

**MOORPARK CITY COUNCIL  
AGENDA REPORT**

**TO:** The Honorable City Council

**FROM:** Yugal K. Lall, City Engineer / Public Works Director  
Prepared by: Kenneth C. Gilbert, Public Works Consultant 

**DATE:** September 13, 2006 (Council Meeting 09/20/06)

**SUBJECT:** Approve Change to the Conceptual Design for the Walnut Canyon / Gabbert Canyon Storm Drain Channel Improvement Project

**BACKGROUND & OVERVIEW**

In 1997 the City Council approved the conceptual design for a proposed future project to construct capital improvements to portions of the Ventura County Watershed Protection District's (District) drainage facilities serving the Walnut Canyon Watershed and the Gabbert Canyon Watershed, within the City. This request is for approval of a revised conceptual design for that project.

**DISCUSSION**

A. Prior Study

In 1997 the District, through their consultant, completed a study of the combined Gabbert Canyon and the Walnut Canyon Watersheds to assess the condition and the capacity of the District's existing drainage facilities. That study confirmed the fact that those facilities were inadequate and analyzed numerous alternative design concepts for a future project to make improvements to those facilities. The design alternatives developed by the District's consultant used a combination of a) capacity enhancement, b) detention and c) diversion to upgrade the existing facilities to contain 100 year storm flows.

B. Prior Approved Design

The ***Gabbert and Walnut Canyon Channels Flood Control Deficiency Study*** prepared in 1997 presented a recommended alternative, "Alternative-B", which included a 70-acre/ft Detention Basin No. 3 with a 300-cfs diversion to the Arroyo Simi occurring at Shasta Avenue. The revised study was prepared in August 2005 and adopted as the regional watershed master plan for the Gabbert and Walnut Canyon watersheds by Ventura County Watershed Protection Agency (VCPWA) on May 5, 2006. This study updated the original study to incorporate the improvements proposed in the flood control study prepared for Triliad Development Incorporated, titled ***Moorpark West Corporate Center Flood Protection Project – Walnut Canyon Regional Detention Basin***; dated March, 2003, and prepared by RBF Consulting. The study prepared by RBF Consulting was conducted to provide preliminary design of the regional flood control improvements proposed in the original study that would be implemented in order to eliminate or decrease the flood hazard at the Moorpark West Corporate Center project site. The proposed improvements followed the adopted regional plan but also introduced some variations from the original basin configuration proposed for Detention Basin No. 3. The revised study will update the adopted Regional Masterplan to include the basin configuration proposed in the 2003 RBF study with an additional modification proposed by VCWPD. That additional modification is that the Shasta Avenue diversion to the Arroyo Simi is not feasible to construct and will not be implemented. It was determined that the cost of acquiring the necessary right-of-way, and easements would be prohibitive to the construction of the Shasta Avenue Storm Drain presented in the original Alternative-B. In its place, there will be a 100-cfs, in-channel detention basin bypass. The basin bypass provision will result in an efficient use of the proposed detention basin storage area by allowing the base of the inflow hydrograph which contains the majority of the storm runoff volume to bypass the basin. So the detention volume provided by the basin is preserved to attenuate the peak of the storm hydrograph. The revised watershed study focused exclusively on the design and analysis of Detention Basin No.3 and its effects on the downstream watershed hydrology and channel hydraulics. The proposed detention basin site is bounded along the east by the Walnut Canyon Elementary School property, the proposed Casey Road alignment along the west, the proposed High Street extension along the south, and steep hillsides along the north all within Specific Plan No. 1.

In June of 1997 the City Council concurred with District and City staff recommendations and approved design Alternate B.

C. Recommended Revised Concept

The District retained the services of a second consultant to review and reassess Design Alternate B. As the result of that effort, a revised Alternate B has been recommended by the District. As depicted in the diagram (Exhibit 2), this revised design calls for certain increases to the detention and capacity enhancement aspects of the design, and the elimination of the Shasta diversion channel. It is estimated that these changes will reduce costs approximately \$2.4 million (from \$9.6 to \$7.1 million).

The recommended revised concept has been accepted by the District.

D. Implementation

The District, City staff and certain land developers have been working and continue to work on serial implementation of segments of this design.

