

HISTORIC AND DESIGN REVIEW COMMISSION

August 05, 2015

Agenda Item No: 8

HDRC CASE NO: 2015-303
ADDRESS: 310 W MITCHELL ST
LEGAL DESCRIPTION: NCB A-9 BLK E 1/2 LOT W IRRG 275" OF A-6 OR 6A
ZONING: C2 RIO-4
CITY COUNCIL DIST.: 3
APPLICANT: James Gray/Rialto Studio, Inc.
OWNER: San Antonio River Authority
TYPE OF WORK: Conceptual Approval for Park Construction
REQUEST:

The applicant is requesting conceptual approval to construct a park dedicated to environmental education, interactive learning and recreation. The proposed park's primary elements include a concrete form gathering pavilion, satellite pavilions, play areas, restrooms, signage, 5 planting ecotypes, large scale water catchment system, surface parking, paved walkways and other associated elements described in the design narrative.

APPLICABLE CITATIONS:

UDC Section 35-670 – Criteria for Certificate of Appropriateness- Generally

(b)Design Objectives for River Improvement Overlay Districts.

(1)Enhance the pedestrian experience with high quality streetscape designs.

(2)Design buildings to relate to the pedestrian scale.

(3)Low impact development (LID) features such as engineered swales, engineered infiltration storm sewer systems, bio-retention, and engineered wetlands are encouraged in all RIO districts. These features may be considered on-site detention features to the extent that they reduce the stormwater runoff expected downstream as a result of such developments.

(4)Encourage neighborhood and cultural tourism uses as well as infill housing and rehabilitation of existing structures.

UDC Section 35-672- Neighborhood Wide Design Standards

(a)Pedestrian Circulation. Pedestrian access shall be provided among properties to integrate neighborhoods.

(1) Provide sidewalks that link with existing sidewalks on adjoining properties. If no sidewalk currently exists on an adjoining property, the applicant will have discretion in the placement of the sidewalk provided the following criteria are met:

A. Provide a sidewalk connection from one (1) side of the applicant's property to the other, parallel to the public right-of way, on the street sides of the property in all river improvement overlay districts

B. Provide a connection from the street level sidewalk to the Riverwalk at cross streets and bridges and other designated access points. This requirement may be waived if there is already a public connection from the street level to the Riverwalk.

(2) Link the various functions and spaces on a site with sidewalks in a coordinated system.

Provide pedestrian sidewalks between buildings, parking areas and built features such as outdoor plazas and courtyards.

(3) Paving materials. Paving materials for pedestrian pathways shall use visually and texturally different materials than those used for parking spaces and automobile traffic.

A. Paving materials for pedestrian pathways shall be either:

i. Broom-finished, scored, sandblasted or dyed concrete;

ii. Rough or honed finished stone;

iii. Brick or concrete pavers; or

iv. Other materials that meet the performance standards of the above materials.

B. Asphalt is permitted for pedestrian pathways that also are designated as multi-use paths by the City of San Antonio. The public works department will maintain the designated multi-use path locations.

- (4) Street Connections to River. Retain the interesting and unique situations where streets dead-end at the river, creating both visual and physical access to the river for the public.
- (5) Pedestrian Access Along the Riverwalk Pathway Shall Not Be Blocked.
 - A. Queuing is prohibited on the Riverwalk pathway.
 - B. Hostess stations shall be located away from the Riverwalk pathway so as to not inhibit pedestrian flow on the Riverwalk pathway. That is, the hostess station shall not be located in such a manner to cause a patron who has stopped at the hostess stand to be standing on the Riverwalk pathway. Pedestrian flow shall be considered "inhibited" if a pedestrian walking along the pathway has to swerve, dodge, change direction or come to a complete stop to avoid a patron engaged at the hostess stand.
 - C. Tables and chairs shall be located a sufficient distance from the Riverwalk pathway so that normal dining and service shall not inhibit the flow of pedestrian traffic. See inhibited definition in subsection B. above.

(b) Automobile Access and Parking. Automobile circulation should be efficient, and conflicts with pedestrians minimized. Entry points for automobiles should be clearly defined and connections to auto circulation on adjoining properties are encouraged to facilitate access and reduce traffic on abutting public streets.

(1) Curb Cuts.

- A. Limit curb cuts to two (2) on parking areas or structures facing only one (1) street, and one (1) for each additional street face. The prohibition of additional curb cuts may be waived by the HDRC where the intent of the standards are clearly met and specific site circulation patterns require an additional curb cut, such as on long parcels or at nodes.
- B. Curb cuts may be no larger than twenty-five (25) feet zero (0) inches. Continuous curb cuts are prohibited.
- C. Sharing curb cuts between adjacent properties, such as providing cross property access easements, is permitted.

(2) Location of Parking Areas. Automobile parking in new developments must be balanced with the requirements of active environments. Large expanses of surface parking lots have a negative impact on street activity and the pedestrian experience. New commercial and residential structures can accommodate parking needs and contribute to a pedestrian-friendly streetscape.

- A. Locate parking areas, that is any off-street, ground level surface used to park cars or any parking structure, toward the interior of the site or to the side or rear of a building.
- B. The extent of parking area that may be located along the street edge or riverside shall be limited to a percentage of the lot line as per Table 672-1 as measured in a lineal direction parallel to the lot line. All parking within a thirty-foot setback from the above mentioned lot line shall comply with the requirements of the table. Where parking is located on corner sites only one (1) lot line has to meet the requirements of the table.
- C. Parking lots should be avoided as a primary land use. Parking lots as a primary use are prohibited in RIO-3 and for all properties that fall within one hundred (100) feet of the river right-of-way in all RIO districts.

(3) Screen or Buffer Parking Areas From View of Public Streets, the River or Adjacent Residential Uses. Parking lots shall be screened with a landscape buffer as per the illustrations of bufferyards and Table 510-2 if the parking area meets one (1) of the following conditions:

- A. Within a fifty-foot setback from the edge of the river ROW use, at a minimum, type E; or
- B. Within a twenty-foot setback from a property line adjacent to a street use, at a minimum, type B; or
- C. Within a twenty-foot setback of commercial or industrial property that abuts a residential property use, at a minimum, type C.

(6) Parking lots, structures, and hardscape shall not drain directly into the river without installation of appropriate water quality best management practices (WQ BMPs). Acequias shall not be used for any type of drainage.

(c) Views. The river's course (both natural and manmade), and San Antonio's street pattern, creates unique views of certain properties from the public ROW. These properties often occur at prominent curves in the river or where a street changes direction and a property appears to be a terminus at the end of a street.

(1) Architectural Focal Point. When a property is situated in such a manner as to appear to be the terminus at the end of the street or at a prominent curve in the river, the building shall incorporate into its design an architectural feature that will provide a focal point at the end of the view. (see Figure 672-3) An architectural feature will be considered to be a focal point through any of the following methods, but not limited to:

- A. Additional height.

- B. Creation of a tower.
- C. Variation in roof shape.
- D. Change of color or materials.
- E. Addition of a design enhancement feature such as:
 - i. Embellished entrance areas.
 - ii. Articulated corners, especially when entrance is at corner, rounded or chamfered corners ease the transitions from one street facade to the adjoining facade.
 - iii. Recessed or projecting balconies and entrances.

UDC Section 35-673 - Site Design Standards

(b) **Building Orientation.** Buildings should be sited to help define active spaces for area users, provide pedestrian connections between sites, help animate the street scene and define street edges. Consideration to both the street and riverside should be given. The placement of a building on a site should therefore be considered within the context of the block, as well as how the structure will support the broader design goals for the area.

(1) **Two or More Buildings on a Site.**

A. Cluster buildings to create active open spaces such as courtyards along the street and river edges. Site plazas and courtyards, if possible, so that they are shaded in the summer and are sunny in the winter.

(c) **Topography and Drainage.** The natural contours of occasional hillsides and riverbanks contribute to the distinct character of the San Antonio River and shall be considered in site designs for new development. Site plans shall minimize the need for cut and fill. It should be considered as an opportunity for positive enhancements through the creative use of terraces and retaining walls.

(3) **Retaining Walls.** Limit the height of a retaining wall to less than six (6) feet. If the retaining wall must exceed six (6) feet, a series of six-foot terrace walls is acceptable. Walls at dams and locks are excluded from this requirement. If in the opinion of the historic preservation officer a higher wall is consistent with the adopted conceptual plan of the river, a higher wall (not to exceed twelve (12) feet) is allowed. Materials used for the walls may include limestone, stucco, brick, clay, tile, timber, or textured concrete. (see Figure 673-2).

(5) **Design of Stormwater Management Facilities to be a Landscape Amenity.** Where above ground stormwater management facilities are required, such facilities shall be multi-purpose amenities. For example, water quality features can be included as part of the site landscaping and detention facilities can be included as part of a hardscape patio. Using an open concrete basin as a detention pond is prohibited. (see Figure 673-3).

(d) **Riverside Setbacks.** Riverside setbacks for both buildings and accessory structures are established to reinforce the defined character of the specific river improvement overlay district and help to define an edge at the river pathway that is varied according to the relationship of the river and the street. In the more urban areas, buildings should align closer to the river edge, while in more rural areas the buildings should be set farther away.

(1) Minimum setback requirements are per the following Table 673-1.

Table 673-1

Description	RIO-1	RIO-2	RIO-3	RIO-4	RIO-5	RIO-6
Riverside Setback *	20 ft.	15 ft.	0 ft.	20 ft.	50 ft.	100 ft.

(e) **Landscape Design.** Lush and varied landscapes are part of the tradition of the San Antonio River. These design standards apply to landscaping within an individual site. Additional standards follow that provide more specific standards for the public pathway along the river and street edges.

(1) **Provide Variety in Landscape Design.** Provide variety in the landscape experience along the river by varying landscape designs between properties. No more than seventy-five (75) percent of the landscape materials, including plants, shall be the same as those on adjacent properties. (see Figure 673-4)

(f) **Plant Materials.** A number of soil conditions converge in the San Antonio area to create unique vegetation ecosystems.

Along the route of the San Antonio River, the soil conditions vary greatly from the northern boundary near Hildebrand to the city limits near Mission San Francisco de la Espada (Mission Espada) and therefore native and indigenous plants will vary accordingly. Landscaping should reflect the unique soil characteristics of the specific site.

