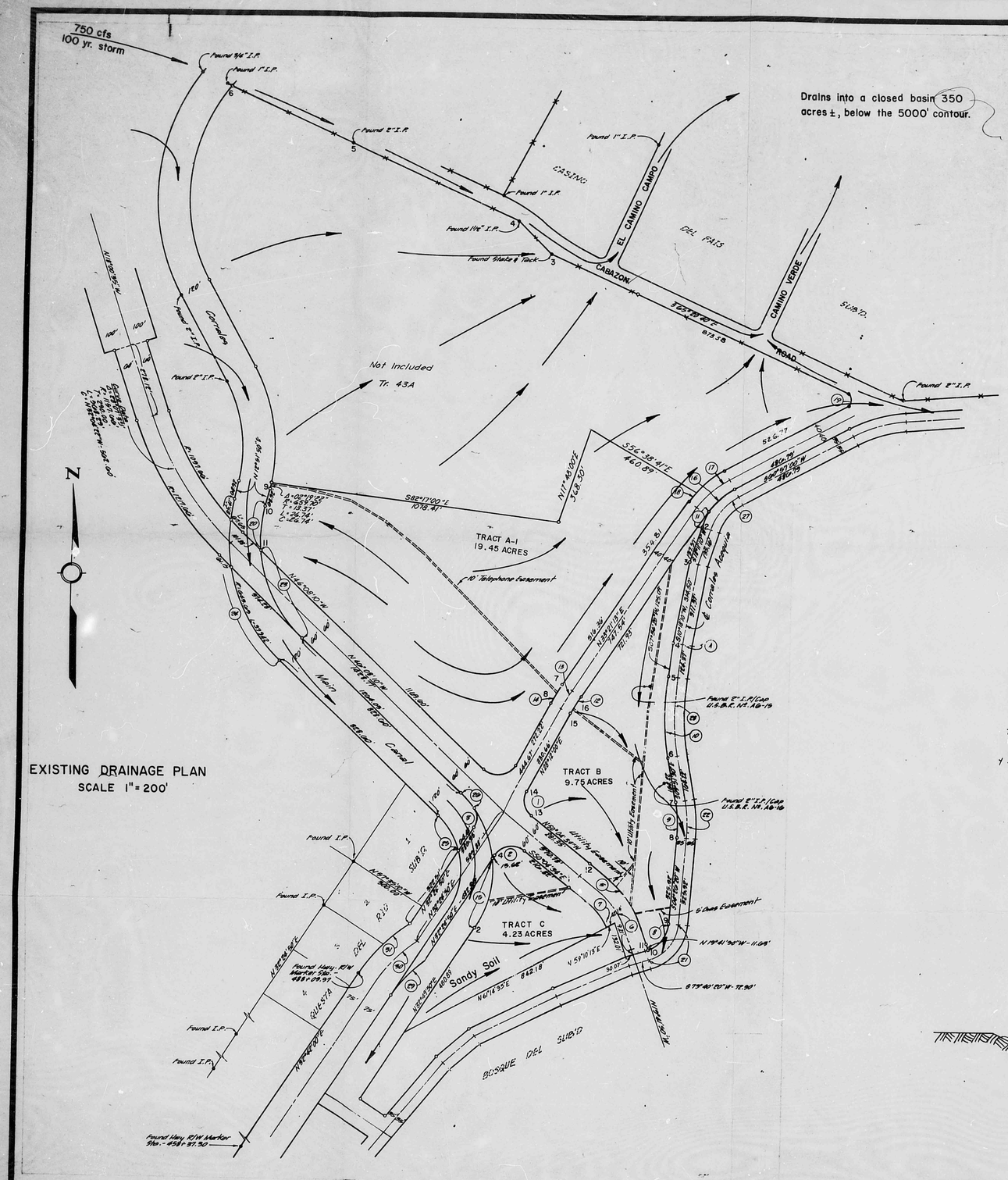
