

Existing Studies

The subject site, Tract 3-A-4, Lands of Los Angeles Investors, is part of Tract 3-A, Lands of Los Angeles Investors. Tract 3-A was the subject of Master Drainage Plan C-17, D7, prepared by Easterling Associates and approved by the City of Albuquerque in 1996. Master Drainage Plan C-17, D7 stipulated drainage facilities to be constructed on the various tracts when they are developed and the post-development discharges which could be released from the sites to the adjacent Diversion Channel.

Master Drainage Plan C-17, D7 stipulated that when the subject site, Tract 3-A-4, is developed it can discharge a Q100 of up to 3.6 cfs through a grated inlet at the West end of the site, thence into an 18" PVC conduit leading to the Diversion Channel. Such conduit was constructed in 1997 as part of the development of Tract 3-A-1.

Site Description

The subject site, comprising approximately 0.8608 acres, slopes approximately 4 feet from East to West and has a sparse cover of grasses and shrubs. No flows enter the site from adjacent sources. It is bordered on the West by a lumber yard, on the South by a rail spur, on the East by Paseo del Norte Frontage Road, and on the North by the office and warehouse constructed on Tract 3-A-1 in 1997. Immediately North of Tract 3-A-1 is the Diversion Channel Easement. FEMA Panel 35001C0137 D identifies the site as Zone X, outside the 500-year floodplain.

Of the 0.8608 acres comprising the subject site 0.07 acres lies in the Paseo del Norte Frontage Road and flows into an existing Double D Inlet, thence through an existing conduit to the Diversion Channel in accordance with Master Drainage Plan C-17, D7.

The remaining 0.79 acres flows West across the site. Existing Land Treatment of the 0.79 acres is as follows:

Land Treatment	Percent	Acres
A (Undeveloped)	0%	0
B (Landscaping)	0%	0
C (Compacted/Vacant)	100%	0.79
D (Impervious)	0%	0
Total	100%	0.79

Peak Discharges

Peak discharges are developed in accordance with Section 22.2 of the Development Process Manual for the City of Albuquerque. The project lies in Precipitation Zone 2.

Land Treatment after development will be:

Land Treatment	Percent	Acres
A (Undeveloped)	0%	0
B (Landscaping)	20%	0.17
C (Compacted/Vacant)	6%	0.05
D (Impervious)	74%	0.57
Total	100%	0.79

The 0.05 acre Compacted/Vacant area is the rail spur. Peak discharge associated with the 100-year rainfall event after development will be $(1.56 \times 0.00) + (2.28 \times 0.17) + (3.14 \times 0.05) + (4.70 \times 0.57) = 3.23$ cfs

This is within the 3.6 cfs allowable discharge stipulated in Master Drainage Plan C-17, D7. Peak discharge associated with the 10-year rainfall event would be $(0.38 \times 0.00) + (0.95 \times 0.17) + (1.71 \times 0.05) + (3.14 \times 0.57) = 2.04$ cfs

Excess Precipitation

Excess precipitation is calculated for the entire 0.86 acres. Existing Land Treatment of the 0.86 acres is as follows:

Land Treatment	Percent	Acres
A (Undeveloped)	0%	0
B (Landscaping)	0%	0
C (Compacted/Vacant)	92%	0.79
D (Impervious)	8%	0.07
Total	100%	0.86

Excess precipitation associated with the 100-year 6 hour storm in the existing condition is $(0.53 \times 0.00) + (0.78 \times 0.00) + (1.13 \times 0.79) + (2.12 \times 0.07) = 1.04$ inches

