

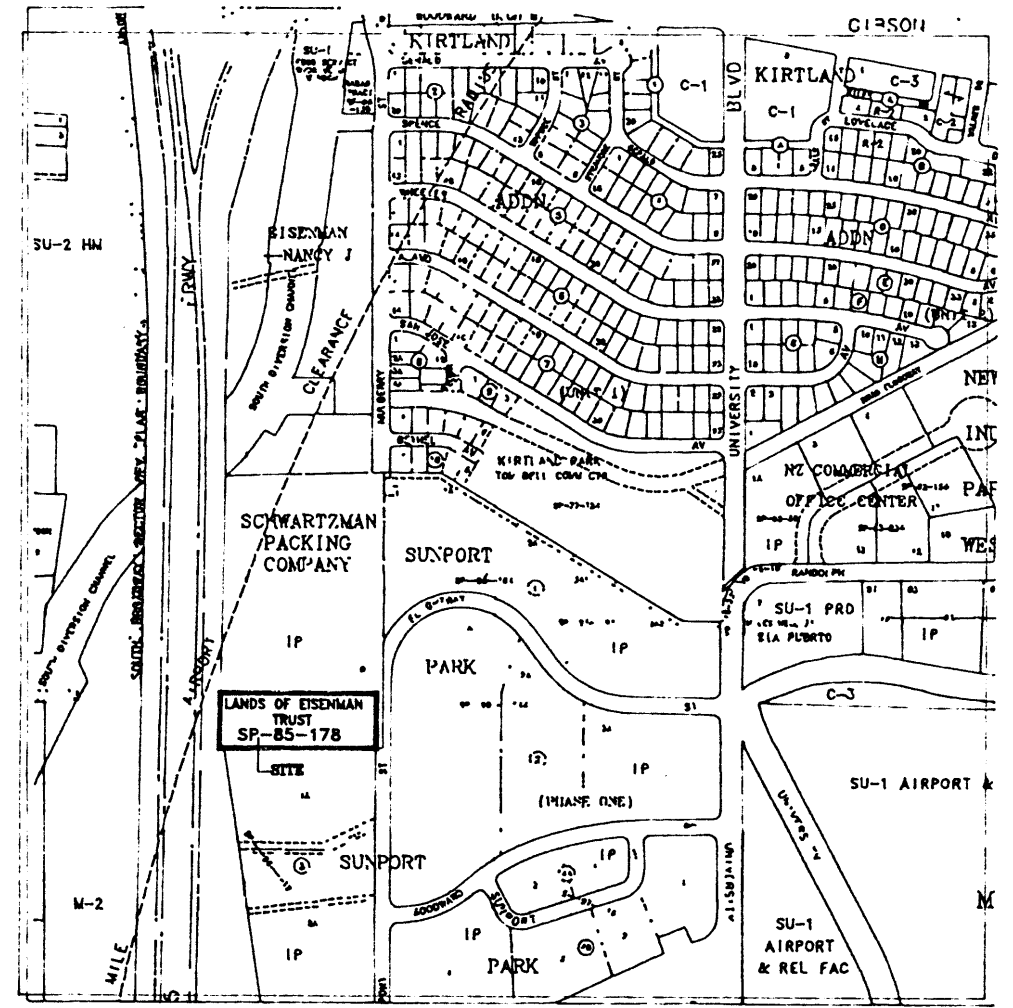


0 25 50 75 100
SCALE: 1" = 50'
Contour Interval = 1'

