HYDROLOGY G16/D36 4 PLANS

G16/D36

4 PLANS

BOHANNAN-HUSTON INC.
ENGINEERS PLANNERS PHOTOGRAMMETRISTS
4125 CARLISLE BLVD., N.E. ALBUQUERQUE, NEW MEXICO 87107 505 881-2000
6713 VISCOUNT BLVD., EL PASO, TEXAS 79925 915 778-4491
330 GARFIELD, SANTA FE, NEW MEXICO 87501 505 988-7601

November 18, 1981

Mr. Fred Aguirre
Building Code Department
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Final Inspection of the Drainage Improvements for Tract A, Lot 6, Unit 6 Cutter Industrial Park, Known as the Aztec Warehouse

Dear Fred:

The purpose of this letter is to document our final inspection of the drainage improvements modification for the Aztec Warehouse at 2105 Aztec Road, N.E. We inspected the premises for improvements recommended in our Drainage Report, submitted in September of 1981. The following improvements have been accomplished as recommended in our Drainage Report.

1) The rooftop downspouts, at the north end of the building, have been changed to allow the water to discharge to the central ponding area.

2) A concrete berm has been constructed along the north side of both buildings to provide the additional volume required for ponding in the rear ponding area.

3) The "V" notch weir, on the west side of the drivepad, has been enlarged per recommendations and channelized through a rundown and under the sidewalk to the street.

The above improvements will allow the site drainage improvements to function satisfactorily to prevent flooding of the buildings and surrounding area. We feel that the developer has lived up to his commitments in the Drainage Report.

If you should have any further questions concerning this matter, please feel free to contact this office.

Sincerely yours,

Michial M. Emery

Michial M. Emery, P.E.
Vice President

RECEIVED NOV 20 1981

cc: Mr. Bob Davis

MME/js
Job No. 1 143 0

APPROVED FOR DRAINAGE 12-17-81 DATE
SIGNATURE TITLE
ADVISE DRAINAGE INSPECTOR WHEN GRADING EXECUTED
SATISFACTORY AFTER OCT. 30, 1981

PRINCIPALS
JERRY R. BOHANNAN, P.E. & L.S.
LARRY W. HUSTON
DONALD T. CREMANS, P.E.
C.J. (SKIP) MEAD, P.E.
MICHIAL M. EMERY, P.E.

ASSOCIATES
ANDRES ARAGON VIAMONTE, P.E.
JACK EICHORN
ROBERT H. GREENLEE, P.E.
G. LEE TRUSSELL
ISAAC J. PINO, P.E.
RAMON LARA, P.E.
DARRELL L. WADE, P.E.
PATRICK L. STIEHR, P.E.
DAVID M.Y. MILLIKAN, P.E.

Bob Davis Masonry, Inc.

XXXXXXXXXXXXXXXX Albuquerque, New Mexico 87107 ▪ (505) 345-8524

2105 Aztec N.E., 1C

October 21, 1980

Mr. Fred Aguirre
City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

Re: 2105 Aztec N.E.
Warehouse Complex

Dear Mr. Aguirre:

We have contacted Richard Hall of Hall Surveying Company concerning the drainage problem and he will be in touch with your office as soon as he works out the plan.

Very truly yours,

Larry W. Davis
Vice-President

Bob Davis Masonry, Inc.

[redacted] • Albuquerque, New Mexico 87107 • (505) 345-8524

2105 Aztec N.E., 1C

October 9, 1980

City of Albuquerque
P.O. Box 1293
Albuquerque, New Mexico 87103

Re: 2105 Aztec N. E.
Warehouse Complex

Attn: Fred Aguirre

In answer to your letter dated October 7, 1980, we are in the process of altering our drainage plan, in order to comply with the new conditions of our building site. We will be in touch with you as soon as our new plans are complete.

Sincerely,

L. W. Davis

Larry W. Davis
Bob Davis Masonry, Inc.

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

October 2, 1980

Davis Masonry
3401 Girard N.E.
Albuquerque, N.M. 87107

Gentlemen:

A review of our records indicates that this office has never given a final drainage approval at 2105 Aztec N.E. . Further, I have noted that the building is being occupied without a Certificate of Occupancy which is contrary to Section 306 of the City Building Code.

In order to provide fair, effective enforcement of drainage policy, it is imperative that I, or one of my staff, make a final inspection of all buildings prior to occupancy. Please make immediate arrangements with me to allow for an inspection of the above mentioned property.

If arrangements for an inspection and approval of your site are not completed within 30 days from the above date, this office will no longer process plans from your firm for the purpose of obtaining a building permit. In addition, no other on-site inspections will be made for Certificate of Occupancy requests.

If you have any questions concerning this matter, do not hesitate to call me.

Sincerely,

Fred J. Aguirre

Fred J. Aguirre, P.E.
Civil Engineer

cc: Barbara Stevenson
City Attorney's Office

DRAINAGE REPORT

Tract A, Lot 6, Unit 6
Cutter Industrial Park
Zone Atlas G-16
Albuquerque, New Mexico
Owner: Davis Masonry
3401 Girard Blvd. N.E.
345-8524

Engineer & Contact Hall Surveying Co.
2625 Pennsylvania Blvd. N.E.
884-6200 Richard Hall

RECEIVED

JAN 24 1980

CITY ENGINEER

Sign & Seal of

John M. Bettis

John Bettis

The drainage area lies west of the A. M. A. F. C. A. drain and just east of I-25 at 2105 Aztec N.E.. The entire watershed area is limited to Tract A of Lot 6, Unit 6 of Cutter Industrial Park. The commerical property surrounding Tract A either has ponding of it's own or has altered the water flow into the streets of Princeton or Aztec. There is existing curb & gutter on both streets in near proximity to Tract A. The streets are Princeton & Aztec. The natural flow of the water from Tract A is toward Aztec where it runs west along the curb & gutter into a storm drain at Aztec & I-25 frontage road. The storm drain directs water thru a 24" concrete pipe south under Aztec to a point where 2-36" concrete pipe direct the water west under I-25. The water then continues west until it eventually flows into the Rio Grande.

This new drainage plan will not alter the drainage flow as it exists now, but will retain the storm water allowing gradual runoff over a period of 24 hours. The method proposed to retain the water is by ponding the water on the roof of each building and in two landscaped ponding areas in front of each building. The water on the roof will be held on the roof and released gradually down the water gutter by means of a "Zurn" controlled release outlet, not to exceed 12.7 gal/minute. The water falling on paving at the rear of the building will be directed east into the ponding area on the east side of the building where it will run into Aztec street through a 3" diameter pipe at a rate not to exceed 19 gal/minute.

The water falling on the paving in between the two buildings will flow south into two ponding areas adjacent to Aztec street where the flow will be constricted by a 3" diameter pipes. The flow into the street will be reduced from 1,079 gal/minute for a 100 yr. storm to just 53 gal/minute using the drainage retention plan .

Calculations are based on the Rational formula and can be seen on the Drainage Plan provided.

DRAINAGE PLAN
TRACT "A" LOT 6 UNIT 6
Cutter Industrial PARK.

DIMENSIONS:
AREA = 52,203 FT²
Length = 275'
WIDTH ≈ 190
Slope < 1% Ranging from 0 - 0.8%
USE AVERAGE SLOPE of 0.5%
Runoff Coef.
Soil - Sandy Clay loam
City O.K'S .40 for CALCS.
VALUE PROBALLY HIGH.
Runoff Coef for PAVING
city O.K's .92 for CALCS
Runoff Coef for Metal Roof 1.0

Developements WITHIN VALLEY S.A.C HAVE PONDS equivalent TO 50 YR Runoff Volume.
THE MAXIMUM DISCHARGE RATE IS for THE PEAK DISCHARGE for A 1 year STORM. But THE City would RATHER HAVE THE WATER RETAINED after 24 Hours.

Computation of Volume of Retention.

Roof 60' x 200' = 12,000 FT² AREA
C = 1.0
Intensity for 50 yr STORM $I = \frac{146}{T_c + 20}$

Time of Concentration < 5 minutes

Distance traveled 117 FT
Slope < 1% FIAT
Runoff Velocity 2.5 FT/SEC.

$2.5 \times 117 = 47$ SEC ≈ 0.781 min

USE MINUTES.

$I = \frac{146}{.+20} = 7.04$ IN/HR Roof.

PEAK INTENSITY for 5 MINUTES TO 10 MINUTES

$I = 2.2$ IN/HR Average for 6 HRS.

Maximum Volume in 24 HRS

$V = \frac{2.2''}{12''} \times 12{,}000\ FT^2 = 2200\ FT^3$ IN 24 HRS.

Maximum Discharge Rate $= \frac{2200\ FT^3}{24\ HRS} = \frac{91.67\ FT^3}{HR}$

$= 0.02546\ FT^3/SEC.$

IF THE VELOCITY WERE ALLOWED TO REMAIN AT 2.5 FT/SEC THE MAX Diameter would be 1.366 inches

$Q = A \cdot V \qquad .02546 = \frac{\pi D^2}{4} 2.5$

$.01297\ FT^2 = D^2$

$.11333' = D$

$D = 1.366$ inches

However the velocity will be impeded by the drain.

If no water was allowed to drain a head of 2.2 inches of water could accumulate on the roof. The velocity generated by this head would be $V = \sqrt{2gH}$

$$V = \sqrt{64.4 \; \frac{2.2}{12}} = 3.436 \text{ FT/SEC.}$$

But can such a head be developed?

During the first 10 minutes if $I = 7.04$ IN/HR

then $7.04 \frac{\text{IN}}{\text{HR}} \times \frac{1 \text{ HR}}{60 \text{ MIN}} \times 10 \text{ MIN} = 1.17$ inches

could occumilate rather quickly.

