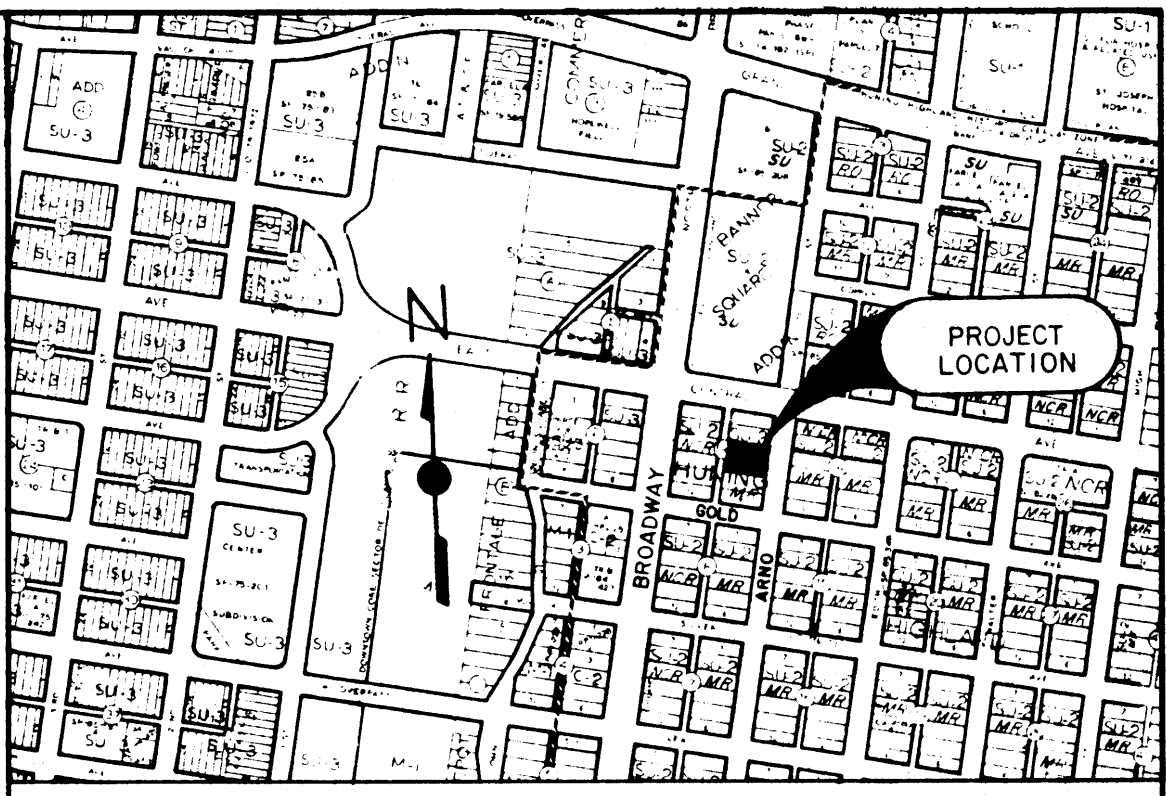


RUNOFF CALCULATIONS

LOT 3	
UNDEVELOPED	DEVELOPED
P = 2.25 in.	P = 2.25 in.
C = 0.50	C = 0.95
Tc = 2 min.	Tc = 2 min.
I100 = 10.81 in./hr.	I100 = 10.81 in./hr.
A = 0.11 Ac.	A = 0.11 Ac.
Q = CIA = 0.59 cfs	Q = CIA = 1.13 cfs
Vol. = 450 cu. ft.	Vol. = 854 cu. ft.

LOT 4	
UNDEVELOPED	DEVELOPED
P = 2.25 in.	P = 2.25 in.
C = 0.60	C = 0.70
Tc = 3 min.	Tc = 3 min.
I100 = 8.79 in./hr.	I100 = 8.79 in./hr.
A = 0.16 Ac.	A = 0.16 Ac.
Q = CIA = 0.84 cfs	Q = CIA = 1 cfs
Vol. = 784 cu. ft.	Vol. = 915 cu. ft.



