

# The Florence Greenway: A Bridge to the Future and a Connection to the Past

Prepared by **The Drachman Institute**, of the University of Arizona September 2005



Thank you to Russell Freeman for guided tours, deep background, the knowing of a place. Because of Rusty's determination and unbelievable energy, the Florence Greenway will be realized. Research specialist, plant lover and teacher, Russell has deep roots and affection for Florence and is committed to guiding Florence toward a better future.

We are also grateful to Himanshu Patel and Jess Knudson, and the Town of Florence for the valuable data, maps and planning information, essential to the analysis of issues facing Florence.

### Prepared by The Drachman Institute, University of Arizona, Corky Poster, Director.

Katie Gannon, Cooperative Extension Community Design Fellow, September 2005.

The Drachman Institute is a community design and technical assistance outreach program of the University of Arizona, College of Architecture and Landscape Architecture, Corky Poster, Director. Support funding was provided by the Cooperative Extension Program of the College of Agriculture and Life Sciences. Project assistance was provided by Jessie Maran. Special thank you to Russell (Rusty) Freeman and his undying pursuit of the Greenway Loop Trail.

The Drachman Institute, University of Arizona, 819 East First Street, Tucson, Arizona 85721 www.drachmaninstitute.org

# Contents

Introduction	1	
Florence, Arizona	2	
Pinal County		3
Context		4
Town Core		5
Population Unprecedented Growth		6 7
Historical Character		8
Economy		9
Open Space		10
Circulation & Street Hierarchy		11
Town Framework Canals		12 13
Water		14
Ecology		15
Small Town Character		16
Landscape		17
Archeology Regional Trail System		18 19
	20	15
Greenways	20	
What is a Greenway?		20
Benefits of Greenways Greenways and Active Lifestyles		21 22
Greenways and Active Lifestyles Greenways as a Planning Tool		23
Greenways as a Development Tool		24
Greenway Design Principles		25
GreenwayMaster Plan	26	
Greenway Goals		28
Riparian River Walk		29
Town Streets as Walking Connections Gateways to the Greenway		30 31
Bicycle Boulevard - Bush Street		32
Bike Track at High School		33
The Town "Y"		34
Greenway Underpass		35
Desert Park Lipear Park at Elerence Heights Dr		36 37
Linear Park at Florence Heights Dr. Farmers Market		38
Prison Farm and Demonstration Agriculture		39
The Canal Builders		40
Landscape Ramada		41
Planting & Design Themes		42
Implementation References		44 45
REFERENCES		40

When a piece of work gets done in the world, who actually does it? Whose eyes and ears do the perceiving, whose cortex does the thinking, who has the feeling that motivates, the will that overcomes obstacles? Certainly not the social environment; for a group is not an organism, but only a blind unconscious organization. Everything that is done within a society is done by individuals.

- Aldous Huxley

# Introduction

The Florence Greenway is an idea whose time has come, and just in time. Florence is about to be inundated by two powerful forces: rapid population growth accompanied by a monumental rate of population increase. To a small and stable historic, rural town, the combination of these forces brings uncertainty and inevitable change. Only a conscious and concerted effort that identifies the unique and valued qualities of Florence, and focuses on their preservation, enhancement and evolution, can ensure that these qualities will endure through the gale force of change that will be blowing into town within the next 12 months.

The Florence Greenway can provide a powerful stabilizing influence that reinforces the physical and social structure and character of historic Florence. The project would bury open irrigation canals, transform under-utilized irrigation easements, and tame wide asphalt expanses, into a tree-lined, accessible, multi-use greenway encircling the historic heart of Florence, Arizona.

The route would link neighborhoods, provide safe routes to school, and make strong connections to Main Street. Unlike traditional parks, where facilities are often in a removed location, the greenway offers an accessible recreational opportunity that is completely integrated into daily life (by virtue of its proximity right outside the front door). Accessiblity and integration of fitness opportunities are essential components for motivating physical activity.

In an environment of rapid growth, the Florence Greenway reinforces and enhances the unique and compact, small-town layout of Florence; the diverse and interesting history of the area; the scenic, rural landscape; and the glowing pulse of quaint and historic Main Street.

The route creates a green network for both humans and wildlife in an outdoor environment that is pleasant for much of the year. The Greenway boosts tourism opportunities, improves prospects for positive development within the core and enhances the quality of life for all Florencians. The greenway enhances local and regional identity by creating and protecting important cultural and natural assets.

# Florence, Arizona

"Florence is in Pinal County between Phoenix and Tucson. This allows for easy access to the two largest cities in Arizona while maintaining the small town atmosphere. Because of year-round sunshine and ideal climate, Florence is the perfect place for the retired. It is excellent for those seeking a warm, clean air area for health purposes."

Florence Vision Statement. 2003 Comprehensive Plan. (www.town.florence.az.us)



Florence was incorporated as a town in 1908 and has been the location of the Pinal County seat since the county was formed in 1875. Florence is at an elevation of 1,493 feet, along a portion of the Middle Gila River. Average annual rainfall is 6 inches. In the 1920's the Hayden dam was constructed upstream on the Gila River and canals were constructed establishing Florence as the agricultural center of the county. Agricultural products from the area include cotton, cattle, grains, and grapes. Florence is home to both the Pinal County government complex and the Arizona State Prison.

Today Florence's population is ethnically diverse: comprised of 50% white residents, 35% Hispanic residents, 9% black residents 9% and American Indian and other 6%. These numbers do not include prison populations. Florence has a slightly older population in comparison to Pinal County and the State of Arizona.



### Pinal County

Florence is located in central Pinal County, at the intersection of State Highways 79 and 287. But it is Maricopa County that is exerting the strongest influence on the future of Florence and much of Pinal County.

The Phoenix metropolitan area, in its endless, insatiable expansion across the desert, is obstructed on the south by the Gila Indian Reservation and blocked on the east by the Superstition Wilderness. As a consequence, Phoenix growth is funneling southwest into Pinal County, gobbling up inexpensive and abundant agricultural land and virgin desert. Florence finds itself in the direct path of the assault. It is only a matter of years before growth pressure from Pima County will be palpable from the southeast.



Maricopa County

**Pima County** 

The county encompasses 5,371 square miles, of which 30 square miles are water. In both economy and geography, Pinal County has two distinct regions. The eastern portion is characterized by mountains, elevations to 6,000 feet and copper mining. The western area is primarily low desert valleys and irrigated agriculture. Florence is in this region. The State of Arizona is the county's largest landholder with 35.3 percent, followed by individual and corporations, 25.7 percent; Indian reservations, 20.3 percent; the U.S. Forest Service and Bureau of Land Management, 17.5 percent, and the remaining 1.2 is other public land.





### Town Core



Florence enjoys an intact historical core, a vibrant Main Street surrounded by neighborhoods on all sides. Town services, quality local schools and parks are located within the town core, all within walking distance. Major vehicle arterials are located at the periphery. Florence enjoys the layout and framework of a pre-automobile-age town. It hasn't suffered the ill effects of sprawl and rapid growth outside the town limits. But that may soon change.





urch 27, 2

#### **Planning Implications**

Reinforce and retain walkability and compactness of Main Street and the Town Core.

