

GENERAL PLAN

APPROVED BY TOWN COUNCIL 12.06.2012

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THE TOWN OF GILBERT'S GENERAL PLAN

The Town of Gilbert's General Plan is the Community's vision and guide for future physical, economic and social development and is a long-range policy document covering a period of ten (10) to twenty (20) years. The General Plan contains visions, goals, policies and implementation strategies that guide decisions such as how the Town grows and looks in the future, areas appropriate for residential, employment and commercial uses, areas to reserve for parks and open space, the location of new roads and energy and resource conservation and sustainability. The General Plan seeks to assure that decisions are consistent with the Community's Vision.

In summary, the Plan outlines community goals, provides a decision-making guide and fulfills State legal requirements. Over time, many specific decisions will be made by Boards, Commissions and the Town Council to carry out this Vision.

Process

The Town's existing General Plan was approved by voters in 2001 and according to State law, the plan must be reapproved every ten (10) years. Even with the change in State law in 2010, allowing an extra five (5) years for renewal, the Town of Gilbert's General Plan update was well underway and will be submitted to the voters in May 2011 for approval.

Since the Town's General Plan is a reflection of the Vision and Goals of the Community, a transparent process was established to obtain as much public input as possible. Work began in August 2008 and by January 2009, a General Plan Steering Committee was formed. The Steering Committee consisted of Town Council members, Planning Commissioners, a Design Review Board member, a Redevelopment Commission member, an Economic Development Advisory Board member and a member-at-large. The purpose of the Steering Committee was to oversee the process of the update and ensure consistency within the document.

After identifying and grouping the Chapters of this General Plan into four categories, the Town solicited applications from Gilbert residents willing to serve on Sub-Committees dedicated to drafting the Chapters. A total of fifty-six (56) volunteers were chosen for the Sub-Committees. Chairs were selected to lead the Sub-Committees and the four (4) chairs also sat on the Steering Committee. Each member of the Steering Committee was also

appointed as a liaison to a Sub-Committee. Planning Division Staff provided support for the Steering Committee and Sub-Committees. The General Plan Steering Committee and all four Sub-Committees held a kick-off meeting in May 2009.

A total of fifteen (15) Steering Committee and fifty-one (51) Sub-Committee meetings were held between May 2009 and June 2010. During this time, each group heard from experts in the fields, reviewed the existing General Plan, reviewed other General Plans and created the new Chapters. All minutes and draft documents were placed on the Town's website after each meeting. Once drafted and approved by the Steering Committee, the Chapters were put on the Town's web page as one of several methods of soliciting public input.

In January 2010, the Steering Committee began holding open houses at various locations and attended events throughout the Town. The goal was to present the draft Chapters to the Citizens in order to gather public input. A total of ten (10) events and open houses were held. Handouts at the events included survey sheets that could be filled out and sent to Staff for inclusion in the update.

The Town was also very active in providing information to the public via local newspapers, cable television, Nixle and Twitter. These social media networks were utilized to advertise open houses and public events to solicit public input on the creation of the plan. Additionally, the Town's web site had an interactive survey that could be filled out and submitted directly to Staff.

The result of this effort is a citizen driven public document that reflects the Vision and Goals of the Community. This document will be the guide and direction for the development of the Town for the next two decades.

Chapters

The General Plan contains several Elements which have been incorporated into twelve (12) Chapters. A number of these Elements are required by State Statute; however, in order to achieve the defined Vision, other Elements have been added by the Town.

Chapter 1	Introduction
Chapter 2	Land Use and Growth Areas Element
Chapter 3	Circulation Element
Chapter 4	Parks, Open Space, Trails, Recreation and Arts and Culture Element
Chapter 5	Public Facilities and Services Element
Chapter 6	Community Design Element
Chapter 7	Environmental Planning Element
Chapter 8	Housing and Conservation Element
Chapter 9	Economic Development Element
Chapter 10	Character Areas Element
Chapter 11	Energy Element
Chapter 12	Neighborhood Preservation and Revitalization Element

Amendments to the General Plan

The General Plan, including the maps, constitutes a comprehensive policy statement that is used to guide the growth and development of the Community. Over time, factors that affect the General Plan, as well as the policy direction from elected officials, will undoubtedly change. Consequently, the General Plan must be reviewed and amended to remain current and effective. The Plan will be reviewed each year and amended, if necessary. State law also requires adoption of the General Plan by the voters every ten years.

State law requires that major amendments to the General Plan be presented and considered by the Town Council at a single public hearing during the calendar year in which the proposed amendment is requested. Minor General Plan amendments may be considered by the Town Council at any time during the year.

Major amendments are defined as follows:

Residential Amendments

- Any Land Use Map residential density classification increase of 160 acres or more.
- Any change from a residential Land Use Map classification to a non-residential classification of 40 acres or more.

Non-Residential Amendments

• Any change of non-residential Land Use Map classification of 40 acres or more.

Minor amendments are all changes not defined as major amendments above, and include:

<u> Mandated Changes</u>

Any change mandated by initiatives or state law.

Golf Course, Parks/Retention, Public Facility/Institutional Land Use Classifications

 Any change to or from Golf Course, Parks/Retention and Public Facility/Institutional Land Use Map classifications. Amendments to the General Plan shall only occur after careful staff review of the request and public hearing(s) by the Planning Commission and Town Council. The public is provided ample opportunity to review and comment on proposed amendments. The term "amendment" includes both text and map revisions.

Amendments to the General Plan may be initiated by the Town or by formal application by the owner(s) or their agents, of real property within the Town planning area boundaries. General Plan amendments must result in the General Plan being internally consistent and conforming to State law. Applicants requesting an amendment to the General Plan must demonstrate that the proposed change is an improvement to or consistent with the General Plan.



1st National Bank of Arizona



Bags of Grain Transported Through Downtown Gilbert



CHAPTER 1

GILBERT GENERAL PLAN

"Gilbert is a Clean, Safe and Vibrant Community."

Gilbert Town Council, 2010



Cotton Trucks by Downtown



Gilbert Christmas Downtown - 1930's

Gilbert, a safe, healthy, clean,
attractive, family-oriented community that
embraces our Town's heritage yet
recognizes the opportunities of the future
without sacrificing the resources of today.
Gilbert will continue to grow into a Town
with:

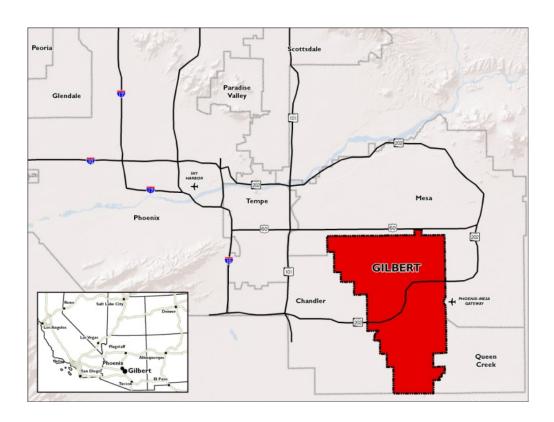
- A vibrant and dynamic business climate
- Excellent educational opportunities
- A sense of community and neighborhoods
- Environmental stewardship
- Cultural amenities
- Diverse recreational opportunities
- Enduring architecture and design
- Sustainable practices
- Efficient transportation



INTRODUCTION

1.0 Gilbert at a Glance

The Town of Gilbert is located in the southeast valley of the Phoenix metropolitan area. Gilbert's planning area encompasses 72.6 square miles. The Town shares boundaries with the City of Mesa, City of Chandler, Town of Queen Creek, Gila River Indian Community and Pinal County. Gilbert's planning area is not fully developed with portions remaining as vacant and undeveloped land. There are several areas of unincorporated land within the planning area, many entirely surrounded by the Town.



In 2011, Business Week magazine ranked Gilbert as one of the nation's 50 best places to live. The best city ranking reflects Gilbert's great schools, a high income level, low unemployment and quality of life. Also in 2011, Businessinsider.com ranked Gilbert the 5th safest city in the nation.

In 2012, CNN Money magazine honored Gilbert as the nation's 33rd best place to live. The list recognizes communities in the United States with plentiful jobs, top-notch schools and affordable housing.

Gilbert's population has grown from 5,717 people in 1980 to approximately 217,000 people in 2012. This population surge earned Gilbert the title of the fourth fastest growing community in the nation from CNN Money Magazine and the U.S. Census Bureau in 2009.

Gilbert's amenities are also award winning. Gilbert's Cosmo Dog Park was chosen as one of the top 5 Dog Parks in the U.S. by Dog Fancy Magazine in 2010 and azcentral.com's 2010 Readers Choice chose Cosmo as Best Dog Park.

Gilbert was named one of the top places to live and learn by GreatSchools.org. The site noted that Gilbert is a fast-growing suburb in the southeast Phoenix metro area and has a diverse mix of professional jobs in health, the sciences, high tech and renewable energy. The site also indicated Gilbert is family-focused and safe.

Gilbert has twice been named Tree City USA. Additionally, Gilbert has been named a bike friendly community.

Gilbert's Riparian Preserve at Water Ranch has been honored as one of the top birding spots in Arizona and for its unique educational programs that allow residents to participate in preserving the natural habitat of the area.

The Riparian Preserve was honored as one of the top three bird watching parks selected by Reader's Choice in the 2010 edition of Experience Arizona, a travel guide. The park was honored for being a habitat with educational programs that benefit the wildlife and allow residents to learn about nature.

Today, Gilbert Town leaders are working to create lasting bonds with others across the world through the Gilbert Sister Cities program. The local effort started in June 1995 with the intent of forging cultural and economic relationships with cities in Europe and Asia. The program coordinates cultural, trade, educational and sports programs that promote international and intercultural knowledge and understanding.

Gilbert established its first sister city November 17, 1998 with Newtownabbey, Northern Ireland. The Borough of Newtownabbey is situated immediately north of Belfast in County Antrim and covers an area of 54 square miles. Newtownabbey is a new town formed in 1958 by an Act of Parliament and has grown steadily over the last twenty years to a population of 85,000. The Borough of Newtownabbey is comprised of two towns and nine villages.

Based on Gilbert's successful partnership with Newtownabbey, the Board of Directors of Gilbert Sister Cities decided to pursue a second sister city in China. On December 12th, 2000, the Town Council unanimously endorsed the recommendation of the Board of Directors to pursue Leshan, Sichuan, China as its second sister city. An official signing ceremony took place June 4, 2002. Leshan (the name meaning "Pleased with the Place") is located in southwest China in the Sichuan Province. Leshan Municipality has a territory of 4,920 square miles and a population of 3.68 million. The city has a history of 3,000 years and is a mix of the very old and very new. As Leshan continues to evolve their market driven economy, community leaders are utilizing their Sister City relationships to acquire information on best practices in other parts of the world for challenges like government operations and protection of resources.

Gilbert continues to enjoy a friendly, safe, small town, family-oriented community feeling while having a major impact in the Phoenix metropolitan area with regards to population increase, demographics, amenities, major employment corridors and development.



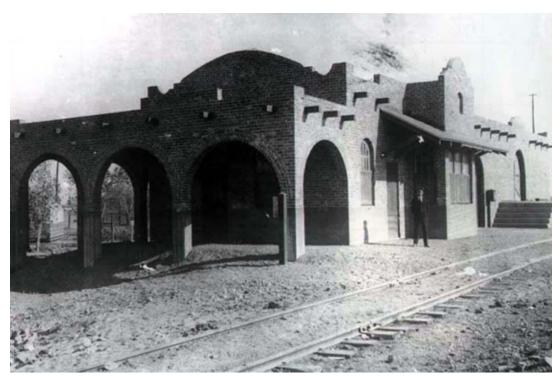
Downtown Gilbert Parade



1.1 Gilbert - The Beginning

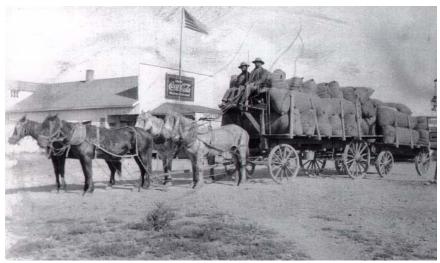
Gilbert's first homesteads were filed by six men and four women. Some of these farms were provided free if the family stayed for at least five years. Others paid the government for the land which could be purchased for as little as 50 cents an acre. The earliest homestead was purchased in 1893.

In 1902, the Arizona Eastern Railway solicited donations of right-of-way in order to establish a rail line between Phoenix and Florence. A rail siding was established on property owned by William "Bobby" Gilbert. The rail siding and the Town that developed became known as Gilbert.



Gilbert Train Depot

Gilbert was a prime farming community due to the construction of the Roosevelt Dam and the Eastern and Consolidated Canals in 1911. Because of the area's rich land, Gilbert became a center for shipping cattle, sheep and dairy products as well as growing grains, melons, cotton and alfalfa hay. During World War I, the cavalry needed an ever-increasing amount of alfalfa to feed horses. Gilbert helped supply the need, becoming known as the Hay Shipping Capital of the World.



Early Commerce in Gilbert

In 1920, the town's 500 citizens incorporated and the Town of Gilbert was officially born on July 6th. The Town was less than one square mile in size.



Gilbert's Early Years



1.2 Gilbert - The Growing Years

Gilbert began to take its current shape during the 1970's when the Town Council approved a strip annexation that encompassed fifty-three (53) square miles of county land. Although the population was only 1,971 in 1970, the Council realized that Gilbert would eventually grow and develop much like the neighboring communities of Tempe, Mesa, and Chandler. This proved to be a farsighted decision as Gilbert positioned itself for growth in the 1980's and beyond.

Beginning in the 1980's, Gilbert grew at a pace unparalleled by most communities in the United States, increasing in population from 5,717 in 1980 to over 217,000 in 2012. As Gilbert has grown, the community has recognized the need to develop a strong, diverse economy while preserving its highly desirable quality of life. To proactively direct the growth and development of the community, the Town Council adopted and the voters approved a General Plan in November 2001, which revised existing elements, added elements required under Arizona "Growing Smarter" legislation, and incorporated new land use and economic growth considerations.



Gilbert Growing



1.3 Gilbert - The Future

Gilbert's commitment to the concept of a forward-looking, family-oriented community with a small town atmosphere has positioned the Town for a very bright future. There is no doubt that the population will continue to increase, new houses will be constructed, jobs will be created and industry will expand. The key to the future is to balance the growth and changes within the concept that has created this exceptional community. The Town's Vision for the future builds on the solid foundation of the past.

The following Chapters reflect the Vision, Goals and Policies of the Community and are intended to provide consistent, balanced growth to help ensure a bright future for the residents of Gilbert.



Gilbert Road through the Heritage District



CHAPTER $\overline{2}$

LAND USE AND GROWTH AREAS



Heritage District Street Scene

Deliver a mix of synergistic land uses
that are appropriately located to promote
employment opportunities while enhancing
Gilbert's quality of life.



INTRODUCTION

The Land Use Element of the Gilbert General Plan provides land use policies and the Land Use Map for the General Plan and is presented in the following sections:

- Existing Conditions
- Issues
- Growth Areas
- Goals and Policies
- Land Use Classifications
- Implementation Strategies

The Land Use Element provides the Town of Gilbert the necessary framework to locate land uses by type, density and intensity. This element presents the existing tools available to the Town and the development community and proposes additional means to insure quality development.



Agritopia Streetscape



2.1 Existing Conditions

Gilbert has experienced a rapid transition from an agriculture-based community to a suburban community with development activity centers within the larger Phoenix Metropolitan Area. In the last two decades, Gilbert has grown at a pace unparalleled by most communities in the United States. Since 1980 Gilbert's population has doubled every five years to a population in 2012 of 217,000 residents.

Gilbert's growth has primarily been spurred by two factors: the greater Phoenix Metropolitan Area housing boom and the construction of the Loop 202 Santan Freeway through the geographic center of Gilbert. The freeway brought quick circulation options to all of Gilbert, stimulating growth in areas that previously had limited accessibility. As a result several very large master-planned communities developed in the south and east area of Town and a regional employment hub has grown along the freeway alignment.

The Town of Gilbert is continuously planning for the future in order to meet the needs of tomorrow. To proactively direct the growth and development of the community, the Town maximizes land uses, initiates expansion of services and implements capital improvement projects.



Agritopia Neighborhood



2.2 Issues

- Need for policies and implementation strategies regarding revitalization of existing rights-of-way, housing developments and commercial centers.
- Need for development flexibility in Employment Classifications that are located in Growth Areas and Employment Corridors.
- Desire to attract more mixed-use developments.
- Need to define a central business district.
- Supporting and encouraging infill development.
- Continued development of infrastructure to support density and increased vertical height.
- Maintaining and renewing the quality and character of neighborhood development.
- Coordination of land uses while defining Gilbert's boundaries to keep Gilbert special.
- Funding and scheduling for capital improvement projects.
- Address the strain of rapid population growth on Town service delivery demands.
- Maintenance of a rural lifestyle in the face of rapid growth.
- Need to focus on sustainable development and preservation of open space.
- Need to encourage green construction and renewable energy.



2.3 Growth Areas

For Arizona municipalities, Arizona Revised Statute 461.05 stipulates that communities larger than 2,500 must prepare "a growth area element, specifically identifying those areas, if any, that are particularly suitable for planned multi-modal transportation and infrastructure expansion and improvements designed to support a planned concentration of a variety of uses, such as residential, office, commercial, tourism and industrial uses."

This Element includes policies and implementation strategies that are designed to:

- Make automobile, transit and other multi-modal circulation more efficient, make infrastructure expansion more economical and provide for a rational pattern of land development.
- Conserve natural resources and provide open space areas coordinated with similar areas outside the planning area boundaries
- Promote the public and private construction of timely and financially sound
 infrastructure expansion through the use of infrastructure funding and financial
 planning that is coordinated with development activity.

In Gilbert, Growth Areas are focused on economic sustainability and therefore concentrated in employment and commerce centers. The developments within the Growth Areas should integrate a variety of employment options supported by a mixture of land uses.

The Town of Gilbert strongly supports mixed-use developments. The mixed-use designation is defined as an efficient integration of non-residential and residential uses that cultivates a sense of community in a live, work, play environment. Destination mixed-use developments are encouraged within the Growth Areas, but may also be located in other areas that provide a multi-modal transportation network to support the intensity of development. The mixed-use environment can be developed horizontally, vertically or a

combination of both. If designed horizontally, the Town expects that the project be constructed so that all land uses are represented.

The Growth Areas within Gilbert each have their own economic focus, character and infrastructure. It is expected that mixed-use developments would be designed to utilize and amplify the Growth Area's attributes. If appropriate, the high density residential component of a mixed-use project should be designed as an integral element of the development concept and produce a unique living environment distinctive to the project.

To further encourage mixed-use growth and density within the Growth Areas, the Town may incentivize energy efficient projects and projects that utilize the Vertical Development Overlay Zoning District. The Growth Areas are specifically located in areas that already have adequate infrastructure constructed and multi-modal transportation options planned.

Each of these Growth Area's can be seen visually on the Growth Areas Map located in the exhibits.

Baseline Medical Growth Area

Located between one-quarter mile west and one-quarter mile east of Higley Road and between US 60 and one-half mile south of Baseline Road the Baseline Medical Growth Area is evolving around the existing hospital and cancer treatment and research center. Medical offices, hotels and support amenities are all critical to the success of the vibrant growth of this area. With little vacant land remaining within this area, it is imperative that quality mixed-use projects be well designed to maximize land potential. The Town highly encourages the use of the Vertical Development Overlay Zoning District as a vehicle to achieve maximum density.

Power Road Growth Area

The Power Road Growth Area is located one-half mile west of Power Road, one-half mile north of Elliot and one-quarter mile north of William's Field Road. The Phoenix-Mesa Gateway Airport, directly to the east, is the catalyst for development within this area. With quick transportation access to the Santan Freeway and the Power Road Corridor, the focus of this Growth Area is industrial and business park employment supported by commercial shopping centers.

Gateway Village Center Growth Area

The Gateway Village Center is generally one-third of a mile to the north of and one-third of a mile south of Williams Field Road, from the railroad to the west and Power Road to the east. This area is planned with a wide variety of land uses in a "Village Core", pedestrian-oriented design with close proximity to future multi-modal transportation nodes. The area is the "Gateway" into Phoenix-Mesa Gateway Airport and the Arizona State University Polytechnic Campus. The village core focuses primarily on office and commercial employment opportunities supported by commercial and residential mixed-use projects. The Gateway Village Center, also known as Cooley Station, is part of the Gateway Character Area described in Chapter 10 of this General Plan.

Central 202 Core Growth Area

The Central 202 Core Growth Area is generally bounded by the Loop 202 Santan Freeway to the south and east, Ray Road to the north and Val Vista Road to the west. The Central 202 Core Growth Area includes the Santan Village Regional Mall and several retail power centers. This area is capable of supporting concentrated development comprised of a variety of land uses including commercial, high rise office, tourism uses and business parks. The area may also accommodate high density residential development where residential uses are closely integrated with retail/office uses in a compact development containing urban amenities. The use of the Vertical Development Overlay Zoning District is highly encouraged within this centrally located business core.

Val Vista Medical Growth Area

The Val Vista Medical Growth Area is located south of the Loop 202 Santan Freeway. It extends one-quarter mile west of Val Vista Road, east to Greenfield Road and Queen Creek Road to the south. The hospital is the economic catalyst within this growth area. The hospital, located southeast of the Val Vista Road and Loop 202 Santan Freeway interchange has spurred growth in the medical office, medical research and rehabilitation/care facilities. Support amenities to the above noted uses are quickly being developed. The Town anticipates that this area will continue to grow with medical office, general office and business park land uses supported by mixed-use, commercial and hospitality uses.

Gilbert 202 Growth Area

The Gilbert 202 Growth Area is located east of Gilbert Road extending one-half mile past Lindsey Road between Pecos Road and one-quarter mile south of Germann Road. This Growth Area is on the western boundary of the Town of Gilbert, adjacent to the Chandler

Airpark. The Growth Area includes the existing commercial centers located at the Gilbert Road and Loop 202 Santan Freeway interchange. The primary focus of economic growth within this area is general office, business park and light industrial land uses that have a need for quick freeway access or proximity to the airpark.

The Heritage District Growth Area

The area is generally defined as one-third of a mile south of Guadalupe Road on the north, extends one-quarter mile to the east and west of Gilbert Road and one-eighth of a mile south of Elliot Road. The Heritage District Growth Area is the historic downtown center of Gilbert and is covered by a Redevelopment Plan. It is also designated as a Character Area within this General Plan. The adopted Redevelopment Plan covers land use, architectural character, streetscape and other issues specific to the downtown. It also sets forth a unique review process required for this area. The Heritage District is a prime location for infill development ranging from commercial, high density residential and tourism/hospitality uses.



2.4 Goals and Policies

Goal 1.0

Promote Gilbert as a community in which to live, work and play.

- **Policy 1.1** Maintain a balance of housing types and provide a variety of employment opportunities with easily accessible retail and service uses.
- **Policy 1.2** Create neighborhoods with an identity that complement Gilbert's heritage and connect to the broader community.
- **Policy 1.3** Encourage residential development that allows for a diversity of housing types for all age groups and is accessible to a range of income levels.
- **Policy 1.4** Plan areas for community services, including sites for schools, public safety, utilities, parks, trails and open spaces within new development projects. Surrounding residential densities should be appropriate to these non-residential areas and their uses.
- **Policy 1.5** Designate and protect sites for employment uses in appropriate locations to increase the Town's employment base.
- **Policy 1.6** Encourage all new residential developments to provide pedestrian linkages to parks, schools and other appropriate public facilities.
- **Policy 1.7** Encourage the construction of developer financed public parks in conjunction with high density residential developments by providing infrastructure, density bonuses, land exchanges, and/or joint development agreements.
- **Policy 1.8** Promote revitalization of under-utilized industrial and commercial properties.

Goal 2.0

Protect existing rural residential uses from the impacts of new suburban developments.

Policy 2.1 Encourage landscape buffers between existing developed areas and new development.

Policy 2.2 Encourage new residential development adjacent to large lot (low density residential) uses to provide lot size and width transitions between the two types of uses so there is a gradual increase of residential densities. Where non-residential is adjacent to residential encourage an appropriate transition of open space.

Policy 2.3 Promote the preservation of agricultural land or open space from encroachment by incompatible uses.

Goal 3.0

Manage growth to achieve an efficient, orderly and sustainable community.

Policy 3.1 Promote development within Growth Areas where resources and infrastructure are in place or can reasonably be made available.

Policy 3.2 Encourage master planned communities with an appropriate commercial, business park, industrial and mixed-use employment centers within large-scale residential areas that reduce automobile trips by encouraging walking, biking and other alternative means of transportation and thus improving air quality. Encourage site designs that minimize the number of conflict points (vehicular/pedestrian/bicycle).

Policy 3.3 Classify land uses in a way that recognizes both the use of the property and the desired scale of the uses.

Policy 3.4 Encourage densities appropriate for the Growth Areas by identifying locations for compact vertical intensity.

Policy 3.5 Promote appropriate mixed-use development within existing land use classifications in identified growth areas that have multi-modal transportation options, including transit or high capacity transportation routes.

Policy 3.6 Encourage new developments to incorporate green building techniques and renewable energy options.

Goal 4.0

Provide a diversity of quality housing types for a variety of lifestyles.

- **Policy 4.1** Provide an adequate supply of appropriately zoned land to accommodate a variety of future housing needs.
- **Policy 4.2** Encourage appropriate locations for multi-family residential uses that do not adversely impact lower density residential neighborhoods.
- **Policy 4.3** Reserve appropriate locations for large lot development.
- **Policy 4.4** High density housing is encouraged near large employment centers and/or transportation corridors.
- **Policy 4.5** Establish a residential density bonus program for in-fill mixed-use projects.
- **Policy 4.6** Reserve appropriate locations for large homes clustered around natural open space or community amenity nodes.

Goal 5.0

Promote commercial, retail, and employment land uses that are compatible with adjacent land uses and meet economic goals.

- Policy 5.1 Locate campus style business parks at freeway interchanges in Gilbert.
- **Policy 5.2** Locate business parks and light industrial uses near arterial/freeway intersections to reduce truck traffic in residential neighborhoods.
- **Policy 5.3** Locate commercial and retail uses adjacent to residential uses in appropriate intensities to serve local, community and regional markets.
- **Policy 5.4** Preserve/Reserve acreage for industrial employment uses where appropriate buffers between uses can be retained or created.

Goal 6.0

Direct development into identified growths areas.

Policy 6.1 Provide incentives for new development and redevelopment projects in the Heritage District.

Policy 6.2 Provide a mix of land uses within each growth area including varied housing types and densities, employment opportunities and access to retail and commercial centers.

Policy 6.3 Develop guidelines to establish criteria for vertical mixed-use developments within the Growth Areas.

Policy 6.4 Establish incentives to maximize vertical mixed-use developments within the Growth Areas.

Policy 6.5 Promote the continued development of a central employment spine along the Loop 202 Santan Freeway.

Goal 7.0

Reduce automobile dependency in growth areas by efficient organization of land uses and other methods.

Policy 7.1 Balance traffic circulation needs with the goal of creating pedestrian-oriented neighborhoods and convenient employment/retail centers.

Policy 7.2 Incorporate transit related improvements and connectivity in each Growth Area.

Policy 7.3 Interconnect neighborhoods, retail and employment areas with a system of pedestrian and bicycle routes and trails.

Policy 7.4 Promote mixed-use development in identified Growth Areas or along transit and high-capacity transportation routes.

Goal 8.0

Promote cost efficient and logical expansion of infrastructure.

Policy 8.1 Provide priority funding for infrastructure and transportation/transit projects within Growth Areas to enhance the community's economic vitality.

Policy 8.2 Coordinate infrastructure financing and capital improvements with existing and projected development activity.

Policy 8.3 Insure that new growth provides public and private infrastructure expansion.

Policy 8.4 Pursue reuse and redevelopment opportunities in existing industrial areas of Gilbert to reduce infrastructure requirements.





Office/Retail Development

Master Planned Community



Heritage District



2.5 Land Use Classifications

The Land Use Map, located in the exhibits, graphically depicts designated land uses for all land within the Gilbert planning area. The densities in the Land Use Element are based on gross land area. Gross land area includes open space and recreation areas, street rights-of-way, drainage areas and schools, if dedicated, within the boundaries of the development.

Interpretation of Land Use Boundaries: The land use classification boundaries shown on the Land Use Map follow property lines, drainage corridors, canals, streets and Town limits. Where development exists, these demarcation lines are precise and variations are not allowed unless the Land Use Map is amended. Where development is proposed on vacant land, the Planning Commission may approve a reconfiguration of the boundaries of the various land use classifications to form a viable neighborhood design, as long as there is no net change in the amount of land in each classification.

Residential Uses

Residential >0-1 Dwelling Units per Acre (DU/AC) The Residential >0-1 DU/AC classification designates areas for very low-density single-family residential development of a semi-rural character. Non-commercial agricultural uses may be located in these areas. (Typical corresponding zoning districts with this land use classification: SF-43, SF-35).

Residential >1-2 DU/AC The Residential >1-2 DU/AC classification designates areas for low-density single-family residential neighborhood development. (Typical corresponding zoning districts with this land use classification: SF-35, SF-15).

Residential >2-3.5 DU/AC The Residential >2-3.5 DU/AC classification designates areas for suburban single-family residential neighborhood development. (Typical corresponding zoning districts with this land use classification: SF-15, SF-10, SF-8, SF-7).

Residential >3.5-5 DU/AC The Residential >3.5-5 DU/AC classification designates areas for urban density single-family neighborhood residential development. (Typical corresponding zoning districts with this land use classification: SF-10, SF-8, SF-7, SF-6).

Residential >5-8 DU/AC The Residential >5-8 DU/AC classification designates areas for higher density detached and attached residential uses. (Typical corresponding zoning districts with this land use classification: SF-6, SF-D, SF-A).

Residential >8-14 DU/AC The Residential >8-14 DU/AC classification designates areas for higher density, often multifamily, residential uses. (Typical corresponding zoning districts with this land use classification: SF-D, SF-A, MF/L).

Residential >14-25 DU/AC The Residential >14-25 DU/AC classification designates areas for higher density multifamily residential uses such as condominiums, multi-story apartments and specialty residential uses. (Typical corresponding zoning district with this land use classification: MF-M).

Residential >25-50 DU/AC The Residential >25-50 DU/AC classification designates areas for very high density, multifamily residential uses including multistory apartments, condominium, townhouse, loft apartment and congregate care/senior living product types. (This density may be permitted in the Heritage Village Center (HVC) and the Gateway Village Center (GVC) zoning districts).

For site development regulations and purpose, refer to the Land Development Code (LDC). The LDC also notes non-residential land uses permitted in residential zoning districts. A Planned Area Development (PAD) overlay zoning district may permit zoning districts other than noted above upon finding that the overall density is consistent with the General Plan land use classification, and per the provisions of a PAD established in the Land Development Code.

Commercial Classifications

Neighborhood Commercial (NC) The Neighborhood Commercial classification designates areas for limited shopping and basic services for the immediate area and are generally no larger than five (5) acres in size. Neighborhood Commercial uses are typically, but not always, located along major collectors or arterials. Small scale retail and service uses under 25,000 square feet per user or stand-alone building are permitted.

Community Commercial (CC) Community Commercial areas provide the commercial and service needs of residents in the surrounding area. These parcels are typically located along arterials, range in size between five (5) and fifteen (15) acres and a single user or stand-alone building under 50,000 square feet is permitted. Loft residential and mixed-used development is allowed within this zoning category.

Shopping Center (SC) The Shopping Center classification designates areas for many of the commercial needs of residents in the surrounding area and within the site if designed as a mixed-use project. Shopping Centers are typically located at arterial intersections. Shopping Center designations are anchored by a grocery store or other medium scale uses under 75,000 square feet per user or stand-alone building and are developed under unified control with a common architectural theme and shared parking. Shopping Centers are typically located on a parcel between fifteen (15) and forty (40) acres and may be developed as a mixed-use project.

Village Center (VC) The Village Center classification designates areas for classical mixed-use, pedestrian-oriented core activities which consist of retail shops, restaurants, offices, lodging, entertainment, public plazas and very high density residential units. Village Center offers the opportunity for diverse patronage served by all modes of transportation. The pedestrian oriented core will initially be served by shared parking lots and ultimately by shared parking structures. Residential uses within the Village Center area will range up to 50 du/acre, often with commercial or office uses on the ground floor.

General Commercial (GC) The General Commercial classification designates areas for freestanding retail, office and commercial uses that may be developed as individual projects or as a mixed-use development with loft residential as an option. General Commercial provides locations for uses of any scale, including large-scale uses over 75,000 square feet such as home improvement stores, large specialty retail, auto dealers and retail nurseries. Properties of any size may be designated as General Commercial. General Commercial parcels are located along arterial streets.

Regional Commercial (RC) The Regional Commercial classification designates areas for a broad range of high intensity uses emphasizing retail commercial uses. There is no maximum size for any use. The designation includes uses permitted in all other commercial categories plus regional shopping centers, hospital/medical centers, hotels/motels and mixed-use developments. The Regional Commercial classification may also accommodate high density residential development where

residential uses are closely integrated with retail/office uses in a compact development containing urban amenities. Regional Commercial serves a broad market area larger than the Town. Regional Commercial designations are thirty or more acres and are located at freeway/arterial intersections or at intersections of arterials with Roads of Regional Significance.

Employment Classifications

Neighborhood Office (NO) The Neighborhood Office classification designates areas for small-scale, single story office uses and complexes adjacent to existing or planned neighborhoods. It is a transitional classification between residential and more intense commercial uses and can buffer residential uses from arterial streets.

General Office (GO) The General Office classification designates areas for large scale, single or multi-story medical, professional, general or service-type office uses. The only residential land uses allowed within the General Office classification are loft units above non-residential within a mixed-use project.

