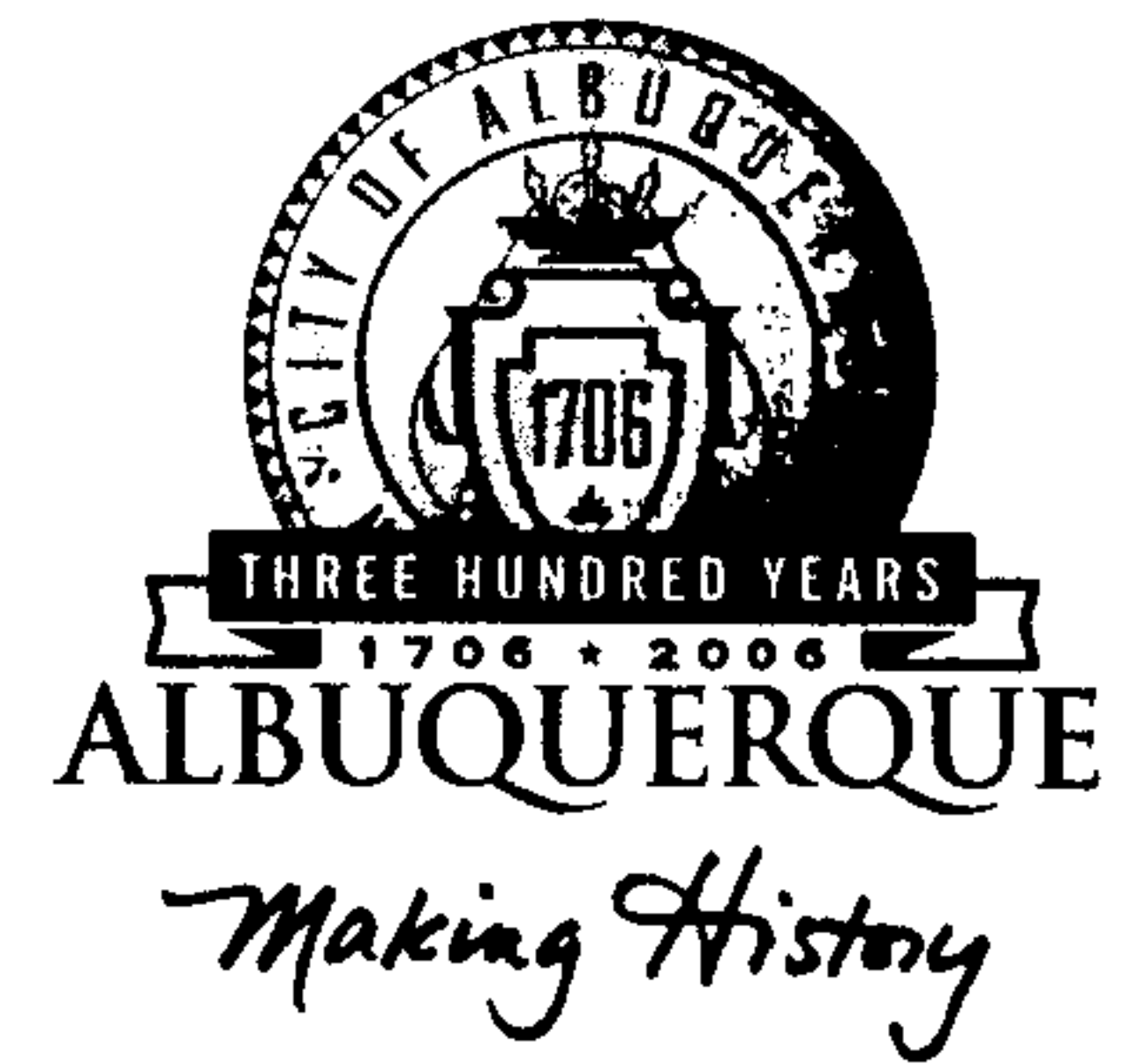


CITY OF ALBUQUERQUE



August 2, 2004

Mr. Gregory Krenik, PE
MARK GOODWIN & ASSOCIATES
P.O. Box 90606
Albuquerque, NM 87119

RE: TOWNHOMES @ LA CUEVA (C-19/D036)
Engineers Certification for Release of Financial Guaranty
Engineers Stamp dated 12/31/2003
Engineers Certification dated 08/02/2004

Dear Greg:

P.O. Box 1293 Based upon the information provided in your Engineer's Certification Submittal dated 08/02/2004, the above referenced plan is adequate to satisfy the Grading and Drainage Certification for Release of Financial Guaranty.

Albuquerque If you have any questions, you can contact me at 924-3982

New Mexico 87103

www.cabq.gov

Sincerely,

Arlene V. Portillo
Plan Checker, Planning Dept.- Hydrology
Development and Building Services
BLB

C: Marilyn Maldonado, COA# 728881
'File:'

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/28/2003rd)

PROJECT TITLE:	Townhomes @ La Cueva	ZONE MAP/DRG #:	C-19 / 1036
DRB#:	1002519	EPC #:	
LEGAL DESCRIPTION:	Lot 16, Tract 2, Block 5, North Albuquerque Acres		
CITY ADDRESS:			
ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	Gregory J. Krenik, PE
ADDRESS:	PO Box 90606	PHONE:	828-2200
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87199
OWNER:	Randall Homes, LLC	CONTACT:	Randy Schmille
ADDRESS:	P.O. Box 90848	PHONE:	797-0258
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87199
ARCHITECT:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	
SURVEYOR:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	
CONTRACTOR:		CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	

CHECK TYPE OF SUBMITTAL:

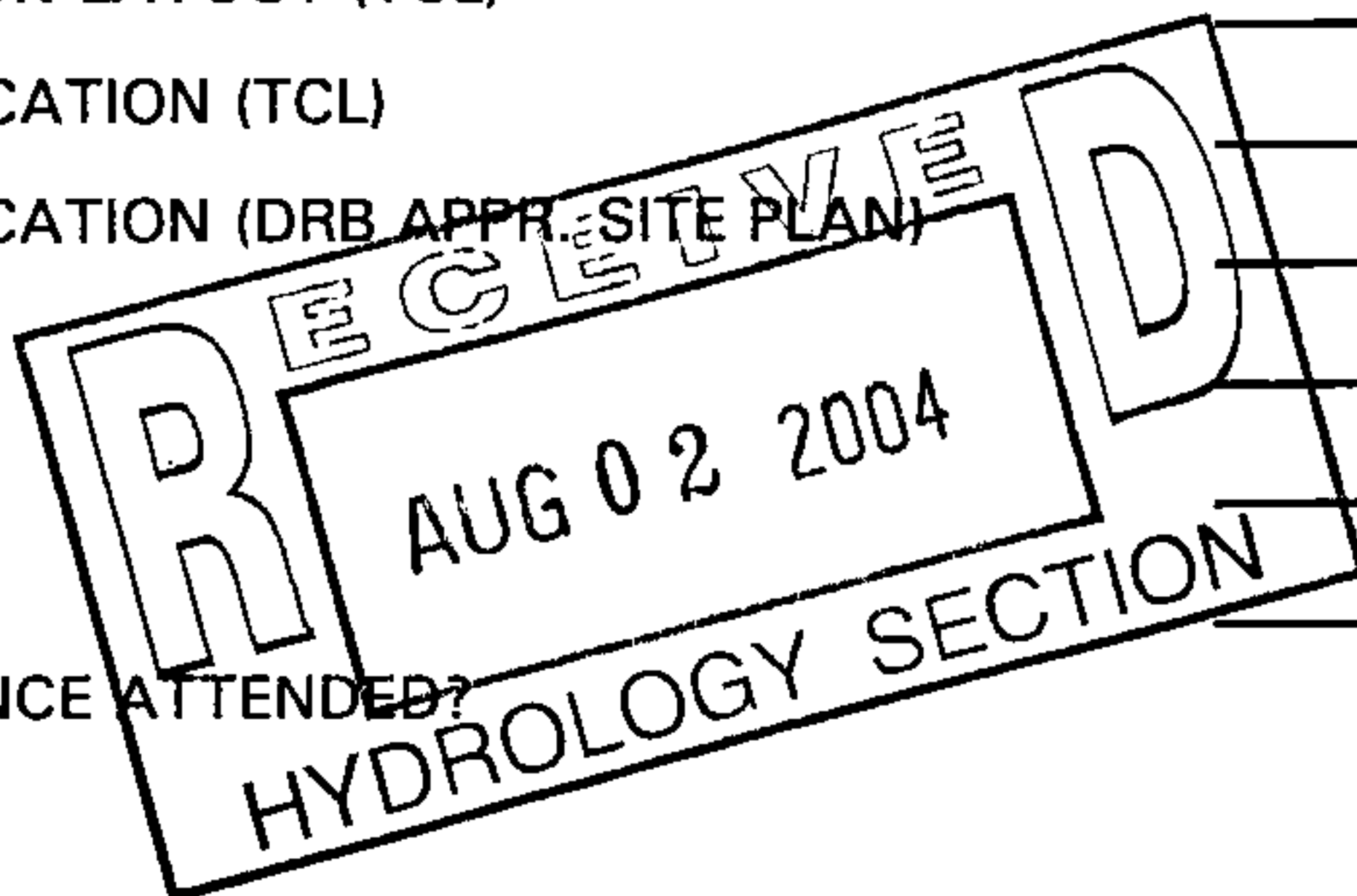
- | | |
|-------------------------------------|--|
| ☐ | DRAINAGE REPORT |
| ☐ | DRAINAGE PLAN 1 ST SUBMITTAL, req. TCL or equal |
| ☐ | DRAINAGE PLAN RESUBMITTAL |
| ☐ | CONCEPTUAL GRADING & DRAINAGE PLAN |
| ☐ | GRADING PLAN |
| ☐ | EROSION CONTROL PLAN |
| ☒ | ENGINEER'S CERTIFICATION (HYDROLOGY) |
| ☐ | CLOMR/LOMR |
| ☐ | TRAFFIC CIRCULATION LAYOUT (TCL) |
| ☐ | ENGINEER'S CERTIFICATION (TCL) |
| ☐ | ENGINEER'S 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:

8-2-04

BY:

Gregory J. Krenik, PE

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 (5) acres and Sector Plans.
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
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

February 16, 2004

Gregory J. Krenik, PE
Mark Goodwin & Associates
P.O. 90606
Albuquerque, NM 87199

**Re: Townhomes @ La Cueva Subdivision Drainage Report
Engineer's Stamp dated 12-31-03 (C19/D36)**

Dear Mr. Krenik,

Based upon the information provided in your submittal dated 12-31-03, the above referenced report is approved for Final Plat and Work Order.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE
Principal Engineer, Planning Dept.
Development and Building Services

C: file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/28/2003rd)

PROJECT TITLE: <u>Townhomes @ La Cueva</u>		ZONE MAP/DRG #: <u>C-19 / D36</u>
DRB#: <u>1002519</u>	EPC #: _____	W.O.#: _____
LEGAL DESCRIPTION: <u>Lot 16, Tract 2, Block 5, North Albuquerque Acres</u>		
CITY ADDRESS: _____		
ENGINEERING FIRM: <u>Mark Goodwin & Associates, PA</u>	CONTACT: <u>Gregory J. Krenik, PE</u>	
ADDRESS: <u>PO Box 90606</u>	PHONE: <u>828-2200</u>	
CITY, STATE: <u>Albuquerque, NM</u>	ZIP CODE: <u>87199</u>	
OWNER: <u>Randall Homes, LLC</u>	CONTACT: <u>Randy Schmille</u>	
ADDRESS: <u>P.O. Box 90848</u>	PHONE: <u>797-0258</u>	
CITY, STATE: <u>Albuquerque, NM</u>	ZIP CODE: <u>87199</u>	
ARCHITECT: _____	CONTACT: _____	
ADDRESS: _____	PHONE: _____	
CITY, STATE: _____	ZIP CODE: _____	
SURVEYOR: _____	CONTACT: _____	
ADDRESS: _____	PHONE: _____	
CITY, STATE: _____	ZIP CODE: _____	
CONTRACTOR: _____	CONTACT: _____	
ADDRESS: _____	PHONE: _____	
CITY, STATE: _____	ZIP CODE: _____	

CHECK TYPE OF SUBMITTAL:

- | | |
|-------------------------------------|--|
| ☒ | DRAINAGE REPORT |
| ☐ | DRAINAGE PLAN 1 ST SUBMITTAL, req. TCL or equal |
| ☒ | DRAINAGE PLAN RESUBMITTAL |
| ☐ | CONCEPTUAL GRADING & DRAINAGE PLAN |
| ☐ | GRADING PLAN |
| ☐ | EROSION CONTROL PLAN |
| ☐ | ENGINEER'S CERTIFICATION (HYDROLOGY) |
| ☐ | CLOMR/LOMR |
| ☐ | TRAFFIC CIRCULATION LAYOUT (TCL) |
| ☐ | ENGINEER'S CERTIFICATION (TCL) |
| ☐ | ENGINEER'S CERTIFICATION (DRB APPR. SITE PLAN) |
| ☐ | OTHER |

DRC INFORMATION REQUEST

WAS A PRE-DESIGN CONFERENCE ATTENDED?