- (1) Incorporate Existing Vegetation. Extend the use of landscape materials, including plants, shrubs and trees that are used in the public areas of the river onto adjacent private areas to form a cohesive design.
 - (2) Use indigenous and noninvasive species characteristic of the specific site as found on the permissible plant list maintained by the parks and recreation department or the Unified Development Code Plant List found in Appendix E. In "RIO-3," plantings of tropical and semi-tropical plants with perennial background is permitted.
 - (3) Install Trees to Provide Shade and to Separate Pedestrians From Automobile Traffic. Install street trees along the property line or in the ROW abutting all streets according to minimum requirement standards established in subsection 35-512(b), except where this conflicts with existing downtown Tri-Party improvements in "RIO-3." In "RIO-3" the owner has the option of placing trees at the property line, or along the street edge.
- (g) Paving Materials. An important San Antonio landscape tradition is the use of decorative surfaces for paving and other landscape structures. Paving materials and patterns should be carefully chosen to preserve and enhance the pedestrian experience.
- (1) Vary Walkway, Patio and Courtyard Paving to Add Visual Interest on the Riverside of Properties Abutting the River. Pervious paving is encouraged where feasible and appropriate to the site.
 - A. A maximum of six hundred (600) square feet is allowed for a single paving material before the paving material must be divided or separated with a paving material that is different in texture, pattern, color or material. A separation using a different material must be a minimum of twenty-four (24) inches wide, the full width of the pathway.
 - B. A maximum of one hundred (100) lineal feet is allowed in a walkway before the pattern must change in districts "RIO-2," "RIO-3," and "RIO-4." A maximum of five hundred twenty-eight (528) lineal feet is allowed before the pattern must change in districts "RIO-1," "RIO-5" and "RIO-6." The change of material at five hundred twenty-eight (528) lineal feet will define and delineate one-tenth-mile markers.
- (h) Site Walls and Fences. Site walls and fences are used to help divide spaces, screen unsightly objects and provide privacy. However, the character of the San Antonio River is such that walls shall not be erected in such a way as to block views of the river from public spaces.
- (i) Street Furnishing. Prohibited Street Furnishings in Riverwalk Area. The following street furnishings are prohibited within the publicly owned portion of the Riverwalk area, whether or not the property is leased, and on the exterior of the riverside of buildings directly adjacent to the publicly owned portion of the river:
- A. Vending machines.
 - B. Automatic teller machines.
 - C. Pay phones.
 - D. Photo booths.
 - E. Automated machines such as, but not limited to, penny crunching machines, blood pressure machines, fortune-telling machines, video games, animated characters and other machines that are internally illuminated, or have moving parts, or make noise, or have flashing lights.
 - F. Inanimate figures such as horses, kangaroos, bears, gorillas, mannequins or any such animal, cartoon or human figure. This section does not affect public art as defined in Appendix "A" of this chapter.
 - G. Monitors (i.e., television screens, computer screens, digital displays, and video boards) except those permitted as part of a performing arts center digital display monitor pursuant to a specific use authorization.
 - H. Speakers, except those permitted as part of a performing arts center digital display monitor pursuant to a specific use authorization.
- (2) Street Furnishing Materials.
- A. Street furnishings shall be made of wood, metal, stone, terra cotta, cast stone, hand-sculpted concrete, or solid surfacing material, such as Corian or Surell.

B. Inexpensive plastic resin furnishings are prohibited.

(j) Lighting. Site lighting should be considered an integral element of the landscape design of a property. It should help define activity areas and provide interest at night. At the same time, lighting should facilitate safe and convenient circulation for pedestrians, bicyclists and motorists. Overspill of light and light pollution should be avoided.

(1) Site Lighting. Site lighting shall be shielded by permanent attachments to light fixtures so that the light sources are not visible from a public way and any offsite glare is prevented.

A. Site lighting shall include illumination of parking areas, buildings, pedestrian routes, dining areas, design features and public ways.

(l) Access to Public Pathway Along the River. These requirements are specifically for those properties adjacent to the river to provide a connection to the publicly owned pathway along the river. The connections are to stimulate and enhance urban activity, provide path connections in an urban context, enliven street activity, and protect the ambiance and character of the river area.

(1) A stair, ramp or elevator connecting the publicly owned pathway at the river to private property along the river is allowed by right at the following locations:

A. At all street and vehicular bridge crossings over the river.

B. Where publicly owned streets dead end into the river.

C. Where the pedestrian pathway in the Riverwalk area is located at the top of bank and there is a two-foot or less grade change between the private property and the pathway.

(2) If there is a grade change greater than two (2) feet between the private property and the publicly owned pathway at the river then the following conditions apply:

A. Access to the publicly owned pathway is limited to one (1) connection per property, with the exception that connections are always allowed at street and vehicular bridge crossings. For example if one (1) property extends the entire block face from street crossing to street crossing the owner would be allowed three (3) access points if the distance requirements were met.

B. The minimum distance between access points shall be ninety-five (95) feet. Only street and vehicular bridge connections are exempted. Mid-block access points must meet this requirement.

C. Reciprocal access agreements between property owners are permitted.

(3) Clearly define a key pedestrian gateway into the site from the publicly owned pathway at the river with distinctive architectural or landscape elements.

A. The primary gateway from a development to the publicly owned pathway at the river shall be defined by an architectural or landscape element made of stone, brick, tile, metal, rough hewn cedar or hand-formed concrete or through the use of distinctive plantings or planting beds.

(o) Bicycle Parking. On-site bicycle parking helps promote a long term sustainable strategy for development in RIO districts. Bicycle parking shall be placed in a well lit and accessible area. UDC bicycle parking requirements in UDC 35-526 can be met through indoor bicycle storage facilities in lieu of outdoor bike rack fixtures.

FINDINGS:

- a. Per the UDC Section 35-608, conceptual approval is the review of general design ideas and principles (such as scale and setback). Specific design details reviewed at this stage are not binding and may only be approved through a certificate of appropriateness for final approval.
- b. With the exception of the main gathering pavilion the majority of park pavilions, buildings and structures relate to the pedestrian scale. The proposed park features a large scale water catchment system promoting low impact development. The park's primary mission of environmental education, interactive learning and recreation, serve to promote and encourage neighborhood and cultural tourism. The park will be constructed on currently vacant land located at 310 W. Mitchell Street, with views and direct pedestrian connections to the river. These findings are consistent with UDC Section 35-670(b).
- c. Generally the proposed park is consistent with the UDC Section 35-672, as they relate to general pedestrian circulation, use of appropriate paving materials, maintaining street connections to the river, providing unobstructed pedestrian access along the Riverwalk, creating automobile access and parking, maintaining prominent views and in providing an architectural focal point. The proposed paving materials include a combination of clay unit pavers with custom concrete pavers requiring four different fabricated molds.
- d. The park's primary pedestrian and automobile access is located off Mitchell Street with connecting walkways to the

- Riverwalk. The parking surface will be composed of a combination of brick pavers and gravel, accessed by a curb cut fronting Mitchell Street. This is consistent with the UDC regarding pedestrian circulation and access to the Riverwalk.
- e. Per UDC Section 35-672(c), an architectural focal point shall be incorporated in to the design of a structure located at a prominent curve in the river or at a prominent intersection where the street appears to terminate. The applicant has proposed a main gathering pavilion which serves as an architectural focal point for the proposed park. This is consistent with the UDC.
 - f. The UDC Section 35-673(c) provides guidelines regarding the preservation of the existing natural contours and distinct character of the San Antonio River. The applicant is responsible for complying with this section of the UDC as well as additional coordination with the San Antonio River Authority.
 - g. Generally the proposed park is consistent with the Site Design Standards described in UDC Section 35-673, as they relate to appropriate building orientation, topography and draining, retaining walls, riverside setbacks, landscape design and plant materials, paving materials, street furnishings, lighting, access to public pathway along the river and bicycle parking.
 - h. The property is within the River Improvement Overlay District and is in close proximity to previously recorded archaeological sites 41BX257 and 41BX12. Therefore, archaeological investigations shall be required for the project area.
 - i. This address falls within the buffer zone of the designated World Heritage areas as well as the Mission Protection Overlay. The applicant is responsible for complying with all regulations and meeting any design standards associated with these designations and zonings.

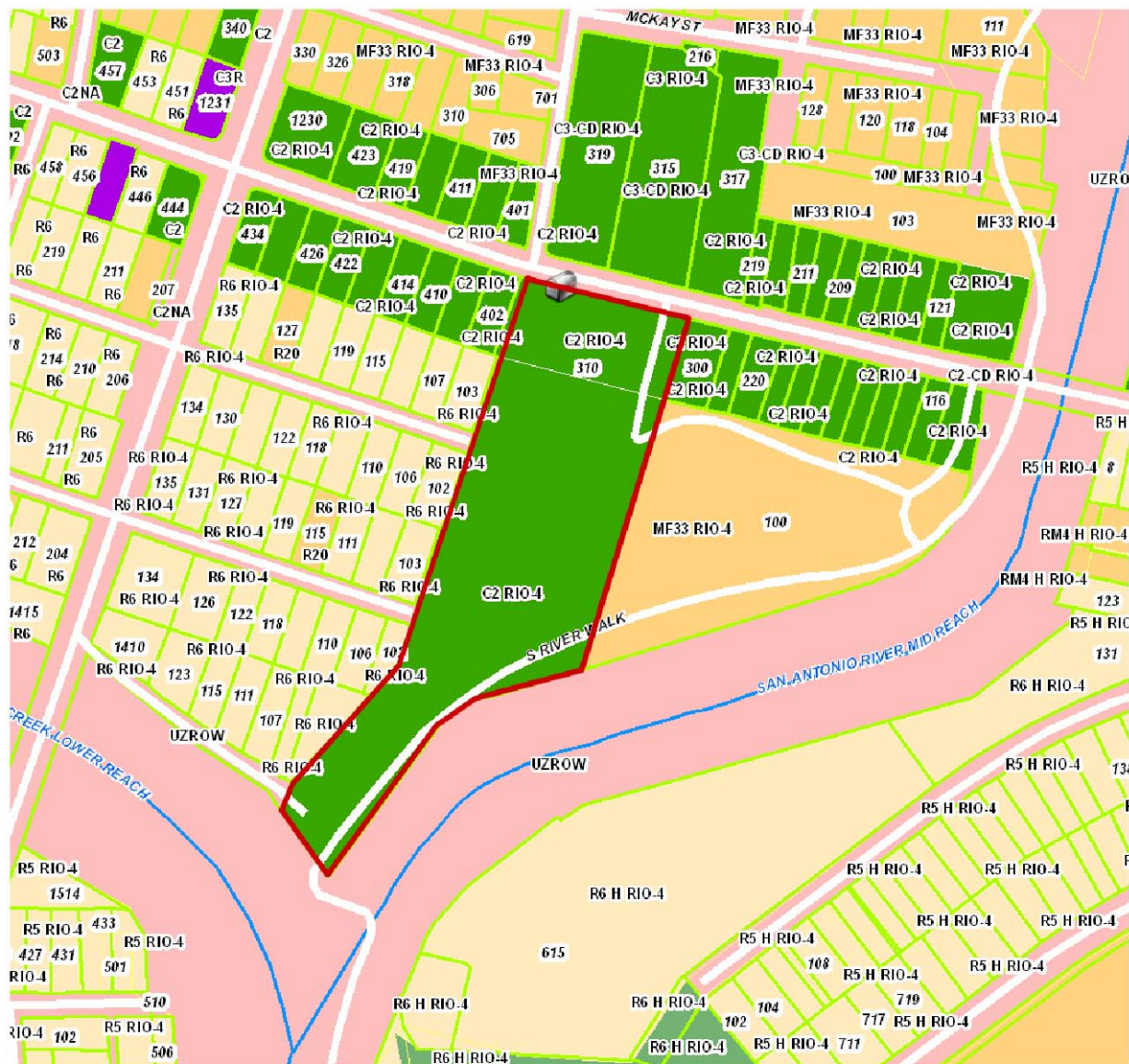
RECOMMENDATION:

Staff recommends approval based on the findings a through f with the following stipulations:

- i. An archaeological investigation is required.
- ii. That the applicant coordinate with the San Antonio River Authority regarding storm water control measures, access to parks, landscaping and maintenance boundaries.

