

**Marked Agendas
Approved Minutes
Approved Reports**

**The December 15, 2016
Development Review Board
Meeting Agenda and
Minutes can be found at**

<http://www.scottsdaleaz.gov/boards/development-review-board>

DEVELOPMENT REVIEW BOARD REPORT



Meeting Date: December 15, 2016 Item No. 6
General Plan Element: *Character and Design*
General Plan Goal: *Foster quality design that enhances Scottsdale as a unique southwestern desert community.*

ACTION

McCormick Ranch Landscape Master Plan 46-DR-2016

Location: McCormick Ranch Master Planned Community

Request: Request approval of the Landscape Master Plan update on the 3,116-acre McCormick Ranch. The Landscape Master Plan is intended to identify the types of materials that will be utilized and the maintenance that will be necessary for all landscaped and open space areas that are owned and managed by the McCormick Ranch Property Owners Association.

OWNER

McCormick Ranch Property Owners Association
480-860-1122

ARCHITECT/DESIGNER

Logan Simpson
480-967-1343

APPLICANT CONTACT

Ben Cooper
Rose Law Group
480-505-3938

DEVELOPMENT PROPOSAL

Goal/Purpose of Request

The applicant's request is for approval of the Landscape Master Plan for the 3,116-acre McCormick Ranch, with Planned Community District (PCD) zoning.

Neighborhood Communication

The McCormick Ranch Property Owners Association (MRPOA) solicited community input through information, surveys that received 50 responses, articles, and two workshops. Communication was by means of the Association website (www.mrpoa.com), quarterly newsletters, an annual community event (Dec. 5, 2015), nextdoor.com postings, MRPOA Facebook page, and billing statements requesting input from members of the Association.

The applicant and City staff have notified all property owners within 750 feet of the site. In addition, three hearing notice signs have been posted at the prominent entrances to the site. City Staff has received two inquiries regarding the proposal.

DEVELOPMENT REVIEW BOARD CRITERIA ANALYSIS

The proposed landscape master plan has cataloged the existing conditions of the McCormick Ranch landscape areas, defined a plant palette, established design for hardscape materials and site furnishings, and projected a maintenance schedule.

It is determined that the proposed development complies with the Character and Design Chapter of the Scottsdale General Plan maintaining and enriching the character and linkages of the McCormick Ranch suburban corridor. The portion of the McCormick Ranch landscape area that is within the Shea Area Plan complies with the Character Area Plan providing a network of trails to continue to achieve goal 3, policy 2 of a trail system that maximizes alternative transportation routes.

The McCormick Ranch Landscape Master Plan will help in defining this 3,116-acre area of Scottsdale and reinforce Scottsdale Sensitive Design Principle #5, the design of the public realm, including streetscapes, parks, plazas, and civic amenities provide identity to the community and convey its design expectations. Design Principle #7, shading as an important aspect in the desert, was considered and planned for with a tree succession plan it insure the tree canopy coverage remains consistent. In addition, the proposed plan incorporates Scottsdale Sensitive Design Principle #11 by incorporating landscape materials that are indigenous to the arid region. The McCormick Ranch area is also recognized as a green area that is bisected by the Indian Bend Wash, the plan maintains the goal of being an “Oasis in the Desert” while reducing irrigation water use, aligning with the Sensitive Design Principle #12 using water feature and higher water use plants and turf in locations with high pedestrian activity. It is determined that the plan has incorporated the Scottsdale Sensitive Design Principles.

Development Information

- Existing Use: Open Space, trails, paths, parks, and right-of-way
- Parcel Size: 155 gross acres of landscape area

STAFF RECOMMENDATION

Recommended Approach:

Staff recommends that the Development Review Board approve McCormick Ranch Landscape Master Plan, finding that the provisions of General Plan policies and goals, Shea Area Plan and the Development Review Criteria have been met.

RESPONSIBLE DEPARTMENT

Planning and Development Services

Current Planning Services



Q.S.
27-50

Google Earth Pro Imagery

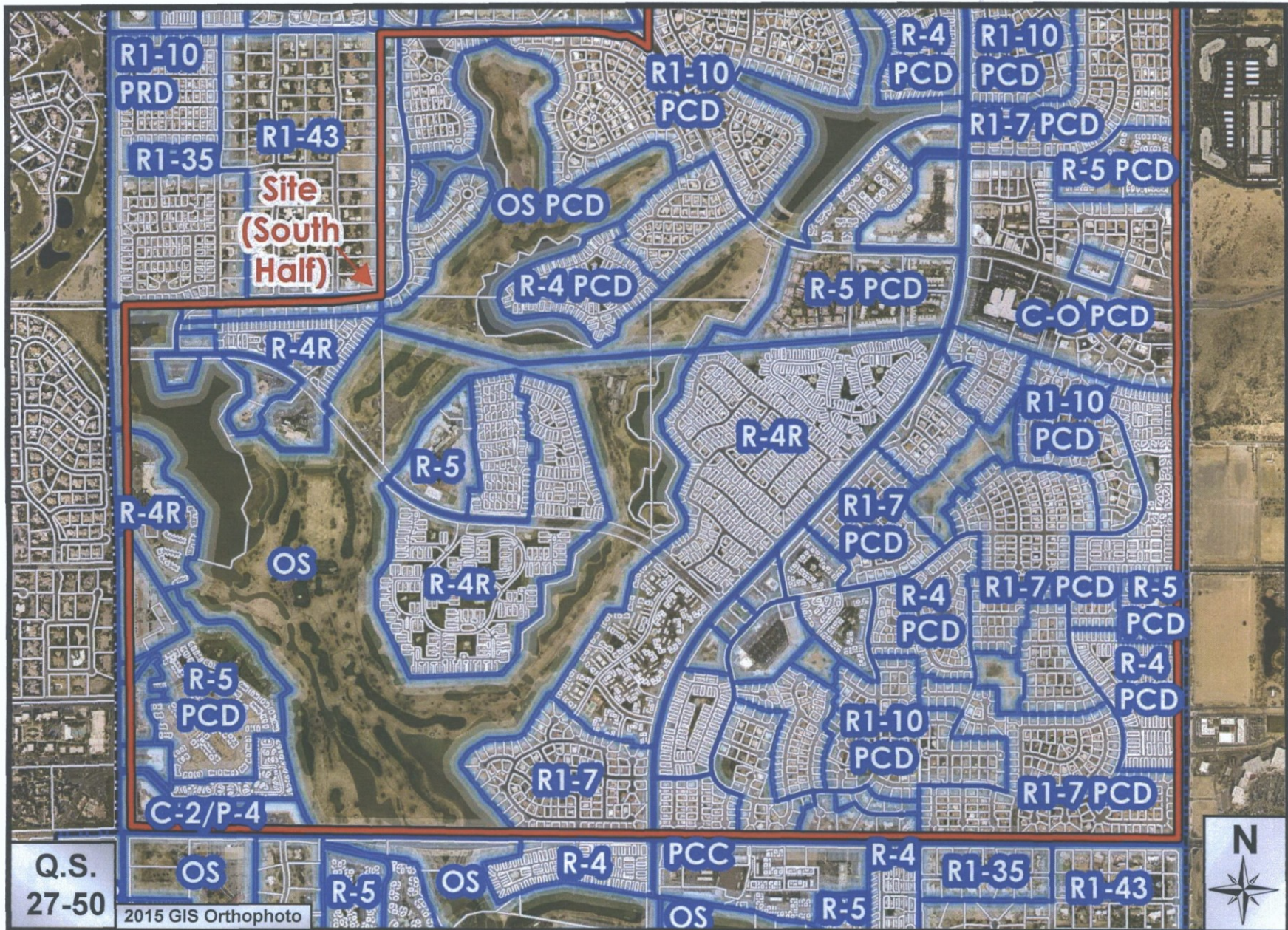
McCormick Ranch Landscape Master Plan

46-DR-2016



McCormick Ranch Landscape Master Plan

46-DR-2016



McCormick Ranch Landscape Master Plan

46-DR-2016



 **McCormick Ranch**

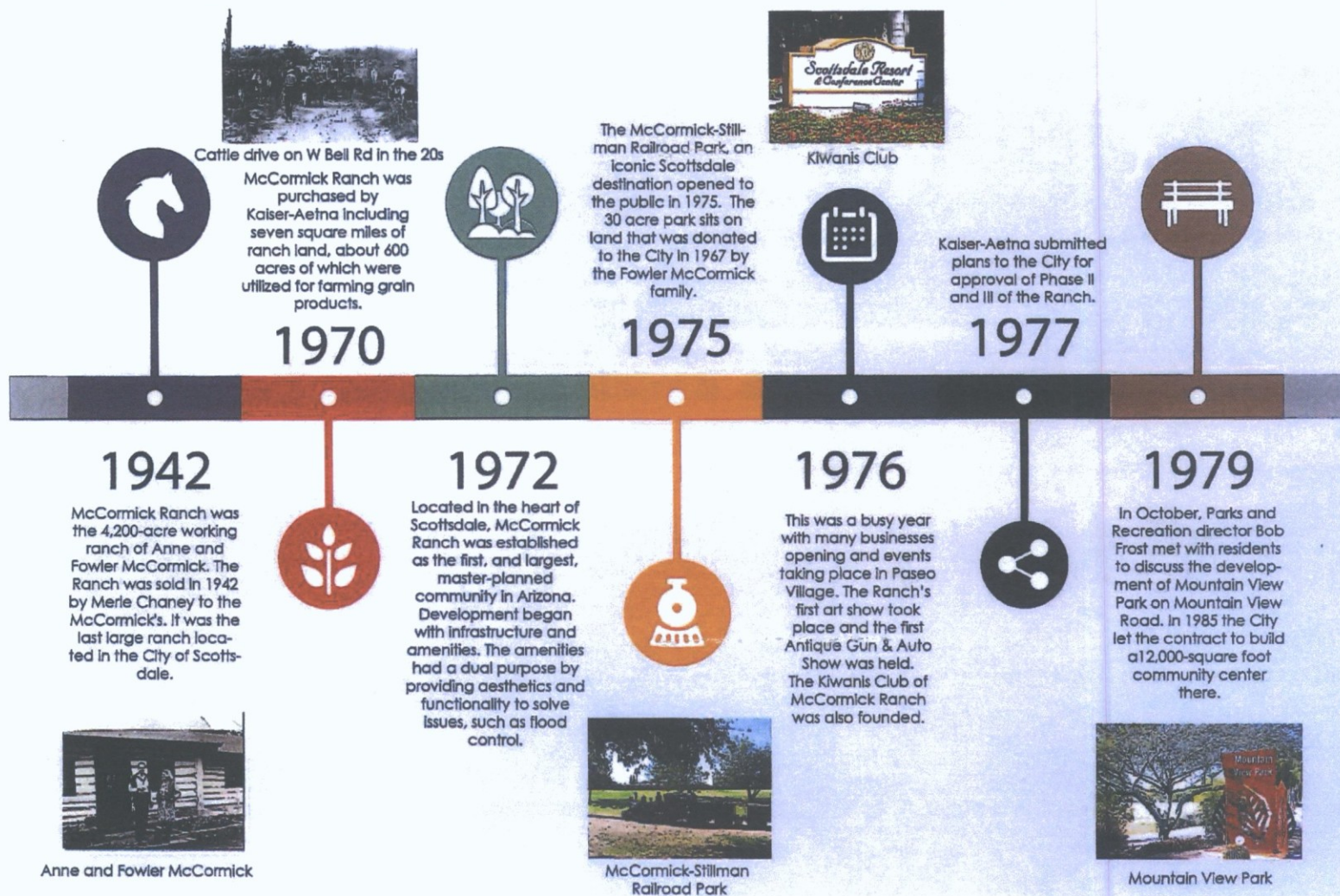
McCORMICK RANCH

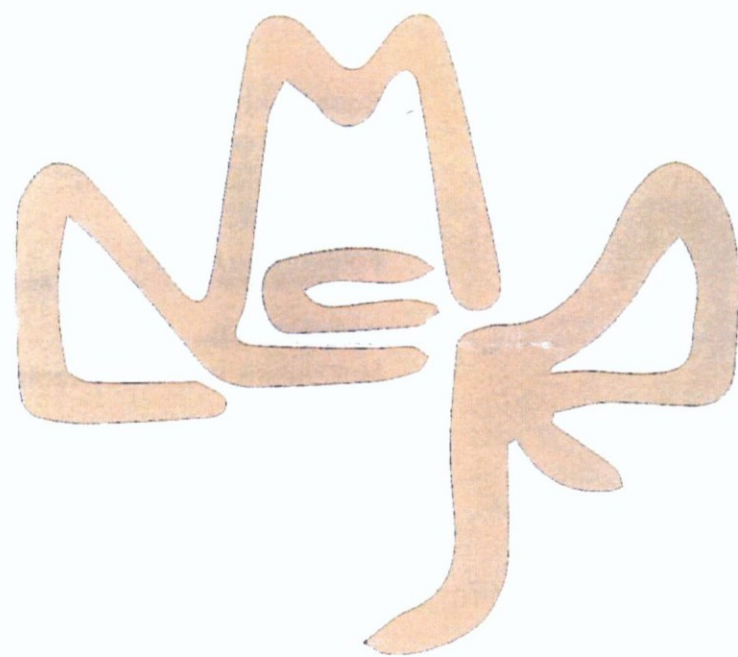
LANDSCAPE MASTER PLAN

2016

ATTACHMENT #3

HISTORY OF MCCORMICK RANCH





Acknowledgements

Significant time and effort was contributed to the completion of the Landscape Master Plan. The following individuals and organizations provided invaluable support throughout the planning process.

McCormick Ranch Property Owner's Association (MRPOA)

Board of Directors

- Dave Wood, President
- Janet Wilson, Vice President
- Mike Hart, Treasurer
- Peggy Ullmann, Secretary
- Brian Calabro
- Liz Gulnan
- Sam Luft
- Carrie Martin
- Hank Rivoir

Landscape Committee

- Mike Hart, Co-chair
- Hank Rivoir, Co-chair
- Alice Currey
- George Fekas

Staff

- Jaime Uhrich
- Chris Campbell
- Bree Peterson

Consultant Team

Logan Simpson

- Craig Coronato, FASLA, Project Manager
- Judy Meilke, PLA, ISA, AZNA
- David Case, PLA
- Angie Kizior

Bartlett Tree Experts

- Dennis Lynch, ISA, Consulting Arborist

Special Thanks

McCormick Ranch Residents

Much of the success of this master planning effort is due to the constructive input and feedback received from members of the McCormick Ranch community. Special appreciation is given to those who have contributed to this project through the landscape survey and community workshops.

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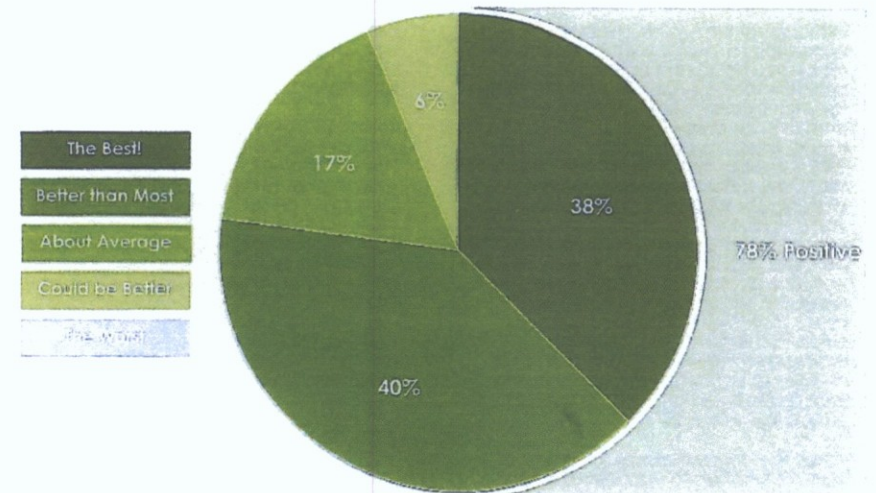
1. Introduction & Purpose of the Plan

During the McCormick Ranch Property Owners' Association (MRPOA) Board of Directors 2012 strategic planning effort, it was recognized that a Landscape Master Plan could be an important component of McCormick Ranch's (the Ranch) future success. By establishing a Landscape Committee, the Board initialized the master planning process. The purpose of the plan is to provide a visionary and pragmatic road map for future landscape development, improvements and maintenance by providing consensus-based guidelines, and identifying priority and long term projects. The value of a master planning process and a Master Plan includes:

- building community consensus
- establishing credibility
- creating a common vision
- defining priorities
- creating a document to leverage support

The purpose of this document is to establish an agreed upon set of guidelines that govern all new development while providing for the long term stewardship of the community commons that is desirable and necessary to maintain a high quality and sustainable landscape. The approved plan will be utilized in the scheduling of periodic improvements (capital projects); review of modifications proposed for new development, and for ongoing maintenance of Ranch-owned properties throughout the community as well as those owned by the City of Scottsdale (COS), per mutually agreed upon landscape maintenance agreements, as amended from time to time. In all cases landscape planning, design, construction and maintenance are to be of the highest possible quality with emphasis placed on maintaining the Ranch's unique style of urban landscape.

We asked residents, "How does McCormick Ranch compare to other communities?"



1.1 Community Context

McCormick Ranch is a 3,116 acre master planned community located in Central Scottsdale, Arizona. The community includes a distinctive variety of residential communities and homes, as well as businesses, parks and open space areas that support the lifestyles and activities of its residents and visitors.

McCormick Ranch was one of the first and largest master-planned communities in Arizona. Established in 1973, development continues through today. The community is characterized by lush green landscapes, over 26 miles of shared use paths and pedestrian walkways integrated within connected greenways among more than 68 unique neighborhoods, containing 45 incorporated homeowners' associations.

The original plan for McCormick Ranch stated that it "was an effort to pursue an innovative community that could conceivably result in a better life style through combinations of consistent land uses and open space, which could, and if appropriately effected and subsequently maintained, assure the highest standards and quality of any form of subdivision." McCormick, Scottsdale and Gainey Ranches formed crucial building blocks to the orderly development of the City of Scottsdale. Not only do these developments represent significant geographical areas, but they have also influenced City's housing mix - luxury and moderately priced housing - essential to helping Scottsdale to become the premier business and resort city that was envisioned in the 80's.

When the original master plan for McCormick Ranch was developed more than 40 years ago, its founders recognized that the landscape of the community would be important to its sense of place. While its Sonoran Desert setting provided an environment suitable for a variety of native and introduced plants, the community's residents were attracted by its "oasis" character, providing an escape from

the harshness of the desert by providing shade and other climate moderating elements such as lakes, palm trees and turf grass. A growing sensitivity to importance of water conservation and an increasing awareness that Sonoran Desert native plants and materials can be attractive and sustainable if designed well, it is imperative that this Plan establish a balance of urban and natural landscapes that support the needs of the community into the future.

The McCormick Ranch Property Owners' Association manages and operates the common areas and streetscapes that are intended for the use and enjoyment of its residents. Funding from annual dues and assessments are utilized to operate and maintain common facilities and pay for related operating and capital expenditures including equipment and improvements, while maintaining a reserve fund for emergencies.

McCormick Ranch was planned to be very different than the rest of Scottsdale. The community was designed to take advantage of the area's natural beauty while functioning as a modern community. It was built to preserve the character of the land while diminishing the impact of the automobile, providing amenities for active outdoor living, and preserving an easy way of western life. Grassy open space, lakes, pedestrian walks and bicycle paths are of utmost importance to the way of life at McCormick Ranch.

A Cherished History



Guiding Principles

Celebrate Nature

Build upon the natural beauty of the surrounding area

Continually Improve

Function as an integrated and modern community

Remain Unique

Lakes, streams and grass are essential components of the Ranch lifestyle

Sustain Value

Remain the premier "Live, work, shop, play" community of Scottsdale

THE GROWTH OF MCCORMICK RANCH

The transformation of McCormick Ranch was based on the largest community master plan within a city in Arizona at the time. Embraced by the City of Scottsdale, development began with infrastructure and amenities. The amenities were planned to serve multiple purposes by providing **functionality, aesthetics, and recreational opportunities.**

amenities

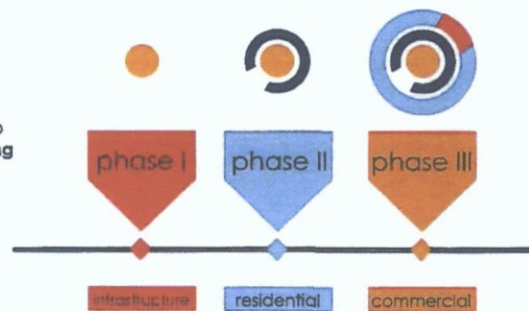
- 2-18 hole golf courses
- 12 miles of off-street walking paths
- 26 miles of bicycle paths
- 120 acres of man-made lakes
- Many shopping and entertainment areas

The City of Scottsdale had already begun a planning effort to **protect their environment** prior to the development of McCormick Ranch. One example of this is the Indian Bend Wash Recreation area which extends for several miles north-south along Hayden through the center of Scottsdale and McCormick Ranch. Quantities are estimated from GIS data provided by City of Scottsdale.

The **successful growth** of McCormick Ranch was due to adhering to the **master plan** and the **sales and marketing** of the three phases.

-
-
-

planned in phases



Phase I included the completion of infrastructure (major streets, parks and utilities, etc.), the amenities and the development of the three resorts – The Inn at McCormick Ranch (now known as the Millennium Resort Scottsdale McCormick Ranch), The Registry Resort (now torn down and parceled out for condominiums) and the Scottsdale Conference Center Resort. In Phase II, builders purchased parcels of land, constructed houses, condominiums, and patio homes, and completed on-site streets and utilities. After 1980, when Transcontinental Properties acquired the remaining unclaimed land, the company developed McCormick Ranch Center. One of the city's largest employers, Honor Health, is located in the McCormick Ranch Center.



McCormick Ranch - Entrance to the community from Scottsdale Road on McCormick Parkway



Facts and Figures McCormick Ranch

McCormick Ranch Acreage		
Classification	Acres	%Developed
Residential	1,771	99%
Commercial	542	99%
City	93	100%
Hospital	61	77%
School District	42	100%
Common Area	60	100%
Lakes	120	100%
Golf Course	303	100%
Total Acreage	3,116	99%



Enhanced desert character



Verdant open space



McCormick Parkway is a green street

1.2 Setting

McCormick Ranch is located in a stable and fully developed part of Scottsdale, Arizona. At an elevation of approximately 1,300 feet above sea level, this setting provides a microclimate that receives an average annual rainfall of 9.51 inches, and experiences an average annual temperature of about 72 degrees.

The Ranch is situated on a flat area (generally less than 1% from northeast to southwest) and is surrounded by residential communities including Gainey Ranch and Scottsdale Ranch, resorts, commercial retail and the Salt River Pima Indian Community. Three lakes mark the location where it is bisected by the confluence of two major flood control drainage systems: Indian Bend Wash and Camelback Wash.

Camelback Walk is one of the most unique features of the McCormick Ranch landscape. It consists of a continuous band of open space which meanders throughout the property. A walk on the shared-use path will take one past open spaces, lakes, golf courses, parks, picnic areas, cafes, shops and tennis courts. There are also areas where one can sit, relax and do nothing.

When driving on Hayden Road, one can easily tell where McCormick Ranch begins. Lush, green, with mature trees and patches of grass, the landscape is distinct from areas south of Indian Bend Road. Major streets are characterized by the types of trees that are thriving there: McCormick Parkway has its large Date Palms. Hayden Road has Eucalyptus. There are over 3,000 trees of various varieties and hundreds of thousands of flowering plants found at McCormick Ranch.

McCormick Ranch is noticeably greener than the surrounding neighborhoods. Areas to the north of McCormick Ranch were developed later, consistent with the City of Scottsdale's growth pattern from south to north. Nevertheless, those areas are not much younger than McCormick Ranch and already have mature landscapes, albeit without the same plant types and density. The neighborhoods to the south are generally older than McCormick Ranch, and while the landscape there are mature, they lack the cohesive character that makes the streets and common areas of McCormick Ranch so visually appealing. The impression of a "green" community, identified as an essential trait by community residents, provides the basis for an overall oasis theme.

The common area landscape framework is characterized by linear greenways that generally follow the washes and parkways.

McCormick Ranch has several distinctive landscape types that are prized by residents. Generally these include the lakes, greenways and common areas with mature trees and connecting regional and neighborhood pathways. These areas provide residents easy access to the sounds and smells of nature in the city, while providing opportunities for social interaction and exercise. It is often said that when one is at McCormick Ranch it is unlike any other place in the Valley.

Those elements of the McCormick Ranch landscape that make it a unique and valued environment are identified and addressed in this Plan. It is these elements around which the Plan establishes standards to ensure that the community maintains its valued

characteristics. The overall objective of the Landscape Master Plan is to establish harmony between desert and oasis in such a way that materials not only thrive, but also enhance the ways that people experience the landscape. Attention is given to the ways that landscape transitions from common areas to private property. Additionally, those areas that are visible to the public, along public rights of way and in common areas, must be limited to specific landscape themes as identified in this Plan.

A drive, walk or bike ride along commonly used routes through the Ranch yields a cohesive and consistent appearance of elegance through a deliberate arrangement of landscape, grading, plantings, ground coverings and amenities that balance lush green landscapes with desert themes on both common and private landscapes.

Design of new projects as well as maintenance of existing features, will preserve and complement the landscapes of the Ranch to prevent it from looking like just another suburban development. The look and feel of the place is to be preserved so that it remains as close as possible to what was intended when it was first developed: a livable, walkable community of diverse neighborhoods connected by landscape commons.

Note that the MRPOA does not manage the 45 incorporated HOA's within the Ranch, the individual business properties or the two 18-hole golf courses.

1.3 Community Goals

The McCormick Ranch Landscape Master Planning process began with an in-depth examination of community goals, existing conditions and opportunities and challenges. By analyzing these components, a framework plan emerged for the community that provides the foundation of the master plan. The following sections describe these elements that compose the basis for the plan.

Successful planning begins with engaging the community to identify what they value and would like to see in their community in order to establish a vision for the future. The project team facilitated an outreach process that met with community residents at their annual events, utilized surveys residents responded to and included a series of workshops with representatives of the community that solicited their ideas and synthesized their input and feedback. The following guiding principles and goals for the Landscape Master Plan were developed from the original development goals for the community, regular collaboration between the MRPOA Landscape Committee, Board of Directors and consultant, and this representative community outreach.

GUIDING PRINCIPLES

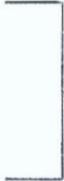
- Build upon the natural beauty of the surrounding area
- Function as an integrated and modern community
- Lakes, streams and grass are essential components of the Ranch lifestyle
- Remain the premier "live, work, shop and play" community of Scottsdale



Residents gather to learn about the planning process and provide feedback

LANDSCAPE MASTER PLAN GOALS

1. Preserve the character of the land while diminishing the influence of the automobile
2. Provide active outdoor living while cultivating a casual western lifestyle
3. Maximize open space, trails, pedestrian and bicycle access
4. Protect and enhance the character of existing neighborhoods
5. Encourage site planning that is sensitive to the environment
6. Open space should:
 - link neighborhoods with trails and recreational areas
 - act as buffers between major streets and adjacent land uses
 - provide for drainage
 - protect significant wildlife corridors
 - visually enhance the character of the community
7. Encourage the preservation of unique natural features and open spaces
8. Enhance continuous and connected streetscapes
9. Provide an efficient multimodal street network
10. Support a variety of residential housing choices
11. Support a mix of business and retail services



2. Inventory and Analysis

An extensive inventory of existing landscape conditions was collected from data provided by the City of Scottsdale and the MRPOA and by field observations of the project team. Data mapped on the following Existing Conditions maps includes:

- Landscape amenities and site furnishings
- Trees
- Turfgrass and decomposed granite/rock mulch areas
- Irrigation source and controllers
- Streets and public rights of way
- Trails, paths and sidewalks
- MRPOA property and common areas
- City of Scottsdale parks and amenities

This data was assessed to quantify and determine the baseline conditions for landscape elements at McCormick Ranch.

2.1 Existing Landscape

The landscape of McCormick Ranch is maturing and requires active management to remain fresh and sustainable into the future. The inventory and assessment of the overall landscape was both broad and focused. Identified was the type, age, condition and location of the trees and plants that make an urban forest - the primary contributor to landscape character and provider of shade and comfort to community residents. The assessment considered the amount, location and types of groundcoverings, such as turfgrass and decomposed granite (DG) in common areas maintained by the MRPOA. Shrubs, accents and other plant types are considered for their contribution to buffering and screening of incompatible use areas, providing edge definition, privacy, and aesthetic benefits.

TREE INVENTORY

A complete inventory of all the trees growing within MRPOA maintained areas was completed in March, 2016. MRPOA staff and an ISA certified consulting arborist, conducted the inventory, which identified 2,273 trees. The inventory will be a valuable tool for management of the McCormick Ranch landscape, and to help guide future decisions.

