INTRODUCTION

We have been asked a council member of the City of Prescott to create a conceptual plan for the proposed redevelopment area close to the existing downtown.

In broad terms the concepts are as follows:

- To create an area near downtown Prescott that will act as a hub for a variety of outdoor activities helping to develop awareness of the outdoor opportunities available in Prescott.
- To enhance Granite Creek that bisects the site while exploring and incorporate concepts of Neo-urbanism for an interface between commercial, housing, retail spaces and nature.
- To explore the possible rezoning of the area to allow for mixed use and other planning strategies to a lively area that can complement the downtown and bring additional revenues to the City of Prescott.
- To create a walkable neighborhood with multi-modal transit throughout.
- To anchor the development with emphasis on small retail shops in support of local businesses.

The design concept should demonstrate the current and forward thinking practices in mixed-use development, with the goal of becoming a model for the redevelopment of these kinds of under-utilized areas.

The expectations for Ecosa final projects are high quality maps, drawings, renderings and presentations of a professional nature.

The final concept will be presented to the City Council and staff. This project is an opportunity to educate and influence how the future Prescott AZ may develop and change in a sustainable direction.

SITE DATA

Located in the heart of Prescott AZ, this project is approximately 140 acres in extent. It is bounded by North Montezuma Street to the West, the
Yavapai Tribal lands on the East, and East Merritt St. to the North. The Southern boundary is the property line of businesses that are accessed from EZ Street of from North Mount Vernon Street. Albertsons shopping center and the Springhill suites define the East corner. Currently most of this area is industrial and many of the existing buildings are vacant and the land not well utilized.

As a long term strategy, the City of Prescott would like to spur development in a new industrial area near the Prescott Airport and is therefore encouraging businesses along 6th Street that consist of industrial/ construction, remodeling, manufacturing uses to relocate to the airport’s industrial park. This will have a duel impact; free up 6th Street for redevelopment and spur the use of the industrial area at the airport. The removal, remodel, or new construction of buildings must be supported by strong rationale and supporting data. The existing infrastructure of roads must be maintained, however simple modifications can be made to encourage a multi-modal transportation corridor for pedestrians, cars, bikes, public transit and alternative methods, alike.

Granite Creek bisects the site area and is a highly utilized and highly valuable water way. At the West end is Granite Creek Park and to the East the creek bed narrows and is crowded by industrial buildings, trailer parks and fences. Creek Rehabilitation and increased connection to the creek are important elements of this design concept.
**SITE**

The site design is based on the use of both the natural habitat and the built environment, while creating a comprehensive network of streets, pedestrian links, parks, and public paths that allow for convenient travel throughout the area. The site is divided into a series of themed clusters, each focused on a different aspect of urban living, such as eco-friendly design and public open spaces.

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**SNAPSHOT**

<table>
<thead>
<tr>
<th>PROJECTED POPULATION (2035):</th>
<th>2,500</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROJECTED EMPLOYMENT (2035):</td>
<td>1,235</td>
</tr>
<tr>
<td>TOTAL BUILDING FLOOR AREA (SQ. FT.):</td>
<td>1,855,000</td>
</tr>
<tr>
<td>TOTAL SITE SIZE (ACRES):</td>
<td>145</td>
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</tbody>
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<table>
<thead>
<tr>
<th>PETAL IMPERATIVES</th>
<th>LOCAL CONSTRAINTS/PLANT ADAPTATIONS</th>
<th>16TH STREET STRATEGIES FOR ADAPTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Limits to growth, habitat exchange,</td>
<td>Lack of water availability</td>
<td>Limited population based on water availability</td>
</tr>
<tr>
<td>car-free living,</td>
<td>High sheet of palms</td>
<td>Site-specific Building Framework to Allow for Gradual and Adaptive Re-use</td>
</tr>
<tr>
<td>urban agriculture</td>
<td>Climate influence causes cooler temperatures</td>
<td>Climate Design Based on Positive Solar Orientation and Topography of Site</td>
</tr>
<tr>
<td></td>
<td>Creation and Utilization of Microclimates</td>
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</tr>
<tr>
<td></td>
<td>Ability to dispense and collect rainwater in the energy flows or animal “villages”</td>
<td>Emergency walking, rolling, or public transport</td>
</tr>
</tbody>
</table>

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**RESTORE**  **CONNECT**  **SAFETY**  **ACCESS**  **PUBLIC**  **COMMUNITY**  **RESPONSIBILITY**
STRATEGIC TRANSIT

Providing a public transit system that connects various neighborhoods within the city, encouraging walkable and bike-friendly options. The system should include dedicated bike lanes and pedestrian-friendly sidewalks, as well as integrated transit stops and stations to ensure easy access to public transportation. The regional transit plan should consider bike routes and pedestrian-friendly sidewalks to encourage active transportation and reduce traffic congestion.