CASE MANAGER:

Adam Ronan





Flex Viewer

Powered by ArcGIS Server

Printed: Jul 28, 2015

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Confluence Park
HDRC Submittal
July 17, 2015

Located at 310 W. Mitchell Street, near the convergence of the San Antonio River and San Pedro Creek, Confluence Park is a destination for learning and recreation, inspiring visitors while teaching environmental science and sustainability. A landmark project where art and science meet, the park will be a living example of the promise of our river and what the future will be if we act as stewards of our river and all of our water sources.

Confluence Park will transform a former Southside industrial laydown yard into a unique, interactive learning and recreational space. The park will include an educational pavilion, a large scale water catchment system, ecotype demonstration quadrants and an inviting gateway to hiking and biking trails along the Historic Mission Reach portion of the San Antonio River. The entire park is envisioned as an interactive teaching tool that will inspire a greater understanding of Texas ecotypes and watershed dynamics, encouraging students and adults alike to become more involved with the preservation and stewardship of our waterways.

The San Antonio River Foundation's (SARF) investment in Confluence Park will provide a state-of-the-art outdoor classroom to accommodate the San Antonio River Authority's (SARA) well-established educational outreach program; an effort that reached 22,000 students in the 2013-2014 school year. The SARA educational programming will be supported in part via an already secured \$1 million SARF Educational Endowment. Programs will be offered to public school systems free of charge, including transportation to and from the Park for schools that otherwise could not afford to participate in these classes. This convergence of resources will provide critical, hands-on environmental educational experiences to San Antonio area students.

Designed by a highly acclaimed team comprised of Rialto Studio, Lake | Flato Architects and Matsys Design, Confluence Park's programmatic elements and educational features will include:

- Opportunities to experience and learn more about five ecotypes that occur in our region:
- A site-wide water catchment system which collects all the rainwater that falls on the site and feeds this water into an underground water storage tank
- Play areas are designed for learning and exploration
- A primary pavilion constructed of large concrete forms that together create a geometry that collects and funnels rainwater; this lofty pavilion will provide shade and shelter while at the same time allowing visitors to understand the cycle of water at Confluence Park and how this cycle relates directly to the San Antonio River watershed. The pavilion will speak to the confluence of

water systems and is oriented to point directly toward the confluence of the San Antonio River and San Pedro Creek.

- Satellite pavilions that create distinct gathering nodes throughout the site and are derived from the same form as the primary pavilion.
- A multi-purpose space that has a green roof providing thermal mass for passive heating and cooling; this space will be used for classroom and meeting space as well as pre-function space for the primary pavilion; a supporting actor to the pavilion structure, the building's lowered elevation will make it appear to emerge from the ground and gradually grow out of the earth, becoming a fluid part of the landscape
- The landscape will be allocated in five distinct ecotypes. The ecotype of the San Antonio River Improvement Projects – Mission Reach will be the first ecotype that will transition from the river into the site and up to Mitchell Street. The second ecotype will be a contrasting Trans-Pecos landscape that will complete the Mitchell Street frontage and will flow into the parking lot. The third ecotype will be a Texas Oak Conservatory showcasing the wide variety of that tree species. The fourth ecotype will be a Live Oak Savannah that will encompass the main pavilion area and the subterranean storm water collection cistern. The fifth ecotype is the centrally located Texas Grassland Prairie.
- Board form natural finish concrete walls will hold stair stepping rusted steel wall segments that will be used to segregate plant species for use in education settings for plant identification. The goal is that students (and park visitors) become able to identify the trees, shrubs, grasses, forage plants, etc. when they leave the park and venture along the Mission Reach.
- A photovoltaic array, connected to the City Public Service power grid, will provide 100% of the energy use for the project on a yearly basis.

With environmental education as its core purpose, Confluence Park is designed to inspire students and visitors to become more involved with the river, practice environmental stewardship and gain a greater understanding of Texas ecology.

PHOTOGRAPHS OF EXISTING SITE



NE corner of Confluence Park at Mitchell Street



View from across Mitchell Street looking south west

CONFLUENCE PARK
San Antonio, Texas

PHOTOGRAPHS OF EXISTING SITE



Access from Confluence Park to Mission Reach Trails

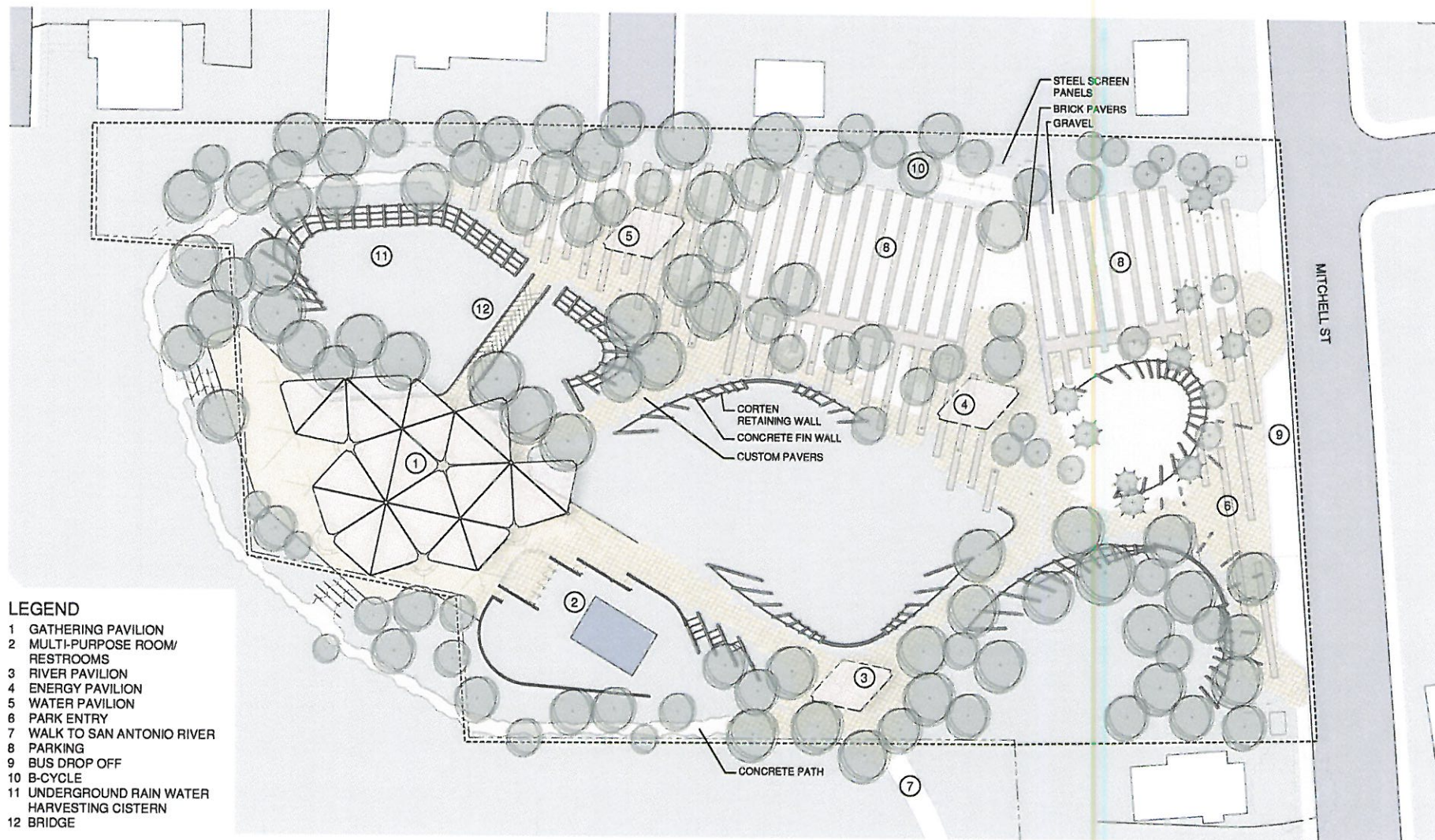


View from top-of-bank to the north west.

