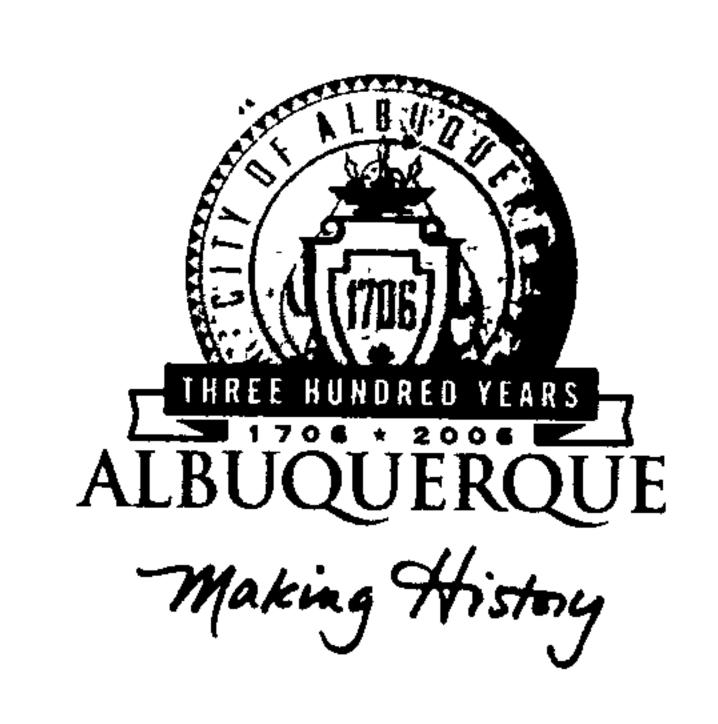
CITY OF ALBUQUERQUE



August 6, 2004

Mr. Greg Krenik, P.E.

MARK GOODWIN & ASSOCIATES
P.O. Box 90606

Albuquerque, NM 87199

Re: OFFICE OF THE INSPECTOR GENERAL

8909 ADAMS ST. NE

Approval of Permanent Certificate of Occupancy (C.O.)

Engineer's Stamp dated 08/06/2003 (C-17/D116)

Certification dated 08/05/2004

P.O. Box 1293

Dear Greg,

Albuquerque

Based upon the information provided in your submittal received 08/05/2004, the above referenced certification is approved for release of Permanent Certificate of Occupancy by Hydrology

Sincerely,

New Mexico 87103

If you have any questions, you can contact me at 924-3982.

www.cabq.gov

Arlene V. Portillo

Plan Checker, Planning Dept. - Hydrology

Development and Building Services

BLB

C: Phyllis Villanueva

File



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 27, 2003

Gregory J. Krenik, PE Mark Goodwin & Associates P.O. 90606 Albuquerque, NM 87199

Re: Office of the Inspector General Drainage Report

Engineer's Stamp dated 8-6-03 (C17/D116)

4

Dear Mr. Krenik,

Based upon the information provided in your submittal dated 8-12-03, the above referenced report is approved for Building Permit. Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

This project requires a National Pollutant Discharge Elimination System (NPDES) permit. Refer to the attachment that is provided with this letter for details. If you have any questions please feel free to call the Public Works Hydrology section at 768-3654 (Charles Caruso) or 768-3645 (Brian Wolfe).

Also, prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

If you have any questions, you can contact me at 924-3986

Sincerely,
Bruill . B.

