



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

February 12, 2003

Phil Clark
Clark Consulting Engineering
19 Ryan Road
Edgewood, New Mexico 87015

**RE: Drainage Certification for Oakland Court Subdivision (C20-D35) Dated
January 7, 2003**

Dear Mr. Clark:

I have reviewed your submittal and visited the site on January 11, 2003 and forward the following comments.

I visited the site and observed that the house was encroaching into the floodplain as you indicated in your submittal and now they are now placing fill around the house in the floodplain. It seems that the owner is not trying to follow the intent of the drainage plan or the Building Permit construction plans. The original concept and the drawings indicated that there would be no encroachment into the floodplain. Therefore, I am requesting that the different divisions in Planning not release the financial guarantee, that the City not accept the public infrastructure, and that there will be no more inspections for 8838 Oakland Court.

The triangle piece in the floodplain at 8838 Oakland Court needs to be dedicated to AMAFCA as an easement. I have attached a private Facility Drainage Covenant document that needs to be filled out and submitted to the City for the cutoff walls. Originally we had the house behind the wall. Now because the house is next to the floodplain you need to resubmit the scour calculations for review. Please show the velocity and Froude Number next to the house versus using the average numbers. The house is next to the floodplain and it may need extra scour protection. Please submit a new drainage plan to show how you are going to stay out of the floodplain and include the structural drawings for the foundation and the walls. Could you please check the location of the existing wall next to the floodplain to see if it is in the location that is shown on the existing drainage plan.

If you have any questions please call me at 924-3982.

Sincerely,

A handwritten signature in black ink, appearing to read 'Carlos A. Montoya', with a horizontal line extending from the end of the signature.

Carlos A. Montoya
City Floodplain Administrator

Lynn Mazur, AMAFCA

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/11/2002)

PROJECT TITLE: OAKLAND CT. SUBD ZONE MAP/DRG. FILE #: C-20/D35
B #: 1001862 EPC#: _____ WORK ORDER#: 6878.81

GAL DESCRIPTION: LOT 6, OAKLAND CT. SUBD.
TY ADDRESS: _____

ENGINEERING FIRM: CLARK Consulting Engineers
ADDRESS: 19 Ryan Rd.
CITY, STATE: Edgewood, NM

CONTACT: Phil
PHONE: 281-2444
ZIP CODE: 87015

OWNER: Llave Constr., Inc.
ADDRESS: _____
CITY, STATE: _____

CONTACT: Bob Keeran
PHONE: _____
ZIP CODE: _____

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

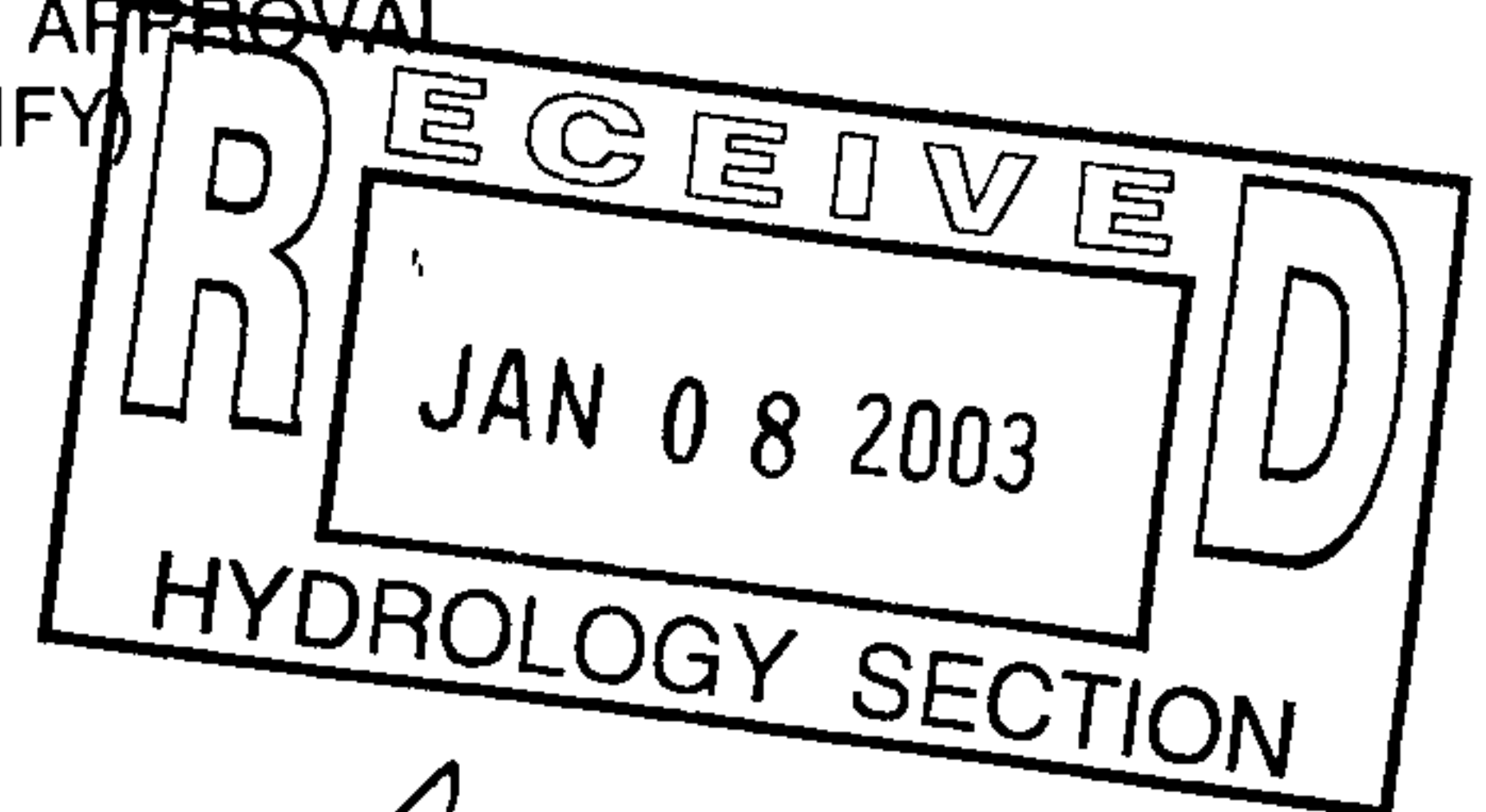
- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN
- ☐ CONCEPTUAL GRADING & DRAINAGE PLAN
- ☐ GRADING PLAN
- ☐ EROSION CONTROL PLAN
- ☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEERS CERTIFICATION (TCL)
- ☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☒ SIA / FINANCIAL GUARANTEE RELEASE
- ☐ 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 (PERM.)
- ☐ CERTIFICATE OF OCCUPANCY (TEMP.)
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ OTHER (SPECIFY) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
- ☐ NO
- ☐ COPY PROVIDED



DATE SUBMITTED: 1/8/03 BY: Philip W. Clark

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

May 7, 2002

Phil Clark
Clark Consulting Engineering
19 Ryan Road
Edgewood, New Mexico 87015

RE: Drainage Report for Oakland Court Subdivision (C20-D35) Dated April 23, 2002

Dear Mr. Clark:

The above referenced drainage plan is approved for Preliminary Plat action at DRB. Prior to final plat or DRC approval the following items need to be addressed.

- ✓ 1. Lots 3, 2, and 1 drain through each other. Please indicate a private drainage easement for this runoff and who will maintain this channel.
- ✓ 2. What is the purpose of the 10-foot Drainage Right of Way south of lot 3?
- ✓ 3. Please indicate where the offsite runoff east of lot 5 will be directed.
- ✓ 4. Where does the runoff from lot 3 travel after it leaves the 10 Drainage Right of way?
5. Who is the FEMA floodplain area dedicated to? Is this a drainage easement?

If you have any questions please call me at 924-3982.

Sincerely,

Carlos A. Montoya
City Floodplain Administrator

DRAINAGE DESIGN ANALYSIS

for

OAKLAND COURT SUBDIVISION LOTS 1 THRU 6

**(Formerly Lots 3 & 4, Block 3, Tract 3
Unit 3, North Albuquerque Acres)**

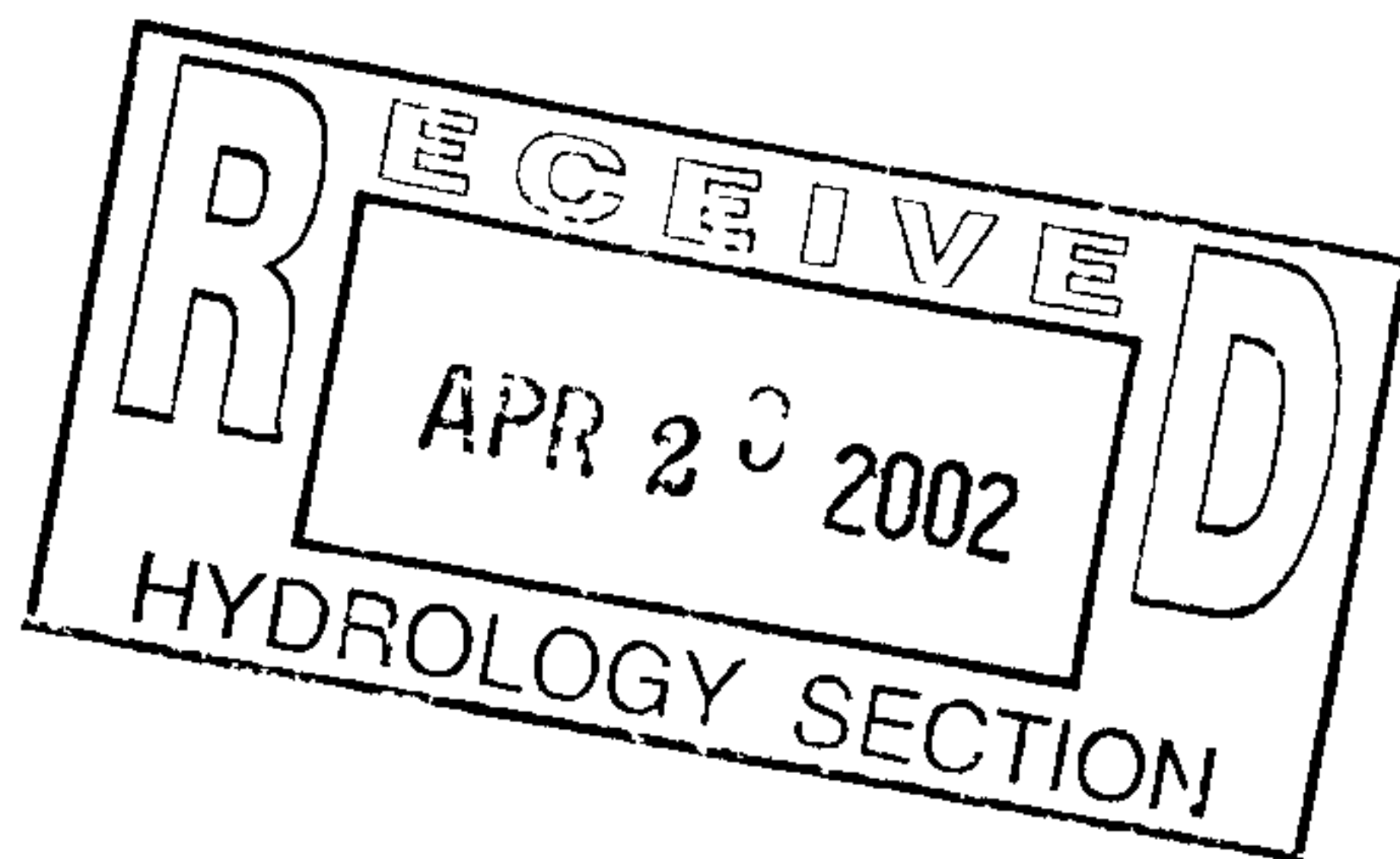
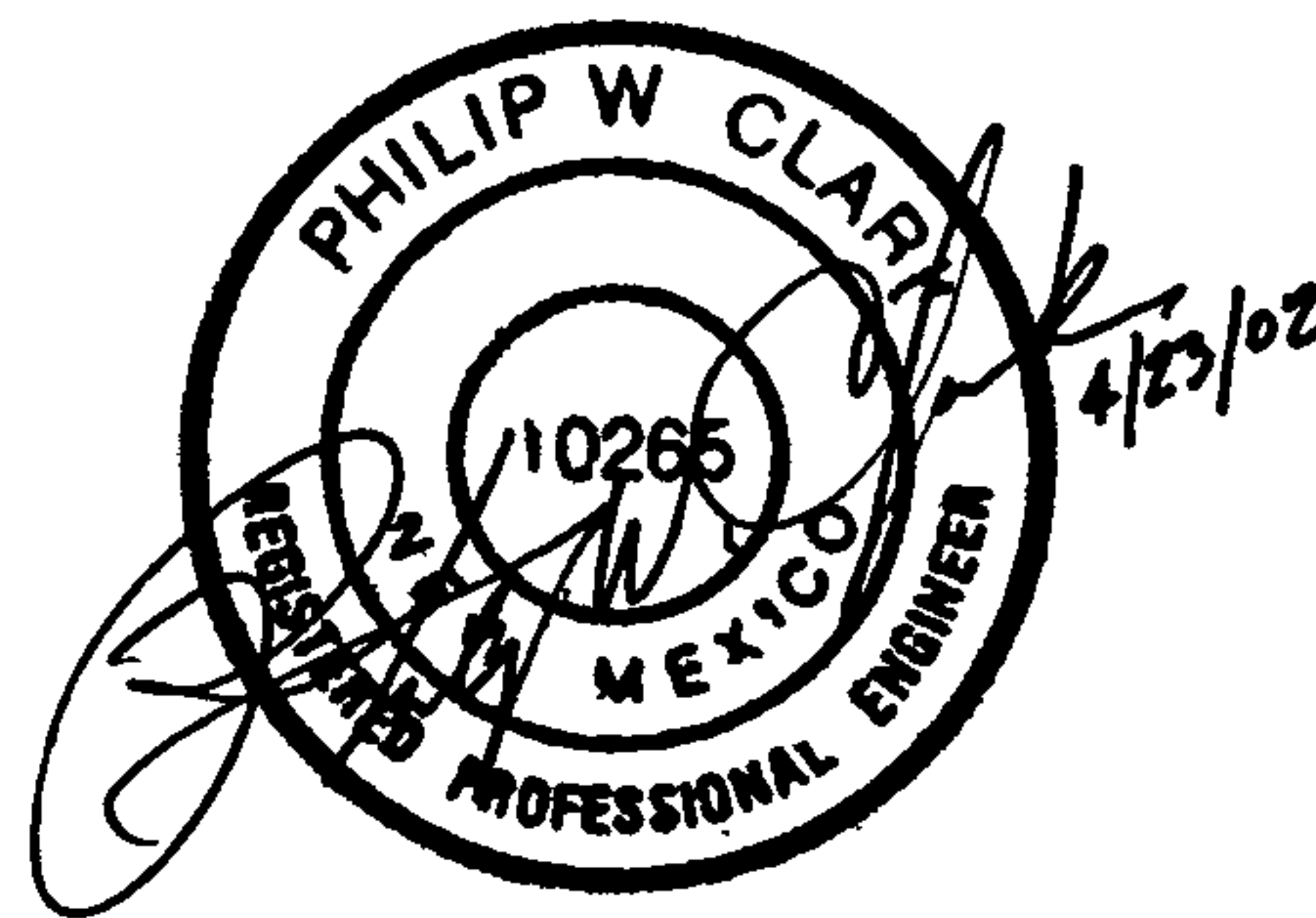
Prepared For:

**ROBERT KEERAN, President
Llave Construction, Inc.
P.O. Box 93642
Albuquerque, NM 87199**

April 23, 2002

CONTENTS

- LOT CALCULATIONS
- EROSION SETBACK ANALYSIS
- SCOUR ANALYSIS
- FUTURE LA CUEVA CHANNEL GEOMETRY
- HEC- RAS, Water Surface Models, La Cueva Arroyo



Prepared by

**Clark Consulting Engineers
19 Ryan Road
Edgewood, NM 87015**

Tele: (505) 281-2444

19 Ryan Road
Edgewood, New Mexico 87015

Fax: (505) 281-2444

CALCULATIONS

DATE: 4/20/02 JWC
PROJECT: Oakland Ct. Subd.
6-Lots, Keeran

DESIGN CRITERIA

HYDROLOGIC METHODS PER SECTION 22.2, HYDROLOGY OF THE DEVELOPMENT PROCESS MANUAL (DPM) REVISED JANUARY 1993 FOR CITY OF ALBUQUERQUE, ADOPTED BY THE COUNTY OF BERNALILLO
DISCHARGE RATE: $Q = Q_{PEAK} \times AREA$, "Peak Discharge Rates For Small Watersheds"
VOLUMETRIC DISCHARGE: $VOLUME = E_{Weighted} \times AREA$
 $P100 = 2.60$ inches, Zone 3 Time of Concentration, $TC = 10$ Minutes
DESIGN STORM: 100-YEAR/6-HOUR, 10-YEAR/6-HOUR [] = 10 YEAR VALUES

EXISTING CONDITIONS

PROJECT AREA = 1.78 ACRES, WHERE EXCESS PRECIP. 'A' = 0.66 in. [0.19]
PEAK DISCHARGE, $Q100 = 3.3$ CFS [1.07], WHERE UNIT PEAK DISCHARGE 'A' = 1.9 CFS/AC. [0.60]
THEREFORE: $VOLUME 100 = 4265$ CF [1228]

DEVELOPED CONDITIONS DETERMINE LAND TREATMENTS, PEAK DISCHARGE AND VOLUMETRIC DISCHARGE FOR STUDY AREA - USE DPM TABLE A-5, MAX. IMPERVIOUS 'D'
N=3 D.U.s Per Acre (34% 'D')

	AREA	LAND TREATM'T	Q_{Peak}	E
UNDEVELOPED	--- Ac.	A	1.87[0.58]	0.66[0.19]
LANDSCAPING - 10% SL	0.67 Ac.	B	2.60[1.19]	0.92[0.36]
COMPACTED SOIL & Slopes >	0.50 Ac.	C	3.45[2.00]	1.29[0.62]
ROOF - PAVEMENT	0.61 Ac.	D	5.02[3.39]	2.36[1.50]
	1.78 Ac.			

THEREFORE: $E_{Weighted} = 1.517$ in. [0.82] &
 $Q100 = 6.5$ FS
 $Q10 = 3.9$ CFS
 $VOLUME 100 = 9802$ CF
 $VOLUME 10 = 5298$ CF

UNIT DISCHARGE = 6.5 CFS/1.78 AC. = 3.65 CFS/AC.
AND... 6.5 CFS/ 6 LOTS = 1.08 CFS Per LOT

UPSTREAM / DOWNSTREAM ANALYSIS

- TWO (2) EXISTING DROP INLETS ARE LOCATED AT THE ESE CURB RETURN OF BARSTOW AND OAKLAND ST. STORM RUN-OFF IS THEN CONVEYED VIA 24" DIA. RCP TO THE LA CUEVA CHANNEL AT THE ENTRANCE TO NOR ESTE SUBDIVISION. SINCE THE INTERSECTION IS AT THE LOWER END OF OVERALL BASIN, PROJECT RUN-OFF IS CONVEYED EARLY WITHIN OVERALL BASIN TIME TO PEAK, CAPACITY EXISTS.
- UPSTREAM ANALYSIS - SEE HEC-RAS WATER SURFACE MODEL OF LA CUEVA, attached/ ON FILE WITH CITY HYDROLOGY

PER RTI STUDY, $Q100 = 2796$ CFS AT VENTURA ST.

EROSION SET BACK ANALYSIS - PER SEDIMENT EROSION DESIGN GUIDE (SEDG)

$Q_{100} = 2850$ CFS...LA CUEVA ARROYO

$Q_D = 0.2Q_{100} = 570$ CFS $WD = 4.6Q_D^{0.4} = 58$ FEET

$LAMDA = [0.8 + 4 \log Q_D] W_D = 685$ FEET

BANK SETBACK = $LAMDA/4 = 171$ FEET

CENTER LINE SETBACK = $BSB + W_D/2 = 200$ FEET, See Plan...

Designing to Shape the Future

DATE: 4/20/02

PROJECT: DAKLAND CT. Subd.
6-LOTS, R-D.
(3 d.u./acre.)

CALCULATIONS

Investigate Scour of Wall @ NE COR. G

- Since proposed on LOT G is approx. 18' inside the computed Erosion Setback, AND parallel to La Cueva Flow some form of scour protection OR depth(min) is required
- USE SEDG EQ. 3.89 & Supercritical HEC-RAS Values

$$Y_s/Y_n = 0.73 + 0.14 F_r^2$$

$$Y = 2.2'$$

$$F_r = 1.6$$

$$\Rightarrow Y_{scour} = 2.39', \text{ use } 3' \text{ depth}$$

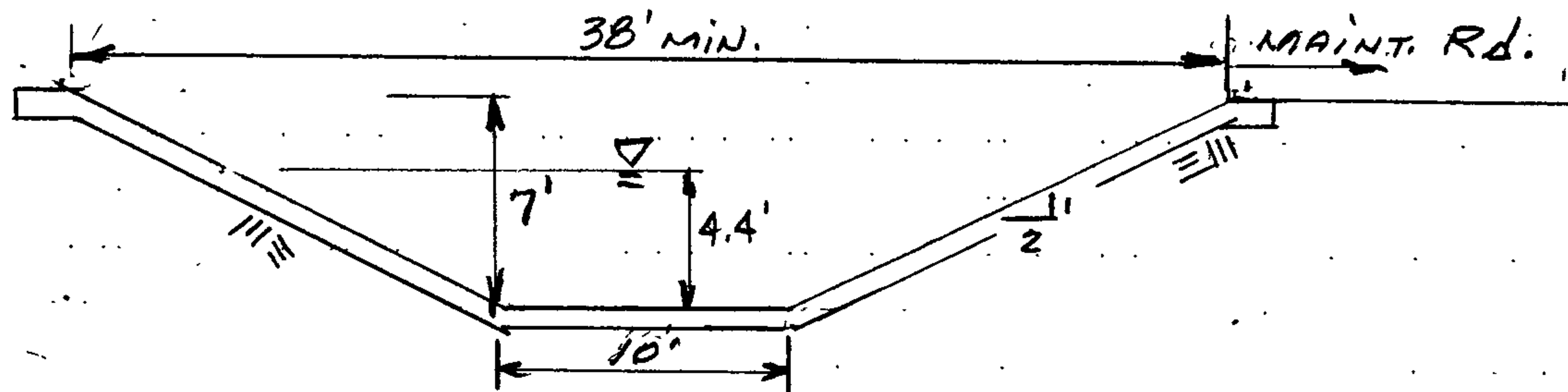
SEE PLAN BF, Bottom of Ftg. Elev.

DATE: 4.17.02 *AC*

PROJECT: OAKLAND COURT
Subd.

CALCULATIONS

- Estimate Future OFF-SITE LA CUEVA CHANNEL GEOMETRY



$$Q = 2850 \text{ cfs}_{100}$$

$$n = 0.015$$

$$S = 3\%$$

$$SS = 2:1$$

⇒ per Mannings EQ. - Open Channel Flow
 $d_{100} \text{ (normal.)} = 4.43'$ $vel_{100} = 34 \text{ fps}$

Free board per D.P.M., Supercritical

$$\text{Use } F_{\text{board}} = 0.7 (2.0 + 0.025 V d^{1/3})$$

$$= 2.4'$$

$$\text{TOTAL REQ. Depth of Lined Channel} = 4.43 + 2.4$$

$$= 6.83' \sim \text{USE } 7'$$

Note:

Purpose - In order to establish continuity of Future Grade of Channel Crossing @ OAKLAND Ave.

