Mr. Conaghan:

Attached to this note is a sheet of finished contours developed in regard to a drainage report prepared by Rich Gonsalves of MSM. We have had the drainage report in your office awaiting approval for nearly three weeks now.

Time is getting critical for the initiation of this project, and yours is the word that is needed for its start. All required ponding areas have been provided: as a matter of fact, area in excess of that required is shown on the plan.

This is only a pliminary development plan, and will have to pass through your office again in the working drawing stage.

Please take a few moments to peruse it, and give me your approval. I'll be back tomorrow.

Thanks you for your consideration,

George Marlyon
Rupley & Associates

RUPLEY & ASSOCIATES

ARCHITECT · PLANNER · LANDSCAPE ARCHITECT

July 18, 1978

Mr. Bruno Conegliano
City of Albuquerque
Dept. of Engineering
Flood Control and Drainage
400 Marquette Ave., N.W.
Albuquerque, New Mexico

Re: Drainage report for a portion of SU land bounded by Phoenix Ave. and Georgine Drive, N.E.

Dear Mr. Conegliano:

Attached please find the drainage plan and calculation derived for the proper drainage use of the parcel of land described above for townhouse development and apartment development. This is submitted for your evaluation to comply with the standard resolution 72-2.

Please note that all ponding areas are noted on the plans; all calculations for the ponding areas are shown with the ponding areas. Run-off flow volume and characteristics were computed by Meurer, Serafini and Meurer, Inc for this office, as shown by the notes on sheet 2.

We would appreciate your taking the time to evaluate and approve this plan so that we may proceed with our construction on this site. The special use permit has been approved, pending this portion of the development plan to be approved by your office, city engineers, and traffic engineers.

We would appreciate any expeditious handling that may be possible with regard to this matter. Thank you for your cooperation.

Sincerely,

John D. Rupley

John D. Rupley, AIA, AILA
JDR:mv
enc.

305 SAN PEDRO NE ALBUQUERQUE, NEW MEXICO 87108 (505) 266-2777

H-22/D12 DECEMBER 26, 1979

AMENDED CHANGES "AS-BUILT" TO RUPLEY & ASSOCIATES DOCUMENT DECEMBER 19, 1979, AND AS NOTED BY FRED J. AGUIRRE (ASST. HYDROLOGY ENG.) MADE DEC. 24, 1979. DURING THIS MEETING WITH MR. AGUIRRE, A REPRESENTATIVE OF CREST CONSTR (CONTRACTOR) & MYSELF; IT WAS DETERMINED THAT ALL WOULD BE ACCEPTABLE IF A BALANCE COULD BE SHOWN IN AREA "D" (PARTICULARLY LARGE POND ON WEST). IF MR. AGUIRRE'S FIGURES ARE ASSUMED CORRECT: THEN THE LARGE POND MUST CONTAIN 3,575 CUBIC FEET. ATTACHED DOCUMENTATION, VERIFIED IN FIELD BY ME AND ALL GRADE ELEV. SHOT BY ME BEAR OUT THE FACT THAT THE POND HAS AT LEAST A CAPACITY OF 3,909.38 CUBIC FEET WHICH IS IN ACCESS OF THE 3,573 THERE FOR O.K. TO POND ON SOUTH WAS INCREASED WHILE AT SITE & WILL POND A MIN. OF 280 FT^3 & WILL USE 272 FT^3 TO MAINTAIN COMPUTATIONS. NORTH "D" AREA WILL POND 944 FT^3 HOWEVER CITY FIGURE OF 775 FT^3 SHALL BE ASSUMED THIS WILL DEPOST 169 FT^3 ADDITIONAL TO STREET — IT SHOULD & MUST BE NOTED THAT THIS LAND IS ALLOWED 8,641 FT^3 OF WHICH THERE IS ONLY ~~5,429~~ FT^3 DISCHARGED TO STREET. NOTE THIS SITE EXCEEDS CITY OF ALBUQUERQUE STANDARDS & I HEREBY VERIFY ALL DATA TO BE CORRECT. THIS MEANS THIS SITE CONTAINS 3,114 FT^3 MORE THAN REQUIRED.

