



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 17, 1994

Carlos Padilla
Avid Engineering
6100 Seagull Lane NE Suite 102
Albuquerque, NM 87109

RE: REVISED DRAINAGE PLAN FOR AN ADDITION TO BOWLIN'S INCORPORATED
(K19-D102) REVISION DATED 3/11/94.

Dear Mr. Padilla:

Based on the information provided on your March 15, 1994 resubmittal, the above referenced site is approved for Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Also, a separate permit is required for construction within City Right-of-Way. A copy of this approval letter must be on hand when applying for the excavation permit.

If I can be of further assistance, please feel free to contact me at 768-2667.

Sincerely,

Bernie J. Montoya
Bernie J. Montoya, CE
Engineering Associate

BJM/d1/WPHYD/8339

c: Andrew Garcia
Arlene Portillo
File

DRAINAGE INFORMATION SHEET

PROJECT TITLE: BOWLIN'S, INC. ZONE ATLAS/DRAINAGE FILE# K192/ 102
 LEGAL DESCRIPTION: LOTS NUMBERED 27 THRU 31 IN BLOCK NUMBERED 1 OF THE LA MESA SUBDIVISION
 CITY ADDRESS: 136 & 150 LOUISIANA BLVD N.E.

ENGINEERING FIRM: <u>AVID ENGINEERING, INC.</u>	CONTACT: <u>CARLOS PADILLA</u>
ADDRESS: <u>6100 Seagull Ln., NE, Suite 102, 87109</u>	PHONE: <u>881-5357</u>
OWNER: <u>BOWLIN'S, INC.</u>	CONTACT: <u>BILL MCCABE</u>
ADDRESS: <u>136 LOUISIANA N.E.</u>	PHONE: <u>266-5985</u>
ARCHITECT: <u>DAVID PACHECO</u>	CONTACT: <u>DAVID PACHECO</u>
ADDRESS: <u>2805 SOJ. DE VIDA N.W.</u>	PHONE: <u>831-4148</u>
SURVEYOR: _____	CONTACT: _____
ADDRESS: _____	PHONE: _____
CONTRACTOR: _____	CONTACT: _____
ADDRESS: _____	PHONE: _____

PRE-DESIGN MEETING:

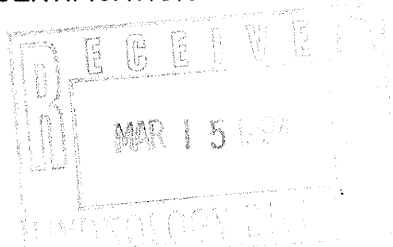
☐ YES ☒ NO	DRB NO. <u>N/A</u> EPC NO. <u>N/A</u>
☐ COPY OF CONFERENCE RECAP SHEET PROVIDED	PROJECT NO. <u>N/A</u>

TYPE OF SUBMITTAL:

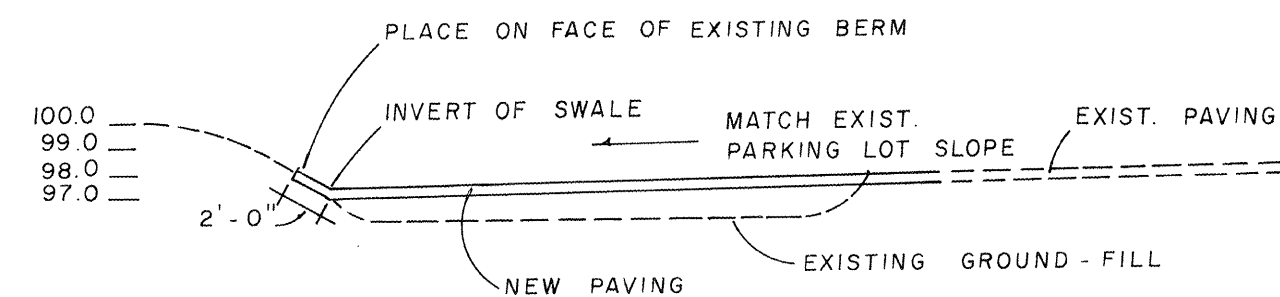
☐ DRAINAGE REPORT
☒ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAIN PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

