

Presented to Spring Branch West Super Neighborhood

November 13, 2014

Briar Branch Improvements



Presented by, Gary Struzick, P.E.

Introduction and Background by, Don Huml, TIRZ Executive Director

Disclaimer

All facts and figures are approximate

Everything is preliminary and subject to change

As of November 13, 2014

Agenda

- Background Information
 - Clarey Lane
 - Bunker Hill Bridge
 - Enclosed Channel
- Project Overview
- Engineers Report
- Question and Answer



Briar Branch Detention Basin

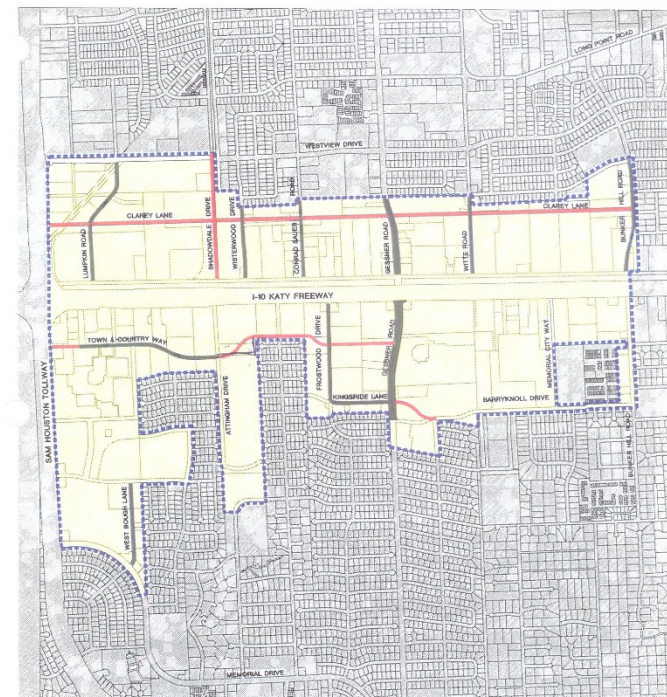
Clarey Lane

Reinvestment Zone Number 17 City of Houston, Texas Memorial City TIRZ

Project Plan
& Reinvestment Zone Financing Plan

August 11, 1999

FIGURE 11



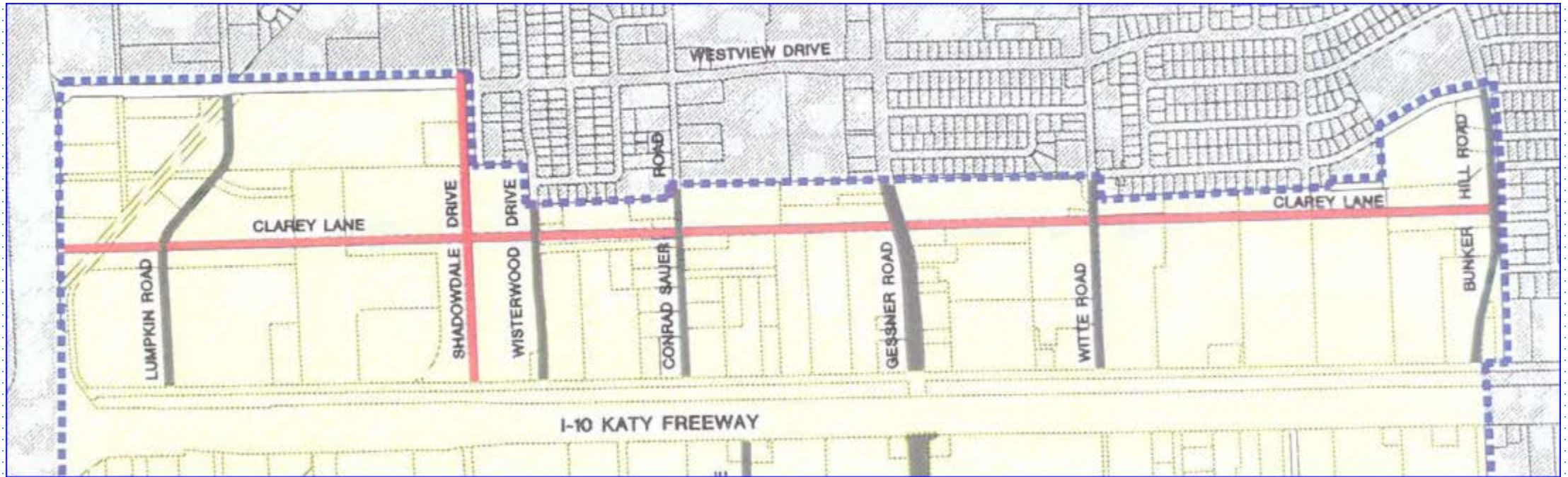
Transportation Improvement Plan Memorial City TIRZ