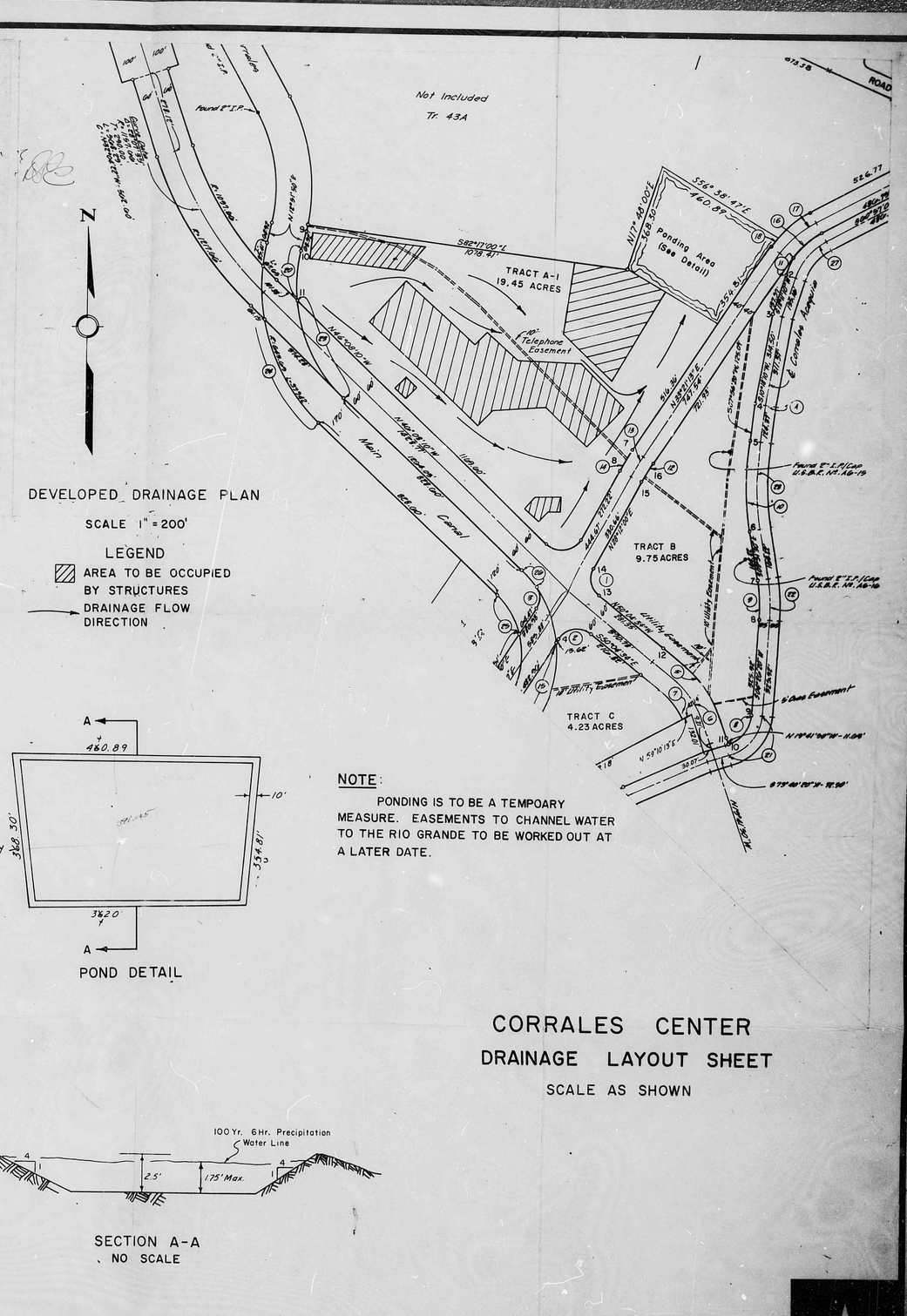
Hydrology A14/D1 Corrales Center

