HYDROLOGY

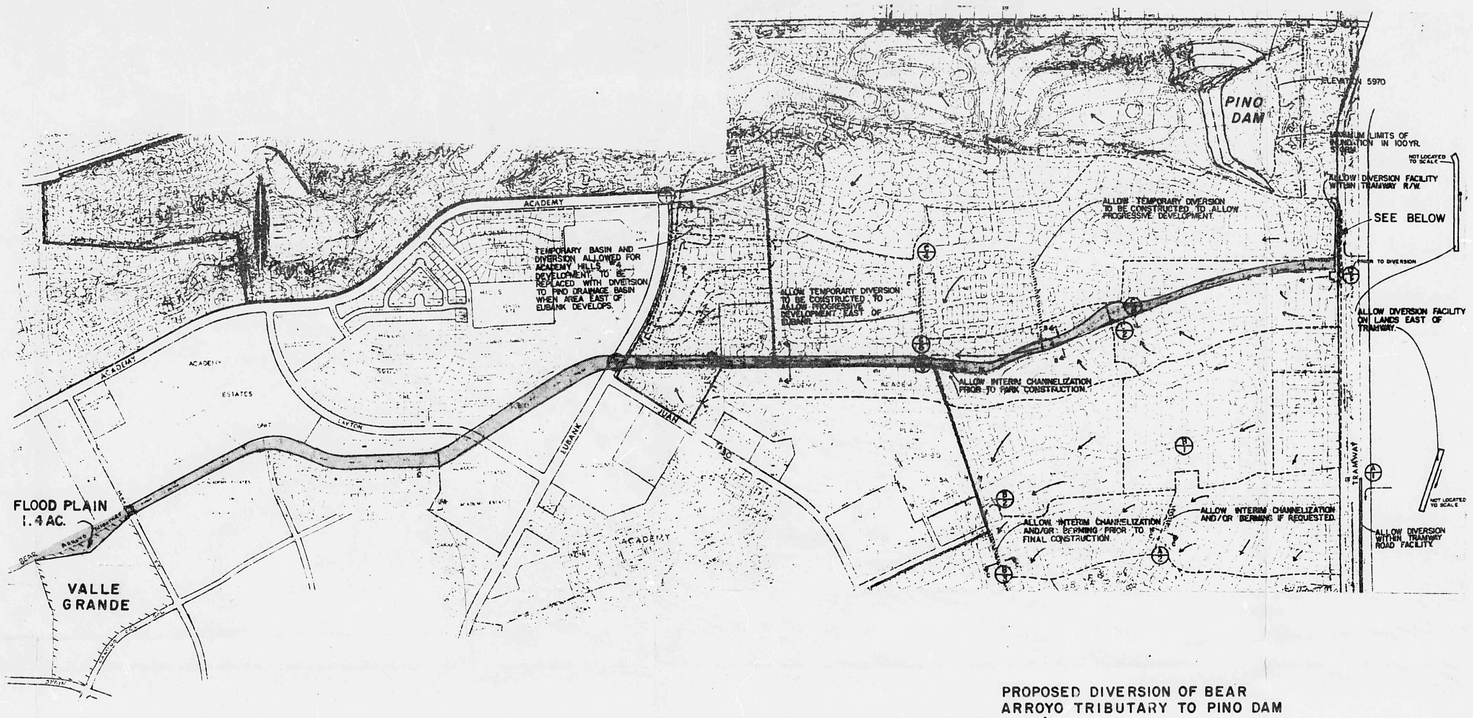
F20/D13

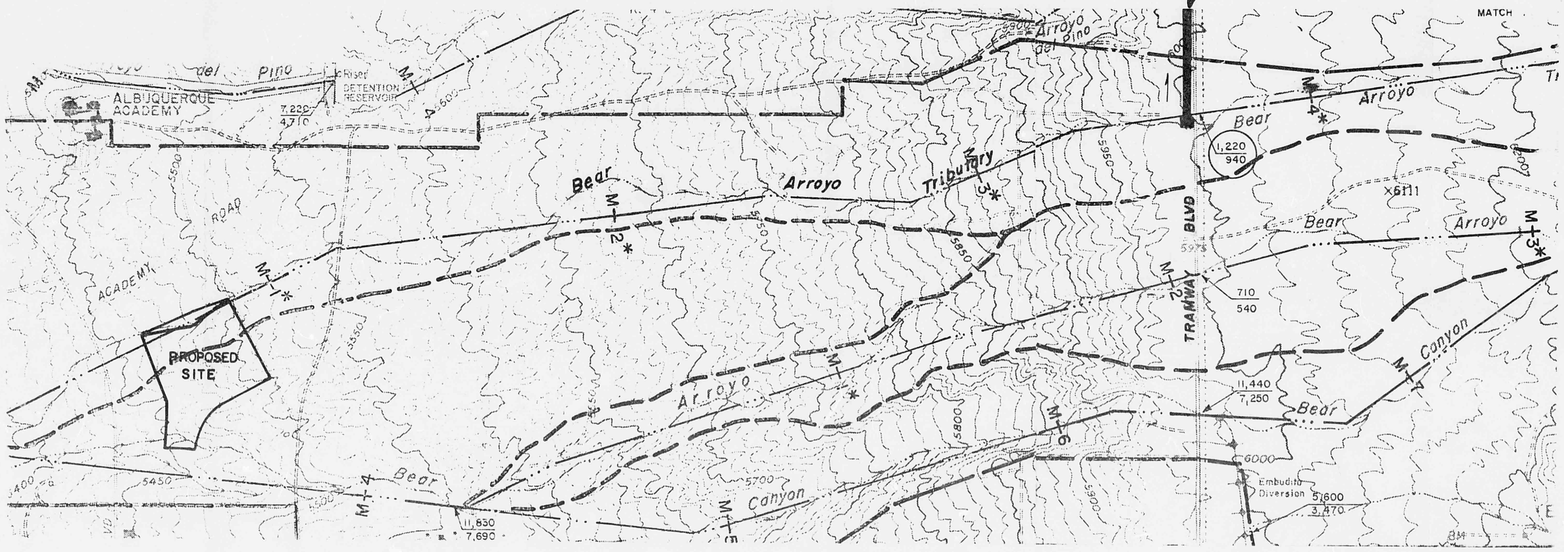
ELEVEN PLA

ONE OF THR

F20/D13

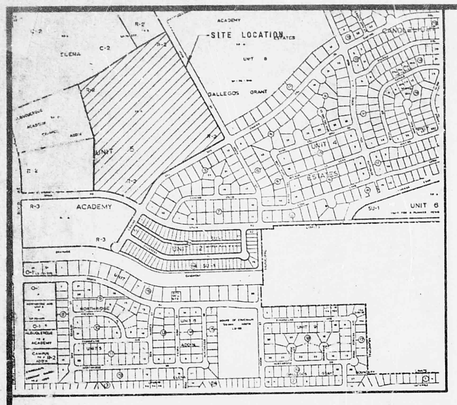
11 Plans





MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS
2501 Wyoming Blvd., N.E. Albuquerque, New Mexico 87110
(505) 338-1826
A Genge Co.

BEAR ARROYO TRIBUTARY
AMAFCA DRAINAGE STUDY
1974



VICINITY MAP
SCALE: 1"=800' (Approx.)

SCALE : 1" = 100'

BEAR ARROYO TRIBUTARY
1600 C.F.S. AMAFCA REPT. 1974
FLOOD PLAIN
100 YEARS

DRAINS TO BEAR ARROYO

PHASE IV
STREET AREA
2.9 Acs.

OFFSITE FLOW FROM ACADEMY ESTATES UNIT 8 INTERCEPTED BY MOON ST. N.E.

MOON STREET N.E.

ACADEMY ESTATES
UNIT 8

ALBUQUERQUE
ACADEMY
LAND

PHASE V
STREET AREA
2.8 Acs.

VALLE GRANDE
APTS
PHASE 1

PHASE II
STREET AREA
2.7 Acs.

PHASE III
STREET AREA
2.8 Acs.

ROUTE I

ROUTE III

CAMINO DEL SOL N.E.

SPAIN ROAD N.E.

TO BEAR ARROYO

TO BEAR ARROYO

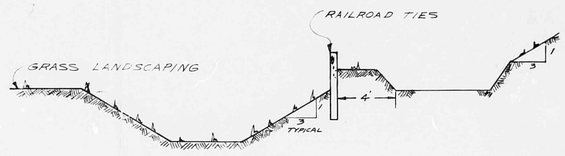
T.C. 100 MIN. USED
ACTUAL TIME 7.85 MIN.

Q=25.0 CFS
T.C. 10 MIN.

Q=24 CFS
T.C. 10 MIN.

Q=176 CFS

Q=141.6 CFS



POND DETAIL

POND DETAIL

POND DATA				
POND AREA	BOTTOM ELEV.	DEPTH OF POND	VOL. (FT.^{3})	SURFACE AREA
A	71²	2.5	20,100	10000
B	75²	1.5	2692	3200
C	68²	2.0	14040	9000
D	74²	1.5	888	1100
E	72²	1.5	891	900
F	71²	1.5	637	600
G	85²	2.0	2640	2000
H	92²	2.0	8980	7000
I	93²	1.5	1022	1100
J	88²	2.0	1893	1500
K	77²	2.0	26000	18000
L	88²	1.7	1151	1200
M	80²	1.5	920	1000
N	72²	2.0	16488	10400
O	89²	2.0	11000	8500
P	76²	2.0	2750	2500
Q	65²	2.0	2970	2700
R	67²	2.0	2320	2000
S	66²	1.5	920	1000
T	62²	2.0	2110	1500
U	60²	2.0	3320	4200
V	54²	2.0	10680	8000
W	50²	2.3	13310	5500
X	60²	2.4	2320	2200
Y	67²	2.0	891	1200
Z	74²	2.0	1600	2000

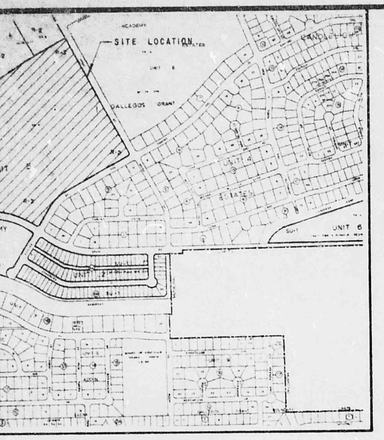
LEGEND

- F.F. 85² - FINISHED FLOOR ELEVATION
- (5) - DRAINAGE AREA NUMBER
- ═══ - STORM DRAIN PIPES SIZED FOR FLOW MIN. DIAMETER 8"
- Q - STORM RUNOFF 100 YEAR (c.f.s.)
- ⬭ - PONDS

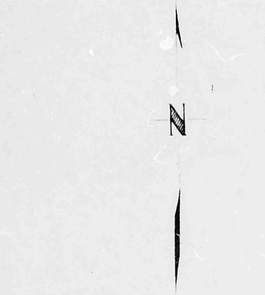
MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS
2001 Wyoming Blvd. N.E. Albuquerque, New Mexico 87112
(505) 292-1295

VALLE GRANDE APTS
DEVELOPED DRAINAGE

DRAWN BY D. Wood
SCALE 1" = 100'
JOB NO. 2520063
DATE 6-13-78
SHEET 1 OF 2



VICINITY MAP
SCALE 1" = 800' (Approx.)



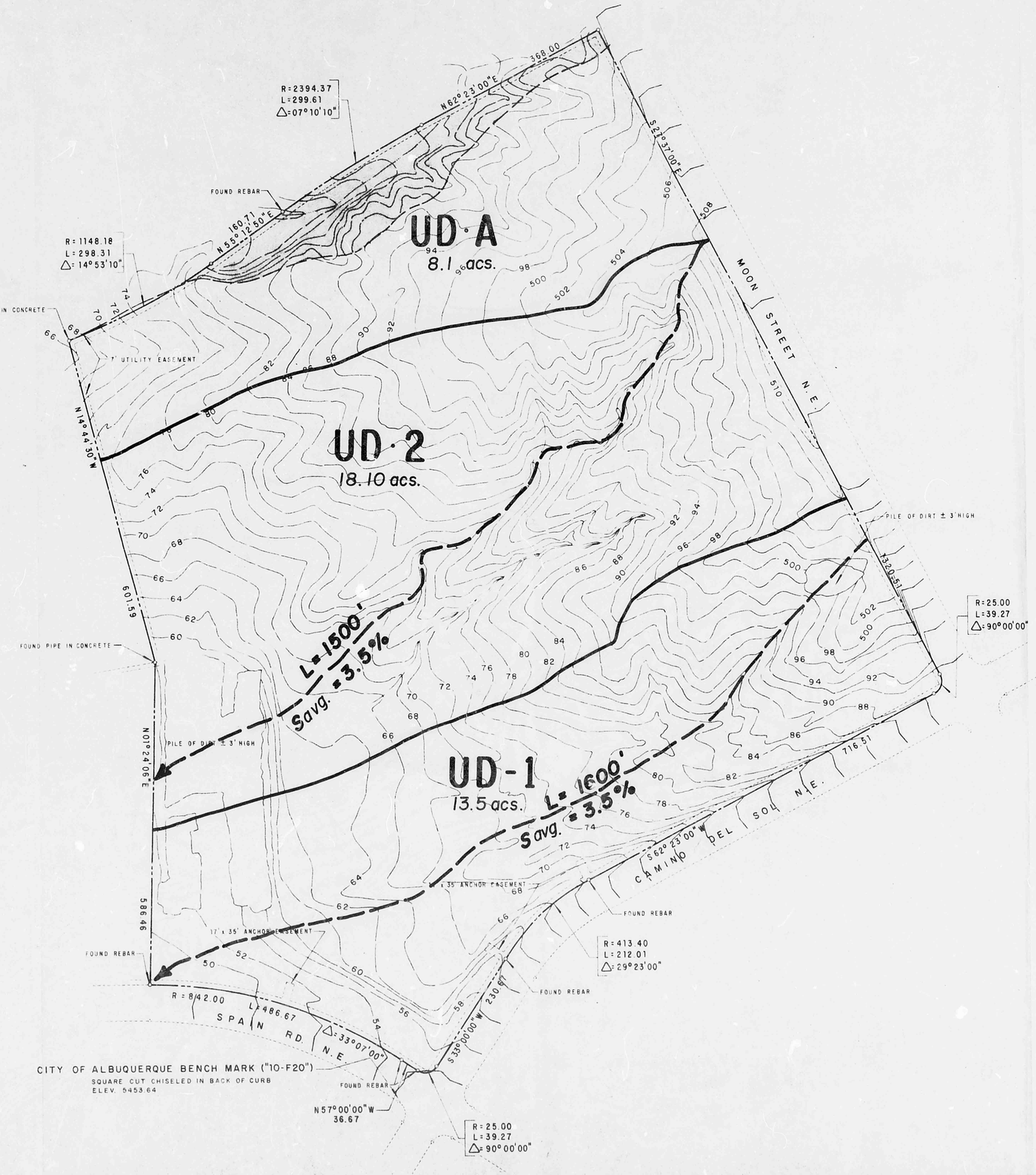


FIG. I

MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS
2601 Wyoming Blvd., N.E. Albuquerque, New Mexico 87110
(505) 292-1985

