HYDROLOGY

K23/D21

SUNRISE JOINT
VENTURE

K23-D21

2 PLANS

INFORMATION SHEET

PROJECT TITLE SUNRISE JOINT VENTURE TYPE OF SUBMITTAL DRAINAGE REPT/PLAN

ZONE ATLAS PAGE NO. K23-D2 new CITY ADDRESS N/A.

LEGAL DESCRIPTION TRACT B, GRANADA HILLS

ENGINEERING FIRM BLACKWELL ENGR'G. CONTACT JIM BLACKWELL

ADDRESS 1620 CENTRAL SE PHONE 247-1529

OWNER SUNRISE JOINT VENTURE CONTACT BRAD HAYS

ADDRESS 202 CENTRAL SE PHONE

ARCHITECT SCHLEGEL LEWIS CONTACT JEAN NELSON

ADDRESS 1620 CENTRAL SE PHONE 247-1529

SURVEYOR DAVID CLAUSEN CONTACT SAME

ADDRESS 515 SILVER SW PHONE 243-9029

CONTRACTOR JAYNES CORP. CONTACT RICHARD CLIFTON

ADDRESS 2906 BROADWAY NE PHONE 345-8591

DATE SUBMITTED 9/6/84

BY JIM BLACKWELL

Use the Information Sheet when submitting the following:

Drainage report or plan, conceptual grading and drainage plan, engineer's certification plan, erosion plan and grading plan. Provide the information applicable to your submittal.

Form 2
Approval
Cmb

RECEIVED
SEP 10 1984
HYDROLOGY SECTION

INFORMATION SHEET

PROJECT TITLE SUNRISE APARTMENTS TYPE OF SUBMITTAL DRAINAGE PLAN

ZONE ATLAS PAGE NO. K-23 R-2 CITY ADDRESS 13,400 LOMAS NE

LEGAL DESCRIPTION TRACT B, GRANADA HILLS

ENGINEERING FIRM BLACKWELL & ASS'G CONTACT JIM BLACKWELL

ADDRESS 1620 CENTRAL SE PHONE 247-1529

OWNER SUNRISE JOINT VENTURE CONTACT BRAD HAYES

c/o SOUTHWEST DEVELOPM'T.

ADDRESS 202 CENTRAL SE PHONE

ARCHITECT SCHLEGEL LEWIS CONTACT JEAN NELSON

ADDRESS 1620 CENTRAL SE PHONE 247-1529

SURVEYOR DAVE CLAUSEN & ASSO. CONTACT DAVE CLAUSEN

ADDRESS PHONE 243-9029

CONTRACTOR JAYNES CORP. CONTACT RICHARD CLIFTON

ADDRESS 2406 BROADWAY NE PHONE 345-8591

PRE-DESIGN MEETING:

___ YES
___ NO
___ COPY OF CONFERENCE RECAP SHEET PROVIDED

PLEASE CHECK TYPE OF APPROVAL EXPECTED WITH THIS SUBMITTAL:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
X SITE DEVELOPMENT PLAN APPROVAL
X FINAL PLAT APPROVAL
X BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ ROUGH GRADING PERMIT APPROVAL
___ GRADING/PAVING PERMIT APPROVAL
___ OTHER _____ (SPECIFY)

DATE SUBMITTED: 9/17/84

BY: Jean L. Nelson

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

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

October 3, 1984

Mr. Jim Blackwell
Blackwell Engineers
1620 Central Avenue, SE
Albuquerque, New Mexico 87106

RE: DRAINAGE PLAN FOR SUNRISE APARTMENTS AT 13400 LOMAS NE (K23-D21)
RECEIVED SEPTEMBER 10, 1984

Dear Mr. Blackwell:

I have reviewed the above referenced plan and forward the following comments.

1. Require legal description or plat.

2. Require a "Drainage Facilities Within City Right-of-Way" document for the following areas: the 10' concrete rundown, and grading in the public right-of-way.

3. Please clarify on the type of landscaping that is used in the interior court. Will the area be grass or asphalt?

Sincerely yours,

Carlos Montoya

Carlos A. Montoya
Civil Engineer/Hydrology

CAM/bm

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

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

October 17, 1984

Mr. Jim Blackwell
Blackwell Engineering
1620 Central, S.E.
Albuquerque, New Mexico 87106

RE: SUNRISE JOINT VENTURE (K23-D21) RECEIVED SEPTEMBER 10, 1984

Dear Mr. Blackwell:

The above-referenced plan dated September 8, 1984 is approved.