A14/D1

CORRALES CENTER

1 PLAN





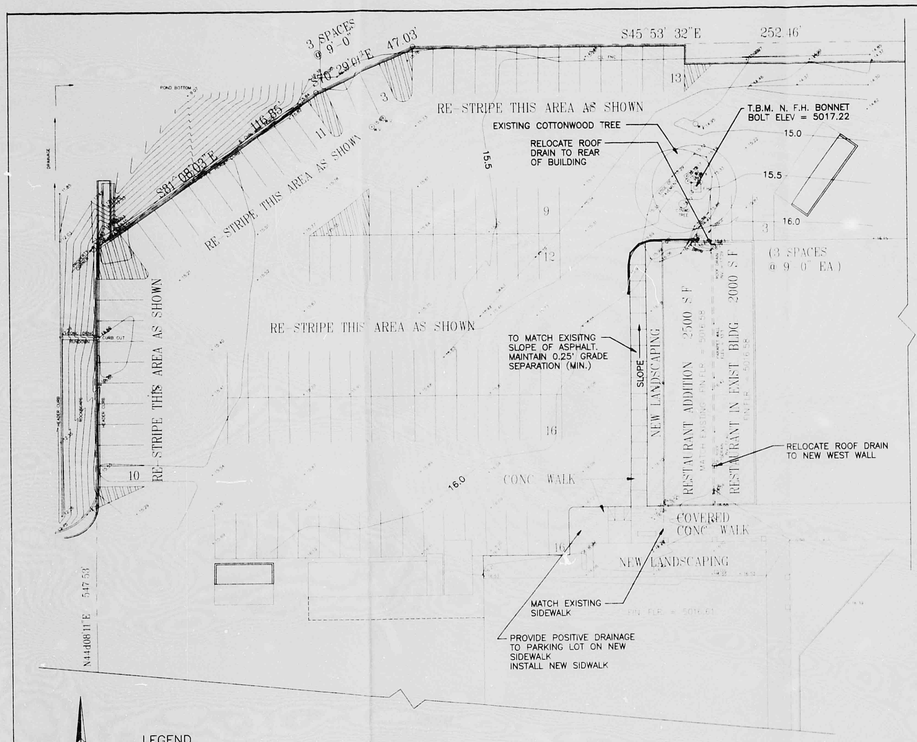
CORRALES CENTER
DRAINAGE LAYOUT SHEET
SCALE AS SHOWN

PLATE 2

A14/D1

PUBLIC WORKS/HYDROLOGY

A14/D1



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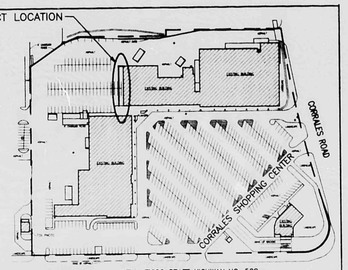
THE CONSTRUCTION IMPROVEMENTS WILL PROVIDE FOR THE REMOVAL OF EXISTING SIDEWALK AND PARKING (ASPHALT) AND REPLACEMENT OF SIDWALK, ROOF AREA, AND NEW LANDSCAPING WHICH RESULTS IN A DECREASE OF VOLUMETRIC RUOFF AND PEAK DISCHARGE. TWO ROOF DRAINS WILL REQUIRE RELOCATION BUT THIS WILL NOT ALTER THE CURRENT DRAINAGE PATTERNS.

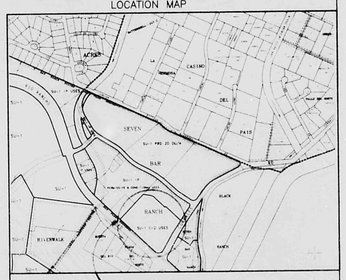
THE EXISTING ELEVATIONS AND TOPOGRAPHY SHOWN ON THE PLAN WERE DEVELOPED FORM A SURVEY PERFORMED IN SEPTEMBER, 1994, BY RIO GRANDE ENGINEERING AND SURVEY, INC. A SUBSEQUENT FIELD REVIEW OF THE SITE, PERFORMED BY THIS OFFICE, REVILED THAT ALL THE INFORMATION SHOWN ON THIS PLAN IS CONSISTANT WITH THE ACTUAL CONDITIONS THAT EXIST IN THE FIELD.

PROJECT LOCATION

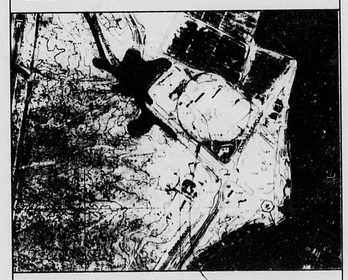


RIO RANCHO — NEW MEXICO STATE HIGHWAY NO. 528

LOCATION MAP



ZONE MAP — PROJECT LOCATION — A-14



FLOOD BOUNDARY MAP — PROJECT LOCATION

LEGEND

EXISTING CONTOUR	61
PROPOSED CONTOUR	
EXISTING WATER VALVE	W.V.
EXISTING SPOT ELEVATION	x 16.08
PROPOSED SPOT ELEVATION	56.4
FLOWLINE	
FLOW DIRECTION ARROW	
PROPOSED CONCRETE	

SCALE: 1"=20'-0"

BENCH MARK

A.C.S. B.M. – 7–A14 AT THE SOUTHWEST QUAD. OF THE INTX. OF CORRALES ROAD AND CABEZON ROAD. N.W. ALUM. DISK SET ON THE HEADWALL OF THE CABEZON CHANNEL. ELEV. = 5001.86

