

**CONCEPTUAL DRAINAGE REPORT**  
*for*  
**LAS MARCADAS SHOPPING CENTER**

**PREPARED FOR**

*De la Torre-Rainhart  
7801 Academy Road  
Albuquerque, NM 87109*

*December 1994*



## **PURPOSE**

*The purpose of this report is to present the drainage management plan for the Las Marcadas Shopping Center to obtain Final Plat and Work Order approval. All applicable ordinances, the DPM and HYMO were utilized to prepare this plan.*

## **EXISTING CONDITIONS**

*The project comprises an area of 13.1334 ac at the northwest corner of Golf Course Road and Paseo del Norte. This site is bounded by Golf Course Road to the east, Paseo del Norte to the south, Heights First Church of the Nazarene to the north and Paradise Valley and the Las Marcadas Arroyo to the west (see attached Vicinity Map).*

*The tract is fairly steep sloping from northwest to southeast at approximately 6-7 percent. Vegetation cover is typical of westside property, and the soils are sandy. The site drains to the intersection of Golf Course Road and Paseo del Norte.*

## **HYDROLOGIC ANALYSIS**

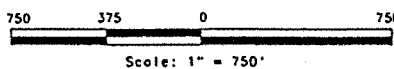
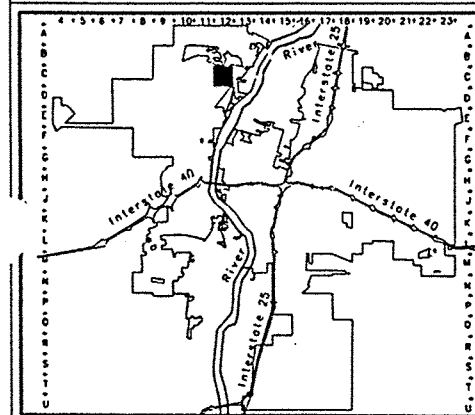
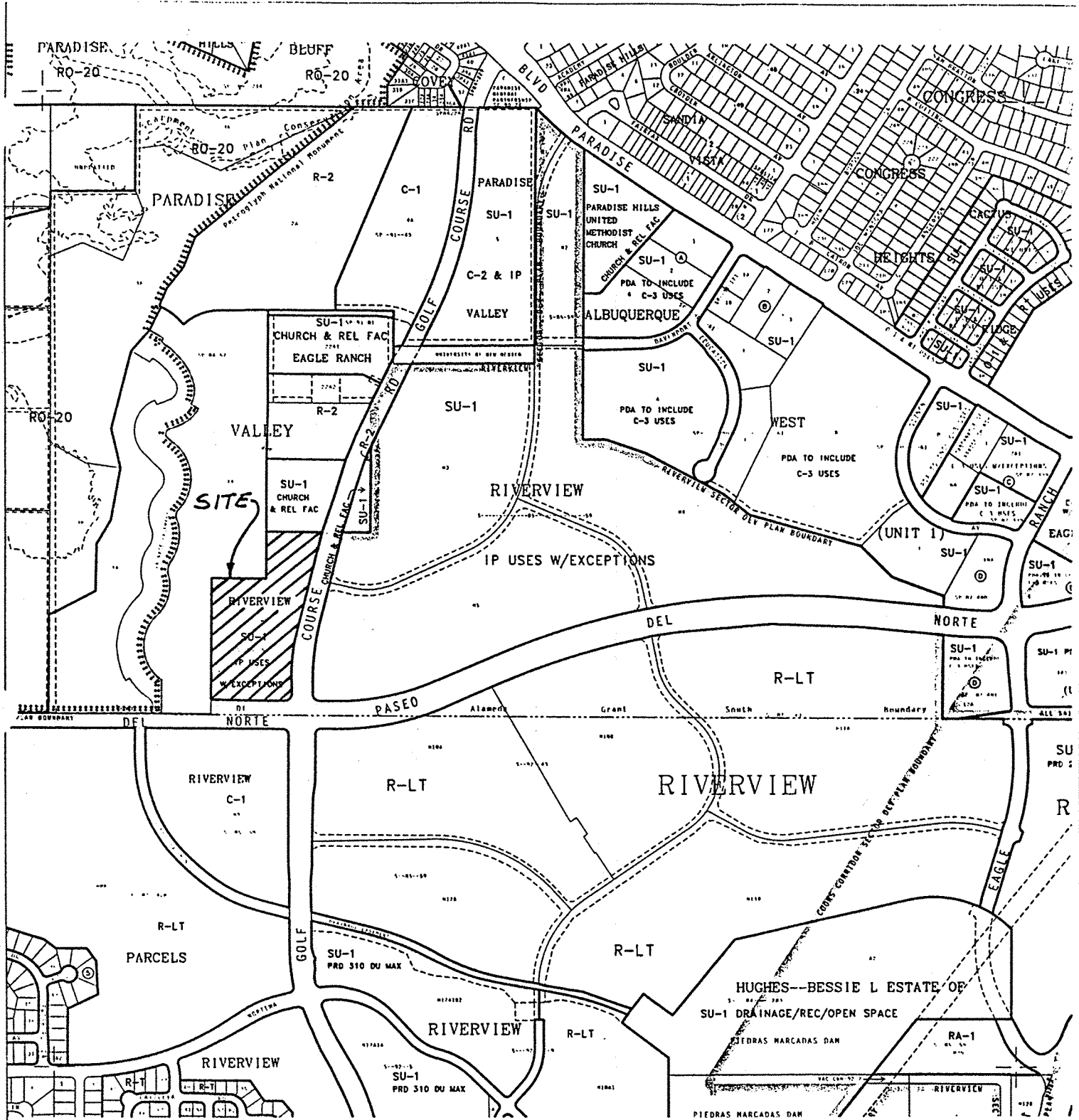
*HYMO was utilized for this analysis. All of the pertinent hydrologic parameters and calculations are located in the appendix of this report.*

## **PROPOSED MANAGEMENT PLAN**

*As a developed site, this plan proposes to discharge stormwater runoff at two locations, the Golf Course Storm Drain and the Las Marcadas Arroyo.*

*There are four drainage basins, three of which discharge to the Golf Course Storm Drain and one discharges to the Las Marcadas Arroyo.*

*Drainage Basin I will discharge 10.19 cfs to the Las Marcadas Arroyo at the rip-rap rundown that was proposed as part of the Las Marcadas II Subdivision. A HEC-2 run was completed for the section of the arroyo along the property. Our analysis matched the study prepared by Smith Engineering (Appendix A). The Prudent Line is shown on the grading plan and a slight conflict with the proposed paving exists. Per meetings with Kurt Browning of AMAFCA, it is proposed that scour protection be provided to scour depth along the perimeter wall for the duration of the conflict. This will eliminate any appurtenances within AMAFCA's jurisdiction and eliminate the need for any agreements with AMAFCA. Drainage Basins II, III and IV will discharge 18.7 cfs, 16.71 cfs and 5.76 cfs, respectively to the Golf Course Storm Drain. These discharge points are preceded by a series of catch basins that transmit the stormwater runoff. The open areas that are undeveloped are graded such that there is a one foot depression for retention so as to avoid any silt transfer around the site. The outfall to the middle connection is raised 6" above the surrounding grade so any silt will settle out before it discharges to the Golf Course storm drain.*



**A G I S**  
 Albuquerque Geographic Information System  
 City of Albuquerque

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LEGAL DESCRIPTION

T11N

R2E

SEC 13

UNIFORM PROPERTY CODE

1-012-064

**C-12-Z**