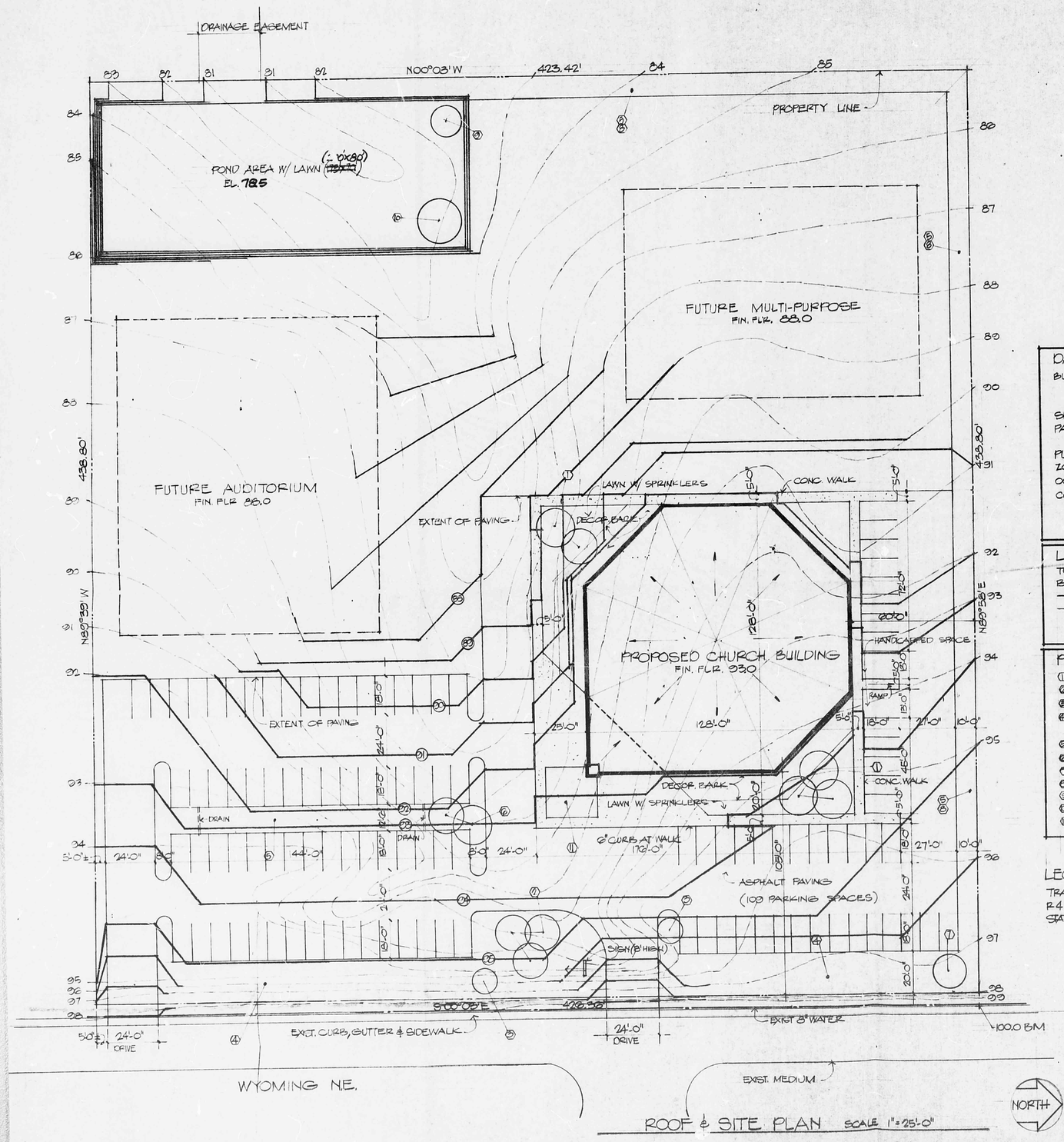
HYDROLOGY

F19/D10
TWO PLANS

F19/D10

2 Plans



ROOF & SITE PLAN SCALE 1"=25'-0"

DATA:

BUILDING AREA	GROUND LEVEL	13,550 SF
	UPPER LEVEL	7,650 SF
	TOTAL	21,200 SF
SITE AREA		
PARKING	109 SPACES	
	70 SPACES REQ'D.	
PLANTING AREA		
ZONE		
OCCUPANCY TYPE	A2.1 & E1 (1976 UBC)	
CONSTRUCTION TYPE	V-1HR.	