LEGAL DESCRIPTION

TRACT "A-1-1-A" BLACK RANCH

CALCULATIONS

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

SITE CHARACTERISTICS:
SITE LOCATION: ZONE 1
PRECIPITATION: P = 2.20 inches

LAND TREATMENT:
UNCOMPACTED SOIL – TREATMENT A
LANDSCAPE – TREATMENT B
COMPACTED SOIL – TREATMENT C
BUILDINGS & PAVING – TREATMENT D

EXCESS PRECIPITATION:
TREATMENT A E = 0.44 inches
TREATMENT B E = 0.67 inches
TREATMENT C E = 0.99 inches
TREATMENT D E = 1.97 inches

PEAK DISCHARGE:
TREATMENT A = 1.29 cfs/acre
TREATMENT B = 2.03 cfs/acre
TREATMENT C = 2.87 cfs/acre
TREATMENT D = 4.37 cfs/acre

(AREAS SHOWN REFLECT TOTAL AREA DISTURBED BY CONSTRUCTION ONLY)

	EXISTING	PROPOSED
TOTAL AREA	= 0.162 AC.	
TREATMENT A	= 0.000 AC. = 0.0%	0.000 AC. = 0.0%
TREATMENT B	= 0.000 AC. = 0.0%	0.044 AC. = 27.2%
TREATMENT C	= 0.001 AC. = 0.6%	0.000 AC. = 0.0%
TREATMENT D	= 0.161 AC. = 99.4%	0.118 AC. = 72.8%

ONSITE – EXCESS PRECIPITATION & VOLUMETRIC RUNOFF:
EXISTING RUNOFF:
WEIGHTED E = [(.044)(0.00)+(0.67)(0.00)+(0.99)(0.001)+(1.97)(0.161)]/0.162
= 1.96 inches
V100-6hr = (1.96)(0.162)/12 = 0.026 acre-ft = 1133 cf
DEVELOPED RUNOFF:
WEIGHTED E = [(.044)(0.00)+(0.67)(0.044)+(0.99)(0.00)+(1.97)(0.118)]/0.162
= 1.61 inches
V100-5hr = (1.61)(0.162)/12 = 0.022 acre-ft = 958 cf

ONSITE – PEAK DISCHARGE:
EXISTING DISCHARGE:
Q100 = (1.29)(0.00)+(2.03)(0.00)+(2.87)(0.001)+(4.37)(0.161) = 0.707 cfs
DEVELOPED DISCHARGE:
Q100 = (1.29)(0.00)+(2.03)(0.044)+(2.87)(0.00)+(4.37)(0.118) = 0.605 cfs

RESULTS:
DEVELOPED VOLUMETRIC RUNOFF:
1,133 – 958 = 175 cf DECREASE IN RUNOFF VOLUME
DEVELOPED PEAK DISCHARGE:
0.707 – 0.605 = 0.102 cfs DECREASE IN PEAK DISCHARGE

SOUPER SALAD
GRADING AND DRAINAGE PLAN

KEMPER–VAUGHAN
CONSULTING ENGINEERS
9100 CORRAL DEL SOL • ALBUQUERQUE, NEW MEXICO 87123 • (505) 821-4020

Designed	KRK	Drawn	SE	Checked	KRK	Sheet	1 of 1
SOUPER		Date	SEPTEMBER 1994				

R# 23 DATE 3-13-02 OP ESP.

CITY OF ALBUQUERQUE

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DIRECTOR

NOTARY PUBLIC

OFFICIAL SEAL Roberta Duran NOTARY PUBLIC STATE OF NEW MEXICO My Commission Expires 07/03/02