New development should reflect similar walkability, with minimal impediments such as walls around subdivisions and developments. Autos should stay relegated to periphery but with convenient parking access to Main Street.

#### Greenway Planning Ideas

Provide easy bicycle access into and out of Main Street.

Connect newer neighborhoods to Town Core. Minimize barriers to walking. Maximize connections and linkages between neighborhoods and Town facilities, especially Main Street.

Expand Main Street experience; begin with the "greening" of the street.

1/2

## Population

From 1880 to 1990, a period of 90 years, the population of Florence increased from 902 residents to 5792 residents. Ten years later in 2000 the population was holding steady, though prison population increased nearly six-fold. Florence's population today is about 7000, but projections for within a fifteen-mile radius of the town over the next 12 years show Florence growing to a population of 350,000. (The study that generated these projections was prepared by a Phoenix consulting firm working on behalf of Central Arizona College and in support of their bond proposal. The College requested a whopping \$425 million bond issue from voters on May 17, 2005. The proposal failed.)



This land sale brochure illustrates the percentage of land currently under development or proposed development, in close proximity to the Town Core. Source: Arizona Land Advisors, Property Brokers, Sales Brochure, April 2004.



#### **Population of Florence**

	2003	2017
Total*	18,162	
Civilian	5,792	350,000

\* including prison population

#### **Planning Implications**

How does a community absorb and integrate growth into the existing 140 year old town structure and small town character? Perhaps it is not possible. It is essential to identify the quintessential qualities of Florence that the Town wishes to retain and in a concerted and aggressive way, the Town must reinforce and enhance these qualities before they are swallowed up and lost.

#### Greenway Planning Ideas

Reinforce and enhance pedestrian scale of Town Core by providing more pedestrian links to adjacent neighborhoods and town facilities.

Reinforce and emphasize Florence's rich history by interpreting it in streetscape and greenway design.



The mass grading shown here is for Anthem at Merril Ranch, a development of 40,000 homes. located adjacent to the historic and iconic Poston Butte,



Typical new housing by DB Horton "The Oasis at Magic Ranch," a couple miles North from Anthem.



### **Unprecedented Growth**

"Pinal County is on pace this year to issue a record number of building permits for single-family homes.

Through March, the Pinal County Department of Building Safety had issued 2,498 permits, putting it on pace for 10,131 for 2005, a 17 percent increase from the 8,660 permits issued in 2004. And the numbers far outstrip the 2004 totals for single-family permits issued in unincorporated areas of other Arizona counties, according to the Arizona Real Estate Center at Arizona State University: 4,439 in Maricopa County; 3,761 in Pima County.

"This is just a tidal wave," County Supervisor David Snider said. "The tsunami has yet to hit." Requests for permits for single-family homes are pouring into the county at an average rate of 100 a day via fax, mail or in person, said Steven Brown, Building Safety Department director. Overwhelmed officials had to hire temporary workers last month to process backlogged applications. More than 1,300 permits were issued in March alone, up from 502 in February."

> Carl D. Holcombe The Arizona Republic, April. 26, 2005

#### LAND USE PLAN

RAR Ranchette Residential (0.25-1.0 DU/AC) LDR Low Density Residential (1.0-4.0 DU/AC) MDR Medium Density Residential (4.0-8.0 DU/AC HDR High Density Residential (8.0-18.0 DU/AC) CC Community Commercial Tourist Commercial PI Public/Institutional Prison P LI Light Industrial HI Heavy Industrial Parks and Recreation ROS Recreational Open Space\* Artillery/Small Arms Impact Area

Given housing densities of 1 to 4 units per acre, Florence's growth will consume land at a very high rate. The conversion of agricultural land and virgin desert into acres and acres of sprawling subdivisions will have a dramatic impact GROWTH AREAS PLAN on the landscape, both visually and physically. In addition to the infrastructure demands, development is bound to have a profound impact on the demographics of Florence. (Many of the homebuyers work in the Phoenix metro area and come to the Florence area in search of inexpensive housing.)



### Historic Character





As the fifth oldest town in the state, downtown Florence has been designated an official "Historic District." It is said Florence has more buildings listed on the National Register than any other town in Arizona. Some of the notable historic sites are the first and second county courthouses, both completely different in architectural style. The first was built in 1877 and is open to the public as McFarland State Park. The second was built in 1891 of American-Victorian architecture and is still in use today. The fully restored Brunenkant Building, built in 1889, serves today as the Greater Florence Chamber of Commerce. In January 1987, Florence was selected for inclusion in the Main Street Program sponsored by the National Trust for Historic Preservation. This public/private partnership program assists businesses in design and promotion, with the ultimate goal of economic revitalization for the central business district.

Florence's history goes deep, is well documented, and is visible today in the tangible artifacts preserved for visitors to enjoy. In addition to the architecture, there are two fine museums located along historic Main Street. Historical records and relics relating to mining, ranching, agriculture, prisons, and many significant and colorful individuals abound. The town cemetery is a fascinating and unique place heavily overlaid with Mexican cultural influence, but distinctly Florence.

#### **Planning Implications**

Historic structures and the Historic district represent significant tourist attraction and embody much of Florence's identity. Every opportunity to reinforce the historical core with active and diverse uses and additional layers of amenities should be encouraged

#### Greenway Planning Ideas

Ensure year-round pedestrian comfort and expand the visitor experience through enhanced streetscape, plantings, street furniture, signage, etc.

Connect and attract residents and visitors to historic main street at every opportunity. Increased pedestrian traffic will ensure vibrant businesses remain on Main Street. Possible new uses include, cafes and coffee shops, tourist/boutique shops, and small markets.



### Economy



Florence houses an incarcerated population of 11,000 individuals and growing. There are six prison facilities located in and around the town employing 3000 individuals.

Major Employers employing greater than 100 employees, in descending order:

Corrections Corporation of America Correctional Services Corporation Florence Unified School District Pinal County State of Arizona Dept of Corrections Town of Florence U.S. Department of Homeland Security

Florence imports a significant portion of its labor force from the neighboring communities of Coolidge and Casa Grande and beyond. Town administration considers Florence to have a deficit of quality housing units to serve the labor force, though in 2000, 31% of Florence's 3216 housing units were vacant. From 1996 to 2000 there were a total of 88 residential building permits, all of them for single family homes.

#### **Prison Industry**

There are six prisons located in Florence. Each has a different level of security and serves different populations.

- 1. Pinal County Jail
- 2. Arizona Sate Juvenile Detention Facility
- 3. Private Prison contracting with state for mostly DUI
- 4. Private Prison contracting with other states, e.g. Alaska, Hawaii, INS overflow.
- 5. Arizona State Prison Eyman Facility Death Row
- 6. Arizona Sate Prison Florence Facility North, South, East, Florence Units

The prison industry is big business and is destined for continued growth. Florence prisons import prisoners from other states as well. Besides the employment base prisons provide, Florence receives credit for prisoners as residents for calculation of state revenue sharing, even though the money is not spent on their behalf. Pinal county includes the prison population in their legislative district head count, even though the prisoners can't vote. In addition the town frequently uses prisoners as laborers for public projects and they are often hired out for private use.





### Planning Implications

The prison industry contributes significantly to the economy of Florence. Identify ways to provide goods and services to these employees, many of whom commute to the area.

Possible destinations include cafes, grocery store, walking routes for physical recreation.

