

FEMA MAP

SCALE: 1"=500'
REF. PANEL 116, 1996
REF. PANEL 8, 1983

GRADING & DRAINAGE PLAN

SITE DATA: THE EXISTING SITE IS CURRENTLY A STEEPLY SLOPED* UNDEVELOPED LOT, AND ZONED, SUI C-3, FOR COMMERCIAL DEVELOPMENT. THE PROJECT IS LOCATED IMMEDIATELY NORTH OF AN EXISTING CAR WASH FACILITY. PROPERTY TO THE EAST IS UNDEVELOPED. PARADISE BLVD. ON THE NORTH IS CLASSIFIED AS A MINOR ARTERIAL WITH CURB/GUTTER AND SIDEWALK. DAVENPORT STREET LOCATED ON THE WEST IS A MINOR COLLECTOR STREET WITH CURB AND GUTTER, AND SIDEWALKS SITUATED WITHIN A 60' R.O.W.

EXISTING DRAINAGE CONDITIONS: HISTORIC RUN-OFF HAS ESSENTIALLY SHEET FLOWED ACROSS THE SITE WITH A MAJORITY OF RUN-OFF EXITING TO THE EAST AND UNDEVELOPED PROPERTY. DOWNSTREAM CAPACITY IS LIMITED TO THE EAST BY AN EXISTING STORM SEWER SYSTEM AT THE INTERSECTION OF NUNZIO AND PARADISE BLVD. (APPROX. 1100 FEET EAST OF SITE) - Reference: Grading and Drainage Plan for Richard J. Pino, USPS Post Office, April 1996 and Drainage Report for Albuquerque West Unit 1, October 1990.

PROPOSED IMPROVEMENTS: CONSIST OF 7700 S.F. OF LEASABLE COMMERCIAL SPACE, ASPHALT PAVING, CURB AND GUTTER, CONCRETE SIDEWALKS, LANDSCAPING, AND TWO (2) ACCESS DRIVEWAY ENTRANCES.

PROPOSED DRAINAGE CONDITIONS: DISCHARGE OF RUN-OFF TO SINGLE DETENTION FACILITY, WITH CONTROLLED OUTFALL VIA A 4" DIAMETER PVC OUTLET. SEE ANALYSIS POINT #7, Drainage Report for Albuquerque West

CALCULATIONS

City Hydrology, Ref. File #C-12/D

I. DESIGN CRITERIA

HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY, OF THE DEVELOPMENT PROCESS MANUAL (DPM), REVISED JANUARY 1993 FOR THE CITY OF ALBUQUERQUE AND ADOPTED BY THE COUNTY OF BERNALILLO. DISCHARGE RATE: $Q = Q_{peak} \times AREA$. "PEAK DISCHARGE RATES FOR SMALL WATERSHEDS" VOLUMETRIC DISCHARGE: $VOLUME = E_{weighted} \times AREA$ SOIL TYPE: "B", ETC, EMBUDO SERIES, A GRAVELLY FINE SANDY LOAM AS CLASSIFIED BY THE SCS SOIL SURVEY P100 = 2.20 INCHES, ZONE 1 TIME OF CONCENTRATION, $T_C = 10$ MINUTES DESIGN STORM: 100-year/6-hour, 10-year/6-hour WHERE $[] = 10$ year VALUES

II. EXISTING CONDITIONS (LOT 1-A)

PROJECT AREA = 0.826 ACRES, WHERE EXCESS PRECIPITATION 'A' = 0.44 IN., 'B' = 0.67 IN. PEAK DISCHARGE, $Q_{100} = 1.27$ CFS [0.4], WHERE UNIT PEAK DISCHARGE 'A' = 1.29 CFS/ACRE & 'B' = 2.03 CFS/AC. THEREFORE: $VOLUME_{100} = 1547$ C.F. [378 C.F.]

III. DEVELOPED CONDITIONS FOR ZONE 1 PROJ.

DETERMINE LAND TREATMENTS, PEAK DISCHARGE & WEIGHTED EXCESS PRECIPITATION

AREA	LAND TREATMENT	UNIT PEAK DISCHARGE	'E'
UNDEVELOPED, - AC.	A	1.29[0.24]	0.44[0.08]
LANDSCAPING, 0.09 AC.	B	2.03[0.76]	0.67[0.22]
GRAVEL & COMPACTED SOIL, 0.00 AC.	C	2.87[1.49]	0.99[0.44]
ROOF/PAVEMENT, 0.74 AC.	D	4.37[2.89]	1.97[1.24]
0.83 ACRES			

$E_{weighted} = 1.83$ IN. [1.13]
 $Q_{100} = 3.4$ CUBIC FEET PER SECOND (CFS) $Q_{10} = 2.2$ CFS; $VOL_{100} = 5487$ CUBIC FEET (CF),
 $VOL_{10} = 3388$ C.F.

