

ATTENTION: Academy Reprographics
505-924-3900

Received By: Lin Sins Date: 3-27-02
Print



November 16, 1998

Paul T. Brasher
Brasher & Lorenz Inc.
2201 San Pedro NE
Albuquerque, New Mexico 87110

RE: ENGINEER CERTIFICATION FOR TEMPORARY C.O. FOR TEXAS LAND AND
CATTLE CO. (F17-D64) CERTIFICATION STATEMENT DATED 10/15/98

Dear Mr. Brasher:

Based on the information provided on your October 23, 1998 submittal, the above referenced site is acceptable for a temporary Certificate of Occupancy release.

Please be advised that once the landscaping is completed, the final Certification must be submitted for final review.

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia
File /

Sincerely

Bernie J. Montoya
Bernie J. Montoya CE
Associate Engineer

Good for You, Albuquerque!



DRAINAGE INFORMATION SHEET

PROJECT TITLE: TEXAS LAND AND CATTLE CO. ZONE ATLAS/DRNG. FILE #: F-17/D-64
 DRB #: 98-31 EPC #: Z-97-121 WORK ORDER #: _____
 LEGAL DESCRIPTION: TRACTS A-1B-1, A-1B-2, AND A-1B-3, CRYER PROPERTIES
 CITY ADDRESS: 4949 PAN AMERICAN FWY NE
 ENGINEERING FIRM: BRASHER & LORENZ, INC. CONTACT: PAUL BRASHER
 ADDRESS: 2201 SAN PEDRO NE 87110 PHONE: (505) 888-6088
 OWNER: TEXAS LAND & CATTLE CO. CONTACT: ARON FOGIEL
 ADDRESS: 5950 CEDAR SPRING RD PHONE: (214) 353-9083
DALLAS, TX 75235
 ARCHITECT: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____
 SURVEYOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____
 CONTRACTOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
 ____ DRAINAGE PLAN
 ____ CONCEPTUAL GRADING & DRAINAGE PLAN
 ____ GRADING PLAN
 ____ EROSION CONTROL PLAN
☒ ENGINEER'S CERTIFICATION
 ____ OTHER _____

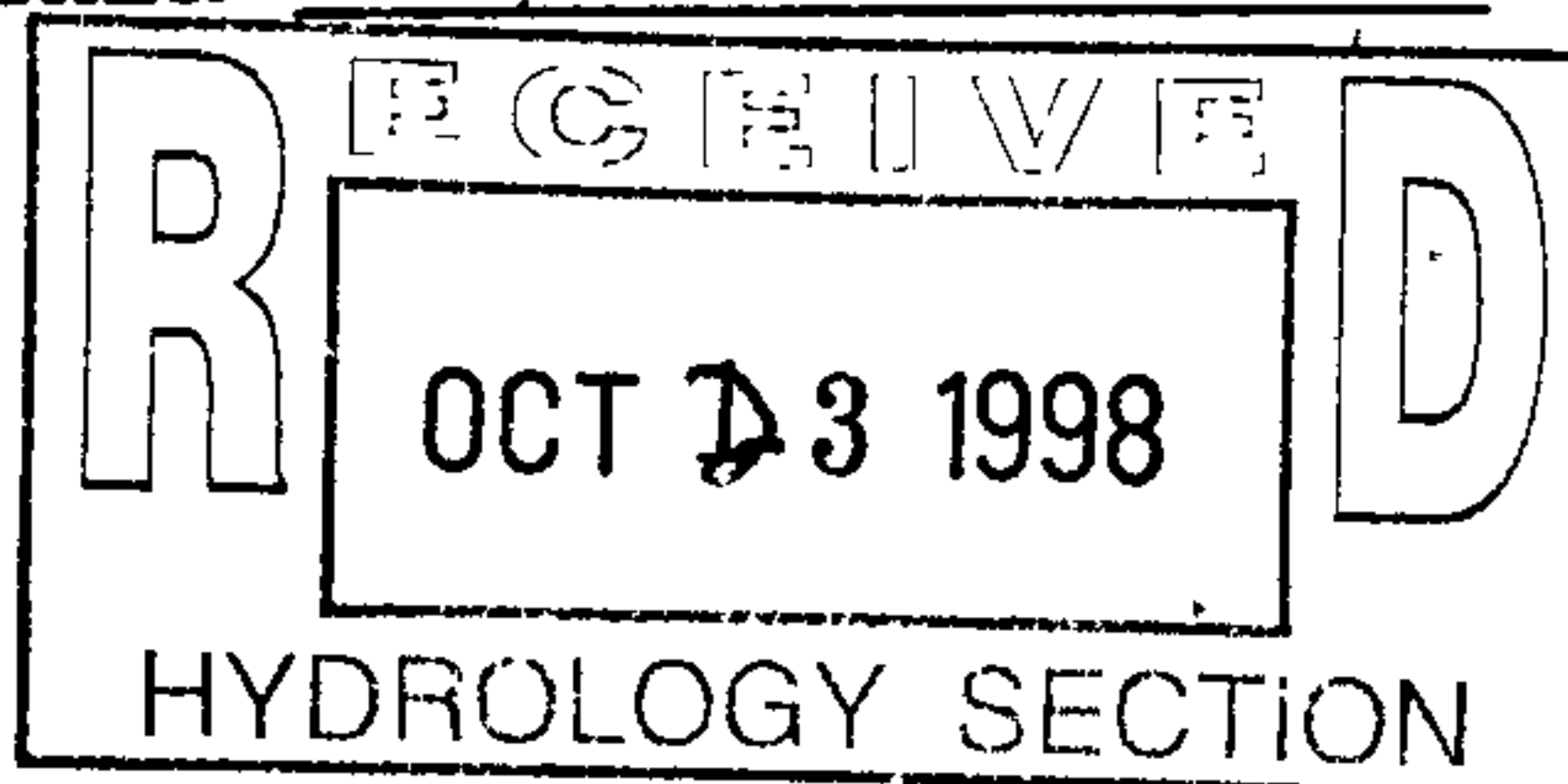
PRE-DESIGN MEETING:

☒ YES
 ____ NO
 ____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL
 ____ PRELIMINARY PLAT APPROVAL
 ____ S. DEV. PLAN FOR SUB'D. APPROVAL
 ____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
 ____ SECTOR PLAN APPROVAL
 ____ FINAL PLAT APPROVAL
 ____ FOUNDATION PERMIT APPROVAL
 ____ BUILDING PERMIT APPROVAL
☒ CERTIFICATE OF OCCUPANCY APPROVAL
 ____ GRADING PERMIT APPROVAL
 ____ PAVING PERMIT APPROVAL
 ____ S.A.D. DRAINAGE REPORT
 ____ DRAINAGE REQUIREMENTS
 ____ OTHER _____ (SPECIFY)

DATE SUBMITTED: 10.14.98
 BY: Paul Brasher
PAUL BRASHER



DRAINAGE INFORMATION SHEET

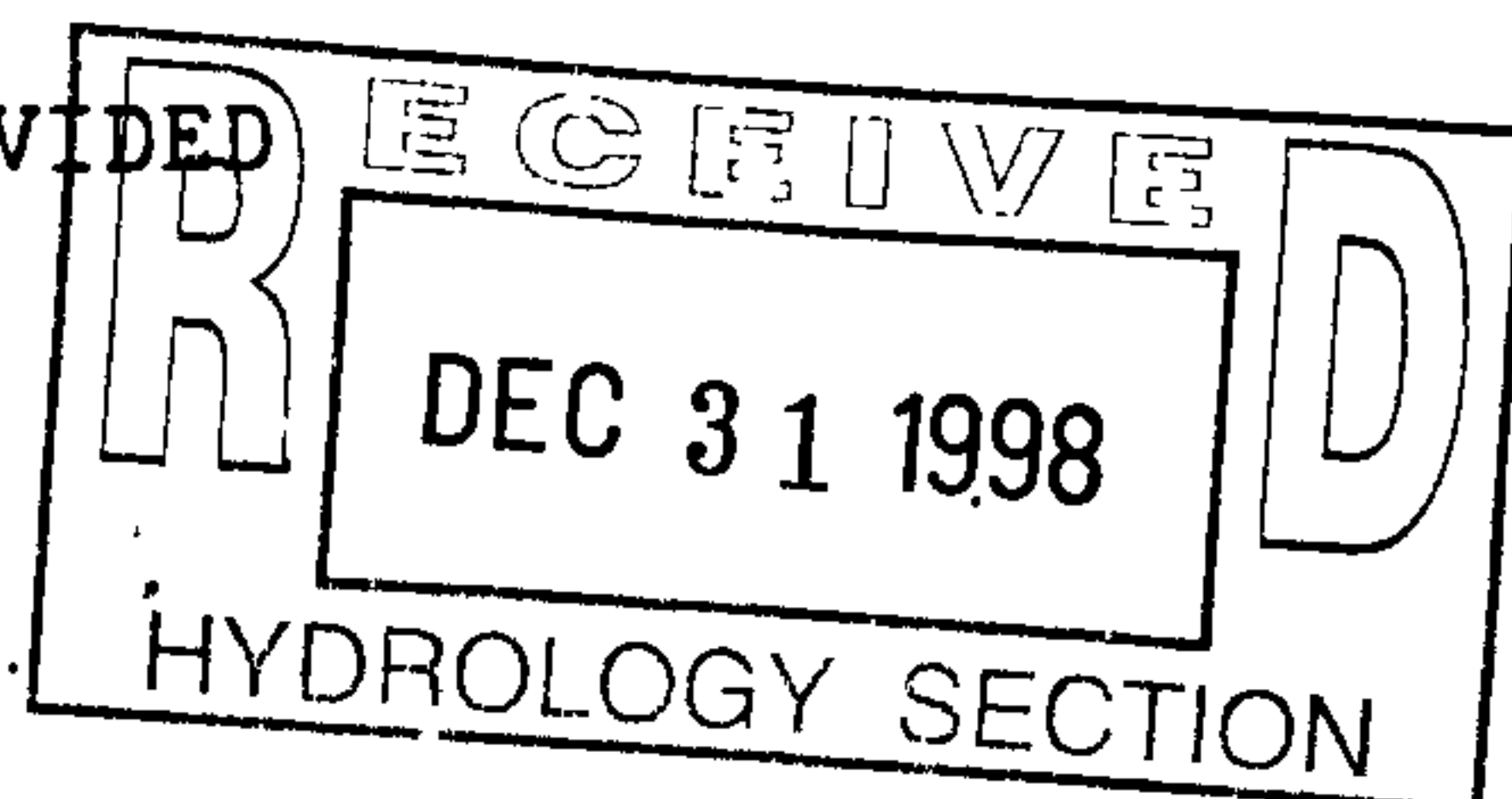
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ADDRESS: 2201 SAN PEDRO NE 87110 PHONE: (505) 888-6088
OWNER: TEXAS LAND & CATTLE CO. CONTACT: ARON FOGIEL
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DALLAS, TX 75235
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☐ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☐ OTHER _____ (SPECIFY)

DATE SUBMITTED: 12.21.98
BY: Paul Brasher
PAUL BRASHER

BRASHER & LORENZ, INC.

CONSULTING ENGINEERS

2201 SAN PEDRO NE BUILDING 1 SUITE 210 ALBUQUERQUE, NM 87110 PHONE (505) 888-6088 FAX (505) 888-6188

January 13, 1998

Bernie J. Montoya
Hydrology
City of Albuquerque
PO Box 1293
Albuquerque, New Mexico 87103

**SUBJECT: CONCEPTUAL DRAINAGE PLAN FOR TEXAS LAND & CATTLE
(F17/D64)**

Dear Bernie:

Submitted herewith for review and approval is one copy of the revised Conceptual Drainage Plan for the subject project. The Plan was revised to reflect changes made to the Site Plan as recommended by the Environmental Planning Commission. The basic drainage concept is unchanged. Calculations have been revised to demonstrate capacity of the recommended drainage improvements.

The comments listed in your September 18, 1997 letter are addressed as follows:

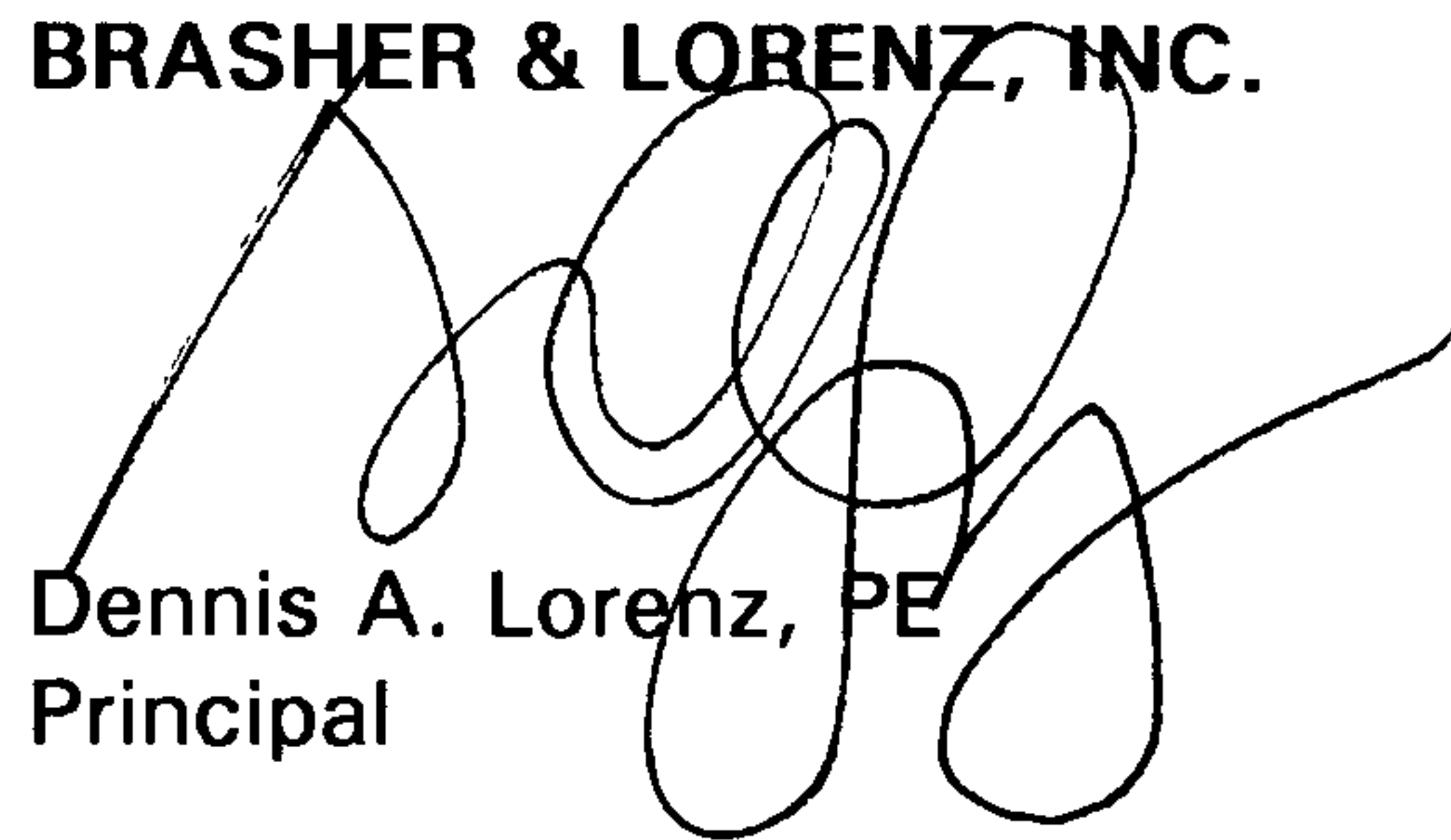
1. A subdivision plat will be submitted to DRB to create the 3 proposed lots and grant drainage easements.
2. The existing 48 inch RCP storm drain is owned and maintained by the NMSHTD. The pipe originates at the east side of the East Pan American Freeway and drains surface flows along the east side of the highway. The pipe originally was a typical culvert installation which ended at the west side of the highway. It was extended west across the site to the AMAFCA concrete box culvert, located just northwest of the site within the Rio 24 Theater parking lot. No easement presently exists, therefore, the plat will grant an easement to the NMSHTD.
3. An AHYMO summary table is provided as requested.
4. The 48 inch SD easement is proposed to be 20 feet wide. The 24 inch SD is a private improvement. The easement is to be covered by a blanket cross lot drainage easement.
5. A trench prism will be submitted with the subdivision plat to demonstrate easement width.

6. Additional spot elevations and construction detail will be provided with the final Grading and Drainage Plan to submitted for building permit approval.

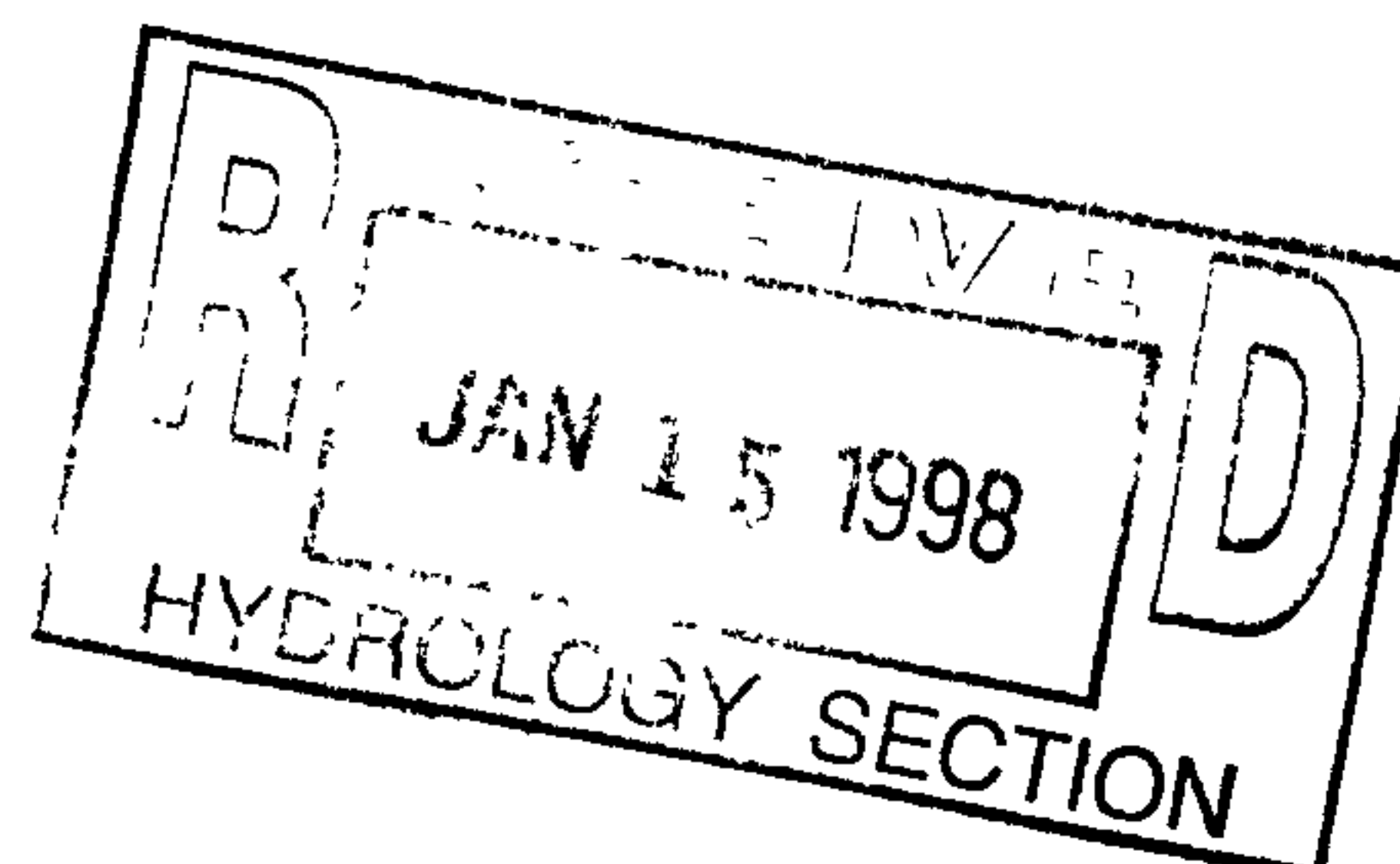
If you have any questions regarding this submittal, or if I can be of any assistance, please call.

Sincerely,

BRASHER & LORENZ, INC.


Dennis A. Lorenz, PE
Principal

/dl/7040
encl



DRAINAGE INFORMATION SHEET

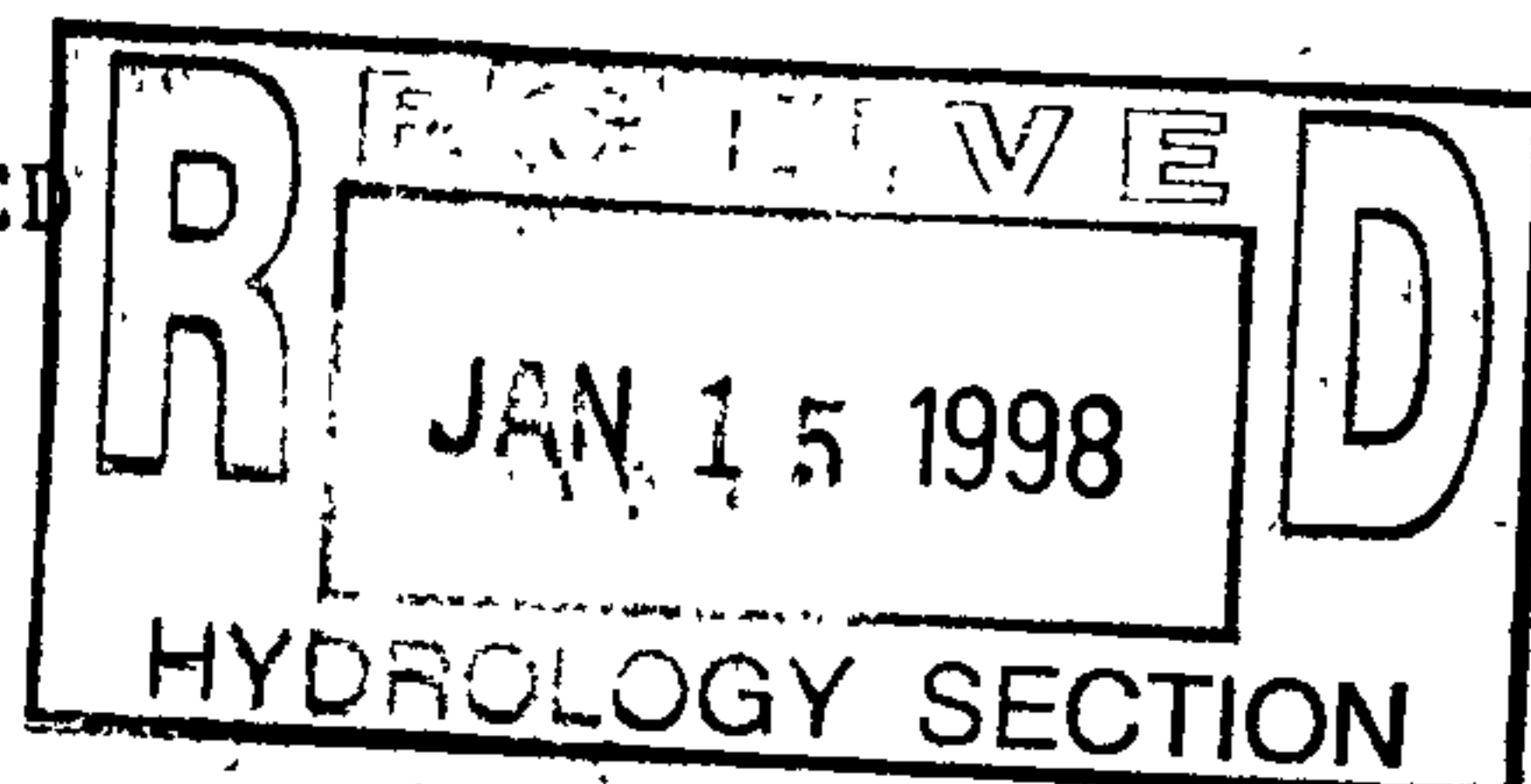
PROJECT TITLE: TEXAS LAND + CATTLE ZONE ATLAS/DRNG. FILE #: F17-D64
DRB #: _____ EPC #: 297-121 WORK ORDER #: _____
LEGAL DESCRIPTION: TRACT A-13 CRYER PROPERTY
CITY ADDRESS: WEST PAN AMERICAN FWY
ENGINEERING FIRM: Brasher & Lorenz, Inc. CONTACT: Dennis A. Lorenz
2201 San Pedro NE Bldg.1 Suite 210
ADDRESS: Albuquerque, New Mexico 87110 PHONE: 888-6088
OWNER: TEXAS LAND + CATTLE CONTACT: ARON FOGIEL
ADDRESS: 5950 CEDAR SPRINGS RD PHONE: 214-353-9083
DALLAS TX 75235
ARCHITECT: NA CONTACT: _____
ADDRESS: _____ PHONE: _____
SURVEYOR: ENGINEER CONTACT: _____
ADDRESS: _____ PHONE: _____
CONTRACTOR: NA CONTACT: _____
ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☐ DRAINAGE PLAN
☒ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION
☐ OTHER _____

PRE-DESIGN MEETING:

☒ YES
☐ NO
☐ COPY PROVIDED



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☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☐ OTHER _____ (SPECIFY)

DATE SUBMITTED:

1-14-98BY: Dennis A. Lorenz

FAX TRANSMITTAL

BRASHER & LORENZ, INC.
CONSULTING ENGINEERS

2201 SAN PEDRO NE BUILDING NO. 1, SUITE 210 ALBUQUERQUE, NEW MEXICO 87110
PHONE (505) 888-6088 FAX (505) 888-6188

TO: FRED AGUIRRE FAX NO: 924-3864

COMPANY: CITY HYDROLOGY

FROM: Dennis A. Lorenz

DATE: 3-20-98 SUBJECT: DRB 98-31

PAGES, INCLUDING COVER: 3

MESSAGE:

FOR YOUR FILE

BRASHER & LORENZ, INC.
CONSULTING ENGINEERS

2201 SAN PEDRO NE BUILDING 1 SUITE 210 ALBUQUERQUE, NM 87110 PHONE (505) 888-6088 FAX (505) 888-8188

February 4, 1998

RECEIVED

FEB 04 1998

AMAFCA

Kurt Browning, PE
AMAFCA
2600 Prospect NE
Albuquerque, New Mexico 87107

SUBJECT: TEXAS LAND & CATTLE COMPANY
West Pan American Freeway NE, at Office Blvd.

Dear Kurt:

Submitted herewith for review and approval is one copy of the approved Conceptual Drainage Report for the subject property. The Conceptual Drainage Report has been approved by the City of Albuquerque. The report is conceptual in nature and was prepared to facilitate review of a Site Plan for subdivision by the City of Albuquerque Environmental Planning Commission.

When?
As shown by the drainage report, a 24 inch RCP storm drain crosses the property and connects the AMAFCA box culvert located just west of the site. Since the storm drain extends from a culvert crossing of Interstate 25, we assume it is owned by the NMSHTD. To our knowledge, no easements of record exist, therefore, we propose to grant an underground drainage easement to the NMSHTD.

We propose to construct a 24 inch private storm drain into the site from the existing stubout which was extended from the box culvert by the Century 24 Theater. At this time we are asking DRB for approval of a site plan for subdivision and subdivision plat. Keep in mind that the report is conceptual; we will submit final construction drawings and documents later this month, which detail the connection to the stubout.

If you need additional information, or if I can be of any assistance, please feel free to call.

Sincerely,

BRASHER & LORENZ, INC.

Dennis A. Lorenz, PE

\dl
encl

Dennis - AMAFCA will need to approve the const. plans for the connection to the BOT. Also the above cited paragraph must be addressed to CEA satisfaction. (AMAFCA will not accept, operate or maintain this plan since it is too small)
DB 2-6-98

NEW MEXICO STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

PRELIMINARY DESIGN BUREAU

DRAINAGE SECTION PROPERTY REVIEWDESCRIPTION:

Subdivision:____ Encroachment Request:____ R/W Sale Request:____
Permit Request ☒ Abandonment Request:____
Project Name: Texas Land & Cattle Company Date Submitted: 3/10/98
Location: W. Pan Am. Freeway & Office Blvd. District Office: 3
Applicant: Texas Land & Cattle Co. Consultant: Brasher & Lorenz, Inc

For Subdivision only:

Number of Lots:____ Area of the site:____ State Route:____

Drainage measures to prevent impact to State highways:____

Findings and/or

Comments: The development will not cause a drainage impact to State highways.
The drainage system at this area was designed to handle developed flows.
The drainage and grading recommendations are approved.
The existing 24" culvert pipe across the site is privately installed and
is not owned by the Department.

Drainage Approval:

☒ Recommended

☐ Not Recommended:_____

BY:

Raymundo Van Horn
Drainage Engineer

DATE:_____

XC: George Herrera
Kathy Trujillo
Julian Vigil

BRASHER & LORENZ, INC.
CONSULTING ENGINEERS

2201 SAN PEDRO NE BUILDING 1 SUITE 210 ALBUQUERQUE, NM 87110 PHONE (505) 888-6088 FAX (505) 888-6188

April 1, 1998

Fred Aguirre
City of Albuquerque Hydrology Section
P O Box 1293
Albuquerque, New Mexico 87103

F17-D64

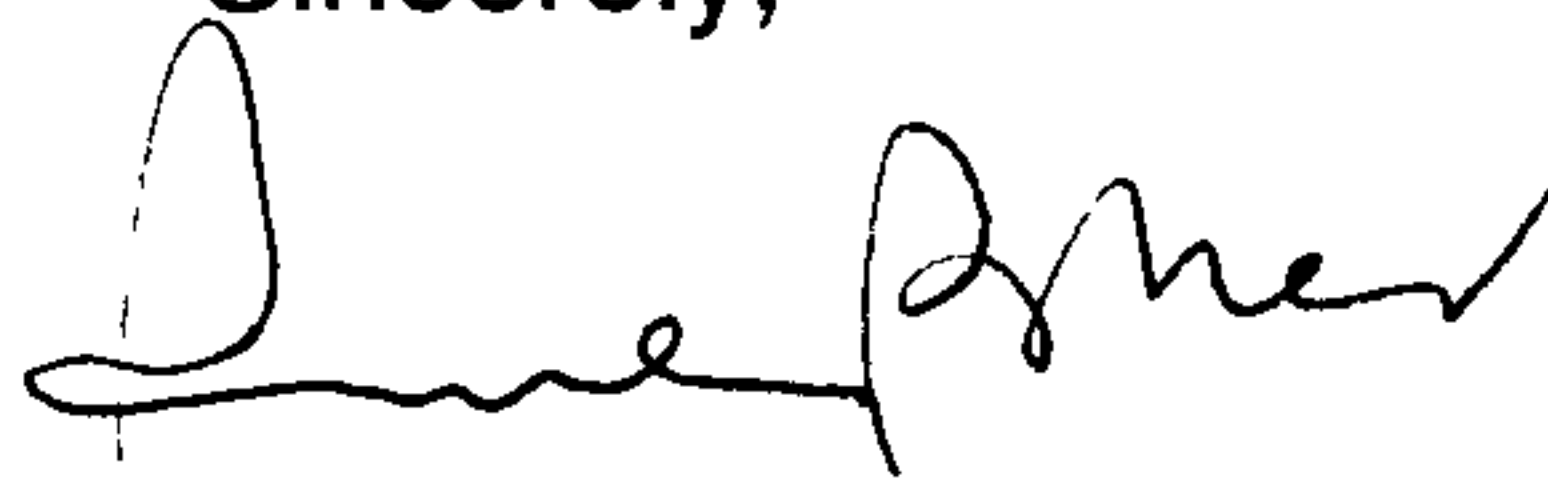
SUBJECT: TEXAS LAND & CATTLE PROJECT - STORM SEWER CROSSING I-025

Dear Mr. Aguirre:

Transmitted herewith is a drawing from Map F-17 showing the drainage basin of the existing 24" line which crosses the project tract, originating on the opposite side of the interstate. It drains a low-lying area adjoining the northbound frontage road, and a portion of the interstate driving lanes through slot inlets alongside the center divider. Storm water drained by this line originates on State right-of-way and private property. Its drainage basin does not appear to include any City right-of-way or other City property.

If you have any questions, please contact me as soon as possible.

Sincerely,



Paul Brasher, PE

IP
SP-76-384
A
MAP F-17
BROJA TRUST

COMMONS

SU-1 C-3 & IP USES

BOX CULVERT
SP-77-201

CRYER PROPERTY

**SITE OF TEXAS
LAND & CATTLE**
IP

**EXIST.
24" RCP**
A1C1

**EXIST.
MN**

SWITCHING
SP-79-532

NORTH

STATION

NORTH SWITCHING STATION

PNM

LAPDNER
TRACT

M-1

INTERSTATE 25

**LINE
BEGINS
HERE**

MAERA
SP-34-193

CORA JETT TRACT

**DRAINAGE
BASIN**

REINDEER

MCLEOD BUSINESS PARK

C-3

MCLEOD REALTY

NORRIS & MARGARET

PENNY

LD-72-480

GARDNER

LD-71-320
B C RINGER

SP-89-147

C

BERRY

A

S-7A-368

B

M-1

SP-76-115
K1A

J
LD-72-312

L
SP-86-8

M

C

ALL

GANTT
B
LD71-78

12A

12B
LD73-313

10

2A

2B

LD-73-74

A

9

M-1

11

8

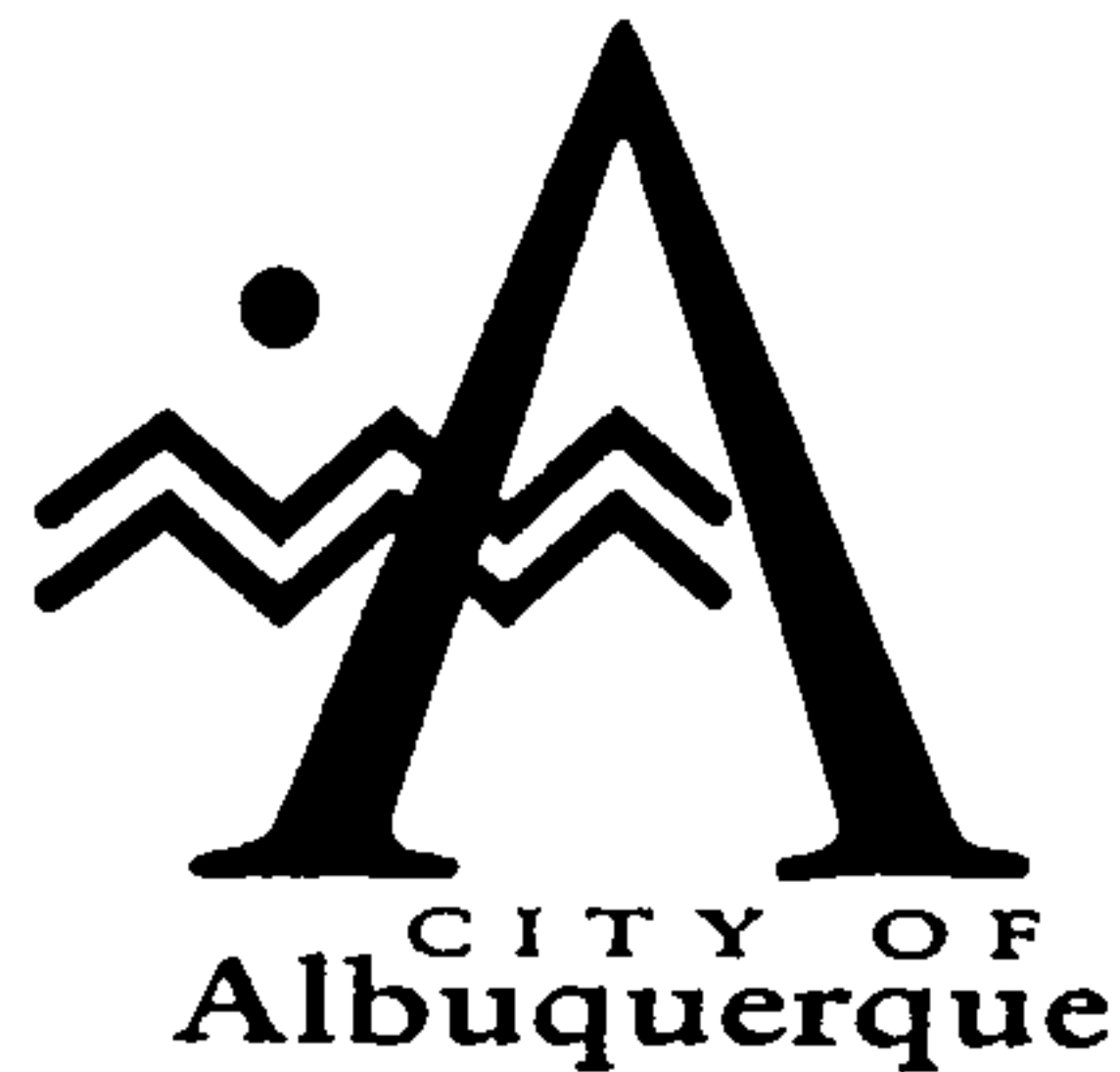
P2

1A1

5A1

SP-86-324

FRANKLIN



January 27, 1998

Dennis Lorenz
Brasher & Lorenz Inc.
2201 San Pedro NE Bldg. 1 Suite 210
Albuquerque, New Mexico 87110

RE: REVISED DRAINAGE PLAN FOR TEXAS LAND & CATTLE CO. (F17-D64)
ENGINEER'S STAMP DATED 1/13/98

Dear Mr. Lorenz:

Based on the information provided on your January 15, 1998 resubmittal, the above referenced site is approved for Site Development Plan For Subdivision and Site Development Plan For Building Permit.

