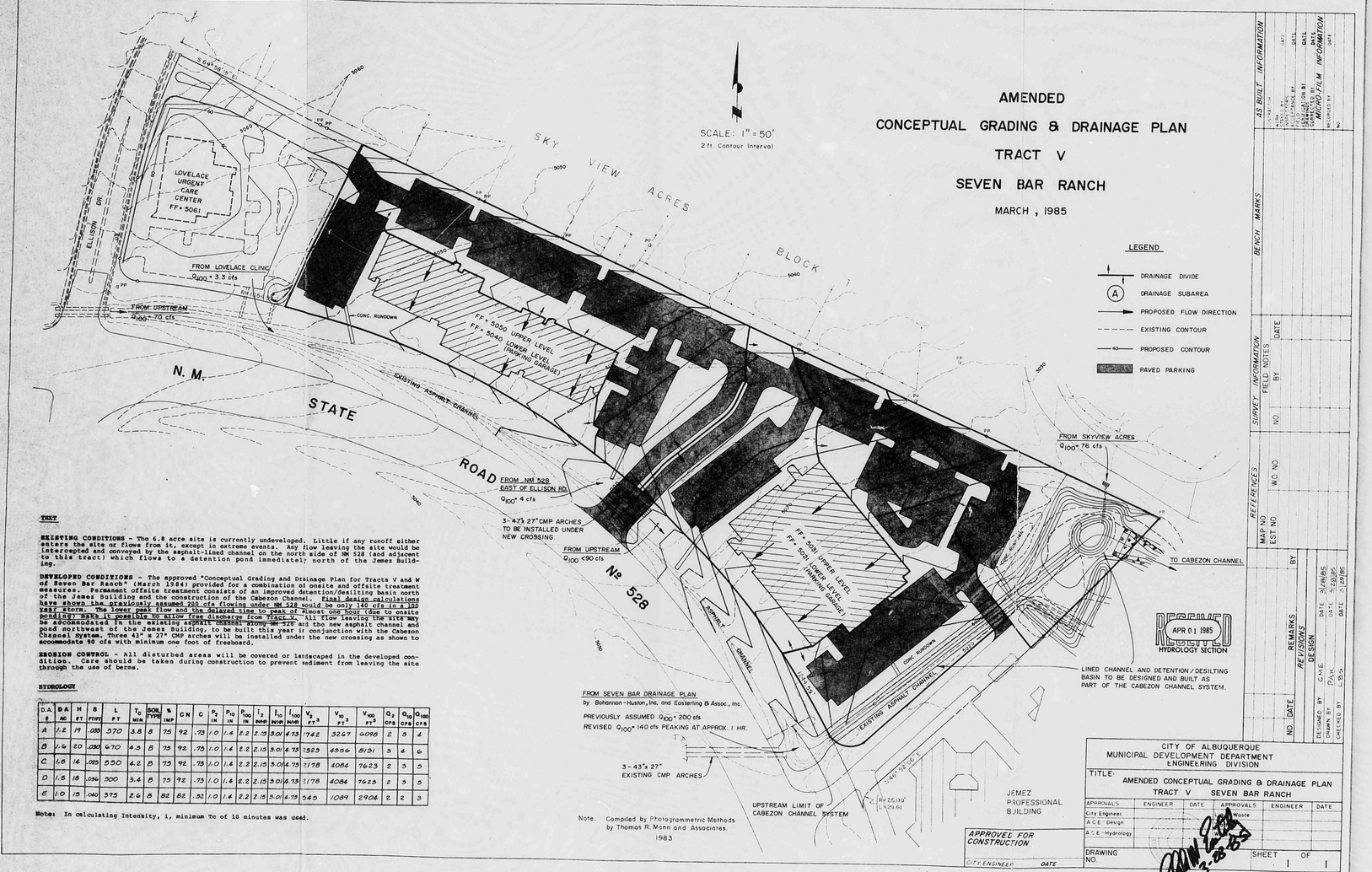

AMENDED
CONCEPTUAL GRADING & DRAINAGE PLAN
TRACT V
SEVEN BAR RANCH

MARCH, 1985

LEGEND

- DRAINAGE DIVIDE
- (A) DRAINAGE SUBAREA
- PROPOSED FLOW DIRECTION
- EXISTING CONTOUR
- 40 PROPOSED CONTOUR
- PAVED PARKING

TEXT

EXISTING CONDITIONS - The 6.8 acre site is currently undeveloped. Little if any runoff either enters the site or flows from it, except in extreme events. Any flow leaving the site would be intercepted and conveyed by the asphalt-lined channel on the north side of NM 528 (and adjacent to this tract) which flows to a detention pond immediately north of the Jemez Building.

DEVELOPED CONDITIONS - The approved "Conceptual Grading and Drainage Plan for Tracts V and W of Seven Bar Ranch" (March 1984) provided for a combination of onsite and offsite treatment measures. Permanent offsite treatment consists of an improved detention/desilting basin north of the Jemez Building and the construction of the Cabezon Channel. Final design calculations have shown the previously assumed 200 cfs flowing under NM 528 would be only 140 cfs in a 100 year storm. The lower peak flow and the delayed time to peak of almost one hour (due to onsite ponding) make it possible to allow free discharge from Tract V. All flow leaving the site may be accommodated in the existing asphalt channel along NM 528 and the new asphalt channel and pond northwest of the Jemez Building, to be built this year in conjunction with the Cabezon Channel System. Three 43" x 27" CMP arches will be installed under the new crossing as shown to accommodate 90 cfs with minimum one foot of freeboard.

EROSION CONTROL - All disturbed areas will be covered or landscaped in the developed condition. Care should be taken during construction to prevent sediment from leaving the site through the use of berms.

HYDROLOGY

D.A. #	DA AC	H FT	S FT/FT	L FT	T_c MIN	SOIL TYPE	% IMP	CN	C	P_2 IN	P_{10} IN	P_{100} IN	I_2 IN/HR	I_{10} IN/HR	I_{100} IN/HR	V_2 FT^3	V_{10} FT^3	V_{100} FT^3	Q_2 CFS	Q_{10} CFS	Q_{100} CFS
A	1.2	19	.035	370	3.8	B	75	92	.73	1.0	1.4	2.2	2.15	3.01	4.73	742	3267	6098	2	3	4
B	1.6	20	.030	670	4.3	B	75	92	.73	1.0	1.4	2.2	2.15	3.01	4.73	1323	4956	8131	3	4	6
C	1.5	16	.025	550	4.2	B	75	92	.73	1.0	1.4	2.2	2.15	3.01	4.73	1178	4084	7623	2	3	5
D	1.5	18	.034	500	3.4	B	75	92	.73	1.0	1.4	2.2	2.15	3.01	4.73	1178	4084	7623	2	3	5
E	1.0	15	.040	375	2.6	B	82	82	.52	1.0	1.4	2.2	2.15	3.01	4.73	545	1089	2906	2	2	3

Note: In calculating Intensity, i, minimum Tc of 10 minutes was used.

AS BUILT INFORMATION	
CONTRACTOR	DATE
FLOW IN	
CONSTRUCTION	
INSPECTOR BY	DATE
FIELD	
FIELD VERIFICATION BY	DATE
CONTROL BY	DATE
MICROFILM INFORMATION	
MICROFILM	DATE
NO.	

BENCH MARKS	
NO.	DATE

SURVEY INFORMATION	
FIELD NOTES BY	DATE
NO.	

