

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 12, 1998

Jake Bordenave, P.E.
Bordenave Designs
P.O. Box 91194
Albuquerque, NM 87199

***RE: ACADEMY CORPORATION (E17-D1Q). GRADING AND DRAINAGE PLAN FOR
BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED NOVEMBER
22, 1997.***

Dear Mr. Bordenave:

Based on the information provided on your December 15, 1997 submittal, the above referenced project is approved for Building Permit.

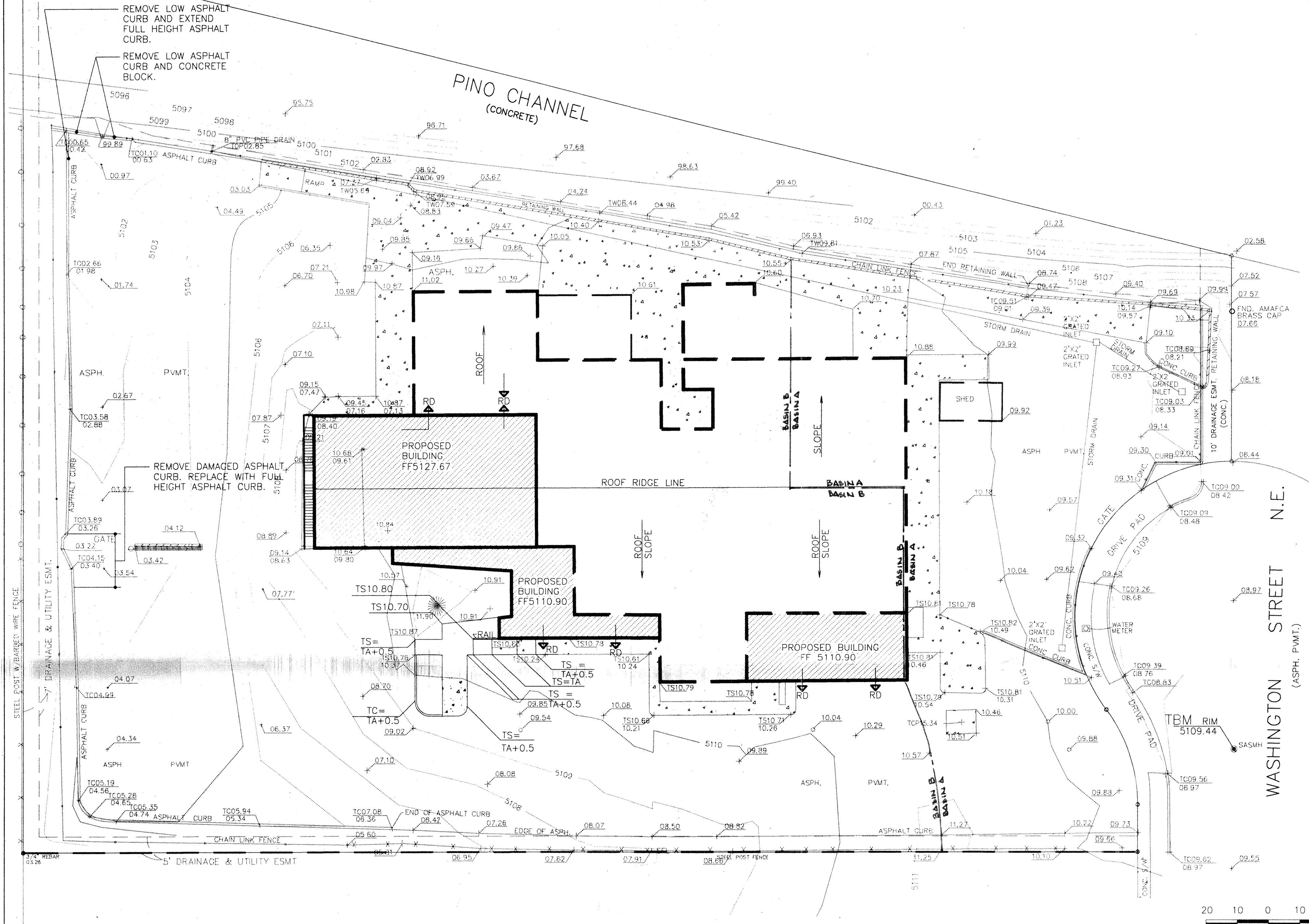
Prior to Certificate of Occupancy approval, and Engineer's Certification will be required.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

Lisa Ann Manwill, P.E.
Hydrology

c: Andrew Garcia
File



LEGAL DESCRIPTION

LOT F-2, INTERSTATE INDUSTRIAL TRACT

PERMANENT BENCHMARK

ACS 10-D17 ELEVATION 5109.28

GRADING CERTIFICATION

I, Jean J. Bordenave, New Mexico Professional Engineer and Land Surveyor No. 5110, hereby certify that I have personally inspected the property shown hereon and that it appears that no grading, filling or excavation has occurred thereon since the contour map shown hereon was prepared.