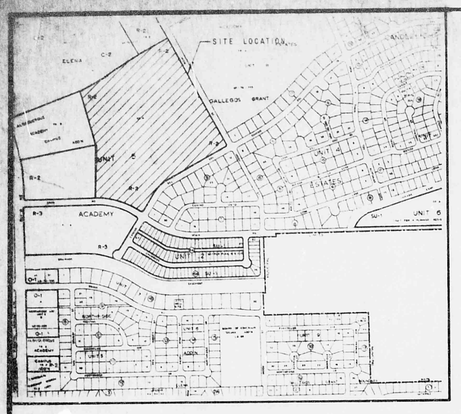
DRAWN BY: MD
DESIGNED BY:
CHECKED BY:
APPROVED BY:

Valle Grande Apartments

UNDEVELOPED DRAINAGE CHARACTERISTICS

FILE NO.
DATE: NOTED APR. 79
SHEET NO. 2

7570087



VICINITY MAP

SCALE 1"=800' (Approx)

UNIT 8

R=2394.37
L=299.61
Δ=07°10'10"

368.00

N62°23'00"E

S25°37'00"E

FOUND REBAR

160.71

N55°12'30"E

R=1148.18
L=298.31
Δ=14°53'10"

FUTURE DEVELOPMENT
(not in this report)

FOUND PIPE IN CONCRETE

7' UTILITY EASEMENT

MOON STREET N.E.

N14°44'30"W

609.59

OFF-SITE BASIN 4

OFF-SITE BASIN B+2

OFF-SITE BASIN B+1

D·1

E·1

G·1

D·2

G·2

F·1

E·2

G·3

F·2

D·4

B·3

C·3

C·4

B·1

BB·1

DD·1

VALLE GRANDE

C·1

BB·2

PHASE III

B·2

C·2

G·4

716.51

S62°23'00"W

CAMINO DEL SOL N.E.

FOUND REBAR

R=413.40
L=212.01
Δ=29°23'00"

R=842.00
L=486.67
Δ=33°07'00"

SPAIN RUN N.E.

S33°30'00"W 230.67

FOUND REBAR

27" TO FUTURE STORM SEWER

N57°00'00"W
36.67

R=25.00
L=39.27
Δ=90°00'00"

R=25.00
L=39.27
Δ=90°00'00"

PHASE IV

UNIT 2

N

0 50 100 50 200

SCALE IN FEET
1"=100'

CITY OF ALBUQUERQUE BENCH MARK ("10-F20")
SQUARE CUT CHISELED IN BACK OF CURB
ELEV. 5453.64

POND F-2

Pond Elevation	Surface Area	Storage (FT³)
MAX. 48℄	7888	7168
47℄	7168	3404
℄ 47¢	6448	

POND C-4

Pond Elevation	Surface Area	Storage (FT³)
MAX. 54℄	17,192	50,788
54¢	16,752	42,192
53℄	15,872	34,060
53¢	14,932	26,368
52℄	14,080	19,092
52¢	13,168	12,272
51℄	12,272	5,912
℄ 51¢	11,376	

NOTE FLOW RATES SHOWN IN PARENTHESES ARE FLOWS FROM PHASE III AND INCLUDE OFF-SITE AREAS. THEY ARE SHOWN ON THIS FIGURE TO VERIFY COMPLIANCE WITH THE ORIGINAL REPORT.

