

# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 23, 1990

W. Reed Edgel George Rodriquez & Associates 2500 Garfield, SE Albuquerque, New Mexico 87106

RE: DRAINAGE PLAN FOR AN ADDITION TO ACADEMY PLUBMING & HEATING COMPANY (J-20/D8) ENGINEER'S STAMP DATED MAY 7, 1990

Dear Mr. Edgel:

Based on the information provided on your submittal of May 7, 1990, the above referenced plan is approved for Building 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,

for Fred J. Aguirre, R.E.

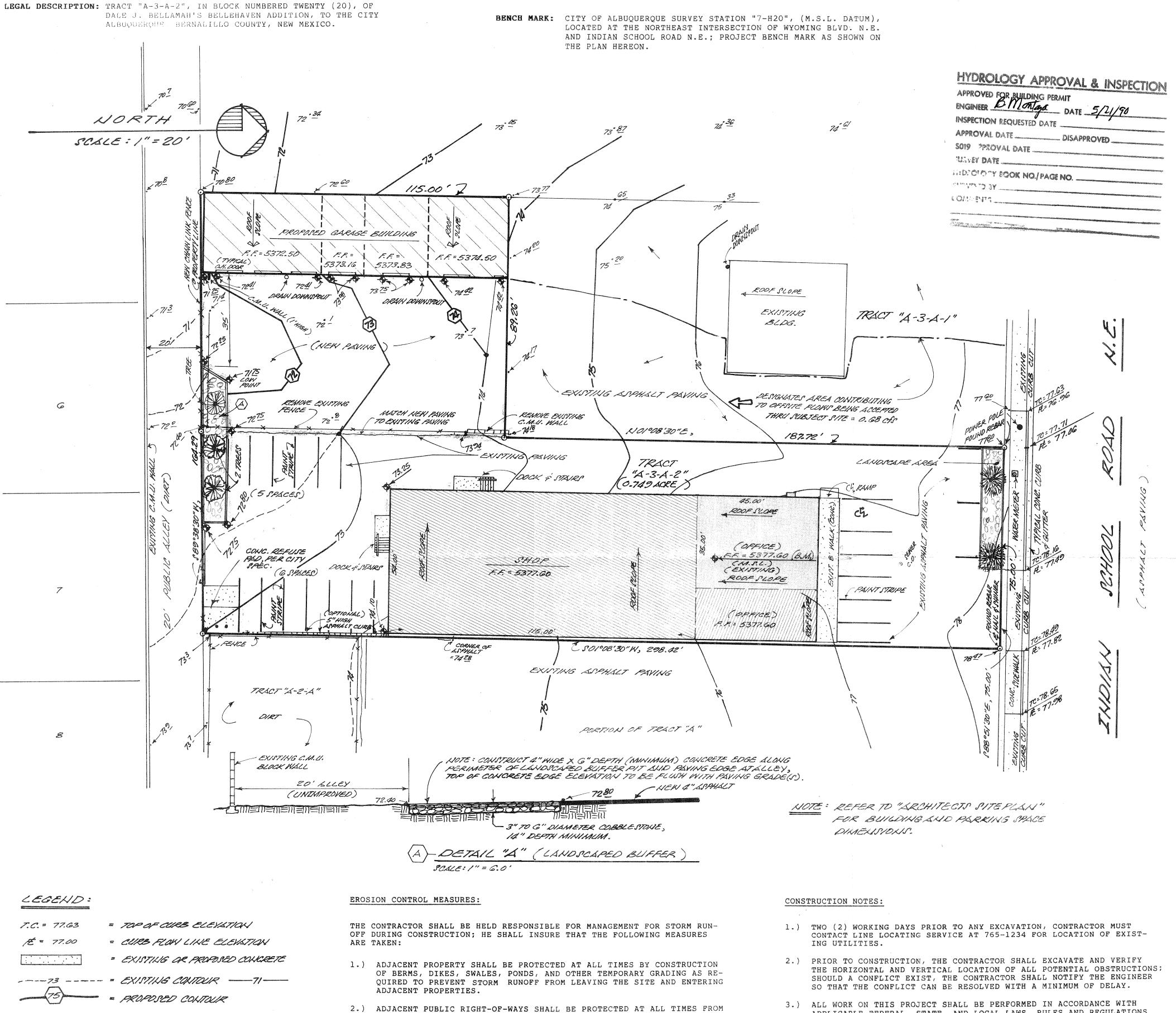
Hydrologist

BJM:FJA/bsj (WP+687)

