APACHE JUNCTION

Lauren Colone, Evan Meade, Gabriel Jaramillo, Xiaojin Xing, Guanyi Zhou, Konatsu Rogers, Claudia Martinez-Orellana

LDE 361 | PROFESSORS KELLOG & BROOKS
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WILD NATURE DESIGNS

Gabriel Jaramillo, Guanyi Zhou, Xiaojin Xing, Lauren Colone, Evan Meade, Konatsu Rogers, Claudia Martinez-Orellana
MISSION

Our goal is to create a more livable and peaceful environment for the people of Apache Junction. We feel that with certain improvements to the landscape we can make Apache Junction a better place to live in as well as visit.

VISION

While addressing Apache Junction's four main goals of homelessness, positively Apache Junction, Solid waste and Dog Parks, we want to approach our designs in ways to attract more families and improve the city's tourism.
Apache Junction

Community Orientation, Conditions and background
Located near the Superstition Mountains and in junction with the historic Apache Trail and the US 60

Incorporated on November 24, 1978

The city is rich in history and Western Heritage

Originally named Youngsberg Junction

Superstition Mountains are now home to the Lost Dutchman Mine story

The Apache Trail is one of the most scenic routes in the southwest

Used by the Native Americans as migratory route

The approximate route has severed humanity for more than a millennium

The mayor currently is Jeff Serdy
Historical Aerial Photography

DEC 2001 - FEB 2002

DEC 2003 - JAN 2004

JAN 2007 - JULY 2007

OCT 2008 - DEC 2008
Historical Aerial Photography

SEP 2010 - OCT 2010

OCT 2012 - DEC 2012

SEP 2014 - NOV 2014

SEP 2016 - DEC 2016
APACHE JUNCTION COMMUNITY
AT A GLANCE

TOTAL POPULATION

35,840

MALE POPULATION

17,431

FEMALE POPULATION

18,409

NOTABLE LANDMARKS

LOST DUTCHMAN STATE PARK
GOLDFIELD GHOST TOWN
SUPERSTITION MOUNTAIN MUSEUM
SILLY MOUNTAIN PARK
APACHE TRAIL TOURS
APACHE CREEK GOLF COURSE
CLOSEST CITY TO THEODORE ROOSEVELT LAKE
ROAD IMPROVEMENTS
(COMMUNITY ACCESSIBILITY)

Minimal paved roads and these occur in high density areas. Majority of road surfaces are dirt.

Roads need to be redone, although the surface area is too large. Renovation work would be a huge cost.
Community Constraints and Aspirations

LAND ZONING

DISORGANIZED HOUSING AND LAND USE

Large separation between residential areas.
Some communities lack accessible roadways.
Lack of commercial zoning and disorganization of schools, residential areas and shopping centers.

Topography on surface is changing significantly. Residential areas cannot be constructed on intense slopes. Local government does not have funding for renovations.
QUALITY OF PLACE

NEED OF INCREASED TOURISM

Surrounded by Usery Mountain Regional Park, Apache Junction provides opportunities for visitors to get in touch with nature and even camp. However, there are limited connections to the Phoenix metro area.

To attract visitors and improve tourism, there needs to be a development of the city road system, connecting it to the Phoenix metro area.
Community Constraints and Aspirations

SOLID WASTE
LANDFILL LOCATED WITHIN
WASH ZONE

A majority of site washes are located and flow into the city landfill. This can cause ground water pollution. Leakage can damage wildlife ecosystems.

When landfill is relocated, it needs to be moved to an area where it will have minimal effects on our ecosystem in terms of pollution and damage to waterways.
GREEN INFRASTRUCTURE

FLOOD HAZARDS & ECONOMIC DEVELOPMENT

Existing green infrastructure that is adjacent to development and residential areas is sparse. Topography can manipulate water to directed towards city and improving the green infrastructure.