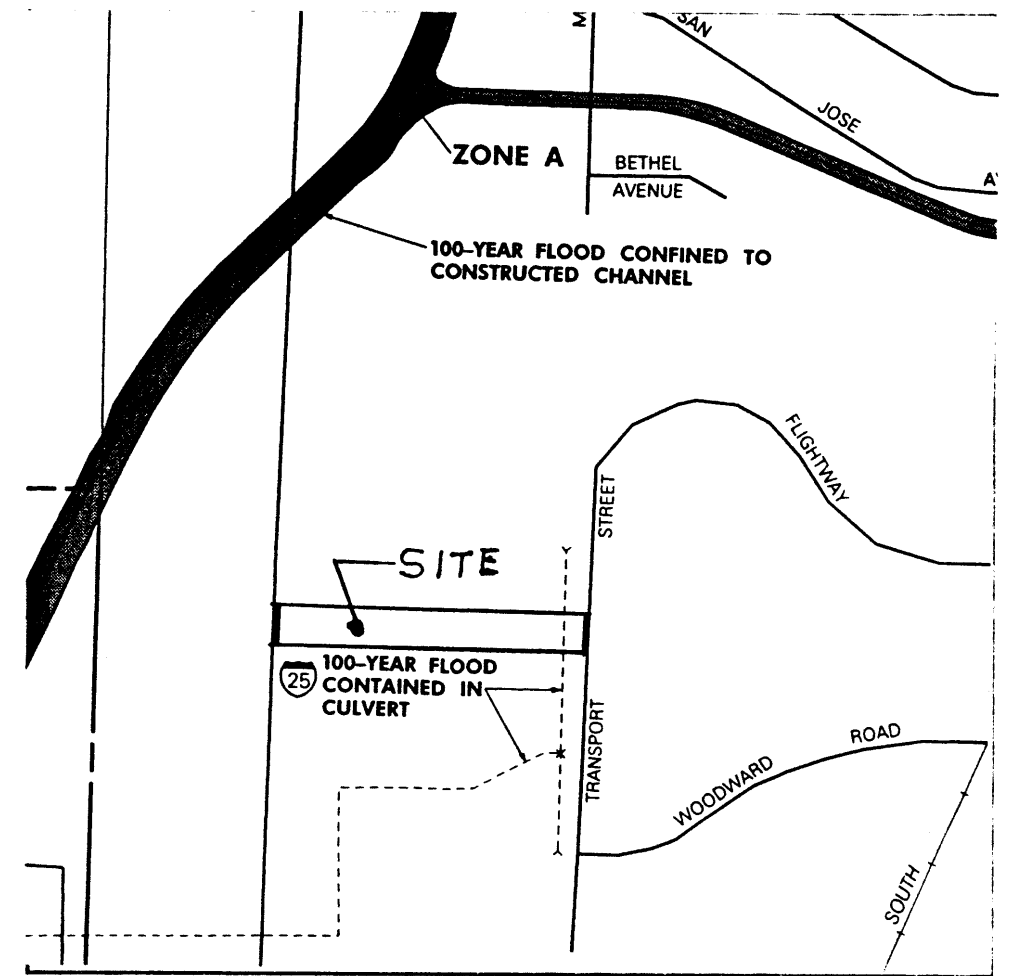
Flow Depth = 2.970 ft
Flowrate = 70.000 cfs
Channel Bottom Width = 4.000 ft
Channel Side Slope = 0.250 ft/ft
Channel Slope = 0.00450 ft/ft
Channel Roughness = 0.025
Wetted Area = 14.09 sf
Wetted Perimeter = 10.12 ft
Velocity = 4.97 fps
Froude No. = 0.55
Flow = Sub-Critical

EL. 5040 4:1 SS 4' 4:1 SS VARIES EL. 5040

CHANNEL SECTION
DO NOT SCALE



LOCATION MAP M-15-Z
TRANSPORT STREET, S.E.



FLOOD INSURANCE RATE MAP
PANEL NO. 342 OF 825

DISCUSSION:

GENERAL:

THIS TRACT OF LAND, PLATTED AS LANDS OF EISENMAN TRACT IS SHOWN ON ZONING MAP M-15 Z AND ZONED L.P. AS IT IS CURRENTLY PLATTED, IT CONTAINS 3.0917 ACRES. OF THIS TOTAL PLATTED AREA, 0.1467 AC. IS WITHIN THE R-O-W OF TRANSPORT STREET, S.E. THE CITY OF ALBUQUERQUE DESIRES TO OBTAIN THIS TRACT FOR THE EXISTING PUBLIC USE, AND A NEW PLAT WILL BE PREPARED. THE SAME PERSONS OWN THE ADJACENT 13.68 ACRE SCHWARTZMAN PACKING COMPANY TRACT TO THE NORTH.