HEC-RAS September 1998 Version 2.2
 U.S. Army Corp of Engineers
 Hydrologic Engineering Center
 609 Second Street, Suite D
 Davis, California 95616-4687
 (916) 756-1104

```

X      X XXXXXX XXXX XXXX XX XXXX
X      X X      X X      X X X
X      X X      X X      X X X
XXXXXXX XXXX X      XX XXXX XXXXXX XXXX
X      X X      X X      X X X
X      X X      X X      X X X
X      X XXXXXX XXXX X X X XXXX
    
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PROJECT DATA

Project Title: keeransubd
 Project File : keeransubd.prj
 Run Date and Time: 4/17/02 4:48:38 PM

Project in English units

PLAN DATA

Plan Title: SUBCRITEX
 Plan File : C:\HEC\RAS\keeransubd.p01

Geometry Title: EXISTING
 Geometry File : C:\HEC\RAS\keeransubd.g01

Flow Title : NORMAL_EX
 Flow File : C:\HEC\RAS\keeransubd.f01

Plan Summary Information:

Number of:	Cross sections =	7	Multiple Openings =	0
	Culverts =	0	Inline Weirs =	0
	Bridges =	0		

Computational Information

Water surface calculation tolerance = 0.01
 Critical depth calculation tolerance = 0.01
 Maximum number of iterations = 20
 Maximum difference tolerance = 0.3
 Flow tolerance factor = 0.001

Computation Options

Critical depth computed only where necessary
 Conveyance Calculation Method: At breaks in n values only
 Friction Slope Method: Average Conveyance
 Computational Flow Regime: Subcritical Flow

GEOMETRY DATA

Geometry Title: EXISTING

Geometry File : C:\HEC\RAS\keeransubd.g01

CROSS SECTION

RIVER: LA CUEVA

REACH: 1

RS: 4

INPUT

Description: EXISTING

Station Elevation Data

num=

13

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
50	511	80	510	150	506	162	502.5	180	502.7
195	506	270	507	370	506	400	504	425	503.5
450	506	520	509	535	510				

Manning's n Values

num=

3

Sta	n Val	Sta	n Val	Sta	n Val
50	.04	150	.03	450	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	150	450		57.49	52.5		.1	.3

CROSS SECTION

RIVER: LA CUEVA

REACH: 1

RS: 3.5*

INPUT

Description:

Station Elevation Data

num=

25

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
92.5	509.5	120.7	508.71	140.57	507.9	161.93	506.75	186.5	504
198.5	501.25	216.88	501.4	232.19	503.09	237.7	503.14	281.8	504.97
308.75	505.36	314.14	505.37	372.94	503.69	392.54	504.34	404.3	503.53
410.83	503.47	414.1	503.34	423.9	503.92	435.66	502.44	441.46	502.25
466.98	502	474.86	502.39	492.5	504.25	576.91	509.74	595	511.1

Manning's n Values

num=

4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
92.5	.04	186.5	.03	492.5	.04	595	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	186.5	492.5		57.49	52.5		.1	.3

CROSS SECTION

RIVER: LA CUEVA

REACH: 1

RS: 3

INPUT

Description: EXISTING

Station Elevation Data

num=

17

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
135	508	180	507	200	506	223	502	235	500
275	500.2	320	503.3	353	503.8	413	501	433	502.5
445	501	455	500.9	465	502.7	477	500.5	517	500.5
535	502.5	655	512.2						

Manning's n Values

num=

3

Sta	n Val	Sta	n Val	Sta	n Val

keeransubd

135 .04 223 .03 535 .04
 Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 223 535 52.5 50 52.5 .1 .3

CROSS SECTION RIVER: LA CUEVA
 REACH: 1 RS: 2.5*

INPUT

Description:

Station Elevation Data		num= 28		Sta Elev		Sta Elev		Sta Elev		Sta Elev	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
167.5	507	213.01	504.79	233.24	503.53	256.5	500.65	270	498.65		
286.11	498.84	310.75	499.35	312.33	499.36	359.96	501.09	394.88	501.47		
402.69	501.33	431.12	500.6	454.81	499.58	458.38	499.56	479.55	500.68		
483.25	500.53	492.25	499.52	492.72	499.5	502.83	499.41	513.42	500.27		
526.12	499.12	530.63	499.1	549.59	499.1	568.45	499.6	587.5	501.1		
604.56	502.32	706.91	506.24	732.5	509.1						

Manning's n Values num= 4
 Sta n Val Sta n Val Sta n Val Sta n Val
 167.5 .04 256.5 .03 587.5 .04 732.5 .04

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 256.5 587.5 52.5 50 52.5 .1 .3

CROSS SECTION RIVER: LA CUEVA
 REACH: 1 RS: 2

INPUT

Description: EXISTING

Station Elevation Data		num= 16		Sta Elev		Sta Elev		Sta Elev		Sta Elev	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
200	506	290	499.3	305	497.3	322	497.6	348	498.5		
445	499.2	475	499	500	498	530	499	540	498		
580	497.7	600	497.7	640	499.7	660	501	780	502		
810	506										

Manning's n Values num= 3
 Sta n Val Sta n Val Sta n Val
 200 .04 290 .03 640 .04

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 290 640 52.5 47.5 50 .1 .3

CROSS SECTION RIVER: LA CUEVA
 REACH: 1 RS: 1.5*

INPUT

Description:

Station Elevation Data		num= 27		Sta Elev		Sta Elev		Sta Elev		Sta Elev	
Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
240	503	324.62	499.42	350	497.65	360	495.8	376.49	496.07		
380.63	496.17	401.72	496.8	406.43	496.87	437.38	496.88	478.65	497.79		
495.82	497.7	524.93	497.35	549.18	496.65	566.35	496.79	578.28	497.58		
581.83	497.57	587.99	497.25	623.1	497.11	626.79	496.92	643.73	496.1		
646.19	496.1	664.37	496.57	685	498.35	699.41	499.29	734	500.2		
785.88	501.56	807.5	504								

Manning's n Values
 Sta n Val Sta num= Sta n Val Sta n Val
 240 .04 350 .03 685 .04 807.5 .04

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 350 685 52.5 47.5 50 .1 .3

CROSS SECTION RIVER: LA CUEVA
 REACH: 1 RS: 1

INPUT
 Description: EXISTING
 Station Elevation Data num= 16

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
280	500	380	498	410	496	415	494.3	435	494.6
460	495.2	490	495	530	496.5	615	495	630	496.5
670	496.5	690	494.5	710	494.5	730	497	760	499
805	502								

Manning's n Values
 Sta n Val Sta num= 3 Sta n Val
 280 .04 410 .03 730 .04

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 410 730 105 100 105 .1 .3

Profile Output Table - Standard Table 1

Reach # Chl	River Sta	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top Width (ft)	Froude
1 1.00	4	2850.0	502.5	506.9	506.9	507.63	0.0116	6.81	429.9	323.0	
1 0.99	3.5*	2850.0	501.3	504.8	504.8	505.61	0.0111	7.10	405.5	268.0	
1 1.00	3	2850.0	500.0	502.8	502.8	503.56	0.0112	7.14	400.6	257.1	
1 1.00	2.5*	2850.0	498.6	501.3	501.3	502.01	0.0118	6.66	429.4	318.4	
1 1.02	2	2850.0	497.3	499.7	499.7	500.37	0.0125	6.46	441.8	355.9	
1 1.00	1.5*	2850.0	495.8	498.3	498.3	498.95	0.0121	6.51	439.8	343.7	
1 1.01	1	2850.0	494.3	496.9	496.9	497.55	0.0122	6.65	432.4	331.9	

ERRORS WARNINGS AND NOTES
 Errors Warnings and Notes for Plan : SUBCRITEX

River: LA CUEVA Reach: 1 RS: 4 Profile: PF 1
 Warning: The energy equation could not be balanced within the specified number of iterations. The program used critical depth

for the water surface and continued on with the calculations.

Warning:Divided flow computed for this cross-section.

Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

River: LA CUEVA Reach: 1 RS: 3.5* Profile: PF 1

Warning:The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.

Warning:Divided flow computed for this cross-section.

Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

River: LA CUEVA Reach: 1 RS: 3 Profile: PF 1

Warning:The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.

Warning:Divided flow computed for this cross-section.

Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

River: LA CUEVA Reach: 1 RS: 2.5* Profile: PF 1

Warning:The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.

Warning:Divided flow computed for this cross-section.

Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

River: LA CUEVA Reach: 1 RS: 2 Profile: PF 1

Warning:The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.

Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

River: LA CUEVA Reach: 1 RS: 1.5* Profile: PF 1

Warning:The energy equation could not be balanced within the specified number of iterations. The program used critical depth for the water surface and continued on with the calculations.

Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

Warning:During the standard step iterations, when the assumed water surface was set equal to critical depth, the calculated water surface came back below critical depth. This indicates that there is not a valid subcritical answer. The program defaulted to critical depth.

River: LA CUEVA Reach: 1 RS: 1 Profile: PF 1

Warning:Slope too steep for slope area to converge during supercritical flow calculations (normal depth is below critical depth). water surface set to critical depth.

HEC-RAS September 1998 Version 2.2
 U.S. Army Corp of Engineers
 Hydrologic Engineering Center
 609 Second Street, Suite D
 Davis, California 95616-4687
 (916) 756-1104

```

X      X  XXXXXX  XXXX      XXXX      XX      XXXX
X      X  X      X      X      X      X      X
X      X  X      X      X      X      X      X
XXXXXXX XXXX      X      XXX XXXX      XXXXXX      XXXX
X      X  X      X      X      X      X      X
X      X  X      X      X      X      X      X
X      X  XXXXXX  XXXX      X      X      X      X
    