Many urban areas develop goals for shade coverage and monitor their tree canopy over time to ensure its health. The inventory determined that the current shade coverage in common areas is approximately 12%. A more detailed discussion of the landscape and tree inventory and assessment can be found in the Appendix.

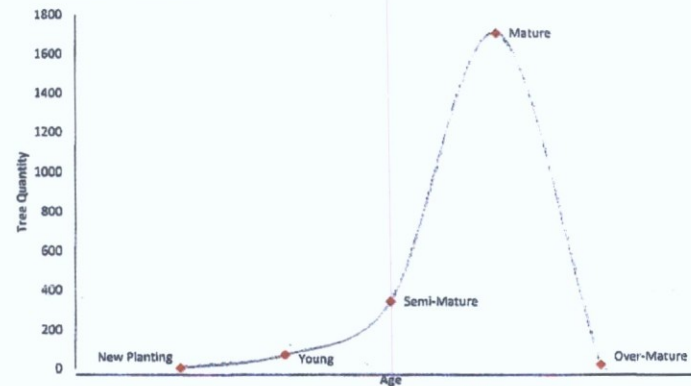
The results of the inventory are shown in the Existing Landscape map (Exhibit 1). Notable items include:

- The majority of trees are in the mature range as shown in the chart at right
- 55% of existing trees are one of three types: Eucalyptus, Olive and Pine
- Existing shade coverage represents about 21% of common area landscape
- Several species are not currently listed on the ADWR's list of low water use trees

Turf Grass at McCormick Ranch

- 81% of ground surface maintained by the MRPOA is turfgrass.
- Turf grass areas that are overseeded during the cold season (October through April) use approximately 31% more water annually than areas that are left to go dormant during the cold season.
- Year round turf (bermudagrass with a cold season annual ryegrass overseed) requires approximately 73 inches of supplemental irrigation water to remain in a healthy condition year round.
- Seasonal turf grass (Bermudagrass with no overseed) requires 51 inches of supplemental irrigation water to remain healthy year-round.
- Seasonal Bermudagrass turf is well adapted to the Sonoran desert climate. It is slow-growing and fairly easy to maintain. Annual Ryegrass requires annual preparation and seeding, and high levels of maintenance. The overseeding process can also damage the Bermuda grass base, increasing the need for more intensive management.

TREE MATURITY DISTRIBUTION

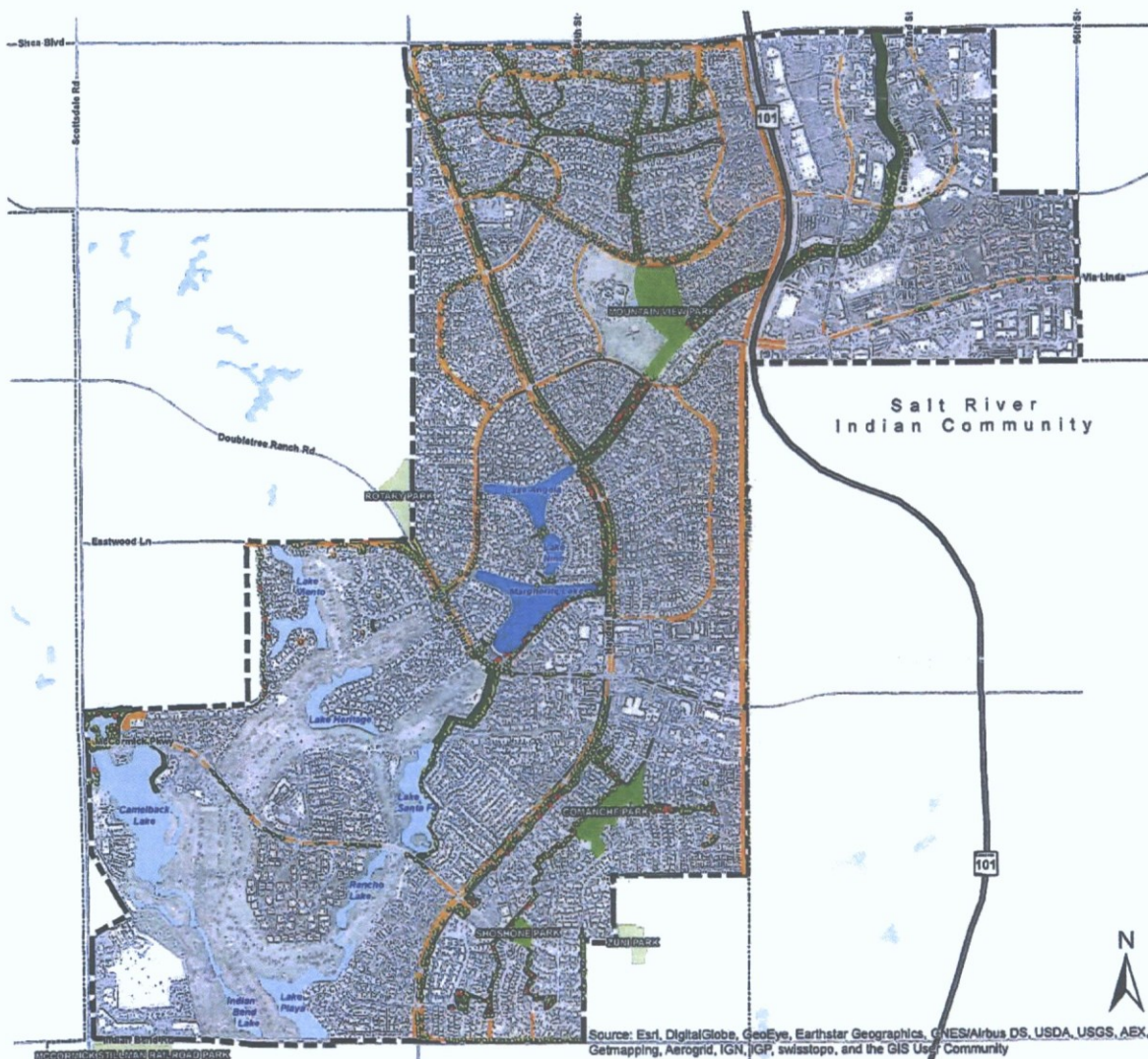


Tree Canopy Health

Several important reasons to maintain, manage and even expand the existing tree canopy include:

- Providing shade/relief from daytime heat
- Reducing cooling needs at buildings and homes
- Reducing stormwater runoff from developed areas
- Ensuring structural soundness against storm damage
- Providing pedestrian scale and perception of separation from traffic
- Adding value to the outdoor environment and making it attractive for recreation





EXISTING LANDSCAPE

- COS Boundary
- MRPOA Boundary
- COS Park
- Lake
- Indian Community
- State Highway

Total MRPOA Project Area = 3,116 acres

Existing Landscape Areas Maintained by MRPOA

- Lakes
- Decomposed Granite/Granite Mulch
- Turf

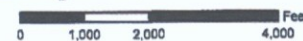
Total Turf Areas = 105 acres = 68 %
 Total Decomposed Granite/Granite Mulch Areas = 50 acres = 32 %
 Total Areas Maintained by MRPOA = 155 acres = 100%

Existing Trees Maintained by MRPOA

- On ADWR List = 2088 Trees
 - Australian Willow
 - Bottlebrush
 - California Pepper
 - Date Palm
 - Desert Willow
 - Elm
 - Eucalyptus
 - Fan Palm
 - Ironwood
 - Locust
 - Mesquite
 - Mexican Palo Verde
 - Mulga
 - Olive
 - Palo Brea
 - Palo Verde
 - Pine
 - Pistache
 - Shoestring Acacia
 - Sissoo
 - Sumac
 - Sweet Acacia
 - Texas Ebony
 - Virginia Oak
 - Vitex
 - Willow Acacia
 - Xylosma
- Not on ADWR List = 186 Trees
 - Ash
 - Cascalote
 - Cottonwood
 - Mulberry
 - Pear
 - Willow

* Total Shade provided by Existing Trees within Areas Maintained by MRPOA = 30 acres = 21%

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, JGP, swisstopo, and the GIS User Community



INVENTORY

Exhibit 1

* Estimate based on MRPOA tree inventory. Areas with no tree inventory were removed for calculation. See Appendix for methodology.

2.2 Landscape Water Use

The McCormick Ranch community receives an average annual precipitation of 9.51 inches (since 1999) measured at Lake Margherite, the majority of which falls between July to September and December to March, with extended periods of drought in between with no measurable precipitation. All but the hardiest desert native plants will not survive in this environment without supplemental irrigation, and even these would be highly stressed in the developed areas of McCormick Ranch.

The irrigation water supply systems managed by the MRPOA require approximately 636 acre-feet, or 207 million gallons of water per year to irrigate landscape areas in the community. In 2014, this was supplemented by a rainfall amount of approximately 10.75 inches at Lake Margherite. Rainfall amounts have ranged from 3.5" in 2002 to 13.7" in 2005.

Irrigation water supplied for the MRPOA is used to manage landscape areas in common areas and within street rights of way. Irrigation for residential subdivisions that are served by individual homeowners associations (HOAs), golf courses and City of Scottsdale (COS) parks are managed separately and not included in this summary.

SOURCES

Water for irrigation north of Via de Ventura that is stored in the lakes is pumped from one well located at the south end of Lake Margherite.

Water use measured for that area was 359 acre-feet or 117 million gallons of water used for irrigation. Well water managed by the MRPOA cost \$1,077.00 in 2014, according to an ADWR annual water use report. This does not include the cost of equipment, maintenance, utilities, storage and loss from evaporation.

City of Scottsdale Water Conservation Policies

- The City has been working with the MRPOA to encourage the replacement of turf grass with low water use landscaping to reduce water consumption in landscape areas of the streets right of way. The City and the MRPOA recently invested \$140,000 in the redesign and landscaping of Hayden Road medians north of Via de Ventura to upgrade irrigation and install drought tolerant, low water use plant materials.
- COS and the Scottsdale Unified School District have suspended their programs of winter overseeding of parks and schools in McCormick Ranch and elsewhere.
- COS currently offers rebates of \$.25 per sq. ft. for turf removal only with installation of decomposed granite or other inert material, and \$.50 per sq. ft. (up to \$1500.00 per residence) to homeowners who remove turf grass lawns and replace them with a desert native landscape with 50% plant coverage at maturity.
- A turf removal rebate (up to \$3,000) is available for nonresidential properties, multifamily residential communities and common areas of housing developments.

Water for irrigation south of Via de Ventura is provided by the City of Scottsdale and managed by the City of Scottsdale Department of Water Resources (Scottsdale Water). The amount of water used for irrigation south of Via de Ventura per their meters is approximately 277 acre-feet, or 90 million gallons per year. The cost of irrigation water supplied by the City is currently \$3.85 per 1,000 gallons or \$1,254.50 per acre-foot.

Lakes maintained by the MRPOA are used for water storage. These lakes store water pumped from the wells until it is needed for landscape irrigation. The lakes also provide aesthetic value, support recreational use and have flood control value.

Name	Size (Acres)	Uses
Lake Angela	9	Irrigation, Flood Control, Boating, Fishing
Lake Nino	3	Irrigation, Flood Control
Lake Margherite	19	Irrigation, Flood Control, Boating, Fishing

Evaporative water loss from the lakes is higher than what is consumed for landscape irrigation. It is estimated that 220 of the 359 total acre-feet (or 61%) of water pumped from wells was lost to evaporation.

Recycled water is not currently available for irrigation within the MRPOA. Many communities use recycled effluent from water treatment for landscape irrigation. The City of Scottsdale does not currently have plans to increase the availability of effluent recycled water at McCormick Ranch within the next 20 years.

Landscaping at McCormick Ranch can be categorized into one of two different types:

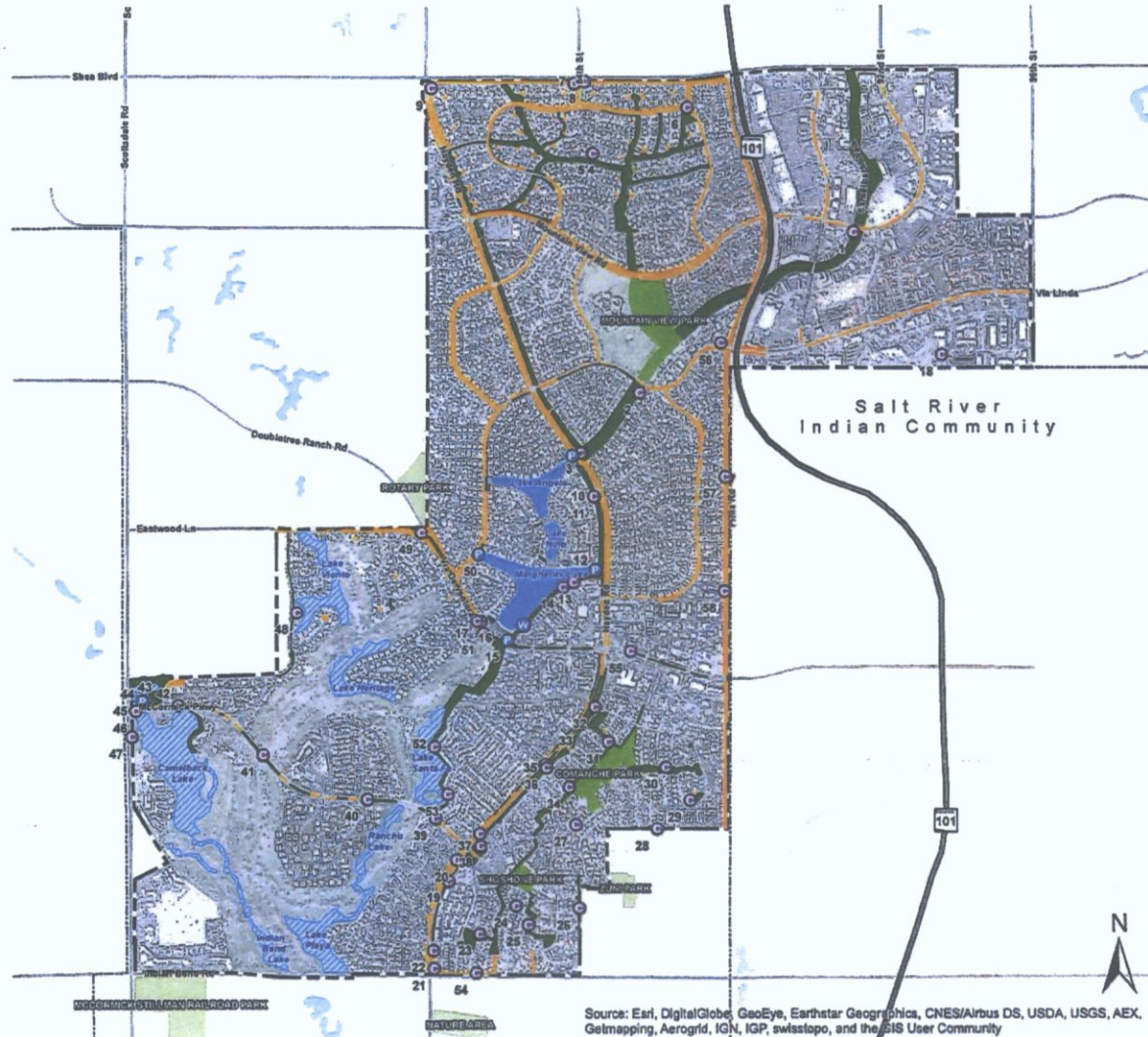
Xeriscape	Est. Annual Water Use = 83,000	Gallons per Acre
Turf and Trees	Est. Annual Water Use = 968,000	Gallons per Acre

Each of these types is assigned a water use demand based on the evapotranspiration rates of the types of plants found there. The biggest indicator of water demand is the presence or absence of turf grass, and how that turf grass is managed.

A more detailed discussion of irrigation inventory and assessment can be found in Appendix section 3.

A Healthy Irrigation System....

- Reduces water waste
- Reduces labor to maintain and manage irrigation systems
- Maximizes health of plant materials to support landscape goals
- Provides cost savings for residents



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

EXISTING IRRIGATION

- COS Boundary
- MRPOA Boundary
- COS Park
- Lake
- Indian Community
- State Highway

Existing Lakes Maintained by MRPOA

- Lake Angela = 9 acres
- Lake Nino = 3 acres
- Margherite Lake = 19 acres
- Total Water Surface Area = 31 acres**

MRPOA Lake System Purpose

- Irrigation for Camelback Walk and McCormick Ranch
- Irrigation for Golf Course

Existing Controllers Maintained by MRPOA

C Controller			P Pump		W Well	
ID	Model	# of Stations	ID	Model	# of Stations	
1	Rain Master Sentar II	12	30	Rain Master Sentar II	18	
2	Rain Master Sentar	12	31	Rain Master RME	12	
3	Baseline 1000	100	32	Rain Master RME	18	
4	Rain Master Sentar	12	33	Rain Master	18	
5	Rain Master Sentar	12	34	Rain Master RME	18	
6	Rain Master Sentar	12	35	Rain Master RME	12	
7	Rain Master Sentar II	6	36	Rain Master Sentar II	24	
8	Rain Master	18	37	Rain Master	12	
9	Rain Master Sentar II	12	38	Rain Master Sentar II	12	
10	Rain Master Sentar II	12	39	Rain Master	18	
11	Rain Master Sentar	12	40	Rain Master RME	12	
12	Rain Master Sentar II	6	41	Rain Master	12	
13	Rain Master Sentar II	8	42	Rain Master RME	18	
14	Rain Master RME	8	43	RAIN MASTER	18	
15	Rain Master Sentar	12	44	RAIN MASTER I	12	
16	Rain Master Sentar II	12	45	RAIN MASTER RME	12	
17	Rain Master Sentar II	12	46	Rain Master Sentar II	6	
18	Rain Master Sentar	8	47	Rain Master RME	12	
19	Rain Master Sentar	12	48	Rain	12	
20	Rain Master RME	12	49	Rain Master Sentar I	12	
21	Rain Master	12	50	Rain Master Sentar	12	
22	Rain Master	7	51	Rain Master Sentar II	12	
23	BASELINE	100	52	Rain Master Sentar II	12	
24	Rain Master RME	8	53	Rain	18	
25	Rain Master Sentar II	12	54	Rain Master RME	12	
26	Rain Master	12	55	Rain Master RME	12	
27	Rain Master	7	56	Rain Master Sentar II	12	
28	Rain Master Sentar II	18	57	Hunter	10	
29	Rain Master	12	58	Hunter	10	

2.3 Circulation & Trails

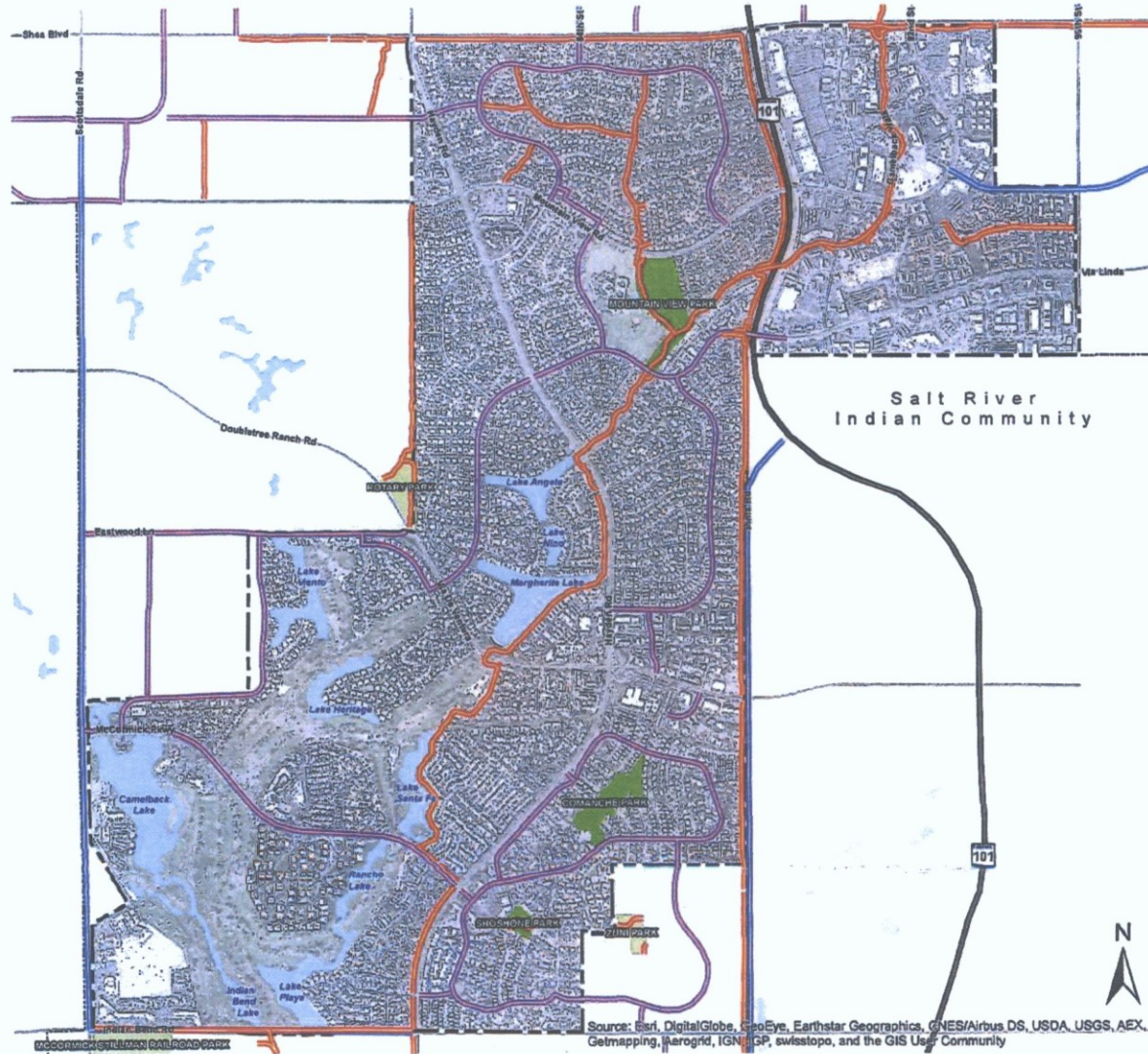
McCormick Ranch has a robust system of bike routes, walks, paths and trails that provide transportation options and recreation for residents and visitors. The Existing Circulation map (Exhibit 3) identifies existing walks, paths and trails from GIS data provided by the City of Scottsdale (COS).

Sidewalks along public streets are owned and maintained by COS. Most streets have sidewalks on both sides that are located in the right of way. Sidewalks are either attached (connected to the back of curb) or detached (separated by a landscape strip). Accessibility improvements to comply with the Americans with Disabilities Act (ADA) have been made over time, with several locations still needing to be addressed by the COS.

Common area paths are maintained by the COS or the MRPOA. The regional multi-use path system runs along Hayden Road to Camelback Walk and is part of the larger Indian Bend Multiuse path system owned and maintained by the COS. Connecting to the Indian Bend regional path and to neighborhood parks, cul de sacs and common areas, is a network of smaller walking paths used by residents for neighborhood access and exercise.

Although not specifically part of this study, several locations were identified where sight distances for pedestrians on the sidewalk, as well as vehicles stopped at intersections, do not meet current COS standards due to location of existing walls and structures. Future improvements to these intersections may be subject to current COS Zoning Ordinance and Design Standards and Policies.





EXISTING CIRCULATION

-  COS Boundary
-  MRPOA Boundary
-  Indian Community
-  COS Park
-  Lake
-  State Highway

Existing Bike Lanes, Bike Routes and Multi-Use Paths

-  Bike Lane
-  Bike Route
-  Multi-Use Path

INVENTORY

Salt River
Indian Community

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

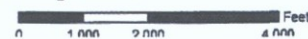


Exhibit 3

2.4 Community Identity

PARKS & AMENITIES

McCormick Ranch's access to the outdoors is highly valued by its residents. City parks, as well as common areas and greenways support this access and provide recreation opportunities that enhance the quality of life. These services include access to health care, education facilities, shopping and restaurants, as well as areas for community gathering, leisure and relaxation and community identity.

The Existing Parks and Amenities map (Exhibit 4) identifies three City of Scottsdale Parks located within the boundaries of the community that provide recreation and leisure services to residents. They are Comanche, Shoshone and Mountain View parks. Two other parks are just outside the community boundary. They include Rotary Park and Zuni Park. The adjacent map identifies the activities that each of the parks support.

The common areas managed by the MRPOA provide paths and links to other amenities throughout the community. This includes the lakes, which are used for flood control, irrigation water storage, boating and fishing, along with benches, trash receptacles, dog bag dispensers, community entry signs, and other structures are provided.

As the community has matured many of these amenities have become worn and dated. Two of the main entry signs have already been reconstructed, establishing a precedent for the design of all new signs and structures to improve the community's brand and identity. Environmental conditions such as growth of the landscape, changes in use patterns and aging infrastructure have resulted in complete renovations while others will be addressed in improvement plans such as the following three that have been recently completed or identified.

MCCORMICK PARKWAY AND SCOTTSDALE ROAD (COMPLETED)

The entry monument at the north-east corner of McCormick Parkway and Scottsdale Road consists of two low, cast-in-place concrete walls with a raised horizontal pattern on which "McCormick Ranch" is spelled out in large bronze letters accompanied by the McCormick Ranch Logo. The walls are angled relative to Scottsdale Road, so that they can be viewed by either north-bound or south-bound traffic, as well as by drivers headed east on McCormick Parkway. Surrounding the sign are colorful annuals and shrubs and flowering groundcovers. Five trees frame the back side of the entry monument, and Camelback Lake forms the backdrop on the other side. Several boulders are situated beneath the trees, and their color is echoed by the decomposed granite surface treatment.

HAYDEN ROAD AND INDIAN BEND ROAD (IDENTIFIED)

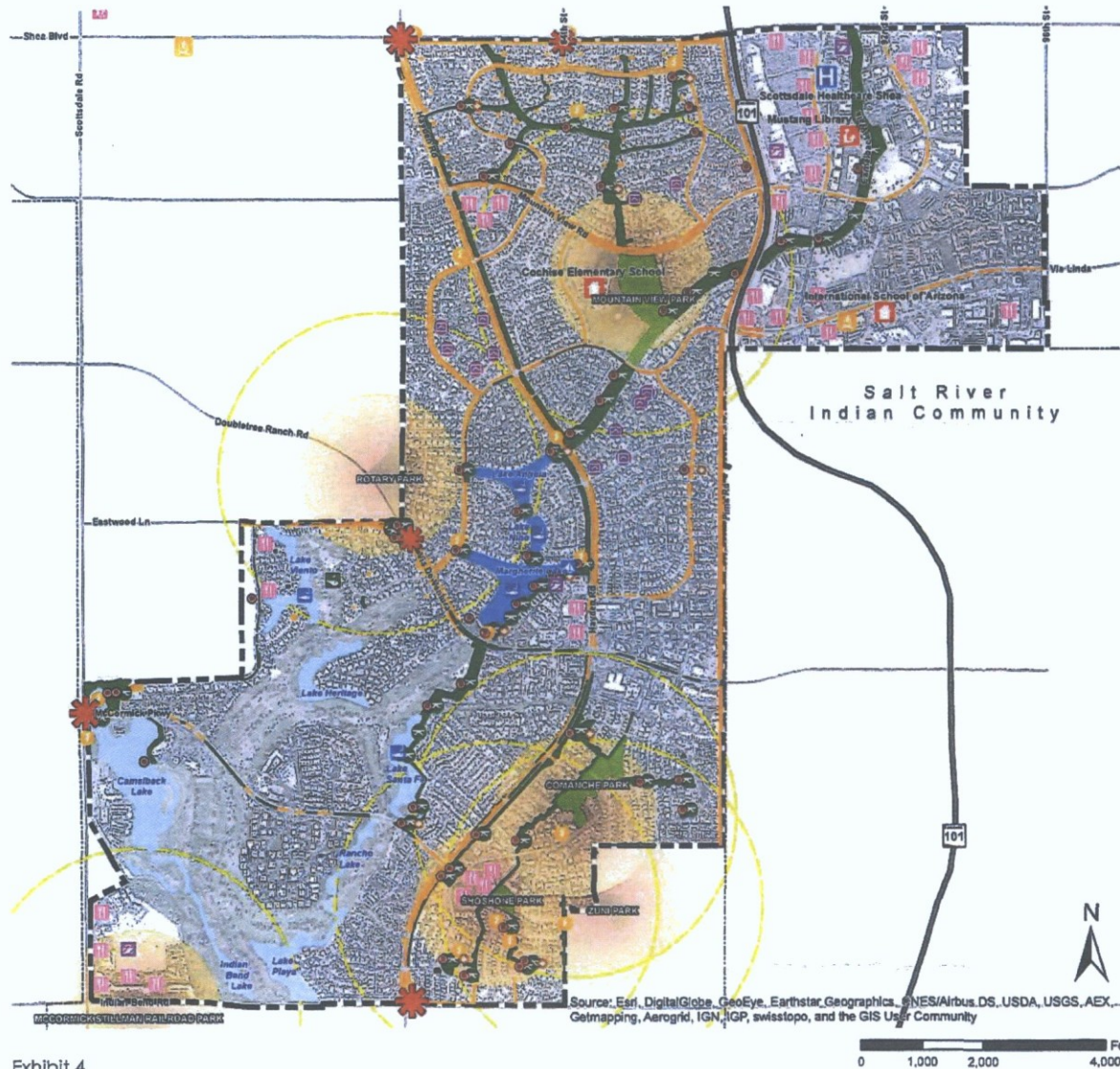
A low masonry wall with a tan-colored stucco finish and the McCormick Ranch name and logo in gold forms the entry monument at the north-east corner of the Hayden Road and Indian Bend Road intersection. Colorful seasonal annuals are planted in front of the wall, which is set in an expanse of turf. Behind the wall are shrubs and trees. The wall faces south and is most visible to north-bound traffic on Hayden Road.