THE ILLUSTRATED TIRZ IMPROVEMENTS ARE
SUBJECT TO CHANGE PER GOVERNMENT AGENCY
APPROVALS. ANY SUCH CHANGE WILL
NOT REQUIRE PLAN AMENDMENT.

NEW ROADWAY ———
ROADWAY WIDENING ———
TIRZ BOUNDARY - - - - -

Clarey Lane

“The illustrated TIRZ improvements are subject to change per government agency approvals. Any such change will not require a plan amendment.”



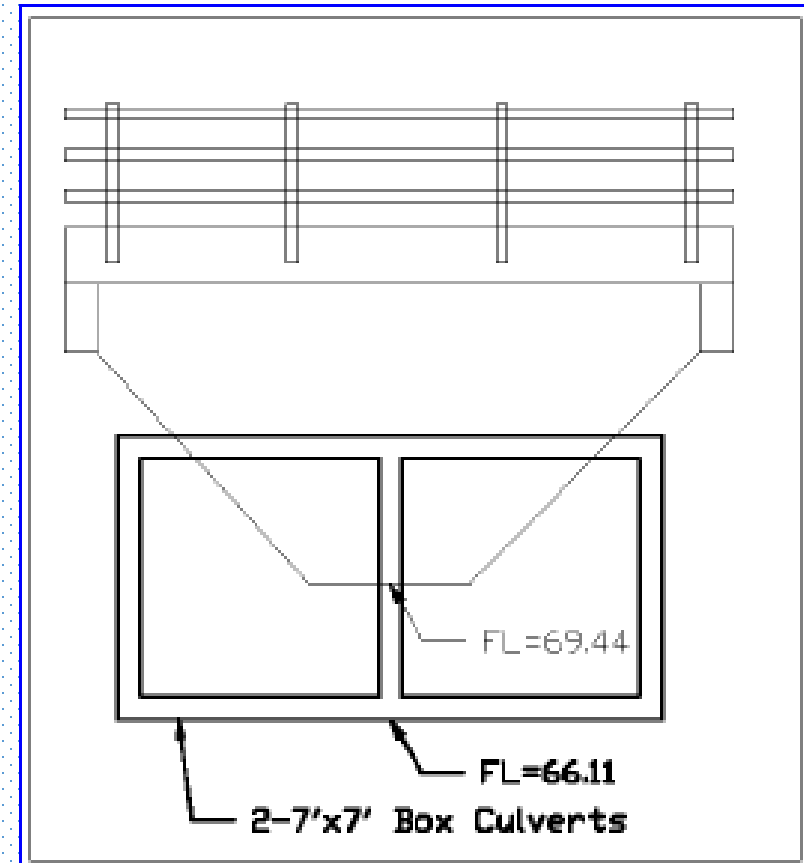
Clarey Lane

- Things have changed since 1999.
 - Advent of Interstate 10 expansion.
- There are no Capital Improvement Plans (CIP) for Clarey Lane.
 - TIRZ Capital Improvement Plans require City Council Approval.
- Original depiction was not over the W-140 Channel.
- Harris County Flood Control District (HCFCD) would not allow a road on top of their drainage system.