Business Park (BP) The Business Park classification designates areas for office and light industrial uses, including high technology and research and development firms. This classification encourages an attractive campus-style environment. Developments within this classification may include employee-oriented, on-site amenities, loft residential and accessory uses allowing for a mixed-use environment.

Light Industrial (LI) The Light Industrial classification designates areas for a variety of light industrial uses, including assembly, light manufacturing, warehousing, offices, contractors' yards, laboratories, and research and development firms. Outside storage fully screened from public view is permitted.

General Industrial (GI) The General Industrial classification designates areas for general industrial uses, including but not limited to heavy utility, truck terminals and manufacturing facilities, in which outdoor storage of materials, equipment and vehicles is permitted.

Municipal/Institutional Classifications

Public Facility/Institutional (PF/I) The Public Facility/Institutional classification designates areas for public and quasi-public ownership, including administrative offices, corporation yards, police and fire stations, public and private

schools, colleges, hospitals, libraries, post office facilities, cultural centers and similar uses. This category also includes traditional utility service uses such as wastewater treatment plants, water treatment plants, storage reservoirs and tanks, well sites, telephone company sites, electric substation sites, electric generating/receiving stations, etc.

Parks/Retention (P/R) The Parks/Retention classification designates areas for parks, riparian areas, and drainage corridor/wash areas that will remain in public or open space use whether publicly or privately owned.

Utility/Transportation Corridor (U/TC) The Utility/Transportation Corridor classification designates areas for canals, railroads, light rail, power lines, utility easements and the Loop 202 Santan Freeway corridor. These areas may include multi-modal trails systems, open spaces and green belts.

Golf Course (GC) The Golf Course classification designates areas for public and private golf courses, including ancillary functions such as maintenance facilities, clubhouses, driving ranges and pro-shops.

Sources of Aggregates

Arizona Revised Statutes Section 9-461.05,c.1(g) requires the land use element to include sources of currently identified aggregates from maps that are available from state agencies, policies to preserve currently identified aggregates sufficient for future development and policies to avoid incompatible land uses.

Maps obtained from the Arizona Department of Mines and Mineral Resources that identify the location of aggregate mining operations and the associated geographic index indicate there are no currently identified sources of aggregate within the town of Gilbert's municipal planning area as of June 2012. Only fine sediments are known in the surface within Gilbert's planning area. Most aggregate is trucked in from the Gila River to the south or the Salt River to the north. Crushed stone comes from a variety of areas but mainly areas to the east of Gilbert.



LAND USE AND GROWTH AREA

2.6 Implementation Strategies

	Land Use and Growth Area	Responsible Entity	Complete By
1.	Develop a residential density bonus program for mixed-use projects that includes specific performance criteria. These criteria should include provisions for any of the following: housing, multi-modal or transit-oriented development, dedicated infrastructure improvements and park/open space dedication.	Planning	Ongoing
2.	Coordinate with Town of Gilbert Business Development to locate new business opportunities in Gilbert especially focusing on properties within the Growth Areas.	All Departments	Ongoing
3.	Create incentives for new employment and commercial development that is located within Growth Areas.	Planning	Ongoing, Review Periodically
4.	Establish standards for green design and energy efficient developments.	Planning	2012-2013, Review Periodically
5.	Coordinate infrastructure financing and improvements with existing and projected development activity.	Development Services Public Works	Ongoing
6.	Develop mixed-use guidelines consistent with the land use designation framework.	Planning	2013-2014

7. Develop alternatives to allow agriculture-related or other small businesses in residential districts.	Planning	Ongoing
8. Examine adding additional flexibility within Employment Use classifications.	Planning Business Development	Ongoing



Growth Area Development



CHAPTER 3 CIRCULATION



Transportation Modes

Provide a safe, efficient and
aesthetically pleasing circulation network
that considers all modes of vehicular and
non-vehicular movements and does so in a
manner that is sensitive to the environment.



Pedestrian Friendly Areas



INTRODUCTION

The Circulation Element of the Gilbert General Plan provides the policy framework for a comprehensive transportation system including: vehicular right-of-way, transit routes, pedestrian paths, bicycle lanes, trail and equestrian facilities. Each supports and is coordinated with the Land Use element. The Circulation Element is presented in the following sections:

- Existing Conditions
- Issues
- Goals and Policies
- Implementation Strategies

The Circulation Element balances development and land use with future transportation and transit demands. This element presents existing transportation conditions and identifies a variety of issues important to the community in the future. An examination of future conditions correlates the future development with transportation system needs and provides an approach for dealing with those needs in a manner that is both financially feasible and generally acceptable to the community.

A Circulation Map identifying both streets and freeways is located in the exhibits. An Alternative Modes Map identifying Gilbert's local and express bus routes and future high capacity transit and commuter rail corridors is located in the exhibits.



CIRCULATION

3.1 Existing Conditions

A) Street System Inventory

The key to maintaining a balanced transportation system exists in the ability to adequately plan for roadways that minimize through traffic in neighborhoods, while at the same time coordinating land use and transportation plans in order to capitalize on the efficient movements of people and goods. To accomplish this objective, a hierarchy of streets known as a Functional Classification of Streets has been established. The functional classification scheme coincides with the adjoining communities to ensure consistency as roads enter and leave Gilbert. The Town has defined a functional classification system consisting of the following roadways:

Freeway

Freeways are high-speed, limited access facilities that provide inter- and intraregional access with grade separated interchanges with arterial streets. The Town of Gilbert has direct access to two freeway systems that include: US 60 (Superstition Freeway) and Loop 202 (Santan Freeway).

Arterial Streets

Arterials are high capacity roadways that carry large volumes of traffic between areas of high residential density, employment, retail and commercial land uses. Arterial streets provide limited direct access to abutting land uses.

The north-south arterials consist of:

- Arizona Avenue (State Highway 87)
- McQueen Road
- Cooper Road
- Gilbert Road
- Lindsay Road
- Val Vista Drive

- Greenfield Road/Santan Village Parkway
- Higley Road
- Recker Road
- Power Road

The east-west arterials are:

- Baseline Road
- Guadalupe Road
- Elliot Road
- Warner Road
- Ray Road
- Williams Field Road
- Pecos Road
- Germann Road
- Queen Creek Road
- Ocotillo Road
- Chandler Heights Road
- Riggs Road
- Hunt Highway

Baseline, Warner, Germann, Riggs, Arizona Avenue, McQueen, Gilbert, Val Vista Roads, as well as Hunt Highway are designated as major arterials over their entire length in Gilbert. Guadalupe, Elliot, Queen Creek, Ocotillo, Chandler Heights, Cooper and Lindsay Roads are designated as minor arterials over their entire length. Elliot, Ray, and Pecos Roads carry both major and minor arterial designations in Gilbert. Recker Road has sections designated as major collectors and is discontinuous south of Pecos Road. Greenfield is a minor arterial that changes to San Tan Village Parkway and classification to Major Arterial for a two and a half mile stretch near San Tan Village Mall.

In the Gateway Character Area, that portion of Williams Field Road from Higley Road to Power Road is designated as a minor arterial with a unique street section and design.

The Town of Gilbert also includes Roads of Regional Significance (RRS) in the arterial network. RRS were developed to complement the Phoenix Metropolitan freeway network by providing a three to six mile grid of roads built to a high level of design.

The arterials Roads of Regional Significance in Gilbert are:

- Gilbert Road
- Power Road
- Warner Road
- Germann Road
- Riggs Road

The proposed design guidelines for RRS will not be interpreted rigidly in Gilbert as implementation is not fully feasible. This is particularly true in the Heritage District where implementation of the right-of-way and access requirements on Gilbert Road would conflict with plans to create a pedestrian-friendly downtown.

Collector Streets

Collector streets provide connections between arterial roadways and local streets linking residential, employment and commercial areas. Collector streets strengthen the continuity of the street network and establish an interconnected street pattern between the mile arterial grid. An interconnected collector street grid provides multiple routes, diffuses automobile traffic and provides better accessibility for non-motorized traffic.

Local Streets

Local streets are designed primarily to provide access to property and secondarily to move local neighborhood traffic. Local streets carry low volumes of traffic traveling at lower speeds. The Circulation Map does not identify local streets.

B) Alternative Modes

The existing and planned systems for alternative modes of transportation within Gilbert include the following:

Public Transit

Valley Metro provides bus service to Gilbert under contract with the Regional Public Transportation Authority (RPTA). Daily express and local bus service is available in the northern, central, and western areas of Town.

The Circulation Element recognizes that high capacity transit, including bus rapid transit and commuter rail, may become feasible in the future. The MAG Commuter Rail System Study (2010) defines a southeast commuter rail corridor through Gilbert

connecting central Phoenix with Queen Creek. Commuter rail systems are designed to primarily meet the needs of regional commuters in the am and pm peak travel times. The MAG System Study concluded that of all the rail corridors studied, the southeast corridor would offer the highest ridership by a significant margin, substantial travel time savings, and would be the most cost effective of the routes. Two future rail transit station sites are identified along the Union Pacific Railroad line—one west of Gilbert Road in the Heritage District, and one south of Williams Field Road in the Gateway Character Area. A park-and-ride lot has been established within the Heritage District downtown area. This park-and-ride lot would complement a future downtown rail transit station site.

The Town has identified high capacity transit corridors and facilities. Williams Field Road is designated as a high capacity corridor to link destinations in Chandler through destinations in Gilbert to ASU Polytechnic campus, Chandler-Gilbert Community College and the Phoenix-Mesa Gateway Airport in Mesa. Gilbert anticipates a light rail alignment within the Town at some future point. The location and timing will be dependent upon the regional location of the line and availability of funds to complete the project."

Future park-and-ride facilities are proposed near Val Vista and Germann Roads and Williams Field and Greenfield Roads and Higley and Riggs Roads.

Bicycle

Street sections for arterial and collector roads include bicycle lanes. An extensive network of off-street bicycle and multi-use paths exist within existing and planned communities, along canals, utility corridors and railroad lines, where applicable, and are planned along the Loop 202 Santan Freeway corridor.

Pedestrian

Pedestrian facilities, primarily sidewalks, exist along the majority of the street system except in very low density residential areas and some industrial areas. Extensive off-street pedestrian trail linkages are addressed in detail in the Parks, Open Space, Trails, Recreation and Arts and Culture element.

Equestrian

A number of equestrian trails exist in the Gilbert Planning Area. The network is not fully developed and the increasing degree of urbanization has reduced the number of farm roads/trails. Policies in the Parks, Open Space, Trails, Recreation and Arts and Culture element require the connection of multi-use trails in new development to

allow older large lot subdivisions with horse privileges to connect to parks and other equestrian facilities.

Multi-Use Corridors

Multi-use corridors, combining two or more alternative modes of transportation, will be incorporated into the town wide circulation and trails system. The planned trails network is shown in the Parks, Open Space, Trails, Recreation and Arts and Culture element.



CIRCULATION

3.2 Issues

Current and potential transportation issues expected to be of concern over the next ten to twenty years include:

- Need for a Transportation Master Plan to create long-range objectives for the Town's circulation system.
- Need to create a connected, safe, multi-modal path system adjacent to arterials that is comfortable for pathway users.
- Need to develop a network for alternative modes to and within the Heritage District.
- Need for improved local and regional transportation/transit service and parkand-ride facilities.
- Need to structure local circulation policies and strategies to minimize adverse climate change impacts.
- Renewal and maintenance of existing right-of-way landscaping and streets.
- Collector connections between neighborhoods and commercial services.
- Regional continuity with adjoining communities, i.e. arterial-to-arterial or collector-to-collector.
- Funding and scheduling for Capital Improvement Projects to meet the needs of a growing community.



CIRCULATION

3.3 Goals and Policies

Goal 1.0

Create safe and efficient patterns of circulation.

- **Policy 1.1** Promote the safety of turning lanes and driveway curb cuts through access management.
- **Policy 1.2** Continually assess accident experience to determine the need for traffic control measures.
- **Policy 1.3** Annually review plans for safe routes to and from schools.
- **Policy 1.4** Utilize traffic calming devices and techniques to reduce speeds and minimize cut-through traffic in neighborhoods.
- **Policy 1.5** Design street sections to be pedestrian and non-motorized vehicle friendly.
- **Policy 1.6** Encourage developers of residential, commercial, industrial and employment uses to extend or establish an interconnected collector street system with adjacent properties.
- **Policy 1.7** Encourage gated neighborhoods to not interrupt the natural flow of traffic from arterial and collector roads and remain accessible to pedestrian and bicycle traffic.

Goal 2.0

Provide aesthetically pleasing circulation systems.

Policy 2.1 Utilize roadway right-of-way design standards and streetscape standards that generate attractive landscaped areas and accommodate pedestrian/equestrian/bicycle activity.

Policy 2.2 Encourage the installation of utility and cable equipment in locations to be screened from street view.

Policy 2.3 Provide landscaped entry features in all new developments.

Policy 2.4 Provide attractive "Welcome to Gilbert" signs at arterial street gateways to the Town.

Goal 3.0

Provide for and encourage use of non-vehicular modes of circulation.

Policy 3.1 Encourage new development to establish pedestrian, equestrian, multiuse and/or bike paths consistent with the development's theme.

Policy 3.2 Connect neighborhoods, school sites, activity centers and recreational sites with sidewalks, trails and bikeways.

Policy 3.3 Encourage dedication of public access easements and rights-of-way through the development process to create connected public trails, paths and bicycle routes.

Policy 3.4 Enhance the quality of life through multi-use trails allowing equestrian movement from neighborhoods to the Town of Gilbert Central Trail System.

Policy 3.5 Continue to develop agreements with the RWCD, SRP and Maricopa County Flood Control District to secure easements and rights-of-way for trails and paths where appropriate.

Goal 4.0

Continue to provide regional public transportation service to Gilbert residents and employers.

Policy 4.1 Consider the needs of the general public and the special needs of the elderly and individuals with impaired mobility in the planning and operation of transit services.

Policy 4.2 Provide park-and-ride facilities in several locations for carpooling and commuter bus service.

Policy 4.3 Provide shaded, safe, well-lit and aesthetically pleasing bus stops for regional and local bus users. Provide trail and bicycle connections to express and

local bus stops. Ensure convenient pedestrian access from bus stops to adjacent commercial and residential projects.

Policy 4.4 Continue to plan for future linkages to regional commuter and/or light rail transit.

Policy 4.5 Preserve transit corridors for high speed transit (Bus Rapid Transit and Commuter Rail).

Policy 4.6 When intersections are improved and/or widened, build bus pullouts for both existing and future transit routes as appropriate.

Policy 4.7 Encourage large retail developments adjacent to identified transit corridors to designate parking for park-and-ride lots.

Goal 5.0

Integrate transportation and land use.

Policy 5.1 Design projects for multiple choices of transportation.

Policy 5.2 Continue to provide Valley Metro bus routes through Gilbert. Expand frequency of service and add additional routes as funds and demand dictate.

Policy 5.3 Develop mixed-use activity centers including support services, shops, employment, residential and entertainment uses as a trip reduction and greenhouse gas reduction strategy.

Policy 5.4 Include park-and-ride facilities in activity centers to encourage drivers to utilize alternative methods of transportation.

Policy 5.5 Regional employment centers should be served by multi-modal transportation systems (i.e. streets, trails, bikeways, paths, and transit).

Goal 6.0

Insure all modes of transportation connect efficiently both within the Town and to similar facilities in adjacent jurisdictions.

Policy 6.1 Coordinate with adjacent communities to provide an interconnected system of pedestrian ways, equestrian trails, bikeways, multi-use trails and transit routes across jurisdictional lines.

Policy 6.2 Coordinate with adjacent communities to provide similar street cross-sections for continuous major and minor arterials.

Policy 6.3 Provide a north-south bike route within the Heritage District.

Policy 6.4 Provide multi-use trails accessing the Central Trail System.

Policy 6.5 Provide on-street bicycle lanes along selected arterial and collector streets as identified by Town Standards.

Policy 6.6 Encourage all new development to build the segment of the Gilbert Trail System that is adjacent to the development, if no trail exists. Provide public access easements on the trail.

Policy 6.7 Work with Maricopa County to develop unincorporated arterial street segments within the Town planning area. Use Town and County funds to improve scalloped street segments throughout the Town.

Goal 7.0

Insure accessibility throughout the circulation system.

Policy 7.1 Reduce physical barriers between neighborhoods to encourage accessibility.

Policy 7.2 Enhance access for people with impaired mobility. Ensure that people with disabilities are provided with equal access to work, home and community destinations by enforcing applicable state and federal accessibility laws.

Policy 7.3 Promote public and private construction of timely and financially sound infrastructure expansion through the use of infrastructure funding and finance planning coordinated with development activity.

Goal 8.0

Provide reasonable levels of service on all arterial roads.

Policy 8.1 Signalize intersections when traffic volumes and safety warrants are met. Interconnect traffic signals to improve progression and manage traffic flows with computerized traffic management systems.

Policy 8.2 Plan street facilities with adequate rights-of-way. Require the established minimum rights-of-way and lanes for Town streets, based on their classification.

Policy 8.3 Design townwide networks to balance the safe and efficient movement of traffic with the need to safely access these networks from the local level and reduce pressure to use regional networks for townwide trips.

Policy 8.4 Use technology and design practices (such as uniformly spaced traffic signals, coordinated timing sequences, and "intelligent" traffic management systems) to create a safe and efficient flow of traffic on Gilbert's major streets, optimize travel, increase corridor capacity, reduce traffic congestion, more efficiently move people, goods and information throughout the networks.

Policy 8.5 Emphasize mixed-use relationships in land use decisions that will reduce the distance and frequency of automotive trips and support alternative modes, such as pedestrian paths, equestrian trails, bicycle routes, transit, telecommuting and technology for moving people and information.

Policy 8.6 Provide for alternative modes of transportation on townwide corridors that are reasonably accessible to all socio-economic and demographic groups within the community.

Policy 8.7 Encourage an active partnership between Gilbert citizens, government, and businesses in the development and implementation of transportation and technology solutions such as coordinating and encouraging alternative business hours, telecommuting and flexible employee scheduling to help reduce traffic congestion at peak times and the number and distance of automobile-dependent trips.

Policy 8.8 Use Transportation Demand Management (TDM) techniques such as trip reduction, flexible schedules, participating in a transportation management association, etc. to reduce capacity demands on transportation networks.

Policy 8.9 Ensure that telecommunications and utility providers efficiently use rights-of-way and locate, install and maintain their facilities in a manner that minimizes traffic disruption and visual impacts.

Policy 8.10 Use Intelligent Transportation Systems (ITS) technology to help congested corridors by improving vehicle movement, monitor changes in traffic volumes and travel patterns and adjust signal timing accordingly.

Create a Transportation Master Plan based on total Town build out.

Policy 9.1 Study ways to make automobile, transit and other multi-modal circulation more efficient and economical while providing a rational pattern of land development.

Policy 9.2 Review and analyze intelligent transportation alternatives.

Policy 9.3 Provide designated routes for all modes of transportation including pedestrian, bicycle and equestrian.

Policy 9.4 Plan for future multi-modal transportation to the Growth Areas within the Town to help reduce trips.

Policy 9.5 Create a build out of land use mass model.

Policy 9.6 Prioritize transportation improvements for inclusion in the Town's Capital Improvement Program (CIP).

Policy 9.7 Include constraints such as time, budget and long term maintenance.

Policy 9.8 Continue a CIP process that uses a financial analysis to quantify costs in both the short and long term.



Gilbert Bicyclists



CIRCULATION

3.4 Implementation Strategies

	Circulation Element	Responsible Entity	Complete By
1.	Develop a Town wide Transportation Master Plan that identifies deficiencies within the existing network and accommodates future transportation corridors.	Traffic Engineering	Ongoing
2.	Require Traffic Impact Analysis of significant new residential, industrial, office and commercial development. Depending on the scale of the project, Traffic Impact Analysis will require different levels of evaluation. These different levels are: 1) Access Analysis: to review curb cut requests and assist with site plan approval, 2) Traffic Impact Study: to analyze impacts to adjacent streets as a result of major projects and to identify mitigation measures; and 3) Transportation Plan: major projects require special analysis and design related to the roadway network traffic flow and mitigation of impacts.	Planning Traffic Engineering	Ongoing
3.	Maintain the functional integrity and safety of the arterial system through access control on arterial streets.	Traffic Engineering	Ongoing
4.	Maintain the ongoing Transportation System Management (TSM) Short-Range Improvement Program, including the following improvements to enhance safety and traffic operations: • Speed limit evaluations • Upgrading of signing	Traffic Engineering Engineering	Ongoing

 Installation of left turn arrows Installation of turn restrictions Upgrading of pavement markings Installation of raised pavement markers Spot geometric improvements to eliminate hazardous conditions Installation of safety lighting at major intersections 		
 Closing of selected curb cuts Maintaining intersection sight triangles Installation of raised medians Traffic signal synchronization and integration of signal timing with adjacent communities 		
5. Conduct a Community Transit Needs/ Feasibility Study, considering both the need for improved regional connections to adjacent communities, and the need for intra-community service, possibly in the form of fixed route local bus. It should also evaluate future park-and-ride facility needs. The existing RPTA regional transit plan, which encompasses all of Maricopa County, could be used as a foundation.	Traffic Engineering Town Manager's Office	Ongoing
6. Improve collector streets as required by increasing traffic volumes within the community. The Town shall look at all available public and private funding sources to finance these improvements.	Development Services Public Works	Ongoing
7. Conduct periodic community-wide Traffic Volume Counts as a basis for future planning as new roadways are constructed. Average daily traffic and manual turning movement counts should be conducted periodically at key intersections, particularly at those with high accident rates or rapidly increasing traffic volumes.	Traffic Engineering	Ongoing
8. Continue to eliminate scalloped streets and build these streets to their ultimate section design. Coordinate with Maricopa County Department of Transportation to eliminate scalloped streets	Development Services Public Works	Ongoing

located within County islands. The Town shall look at all available public and private funding sources to finance these improvements.		
9. Implement an identification and mitigation program for high accident locations. The Town Traffic Engineer should regularly review police data on traffic accidents, flag high accident locations, and implement appropriate mitigation where technically and financially feasible.	Traffic Engineering	Ongoing
10. Develop neighborhood traffic control plans to deter visitor through traffic from using local streets as "short cuts" through residential neighborhoods. Appropriate steps vary from neighborhood to neighborhood, but may include improved guide signage, turn regulations, "speed humps"; and, in extreme cases, physically closing off streets or creating cul-de-sacs. It is important that such measures preserve adequate access for legitimate local traffic, especially emergency vehicles.	Traffic Engineering	Ongoing
11. Develop guidelines for Urban Heat Island mitigation by developing criteria for the use of "cool pavement" technology and engineered green spaces when developing new roads and renovating existing roads.	Planning Engineering	Ongoing
12. Develop a Town sponsored pilot project to explore the uses of "cool" technologies in new development/redevelopment. Utilize Arizona State University cool pavement technologies.	Planning	
13. Develop transit policies and design standards for transit facilities including shelter design and location, bus pullouts and major transit centers.	Traffic Town Manager's Office	Ongoing
14. Evaluate all planned road projects for bicycle, pedestrian and transit components.	Planning Traffic Engineering	Ongoing

15. Maintain compliance with Americans with	Planning	Ongoing
Disabilities Act for pedestrian movement along Town sidewalks, paths, trails and pedestrian crossings within Town right-of-way.	Traffic Engineering	
16. Attend Maricopa Association of Governments (MAG) meetings to stay informed on issues relating to: commuter rail, Power Road and MAG standards.	As Scheduled	Ongoing



CHAPTER 4

PARKS, OPEN SPACE, TRAILS, RECREATION, ARTS AND CULTURE



Gilbert Community Center

Gilbert encourages the health and well-being of its residents through diverse recreational opportunities. The Town offers safe, well maintained facilities, parks and open spaces, including, locally and regionally connected multi-use trails, equestrian paths and bicycle lanes. Our community also fosters arts and cultural experiences.



INTRODUCTION

As the community has grown, Gilbert has steadily added to its system of parks, open space and trails through cooperative public and private efforts. Parks provide visual appeal, promote healthy lifestyles and give a sense of pride to neighborhoods.

Public parks coupled with nearby attractions and services are often the "engine" that drives tourism in a community. Parks also moderate artificially higher temperatures from the urban heat island effect through shading and evapotranspiration. Parks and open spaces help to define the character of the community by creating beauty, breathing room and value.

"Kids need more interactive opportunities" -- Resident at Open House Meeting The Parks, Open Space, Trails, Recreation and Arts & Culture Element will guide decision making to ensure that as the Town develops, residents will continue to have access to the parks, trails and open spaces that are part of the foundation of Gilbert's lifestyle. Locations for bike paths are planned to assist with non-vehicular connections. A new section for Arts & Culture has been added to this

Chapter to develop a long range plan to bring art to public places to be enjoyed by all. This Chapter combines the statutorily required elements for Open Space, Recreation and Bicycling. This Chapter also includes goals, policies and implementation strategies that will help carry out the Town's vision for these amenities in the following sections:

- Parks and Open Space
- Trails
- Recreation
- Arts and Culture
- Needs Analysis
- Goals and Policies
- Implementation Strategies



4.1 Parks and Open Space

Background

The Town of Gilbert's goal is that every person in the Town will have convenient access to safe public parks and affordable recreation opportunities. Parks and open space play vital roles in:

- Promoting the importance and value of leisure
- Enhancing community vitality
- Supporting human development and social ties
- Promoting health and personal wellness
- Providing a quality of life
- Attracting new businesses
- Connecting one with nature
- Fostering environmental stewardship

Private development has had a great role in the development of parks and open spaces by providing local accessible Neighborhood Parks/Tot Lots under the auspices of a Home Owner's Association (HOA). In addition, HOA's provide open space areas with retention areas and landscaped tracts along roadways. These sites, though not equipped or large enough to provide large sports facilities or recreation centers, do add a considerable amount of additional acres to an overall inventory of parks and open space. There are numerous commercial recreation and open space facilities vital to our community as well. These include golf courses, lakes, health clubs, swim clubs and dance studios.

Definitions

<u>District Park</u>: Parks of thirty (30) or more acres are designed to accommodate residents within a three-mile radius and provide a wide variety of activities. These parks include play apparatus, lighted and non-lighted game courts and/or game fields, picnic tables, restrooms, potable water, multi-purpose trails, activity centers and parking areas. They may include special use areas for swimming, biking, skating, dogs, equestrian or other specialized recreational activities.

The Town owns seven developed District Parks and manages one Maricopa County property, Rodeo Park. Most of these parks are located along the major regional trail systems allowing multi-modal connectivity with neighborhoods and other community destinations.

Neighborhood Parks/Tot Lots: A one-quarter to six (6) acre park serves as a neighborhood's



Gilbert Neighborhood Park

recreational and social focus. These parks may include some on or off-street parking, low-level lighting, potable water, shade, seating, outdoor gathering areas and a turf open space area for sports play. They generally include landscaped paths, sports courts and play structures. Connectivity to the surrounding area, by way of residential streets, bike lanes, sidewalks and interconnecting trails are vital to the park's success. These parks

may be associated with open spaces in retention areas or within landscape tracts. These parks are intended to provide convenient play areas for small children and informal gathering areas within walking distance of one's home. These types of spaces are typically privately owned and maintained by the Home Owner's Association (HOA's) and designed for primary use by the subdivision residents only.

<u>Special Use Park</u>: Special Use Parks and facilities are planned to be publicly or privately owned and maintained on public lands. They are designed and maintained to meet specific community needs and are not defined by size. They may include skate parks, aquatic centers, riparian habitat preserves, specific sports fields (e.g., soccer fields), dog parks and equestrian centers.

<u>Open Space</u>: Open Space includes passive and active areas such as floodways and floodplains, retention/detention areas, urban farms, school lands, golf courses and open space buffers.

The Town's guidelines for residential, commercial and industrial development address desired open space buffers. Open space may be publicly or privately owned and maintained. In Gilbert, these open space areas are typically classified on the Land Use Map as Golf Course, Parks/Retention, Public Facility/Institutional or Utility/Transportation Corridors.

<u>Linear Parks and Linkages</u>: Since the linear parks traverse miles through the Town, they are interrupted by roadways and development; therefore, in order to provide safe routes and linkages, crossings have been planned at strategic locations. The Town's Bicycle and Canal Trail map illustrates locations for existing and planned canal crossings and park-and-rides. These crossings, along with other amenities, are located along the linear parks and they have been partially funded by grant monies. Improvements made and planned to these linear parks include multi-use trails, amenities at rest areas and trail crossings. The trail along the Loop 202 Santan Freeway and the utility corridors continue to provide improvements with each development.



Neighborhood Connection to Western Powerline Trail



Hetchler Park-Soccer Complex



Freestone Park



Cosmo Dog Park



4.2 Trails

The Town of Gilbert currently maintains approximately thirty (30) miles of trails and shares several major trail connections with the surrounding municipalities of Queen Creek, Mesa and Chandler. Multi-use trails are located within the Town's Central Trail system which consists of canals, utility corridors, the Loop 202 Santan Freeway and the Union Pacific Railroad. A Bicycle and Canal Trail Plan Map is included in the exhibits. Additional multi-use trails are planned along Riggs Road, Chandler Heights Road and Hunt Highway. In addition, many trails connect through private development and provide connections to regional destinations. The General Plans for Gilbert and Queen Creek identify both Queen Creek Wash and Sonoqui Washes as major equestrian, bicycle and pedestrian trails through the communities. These trails connect to parks, the San Tan Mountains and the San Tan Regional Park managed by Maricopa County.



Powerline Corridor/Central Trail



Western Powerline Trail

The most significant linear parks in Gilbert are noted on the Parks, Open Space, Trails and Recreation Plan Map, included in the exhibits, as the Central Trail. These trails, or linear parks, consists of three canals (Consolidated Canal, Eastern Canal and the RWCD Canal) that traverse through the planning area in a north-south direction and the Western Canal running in the east-west direction along the Loop 202 Santan Freeway and within utility corridors. The natural corridors of Queen Creek Wash and Sonoqui Wash also serve as linear parks. These linear parks provide buffers between land uses, recreation for a variety of activities and link other parks, open space and trails together. Since Gilbert is relatively flat, these linear parks provide great opportunities for safe pedestrian and bicycle routes.



4.3 Recreation

Gilbert's recreational facilities are an important part of what makes the town a desirable place to live. The Town continues to invest in its infrastructure and public facilities as resources are available. This investment requires a strong emphasis on maintenance, rehabilitation and modernization. The Town is also committed to providing new services in areas that are under-served and in areas where change is expected in the future.

Gilbert has a variety of facilities to provide public recreation including community centers, cultural centers and special use facilities and parks. Special use parks have a community or region-wide service area, depending on the type of facilities they contain. The Town currently offers opportunities for equestrian trail riding, ice-skating, dog exercise and training, rodeo activities, replica baseball fields and wildlife observation. Gilbert also is committed to creating natural habitats as an integral part of its wastewater reclamation activities.

Riparian Preserves and the Riparian Institute

The Town of Gilbert has developed the means to conserve water and habitat in unique areas referred to as riparian preserves. In three locations, with a total of approximately 320 acres, the Town uses reclaimed water to recharge groundwater and also maintain riparian habitat. These special use areas are important water and wildlife conservation areas that make Gilbert unique and a more sustainable community.

The Riparian Institute was created in 2000 to assist in conservation and education efforts for the preserves and to promote this type of sustainable development in other communities. The total number of visits since 2000 surpassed one million in the year 2010. The preserves have become a highly recognized tourist destination in the region. Experiential education opportunities by the Institute have expanded to meet high demand by tourist visits. The Interpretive Plan for the preserves serves as a five year plan for development. In addition, a strategic plan for the Institute has been developed for long range planning purposes and should be referred to for future decision-making.



4.4 Arts & Culture

Arts and Culture are important aspects in remembering our past, enhancing the quality of life in the present, and enabling the community to establish a common voice for the future. Arts and Culture strengthens neighborhoods and enhances residents to become involved in the community. By allowing for the appreciation of public art, Gilbert becomes more appealing to residents, businesses and visitors.

The Town of Gilbert does not have a revenue stream for public arts or cultural activities at this time. Despite having limited revenue sources, the Town has utilized public art in open spaces. Artwork that enables a community to view these artifacts without having to pay a fee for this viewing is a positive influence in the community.

Arts & Culture Definitions and Inventory

<u>Art</u>: Items of artwork, sculptures, or other property that displays a cultural aspect of our community. Art in Gilbert includes:

- Underpass artwork on roadways
- Water features in parks
- Sculptures in the plaza areas of public places
- Historical monuments
- Unique building features
- Artwork within buildings

<u>Public Art</u>: Historically, the majority of public art works have been stand-alone projects such as murals, monuments or memorials. More recently, the range of public art has expanded to include artwork integrated into infrastructures such as sidewalks, roads, bridges, power plants and waste disposal and water treatment facilities.

Artwork can also be added to an existing structure such as sculptural forms in a lobby or exterior courtyard or a mural on the ceiling or wall. Public art can also be a performance, a temporary exhibit or a portable works collection.

Unlike art in a gallery or a museum, public art is accessible to the public and frequently involves the community in its selection and creation. Public art can come in any form that incorporates original artistic design. In most cases, an artist is commissioned to create artwork for a specific location.

<u>Culture</u>: Examples include music, theatre, writings, poetry and community events. Culture is a complex mix of language, social structure, values, beliefs, expressions of heritage, art and customs.



Big League Dreams: District Park



4.5 Needs Analysis

The future brings a range of challenges in providing excellent parks, trails, recreational facilities and activities. Some of those issues include funding to acquire additional land and a renovation and maintenance plan for aging facilities. Ongoing activities include planning, construction and renovation of parks, trails and recreation facilities during build-out. As the community develops, open space areas now known as agricultural lands, will be converted to residential or commercial uses with limited land devoted for parks, retention basins or school grounds. The Town will need to work closely with these private developments to ensure connectivity through use of trails, potential for shared use and quality amenities.

