



KEN SCHULTZ
MAYOR

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 18, 1989

Frank Lovelady, P.E.
Lovelady & Associates
7408 Morrow, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR A FOUR-PLEX APARTMENT BUILDING
(K-16/D36) REVISION DATED MAY 12, 1989

Dear Mr. Lovelady:

Based on the information provided on your submittal of May 11, 1989, the above referenced plan is approved for Building Permit.

Please be advised that a separate permit is required for construction within City right-of-way. A copy of this approval letter will be needed when applying for the excavation permit.

Please attach a copy of this plan to the construction sets prior to sign-off by Hydrology.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya
Bernie J. Montoya, C.E.
Engineering Assistant

xc: Becky Sandoval

BJM/bsj
(WP+1103)

PROJECT TITLE: Four- ex Apartment Bldg. ZONE ATLAS/L. S. FILE #: K-16/D30

19

LEGAL DESCRIPTION: Lot 21, Block 18, University Heights AdditionCITY ADDRESS: 207 Princeton Drive, S.E.ENGINEERING FIRM: Lovelady & Associates CONTACT: Frank LoveladyADDRESS: 7408 Morrow Ave. NE 87110 PHONE: 883-7973OWNER: Don Keith & Associates CONTACT: Don KeithADDRESS 7116 Edwina Ct. NE PHONE: 884-4070

ARCHITECT: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: Lovelady & Associates CONTACT: Frank LoveladyADDRESS: 7408 Morrow Ave. N.E. 87110 PHONE: 883-7973CONTRACTOR: Don Keith & Associates CONTACT: Don KeithADDRESS: 7116 Edwina Ct. NE PHONE: 884-4070

PRE-DESIGN MEETING:

☒ YES Note: Used same pre-design DRB NO. _____
for this project as for
☐ NO Lot 21 which is just two Lots EPC NO. _____
to the north.

☒ COPY OF CONFERENCE RECAP PROJECT NO. _____
SHEET PROVIDED

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT

☒ DRAINAGE PLAN

☐ CONCEPTUAL GRADING & DRAIN. PLAN

☐ GRADING PLAN

☐ EROSION CONTROL PLAN

☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL

☐ PRELIMINARY PLAT APPROVAL

☐ SITE DEVELOPMENT PLAN APPROVAL

☐ FINAL PLAT APPROVAL

☒ BUILDING PERMIT APPROVAL

☐ FOUNDATION PERMIT APPROVAL

☐ CERTIFICATE OF OCCUPANCY APPROVAL

☐ ROUGH GRADING PERMIT APPROVAL

☐ GRADING/PAVING PERMIT APPROVAL

DATE SUBMITTED: May 11, 1989
APR 21 1989BY: Frank D. Lovelady

Frank D. Lovelady, P.E.

OTHER _____ (SPECIFY)



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CITY OF ALBUQUERQUE
DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY
NOTICE TO CONTRACTOR

1. AN EXCAVATION/CONSTRUCTION PERMIT WILL BE REQUIRED BEFORE BEGINNING ANY WORK WITHIN CITY RIGHT-OF-WAY. AN APPROVED COPY OF THESE PLANS MUST BE SUBMITTED AT THE TIME OF APPLICATION FOR THIS PERMIT.
2. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, SHALL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION, 1986.
3. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765-1234, FOR LOCATION OF EXISTING UTILITIES.
4. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
5. BACKFILL COMPACTION SHALL BE ACCORDING TO RESIDENTIAL STREET USE.
6. MAINTENANCE OF THESE FACILITIES SHALL BE THE RESPONSIBILITY OF THE OWNER OF THE PROPERTY SERVED.
7. THE ADDRESS OF THE PROPERTY SERVED IS 211 PRINCETON SE

APPROVALS: Benny Montoya 5/10/89
HYDROLOGY (NAME) (DATE)
INSPECTOR (NAME) (DATE)
CONSTRUCTION (NAME) (DATE)