VIA DE VENTURA AND DOUBLETREE RANCH ROAD (IDENTIFIED)

The triangle-shaped parklet where Via de Ventura joins Doubletree Ranch Road features an entry monument comprised of a low masonry wall with a tan-colored stucco finish onto which is mounted the McCormick Ranch logo and name in gold-colored metal letters. Colorful annual flowers are planted in front of the wall and are separated from the surrounding grass by a concrete header. Olive, eucalyptus, and mesquite trees form a backdrop for the sign, which is angled to the north-east and most visible to south-bound drivers on Doubletree Ranch Road.



Desired community identity is conveyed through this recently updated entry sign



EXISTING PARKS AND AMENITIES

- COS Boundary
- MRPOA Boundary
- Indian Community
- MRPOA Maintained Lakes
- MRPOA Maintained Decomposed Granite/Granite Mulch
- MRPOA Maintained Turf
- City of Scottsdale Park
- Lake
- State Highway

Park Amenities

- | | | |
|---|--|--|
| <ul style="list-style-type: none"> Mountain View Park Baseball Field Tennis Courts Basketball Court Soccer Fields Volleyball Court Children's Play Area Community Center Fitness Trail Restroom Facilities Maintenance Facility Parking | <ul style="list-style-type: none"> Comanche Park Tennis Courts Basketball Court Fitness Trail Children's Play Area Maintenance Facility Open Field Ramadas | <ul style="list-style-type: none"> Shoshone Park Basketball Court Playground Open Field Ramadas |
|---|--|--|

Park Amenities Service Area

- 1/4 mile Radius
- 1/2 mile Radius

Community Amenities

- Hospital
- Fire Station
- School
- Library
- Bench
- Waste Container
- Dog Waste Station
- APS Power
- Mail Box

Things To Do

- Boating
- Dining
- Fishing
- Golf
- Movies
- Shopping

Entrance Signage

- Primary Entrance Sign
- Secondary Entrance Sign

INVENTORY

Exhibit 4

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



New entry sign concept sketch for Hayden & Indian Bend Roads.

3. Opportunities and Challenges

Assessment of existing conditions, along with site observations by the project team and conversations with the community and the Landscape Committee, led to the identification of opportunities for improvements to the McCormick Ranch landscape and certain elements of its infrastructure.

Opportunities are identified on the following W“gap analysis” maps of McCormick Ranch and in the goals developed in coordination with the community for landscape and irrigation systems, circulation and trails, and parks and amenities.

Review of the gap analysis plans and preliminary goals with community representatives resulted in identification of opportunities for the future of the McCormick Ranch landscape.



Vertical walls are softened with colorful plantings



Turfgrass reduction will be strategically employed in common areas

3.1 General Design & Management

- Design Streetscapes to reflect community values using the overall design theme: "oasis in the desert."
- Keep and enhance existing turfgrass, adapted planting palettes, and Mediterranean-inspired landscape elements, especially in high visibility and use locations, while balancing them with low water use, desert-native and adapted plants that provide seasonal interest, color and texture.
- Develop landscape updating plans that include planting and groundcover themes and palettes for all major City of Scottsdale street medians and rights-of-way.
- Gradually convert turfgrass areas that are not in highly visible areas and are not actively used for recreation, to low-water use plantings of shrubs, groundcovers and accent plants.
- Soften hard edges at walls and fences of common areas and streetscapes by removing sod along walls and planting with drip irrigated vegetation to provide visual interest and color.
- Strategically replace turfgrass beneath trees, especially those that cast a dense shade, with groundcover plantings in decorative, organic mulch such as recycled shredded wood, separated from grass areas by a flush curb.
- Convert narrow turfgrass strips (Less than 6' wide) to low-water-use groundcover plants with rock mulch groundcover.
- Require high level of design and maintenance on streets where access by adjacent landowner(s) is a hardship. Obtain agreement from the COS to include landscape improvements and maintenance as a MRPOA responsibility in a MRPOA/ COS landscape maintenance agreement.
- Establish a regular audit program for review of water use and seek opportunities to be more water efficient for landscaped areas over time. This can be accomplished through selective removal of turf areas, addition of desert-adapted low water use plantings and upgrading irrigation to achieve greater efficiency.
- Combine landscape improvements with other needed infrastructure improvements such as improving or adding sidewalks, multiuse paths and correcting drainage problem areas.
- Replace walls currently constructed out of railroad ties to be compatible with other hardscape elements.

3.2 Landscape & Irrigation

- Preserve and maintain existing trees until they reach their life expectancy. Immediately begin a succession of new plantings selected from the accepted plant list per the design guidelines.
- Preserve and enhance signature tree plantings along parkways while adding to plant diversity over time.
- For street trees, favor long-lived over short-lived shade trees, evergreen over deciduous, single stem over multi-stem.
- Maintain and expand the amount of shade canopy over public areas throughout the community.
- Reduce the amount of turfgrass in areas with low visibility, low use, or as part of a balanced design potential that is consistent with the themes of the master plan.
- Consider the use of shredded wood mulch instead of decomposed granite (DG) in selected areas where turf is removed. Monitor program for impacts on aesthetics, maintenance and health of vegetation.
- Allow some diversity in the types of rock mulch consistent with the themes of the master plan.
- Where existing turfgrass is removed, replace it with beds that contain high density of vegetation with low water use, drip-irrigated vegetation.

3.3 Parks & Amenities

- Preserve and improve contiguous open space greenways that are accessible to all residents and are a key part of the McCormick Ranch identity.
- Add new benches where appropriate. Shade is a priority in these areas.
- Maximize flexible uses for current open space areas.
- Place trash receptacles and dog bag dispensers near path entrances and away from seating areas.
- Consider adding a publicly accessible pier or dock on the lakefront near the multiuse trail.



Perimeter plantings add color and interest along common area greenways

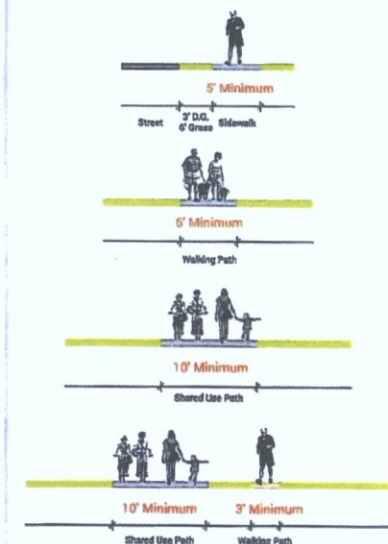


A fishing pier and overlook can provide better access to the lakes for all ages

Complete Streets

In 2008 the City of Scottsdale adopted a "Complete Streets" policy. Complete Streets policies are intended to make streets more walkable and bikeable by considering all modes of transportation when street improvements are made. The theory that underlies this approach is that all drivers are pedestrians at some point in their journey, and that encouraging alternative means of travel can reduce vehicular traffic on roadways and encourage healthier lifestyles.

Within McCormick Ranch some of the older streets were constructed before the COS had consistent standards for sidewalks and bicycle facilities. Streets are wider than they need to be and little is left in the pedestrian amenity zone. Residents today are increasingly demanding safe multimodal transportation options.



Best practices for pedestrian and bicycle paths

3.4 Circulation & Trails

- Recognize streets, common areas and commercial access areas as community open spaces.
- Implement COS Complete Streets policy for any proposed street improvements in the community.
- Improve and possibly add community identity signage at primary and secondary entries.
 - Hayden Rd./Indian Bend Rd.
 - Via de Ventura/Eastwood Ln.
 - 84th St./Shea Blvd.
 - Via de Ventura/Pima Rd.
 - Via Linda Pkwy./96th St.
 - Via Linda Pkwy./90th St.
- Ensure accessible (ADA) connections to and from all sidewalk and off-street trail systems.
- Develop a map (hard copy and online) for identification of key community destinations and for visitor wayfinding.
- Improve wayfinding along paths by adding nodes/landmarks with integral signs or markers. Minimize the use of free standing signs.
- Improve connections from cul-de-sacs to trails.
- Implement COS's goal to provide bicycle routes on a 1/2 mile grid.
- Accommodate bike parking at key locations. Review feasibility of bike share program with COS.
- Review lighting needs for walking paths and common area open space.

3.5 Maintenance

- Refine maintenance practices by continuing to train staff on vegetation management and pruning techniques to encourage healthy and natural looking growth of all plants.
- Work with COS to ensure that existing and future MRPOA/COS landscape maintenance agreements relating to maintenance and capital improvements performed in City right-of-way and regional trails are updated regularly to account for changes in maintenance practices and costs.
- Rotate omission of winter ryegrass overseeding every five years in common areas and rights of way to allow bermudagrass to rehabilitate. Utilizing this practice no more than one half of the common areas should be left to go dormant in any given winter season.



Neighborhood access to trails is valued by the community



Small strips of turf waste water and are expensive to maintain

3.6 Improvements to City of Scottsdale Parks and Facilities*

- Additions and/or upgrades of facilities at existing City Parks are highly desired by the community.
 - Community gathering/entertainment areas
 - Playgrounds (Comanche and Soshone)
 - Exercise Circuit (update at Comanche and Mountain View)
 - Repair and refinish basketball and tennis courts
 - Add or repair drinking fountains
- Fill gaps in sidewalk connections. Separate sidewalks and paths from road by a minimum of six feet wherever feasible, including:
 - McCormick Parkway south side
 - Via Ventura north side
 - Mountain View north side
 - Hayden Road east side
- Widen/improve regional multi-use trails along Hayden Road, Indian Bend and Camelback Walk.
 - Add separate walking trail per design guidelines
 - Provide alternative routes along Hayden Road and golf course as feasible
 - Hayden Road east side and Links to regional trail
 - Mountain View south side
- Update Bicycle Master Plan and citywide map to identify correct locations of bicycle routes and multiuse paths.
 - Arabian Trail loop
 - Paseo del sur and Paseo del Norte
 - 87th Street
 - Via Linda west of 101
 - Shea Blvd east of 101
 - Via Linda east of 101
- Provide pavement markings and signage for existing and proposed bicycle routes.
- Improve access to and circulation within (complete loop) Comanche Park.
- Evaluate lighting on multiuse trail to reduce unsafe dark areas.



The City of Scottsdale maintains 3 city parks in McCormick Ranch

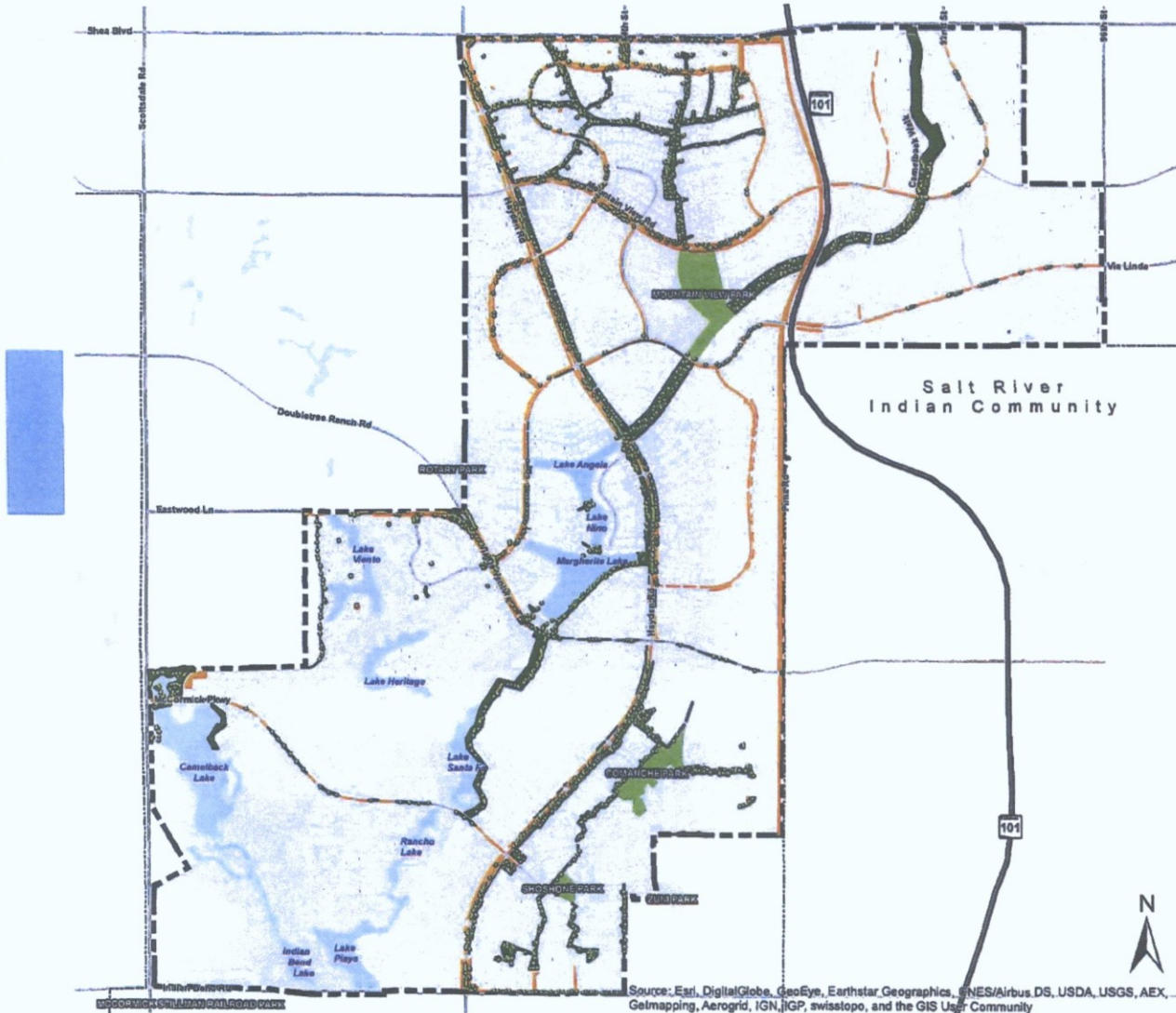


Bicycle routes are increasingly popular among Scottsdale Residents



Camelback Walk Multiuse Path is a popular community amenity

*Note that COS park improvements are subject to COS Budget, City-wide priorities and COS approval.



LANDSCAPE GAP ANALYSIS

- COS Boundary
- MRPOA Boundary
- COS Park
- Lake
- Indian Community
- State Highway

Existing Trees Maintained by MRPOA

- | | | |
|-------------------|--------------------|-------------------|
| Ash | Locust | Shoestring Acacia |
| Australian Willow | Mesquite | Silk Oak |
| Bottlebrush | Mexican Palo Verde | Sisoo |
| California Pepper | Mulberry | Sumac |
| Cascalote | Mulga | Sweet Acacia |
| Cottonwood | Olive | Texas Ebony |
| Date Palm | Palo Brea | Virginia Oak |
| Desert Willow | Palo Verde | Vitex |
| Elm | Pear | Willow |
| Eucalyptus | Pine | Willow Acacia |
| Fan Palm | Pistache | Xylosma |
| Ironwood | | |

Landscape Maintained by MRPOA

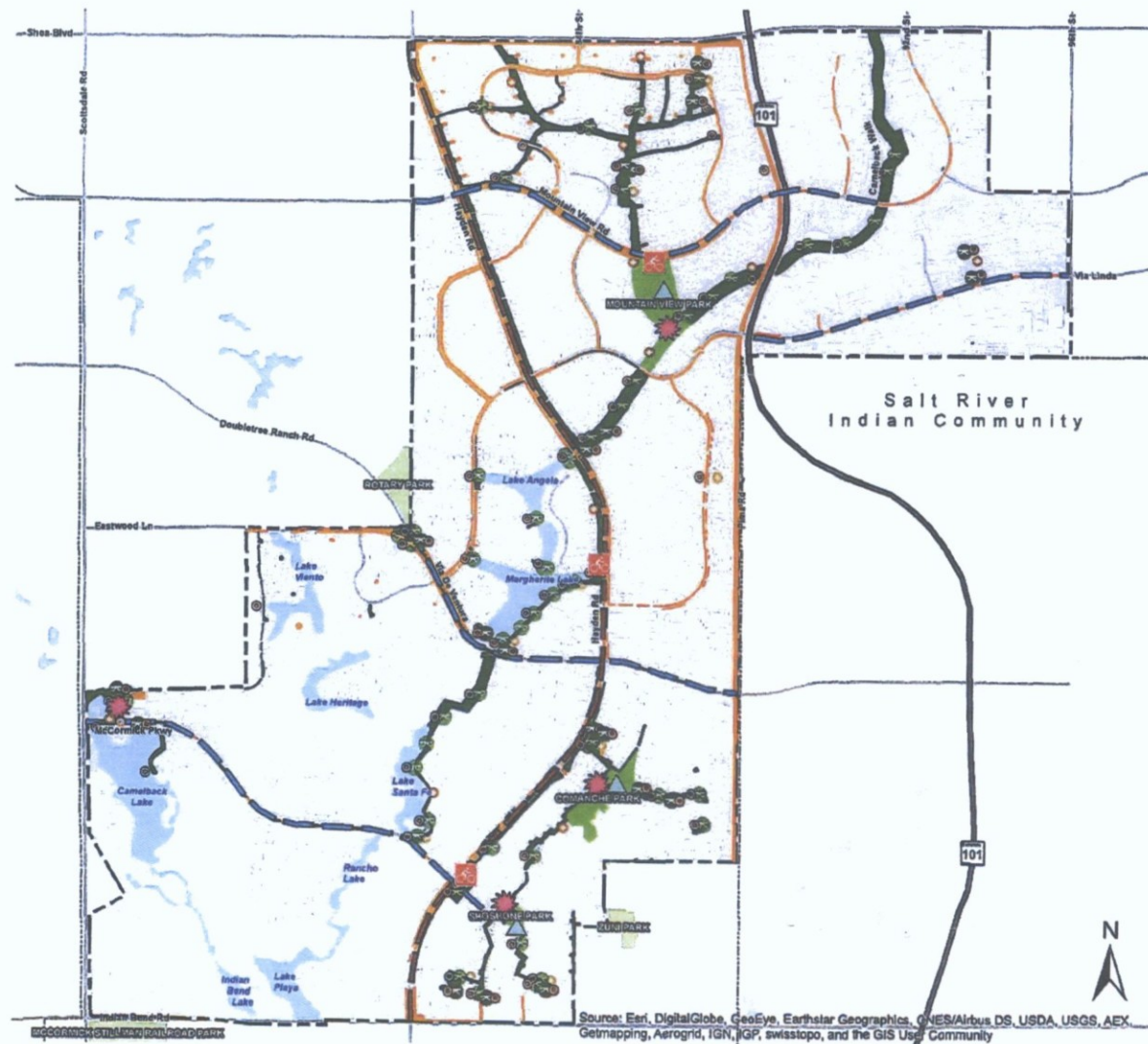
- Turf
- Decomposed Granite/Granite Mulch
- Existing Tree

Gap Analysis

- Trees** Existing Shade Provided = 21%
Opportunity to Increase Shade to 25%
- Turf:DG** Existing Ratio of Turf to DG is 70:30
Opportunity to Balance Ratio to 60:40 or 50:50

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community





PARKS AND AMENITIES GAP ANALYSIS

- COS Boundary
- MRPOA Boundary
- Indian Community
- Existing DG
- Existing Turf
- COS Park
- Lake
- State Highway
- Existing Bench
- Existing Waste Container
- Existing Dog Waste Station

Potential Amenities

- Regional Parkway
- Local Parkway
- Activity Areas
- Children's Play Area
- Bike Rack
- New Bench
- New Waste Container
- New Dog Waste Station

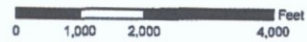
Park Amenities to be Updated/Improved

Mountain View Park
New Surface Under Fitness Equipment

Comanche Park
Expand Playground
Connect Loop Path
Add Ramada with Tables and BBQ
Update Sports Facilities

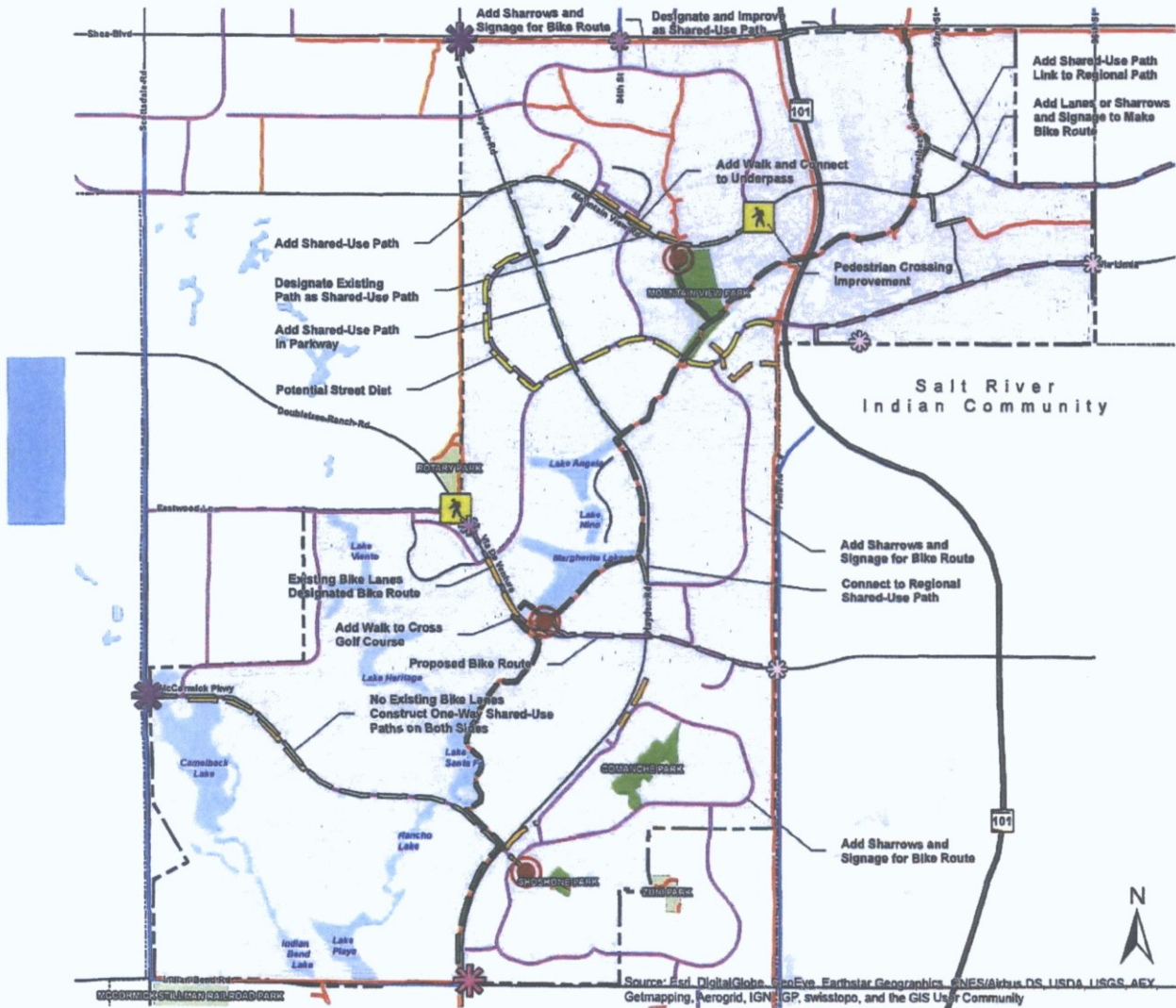
Shoshone Park
Include New Play Equipment
Add New Fitness Equipment

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



OPPORTUNITIES

Exhibit 6



CIRCULATION GAP ANALYSIS

- COS Boundary
- MRPOA Boundary
- Indian Community
- COS Park
- Lake
- State Highway

Existing Connections and Facilities

- Bike Lane
- Bike Route
- Multi-Use Path
- Primary Entrance Sign
- Secondary Entrance Sign

Potential Connections and Facilities

- New Bike Route
- New Shared-Use Path
- Shared-Use Path Improvements
- Sidewalk Improvements
- Street Improvement Requested to City of Scottsdale
- Pedestrian Crossing
- Bike Share Facility
- New Primary Entry Sign
- New Secondary Entry Sign

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

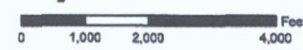


Exhibit 7

4. Framework Plan

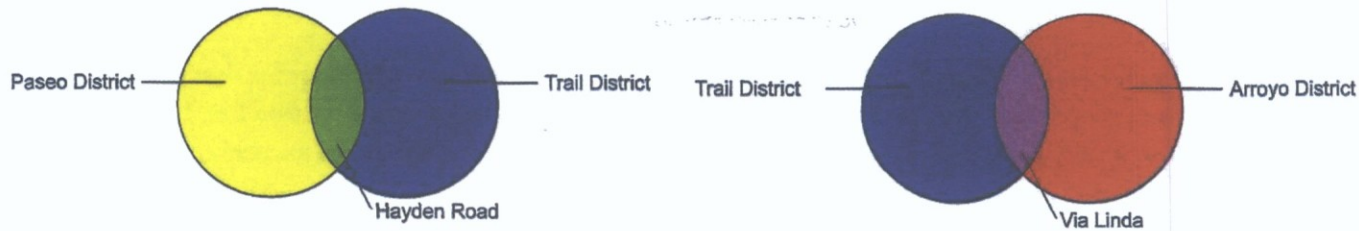
The framework around which the landscapes of McCormick Ranch are generally organized consists of existing major streets (or parkways) and greenways that bisect the community and connect Districts and neighborhoods. This framework is strengthened by the identification of "Aesthetic Districts" that are based upon the timing of development and the building and landscape architectural styles that were applied during the community's evolution. The Districts are bound together by connectors consisting of streetscapes and linear green spaces that traverse the community and provide a common frame of reference for residents and visitors.

By overlaying and combining Aesthetic Districts and Connectors the plan provides a common basis for describing context for application of landscape design themes in the community.

4.1 Aesthetic Districts

Each Aesthetic District identified on the Aesthetic Districts map (Exhibit 8) contains all three Landscape Themes and the landscape materials that are common to adjacent Districts. The Landscape Themes will serve to create visual cohesion between the districts, while the landscape materials unique to each District will allow for greater visual interest and create a distinctive character for each.

The plant and materials palettes for Connectors that run through more than one District consists of materials common to both districts. This concept is visually illustrated in the Venn Diagrams below.



By overlaying and combining Aesthetic Districts and Connectors the plan provides a common basis for describing context for application of landscape design themes in the community.