☐ SECTOR PLAN APPROVAL
☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☐ SITE DEVELOPMENT PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☒ BUILDING PERMIT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY APPROVAL
☐ ROUGH GRADING PERMIT APPROVAL
☒ GRADING/PAVING PERMIT APPROVAL
☐ OTHER _____ (SPECIFY)

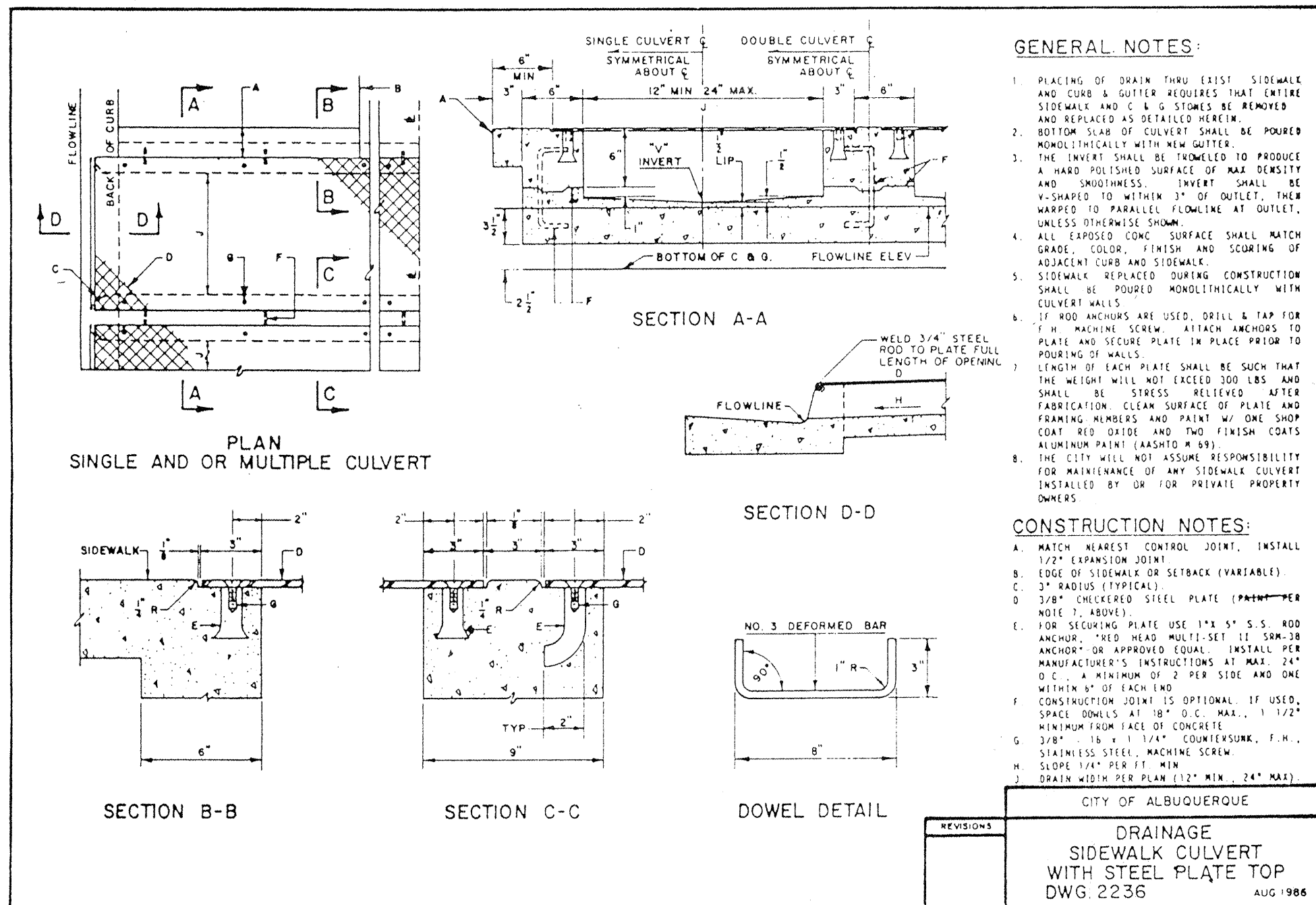


DATE SUBMITTED: 3-14-94
 BY: Carlos G. Padilla



TYPICAL SWALE SECTION A A

HORIZ. SCALE 1/4" = 1'-0"