Identify partnership opportunities between the Town and the Prisons, ways to work together for mutual benefit.

#### Greenway Planning Ideas

Encourage locally-owned small business ventures providing support services to commuting workforce: barber shops, cafes, coffee shops, small grocery markets as well as recreational walking routes, auto and transit services.

Support small scale agriculture; sponsor farmers market.

Embrace prison connection through prison demonstration farm.



Large tracts of land around Florence are owned and managed by The Arizona State Trust, the U.S. Military, and the Bureau of Land Management. This exerts powerful influence on Florence's growth patterns, targeting the most productive and scenic agricultural land along the Gila River.

## **Open Space**

#### LAND OWNERSHIP

	Private Land	
	Arizona State Tru	ist Land
	Bureau of Land N	Aanagement (BLM)
	Florence Military	
	Bureau of Reclan	nation (BOR)
Arizon	a State Trust Land	d Lease Status
	TYPE	EXPIRATION
M	Institutional	06/2003
111	Grazing	06/2002
13/1	Grazing	03/2009
14/	Commercial	09/2007
15/	Agricultural	02/2007
(6)	Grazing	05/2005
1/1	Grazing	03/2005
18/	Grazing	03/2005
18/	Commercial	09/2010
10	Grazing	09/2011
11	Agricultural	02/2005
1/1/	Grazing	03/2005
13	Grazing	03/2005
	Allotment Bound	lary
	Parcels	
	Local Streets	
	State Highways	
	Railroad	
	Canals	
~	River	
	Incorporated	160
	Boundary	320 40
	Planning Area Boundary	40 TO
Δ.	1	2 Miles 15 RRW
<b>1</b>		BRW

#### **Planning Implications**

Open space has historically played a tremendous role in the visual quality of Florence. Agriculture has played a big role in the economy, lifestyle and "feel" of Florence. Is there an ongoing role for agriculture in Florence's future? If so, policies and incentives to preserve it should be in place now.

The politics of State Trust Land will play a big part in shaping Florence's future. Strategic open space should be identified and set aside now.

#### **Greenway Planning Ideas**

Greenway should borrow adjacent open spaces as part of the greenway viewshed. The historical role of agriculture and canals and water and how these factors have shaped the land since pre-history should be

### **Circulation & Street Hierarchy**

Currently arterials and collector roads relegate automobiles to the periphery of the town core, leaving only local traffic in the historic and residential districts. This enhances and preserves the compact and small-town feeling of Florence.

Florence's Comprehensive Plan, however, contemplates a change in street hierarchy and suggests that Main Street, throught the historic district, should become a collector street (see next page). This could be detrimental to the character of Florence's Historic District.



### Current TRANSPORTATION

Functio	onal Classification
_	Minor Arterial
	Major Collector
	Minor Collector
Signali	zation
0	Traffic Signal Locations
Averag	e Daily Traffic Count
<i>x,xxx</i>	Daily Counts (1999)
Railroa	<u>nd</u>
	Union Pacific Railroad

### **Planning Implications**

A planned Major Collector through the heart of Main Street could have a negative impact on the scale and character of the Historical District and

Consider designating streets to the periphery of historic Main Street as Major Collectors (such as Plant Road and Butte). Provide abundant and convenient parking adjacent to, but not on Main Street. Create vibrant pedestrian connections to walking District.

#### Greenway Planning Ideas

Greenway should encompass the historic district, connecting and directing pedestrian scale activity and energy into the Town Core.

Town services, such as bike rentals, ice cream stores, and cafes, will diversify and intensify to support pedestrian and greenway activity, and vice versa, town services will reinforce greenway use.

### Town Framework

It is rare to find a Town as compact and walkable as Florence. The Town Core surrounded by neighborhoods, has evolved over time, but has adhered to the Framework established over a hundred years ago. Arterials and Major Collectors take high speed, high volume throughtraffic along the periphery, while minor collectors distribute local traffic within the interior. Main Street is a minor collector with a local, neighborhood feel, an essential component of its attraction.

The 2002 Comprehensive Plan converts Main Street from a Minor to a Major Collector, and bridges Main Street across the Gila River to connect to north Florence (Florence Gardens and Anthem). It also funnels auto traffic from massive planned unit developments right into Main Street, contradicting the compact, pedestrian framework of Historic Florence.



# PLANNED **ROADWAY FUNCTIONAL Florence Gardens** CLASSIFICATION SYSTEM Principal Arterial (6 Lane) Principal Arterial (4 Lane) Minor Arterial Major Collector Minor Collector Bridge Crossing (Existing) Bridge Crossing (Proposed) 315 Poston Butte

To retain the walkabilty of the town core and the pedestrian scale that currently exists on Main Street, **do not** funnel cars onto Main Street with a Collector Street from the north. A **greenway connection**, instead, with a pedestrian-scale bridge across the river and a country lane feel, creates a unique and special amenity for tourists and residents alike, respecting and reinforcing the historic and pedestrian character of Main Street. Car can be brought into the Town via Highway 79 and Plant Road and/or Centennial Park Road, respecting the current (historic) framework that relegates cars to the periphery.

Retain pedestrian character of historical downtown by creating a direct greenway connection rather than roadway connection with Anthem and Florence Gardens.



Suggested "feel" of greenway connection from Main Street across the Gila River to North Florence.





## Canals

The movement and transfer of water has had a profound impact on the landscape, economy and lifestyle in the Florence area. Since the Hohokam resided in the area from around 900 to 1450, humans in this arid climate have channeled water to feed thirsty crops and support human settlement. The Hayden dam, constructed in the 1920's, enabled construction of The Florence Casa Grande Canal, which today, along with extensive groundwater pumping, support large scale agriculture. Indeed, groundwater pumping in the area has been so extensive, much of Pinal County is experiencing significant land subsidence as aquifers become depleted and wells must be driven deeper into the earth.

Fenced CAP aqueduct south of Florence.

The Central Arizona Project Aqueduct (CAP) is a 336 mile diversion canal that diverts water from the Colorado River from Lake Havasu City near Parker into central and southern Arizona. The CAP is the largest and most expensive aqueduct system ever constructed in the United States. The project consists of concretelined canals, siphons, tunnels, pumping plants, and pipelines. Construction began at Lake Havasu in 1973 and was completed twenty years later south of Tucson. The entire project cost over \$4 billion to construct.

The CAP aqueduct dissects the entire landscape of central Arizona and there is not a single wildlife crossing in the 80 mile stretch between the Superstition Mountains and the Picacho Mountains according to Harry Messing, Biologist with the US Bureau of Reclamation. "The analysis just didn't support this area as critical habitat or by-way for ungulate (hoofed) species. I'm not saying there are no deer in the area, It's just not critical habitat. But before we put fences up we had two full time employees whose sole job was to rescue drowning animals and remove carcasses from the canal in this area." Now the aqueduct is enclosed by 6' chain link fence. Of course drownings still occur, though not nearly as many. Imagine the lure of water in the middle of the burning summer. Messing stated that they no longer keep count of fatalities.

#### **Planning Implications**

- 1. Fragmented habitat
- 2. Lack of connectivity in landscape
- 3. High mortality rate of wildlife species

#### Greenway Planning Ideas

Provide wildlife with access to greenway as movement corridor across the landscape, connecting habitats and providing safe access to water.