Please be advised that the prior to Building Permit release, the following must be addressed:

1. What is the existing 48" SD draining? Who does it belong to and was it constructed to City Standards?
2. Indicate the existing 48" SD on the plan drawing.
3. Is there sufficient width between the buildings for the proposed SD? If repairs may have to be done, will there be sufficient room?
4. More spot elevations along with the slopes must be shown.

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia

File

Sincerely

Bernie J. Montoya CE
Associate Engineer

Good for You, Albuquerque!





April 21, 1998

Dennis Lorenz
Brasher & Lorenz Inc.
2201 San Pedro NE Bldg. 1 Suite 210
Albuquerque, New Mexico 87110

RE: REVISED DRAINAGE PLAN FOR TEXAS LAND & CATTLE CO. (F17-D64)
REVISION DATED 4/14/98

Dear Mr. Lorenz:

Based on the information provided on your April 14, 1998 resubmittal, the above referenced site is approved for Site Development plan for Building Permit & Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

Also, prior to Certificate of Occupancy release, the following must be addressed:

1. Engineer Certification per the DPM checklist.
2. Letter of acceptance for Work Order #5857.

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia

File

Sincerely

Bernie J. Montoya CE
Associate Engineer

Good for You, Albuquerque!



DRAINAGE INFORMATION SHEET

PROJECT TITLE: TEXAS LAND & CATTLE ZONE ATLAS/DRNG. FILE #: F17 D64
DRB #: _____ EPC #: Z-97-121 WORK ORDER #: _____
LEGAL DESCRIPTION: TRACT A-1B-1, TRACT A-1B-2, TRACT A-1B-3, CRYER PROP.
CITY ADDRESS: WEST PAN AM. FWY AT OFFICE BLVD

ENGINEERING FIRM: Brasher & Lorenz, Inc. CONTACT: Paul Brasher
2201 San Pedro NE Bldg.1 Suite 210
ADDRESS: Albuquerque, New Mexico 87110 PHONE: 888-6088

OWNER: TEXAS LAND & CATTLE CO. CONTACT: ARON FOGIEL
ADDRESS: 5950 CEDAR SPRINGS RD PHONE: (214) 353-9003
DALLAS, TEXAS 75235

ARCHITECT: _____ CONTACT: _____
ADDRESS: N/A PHONE: _____

SURVEYOR: N/A CONTACT: _____
ADDRESS: _____ PHONE: _____

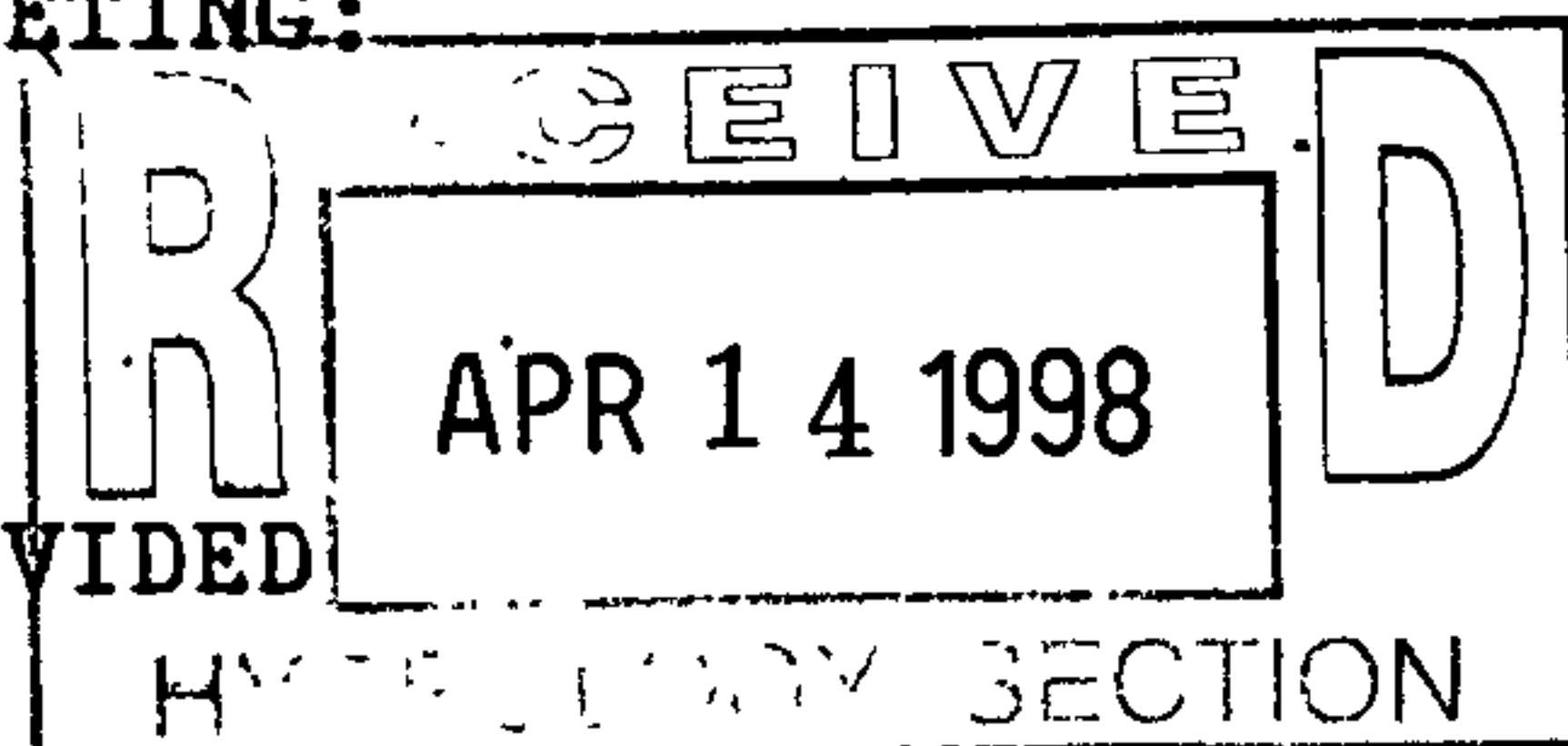
CONTRACTOR: N/A CONTACT: _____
ADDRESS: _____ PHONE: _____

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____ ENGINEER'S CERTIFICATION
____ OTHER _____

PRE-DESIGN MEETING:

☒ YES
____ NO
____ COPY PROVIDED



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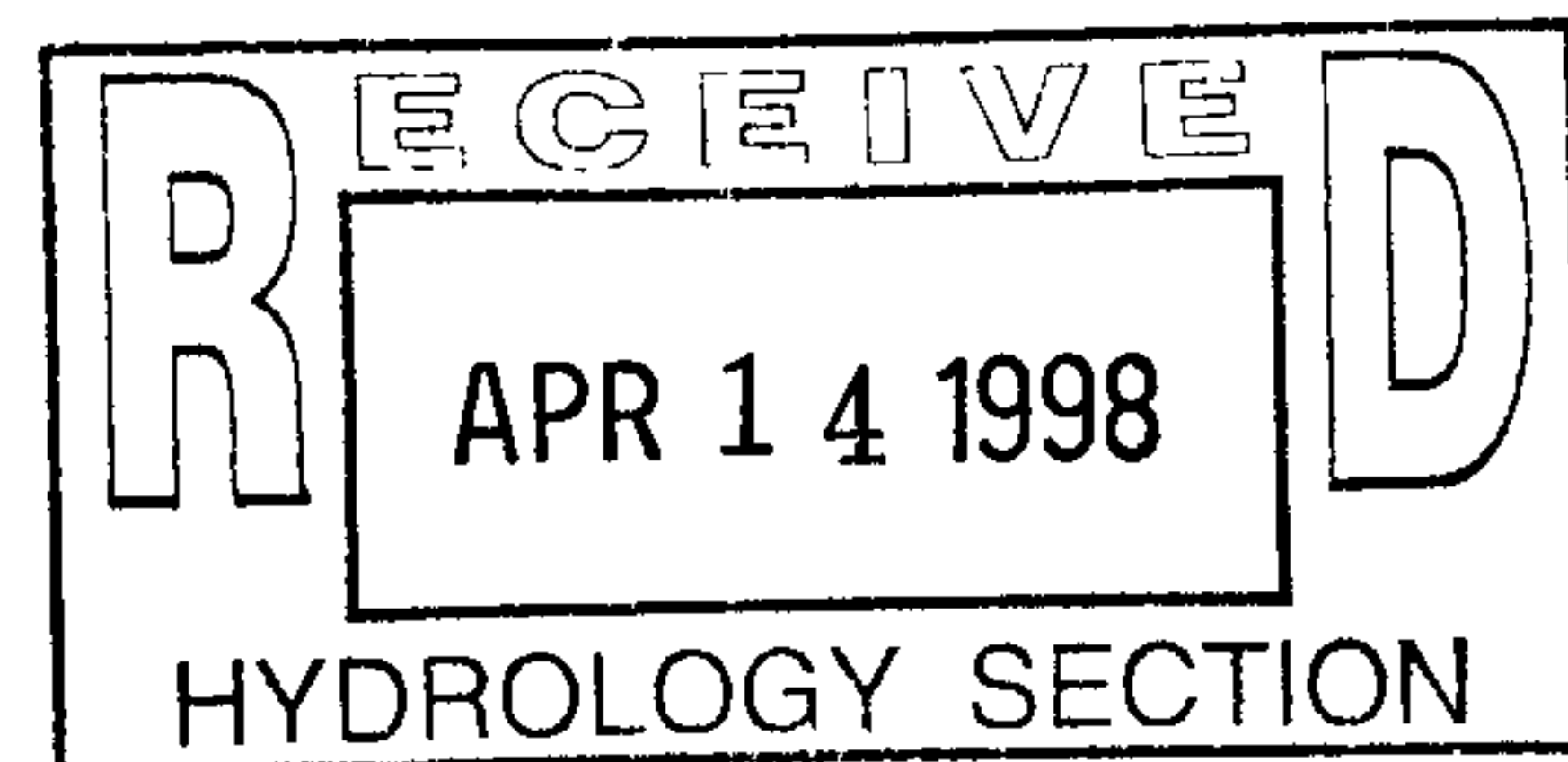
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____ S.A.D. DRAINAGE REPORT
____ DRAINAGE REQUIREMENTS
____ OTHER _____ (SPECIFY)

DATE SUBMITTED: 4.13.98
BY: Paul Brasher

DRAINAGE REPORT
FOR
TEXAS LAND AND CATTLE COMPANY
STEAK HOUSE

Albuquerque, New Mexico

CITY FILE NO. F-17/D64



Prepared By:

BRASHER & LORENZ, INC.
Consulting Engineers
2201 San Pedro NE, Building No. 1, Suite 210
Albuquerque, New Mexico 87110

April, 1998

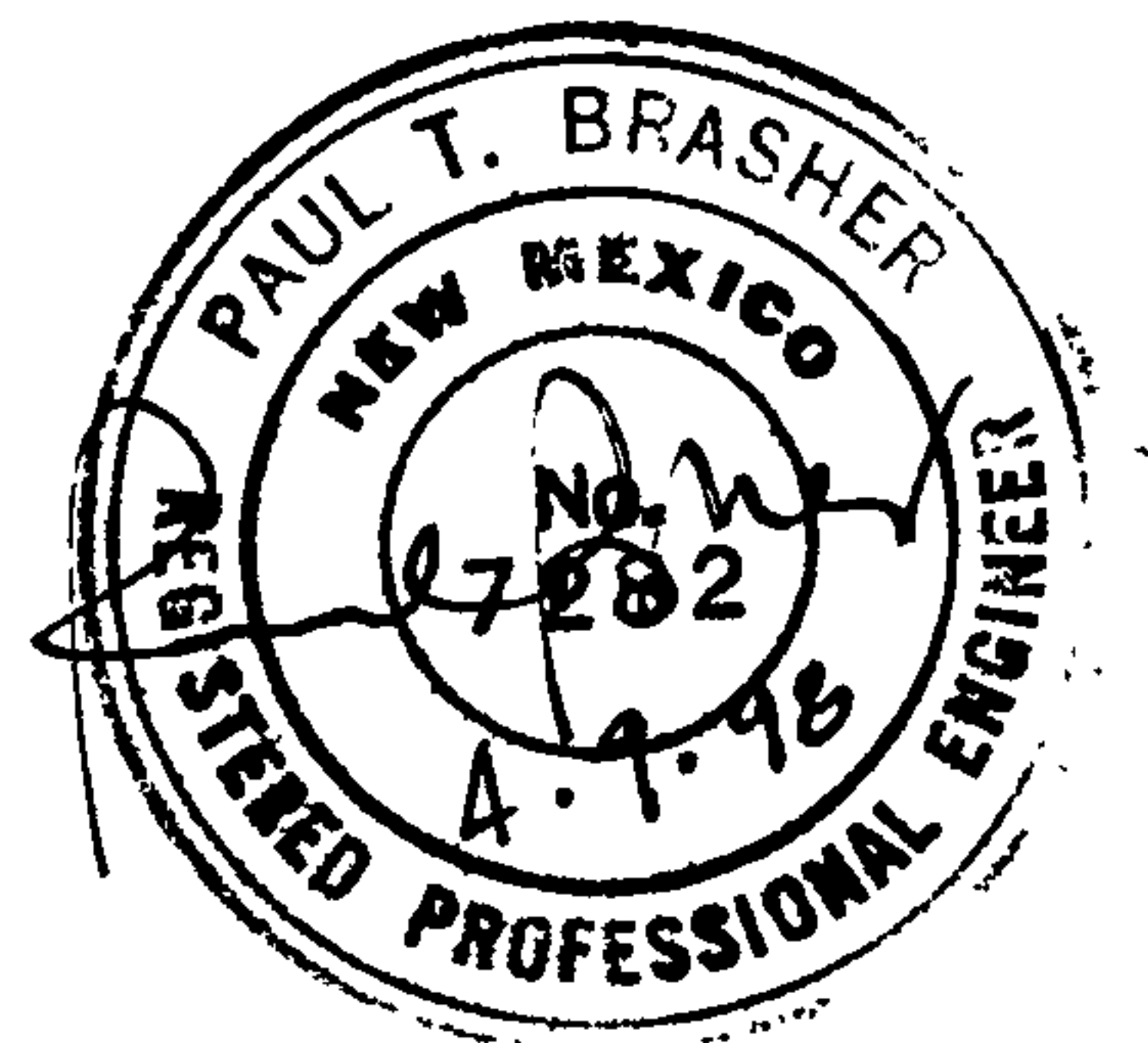


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TEMPORARY CONSTRUCTION EASEMENT AGREEMENT	
CORRESPONDENCE	
EXHIBITS	
GRADING AND DRAINAGE PLAN	POCKET

PURPOSE AND SCOPE

Pursuant to the established Drainage Ordinance for the City of Albuquerque and the Development Process Manual, this Drainage Report outlines the drainage management criteria for controlling developed runoff from the project site. The property is to be developed into 2 restaurants and an office/retail building. Paving, landscaping, utility, grading, and drainage improvements will be provided to support the project. The scope of this plan is to provide drainage criteria for the safe management of excess runoff. The report is presented to obtain Site Development Plan approval by the Development Review Board for building permit.

SITE DESCRIPTION

The project site is approximately 3.69 acres in size and is located on Pan American Freeway NE, at Office Boulevard (See Figure 1). The site has been platted into three tracts. The site is presently described as Tracts A-1B-1, A-1B-2, and A-1B-3, Cryer Property. The site is bounded on the southeast by Pan American Freeway NE, on the southwest by a private access drive to the Rio 24 Theater, on the northwest by the Rio 24 Theater, and on the northeast by Office Boulevard. Site terrain slopes east to west at approximately 2 percent. Presently, the site is undeveloped, though it has been disturbed by construction activity on adjoining parcels. The site has been mulched to mitigate erosion.

EXISTING CONDITIONS

The site presently drains southwesterly to an existing drop inlet located near the northwest property corner. The inlet was constructed by the theater for use by this site, and is connected to a 12' x 8' concrete box culvert that drains to the Vineyard channel. Off-site flows from the frontage road drain southerly through a series of culverts and eventually outfall at the North Diversion Channel. Office Blvd. is two paved lanes without curb and gutter, slightly elevated above the average terrain of the project site. Presently, minimal flows enter the site from Office Boulevard such that there is no evidence of erosion. The I-025 frontage road along the frontage of the project site is two paved lanes without curbing. The State right-of-way along the frontage road is drained by a well-graded swale which conveys frontage road runoff from north to south, parallel to the frontage road, and crossing beneath driveways through existing 24" CSP culverts. No flows enter the site from the southwest or northwest.

As shown by the attached FIRM Panel (Figure 2) this site does not lie within a designated flood hazard zone.

SUMMARY OF EXISTING DRAINAGE PLANS

The **Drainage Plan for the Century Rio 24 Theaters**, prepared by Bohannon Houston, Inc., and the Vineyard Channel project constructed by AMAFCA, established the

drainage management criteria for this site. The Vineyard Channel project constructed a concrete box culvert originating near the Jefferson/I-25 interchange, and extending south across Office Boulevard, through the theater site (just northwest of the project site), to a concrete lined section of the Vineyard Channel. Along with the project an existing 24 inch RCP storm drain originating at I-25 and extending through the project site (see Plan) was connected to the box culvert. This line drains a portion of State right-of-way, and a small area of low-lying private lands on the east side of I-025. It does not drain City right-of-way, therefore the City does not require that it be designated a public line. The New Mexico State Highways and Transportation Department will not ownership and maintenance responsibilities for the line. It is designated on the Drainage Plan and on the Plat as a private line within a private drainage easement to be maintained by the owners of the properties it crosses. This Plan does not propose to drain any part of the site to it. As a part of a Temporary Construction Easement agreement with AMAFCA, the property was granted free discharge into the box culvert. A 36 inch stubout with a type "D" inlet was constructed by the theater for access by the project.

PROPOSED CONDITIONS

As shown by the Plan, the project consists of the development of the property into 2 restaurants and an office/retail building, with associated paving, utility landscaping and drainage improvements. The Plan shows the elevations required to properly grade and construct the recommended improvements. The direction of drainage flows are given by flow arrows and on-site drainage basins are identified. Under City work order (Project No. 5857), standard curb and gutter will be constructed along the entire south side of Office Blvd. frontage of the project site. One entrance drive to the site will be provided along Office, with a water block. Under City work order (Project No. 5830), new standard curb and gutter with a drive entrance will be constructed along the entire north side of Office, together with a widened pavement section. The new curb and gutter will be constructed by both projects to match the existing profile of Office paving, which has a low area just west of its intersection with the frontage road. Under Project No. 5857, a new deceleration/acceleration lane will be constructed along the frontage road, together with a drive entrance. The entrance will be provided with a water block to prevent State right-of-way runoff from entering the project site. A new culvert will be constructed beneath the entrance drive to convey frontage road runoff along the roadside swale as it presently drains.

On-site drainage basins

The site will discharge excess runoff into the existing drainage systems. On-site Basins A and B will drain over land to drop inlets on a new private 24" line to be constructed between buildings and connecting to the existing 36" stubout on the existing Type "D" inlet. Basin C will drain over the surface to the existing Type "D" inlet. The basins are shown on Figure 3.

Off-site drainage basins

Off-site Basin D will be routed southerly through a proposed 24 inch culvert to be placed

at the frontage road access drive, and to an existing 24 inch culvert located at the existing frontage road access drive to the theater.

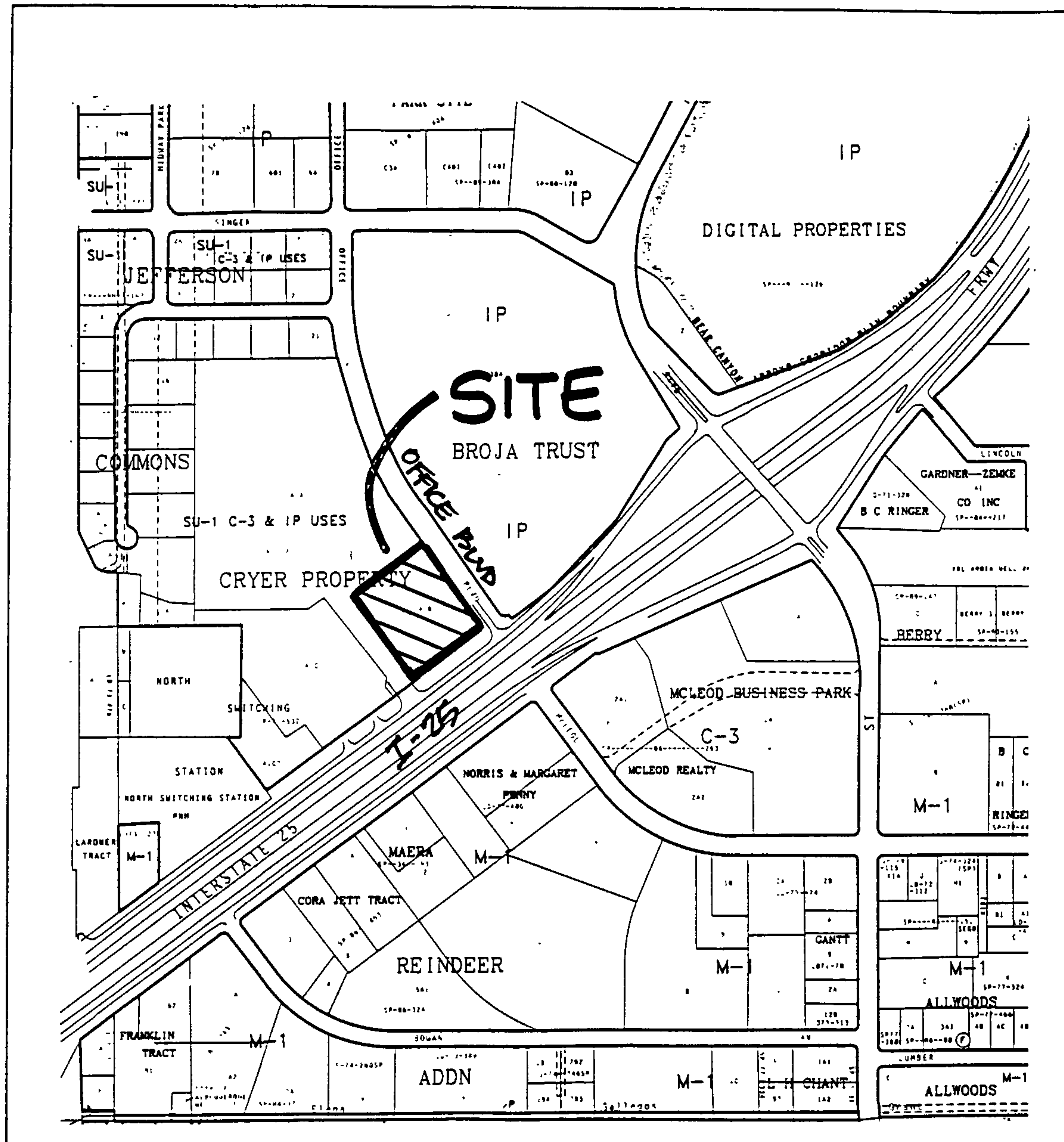
Curb and gutter improvements of Office Boulevard in progress will confine Office flows to public right-of-way and existing downstream improvements. The south side of the short dip in the Office profile near the frontage road intersection will be drained within public right-of-way to the existing drainage corridor along the frontage road, Basin D. The north side of the dip will be drained to the north side of Office to existing public drainage structures. be further improved by constructing curb and gutter, sidewalks and street paving along the project frontage. Office Boulevard will drain to the northwest to existing downstream improvements.

PROJECT PHASING

The project is to be constructed in 2 phases. The entire site will be graded and paved and the new on-site storm sewer will be constructed with the first phase for immediate construction of the two restaurants on each of Tracts A-1B-2 and A-1B-3. A building pad will be constructed for the forthcoming construction of the office building on Tract A-1B-1. The second phase will be minor curbing construction for the office building. Temporary curbing will be constructed along the phase boundary to control excess runoff and direct flows to the inlets.

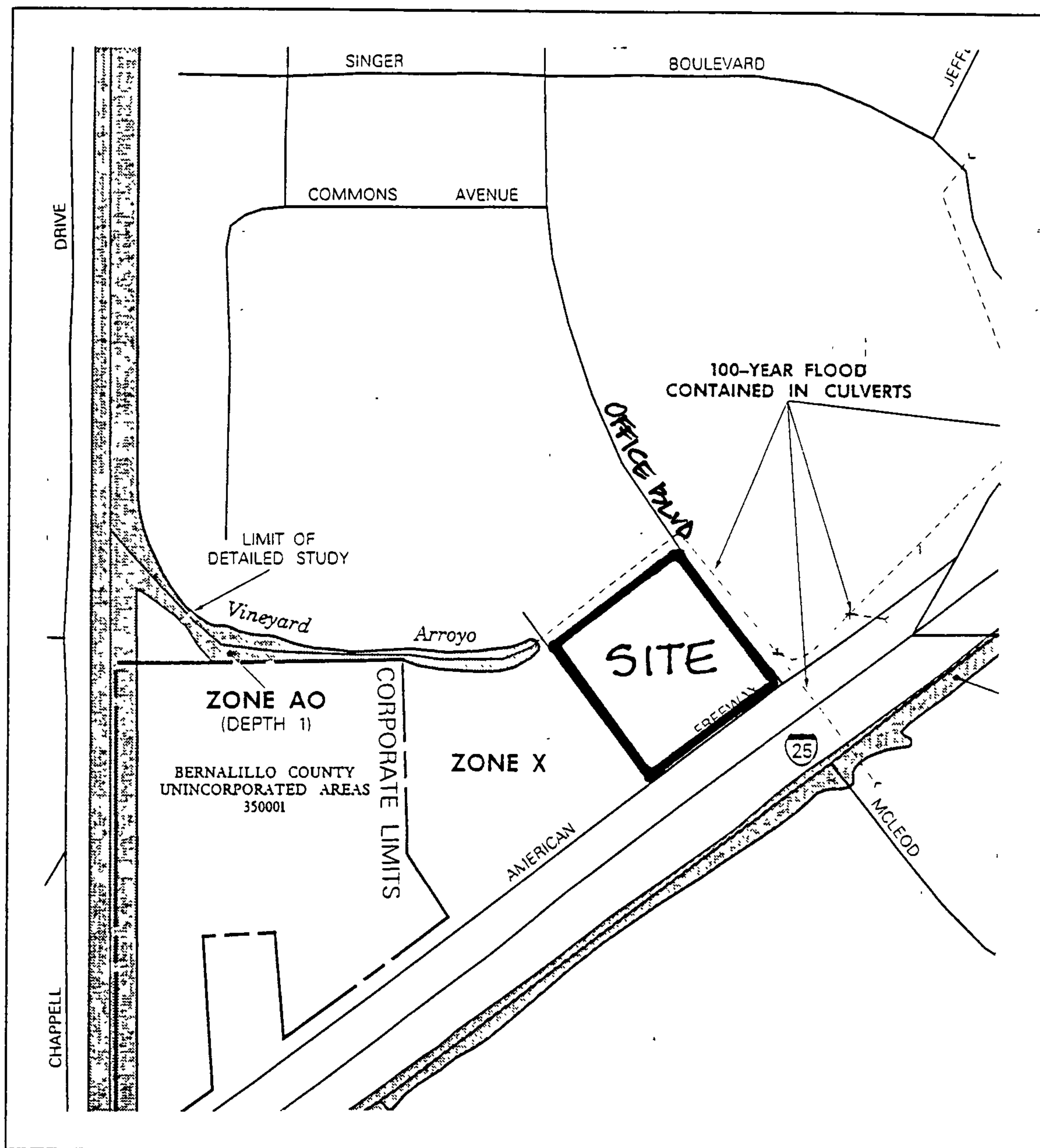
TEMPORARY EROSION CONTROL PLAN

1. Temporary Erosion Control is required to limit the discharge of sediment into the public street and/or storm drainage system and to protect adjacent properties from excess runoff during construction. After the initial site clearing, the temporary erosion control facilities should be constructed to direct excess runoff and sediment to the outfall locations. Earthen erosion control berms or silt fencing should then be placed along the northeast, northwest and southwest project boundaries to direct runoff to the project outfall.
2. The Contractor shall obtain a Top Soil Disturbance Permit from Environmental Health prior to performing any earthwork related operations.
3. It is the Contractor's responsibility to properly maintain all temporary erosion control facilities during the construction phase of the project.



MAP F-17

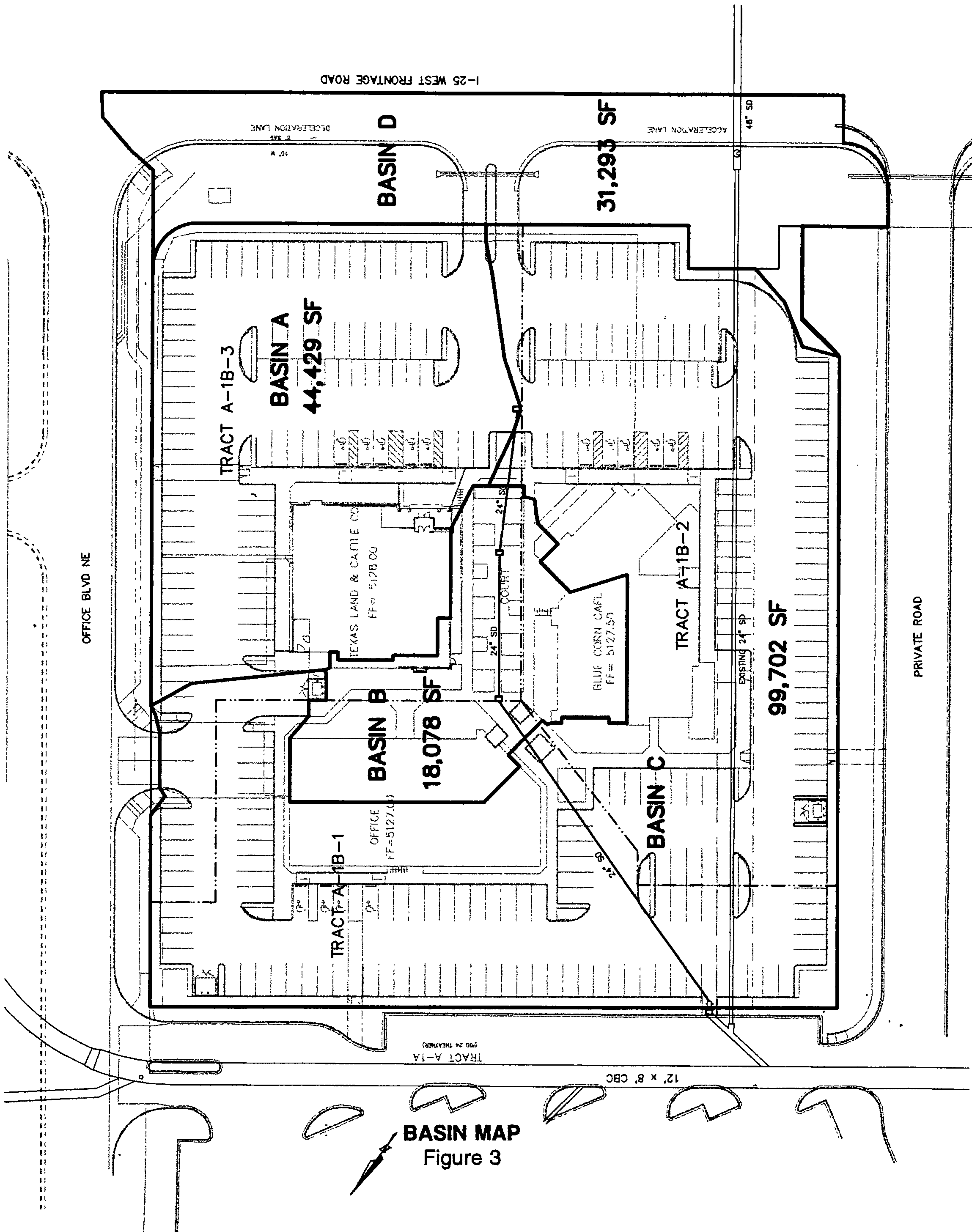
LOCATION MAP
Figure 1



FLOOD INSURANCE RATE MAP

Figure 2

BASIN MAP
Figure 3

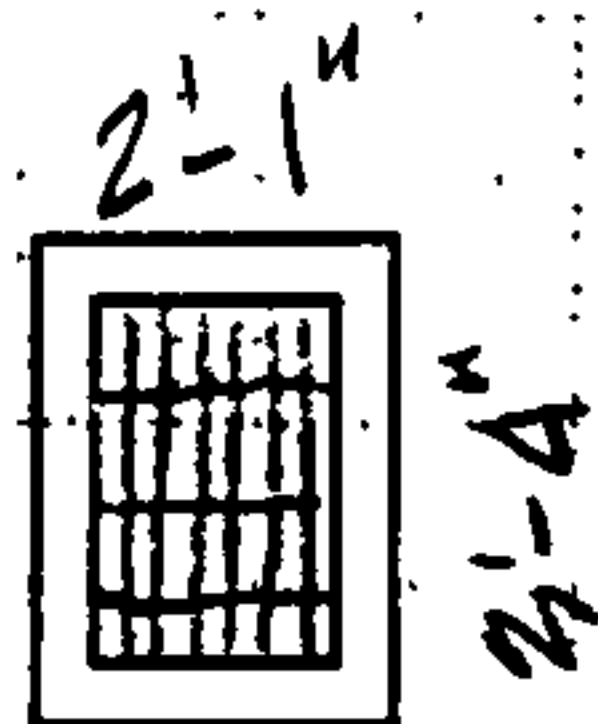


CALCULATIONS

INFRASTRUCTURE CAPACITIES

1. PARKING LOT AND COURT YARD INLETS

SINGLE TYPE "D" INLET



WEIR EQN: $Q = CLH^{1.50}$

$C = 2.50$

$L = 10.83'$

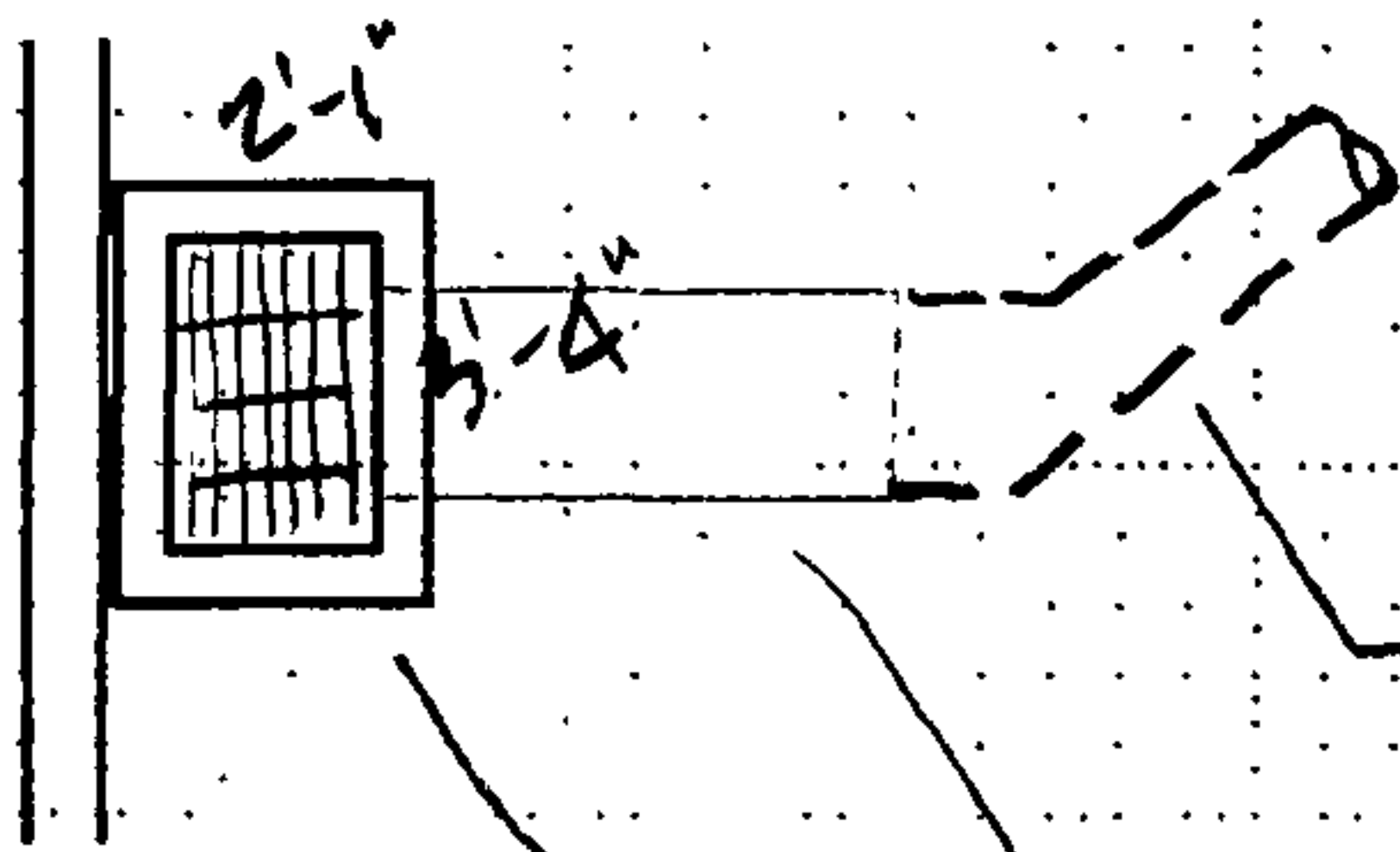
$H = 4'' = 0.33'$

$Q = (2.50)(10.833)(0.333)^{1.50}$

$= 5.21 \text{ CFS PER DROP INLET}$

BASIN A $Q_{100} = 4.51 \text{ CFS}$

BASIN B $Q_{100} = 1.81 \text{ CFS}$

2. EXISTING INLET (SINGLE TYPE "D") : $Q_{100} = 9.84 \text{ CFS}$ 

NEW 24" PRIVATE ON-SITE STORM DRAIN

EXISTING 36" STURBOUT

EXISTING TYPE "D" INLET: NET AREA OF OPENINGS
 $= 4.35 \text{ FT}^2$

AS AN ORIFICE: $Q = CA\sqrt{2gH}$ $C = 0.60$

$9.84 = (0.60)(4.35)\sqrt{2(32.17)H}$

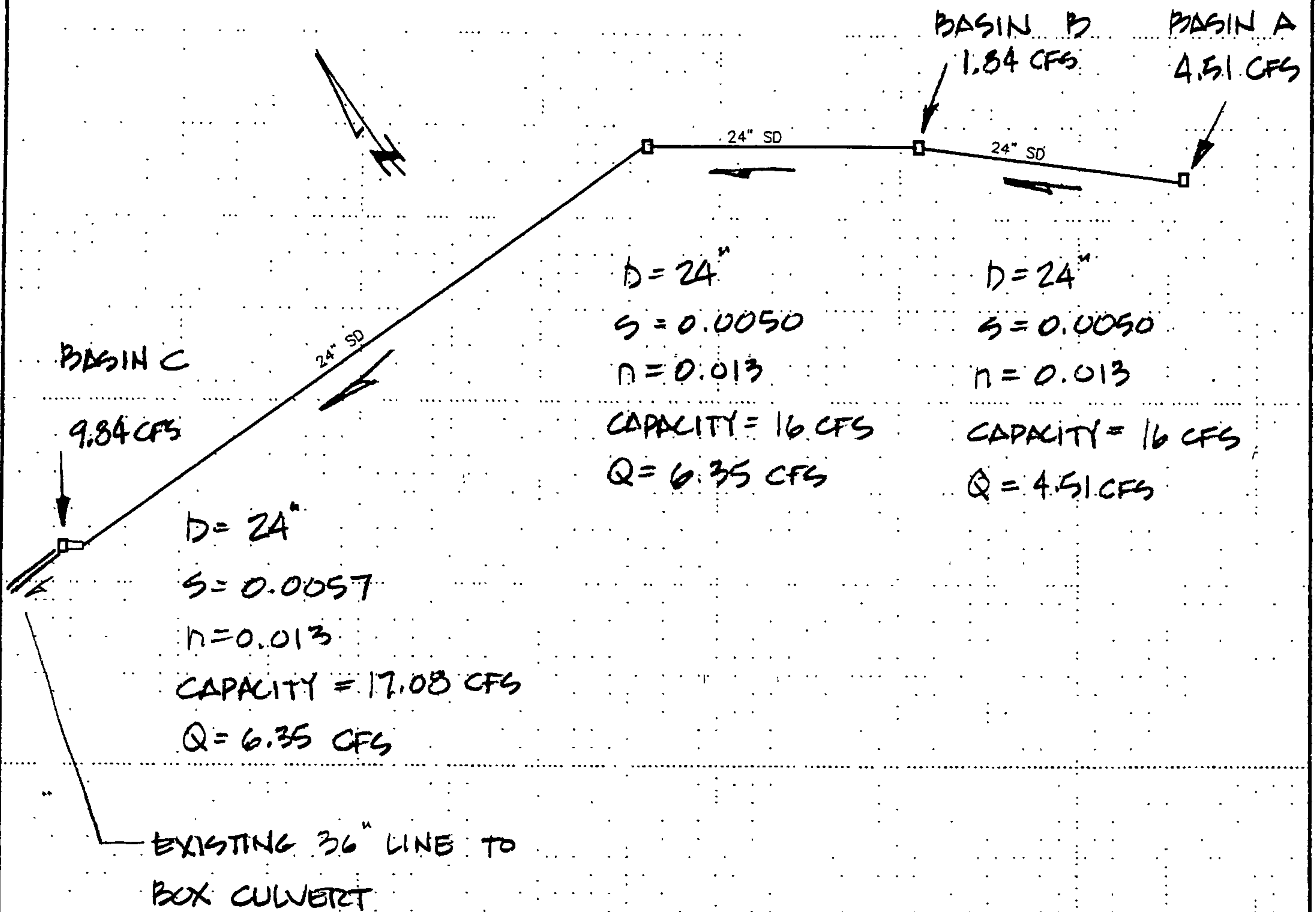
$H = 0.22'$

TEXAS LAND & CATTLE

ON-SITE PRIVATE STORM DRAIN

2/

7040



$$D = 36''$$

$$S = 0.0100$$

$$n = 0.013$$

$$CAPACITY = 66.70 \text{ CFS}$$

$$Q_{100} = 4.51 + 1.84 + 9.84 = 16.19 \text{ CFS}$$

TEXAS LAND & CATTLE

I-25 FR. RD. CULVERT @ THEATRE ENTR.