VICINITY MAP ZONE ATLAS K-14 SCALE: NONE

LEGAL DESCRIPTION

LOTS 3 & 4, BLOCK 9, HUNING - HIGHLAND ADDITION.

ACS BENCHMARK

6-K14(R): STATION IS A STANDARD CITY OF ALBUQUERQUE DISK SET IN A DRILLED HOLE IN THE SIDEWALK (STAMPED "6-K14(R)ACS") AT THE NE CURB RETURN OF CENTRAL AVE. AND BROADWAY BLVD.
X = 382,162.22 Y = 1,485,941.10 Z = 4968.89

TBM (TEMPORARY BENCHMARK)

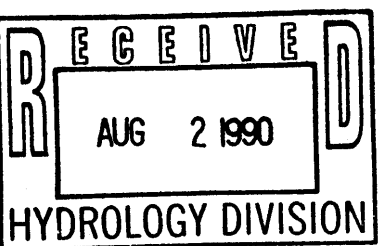
"□" CHISELLED IN CONCRETE AT GARAGE DOOR ENTRANCE. ELEVATION = 4973.88

LEGEND

- TC
FL
EXISTING SPOT ELEVATION (i.e., TOP OF CURB, FLOWLINE)
NEW SPOT ELEVATION
- EXISTING WALL
- EXISTING FENCE
- EXISTING BUILDING
- EXISTING POWER POLE
- EXISTING TELEPHONE RISER
- EXISTING EDGE OF ASPHALT OR SIDEWALK
- EXISTING CURB & GUTTER
- PROPERTY LINE
- EXISTING CONTOUR
- NEW CONTOUR
- NEW ASPHALT PAVING

GENERAL NOTES

- CONTRACTOR IS TO MATCH EXISTING PAVEMENT AT EDGE OF ALLEY.
- SITE DOES NOT LIE IN OR CONTRIBUTE TO THE 100 YR. FLOOD PLAIN.
- NO OFFSITE FLOWS ENTER THIS SITE.
- ALL ELEVATIONS ARE MSL (MEAN SEA LEVEL).
- ADD 4900 TO ALL ELEVATIONS.
- CONTOUR INTERVAL = 1'.