Bradley L. Bingham, PE

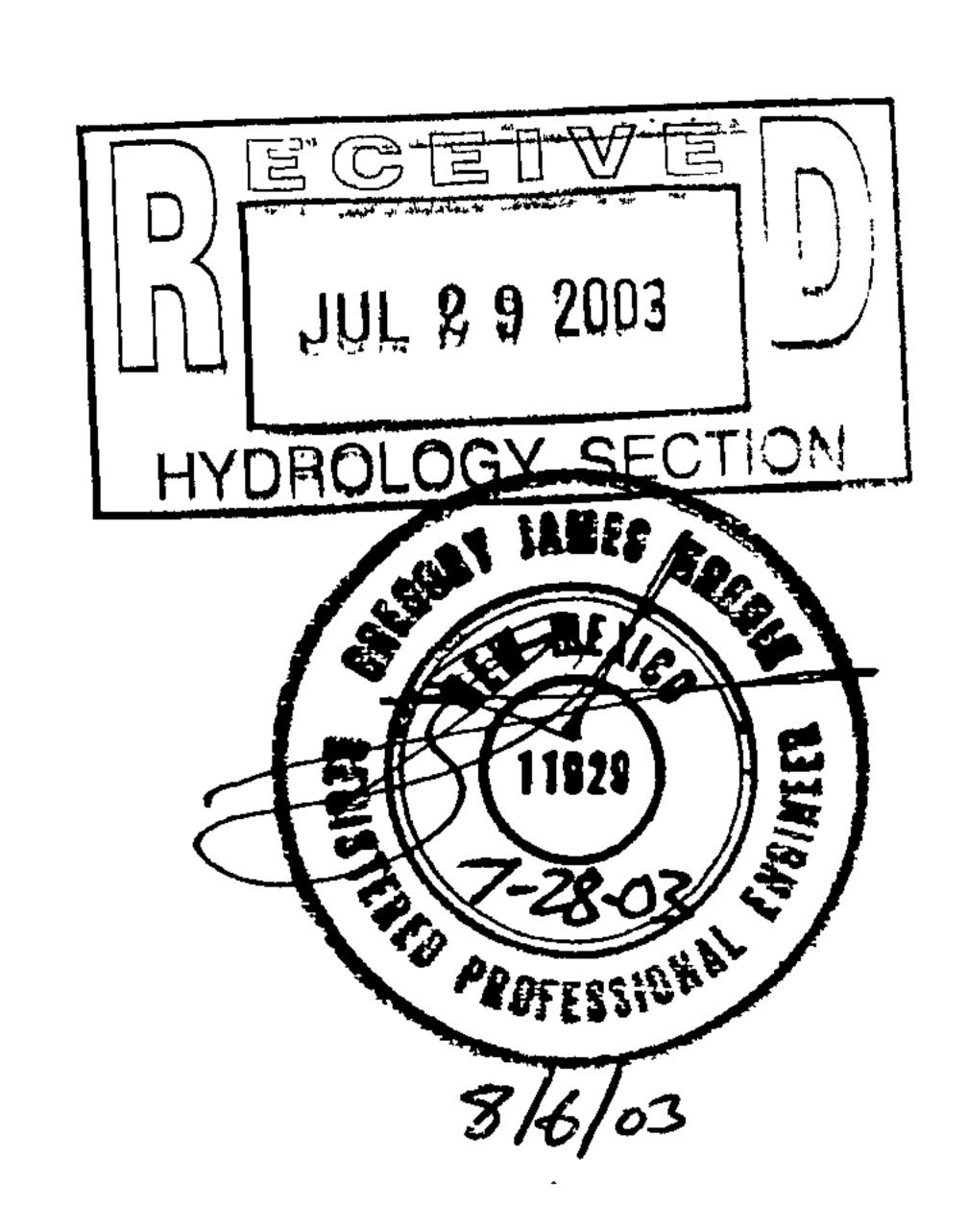
Sr. Engineer, Planning Dept.

Development and Building Services

C: Chuck Caruso, CoA file

DRAINAGE REPORT for OFFICE OF INSPECTOR GENERAL

JULY 2003



D. MARK GOODWIN & ASSOCIATES

<u>M</u>

D. Mark Goodwin & Associates, P.A. Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199 (505) 828-2200 FAX 797-9539 e-mail: dmg@swcp.com

PROJECT FUSPEC	TOR GENERAL
SUBJECT DADIN	LAGE CALCS
BY_St	DATE 7-28-03
CHECKED	DATE
	SHEET_/_OF

- . THIS SITE IS PART OF RICHFIELD PARK.
- · SITE 15 1.094 AC
- FREE DISCHARGE IS ACLOWED PER THE "DISINAGE REFORT FOR RICHFIELD PARK" PREPARED BY ESPEY, HUSTON & ASSOC, TUX AUGUST 1,1986. APPENDIX "A"
- · SITE IS NOT IN & 100 YR FLOOD ZONE

SITE = 1.0940 AC

P. = 2.05 in

PG = 2.40 11

P24 3 2.70 11

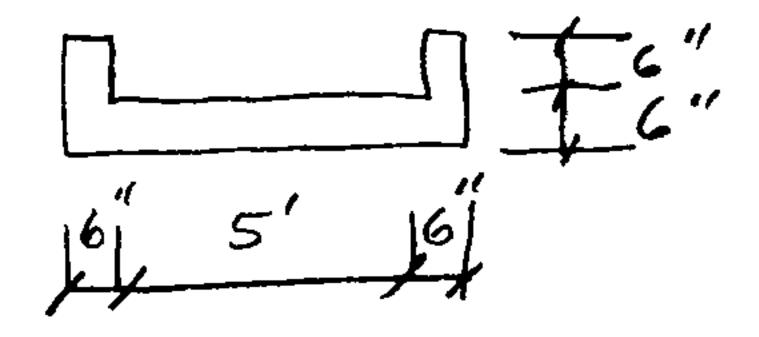
TYPE B" = 0.2909 AC = 26.5990 TYPE B" = 0.8031 SC = 73.4190

