HYDROLOGY G16/D43 S&J CONST. OFFICE BLDG.

G16 / D43

S + J. CONST. OFFICE

BLDG.

1 PLAN

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Name of Report Sec J Office Bldg

DR # 616-0430

Action taken	Date of Action	Time in Between.
Rec'd	6/3	
Inst	6/20	
Foundation Only	7/28	
Letter	8/05	

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Heller, P.E., City Engineer ENGINEERING DIVISION Telephone (505) 766-7467

AN EQUAL OPPORTUNITY EMPLOYER

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DRAINAGE REPORT INFORMATION SHEET

PROJECT TITLE S&T const office Building

ZONE ATLAS PAGE NO. G16 D43 CITY ADDRESS 3300 Alvarado

LEGAL ACCESS Cutler Industrial Park

ENGINEERING FIRM Burk & Burk CONTACT Bill Burk

ADDRESS 11930 menaul PHONE 292 6506

OWNER S&T COAST CONTACT John Trau

ADDRESS 4611 Glenwood Hills PHONE 765 7952

ARCHITECT/SURVEYOR Burk & Burk CONTACT Bill Burk

ADDRESS 11930 menaul NE PHONE 292 6506

DATE SUBMITTED June 3 83

BY John Trau
John Trau

RECEIVED
JUN 03 1983
ENGINEERING

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Hellar, P.E., City Engineer ENGINEERING DIVISION Telephone (505) 766-7467

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

G16 - D43

June 10, 1983

Mr. Bill Burk
Burk & Burk Architects
11930 Menaul N.E.
Albuquerque, N.M. 87112

RE: S & J CONSTRUCTION OFFICE BUILDING PLAN

Dear Bill:

Per our conversation several weeks ago, the referenced plan must be prepared in accordance with criteria and guidelines contained in Chapter 22-Drainage, Section 7 of the Development Process Manual. More specifically, the plan must be stamped by a Professional Engineer.

If you have any questions, please call.

Very truly yours,

Brian G. Burnett
Civil Engineer/Hydrology

BGB/tsl

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

July 6, 1983

Mr. Bill Burk
Burk & Burk Architects
11930 Menaul NE
Albuquerque, NM 87112

REF: S & J CONSTRUCTION OFFICE BUILDING PLAN (G16-D43)

Dear Mr. Burk:

With respect to Mr. Burnett's letter to you dated 6/10/83, Mr. Burnett not only required an engineer's stamp but he also required that the plan be designed in accordance with the drainage plan checklist found in Chapter 22, Section 7 of the Development Process Manual.

Please have your engineer use this checklist to prepare the drainage plan for the referenced site.