New green infrastructure should be thoughtful of flood hazard areas and topography. Greenway planning and design should address role of landscape ecology, creating more comprehensive landscape designs. It should consider biodiversity conservation and seek to protect water resources.
Community Constraints and Aspirations

WINTER DESTINATION

"SNOWBIRDS"

Arizona's winter-visitor scene typically consists of retired people from the Midwest or Canada. These group of seasonal resident usually intends on spending 3-6 months, or until snow melts. Seasonal visitors contribute to the economy of Apache Junction.

![Number of permits per 10,000 residents](image)

The challenge is getting these 'snowbirds' to become long term residents. Though having these long term residents can create problems like longer waits and restaurants or traffic congestion.
Apache Junction Site Selection

South East Apache Junction

BOARDERS

N: BROADWAY AVE
E: 1.25 E OF GERONIMO RD
S: LANDFILL SOUTHERN BOARDER
W: 88TH ST/S IDAHO RD
Apache Junction
Inventory
TOPOGRAPHY

FEATURES
- Base of The Superstition Mountains
- Silly Mountain Park
- Natural and open desert landscape

CHARACTERISTICS
- Mostly flat
- Slopes down hill to South West
- Jagged topography going into the city
FEATURES

- Generally flat topography, suitable to build on
- Intense slope is near the Superstition Mountains
LAND USE

FEATURES

- Over 35% of area is low density residential
- 20% is high or medium residential
- 30% is planned community
- Roads are mainly near higher density residential zones
VEGETATION

FEATURES

- Forests grow on mountains during rainy season
- Grasslands, woodlands, desert scrub and chaparral occupy most areas
- Mostly consisting of a sparse low stature vegetation of short trees, shrubs and cacti
SOILS/GEOLoGY

FEATUREs
- Made up mostly of gravelly sandy loam, fine sandy loam, and gravelly clay sandy loam

CHARACTERISTICS
- Sandy loam is the most suitable of the soils to build on, while clay loam is least suitable
- There are a lot of development built upon clay areas
HYDROLOGY

FEATURES
-Average depth < 1 ft
-Washes are found south

CHARACTERISTICS
-Even though residential area is in a flood zone, the only road that is a flood problem is Tomahawk Road near U.S. 60
WALKABILITY

FEATURES
- Forests grow on mountains during rainy season
- Grasslands, woodlands, desert scrub and chaparral occupy most areas
- Mostly consisting of a sparse low stature vegetation of short trees, shrubs and cacti
CIRCULATION/TRANSPORTATION SYSTEMS

FEATURES

- Low traffic
- Minimal sidewalks
- Poor road conditions
- Main roads: Superstition Freeway, E Old West Highway and Southern Ave
GREEN INFRASTRUCTURE

FEATURES
- Green Infrastructure is mostly within open and underdeveloped areas
- Green space adjacent to development and neighborhoods in minimal
OPPORTUNITIES/CONSTRAINTS

OPPORTUNITIES
- Community space off S Idaho and Broadway Roads
- Old West Highway/US 60 cross through site
- Open land: recreational uses
- Superstition Mountain views
- Silly Mountain Park
- Silly Mountain Park Trails

CONSTRAINTS
- Washes on Southern end lead into landfill
- Limited accessible utilities
- Underdeveloped roads within residential areas
- Minimal sidewalks
Apache Junction

Assessment/Evaluation &
Suitability Analysis
RESIDENTIAL

- LAND IN RED: SOUTH END OF SITE CONSISTS OF STATE TRUST LAND CAUSING IT TO BE UNSUITABLE TO BUILD UPON.

- LAND IN YELLOW: WASHES COMING FROM SUPERSTITION MOUNTAINS CREATE LAND TO BE MODERATELY SUITABLE TO BUILD ON. SOIL ALSO EFFECTS SUITABILITY.