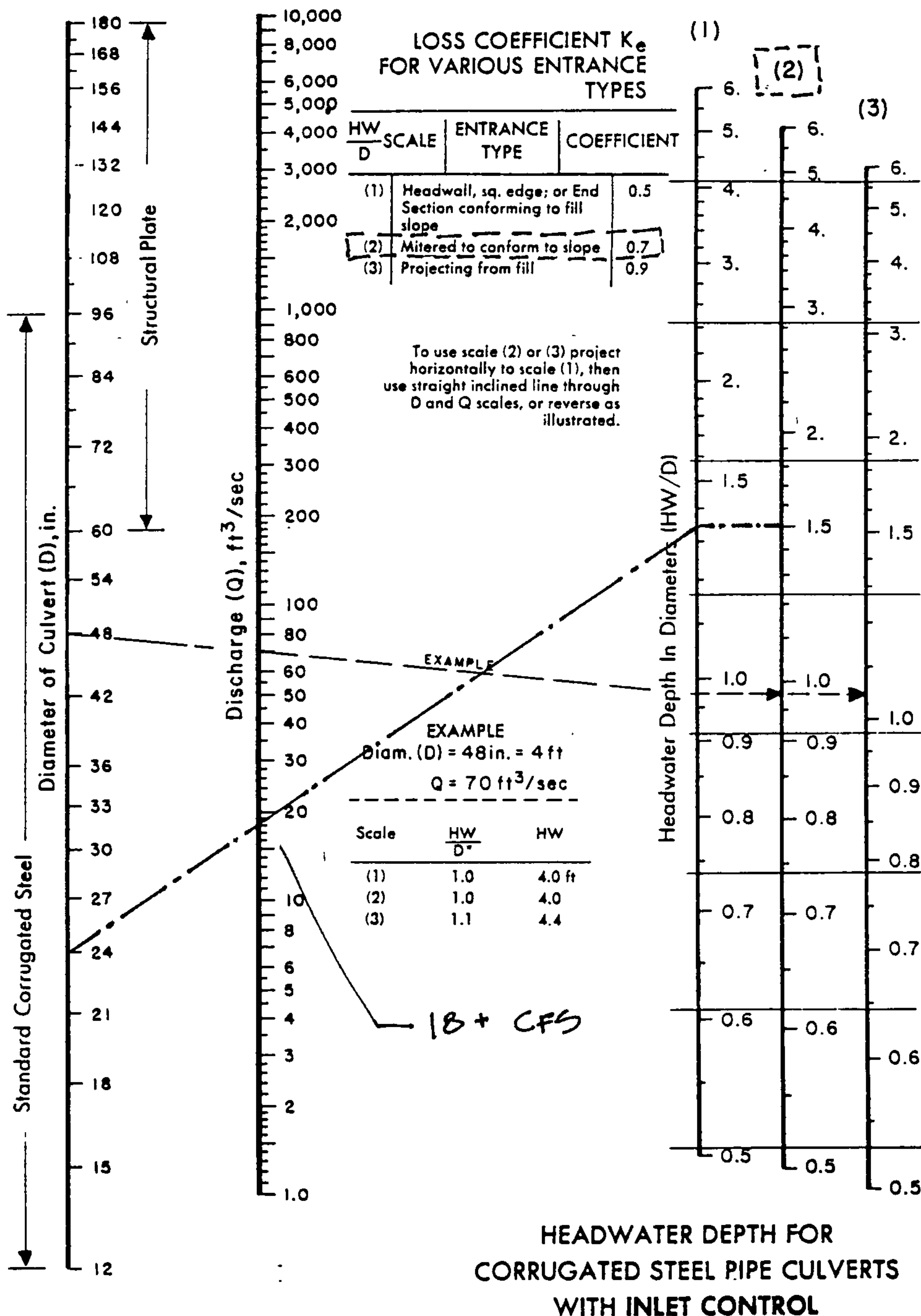
3/

7040

BASIN "D" $Q_{100} = 2.82 \text{ CFS}$

D = 24" ; WITH END SECTIONS

HW/D = 1.50



FHWA HEC 5

BRASHER & LORENZ, INC.

```
*****
*                                TEXAS LAND & CATTLE
*                                ON-SITE HYDROLOGY
*****
START      TIME=0.0  PUNCH CODE=0
RAINFALL   TYPE=1   RAIN QUARTER=0.0  RAIN ONE=2.01
           RAIN SIX=2.35  RAIN DAY=2.75  DT=0.03333 HRS
```

.0000	.0016	.0033	.0049	.0066	.0084	.0102
.0120	.0139	.0158	.0178	.0199	.0219	.0241
.0263	.0286	.0309	.0333	.0358	.0384	.0411
.0439	.0467	.0497	.0529	.0561	.0596	.0631
.0669	.0709	.0751	.0807	.0866	.0930	.1066
.1371	.1840	.2514	.3434	.4644	.6186	.8106
1.0449	1.2624	1.3533	1.4300	1.4982	1.5602	1.6174
1.6704	1.7200	1.7664	1.8102	1.8514	1.8904	1.9273
1.9622	1.9953	2.0268	2.0566	2.0850	2.0915	2.0976
2.1033	2.1088	2.1140	2.1191	2.1239	2.1285	2.1329
2.1373	2.1414	2.1454	2.1494	2.1531	2.1568	2.1604
2.1639	2.1673	2.1706	2.1739	2.1771	2.1802	2.1832
2.1862	2.1891	2.1919	2.1947	2.1975	2.2002	2.2028
2.2054	2.2080	2.2105	2.2130	2.2154	2.2178	2.2202
2.2225	2.2248	2.2270	2.2293	2.2315	2.2336	2.2358
2.2379	2.2399	2.2420	2.2440	2.2460	2.2480	2.2500
2.2519	2.2538	2.2557	2.2576	2.2594	2.2612	2.2631
2.2648	2.2666	2.2684	2.2701	2.2718	2.2735	2.2752
2.2769	2.2785	2.2802	2.2818	2.2834	2.2850	2.2866
2.2881	2.2897	2.2912	2.2928	2.2943	2.2958	2.2973
2.2987	2.3002	2.3017	2.3031	2.3045	2.3060	2.3074
2.3088	2.3102	2.3115	2.3129	2.3143	2.3156	2.3169
2.3183	2.3196	2.3209	2.3222	2.3235	2.3248	2.3261
2.3273	2.3286	2.3298	2.3311	2.3323	2.3335	2.3348
2.3360	2.3372	2.3384	2.3396	2.3408	2.3419	2.3431
2.3443	2.3454	2.3466	2.3477	2.3488	2.3500	

ID=1 HYD NO=EX.SITE DA= 0.005766 SQ MI
PER A=100 PER B=0 PER C=0 PER D=0
TP=0.1333 HR MASS RAIN=-1

```

K = .160154HR      TP = .133300HR      K/TP RATIO = 1.201459      SHAPE CONSTANT, N = 2.957910
UNIT PEAK = 12.041      CFS      UNIT VOLUME = .9985      B = 278.37      P60 = 2.0100
AREA = .005766 SQ MI      IA = .65000 INCHES      INF = 1.67000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

```

ID=2 HYD NO=DEV.SITE DA=0.005766 SQ MI
PER A=0 PER B=7 PER C=8 PER D=85
TP=0.1333 HR MASS RAIN=-1

```

K = .072649HR      TP = .133300HR      K/TP RATIO = .545000      SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 19.350      CFS      UNIT VOLUME = .9988      B = 526.28      P60 = 2.0100
AREA = .004901 SQ MI      IA = .10000 INCHES      INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

```

K = .118945HR TP = .133300HR K/TP RATIO = .892314 SHAPE CONSTANT, N = 3.973983
UNIT PEAK = 2.2932 CFS UNIT VOLUME = .9947 B = 353.43 P60 = 2.0100

AREA = .000865 SQ MI IA = .42000 INCHES INF = 1.02600 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* DEVELOPED BASIN "A"

COMPUTE NM HYD ID=3 HYD NO=DEV.A DA=0.001594 SQ MI
PER A=0 PER B=7 PER C=8 PER D=85
TP=0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 5.3492 CFS UNIT VOLUME = .9973 B = 526.28 P60 = 2.0100
AREA = .001355 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .118945HR TP = .133300HR K/TP RATIO = .892314 SHAPE CONSTANT, N = 3.973983
UNIT PEAK = .63395 CFS UNIT VOLUME = .9793 B = 353.43 P60 = 2.0100
AREA = .000239 SQ MI IA = .42000 INCHES INF = 1.02600 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* DEVELOPED BASIN "B"

COMPUTE NM HYD ID=4 HYD NO=DEV.B DA=0.000648 SQ MI
PER A=0 PER B=7 PER C=8 PER D=85
TP=0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 2.1746 CFS UNIT VOLUME = .9941 B = 526.28 P60 = 2.0100
AREA = .000551 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .118945HR TP = .133300HR K/TP RATIO = .892314 SHAPE CONSTANT, N = 3.973983
UNIT PEAK = .25772 CFS UNIT VOLUME = .9465 B = 353.43 P60 = 2.0100
AREA = .000097 SQ MI IA = .42000 INCHES INF = 1.02600 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* DEVELOPED BASIN "C"

COMPUTE NM HYD ID=5 HYD NO=DEV.C DA=0.003487 SQ MI
PER A=0 PER B=7 PER C=8 PER D=85
TP=0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 11.702 CFS UNIT VOLUME = .9984 B = 526.28 P60 = 2.0100
AREA = .002964 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .118945HR TP = .133300HR K/TP RATIO = .892314 SHAPE CONSTANT, N = 3.973983
UNIT PEAK = 1.3868 CFS UNIT VOLUME = .9904 B = 353.43 P60 = 2.0100
AREA = .000523 SQ MI IA = .42000 INCHES INF = 1.02600 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* DEVELOPED BASIN "D"

COMPUTE NM HYD ID=6 HYD NO=DEV.D DA=0.001122 SQ MI
PER A=0 PER B=20 PER C=20 PER D=60
TP=0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 2.6578 CFS UNIT VOLUME = .9949 B = 526.28 P60 = 2.0100
AREA = .000673 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .119767HR TP = .133300HR K/TP RATIO = .898476 SHAPE CONSTANT, N = 3.944947
UNIT PEAK = 1.1834 CFS UNIT VOLUME = .9892 B = 351.48 P60 = 2.0100
AREA = .000449 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

ID=1 CODE=5

	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME
FLOW	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS
.0	.000	.0	1.000	.0	2.000	.5	3.000	.1	4.000
.0	.167	.0	1.167	.0	2.166	.4	3.166	.0	4.166
.0	.333	.0	1.333	.0	2.333	.3	3.333	.0	
	.500	.0	1.500	5.6	2.500	.2	3.500	.0	
	.667	.0	1.667	3.3	2.666	.1	3.666	.0	
	.833	.0	1.833	1.2	2.833	.1	3.833	.0	

ID=2 CODE=5

ID=3 CODE=5

	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME
FLOW	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS
.0	.000	.0	1.333	1.3	2.666	.1	4.000	.0	5.333
.0	.167	.0	1.500	4.5	2.833	.1	4.166	.0	5.499
.0	.333	.0	1.667	2.3	3.000	.0	4.333	.0	5.666

.0	.500	.0	1.833	1.5	3.166	.0	4.500	.0	5.833
.0	.667	.0	2.000	1.1	3.333	.0	4.666	.0	5.999
.0	.833	.0	2.166	.5	3.500	.0	4.833	.0	6.166
.0	1.000	.0	2.333	.2	3.666	.0	4.999	.0	6.333
.0	1.167	.0	2.500	.1	3.833	.0	5.166	.0	6.499

RUNOFF VOLUME = 1.94031 INCHES = .1650 ACRE-FEET
PEAK DISCHARGE RATE = 4.51 CFS AT 1.500 HOURS BASIN AREA = .0016 SQ. MI.

PRINT HYD ID=4 CODE=5

HYDROGRAPH FROM AREA DEV.B

FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME
CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS
.0	.000	.0	1.333	.5	2.666	.0	4.000	.0	5.333
.0	.167	.0	1.500	1.8	2.833	.0	4.166	.0	5.499
.0	.333	.0	1.667	.9	3.000	.0	4.333	.0	5.666
.0	.500	.0	1.833	.6	3.166	.0	4.500	.0	5.833
.0	.667	.0	2.000	.4	3.333	.0	4.666	.0	5.999
.0	.833	.0	2.166	.2	3.500	.0	4.833	.0	6.166
.0	1.000	.0	2.333	.1	3.666	.0	4.999	.0	6.333
.0	1.167	.0	2.500	.0	3.833	.0	5.166	.0	

RUNOFF VOLUME = 1.94031 INCHES = .0671 ACRE-FEET
PEAK DISCHARGE RATE = 1.84 CFS AT 1.500 HOURS BASIN AREA = .0006 SQ. MI.

PRINT HYD ID=5 CODE=5

HYDROGRAPH FROM AREA DEV.C

FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME
CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS
.1	.000	.0	1.500	9.8	3.000	.1	4.500	.0	5.999
.0	.167	.0	1.667	5.0	3.166	.1	4.666	.1	6.166
.0	.333	.0	1.833	3.2	3.333	.1	4.833	.1	6.333
.0	.500	.0	2.000	2.3	3.500	.1	4.999	.1	6.499
.0	.667	.0	2.166	1.1	3.666	.1	5.166	.1	6.666
.0	.833	.0	2.333	.5	3.833	.1	5.333	.1	
	1.000	.0	2.500	.3	4.000	.1	5.499	.1	
	1.167	.0	2.666	.2	4.166	.1	5.666	.1	

1.333 2.8 2.833 .1 4.333 .1 5.833 .1
RUNOFF VOLUME = 1.94031 INCHES = .3608 ACRE-FEET
PEAK DISCHARGE RATE = 9.84 CFS AT 1.500 HOURS BASIN AREA = .0035 SQ. MI.

PRINT HYD ID=6 CODE=5

HYDROGRAPH FROM AREA DEV.D

FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME	FLOW	TIME
CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS	CFS	HRS
.0	.000	.0	1.333	.7	2.666	.0	4.000	.0	5.333
.0	.167	.0	1.500	2.8	2.833	.0	4.166	.0	5.499
.0	.333	.0	1.667	1.5	3.000	.0	4.333	.0	5.666
.0	.500	.0	1.833	.9	3.166	.0	4.500	.0	5.833
.0	.667	.0	2.000	.6	3.333	.0	4.666	.0	5.999
.0	.833	.0	2.166	.3	3.500	.0	4.833	.0	6.166
.0	1.000	.0	2.333	.1	3.666	.0	4.999	.0	6.333
.0	1.167	.0	2.500	.1	3.833	.0	5.166	.0	

RUNOFF VOLUME = 1.64387 INCHES = .0984 ACRE-FEET
PEAK DISCHARGE RATE = 2.82 CFS AT 1.500 HOURS BASIN AREA = .0011 SQ. MI.

FINISH

NORMAL PROGRAM FINISH

END TIME (HR:MIN:SEC) = 14:07:15

APPENDIX

front of the drop structure to the North Diversion Channel. Flows from this basin approximate 50.1 cfs in the 100-year design storm event.

Offsite flows are minor. No flows impact the site along its north boundary with the existing developed industrial park and Office Blvd. Office Blvd. itself forms a diversion which diverts upstream flows along its north edge to the existing 54" culvert inlet to the AMAFCA box culvert. On the west boundary of the site, offsite flows drain away from the site, in a westerly direction to other existing drainage facilities. Flows from the vacant Tract A-1B drain approximately 7.1 cfs to the existing inlet described above.

FEMA floodplains occur only on the Vineyard Arroyo, located on the southeast portion of the property and are confined to the existing channel. Previous AMAFCA reports for the Vineyard Arroyo (as described in the report prepared for the box culvert construction) approximate 1,250 cfs.

The Vineyard Arroyo reach on the southeast property line of the site, is a largely unimproved channel reach. It is currently lined with dumped, non-engineered rip rap and in its uppermost reach, includes some grouted rip rap channel lining. Most of this reach shows significant states of disrepair. This reach lies completely outside the theater site boundaries. The current plat of the property on which the arroyo lies does not identify an easement.

PROPOSED CONDITIONS

Under proposed conditions, the site itself is separated into three proposed basins. Basin A occurs in the north section of the site and generates 26.2 cfs in the 100-year design storm event. Basin B occurs in the west portion of the site and generates 7.7 cfs. Basin C occurs in the south portion of the site and generates 49.3 cfs. These flows are drained in a surface flow manner to a proposed storm drain system located immediately west of the building structure. The flows of Basins A, B and C are collected in a series of inlets (at AP-1, AP-2 and AP-3, respectively), which then drain to a discharge point located in the southern most tip of the site. At this point, flows are discharged directly into the AMAFCA inlet to the North Diversion Channel. Accordingly, total flows generated onsite are approximately 83.

The offsite flow of Tract A-1B will not contribute to flows onsite. Although the property is currently vacant, developed conditions of approximately 85% impervious surface and 15% landscaping were assumed for this offsite-basin. This basin, in its developed condition, will generate approximately 16 cfs and discharge it to the existing 36" X 24" WYE (currently stubbed out) connected to the concrete box culvert. The WYE will need to be extended so that these flows can be collected on Tract A-1B via Type "D" inlet to be constructed.

Channel improvements along the unimproved portion of Vineyard Arroyo may be required. Although the arroyo does not currently show signs of substantial erosion or meander, and therefore not suggesting imminent harm to life and property, it is obvious that the extension of channel improvements along this reach is a requirement at some point in time. AMAFCA has planned improvements to this reach of arroyo in its long range capital improvements plan, however, this does not coincide with the current development timeframe of the theater complex. Accordingly, discussions between AMAFCA, City of Albuquerque and the site owner will be required to determine a plan and timeframe for this reach of arroyo.

CONCLUSION

With the drainage management plan described above and the calculations provided herein, we are requesting conceptual drainage/grading plan approval for the purposes of site development plan approval. We believe the information presented herein to be sufficient for that request.

Basin A: Proposed Conditions $Q(100) = 5.05(6.0415ac)[0.45(0.15) + 0.93(0.85)] = 26.2$ cfs
Basin B: Proposed Conditions $Q(100) = 5.05(1.7795ac)[0.45(0.15) + 0.93(0.85)] = 7.7$ cfs
Basin C: Proposed Conditions $Q(100) = 5.05(11.3666ac)[0.45(0.15) + 0.93(0.85)] = 49.3$ cfs

BASIN	AREA (AC)
A	6.0415
B	1.7795
C	11.3666

PR-----
EXCERPT FROM DRAINAGE
REPORT FOR RIO 24 THEATER

Parcel _____
ZAP _____
File: _____
PC Date _____

**TEMPORARY CONSTRUCTION LICENSE AGREEMENT
VINEYARD ARROYO IMPROVEMENTS WITHIN
CRYER PROPERTY, TRACT A-1B**

WHEREAS, Sage Investments No. 1 (SAGE) is the owner of Tract A-1B of the lands of Cryer, a subdivision in the City of Albuquerque, New Mexico as the same is shown and designated on the "Replat of Cryer Property" filed in the office of the County Clerk of Bernalillo County, New Mexico in Volume D7, Folio 163 on the 19th day of April, 1977; and

WHEREAS, the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) intends to construct an underground storm drainage facility and related appurtenances (PROJECT) on property adjacent to SAGE, in a permanent easement granted by others; and

WHEREAS, construction of the PROJECT will be more efficient if AMAFCA's contractor can use the northwesternmost 50 feet of the SAGE property, as shown on Exhibit A (Temporary Construction Easement); and

WHEREAS, AMAFCA will be the contracting agency for PROJECT; and

WHEREAS, PROJECT will benefit the lands of SAGE and will protect such land from damages from flooding, will eliminate an open arroyo, and will allow free discharge of stormwater from the SAGE property, via a storm sewer stub-out to the SAGE property line.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged;

1. SAGE hereby grants to AMAFCA a temporary construction license to use lands of SAGE to complete the PROJECT. This license consists of the Temporary Construction Easement area as shown on Exhibit A.

a. The Temporary Construction Easement shown on Exhibit A is to be used for construction access, temporary materials storage, and temporary drainage channels to facilitate a dry area during the construction of said PROJECT.

b. Said PROJECT shall be constructed in substantial conformance with the AMAFCA Specifications and Contract Documents for the Vineyard Channel, West of I-25, which are incorporated herein by reference.

c. This license shall expire upon completion and acceptance of PROJECT by AMAFCA. After completion of PROJECT, but prior to acceptance, AMAFCA will notify SAGE and SAGE will be given opportunity to inspect the completed PROJECT and Temporary Construction Easement prior to termination of this license.

2. AMAFCA agrees to not allow the disposal of excess construction material, concrete or other material that is not indigenous to the SAGE property on the SAGE property. Any temporary excavations will be returned to natural grade of the surrounding terrain and entire Temporary Construction Easement will be reseeded with native grasses. Existing piles of debris and rubble in the Temporary Construction Easement will be removed by AMAFCA's contractor.

3. SAGE will be allowed to connect to the storm sewer stub-out for free discharge of all site drainage without any requirement for on-site ponding and without payment of any fees for utilizing such drainage, in accordance with an approved grading and drainage plan for the SAGE property, to be completed as required for development of the SAGE property in the future.

4. AMAFCA agrees to hold harmless, defend and indemnify SAGE, and its officers, agents, employees from all claims for property damage, personal injury, and or wrongful death arising from or connected with the performance of this license agreement and/or the PROJECT. Pursuant to Section 56-7-1 NMSA 1978, this agreement to indemnify shall not extend to liability, claims, damages, losses or expenses, including attorney fees, arising out of:

a. the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications by the indemnitee, or the agents or employees of the indemnitee; or

b. the giving of or the failure to give directions or instructions by the indemnitee, or the agents or employees of the indemnitee, where such giving or failure to give directions or instructions is the primary cause of bodily injury to persons or damage to property.

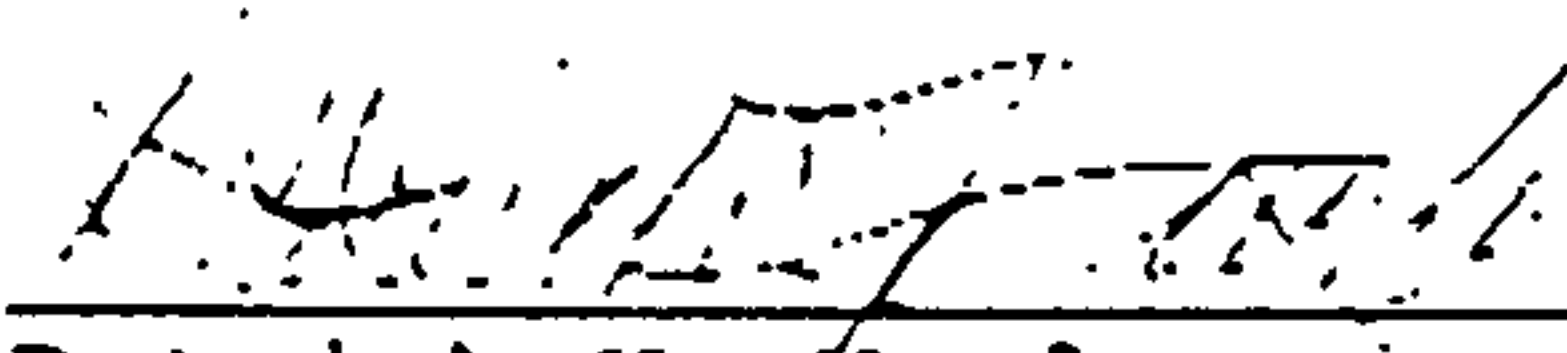
The work "indemnify" as used in this section includes, without limitation, an agreement to remedy damage or loss caused in whole or in part by the negligence, act, or omission of the indemnitee, the agents or employees of the indemnitee, or any legal entity for whose negligence, acts or omissions any of the foregoing may be liable.

6. Both AMAFCA and SAGE agree to maintain timeliness in all communications and agree to work promptly to resolve any circumstances not included in this license agreement.

LICENSOR:

Sage Investments No. 1

By:

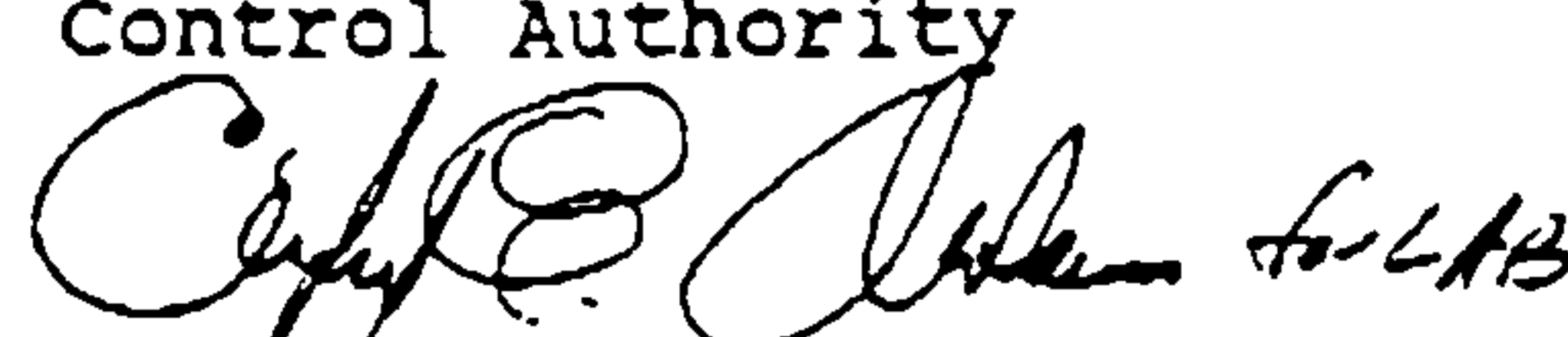

Patrick W. Hurley
General Partner

Date:

LICENSEE:

Albuquerque Metropolitan Arroyo
Flood Control Authority

By:


Larry A. Blair
Executive Engineer

Date:

Jan 22, 1993

EXHIBIT 'A'

ALBUQUERQUE METROPOLITAN FLOOD CONTROL AUTHORITY

ALBUQUERQUE, NEW MEXICO

** SEE ATTACHED DESCRIPTION **

CERTIFICATE OF SURVEY

I, THOMAS H. WAGNER, NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR NO. 3517, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED UNDER MY SUPERVISION FROM ACTUAL FIELD SURVEYS PERFORMED FROM AUGUST, 1992, THROUGH NOVEMBER, 1992, AND IS TO THE BEST OF MY KNOWLEDGE AND BELIEF, CORRECT, AND CONFORMS TO THE MINIMUM REQUIREMENTS OF THE STANDARDS FOR LAND SURVEYS IN NEW MEXICO, AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND PROFESSIONAL SURVEYORS.

Thomas H. Wagner 12/7/92

THOMAS H. WAGNER, P.S. 3517

DATE

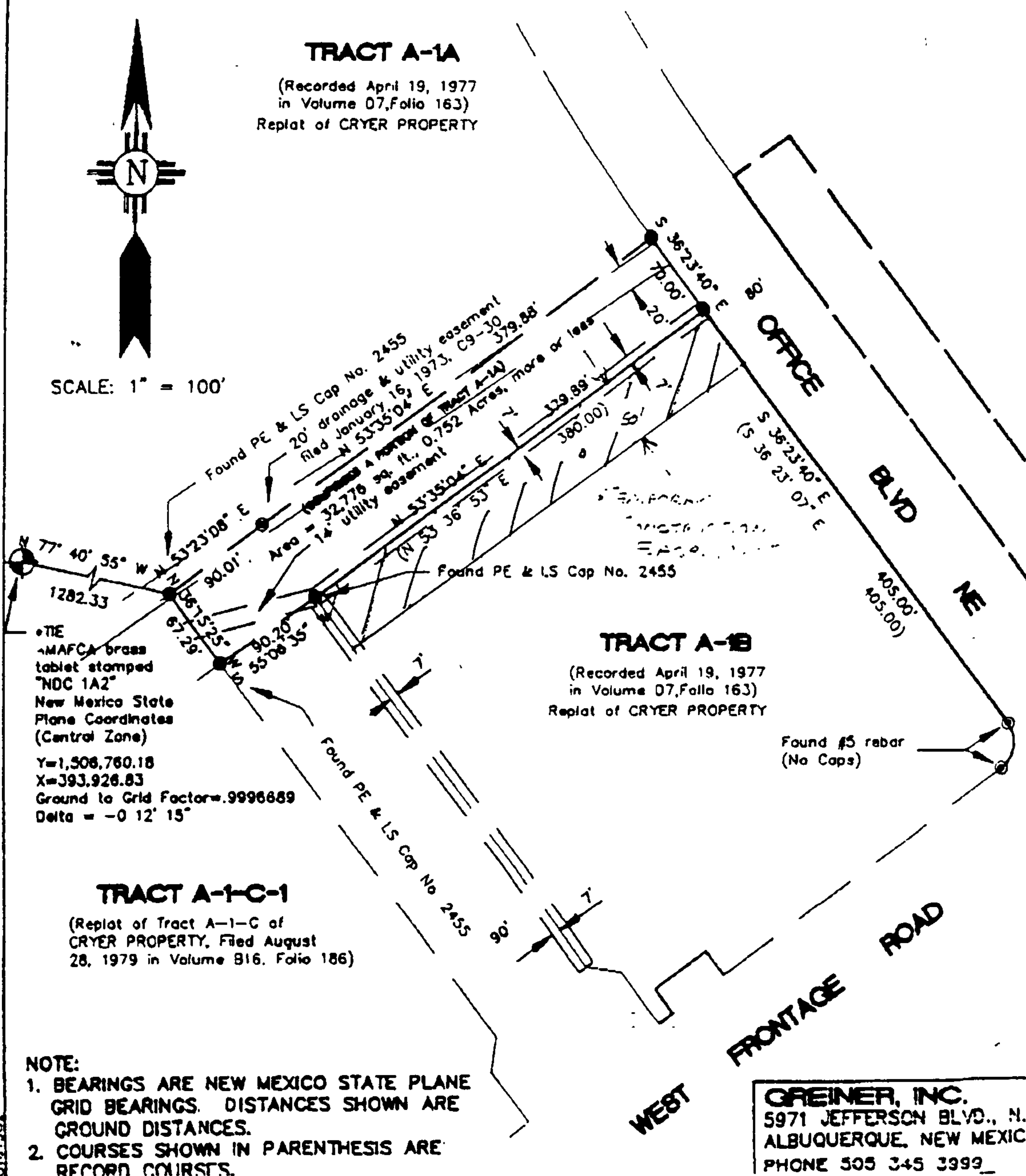
TRACT A
LANDS OF BROJA TRUST

TRACT A-1A

(Recorded April 19, 1977
in Volume 07, Folio 163)
Replat of CRYER PROPERTY



SCALE: 1" = 100'



DECLARATION OF RECIPROCAL EASEMENTS

STATE OF NEW MEXICO §
 §
COUNTY OF BERNALILLO §

This Reciprocal Easement Agreement ("Agreement") is made as of the _____ day of _____, 1998 by and among TXLC N. MX, L. P., a Texas limited Partnership ("TXLC"), BCAL Limited Company, a New Mexico Limited Liability Company ("BCAL"), and Blue Corn Pecos Land Limited Company, a New Mexico Limited Liability Company ("BLUE CORN PECOS")

WHEREAS, TXLC is the owner in fee simple of certain real property located in the City of Albuquerque, County of Bernalillo, State of New Mexico, which is more particularly described as Tract A-1B-3 on Exhibit A attached hereto and made a part hereof for all purposes (the "TXLC Lot"); and

WHEREAS, BCAL is the owner in fee simple of certain real property located in the City of Albuquerque, County of Bernalillo, State of New Mexico and adjacent to the TXLC Lot and which is more particularly described as Tract A-1B-2 on Exhibit A (the "BCAL Lot"); and

WHEREAS, BLUE CORN PECOS is the owner in fee simple of certain real property located in the City of Albuquerque, County of Bernalillo, State of New Mexico and adjacent to the TXLC and BCAL Lots and which is more particularly described as Tract A-1B-1 on Exhibit A (the "BLUE CORN PECOS Lot"); and

WHEREAS, TXLC, BCAL and BLUE CORN PECOS lots are collectively referred to herein as the "Properties" and each party hereto wishes to grant to the other parties hereto a non-exclusive easement for pedestrian and vehicular access, parking, utility installation and drainage located or constructed on, across, and over the Properties, and as generally shown on Exhibit B attached hereto and incorporated herein by reference.

