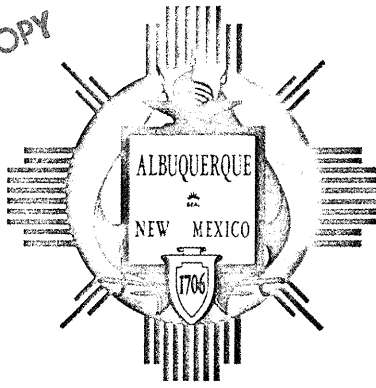


FILE COPY



# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION  
123 Central NW, Albuquerque, NM 87102  
(505) 766-7644

May 16, 1986

Tom Mann  
Tom Mann & Associates, Inc.  
811 Dallas, NE  
Albuquerque, New Mexico 87110

RE: CERTIFICATION FOR PHASE I & II ELDORADO PLACE APARTMENT  
COMPLEX (G-22/D18) ENGINEER'S STAMP DATED MAY 1, 1986

Dear Tom:

Based on the information provided on your resubmittal of May 9, 1986,  
certification for the above referenced drainage plan is acceptable.

Please advise your client that they will need to contact Rick Duran,  
Hydrology Inspector, to make arrangements for release of the  
Certificate of Occupancy.

If I can be of further assistance, please feel free to call me at  
766-7644.

Cordially,

Bernie J. Montoya, C.E.  
Engineering Assistant

cc: Rick Duran

BJM/bsj

MUNICIPAL DEVELOPMENT DEPARTMENT

Raymond Sheppard, P.E., City Engineer

ENGINEERING DIVISION

Telephone (505) 766-7467

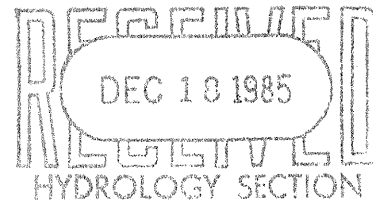
AN EQUAL OPPORTUNITY EMPLOYER

EXHIBIT "D"  
 to Subdivision Improvements Agreement

D.R.B. REQUIRED INFRASTRUCTURE LISTING  
 for Umbrage Country Acres

Following is a summary of Public/Private Infrastructure required to be constructed or financially guaranteed to be constructed for the above development.

Size	*Type Improvement	Location	From	To
24'	Gravel Road	Zartman Lane	Lagunitas Rd	Barr Drain
24'	Gravel Road	Swoose Lane	Zartman Lane	350' North
24'	Gravel Road	Cacahuante Lane	Zartman Lane	400' North
24'	Gravel Road	Zartman Lane	Zartman Lane	750' South
12"	Pipe RCP <i>7/8"</i>	Swoose Lane	at Zartman Ln.	
12"	Pipe RCP <i>7/8"</i>	Cambridge Lane	at Zartman Ln.	
12"	Pipe RCP <i>7/8"</i>	Cambridge Lane	450' South of Zartman Lane	



Prepared by: Steven K. Schroll  
 Print Name Steven K. Schroll  
 Firm Tom Mann & Associates, Inc.

Page 1 of 1

\*\*\*\*\*

Development Review Board Member Approvals

Robert J. Fournier 12-17-85 Don E. Farnham 12-17-85 Janet Fairer 12-17-85  
 Traffic Date WRD Date Parks & Rec. Date  
Richard W. Moore 12-17-85  
 City Engineer/AMAFCA Date  
 DRB Chairman Date

Rev. 8/85 (ID2602E)


$$n = 0.040$$
$$S = 0.006$$

$Q = 110 \text{ cfs}$  (AMDS)

$$d = 1.5'$$
$$A = 30.155 f$$

$P = 18.0$

$$R = 1.67$$

$$V = \frac{Q}{A} = \frac{110}{30.15} = \underline{\underline{3.6 \text{ fps}}} \quad \text{OK}$$

18/7

# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103



MAYOR  
KEN SCHULTZ

CHIEF  
ADMINISTRATIVE OFFICER  
GENE ROMO

DEPUTY CAO  
PUBLIC SERVICES  
FRANK MARTINEZ

DEPUTY CAO  
PLANNING DEVELOPMENT  
PHIL MUELLER

May 29, 1986

Eldorado Apartment  
G22-D18

Mr. Bob Hasaka  
E.C.G. Commercial Construction  
c/o Bradbury & Stamm  
1217 First St. NW  
Albuquerque, NM 87107

RE: CERTIFICATE OF COMPLETION AND ACCEPTANCE - CITY PROJECT NO. 2387

Dear Mr. Hasaka:

This is to certify that the City of Albuquerque accepts Project No. 2387 as being completed according to approved plans and construction specifications and accepts for continuous maintenance all public infrastructure improvements constructed as part of Project No. 2387.

The project is described as follows:

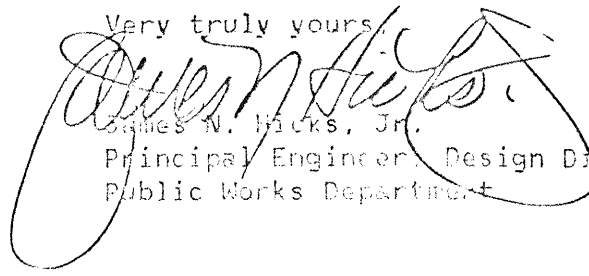
- o Infrastructure improvements for Tract MPE, Eldorado Addition (Eldorado Place Apartments) Map G-22.
- o Sanitary sewer line extension and appurtenances from main line at centerline of Montgomery Boulevard N.E. at west boundary of tract or 994 feet west of Jamaica Drive N.E., southeasterly 80 feet to manhole; In Embudito Arroyo along west boundary from manhole No. 47 at approximately south boundary of tract, south 308 feet.
- o Water line extension and appurtenances from main line on north side of Montgomery Boulevard N.E. and 463 feet west of Jamaica Drive N.E. south 88 feet to south right-of-way of Montgomery Boulevard N.E.
- o Median and paving improvements for left turn bay on westbound Montgomery Boulevard N.E., 300 feet west of Jamaica Drive N.E.
- o Storm sewer line extension from southeast corner of tract, south 52 feet to grouted rip-rap section within Embudito Arroyo Channel.



LETTER OF ACCEPTANCE CITY ELDORADO APARTMENTS

Page 2

Very truly yours,



James W. Hicks, Jr.  
Principal Engineer, Design Division  
Public Works Department



JPH/mr

cc: J.R. Hale Contracting Co., Inc.

Tom Mann & Associates

Bill McNamara, Construction Division, Engineering Group, PWD

Jim Gill, Director, Public Works Department

Jim Olsen, Water Systems, Operations Group, PWD

Sam Cummins, Water Systems, Operations Group, PWD

Dean Wall, Liquid Waste Systems, Operation Group, PWD

Walter Nickerson, Utility Development Group, PWD

Dave Parks, Transportation Design, Engineering Group, PWD

Gene Leyndecker, Utilities, Engineering Group, PWD

Josie Gutierrez, New Meter Sales Clerk, Finance Group, PWD

Claudia Gallegos, Standby Charges Clerk, Finance Group, PWD

Della Gallegos, Design Review, Engineering Group, PWD

Fred Gomez, Maps & Records Supervisor, Engineering Group, PWD

File

PROJECT TITLE Eldorado Place TYPE OF SUBMITTAL resubmittal Drainage Report

ZONE ATLAS PAGE NO. G-22 CITY ADDRESS 11,800 Montgomery Blvd NE

LEGAL DESCRIPTION North half of Lot 3, Gutierrez Tract (unplatted)

ENGINEERING FIRM Tom Mann & Assoc CONTACT Steve Schroll

ADDRESS 811 Dallas NE PHONE 265-5611

OWNER CDS Development Co. CONTACT Randy Jackson

ADDRESS 2850 GH Ave Suite 115 PHONE (619) 294 2450

ARCHITECT S.D. Cal. G.E. Holguin & Assoc CONTACT George Holguin

ADDRESS 1955 W. Grant Rd PHONE (602) 628 1988

SURVEYOR Tucson AZ Unavailable CONTACT \_\_\_\_\_

ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_

CONTRACTOR Unavailable CONTACT \_\_\_\_\_

ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_

## PRE-DESIGN MEETING:

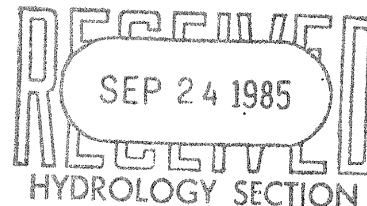
☒ YES  
☐ NO

☒ COPY OF CONFERENCE RECAP SHEET PROVIDED

*previously*

PLEASE CHECK TYPE OF APPROVAL EXPECTED WITH THIS SUBMITTAL:

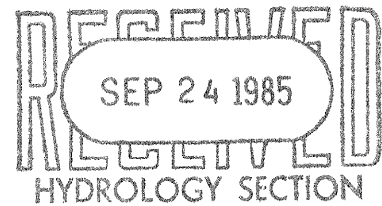
- ☐ SKETCH PLAT APPROVAL  
☐ PRELIMINARY PLAT APPROVAL  
☐ SITE DEVELOPMENT PLAN APPROVAL  
☐ FINAL PLAT APPROVAL  
☒ BUILDING PERMIT APPROVAL  
☐ CERTIFICATE OF OCCUPANCY APPROVAL  
☐ ROUGH GRADING PERMIT APPROVAL  
☐ GRADING/PAVING PERMIT APPROVAL  
☐ OTHER \_\_\_\_\_ (SPECIFY)



DATE SUBMITTED: 2/25/85

BY: Steve K Schroll

DRAINAGE REPORT  
FOR  
ELDORADO PLACE APARTMENT COMPLEX  
FEBRUARY 25, 1985



PREPARED FOR: CDS DEVELOPMENT  
2850 6TH AVENUE  
SAN DIEGO, CA 92103

PREPARED BY: TOM MANN & ASSOCIATES, INC.  
811 DALLAS N.E.  
ALBUQUERQUE, NM 87110  
(505) 265-5611



## TABLE OF CONTENTS

	PAGE NO.
Purpose and Scope . . . . .	3
Location and Description. . . . .	4
Design Criteria . . . . .	6
Existing Drainage Condition . . . . .	7
Proposed Drainage Condition . . . . .	9
Conclusions and Recommendations . . . . .	12
 Appendices:	
Appendix A: Calculation of Runoff in Existing State . . . . .	13
Appendix B: Calculation of Runoff in Developed State . . . . .	15
Appendix C: Calculation of Pond, Channel, Storm Drain and Street Capacities . . . . .	18
 List of Figures:	
Figure 1: Vicinity Map. . . . .	5
Figure 2: SCS Soils Map . . . . .	8
Figure 3: Grading and Drainage Plan . . . . .	Back Pocket
Figure 4: Montgomery Boulevard. . . . .	20

### PURPOSE AND SCOPE

The purpose of this drainage report is to establish the criteria for controlling runoff resulting from development in a manner consistent with the City of Albuquerque Drainage Ordinance and Development Process Manual.

This report analyzes the runoff resulting from a 100-year frequency, 6-hour duration storm under existing and developed conditions.

The scope of the plan is to ensure that the proposed development will be protected from storm runoff and will not increase the flooding potential of adjacent properties.

### LOCATION AND DESCRIPTION

Eldorado Place is located in the northeast quadrant of the City of Albuquerque. The site is bounded by Montgomery Boulevard to the north, Eldorado High School to the west and south, and the Embudito Channel to the east. Figure 1, the Vicinity Map, depicts the location of the site.

The parcel is zoned R-3 for residential development. The parcel contains 7.2 acres and will be developed as a 216-unit apartment complex with a single owner. Presently, the site is undeveloped.

According to the National Flood Insurance Program Flood Boundary Site, the site does not lie within a Flood Hazard Zone. The 100-year flood is confined to the Embudito Channel.



## DESIGN CRITERIA

The analysis of storm runoff for the site is based upon the Rational Method, as outlined in the City of Albuquerque's "Development Process Manual, Volume II." This approach determines the peak discharge and associated volume of runoff for the specified design storm (100-year frequency, 6-hour duration) falling on the study area. Street capacities and channel capacities are determined by the Manning Equation. Pipe capacities are determined by the Mannings Equation also.



### EXISTING DRAINAGE CONDITION

The site currently slopes from northeast to southwest at approximately 4%. The runoff from the site enters the Eldorado High School parking lot and eventually reaches the Embudito Channel. No offsite flows enter the site.

The Embudito Channel, which lies to the east of the site, is presently an unlined channel with drop structures, an outlet structure, and a rundown structure.

As indicated by Figure 2, the soil on the site has been classified by the Soil Conservation Service as EtC (Embudo Tijeras Complex). This soil has been classified as a Type 'B' soil which indicates medium runoff potential and moderate potential of soil erosion.

### PROPOSED DRAINAGE CONDITIONS

The proposed drainage plan, Figure 3, is included at the back of this report. The plan shows 1) existing contours at 2' 0" intervals, 2) proposed spot elevations and contours at 2' 0" intervals, 3) proposed drainage conditions, 4) location of proposed retaining walls, and 5) limit and character of proposed improvements.

For the purpose of analyzing street and inlet capacities, the site has been broken down into three drainage sub-basins. (See Figure 5).

Basin 'A' discharges into the Embudito Channel via a 30" storm drain pipe. Basin 'B' discharges into Montgomery Boulevard, and Basin 'C' discharges into a pond at the southwest corner of the site and is then pumped into Montgomery Boulevard.

This Embudito Channel, according to the City of Albuquerque's Master Drainage Study, Volume C, has sufficient capacity to handle the proposed runoff. However, the velocity indicated by the Master Drainage Study, 7.8 feet per second, warrants bank protection to prevent soil erosion. The detailed working drawings are not a part of this report but are included in a "Drainage Facilities Within Public Right-Of-Way" project.

The City of Albuquerque's Master Drainage Study, Volume C, indicates that the existing storm sewer system (System 302) at the intersection of Juan Tabo and Montgomery has sufficient capacity to convey the proposed runoff from Basin 'B' into the Embudito Channel. The capacity of System 302 is 152 cfs. The existing runoff for the 100-year storm from the contributing basin at the outfall of System 302 is 132 cfs. The proposed runoff from the project site will result in a total runoff of 137.7 cfs (See Appendix 'B' of this report). Therefore, the entire 100-year storm will be conveyed under ground to the Embudito Arroyo in Juan Tabo.

Appendix 'C' indicates that the capacity of Montgomery Boulevard is 299 cfs, at a depth of 0.87, at the intersection of Cairo N.E. (prior to the storm sewer system). Since the entire runoff from the developed basin is 137.7 cfs, during the 100-year storm, Montgomery Boulevard therefore, has adequate capacity.

Ponding has been provided for the 100-year discharge from Basin 'C', with a freeboard of 9". Should both pumps fail during a storm greater than the 100-year design storm, overflow will occur through weepholes provided in the south wall. The discharge will be conveyed through the Eldorado High School playfield, and into the Embudito Arroyo.

Should the inlet on the storm drain system become clogged, overflow from Basin A will enter Basin C. Should this occur during a storm greater than the 100-year design storm, overflow of the pond would occur.

### CONCLUSIONS AND RECOMMENDATIONS

1. The Embudito Channel has sufficient capacity to adequately convey the developed runoff from the site.
2. Channel stabilization will be required (the design is not a part of this report).
3. Montgomery Boulevard has the capacity to convey the proposed discharge.
4. Retaining walls have been called for where differential elevations exceed 16". Retaining wall designs are not included in the scope of the enclosed drawings.
5. The proposed improvements will not contribute to the flooding potential of adjacent sites.