TIRZ 17 HAS NO PLANS TO BUILD CLAREY LANE

Bunker Hill Bridge

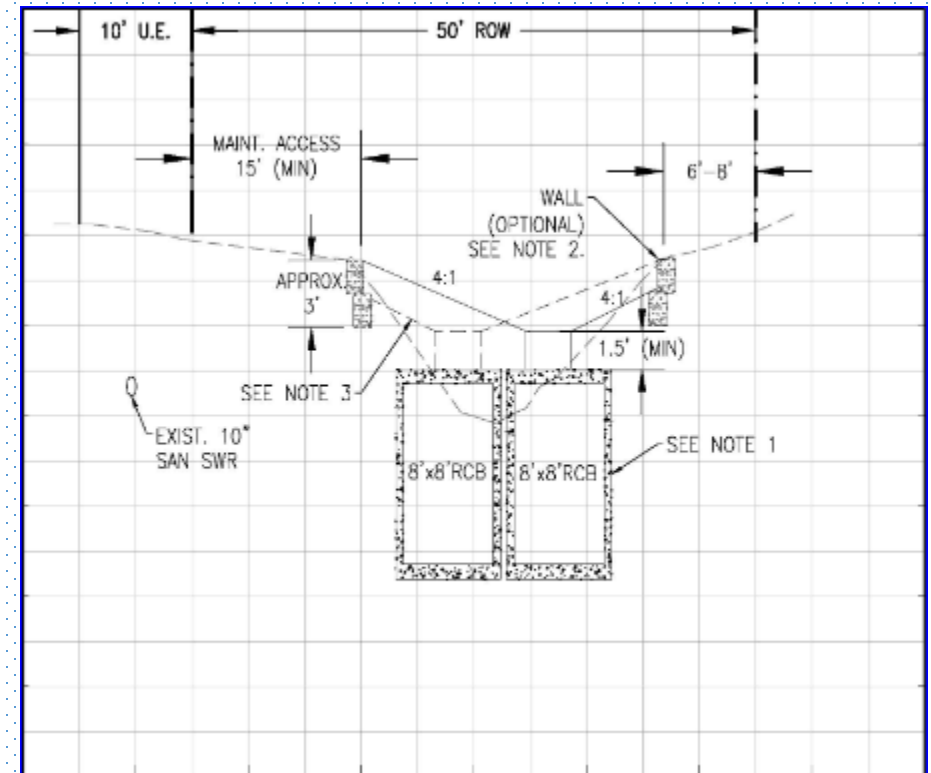
- TIRZ Board Authorized Klotz Associates to conduct Feasibility Assessment
- TIRZ Board Committed to do the right thing about the bridge
- Based on Assessment Facts
 - Leave the Bridge
 - Modify the Bridge
 - Replace the Bridge



Technical Memo 10-19-11

Enclosed Channel

- Presented five options to Harris County Flood Control (HCFCFCD)
- HCFCFCD endorsed enclosed channel
 - Safety
 - Maintenance
 - Right of way constraints