PASEO DISTRICT

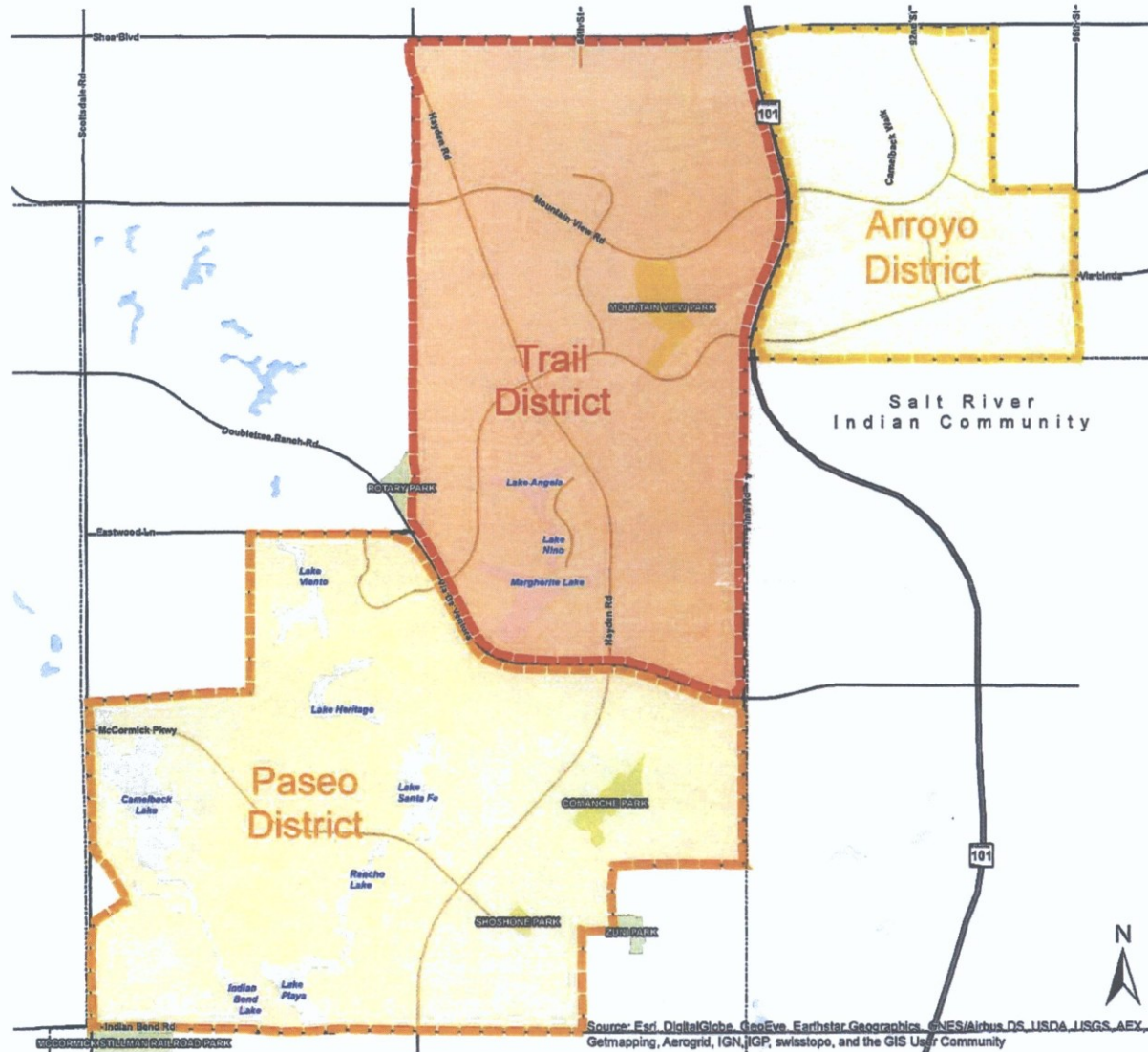
The area bounded by Indian Bend Road to the South and Via de Ventura to the north included the first stages of McCormick Ranch development. Primarily based in a Mediterranean landscape style the landscape is characterized by lush plantings of palm trees, eucalyptus and pines that are set in manicured turf grass settings.

TRAIL DISTRICT

North of Via de Ventura, south of Shea Boulevard and west of Pima Road (and the 101) is the second stage of Ranch development. This area is characterized by a more varied palette influenced by the individual builders that developed the neighborhoods, as well as the evolving aesthetic and environmental tastes of homeowners and City of Scottsdale requirements. Here one finds a variety of landscape styles that include both lush green and more contemporary xeriscape approaches.

ARROYO DISTRICT

The last section of the Ranch to be developed is located east of Pima Road. This District mostly consists of commercial land uses and reflects the application of more desert native materials and xeriscape design approaches that minimize the use of turf grass.



AESTHETIC DISTRICTS

- COS Boundary
- MRPOA Boundary
- COS Park
- Lake
- Indian Community
- State Highway

Aesthetic Character Area

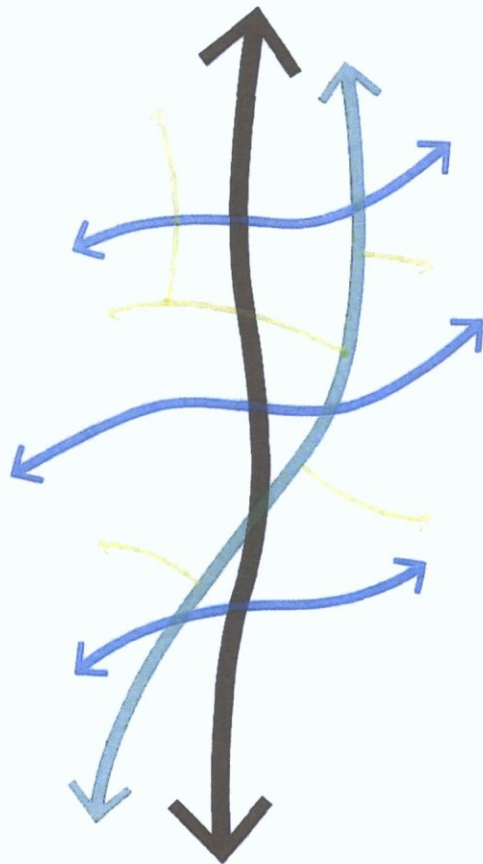
- Paseo District
- Trail District
- Arroyo District

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEY, Getmapping, AeroGrid, IGN, IGP, swisstopo, and the GIS User Community

Exhibit 8

FRAMEWORK

4.2 Connectors



PARKWAYS (STREETSCAPES)

The major connectors in the community are presented on the Circulation - Parkways and Greenways map (Exhibit 9). Hayden Road serves as the major north-south arterial through McCormick Ranch. The landscaping along its southern portion is representative of the community's classic "look" that consists of large trees set in turf and complemented by dense shrub plantings. From Indian Bend Road on the south, northward to Via de Ventura, mature pines, olives, and eucalyptus are visually dominant. The shrubs and accents include petite oleander, Texas ranger, rosemary, natal plum, and red Hesperaloe.

Recent landscape renovations along Hayden Road northward from Via De Ventura have introduced new tree species to expand upon the original palette. Eucalyptus is still dominant from Via de Ventura to Shea Boulevard, but joining it are Elm, Sissoo, Shoestring Acacia, Palo Verde, Mesquite and other kinds of trees. The shrub palette changes as well, blending bougainvillea, fairy duster, yellow bells, and red bird of paradise with old favorites such as lantana and ruellia. Accents, including golden barrel, desert spoon, and tropical agave, play a larger role in the landscape plantings.

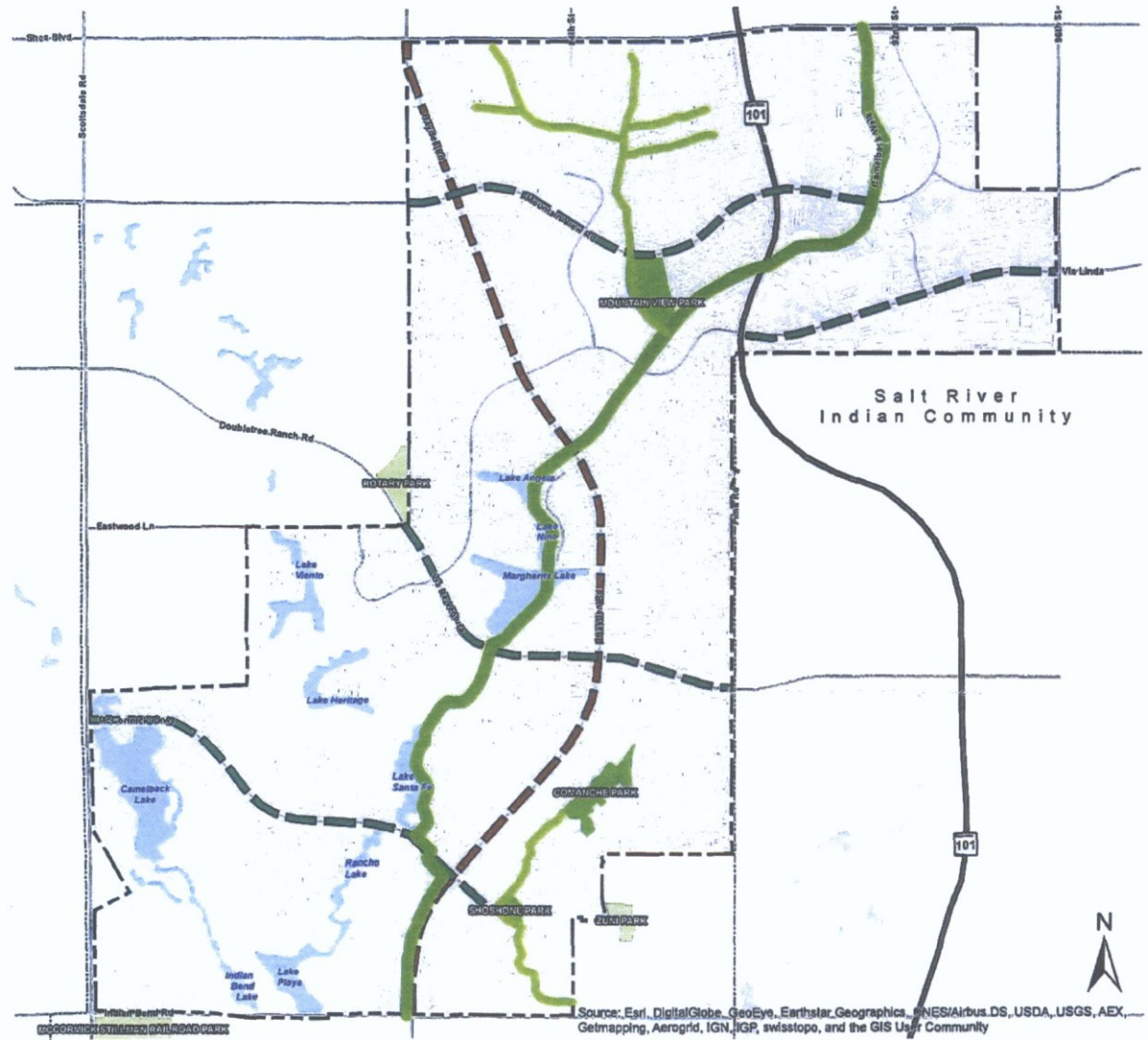
Via de Ventura and Mountain View Road, classified as minor arterials, provide east-west access through the McCormick Ranch community. The portion of Via de Ventura that is west of Doubletree Ranch Road has eucalyptus, olives, and African sumac planted on both sides of the street, with Texas ranger, ruellia, and other shrubs beneath. After Via de Ventura intersects Doubletree Ranch Road, whose name changes to Via De Ventura, the street character also changes. The wide, grassy median is planted with African sumac trees, while eucalyptus and olives are the predominant trees on the sides of the street. Much of the ground treatment on the street sides is turf, with some areas of decomposed granite. This street character extends to the eastern boundary of McCormick Ranch at Pima Road.

GREENWAYS (COMMON AREAS)

Camelback Walk, a continuous linear band of open space, helps form the major spine of McCormick Ranch. The walk winds from its northern limits at Shea Boulevard southwest across Hayden Road to its confluence with Indian Bend Wash at Lake Angela. Camelback Walk and Indian Bend Wash together include more than 500 acres of connected open space that includes parks, trails, golf courses, lakes, and connections to most of the neighborhoods in McCormick Ranch. The regional multuse path runs under major streets, through parks, and adjacent to lakes and streams, combining with a flood control system that is designed to manage a 100 year storm.

The nine lakes on McCormick Ranch have contributed greatly to lessening Scottsdale's flood problems. The man-made water bodies were constructed in the path of the Indian Bend Wash to act as flood control. Camelback Lake at Scottsdale Road and McCormick Parkway, is the largest of the McCormick Ranch lakes.

An extensive web of smaller linear greenways emerge from the central Camelback Walk and Indian Bend Wash, providing access from many of the McCormick Ranch neighborhoods to parks and open spaces. Many of these areas also provide storm drainage in addition to trails, walkways and recreation opportunities. While this plan focuses on those greenways and open spaces that are owned and managed by the MRPOA, it is important to recognize that they are interconnected with and interdependent on connections with individual homeowner associations within the Ranch and with adjacent communities.



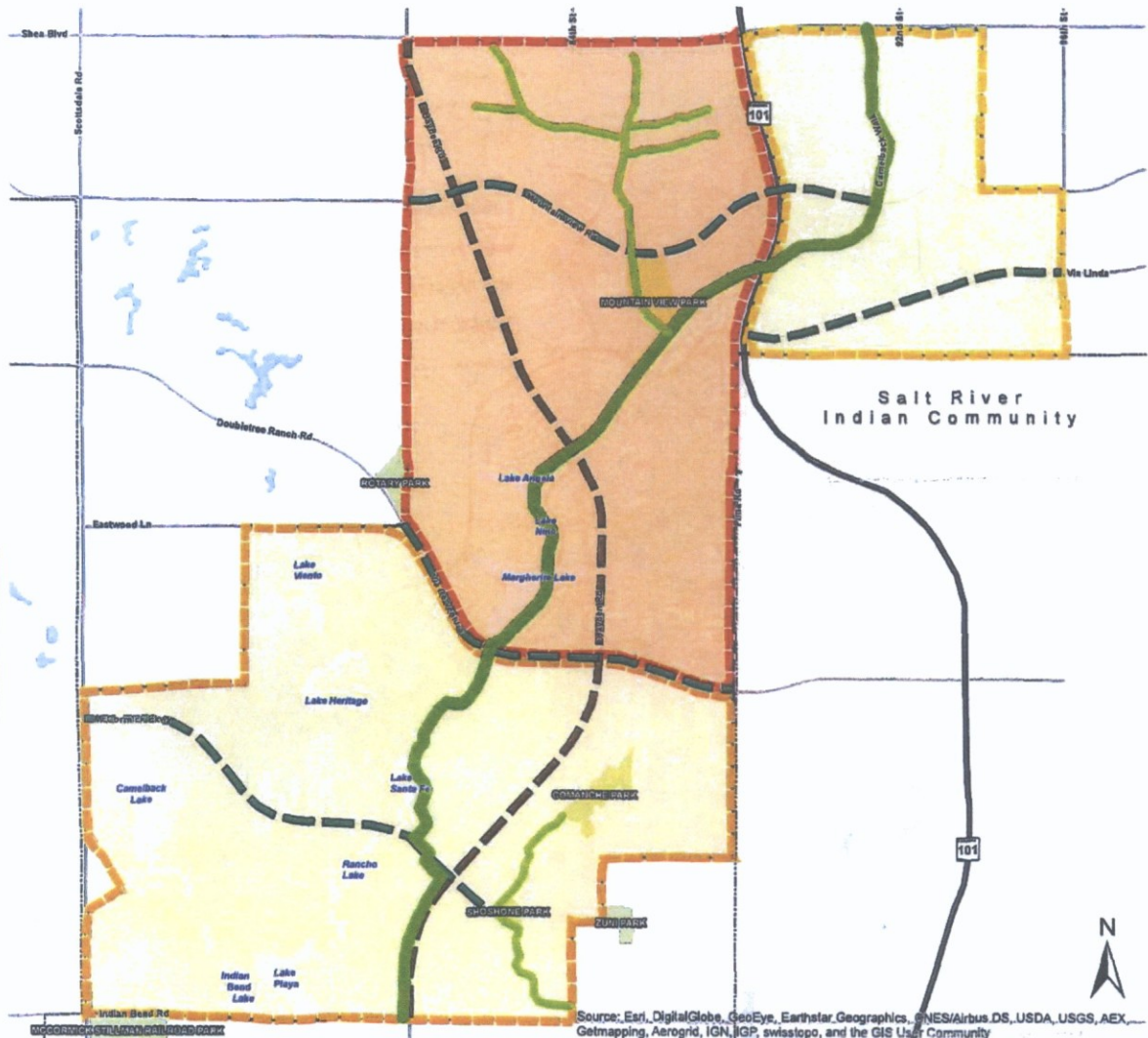
CIRCULATION - PARKWAYS & GREENWAYS

- COS Boundary
 - MRPOA Boundary
 - Indian Community
 - COS Park
 - Lake
 - State Highway
- Greenways and Parkway**
- Regional Parkway
 - Local Parkway
 - Regional Greenway
 - Common Area Greeway

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

Exhibit 9

FRAMEWORK



FRAMEWORK PLAN

- COS Boundary
- MRPOA Boundary
- Indian Community
- COS Park
- Lake
- State Highway

Aesthetic Districts

- Paseo District
- Trail District
- Arroyo District

Proposed Parkway and Greenways

- Regional Parkway
- Local Parkway
- Regional Greenway
- Common Area Greeway

Salt River Indian Community

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



Exhibit 10

5. Master Plan

The Master Plan (Exhibit 11) establishes and defines landscape character areas that identifies the types of materials that are found in each part of the Ranch. As described in the Framework chapter, these character areas, related to Aesthetic Districts and Parkway/Greenways, are developed to ensure that the unique character of key parts of the Ranch are maintained, while the overall sense of place in the community is enhanced. The overriding approach of the McCormick Ranch Landscape Master Plan is to provide a high quality and sustainable landscape that supports the health, lifestyle and values of the residents.

5.1 Master Plan Goals & Objectives

GOAL 1 Enhance Community Character Around Common Theme of "Oasis in the Desert"

Objectives

- Develop landscape themes for Districts and Parkways
- Maintain and enhance tree and shade coverage
- Maintain and enhance the green character of the community while also reducing irrigation water use
- Implement design guidelines for Aesthetic Districts and Parkways to support common theme
- Create "parklets" by adding seating

GOAL 2 Enhance the Quality of Community Landscapes

Objectives

- Plant new trees to supplement and succeed existing mature trees
- Increase vegetation coverage in low density landscape areas
- Improve diversity of plant species and groundcovers by selecting from approved materials palette
- Utilize infrastructure projects to improve landscape
- Encourage COS to maintain City parks to the same level as adjacent common areas as City-wide priorities and budgets allow; Consider including these areas in the MRPOA/COS landscape maintenance agreement

GOAL 3 Be Sustainable

Objectives

- Reduce water use in landscaped areas by selectively removing turfgrass and replacing it with drip-irrigated plants
- Reduce water use and labor by upgrading flow and operating controls on existing irrigation systems
- Increase the quantity of low water use plants and groundcovers used
- Utilize locally sourced materials wherever possible
- Recycle landscape waste and re-use in landscape areas

GOAL 4 Fill in the Gaps to Better Connect the Community

Objectives

- Update community identity signs at key entrances
- Identify opportunities to add new community identity signs at secondary entries
- Further define wayfinding improvements at common area trails
- Work with COS to:
 - implement complete streets policy to complete accessible sidewalk and trail connections
 - implement bicycle routes and marking per COS Bicycle Master Plan

GOAL 5 Enhance the Common Area Greenways for Community Use and Enjoyment

Objectives

- Add to and improve site amenities (benches, trash receptacles, bike racks, etc.), and distribute them evenly throughout the community
- Install amenities such as benches and tables in shaded areas wherever possible
- Improve access to the lakes edges. Consider adding an accessible fishing/viewing pier
- Remove turf along common area-adjacent walls and below mature shade trees where feasible to reduce irrigation overspray and turf maintenance labor
- Create flexible use areas for community activities in common areas
- Work with the HOAs to coordinate access and maintenance of contiguous greenway connections
- Encourage COS to improve, update and/or replace recreation facilities in the parks as often as city resources and priorities allow.

5.2 Ranch-wide Improvements

DISTRICTS

As identified in the Framework Plan (Exhibit 10), the Aesthetic Districts define the context for all landscape design approaches throughout the community.

Paseo District

Streetscape and common areas in this first phase of development will utilize a "traditional" palette of materials consistent with the original landscape design. Use of long-lived evergreen shade trees will be complemented by an understory of adapted shrubs and succulents. Areas of turfgrass and decomposed granite ground coverings will be designed in geometric and intentional patterns to complement adjacent neighborhood landscape character.



Trail District

Streetscapes and common areas in this second stage of development are challenged by narrow rights of way, greenway corridors and associated landscape. In these areas, the landscape design will strive to remove unnecessary turfgrass and replace it with a higher density of trees, shrubs and accent plants that fit into the smaller areas. These plants will provide cooling relief from existing walls and pavement.



Arroyo District

Streetscapes and common areas in this district will continue to employ the existing Sonoran Desert palette of materials, but do so in a much more deliberate manner. As common areas are redesigned, it is essential to develop and refine the proposed palette, and implement it in a way that creates clusters and masses. Intentional variations in scales, textures and seasonal color will distinguish this community from others while embracing Scottsdale's character area criteria.



Landscape Plan

PARKWAYS

Parkways and greenways are community connectors that also serve multiple purposes: blending consistency and variety that identifies a unified corridor, while adapting to adjacent land uses and aesthetic districts, that serve as an extension of the neighborhoods to provide context and visual interest.

Hayden Parkway

Supporting the main north south seam for the community, one that most visitors experience, the landscape design should be distinctive and memorable. The key identifiers that will be preserved and enhanced are large evergreen shade trees, regularly spaced and in clusters in both the median and on each side of the road. As a valued component of the community's identity, turfgrass will be used in highly visible and intentionally design areas.

McCormick Parkway

As the main entrance to the community from Scottsdale Road, weaving through golf courses and gated communities, this parkway will retain its iconic role as the postcard for McCormick Ranch. While the entryway at Scottsdale set the tone for a high quality Sonoran desert inspired landscape, the continuation of McCormick Parkway into the Paseo Village Shopping Center will be characterized by palm trees and color.

Via de Ventura

As the seam connection for Districts I and II, and a key east west corridor providing access from the 101 and Scottsdale Road, this street plays a major role in the identity of McCormick Ranch. The landscape approach for this corridor plays upon the original design that used mostly ornamental scale trees with interesting trunk and branching patterns (Olives and African Sumacs).

Via Linda

Via Linda changes significantly as it traverses from District II to District III. West of the 101 the landscape must fill tight spaces between streets, sidewalks and walls to provide shade, reduce the apparent scale of the walls and add interest. On the east side of the 101 Via Linda will benefit from a redesign that introduces more appropriate plant material, higher plant densities, and more intentional design.

Camelback Walk

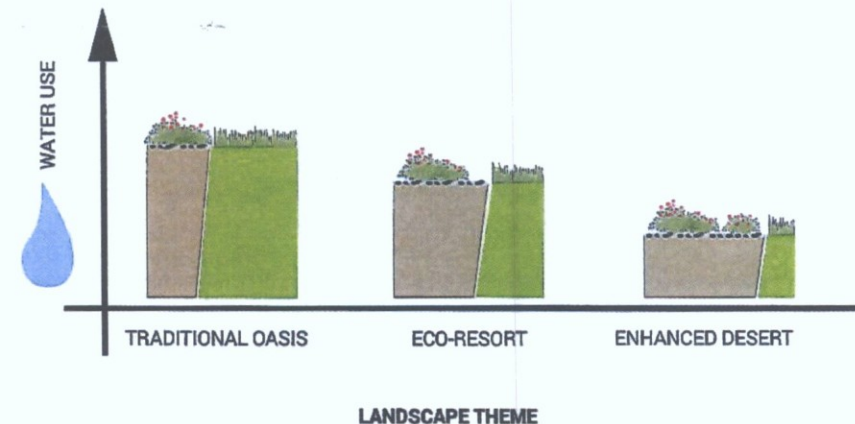
As the major greenway across the Ranch, Camelback Walk and its connectors at Hayden Road, Lake Margherite and along the golf course, will remain a green link that serves multiple purposes including flood control and regional recreation. Turfgrass will remain within the 100 year floodplain, while opportunities for pulling turf back from adjacent walls will be identified where additional plantings will be added.

Lakes Area

The areas around the lakes are a valuable asset to the community that is now under utilized. Improvements will provide additional walks, seating areas and landscaping around the lakes, with access to the water's edge for fishing and viewing.

Greenways

These greenways that connect the neighborhoods to the rest of the community will be renovated with ongoing neighborhood input. In these areas residents have expressed interest in creating more shady areas, better wayfinding on the paths and reducing turf by pulling it back from adjacent fences, adding colorful drip-irrigated plantings that help reduce maintenance and visibility of the walls.



5.3 Landscape Themes

TRADITIONAL OASIS

Landscape Character: use of traditional plant materials consistent with the original design of McCormick Ranch including large shade trees, palms, pines and larger areas of turfgrass. Additional shade trees should be planted over time so that they succeed the existing maturing trees. Reduce turf and increase shrub and groundcover density in low visibility and low use areas as part of new development and landscape upgrades.

Turfgrass Coverage: Up to 60%*



Traditional Oasis

ECO-RESORT

Landscape Character: use of high density, desert adapted plant materials focusing on adding a variety of sizes, textures and seasonal color, balanced with a limited amount of turfgrass located in high use, high visibility areas. Additional trees, shrubs and accents will replace turfgrass to ensure that vegetation coverage in all landscape areas is maintained at 50% minimum (mature growth).

Turfgrass Coverage: Up to 40%*



Eco-resort

ENHANCED DESERT

Landscape Character: Sonoran desert native and adapted plants will be used in creative arrangements and in ways that emphasize their unique character. Turfgrass will be used only as an accent in high use, high visibility locations as part of an approved landscape design. Use long lived plants to supplement and succeed existing vegetation, and ensure minimum vegetation coverage in all landscape areas of 50% (mature size).

Turfgrass Coverage: Up to 20%*



Enhanced Desert

*Turfgrass coverage estimates are approximate.

5.4 Landscape Master Plan

The future landscape of McCormick Ranch builds upon the traditions of over 40 years of growth and prosperity. The areas identified as Traditional Oasis will strive to maintain the character envisioned with original construction of McCormick Ranch, with updates correcting problem areas and replacing high water use plants wherever possible. The Eco-Resort theme follows the recognized Scottsdale resort character using a blend of desert adapted, colorful plantings with small areas of turf. The Arroyo theme builds on the more recent acceptance of native plants used in new and interesting ways.

The Master Plan (Exhibits 11-17) provides guidelines for the design of all common area landscapes based on the themes identified for streetscapes and common areas throughout the Ranch. Section 6.0 outlines priority projects and potential funding sources to implement the plan.





