

## CALCULATIONS

THE FOLLOWING CALCULATIONS WERE DEVELOPED USING THE CITY OF ALBUQUERQUE DPM SECTION 22.2

### SITE CHARACTERISTICS:

SITE LOCATION: ZONE 2  
PRECIPITATION: P = 2.60 inches

### LAND TREATMENT:

UNCOMPACTED SOIL - TREATMENT A  
LANDSCAPE - TREATMENT B  
COMPACTED SOIL - TREATMENT C  
BUILDINGS & PAVING - TREATMENT D

### EXCESS PRECIPITATION:

TREATMENT A E = 0.53 inches  
TREATMENT B E = 0.78 inches  
TREATMENT C E = 1.13 inches  
TREATMENT D E = 2.12 inches

### PEAK DISCHARGE:

TREATMENT A = 1.56 cfs/acre  
TREATMENT B = 2.28 cfs/acre  
TREATMENT C = 3.14 cfs/acre  
TREATMENT D = 4.70 cfs/acre

	EXISTING	PROPOSED
TOTAL AREA	= 1.03 AC.	
TREATMENT A	= 0.00 AC. = 0.0%	0.00 AC. = 0.0%
TREATMENT B	= 0.07 AC. = 7.0%	0.11 AC. = 10.0%
TREATMENT C	= 0.34 AC. = 33.0%	0.00 AC. = 0.0%
TREATMENT D	= 0.62 AC. = 60.0%	0.92 AC. = 90.0%

### ONSITE - EXCESS PRECIPITATION & VOLUMETRIC RUNOFF:

EXISTING RUNOFF:  
WEIGHTED  $E = [(0.53)(0.00) + (0.78)(0.07) + (1.13)(0.34) + (2.12)(0.62)] / 1.03$   
= 1.70 inches

V100-6hr =  $(1.70)(1.03) / 12 = 0.1459$  acre ft = 6,356 cf

### DEVELOPED RUNOFF:

WEIGHTED  $E = [(0.53)(0.00) + (0.78)(0.11) + (1.13)(0.00) + (2.12)(0.92)] / 1.03$   
= 1.97 inches

V100-6hr =  $(1.97)(1.03) / 12 = 0.1691$  acre ft = 7,365 cf

### ONSITE - PEAK DISCHARGE:

EXISTING DISCHARGE:  
Q100 =  $(1.56)(0.00) + (2.28)(0.07) + (3.14)(0.34) + (4.70)(0.62) = 4.14$  cfs

DEVELOPED DISCHARGE:  
Q100 =  $(1.56)(0.00) + (2.28)(0.11) + (3.14)(0.00) + (4.70)(0.92) = 4.57$  cfs

### RESULTS:

DEVELOPED VOLUMETRIC RUNOFF:  
7,365 - 6,356 = 1,009 cf INCREASE IN RUNOFF VOLUME

DEVELOPED PEAK DISCHARGE:  
4.57 - 4.14 = 0.43 cfs INCREASE IN PEAK DISCHARGE

## GENERAL NOTES

- PRIOR TO ANY CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AS SOON AS POSSIBLE TO RESOLVE THE CONFLICT WITH A MINIMUM AMOUNT OF DELAY.
- ALL WORK ON THIS PLAN SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- IF ANY UTILITY LINES, PIPELINES, OR UNDERGROUND UTILITY LINES ARE SHOWN ON THESE DRAWINGS, THEY ARE SHOWN IN AN APPROXIMATE LOCATION ONLY, AND LINES MAY EXIST WHERE NONE ARE SHOWN, THE LOCATION IS BASED UPON INFORMATION PROVIDED BY THE UTILITY OWNER OR FROM EXISTING PLANS, AND THIS INFORMATION MAY BE INCOMPLETE, OR OBSOLETE AT THE TIME OF CONSTRUCTION. THE ENGINEER HAS NOT UNDERTAKEN ANY FIELD VERIFICATION OF THESE LOCATIONS, LINE SIZES OR MATERIAL TYPE, MAKES NO REPRESENTATION THERETO, AND ASSUMES NO RESPONSIBILITY OR LIABILITY THEREFOR. THE CONTRACTOR SHALL INFORM ITSELF OF THE LOCATION OF ANY UTILITY LINE, PIPELINE OR UNDERGROUND INSTALLATION IN OR NEAR THE AREA IN ADVANCE OF AND DURING ANY EXCAVATION WORK. THE CONTRACTOR IS FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES CAUSED BY ITS FAILURE TO LOCATE, IDENTIFY AND PRESERVE ANY AND ALL EXISTING UTILITIES, PIPELINES AND UNDERGROUND FACILITIES. IN PLANNING AND CONDUCTING EXCAVATIONS, THE CONTRACTOR SHALL COMPLY WITH ALL STATE STATUTES, MUNICIPAL AND LOCAL ORDINANCES, RULES AND REGULATIONS, IF ANY, PERTAINING TO THE LOCATION OF THESE LINES AND FACILITIES.
- THE CONTRACTOR SHALL INSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHTS-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AND BY WETTING THE SOIL TO KEEP IT FROM BLOWING.
- THE CONTRACTOR SHALL OBTAIN ANY AND ALL PERMITS REQUIRED BY THE CITY OF ALB. FOR THE COMPLETION OF THE WORK PRIOR TO BEGINNING CONSTRUCTION.

