HYDROLOGY

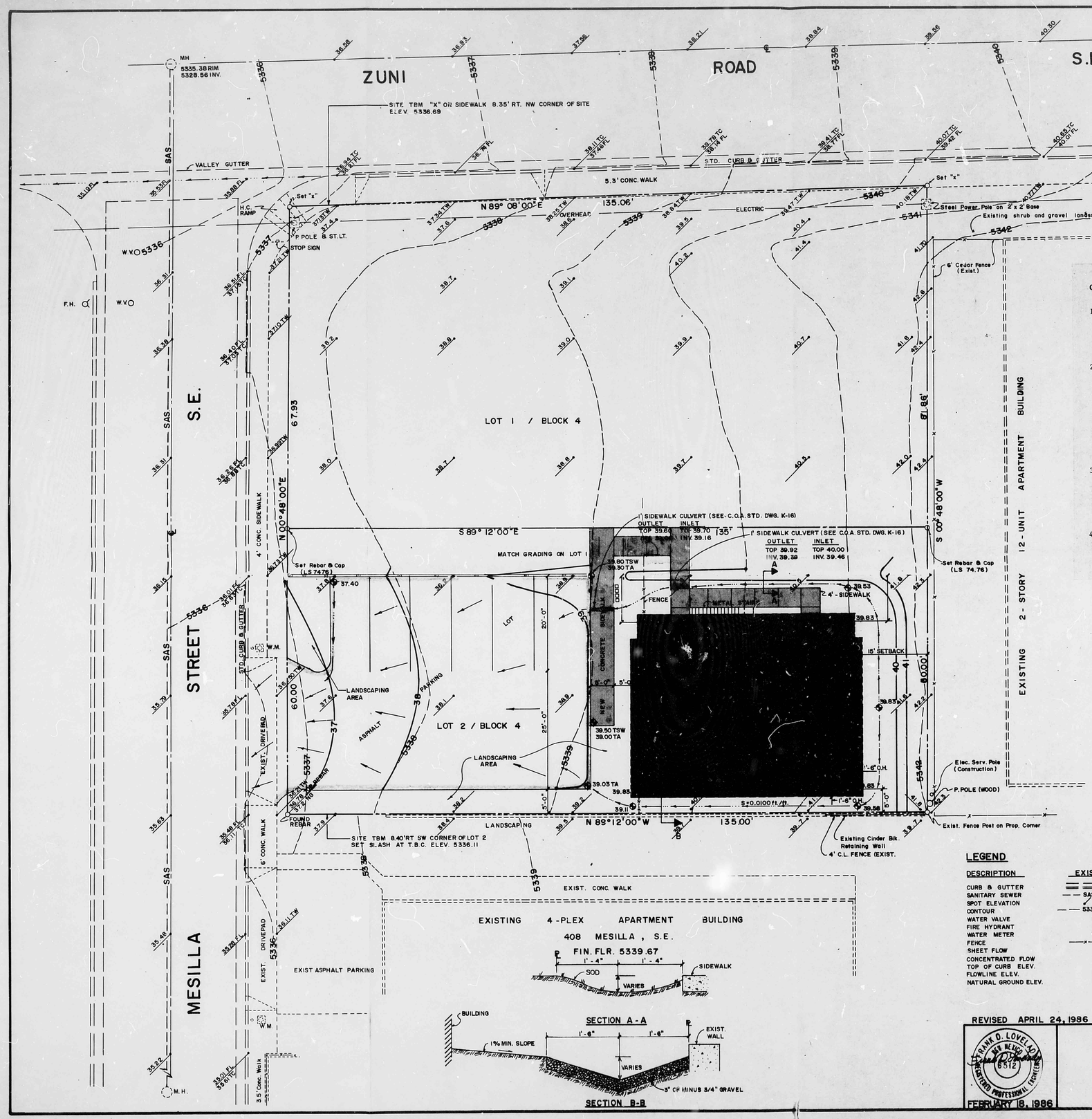
L19/D38

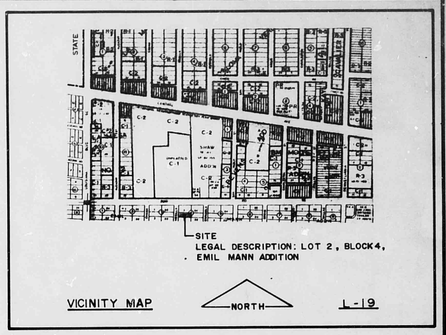
TWO PLANS

2 PLANS FOR

OAKCREST UNIT 1+2

L19-D38





SCALE 1" = 10'

BENCH MARK: ACS BRASS CAP 7-K19 ELEV. 5323.31

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.