Legend

- (qp=3.3) --------PEAK DISCHARGE IN CU. FT. PER SEC.
- ~~~~~ --------WATER BLOCK
- --------CULVERT PIPE
- ●●●●●●● EXISTING BERM
- ▬▬▬▬ PHASE III BOUNDARY
- ▬ ▬ ▬ ▬ OFF-SITE BASIN BOUNDARY

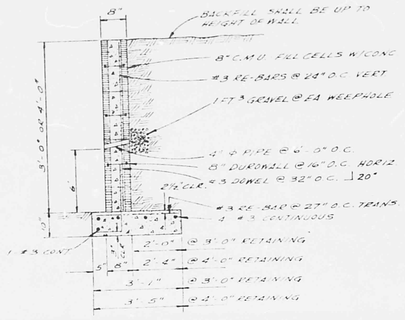
RECEIVED
NOV 23 1983
ENGINEERING

FIG. III

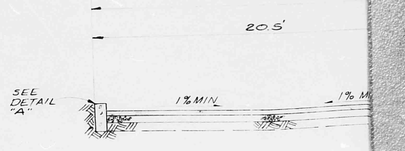
MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS
2601 Wyoming Blvd. N.E. Albuquerque, New Mexico 87110
(505) 292-1138

DRAWN BY:	2520087
DESIGNED BY:	Valle Grande Apartments
CHECKED BY:	DEVELOPED DRAINAGE CHARACTERISTICS
APPROVED BY:	SCALE: NOTED; DATE: APR. 79; SHEET NO.: 2 OF 2

2520087



RETAINING WALL 3'-0", 4'-0"



PLAN SHOT IN TWO SECTIONS.

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT

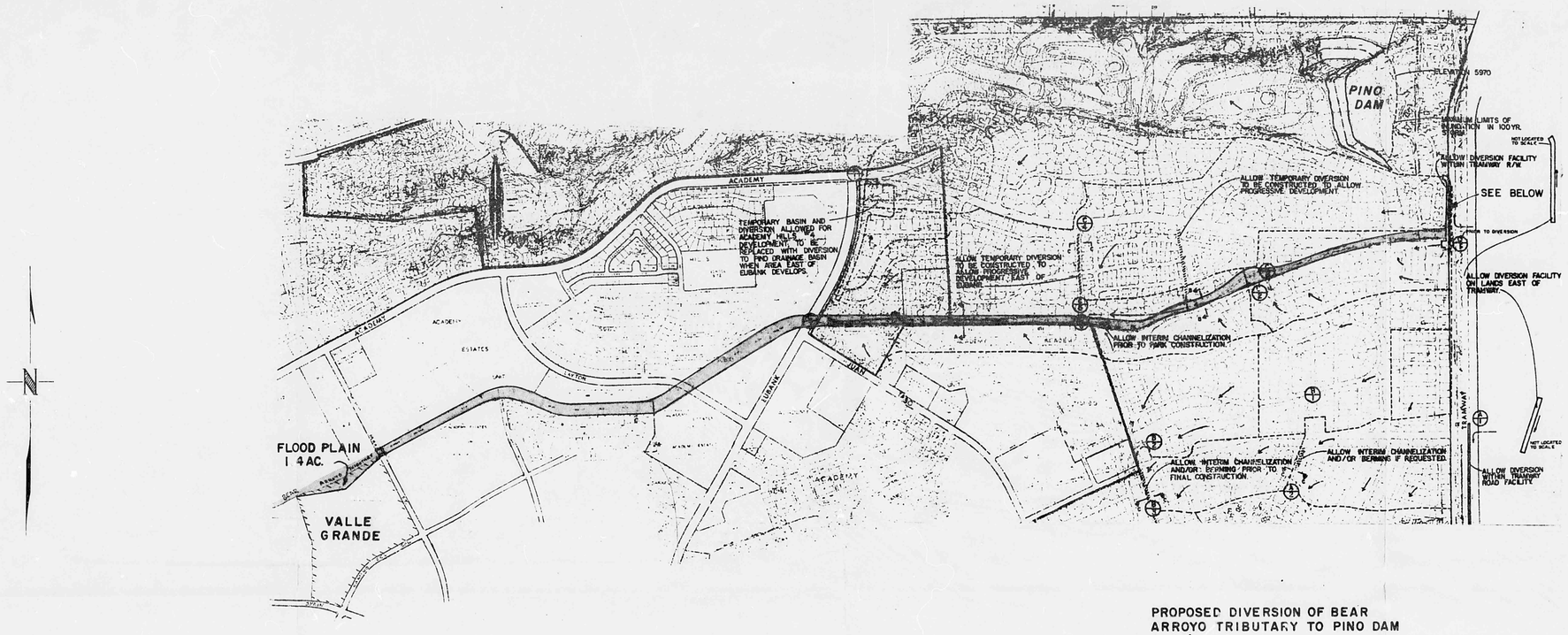
DETENTION POND SIDEWALK CULVERT DETAIL NO SCALE

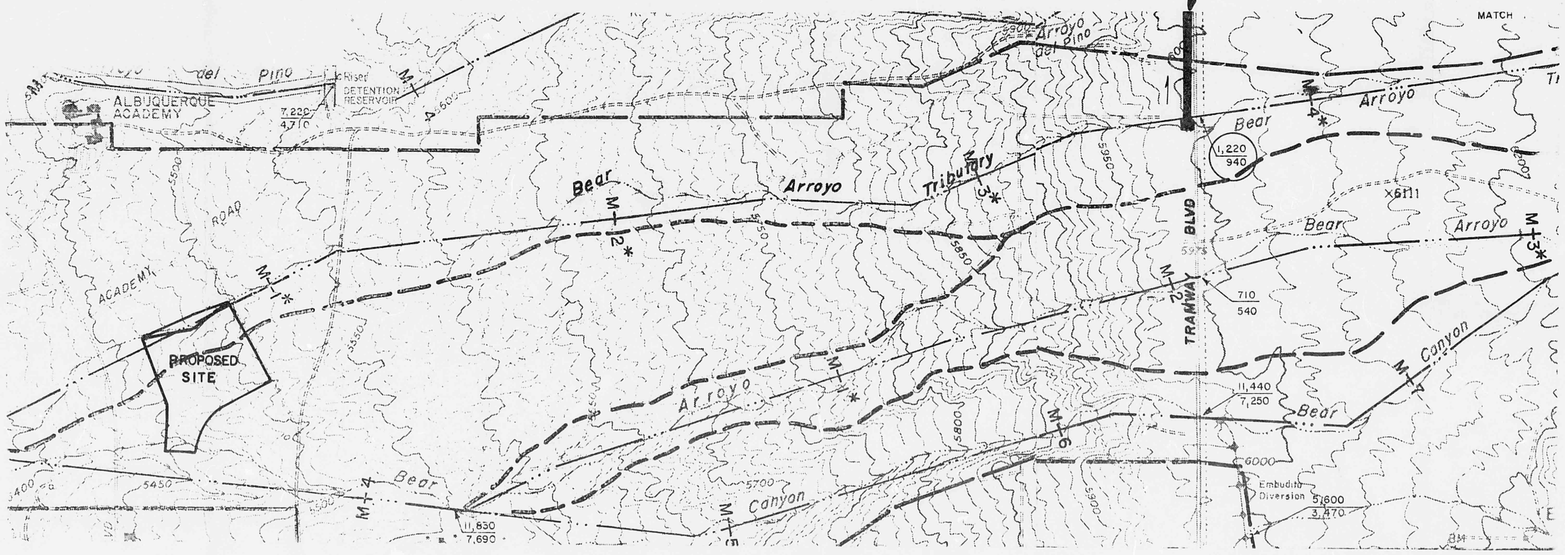
HYDROLOGY

F20/D13
ELEVEN PLA
ONE OF THR

F20/D13

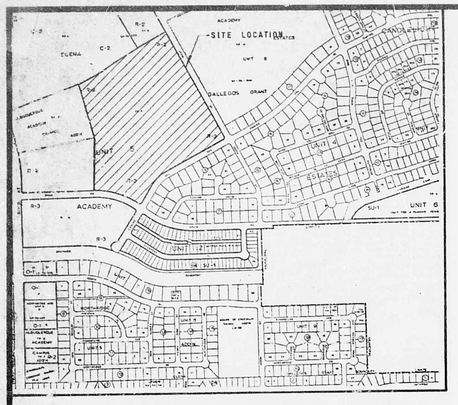
11 Plans





MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS
2001 Wyoming Blvd., N.E. Albuquerque, New Mexico 87110
(505) 268-1030 A Gengo Co.

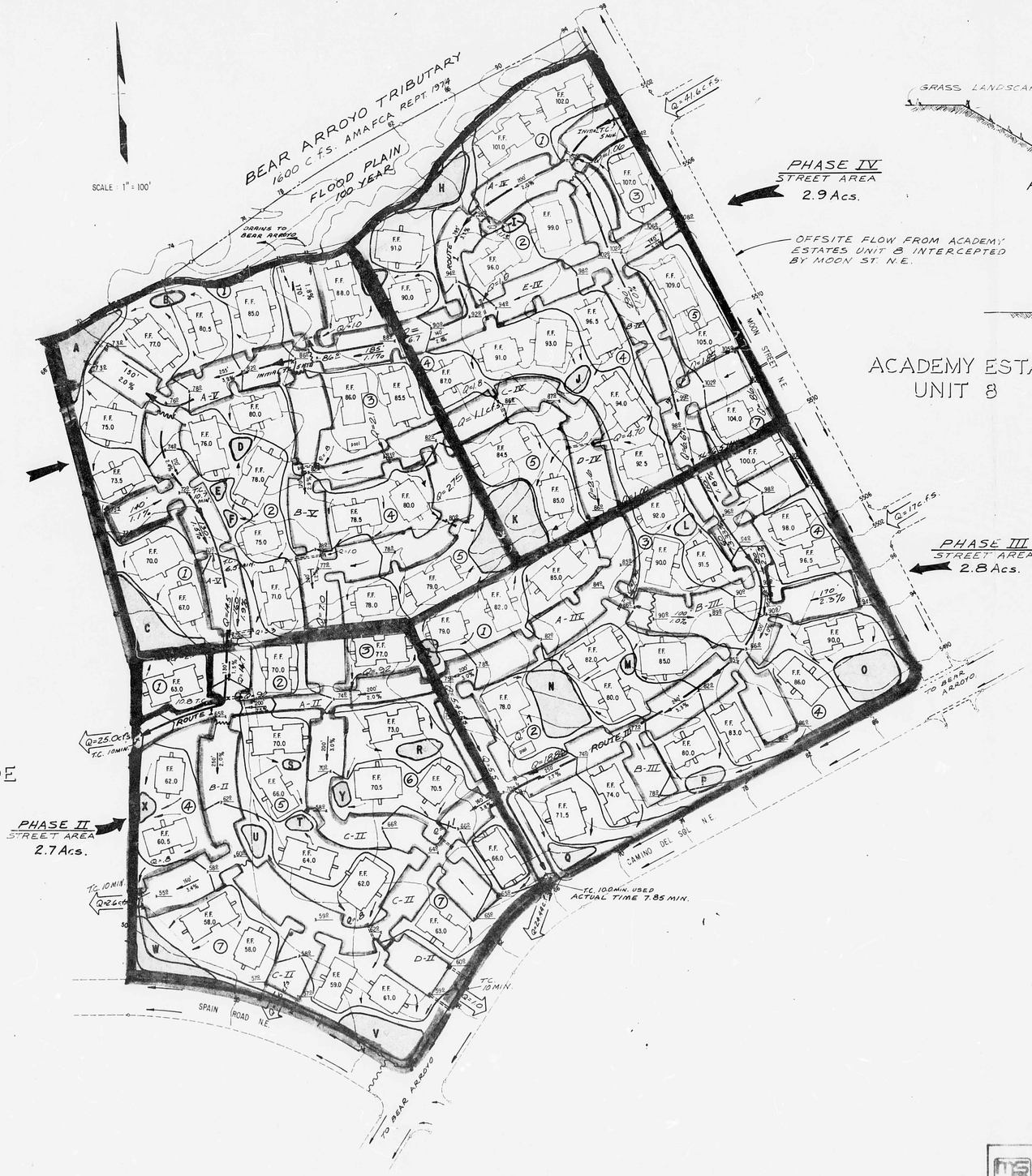
BEAR ARROYO TRIBUTARY
AMAFCA DRAINAGE STUDY
1974



VICINITY MAP

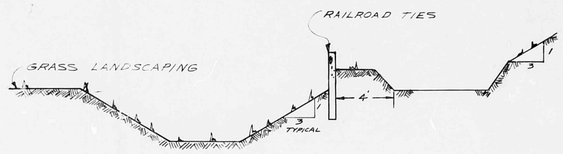
SCALE: 1"=800' (Approx.)

SCALE - 1" = 100'



ALBUQUERQUE
ACADEMY
LAND

VALLE GRANDE
APTS
PHASE 1



POND DETAIL

POND DETAIL

ACADEMY ESTATES
UNIT 8

POND AREA	POND DATA			
	BOTTOM ELEV.	DEPTH OF POND	VOL. (FT.^{3})	SURFACE AREA
A	71²	2.5	20,100	10000
B	75²	1.5	2692	3000
C	63²	2.0	14040	9000
D	74²	1.5	888	1100
E	72²	1.5	884	900
F	71²	1.5	637	600
G	85²	2.0	2540	2000
H	92²	2.0	8580	7000
I	93²	1.5	1022	1400
J	88²	2.0	1893	1500
K	77²	2.0	26000	18000
L	88⁵	1.7	1151	1200
M	80²	1.5	920	1000
N	72²	2.0	16688	10600
O	65²	2.0	11600	8660
P	76²	2.0	2750	2500
Q	65²	2.0	2880	2700
R	67²	2.0	2320	2000
S	64²	1.5	920	1000
T	62²	2.0	2110	1500
U	60²	2.0	3320	4300
V	54²	2.0	10680	8000
W	50²	2.3	13310	3500
X	60²	2.4	2320	2000
Y	67²	2.0	981	1200
Z	74²	2.0	1600	2000

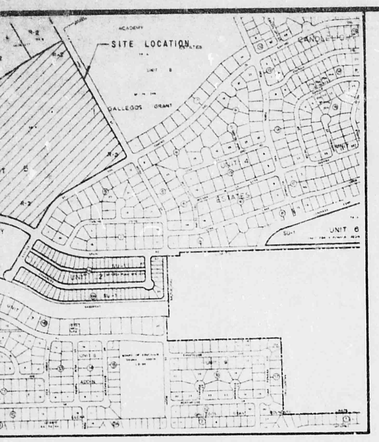
LEGEND

- F.F. 85² - FINISHED FLOOR ELEVATION
- (5) - DRAINAGE AREA NUMBER
- ═══ - STORM DRAIN PIPES SIZED FOR FLOW MIN. DIAMETER 8"
- Q - STORM RUNOFF 100 YEAR (C.F.S.)
- ⬭ - PONDS

MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS

VALLE GRANDE APTS
DEVELOPED DRAINAGE

D. Wood | KCM-MS | 1" = 100' | 6-13-78 | 2520063 | 1 | 2



VICINITY MAP
SCALE 1" = 800 (Approx.)

N

0 50 100 150 200
SCALE IN FEET
1" = 100'

R = 2394.37
L = 299.61
Δ = 07°10'10"

N62°23'00"E 368.00

FOUND REBAR

N53°12'50"E 160.71

R = 1148.18
L = 298.31
Δ = 14°53'10"

FOUND PIPE IN CONCRETE

7' UTILITY EASEMENT

N14°44'30"W 601.59

FOUND PIPE IN CONCRETE

PILE OF DIRT ± 3' HIGH

N01°24'06"E 586.46

17' x 35' ANCHOR EASEMENT

FOUND REBAR

R = 842.00 L = 486.67 Δ = 33°07'00"

SPAN RD. N.E.

CITY OF ALBUQUERQUE BENCH MARK ("10-F20")
SQUARE CUT CHISELED IN BACK OF CURB
ELEV. 5453.64

FOUND REBAR

N57°00'00"W 36.67

R = 25.00
L = 39.27
Δ = 90°00'00"

S21°37'00"E 509.

MOON STREET N.E.

PILE OF DIRT ± 3' HIGH

S33°20'51"E 716.51

R = 25.00
L = 39.27
Δ = 90°00'00"

S62°23'00"W

CAMINO DEL SOL N.E.

17' x 35' ANCHOR EASEMENT

FOUND REBAR

R = 413.40
L = 212.01
Δ = 29°23'00"

FOUND REBAR

S36°00'00"W 230.67

UD-A
8.1 acs.

UD-2
18.10 acs.

UD-1
13.5 acs.

L = 1500'
Savg. = 3.5%

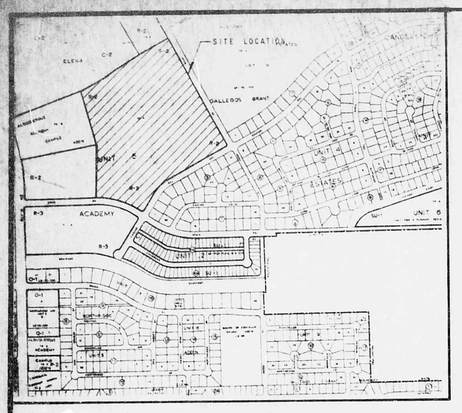
L = 1600'
Savg. = 3.5%

FIG. I

MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS
2501 Wyoming Blvd., N.E. Albuquerque, New Mexico 87110
(505) 292-1895

DRAWN BY:	Valle Grande Apartments
DESIGNED BY:	UNDEVELOPED DRAINAGE CHARACTERISTICS
CHECKED BY:	
APPROVED BY:	
FILE NO.	
DATE: NOTED APR. 79	

7527.00A7



VICINITY MAP

SCALE 1"=800' (Approx.)

UNIT 8

R=2394.37
L=299.61
Δ=07°10'10"

FOUND REBAR

160.71
N 55°12'50" E

N62°23'00"E 368.00

S62°37'00"E 369

308

MOON STREET N.E.

R=1148.18
L=298.31
Δ=14°53'10"

FUTURE DEVELOPMENT
(not in this report)

FOUND PIPE IN CONCRETE

7' UTILITY EASEMENT

N14°44'30"W 601.59

OFF-SITE BASIN 4

OFF-SITE BASIN B-2

OFF-SITE BASIN B-1

D-1

E-1

G-1

D-2

G-2

F-1

E-2

G-3

F-2

D-4

B-3

C-3

C-4

DD-1

VALLE GRANDE

BB-1

BB-2

B-1

B-2

C-1

C-2

G-4

PHASE III

PHASE IV

UNIT 2

R=25.00
L=39.27
Δ=90°00'00"

716.51

S62°23'00"W

CAMINO DEL SOL N.E.

R=413.40
L=212.01
Δ=29°23'00"

FOUND REBAR

R=842.00 L=486.67 Δ=33°07'00"

SPAIN RD. N.E.

S35°00'00"W 230.67

27" TO FUTURE STORM SEWER

N57°00'00"W
36.67

R=25.00
L=39.27
Δ=90°00'00"

CITY OF ALBUQUERQUE BENCH MARK ("10-F20")
SQUARE CUT CHISELED IN BACK OF CURB
ELEV. 5453.64

0 50 100 150 200
SCALE IN FEET
1"=100'