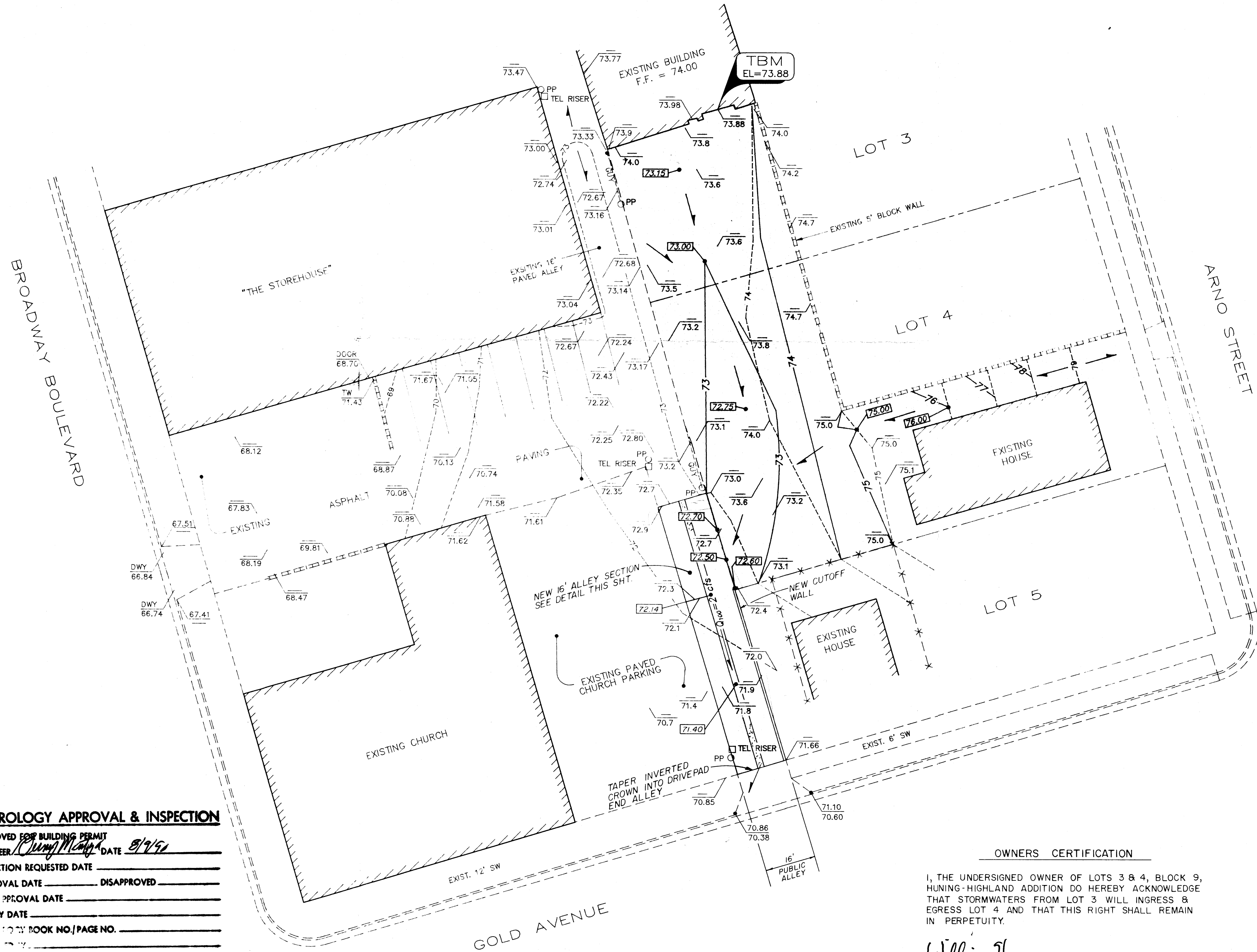
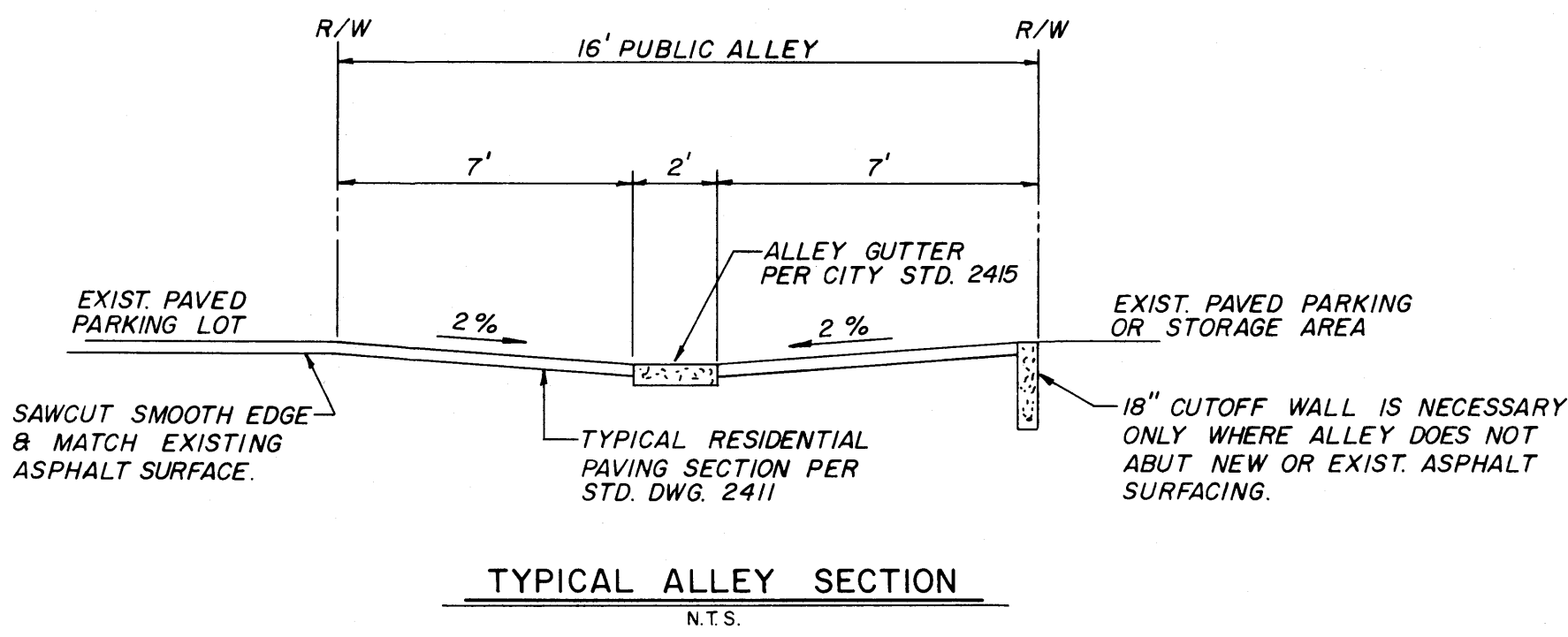
HIGHLAND MEDICAL STORAGE AREA