LEGEND

DESCRIPTION	EXISTING	NEW
CURB & GUTTER		
SANITARY SEWER	SAS	
SPOT ELEVATION		39
CONTOUR	5339	
WATER VALVE	W.V.	
FIRE HYDRANT	F.H.	
WATER METER	W.M.	
FENCE		
SHEET FLOW		
CONCENTRATED FLOW		
TOP OF CURB ELEV.	TC	
FLOWLINE ELEV.	FL	
NATURAL GROUND ELEV.	NG	

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 36 of 50, Federal Emergency Management Agency, October 14, 1983.

II. GENERAL INFORMATION:

A. Soil Type (Ref.B., Sheet No. 31) Soil type is MWA, Madurez Wink Association, gently sloping, Hydrologic Soil Group "B".

B. Imperviousness:

Type of Surface	Existing Area Sq.Ft.	Existing Area Acres	Proposed Area Sq.Ft.	Proposed Area Acres
Building roof			1847	
Concrete Surfaces			303	
Asphalt Surfaces			2680	
Landscaping				
Undeveloped surface	6749		1919	
Site total	6749	0.1549	6749	0.155
Percent impervious	0%		72%	

C. "C" Factor (See Ref. A., Plate 22.2 C-1)
1. Undeveloped "C" Factor = 0.34
2. Developed "C" Factor = 0.70

D. Rainfall, 100-year, 6-hour, R_6, (See Ref.A., Plate 22.2 D-1) R_6 = 2.35 inches.

E. Time of Concentration, T_c: Use 10 Minutes.

F. Rainfall Intensity, I; (See Ref. A, Plate 22.2 D-2)

$I = R_6 \times 6.84 \times T_c^{-0.51} = 2.35 \times 6.84 \times (10)^{-0.51}$

$I = 4.97$ In/Hr

III. PEAK DISCHARGE:

A. Existing Conditions. (Use Rational Equation)

$Q_{100} = 0.34 \times 4.97 \times 0.1549 = 0.26$ cfs

$Q_{10} = 0.657 \times 0.26 = 0.17$ cfs

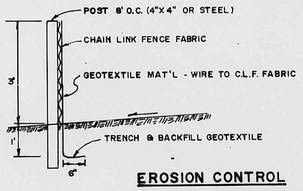
B. Developed Conditions.

$Q_{100} = 0.70 \times 4.97 \times 0.1549 = 0.54$ cfs

$Q_{10} = 0.657 \times 0.54 = 0.35$ cfs

DRAINAGE COMMENTS:

1. RUNOFF FROM THE APARTMENT BUILDING TO THE EAST APPEARS TO BE CONTAINED ON-SITE IN A GRAVEL DEPRESSED AREA. THERE IS NO EVIDENCE OF THE FLOW RUNNING UNDER THE FENCE AND ENTERING LOT 2 FROM THIS AREA. THE EXISTING CONDITION ALONG THE FENCE WILL REMAIN AS IT IS PRESENTLY IS. ANY EXCESS FLOW FROM THIS AREA WILL BE ACCEPTED.
2. DUE TO THE NEWLY CONSTRUCTED STATE FAIRGROUNDS STORM RELIEF SYSTEM, CONTROLLED DISCHARGE IS NOT REQUIRED.



EROSION CONTROL

NOTE: CONSTRUCT TEMPORARY SILT FENCE AT LOWER SIDE OF LOT TO INTERCEPT ALL LOT RUNOFF.