SCALE JUMP: AGRICULTURE

The finite water supply of the city and surrounding areas poses a potential threat to agricultural sustainability with climate change and increasing urbanization. A multi-strategy approach, including water conservation programs and a network of urban water harvesting systems, can provide for the water needs of the population. In addition to these efforts, stormwater management practices can increase the urban water supply to support agricultural needs. This can be achieved by integrating rainwater harvesting systems into green infrastructure projects, promoting the use of drought-resistant crops, and encouraging practices such as microirrigation and mulching to reduce water usage in agricultural settings.

RIPARIAN RESTORATION

Riparian zones are very important in the treatment of stormwater, serving as the first line of defense in urban areas. The restoration of these areas can enhance natural processes and provide benefits such as improved water quality, increased biodiversity, and enhanced flood control. By implementing strategies to restore and protect riparian zones, the city can improve its overall sustainability and environmental health.

2010

Vulnerable areas at risk of floods and droughts.

2035

Native vegetation provides flood and water pollution controls.

Riparian areas support to prevent erosion and mitigate flash flood events.

Wildlife corridor re-established.

Clean water.

Reduced water.
SNAPSHOT

ANNUAL ONSITE RAIN CATCHMENT: 14,900,000 gallons
ANNUAL CONSUMPTIVE WATER USE: 7,800,000 gallons
ANNUAL WATER SURPLUS: 7,100,000 gallons
POTENTIAL GREY-WATER IRRIGATED LAND/GREENHOUSES: 8 acres
**Drylands Farming Crop Varieties**

This diagram illustrates the various methods for growing crops in dryland environments. It shows the different types of crops and their adaptation to various water conditions.

**Street Basins**

Bioswales along the street not only create a natural, bioretention environment but also reduce heat, filter, and reduce water loss from the street before it percolates into the ground. Semi-permeable basins made from recycled concrete and covered streets direct stormwater towards basins that collect with rainwater and create space for planting utilitarian and ornamental vegetation.
The site for this project has been designed to incorporate natural daylighting, pedestrian-oriented spaces, passive solar design, and green roofs to create an integrated approach to sustainable design. This project provides a healthy, green environment that promotes physical activity, social interaction, and a strong sense of community. The design is intended to support public health and well-being by creating green spaces, providing opportunities for outdoor activities, and fostering a sense of place.

**Petal Imperatives**

<table>
<thead>
<tr>
<th>Fresh Air</th>
<th>Daylight</th>
<th>Organic</th>
<th>Local</th>
<th>Native</th>
<th>Biophilia</th>
<th>Outdoor Spaces</th>
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</thead>
<tbody>
<tr>
<td><strong>Adaptation</strong></td>
<td><strong>Adaptation</strong></td>
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<td><strong>Adaptation</strong></td>
</tr>
<tr>
<td>Fresh Air, Daylight, Biophilia</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><em>Exposure release while separating carbon</em></td>
<td><em>Locally sourced energy and materials</em></td>
<td><em>Sustainable and resilient land practices</em></td>
<td><em>Creation of conditions conducive to other forms of life</em></td>
<td><em>Passive solar design to ensure natural daylighting</em></td>
<td><em>Street-side plantings to absorb carbon, toxins and heavy metals from systems</em></td>
<td><em>Local food production connects people to their dietary needs and promotes healthy eating habits</em></td>
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</tbody>
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**6th Street Strategies for Adaptation**

- Passive solar design to ensure natural daylighting
- Street-side plantings to absorb carbon, toxins and heavy metals from systems
- Local food production connects people to their dietary needs and promotes healthy eating habits
- Local food production and native plantings create an environmentally sustainable environment
- Increased green space to attract and support wildlife

**Biophilia**

The natural features of the 6th Street are incorporated in the site design, which emphasizes the importance of nature in promoting health and well-being. The design includes green roofs, green spaces, and other features that integrate nature into the urban environment, providing opportunities for outdoor activities and promoting physical activity.
EQUITY

The equity model addresses how the design incorporates concepts to provide equal access to everyone regardless of age, race, gender, disabilities, religion, or political views. It promotes diverse affordable housing through mixed-use development and the option to creatively add or modify existing buildings. New housing is a focus of the model, with new projects being added to the design vision. The model supports green spaces, art, and community gathering spaces, and aims to create a vibrant and healthy city that is inclusive and supportive of all communities.

“lichen”

Like lichen, cultivating spaces otherwise devoid of life, public art spaces give local artists opportunities dispersed around 6th Street to beautify their community and articulate their unique expression.

PETAL IMPERATIVES | LOCAL CONSTRAINTS / PLANT ADAPTATIONS | 6TH STREET STRATEGIES FOR ADAPTATION
--- | --- | ---
Housing Strategy: Open to All | Affordable Housing: Street Furniture, ADA, Right to Nature | Different housing options for varying income and types of people
Public Realm: Public Art | "lichen" | Street furniture will include: 
- Art installations 
- Public art projects 
- An open mic or other community activity

EDUCATION | AFFORDABILITY | ACCESS | EQUALITY | INTEGRATION | COMMUNITY | NATURE | SAFETY
SNAPSHOT

ELECTRICITY NEEDS FOR 6TH STREET AREA: 14,500 MWh
HOT WATER NEEDS FOR 6TH STREET AREA: 9,300 MWh
% OF TOTAL SITE ROOFSPACE NEEDED: 36%