Alt E: Storm Sewer Box Enclosure

Briar Branch Improvements Engineers Report

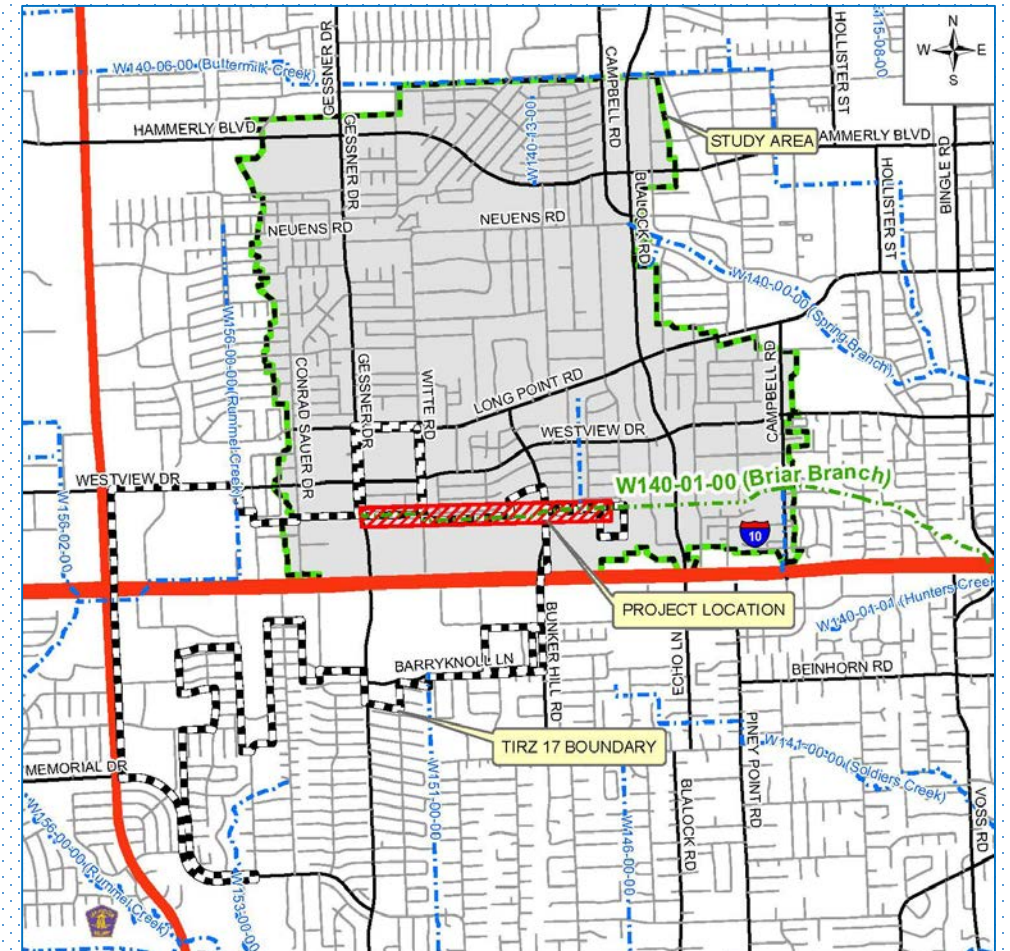


Presented by, Gary Struzick, P.E.

klotz  associates

Briar Branch Channel Improvements Overview

- \$ 14 million infrastructure project
- 18 month construction schedule
- 10 year flood event design
- Helps prevent area structural flooding
- +/- 5800 LF new channel construction
- Extends from Gessner to basin
- Future Linear Park
- 100% Funded by TIRZ 17



