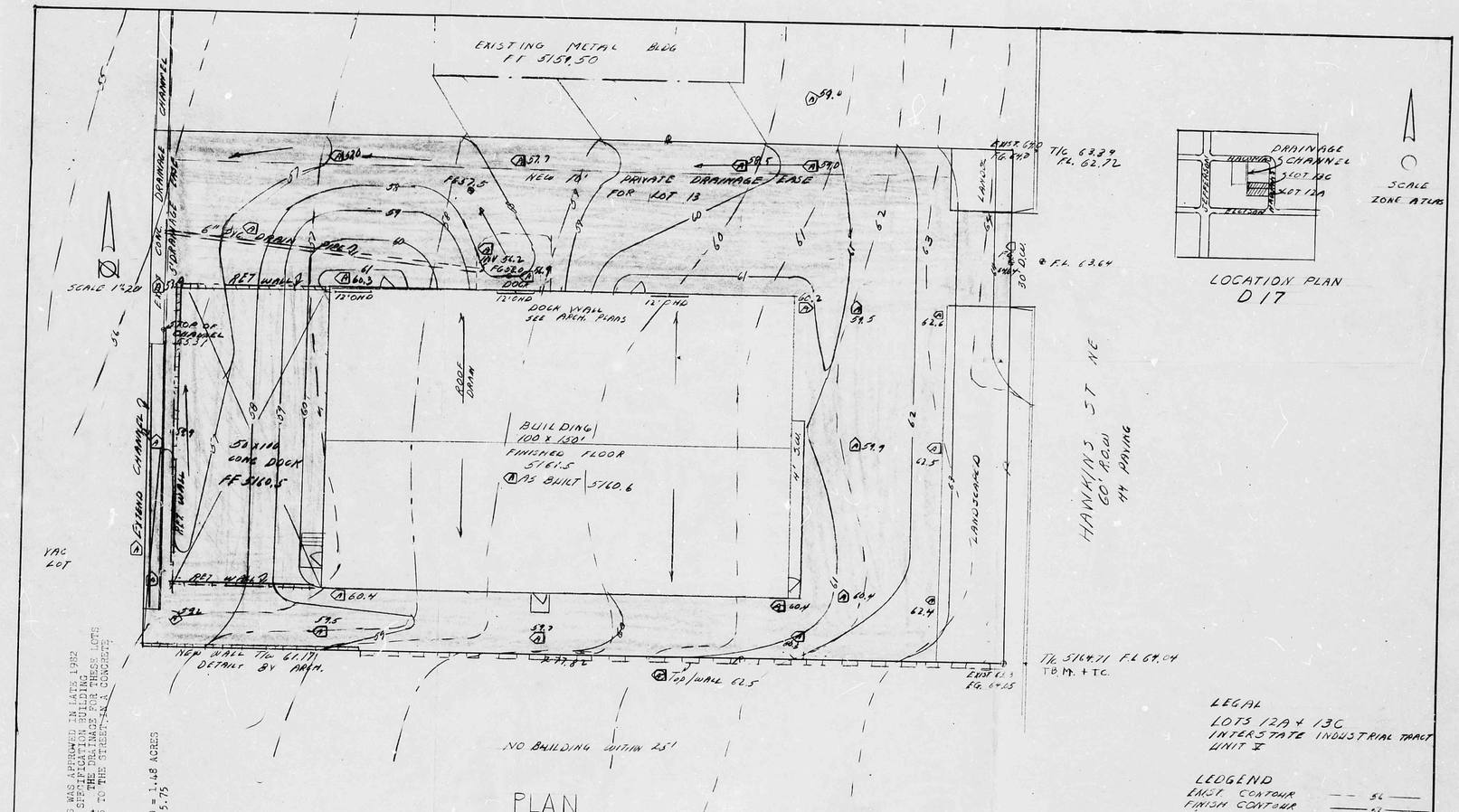
HYDROLOGY D17/D45 STORAGE BLDG. FOR HARLAN SEELEY

D17/D45

STORAGE BLDG.
FOR
HARLAN SEELEY

2 PLANS



DRAINAGE PLAN
THE DRAINAGE PLAN FOR THESE LOTS WAS APPROVED IN LATE 1982 OR EARLY 1983 ON DRAINAGE PLAN, SPECIFICATION BUILDING FOR HARLAN SEELEY, FILE D 17-D14. THE DRAINAGE FOR THESE LOTS WOULD BE CONVEYED THROUGH LOT 15 TO THE STREET AS A CONCRETE CHANNEL.
THERE IS NO OFFSITE FLOW.