GRADING AND DRAINAGE PLAN

dmg D. MARK GOODWIN & ASSOCIATES, P.A.
CONSULTING ENGINEERS & SURVEYORS
P.O. BOX 90606
ALBUQUERQUE, NEW MEXICO 87199
(505) 828-2200

Designed: DMG Drawn: BJG Checked: DMG Sheet 1 of 1
Scale: 1"=20' Date: 7/90 Job: 9033

HIGH\GRADE



HYDROLOGY APPROVAL & INSPECTION

APPROVED FOR BUILDING PERMIT
ENGINEER: *Clayton M. [Signature]* DATE: 9/2/90
INSPECTION REQUESTED DATE: _____
APPROVAL DATE: _____ DISAPPROVED: _____
S019 APPROVAL DATE: _____
KEY DATE: _____
BOOK NO./PAGE NO.: _____

OWNERS CERTIFICATION

I, THE UNDERSIGNED OWNER OF LOTS 3 & 4, BLOCK 9, HUNING-HIGHLAND ADDITION DO HEREBY ACKNOWLEDGE THAT STORMWATERS FROM LOT 3 WILL INGRESS & EGRESS LOT 4 AND THAT THIS RIGHT SHALL REMAIN IN PERPETUITY.

William Hayman
WILLIAM HAYMAN

ALLEY CONSTRUCTION APPROVALS

D.R.C. CHAIRMAN

TRANSPORTATION

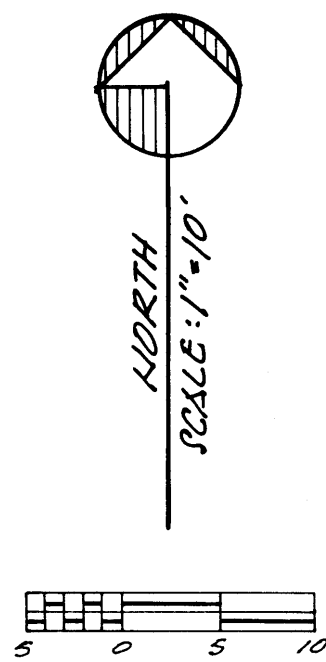
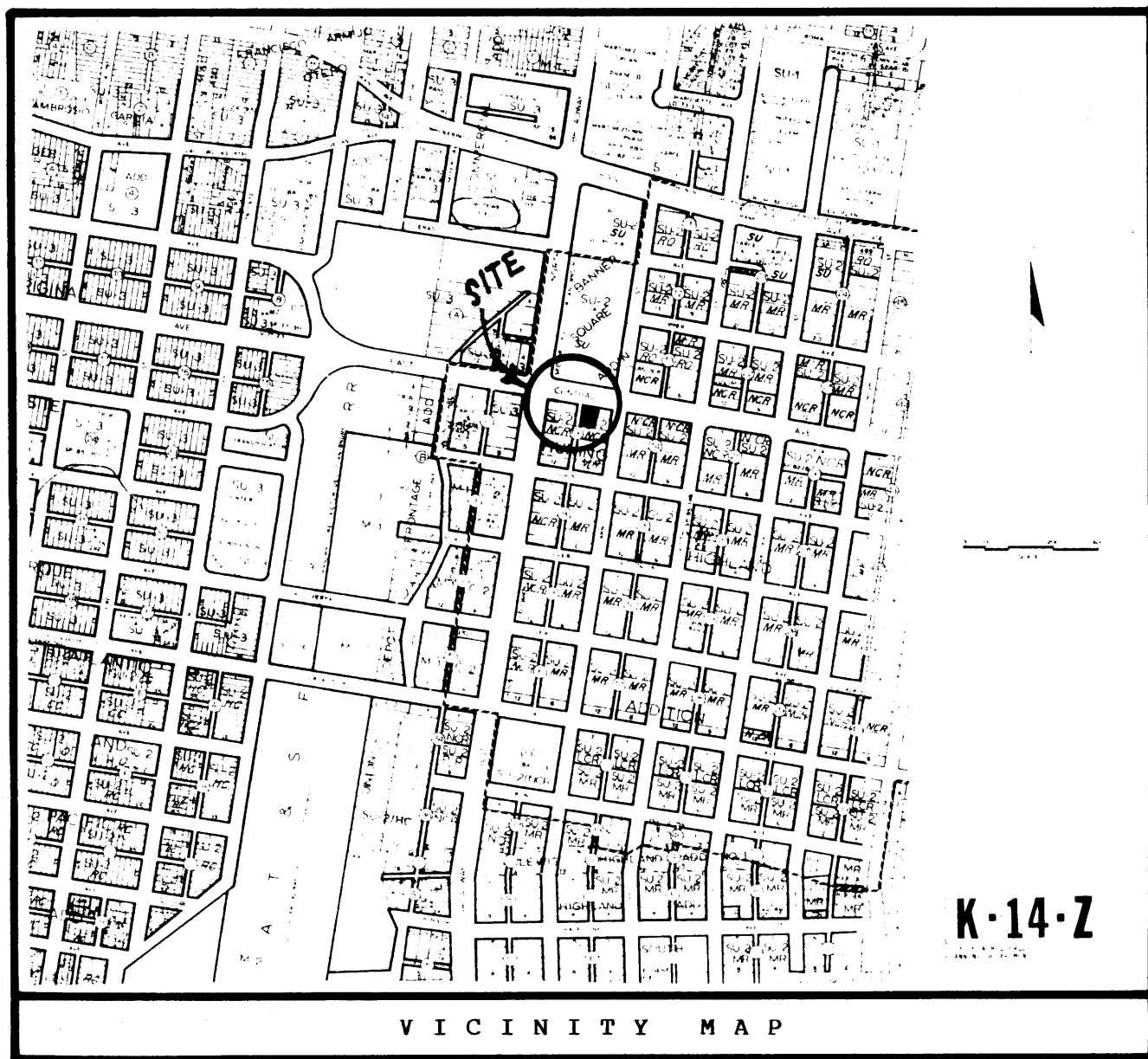


TABLE A-10. PEAK INTENSITY (INCHES AT 1" = 0.2" HOUR)		
Zone	Intensity	100-YR
1	4.70	[1.84, 3.14]
2	5.05	[2.04, 3.41]
3	5.38	[2.21, 3.65]
4	5.61	[2.24, 3.83]

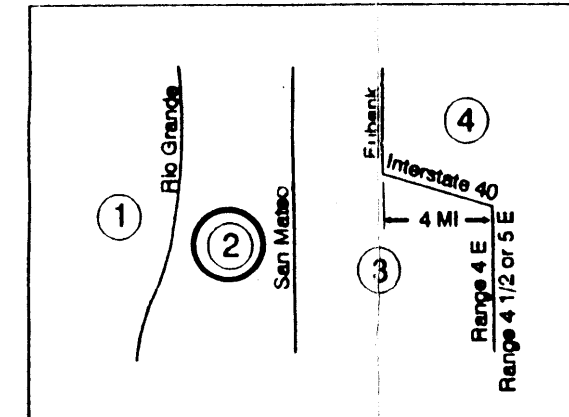
TABLE A-9. PEAK DISCHARGE (cfs/acre)				
Zone	Treatment			
	A	B	C	D
1	1.29 [0.00, 0.24]	2.03 [0.03, 0.76]	2.87 [0.47, 1.49]	4.37 [1.89, 2.89]
2	1.56 [0.00, 0.38]	2.28 [0.08, 0.95]	3.14 [0.80, 1.71]	4.70 [1.86, 3.14]
3	1.87 [0.00, 0.58]	2.80 [0.21, 1.19]	3.45 [0.78, 2.00]	5.02 [2.04, 3.39]
4	2.20 [0.05, 0.87]	2.92 [0.38, 1.45]	3.73 [1.00, 2.26]	5.25 [2.17, 3.57]