NOTE FLOW RATES SHOWN IN PARENTHESES ARE FLOWS FROM PHASE III AND INCLUDE OFF-SITE AREAS. THEY ARE SHOWN ON THIS FIGURE TO VERIFY COMPLIANCE WITH THE ORIGINAL REPORT.

LEGEND

- (qp=3.3) PEAK DISCHARGE IN CU. FT. PER SEC.
- WATER BLOCK
- CULVERT PIPE
- EXISTING BERM
- PHASE III BOUNDARY
- OFF-SITE BASIN BOUNDARY

POND F-2

POND ELEVATION	SURFACE AREA	STORAGE (FT³)
MAX. 48'	7888	7168
47.5'	7168	3404
℄ 47'	6498	

POND C-4

POND ELEVATION	SURFACE AREA	STORAGE (FT³)
MAX. 54.5'	17,192	50,788
54'	16,752	42,192
53.5'	15,872	34,060
53'	14,992	26,368
52.5'	14,080	19,092
52'	13,168	12,272
51.5'	12,272	5,912
℄ 51'	11,376	—

RECEIVED
NOV 23 1979
ENGINEERING

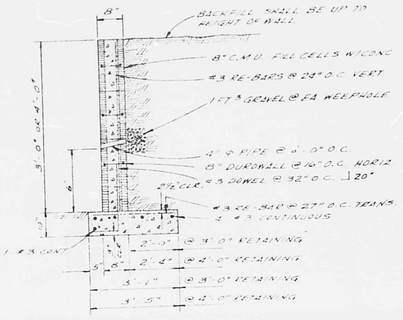
FIG. III.1

MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS
2601 Wyoming Blvd. N.E. Albuquerque, New Mexico 87110
(505) 292-1081

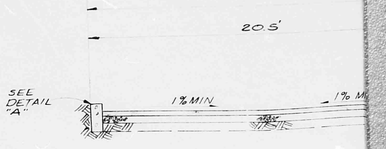
2520087

DRAWN BY:	Valle Grande Apartments
DESIGNED BY:	DEVELOPED DRAINAGE CHARACTERISTICS
CHECKED BY:	
APPROVED BY:	
FILE NO.	2520087
SCALE	NOTED
DATE	APR. 79
SHEET NO.	2 OF 2

2520087



RETAINING WALL 3'-0", 4'-0"



PLAN SHOT IN TWO SECTIONS.

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT

DETENTION POND SIDEWALK CULVERT DETAIL NO SCALE

HYDROLOGY

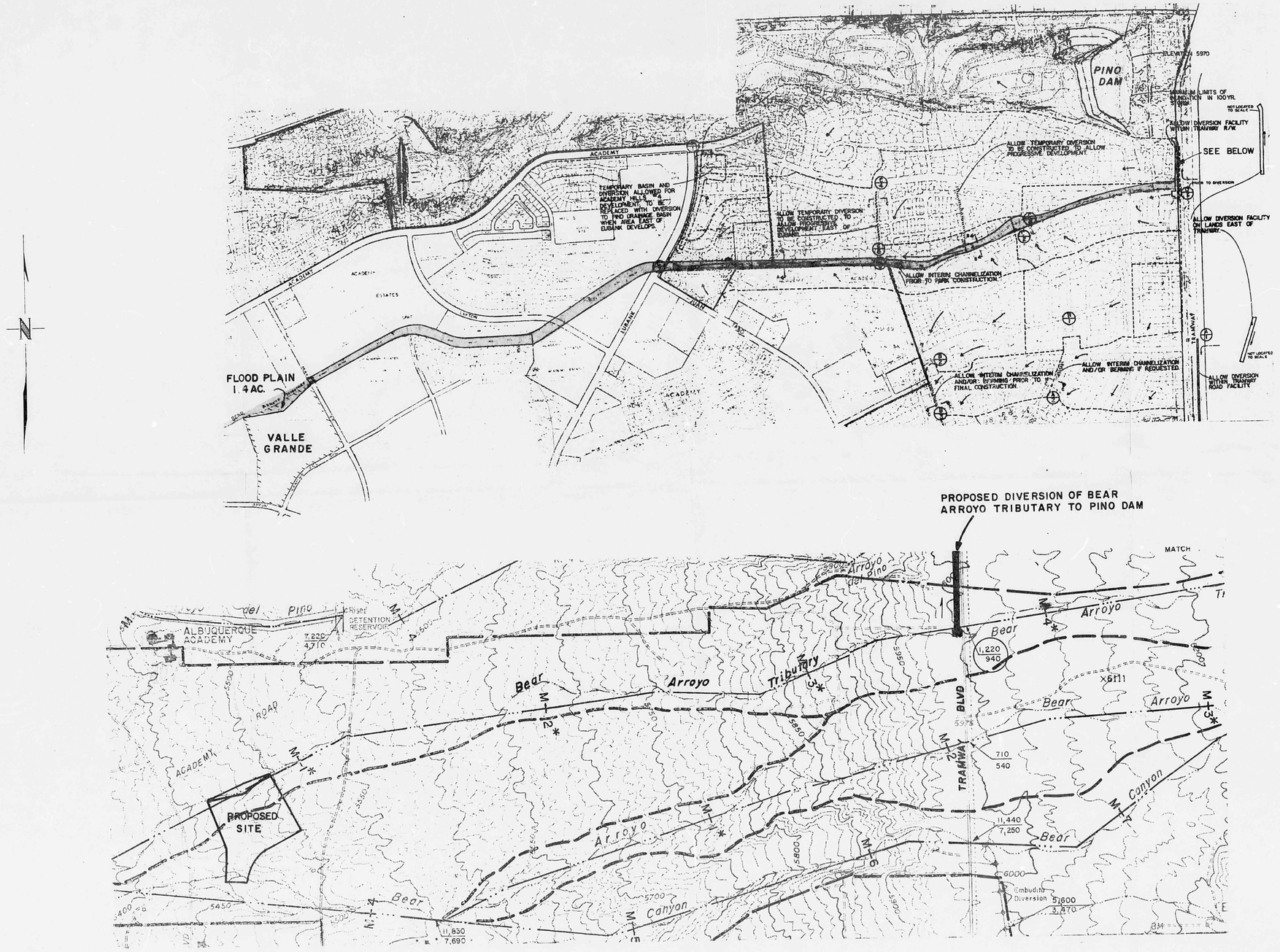
F20/D13

ELEVEN PLANS

ONE OF THRE

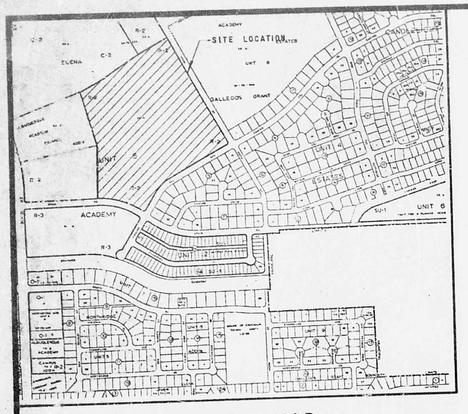
F20/D13

11 Plans



MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS
2001 Wyoming Blvd., N.E. Albuquerque, New Mexico 87110 (505) 268-1035
A Gengo Co.

BEAR ARROYO TRIBUTARY
AMAFCA DRAINAGE STUDY
1974

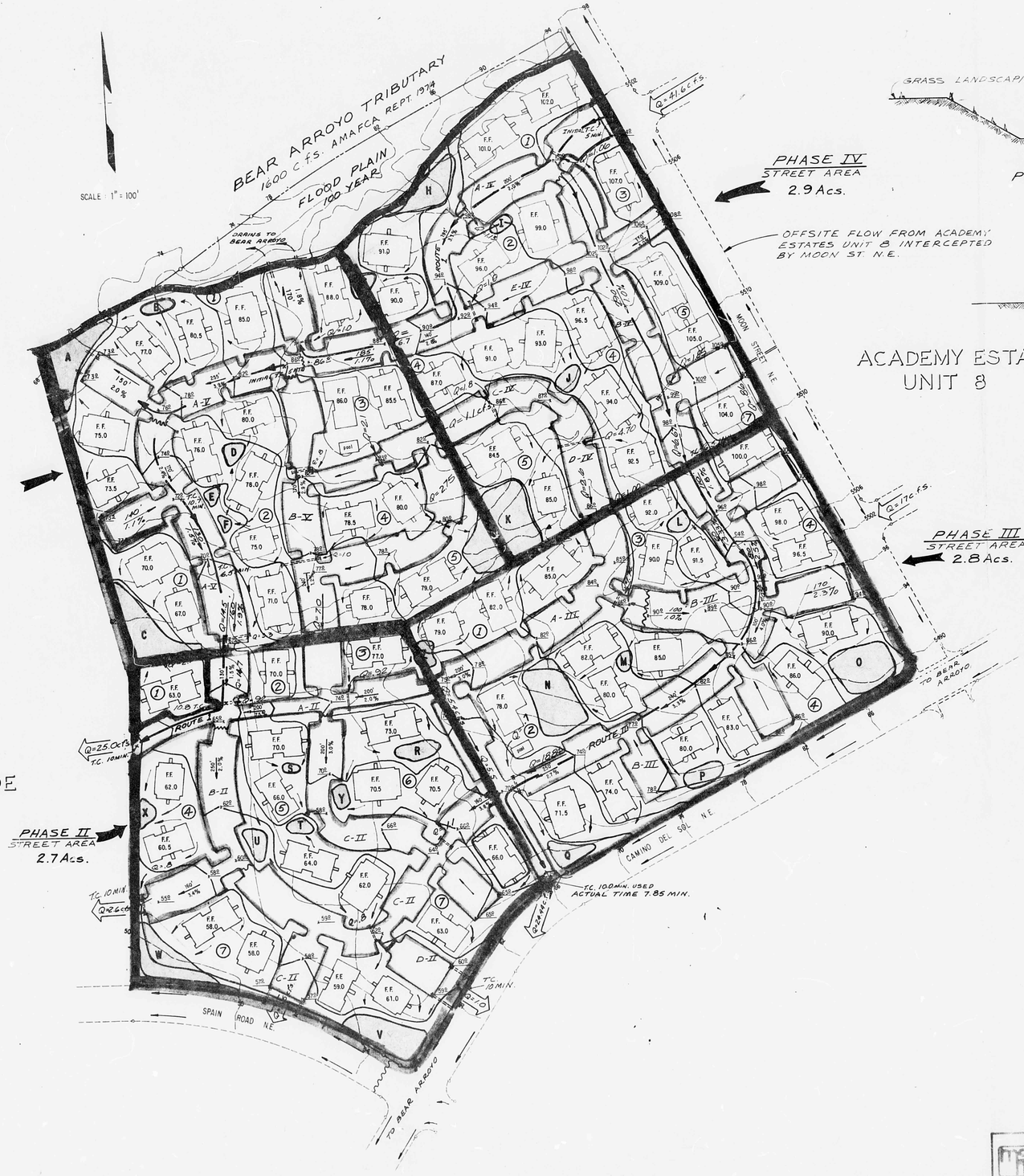


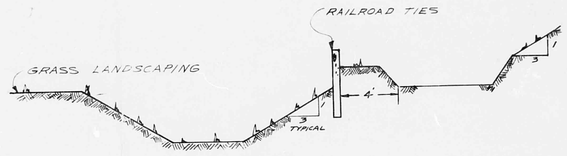
VICINITY MAP

SCALE: 1" = 800' (Approx.)

ALBUQUERQUE ACADEMY LAND

VALLE GRANDE APTS PHASE 1





POND DETAIL

POND DETAIL

ACADEMY ESTATES UNIT 8

POND DATA				
POND AREA	BOTTOM ELEV	DEPTH OF POND	VOL. (FT.^{3})	SURFACE AREA
A	712	2.5	20,100	10000
B	752	1.5	2692	3000
C	634	2.0	14040	9000
D	742	1.5	288	1100
E	722	1.5	884	700
F	712	1.5	637	600
G	852	2.0	2545	2000
H	922	2.0	8680	7000
I	932	1.5	1022	1000
J	892	2.0	1895	1500
K	772	2.0	32400	18000
L	885	1.7	1151	1200
M	80**	1.5	320	1000
N	722	2.0	14688	10600
O	852	2.0	11600	8200
P	765	2.0	2750	2500
Q	752	2.0	2850	2700
R	672	2.0	2320	2000
S	662	1.5	920	1000
T	622	2.0	2110	1500
U	602	2.0	3320	4300
V	542	2.0	10680	8000
W	502	2.3	13310	5500
X	602	2.4	2320	2000
Y	672	2.0	981	1200
Z	712	2.0	1600	2000

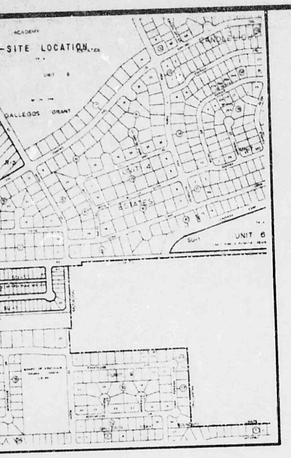
LEGEND

- F.F. 85^2 - FINISHED FLOOR ELEVATION
- (5) - DRAINAGE AREA NUMBER
- ═══ - STORM DRAIN PIPES SIZED FOR FLOW MIN. DIAMETER 8"
- Q - STORM RUNOFF 100 YEAR (C.F.S.)
- ⬭ - PONDS

MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS

VALLE GRANDE APTS
DEVELOPED DRAINAGE

D. Wood | KCW-MS | 1" = 100 | 6-13-75 | 252065 | 1 | 2



NITY MAP
1" 800 (Approx.)

N

0 50 100 150 200
SCALE IN FEET
1" = 100'

R=2394.37
L=299.61
Δ=07°10'10"

FOUND REBAR

160.71
N 55°12'50" E

R=1148.18
L=298.31
Δ=14°53'10"

FOUND PIPE IN CONCRETE

7' UTILITY EASEMENT

N 14°44'10" W

601.59

FOUND PIPE IN CONCRETE

N 01°24'06" E

PILE OF DIRT ± 3' HIGH

586.46

17' x 35' ANCHOR EASEMENT

FOUND REBAR

R = 842.00 L = 486.67 Δ = 33°07'00"

SPAIN RD. N.E.

CITY OF ALBUQUERQUE BENCH MARK ("10-F20")
SQUARE CUT CHISELED IN BACK OF CURB
ELEV. 5453.64

FOUND REBAR

N 57°00'00" W
36.67

R = 25.00
L = 39.27
Δ = 90°00'00"

UD-A
8.1 acs.

UD-2
18.10 acs.

UD-1
13.5 acs.

L = 1500'
Savg. = 3.5%

L = 1600'
Savg. = 3.5%

358.00
N 62°23'00" E

S 27°37'00" E

MOON STREET N.E.

PILE OF DIRT ± 3' HIGH

R = 25.00
L = 39.27
Δ = 90°00'00"

716.51
S 62°23'00" W

CAMINO DEL SOL N.E.

17' x 35' ANCHOR EASEMENT

FOUND REBAR

R = 413.40
L = 212.01
Δ = 29°23'00"

FOUND REBAR

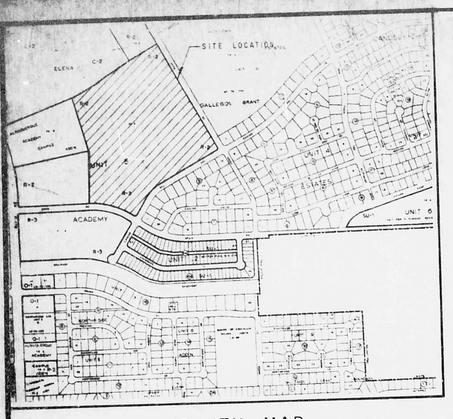
S 35°00'00" W 230.67

FIG. I

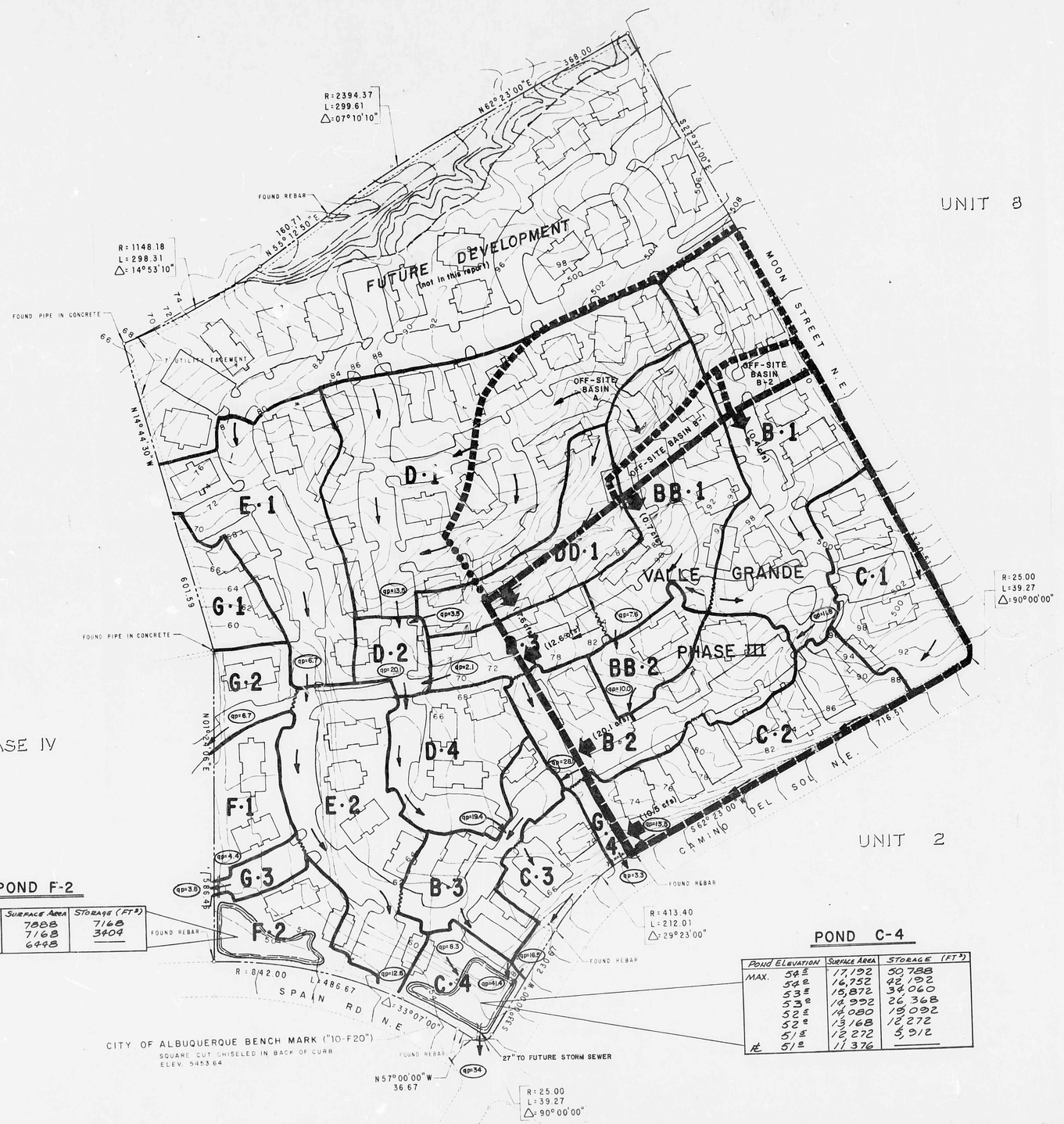
MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS
2501 Wyoming Blvd., N.E. Albuquerque, New Mexico 87110
(505) 292-1988

DRAWN BY: JD	Valle Grande Apartments
DESIGNED BY:	UNDEVELOPED DRAINAGE CHARACTERISTICS
CHECKED BY:	
APPROVED BY:	
FILE NO.	
ISSUE DATE: NOTED APR. 79	
SHEET NO. 2	

7520087



VICINITY MAP
SCALE 1"=800' (Approx.)



POND F-2

Pond Elevation	Surface Area	Storage (FT³)
MAX. 48²	7888	7168
47¹	7168	3404
Æ 47²	6448	

POND C-4

Pond Elevation	Surface Area	Storage (FT³)
MAX. 54¹	17,192	50,788
54²	16,752	42,192
53¹	15,872	34,060
53²	14,932	26,368
52¹	14,080	19,092
52²	13,168	12,272
51¹	12,272	5,912
Æ 51²	11,376	

Legend

- (qp=3.3) -------- PEAK DISCHARGE IN CU. FT. PER SEC.
- ~~~~~ --------- WATER BLOCK
- - - - - - - - CULVERT PIPE
- ●●●●●●● EXISTING BERM
- ▬▬▬▮ PHASE III BOUNDARY
- ▬▬▬▮ OFF-SITE BASIN BOUNDARY