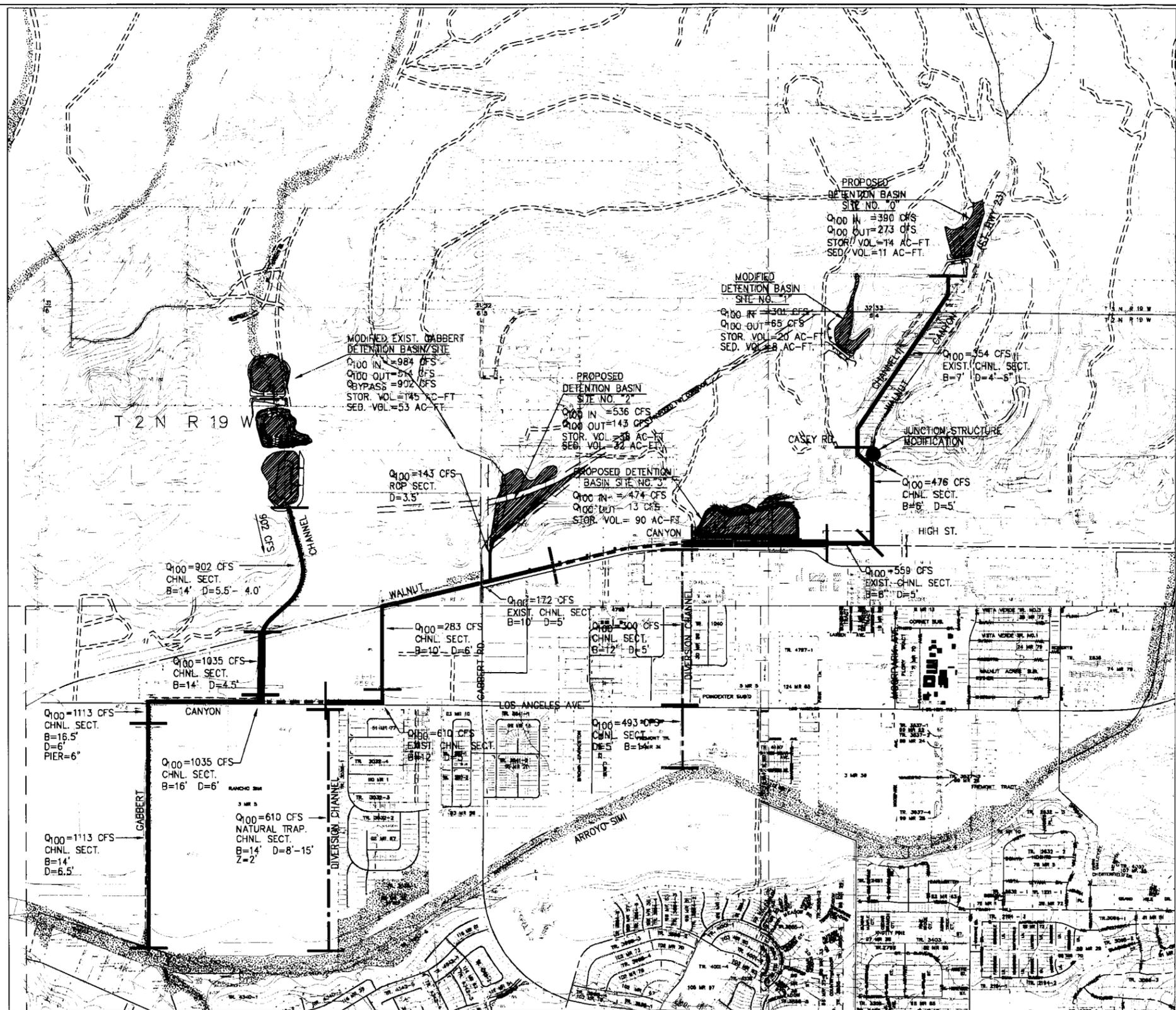
**STAFF RECOMMENDATION**

Approve the Revised Alternate B design concept set forth in the Walnut Canyon / Gabbert Canyon Flood Control Deficiency Study dated July 2005.

Attachments:

Exhibit 1: Alternate B

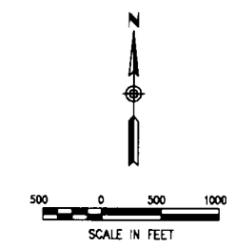
Exhibit 2: Revised Alternate B



- LEGEND**
- EXISTING CHANNEL NO MODIFICATIONS
  - MODIFIED CHANNEL SECTION
  - EXISTING CHANNEL REMOVAL
  - PROPOSED CHANNEL
  - DETENTION BASIN SITE
  - CHANNEL STRUCTURE MODIFICATION

**COST ESTIMATE**  
(INCL. 10% CONTINGENCY)

DETENTION BASINS:	\$5,043,000
CHANNEL IMPROVEMENTS:	\$3,861,000
RIGHT-OF-WAY:	\$ 903,000
<b>TOTAL:</b>	<b>\$10,788,000</b>