A-1 PRECIPITATION ZONES

Bernalillo County's four precipitation zones are indicated in TABLE A-1 and on FIGURE A-1.

TABLE A-1. PRECIPITATION ZONES	
Zone	Location
1	West of the Rio Grande
2	Between the Rio Grande and San Mateo
3	Between San Mateo and Eubank, North of Interstate 40; and between San Mateo and the East boundary of Range 4 East, South of Interstate 40
4	East of Eubank, North of Interstate 40; and East of the East boundary of Range 4 East, South of Interstate 40

FIGURE A-1



Where a watershed extends across a zone boundary, use the zone which contains the largest portion of the watershed.

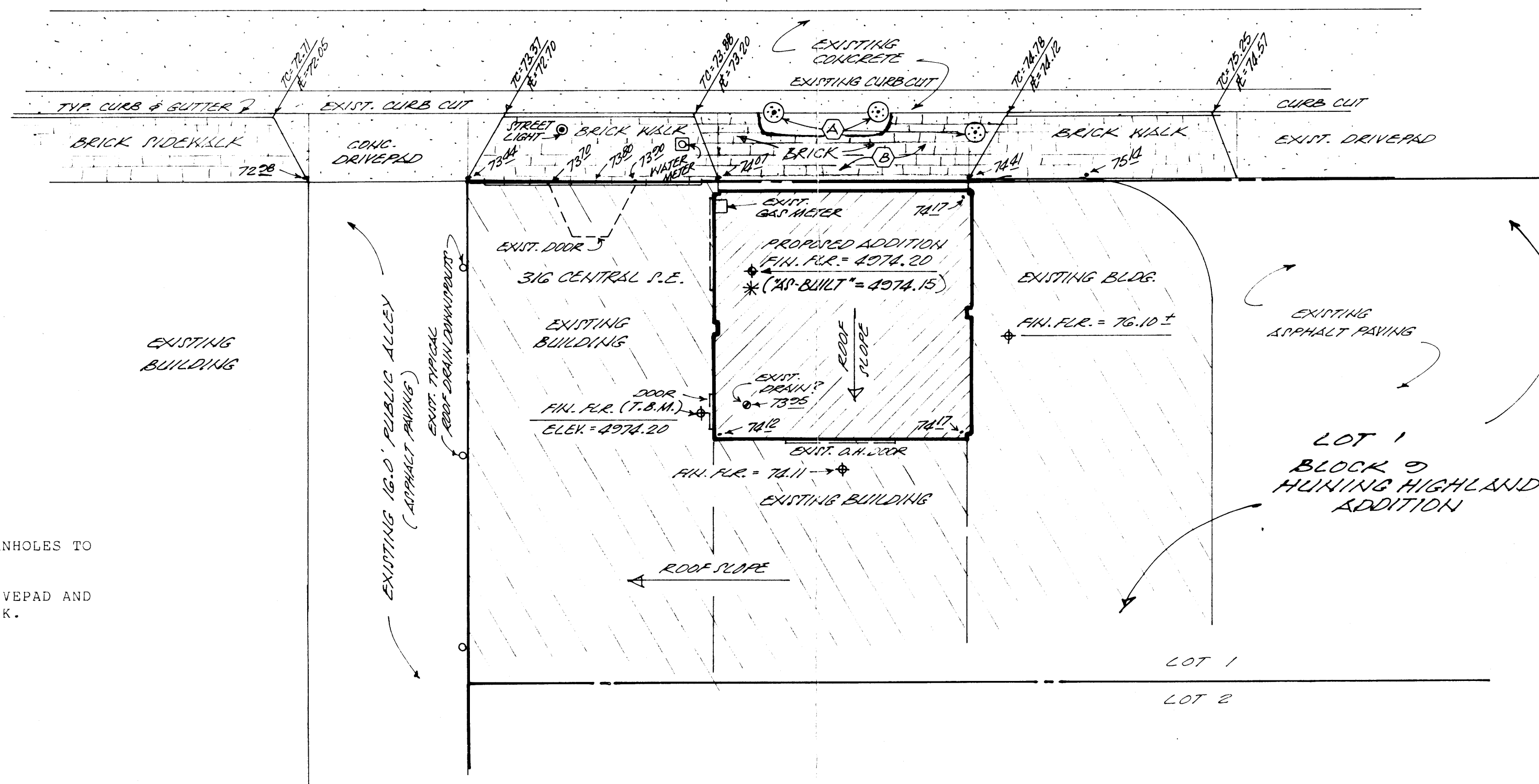
DPM SECTION 22.2 - HYDROLOGY
January, 1993 Page A-4