CONFLUENCE PARK
San Antonio, Texas

CONFLUENCE PARK

Construction Manager Solicitation
LAKE|FLATO + matsys + RIALTO STUDIO
May 28th, 2015



Site Plan





Contextual Site Plan





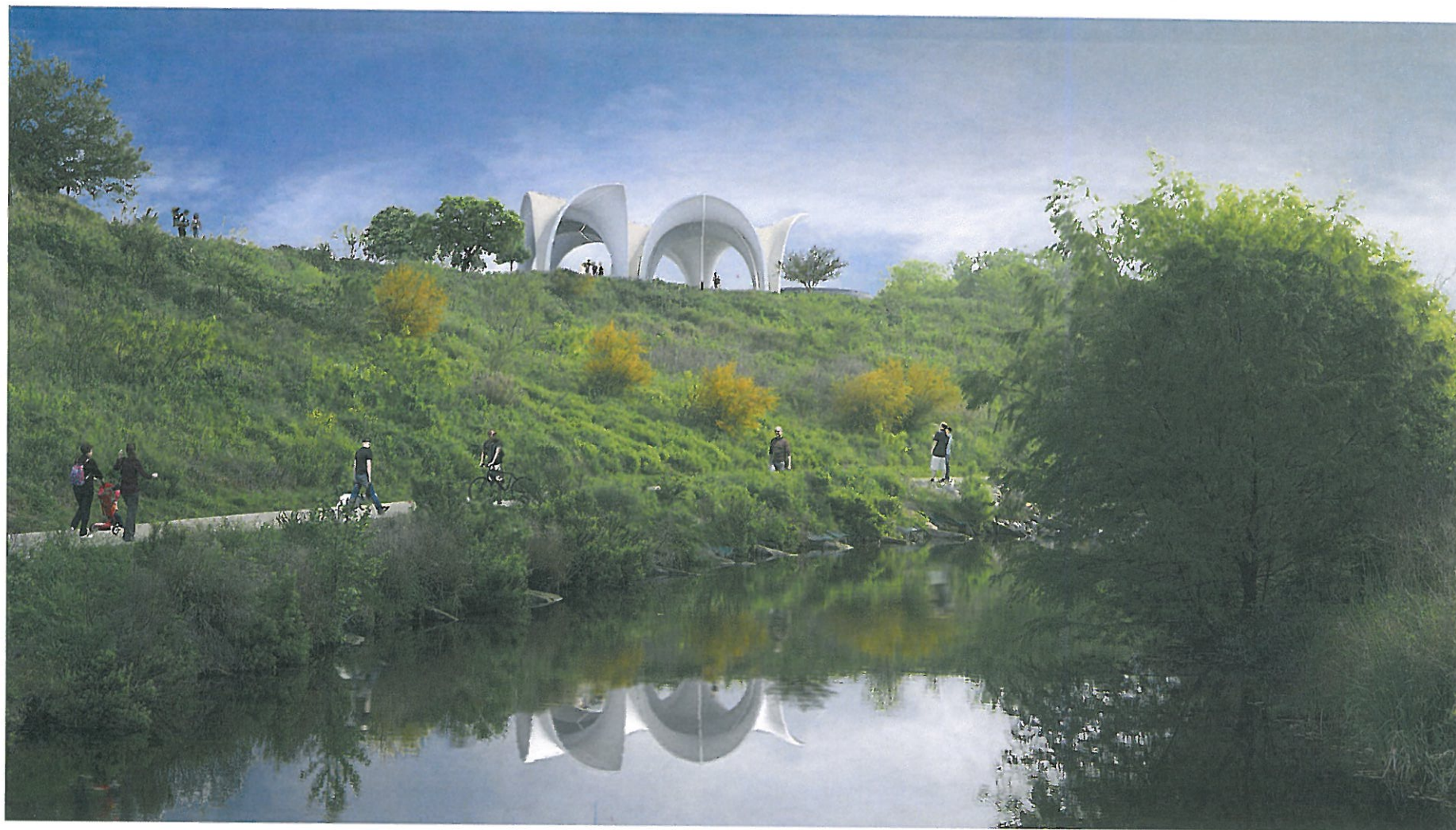
Mitchell Street Entrance



View of Support Building from Pavilion



View of Pavilion from Parking Area



View of Pavilion from River Confluence

Confluence Park River Pavilion
LAKE FLATO + matsys + RIALTO STUDIO
April 14th, 2015

SAN ANTONIO
RIVER
FOUNDATION



SITE MATERIALS

Reference Images: Site

Confluence Park Site Design
LAKE FLATO + matsys + RIALTO STUDIO
May 27th, 2015

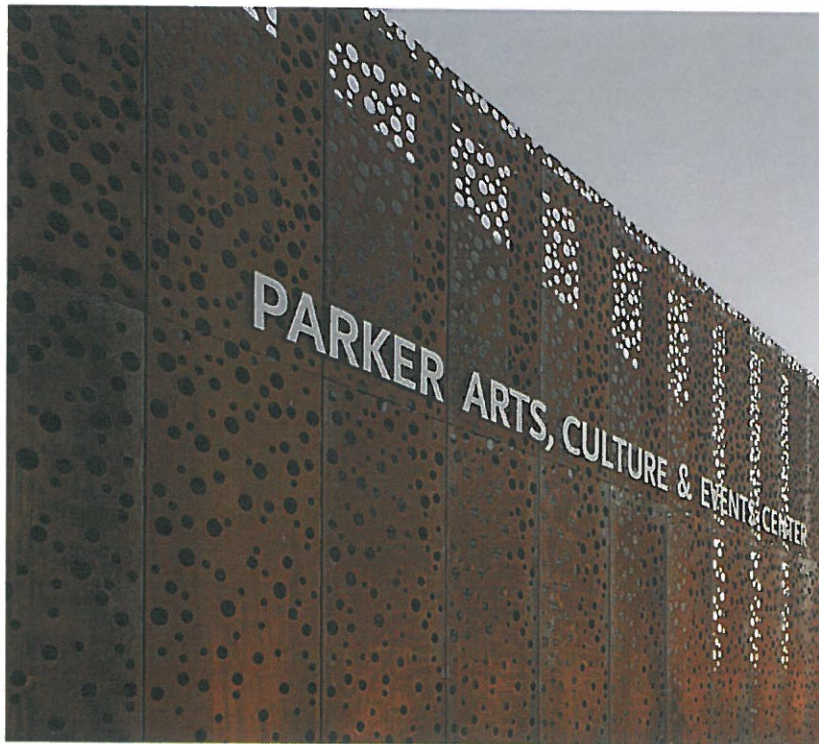


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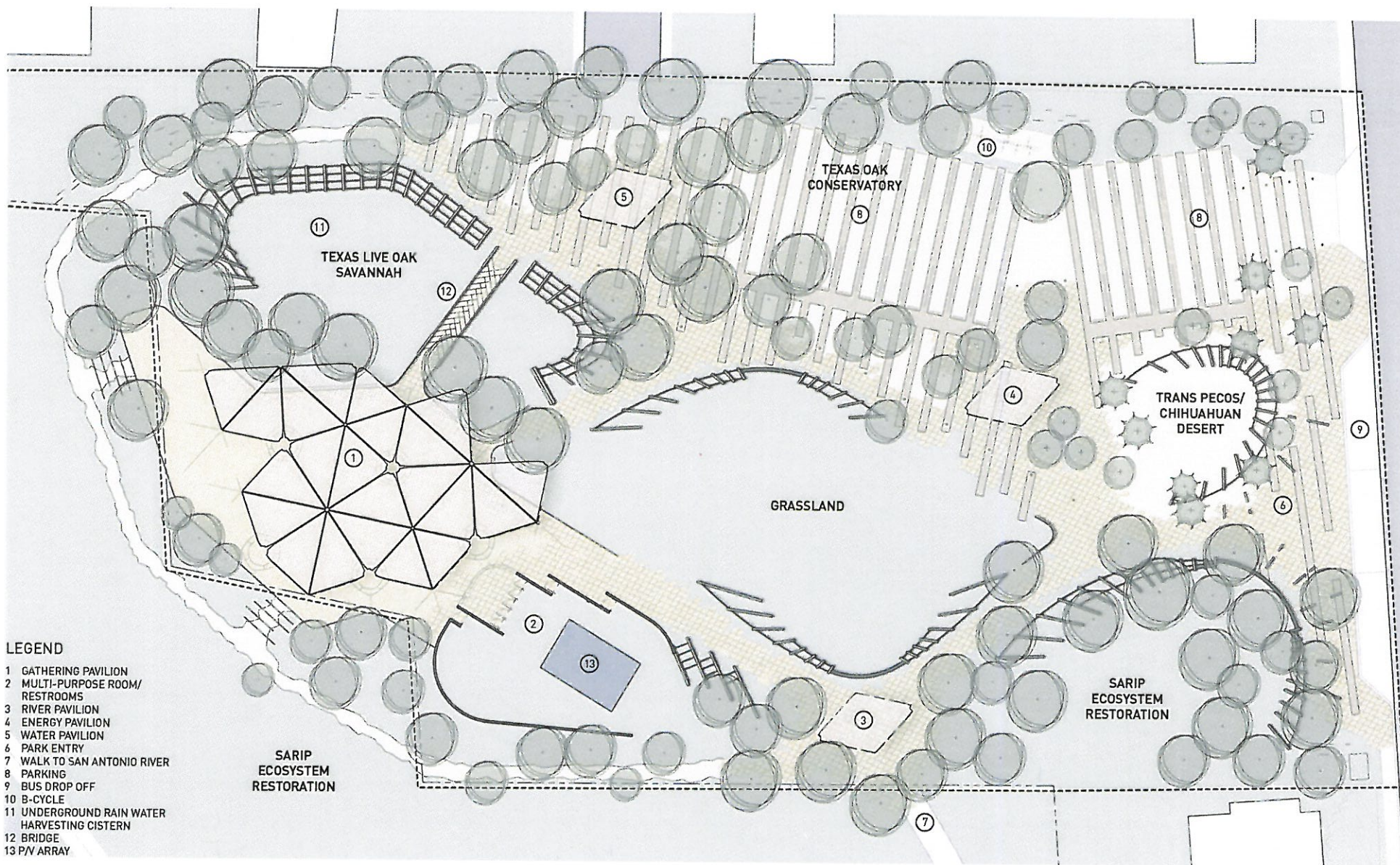