The Town also recognizes that over time, there will be unique needs for Gilbert's changing demographics. An example of that need would be the specific recreational needs for an aging population. The Town's Capital Improvement Plan (CIP) and Program identifies the magnitude of costs to develop new parks and complete and renovate existing parks.

A Master Plan is needed that will include a comprehensive inventory of parks, open space areas, recreational facilities, trails and designations of access points to open space areas and resources. It should also formalize a mechanism to support the arts and culture and related activities and venues.

The analysis will include forecasted needs and policies for managing and protecting these resources. The analysis will also include staffing and budget resources that are necessary to meet the needs of residents in maintaining the expected quality of life.



Discovery Park Playground



4.6 Goals & Policies

Goal 1.0

Continue to enhance the quality of life for Gilbert residents by providing quality recreational and cultural opportunities.

Policy 1.1 Develop a ten (10) year Parks, Open Space, Trails, Recreation, Arts and Culture Master Plan that includes an inventory and analysis of the aforementioned aspects of this chapter with recommendations for resource management. The Plan should include inventory and analysis, community needs/goals and a ten (10) year action plan to maintain the current level of service, maintenance and operations within the Town's budget constraints.

Policy 1.2 Provide a variety of recreational experiences that meet acceptable design principles that are attractive, safe and easy to maintain. Provide for high visibility and use Crime Prevention through Environmental Design (CPTED) techniques when designing and building new facilities.

Policy 1.3 Encourage the use of renewable energy concepts such as Green Building, LEED principles and use of solar energy whenever applicable.

Policy 1.4 Provide a variety of amenities that are appropriately designed and equipped, age-appropriate and compliant with the Americans with Disabilities Act (ADA).

Policy 1.5 Work to provide, through the use of parks, trails and public art, visual relief from development, reinforcing the character of the surrounding neighborhoods and providing shade to reduce heat-island effects.

Policy 1.6 Develop parks that are connected to the Central Trail System as defined in this plan or identify direct routes between them. Public access easements may achieve this commitment.

Policy 1.7 Support the formation of volunteer citizen patrols to help keep parks, trails, open space and recreational facilities safe and secure.

Policy 1.8 Provide recreational opportunities within detention facilities used in conjunction within flood zones and regional transportation corridors, including the Loop 202 Santan Freeway.

Policy 1.9 Raise the awareness of the value of Arts and Culture by encouraging them in the community, including philanthropic organizations, businesses, individuals and government.



Neighborhood Connection to Western Powerline Trail

Goal 2.0

Pursue public/private partnerships to provide public or private assets related to this chapter.

Policy 2.1 Incorporate parks, recreational facilities and trails and with existing and future public facilities publically or privately funded projects. Also, encourage the inclusion of public art and the creation of art/cultural activities within these projects.

Policy 2.2 Continue to work with the Maricopa County Flood Control District for co-location of parks to provide a cost effective alternative to storm water management while providing useable space for community recreation.

Policy 2.3 Develop an integrated relationship between the Town, schools, religious facilities, HOA's and the private sector to ensure access to public recreational facilities and optimum use of parks and open space.

Policy 2.4 Create partnerships with local businesses to support interconnectivity between shopping destinations and park/trail systems.

Policy 2.5 Establish a Special Event policy that encourages cultural and physical fitness events in parks and on trails.

Policy 2.6 Develop natural habitats and wildlife viewing areas at public groundwater recharge sites and locate facilities at these sites for education and eco-tourism.

Policy 2.7 Encourage the development of formalized relationships between the Town of Gilbert, Maricopa County and other regional jurisdictions in order to share professional knowledge and responsibilities for the identification and protection of archaeological, historic and cultural resources.

Policy 2.8 Encourage new development to co-locate parks or open space areas with school facilities and existing parks, trails and recreational facilities that are consistent with adopted Guidelines.



Polar Ice Skating Rink: Crossroads District Park

Goal 3.0 Celebrate the heritage of Gilbert.

Policy 3.1 Encourage agricultural landowners/producers, large lot landowners and other groups to collaborate on agricultural easements, community gardens, Farmer's Markets and land preservation.

Policy 3.2 Encourage the growth of recreational related areas and facilities keeping an open, nonurban feel to Gilbert.

Policy 3.3 Provide a north-south bike route within the Heritage District.

Policy 3.4 Provide for facilities that enhance the unique identity of Gilbert as a leader in the preservation of and education about sustainable resources.

Policy 3.5 Foster the enhancement and expansion of Gilbert's existing historic/heritage district and landmark areas. The downtown Heritage District is a potential center for arts and culture serving the East Valley.



Riparian Preserve at Water Ranch

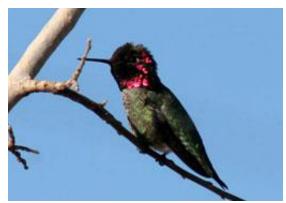
Goal 4.0

To be recognized as a premiere education and recreation destination demonstrating sustainable use of natural resources, activities for a diverse population and preservation of wildlife habitat.

Policy 4.1 Provide the best recreational facilitates and activities possible that cater to a diverse population, including wildlife.

Policy 4.2 Encourage additional recreational venues that can develop "citizen science" as a tourism element of the Town's economic development strategy.

Policy 4.3 Encourage community, public and private organizations to support the maintenance and operation of existing and new recreational facilities.



Riparian Preserve Wildlife

Goal 5.0

Provide sufficient resources to acquire, develop, upgrade and maintain parks.

Policy 5.1 Update the CIP annually.

Policy 5.2 Provide adequate funding for acquisition, construction and maintenance of recreational assets through bonds, system development fees, grants and other means.

Policy 5.3 Encourage community, public and private organizations to partner with the Town and support the maintenance and operation of all recreational assets.

Policy 5.4 Explore resources and partnerships for tournaments, signature or cultural events and festivals at the local, regional or national level.

Policy 5.5 Develop a long term maintenance strategy for parks.



Western Powerline Trail



Cosmo Dog Park



PARKS, OPEN SPACE, TRAILS, RECREATION, ARTS & CULTURE

4.7 Implementation Strategies

	1. Parks & Open Space	Responsible Entity	Complete By
1.	Fund and create a ten (10) year Master Plan that will include a comprehensive inventory of parks, open space areas, recreational resources, trails and designations of access points to open space areas and resources. The analysis shall include forecasted needs, policies for managing and protecting open space areas and resources.	Community Services Planning	Ongoing
2.	Adopt and implement design guidelines for public and private parks, trails and recreational facilities to ensure consistent development of these assets throughout the Town.	Community Services Planning	Ongoing
3.	Establish public park maintenance standards.	Community Services	Ongoing
4.	Plan for funding to meet future needs as established in Gilbert's Standards for District Parks facilities.	Community Services	Ongoing
5.	Annually update the maintenance plan to address aging facilities and asset management.	Community Services	Ongoing
6.	Annually budget sufficient resources to maintain the public parks, pursuant to the adopted maintenance standards.	Community Services	Ongoing
7.	Design and construct a District Park in the Santan Character Area.	Community Services Town Manager's Office	Long Term

8. Work with the Maricopa County Flood Control District to open the Eastern Maricopa Floodway for recreation use and amend the Eastern Maricopa Floodway Area Drainage Master Plan to reflect parks identified in this plan.	Intergovernmental Liaison Community Services Public Works	Ongoing
9. Allocate funding for the construction of Chandler Heights and Rittenhouse Basins in the Town's Capital Improvement Plan.	Community Services	2008-2012
10. Work with ADOT on the use or acquisition of detention basins for park purposes.	Town Manager's Office	Ongoing
11. Work with Phoenix-Mesa Gateway Airport on design of basins and recharge areas located near the airport.	Public Works	To be determined
12. Work with ASU Polytechnic on the co-use of old military ballparks and/or other parks as appropriate.	Community Services	Ongoing
13. Create a Riparian Area Overlay Zoning District for riparian areas including recharge facilities, canals, Queen Creek Wash and Sonoqui Wash and any other appropriate areas.	Planning Community Services Public Works	To Be Determined
14. Explore various methods to obtain land for Town of Gilbert District Parks.	Town Manager's Office	Ongoing
2. Trails	Responsible Entity	Complete By
Design, build, maintain and retrofit new and existing trails using new standards set by Parks Master Plan.	Community Services	Ongoing
2. Support Maricopa County in the completion of the Maricopa, Marathon Trails and other trail projects as well as the Queen Creek/Sonoqui Wash Trail.	Community Services Town Manager's Office	Ongoing
3. Work with the Town of Queen Creek in the design and development of the Queen Creek and Sonoqui Wash.	Community Services	Ongoing

4. Continue to develop partnerships between the Town and other entities, like MCFCD, RWCD, SRP, HOAs, non-profit organizations and local business.	Community Services Town Manager's Office	Ongoing
5. Work with RWCD for use of RWCD property on both sides of canals.	Community Services Town Manager's Office	Ongoing
6. Create and promote programs like "Adopt a Trail".	Community Services	Ongoing
7. Create trails interactive website with maps and information about trail safety and the Town's trail network.	Community Services	Ongoing
8. Design, adopt and implement the "share the trail" educational program and brochure.	Community Services	Ongoing
9. Actively participate in the National Trails Training Partnership and the Rails to Trails Conservancy Program.	Community Services Town Manager's Office	Ongoing
10. Participate in the League of American Bicyclist and become part of the National Recreational Trail System.	Community Services	Ongoing
11. Sign and stripe selected arterial and collector streets for bicycle lanes and maintain it as per Bicycle Plan.	Public Works	Ongoing
12. Work with the National Endowment for the Arts and other groups to provide art displays on trails.	Community Services	Ongoing
13. Protect equestrian trails and users by forming alliances with the Arizona Horse Council.	Community Services	Ongoing
14. Publish and update trail maps in related websites.	Community Services	Ongoing
15. Work with the Gila River Indian Community on establishing a 20 foot wide public access trail easement located on the south side of Hunt Highway to continue the trail planned by the City of Chandler.	Town Council Community Services Town Manager's Office	Ongoing

16. Work with ADOT to construct bridges with sidewalks and bike lanes on both sides of the bridge.	Community Services Town Manager's Office Public Works	Ongoing
17. Work with ADOT to use culverts under the Santan Freeway for pedestrian, bicycle and equestrian crossings.	Community Services Town Manager's Office Public Works	Ongoing
18. Continue to work with ADOT to obtain right-of- way along the Santan Freeway for the construction and retrofit of trails	Community Services Town Manager's Office	Ongoing
19. Establish and execute a plan for the construction of underpass multi-use trail grade-separated crossings of arterials and canals.	Community Services Town Manager's Office	Ongoing
20. Work with the City of Chandler on the design and development of the Brooks and Cloud Drive Trails.	Community Services Town Manager's Office	Ongoing
3. Recreation	Responsible Entity	Complete By
Recreation 1. Have the Parks & Recreation Advisory Board oversee progress of outlined goals and policies.	Responsible Entity Community Services	-
Have the Parks & Recreation Advisory Board		Ву
 Have the Parks & Recreation Advisory Board oversee progress of outlined goals and policies. Continue to develop partnerships between neighboring communities on the co-ownership of 	Community Services	By Ongoing
 Have the Parks & Recreation Advisory Board oversee progress of outlined goals and policies. Continue to develop partnerships between neighboring communities on the co-ownership of recreational facilities. Design future aquatic facilities for year-round use. Retrofit existing facilities with "bubble" enclosures 	Community Services Community Services	Ongoing Ongoing

4. Arts and Culture	Responsible Entity	Complete By
Have the Human Relations, Culture & Arts Promotion Commission oversee progress of outlined goals and policies.	Community Services	Ongoing
2. Fund and create a Master Plan that will include a comprehensive inventory of arts & cultural areas and resources. The analysis shall include forecasted needs, policies for managing and incorporating arts and culture resources into land use areas and entertainment districts.	Community Services Planning	Ongoing
3. Develop a plan for the utilization of the Downtown Heritage District, the Higley Performing Arts Center, and the Town's District parks and open spaces to be used for arts and culturally related events.	Community Services Town Manager's Office Development Services	Ongoing
4. Seek funding to build the stability and excellence of arts and cultural organizations, support arts education programs, and maintain the town's art collection and cultural facility infrastructure.	Community Services Town Manager's office	Ongoing
5. Provide increased opportunities for citizens of all ages to participate in arts and culture in schools and the community.	Community Services	Ongoing
6. Create new partnerships and collaborations that will lead to new synergies within the arts and cultural community.	Community Services Town Manager's Office	Ongoing
7. Develop parks, libraries, schools, community centers and historic buildings as venues for arts and cultural activities.	Community Services Town Manager's Office	Ongoing
8. Foster development of affordable office, rehearsal and meeting spaces for cultural organizations, spaces for the production of experimental works, and multi-use theater spaces that can house several groups collaboratively.	Community Services Town Manager's Office Development Services	Ongoing

9. Facilitate public/private partnerships that fund, develop, operate and maintain multi-use arts and cultural facilities.	Community Services Development Services	Ongoing
10. Plan, design and construct new cultural facilities through the town bond program.	Community Services Town Manager's Office Development Services	Ongoing
11. Explore the possibility of creating an art in private development program that includes incentives, requirements and /or funding mechanisms for inclusion of artwork and arts and cultural spaces in private development.	Community Services Town Manager's Office	Ongoing
12. Develop a signature public space that includes green spaces, shade and water features and can accommodate large public gatherings and arts and cultural activities.	Community Services Town Manager's Office	Ongoing



Freestone Park



CHAPTER 5

PUBLIC FACILITIES AND SERVICES



Freestone Recreation Center

Provide a high level of municipal services and facilities to properly serve the community in a manner that enhances quality of life, optimizes existing facilities and provides for future needs.



Gilbert South Area Service Center



Public Safety Complex



INTRODUCTION

The Public Facilities and Services Element of the Gilbert General Plan provides a framework for the development of public facilities and services.

The Public Facilities and Services Element discusses the forecasted needs of Gilbert for public services and infrastructure. This element presents the existing facilities and identifies a variety of issues and problems the community should be addressing.

This Element is presented in the following sections:

- Current Resources
- Needs Analysis
- Cost of Development
- Goals and Policies
- Planning Guidelines
- Implementation Strategies



4 Million Gallon (MG) Reservoir - Lindsay Road



PUBLIC FACILITIES AND SERVICES

5.1 Current Resources

A) Community Facilities

Gilbert maintains the Municipal Center (buildings I and II), the Southeast Regional Library, public library at Perry High School, the Lindsay Road Public Works Facility, several Parks and Recreation facilities, a Community Center and the Heritage Annex. The Town operates centrally from the Municipal Center located on Civic Center Drive. Public Works operates from a satellite facility within three miles of Town Hall. The Public Safety Complex, located on twenty (20) acres directly south of the current Municipal Center, houses police, fire administration and prevention bureau, Gilbert courts, Gilbert Prosecutor, a Maricopa County Justice Court. Parks, open spaces, trails and recreational facilities are addressed in the Parks, Open Space, Trails, Recreation and Arts and Culture Element.

B) Emergency Services

<u>Fire</u>

Administration and the Fire Prevention Division are located in the east wing of the Public Safety Complex. The Gilbert Fire Department maintains ten (10) stations spread throughout the incorporated areas of Town. They are generally located within two (2) miles of their most distant response location and the development of two (2) more stations is planned for the complete build out of Gilbert. The Gilbert Fire Department also provides fire protection for the unincorporated areas of Maricopa County located within Gilbert's Planning Area. The Gilbert Fire Department is part of a Fire/Emergency Medical Response System that serves the entire East Valley. The dispatch system is blind to boundaries or city limits, but rather sends the closest response unit, as determined by Global Positioning Satellite (GPS). This concept increases the depth of resources available to the Town and its surrounding communities.

Emergency Medical Services (EMS) has become a major part of the Department's activity comprising a majority of the total calls for service. Gilbert has paramedics

assigned to each responding unit. Ambulance transportation is contracted to a private ambulance provider.

The Fire Prevention Division is managed by the Fire Marshal and coordinates fire code enforcement related to new and existing construction. The Fire Marshal also directs the fire investigation functions for suppression activities with investigators. An additional function that has become integral to the Fire Prevention mission is Public Education, which incorporates several community programs and extends to almost all Gilbert schools.

The Gilbert Fire Department operates a warehouse and equipment maintenance facility behind Fire Station #1 on Williams Field Road, just east of the Loop 202 Santan Freeway. The Town also owns land near Lindsay and Germann Roads for a future public safety training facility.

Police

The Town of Gilbert maintains its own police force and services incorporated areas with 24-hour patrol. Headquarters is located at the Public Safety Complex directly south of the Municipal Center. The Public Safety Complex houses all police operations except for property and evidence storage that is in a facility adjacent to Fire Station #1. A sub-station is located at the South Area Service Center at Greenfield and Queen Creek Roads.

The Department currently seeks to maintain a 1.1 officers per thousand population ratio. The target ratio at build-out is 1.3 officers per thousand. During fiscal year 2009-2010, the department is staffed with 226 sworn officers and 116 civilians. At projected a build-out population of approximately 305,500 in the year 2030, the Department plans to employ 431 sworn officers (at 1.4 per 1,000) and 217 civilians. While officer per thousand ratios are a benchmark used by surrounding agencies, Gilbert attempts to base staffing requirements on a formula that measures unassigned time for officers. The nationally recognized formula forms the time and availability basis for proper implementation of community-oriented policing practices.

Maricopa County Sheriff's Office provides police protection to the unincorporated areas of the Community. There is a mutual aid agreement with the Gilbert Police Department. Gilbert also maintains intergovernmental agreements with the cities of Mesa and Chandler for the provision of radio network access and other police services. Gilbert is one of the subscriber agencies attached to the Mesa-Phoenix digital radio network. This network will address Gilbert's radio communication needs into the future and will require the construction of broadcast infrastructure within the Town limits. A capital improvement plan currently exists to complete this work.

C) Emergency Operations

The Town of Gilbert adopted the Emergency Operations Plan on November 16, 1999. The Plan was revised and approved by the Town on July 27, 2010. This Plan addresses natural and man-made disaster response and recovery activities within the Town of Gilbert. The plan addresses administrative field procedures for all levels of emergencies/disasters.

D) Courts

The Public Safety Complex houses the Gilbert Municipal Court and provides facilities for the Maricopa County Justice Courts.

E) Educational Facilities

Gilbert Unified School District encompasses the land extending beyond the Town's northern limits, with portions of the Chandler Unified and Higley Unified School Districts encompassing the southern areas. The Education Facilities Map in the exhibits indicates the existing and proposed sites for the three districts within the Gilbert planning area.

F) Water

Gilbert has been designated by the Arizona Department of Water Resources (ADWR) to serve potable water to the 46,720 acres of land located within the service area. Gilbert is located in the Phoenix Active Management Area as defined by the ADWR, which regulates the water use within Gilbert to ensure the potable supply is used efficiently, and to also minimize groundwater pumping. Gilbert has ordinances and policies in place mandated by ADWR which protect this essential resource. For specific information on the potable water supply, please see Chapter 7, Environmental Planning.

G) Reclaimed Water

The Town of Gilbert currently operates one wastewater treatment facility in the north area of the Town and has a partnership with the City of Mesa and Town of Queen Creek in the operation of a second wastewater treatment facility in the southern portion of the Town. Gilbert recycles all of the wastewater generated within the Town. Together, the plants produce approximately twelve million gallons per day of Gilbert reclaimed water and recharges approximately six (6) to ten (10) million gallons through four (4) recharge facilities. The reclaimed water is used to irrigate public parks, school grounds, golf courses and private open space areas. Two (2) of the recharge facilities, the Riparian Preserve at Water Ranch and the South

Recharge Facility, are open to the public and serve a dual purpose as parks with hiking trails and bird watching opportunities.

H) Sewer Service

Sewer service is provided to residential/commercial/employment projects developed in the Town. Some large lot subdivisions developed in the County, but annexed by the Town, and some older neighborhoods within the Town still use septic systems. Wastewater facility locations are indicated on the Public Facilities Map.

I) Solid Waste Collection and Disposal

Gilbert provides weekly collection of solid waste and recyclables from all residential units in the incorporated areas as an exclusive service provider. Monthly collection of uncontained items is also provided to residential customers. Commercial services are provided by the Town and private sector collection companies, as required by state law.

County residents located within the Gilbert planning area utilize privately owned services for solid waste removal.

J) Drainage

The Town of Gilbert requires on-site retention for all subdivisions and new development. Retention areas are designed to accommodate water runoff generated by a fifty (50) year, twenty-four (24) hour storm for areas onsite and one half of adjacent right-of-ways. Retention basins are to be designed to be no more than three (3) feet in depth and of an acceptable aesthetic quality using no more than fifty (50) percent of the right-of-way and landscape setbacks. Retention basins are to be drained within thirty-six (36) hours by a storm drain or dry well. Dry wells are to follow the Arizona Department of Environmental Quality (ADEQ) standards and are to be registered and maintained by the property owner.

The Town of Gilbert has certain floodplain areas shown on the FEMA (Federal Emergency Management Agency) floodplain maps. These areas generally follow the Railroad tracks and the three major irrigation canals. The East Maricopa County Floodway also bisects the southeastern part of the Town's planning area and extends to the Gila River. The Town has several regional flood control basins developed jointly with the Maricopa County Flood Control District (MCFCD) that connect to storm sewers and outfalls. The Town continues to work on additional regional solutions to flood control and drainage.

K) Electric Service

Electricity is provided by Salt River Project (SRP) to a majority of the planning area with a four (4) square mile section served by Arizona Public Service (APS) in the center of Town. Service is primarily underground distribution to individual users with transmission lines above ground. The SRP Santan Generating Station is located at the southeast corner of Val Vista Road and Warner Road. Major power transmission corridors (greater than 69 kV) are indicated on the Public Facilities Exhibit. High Voltage corridors (greater than 69kV) are noted for passive recreational use as part of the Parks, Open Space and Trails System.

L) Natural Gas

Southwest Gas maintains lines within Gilbert and offers natural gas service to residents and businesses.

M) Telecommunications

Qwest and Cox Communications provide basic telephone service to the Town. Fiber optic and other high speed links are available through a variety of vendors. The Town's Land Development Code provides development regulations for wireless communication facilities in several of the zoning districts throughout the Town.

The Public Facilities Map, included in the exhibits, locates municipal and utility facilities throughout Gilbert. The Educational Facilities Map locates existing and proposed public schools for the three school districts within Gilbert's planning area.



GILBERT GENERAL PLAN





Gilbert Fire Station #6



PUBLIC FACILITIES AND SERVICES

5.2 Needs Analysis

Current and potential issues expected to be of concern over the next twenty (20) years (not necessarily listed in priority order) include:

- Coordination with the school districts for co-location of open space facilities.
- School district involvement in the development process to ensure new school sites are identified and acquired at the time of application for development.
- Providing partnering options for new facilities.
- Ensuring adequate police, fire/paramedic and ambulance service for all Town residents.
- Provision of water to all customers including maintenance and extension of infrastructure.
- Provision of sewer services to all customers including maintenance and extension of infrastructure.
- Coordination with all other non-municipal utility providers during the development process.
- Compliance with the non-per capita water conservation program.
- Encourage investigation of LEED, environmental and alternative energy sources where possible.



Santan Vista Water Treatment Plant



PUBLIC FACILITIES AND SERVICES

5.3 Cost of Development

The ability to sustain facilities and services to the community is affected by the rate of growth and the balance between residential and non-residential development. The Town of Gilbert has chosen to pay for ongoing maintenance and operating expenses without a primary property tax, which means the sales tax generating sector must be developed in the local economy. The development of a strong and diverse sales tax base is important to the community to fund the operating expenses of the Town.

The development policy of growth paying for growth is demonstrated through the implementation and annual review of System Development Fees. These fees are capital specific and provide resources to construct facilities and improvements based upon the types and levels of service already in the community. There are other improvements, which are not specific to growth, relating to increases in service levels and/or the maintenance of aging facilities. In these situations, Gilbert will use either General Obligation or Revenue Bonds approved by the voters, operating revenue, or some combination of operating revenue and bonds to construct improvements.

The ability of the community to afford ongoing maintenance and operating costs of improvements does not have as clear a path toward solution, as the community is susceptible to the decision making process of retail business to choose to locate in Gilbert. Additionally, use of "user fees" must also be carefully weighed to avoid pricing the services out of affordable boundaries. The Town has continued to develop partnerships with public and private entities to construct and operate facilities and provide services to the community.

This section is designed to identify and delineate how these costs will be equitably apportioned and assessed to new growth and ways in which the existing community can utilize the following guidelines to develop the manner in which development pays for itself.

- Establish service and facility standards to identify how existing capacities will support demands from new development.
- Recognize unique impacts resulting from new development on existing public services and facilities.
- Where applicable and to the extent possible, require growth to pay for itself.

These guidelines are consistent with respect to assessing the costs of development. The Town may utilize a number of funding strategies for new infrastructure, equipment and facilities necessitated by growth. The Town collects system development fees for water, water resources, wastewater, police, fire, traffic signals, parks, recreation and open space and general government pursuant to State law. These fees may be used to pay for capital improvements directly or the debt service costs for bonds issued by the Town to pay for growth related projects. Other mechanisms available to the Town for funding include:

- Primary and secondary property taxes
- Transaction Privilege (Sales) Tax
- Specific Industry Tax (Lodging, Prime Contracting, Restaurants, Utilities, etc.)
- Improvement Districts
- Community Facilities Districts
- User Fees
- Voter Approved General Obligation or Revenue Bonds
- Municipal Property Corporation Bonds
- Payback Agreements/Reimbursement/Buy-In Agreements



Santan Village Mall



South Area Service Center



PUBLIC FACILITIES AND SERVICES

5.4 Goals and Policies

Goal 1.0

Ensure that facilities, equipment and infrastructure provide maximum usefulness and affordability to Gilbert residents and employers.

Policy 1.1 Maintain adequate levels of municipal facilities and services for existing and new development through the Capital Improvement Plan.

Policy 1.2 Utilize levels of service indicators to monitor the quality of Town services.

Policy 1.3 Ensure that system development fees are designed to require new growth to pay for itself.

Policy 1.4 Provide reclaimed water to a development outside the Town's municipal boundaries only on a temporary basis prior to annexation by the Town.

Policy 1.5 Promote efficient development of infrastructure by encouraging annexation, requiring conformance with Town planning and development standards and requiring payment of Town system development fees.

Policy 1.6 Coordinate with non-municipal utility providers in the planning of new facilities/corridors and upgrade and/or expansion of existing facilities to minimize impacts.

Goal 2.0

Provide emergency response service that meets or exceeds national averages to the extent it can be afforded by the community.

Policy 2.1 Maintain facility, equipment and staff levels that will meet police priority 1, 2, and 3 response standards given available resources.

Policy 2.2 Consider mutual aide agreements to serve unincorporated portions of the planning area as well as neighboring communities, as resources permit.

Policy 2.3 Maintain facility, equipment and staff levels that will meet fire response standards within available resources.

Goal 3.0

Actively coordinate with local school districts, charter schools and institutions of higher learning in the planning, construction and rehabilitation of facilities.

Policy 3.1 Coordinate communication between the Town, developers and schools.

Policy 3.2 Work with school districts to locate school sites that are safe and accessible.

Policy 3.3 Locate schools within the area they intend to serve and utilize enrollment boundaries that are consistent with new residential developments.

Policy 3.4 Connect schools to surrounding neighborhoods via sidewalks, bicycle paths and trails that minimize arterial and collector crosswalks.

Policy 3.5 Work with schools to co-locate libraries and parks with schools including opportunities for aquatic centers and illuminated athletic fields.

Policy 3.6 Work with schools to coordinate joint use of school facilities by civic and non-profit organizations that require meeting facilities.

Policy 3.7 Develop partnerships with private and non-profit entities (Boys and Girls Club, YMCA, etc.) to provide for facility needs.

Goal 4.0

Provide water and sewer services in an appropriate and logical manner.

Policy 4.1 Provide new water services to developments outside the Town's municipal boundaries only pursuant to a pre-annexation agreement with the Town.

Policy 4.2 Provide reclaimed water to a development outside the Town's municipal boundaries only on a temporary basis pursuant to an annexation agreement with the Town or on an emergency basis.

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PUBLIC FACILITIES AND SERVICES

5.5 Implementation Strategies

The intent of the Public Services Element of the Gilbert General Plan is to provide a long-range plan for the development of the community's facilities infrastructure system to sufficiently serve new development.

Public Facilities and Services	Responsible Entity	Complete By
1. Annually review the fee structure to ensure that system development fees remain current and will provide the funds necessary to construct new public facilities attributed to growth.	Town Manager's Office	Annual
2. Develop guidelines for the development and management of retention and detention basins and coordinate these with the Maricopa County Flood Control District.	Engineering	Ongoing
3. Develop and maintain a five (5) year financial plan, the Capital Improvement Plan, to assure that Town facilities can be accommodated by the Town's financial base.	Town Manager's Office All Departments	Annual
4. Ensure that facilities and services not directly attributed to growth are recognized and financed using voter approved debt or other public funding sources.	Town Manager's Office	Ongoing
5. Utilize levels of service indicators that measure the quality and delivery of Town services.	Town Manager's Office All Departments	Ongoing



CHAPTER 6

COMMUNITY DESIGN



Morrison Ranch

Provide the citizens of Gilbert and the development community with guidelines and assistance to continue to develop Gilbert emphasizing its heritage; yet open to innovative design opportunities that result in projects that are diverse and complementary, promoting the stewardship of the community's resources.



Rome Towers



INTRODUCTION

The Community Design Element of the Gilbert General Plan provides for the manner in which projects are designed and developed within the community. The Community Design Element is presented in the following sections:

- Existing Conditions
- Issues
- Goals and Policies
- Planning Guidelines
- Implementation Strategies

The Community Design Element establishes Town policy for the various aspects that affect the quality of development in the community. It is concerned with the physical development of public and private lands, their appearance and function. Policies established in this Element lead to procedures, guidelines, standards and ordinances to manage the growth of the Town. The Community Design Element is a major factor in the achievement of the Town's vision, including the establishment of a community image distinct from those of neighboring communities. The Town recognizes that good community design improves the overall quality of life, makes the Town more desirable for business development, enhances property values and can set Gilbert apart from other communities. This Element addresses design issues pertinent to the entire town. Those parts of the community that have special or unique design issues are discussed in more detail in the Character Areas Element.



6.1 Existing Conditions

For a number of years the Town has exercised control over the form and quality of new development. Through annual surveys our residents indicate that the design of the overall community is attractive and well planned, meeting the aesthetic standards set by the Town. Because of the rapid residential and commercial growth, it is important for the Town to manage the design of its neighborhoods, commercial areas and public facilities.



Gilbert Neighborhood



6.2 Issues

Current and potential issues expected to be of concern over the next twenty (20) years include:

- Multi Modal street design, including medians, tree-lined streets, lighting and pedestrian walkways
- Landscaping
- Signage
- Pedestrian scale open spaces in commercial developments
- Neighborhood design
- Commercial/Residential interface
- Architecture
- Parking lot appearance/integration
- Lighting design
- Utility infrastructure
- Drainage and storm water management, including retention and detention basins
- The irrigation canal system
- Agricultural heritage and character
- Town gateways
- Public art
- Character Areas
- Vertical development
- Sustainability



6.3 Goals and Policies

Goal 1.0

Promote quality design for new development.

Policy 1.1 New developments should strive to achieve highly articulated architecture (composition of individual pieces with relationships to one another), efficient site design, sustainable landscaping (water conserving/heat island reduction/cost effective), creative signage and energy efficient lighting.

Policy 1.2 Build or restore Town facilities to exceed Town standards.

Policy 1.3 Encourage residential/non-residential land use transitions that minimize negative impacts of commercial and industrial uses on adjacent residential uses.

Goal 2.0

Develop a quality suburban environment while preserving the rural feel and agricultural heritage of the community at appropriate locations.

Policy 2.1 Preserve key elements of the Town's agricultural heritage, such as the canals, strategic open spaces and historically significant sites and structures.

Policy 2.2 Respect the character of land use areas designated for large lot development that accommodates a semi-rural lifestyle through preserving view corridors, dark sky (reduction of outdoor light pollution) and architecture.

Policy 2.3 Continue the trail system that accommodates equestrian mobility where appropriate, as well as pedestrian and cycling activities to connect to regional systems.

Policy 2.4 In the Santan Character Area, incorporate agricultural design elements (entry features, open fences, streetscape) in the land planning of new development, where appropriate.

Policy 2.5 Maintain an open feel in new developments by strategically placing open space for visual relief, active uses, buffering and entry accents.

Policy 2.6 Encourage use of turf only in high visibility and high use areas, consistent with the Town's water conservation goals.

Policy 2.7 Encourage the use of Xeriscape principles in the design of new or revitalized projects that provide lush and diverse plant materials appropriate for this region. Avoid large expanses of gravel and turf as an alternative for ground covers.

Goal 3.0

Encourage developers and builders to provide diverse residential neighborhood designs that provide a sense of place, high level of architectural articulation (how the parts of the house elevation fit into the whole) and are built utilizing sustainable (energy efficient/environmental friendly/cost effective) design and environmentally responsible construction practices.

Policy 3.1 Encourage developers to establish neighborhood identity by developing unique entry features and design themes for each project.

Policy 3.2 Encourage builders to provide diverse house designs in new and infill developments by providing distinct house plans with elevation options that offer architectural articulation and thematic features on all sides of the houses.

Policy 3.3 Encourage use of the most energy efficient systems on doors and windows and employ energy efficient methods for cooling/heating and water systems on new and retrofitted houses in all new and remodeling construction projects.