APPENDIX A  
RUNOFF CALCULATIONS - EXISTING CONDITION

PROJECT SITE - EXISTING STATE

(Rational Method)

Site:

Area = 313,520 sf = 7.20 Ac

% impervious = 0

C = 0.34 (DPM Plate 22.2 C-1)

$Q_{100} = CiA$

$i = 6.84 P_6^{T_C}{}^{-0.51} = 5.50 \text{ in/hr}$

where  $P_6 = 2.6 \text{ in}$  (DPM Plate 22.1 D-1)

$T_C = 0.0078L^{0.77}S^{-0.385} = 10 \text{ minutes (minimum)}$

$Q_{100} = 0.34 (5.50) 7.20 = 13.5 \text{ cfs}$

$V_{100} = CP_6A = 23,100 \text{ cf}$

APPENDIX B  
RUNOFF CALCULATION - DEVELOPED CONDITION



PROJECT SITE: - DEVELOPED STATE

Basin A

Area of basin = 2.85 Ac

% impervious = 74

C = 0.72 (DPM Plate 22.2 C-1)

$Q_{100} = CiA$  (Rational Equation)

Where  $i = 6.84 P_6 T_C^{-0.51} = 5.50$  in/hr

$P_6 = 2.6$  in/hr (DPM Plate 22.1 D-1)

$T_C = 10$  minutes (minimum)

$Q_{100} = 11.2$  cfs

$V_{100} = 14.370$  cf

Basin B

Area of basin = 1.40 Ac

% impervious = 77

C = 0.74

$i = 5.5$  in/hr

$T_C = 10$  minutes (minimum)

$Q_{100} = 5.7$  cfs

$V_{100} = 9775$  cfs

Basin C

Area of basin = 2.95 Ac

% impervious = ~~68~~ 73

C = ~~0.68~~ 0.71

i = 5.50 in/hr

$T_c$  = 10 minutes (minimum)

$Q_{100}$  = ~~11.0~~ cfs 11.5 cfs

$V_{100}$  = ~~18,930~~ cf 19770 cf

APPENDIX C  
POND, CHANNEL, STORM DRAIN AND STREET CAPACITIES

## POND, CHANNEL, STORM DRAIN AND STREET CAPACITIES

### Pond Capacity - Average End-Area Method

A <sub>53.50</sub> = 0	> Vol = 930 cf
A <sub>54.00</sub> = 3720 sf	> Vol = 3930 cf
A <sub>55.00</sub> = 4145 sf	> Vol = 4440 cf
A <sub>56.00</sub> = 4735 sf	> Vol = 5160 cf
A <sub>57.00</sub> = 5590 sf	> Vol = 6805 cf
A <sub>58.00</sub> = 8025 sf	> Vol = 4195 cf
A <sub>58.50</sub> = 8760 sf	25,460 cf

Freeboard = 9" 0.71'  
(100 yr. W.S.L. = 57.79)

### Channel Capacity - Manning Equation (See Figure 3)

$$Q = 1.49/n A R^{2/3} S^{1/2}$$

where Q = Discharge, cfs

h = 0.017 Manning coefficient, dimensionless

A = Cross-sectional area, sf

R = Hydraulic radius, ft

S = Slope, ft/ft

$$A = 4.37 \text{ sf}$$

$$R = A/P = 4.37/8 = 0.55$$

$$S = 0.0166$$

$$Q = 33.1 \text{ cfs}$$

### STORM DRAIN CAPACITY

#### A. Pipe (Mannings Equation)

Gravity Flow

$$Q = 1.49/n A R^{2/3} S^{1/2}$$

$$n = 0.015$$

$$A = 4.91 \text{ sf}$$

$$R = A/P = 4.91/7.85 = 0.625$$

$$Q = 15.9 \text{ cfs}$$

#### B. Inlet Capacity (Orifice Equation)

$$Q = CA \sqrt{2gh}$$

where C = clog coefficient = 0.60

$$A = \text{open area of grate} = 4.1 \text{ sf}$$

$$g = 32.2 \text{ ft/sec}^2 = \text{acceleration of gravity}$$

$$h = \text{head} = 0.51'$$

$$Q = 14.0 \text{ cfs}$$

### MONTGOMERY BOULEVARD CAPACITY

Manning Equation:  $Q = 1.49/n A R^{2/3} S^{1/2}$

$$n = 0.018$$

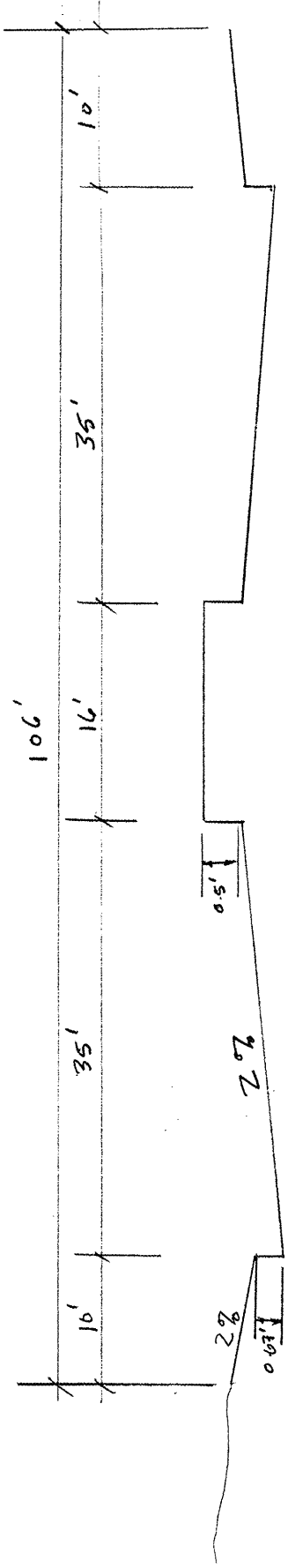
$$A = 39.45$$

$$R = A/D = 3945/92.33 = 0.43$$

$$S = 0.0262 \text{ ft/ft}$$

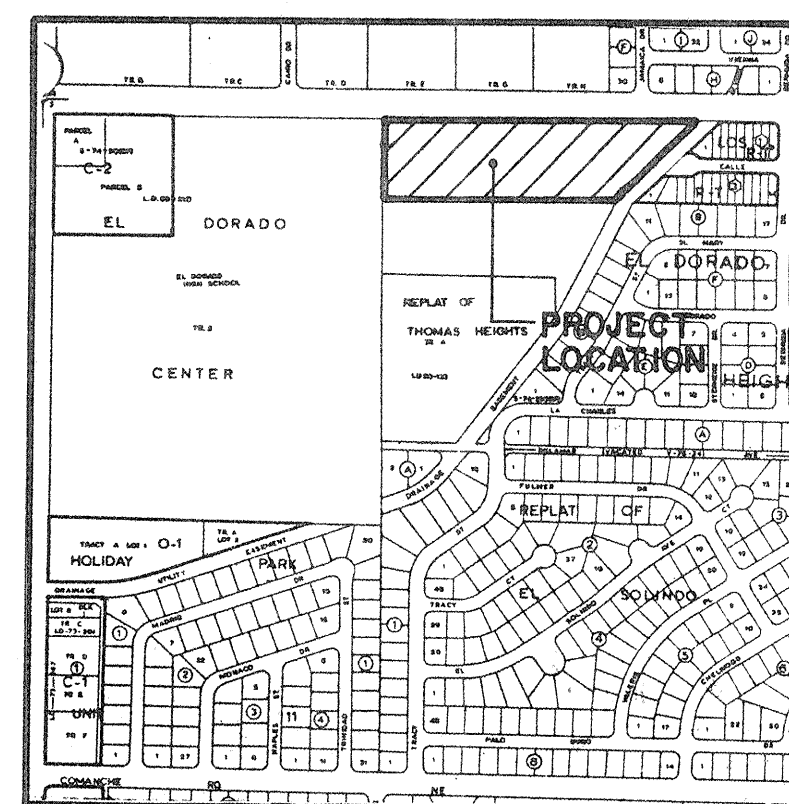
$$Q = 299 \text{ cfs}$$

42,381 50 SHEETS \$ SQUARE  
42,382 100 SHEETS \$ SQUARE  
42,389 200 SHEETS \$ SQUARE  
MADE IN U.S.A.



Montgomery Blvd (@ Cairo)  
NTS





VICINITY MAP  
SCALE: 1" = 800'

G-22

# LEGEND

- EXISTING SPOT ELEVATION
- PROPOSED SPOT ELEVATION
- EXISTING CONTOUR
- PROPOSED CONTOUR
- TOP OF CURB ELEVATION
- FLOW LINE ELEVATION
- PROPERTY LINE
- CONCRETE
- SWALE
- PROPOSED SIDEWALK CULVERT\*
- EXISTING CHAINLINK FENCE
- CMU GARDEN WALL
- CMU RETAINING WALL
- NATURAL GROUND ELEVATION
- TOP OF WALL ELEVATION
- FINISHED GRADE ELEVATION

NQ 65.00  
TW 71.80  
FQ 65.80

## PROJECT BENCHMARK

A STANDARD ACS BRASS TABLET STAMPED "ACSJT-1A" LOCATED @ THE INTERSECTION OF MONTGOMERY BLVD. N.E. AND JUAN TABO BLVD. N.E. SET IN TOP OF A CONCRETE ROOST IN THE MEDIAN JUAN TABO FLUSH WITH THE CURB APPROXIMATELY 59' 0" SOUTH OF THE CENTERLINE OF MONTGOMERY BLVD. N.E. (ALB. BM JT-1A) ELEV. = 5721.248 FEET MSL.