Reference Images: Site

Confluence Park Site Design
LAKE|FLATO + matsys + RIALTO STUDIO
May 29th, 2015



SIGNS

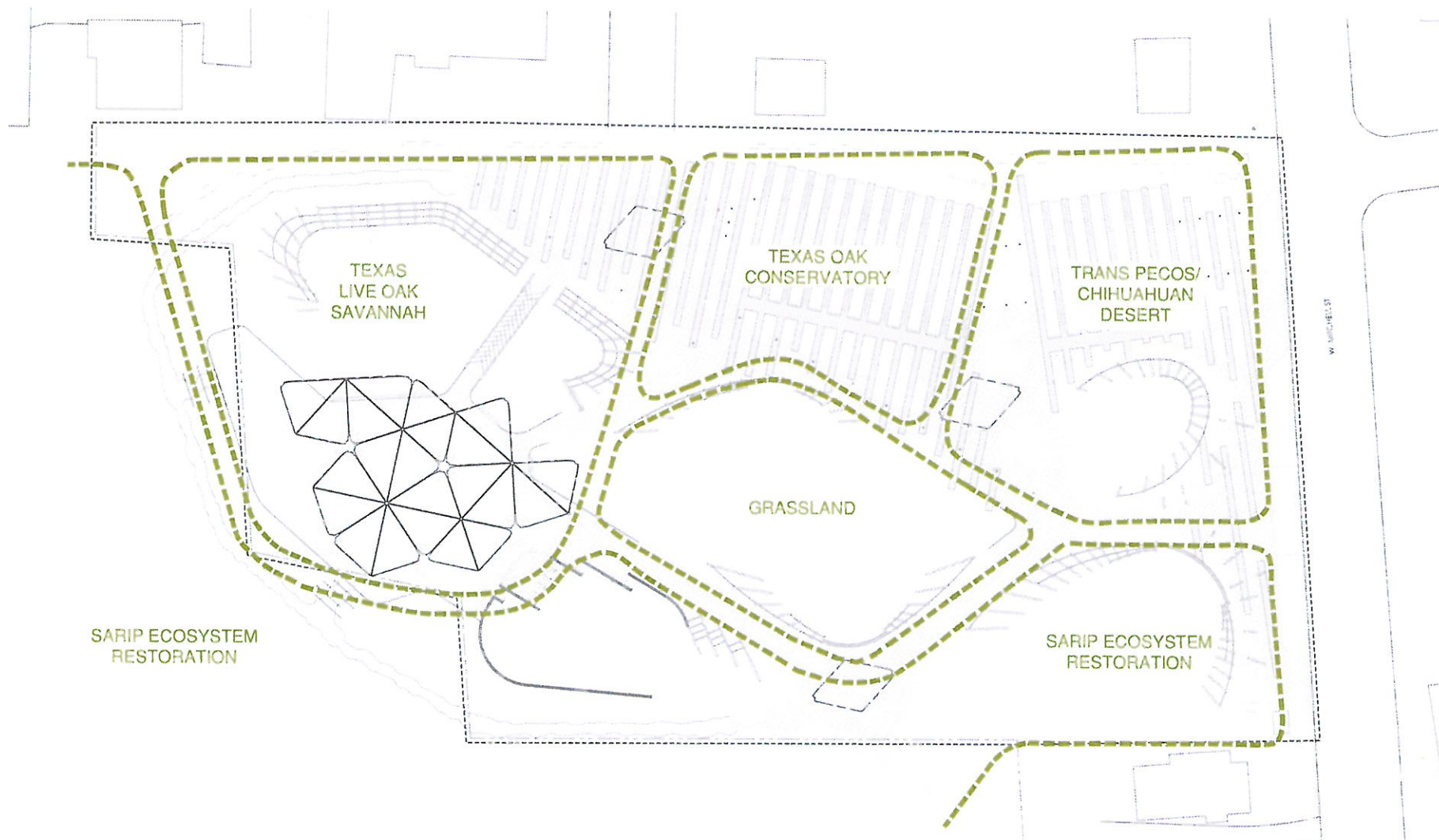


LEGEND

- 1 GATHERING PAVILION
- 2 MULTI-PURPOSE ROOM/ RESTROOMS
- 3 RIVER PAVILION
- 4 ENERGY PAVILION
- 5 WATER PAVILION
- 6 PARK ENTRY
- 7 WALK TO SAN ANTONIO RIVER
- 8 PARKING
- 9 BUS DROP OFF
- 10 B-CYCLE
- 11 UNDERGROUND RAIN WATER HARVESTING CISTERN
- 12 BRIDGE
- 13 P/V ARRAY