Sidewalk Culvert Capacity Calculations:

Weir Equation from Civil Engineering Handbook.

$$Q = 2/3 (C) b H^{3/2} \sqrt{(2g)}$$

Q = flow rate
C = constant between .5 and .57 (use .57 for more conservative design)
b = width of weir 2.0 ft
H = height of water flowing over weir
g = acceleration due to gravity 32.2 ft/sec²

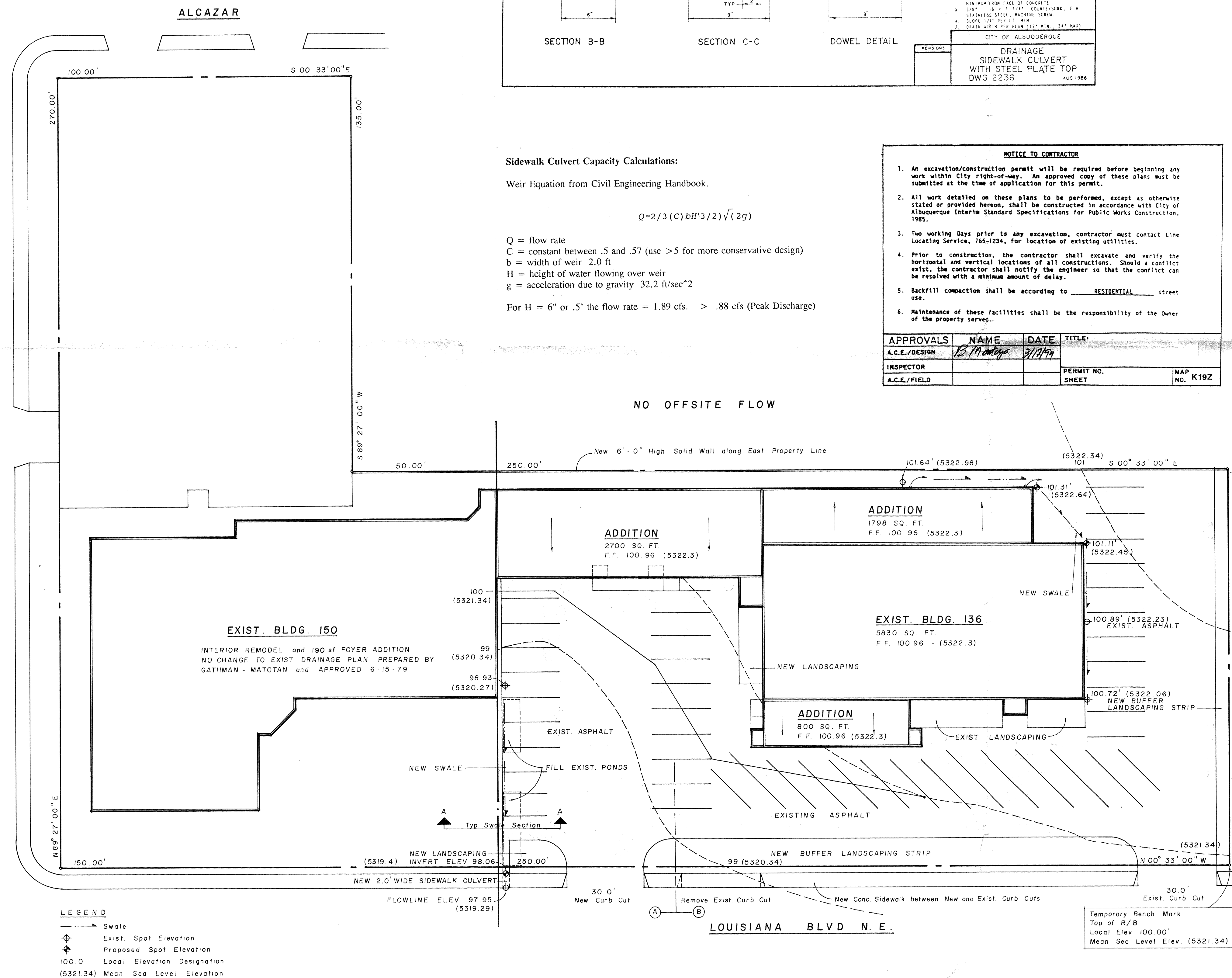
For H = 6" or .5' the flow rate = 1.89 cfs. > .88 cfs (Peak Discharge)

