials were compiled from a list of low water using plant materials for central Arizona.

The plant materials included in Table 2, Recommended Plant List, are distinguished by type of plant; tree, small shrub, medium shrub, large shrub, ground cover vines, and inert groundcovers according to the five specific areas presented in this section:

- Entry Nodes
- Streetscapes
- Perimeter Edges
- Commercial and Multi-Family Residential Parking Areas
- Commercial Lots
- Residential Lots
- Open Space Corridors

Table 2
Recommended Plant List

	Entry Node Treatment	Streetscape Treatment	Perimeter Edge Treatment	Commercial and Multi-Family Parking Areas	Commerical Lots	Residential Lots	Open Space Corridors
TREES							
Acacia (species) (Acacia)		•	•	•	•	•	•
Brachychiton populneus (Bottle Tree)	•		•	•		•	
Cercidium (species) (Palo Verde)		•	•	•	•	•	•
Eucalyptus microtheca (Coolibah Tree)		•	•	•	•	•	•
Eucalyptus sapthulata (Narrow-leaved Gimlet)		•	•	•	•	•	•
Fraxinus (species) (Ash)	•				•	•	
Jacaranda mimosifolia (Jacaranda)					•	•	
Olea europaea 'Swan Hill-Oblonga' (Fruitless Olive)	•	•	•	•	•	•	•
Olneya Tesota (Ironwood)					•	•	
Pistache (Species) (Pistache)					•	•	
Pithecellobium flexicaule (Texas Ebony)		•	•	•	•		•
Prosopis chilensis 'Thornless' (Mesquite)		•	•	•	•	•	•
Rhus lancea (African Sumac)	•	•	•	•	•	•	•

Table 2
 Recommended Plant List
 (continued)

	Entry Nodes	Streetscapes	Perimeter Edges	Commercial and Multi-Family Parking Areas	Commercial Lots	Residential Lots	Open Space Corridors
SMALL SHRUBS							
Carissa (species) (Natal Plum)	•		•	•	•	•	
Dasyliirion wheeleri (Desert Spoon)		•			•		•
Hesperaloe parviflora (Red Yucca)		•		•	•		•
Juniperus (species) (Juniper)	•	•	•	•	•	•	•
Lantana camara (Bush Lantana)	•	•	•	•	•	•	•
Pittosporum tobira 'Wheeler's Dwarf' (Japanese Mock Orange)				•	•	•	
MEDIUM SHRUBS							
Acacia redolens (Ongerups)		•	•	•	•	•	•
Caesalpinia pulcherrima (Red Bird of Paradise)		•	•	•	•	•	•
Carissa (species) (Natal Plum)	•			•	•	•	
Cassia (species) (Cassia)		•	•	•	•	•	•
Dodonaea viscosa (Hopbush)	•	•	•	•	•	•	•
Larrea tridentata (Creosote Bush)		•	•		•	•	•

Table 2
Recommended Plant List
(continued)

	Entry Nodes	Streetscape	Perimeter Edges	Commercial and Multi-Family Parking Areas	Commercial Lots	Residential Lots	Open Space Corridors
MEDIUM SHRUBS							
Leucophyllum frutescens 'Compactum' (Texas Ranger)		•	•	•	•	•	•
Nerium oleander 'Petite' (Dwarf Oleander)	•	•	•	•	•	•	•
Pittosporum tobira 'Variegata' (Variegated Mock Orange)	•			•	•	•	
Tecoma stans (Yellow Bells)		•	•	•	•	•	•
Tecomaria capensis (Cape Honeysuckle)		•	•	•	•	•	
LARGE SHRUBS							
Lysiloma thornberi (Feather Bush)		•	•		•	•	•
Nerium oleander (Common Oleander)	•	•	•		•	•	•
Sophora secundiflora (Texas Mountain Laurel)		•	•		•	•	•
Thevetia peruviana (Yellow Oleander)	•	•	•		•	•	•
Xylosma congestum (Xylosma)	•	•	•		•	•	

Table 2
Recommended Plant List
(continued)