- | | |
|-------------------------------------|---------------|
| ☐ | YES |
| ☒ | NO |
| ☐ | COPY PROVIDED |

DATE SUBMITTED: 12-31-03

CHECK TYPE OF APPROVAL SOUGHT:

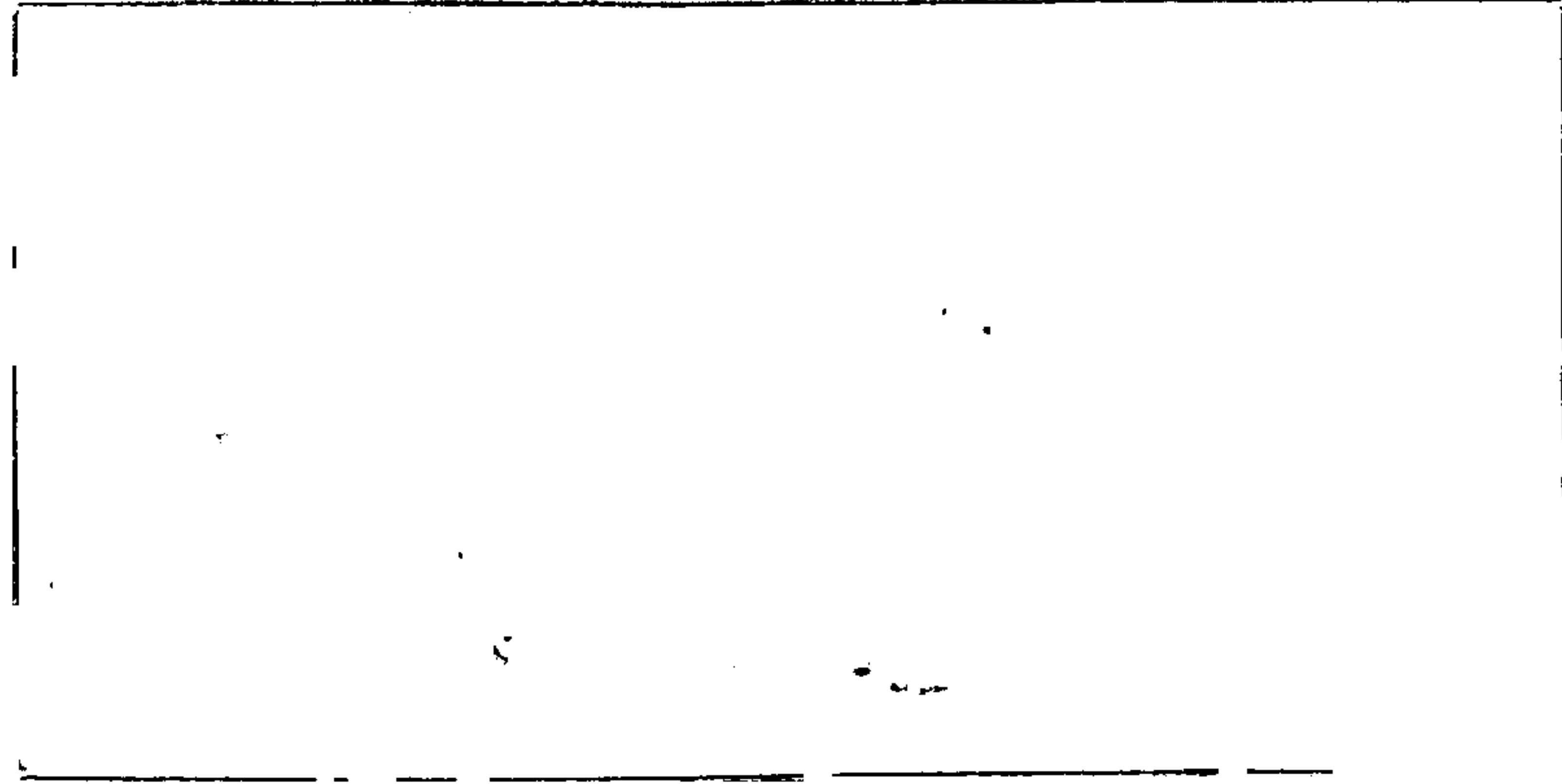
- | | |
|-------------------------------------|--|
| ☐ | SIA / FINANCIAL GUARANTEE RELEASE |
| ☒ | PRELIMINARY PLAT APPROVAL |
| ☐ | S. DEV. PLAN FOR SUB'D. APPROVAL |
| ☐ | S. DEV. PLAN FOR BLDG. PERMIT APPROVAL |
| ☐ | SECTOR PLAN APPROVAL |
| ☒ | FINAL PLAT APPROVAL |
| ☐ | FOUNDATION PERMIT APPROVAL |
| ☐ | BUILDING PERMIT APPROVAL |
| ☐ | CERTIFICATE OF OCCUPANCY (PERM) |
| ☐ | CERTIFICATE OF OCCUPANCY (TEMP) |
| ☐ | GRADING PERMIT APPROVAL |
| ☐ | PAVING PERMIT APPROVAL |
| ☐ | WORK ORDER APPROVAL |
| ☐ | OTHER (specify) _____ |

BY: _____

Gregory J. Krenik, PE

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:

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2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report:** Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.