SITE PLAN





Ecotype Plan



Confluence Park Site Design

LAKE FLATD + matsys + RIALTO STUDIO

May 29th, 2015



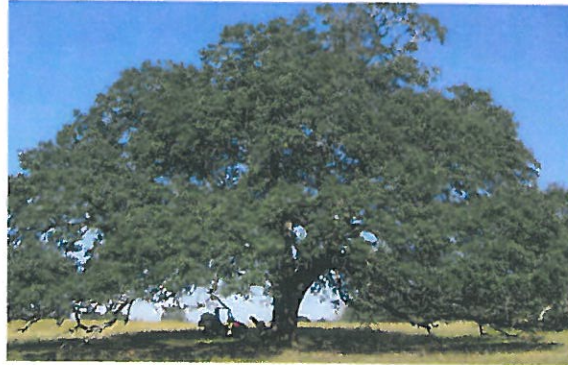
TRANS PECOS/ CHIHUAHUAN DESERT



Reference Images: Planting



TEXAS OAK CONSERVATORY



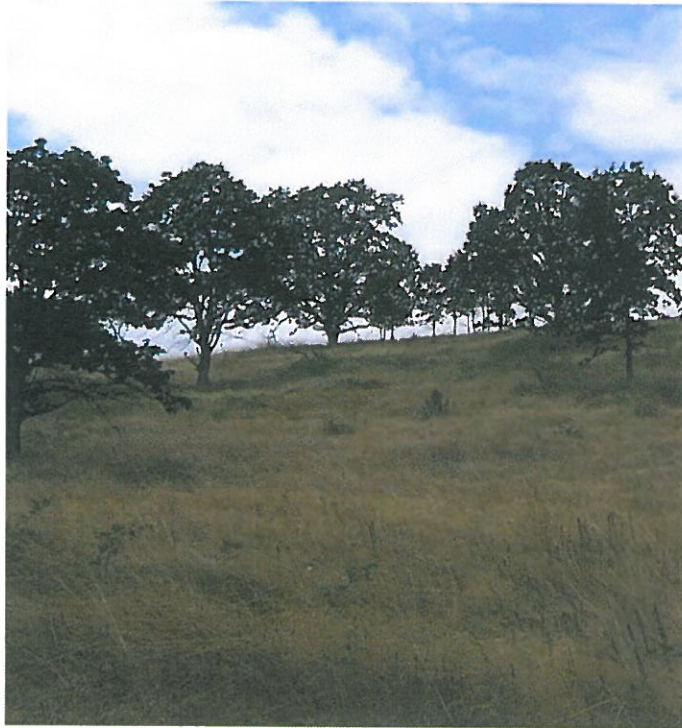
Reference Images: Planting



GRASSLAND



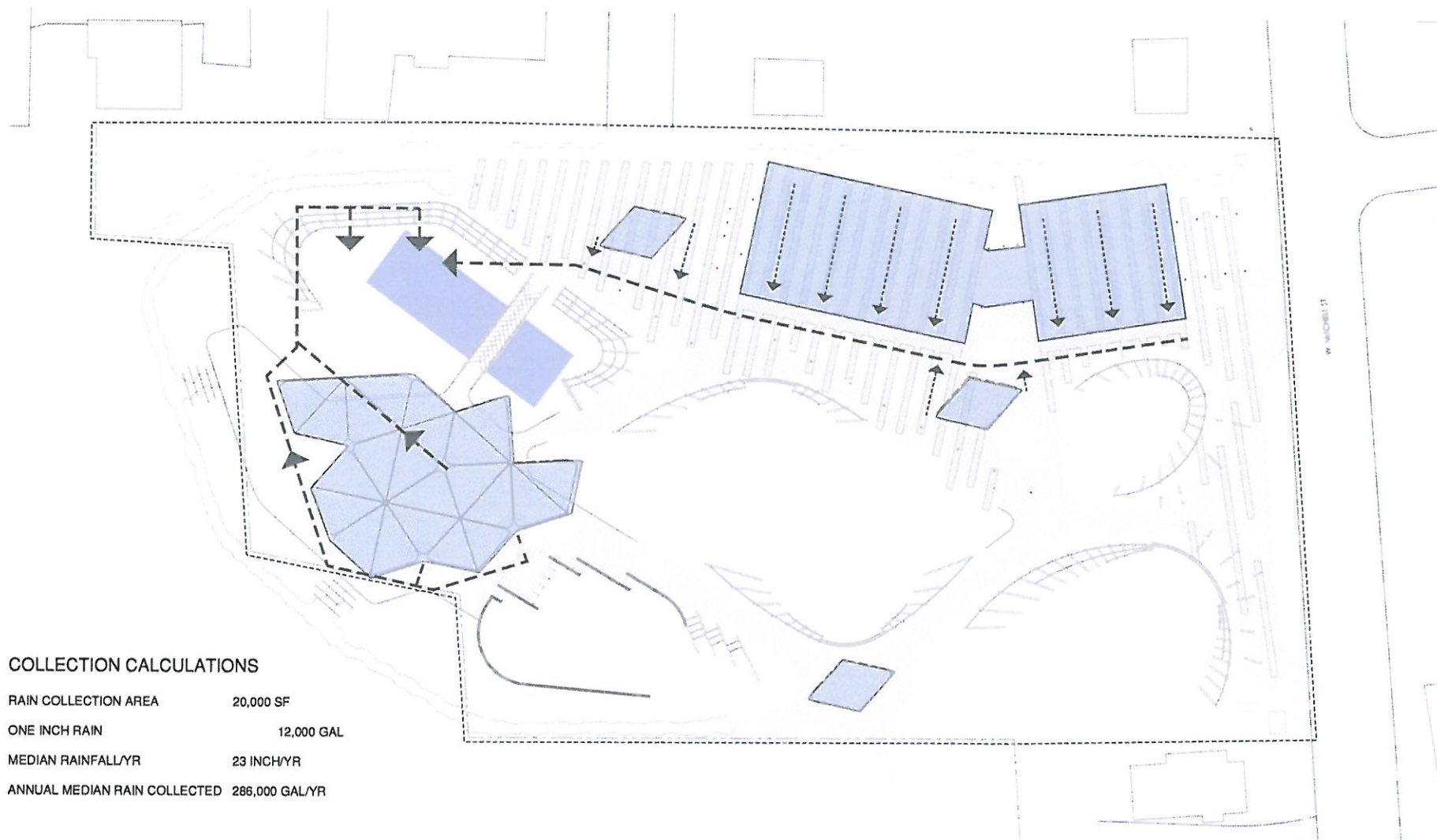
Reference Images: Planting



TEXAS LIVE OAK SAVANNAH



Reference Images: Planting

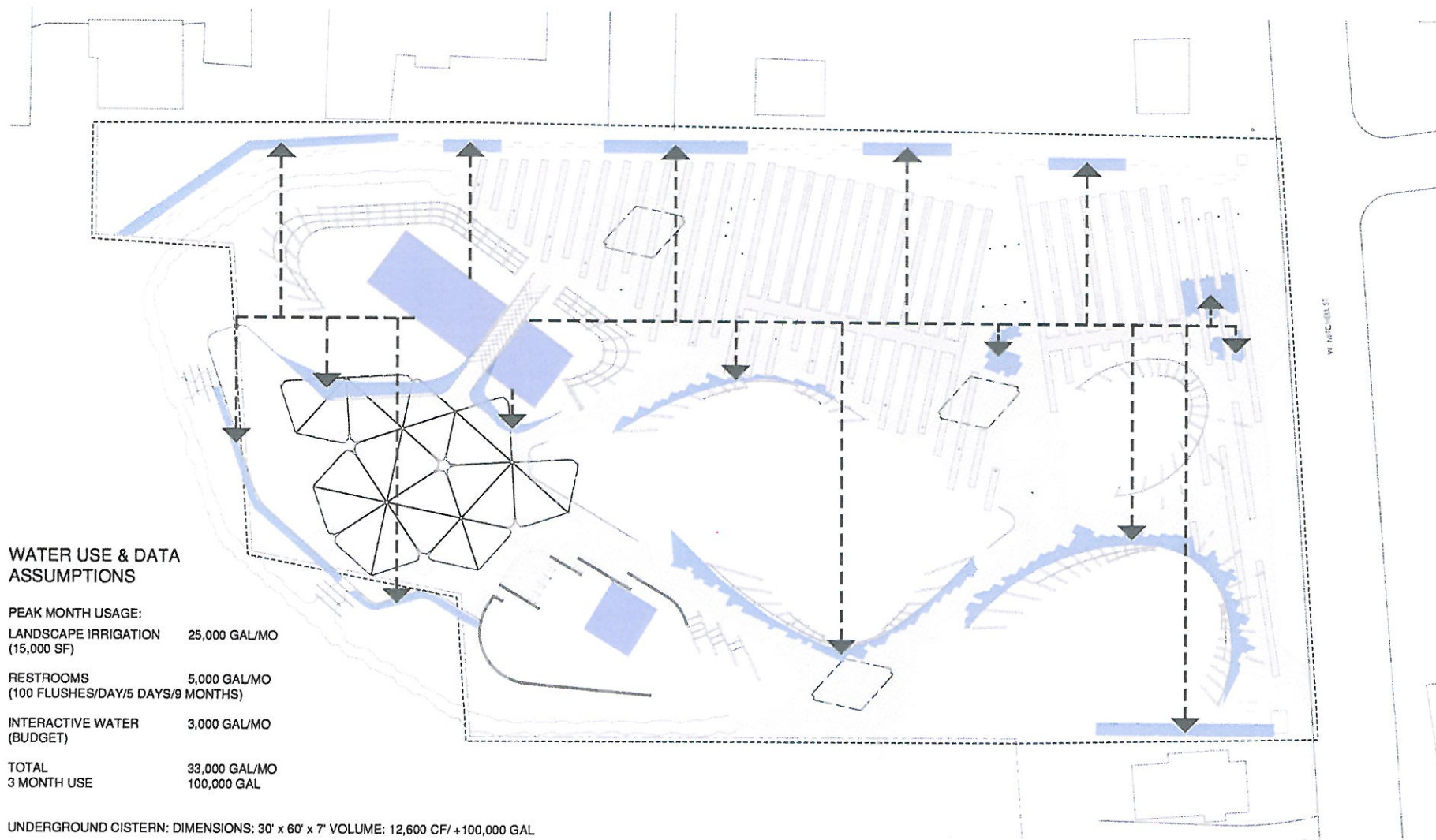


COLLECTION CALCULATIONS

RAIN COLLECTION AREA	20,000 SF
ONE INCH RAIN	12,000 GAL
MEDIAN RAINFALL/YR	23 INCH/YR
ANNUAL MEDIAN RAIN COLLECTED	286,000 GAL/YR

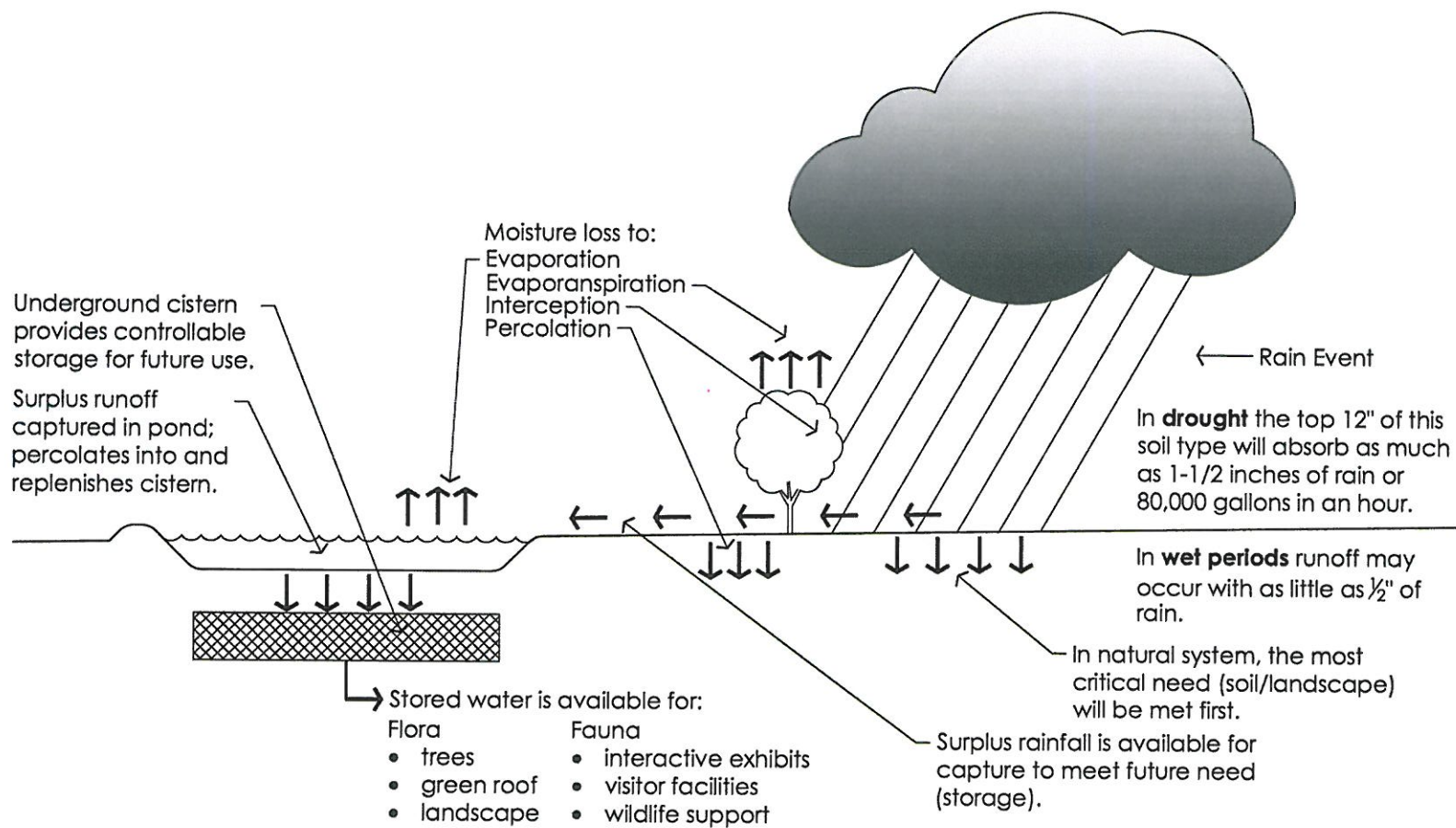
Water Collection Plan



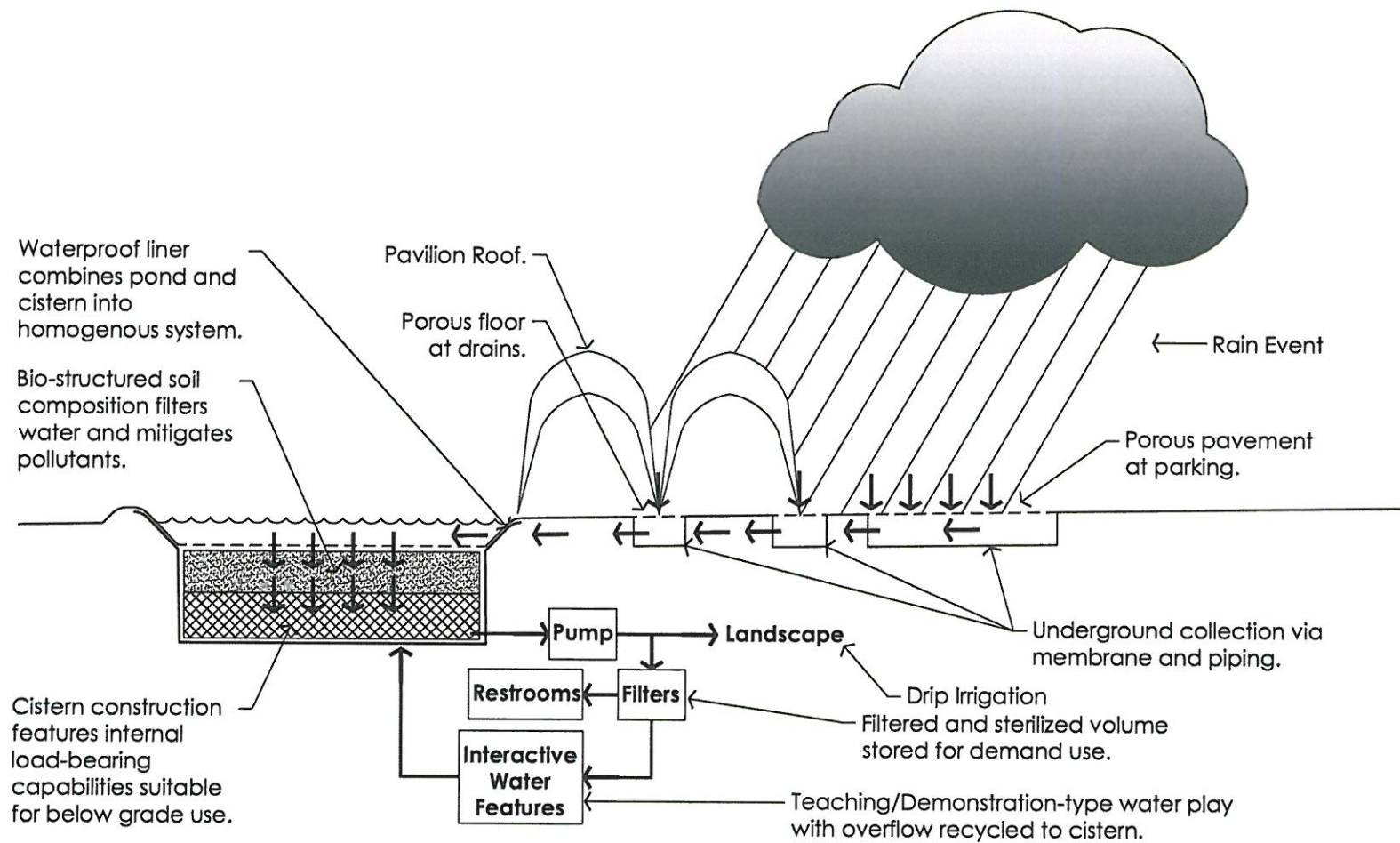


Water Use Plan





Water Collection Schematic



Water Use Schematic

CONFLUENCE PARK

The following is a design narrative for the construction of site elements of Confluence Park. This is intended to explain the general intent of construction materials, finishes, sizes, in some cases quantities of materials to be designed into the project. These descriptions compliment the following descriptive drawings and the scaled plan drawing that is a part of this document.