## BENCH MARK

CITY OF ALBUQUERQUE CONTROL STATION  
"10-D17", A 40p NAIL IN THE SOUTH  
POLE OF PYLON #RE9, SOUTH OF  
ELLISON & WASHINGTON STREETS N.E.  
ELEVATION = 5109.28

## LEGAL DESCRIPTION

4303 ELLISON N.E.  
LOT 2, TRACT C, UNIT 3, INTERSTATE  
INDUSTRIAL TRACT, ALBUQUERQUE,  
NEW MEXICO.

## GENERAL LEGEND

EXISTING SPOT ELEVATION

PROPOSED SPOT ELEVATION

FLOWLINE

FLOW DIRECTION ARROW

PROPOSED CONCRETE

TOP OF CURB ELEVATION

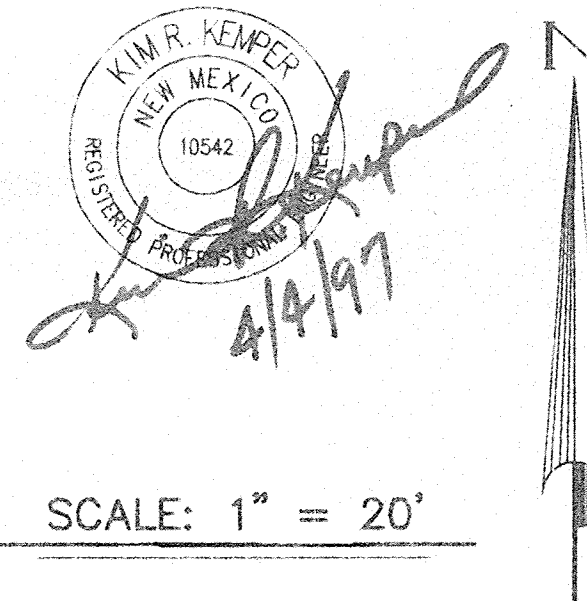
TOP OF WALL ELEVATION

FLOWLINE ELEVATION

TOP OF ASPHALT

POWER POLE

RECORD DRAWING ELEV. • 2972



## DRAINAGE PLAN

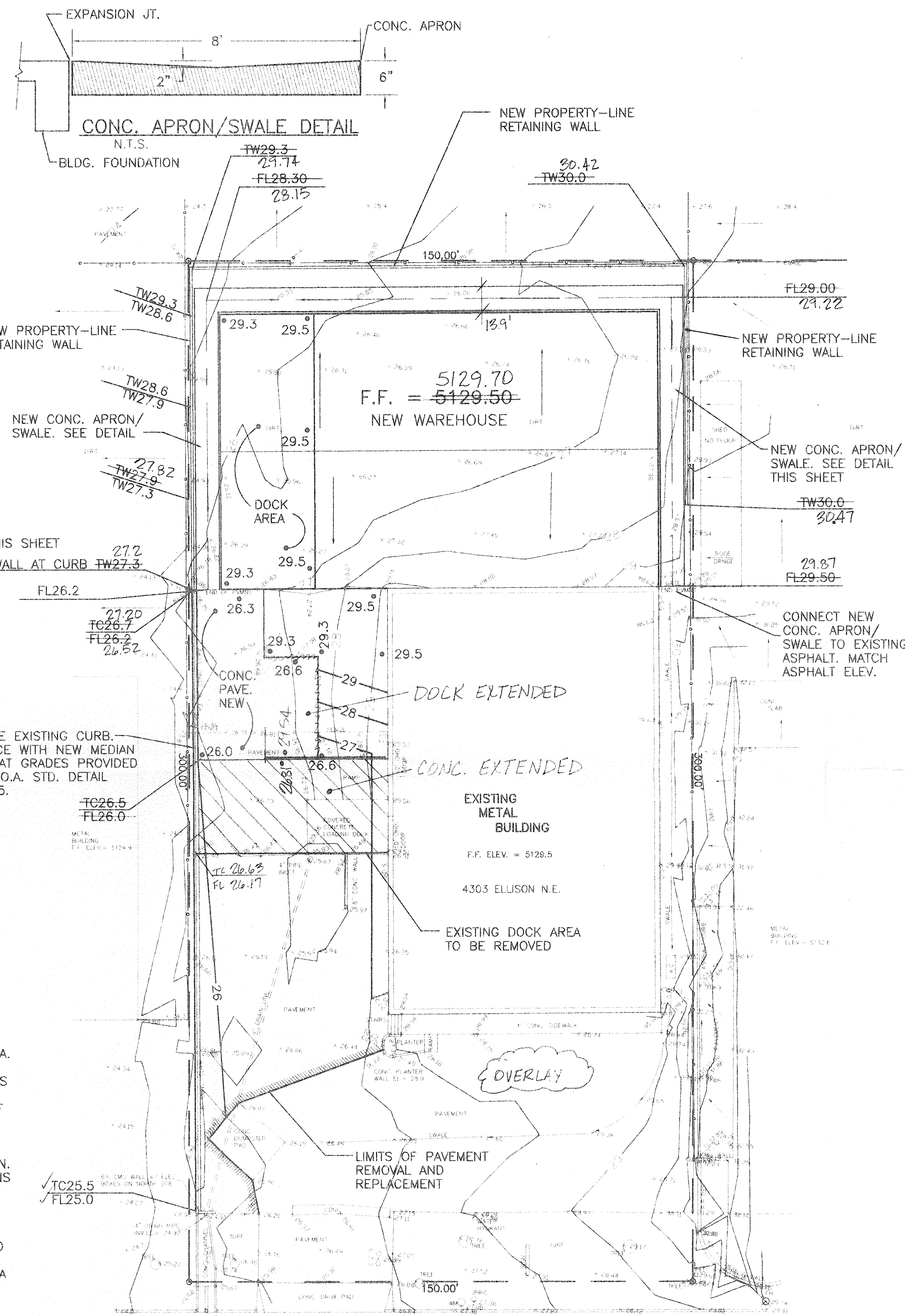
THIS SITE IS LOCATED AT 4303 ELLISON STREET JUST WEST OF JEFFERSON BLVD. AS SHOWN ON PANELS 136 AND 137 OF THE NATIONAL FLOOD INSURANCE PROGRAM "FIRM" MAP, THIS SITE DOES NOT LIE WITHIN A DESIGNATED FLOOD HAZARD AREA.

THE SITE IS WITHIN A MANUFACTURING AREA AND IS CURRENTLY A OFFICE/WAREHOUSE FACILITY. THE PLANNED IMPROVEMENTS INCLUDE THE ADDITION OF A NEW WAREHOUSE AND THE RE-PAVING OF A PORTION OF THE FACILITY PARKING LOT. ALL OF THE DEVELOPED PORTION OF THE SITE DRAINS THROUGH EXISTING SIDEWALK CULVERTS TO ELLISON. THE UNDEVELOPED PORTION OF THE PARCEL DRAINS TO THE REAR TO ADJACENT PARCELS.