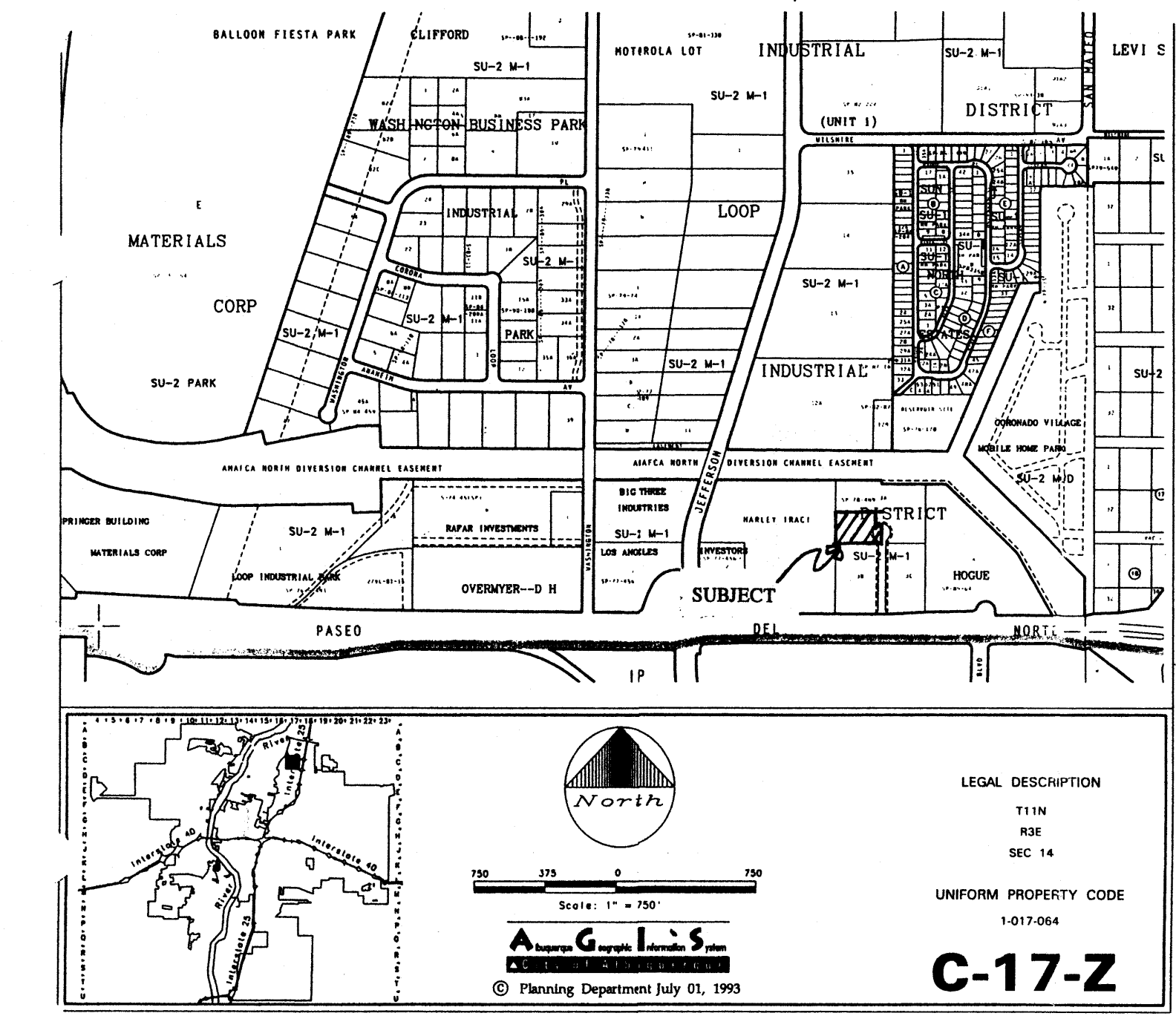
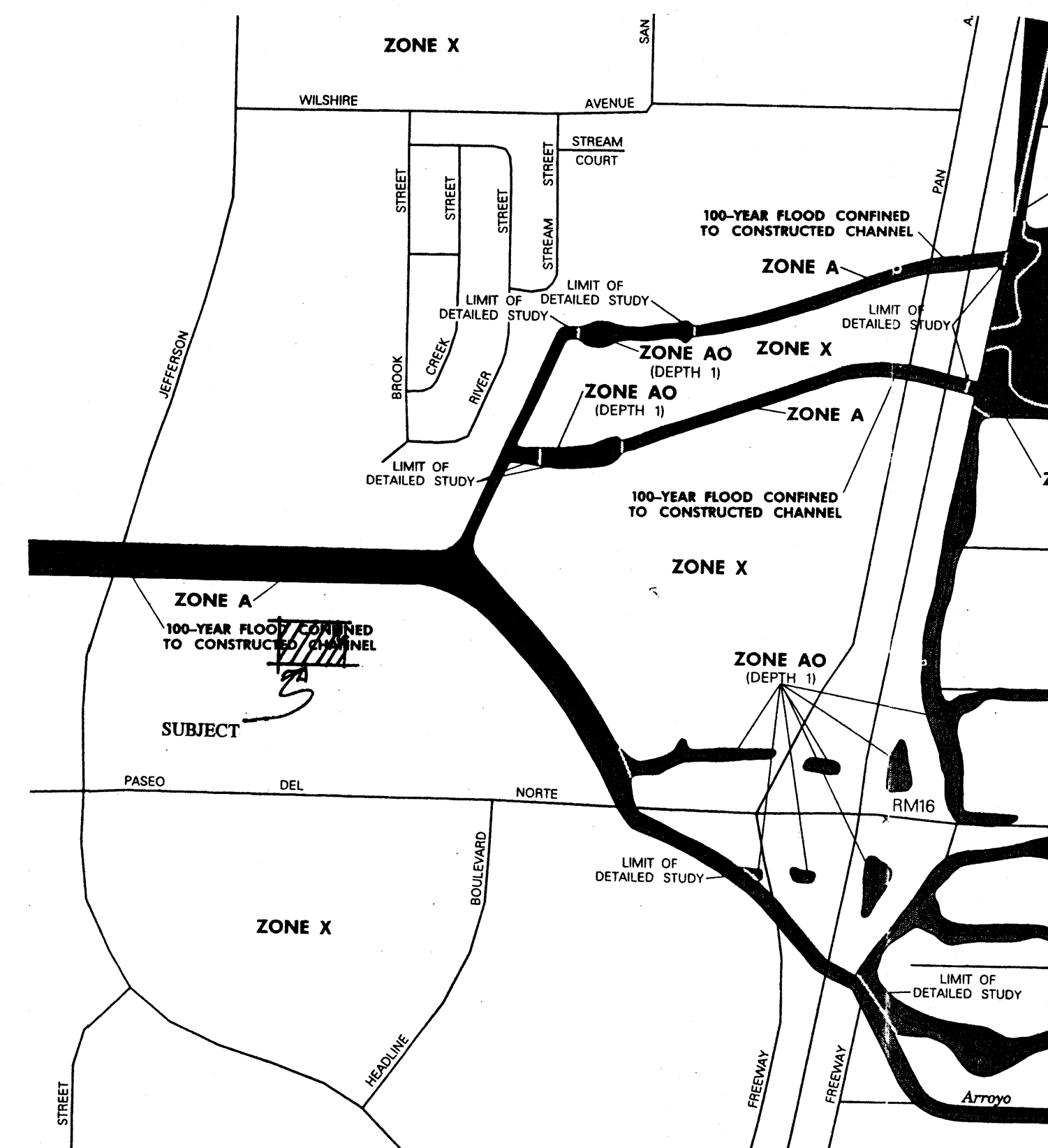