REFERENCES	
MAP NO.	
EST NO.	
W/O NO.	

REMARKS	
NO.	DATE

REVISIONS		
DESIGN	C.M.E.	DATE 3/28/85
DRAWN BY	T.R.M.	DATE 3/28/85
CHECKED BY	L.A.D.	DATE 3/28/85

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE: AMENDED CONCEPTUAL GRADING & DRAINAGE PLAN
TRACT V
SEVEN BAR RANCH

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Hydrologist		
A.C.E.-Design					
A.C.E.-Hydrology					

DRAWING NO. A-14/D003 SHEET 1 OF 1

APPROVED FOR CONSTRUCTION
CITY ENGINEER DATE

REF 21 DATE 6-23-92 CB 5002

CITY OF ALBUQUERQUE

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NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 11/6/86

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PLANS/PLATS ON FILE

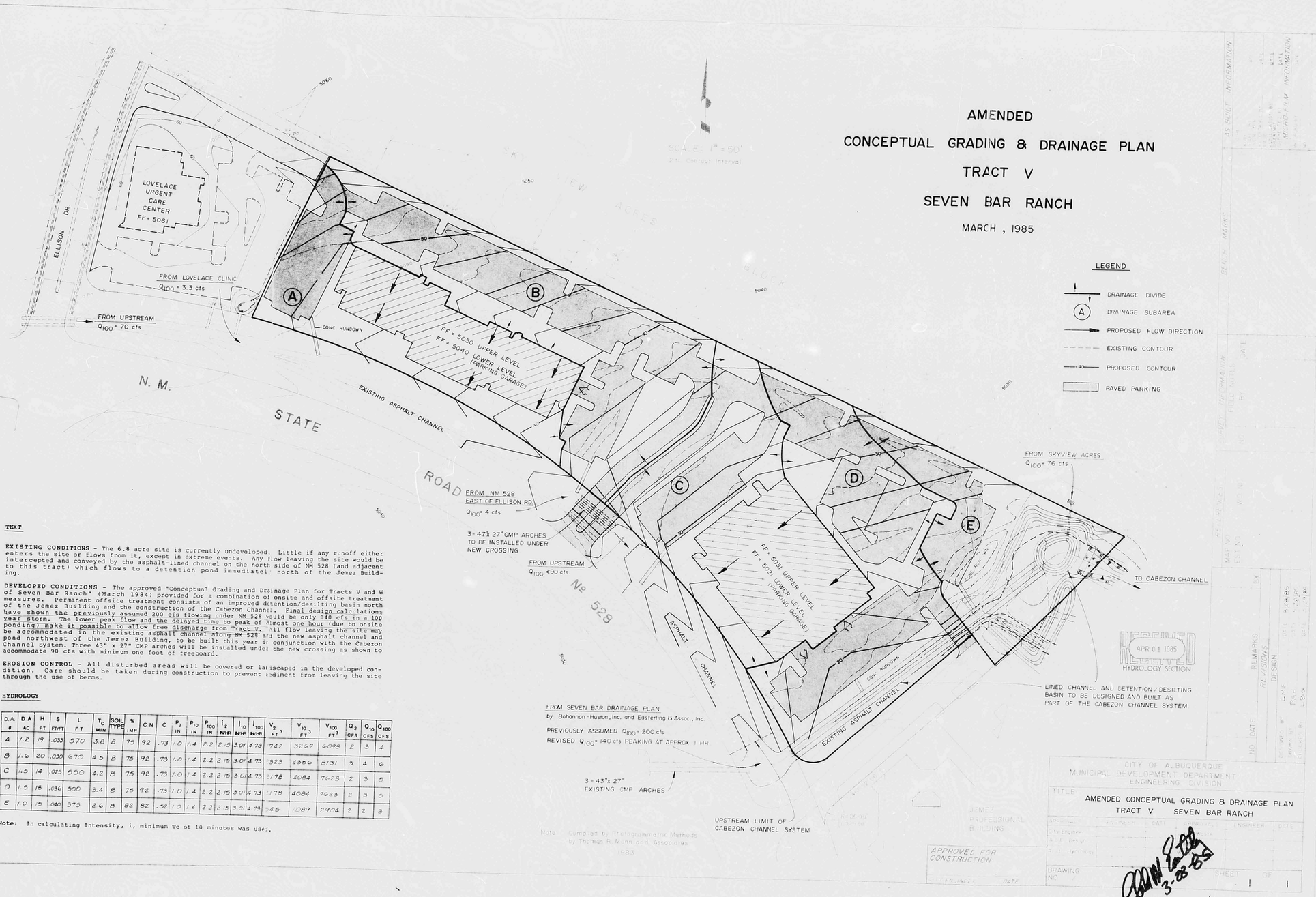
FILE DESC: A-14/D003

PLANS/PLATS 5

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

AMENDED
CONCEPTUAL GRADING & DRAINAGE PLAN
TRACT V
SEVEN BAR RANCH

MARCH , 1985



TEXT

EXISTING CONDITIONS - The 6.8 acre site is currently undeveloped. Little if any runoff either enters the site or flows from it, except in extreme events. Any flow leaving the site would be intercepted and conveyed by the asphalt-lined channel on the north side of NM 528 (and adjacent to this tract) which flows to a detention pond immediately north of the Jemez Building.

DEVELOPED CONDITIONS - The approved "Conceptual Grading and Drainage Plan for Tracts V and W of Seven Bar Ranch" (March 1984) provided for a combination of onsite and offsite treatment measures. Permanent offsite treatment consists of an improved detention/desilting basin north of the Jemez Building and the construction of the Cabezon Channel. Final design calculations have shown the previously assumed 200 cfs flowing under NM 528 would be only 140 cfs in a 100 year storm. The lower peak flow and the delayed time to peak of almost one hour (due to onsite ponding) make it possible to allow free discharge from Tract V. All flow leaving the site may be accommodated in the existing asphalt channel along NM 528 and the new asphalt channel and pond northwest of the Jemez Building, to be built this year in conjunction with the Cabezon Channel System. Three 43" x 27" CMP arches will be installed under the new crossing as shown to accommodate 90 cfs with minimum one foot of freeboard.

EROSION CONTROL - All disturbed areas will be covered or landscaped in the developed condition. Care should be taken during construction to prevent sediment from leaving the site through the use of berms.

HYDROLOGY

D.A. #	D A AC	H FT	S FT/FT	L FT	T_C MIN	SOIL TYPE	% IMP	C N	C	P_2 IN	P_{10} IN	P_{100} IN	i_2 IN/HR	i_{10} IN/HR	i_{100} IN/HR	V_2 FT^3	V_{10} FT^3	V_{100} FT^3	Q_2 CFS	Q_{10} CFS	Q_{100} CFS
A	1.2	19	.033	570	3.8	B	75	92	.73	1.0	1.4	2.2	2.15	3.01	4.73	742	3267	6098	2	3	4
B	1.6	20	.030	670	4.5	B	75	92	.73	1.0	1.4	2.2	2.15	3.01	4.73	923	4356	8131	3	4	6
C	1.5	14	.025	550	4.2	B	75	92	.73	1.0	1.4	2.2	2.15	3.01	4.73	1178	4084	7623	2	3	5
D	1.5	18	.036	500	3.4	B	75	92	.73	1.0	1.4	2.2	2.15	3.01	4.73	1178	4084	7623	2	3	5
E	1.0	15	.040	375	2.6	B	82	82	.52	1.0	1.4	2.2	2.5	3.0	4.73	845	1089	2904	2	2	3

Note: In calculating Intensity, i, minimum Tc of 10 minutes was used.