TABLE A-4. LAND TREATMENTS	
Treatment	Land Condition
A	Soil uncompacted by human activity with 0 to 10 percent slopes. Native grasses, weeds and shrubs in typical densities with minimal disturbance to grading, groundcover and infiltration capacity. Croplands. Unfertilized arroyos.
B	Irrigated lawns, parks and golf courses with 0 to 10 percent slopes. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes greater than 10 percent and less than 20 percent.
C	Soil compacted by human activity. Minimal vegetation. Unpaved parking, roads, trails. Most vacant lots. Gravel or rock on plastic (desert landscaping). Irrigated lawns and parks with slopes greater than 10 percent. Native grasses, weeds and shrubs, and soil uncompacted by human activity with slopes at 20 percent or greater. Native grass, weed and shrub areas with clay or clay loam soils and other soils of very low permeability as classified by SCS Hydrologic Soil Group D.
D	Impervious areas, pavement and roofs.

Most watersheds contain a mix of land treatments. To determine proportional treatments, measure respective subareas. In lieu of specific measurement for treatment D, the area percentages in TABLE A-5 may be employed.

EAST CENTRAL AVENUE

EAST BOUND TRAFFIC →



- A → CONTRACTOR TO ADJUST EXISTING TELEPHONE MANHOLES TO PROPOSED NEW SIDEWALK GRADE.
- B → CONTRACTOR TO REMOVE EXISTING CONCRETE DRIVEPAD AND PROVIDE A CONTINUED EXISTING BRICK SIDEWALK.

DRAINAGE COMMENTS AND CALCULATION:

THE SUBJECT DRAINAGE PLAN IS FOR A PROPOSED BUILDING ADDITION TO AN EXISTING COMMERCIAL FACILITY THAT IS LOCATED ON THE SOUTH SIDE OF CENTRAL AVENUE AND EAST OF BROADWAY BLVD. S.E., IN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO; THE PROPOSED BUILDING ADDITION IS BEING CONSTRUCTED OVER AN AREA THAT IS PRESENTLY A CONCRETE (IMPERVIOUS) SURFACE.

THE PROPOSED BUILDING ROOF FLOWS WILL DISCHARGE SOUTH AND ONTO AN EXISTING BUILDING ROOF THAT DRAINS VIA DOWNSPOUTS INTO THE EXISTING ASPHALT PAVED 16.0' WIDE PUBLIC ALLEY AS SHOWN ON THE PLAN HEREON.

CALCULATION: (EXISTING AND PROPOSED CONDITION)

TREATMENT	AREA/ACRES	FACTOR	CFS
D	0.015	x 4.70	= 0.07

"Q_p" = 0.07 CFS

NOTE: THE PROPOSED BUILDING ADDITION IS AN APPROXIMATE AREA OF 635.0 SQ. FT.

LEGAL DESCRIPTION:

A WESTERLY PORTION OF LOT NUMBERED ONE (1), BLOCK NINE (9), OF THE HUNING HIGHLAND ADDITION, TO THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO, (ZONE ATLAS MAP NO. "K-14-Z").