LEGEND:

TC TOP OF CURB
BM BENCH MARK
—90— FINISH CONTOUR
—94— EXISTING GRADE

PLANTING LEGEND:

1. PONDEROSA PINE - 12' HIGH ±
2. PURPLE PLUM - 10' HIGH ±
3. PIÑON PINE - 8' HIGH ±
4. JUNIPER (TAMARIX) - 2 ROWS STAGGERED AT 10' ± O.C. W/ DECORATIVE BARK - 5 GAL.
5. JUNIPER (TAMARIX) AT 10' ± O.C. W/ DEC. BARK
6. FLOWERING PEACH - 10' HIGH ±
7. GLOBE WILLOW - 12' HIGH ±
8. JUNIPER (KETELEERI) AT 50' ± - 5 GAL
9. RUSSIAN OLIVE - 10' HIGH ±
10. MODESTO ASH - 12' HIGH ±
11. BARBERRY AT 5' ± O.C.

LEGAL DESCRIPTION:

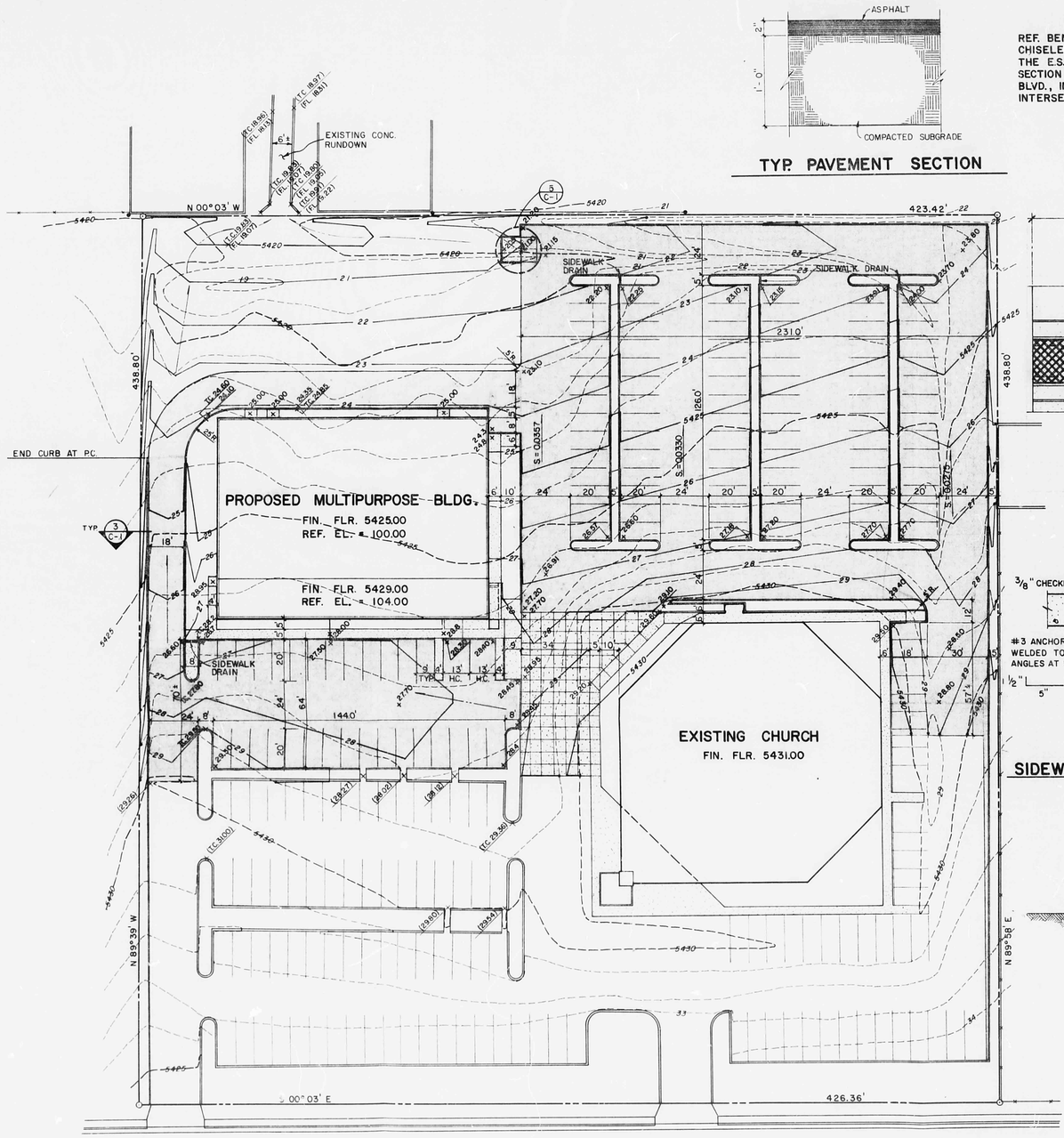
TRACT "A", LOT 4, SECTION 31, T11N, R4E, N.M.P.M. BERNALILLO COUNTY, STATE OF NEW MEXICO.