ON-SITE FLOW
A = 180 X 277.82/ 43560 = 1.48 ACRES
C = .9 I = 2.5 X 2.3 = 5.75
Q = 7.6 CFS (Peak)

LEGAL
LOTS 12A + 13C
INTERSTATE INDUSTRIAL TRACT
UNIT II

LEGEND
EXIST. CONTOUR — 56 —
FINISH CONTOUR — 56 —
EXIST. ELEVATION EG 63.5
FINISH GRADE FG 63.5
TOP OF CURB T/C
FLOW LINE F.L.
PAVING
CHAIN LINK FENCE
EXIST. RETAIN WALL
NEW " "

NEW RETAIN WALL
DETAILS BY ARCHITECT

RECEIVED
AUG 06 1984
HYDROLOGY SECTION

4816 HAWKINS ST. NE

RAY HARRISON & ASSOCIATES

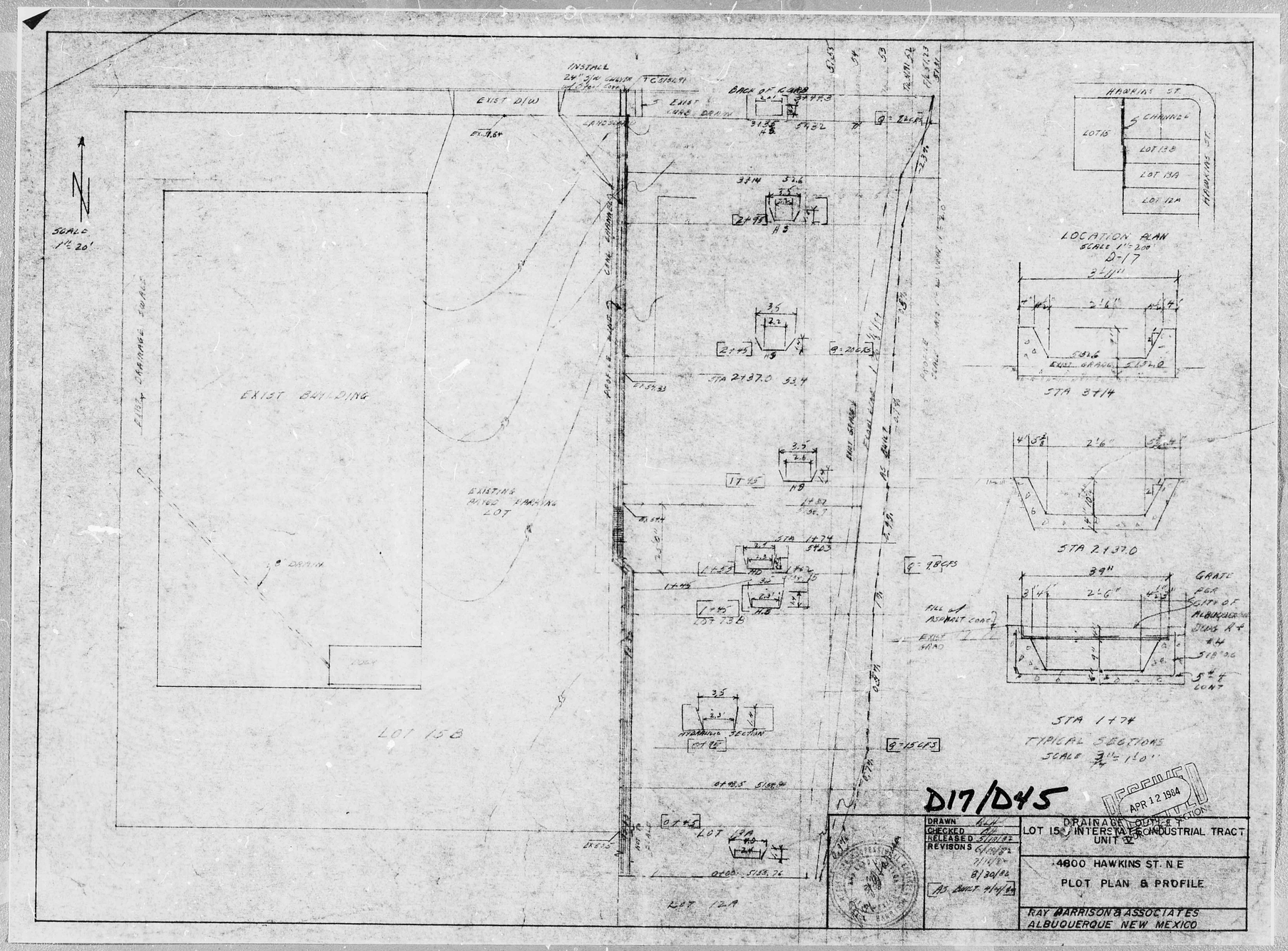
DRAWN LH
RELEASED AUG 2/20/84
REVISIONS 3/12/04
(2) PLOT PLAN REVISED & AS BUILT