BENCH MARK REFERENCE:

ACS STATION "6-K14(R)", LOCATED AT THE INTERSECTION OF CENTRAL AVENUE AND BROADWAY BLVD.; N.S.L.D. ELEVATION = 4968.765, (PROJECT T.B.M. AS SHOWN ON THE PLAN HEREON).

GENERAL NOTES:

- NO PERIMETER BOUNDARY CORNERS HAVE BEEN FIELD ESTABLISHED PER THIS SURVEY OF THE SUBJECT PROPERTY.
- NO SEARCH HAS BEEN MADE FOR EASEMENTS OF RECORD WITHIN THE SUBJECT PROJECT AREA.
- TOPOGRAPHY SURVEY INFORMATION PROVIDED BY TORRES SURVEYING COMPANY, ALBUQUERQUE, NEW MEXICO.
- REFER TO "ARCHITECT'S SITE PLAN" FOR LAYOUT DIMENSIONS OF THE PROPOSED IMPROVEMENTS.

LEGEND:

EXISTING SPOT ELEVATION = 75.25
 TOPO OF CURB ELEVATION = 75.78
 CURB FLOWLINE ELEVATION = 75.12
 PROPOSED FINISHED FLOOR ELEVATION = FIN. F.L.E. = 75.78

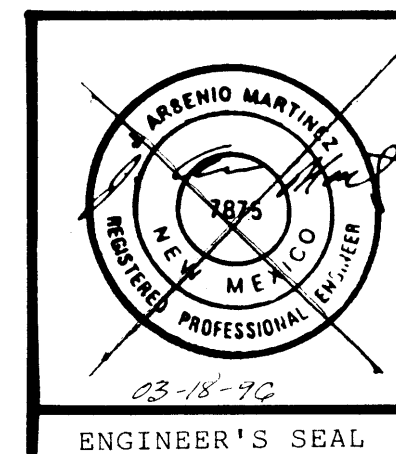
EROSION CONTROL MEASURES:

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT FOR STORM RUN-OFF DURING CONSTRUCTION; HE SHALL INSURE THAT THE FOLLOWING MEASURES ARE TAKEN:

- ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY CONSTRUCTION OF BERMS, DIKES, SWALES, PONDS, AND OTHER TEMPORARY GRADING AS REQUIRED TO PREVENT STORM RUNOFF FROM LEAVING THE SITE AND ENTERING ADJACENT PROPERTIES.
- ADJACENT PUBLIC RIGHT-OF-WAYS SHALL BE PROTECTED AT ALL TIMES FROM STORM WATER RUNOFF FROM THE SITE. NO SEDIMENT BEARING WATER SHALL BE PERMITTED TO ENTER PUBLIC STREETS.
- THE CONTRACTOR SHALL IMMEDIATELY AND THOROUGHLY REMOVE ANY AND ALL SEDIMENT WITHIN PUBLIC STREETS THAT HAS BEEN ERODED FROM THE SITE AND DEPOSITED THERE.

CONSTRUCTION NOTES:

- TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 262-1220 FOR LOCATION OF EXISTING UTILITIES.
- PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS; SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM OF DELAY.
- ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.



**CERTIFICATION OF
A DRAINAGE PLAN FOR A
PROPOSED ADDITION TO
HIGHLAND MEDICAL SUPPLY, INC.
(316 CENTRAL AVE. S.E.)
ALBUQUERQUE, NEW MEXICO
MARCH, 1996
(CERTIFICATION: FEBRUARY 6, 1996)**

ENGINEER'S CERTIFICATION:

I, LEVI J. VALDEZ, NEW MEXICO REGISTERED PROFESSIONAL ENGINEER NO. 5693, LICENSED AND REGISTERED UNDER THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT AN ACTUAL ON THE GROUND FIELD SURVEY OF THE GRADES OF THE NEW IMPROVEMENTS SHOWN HEREON VERIFY THAT SAID IMPROVEMENTS WERE CONSTRUCTED IN "SUBSTANTIAL COMPLIANCE" WITH THE APPROVED DRAINAGE PLAN FOR SAID SITE.

