



Green Country Sustainability Forum

Low Impact Development Design Competition

Green Street Design Challenge

6th Street, Peoria to Rockford – City of Tulsa

Program

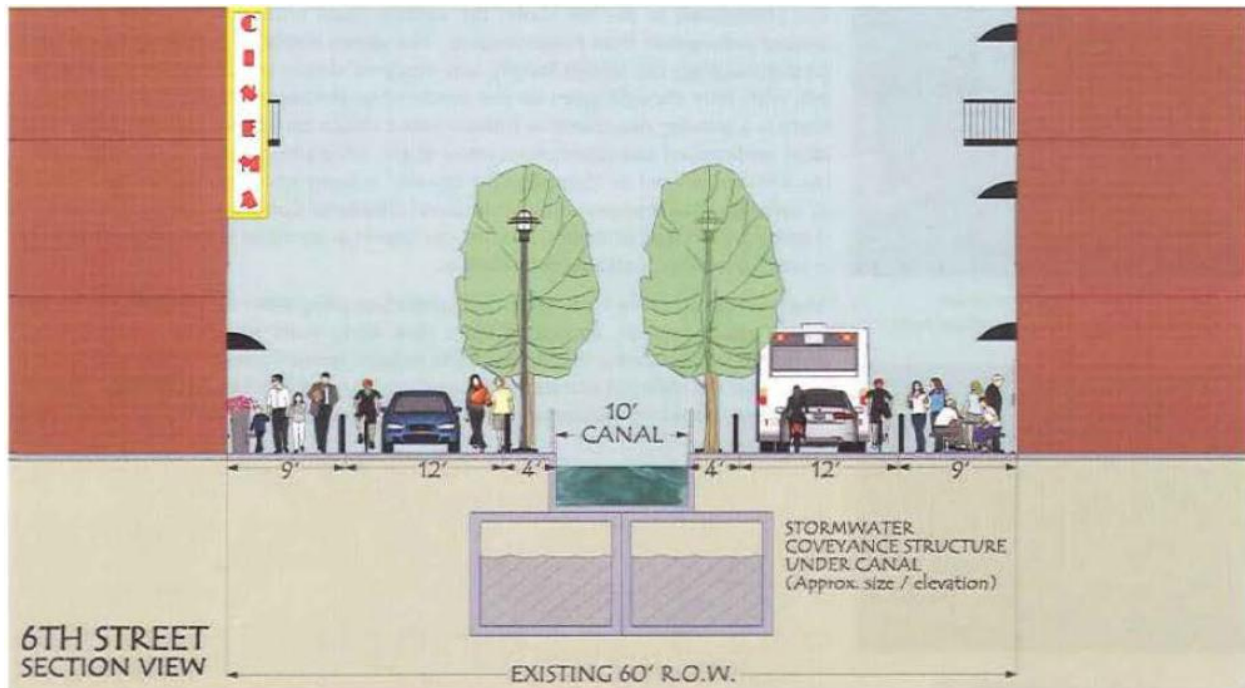
This project is part of the 6th Street Infill Plan which was adopted in 2006. The Pearl District Association has been actively involved in planning for the revitalization of their neighborhood. Their mission statement is to "reinvent the art of city life", with goals to resolve flooding problems while transforming the neighborhood into a "world class model of sustainability, community, economic reinvigoration and pedestrian friendly lifestyle" (source: Pearl District website).

To stabilize and revitalize this and other near downtown neighborhoods, significant investment and redevelopment will be required. The planning team recognized that the proposed flood control improvements, including the two new basins and urban waterway, represented an opportunity to create quality public spaces that could stimulate reinvestment. Beyond their important function to relieve flooding, these new projects have tremendous potential to become catalysts that will accelerate the revitalization of the Pearl District and surrounding neighborhoods.

The overall project consists of three components, a two-cell 10' x 10' reinforced concrete box conveyance culvert, an open-channel streetscape feature and reconstruction of 6th Street between Peoria and Rockford Avenue and Rockford Avenue between 6th Street and 7th Street. Changes to the reinforced concrete box conveyance culverts are allowed as long as they are still able to convey the required flow from the upgradient watershed through the area to the downstream detention basin.

As currently outlined in the Elm Creek/6th Street Drainage, Detention, and Conveyance Plan (the Plan), the redesigned street will use the existing 60 foot -wide right-of-way on 6th Street with a surface canal constructed above a large below-ground structure to carry pass-through major flows. 6th Street will be developed as a pedestrian-oriented street that accommodates all modes of transportation. The proposed underground drainage structure achieves the necessary engineering function of conveying large floodwater flows from the East Pearl basin, to be constructed at a later date, into the Centennial Park pond. At street level, the shallow canal creates an amenity that is planned as the focal point for revitalization of the Pearl District neighborhood. The source of water for the surface canal is currently undefined. The overall project should be in line with the current historic character of the adjacent buildings architecture. A rendering of the conceptual plan is shown on the following page. While it is not required that the final design utilize the surface canal, it should be noted that the canal feature included in the Plan was a result of a multi-year neighborhood planning effort, so very good justification should

be given to convince the City of Tulsa, local residents, and business owners that this feature should be changed.



Conceptual Plan from Elm Creek Master Drainage Plan

Criteria

All project submittals shall be designed in accordance with the following guidelines.

General

The design should:

- (1) Design in accordance with all City of Tulsa code and criteria including the City of Tulsa Subdivision Code, Zoning Ordinance, Stormwater Design Criteria Manual, Standard Construction Specifications, and Stormwater Management Ordinance, Title 11-A, *or*
- (2) Identify City of Tulsa code and criteria that must be changed to fully incorporate the LID features that are proposed.

Stormwater Quantity

The design goal for the site footprint is to have the same or less runoff volume leaving the area after development as there was before there was any development (ie. grassland). Design storms for this green street design are left to the discretion of the submitting team. However, please provide justification for the design storm that is used. Submissions and presentations shall include a discussion of the amount of stormwater runoff reduction compared to existing conditions.

Stormwater Quality

Submissions and presentations shall include a discussion on stormwater quality benefits of the proposed system on the Centennial Park Pond.

LID Design

Design must utilize LID features as the predominant stormwater infrastructure system for onsite runoff. LID features may also be utilized to enhance management and control of offsite water that moves onto or through the site.

Submissions and presentations shall cover maintainability, marketability, and acceptance by the public of the design submitted.

Submissions and presentations shall provide an economic evaluation of the long-term return on investment for implementing LID from the standpoint of water reuse, property values, increased storefront foot-traffic, adding to the identity and sense of community, and other factors.

Submissions shall cover any design or construction code challenges or obstacles for the LID project.

Supporting Documents and Resources

Elm Creek Master Drainage Plan

City of Tulsa Atlas Pages and Pertinent Record Drawings

City of Tulsa Aerial Photography and Contour Data

Geotechnical Data