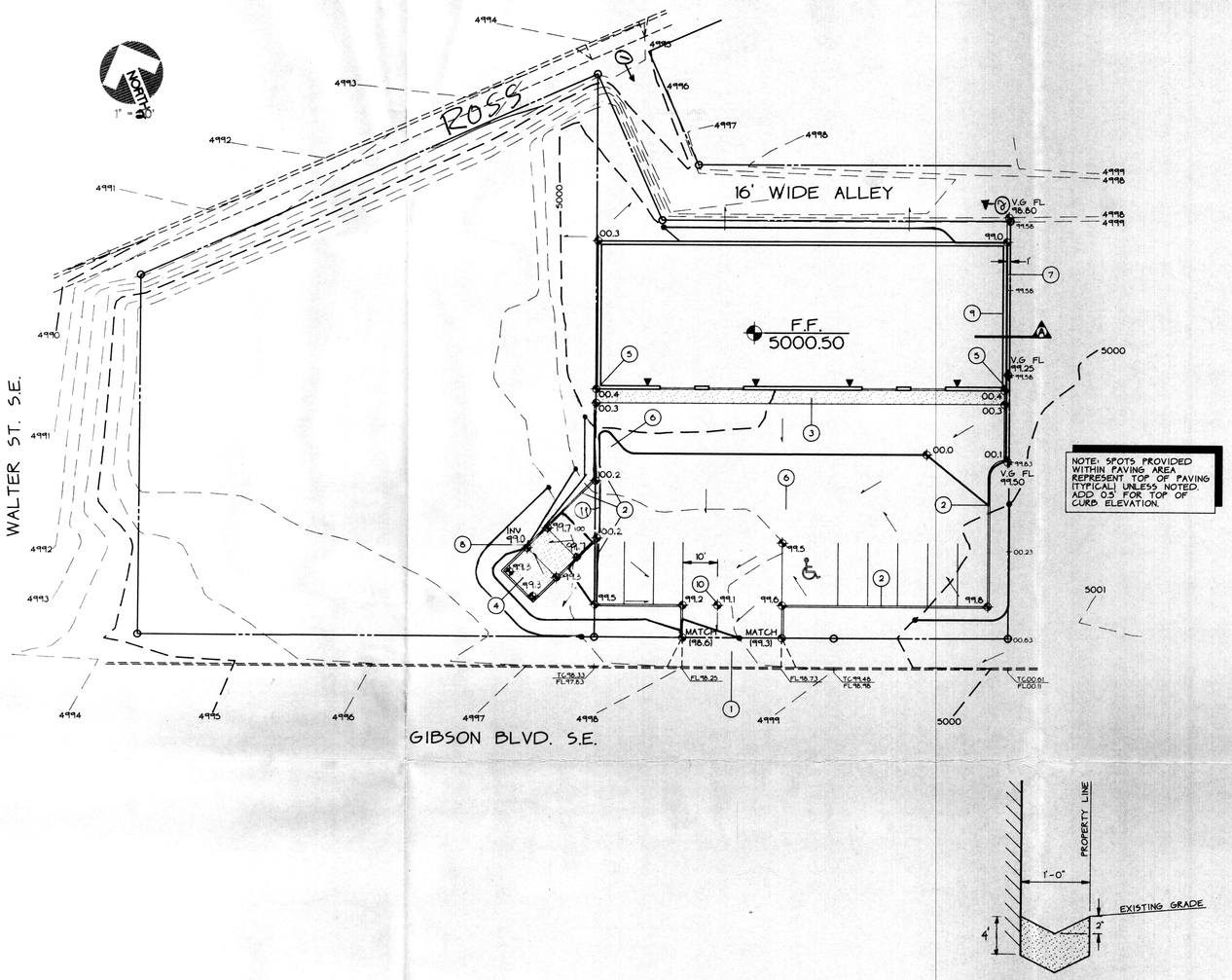

NOTE: SPOTS PROVIDED WITHIN PAVING AREA REPRESENT TOP OF PAVING (TYPICAL) UNLESS NOTED. ADD 0.5' FOR TOP OF CURB ELEVATION.