LANDSCAPE MASTER PLAN - 1

- COS Boundary
- MRPOA Boundary
- Indian Community
- COS Park
- Lake
- DG/Granite Mulch
- Turf
- State Highway
- Major Arterial Roads
- Trees

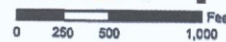
Landscape Themes and Proposed Projects

- Traditional Oasis
- Eco-Resort
- Enhanced Desert
- Priority Project
- Entry Sign in Traditional Oasis
- Entry Sign in Eco-Resort
- Entry Sign in Enhanced Desert



Key Map




Source: Savi, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

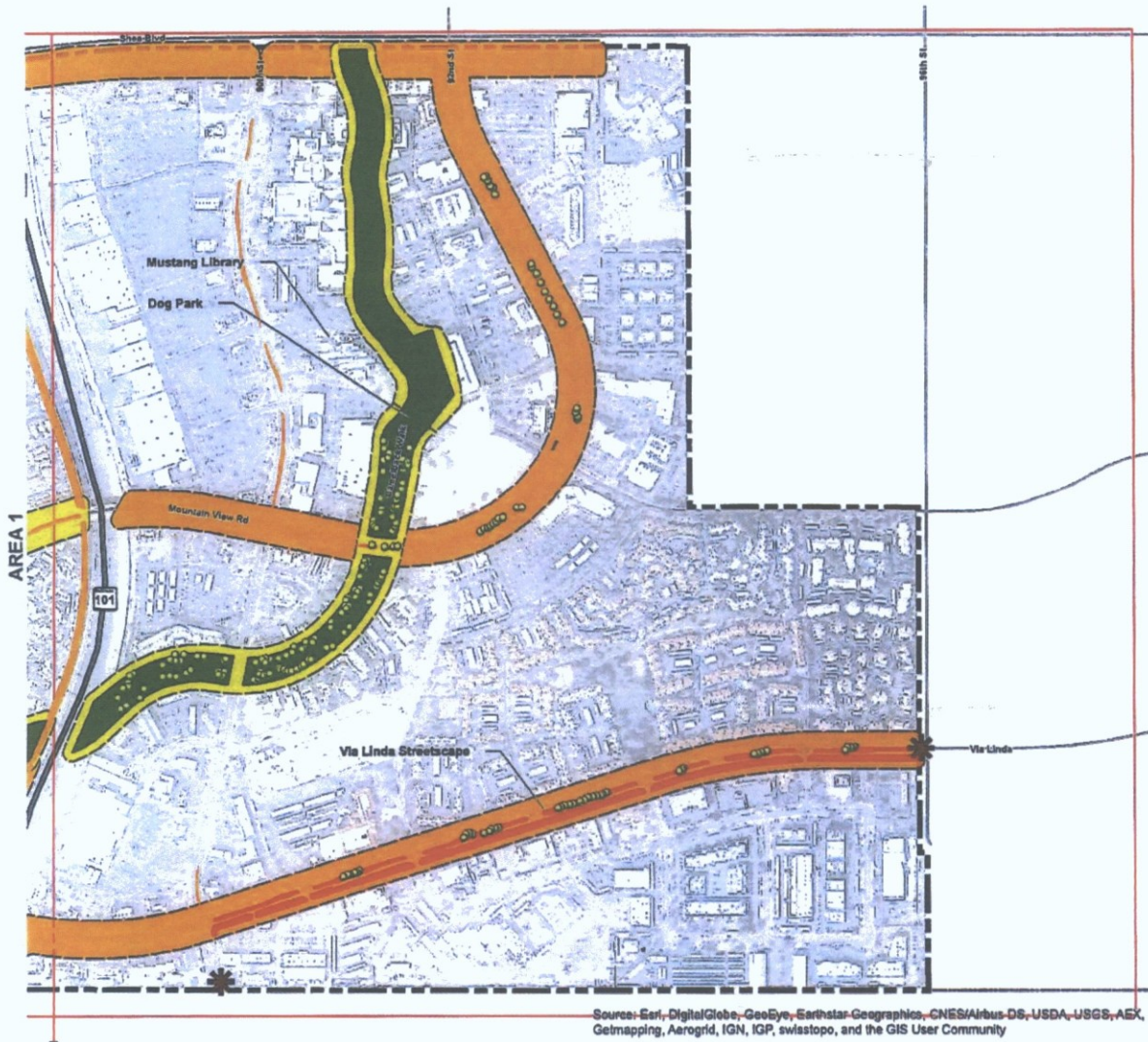


LANDSCAPE MASTER PLAN - 2

- | | | | |
|---|------------------|---|----------------------|
|  | COS Boundary |  | DG/Granite Mulch |
|  | MRPOA Boundary |  | Turf |
|  | Indian Community |  | State Highway |
|  | COS Park |  | Major Arterial Roads |
|  | Lake |  | Trees |

Landscape Themes and Proposed Projects

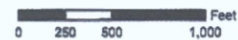
- | | | | |
|---|-------------------|---|---------------------------------|
|  | Traditional Oasis |  | Entry Sign in Traditional Oasis |
|  | Eco-Resort |  | Entry Sign in Eco-Resort |
|  | Enhanced Desert |  | Entry Sign in Enhanced Desert |
|  | Priority Project | | |













Key Map










Sources: Esri, DigitalGlobe, GeoEye, Earthstar-Geographics, CNES/Airbus-DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



LANDSCAPE MASTER PLAN - 3

- | | | | |
|---|------------------|---|----------------------|
|  | COS Boundary |  | DG/Granite Mulch |
|  | MRPOA Boundary |  | Turf |
|  | Indian Community |  | State Highway |
|  | COS Park |  | Major Arterial Roads |
|  | Lake |  | Trees |

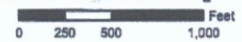
Landscape Themes and Proposed Projects

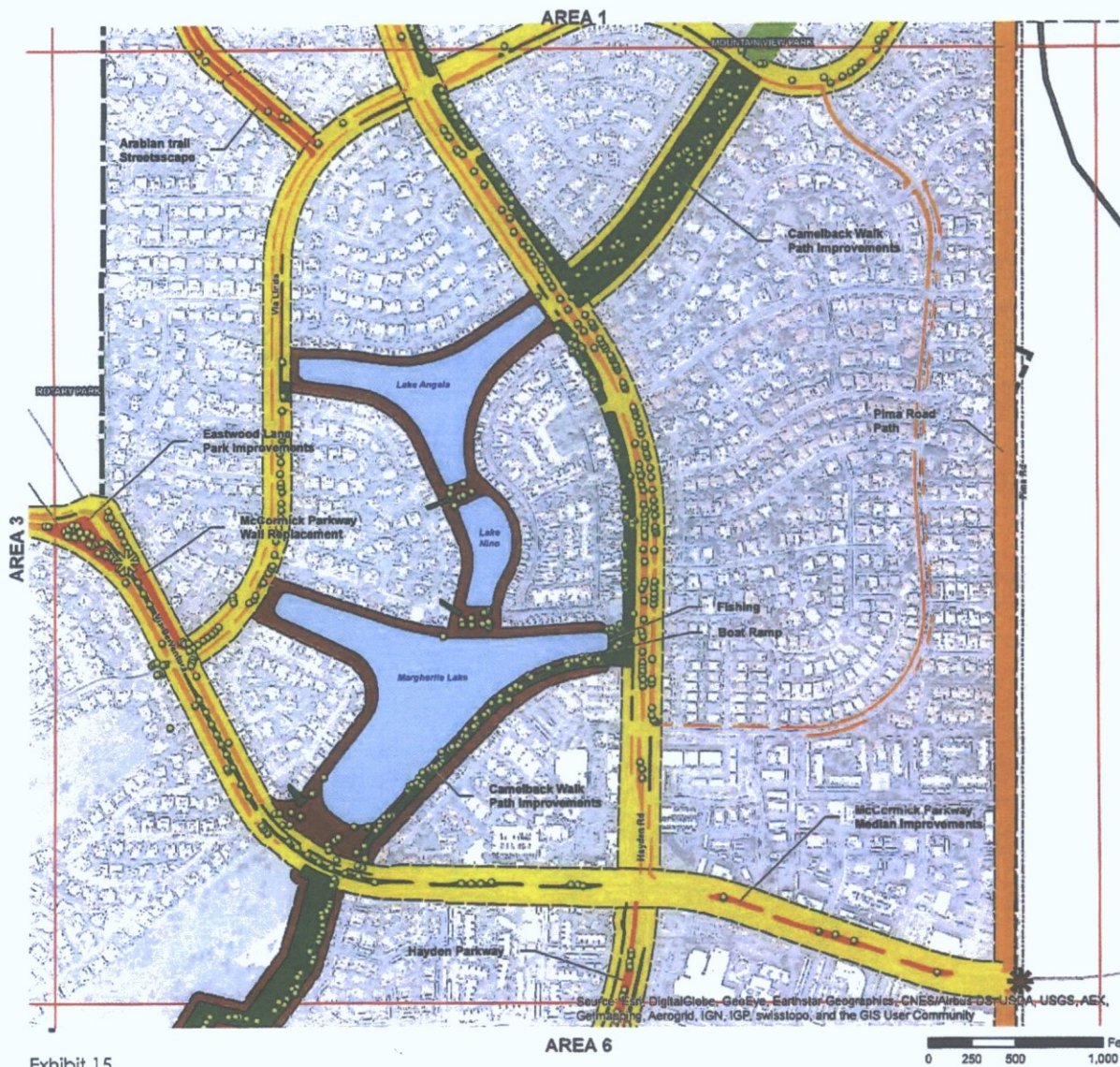
- | | | | |
|---|-------------------|---|---------------------------------|
|  | Traditional Oasis |  | Entry Sign in Traditional Oasis |
|  | Eco-Resort |  | Entry Sign in Eco-Resort |
|  | Enhanced Desert |  | Entry Sign in Enhanced Desert |
|  | Priority Project | | |

Key Map



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, IGP, swisstopo, and the GIS User Community





LANDSCAPE MASTER PLAN - 4

- | | |
|------------------|----------------------|
| COS Boundary | DG/Granite Mulch |
| MRPOA Boundary | Turf |
| Indian Community | State Highway |
| COS Park | Major Arterial Roads |
| Lake | Trees |

Landscape Themes and Proposed Projects

- | | |
|-------------------|---------------------------------|
| Traditional Oasis | Entry Sign in Traditional Oasis |
| Eco-Resort | Entry Sign in Eco-Resort |
| Enhanced Desert | Entry Sign in Enhanced Desert |
| Priority Project | |

Key Map



LANDSCAPE MASTER PLAN

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, Aero, Germany, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



LANDSCAPE MASTER PLAN - 5

- COS Boundary
- MRPOA Boundary
- Indian Community
- COS Park
- Lake
- DG/Granite Mulch
- Turf
- State Highway
- Major Arterial Roads
- Trees

Landscape Themes and Proposed Projects

- Traditional Oasis
- Eco-Resort
- Enhanced Desert
- Priority Project
- Entry Sign in Traditional Oasis
- Entry Sign in Eco-Resort
- Entry Sign in Enhanced Desert

Key Map



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Geomapping, Aergrid, IGN, IGP, swisstopo, and the GIS User Community

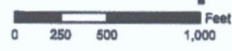


Exhibit 16



LANDSCAPE MASTER PLAN - 6

- COS Boundary
- MRPOA Boundary
- Indian Community
- COS Park
- Lake
- DG/Granite Mulch
- Turf
- State Highway
- Major Arterial Roads
- Trees

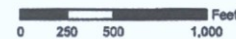
Landscape Themes and Proposed Projects

- Traditional Oasis
- Eco-Resort
- Enhanced Desert
- Priority Project
- Entry Sign in Traditional Oasis
- Entry Sign in Eco-Resort
- Entry Sign in Enhanced Desert

Key Map



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community



5.5 Design Guidelines

PLANT MATERIALS

The approved plant list for McCormick Ranch promotes a balance between built environment and natural setting. The overall objective is to establish consistency in landscape quality and density, while maintaining and enhancing the distinctive landscape characteristics of certain neighborhoods, streets and common areas throughout the community. By maintaining existing mature "signature" trees and favored plants while introducing new native and adapted plant materials, the overriding goal is to greatly enhance the community landscape while conserving irrigation water use.

Designers, contractors and maintenance personnel should pay special attention to plant types and arrangements that successfully integrate the landscape between MRPOA common areas and individual homes or HOA common areas.

The following plant materials that are not on this list, but meet the requirements of ADWR and the City of Scottsdale, may be considered for use on a case by case basis.

TREES

Trees help define outdoor spaces through their vertical form and lush canopies. Mature shade trees are an especially important component of the community's landscape character because of the shade they cast and the green character they convey.

The following list includes the trees that have been identified as suitable for use within McCormick Ranch. This list provides a variety of forms, colors and textures for use in a variety of projects and contexts.



Acacia aneura
Mulga



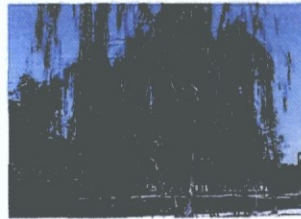
Acacia craspedocarpa
Leatherleaf Acacia



Acacia salicina
Willow Acacia



Acacia stenophylla
Shoestring Acacia



Acacia willardiana
Palo Blanco



Caesalpinia cacalaco 'Smoothie'
Smoothie Cascalote



Caesalpinia mexicana
Mexican Bird of Paradise



Chilopsis linearis
Desert-willow



Dermatophyllum secundiflorum
Texas Mountain Laurel



Ebenopsis ebano
Texas Ebony



Eucalyptus leucoxylon
White Ironbark



Eucalyptus microtheca
Coolibah



Eucalyptus papuana
Ghost Gum



Eucalyptus polyanthemos
Silver Dollar Gum



Eucalyptus torquata
Coral Gum



Fraxinus velutina 'Fantex'
Fantex Ash

TREES (CONTINUED)



Geijera parviflora
Australian-willow



Gleditsia triacanthos var. inermis
Thornless Honey Locust



Lysiloma thomberi
Desert Fern



Myrtus communis
Common Myrtle



Nerium oleander
Oleander



Olea europaea 'Swan Hill'
Swan Hill Olive



Olneya tesota
Ironwood



Parkinsonia florida
Blue Palo Verde



Parkinsonia praecox
Palo Brea



Phoenix dactylifera
Date Palm



Pinus canariensis
Canary Island Pine



Pinus eiderica
Mondell Pine



Pinus halepensis
Aleppo Pine



Pinus roxburghii
Chir Pine



Pistacia atlantica
Mount Atlas Pistache



Pistacia hybrid 'Red Push'
Red Push Pistache

TREES (CONTINUED)



Pistacia lentiscus
Mastic Tree



Prosopis glandulosa
Honey Mesquite



Prosopis 'South American Hybrid'
South American Hybrid Mesquite



Prosopis velutina
Velvet Mesquite



Quercus virginiana
Live Oak



Quercus virginiana 'Cathedral'
Cathedral Live Oak



Schinus terebinthifolius
Brazilian Pepper Tree



Ulmus parvifolia
Evergreen Elm



Vauquelinia californica
Arizona Rosewood



Vitex agnus-castus
Chaste Tree

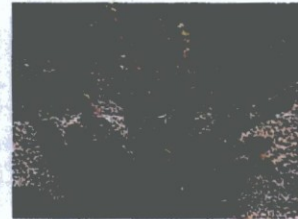
SHRUBS

The local microclimate of McCormick Ranch has changed since development has occurred, evolving into an urban landscape that includes a broad range of both native and non-native plants. Among them are shrub plantings that provide screening and borders, year round and seasonal color and accent, and compelling variety in the landscape.

The following shrubs in the approved list thrive in the region and will provide the lush look and feel residents value in their community.



Bougainvillea spectabilis
Bougainvillea



Bougainvillea 'Torch Glow'
Torch Glow Bougainvillea



Caesalpinia pulcherrima
Red Bird of Paradise



Calliandra californica
Baja Red Fairy Duster



Calliandra eriophylla
Pink Fairy Duster



Calliandra Hybrid
Hybrid Fairy Duster



Callistemon viminalis 'Little John'
Dwarf Bottlebrush



Carissa macrocarpa 'Boxwood Beauty'
Dwarf Natal Plum



Convolvulus cneorum
Bush Morning Glory



Cordia boissieri
Anacahuita



Cordia parvifolia
Littleleaf Cordia



Dalea frutescens
Black Dalea



Dalea pulchra
Silver Dalea



Eremophila maculata 'Valentine'
Valentine Emu Bush



Eremophila x 'Summertime Blue'
Summertime Blue Emu Bush



Justicia spicigera
Mexican Honeysuckle

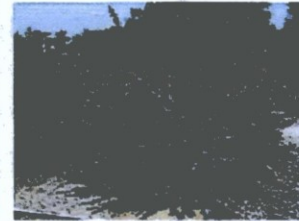
SHRUBS (CONTINUED)



Lantana camara 'Dallas Red'
Dallas Red Lantana



Larrea tridentata
Creosote Bush



Leucophyllum frutescens 'Green Cloud'
Green Cloud Texas Ranger



Leucophyllum langmaniae
Langman's Sage



Leucophyllum zygophyllum
Blue Ranger



Nerium oleander 'Petite'
Petite Oleander



Pittosporum tobira 'Wheeler's Dwarf', Dwarf Pittosporum



Ruellia californica
Desert Ruellia



Russelia equisetiformis
Firecracker



Simmondsia chinensis
Jjoba



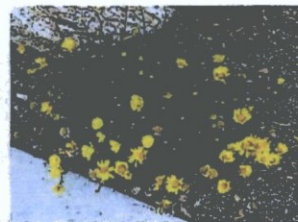
Tecoma alata
Orange Jubilee



Tecoma capensis
Cape Honeysuckle



Tecoma stans
Yellow Bells



*Tetraneuris acaulis**
Angelita Daisy

WATER PLAN

ACCENTS

Accent plants are unique and distinct in the desert Southwest, and can provide dramatic visual interest and bold contrast, especially with hard backdrops such as walls and buildings.

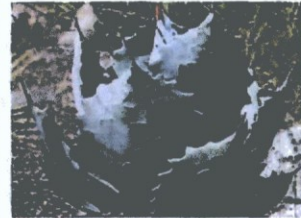
Many plants that are native to the Southwest, such as agave, yucca and cactus species, have beautiful sculptural forms and interesting fruits and flowers that add value to the Ranch's landscape.



Agave 'Blue Glow'
Blue Glow Agave



Agave bracteosa
Spider Agave



Agave colorata
Mescal Ceniza



Agave desmettiana
Smooth Agave



Agave murpheyi
Hohokam Agave



Agave parryi
Parry's Agave



Agave victoriae-reginae
Queen Victoria's Agave



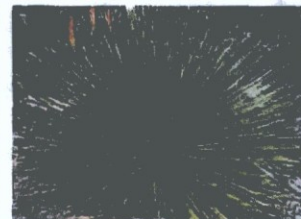
Agave weberi
Weber's Agave



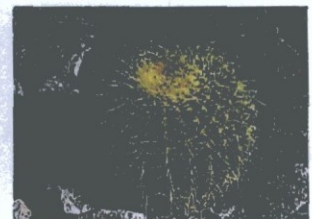
Aloe 'Blue Elf'
Blue Elf Aloe



Aloe vera
Aloe Vera



Dasylirion acrotriche
Green Desert Spoon



Echinocactus grusonii
Golden Barrel Cactus



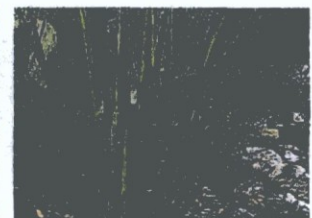
Euphorbia biglandulosa
Gopher Plant



Fouquieria splendens
Ocotillo



Hesperaloe parviflora
Red Hesperaloe



Hesperaloe funifera
Giant Hesperaloe

ACCENTS (CONTINUED)



Lophocereus schottii fa. *monstrosus*
Totem Pole Cactus



Muhlenbergia capillaris 'Regal Mist'
Regal Mist Muhly



Muhlenbergia rigens
Deer Grass



Nolina microcarpa
Beargrass



Opuntia ficus-indica
Indian Fig Prickly Pear



Opuntia santa-rita
Purple Prickly Pear



Yucca gloriosa
Spanish Dagger



Yucca pallida
Pale Yucca



Yucca recurvifolia
Curveleaf Yucca



Bouteloua gracilis 'Blonde Ambition'
Blue Grama 'Blonde Ambition'



Sansevieria trifasciata
Mother-in-law Tongue

PHOTOGRAPHS BY
MARTIN RICHARDS

GROUNDCOVERS

Groundcovers are plants that spread low along the ground. These plants help shade the soil, soften the harshness of inorganic groundcovers, and reduce wind and water erosion. Groundcover plantings are essential for a well-balanced and visually interesting planting design.



Acacia redolens 'Desert Carpet'
Trailing Acacia



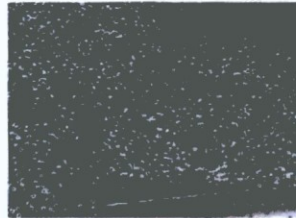
Dalea capitata
Yellow Dalea



Lantana 'New Gold'
New Gold Lantana



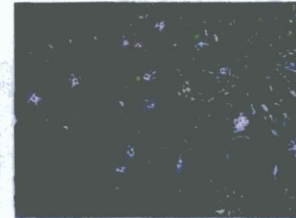
Lantana montevidensis
Purple Trailing Lantana



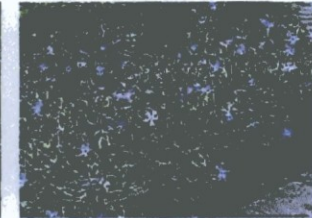
Lantana montevidensis 'Alba'
Alba Trailing Lantana



Rosmarinus officinalis 'Prostratus'
Trailing Rosemary



Vinca major
Vinca



Vinca major 'Variegata'
Variegated Vinca

VINES

Vines climb and spread, often aggressively. While generally discouraged for common area planting where adjacent walls are privately owned, vines are the most appropriate plant where little area is available for planting between walls, sidewalks and streets. In these cases, when supported on structures, vines are an acceptable alternative that provide plant cover and visual interest.



Antigonon leptopus
Queens Wreath



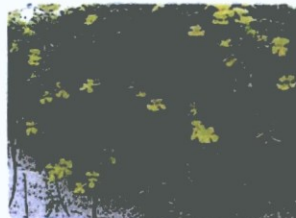
Campsis radicans
Trumpet Creeper



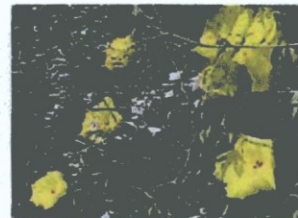
Ficus pumila
Creeping Fig



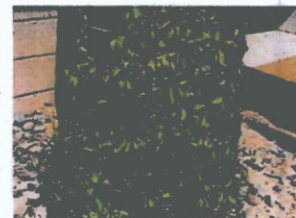
Gelsemium sempervirens
Carolina Jessamine



Macfadyena unguis-cati
Cat's Claw Vine



Merremia aurea
Yellow Morning Glory Vine



Parthenocissus 'Hacienda Creeper'
Hacienda Creeper



Vigna Caracalla
Snail Vine

ANNUALS

Annuals are seasonal, short-lived plants that are normally characterized by bright foliage or blooms. These plants are best used to create or emphasize focal points, such as community entrance signs and feature gardens.

SUMMER



Canna cultivars
Canna Lily



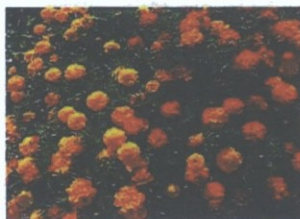
Catharanthus roseus.
Annual Vinca



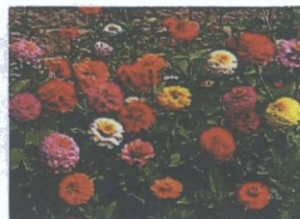
Celosia plumosa
Celosia



Ipomoea batatas
Sweet Potato Vine



Tagetes cultivars
Marigold

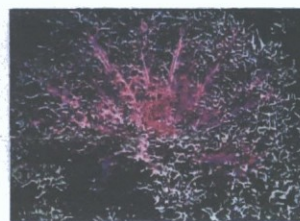


Zinnia cultivars
Zinnia

WINTER



Antirrhinum spp.
Snapdragon



Brassica oleracea
Ornamental Kale



Calendula cultivars
Calendula



Dianthus cultivars
Dianthus



Pelargonium cultivars
Geranium



Petunia cultivars
Petunia

ANNUALS

PLANT MATERIALS

TREES

Botanical Name	Common Name	H x W (ft.)	Large	Medium	Small	Evergreen/Deciduous	Water Use	Paseo District	Trail District	Arroyo District	Notes
<i>Acacia aneura</i>	Mulga	20x15		•		E	L		•	•	
<i>Acacia craspedocarpa</i>	Leatherleaf Acacia	12x12			•	E	L			•	
<i>Acacia salicina</i>	Willow Acacia	30x15	•			E	L			•	
<i>Acacia stenophylla</i>	Shoestring Acacia	30x20	•			E	L			•	
<i>Acacia willardiana</i>	Palo Blanco	15x10			•	semi	L			•	white, papery bark
<i>Caesalpinia cacalaco</i> 'Smoothie'	Smoothie Cascalote	15x15			•	E	L		•	•	showy flowers
<i>Caesalpinia mexicana</i>	Mexican Bird of Paradise	12x10			•	E	L		•	•	showy flowers
<i>Chilopsis linearis</i>	Desert-willow	20x18		•		D	L			•	showy flowers
<i>Dermatophyllum secundiflorum</i>	Texas Mountain Laurel	15x12			•	E	L	•			showy, fragrant flowers, seeds poisonous
<i>Ebenopsis ebano</i>	Texas Ebony	20x15		•		E	L	•	•		spines
<i>Eucalyptus leucoxylon</i>	White Ironbark	40x25	•			E	L		•		
<i>Eucalyptus microtheca</i>	Coolibah	35x25	•			E	L			•	
<i>Eucalyptus papuana</i>	Ghost Gum	40x25	•			E	L		•		white bark
<i>Eucalyptus polyanthemos</i>	Silver Dollar Gum	40x30	•			E	L			•	
<i>Eucalyptus torquata</i>	Coral Gum	20x20		•		E	L		•		
<i>Fraxinus velutina</i> 'Fantex'	Fantex Ash	35x30	•			D	M	•			fall color, okay to plant in turf
<i>Geijera parviflora</i>	Australian-willow	20x15		•		E	L		•	•	okay to plant in turf
<i>Gleditsia triacanthos</i> v. <i>inermis</i>	Thornless Honey Locust	40x30	•			D	L	•	•		fall color, okay to plant in turf
<i>Lysiloma thornberi</i>	Desert Fern	20x20		•		semi	L			•	
<i>Myrtus communis</i>	Common Myrtle	10x10			•	E	L	•			
<i>Nerium oleander</i>	Oleander	15x12			•	E	L	•	•		showy flowers, okay to plant in turf, all plant parts poisonous

TREES CONT'D.

Botanical Name	Common Name	H x W (ft.)	Large	Medium	Small	Evergreen/Deciduous	Water Use	Paseo District	Trail District	Arroyo District	Notes
<i>Olea europaea</i> 'Swan Hill'	Swan Hill Olive	25x25		•		E	L	•			fruitless form
<i>Olneya tesota</i>	Ironwood	25x25		•		E	L				• showy flowers, spines
<i>Parkinsonia florida</i>	Blue Palo Verde	25x25		•		semi	L				• showy flowers, spines
<i>Parkinsonia praecox</i>	Palo Brea	25x25		•		semi	L				• showy flowers, spines
<i>Phoenix dactylifera</i>	Date Palm	80x20	•			E	L	•	•		
<i>Pinus canariensis</i>	Canary Island Pine	50x25	•			E	L	•			okay to plant in turf
<i>Pinus eldarica</i>	Mondell Pine	50x30	•			E	L	•			okay to plant in turf
<i>Pinus halepensis</i>	Aleppo Pine	50x35	•			E	L	•			okay to plant in turf
<i>Pinus roxburghii</i>	Chir Pine	50x35	•			E	L	•			okay to plant in turf
<i>Pistacia atlantica</i>	Mount Atlas Pistache	40x45	•			D	L	•			okay to plant in turf
<i>Pistacia hybrid</i> 'Red Push'	Red Push Pistache	35x30	•			D	L	•	•		fall color, okay to plant in turf
<i>Pistacia lentiscus</i>	Mastic Tree	15x20			•	E	L		•		
<i>Prosopis glandulosa</i>	Honey Mesquite	25x25		•		D	L				• spines
<i>Prosopis</i> 'South American Hybrid'	South American Hybrid Mesquite	30x30	•			semi	L				• may have spines
<i>Prosopis velutina</i>	Velvet Mesquite	25x25		•		D	L				• spines
<i>Quercus virginiana</i>	Live Oak	40x50	•			E	L	•	•		okay to plant in turf
<i>Quercus virginiana</i> 'Cathedral'	Cathedral Live Oak	40x35	•			E	L		•		vertical form, okay to plant in turf
<i>Schinus terebinthifolius</i>	Brazilian Pepper Tree	25x25		•		E	L	•	•		
<i>Ulmus parvifolia</i>	Evergreen Elm	30x35	•			semi	L	•	•		okay to plant in turf
<i>Vauquelinia californica</i>	Arizona Rosewood	15x12			•	E	L			•	
<i>Vitex agnus-castus</i>	Chaste Tree	15x15			•	D	L	•	•		showy flowers

Exhibit 18

SHRUBS

Botanical Name	Common Name	H x W (ft.)	Large	Medium	Small	Evergreen/Deciduous	Water Use	Paseo District	Trail District	Arroyo District	Notes
<i>Bougainvillea spectabilis</i>	Bougainvillea	7x12	•			Semi	L		•		showy flowers, spines
<i>Bougainvillea</i> 'Torch Glow'	Torch Glow Bougainvillea	6x6		•		Semi	L	•	•		showy flowers, spines
<i>Caesalpinia pulcherrima</i>	Red Bird of Paradise	6x6		•		D	L	•	•		showy flowers
<i>Calliandra californica</i>	Baja Red Fairy Duster	5x5		•		semi	L		•		showy flowers
<i>Calliandra eriophylla</i>	Pink Fairy Duster	3x4			•	semi	L			•	showy flowers
<i>Calliandra</i> hybrid (<i>californica</i> x <i>erriophylla</i>)	Hybrid Fairy Duster	4x4		•		semi	L			•	showy flowers
<i>Callistemon viminalis</i> 'Little John'	Dwarf Bottlebrush	3x3			•	E	L	•	•		showy flowers
<i>Carissa macrocarpa</i> 'Boxwood Beauty'	Dwarf Natal Plum	2x2			•	E	M	•			spines
<i>Convolvulus cneorum</i>	Bush Morning Glory	2x3			•	E	L		•		showy flowers
<i>Cordia boissieri</i>	Anacahuita	10x12	•			E	L		•		showy flowers
<i>Cordia parvifolia</i>	Littleleaf Cordia	6x6		•		semi	L		•	•	showy flowers
<i>Dalea frutescens</i>	Black Dalea	3x4			•	semi	L		•		showy flowers
<i>Dalea pulchra</i>	Silver Dalea	4x5		•		semi	L			•	showy flowers
<i>Eremophila maculata</i> 'Valentine'	Valentine Emu Bush	4x5		•		E	L	•	•		showy flowers
<i>Eremophila</i> x 'Summertime Blue'	Summertime Blue Emu Bush	4x5		•		E	L		•		showy flowers
<i>Justicia spicigera</i>	Mexican Honeysuckle	3x5			•	E	L	•			showy flowers
<i>Lantana camara</i> 'Dallas Red'	Dallas Red Lantana	3x4			•	semi	L	•			showy flowers
<i>Larrea tridentata</i>	Creosote Bush	7x9	•			E	L			•	
<i>Leucophyllum frutescens</i> 'Green Cloud'	Green Cloud Texas Ranger	6x8		•		E	L	•	•		showy flowers
<i>Leucophyllum langmaniae</i>	Langman's Sage	5x5		•		E	L		•		showy flowers
<i>Leucophyllum zygophyllum</i>	Blue Ranger	4x4		•		E	L		•		showy flowers
<i>Nandina domestica</i>	Heavenly Bamboo	6'x3'		•		E	L				partial Shade
<i>Nerium oleander</i> 'Petite'	Petite Oleander	5x6		•		E	L	•	•		showy flowers, all plant parts poisonous
<i>Pittosporum tobira</i> 'Wheeler's Dwarf'	Dwarf Pittosporum	2x3			•	E	M	•			

SHRUBS CONT'D.