PUBLIC WORKS DEPARTMENT

### DRAINAGE INFORMATION SHEET

	ACADEMY PLUMBING	IE ATLAS/DRNG. FILE #: J-20/D8
	PROJECT TITLE: # HEATING CO. ZON LEGAL DESCRIPTION: TRACT "A-3-A-2", BLK. 2	20, BELLEHAVEN ADDITION
	CITY ADDRESS: 8524 INDIAN SCHOOL A	ROAD N.E. 871/2
	W. REED EDGEL, P.E. ENGINEERING FIRM: Yo RODRIGUEZ & ASSOCIATES	ASP POSSO
	ADDRESS: ZEBUQUERQUE, N.M. 87106	
		CONTACT: MR-Appelman
1	ADDRESS: BS24 INDIAN SCHOOL RD. No.	
	ARCHITECT: OWNER	CONTACT:
`		
	ADDRESS:  TORRES SURVEYING Co.	PHONE:
	SURVEYOR:	CONTACT: MR. JIM LORRES
\	ADDRESS: 1570 BRIDGE BLYD. S.W.	PHONE: 243-4854
	CONTRACTOR: OKNER	CONTACT:
	ADDRESS:	PHONE:
*	PRE-DESIGN MEETING:	
		RB NO.
	NO E	PC NO.
	COPY OF CONFERENCE RECAP PS SHEET PROVIDED	ROJ. NO.
	TYPE OF SUBMITTAL: CHECK	K TYPE OF APPROVAL SOUGHT:
DRAINAGE REPORT SK		SKETCH PLAT APPROVAL
	L DRAINAGE PLAN	PRELIMINARY PLAT APPROVAL
	CONCEPTUAL GRADING & DRAINAGE PLAN	SITE DEVELOPMENT PLAN APPROVAL
	GRADING PLAN	FINAL PLAT APPROVAL
	EROSION CONTROL PLAN	BUILDING PERMIT APPROVAL
	ENGINEER'S CERTIFICATION	FOUNDATION PERMIT APPROVAL
		CERTIFICATE OF OCCUPANCY APPROVAL
	NEGELVEDI.	ROUGH GRADING PERMIT APPROVAL
	DEGEOVED L	GRADING/PAVING PERMIT APPROVAL
	MAY 7 1990 [U]	OTHER (SPECIFY)
	DATE SUBMITTED: MAY 15000 4 60	
	PHIL BOOMITICUTE TO THE PROPERTY OF THE PROPER	



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.

NOTE: HISTORICAL AND DEVELOPED SURFACE FLOWS OF THE SUBJECT SITE ARE TO FREE DISCHARGE INTO THE EXISTING UNIMPROVED PUBLIC ALLEY VIA AN LANDSCAPED BUFFER STRIP, (AS SHOWN ON THE PLAN HEREON) THAT WOULD CONTROL EROSION AND SEDIMENT INTO SAID EXISTING ALLEY.

STORM WATER RUNOFF FROM THE SITE. NO SEDIMENT BEARING WATER SHALL

SEDIMENT WITHIN PUBLIC STREETS THAT HAS BEEN ERODED FROM THE SITE

3.) THE CONTRACTOR SHALL IMMEDIATELY AND THROUGHLY REMOVE ANY AND ALL

BE PERMITTED TO ENTER PUBLIC STREETS.

AND DEPOSITED THERE.

-x--x = EXISTING FENCE

O- C.O.

= PROPOSED SPOT ELEVATION

= SEWER CLEANOUT

PROPOSED LIMITS OF HEW PASING

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

NOTE: THIS GRADING AND DRAINAGE PLAN IS A REVISION TO THE APPROVED PLAN OF THE SUBJECT SITE APPROVED BY THE CITY OF ALBUQUERQUE - HYDROLOGY SECTION ON MARCH 31, 1988, (J-20/D8).

#### DRAINAGE COMMENTS:

THE FOLLOWING ITEMS CONCERNING THE SUBJECT SITE ARE CONTAINED ON THE GRADING AND DRAINAGE PLAN AS SHOWN HEREON:

1.) SITE GRADING AND DRAINAGE PLAN

2.) VICINITY MAP 3.) LEGAL DESCRIPTION

4.) LIMITS AND CHARACTER OF THE EXISTING AND PROPOSED IMPROVEMENTS HYDRAULIC DRAINAGE CALCULATIONS

AS SHOWN ON THE VICINITY MAP HEREON THE SUBJECT SITE IS LOCATED ON INDIAN SCHOOL ROAD N.E. BETWEEN WYOMING BLVD. N.E. AND MOON STREET N.E., IN THE CITY OF ALBUQUERQUE, BERNALILLO COUNTY, NEW MEXICO; (CITY ZONE ATLAS MAP "J-20-Z").

