



FEMA MAP

SCALE: 1"=500'
REF. PANEL 358, 1996
REF. PANEL 30, 1983

CALCULATIONS

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 = 2.6 INCHES, ZONE 3 TIME OF CONCENTRATION, TC = 10 MINUTES
DESIGN STORM: 100-year/6-hour, 10-year/6-hour WHERE [] = 10 YEAR VALUES

II. EXISTING CONDITIONS (with Existing Improvements)

STUDY AREA = 0.48 ACRES, WHERE EXCESS PRECIPITATION 'composite' = 1.79 IN. [1.03]
"B" = 0.05 ac., "C" = 0.19 ac., & "D" = 0.24 ac.
PEAK DISCHARGE, Q100 = 2.00 CFS [1.25 CFS], WHERE UNIT PEAK DISCHARGE = 4.15 CFS/ACRE [2.6]
THEREFORE: $VOLUME_{100} = 3119 \text{ C.F.}$ [1795 C.F.]

III. DEVELOPED CONDITIONS

DETERMINE LAND TREATMENTS, PEAK DISCHARGE & WEIGHTED EXCESS PRECIPITATION

AREA	LAND TREATMENT	UNIT PEAK DISCHARGE	"E"
UNDEVELOPED, 0.00 AC.	A	1.87[0.58]	0.66[0.19]
LANDSCAPING, 0.05 AC.	B	2.60[1.19]	0.92[0.36]
GRAVEL & COMPACTED SOIL, 0.00 AC.	C	3.45[2.00]	1.29[0.62]
ROOF/PAVEMENT, 0.43 AC.	D	5.02[3.39]	2.36[1.50]
0.48 ACRES			

$E_{weighted} = 2.21 \text{ IN.}$ [1.38]
 $Q_{100} = 2.29 \text{ CUBIC FEET PER SECOND (CFS)}$ $Q_{10} = 1.52 \text{ CFS}$; $VOL_{100} = 3851 \text{ CUBIC FEET (CF)}$,
 $VOL_{10} = 2405 \text{ C.F.}$

UNIT DISCHARGE PER ACRE = $2.29/0.48 = 4.77 \text{ CFS/AC.}$

CHECK UPSTREAM BASIN AREA / STREET FLOW IN DALLAS

ANALYSIS POINT - OPPOSITE NW CORNER OF SITE

BLOCK RUN-OFF + 1/2 DALLAS R.O.W. (Extended to Zuni)

BASIN AREA = $300' \times 400' = 2.75 \text{ AC.}$

ALL COMMERCIAL LAND USE...UNIT DISCHARGE = 4.5CFS±

THEREFORE: $2.75 \times 4.5 \text{ CFS} = 12.4 \text{ CFS}$

APPROX. DEPTH IN STREET = 0.58' PER DPM PL. 22.3, D-1, "STREET CAPACITY"
0.9' DEPTH WATER BLK... OK

GRADING & DRAINAGE PLAN

SITE DATA: THE EXISTING SITE IS CURRENTLY A DEVELOPED LOT USED FOR AUTO SERVICE/REPAIR, AND ZONED C-1, FOR COMMERCIAL USE. THE PROJECT IS LOCATED IN AN IN-FILL AREA AND ALL ADJOINING PROPERTY IS DEVELOPED. DALLAS STREET IS LOCATED ON THE WEST AND IS CLASSIFIED AS A MINOR LOCAL ROAD WITH CURB/GUTTER AND SIDEWALK. THE ROADWAY IS 33 FEET WIDE AND SITUATED WITHIN A 50' RIGHT-OF-WAY. AN EXISTING CHURCH ADJOINS THE PROJECT ON THE SOUTH. AN EXISTING MULTI-FAMILY RESIDENTIAL LOT IS THE NORTH ADJOINER.

EXISTING DRAINAGE CONDITIONS: HISTORIC RUN-OFF HAS ESSENTIALLY SHEET FLOWED ACROSS THE SITE WITH A MAJORITY OF RUNOFF EXITING TO THE WEST DIRECTLY TO DALLAS STREET. THE PROPERTY IS NOT IMPACTED BY A FEMA DESIGNATED FLOODPLAIN.