```

PROJECT DATA
 Project Title: keeransubd
 Project File : keeransubd.prj
 Run Date and Time: 4/23/02 11:45:40 AM

Project in English units

Project Description:
 LA CUEVA ARROYO ~ BARSTOW/OAKLAND

PLAN DATA - *Supercritical*

Plan Title: SUPEREX
 Plan File : C:\HEC\RAS\keeransubd.p02

Geometry Title: EXISTING
 Geometry File : C:\HEC\RAS\keeransubd.g01

Flow Title : NORMAL_EX
 Flow File : C:\HEC\RAS\keeransubd.f01

Plan Summary Information:
 Number of: Cross Sections = 7 Multiple Openings = 0
 Culverts = 0 Inline Weirs = 0
 Bridges = 0

Computational Information
 Water surface calculation tolerance = 0.01
 Critical depth calculation tolerance = 0.01
 Maximum number of iterations = 20
 Maximum difference tolerance = 0.3
 Flow tolerance factor = 0.001

Computation Options
 Critical depth computed only where necessary
 Conveyance Calculation Method: At breaks in n values only

Friction Slope Method: Average Conveyance
Computational Flow Regime: Supercritical Flow

GEOMETRY DATA

Geometry Title: EXISTING
Geometry File : C:\HEC\RAS\keeransubd.g01

CROSS SECTION RIVER: LA CUEVA
REACH: 1 RS: 4

INPUT

Description: EXISTING

Station Elevation Data				num=	13
Sta	Elev	Sta	Elev	Sta	Elev
50	511	80	510	150	506
195	506	270	507	370	506
450	506	520	509	535	510

Manning's n Values				num=	3
Sta	n Val	Sta	n Val	Sta	n Val
50	.04	150	.03	450	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	150	450		57.49	52.5		.1	.3

CROSS SECTION RIVER: LA CUEVA
REACH: 1 RS: 3.5*

INPUT

Description:

Station Elevation Data				num=	25
Sta	Elev	Sta	Elev	Sta	Elev
92.5	509.5	120.7	508.71	140.57	507.9
198.5	501.25	216.88	501.4	232.19	503.09
308.75	505.36	314.14	505.37	372.94	503.69
410.83	503.47	414.1	503.34	423.9	503.92
466.98	502	474.86	502.39	492.5	504.25

Manning's n Values				num=	4
Sta	n Val	Sta	n Val	Sta	n Val
92.5	.04	186.5	.03	492.5	.04

Bank Sta:	Left	Right	Lengths:	Left Channel	Right	Coeff	Contr.	Expan.
	186.5	492.5		57.49	52.5		.1	.3

CROSS SECTION RIVER: LA CUEVA
REACH: 1 RS: 3

INPUT

Description: EXISTING

Station Elevation Data				num=	17
Sta	Elev	Sta	Elev	Sta	Elev
135	508	180	507	200	506
275	500.2	320	503.3	353	503.8
445	501	455	500.9	465	502.7

535 502.5 655 512.2

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
135	.04	223	.03	535	.04

Bank Sta: Left 223 Right 535 Lengths: Left Channel 52.5 Right 50 Coeff Contr. .1 Expan. .3

CROSS SECTION RIVER: LA CUEVA
REACH: 1 RS: 2.5*

INPUT

Description:

Station Elevation Data num= 28

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
167.5	507	213.01	504.79	233.24	503.53	256.5	500.65	270	498.65
286.11	498.84	310.75	499.35	312.33	499.36	359.96	501.09	394.88	501.47
402.69	501.33	431.12	500.6	454.81	499.58	458.38	499.56	479.55	500.68
483.25	500.53	492.25	499.52	492.72	499.5	502.83	499.41	513.42	500.27
526.12	499.12	530.63	499.1	549.59	499.1	568.45	499.6	587.5	501.1
604.56	502.32	706.91	506.24	732.5	509.1				

Manning's n Values num= 4

Sta	n Val	Sta	n Val	Sta	n Val	Sta	n Val
167.5	.04	256.5	.03	587.5	.04	732.5	.04

Bank Sta: Left 256.5 Right 587.5 Lengths: Left Channel 52.5 Right 50 Coeff Contr. .1 Expan. .3

CROSS SECTION RIVER: LA CUEVA
REACH: 1 RS: 2

INPUT

Description: EXISTING

Station Elevation Data num= 16

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
200	506	290	499.3	305	497.3	322	497.6	348	498.5
445	499.2	475	499	500	498	530	499	540	498
580	497.7	600	497.7	640	499.7	660	501	780	502
810	506								

Manning's n Values num= 3

Sta	n Val	Sta	n Val	Sta	n Val
200	.04	290	.03	640	.04

Bank Sta: Left 290 Right 640 Lengths: Left Channel 52.5 Right 47.5 Coeff Contr. .1 Expan. .3

CROSS SECTION RIVER: LA CUEVA
REACH: 1 RS: 1.5*