REVISED APRIL 24, 1986

FRANK O. LOVELADY NEW MEXICO 6512 REGISTERED PROFESSIONAL ENGINEER

FEBRUARY 18, 1986

GRADING AND DRAINAGE PLAN

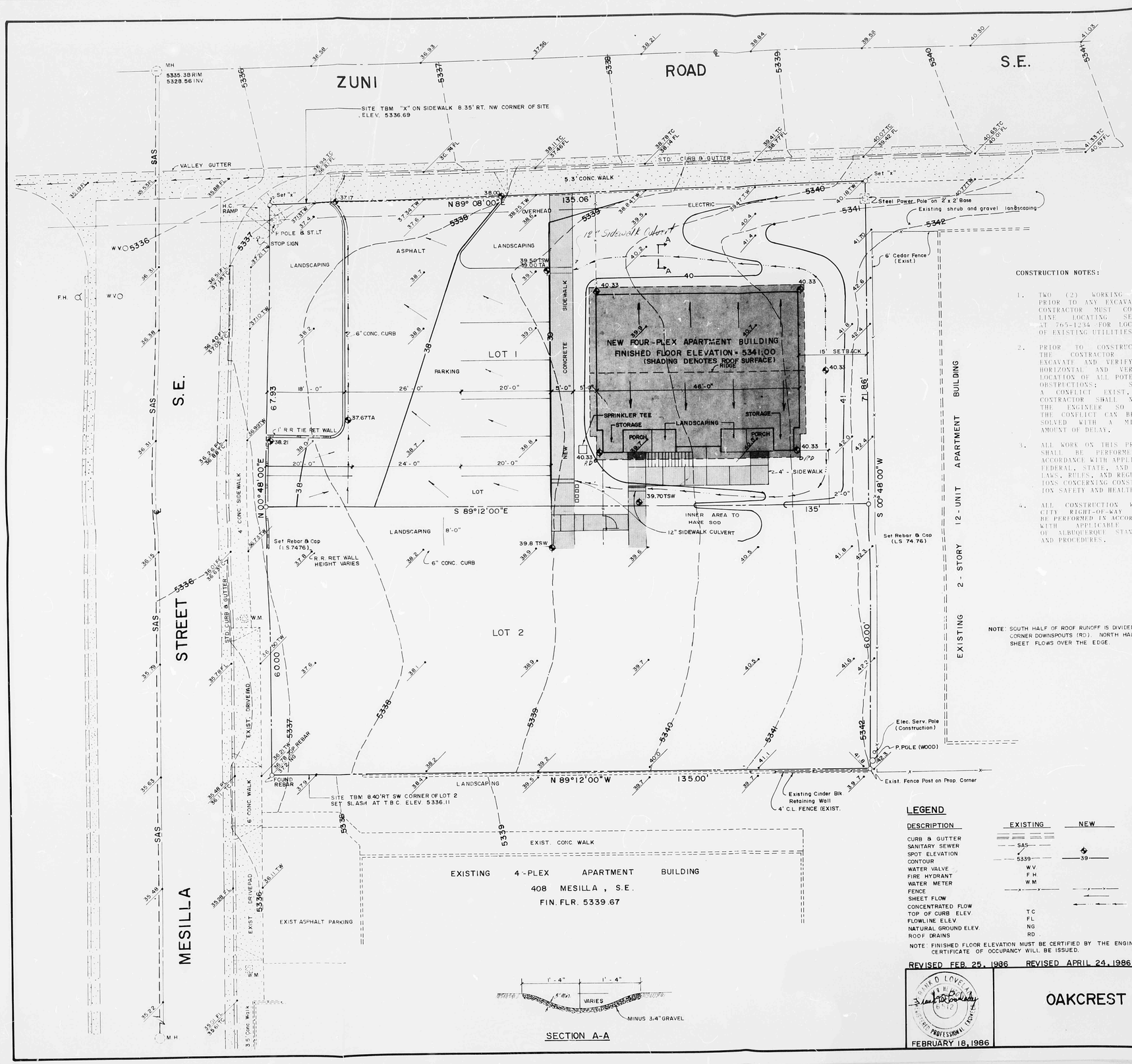
OAKCREST TWO — FOUR-PLEX APARTMENT BUILDING

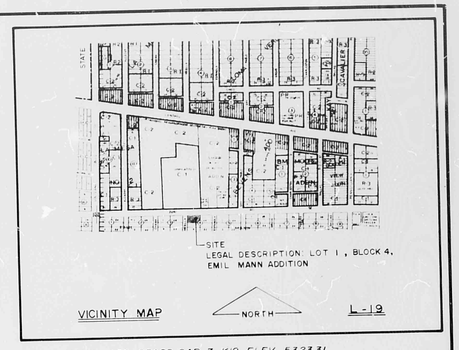
404 MESILLA STREET, S.E.
ALBUQUERQUE, NEW MEXICO

RECEIVED APR 24 1986 HYDROLOGY SECTION

L19/D38

L19 / D38





SCALE 1" = 10'

BENCH MARK: ACS BRASS CAP 7-K19 ELEV. 5323.31

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 ALBUQUEROUE STANDARDS AND PROCEDURES.

NOTE: SOUTH HALF OF ROOF RUNOFF IS DIVIDED EVENLY BETWEEN CORNER DOWNSPOUTS (RD). NORTH HALF OF ROOF RUNOFF SHEET FLOWS OVER THE EDGE.