THE PROJECT SITE, (1.) DOES NOT LIE WITHIN A FLOOD PLAIN, (2.) DOES NOT LIE ADJACENT TO A NATURAL OR ARTIFICIAL WATER COURSE, (3.) HAS NO DRAINAGE EASEMENTS ON THE PROPERTY AT THIS TIME; HOWEVER, A "DRAINAGE COVENANT" FOR THE ACCEPTANCE OF OFF-SITE FLOWS IS PRESENTLY BEING EXECUTED.

BASED ON A SITE INVESTIGATION, IT HAS BEEN DETERMINED THAT THE FREE DISCHARGE OF SURFACE FLOWS OF THE EXISTING AND PROPOSED QUANTITIES HAVE NO ADVERSE AFFECT ON DOWNSTREAM PROPERTIES.

#### DRAINAGE CALCULATIONS:

### REFERENCES:

- A. CITY OF ALBUQUERQUE DEVELOPMENT PROCESS MANUAL (DPM), VOL. 2, DESIGN CRITERIA, CHAPTER 22, DRAINAGE, FLOOD CONTROL AND EROSION
- B. SOIL SURVEY OF BERNALILLO COUNTY AND PARTS OF SANDOVAL AND VALENCIA COUNTIES, NEW MEXICO, UNITED STATES DEPARTMENT OF AGRICULTURE, SOIL CONSERVATION SERVICE, (SCS SHEET No. 31 ).

## II. GENERAL INFORMATION:

- A. SOIL TYPE: SOIL TYPE IS "EtC", EMBUDO-TIJERAS COMPLEX, O TO 9 PERCENT SLOPES, HYDROLOGIC SOIL GROUP "B".
- B. IMPERVIOUSNESS:

SITE AREA = 0.749 ACRES, ( 32,607.8 SQ. FT. ). PRESENT DEVELOPED "C" FACTOR = 0.75

C. TYPE OF SURFACE (DEVELOPED):

HARD SURFACED (ASPHALT/GRAVEL) = 0.31 AC. = 41% X (C=0.95) = 0.39 BUILDING ROOF AREA = 0.20 AC. = 27% X (C=0.90) = 0.24LANDSCAPED AREA = 0.03 AC. = 04% X (C=0.25) = 0.01= 0.21 AC. = 28% X (C=0.40) = 0.11UNDEVELOPED AREA

AVERAGE "WEIGHTED" "C"= 0.75

C-1. TYPE OF SURFACE (PROPOSED DEVELOPED):

HARD SURFACED (ASPHALT/CONC.) = 0.44 AC. = 59 % X (C=0.95) = 0.56 BUILDING ROOF AREA = 0.27 AC. = 36 % X (C=0.90) = 0.32= 0.04 AC. = 05 % X (C=0.25) = 0.01LANDSCAPED AREA UNDEVELOPED AREA = 0.00 AC. = 00 % X (C=0.40) = 0.00

AVERAGE WEIGHTED "C" = 0.89

- D. RAINFALL, 100-YR., 6-HR., R6; (SEE REF. A., PLATE 22.2 D-1)  $R_6 = 2.4$  INCHES.
- E. TIME OF CONCENTRATION,  $T_C$  = TEN (10) MINUTES FOR A SITE THIS SIZE.
- F. RAINFALL INTENSITY, "I", (SEE REF. A., PLATE 22.2 D-2)  $I = R_6 \times 6.84 \times T_C$   $^{-0.51} = 2.4 \times 6.84 \times (10)$   $^{-0.51} = 5.07 \text{ IN./HR.}$
- III. PEAK DISCHARGE: ( Q = CIA )

**DEVELOPED:**  $Q_{100} = 0.75 \times 5.07 \times 0.749 = 2.85 \text{ cfs}$ 

 $Q_{10} = 0.657 \times 2.85 = 1.87 \text{ cfs}$ 

**DEVELOPED:**  $Q_{100} = 0.89 \times 5.07 \times 0.749 = 3.38 \text{ cfs}$ 

 $Q_{10} = 0.657 \text{ X} 3.38 = 2.22 \text{ cfs}$ 

#### IV. PEAK VOLUME:

A. EXISTING CONDITIONS:  $V_{100} = 0.75 \text{ X}$  ( 2.4/12) X 32,607.8 = 4,891.2 CU. FT.

 $V_{10} = 0.657 \text{ X } 4,891.2 = 3,213.5 \text{ CU. FT.}$ 

B. DEVELOPED CONDITIONS: (PROPOSED)  $V_{100} = 0.89 \text{ X}$  ( 2.4/12) X 32,607.8 = 5,804.2 CU. FT.

 $V_{10} = 0.657 \text{ X} 5,804.2 = 3,813.4 \text{ CU. FT.}$ 