- LAND IN GREEN: CURRENTLY HOST OF RESIDENTIAL DEVELOPMENTS, GREAT TO BUILD ON.
ACTIVE RECREATION

- LAND IN RED: MINIMAL OPPORTUNITIES FOR ACTIVE RECREATION WITHIN NEIGHBORHOODS. NOT SUITABLE RECREATION NEAR LANDFILL

- LAND IN YELLOW: OPEN LAND FOR OPPORTUNITY TO IMPLEMENT ACTIVE RECREATION, MINIMAL HUMAN DISTURBANCE, OR ACTIVE RECREATION MAY BE BEGINNING WITHIN THESE AREAS.

- LAND IN GREEN: OPEN LAND WITH MULTIPLE OPPORTUNITIES FOR OPEN RECREATION
OPEN SPACE CORRIDORS

- Land in red: High density areas with little to no open space
- Land in yellow: Minimal open space
- Land in green: Mainly open land
COMMERCIAL

- LAND IN RED: STATE TRUST LAND, RESIDENTIAL DEVELOPMENTS, OR LAND WITH ELEVATION UNSUITABLE TO BUILD UPON

- LAND IN YELLOW: COMMERCIAL DEVELOPMENT OCCURS IN THESE AREAS WITH VACANT LAND TO EXPAND UPON

- LAND IN GREEN: OPEN LAND AVAILABLE FOR COMMERCIAL DEVELOPMENT
-LAND IN RED: STATE TRUST LAND UNSUITABLE FOR INSTITUTION

-LAND IN YELLOW: SHOW OPPORTUNITY OR PROVIDES MINIMAL OPPORTUNITY FOR INSTITUTION

-LAND IN GREEN: LAND MOST SUITABLE FOR INSTITUTIONS
MULTI-MODAL CIRCULATION

- LAND IN RED: CIRCULATION IS MINIMAL

- LAND IN YELLOW: CIRCULATION EXISTS BUT CONDITIONS ARE POOR

- LAND IN GREEN: MAIN ROUTES OF TRANSPORTATION FOR THE CITY
LIGHT INDUSTRIAL

- LAND IN RED: STATE TRUST LAND, RESIDENTIAL DEVELOPMENTS, OR LAND WITH ELEVATION UNSUITABLE TO BUILD UPON
- LAND IN YELLOW: LAND PROVIDES OPPORTUNITIES MILDLY SUITABLE FOR LIGHT INDUSTRIAL DEVELOPMENTS
- LAND IN GREEN: LAND SUITABLE FOR LIGHT INDUSTRIAL DEVELOPMENTS
-LAND IN RED: STATE TRUST LAND, NO CURRENT DEVELOPMENTS

-LAND IN YELLOW: LOW DENSITY AREAS WITHIN SECTION WHETHER RESIDENTIAL, COMMERCIAL OR INDUSTRIAL

-LAND IN GREEN: MAIN CORE OF SITE SELECTION
Hydrology

- Land in red: Most intense flooding of city site
- Land in yellow: Minimal flooding and washes
- Land in green: Many washes, most flooding within site
Suitability Maps

URBAN AGRICULTURE

- LAND IN RED: STATE TRUST LAND UNABLE TO BUILD UPON

- LAND IN YELLOW: RESIDENTIAL DEVELOPMENT UNSUITABLE FOR URBAN AGRICULTURE

- LAND IN GREEN: OPEN LAND AVAILABLE FOR URBAN AGRICULTURE
WILDLIFE

-LAND IN RED: HIGH DENSITY RESIDENTIAL, LITTLE TO NO WILD LIFE WITHIN THESE PARTS

-LAND IN YELLOW: MEDIUM TO LOW DENSITY, APPROPRIATE FOR WILD LIFE

-LAND IN GREEN: NO DEVELOPMENTS, MOST SUITABLE FOR WILD LIFE TO LIVE WITHOUT ANY HUMAN DISTURBANCE
Suitability Maps

ARTERIAL ROADS

- Land in red: Poor roads and sidewalks
- Land in green: Main routes of transportation for residents
GREEN INFRASTRUCTURE