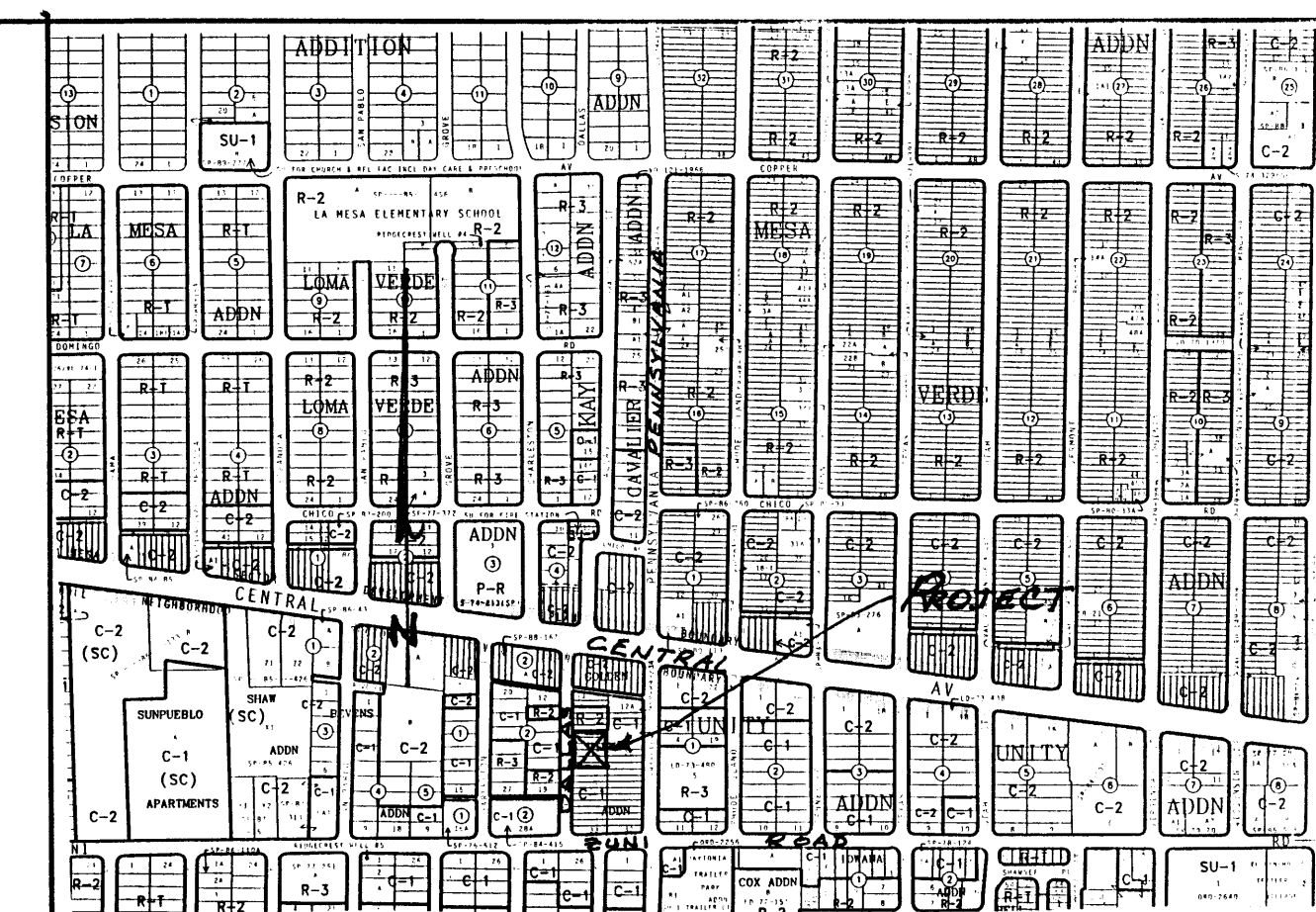
NOTE: NO SIGNIFICANT OFF-SITE DRAINAGE IMPACTS THE SITE.