THIS PLAN SHOT TWICE
ONCE ON LIGHT AND
ONCE ON DARK.

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R# 21 DATE 2-28-93 OP ETP

CITY OF ALBUQUERQUE

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NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires MAY 8 1995

D 24 C 20 B 16 A 12 | CITY OF ALBUQUERQUE C D

From Bohannan-Huston 10-8-80

TOPOGRAPHIC ORTHOPHOTO MAP 2

CONCEPTUAL DRAINAGE PLAN

OF TRACTS V AND W OF SEVEN BAR RANCH

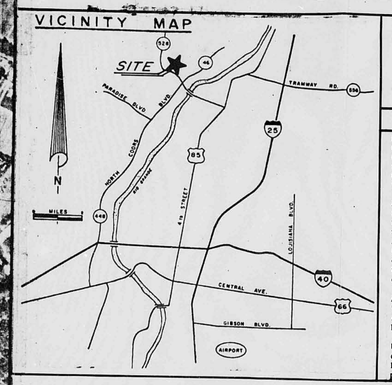
EXISTING CONDITIONS AND OFF SITE

MARCH 1984 ZONE ATLAS A-14

PREPARED FOR:

SEVEN BAR LAND AND CATTLE COMPANY

VICINITY MAP



PREPARED BY:

LEVERTON-EASTERLING, INC.

CONSULTING ENGINEERS

ABQ. N.M. 898-8021

TEXT

Near the intersection of Cabezon Road and the Corrales Main Canal, a pond collects runoff from approximately 455 acres of the Black Ranch and approximately three acres of roadway surface (NM 528). The pond has a storage volume of approximately 22,000 cubic feet and it drains through a 12" diameter pipe to the Corrales Main Canal.

An asphalt lined channel west of the Jemez Building conveys runoff to the pond from approximately 400 acres of largely undeveloped land which drains to and northward along the Alameda Airports' north-south runway. Ponding occurs near the north end of the runway. However, its impact is negligible relative to the actual runoff volumes, except in minor runoff events. Runoff from this area flows under NM 528 through three 43"x27" CMP culverts with 175 cfs capacity located along the southern perimeter of the site.

An asphalt channel conveys storm runoff from approximately 53.5 acres of mostly undeveloped land and three acres of roadway surface (NM 528). The channel extends under Ellison Drive in two 36"x22" CMP culverts with 65 cfs capacity.

Under fully developed conditions, the off-site drainage will conform to the approved drainage master plan for the 7-Bar Ranch development. See Sheets 2 and 3 of 3 for further explanation.

HYDROLOGIC DATA

AP #	DA AC	H FT	S FT/FT	L	T_c MIN	SOIL TYPE	% IMP	CN FT	C	P_2 IN	P_{10} IN	P_{100} IN	i_2 IN/HR	i_{10} IN/HR	i_{100} IN/HR	V FT³	V_{10} FT³	V_{100} FT³	Q_2 CFS	Q_{10} CFS	Q_{100} CFS
1	37	130	.04	3300	138	B/A	9	70	0.3	0.98	1.45	2.2	1.76	2.60	3.95	0	9402	42,979	19.5	289	439
2	4	93	.13	700	7.8	A	10	60	0.2	0.98	1.45	2.2	2.11	3.12	4.73	0	0	1452	1.7	25	38
3a	76	92	.023	4000	19.8	A	0	54	.18	0.98	1.45	2.2	1.46	2.19	3.28	0	0	11,235	20.0	30.0	44.9
3b	184	88	.015	5750	30.9	A/B	25	70	.36	0.98	1.45	2.2	1.18	1.74	2.64	0	46,754	213,734	78.2	115.3	174.9
3c	139	170	.043	4000	15.6	A/B	0	62	.26	0.98	1.45	2.2	1.67	2.47	3.74	0	0	65,594	60.4	89.3	135.2
3	399	170	.027	6350	26.5	A/B	12	65	.30	0.98	1.45	2.2	1.27	1.89	2.86	0	46,754	275,190	152.0	224.3	342.9
4	455	180	.028	6500	27.0	A/B	12	65	.30	0.98	1.45	2.2	1.27	1.89	2.86	42,979	56,156	318,169	173.4	258.3	390.4

Sample Computations

$$T_c = .0078 \frac{L^{0.77}}{S^{0.385}}$$

$$V_2 = (P_2 \propto CN)_{AREA}$$

$$Q = CiA$$

$$S = \frac{H}{L}$$

From ALB DPM Vol II, Chap 22

SOILS INFORMATION

DESCRIPTION

BCC—Bluepoint loamy fine sand, 1 to 9 percent slopes. This soil is nearly level to moderately sloping. It has the profile described as representative of the series, but on about 10 percent of the acreage the surface layer is sand. Included in mapping are areas of Madurez, Pajarito, and Wink soils, which make up about 15 percent of the unit.

Runoff is slow, and the hazard of soil blowing is severe.

This soil is used for range, watershed, wildlife habitat, recreation, and community development. Dryland capability subclass VIIe; native plant community 2.

MWA—Madurez-Wink association, gently sloping. This mapping unit is about 55 percent a Madurez fine sandy loam that has 1 to 5 percent slopes and 25 percent a Wink fine sandy loam that has 1 to 7 percent slopes. It is on the East and West Mesas.

The gently sloping Madurez soil is mainly on slightly convex piedmont fans. It has the profile described as representative of the Madurez series. The gently sloping Wink soil is on the sides of low ridges. It has a profile similar to that described as representative of the Wink series, but the surface layer is about 4 inches thick.

Included in this unit in mapping are areas of Bluepoint, Pajarito, and Latene soils, which make up about 20 percent of the unit.

Runoff is slow, and the hazard of soil blowing is moderate to severe.

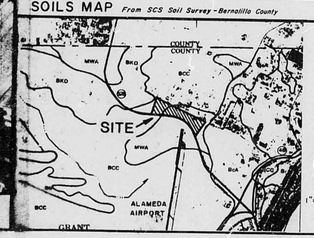
This mapping unit is used for range, wildlife habitat, watershed, and community development. Dryland capability subclass VIIe; native plant community 4.

Soil series and map symbols	Depth to— Bedrock	Depth to— Seasonal high water table	Depth from surface	USDA texture of representative profile	Classification— Unified	Classification— AASHTO	Coarse fragments greater than 3 inches	Hydrologic soil group
*Bluepoint: Bb, BcA, BCC, BdD, BkD. For Wink part of BdD, see Wink series; for Rokan part of BkD, see Rokan series.	>5	>5	0-60	Loamy fine sand and loamy sand	SP-SM or SM	A-3 or A-2	.....	A
*Madurez: MWA. For Wink part, see Wink series.	>5	>5	0-21	Fine sandy loam and sandy clay loam.	SC-SM, SC, or CL	A-4 or A-6	.....	B
			21-60	Sandy loam.....	SM	A-2 or A-4	.....	

	Percentage passing sieve— No. 4 (4.7 mm)	No. 10 (2.0 mm)	No. 40 (0.42 mm)	No. 200 (0.074 mm)	Liquid limit	Plasticity index	Permeability	Available water capacity	Reaction	Salinity	Shrink-swell potential	Risk of corrosion to— Uncoated steel	Risk of corrosion to— Concrete
BCC	90-100	85-100	70-95	5-20	NP	NP	6.0-20.0	0.07-0.09	7.4-8.4	0-1	Low	Low	Low.
MWA	.....	100	90-100	45-60	25-35	5-15	0.6-2.0	0.14-0.16	7.9-8.4	0-1	Moderate	High	Low.