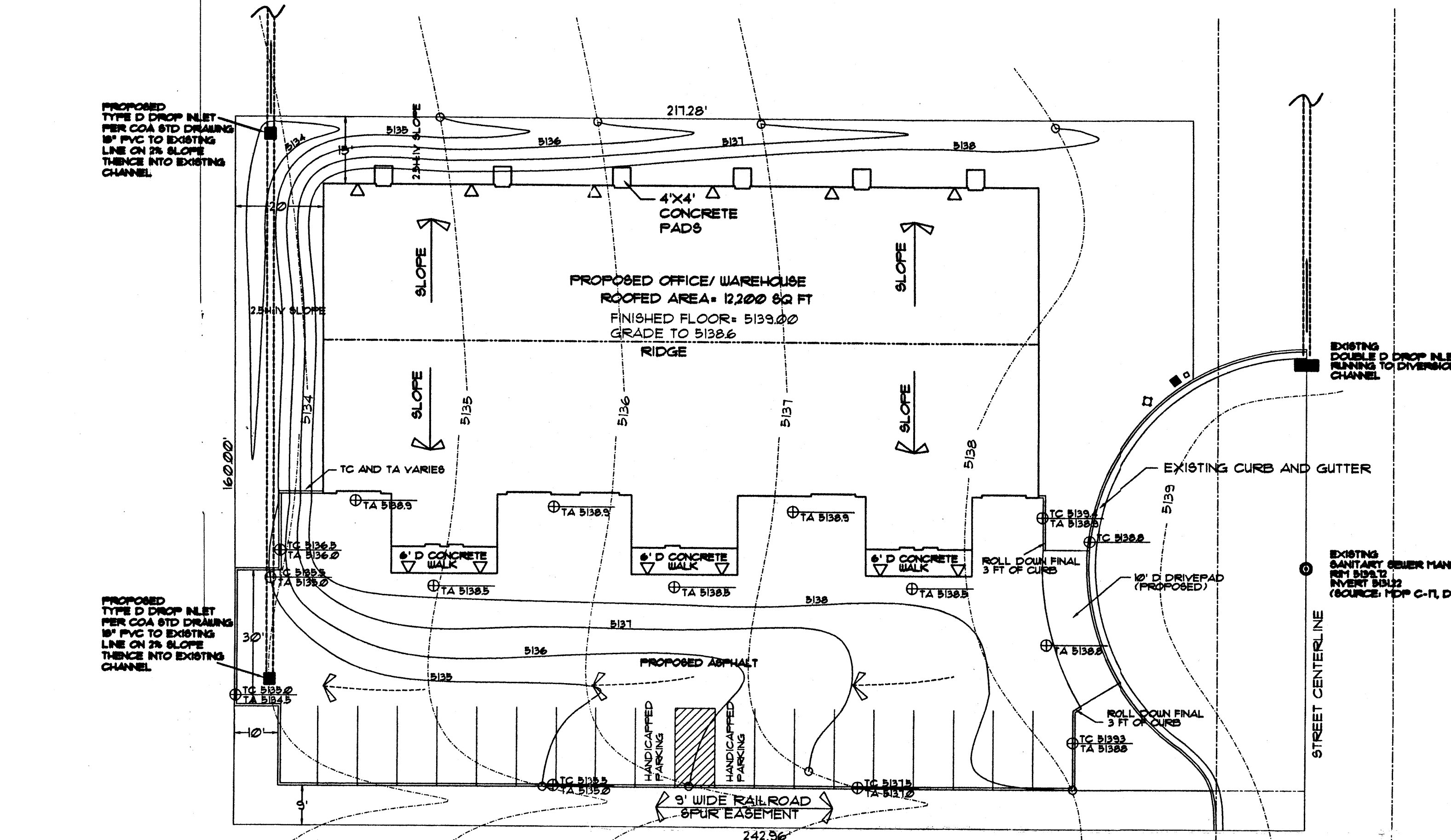
Land Treatment of the entire 0.86 acres after development is as follows:

Land Treatment	Percent	Acres
A (Undeveloped)	0%	0
B (Landscaping)	20%	0.17
C (Compacted/Vacant)	6%	0.05
D (Impervious)	74%	0.64
Total	100%	0.86

Excess precipitation associated with the 100-year 6 hour storm after development is $(0.53 \times 0.00) + (0.78 \times 0.17) + (1.13 \times 0.05) + (2.12 \times 0.64) = 1.55$ inches

Runoff volume associated with the 100-year 6 hour storm in the existing condition is 1.04 inches / 12 * 37,496 sq ft = 3250 cu ft

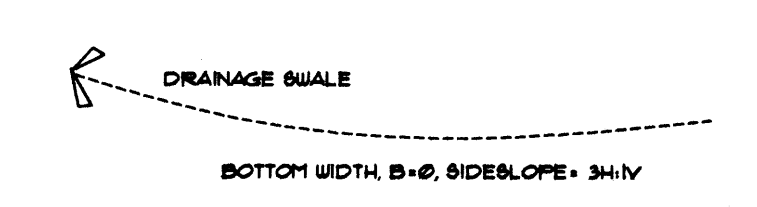
Runoff volume associated with the 100-year 6 hour storm after development is 1.55 inches / 12 * 37,496 sq ft = 4843 cu ft