If no water could run out for 10 minutes then a 1" head could develope giving a velocity of 2.32 FT/SEC. This is less than the velocity of runoff across roof.

When the water is impeded a turbulent effect will occur.

To size pipe using $Q = A V = A\sqrt{2gH}$

Now losses due to velocity & contraction can be introduced together in notation $C_v \cdot C_c = C_d$

So actual $Q = A V =$ theoretical

$Q = C_d A \sqrt{2gH}$ For <u>Constant Head</u>

Now what would happen if we had falling head.

$$\text{time} = \frac{2 A_t}{C_d A_o \sqrt{2g}} \left(\sqrt{H_1} - \sqrt{H_2} \right)$$

tank

orifice

Area Reservoir = 12000 FT^2
Area ORFICE = ?
C_d = .65
g = 32.2 FT/SEC.
Time = 24 HRS or 86,400 SEC.
y_1 = 2.2" y_2 = 0
y_1 = .1833 FT

$$86{,}400 = \frac{(2)(12{,}000)(.1833)}{.65\, A_o \sqrt{2(32.2)}}$$

A_o = .00976 FT ⇒ A_o = 1.405 INCHES
DIAM = 1.34 INCHES

YOU CANNOT ACHIEVE A HEAD of 2.2" OVER THE ENTIRE AREA OF THE Building unless THE WATER WAS BLOCKED FOR A PERIOD of 6 HR During A 50 yr. STORM DESIGN By the time you HAD Built up A 2.2' HEAD one fourth the retention time would be USED up.

So How do we approximate what will happen
I HAd TRIED TO DETERMINE THE Velocity ENTER THE Pipe by MANNING formula. $V = \frac{1.49}{n} R^{2/3} S_o^{1/2}$
n = metal roofing = corrugated .022
Slope of Roof FLAT < 1% USE .01 [illegible]
perimeter = 2.2' + 200' + 2.2" = 200.5667
Area = 36.6667 FT^2

$$R = A/P = \frac{36.667}{200.5667} = 0.183 \text{ FT}$$

$$V = \frac{1.49}{.022}(0.183)^{2/3}(.01)^{1/2} = 1.24 \text{ FT/SEC}$$

Average Velocity

Since THIS is An Average Velocity THE Velocity @ THE DRAIN could be TWICE THAT or 3.5 FT/SEC WHICH IS WHAT WE would Expect Table 11-5 5.4 city Drainage Criteria.

But CAN THIS Velocity be MAINTAINED into the Pipe? Hardly. But even if it could a 1.37" O.D would Retain the water or 1.25" I.D. for the Q of 24 HRS. 0.02546 FT/SEC.

O.K. I Had hoped that the Extreme Velocity USED could offset THE Neglected Head. But THE accumulation could be figured for EACH 15 minute interval & 30 minute interval & Hourly interval for 24 hours AND approximate depths could be calculated.

Now For the Paving.

Dimensions

AREA 1 ≈ 62 x 200 ≈ 12 400
AREA 2 ≈ 65 x 190 ≈ 12,350
24 750 > 23,745

SO 1000 FT² EXTRA BUT CLOSE.

Slope #1 $\frac{.2}{235}$ = .08% Real FLAT

Slope #2 $\frac{1.5}{100}$ = 1.5% STILL FLAT

Volume of Pond Req'd

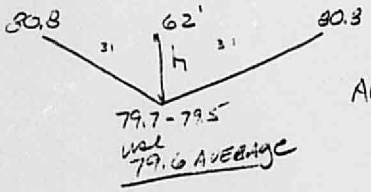
.18 (23,745) = 4253 FT^3

Area 2 Volume = 1/3 A b H

= 1/3 65 x 190 x 1.15 = 4734 FT^3

Area 1 Volume = $\frac{62. \times 1.05}{2} \times 200$ = 6500 FT^3

11,234 FT^3
TOTAL



H = 1.05
AREA = 62 x 1.2

Total on Site Retention CAPABILITY 11,234 FT^3
Req'd. 9 030 FT^3

So Lets look at the WORST CASE
IF ALL THE WATER FELL on THE PARKING
Lot from Both the Roof & the Landscaping
where is impossible what size
Pipe would be Req'd to drain water for 24 hr.

Falling Head Formulae.
TIME = 86,400 SEC 24 HRS
A_R = 23,745 (High)
A_o = ?
y_1 = 1.3'
y_2 = 0

$$86,400 = \frac{2\,(23,745)\,(1.10)}{.60\,(\text{[illegible]})\,A_o}$$

A_o = .1255 FT a 18" pipe

THIS CANNOT BE.

PARKING lot should retain 4353 FT^3 + Roof

Now IF THE $\frac{\text{Volume of Ret}}{\text{Volume Total}} \times H$ = Head for 4353

$$\frac{4353}{11,234} = .39 \times 1.1 = .43'$$

$$Q = C_d A \sqrt{2gH} \qquad Q = \frac{4353 FT^3}{24 HR} = 0.05038$$

$$A = \frac{Q}{C_d \sqrt{2gH}} = \frac{.05038 FT^3/SEC}{.8}$$

$$A = 0.01202 FT^2 = 1.73 in^2$$

$$A = \frac{\pi D^2}{4} \qquad D = 1.48 in^2 \qquad \text{USE } 1.5 in^2$$

But Suppose THE Roof Retention Failed & overflow filled the Pond. THEN Head = 1.1 FT

$$A = \frac{Q}{C_d \sqrt{2gH}} \qquad Q = \frac{11,234 FT^3}{24 HR} = 0.1300 FT^3/SEC$$

$$A = \frac{0.13}{.8\sqrt{2g1.1}} = 0.0193 FT^2 = 2.78 in^2$$

DIAM = 1.88 in

USE smaller 1.5 in² DIAMETER

6" min Cover.

Roof $\frac{2200}{24}\ FT^3/HR = 0.02546\ FT^3/SEC$ Q

$$A = \frac{Q}{C_D\sqrt{2gH}} = \frac{.02564}{.8\sqrt{64.4\ \frac{2.2}{12}}} = 0.00926\ FT^2$$

$A = 1.33\ IN^2$

DIAM = 1.303 IN

ENGINEERS PLANNERS PHOTOGRAMMETRISTS

CHANNAN-HUSTON INC.

4125 CARLISLE BLVD., N.E. ALBUQUERQUE, NEW MEXICO 87107 505 881-2000

September 30, 1981

Aztec Warehouse Ltd.
2105 Aztec Road, NE
Albuquerque, NM 87107

Attention: Mr. Robert D. Davis and Mr. Larry W. Davis

Re: Sidewalk Cut in Front of the Aztec Warehouse, Required to Come Into Conformance with the Approved Drainage Plan

Gentlemen:

In order to follow proper administrative procedures, with respect to the sidewalk cut that must be constructed in front of the Aztec Warehouse, I am sending you a copy of Special Order No. 19 from the City Engineer's office. We suggest that before any construction occurs, to bring the project in conformance with the approved drainage report, that the procedures in Special Order No. 19 be followed for the construction of the sidewalk cut in the front of the project.

If you should have any questions concerning this matter, please feel free to contact this office.

Sincerely yours,

Michial M. Emery, P.E.
Vice President

Enclosure

cc: Mr. Tim Russell
Mr. Fred Aguirre

MME/js
Job No. 1 143 0

ESCROW AGREEMENT

30th THIS ESCROW AGREEMENT is made and entered into this day of Sept., 1981, by and between Aztec Warehouse Ltd., a New Mexico Limited Partnership (AZTEC) 2105 Aztec Road, Albuquerque, New Mexico, and First American Title Co. of New Mexico, a New Mexico corporation, (FIRST AMERICAN), 2601 Louisiana Boulevard, N.E., Albuquerque, New Mexico, and is expressly made to secure mutually satisfactory discharge of certain obligations to the City of Albuquerque, (CITY), P. O. Box 1293, Albuquerque, New Mexico, as hereinafter set forth.

WITNESSETH:

WHEREAS, FIRST AMERICAN has prepared a Seller's Closing Escrow Statement for the benefit of AZTEC, a copy of which is attached hereto as Exhibit A and hereby made a part hereof, and

WHEREAS, said Escrow Statement includes a provision for $10,000 to be escrowed for drainage improvements to certain real property located at 2105 Aztec, N.E., Albuquerque, New Mexico.

NOW, THEREFORE, in consideration of the premises and of the mutual covenants of the parties hereinafter contained, the parties hereby do mutually agree as follows:

a. AZTEC, as Owners of the certain real property located at 2105 Aztec N.E., Albuquerque, New Mexico, agrees to construct drainage facilities on said property in accordance with standards, plans, and specifications approved by the CITY and further described in the conceptual written approvals dated September 25, 1981.

b. AZTEC herewith deposits with FIRST AMERICAN the sum of ten thousand dollars ($10,000) to be held by FIRST AMERICAN.

c. Within sixty days after approval by the CITY of plans for the drainage facilities described above, AZTEC will construct said drainage facilities.

d. Following construction of the drainage facilities by AZTEC and following approval and acceptance of said drainage facilities by the CITY, FIRST AMERICAN will return the full amount of $10,000 to AZTEC.

e. Should AZTEC fail to construct the drainage facilities as described in paragraph c, the CITY shall undertake to construct said facilities and shall submit the invoices for construction to FIRST AMERICAN; upon receipt of said invoices, FIRST AMERICAN shall reimburse the CITY for costs of construction, up to the sum of $10,000.

f. Should the CITY construct the facilities and require reimbursement from FIRST AMERICAN as described in paragraph e, FIRST AMERICAN shall return to AZTEC the difference, if any, between the amount of the invoices presented by the CITY to FIRST AMERICAN and the total escrow sum of $10,000.