*The CAP aqueduct fractures the landscape* 



This is a siphon through which surface water must flow (washes) and any wild-life may cross the CAP.



Use and overuse of groundwater are a way of life in Arizona. The pump-and-consume strategy explains Arizona's growth and development and supports our current lifestyle. Land subsidence and resultant land fissures are permanent consequences of groundwater depletion. Relatively large portions of Pinal County have subsided due to excessive groundwater pumping. After subsidence often comes fissuring. Once the process of fissuring begins it tends to continue, increasing in number and length, with new fissures forming adjacent and parallel to older fissures. Fissures spread at uneven speeds and in uncertain directions growing or branching out, sometimes forming complex patterns extending for miles. Arizona is the location of the greatest concentration in all the world of earth fissures.

(Source: Joe Gelt, Water Resource Research Center, College of Agriculture and Life Science, U of A)



#### There are 3 ways to conserve water

- 1. Reduce consumption
- 2. Use water more than once
- 3. Collect/Store rainwater

The conversion of water consumptive farmland to residential development will reduce water consumption on the one hand and provide an increased quantity of effluent, making reclaimed water a viable option for the community.



Florence is currently building \$7,245,000 wastewater treatment, scheduled for completion in August 2006. The new plant will allow the town to treat 2.5 million gallons of wastewater per day to a class "B" quality, a water quality suitable <u>only</u> for recharge. The town may choose upgrade filtration later to produce effluent suitable for watering golf courses and parks. The old plant produces effluent suitable for irrigating cotton crops.

Reclaimed water represents a tremendous unclaimed resource for the Town of Florence that has the potential to greatly reduce unsustainable ground-water pumping.

#### **Planning Implications**

Current sources of water are being depleted. As depletion continues permanent damage to the landscape occurs. Water is scarce in the desert.

#### Greenway Planning Ideas

Minimize water use by using low water, desert adapted plants.

Bury canals wherever possible to improve connectivity in the landscape.

Identify opportunities to educate and interpret water issues along the trail

## Ecology





Canals create impassible barriers for many species. Other barriers in the Florence landscape include the CAP aqueduct, prison fences, large open expanses of agriculture.

Unrestricted off-road vehicle use throughout Pinal county has led to significant degradation of natural areas. Extensive canal systems, including the Central Arizona Project Aqueduct, have fractured the landscape creating impassible barriers and contributing to high mortality rates for many species.

Ecological issues and concerns in the Florence area, according to a written response from the State of Arizona Game and Fish Department, include the destruction and fragmentation of habitats, and impediments to wildlife movement, migration and reproduction. Per Game and Fish, the Gila River is a targeted wildlife linkage that must be preserved and maintained. There are several species designated as "species of concern" under the Endangered Species Act, that are located within five miles of Florence: Longfin Dace, Sonora Sucker, and the Sonoran Desert Tortoise. The Maricopa Leaf-nosed Snake has "Sensitive" status with the BLM. (The Department of Fish and Wildlife requires special handling of these species. "Guide-lines for Handling Sonoran Desert Tortoises Encountered on Development Projects" requires certain techniques for handling and moving tortoises, and limits the maximum ambient air temperature and distances that Tortoises can be moved. If more than 5 tortoises are expected to be displaced by a project the Department of Game and Fish must be contacted.)



Gila River bed, just north of town, lacks any semblance of native riparian vegetation, even that occurring in secondary washes.



Public art can reinforce native ecology.

#### **Planning Implications**

Local ecology suffers from lack of connectivity as a result of numerous barriers in the landscape such as open canals, fences and highways. In addition, Florence is experiencing significant loss of habitat due to large scale development on virgin desert land. Create essential wildlife corridors and connections across canals.

#### Greenway Planning Ideas

Greenways are an excellent way to build connectivity across the landscape. In addition they can provide habitat and buffer the effects of development on adjacent open space.

The greenway presents a great opportunity to bury some canals (reducing water loss from evaporation) and to bridge other canals, enabling species to safely cross the barriers.

Plant with native vegetation to provide food and habitat for native wildlife. Encourage greenway users to stay on designated trails. Provide water for wildlife along the route to discourage canal drownings.

Educate trail users about native wildlife and habitat requirements through interpretive sites and art along the trail. Build environmental awareness and understanding.

### Small Town Character





#### char·ac·ter

- 1. The combination of qualities or features that distinguishes one person, group, or thing from another.
- 2. A distinguishing feature or attribute, as of an individual, group, or category. Synonym: quality. DICTIONARY.COM



This map illustrates the extent of agriculture and vacant land in and around Florence: gray is vacant land, green is agriculture.



#### Florence's Physical Character:

Physical layout of town core Historical Buildings Agriculture Rural setting, small population Open space, long views of landscape Iconic Mountain Vistas Canal Systems Lower Sonoran Desert Scrub (creosote, bursage, Palo Verde)

#### EXISTING GENERALIZED LAND USE



### Landscape











**Planning Implications** Town character is closely tied to the role of agriculture in the economy and its visual "tell" on the land.

Identify ways to preserve and encourage agricultural economy at some level within the community.

*Greenway Planning Ideas* Reinforce small town character along trail with design elements and interpretive elements.

Retain open space areas and mountain vistas around town core and design trail to maximize access to them.

### Archeology



On the right is the hand-drawn worksheet that identifies concentrations of archeological sites from high density to low density. High concentrations of archeological sites are highlighted in brown. The document at left is the GIS map of archeological site densities. The two maps are vastly different. Note the location of the Anthem development of 40,000 homes occurs North and East of Poston Butte. An archeologist familiar with this area stated that this area is of high value, containing a rich deposit of artifacts, some just lying on the surface of the ground.

#### **Planning Implications**

Florence has a high concentration of archeological resources, which, if recognized, could expand the historical character of Florence into a whole other dimension, giving a boost to tourism.

These unique assets should be preserved. Selected development could occur, expanding tourist opportunities.

#### Greenway Planning Ideas

Bike route could create a tour of Florence attractions, from Produce Stand to archeological sites, historic core to hotel, ice cream store to bike rental.



Archeological deposits are especially concentrated around the visual landmark of Poston Butte, formerly a Hohokam burial ground, This is also the location of a 40,000 unit Planned Unit Development by Del Webb Anthem, currently under construction.

### **Regional Trail System**



#### **Planning Implications**

Florence is in the midst of an extensive, wellplanned regional trail system. Three key trails are accessible from Florence: the Great Western Trail (pink dashed line), Kearny's Route (green dashed line), and the CAP canal corridor (yellow solid line).

#### Greenway Planning Ideas

The power of the greenway to be larger than the sum of its parts results from linking different trail/ greenway systems. Every opportunity to make connections to existing and proposed regional trails should be seized upon.

All three trails in close proximity to Florence can be connected to in the vicinity of the Gila River.



# Greenways

### What is a Greenway?



Greenways are corridors of protected and managed open space, established for recreation, connectivity, conservation and for buffering different land uses. Trails and greenways offer a broad amalgamation of experiences, often all at once: out of doors recreation in a natural, historical, and aesthetic landscape, in a recreational, cultural, educational or social context.