FROM BHYMO OUTPUT SHEETS 2-4

Q=4.55 CFS

· SIZE CHANNEL FROM SITE TO 10' PRIVATE DISINAGE ELASEMENT

Q = 4.55 US $Q = 2.95 \text{ LH}^{1.5} \qquad H = 0.5^{\prime}$ $L = 4.36 \qquad \text{US} = 5.0^{\prime} \text{ WID} = 0.5$



4000 PSI CONCRETE

FREE DISCHARGE IS ALLOWED TO THE EXISTING 10' PRIVATE DISINAGE ESSEMENT ON LOT 20 TO THE NORTH, THERE IS AN EXISTING SWALE WHICH OUR 5.0' CHANNEL WILL TIE I NTO.

START TIME=0.0

**** HYDROGRAPH FOR INSPECTOR GENERAL

RAINFALL TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.05 IN RAIN SIX=2.40 IN

RAIN DAY=2.70 IN DT=0.03333 HR

> PER A=0 B=26.59 C=0 D=73.41 TP=0.1333 HR MASS RAINFALL=-1

PRINT HYD ID=1 CODE=1

FINISH

AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January,

1994

RUN DATE (MON/DAY/YR) = 07/28/2003

M_GOODWN.I01

INPUT FILE = INSPGEN.DAT

START

TIME=0.0

**** HYDROGRAPH FOR INSPECTOR GENERAL

RAINFALL

TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.05 IN RAIN SIX=2.40 IN RAIN DAY=2.70 IN DT=0.03333 HR

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA

ATLAS 2 - PEAK AT	1.40 HR. $DT = .0$)33330 нс	DURS	END T	ME =	5.999400
HOURS	.0000	.0017	.0034	.0051	.0069	.0087
.0106	.0125	.0145	.0165	.0185	.0206	.0228
.0250	.0273	.0297	.0321	.0346	.0372	.0399
.0427				.0549		
.0656				.0836		
.1101				.3516		
.8281				1.4598		
1.6509				1.8476		
1.9670				2.0989		
2.1407				2.1628		
2.1770				2.1938		
2.2052				2.2190		
2.2285				2.2404		
2.2487				2.2591		
2.2665				2.2758		
2.2825				2.2910		
2.2971				2.3049		
2.3106				2.3178		
2.3231				2.3298		
2.3348				2.3411		
2.3457				2.3517		
2.3561				2.3618		

 2.3660

 2.3754

 2.3767
 2.3780
 2.3793
 2.3805
 2.3818
 2.3831

 2.3843
 2.3856
 2.3868
 2.3880
 2.3893
 2.3905
 2.3917

 2.3929
 2.3941
 2.3953
 2.3965
 2.3976
 2.3988
 2.4000

COMPUTE NM HYD ID=1 HYD NO=101.1 AREA=0.001709 SQ MI PER A=0 B=26.59 C=0 D=73.41 TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420 UNIT PEAK = 4.9531 CFS UNIT VOLUME = .9969 B = 526.28 P60 = 2.0500 AREA = .001255 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = 1.80552 INCHES = .1646 ACRE-FEET
PEAK DISCHARGE RATE = 4.55 CFS AT 1.500 HOURS BASIN
AREA = .0017 SQ. MI.

FINISH

METHOD - DT = .0333330

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 08:44:40

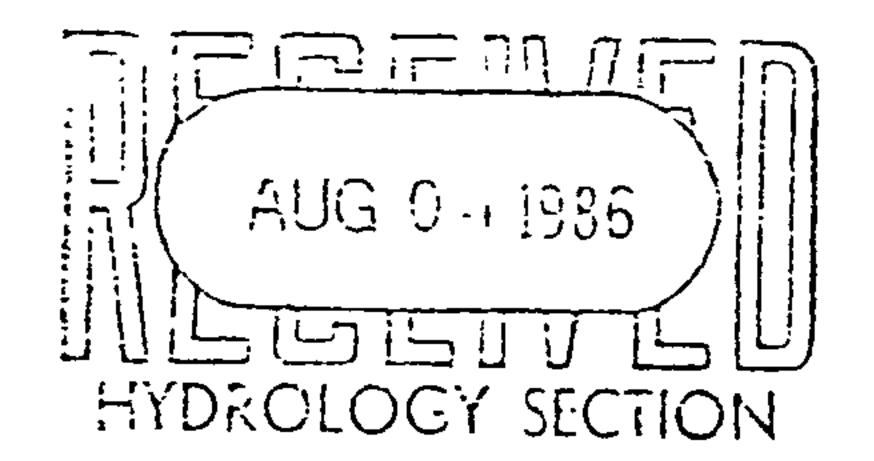
DRAINAGE REPORT FOR RICHFIELD PARK

Prepared for:

JACK M. CLIFFORD & COMPANY

P. O. Box 35640, Station D

Albuquerque, New Mexico 87176



June 30, 1986 (Revised August 1, 1986)

PURPOSE AND SCOPE

The purpose of this report is to establish the criteria for controlling surface storm run-off and to study the hydrologic affects of the proposed drainage/grading and infrastructure improvements to the project. The site is presently described as Richfield Industrial Park, Tract A-1, and Richfield Park, Tracts A, B, and C. This plan determines the excess run-off resulting from the 100-year/6-hour and 10-year/6-hour frequency storms falling within the site, historic and developed conditions. This report is prepared to facilitate preliminary and final platting and work order approval.

It is proposed that the approximately 82-acre site be developed into an industrial park with lots varying from one-half (1/2) acre to two (2) acres in size. The scope of the proposed plan will not increase the flooding potential to adjacent properties or downstream area. The plan is presented in a manner which is acceptable to the City of Albuquerque, using hydrologic procedures as outlined in Chapter 22, Vol. II, of the Development Process Manual.

LOCATION AND DESCRIPTION

The site is located in the North I-25 sector area in Albuquerque, New Mexico. See Vicinity Map, following page. The site is bounded on the east by improved Jefferson Avenue and on the south by improved Alameda Avenue (formerly Richfield Avenue). The South La Cueva arroyo is adjacent on the north. A portion of the South La Cueva is currently being improved. A 100-foot AMAFCA easement and ditch-dike (earthen) parallels the site on the west.

Presently, the site is undeveloped sloping gradually from east to west, generally at 1-2 percent. The major soils present are EmB, Embudo and EtC, Embudo-Tijeras complex, both gravelly fine sandy loams and classified Type "B" by the Soil Conservation Service (see Soils Map, figure 2, page 4).

EXISTING DRAINAGE CONDITIONS

Sheet 1, see Pocket, shows the existing undeveloped drainage conditions. Historically, the northern portion of the site has been seriously impacted by the South La Cueva Arroyo. Recent improvements to Jefferson Steret as a part of the SAD 201 have removed the site from a 100-year flood plain. No off-site flows enter the site. The storm dainage system within Jefferson and Alameda diverts the 100-year storm around the proposed project to the North Diversion Channel. An existing 54-inch storm drain stub-out from the Alameda system, located near the southwest corner of the site, is provided for draining a portion of the site. The capacity of this pipe is 146 cubic feet per second. As previously stated, an existing 100-foot AMAFCA drainage easement is located along the western boundary for the purpose of maintaining a berm to convey sheet flows north to the La Cueva Arroyo.

PROPOSED DRAINAGE CONDITIONS

Sheet 1, along with existing conditions, shows the proposed flow patterns and proposed drainage infrastructure improvements by 1.) proposed 2-foot interval contours; 2.) continuity between existing and proposed contours; 3.) existing and proposed spot elevations; 4.) proposed basin boundaries; and 5.) public and private easements/drainage structures and systems/streets rights-of-way as proposed by this plan.

As previously stated, this project lies within the SAD 201 area. No approved drainage report was ever published by the consultant, Molzen-Corbin & Associates (MC&A) for the district. Hydraulic grade line calculations, however, are available for the storm drain system in Alameda. Since no drainage report is available, the design engineer for the SAD was approached. On June 11, 1986, a conversation with Hans Coucheron-Aamat of Easterling and Associates, formerly with MC&A, lent the following design criteria:

- 1.) Design of the SAD 201 permitted 0.5 ft. depth in Alameda. Presently Alameda is a four lane divided arterial with standard 2% crown. The depth allowance is contrary to "one-lane dry" drainage ordinance criteria in the present state. If and when Alameda is expanded to six lanes, then the 'one-lane dry" criteria would be met.
- 2.) A run-off rate of 40 to 60 cfs was programmed to drain to Alameda along the proposed frontage.
- 3.) The existing 54-inch stub out was programmed for 146 cfs and pressure flow.
- 4.) Mr. Coucheron Aamat confirmed that a drainage report for SAD 201 was never published and that HGL calcs were on file with the City of Albuquerque.

Upon reviewing the site topography and proposed lot and street patterns, it was decided that draining flows to the existing 54-inch stubout would not be cost effective. The next alternative was to check the possibility of draining all or a portion of the site to the existing 60-inch storm drain located in Alameda upstream from the 54-inch stubout. Upon analyzing the hydraulic gradeline for the Alameda storm drain, it was determined that the 60-inch pipe was presently at capacity and any additional flow caused the hydraulic gradeline to rise above street grade. The solution was to drain the entire site overland by public streets and easements to the existing AMAFCA maintained ditch-dike.

