HYDROLOGY K15/D30b 1 PLAN

K15/D30B

1 Plan

CITY OF ALBUQUERQUE

DRAINAGE PLAN

NEW MEXICO EYE ASSOCIATES - DR. EDWARDS' & DR. ROGERS' BUILDING

THE SITE IS LOCATED WEST OF THE LOT WEST OF CEDAR STREET BETWEEN LEAD AVENUE AND COAL AVENUE S.E. CONTAINING APPROXIMATELY 1.3564 ACRES. THE SITE WAS RECENTLY DEVELOPED (BEFORE DEMOLITION) AND SLOPES FROM NORTHEAST TO SOUTHWEST WITH AN AVERAGE SLOPE OF 5 PERCENT. FLOWS FROM THE SITE DISCHARGE DIRECTLY TO COAL AVENUE AND TO THE PROPERTY WEST AND ARE INTERCEPTED BY CATCH BASINS LOCATED AT THE INTERSECTION OF OAK STREET AND COAL AVENUE. PROPOSED DEVELOPMENT OF THE SITE INCLUDES A BUILDING WITH ASSOCIATED PARKING AND LANDSCAPING.

THE CAPACITY OF THE STORM RELIEF SYSTEM IN THIS AREA IS 765 CFS. THE EXISTING 100-YEAR PEAK FLOW IS 695 CFS (AMDS-AP 3603). THE SITE IS AT THE BEGINNING OF THE HYDROGRAPH AND THE AREA OF THE SITE IS ALMOST COMPLETELY DEVELOPED, THEREFORE PONDING WILL NOT BE PROVIDED ON THE SITE.

THIS DRAINAGE PLAN COMPLIES WITH THE APPROVED CONCEPTUAL DRAINAGE PLAN FOR PRESBYTERIAN MEDICAL PLAZA BY CHAVEZ-GRIEVES CONSULTING ENGINEERS DATED 7/23/85.

CALCULATIONS:

Area = 1.3564 acres
I = 2.2 in./hr. Plate 22.2 D-2
6-hour, 100-year rainfall = 2.3 in. Plate 22.2 D-1
i = (2.2)(2.3) = 5.06 in./hr.

EXISTING ON-SITE CONDITIONS:

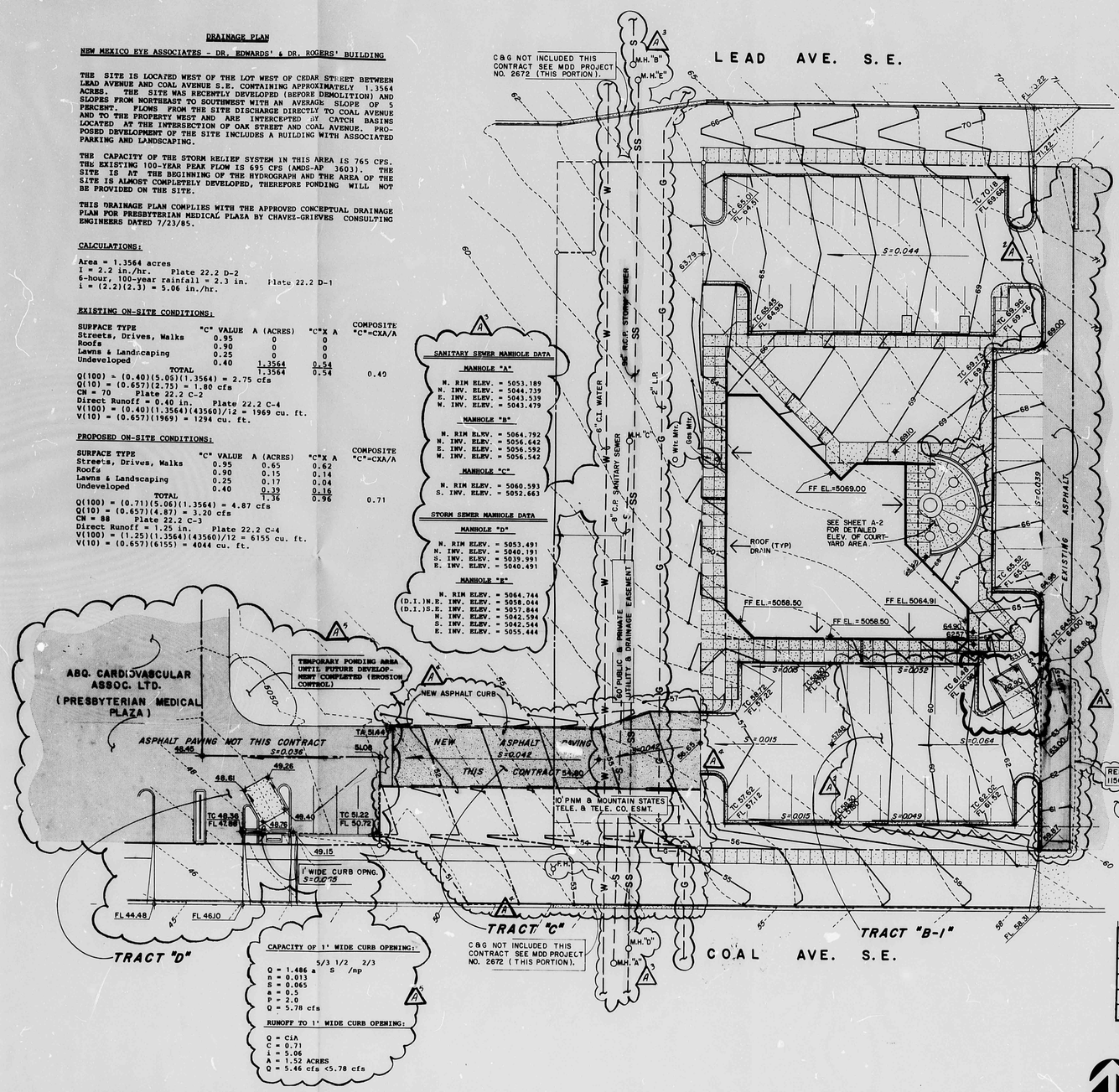
SURFACE TYPE	"C" VALUE	A (ACRES)	"C"X A	COMPOSITE "C"=CXA/A
Streets, Drives, Walks	0.95	0	0	
Roofs	0.90	0	0	
Lawns & Landscaping	0.25	0	0	
Undeveloped	0.40	1.3564	0.54	
TOTAL		1.3564	0.54	0.40

Q(100) = (0.40)(5.06)(1.3564) = 2.75 cfs
Q(10) = (0.657)(2.75) = 1.80 cfs
CN = 70 Plate 22.2 C-2
Direct Runoff = 0.40 in. Plate 22.2 C-4
V(100) = (0.40)(1.3564)(43560)/12 = 1969 cu. ft.
V(10) = (0.657)(1969) = 1294 cu. ft.

PROPOSED ON-SITE CONDITIONS:

SURFACE TYPE	"C" VALUE	A (ACRES)	"C"X A	COMPOSITE "C"=CXA/A
Streets, Drives, Walks	0.95	0.65	0.62	
Roofs	0.90	0.15	0.14	
Lawns & Landscaping	0.25	0.17	0.04	
Undeveloped	0.40	0.39	0.16	
TOTAL		1.36	0.96	0.71

Q(100) = (0.71)(5.06)(1.3564) = 4.87 cfs
Q(10) = (0.657)(4.87) = 3.20 cfs
CN = 88 Plate 22.2 C-3
Direct Runoff = 1.25 in. Plate 22.2 C-4
V(100) = (1.25)(1.3564)(43560)/12 = 6155 cu. ft.
V(10) = (0.657)(6155) = 4044 cu. ft.