Policy 3.4 Encourage use of traffic calming devices and techniques in designing neighborhoods to discourage cut-through traffic, slow vehicle speeds and create streets that are comfortable to navigate for pedestrians, bicyclists and vehicles.

Policy 3.5 Encourage developers to avoid the predominance of garages by providing mitigation measures such as: placing garages considerably recessed from the front plane of the house, designing side entry or tandem garages or integrating their design into the architectural style of the house.

Policy 3.6 Encourage design of common areas in each neighborhood that recognizes open space, passive and active, as a necessity providing recreation for children, youth and adults and designating areas for off-street parking adjacent to active areas.

Policy 3.7 If gated communities are proposed in a master plan or infill project, ensure the natural flow of traffic from arterial and collector roads is uninterrupted and the community remains accessible to pedestrian traffic; and that the private streets be constructed to the same quality level as public streets.

Policy 3.8 Allow gated neighborhoods in infill parcels on a limited basis.

Goal 4.0

Encourage the use of sustainable (energy efficient/environmental friendly/cost effective) practices in the land planning, building design and redevelopment of all projects.

Policy 4.1 Adopt policies and standards that encourage the design and development or redevelopment of sustainable residential neighborhoods, industrial and commercial projects.

Policy 4.2 Consider adopting a nationally recognized green building rating system standard and require all new Town funded projects (site development, infrastructure and buildings) to meet those standards. Chapter 7 – Environmental Planning should be referenced for additional Green Building Goals and Policies.

Policy 4.3 Develop and adopt policies and approval processes that provide incentives to land developers and businesses that meet green building standards adopted by the Town.

Policy 4.4 Identify and provide measures to revitalize underperforming areas of Town (such as vacant, unfinished and poorly maintained projects). Promote adaptation and reuse of vacant structures and parking areas to become vibrant mixed-activity developments and transportation opportunities.

Goal 5.0

Encourage developers to design multi-family projects, either stand alone or part of a larger development to provide a comfortable and unified environment and to be an aesthetic enhancement to adjacent developments.

Policy 5.1 Encourage multi-family projects to provide variety in orientation and articulation (roof line variation, massing changes, details, colors and materials application) of individual buildings as well as the project's overall

layout. Encourage the architecture of accessory structures (club house, garages, maintenance building, etc.) to be integrated with the design of the main buildings.

Policy 5.2 Encourage design that provides a combination of active and passive open spaces in each cluster of buildings.

Policy 5.3 Encourage projects to protect the privacy of adjacent single family residential uses through effective placement of landscape buffers, screening, shielded light fixtures and other mitigation measures.

Goal 6.0

Encourage developers to design attractive and functional retail and service facilities that serve the needs of residents, visitors and businesses.

Policy 6.1 Encourage use of integrated architectural and landscape design themes for all commercial uses.

Policy 6.2 Encourage developers to provide safe and efficient access to commercial uses by pedestrians, bicyclists and vehicles and to design access for disabled persons to minimize crossing of vehicular drives.

Policy 6.3 Encourage service facilities to be screened from view in a well integrated manner such as a combination of architectural walls softened with vegetation that result in a visually pleasing design.

Policy 6.4 Encourage lighting plans to be designed using sustainable (energy efficient/cost effective) principles that not only enhance the design of the project but provide a safe level of illumination, without spilling glare onto adjacent uses or public rights-of-ways.

Policy 6.5 Encourage dark sky preservation and reduction of light pollution associated with rapid growth of commercial development.

Policy 6.6 Encourage use of comprehensive and master sign programs for all commercial developments to address design, graphics, installation and illumination for all types of signs as permitted by the sign code.

Policy 6.7 Encourage the reduction of the Heat Island Effect (HIE) through design tools such as: extensively landscaping parking areas, using cool roofs, cool pavements and green roofs and integrating the design of parking shade structures and garages with the design of the principal structures on the site.

Policy 6.8 Encourage developers to de-emphasize the view of parking lots from public streets by placing buildings toward the front of the site and reducing the expanse of parking fields by breaking fields into smaller clusters. Discourage the siting of gas pumps, drive-through windows or similar uses along street frontages.

Policy 6.9 Encourage developers to include in the design of shopping centers and other major commercial projects and power centers, usable pedestrian gathering areas with enhanced walkways that connect buildings in the same development and are accessible to public transportation.

Policy 6.10 Encourage developers of commercial projects to designate visible areas to display public art and design seating areas with enhanced paving, sheltered with shade structures and vegetation, pedestrian lighting and other place making features.

Policy 6.11 Encourage enhancement of building mass (basic exterior form) by balancing height, roof lines, facades and rhythm of design elements.

Goal 7.0

Encourage developers to design neighborhood retail and office uses to respect residential scale and character.

Policy 7.1 Encourage use of scale, style and color schemes that are appropriate to the context of residential developments in the surroundings.

Policy 7.2 Encourage use of sign programs that are complementary with the architecture and scale of the retail/office uses.

Policy 7.3 Encourage lighting design that assures safety and sustainability.

Goal 8.0

Encourage developers to design and build attractive employment and industrial projects.

Policy 8.1 Encourage maximum use of landscaping to buffer employment uses from adjacent non-employment uses, identify prominent areas for the display of public art and provide adequate amenity areas for employees.

Policy 8.2 Encourage developers to orient service areas where large vehicles stage and may generate noisy or visually obtrusive activities away from neighborhoods and arterial street views.

Policy 8.3 Encourage design of industrial buildings to be functional; using innovative construction practices, quality materials and creative architecture to increase their aesthetic value.

Goal 9.0

Encourage a balance of aesthetic design principles with functional requirements.

- **Policy 9.1** Encourage utilities to maximize the use of existing corridors for the extension of future power and communications lines and locate others to be as unobtrusive as possible.
- **Policy 9.2** Discourage utilities from placing power lines over 69 kV or higher voltage adjacent or near areas designated as residential or open space uses.
- **Policy 9.3** Encourage substantial landscaping in public and private projects to maintain a heavily landscaped feel to the community while utilizing drought tolerant plant materials and reclaimed water to irrigate planted areas to reduce the consumption of potable water.
- **Policy 9.4** Encourage retention areas to be designed to serve as functional and aesthetically pleasing open spaces.
- **Policy 9.5** In all projects, encourage the use of lighting types (performance) and selection of fixtures that complement the architectural style of buildings and promote efficiency.
- **Policy 9.6** Encourage all projects to be designed to provide a visual effect consistent with the character and scale of the area. Encourage design of new buildings and retrofitting of existing buildings to articulate all facades and select materials that are durable and energy efficient.

Goal 10.0

Incorporate aesthetic considerations into the design of public streets.

Policy 10.1 Incorporate landscaped medians into the design of arterial streets.

Policy10.2 Separate sidewalks from curb lines by landscape areas where possible.

Policy 10.3 Design roadways and appropriate intersections and other public spaces to be pedestrian, equestrian and non-motorized vehicle friendly.

Policy 10.4 In the landscape design of public streets, incorporate natural elements such as rocks, grading variation and vegetation, where applicable.

Policy 10.5 Provide design enhancements such as public art at significant intersections and incorporate gateway design elements at entrances to the Town.



Gilbert Neighborhood



Shaded Resting Area



6.4 Planning Guidelines

A) Neighborhood Design

Land planning design for neighborhoods is encouraged to include gathering places with pedestrian opportunities to promote walking over driving and be accessible to future transit hubs.

Standard plans in residential subdivisions should offer well articulated elevations that may include full front porches, recessed, side oriented or detached garages, courtyards, architectural theme details and other house product design features that create interest on the streetscape and promote social interaction.

B) Retail/Office/Commercial Design

Retail and commercial projects typically are located with existing or planned residential neighborhoods. Through noise mitigation, lighting design, landscaping and sustainable construction practices, impacts of these uses on residential neighborhoods can be substantially reduced. Where applicable, commercial sites should be designed to provide pedestrian and vehicular connections to residential neighborhoods.

C) Industrial/Business Park Design

Communities desire a solid employment and tax base while wanting to ensure negative impacts do not impede on adjacent residential areas. Industrial uses are encouraged to be buffered by less intense commercial uses between the industrial uses and the residential areas. Well designed business parks can be adequate buffers when land planning, landscape buffers and architectural design are effectively utilized.

D) Roadway Design

The design of roadways creates an initial impression of the community to residents, visitors and businesses. Wider rights-of-way allow for medians and detached meandering sidewalks on major and minor arterials. Well designed landscaped medians (type of plant material/visibility) do more than control traffic. They create a friendlier visual environment and provide relief from the summer sun by helping to reduce the "Urban Heat Island" effect experienced in desert communities. Detached meandering sidewalks and landscaped medians also screen adjacent land uses from headlight glare, traffic noise and emissions with increased distance between roadways and land uses.

E) Lighting Design

Lighting for each type of land use is specific in its nature and requires creativity and sensitivity to other adjacent land uses. Encourage conservation of dark sky when designing lighting for projects. By using different types of illumination, specific environments can be created without compromising safety. Lighting design for all projects should be energy efficient, durable, adequate in quantity and quality, not produce light pollution or trespass and utilize energy efficient lighting fixtures.

F) Sign Design

Sign design which is architecturally compatible with the project may be accomplished through the use of comprehensive packages and master sign plans.



6.5 Implementation Strategies

The intent of the Community Design Element of the Gilbert General Plan is to establish Town policy for the various aspects that affect the quality of development in the community. It is concerned with the physical development of public and private lands, their appearance and function. The Community Design Element is a major factor in the achievement of the Town's vision, including the establishment of a community image distinct from those of neighboring communities.

	Community Design	Responsible Entity	Complete By
1.	Adopt a policy that requires a green building rating system standard that applies to all new municipal buildings and develop a strategic plan to implement green building rating systems for all new construction.	Development Services Planning Permitting and Plan Review	2013
2.	Adopt urban planning principles and practices that advance, mixed use, walkable, bikeable and disabled accessible neighborhoods, commercial and industrial projects which coordinate land use and transportation with open space systems for recreation and ecological restoration.	Planning Traffic Engineering Parks and Recreation	2012
3.	Adopt design standards for the development of mixed-use with a residential component Town wide.	Planning	2013
4.	Amend the Land Development Code to address minimum requirements for the provision of public art and incentives for commercial, employment-generating office and business park uses as needed to implement the policies of this plan.	Planning	June 2012



CHAPTER 7

ENVIRONMENTAL PLANNING



Eastern Canal

Gilbert recognizes its environmental stewardship and is committed to being in the forefront as it plans, manages and conserves resources.



Cosmo Park



INTRODUCTION

The Environmental Planning Element of the General Plan describes Gilbert's efforts in the area of environmental sustainability and provides a framework for development that conserves resources and protects Gilbert's residents. It is presented in the following sections:

- Existing Conditions
 - A. Water Resources
 - B. Water Conservation
 - C. Water Quality
 - D. Air Quality, Dust Control, Ozone, Land Use Practices, Trip Reduction Plan, Alternative Fuel Vehicle Program
 - E. Noise Attenuation
 - F. Stormwater Quality
 - G. Pollution Prevention
 - H. Cultural and Historic Resources
 - I. Hazardous Waste, Recycling and Sanitary Waste
 - J. Environmental Justice Awareness
 - K. Green Building
 - L. Urban Heat Island Effect
 - M. Fissure Identification and Mitigation
- Goals and Policies
- Planning Guidelines
- Implementation Strategies



ENVIRONMENTAL PLANNING

7.1 Existing Conditions

Gilbert is active in safeguarding the environment for current and future generations. The following sections describe current and planned efforts in key environmental areas:

A) Water Resources

The purpose of the water resources section of this element is to address the water supplies available to meet current and future demand in Gilbert. The physical and legal availability of water supplies will be described as well as the future direction of water resources planning in order to meet build-out demand as projected in the General Plan. Gilbert's plan to meet existing and future water demands is detailed in its Integrated Water Resources Master Plan which is periodically updated, with the last revision occurring in 2006, and should be referred to for additional information.

Current Water Use

Potable (drinkable) water production for the year 2011 totaled 47,595 acre-feet, which served a population of 212,084. The residential and non-residential sectors water demand was 70% and 30% respectively. Gilbert is divided into four water supply zones for the purpose of maintaining a consistent water delivery pressure of 60 to 70 pounds per square inch (psi) throughout the service area.

Gilbert Water Resources Facilities

Gilbert has a variety of water resource facilities, including two surface water treatment plants, two waste water treatment plants, multiple wells, and groundwater recharge facilities.

Surface Water Treatment Plants and Wells

Gilbert relied solely upon wells to meet the potable water demand until 1996, when the North Water Treatment Plant came on line. The plant was originally constructed to treat 15 million gallons per day (MGD), and in 2002, the capacity was expanded to treat up to 40 MGD, with a more recent expansion allowing for the treatment of up to 45 MGD.

The SanTan Vista Water Treatment Plant, built in partnership with the City of Chandler, became operational in 2009. This plant is located in Gilbert's south planning area and will have the capacity to treat Gilbert's current full Central Arizona Project (CAP) allocation at build-out. (See "Colorado River Water" in the next section for more details.) Currently, the plant can treat 24 MGD, half of which is allocated to Gilbert. Planned expansion of the plant is up to 48 MGD, with half being allocated to Gilbert. Timing of the expansion will depend upon growth.

Gilbert currently has 18 potable wells located throughout the service area, which have the capacity to produce 41.6 MGD of potable water. A total of 25 potable wells are planned to help meet the water demand at build-out with an expected production capacity of 55 MGD.

Water Supply

Gilbert's planning area is comprised of approximately 45,000 acres. Approximately 11,600 acres have water rights from Salt River Project (SRP) and 20,815 acres have water rights from the Roosevelt Water Conservation District (RWCD). These rights are legally deemed appurtenant to the land, which means the water is "attached" to that portion of land and cannot be used elsewhere. The amount of water received by Gilbert is dependent upon the amount of lands within these service areas that have been urbanized, or taken out of agricultural production. The amount of water available to the SRP and RWCD lands is variable and will be addressed separately.

Salt River Project

Gilbert's lands located within SRP's service area are entitled to an allocation of surface water and groundwater that is quantified on an annual basis by SRP, taking into account the quantity of water stored and flows on the Salt and Verde River systems. During a normal precipitation year, this entitlement is comprised of two acre-feet of surface water and one acre-foot of groundwater per acre of land. (An acre-foot of water is equal to 325,851 gallons or enough to meet the average water demands for two families of four for one year).

Roosevelt Water Conservation District

Gilbert's lands located within RWCD's service area are also entitled to an allocation of surface and ground water. Gilbert only utilizes the surface water component of RWCD water, which during a normal water year varies from 0.2 to 0.6 acre-feet of water per acre of land. This water, as well as the surface water received from SRP, is

treated to drinking water standards at the North Water Treatment Plant and delivered to our customers.

Colorado River Water

Gilbert receives Colorado River water delivered through the Central Arizona Project (CAP) Canal which is operated by the Central Arizona Water Conservation District (CAWCD). This water is pumped from the Colorado River at Lake Havasu and delivered to Maricopa, Pima, and Pinal Counties. Colorado River water has many monikers, identifying it by legal right and priority, which is described in the Town's Integrated Water Resources Master Plan. Gilbert is entitled to Colorado River water labeled as sub-contract water, RWCD assignment water, Wellton-Mohawk lease water, and Salt River Pima Maricopa Indian Community (SRPMIC) lease water. Additionally, Gilbert entered into an agreement in 2008 with the White Mountain Apache Tribe (WMAT) for lease water obtained through and exchange of SRP and RWCD surface water. Once ratified by Congress, this water should be available by 2021. Gilbert also has access to excess CAP water when it is available.

Colorado River water is treated to drinking water standards at both the North and the SanTan Vista Water Treatment Plants, and can be used anywhere throughout Gilbert's planning area. Colorado River water can also be recharged at any of the recharge facilities which are described below for the purpose of earning Long Term Storage Credits.

<u>Arizona Department of Water Resources (ADWR)</u>

The 1980 Arizona Groundwater Management Act (GMA) requires that municipalities and other water providers located within an Active Management Area (AMA) reduce their groundwater consumption through the development of renewable supplies by the year 2025. The ADWR, which was created to implement the GMA, developed the Assured Water Supply (AWS) designation program for water providers, which requires a provider to prove an adequate supply of renewable potable water supplies to meet demand for 100 years. On September 29, 2010, Gilbert received its designation of AWS effective through year end 2025.

One of the founding principles of the GMA was to bring the State of Arizona into Safe Yield. Safe Yield is defined as the balance between groundwater withdrawal and natural and/or artificial recharge. As part of the AWS requirements, Gilbert continues to reduce groundwater pumping and develop alternative renewable supplies. Groundwater use is allowable if its use is consistent with the goal of Safe Yield, which allows for groundwater pumping to be "offset" by credits stored previously under the Long Term Storage Credits scenario. Gilbert also participates in

a recharge credit recovery program with SRP for groundwater pumping occurring on SRP lands.

Water Supply Summary

As of August 2010, Gilbert has been designated as having an adequate water supply through the ADWR's AWS program to meet the service area's water demands through 2025. Although ADWR has determined that Gilbert has adequate supplies to meet customer demands through 2025, a portion of those supplies are Long Term Storage Credits, which will be extinguished to offset future groundwater pumping. As this is a finite supply, Gilbert will continue to proactively seek additional renewable supplies in an effort to minimize the budget impact of acquiring such supplies.

Water Reclamation Facilities (WRF)

Gilbert currently operates two water reclamation facilities (WRF) that treat sewage and produce A+ quality reclaimed water, with a loss of approximately 8 to 10% of the influent total to sludge (solids) treatment. The Neely WRF has a treatment capacity of 11 Million Gallons per Day (MGD). The Greenfield WRF is a joint facility operated in partnership with the City of Mesa and the Town of Queen Creek. The plant capacity is currently 16 MGD, with 8 MGD of capacity available to Gilbert, and is planned to be expanded to treat up to 42 MGD, with Gilbert's share of the capacity at 16 MGD.

Reclaimed Water

For 2009, Gilbert produced 11.32 MGD of reclaimed water, which equates to 12,683 acre-feet at the WRF's. Gilbert reuses a portion of this water through direct delivery to customers such as HOA's, schools, parks, churches, golf courses and Town park facilities.

Recharge of reclaimed water is also an important component for Gilbert's water portfolio. Reclaimed water recharge credits are accumulated and are used to offset groundwater pumping in a recharge/recovery scenario, as well as for the development of Long Term Storage Credits. Gilbert recharged 8,553 acre-feet of reclaimed water in 2009 within its service area.

Recharge Facilities

In the early 1980's, Gilbert committed to reusing 100% of the reclaimed water produced through direct reuse and recharge. Reclaimed water is wastewater that has been treated at the WRF to a standard acceptable for recharge and reuse. Gilbert

recharges water for the purpose of accumulating Long Term Storage Credits, which are utilized to offset current and future groundwater pumping, as well as to firm up the Assured Water Supply (see section on ADWR). Gilbert recharges unused surface water from Salt River Project and CAP, as well as unused reclaimed water that is not directly delivered to a reclaimed water customer.

Recharge facilities consisting of percolation basins and injection wells deliver reclaimed water to the aquifer (natural underground water storage) through infiltration. Current recharge facilities and permitted recharge amounts include:

- The Neely Recharge Facility at 2.9 MGD (though it is currently limited to 800,000 GPD until the TCE contamination at a former industrial site nearby has been mitigated
- The Riparian Preserve Recharge Facility at 8 MGD, and
- The South Recharge Site at 9 MGD (upon completion of construction of basins and addition of five (5) vadose zone injection wells)
- Two (2) vadose zone injection wells located at the municipal center are permitted to inject up to 1 MGD of reclaimed water directly into the ground. Three more injection wells will be constructed in the future at sites yet to be determined.

The Town also participates in water recharge at other facilities located throughout the Phoenix Active Management Area. Gilbert owns 3% of the capacity of the Granite Reef Underground Storage Project (GRUSP), which equates to approximately 3,000 acre-feet of recharge capacity per year. The Town also recharges CAP water at the Agua Fria and Tonopah Recharge projects, which are facilities owned and operated by the Central Arizona Water Conservation District (CAWCD).

Groundwater Savings Facilities (GSF) operated by irrigation districts, offer the Town additional recharge capability, and Gilbert is permitted to participate with Queen Creek Irrigation District, New Magma Irrigation District, Roosevelt Water Conservation District and Salt River Project.

Meeting Future Demand

Build-out demand is based upon Gilbert's assured water supply total system demand target goal of 220 gallons per person per day. Gilbert is divided into four (4) zones, see page 9 in this Chapter for a visual description, and the demand at build-out by residential and non-residential sector has been determined by zone. To meet this future demand, Gilbert intends to but is not necessarily limited to:

- Enter into short term and/or long term leases with local Native American tribes for additional CAP water
- Acquire additional CAP and other available water supplies
- Continue to earn Long Term Storage Credits by partnering with local GSF's and direct recharge facilities
- Continue to make beneficial use of reclaimed water through direct reuse, recharge and recovery and accumulation of annual storage credits through recharge.

A "safety margin" should be added to the projected future water demand at build-out to reflect unexpected needs for water that may occur.

Drought Planning

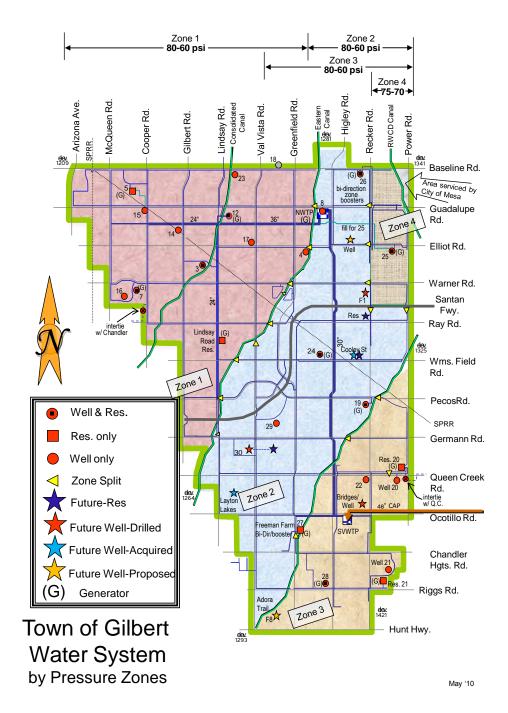
Surface water supplies, SRP and CAP, will be subject to occasional reductions due to decreased precipitation on the watersheds. The latest CAP system studies show the Colorado River has the possibility of shortages beginning around 2025, due in part to the Upper Basin States fully utilizing their full Colorado River allocation and less precipitation on the watershed.

The Arizona Water Banking Authority (AWBA) is tasked with firming up to 20% of the Municipal water entitlement through the recovery of previously recharged Colorado River water, which for Gilbert, equates to 1,447 acre-feet per year (7,235 acre-feet X 20%). CAWCD is continuing discussions on the development of a recovery plan in order to facilitate the AWBA's firming requirements.

During surface water supply shortages, Gilbert can submit a groundwater pumping exemption to the Director of ADWR. This action has the ability to exempt groundwater pumping from replenishment obligations, thereby allowing Gilbert to pump groundwater without having to extinguish an equal amount of accumulated Long Term Storage Credits.

In order to meet demand with occasional surface water shortages, Gilbert is developing water delivery system redundancy through well development to withdraw groundwater. The expectation is that at build-out, 80% of normal day demand could be met solely through well production if necessary.

To further ensure Gilbert has the ability to meet demand during shortages, Council approved the Water Supply Reduction Management Plan in June 2003. The Plan enables Town Management and Council to declare water shortage stages determined by a specific percentage reduction in surface water supply, with each stage requiring corresponding water conserving response actions.



Zone One includes the lands west of the Salt River Project's (SRP) Eastern Canal on the Eastern border and extends to the Town's Western border. These lands are identified as On-Project, or lands that have rights to Salt River Project water.

Zone Two is the land extending from the SRP Eastern Canal on the West side to the Roosevelt Water Conservation District (RWCD) canal on the Eastern border. This land has water rights to RWCD water.

Zone Three is the land between the Town's Eastern border and the RWCD canal on the Western border. This land has no surface water rights associated with it.

Zone Four is bordered on the North by Baseline Road, Warner Road on the south, Recker Road on the West, and Power Road on the East. This land lies within RWCD.

B) Water Conservation

The 1980 Arizona Groundwater Management Act (GMA) requires all municipalities within an active management area to implement water conservation programs. The Town of Gilbert is regulated by the Arizona Department of Water Resources (ADWR) Non Per Capita Conservation Program (NPCCP), which is comprised of a list of best management practices also known as Reasonable Conservation Measures (RCM's) that target residential and non-residential indoor and outdoor water uses.

Each current RCM is listed below. More information about how the Town is implementing the RCMs is available from the Water Resources Department.

- 1. Water Audit and Fixture Retrofit Program for the Existing Residential Customers
- 2. Ordinance for Water Efficient Plumbing Fixtures in New Residential Housing Units
- 3. Exterior Audit Program for Existing Residential Customers
- 4. Landscape Watering Advice Program for Existing and New Residential Customers
- 5. Ordinance for Model Homes in New Residential Developments
- Prohibit the Creation of New Covenants, Conditions, and Restrictions Which Require the Use of Water Intensive Landscaping in New Residential Developments
- 7. Limit Turf and Other Water Intensive Landscaping in Common Areas of New Single Family and Multi-Family Developments
- 8. Combined Non-Residential Interior and Exterior Audit Program for Existing Non-Residential Customers
- Ordinance for Water Efficient Plumbing Fixtures in New Non-Residential Facilities
- 10. Distribution of Conservation Information to all New Non-Residential Customers and Submittal of a Water Use Plan by New Large Facilities
- 11. Landscape Ordinance for New Non-Residential Facilities
- 12. Public Information and Education

C) Water Quality

The primary purpose is to ensure Town of Gilbert water quality meets all applicable federal and state water quality standards. In order to ensure Gilbert's water quality, implementation strategies are provided as described below, to meet the applicable rules and regulations:

1. Ground Water Rules (GWR):

EPA issued the Ground Water Rule (GWR) to improve drinking water quality and provide additional protection from disease-causing microorganisms. The GWRs apply to public water systems that serve ground water. The rule also applies to any system that mixes surface and ground water if the ground water is added directly to the distribution system and provided to consumers without treatment.

Final Requirements

The targeted, risk-based strategy addresses risks through an approach that relies on four major components:

- 1. Periodic sanitary surveys of systems that require the evaluation of eight critical elements of a public water system and the identification of significant deficiencies.
- 2. Triggered source water monitoring when a system (that does not already treat drinking water to remove 99.99 percent (4-log) of viruses) identifies a positive sample during its Total Coliform Rule monitoring and assessment monitoring (at the option of the state) targeted at high-risk systems.
- **3.** Corrective action is required for any system with a significant deficiency or source water fecal contamination.
- **4.** Compliance monitoring to ensure that treatment technology installed to treat drinking water reliably achieves 99.99 percent (4-log) inactivation or removal of viruses.

2. Long Term 2 Enhanced Surface Water Treatment Rule (LT2ESWTR or LT2 rule)

EPA has developed the Long Term 2 Enhanced Surface Water Treatment Rule (LT2 rule) to improve drinking water quality and provide additional protection from disease-causing microorganisms and contaminants that can form during drinking water treatment. Systems initially monitor their water sources to determine treatment requirements over a two-year period. The Town of Gilbert has completed

this monitoring of the North Plant in 2006 and has received Bin 1 classification and will face no additional requirements. A second required round of monitoring will occur six years after completing the initial round to determine if source water conditions have changed significantly. The initial monitoring of the Santan Vista plant will be completed by December 2011.

3. Stage 2 Disinfectants and Disinfection Byproducts Rule (DBP rule)

The Stage 2 DBP rule is intended to reduce potential cancer and reproductive and developmental health risks from disinfection byproducts (DBPs) in drinking water, which form when disinfectants are used to control microbial pathogens.

Under the Stage 2 DBP rule, systems will conduct an evaluation of their distribution systems, known as an Initial Distribution System Evaluation (IDSE), to identify the locations with high disinfection byproduct concentrations. These locations will then be used by the systems as the sampling sites for Stage 2 DBP rule compliance monitoring. If the DBP levels at these locations are too high the system will start to take corrective actions. These actions could range from simple, quickly implemented management or operational changes to major construction projects.

4. UCMR 2 Rule

Gilbert is also required to monitor its water supply under the Unregulated Contaminant Monitoring Regulation (UCMR 2). All required monitoring under this program has either been completed or is underway.

5. Arsenic Rule

Arsenic rule sets a Maximum Contaminant Limit (MCL) and monitoring requirements for arsenic, a contaminant shown to cause cancer and other health effects. The revised rule reduces the MCL from 0.05 mg/L to 0.010 mg/L.

6. Radionuclides Rule

The new rule maintains the current MCLs for radium-226, radium-228 and requires systems to monitor for the regulated radionuclides at each entry point to the distribution system. The radionuclides rule sets MCLs as well as monitoring, reporting and public notification requirements.

7. Radon Rule

The Radon Rule aims to reduce people's exposure to radon in drinking water and in indoor air. Under the proposed rule, states would have the option to develop a multimedia mitigation program to address radon in both indoor air as well as drinking water.

8. Consumer Confidence Report Rule

The CCR is required to keep consumers informed about the quality of their drinking water. A CCR is a report of water quality over the preceding year and includes health effects information on source water, contaminants found in the water and violations. This report is provided annually to Gilbert water users and is available on the municipal website.

D) Air Quality, Dust Control, Ozone, Land Use Practice, Alternative Fuel Vehicle Program, Trip Reduction Plan

1. Air Quality

In 1990, when the Federal Clean Air Act was revised, Maricopa County was listed as Moderate in terms of PM10 pollution. The deadline for Maricopa County to come into compliance with national standards was 1994; Arizona failed to come into compliance and was elevated to Serious, the highest level of PM pollution.

The State is under federal mandate to reduce particulate pollution by 5% per year until attainment has been reached and has drafted a State Implementation Plan (SIP). In addition to the SIP, Arizona has drafted the 5% Plan, which states that the State will reduce PM by 5% each year until compliance is achieved. Through the 5% plan, the State has tasked Maricopa County as well as local municipalities with reducing particulate matter in the air.

2. Dust Control

Gilbert has enacted two ordinances to meet its obligations to the 5% Plan. Ordinance 1090 sets standards and enforcement for activity on vacant lots and Ordinance 1091 sets standards and enforcement for unpaved parking lots. Gilbert employees routinely practice dust control measures on Gilbert owned vacant property such as restricting access and applying a soil crust to maintain stability. Maricopa County has also passed ordinances having to do with residential wood burning, off highway vehicles, leaf blowers and vehicle idling restrictions.

3. Ozone

In 2008, the Environmental Protection Agency (EPA) revised the ozone standard and lowered the previous 8-hour standard from 0.08 parts per million (PPM) to 0.075 PPM. At the time this document was prepared, the State of Arizona was waiting for the EPA to respond to the Governor's recommendations for revising the boundaries of the ozone nonattainment area to address the new 2008 standard.

On January 6, 2010, EPA proposed to strengthen the primary 8-hour standard to a level within the range of 0.060-0.070 PPM and establish and secondary standard with a range of 7-15 PPM-hours.

4. Land Use Practice

Land use practices should be promoted that encourage alternative methods of transportation and reduce the types of emissions as noted above. Land use considerations should also include efforts to minimize driving times and distances from homes to place of employment. Infill development, mixed-use development projects, home-based businesses, walkable developments, dust control and implementation of fiber optics and other technological innovations also help reduce emissions by reducing commuting times and distances. A regional transportation system including a commuter rail link between ASU Polytechnic and the rest of Greater Phoenix is also encouraged.

5. Alternative Fuel Vehicle Program

While Gilbert does not currently have an official policy or procedure for alternate fuel vehicles, Gilbert is a member of Arizona Clean Cities and tracks movement and advancements in the alternative fuel industry and will continue to do so. A goal is to continue to explore opportunities and advancements in new technologies for economical, clean and fuel efficient vehicles.

6. Trip Reduction Plan

The 1988 Air Quality Bill (ARS 49-581 et seq.) mandated a Trip Reduction Program (TRP) for employers and schools in Maricopa County. The current county ordinances that resulted from this law affect employers and schools with 50 or more employees and/or driving-age students.

Maricopa County has asked employers and schools to reduce single occupant vehicle (SOV) trips and/or miles traveled to the work site by 10 percent a year for a total of five years and then 5 percent for three additional years or until a 60 percent rate of SOV travel is reached.

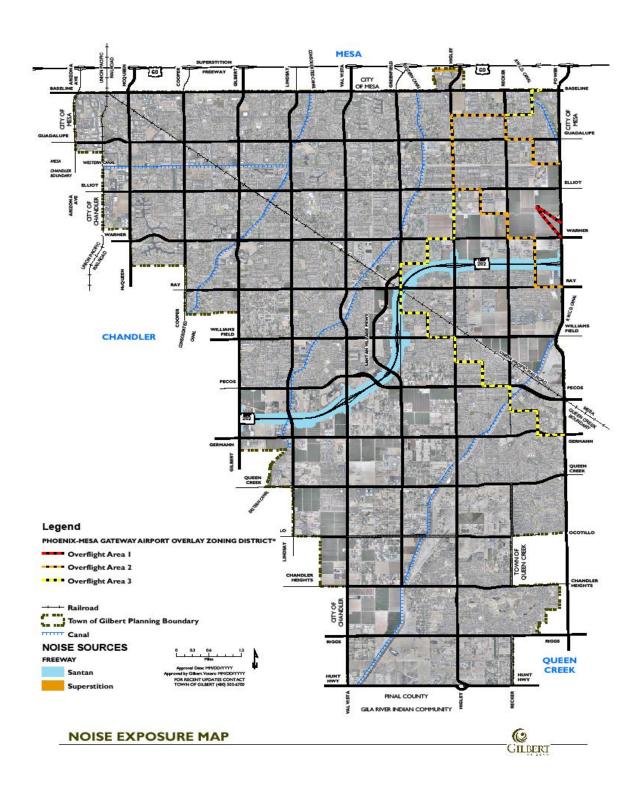
The Town of Gilbert has participated in the Maricopa County Trip Reduction Program for many years. Town of Gilbert distributes trip reduction surveys to the employees in four areas: Public Works North, Civic Center Complex, Public Safety Complex and the South Area Service Center. Approximately 85% - 95% of Gilbert employees return the completed surveys annually. Town of Gilbert offers incentives for employees to commute to work using alternate modes of transportation. Gilbert has also established specific carpool only parking spots at the four areas listed above.