NOW THEREFORE, in consideration of the premises, the parties hereto agree as follows:

1. **Grant of Easement.** TXLC hereby grants and conveys to BCAL and BLUE CORN PECOS, their successors and assigns, an easement and right-of-way on, across and over the TXLC Lot, BCAL hereby grants and conveys to TXLC and BLUE CORN PECOS, their successors and assigns, an easement and right-of-way on, across and over the BCAL Lot, and BLUE CORN PECOS hereby grants and conveys to TXLC and BCAL, their successors and assigns, an easement and right-of-way on, across and over the BLUE CORN PECOS Lot (collectively, the "Easements").

2. **Purpose of Easements.** The Easements shall be for the purposes of granting to the Owner and Lessees of each Lot, their employees, representatives, customers, and invitees a permanent non-exclusive easement and right of use of all access and entrance drives and overall parking areas of the Properties for the purpose of pedestrian and vehicular ingress, egress, and parking and for drainage of surface water onto or across the adjacent Properties. In addition, each party may install, maintain and repair underground utility service lines across the Properties, provided that the party for whose benefit the utility lines are installed shall bear the full cost of repair of any and all damage to improvements that may occur on the adjoining lots as a result of the installation, maintenance or repair of its lines.

3. **Indemnity.** Each party agrees that it shall defend, indemnify and save each of the other parties to this Agreement, and their successors and assigns, harmless from and against any liability to third parties for loss of life, personal injury, property damage or otherwise which arises in connection with the indemnifying party's usage of the other's Lot, and all costs and expenses, including attorneys' fees, which the other parties may incur in connection with any such liabilities; provided however, that the foregoing shall not apply to any liabilities which are proximately caused by the negligence or willful misconduct of the other parties or their employees or agents.

4. **Nature of Easements.** The burdens and the benefits of the Easements shall run with the Properties, and shall be binding upon each Lot, and every successor owner thereof.

5. **Successors and Assigns.** This Agreement shall be binding upon and inure to the benefit of the parties hereto, and their respective successors and assigns.

6. **Governing Law.** This Agreement and all the provisions hereof shall be governed by and construed in accordance with the laws of the State of New Mexico.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date first set forth above.

TXLC N. MX. Properties, L. P.

By [Signature] Vice President
TXLC 98, LLC, its General Partner

BCAL Limited Company

By _____
Its Member/ Manager

Blue Corn Pecos Land Limited Company

By TXLC N. MX. Properties, L. P.
Its Member/Manager

By [Signature]
TXLC 98, LLC, its General Partner

BCAL Limited Company
Its Member Manager

By _____
Its Member/ Manager

STATE OF TEXAS)
) SS
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1998, by _____, Member/Manager of TXLC 98, LLC, a Texas Limited Liability Company as General Partner of TXLC N. MX. L. P., a Texas Limited Partnership.

NOTARY PUBLIC

My Commission Expires: _____

STATE OF NEW MEXICO)
) SS
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1998, by _____, Member/Manager of BCAL Limited Company, a New Mexico Limited Liability Company.

NOTARY PUBLIC

My Commission Expires: _____

STATE OF TEXAS)
) SS
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1998, by _____, Member/Manager of TXLC 98, LLC, a Texas Limited Liability Company as General Partner of TXLC N. MX. L. P., a Texas Limited Partnership for and on behalf of **Blue Corn Pecos Land Limited Company**, a New Mexico Limited Liability Company.

NOTARY PUBLIC

My Commission Expires: _____

STATE OF NEW MEXICO)
) SS
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 1998, by _____, Member/Manager of BCAL Limited Company, a New Mexico Limited Liability Company for and on behalf of **Blue Corn Pecos Land Limited Company**, a New Mexico Limited Liability Company.

NOTARY PUBLIC

My Commission Expires: _____



January 27, 1998

Dennis Lorenz
Brasher & Lorenz Inc.
2201 San Pedro NE Bldg. 1 Suite 210
Albuquerque, New Mexico 87110

RE: REVISED DRAINAGE PLAN FOR TEXAS LAND & CATTLE CO. (F17-D64)
ENGINEER'S STAMP DATED 1/13/98

Dear Mr. Lorenz:

Based on the information provided on your January 15, 1998 resubmittal, the above referenced site is approved for Site Development Plan For Subdivision and Site Development Plan For Building Permit.

Please be advised that the prior to Building Permit release, the following must be addressed:

1. What is the existing 48" SD draining? Who does it belong to and was it constructed to City Standards?
2. Indicate the existing 48" SD on the plan drawing.
3. Is there sufficient width between the buildings for the proposed SD? If repairs may have to be done, will there be sufficient room?
4. More spot elevations along with the slopes must be shown.

If I can be of further assistance, please feel free to contact me at 924-3986.

C: Andrew Garcia
File

Sincerely

Bernie J. Montoya CE
Associate Engineer

Good for You, Albuquerque!



MICHAEL MURPHY, CHAIR
TIM EICHENBERG, VICE-CHAIR
LINDA OLMSTED, SECRETARY-TREASURER
RONALD D. BROWN, ASST. SECRETARY-TREASURER
DANIEL W. COOK, DIRECTOR

LARRY A. BLAIR
EXECUTIVE ENGINEER



**Albuquerque
Metropolitan
Arroyo
Flood
Control
Authority**

2600 PROSPECT N E - ALBUQUERQUE N M 87107
TELEPHONE (505) 884-2215

August 9, 1997

Mr. Patrick Hurley
Sage Investments No. 1
909 Salamanca N.W.
Albuquerque, New Mexico 87107

Re: Vineyard Arroyo Box Culvert

Dear Mr. Hurley:

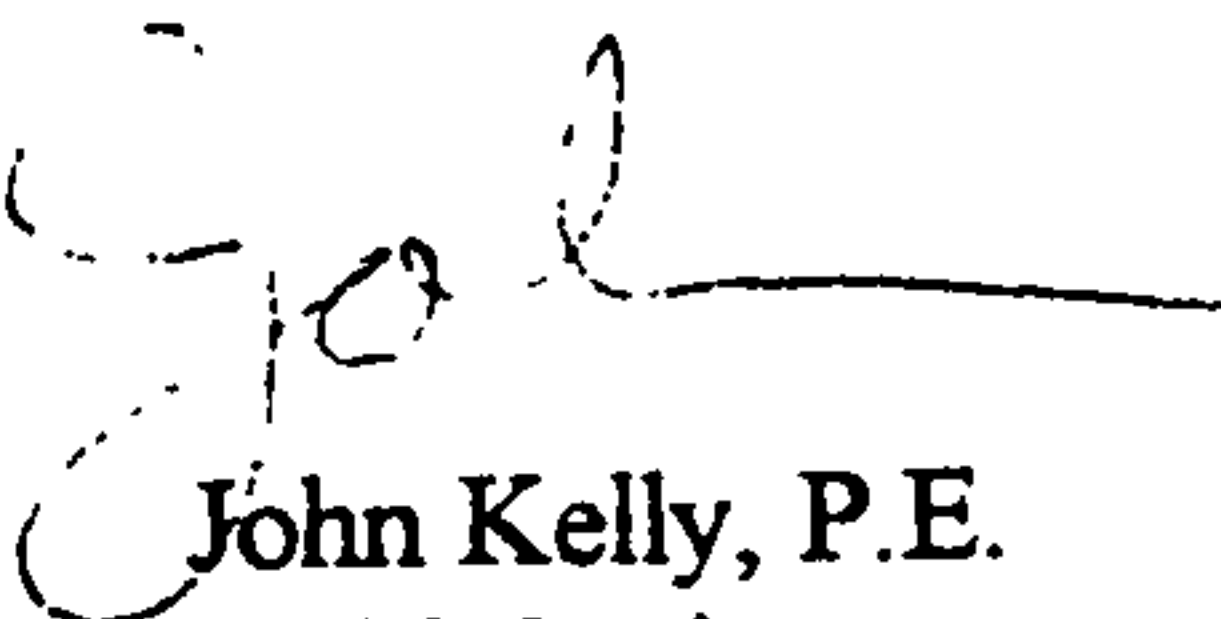
This letter is to confirm that the 36" diameter RCP stubout from the Vineyard Arroyo box culvert was sized for the unrestricted discharge of storm water from Tract A-1B of the Cryer Addition. You, or your successors, may connect to this stubout, subject to AMAFCA and City review and approval of the normally required grading and drainage plan. There will be no connection fee for use of the facility. The City may have other pro-rata charges that apply.

Recently, the adjacent property owner (Century Theaters) modified the stubout. They were to install an in-line inlet, and continue the 36" stubout to the northeast. Inspection of their work shows the stubout was not continued as approved by AMAFCA and the City. Their engineer has advised them to correct the deficiency. Please see the attached letter from Bohannon Huston to MBK construction.

AMAFCA has the as-built drawings for the box culvert in our office should you or your engineer need copies.

Please call if you have any questions.

Sincerely,
AMAFCA


John Kelly, P.E.
Field Engineer

cc Bill Vreeke, BHI
Dave Anderson, MBK Construction

John

COPY

RECEIVED

AUG 29 1997



August 27, 1997

BOHANNAN HUSTON

Courtyard One

7500 JEFFERSON AVE

Albuquerque

NEW MEXICO 87109

voice 505 823.1000

fax 505 321 0392

Mr. Dave Anderson
MBK Construction Ltd.
175 Technology Dr.
Irvine, CA 92618

Re: Century Albuquerque 24 - Plex Theatre

Dear Mr. Anderson:

As we discussed, we have been advised by AMAFCA, owner of the CBC through the referenced project site, that there are a couple of deficiencies in the storm drain system that need attention.

The 36" RCP stub from the single Type "D" inlet, denoted as Keyed Note "T" on the Grading/Drainage Plan, to serve the future needs of the tract south of Office Blvd. and west of the I-25 frontage road was inadvertently omitted from the construction. This needs to be installed. The existing 24" RCP denoted as Keyed Note "Q" only has plywood as a plug, not the concrete plug as specified. This also needs to be corrected.

Please inform your subcontractor of this and contact us when these repairs will be made.

Please call if you have any questions or comments concerning this or any other matter.

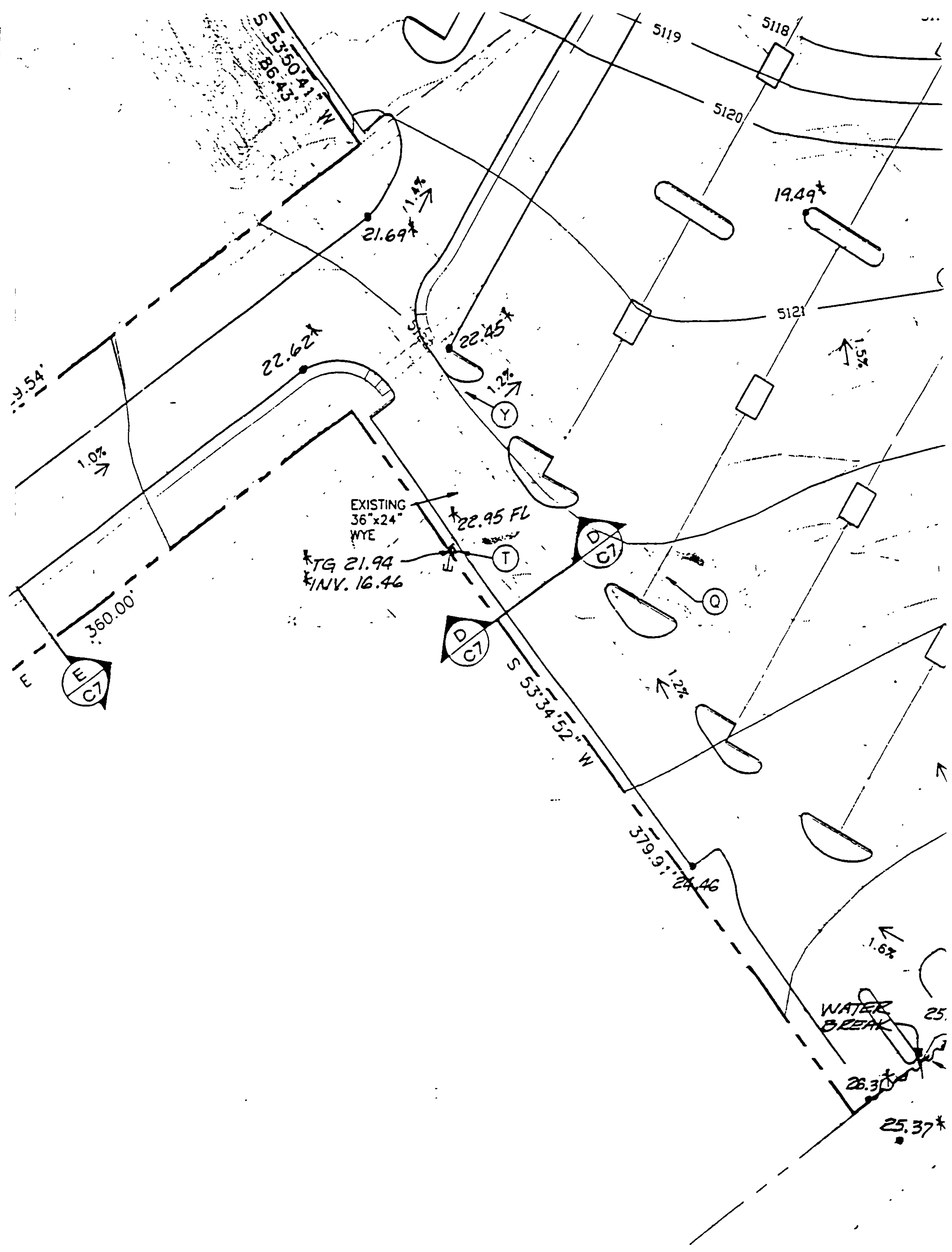
Sincerely,
Bohannon Huston

William L. Vreeke, P.E.
Vice President
Construction Engineering Group

Enclosures

WLV/jlj

cc: John Kelly, AMAFCA (w/encs.)
James Topmiller, Bohannon Huston (w/encs.)



GRADING & DRAINAGE KEYED NOTES

- (A) BUILD 1-DOUBLE TYPE "D" INLET WITH 74 LF OF 21" RCP OUTLET PER COA STD. DWG. 2206. GRATE ELEV. = 5111.54; INLET INVERT = 5106.34. DEVELOPED Q (100-YR) = 30 CFS.
- (B) BUILD 1-4' DIA. TYPE "E" MANHOLE PER COA STD DWG. 2102. RIM ELEV. = 5115.00; INVERT 21" (IN) = 5105.61; INVERT 33" (OUT) = 5105.10.
- (C) BUILD 83 LF 33" RCP STORM SEWER @ S=0.33%. INV (IN) = 5105.10; INV (OUT) = 5104.84. DEVELOPED Q (100-YR) = 30 CFS.
- (D) BUILD 1-AREA DRAIN WITH 11 LF OF 4" PVC OUTLET PER DETAIL 3 ON SHT C7. GRATE ELEV. = 5116.70; DRAIN INVERT = 5115.00. DEVELOPED Q (100-YR) = 0.1 CFS.
- (E) BUILD 1-4' DIA. TYPE "E" MANHOLE PER COA STD DWG. 2102. RIM ELEV. = 5115.27; INVERT 33" (IN) = 5104.84; INVERT 10" (IN) = 5106.86; INVERT 33" (OUT) = 5104.74.
- (F) BUILD 282 LF 33" RCP STORM SEWER @ S=0.30%. INV (IN) = 5104.74; INV (OUT) = 5103.91. DEVELOPED Q (100-YR) = 32 CFS.
- (G) BUILD 1-SINGLE TYPE "D" INLET WITH 12 LF OF 18" RCP OUTLET PER COA STD. DWG. 2206. GRATE ELEV. = 5114.78; INLET INVERT = 5112.68. DEVELOPED Q (100-YR) = 3 CFS.
- (H) BUILD 1-4' DIA. TYPE "E" MANHOLE PER COA STD DWG. 2102. RIM ELEV. = 5115.27; INVERT 33" (IN) = 5103.91; INVERT 18" (IN) = ~~5106.17~~ 5109.00; INVERT 33" (OUT) = 5103.81.
- (I) BUILD 272 LF 33" RCP STORM SEWER @ S=0.29%. INV (IN) = 5103.81; INV (OUT) = 5103.04. DEVELOPED Q (100-YR) = 36 CFS.
- (J) BUILD 1-AREA DRAIN WITH 11 LF OF 4" PVC OUTLET PER DETAIL 4 ON SHT C7. GRATE ELEV. = 5116.70; DRAIN INVERT = 5115.00. DEVELOPED Q (100-YR) = 0.1 CFS.
- (K) BUILD 1-4' DIA. TYPE "E" MANHOLE PER COA STD DWG. 2102. RIM ELEV. = 5115.30; INVERT 33" (IN) = 5103.04; INVERT 10" (IN) = 5106.82; INVERT 33" (OUT) = 5102.94.
- (L) BUILD 230 LF 33" RCP STORM SEWER @ S=0.30%. INV (IN) = 5102.94; INV (OUT) = 5102.27. DEVELOPED Q (100-YR) = 38 CFS.
- (M) BUILD 1-DOUBLE TYPE "D" INLET WITH 74 LF OF 21" RCP OUTLET PER COA STD. DWG. 2206. GRATE ELEV. = 5111.37; INLET INVERT = 5103.37. DEVELOPED Q (100-YR) = 42 CFS.
- (N) BUILD 1-4' DIA. TYPE "E" MANHOLE PER COA STD DWG. 2102. RIM ELEV. = 5113.29; INVERT 33" (IN) = 5102.27; INVERT 21" (IN) = 5102.48; INVERT 48" (OUT) = 5102.17.
- (O) BUILD 42 LF 48" RCP STORM SEWER @ S=0.28%. INV (IN) = 5101.73; INV (OUT) = 5101.59. DEVELOPED Q (100-YR) = 80 CFS. CONNECT TO EXISTING OUTFALL PER DETAIL 4, SHT C8.
- (P) EXISTING 48" OUTLET TO VINEYARD ARROYO.
- (Q) REMOVE EXISTING INLET AND EXISTING PIPE TO NEAREST JOINT. PLUG REMAINING 24" PIPE WITH 1 LF CONCRETE. SALVAGE GRATE & FRAME FOR NEW INLET REFERENCED BY KEYED NOTE "T".
- (R) EXISTING AMAFCA VINEYARD ARROYO TO BE IMPROVED BY AMAFCA.
- (S) CONSTRUCT 4' WIDE X 3/4" DEEP CONCRETE VALLEY GUTTER PER DETAIL 5 ON SHT C7.
- (T) BUILD 1-SINGLE TYPE "D" INLET WITH 36" OUTLET RCP PER COA STD. DWG. 2206. GRATE ELEV. = 5122.00; INLET INVERT = 5119.5+/- . CONNECT NEW 36" OUTLET RCP TO EXISTING 36" PIPE. INSTALL 8 LF CAPPED 36" RCP IN BACK WALL OF INLET (SEE DETAIL SHT C7).
- (U) TEMPORARY AMAFCA 100' WIDE CONSTRUCTION EASEMENT VACATES ITSELF 7/15/96. CONTRACTOR SHALL NOT PERFORM ANY WORK WITHIN EASEMENT. ALL WORK TO BE PERFORMED ADJACENT TO EASEMENT MUST BE COORDINATED WITH AMAFCA.
- (V) EXISTING MANHOLES TO SEPTIC TANK. CONTRACTOR REQUIRED TO REMOVE EXISTING SEPTIC SYSTEM AND DISPOSE OF IT OFFSITE.

BRASHER & LORENZ, INC. CONSULTING ENGINEERS

2201 SAN PEDRO NE BUILDING 1 SUITE 210 ALBUQUERQUE, NM 87110 PHONE (505) 888-6088 FAX (505) 888-6188

February 4, 1998

Kurt Browning, PE
AMAFCA
2600 Prospect NE
Albuquerque, New Mexico 87107

RECEIVED

FEB 04 1998

AMAFCA

SUBJECT: TEXAS LAND & CATTLE COMPANY
West Pan American Freeway NE, at Office Blvd.

Dear Kurt:

Submitted herewith for review and approval is one copy of the approved Conceptual Drainage Report for the subject property. The Conceptual Drainage Report has been approved by the City of Albuquerque. The report is conceptual in nature and was prepared to facilitate review of a Site Plan for subdivision by the City of Albuquerque Environmental Planning Commission.

When?
As shown by the drainage report, a 24 inch RCP storm drain crosses the property and connects the AMAFCA box culvert located just west of the site. Since the storm drain extends from a culvert crossing of Interstate 25, we assume it is owned by the NMSHTD. To our knowledge, no easements of record exist, therefore, we propose to grant an underground drainage easement to the NMSHTD.

We propose to construct a 24 inch private storm drain into the site from the existing stubout which was extended from the box culvert by the Century 24 Theater. At this time we are asking DRB for approval of a site plan for subdivision and subdivision plat. Keep in mind that the report is conceptual; we will submit final construction drawings and documents later this month, which detail the connection to the stubout.

If you need additional information, or if I can be of any assistance, please feel free to call.

Sincerely,

BRASHER & LORENZ, INC.

Dennis A. Lorenz, PE

\dl
encl

Dennis - AMAFCA will need to approve the const. plans for the connection to the BOT. Also the above called paragraph must be addressed to COR satisfaction. (AMAFCA will not accept, operate or maintain this storm drain.) too small

FB 2-6-98

NEW MEXICO STATE HIGHWAY AND TRANSPORTATION DEPARTMENT

PRELIMINARY DESIGN BUREAU

DRAINAGE SECTION PROPERTY REVIEW

DESCRIPTION:

Subdivision:____ Encroachment Request:____ R/W Sale Request:____
 Permit Request ☒ Abandonment Request:____

Project Name: Texas Land & Cattle Company Date Submitted: 3/10/98

Location: W. Pan Am. Freeway & Office Blvd. District Office: 3

Applicant: Texas Land & Cattle Co. Consultant: Brasher & Lorenz, Inc

For Subdivision only:

Number of Lots:____ Area of the site:____ State Route:____

Drainage measures to prevent impact to State highways:____

Findings and/or

Comments: The development will not cause a drainage impact to State highways.
The drainage system at this area was designed to handle developed flows.
The drainage and grading recommendations are approved.
The existing 24" culvert pipe across the site is privately installed and
is not owned by the Department.

Drainage Approval:

☒ Recommended
☐ Not Recommended:____

BY: Raymunda Van Hise
 Drainage Engineer

DATE: _____

XC: George Herrera
 Kathy Trujillo
 Julian Vigil

DRAINAGE INFORMATION SHEET

PROJECT TITLE: TEXAS LAND + CATTLE CO ZONE ATLAS/DRNG. FILE #: F17/D64
DRB #: _____ EPC #: _____ WORK ORDER #: _____
LEGAL DESCRIPTION: TRACT A-13 CRYER PROPERTY
CITY ADDRESS: WEST PAN AMERICAN FREEWAY NE
ENGINEERING FIRM: Brasher & Lorenz, Inc. CONTACT: Dennis A. Lorenz
2201 San Pedro NE Bldg.1 Suite 210
ADDRESS: Albuquerque, New Mexico 87110 PHONE: 888-6088
OWNER: TEXAS LAND + CATTLE CO CONTACT: ARON FOGIEL
5950 CEDAR SPRINGS RD
ADDRESS: SUITE 100, DALLAS TX 75235 PHONE: 214-353-9083
ARCHITECT: NA CONTACT: _____
ADDRESS: _____ PHONE: _____
SURVEYOR: DOUG SMITH CONTACT: SAME
ADDRESS: 2121 SAN MATEO NE PHONE: 255-5577
CONTRACTOR: NA CONTACT: _____
ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☐ DRAINAGE PLAN
☒ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION
☐ OTHER _____

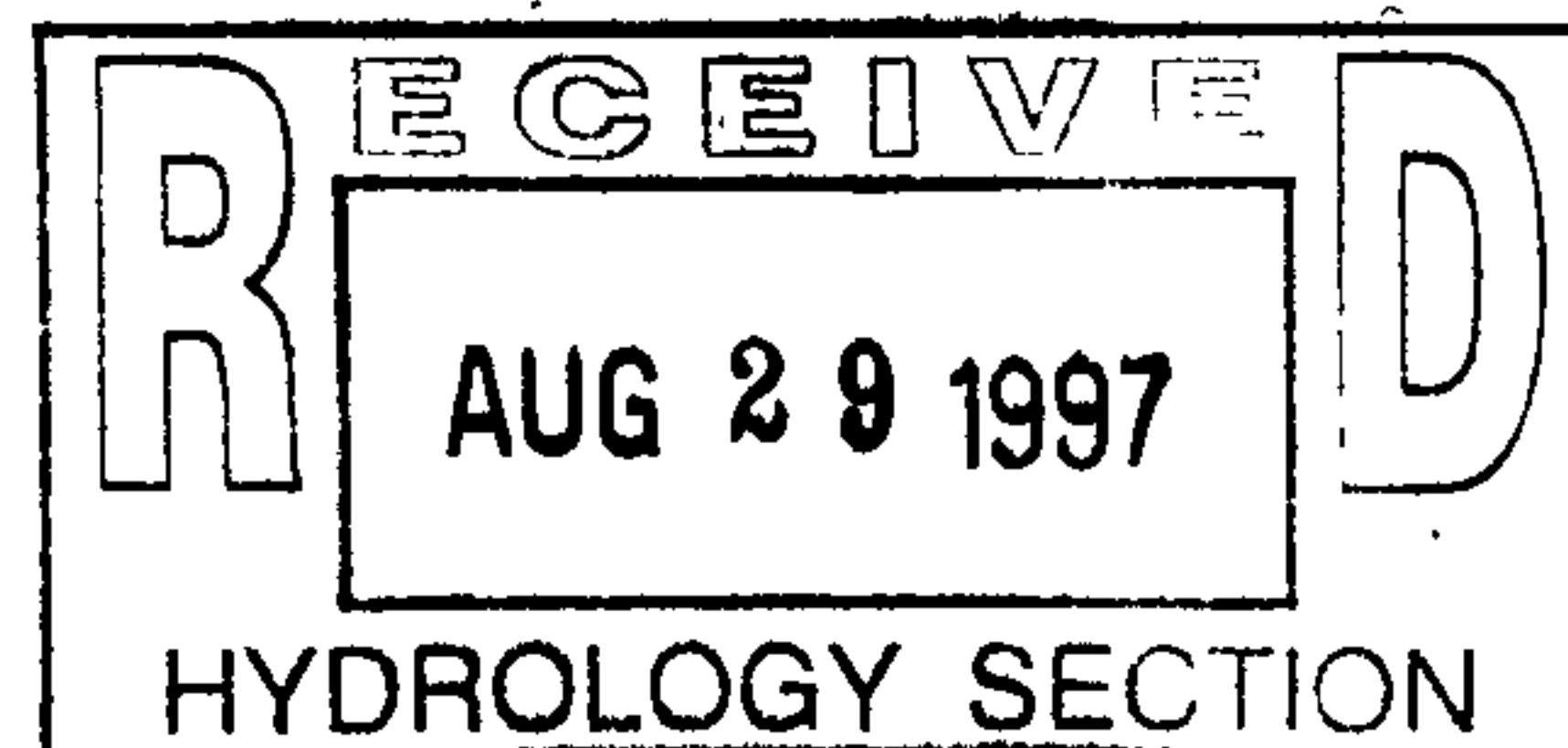
PRE-DESIGN MEETING:

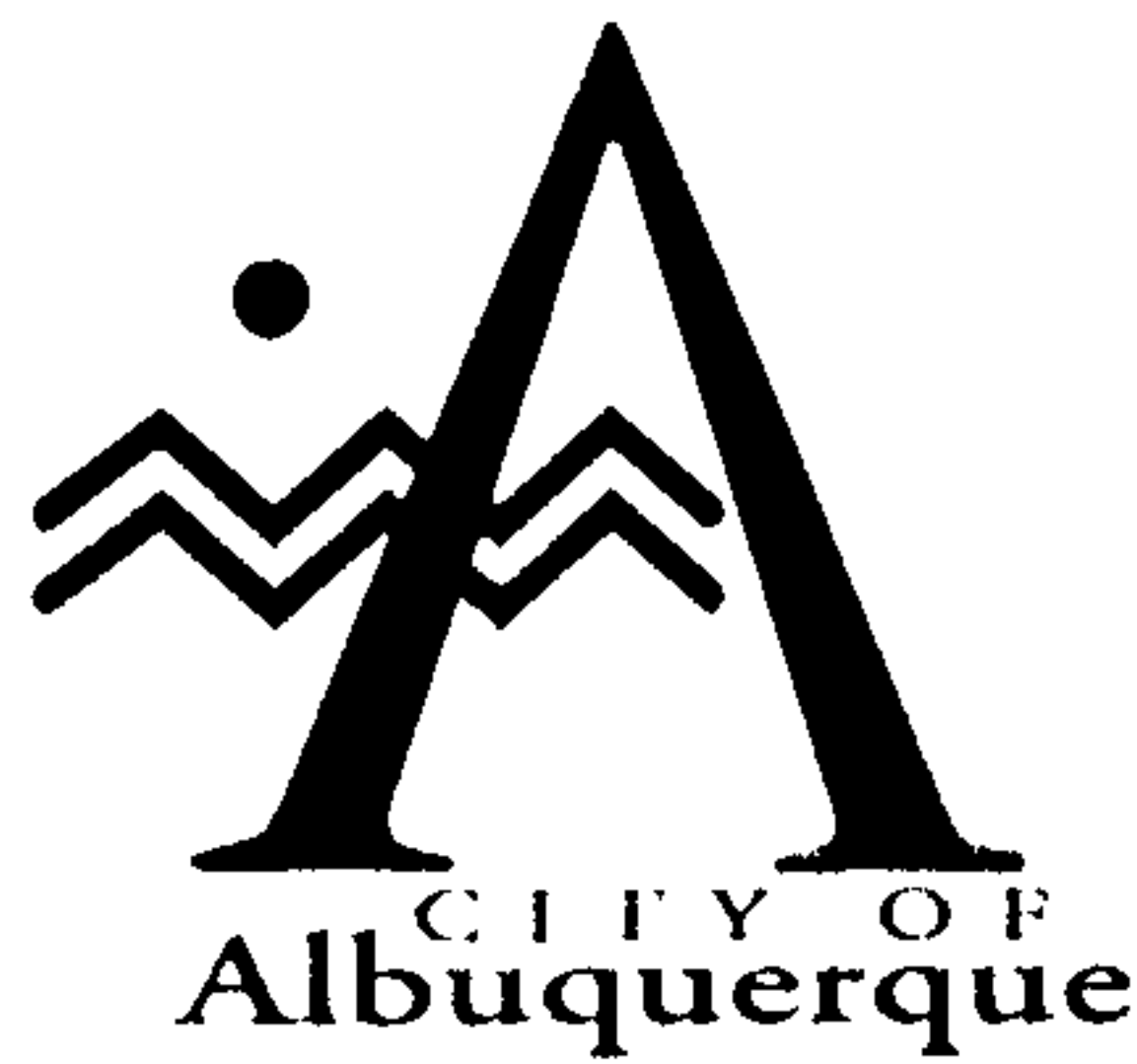
☒ YES
☐ NO
☐ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL
☐ PRELIMINARY PLAT APPROVAL
☒ S. DEV. PLAN FOR SUB'D. APPROVAL
☒ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☐ FOUNDATION PERMIT APPROVAL
☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY APPROVAL
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ S.A.D. DRAINAGE REPORT
☐ DRAINAGE REQUIREMENTS
☐ OTHER _____ (SPECIFY)

DATE SUBMITTED: 8.29.97
BY: Dennis A. Lorenz





Martin J. Chávez, Mayor

September 18, 1997

Dennis Lorenz
Brasher & Lorenz Inc.
2201 San Pedro NE Bldg.1 Suite 210
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR TEXAS LAND & CATTLE CO. (F17-D64) ENGINEER'S
STAMP DATED 8/28/97

Dear Mr. Lorenz:

Based on the information provided on your August 29, 1997 submittal, the above referenced site is approved for Site Development Plan For Subdivision and Site Development Plan for Building Permit.

Please be advised that prior to Preliminary Plat, Final Plat, and Building Permit approval, the following must be addressed:

1. Plat will need to make provisions for cross-lot-drainage. ✓
2. What is the 48" SD draining ? Who does it belong to and was it built to City Standards ?
3. Please identify in table form your results of your A-Hymo run for the flowrates and volumes.
4. What is the dimension of your proposed drainage easement for the existing 48" & 24" SD ?
5. Evaluate what the width of the easement will need to be for the proposed easement.
6. More spot elevations on the asphalt areas, and also indicate the slopes.

If I can be of further assistance, please feel free to contact me at 924.

C: Andrew Garcia

File

Sincerely

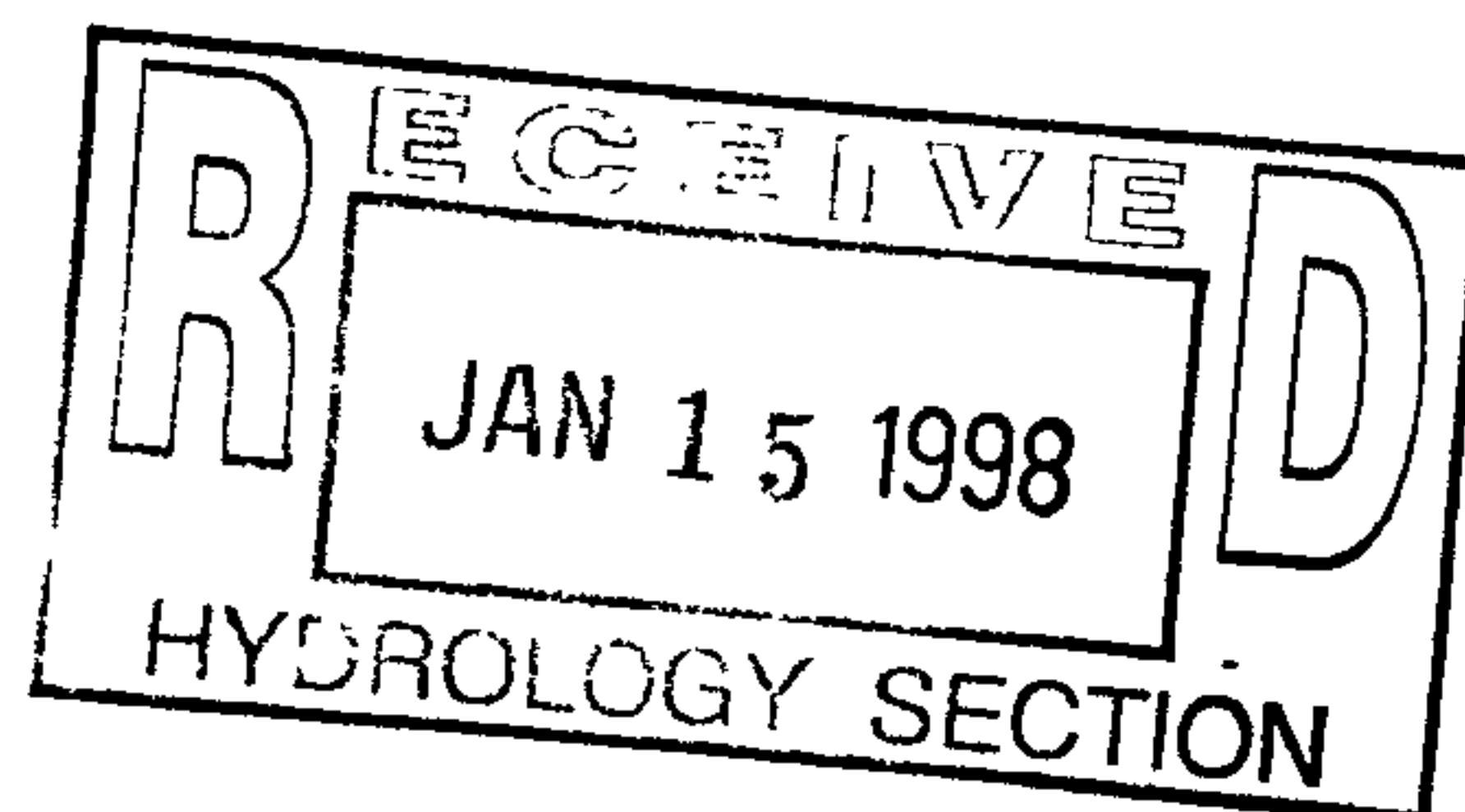
Bernie J. Montoya
Bernie J. Montoya CE
Associate Engineer

Good for You, Albuquerque!