INFRASTRUCTURE:

IN DEVELOPING THE EXISTING SUNPORT PARK ADDITION, AN L.P. ZONED AREA, THE CURB, GUTTER, PAVING, WATER, SANITARY SEWER, DRAINAGE SEWER, GAS, ELECTRICITY, AND TELEPHONE INFRASTRUCTURE WAS INSTALLED, AND ROUGH GRADING WAS DONE ON THE SUNPORT PARK LOTS. THIS TRACT HAS WATER AND SEWER SUBROUTES. THE SITE IS SERVED BY TRANSPORT ST., S.E., A 40' F-F CITY OF ALBUQUERQUE STREET FROM UNIVERSITY BLVD., S.E. ON A 60' R-O-W EXCEPT ALONG THIS TRACT, WHERE IT IS LEGALLY 30' WIDE FROM THE SUNPORT PARK ADDITION, WITH A 25 FT. EASEMENT ON THIS TRACT.

PLANNED USE:

THE CURRENT PLANNED USE IS FOR A CAR RENTAL AND FOR OVERFLOW SUNPORT AIRPORT PARKING. HOWEVER, THE MASTER DRAINAGE PLAN WILL MEET THE CRITERIA FOR ANY L.P. PERMISSIVE OR CONDITIONAL USE. THIS IS DUE TO THE FACT THAT 15% OF THE TOTAL AREA BEING UTILIZED IS LANDSCAPED PERVIOUS AREA.

DRAINAGE OPTIONS:

DISCUSSIONS WERE HELD WITH BOTH AMAFCA AND THE NMHS&TD. THE AMAFCA RESPONSE WAS THAT THE SOUTH DIVERSION CHANNEL ADJACENT TO THIS PROPERTY AT THE NORTH P/L HAS THE CAPACITY TO RECEIVE ALL OF THE DEVELOPED RUNOFF, PROVIDING A SUITABLE OUTFALL IS APPROVED. THE NMHS&TD POSITION STATEWISE IS THAT THEY WILL ACCEPT HISTORICAL RUNOFF QUANTITIES AND SAFELY CONVEY THEM UNDER THE HIGHWAY.

THE OWNER WISHES TO TEMPORARILY POND THE RUNOFF FROM THIS TRACT IN THE CHANNEL WHICH WILL BE REQUIRED TO CONVEY THE DRAINAGE FROM BOTH TRACTS INTO THE AMAFCA SOUTH DIVERSION CHANNEL WHEN THE NORTH TRACT IS ALSO DEVELOPED.

EXISTING CONDITIONS:

THE TRACT IS SMOOTHLY GRADED FROM THE EAST TO THE 1-25 R-O-W ON THE WEST. TRANSPORT ST., S.E. HAS A STORM DRAIN SYSTEM, AND NONE OF THIS RUNOFF ENTERS THE TRACT. THE ONLY GRADING REQUIRED, EXCEPT FOR THE CHANNEL, IS THE USE OF A MOTOR GRADER TO SMOOTH THE SURFACE PRIOR TO PAVING.

HYDROLOGY:

TO DETERMINE THE REQUIRED TEMPORARY STORAGE CAPACITY, THE METHOD AND DATA FROM CHAPTER 22 WERE USED, WHERE FOR ZONE 2 $P_{max} = 2.35$, $P_{100yr} = 3.95$, AND E OF TREATMENT B = 0.78" AND E OF TREATMENT D = 2.12". P IS DEPTH OF RAINFALL IN INCHES AND E IS EXCESS RAINFALL (RUNOFF) IN INCHES.

$$V_{max} = E_a A_a + E_b A_b$$
$$V_{max} = (0.15)(2.945)(43560)(0.78)/12 + (0.85)(2.945)(43560)(2.12)/12$$
$$V_{max} = 1,282.84 + 19,264.01$$
$$V_{max} = 20,547 \text{ CF}$$

$$V_{100yr} = V_{max} + A_a (P_{100yr} - P_{max})$$
$$= 20,547 + (0.85)(2.945)(43560) [(3.95 - 2.35)/12]$$
$$= 20,547 + 14,539$$
$$= 35,086 \text{ CF}$$