E) Noise Attenuation

Noise or "unwanted sound" is generated by a variety of sources including freeways, arterial roads, railroad lines, airports and industrial and commercial uses. Noise sensitive areas and uses usually include residential areas, parks, schools, churches, hospitals, nursing homes, libraries and day care centers.

Generally, noise is generated from two types of sources: transportation sources and fixed sources. The Town has identified these sources which are shown on the Noise Exposure Map. In addition to arterial roads and railroads, the map identifies two noise related overlay areas: the Phoenix-Mesa Gateway Airport and the Loop 202 Santan Freeway. Mitigation measures include navigation easements for airport sources coupled with noise attenuation for construction near identified noise sources. Gilbert will pursue opportunities with railroads to reduce noise associated with operations and at railway crossings.

The Phoenix-Mesa Gateway Airport Overlay Zoning District establishes Overflight Areas 1-3, which limits the location of Noise Sensitive Uses and requires enhanced building insulation to mitigate noise to specified minimum levels. The Santan Freeway Corridor Overlay Zoning District provides that noise sensitive uses locating within 300 ft. from the edge of right-of-way complete a Neighborhood Environmental Design Analysis and construct an 8 foot tall noise barrier to achieve an exterior noise reduction. Building construction must also meet established, reduced interior noise levels.



A full size version of this map is located in the exhibits.

F) Storm Water Quality

The Clean Water Act (CWA), among other things, regulates storm water and urban runoff to protect water quality. The regulations are intended to prevent sediment and pollutants from entering waters of the United States. The storm water program is part of the National Pollutant Discharge Elimination System (NPDES) permitting process. The Arizona Department of Environmental Quality (ADEQ) regulates storm water in Arizona.

As a regulated municipality, the Town of Gilbert has prepared and implemented a Storm Water Management Program that incorporates six required minimum control measures:

- 1. Public Education and Outreach
- 2. Public Participation and Involvement
- **3.** Illicit Discharge Detection and Elimination
- 4. Construction Site Storm Water Runoff Control
- 5. Post-Construction, Development and Redevelopment
- 6. Pollution Prevention/Good Housekeeping for Municipal Operations

Construction impacts on storm water are also regulated by the state. Prior to site disturbance, construction owners/operators must file a Notice of Intent (NOI) form with ADEQ and prepare a Storm Water Pollution Prevention Plan which details the construction activities and storm water control measures that will be implemented at the construction site.

G) Pollution Prevention

Pollution prevention, the reduction or elimination of waste at the source, not only reduces pollution, but it can save money as well. Pollution prevention measures can also lead to a higher degree of environmental protection by reducing subsequent costs for disposal or cleanup of hazardous wastes and materials.

To support efforts to prevent pollution, Gilbert has an Environmental Coordinator to respond to accidents and uncontained spills of hazardous materials and chemicals and to coordinate with Maricopa County Air Quality Department, Arizona Department of Environmental Quality and the Environmental Protection Agency with the purpose of safety, containment and clean-up.

Other pro-active methods of pollution prevention include:

- Recycling
- Purchasing of "green" goods and materials
- Encouraging "green" construction practices for public and private projects

H) Cultural and Historical Resources

Gilbert's cultural and historic resources consist of historic structures and agricultural implements. Most historic structures are located within the Heritage District and are a part of the Redevelopment Plan for that area. As additional structures are identified, they may be eligible for the National Register of Historic Places and should be analyzed to weigh the benefit of restoration and re-use.

Most archaeological remains that have been found, cataloged and analyzed to date have been determined to be insignificant by the State Historic Preservation Office. Since Gilbert has been a farming community, most of the land has been tilled on the surface layer. As land converts to other land uses greater care must be taken to address potential artifacts below this tilled surface layer. As artifacts are discovered, the State Historic Preservation Office must be notified and appropriate procedures followed. Incentives for redevelopment of areas to maintain historical or cultural significance may be considered.

Specific cultural resource issues expected to be of concern over the next twenty years include:

- Coordination with the State Historic Preservation Office on archeological findings
- Preservation of historic structures and artifacts, possibly including locations such as the Heritage District, Gilbert Museum, Water Tower, Gilbert School District Headquarters and Morrison Farmstead.

I) Hazardous Waste, Recycling and Sanitary Waste

1. Hazardous Waste

The Town of Gilbert operates a Household Hazardous Waste Collection Facility open to the residents of Gilbert. The facility provides residents with a way to properly dispose of household products such as bleach, pesticides, herbicides, motor oil, tires, electronic wastes and many other household products that may pose a

threat to human health or the environment. The program reduces the amount of hazardous material entering the sanitary sewer, storm drains and landfill and reduces illegal dumping of hazardous waste. Town Staff has worked with hazardous waste disposal contractors to ensure wastes are recycled to the best extent practical. In fiscal year 2009-2010, approximately 61% of the wastes collected were able to be recycled or used as alternative fuel.

With respect to large scale, commercial and industrial hazardous waste, Gilbert does not provide pick up or disposal service. Gilbert will, however, work with individuals, businesses and companies to identify private hazardous waste disposal sources.

Town Staff participates in various town-sponsored outreach events and posts information on the Town website and cable channel to encourage effective disposal of hazardous waste.

2. Recycling

The Town of Gilbert began its curbside recycling program in June 1992. Since then, every single family home has been issued blue (recycling) and black (trash) containers. For a fee residents may request additional black containers. Additional blue containers are available at no cost.

The Town of Gilbert promotes recycling through its Recycling Outreach Program. The Town, along with the Gilbert Unified School District, schedule recycling and storm water outreach education at many of the district schools. In addition, efforts to seek further outreach and partnerships with Chandler School District, Higley School District, private and charter schools, colleges, businesses and organizations are encouraged. Gilbert also participates in many community outreach events.

3. Sanitary Waste

Many Gilbert residential users, located on large residential lot and acreages, utilize on lot septic systems for disposal of septic waste. These residential users with individual septic systems are encouraged to connect to municipal sanitary sewer systems where available and economically feasible for the appropriate disposal of sanitary waste and for the opportunity for reclaimed water use purposes.

J) Environmental Justice Awareness

Environmental Justice is the fair treatment, equal opportunity and meaningful involvement of all people regardless of race, color, national origin or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including a racial, ethnic or a socioeconomic group should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal and commercial operations or the execution of federal, state, local and tribal programs and policies. Promoting awareness is a means of informing citizens of sustainability, wise use of resources, supporting environmental stewardship and involvement in the public participation process.

Gilbert's General Plan, zoning and plan review process is non-discriminatory, in that all construction plans are reviewed and inspected. Areas designated for industrial and commercial use are located along existing and planned traffic corridors. Some areas are currently undeveloped or used for agriculture. As residential development occurs, the provision by local developers of a mix of housing types is encouraged within the same development or area.

Gilbert hosts public meetings to involve local residents in the planning process for municipal operations such as the expansion of the South Wastewater Treatment Plant, lift stations and municipal parks and recreation facilities.

Gilbert believes that participation of all residents on planning matters through the public involvement and public hearing process adds to the quality and results in the improved outcome of all planning and development cases.

K) Green Building

Green Building

Green building (also known as green construction or sustainable building) utilizes environmentally responsible and resource-efficient techniques in the siting, design, construction and operation of a building in order to minimize impacts upon the environment and preserve natural resources.

Generally speaking, green building seeks the following environmental objectives:

- High levels of resource efficiency
- Energy efficiency
- Renewable energy use

- Water conservation
- Habitat preservation
- Stormwater management
- Recycling and use of recycled material
- Healthy indoor environments and
- Durability and flexibility of building design

Green building is a growing trend, bolstered by the public's increased awareness of its environmental stewardship, the rising costs of energy and government regulations favoring sustainable building techniques. Various green building certification programs are in existence, including the Leadership in Energy and Environmental Design (LEED) certification developed by the United States Green Building Council. Other Green Building certification programs are also available. In addition, industry associations (such as homebuilders) as well as state, regional and local governments around the country have also developed standards, recommendations and/or certification programs to encourage green building techniques. Public debate around green building often centers upon the tension between the costs associated with increased building standards (in the context of what the market can bear) and the environmental benefits derived from developing such standards. An important consideration for Gilbert is the selection and use of "locally available" green building products, materials and techniques.

Green Building in Gilbert

While Gilbert does not currently require public or private construction to utilize green building techniques, developers are encouraged to evaluate environmental factors as part of the early planning and review stages, and whenever possible, incorporate environmentally friendly materials and techniques during construction and throughout the life cycle of the building or development.

Environmental factors to be considered in construction projects include:

- Site and transportation issues, including the accessibility to and use of public and/or alternative transportation
- Use of high efficiency heating, ventilation and air conditioning (HVAC) systems, lighting, automated building systems and a well insulated building envelope
- Efficient water use, in terms of both quantity and quality, in the building and landscaping

- Materials with recycled content, reused, contaminant-free materials and renewable sources
- Facility operation and maintenance training and appropriate diagnostic tools

Other Gilbert standards to promote green building and sustainability include:

- Mitigation techniques provided in the Land Development Code, including the Vertical Development Overlay and Design Guidelines
- Urban Heat Island policies outlined by the Cool Pavements Brochure
- Stormwater Management Program and retention policies
- The Non-Per Capita Water Conservation Program
- Solid Waste Recycling program and
- Regulations and Ordinances promoting reduction of particulate matter, which include Maricopa County Air Quality Department, Arizona Department of Environmental Quality and the Environmental Protection Agency (EPA)

Gilbert adopted the 2006 Energy Conservation Code that is applicable to commercial buildings. This was an important step to implement energy conservation standards in commercial buildings. Prior to that, Gilbert adopted a code for residential building that contained an initial level of energy conservation standards for residential development. One potential next step for Gilbert could be to incorporate the standards set forth in the 2009 Energy Efficiency code created by the International Code Council (ICC) for commercial and residential developments. This would raise the bar by 15-20% in terms of minimum energy efficiency standards.

L) Urban Heat Island Effect

Urban Heat Island Effect (UHI) is the occurrence of higher air and surface temperatures occurring in medium and large sized urban centers such as the Phoenix Metro area, due to the retention and emittance of mainly solar heat from roads, buildings and other built surfaces. The heat stored in pavements and buildings has the effect of maintaining higher temperatures in urban centers than surrounding rural areas. Rural areas cool faster after sunset and at night than urban areas because of this stored heat.

Higher temperatures in urban centers are a concern because they:

 Accelerate the chemical reactions that produce ground level ozone and smog that potentially threatens public health and effects comfort of residents

- Cause higher urban temperatures and amplify extreme weather events such as heat waves and impact residents with heat stroke, especially the elderly
- Result in increased cooling costs and associated use and generation of electricity

Gilbert recognizes the importance of cool and pervious pavements, urban forestry (shading of paved areas) and cool roofs (also known as white and green roofs) as examples of reducing the urban heat island effect. Gilbert seeks to promote, encourage and educate applicants for development projects and the public of the benefits of using these mitigating measures.

M) Fissure Identification and Mitigation

Fissures are naturally occurring, narrow breaks in the land's surface and are recognized to exist in some portions of the community. If located, efforts to avoid or mitigate fissures during the development process are encouraged to be considered, in compliance with State standards.



ENVIRONMENTAL PLANNING

7.2 Goals and Policies

Goal 1.0

Ensure a continuous and adequate supply of quality water that meets Assured Water Supply Designation (ADWR) requirements.

- **Policy 1.1** Maintain the physical and legal availability of current water supply sources to meet water demands.
- **Policy 1.2** Ensure the appropriate use of available water supplies.
- **Policy 1.3** Continue to pursue the development of additional renewable water supplies to meet future water demands.
- **Policy 1.4** Ensure Gilbert water policies as outlined and/or referenced in the Integrated Water Resources Master Plan, Drought Policy and Vertical Growth Policy remain current.
- **Policy 1.5** Aggressively seek ways to supplement the projected usage of ground water at build-out with additional sources of less costly surface water supplies.
- **Policy 1.6** Continue to ensure that each new project (public or private) that will use reclaimed water enters into a reclaimed water use agreement with Gilbert.
- **Policy 1.7** Discourage extension of new water services to developments in unincorporated areas unless Gilbert is able to recapture a portion of this water through sanitary sewer service, except on a temporary basis prior to annexation by Gilbert, or on an emergency basis.

Goal 2.0

Conserve water and encourage its beneficial use.

Policy 2.1 Continue to promote responsible and effective water stewardship to all sectors of the community.

Policy 2.2 Continue to notify all residential and commercial customers of available water conservation services and information on the most effective methods of using and conserving water.

Policy 2.3 Continue to educate and promote the use of native and drought tolerant plant materials, where appropriate, to conserve water in public parks, right-of-ways, HOA common areas and commercial/industrial developments.

Policy 2.4: Encourage practices that minimize the use of potable water for landscaping and water features.

Policy 2.5: Encourage practices that optimize the use of reclaimed water for landscaping and water features.

Goal 3.0

Ensure Town of Gilbert water quality meets all applicable federal and state water quality standards.

Policy 3.1 Water Quality Department will stay engaged with all appropriate federal, state and county agencies to keep up to date with changes, amendments and with new and upcoming water quality regulations

Policy 3.2 Perform timely and accurate sampling, analyses and reporting of all required water quality samples, to assure full compliance with regulatory requirements.

Policy 3.3 Use implementation strategies to meet and follow all applicable rules and regulations.

Goal 4.0

Encourage the use of dust control mitigation measures.

Policy 4.1 Provide public educational information as required by the Clean Air Act and Maricopa County dust mitigation policies. Encourage the public and businesses to be aware of their responsibilities for dust control.

Policy 4.2 Continue to work with Maricopa County Air Quality Department on dust compliance issues including requirements for dust free driveways, parking lots and storage and staging areas.

Goal 5.0

Promote land use practices and land use patterns that encourage alternative methods of transportation and reduce emissions.

- **Policy 5.1** Encourage compact development and mixed-use projects to shorten travel distance for employment and essential services.
- **Policy 5.2** Encourage each new project, public or private, to provide a written analysis of methods to be employed, including physical design, development and/or written policies, to reduce vehicle and other emissions.
- **Policy 5.3** Support Maricopa Association of Governments (MAG) and its proven air quality enhancement efforts.
- **Policy 5.4** Support regional air quality enhancement efforts that may include dust control methods during construction and the use of unpaved roads.
- **Policy 5.5** Encourage home occupations to reduce vehicle trips and commuting related emissions.
- **Policy 5.6** Encourage construction of cable, fiber optic and other telecommunication media utilities to enable more home-based employment opportunities.
- **Policy 5.7** Encourage development of infill parcels.
- **Policy 5.8** Encourage a regional transportation system including a commuter rail link from ASU Polytechnic/Cooley Station to ASU main campus and the Phoenix Metro area.
- **Policy 5.9** Encourage walkable developments and pedestrian connectivity in the planning and project review process.
- **Policy 5.10** Encourage maintenance and renewal of commercial centers to promote shopping and local commercial center vitality.
- **Policy 5.11** Promote smart traffic systems and multi-modal street patterns with bike lanes, trails, sidewalks and pedestrian ways with neighborhood connectivity that enable the use of non-motorized vehicles.

Goal 6.0

Encourage the purchase of fuel-efficient and alternate fuel Town vehicles.

Policy 6.1 Review Town vehicle purchases to buy the most efficient vehicle for the job assigned.

Policy 6:2 Encourage businesses, institutions and the public to buy and use clean and fuel efficient vehicles.

Policy 6.3 Include fuel-efficiency and air emissions as part of the vehicle selection justification.

Policy 6.4 Explore opportunities and new technologies for economical, clean, fuel efficient and alternate fuel vehicles.

Goal 7.0

Identify and attenuate noise sources and protect noise sensitive uses from high noise sources.

Policy 7.1 Encourage avigation easements for residential development in areas affected by over flights from Phoenix-Mesa Gateway and Chandler Municipal Airports within high noise contour areas.

Policy 7.2 Encourage noise-attenuation for all new construction adjacent to noise sources as required by the building code such as railways and the Phoenix-Mesa Gateway Overlay District.

Policy 7.3 Encourage noise attenuation from developers of noise sensitive uses as required in the Santan Freeway Overlay District.

Policy 7.4 Encourage acoustical analysis for new developments in locations where exterior and interior noise levels will be required by the building code.

Policy 7.5 Encourage the use of site planning and building materials/design as primary methods of noise attenuation.

Policy 7.6 Pursue opportunities with railroads to reduce noise associated with operations and railway crossings.

Policy 7.7 Minimize motor vehicle noise impacts from streets and highways through proper route location and sensitive roadway design.

Policy 7.8 Protect residential uses and other noise sensitive land uses from exposure to high noise levels and limit residential and other noise sensitive uses from encroachment into areas subject to high noise levels.

Goal 8.0

Comply with federal and state storm water regulations.

Policy 8.1 Consider implementing a Storm Water Management Plan.

Policy 8.2 Provide the public with storm water education and outreach materials.

Policy 8.3 Provide homeowners associations and the public with dry well management information.

Policy 8.4 Continue to update the Land Development Code to incorporate regulatory requirements and policies that encourage storm water management through onsite retention.

Policy 8.5 Support regional watershed approaches to municipal storm water management.

Policy 8.6 Utilize cool and pervious pavements as an opportunity to meet storm water retention requirements where a grading and drainage report can verify a reduction in storm water runoff has occurred.

Goal 9.0

Encourage pollution prevention, waste minimization and recycling in all sectors of municipal, business and institutional operations.

Policy 9.1 Provide outreach and education to promote pollution prevention, waste minimization and recycling and proper handling and disposal of broken or damaged CFC light bulbs.

Policy 9.2 Increase the acquisition of environmentally preferable green products and services.

Policy 9.3 Encourage taking environmental factors into account as early as possible in the planning and decision-making process.

Goal 10.0

Encourage the preservation and/or restoration of cultural/historic resources.

Policy 10.1 If a cultural resource is found during the development or construction process, prepare a report per the State Historic Preservation Office and submit findings to the State Historic Preservation Office.

Policy 10.2 Document historic structures that are not practical for preservation, redevelopment or restoration. Remove and preserve artifacts to benefit community education prior to any redevelopment.

Policy 10.3 Encourage the maintenance and redevelopment of the unique character of the downtown Heritage District (refer to Heritage District Redevelopment Plan).

Goal 11.0

Encourage Gilbert residents to properly dispose and recycle household hazardous wastes, and encourage the connection of homes with septic systems into the municipal sanitary water systems.

Policy 11.1 Continue to provide residents with a convenient method for proper disposal and recycling of hazardous waste.

Policy 11.2 Promote proper disposal of household hazardous wastes through education and outreach activities; including an outreach to schools, businesses and community organizations.

Policy 11.3 Continue to assist industries and businesses to identify private hazardous waste disposal sources.

Policy 11.4 Encourage Gilbert residential areas using individual on-lot septic waste systems to connect to municipal sanitary waste systems where available and where economically feasible for appropriate disposal and the opportunity for reclaimed water use purposes.

Goal 12.0

Continue to provide for fair treatment, equal opportunity and meaningful involvement of all Gilbert residents regardless of race, color, national origin or income in development and implementation of Town programs and policies.

Policy 12.1 Continue to provide residents with participation opportunities, including the encouragement of participation in Gilbert's public process.

Policy 12.2 Promote a mix of housing types in residential development areas.

Policy 12.3 Recognize and encourage Environmental Justice, which is the application of fairness and equal opportunity in the land use decision making process.

Goal 13.0

Encourage the use of green building techniques in public and private development projects and establish Gilbert as a leader in green building.

Policy 13.1 Ensure that new and remodeled municipal facilities have the same (or greater) green building standards and requirements as comparable privately developed facilities.

Policy 13.2 Develop and adopt user-friendly green building guidelines that draw from a variety of existing or future rating systems and that do not adversely and/or unfairly impact stakeholder groups and economic development efforts.

Policy 13.3 Evaluate the municipal staffing impacts of green building standards and determine if there is a need for internal and/or external reviewers or inspectors. Likewise, explore the review systems currently available from associations that provide green building standards and utilize such reviewers when economically advantageous.

Policy 13.4 Establish a green track permit process offering incentives (such as reduced fees and permitting times and public recognition awards) to encourage the voluntary use of specific green building techniques. Encourage the use of federal, state, utility company and other available incentives.

Policy 13.5 Encourage the business community (small, medium and large businesses) to implement and develop green building standards.

Policy 13.6 Encourage Gilbert businesses to develop innovative green building products, services and technologies.

Goal 14.0

Encourage the mitigation of the Urban Heat Island (UHI) effect by the use of urban forestry, white and green roofs and cool and pervious pavements.

Policy 14.1 Develop criteria to evaluate development projects that contribute to the UHI and identify mitigation techniques and measures to help mitigate the UHI effect.

Policy 14.2 Seek partnerships with other municipalities, educational institutions, utility companies, government entities and others to promote UHI effect awareness among landowners, developers, engineers and architects.

Policy 14.3 Encourage design concepts utilizing planned and engineered green space and urban forestry to maximize shading of paved areas and buildings to help mitigate the UHI effect.

Policy 14.4 Promote education and awareness of the public, designers and applicants for the development and use of materials and construction techniques to help mitigate the UHI effect.

Policy 14.5 Provide for a reduction of the stormwater retention requirements where a grading and drainage report demonstrates a reduced stormwater storage capacity results from the use of pervious pavements on a site.

Goal 15.0

Mitigate fissures when encountered in accordance with State regulations.

Policy 15.1 Encourage new projects located in areas recognized to contain fissures to conduct soil testing and analysis to identify potential geologic hazards.

Policy 15.2 Encourage the use of State fissure data such as that from the Arizona Geological Survey as a reference for owners, contractors and developers.

Policy 15.3 Establish construction standards, with compliance to State standards, to address fissure related construction matters.

Policy 15.4 Include public notice for development proposals near recognized fissures.



Water for Agriculture



Riparian Area



ENVIRONMENTAL PLANNING

7.3 Implementation Strategies

The intent of the Environmental Planning Element is to provide a long-range plan for the development of the community in an environmentally sensitive manner compatible with planned land uses and expected community growth.

	A. Water Resources	Responsible Entity	Complete By
1.	Implement the recommendations of the most recent Integrated Water Resources Master Plan Update as the progress of development requires such implementation to ensure compliance with stated policy, goals, regulations and laws.	Water Resources Public Works	Ongoing
2.	Continue to aggressively seek additional renewable water supplies that meet Assured Water Supply requirements.	Water Resources Public Works	Ongoing
3.	Maintain and strengthen partnerships with water suppliers.	Water Resources Public Works	Ongoing
4.	Develop policies based upon appropriate potable water use when necessary.	Water Resources Public Works	Ongoing
5.	Develop an ordinance related to the provision of domestic water service in unincorporated areas.	Water Resources Public Works	Ongoing

	B. Water Conservation	Responsible Entity	Complete By
1.	Continue to develop programs to reduce overall demand of water resources. Programs shall meet the requirements of the Arizona Department of Water Resources.	Water Conservation Public Works Water Resources	Ongoing
2.	Manage existing programs to ensure compliance with ADWR requirements.	Water Conservation Public Works Water Resources	Ongoing
3.	Develop policies to continue the efforts of water demand management in order to maintain a Gallons per Capita per Day (PCD) of 220 gallons per person per day as Gilbert reaches build-out.	Water Conservation Public Works Water Resources	Ongoing
4.	Develop programs to reduce overall consumption of water resources. Programs shall meet the requirements of the Arizona Department of Water Resources.	Water Conservation Public Works Water Resources	Ongoing
	C. Water Quality	Responsible Entity	Complete By
1.	Continue to ensure Gilbert's water meets all applicable Federal and State water quality standards.	Public Works Water Resources Water Quality	Ongoing
2.	Continue to comply with EPA Groundwater Rules to improve drinking water quality and safe water supplies.	Public Works Water Resources Water Quality	Ongoing
3.	Provide ongoing sanitary surveys of the public water system obtained through monitoring. Implement corrective mitigation actions where required.	Public Works Water Resources Water Quality	Ongoing

4.	Pursue advances in water monitoring technologies and make system upgrades as needed.	Public Works Water Resources Water Quality	Ongoing
5.	Continue to meet and maintain drinking water standards and monitor and mitigate contaminant disinfection byproducts, arsenic, radion and radon.	Public Works Water Resources Water Quality	Ongoing
6.	Produce an annual Consumer Confidence Reports on the status of water quality in Gilbert.	Public Works Water Resources Water Quality	Ongoing
	D. Air Quality, Dust Control, Ozone; Land Use Practice, Alternative Fuel Vehicle Program and Trip Reduction Plan	Responsible Entity	Complete By
1.	Continue to comply with Federal Clean Air Act, Arizona State Implementation Plan (SIP) and Maricopa County standards for airborne particulate matter (PM).	Environment and Safety Code Compliance	Ongoing
2.	Enforce and maintain Gilbert Ordinances #1090 and #1091 regarding dust mitigation on vacant lots, unpaved parking lots and vehicle staging areas.	Environment and Safety Code Compliance	Ongoing
3.	Continue efforts to meet EPA ozone standards and Arizona Initiative for the Phoenix Ozone Air Containment Area.	Environment and Safety Code Compliance	Ongoing
4.	Promote land use practices to encourage alternate transportation methods to minimize vehicle emissions, minimize driving distances and promote infill and mixed- use developments and walk-able communities.	Environment and Safety Code Compliance	Ongoing
5.	Continue to work as a member of Arizona Clean Cities to understand traffic patterns of the Phoenix Metro area's commuter shed and promote the use of low emission and alternate fuel vehicles.	Environment and Safety Code Compliance	Ongoing

6.	Continue to meet State mandates for Trip Reduction Programs and the Maricopa County efforts to reduce the occurrence of single occupancy vehicle trips and the number of total vehicle miles traveled.	Environment and Safety Code Compliance	Ongoing
	E. Noise Attenuation	Responsible Entity	Complete By
1.	Continue to be aware of noise generation sources and seek to attenuate noise related conflicts through care in the placement of noise sensitive uses near recognized or potential noise generators including railways.	Planning Traffic	Ongoing
	F. Storm Water Quality	Responsible Entity	Complete By
1.	Continue to comply with the Clean Water Act and ADEQ standards regarding Natural Pollutant Discharge Elimination Systems (NPDES) to regulate water and urban runoff to protect water quality.	Environment and Safety Engineering	Ongoing
2.	Pursue public education, outreach and involvement in identifying contaminates and reporting illicit discharge and dumping in order to promote water quality and pollution control efforts.	Environment and Safety Engineering	Ongoing
	G. Pollution Prevention	Responsible Entity	Complete By
1.	Pursue efforts to reduce and eliminate at-source wastes, reduce pollution and related adverse environmental impacts.	Environment and Safety Support Services Fire Household Hazardous Waste Public Works Purchasing	Ongoing

2.	Meet EPA, ADEQ and Maricopa County Air Quality Department standards for safety, containment and clean up practices for hazardous waste spills.	Environment and Safety Support Services Fire Household Hazardous Waste Public Works Purchasing	Ongoing
3.	Pursue purchasing of green products.	Environment and Safety Support Services Fire Household Hazardous Waste Public Works Purchasing	Ongoing
	H. Cultural and Historic Resources	Responsible Entity	Complete By
1.	Continue to identify cultural and historic structures and assets as determined by the State Historic Preservation Office (SHPO).	Planning	Ongoing
2.	Provide information to builders and developers regarding identification and reporting of artifacts to SHPO.	Planning Permitting and Plan Review	Ongoing
I.	Hazardous Waste, Recycling and Sanitary Waste	Responsible Entity	Complete By
1.	Provide additional information to residents about Household Hazardous Waste Collection Facilities.	Solid Waste Engineering Household Hazardous Waste	Ongoing
2.	Promote recycling through Recycling Outreach programs for residents, businesses and schools.	Solid Waste Engineering Household Hazardous Waste	Ongoing

	a hilwi	
3. Encourage Gilbert residents currently using onsi septic systems to connect to the municipal sanita	rv	Ongoing
sewer system, where available and economically	' Engineering	
feasible.	Household Hazardous Waste	
J. Environmental Justice Awareness	Responsible Entity	Complete By
1. Promote fair treatment, equal opportunity and meaningful involvement for all people of the community.	Planning	Ongoing
2. Continue to assure all land use decisions are equitable and consider the rights of all residents.	Planning	Ongoing
K. Green Building	Responsible Entity	Complete By
1. Promote green building in all aspects of	Planning	Ongoing
construction in Gilbert.	Permitting and Plan Review	
	Building	
	Engineering	
	Environmental Programs	
	Policy Task Force	
2. Implement green building techniques, energy	Planning	Ongoing
efficiency and alternative energy construction practices.	Permitting and Plan Review	
	Building	
	Engineering	
	Environmental Programs	
	Policy Task Force	

	L. Urban Heat Island Effect	Responsible Entity	Complete By
1.	Promote pervious, cool pavements, urban forestry (shading of paved areas) and cool roofs (white and	Planning	Ongoing
	green roofs) as a means to reduce the Urban Heat Island effect.	Permitting and Plan Review	
	isiand effect.	Traffic and Circulation	
		Engineering	
2.	Provide information to builders, developers and the public to encourage UHI effect mitigation	Planning	Ongoing
	methods.	Permitting and Plan Review	
		Traffic and Circulation	
		Engineering	
	M. Fissure Identification and Mitigation	Responsible Entity	Complete By
1.	Encourage builders, developers and residents to be	Planning	Ongoing
	aware of naturally occurring fissures in areas of the community.	Engineering	
2.	Upon identification of fissures, report occurrences	Planning	Ongoing
	to State agencies and consider mitigation measures in conformance with State statutes.	Engineering	



CHAPTER 8

HOUSING AND CONSERVATION



Rendering of Cooley Station-Streetscape South of Village Center

The Town is committed to maintain its housing quality and will continue offering in its land use mix a variety of residential developments for all family types and income levels. This will provide housing opportunities by creating new neighborhoods and rehabilitating existing ones, while creating a balanced maturing community.



INTRODUCTION

Background

The Housing and Conservation Element addresses the *Growing Smarter Legislative* requirements. It relates to the Land Use and the new Neighborhood Preservation and Revitalization element by identifying policies to promote programs for preventing substandard developments and sites (residential, commercial and employment) in need of redevelopment. The Housing and Conservation element is presented in the following sections:

- Existing Conditions
- Issues
- Goals and Policies
- Planning Guidelines
- Implementation Strategies

The Housing and Conservation Element contains an analysis of the existing and forecasted housing needs to make equal provision for the housing needs of all the segments of the community and to supply the supporting services needed. It also identifies a variety of issues the community should be directing efforts to resolve.



8.1 Existing Conditions

- The Heritage District Redevelopment Plan describes redevelopment goals in the original downtown area.
- The Town has been actively promoting commercial and residential redevelopment in the downtown area.
- Many existing uses in and near the Heritage District will require major maintenance and rehabilitation to prevent further deterioration of the area.
- Streets, water lines, sewer lines and other infrastructure in the downtown area have deteriorated and require renovation, some of which has been accomplished in recent years.
- The majority of housing in the community is relatively new, with over 90% built after 1990.
- Approximately 95% of existing housing is detached, single family units.
- In the next 10 years, over 9,000 houses will be over 30 years old and likely require rehabilitation.
- The majority of new development is served by homeowners associations, which act to maintain neighborhood quality.



8.2 Issues

Current and potential issues expected to be of concern over the next twenty (20) years (not necessarily listed in priority order) include:

- Specialized zoning categories and code requirements are needed to maintain existing uses and encourage desired redevelopment uses in many areas within and near the Heritage District.
- New housing will be needed to meet the expanding student and employee population at ASU Polytechnic, Phoenix-Mesa Gateway Airport and surrounding commercial and employment areas.
- Provide for the housing needs of all segments of the community.
- A large percentage of existing housing units may require major maintenance or repairs in the next 10 years.
- Older neighborhoods, especially those not served by an active homeowners association or newly incorporated areas could well require significant action to prevent deterioration.
- The new residential growth will occur in agricultural areas on the eastern and southern portions of the Planning Area where streets, utilities and other infrastructure and major improvements will be completed per Capital Improvement Program schedule and private development.
- Establish balance between the provision of elderly housing and the number of conventional residential development.

As Gilbert continues to grow, the Town must ensure provisions for adequate infrastructure to accommodate projected additional units:

•	Current housing stock	75,880
•	2020 projected total of units	92,190
•	2030 projected total of units	109,309

Based on Maricopa Association of Governments Data.



8.3 Goals and Policies

Goal 1.0

Promote infill development.

Policy 1.1 Add to the variety of housing to meet the needs of all segments of the Gilbert community through neighborhood revitalization, redevelopment and infill developments.

Policy 1.2 Encourage builders and developers to build mixed-use developments that include housing components in infill areas.

Policy 1.3 Establish guidelines for infill development that respect the scale and character of the neighborhood.

Goal 2.0

Encourage preservation and/or revitalization of mature areas of Town.

Policy 2.1 Protect and preserve older residential neighborhoods.

Policy 2.2 Identify availability of programs/funding for renovation of existing public infrastructure and utilities serving older residential neighborhoods.