	Entry Nodes	Streetscape	Perimeter Edges	Commercial and Multi-Family Parking Areas	Commercial Lots	Residential Lots	Open Space Corridors
GROUND COVERS							
Acacia redolens (Ongerups)		•	•	•	•	•	•
Annuals (Seasonal Varieties)	•	•	•		•	•	
Asparagus densiflorus 'Sprengerii' (Sprengeris's Asparagus)	•		•		•	•	
Lantana montividenis (Trailing Lantana)	•	•	•	•	•	•	•
Myoporum parvifolium 'Prostratum' (Myoporum)	•	•	•	•	•	•	•
Verbena peruviana (Verbena)		•	•	•	•	•	•
VINES							
Bougainvillea (species) (Bouvainvillea)			•		•	•	
Ficus pumila (Creeping Fig)					•	•	
Hedera (species) (Ivy)					•	•	
Lonicera japonica 'Halliana' (Hall's Honeysuckle)					•	•	
INERT GROUNDCOVERS							
Decomposed Granite	•	•	•	•	•	•	•
River Run Rock	•	•	•	•	•	•	•

Table 2
Recommended Plant List
(continued)

	Entry Nodes	Streetscape	Perimeter Edges	Commercial and Multi-Family Parking Areas	Commercial Lots	Residential Lots	Open Space Corridors
CACTI							
<i>Carnegia gigantea</i> (Saguaro)	•	•	•	•	•	•	•
<i>Echinocereus endlemanni</i> (Hedgehog)	•	•	•	•	•	•	•
<i>Ferocactus wislizenii</i> (Barrel Cactus)	•	•	•	•	•	•	•
<i>Opuntia acanthocarpa</i> (Staghorn Cholla)	•	•	•	•	•	•	•
<i>Opuntia ficus indica</i> (Tree Opuntia)	•	•	•	•	•	•	•
<i>Opuntia leptocaulis</i> (Desert Christmas Cactus)	•	•	•	•	•	•	•
<i>Opuntia phaeacantha</i> (Prickly Pear)	•	•	•	•	•	•	•
GRASSES							
<i>Lolium multiflorum</i> (Winter Rye Grasses)	•				•	•	•
<i>Cynodon dactylon</i> hybrids (Hybrid Bermuda Grasses)	•				•	•	•

F. Park and Open Space Requirements

- The **Kortsen/Hennessy Site Development Plan** shall include at least seven (7) percent of the total development area as open space and/or recreational uses.
- The vegetative character of the open space system will be a lush, arid landscape treatment. The open space/pedestrian corridors will continue the Sonoran Desert Theme and consist of a naturalistic and informal character. The open space system will also be reflective of adjacent landscapes and compatible in selection of design materials.
- The recreational open space corridor identified on Figure 5, Conceptual Landscape Plan, shall be a minimum of 150-feet in width.
- A ten (10) acre (exclusive of drainage detention/retention requirements) community park shall be established in Section 15.
- A five (5) acre (exclusive of drainage detention/retention requirements) neighborhood park shall be established in Section 22.

G. Drainage Requirements

- All City of Casa Grande on-site detention requirements shall be followed.
- A minimum of 58.3 acre feet of detention shall be provided.

H. Urban Design Elements

The urban design elements for the planned area development include the following:

- Signage Guidelines
- Street Furniture
- Walls and Fencing
- Lighting

The key to the overall system of these four urban design elements will be consistency. This Development Guide is intended to promote a system of related components which are representative of the project's image. These guidelines for the Urban Design Elements will also consist of design concepts for each element.

The developer of the project will be subject to these conceptual guidelines and must submit a detailed signage package, street furniture system and lighting system to the City of Casa Grande for approval. The submittal must comply with the City's regulations and those set forth in this Development Guide.