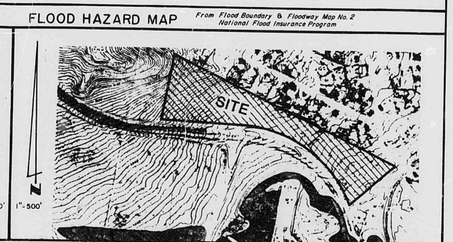
SOILS MAP

From SCS Soil Survey - Bernalillo County



FLOOD HAZARD MAP

From Flood Boundary & Floodway Map No. 2 National Flood Insurance Program



A-14/D003

SHEET 1 OF 3

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RECEIVED APR 01 1985 HYDROLOGY SECTION

RE 21 DATE 6-23-92 OP ETP

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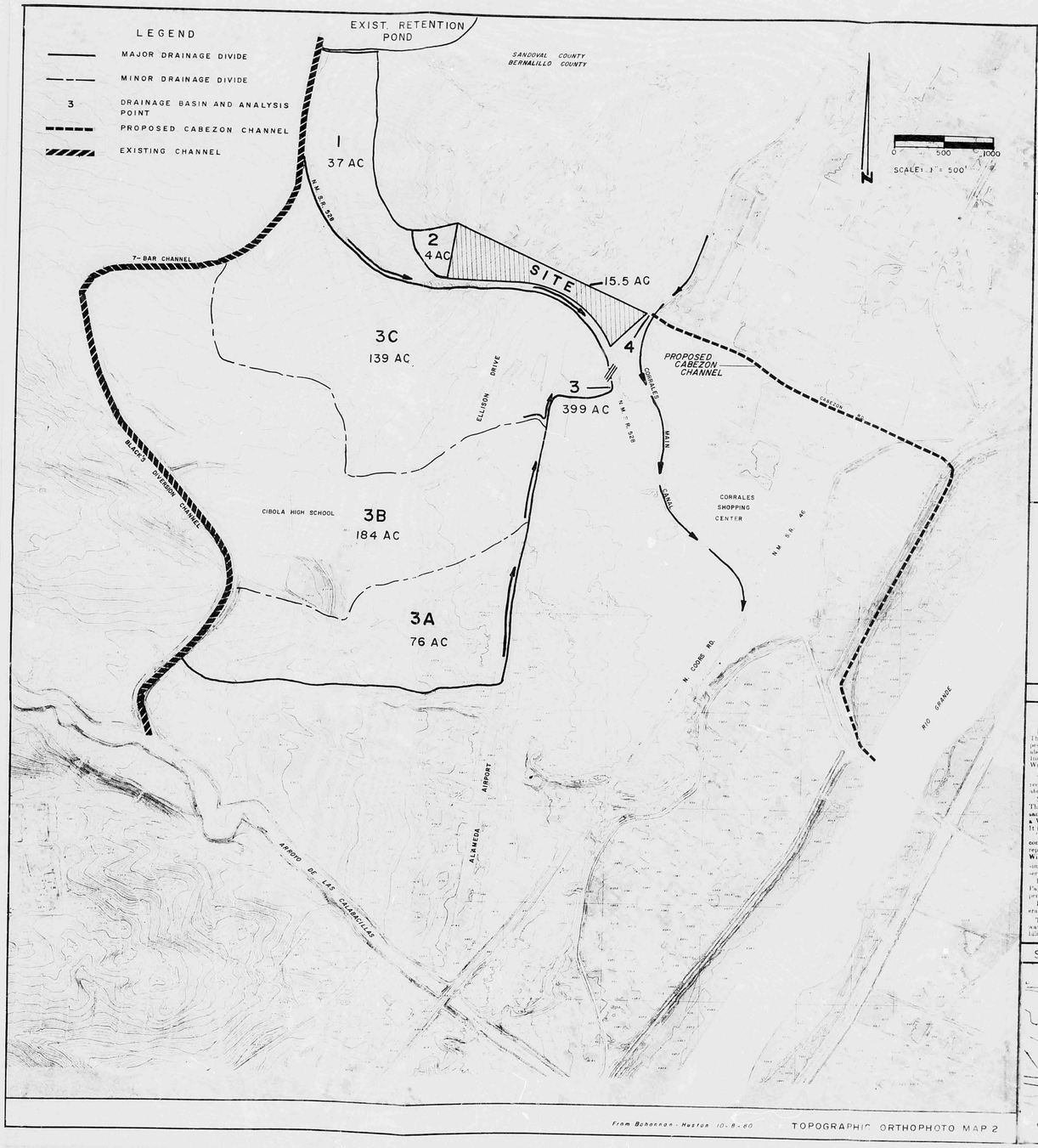
D 24 | C 20 | B 16 | A 12 | CITY OF ALBUQUERQUE | C | D



From Bohannan-Huston 10-8-80 TOPOGRAPHIC ORTHOPHOTO MAP 2

CONCEPTUAL DRAINAGE PLAN

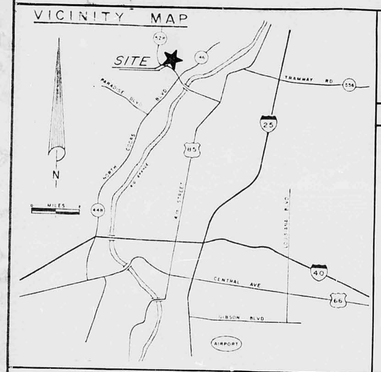
OF TRACTS V AND W OF SEVEN BAR RANCH

EXISTING CONDITIONS AND OFF SITE

MARCH 1984 ZONE ATLAS A-14

PREPARED FOR:
SEVEN BAR LAND AND CATTLE COMPANY

VICINITY MAP



PREPARED BY:
LEVERTON-EASTERLING, INC.
CONSULTING ENGINEERS
ABQ. N.M. 898-8021

TEXT

Near the intersection of Cabezon Road and the Corrales Main Canal, a pond collects runoff from approximately 455 acres of the Black Ranch and approximately three acres of roadway surface (NM 528). The pond has a storage volume of approximately 22,000 cubic feet and it drains through a 12" diameter pipe to the Corrales Main Canal.

An asphalt lined channel west of the Jemez Building conveys runoff to the pond from approximately 400 acres of largely undeveloped land which drains to and northward along the Alameda Airports' north-south runway. Ponding occurs near the north end of the runway. However, its impact is negligible relative to the actual runoff volumes, except in minor runoff events. Runoff from this area flows under NM 528 through three 43"x27" CMP culverts with 175 cfs capacity located along the southern perimeter of the site.

An asphalt channel conveys storm runoff from approximately 51.5 acres of mostly undeveloped land and three acres of roadway surface (NM 528). The channel extends under Ellison Drive in two 16"x22" CMP culverts with 65 cfs capacity.

Under fully developed conditions, the off-site drainage will conform to the approved drainage master plan for the 7 Bar Ranch development. See Sheets 2 and 3 of 3 for further explanation.