INPUT

Description:

Station Elevation Data num= 27

Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev	Sta	Elev
240	503	324.62	499.42	350	497.65	360	495.8	376.49	496.07
380.63	496.17	401.72	496.8	406.43	496.87	437.38	496.88	478.65	497.79
495.82	497.7	524.93	497.35	549.18	496.65	566.35	496.79	578.28	497.58

keeransubd

581.83 497.57 587.99 497.25 623.1 497.11 626.79 496.92 643.73 496.1
 646.19 496.1 664.37 496.57 685 498.35 699.41 499.29 734 500.2
 785.88 501.56 807.5 504

Manning's n Values num= 4
 Sta n Val Sta n Val Sta n Val Sta n Val
 240 .04 350 .03 685 .04 807.5 .04

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 350 685 52.5 47.5 50 .1 .3

CROSS SECTION RIVER: LA CUEVA
 REACH: 1 RS: 1

INPUT

Description: EXISTING

Station Elevation Data num= 16
 Sta Elev Sta Elev Sta Elev Sta Elev Sta Elev
 280 500 380 498 410 496 415 494.3 435 494.6
 460 495.2 490 495 530 496.5 615 495 630 496.5
 670 496.5 690 494.5 710 494.5 730 497 760 499
 805 502

Manning's n Values num= 3
 Sta n Val Sta n Val Sta n Val
 280 .04 410 .03 730 .04

Bank Sta: Left Right Lengths: Left Channel Right Coeff Contr. Expan.
 410 730 105 100 105 .1 .3

Profile Output Table - standard Table 1

Reach width (ft)	Froude #	River Sta # Chl	Q Total (cfs)	Min Ch El (ft)	W.S. Elev (ft)	Crit W.S. (ft)	E.G. Elev (ft)	E.G. Slope (ft/ft)	Vel Chnl (ft/s)	Flow Area (sq ft)	Top
1		4	2850.0	502.5	506.1	506.9	508.36	0.0301	12.12	235.2	
142.4		1.64	2850.0	501.3	504.1	504.8	506.41	0.0484	12.19	233.8	
1		3.5*	2850.0	500.0	502.2	502.8	504.04	0.0374	10.94	260.7	
197.8		1.97	2850.0	498.6	500.9	501.3	502.25	0.0291	9.32	306.1	
1		3	2850.0	497.3	499.4	499.7	500.60	0.0357	8.91	319.8	
213.9		1.24	2850.0	495.8	498.0	498.3	499.09	0.0274	8.36	341.8	
1		2.5*	2850.0	494.3	496.5	496.9	497.73	0.0297	8.71	328.8	
265.6		1.52									
1		2									
344.3		1.63									
1		1.5*									
336.2		1.45									
1		1									
324.6		1.51									

ERRORS WARNINGS AND NOTES

Errors Warnings and Notes for Plan : SUPEREX

River: LA CUEVA Reach: 1 RS: 4 Profile: PF 1
Warning:Divided flow computed for this cross-section.

River: LA CUEVA Reach: 1 RS: 3.5* Profile: PF 1
Warning:Divided flow computed for this cross-section.
Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

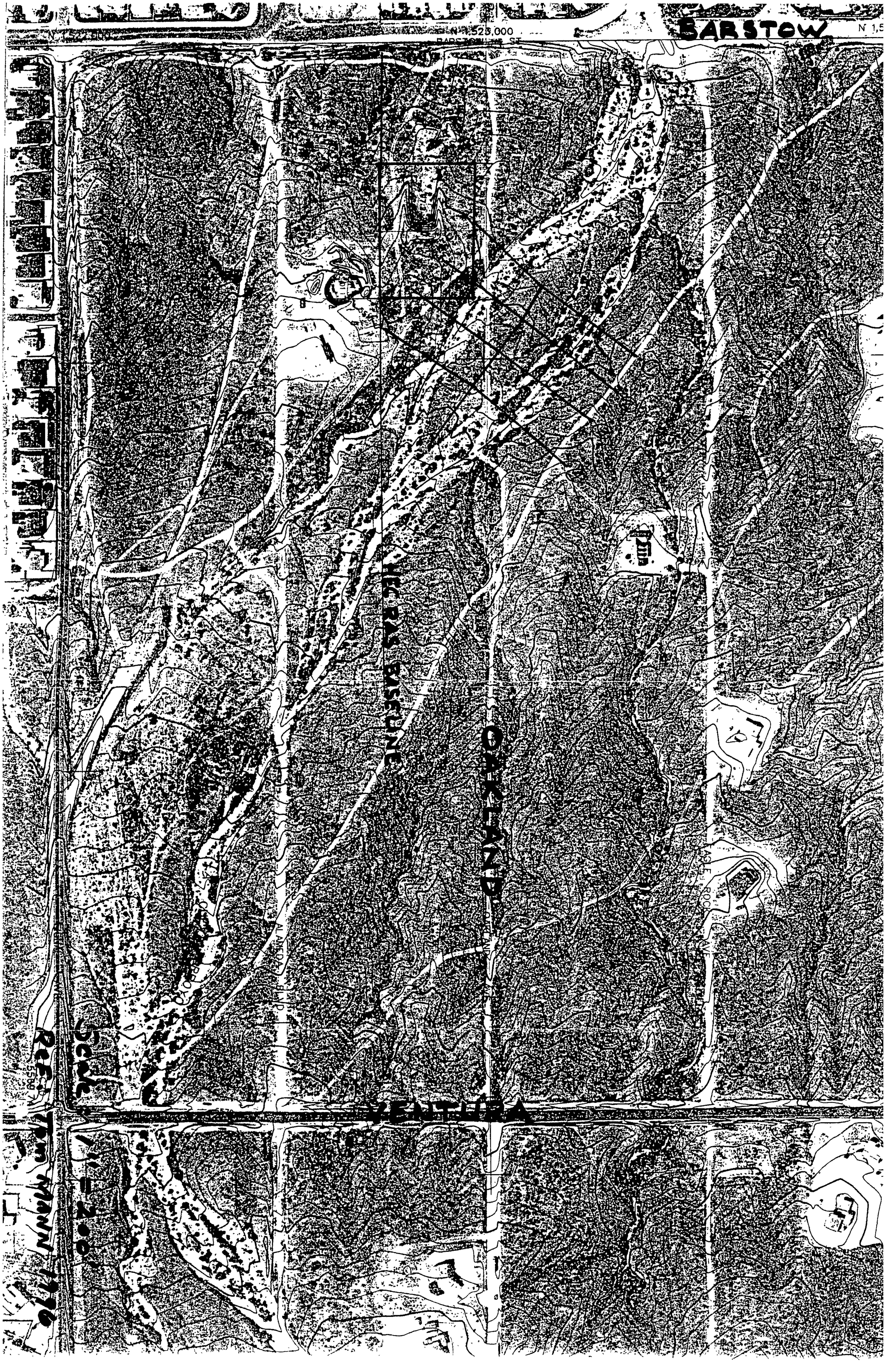
River: LA CUEVA Reach: 1 RS: 3 Profile: PF 1
Warning:Divided flow computed for this cross-section.
Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: LA CUEVA Reach: 1 RS: 2.5* Profile: PF 1
Warning:Divided flow computed for this cross-section.
Warning:The velocity head has changed by more than 0.5 ft (0.15 m). This may indicate the need for additional cross sections.
Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: LA CUEVA Reach: 1 RS: 2 Profile: PF 1
Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: LA CUEVA Reach: 1 RS: 1.5* Profile: PF 1
Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.

River: LA CUEVA Reach: 1 RS: 1 Profile: PF 1
Warning:The energy loss was greater than 1.0 ft (0.3 m). between the current and previous cross section. This may indicate the need for additional cross sections.



ALAMO

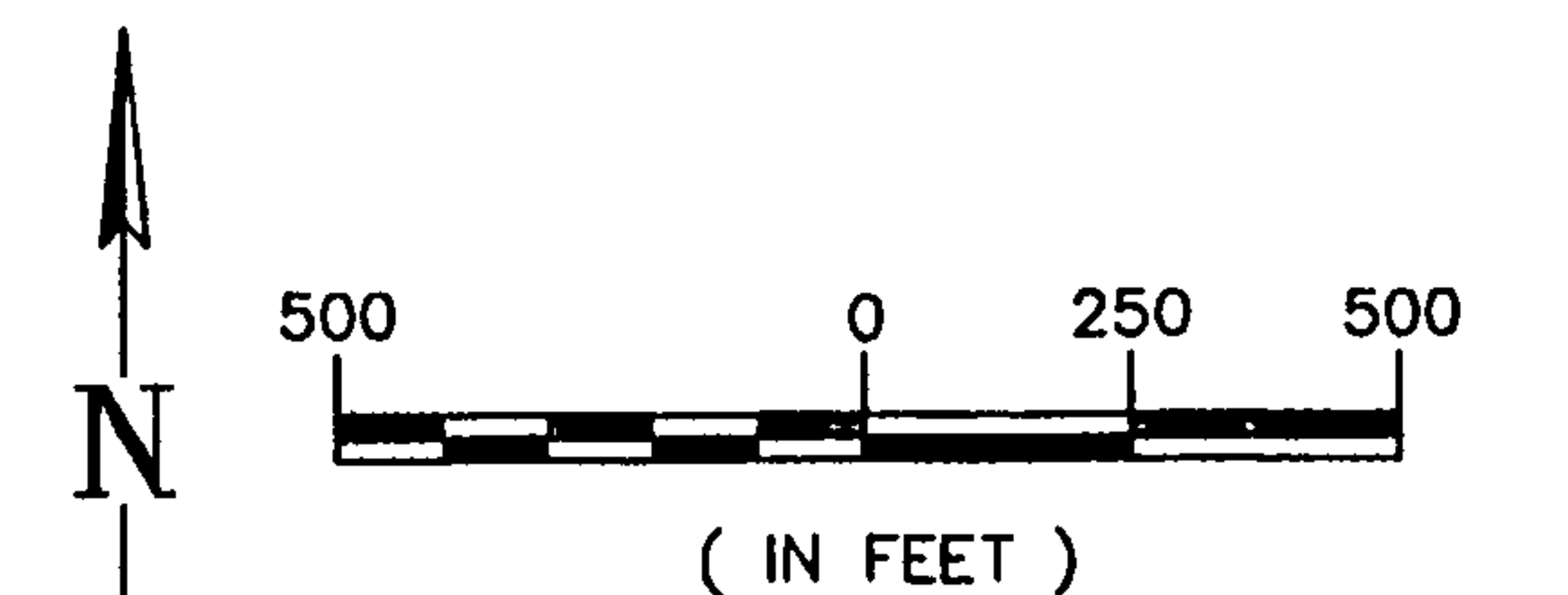
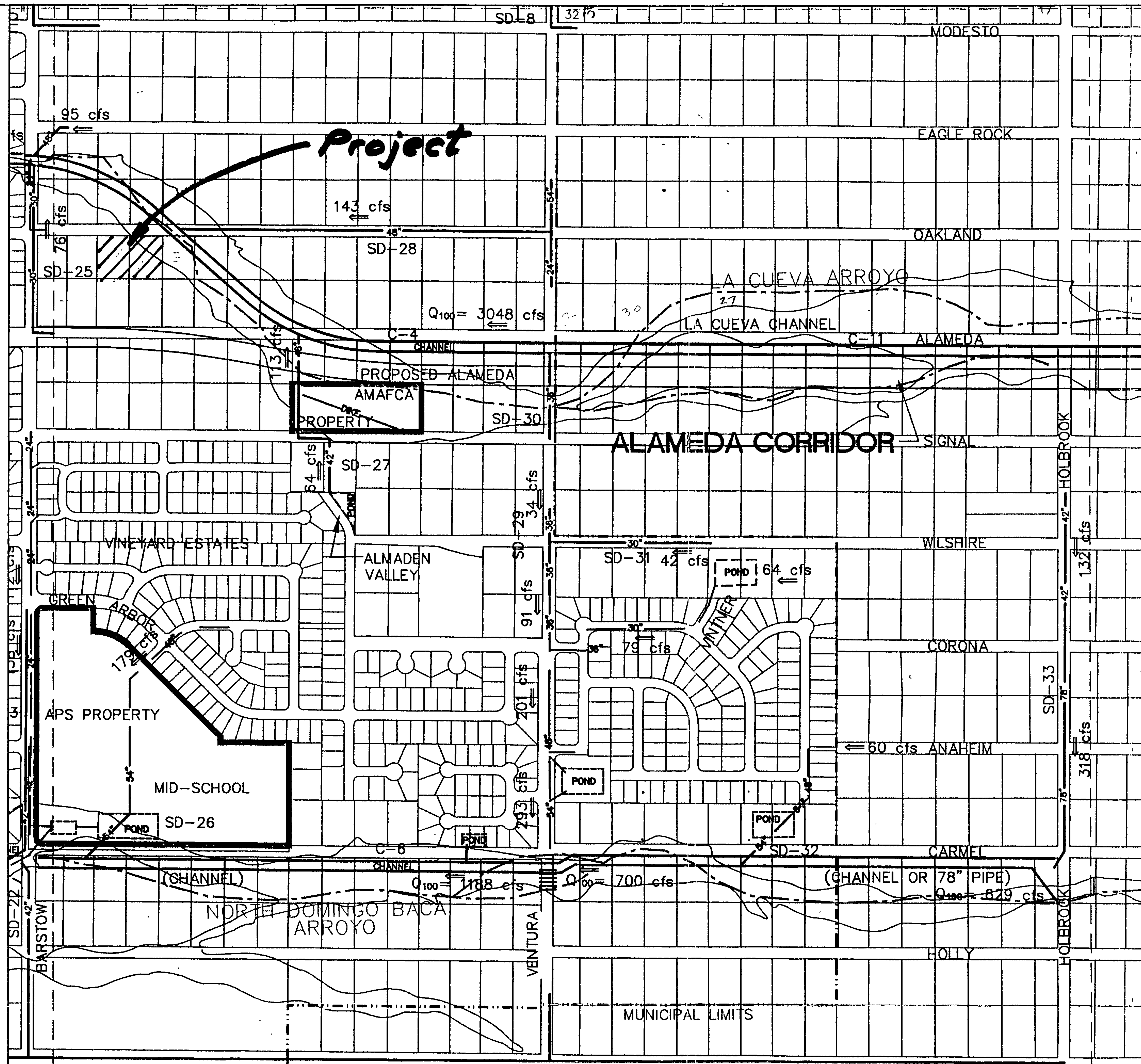
AGILE ROCK

AGILE ROCK

Revised from March 1976

Scale

1:200



LEGEND

- MUNICIPAL LIMITS
- EXISTING PLATTING
- EXISTING ARROYO FLOW PATH
- EXISTING STORM DRAIN
- EXISTING CHANNEL
- PROPOSED STORM DRAIN
- PROPOSED CHANNEL
- PROPOSED STRUCTURE
- PROPOSED ROAD
- PROPOSED DIP SECTION
- PROPOSED DIKE
- POTENTIAL AVULSION

NOTE:
All flow rates shown are
future condition 100-year.

LA CUEVA, EL CAMINO, AND
NORTH CAMINO ARROYOS