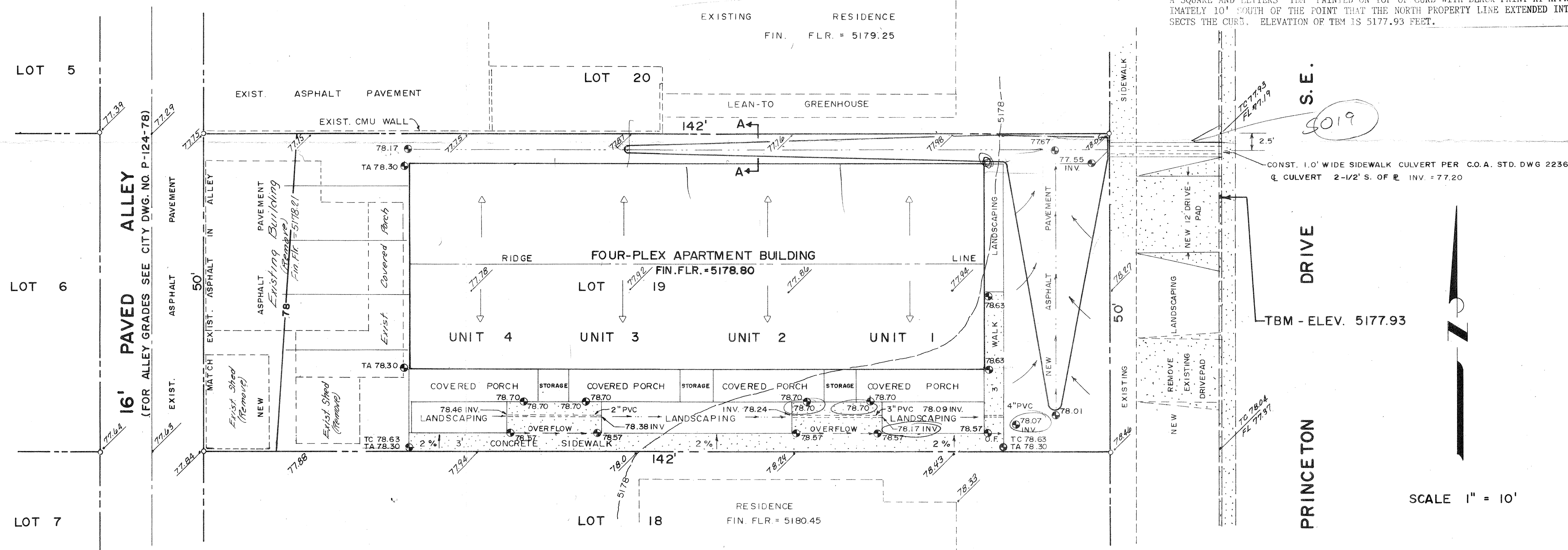
PRE-DESIGN CONFERENCE RECAP:

1. DRAINAGE PLAN PER D.P.M. GUIDELINES REQUIRED PRIOR TO BUILDING PERMIT RELEASE.
2. FREE DISCHARGE TO PRINCETON IS ACCEPTABLE.
3. FREE DISCHARGE TO ALLEY IS ACCEPTABLE IF ALLEY IS PAVED AND HAS CAPACITY ALL THE WAY TO MAIN STREETS. PROVIDE VERIFICATION WITH DRAINAGE SUBMITTAL.
4. APPROVED ALLEY GRADES ARE REQUIRED TO COMPARE WITH SITE GRADES.
5. ALLEY FLOWS ARE FROM SOUTH TO NORTH.
6. IDENTIFY ANY OFF-SITE FLOWS ENTERING THE SITE.