Botanical Name	Common Name	H x W (ft.)	Large	Medium	Small	Evergreen/Deciduous	Water Use	Paseo District	Trail District	Arroyo District	Notes
<i>Plumbago capensis</i> 'Alba'	White Plumbago	3x5			•	E	L	•	•		partial shade
<i>Ruellia californica</i>	Desert Ruellia	4x5		•		E	L			•	showy flowers
<i>Russelia equisetiformis</i>	Firecracker	3x4			•	E	M		•	•	showy flowers
<i>Simmondsia chinensis</i>	Jajoba	6x8		•		E	L		•		
<i>Tecoma alata</i>	Orange Jubilee	8x6	•			semi	L	•			showy flowers
<i>Tecoma capensis</i>	Cape Honeysuckle	7x6	•			semi	L	•			showy flowers
<i>Tecoma stans</i>	Yellow Bells	7x6	•			semi	L	•			showy flowers

Exhibit 18

ACCENTS

Botanical Name	Common Name	H x W (ft.)	Large	Medium	Small	Evergreen/Deciduous	Water Use	Paseo District	Trail District	Arroyo District	Notes
Agave 'Blue Glow'	Blue Glow Agave	2x3			•	E	L	•			
Agave bracteosa	Spider Agave	2x2			•	E	L	•	•		
Agave colorata	Mescal Ceniza	3x3			•	E	L			•	spines
Agave desmettiana	Smooth Agave	3x4			•	E	L	•	•		
Agave murpheyi	Hohokam Agave	3x4			•	E	L			•	spines
Agave parryi	Parry's Agave	2x3			•	E	L			•	spines
Agave victoriae-reginae	Queen Victoria's Agave	1x2			•	E	L	•	•		spines
Agave weberi	Weber's Agave	6x7		•		E	L			•	
Aloe 'Blue Elf'	Blue Elf Aloe	1x2			•	E	L			•	showy flowers
Aloe vera	Medicinal Aloe	2x4			•	E	L	•	•	•	showy flowers
Bouteloua gracilis 'Blonde Ambition'	Blue Grama Blond Ambition	2x3			•	Semi	L	•	•	•	
Dasyllirion acrotriche	Green Desert Spoon	4x4		•		E	L			•	small curved teeth along leaf edges
Echinocactus grusonii	Golden Barrel Cactus	1x2			•	E	L			•	spines
Euphorbia biglandulosa	Gopher Plant	2x3			•	E	L	•	•	•	showy flowers, poisonous sap
Fouquieria splendens	Ocotillo	12x8	•			D	L			•	showy flowers, spines
Hesperaloe parviflora	Red Hesperaloe	3x5			•	E	L	•	•	•	showy flowers
Hesperaloe funifera	Giant Hesperaloe	4x6		•		E	L		•	•	
Lophocereus schottii fa. monstrosus	Totem Pole Cactus	10x10	•			E	L			•	
Muhlenbergia capillaris 'Regal Mist'	Regal Mist Muhly	3x4			•	semi	L	•	•		fall color
Muhlenbergia rigens	Deer Grass	4x4		•		semi	L			•	
Nolina microcarpa	Beargrass	4x6		•		E	L		•		
Opuntia ficus-indica	Indian Fig Prickly Pear	12x10	•			E	L			•	
Opuntia santa-rita	Purple Prickly Pear	4x5		•		E	L			•	spines

Exhibit 18

ACCENTS CONT'D

Botanical Name	Common Name	H x W (ft.)	Large	Medium	Small	Evergreen/Deciduous	Water Use	Paseo District	Trail District	Arroyo District	Notes
<i>Pachycereus marginatus</i>	Mexican Fence Post	9x5	•			E	L		•	•	
<i>Pedilanthus macrocarpus</i>	Lady Slipper	3x3			•	E	L		•	•	
<i>Sansevieria trifasciata</i>	Mother-in-law Tongue	3x2			•	E	L	•	•	•	
<i>Yucca gloriosa</i>	Spanish Dagger	10x8	•			E	L	•	•		
<i>Yucca pallida</i>	Pale Yucca	2x3			•	E	L		•		
<i>Yucca recurvifolia</i>	Curveleaf Yucca	5x5		•		E	L	•			

Exhibit 18

GROUNDCOVERS

Botanical Name	Common Name	H x W (ft.)	Large	Medium	Small	Evergreen/Deciduous	Water Use	Paseo District	Trail District	Arroyo District	Notes
<i>Acacia redolens</i> 'Desert Carpet'	Trailing Acacia	2x8			•	E	L			•	
<i>Dalea capitata</i>	Yellow Dalea	1x3			•	E	L		•		showy flowers
<i>Lantana</i> 'New Gold'	New Gold Lantana	2x4			•	semi	L	•	•	•	showy flowers, fruit poisonous
<i>Lantana montevidensis</i> 'Alba'	White Trailing Lantana	1x4			•	semi	L	•	•	•	showy flowers, fruit poisonous
<i>Lantana montevidensis</i>	Purple Trailing Lantana	1x4			•	semi	L	•	•	•	showy flowers, fruit poisonous
<i>Portulacaria afra</i>	Elephant Food	1x3			•	E	L	•	•	•	
<i>Rosmarinus officinalis</i> 'Prostratus'	Trailing Rosemary	2x5			•	E	L	•	•		
<i>Tetranneuris acaulis</i>	Angelita Daisy	1x2			•	E	L	•	•	•	showy flowers
<i>Vinca major</i>	Vinca	1x4			•	E	M	•			
<i>Vinca major</i> 'Variegata'	Variegated Vinca	1x4			•	E	M	•			

Exhibit 18

VINES

Botanical Name	Common Name	H x W (ft.)	Large	Medium	Small	Evergreen/Deciduous	Water Use	Paseo District	Trail District	Arroyo District	Notes
<i>Antigonon leptopus</i>	Queens Wreath	15x15	•			D	L	•	•		showy flowers
<i>Campsis radicans</i>	Trumpet Creeper	30x30	•			D	L	•			showy flowers
<i>Ficus pumila</i>	Creeping Fig	15x15	•			E	M	•			
<i>Gelsemium sempervirens</i>	Carolina Jessamine	10x15	•			D	M	•	•		showy flowers
<i>Macfadyena unguis-cati</i>	Cat's Claw Vine	20x20	•			E	L		•	•	for use upon prior approval of MRPOA
<i>Merremia aurea</i>	Yellow Morning Glory	10x10		•		D	L	•	•	•	showy flowers
<i>Parthenocissus</i> 'Hacienda Creeper'	Hacienda Creeper	20x20	•			E	M	•	•		
<i>Vigna caracalla</i>	Snail Vine	10x15	•			D	M	•	•	•	

Exhibit 18

ANNUALS

Botanical Name	Common Name	H x W (ft.)	Large	Medium	Small	Evergreen/Deciduous	Water Use	Paseo District	Trail District	Arroyo District	Notes
Antirrhinum cultivars	Snapdragon	1x1			•		M	•	•	•	winter
Brassica oleracea	Ornamental Kale	1x1			•		M	•	•	•	winter
Calendula cultivars	Calendula	1x1			•		M	•	•	•	winter
Canna cultivars	Canna Lily	3x2			•		M	•	•	•	summer
Catharanthus roseus	Annual Vinca	1x2			•		M	•	•	•	summer
Celosia plumosa	Celosia	1x1			•		M	•	•	•	summer
Dianthus cultivars	Dianthus	1x1			•		M	•	•	•	winter
Ipomoea batatas	Sweet Potato Vine	1x3			•		M	•	•	•	summer
Pelargonium cultivars	Geranium	1x2			•		M	•	•	•	winter
Petunia cultivars	Petunia	1x2			•		M	•	•	•	winter
Tagetes cultivars	Marigold	1x1			•		M	•	•	•	summer
Zinnia cultivars	Zinnia	1x1			•		M	•	•	•	summer

Exhibit 18

HARDSCAPE MATERIALS

Predominant Color

EB: Express Brown

EC: Express Carmel

EG: Express Gold

Note: for special use elements, project specific gradation and color to be selected by the Landscape Committee.

Material	Planting Areas/Landscape Beds			Median Bullnoses			Notes
	Traditional Oasis	Eco-Resort	Enhanced Desert	Traditional Oasis	Eco-Resort	Enhanced Desert	
3/4" Screened Rock Mulch	EC	EB	EG	-	-	-	
4-6" Dia. Fractured Rock	-	-	-	EB	EG	EB	
1/2" Screened Rock Mulch	EC	EB	EG	-	-	-	Special Use
Shredded Wood Mulch	-	-	-	-	-	-	Special Use
Boulders	EC	EB	EG	-	-	-	Special Use

Exhibit 19

GROUNDCOVERINGS AND MULCHES

Proper selection, installation and maintenance of inert or organic mulches is extremely important in our warm climate. Mulches significantly reduce erosion and dust, help keep moisture and nutrients in the soil where they are necessary for plant survival and growth, and can be an important aesthetic component of the landscape.

This palette of DG, rock and wood mulch has been selected for use at McCormick Ranch consistent with the indicated Aesthetic Districts (Exhibit 8) and landscape themes.

1/2" SCREENED ROCK MULCH					
	Desert Gold	Express Gold	Express Brown	Express Carmel	
	3/4" SCREENED ROCK MULCH				
		Desert Gold	Express Gold	Express Brown	Express Carmel
WOOD MULCH					
		Natural Cedar Mulch	Natural Mulch - Wood Blend	6" x 6" Concrete Curb (extruded)	8" x 8" Concrete Curb
SPECIAL USE					
	1/4" Minus Stabilized Desert Gold	Fractured Granite; 4-6" Express Brown	Surface Select Boulders		



HARDSCAPE, WALLS & PLANTERS

Hardscape refers to structural landscape improvements such as pavements, walls, signs and site furnishings. The following palette of material has been selected for use throughout McCormick Ranch as hardscape elements. The intent of the hardscape plan is to employ elements in the landscape that are attractive, "timeless" (that will not go out of style) and durable (weather and vandal resistant).

Sidewalk pavements shall be natural gray concrete with a light broom or medium salt finish, with joints spaced at intervals not greater than the width of the walkway. All pavements must be accessible per the requirements of ADA.

Site walls and signs shall be installed only where other means is not available to take up changes in grade, or as part of an approved design for screening or separation. Walls shall be constructed of natural gray concrete to match the design, colors and finishes of the existing signs at McCormick Parkway and Scottsdale Road.

Retaining walls

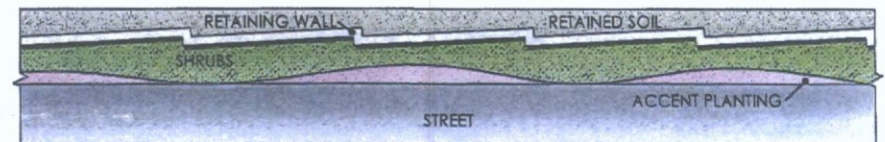
Retaining walls, where required by abrupt changes in elevation, will be designed to be consistent with the community-wide precedents, complementing nearby structures and minimizing apparent mass. This will be accomplished through articulation of the wall layout - vertically and horizontally - to create shifting planes, repetition of forms and shadow reveals developed by formwork and finishing of poured in place concrete structures.

Planter Walls

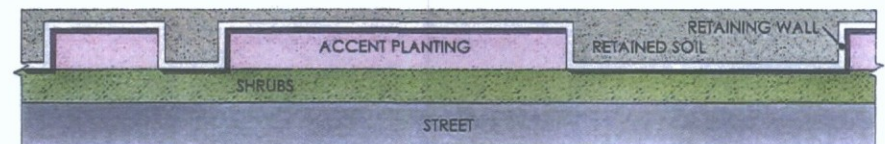
When feasible, retaining walls will include stepped planters that help minimize the apparent visual mass of the walls and keep the maximum height of the wall at 30". Retaining walls higher than 30" may require a guardrail where there is public access to the top of the wall.



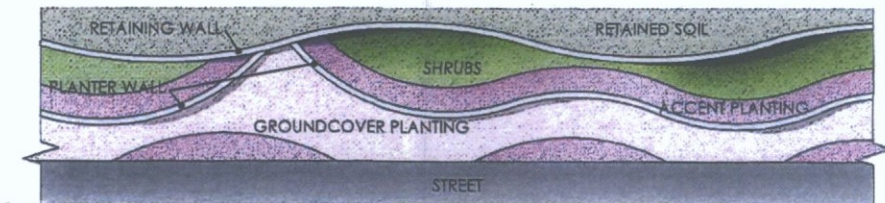
Existing common area greenway wall



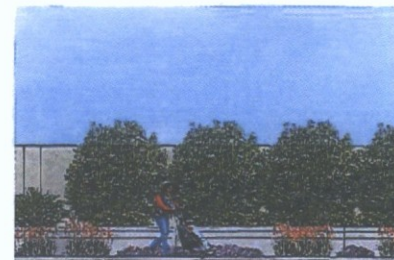
Staggered option



Stepped option



Curved wall with planters



Via de Ventura concept elevation



Via de Ventura concept section

SITE FURNISHINGS

Site furnishings include all other landscape amenities that are not planting or hardscape, including benches, trash receptacles, tables, bicycle racks, signage and other outdoor elements.

The intent of the plan is to improve community-wide landscape amenities over time by using high quality furnishings and structures that are designed to be weather and vandal resistant, while at the same time, user friendly and elegant. Site furnishings identified in this section meet those requirements.

All furnishings shall be installed and anchored in permanent ground footings and provide for compliance with the Americans with Disabilities Act (ADA). Bench seating and tables will be placed in shaded areas where possible.



Single Inverted U Rack: Model Apex by SiteScapes or equal; Galvanized Steel, Powdercoat Finish, color Silver; Meets COS Requirements for use in public right-of-way



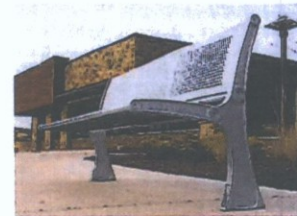
Multiple inverted racks shall be mounted in line and parallel as shown.



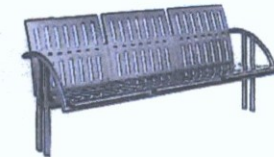
Gretchen Picnic Table By: Landscape Forms Steel and Recycled Materials



Carousel Bistro Table By: Landscape Forms Steel, Optional Umbrella



Canopy Bench or Equal By: SiteScapes Retail Areas and Streets Stainless Steel, Embed Footing



Chase Park Bench or Equal - 3 Seat By: Landscape Forms Parks & Greenways Stainless Steel, Embed Footing



Plexus Side Opening By: Landscape Forms

Exhibit 20

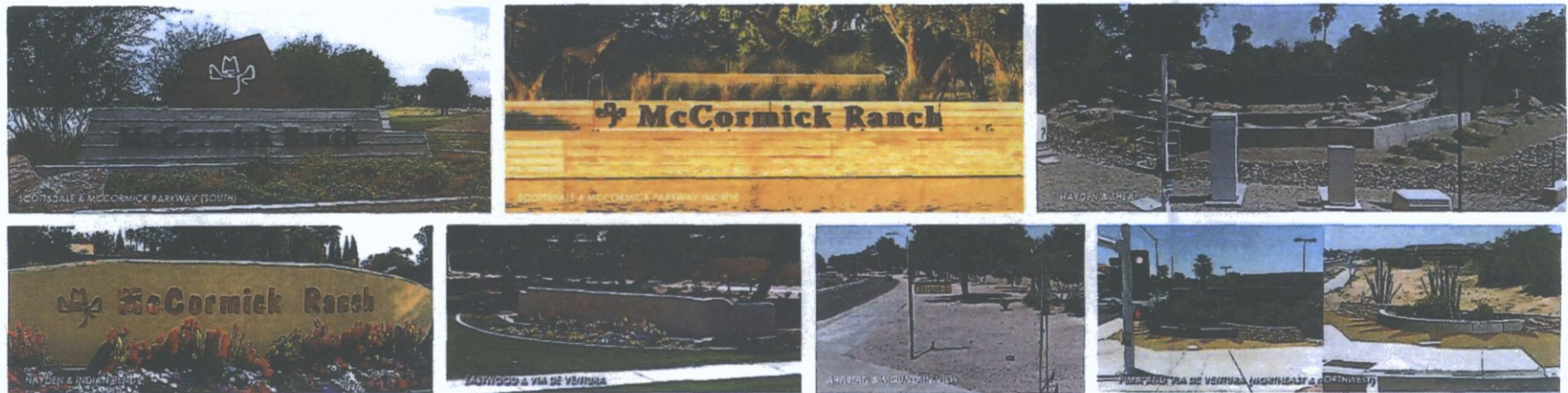


Chase Park Litter Side Opening By: Landscape Forms



SINGLpul Dog Waste Dispenser By: Zerowaste USA

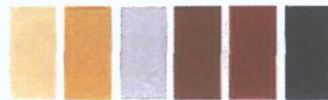
COMMUNITY ENTRY SIGNAGE



Fonts
Colors
Materials/Treatment
Surroundings

MMM

FONT CHOICE PLAYS AN IMPORTANT ROLE IN BRANDING AND COHESION. IT ALSO SETS A SPECIFIC, SOMETIMES SUBCONSCIOUS TONE ABOUT THE SUBJECT MATTER. A STANDARD FONT CLASS SHOULD BE ESTABLISHED FOR ALL SIGNAGE SO THE OVERALL AESTHETIC CAN BE COHESIVE, GRAPHICALLY-LINKED, AND EASY TO IDENTIFY ACROSS THE ENTIRE COMMUNITY.



COLORS CAN PLAY ANOTHER VERY IMPORTANT ROLE IN IDENTITY. CERTAIN PALETTES CAN Elicit SPECIFIC MOODS AND SHOULD BE THOUGHTFULLY SELECTED TO REPRESENT AND ENHANCE THE SURROUNDINGS. THE NEED FOR THE COMMUNITY TO HONOR THE PAST IN SOME RESPECT ALSO COMES INTO PLAY HERE. COLORS USED WHEN THE COMMUNITY WAS ORIGINALLY PLANNED SHOULD BE CORRECTLY REINTRODUCED WITHOUT COMPROMISING A REINVIGORATED AESTHETIC.



SIGNAGE TREATMENT AND MATERIALITY BOTH SAY SOMETHING ABOUT IT'S IMPORTANCE AND WHAT IT'S HELPING TO LOCATE. TO CREATE A CLEAR SENSE OF LOCATION AND DIRECTION, A STANDARDIZED HIERARCHY SHOULD BE ESTABLISHED AMONG THE SIGNAGE. WITH THIS IN PLACE, DECISIONS ON SCALE, MATERIALS, ELEMENTS, ETC. CAN BE MADE WITH EASE AND WILL HELP KEEP WAYFINDING BALANCED ACROSS THE COMMUNITY.



THE ELEMENTS ADJACENT TO AND SURROUNDING THE SIGNAGE PLAY YET ANOTHER INTEGRAL ROLE IN THE OVERALL LOOK AND FEEL OF THE COMMUNITY. ELEMENTS SUCH AS WATER, SHADE TREES, FLOWERS, ROCK/BOULDERS, AND CUSTOM ARTWORK CAN ALL BE USED TO ENHANCE THESE AREAS. AESTHETIC APPEARANCE IS ALSO INFLUENCED BY ADJACENT UTILITIES AND EXISTING ELEMENTS WHICH SHOULD BE CONSIDERED WHEN REDESIGNING.



6. Implementation

It is the responsibility of the McCormick Ranch Property Owners' Association to manage and maintain the existing community landscape. It is in the best interests of the McCormick Ranch community and the City of Scottsdale to partner on opportunities to improve the landscape where it will add value and reduce costs for residents and the City.

This section identifies opportunities for McCormick Ranch residents to invest in specific improvements in the common areas of the community and, at the same time, join with the City as a partner to provide funds and resources necessary to implement improvements that are identified by the community as important to them. Projects identified are part of an ongoing need for continued renewal. Beginning in 2016, and extending into the foreseeable future, projects will be prioritized and sequenced in such a way that future generations of McCormick Ranch residents will enjoy the same quality of life that is enjoyed today.

6.1 Partnering with the City

McCormick Ranch has a long history of working with the City of Scottsdale on mutually beneficial community enhancements and maintenance. MRPOA manages streetscapes and medians in the rights of way of several major Scottsdale streets, and its residents enjoy the open space and recreational benefits provided at the City's Comanche, Shoshone and Mountain View Parks, and the Indian Bend Wash Regional Multi-use Path and Camelback Walk.

The planning process identified important needs for updates and improvements to existing City facilities that serve the McCormick Ranch community. The following outlines prioritized needs as the basis of a request to the City to include these improvements in future community, public works and parks capital improvement and maintenance projects.

STREETS

- Designate the following arterial streets as Parkways and associate COS Parkway Design and Complete Street standards for improvements to them:
 - McCormick Ranch Parkway
 - Via de Ventura Parkway
 - Mountain View Parkway
 - Hayden Road
 - Via Linda (east of 90th Street)
- The following streets are currently designated by the COS as bike routes, but are not striped or signed accordingly. The request includes appropriate markings, signage and City designation of routes:
 - Arabian Trail, loop north of Mountain View
 - Via Paseo Loop east of Hayden Road
 - Via Linda between Via de Ventura and 90th St
 - McCormick Parkway
 - N 84th St
 - N 87th St
 - Others as indicated on the Circulation or City's Transportation Plan
- Locate potential future bike share facilities at or near Paseo Village, Mercado at Via Ventura and Mountain View Community Center, as part of a city-wide bike-share program.
- Connect all sidewalks or multi-use paths in sections of existing arterial and collector streets where there currently are none including:
 - McCormick Parkway (south side) (with potential capacity for one-way bicycle traffic) from Scottsdale Road to the existing sidewalk at the SandPiper Community. McCormick Parkway is designated by COS as a bike route, yet there is no apparent capacity for bikes to share the street. To make the connection from the Paseo Village to Scottsdale Road, which is a designated east-west bike route, bicycles will need to be accommodated off street.
 - Via de Ventura (north side) from Via Linda east to the grade-separated trail crossing at Lake Margherite.

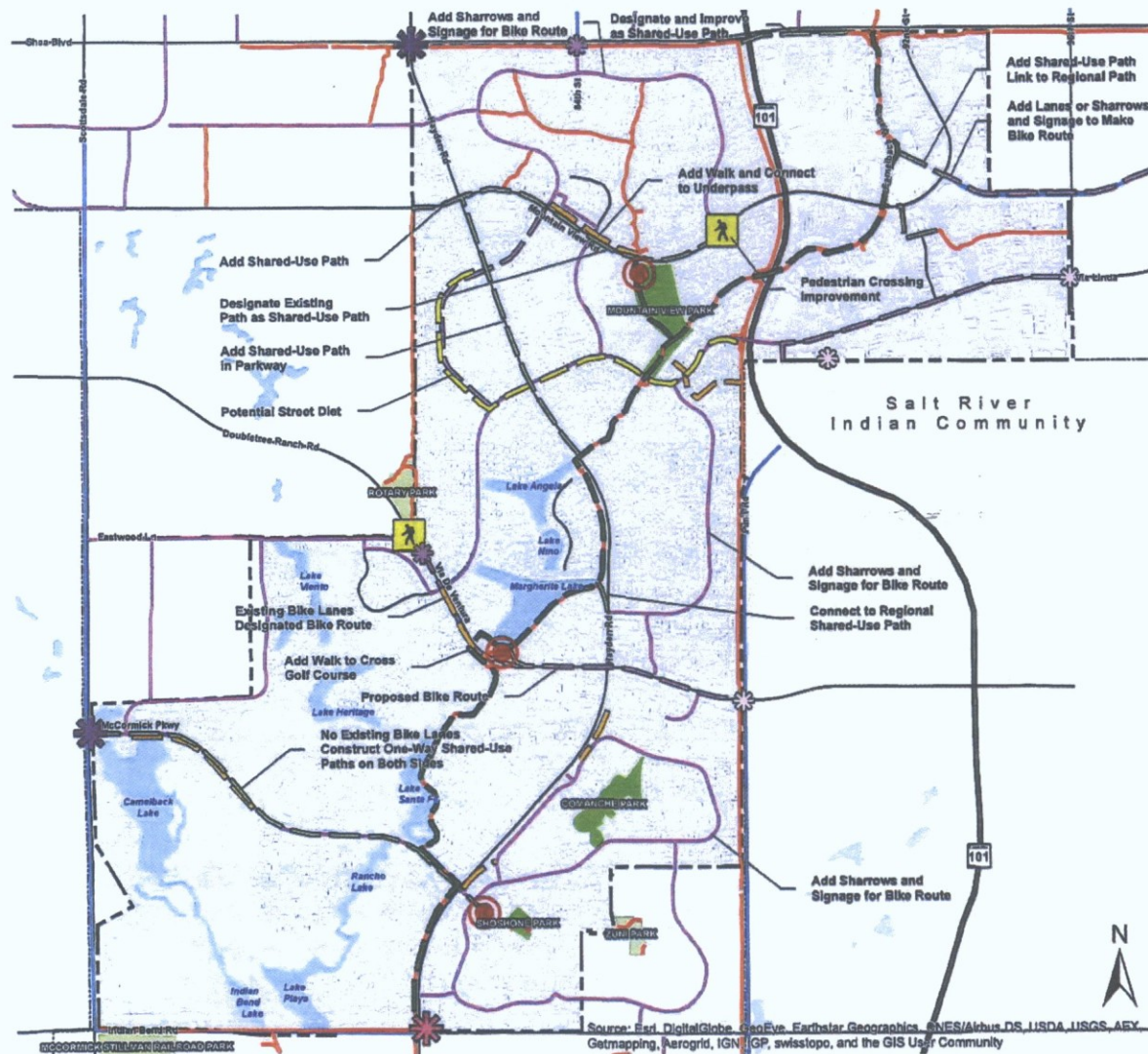
- Mountain View (north side) from Arabian Trail (west) to the greenway crossing at Mountain View Park. The sidewalk dead ends at Mountain View Park and there is no connection to the greenway here.
 - Hayden Road (east side) from McCormick Parkway to Via de Ventura. The sidewalk dead ends at a bus stop just north of McCormick Parkway and just south of Via de Ventura. Shorten the length of new sidewalk by connecting to the existing sidewalk along Paseo del Sur and Norte.
 - Widen sidewalks west side of Arabian Trail and north side of Via Linda (west of Hayden).
- Other Street and Pedestrian Improvement requests include:
 - Narrow street cross section (street diet) and/or remove roundabouts and install intersection bulb-outs along Arabian Trail and Via Linda (west of Hayden) to provide adequate sight distance, sidewalk/crossing and landscape area.
 - Add pedestrian crossing improvements at Via de Ventura and Eastwood – to Scottsdale Rotary Park. This will require a Traffic Engineering analysis by the City of Scottsdale
 - Replace roundabouts with pedestrian bulb-out curb extensions on Via Linda between Hayden and 90th St.

PATHS & COMMON AREAS

- Reconstruct or construct new off-street, public, multi-use paths to meet AASHTO and/or NACTO standards (10' wide minimum, 12' preferred):
 - Camelback Walk north of McCormick Parkway to Shea Blvd
 - East side of Hayden Road between Camelback Walk and Mountain View Rd
 - West side of Hayden Road between Camelback Walk and Royal Palm – Connect bike routes
 - Connect Via de Ventura to Camelback Walk at underpass – improved bike connection
 - Study pedestrian access along south side of Shea Blvd from the 101 Path to 90th Street
 - Mountain View at 92nd St to Camelback Walk (with new development)
 - Reconstruct designated Multiuse Paths in Arabian Trails common areas
- Reconstruct and maintain Equestrian Trail south side of Shea from Hayden to the 101

PARKS AND OPEN SPACE

- Encourage COS to maintain City parks to the same level as adjacent common areas as City-wide priorities and budgets allow; Consider including these areas in the MRPOA/COS Landscape maintenance agreement.
- Update Shoshone Park to include new play and fitness equipment.
- Update Comanche Park to include an expanded community playground, connected loop path, Ramada with tables, barbeque areas and updated sports facilities.
- Update Mountain View Park to include new surfacing under fitness equipment.