HYDROLOGIC DATA

Sample Computations

AP #	DA AC	H FT	S FT/FT	L	T_c MIN	SOIL TYPE	% IMP	CN FT	C	P_2 IN	P_{10} IN	P_{100} IN	i_2 IN/HR	i_{10} IN/HR	i_{100} IN/HR	V FT³	V_{10} FT³	V_{100} FT³	Q_2 CFS	Q_{10} CFS	Q_{100} CFS
1	37	130	.04	3300	138	B/A	9	70	0.3	.098	1.45	3.2	1.16	2.62	3.95	0	9402	42,979	19.5	209.6	319
2	4	93	.13	700	7.8	A	10	60	0.2	.098	1.45	2.2	1.1	3.12	4.73	0	0	1452	1.7	23.36	
3a	76	92	.023	4000	198	A	0	54	.18	.098	1.45	2.1	0.46	2.19	3.28	0	0	11,055	20.0	99.49	
3b	184	88	.015	5750	30.9	A/B	25	70	.36	.098	1.45	2.2	1.18	1.74	2.64	0	46,734	213,734	76.2	153.3	176.8
3c	139	170	.043	4000	15.6	A/B	0	62	.26	.098	1.45	2.2	1.67	2.47	3.74	0	0	65,594	60.4	843.3	1382
3	399	170	.027	6350	26.5	A/B	12	65	.30	.098	1.45	2.2	1.27	1.89	2.86	0	46,734	275,190	132.0	2223.3	
4	455	180	.028	6500	27.0	A/B	12	65	.30	.098	1.45	2.2	1.27	1.89	2.86	42,979	56,456	318,169	178.2	2802.4	

From Appendix VI, Chapter II.

$T_c = .0078 \frac{L}{S^{.38}}$

$V_c = (P_2 \times CN)_{AREA}$

$Q = CiA$

$S = \frac{H}{L}$

SOILS INFORMATION

DESCRIPTION

BCC—Blueport loamy fine sand, 1 to 9 percent slopes. This soil is nearly level to moderately sloping. It has the profile described as representative of the series, but on about 10 percent of the acreage the surface layer is sand. Included in mapping are areas of Madurez, Tejarito, and Wink soils, which make up about 15 percent of the unit.

Runoff is slow, and the hazard of soil blowing is severe. This soil is used for range, watershed, wildlife habitat, recreation, and community development. Dryland capability subclass VIIe; native plant community 2.

MWA—Madurez Wink association, gently sloping. This mapping unit is about 55 percent a Madurez fine sandy loam that has 1 to 5 percent slopes and 25 percent a Wink fine sandy loam that has 1 to 5 percent slopes. It is on the East and West Mesas.

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Included in this unit in mapping are areas of Blueport, Tejarito, and Latene soils, which make up about 20 percent of the unit.

Runoff is slow, and the hazard of soil blowing is moderate to severe.

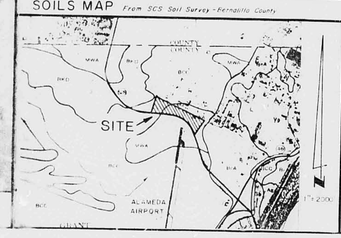
This mapping unit is used for range, wildlife habitat, watershed, and community development. Dryland capability subclass VIIe; native plant community 4.

Soil series and map symbols	Depth to: Bedrock	Depth to: Water table	Depth from surface	USDA texture of representative profile	Classification: Unified	Classification: AASHTO	Coarse fragments greater than 3 inches	Hydrologic soil group
*Blueport—BB, BCA, BCC, BCD, BCE. For Wink part see Wink series. For Rokan part see Rokan series.	>5	>5	0-60	Loamy fine sand and fine sand	SP-SM or SM	A-3 or A-2		A
*Madurez—MWA. For Wink part see Wink series.	>5	>5	0-21	Fine sandy loam and sandy clay loam	SC-SM, SC, or CL	A-4 or A-6		
			21-60	Sandy loam	SM	A-2 or A-4		B

	Percentage passing sieve: No. 4 (4.7 mm)	No. 10 (2.0 mm)	No. 40 (0.42 mm)	No. 200 (0.05 mm)	Liquid limit	Plasticity index	Permeability	Available water capacity	Reaction	Salinity	Shrink-swell potential	Risk of corrosion: Uncoated steel	Concrete
BCC	90-100	85-100	70-95	5-20	NP	NP	6.0-20.0	0.07-0.10	7.9-8.4	0-1	Low	Low	Low
MWA		100	90-100	45-60	21-35	5-15	0.6-2.0	0.15-0.18	7.9-8.4	0-1	Moderate	High	Low

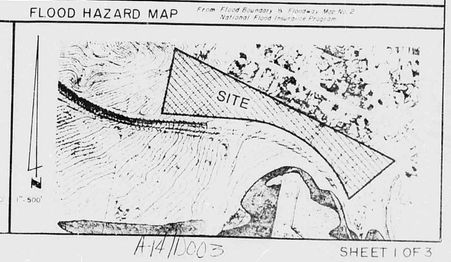
SOILS MAP

From SCS Soil Survey - Bernalillo County



FLOOD HAZARD MAP

From Flood Boundary & Floodway Map No. 2 National Flood Insurance Program



A-14/0003

SHEET 1 OF 3

THIS PLAN SHOT TWICE
ONCE ON LIGHT AND
ONCE ON DARK.

CITY OF ALBUQUERQUE
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CITY CLERK RECORDER
OFFICIAL SEAL NORBERTA SANCHEZ NOTARY PUBLIC STATE OF NEW MEXICO
My Commission Expires

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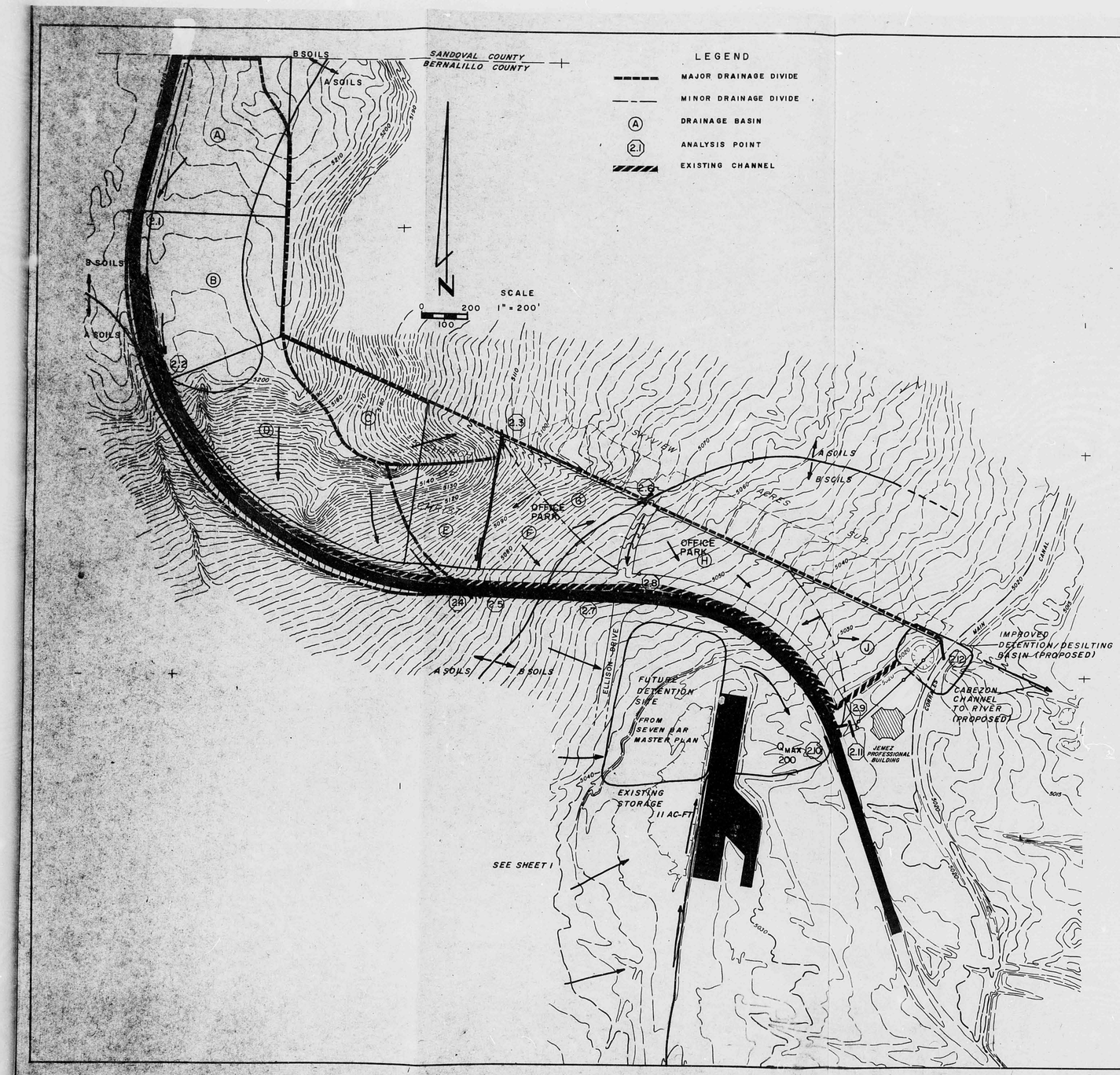
CITY OF ALBUQUERQUE