RECEIVED
NOV 23 1979
ENGINEERING

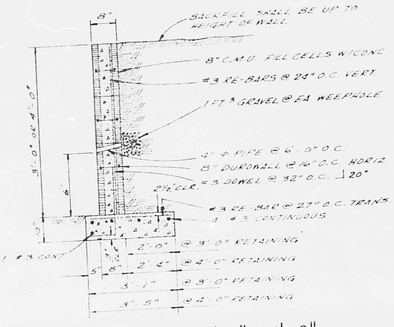
FIG. III

MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS
2601 Wyoming Blvd. N.E. Albuquerque, New Mexico 87110 (505) 292-1396

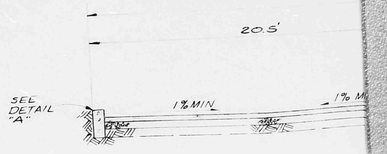
DRAWN BY:	Valle Grande Apartments
DESIGNED BY:	DEVELOPED DRAINAGE CHARACTERISTICS
CHECKED BY:	
APPROVED BY:	

JOB NO. 2520087
SCALE NOTED
DATE APR. 79
SHEET NO. 2 OF 2

2520087



RETAINING WALL 3'-0", 4'-0"



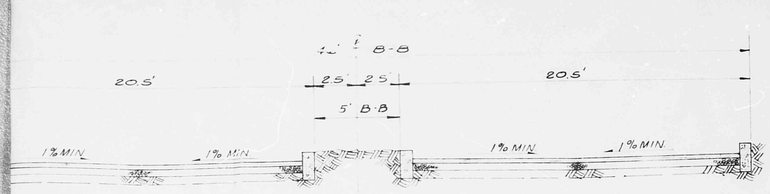
PLAN SHOT IN TWO SECTIONS.

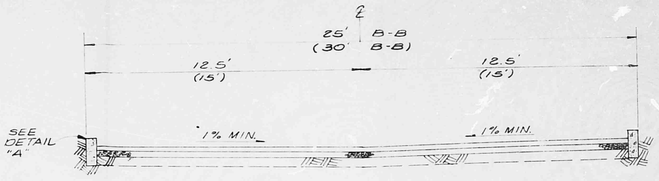
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT

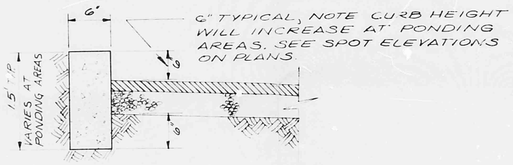
DETENTION POND SIDEWALK CULVERT DETAIL NO SCALE

HYDROLOGY

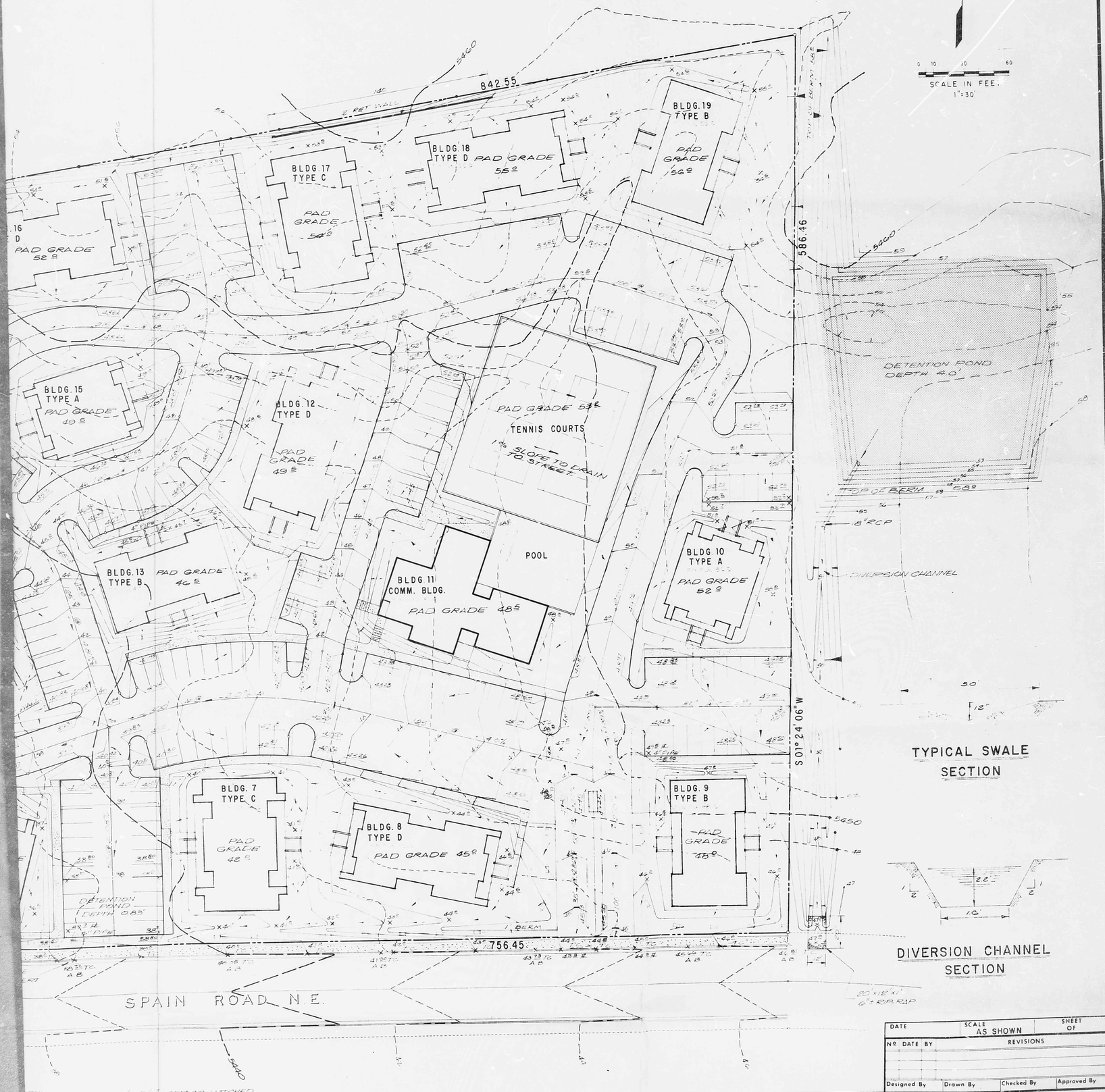
F20/D13
ELEVEN PLAN
TWO OF THRE





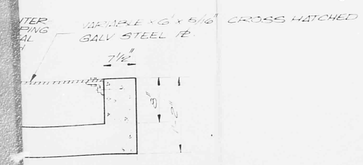


DETAIL "A"



TYPICAL SWALE SECTION

DIVERSION CHANNEL SECTION



DATE	SCALE AS SHOWN	SHEET OF
Nº DATE BY	REVISIONS	
Designed By	Drawn By	Checked By	Approved By

ACADEMY DEVELOPMENT COMPANY

VALLE GRANDE APARTMENTS
PHASE A
AREA GRADING PLAN

MURRAY-McCORMICK, INC.
ENVIRONMENTAL DESIGN
ENGINEERING·PLANNING·SURVEYING
2601 WYOMING BLVD N.E. SUITE F ALBUQUERQUE NEW MEXICO 87110 505 292 1936

APARTMENT COMPLEX SITE PLAN

SCALE 1" = 160'

784 APTS.
49.29 ACRES
15.9 APTS PER ACRE

No	DATE	BY	REVISIONS

Designed By	Drawn By	Checked By	Approved By

MURRAY-McCORMICK, INC.
ENVIRONMENTAL DESIGN
ENGINEERING · PLANNING · SURVEYING
2601 WYOMING BLVD N.E. SUITE F/ ALBUQUERQUE, NEW MEXICO 87110 · 505 · 292-1936

ACADEMY DEVELOPMENT COMPANY

VALLE GRANDE APARTMENTS

PHASE A
SITE PLAN
FIGURE II

DATE	SCALE	SHEET
	AS SHOWN	OF

PLAN SHOT IN TWO SECTIONS.

O.S.A.-2

5460

5460

842.55

BLDG.19 TYPE B

BLDG.18 TYPE D

BLDG.17 TYPE C

BLDG.16 TYPE D

Area-5
3.34 ac.

5450

586.46

TEMPORARY RETENTION POND TO BE REMOVED AT TIME OF FUTURE DEVELOPMENT

VOLUME = 55,000
DEPTH = 4'-0"

18" OUTLET PIPE

BLDG.15 TYPE A

BLDG.12 TYPE D

1% SLOPE DRAIN TO TENNIS COURTS TO STREET

FUTURE COLLECTOR STREET from PHASE 'B'
min grade 0.5%

CONSTRUCT DIVERSION CHANNEL

POOL

BLDG.11 COMM. BLDG.

BLDG.13 TYPE B

BLDG.10 TYPE A

Area-3
2.27 ac.

Area-1
1.50 ac.

S 01°24'06" W

O.S.A.-1

BLDG.7 TYPE C

BLDG.8 TYPE D

BLDG.9 TYPE B

DETENTION POND
VOL=13571ft³
DEPTH=0.83'
1-6" PIPE

Area-2
0.78 ac.

MEDIAN SECTION

5450

1½ 2' 1½ 16'

DIVERSION CHANNEL SECTION

AREA-2 — 756.45 — AREA-1 — O.S.A.-1

SPAIN ROAD N.E.

LEGEND

- FLOW RATE CONCENTRATION AT POINT OF EXIT FOR DESIGNATED AREA
- RUNOFF FLOW DIRECTION
- WATER BLOCK
- DRAINAGE SUB-AREA BOUNDARY
- Area-1 — DRAINAGE SUB-BASIN DESIGNATION
- PONDING AREA

DATE	SCALE	SHEET OF

No	DATE	BY	REVISIONS

Designed By	Drawn By	Checked By	Approved By

ACADEMY DEVELOPMENT COMPANY

VALLE GRANDE APARTMENTS
PHASE A
DEVELOPED FLOW PATTERNS
FIGURE IV

MURRAY-McCORMICK, INC.
ENVIRONMENTAL DESIGN
ENGINEERING·PLANNING·SURVEYING
2601 WYOMING BLVD. N.E. SUITE F. ALBUQUERQUE NEW MEXICO 87110/505 292 1936

ACADEMY

LANDS OF 60.87Ac.

TRACT 'C' ALBUQUERQUE ACADEMY CAMPUS 5.02Ac.

OTHERS 20.07Ac.

UNIT 7

SU-1 11.04 Ac. 8 D.U./Ac.

OFFSITE DRAINAGE BOUNDARY

WATER BLOCK

OFFSITE DRAINAGE AREA-1

OFFSITE DRAINAGE AREA-2

TRACT 'D' ALBUQUERQUE ACADEMY CAMPUS 9.03Ac.

DRAINAGE SUB. — AREA A-1

O.S.A-2 3 c.f.s.

(PHASE B) FUTURE APT. COMPLEX R-2 12.00Ac.

UNIT 6

O.S.A-1 43 c.f.s.

(PHASE A) SITE 9.51 Ac.

AREA A-1 2 c.f.s.

SPAIN ROAD

AREA A-2 19 c.f.s.

DRAINAGE SUB.— AREA A-2

R-3 12.90Ac.

CAMINO DEL SOL

FLOWS CONTAINED IN CAMINO DEL SOL DUE TO ROUGH GRADING OF STREET

LUNA DE ORO ROAD NE

UNIT 4

AVENIDA DE LONA

CAMINO OSITO

UNIT 2

SU-1 12.06Ac. 8 D.U./Ac.