\* 1'-0" SIDEWALK CULVERT AS PER CITY OF ALBUQUERQUE STD. DWG. K-1G.

## CONSTRUCTION NOTES

- Two working days prior to any excavation, Contractor must contact Line Locating Service, 765-1234, for location of existing utilities.
- Prior to construction, the Contractor shall excavate and verify the horizontal and vertical locations of all existing utilities and potential obstructions. Should a conflict exist, the Contractor shall notify the Engineer so that the conflict can be resolved with a minimum amount of delay.

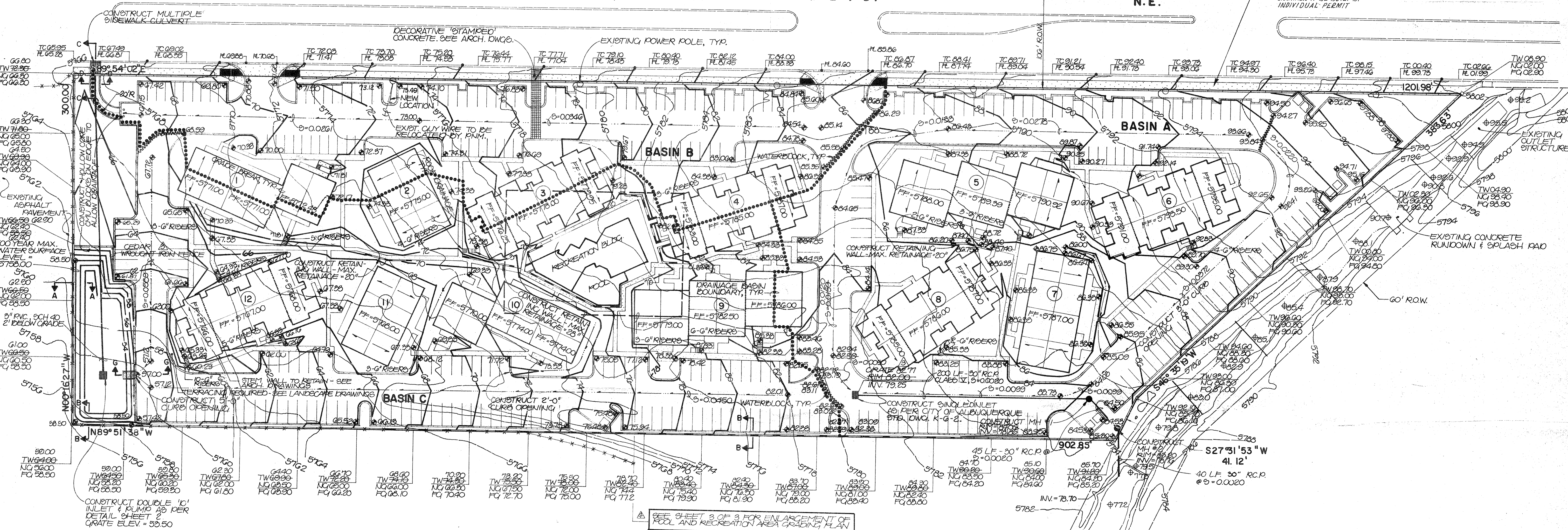
- All work on this project shall be performed in accordance with applicable federal, state, and local laws, rules and regulations concerning construction safety and health.
- All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque Standards and procedures.
- Manholes shall be constructed in accordance with City of Albuquerque Standard Drawing S-2. Manholes shall be 4' diameter Type 'E'.
- For retaining wall design, see structural drawings.
- Where slopes exceed 2:1 in landscaped areas or 3:1 on natural ground, terracing shall be accomplished with railroad ties. See landscape drawings for criteria.

JAMAICA DR. N.E.

MONTGOMERY

BLVD.

N.E.



SECTION G-G

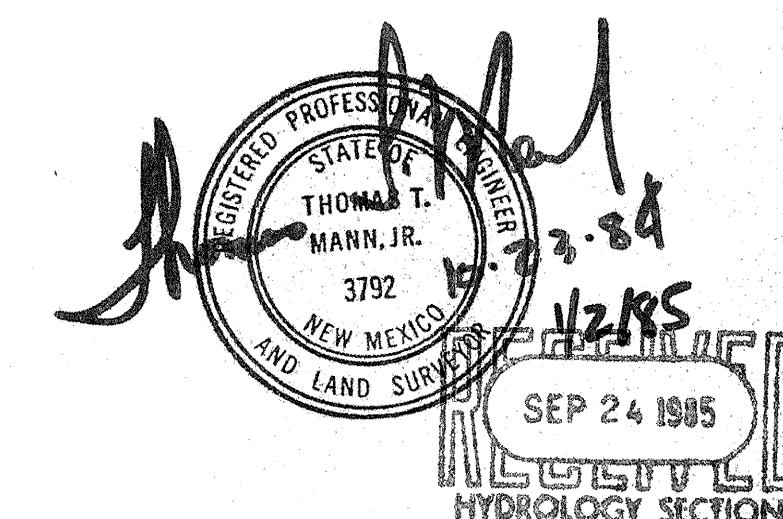
SCALE: 1" = 4'-0"

SECTION H-H

SCALE: 1" = 4'-0"

FIGURE 3

GRADING & DRAINAGE PLAN  
ELDORADO PLACE APARTMENT COMPLEX  
MONTGOMERY BLVD N.E.



811 DALLAS N.E. - ALBUQUERQUE - NEW MEXICO - 87110  
ENGINEERS

NO.	DATE	BY	REVISIONS
1-2-85	SKS		REVERSE GRADING @ S.W. CORNER, GENERAL.
2-25-85	SKS		SECTIONS C & D
7-23-85	SKS		WALL REVISIONS, GENERAL
9-18-85	SKS		ADDED RECREATION BLDG. & POOL