PETAL IMPERATIVES | LOCAL CONSTRAINTS/PLANT ADAPTATIONS | 6TH STREET STRATEGIES FOR ADAPTAION
---|---|---
RENEWABLE | CONSERVATION | DISTRIBUTED

- All energy absorbed from sunlight
- Energy cycles as wetlands, crops, or heat through ecosystems via direct consumption, decomposition or ignition
- Passive solar design to capture heat energy within buildings and store it in thermal tanks
- Active site technologies provide enough electricity for site
- Assimilate digestion of sewage waste to produce biogas for cooling or other activities, reenriching farms

LOCAL

- Designed with topography, spacing and site orientation to provide sunlight for crops during growing season
- Design the topography to aid solar access
- 3D optimization and correct spacing of trees to allow sunlight to reach every wall
The beauty zone will create the tender human need for aesthetic stimulation and transformation. In order to bring people to this street we need to ensure it is necessary to make it an attractive and inviting place. By securing community ownership in streets and buildings, public spaces, and maintenance of the natural environment we hope to encourage an organic emergence of a local's cultural arts that represents both the historical and visual identity of the area.

**Petal Imperatives**
- Human Rights and Inclusion
  - Culture, Street Art, Inclusion and Education, Eligibility

**Local Constraints/Plant Adaptations**
- palette colors, intricate shapes and pleasant aromas
  - attract pollinators
- Sustainable rainwater harvesting and rainwater storage
  - for extensive use

**6th Street Strategies for Adaptation**
- Various features for community gardens, street art, music, open houses and studio events
  - to attract people who can then spread their artistic activities, grow community and street pride

**ARTISTIC EXPRESSION**
- ARTISAN
- CREATE
- EMPOWER
- EXPLORE
- CULTURE
- INSPIRE
- PLACE
MATERIALS

In order to maximize reuse and conservation of materials, we separated the existing buildings on site into these categories:

1. Buildings that fit themselves to the site and work with our design.
2. Buildings that would be disconnected and relocated.
3. Buildings that need to be used on an individual material level.

PETHAL IMPERATIVES

- Individual
- Carbon
- Industry
- Reduce, Reuse, Recycle
- Argumenet
- Appropriate
- Borrowing

LOCAL CONSTRAINTS

- Gallery
- Commercial
- Infrastructure
- Material
- Whole
- Building
- Reuse
- Material

6TH STREET STRATEGIES FOR ADAPTATION

- Salvage
- Reuse
- Recycled
- Recyclable
- Earthen
- Local
- Adaptive
- Modular
6TH STREET
Inspiration Photos

Collection / overflow facility at
downstream end of swale to
acceptable disposal point per
Section 1.4

3-5’ deep check dams 0
12’ to 20’ intervals or
minimum 2 dams per
swale

For parking lots, tie stops or curb w/
cuts

6” min

6” to 12” swing
depth

For parking lots
12” x 12” clear
flow area at
cutouts

5 ft. minimum, 12 ft. maximum

Bioswale Cross-Section

Bioswale, Portland

Gabion Dam
ART WALK
Public art path leading from downtown to 6th St. District

VEGETATION
Trees and plantings to provide shade

START POINT
Art walk begins at The Raven

PATH MARKERS
Sidewalks painted

BENCHES
Placed throughout walk for rest areas
WELLNESS CENTER
Medical Center on 3rd Street

LIGHT TUBES
Passive way of transmitting light into shaded areas

OVERHANGS
Creating shade and cooler microclimates

TERRACES
Allow access to shops

SECOND-STORY WALKWAY
Bridge that creates additional green space and shading; connects medical center to spa
ARTISAN CENTER
Training and retail space for local craftsmen

Rainwater Catchment and Irrigation
Creates shade

Trellis Walkway

Studio and Lofts
Creates microclimate while providing housing

Spanish-Tile Overhangs
Passive solar feature and shades windows for gardening

Retail Shops
Includes spa, shops, offices, medical services
OUTDOOR RECREATION
Connecting us with the outdoors

TRAIL SIGNAGE
Information about distance from the creek and QR Code

6TH ST. DWELLER
This could be you

MOUNTAIN BIKING TRAILS
Along Granite Creek
ECO-INDUSTRIAL PARK

Master Plan of an urban food initiative

**CULINARY SCHOOL/BREWERY**
Food materials can be sourced and recycled by urban farm

**OFFICE/FOOD STORE**
Local value-added food products can be sold

**BUSINESS INCUBATORS**
Shared food processing machinery and business consulting to promote light local industries

**KITCHEN WORKSPACE**

**MIXED-USE**
Cottage industries in lower floor with housing above

**LIVING SYSTEM**

**COMPOST DROP-OFF**
Community drop off to be transported to larger facility

**COMPOST BINS**

**LIVESTOCK**
Chickens and goats

**APIARY**
Bee-keeping for local honey production

**GREENHOUSES**
Aquaponics, hydroponics, vermiculture, and food crops