On July 31, 1986, Mr. Dan Sabo, AMAFCA Engineer, verbally approved discharging approximately 198 cfs of stormwater from the proposed industrial park to the AMAFCA easement and channel which drains historically to the north. Basins "A", "B", and "C" are shown draining to the northwest corner of the site. The La Cueva improved channel is programmed to ultimately accept approximately 7000 cfs of storm run-off and all flows from the AMAFCA channel. Some minor regrading of the AMAFCA ditch flowline will be required. No improvements, such as "hardlining", to the channel would be required per Mr. Sabo. His only concerns were velocities and their affect on erosion (see Calcs). Erosion protection will be required at all outfall points to the channel, and must be approved by AMAFCA.

CONCLUSIONS

- 1. The proposed plan will not increase the flooding potential to adjacent properties or downstream areas.
- During construction, an erosion control berm shall be constructed along the south and portions of the north property lines to ensure that all sediments remain on site.
- Individual grading and drainage plans shall be required for the tracts created by this development and shall be in compliance with this report.
- The site shall be allowed to free discharge to the northwest into the AMAFCA facilities.
- Erosion control measures shall be required at all outfall points into the AMAFCA channel and shall be approved by AMAFCA prior to release of building permit.
- Development of upstream lots within Richfield Park shall trigger the construction of any required downstream drainage swales.

CALCULATIONS

ESPEY, HUSTON & ASSOCIATES INC.

SUBJECT CALCULATIONS

Engineering & Environmental Consultants

8-1-86

DESIGN CRITICALA

EMB, EMBUDO TYPE B' 501LS:

HYDEOLOGIC METHOD:

- A. PATIONAL METHOD WILL FIE UTILIZED FOR FLOWRATES.
- B. SCS METHOD WILL SE UTILIED FCR VOLUMES.

RAINFALL: P100 = 2.21N P10 = 1.44 IN

RUNOFF COEFFICIENTS:

- A. RATIONAL C'FACTOR CL = 0.25 CUND = 0.40 CB = 0.90 CPAV'T = 6.95
- T.P. AREAS ASSUME; 13 ADOF, 13 LAMOS, 1/3 PAVIT = USE C=0.74
- COMMERCIAL APPEAS ASSUME: 1/2 ROOF, 1/3 PAVIT, 1/6 LANOS. USE C=0.80
- B. FOR SCS CN USE PLATE 22.2 C-2
 INDUSTRIAL DISTRICTS CN = 88; RO= 1.2"

ESPEY, HUSTON & ASSOCIATES INC.

SUBJECT CALCULATIONS

Engineering & Environmental Consultants

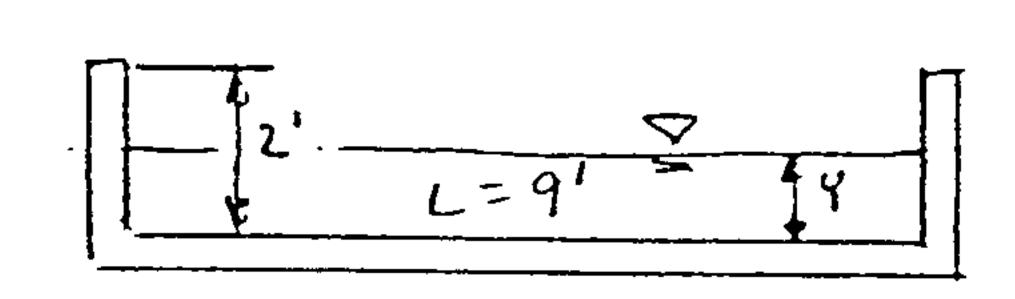
D.L

II RUNOFF

BASIN	.A	L	1+	tc	~/	CH	4,00	Q ₁₀₀	Q10	Vioc	V/0
A	3/20	2400	39'	15 min	0.74	88	3.78	86.7	57.0	135,040	67,520
B	31	2400	43'	15	0.80	88	3.78	93.7	61.6	135,040	67,520
C	20	2300	21	18	0.74	88	3.44	50.9	35.4	87 120	43,560
TOTAL	82	3400	43'	21	0.76	88	3.18	198.2	130.2	357,190	178,600

SIZE 10 CONCRETE DRAINAGE CHANNEL

A. CHANNEL SECTIONS



JO USE MANNINGS EON TO CHECK

BASIN A

5=0.012 Q= 36.7 CFS

 $Q = 86.7 = \frac{1.49}{0.013} (94)(.5)(.012)^{1/2}$

n=0.013

= 2' CHANNEL YIDUS 0.8' FB.

ESPEY, HUSTON & ASSOCIATES INC.