Policy 2.3 In older neighborhoods, use code compliance, neighborhood associations and homeowners associations, if established, as tools to maintain their quality.

Goal 3.0

Encourage and promote redevelopment activities in the Heritage District.

Policy 3.1 Encourage the assemblage of smaller parcels into larger scale mixed-use projects in targeted redevelopment areas.

Policy 3.2 Promote housing in the Heritage District through renovation and redevelopment of existing structures and adopt regulations that promote revitalization of the residences within this area.

Policy 3.3 Enhance downtown livability through live/work, shopping, cultural and recreational opportunities in the Heritage District.

Policy3.4 In the Heritage District, promote the development of unique housing opportunities in connection with redevelopment efforts.

Goal 4.0

Encourage quality residential developments that provide a diversity of housing types, styles, densities and prices for all income levels.

Policy 4.1 Promote the development of a broad variety of new housing types.

Policy 4.2 Support private and public-private partnership development of broad housing types targeting state and federal funds and other available programs.

Goal 5.0

Implement comprehensive conservation and revitalization programs for existing property.

Policy 5.1 Encourage neighborhoods and homeowners associations in addressing local common areas and property maintenance issues.

Policy 5.2 Provide assistance for upgrading and improving existing homes to those who demonstrate financial needs and establish minimum standards for the livability of residential buildings.

Policy 5.3 Adopt Town programs that proactively educate and assist property owners in older neighborhoods to find a match for their housing revitalization needs.



8.4 Implementation Strategies

The intent of the Housing and Conservation Element of the Gilbert General Plan is to provide a long-range plan for the conservation and improvement of the housing quality and the rehabilitation and /or redevelopment of the existing building stock and infrastructure. It also addresses new development to provide diversity of housing in a manner compatible with planned land uses and the expected rate of growth.

	Housing and Conservation	Responsible Entity	Complete By
1.	Maintain proactive code enforcement in older areas of the Town.	Code Compliance	Ongoing
2.	Concentrate on improving diverse housing types Town wide.	Planning Community Services	Ongoing
3.	Utilize available targeted federal, state and other funds to rehabilitate dilapidated residential structures.	Community Services	Ongoing
4.	Promote compatible infill and mixed-use development with a housing component.	Planning	Ongoing
5.	Adopt zoning regulations that promote sustainable housing developments including a mixture of housing types and higher densities where they may be compatible with adjoining uses and within the context of approved plans.	Planning	Ongoing
6.	Actively recruit builders and developers to locate in infill and underutilized areas within the Town.	Business Development	Ongoing
7.	Use available targeted federal and state funds for rehabilitation and redevelopment of existing	Community Services	Ongoing

	housing in or near the Heritage District and other areas identified in need of revitalization.		
8.	Encourage and promote redevelopment activities in the Heritage District.	Town Manager's Office Development Services	Ongoing
9.	Acquire and assemble property in targeted redevelopment areas and make it available for redevelopment.	Town Manager's Office Development Services	As Required
10.	Pursue the construction of housing for families, elderly and special needs populations.	Planning Development Services	Ongoing
11.	Provide technical assistance and other support for special needs housing service providers.	Planning Permitting and Plan Review	Ongoing
12.	Locate senior and special needs housing near the services needed by this population.	Planning	Ongoing
13.	Partner with developers, nonprofit agencies and organizations to meet housing and revitalization goals.	Community Services Planning	As Required
14.	Support expansion of the Maricopa County Section 8 and similar programs in Gilbert.	Community Services	Ongoing
15.	Ensure that substandard infrastructure will be upgraded as redevelopment occurs.	Development Services	As Required



CHAPTER 9

ECONOMIC DEVELOPMENT



SanTan Village Mall

Gilbert is "open to business" and attracts, retains, and grows innovative, entrepreneurial businesses of all sizes that provide high-wage job opportunities for Gilbert residents and enhance Gilbert's outstanding quality of life.



Coffee Shop, Agritopia



Gilbert Heritage District



INTRODUCTION

With build-out a possibility during the twenty (20) year time period envisioned by this General Plan, the choices Gilbert makes now about its economic development future are of vital importance. Gilbert must not only build on its past successes; it must also be prepared to capitalize on expected growth in industries such as health sciences, clean and renewable energy, aerospace/aviation, high technology and other high-wage industries. In doing so, Gilbert expects to provide an environment that encourages and sustains innovation and entrepreneurship.

Gilbert residents, businesses, and the community will pro-actively work together with other key public, private and educational partners to create and capture these future opportunities. In addition, Gilbert's municipal services should be business-friendly and innovative in interactions with businesses of all sizes.

Finally, Gilbert's economic growth will be consistent with and support Gilbert's vision as a livable community characterized by the high quality of life that Gilbert residents enjoy.

This Economic Development Element provides goals and polices for economic development that support Gilbert's land use policies. It also provides policy support for Gilbert's Marketing Strategy and Five-Year Strategic Plan, which sets forth strategies and actions through which Gilbert will achieve its desired economic development. The Economic Development Element is presented in the following sections:

- **Existing Conditions**
- **Issues**
- Goals and Policies
- Implementation Strategies



GILBERT GENERAL PLAN

Cooper Point



San Tan Hyundai



ECONOMIC DEVELOPMENT

9.1 Existing Conditions

Gilbert's economic development efforts are beginning to bear fruit. Gilbert is recognized as a globally competitive community for business and industry. It is expected that Gilbert will continue to see significant positive opportunities over the next ten years and beyond. Key existing conditions that will affect such opportunities are:

- Gilbert has experienced a significant amount of residential development. Approximately 225,000 residents, living in a diverse array of housing types, now call Gilbert home, and another 100,000 residents are expected to move to Gilbert before build-out. Gilbert's employment base is over 85,000 workers (with nearly a million more workers within a 45-minute commute) and includes people with nearly every skill-set and educational level.
- Office, flex and industrial space has expanded significantly along the Loop 202
 Santan Freeway and in the established business parks in Gilbert. Several large
 tracts of land are also planned for business park and employment uses in key areas
 of the community.
- Gilbert's commercial retail sector has grown with the opening of the Loop 202
 Santan Freeway and includes a regional mall, several successful power centers, an
 auto mall and shopping opportunities to satisfy local and regional needs.
- Gilbert has identified major employment corridors and is focusing attention on attracting and retaining businesses in these key areas. The employment corridors are dynamic and will change over time with development and available land. A map of the current employment corridors can be obtained through the Business Development Division.
- Within the major employment corridors, Gilbert has identified five (5) areas of the community where vertical development is encouraged to maximize land use for employment and mixed-use development opportunities. Those areas are: 1) Banner Gateway Medical Center area (Higley/US 60); 2) Power Road Corridor (adjacent to Phoenix-Mesa Gateway Airport); 3) Gateway District (Cooley

Station area); 4) Higley/Warner (Adjacent to Loop 202 Santan Freeway); 5) Loop 202 Santan Freeway area (Gilbert to Ray).

- Gilbert has many innovative, small and home-based businesses that provide diversity and entrepreneurial growth opportunities for the community. Many of these businesses add local charm and character to Gilbert and will likely have the potential of becoming medium or large businesses with investment support from public and private resources.
- Gilbert's job-based economic development strategy currently targets industries with an emphasis in the Science, Technology, Engineering and Mathematics (STEM) skill-sets. In doing so, Gilbert is creating a "preferred environment" for life science and health-care industries to capitalize on its three growing medical campuses and the expected strength of such industries. Gilbert has identified economic development with a primary emphasis on bio-med/life sciences as a priority. In addition to the life sciences and health-care industries, Gilbert targets the following industries: Advanced Business Services, Aerospace/Aviation, Clean and Renewable Energy, High Technology, and Unique Retail, Entertainment and Hospitality opportunities.
- Gilbert coordinates regional business attraction activities with the Greater
 Phoenix Economic Council, the Arizona Commerce Authority, neighboring
 communities and other nearby assets such as Phoenix-Mesa Gateway Airport (of
 which Gilbert is part-owner), ASU Polytechnic, A.T. Still University and the
 Maricopa Community College System and supports partnerships and
 collaboration with these groups.
- Gilbert's proximity to established and growing economic areas in Chandler (Chandler Airpark area) and Mesa (Phoenix-Mesa Gateway Airport area) allows Gilbert to capitalize on and complement successes in neighboring communities.
- Gilbert participates in state and regional forums on economic development issues as they affect the community and the overall business climate.
- Gilbert encourages tourism related activities and is working to promote recreational, sports marketing, shopping and hospitality opportunities.



ECONOMIC DEVELOPMENT

9.2 Issues

The following current and potential issues may impact economic development efforts in Gilbert over the next twenty years:

- Developing and achieving sustainable revenues that meet the expected demand for services within Gilbert, especially with the budget's current dependence on sales tax revenues (sales tax, state-shared revenues and construction sales tax).
- The preservation and/or expansion of land planned for employment uses.
- Mitigating impacts when locating employment uses adjacent to existing residential areas.
- The need for available sites that support the space and infrastructure requirements of businesses within Gilbert's targeted industries.
- The prevalence of economic development incentives and tools used by "competing" foreign and domestic municipalities to attract and retain businesses.
- Support for the diversity of housing types that are needed to house workers across the spectrum of employment opportunities expected within Gilbert.
- Ongoing development of Phoenix-Mesa Gateway Airport and the surrounding area.
- Current and future plans for educational programs at the higher educational facilities in and around Gilbert, including ASU Polytechnic, Chandler-Gilbert Community Colleges and A.T. Still University, among others.
- Maintenance of community quality while continuing to enhance the business-friendly image of Gilbert.
- Supporting platforms for the entrepreneurial efforts of existing and future small businesses in Gilbert.

- The quality and availability of water, power and the other resources (and related infrastructure) needed to sustain economic growth in Gilbert.
- Increasing pressure on existing and planned local and regional transportation infrastructure.
- Industry shifts and governmental regulation in the areas of environmental sustainability and "green" building standards, including the conservation of resources and the promotion of alternative energy sources (especially solar energy).
- Growing interest in mixed-use developments and determining what constitutes a "mixed-use development."



SanTan Village Mall



Phoenix-Mesa Gateway Airport Terminal



ECONOMIC DEVELOPMENT

9.3 Goals and Policies

Goal 1.0

Attract high-wage jobs for Gilbert residents while diversifying the local economy through the attraction, retention and growth of targeted industries.

Policy 1.1 Develop and promote a preferred environment for businesses in targeted life sciences industry sectors.

Policy 1.2 Actively recruit, retain and grow businesses in other strategic industry clusters including: healthcare and life science (beyond those covered in Policy 1.1); aerospace, aviation and defense; high technology and creative media; clean and renewable energy; and corporate and professional headquarters/offices in advanced business services.

Policy 1.3 Ensure that attracting high-wage jobs for Gilbert residents is a key goal of economic development efforts and that appropriate quantitative measurements and tracking systems are utilized to monitor success.

Policy 1.4 Support the development of public and private resources that encourage collaboration, entrepreneurialism and the innovation of businesses of all sizes.

Policy 1.5 Encourage the protection and expansion of the land (and/or densities) designated in the General Plan for employment uses.

Policy 1.6 Encourage vertical development within the vertical development overlay areas to best leverage lands designated for employment uses.

Policy 1.7 Consider creating and setting guidelines for a new "Mixed-Use" land-use designation for the Zoning Code to facilitate the integration of employment, residential and retail developments.

Policy 1.8 Develop economic development incentives and tools to attract businesses in targeted industries.

Policy 1.9 Involve organizations representing business in efforts to attract, retain and grow businesses in Gilbert.

Goal 2.0

Maintain and broaden the mix of unique shopping, service, hospitality and recreational opportunities in Gilbert to attract and retain local and regional sales and bed tax revenue within the community.

- **Policy 2.1** Utilize Gilbert's community brand and demographics to attract and retain unique retailer, entertainment and hospitality to diversify and capture local and regional consumer expenditures.
- **Policy 2.2** Implement a strategy to identify and attract hospitality (hotel/motel/etc.) and tourism opportunities that fit Gilbert's facilities and create new bed tax revenues.
- **Policy 2.3** Identify and attract unique tourism demand generators that will bring visitors and new revenues into Gilbert.
- **Policy 2.4** Continue to invest in redevelopment projects of the Heritage District; procure and apply public grants and private capital to accomplish redevelopment plans.
- **Policy 2.5** Implement programs to encourage existing retail developments to remain "current" and competitive in order to avoid the need for costly revitalization efforts in the future.

Goal 3.0

Ensure a high-quality level of public services for residents, businesses and visitors.

- **Policy 3.1** Understand the demands of and provide orderly service and infrastructure expansion to employment areas.
- **Policy 3.2** Strive to continually improve service levels.
- **Policy 3.3** Develop and project a pro-active, business-friendly attitude in all Gilbert departments and divisions so that businesses receive a consistent "open to business" experience when approaching the community.
- **Policy 3.4** Improve Gilbert processes and procedures to speed approvals and reduce the costs to develop and operate a business (especially small businesses) in the community.

Goal 4.0

Use economic growth to improve the quality of life in Gilbert.

- **Policy 4.1** Implement the economic development five-year strategic plan focused on high-wage jobs, innovation and capital investment.
- **Policy 4.2** Encourage new development that is supportive of the environment in terms of air and water quality, noise or visual impacts.
- **Policy 4.3** Strive to ensure that new development is consistent with "green building" standards and the wise use of resources and takes advantage of alternative energy sources when possible, including solar energy.
- **Policy 4.4** Enhance and maintain the high quality of both public and private development in Gilbert.
- **Policy 4.5** Attract businesses that are committed to collaboration, innovation and entrepreneurship with high levels of capital investment that enhance Gilbert's bonding capacities.
- **Policy 4.6** Attract, retain and grow unique retail businesses that serve a regional customer base as a means to increase Gilbert's sales tax revenues.
- **Policy 4.7** Encourage local companies to develop and/or participate in public/private partnerships that provide educational and training opportunities to Gilbert residents.

Goal 5.0

Use Gilbert resources to achieve economic goals.

- **Policy 5.1** At the discretion of the Gilbert Town Council and with advice from municipal staff, consider utilizing development incentives and other public investments to attract targeted businesses to locate in Gilbert when a positive return on investment and public benefit can be demonstrated, or in rare cases, when needed to otherwise meet the clear and strategic economic development interests of the community.
- **Policy 5.2** Utilize Capital Improvement Projects (where possible) and other Gilbert funding sources to expand and maintain Gilbert utilities and other infrastructure to enable development of key employment corridors, retain existing businesses and speed the attraction and growth of targeted industries.

Policy 5.3 Use all reasonable efforts to work with neighboring communities and entities as well as relevant stakeholders to develop a comprehensive public transit system for the Gateway Area that may include bus routes and/or shuttle service between the Phoenix-Mesa Gateway Airport, ASU Polytechnic and the transit station site contemplated for Cooley Station, while also working on the provision of commuter and/or light rail service along the Union Pacific right-of-way to Phoenix and Tucson.

Goal 6.0

Participate in economic development efforts with neighboring communities, other political jurisdictions, educational providers and private sector partners.

Policy 6.1 Participate as a member of the Greater Phoenix Economic Council (GPEC) and work with other state, regional, local and tribal organizations (public and private) to attract, grow and retain businesses in Gilbert.

Policy 6.2 Continue as an owner and member of the Phoenix-Mesa Gateway Airport.

Policy 6.3 Continue to develop and strengthen Gilbert's relationship with its neighboring communities: Chandler, the Gila River Indian Community, Queen Creek, Maricopa County, Mesa, and Pinal County.

Policy 6.4 Work with educational partners such as ASU Polytechnic, Chandler-Gilbert Community College, A.T. Still University, local school districts and other public or private educational institutions to prepare the workforce needed for Gilbert's targeted industries, especially in the disciplines of Science, Technology, Engineering, and Mathematics (STEM).

Policy 6.5 Coordinate planning for commercial and industrial/office uses and gateway projects on Gilbert's borders with neighboring jurisdictions.

Policy 6.6 Support significant employment development in areas near Gilbert, with emphasis on the Phoenix-Mesa Gateway Airport and Chandler Airpark areas.

Policy 6.7 Support orderly annexation of land within the Gilbert Municipal Planning Area.



ECONOMIC DEVELOPMENT

9.4 Implementation Strategies

Implementation of the Economic Development Element of the General Plan is the responsibility of a variety of departments and individuals. The following table identifies key activities, the responsible entity and the target date for completion.

Economic Development	Responsible Entity	Complete By
1. Create five-year strategic plan and annual action plan documents detailing specific activities that Gilbert will do to achieve the goals set forth in the economic development element of the General Plan.	Economic Development	5-year Strategic Plan by 6/30/2015 and 6/30/2020 with annual action plans each fiscal year
2. Review/Develop economic development policies and tools as they relate to targeted industries, redevelopment efforts, hospitality attraction and the preservation of existing retail centers.	Economic Development Town Manager's Office	Ongoing
3. Cooperate with Gilbert's economic development stakeholders in pursuit of business attraction activities.	All Departments	Ongoing
4. Actively participate in the development and management of Phoenix-Mesa Gateway Airport.	Mayor' Office Town Manager's Office	Ongoing

5. Survey development customers to determine satisfaction with Gilbert processes and use results to drive improvements as needed.	Development Services	Ongoing
6. Review General Plan land use proposals and protect land designated for employment and retail uses.	Planning Business Development	Ongoing
7. Integrate economic development principles into all aspects of municipal government.	All Departments	Ongoing



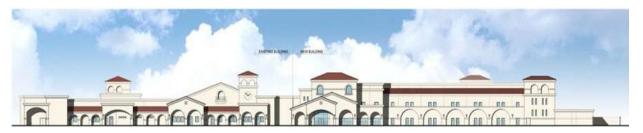
Mercy Gilbert Medical Center



Banner Gateway Medical Center



Banner MD Anderson Cancer Center - rendering

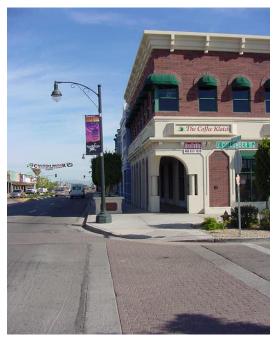


Gilbert Hospital – proposed final build out



CHAPTER 10

CHARACTER AREAS



Heritage District

Gilbert desires to create and protect
unique areas of Town by identifying and
providing guidance through the use of
Character Areas and guidelines.



Morrison Ranch



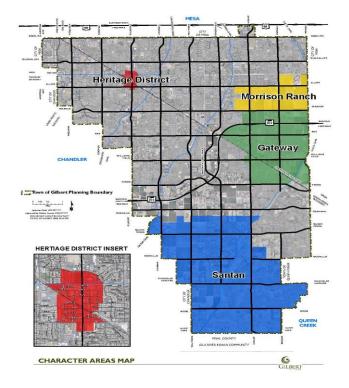
INTRODUCTION

Character Areas are specific geographic areas that possess unique or special characteristics or have the potential to evolve into a unique area, unlike any other in the Town. The areas may also have certain development issues which make the area unique, for example, ASU Polytechnic and the original downtown area.

The following Character Areas are intended to define unique areas of the Gilbert Planning Area. Each of the following Character Areas has been previously adopted as a General Plan Amendment or specific area plan. The areas were done separately from each other and contain different goals and policies. Additionally, since these were not created as one document, the formatting and layout for each Area is slightly different.

Guidelines for each Character Area are specific to each area. These do not replace the land use policies or map designations in other parts of the General Plan, but merely provide definition and detail.

A larger version of the Character Areas Map is located in the exhibits.



- Heritage District Character Area
- Gateway Character Area
- Morrison Ranch Character Area
- Santan Character Area



CHARACTER AREAS

10.1 Heritage District

The Gilbert Heritage District is the historic and symbolic center of the community. It offers opportunity for the adaptation of significant properties to uses that will have a positive impact on the adjacent residential and commercial sectors. By maintaining appropriate uses, design and architecture in the District, the area will remain the community's link with the past and future.

Guided by the Redevelopment Plan and the Heritage District Design Guidelines, development and reinvestment is highly encouraged in the Heritage District in order to maximize the economic potential of properties, rehabilitate substandard buildings, eliminate blighting influences, improve parking, beautify streetscapes and allow the assembly of land for new development. As new construction and rehabilitation activities occur, the Redevelopment Plan and Design Guidelines will serve as a catalyst for the improvement of other properties. Together, this will help to attract more businesses and customers, thereby increasing the economic vitality of the area. Both documents should be referenced for comprehensive information regarding the Heritage District Character Area.

The Gilbert Redevelopment Plan was first adopted in 1991 and updated in 2001 and 2008. The plan builds upon the foundation that was established during the original visioning process and provides new insights that will enhance the initial goals and guidelines. Through the coordinated efforts of both the public and private sectors, the continued redevelopment of the Heritage District will be a major contributing factor in Gilbert's continuing quest to be a *Community of Excellence*.

The Heritage District Design Guidelines were adopted in 2010. The purpose of the guidelines is to:

- Communicate to the development community in advance the design expectations for projects within Gilbert's Heritage District to facilitate the review process. Heritage District projects are those proposed within the Heritage Village Center, Single and Multi-Family Residential and Public Facility/Institutional zoning districts.
- Facilitate the fair and consistent application of design objectives.

- Protect investment in the community by encouraging consistently high quality development.
- Foster a sense of place and pride in visiting, working and living in the district.
- Facilitate safe, comfortable, functional and attractive development.
- Encourage projects that are adaptable to the desert environment.
- Provide residents with a connection to the community's roots and history.
- Encourage development of shaded outdoor spaces for the use and benefit of residents, employees and visitors.
- Encourage sustainable site and building design to reduce negative impacts and conserve energy.

Heritage District Character Area Goals

- Promote quality urban design with emphasis on small town historical character.
- Improve the economic viability of downtown.
- Promote reinvestment and attract new development.
- Improve pedestrian and vehicular circulation to ensure a pedestrian friendly and safe environment.
- Promote downtown as the symbolic and cultural center of the Community.

Heritage District Boundary

The district contains approximately 0.3 square miles (192 acres) and includes the original town site core, the commercial areas on both sides of Gilbert Road from Juniper Avenue to 600 feet south of Elliot Road and the residential neighborhoods one quarter mile east and west of Gilbert Road between the Western Canal and Elliot Road.

The northern boundary is Juniper Avenue, extending approximately 1,000 feet east and west of Gilbert Road. The southern boundary follows an imaginary line south of the Gilbert Historical Society facility, 600 feet south of Elliot Road. The eastern boundary follows a north-south alignment at approximately 250 feet east of Palm Street, shifts west along Cullumber Avenue and then south along the east side of Palm Street. The remainder of the east boundary lies along the Railroad tracks to Elliot Road and then shifts 700 feet to the west. Finally, the district boundary turns south to meet the southern boundary. The western boundary aligns with Catalina Road from Elliot Road north to the RR tracks, west 1,400 feet to the Western Canal and then north to Juniper Avenue.



CHARACTER AREAS

10.2 Gateway

Design

Purpose: The Gateway Character Area identifies desirable physical characteristics that will enhance Gilbert's unique identity and encourage development of traditional neighborhoods. It provides traditional village/neighborhood design concepts, which are reminiscent of the heritage of Gilbert. It promotes pedestrian, bicycle, transit-oriented design and integrates residential, commercial, employment land uses. It also affords an opportunity for small-scale urban agriculture.

A majority of the Gateway Character Area is undeveloped; however, capital projects are currently underway in the anticipation of development. Several master plans have been approved in the area. The Gateway Character Area is approximately 4,300 acres (7 square miles) in size.

Design Policies for areas within this Character Area are listed below.

Village Center Design Policies

- 1. Provide for a classic mixed-use, pedestrian-oriented village center configuration surrounded by traditional residential neighborhoods.
- 2. Design varied and interesting building facades, with ground floor retail and entertainment uses and upper floor office and residential units.
- 3. Discourage auto-oriented uses and other uses with drive-up, drive-through, or drive—in facilities.
- 4. Design a pedestrian/transit-oriented "Main Street" along Williams Field Road. Minimal setbacks will bring buildings close to the street and promote pedestrian activity, window-shopping and street-side dining.

- 5. Design the Village Center to allow for standard and shared parking and access. Parking garages should contain retail at the street level with plaza exposure. Rear surface parking and under building or structure parking is encouraged.
- 6. Allow for limited on-street parking separated by landscape islands at intervals.
- 7. Provide for shuttle bus street-side pullouts.
- 8. Provide for pedestrian-oriented plazas fronting and opening onto Williams Field Road, with secondary openings to Recker Road and adjacent residential neighborhoods.
- 9. Design sidewalks and plazas on Williams Field Road with pedestrian oriented amenities, including shade structures and covered walkways, benches, bicycle parking, seat walls, decorative surface treatments, artistic features, outdoor cafes, water features, pedestrian scale lighting, canopy trees and landscape planters separating pedestrians from automobiles.
- 10. Provide for attractive and urban-oriented signage that may include projecting, neon and brightly colored components.

Village Center Residential Design Policies

- 1. Develop a high quality residential environment within the Village Center to include lofts, townhouses, condominiums and apartments.
- 2. Provide on-site amenities for residents, including swimming pools, recreational facilities, clubhouses and other services. Provide covered, private outdoor space for all units, where applicable.
- 3. Encourage patios and balconies as part of the design of the residential units.
- 4. Promote varied and interesting architectural design for building facades and rooflines.
- 5. Encourage a minimum of ten (10%) percent of the residential sites for on-site open space and landscaping.
- 6. Encourage service areas and secured-shared parking, in the form of surface, under building and/or structure parking.

- 7. Create a safe and attractive open space and pedestrian/bicycle system to connect the mixed uses in the Village Center to parks, schools, commercial and employment services and neighborhoods.
- 8. Provide densities ranging from twenty-two (22) to fifty (50) dwelling units per acre within the Village Center.

Neighborhood Residential Design Policies

- 1. Design high quality residential neighborhoods that utilize the neo-traditional (contemporary architecture and design that borrows from the past and includes compact development aimed at pedestrian movements) concept and principles. Provide for safe and convenient circulation, open space and recreational opportunities and a pedestrian network in the residential neighborhoods. Include adequate open space that will be linked to schools, commercial and employment services, parks and neighborhoods by safe and attractive pedestrian ways, bicycle paths, trail systems and residential scale streets. Provide a residential lot layout and home architecture that provides street character and various housing styles consistent with the neo-traditional concept.
- 2. Encourage and design neighborhood parks adjacent to high-density residential developments.
- 3. Design varied and human-scale house facades to make neighborhoods pedestrian-friendly.
- 4. Enhance visual interest and provide a sense of security along the streets. Incorporate visual relief, detail and interest along all sides of structures.
- 5. Design developments with small front yard setbacks and provide all elevations of homes with a high level of visual interest, including porches or patios, courtyards, bay windows, or porte-cocheres. Vary architecture from one home to the next. Discourage staggered front yard setbacks.
- 6. Provide narrow streets with separated sidewalks and landscape planters.
- 7. Provide recessed, side entry, or rear garages accessed by side driveways or alleys.
- 8. Minimize the amount of fencing to create a more open feel in the neighborhoods. Encourage low profile, attractive, open fencing adjacent to local and collector streets. A combination of solid view walls and landscaping is encouraged along arterials.

Open Space and Park Policies

- 1. Design a variety of facilities in the open space and park areas to meet the required recreation and cultural needs of the entire Gateway Area.
- 2. Plan and design public and private parks to be a focal point of community and neighborhood activity.
- 3. Link open spaces to schools, commercial and employment services and neighborhoods by safe and attractive pedestrian ways, bicycle paths, trail systems, narrow residential streets and short blocks.

Neighborhood Parks Design Policies

- 1. Design neighborhood parks to provide a suitable number of recreation facilities to accommodate each neighborhood.
- 2. Design neighborhood parks to be the focal point of neighborhood activity. Design for views into parks from public streets.
- 3. Design neighborhood parks with grassy play fields and play equipment, where appropriate. Provide shade structures, trees and plants that make a comfortable and safe environment.

Transit Design Policies

- 1. Provide transit-oriented design for the Village Center to fully integrate transit with all land uses and open spaces.
- 2. Provide transit-oriented design of the Village Center, including a bus system, bus pullouts, shelters and seating.
- 3. Design transit-oriented residential neighborhoods, including pedestrian, bicycle and bus systems, with shelters and seating.
- 4. Promote and plan for a commuter-rail, a bus transit station with a park-and-ride lot along the side of the Union Pacific railroad tracks, near the Village Center within Gilbert.

Power, Higley, Warner, Ray and Pecos Road Design Policies

- 1. Design for ultimate roadway pavement widths of six (6) travel lanes to adequately and safely carry traffic demand.
- 2. Provide planted medians down the middle of each roadway.
- 3. Through plan review, enforce the Gateway Area Right-of-Way Improvement Standards and Streetscape Design Guidelines for these major arterial roads to provide an agricultural vernacular. Canopy trees and other plants and elements should be installed in the medians and along both sides of each roadway between back of curb and sidewalks creating landscape planters. Coordinate a consistent theme for Power Road with the City of Mesa and Maricopa County Department of Transportation to ensure roadways are consistent through each jurisdiction.
- 4. Provide street lighting along both sides of each roadway (refer to the Gateway Area Right of Way Improvement Standards).
- 5. Provide traffic signals, signage and special pavement crosswalks at each key roadway intersection.

Williams Field (within the Village Center) and Recker Roads Design Policies

- 1. Design for roadway pavement widths of four (4) travel lanes to adequately and safely meet traffic demand.
- 2. Provide planted medians within the middle of each roadway.
- 3. Provide painted bike lanes on each side of the roadway.
- 4. Provide for a minimum of fifteen (15) feet wide sidewalks on both sides of each roadway inside the Village Center.
- 5. Provide for minimum six (6) feet wide sidewalks on both sides of each roadway outside the Village Center, separated from the curb by landscape planting areas.
- 6. Through plan review, enforce the Gateway Area Right of Way Improvement Standards and Streetscape Design Guidelines on Williams Field and Recker Roads to provide an agricultural vernacular. Canopy trees and other plants and elements should be installed in the medians and along both sides of each roadway between back of curb and sidewalks creating landscape planters.

- 7. Promote undergrounding of all existing and future overhead utility lines within rights-of-way.
- 8. Provide street and sidewalk lighting along both sides of each roadway between curbs and sidewalks.
- 9. Provide traffic signals, signage and special pavement crosswalks at each key roadway intersection.

Neighborhood Streets/Alleys Design Policies

- 1. Design for minimum roadway pavement widths and travel lanes required to adequately and safely carry traffic demand.
- 2. Design alleys for rear garages and trash pickup.
- 3. Design a grid or modified grid street network, with maximum street connections. Minimize curvilinear streets and cul-de-sacs, when possible. Minimize block length to encourage pedestrian activity and to reduce excessive vehicular trips.
- 4. Provide painted bike lanes on each side of collector and arterial roadways, unless other alternative bikeways are available.
- 5. Provide sidewalks on both sides of the street, separated from the curb by landscape strips.
- 6. Provide agricultural vernacular and, canopy trees along both sides of each street. The trees should be planted between the back of the curb and the sidewalk creating landscape strips.
- 7. Provide low scale, street lighting along both sides of each roadway, located in the landscape strips between curbs and walkways.
- 8. Provide stop signs and special pavement crosswalks at each street intersection, as appropriate.

Multi-Use Trails Design Policies

Provide for a multi-use trail system for convenient and safe access along the Railroad right-of-way, on the south side of the Santan Freeway, the East Maricopa Floodway and the Roosevelt Water Conservation District Canal, with connections to schools, parks, commercial and employment centers and recreational facilities. Landscaping, shelters, benches and other amenities should be provided.

GATEWAY AREA LAND USES

Purpose: The Gateway Area will consist of a traditional, mixed-used pedestrian friendly village center, with commercial shops, offices and loft apartments at the core of the village center, surrounded by traditional residential neighborhoods, schools and parks, as well as nearby major commercial and employment areas including the Arizona State University (ASU) Polytechnic Campus, the Chandler-Gilbert Community College/Williams Campus, the Phoenix-Mesa Gateway Airport and the Santan Freeway.

Land use classifications in the Gateway Character Area are the same as those used elsewhere in the Town. In the Gateway area, mixed land uses are encouraged since they contribute to the desired traditional neighborhood character.

Land Use Policies

Village Center Land Use Policies (core)

- 1. Develop a Village Center at Williams Field Road and Recker Road to include a mix of retail shops, restaurants, offices, hotels, entertainment and residential units, all fostering pedestrian interaction.
- 2. Develop retail uses at the ground level and mixed uses above the first floor.
- 3. Prohibit auto-oriented uses and other uses with drive-up, drive-through, or drive-in facilities in the village core.
- 4. Maintain a minimum floor area ratio (FAR) of 0.10 in the early phases of the Village Center while demonstrating at build-out, that a minimum of 0.75 FAR will be reached.
- 5. Promote the development of mid-rise buildings to accommodate mixed-use development in accordance with the standards of the Vertical Development Overlay Area 3 and limit the height of single story buildings with arterial frontage to 25% of the block's streetscape.

- 6. Provide for pedestrian-oriented plazas and courtyards fronting and opening onto Williams Field Road, with secondary openings to Recker Road and pedestrian connections to adjacent residential uses.
- 7. Encourage art in public places. Promote cultural development, special events and activities for all ages.
- 8. Limited or no off-street surface parking should be provided along the arterial streets in the Village Center.
- 9. Develop shared parking and service areas to serve core uses. Limit on-site surface parking. Veneer the first floor of parking structures with retail space to enliven the street level.
- 10. Allow for limited on-street parking separated by landscape islands at intervals along Williams Field Road.
- 11. Make the Village Center fully accessible by bus along Williams Field Road and Recker Road.