H.1 Signage Guidelines

This section includes design criteria for the establishment of a coordinated signage system that will be integrated with the street furniture and exterior lighting system proposed for the project. A comprehensive signage package must be submitted to the City for approval. The signage program will establish a coordinated graphic program for the development. The unified system of signage elements will reinforce the image and concept of the Site Development Plan. Effective site signage functions not only as a separate entity but as an element of its environment. The graphic system is a major factor in creating and preserving the design character of the project. All signage will be subject to the requirements of these guidelines, all applicable ordinances of the City of Casa Grande, and the City's final approval. No signs are to be constructed, enlarged, altered, moved or improved without the prior approval of the City. The signage guidelines are presented in the following four sections:

- Identification Signage
- Directional and Information Signage
- Vehicular Control Signage
- Temporary Signage

H.1.1 Identification Signage

Identification signs for projects within the Site Development Plan include project monuments and project identification signs. Project entry monuments and identification signs will be designed as an integral element of project entries at key entry points throughout the development. Located within the landscape easement, entry monuments will be ground mounted not to exceed 10-feet in height from top of curb.

H.1.2 Directional and Informational Signage

Directional and information signage will be consistent with the standards established for the identification signage and shall provide for circulation and orientation to specific areas within the project. All streetscape and site directional signs will be a minimum of ten (10) feet from the curb of all driveways. Streetscape directional signs shall be non-illuminated and the use of reflective materials is prohibited. Materials and letter type shall be compatible with the project's image and consistent throughout the signage package.

Information signage may be internally illuminated or non-illuminated depending on importance. The use of reflective material for typography and directional arrows are recommended on directional signs for adequate night viewing. Type face for information signage is consistent throughout entire signage system. Positioning of information signage is critical to its effectiveness. Signage shall be positioned so that there is clear line-of-sight well before the point at which direction must be changed or action taken.

H.1.3 Vehicular Control Signage

Vehicular control signage will be consistent in proportion and materials with the directional and informational signage, and will also meet the requirements of the Manual on Uniform Traffic Control Devices for Streets and Highways. All traffic control signage shall be carefully sited to provide adequate sight lines from cars, buses and trucks. The use of reflective material for the symbol field and typography is required. All public street signage type, size and location will be approved by the City of Casa Grande.

H.1.4 Temporary Signage

Two types of temporary signage are allowed within the project and include temporary development and future tenant signage. All temporary signs shall be consistent with the overall signage system established for the project. Temporary signs must be removed immediately upon completion of construction. Temporary signs shall be non-illuminated, constructed of non-reflective materials and will not exceed 50 square feet per side in surface area. All temporary signs must be approved by the City prior to installation.

H.2 Street Furniture Guidelines

Exterior street furniture includes elements of site furnishings in public rights-of-way, outdoor entry ways, plaza, parking areas and common areas, where placement of furniture is both desirable and functional. A system of related furniture components for use within public rights-of-way is defined in this section.

The street furniture system for the Site Development Plan will be consistent throughout the project. The street furniture system chosen shall be representative of the quality image desired from the development, reinforcing its distinct identity. A primary color and an accent color should be determined by the developer for overall consistency. Street furniture components may include traffic control devices, transit shelters, light fixtures, benches, trash receptacles, bollards and telephone enclosures. These components will all strongly relate to each other in style, color and materials in order to establish a unified system of furniture throughout the development. The design and location of all on-site elements shall be subject to the City's zoning ordinance requirements.

H.3 Wall/Fencing Guidelines

Walls and fencing throughout the development shall be in accordance with the City's Zoning Ordinance and the guidelines established in this section. Walls used for visual screening shall not exceed six feet in height along rear and side yards, and shall not exceed four feet in height when located in the front yards of multi-family and commercial/office parcels. Screen walls may protrude a maximum of 3-feet into a designated landscape easement. Screen walls (6-feet) and landscape buffers (20-feet) shall be required between residential and commercial/office areas. All walls shall be constructed of brick or masonry with stucco finish on the exterior. Other permitted exterior finish materials for walls include plaster unit masonry, adobe stone or brick slump block. "Dooley Walls" are prohibited.

H.4 Lighting Guidelines

Exterior lighting shall be provided for the purposes of enhancing the atmosphere, safety and security of both pedestrians and motorists and also to complement the project's image. Lighting should be designed to ensure these qualities in all pedestrian areas, public parking areas, walkways and entrances. In order to achieve a distinct character and identity for the development, all exterior lighting shall be consistent in height, color, spacing and type of fixture. Lights shall not be placed to cause excessive light spillage onto other sites or unnecessary glare onto roadways. Intensity shall be no greater than required for vehicular and pedestrian safety. Street lights shall be installed to City standards.