CALCULATIONS SUBJECT

Engineering & Environmental Consultants

RICHFIEDD PARK

SHEET DU 8-1-86 DATE CX BY

BASIN B

$$H = 71$$

$$D = 0/7Y$$

$$Q = 93.7 = 1.49 (94)(.5)(0.02)$$

=> 2' CHANNEL YIEWS. 0.7' FB.

SIZE INLET. WIDTH

BY WEIR ERN USING MAY DEPTH IN STPRET = 1.0'

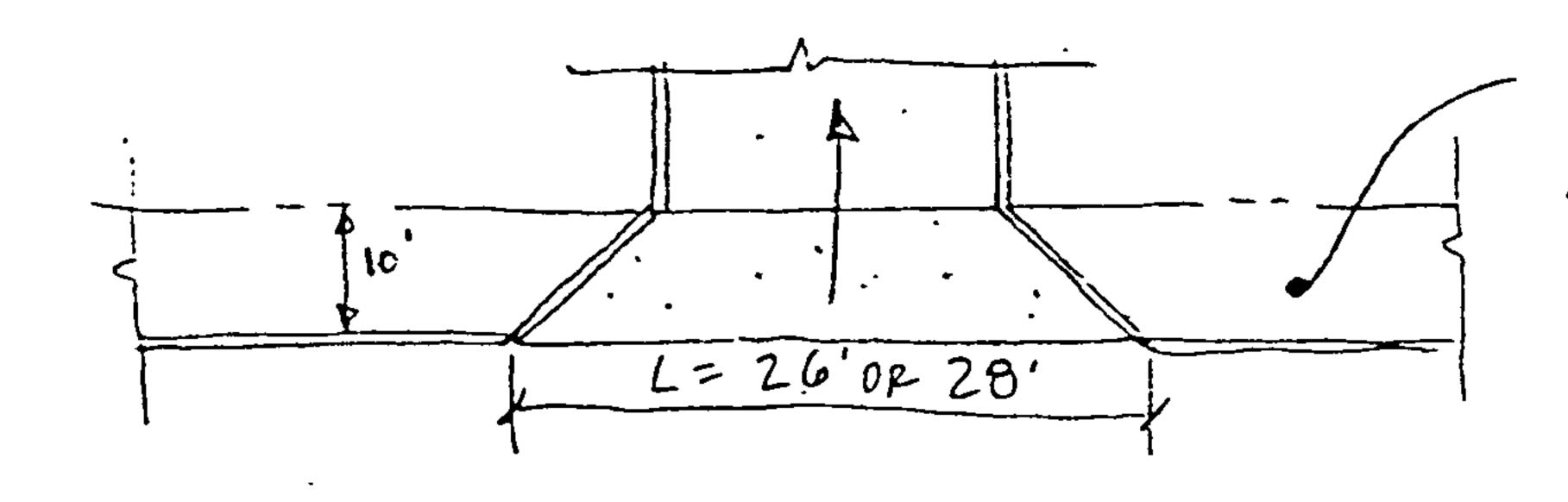
BASIN'A'

$$Q_{100} = 86.7 \text{ CFS}$$

$$L = \frac{86.7}{3.33} = \frac{26}{}$$

BASIN B

$$Q_{100} = 93.7 \text{ CFS} \qquad L = \frac{93.7}{3.33} = 28'$$



- NOSIW PER APPROVED VARIANCE

9

ESPEY, HUSTON & ASSOCIATES INC.