THE CHANNEL DESIGNED TO CONVEY THE STORM WATERS NORTHWARD INTO THE DIVERSION CHANNEL WAS ASSUMED TO HAVE $m=0.045$ F/P, BOTTOM WIDTH OF 4 FT. AND A 4:1 SIDE SLOPE. SINCE THE TRACT IS BASICALLY LEVEL FROM S TO W ALONG THE 1-25 R-O-W, A 1000 FT. LONG CHANNEL WITH THE TOP ELEVATION LEVEL AT 5040 FMSL AND 4.5 FT. DEEP AT THE START OF THE OUTFALL LOCATION CONTAINS 37,109 CF. USING THE MANNING EQUATION FOR THE CHANNEL AND A 70 CFS MAX Q FOR BOTH TRACTS FULLY DEVELOPED, THE PEAK DEPTH OF FLOW AT THE OUTFALL WOULD BE 2.97 FT. WITH THE VELOCITY OF 4.97 FPS AND FROUDE NO. OF 0.55, I.E., SUB-CRITICAL. WITH THE LOW VELOCITY AND THE 4:1 SIDE SLOPE, THE CHANNEL CAN SUPPORT ARID LAND VEGETATION FOR LANDSCAPING WHEN THE SECOND TRACT IS DEVELOPED.

RECOMMENDATION:

IT IS RECOMMENDED THAT TEMPORARY PONDING BE ALLOWED ON THE ADJACENT TRACT, OWNED BY THE SAME PERSON, UNTIL FURTHER DEVELOPMENT IS ECONOMICALLY WARRANTED. THE OUTFALL INTO THE SOUTH DIVERSION CHANNEL WILL BE DESIGNED AND BUILT AS APPROVED BY AMAFCA WITH THE FOLLOW-ON PHASES.

M15/D26

C.A. COONCE & ASSOC., INC.

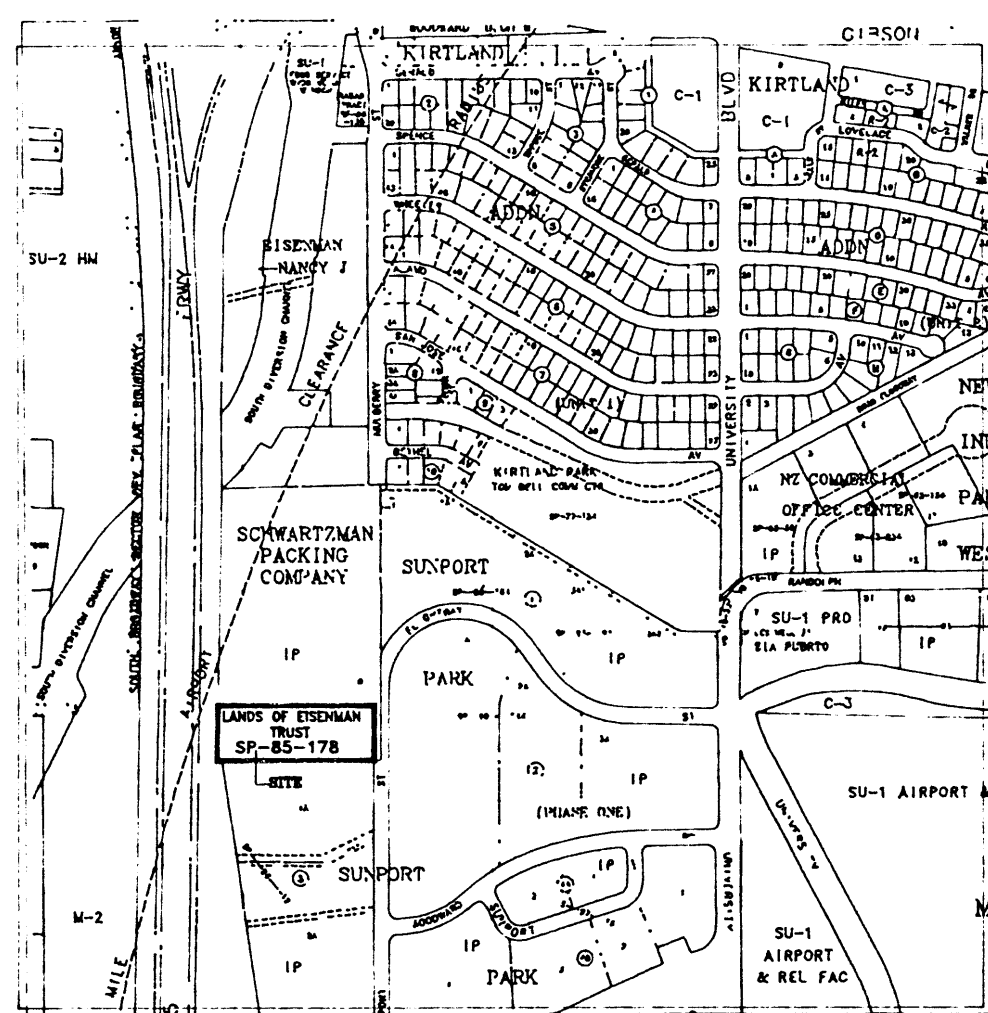
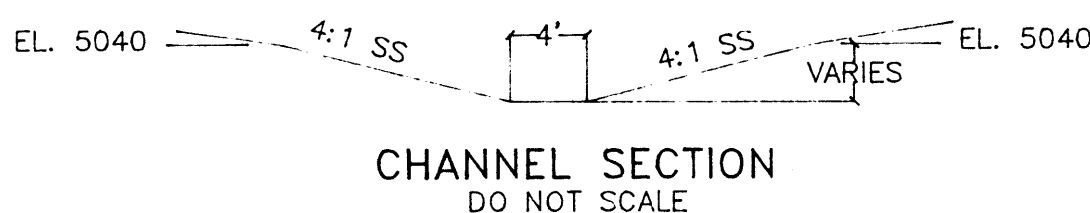
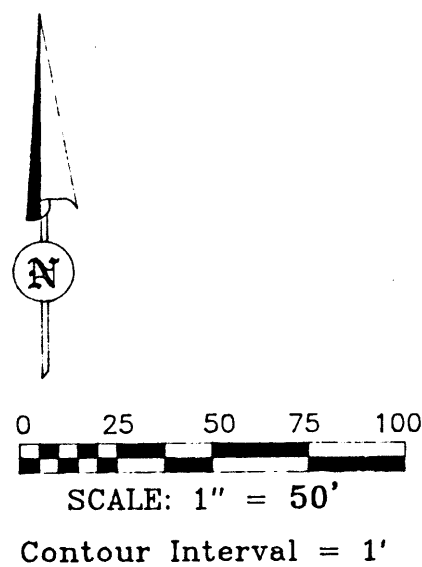
ENVIRONMENTAL WATER RESOURCES, & SANITARY CONSULTING ENGINEERS
12324 PINERIDGE N.E. ALBUQUERQUE, N.M. 87112
PH (505) 296-1088 FAX (505) 296-0478