CIRCULATION FRAMEWORK PLAN

- COS Boundary
- MRPOA Boundary
- COS Park
- Lake
- Indian Community
- State Highway

Existing Connections and Facilities

- Bike Lane
- Bike Route
- Multi-Use Path
- ✱ Primary Entrance Sign
- ✱ Secondary Entrance Sign

Potential Connections and Facilities

- New Bike Route
- New Shared-Use Path
- Shared-Use Path Improvements
- Sidewalk Improvements
- Street Improvement Requested to City of Scottsdale
- Pedestrian Crossing
- Bike Share Facility
- ✱ New Primary Entry Sign
- ✱ New Secondary Entry Sign

Exhibit 21

0 1,000 2,000 4,000 Feet

IMPLEMENTATION

Priority Projects	2016	2017	2018	2019
Streetscapes				
<i>Survey, design and construction of all landscape areas within the right of way that is maintained by the MRPOA. Work may be subject to cost sharing with the COS.</i>				
Arabian Trail: Improve trees, shrubs and irrigation in ROW	west of Hayden (1)	east of Hayden (1)	Pima to Eastwood (1)(3)	
Via de Ventura: Improve median, trees, shrubs and irrigation in ROW				90th St to 96th St (1)(3)
Via Linda: Improve median, trees, shrubs and irrigation in ROW				
Hayden Road: Improve median, trees, shrubs and irrigation in ROW				
McCormick Ranch Parkway, Landscape Update & Paseo Village Entry Mountainview Road				
Common Areas and Signs				
<i>Survey, design and construction of landscape areas that are MRPOA property, or non-right of way areas that are maintained by the MRPOA.</i>				
Existing Entry Sign Updates	84th & Shea (1)	Indian Bend & Hayden (1)	Eastwood & Via Ventura (2)	
Future Entry Signs				
Trails District Greenway modifications		Ph 1 (2)		Ph 2 (2)
Paseo District Greenway modifications			Ph 1 (2)	Ph 2 (2)
Site Furnishings		Paseo District (1)	Trails District (1)	Arroyo District (1)
Park and Street Improvements				
<i>Design and Construction of projects by COS</i>				
Street Improvements		Designate Parkways (3)		Via Linda Circles (3)
Regional Multi-use Trail Improvements		McCormick to Hayden (4)		Hayden to 101 (4)
Sidewalks and Connections			Via Ventura (3)	
Bike Route Improvements		Re-designate Bike Routes (3)	Mark Bike Routes (3)	Add Bike Share Facilities (3)
Park Improvements			Shoshone Park Updates (4)	

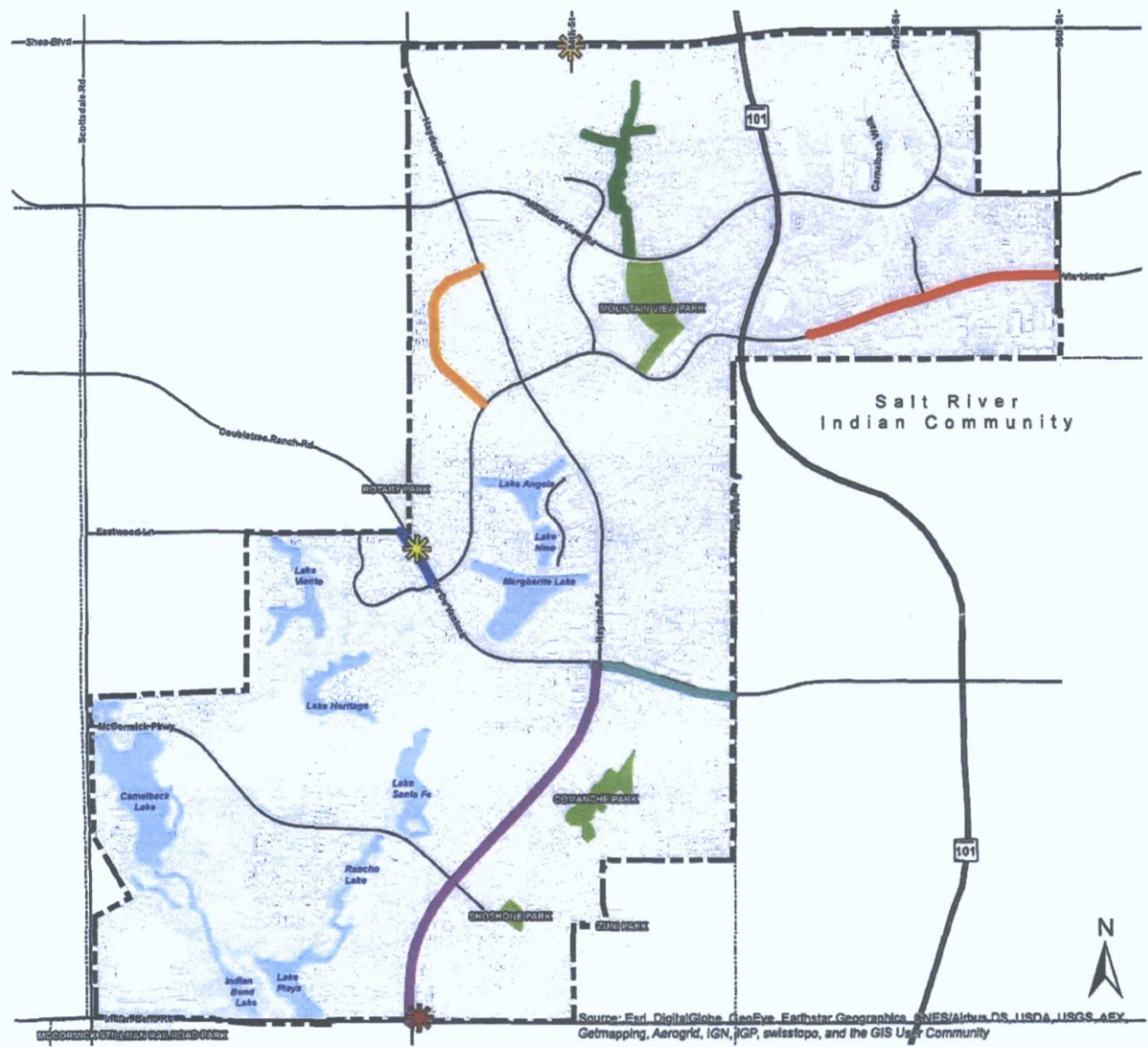
6.2 Priority Projects

The Landscape Master Plan is a long term plan that provides general guidance for the next 25 years. The plan should be updated every five years to determine project priorities and capital cost budgeting. Determining factors for prioritization include community need, as identified through Board actions and community input; age and condition of facilities as they relate to dangerous conditions and health hazards, as well as effective life; availability of funding and potential partners, and other improvements that support the changing needs of the community. Priority Projects are also identified on Exhibit 22.

Funding Source
 (1) MRPOA Capital Improvements
 (2) MRPOA Maintenance
 (3) COS Transportation
 (4) COS Parks

Priority Projects	2020	2021	2022	2023	2024
Streetscapes					
<i>Survey, design and construction of all landscape areas within the right of way that is maintained by the MRPOA. Work may be subject to cost sharing with the COS.</i>					
Arabian Trail: Improve trees, shrubs and irrigation in ROW					
Via de Ventura: Improve median, trees, shrubs and irrigation in ROW					
Via Linda: Improve median, trees, shrubs and irrigation in ROW	Hayden to 101 (1)(3)				
Hayden Road: Improve median, trees, shrubs and irrigation in ROW		Indian Bend to McCormick (1)(3)	McCormick to Via Ventura (1)(3)		
McCormick Ranch Parkway, Landscape Update & Paseo Village Entry Mountainview Road				Scottsdale to Hayden (1)(3)	Hayden to MVE School
Common Areas and Signs					
<i>Survey, design and construction of landscape areas that are MRPOA property, or non-right of way areas that are maintained by the MRPOA.</i>					
Existing Entry Sign Updates					
Future Entry Signs	Pima & Via Ventura (1)	Via Linda & 96th St (1)	90th St and Via Linda (1)		
Trails District Greenway modifications	Ph 2 (2)	Ph 3 (2)		Ph 4 (2)	
Paseo District Greenway modifications			Ph 3 (2)		Ph 4 (2)
Site Furnishings					
Park and Street Improvements					
<i>Design and Construction of projects by COS</i>					
Street Improvements		Arabian Trail Street Diet (3)			
Regional Multi-use Trail Improvements		101 to Shea (4)			
Sidewalks and Connections	Via Linda (3)		Hayden Road (3)		McCormick Parkway
Bike Route Improvements					
Park Improvements	Comanche Park Updates (4)		Mountainview Park Updates (4)		

Note: The above project priorities reflect the current goals of the MRPOA and are subject to the availability of funding and COS approvals, and are therefore subject to change. COS-funded projects are subject to city-wide priorities and funding availability.



PRIORITY PROJECTS

- COS Boundary
- MRPOA Boundary
- Indian Community
- COS Park
- Lake
- State Highway

Streetscapes Priority Projects

- Arabian Trail
- Hayden Road Medians and R.O.W.
- Retaining Wall Replacement along Via de Ventura
- Via Linda Medians and South Side R.O.W.
- Via de Ventura Medians

Entry Signs

- 1
- 2
- 3

Common Areas

- Drainage and Paths

Salt River Indian Community

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEY, Getmapping, AeroGrid, IGN, JGP, swisstopo, and the GIS User Community

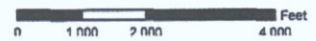


Exhibit 22

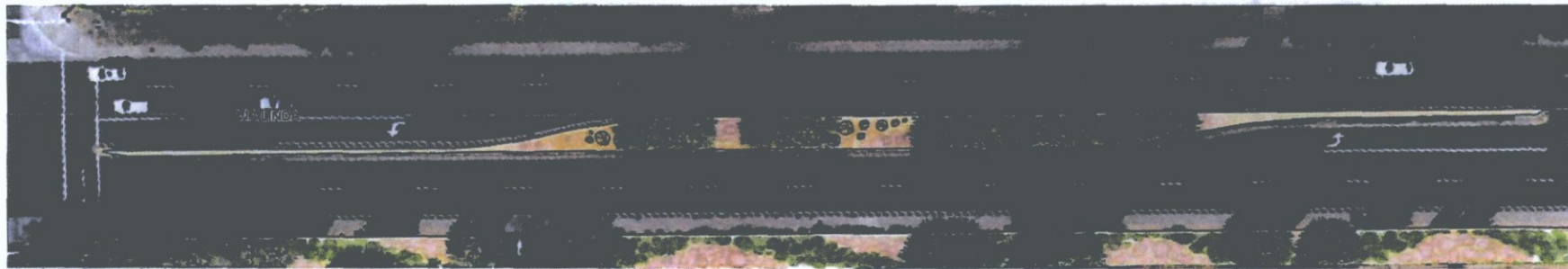
IMPLEMENTATION

STREETSCAPE AND MEDIAN IMPROVEMENTS

Median Improvement Projects



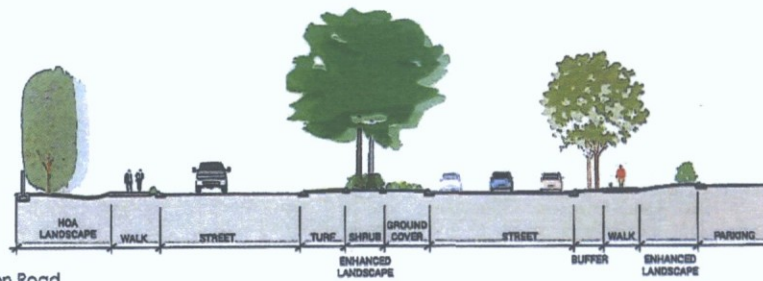
Hayden Road Conceptual Landscape Plan



Via Linda Conceptual Landscape Plan



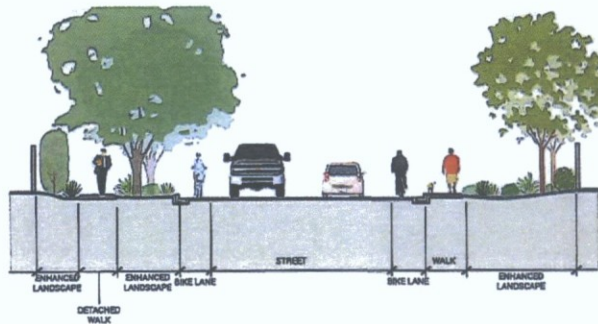
Via de Ventura Conceptual Landscape Plan



Hayden Road

Hayden Road

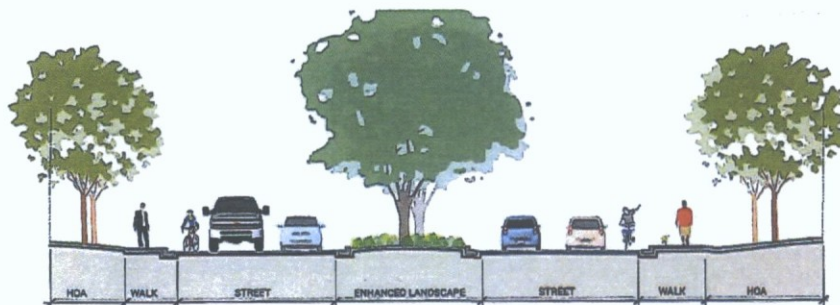
An example of the Eco-Resort design theme, Hayden Road landscape south of Via de Ventura, in the Paseo Aesthetic District, creates bold geometric patterns that traverse the median and are complemented in the adjacent landscape buffers and neighborhoods. Broad sweeps of turfgrass interspersed with low water use plantings, and enhanced by new shade tree plantings, will reduce the total amount of irrigation required while preserving the green landscape character so valued by the community.



Via Linda

Via Linda

An example of the Arroyo design theme, Via Linda east of 90th Street, in the Arroyo Aesthetic District, will utilize dense, seasonal and colorful understory plantings to complement the shade provided by large shade trees. Contouring of surface grades using boulders and large rock provides vertical relief to the otherwise flat grades, and creates visual interest in the landscape.



Via de Ventura

Via de Ventura

Another example of the Eco-Resort theme this streetscape is unique in the fact that it borders on two Aesthetic Districts – Paseo and Trail. The proposed design approach utilizes consistent plant and groundcover materials, with appropriate shade and ornamental scale trees added, to provide a distinct and welcoming experience for people travelling through the heart of McCormick Ranch.

Existing



EXISTING VIA DE VENTURA WALL



EXISTING ARABIAN TRAIL STREETSCAPE

Proposed



VIA DE VENTURA WALL REPLACEMENT CONCEPTUAL ELEVATION



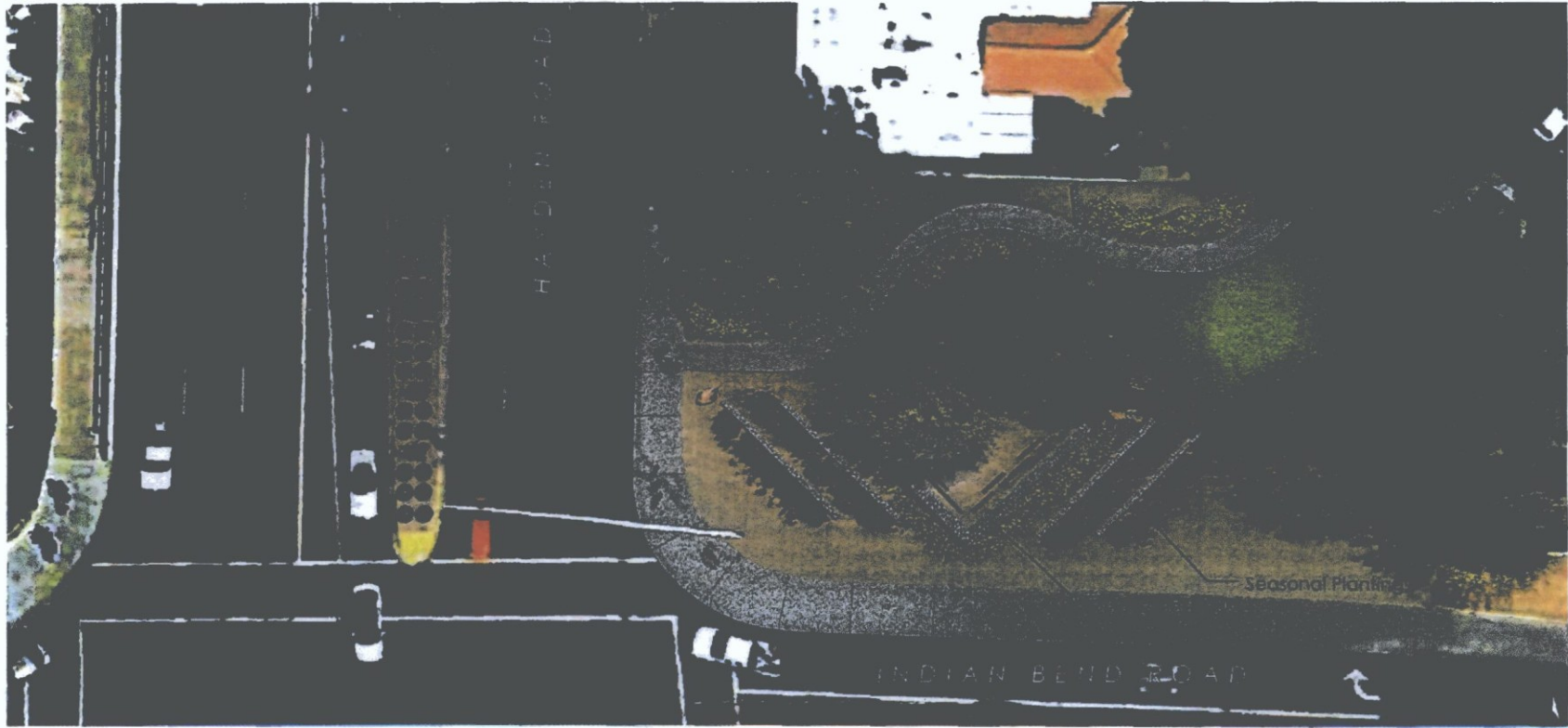
VIA DE VENTURA WALL REPLACEMENT CONCEPTUAL SECTION



ARABIAN TRAIL CONCEPTUAL PLAN

COMMUNITY ENTRY SIGNS

CONCEPTUAL PLAN



Indian Bend Road and Hayden Road

PERSPECTIVE ILLUSTRATION



RESURFACE EXISTING WALL
TO MATCH NEW SIGNAGE

NEW SIGNAGE, PLANTING AREA,
AND BACKDROP

ENLARGEMENT PERSPECTIVE



Indian Bend Road and Hayden Road

CONCEPTUAL PLAN



PERSPECTIVE ILLUSTRATION



Shea Boulevard and 84th Street

CONCEPTUAL PLAN



PERSPECTIVE ILLUSTRATION



SPECIAL PLANTING CONDITIONS

McCormick Ranch includes many areas that present challenges to design and maintenance of the community landscape. These include planting of narrow spaces associated with limited landscape buffer size in existing street rights of way, shading from walls, mature trees and shrubs, the need to maintain line of sight distances at street intersections and other constraints common to a mature community. The following recommendations provide guidance on some of the frequent special conditions observed in the landscape. Detailed information for all of the plants listed in the following sections can be found in the approved plant list in Section 5.5.

Narrow Spaces

Narrow planting spaces are defined as those that are 2 to 4 feet in width. Areas that are less than 2 feet wide should not be planted with shrubs, accents or groundcovers. Only inert materials, such as DG, and vines are recommended. Selecting the right species for narrow areas can be challenging. Poorly chosen plants will result in high maintenance requirements and poor plant quality. In addition to being compact and upright, plants selected for narrow areas should be heat-tolerant. Special consideration must be given to narrow planting spaces adjacent to sidewalks, where plants with spines or toxic leaves, branches or sap should not be planted.

Shrubs, Accents & Groundcover for narrow spaces:

- Agave 'Blue Glow', Blue Glow Agave
- Agave bracteosa, Spider Agave
- Agave colorata, Mescal Ceniza
- Agave Paryi, Pary's Agave
- Agave victoriae-reginae, Queen Victoria's Agave
- Aloe 'Blue Elf', Blue Elf Aloe
- Callistemon viminalis 'Little John', Dwarf Bottlebrush
- Carissa macrocarpa 'Boxwood Beauty', Dwarf Natal Plum
- Convolvulus cneorum, Bush Morning Glory
- Dalea capitata, Yellow Dalea
- Echinocactus grusonii, Golden Barrel Cactus
- Euphorbia biglandulosa, Gopher Plant
- Pittosporum tobira 'Wheeler's Dwarf', Dwarf Pittosporum
- Sansevieria trifasciata, Mother-in-law Tongue
- Yucca pallida, Pale Yucca
- Bouteloua gracilis 'Blonde Ambition', Blue Grama Blonde Ambition
- Tetraneuris acaulis, Angelita Daisy



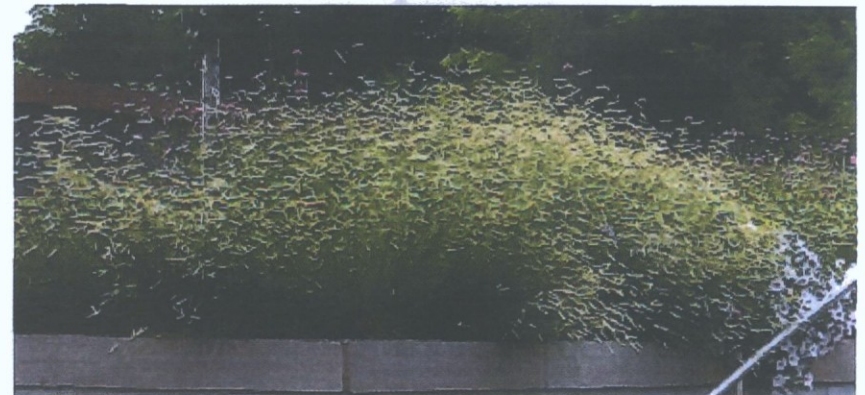
Sansevieria trifasciata

Vines that grow slowly on walls or other structures may be planted in narrow spaces ranging from 1 foot wide and up. Approved species include:

- Ficus pumila, Creeping Fig
- Macfadyena unguis-cati, Cat's Claw Vine
- Parthenocissus 'Hacienda Creeper', Hacienda Creeper

Narrow spaces for trees are defined as those less than 15 feet wide. While a tree's trunk and root ball may fit in a much smaller area, the mature spread of the canopy must be considered. Tree canopies should not be allowed to overhang private residences, nor should they extend over a street at a height that they could obstruct vehicle traffic. The mature canopy spread (12 feet max.) includes the following tree species:

- Acacia craspedocarpa, Leatherleaf Acacia
- Acacia willardiana, Palo Blanco
- Caesalpinia mexicana, Mexican Bird of Paradise
- Dermatophyllum secundiflorum, Texas Mountain Laurel
- Myrtus communis, Common Myrtle
- Nerium oleander, Oleander
- Phoenix dactylifera, Date Palm*
- Vauquelinia californica, Arizona Rosewood



Bouteloua gracilis 'Blonde Ambition'

Shaded Areas

Planting in shady areas in the desert Southwest provides a unique set of challenges as few plants have adapted to survive in such conditions. The following list contains the species from the McCormick Ranch plant palette that are most shade-tolerant.

Shrubs, Accents & Groundcovers for shady areas:

- *Agave desmettiana*, Smooth Agave
- Aloe 'Blue Elf', Blue Elf Aloe
- Aloe Vera, Aloe Vera
- *Campsis radicans*, Trumpet Creeper
- *Carissa macrocarpa* 'Boxwood Beauty', Dwarf Natal Plum
- *Ficus pumila*, Creeping Fig
- *Justicia spicigera*, Mexican Honeysuckle
- *Nolina microcarpa*, Beargrass
- *Pedilanthus macrocarpus*, Lady Slipper
- *Pittosporum tobira* 'Wheeler's Dwarf', Dwarf Pittosporum
- *Plumbago capensis* 'Alba', White Plumbago
- *Portulacaria afra*, Elephant Food
- *Sansevieria trifasciata*, Mother-in-law Tongue
- *Vinca major* 'Variegata', Variegated Vinca
- *Vinca major*, Vinca
- *Yucca gloriosa*, Spanish Dagger
- *Yucca pallida*, Pale Yucca
- *Yucca recurvifolia*, Curveleaf Yucca



Justicia spicigera



Vinca major

Traffic Visibility

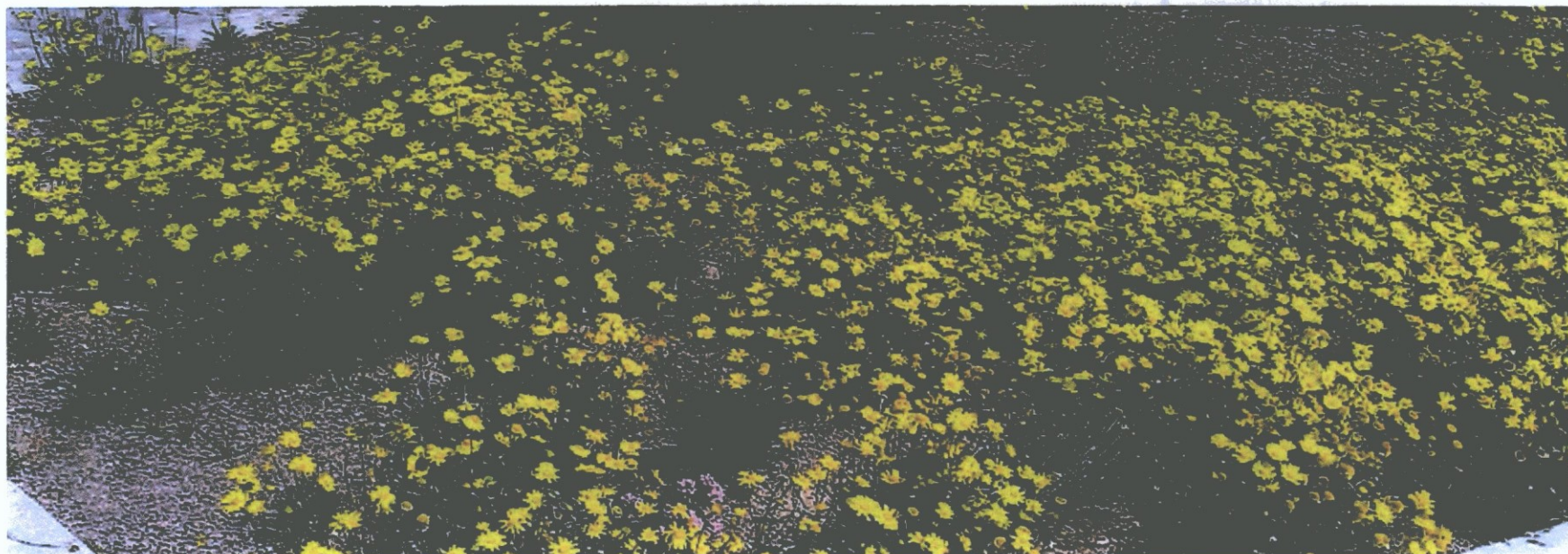
Understanding mature plant height, width and form is crucial when designing or maintaining plants within a sight-visibility triangle. Plantings within these areas must comply with City of Scottsdale sight distance requirements. Shrubs, ornamental plants, boulders, walls or other such materials within sight-visibility triangles must not exceed a height of 18 inches to avoid blocking views of drivers, pedestrians and cyclists.

Low growing shrubs, Accents & Groundcover:

- Agave victoriae-reginae, Queen Victoria's Agave
- Aloe 'Blue Elf', Blue Elf Aloe
- Dalea capitata, Yellow Dalea
- Echinocactus grusonii, Golden Barrel Cactus
- Lantana montevidensis 'Alba', White Trailing Lantana
- Lantana montevidensis, Purple Trailing Lantana
- Tetraneuris acaulis, Angelita Daisy

According to Section 5.3 City of Scottsdale 2009 Design Standards & Policies Manual (as updated)*, "Any trees that are to be placed in the Sight Visibility Triangle shall have a canopy that is kept at least 8 feet above the curb height and a maximum mature trunk diameter of 8 inches." Because of these strict limitations, we recommend careful consideration and approval by the City, of any trees planted within Sight Visibility Triangles.

*The City of Scottsdale Design Standards & Policies Manual is subject to updates and revision. Please refer to the most recent edition of the manual for updated design standards and policies.



Tetraneuris acaulis

6.3 Tree Succession

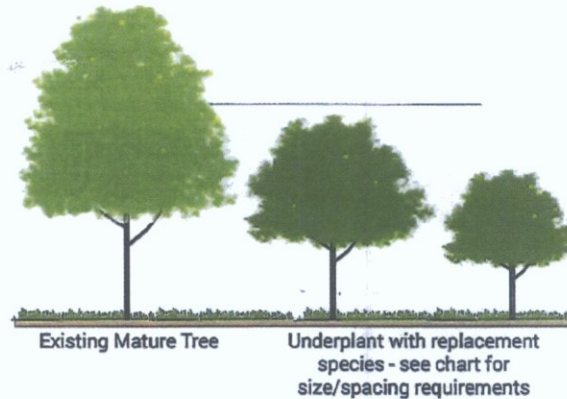
Much of the urban forest at McCormick Ranch was planted more than 35 years ago. Many of the tree types are reaching their mature size and age, resulting in higher loss rates, damage due to breaking limbs and branches, unsightly and dangerous conditions and higher costs to maintain.