- LAND IN RED: NO GREEN INFRASTRUCTURE

- LAND IN YELLOW: OPPORTUNITIES FOR GREEN INFRASTRUCTURE

- LAND IN GREEN: MOST SUITABLE FOR GREEN INFRASTRUCTURE WITHIN THE CITY SITE
# LAND USE SUITABILITY

![Land Use Suitability Matrix]
HUMAN FACTORS SUITABILITY
LAND USE COMPATIBILITY

Matrix
Opportunities & Constraints

- The development is too dense.
- Roads are not maintained and there are minimal sidewalks.
- The land is mostly flat which allows for easier development.
- Silly Mt. provides trails and nice scenery for visitors and AJ citizens to hike.
- Washes can support wildlife and provide water for vegetation.
- Vacant state trust land and vacant public land located south of Baseline Rd. and east of Goldfield Rd. could be utilized.

Legend:
- Highway/Freeway
- Roads/Avenues
- Mountains/Hills
- Washes
- Landfill
- Constraints
- Opportunities

- Soil is not the greatest to build on and many structures are built here.
- Old West Hwy and Superstition Fwy can bring in more people to AJ.
- Landfill is located within wash area.

Floodplain causes erosion in soil making growth of certain plants difficult.
Conclusion

Through our suitability maps we found the possibilities of having active recreation, open space corridors, wildlife preserve and urban agriculture.

We also found things that could be improved including sidewalks to encourage walking and community interaction as well as reconstructing and maintaining roads.
Apache Junction
Master Plan's
Theme 1
Healthy Aging, Aging in Place
Healthy Aging, Aging in Place

MISSION
Introducing new commercial properties, increasing single and multi family housing developments, and providing new opportunities to stay active within the community. Residents should have the ability to age in place.

VISION
Creating the opportunity to build and live out a life within Apache Junction. This means creating smaller communities within the larger Apache Junction Community.
Healthy Aging, Aging in Place

CURRENT LAND USE PLAN

PROPOSED LAND USE PLAN
# LAND USE ALLOCATIONS

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<thead>
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<th>LAND USES</th>
<th>CURRENT LAND USE %</th>
<th>PROPOSED LAND USE %</th>
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<td>Educational</td>
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<td>Commercial Low</td>
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<td>Public Land</td>
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<td>0.09%</td>
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<tr>
<td>Vacant State Trust</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Multi Family</td>
<td>10%</td>
<td>11.09%</td>
</tr>
</tbody>
</table>
SITE SELECTION

BOARDERS
N: E OLD WESTERN HIGHWAY
E: S GOLFIELD ROAD
S: E 28TH ST
W: S STAR STREET
Healthy Aging, Aging in Place

MASTER PLAN

AMMENITIES
COMMUNITY CENTER
CLUB HOUSE
GOLF DRIVING RANGE
SINGLE FAMILY RESIDENTIAL HOUSING
MULTI-FAMILY RESIDENTIAL HOUSING
OPEN SPACE-DOG PARK
COMMUNITY CENTER
- 28,595 SF
- PHYSICAL THERAPY CENTER
- GYM FACILITIES
- YOGA CLASSES
- INDOOR/OUTDOOR LAP POOLS
- MALE/FEMALE LOCKER ROOMS
- SPORT COURTS: TENNIS & RACQUET BALL

CLUB HOUSE
- 37,520 SF
- SPORTS DEN
- CONFERENCE CENTER
- CLASS ROOMS
- LIBRARY
- RESTAURANTS
- OUTDOOR PATIO SPACE

GOLF DRIVING RANGE
- 14 ACRES
- 2 STORY BUILDING

SINGLE FAMILY RESIDENTIAL HOUSING
- 1000 SF
- RANCH STYLE HOMES
- PROPERTY: 70' X 35'
- HOME: 40' X 25' X 15'
- 15' FRONT AND BACK YARD
- 5' WALLS SURROUNDING HOMES CREATING PRIVACY
HEALTHY AGING, AGING IN PLACE