TITLE DRAINAGE & GRADING PLAN
EISENMAN TRACT

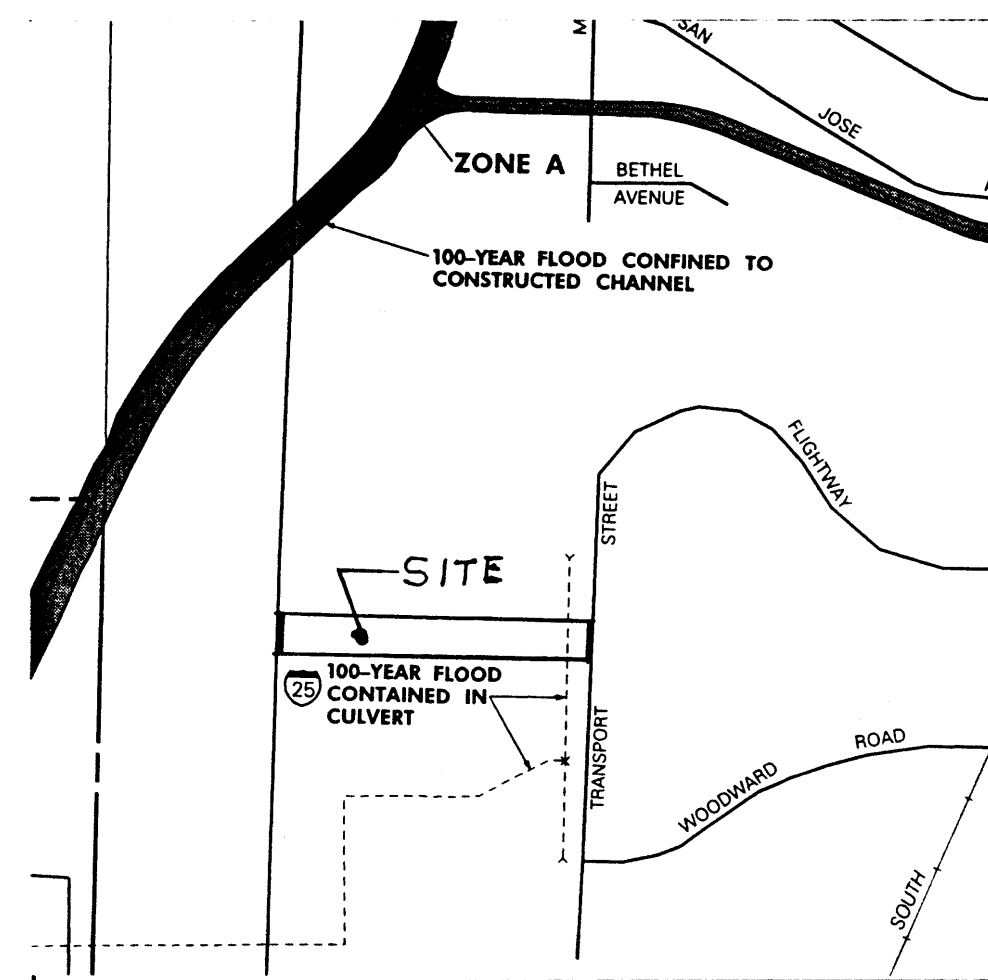
PROJECT
DATE 02/24/00
CHECKED LSC
REVISOR CAC