C D



CONCEPTUAL DRAINAGE PLAN

OF TRACTS V AND W OF SEVEN BAR R[illegible]

DEVELOPED CONDITIONS

MARCH, 1984 ZONE ATLAS A-14

PREPARED FOR:

SEVEN BAR RANCH AND CATTLE COMPANY

PREPARED BY:

LEVERTON-EASTERLING, INC.

HYDROLOGIC ASSUMPTIONS

DRAINAGE SUB-BASIN	PROPOSED USE	% IMPERV.	% of 100-yr RUNOFF PONDED	BEFORE PONDING C	BEFORE PONDING CN	EFFECTS OF PONDING 100-yr C	100-yr CN	10-yr C	10-yr CN	2-yr C	2-yr CN
A	C-1	85	100	.70	91	-0-	53	-0-	53	-0-	50
B	R-2	65	100	.66	88	-0-	53	-0-	53	-0-	50
C	R-2	65	20	.54	83	.49	80	.44	77	-0-	50
D	R-2	65	20	.54	83	.49	80	.44	77	-0-	50
E	R-2	65	20	.54	83	.49	80	.44	77	-0-	50
F	O-1	72	20	.61	87	.51	83	.48	79	.11	74
G	O-1	72	20	.62	88	.52	83	.49	80	.15	75
H	O-1	72	50	.70	90	.50	79	.42	75	-0-	50
J	O-1	72	50	.70	90	.50	79	.42	7[illegible]	-0-	50

RESULTS OF HYDROLOGIC ANALYSIS

ANALYSIS POINT	SUB-BASINS	DRAINAGE AREA ac	100-yr Q_{100} cfs	100-yr VOL_{100} cu ft	10-yr Q_{10} cfs	10-yr VOL_{10} cu ft	2-yr Q_2 cfs	2-yr VOL_2 cu ft
2.1	A	8	0	0	0	0	0	0
2.2	B	8	0	0	0	0	0	0
2.3	C	6	14	14,400	8	3,900	0	0
	D	13	30	31,150	18	8,500	0	0
2.4	A+B+D	29	30	31,150	18	8,500	0	0
	E	4	9	9,600	6	2,600	0	0
2.5	A+B+D+E	33	39	40,750	24	11,100	0	0
	G	3	7	9,250	5	2,700	1	270
2.6	C+G	9	21	23,650	13	6,600	1	270
	F	4	10	12,350	6	3,350	1	145
2.7	A+B+D+E+F	37	49	53,100	30	14,450	1	145
2.8	2.6+2.7	46	70	76,750	43	21,050	2	415
	H	6	14	13,700	8	3,050	0	0
2.9	2.8+H	52	73	90,450	43	24,100	0	0
2.10	From 7-Bar Master Plan		200	*	100	*	*	*
2.11	2.9+2.10	450	250	N/A	150	*	*	*
	J	4	10	9,150	5	2,050	0	0
2.12	2.11+J	455	250	N/A	150	*	*	*

* Depends upon ultimate development upstream of analysis point 2.10. Does not impact site drainage adversely in any event due to its timing.

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HYDROLOGY SECTION

A-14/0003

SHEET 2 OF 3

THIS PLAN SHOT TWICE ONCE ON LIGHT AND ONCE ON DARK.

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Karen Aucen
CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires May 8 1995
Norberta Sanchez

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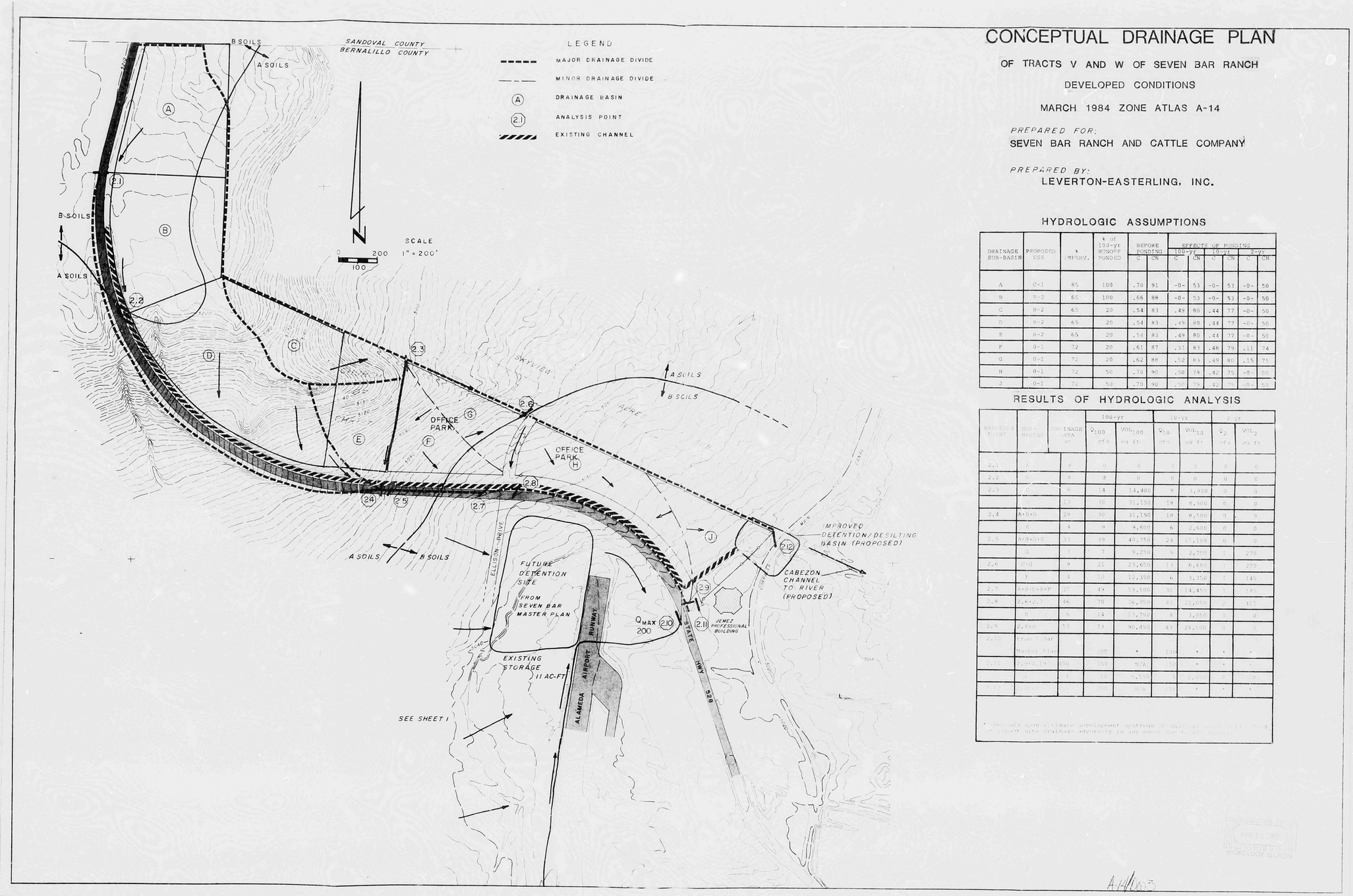
CITY OF ALBUQUERQUE