PROPOSED IMPROVEMENTS: CONSIST OF A 1800 S.F., SINGLE STORY PRE-ENGINEERED METAL BUILDING ADDITION, PAVED PARKING LOT, DRIVEWAYS, AND NATIVE VEGETATION LANDSCAPING AREAS. ALL WORK WITHIN THE RIGHT-OF-WAY WILL BE CONSTRUCTED TO CITY STANDARDS.

PROPOSED DRAINAGE CONDITIONS: DISCHARGE OF RUN-OFF THROUGH THE PROPOSED DRIVEPAD, IN ADDITION TO ROUTING ROOF & REAR LOT RUNOFF VIA SWALES TO THE PROPOSED DRIVEPADS. FREE DISCHARGE OF SITE RUNOFF IS ACCEPTABLE SINCE THE INCREASE OF DEVELOPED FLOW IS MINIMAL, & DOWNSTREAM CAPACITY EXISTS. SEE 'STREET CALCULATIONS'.

LEGEND

EXIST. SPOT ELEV.	+92.5
EXIST. CONTOUR	5357
NEW SPOT ELEV.	10.10
NEW CONTOUR	56
NEW CONCRETE	
TOP OF CURB	TC, to
FLOW LINE	FL, to
EXIST. POWER POLE	P.P. o
SWALE	
DRAINAGE FLOW	
NEW LANDSCAPING	
(See Site Plan)	



VICINITY MAP ZONE K-19

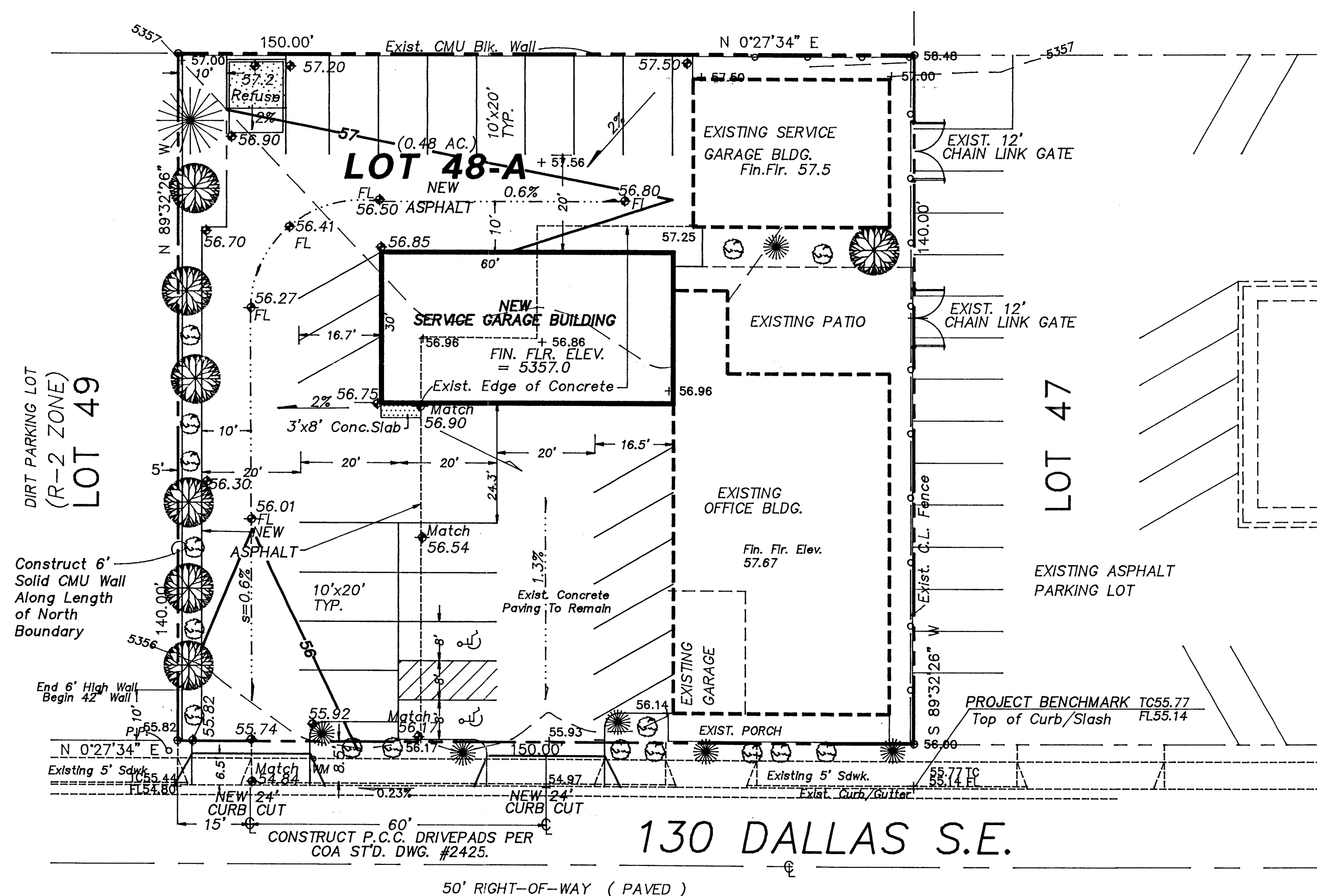
SCALE: 1"=750'