FACILITY PLAN

STORM DRAIN FACILITIES
C-20

FIGURE 8.7i



ALBUQUERQUE METROPOLITAN ARROYO
FLOOD CONTROL AUTHORITY

Resource Technology, Inc.

Civil Engineering 1720 - B Randolph Road SE
Environmental Sciences Albuquerque, New Mexico 87106
Water Resources E-mail: rti@rnmia.com
Landscape Architecture Telephone: (505) 243-7300
Planning Facsimile: (505) 243-7400

87



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 8, 2003

Phil Clark, P.E.
Clark Consulting Engineers
19 Ryan Rd
Edgewood, NM 87015


Re: OAKLAND COURT SUBDIVISION (C-20/D35)
Engineers Certification for Release of Financial Guaranty
Engineers Stamp dated 4/23/2002 Rev. 5/18/2002
Engineers Certification dated 7/4/2003

Dear Mr. Clark:

Based upon the information provided in your Engineers Certification submittal dated 7/7/2003, the above referenced plan is adequate to satisfy the Grading and Drainage Certification for Release of Financial Guaranty.

If I can be of further assistance, please contact me at 924-3981.

Sincerely,


Teresa A. Martin
Hydrology Plan Checker
Development & Bldg. Ser. Division

c: Arlene Portillo, COA--Project # 687881
File



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 2, 2003

Phil Clark, P.E.
Clark Consulting Engineers.
19 Ryan Rd
Edgewood, New Mexico 87015

RE: OAKLAND COURT SUBDIVISION (C-20/D35)
Engineers Certification – Submitted for Release of Financial Guaranty
Engineers Stamp dated 4/23/2002 Rev. 5/8/2002
Engineers Certification dated 9/12/2002 Rev. 6/26/2003

Dear Phil:

Based on the information provided in your submittal dated 6/27/2003, the above referenced project **can not** be approved for Certificate of Occupancy for Lot 6.

As per Carlos Montoya, the following needs be addressed and resubmitted for approval.

- Certificate of Occupancies are not issued for individual lots in approved subdivisions. Certification needs to be for the entire subdivision (not just lot 6) for the release of financial guaranty.
- Also, the City has adopted standard language for the Engineers Certification (see attached form) which must be used in lieu of your engineers certification language. This certification language must be placed directly on the grading and drainage plan and not as an attached letter.

When the above items have been addressed and resubmitted to hydrology, we will revisit the issue of the release of Financial Guaranty and SIA.

Please contact Carlos Montoya, for any questions regarding these issues.

Sincerely,

Teresa A. Martin, P.E.
Hydrology Plan Checker
Development & Bldg. Ser. Division

c: File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/11/2002)

PROJECT TITLE: LOT 6 OAKLAND CT. Subd. ZONE MAP/DRG. FILE #: C20/D35
DRB #: 1001862 EPC#: _____ WORK ORDER#: 6878.81

LEGAL DESCRIPTION: LOT 6 - OAK. CT. Subd.
CITY ADDRESS: 8838 OAKLAND CT., NE

ENGINEERING FIRM: Clark Consulting Engineers
ADDRESS: 19 Ryan Rd.
CITY, STATE: Edgewood, NM

CONTACT: Phil
PHONE: 281-2444
ZIP CODE: 87015

OWNER: Llave Constr. Inc.
ADDRESS: PO Box 93642
CITY, STATE: Alb.

CONTACT: Bob Keeran
PHONE: 249-1502
ZIP CODE: 87199

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: Philip W. Turner
ADDRESS: _____
CITY, STATE: _____

CONTACT: PWT
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

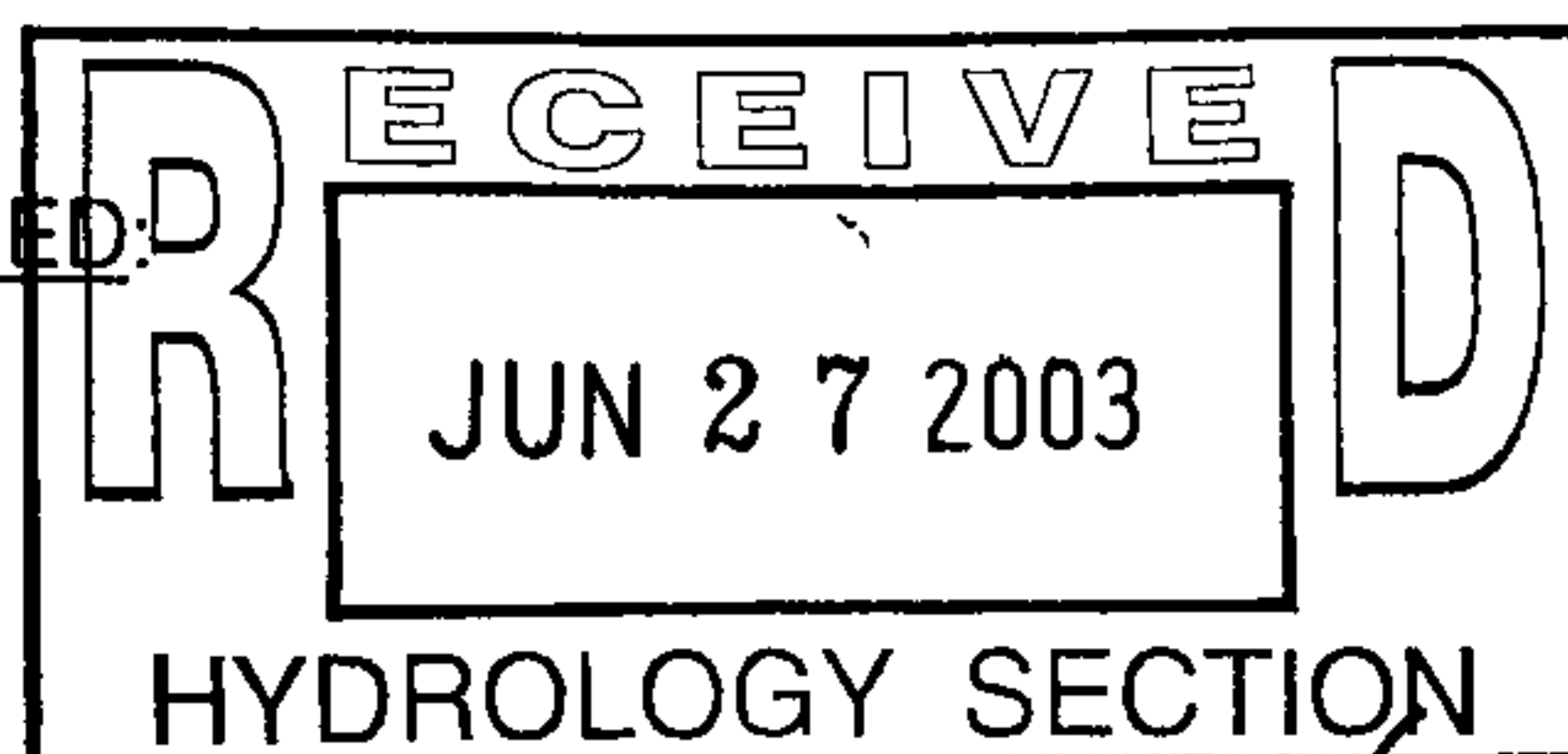
- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERTIFICATION (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEERS CERTIFICATION (TCL)
☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
☐ OTHER

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
☐ 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 (PERM.)