UNIT 10

CHAMBERS PLACE

SU-1 UNIT 3

OSUNA ROAD

UNIT 7

UNIT 9

NORTHRIDGE

MUNICIPAL ADDITION NO. 10

ESTATES UNIT 1

SCALE 1"=200'
C.I. = 2'

LEGEND

- AREA-I / 19 c.f.s. — FLOW RATE CONCENTRATION AT POINT OF EXIT FOR DESIGNATED AREA.
- RUNOFF FLOW DIRECTION
- DRAINAGE SUB. — AREA BOUNDARY
- AREA A-I or O.S.A.-I — DRAINAGE SUB. — BASIN DESIGNATION
- SITE PHASE 'A'
- PHASE 'B' (FUTURE)

No.	DATE	BY	REVISIONS

Designed By | Drawn By J.S. | Checked By | Approved By

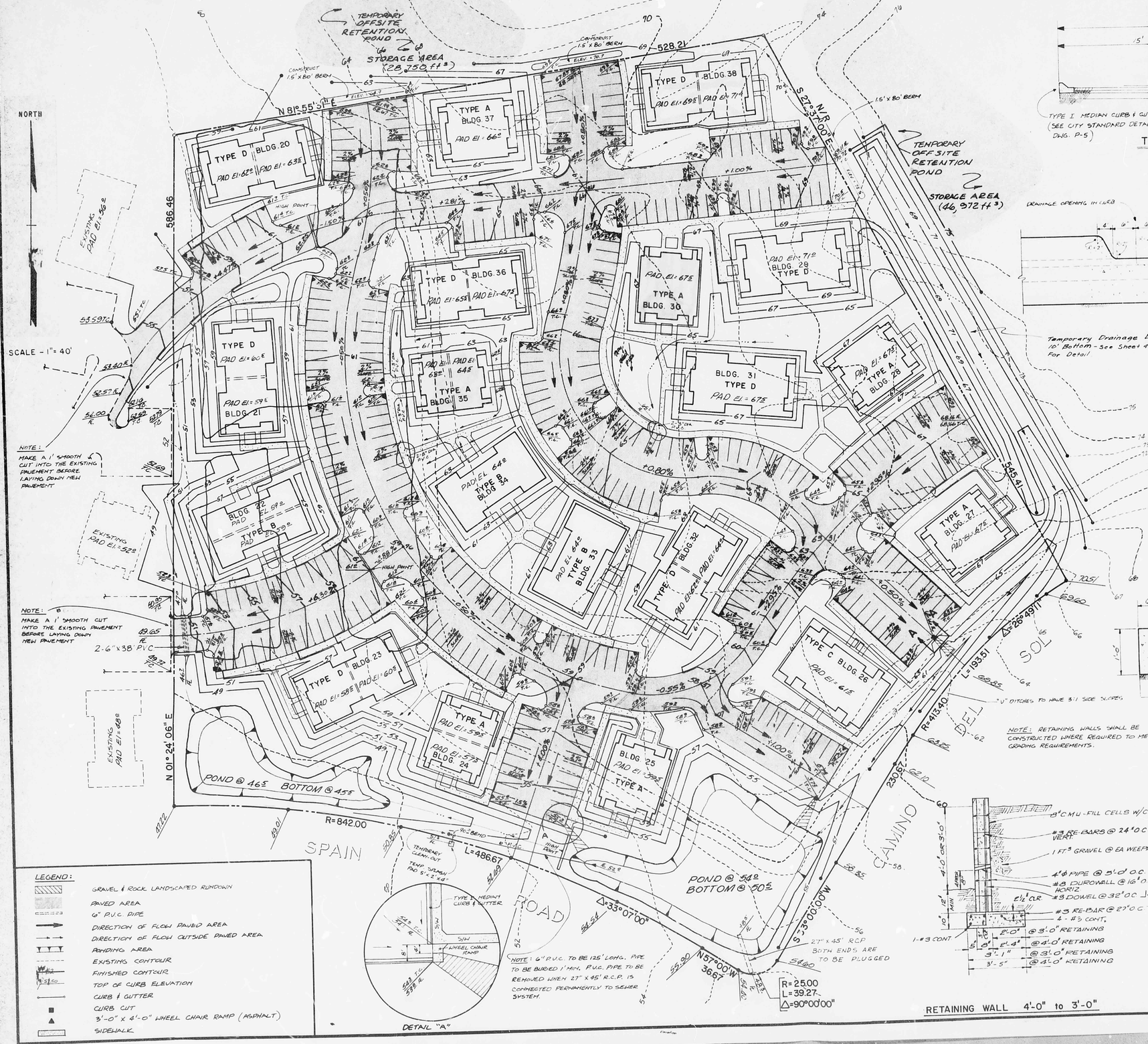
MURRAY-McCORMICK, INC.
ENVIRONMENTAL DESIGN
ENGINEERING · PLANNING · SURVEYING
2001 WYOMING BLVD. N.E. SUITE F ALBUQUERQUE NEW MEXICO 87112 505 292-7406

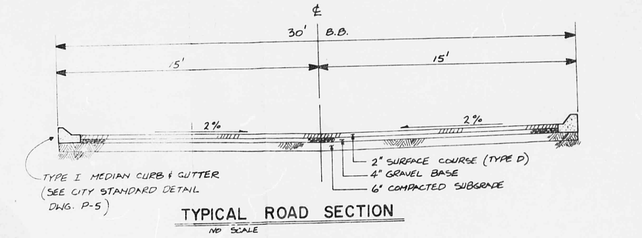
ACADEMY DEVELOPMENT COMPANY

VALLE GRANDE APARTMENTS
PHASE A
UNDEVELOPED FLOW PATTERNS
FIGURE III

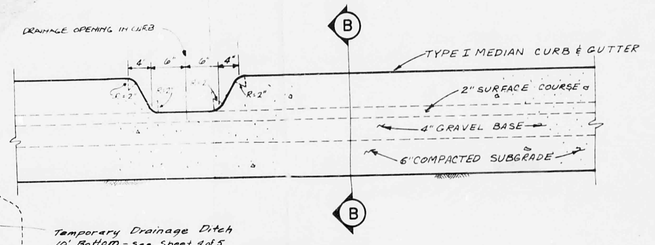
DATE | SCALE AS SHOWN | SHEET OF

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT

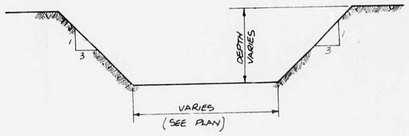




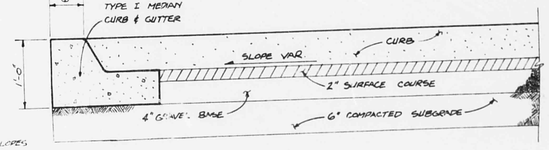
TYPICAL ROAD SECTION
NO SCALE



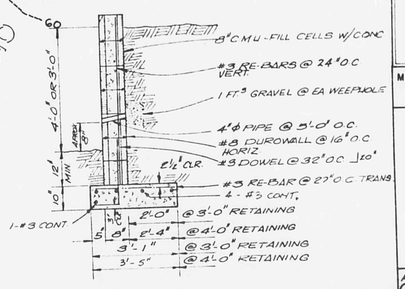
SECTION A-A
NO SCALE



TYPICAL POND SECTION
NO SCALE



SECTION B-B
NO SCALE



RETAINING WALL 4'-0" to 3'-0"

NOTES:
1. FINISHED FLOOR ELEVATION TO BE .5' ABOVE PAD ELEVATION.
2. WHEEL CHAIR RAMPS WILL BE CONSTRUCTED OF ASPHALT AND WILL BE BUILT AS THE WHEEL CHAIR RAMPS WERE BUILT ON PHASE "A" WEST OF THIS PROJECT.
3. ALL PAVEMENT TO HAVE TYPE I MEDIAN CURB & GUTTER.

MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS · SURVEYORS · PLANNERS
2601 WYOMING BLVD, N.E., SUITE F ALBUQUERQUE, NEW MEXICO 87111 (505) 292-1936

PLANS PREPARED UNDER THE DIRECTION OF

JERRY D. HART NEW MEXICO 6768 REGISTERED PROFESSIONAL ENGINEER

APPROVED FOR CONSTRUCTION

CITY ENGINEER DATE

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION FIG. II

TITLE: ACADEMY DEVELOPMENT CO.

VALLE GRANDE APARTMENTS PHASE II
GRADING PLAN

APPROVALS	ENGINEER	DATE	APPROVALS	ENGINEER	DATE
City Engineer			Liquid Waste		
A.C.E. - Design			Traffic		
A.C.E. - Hydrology			Water		

DRAWING NO.

SHEET 3 OF 5

2520087

SURVEY INFORMATION
FIELD NOTES
NO. BY DATE

BENCH MARKS
A.C.S. 10F20, LOCATED AT THE S.W. RETURN OF THE INTERSECTION OF SPAIN ROAD AND CAMINO DEL SOL. SQUARE CUT ON TOP OF CURB ON THE S.W. RETURN. EL = 5455.64

AS BUILT INFORMATION
CONTRACTOR STAKED BY DATE
INSPECTION & FIELD LOCATION BY DATE
DRAWINGS CORRECTED BY DATE
RECORDED BY
NO.

MICRO-FILM INFORMATION
DATE

REFERENCES
MAP NO. WO. NO.
EST. NO.

NO.	DATE	REMARKS	BY
3	9-7-79	Grading Plan Revised	JRH
2	8-10-79	REVISED POND BOTTOM	JRH
1	6-19-79	GRADING PLAN REVISED	JRH

REVISIONS
DESIGN
DESIGNED BY R. MOLINA DATE 3-7-79
DRAWN BY K. MORRIS DATE 3-7-79
CHECKED BY DATE 4759

HYDROLOGY

F20/D13
ELEVEN PLA
THREE OF T

construction.

3. Erosion control: Contractor shall construct a temporary earth berm along the boundary of the site on the west & south sides. The berm shall be twelve feet in width at its base, 18" high with 2:1 side slopes and 6' in width at its top. The berm shall be constructed of clean earth material and compacted to 90% of std. density. The berm shall be constructed after the initial clearing of the site and maintained throughout construction of site improvements. The berm shall be removed just prior to final grading.

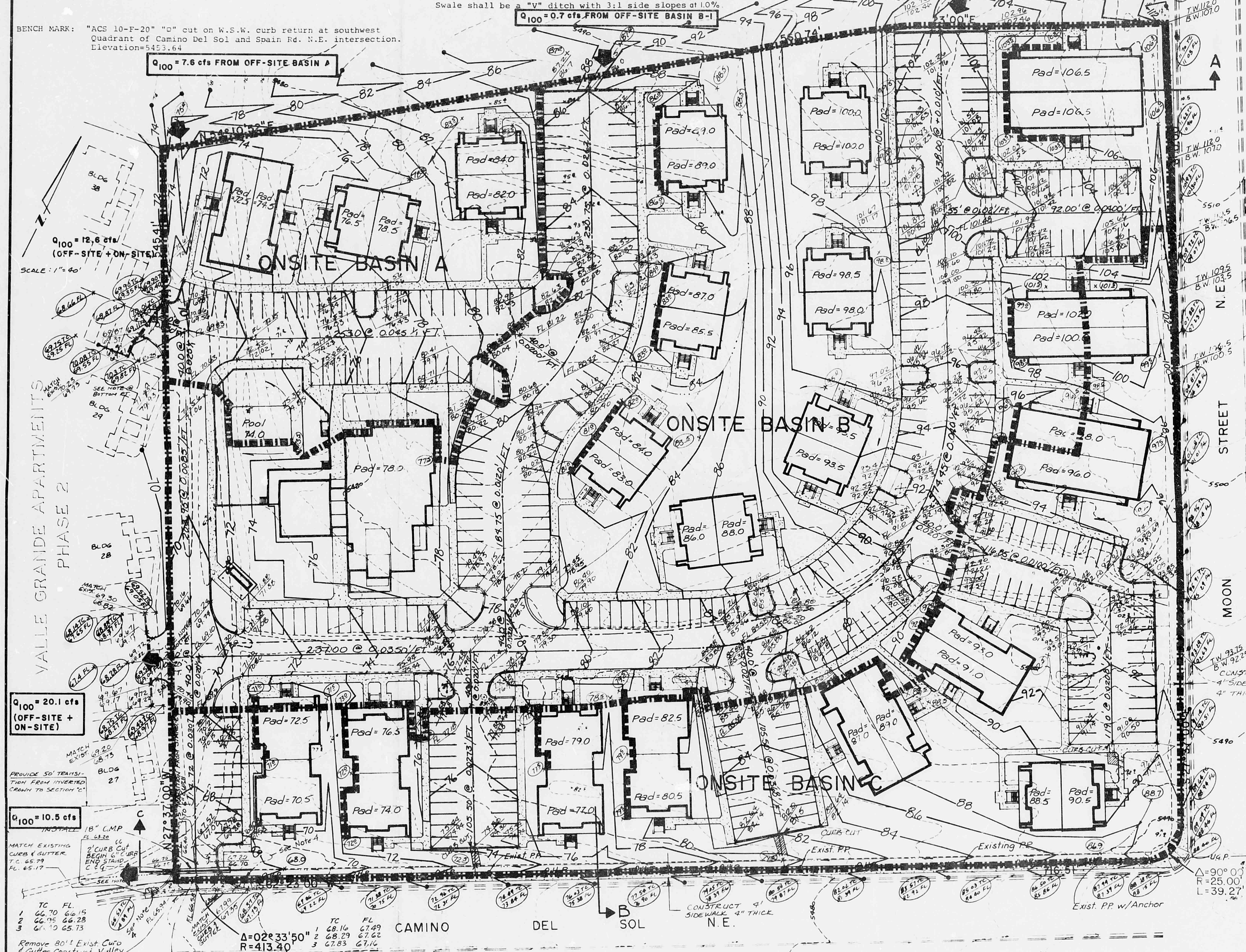
length ramp, entire wheelchair ramp shall be contained within City of Albuquerque R.O.W.