MULTI FAMILY RESIDENTIAL HOUSING

- 960 SF
- DUPLEX RANCH STYLE HOMES
- PROPERTY: 78' X 60'
- DUPLEX UNITS: 68' X 30' X 15'
- INDIVIDUAL UNITS: 32' X 30' X 15'
- 15' FRONT AND BACK YARD
- 5' WALLS SURROUND HOMES CREATING PRIVACY

PUBLIC OPEN SPACE

- MULTI PURPOSE USE
  - DOG PARK

BEST PRACTICES

- SINGLE LEVEL DESIGNED HOMES
- ELEVATORS IN MULTI LEVEL BUILDINGS: COMMUNITY CENTER & CLUB HOUSE
- WHEEL CHAIR ACCESSIBLE THROUGHOUT ENTIRE MASTER PLAN
- SLIP RESISTANT SURFACES
- OPEN FLOOR PLANS
- CUSTOMISABLE HOMES
RESIDENTIAL HOUSING

- Located south of the open space dog park, west of the community center and club house and north of the golf driving range

- Multi family residential homes are north of single family residential homes
Healthy Aging, Aging in Place

SINGLE FAMILY RESIDENTIAL HOUSING

MULTI FAMILY RESIDENTIAL HOUSING
SECTION VIEW OF SINGLE FAMILY RESIDENTIAL HOUSING

- Properties are designed to maximize privacy while also minimizing property maintenance.
- Homes are customizable.
- 5’ of sidewalk throughout neighborhood extending across the entire site.
- 3’ of landscape parkway between sidewalks and streets.
PERSPECTIVE VIEWS

-SUPERSTITION MOUNTAINS ARE THE EAST VIEW OF THE SITE. SITE IS FULLY VEGETATED WITH NATIVE PLANTS.
SUPERSTITION MOUNTAINS ARE WITHIN VIEW OF THIS OPEN SPACE DOG PARK. THERE IS A TREE BUFFER CREATED BETWEEN STREETS AND THIS OPEN SPACE DOG PARK. THIS WILL MINIMIZE TRAFFIC NOISE AND CREATE A MORE PRIVATE ENVIRONMENT
-Whether looking from your front yard or your back yard, homes have a view of the Superstition Mountains to the east, and the city of Apache Junction to the west. Also a south end view of the communities driving range.
Theme 2

Ecotourism
MISSION

Add a recreational lodge to enhance the experience for people who love nature and want to be engrossed by the wilderness.

VISION

Have the lodging and local shops be the prime destination and have visitors experience and enjoy their time staying here.
Ecotourism

CURRENT AND PLANNED LAND USE
Ecotourism

LAND USE

- Vacant State Trust: 52%
- Public Land: 10%
- Commercial: 8%
- Industrial: 5%
- Vacant: 7%
- Low/Medium Density Residential: 5%
- High Density Residential: 3%
- Education: 2%
- Other Employment: 2%
- Multi-Family: 1%
Ecotourism

MASTER PLAN
AMMENITIES

LODGING

950 SF PER THE AVERAGE LODGE
COMMUNITY POOL/HOT TUB
INDER/OUTDOOR SHOOTING RANGE
INDER/OUTDOOR SPAS
COMMUNITY GRILLS
COMMUNITY FIRE PITS

SHOPPING CENTER

BREAKFAST
CAMPING GEAR SHOPS
TOURIST SHOPS
COFFEE STATIONS
DAILY COMMUNITY CLUBS AND
ACTIVITIES FOR ALL AGES
Ecotourism

PERSPECTIVE VIEWS

SINGLE STYLE LODGING FOR PEOPLE WHO ARE TRAVELING ALONE

FAMILY STYLE LODGES ARE MORE TOWARDS THE RESORT AND SHOPPING CENTER
Theme 3

Convenience Walk
MISSION

In order to create a more livable lifestyle, there will be a cafe, dog park and residential area in one area within walking distance. This creates areas for residents to interact with one another and have fun.