DIVISION 2 – EXISTING CONDITIONS

02 41 10 Demolition and Site Clearing

Salvage (or temporarily relocate) the following existing items to Owners off-site storage yard (5-mile one-way trip): 50 car wheel stops, limestone boulders, bollards, B-Cycle Station, metal sign frames and signs.

Remove the following existing items from the site: concrete driveway aprons, concrete street curb, concrete sidewalk, concrete knee wall, metal fence, planting, irrigation (protect meters and backflow devices in place), asphalt paving, base material, concrete sidewalk that leads to the river (to the property line only).

Protect in place the following existing items: CPSB transformers, CPSB underground duct bank, COSA street lights, chain link fencing on north and south property lines.

DIVISION 3 – CONCRETE (SITE WORK)

03 30 00 Cast-in-Place Concrete

This section includes furnishing all of the materials for the forming, reinforcing, and finishing of cast in place concrete. Concrete elements shall include:

- Concrete items constructed to COSA standards shall include: driveway apron, curbs, and bus drop-off lane on Mitchell Street.
- Concrete footings and foundations for light poles, and parking lot paver stripes shall be reinforced 3000psi normal concrete.
- Concrete fin walls and footings shall be cast in place reinforced 3000psi normal concrete with a board form finish on all exposed to view surfaces. All above grade surfaces shall be sealed with "Graffiti Guard" or equal product.
- Concrete walks shall use colored concrete, rock salt finish, with irregular earth formed edges, doweled redwood expansion joints, saw cut control joints.

Under main pavilion, expansion joint dividers shall be 4-inch wide stainless steel plates with non-slip surface.

DIVISION 4 – NOT USED

DIVISION 5 - METALS

05 50 00 Metal Fabrications

This section includes furnishing all of the materials for the fabrication, delivery and erection of all fabricated metal site elements. All site elements shall be fabricated from ASTM A 588 (COR-TEN B) steel shapes. Those elements include metal retaining wall inserts, metal bar picket fences/gates, screen walls, bridge and bridge rail, and sign carriers. Refer to "Reference Images: Site" (three pages). Retaining wall sections shall have a 3-inch wide rolled flat top.

DIVISION 6 THROUGH 9 – NOT USED

DIVISION 10 - SPECIALTIES

10 14 00 Exterior Signage

All exterior signage shall be constructed of stainless steel letters mounted to COR-TEN steel, or laser cut COR-TEN steel (see "Park Entrance View" and "Reference Images: Site, Signs").

DIVISIONS 11 TO 25 – NOT USED

DIVISION 26 - ELECTRICAL

26 05 11 Requirements for Electrical Installations

In addition to electrical service provided to the pavilions and buildings, site power shall be provided by a photovoltaic power generation unit, which is interconnected with the CPSB power source.

26 05 41 Underground Electrical Construction

All underground electrical construction will be done in compliance with all applicable codes and regulations.

26 56 00 Exterior Lighting

Exterior lighting shall consist of both line voltage and solar powered luminaries. The following is a list of light fixtures:

- 3 – Selux, Discera 4 LED Solar light, single long arm
- 5 – Selux, Discera 4 LED line voltage light, single long arm
- 13 – Louis Poulsen Flindt Bollard, 43.3-inch height
- 26 – Bega 2372 Recessed LED wall mount
- 28 – Hydrel Paradox PDX10, sealed in grade fixture (also shown in architectural drawings, but will be included in site lighting documents as the fixtures will be installed with paving). These fixtures shall be on a dimmable circuit

See the attached product information.

Power for the line voltage fixtures will originate from the main panel board located in the utility room of the pavilion support building. All light fixtures (not including the Selux Solar light and the Hydrel Paradox PDX10) will be controlled with a master photocell on/time clock off. There will be on on/off override on the lighting controls.

26 XX XX Photovoltaic System

The photovoltaic system has not yet been sized, but shall be capable of operating site and building lighting under normal operation circumstances. The system shall be connected to the CPSB power grid through a license with CPSB. This project may be eligible for either cost sharing or rebates through CPSB.

DIVISIONS 27 TO 30 – NOT USED

DIVISION 31 - EARTHWORK

31 20 00 Earth Moving

Earthwork shall consist of excavations and fills required to shape the land to grades and contours shown on the plans, to provide for the installation of paving sections and planting sections, and to provide for the installation of subsurface improvements.

A large excavation will be required to install subsurface rainwater storage tank. The excavation will be 40' X 70' X 8' deep, and will be located in an area that is approximately 7-feet below the mean elevation of the existing site.

DIVISION 32 - EXTERIOR IMPROVEMENTS

32 14 16 Unit Paving

There shall be two types of unit paving as follows:

- Clay unit pavers will be installed over a 4-inch thick reinforced concrete slab placed over 8-inches of compacted limestone gravel. The pavers will be specified in a blend of 4 colors.
- Custom concrete unit pavers will require the fabrication of 4 special molds. The concrete unit paver shape is an unequal sided pentagon whose dimensions are approximately 1' on four sides, and 8 13/16" on one side. The exposed face of the concrete unit paver will have a 1/4-inch pattern embossed in the exposed surface of the paver. Refer to the attached sheet showing the paver unit size, shape, and emboss pattern.

32 31 55 Steel Fences, Gates, and Screen Panels

Refer to 05 50 00 - Metal Fabrications above for material specification. Refer to the plan and "Fencing" pages herein for visual description of steel fences, gates, and screen panels.

32 84 00 Planting Irrigation

Planting Irrigation will include:

- The provision of temporary automated irrigation for the establishment of plant material that shall be in place for approximately one-year (unshaded planting area shown in the "Water Use Plan"). Use pump From permanent system.
- The provision of permanent automated underground drip irrigation (blue shaded area of the "Water Use Plan"). Provide complete system including pump wet well, pump, controls, piping, and all items necessary to install a complete and functioning underground irrigation system.

Water supply for both systems shall be pumped from the underground cistern as shown in the "Water Use Schematic". It has not been determined if supplemental water from a SAWS meter for landscape will be required, or if the cistern can be charged one time using water from a third-party source.

32 90 00 Planting

The site is divided into five ecotypes as it relates to planting described as follows (this is not a complete list, but represents the plant types that will be specified):

San Antonio River Improvements Project Ecosystem Restoration (SARIP) Ecotype

Large Trees: Cedar Elm, Live Oak,

Small Trees: Texas Mountain Laurel, Redbud, Huisache

Shrubs: Evergreen Sumac, Flameleaf Sumac, Agerita, Lindheimer Muhly grass,

Color: lantana, zexmanlia, turk's cap, gay feather, blackfoot daisy

Grasses: as in Grassland Ecotype

Oak Conservatory Ecotype

Trees: Lacy Oak, Chinquapin Oak, Texas Red Oak, Mexican Oak

Shrubs: as in SARIP Eco Restoration Ecotype

Grasses: as in Grassland Ecotype

Trans Pecos Ecotype

Trees: Retama, Acacia, Mesquite, Desert Willow

Shrubs: agave (various sizes), yucca (various), prickly pear

Grasses: None, gravel mulch as ground cover.

Texas Live Oak Savannah Ecotype

Trees: Texas Live Oak

Small Trees: Texas Persimmon, Texas Redbud, Texas Mountain Laurel

Shrubs: Same as in SARIP Ecotype

Forge Plants: Mustang Grape, Agerita

Grasses: as in Grassland Ecotype

Grassland Ecotype

Trees: None

Shrubs: None

Grasses: Little Bluestem, Sideoats Grama, Gulf Muhly Grass, Lindheimer Muhly, Blue Grama, Purple Top, Prairie Wildrye, Beargrass, Cedar Sedge

Along the edges of the path in some areas where drip irrigation is used include:

Gold lantana, red yucca, salvia many colored blooms available), gayfeather, turks cap, etc.

Plant Sizes and Quantities:

Item	Size	Quantity
• Large Trees (Multi-trunk)	18" to 24" Caliper	12 each
• Large Trees (Multi-trunk)	12" to 15" Caliper	14 each
• Large Trees	8" to 10" Caliper	24 each
• Large Trees	6" Caliper	45 each
• Trans Pecos Tree Species	24" box	20 each
• Small Trees	30 gallon	50 each
• Shrubs	45 gallon	390 each
• Shrubs	30 gallon	860 each
• Shrubs	15 gallon	1,275 each
• Shrubs	5 gallon	1,675 each
• Shrubs	3 gallon	1,160 each
• Shrubs	1 gallon	2,800 each
• Native Grasses	Seeded	15,800 square feet
• Sod	per Square Yard	2,000 square yards

Soil Preparation:

Amended soil in all ecotypes (except the Trans Pecos) shall consist of native soil amended with 30% sand, and 30% vegetable based compost, to a 12-inch depth.

Trans Pecos soil shall be well-drained, light reddish-brown to brown clay loams, clays, and sand. This soil may be imported from the Trans-Pecos region in amounts necessary to allow for an 18-inch growing medium depth.

Mulching:

Mulch in planting areas shall consist of the following:

- In all ecotypes (except the Grassland and Trans Pecos) mulch shall be a 4-inch deep layer of double grind native bark installed over a weed barrier fabric.
- In the Trans Pecos ecotype mulch shall be ¾" washed/crushed limestone or rhyolite stone installed in a 3-inch layer over weed barrier fabric.
- In the Grassland there shall be no mulch.

32 94 43 Drain Grates

Drain grates shall be special design (see "Details: Drain at Pavilion, option B") cast aluminum pedestrian traffic rated. Finish shall be natural aluminum with non-slip texture. Provide stainless steel tamper proof retainer screw system. Provide stainless steel angle frame for casting into concrete paving.

DIVISION 33 – UTILITIES

33 10 00 Water Utilities

Potable water will be delivered to the pavilion support building via the existing water meter that is located on Mitchell Street.

At this time no SAWA landscape irrigation meter is being proposed.

33 30 00 Sanitary Sewerage Utilities

A sanitary sewer line runs along the south edge of the site. It is assumed that a connection can be made to that line from the pavilion support building restrooms.

33 40 00 Storm Drainage Utilities

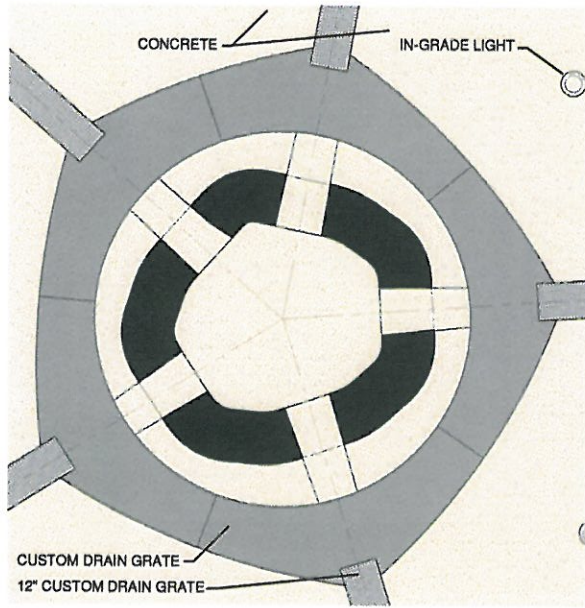
There will be no subsurface storm drainage utilities connecting to the municipal system.

