HYDROLOGY G21/D17 NO PLANS

G21/D17

No Plans

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

May 24, 1978

Jean J. Bordenave
T.T. Burnett Engineering, Inc.
120 Morningside Dr.,NE
Albuquerque, New Mexico 87108

RE: #1. Zantigo's Restaurant & Retail Outlet
Development of Tract H-4A & H-4B
La Reina De Los Altos, Unit 2

#2. Zantigo's Restaurant Development
Lots 1, 2 and a portion of Lot 3
Block 2, Leatherwood Addition

Dear Mr. Bordenave:

I have reviewed the drainage plans for the above referenced restaurants and I concur with the proposed schemes. The drainage reports are therefore approved.

Very truly yours,

Bruno Conegliano
Asst. City Engineer-Hydrology

BC/gm

cc; V.M. Kimmick
Jim Smith
Drainage file ✓

DRAINAGE REPORT

FOR

ZANTIGO'S RESTAURANT AND RETAIL OUTLET

DEVELOPMENT OF TRACT H-4A & H-4B

LA REINA DE LOS ALTOS, UNIT 2

MAY 1978

Prepared By:

T. T. Burnett Engineering, Inc.
120 Morningside Dr. NE
Albuquerque, New Mexico, 87108

Prepared For:

Ted Decker
P. O. Box 1826
Albuquerque, New Mexico 87103

Jean J. Bordenave, N.M.P.E.&L.S. #5110

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR NO. 5110 NEW MEXICO JEAN J. BORDENAVE

TABLE OF CONTENTS

PURPOSE	1
LOCATION AND TERRAIN	1
PROPOSED DEVELOPMENT	2
UPLAND DRAINAGE	2
INTERNAL DRAINAGE	2
CONCLUSIONS	2
COMPUTATIONS (INTERNAL DRAINAGE)	4
PLATES	
I Location Map G-12	
II Site Plan and Grading Plan	

DRAINAGE REPORT

FOR

ZANTIGO'S RESTAURANT AND RETAIL OUTLET

DEVELOPMENT OF TRACT H-4A & H-4B

LA REINA DE LOS ALTOS, UNIT 2

MAY 1978

PURPOSE

The purpose of this report is to present to governing agencies a reasonable method of complying with Drainage Resolution 1972-2 and thereby limit runoff from the proposed development to an amount not in excess of the flow to be expected from the property in its present state. The report is composed of a narrative of existing and proposed conditions and computations and plans to determine and construct necessary control structures for both internal and external flows.

LOCATION AND TERRAIN

The proposed development is located on the southwest corner of Jane Street and Juan Tabo Boulevard in the northeast quadrant of the city. (See Plate I for the exact location.) The property slopes southwesterly at approximately 5% and is spotted with non-compacted fill areas. Base soils are composed of granular decomposed granite and fills are of various soil types and rubble. Vegetation, due to recent construction in the area, is quite sparse. Infiltration rates, due to both base soil type and proposed ground cover, may be expected to be less than 1/2 inch per hour.

PROPOSED DEVELOPMENT

The site plan indicates location of buildings, parking, landscaping and storm water ponding as well as proposed grading for drainage purposes. The report is written for both immediate construction and future construction on the site, and ponding areas have been sized accordingly. See Plate II for limits of immediate and future construction.

UPLAND DRAINAGE

As per the drainage report for the design of Juan Tabo Boulevard Widening Project, M-4065(1), prepared by T. T. Burnett Engineering, July 24, 1976, all upland flows for the 100 year frequency storm are carried within the street section southerly on Juan Tabo Boulevard at much less than curb depth.

INTERNAL DRAINAGE

A portion of the flow, equivalent to existing conditions, will be retained on the site in a number of retention ponds located along the southerly property line. See Plate II and Computations for pond locations and respective drainage areas.

CONCLUSIONS

Upland flows are diverted through existing streets and do not enter the property. Flows generated internally will be partially stored in onsite retention ponds. Flows in excess of storage capacity

will exit to a parking lot of a large shopping center, thence to the Glenwood Hills North drainage channel. Downstream flow volume will be reduced from that now experienced, due to the slight excess ponding capacity.