CAPACITY OF 1' WIDE CURB OPENING:

$Q = 1.486\ a\ S^{5/3}\ 1/2\ /np^{2/3}$
n = 0.013
S = 0.065
a = 0.5
P = 2.0
Q = 5.78 cfs

RUNOFF TO 1' WIDE CURB OPENING:

Q = CiA
C = 0.71
i = 5.06
A = 1.52 ACRES
Q = 5.46 cfs <5.78 cfs

GRADING AND DRAINAGE PLAN

"1"= 20'-0"

	date	revision	by
5	6/9/86	PLAN; CONTOURS added	JSM
4	6/9/86	NEW PAVING, CONTOURS added	JSM
3	6/3/86	UTILITIES added	JSM
2	4/3/86	CONTOURS added	JSM
1	4/3/86	ASPHALT (See Note)	JSM

APPROVED FOR DRAINAGE
6/24/86
DATE
SIGNATURE TITLE

RECEIVED JUN 23 1986 HYDROLOGY SECTION

VICINITY MAP K-15-Z
FLOOD HAZARD BDY. MAP / PANEL NO. 20

LEGAL DESCRIPTION:

BLOCK 25A, TRACT "B-1", TERRACE ADDITION, ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO.

BENCH MARK DATA:

T.B.M. CHISELED "□" IN TOP OF CURB AT N.W.W. RETURN OF COAL AND CEDAR. ELEVATION = 5064.282.

B.M. IS A BRASS TABLET, STAMPED "STA. I-25-26" ON U.S. HGWY. I-25 AT THE NORTH END OF THE BRIDGE CROSSING OVER GRAND AVE.

SURVEY DATA:

SURVEY DATA PROVIDED BY ALBUQUERQUE SURVEYING CO., INC., ALBUQUERQUE, NEW MEXICO, MARCH, 1986.

NOTICE TO CONTRACTOR:

1. ALL WORK DETAILED ON THESE PLANS TO BE PERFORMED UNDER CONTRACT SHALL, EXCEPT AS OTHERWISE STATED OR PROVIDED HEREON, BE CONSTRUCTED IN ACCORDANCE WITH THE CITY OF ALBUQUERQUE INTERIM STANDARD SPECIFICATIONS PUBLIC WORKS CONSTRUCTION, 1985.
2. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT LINE LOCATING SERVICE, 765- 1234, FOR LOCATION OF EXISTING UTILITIES.
3. 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 OF DELAY.
4. ALL UTILITIES AND UTILITY SERVICE LIKES SHALL BE INSTALLED PRIOR TO PAVING.
5. CONTRACTOR IS RESPONSIBLE FOR EROSION CONTROL DURING THE CONSTRUCTION PHASE, INCLUDING ANY PROVISIONS THAT NEED TO BE TAKEN TO DIVERT ANY SEDIMENT FROM ENTERING THE CITY RIGHT-OF-WAY.

LEGEND:

CONTOUR (FUTURE)	---55---
CONTOUR (NEW)	——60——
CONTOUR (EXISTING)	----60----
SPOT ELEVATION (NEW)	—— +
SPOT ELEVATION (EXISTING)	—— +
PROPERTY LINE	—— - - -

VICTOR J. CHAVEZ STATE OF NEW MEXICO NO. 5746 REGISTERED PROFESSIONAL ENGINEER
4-30-86
Exp. 6-19-86

STEVENS MALLORY PEARL & CAMPBELL, P.A.
ARCHITECTS 13 AMHERST N.E. ALBUQUERQUE, N.M. MEXICO 87106

DATE 5/86 DRAWN CHECKED

OFFICE BUILDING FOR EYE LTD.
DRS. WILLIAM EDWARD AND DONALD RODGERS
1130 LEAD AVE. S.E.
ALBUQUERQUE, NEW MEXICO 87106

C1

CITY OF ALBUQUERQUE
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT

CITY OF ALBUQUERQUE