CONCEPTUAL DRAINAGE REPORT
FOR
TEXAS LAND AND CATTLE COMPANY
STEAK HOUSE

Albuquerque, New Mexico



Prepared By:

BRASHER & LORENZ, INC.
Consulting Engineers
2201 San Pedro NE, Building No. 1, Suite 210
Albuquerque, New Mexico 87110

January 1998

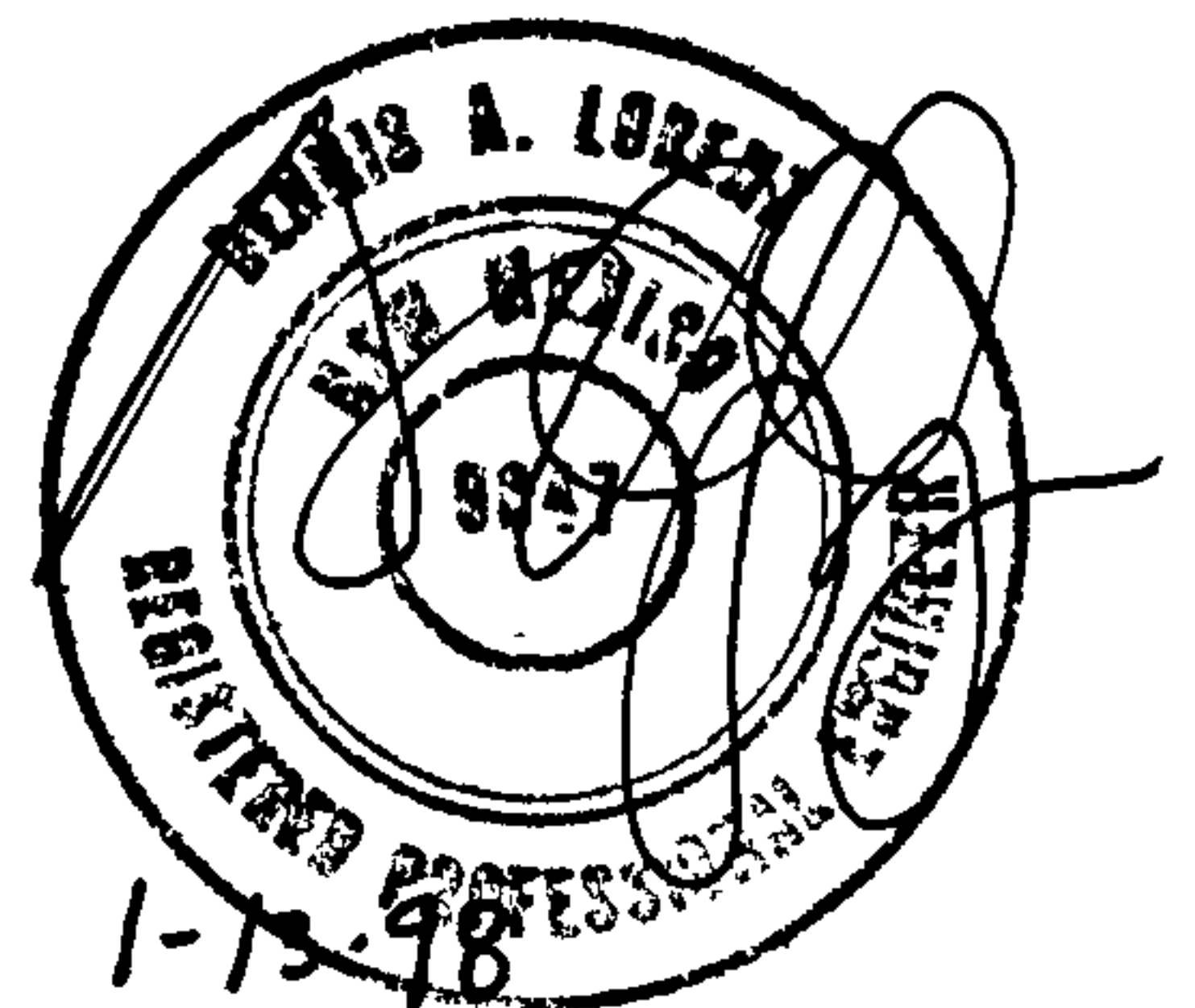


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GRADING AND DRAINAGE PLAN	POCKET

PURPOSE AND SCOPE

Pursuant to the established Drainage Ordinance for the City of Albuquerque and the Development Process Manual, this Conceptual Drainage Report outlines the drainage management criteria for controlling developed runoff from the project site. The property is to be developed into 2 restaurants and an office/retail building. Paving, landscaping, utility, grading, and drainage improvements will be provided to support the project. The scope of this plan is to provide conceptual drainage criteria for the safe management of excess runoff. The report is presented to obtain Site Development Plan approval by the Environmental Planning Commission.

SITE DESCRIPTION

The project site is approximately 3.69 acres in size and is located on Pan American Freeway NE, at Office Boulevard (See Figure 1). Presently the site is undeveloped. The site has been disturbed by construction activity on adjoining parcels. The site has been mulched to mitigate erosion. Site terrain slopes east to west at approximately 2 percent. The site is presently described as Tract A-1B, Cryer Property. The site is bounded on the southeast by Pan American Freeway NE, on the southwest by a private access drive to the Rio 24 Theater, on the northwest by the Rio 24 Theater, and on the northeast by Office Boulevard.

EXISTING CONDITIONS

The site presently drains southwesterly to an existing drop inlet located near the northwest property corner. The inlet was constructed by the theater for use by this site, and is connected to a 12' x 8' concrete box culvert that drains to the Vineyard channel. Off-site flows from the frontage road drain southerly through a series of culverts and eventually outfall at the North Diversion Channel. Minimal flows enter the site from Office Boulevard. No flows enter the site from the southwest or northwest.

As shown by the attached FIRM Panel (Figure 2) this site does not lie within a designated flood hazard zone.

SUMMARY OF EXISTING DRAINAGE PLANS

The **Drainage Plan for the Century Rio 24 Theaters**, prepared by Bohannon Houston, Inc., and the Vineyard Channel project constructed by AMAFCA, established the drainage management criteria for this site. The Vineyard Channel project constructed a concrete box culvert originating near the Jefferson/I-25 interchange, and extending south across Office Boulevard, through the theater site (just northwest of the project site), to a concrete lined section of the Vineyard Channel. Along with the project an existing 24 inch RCP storm drain originating at I-25 and extending through the project site (see Plan) was connected to the box culvert. As a part of a Temporary Construction Easement agreement with AMAFCA, the property was granted free discharge into the box culvert. A 36 inch stubout with a type "D" inlet was constructed by the theater for access by the project.

PROPOSED CONDITIONS

As shown by the Plan, the project consists of the development of the property into 2 restaurants and an office/retail building, with associated paving, utility landscaping and drainage improvements. The Plan shows the elevations required to properly grade and construct the recommended improvements. The direction of drainage flows are given by flow arrows and on-site drainage basins are identified.

On-site drainage basins

The site will discharge excess runoff into the existing drainage systems. On-site Basins A, B and C are to be routed overland to the existing inlet provided by the theater, and to proposed inlets and storm drains to be extended into the site.

Off-site drainage basins

Off-site Basin D will be routed southerly through a proposed 24 inch culvert to be placed at the frontage road access drive, and to an existing 24 inch culvert located at the existing access drive to the theater.

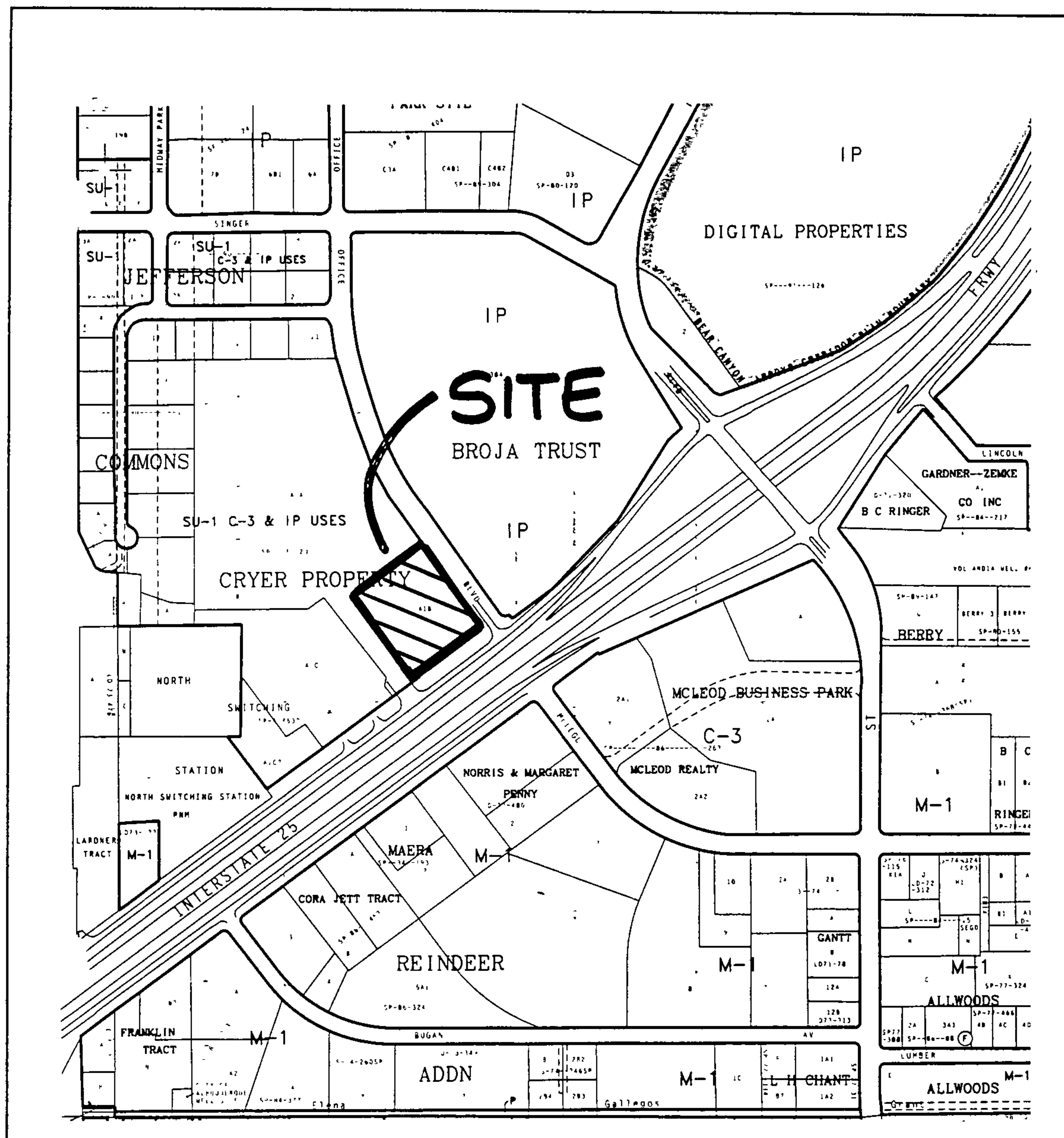
Office Boulevard will be further improved by constructing curb and gutter, sidewalks and street paving along the project frontage. Office Boulevard will drain to the northwest to existing downstream improvements.

PROJECT PHASING

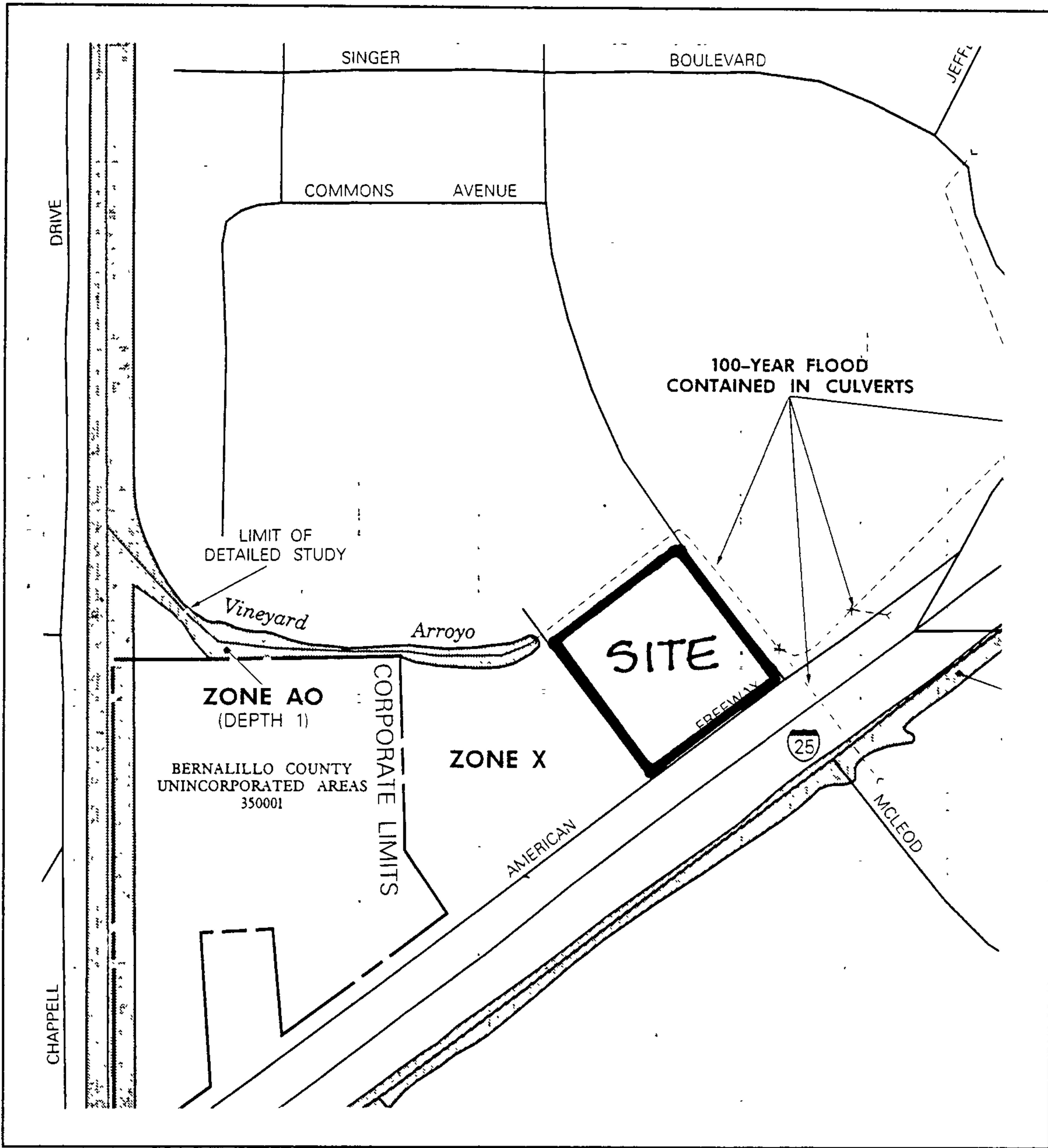
The project is to be constructed in 2 phases. Lot A will be constructed as Phase One; Lots B and C represent Phase Two. Phase One construction will extend the storm drain and construct a drop inlets on Lots A and B. Temporary curbing will be constructed along the phase boundary to control excess runoff and direct flows to the inlets.

TEMPORARY EROSION CONTROL PLAN

1. Temporary Erosion Control is required to limit the discharge of sediment into the public street and/or storm drainage system and to protect adjacent properties from excess runoff during construction. After the initial site clearing, the temporary erosion control facilities should be constructed to direct excess runoff and sediment to the outfall locations. Earthen erosion control berms or silt fencing should then be placed along the northeast, northwest and southwest project boundaries to direct runoff to the project outfall.
2. The Contractor shall obtain a Top Soil Disturbance Permit from Environmental Health prior to performing any earthwork related operations.
3. It is the Contractor's responsibility to properly maintain all temporary erosion control facilities during the construction phase of the project.



LOCATION MAP
Figure 1



FLOOD INSURANCE RATE MAP
Figure 2

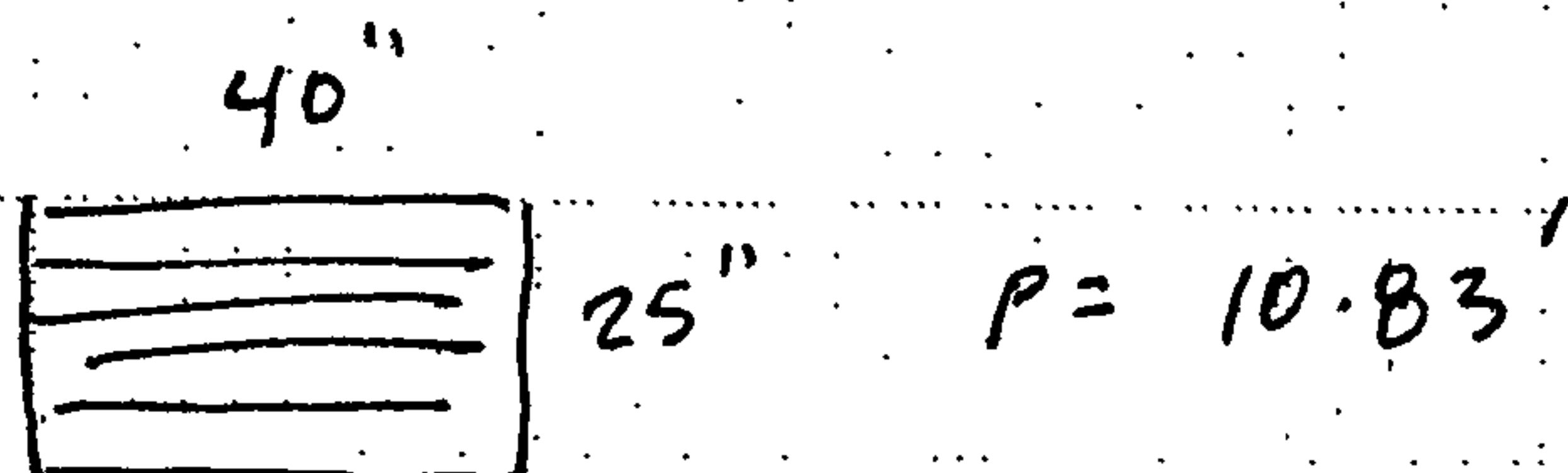
CALCULATIONS

INFRASTRUCTURE CAPACITIES

INFRASTRUCTURE CAPACITIES

(1) DROP INLETS

(A) TYPICAL SINGLE 'D' INLET



BY WEIR FOR SHALLOW DEPTHS.

$$Q = CLH^{3/2}$$

$$\text{LET } H = 4'' = 0.33'$$

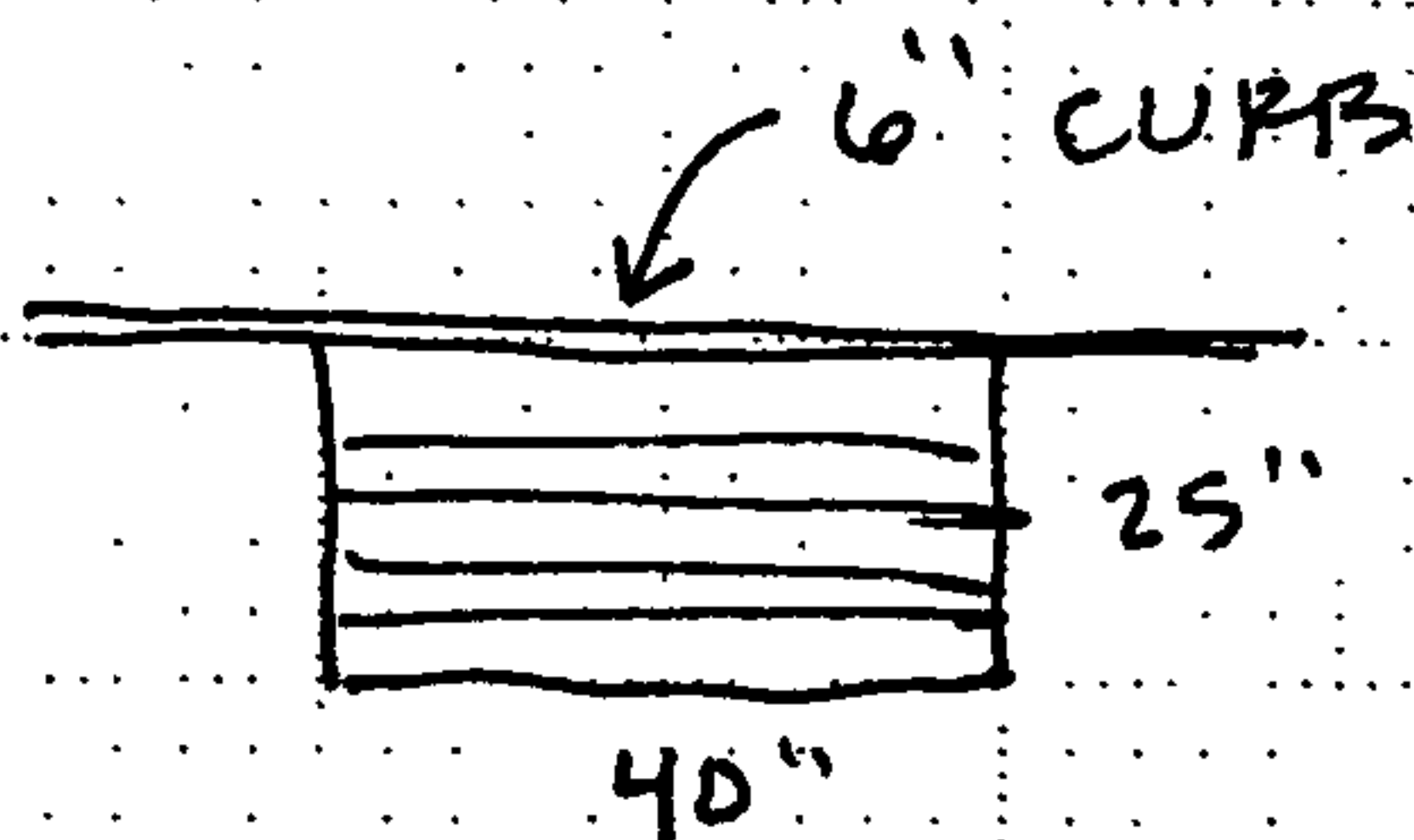
$$C = 2.50$$

$$L = P = 10.83$$

$$Q_{DI} = 5.13 \text{ CFS}$$

BASIN	Q ₁₀₀	No 'D' INLETS
A	2.8	1
B	2.3	2

(B) EXISTING SINGLE 'D' INLET @ CBC



$$P = 7.50'$$

BY WEIR:

$$L = P = 7.50'$$

$$C = 2.50$$

$$H = 0.71'$$

$$Q = 11.3 \text{ CFS}$$

(B) CONT..

WEIR DEPTH IS EXCESSIVE; CHECK
BY ORIFACE EQN:

GROSS GRATE AREA = 6.94 SF

NET OPEN AREA = 4.35 SF

FIND H OVER GRATE @ Q100

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

$$C = 0.6$$

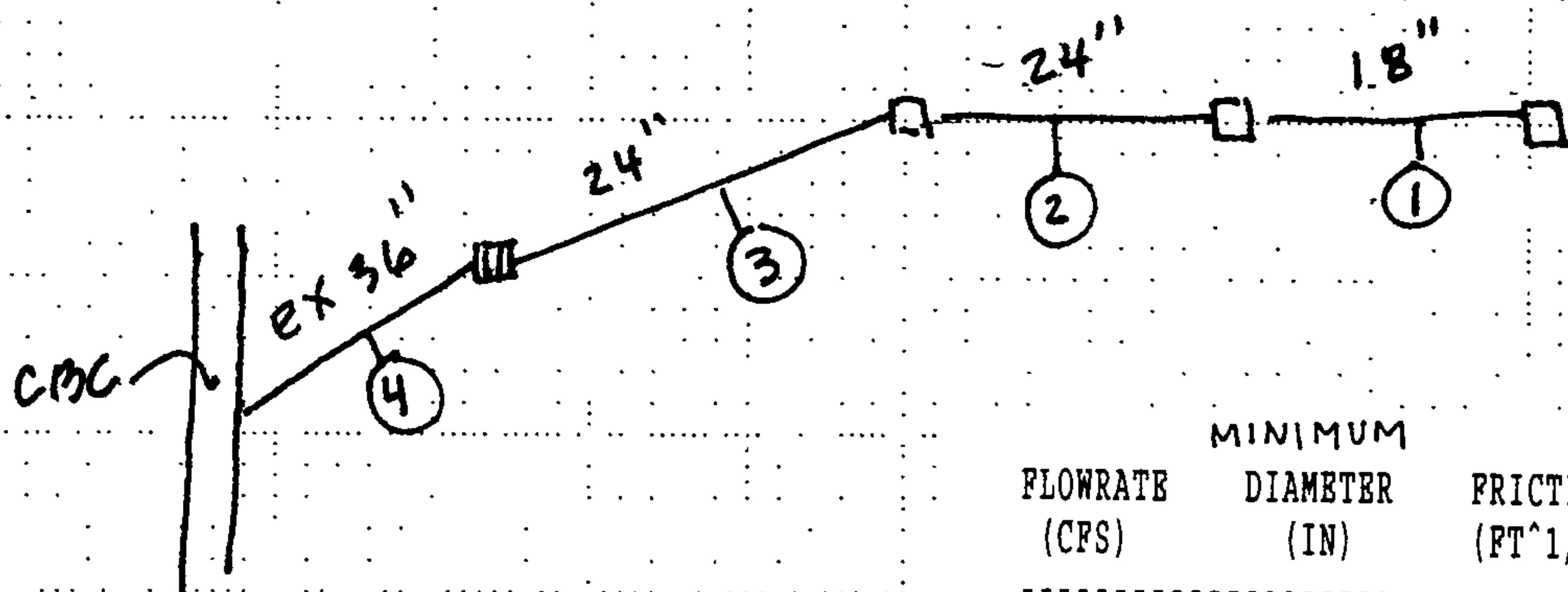
$$A = 4.35$$

$$g = 32.2$$

$$Q = 11.3 \text{ CFS}$$

$$\therefore H = 0.29' \quad \underline{\underline{OK}}$$

(2) PRIVATE STORM DRAIN



ALL PROPOSED SDs
EXCEED MINIMUM
DIAMETERS

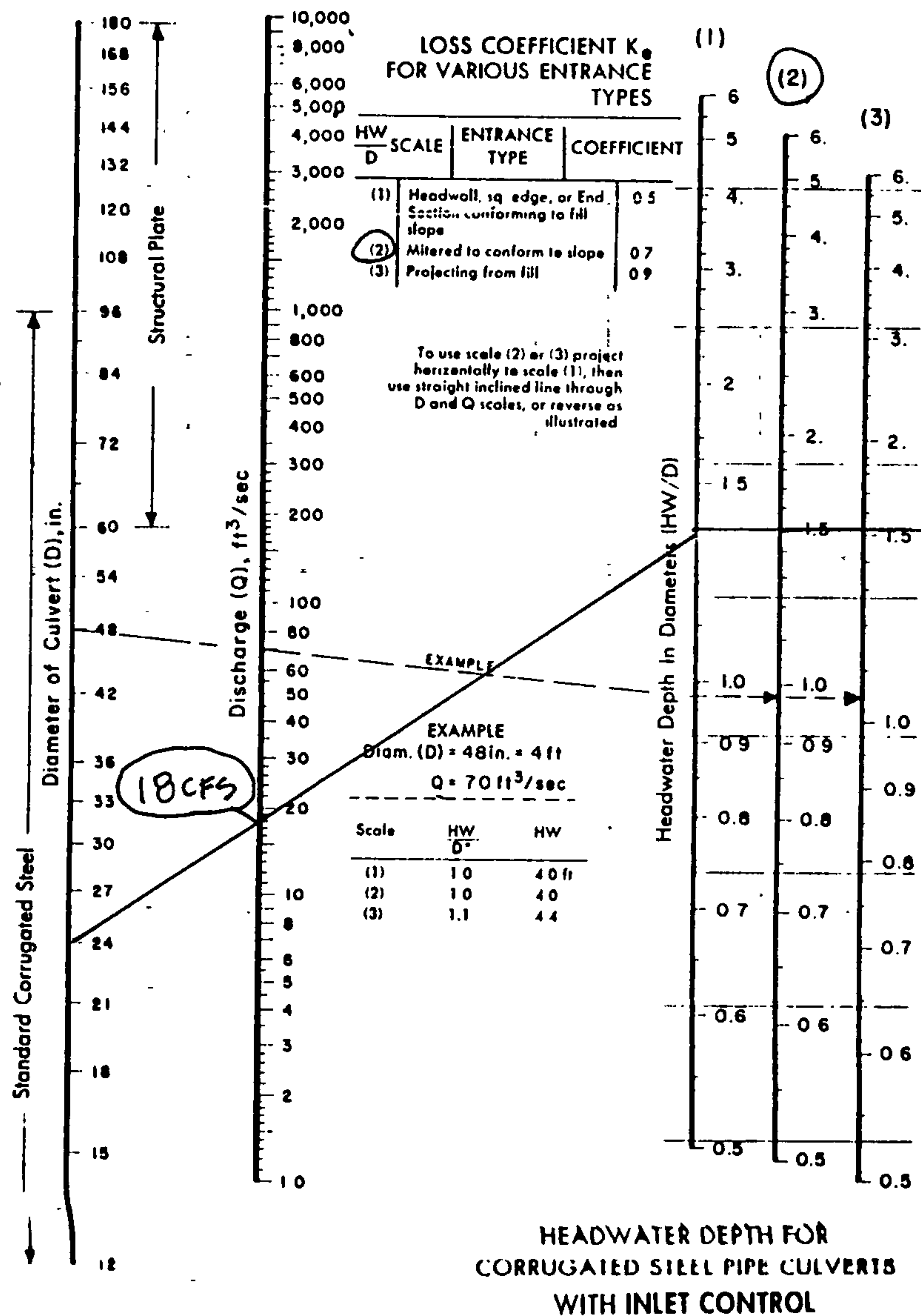
FLOWRATE (CFS)	MINIMUM DIAMETER (IN)	FRICTION (FT ^{1/6})	SLOPE (%)	VELOCITY (FPS)
2.80	10.96	0.0130	1.00	4.27
3.95	12.47	0.0130	1.00	4.65
5.10	13.73	0.0130	1.00	4.96
16.40	21.27	0.0130	1.00	6.64

3. CULVERT AT FRONTAGE ROAD
ACCESS DRIVE (BASIN 'D')

$Q_{100} = 2.9$ cfs

$D = 24"$

$HW/D = 1.5$



FHWA HEC 5

Figure 4-28 Inlet control nomograph for corrugated steel pipe culverts. The manufacturers recommended keeping HW/D to a maximum of 1.5 and preferably to no more than 1.0.

AHYMO OUTPUT FILES

* TEXAS LAND & CATTLE

* ON-SITE HYDROLOGY

START TIME=0.0 PUNCH CODE=0
RAINFALL TYPE=1 RAIN QUARTER=0.0 RAIN ONE=2.01
RAIN SIX=2.35 RAIN DAY=2.75 DT=0.03333 HRS

* EXISTING SITE

COMPUTE NM HYD ID=1 HYD NO=EX.SITE DA= 0.005766 SQ MI
PER A=100 PER B=0 PER C=0 PER D=0
TP=0.1333 HR MASS RAIN=-1

* DEVELOPED SITE

COMPUTE NM HYD ID=2 HYD NO=DEV.SITE DA=0.005766 SQ MI
PER A=0 PER B=7 PER C=8 PER D=85
TP=0.1333 HR MASS RAIN=-1

* DEVELOPED BASIN "A"

COMPUTE NM HYD ID=3 HYD NO=DEV.A DA=0.000973 SQ MI
PER A=0 PER B=7 PER C=8 PER D=85
TP=0.1333 HR MASS RAIN=-1

* DEVELOPED BASIN "B"

COMPUTE NM HYD ID=4 HYD NO=DEV.B DA=0.000795 SQ MI
PER A=0 PER B=7 PER C=8 PER D=85
TP=0.1333 HR MASS RAIN=-1

* DEVELOPED BASIN "C"

COMPUTE NM HYD ID=5 HYD NO=DEV.C DA=0.00400 SQ MI
PER A=0 PER B=7 PER C=8 PER D=85
TP=0.1333 HR MASS RAIN=-1

* DEVELOPED BASIN "D"

COMPUTE NM HYD ID=6 HYD NO=DEV.D DA=0.001172 SQ MI
PER A=0 PER B=20 PER C=20 PER D=60
TP=0.1333 HR MASS RAIN=-1

PRINT HYD ID=1 CODE=5

PRINT HYD ID=2 CODE=5

PRINT HYD ID=3 CODE=5

PRINT HYD ID=4 CODE=5

PRINT HYD ID=5 CODE=5

PRINT HYD ID=6 CODE=5

FINISH

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
INPUT FILE = 7040-C.DAT

RUN DATE (MON/DAY/YR) =01/13/1998
USER NO.= BRASHERE.I01

		FROM	TO		PEAK	RUNOFF		TIME TO	CFS	PAGE = 1
HYDROGRAPH		ID	ID	AREA	DISCHARGE	VOLUME	RUNOFF	PEAK	PER	
COMMAND	IDENTIFICATION	NO.	NO.	(SQ MI)	(CFS)	(AC-FT)	(INCHES)	(HOURS)	ACRE	NOTATION
START										TIME= .00
RAINFALL TYPE= 1										RAIN6= 2.350
COMPUTE NM HYD	EX.SITE	-	1	.00577	5.75	.163	.53121	1.533	1.558	PER IMP= .00
COMPUTE NM HYD	DEV.SITE	-	2	.00577	16.26	.597	1.94031	1.500	4.407	PER IMP= 85.00
COMPUTE NM HYD	DEV.A	-	3	.00097	2.76	.101	1.94031	1.500	4.430	PER IMP= 85.00
COMPUTE NM HYD	DEV.B	-	4	.00080	2.26	.082	1.94031	1.500	4.438	PER IMP= 85.00
COMPUTE NM HYD	DEV.C	-	5	.00400	11.29	.414	1.94031	1.500	4.409	PER IMP= 85.00
COMPUTE NM HYD	DEV.D	-	6	.00117	2.94	.103	1.64388	1.500	3.920	PER IMP= 60.00
FINISH										

AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
RUN DATE (MON/DAY/YR) = 01/13/1998
START TIME (HR:MIN:SEC) = 12:36:10 USER NO.= BRASHERE.I01
INPUT FILE = 7040-C.DAT

* TEXAS LAND & CATTLE
* ON-SITE HYDROLOGY

START TIME=0.0 PUNCH CODE=0
RAINFALL TYPE=1 RAIN QUARTER=0.0 RAIN ONE=2.01
RAIN SIX=2.35 RAIN DAY=2.75 DT=0.03333 HRS

COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 HR.