Please attach a copy of this approved plan along with the appropriately approved "Drainage Facilities Within City Right-of-Way" document to the construction set prior to Hydrology sign-off.

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

Sincerely yours,

Carlos A. Montoya
Civil Engineer/Hydrology

CAM/bm

cc:
Greg Olson, Assistant City Engineer/Design

DRAINAGE REPORT
FOR
SUNRISE APARTMENTS

September 4, 1994

Prepared By

Schlegel Lewis Associates, Inc.
1620 Central Ave. SE
Albuquerque, New Mexico 87106
(505) 247-1529

RECEIVED
SEP 10 1984
HYDROLOGY SECTION

JAMES E. BLACKWELL
NEW MEXICO
7145
REGISTERED PROFESSIONAL ENGINEER

PROJECT LOCATION

The project site is located in Albuquerque, New Mexico, in the Northeast Heights and at the Southeast corner of the intersection of Tramway Boulevard and Lomas Boulevard. The site is bounded by Lomas Boulevard NE to the North, Hupmobile Street NE to the East, the Lomas Diversion Channel to the South, Tramway Boulevard and the Tramway Drainage Channel to the West. The area of the property is approximately 5.03 acres.

At the present time, the site is vacant. The developer of the project proposed to construct nine (9) apartment buildings and one (1) clubhouse and swimming pool.

CRITERIA

The calculations within the drainage report are based on the following criteria:

1. The procedures as outlined in the Development Process Manual are used as the basis of calculations.
2. The Analysis area cover the area bounded by Lomas Boulevard to the North, Hupmobile Street to the East, the Lomas Diversion Channel to the South and the Tramway Drainage Channel to the West.
3. Total free discharge of storm waters into the Lomas Diversion Channel is the method of handling the increased runoff due to development.

CALCULATIONS

Total Drainage Area = 5.03 acres

Soil Classification

From sheet "Soil Survey of Bernalillo County - SCS"

Soil type = E_tC = Classification "B"

Coefficient of Runoff

Impervious Area = 3.04 acres
Pervious Area = 1.99 acres

% Impervious = 3.04/5.0 = 0.60
with 60% impervious and soil type B

C = 0.55 - (page 22.2, plate C-1)

Time of Concentration

T_c = 10 minutes (minimum time)

Rainfall Intensity

$i = 6.84\ t_c^{(-0.51)}$

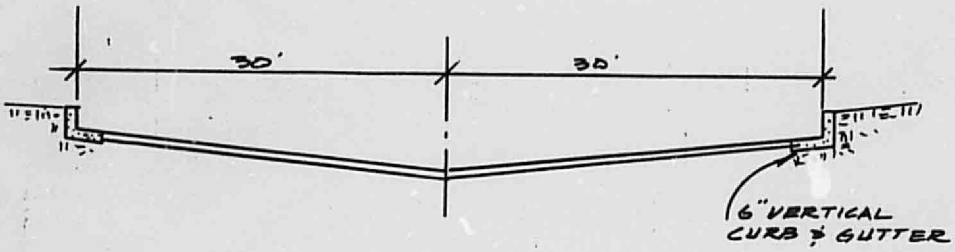
$i = 6.84\ (10)^{(-0.51)} = 2.11$

$I = (2.11)(2.20) = 4.64$

QUANTITY OF RUNOFF

Q = C*I*A = (0.55)(4.64)(5.03) = 12.84 cfs
Total Runoff into the Lomas Diversion Channel = 12.84 cfs

Check street carrying capacity



Area = 48 FT^2
P = 60 FT

R = A/P = 48/60 = 0.80

S = .005 FT/FT
N = 0.017

$$Q = \frac{1.486}{N} R^{2/3} S^{1/2} A$$

$$Q = \frac{1.486}{.017} (0.80)^{.66} (.005)^{.50} (48)$$

Q = 255.48 cfs > 12.84 ∴ ok

Total Discharge into Lomas Diversion Channel = 12.84 cfs

Check capacity of Diversion Channel

From Engineering Report
"Tramway East Diversion Channel - Phase II"
Lomas to Tijeras Canyon
Prepared by Bohannon, Westman, Huston
April 1975

At Station 91 + 10

Bottom Width = 10.75"

Depth = 3.9"

Top Width = 19.6"