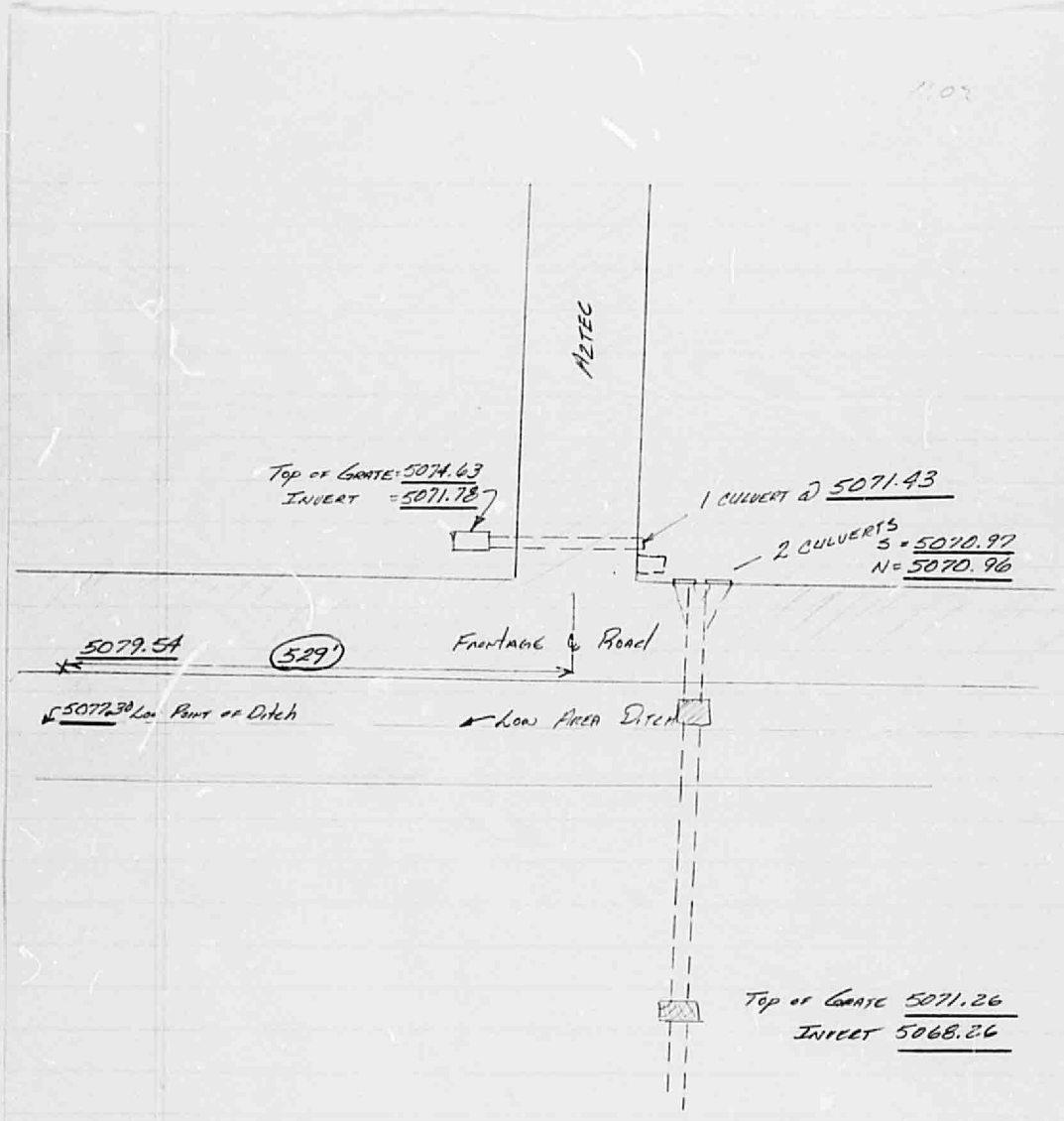
If you or your engineer have any questions regarding any of the checklist items, please call me at 766-7467.

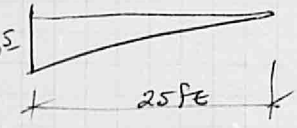
Sincerely,

Fred J. Aguirre
Civil Engineer/Hydrology

FJA:mrk

Number	Date Approv.	Req. Ponding	No. Ponding	Address
G-16-D-28	8-2-82		X	Cutler Ind Park
G-16-D-30	3-31-82		X	3927 Vassar N.E.
G-16-D-32	5-11-82		X	3329 Princeton N.E.
G-16-D-33	4-6-82	X		Chateau Mill Addition
G-16-D-34	6-8-81	X		3312 Stanford Dr. N.E.
G-16-D-35	12-22-81	X		3216 Vassar N.E.
G-16 D-36	9-21-81	X		2105 Aztec Dr. N.E.
G-16 D-11	5-29-76	X		Coles Indust 3310 Girard N.E.


AZTEC
Top of Grate: 5074.63
Invert = 5071.78
1 Culvert @ 5071.43
2 Culverts
S = 5070.97
N = 5070.96
5079.54
529'
Frontage Road
5077.30 Low Point of Ditch
Low Area Ditch
Top of Grate 5071.26
Invert 5068.26



$n = 0.017$
$S = 0.01$

$A = 6.25$
$P = 25.5$
$R = 0.245$

$V = \frac{1.486}{0.017}(0.245)^{2/3}(0.01)^{1/2} = 3.4 \text{ ft/sec} \Rightarrow 10.22 \text{ min}$