MARK GOODWIN

& ASSOCIATES
CONSULTING ENGINEERS

dmg

DRAINAGE REPORT

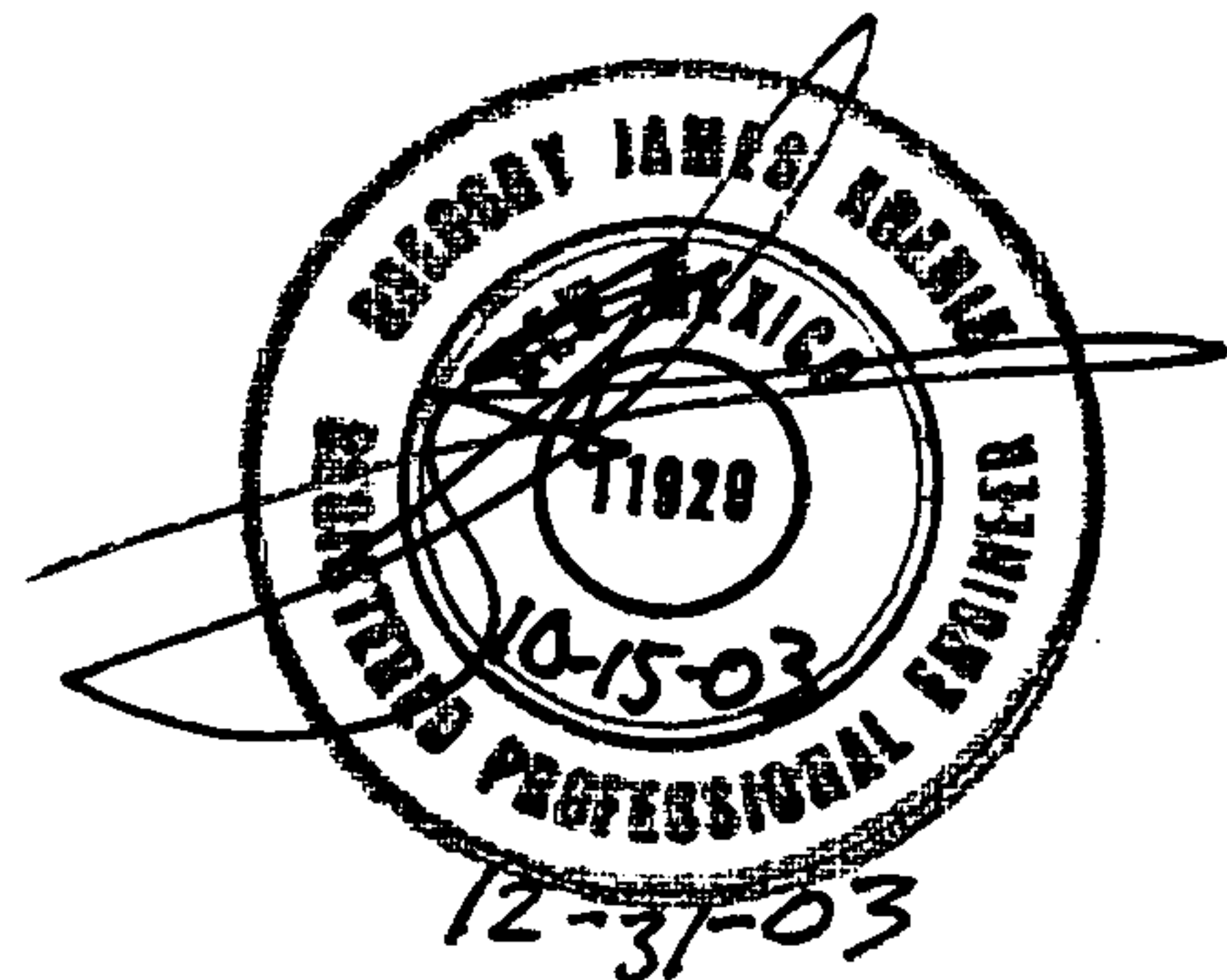
for

TOWNHOMES AT LA CUEVA

Prepared by

*Mark Goodwin & Associates, PA
PO Box 90606
Albuquerque, NM 87199
(505) 828-2200*

October 2003





D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmgs@swcp.com

PROJECT TOWNHOMES @ LA CUEVA
SUBJECT DRAINAGE CALCS
BY GSK DATE 10-15-03
CHECKED _____ DATE _____
SHEET 1 OF _____

REVISED 12-31-03

- SITE IS ONE LOT IN NORTH ALBUQUERQUE ADJES. ON THE SW CORNER OF SIGNAL AND WYOMING. AREA = 0.4767 AC
- SITE IS NOT IN A 100 YR FLOOD ZONE.
- THE LOT IS BEING SUBDIVIDED INTO FOUR TOWNHOME LOTS.
- RUNOFF WILL ENTER SIGNAL FROM THE PRIVATE ROAD.
- NO OFFSITE FLOWS ENTER THIS SITE

SITE = 0.4767 AC
ROAD = 0.0989 AC
PADS = 0.1884 AC
DRIVE PADS = 0.0367 AC

0.3240 AC TYPE "D" = 67.97%
TYPE "B" = 32.03%

$P_1 = 2.15 \text{ in}$
 $P_6 = 2.50 \text{ in}$
 $P_{24} = 2.90 \text{ in}$

FROM HYMO OUTPUT SHEETS 2-4

$Q = 2.04 \text{ CFS}$

FLOW FROM LOT 4 WILL BE ALLOWED TO CROSS LOT 3 AND
FLOW FROM LOT 1 WILL BE ALLOWED TO CROSS LOT 2.

- THE FLOW IN SIGNAL TRAVELS WEST AND ENTERS THE STORM DRAIN SYSTEM THROUGH FOUR (4) DBL "A" INLETS AT THE INTERSECTION OF BLUFF SPRINGS DR NE. (SEE ATTACHED AS BUILT SHEET)
- THE GRADES AT SIGNAL & WYOMING WERE COORDINATED WITH DOUG ANDREWS OF SMITH ENGINEERING CO. SINCE OUR SECTION OF SIGNAL WAS SMALLER THAN THEIRS I USED THEIR WYOMING P+P TO DESIGN THE INTERSECTION. I THEN SENT TO THEIR OFFICE WHERE THEY REVISED THEIR PLANS. (ATTACHED IS A COPY OF THEIR ORIGINAL P+P SHEET NOT THE REVISED.)

START TIME=0.0
***** HYDROGRAPH FOR THE TOWNHOMES @ LA CUEVA SUBDIVISION
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=2.15 IN RAIN SIX=2.50 IN
RAIN DAY=2.90 IN DT=0.03333 HR
COMPUTE NM HYD ID=1 HYD NO=101.1 AREA=0.000745 SQ MI
PER A=0 B=32.03 C=0 D=67.97
TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD ID=1 CODE=1
FINISH

AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January,
1994

RUN DATE (MON/DAY/YR) = 10/15/2003

START TIME (HR:MIN:SEC) = 10:47:11

USER NO.=

M_GOODWN.I01

INPUT FILE = TH@LC.DAT

START

TIME=0.0

***** HYDROGRAPH FOR THE TOWNHOMES @ LA CUEVA SUBDIVISION

RAINFALL

TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.15 IN RAIN SIX=2.50 IN

RAIN DAY=2.90 IN DT=0.03333 HR

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

HOURS	DT =	.033330 HOURS	END TIME =	5.999400		
.0101	.0000	.0016	.0032	.0049	.0066	.0083
.0239	.0119	.0138	.0157	.0177	.0197	.0218
.0408	.0261	.0284	.0307	.0331	.0356	.0381
.0627	.0436	.0464	.0494	.0525	.0558	.0592
.1083	.0665	.0705	.0746	.0806	.0869	.0937
.8613	.1409	.1911	.2632	.3617	.4910	.6560
1.7243	1.1120	1.3447	1.4418	1.5239	1.5969	1.6632
2.0558	1.7811	1.8341	1.8838	1.9306	1.9747	2.0164
2.2378	2.0932	2.1286	2.1623	2.1942	2.2245	2.2314
2.2748	2.2438	2.2496	2.2550	2.2603	2.2653	2.2702
2.3036	2.2794	2.2837	2.2879	2.2920	2.2960	2.2998
2.3273	2.3072	2.3108	2.3142	2.3176	2.3209	2.3242
2.3478	2.3304	2.3334	2.3364	2.3393	2.3422	2.3450
2.3658	2.3505	2.3531	2.3557	2.3583	2.3608	2.3633
2.3820	2.3682	2.3706	2.3729	2.3752	2.3775	2.3797
2.3967	2.3841	2.3863	2.3884	2.3905	2.3926	2.3947
2.4103	2.3987	2.4007	2.4026	2.4046	2.4065	2.4084
2.4228	2.4121	2.4139	2.4158	2.4176	2.4193	2.4211
2.4346	2.4246	2.4263	2.4280	2.4296	2.4313	2.4330
2.4456	2.4362	2.4378	2.4394	2.4410	2.4425	2.4441
2.4561	2.4472	2.4487	2.4502	2.4517	2.4531	2.4546
	2.4575	2.4589	2.4604	2.4618	2.4632	2.4646