PLAN SHOT TWICE ONCE ON LIGHT ONCE ON DARK

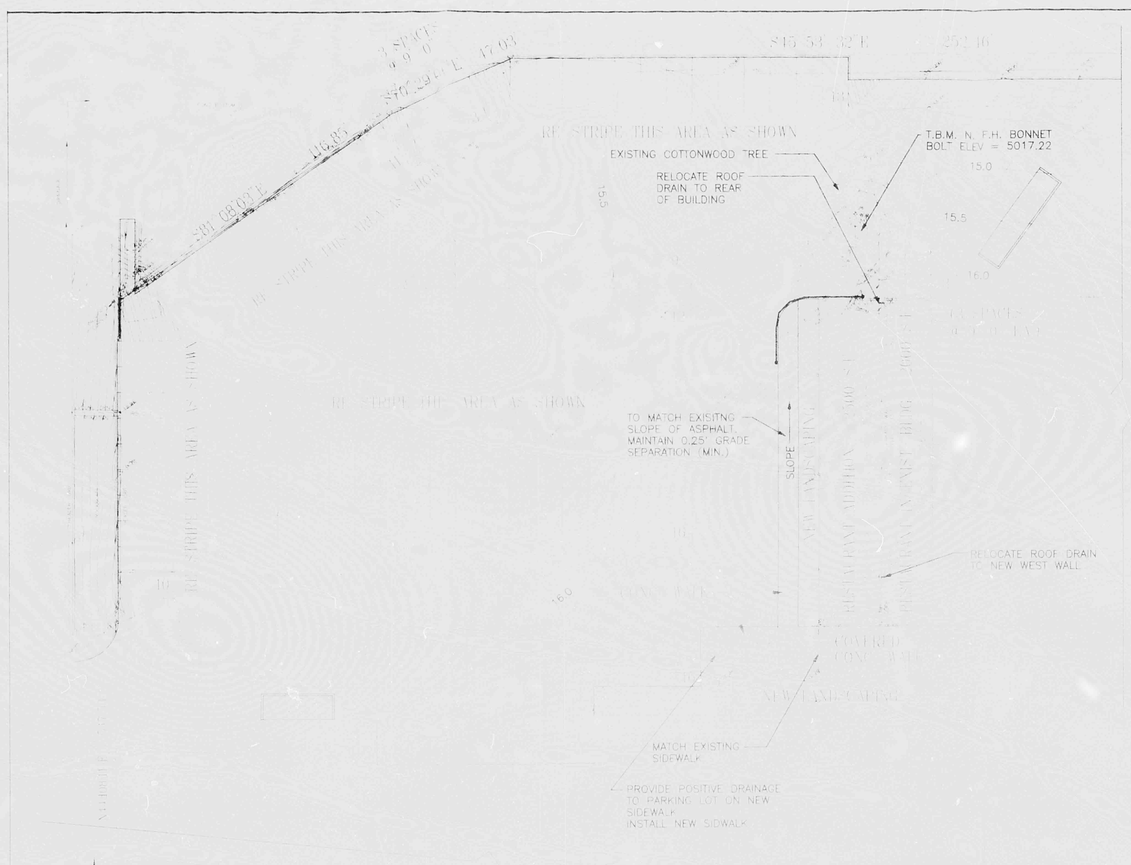
CITY OF ALBUQUERQUE THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.

PLANS/PLATS ON FILE

FILE DESC: A14/D1

PLANS/PLATS 1

E 30 D 24 C 20 B 16 A 12 CITY OF ALBUQERQUE C D F



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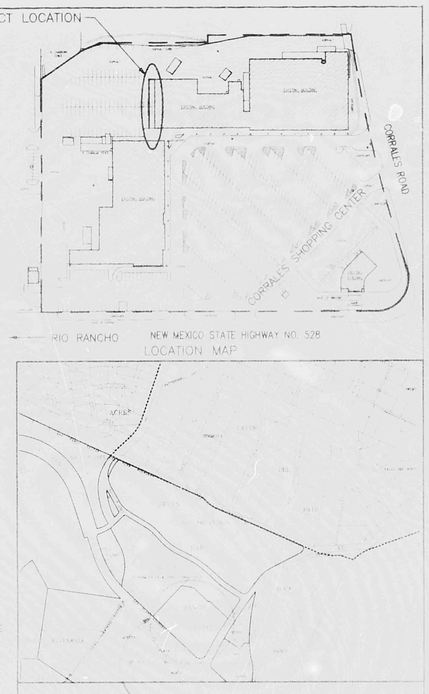
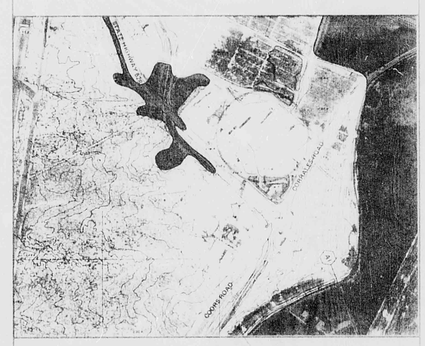


LOCATION MAP

ZONE MAP PROJECT LOCATION A-14



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SOUPER SALAD
GRADING AND DRAINAGE PLAN

KEMPER-VAUGHAN

KRK	SE	KRK	1 of 1
SOUPER	SEPTEMBER 1994		

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1/15/02
DIRECTOR

NOTARY PUBLIC

OFFICIAL SEAL
Roberta Duran
Notary Public
07/02/02

D24 C20 B16 A12 CITY OF ALBUQERQUE C D