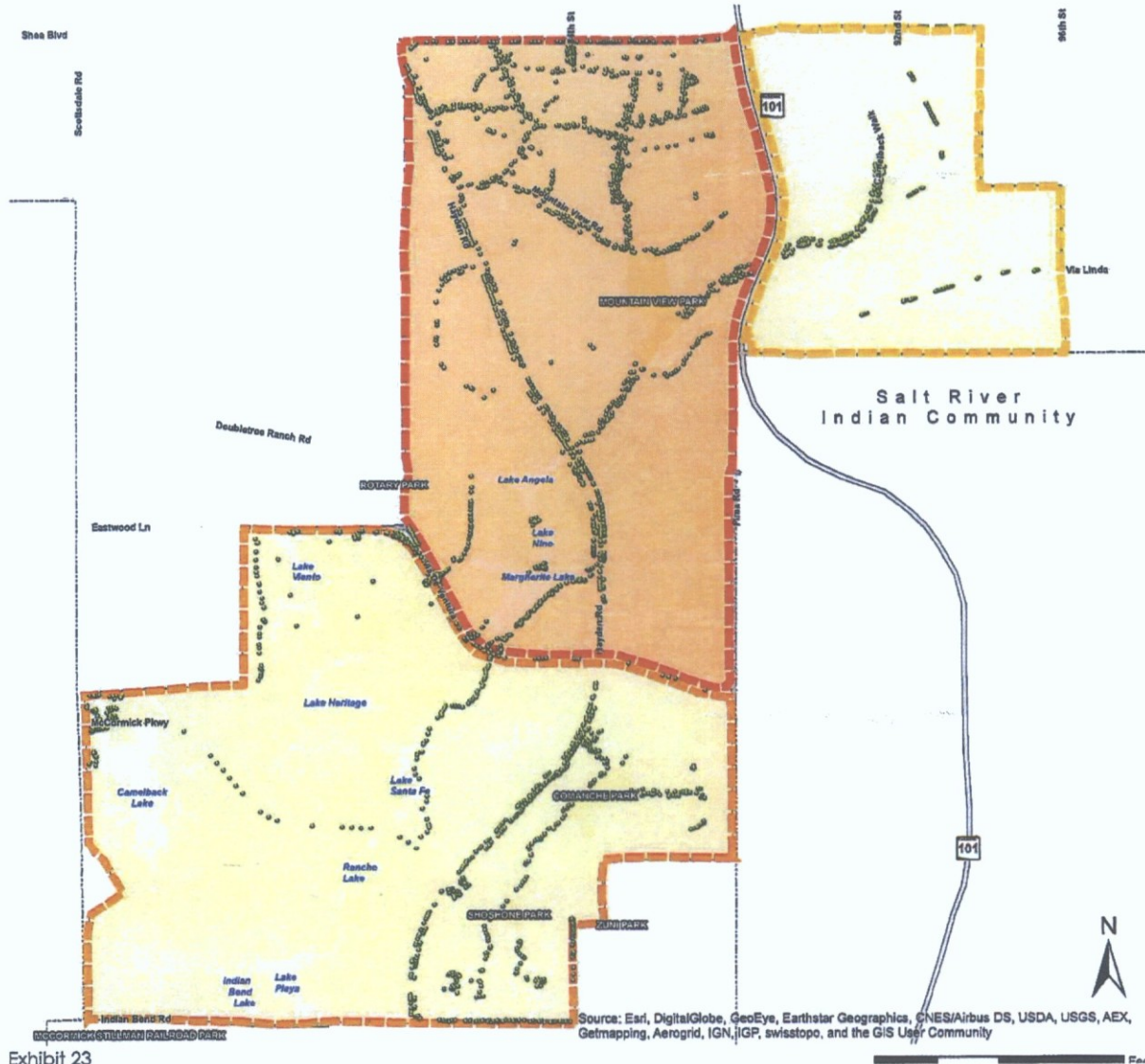
A sustainable urban forestry program should anticipate the growth and life cycle of these trees, undertaking a regular review and replanting of trees to sustain the urban forest, and its valued shade and aesthetic benefits to the community.

One of the goals of the master plan is to select well adapted, long lived trees that provide community benefits while minimizing hazards and costs of excessive watering and maintenance. Many of the types of trees found at McCormick Ranch such as Eucalyptus, Acacla, African Sumac, and Pine are already showing signs of decline. While, if properly cared for, some tree species can grow to more than 100 years old, the average lifespan is much less than that before they need to be replaced. This suggests starting a regular annual replacement schedule that anticipates that at least 2% of the trees will need to be replaced in any given year (54 trees per year, based on 2,273 existing trees, with replacements spread over a 40-year cycle).

Another goal of the plan is to expand tree (and shade) coverage throughout the common areas. Given the time it takes to grow trees to their mature size, it is recommended that a minimum of 50 trees per year (in addition to replacements) are added to the existing landscape as part of ongoing capital improvement projects.

Some of this succession can be accomplished through the landscape requirements of new development and infill redevelopment projects. These developments should be required to establish new plants of the types and sizes, and in the locations that complement both the development and its context. The Tree Succession Plan map is presented on the following page (Exhibit 23.)





TREE SUCCESSION PLAN



Existing Trees Maintained by MRPOA

Common Name	No. of Trees	Tree Canopy		Total Shade	
		In S.F.	Ave. Canopy Diameter	In S.F.	
Ash	139	452	24	62,682	
Australian Willow	5	201	16	1,206	
Bottle	127	452	24	57,453	
California Pepper	15	113	12	1,696	
Cascatote	32	79	10	2,513	
Cottonwood	15	1257	40	18,850	
Date Palm	38	314	20	11,838	
Desert Willow	1	79	10	79	
Elm	73	452	24	33,024	
Eucalyptus	444	1018	36	461,837	
Fan Palm	24	201	16	4,825	
Ironwood	13	113	12	1,470	
Locust	14	50	8	704	
Mesquite	59	452	24	26,691	
Mexican Palo Verde	1	201	16	301	
Mulberry	1	314	20	314	
Mulga	31	113	12	3,506	
Olive	348	452	24	157,431	
Palo Brea	10	452	24	4,524	
Palo Verde	71	452	24	32,120	
Pear	2	380	22	760	
Pine	432	707	30	308,360	
Pistache	5	113	12	565	
Pistachio	3	113	12	339	
Shoestring Acacia	21	201	18	4,222	
Silk Oak	6	254	18	1,827	
Sisoo	20	201	16	4,021	
Sumac	186	314	20	58,434	
Sweet Acacia	31	201	16	8,233	
Texas Ebony	2	201	16	402	
Virginia Oak	12	452	24	5,429	
Vitex	2	113	12	226	
Willow	1	314	20	314	
Willow Acacia	87	452	24	39,358	
Xylocopa	1	452	24	452	
Total Shade in acres	2273			30	

Succession Zones



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

6.4 Irrigation Recommendations

METHODS FOR REDUCING IRRIGATION WATER USE

1. Identify high visibility and use areas where more intensively managed turfgrass provides a measurable benefit to the community. In those areas make efforts to use turfgrass management "best practices" to effectively sustain those areas.
2. Remove turfgrass in selected locations along the edges of open space where it is not highly visible, necessary for erosion control and/or recreational use. Replace turfgrass with low water use plantings and inert groundcover.
3. Utilize low water use plant materials from the approved plant list for new plantings and as replacements for existing plants.
4. Rotate selected turfgrass areas to omit winter overseeding and remain dormant during the cold season throughout the community. All turfgrass areas should be allowed to go dormant once every five years. These areas will appear brown from October through April but, with proper management, will use less water, be healthier and cost less to maintain than areas that are consistently overseeding.

RECOMMENDATIONS

With water for landscape irrigation being increasingly expensive, it is important to irrigate the landscape as efficiently as possible. The overall goal is to apply only the water that is needed, when and where it is needed. The most effective system for McCormick Ranch incorporates a fully automated and monitored irrigation watering distribution system that communicates real-time with central control stations. Systems should be equipped with flow controls and master valves sensors that can shut-off zones that have breaks or are inoperable. This system will minimize water waste and plant loss while providing the right amount of water where it is needed.

Some controllers use historical data, while others use a combination of historical and real time data from on-site sensors. State of the art irrigation controllers base the irrigation scheduling on evapotranspiration (Et) data. Controllers using Et to schedule irrigation save water through daily run-time adjustments based on the weather (humidity level, temperature, wind speed, etc.) and resulting irrigation needs.

Continually Upgrade and Standardize Controllers

The existing controllers are from several different manufacturers and were installed over a long period of time. Installed controllers include: Rainmaster Sentar, Rainmaster RME, Hunter, and Baseline 1000, along with a number of Rainbird TBOS. The Sentar/RME and TBOS are not equipped to monitor flow or communicate with a centralized system controller.

The Baseline controllers are the most technologically advanced and fully functional. Therefore, Baseline controllers are the desired system standard at McCormick Ranch. Although these controllers can use moisture sensors to determine how long to water, the sensors have not yet been installed. Wherever possible, master valve and flow sensors should be installed at all sites controlled by Rainmaster and Baseline.

All new controllers should be capable of the following:

1. Flow monitoring
2. Automatic seasonal adjustments per either historical Et, on-site sensors or both
3. Receiving data from moisture sensors and/or rainfall sensors
4. Communicating with a single central system

Controllers that can communicate to a central control save water and labor costs. With flow monitoring, the central control unit is capable of immediately alerting irrigation managers of over- and under-watering. A central control system also allows managers to program, monitor, adjust and manually operate controllers remotely from one central computer. This allows for quick system fine-tuning.

Repair/Replacement of Pipes, Valves, Meters and Components

A common cause of irrigation water waste is broken or damaged irrigation system components. Flow monitoring valves can detect breaks in the system and signal to the system to shut down those zones to prevent damage to landscape areas and excessive water waste. Perform regular reviews of the irrigation system to look for signs of leaks, broken heads, valves, pipes or other components, and replace them immediately.

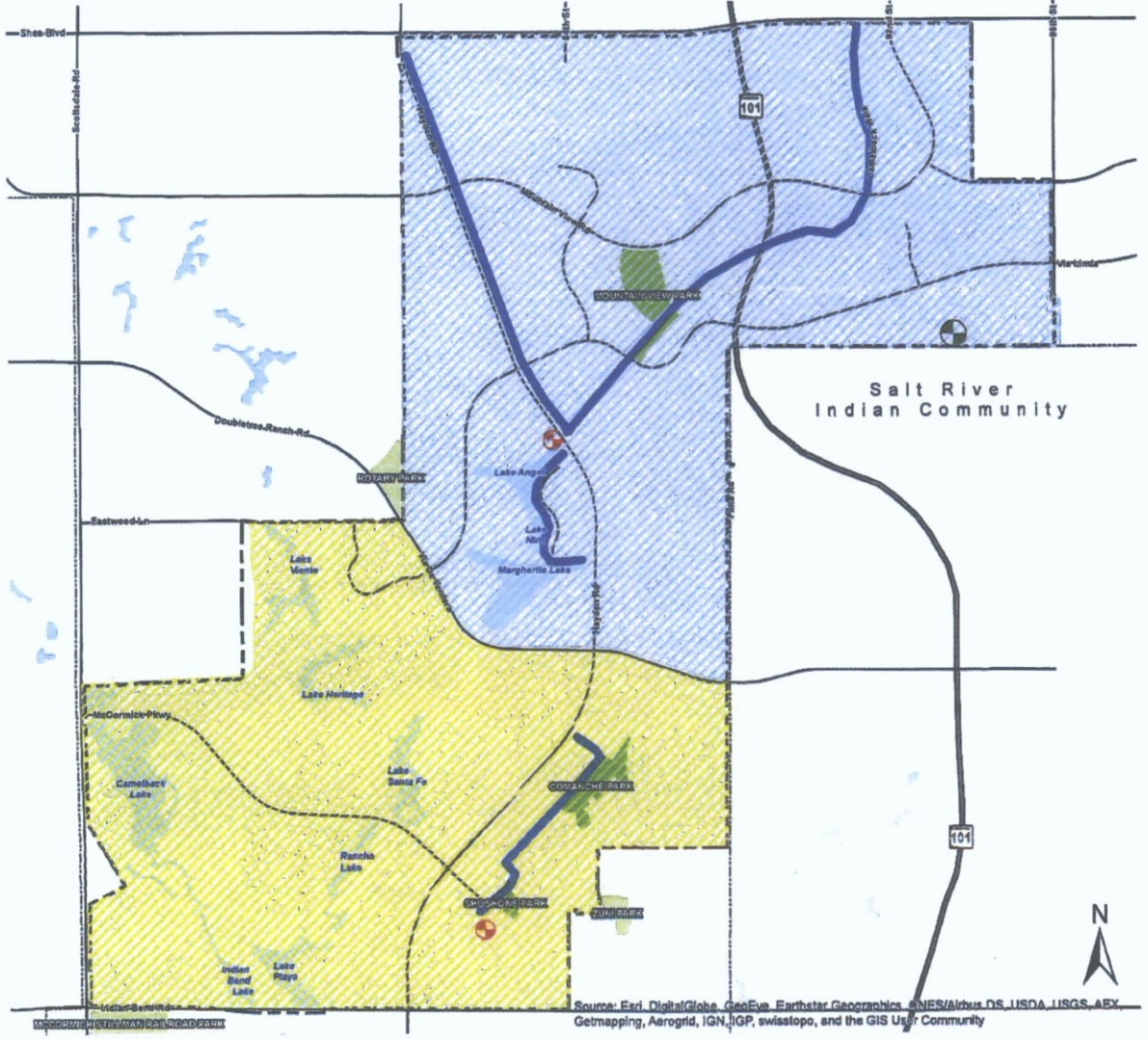
Cycling

Where possible, program irrigation timers so that they water in 2-3 short cycles separated by a half hour, rather than a single period of time. Cycling works well because most types of sprinklers apply water much faster than it can actually be absorbed into the ground. After a short time, water may build up on the soil and run off. Cycling the irrigation can reduce water waste. It also helps reduce the likelihood of low wet spots in lawns, which are prone to diseases. This technique works especially well with spray heads that have precipitation rates of around 2.0 inches per hour.

Audits

An important means of managing water use and associated cost is to perform an annual audit of the irrigation system to determine where efficiencies can be gained. Audits help keep the system up-to-date with evolving best practices, and reveal instances in which the system is in need of an upgrade. A sample audit procedure is included in the Appendix.





IRRIGATION SYSTEM

- COS Boundary
- MRPOA Boundary
- Indian Community
- COS Park
- Lake
- State Highway

Water Management Zone (WMZ)

- City of Scottsdale Water Supply
- Well Water Supply

Controllers and Irrigation Mainlines

- Baseline Smart Controller
- Central Controller
- Well Water Irrigation Mainline
- COS Irrigation Mainline

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, Aero, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community

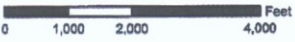


Exhibit 24

IMPLEMENTATION

6.5 Maintenance Guidelines

Landscape maintenance should consider the natural form and growth habits of all plants. Proper maintenance will allow the plants to grow to their full potential using just the right amount (and not any more) of water and nutrients need to thrive. Maintenance best practices will reduce labor and replacement costs, while also reducing potential hazards from falling limbs, obscured sight lines and unstable surfaces.

Landscaped areas should be visually inspected at least twice a year, during the growing seasons, to determine the need for water, fertilization, pruning or replacement. Most desert adapted and native plants can maintain their natural form without much pruning. Prune plants properly as recommend by a certified arborist when at least one of the following conditions is present:

- Need to remove dead, diseased or weakened stems or branches
- Keep drainage channels and lines of sight clear for inspection and maintenance for access and flood control
- Need to control or direct inconsistent or unhealthy growth

PRUNING PRACTICES FOR DESERT PLANTS

A well-designed, drought tolerant, plant palette is intended to take on the natural characteristics of its component materials. It should not be sculpted, hacked or otherwise over-managed. Shearing shrubs and trees into balls or geometric shapes is not consistent with accepted best practices, and can be harmful to the plant itself.

When only the tips of a plant are removed, it causes what is known as "witches broom," where all of the leaves develop on the outside. Because the plant is so dense sunlight cannot filter into the middle and the interior of the plant dies out. Shearing is more labor intensive because once a plant is established in this artificial shape, it has to be regularly sheared to sustain it. Hand pruning, if done correctly, needs to be performed only once or twice a year.

Shearing water-conserving plants produces vigorous new growth at the branch tips. This creates a "shell" of foliage and a hollow inside. The abundance of outer foliage causes the plant to transpire more than it would naturally. It therefore becomes less water efficient. Dr. Chris Martin, Urban Horticulturist with Arizona State University, indicates that frequent pruning weakens a plant by reducing the capacity to produce carbohydrates and to take up water and nutrients.

Another side-effect of shearing is the loss of flowers. Shearing destroys the natural flowering cycle. As a result reduced floral displays are likely.

Why are these shearing approaches still practiced? In some cases, where plants were placed too close to walkways or to each other, shearing is a well-intended attempt to keep the plant in check. Landscape designers and installers must lay out new plants with their mature sizes and appearances in mind.

Many species of plants do need periodic pruning; especially in ornamental landscapes where the mature sizes of some shrubs (up to 10 feet in diameter in some cases) would overwhelm a small median or landscape area.

ALTERNATIVES TO SHEARING

Hand Pruning

Hand pruning (or "native pruning") is the best option if it is started early when the plants are still small. However it is possible to prune larger, overgrown shrubs as well.

There are two ways to prune natives. One is to remove one third of the larger branches every year. By the end of the third year it will essentially be a new shrub. This is called "rejuvenation pruning." It is best to remove these branches as close to the ground as possible. If pruning a large shrub that is significantly overgrown, a pruning saw may be required.

Three Year Pruning Method

One way is to remove one third of the largest branches every year. The branches should be pruned down to the ground (or as close as possible). The pruning should be performed during the dormant season to lessen the stress on the plant and the impact on the flowering cycle. Repeat this process the following year by removing one-third of the largest stems. By the end of the cycle the shrub will have been completely rejuvenated with no wood remaining over three years old. If pruning a large shrub that is severely overgrown a pruning saw may be needed. The newest foliage produced hides the previous cuts in each step of the process and the result is a very informal look and a plant that is kept at a reasonable size for our medians.

Cut the Shrub all the way Down

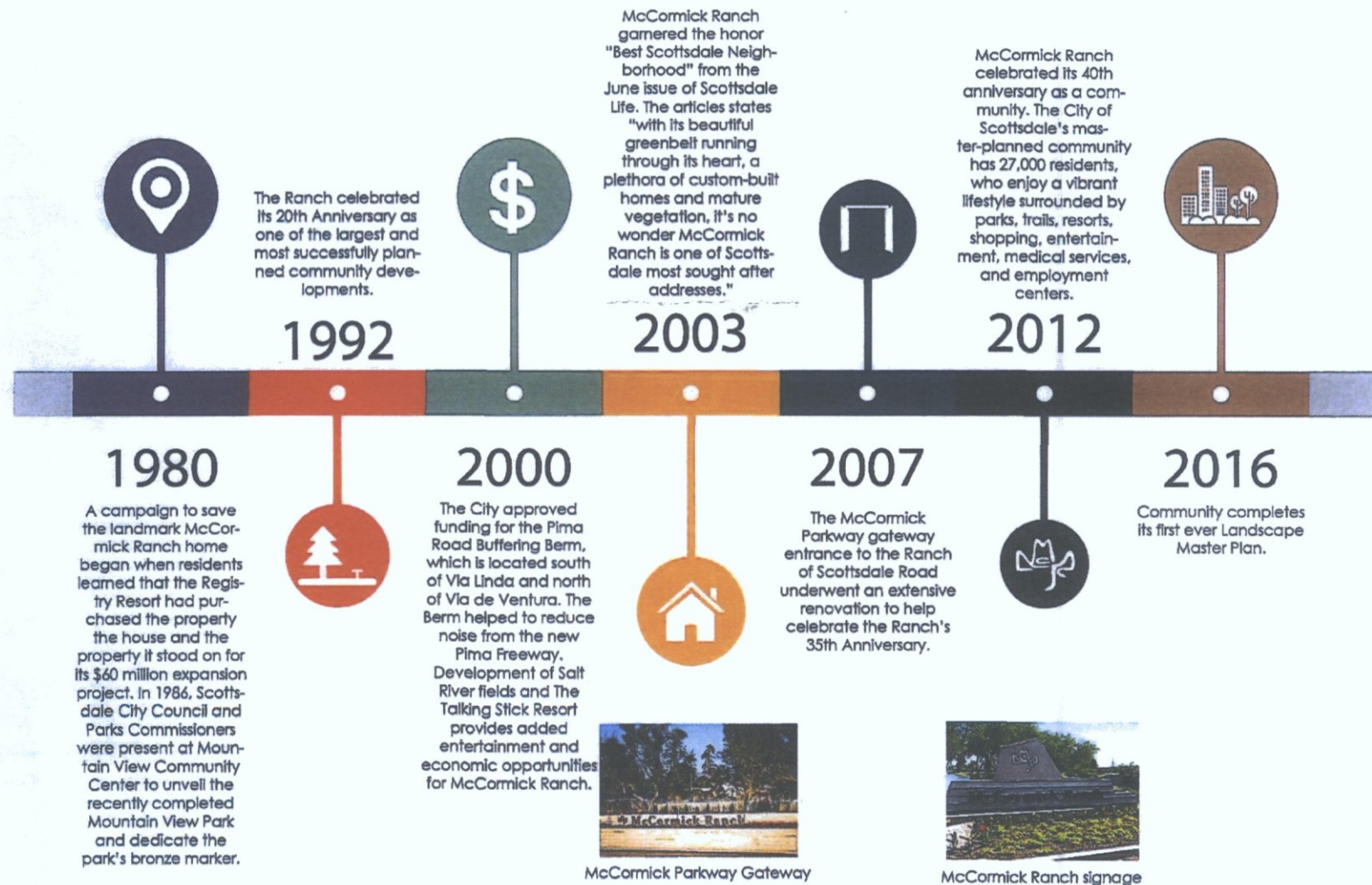
The second option is to cut the shrub all the way to the ground. This option lets the plant rejuvenate all at once.

Always use sharp pruners to make clean cuts. All cuts should be made at a 45 degree angle and as close as possible to another branch. Native pruning is the best way to maintain shrubs that are arid adapted and drought tolerant. Done correctly once a year, pruning should keep plants healthy and looking natural while still keeping them within the designed space.

General Maintenance

After major storm events, and at least annually, inspect grading, ground coverings, mulch, irrigation systems and other site improvements for signs of damage or erosion. Repair or restore immediately to minimize additional damage. Refer to the City of Scottsdale Landscape Guidelines for more information.

HISTORY OF MCCORMICK RANCH



Moriarity, Ben

From: Jerri Horst <jlhorst@cox.net>
Sent: Thursday, December 01, 2016 2:58 PM
To: Moriarity, Ben
Cc: ccampbell@mrpoa.com; 'Jennifer Hall'; 'J Uhrich'
Subject: RE: McCormick Ranch Landscape Master Plan-Hearing December 15, 2016

Thank you.

From: Moriarity, Ben [mailto:BMoriarity@Scottsdaleaz.gov]
Sent: Thursday, December 1, 2016 2:49 PM
To: 'Jerri Horst'
Cc: ccampbell@mrpoa.com; 'Jennifer Hall'; J Uhrich (jaimeuhrich@mrpoa.com)
Subject: RE: McCormick Ranch Landscape Master Plan-Hearing December 15, 2016

Jerri,

Thank you for taking the time to share your thoughtful comments. The Property Owners Association (copied on the email), who has proposed the plan on behalf of McCormick Ranch, would be able to better answer your questions regarding costs. We will be sure to share your comments with the Development Review Board.

Ben Moriarity
Planner
Planning & Development Department

CITY OF SCOTTSDALE
7447 E Indian School Rd.
Scottsdale, AZ. 85251
BMoriarity@ScottsdaleAZ.gov
O: 480-312-2836

From: Jerri Horst [mailto:jlhorst@cox.net]
Sent: Thursday, December 01, 2016 2:33 PM
To: Moriarity, Ben
Cc: ccampbell@mrpoa.com
Subject: McCormick Ranch Landscape Master Plan-Hearing December 15, 2016

Dear Mr. Moriarity,

I am a resident of McCormick Ranch (MCR) and have reviewed the proposed Landscape Master Plan. Generally, the landscaping portion of the plan appears to be well thought out and comprehensive. It appears that an objective of the plan is to reduce water consumption. I am a proponent of reducing water use wherever we can because, while the landscaping here on MCR is beautiful, it really is wasting too much water. It appears that droughts in the west and southwest are likely here to stay and we do, after all, live in a desert where water is always a precious resource. So we ought to be doing all we can to preserve it.

I do have a number of concerns and questions which the plan did not address:

What is the actual amount of water saved with this plan? The MCR plan estimates that turf and trees use nearly 12 times the water that xeriscape plants require (968,000 vs. 83,000 gal/acre/yr), but there are no estimates about how

ATTACHMENT #4

much water the proposed plan will save. A POA staff member emailed me today indicating there actually is only a "minimal" amount of turf reduction included in the plan. If that is so, this is really disappointing.

How much will the MCR HOA fees increase to implement the plan and over what period and what is the payback period for completing the plan before the decrease in water use pays for all, or at least a good portion of, the new landscaping? **Will the increased HOA fees ever again be reduced once the additional funding pays for the new planting?**

Why can't we quit planting annual grass during the winter altogether or at least do this less than just once every 5 years as the plan proposes? This would be a tremendous water savings all by itself and would also considerably reduce maintenance and labor requirements. My understanding is that during the first few weeks after planting, the vast areas of MCR common areas are watered 5 times per day to get the grass established. I know the dormant Bermuda grass is not as pretty but using scarce water resources to be "pretty" seems arrogant and wasteful on our part, especially when some portions of the west and southwest are now unable to get sufficient water to grow important food crops. In addition, there is so much watering going on in the winter here that pedestrians and bicyclists using the greenbelt trails must either avoid them or run quickly through the sprinklers and get wet. I don't know about other residents, but I know that I have had a number of visitors who come here and look around at all the greenery and have told me that, while it looks nice, this is a huge waste of water on plants that don't belong in a desert environment. I like the beauty of McCormick Ranch but I also think we can still have a great place to live while making some adjustments. At least we are not like many in California who are filling in their swimming pools due to lack of water. Having brown grass on MCR a few months of the year is not too much to ask!

What is the plan to increase greenbelt utilization of the lakes on MCR? I believe I read somewhere in the plan that the greenbelt around the 3 lakes is underutilized. But I don't recall seeing anything stating what would be done to increase residents' use of this amenity.

I also have some suggestions:

- **Maximize tree shade or other shading opportunities where people walk and congregate.** The plan includes a similar statement, but I just want to emphasize the importance of shade. This is so helpful especially when walking during the summertime. Please use water-saving xeriscape trees for this use wherever possible. Suggest limiting use of palm trees shown in the plan except to maybe a few where they can be used as accent plants. They don't afford much shade, use water, and require considerable maintenance. I love the large Eucalyptus trees around MCR, but I have also seen many die from the summer storms and other causes through the years I have lived here. So please proceed with caution before planting more of them.
- **Maintain turf in those few common areas along the pathways often used by the neighborhood kids for sports and other activities.** However, I like the idea of reducing turf, as the plan shows along a number of the trails in the northwestern portion of MCR. I like the planned Eco-Resort theme that would be used along the far edges away from the pathways where there is currently a stark contrast between the green grass and the bare common walls at the adjacent homes. If properly implemented, the xeriscape trees and shrubs would provide a softer edge and less contrast between the landscape and adjacent walls. At the same time, grass would still be located on both sides of the pathways themselves. I just would like to make sure that there is sufficient turf left in the few common areas now used for neighborhood activities.
- **Do not plant trees or grass in the roadway medians.** The Hayden Road plans actually show grass and all of the median plans include trees. We don't need to waste water on grass or on watering large trees in a roadway median. Why not use xeriscape groundcover, shrubs, cactus or appropriate hardscape materials in the medians and concrete in the limited median locations where pedestrians may legally cross the street? Also, trees in a median seem like a bad idea unless the species selected automatically grow to the desired dimensions so they do not reduce sight distances and become a safety hazard to motorists and/or pedestrians/bicyclists crossing the street. Otherwise, the trees will need to be kept correctly trimmed on a regular basis because we surely do not want to add to the potential for accidents with the use of the wrong landscaping materials in the street medians.

Moriarity, Ben

From: steve kaster <boogared@gmail.com>
Sent: Tuesday, November 29, 2016 7:26 PM
To: Moriarity, Ben
Subject: reduction of grass McCormick Ranch

11/29/16

I am wholeheartedly in favor of reduction - actually, get rid of it all - we are in a DROUGHT !! now and for the foreseeable future.

thx

steve kaster
scottsdale sands master
480-922-4748