RESPONSE TO PRE-DESIGN CONFERENCE FINDINGS:

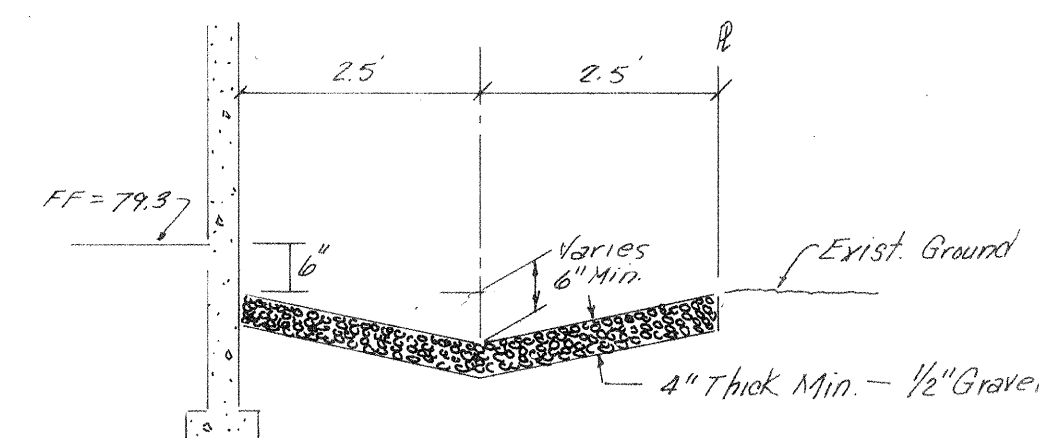
1. THE D.P.M. GUIDELINES WERE USED IN PREPARATION OF THIS GRADING AND DRAINAGE PLAN.
2. THE SITE HAS BEEN GRADED TO DRAIN MOSTLY TO PRINCETON DRIVE TO MINIMIZE DISCHARGE TO THE ALLEY.
3. THE AMOUNT OF FLOW DISCHARGING TO THE ALLEY WILL BE REDUCED AFTER DEVELOPMENT. THE ALLEY IS PRESENTLY PAVED.
4. APPROVED ALLEY GRADES ARE PER CITY PROJECT P-124-78. ONLY CENTERLINE GRADES ARE SHOWN ON THE PLAN AND PROFILE AND THERE IS NO TYPICAL SECTION.
5. FIELD ELEVATIONS CONFIRM THAT ALLEY FLOWS ARE FROM SOUTH TO NORTH.
6. THERE ARE NO OFF-SITE FLOWS ENTERING THE SITE. ALL LOTS DRAIN EITHER TO PRINCETON OR THE ALLEY. THERE IS NO SIGNIFICANT CROSS-LOT-LINE DRAINAGE.

0.5' 19.24' 11.26'