Jean J. Bordenave, NM PE & PS No. 5110

GENERAL NOTES

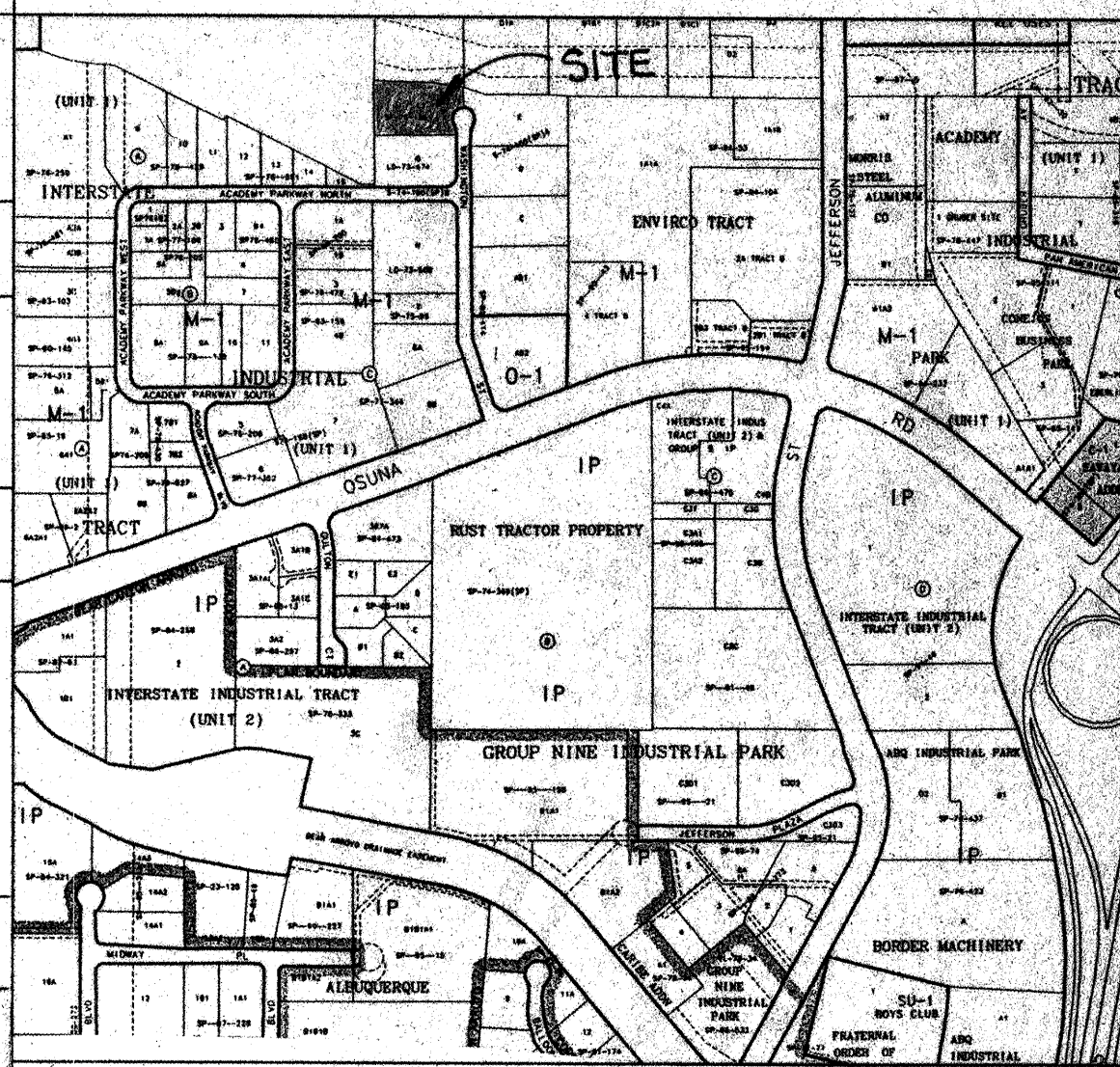
- 1. The proposed development is located on the south bank of the concrete lined Pino Channel and is presently developed. The purpose of this plan is to show the impact of proposed additions on existing conditions.