SHEET 1 OF 1



FEB 28 2000
HYDROLOGY SECTION



FLOOD INSURANCE RATE MAP
PANEL NO. 342 OF 825

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$$V_{100} = E + A_e + E_e A_e$$
$$V_{100} = (0.15)(2.945)(43560)(0.78)/12 + (0.85)(2.945)(43560)(2.12)/12$$
$$V_{100} = 1,282.84 + 19,264.01$$
$$V_{100} = 20,546.85 \text{ CF}$$

$$V_{1000} = V_{100} + A_e (P_{1000} - P_{100})$$
$$V_{1000} = 20,547 + [(0.85)(2.945)(43560)] (3.95 - 2.35) / 12$$
$$V_{1000} = 20,547 + 14,539$$
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THE CHANNEL DESIGNED TO CONVEY THE STORM WATERS NORTHWARD INTO THE DIVERSION CHANNEL WAS ASSUMED TO HAVE $s = 0.0045$ F/F, BOTTOM WIDTH OF 4 FT, AND A 4:1 SIDE SLOPE. SINCE THE TRACT IS BASICALLY LEVEL FROM S TO N ALONG THE 1-25 R-O-W, A 1000 FT. LONG CHANNEL WITH THE TOP ELEVATION LEVEL AT 5040 FASL AND 5.67' DEEP AT THE START OF THE OUTFALL LOCATION CONTAINS 37,109 CF. USING THE MANNING EQUATION FOR THE CHANNEL AND A 70 FPS MAX Q FOR BOTH TRACTS FULLY DEVELOPED, THE PEAK DEPTH OF FLOW AT THE OUTFALL WOULD BE 0.97' WITH THE VELOCITY OF 4.97 FPS AND FROUDE NO. OF 0.55, I.E., SUB-CRITICAL. WITH THE LOW VELOCITY AND THE 4:1 SIDE SLOPE, THE CHANNEL CAN SUPPORT ARID LAND VEGETATION FOR LANDSCAPING WHEN THE SECOND TRACT IS DEVELOPED.

RECOMMENDATION:

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WHERE DO YOU GET THIS

TH is Does not include existing

Plat Site plan - traffic

Easement

covenant + agreement

FEB 28 2000
HYDROLOGY SECTION

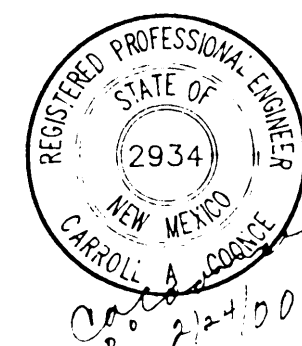
M15/D26

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TITLE DRAINAGE & GRADING PLAN
PROJECT EISENMAN TRACT

DATE 02/24/00
DRAWN LSC
CHECKED CAC

SHEET 1 of 1



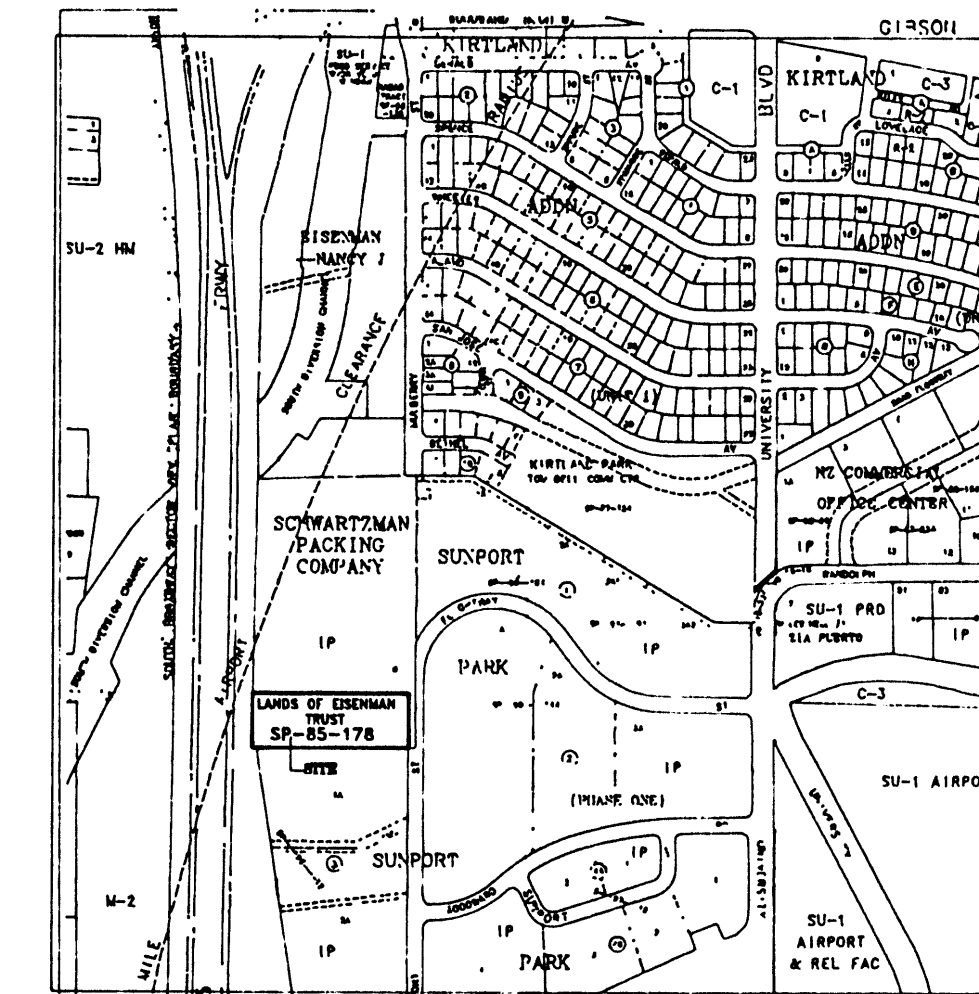
Remove arrow (confusing)