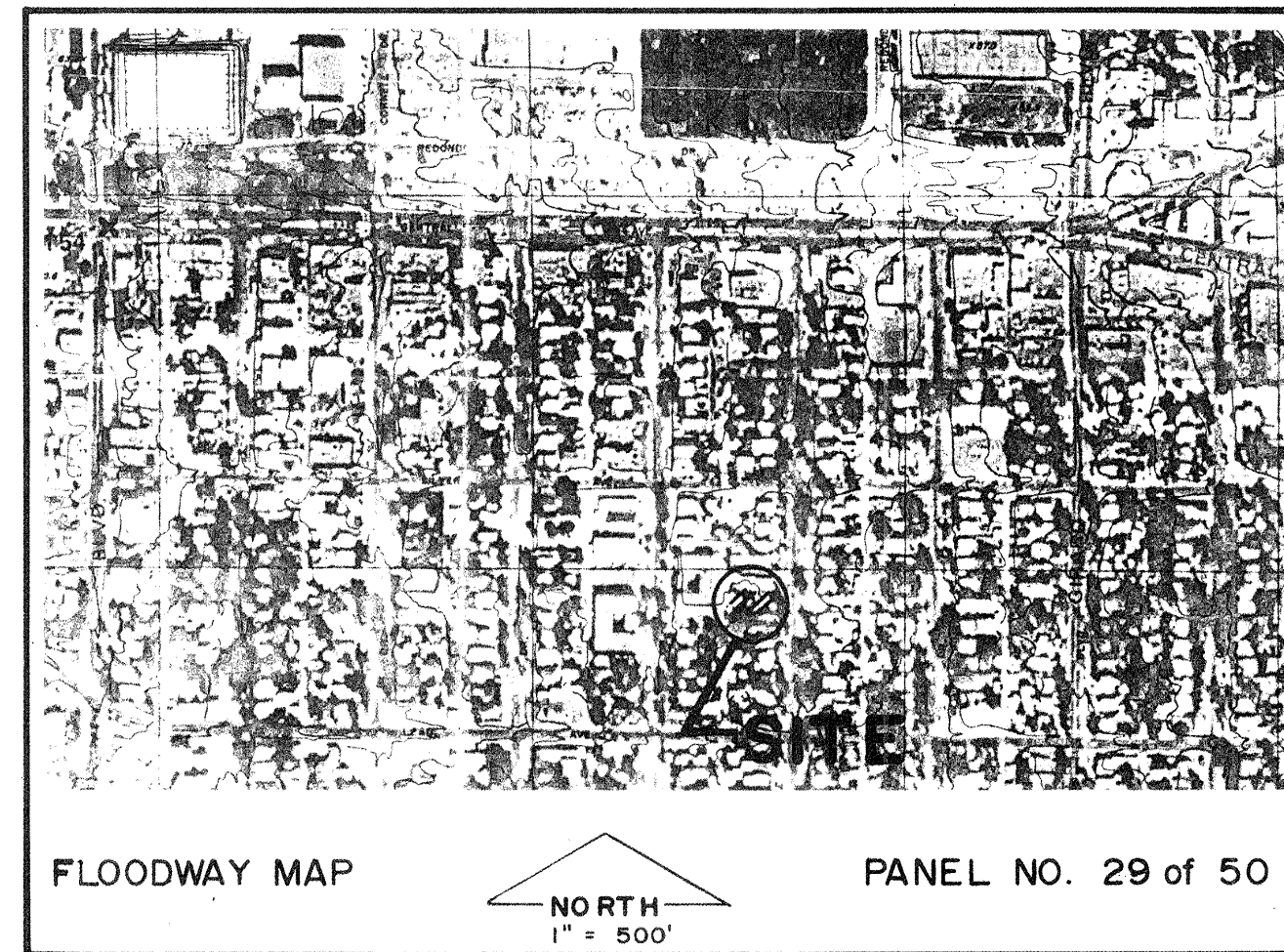


LEGEND:

EXISTING	NEW	DESCRIPTION
5178	78	CONTOUR
		SPOT ELEVATION
		PROPERTY LINE
		SWALE
		SHEET FLOW
		DOWN SPOUT
		ROOF DRAINAGE
TA		TOP OF ASPHALT
TC		TOP OF CURB/CONCRETE
FL		FLOW LINE



SECTION A-A - SWALE DETAIL
1/2" = 1' - 0"



LEGAL DESCRIPTION:

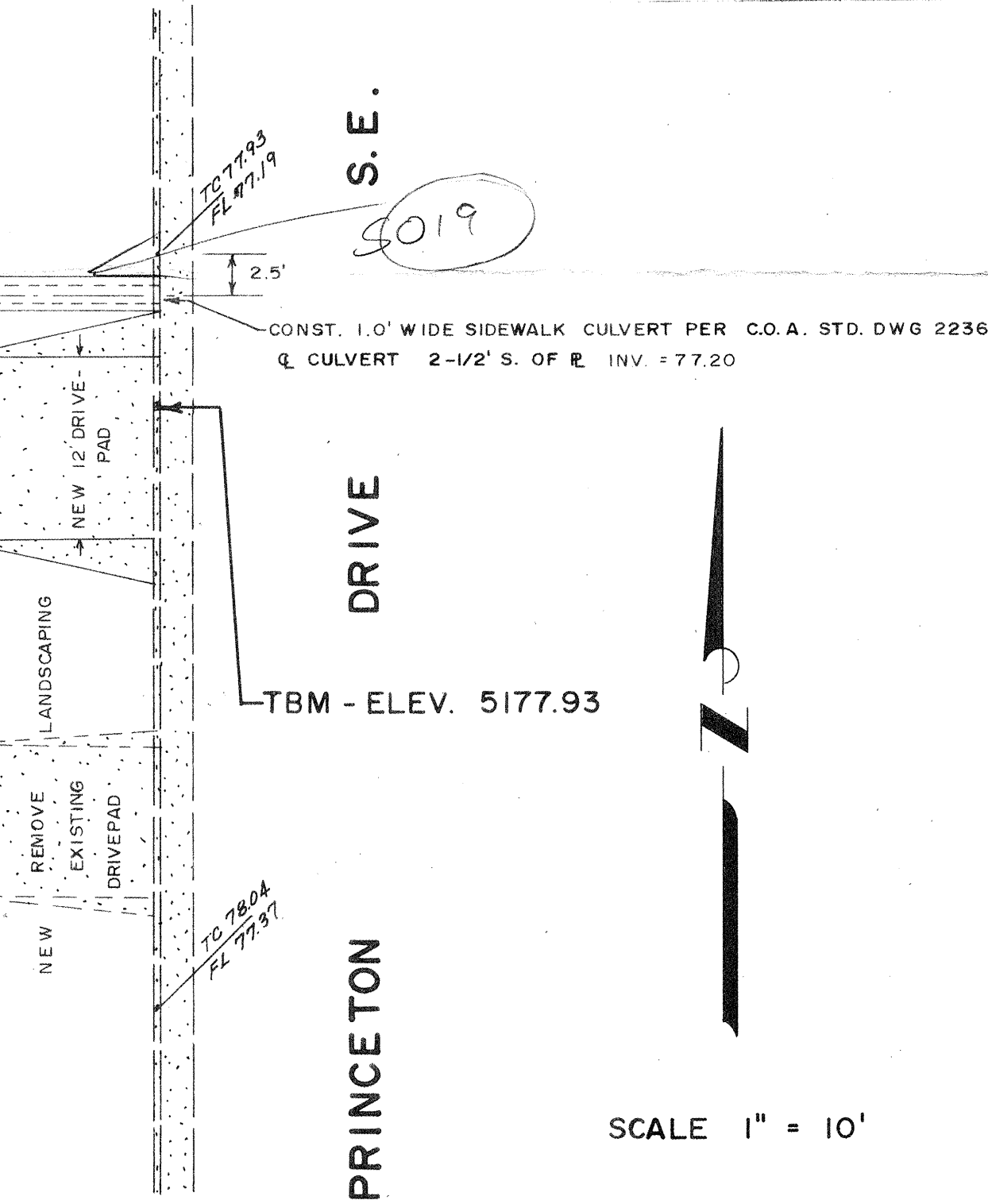
LOT NUMBER 19 IN BLOCK NUMBER 18, UNIVERSITY HEIGHTS ADDITION.

BENCH MARK:

ACS STATION 13-K16 LOCATED AT THE INTERSECTION OF LEAD AVE. AND GIRARD BLVD. THE STATION IS A 34 ALUMINUM TABLET SET IN A DRILL HOLE FLUSH WITH THE TOP OF CURB. STATION IS STAMPED "ACS, 13-K16, 1984". ELEVATION IS 5187.389 FEET.