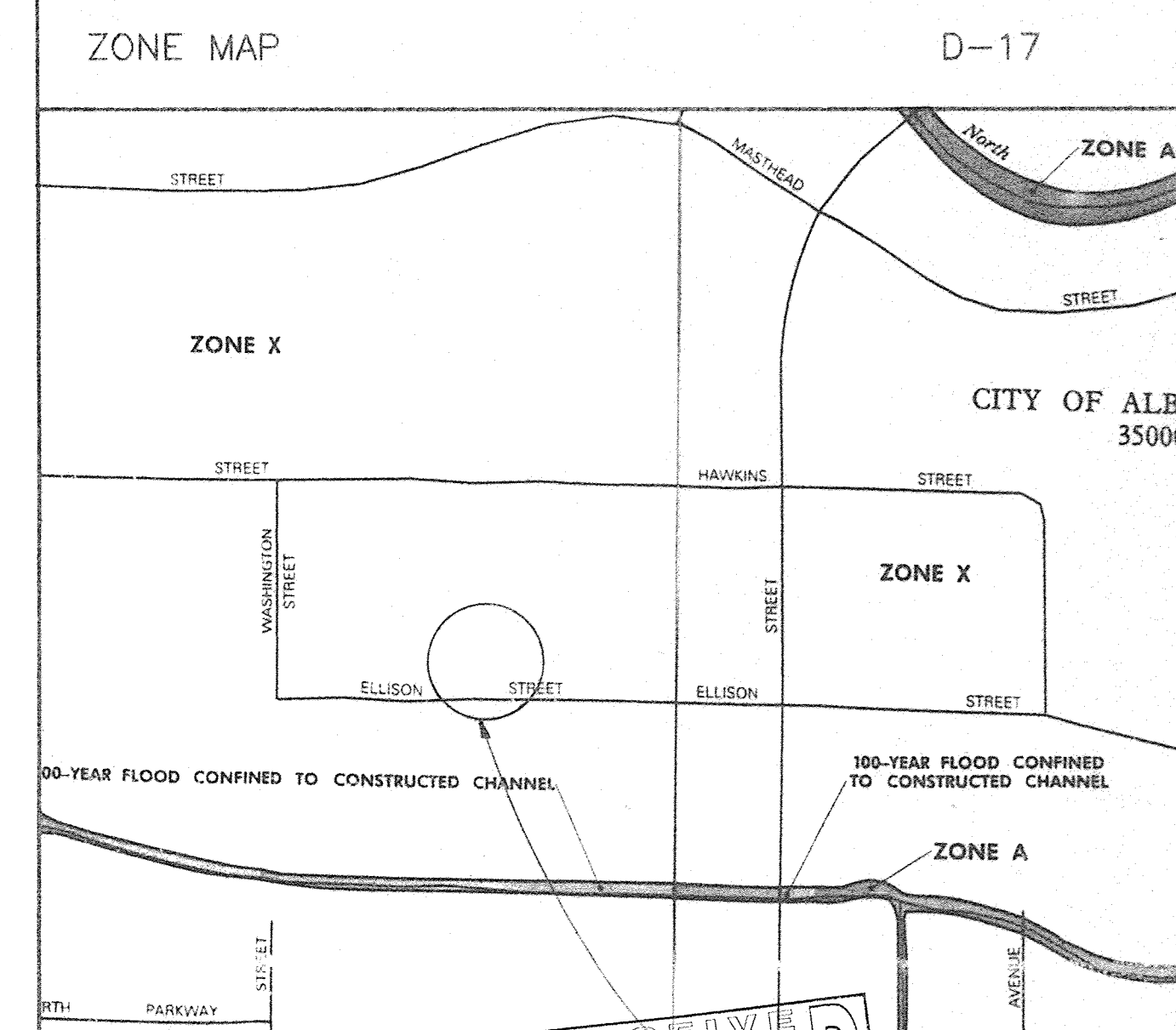
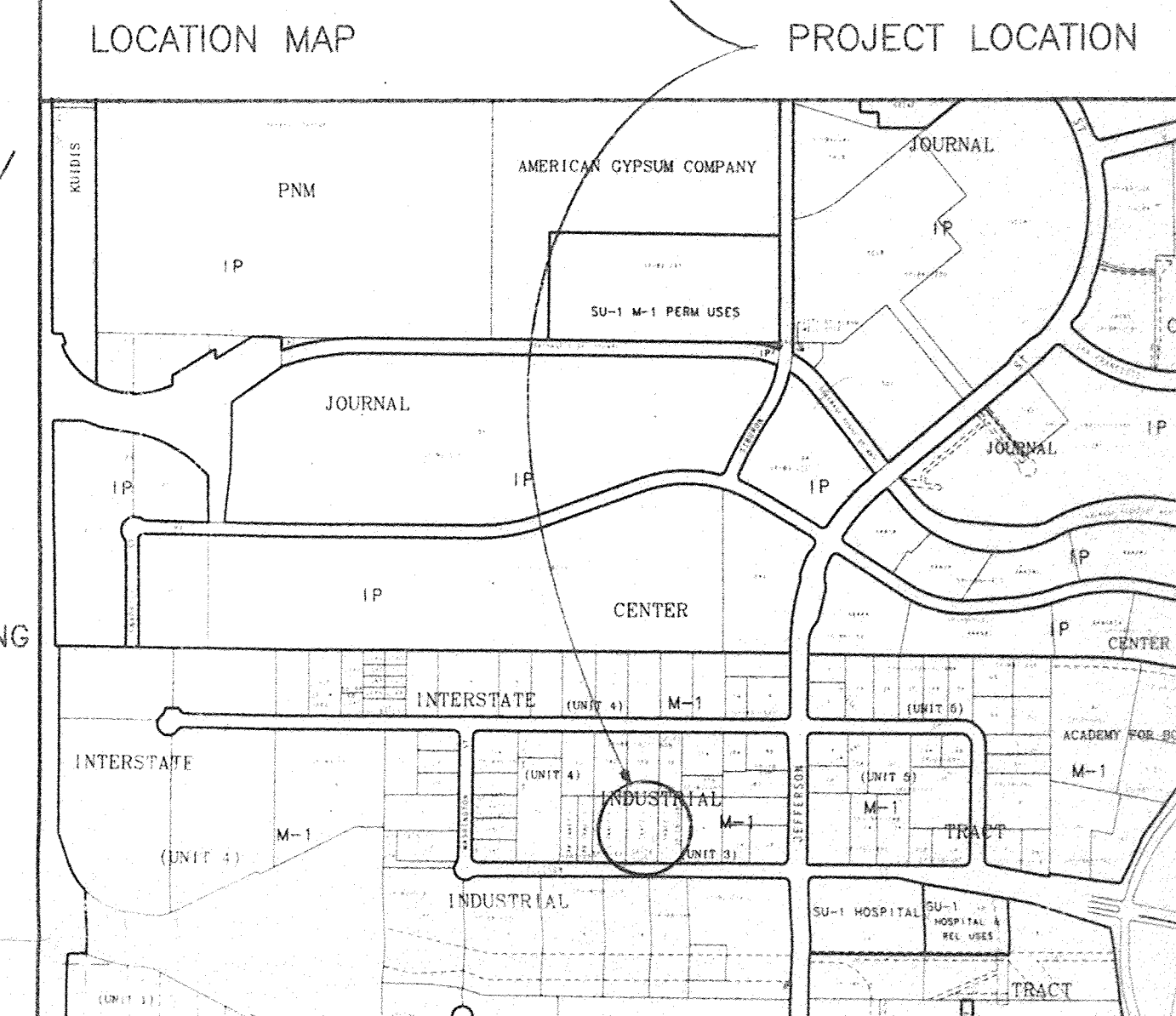
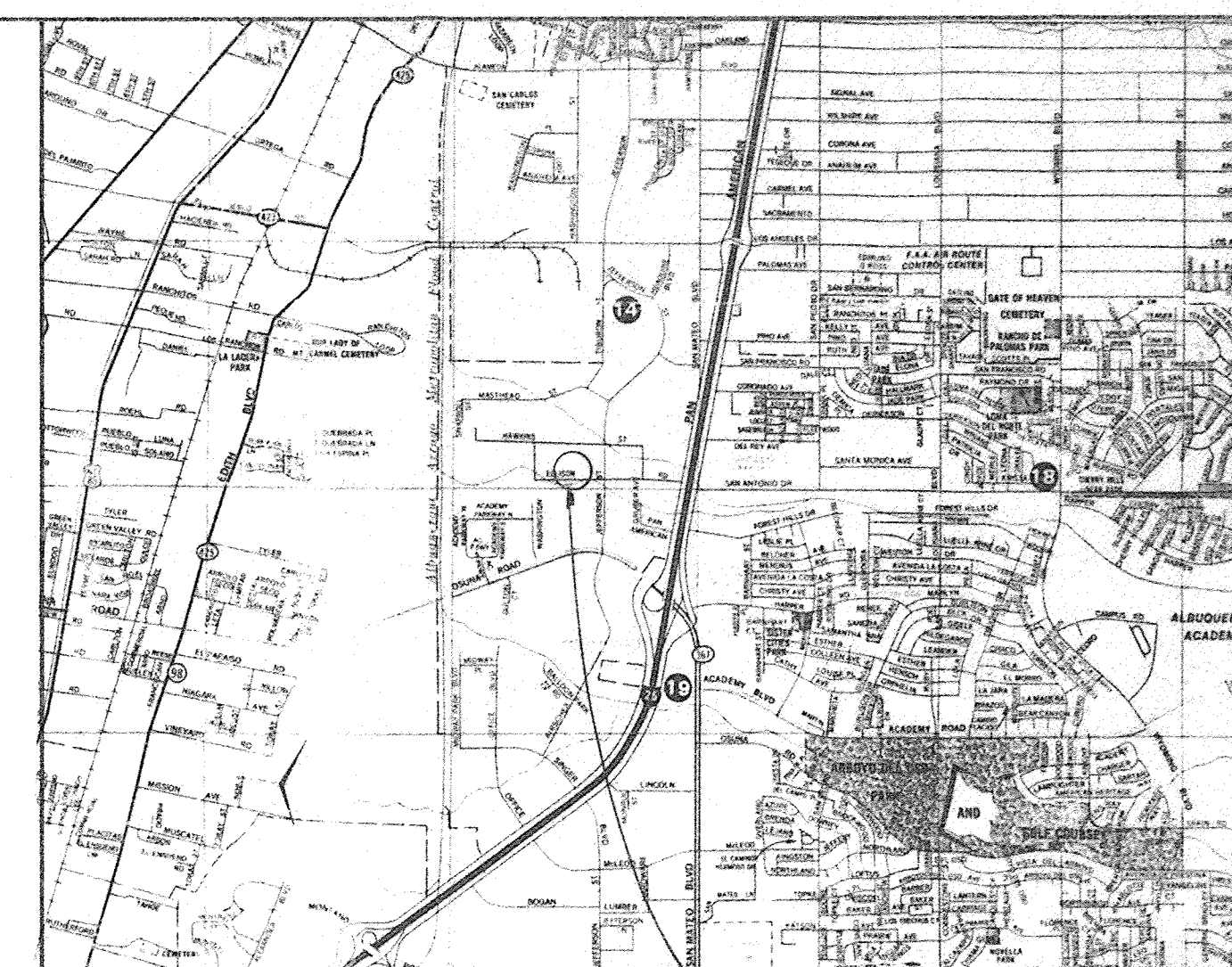
WITH THE PROPOSED IMPROVEMENTS ALL RUNOFF CREATED FROM THE SITE WILL BE REDIRECTED TO THE DRAINAGE FACILITIES AND WILL BE DISCHARGED TO ELLISON; THEREBY, ELIMINATING THE DISCHARGE TO THE ADJACENT PROPERTY. A VERY SMALL AREA OF THE PROPERTY OF THE EAST DRAINS TO AND ENTERS THE SUBJECT PROPERTY. THIS DRAINAGE WILL BE ALLOWED TO CONTINUE TO DRAIN AROUND THE NEW RETAINING STRUCTURES TO ITS CURRENT PATH.