FIRST ASSEMBLY OF GOD
ALBUQUERQUE NEW MEXICO

JOHN CHRISTEN WILLADSEN
ARCHITECT AIA

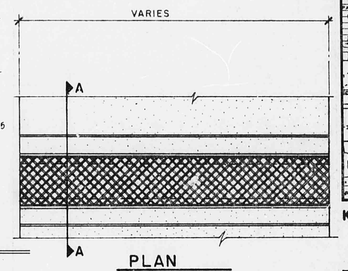
JUNE 1977

1

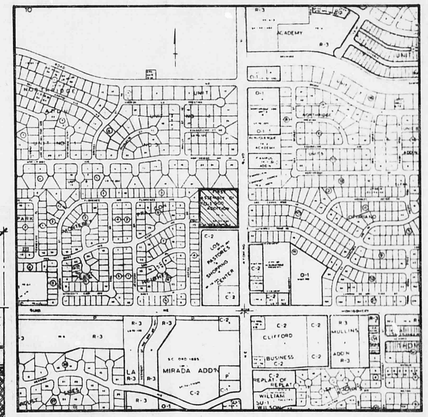


TYP. PAVEMENT SECTION

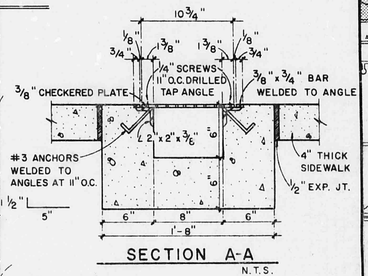
REF. BENCH MARK NO. 5-G20 A SQUARE, Ø, CHISELED ON TOP OF CONCRETE CURB AT THE E.S.E. RETURN LOCATED AT THE INTERSECTION OF MONTGOMERY BLVD. AND WYOMING BLVD., IN THE SOUTHEAST QUADRANT OF THE INTERSECTION. EL.EV. = 5432.343 M.S.L.D.



PLAN
N.T.S

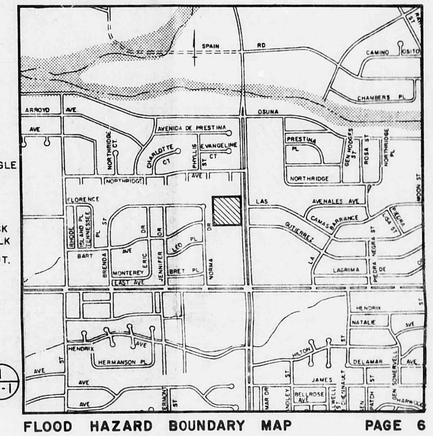


KEY MAP F-19-Z

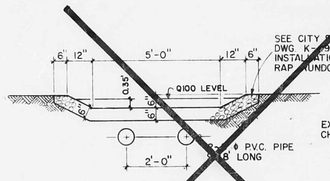


SECTION A-A
N.T.S.

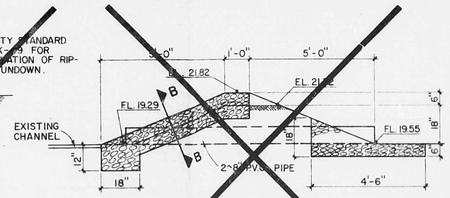
SIDEWALK DRAIN DETAILS (1 / C-1)



FLOOD HAZARD BOUNDARY MAP PAGE 6

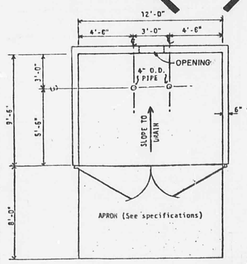


SECTION B-B

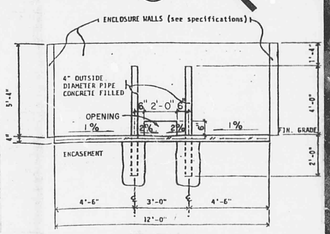


SECTION

OVERFLOW OUTLET AND PIPE DRAIN (2 / C-1) 3/8" = 1'-0"



PLAN



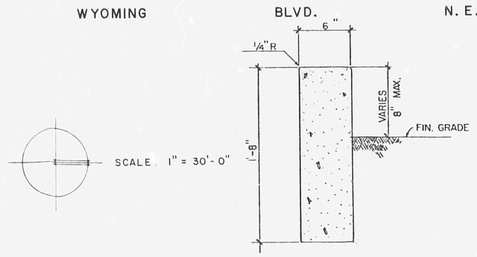
SECTION

SPECIFICATIONS:
CONCRETE SLAB: 4" thick; 3000 psi, 3/4" agg., w/ 4x4-10/10 WWM. Slope to drain 1/8" per foot.
APRON: 6" thick; 3000 psi, 3/4" agg., w/ 4x4-10/10 WWM. 12'-0" x 8'-0" x 6" with 1/2" expansion joint.
FOOTING: As required by design.
ENCLOSURE WALLS: 5'-4" high; masonry
GATES: All enclosures shall have gates as required by design. Clear opening shall be 12'-0"

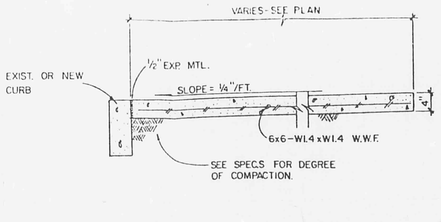
N.T.S.