2.4659
 2.4753
 2.4843
 2.4929

2.4673	2.4687	2.4700	2.4714	2.4727	2.4740
2.4766	2.4779	2.4792	2.4805	2.4818	2.4831
2.4856	2.4868	2.4880	2.4893	2.4905	2.4917
2.4941	2.4953	2.4965	2.4976	2.4988	2.5000

COMPUTE NM HYD ID=1 HYD NO=101.1 AREA=0.000745 SQ MI
 PER A=0 B=32.03 C=0 D=67.97
 TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000
 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 1.9992 CFS UNIT VOLUME = .9933 B =
 526.28 P60 = 2.1500
 AREA = .000506 SQ MI IA = .10000 INCHES INF =
 .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER
 METHOD - DT = .033330

K = .133777HR TP = .133300HR K/TP RATIO = 1.003575
 SHAPE CONSTANT, N = 3.517606
 UNIT PEAK = .57572 CFS UNIT VOLUME = .9754 B =
 321.61 P60 = 2.1500
 AREA = .000239 SQ MI IA = .50000 INCHES INF =
 1.25000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER
 METHOD - DT = .033330

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = 1.82596 INCHES = .0726 ACRE-FEET
 PEAK DISCHARGE RATE = 2.04 CFS AT 1.500 HOURS BASIN
 AREA = .0007 SQ. MI.

FINISH

NORMAL PROGRAM FINISH

END TIME (HR:MIN:SEC) = 10:47:11



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

November 21, 2003

Gregory J. Krenik, PE
Mark Goodwin & Associates
P.O. 90606
Albuquerque, NM 87199

**Re: Townhomes @ La Cueva Subdivision Drainage Report
Engineer's Stamp dated 11-7-03 (C19/D36)**

Dear Mr. Krenik,

Based upon the information provided in your submittal dated 11-7-03, the above referenced report is approved for Preliminary Plat action by the DRB. Once that board has approved the plan, please submit a mylar copy for my signature in order to obtain Rough Grading Permit. Prior to Final Plat or Work Order, please address the following comments.

- Your report should have a section of the profile of the Wyoming widening project in order to verify adjoining grades.
- Please describe what happens to your runoff once it gets to Signal.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE
Sr. Engineer, Planning Dept.
Development and Building Services

C: file

(REV. 1/28/2003rd)

ZONE MAP/DRG #: C-19 2036

W.O.#: _____

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) _____

YES
X NO
COPY PROVIDED

10-15-03

~~Gregory J. Krenik, PE~~

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

MARK GOODWIN

& ASSOCIATES
CONSULTING ENGINEERS

dmg

DRAINAGE REPORT

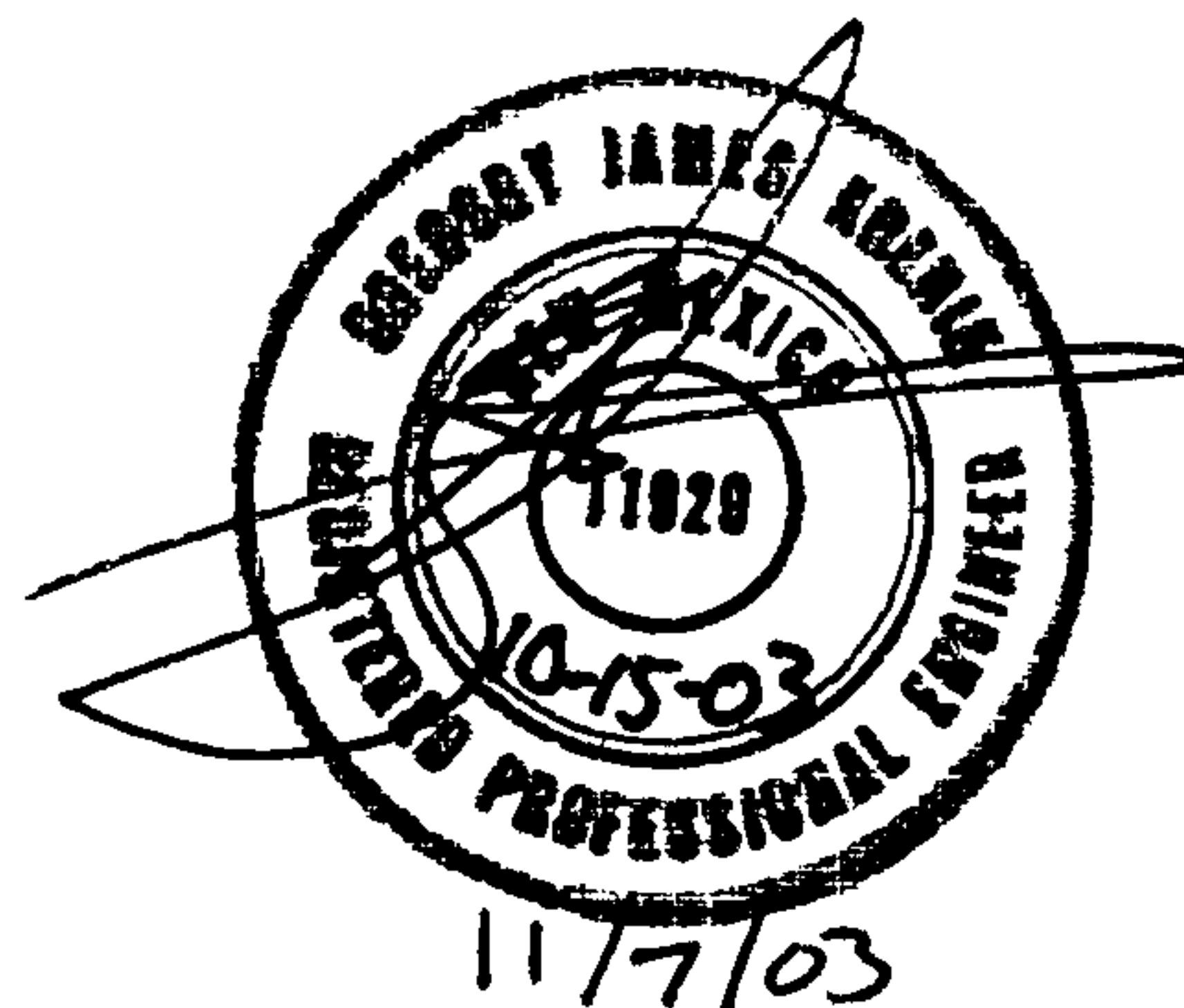
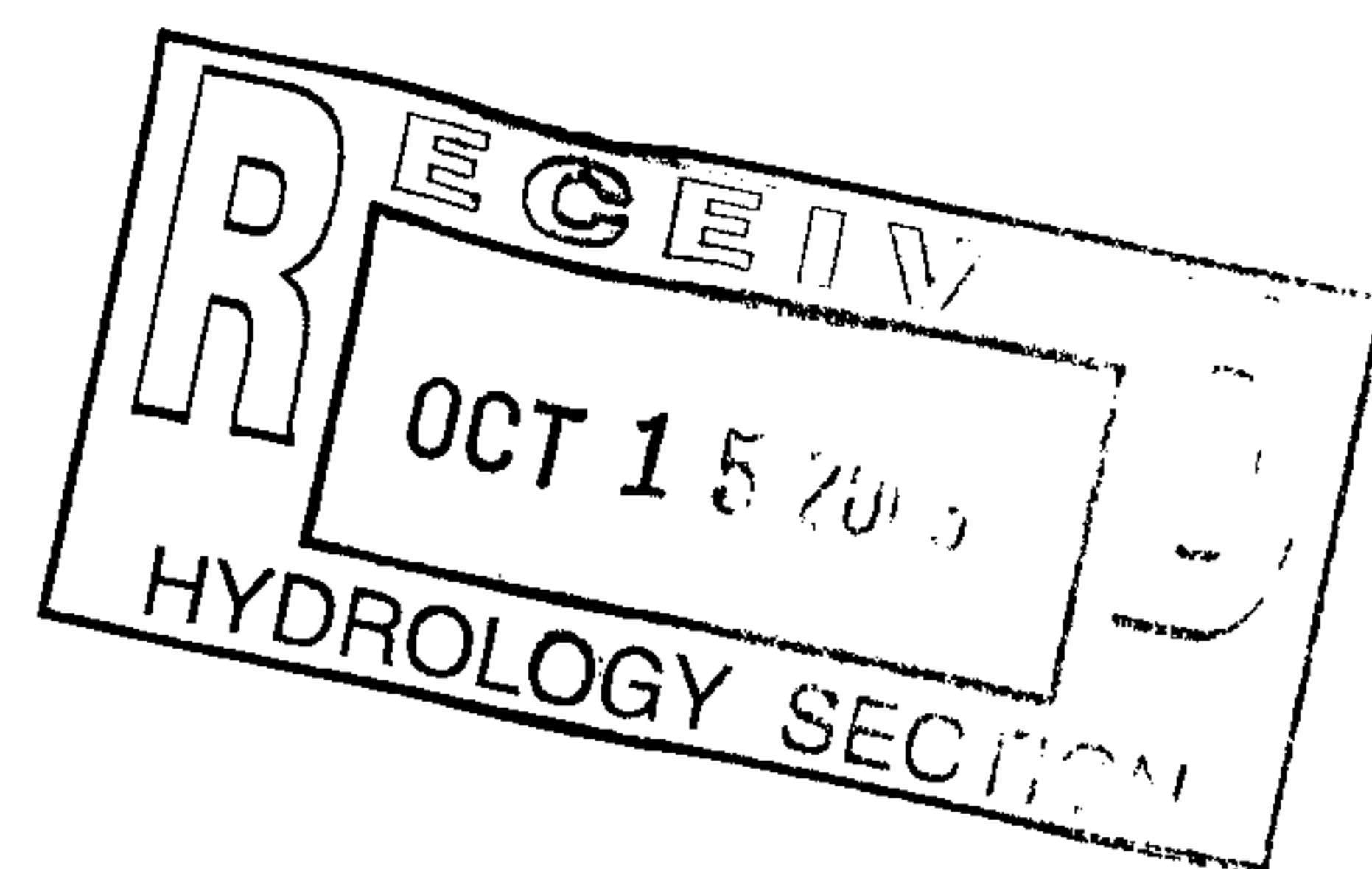
for