THE EXISTING SURVEY INFORMATION SHOWN HEREON WAS PREPARED FROM A FIELD SURVEY DONE BY RIO GRANDE SURVEYING CO., INC., IN MARCH OF 1997. A SUBSEQUENT FIELD REVIEW BY THIS OFFICE REVEALED THAT ALL THE INFORMATION SHOWN HEREON IS CONSISTENT WITH THE ACTUAL CONDITIONS THAT EXIST IN THE FIELD.

THE SITE IS IN SUBSTANTIAL COMPLIANCE WITH THE APPROVED GRADING AND DRAINAGE PLAN WITH ENGINEER'S SEAL DATED 4-4-97 (WITH THE REVISIONS AS REFLECTED IN THE RECORD DRAWING ELEVATIONS SHOWN HEREON). THE SITE DRAINAGE WILL FUNCTION AS ORIGINALLY PROPOSED.



## PROPOSED SITE IMPROVEMENTS



FLOOD BOUNDARY MAP  
MAY 06 1998  
HYDROLOGY SECTION

NORMAN S. WRIGHT CO. GRADING AND DRAINAGE PLAN			
KEMPER-VAUGHAN CONSULTING ENGINEERS			
3700 COORS RD. N.W. • ALBUQUERQUE, NEW MEXICO 87120 • (505) 831-4520			
Designed KRW	Drawn SE	Checked KRW	Sheet 1 of 1
File WRIGHT		Date APRIL 1997	