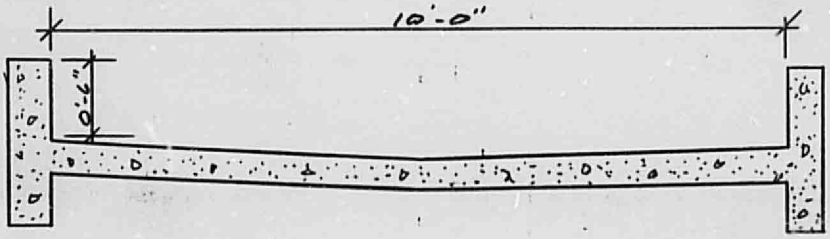
Freeboard = 2.0"

Velocity = 18'/second

Q = 1200 cfs - Stable

The additional 12.84 cfs is not detrimental to the Channel.

Check Carrying Capacity of Rundown:



Area = (.50)(10) = 5FT

P = 11FT

R = A/P = 5/11 = 0.45

S = 0.175

N = 0.013

$$Q = \frac{1.486}{N} R^{2/3} S^{1/2} A$$

$$Q = \frac{1.486}{.013} (0.45)^{.66} (0.175)^{0.50} (S)$$

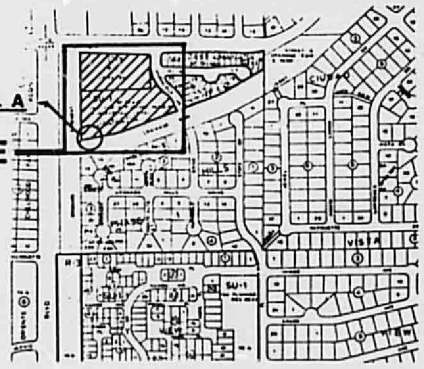
Q = 33.95 cfs > 12.84 cfs ∴ ok

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

permit # 21272

VICINITY MAP



K-23-Z

LEGAL: TRACT 'B' GRANADA HILLS

OWNER: SUNRISE JOINT VENTURE

PREPARED BY: BLACKWELL ENGINEERING
1620 CENTRAL S.E. ALBQ. N.M.

JAMES E. BLACKWELL NEW MEXICO 7146 REGISTERED PROFESSIONAL ENGINEER
12-12-84

NOTICE TO CONTRACTOR

1. An excavation/construction permit will be required before beginning any work within City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.
2. All work detailed on these plans to be performed, except as otherwise stated or provided hereon, shall be constructed in accordance with "Contract Documents" for public works contract No. 84-2.
3. Two working days prior to any excavation, contractor must contact Line Locating Service, 765-1234, for location of existing utilities.
4. Prior to construction, the contractor shall excavate and verify the horizontal and vertical locations of all obstructions. Should a conflict exist, the contractor shall notify the engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to arterial street use.

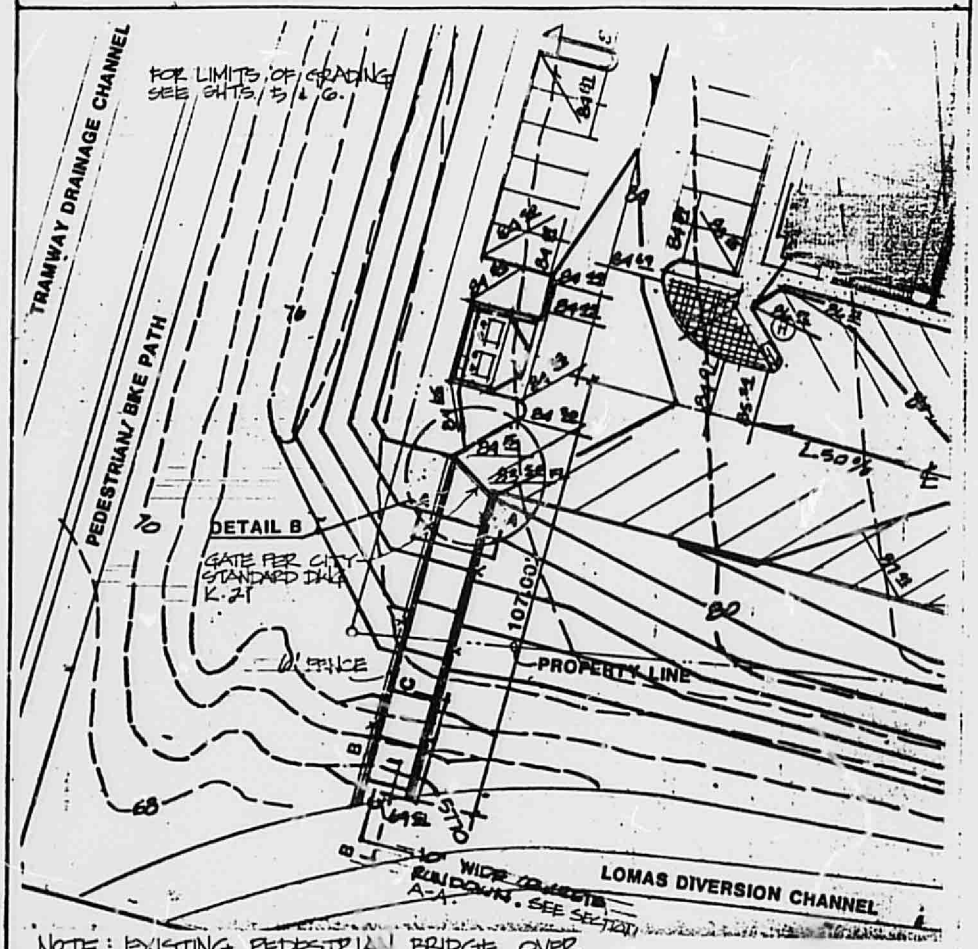
Jaynes Corp., Inc. Permit #21272 OKay to D-193