TOWNHOMES AT LA CUEVA

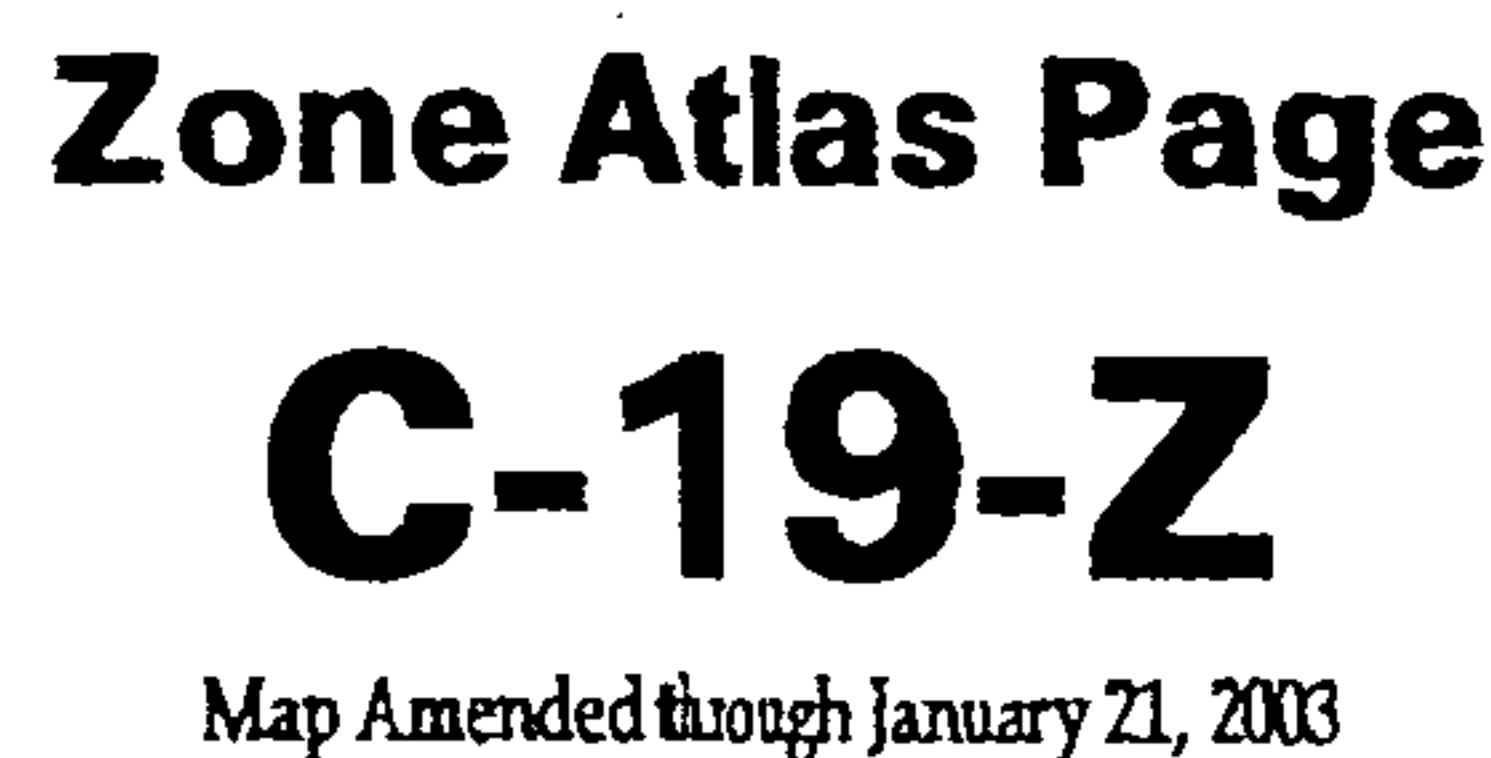
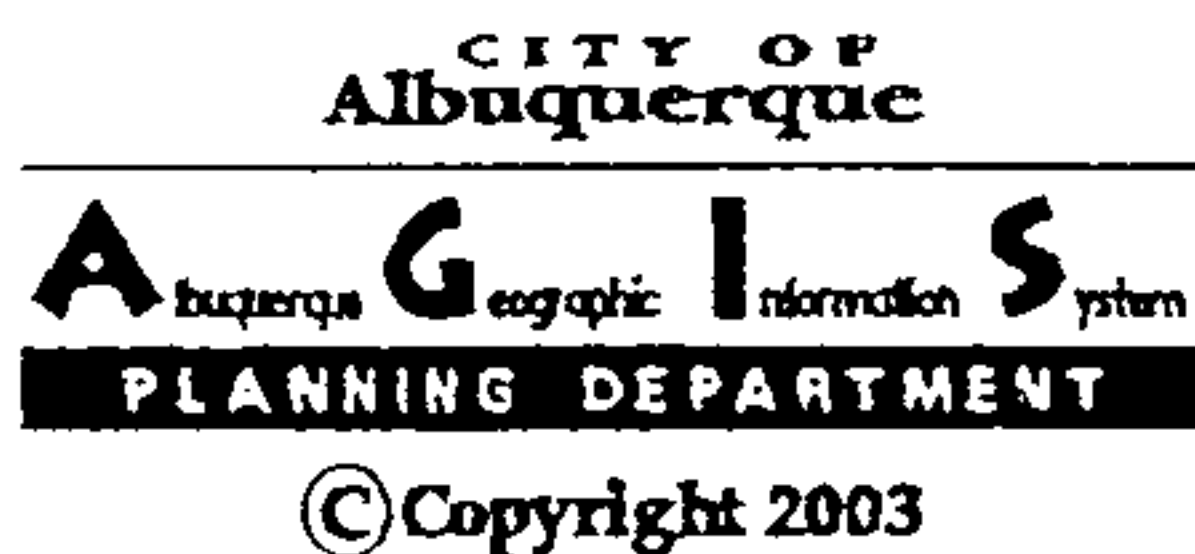
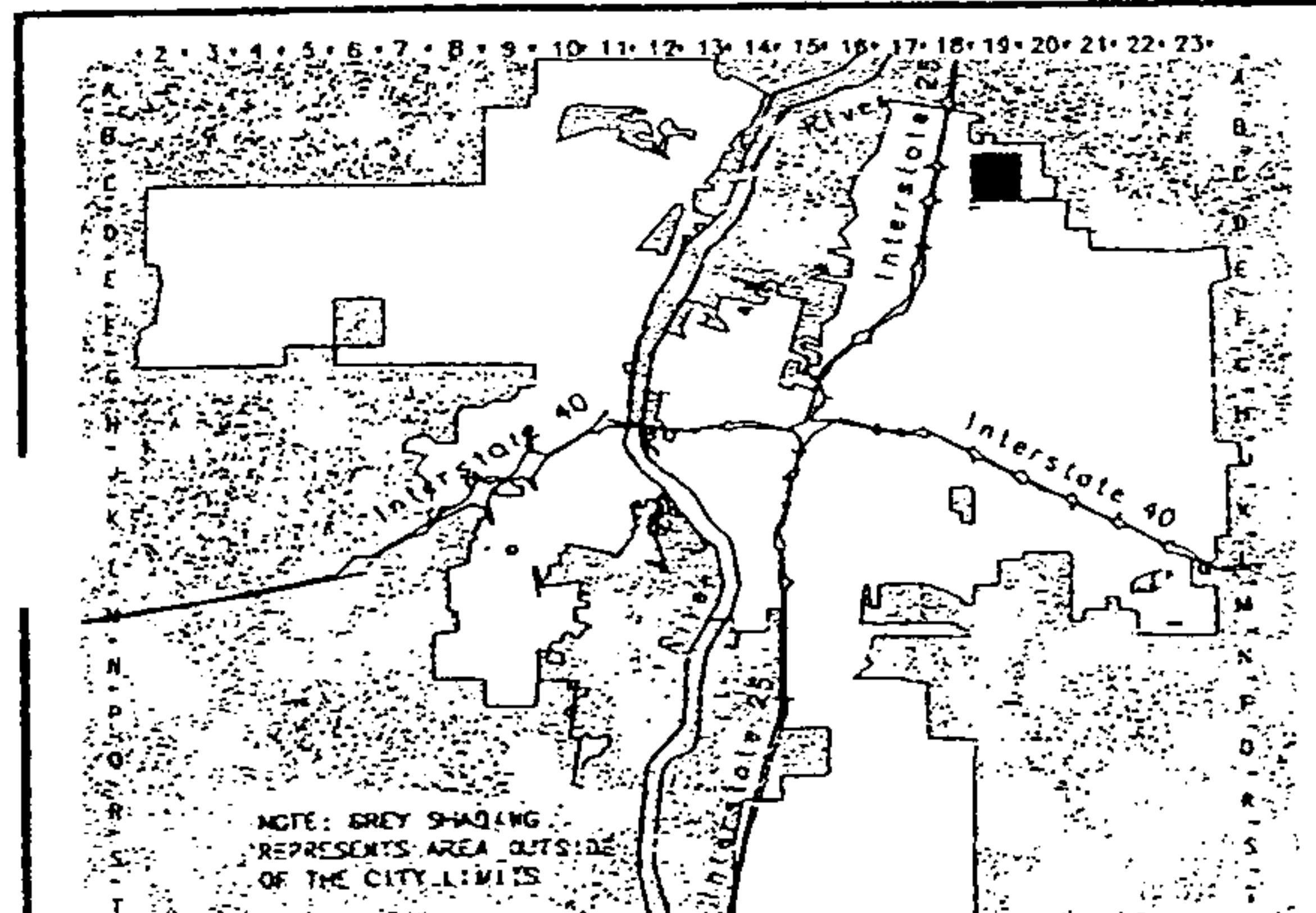
Prepared by

Mark Goodwin & Associates, PA
PO Box 90606
Albuquerque, NM 87199
(505) 828-2200

October 2003



11/7/03





D. Mark Goodwin & Associates, P.A.
Consulting Engineers

P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmgs@swcp.com

PROJECT TOWNHOMES @ LA CUEVA
SUBJECT DRAINAGE CALCS
BY GSK DATE 10-15-03
CHECKED _____ DATE _____
SHEET 1 OF _____

- SITE IS ONE LOT IN NORTH ALBUQUERQUE APES. ON THE SW CORNER OF SIGNAL AND WYOMING. AREA = 0.4767 AC
- SITE IS NOT IN A 100 YR FLOOD ZONE.
- THE LOT IS BEING SUBDIVIDED INTO FOUR TOWNHOME LOTS.
- RUNOFF WILL ENTER SIGNAL FROM THE PRIVATE ROAD.
- NO OFFSITE FLOWS ENTER THIS SITE

SITE = 0.4767 AC
ROAD = 0.0989 AC
PADS = 0.1884 AC
DRIVE PADS = 0.0367 AC

0.3240 AC TYPE "D" = 67.97%
TYPE "B" = 32.03%

$P_1 = 2.15 \text{ in}$
 $P_6 = 2.50 \text{ in}$
 $P_{24} = 2.90 \text{ in}$

FROM AHYMO OUTPUT SHEETS 2-4

$Q = 2.04 \text{ CFS}$

FLOW FROM LOT 4 WILL BE ALLOWED TO CROSS LOT 3 AND
FLOW FROM LOT 1 WILL BE ALLOWED TO CROSS LOT 2.