Zantigo's Restraurant Tract H-4A + H-4B

Total Site Area. (includes area for future development)

$A_{tot} = (121)(259) - 60.25 = 29,839$ SF USE 30,000 SF

$A_{perimeter} = (8137 + 8166)/2 = 8152$

Rainfall: 2.8" $C_{before\ develop} = .45$, $C_{develop} = .95$ ∴ retain 50% runoff

Runoff to Pond I

$$V_{r.o.} = \frac{(.457)\,30,000}{8152}\left(\frac{1.4}{12}\right) = .457(.4293) = 196 \text{ CF}$$

$$V_{Pond\ I} = (20)(1)\overset{3.6801}{\left(\frac{30,000}{8152}\right)} + (147-20)(.5)(3.6801) = 307 \text{ CF}$$

111 CF Excess capacity

Runoff to Pond II

$$V_{r.o.} = 1094(.4293) = 470 \text{ CF}$$

$$V_{Pond\ II} = 4.67\left(\frac{9+3}{2\cdot 12}\right)(10)9 + \frac{4.67(16+10)}{2\cdot 12}(10)(5) = 463 \text{ CF}$$

7 CF over capacity*

Runoff to Pond III

$$V_{r.o.} = (2614)(.4293) = 1122 \text{ CF}$$

$$V_{Pond\ III} = \overset{136}{(16)(17)(1/2)(1)} + [(30)(30)/2 - 136]/2 = 293 \text{ CF}$$

829 over capacity*

Runoff to Pond VI

$$V_{r.o.} = [(46)(42)(1/2) + 4(34)]\frac{1.4}{12} = 72 \text{ CF}$$

$$V_{Pond\ VI} = (4)(.5)(14+8+12) = 68 \text{ CF}$$

4 CF over capacity*

* overflow to drain into Pond III

Zantigo's Tract H-4A + H4-B

Runoff to Pond V

$V_{r.o.} = 625(.4293) =$ 268 CF

$V_{pond\ V} = (208)(.5)(3.6801) =$ 383 CF

115 CF Excess Capacity

Runoff to Pond IV

$V_{r.o.} = (3224)(.4293) = 1384 +$ Pond II 7 + III 829 + IV 4 - V 115 = 2109 CF

$V_{Pond\ III}$ (3)(10)(71) = 2130 CF

21 CF Excess Capacity

Summary

Pond	Capacity	Required	
I	307	196	
II	463	470 *	
III	293	1122 *	
IV	2130	1384	
V	383	268	
VI	68	72 *	
	3644 CF	3512 CF	4% Excess Capacity