IN WITNESS WHEREOF, the parties have executed this Escrow Agreement as of the day and year first above written.

FIRST AMERICAN TITLE COMPANY

By: _____
Title

AZTEC WAREHOUSE LTD.,
A New Mexico Limited Partnership

_____
_____
General Partners

CITY OF ALBUQUERQUE

By: David Rusk
Mayor

REVIEWED BY LEGAL DEPARTMENT

Barbara Stephenson
Assistant City Attorney

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me this 30 day of September, 1981, by P. C. Templeton President, _____ of FIRST AMERICAN TITLE CO. of New Mexico, a New Mexico corporation, on behalf of said corporation.

My commission expires:
5-10-83

Kathleen A. Carrillo
Notary Public

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me this 30th day of Sept., 1981, by Robert D. Davis and Rodolfo Kevin Tiacoat, General Partners, on behalf of AZTEC WAREHOUSE LTD., a New Mexico Limited Partnership.

Notary Public

My Commission Expires:

OFFICIAL SEAL
Signature
WAYNE L. GILBERT
NOTARY PUBLIC NEW MEXICO
Notary Bond Filed with Secretary of State
My Commission Expires: 11-6-81

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me on this 30 day of SEPTEMBER, 1981, by DAVID RUSK, MAYOR, of the City of Albuquerque, a municipal corporation, on behalf of said corporation

Donna H. Hamiga
Notary Public

My Commission Expires:

JULY 2, 1984

First American Title Company

MAIN BRANCH: 2601 Louisiana NE 881-3300

BRANCH: 3736 Eubank Blvd. NE, Suite D-2 292-1595

BRANCH: 3700 Coors NW 831-2370

BRANCH: 501 Tijeras NW, Suite 101 881-3300

Seller's
CLOSING ESCROW STATEMENT

GF # 34,423

Date October 1, 1981

Seller Aztec Warehouse Ltd.

Purchaser New Mexico Physicians Mutual Liability

Re: Lot A Block

Addition Cutter Industrial

Address 2105 Aztec Road

City Albuquerque, New Mexico

	Debits	Credits
Total Purchase Price or Loan Amount		$65,000.00
Down Payment-Closing Cost		
Funds to be escrowed for Drainage	$10,000.00	
~~First Mortgage~~ payoff to Bob Masonry	$59,378.55	
Prior Lien Pay-Off to Linghat	$278,486.11	
Real Estate Contract New Mexico Physicians pays Aztec Warehouse Ltd.	$200,000.00	
Trust Account Balance		
Taxes January 1, 1981 to October 1, 1981	$484.50	
Hazard Insurance Existing policy to be cancelled - Purchaser to furnish new policy		
Mortgage Insurance		
Interest		
Escrow Fee ½ each ($485.00 + $16.98)	$250.99	
Attorney Fee ½ each ($110.00 + $3.85) Julius Wollen	$56.92	
Title Policy: Owners: Re-issue Rate	$1,991.20	
~~Mortgage~~ Title Binder	$20.70	
Loan Transfer Fee		
~~Origination Fee~~ Set up fee ½ each ($75.00) Albuquerque National Bank	$37.50	
Survey Hall Surveying	$104.00	
Credit Report		
Recording ½ each ($9.00)	$4.50	
~~Approx. Int.~~ Rents	$1,029.86	
~~Escrow Exp. Acct.~~ Deposits	$3,927.00	
Commission 4% $25,000.00 plus tax 3.5% $875.00	$25,875.00	
Final Water to be pais to closing by Seller (hold)	$150.00	
Attorney fee to Freeman (692.00) and Cooksey (150.00)	$842.75	
DUE TO SELLER	$47,360.42	
	$625,000.00	$625,000.00

Taxes for the year 1981 are estimated to be $640.00* and the proration hereinabove used is based upon the assesment. The estimate is hereby agreed upon by Buyer and Seller and no liability is assumed by First American Title Insurance Company for any increase or decrease in taxes caused by changed valuations or rates. *based on 1980 taxes

We, the undersigned, hereby approve this statement in its entirety.

FIRST AMERICAN TITLE COMPANY

By _____
Escrow Officer

Exhibit A

DRAINAGE COVENANT

81 52256 340

THIS COVENANT made this 28th day of September, 1981, by and between the City of Albuquerque, a municipal corporation, (City) and AZTEC WAREHOUSE LTD., a New Mexico Limited Partnership, (Owner), which term includes successors and assigns.)

RECITAL

The Owner is owner of certain real property located at 2105 Aztec N.E. in Albuquerque, New Mexico, (the Property) and more particularly described as follows:

Tract A of Replat of Lot 6, Unit 6, Subdivision of a portion of CUTTER INDUSTRIAL PARK, as filed with the Office of the County Clerk of Bernalillo County, New Mexico, on December 12, 1973.

That pursuant to City ordinances, regulations, and other applicable laws, the Owner is required to install and/or maintain certain drainage facilities on the Property, and the parties wish to provide for an agreement as to the obligations and responsibilities for same.

DESCRIPTION OF FACILITIES

The following facilities are to be constructed and/or maintained by the owner: All drainage facilities required by drainage report to be submitted to and approved by the City. Drainage plans will further meet conceptual plans submitted by Michael Emory of Bohannan Huston, Inc., on September 25, 1981. Plans also to be certified by Bohannan Huston, Inc.

CONSTRUCTION OF DRAINAGE FACILITIES

The Owner shall construct the drainage facilities in accordance with standards, plans, and specifications prescribed and approved by the City.

MAINTENANCE OF FACILITIES

The Owner shall, at his cost in accordance with the standards, plans, and specifications prescribed by the City, maintain said drainage facility. The City shall have the right to enter periodically upon the Property to inspect the drainage facility.

FAILURE TO COMPLY AND LIEN

In the event that the Owner shall fail to construct the drainage facility in accordance with standards, plans, and specifications prescribed and approved by the City or fail to adequately maintain said facilities, the City shall give the Owner notice in writing to construct, correct, or maintain said

facilities, and if the Owner fails to comply therewith within sixty (60)* days, the City may enter upon said property to perform the necessary construction or maintenance. The cost of the City's performing such construction or maintenance shall be paid by the Owner. In the event the Owner fails to pay said cost within thirty (30) days after being billed for same, the City may file a lien against the Property.

*Sixty (60) days from City approval of drainage plans.

LIABILITY

The City shall not be liable for any damages to the Owner resulting from its construction, modification, or maintenance of said facilities.

NOTICE

The written notice provided for herein shall be accomplished by mailing same to:

P. C. Templeton
First American Title Co.
P. O. Box 30066
Albuquerque, NM 87110

The Owner may change said address by giving written notice, certified mail, return receipt requested, to the City Engineer, City Hall, at 505 Marquette Street, Albuquerque, New Mexico, 87103.

INDEMNIFICATION AND HOLD HARMLESS

The Owner agrees to defend, indemnify, and hold harmless, the City, its officials, agents and employees from and against any and all claims, actions, suits, or proceedings of any kind brought against said parties for or on account of any matter arising from the drainage facility provided for herein or the Owner's failure to construct, maintain, or modify the drainage facility under this Covenant.

COVENANT RUNNING WITH THE PROPERTY

The obligation of the Owner set forth herein shall be binding upon the Owner, his heirs, and assigns, and the property of the Owner as described herein and will run with said property until released by the City.

OWNER

By: Robert V. Dan

Title: General Partners

REVIEWED BY THE CITY ENGINEERS OFFICE, HYDROLOGY SECTION

BY: Fred Yergin, P.E.

REVIEWED BY THE LEGAL DEPARTMENT:

Barbara Stephenson
Assistant City Attorney

CITY OF ALBUQUERQUE

David Rusk
Mayor

OFFICIAL SEAL
Signature
WAYNE L. GILBERT
NOTARY PUBLIC - NEW MEXICO
Notary Bond Filed with Secretary of State
My Commission Expires: 11/18/81

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me this 30th day of Sept., 1981, by Robert D. Davis and Abdol Karim Liaghat, General Partners, on behalf of AZTEC WAREHOUSE, LTD., a New Mexico Limited Partnership.

OFFICIAL SEAL
Signature
WANDA GRUBBS
NOTARY PUBLIC - NEW MEXICO
Notary Bond Filed with Secretary of State
My Commission Expires: 1-18-81

Notary Public

My Commission Expires:

STATE OF NEW MEXICO)
) ss.
COUNTY OF BERNALILLO)

The foregoing instrument was acknowledged before me this 30 day of SEPTEMBER, 1981, by DAVID RUSK, MAYOR, of the CITY OF ALBUQUERQUE, a municipal corporation, on behalf of said corporation.

Notary Public

My Commission Expires:

JULY 2, 1984

STATE OF NEW MEXICO
COUNTY OF BERNALILLO
FILED FOR RECORD

SEP 30 3 35 PM '81

BK 882 340-342

TENNY ULP
CO. CLERK & RECORDER
DEPUTY

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

September 30, 1981

Michial M. Emery, P.E.
Vice President
Bohannan-Huston Inc.
4125 Carlisle Blvd. N.E.
Albuquerque, New Mexico 87107

RE: Drainage Analysis for Tract A, Lot 6, Unit 6 of Cutter Industrial Park-2105 Aztec Road NE.

Dear Mr. Emery:

The referenced Drainage report is approved with the understanding that your organization will certify compliance with said report. Also, the required construction within City right-of-way will comply with Special Order 19.

If you have any questions regarding this matter feel free to call me at 766-7644.