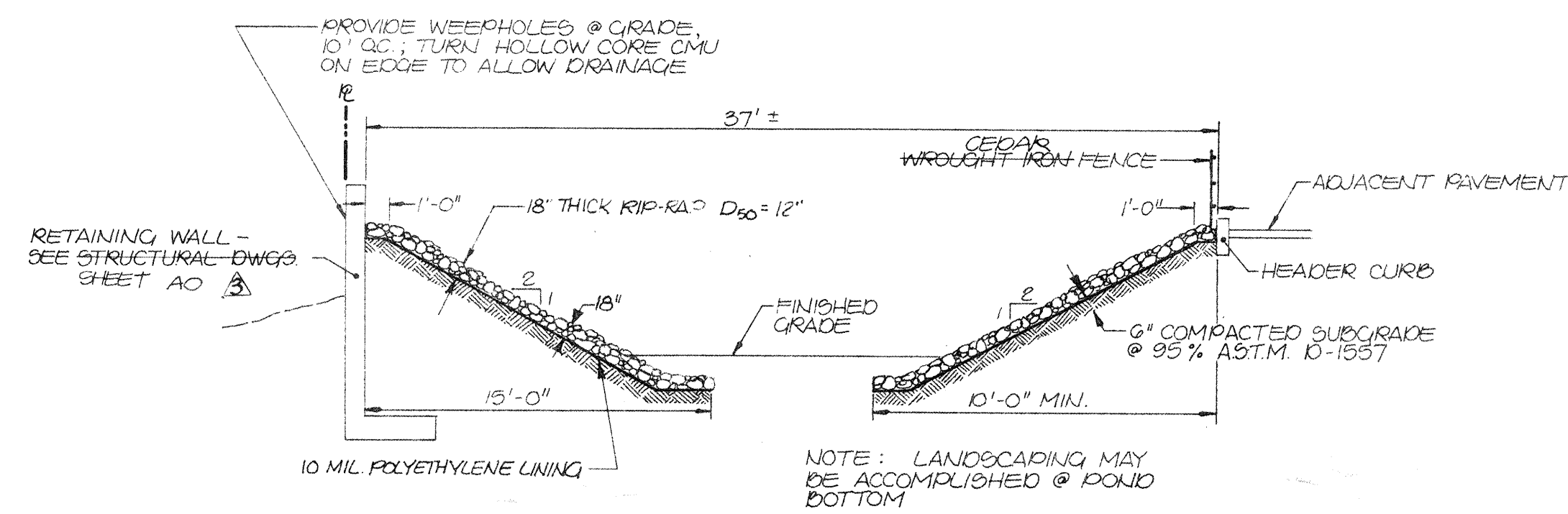
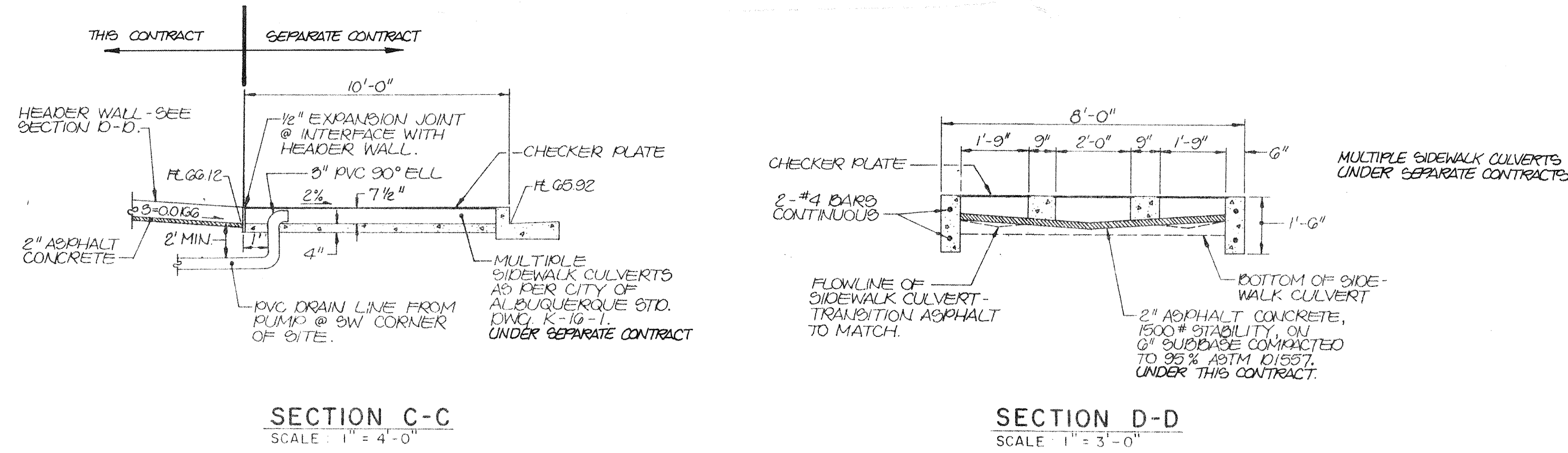
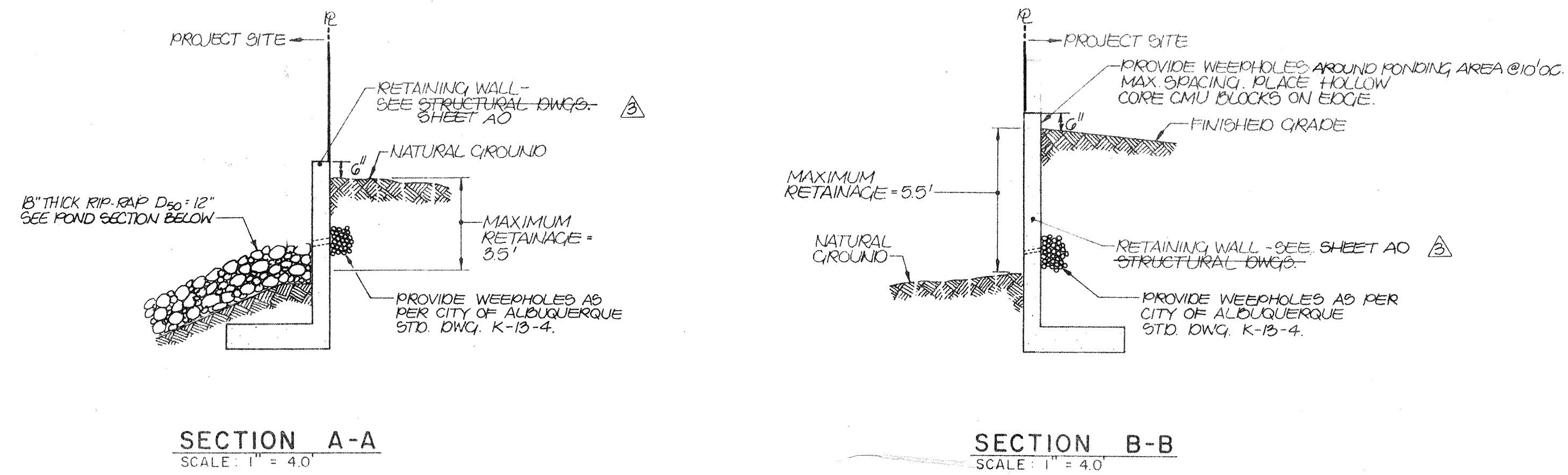
DESIGNED BY: SKS  
DRAWN BY: jmc  
APPROVED: T.T.M.

JOB NO.  
31402  
DATE  
5-84

FILE NO.

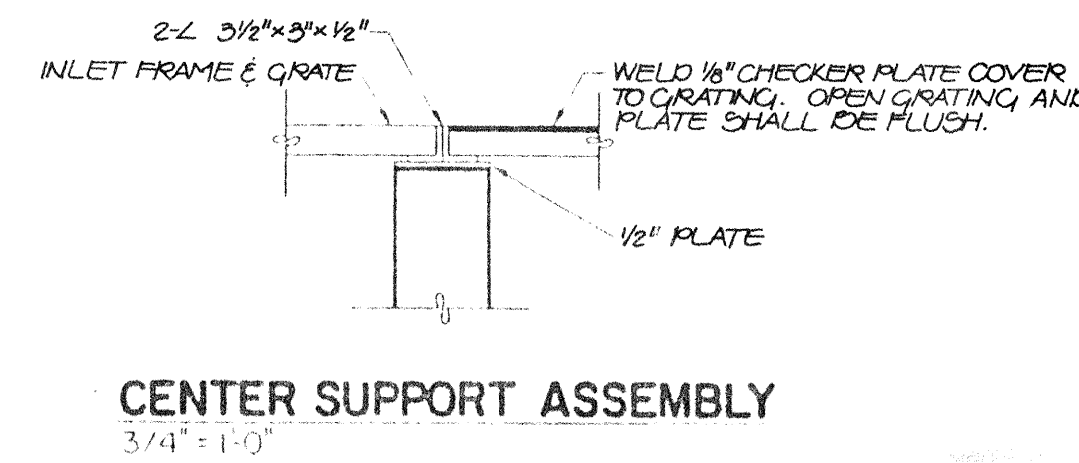
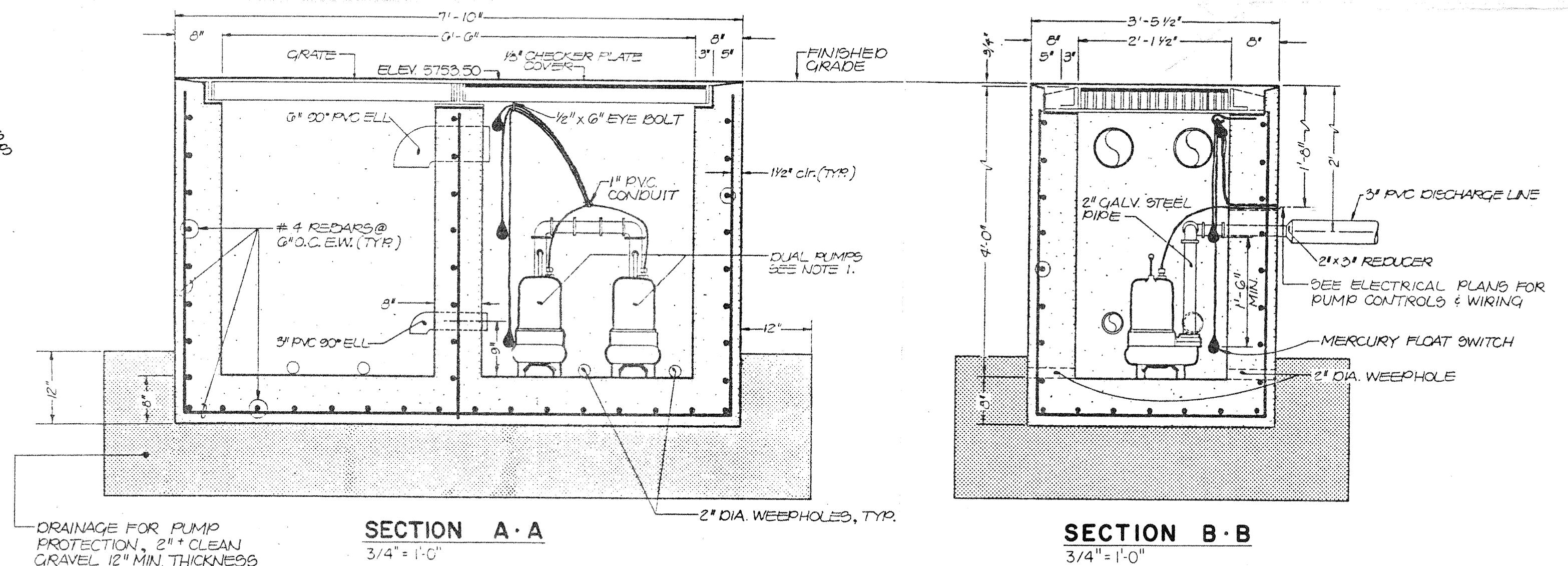
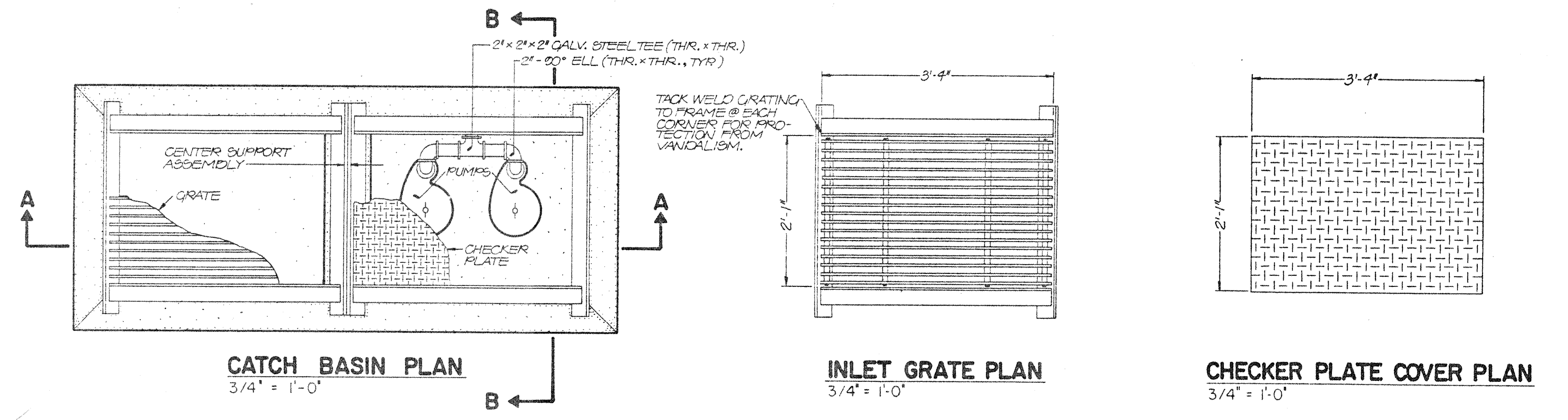
SHEET 1 OF 3





