



INTEROFFICE MEMORANDUM

FROM THE DEPARTMENT OF ENVIRONMENTAL AND ENGINEERING SERVICES

DATE: June 8, 2023

TO: Cale Curtis – City Manager
Larry Vignola – Assistant City Manager
Curt A. Keyser, P.E. – Director DEES
Giovani Batista, P.E. – Director DPW
Mike Jones – Director Parks and Recreation
Cotter Christian – CRA Project Manager

FROM: Randy L. Daniel, P.E. PMP, CFM– DEES Assistant Director – Engineering

RE: CRA SW 6th Street
Street Improvements – Scope of Work

1.0 Preamble

SW 6th Street is the primary access to the football and soccer fields located at 655 SW 50th Avenue. It is my understanding that these fields are utilized by the Parks and Recreation Department to host national sporting events, and visitors from around the country use SW 6^h Street to access these playing fields.

The streetscape improvement project that is contemplated will first improve the quality of life for residents by a variety of infrastructure upgrades including the elimination of street flooding, and secondly has the potential to make a lasting impression on visitors and players and encourage return visits.

The cost of improving all three project zones to the standard outlined by the CRA board, is \$7,103,011.01. Because the project is divided into three zones, construction may also be phased according to available funds.

2.0 Background

At the regular CRA meeting on October 13th 2021, CGA made a presentation to the CRA board regarding the SW 6th Street project. The purpose of presentation was to solicit input from the Board and the public to finalize their conceptual plan. The CGA presentation consisted of the following project objectives:

- Safe mobility for residents
- New landscaping
- Wider sidewalks

- Traffic calming
- LED lighting
- Maintain natural drainage runoff and existing discharge to canals
- Entryway monument sign
- New asphalt

Minutes of regular October 13th 2021, meeting are attached in Appendix I.

2.1 CRA Board's response to CGA

The Board's response may be summarized as follows:

- Rejected the idea of maintaining swales and requested that storm water be channeled to canals in lieu of swales.
- Expressed concern about shared bicycle paths.
- Noted that parking in the median and edge of travel lanes must be resolved.
- Requested an Entryway Sign
- Requested a consistent project rather than 3 distinct zones

2.2 Comments on Boards Response/Requirements

The consultant is proposing three (3) distinct zones of improvement throughout the $\frac{3}{4}$ mile project and concern was raised about project consistency since only zone 1 of the project (currently) has a median.

It appears appropriate to propose three street distinct zones as each zone represents inherently different site characteristics.

For example, zone 3 has a 60 foot ROW and the others, 70 foot ROW. Zone 2, although a 70 foot ROW has no median and is separated from Zone one by bend in the road and one of two canals. The other canal separates Zone 2 from Zone 3.

Shared and dedicated bicycle paths were requirements at one time or the other.

3.0 Review of Process

After several months, and multiple CGA project managers since the October 13th meeting, it appears that the design scope had inadvertently strayed from the requirements of the October 13th 2021 meeting. As a result, there was a strong likelihood that the desired infrastructure improvements and community enhancements may not have been delivered.

As a result, a zoom meeting was convened by DEES on 08/24/22 with key internal stakeholders to discuss the status of the project and determine if project requirements had changed. A

subsequent meeting was held with DPW (as they were absent from the October 13th meeting) to solicit input and obtain consensus for a scope of work that was in the best interest of the city.

In addition to the October 13th CRA regular meeting minutes, a Drainage Report dated July 27, 2022 was also submitted by CGA.

4.0 **Characteristics of Existing Street**

- The length of SW 6th Street is about 3,900 feet or $\frac{3}{4}$ mile
- The first 1,300 feet from SR 7 has a roadway median; the remainder of the Street has no median
- The ROW is 70 feet for about 2,900 feet from SR 7, and 60 feet for the western 1,000 feet
- Two city-maintained canals dissect the street into roughly one-third sections.

The site characteristics are summarized in a table that was prepared by CGA and is submitted in Appendix II.

5.0 **Project Scope**

Streetscape improvements are a function of available ROW widths. When the requirements that were discussed at the October 13th CRA Board meeting were reviewed, it was discovered that the Consultant had failed to adhere to the project scope that they were instructed to follow and were proposing drainage swales for the improvement project. In lieu of drainage swales the CRA Board preferred that run off flows to either of the two canals that divide the project in 1/3 sections, and did not want drainage swales. Accordingly CGA was requested to consider the use of valley gutters to avoid reshaping of drainage swales (as they had originally proposed).

The current design proposal includes the option for roadside drains.

Parking is proposed in parking lanes that are parallel to the existing travel lanes in all zones.

If consensus is achieved for the requirements listed below, CGA will be instructed to proceed with conceptual plans for the three zones and present modified streetscapes.

5.1 **Seventy (70) foot ROW (Zones 1 & 2)**

- Add a parking lane on both sides of the street
- Provide landscaped bulb-outs to break up the monotony of the parking lane
- Provide valley gutters between travel lanes and parking lanes to convey storm-water runoff from roadways to existing canals
- Provide dedicated bicycle lanes (option)
- Provide new curvilinear 8' sidewalks with new landscaping (shared bicycle lanes option)
- Investigate special feature for an improved pedestrian experience at the two bridges (NEW)
- Provide Traffic Calming

5.2 Sixty (60) foot ROW (Zone 3)

- Add a parking lane on both sides of the street
- Provide landscaped bulb-outs to break up the monotony of the additional lane
- Provide valley gutters between travel lanes and parking lanes to convey storm-water runoff from roadways to existing canals
- Provide dedicated bicycle lanes
- Provide new curvilinear 8' or 5' sidewalks with new landscaping (shared bicycle lanes option)
- Provide Traffic Calming

6.0 Project Requirements

6.1 Drainage

6.1.1 Flooding (Potential Flooding)

Although CGA reported that no evidence of flooding was observed, the potential for flash flooding exists given the inadequacies of the current “ditch system” or swales. The original drainage system consisted of roadside ditches that were designed to collect and store runoff until it percolated into the ground. Retained water is, by code, allowed to stand for 72 hours. Over the years these drainage ditches have become flattened, are no longer v – shaped, and therefore unable to collect and store storm runoff.