Sincerely,

Fred Aguirre, P.E.
Civil Engineer/Hydrology

FA/el

cc: Drainage Files
F/Reading

BOHANNAN-HUSTON INC.
ENGINEERS & PHOTOGRAMMETRISTS
4125 CARLISLE BLVD., N.E. ALBUQUERQUE, NEW MEXICO 87107 505 881-2000

September 29, 1981

Mr. Fred Aguirre
Civil Engineer
Hydrology
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Drainage Analysis for Tract A, Lot 6, Unit 6 of Cutter Industrial Park — 2105 Aztec Road, NE

Dear Mr. Aguirre:

In accordance with our discussion on Friday, September 25, 1981, concerning the drainage analysis of the above-referenced lot, I am providing the enclosed analysis for your review. As we discussed, we are making recommendations that will allow the drainage plan and as-built conditions to function properly without flooding the buildings that are presently constructed.

As we discussed, the total discharge from the site, if improved according to these recommendations, will be 1.69 cfs. This is approximately a decrease of one-half from the total discharge of developed conditions if the site were to discharge freely to Aztec Road. In our opinion, this appears to be a reasonable solution to the existing drainage conditions that exist on the site.

If you should have any questions concerning this matter, please feel free to contact this office.

Sincerely yours,

Michial M. Emery

Michial M. Emery, P.E.
Vice President

Enclosure

cc: Mr. Larry W. Davis
Mr. Robert D. Davis
Mr. Tim Russell

Certified Special

MME/js
Job No. 1 143 0

DRAINAGE ANALYSIS
FOR
TRACT A, LOT 6, UNIT 6
CUTTER INDUSTRIAL PARK
2105 AZTEC ROAD, NE
ALBUQUERQUE, NEW MEXICO

PREPARED FOR

Mr. Robert D. Davis
Mr. Larry W. Davis
Aztec Warehouse Ltd.
2105 Aztec Road, NE
Albuquerque, NM 87107

PREPARED BY

Bohannan–Huston, Inc.
4125 Carlisle Blvd., NE
Albuquerque, NM 87107

Michial M. Emery, P.E.
N.M.P.E. No. 5194

STATE OF NEW MEXICO
MICHIAL M. EMERY
No. 5194
9-29-81
REGISTERED PROFESSIONAL ENGINEER

Job No. 1 143 0

TABLE OF CONTENTS

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HYDROLOGY	1
EXISTING DRAINAGE	1
RECOMMENDATIONS	3

INTRODUCTION

The purpose of this report is to analyze the existing runoff from a lot at 2105 Aztec Road, NE, Albuquerque, New Mexico. Recommendations to avoid future flooding within this site are also presented.

PROJECT LOCATION

The lot is located at 2105 Aztec Road, NE, within the Cutter Industrial Park, and is further described as Tract A, Lot 6, Unit 6.

The site contains approximately 1.2 acres of developed land.

HYDROLOGY

Peak runoff rates were determined by the Rational Formula for a 100-year, 6 hour storm. Rainfall intensities were computed from curves presented in the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) Resolution 1980-15 for the Albuquerque area. Detention basin volume capacities were calculated based on the Modified Rational Method Analysis, as presented in ***Practices in Detention of Urban Storm Water Runoff***, prepared by the American Public Works Association. Computations are provided in the Appendix.

EXISTING DRAINAGE

The site contains two impervious detention ponds which also serve as driveway, parking and outdoor storage areas. Two 60'x120' buildings also occupy the site. Less than ten percent of the site is landscaped, however these areas have been underlayed with plastic which allows little or no infiltration (see Figure I for the site layout).

The current rooftop runoff collection system distributes flows to the two ponding areas. The northern ponding area receives the major portion of rooftop runoff, approximately 87 percent, while the central ponding area receives the remainder.

EXPECTED RUNOFF VOLUMES

Source	Area	Coefficient		Rainfall	Volume
Rooftop	(2) 10,485 Ft^2 x	.9	x	(2.4" ÷12) =	3,775 Ft^3
Pavement	12,350 Ft^2 x	.95	x	(2.4" ÷12) =	2,347 Ft^3
	Volume Flowing to Northern Ponding Area				6,122 Ft^3
Rooftop	(2) 1,515 Ft^2 x	.9	x	(2.4" ÷12) =	545 Ft^3
Pavement	12,750 Ft^2 x	.95	x	(2.4" ÷12) =	2,423 Ft^3
	Volume Flowing to Central Ponding Area				2,968 Ft^3

Detention pond volumes were calculated to a maximum elevation equal to the finished floor grade of the Western Building (Elev. = 79.9). Based on this elevation the volumes of the two ponding areas are as follows:

Northern Pond = 1,704 Ft^3

Central Pond = 2,103 Ft^3

See Appendix A–1 through A–3.

The outlet of the northern pond is a 4" cast iron drain to Aztec Road, with a discharge capacity of 0.08 cfs. Two "V" notch weirs exist as outlets from the central pond. The weir to the east of the driveway pad will not receive flow as currently graded. The weir to the west of the driveway pad has a discharge of 0.82 cfs (see Appendix A–4).

Based on the Modified Rational Method Analysis, the northern ponding area does not have a sufficient storage/discharge ratio to avoid flooding of the western building. The central basin has more than adequate capacity to discharge the currently contributing flows (see Appendix A–5 through A–8).

RECOMMENDATIONS

Various combinations were considered to eliminate flooding within this site. Analysis of the northern basin shows that the detention/discharge ratio is not sufficient enough to handle even the rainfall that falls on the basin itself, and that an additional 241 Ft^3 of additional storage is needed (see Appendix A–9).

Recommendations for this area are as follows:

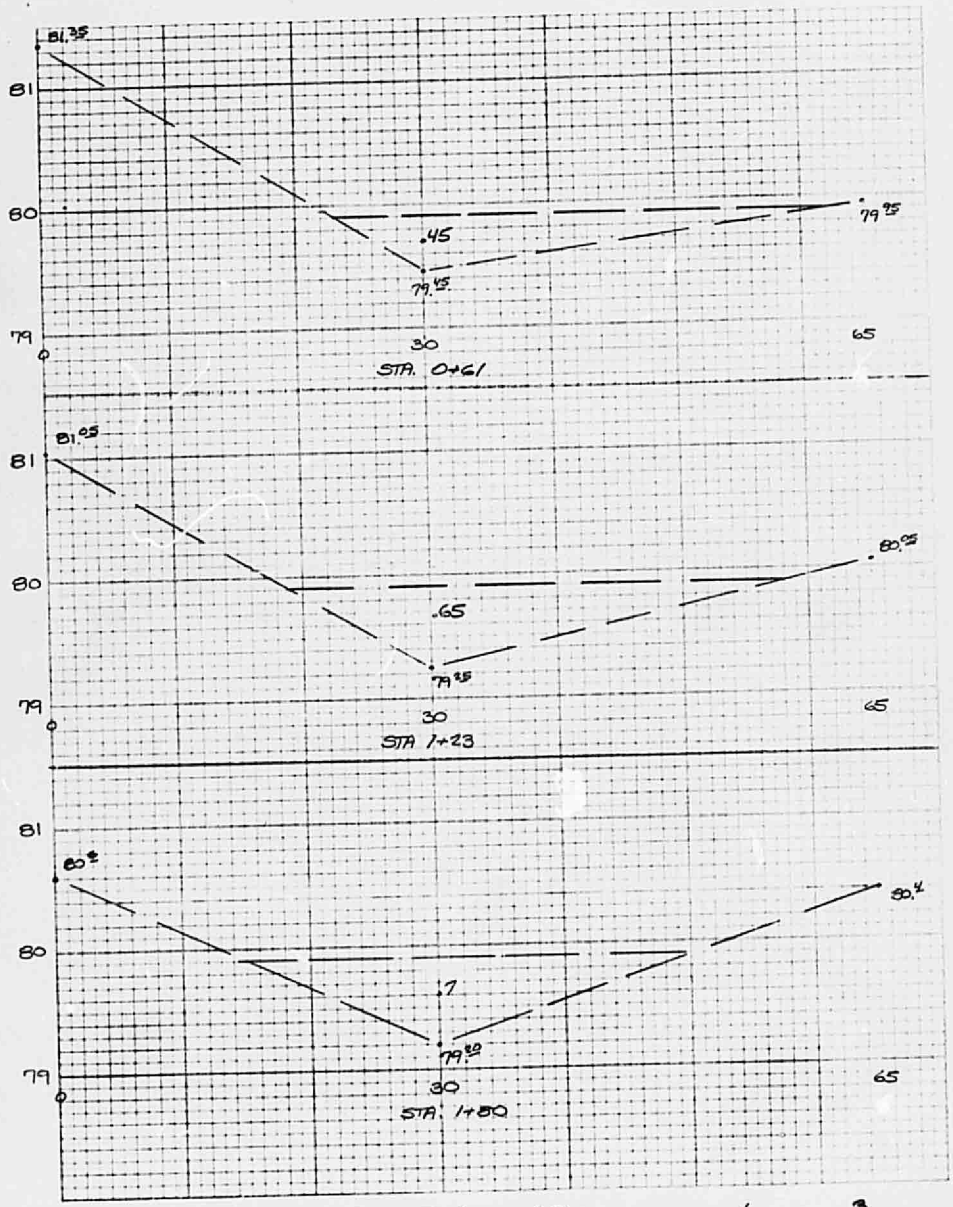
1. Change direction of the two rooftop downspouts to allow them to drain to the central ponding area.
2. Construct a Bituminous "Speed Bump" berm to elevation 80.1 along the north side of both buildings and along the fence between the buildings. This will increase the ponding capacity to the necessary volume, and prevent flooding of the buildings.
3. Clean and periodically maintain the sump below the 4" cast iron discharge. This will act as a sediment trap to avoid plugging the discharge pipe, and should be kept clean to allow water below the invert to infiltrate into the ground.