LEGEND

NEW	EXISTING	DESCRIPTION
		BUILDING
		PAVEMENT
5425	5425	CONTOURS
+25.00	+25.00	SPOT ELEVATIONS
		PROPERTY LINE
		SIDEWALK



(3 / C-1) TYP CURB DETAIL
N.T.S



(4 / C-1) TYP. SIDEWALK DETAIL
N.T.S

(5 / C-1) TRASH COMPACTOR ENCLOSURE

THE BURNS PETERS GROUP
ARCHITECTS PLANNERS

NOTES

The proposed development is located on the west side of Wyoming Blvd. between Montgomery Blvd. and Osuna Road as shown by the key map and designated as Tract A, Lot 4, Section 33 T 11 N, R 4 E of N.M.P.M. This site does not lie within a Flood Hazard Zone as shown on the Flood Hazard Boundary Map prepared for the City of Albuquerque by the U.S. Department of Housing and Urban Development.

The site has been developed in two phases. First phase development was the church structure and associated parking and landscaping. Second phase development includes a multipurpose facility with additional parking. A drainage plan was prepared for the fully developed second phase by Mr. J.E. Martinez in May, 1977 and approved by the City of Albuquerque. The purpose of this plan is to update the construction documents and to insure that the second phase is developed in conformance with the original drainage plan with slight modification which eliminates the need of ponding.

Grading on the site is generally from northeast to southwest with an average slope of 1.2%. The majority of runoff from the site is transported north through the paved parking areas.

Offsite flows are prevented from entering the site by existing grading, walls or paving. Flows north of the site are transported north by existing grades. Flows from the east are transported south along Wyoming to Montgomery by the existing curb and gutter. The revised Flood Hazard Maps for the City of Albuquerque do not indicate surface flows on Wyoming immediately adjacent to the study site. Flows south of the site will be prevented from entering the site by a CMU wall being constructed in conjunction with a new shopping center.

The grading plan shows, existing and finished grades indicated by contours at 1'-0" intervals and selected spot elevations. It also shows continuity between proposed and existing elevations.

A review of the downstream inlets capacity, downstream storm pipes capacity and drainage channel shows it is adequate to transport the peak flow generated from the proposed development and its adjacent contributing area. (Please refer to the attached calculations). Therefore, no ponding will be provided for this development. All surface runoff will be discharged directly into downstream concrete channel.

If developed as shown, the site will not be susceptable to flooding nor will it increase the threat of flooding to downstream areas.

EXISTING CONDITION:

$L = 438.80$ Slope $= \frac{14}{438.80} = 3.19\%$

$T_c = 0.0078\,(438.80)^{0.77}\,(3.19)^{-0.385} = 3.18$ min.

Use $T_c = 10$ min.

$C_{10} = 0.45$

$Q_{10} = 0.45 \times 4.28 \times 5.48 = 10.55$ cfs

$V_{100} = 0.43 \times \frac{7.55}{12} \times 4.28 \times 43560 = 17829$ ft^3

DEVELOPMENT CONDITION:

Pervious Area = 0.51 AC
Impervious Area = 1.51 AC
Impervious = 1.31/2.02 (43,433 / 87,900) = 0.624
"C" Factor = 0.78 (See Plate 22.2 C-1)

$Q_{100} = 0.78 \times 2.4 \times 7.11 \times 4.28 = 16.90$ cfs

Q_{10} (Undeveloped) $= 0.45 \times 2.4 \times 2.11 \times 4.28 \times 0.34 = 4.05$ cfs

$V_{100} = 0.78 \times \frac{7.55}{12} \times 4.28 \times 43560 = 29084$ ft^3

(See attached calculations for more information)

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AUG 10 1984
HYDROLOGY SECTION

REVISIONS

VICTOR J. CHAVEZ — STATE OF NEW MEXICO — REGISTERED PROFESSIONAL ENGINEER
ENGINEER 8/10/84

STATE OF NEW MEXICO — RONALD L. PETERS NO. 759 — REGISTERED ARCHITECT
ARCHITECT

MULTI - PURPOSE BUILDING FOR FIRST FAMILY CHURCH

4701 WYOMING BLVD. N.E.
ALBUQUERQUE, N.M. 87109

PROJECT NO. 82 - 35
DATE

C1
SHEET OF