I. Building Development Guidelines

This section of the Development Guide includes guidelines for building locations, heights, materials, setbacks, and special requirements for screening. Appropriate urban design and architecture for the Site Development Plan include a project in which the buildings and site design clearly exhibit a thematic integration through form, color and texture. Each project should be purposefully expressive of a design concept consistent with these guidelines as well as being sensitive and accommodating to transitional spaces and neighboring uses. All designs should be rendered in materials which are aesthetically and logically consistent with the massing and spatial concepts of the design. The guidelines are organized as follows:

- Building Location
- Building Orientation
- Building Height/Massing
- Building Materials
- Mechanical and Electrical Equipment

1.1 Building Location Guidelines

Buildings are to be located on each site in a manner that is efficient, appropriate to site conditions, effective to the overall architectural composition and compatible with adjacent projects and development throughout.

Building placement should address the following:

- Buildings should be located to enhance individual identity while maintaining compatible relationships with adjacent projects.
- Buildings should be arranged to provide convenient access from site entrances and from efficient on-site circulation systems for vehicles and pedestrians.
- Commercial buildings should be arranged to create focal points and plaza spaces for people to use as gathering areas.
- Appropriate relationships should be developed between buildings and setback areas to enhance street frontages and corners.
- Building placement should properly address any existing or master planned site conditions.
- Building design should create variety by staggering setback distances. The setback shall be at least the minimum contained in these guidelines.
- Separation between all buildings and surface parking areas shall be a minimum of 15-feet.

- All relationships to existing structures and natural surroundings shall be considered in building design. Site environment shall be examined in terms of adjacent structures and natural features to determine siting patterns which create a cohesive appearance for the overall development.

1.2 Building Orientation Guidelines

Buildings should be oriented for climatic and solar conditions while taking into consideration adjacent surrounding uses and their requirements.

Building orientation should address the following:

- Climatic conditions should be considered in determining the building orientation.
- Building orientation should be sensitive to adjacent site developments and their view requirements.
- View corridors should be enhanced by framing significant views with building elements.
- Building orientation and design should exhibit a distinguishable response to the solar conditions of the site. Building orientation may be selected, in part, to optimize the use of natural light for daylighting, to minimize heat gain or to provide shade for plazas and other exterior comfort zones.

1.3 Building Height/Massing Guidelines

For the purpose of these guidelines, building height is defined as the total vertical distance from the top of the highest street curb at or immediately adjacent to the top of the roof structure. The necessary height of parapet walls for screening of mechanical equipment shall be in accordance with the **Casa Grande Zoning Ordinance**.

The following criteria should be considered:

- All building heights shall conform to all applicable requirements of the City of Casa Grande. Maximum building heights shall be in accordance with the zoning regulations of the City of Casa Grande.
- Building height and massing should be sensitive to human scale. Building designs should step down in height to pedestrian scale open spaces.
- One or two story structures that step out from a main building can form arcades, decks, special landscape areas and/or entry features.

- Buildings should have compatible massing relationships which provide a sense of order and excitement with adjacent structures.
- Building massing should be designed for climatic, solar conditions and telecommunications access. The design of structure massing should consider shadow patterns on neighboring buildings and open spaces.

1.4 Building Material Guidelines

Incorporate building materials into project designs which are chosen for their suitability and permanence.

The following criteria should be considered:

- Utilize materials appropriate to the southwest environment, expressive of the project's image, including "textured masonry" treatments in office, commercial and multi-family areas.
- Colors and textures should reflect the overall palette and Sonoran Desert themes.
- Exterior building materials should be chosen for their aesthetic suitability in a given application, and ease of maintenance.

1.5 Mechanical and Electrical Equipment Screening Guidelines

All building mounted mechanical and electrical equipment shall be shielded from view with visual barriers of the same or greater height as the objects they are screening. Screens shall consist of architecturally suitable material compatible with the design, building materials, and color of the main structure.

Main gas meters, electrical switching equipment, fire sprinkler risers and other utility services shall be located on the side or rear of the buildings, screened by berms and/or landscaping and painted with compatible colors.