HYDROLOGY C17/D1P 1 PLAN

C17/D1p

1 Plan

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

May 29, 1985

Mr. Bo K.E. Johnson
A & E Engineering
1330 San Pedro NE
Albuquerque, N.M. 87108

REF: DRAINAGE PLAN FOR CLIFFORD INDUSTRIAL PARK, LOT 39 RECEIVED MAY 6, 1985 (C17-D1p)

Dear Mr. Johnson:

I have reviewed the referenced drainage plan dated May 6, 1985 and forward the following comments:

1. An encroachment Agreement will be required for the proposed private improvements within the City's R/W.

2. The proposed rundown will be reviewed and permitted through the "Private Improvements Within Public R/W" process.

If you should have any questions or comments, please feel free to call me at 766-7644.

Sincerely,

Carlos A Montoya
City/County Flood Plain Admin.

CAM/cl

INFORMATION SHEET

PROJECT TITLE Lot 39 - Clifford Ind. Park TYPE OF SUBMITTAL Building Permit Grading & Drainage

ZONE ATLAS PAGE NO. C-17-Z CITY ADDRESS Anaheim & Washington
C17/D19

LEGAL DESCRIPTION Lot 39 CLIFFORD INDUSTRIAL PARK

ENGINEERING FIRM A & E ENGINEERING CONTACT John F. Esquibel

ADDRESS 1330 San Pedro Suite 208 PHONE 266-8792

OWNER Mac Salas CONTACT Mac Salas

ADDRESS 7524 Sky Court Cir NE PHONE 888-0680

ARCHITECT Dyer-McClernon CONTACT Pat McClernon

ADDRESS 1401 5th ST. NW PHONE 242-5219

SURVEYOR A & E Engineering CONTACT John F. Esquibel

ADDRESS 1330 San Pedro Suite 208 PHONE 266-8792

CONTRACTOR Mac Salas CONTACT Mac Salas

ADDRESS 7524 Sky Court Cir NE PHONE 888-0680

DRB-85-243 — 4/2/85

PRE-DESIGN MEETING:

✓ YES
___ NO
✓ COPY OF CONFERENCE RECAP SHEET PROVIDED

PLEASE CHECK TYPE OF APPROVAL EXPECTED WITH THIS SUBMITTAL:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
___ SITE DEVELOPMENT PLAN APPROVAL
___ FINAL PLAT APPROVAL
✓ BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ ROUGH GRADING PERMIT APPROVAL
___ GRADING/PAVING PERMIT APPROVAL
___ OTHER _____ (SPECIFY)

RECEIVED
MAY 06 1985
HYDROLOGY SECTION

DATE SUBMITTED: 5/6/85

BY: John Esquibel

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 29, 1985

Mr. John Esquibel
A & E Engineering
1330 San Pedro N.E.
Albuquerque, NM 87108

RE: CLIFFORD INDUSTRIAL PARK, LOT 39
C17/D1P

Dear Mr. Esquibel:

In response to your request of the required berm elevations for the design of a rundown abutting the Domingo Baca Arroyo, west of Washington Street, the following are my findings:

1. Neither AMAFCA or the City have any plans to hard-line or stabilize the reach of the Domingo Baca between Washington street and the North Diversion Channel Inlet.

2. The drainage and grading plan that was approved for rough grading on 6-21-83 shows the required rundown detail and top of berm elevation. The plan shows an elevation of 5107 at the top of berm. Since the asphalt pavement has been removed and the grades have been modified, it is my opinion that the City should allow an elevation of 5106 at this point. Note, AMAFCA concurrance through City Hydrologist is required on this. Since there are no final plans for this reach of channel and due to the present unstable condition of the channel, I would recommend that no lower elevation be allowed without further analysis and design of the Domingo Baca.

MUNICIPAL DEVELOPMENT DEPARTMENT

C. Dwayne Sheppard, P.E., City Engineer ENGINEERING DIVISION Telephone (505) 766-7467

AN EQUAL OPPORTUNITY EMPLOYER

3. I have attached a copy of the approved drainage and grading plan for your information on the required rundown and elevation of the Domingo Baca Berm.