202

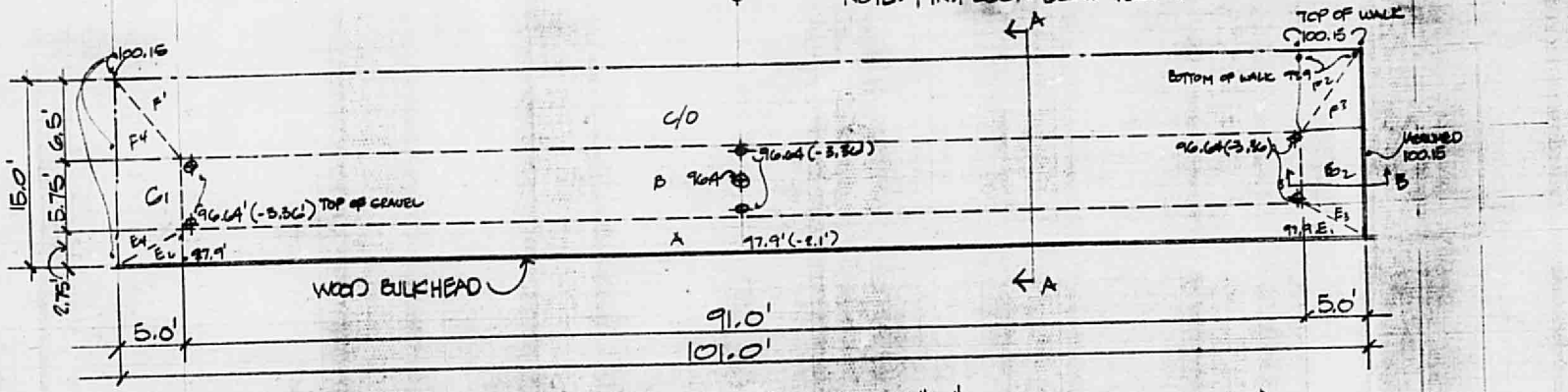
RESPECTFULLY SUBMITTED
JLD. Rupley AIA, AILA

APPROVED FOR DRAINAGE
12-27-79
SIGNATURE
ADVISE DRAINAGE INSP... WHEN GRADING BEGINS

IMMEDIATE ACTION IS REQUIRED FOR APPROVAL!

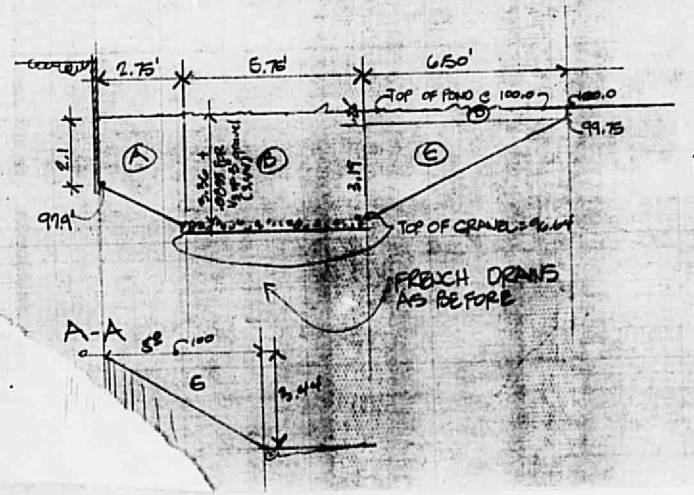
ASSUMED ELEV. = 100.0

NOTE: FIN. FLOOR ELEV. = 100.77'



MEASURE DRAWING OF "MAJOR POND" @ AREA "D" (IN WEST AREA - A PORTION)