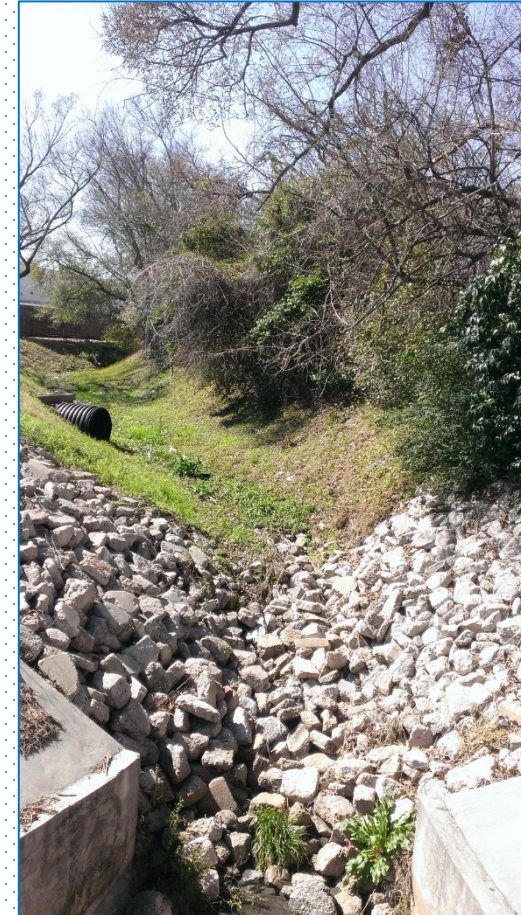
Briar Branch Channel Improvements

Estimated Timeline

ID	Task Name	Duration	Start	Finish																								
					2014				2015				2016				2017											
					Otr 4	Otr 1	Otr 2	Otr 3	Otr 4	Otr 1	Otr 2	Otr 3	Otr 4	Otr 1	Otr 2	Otr 3	Otr 4	Otr 1	Otr 2	Otr 3	Otr 4							
1	Authorization to Proceed	0 days	Tue 2/25/14	Tue 2/25/14																								
2	Detailed Design	280 days	Tue 2/25/14	Mon 12/1/14																								
3	Approvals	60 days	Tue 12/2/14	Fri 1/30/15																								
4	Bidding	30 days	Sat 1/31/15	Sun 3/1/15																								
5	Construction	460 days	Mon 3/2/15	Fri 6/3/16																								
6	Completion	0 days	Fri 6/3/16	Fri 6/3/16																								

Existing Conditions

- Channel length – 5,800 feet
- Limited channel capacity
- Local flooding problems
- Maintenance challenges – High
- Utility issues



Existing Conditions – Gessner Facing East



Existing Conditions – Witte Road Facing West



Existing Conditions – Witte Road Facing East



Access bridge



Existing Conditions – Bunker Hill Facing West



Existing Conditions – Bunker Hill Culverts



Bunker Hill Bridge (2006 and 2014)