START TIME=0.0
***** HYDROGRAPH FOR THE TOWNHOMES @ LA CUEVA SUBDIVISION
RAINFALL TYPE=1 RAIN QUARTER=0.0 IN
RAIN ONE=2.15 IN RAIN SIX=2.50 IN
RAIN DAY=2.90 IN DT=0.03333 HR
COMPUTE NM HYD ID=1 HYD NO=101.1 AREA=0.000745 SQ MI
PER A=0 B=32.03 C=0 D=67.97
TP=0.1333 HR MASS RAINFALL=-1
PRINT HYD ID=1 CODE=1
FINISH

AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January,
1994

RUN DATE (MON/DAY/YR) = 10/15/2003

START TIME (HR:MIN:SEC) = 10:47:11

USER NO.=

M_GOODWN.I01

INPUT FILE = TH@LC.DAT

START

TIME=0.0

***** HYDROGRAPH FOR THE TOWNHOMES @ LA CUEVA SUBDIVISION

RAINFALL

TYPE=1 RAIN QUARTER=0.0 IN

RAIN ONE=2.15 IN RAIN SIX=2.50 IN

RAIN DAY=2.90 IN DT=0.03333 HR

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	.0032	.0049	.0066	.0083
.0101						
	.0119	.0138	.0157	.0177	.0197	.0218
.0239						
	.0261	.0284	.0307	.0331	.0356	.0381
.0408						
	.0436	.0464	.0494	.0525	.0558	.0592
.0627						
	.0665	.0705	.0746	.0806	.0869	.0937
.1083						
	.1409	.1911	.2632	.3617	.4910	.6560
.8613						
	1.1120	1.3447	1.4418	1.5239	1.5969	1.6632
1.7243						
	1.7811	1.8341	1.8838	1.9306	1.9747	2.0164
2.0558						
	2.0932	2.1286	2.1623	2.1942	2.2245	2.2314
2.2378						
	2.2438	2.2496	2.2550	2.2603	2.2653	2.2702
2.2748						
	2.2794	2.2837	2.2879	2.2920	2.2960	2.2998
2.3036						
	2.3072	2.3108	2.3142	2.3176	2.3209	2.3242
2.3273						
	2.3304	2.3334	2.3364	2.3393	2.3422	2.3450
2.3478						
	2.3505	2.3531	2.3557	2.3583	2.3608	2.3633
2.3658						
	2.3682	2.3706	2.3729	2.3752	2.3775	2.3797
2.3820						
	2.3841	2.3863	2.3884	2.3905	2.3926	2.3947
2.3967						
	2.3987	2.4007	2.4026	2.4046	2.4065	2.4084
2.4103						
	2.4121	2.4139	2.4158	2.4176	2.4193	2.4211
2.4228						
	2.4246	2.4263	2.4280	2.4296	2.4313	2.4330
2.4346						
	2.4362	2.4378	2.4394	2.4410	2.4425	2.4441
2.4456						
	2.4472	2.4487	2.4502	2.4517	2.4531	2.4546
2.4561						
	2.4575	2.4589	2.4604	2.4618	2.4632	2.4646

4

2.4659						
	2.4673	2.4687	2.4700	2.4714	2.4727	2.4740
2.4753						
	2.4766	2.4779	2.4792	2.4805	2.4818	2.4831
2.4843						
	2.4856	2.4868	2.4880	2.4893	2.4905	2.4917
2.4929						
	2.4941	2.4953	2.4965	2.4976	2.4988	2.5000

COMPUTE NM HYD ID=1 HYD NO=101.1 AREA=0.000745 SQ MI
 PER A=0 B=32.03 C=0 D=67.97
 TP=0.1333 HR MASS RAINFALL=-1

K = .072649HR TP = .133300HR K/TP RATIO = .545000
 SHAPE CONSTANT, N = 7.106420
 UNIT PEAK = 1.9992 CFS UNIT VOLUME = .9933 B =
 526.28 P60 = 2.1500
 AREA = .000506 SQ MI IA = .10000 INCHES INF =
 .04000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER
 METHOD - DT = .033330

K = .133777HR TP = .133300HR K/TP RATIO = 1.003575
 SHAPE CONSTANT, N = 3.517606
 UNIT PEAK = .57572 CFS UNIT VOLUME = .9754 B =
 321.61 P60 = 2.1500
 AREA = .000239 SQ MI IA = .50000 INCHES INF =
 1.25000 INCHES PER HOUR
 RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER
 METHOD - DT = .033330

PRINT HYD ID=1 CODE=1

PARTIAL HYDROGRAPH 101.10

RUNOFF VOLUME = 1.82596 INCHES = .0726 ACRE-FEET
 PEAK DISCHARGE RATE = 2.04 CFS AT 1.500 HOURS BASIN
 AREA = .0007 SQ. MI.

FINISH

NORMAL PROGRAM FINISH

END TIME (HR:MIN:SEC) = 10:47:11

C-19 / 836

CHECK TYPE OF SUBMITTAL: _____

	DRAINAGE REPORT
	DRAINAGE PLAN 1 ST SUBMITTAL, req. TCL or equal
X	DRAINAGE PLAN RESUBMITTAL
	CONCEPTUAL GRADING & DRAINAGE PLAN
X	GRADING PLAN
	EROSION CONTROL PLAN
	ENGINEER'S CERTIFICATION (HYDROLOGY)
	CLOMR/LOMR
	TRAFFIC CIRCULATION LAYOUT (TCL)
	ENGINEER'S CERTIFICATION (TCL)
	ENGINEER'S CERTIFICATION (DRB APPR. SITE PLAN)
	OTHER

ADDED PARKING EASEMENTS AND REVISED PRIVATE DRIVE - WAS A PRE-DESIGN CONFERENCE ATTENDED? IN CORNER,

YES
X NO
COPY PROVIDED

DATE SUBMITTED: 11-7-03

	SIA / FINANCIAL GUARANTEE RELEASE
X	PRELIMINARY PLAT APPROVAL
	S. DEV. PLAN FOR SUB'D. APPROVAL
	S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
	SECTOR PLAN APPROVAL
X	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)

WORK ORDER APPROVAL

OTHER (specify)

RECEIVED

NOV 07 2003

HYDROLOGY SECTION

BY: Gregory J. Krenik, PE

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