Village Center Residential Land Use Policies

- 1. Develop very high density residential uses within the Village Center, to include townhouses, lofts, condominiums and apartments.
- 2. Provide densities ranging from twenty-two (22) dwelling units per acre to fifty (50) dwelling units per acre.
- 3. Provide on-site amenities for residents and occupants, including swimming pools, recreational facilities, clubhouses and other services.
- 4. Provide private outdoor spaces for more than fifty percent (50%) of the units.
- 5. Provide service areas and secure under-building or structure parking. Allow temporary surface parking until sufficient development occurs to require structured parking.
- 6. Create a safe and attractive open space and pedestrian linkage to connect the residential areas to parks, schools, commercial and employment services and other neighborhoods.

Railroad Areas Employment and Commercial Land Use Policies

- 1. Promote uses in the SC (Shopping Center), CC (Community Commercial) and NC (Neighborhood Commercial) areas that will provide for the commercial needs of the surrounding area.
- 2. Provide for a future commuter-rail transit station and park and ride lot that will be fully accessible along Williams Field Road.

Santan Freeway/Power Road Interchange Area Land Use Policies

- Develop regional commercial uses and power centers, including major stores, offices, hotel and motel uses and major entertainment centers in the RC (Regional Commercial) areas.
- 2. Provide for a future express bus transit station and park and ride lot at the Santan Freeway/Power Road interchange.

Santan Freeway/Higley Road Interchange Area Land Use Policies

- 1. Allow integrated campus-style office, office and light industrial uses.
- 2. Develop uses in the SC (Shopping Center) areas that will serve commercial needs of the surrounding neighborhoods and communities.
- 3. Provide for a future express bus transit station and park and ride lot at the Santan Freeway/Higley Road intersection.

Power Road/Williams Field Road Intersection Land Use Policies

- 1. Promote retail commercial uses, including offices in SC (Shopping Center) areas.
- 2. Provide for fully accessible bus shelters along Williams Field Road, where appropriate.
- 3. Coordinate entry features with the City of Mesa, ASU Polytechnic, Chandler-Gilbert Community College/Williams Campus and Phoenix-Mesa Gateway Airport.

Higley Road/Williams Field Road Intersection Land Use Area Policies

- 1. Encourage commercial development to transition within the architectural context of the Village Center.
- 2. Provide for fully accessible bus service along Williams Field Road, where appropriate.

Neighborhood Residential Land Use Policies

- 1. Create high quality traditional residential neighborhoods throughout Gateway area, with safe and convenient circulation, open space and recreational opportunities and a pedestrian network. Link open spaces to schools, commercial and employment services and neighborhoods by safe and attractive pedestrian ways, bicycle paths, trail systems and small-scale, narrow residential streets.
- 2. Encourage development of a range of housing types and densities with orderly development patterns.
- 3. In residential areas that allow 14-25 du/acre, develop apartments, condominiums and townhouse areas in the manner of mid-rise buildings. Design and provide usable outdoor spaces to serve the multi-story developments.
- 4. Allow single-family attached and detached homes in Residential densities 5-8 du/acre neighborhoods. Ancillary units may be allowed for guest housing or extended family.
- 5. Allow single-family detached homes in Residential densities 3.5-5 du/acre neighborhoods. Ancillary units may be allowed for guest housing or extended family.
- 6. Provide for on-site amenities for residents in Residential densities 3.5-5 du/acre neighborhoods, including swimming pools, recreational facilities, clubhouses and other services. Provide covered private outdoor space for all units.
- 7. Design neighborhood streets with canopy trees, separated sidewalks and landscape planters or planting strips.
- 8. Design a grid or modified grid street network with no or few cul-de-sacs.
- 9. Provide recessed, side entry, or back side garages accessed by side driveways or rear alleys.

- 10. Design developments with small front yard setbacks and provide all elevations of homes with a high level of visual interest, including porches or patios, courtyards, bay windows, or porte cocheres.
- 11. Minimize the amount of fencing to create a more open feel in the neighborhoods. Encourage the installation of low profile, attractive, open fencing adjacent to local and collector streets.
- 12. Encourage the design of homes to include design principles and materials appropriate for the desert environment.

Neighborhood Parks Land Use policies

- 1. Design private neighborhood parks to provide for a suitable number of recreation facilities for each neighborhood.
- 2. Encourage location of neighborhood parks adjacent to schools, accessible from the neighborhood by safe and attractive walking and bicycle trails.
- 3. Link public open spaces along the Roosevelt Canal via trails in the Gateway Area.

Open Space and Park Policies

- 1. Provide for a variety of facilities for the required recreation and cultural needs of the entire Gateway Area within open space and park areas.
- 2. Provide a safe and attractive walking and bicycle trail network connecting the public parks and open spaces to various locations in the Gateway Area.

CIRCULATION/TRANSPORTATION

Purpose: The Gateway Area will include a network of multi-modal circulation/transportation systems, providing access to, and interconnection with; the Village Center, schools, parks, commercial and employment areas, as well as the adjacent ASU Polytechnic Campus, Chandler-Gilbert Community College/Williams Campus, Phoenix-Mesa Gateway Airport, SanTan regional mall and the Loop 202 Santan freeway.

Railroad Circulation/Transportation Policies

1. Plan for future commuter-rail transit use of the Railroad line for the Gateway Area, including a rail transit station and a park and ride lot near the Village Center.

- 2. Promote rail-oriented development around the future rail transit station so that commuter-rail transit will be feasible and implemented for the East Valley and the Gateway Area.
- 3. Provide safe rail crossings for pedestrians, bicycles and vehicles at locations indicated on the land use plan.

Bus Circulation/Transportation Policies

- 1. Provide for bus transit service along Williams Field Road, from the Santan regional mall to the ASU Polytechnic Campus, with stops at the Gateway Village Center and the rail transit station/park and ride lot.
- 2. Provide convenient bus transit service along Recker Road, from Morrison Ranch to Power Ranch, with stops at the Gateway Village Center, the Higley High School and other key public places.
- 3. Provide for future express-bus service on the Santan Freeway and Power Road, including park and ride lots.
- 4. Provide for fixed-route bus service on major arterial roadways within Gateway Area.

Campus/Airport Entries Circulation/Transportation Policies

1. At the time of development of these entrances, recognize the main visitor entrance for ASU Polytechnic Campus and the gateway entrance designation for the Town.

Major Arterial Streets Circulation/Transportation Policies

- 1. Design Power, Higley, Warner, Ray and Pecos Roads as major arterial roadways of six (6) travel lanes.
- 2. Provide a safe pedestrian/bicycle crossing of Power Road at Williams Field Road and the ASU Polytechnic Campus Entry.
- 3. Provide improved rail crossings over the Railroad tracks.
- 4. Plan to convert the Rittenhouse Road right-of-way, from Williams Field Road to Power Road, to a multi-use trail.

Williams Field and Recker Roads Circulation/Transportation Policies

- 1. Design Williams Field Road, 1/8th mile west and ½ mile east of Recker Road as a minor arterial roadways of four travel lanes and with a bus transit line and bicycle lanes.
- 2. Along Williams Field Road, allow for limited on-street parking stalls and bus pullouts, separated by landscape islands within the Village Center.
- 3. Where possible provide for street shade trees, lighting and sidewalks on both sides of the entire length of each roadway per the Gateway Area Right-of-Way Improvement Standards and Streetscape Design Guidelines.

Neighborhood Streets/Trails

- 1. Develop neighborhood streets with minimal curvilinear layout and minimal pavement width.
- 2. Provide frequent intersection of neighborhood streets and fewer cul-de-sacs.
- 3. Include street shade trees, pedestrian lighting and walkways and bicycle lanes on both sides of each neighborhood street.
- 4. Provide each neighborhood with attractive, convenient and safe bicycle/pedestrian access ways to its neighborhood park and school, other neighborhoods, employment and commercial facilities and the Village Center.

Rittenhouse Road, Railroad and RWCD Canal Multi-Use Trails

1. Establish an equestrian/bicycle/pedestrian multi-use trail system along the Rittenhouse Road right-of-way and the Railroad right-of-way, connecting to the East Maricopa Floodway.



CHARACTER AREAS

10.3 Morrison Ranch

Summary

The Morrison Ranch Character Area is a 1,527 acre (2.3 square miles) mixed-use master planned community that incorporates the functional, aesthetic, economic and social factors associated with livable communities. The development plan for Morrison Ranch was originally adopted on November 3, 1988 and has been amended over time as conditions warrant. Development of the area continues today.

Morrison Ranch reflects the historic rural atmosphere associated with the Town of Gilbert. It utilizes reclaimed water to enable the landscaping to include turf, trees and wide setbacks to establish a rural agricultural community theme. Within Morrison Ranch, multiple rows of trees line the streets, sidewalks and parks, creating a shaded environment for pedestrians and vehicles. All landscape, recreation and open spaces within common areas are to be maintained by the Homeowners Association. A network of trails and sidewalks within the landscaped open spaces connect homes, schools, community facilities and workplaces. Elementary schools are located in central locations adjacent to greenbelts and recreational facilities. A variety of residential densities are provided throughout the community.

Morrison Town Center features a multi-use combination of retail, commercial, office, restaurant and recreational services linked to the existing Morrison Ranch headquarters and grain storage tanks, which set the rural theme. The Power Technology Center offers a variety of multi-use commercial, business park and industrial sites along Power Road.

Automobile speeds are intentionally reduced to encourage safe pedestrian and bicycle movement.

Parks, Open Space and Trail System

The Eastern and Roosevelt Canals are significant multi-use trails that intersect Morrison Ranch. There are several municipal parks planned near Morrison Ranch but not located within the boundaries of the Ranch. Morrison Ranch has a full range of private internal parks, open spaces, trails and recreation facilities for its residents.

Phoenix-Mesa Gateway Airport

Morrison Ranch is influenced by airport operations envisioned in the Airport Master Plan and Part 150 Noise Compatibility Study. Noise, land use compatibility, economic and educational impacts are significant factors. Proposed development will comply with the Town's policy for the over flight areas.

Goals

Cultural Heritage

- Include historic and cultural elements from the Morrison Family heritage such as farm machinery.
- Include historic and cultural elements from the Town of Gilbert such as items from the Gilbert Historical Society.
- Create a physical character that recalls the rural farming heritage.
- Create landscape elements that recall the valley's agricultural environment.

Community Environment

- Create a total community plan, which integrates and connects all uses.
- Create a community character that integrates rural farming elements and agrarian characteristics, a livable residential lifestyle, a varied Town Center and an attractive employment center.
- Create a landscape environment reminiscent of early Gilbert rural residential landscapes.
- Provide a rural character which accommodates functions such as open space preservation, recreation, drainage and flood control.
- Provide programs emphasizing conservation of resources and urban sustainability.

Open Space and Recreation

• Create a balance of active and passive recreational amenities throughout the community.

- Provide an open space and recreation system throughout the community that connects all areas via pedestrian ways, bicycle paths and trails.
- Connect the open space and trail system to all educational facilities, places of employment and commercial establishments in an inviting fashion.

Education

- Locate an elementary school(s) adjacent to greenbelts and recreation facilities so that students can walk or bicycle safely from the community.
- Connect the community trail systems to the existing elementary schools and high school.

Conservation of Resources

- Design the physical form of Morrison Ranch to optimize north/south lot orientation for energy conservation.
- Provide shade throughout the development, including along streets, within open spaces and recreation areas and along the east and west sides of individual homes.
- Use reclaimed water to irrigate all public and Association owned landscaped areas, including turf, trees and recreation areas.

Technology

• Plan to accommodate current and future state of the art technology services.

Circulation

- Create pedestrian and bicycle trails linking all land uses throughout the community and region.
- Encourage small vehicle (i.e. golf carts and service vehicles) access throughout the community. Create a network of small rural residential roads throughout the community. Accent these roads with traffic calming devices that enable pedestrian priority on streets.
- Cooperate with the Town's effort to link neighborhoods.
- Distribute traffic from neighborhoods to arterials so that neighborhood streets remain small and more rural in character.
- Arterial road landscapes should establish a strong rural community character.

Land Use

- Create a series of neighborhoods, with a variety of different land uses and densities, which blend together with the overall community rural ranch character.
- Provide a variety of housing products.
- Provide a mixture of jobs and services for the community.
- Create a Town Center that becomes the focus for Morrison Ranch and the surrounding communities.

Infrastructure

- Provide the community with all required public improvements.
- Provide homes with all required and desirable services.

Community Services

Provide a full range of community services.

Economic Feasibility

- Create an atmosphere and physical presence that is conducive to commercial and employment activities.
- Locate commercial and employment activities in areas that optimize access from existing roads and the freeway system.
- Optimize commercial and employment development that contributes tax revenues to the Town of Gilbert.

Santan Character Area



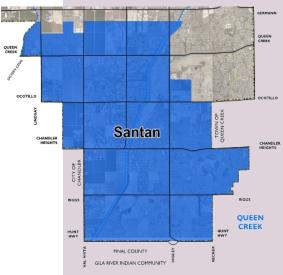


Introduction

Santan Community Character

In 2000, the Santan Character Area (SCA) was created to capture the unique qualities of this growing area because it had recently been added into Gilbert's planning area. The SCA encompasses 10,309 (TOG GIS) acres. This 16 square mile area is part of the Town's 72 square mile planning area. The character area serves as a tool to recognize the importance of the rural agricultural heritage of South Gilbert. Over time, the once predominantly agricultural area has seen the growth of well-designed master planned communities, the development of 84 miles of new collector and arterial roads, 20 traffic signals and over 100 new businesses and restaurants.

In 2000, there were 6,400 acres of agricultural land in the SCA — today there is less than 2000 acres. Service oriented infill development is just beginning to respond to the SCA population growth. Schools, churches and residential rooftops are now dominant in the area. There is still significant interest from the development community to continue residential construction in the SCA.



The VISION

The people of the Santan Character Area envision the area as a combination of rural and suburban neighborhoods that enjoy the natural environment including wildlife and small scale agricultural activities. Emphasis is placed on outdoor living enjoyment and the ability to live and play in a secure and safe environment. Low and medium density residential development blend with farming, trails, open space and commercial uses to make-up the character of the Santan area.

Multi-use trails, desert washes and proximity to the Santan Mountains make the area unique. The SCA continues to require special attention due to the land use issues related to residential and non-residential development. Residents have expressed concern about the lack of services and commercial amenities, yet desire a pattern of development consistent with the rural lifestyle and open spaces that characterize the Santan area. The General Plan land use map shows approximately 45% of the SCA designated for residential development between 2–3.5 DU/Acre. About 35% is designated for densities between 0–2 DU/Acre and the remaining 20% is for commercial, public and open space uses. If all residential lands were developed at these densities, there would be between 9,278 and up to 23,452 homes in the SCA.

The Santan Character Area Plan contains goals and policies to guide future development. It is used by the Town Council, Planning Commission and the public as a long range planning tool to evaluate changes in land use, new development, and budget decisions.



Using the community's feedback from open house meetings and researching the historical context, five (5) characteristics for the Santan area were created as a framework for the SCA's goals and policies.



Celebrate Heritage

We value our Sonoran and rural agricultural roots.



Connect People and Places

We value our ability to connect to each other and the surrounding community with community facilities, roads, trails, bike lanes, and pedestrian paths in a safe and efficient manner.



Open for Business

We value our strong entrepreneurial spirit of small business and farming supported by nodes of commercial services.



Sense of Place

We value our Santan Character Area as a great place to growup, raise a family and comfortably retire in a safe and attractive environment.



Leisure and Culture

We value our healthy lifestyle with a wide variety of leisure and cultural opportunities that enhance daily life.

Existing Conditions

SCA Yesterday and Today ...

Community History

The history of the Santan Character Area is strongly rooted in farming and the dairy industry. At one time there were over eight dairies in the SCA area. Today there are three dairies. *Of the 10,309 (TOG GIS) acres within the SCA, there is less than 3,820 (TOG GIS) acres of undeveloped vacant land remaining.*

Many residents in the SCA area remember the open irrigation canals, huge fields, wildlife and crop dusters fondly. Though neighbors were often spread apart, they all knew each other and came to each other's aid in times of crisis. The SCA was a place where children walked on farm roads to visit friends, residents rode horses along canals and the opening day of dove season was an event. With the population growing from 2,200 to over 27,000 in 14 years, residents supported roads, public services, schools, churches and commercial services. Large master planned communities were developed with trails, open spaces and a transition of lot sizes along the edges to buffer adjacent large lot development.

Sense of Place

Urban Design

In 1998, the architecture and urban form within the SCA was predominantly mid-20th century ranch houses on large plots of land. The dirt farm roads served as fields and homestead access. As time progressed, lot splits, minor land divisions and rural subdivision of one, two and five acre farm lots into small neighborhoods occurred. Most of the lots still embraced farm animals and pastures even as the homes grew larger and more elaborate. Some of these neighborhoods grew larger such as the rural residential area between Val Vista Drive and Greenfield Road, from Queen Creek Road to Chandler Heights Road. The average density of the neighborhoods in the SCA is approximately 1.8 DU/ Acre (TOG GIS). The area is almost completely built-out barring except for lot splits, development of approximately 2,710 acres of vacant residential lands and the completion of commercial corners at the major intersections. Rural residential lands > 0-2 DU/Acre equal approximately 12.86% (TOG GIS) of the vacant land use within the SCA. Medium density of > 2-3.5 DU/Acre equate to approximately 16.8% of the vacant land use within the SCA.

Rural residential lands > 0-2 dwelling units per acre equal approximately 12.86% (TOG GIS) of vacant land use (up to 2,651 additional homes)

In the late 1990s, custom homes constructed on the farm lots became larger and more elaborate with improved roads and utilities. As the construction boom continued, larger master planned subdivisions began developing within the SCA. The master planned communities tended to have smaller lots in the 6,000 sf to 10,000 sf range with an average density of > 2-3.5 DU/Acre. The new homes displayed contemporary design with touches of architectural styles reminiscent of Italian, Spanish, Mission, Craftsman and Prairie. The major master planned communities and subdivisions (Layton Lakes, Freeman Farms, Shamrock Estates, Adora Trails, Seville) equal approximately 2,437 acres within the SCA. The SCA is now an area with urban amenities that embrace the past.

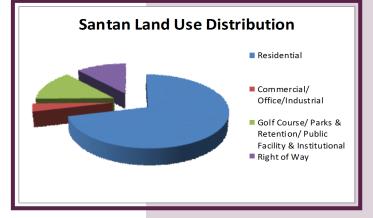
Jobs and Services

The SCA is predominantly residential with commercial growth planned for designated areas to serve existing and future populations. Commercial land uses are primarily constructed adjacent to large mature master planned communities. The vernacular of the non-residential development is consistent with the style of the adjacent master planned community or the SCA's agricultural heritage. Vacant land designated for commercial land uses is available at:

- Higley/ Riggs Roads
- Val Vista Drive/ Riggs Road
- Greenfield/ Ocotillo Roads
- Greenfield/ Queen Creek Roads
- Val Vista Drive/ Chandler Heights Road
- Val Vista Drive/ Queen Creek Road, and
- Lindsay/ Queen Creek Roads

Some of these areas are adjacent to master planned developments that are still under construction or have lower population density. Other lands are adjacent to large lot development or vacant lands yet to be annexed or developed.

At the projected 2030 build-out, the commercial land use amount in Gilbert, excluding the SCA, is calculated as approximately 0.024 acres per person. In comparison, the commercial lands in the SCA are only projected to supply about 0.006 acres per person or 4 times less than what a resident of north Gilbert would have as commercial service options. These figures do not include County lands, adjacent municipality's commercial services or peripheral population within the commercial trade areas. This basic analysis shows that the commercial, office and any potential future employment land use in the SCA should be preserved and fostered over the long term.



Connectivity

Access is a key determinant of growth because it facilitates the flow of goods and people. The SCA is well connected with close proximity to the Santan Freeway, railroad, airports, bike paths and trail systems. Adjacent municipalities are connected with arterials that make it easier for residents and visitors to share regional attractions.

Roads

The mile grid system exists throughout the character area and over time County farm roads have been annexed and improved to meet Town standards. However, new subdivision development has not always been contiguous, causing scalloped streets, unimproved intersections and points of congestion. Traffic volumes and safety concerns have required that some of the Capital Improvement Projects in the



SCA be moved forward more quickly than originally planned, to alleviate congestion. Pass-through traffic continues to be a concern in the South Gilbert area. Adjacent municipalities that do not have freeway access pass through South Gilbert to access the 202 Freeway with northbound arterials. Other traffic travels through the SCA to the Santan Mall, parks and other larger power centers in central Gilbert.

Bike Paths and Trails

As the roads develop in the SCA, bike lanes on arterial and collector streets have been constructed. These bike lanes connect into the Town's road networks and open space systems. The Town continually works to require, construct and/or retrofit roads to accommodate new bike lanes. The bike lanes connect to bike paths along canals, utility corridors and washes. The recent Queen Creek Wash improvements include a multi-use trail that connects into the Queen Creek trail system. The upcoming Sonoqui Wash project will also include multi-use trails and paths that will link into the Queen Creek Wash. Both of these improvements currently terminate at the East Maricopa Floodway just inside of the SCA eastern boundary. Chapter 4 of the General Plan and the corresponding Parks, Open Space, Trails and Recreation Plan Map, show that it is intended for these paths and trails to continue along the wash and connect trails in neighborhoods such as

Seville to existing trails alongside roads including Brooks Farm Road, Hunt Highway, Queen Creek Road (along the power lines), and Greenfield Road (from Queen Creek Road) to connect up to the Hetchler Soccer Complex.



Railroad

Many residents reminisce about the sound of the train. The Union Pacific Railroad runs southeast to northwest through the Town just north of the SCA. The railroad noise and vibration have little to no impact on the South Gilbert community. The rail service does provide future opportunity for employment and transit connections within a 10-15 minute drive north from the SCA.

Airports

There are two airports within 10-20 minutes of the SCA. The Chandler Municipal airport is located to the northwest. It is owned by the City of Chandler and is considered a business oriented airport surrounded by charter, excursion and training institutions. The airport chartered 200,000 operations in 2014. A larger airport northeast of the SCA is the Phoenix-Mesa Gateway Airport. Gateway is owned and operated by the Phoenix-Mesa Airport Authority and is a reliever airport of Phoenix Sky Harbor International Airport. The authority is governed by the Town of Gilbert, City of Mesa, Town of Queen Creek, Gila River Indian Community, City of Phoenix and City of Apache Junction. Phoenix-Mesa Gateway airport had over 700,000 enplanements in 2014 and is expected to reach 850,000 by 2017.

hoenix-Mesa
Gateway Airport is
expected to reach
850,000 enplanements
by the year 2017.

Infrastructure and Amenities

The Backbone — Water and Sewer

Infrastructure improvements within the SCA have primarily occurred with new master planned development. Due to the location of the South Area Waste Water Treatment Facility, reclaimed water lines are available on most of the major arterial roads within the SCA. Water lines are generally available with private wells being incorporated into the Town system as development occurs. Water service continues to be improved as new development adds loops into the system that help to maintain pressure. Some large lots retain their private wells and water rights. In addition, a majority of the large lots have flood irrigation provided by private companies.

Sewer extends through most of the major public roads in the SCA with gaps occurring adjacent to large areas of vacant land or mature large lot areas. Septic systems exist on many mature large lots.

Other utility infrastructure is provided by private or quasi private service providers through franchise agreements with the Town of Gilbert. Examples of these providers include Cox Communications, Arizona Public Service (APS), Salt River Project (SRP), Roosevelt Water Conservation District (RWCD) and Southwest Gas.

Recreation and Leisure

Public parks and open spaces in the SCA have primarily been developed as part of large master planned communities or through public-private partnerships such as the Hetchler Soccer Complex located at the far north boundary of the SCA. There are no other existing public parks within the SCA. The South Recharge Facility is not considered a park facility though residents may walk around it and it is often used for bird watching. The East Maricopa Floodway and the surrounding Roosevelt Water Conservation District canal access roads are not open to the public as a trail system at this time. The Town is currently working toward the acquisition of land for a regional park in the SCA.

Community Facilities

The SCA is supported by the South Area Service Center located at Greenfield and Queen Creek Roads. Currently, the service center houses a police substation, solid waste transfer facility, hazardous material drop-off and a few other small services. Per the Parks and Recreation 2014 Master Plan, the Service Center is envisioned to be the future home of a Recreation Center. A public library is located at Perry High School on Queen Creek Road and Val Vista. Another library is located at Basha High School, which is at Val Vista Drive and Riggs Road just outside of the Town of Gilbert and SCA planning boundary.

Environmental

Canals, Flood Channels and Washes

The SCA has several floodplains, canals, washes and flood control structures within its boundaries. The Santan Mountain has significant sheet flow run-off that inundates the neighborhoods and properties at the foot of the mountain. A large drainage channel adjacent to Riggs Road was recently constructed to help with the floods that gather on the streets. The channel's outfall is to the east Maricopa Floodway under the jurisdiction of the Flood Control District of Maricopa County. The floodway transects the eastern half of Gilbert from south to north draining toward the Salt River Basin. The East Maricopa Floodway is approximately 250 feet wide and requires major bridge crossings. At some locations there are overflow and catch basins constructed that extend the floodway to over 2,500 feet wide. Adjacent to the floodway is the Roosevelt Water Conservation District canal. The canal is 25 feet wide with service roads on either side for a total width of 100 feet. Neither the floodway nor the Roosevelt Canal property is open to the public. The Town has been in contact with both entities to discuss recreation and trail options for the future.





Ground Water and Fissures

The sediment filled underground aquifers hold large quantities of groundwater in storage over bedrock. When large amounts of water are withdrawn, the surface subsides and cracks. The cracks are known as fissures. In Arizona, fissures were first noted in the agricultural area south of Phoenix in the 1920s. The physical appearance of fissures vary greatly from almost undetectable hairline cracks to large, deep earth openings more than a mile in length, up to 15 feet wide, and 100's of feet deep. During torrential rains, fissures erode rapidly presenting a substantial hazard to people and infrastructure. Moreover, fissures provide a ready conduit to deliver runoff and contaminated waters to basin aquifers.

In August 2005, the Arizona Legislature drafted legislation that addressed earth fissures in Arizona. Effective September 21, 2006, Ariz. Rev. Stat. § 27-152.01(3) charges the Arizona Geological Survey (AZGS) with 1) comprehensive mapping of earth fissures throughout Arizona, and 2) delivering earth fissure map data to the State Land Department to be posted online with other GIS map layers for public use.

The damaging effect of subsidence can include gradient changes in transportation, utility, and flood control facilities. Settlement is the gradual downward movement of an engineered structure due to the compaction of the unconsolidated material below the foundation. Because of the gradual, long term nature of subsidence and settlement, these phenomena do not pose a life safety hazard, but do result in property losses. The effects of subsidence can create decreased groundwater storage capacity, change slope patterns (affecting irrigation, flood control, and drainage patterns), and cause damage to both surface and underground structures.



For more information on Fissures go to: http://www.azgs.az.gov

Vistas and Landmarks

Two of the three most predominant landmarks in South Gilbert are not located within the SCA: Santan Mountain south of Hunt Highway and the LDS Temple at Pecos and Greenfield Road. The third landmark is the East Maricopa Floodway. The East Maricopa Floodway is a greenbelt running

north to south within East Gilbert. The engineered channel has been landscaped with natural grasses, but not trees, shrubs or trails. The Maricopa Floodway connects into the Queen Creek and Sonoqui Wash drainage and trail systems. Local wildlife uses these channels as corridors and can be spotted on a regular basis.

Santan Mountain also has animal wildlife corridors that connect into South Gilbert and the East Maricopa Floodway. Various types of wildlife may be observed, including reptiles, birds, and mammals. The scenic

Santan Mountain Park Regional Park, about one mile south of the SCA, consists of over 10,000 acres. The park ranges in elevation from about 1,400 feet to over 2,500 feet. The vegetation changes from creosote flats to dense saguaro forest.

The other predominant feature in South Gilbert, located just north of the SCA boundary, is the LDS temple. The Temple is 198 feet to the tip of the spire and may be seen from as far as Sacton I-10 Freeway heading north. The temple is a regional destination and is a landmark for the East Valley.



Future Needs

SCA Tomorrow...

Housing Stock

The residential housing market remains strong within the Town of Gilbert. The building community actively seeks vacant land for new subdivisions. Existing residents encourage new communities to buffer future residents that are not accustomed to the agriculture dust, aroma and hours of operation as they consider it a part of the SCA lifestyle. The community further embraces the rural heritage and character through the design of fencing, architecture, landscape, trails and open space and expects that new development will also. As builders continue to seek land for new development, the General Plan goals are to be reviewed carefully with each request to ensure the SCA lifestyle continues to develop as envisioned.

Jobs and Services

Within the SCA, most of the employment opportunities relate to schools, churches, retail, food service or home occupations. Significant employment opportunities are occurring a few miles to the north along the 202 Santan Freeway at Mercy Gilbert Hospital, the Santan Motorplex, Val Vista Square, SanTan Mall, the Chandler Airpark, ASU Polytechnic and the Phoenix-Mesa Gateway Airport. The commute to these locations is less than 20 minutes.

Based on resident input, there remains a significant need for neighborhood services such as restaurants, salons, automotive repair, day care, medical offices, grocery stores, dry cleaners, fast food, and other uses that support daily life.

Staff has reviewed retail trade area maps for a range of commercial development types. These conceptual maps showed that while a larger retail "power center" may not be competitive in South Gilbert, gaps exist in smaller retail trade centers that are needed to serve existing and future neighborhoods. Additionally, other non-residential land uses are vital to serve the diverse Santan area such as health care facilities, colleges, congregate living facilities, eating and drinking establishments, and cultural institutions.

Connectivity

Roadway projects within the SCA have continued to move forward on the Capital Improvement Project (CIP) schedule as development and population increase. The main focus is improving the major arterials, eliminating scalloped street sections, and completing critical connections.

Along with the arterial improvements come the traffic signals and left turn lanes, which often help ease traffic congestion. A well-developed collector road system will provide relief to the arterial streets.

Community Facilities

As noted during the data collection phase and public process, South Gilbert lacks community facilities such as parks, recreation centers, trails and other gathering places. Implementation of the recent Parks and Recreation Master Plan is underway with a field needs study and review of shared facilities/land with other governmental agencies. Once these studies are completed, the CIP will be updated with new projects.

Environment

It is the Town's goal to preserve scenic vistas and to limit negative impacts on the environment. Fissure mitigation measures continue as new fissures are found that impact infrastructure and safety. Home owners are encouraged to familiarize themselves with the USGS maps and to contact either the USGS or the Town of Gilbert if they believe a new fissure has been located. Never allow children or animals near an identified or possible fissure. Fissures are not arroyos and should not be treated as such.

To stay up to date on upcoming CIP projects and construction visit the Town of Gilbert CIP Home page for schedules, maps and project descriptions.

http://www.gilbertaz.gov/ departments/developmentservices/engineering/captial -projects

Goals and Policies

The following goals and policies reflect the desired character for this area and will guide decisions about how the SCA grows and changes in the future. Goals provide the long term vision, and policies bridge the goals to the implementation strategies.

Celebrate Heritage



SCA GOAL 1.0 Value our Sonoran and rural agricultural roots.

POLICIES

- SCA.1.1 Preserve existing desert landscape as appropriate and re-vegetate areas that have been disturbed.
- SCA.1.2 Use large-lot residential areas that integrate with the rural character as relief from more intense suburban development.
- SCA.1.3 Encourage the development of unique, low-density projects mixed with open space.
- SCA.1.4 Promote the use of rural design themes within the buffer area for residential and commercial development.
- SCA.1.5 Design aesthetically pleasing, rural-themed streetscapes.
- SCA.1.6 Encourage a variety of walls including view walls, landscaping and agricultural themed fencing, where appropriate.
- SCA.1.7 Consider the unique aspects of this Character Area when selecting sites for commercial development.
- SCA.1.8 Encourage development of agribusiness and support existing agricultural uses.
- SCA.1.9 Support residential development that allows agricultural activities.
- SCA.1.10 Promote new development that is compatible with noncommercial or small scale agriculture.

Connect People and Places



SCA GOAL 2.0 Connect to each other and the surrounding community with roads, trails, bike lanes, and pedestrian paths in a safe and efficient manner.

POLICIES

SCA.2.1 Connect developments with a greenbelt buffer that includes multi-use trails.

- SCA.2.2 Utilize canals, desert washes and roadway buffer areas as part of the trail system.
- SCA.2.3 Promote a multi-use trail connection from the Santan Area to the Santan Regional Park.
- SCA.2.4 Promote collector street system.
- SCA.2.5 Provide alternative modes of transportation (pedestrian, equestrian, and non-motorized vehicles) along the trail system throughout the Santan area.
- SCA.2.6 Encourage subdivision design to optimize open space areas for community gatherings.

Open for Business



SCA GOAL 3.0 Encourage small business, farming and nodes of commercial services.

POLICIES

- SCA.3.1 Encourage development of commercial centers adjacent to open space, trails and parks.
- SCA.3.2 Encourage master planned communities to create village centers.
- SCA.3.3 Promote the inclusion of neighborhood commercial to provide convenient services to residents.
- SCA.3.4 Encourage commercial and entertainment uses in appropriate locations.
- SCA.3.5 Buffer adjacent land uses with local streets, landscaping and higher density developments.
- SCA.3.6 Provide buffering between different land uses and densities.

Sense of Place



SCA GOAL 4.0 Recognize the Santan Character Area as a great place to grow-up, raise a family and comfortably retire.

POLICIES

- SCA.4.1 Preserve and enhance the scenic beauty and natural desert in open space and public areas.
- SCA.4.2 Use building and landscape materials that blend with the natural environment.
- SCA.4.3 Protect views along major streets, gateways, and pedestrian paths to provide a sense of place and orientation.