SUBJECT CALCULATIONS

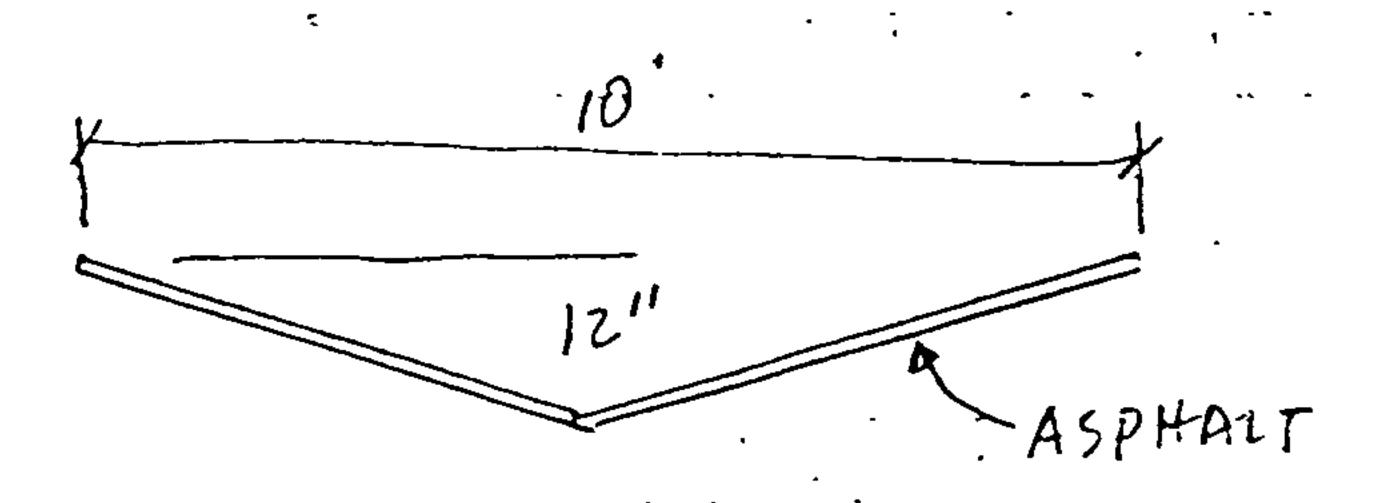
Engineering & Environmental Consultants

RICHFIELD PARK

SHEET 4 OF 4 BY DL

DATE 87-86 CX BY

IV CHECK CAPACITY OF PRIVATE SWATES:



USE MANNINGS:

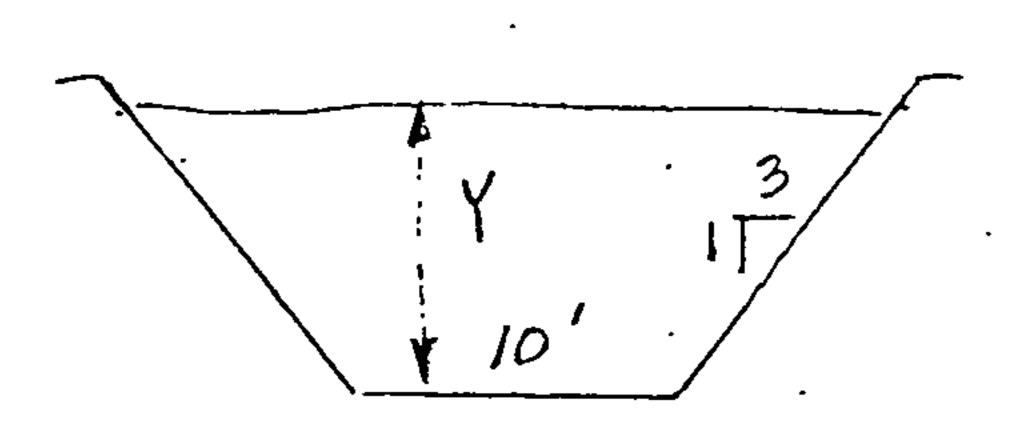
$$5 = 0.01 (min)$$

 $A = 55F$

$$p = 10^{\prime}$$

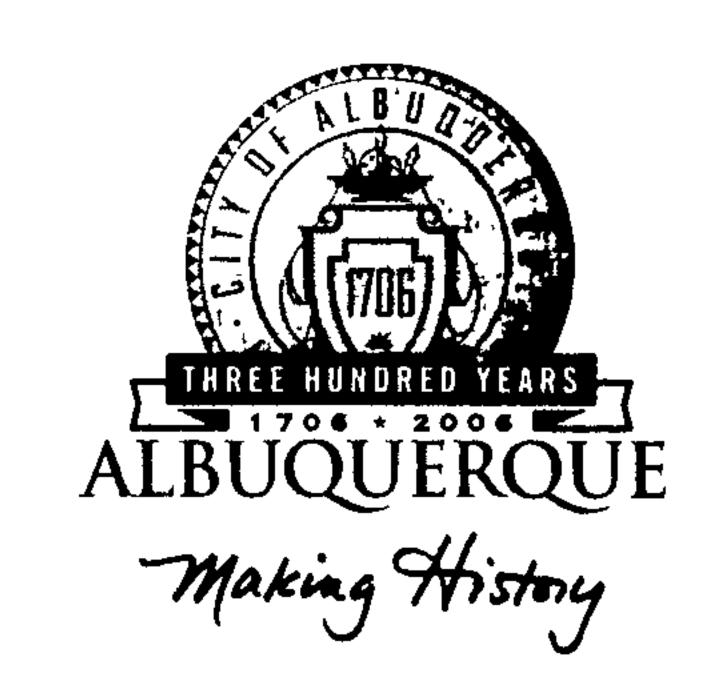
I CHECK AMAFCA CHANISEL

USE MANNINGS:



$$Q = 198.2 = \frac{1.49}{0.03} AR^{2/3} (0.005)^{1/2}$$

CITY OF ALBUQUERQUE



Planning Department Transportation Development Services Section

August 6, 2004

John Douglas Heller, Registered Architect 1015 Tijeras Ave NW, Ste 220 Albuquerque, NM 87102

Re:

Certification Submittal for Final Building Certificate of Occupancy for

Office of Insp. Gen., [C-17 / D116]

8909 Adams St NE

Architect's Stamp Dated 08/04/04

Dear Mr. Heller:

P.O. Box 1293

The TCL / Letter of Certification submitted on August 6, 2004 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Albuquerque

Sincerely,

New Mexico 87103

www.cabq.gov

Nilo E. Salgado-Fernandez, P.E.