OFFICE & STORAGE BUILDING FOR MR. HARLAN SEELEY

GRADING PLAN

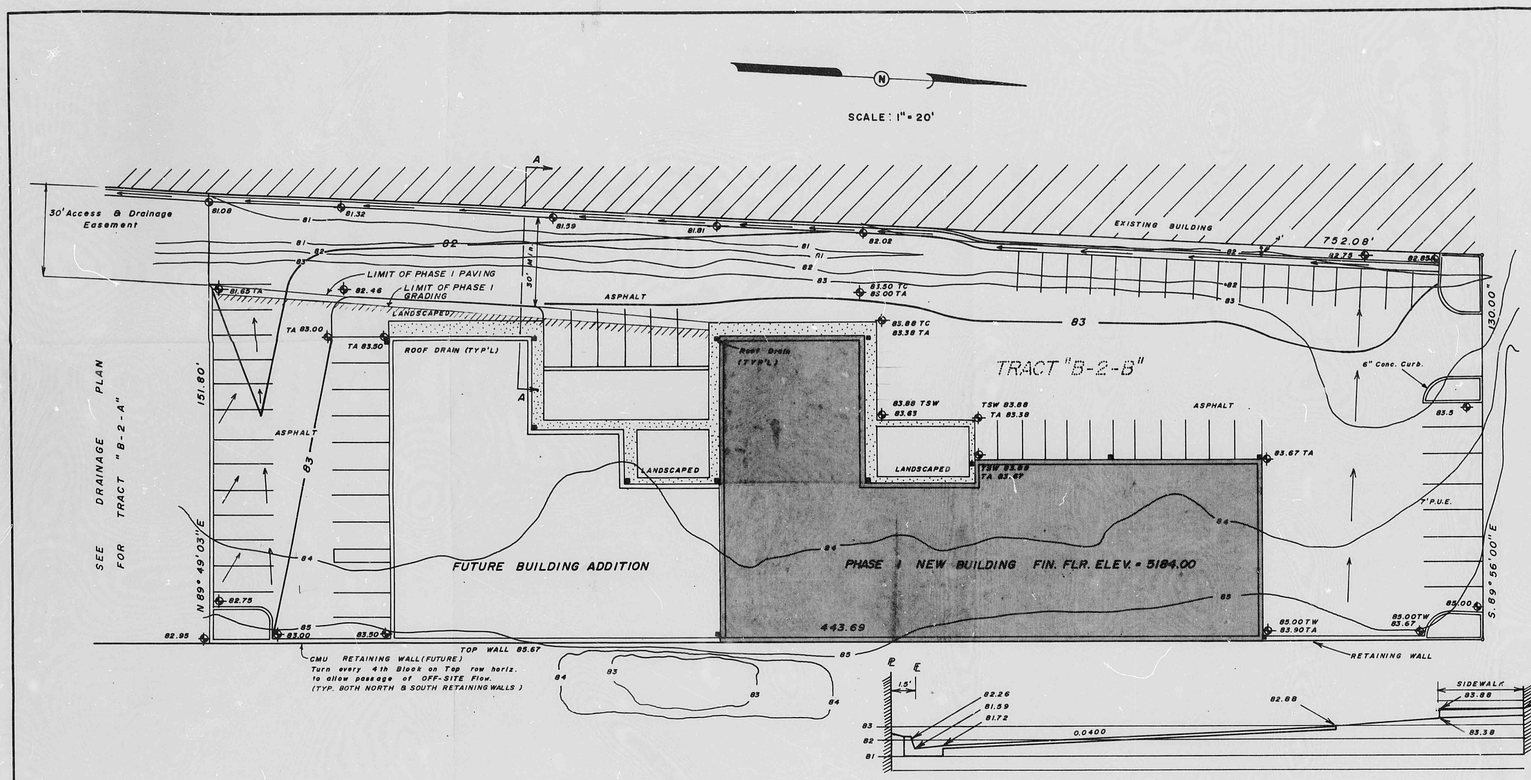
DRAINAGE PLAN

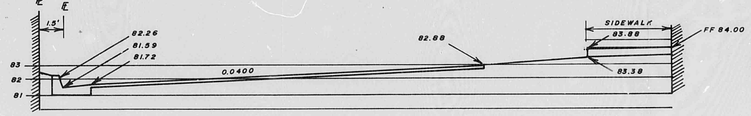
D17 1045


SCALE 1" = 20'
EXIST BUILDING
EXISTING PARKING LOT
LOT 15B
LOT 13B
LOT 12A
EXIST D/W
INSTALL 24" R/W CULVERT
EXIST CURB DRAIN
BACK OF CURB
STA 2+37.0
STA 3+14
STA 1+74
PARKING SECTION
HAWKINS ST.
CHANNEL
LOT 15
LOT 13B
LOT 13A
LOT 12A
LOCATION PLAN
SCALE 1" = 200'
D-17
STA 3+14
STA 2+37.0
GRATE FOR CITY OF ALBUQUERQUE
FILL W/ ASPHALT CONC
EXIST GRAD
STA 1+74
TYPICAL SECTIONS
SCALE 3/4" = 1'-0"
D17/D45
APR 12 1984
DRAWN
CHECKED
RELEASED
REVISIONS
DRAINAGE COMPUTATION
LOT 15 INTERSTATE INDUSTRIAL TRACT UNIT II
4600 HAWKINS ST. N.E
PLOT PLAN & PROFILE
RAY HARRISON & ASSOCIATES
ALBUQUERQUE NEW MEXICO

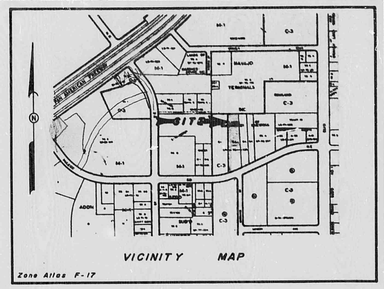
PUBLIC WORKS/HYDROLOGY 2 OF 2

F17/D45





SECTION A-A



LEGEND:

DESCRIPTION	EXISTING	NEW
FLOW DIRECTION		
CONTOUR		
SPOT ELEVATION		
PROPERTY LINE		
ROOF DRAIN		
STANDARD C & G		

TC = TOP CURB
TA = TOP ASPHALT
FL = FLOW LINE
NG = NATURAL GROUND

BENCH MARK:

A.C.S. BENCH MARK 6-F17, located at the intersection of Jefferson St. NE and Montgomery Blvd. NE.

ELEVATION = 5162.232

LEGAL DESCRIPTION:

A CERTAIN TRACT OR PARCEL OF LAND SITUATED WITHIN THE CITY LIMITS OF THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO: BEING AND COMPRISING TRACT B-2-B, LANDS OF ROADRUNNER INVESTORS, A SUBDIVISION OF THE CITY OF ALBUQUERQUE, NEW MEXICO.