* overflow to drain into Pond IV

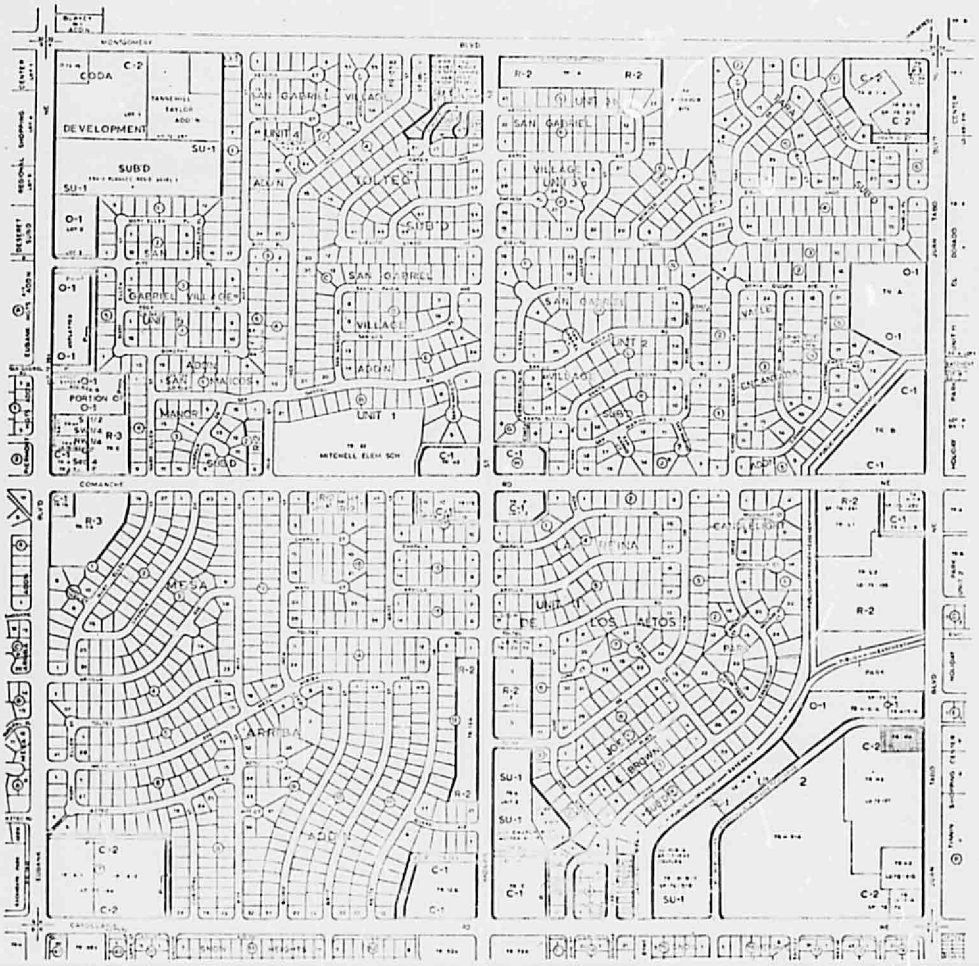

MONTGOMERY BLVD
CODA
DEVELOPMENT
SUBD
SAN GABRIEL VILLAGE
ADDN
TOLTEC
SUBD
SAN GABRIEL
VILLAGE
UNIT 1
MITCHELL ELEM SCH
VALLE
LA PRINA
DE LOS ALTOS
MESA
CARRIBA
COMANCHE
CATALINA

PLATE I

This Plan shot IN two Sections

Design Temp	Winter	Summer
Code	[illegible]	[illegible]
Actual	[illegible]	[illegible]

		U VALUES		BTU/HR-°F/		R FACTOR	
	AREA	CALC.	CODE	CALC	CODE	ACTUAL	CODE
EXTERIOR WALLS	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
ROOF/CEILING	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
FLOOR RP.B.E.		/	/	/	/		
			TOTALS	[illegible]	[illegible]		

	CALC	CODE
COMMERCIAL BUILDINGS & RESIDENTIAL BUILDINGS OVER 3 STORIES ONLY	8.1	8.21

HVAC EQUIPMENT	EER ACT	EER CODE	COP ACTUAL	COP CODE
ALL - [illegible]		6.8		2.0

STEAM, HOT WATER COOLING LINES & DUCTS

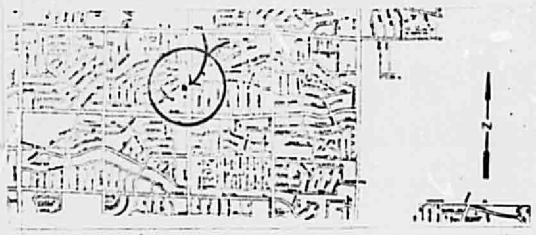
TYPE OF LINE	AMOUNT OF INSUL.	TYPE OF INSUL.
DOMESTIC HOT WATER	1/2"	PLASTIC
	1"	FIBERGLASS
HVAC DUCTS	1/2"	3#/ft² LINER