### Greenway as a Planning Tool

There are five key ideas encompassed by the notion of a Greenway (from Jack Ahearn, Greenways as a Planning Strategy):

1) Greenways are primarily **linear**. The characteristics and opportunities inherent in linear systems offer distinct advantages for movement and transportation.

2) **Linkage** is a defining characteristic of greenways and relates it to the larger landscape context, often at multiple scale levels. Greenways, when linked, take on the synergistic properties of a network.

3) Greenways are **multifunctional.** The functions a particular greenway will serve is based on an the negotiated spatial and functional compatibility of each use. Therefore process of establishing goals in greenway planning is particularly important, since all goals cannot be optimized. Trade-offs and compromises must be made to reflect the ecological, cultural, social and aesthetic goals associated with a particular greenway.

4) Greenways constitute **sustainable** development. They are based upon complementarity between protection of nature, the landscape and economic development. Human uses of the landscape are recognized and legitimized, and a balance between resource use and resource protection is attempted.

Greenways achieve multiple benefits through combinations of spatially and functionally compatible land uses. Greenways counteract the forces of fragmentation, land degradation, urban expansion and uncontrolled land use change, all of which Florence is currently experiencing.



### Benefits of Greenway

**Transportation** - Facilitate non-motorized trip making.

**Economic** - Increase property values along the route, job creation for gear for fitness and related services.

**Preservation** - Promote appreciation and understanding of history.

**Tourism** - Provide a multi-dimensional visitor experience.

Public Health - Increase physical activity levels, decrease auto emissions.

**Open Space** - Preserve scenic corridors, habitat and recreation space.

Education - Use interpretive signage for wildlife, ecological and historic aspects of trail.

**Social Capital** - Increase interaction among community members.

**Ecology** - Planting buffers create habitat and provide movement corridors for animals.

Quality of Life - Scenic, green amenity enhances enjoyment of life.



A Greenway system is an excellent way to link new and outlying neighborhoods to the Town Core.

Trails and greenways can provide a functional and legible **circulation framework**, providing both residents and visitors with direct routes to a variety of destinations. Greenways **improve safety** by separating recreation and pedestrian uses from vehicles, and providing safe connections between neighborhoods and schools.

People use trails and greenways to **connect to nature**, for adventure, exercise, transportation and leisure. Everyone enjoys trails.

Greenways can enhance a **community's character** and reinforce its identity by recognizing and even interpreting cultural, historical and natural assets of a place. In addition, greenways buffer natural areas and open space from developed and congested areas, reinforcing the positive visual qualities of a place.

Trails and greenways increase actual and perceived **quality of life**. They are a community amenity, especially to clustered developments, actively connecting them to the larger community.

Greenways help **attract quality development**. Consumers are demanding better quality-of-life amenities; in competitive housing markets greenways are directly linked to perceived well-being. Studies show proximity to greenways increases property values.



### Greenways & Active Lifestyles





#### The Epidemic of Obesity

Obesity is a National Health Crisis. The Centers for Disease Control (CDC) report that in the year 2002 nearly 65% of Americans were overweight and 31% were considered obese. According to the CDC over two-thirds of Americans do not engage in the recommended 30 minutes of moderate exercise at least five days a week. In the year 2000, 40% of all adults engaged in no leisure-time physical activity. Meanwhile, the number of overweight children has more than doubled in the last 30 years. Trends show obesity on the rise well into the future.

Physical inactivity is a major cause of sickness and disease in the United States. A 2002 "Call to Action" by the Surgeon General warned that obesity and overweight related maladies will soon cause as much preventable disease and death as cigarette smoking. It is estimated by the CDC that as many as 300,000 deaths annually are associated with overweight and obesity. Health care costs directly attributable to obesity are enormous, estimated at \$75 billion in 2003 (CDC).







#### If you build it, they will come:

#### Infrastructure + Inspiration = Active Community

Research shows that individuals are much more likely to engage in physical activity when the opportunity is integrated into every day life. Providing a fitness infrastructure to the community is the first step. This includes walkable streets and trails that are safe, scenic, and comfortable, and that connect to desired destinations. A Greenway can provide both the infrastructure and the Inspiration required to create an active and healthy community. Greenways have the ability to attract people out of their cars for trip making (and recreation). Greenways provide a direct route, a pleasant travel experience, and a way to get exercise, while making a trip, all at a personal cost savings.

### Greenways as a Planning Tool

There is a growing awareness among local leaders, realtors, developers and other business people that an area's "quality of life" is one of its chief economic assets. Few new businesses choose to locate or expand in locales that do not offer enjoyable places to live. Communities that have allowed all their natural lands to be cut up into houselots or paved over into parking lots often suffer a competitive disadvantage when trying to attract new employers. Often rural areas rely on outside dollars from retirees and tourists to stimulate their



economy. Florence capitalizes on its historic character as one source of its continued prosperity. But few people would choose to retire or vacation in Florence if it looked as commonplace as the anonymous suburbs where they have spent most of their lives.

Small Towns have distinctive features that make them unique. Some of those distinctions are identified by Randall Arendt in his 1994 book *Rural By Design*:

Diverse land uses within a common building vocabulary Distinguishing features Sense of community Opportunities for casual socializing Open space within and around

The greenway can reinforce the qualities that Florencians hold dear, and imbue these elements with new meaning and relevance. The greenway can help preserve the tangible threads that link Florence's past to its present and its vibrant future. Conscious and careful planning that values and respects Florence's distinguishing qualities, ensures that Florence will remain a unique and special place:

From a community's perspective, there can be no intrinsic value attached to elements of the built environment that have lost their symbolic meaning and their cultural significance. When they no longer have any use value, they are bound to disappear.

> -Mona Serageldin in "Preserving the Historic Urban Fabric in a Context of Fast-Paced Change"





The greater the turmoil caused by transformation, the greater the need for anchors to culture as a reaffirmation of identity in the face of globalizing and homogenizing influences.

-Mona Serageldin in "Preserving the Historic Urban Fabric in a Context of Fast-Paced Change"



Few things change the character of small towns and rural communities more than the conversion of natural areas to development.

-Randall Arendt

### Greenways as a Development Tool

#### **Florence Focused Future Project**

Given the extent of change Florence is about to experience, Town Administration has instituted a community planning process for selected residents. This is called the Focused Future Project. A stakeholder committee, called the Action Team, determined the definition of Economic Development to guide future planning:

"Economic development in Florence is maintaining our cultural and natural resources, heritage, quality of life, while at the same time, encouraging investment in the community as a whole. A Diversified balance between a governmentdriven economy to a mix of light industry, retail, knowledge-based businesses, and service industries is critical."

The Action Team identified four areas to focus development efforts:

- 1. Downtown Development
- 2. Community Development and Improvement
- 3. Business Development
- 4. Housing and Neighborhoods

Through several facilitated small group discussions, the Action Team identified some of the qualities that they felt Florence should concentrate on, build upon, and reinforce. A handful of suggestions are listed here:

Capitalize on culture and rich heritage Develop a unique community experience Diversify local economy Improve quality of life Provide outstanding secondary education Support thriving workforce Provide local youth with local opportunities Preserve archeology Set aside open space Promote community supported agriculture Ensure local business stay downtown Unite north and south Florence areas as one community

The greenway is a powerful tool and exerts considerable economic and community benefits. The greenway is entirely consistent with Florence's development goals and in fact, can be used to great effect, to help achieve them.