Existing Conditions – Bunker Hill Facing East



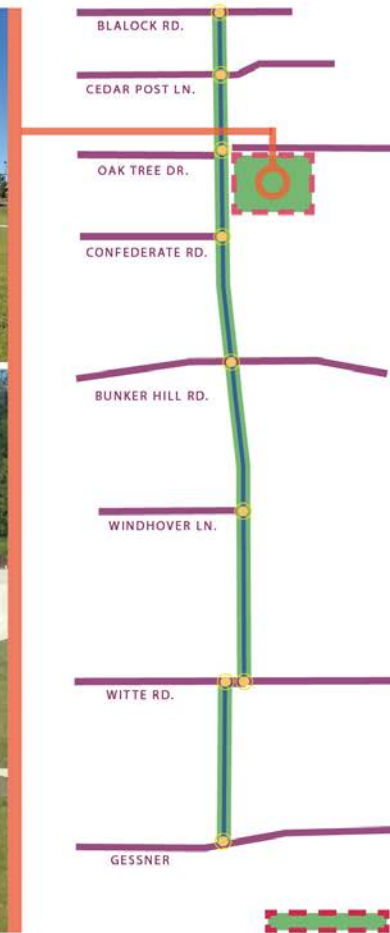
Existing Conditions – Basin Facing West



View of detention from across channel



Inside the Detention Basin



NOT FOR CONSTRUCTION PERMITTING OR REGULATORY REVIEW
FOR ENGINEERING REVIEW AND COORDINATION

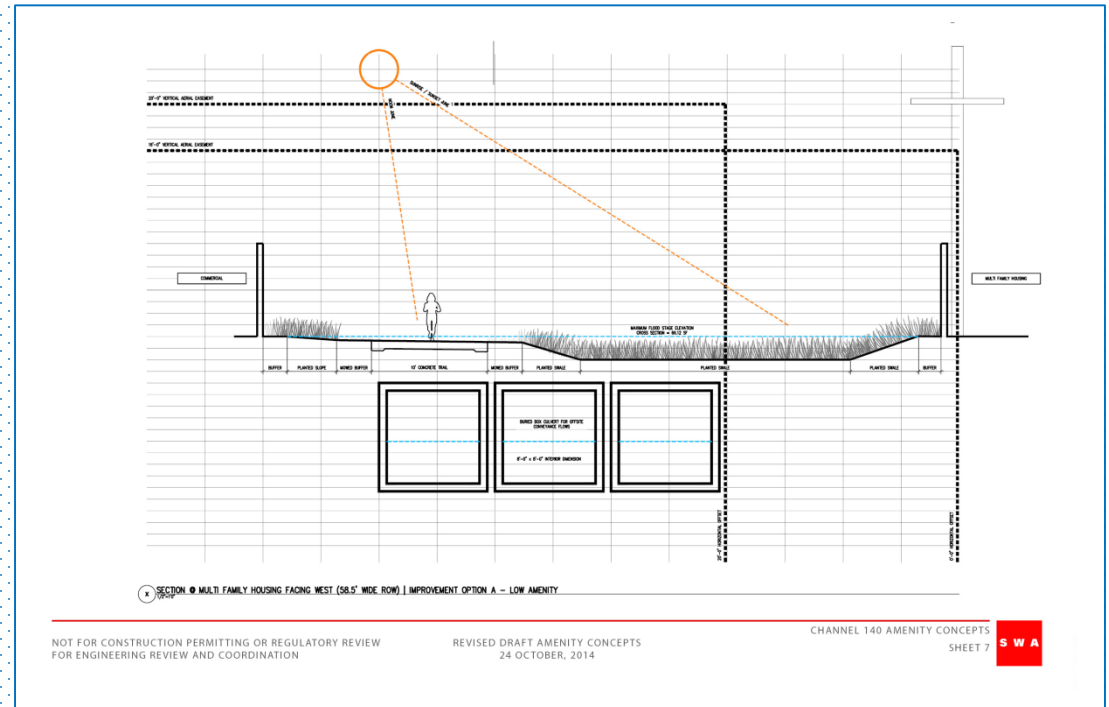
REVISED DRAFT AMENITY CONCEPTS
24 OCTOBER, 2014

CHANNEL 140 AMENITY CONCEPTS
SHEET 21



Improved Conditions

- Detailed Design – Klotz Associates
- Enclosed box section
 - Gessner to Bunker Hill
 - Future linear park
 - Low maintenance
- Open channel section
 - Near basin



Water Surface Elevation Reductions


	10 – Year		100 – Year	
	WSEL Reduction In Channel	WSEL Reduction In Neighborhood	WSEL Reduction In Channel	WSEL Reduction In Neighborhood
Phase 1 Detention only	-0.7	-1.0	-0.6	-0.4
Phase 2 Det. & channel work	-2.5	-1.1	-2.1	-0.7
Phase 3 Det., channel work and straws.	-2.2	-2.8	-1.7	-1.1

Authority Letters from USACE and HCFCDD

Appendix B
US Army Corps of Engineers Jurisdictional Determination Letter

Briar Branch Channel Improvements
Impact Analysis Report (Unit W140-01-00)

MAR 06 2013

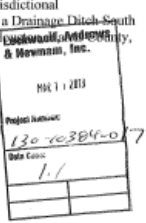


DEPARTMENT OF THE ARMY
GALVESTON DISTRICT, CORPS OF ENGINEERS
P. O. BOX 1229
GALVESTON TEXAS 77653-1229

February 20, 2013

Compliance Section

SUBJECT: SWG 2012-00174; TIRZ 17 Redevelopment Authority, Jurisdictional Determination, Proposed Drainage Improvement Project, Located Along a Drainage Ditch South of the Intersection of Bunker Hill Road and Long Branch Lane, City of Houston, Harris County, Texas



Muhammad Ali, P.E.
TIRZ 17 Redevelopment Authority
2925 Briarpark Drive, Suite 400
Houston, Texas 77042-3720

Dear Mr. Ali:

This letter is in response to your request for a jurisdictional determination received February 12, 2012, for the proposed drainage improvement project on behalf of TIRZ 17 Redevelopment Authority. The project is located along a drainage ditch south of the intersection of Bunker Hill Road and Long Branch Lane, City of Houston, Harris County, Texas.


Based on our desk review and the June 4, 2012 site visit, we determined that the project site (see attached map) does not contain waters of the United States. Therefore, any work, structures, or the discharge of fill material on the project site is not subject to Section 10 of the Rivers and Harbors Act or Section 404 of the Clean Water Act (CWA) and does not require a Department of the Army permit.