☐ CERTIFICATE OF OCCUPANCY (TEMP.)
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ☐ YES
☐ NO
☐ COPY PROVIDED



DATE SUBMITTED: 6/27/03 BY: Phil Chen

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

OAKLAND COURT SUBDIVISION

LOT 6, OAKLAND COURT SUBDIVISION

LEGAL DESCRIPTION - DRAINAGE EASEMENT

ALL THAT CERTAIN TRACT OF LAND SITUATE IN BERNALILLO COUNTY NEW MEXICO, BEING A PORTION OF LOT 6, OAKLAND COURT SUBDIVISION AS SAME IS FILED IN THE OFFICE OF THE COUNTY CLERK FOR BERNALILLO COUNTY, NEW MEXICO, ON AUGUST 5, 2002, AND BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

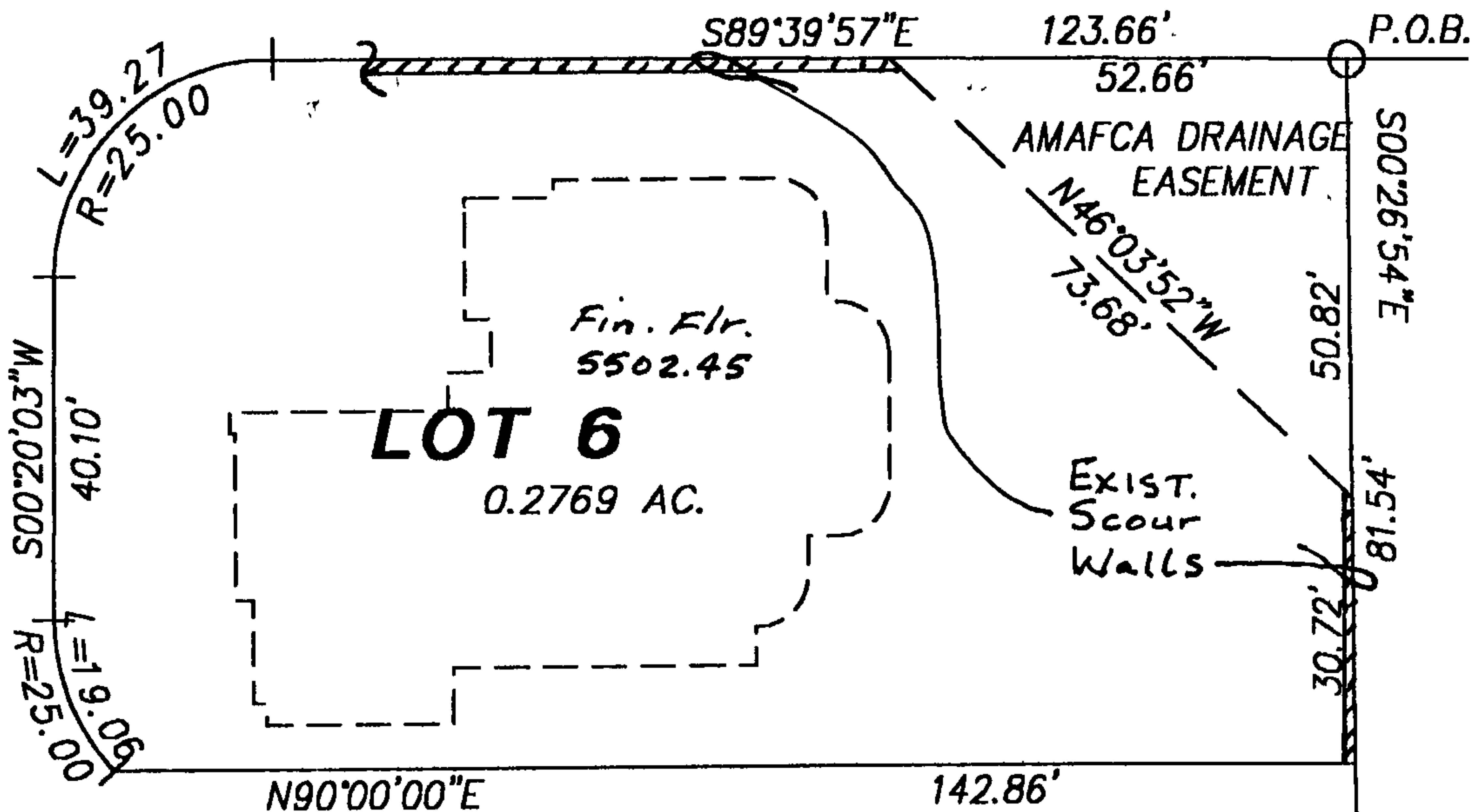
COMMENCING AT THE NORTHEAST CORNER OF SAID LOT 6; THENCE S00°26'54"E A DISTANCE OF 50.82 FEET TO A POINT ON THE EAST BOUNDARY; THENCE N46°03'52"W A DISTANCE OF 73.68 FEET TO A POINT ON THE NORTH BOUNDARY OF SAID LOT; THENCE S89°39'57"E A DISTANCE OF 52.66 FEET TO THE POINT OF BEGINNING, CONTAINING 0.0307 ACRES MORE OR LESS.



1" = 30'

OAKLAND AVE. NE

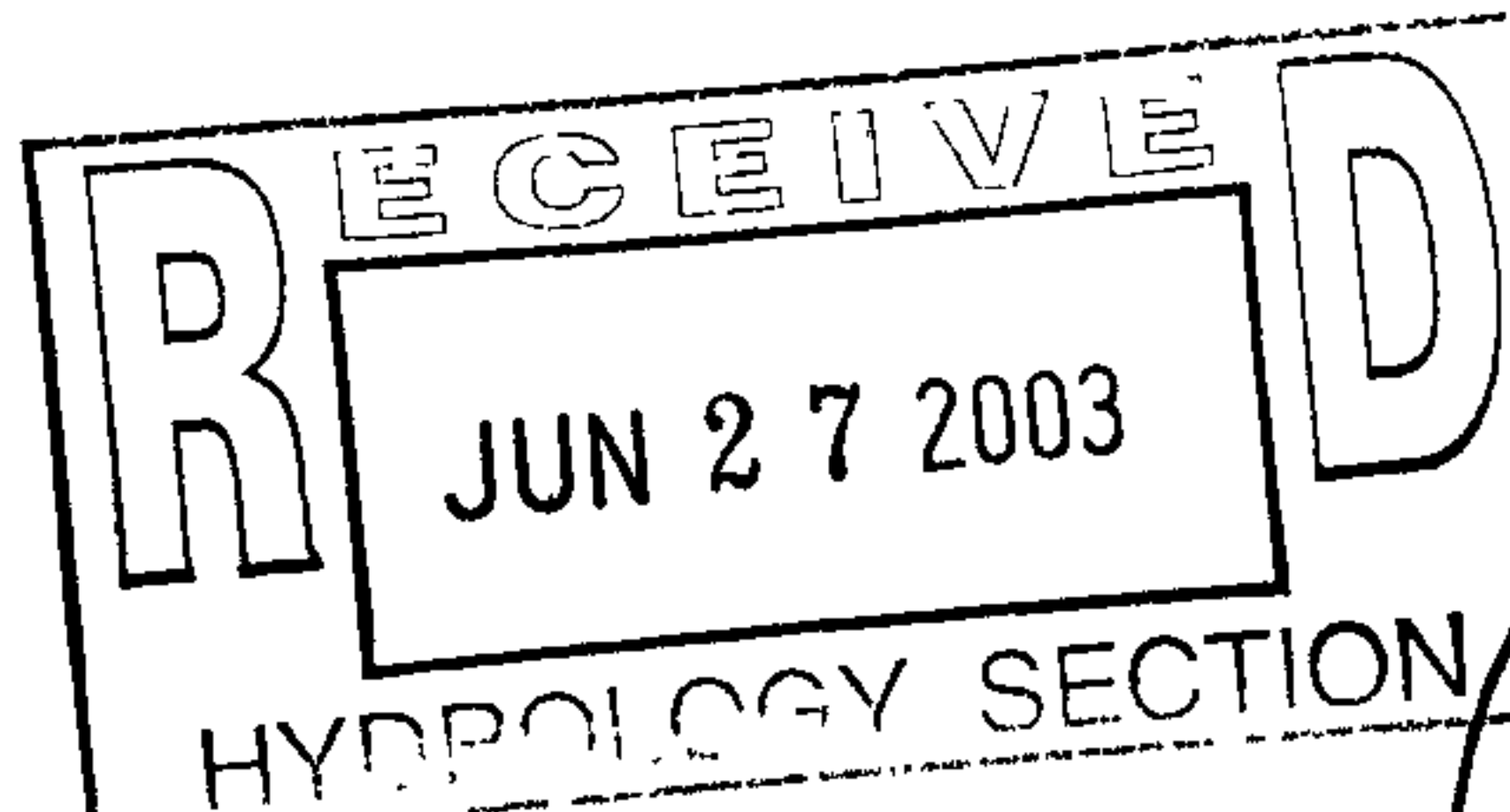
OAKLAND CT.



NOTES:

1. ALL BEARINGS BASED ON RECORD SUBDIVISION PLAT, 'OAKLAND COURT SUBDIVISION' FILED AUGUST 5, 2002, BOOK 2002C, PAGE 262

2. ALL DISTANCES SHOWN ARE GROUND DISTANCES.



SURVEYOR'S CERTIFICATION

I, PHILIP W. TURNER, A PROFESSIONAL SURVEYOR LICENSED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THIS DRAINAGE EASEMENT WAS PREPARED BY ME UNDER MY DIRECT SUPERVISION, FROM THE NOTES OF A TOPOGRAPHIC SURVEY PERFORMED IN DECEMBER 2002, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Philip W. Turner 05-22-2003
PHILIP W. TURNER, NMPS#10204



EXHIBIT "A"



Clark Consulting Engineers

19 Ryan Road

Edgewood, New Mexico 87015

E-Mail: ccealbq@aol.com

Tele: (505) 281-2444

Fax: (505) 281-2444

June 25, 2003

Mr. Carlos Montoya, P.E.
City Floodplain Administrator
City of Albuquerque, PO Box 1293
Albuquerque, NM 87103

RE: Engineer's Drainage Re-Certification – 8838 Oakland Court, NE (Lot 6, Oakland Court Subdivision.)
Hydrology File: C20/D35

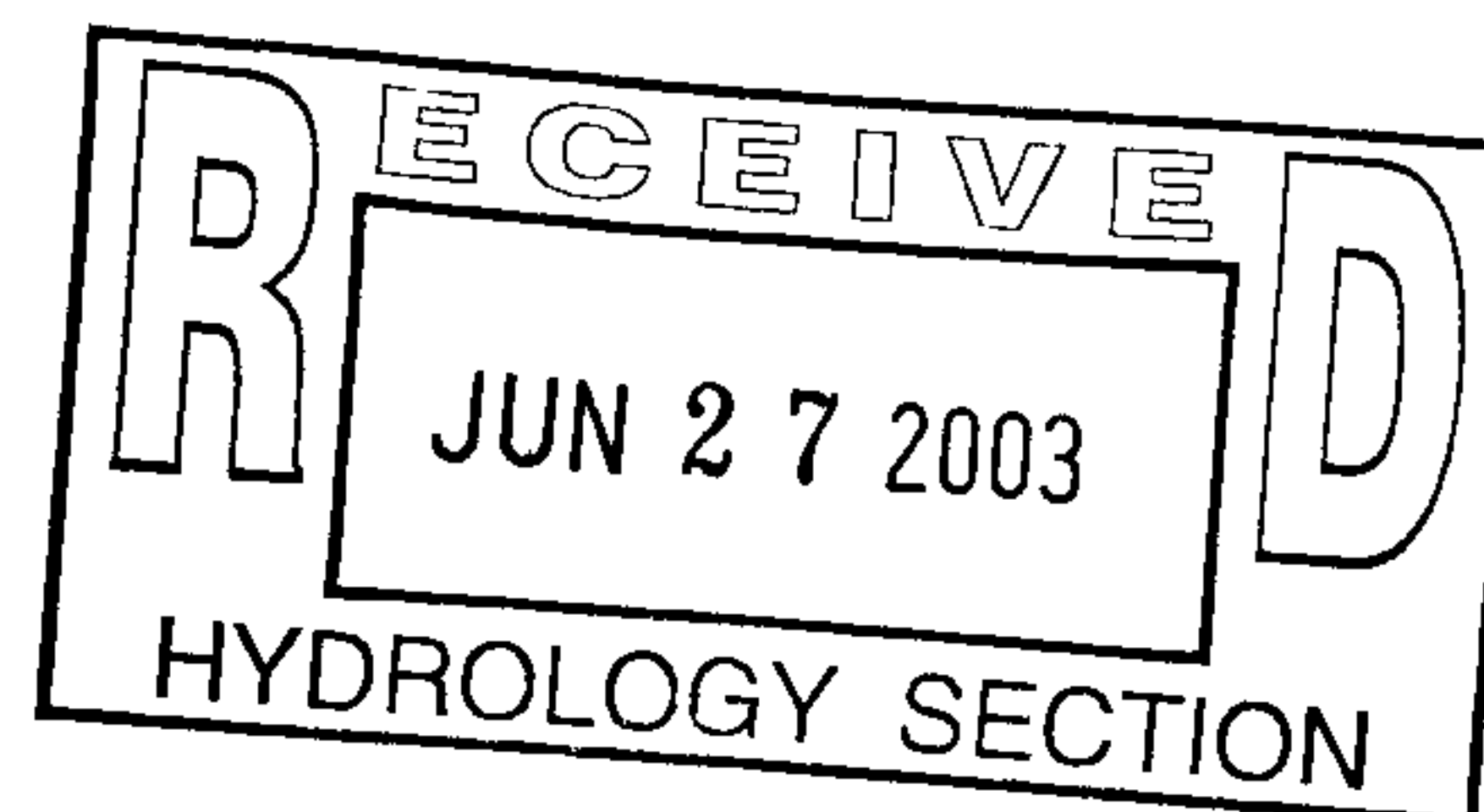
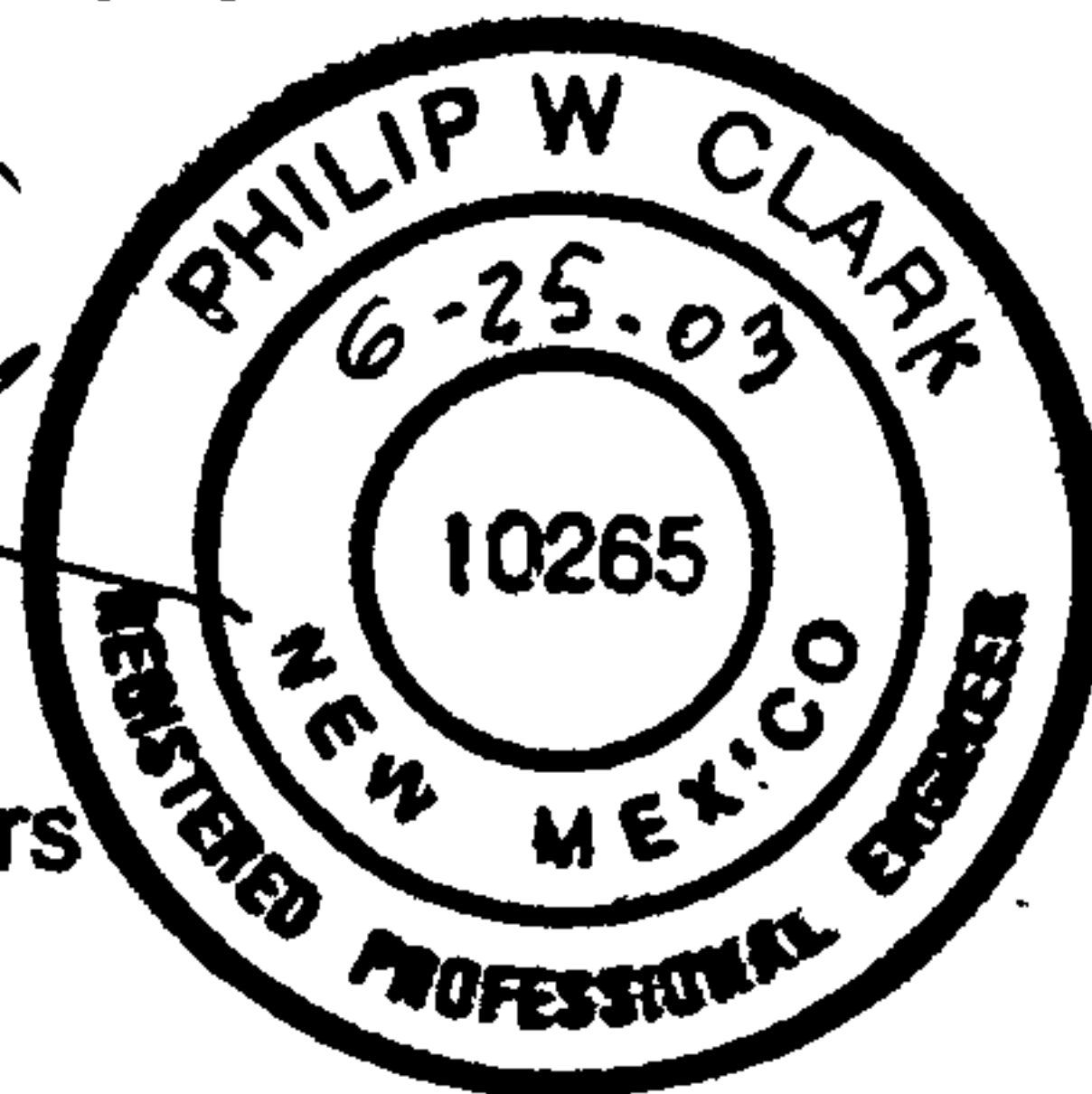
Dear Mr. Montoya:

The following responds to your letter of February 12, 2003. Please find the drainage easement based on an improvement survey by Phil Turner, P.S. performed in May 2003 with the scour walls delineated, and as-constructed to this date. The field inspection was performed by my office this past week, and the easement has been filed with the County Clerks Office by Martin Eckert, Real Estate Officer, at AMAFCA.

Should you have any questions, or need further information please give me a call.

Sincerely,

Philip W. Clark, P.E.
Clark Consulting Engineers



attachments



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

December 5, 2002

Phil Clark
Clark Consulting Engineering
19 Ryan Road
Edgewood, New Mexico 87015

**RE: Drainage Certification for Oakland Court Subdivision (C20-D35) Dated
May 18, 2002**

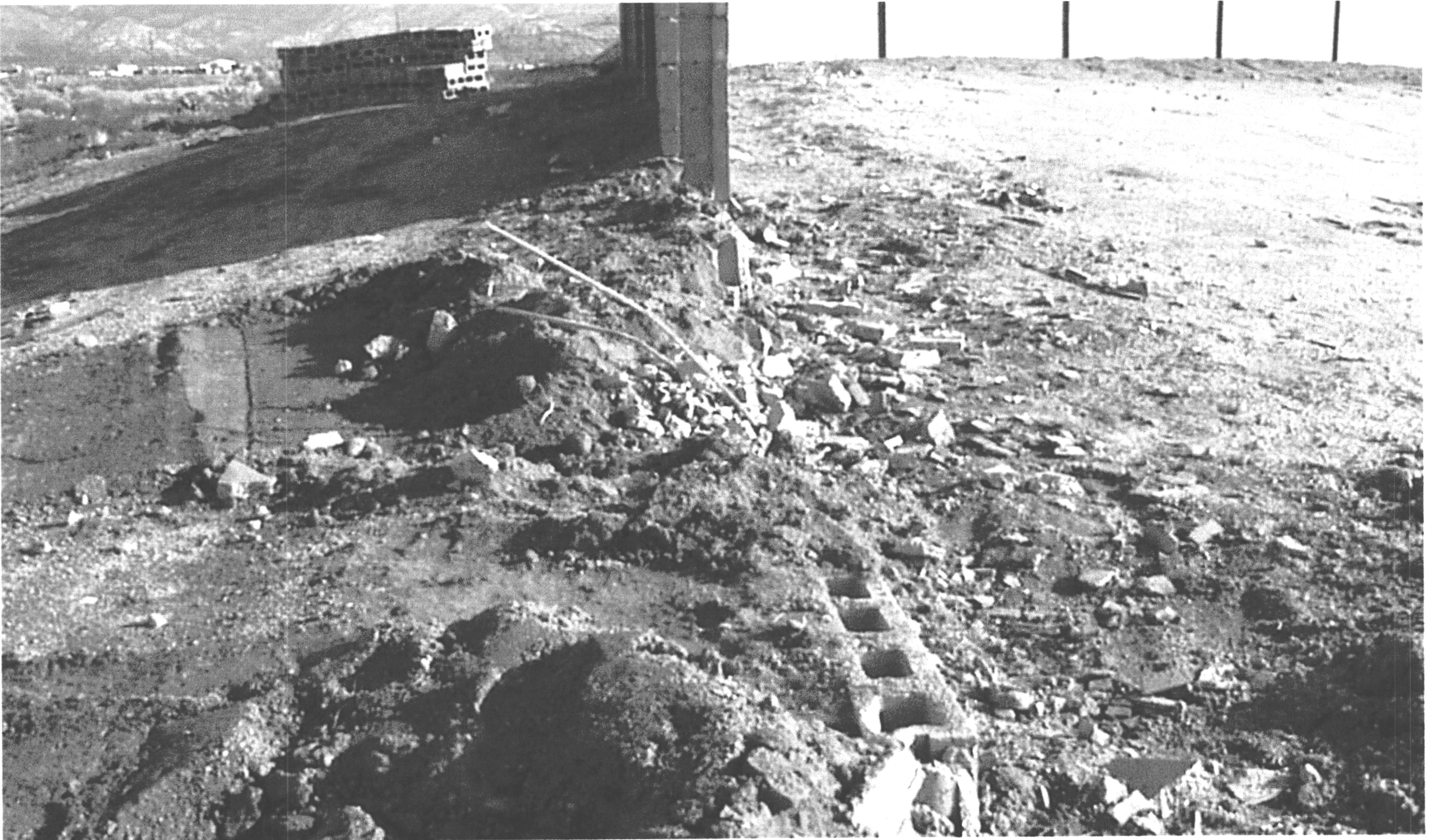
Dear Mr. Clark:

I have received pictures of lot 6 in the referenced subdivision. It appears from the pictures that the lot owner is extending the foundation pad north into the 100-year floodplain. The wall that was to be outside of the floodplain was removed and the pad extended. Please submit new calculations for the scour depth and how this extension is going to affect the floodplain.

If you have any questions please call me at 924-3982.

Sincerely,

Carlos A. Montoya
City Floodplain Administrator



Lot 6 again,looking southeast. This wall was supposed to extend down for erosion protection (how far down is a real question), which means it should have been designed as a retaining wall. It doesn't look like a retaining wall in this photo.