### **Greenway Design Principles**

These principles of trail design, provided by Roger Hughes, Ph.D. (Executive Director, St. Luke's Health Initiatives, public foundation in Phoenix. AZ), are essential to designing trails and greenways that become a part of everyday and actually get used. These guidelines have been incorporated into the planning and design of the Florence greenway.

Integration - Trails should be integrated with other recreational, educational and social resources.
Adaptation - Trail design should provide maximum adaptability to natural social and economic changes.
Diversity of Fitness profiles - Provide variety of experiences for different populations with varying abilities.
Exploration - Intelligent communities encourage maximum exploration and lifelong learning.
Chunking - Design should allow for manageable chunks of experience.
Motivation - Design should invite and inspire participation





# **Greenway Master Plan**



#### County Complex

The Florence Greenway is a treelined, multi-use path, that highlights the positive attributes of Florence: its friendly neighborhoods, native flora and fauna, open expanses of farm land, iconic mountain views; its interesting, diverse and long history, and the small town community and character that is at the heart of Florence's charm.

The Greenway is peppered with events that have diverse appeal, from a peaceful rest stop under a shade-giving tree, to an active bike course with earthen jumps, curved berms and sand pits, there is something of interest along the entire route.

#### Stop Light Intersections

The Greenway provides legible and safe connections to many possible destinations within the town core. It connects neighborhoods and schools and parks and it wraps around the commercial core, bolstering and celebrating historic Main Street. It invites residents, it entices commuters and it beckons visitors. It provides a multi-dimensional way to actively experience Florence.



### Florence Greenway Goals

To establish an expandable greenway that reflects Florence's unique character and reinforces Main Street as the town center; that encourages physical activity, promotes economic stability and diversity, encourages life-long learning, and provides a multi-faceted visitor experience.



#### Sub-Goals:

Reinforce the town center Expand sense of community Create connections between neighborhoods and town center Provide a recreational amenity Support and reinforce existing businesses Contribute to town identity and quality of life Preserve open space and future connectivity Improve physical education & extracurricular sport infrastructure Beautify the community Encourage social & cultural expression and interaction Provide multidimensional visitor experience (promote tourism) Expand historical assets and historical awareness Provide safe routes to school Offer alternate transportation modes Stimulate economic development

### **Riparian River Walk**



29

5′

### ••••••••• Town Streets as Walking Connections

Pedestrian activity reinforces the town core, the community and the character of Florence. To encourage walking and improve connectivity within the community, designate certain streets for pedestrian enhancements such as street trees, sidewalks, bike lanes, street furniture, public art, crosswalks and other comfort and safety enhancements.

Pedestrian streets have been identified here in suggested order of importance. Main Street in the Historic District, Ruggles from Highway 79 west to the Greenway at Bush Street. This provides significant enhancement of the historic district creating a multidimensional user experience for both visitors and residents alike.

Next, ensure pedestrian access to major employment centers, such as the County Complex, connecting them to neighborhoods and town services. Ruggles, Florence Avenue and the Greenway can connect employees to neighborhoods and town services and destinations, such as the Old Courthouse. Pleasant, walkable connections increase the desirability and marketability of houses within the town core. Perhaps some commuters will be enticed to move to town.

Create safe and comfortable connections between neighborhoods and schools by improving existing residential streets such as Feliz, Matilda and Orlando. This also makes direct connections to the Greenway.









Street Plantings are essential to create comfortable and interesting walking routes. Trees provide shade and cool down the wide, hot streets. Just the visual exposure to green provides relief from the heat.

Walking routes don't need to be concrete sidewalks. They could be informal, but defined, walking paths with a porous surface material.

Homeowners should be encouraged to enhance their property adjacent to the walking path. This creates a diverse environment and makes for an interesting walk. Pride of ownership catches on; often many neighbors follow suit, planting and maintaining an attractive right-of-way.



Suggested gateway locations

### Gateways to the Greenway

Gateways to the greenway have multiple functions, they:

- establish a coherent identity for the greenway
- advertise the presence of the greenway amenity
- entice users to explore the greenway
- promote community pride in the greenway amenity
- provide a way finding system, announcing access to the greenway

Gateways can be created through the use of one or any combination signage, lighting, built structure, surface material, seating, flags, plant design. The gateway design my vary from one to the next but should remain consistent and cohesive as a whole.















A place to socialize, take a family walk after dinner, exercise the dog, walk to Main Street or the head to the Park.

The greenway runs alongside Bush Street in this area, through residential areas, and further south, adjacent to abandoned commercial properties. As Bush passes through the commercial area it becomes a back alley and wayfinding is difficult and confusing; the area is run-down and unattractive.

A designated bicycle boulevard through this area would greatly enhance the visual appeal of the area while providing safe (and enjoyable) pedestrian/bike access to the high school. It would connect new subdivisions in this area to the town core. Beautification could also encourage redevelopment of the area and adaptive re-use of the existing facilities.

(A bicycle boulevard is a street that is designated for bicycles; it gives bicycles equal or greater stature than automobiles by providing a designated lane, trail comfort and requires that cars yield to bicycles at most conflict points.)



The experience here is of dense plantings, cool and green, repetition of street trees, greatly enhancing adjacent neighborhoods, enticing users to step onto the greenway. Plants could be selected to support native bird species, thereby serving multiple functions.


Example bike courses could be modified to function as a desert track.

The Florence Focused Futures Project identified the need to provide youth with positive and active recreational opportunities. The area to the west of the High School is crisscrossed with trails, indicating perhaps, an informal bike track. Formalizing the idea a bit, into a desert bike track with jumps and sand pits and sharp turns, would provide an exciting destination for bike enthusiasts. Portions of the area could remain undisturbed providing a natural desert setting and wildlife habitat. The greenway provides a direct route to the course. With minimal investment, seats and shade trees could provide an inviting area for spectators to stop and enjoy jumps and tricks.





The "Town Y" is the gateway to Florence and should project an image of the Town's best aspirations. This is a great opportunity, with the financial and technical assistance of Arizona Department of Transportation, to welcome visitors to the Historical Town of Florence.

# The "Town Y" at Main Street & Highway 287

### Roundabout

A one-way circular roadway around a curbed central island for circulating traffic, usually with flared approaches to allow multiple vehicle entry. Federal traffic standards recommend round-abouts in the following instances:

- Where traffic signals are not warranted
- Intersections with more than four legs
- Intersections with high left-turn flows
- Intersections with unusual geometry
- Intersections with changing traffic patterns
- Intersections that are important from an urban design or visual point of view



*Vehicle and pedestrian conflicts with 4-way intersection compared to roundabout.* 







Proposed underpass

**Greenway Crossings** 

# **Greenway Underpass** at Highway 287 The Town Y approaching from East on 287 from Coolidge. **Opportunity of Florence** Gateway experience Location of new hotel Create landscaped, inviting and aesthetic entry into Florence Mural/Art Opportunity

View of Greenway upon entry into Florence says "this town is special."