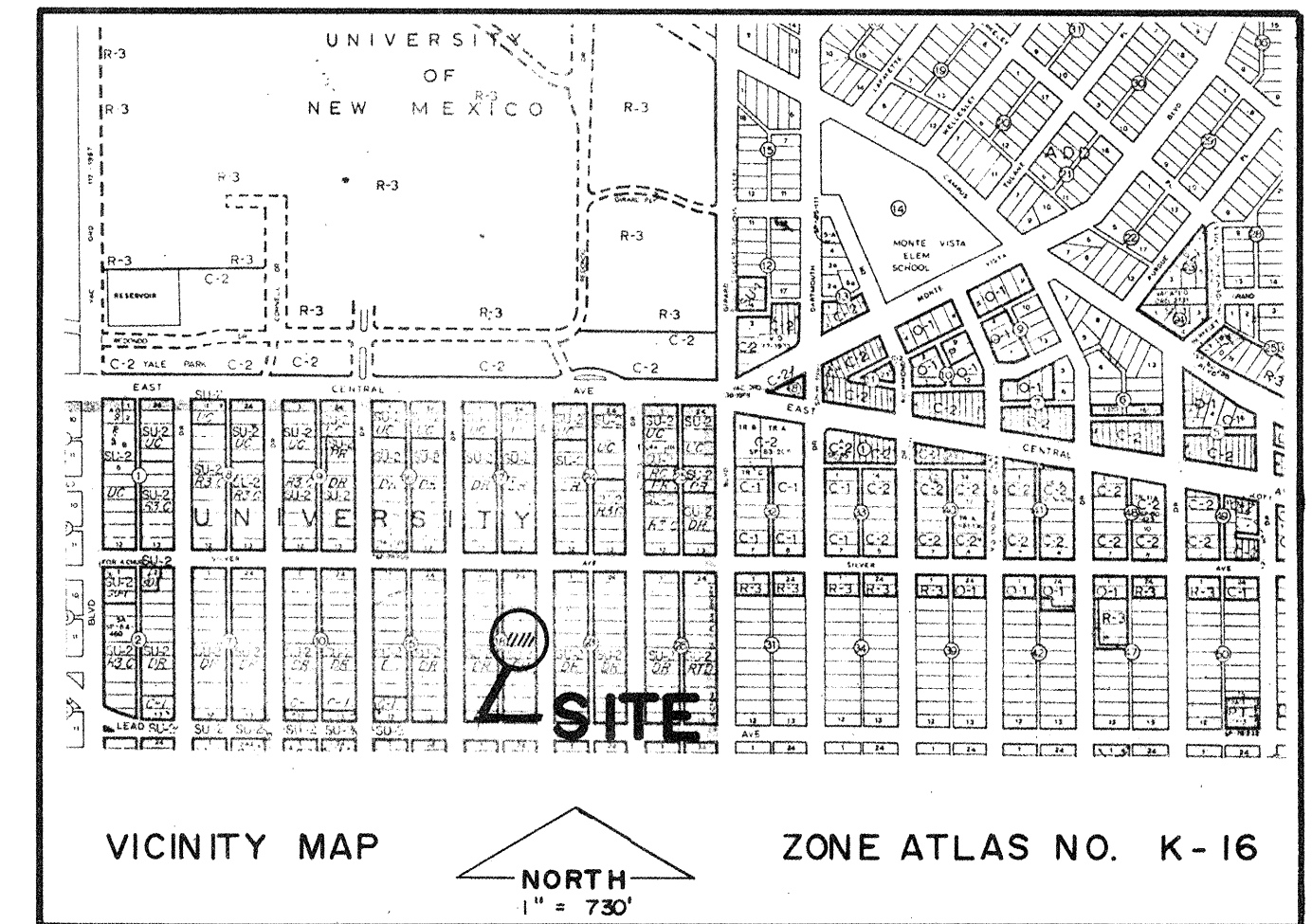
TEMPORARY BENCH MARK:

A SQUARE AND LETTERS "TBM" PAINTED ON TOP OF CURB WITH BLACK PAINT AT APPROXIMATELY 10' SOUTH OF THE POINT THAT THE NORTH PROPERTY LINE EXTENDED INTERSECTS THE CURB. ELEVATION OF TBM IS 5177.93 FEET.



EROSION CONTROL PLAN:

DURING CONSTRUCTION OF THE BUILDING, ALL RUNOFF FROM THE SITE SHALL BE CONTAINED BY THE USE OF A POND, BERM, OR OTHER SUITABLE CONTAINMENT FROM WHICH SEDIMENT-FREE WATER SHALL BE RELEASED AT A CONTROLLED RATE. ALL SEDIMENT SHALL BE SETTLED OR FILTERED OUT BEFORE RELEASING THE WATER TO THE PUBLIC RIGHT-OF-WAY.



DRAINAGE CALCULATIONS

SOIL INFORMATION: (REFER TO SCS SOIL SURVEY OF BERNALILLO COUNTY.)