SCALE: 1"=20'

NOTES:

All Work Within the Right-of-Way Shall Be Constructed In Accordance With the City of Albuquerque Standard Specs. For Public Works Construction, Latest Edition.

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY R.O.W. AN APPROVED COPY OF THIS PLAN MUST BE SUBMITTED AT THE TIME OF APPLICATION.
2. ALL WORK PERFORMED ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
3. CONTRACTOR SHALL MAINTAIN ACCESS TO ADJACENT PROPERTIES DURING CONSTRUCTION.
4. ALL UTILITIES AND UTILITY SERVICE LINES SHALL BE INSTALLED PRIOR TO THE CONSTRUCTION OF PAVING.
5. FRONT YARD DEPRESSED LANDSCAPED AREAS SHALL BE SOFT-LINED WITH NATIVE VEGETATION AND/OR GRAVEL. NO DEVELOPED RUNOFF PERMITTED TO DRAIN TO THESE AREAS. ASPHALT PARKING AREA SHALL DRAIN DIRECTLY TO DALLAS ST.
6. CONTRACTOR SHALL ENSURE THAT NO SITE SOILS/SEDIMENT OR SILT ENTER THE RIGHT-OF-WAY DURING CONSTRUCTION.
7. ALL NEW PARKING LOT PAVING SHALL CONSIST OF 2" ASPHALT CONCRETE PAVEMENT, 1500# STABILITY, TYPE "B" GRADATION, OVER 6" COMPACTED SUBGRADE (95% MODIFIED PROCTOR). TACK COAT AGAINST FULL DEPTH EDGE OF EXISTING CONCRETE PAVEMENT.



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
NMPE #10265
NEW MEXICO
PROFESSIONAL ENGINEER

PROJECT INFORMATION

LEGAL DESCRIPTION: LOT 48-A, GOLDEN VIEW ADDITION
CITY OF ALBUQUERQUE, NEW MEXICO
BERNALILLO COUNTY

PROPERTY ADDRESS: 130 DALLAS STREET, Southeast
ALBUQUERQUE, NM 87108

PROJECT BENCHMARK: TOP OF CURB OF THE PROJECTION OF THE
SOUTHWEST PROPERTY CORNER, AS TIED FROM ACS MONUMENT.
TOP OF CURB ELEV. = 5356.00, MSL.

TOPOGRAPHIC SURVEY: PERFORMED BY CLARK CONSULTING ENGINEERS
AUGUST 19, 1998.

Clark Consulting Engineers
19 Ryan Road Edgewood, New Mexico 87015
(505) 281-2444 FAX (505) 281-2444

DATE	REVISION	LOT 48-A, GOLDEN VIEW ADDITION VINCH - AUTO SERVICE / REPAIR
DESIGNED BY: PWC	DRAWN BY: CCE	JOB No: LAKE-PHAN
CHECKED BY: PWC	DATE: 9/15/98	FILE No: G/D

Grading & Drainage Plan

SHEET No.
1 of 1