WATER HEATER — STAND BY LOSS (ELEC) 4 WATTS/ft² RECOVERY EFF (GAS) 75%

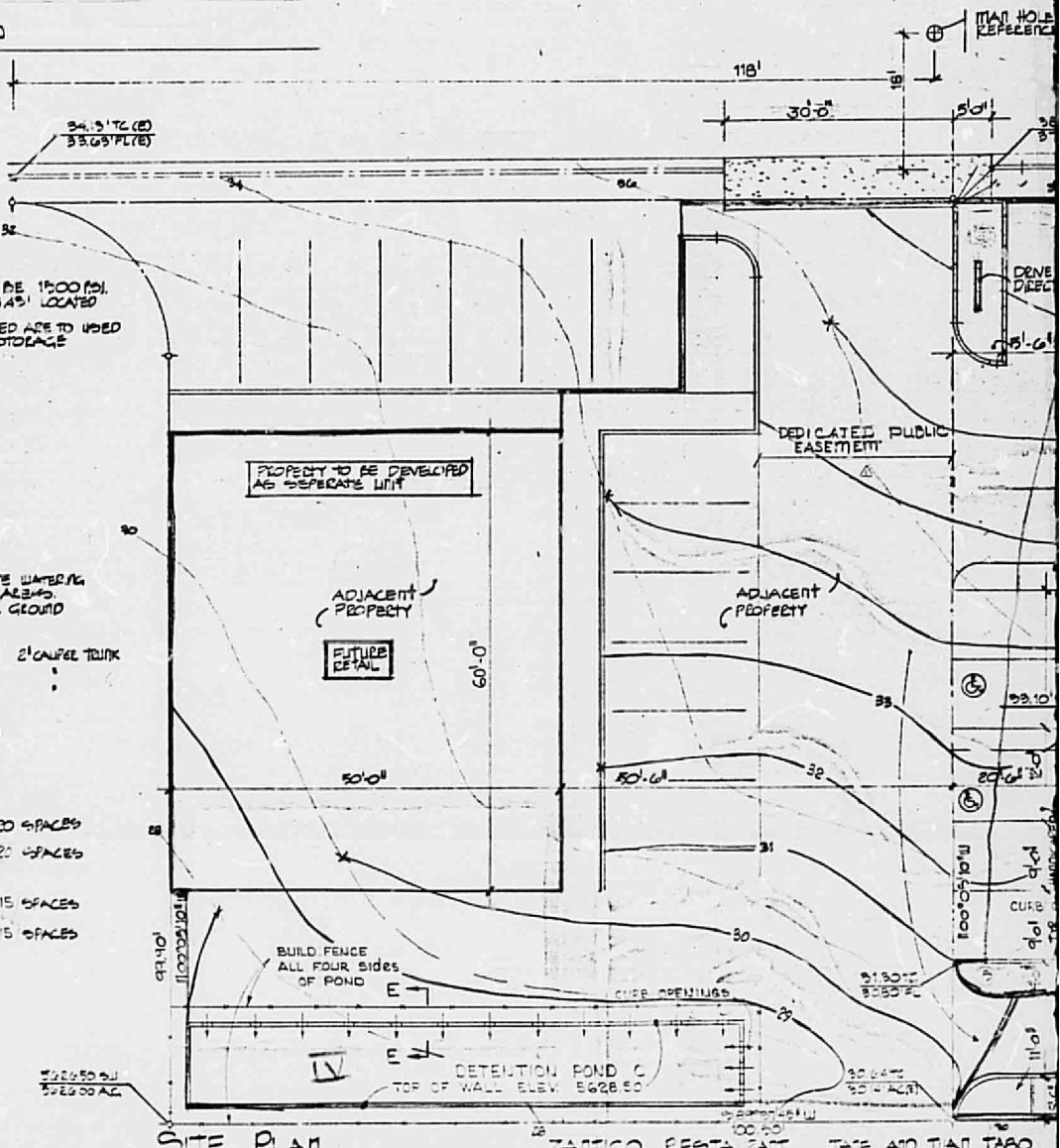
INDE

SITE

S-1 SITE PLAN & COVER SHEET



1. VICINITY MAP



SITE NOTES

1. SOIL BEARING ASSUMED TO BE 1500 PSI.
2. BENCH MARK 1½ MN DIA. 5628.45' LOCATED AS SHOWN IN JANE STREET.
3. PLANTING AREAS AS INDICATED ARE TO USED AS OIL SITE, RAIN WATER STORAGE

SITE LEGEND

1. S — SEWER
   G — GAS
   W — WATER
   TC — TOP CURB
   FL — FLOW LINE
   SW — SIDEWALK
   AC — ASPHALTIC PAVING
   50 — EXISTING CONTOUR
   31 — NEW CONTOUR
   → RAMP OR SWALE