FLOOD INSURANCE RATE MAP
 BERNALILLO COUNTY,
 NEW MEXICO AND
 INCORPORATED AREAS
 PANEL 137 OF 825

NOTICE TO OWNER AND CONTRACTOR
 PRIOR TO ANY CONSTRUCTION THE CONTRACTOR IS TO IDENTIFY THE LOCATION OF ALL POTENTIAL OBSTRUCTIONS AND NOTIFY THE ENGINEER. ALL WORK IS TO BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS AND REGULATIONS CONCERNING CONSTRUCTION SAFETY. THE LOCATION OF UTILITIES SHOWN ON THESE DRAWINGS IS APPROXIMATE ONLY. LINES MAY EXIST WHERE NONE ARE SHOWN. THE CONTRACTOR SHALL LOCATE UTILITIES INDEPENDENTLY PRIOR TO ANY EXCAVATION AND IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY ITS FAILURE TO LOCATE AND PRESERVE ANY AND ALL UTILITIES, PIPELINES, AND UNDERGROUND FACILITIES. CONTRACTOR SHALL ASSURE THAT NO SOIL ERODES FROM THE SITE ONTO PUBLIC RIGHT OF WAY OR PRIVATE PROPERTY. CONTRACTOR SHALL OBTAIN ANY PERMITS REQUIRED BY LOCAL GOVERNMENT BEFORE BEGINNING CONSTRUCTION.

EROSION CONTROL MEASURES
 CONTRACTOR IS RESPONSIBLE FOR MANAGEMENT OF STORM RUNOFF DURING CONSTRUCTION. HE SHALL TAKE THE FOLLOWING MEASURES:
 - ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY CONSTRUCTION OF BERRIS, DIKES, SWALES, PONDS, OR OTHER SUCH MEASURES AS MAY BE REQUIRED TO PREVENT STORM RUNOFF AND SEDIMENT FROM ENTERING ADJACENT PROPERTY.
 - ADJACENT PUBLIC RIGHTS-OF-WAY SHALL BE PROTECTED AT ALL TIMES FROM RUNOFF FROM THE SITE.
 - CONTRACTOR SHALL IMMEDIATELY AND THOROUGHLY REMOVE ANY SEDIMENT WITHIN PUBLIC RIGHTS-OF-WAY THAT HAS BEEN ERODED FROM THE SITE.



1 INCH = 20 FEET
 TRACT AREA APPROX 0.8608 ACRES

RECEIVED
 JUL 28 1998
 HYDROLOGY SECTION

GARY L. EYSTER
 PROFESSIONAL ENGINEER
 7/24/98

SURVEY INFORMATION
 TOPOGRAPHIC DATA PROVIDED BY CLIENT TEMPORARY BENCHMARK, TOP OF CURB AT THE NORTHEAST CORNER BEARING ELEVATION 5139.23 (MSL). REFERENCE TO CITY BENCHMARK 11-D18 BEARING ELEVATION 5235.61

AFFIDAVIT
 I HAVE PERSONALLY INSPECTED THIS TRACT AND AFFIRM THAT NO GRADING, FILLING, OR EXCAVATION HAS OCCURRED SINCE THIS CONTOUR MAP WAS MADE

GARY L. EYSTER, NMPE # 6781
 DATE 7/24/98

GARY L. EYSTER P.E.
 12003 CARMEL NE ALBUQUERQUE, NM 87122
 505.822.9238 FAX: 505.822.9279
 GRADING AND DRAINAGE PLAN
 TRACT 3-A-4
 LANDS OF LOS ANGELES INVESTORS
 ZONE ATLAS C-17
 CLIENT: ADOBE MASTERS
 JULY 24, 1998
 SHEET 1 OF 1

THE ACCESSIBLE ROUTE IS A PATH CONNECTING ALL ACCESSIBLE ELEMENTS AND SPACES WITHIN A SITE, BUILDING, OR FACILITY THAT IS USABLE BY PERSONS WITH PHYSICAL DISABILITIES. IN THIS FACILITY THE ACCESSIBLE ROUTE CONSISTS OF WALKING SURFACES WITH A SLOPE NOT STEEPER THAN 1:20, RAMPS WITH A SLOPE NOT STEEPER THAN 1:12, HC PARKING SPACES AND ACCESS AISLES WITH A SLOPE NOT GREATER THAN 1:48 IN ANY DIRECTION AND CLEAR FLOOR SPACE FOR ACCESSIBLE ELEMENTS. CROSS SLOPES SHALL NOT EXCEED 1:48