Senior Traffic Engineer

Development and Building Services

Planning Department

cc:

Engineer (Hydrology file) CO Clerk

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: OF INSP. GEN, DRB #: 100,2914 630RB-EDE#: 01548	ZONE MAP/DRG. FILE #:C-17/DIL6 WORK ORDER#:
LEGAL DESCRIPTION: 18t 21 RICHTSE OF ANK WIN ELEVA CITY ADDRESS: 8909 ADAMS NE	-GALEGON GRANT Set 14 town 11N Ray 3 E
ENGINEERING FIRM: MAC Goldwir 4550- ADDRESS: PO GO GOG CITY, STATE: ALBU NA	CONTACT: /1 · G-ω·ω/ PHONE: 8 28 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
OWNER: Avan 15 VESTMENTS ADDRESS: 10 15 TONAS CITY, STATE: Arbu Q Non 1967	CONTACT: Scott PHONE: 338-2-89 ZIP CODE: 87107-
ARCHITECT: MUEN (TENOR ANG ADDRESS: 1015 TISETOD AND TOTAL CITY, STATE: ALB W NM	CONTACT: 26 4=UA PHONE: 2684144 ZIP CODE: 8710 2
SURVEYOR: JAMEACUERLAS. ADDRESS 2912 TAM YGNAMO DESS CITY, STATE: ALBUK NA	CONTACT: Jule 2 PHONE: 873 2859 ZIP CODE: 87/24
CONTRACTOR: HANT DESIGN & Const inc ADDRESS: 2919 2 NO 5+ NW 13 CITY, STATE: ASCRUW Non 87107	CONTACT:
CHECK TYPE OF SUBMITTAL:	CHECK TYPE OF APPROVAL SOUGHT:
DRAINAGE REPORT DRAINAGE PLAN 1st SUBMITTAL, REQUIRES TCL or equal DRAINAGE PLAN RESUBMITTAL CONCEPTUAL GRADING & DRAINAGE PLAN GRADING PLAN EROSION CONTROL PLAN ENGINEER'S CERTIFICATION (HYDROLOGY) CLOMR/LOMR TRAFFIC CIRCULATION LAYOUT (TCL) ENGINEERS CERTIFICATION (TCL) ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN) OTHER	SIA / FINANCIAL GUARANTEE RELEASE PRELIMINARY PLAT APPROVAL S. DEV. PLAN FOR SUB'D. APPROVAL S. DEV. PLAN FOR BLDG. PERMIT APPROVAL SECTOR PLAN APPROVAL FINAL PLAT APPROVAL FOUNDATION PERMIT APPROVAL BUILDING PERMIT APPROVAL CERTIFICATE OF OCCUPANCY (PERM.) CERTIFICATE OF OCCUPANCY (TEMP.) GRADING PERMIT APPROVAL PAVING PERMIT APPROVAL WORK ORDER APPROVAL OTHER (SPECIFY)
WAS A PRE-DESIGN CONFERENCE ATTENDED: YES	AUG 0 6 2004
NO COPY PROVIDED // DATE SUBMITTED: 8/8/04	HYDROLOGY SECTION
Requests for approvals of Site Development Plans and/or Subsubmittal. The particular nature, location and scope of the propose One or more of the following levels of submittal may be required by 1. Conceptual Grading and Drainage Plan: Required for (5) acres and Sector Plans. 2. Drainage Plans: Required for building permits, grading (5)	ed development defines the degree of drainage detail. ased on the following: approval of Site Development Plans greater than five
acres.	

3. Drainage Report: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

4 August 4, 2004

Mr. Wilfred Gallegos City of Albuquerque Transportation Development Section 600 Second Street NW Albuquerque, NM 87102

Re: Office of Inspector General

8909 Adams Ave. NE

Dear Wilfred:

Attached is the as-built site plan and approved DRB Plan for the above referenced project. I am applying for a permanent Certificate of Occupancy, as the site is substantially compliant with the DRB Plan stamped 10/1/04.

Please feel free to contact me if you have any questions.

Sincerely,

Mullen Heller Architecture PC

Douglas Heller, AIA

59/m

Attachment: TCL Site Plan