DRAINAGE CALCULATIONS

I. REFERENCES:

A. City of Albuquerque Development Process Manual (DPM) Volume 2, Design Criteria, Chapter 22, Drainage, Flood Control and Erosion Control.

B. Soil Survey of Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico, United States Department of Agriculture, Soil Conservation Service.

C. Floodway map, Panel 16 of 50, Federal Emergency Management Agency.

II. GENERAL INFORMATION:

A. Soil Type (Ref.B., Sheet No. 21) Soil type isEtC, Embudo-Tijeras complex, 0 to 9 percent slope, or TgB, Tijeras gravelly fine sandy loam, 1 to 5 percent slopes. Both soils are Hydrologic Soils Group "B".

B. Imperviousness:

Type of Surface	Existing Area Sq.Ft.	Existing Area Acres	Proposed Area Sq.Ft.	Proposed Area Acres
Building roof			22272	0.5113
Concrete Surfaces			2123	0.0487
Asphalt Surfaces			34931	0.8019
Landscaping			3165	0.0727
Undeveloped surface				
Site total	62491	1.4346	62491	1.4346
Percent impervious	0%		95%	

C. "C" Factor (See Ref. A., Plate 22.2 C-1)
1. Undeveloped "C" Factor = 0.34
2. Developed "C" Factor = 0.92

D. Rainfall, 100-year, 6-hour, R_6: (See Ref.A., Plate 22.2 D-1) R_6 = 2.2 inches

E. Time of Concentration, T_c: By Kirpich Equation:
L = 520 ft. Delta Elev. = 4.0 feet S = 4/520 = 0.0077
$T_c = 0.0078(520^{0.77}/0.0077^{0.385}) = 6.27$ minutes
Use 10 minutes.