If you have any questions or comments on this matter please feel free to contact me at 766-7467 or Carlos Montoya at 766-7644 for assistance in resolving this.

Thank you,

Andre Houle
Civil Engineer, Design

AH/tsl

cc: Carlos Montoya, Civil Engineer, Hydrology Section
Larry Blair, AMAFCA
Greg Olson, Assistant City Engineer, Design
Jim Fink, Planning & Programming Hydrologist

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION/DESIGN HYDROLOGY SECTION

PRE-DESIGN CONFERENCE RECAP

HYDROLOGY SECTION PROJECT NO.: C17 DATE: 3-27-85

PLANNING DIVISION NOS. EPC: _____ DRB: _____

SUBJECT: OFFICE BUILDING @ Anaheim & Washington

LEGAL DESCRIP.: Lot 39 Clifford Industrial Park

APPROVAL REQUESTED

____ PRELIMINARY PLAT ____ FINAL PLAT

____ SITE DEVELOPMENT PLAN X BUILDING PERMIT

____ ROUGH GRADING

	WHO:	REPRESENTING:
ATTENDANCE:	John Eigenbel	
	Carlos A Montoya	

____ Conceptual Drainage Plan/Report required for Preliminary Plat and/or Site Development Plan sign-off.

X Approved Drainage Plan/Report required for Final Plat and/or Building Permit sign-off.

____ Subdivision Improvements Agreement or Financial Security required.

FINDINGS: ① DRAINAGE PLAN PER DPM ② Free discharge to Anaheim or Washington St. ③ No discharge to Domingo Baca channel with sandbags ④ Require drainage covenants or easements for flows across lot lines.

The undersigned agrees that the above findings are summarized accurately and are only subject to change if further investigation reveals that they are not reasonable or that they are based on inaccurate information.

SIGNED:	Carlos A Montoya	SIGNED:	John F Eigenbel
TITLE:	CE-Hydrology	TITLE:	Assistant City Engr
DATE:	3-27-85	DATE:	3/27/85

NOTE PLEASE PROVIDE A COPY OF THIS RECAP WITH THE DRAINAGE SUBMITTAL

CORRECTION NOTICE

LOCATION: 8325-8345 Corona Lp.

(1) S/W Culvert Inspection

(2) Encroachment Agreement

DATE 26 Nov 1986 INSPECTOR [illegible]

B-20

BOHANNAN-HUSTON INC.

Drainage Plan
for
Mile High Development
Lots 11-A, 11-B
Clifford Industrial Park
May 1986

Drainage Plan
for
Mile High Development
Lots 11-A, 11-B
Clifford Industrial Park
May 1986

RECEIVED
MAY 12 1986
HYDROLOGY SECTION

DRAINAGE PLAN
FOR
MILE HIGH DEVELOPMENT
LOTS 11-A, 11-B
CLIFFORD INDUSTRIAL PARK

PREPARED FOR:

MILE HIGH DEVELOPMENT
MARK MILLER
PRADO VERDE CONSTRUCTORS
410 OLD TAOS HIGHWAY
SANTA FE, NEW MEXICO 87501

PREPARED BY:

BOHANNAN-HUSTON, INC.
7500 JEFFERSON N.E.
ALBUQUERQUE, NEW MEXICO 87109

May 1986
Job No. 6 197 1

James Topmiller
N.M.P.E. No. 9354

CALCULATIONS

DEVELOPED DRAINAGE & UNDEVELOPED DRAINAGE

	Basin	Area (ac.)	Length (Ft.)	Top Elev. (Ft.)	Bottom Elev. (Ft.)	Slope (Ft./Ft.)	Time of Concentration	Soil Group	% Impervious	Runoff Coefficient, C	100 YEAR 6 Hr. Rain Volume (in.)	100 YEAR I/6 Hr Rain (in./hr.)	100 YEAR Peak Flow Rate Q (cfs)	100 YEAR Runoff Volume (ac. ft.)	10 YEAR 6 Hr. Rain Volume (in.)	10 YEAR I/6 Hr. Rain (in./hr.)	10 YEAR Peak Flow Rate Q (cfs)	10 YEAR Runoff Volume (ac. ft.)
Developed	11	.68869					10	B	90	.86	2.2	4.65	2.75	0.11	1.45	3.06	1.81	0.07
	11-A	.3429					10	B	94	.90	2.2	4.65	1.44	0.06	1.45	3.06	0.94	0.04
	11-B	.3440					10	B	87	.88	2.2	4.65	1.33	0.05	1.45	3.06	0.87	0.03
Undeveloped	11	.68869					10	B	0	.34	2.2	4.65	1.09	0.04	1.45	3.06	0.71	0.03
	11-A	.3429					10	B	0	.34	2.2	4.65	0.54	0.02	1.45	3.06	0.36	0.01
	11-B	.3440					10	B	0	.34	2.2	4.65	0.54	0.02	1.45	3.06	0.36	0.02
	Ref.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17

References:

1,2,3,4,5 Basin areas, lengths, top and bottom elevations and slopes from Plate ___.

6. Tc by Kirpich Formula $T_c = .0078 \frac{\text{Length}^{0.77}}{\text{Slope}^{0.385}}$ (10 minutes minimum)

7. See Soils Map Plate ___ and Text.

8. By area computation.

9. DPM Plate 22.2 C-1 (Deleted.)

10,14 DPM Plate 22.2 D-1

11,15 DPM Plate 22.2 D-2

12,16 Rational Formula Q = CIA

13,17 Rational Formula $V = \frac{\text{Rainfall}}{12} \times C \times A$

PROJECT NAME Lot 11A & 11B, Mylod

PROJECT NO. Industrial Park 6.1971

SUBJECT

SHEET 1 OF 1

BY TG

DATE 5/17/86

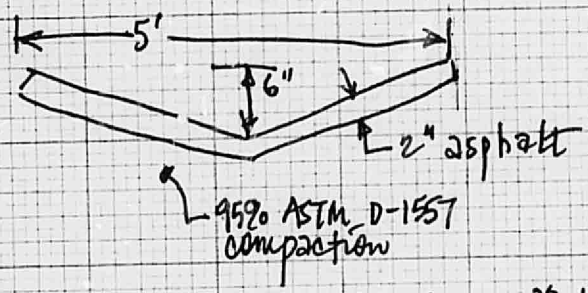
CH'D

DATE

ASPHALT-LINED SWALE ALONG WEST BOUNDARY

check capacity of above swale by Manning's equation

where $n = 0.017$
$S = 0.005$
depth of channel = 0.5' (6")
(triangular swale section)



by Manning's $Q = \frac{1.49}{n} A R^{2/3} S^{1/2}$

then $Q = 3.03$ cfs > 2.7 cfs (actual runoff in 100-year storm)

PROJECT NAME LOTS 11-A, 11-B SHEET 1 OF 1
PROJECT NO. CLIFFORD INDUSTRIAL BY JamesT DATE 4-28-86
SUBJECT PARK CH'D " DATE "

SIDEWALK CULVERT CAPACITY @ Corona Loop

limiting control will be the entrance to the culvert.....

check by weir equation.....

$Q = C L H^{3/2}$

$C = 3.0$ (Brater's Handbook)

$L = 18''$ (1.5')

$H = 0.67'$

then $Q = (3.0)\ 1.5\ (0.67)^{3/2}$

$= 2.47$ cfs $\doteq$ 2.7 cfs (combined discharge from 11-A, 11-B)

OK

(close enough especially considering that a small portion of the site does not impact the culvert)

$Q = \frac{2}{3} L \sqrt{2g}\, H^{3/2}$

$(2/3)(1.5)\sqrt{64.4}\ (.67)^{1.5}$

$= \underline{4.4}$ cfs $> 2.7 \therefore$ OK

PROJECT NAME LOT 11-A & 11-B SHEET 1 OF 1

PROJECT NO. CLIFFORD INDUST. BY JamesTop DATE 4.28.86

SUBJECT PAGE CH'D " DATE "

1012