This project will use Low Impact Development (LID) strategies to manage storm water that will be collected from the entire site and directed to the subsurface cistern (refer to the "Water Collection Plan").

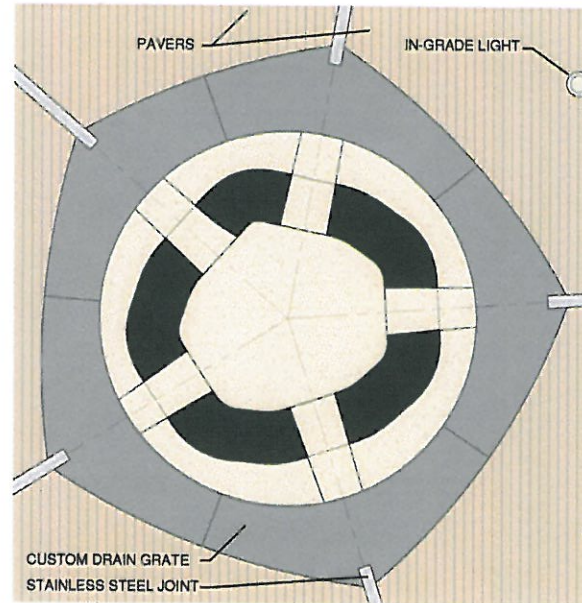
Components of the water collection plan include: previous parking lot surface (gravel) over an impermeable rubber water barrier, main pavilion and secondary pavilion roof water collection, sand filter inlet on Mitchell Street, piping to convey water to the underground cistern, and an underground cistern (100,000 gallons of storage) constructed to the specifications of ACF Environmental R-Tank System (see the attached manufacturer literature). Also refer to the Water Use Schematic.

33 46 13 Foundation Drainage

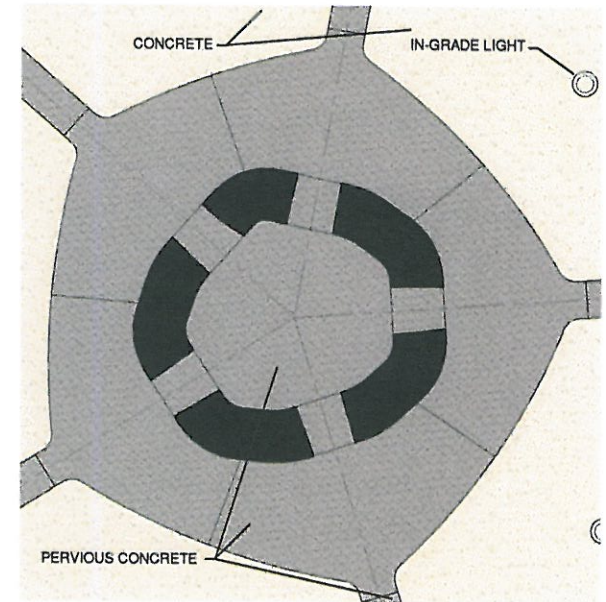
Foundation drainage in the form of a "French Drain" will be required around the perimeter of the pavilion support building. The drain will consist of a filter fabric sock encased perforated drainpipe surrounded by washed gravel backfill. The pipe will flow to daylight east of the building.



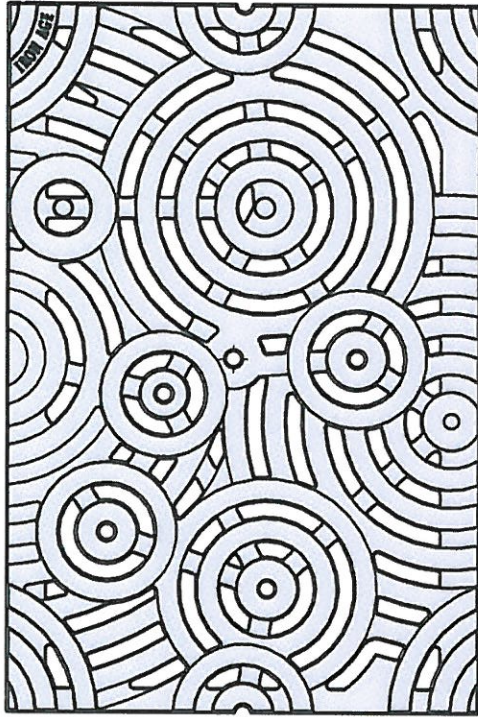
OPTION A



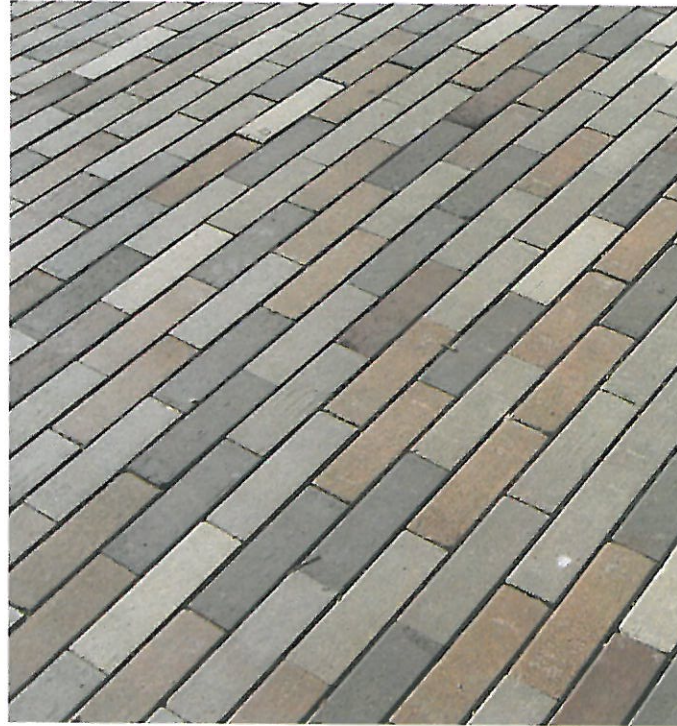
OPTION B



OPTION C

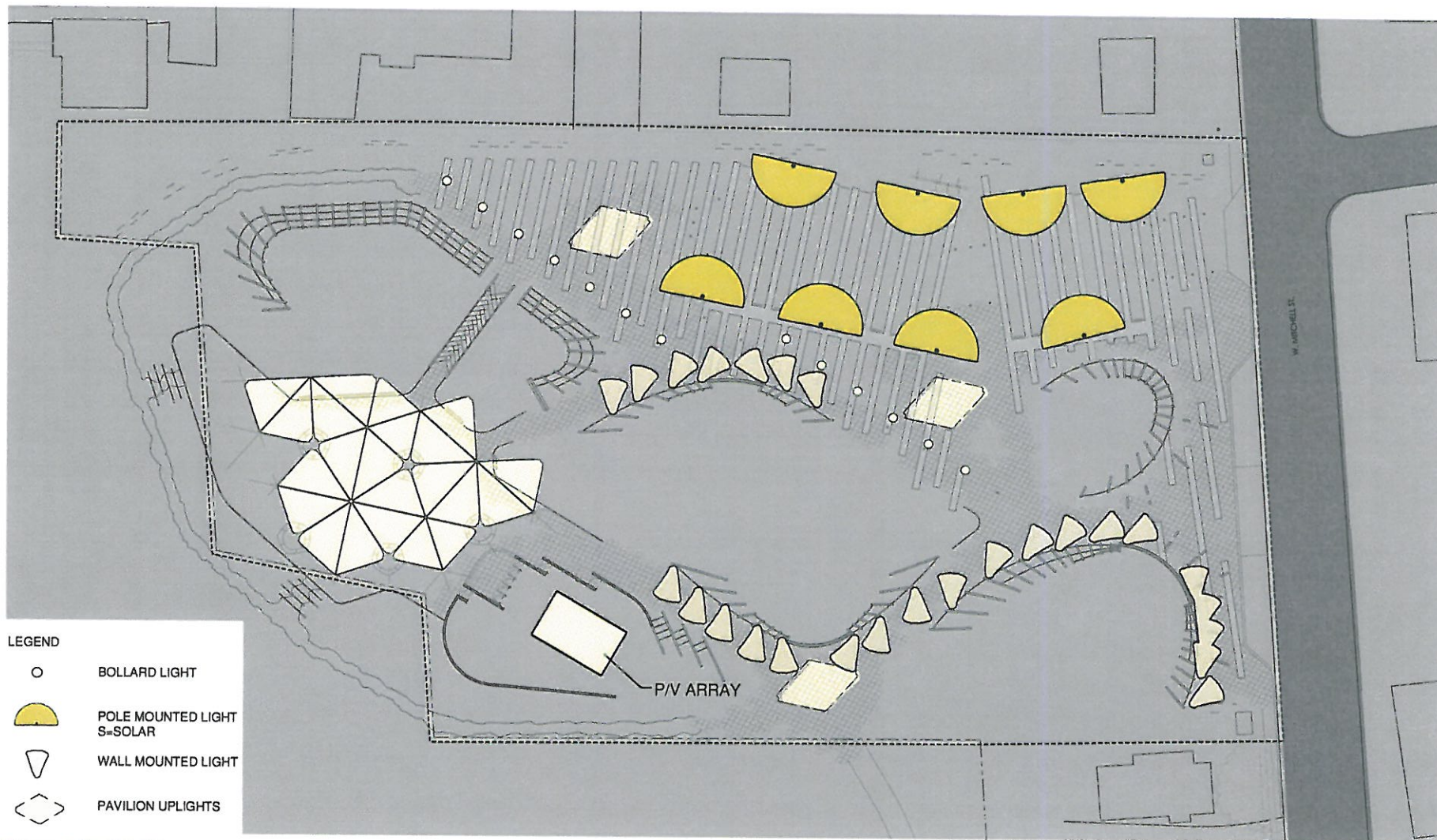


CAST ALUMINIUM GRATE



PAVERS

Reference Images: Paving



Energy & Lighting Plan



Confluence Park Site Design

LAKE|FLATO + matsys + RIALTO STUDIO

May 29th, 2015



Reference Images: Lighting

Confluence Park Site Design
LAKE|FLATO + matsys + RIALTO STUDIO
May 29th, 2015



Reference Images: Energy