APPROXIMATELY 2 CFS OF DEVELOPED RUN-OFF EXITS TO NW ENTRANCE AND... THEN 3 CFS EXITS THE SW ENTRANCE WITH THE REMAINING 1 CFS DISCHARGING TO THE SOUTH

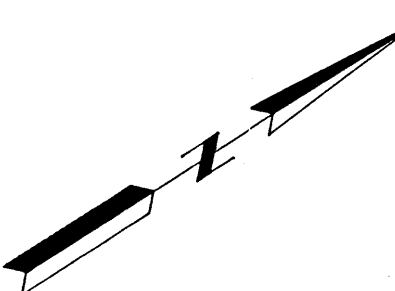
IV. QUANTIFY UP-STREAM RUNOFF IMPACTING THE PROPERTY

THE NORTHWEST PROPERTY CORNER (STREET FLOW) AND REFERENCE Grading and Drainage Plan for Pino Post Office, dated 4/96.

FLOW IN PARADISE TO THE EAST, DOCUMENTED FLOW = 15.10 CFS.

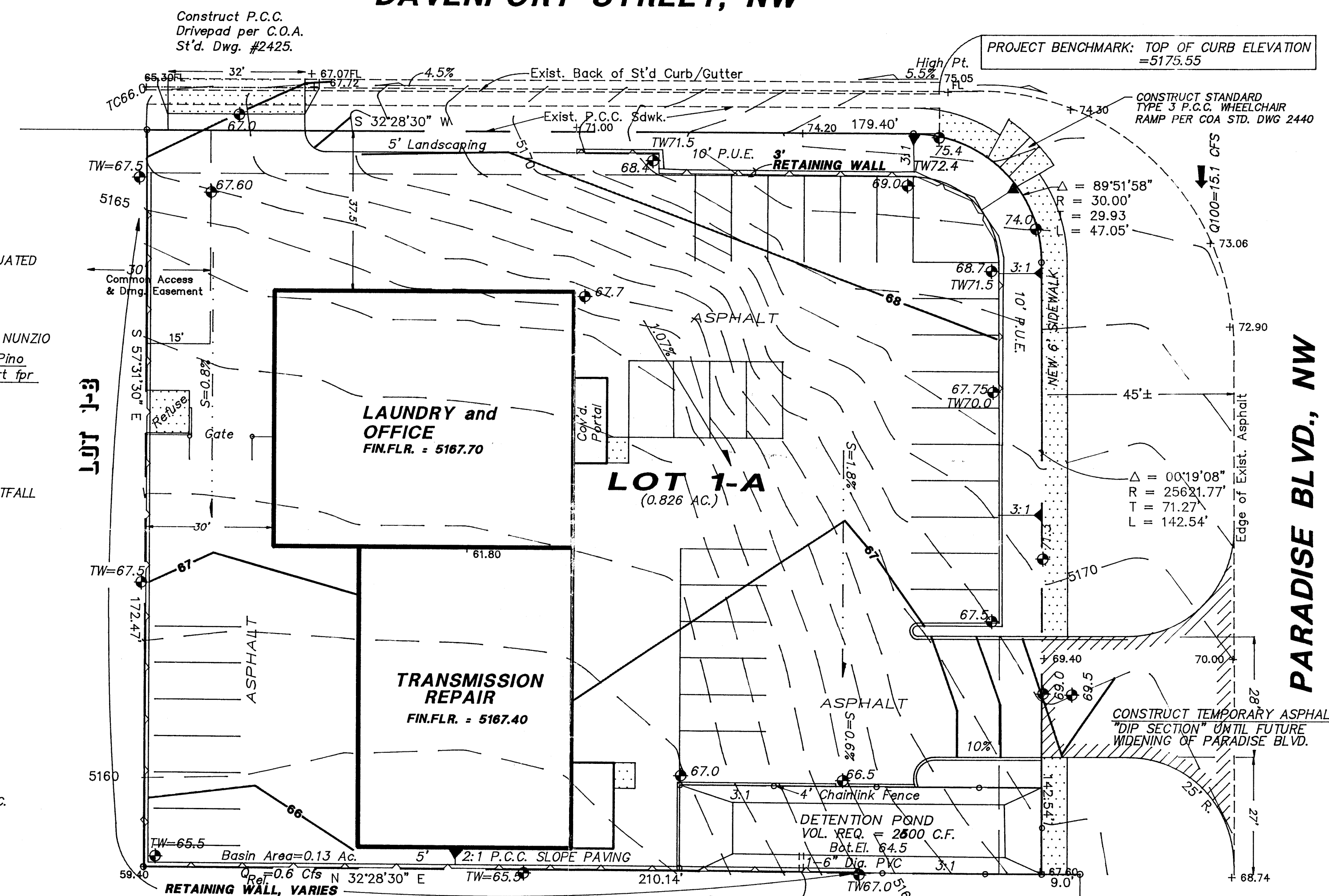
DAVENPORT/PARADISE, AN EXISTING HIGH POINT OR "WATER BLOCK" EXISTS, THEREFORE NO ADDITIONAL RUN-OFF IS CONVEYED SOUTH OF THIS INTER.