The site is presently graded with two drainage basins designated Basins A and B on this plan. Basin A is routed to the Pino Channel via Washington Street on paved surfaces. In addition three two foot square catch basins with an eight inch PVC outlet pipe have been added to the basin to route flows to a concrete rundown into the Pino Channel at the northwest corner of the property. The catch basins have minimal impact as the flow to the basins is limited to what is intercepted in a sheet flow condition. The catch basins were not considered in the analysis of the flow conditions on the property.

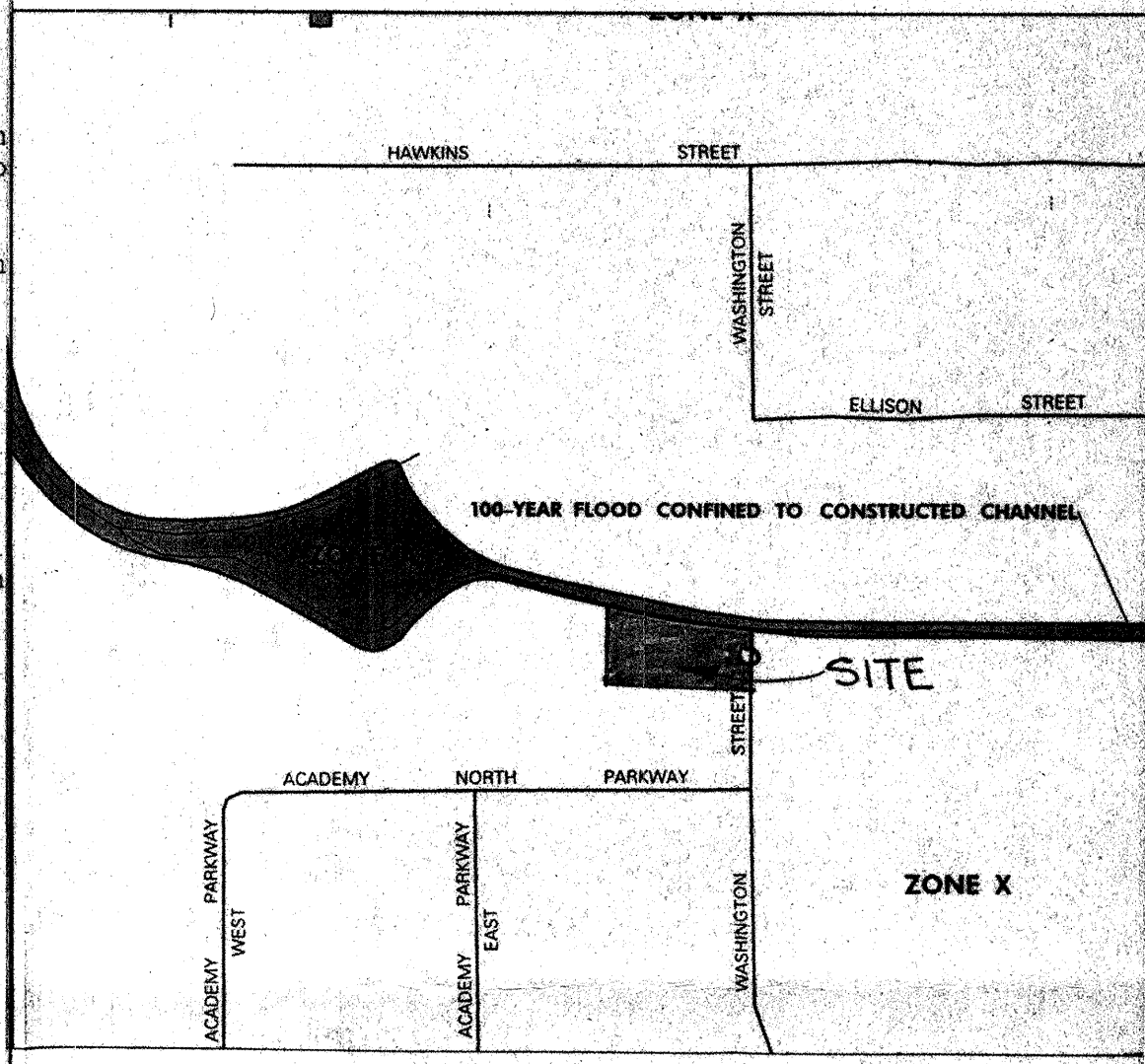
Basin B is routed to the Pino Channel via a concrete rundown at the northwest corner of the property. The entrance to the concrete weir at the northwest corner of the property was analyzed as a broad crested weir since flows are intersecting at ninety degrees at the entrance to the weir. The calculations indicate the concrete rundown to the Pino Channel and the approach broad-crested weir are more than large enough to route flows from the site.