A VALLEY GUTTER

LEGEND

	SIDEWALK, CURB AND GUTTER (EXISTING, PROPOSED)
	PROPOSED PAVED DRIVE
	BUILDING (EXISTING, PROPOSED)
	PROPERTY LINE
x 65.7	EXISTING SPOT ELEVATION
20	EXISTING CONTOUR
75.2	PROPOSED SPOT ELEVATION
30	PROPOSED CONTOUR
	SURFACE FLOW DIRECTION (EXISTING, PROPOSED)
LA	LANDSCAPED AREA
TGW	TOP OF GRADE WALL (< 18" HIGH)
TRW	TOP OF RETAINING WALL (> 18" HIGH)
TA	TOP OF ASPHALT
TC	TOP OF CURB
FL	FLOW LINE
FF	FINISHED FLOOR
R/W	RIGHT OF WAY
PL	PROPERTY LINE
PP	POWER POLE
▲	ENTRY / EXIT LOCATION

SCOPE:

The proposed improvements include a 5040 SF building, paved parking and associated walks and landscape areas.

The property slopes approximately 1.% to the west. The present site is a commercial site. The property to the north is developed residential. An alley abuts the site to the north, Gibson Blvd. S.E. abuts the property to the south, the property to the west is undeveloped commercial (same owner) and the property to the east is developed commercial.

The intent of this plan is to show:

- Grading relationships between the existing ground elevations and proposed finished elevations in order to facilitate positive drainage to designated discharge points.
- The extent of proposed site improvements, including buildings, walks and pavement.
- The flow rate/volume of rainfall runoff across or around these improvements and methods of handling these flows to meet City of Albuquerque requirements for drainage management.
- The relationship of on-site improvements with existing neighboring property to insure an orderly transition between proposed and surrounding grades.

DRAINAGE PLAN CONCEPT: Roof flows will be carried to the parking lot within a gutter system. All flows will be released into Gibson Blvd.

GENERAL NOTES:

LEGAL: Lot 2-A, Block A, Anderson & Thaxton's Replat of a Portion of Torreon Addition

SURVEYOR: A & E Surveying Co., September 1995

B.M.: A New Mexico State Highway commission Brass Cap, located in center median in Gibson Blvd. SE Approximately 800 feet west of the intersection of Gibson Blvd. SE and Edith St. SE. Stamped Sta G-10. Elevation = 4978.19' (M.S.L.D).

T.B.M.: Top of Rebar at southwest property corner. Elevation = 4998.15 (M.S.L.D.)

FLOOD HAZARD: Per FEMA Boundary Map #44, the property does dot lie within a flood zone.

OFF-SITE DRAINAGE: Based on the survey and site visit, there are no off-site flows affecting this site due to an existing interceptor ditch located at the south property line which intercepts potential off-site flows and directs them to the west.

EROSION CONTROL: The contractor is responsible for retaining on-site all sediment generated during construction by means of temporary earth berms or silt fences at the low points on the west property line.

CALCULATIONS:

Calculations are based on the Drainage Design Criteriator City of Albuquerque, Section 22.2, DPM, Vol 2, dated Jan., 1993

ON-SITE

AREA OF SITE: 14644 SF = 0.34 Ac.

HISTORIC FLOWS: On-Site Historic Land Condition			DEVELOPED FLOWS: On-Site Developed Land Condition			EXCESS PRECIPITATION: Precip. Zone 2	
Area a =	0	SF	Area a =	0	SF	Ea =	0.53
Area b =	0	SF	Area b =	0	SF	Eb =	0.78
Area c =	14644	SF	Area c =	2144	SF	Ec =	1.13
Area d =	0	SF	Area d =	12500	SF	Ed =	2.12
Total Area =	14644	SF	Total Area =	14644	SF		

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)

Weighted E = (EaAa + EbAb + EcAc + EdAd) / (Aa + Ab + Ac + Ad)

Historic E =	1.13 in.	Developed E =	1.98 in.
On-Site Volume of Runoff: V360 =	E*A / 12		
Historic V360 =	1379 CF	Developed V360 =	2410 CF

On-Site Peak Discharge Rate: Qp = QpaAa+QpbAb+QpcAc+QpdAd / 43,560

For Precipitation Zone 2

Qpa =	1.56	Qpc =	3.14
Qpb =	2.28	Qpd =	4.70
Historic Qp =	1.1 CFS	Developed Qp =	1.5 CFS

Flows to be released to Gibson Blvd.