ACCESS TO PARADISE BLVD. RECOMMEND ASPHALT DIP SECTION, TEMPORARY UNTIL WIDENING OF PARADISE BLVD. OCCURS. 1" DEEP BAR DITCH CONTAINS >> THAN 15+ CFS OF DEVELOPED FLOW. 25' RADIUS ASPHALT RETURNS



SCALE: 1"=20'

DAVENPORT STREET, NW



0.826 acres (1.28 cfs/acre)
 $Q_{all} = 1.06$ cfs

NOTES

- ALL REINFORCEMENT SHALL BE GRADE 40
- ALL P.C.C. 3000 PSI
- ALLOWABLE BEARING, 1500 PSF
- LATERAL PRESS. 40 PSF
- BACKFILL COMPACTION TO BE 90% MODIFIED PROCTOR

SECTION A - A REINFORCED CONCRETE RETAINING WALL

I, PHILIP W. CLARK, A PROFESSIONAL ENGINEER LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT I HAVE VISITED THE SITE SHOWN HEREON, AND THAT THE CONTOURS SHOWN REPRESENT THE EXISTING GROUND CONDITIONS, AND DO FURTHER CERTIFY THAT NO EARTHWORK OF ANY KIND, NOR ANY DISTURBANCE OF THE EXISTING GROUND HAS OCCURRED ON THIS SITE SINCE THE CONTOURS WERE DETERMINED.

PHILIP W. CLARK
11-15-97
NMPE #10265

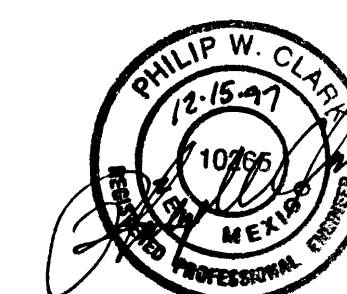
PROJECT INFORMATION

LEGAL DESCRIPTION: LOT 1-A, BLOCK B, ALBUQUERQUE WEST, BERNALILLO COUNTY

PROPERTY ADDRESS: PARADISE BOULEVARD, NW, ALBUQUERQUE, NM 87114

PROJECT SURVEY: TOPOGRAPHIC INFORMATION COMPILED FROM FIELD SURVEY PERFORMED BY ALDRICH LAND SURVEYING, DATED 9/30/94.

PROJECT BENCHMARK: TOP OF CURB OF THE SOUTH-SOUTHEAST CURB RETURN LOCATED AT THE INTERSECTION OF PARADISE BLVD. AND DAVENPORT STREET, AS TIED FROM ACS BRASS CAP MARKED 2-C12 (ELEV. 5275.79)



RECEIVED
DEC 19 1997
HYDROLOGY SECTION

Clark Consulting Engineers 19 Ryan Road Edgewood, New Mexico 87015 (505) 281-2444 FAX (505) 281-2444	
DATE	REVISION
LOT 1-A, BLOCK B, ALBUQUERQUE WEST SILVER SUN, INC. - dba JOSEPH HOMES	
Grading & Drainage Plan	
DESIGNED BY: PWC	DRAWN BY: CCE
CHECKED BY: PWC	DATE: 11/6/97
JOB No: JOSEPH_G	FILE No: G/D
SHEET No:	1 of 1