2. LANDSCAPING NOTES
   A) SUPPLY ADEQUATE PERMANENT WATERING SYSTEM TO ALL PLANTING AREAS.
   B) 2"Ø WASHED ROCK TYPICAL GROUND COVER.
   C) PLANTING TYPES
      1. TOLLOSA JUNIPER 2' CALIPER TRUNK
      2. ARTEMISIA JUNIPER "
      3. ARIZONA ASH "
      4. HONEYSUCKLE
      5. MANDINA
      6. ANUAL FLOWERING

PARKING REQUIREMENTS

ZAITIGO - 80 SEATS	- 20 SPACES
SPACES PROVIDED	- 20 SPACES
FUTURE RETAIL - 30'0"	- 15 SPACES
SPACES PROVIDED	15 SPACES

K TO DRAWINGS

ARCHITECTURAL	EQUIPMENT	MECHANICAL	PLUMBING	ELECTRICAL
1 SITE DETAILS - INDEX 2 FOUNDATION PLAN - DETAILS 3 FRAMING PLANS 4 FLOOR PLAN - DETAILS 5 ELEVATIONS 6 BUILDING SECTIONS - DETAILS 7 WALL SECTIONS 8 FALSE FIREPLACE DETAILS 9 ROOF PLAN - DETAILS 10 INTERIOR ELEVATIONS - DOOR DETAILS 11 WINDOW & TRIM DETAILS 12 SPECIFICATIONS 13 SPECIFICATIONS 14 SPECIFICATIONS 15 SPECIFICATIONS	Eq1 EQUIPMENT LAYOUT & SCHEDULE Eq2 COMPOSITE KITCHEN EQUIPMENT Eq3 EQUIPMENT ROUGH-IN PLAN Eq4 FRONT SERVICE COUNTER Eq5 BACK SERVICE COUNTER & OVERHEAD CABINETS Eq6 MGR. DESK, SINGLE TRASH & DOUBLE TRASH Eq7 S/S PASS THRU, S/S OVEN SHELF, S/S GRIDDLE SHELF Eq8 3-COMPARTMENT SINK, HANDSINK, 4'-0"S/S PREP. TABLE Eq9 COOK'S COUNTER ASSEMBLY Eq10 TACO RAIL Eq11 SIGNAGE DETAILS Eq12 SIGNAGE DETAILS Eq13 SEATING DETAILS	M1 HVAC PLAN - ROOF OPENINGS M2 SCHEDULE M3 EXHAUST EQUIPMENT DETAILS	P1 PLUMBING	E1 FLOOR PLAN [illegible] V. E2 240 V. SCHEDULES & DETAILS E3 208 V. SCHEDULES & DETAILS E4 FLOOR PLAN 208/240 V. (ELECT. HEAT) E5 208 V. SCHEDULES & DETAILS E6 240 V. SCHEDULES & DETAILS