APPROVALS	NAME	DATE	TITLE: SUNRISE APARTMENTS 13400 LOMAS NE.
A.C.E./DESIGN	[illegible]	12/13/84	
INSPECTOR	Lenny Romero	7-10-85	#21272 PERMIT NO.
A.C.E./FIELD	W. McNamara	7-11-85	SHEET 1 OF 7 — MAP NO. K-23 D-21

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

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



NOTE: EXISTING PEDESTRIAN BRIDGE OVER CHANNEL IS NOT AFFECTED BY THIS CONTRACT.

BENCH MARKS

A.C.S. "JEFF R." - A BRASS TABLET STAMPED "JEFF R. 1970" SET IN TOP OF A CONCRETE POST FLUSH WITH GROUND LOCATED AT THE SOUTHWEST INTERSECTION OF LOMAS AND TRAMWAY BLVD NE ELEV = 5762.79.

DETAIL A

JAMES R. BLACKWELL NEW MEXICO 7145 REGISTERED PROFESSIONAL ENGINEER

SCALE 1"=30.00'

NOTE: ON REVEGETATION IN PUBLIC R.O.W.:
AREA TO BE RESEEDED W/ MIXED 1/3 BUFFALO GRASS, 1/3 BLUE GRAMA GRASS, & 1/3 KS1 @ 2#/1000 S.F. DRILLED SEEDED, W/ STRAW SATCH.
WATER - SOAK DAILY FOR A PERIOD OF 2 WEEKS.

D-193

APPROVALS	NAME	DATE
A.C.E./DESIGN	[illegible]	12/13/84
INSPECTOR	[illegible]	7-10-85
A.C.E./FIELD	W. J. McNamara	7-11-85

TITLE: SUNRISE APARTMENTS
13400 LOMAS NE.

PERMIT NO. 21372 MAP K-23
SHEET 2 OF 7 D-21

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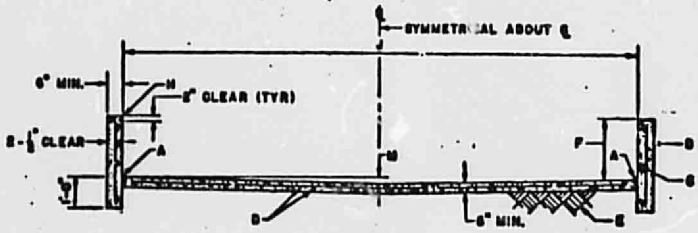
CITY OF ALBUQUERQUE

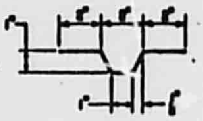
DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



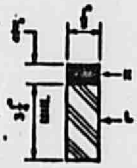
TYPE A

CONSTRUCTION NOTES:

A. ½" EXPANSION JOINT, SEE DETAIL BELOW.
B. NO. 4 REBARS AT 1'-0" O.C.
C. NO. 4 REBARS AT 1'-0" O.C.
D. NO. 4 REBARS AT 1'-0" O.C. BOTH WAYS.
E. 6" COMPACTED SOIL 95% PER ASTM D 1557
F. AS SPECIFIED FOR 6" WALLS SEE NOTE.
G. ALL NO. 4 REBARS AT 1'-0" O.C..
H. 6" CONC. BLOCK WITH CORES FILLED WITH GROUT AND NO. 4 REBARS INSERTED INTO CORES AT 1'-6" O.C., MAY BE SUBSTITUTED FOR FORMED CONC. WALLS.
J. WIDTH OF CHANNEL.
K. TWO COMPONENT URETHANE SEALANT
L. POLYETHYLENE FOAM FILLER TO DEPTH OF SLAB.
M. SEE NOTE NO. 3.
N. KEYED CONSTRUCTION JOINT. SEE DETAIL BELOW.