The central basin was analyzed, assuming that it will receive all rooftop discharges. The expected runoff volume is 6,743 Ft^3 (see Appendix A–10). The discharge to the street, required to avoid flooding, is 1.61 cfs (see Appendix A–11). Combining this with the discharge from the northern ponding area, the total discharge to Aztec Road is 1.69 cfs (see Appendix A–12). This discharge was approved by the City of Albuquerque, by Fred Aguirre (Civil Engineer, Hydrology), at a meeting on Friday, September 25, 1981.

Recommendations for this area are as follows:

1. Change direction of the two rooftop downspouts to allow them to discharge to the central ponding area, as mentioned under recommendations for the northern ponding area.

2. Upgrade the "V" notch on the west side of the driveway pad to a 1.1' curb cut, and construct a channelized rundown to the street. This will require a sidewalk cut of the same width, with a steel plate covering (see Appendix A–12).

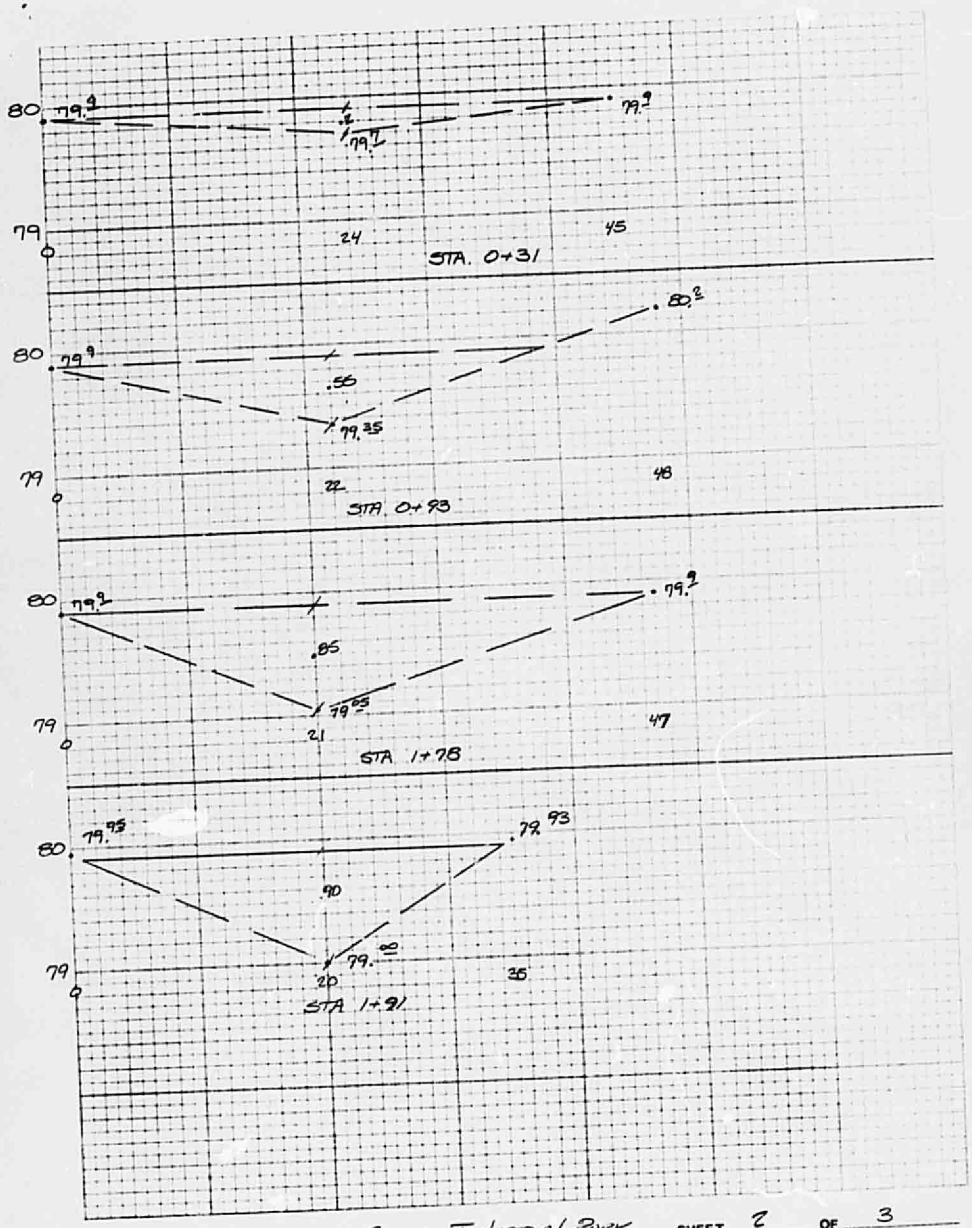


PROJECT NAME Cutter Industrial Park SHEET 1 OF 3

PROJECT NO. 11430 BY DBG DATE 9/23/81

SUBJECT Northern Ponding Area - Sections CH'D DATE

A-1



PROJECT NAME Cutter Industrial Park SHEET 2 OF 3

PROJECT NO. 11430 BY DBG DATE 9/23/81

SUBJECT Central Ponding Area - Sections CH'D DATE

A-2

PONDING AREA VOLUMES

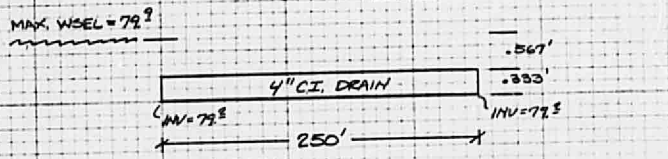
NORTHERN POND

STATION	AREA	VOLUME
0+00	0	0
0+61	8.76 FT^2	267.2 FT^3
1+23	12.68	931.8
1+80	12.25	1642.3
1+90	0	1703.6

CENTRAL POND

0+00	0	0
0+31	4.5 FT^2	69.8 FT^3
0+93	10.73	541.9
1+78	19.98	1847.1
1+91	14.85	2073.5
1+95	0	2103.2

ANALYSIS OF DISCHARGES (EXISTING CONDITIONS)



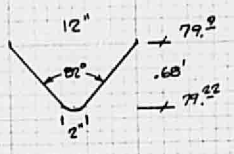
HYDRAULIC SLOPE = .0023

ASSUME MANNING'S N = .015

$$Q = \frac{0.463}{n} D^{8/3} S^{1/2}$$

$$Q = \frac{0.463}{.015} (.333)^{8/3} .0023^{1/2}$$

$Q = 0.0789$ CFS ← DISCHARGE FROM 4" C.I. DRAIN TO STREET



CONCRETE

$$Q = C_1 H^{5/2} \tan \frac{\theta}{2}$$

$$Q = 2.48 (.68)^{5/2} \tan \frac{82°}{2}$$

$Q = 0.822$ CFS

DISCHARGE FROM "V" NOTCH, WEST SIDE OF DRIVEWAY PAD.

$H = .68'$
$\theta = 82°$
$C_1 = 2.48$ *

* C_1 VALUE FROM "STANDARD HANDBOOK FOR CIVIL ENGINEERS" 2nd Edition Fig. 21-62.

PROJECT NAME		SHEET	OF
PROJECT NO.	11430	BY DBG	DATE 09/23/81
SUBJECT		CH'D	DATE

NORTHERN BASIN (EXISTING CONDITIONS)

FLOWS CALCULATED BY RATIONAL METHOD $Q = CiA$

WEIGHTED "C" = 0.9185

$i \rightarrow$ VARIES

A = 0.765 ACRES

AREA	"C"	
(2)10,485	× .9	= 18,873
12,350	× .95	= 11,732.5
33,320		30,605.5

30,605.5 ÷ 33,320 = .9185

STORM DURATION (MINS)	RAINFALL INTENSITY (IN/HR)	Q (CFS)	RUNOFF VOLUME (FT^3)	RELEASE VOLUME (FT^3)	REQUIRED STORAGE VOLUME (FT^3)
10	5.9	4.15	2,490	47.3	2,443
20	4.35	3.06	3,672	94.7	3,577
30	3.5	2.46	4,428	142.0	4,286
40	2.9	2.04	4,896	189.0	4,707
50	2.5	1.76	5,280	236.7	5,043
60	2.25	1.58	5,688	284.0	5,404
70	1.975	1.39	5,838	331.4	5,507
80	1.8	1.26	6,048	378.7	5,669
90	1.625	1.14	6,156	426.1	5,730
100	1.525	1.07	6,420	473.4	5,947
110	1.425	1.00	6,600	520.7	6,079
120	1.325	0.93	6,696	568.1	6,128