NOTICE TO CONTRACTOR			
1. An excavation/construction permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.			
2. All work detailed on these plans to be performed, except as otherwise stated or provided herein, shall be constructed in accordance with City of Albuquerque Interim Standard Specifications for Public Works Construction, 1985.			
3. Two working days prior to any excavation, contractor must contact Line Locating Service, 765-1234, for location of existing utilities.			
4. Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all constructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.			
5. Backfill compaction shall be according to <u>RESIDENTIAL</u> street use.			
6. Maintenance of these facilities shall be the responsibility of the Owner of the property served.			

APPROVALS	NAME	DATE	TITLE
A.C.E./DESIGN	B. Matos	3/19/99	
INSPECTOR			
A.C.E./FIELD			

PERMIT NO.	SHEET	MAP NO.
		K19Z

NO OFFSITE FLOW



LEGEND
 — Swale
 • Exist. Spot Elevation
 • Proposed Spot Elevation
 100.0 Local Elevation Designation
 (5321.34) Mean Sea Level Elevation

GRADING AND DRAINAGE PLAN for BOWLIN'S INCORPORATED

DRAINAGE INFORMATION

1. References

- City of Albuquerque, Development Process Manual (DPM) Volume 2, Design Criteria
- Soil Survey of Bernalillo County and Parts of Sandoval and Valencia Counties, New Mexico. U.S. Soil Conservation Service Sheet 31.
- Flood Insurance Rate Map, City of Albuquerque, New Mexico, Panel 30 of 50

2. General Information

A. Site Location and Elevation Data:

- Legal Description: Lots Numbered 27 thru 31 in Block Numbered 1 of the La Mesa Subdivision
- Total Site Area: 1.550 acres 67500 square feet
- City address: 136 Louisiana
- City Bench Mark: 19-K19 Elev. 5319.346 Feet
- Zone Atlas, 1993 Edition. Sheets K-18-Z & K-19-Z.

B. Soil Type (Reference B.) EtC. Embudo-Tejeras Complex, gravelly fine sandy loam and MWA Madurez-Wink Association, fine sandy loam.

C. 6- hour, 100 year rain

Existing

A.	Area Description	Area (s.f.)	
	Building	0	
	Asphalt	7104	Percent Impervious=7104 x 100 = 88%
	Landscape	0	8100
	Open	996	
	Total	8100	
B.	Area Description	Area (s.f.)	
	Building	5830	
	Asphalt	18116	Percent Impervious=23946 x 100 = 93%
	Landscape	864	25650
	Open	950	
	Total	25650	
C.	Intensity		
	Table A-10 Peak Intensity	5.38 (in/hr)	
	Rational Method Coefficients, C (Zone , Treatment)		
	C (3,A) = .35	C (3,D) = .93	
D.	Peak Discharge Area A:		
	Q = C I A = (.35)(5.38) 996 + (.93)(5.38) 7104 = .86cfs		
		(1.87) 43560	(5.02) 43560
	Peak Discharge Area B:		
	Q = C I A = (.35)(5.38) 18116 + (.93)(5.38) 23946 = 2.84cfs		
		(1.87) 43560	(5.02) 43560

Proposed

A.	Area Description	Area (s.f.)	
	Building	1800	
	Asphalt	5650	Percent Impervious=7450 x 100 = 92%
	Landscape	350	8100
	Open	300	
	Total	8100	
B.	Area Description	Area (s.f.)	
	Building	9328	
	Asphalt	13947	Percent Impervious=23275 x 100 = 91%
	Landscape	1550	25650
	Open	825	
	Total	25650	
C.	Intensity		
	Table A-10 Peak Intensity	5.38 (in/hr)	
	Rational Method Coefficients, C (Zone , Treatment)		
	C (3,A) = .35	C (3,D) = .93	
D.	Peak Discharge Area A:		
	Q = C I A = (.35)(5.38) 650 + (.93)(5.38) 7450 = .88cfs		
		(1.87) 43560	(5.02) 43560
	Peak Discharge Area B:		
	Q = C I A = (.35)(5.38) 2375 + (.93)(5.38) 23275 = 2.78cfs		
		(1.87) 43560	(5.02) 43560