ELEVATION

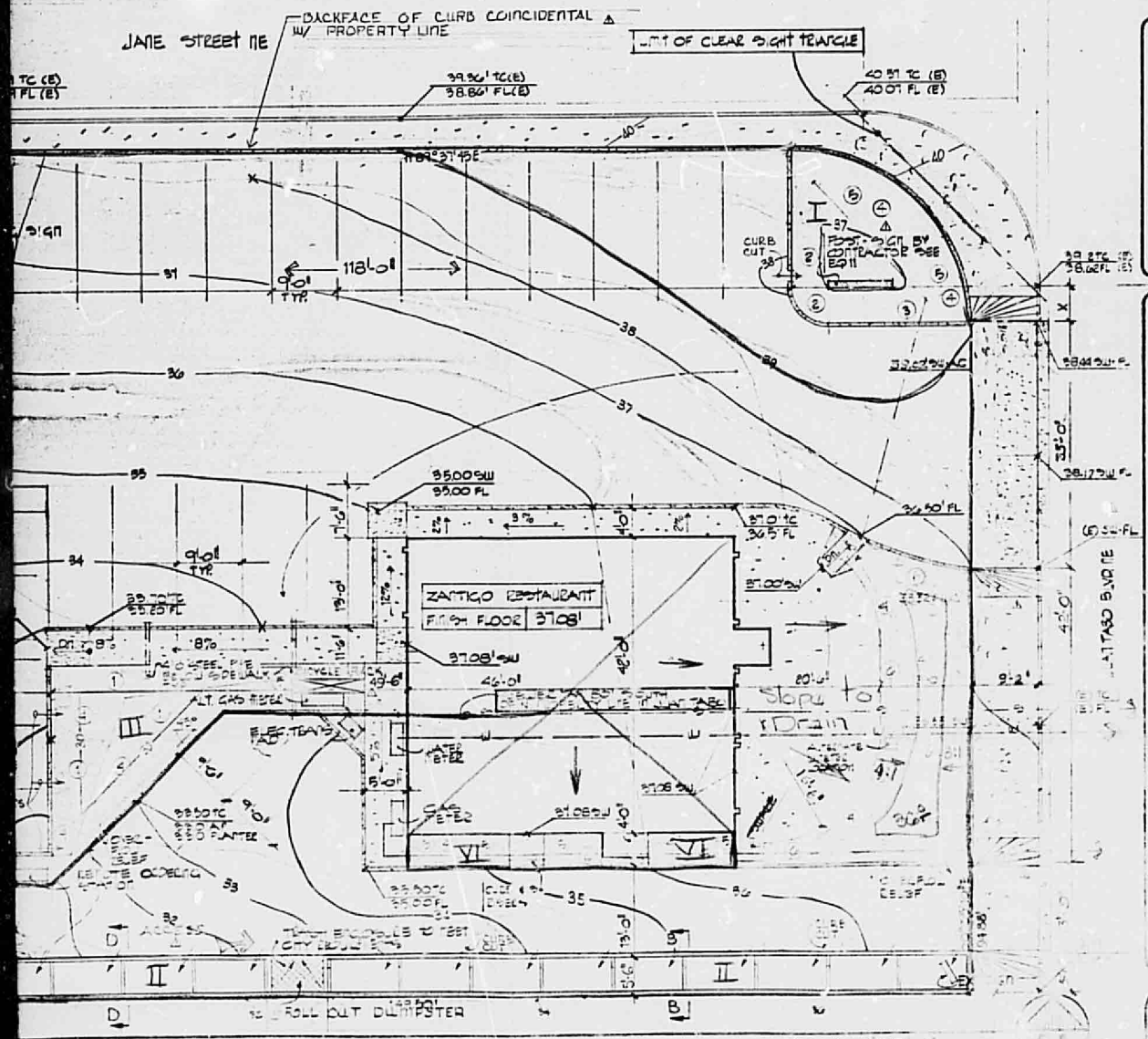


PLATE II

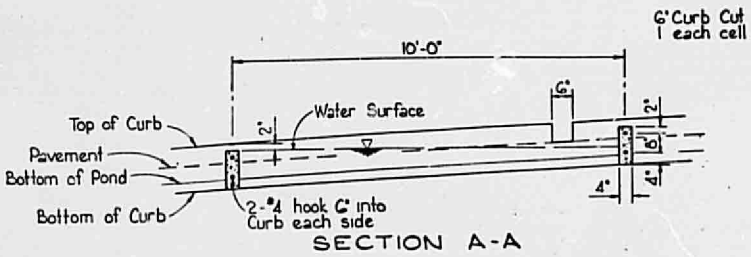
sheet title: [illegible] TO DRAWINGS CONSTRUCTION SHEET
project: [illegible] AT JANE & JUAN TABO

john c. toohey aia & associates architects & planners, p.a.

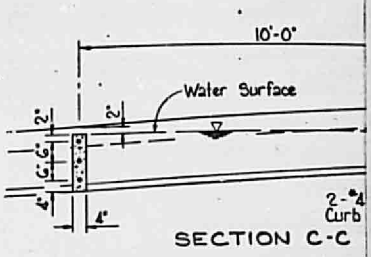
date: APRIL 1978 drawn: GB
job no: 7802 checked: JCT

consultants:

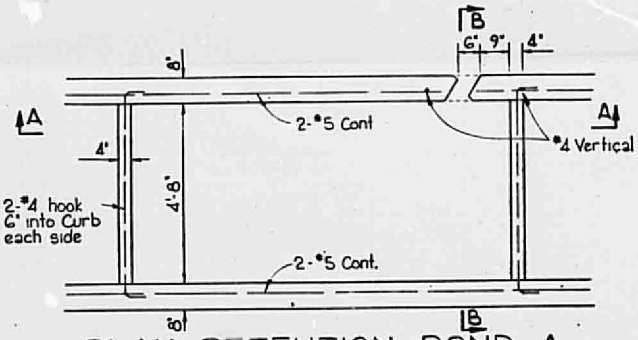
sheet [illegible]