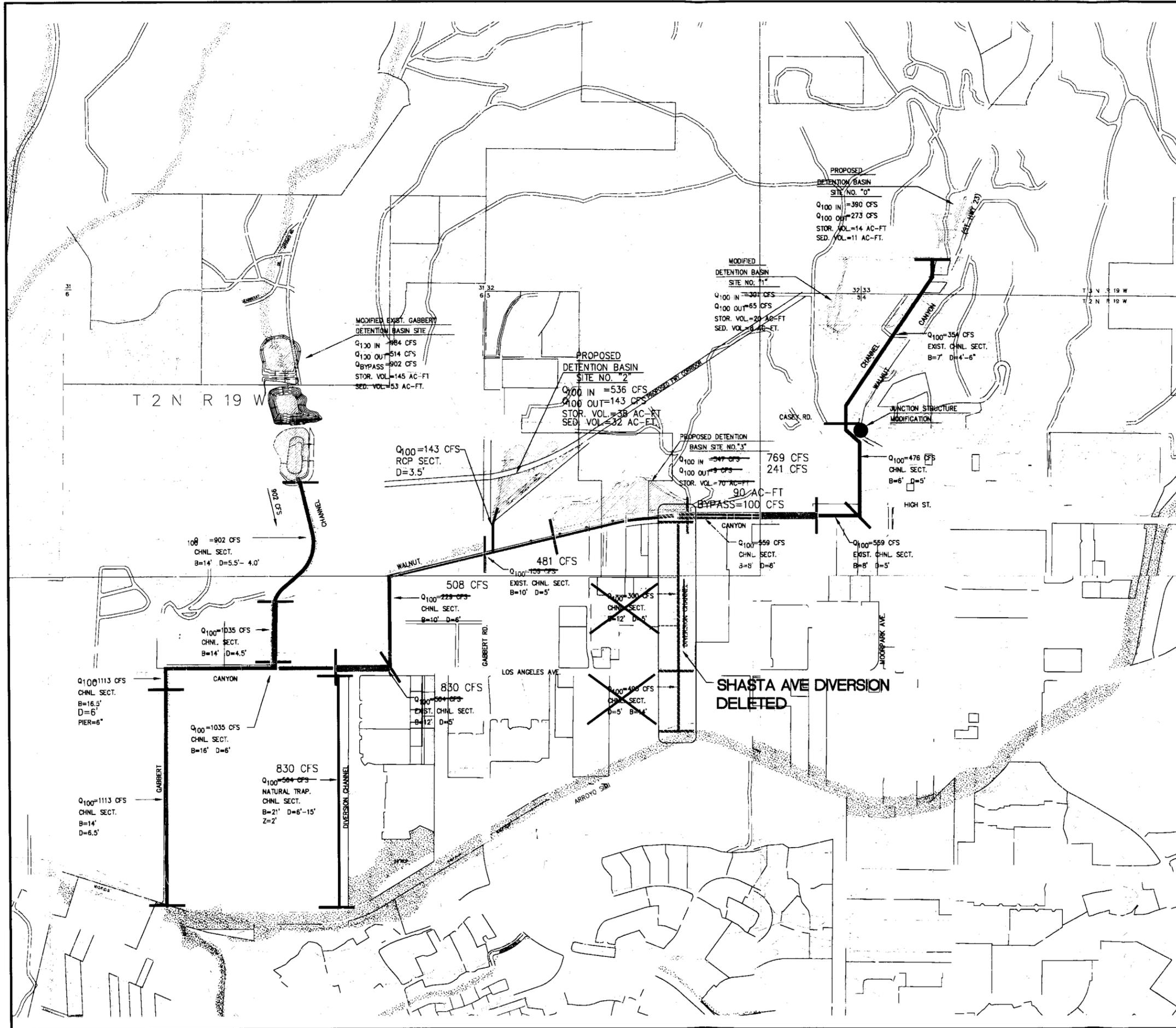


**Robert Bein, William Frost & Associates**  
 PROFESSIONAL ENGINEERS, PLANNERS & SURVEYORS  
 14728 ALTA FREWERY  
 (714) 475-2828 FAX (714) 475-3246

DATE	BY	DESCRIPTION	APPROVED	DATE

VENTURA COUNTY, CALIFORNIA  
 WALNUT/GABBERT CANYON  
 WALNUT/GABBERT CANYON STUDY  
 ALTERNATIVE NO. B  
 SCHEMATIC MAP  
 VCFCD

FIGURE  
 2  
 OF  
 9



- LEGEND**
- EXISTING CHANNEL NO MODIFICATIONS
  - MODIFIED CHANNEL SECTION
  - EXISTING CHANNEL REMOVAL
  - PROPOSED CHANNEL
  - DETENTION BASIN SITE
  - CHANNEL STRUCTURE MODIFICATION

**COST ESTIMATE**  
(INCL. 30% CONTINGENCY)

DETENTION BASINS:	\$6,017,000
CHANNEL IMPROVEMENTS:	\$2,038,400
RIGHT-OF-WAY:	\$ 927,000
<b>TOTAL:</b>	<b>\$8,982,400</b>

SCALE AS SHOWN	DESIGNED JCS	DRAWN GA	CHECKED JCS	DATE JULY 2005	JOB NO. 7753-E
<b>REVISED ALTERNATIVE B</b>					
<b>EXHIBIT - 2</b>					
<b>WALNUT / GABBERT CANYON</b>					
VENTURA CO. CA					
<small>17520 NE STATE STREET, SUITE 200 PH: (714) 441-2000 FAX: (714) 441-7299</small>					
<small>FIGURE OF XX SHEETS</small>					
<small>JOB NO. 7753-E</small>					

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