SOIL ISMB, WINK-EMBUDO COMPLEX, HYDROLOGIC SOIL GROUP "B".

RAINFALL, 100-YEAR, 6-HOUR: (REFER TO D.P.M., PLATE 22.2 D-1)

$R_6 = 2.25$ INCHES.

TIME OF CONCENTRATION: (REFER TO D.P.M. SECTION 22.2, PAGE 3)

TEN (10) MINUTES, MINIMUM TIME OF CONCENTRATION.

RAINFALL INTENSITY: (REFER TO PLATE 22.2 D-2)

$I = R_6 \times 6.84 \times T_c^{-0.51} = 2.25 \times 6.84 \times (10)^{-0.51} = 4.76$ INCHES PER HOUR.

CURVE NUMBERS: (REFER TO D.P.M. PLATE 22.2 C-2)

	CN	EXISTING AREA	NEW AREA
EXISTING PAVEMENT	70	-	-
BUILDINGS AND PAVEMENT	98	1097	6185
LANDSCAPING	61	400	365
UNPAVED GRAVEL	85	2241	550
UNPAVED DIRT	82	3362	-
TOTAL AREAS		7100 = 0.163 AC	7100

WEIGHTED CURVE NUMBER (CN_w):

EXISTING $CN_w = 84$ DEVELOPED $CN_w = 95$

DIRECT RUNOFF: (REFER TO D.P.M. PLATE 22.2 C-4)

EXISTING $Q_0 = 0.95$ DEVELOPED $Q_0 = 1.75$

RUNOFF COEFFICIENTS: (REFER TO "NOTICE OF EMERGENCY RULE", CITY OF ALBUQUERQUE, JANUARY 14, 1986).

	"C"	EXISTING AREA	NEW AREA
UNDEVELOPED	0.40	5603	550
LAWNS AND LANDSCAPING	0.25	400	365
ROOFS	0.90	1097	3325
STREETS, DRIVES, WALKS	0.95	-	2860
TOTAL AREAS		7100	7100

WEIGHTED "C" FACTORS:

EXISTING "C" = 0.47 DEVELOPED "C" = 0.85

EXISTING CONDITIONS:

RUNOFF BY RATIONAL EQUATION, $Q = CIA$

$Q = 0.47 \times 4.76 \times 0.163 = 0.36$ CFS

VOLUME BY SCS METHOD, $V = A(Q_0/12)$, WHERE A = AREA IN SQUARE FEET.

$V = 7100 (0.95/12) = 562$ CF

DEVELOPED CONDITIONS:

$Q = 0.85 \times 4.76 \times 0.163 = 0.66$ CFS

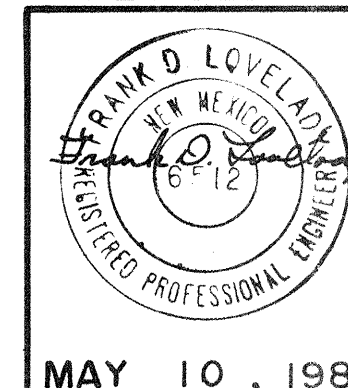
$V = 7100 (1.75/12) = 1035$ CF

DRAINAGE TO ALLEY:

EXISTING CONDITIONS: THE WESTERLY 85% OF THE SITE NOW DRAINS TO THE ALLEY OR 0.85 X 0.36 = 0.31 CFS

DEVELOPED CONDITIONS: THE WESTERLY 32' OF THE SITE WILL DRAIN TO THE ALLEY. $Q = 0.95 \times 4.76 (1600/43560) = 0.17$ CFS. THEREFORE, THE AMOUNT OF RUNOFF DISCHARGING TO THE ALLEY WILL BE REDUCED BY DEVELOPMENT.

REVISED MAY 12, 1989



GRADING AND DRAINAGE PLAN
FOUR-PLEX APARTMENT BUILDING
211 PRINCETON DRIVE, S.E.
ALBUQUERQUE, NEW MEXICO