When the greenway crosses a road a conflict occurs. At-grade crossings require greenway users to stop and yield to oncoming traffic. Since a greenway is largely a movement system, grade-separated crossings are optimal. Underpasses are much less expensive to build than overpasses and in this arid environment provide cool relief from the sun. Since the "Town Y" is being redesigned by Arizona Department of Transportation, a hotel is under construction directly adjacent to the proposed underpass, and the existing irrigation canal will need to be piped underground. This seems ideal opportunity to construct an underpass. This is a high speed and busy street crossing, especially at rush hours; an underpass crossing will maximize safety and ensure an unimpeded greenway experience.





# **Desert Parks**



A desert park can provide cool relief from the heat, ample shade and scenic wonder using native (low maintenance) tree species. A park in the desert doesn't need grass or exotic water guzzling trees; it needn't require a hight level of maintenance either. Leave plant litter on the ground; it provides many benefits to pants and wildlife. Consider photovoltaic sources of lighting. Not only is it educational, but solar power is abundant and free.





The lights on this ramada at the Desert Botanical Garden in Phoenix are powered by solar energy.



The linear park directly serves adjacent neighbors, offering a pleasant exercise loop, split use between bicycles and pedestrians and picnic facilities. Day tourists could unload their bikes, orient themselves with signage placing them within the greenway system, and head off for a glorious day, taking in the sights of Historical Florence. Commuters could take a lunch break before ore after work, make a couple phone calls, or take an exercise break.







Social connections and relationships enhance food buying experience.



Low investment, seasonal structure



Farmers market transforms food buying to an enjoyable outdoor experience.

Establish a seasonal farmers market at Florence's primary auto intersection; include access to greenway for pedestrian traffic.

Low investment temporary structures provide attractive shelter. Booths are rented to local vendors at nominal cost. Farmers market could serve commuting work force as well as attract shoppers from large subdivisions north of Florence. Benefits of Farmers Market:

- Build a sense of community
- Provide social opportunities
- Reinforce Florence's character
- Provide unique experience (not available at large grocery stores)
- Support local commerce and Cottage Industry
- Beautify roadside
- Support Prison Mission

A farmers market provides an outlet for (and encourages) local farms and cottage industries. The market could include produce, hay sellers, local artisans or even take on a swap meet dimension.

A Saturday Farmer's Market could become a seasonal attraction, and along with the Historic District, and the Greenway, could bring in visitors from neighboring Mariacopa and Pima Counties.



# Prison Farm Demonstration Agriculture

A prison farm along side Highway 79 would incorporate and legitimize prison presence while supporting prison training programs and reinforcing agricultural character and identity of Florence.





Narrow right-ofway in Back-of-Curb area.

Buffer pedestrians from traffic with curb and low shrubs/groundcovers.

Offer incentive for private property tree plantings adjacent to walkway.

2-way walking is accessible to adjacent residential area. Curb separated, 2-Way Bike Route

> Prison Fences planted with vines

Prison Agriculture and Orchard visible from road

Fresh Produce for sale at Farmers Market

Highway is beautified by borrowed view of prison plantings



Highway 79 is the busiest road in town, lacks any vegetation and is stark and bleak looking. In the past, prison security has required clear sight-lines along the roadway. However, the prison architect states that this is no longer a secure area of the prison and it might even be possible to remove the fence.

Instead, use this highly visible location to demonstrate good works of prison: the practice of agriculture, vocational training of prisoners. Produce can support chef training program for prisoners, instructed by Fife Symington. Sell excess produce at local farmers market.

Highway 79 - West Side Residential Side

Highway 79 - East Side Prison Side



The Hohokam peoples occupied a wide area of south-central Arizona from roughly Flagstaff south to the Mexican border. They are thought to have originally migrated north out of Mexico around 300 BC to become the most skillful irrigation farmers the Southwest ever knew. Known as the Canal Builders, the Hohokam developed an elaborate irrigation network using only stone instruments and organized labor. Modern development has nearly obliterated this system, though some remains of Hohokam canal systems still exist in Florence today.

The Hohokam were also creative artisans who became famous for their intricate work with shells obtained from the Gulf of California and the Pacific coast. They created a coiled pottery finished with a paddle and painted with red designs. They retained a great deal of Mesoamerican influence as can be seen in their use of ball courts and decorative feathers. Remains of several ball courts exist in Florence today.

The Hohokam became entrepreneurs in a thriving trade with their neighbors, the Anasazi and the Mogollon. Their fate is unclear, but they seem to have disappeared from the archeological record in the first half of the 15th century, when the Spanish first came upon their descendents, the Pima-speaking Akimel O'odam (Pima) Indians, who were still using the ancient irrigation techniques. The Pimas had many miles of irrigation canals for their corn, beans and squash, and were famous for a fine quality cotton, drought-resistant tepary beans and domestic sunflowers. Today, the Akimel O'odam (Pima) reside in the Gila River Indian Community, just west of Florence. Some of these original irrigation canals are still in use in Florence today.

Given Florence's rich pre-history, with many tangible remains intact, an interpretation of Hohokam and the Pima Indian irrigation and agriculture would:

- Expand and deepen the visitor's experience & understanding of Historic Florence
- Contribute to a unique greenway experience
- Place more value on the preservation of open space
- Expand tourism opportunities
- Reinforce Florence's rural/historical Identity



# The Canal Builders











# Landscape Ramada Heritage Pa Ramada example. **Historical Canal** Site Concept **Ramada Site** Greenway connection, Preserved open space, **Riparian** Walk to spanning Gila River "North Florence" neighborhoods 1 Re-creation/Recall a Hohokam Pit House. Demonstrate desert-adapted living. Panoramic Vistas of Adjacent to Heritage Park Iconic Mountain Peaks 1000 Excavated Hohokam Pit House Site is within Historic District, Landscape adjacent to key intersection Ramada of Ruggles/Main Historic Canal

Interpretation of the landscape adds an essential dimension to the understanding of the history, evolution and identity of Florence. The Florence area is dripping with archeological sites and remains, in place, especially concentrated along the (shifting) Gila River.

This is also an opportunity to recognize the long-standing historical importance of agriculture to inhabitants of the area. Water issues and the unsustainable watering of the arid west can be introduced to raise awareness about the scarcity of water in the desert.

Signage could identify the peaks visible from the ramada and re-tell a relevant old west legend.

This site is an ideal location to preserve a piece of the rural/agricultural countryside as openspace, the landscape that for so long has characterized Florence. Preserved and intact in this location, as the town grows around it, the landscape retains appropriate importance and emphasis. Adjacent to the river, openspace would serve as habitat for wildlife habitat.

# Planting & Design Themes

A way to connect trail users to the history and ecology of Florence while at the same time deepening the greenway experience is to establish different plant and design themes along the trail

**Riparian and River Park** - along the Gila River portion of the trail. Cottonwood, Desert Willow, Western Hackberry, River Willow, Weeping Willow, Arizona Ash are typical riparian species. This would also begin the process of regenerating habitat, hydrology and ecology of the severely disturbed areas along the Gila. The restoration process could be interpreted with before and after images, and provide an opportunity to record any wildlife sightings along the trails.