VISION

Residents will be able to walk their dog, enjoy a cup of coffee and walk home in a total of 6 acres from their house and back.
### Functional Analysis

<table>
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<tr>
<th>Active Open Space</th>
<th>Public Land</th>
<th>Vacant</th>
<th>Vacant State Trust</th>
<th>Commercial</th>
<th>Public/Special Event/Military</th>
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<td>Positive</td>
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<td>Neutral</td>
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</tr>
</tbody>
</table>

- Positive
- Neutral
CONVENIENCE WALK

LAND USE PLAN

Land Use Pie Chart

- Single Family Low: 21.1%
- Public Land: 36.8%
- Religious/Institutional: 5.3%
- Public/Special: 5.3%
- Vacant State Trust: 31.6%
COMMUNITY KEY ELEMENTS

1. YELLOW = RESIDENTIAL AREA
   - SIZE: 32 ACRES
   - SINGLE FAMILY LOW DENSITY: 36,8370 SQ. FT.
   - AVERAGE HOUSE: 12,614 SQ. FT.
   - SINGLE FAMILY MEDIUM DENSITY: 746,618.383
   - AVERAGE HOUSE: 11,303 SQ. FT.

2. GREEN = DOG PARK
   SIZE: 3 ACRES
   - 31 TREES IN THE DOG PARK WITH A SPREAD OF 25 FT SO THE RESIDENTS AND DOGS CAN STAY COOL

3. PINK = COMMERCIAL AREA
   - SIZE: 5 ACRES
   - CAFE BUILDING: 10,000 SQ. FT.
   - OUTDOOR AREA: 2,096 SQ. FT.
   - 4 TREES AT EACH CORNER OF OUTDOOR AREA
   - PARKING LOT COUNT: 149 PARKING SPACES
- The building on the left is the cafe for people to enjoy a cup of coffee before going to the park.
- In between the buildings is the dog park where residents can enjoy playtime with their dogs.
- The building on the right is the first house of the residential area.
Theme 4

Green Infrastructure With Native Plant Communities
Green Infrastructure With
Native Plant Communities

MISSION
To design a very livable and peaceful environment for the people of Apache Junction and for visitors. Focusing on the opportunities, we can use green infrastructure with native plant communities to create an urban community center and land use plan that’s environmentally friendly and user friendly.

VISION
In introducing natural greenways, proposed greenways and streets into single family low and medium density and multi family high density residential areas.

The community can enjoy what the urban center has to offer for example, Hiking trails, active open space with dog parks, a step to becoming apart of Tree City USA, residential, and commercial development.
Green Infrastructure With Native Plant Communities

CURRENT LAND USE PLAN

PROPOSED LAND USE PLAN
SITE SELECTION

BOARDERS
N: E OLD WESTERN HIGHWAY
E: S STARR ROAD
S: S CORTEZ ROAD
W: S CORTEZ ROAD
FUNCTIONAL PROGRAM MATRIX

RELATIONSHIPS OF COMMUNITY CENTER LAND USES, ELEMENTS AND ACTIVITIES ON THE RIGHT HAND SIDE. SHOWS THE RELATIONSHIPS BETWEEN OTHER LAND USES LOCATED ON THE TOP OF THE MATRIX.
Green Infrastructure With Native Plant Communities

MASTER PLAN
SECTION VIEW OF MULTI-FAMILY (MEDIUM DENSITY) & SINGLE FAMILY (MEDIUM DENSITY)
Green Infrastructure With Native Plant Communities

ARTERIAL STREETSCAPES

LOCAL & COLLECTOR STREETSCAPES
Hiking greenway trails making it easy to travel along the community center and its various land uses. Wide paths are meant for many activities. For example, you can take your horse down the paths.
Green Infrastructure With
Native Plant Communities

TREE CITY, USA

QUALIFICATIONS

- A TREE BOARD OR DEPARTMENT. DELEGATING CITY TREE CARE DECISIONS TO PERFORM NEEDED TREE WORK.

- A TREE CARE ORDINANCE. THE FOUNDATION OF A CITY’S TREE CARE PROGRAM.