#### NOTES:

1. Install two HYDR-O-Matic submersible pumps, Model SK75, 3/4 Hp motor, single phase, or approved equal. Pump installation shall include three mercury float switches with controls set for "LEAD", "LAG" and "ALTERNATE" modes of operation.
2. Refer to Electrical Plans for location of pump control box, installation to electrical cable/conduit and pump/control one-line diagrams.
3. Grating and frame shall be cleaned of all scale, rust and foreign material and shall be painted with one shop coat of red oxide primer, then 2 finish coats of aluminum paint (AASHO M69).
4. Installation of the mercury float switches shall be at levels providing optimum pumping time without excessive pump cycling.

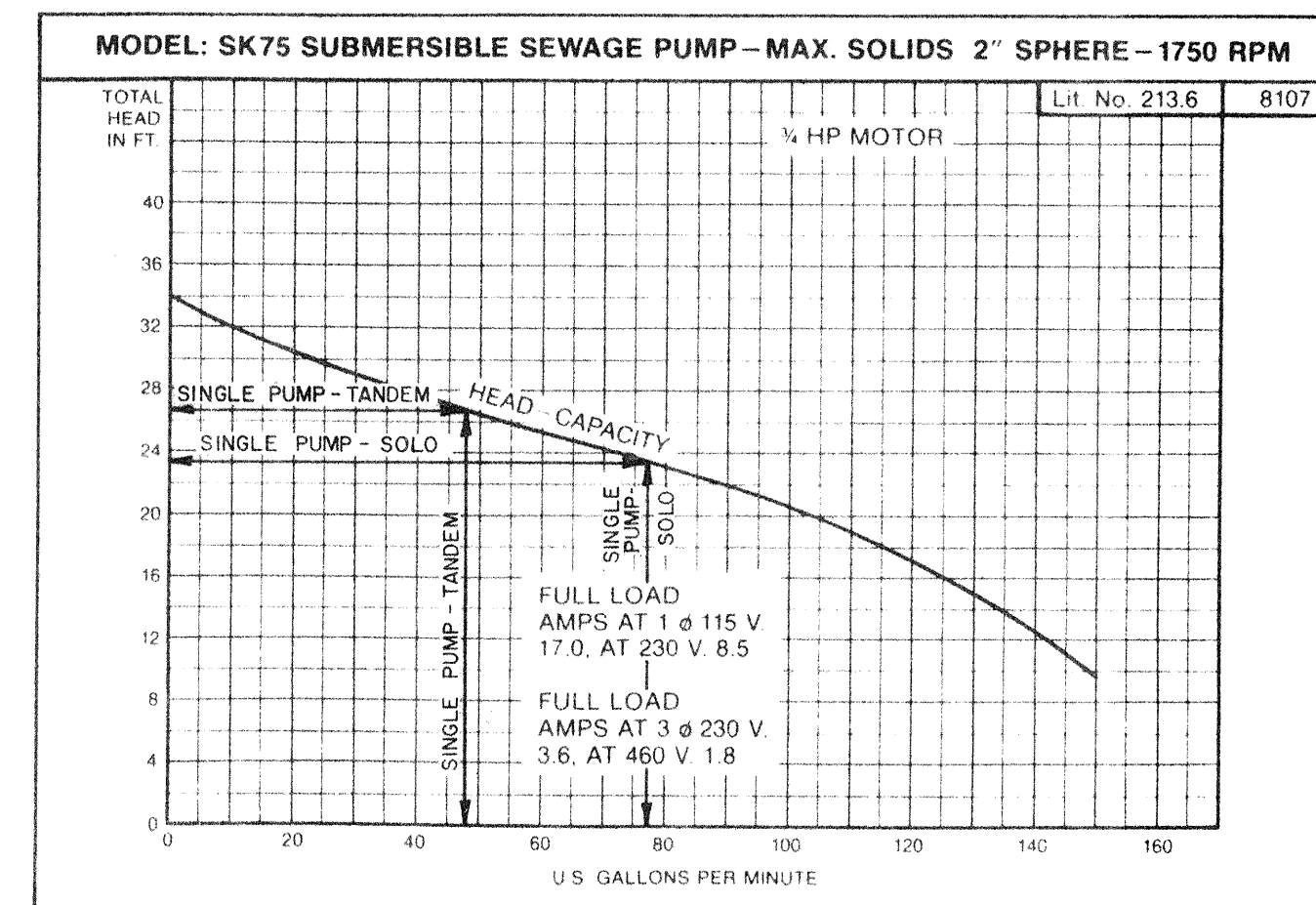


#### PUMP CALCULATIONS

1. Estimated Discharge Rate = 80 gpm
2. Head Loss:
  - A. Elevation: 65.9 - 49.5 = 16.4'
  - B. Friction - 3" pipe
    - Type of pipe: PVC
    - Chart 'C' value: 130
    - Design 'C' value: 100
    - Correction factor: 0.62
    - $H_f = 3.30 \text{ ft}/100 \text{ ft}$
    - Fittings: 2 - 90° elbows - equivalent length = 16'
    - Total equivalent length = 286'
    - $H_f = 3.30/100 \times 286 \times 0.62 = 5.9'$
  - C. Friction - 2" pipe
    - Type of pipe: Steel
    - Design 'C' value: 100
    - Chart 'C' value: 100
    - Correction Factor: 1.0
    - $H_f = 20.2 \text{ ft}/100 \text{ ft}$
    - Length = 3'
    - Equivalent length of 90° ell = 5'
    - Total equivalent length: 8 x 20.2/100 = 1.6'
  - D. Total Dynamic Head
    - $TDH = H_e + H_{f, 3"} + H_{f, 2"} = 16.4 + 5.9 + 1.6 = 23.9$
3. Pump curve interpretation
  - @  $TDH = 23.9$ ,  $Q = 77 \text{ gpm} = 0.17 \text{ cfs}$