C D



CONCEPTUAL DRAINAGE PLAN

OF TRACTS V AND W OF SEVEN BAR RANCH

DEVELOPED CONDITIONS

MARCH 1984 ZONE ATLAS A-14

PREPARED FOR:
SEVEN BAR RANCH AND CATTLE COMPANY

PREPARED BY:
LEVERTON-EASTERLING, INC.

HYDROLOGIC ASSUMPTIONS

DRAINAGE SUB-BASIN	PROPOSED USE	% IMPERV.	% of 100-yr MINOR PONDED	BEFORE PONDING		EFFECTS OF PONDING 100-yr		10-yr		2-yr	
				C	CN	C	CN	C	CN	C	CN
A	C-1	85	100	.70	91	-0-	53	-0-	53	-0-	50
B	R-2	65	100	.66	88	-0-	53	-0-	53	-0-	50
C	R-2	65	20	.54	83	.49	80	.44	77	-0-	50
D	R-2	65	20	.54	83	.49	80	.44	77	-0-	50
E	R-2	65	20	.54	83	.49	80	.44	77	-0-	50
F	O-1	72	20	.61	87	.51	83	.48	79	.11	74
G	O-1	72	20	.62	88	.52	83	.49	80	.15	75
H	O-1	72	50	.70	90	.50	79	.42	75	-0-	50
J	O-1	72	50	.70	90	.50	79	.42	75	-0-	50

RESULTS OF HYDROLOGIC ANALYSIS

ANALYSIS POINT	SUB-BASINS	DRAINAGE AREA ac	100-yr Q_{100} cfs	100-yr VOL_{100} cu ft	10-yr Q_{10} cfs	10-yr VOL_{10} cu ft	2-yr Q_2 cfs	2-yr VOL_2 cu ft
2.1	A	8	0	0	0	0	0	0
2.2	B	8	0	0	0	0	0	0
2.3	C	6	14	14,400	8	3,900	0	0
		13	30	31,150	18	8,500	0	0
2.4	A+B+D	29	30	31,150	18	8,500	0	0
	E	4	9	9,600	6	2,600	0	0
2.5	A+B+D+E	33	39	40,750	24	11,100	0	0
	F	3	7	9,250	5	2,700	1	270
2.6	C+G	4	21	23,650	13	6,600	1	270
	I	4	10	12,350	6	3,350	1	145
2.7	A+B+D+E+F	37	49	51,100	30	14,455	1	145
2.8	2.4+2.7	46	70	76,750	43	21,055	2	415
	H	6	14	15,700	8	4,050	0	0
2.9	2.8+H	52	73	90,450	43	24,100	0	0
2.10	From 7 Bar Master Plan	*	200	*	100	*	*	*
2.11	2.9+2.10	60	350	N/A	50	*	*	*
	J	3	10	6,150	5	2,000	0	0
				6,150	5	*	0	*

* Assumes room ultimate development upstream of analysis point. Failure of upper site drainage adversely in any event for 2, 10, 100-yr.

THIS PLAN SHOT TWICE ONCE ON LIGHT AND ONCE ON DARK.

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NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires

SHEET 2 OF 3

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CITY OF ALBUQUERQUE

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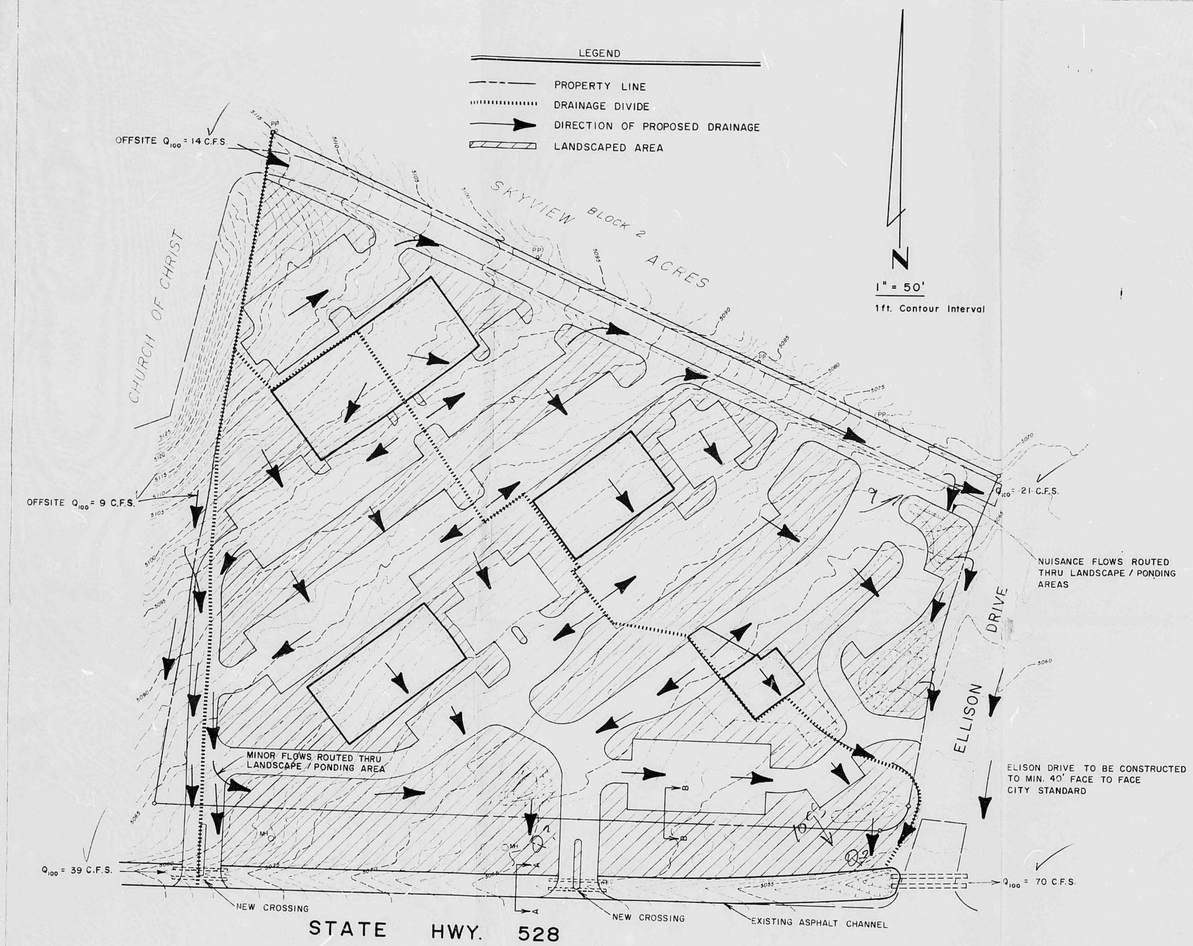
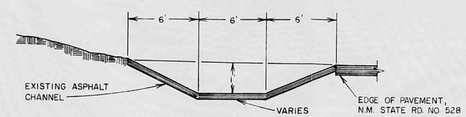
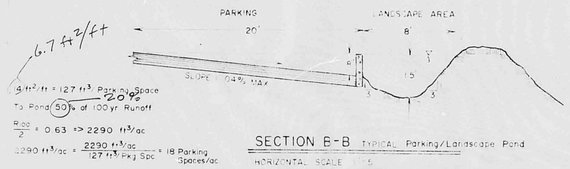