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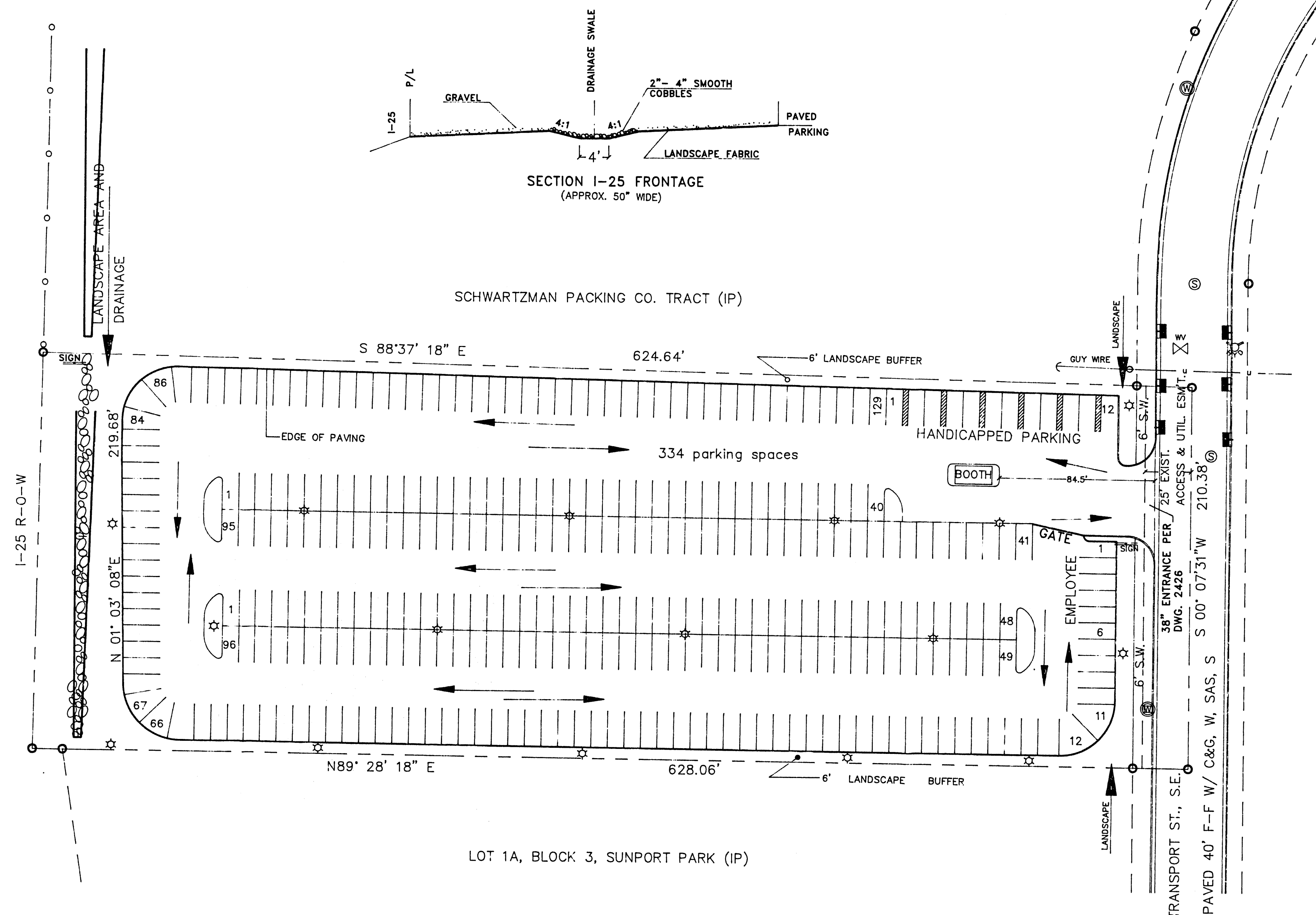
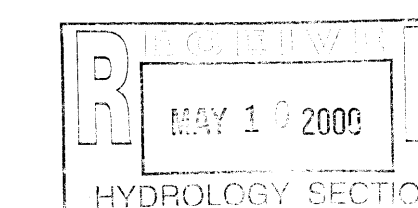


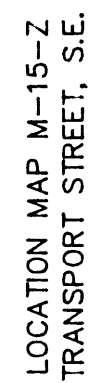
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SCALE: 1" = 40'

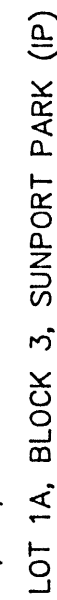


LOCATION MAP M-15-Z
TR. A, LANDS OF EISENMAN TRUST
TRANSPORT STREET, S.E.





IT IS RECOMMENDED THAT THE MASTER DRAINAGE PLAN BE IMPLEMENTED IN CONJUNCTION WITH THE DEVELOPMENT OF THE EISENMAN TRACT. THIS DRAINAGE SYSTEM WILL PROVIDE FOR THE DRAINAGE OF THE SCHWARTZMAN PACKING CO. TRACT REGARDLESS OF THE USE OF THIS I.P. ZONED LOCATION.



DATE	02/24/00	REVISED
RAWN	LSC	04/24/00
CHECKED	CAC	

SHEET 1 OF 2