F. Rainfall Intensity, I: (See Ref. A, Plate 22.2 D-2)
$I = R_6 \times 6.84 \times T_c^{-0.51} = 2.2 \times 6.84 \times (10)^{-0.51}$
I = 4.65 In/Hr

III. PEAK DISCHARGE:

A. Existing Conditions. (Use Rational Equation.)
Q_{100} = 0.34 x 4.56 x 1.43 = 6.12 cfs 2.22 cfs
Q_{10} = 0.657 x 2.26 = 1.48 cfs

B. Developed Conditions.
Q_{100} = 0.92 x 4.65 x 1.43 = 6.12 cfs
Q_{10} = 0.657 x 6.12 = 4.02cfs

IV. OFF-SITE FLOW:

150' x 200' Area east of the site contributes off-site flow. T = 10 minutes C = 0.34 A = 0.69 acres.
Q_{100} = 0.34 x 4.65 x 0.69 = 1.09 cfs
Q_{10} = 0.657 x 1.09 = 0.72 cfs.

DRAINAGE COMMENTS:

1. THIS PLAN IS A RESUBMITTAL OF AN APPROVED DRAINAGE PLAN. SINCE THE TIME THE PLAN WAS APPROVED, DOWNSTREAM CONDITIONS HAVE IMPROVED SO THAT PONDING CAN BE ELIMINATED ON THIS PARCEL.

2. FIELD REVIEW OF THE ORIGINAL PLAN HAS REVEALED THAT OFFSITE FLOW IS MUCH LESS THAN PREVIOUSLY SHOWN. NEARLY ALL OF THE AREA BETWEEN THE SITE AND SAN MATEO BOULEVARD DRAINS TO McLEOD ROAD. AN AREA APPROXIMATELY 150' x 200' DOES DRAIN TOWARD THE SITE. THIS OFFSITE DRAINAGE IS ACCEPTED.

3. ALL DRAINAGE WILL BE TRANSPORTED TO McLEOD ROAD BY THE 30 FOOT DRAINAGE AND ACCESS EASEMENT. FOR GRADES ON THE ACCESS EASEMENT SOUTH OF THIS SITE, SEE DRAINAGE PLAN FOR TRACT B-2-A.

EROSION CONTROL MEASURES:

THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR MANAGEMENT OF STORM RUNOFF DURING CONSTRUCTION. HE SHALL INSURE THAT THE FOLLOWING MEASURES ARE TAKEN:

1. ADJACENT PROPERTY SHALL BE PROTECTED AT ALL TIMES BY THE CONSTRUCTION OF BERMS, DIKES, SWALES, PONDS AND OTHER TEMPORARY GRADING AS REQUIRED TO PREVENT STORM RUNOFF FROM LEAVING THE SITE AND ENTERING SAID PROPERTY.

2. ADJACENT PUBLIC RIGHTS-OF-WAY SHALL BE PROTECTED AT ALL TIMES FROM STORM WATER RUNOFF FROM THE SITE. NO SEDIMENT BEARING WATER SHALL BE PERMITTED TO ENTER PUBLIC STREETS.

3. THE CONTRACTOR SHALL IMMEDIATELY AND THOROUGHLY REMOVE ANY AND ALL SEDIMENT WITHIN PUBLIC STREETS THAT HAS BEEN ERODED FROM THE SITE.

RECEIVED AUG 07 1985 HYDROLOGY SECTION

CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE AT 765-1234 FOR LOCATION OF EXISTING UTILITIES.

2. 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 AMOUNT OF DELAY.

3. 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.