#### HYDROMATIC PUMPS

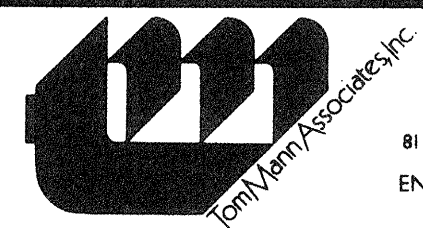
#### SECTION 200 PERFORMANCE DATA



#### PUMP CURVE

### DETAILS ELDORADO PLACE APARTMENTS

FIGURE 3



811 DALLAS, N.E. - ALBUQUERQUE - NEW MEXICO - 87110  
ENGINEERS

NO.	DATE	BY	REVISIONS
1-2-85	SKS		POND LINING REVISED.
2-23-85	SKS		SECTIONS C & D
7-23-85	SKS		WALL REVISIONS, GENERAL.
9-18-85	SKS		ADDED RECREATION BLDG.

DESIGNED BY: **SKS**  
DRAWN BY: **L.D.D.**  
APPROVED: **T.T.M.**

JOB NO.  
**31402**  
DATE  
**5-84**

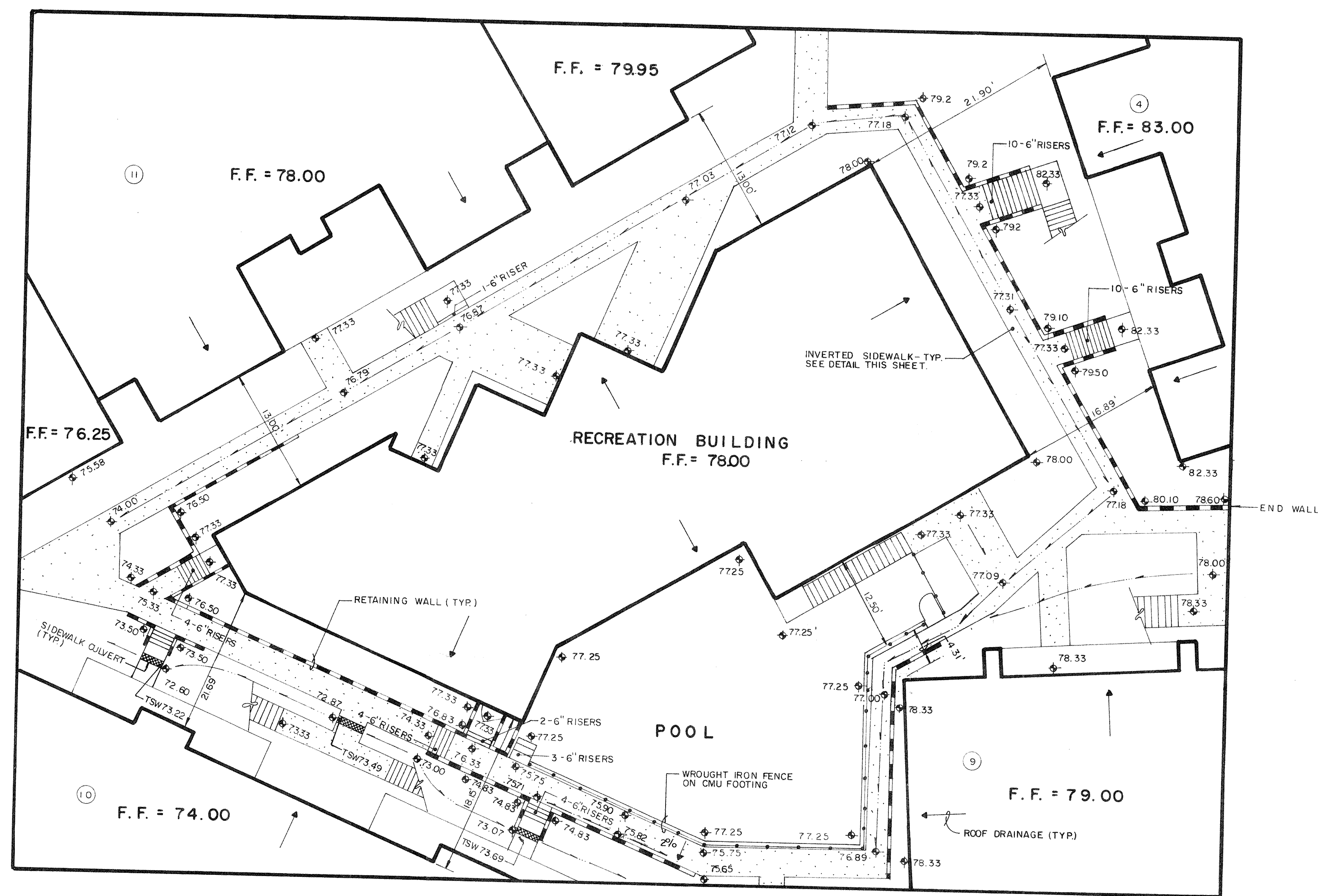
FILE NO.

SHEET **2** OF **3**

RECEIVED  
SEP 24 1985  
HYDROLOGY SECTION

REGISTERED PROFESSIONAL ENGINEER  
STATE OF NEW MEXICO  
THOMAS L. MANN, JR.  
3732  
27-84  
12/85





RECEIVED  
SEP 24 1985  
HYDROLOGY SECTION



NO.	DATE	BY	REVISIONS
1	9/23	SKS	ADDED RECREATION BLDG. & POOL

DESIGNED BY: S.K.S.  
DRAWN BY: J.M.C.  
APPROVED: T.T.M.

JOB NO.  
**31402**

















DATE  
**9-85**

GRADING & DRAINAGE PLAN  
ELDORADO PLACE APARTMENT COMPLEX  
MONTGOMERY BLVD. N.E.





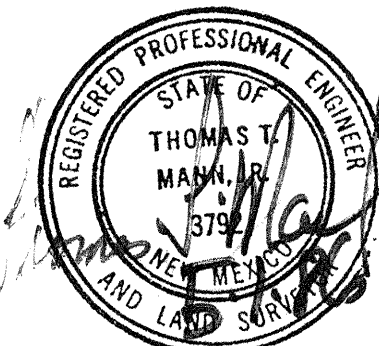
LEGEND

	EXISTING SPOT ELEVATION
	PROPOSED SPOT ELEVATION
	EXISTING CONTOUR
	PROPOSED CONTOUR
	TOP OF CURB ELEVATION
	FLOW LINE ELEVATION
	PROPERTY LINE
	CONCRETE
	SWALE
	PROPOSED SIDEWALK CULVERT
	EXISTING CHAINLINK FENCE
	CMU GARDEN WALL
	CMU RETAINING WALL
	NATURAL GROUND ELEVATION
	TOP OF WALL ELEVATION
	FINISHED GRADE ELEVATION

A STANDARD ACS BRASS TABLET STAMPED "ACJIT-1A"  
LOCATED 8" BELOW THE INTERSECTION OF MONTGOMERY BLVD.  
N.E. AND JUAN TABLA BLVD. N.E. SET IN TOP OF A CONCRETE  
FOOT IN THE MEDIAN JUAN TABLA BLVD WITH THE CURB  
APPROXIMATELY 59' 0" SOUTH OF THE CENTERLINE OF  
MONTGOMERY BLVD. N.E.  
(ALB. BM JT-1A) ELEV. = 5721.243 FEET MSL.

1. Two working days prior to any excavation, Contractor must contact Line Locating Service, 765-1234, for location of existing utilities.
2. Prior to construction, the Contractor shall excavate and verify the horizontal and vertical locations of all existing utilities and potential obstructions. Should a conflict exist, the Contractor shall notify the Engineer so that the conflict can be resolved with a minimum amount of delay.