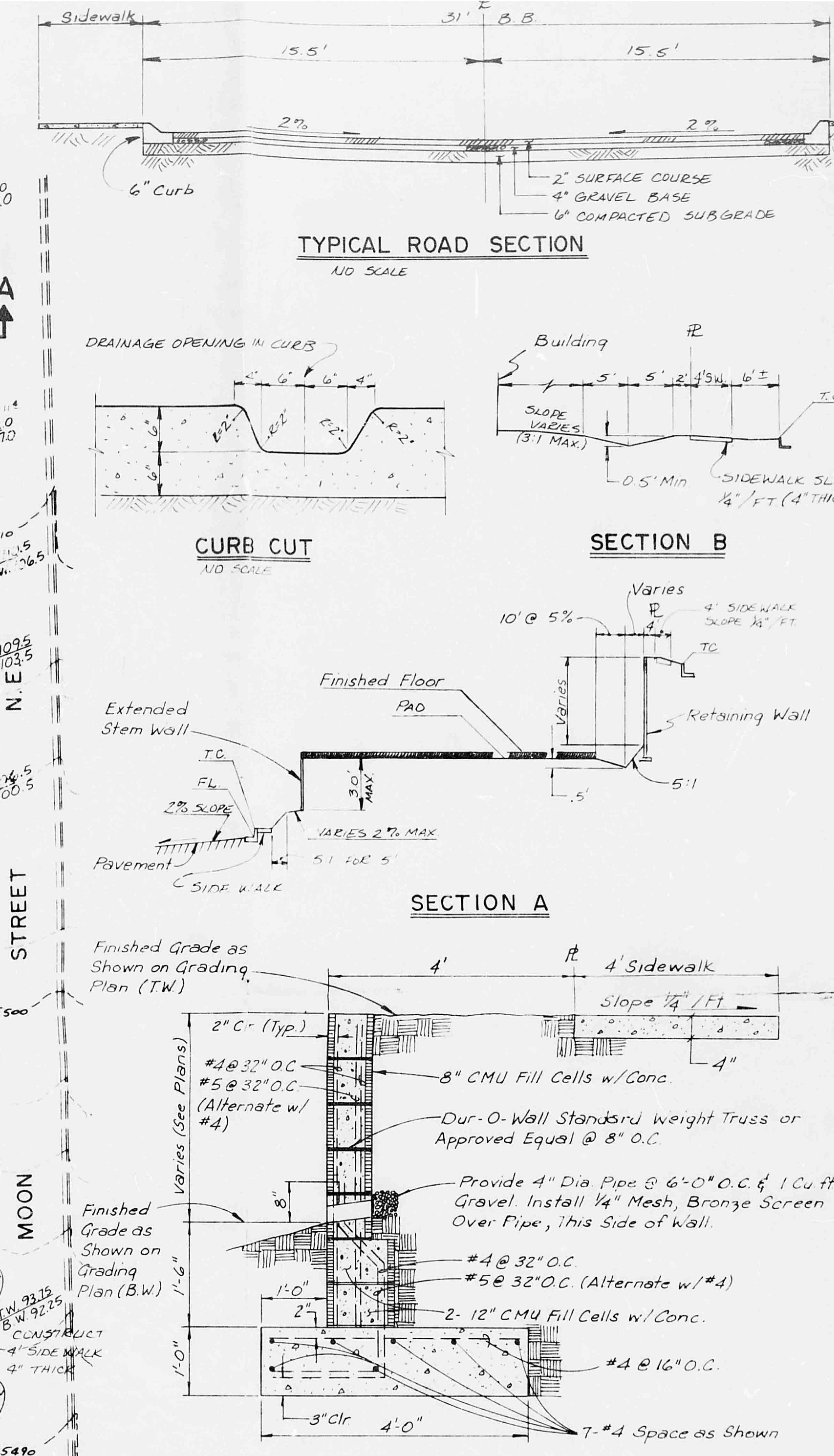
5. Top of stem wall at finished floor elevation.

6. Provide "neat line" cut of existing asphalt surface course and gravel base 4" ± from the edge to tie in with new asphalt paving.

7. Existing concrete rundown. Remove and dispose of rundown to ±27 ft. west of horizontal angle point in rundown. Provide a swale from 18" C.M.P. to flowline of remaining rundown. Swale shall be a "V" ditch with 3:1 side slopes at 1.0%.

BENCH MARK: "ACS 10-F-20" "□" cut on W.S.W. curb return at southwest Quadrant of Camino Del Sol and Spain Rd. N.E. intersection. Elevation=5453.64





RETAINING WALL

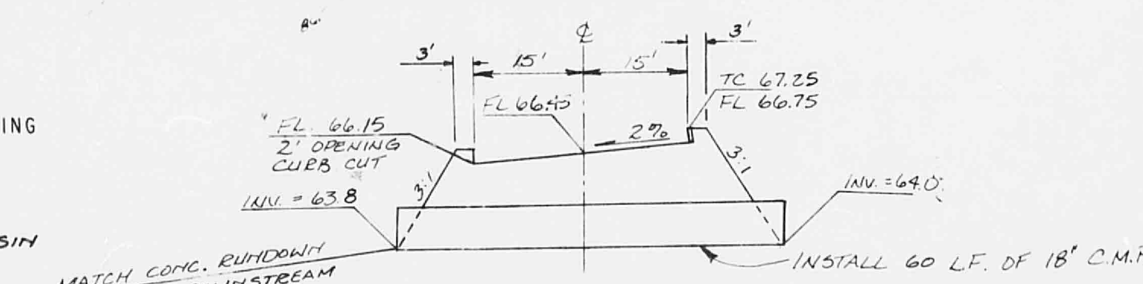
1. Use 3000 psi concrete with 3/4" Ø aggregate max.-4" slump with 5-7% entrained air.
2. C.M.U. shall be grade N with Fm = 1350 psi min.
3. Prewetting and densification of native soils beneath the footing is recommended. Please see soil and foundation investigation report for Valle Grande Apartments, Phase II.

RECEIVED NOV 23 1983 ENGINEERING

David J. Grochowski 11/23/83

LEGEND

5990 ----	EXISTING CONTOURS
—82—	FINISHED CONTOURS
	EXISTING SPOT ELEVATIONS AT TOP OF CURB & FLOW LINE
× 87.1	EXISTING SPOT ELEVATIONS
× 95.0	PROPOSED SPOT ELEVATIONS
	RETAINING WALL
TW 106.5	TOP OF RETAINING WALL
BW 103.5	BOTTOM OF RETAINING WALL
	FLOW DIRECTION
× 10.24 / 69.74	PROPOSED TOP OF CURB & FLOW LINE
	GRAVEL AND ROCK LANDSCAPED RUNDOWN
	EXTENDED STEM WALL
	SIDEWALK
	PAVING
	LIMITS OF PAVING (SEE NOTE 6)
	SWALE
	ONSITE BASIN BOUNDARY



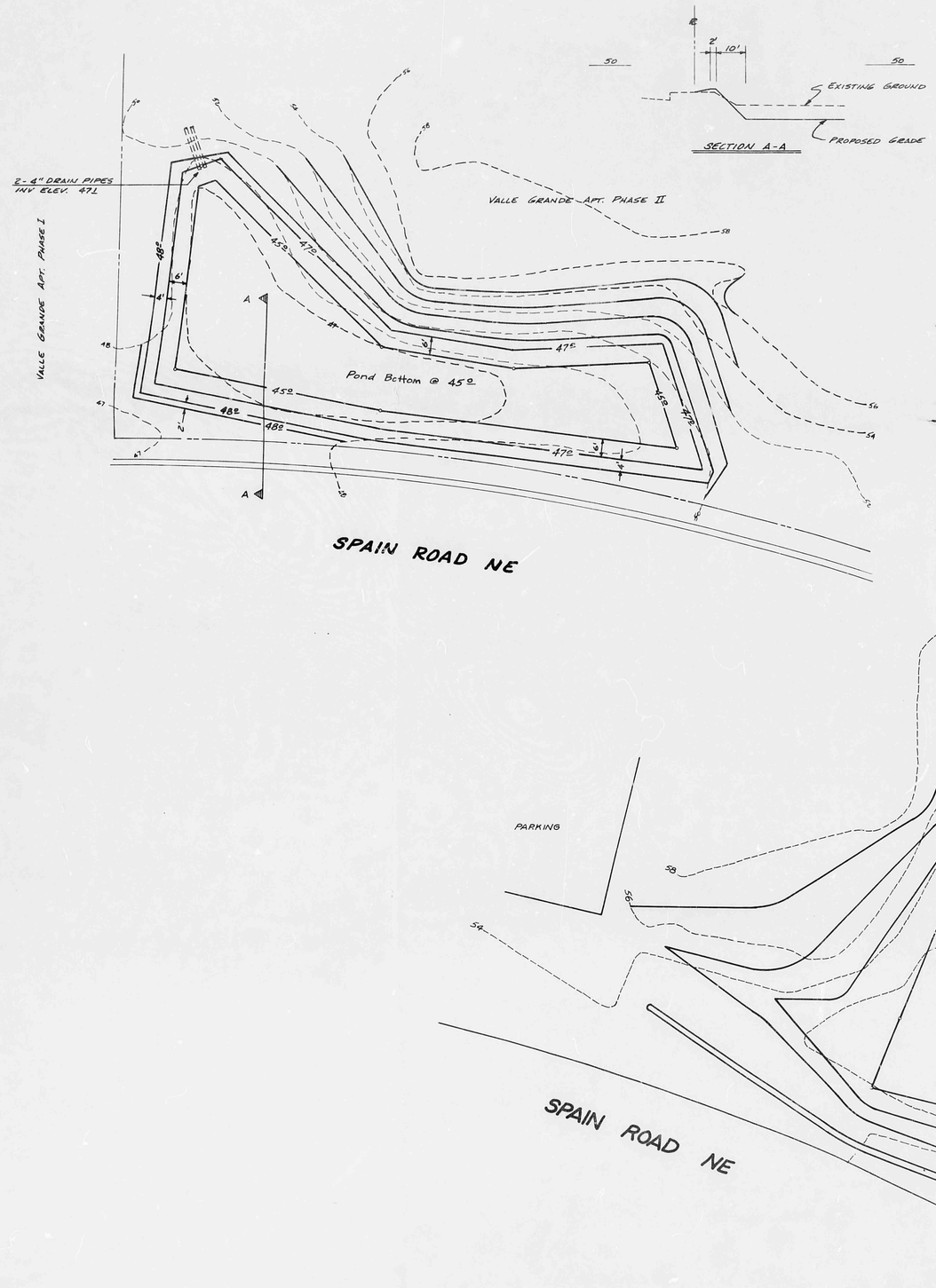
SECTION C

MSM/SP Group CONSULTING ENGINEERS • SURVEYORS • PLANNERS 2601 Wyoming Blvd., N.E. Albuquerque, New Mexico 87112 (505) 292-1936		
DRAWN BY: BMC	ACADEMY DEVELOPMENT CO.	FILE NO. 0690298
DESIGNED BY: LSJ	VALLE GRANDE APARTMENTS PHASE III	SCALE 1" = 40'
CHECKED BY:		DATE 11-11-83
APPROVED BY:	DRAINAGE PLAN	SHEET NO.

BILL J. SHELTON & ASSOCIATES ARCHITECTS, A.I.A.
111 RHODE ISLAND NE ALBUQUERQUE NEW MEXICO 87110 TELEPHONE (505) 262 2363

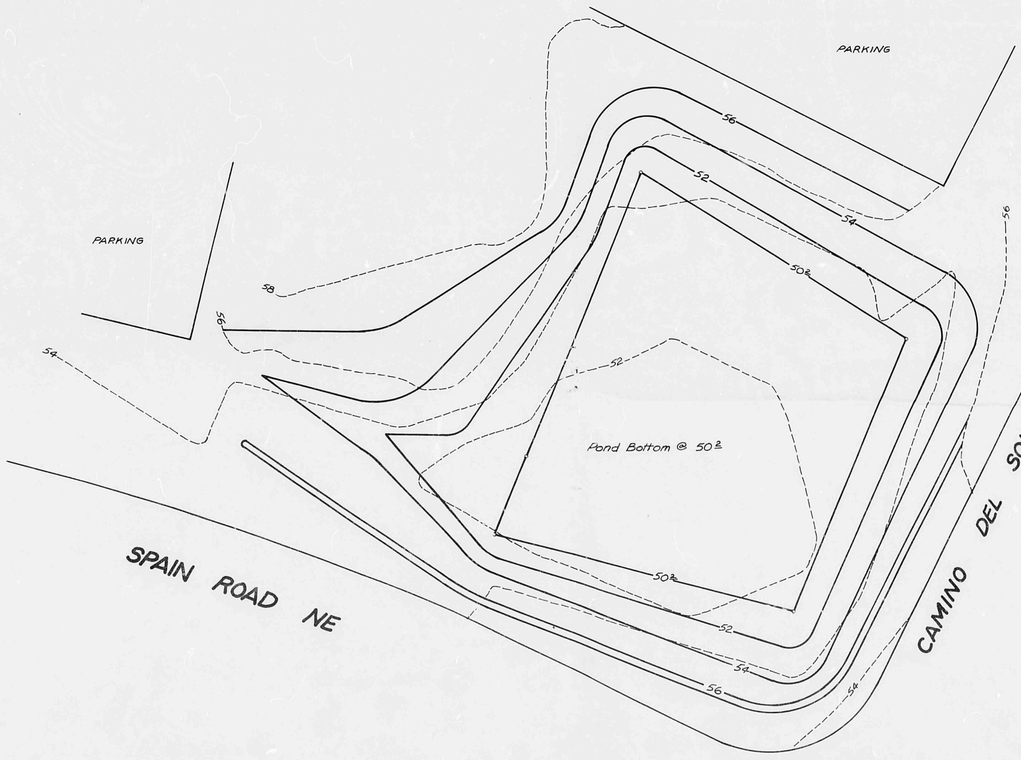
REVISIONS | DATE | SHEET NO. of

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT



SCALE 1" = 20'

POND VOLUME 12980 CU FT.
POND VOLUME 7168 CU FT AS REQUIRED BY APPROVED DRAINAGE REPORT DATED APRIL 1979 FIG. 3



SCALE: 1" = 20'

POND VOLUME 51262 CU FT
POND VOLUME 30788 CU FT AS REQUIRED BY APPROVED DRAINAGE REPORT DATED APRIL 1979. FIG 3

AS BUILT

3-17-1982

REFERENCES
MAP NO. E-20
EST. NO.
WO. NO.

SURVEY INFORMATION
FIELD NOTES
NO. 1543 BY VA & TXW DATE 3/80

BENCH MARKS
A.C.S. 10-20, LOCATED AT THE S.W. QUADRANT OF THE INTERSECTION OF SPAIN ROAD AND CAMINO DEL SOL. SQUARE CUT ON TOP OF CURB ON THE S.W. RETURN
EL. = 5143.64

AS BUILT INFORMATION
CONTRACTOR — DATE
WORK STAKED BY
INSPECTOR'S VERIFICATION BY — DATE
FIELD VERIFICATION BY — DATE
DRAWINGS CORRECTED BY — DATE

MICRO-FILM INFORMATION
RECORDED BY — DATE
NO.

NO.	DATE	REVISIONS	BY	DATE
		DESIGN		
		DESIGNED BY VWA & TXW		DATE 3-5-80
		DRAWN BY TXW & TXW		DATE 3-12-80
		APPROVED BY VWA		DATE 3-13-80

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

TITLE: VALLE GRANDE APARTMENTS – PHASE II
PONDS – AS CONSTRUCTED

MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS
2901 Wyoming Blvd., N.E. Albuquerque, New Mexico 87110
(505) 292-1936

SHEET 1 OF 1

HYDROLOGY

F20/D13
ELEVEN PLANS
THREE OF THREE

2. High stem walls as shown on this sheet are part of building construction.

3. Erosion control: Contractor shall construct a temporary earth berm along the boundary of the site on the west & south sides. The berm shall be twelve feet in width at its base, 18" high with 2:1 side slopes and 6' in width at its top. The berm shall be constructed of clean earth material and compacted to 90% of std. density. The berm shall be constructed after the initial clearing of the site and maintained throughout construction of site improvements. The berm shall be removed just prior to final grading.