DT =	.033330 HOURS	END TIME =	5.999400 HOURS
.0000	.0016	.0033	.0049
.0066	.0084	.0102	.0120
.0139	.0158	.0178	.0199
.0219	.0241	.0263	.0286
.0309	.0333	.0358	.0384
.0411	.0439	.0467	.0497
.0529	.0561	.0596	.0631
.0669	.0709	.0751	.0807
.0866	.0930	.1066	.1371
.1840	.2514	.3434	.4644
.6186	.8106	1.0449	1.2624
1.3533	1.4300	1.4982	1.5602
1.6174	1.6704	1.7200	1.7664
1.8102	1.8514	1.8904	1.9273
1.9622	1.9953	2.0268	2.0566
2.0850	2.0915	2.0976	2.1033
2.1088	2.1140	2.1191	2.1239
2.1285	2.1329	2.1373	2.1414
2.1454	2.1494	2.1531	2.1568
2.1604	2.1639	2.1673	2.1706
2.1739	2.1771	2.1802	2.1832
2.1862	2.1891	2.1919	2.1947
2.1975	2.2002	2.2028	2.2054
2.2080	2.2105	2.2130	2.2154
2.2178	2.2202	2.2225	2.2248
2.2270	2.2293	2.2315	2.2336
2.2358	2.2379	2.2399	2.2420
2.2440	2.2460	2.2480	2.2500
2.2519	2.2538	2.2557	2.2576
2.2594	2.2612	2.2631	2.2648
2.2666	2.2684	2.2701	2.2718
2.2735	2.2752	2.2769	2.2785
2.2802	2.2818	2.2834	2.2850
2.2866	2.2881	2.2897	2.2912
2.2928	2.2943	2.2958	2.2973
2.2987	2.3002	2.3017	2.3031
2.3045	2.3060	2.3074	2.3088
2.3102	2.3115	2.3129	2.3143
2.3156	2.3169	2.3183	2.3196
2.3209	2.3222	2.3235	2.3248
2.3261	2.3273	2.3286	2.3298
2.3311	2.3323	2.3335	2.3348
2.3360	2.3372	2.3384	2.3396
2.3408	2.3419	2.3431	2.3443
2.3454	2.3466	2.3477	2.3488
2.3500			

* EXISTING SITE

COMPUTE NM HYD ID=1 HYD NO=EX.SITE DA= 0.005766 SQ MI
PER A=100 PER B=0 PER C=0 PER D=0
TP=0.1333 HR MASS RAIN=-1

K = .160154HR TP = .133300HR K/TP RATIO = 1.201459 SHAPE CONSTANT, N = 2.957910
UNIT PEAK = 12.041 CFS UNIT VOLUME = .9985 B = 278.37 P60 = 2.0100
AREA = .005766 SQ MI IA = .65000 INCHES INF = 1.67000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* DEVELOPED SITE

COMPUTE NM HYD ID=2 HYD NO=DEV.SITE DA=0.005766 SQ MI
PER A=0 PER B=7 PER C=8 PER D=85
TP=0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 19.350 CFS UNIT VOLUME = .9988 B = 526.28 P60 = 2.0100

AREA = .004901 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .118945HR TP = .133300HR K/TP RATIO = .892314 SHAPE CONSTANT, N = 3.973983
UNIT PEAK = 2.2932 CFS UNIT VOLUME = .9947 B = 353.43 P60 = 2.0100
AREA = .000865 SQ MI IA = .42000 INCHES INF = 1.02600 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* DEVELOPED BASIN "A"

COMPUTE NM HYD ID=3 HYD NO=DEV.A DA=0.000973 SQ MI
PER A=0 PER B=7 PER C=8 PER D=85
TP=0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 3.2652 CFS UNIT VOLUME = .9961 B = 526.28 P60 = 2.0100
AREA = .000827 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .118945HR TP = .133300HR K/TP RATIO = .892314 SHAPE CONSTANT, N = 3.973983
UNIT PEAK = .38697 CFS UNIT VOLUME = .9667 B = 353.43 P60 = 2.0100
AREA = .000146 SQ MI IA = .42000 INCHES INF = 1.02600 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* DEVELOPED BASIN "B"

COMPUTE NM HYD ID=4 HYD NO=DEV.B DA=0.000795 SQ MI
PER A=0 PER B=7 PER C=8 PER D=85
TP=0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 2.6679 CFS UNIT VOLUME = .9949 B = 526.28 P60 = 2.0100
AREA = .000676 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .118945HR TP = .133300HR K/TP RATIO = .892314 SHAPE CONSTANT, N = 3.973983
UNIT PEAK = .31618 CFS UNIT VOLUME = .9597 B = 353.43 P60 = 2.0100
AREA = .000119 SQ MI IA = .42000 INCHES INF = 1.02600 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* DEVELOPED BASIN "C"

COMPUTE NM HYD ID=5 HYD NO=DEV.C DA=0.00400 SQ MI
PER A=0 PER B=7 PER C=8 PER D=85
TP=0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 13.423 CFS UNIT VOLUME = .9985 B = 526.28 P60 = 2.0100
AREA = .003400 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .118945HR TP = .133300HR K/TP RATIO = .892314 SHAPE CONSTANT, N = 3.973983
UNIT PEAK = 1.5908 CFS UNIT VOLUME = .9921 B = 353.43 P60 = 2.0100
AREA = .000600 SQ MI IA = .42000 INCHES INF = 1.02600 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

* DEVELOPED BASIN "D"

COMPUTE NM HYD ID=6 HYD NO=DEV.B DA=0.001172 SQ MI
PER A=0 PER B=20 PER C=20 PER D=60

TP=0.1333 HR MASS RAIN=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000 SHAPE CONSTANT, N = 7.106420
UNIT PEAK = 2.7763 CFS UNIT VOLUME = .9955 B = 526.28 P60 = 2.0100
AREA = .000703 SQ MI IA = .10000 INCHES INF = .04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

K = .119767HR TP = .133300HR K/TP RATIO = .898476 SHAPE CONSTANT, N = 3.944947
UNIT PEAK = 1.2361 CFS UNIT VOLUME = .9892 B = 351.48 P60 = 2.0100
AREA = .000469 SQ MI IA = .42500 INCHES INF = 1.04000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033330

PRINT HYD ID=1 CODE=5

HYDROGRAPH FROM AREA EX.SITE

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.000	.0	2.000	.5	3.000	.1	4.000	.0
.167	.0	1.167	.0	2.166	.4	3.166	.0	4.166	.0
.333	.0	1.333	.0	2.333	.3	3.333	.0		
.500	.0	1.500	5.6	2.500	.2	3.500	.0		
.667	.0	1.667	3.3	2.666	.1	3.666	.0		
.833	.0	1.833	1.2	2.833	.1	3.833	.0		

RUNOFF VOLUME = .53121 INCHES = .1634 ACRE-FEET
PEAK DISCHARGE RATE = 5.75 CFS AT 1.533 HOURS BASIN AREA = .0058 SQ. MI.

PRINT HYD ID=2 CODE=5

HYDROGRAPH FROM AREA DEV.SITE

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.500	16.3	3.000	.2	4.500	.1	5.999	.1
.167	.0	1.667	8.3	3.166	.1	4.666	.1	6.166	.0
.333	.0	1.833	5.3	3.333	.1	4.833	.1	6.333	.0
.500	.0	2.000	3.8	3.500	.1	4.999	.1	6.499	.0
.667	.0	2.166	1.7	3.666	.1	5.166	.1	6.666	.0
.833	.0	2.333	.8	3.833	.1	5.333	.1	6.833	.0
1.000	.0	2.500	.5	4.000	.1	5.499	.1		
1.167	.0	2.666	.3	4.166	.1	5.666	.1		
1.333	4.6	2.833	.2	4.333	.1	5.833	.1		

RUNOFF VOLUME = 1.94031 INCHES = .5967 ACRE-FEET
PEAK DISCHARGE RATE = 16.26 CFS AT 1.500 HOURS BASIN AREA = .0058 SQ. MI.

PRINT HYD ID=3 CODE=5

HYDROGRAPH FROM AREA DEV.A

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.333	.8	2.666	.0	4.000	.0	5.333	.0
.167	.0	1.500	2.8	2.833	.0	4.166	.0	5.499	.0

.333	.0	1.667	1.4	3.000	.0	4.333	.0	5.666	.0
.500	.0	1.833	.9	3.166	.0	4.500	.0	5.833	.0
.667	.0	2.000	.7	3.333	.0	4.666	.0	5.999	.0
.833	.0	2.166	.3	3.500	.0	4.833	.0	6.166	.0
1.000	.0	2.333	.1	3.666	.0	4.999	.0	6.333	.0
1.167	.0	2.500	.1	3.833	.0	5.166	.0		

RUNOFF VOLUME = 1.94031 INCHES = .1007 ACRE-FEET
 PEAK DISCHARGE RATE = 2.76 CFS AT 1.500 HOURS BASIN AREA = .0010 SQ. MI.

PRINT HYD ID=4 CODE=5

HYDROGRAPH FROM AREA DEV.B

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.333	.6	2.666	.0	4.000	.0	5.333	.0
.167	.0	1.500	2.3	2.833	.0	4.166	.0	5.499	.0
.333	.0	1.667	1.2	3.000	.0	4.333	.0	5.666	.0
.500	.0	1.833	.7	3.166	.0	4.500	.0	5.833	.0
.667	.0	2.000	.5	3.333	.0	4.666	.0	5.999	.0
.833	.0	2.166	.2	3.500	.0	4.833	.0	6.166	.0
1.000	.0	2.333	.1	3.666	.0	4.999	.0	6.333	.0
1.167	.0	2.500	.1	3.833	.0	5.166	.0		

RUNOFF VOLUME = 1.94031 INCHES = .0823 ACRE-FEET
 PEAK DISCHARGE RATE = 2.26 CFS AT 1.500 HOURS BASIN AREA = .0008 SQ. MI.

PRINT HYD ID=5 CODE=5

HYDROGRAPH FROM AREA DEV.C

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.500	11.3	3.000	.1	4.500	.1	5.999	.1
.167	.0	1.667	5.8	3.166	.1	4.666	.1	6.166	.0
.333	.0	1.833	3.7	3.333	.1	4.833	.1	6.333	.0
.500	.0	2.000	2.7	3.500	.1	4.999	.1	6.499	.0
.667	.0	2.166	1.2	3.666	.1	5.166	.1	6.666	.0
.833	.0	2.333	.6	3.833	.1	5.333	.1		
1.000	.0	2.500	.4	4.000	.1	5.499	.1		
1.167	.0	2.666	.2	4.166	.1	5.666	.1		
1.333	3.2	2.833	.2	4.333	.1	5.833	.1		

RUNOFF VOLUME = 1.94031 INCHES = .4139 ACRE-FEET
 PEAK DISCHARGE RATE = 11.29 CFS AT 1.500 HOURS BASIN AREA = .0040 SQ. MI.

PRINT HYD ID=6 CODE=5

HYDROGRAPH FROM AREA DEV.D

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.333	.7	2.666	.1	4.000	.0	5.333	.0

.167	.0	1.500	2.9	2.833	.0	4.166	.0	5.499	.0
.333	.0	1.667	1.5	3.000	.0	4.333	.0	5.666	.0
.500	.0	1.833	.9	3.166	.0	4.500	.0	5.833	.0
.667	.0	2.000	.6	3.333	.0	4.666	.0	5.999	.0
.833	.0	2.166	.3	3.500	.0	4.833	.0	6.166	.0
1.000	.0	2.333	.1	3.666	.0	4.999	.0	6.333	.0
1.167	.0	2.500	.1	3.833	.0	5.166	.0		

RUNOFF VOLUME = 1.64388 INCHES = .1028 ACRE-FEET
 PEAK DISCHARGE RATE = 2.94 CFS AT 1.500 HOURS BASIN AREA = .0012 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 12:36:12

APPENDIX

front of the drop structure to the North Diversion Channel. Flows from this basin approximate 50.1 cfs in the 100-year design storm event.

Offsite flows are minor. No flows impact the site along its north boundary with the existing developed industrial park and Office Blvd. Office Blvd. itself forms a diversion which diverts upstream flows along its north edge to the existing 54" culvert inlet to the AMAFCA box culvert. On the west boundary of the site, offsite flows drain away from the site, in a westerly direction to other existing drainage facilities. Flows from the vacant Tract A-1B drain approximately 7.1 cfs to the existing inlet described above.

FEMA floodplains occur only on the Vineyard Arroyo, located on the southeast portion of the property and are confined to the existing channel. Previous AMAFCA reports for the Vineyard Arroyo (as described in the report prepared for the box culvert construction) approximate 1,250 cfs.

The Vineyard Arroyo reach on the southeast property line of the site, is a largely unimproved channel reach. It is currently lined with dumped, non-engineered rip rap and in its uppermost reach, includes some grouted rip rap channel lining. Most of this reach shows significant states of disrepair. This reach lies completely outside the theater site boundaries. The current plat of the property on which the arroyo lies does not identify an easement.

PROPOSED CONDITIONS

Under proposed conditions, the site itself is separated into three proposed basins. Basin A occurs in the north section of the site and generates 26.2 cfs in the 100-year design storm event. Basin B occurs in the west portion of the site and generates 7.7 cfs. Basin C occurs in the south portion of the site and generates 49.3 cfs. These flows are drained in a surface flow manner to a proposed storm drain system located immediately west of the building structure. The flows of Basins A, B and C are collected in a series of inlets (at AP-1, AP-2 and AP-3, respectively), which then drain to a discharge point located in the southern most tip of the site. At this point, flows are discharged directly into the AMAFCA inlet to the North Diversion Channel. Accordingly, total flows generated onsite are approximately 83.

The offsite flow of Tract A-1B will not contribute to flows onsite. Although the property is currently vacant, developed conditions of approximately 85% impervious surface and 15% landscaping were assumed for this offsite-basin. This basin, in its developed condition, will generate approximately 16 cfs and discharge it to the existing 36" X 24" WYE (currently stubbed out) connected to the concrete box culvert. The WYE will need to be extended so that these flows can be collected on Tract A-1B via Type "D" inlet to be constructed.

Channel improvements along the unimproved portion of Vineyard Arroyo may be required. Although the arroyo does not currently show signs of substantial erosion or meander, and therefore not suggesting imminent harm to life and property, it is obvious that the extension of channel improvements along this reach is a requirement at some point in time. AMAFCA has planned improvements to this reach of arroyo in its long range capital improvements plan, however, this does not coincide with the current development timeframe of the theater complex. Accordingly, discussions between AMAFCA, City of Albuquerque and the site owner will be required to determine a plan and timeframe for this reach of arroyo.

CONCLUSION

With the drainage management plan described above and the calculations provided herein, we are requesting conceptual drainage/grading plan approval for the purposes of site development plan approval. We believe the information presented herein to be sufficient for that request.

Basin A: Proposed Conditions $Q(100) = 5.05(6.0415ac)[0.45(0.15) + 0.93(0.85)] = 26.2$ cfs
Basin B: Proposed Conditions $Q(100) = 5.05(1.7795ac)[0.45(0.15) + 0.93(0.85)] = 7.7$ cfs
Basin C: Proposed Conditions $Q(100) = 5.05(11.3666ac)[0.45(0.15) + 0.93(0.85)] = 49.3$ cfs

BASIN	AREA (AC)
A	6.0415
B	1.7795
C	11.3666

PR-----
EXCERPT FROM DRAINAGE
REPORT FOR RIO 24 THEATER

Parcel _____
ZAP _____
File: _____
PC Date _____

**TEMPORARY CONSTRUCTION LICENSE AGREEMENT
VINEYARD ARROYO IMPROVEMENTS WITHIN
CRYER PROPERTY, TRACT A-1B**

WHEREAS, Sage Investments No. 1 (SAGE) is the owner of Tract A-1B of the lands of Cryer, a subdivision in the City of Albuquerque, New Mexico as the same is shown and designated on the "Replat of Cryer Property" filed in the office of the County Clerk of Bernalillo County, New Mexico in Volume D7, Folio 163 on the 19th day of April, 1977; and

WHEREAS, the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) intends to construct an underground storm drainage facility and related appurtenances (PROJECT) on property adjacent to SAGE, in a permanent easement granted by others; and

WHEREAS, construction of the PROJECT will be more efficient if AMAFCA's contractor can use the northwesternmost 50 feet of the SAGE property, as shown on Exhibit A (Temporary Construction Easement); and

WHEREAS, AMAFCA will be the contracting agency for PROJECT; and

WHEREAS, PROJECT will benefit the lands of SAGE and will protect such land from damages from flooding, will eliminate an open arroyo, and will allow free discharge of stormwater from the SAGE property, via a storm sewer stub-out to the SAGE property line.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged;

1. SAGE hereby grants to AMAFCA a temporary construction license to use lands of SAGE to complete the PROJECT. This license consists of the Temporary Construction Easement area as shown on Exhibit A.

a. The Temporary Construction Easement shown on Exhibit A is to be used for construction access, temporary materials storage, and temporary drainage channels to facilitate a dry area during the construction of said PROJECT.

b. Said PROJECT shall be constructed in substantial conformance with the AMAFCA Specifications and Contract Documents for the Vineyard Channel, West of I-25, which are incorporated herein by reference.

c. This license shall expire upon completion and acceptance of PROJECT by AMAFCA. After completion of PROJECT, but prior to acceptance, AMAFCA will notify SAGE and SAGE will be given opportunity to inspect the completed PROJECT and Temporary Construction Easement prior to termination of this license.

2. AMAFCA agrees to not allow the disposal of excess construction material, concrete or other material that is not indigenous to the SAGE property on the SAGE property. Any temporary excavations will be returned to natural grade of the surrounding terrain and entire Temporary Construction Easement will be reseeded with native grasses. Existing piles of debris and rubble in the Temporary Construction Easement will be removed by AMAFCA's contractor.

3. SAGE will be allowed to connect to the storm sewer stub-out for free discharge of all site drainage without any requirement for on-site ponding and without payment of any fees for utilizing such drainage, in accordance with an approved grading and drainage plan for the SAGE property, to be completed as required for development of the SAGE property in the future.

4. AMAFCA agrees to hold harmless, defend and indemnify SAGE, and its officers, agents, employees from all claims for property damage, personal injury, and or wrongful death arising from or connected with the performance of this license agreement and/or the PROJECT. Pursuant to Section 56-7-1 NMSA 1978, this agreement to indemnify shall not extend to liability, claims, damages, losses or expenses, including attorney fees, arising out of:

a. the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications by the indemnitee, or the agents or employees of the indemnitee; or

b. the giving of or the failure to give directions or instructions by the indemnitee, or the agents or employees of the indemnitee, where such giving or failure to give directions or instructions is the primary cause of bodily injury to persons or damage to property.

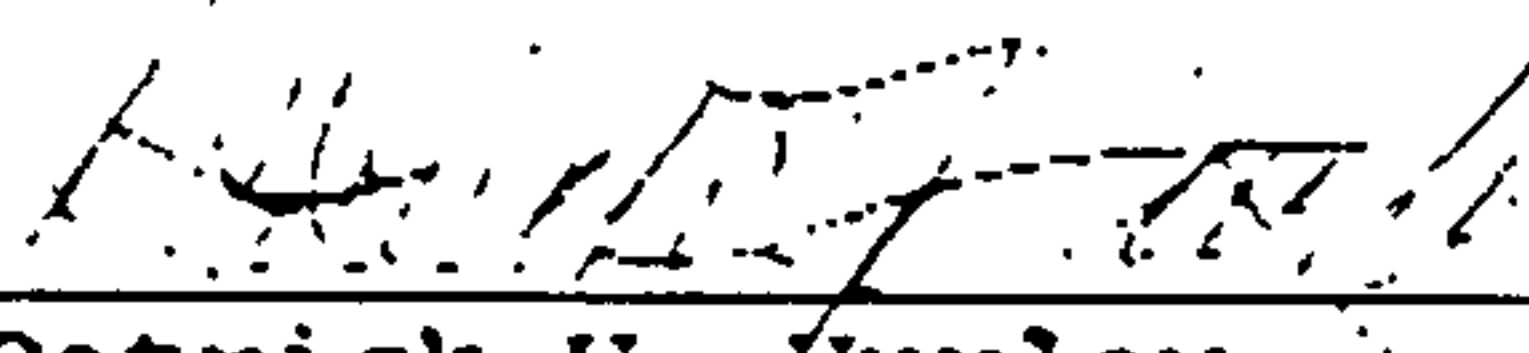
The work "indemnify" as used in this section includes, without limitation, an agreement to remedy damage or loss caused in whole or in part by the negligence, act, or omission of the indemnitee, the agents or employees of the indemnitee, or any legal entity for whose negligence, acts or omissions any of the foregoing may be liable.

6. Both AMAFCA and SAGE agree to maintain timeliness in all communications and agree to work promptly to resolve any circumstances not included in this license agreement.

LICENSOR:

Sage Investments No. 1

By:


Patrick W. Hurley
General Partner

Date: Jan 22, 1993

LICENSEE:

Albuquerque Metropolitan Arroyo
Flood Control Authority

By:


Larry A. Blair
Executive Engineer

Date: Jan 22, 1993

EXHIBIT 'A'

ALBUQUERQUE METROPOLITAN FLOOD CONTROL AUTHORITY

ALBUQUERQUE, NEW MEXICO

•• SEE ATTACHED DESCRIPTION ••

CERTIFICATE OF SURVEY

I, THOMAS H. WAGNER, NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR NO. 3517, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED UNDER MY SUPERVISION FROM ACTUAL FIELD SURVEYS PERFORMED FROM AUGUST, 1992, THROUGH NOVEMBER, 1992, AND IS TO THE BEST OF MY KNOWLEDGE AND BELIEF, CORRECT, AND CONFORMS TO THE MINIMUM REQUIREMENTS OF THE STANDARDS FOR LAND SURVEYS IN NEW MEXICO, AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND PROFESSIONAL SURVEYORS.

Thomas H. Wagon 12/7/92

THOMAS H. WAGNER, P.S. 3517

DATE _____



TRACT A
LANDS OF BROJA TRUST



SCALE: 1" = 100'

TRACT A-1A

(Recorded April 19, 1977
in Volume 07, Folio 163)
Replat of CRYER PROPERTY

•TIE
•MAFCA brass
tablet stamped
"NOC 1A2"
New Mexico State
Plane Coordinates
(Central Zone)
Y=1,508,760.18
X=393,926.83
Ground to Grid Factor=.9996689
Delta = -0 12' 15"

TRACT A-1-C-1

(Replot of Tract A-1-C of
CRYER PROPERTY, Filed August
28, 1979 in Volume B16, Folio 186)

TRACT A-18

(Recorded April 19, 1977
in Volume D7,Folio 163)
Replat of CRYER PROPERTY

Found #5 rebar
(No Caps)

NOTE:

1. BEARINGS ARE NEW MEXICO STATE PLANE GRID BEARINGS. DISTANCES SHOWN ARE GROUND DISTANCES.
2. COURSES SHOWN IN PARENTHESIS ARE RECORD COURSES.

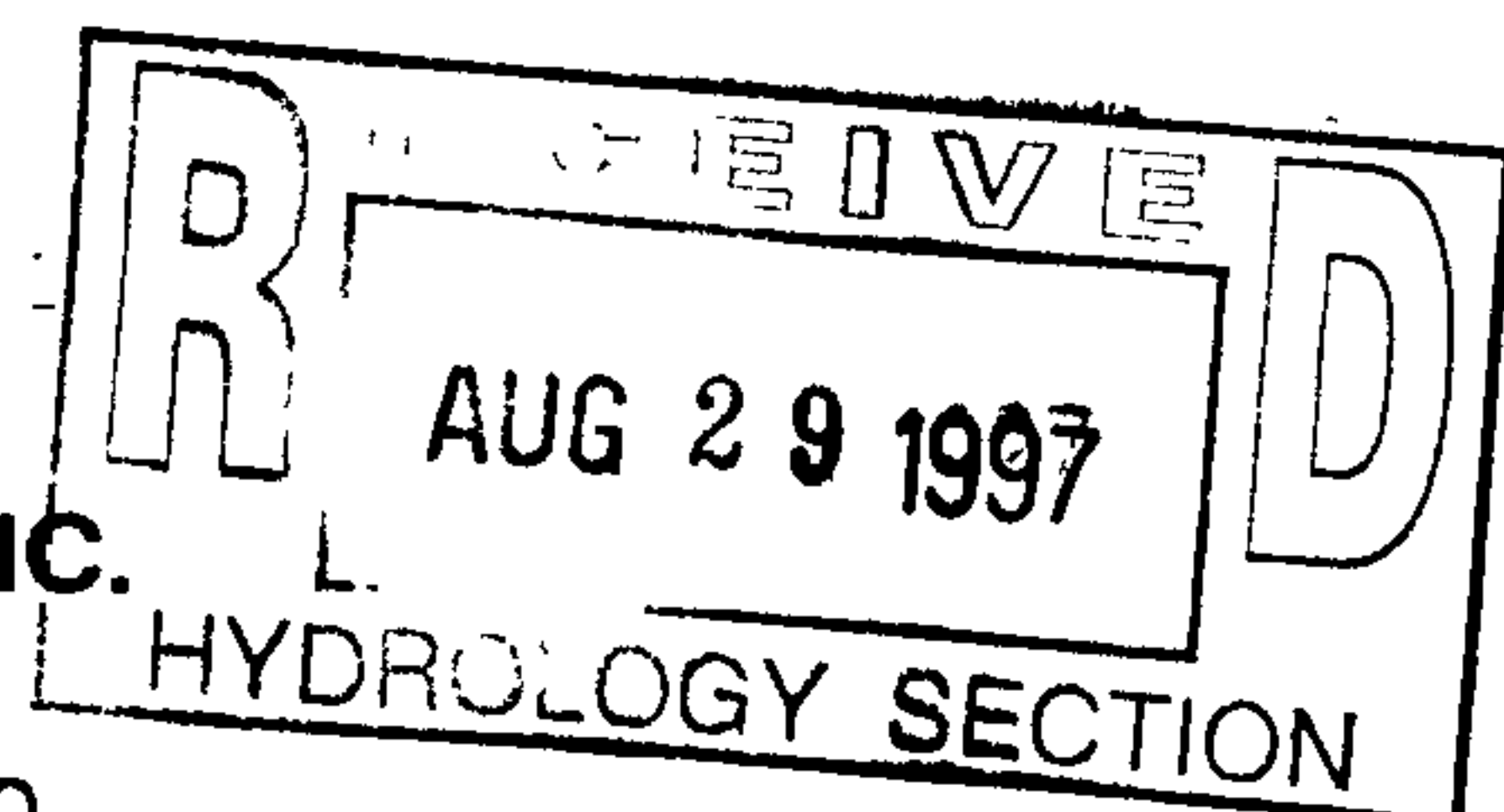
GREINER, INC.
5971 JEFFERSON BLVD., N.E.
ALBUQUERQUE, NEW MEXICO
PHONE 505 345 3999

CONCEPTUAL DRAINAGE REPORT
FOR
TEXAS LAND AND CATTLE COMPANY
STEAK HOUSE

Albuquerque, New Mexico

Prepared By:

BRASHER & LORENZ, INC.
Consulting Engineers
San Pedro NE Suite 210
Albuquerque, New Mexico 87110



August 1997

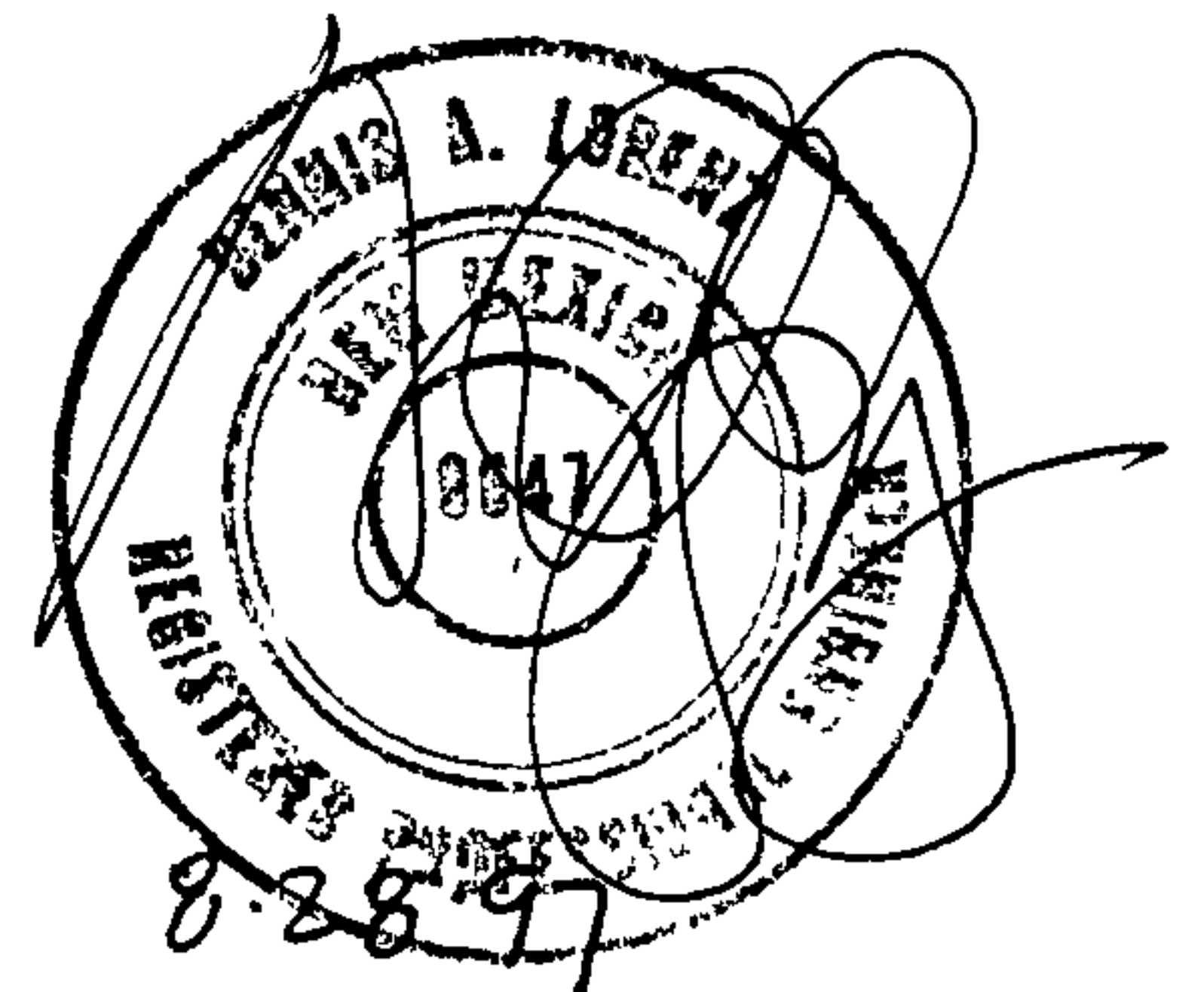


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GRADING AND DRAINAGE PLAN	POCKET

PURPOSE AND SCOPE

Pursuant to the established Drainage Ordinance for the City of Albuquerque and the Development Process Manual, this Conceptual Drainage Report outlines the drainage management criteria for controlling developed runoff from the project site. The property is to be developed into 2 restaurants and an office/retail building. Paving, landscaping, utility, grading, and drainage improvements will be provided to support the project. The scope of this plan is to provide conceptual drainage criteria for the safe management of excess runoff. The report is presented to obtain Site Development Plan approval by the Environmental Planning Commission.

SITE DESCRIPTION

The project site is approximately 3.69 acres in size and is located on Pan American Freeway NE, at Office Boulevard (See Figure 1). Presently the site is undeveloped. The site has been disturbed by construction activity on adjoining parcels. The site has been mulched to mitigate erosion. Site terrain slopes east to west at approximately 2 percent. The site is presently described as Tract A-1B, Cryer Property. The site is bounded on the southeast by Pan American Freeway NE, on the southwest by a private access drive to the Rio 24 Theater, on the northwest by the Rio 24 Theater, and on the northeast by Office Boulevard.

EXISTING CONDITIONS

The site presently drains southwesterly to an existing drop inlet located near the northwest property corner. The inlet was constructed by the theater for use by this site, and is connected to a 12' x 8' concrete box culvert that drains to the Vineyard channel. Off-site flows from the frontage road drain southerly through a series of culverts and eventually outfall at the North Diversion Channel. Minimal flows enter the site from Office Boulevard. No flows enter the site from the southwest or northwest.

As shown by the attached FIRM Panel (Figure 2) this site does not lie within a designated flood hazard zone.

SUMMARY OF EXISTING DRAINAGE PLANS

The **Drainage Plan for the Century Rio 24 Theaters**, prepared by Bohannon Houston, Inc., and the Vineyard Channel project constructed by AMAFCA, established the drainage management criteria for this site. The Vineyard Channel project constructed a concrete box culvert originating near the Jefferson/I-25 interchange, and extending south across Office Boulevard, through the theater site (just northwest of the project site), to a concrete lined section of the Vineyard Channel. Along with the project an existing 24 inch RCP storm drain originating at I-25 and extending through the project site (see Plan) was connected to the box culvert. As a part of a Temporary Construction Easement agreement with AMAFCA, the property was granted free discharge into the box culvert. A 36 inch stubout with a type "D" inlet was constructed by the theater for access by the project.)

PROPOSED CONDITIONS

As shown by the Plan, the project consists of the development of the property into 2 restaurants and an office/retail building, with associated paving, utility landscaping and drainage improvements. The Plan shows the elevations required to properly grade and construct the recommended improvements. The direction of drainage flows are given by flow arrows and on-site drainage basins are identified.

On-site drainage basins

The site will discharge excess runoff into the existing drainage systems. On-site Basins A and B are to be routed overland to the existing inlet provided by the theater, and a proposed inlet and 18 inch storm to be extended to Lot A.

Off-site drainage basins

Off-site Basin C will be routed southerly through a proposed 24 inch culvert to be placed at the frontage road access drive, and to an existing 24 inch culvert located at the existing access drive to the theater.

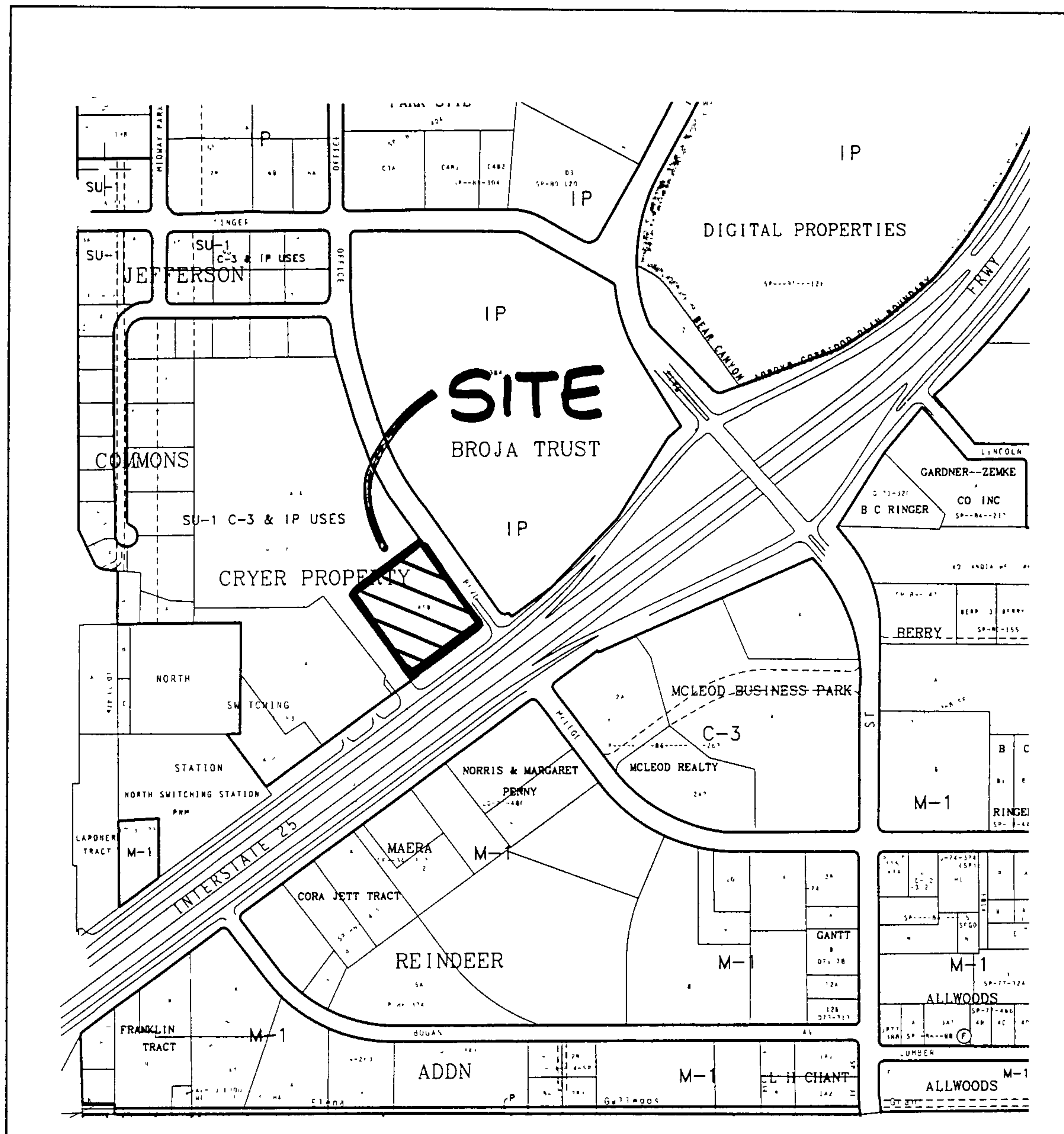
Office Boulevard will be further improved by constructing curb and gutter, sidewalks and street paving along the project frontage. Office Boulevard will drain to the northwest to existing downstream improvements.

PROJECT PHASING

The project is to be constructed in 2 phases. Lot A will be constructed as Phase One; Lots B and C represent Phase Two. Phase One construction will extend the 18 inch storm drain and construct a drop inlet on Lot A. Temporary curbing will be constructed along the phase boundary to control excess runoff and direct flows to the inlet.

TEMPORARY EROSION CONTROL PLAN

1. Temporary Erosion Control is required to limit the discharge of sediment into the public street and/or storm drainage system and to protect adjacent properties from excess runoff during construction. After the initial site clearing, the temporary erosion control facilities should be constructed to direct excess runoff and sediment to the outfall locations. Earthen erosion control berms or silt fencing should then be placed along the northeast, northwest and southwest project boundaries to direct runoff to the project outfall.
2. The Contractor shall obtain a Top Soil Disturbance Permit from Environmental Health prior to performing any earthwork related operations.
3. It is the Contractor's responsibility to properly maintain all temporary erosion control facilities during the construction phase of the project.