3. All work on this project shall be performed in accordance with applicable federal, state, and local laws, rules and regulations concerning construction safety and health.
4. All construction within public right-of-way shall be performed in accordance with applicable City of Albuquerque Standards and procedures.
5. Manholes shall be constructed in accordance with City of Albuquerque Standard Drawing S-2. Manholes shall be 4' diameter Type 'B'.
6. For retaining wall design, see structural drawings.
7. Where slopes exceed 2:1 in landscaped areas or 3:1 on natural ground, terracing shall be accomplished with railroad ties. See landscape drawings for criteria.



Based upon the information presented herein, a Certificate of Occupancy is hereby requested for both Phases I & II, which includes the entire site.

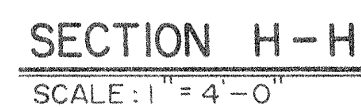
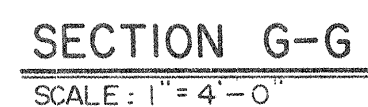
A53.8 = 0	
A54.0 = 1590 sf	Vol = 160 cf
A55.0 = 2260 sf	Vol = 1925 cf
A56.0 = 3290 sf	Vol = 2775 cf
A57.0 = 4135 sf	Vol = 3715 cf
	Vol = 9665 cf

Rock Volume: (Assume vol of voids = 1/3 vol. or rock)  
 $5950 \times 1' \times 1/3 = 1980 \text{ cf}$   
 Total storage volume = 20,220 cf  
 Freeboard =  $\frac{20,220 - 18,93}{8750} = 0.15'$



FIGURE 3

MAY 09 1986  
HYDROLOGY SECTION



NO	DATE	BY	REVISIONS
1	1-2-85	SKS	REVISE GRADING @ S.W. CORNER, GENERAL.
2	2-25-85	SKS	SECTIONS C & D
3	7-23-85	SKS	WALL REVISIONS, GENERAL
4	9-18-85	SKS	ADDED RECREATION BLDG & POOL

DESIGNED BY SKS  
DRAWN BY jmc.  
APPROVED TTM

31405

DATE

5.84

DRAINAGE CERTIFICATION  
ELDORADO PLACE APARTMENT COMPLEX  
MONTGOMERY BLVD N.E.

FILE NO.

SHEET 1 OF 3





# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION  
123 Central NW, Albuquerque, NM 87102  
(505) 766-7644

May 16, 1986

Tom Mann  
Tom Mann & Associates, Inc.  
811 Dallas, NE  
Albuquerque, New Mexico 87110

RE: CERTIFICATION FOR PHASE I & II ELDORADO PLACE APARTMENT  
COMPLEX (G-22/D18) ENGINEER'S STAMP DATED MAY 1, 1986

Dear Tom:

Based on the information provided on your resubmittal of May 9, 1986,  
certification for the above referenced drainage plan is acceptable.

Please advise your client that they will need to contact Rick Duran,  
Hydrology Inspector, to make arrangements for release of the  
Certificate of Occupancy.

If I can be of further assistance, please feel free to call me at  
766-7644.

Cordially,

Bernie J. Montoya, C.E.  
Engineering Assistant

cc: Rick Duran

BJM/bsj

MUNICIPAL DEVELOPMENT DEPARTMENT



# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION  
123 Central NW, Albuquerque, NM 87102  
(505) 766-7644

May 9, 1986

Tom Mann  
Tom Mann & Associates, Inc.  
811 Dallas, NE  
Albuquerque, New Mexico 87110

RE: CERTIFICATION FOR PHASE I & II ELDORADO PLACE APARTMENT  
COMPLEX (G-22/D18) ENGINEER'S STAMP DATED MAY 1, 1986

Dear Mark:

Based on the information provided on your May 2, 1986 submittal,  
certification for the above referenced drainage plan is acceptable.

Please advise your client that they will need to contact Rick Duran to  
make arrangements for release of the Certificate of Occupancy.

If I can be of further assistance, please feel free to call me at  
766-7644

Cordially,

Bernie J. Montoya, C.E.  
Engineering Assistant

cc: Rick Duran

BJM/bsj

MUNICIPAL DEVELOPMENT DEPARTMENT

ENGINEERING DIVISION

Telephone (505) 766-7467

AN EQUAL OPPORTUNITY EMPLOYER



# City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DESIGN HYDROLOGY SECTION  
123 Central NW, Albuquerque, NM 87102  
(505) 766-7644

December 4, 1985

Tom Mann  
Tom Mann & Associates, Inc.  
811 Dallas NE  
Albuquerque, NM 87110

REF: PHASING PLAN FOR ELDORADO APARTMENTS (G22-D18) ENGINEER'S STAMP DATED 11/5/85

Dear Tom:

Based on the information provided on your November 19, 1985 submittal, request for Phase Plan approval is granted. Please advise your client that certification for each phase will be required before any C.O.'s will be issued.

If I can be of further assistance, please feel free to call me at 766-7644.

Sincerely,

Bernie J. Montoya, CE  
Engineering Assistant

BJM:mrk

MUNICIPAL DEVELOPMENT DEPARTMENT

C. Dwayne Sheppard, 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

DESIGN HYDROLOGY SECTION  
123 Central NW, Albuquerque, NM 87102  
(505) 766-7644

November 14, 1985

Tom Mann  
Tom Mann & Associates, Inc.  
811 Dallas, NE  
Albuquerque, New Mexico 87110

RE: PHASING PLAN FOR ELDORADO APARTMENTS  
RECEIVED NOVEMBER 6, 1985 (G-22/D18)

Dear Tom:

Based on the information provided on your November 6, 1985 submittal, the request cannot be processed until revision date for the phasing plan is included.

If I can be of further assistance, please feel free to call me at 766-7644.

Cordially,

*Bernie J. Montoya*

Bernie J. Montoya, C.E.  
Engineering Assistant

BJM/bsj

MUNICIPAL DEVELOPMENT DEPARTMENT

C. Dwayne Sheppard, 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

DESIGN HYDROLOGY SECTION  
123 Central NW, Albuquerque, NM 87102  
(505) 766-7644

October 2, 1985

Tom Mann  
Tom Mann & Associates  
811 Dallas NE  
Albuquerque, NM 87110

REF: REVISED DRAINAGE PLAN FOR ELDORADO PLACE APARTMENTS (G22-D18)  
RECEIVED SEPTEMBER 24, 1985

Dear Tom,

Based on the information provided on your September 24, 1985 submittal, revisions indicated on your drainage report with revision date 9/18/85 and drainage plans sheets 1 thru 3 with revision date 9/23/85 are acceptable.

If I can be of further assistance, please feel free to call me at 766-7644.

Sincerely,

Bernie J. Montoya  
Engineering Assistant  
Hydrology

BJM/cl

MUNICIPAL DEVELOPMENT DEPARTMENT

C. Dwayne Sheppard, 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

DESIGN HYDROLOGY SECTION  
123 Central NW, Albuquerque, NM 87102  
(505) 766-7644

September 26, 1985

Tom Mann  
Tom Mann & Assoc.  
811 Dallas NE  
Albuquerque, NM 87110

REF: PHASING PLAN FOR ELDORADO APARTMENT (G22-D18) RECIEVED SEPTEMBER  
4, 1985

Dear Tom,

Based on the information provided on your September 4, 1985 submittal, the phasing plan will be approved once we get a revised copy showing engineer's stamp with signature with new revision date.

If I can be of further assistance, please feel free to call me at 766-7644.

Sincerely,

*Bernie J. Montoya*

Bernie J. Montoya CE  
Engineering Assistant  
Hydrology

BJM/cl

MUNICIPAL DEVELOPMENT DEPARTMENT

C. Dwayne Sheppard, 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

DESIGN HYDROLOGY SECTION  
123 Central NW, Albuquerque, NM 87102  
(505) 766-7644

August 23, 1985

Mr. Tom Mann  
Tom Mann & Assoc.  
811 Dallas NE  
Albuquerque, NM 87110

REF: REVISED DRAINAGE AND GRADING PLAN FOR ELDORADO PLACE APTS  
(G22-D18) REPORT APPROVED 2/25/85 AND REVISION PLAN DATED  
7/23/85 SHEET 1 & 2

Dear Tom,

Based on the information provided on your August 1, 1985 resubmittal,  
revisions indicated on your plan are acceptable.

If I can be of further assistance, please do not hesitate to contact  
me at 766-7644.

Sincerely,

Bernie J. Montoya  
Engineering Assistant  
Hydrology

BJM/cl

MUNICIPAL DEVELOPMENT DEPARTMENT

C. Dwayne Sheppard, P.E., City Engineer

ENGINEERING DIVISION

Telephone (505) 766-7467

AN EQUAL OPPORTUNITY EMPLOYER