Lot 6 looking northwest. Notice construction extending beyond floodwall, geeting close to apparent arroyo flowpath. ?Is this per approved plan? ?Per properly approved plan?



Looking E at NE corner Lot 6 Oakland Ct. Sudivision (Drainage File C20-D35) 12-4-02. La Cueval Arroyo beyond.



Lot 6 again. C20-D35 shows block wall extending to (or almost to) the north property line.
It looks like a footing for a house is being extended past the wall location, into the erosion setback, and maybe into the current EGL

(REV 1/11/2002)

C-20/D35

LEGAL DESCRIPTION LOTS 1-76, OAKLAND COURT Subd.
CITY ADDRESS _____

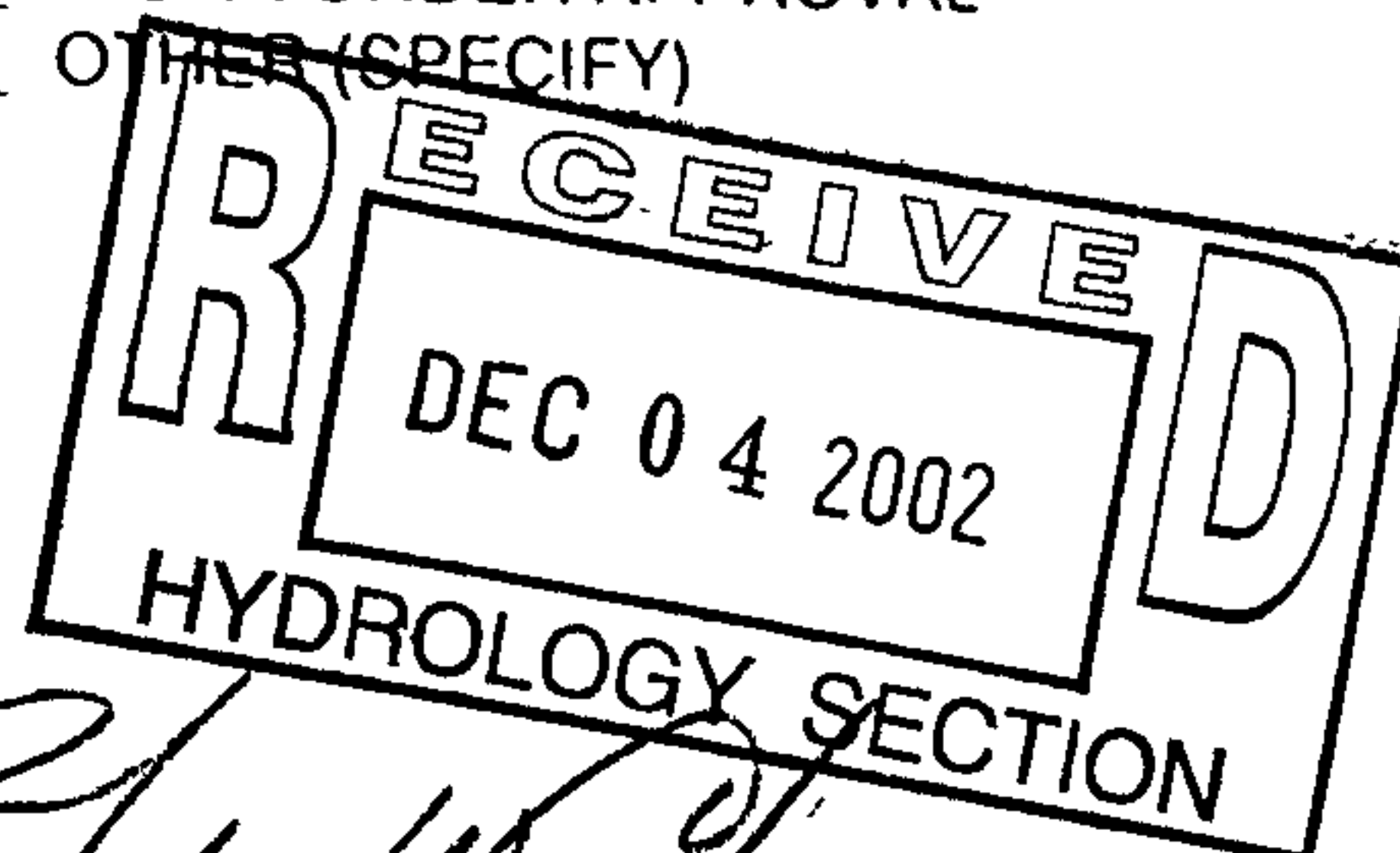
CONTACT: _____
PHONE: _____
ZIP CODE: _____

<input type="checkbox"/>	DRAINAGE REPORT
<input type="checkbox"/>	DRAINAGE PLAN
<input type="checkbox"/>	CONCEPTUAL GRADING & DRAINAGE PLAN
<input type="checkbox"/>	GRADING PLAN
<input type="checkbox"/>	EROSION CONTROL PLAN
<input checked="" type="checkbox"/>	ENGINEER'S CERTIFICATION (HYDROLOGY)
<input type="checkbox"/>	CLOMR/LOMR
<input type="checkbox"/>	TRAFFIC CIRCULATION LAYOUT (TCL)
<input type="checkbox"/>	ENGINEERS CERTIFICATION (TCL)
<input type="checkbox"/>	ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
<input type="checkbox"/>	OTHER

☒ SIA / FINANCIAL GUARANTEE RELEASE
☐ 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 (PERM.)
☐ CERTIFICATE OF OCCUPANCY (TEMP.)
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ OTHER (SPECIFY)

YES
NO
COPY PROVIDED

BY



1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

July 16, 2002

Phil Clark, PE
Clark Consulting Engineering
19 Ryan Rd.
Edgewood, NM 87015

**RE: Oakland Court Subdivision Grading and Drainage Plan (C20-D35)
Engineer's Stamp Dated May 18, 2002**

Dear Mr. Clark:

The above referenced grading and drainage plan received May 30, 2002 is approved for Final Plat. Prior to Final Plat sign-off, the plat will have to include a temporary drainage easement over Lot 6. The engineer will submit grading certification per the DPM to Hydrology upon completion of the project.

If you have any questions please call me at 924-3982

Sincerely,

Carlos A. Montoya, PE
City Floodplain Administrator

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/11/2002)

PROJECT TITLE: OAKLAND COURT SUBD. ZONE MAP/DRG. FILE #: C-20/D35
DRB #: 1001862 EPC#: _____ WORK ORDER#: 6878.81

LEGAL DESCRIPTION: LOTS 3 & 4, TR. 3, Unit 3, North Albuq. Ac.
CITY ADDRESS: _____

ENGINEERING FIRM: Clark Consulting Eng'rs.
ADDRESS: 19 Ryan Rd
CITY, STATE: Edgewood, NM

CONTACT: Phil C.
PHONE: 281-2444
ZIP CODE: 87015

OWNER: Clave Constr.
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

ARCHITECT: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

SURVEYOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL

- ☐ DRAINAGE REPORT
☒ DRAINAGE PLAN
☒ CONCEPTUAL GRADING & DRAINAGE PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEERS CERTIFICATION (TCL)
☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
☐ OTHER _____

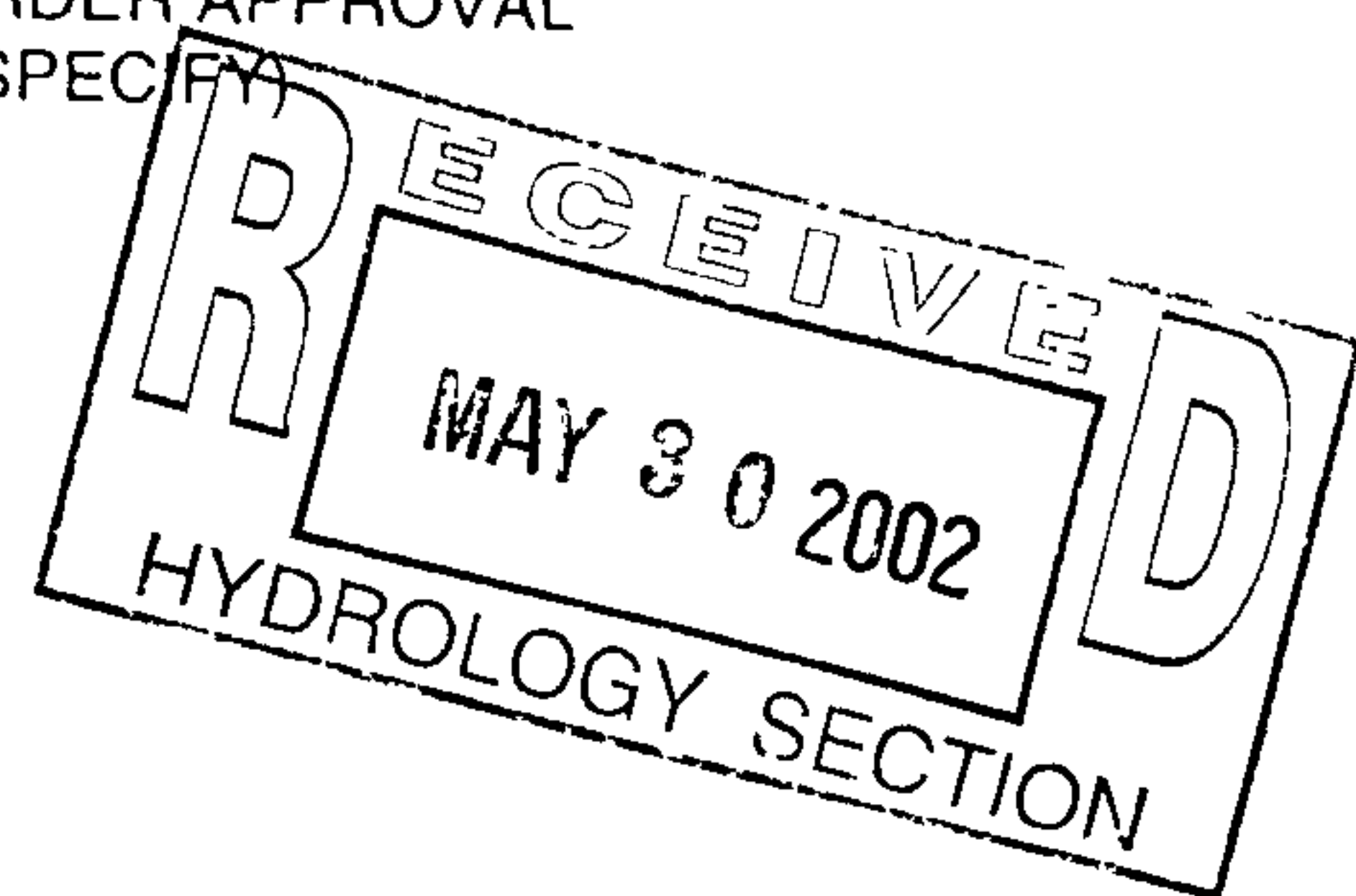
CHECK TYPE OF APPROVAL SOUGHT

- ☐ SIA / FINANCIAL GUARANTEE RELEASE
☐ 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 (PERM)
☐ CERTIFICATE OF OCCUPANCY (TEMP.)
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☒ WORK ORDER APPROVAL
☐ OTHER (SPECIFY) _____

WAS A PRE-DESIGN CONFERENCE ATTENDED

- ☐ YES
☐ NO
☐ COPY PROVIDED

DATE SUBMITTED 5/30/02 BY PhC



Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope of the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.