4. ALL CONSTRUCTION WITHIN CITY RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

FRANK O. LOVELADY NEW MEXICO 8112 REGISTERED PROFESSIONAL ENGINEER
JULY 8, 1985

GRADING AND DRAINAGE PLAN
FOR
SERVICEMASTER OF ALBUQUERQUE
4801 Mc Leod Road, N.E.
ALBUQUERQUE, NEW MEXICO

PLAN SHOT TWICE ONCE ON LIGHT ONCE ON DARK

CITY OF ALBUQUERQUE
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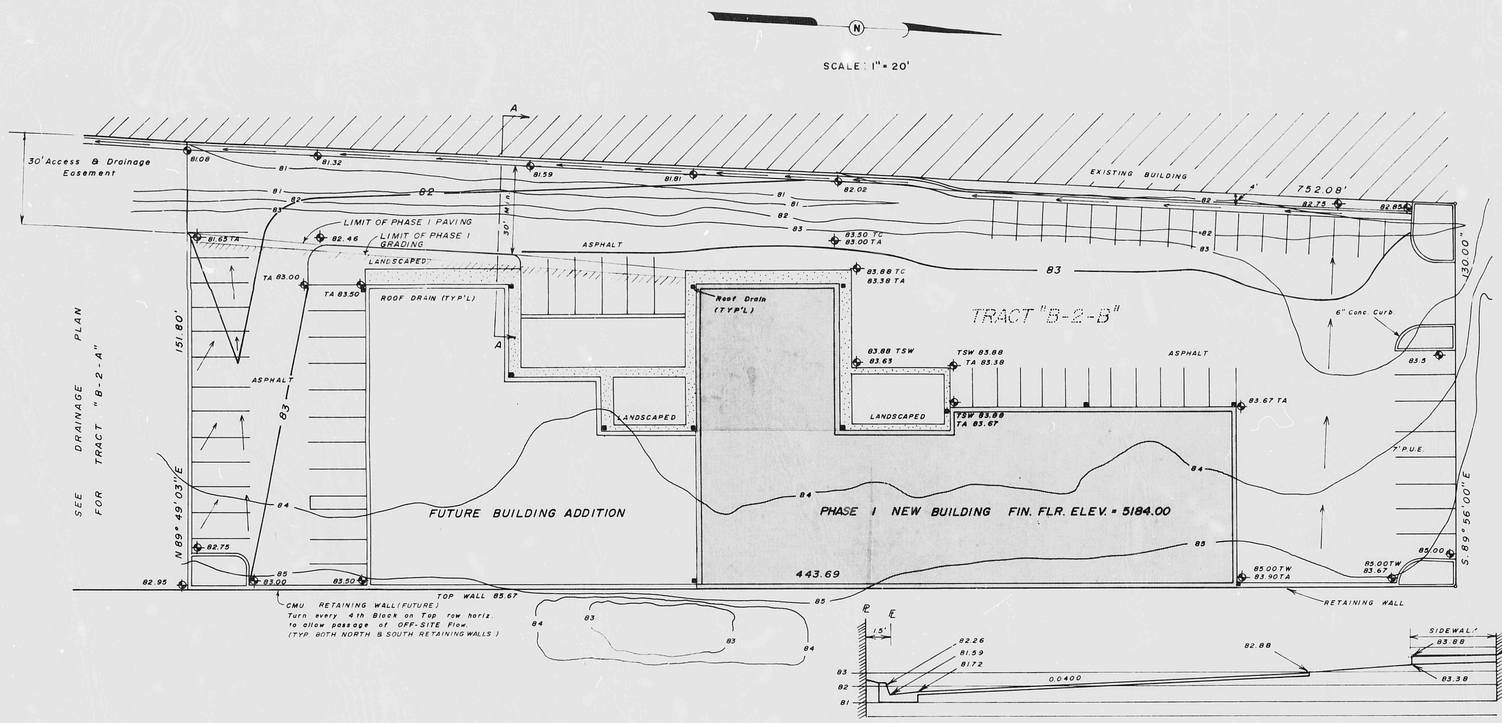
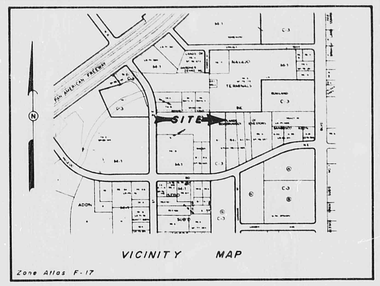


SECTION A-A



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CONTOUR		
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Building roof			22573	0.5181
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PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

CITY OF ALBUQUERQUE
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CITY OF ALBUQUERQUE

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DIRECTOR

NOTARY PUBLIC

OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
07/02/92

RANDY D. LOVELAY
NEW MEXICO
8-12
REGISTERED PROFESSIONAL ENGINEER
JULY 8, 1985

GRADING AND DRAINAGE PLAN
FOR
SERVICEMASTER OF ALBUQUERQUE
4801 Mc Leod Road, N.E.
ALBUQUERQUE, NEW MEXICO

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