- 2. The site is not located in a designated flood hazard area per FEMA FIRM Panel No. 136, dated September 20, 1996.
- 3. Topography shown on this sheet was obtained by Harris Surveying, Inc. in August, 1997.

VICINITY MAP NO. E-17



FEMA FIRM PANEL NO. 136



LEGEND

TBM	TEMPORARY BENCHMARK
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOWLINE
TA	TOP OF ASPHALT
TCP	TOP OF CONCRETE
TC	TOP OF CURB
TP	TOP OF EARTH PAD
TS	TOP OF SIDEWALK
TW	TOP OF WALL
FH	FIRE HYDRANT
WM	WATER METER
WV	WATER VALVE
MH	MANHOLE
CB	CATCH BASIN GRATE
GM	GAS MATER
GV	GAS VALVE
LP	LIGHT POLE
PP	POWER POLE
GW	GUY WIRE
PED	ELEC. OR TEL. PEDESTAL
RD	ROOF DRAINAGE POINT

GRADING NOTES

- 1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, THE CONTRACTOR MUST CONTACT THE NEW MEXICO ONE CALL SYSTEM AT 260-1990 FOR LOCATION OF EXISTING UTILITIES.
- 2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION 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.
- 3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
- 4. ALL CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

EROSION CONTROL NOTES

- 1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE ONTO PUBLIC RIGHT-OF-WAY OR PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY THE CONSTRUCTION OF TEMPORARY SOIL BERMS OR SILT FENCES AT PROPERTY LINES AND BY SOIL TO PREVENT IT FROM BLOWING.
- 2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
- 3. THE CONTRACTOR SHALL SECURE A 'TOPSOIL DISTURBANCE PERMIT' PRIOR TO BEGINNING CONSTRUCTION.

OFFSITE DRAINAGE MAP

SCALE 1" = 200'

DRAINAGE DATA

CONDITION	B	STORM	TREATMENT	TREATMENT	EXCESS	PEAK	RUNOFF	RUNOFF
	A	RETURN	TYPE	AREA	PRECIPITATION	RUNOFF	VOLUME	RATE
	N	S PERIOD						
EXISTING	10	(table 4)		sq. ft.	(table 8)	(table 9)	cu. ft.	cfs
		year			in.	cfs/acre		
			A	0	0.13	0.38	0	0.00
			B	400	0.28	0.95	9	0.01
			C	0	0.52	1.71	0	0.00
PROPOSED			D	15664	1.34	3.14	1749	1.13
			TOTAL	16064			1758	1.14
	100		A	0	0.53	1.56	0	0.00
			B	400	0.78	2.28	26	0.02
			C	0	1.13	3.14	0	0.00
			D	15664	2.12	4.7	2767	1.69
			TOTAL	16064			2793	1.71
	B	10	A	0	0.13	0.38	0	0.00
			B	6390	0.28	0.95	149	0.14
			C	0	0.52	1.71	0	0.00
			D	56698	1.34	3.14	6331	4.09
			TOTAL	63088			6480	4.23
	100		A	0	0.53	1.56	0	0.00
			B	6390	0.78	2.28	415	0.33
			C	0	1.13	3.14	0	0.00
			D	56698	2.12	4.7	10017	6.12
			TOTAL	63088			10432	6.45

SITE OUTFALL

BROAD CRESTED WEIR (TRAPAZOIDAL)

$Q = CAH^{1.5}$
where $C = 2.8$,
 $L_1 = 15 \text{ ft}$, $H_1 = 0.35 \text{ ft}$, $A = 9.98 \text{ sf}$
 $L_2 = 2 \text{ ft}$, $H_2 = 0.46 \text{ ft}$, $A = 1.86 \text{ sf}$
 $L_3 = 9 \text{ ft}$, $H_3 = 0.35 \text{ ft}$, $A = 5.98 \text{ sf}$
Therefore the weir capacity is:
 $Q = 28.83 \text{ cfs}$

The discharge from Basin B of the site is routed this weir. The 100 year peak discharge rate from the basin is 6.45 cfs (approximately 25% of the capacity of the weir).

- FEMA FLOODPLAIN BOUNDARY
- DRAINAGE BASIN BOUNDARY
- EROSION SETBACK LINE
- EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- RECORD SPOT ELEVATION

no. date remarks

DEC 15 1997

HYDROLOGY SECTION

by

REVISIONS

project title

ACADEMY CORPORATION

6905-A WASHINGTON NE

ALBUQUERQUE, NM

sheet title

GRADING & DRAINAGE PLAN

sheet date

11/10/97

design by

JUB

project no.

9725

sheet

of

BORDENAVE DESIGNS

P.O. BOX 91194, ALBUQUERQUE, NM 87199

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