- SCA.4.4 Promote infill development that reflects sensitivity to site, context, climate, and surrounding neighborhoods.
- SCA.4.5 Encourage the preservation of the view corridors to the Santan Mountains in all areas of the SCA by promoting development patterns that protect the scenic qualities.
- SCA.4.6 Ensure new development protects wildlife ecosystems and sensitive habitat areas.
- SCA.4.7 Encourage minimal nighttime lighting to maintain dark skies.
- SCA.4.8 Maintain and preserve existing low density and rural residential neighborhoods.
- SCA.4.9 Encourage new development to buffer non-residential uses with open space areas or other appropriate transitional uses.

Leisure and Culture



SCA GOAL 5.0 Provide leisure and cultural opportunities that enhance a healthy lifestyle.

POLICIES

- SCA.5.1 Continue development of the adopted trail system as illustrated on the Parks, Open Space, Trails and Recreation Plan map.
- SCA.5.2 Adapt canals, irrigation laterals, washes and floodways for parks, recreation areas and trail uses.
- SCA.5.3 Coordinate Intergovernmental Agreements with other entities to encourage regional parks and trail systems.
- SCA.5.4 Connect development to trails that link to equestrian and hiking areas.
- SCA.5.5 Design private parks and open spaces with access to trails and canals.
- SCA.5.6 Blend uses that facilitate water recharge and natural systems with recreational trails and passive activities.

Implementation

Development Criteria

In concert with the adopted goals and policies, criteria assist with the evaluation of development applications by staff, the Design Review Board, the Planning Commission and Town Council and offer a means to mitigate possible negative impacts and to maintain consistency with community character.

Applicants for rezoning are expected to meet with area residents, particularly those within one-eighth mile (660') of the subject property, for the purposes of informing the public and integrating concerns prior to public hearings.

Density

The land use map designates the majority of the Santan Character Area as Residential >0-1 DU/Acre and Residential >2-3.5 DU/Acre. Densities for other land use categories shall comply with the land use map. All proposed development shall demonstrate a response to:

- Subdivision design that provides ample open space as a community focal point and buffers existing adjacent large lots with similar lot sizes.
- Provide a minimum ten percent (10%) open space or acceptable alternatives, which meet the spirit and goals of the Santan Character Area.
- Peripheral lots adjacent to existing development 1 acre or greater should buffer those existing large lots with subdivision design including: open space areas, separation between the existing and new development with a local street and lot size similar to existing adjacent lot size. New lot sizes are not required to be 1 acre or larger.
- Rural design themes, such as open fencing, country entry treatments; and response to Santan Character Area objectives, including retention of farm irrigation, incorporating mature citrus into new development, enhancing native landscape and utilizing existing natural washes in the trails system.
- Lots less than 15,000 square feet in area should be screened from arterial roadway view.
- Trail systems throughout the project, totaling twenty-five (25) lineal feet for each acre in the development, with connection points to community wide trails should be incorporated.

Non-Residential

Retail and service establishments are to be located on appropriately sized parcels at major roadway intersections. Neighborhood retail/service centers may be appropriate at the intersection of two major arterials in addition to shopping facilities master planned in a core.

Circulation

Neighborhoods should be designed so as to disperse peak hour traffic, with a minimum of one point of ingress/egress to an arterial road for each forty (40) acres of development.

Environmental Issues

Lands should be assessed for sensitive physical or cultural sites prior to application for rezoning or preliminary subdivision map approval. Requests for development entitlements must be accompanied by a list of mitigation measures for any sensitive condition found. Mitigation measures must be translated into conditions of development approval. Areas of investigation include, but are not limited to, the following:

- Wildlife habitat or travel corridors, riparian and other distinctive vegetation;
- Potentially hazardous geologic or soil conditions, such as fissuring as a result of land subsidence; and
- Sites of archaeological, cultural or historic significance.



CHAPTER 11

ENERGY



Major Power Transmission Corridor

Gilbert is committed to being in the forefront in energy efficiency, reducing energy demand and furthering the use of alternative and renewable energy sources.



Gilbert APS Solar Power Plant



Gilbert APS Solar Power Plant



INTRODUCTION

Background

Gilbert municipal employees, businesses, schools and residents are increasingly aware of the need to promote the wise use of energy in their operations and daily lives. This awareness results from the escalating cost of energy for municipal facilities, businesses, offices, homes and vehicles; as well as environmental concerns related to air pollution, contamination, the urban heat island effect and the dwindling supply of natural resources, including traditional energy sources. Town officials, business owners and residents recognize the need and are willing to take efforts to reduce the demand for energy, become more efficient consumers of energy and consider the use of alternative energy sources. The effort to be in the forefront in these areas requires everyone to participate in a concerted, integrated approach to energy efficiency in order to reduce demand and increase the use of alternative and renewable energy sources within Gilbert.

The Energy element is presented in the following sections:

- Existing Conditions
- Integrated Energy Approach
 - o Energy Conservation and Efficiency
 - O Utilizing Alternative and Renewable Energy Sources
- Goals and Policies
- Implementation Strategies



Santan Generating Plant



ENERGY

11.1 Existing Conditions

The function, operation and infrastructure of public and private institutions, businesses and homes in Gilbert and the nation as a whole are dependent upon sufficient supplies of reasonably priced energy. A typical home in the Phoenix Metro area has an average daily use of 43 kilowatt-hours (kWh) of electricity. Because Gilbert is only 60% built-out, energy use within the community will increase by at least another 40% over present levels if current consumption rates continue. Gilbert has a relatively modern housing stock with the average age of all homes being approximately 11 years with the median or 50th percentile of homes having been constructed during 1999. Homes built in the 1970's and 1980's had less stringent requirements for energy efficiency than today's homes and similarly, future homes are expected to have higher standards for energy efficiency than homes have today.

Energy Generation in Gilbert

Salt River Project's (SRP) Santan Generating Station is located in Gilbert and has six natural gas combined cycle units providing an electrical generation capacity of 1,225 Megawatts (MW), enough power for approximately 270,000 homes.

Santan is used to supplement base-load plants. Santan is a relatively quick start source of electricity, capable of producing power within 20 to 60 minutes. The plant has been in operation since 1974.

Power Transmission Facilities in Gilbert

The primary power transmission corridor in Gilbert is known as the Western Canal power line corridor that contains a double set of high-power lines with 500 kilovolt (kV) capacity, running east- west located ½ mile south of Guadalupe Rd. with an overall length of 8.3 miles.

A second set of 230 kV power lines runs eastward along Queen Creek Rd. from Chandler, to the Roosevelt Water Conservation District (RWCD) canal near Higley Rd., then northward along the canal to the Union Pacific RR, then northwestward to the SRP Santan Generating Station and northward within a power line corridor situated west of Greenfield Rd. to Mesa, a total length of 13.3 miles.

A new 230 kV power line was approved by the Arizona Corporation Commission to extend from the Moody substation near Power Road and the RWCD Canal along the canal to the Union Pacific RR then easterly toward Queen Creek, a length of 1.1 miles, exiting Gilbert.

Numerous other power lines including 69 kV and 12 kV lines are located along arterial streets and other suitable areas. A total of about 15 electrical substation exist or are proposed in Gilbert which act to reduce the voltage of major power lines, generally with 69 kV or greater capacities, to 10 kV for connection to the local power distribution system to homes and businesses. (See Public Facilities Map, Chapter 5).



Water Reclamation Plant



ENERGY

11.2 Integrated Energy Approach

The development and implementation of an integrated energy approach requires a broad-based effort that includes the conservation of energy and an increase in the use of alternative energy sources in our community. Through a public and private partnership, the Town of Gilbert commissioned a two mega-watt solar power project at its Neely Wastewater Reclamation Facility in November, 2011. With over 8,000 photovoltaic tracking solar panels this solar power system will off-set over 86 million pounds of carbon dioxide over the life of the system and will generate over 4 million kilowatt hours (kwh) of electricity annually — equivalent to producing enough electricity to power more than 438 average American homes for one year. The solar system, installed over groundwater recharge basins at Gilbert's Neely recharge facility, is expected to provide approximately \$2 million in energy cost savings at Gilbert's Neely Wastewater Reclamation Plant over the next 20 years.

Gilbert will continue to promote the wise use of energy through an energy policy that:

- Evaluates areas of energy use to promote energy efficiency, reduce demand and further the use of alternative renewable energy,
- Includes all Gilbert residents, businesses, institutions and other interests,
- Develop policies that encourage and provide incentives for efficient energy use
- Seeks involvement of academic institutions, utility companies, businesses, government agencies and the public to promote new technologies, applications, approaches and opportunities for energy conservation and the use of alternative energy sources,
- Promotes public education in the wise use of energy,
- Pursues and utilizes more effective energy systems and methods as these become available.



ENERGY



Community Water Lifeline

11.3 Integrated Energy Approach Area 1: Energy Conservation and Efficiency

Gilbert will endeavor to promote energy efficiency by supporting conservation, green building, effective land use patterns (such as infill and redevelopment, mixed-use development, efficient transportation/circulation systems), utility systems, cool pavements, alternative energy sources and emerging and new energy technologies. Implementation of an integrated energy approach requires close interaction with local utility providers, Salt River Project (SRP), Arizona Public Service (APS), Southwest Gas (SWG), businesses, community leaders, residents, developers and contractors and educators. Research and technology centers such as Arizona State University (ASU) and Chandler Gilbert Community College (CGCC) provide a valuable resource of knowledge in their staff and students. Efforts should be made to access and utilize this knowledge base and encourage the active participation and partnership with the centers in the development and implementation of a comprehensive energy plan.

Education

Education for the efficient use and conservation of energy is vital for Gilbert to act to reduce its energy demand. In order to succeed, it is important that information and education be provided to the public to promote wise energy use, to consider and establish efficiency practices and to adopt new techniques and technologies to reduce energy demand. While many groups will be involved in this effort, the participation of schools and universities will be vital. The cooperation and partnership among schools, research and technology centers, businesses and Gilbert residents is very important to promote the education, training and the use of new technologies and innovations in efficient energy use.

Actions to Reduce Energy Demand

The US Department of Energy's Energy Savers Handbook states that in a typical 2,000 sq. ft. home, 40% of the annual energy bill can be attributed to heating and cooling costs, with an additional 15% used for water heating costs. In addition, the US Green Building Council (USGBC) indicates that overall, buildings account for 40% of the nation's total energy consumption.

It is currently estimated that 80% of the heat loss in buildings occurs through windows, doors and ceilings. Moreover, heat gain can be an even larger issue in warm states like Arizona. Utility companies indicate that existing homes and businesses can be upgraded and made 20 to 25% more energy efficient by taking steps to increase insulation value and sealing the building envelope to reduce air infiltration, provide shading for windows from direct exposure to the sun, adding dual pane windows and replacing inefficient heating, ventilation and air conditioning (HVAC) systems. Other energy savings can be obtained by use of energy efficient CFI (compact florescent) and LED (light emitting diode) light bulbs and energy efficient appliances.

A variety of programs offered by federal, state, utility and other companies offer incentives, rebates, tax credits and price reductions for upgrading insulation, windows, HVAC systems, appliances and other measures to promote energy conservation and reduce demand for energy. For example, increasing attic insulation and adding shade screens on south and west facing windows can provide up to 12% annual saving on energy bills. With the application of rebates and incentives available for insulation upgrades and sealing the building envelope to reduce air infiltration, the payback period for insulation improvements that lower energy bills may be achieved in 2 or 4 years and worth the cost of upgrading. Similarly, upgrading the HVAC system from SEER 10 (Seasonal Energy Efficiency Ratio), commonly installed in the mid 1990, to today's efficient SEER 14 to 16 systems (presently available to SEER 19

and 21) and following the "Manuel J" mechanical system ratings are cost efficient over time and reduce energy usage. It is generally believed that upgrades to more efficient HVAC systems are worth incurring, especially where Federal, State and utility rebates and credits are provided, since with reduced energy consumption the repayment for such investments is generally obtained in 3 to 6 years.

Energy Efficient Techniques for Existing Buildings

One of the best ways to evaluate the energy efficiency of a home, office or other building is to obtain an "energy audit" by a certified audit company or through utility companies. From this analysis, a recommended approach is developed and includes items such as increasing the insulation value, sealing doors and windows, upgrading windows, adding sunscreens and window shading and upgrading HVAC systems.

Energy Wise/Green Building Techniques

In addition to increased insulation and sealing the building envelope, providing shade screens and use of high efficiency HVAC systems, additional ways to make a home or business more energy efficient and "green" in order of anticipated payback period are as follows:

- Using energy efficient CFI and LED lighting and providing natural day light opportunities,
- Considering "time-of-use" electric plans offered by electric utility companies to encourage power uses during "non-peak" periods,
- Safely weatherizing and sealing air leakage,
- Seal ductwork to eliminate air leakage,
- Providing shading with window sunscreens and architectural elements and detailing such as recesses, overhangs, patios and awnings to reduce solar heat gain along south and west building exposures in the summer,
- Upgrading to programmable thermostats,
- Conduct a blower door test (Energy Assessment) to determine air infiltration and sources,
- Utilizing ceiling insulation with values of R30-38 or above,
- Using of 2 by 6 inch wood frame construction and exterior insulation to reduce heat loss/gain in walls and using thermal mass and thermal breaks in walls and foundations where appropriate,

- Limiting the amount of glazing in homes, make the sizing and placement of each window count for view and lighting and not just creating a window for the sake of adding glass,
- Utilizing ceiling insulation with values of R30-38 or above,
- Pre-designing "duct runs" and bundled wire packets to allow for blanketed, sealed ductwork and uninterrupted insulation placement,
- Providing window sunscreens and other shading as architectural elements and detailing such as recesses, overhangs, patios and awnings to reduce solar heat gain along south and west building exposures in the Summer,
- Providing glazing, solar-angled shading elements and deciduous landscaping that allows for solar access, natural lighting and heat gain for homes in the Winter,
- Using landscaping such as trees, shrubs, trellises and "green screens" to shade homes and the use of "smart" landscape irrigation systems,
- Using radiant barriers in attics that can be applied as covers over insulation or as roof underlays,
- Replacing inefficient doors and windows and using Low-e and dual and triple pane windows on south and west exposures to reduce heat gain and loss.
- Replace HVAC with more energy efficient systems.



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11.4 Integrated Energy Approach Area 2: Utilizing Alternative and Renewable Energy Sources

The most effective way for residents and businesses to impact energy usage (and decrease its associated costs) is to reduce energy consumption as outlined in Area 1 (Energy Conservation and Efficiency) above. However, as technology develops, it is anticipated that a shift to alternative and renewable energy sources will play an increasingly important role. And while none of the technologies and sources outlined below has been perfected (and some may never be cost-effective in Gilbert due to its climate and geography), each is worth noting here as a potential opportunity for the future. Ultimately, the usage of these alternative and renewable energy sources will depend on their availability, cost and public support.

Alternative Renewable Energy Sources

<u>Solar power:</u> the use of the sun's rays for active and passive heating of air or water, or other liquid and production of electricity with photovoltaic (PV) cells. The two mega-watt Neely Wastewater Plant solar power installation is an example of solar PV.

<u>Wind power:</u> the use of wind to rotate a propeller and generate electricity by a turbine generator.

<u>Hydro power:</u> the use of moving water to drive a turbine generator to generate electricity, such as hydro electric dam.

<u>Biomass</u>, <u>Biofuel and Biogas</u>: Biomass comes from sources of vegetation; Biofuel comes from vegetation derived oils including reprocessed cooking oils or pellets; and Biogas is a combustible gas caused by the decay of vegetation and organic materials. Through combustion, these fuel sources create steam to power turbine generators to create electricity. Alternatively, they can be refined and can act as an oil or gas to

operate motors in vehicles and other internal combustion engines. Ethanol and biodiesel fuels are examples of suitable fuels for vehicles.

<u>Biothermal</u>: The use of the natural heat or the different temperatures that are found in the earth's subsurface including volcanic features such as natural occurring steam, hot springs, etc. They may also include use of near-surface ground temperatures contrasts, where subsurface temperatures are more moderate than air temperatures. They can be used to modify above ground building temperatures by circulating air or liquid from subsurface areas to buildings, causing a cooling effect in the summer and a warming effect in the winter.

Alternative Energy Systems

<u>Solar Energy</u> is at present the most prevalent source of alternative energy in the Phoenix Metro area. Solar energy is collected and used in both passive and active systems.

Passive solar heating allows the sun's rays to enter through windows or to heat air or water which is then circulated through a building to provide heated air or water.

Active solar collectors generate electricity through photovoltaic (PV) cells and can also create hot water through solar hot water systems. Many large-scale solar energy generation fields currently require the use of large quantities of water (for steam powered turbines) and this is a concern for their long-term application in Arizona. As technology develops, it is hoped that water usage may be minimized so that solar may play a much larger role in energy generation.

As for smaller active solar applications, solar PV cell panels use semiconductor materials such as silicon wafers that contain both a positive and negative charged layer of material. Sunlight hits the panel and causes electrons to travel across the 2 layers creating an electric current that can be collected for electrical usage.

The Phoenix Metro area receives an average of 214 clear days, 80 partly cloudy days and only 71 cloudy days, thus receiving 3,732 hours of sunshine annually (which works out to 85.2% of the area's possible sunshine) (source NOAA). The sunny climate makes Greater Phoenix prime for solar cell (PV) panel use as well as solar hot water heaters as alternative sources of energy. However, it is widely recognized by energy efficiency professionals that the best and the most cost effective place to start for a home or business is with increased insulation of the ceiling, walls, windows and floor and to increase the efficiency of HVAC systems. When that is completed, consideration of an alternative energy system such as solar cell (PV) panels and solar water heaters or other systems should be considered.

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<u>Stand alone or separate PV systems</u> are not linked to the power grid and generate electric power for direct, real-time power usage or to store surplus power in batteries.

<u>Grid tie PV systems</u> are the most common systems used in the Phoenix Metro area and use real time generated power after on-site PV cell power is converted from direct (DC) current to alternating (AC) current, with any excess power fed back to the electric distribution grid system and sold back to the electric company at wholesale prices, thus reducing the electric bill.

In Gilbert, solar panels and solar water heaters (roof-mounted or installed elsewhere on the property) are increasingly popular and available to residents and businesses. This is a result of higher energy costs and Federal, State, utility company and other company rebates, tax credits, discounts and incentives available to reduce the costs to make systems more affordable. While some residents are concerned with the aesthetics of solar devices on neighboring properties, state legislation currently limits the ability of municipalities and homeowners associations (HOA's) to create restrictions on solar panels related to the placement of these systems when the result will decrease operating efficiency or increase the cost incurred by the homeowner. It has been suggested that Gilbert develop voluntary guidelines for solar equipment placement to mitigate issues associated with the perceived negative aesthetics and safety.

<u>Wind power</u> is not considered to be a substantial opportunity for alternative energy generation in Greater Phoenix since the area's average annual wind speed is about 6.2 MPH (NOAA) while wind turbine electrical generators generally require average wind speeds of 15 MPH. However, wind power can be generated in other areas of Arizona and transmitted to the Phoenix Metro area. The Dry Lake Wind Project in Northern Arizona generates enough power for more than 9,100 homes, which is delivered to customers in Phoenix.

<u>Hydro power</u> is also not considered to provide any substantial opportunity within Gilbert as the level topography here has a total elevation change ranging from 1421 feet above sea level at the highest point at the southeast corner to 1210 feet at the lowest point at the northwest corner, a total change in altitude of about 211 feet over the 72.6 square miles area of the Town. Also, no running water, other than that found in irrigation canals, exists to provide for the use of hydro power or opportunity foreseen.

<u>Biomass</u>, <u>Biofuel and Biogas</u>, have a significant potential for use in Gilbert. Biomass material can be used as a fuel source for combustion to creating steam to operate a turbine generator to produce electricity. Biofuel and biogas can be used as a fuel, similar to gasoline, to operate vehicles and internal combustion motors. This alternative fuel source includes ethanol and bio-diesel fuels that have the opportunity to supplement or replace gasoline in vehicles and bio-diesel can replace and substitute diesel fueled vehicles.

<u>Biothermal and Geothermal</u> energy sources also offer significant potential for use in Gilbert. This is not related to volcanic heating sources that can be tapped such as steam, or hot springs, but through use of naturally occurring moderate temperatures at subsurface depths of 20, 30 or more feet underground ground that average a consistent temperature of 72°. These moderate temperatures, when accessed through systems using the movement of air or liquids such as water, antifreeze or Freon, etc., through a pipe grid system, can create warming to the building in winter (52.3° average January Phoenix temperature) and cooling to buildings in summer (92.3° average July Phoenix temperature, source NOAA).



Electrical Transmission Center

SRP Santan Generating Plant





ENERGY

11.5 Goals and Policies

Goal 1.0

Incorporate energy efficiency and alternative and renewable energy sources into all aspects of Gilbert planning.

Policy 1.1 Establish an integrated energy approach encompassing the usage of efficient energy techniques/technologies and alternative/renewable energy sources for Gilbert municipal operations.

Policy 1.2 Encourage 'walkable' communities, vertical development where appropriate, mass transit and efficient land use patterns to minimize fuel consumption and energy usage.

Policy 1.3 Encourage and support reliable cost-efficient electrical distribution and generation systems.

Policy 1.4 Continue the involvement and commitment of public committees (such as the Environmental Programs Task Force) and other interested groups to plan and promote energy efficiency, alternative energy usage and green and sustainable programs for Gilbert.

Policy 1.5 Encourage efficient energy use in Gilbert municipal operations.

Policy 1.6 Encourage energy efficiency and use of alternative energy sources in all new construction and development in Gilbert.

Goal 2.0

Promote education and facilitate discussion about energy conservation and the usage of alternative and renewable energy sources throughout Gilbert.

Policy 2.1 Provide educational opportunities to businesses, contractors and residents regarding energy efficiency, how to reduce energy demand and how to increase the use of alternative, renewable energy sources.

- **Policy 2.2** Promote and coordinate partnerships for energy efficiency education and training opportunities between schools, colleges, the construction and business community, public utilities and residents.
- **Policy 2.3** Encourage cooperation among schools, research and technology centers, businesses and Gilbert residents to promote new technologies and innovations in clean and renewable industries and creation of job opportunities, as outlined in the Chapter 9 Economic Element.
- **Policy 2.4** Facilitate the exchange of ideas related to the wise use of energy, including methods, technologies and integrated energy plans.
- **Policy 2.5** Develop and distribute an information sheet for homeowners interested in adding solar power to their homes, including suggestions regarding aesthetics, safety and the need to hire licensed contractors to do the work.

Goal 3.0

Establish policies that encourage and provide incentives for efficient energy use to support and encourage energy conservation and the usage of alternative and renewable sources of energy.

- **Policy 3.1** Continue to utilize and consider the adoption of the International Energy Conservation Code (IECC), as revised and recognized by the US Green Building Council (USGBC), and other building codes as a source of acceptable standards for energy efficiency in construction.
- **Policy 3.2** Encourage development and implementation of Pervious Pavement (Cool Pavement) guidelines as the use of such pavement is recognized to help mitigate the impact of the urban heat island (UHI) effect.
- **Policy 3.3** Consider the use of alternative materials, designs and methods of construction to promote energy conservation, where verification is provided by an engineer, architect, or other professional, that the alternative construction form, meets the intent of the Building Code.
- **Policy 3.4** Establish guiding principles and encourage best practices for the placement and installation of solar (PV) panels and solar water heaters for residential and commercial uses.
- **Policy 3.5** Develop, promote and implement a separate, quicker "green track" review process and associated guidelines for energy efficient development applications and projects.

Policy 3.6 Promote entrepreneurial efforts to develop and use new products, materials, services, technologies and processes to support energy efficiency and alternative and renewable energy sources.

Policy 3.7 Establish policies to encourage businesses and residents to purchase renewable energy.

Policy 3.8 Provide incentives for efficient energy usage by Gilbert businesses and residents.



Water Tower Park



ENERGY

11.6 Implementation Strategies

The intent of the Energy Element is to provide guiding principles for energy efficiency, reduce energy demand and to further the utilization of alternative and renewable energy sources.

	Energy	Responsible Entity	Complete By
A.	Establish guidelines regarding an Integrated Energy Approach to promote energy efficiency and reduced energy demand by the following means:		
1.	Use of best practices for energy conservation in Gilbert municipal operations.	Development Services	Ongoing
2.	Support increased insulation, sealed envelopes and upgraded HVAC systems in existing homes and businesses.	Development Services	Ongoing
3.	Promote green building and effective land use patterns.	Permitting and Plan Review Planning	Ongoing
4.	Provide education and information to residents on the wise use of energy.	Permitting and Plan Review Planning	Ongoing
5.	Create informational brochures for distribution to contractors and homeowners for rooftop mounted solar panels and water heaters.	Environment and Safety Town Manager's Office Planning	Ongoing

B.	Establish guidelines regarding an Integrated Energy Approach to promote use of alternative and renewable energy sources by the following means;	All Departments	Ongoing
1.	Support, anticipate and promote technology advancements and shifts to allow and enable increased usage of alternative and renewable energy.	All Departments	Ongoing
2.	Consider and evaluate options for the use of alternative of and renewable energy sources where these sources become available and are cost effective.	Development Services Public Works Environmental Safety Town Manager's Office	Ongoing
3.	Provide education and information to residents of options for alternative and renewable energy sources.	Development Services Public Works Environment Safety Town Manager's Office	Ongoing
4.	Promote a partnership with education centers, businesses, utility companies and residents regarding opportunities for and application of alternative and renewable energy sources.	Planning Business Development	Ongoing
5.	Implement a public process to determine whether building permits should be required for rooftop or ground-mounted solar installations (PV panels or solar water heaters) when installed by an Arizona Licensed Contractor and the equipment is recognized and listed in standard equipment manuals.	Development Services Permitting and Plan Review	Ongoing
6.	Develop, promote and implement a separate, quicker "green track" review process and associated guidelines for energy efficient development applications and projects.	Development Services Permitting and Plan Review	Ongoing



CHAPTER 12

NEIGHBORHOOD PRESERVATION AND REVITALIZATION



Gilbert Neighborhood

Preserve, reinforce and, where appropriate, revitalize the core characteristics and stability that define all of the Town's neighborhoods, commercial and residential.



INTRODUCTION

In 2010, Gilbert celebrated 90 years of incorporation. At that point, a very high percentage of Gilbert's construction was relatively new. As the Town ages, there is an understanding that Neighborhood Preservation and Revitalization programs will be needed. Some areas of Town, including the Heritage District, are already seeing revitalization efforts pay off as new construction or improvements are completed.

By identifying programs that promote homeownership and assistance for improving the appearance of neighborhoods and that promote maintenance of both commercial and residential buildings, the Town will be ready for preservation and revitalization. In addition, Town programs that provide safety and security for existing neighborhoods need to be examined and in place.

The Neighborhood Preservation and Revitalization element is presented in the following sections:

- Existing Conditions
- Issues
- Goals and Policies
- Implementation Strategies

12.1 Existing Conditions

- The Town actively promotes commercial and residential redevelopment in the Heritage District.
- The Town has over 340 neighborhoods registered with the Neighborhood Services Division. A neighborhood is a collection of residents coming together with common goals that include physical location, social and financial interests.
- The majority of neighborhoods are governed by Home Owners Associations (HOAs).
- Existing structures (commercial and residential) in and near the Heritage District, as well as other areas, will require maintenance and rehabilitation to prevent further deterioration of existing neighborhoods.
- The Town provides safety programs for neighborhoods, such as Lock'em Out, in collaboration with other national programs.



Gilbert Neighborhood



NEIGHBORHOOD PRESERVATION AND REVITALIZATION

12.2 Issues

Potential issues expected to be of concern over the future years include:

- Identify potential neighborhoods and maturing commercial and employment uses, in need of preservation.
- Create programs that proactively address the effects of maturing neighborhoods and non-residential uses.
- Increase participation by property owners in the Town's efforts to revitalize neighborhoods and non-residential properties.



Gilbert Neighborhood



NEIGHBORHOOD PRESERVATION AND REVITALIZATION

12.3 Goals and Policies

Goal 1.0

Promote preservation and maintenance of property; improve appearance with landscape and design.

Policy 1.1 In the Heritage District, protect the mixed-use foundation in order to preserve its identity and set the stage for future development.

Policy 1.2 Continue to invest in the redevelopment projects of the Heritage District; procure and apply public grants and private capital to accomplish redevelopment plans.

Policy 1.3 Focus on neighborhood beautification throughout the Town via landscape/hardscape (plantings, paved surfaces, sidewalks, pedestrian paths, etc.)

Policy 1.4 Encourage improvement and upgrading of vacant strip malls or large scale structures.

Policy 1.5 Infill development should respect the existing character of the neighborhood while providing an enhancement to the neighborhood.

Goal 2.0

Implement comprehensive community revitalization and redevelopment efforts.

Policy 2.1 Coordinate private and public Heritage District redevelopment programs and projects.

Policy 2.2 Facilitate public/private partnerships to access programs and address potential redevelopment issues related to financing, construction and development.

Policy 2.3 Expand revitalization and redevelopment programs for commercial and industrial properties.

- **Policy 2.4** Explore available programs (federal, state or other) that could benefit the Town in comprehensively and effectively address the future redevelopment and revitalization of our community.
- **Policy 2.5** Identify architecturally or culturally significant neighborhoods and create programs to revitalize and preserve their identity.
- **Policy 2.6** Encourage green building (energy efficient and cost effective) techniques and methods in redevelopment and revitalization projects.
- **Policy 2.7** Repair, improve or replace deteriorating public sidewalks, landscaping and infrastructure.

Goal 3.0

Promote effective communication among neighbors, neighborhoods and the Town.

- **Policy 3.1** Continue partnering with the organizations that provide leadership education and information to businesses, communities, traditional neighborhoods and homeowner associations.
- **Policy 3.2** Provide training opportunities for residents in leadership and volunteerism to effectively impact their neighborhood and community.
- **Policy 3.3** Continue Town programs for empowering both traditional neighborhoods and HOAs.
- **Policy 3.4** Assist neighborhoods in forming partnerships to communicate with Town departments (e.g., Code Compliance, Neighborhood Services, Police and Fire) in addressing specific, localized issues.

Goal 4.0

Maintain positive neighborhood image throughout Gilbert.

- **Policy 4.1** Enforce existing codes by coordinating with HOAs, neighborhood committees, Code Compliance and public safety personnel.
- **Policy 4.2** Cooperate with schools, law enforcement, social service agencies and other entities to deter criminal activity.
- **Policy 4.3** Promote owner-occupied ownership programs, where appropriate, to counteract absentee owner rentals.

- **Policy 4.4** Continue to support organizations and events that aim to improve Gilbert's neighborhoods and community atmosphere.
- **Policy 4.5** Encourage neighborhoods and businesses to reinvest in frontage, façade, signage and general improvements as well as regular general maintenance.
- **Policy 4.6** Promote assemblage of underutilized and blighted properties for redevelopment compatible with adjacent neighborhood character.
- **Policy 4.7** Promote the development of new housing in concert with redevelopment efforts in the Town.
- **Policy 4.8** Promote and enforce retrofitting of unsafe property conditions.
- **Policy 4.9** Respect the character of all neighborhoods by encouraging them to preserve and improve upon the positive qualities that make each area unique.
- **Policy 4.10** Encourage neighborhoods to retrofit and/or add amenities such as parks and paths.

Goal 5.0

Encourage redevelopment and reuse of existing vacant buildings.

- **Policy 5.1** Provide strategic technical assistance and information for commercial, industrial and retail rehabilitation.
- **Policy 5.2** Encourage programs and incentives to promote the compatible, adaptive reuse and sustainable modernization of vacant or deteriorating properties.
- **Policy 5.3** Prioritize revitalization and redevelopment projects to promote economic development and neighborhood planning.
- **Policy 5.4** Implement programs to encourage existing retail developments to remain "current" and competitive in order to avoid the need for costly revitalization efforts in the future.



NEIGHBORHOOD PRESERVATION AND REVITALIZATION

12.4 Implementation Strategies

The intent of the Neighborhood Preservation and Revitalization Element of the Gilbert General Plan is to identify Town programs that provide for the maintenance, safety and security of neighborhoods. As Gilbert matures, we need to have alternatives in place to protect the character and high quality development of the community and maintain desirable health and safety levels. Property maintenance and preservation is best supported by grassroots efforts including education to strengthen pride in property ownership.

	Neighborhood Preservation and Revitalization	Responsible Entity	Complete By
1.	Support redevelopment proposals. Involve neighborhood groups early in the process and promote effective communication with adjacent property owners and neighborhood groups during the development process.	Planning Development Services	Ongoing
2.	Enhance existing programs and/or create new ones targeted at declining or deteriorating commercial and industrial properties. Identify and facilitate partnerships with members of the development, financial and business communities.	Development Services	Ongoing
3.	Create new policies aimed at property maintenance.	Development Services	Ongoing

4.	Provide educational and training programs, such as the ones offered by The Leadership Centre (Neighborhoods Arizona) that focus on education and training to protect and enhance neighborhoods.	Community Services Leadership Centre	Ongoing
5.	Assess infrastructure needs in older parts of the Town where infill or potential redevelopment properties exist. Create programs to improve infrastructure capacity and function to facilitate new development or redevelopment in those older neighborhoods. Implement plan review incentive programs for projects revitalization and redevelopment efforts that employ green building techniques and methods.	Development Services Town Manager's Office	As Directed By Town Council
6.	Establish preservation and maintenance program eligibility criteria.	Development Services	Ongoing
7.	Publish a "Neighborhood Planning and Redevelopment Primer" (derived from existing Planning Division handouts) for use by citizen groups and property owners to use for voluntary initiatives to improve and protect their neighborhood assets.	Development Services	Ongoing
8.	Encourage, collect and evaluate neighborhood generated proposals for consideration in the formulation of the annual Capital Improvement Program budgeting process.	Development Services	Ongoing
9.	Identify and prioritize older commercial and employment areas requiring revitalization and/or redevelopment.	Development Services	Ongoing