2100 ft @ 1% Plate 22.2 B-2 $V = 2.57$ ft/sec $t_c = 13.6$ min

1100 ft @ 0.5% $V = 1.9$ ft/sec $t_c = 9.6$ min

---

inlet control

$h = 4.25$ ft

$4.25 = 1.5 \frac{V^2}{2g}$ $V = 13.5$ ft/sec

$A = 19.24$ ft^2

$Q = VA = 260$ cfs

3.5 ft ϕ full $A = 9.62$ ft ; $P = 11$ ft ; $R = 0.875$

$Q = \frac{1.486}{0.013}(9.62)(0.875)^{2/3} S^{1/2} = 75$ cfs

$S = 0.0056$ ft/ft

@ 1% $Q = 100.6$ cfs

Overland t_o	L	ΔE	S	V	t_o
~~Street~~ →	370 ft	4 ft	$1^{08}/_{9}$%	$1^{7}/_{}$ ft/sec	$217^{6}/_{}$ sec
Street	750 ft	$3^{5}/_{}$ ft	$0^{47}/_{9}$%	$1^{9}/_{}$	$394^{7}/_{}$
	1970 ft	18 ft	$0^{91}/_{9}$%	$2^{57}/_{}$	$766^{5}/_{}$
	850 ft	6 ft	$0^{71}/_{9}$%	$2^{27}/_{}$	$374^{4}/_{}$
	3940 ft				$1753^{4}/_{} = 29^{2}/_{}$ min

Soil Group B 60% imp $P_{6-100} = 2^{2}/_{}$ in/6 hr

$A = 101^{7}/_{}$ Acres

$C = 0^{55}/_{}$ (60%)

$i = 2^{69}/_{}$ in/hr

$$Q_{100} = (0^{55}/_{})(2^{69}/_{})(101^{7}/_{}) = 150^{5}/_{} \text{ cfs}$$

INFORMATION SHEET

PROJECT TITLE SITE GRADING/DRAINAGE TYPE OF SUBMITTAL PLAN ONLY

ZONE ATLAS PAGE NO. G-16-D#3 CITY ADDRESS _____

LEGAL DESCRIPTION TRACT SJ, UNIT 5, CUTTER INDUSTRIAL PARK

ENGINEERING FIRM ~~Richard Lyman~~ Project Treadwell CONTACT Geoff

ADDRESS ~~Richard Lyman & Associates~~ PHONE 298-7250

OWNER S + J ENTERPRISES CONTACT GEORGE TRIANDAFILIDIS

ADDRESS 4611 GLENWOOD HILLS DR. PHONE 298-7290

ARCHITECT BURK + BURK - ARCHITECTS CONTACT BILL BURK, JR.

ADDRESS _____ PHONE 292-0506

SURVEYOR _____ CONTACT _____

ADDRESS _____ PHONE _____

CONTRACTOR SAME AS OWNER CONTACT _____

ADDRESS _____ PHONE _____

DATE SUBMITTED _____

BY _____

RECEIVED
JUL 18 1983
ENGINEERING

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 5, 1983

Mr. George Triandafilidis P.E.
4611 Glenwood Hills Drive NE
Albuquerque, NM 87108

REF: DRAINAGE REQUIREMENTS FOR S & J ENTERPRISES AT NE CORNER CUTTER ROAD & COLUMBIA NE (G16-D43)

Dear Sir:

Attached please find copies of the Drainage Report and Drainage Plan Checklist as well as hydrology information from Volume 2 of the Development Process Manual.

Ponding with controlled release will be required for this project because it appears from the master drainage study that it contributes to a down stream flooding problem. Specifically the culverts at Aztec Road and the East Frontage Road of I-25 cannot handle the 100 year [illegible] on Map G15, analysis point 801, of 416 cfs.

The pond must have a controlled release and must drain completely within 24 hours. It must be sized for a 100 year storm (2.2 inches in 6 hours) and the release must be to public Right-of-Way via a 4" pvc line through the curb (see standard drawing K15 attached). Maximum head on the 4" pipe is 18 inches and the storm must be routed through the pond. The simple runoff hydrograph (attached) may be used for this routing. The 100 year rainfall intensity for this site is 4.65 inches/hour and it is Hydrologic soil group B. Emergency spillway and pond volume calculations must be submitted as well as other items on the checklist.

In lieu of ponding on site you can submit a hydrological investigation of the drainage area, above Aztec Road and the East Frontage Road, and a hydraulic analysis of the culverts and storm drain system. If this investigation can show that there is not a flooding problem at that point or does not contribute to a problem downstream, we will allow you to free discharge through the drivepad to the street.

If you have any questions regarding this letter or the attached information, I will be more than happy to meet with you or converse by telephone (766-7644).

Sincerely,

John Armstrong
Civil Engineer/Hydrology, P.E.

JA:mrk

Sta. 133+60 to Sta. 153+08.21
Existing Road to Remain
Use as West Frontage Rd.

Structures No. 1
See Sht. No. 2-
& Length of C