LOCATION MAP
Figure 1

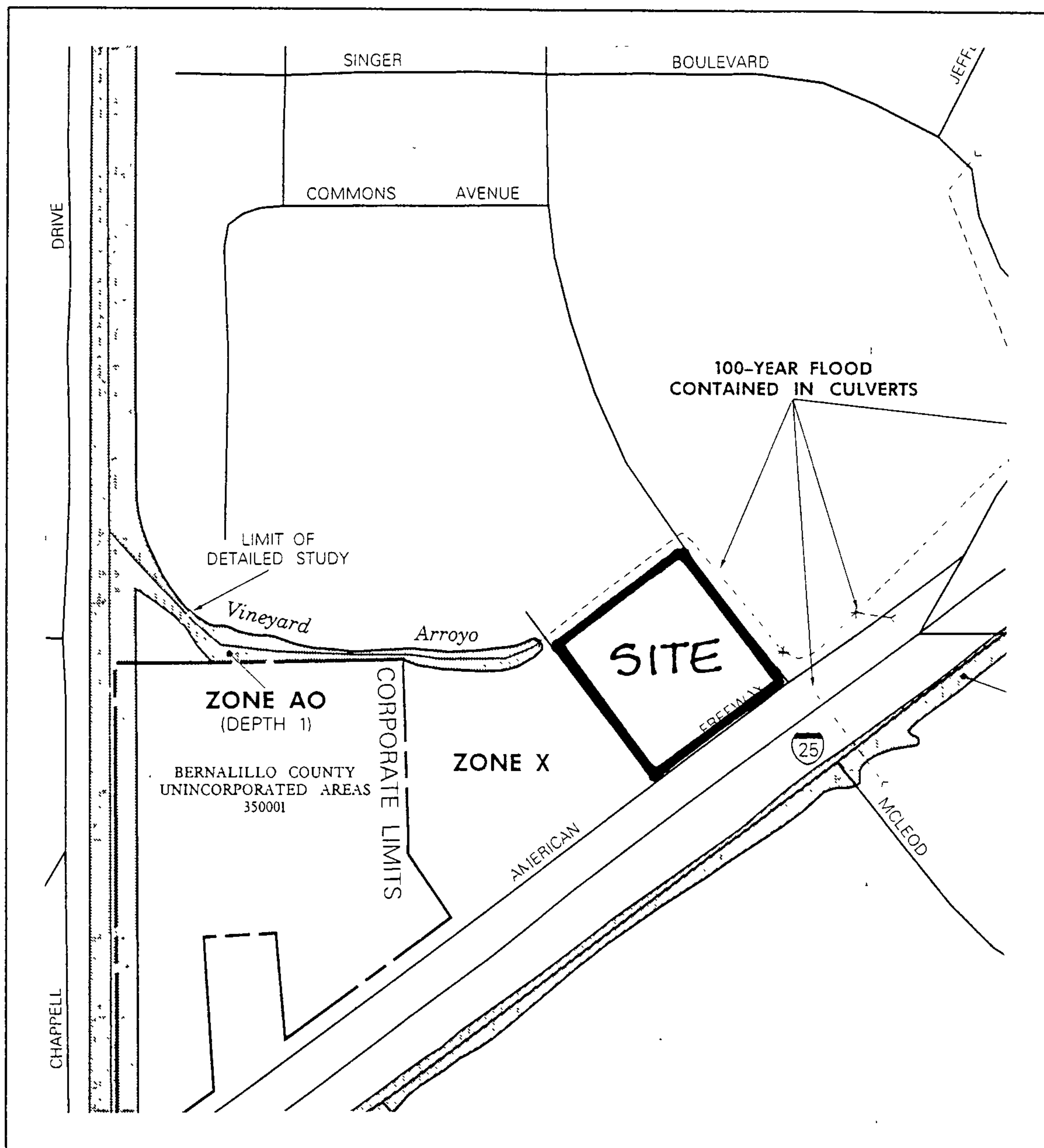


Figure 2

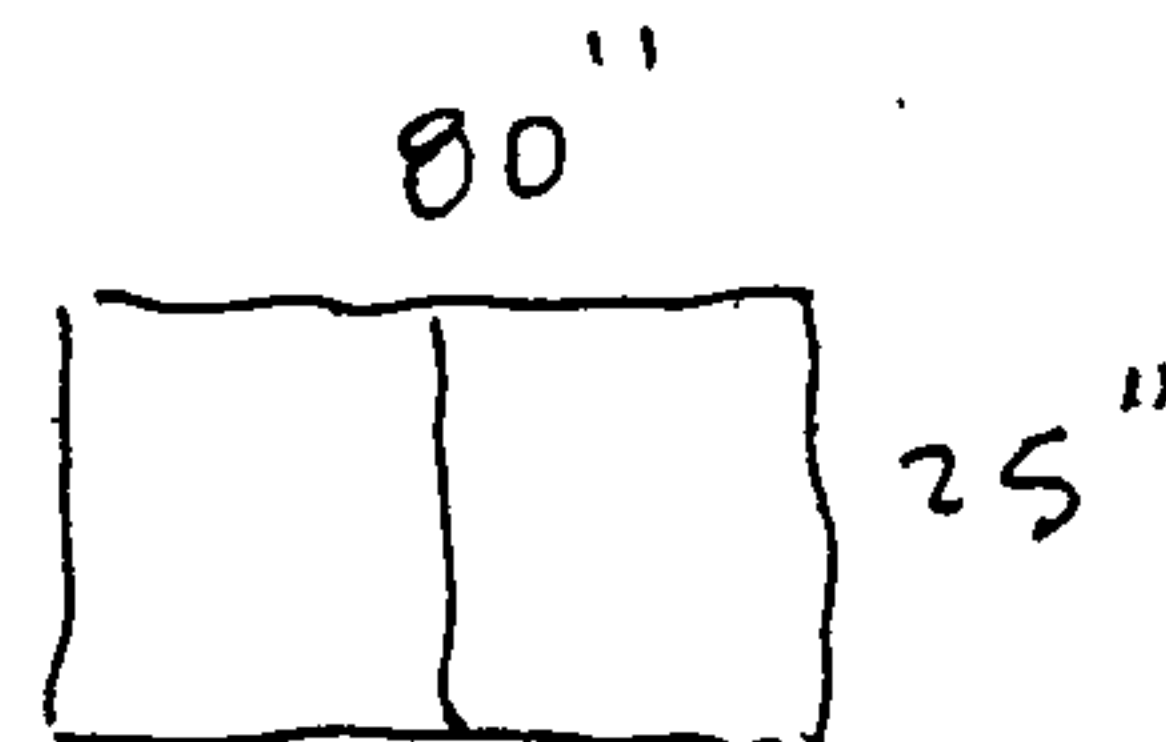
CALCULATIONS

INFRASTRUCTURE CAPACITIES

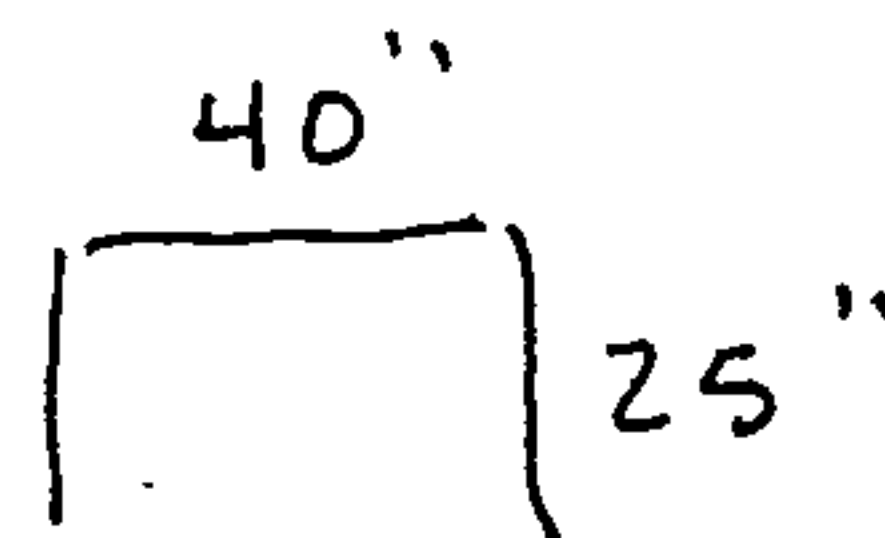
INFRASTRUCTURE CAPACITIES

1. INLETS

BASIN A DBL 'D'

 $P = 17.5'$

BASIN B SINGLE 'D'



CURB

 $P = 7.5'$

USE WEIR FOR SHALLOW DEPTHS

LET $H = 4''$ $Q_{\text{BASIN (A)}} = 6.3 \text{ CFS}$ $Q_{\text{BASIN (B)}} = 10.0 \text{ CFS}$

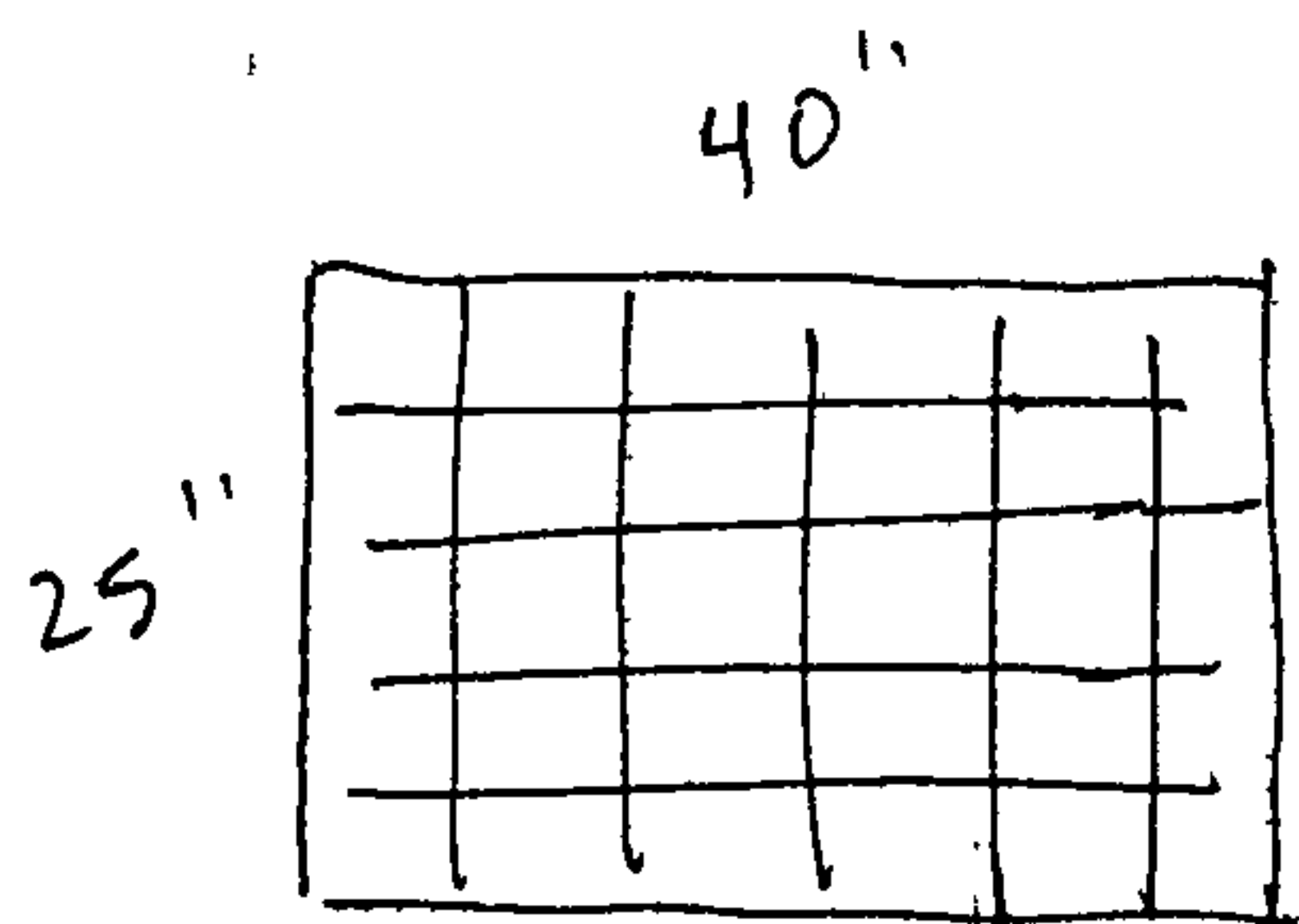
WEIRS

Enter up to 10 weirs.

Enter <Return> only for flowrate and length to end.

FLOWRATE (CFS)	LENGTH (FT)	COEFF (-)	HEAD (FT)
6.30	17.5	2.500	0.27
10.00	7.5	2.500	0.66

WEIR DEPTH IS EXCESSIVE FOR SINGLE 'D'
AT BASIN (B). ANALYZE FOR ORIFACE



SINGLE 'D'

GROSS AREA = 6.94 SF

OPEN AREA = 4.35 SF

FIND DEPTH OVER GRATE AT Q₁₀₀

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

$$C = 0.6$$

$$A = 4.35 \text{ SF}$$

$$g = 32.2$$

$$Q = 10.0$$

$$\Rightarrow h = 0.22 \text{ FT } \underline{\underline{\text{OK}}}$$

2. 18" SD

LOT A (BASIN (A)) Q₁₀₀ = 6.3 CFS

SEWER PIPES

Enter up to 10 pipes.

Enter <Return> only for flowrate and diameter to end.

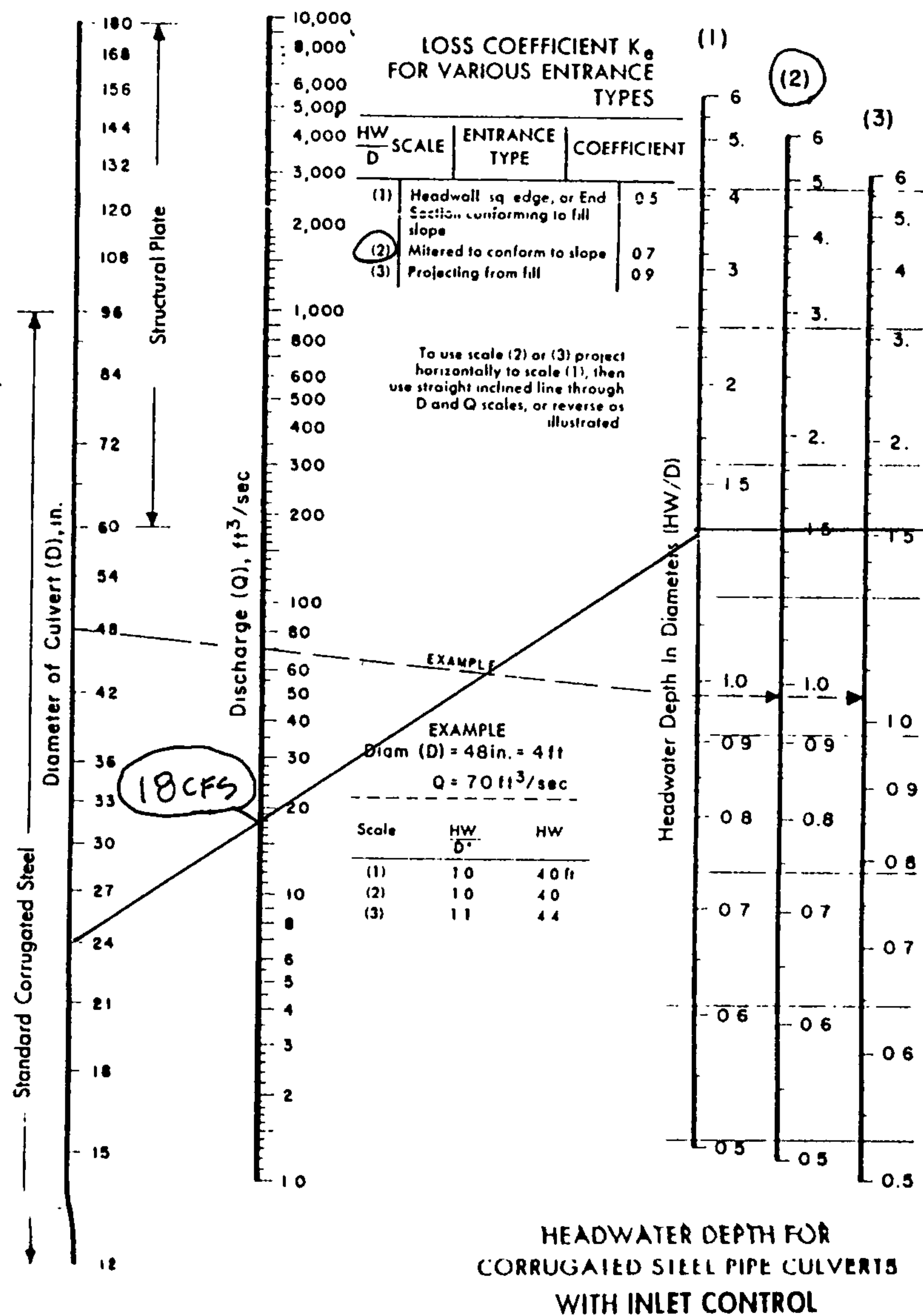
FLOWRATE (CFS)	DIAMETER (IN)	FRICTION (FT ^{1/6})	SLOPE (%)	VELOCITY (FPS)
15.22	18.00	0.0130	2.10	8.61

3. CULVERT AT FRONTAGE ROAD
ACCESS DRIVE

$$Q_{100} = 2.9 \text{ cfs}$$

$$D = 24''$$

$$HW/D = 1.5$$



FHWA HEC 5

Figure 4-28 Inlet control nomograph for corrugated steel pipe culverts. The manufacturers recommended keeping HW/D to a maximum of 1.5 and preferably to no more than 1.0.

AHYMO OUTPUT FILES

```

*****
*
*               HEARTHSTONE
*               ON-SITE HYDROLOGY
*****
START          TIME=0.0  PUNCH CODE=0
RAINFALL       TYPE=1  RAIN QUARTER=0.0  RAIN ONE=2.01
               RAIN SIX=2.35  RAIN DAY=2.75  DT=0.03333 HRS

* EXISTING SITE
COMPUTE NM HYD  ID=1  HYD NO=EX.SITE  DA= 0.005766 SQ MI
               PER A=100  PER B=0  PER C=0  PER D=0
               TP=0.1333 HR  MASS RAIN=-1

* DEVELOPED SITE
COMPUTE NM HYD  ID=2  HYD NO=DEV.SITE  DA=0.005766 SQ MI
               PER A=0  PER B=7  PER C=8  PER D=85
               TP=0.1333 HR  MASS RAIN=-1

* DEVELOPED BASIN "A"
COMPUTE NM HYD  ID=3  HYD NO=DEV.A  DA=0.002234 SQ MI
               PER A=0  PER B=7  PER C=8  PER D=85
               TP=0.1333 HR  MASS RAIN=-1

* DEVELOPED BASIN "B"
COMPUTE NM HYD  ID=4  HYD NO=DEV.B  DA=0.003531 SQ MI
               PER A=0  PER B=7  PER C=8  PER D=85
               TP=0.1333 HR  MASS RAIN=-1

* DEVELOPED BASIN "C"
COMPUTE NM HYD  ID=5  HYD NO=DEV.C  DA=0.001172 SQ MI
               PER A=0  PER B=20  PER C=20  PER D=60
               TP=0.1333 HR  MASS RAIN=-1

PRINT HYD      ID=1  CODE=5
PRINT HYD      ID=2  CODE=5
PRINT HYD      ID=3  CODE=5
PRINT HYD      ID=4  CODE=5
PRINT HYD      ID=5  CODE=5
FINISH

```

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
 INPUT FILE = 7040-C.DAT

RUN DATE (MON/DAY/YR) =08/29/1997
 USER NO.= BRASHERE.I01

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1	
										NOTATION	
START										TIME= .00	
RAINFALL TYPE= 1										RAIN6= 2.350	
COMPUTE NM HYD	EX.SITE	-	1	.00577	5.75	.163	.53121	1.533	1.558	PER IMP=	.00
COMPUTE NM HYD	DEV.SITE	-	2	.00577	16.26	.597	1.94031	1.500	4.407	PER IMP=	85.00
COMPUTE NM HYD	DEV.A	-	3	.00223	6.31	.231	1.94031	1.500	4.415	PER IMP=	85.00
COMPUTE NM HYD	DEV.B	-	4	.00353	9.97	.365	1.94031	1.500	4.410	PER IMP=	85.00
COMPUTE NM HYD	DEV.C	-	5	.00117	2.94	.103	1.64388	1.500	3.920	PER IMP=	60.00
FINISH											

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.000	.0	2.000	.5	3.000	.1	4.000	.0
.167	.0	1.167	.0	2.166	.4	3.166	.0	4.166	.0
.333	.0	1.333	.0	2.333	.3	3.333	.0		
.500	.0	1.500	5.6	2.500	.2	3.500	.0		
.667	.0	1.667	3.3	2.666	.1	3.666	.0		
.833	.0	1.833	1.2	2.833	.1	3.833	.0		

RUNOFF VOLUME = .53121 INCHES = .1634 ACRE-FEET
 PEAK DISCHARGE RATE = 5.75 CFS AT 1.533 HOURS BASIN AREA = .0058 SQ. MI.

PRINT HYD ID=2 CODE=5

HYDROGRAPH FROM AREA DEV.SITE

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.500	16.3	3.000	.2	4.500	.1	5.999	.1
.167	.0	1.667	8.3	3.166	.1	4.666	.1	6.166	.0
.333	.0	1.833	5.3	3.333	.1	4.833	.1	6.333	.0
.500	.0	2.000	3.8	3.500	.1	4.999	.1	6.499	.0
.667	.0	2.166	1.7	3.666	.1	5.166	.1	6.666	.0
.833	.0	2.333	.8	3.833	.1	5.333	.1	6.833	.0
1.000	.0	2.500	.5	4.000	.1	5.499	.1		
1.167	.0	2.666	.3	4.166	.1	5.666	.1		
1.333	4.6	2.833	.2	4.333	.1	5.833	.1		

RUNOFF VOLUME = 1.94031 INCHES = .5967 ACRE-FEET
 PEAK DISCHARGE RATE = 16.26 CFS AT 1.500 HOURS BASIN AREA = .0058 SQ. MI.

PRINT HYD ID=3 CODE=5

HYDROGRAPH FROM AREA DEV.A

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.333	1.8	2.666	.1	4.000	.0	5.333	.0
.167	.0	1.500	6.3	2.833	.1	4.166	.0	5.499	.0
.333	.0	1.667	3.2	3.000	.1	4.333	.0	5.666	.0
.500	.0	1.833	2.1	3.166	.1	4.500	.0	5.833	.0
.667	.0	2.000	1.5	3.333	.0	4.666	.0	5.999	.0
.833	.0	2.166	.7	3.500	.0	4.833	.0	6.166	.0
1.000	.0	2.333	.3	3.666	.0	4.999	.0	6.333	.0
1.167	.0	2.500	.2	3.833	.0	5.166	.0	6.499	.0

RUNOFF VOLUME = 1.94031 INCHES = .2312 ACRE-FEET
 PEAK DISCHARGE RATE = 6.31 CFS AT 1.500 HOURS BASIN AREA = .0022 SQ. MI.

PRINT HYD ID=4 CODE=5

HYDROGRAPH FROM AREA DEV.B

1
6.31
9.97
16.28

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.500	10.0	3.000	.1	4.500	.1	5.999	.1
.167	.0	1.667	5.1	3.166	.1	4.666	.1	6.166	.0
.333	.0	1.833	3.3	3.333	.1	4.833	.1	6.333	.0
.500	.0	2.000	2.4	3.500	.1	4.999	.1	6.499	.0
.667	.0	2.166	1.1	3.666	.1	5.166	.1	6.666	.0
.833	.0	2.333	.5	3.833	.1	5.333	.1		
1.000	.0	2.500	.3	4.000	.1	5.499	.1		
1.167	.0	2.666	.2	4.166	.1	5.666	.1		
1.333	2.8	2.833	.1	4.333	.1	5.833	.1		

RUNOFF VOLUME = 1.94031 INCHES = .3654 ACRE-FEET
 PEAK DISCHARGE RATE = 9.97 CFS AT 1.500 HOURS BASIN AREA = .0035 SQ. MI.

PRINT HYD ID=5 CODE=5

HYDROGRAPH FROM AREA DEV.C

TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS	TIME HRS	FLOW CFS
.000	.0	1.333	.7	2.666	.1	4.000	.0	5.333	.0
.167	.0	1.500	2.9	2.833	.0	4.166	.0	5.499	.0
.333	.0	1.667	1.5	3.000	.0	4.333	.0	5.666	.0
.500	.0	1.833	.9	3.166	.0	4.500	.0	5.833	.0
.667	.0	2.000	.6	3.333	.0	4.666	.0	5.999	.0
.833	.0	2.166	.3	3.500	.0	4.833	.0	6.166	.0
1.000	.0	2.333	.1	3.666	.0	4.999	.0	6.333	.0
1.167	.0	2.500	.1	3.833	.0	5.166	.0		

RUNOFF VOLUME = 1.64388 INCHES = .1028 ACRE-FEET
 PEAK DISCHARGE RATE = 2.94 CFS AT 1.500 HOURS BASIN AREA = .0012 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 09:12:59

APPENDIX

front of the drop structure to the North Diversion Channel. Flows from this basin approximate 50.1 cfs in the 100-year design storm event.

Offsite flows are minor. No flows impact the site along its north boundary with the existing developed industrial park and Office Blvd. Office Blvd. itself forms a diversion which diverts upstream flows along its north edge to the existing 54" culvert inlet to the AMAFCA box culvert. On the west boundary of the site, offsite flows drain away from the site, in a westerly direction to other existing drainage facilities. Flows from the vacant Tract A-1B drain approximately 7.1 cfs to the existing inlet described above.

FEMA floodplains occur only on the Vineyard Arroyo, located on the southeast portion of the property and are confined to the existing channel. Previous AMAFCA reports for the Vineyard Arroyo (as described in the report prepared for the box culvert construction) approximate 1,250 cfs.

The Vineyard Arroyo reach on the southeast property line of the site, is a largely unimproved channel reach. It is currently lined with dumped, non-engineered rip rap and in its uppermost reach, includes some grouted rip rap channel lining. Most of this reach shows significant states of disrepair. This reach lies completely outside the theater site boundaries. The current plat of the property on which the arroyo lies does not identify an easement.

PROPOSED CONDITIONS

Under proposed conditions, the site itself is separated into three proposed basins. Basin A occurs in the north section of the site and generates 26.2 cfs in the 100-year design storm event. Basin B occurs in the west portion of the site and generates 7.7 cfs. Basin C occurs in the south portion of the site and generates 49.3 cfs. These flows are drained in a surface flow manner to a proposed storm drain system located immediately west of the building structure. The flows of Basins A, B and C are collected in a series of inlets (at AP-1, AP-2 and AP-3, respectively), which then drain to a discharge point located in the southern most tip of the site. At this point, flows are discharged directly into the AMAFCA inlet to the North Diversion Channel. Accordingly, total flows generated onsite are approximately 83.

The offsite flow of Tract A-1B will not contribute to flows onsite. Although the property is currently vacant, developed conditions of approximately 85% impervious surface and 15% landscaping were assumed for this offsite-basin. This basin, in its developed condition, will generate approximately 16 cfs and discharge it to the existing 36" X 24" WYE (currently stubbed out) connected to the concrete box culvert. The WYE will need to be extended so that these flows can be collected on Tract A-1B via Type "D" inlet to be constructed.

Channel improvements along the unimproved portion of Vineyard Arroyo may be required. Although the arroyo does not currently show signs of substantial erosion or meander, and therefore not suggesting imminent harm to life and property, it is obvious that the extension of channel improvements along this reach is a requirement at some point in time. AMAFCA has planned improvements to this reach of arroyo in its long range capital improvements plan, however, this does not coincide with the current development timeframe of the theater complex. Accordingly, discussions between AMAFCA, City of Albuquerque and the site owner will be required to determine a plan and timeframe for this reach of arroyo.

CONCLUSION

With the drainage management plan described above and the calculations provided herein, we are requesting conceptual drainage/grading plan approval for the purposes of site development plan approval. We believe the information presented herein to be sufficient for that request.

Basin A: Proposed Conditions $Q(100) = 5.05(6.0415ac)[0.45(0.15) + 0.93(0.85)] = 26.2$ cfs
Basin B: Proposed Conditions $Q(100) = 5.05(1.7795ac)[0.45(0.15) + 0.93(0.85)] = 7.7$ cfs
Basin C: Proposed Conditions $Q(100) = 5.05(11.3666ac)[0.45(0.15) + 0.93(0.85)] = 49.3$ cfs

BASIN	AREA (AC)
A	6.0415
B	1.7795
C	11.3666

PROPOSED DRAINAGE
EXCERPT FROM DRAINAGE
REPORT FOR RIO 24 THEATER

Parcel _____
ZAP _____
File: _____
PC Date _____

**TEMPORARY CONSTRUCTION LICENSE AGREEMENT
VINEYARD ARROYO IMPROVEMENTS WITHIN
CRYER PROPERTY, TRACT A-1B**

WHEREAS, Sage Investments No. 1 (SAGE) is the owner of Tract A-1B of the lands of Cryer, a subdivision in the City of Albuquerque, New Mexico as the same is shown and designated on the "Replat of Cryer Property" filed in the office of the County Clerk of Bernalillo County, New Mexico in Volume D7, Folio 163 on the 19th day of April, 1977; and

WHEREAS, the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) intends to construct an underground storm drainage facility and related appurtenances (PROJECT) on property adjacent to SAGE, in a permanent easement granted by others; and

WHEREAS, construction of the PROJECT will be more efficient if AMAFCA's contractor can use the northwesternmost 50 feet of the SAGE property, as shown on Exhibit A (Temporary Construction Easement); and

WHEREAS, AMAFCA will be the contracting agency for PROJECT; and

WHEREAS, PROJECT will benefit the lands of SAGE and will protect such land from damages from flooding, will eliminate an open arroyo, and will allow free discharge of stormwater from the SAGE property, via a storm sewer stub-out to the SAGE property line.

NOW, THEREFORE, for good and valuable consideration, the receipt of which is hereby acknowledged;

1. SAGE hereby grants to AMAFCA a temporary construction license to use lands of SAGE to complete the PROJECT. This license consists of the Temporary Construction Easement area as shown on Exhibit A.

a. The Temporary Construction Easement shown on Exhibit A is to be used for construction access, temporary materials storage, and temporary drainage channels to facilitate a dry area during the construction of said PROJECT.

b. Said PROJECT shall be constructed in substantial conformance with the AMAFCA Specifications and Contract Documents for the Vineyard Channel, West of I-25, which are incorporated herein by reference.

c. This license shall expire upon completion and acceptance of PROJECT by AMAFCA. After completion of PROJECT, but prior to acceptance, AMAFCA will notify SAGE and SAGE will be given opportunity to inspect the completed PROJECT and Temporary Construction Easement prior to termination of this license.

2. AMAFCA agrees to not allow the disposal of excess construction material, concrete or other material that is not indigenous to the SAGE property on the SAGE property. Any temporary excavations will be returned to natural grade of the surrounding terrain and entire Temporary Construction Easement will be reseeded with native grasses. Existing piles of debris and rubble in the Temporary Construction Easement will be removed by AMAFCA's contractor.

3. SAGE will be allowed to connect to the storm sewer stub-out for free discharge of all site drainage without any requirement for on-site ponding and without payment of any fees for utilizing such drainage, in accordance with an approved grading and drainage plan for the SAGE property, to be completed as required for development of the SAGE property in the future.

4. AMAFCA agrees to hold harmless, defend and indemnify SAGE, and its officers, agents, employees from all claims for property damage, personal injury, and or wrongful death arising from or connected with the performance of this license agreement and/or the PROJECT. Pursuant to Section 56-7-1 NMSA 1978, this agreement to indemnify shall not extend to liability, claims, damages, losses or expenses, including attorney fees, arising out of:

a. the preparation or approval of maps, drawings, opinions, reports, surveys, change orders, designs or specifications by the indemnitee, or the agents or employees of the indemnitee; or

b. the giving of or the failure to give directions or instructions by the indemnitee, or the agents or employees of the indemnitee, where such giving or failure to give directions or instructions is the primary cause of bodily injury to persons or damage to property.

The work "indemnify" as used in this section includes, without limitation, an agreement to remedy damage or loss caused in whole or in part by the negligence, act, or omission of the indemnitee, the agents or employees of the indemnitee, or any legal entity for whose negligence, acts or omissions any of the foregoing may be liable.

6. Both AMAFCA and SAGE agree to maintain timeliness in all communications and agree to work promptly to resolve any circumstances not included in this license agreement.

LICENSOR:

Sage Investments No. 1

By:

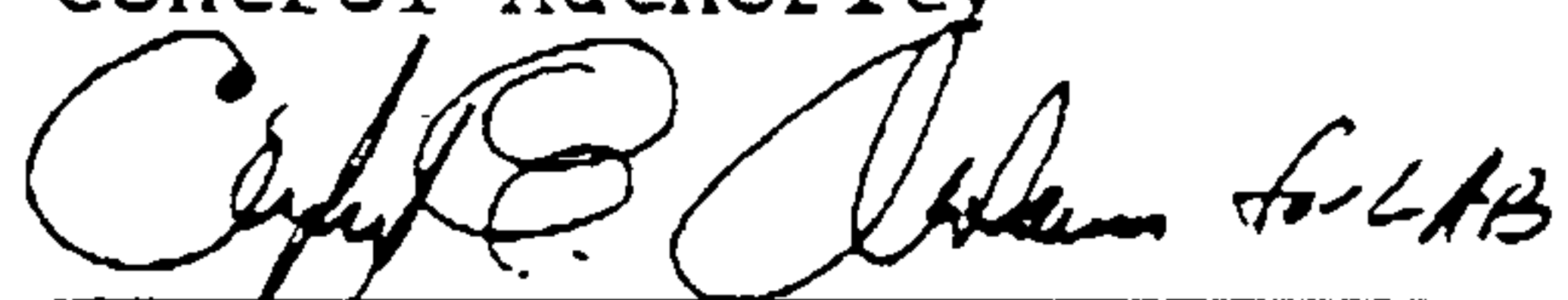

Patrick W. Hurley
General Partner

Date:

LICENSEE:

Albuquerque Metropolitan Arroyo
Flood Control Authority

By:


Larry A. Blair
Executive Engineer

Date:

Jan 22, 1993

EXHIBIT 'A'

ALBUQUERQUE METROPOLITAN FLOOD CONTROL AUTHORITY

ALBUQUERQUE, NEW MEXICO

** SEE ATTACHED DESCRIPTION **

CERTIFICATE OF SURVEY

I, THOMAS H. WAGNER, NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR NO. 3517, DO HEREBY CERTIFY THAT THIS PLAT WAS PREPARED UNDER MY SUPERVISION FROM ACTUAL FIELD SURVEYS PERFORMED FROM AUGUST, 1992, THROUGH NOVEMBER, 1992, AND IS TO THE BEST OF MY KNOWLEDGE AND BELIEF, CORRECT, AND CONFORMS TO THE MINIMUM REQUIREMENTS OF THE STANDARDS FOR LAND SURVEYS IN NEW MEXICO, AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND PROFESSIONAL SURVEYORS.

Thomas H. Wagner 12/7/92

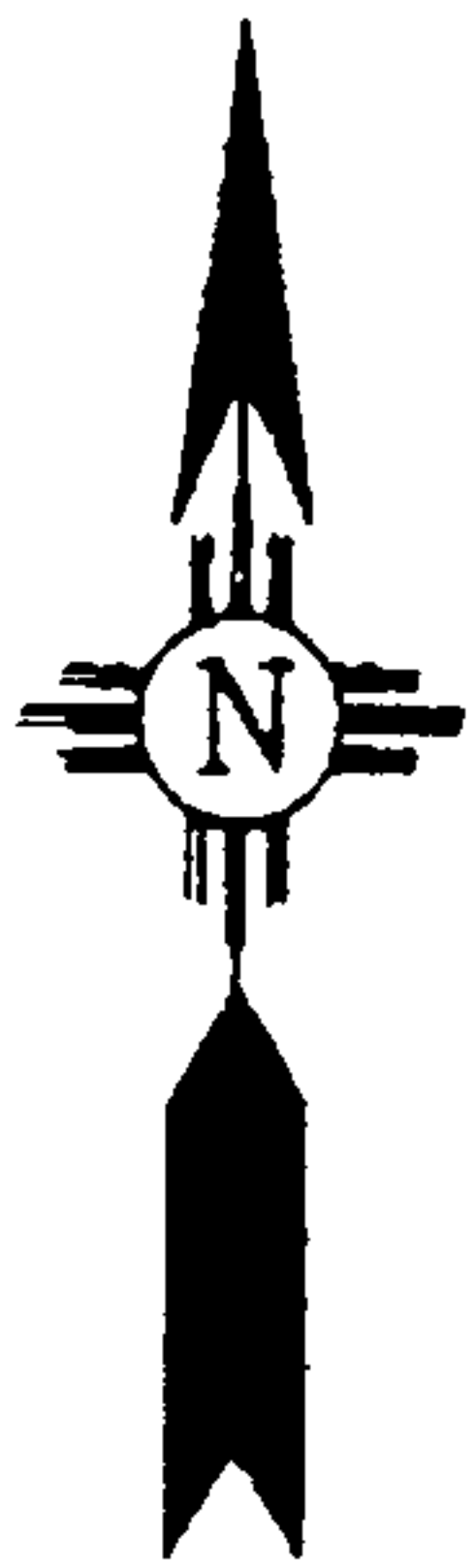
THOMAS H. WAGNER, P.S. 3517

DATE

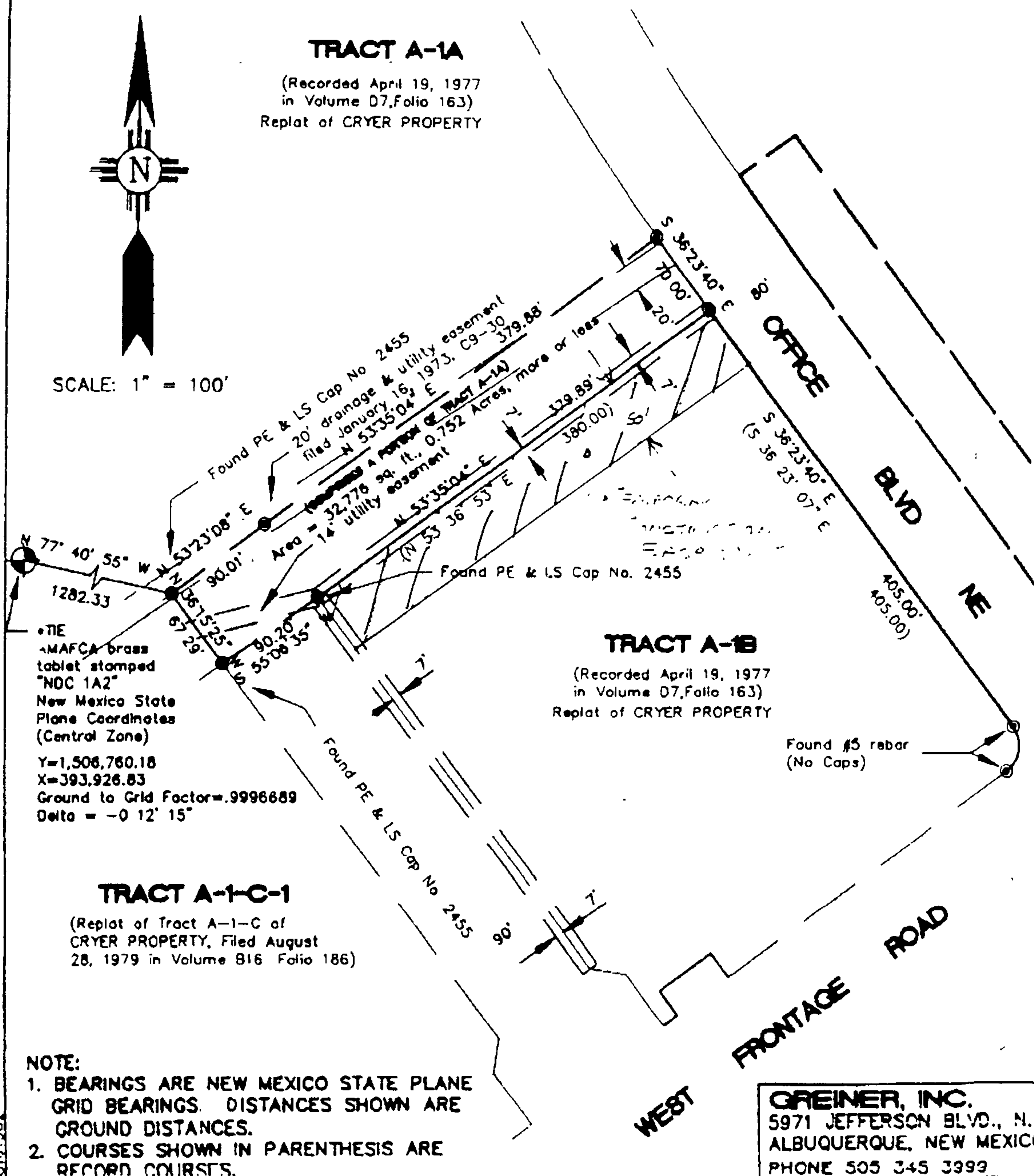
TRACT A
LANDS OF BROJA TRUST

TRACT A-1A

(Recorded April 19, 1977
in Volume D7, Folio 163)
Replat of CRYER PROPERTY



SCALE: 1" = 100'



FILE COPY



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 20, 1990

R.G. Lee
Lee Engineering
8225 Connecticut, NE
Albuquerque, New Mexico 87110

RE: REVISED CONCEPTUAL DRAINAGE PLAN FOR MORGAN BUILDING SYSTEMS
(F-17/D64) REVISION DATED APRIL 9, 1990

Dear Mr. Lee:

Based on the information provided on your resubmittal of April 13, 1990, the above referenced plan is approved for Site Development.