This determination has been conducted to identify the limits of the Corps' Clean Water Act jurisdiction for the particular site identified in this request. This determination may not be valid for the wetland conservation provisions of the Food Security Act of 1985, as amended. If you or your tenant are USDA program participants, or anticipate participation in USDA programs, you should request a certified wetland determination from the local office of the Natural Resources Conservation Service prior to starting work.

This letter contains an approved jurisdictional determination for your subject site, which is valid for 5 years from the date of this letter unless new information warrants a revision prior to the expiration date. If you object to this determination, you may request an administrative appeal under Corps regulations at 33 CFR Part 331. Enclosed you will find a Notification of Appeals Process (NAP) fact sheet and Request for Appeal (RFA) form. If you request to appeal this determination, you must submit a completed RFA form to the Southwest Division Office at the following address:

Page 1 of 5

December 27, 2013



HARRIS COUNTY
FLOOD CONTROL DISTRICT
8903 Northwest Freeway
Houston, Texas 77062
713-694-4000
www.hcfd.org

Mr. Derek St. John, P.E., CFM
Lockwood, Andrews & Newnam, Inc.
2925 Briarpark, Suite 400
Houston, TX 77042

Re: W140-01-00 Modification by TIRZ 17

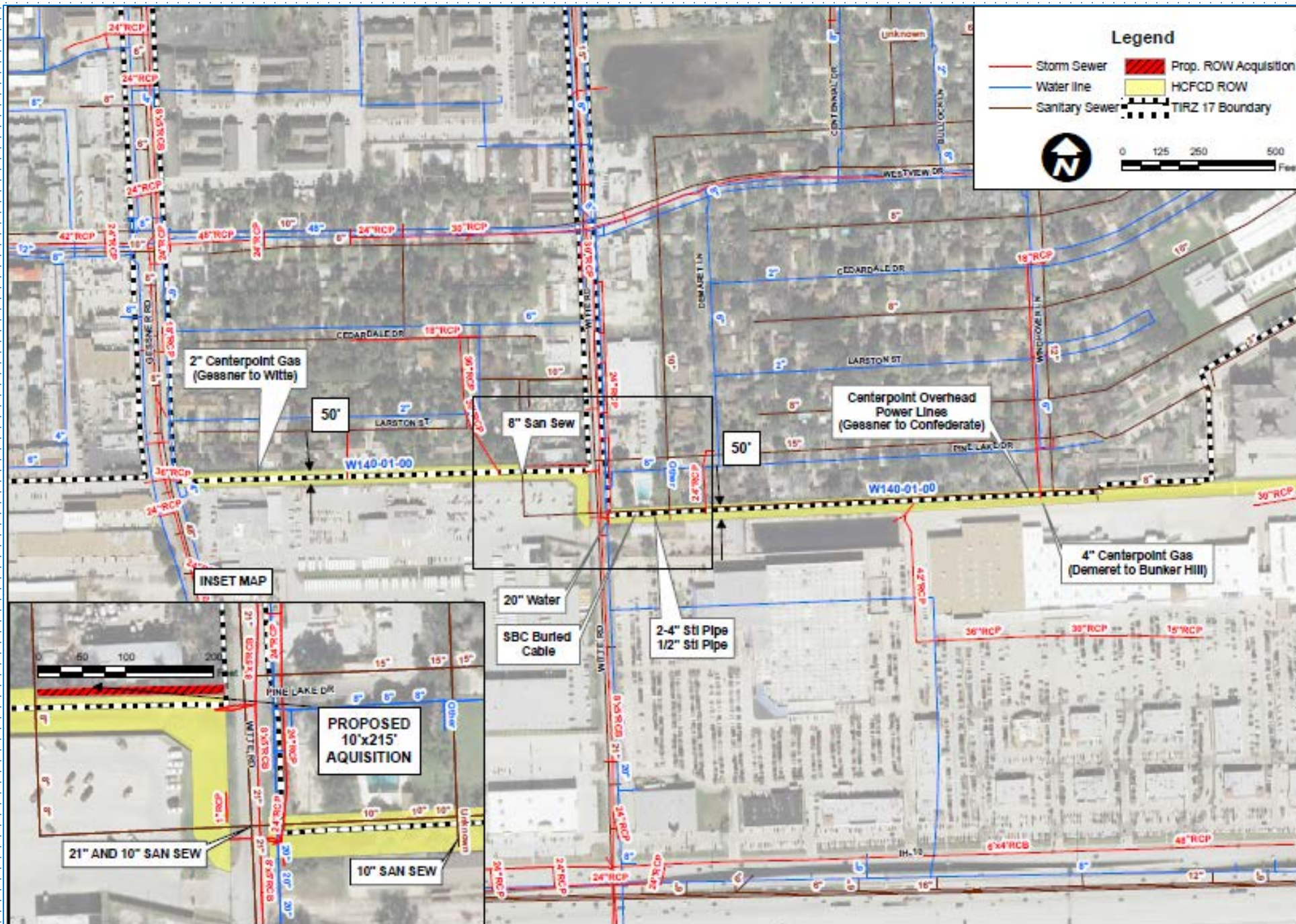
Dear Mr. St. John:

This letter is in response to e-mail correspondence of December 12, 2013 wherein you provided me a summary of three options you have been discussing with both our Watershed Management Department and also our Urban Channel Design planning committee. As I understand your concern, you are hesitant to proceed with detailed impact analysis and any form of a project development report without some confirmation from Flood Control District that the hydraulic section you are presenting would be acceptable for maintenance. Three options have been presented, being combinations of multiple box culverts and concrete open channel. You are, at this time, recommending multiple box culverts from Gessner Road to Bunker Hill Road and an open concrete vertical wall section from Bunker Hill Road to an existing detention basin owned by TIRZ 17. In that recommended section you have 12 ft. maintenance berms on either side of the box culverts and maintenance berms of 15 ft. and 10 ft. on either side of the concrete channel section.

The idea that the channel sections being proposed depart significantly from the sections outlined in the Flood Control District Policy, Criteria and Procedures Manual (PCPM) is driven by the fact that acquisition of additional right-of-way is prohibitively expensive and disruptive to the community. We concur with this fact. The maintenance access widths are the minimum acceptable for our equipment based on the conceptual channel sections proposed. We will not accept anything less. We do not have adequate information to yet determine if the proposed design section meets our requirements for structural stability and hydraulic capacity which are studies you should undertake and provide as part of the impact analysis you intend to perform (including appropriate supporting field investigations). Of the conceptual sections provided we do want to offer the following comments.

For any modification to one of our channel reaches where we would replace an earthen section (or partial box section) with a full enclosure or concrete vertical wall, we would first want to attempt to maximize the capacity within the right-of-way for obvious difficulties in expanding the section in the future (given our requirements for maintenance access). It appears your conceptual sections do that, but please confirm such to be the case. If this is a case where additional capacity could be achieved if additional mitigation were available, we would like to understand that and determine if there is a partnership role the Flood Control District should take based on the benefit to the community. Any partnership would be a function of funding and Commissioners Court approval.

A Division of Harris County Public Infrastructure Department



Legend

- Storm Sewer (Red line)
- Water line (Blue line)
- Sanitary Sewer (Brown line)
- Prop. ROW Acquisition (Red hatched area)
- HCPCD ROW (Yellow area)
- TIRZ 17 Boundary (Dashed black line)

Scale: 0 125 250 500 Feet

North Arrow

REV	DESCRIPTION	DATE

RIGHT-OF-WAY MAP

BRIAR BRANCH (W140-01-00) CHANNEL IMPROVEMENTS IMPACT ANALYSIS

PREPARED: DSG
 CHECKED: BRW
 APPROVED: DST



DATE: DEC 2013
 SCALE: AS NOTED
 EXHIBIT NUMBER
 10a of 13

Questions???



Thank you!

Spring Branch West Super Neighborhood