OFF-SITE BASIN

From field inspection and FEMA contour map analysis:

Area of off-site flows = 3125 SF = 0.1 Ac. Precip. Zone 2

The following calculations are based on Treatment areas as shown in table to the right

Off-Site Weighted Excess Precipitation (see formula above): Weighted E = 1.13 in.

Off-Site Volume of Runoff (see formula above): V360 = 294 CF

Off-Site Peak Discharge Rate: (see formula above): Qp = 0.2 cfs

TREATMENT	
A =	0%
B =	0%
C =	100%
D =	0%

Note: offsite flows are captured in conc. valley gutter and taken north to alley.

CAPACITY OF CONCRETE VALLEY GUTTER

Based on analysis, the 1' wide valley gutter will carry 0.2 cfs

Bottom Width =	0'	Channel Slope =	0.0100			
Left Side Slope =	3:1	n =	0.0120			
Right Side Slope =	3:1	Water Depth =	0.018'	=	2"	Provided

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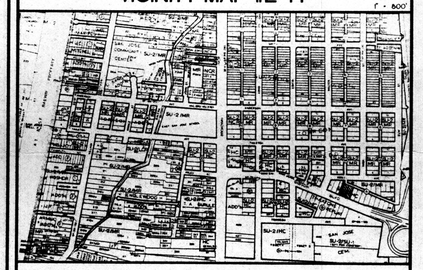
KEYNOTES L14-D41

1. EXISTING DRIVE ENTRANCE. PROVIDE SMOOTH RIDING TRANSITION. SEE ARCHITECTURAL FOR ADDITIONAL INFORMATION.
2. CONSTRUCT CURB THROUGHOUT. OWNERS OPTION (CONCRETE, ASPHALT OR R.R. TIES)
3. CONSTRUCT CONC. APRON FLUSH WITH ASPHALT PAVING.
4. SHARED REFUSE ENCLOSURE. SAME OWNER BOTH LOTS.
5. ROOF FLOWS TO DRAIN TO GUTTER SYSTEM AND RELEASED AT THE S.E. AND S.W. CORNERS OF THE BUILDING WHERE THEY WILL CROSS THE PAVEMENT AND EXIT TO GIBSON BLVD.
6. PROVIDE SHALLOW SWALE IN ASPHALT TO CARRY FLOWS TO SIDEWALK CULVERT.
7. CONSTRUCT 1' WIDE VALLEY GUTTER THIS AREA TO TAKE TEMPORARY OFFSITE FLOWS TO ALLEY. SEE SECTION A THIS SHEET.
8. 1' WIDE OPENING IN CURB TO ALLOW FLOWS TO PASS.
9. CONSTRUCT EXTENDED STEM WALL / GARDEN WALL ALONG EAST SIDE OF BUILDING / KEYWAY TO MEET EXISTING GRADES OF ADJACENT PROPERTY.
10. LOCATE DRAINAGE SWALE 10' FROM WEST CURB.
11. CONSTRUCT 2" HIGH ASPHALT WATER BLOCK ALONG REFUSE ENTRANCE TO PREVENT FLOWS FROM LOT 2-A FROM ENTERING LOT 1-A. DIRECT ALL ON-SITE FLOWS TO EXIT @ DRIVEPAD.

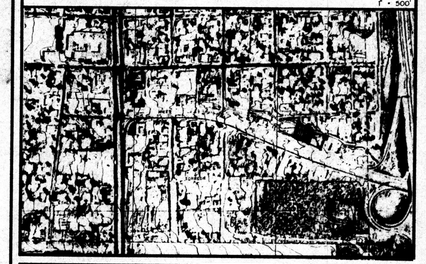
VICINITY MAP #L-14

1" = 800'



FEMA MAP #34

1" = 500'



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Revisions

GIBSON WAREHOUSE FOR RICHARD POLK

Scale:	Drawn By:	Checked By:	Job Number:	Date:
1" = 20'	BJB	CLW		SEPT. 1995

Drainage and Grading Plan

C-1
SH. 1 OF 1

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