*Values From Table 9 DPM Section 22.2, Jan. 1993

NOTES

General:

This Drainage Report was prepared by Avid Engineering, Inc. Date Feb, 14, 1994.

Existing:

All runoff from the site in area "A" flows generally to the west by sheet flow and is retained in an existing pond. Site runoff in area "B" is freely discharged at the existing curb cuts on Louisiana.

Building Addition:

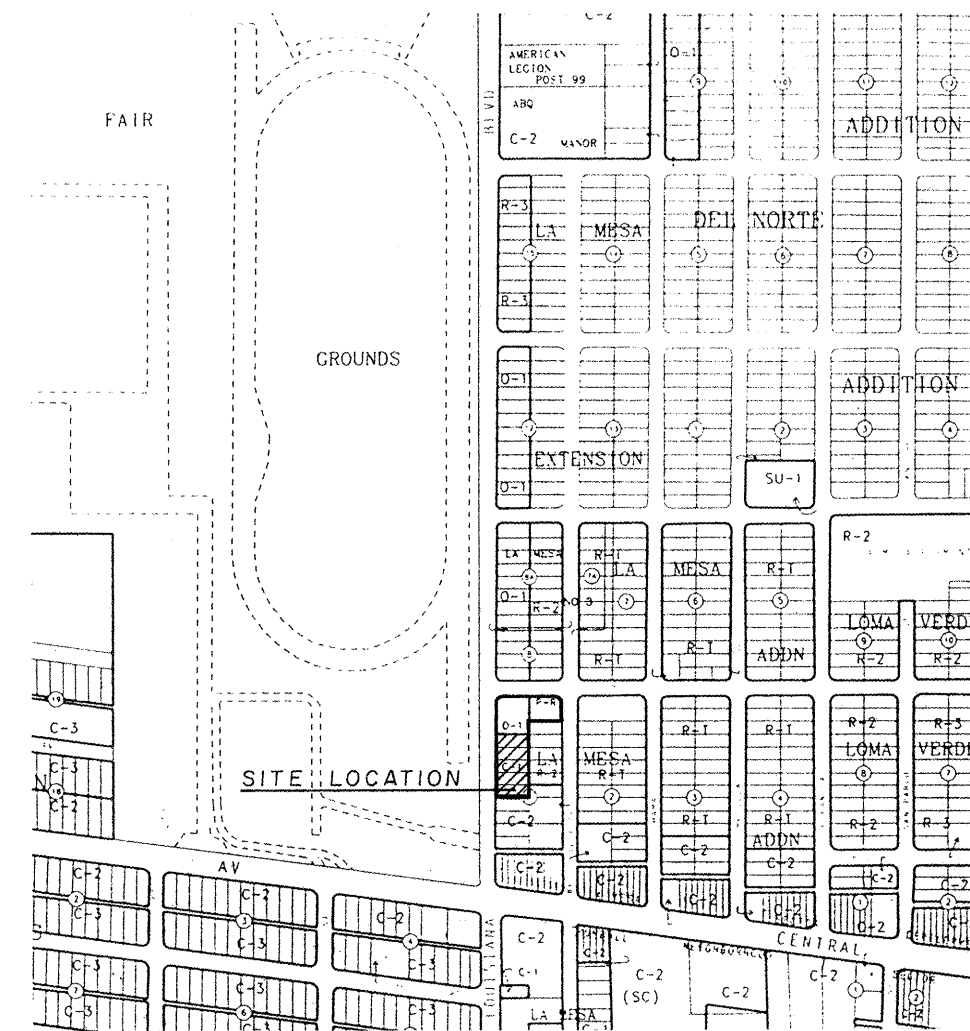
Runoff from the building Additions will flow to the west by sheet flows and in the proposed swale towards Louisiana. The additional runoff will discharge to Louisiana through the existing curb cuts and a new sidewalk culvert.