PONDING VOLUME = 1,703.6 FT^3

EXPECTED RUNOFF VOLUME = 6,122 FT^3

RELEASE VOLUME BASED ON 0.0789 CFS DISCHARGE

PROJECT NAME

PROJECT NO. 11430

SUBJECT NORTHERN PONDING AREA – FLOW INCLUDING BOTH 1 BACK ROOFTOPS

SHEET 1 OF 2

BY DBG DATE 7/23/81

CH'D DATE

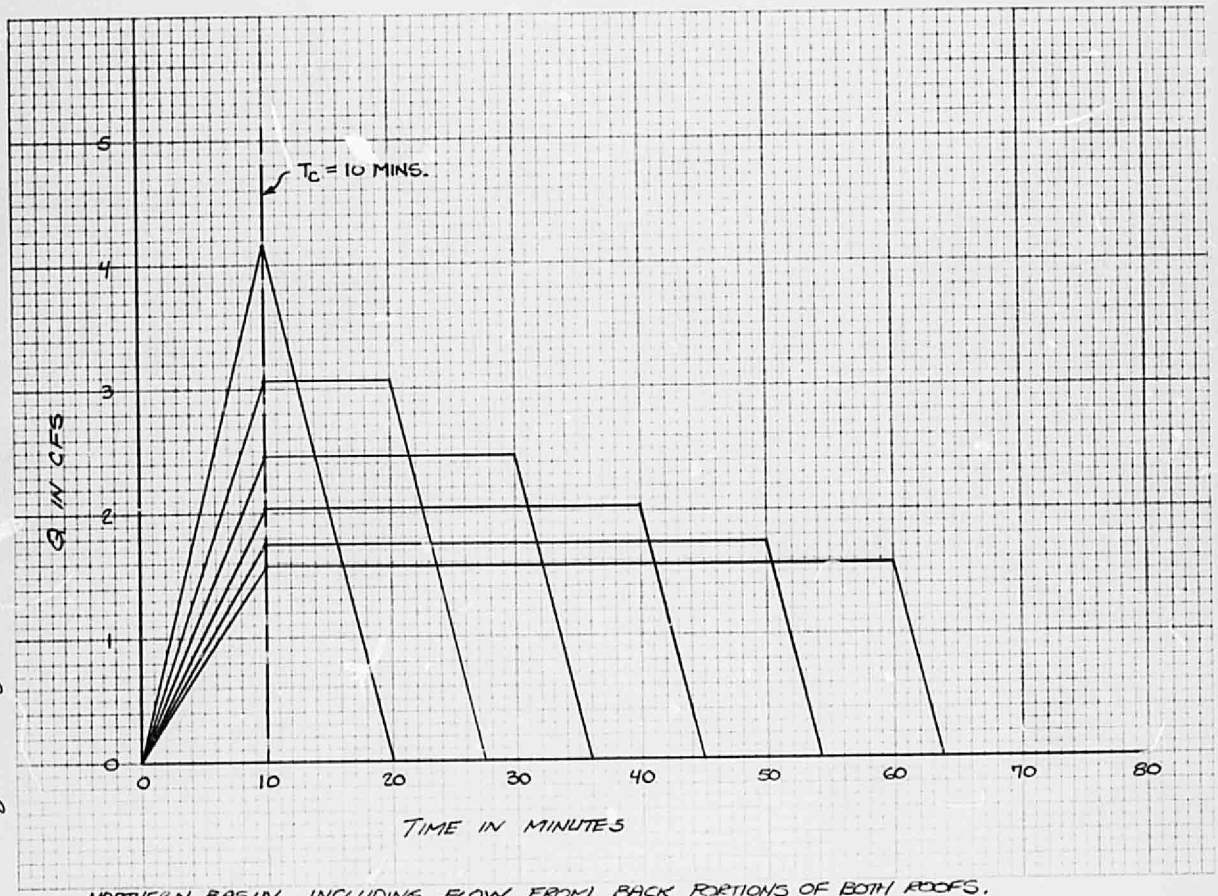
A-5

PROJECT NAME _____ SHEET 2 OF 2

PROJECT NO. 11430 BY DBG DATE 9/23/81

SUBJECT MODIFIED RATIONAL METHOD HYDROGRAPHS CH'D _____ DATE _____

NORTHERN BASIN



NORTHERN BASIN, INCLUDING FLOW FROM BACK PORTIONS OF BOTH ROOFS.

A-6

CENTRAL BASIN (EXISTING CONDITIONS)

FLOWS CALCULATED BY RATIONAL METHOD $Q = CiA$

WEIGHTED "C" = 0.9404
i → VARIES
A = 0.362 ACRES

AREA	"C"
(2) 1,515 ×	.9 = 2,727
12,750 ×	.75 = 12,112.5
15,780	14,839.5

14,839.5 ÷ 15,780 = .9404

STORM DURATION (MINS)	RAINFALL INTENSITY (IN/HR)	Q (CFS)	RUNOFF VOLUME (FT^3)	RELEASE VOLUME (FT^3)	REQUIRED STORAGE VOLUME (FT^3)
10	5.9	2.01	1,206	493.2	713
20	4.35	1.48	1,776	986.4	790
30	3.5	1.19	2,142	1479.6	662
40	2.9	0.99	2,376	1972.8	403.
50	2.5	0.85	2,550	2466.0	84
60	2.25	0.77	2,772	2959.2	-0-
70	1.975	0.67	2,814		
80	1.8	0.61	2,928		
90	1.625	0.55	2,970		
100	1.525	0.52	3,120		
110	1.425	0.49	3,234		
120	1.325	0.45	3,240		

POND [illegible] VOLUME = 2103.2 FT^3

RELEASE VOLUME BASED ON 0.822 CFS DISCHARGE

EXPECTED RUNOFF VOLUME = 2968 FT^3

PROJECT NAME
PROJECT NO. 11430
SUBJECT

SHEET ___ OF ___
BY DBG DATE 9/23/81
CH'D ___ DATE ___

A-7

BASIN NORTHERN, NO FLOW FROM ROOFTOPS

FLOWS CALCULATED BY RATIONAL METHOD $Q = CiA$

WHERE;

$C = 0.95$

i → VARIES WITH TIME

$A = 12{,}350\ FT^2 = 0.2835$ ACRES (SEE APPENDIX A-4)

RELEASE VOLUME BASED ON 0.0789 CFS DISCHARGE

STORM DURATION (MINS)	RAINFALL INTENSITY (IN/HR)	Q (CFS)	RUNOFF VOLUME (FT^3)	RELEASE VOLUME (FT^3)	REQUIRED STORAGE VOLUME (FT^3)
10	5.9	1.59	953.4	47.3	906.1
20	4.35	1.17	1,405.9	94.7	1,311.2
30	3.5	0.94	1,696.8	142.0	1,554.8
40	2.9	0.78	1,874.5	189.4	1,685.1
50	2.5	0.67	2,019.9	236.7	1,783.2
60	2.25	0.61	2,181.5	284.0	1,897.5
70	1.975	0.53	2,234.1	331.4	1,902.7
80	1.8	0.48	2,327.0	378.7	1,948.3
90	1.625	0.44	2,363.3	426.1	1,937.2
100	1.525	0.41	2,464.3	473.4	1,990.9
110	1.425	0.38	2,533.0	520.7	2,012.3
120	1.325	0.36	2,569.4	568.1	2,001.3

EXPECTED RUNOFF VOLUME = 2,347 FT^3

HOLDING VOLUME 1704.16 FT^3 (FROM APPENDIX A-3)

ASSUME REQUIRED STORAGE = 1945 FT^3

1945 FT^3
− 1704 FT^3
→ 241 FT^3

ADDITIONAL STORAGE NEEDED.

PROJECT NAME _____ SHEET ____ OF ____

PROJECT NO. 11430 BY DBG DATE 9/24/81

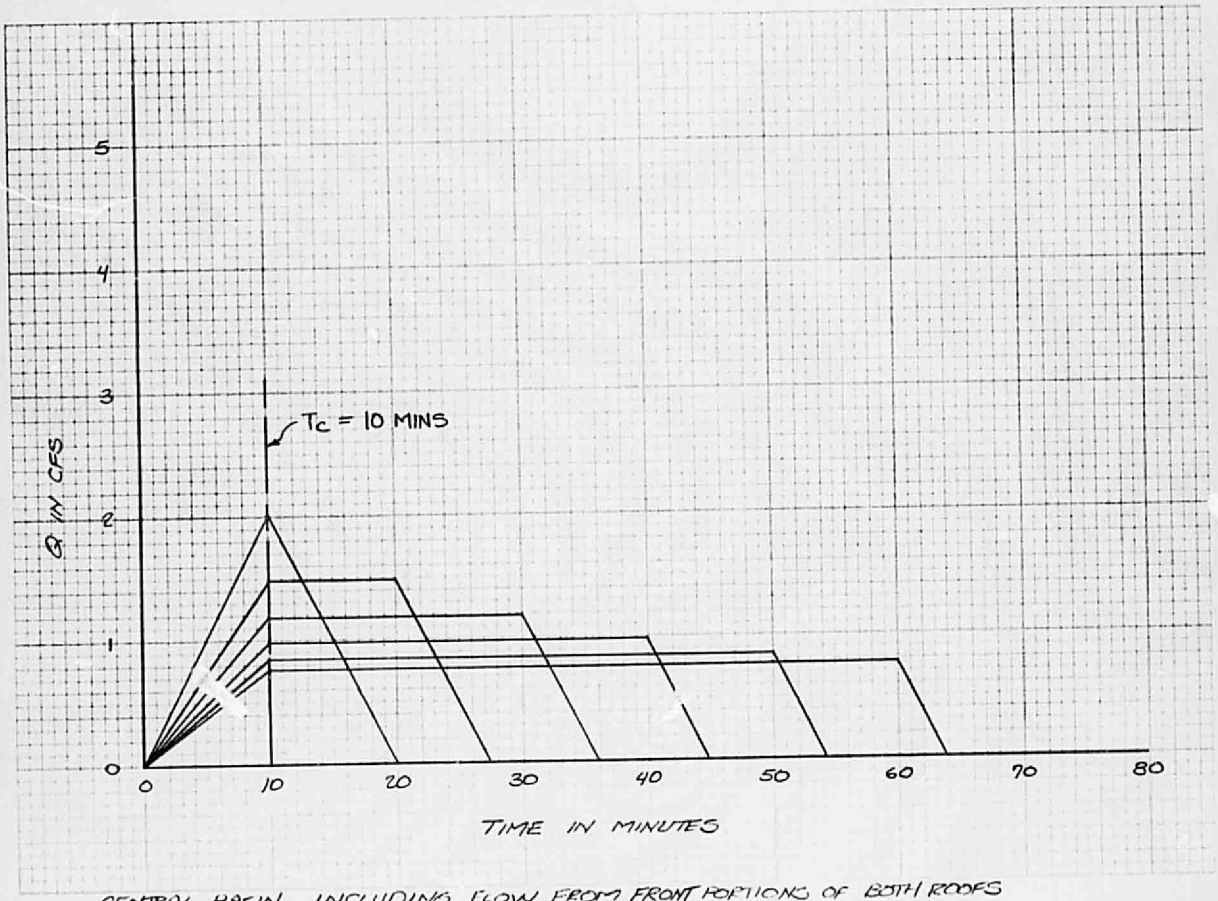
SUBJECT _____ CH'D ____ DATE ____

PROJECT NAME _____ SHEET _____ OF _____

PROJECT NO. 11430 BY DBS DATE 9/23/81

SUBJECT MODIFIED RATIONAL METHOD HYDROGRAPH-CH'D _____ DATE _____

CENTRAL BASIN



CENTRAL BASIN, INCLUDING FLOW FROM FRONT PORTIONS OF BOTH ROOFS

A-8

ANALYSIS OF CENTRAL BASIN, WITH UNCONTROLLED FLOW FROM ALL ROOFTOPS.