- A COMMUNITY FORESTRY-PROGRAM. INVESTMENT OF AN ANNUAL BUDGET OF AT LEAST $2 PER CAPITA.

- AN ARBOR DAY OBSERVANCE & PROCLAMATION OR ARBOR DAY CELEBRATION.

BENEFITS

- PROPER TREE CARE FOR CITY TREES AND CARBON SEQUESTRATION.
Theme 5
Multimodal Complete Community Circulation
MISSION

In order to create a better experience for people traveling in and out or simply visiting Apache Junction, complete streets may be the best option in making it happen. The mission would be to ensure access for people traveling in various ways such as by foot, car, bicycle, or even by horse.

VISION

My vision is to create a very accessible transportation system throughout Apache Junction using complete streets. Not only will these streets be utilized by cars, trucks, buses, and bikes, but it will also try to incorporate horse riders into the system as well, especially because of the presence of horses and ranches in the area. This will create a smoother mode of circulation for daily passersby, and it will also welcome more people into the trails of the Superstition mountains and Silly mountain which are some of the main features of Apache Junction.
CURRENT LAND USE PLAN

PROPOSED LAND USE PLAN
Legend

- Vacant
- Educational
- Commercial
- Single-family medium-density
- Religious/institutional
- Multi-family residential
- Single-family high-density
- Single-family low-density
- Active open space
- Public/special event/military
- Industrial
- Public land
- Vacant state trust
- Other employment
LOCATION
AMENITIES

The community center will be located near Superstition Mts and Silly Mt. It will be an area where people can lounge around and enjoy the scenic views of the mountains ahead. This mixed land-use community center will include restaurants/cafes, gift shops, bike shops, mini Apache Junction history museum, horse stables, and so on. It will be the perfect place for people to gather souveniers or get prepared for their hike up the mountains.
**WHY COMPLETE STREETS?**

Why Complete Streets?
- improved safety
- easy accessibility
- more accessibility
- reduction of greenhouse gas emissions
- improvements in health (more physical activity)

**STREET SECTION**
Multimodal Complete Community Circulation

PERSPECTIVE
Theme 6

Walkability
MISSION
Our team, Wild Nature Designs' goal is to create a more livable and peaceful environment for the people of Apache Junction. My mission is to create an urban community center in order to increase the walkability. Use different ways to try to make Apache Junction People enjoy the walking.

VISION
My goals is to increasing the walkability for Apache Junction. It will be focus on different aspects, such as people's feeling, connecting, convenient, safety. Build a friendly urban center, in order to make people have a good feeling of walk.
Walkability

CURRENT LAND USE PLAN

PROPOSED LAND USE PLAN
## FUNCTIONAL PROGRAM MATRIX

<table>
<thead>
<tr>
<th></th>
<th>Climate</th>
<th>Soils</th>
<th>Open spaces</th>
<th>Commercial</th>
<th>Residential</th>
<th>Recreational Park</th>
<th>Industry</th>
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<td>Institutional</td>
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- **Positive**
- **Neutral**
- **Negative**
Walkability

MASTER PLAN

Open Space

Commerce

Park

School

Dog Park

Garden
IN THE MASTER PLAN, ALL THE ROADS ARE CONNECTED, SO THAT WHEN PEOPLE WALK IN MY URBAN CENTER, PEOPLE HAVE A VARIETY OF ROUTES TO TRAVEL ON.
KEEPING THE RESIDENTIAL DISTRICT IN THE MIDDLE OF SITE, AND ADDING A MULTITUDE OF ENTRANCES NEAR COMMERCIAL, INSTITUTION AND RECREATION AREAS. THIS ALLOWS FOR PEOPLE TO SAVE TIME WHEN TRAVELING TO THEIR DESIRED DESTINATION.
SAFETY

EXTENDING THE WIDTH OF THE ROAD AND PLANTING PLANTS NEAR THE ROADSIDE AS A BUFFER BETWEEN THE ROAD AND SIDEWALK. THIS IS BENEFICIAL TO PEDESTRIANS WALKING BY INCREASING THE SAFETY.
COMFORTABILITY

USING TREES' SHADE TO MAKE SURE PEOPLE CAN FEEL COMFORTABLE IN THE HEAT. IT CAN ALSO PROVIDE A SHORT REST AREA FOR PEOPLE. IN ADDITION, TREE'S ARE USED TO CREATE A NOISE BUFFER, CREATING A QUIET TREE WALK.
- It is a 500 ft long park.