SECTION A–A TYPICAL

HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 2"



6.7 ft²/ft = 127 ft³ Pkg Lot Space / 20 ft²
To Pond 50% of 100 yr Runoff

$\frac{R_{100}}{2}$ = 0.63 => 2290 ft³/ac

2290 ft³/ac = $\frac{2290 \text{ ft}^3/\text{ac}}{127 \text{ ft}^3 \text{ Pkg Spc}}$ = 18 Parking Spaces/ac

SECTION B–B TYPICAL Parking/Landscape Pond

HORIZONTAL SCALE: 1" = 5'
VERTICAL SCALE: 1" = 2'

NOTE:
POND 20 % OF 100 YEAR RUNOFF VOLUME ON-SITE (DETENTION)
MINIMUM 95 % OF TOTAL SITE SHALL BE ROUTED THRU LANDSCAPE / PONDING AREAS
SEE SHEETS 1 AND 2 FOR OFFSITE AND DEVELOPED CONDITIONS INFORMATION

NOTE:
COMPILED BY PHOTGRAMETRIC METHODS BY T.R. MANN AND ASSOCIATES 1983

SHEET 3·A

CONCEPTUAL GRADING & DRAINAGE PLAN

TRACTS V & W OF SEVEN BAR RANCH

TRACT · W

Topography compiled by photogrametric methods by Thomas R. Mann and Associates.

APPROVED FOR CONSTRUCTION

CITY ENGINEER DATE

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

TITLE
CONCEPTUAL GRADING & DRAINAGE PLAN
TRACT V & W OF SEVEN BAR RANCH – TRACT W

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E. Design			Traffic		
A.C.E. Hydrology			Water		

DRAWING NO 3·A SHEET OF

AS BUILT INFORMATION
BENCH MARKS
SURVEY INFORMATION
FIELD NOTES
REFERENCES
MAP NO
EST NO
W.O. NO
REMARKS
REVISIONS
DESIGN
MICRO-FILM INFORMATION

A-14/2003

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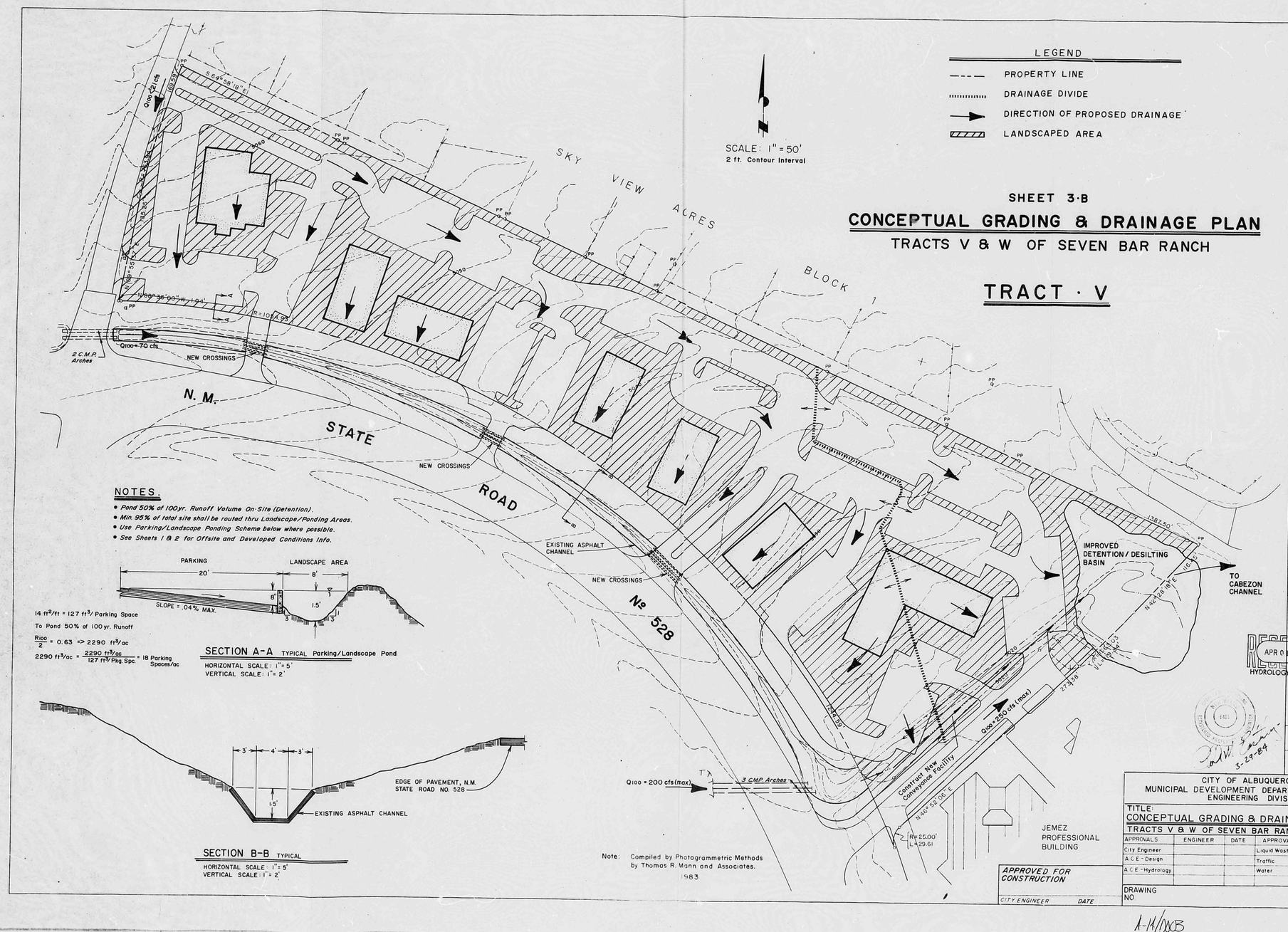
My Commission Expires MAY 8 1995



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Karen Acuna
CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires MAY 8 1996
Norberta Sanchez

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CITY OF ALBUQUERQUE

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