KEYWAY DETAIL



EXPANSION JOINT DETAIL

JAMES E. BLACKWELL NEW MEXICO 7145 REGISTERED PROFESSIONAL ENGINEER
12-12-84

CITY OF ALBUQUERQUE	
REVISIONS 8-28-84 11-1-84	DRAINAGE TYPICAL LINING DRAINAGE EASEMENTS DWG. K-12-4

SECTION A-A

D-193

APPROVALS	NAME	DATE
A.C.E./DESIGN		12/13/84
INSPECTOR		7-10-85
A.C.E./FIELD		7-11-85

TITLE: SUNRISE APARTMENTS
13400 LOMAS NE.
PERMIT NO. 21272
SHEET 5 OF 7
MAP K-22 NO. D-21

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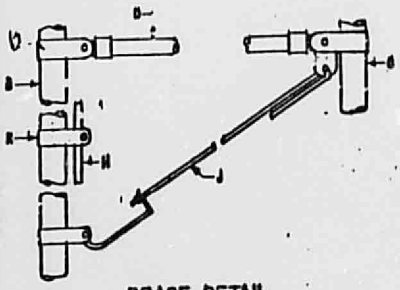
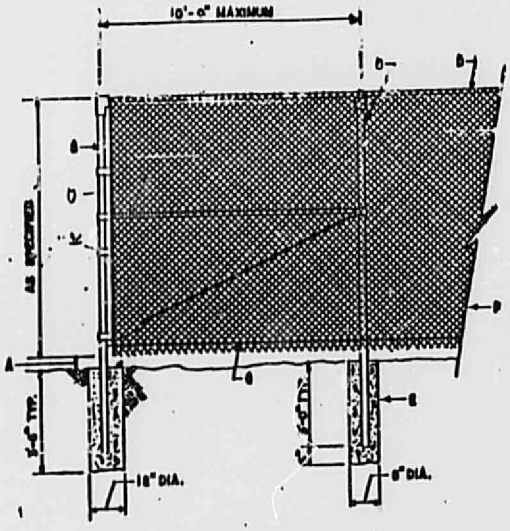
CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



BRACE DETAIL



CHAIN LINK FENCE

CONSTRUCTION NOTES:

A. DIMENSIONS ABOVE OR BELOW GRADE LEVEL WILL BE ON CONSTRUCTION DRAWING. IF NONE IS NOTED MESH IS FLUSH WITH GRADE LEVEL. IF BELOW GRADE, POSTS & WIRE MESH WILL BE COATED WITH BITUMINOUS MATERIAL.
B. CORNER POST.
C. LINE POSTS.
D. TOP & BRACE.
E. CONCRETE FOOTING.
F. 2" MESH No. 9 GAGE WIRE GALVANIZED FABRIC.
G. WIRE REINFORCEMENT, (WIRE GAUGE, LOCATION, AND NUMBER OF STRANDS AS SHOWN ON CONSTRUCTION DRAWINGS).
H. STRETCHER BAR- $\frac{1}{4}$"x$\frac{3}{4}$" FLAT.
J. TRUSS BAR- $\frac{3}{8}$" DIA.
K. TRUSS BAND.

SECTION C-C

JAMES E. BLACKWELL
NEW MEXICO
7145
REGISTERED PROFESSIONAL ENGINEER
12-12-84

D-193

APPROVALS	NAME	DATE	TITLE: SUNRISE APARTMENTS 13400 LOMAS NE.	
A.C.E./DESIGN	[signature]	12/13/84		
INSPECTOR	Jerry Romero	7-10-85	PERMIT NO 21272	MAP K-23
A.C.E./FIELD	W. J. McNamara	7-11-85	SHEET 4 OF 7	NO. D-21