WEIGHTED "C" FACTOR

AREA		"C"		
12,750	×	.95	=	12,112.5
24,000	×	.9	=	21,600
36,750				33,712.5

33,712.5 ÷ 36,750 = 0.9173 ← WEIGHTED "C"

EXPECTED RUNOFF VOLUME

ROOF AREAS → 24,000 FT^2 × .9 COEFF × 2.4"/12 RAINFALL = 4,320 FT^3

PAVED AREAS → 12,750 FT^2 × .95 COEFF × 2.4"/12 RAINFALL = 2,423 FT^3

6,743 FT^3

BASIN CENTRAL, WITH UNCONTROLLED FLOW FROM ALL ROOFTOPS

FLOWS CALCULATED BY RATIONAL METHOD $Q = CiA$

WHERE;

$C = 0.9173$ (WEIGHTED)

$i \rightarrow$ VARIES WITH TIME

$A = 36{,}750\ FT^2 = 0.8437$ ACRES

STORM DURATION (MINS)	RAINFALL INTENSITY (IN/HR)	Q (CFS)	RUNOFF VOLUME (FT^3)	EXISTING STORAGE VOLUME (FT^3)	REQUIRED RELEASE VOLUME (FT^3)	REQUIRED Q TO RELEASE VOLUME (CFS)
10	5.9	4.57	2,739.7	2103	636.7	1.06
20	4.35	3.37	4,039.9	↓	1936.7	1.61 ←
30	3.5	2.71	4,875.7		2772.7	1.54
40	2.9	2.24	5,386.5		3283.5	1.37
50	2.5	1.93	5,804.5		3701.5	1.23
60	2.25	1.74	6,268.8		4165.8	1.16
70	1.975	1.53	6,419.7		4316.7	1.03
80	1.8	1.39	6,686.7		4583.7	0.96
90	1.625	1.26	6,791.2		4688.2	0.87
100	1.525	1.18	7,081.4		4978.4	0.83
110	1.425	1.10	7,278.8		5175.8	0.78
120	1.325	1.03	7,383.3		5280.3	0.73
			EXPECTED RUNOFF VOLUME = 6,743 FT^3			

PROJECT NAME

PROJECT NO. 11430

SUBJECT

SHEET OF

BY DBG DATE 09/24/81

CH'D DATE

A-11

ANALYSIS OF DISCHARGES (RECOMMENDED CONDITIONS)

REQUIRED DISCHARGE FROM CENTRAL BASIN = 1.61 CFS

WEIR NEEDED TO DISCHARGE 1.61 CFS

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

$Q = 1.61$ CFS

$C = 2.63$

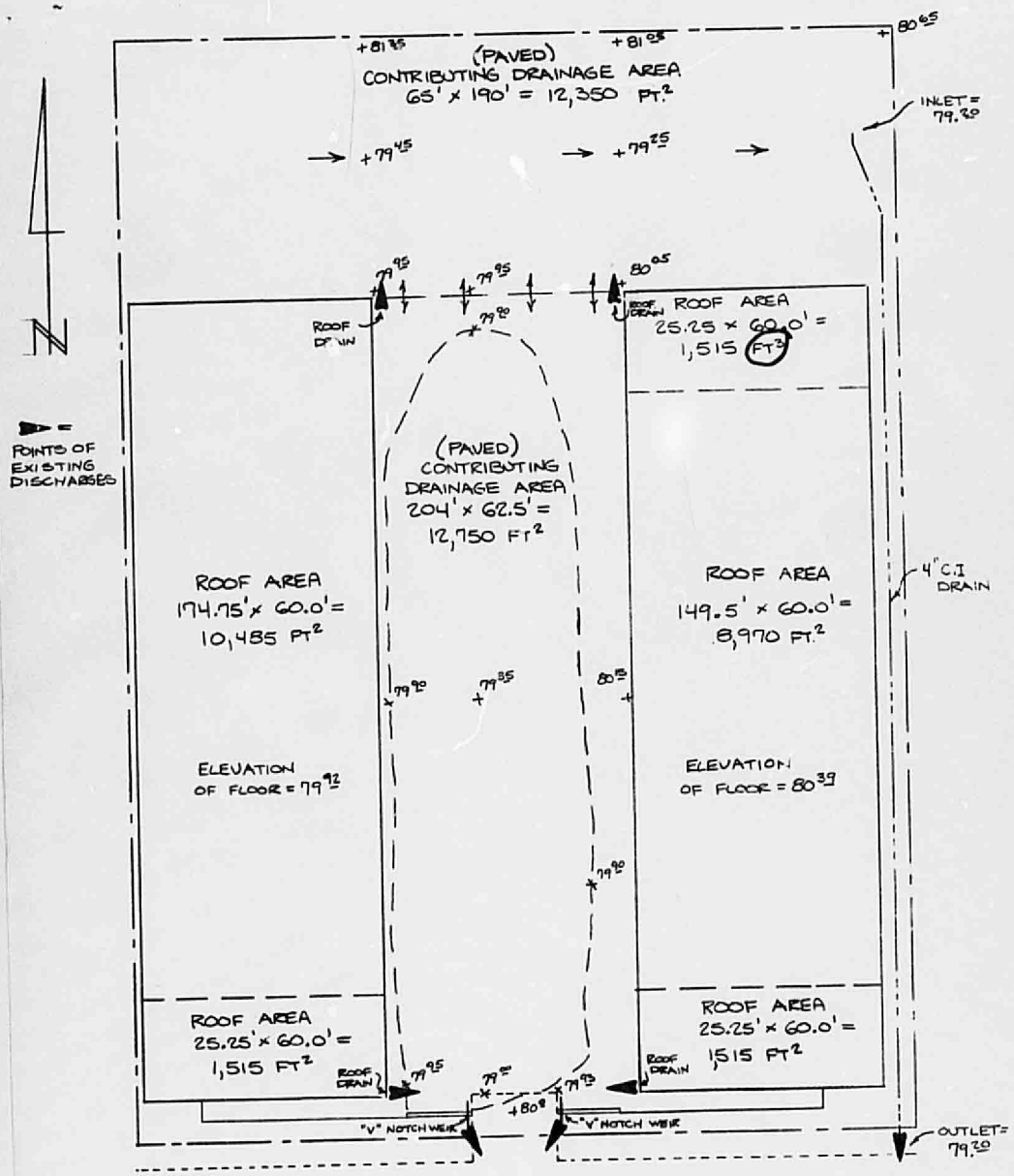
$H = 0.68$

$161 = 2.63\,(L)\,.68^{3/2}$

$L = 1.09'$ WEIR LENGTH

TOTAL DISCHARGE TO STREET

CENTRAL BASIN ~ WEIR FLOW	= 1.61 CFS
NORTHERN BASIN ~ 4" C.I. DRAIN	= 0.08 CFS
	1.69 CFS



2105 AZTEC ROAD, N.E.

FIGURE I

ENGINEERS & PHOTOGRAMMETRISTS

BOHANNAN-HUSTON INC.

4125 CARLISLE BLVD., N.E. ALBUQUERQUE, NEW MEXICO 87107 505 881-2000

September 30, 1981

Aztec Warehouse Ltd.
2105 Aztec Road, NE
Albuquerque, NM 87107

Attention: Mr. Robert D. Davis and Mr. Larry W. Davis

Re: Sidewalk Cut in Front of the Aztec Warehouse, Required to Come into Conformance with the Approved Drainage Plan

Gentlemen:

In order to follow proper administrative procedures, with respect to the sidewalk cut that must be constructed in front of the Aztec Warehouse, I am sending you a copy of Special Order No. 19 from the City Engineer's office. We suggest that before any construction occurs, to bring the project in conformance with the approved drainage report, that the procedures in Special Order No. 19 be followed for the construction of the sidewalk cut in the front of the project.

If you should have any questions concerning this matter, please feel free to contact this office.

Sincerely yours,

Michial M. Emery

Michial M. Emery, P.E.
Vice President

Enclosure

cc: Mr. Tim Russell
Mr. Fred Aguirre

MME/js
Job No. 1 143 0

2105 Aztec N.E.

Drainage plan approved 4-16-81 will be checked out by Mr. John Bettis P.E & L.S for use to update required asbuilt drainage plan at 2105 Aztec N.E. It is his understanding that the plan will be returned when he is finished with it.

J M Bettis
Signature

9-21-81
Date

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

MAYOR
David Rusk

March 25, 1981

J.W. Bettes
Enchantment Engineering, Inc.
1517 Eubank NE
Albuquerque, New Mexico 87112

RE: 2105 AZTEC DRIVE NE

Enclosed is a copy of your revised grading plan with my comments for the referenced address.