ALL GRADES & DIMENSIONS BY RIPLEY & ASSOCIATES



$A = 91 \times 2.75 \times \frac{3.44+2.1}{2} = 693.19$

$B = 91 \times 5.75 \times 3.44 = 1799.98$

$C = 91 \times 6.5 \times \frac{3.19+2.8}{2} = 945.44$

$D = 91 \times 6.5 \times .25 = 147.87$

$F_1 = 5/2 \times 2.75 \times 2.77 =$

$= 19.04 \times 2 = F_1 + F_2 = 38.08$

$G_1 + G_2 = 1.72 \times 5 \times 5.75 =$

$= 49.45 \times 2 \text{ times } G_1 + G_2 = 98.90$

$F_3 = 1.72 \times 5.0 \times 2.79/2 = 12.03$

$= 12.03 \times 2 \text{ times } F_3 + F_4 = 24.06$

$F_5 = 1.72 \times 6.0 \times 0.5/2 = 27.96$

$= 27.95 \times 2 \text{ times } F_5 + F_6 = 55.90$

$F_2 \left(\frac{5}{2} \times 6.5 \times 1.96\right) + \left(\frac{5}{2} \times 6.5 \times .25\right) =$

$25.92 + 4.06 = 29.98 \times 2 = 59.96$

FRENCH DRAINS $\underline{48.00}$

TOTAL = 3909.38 > CITY REQ'D (3,575) ∴ O.K.

APPROVED FOR DRAINAGE

12-22-77

DATE

TITLE

SIGNATURE

ADVISE DRAINAGE INSPECTOR WHEN GRADING EXECUTED

Drainage Area "D" South

					Available Runoff
Area 1	≈	5960	pervious		
2	≈	180	"		
3	≈	180	"		
4	≈	180	"	2.4/12 (.4) =	429 ft³
5	≈	180	"		
6	≈	690	"		
7	≈	~~6660~~ 17,990	impervious	2.4/12 (1)	~~3598~~
8	≈	150			
		~~12170~~ 23,510 ft² ← (total area)			≈ 4027 ft³

Runoff to pond

4027 ft³
272
17
17
17
17
100
12
3575 ft³

Available ponding (per your calculation sheet)

3145.07 ft³

They dont balance!

12-24-79

CHECKED DEC 19 1979

RUPLEY & ASSOCIATES
ARCHITECT · PLANNER · LANDSCAPE ARCHITECT
305 SAN PEDRO NE
ALBUQUERQUE, NM 87108

AREA "D" NORTH

IMPERVIOUS =	6,364	PARKING & WALKS
	1,956	BLDINGS (870 + 1086)
	576	4 BLDG ENTRIES (144 x 4)
	8,896	
PERVIOUS =	282	NORTH EAST CORNER
	1,344	NORTH WEST CORNER.
	120	BETWEEN ENTRY WALK (4@ 30'): 120'
	240	MIDDLE UNIT 1
	780	BETWEEN UNIT 1 & 2
	240	middle or entry pairs.
	72	PORTION @ SOUTH BOUNDRY OF "D NORTH"
	3,078	

TOTAL AREA OF "D NORTH" = 12,174 D'

C = COEFFICIENTS - PERV = .38 IMPERVIOUS = .90

I = rainfall = 2.4" (in use = 2.4/12 = .2)

A = AREA OF INVOLVEMENT

V = CIA

COMPOSITE C = WEIGHTED AVERAGE

.74(.9) + .26(.38) =

.66 + .13

C = .79

V = C I A

V = .79 (.2) 12,174 = 1,923.49 CF

TOTAL PONDED AREA = 1,141.25

IMPOGGED = 782.24 CF TO STREET

WITH THE ABOVE AREAS REMOVED FROM ORIGINAL "D" WILL GIVE REQUIREMENTS FOR "D-SOUTH"

CHECKED DEC 19 1979

RUPLEY & ASSOCIATES
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305 SAN PEDRO NE
ALBUQUERQUE, NM 87108

ORIGINAL "D"