4. Construct wheelchair ramps on each side of driveways per City of Albuquerque Std. Dwg. P-17, case 1 insufficiant R.O.W. for full length ramp, entire wheelchair ramp shall be contained within City of Albuquerque R.O.W

5. Top of stem wall at finished floor elevation.

6. Provide "neat line" cut of existing asphalt surface course and gravel base 4" ± from the edge to tie in with new asphalt paving.

7. Existing concrete rundown. Remove and dispose of rundown to ±27 ft. west of horizontal angle point in rundown. Provide a swale from 18" C.M.P. to flowline of remaining rundown. Swale shall be a "V" ditch with 3:1 side slopes at 10%

BENCH MARK: "ACS 10-F-20" "B" cut on W.S.W. curb return at southwest Quadrant of Camino Del Sol and Spain Rd. N.E. intersection. Elevation=5453.64

Q_{100} = 7.6 cfs FROM OFF-SITE BASIN A

Q_{100} = 0.7 cfs FROM OFF-SITE BASIN B-1

Q_{100} = 0.4 cfs FROM OFF-SITE BASIN B-2

Q_{100} = 12.6 cfs (OFF-SITE + ON-SITE)

Q_{100} = 20.1 cfs (OFF-SITE + ON-SITE)

Q_{100} = 10.5 cfs

ONSITE BASIN A

ONSITE BASIN B

ONSITE BASIN C

VALLE GRANDE APARTMENTS PHASE 2

CAMINO DEL SOL N.E.

MOON STREET N.E.

N 27°37'00" W 454.41'

N 34°10'32" E 560.74'

N 62°23'00" W 716.51'

Δ=02°33'50" R=413.40' L=18.50

Δ=90°03'00" R=25.00' L=39.27'

Remove 80'± Exist. Curb & Gutter Construct Valley Gutter Per City of Albuq. Std. Dwg. P-92

Remove Exist. P.P. w/Anchor

Existing P.P.

Exist. P.P. w/Anchor

CONSTRUCT 4' SIDEWALK 4" THICK

CONSTRUCT 4' SIDE WALK 4" THICK

CURB CUT

PROVIDE 50' TRANSITION FROM INVERTED CROWN TO SECTION 'C'

INSTALL 18" C.M.P.

2' CURB CUT BEGIN 6" CURB END STAND. CURB

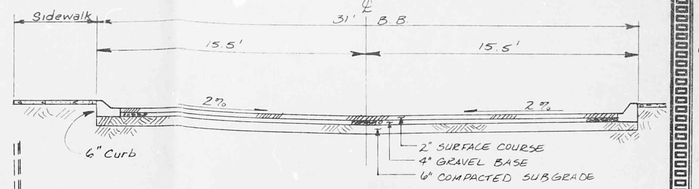
MATCH EXISTING CURB & GUTTER. TC 65.79 FL 65.17

	TC	FL
1	66.70	66.15
2	66.15	66.28
3	67.10	65.73

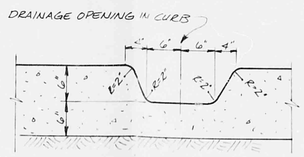
	TC	FL
1	68.16	67.49
2	68.29	67.62
3	67.83	67.16

LEGEND

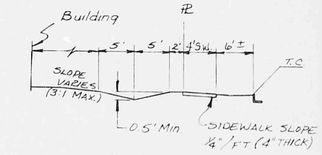
- 5990 —— EXISTING CONTOURS
- —82— FINISHED CONTOURS
- EXISTING SPOT ELEVATIONS AT TOP OF CURB & FLOW LINE
- EXISTING SPOT ELEVATIONS
- PROPOSED SPOT ELEVATIONS
- RETAINING WALL
- TW 106.5 TOP OF RETAINING WALL
- BW 103.5 BOTTOM OF RETAINING WALL
- FLOW DIRECTION
- PROPOSED TOP OF CURB & FLOW LINE
- GRAVEL AND ROCK LANDSCAPED RUNDOWN
- EXTENDED STEM WALL
- SIDEWALK
- PAVING
- LIMITS OF PAVING (SEE NOTE 6)
- SWALE
- ONSITE BASIN BOUNDARY



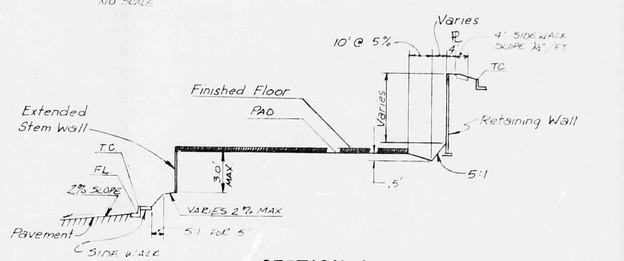
TYPICAL ROAD SECTION
NO SCALE



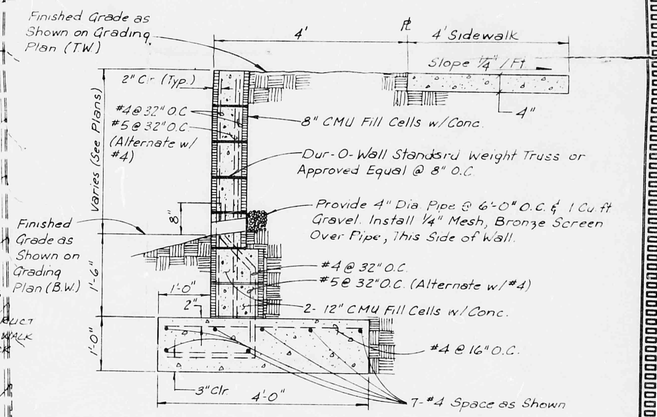
CURB CUT
NO SCALE



SECTION B

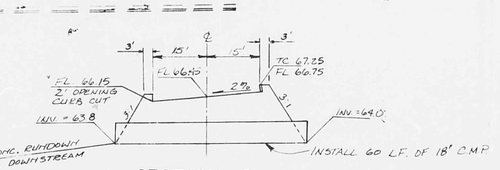


SECTION A



RETAINING WALL

1. Use 3000 psi concrete with 3/4" Ø aggregate max.-4" slump with 5-7% entrained air.
2. C.M.U. shall be grade N with Fm = 1350 psi min.
3. Prewetting and densification of native soils beneath the footing is recommended. Please see soil and foundation investigation report for Valle Grande Apartments, Phase II.



SECTION C

RECEIVED
NOV 23 1983
ENGINEERING

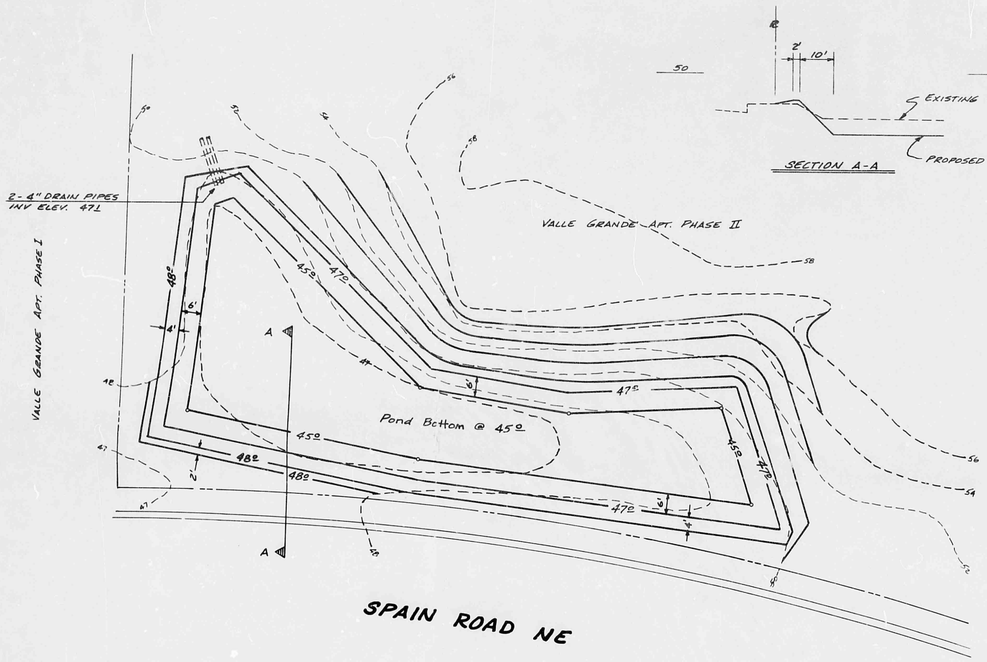
DANIEL J. GROSHONG NEW MEXICO 8710 PROFESSIONAL ENGINEER
David J. Groshong 11/23/83

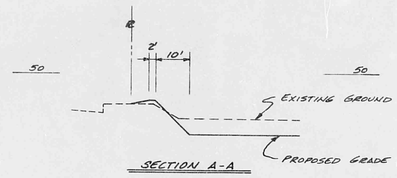
MSM/SP Group	CONSULTING ENGINEERS • SURVEYORS • PLANNERS 2801 Wyoming Blvd., N.E. Albuquerque, New Mexico 87112 (505) 292-1936
DRAWN BY: BMC	ACADEMY DEVELOPMENT CO.
DESIGNED BY: LSJ	VALLE GRANDE APARTMENTS PHASE III
CHECKED BY:	DRAINAGE PLAN
APPROVED BY:	FILE NO. 0690298 · SCALE 1"=40' · DATE 11-11-83 · SHEET NO. of

REVISIONS · DATE · SHEET NO

BILL J. SHELTON & ASSOCIATES ARCHITECTS, A.I.A.
111 EIGHTH PLACE, NE A PROFESSIONAL CORPORATION NEW MEXICO 87102 TELEPHONE (505) 242-2363

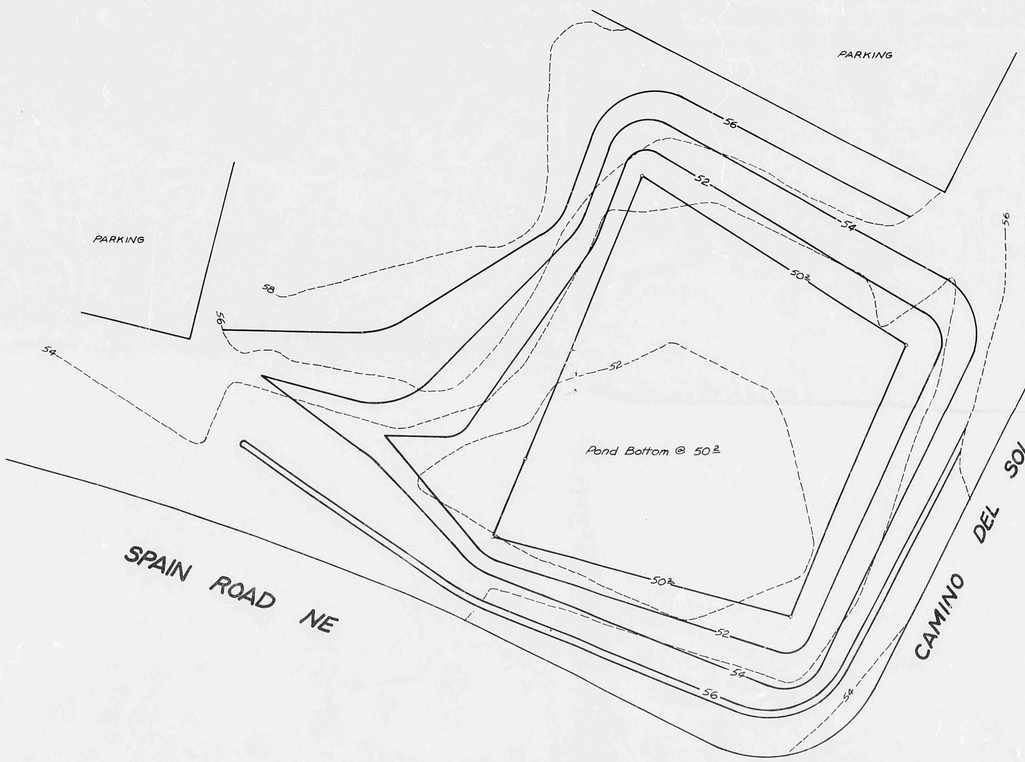
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT





SCALE 1" = 20'

POND VOLUME 12980 CU FT.
POND VOLUME 7468 CU.FT. AS REQUIRED BY APPROVED DRAINAGE REPORT DATED APRIL 1979 FIG. 3



SCALE: 1" = 20'

POND VOLUME 51262 CU FT
POND VOLUME 30788 CU FT AS REQUIRED BY APPROVED DRAINAGE REPORT DATED APRIL 1979. FIG 3

AS BUILT

3-17-1982

SURVEY INFORMATION
FIELD NOTES
NO. | BY | DATE
1543 | JA & TKW | 3/80

BENCH MARKS
A.C.S. 10F20. LOCATED AT THE S.W. RETURN OF THE INTERSECTION OF SPAIN ROAD AND CAMINO DEL SOL. SQUARE CUT ON TOP OF CURB ON THE S.W. RETURN.
EL = 5443.64

AS BUILT INFORMATION
CONTRACTOR
WORK STAKED BY | DATE
FIELD VERIFICATION BY | DATE
ACCEPTANCE BY | DATE
DRAWINGS CORRECTED BY | DATE
MICRO-FILM INFORMATION
RECORDED BY | DATE
NO.

REFERENCES
MAP NO. F-20
EST. NO. | WO. NO.

REVISIONS
NO. | DATE | BY | REMARKS
DESIGN
DESIGNED BY JWA & TKW DATE 3-5-80
DRAWN BY TWW & TKW DATE 3-12-80
APPROVED BY JWA DATE 3-13-80

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
ENGINEERING DIVISION

TITLE: VALLE GRANDE APARTMENTS – PHASE II
PONDS – AS CONSTRUCTED

MEURER, SERAFINI AND MEURER, INC.
CONSULTING ENGINEERS • SURVEYORS • PLANNERS
2801 Wyoming Blvd., N.E. Albuquerque, New Mexico 87110
(505) 292-1936

SHEET OF