Calculations:

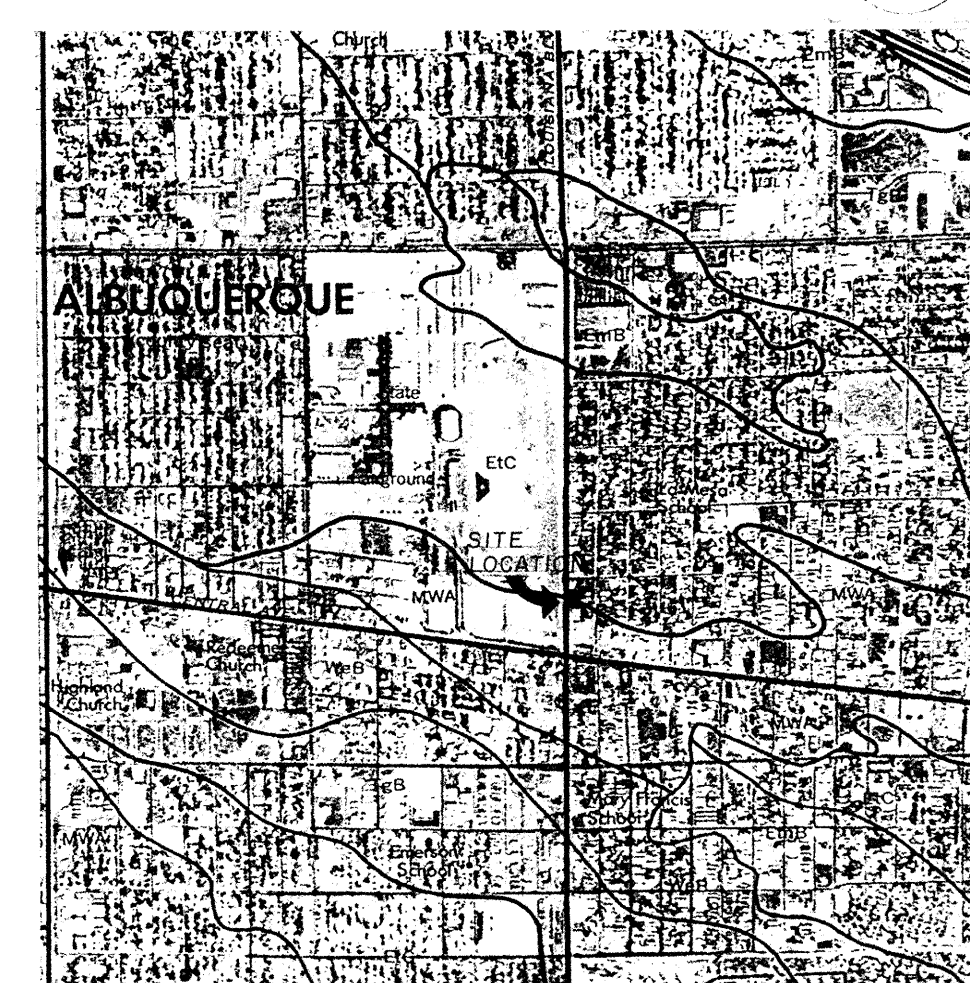
Runoff peak rates were determined using the criteria set forth in the City of Albuquerque's Development Process Manual, Section 22.2, January 1993.

Erosion Control:

It is anticipated that the construction phase of the building addition will have minimal effects of soil erosion.



VICINITY MAP K-18-Z K-19-Z
1" = 800'



SOILS MAP
1" = 24,000'



FLOODWAY MAP
1" = 500' SOURCE: FLOOD INSURANCE STUDY

Benchmark Information:

19-K19, Intersection of Louisiana Blvd. N.E. and Copper Ave N.E. in the southeast quadrant. Elevation 5319.346. The station mark is a standard ACS 3 1/4" aluminum cap stamped "19-K19, 1990", set flush in the curb.

AVID ENGINEERING, INC.
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REVISED 3-11-94
REVISED 3-7-94