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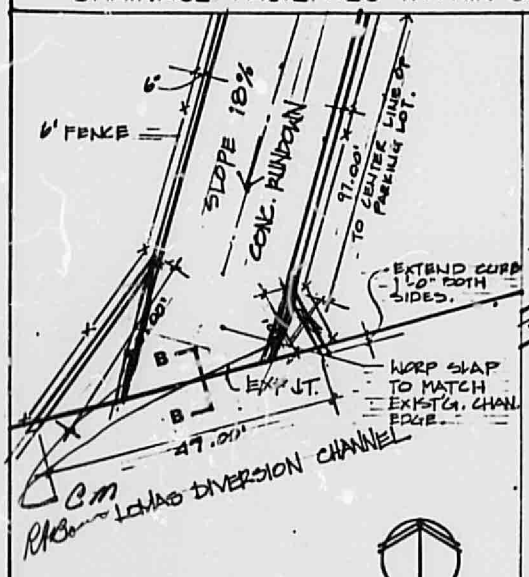
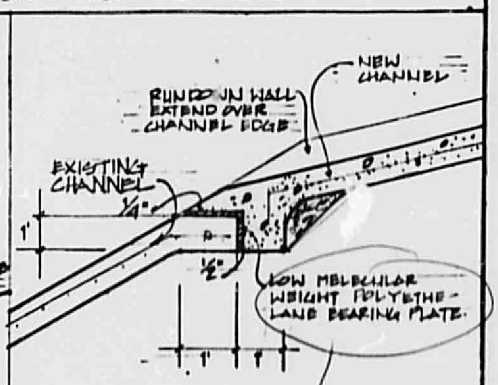
CITY OF ALBUQUERQUE

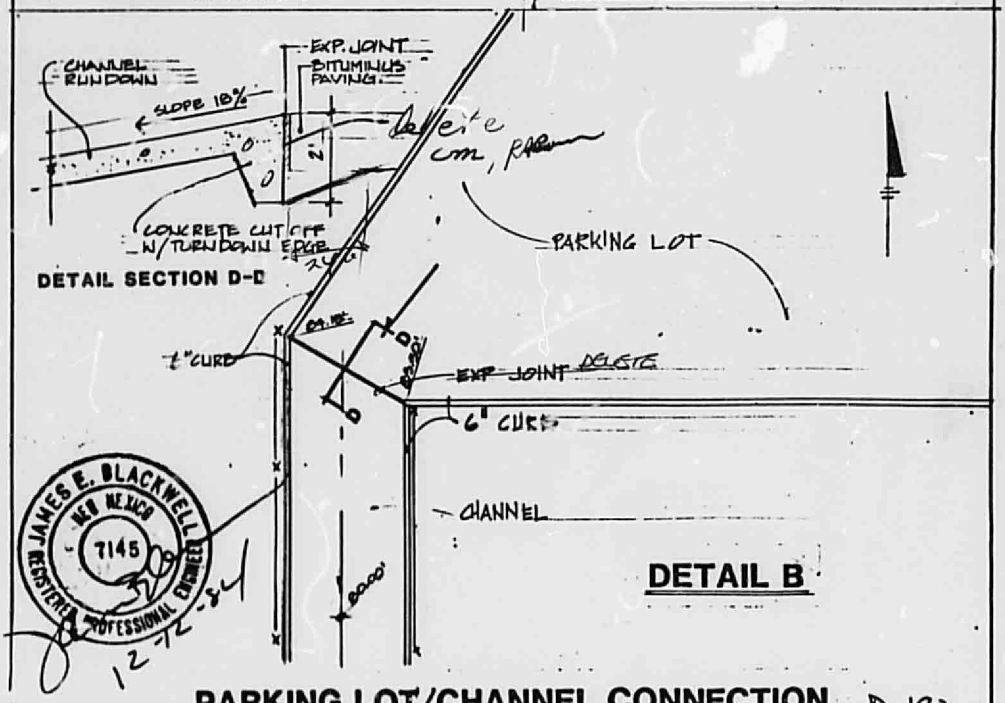
DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



DETAIL C 1"=20'-0"



SECTION B-B NO SCALE



DETAIL B

PARKING LOT/CHANNEL CONNECTION D-193

APPROVALS	NAME	DATE	TITLE: SUNRISE APARTMENTS 13400 LOMAS	
A.C.E./DESIGN	[illegible]	12/13/84		
INSPECTOR	Jerry Romero	7-10-85	PERMIT NO. 21272	MAP K-23
A.C.E./FIELD	W. J. McNamara	7-1-85	SHEET 5 OF 7	NO. D-21

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