Please revise and resubmit the drainage plan for my review.

Sincerely,

Fred J. Aguirre, P.E.
Civil Engineer

FJA:am

FORM B-13 S. D. # 6185

CITY OF ALBUQUERQUE

CITY ENGINEER

Phone: 766-7441

THIS PERMIT MUST BE POSTED
IN A CONSPICUOUS PLACE ON THE JOB.

Permit No. B9902 Date 5-6-86

Location 2105 Aztec, NE

Owner Bob Davis Masonry

Contractor Chavez Concrete

Sidewalk 164' Date 5-6-86

Curb and Gutter 32'

Driveway

Drive Pad 26'

Miscellaneous

Remarks

NOTICE

Licensed and Bonded Contractors are required for all sidewalk, drivepad, & curb & gutter work. Special permits are required.

RECEIVED
MAR 2 1 1986
RECEIVED

CITY OF ALBUQUERQUE SD 6185
CITY ENGINEER

APPLICATION AND PERMIT FOR CONSTRUCTION

W.O. No. _____ Date 5/6/80 Fee $ 10.25 Cr. 443008-5253000

ADDRESS 2105 Atec, NE

Nearest Cross Street _____

Lot No. _____ Blk. No. _____

SUBDIVISION _____ 443008 5253000 4C $10.25 AM

PERMITTEE _____ TJ 06-12-80 777 + 132 0006 XX

CONTRACTOR Chavez Concrete

	WIDTH	LENGTH
Sidewalk		163'
Curb & Gutter		32'
Drivepad		26'
Miscellaneous		

I hereby acknowledge that I have read this application and state that the above is correct and agree to comply with all City and State laws regulating excavations. I am also bonded to the City of Albuquerque as required by the Albuquerque Sidewalk Ordinance. The issuance of a permit shall not prevent the Engineering Division from thereafter requiring correction of errors.

Signature of Permittee _____

By _____

POST PERMIT CARD IN A CONSPICUOUS PLACE

NOTICE: THIS PERMIT IS NOT VALID UNTILL FEE IS PAID

PERMIT TO EXCAVATE, CITY OF ALBUQUERQUE DATE 5/6/80 B 9908

LOCATION

2105 Aztec, NE

SW XX	OP XX	C&G XX	CC OK TRAFFIC XX	SEWER TAP	SEWER EXT.	WATER CUT	WATER EXT.
NEW SERVICE	NEW YD. LINES	B/W CURBS	OTHER:				
SW. 4'	8'	TO PROPERTY	CURB	CITY TO RESURFACE: YES	NO		
LENGTH	WIDTH	TOTAL	NO. OF EX.	PAVED	UNPAVED		
STARTING DATE 5/6/80		COMPL. DATE 6/6/80		PERMIT EXPIRES 5/16/80			
INSURANCE EXP. 5/23/80		BOND EXPIRES 12/80		SAW CUT: YES XX	NO		
QUALIFIED: Ed Z. Chavez							

443008 5253000 AC
$2.50 AM
443008-5253000 XX
Cr. XXXXXXXXXXX

Excavation Fee $ 2.50 06-MA-80 Cr. XXXXXXXXXXX

Restoration Fee Required	YES	NO	BY
		XX	gm

Restoration Fee _____ Cr. 461601 - 8233000

PERMIT IS APPROVED FOR WORK DESCRIBED ABOVE IN ACCORDANCE WITH CITY ORDINANCE NO. 8—1978

State License	Date	City License	Date

APPLICANT	ADDRESS	PHONE NO.
Chavez Concrete	R 4825 Jefferson, NE	881-1330

SIGNATURE

APPROVED

CITY ENGINEER gm

Permit is granted in consideration of the permittee assuming all liability, defending and holding the City harmless for claims for damages or injury to persons or property resulting from permittee's excavation work.

CONTR. _____ CODE _____

CAUTION. PROTECT UNDERGROUND UTILITIES.
CALL 765-1234, 48 HOURS IN ADVANCE FOR LINE STAKING

DATE: 5/6/80

CITY OF ALBUQUERQUE

NO: _____

TRAFFIC ENGINEERING DIVISION

BARRICADING OR DETOURING PERMIT

LOCATION: 2105 Aztec

CONTRACTOR/CO.: Chavez Concrete

BARRICADING CO.: Warning Lites

FROM: 5/7/80 (Date & Time) TO: 5/9/80 (Date & Time)

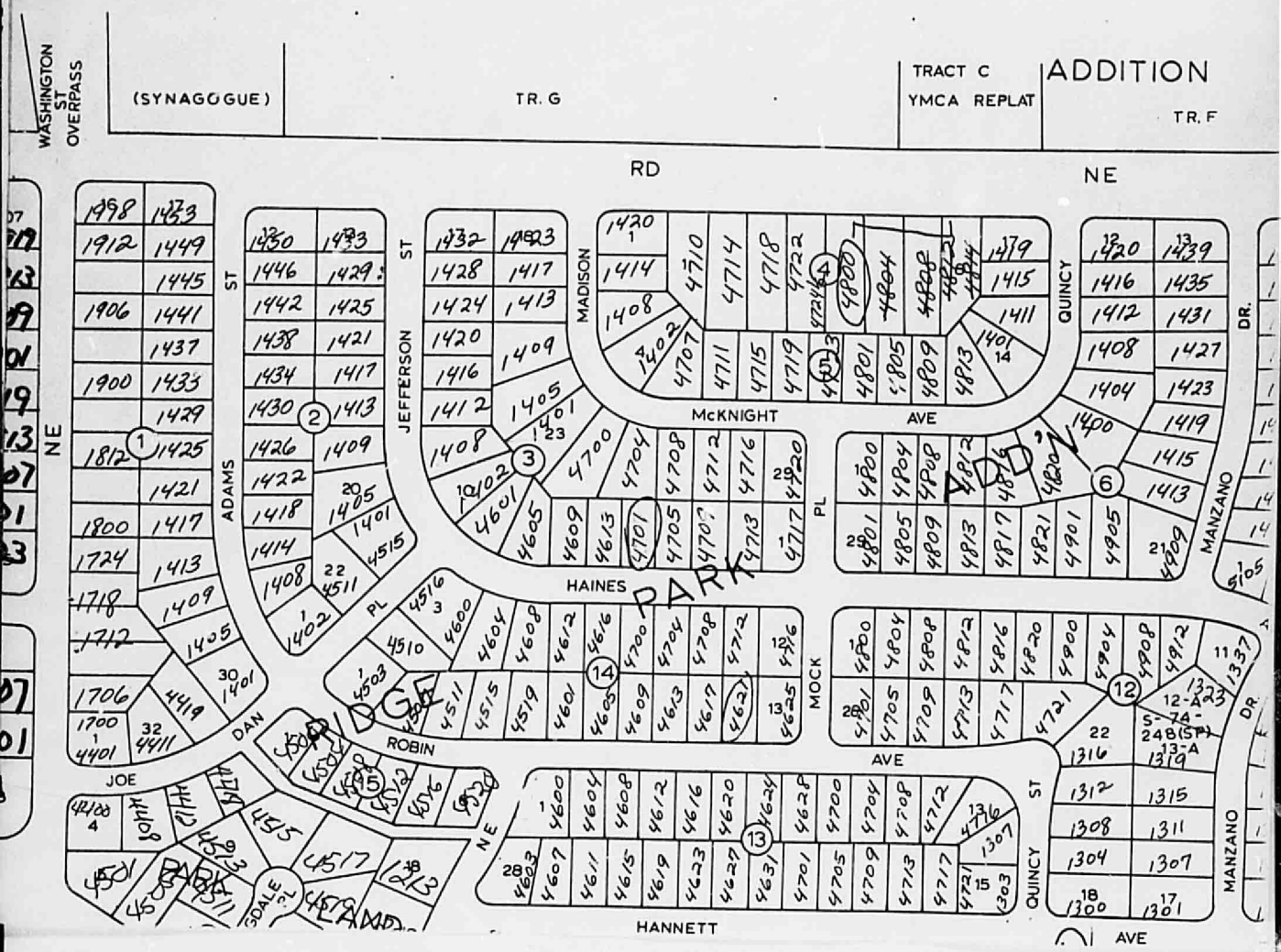
DETOUR PLAN SUBMITTED - (YES) _____ (NO) ✓

DESCRIPTION OF JOB: ~~Curb & Gutter~~, sidewalk

26' of Curb cut Curb & Gutter
163' of city walk

Permit holder must conform to all applicable City regulations/ordinances and to the latest revisions of the Manual on Uniform Traffic Control Devices,

APPROVED: TW Kennedy


WASHINGTON ST OVERPASS
(SYNAGOGUE)
TR. G
TRACT C
YMCA REPLAT
ADDITION
TR. F
RD
NE
ADAMS ST
JEFFERSON ST
MADISON
McKNIGHT
AVE
QUINCY
MANZANO
DR.
HAINES
PL
MOCK
ROBIN
DAN
JOE
SDALE PL
HANNETT
QUINCY ST
MANZANO
AVE
PARK
RIDGE
PARK
ADD'N

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

MAYOR
David Rusk

February 20, 1981

Richard Hall
Hall Surveying Company
2625 Pennsylvania N. E.
Albuquerque, NM 87110

Re: Grading Plan for 2105 Aztec Dr. N. E.

Dear Mr. Hall:

You will find enclosed a copy of the grading plan with my comments for the referenced site.

Should you have any questions, do not hesitate to contact me.

Very truly yours,

Fred J. Aguirre

Fred J. Aguirre
Civil Engineer
Engineering Division
766-7644

FJA:pp

Enclosure