CGA commissioned a Geotechnical report that confirmed percolation rates will allow drainage swales to be an option. However the Board appeared to dislike drainage swales.

A drawback of swales is that the property driveways must have inverted crowns to maintain the shape of the swale to achieve storage volume. These depressed driveways are designed to hold runoff as an extension of the swale, and create a nuisance for the property owners who must walk through water held in their driveways to get to their homes.

The re-creation of drainage swales with this improvement project, would likely result over time, in the same functional issues that are currently experienced.

6.1.2 CGA Conceptual Drainage Plan

From the October 13th meeting that Board wants to eliminate the swales and provide a channelized drainage system that discharges to the canals or a “closed drainage system”. In the Drainage Report CGA writes that “this was not considered a viable option”, because the minimum slope must be 0.35%, and 0.20% currently exists. In lieu of a closed system, CGA is proposing a combination of exfiltration trenches and direct discharge to the canals and in this regard, conceptual plans drawn by Michael Conner, RLA were provided.

In all Zones storm water inlets are proposed in the grassed swales. In Zone 1, the flattened 10 foot swale must be reshaped to accept the type “C” inlets. In zones 2 and 3 inlets are proposed for the centerline of the existing v-shaped swales. However this approach will require residential driveways to have a v -shape to allow storm water in the swale to flow to inlets.

The suggestion to add valley gutters will complement the drainage system that CGA proposing. The drainage inlets will be shifted from the centerline of the swales to the centerline of the valley gutters at edge of pavement.

In addition to the exfiltration trenches, water quality may also be accomplished by pollutant retardant catch basins immediately before discharge to the canals. These catch basins consist of baffles that trap floatables and they will need to be maintained by Public Works.

6.1.3 Recommendations for Drainage improvements

6.2 Parking

Parking currently occurs in the grassed verges adjacent to the travel lanes on both sides of SW 6th Street and in the median. Although this is not prohibited, it does cause deterioration of the grassed areas especially during the hurricane season and detract from site aesthetics.

CGA’s conceptual plan does **not** provide for off street parking. In Zone 1, the flattened 10 foot swale may be paved and valley gutters installed to convey storm-water to inlets shown on the conceptual plan. As discussed in the previous section, the proposed inlets may be shifted to the EOP, and valley gutters installed between the EOP and the new parking lane.

Landscaped bulb outs may be inserted to allow regular sized parking spaces in front of properties, improve streetscape aesthetics, reduce the monotony of an additional continuous parking lane, and comply with City Code.

In zones 2 and 3, parking is facilitated in the elongated driveways and therefore it is recommended that the parking lanes in Zone 1 are discontinued.

6.3 Bicycle Lanes/Sidewalks

The addition of Bicycle lanes, shared or dedicated will improve the quality of life for the residents of SW 6th Street. There appears to be some inconsistency with the Board’s requirements regarding bicycle lanes, as both shared had been requested. Wide ROWs ought to easily allow these dedicated lanes, at additional costs.

Eight-foot wide sidewalks are sufficient to allow shared use with bicycles; it is possible to designate a bicycle path on the sidewalk, similar to the shared boardwalk on Hollywood Beach. The designated pathway may be constructed with colored concrete for aesthetic benefit.

CGA will be requested to investigate whether the 60 foot ROW can facilitate dedicated (buffered) bicycle lanes that can be continuous.

6.4 **Traffic Calming**

Traffic calming on SW 6th Street is currently achieved by plastic (temporary) speed humps. There is an opportunity to achieve traffic calming through the use of narrowed travel lanes, speed tables, or traffic circles.

6.5 **Street Lights**

There was no discussion by the Board regarding lighting. However, FPL LED-street lights can be added to existing utility poles, as required.

Decorative street lights may be added for the northern sidewalk.

6.6 **Median**

Addition of F curb to the existing median in zone 1 will prevent parking on the median, protect new landscaping, and add to the project aesthetics.

6.7 **Entrance Feature**

This is a project requirement.

7.0 **Recommendation**

The agreed upon Scope of Work will be submitted to CGA to develop at least six (6) options with costs estimates, for review and approval by the CRA board for the three zones.

When the preferred option has been ascertained, CGA will be instructed to commence project designs and permitting.

7.1 **Possible Streetscape Options**

7.1.1 Shared Bicycle lanes, valley gutters, curbed median **zone 1** with new landscaping, off street parking with landscaped knuckles, sidewalks, and entrance feature

7.1.2 Buffered bicycle lanes, valley gutters, curbed median **zone 1** with new landscaping, off street parking with landscaped knuckles, sidewalks, and entrance feature

7.1.3 Continuous Median zones 1, 2 & 3 with new landscaping, Shared Bicycle lanes, valley gutters, off street parking with landscaped knuckles, sidewalks, and entrance feature

7.1.4 Continuous Median zones 1, 2 & 3 with new landscaping, Buffered Bicycle lanes, valley gutters, off street parking with landscaped knuckles, sidewalks, and entrance feature.