Please be advised that the comments for building permit approval listed in my letter dated April 9, 1990 still apply. Also, please be advised that financial guarantees must be initiated prior to building permit release.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

for Bernie J. Montoya
Fred J. Aguirre, P.E.
Hydrologist

BJM:FJA/bsj
(WP+1501)

PUBLIC WORKS DEPARTMENT

Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER

RAINAGE INFORMATION SHEET

OFFICE & SHOWROOM FOR
 PROJECT TITLE: MORGAN BUILDING SYSTEMS ZONE ATLAS/DRNG. FILE #: F-17/D64
 LEGAL DESCRIPTION: TRACT A-1-B, CRYER PROPERTY
 CITY ADDRESS: 4931 PAN AMERICAN FREEWAY NE
 ENGINEERING FIRM: LEE ENGINEERING CONTACT: R.G. LEE
 ADDRESS: 8225 CONNECTICUT NE PHONE: 299-2471
 OWNER: MORGAN BUILDING SYSTEMS CONTACT: ED REED
 ADDRESS: 11000 CENTRAL AVE. SE PHONE: 292-3131
 ARCHITECT: KEN HOVEY DESIGN GROUP CONTACT: KEN HOVEY
 ADDRESS: 335 JEFFERSON SE SUITE B PHONE: 255-9400
 SURVEYOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____
 CONTRACTOR: _____ CONTACT: _____
 ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING:

____ YES
 ____ NO
 ____ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. _____
 EPC NO. _____
 PROJ. NO. _____

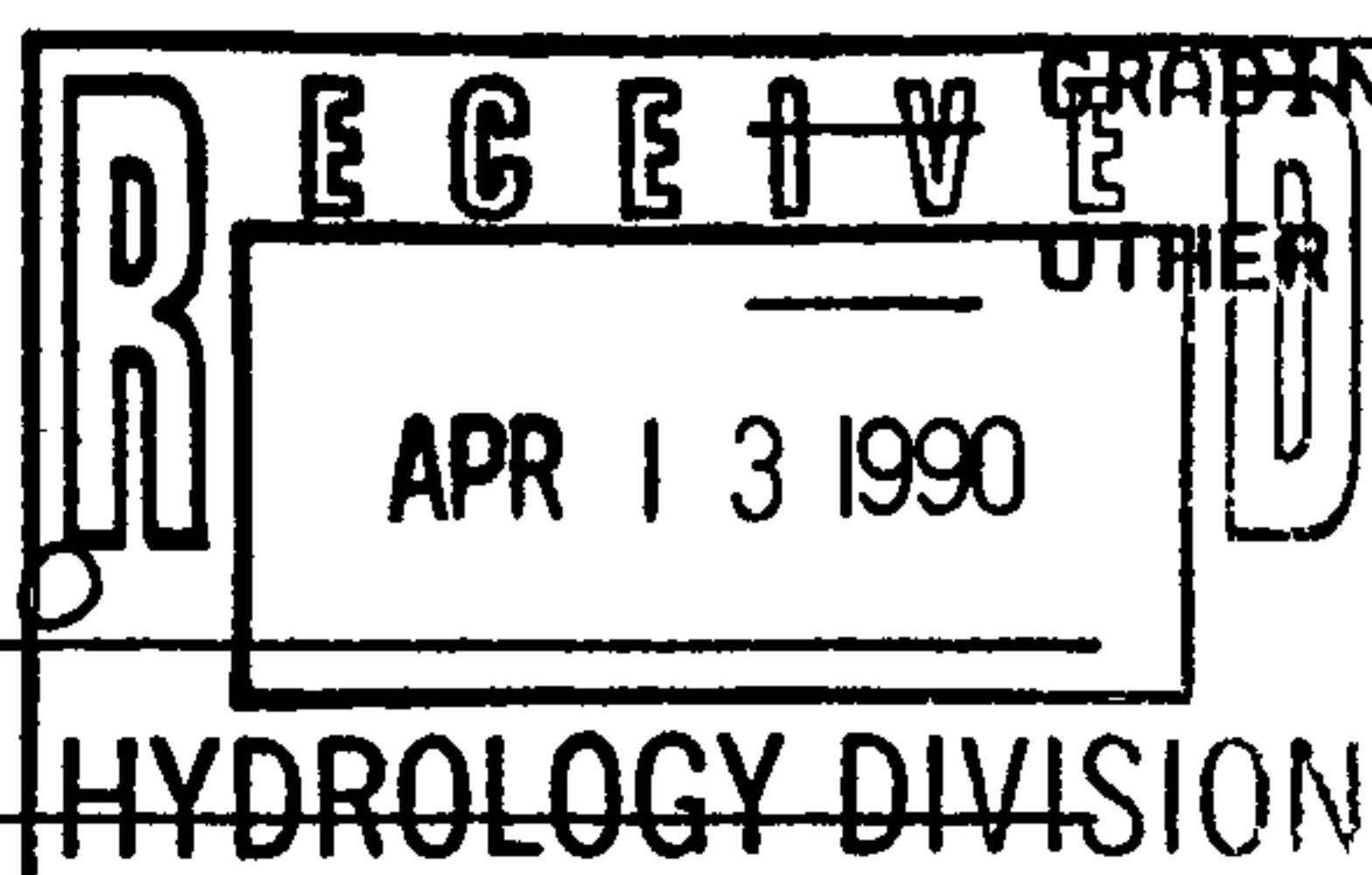
TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
 ____ DRAINAGE PLAN
X ^{AMENDED} CONCEPTUAL GRADING & DRAINAGE PLAN
 ____ GRADING PLAN
 ____ EROSION CONTROL PLAN
 ____ ENGINEER'S CERTIFICATION

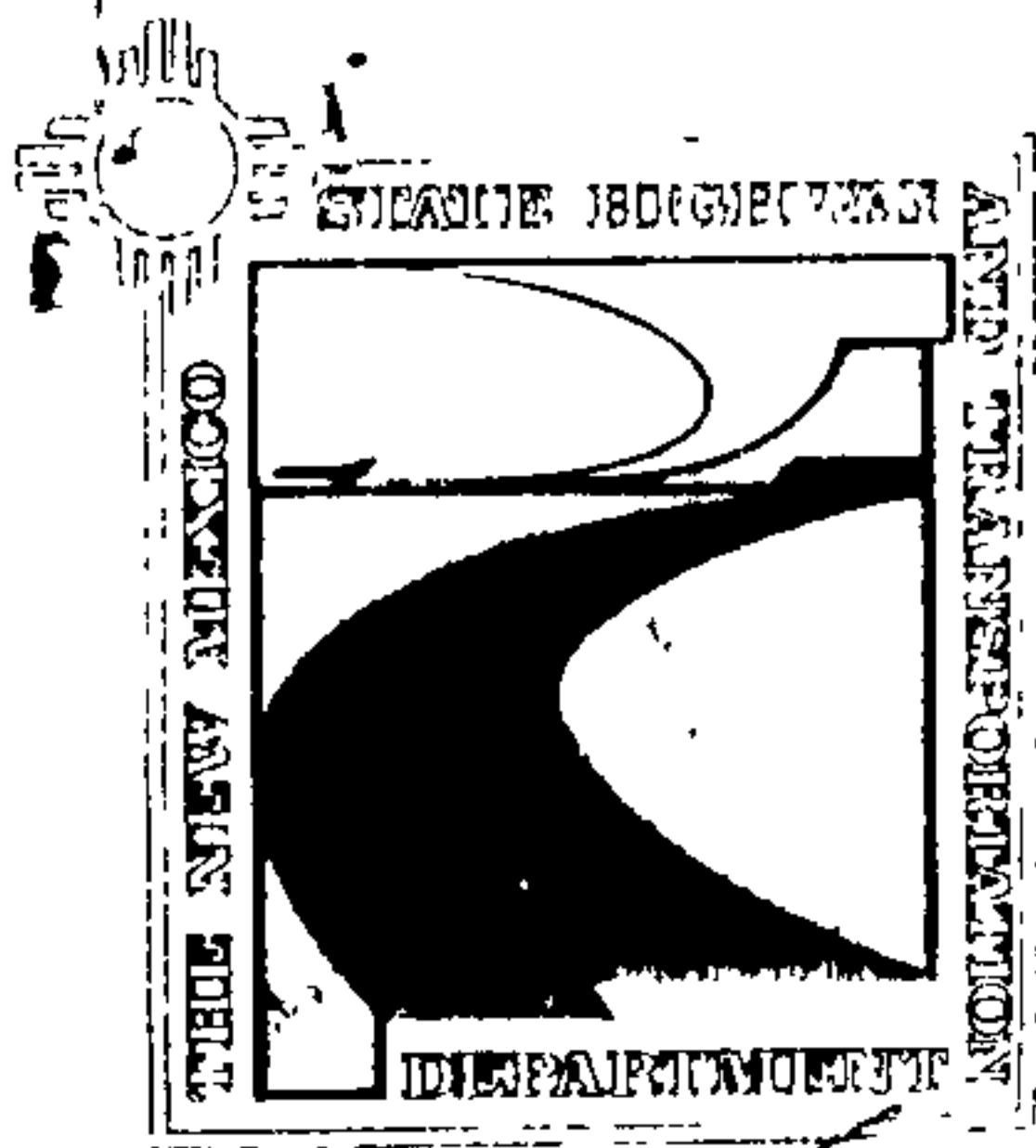
CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL
 ____ PRELIMINARY PLAT APPROVAL
X SITE DEVELOPMENT PLAN APPROVAL
 ____ FINAL PLAT APPROVAL
 ____ BUILDING PERMIT APPROVAL
 ____ FOUNDATION PERMIT APPROVAL
 ____ CERTIFICATE OF OCCUPANCY APPROVAL
 ____ ROUGH GRADING PERMIT APPROVAL
 ____ GRADING/PAVING PERMIT APPROVAL

DATE SUBMITTED: 4/12/90
 BY: REGI RUTAR



(SPECIFY)



NEW MEXICO STATE HIGHWAY
AND TRANSPORTATION DEPARTMENT
AN EQUAL OPPORTUNITY EMPLOYER

April 9, 1990

GARREY CARRUTHERS
GOVERNOR

COMMISSION

Willie Ortiz
Chairman, Santa Fe

J. V. "Rip" Curtis
Vice-Chairman, Clovis

Mary Jean Christensen
Secretary, Gallup

Jack Westman
Member, Albuquerque

Dr. Donald Reif
Member, Clayton

Quentin Ford
Member, Las Cruces

DEPARTMENT

Secretary
Dewey Lonsberry

General Office
P.O. Box 1149
Santa Fe, NM
87504-1149
505-827-5100

District One Office
P.O. Box 231
Deming, NM
88031-0231
505-546-2603

District Two Office
P.O. Box 1457
Roswell, NM
88202-1457
505-624-3300

District Three Office
P.O. Box 3768
Station D
Albuquerque, NM
87190-3768
505-841-2700

District Four Office
P.O. Box 30
Las Vegas, NM
87701-0030
505-425-7527

District Five Office
P.O. Box 4127
Coronado Station
Santa Fe, NM
87502-4127
505-827-9500

District Six Office
P.O. Box 2159
Milan, NM
87021
505-285-6623

Ken Hovey
The Ken Hovey Design Group Inc.
335 Jefferson Street, Suite B
Albuquerque, NM 87108

Dear Mr. Hovey:

As per your request, I have reviewed the Conceptual Grading Plan, which you hand delivered to me on this date, for the Morgan Building Systems, Inc. development at the 1-25 West Frontage Rd./Office Boulevard.

As we discussed, your proposal to construct a drop inlet at Station 3+75 and discharge under Office Boulevard into the new lined channel, which the NMSHTD is in the process of designing, is acceptable to me. The actual details for the connection will have to be worked out, however considering your construction will probably come sometime after ours, some type of retrofit will probably have to be done.

With regard to a rundown into the Vineyard Arroyo at Station 0+00, I would suggest you construct a drop inlet with a culvert into the new channel lining we will be constructing. The actual details for this connection will also have to be worked out by you at the appropriate time. For your information, I have attached a copy of a conceptual sketch we plan to utilize at this location.

If there are any questions, please don't hesitate to call me at 827-5323.

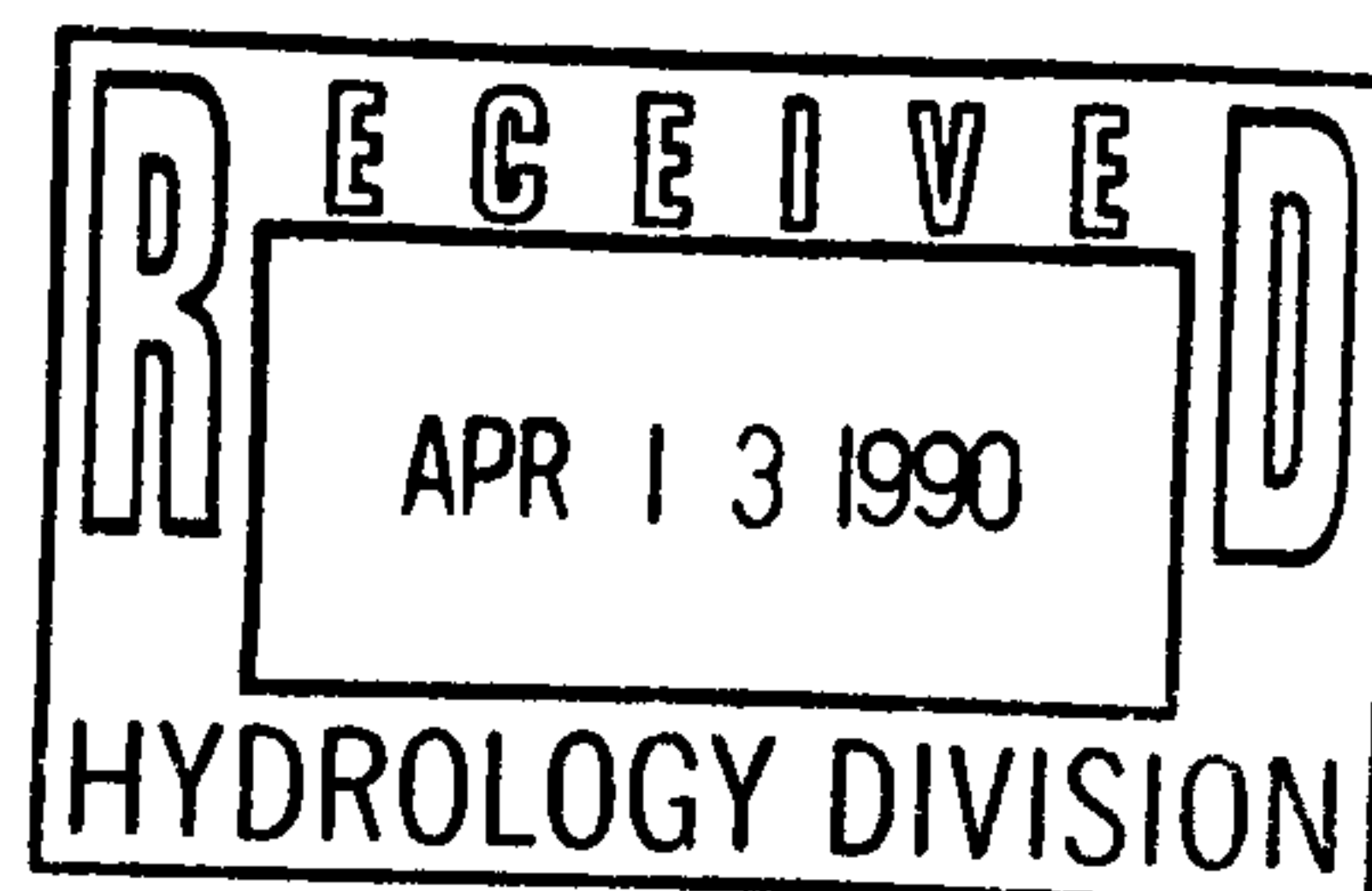
Sincerely,

Ronald E. Gaines

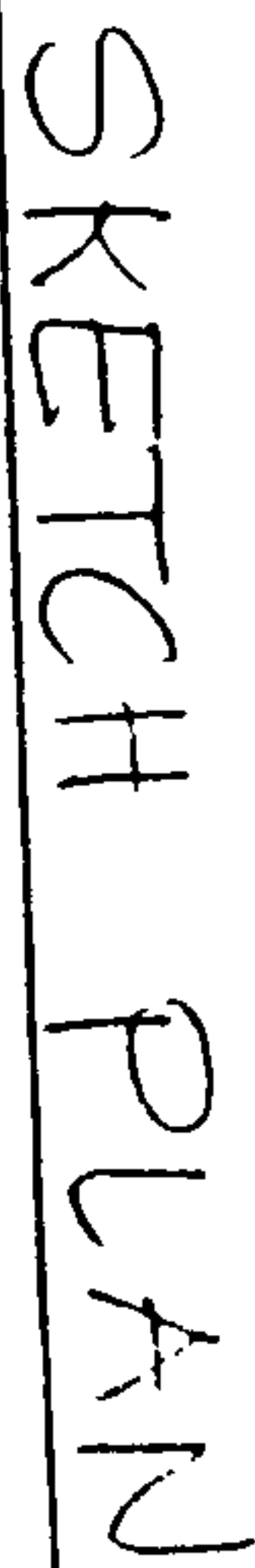
Ronald E. Gaines
Drainage Engineer

REG:ilc

xc: M.I. Awan, District 3



RECEIVED
APR 13 1960
HYDROLOGY DIVISION
EXIST. 2-60 CMPS





City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 9, 1990

R.G. Lee
R.G. Lee Engineering
8225 Connecticut NE
Albuquerque, NM

RE: REVISED CONCEPTUAL DRAINAGE PLAN FOR MORGAN BUILDING SYSTEMS (F17-D64)
REVISION DATE MARCH 27, 1990

Dear Mr. Lee:

Based on the information provided on your April 3, 1990 resubmittal, the above referenced drainage plan is approved for Site Development.

Please be advised that the following concerns will need to be addressed prior to Building Permit release:

1. Easement dedicated by plat for the existing 24" R.C.P. Storm Sewer Pipe along with a maintenance covenant.
2. Maintenance covenant for the proposed detention pond.
3. Street improvements and other proposed construction within Office Boulevard NE must be coordinated through the work order process at D.R.C.
4. 100-year flood elevation for the pond, indicate on plan drawing.
5. 100-year flood elevation for Office Boulevard. How deep will the water be flowing per the 100-year storm.
6. The proposed 18" culvert and grading on the State Highway right-of-way must be coordinated with the State Highway Department. Please include the hydraulics for the 18" C.M.P.
7. The proposed storm sewer pipe into the proposed channel must be coordinated with the State Highway Department.

PUBLIC WORKS DEPARTMENT

Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER

R.G. Lee
April 9, 1990
Page two

8. Please include the ACS monument used to establish the T.B.M. location, description and elevation.
9. Location and direction of roof drains.
10. More information on I-25 West Frontage Road. Show what is happening to the run-off.

If I can be of further assistance, please feel free to contact me at 768-2650.

Sincerely,

for Bernice J. Montoya
Fred Aguirre
Hydrology Division

BJM:jc
WP+1501

RAINAGE INFORMATION SHEET

PROJECT TITLE: MORGAN BUILDING SYSTEMS ZONE ATLAS/DRNG. FILE #: F-17/D64

LEGAL DESCRIPTION: TRACT A-1-B

CITY ADDRESS: _____

ENGINEERING FIRM: R.G. LEE ENGINEERING CONTACT: R.G. LEE

ADDRESS: 8225 CONNECTICUT AVE PHONE: 299-2471

OWNER: MORGAN BLDG. SYSTEMS CONTACT: _____

ADDRESS: P.O. BOX 660280 DALLAS, TX 75266 PHONE: (214) 840-1200

ARCHITECT: KEN HOBEN DESIGN GROUP CONTACT: KEN HOBEN

ADDRESS: 335 JEFFERSON ST, SE NEW, A.M., 81108 PHONE: 255-9400

SURVEYOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

PRE-DESIGN MEETING:

☒ YES

☐ NO

☐ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. 90-87

EPC NO. 2-90-6

PROJ. NO. _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT

☐ DRAINAGE PLAN

☒ CONCEPTUAL GRADING & DRAINAGE PLAN

☐ GRADING PLAN

☐ EROSION CONTROL PLAN

☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL

☐ PRELIMINARY PLAT APPROVAL

☒ SITE DEVELOPMENT PLAN APPROVAL

☐ FINAL PLAT APPROVAL

☐ BUILDING PERMIT APPROVAL

☐ FOUNDATION PERMIT APPROVAL

☐ CERTIFICATE OF OCCUPANCY APPROVAL

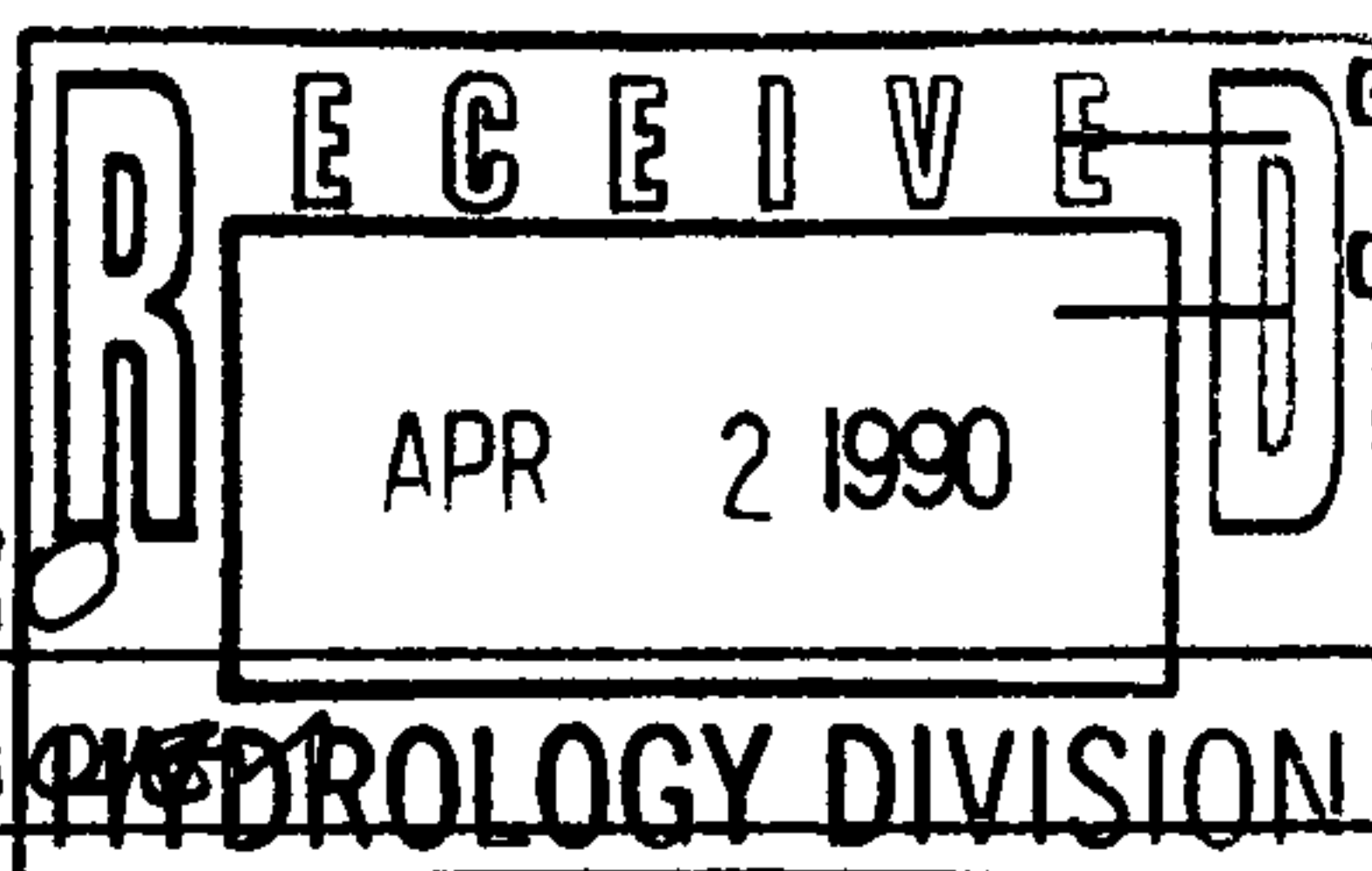
☐ ROUGH GRADING PERMIT APPROVAL

☐ GRADING/PAVING PERMIT APPROVAL

☐ OTHER _____ (SPECIFY)

DATE SUBMITTED: 4-2-90

BY: KEN HOBEN



RESUBMITTAL

FILE COPY



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

KEN SCHULTZ
MAYOR

December 18, 1989

R.G. Lee
Engineering
8225 Connecticut, NE
Albuquerque, New Mexico 87110

RE: CONCEPTUAL DRAINAGE PLAN FOR AN OFFICE AND SHOW ROOM
MORGAN BUILDING SYSTEMS, INC. (F-17/D64) RECEIVED 11/22/89

Dear Mr. Lee:

Based on the information provided on your submittal of November 22, 1989, listed you will find certain concerns that will need to be addressed prior to final approval:

INFORMATION NEEDED:

1. Is there an easement over the 24" R.C.P. storm sewer line? If not, we will need one granted. As-built information will be required. Ownership must be established and an easement must be granted.
2. You are proposing to direct your developed runoff into an arroyo that is privately owned. Until easements are obtained, you must pond on-site.
3. Dedication of the floodplain will also be required.
4. Downstream problems exist within the arroyo. For your client to be allowed to drain into the arroyo, improvements must be done to assure that no further erosion takes place. Alternative is that you use a retention pond for 100% of the developed runoff. You must use the 24 hour storm criteria. This pond will serve its purpose until downstream easements and capacity are established.
5. Covenant for the pond will be required.

PLAN DRAWING:

1. If Morgan Buildings are to be placed on the property, you will need to revise your computations for the increase in impervious area.

PUBLIC WORKS DEPARTMENT

Walter H. Nickerson, Jr., P.E.
Assistant Director Public Works

ENGINEERING GROUP

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER

R.G. Lee
December 18, 1989
Page 2

2. You must indicate the full portion of the arroyo along with the existing contours. Also, please indicate the 100 year flood plain boundary on the plan drawing.
3. You must identify a set back where no improvements will be allowed to take place. Must be identified on the site plan and also on the drainage plan.
4. Approved city street grades will need to be shown on the plan drawing for Office Boulevard.
5. If your client decides to drain on to the Barr Ditch on the Frontage Road, concurrence from the Highway Department will be required along with downstream capacity determination.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,


Bernie J. Montoya, C.E.
Engineering Assistant

BJM/bsj
(WP+1501)

DRAINAGE INFORMATION SHEET

PROJECT TITLE: MORGAN BUILDING SYSTEMS ZONE ATLAS/DRNG. FILE #: F-17 / D64

LEGAL DESCRIPTION: TRACT A-1-B, CRYER PROPERTY

CITY ADDRESS: _____

ENGINEERING FIRM: LEE ENGINEERING CONTACT: R.G. LEE

ADDRESS: 8225 CONNECTICUT NE PHONE: 299-2471

OWNER: MORGAN BUILDING SYSTEMS CONTACT: —

P.O. BOX 660280
ADDRESS: DALLAS, TX 75266-0280 PHONE: —

ARCHITECT: KEN HOVEY DESIGN GROUP CONTACT: KEN HOVEY

ADDRESS: 335 JEFFERSON SE SUITE B PHONE: 255-9400

SURVEYOR: — CONTACT: —

ADDRESS: — PHONE: —

CONTRACTOR: — CONTACT: —

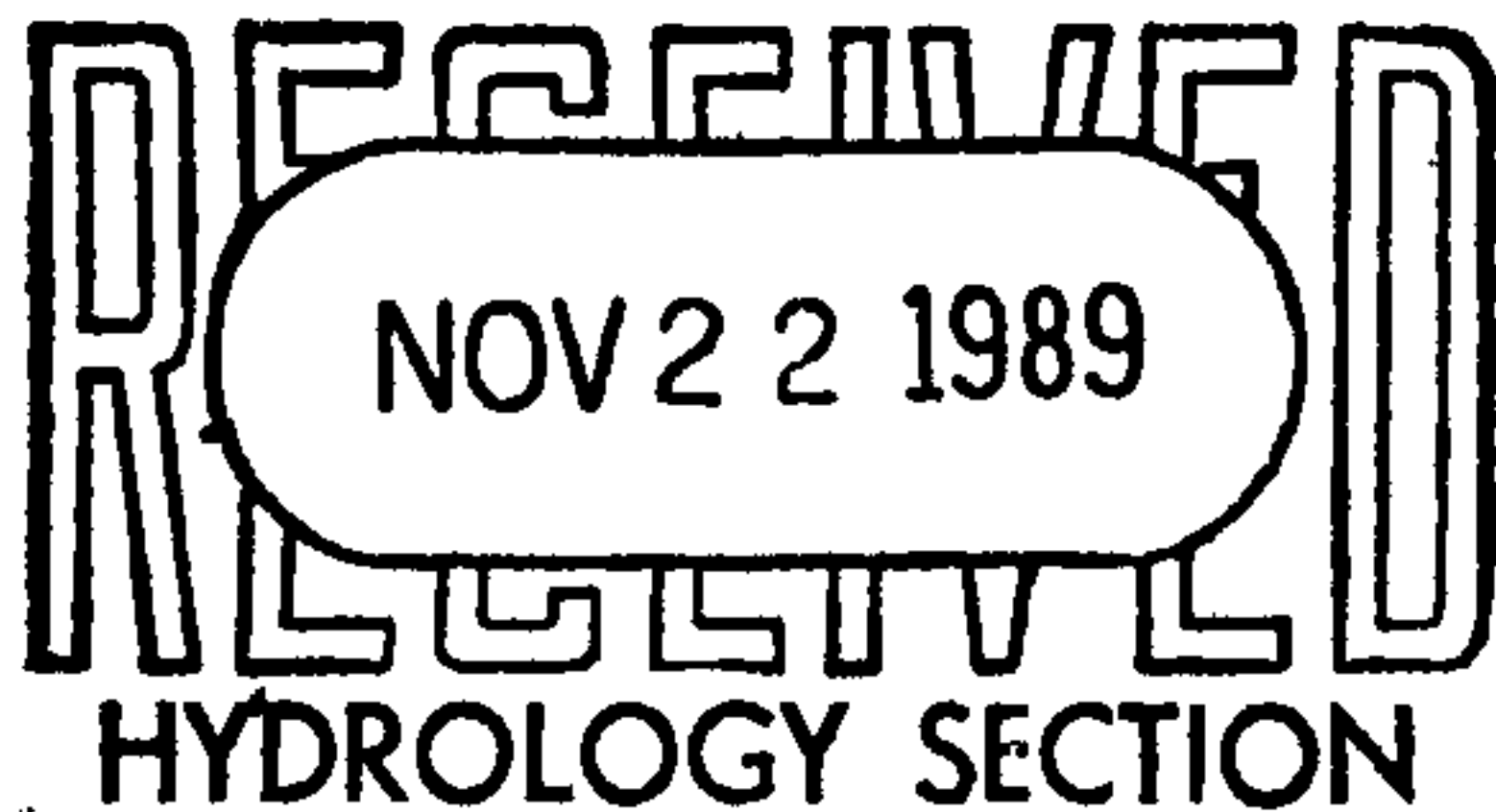
ADDRESS: — PHONE: —

PRE-DESIGN MEETING:

☒ YES

☐ NO

☒ COPY OF CONFERENCE RECAP
SHEET PROVIDED



DRB NO. _____

EPC NO. _____

PROJ. NO. _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT

☐ DRAINAGE PLAN

☒ CONCEPTUAL GRADING & DRAINAGE PLAN

☐ GRADING PLAN

☐ EROSION CONTROL PLAN

☐ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

☐ SKETCH PLAT APPROVAL

☐ PRELIMINARY PLAT APPROVAL

☒ SITE DEVELOPMENT PLAN APPROVAL

☐ FINAL PLAT APPROVAL

☐ BUILDING PERMIT APPROVAL

☐ FOUNDATION PERMIT APPROVAL

☐ CERTIFICATE OF OCCUPANCY APPROVAL

☐ ROUGH GRADING PERMIT APPROVAL

☐ GRADING/PAVING PERMIT APPROVAL

☐ OTHER _____ (SPECIFY)

DATE SUBMITTED: 22 NOV 1989

BY: REGI RUTAR

CITY OF ALBUQUERQUE
PUBLIC WORKS DEPARTMENT
UTILITY DEVELOPMENT DIVISION/HYDROLOGY SECTION

PRE-DESIGN CONFERENCE

DRAINAGE FILE/ZONE ATLAS PAGE NO.: E-17 DATE: 11 / 189 @

EPC NO.: _____ DRB NO.: _____ ZONE: SU-1

SUBJECT: _____

STREET ADDRESS: _____

LEGAL DESCRIPTION: Tract A-1B Cryer Properties

APPROVAL REQUESTED: ☐ PRELIMINARY PLAT ☐ FINAL PLAT
☒ SITE DEVELOPMENT PLAN ☒ BUILDING PERMIT
☐ GRADING/PAVING PERMIT ☐ OTHER

ATTENDANCE:

WHO	REPRESENTING
<u>Ken Hovey</u>	<u>Hovey Design Group/255-9400</u>
<u>Stuart Reader</u>	<u>Hydrology Section</u>

FINDINGS:

SIGN-OFF OF THE SITE DEVELOPMENT PLAN BY THE HYDROLOGY SECTION
REQUIRES AN APPROVED CONCEPTUAL GRADING & DRAINAGE PLAN PER
THE DPM.

BUILDING PERMIT SIGN-OFF REQUIRES AN APPROVED ^{FINAL} GRADING & DRAINAGE
PLAN PER THE DPM.

THE ARROYO ON THE NORTHWEST BOUNDARY MUST BE LOCATED
RELATIVE TO THE PROPERTY LINE SO THAT THE NEED FOR AN EASE-
MENT & A PRUDENT BUILDING LINE CAN BE ESTABLISHED.

FREE DISCHARGE TO THE ARROYO IS APPROPRIATE.

I RECOMMEND A CONCEPTUAL SITE PLAN REVIEW SESSION
W/ THE DRB MEMBERS.

The undersigned agrees that the above findings are summarized accurately and are only subject to change if further investigation reveals that they are not reasonable or that they are based on inaccurate information.

SIGNED: GS Keedel SIGNED: KEN HOVEY
TITLE: CE / HYDROLOGY TITLE: ARCHITECT
DATE: 9 NOV 89 DATE: 9 NOV, '89

****NOTE**** PLEASE PROVIDE A COPY OF THIS PRE-DESIGN FORM WITH THE DRAINAGE SUBMITTAL.