PERVIOUS	7,763
IMPERVIOUS	20,663

PERVIOUS

ORIGINAL	7,763
LESS D NORTH	(3,078)
	4,685

IMPERVIOUS

ORIGINAL	20,663
LESS D-NORTH	(9,096)
	11,557

D - SOUTH
TOTAL AREA = 16,242

C = IMPERV + PERV
= .71 (.90) + .29 (.38)
= 63.9 + .110 = .75

$V = C\ I\ A$
= .75 (.2) 16,242 = 2,436.3 CU. FT RUN OFF

PONDING IN D - SOUTH =

3,145	LARGE WEST POND	← see appendix A for calculation
272	SOUTH	
200	BETWEEN 2 UNITS (100 EA)	
68	(1" POND IN FRONT OF UNITS)	

TOTAL PONDING = 3,685 CU. FT.

3,685 > 2436.3 ∴ NO RUN OFF TO STREET.

1 of 2 3

DEVELOPED VOLUME

CHECKED DEC 19 1979

VOLUMES OF A, H & D-NORTH CONTRIBUTE TO OFF SITE.

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ARCHITECT - PLANNER - LANDSCAPE ARCHITECT
305 SAN PEDRO NE
ALBUQUERQUE, NM 87108

VOLUME OF A: 2301 C.F

" " H: 1978 C.F

" " D NORTH: 782.24 CF

TOTAL VOLUME = 5,061.24 CUBIC FEET

HISTORICAL VOLUME = 8,541 CU. FT.

5061.24 < 8541 ∴ STILL BELOW HISTORICAL & THEREFORE OK.

DEC. 19, 79 RECOMPUTED

BY JOHN D. RUPLEY

STATE OF NEW MEXICO
JOHN D. RUPLEY
NO. 551
REGISTERED ENGINEER

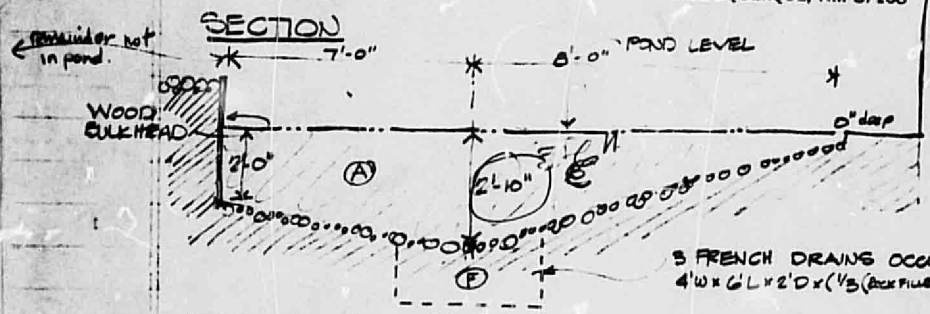
APPENDIX "A"

CHECKED DEC 19 1979

RUPLEY & ASSOCIATES
ARCHITECT · PLANNER · LANDSCAPE ARCHITECT
305 SAN PEDRO NE
ALBUQUERQUE, NM 87108

REAR POND "C - SOUTH"

SECTION



3 FRENCH DRAINS OCCUR
4'W x 6'L x 2'D x (1/3 (BACK FILLED) = V = 15.9 CF EACH.

POND LENGTH ± 105'-0"

A = 105 x 7 x $\left(\frac{2.0 + 2.8333}{2}\right)$ = 1,776.2 C.F. 1911 1911.8

B = 105 x 8 x $\left(\frac{2.8333}{2}\right)$ = 1,189.98 C.F 1344 1398

F = 3 EA FRENCH DRAINS: 3x15.9 = 47.7 C.F 47.7

MIN. 3" GRAVEL COVER =

~~1/3 Rectangle (1")~~ x 105 x 15' = 131.19 CF

TOTAL = POND CAPACITY = 3,145.07 CF

2021
1A 70
48