**Wildlife Habitat/Native Desert -** along the north, west and south sides of the greenway, especially in areas where the greenway abuts natural areas and open space and where connections between the same can be made. Trees: Ironwood, Mesquite, Palo Verde, White Thorn Acacia, Desert Fern "Lysiloma", Desert Willow, Saguaro, Ocotillo, Agave, Yucca, Jojoba, Desert Honeysuckle, Desert Bird of Paradise "Yellow", Cat Claw Acacia, Purple Orchid Vine, Arizona Yellow Bells, Chocolate Flower "Berlandiera", Shrimp Plant "Justicia" Primrose "White Evening", Lantana, Desert Green Spoon, Yellow Morning Glory Vine, Sand Verbena, Penstemon "Perry", Golden Yellow Columbine

**Native American** - along the historical canal a demonstration garden could be established depicting crops that were grown by local Pimans and the Hohokam before them (beans, corn, squash, gourds). The irrigation techniques and tools as well as the crops would create a memorable and provocative interpretation of native american history. Also display of the native vegetation used for food and shelter. Desert and River Willow, Mesquite, Saguaro, Cat Claw Acacia, Jojoba, and many others.



**Demonstration Garden** - the entire greenway functions as a demonstration garden, showing the placement and arrangement of desert-appropriate species and the creation of micro climates and sitting nodes and special places with a variety of sustainable materials, all along the trail.

**Agriculture** - Modern day agriculture, Pecans, Citrus "Grapefruit, Arizona Sweets, as well as historical and pre-historic could be demonstrated and interpreted.

**Mexican Gardens** - an ideal place for a Mexican garden interpretation is along Bush Street, along the "Bicycle Boulevard." Sheltered from the western sun by adjacent homes and enjoyed by neighbors along both sides of the street, as well as greenway user, the use of color, fragrance and detail would achieve maximum benefit while celebrating the rich heritage and influence of Mexican Culture on modern-day Florence. Possible trees include Palo Brea, Jacaranda, Acacia Visco, Orchid Tree, Golden Lead Ball Tree, Silk Floss Tree, Acacia Berlanderil, Shoestring Acacia. With many wonderful, colorful shrubs and vines: Baja fairy duster, Cape honeysuckle, Mexican bird of paradise, Bougainvilla, Queens wreath, Trumpet vine, Aloe, Mexican evening primrose and many more.

**Experimental/Exotic/Urban** - used minimally and to special effect, exotics can provide specific and interesting features as well as interpret influences on historic Florence. Best used in urban nodes where shade and climatic benefits of exotics can be best enjoyed while not compromising the ecological function of the greenway as it interfaces with native desert and open space. Possible species include Bamboo, Chinese Pastiche, Aleppo Pine, Carob.





# Implementation

## **Funding Strategies**

Because the Greenway Project accrues multiple benefits from the same investment, there are many opportunities to fund the project. The Greenway could qualify for funds that are earmarked for community development and revitalization, fitness and health initiatives, recreation, open space, safe routes to school, school district transportation budget, economic development programs, county transportation infrastructure, public art monies, education, ecology, and the list goes on. This is a partial list of potential donors/funds.

Robert Woods Johnson Foundation Federal Transportation Enhancement Act Center for Disease Control and Prevention Arizona Department of Transportation National Institute for Health Rails to Trails Pinal County Prison Labor In-Kind Donations Design Competitions Developers/Builders Non-Profit Organizations Sponsorships Memorial projects Fund-raising events

### **Project Phasing**

Greenways are additive. Put the pieces together and the whole becomes greater than the sum of its distinct parts. Greenways are flexible and adaptable, they expand and change over time in response to physical and social changes in the community. Each piece of the Greenway provides more opportunity than existed before. Different aspects of the Greenway should be developed as different monies become available. Therefore:

Build in increments Pursue multiple funding sources Form alliances with community groups Build on successes Develop momentum Engage the community in design and implementation Sponsor design competitions Recognize/celebrate support through greenway design

### Phase I.

Get the route down. Bury Irrigation pipe. Plant trees so they can become established.

Phase II. Establish safe Crossings. Initiate gateway projects.

### Phase III.

Add features and improvements over time as priorities change and funding opportunites become available.

### **Surface Materials**

There are myriad paving and surface materials available today, including recycled materials, pavers, natural surfaces, and stabizer solutions and additives. To enhance the experience of nature and minimize radiant heat, we recommend a neutral colored surface. Bicycles and wheelchairs require a firm surface in all weather conditions so a surface treatment or installed material will be necessary. Pathways should be crowned in the center to shed water toward the adjacent vegetation areas. A porous surface is feasible, though additional research is required based on the specific soil and drainage conditions along the trail.

Walking surfaces, optimally have inherent "give." Unimproved earth surface is a possibility, depending upon the soil characteristics. Areas of high use or design significance could have unique surface treatments such as brick on sand or ceramic tile inlay.



Arendt, Randall, Rural by Design, American Planning Association, Chicago, Ill. 1994.

# References

Keller Easterling, American Town Plans – a Comparative Timeline. 1993.

Stokes, Samuel N., A. Elizabeth Watson, Genevieve P. Keller, J. Timothy Keller, *Saving America's Countryside, a guide to Rural Conservation Planning.* National Trust For Historic Preservation. 1989.

Searns, Robert, M., *Evolution of Greenways as an Adaptive Urban Landscape Form*. Landscape and Urban Planning Journal 33 pp65-80 (1995).

Ahearn, Jack. Greenways as a Planning Strategy. Landscape and Urban Planning Journal 33 (1995) 131-155.

Barnett, Jonathan. *The Fractured Metropolis: Improving the New Ctiy, Rstoring the Old City, Reshaping the Region.* Harper Collins, 1995.

Arizona Game and Fish Department, letter dated March 24, 2005, from Kelly Huckins, Project Evaluation Specialist.

Telephone Interview with Harry Messing, Biologist with the US Bureau of Reclamation regarding wildlife corridors and biological impacts of the CAP Aqueduct.

Town of Florence, GIS files used for 2002-3 Comprehensive Plan.

Arizona Department of Commerce Data

Benfield, F. Kaid, Jutka Terris, Nancy Vorsanger. *Solving-Sprawl: Models of Smart Growth in Communities Across America*. Natural Resources Defense Council. 2001.

Serageldin, Mona. Preserving the Historic Urban Fabric in a Context of Fast-Paced Change. 2002.

Florence Reminder and Blade Tribune (numerous articles).

#### Arizona Republic:

Burrough, Catherine Reagor. March 28, 2005. "Home buyers find bargains of fringes."

#### Arizona Daily Star:

Fischer, Howard and Enric Volante. April 15, 2005. "U.S. growth figures spotlight Pinal as state gains 164,000." Sorenson, Dan. April 20, 2005. "Pinal County: Ready or Not, here it comes." Sorenson, Dan. April 21, 2005. "Southern Pinal Ready to explode."

### Resources

Morris, Hugh. <u>Trails and Greenways: Advancing the Smart Growth Agenda</u>. Rails-to-Trails Conservancy. 2002. (National Trust for Historic Preservation).

New Schools Better Neighborhoods, 2003: www.nsbn.org.

National Center for Bicycling and Walking, of the Bicycle Federation of America, Inc. (BFA) www.bikewalk.org.

Smart Growth Movement, www. smartgrowth.org.

Healthier US Initiative, 2002 www.healthierus.gov.

Safe Routes to School: www.saferoutestoschools.org

Preventing Childhood Obesity: Health in the Balance, National Academy of Science, 2004