- It has many different kinds of tree. People can experience a tree walk in the park.

- The width of pathway is 16 ft, it can increasing walkability.
SECTION VIEW OF RESIDENTIAL AREA

- RESIDENTIAL AREA IS NOT CROWDED, PROVIDING A GOOD CONDITION OF WALK FOR PEOPLE.

- BOTH SIDE OF ROAD ARE TREES. SEPARATE THE NOISE.
PEOPLE HAVE A NICE FEELING WHEN THEY WALK IN RESIDENTIAL AREA. DOG PARK IS CLOSE TO THIS AREA, PEOPLE ALSO CAN WALK WITH DOG HERE.
Theme 7
Solar Community
MISSION
To create a positive image of Apache Junction. Taking advantage of the abundance of sunshine and wide open areas, this will allow us to exploit local solar resources and enhance our use of our use of this natural resource. This will also help the community conserve its use of electricity.

VISION
Introducing solar panels to a luxury community and implement the construction of a solar farm to collect solar resources from a natural environment. The whole community can receive the benefits harvested from solar energy like reducing energy budgets, decreasing excessive dependence on fuels, and easing environmental pollution.
GOALS

- Decrease dependency on fuels and ease environmental pollution
- Exploit new clean resources and decrease solid waste
- Supply more affordable energy solutions to poor communities, improving their living conditions
- Providing job opportunities for local community members, promoting economic growth and creating more revenue.
CURRENT LAND USE PLAN

PROPOSED LAND USE PLAN

Proposed Land Use Allocation Plan

- Commercial: 485 acres (9%)
- Low density Residential: 864 acres (16%)
LAND USE ALLOCATIONS

Proposed Land Use Allocation Plan

- Proposed land use allocation plan
- Commercial
- High density residential
- Planning community
- Light industry
- Low density residential
- Institution
- Public park
- Medium density residential
- Open spaces
- Recreational park
Solar Community

SITE SELECTION

[Image of a map with a red outline and a legend of color-coded geographical features]
Solar Community

MASTER PLAN
50 ACRES
## Functional Analysis

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- 🟢: Positive
- 🟢: Neutral
- 🟥: Negative
LUXURY RESIDENTIAL ZONE: EACH UNIT IS ARRANGED WITH AT LEAST ONE SOLAR PANEL ON TOP TO COLLECT HEAT DURING SUNNY DAYS. THE HEAT ABSORBED BY SOLAR PANELS CAN BE CONVERTED INTO ELECTRICITY FOR FAMILY PRIVATE USE.

DOG PARK: A GREAT OUTDOOR RECREATIONAL AREA FOR PEDESTRIANS TO WALK AROUND AND HAVE FUN WITH DOGS.

SOLAR ENERGY FACTORY: CONVERTING SOLAR ENERGY INTO ELECTRICITY FOR RESIDENTIAL USE. BESIDES SOLAR FARM, HUGE SOLAR PANELS SET ON THE TOP OF A FACTORY CAN ABSORB A LOT OF HEAT FROM SUNSHINE AND THEN UTILIZE THEM EFFECTIVELY.

OFFICE BUILDING: PUT A ROW OF SOLAR PANELS ON TOP TO ABSORB SUNSHINE AND THEN TRANSFORM THEM INTO ENERGY FOR OFFICE BUILDING USE.
Solar Community

SECTION VIEWS

A - B

C - D
Solar Community

PERSPECTIVE VIEW
Solar Community

PERSPECTIVE VIEW