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 36 of 50, Federal Emergency Management Agency, October 16, 1983.

II. GENERAL INFORMATION:

A. Soil Type (Ref.B., Sheet No. 31) Soil type is MWA, Madurez kink Association, gently sloping, Hydrologic Soil Group "B".

B. Imperviousness:

Type of Surface	Existing Area Sq.Ft.	Acres	Proposed Area Sq.Ft.	Acres
Building roof			1862	
Concrete Surfaces			642	
Asphalt Surfaces			3532	
Landscaping & Undeveloped surface	10521	0.2415	4436	
Site total	10521	0.2415	10521	0.242
Percent impervious	0%		58%	

C. "C" Factor (See Ref. A., Plate 22.2 C-1)
1. Undeveloped "C" Factor = 0.34
2. Developed "C" Factor = 0.62

D. Rainfall, 100-year, 6-hour, R_6: (See Ref.A., Plate 22.2 D-1) R_6 = 2.35 inches.

E. Time of Concentration, T_c: Use 10 Minutes.

F. Rainfall Intensity, I: (See Ref. A, Plate 22.2 D-2)

$I = R_6 \times 6.84 \times T_c^{-0.51} = 2.35 \times 6.84 \times (10)^{-0.51}$

$I = 4.97$ In/Hr

III. PEAK DISCHARGE:

A. Existing Conditions:

$Q_{100} = 0.34 \times 4.97 \times 0.2415 = 0.41$ cfs

$Q_{10} = 0.657 \times 0.41 = 0.27$ cfs

B. Developed Conditions:

$Q_{100} = 0.70 \times 4.97 \times 0.2415 = 0.84$ cfs

$Q_{10} = 0.657 \times 0.84 = 0.55$ cfs

DRAINAGE COMMENTS:

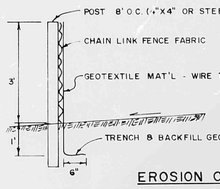
1. PER PRE-DESIGN CONFERENCE, FLOOD PROOFING IS REQUIRED. THE FINISHED FLOOR ELEVATION MUST BE A MINIMUM OF 2.0' ABOVE THE FLOWLINE ELEVATION ON ZUNI ROAD AT A POINT OPPOSITE THE N.E. CORNER OF THE BUILDING.
2. RUNOFF FROM THE APARTMENT BUILDING TO THE EAST APPEARS TO BE CONTAINED ON-SITE IN A GRAVEL DEPRESSED AREA. THERE IS NO EVIDENCE OF THE FLOW RUNNING UNDER THE FENCE AND ENTERING LOT 1 FROM THIS AREA. THE EXISTING CONDITION ALONG THE FENCE WILL REMAIN AS IT PRESENTLY IS. ANY EXCESS FLOW FROM THIS AREA WILL BE ACCEPTED.
3. DUE TO THE NEWLY CONSTRUCTED STATE FAIRGROUNDS STORM RELIEF SYSTEM, CONTROLLED DISCHARGE IS NOT REQUIRED.

LEGEND

DESCRIPTION	EXISTING	NEW
CURB & GUTTER		
SANITARY SEWER	SAS	
SPOT ELEVATION		39
CONTOUR	5339	
WATER VALVE	W.V.	
FIRE HYDRANT	F.H.	
WATER METER	W.M.	
FENCE		
SHEET FLOW		
CONCENTRATED FLOW		
TOP OF CURB ELEV.	T.C.	
FLOWLINE ELEV.	F.L.	
NATURAL GROUND ELEV.	N.G.	
ROOF DRAINS	R.D.	

NOTE: FINISHED FLOOR ELEVATION MUST BE CERTIFIED BY THE ENGINEER BEFORE THE CERTIFICATE OF OCCUPANCY WILL BE ISSUED.

SECTION A-A



RECEIVED APR 24 1986 HYDROLOGY SECTION

EROSION CONTROL

NOTE: CONSTRUCT TEMPORARY SILT FENCE AT LOWER SIDE OF LOT TO INTERCEPT ALL LOT RUNOFF

REVISED FEB. 25, 1986 REVISED APRIL 24, 1986

RONALD LOVELADY NEW MEXICO PROFESSIONAL ENGINEER 8412

FEBRUARY 18, 1986

GRADING AND DRAINAGE PLAN

OAKCREST ONE — FOUR-PLEX APARTMENT BUILDING

400 MESILLA STREET, S.E. L19/D38

ALBUQUERQUE, NEW MEXICO

L19/D38