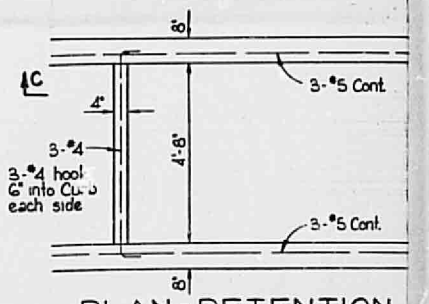
SECTION A-A



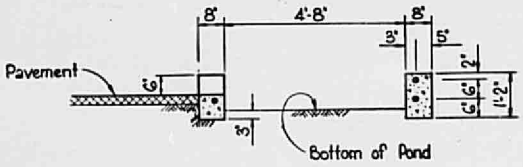
SECTION C-C



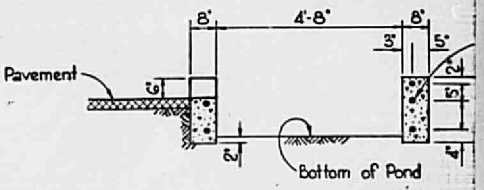
PLAN~RETENTION POND A



PLAN~RETENTION



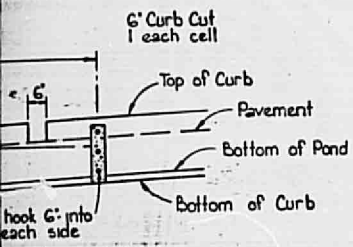
SECTION B-B

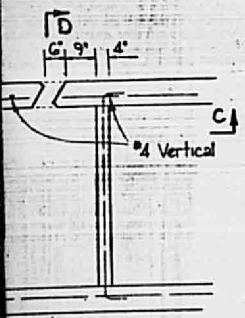


SECTION D-D

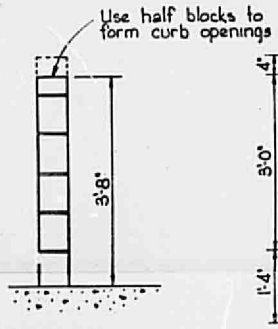
This Plan shot

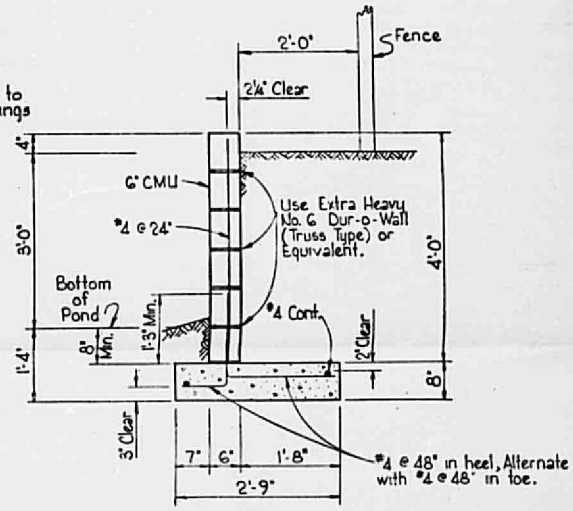
IN two Sections





D
POND B





SECTION E-E
RETENTION POND C

Factors of Safety: Overturning ≥ 2
Sliding ≥ 1.5

Earth Pressure: Horizontal - 30 pcf Equivalent Fluid
Vertical - Stability 120 pcf

Minimum Compressive Strength of Concrete at 28 days = 3,000 psi.

Grout All Cells Solid.

Soil Type Assumed - Granular with Silt (Silty Sand)

If soils other than the type assumed are encountered please contact this office immediately.

T.T. Burnett Engineering
120 Morningside Dr. NE
Albuquerque, New Mexico

Place #4 vertical in each corner of retaining wall.

Dur-o-Wall to have minimum 6" lap.

Rebar to have minimum 30 bar diameter lap.

STRUCTURAL DETAILS
FOR
RETENTION PONDS

PLATE III