City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 16, 2003

Gregory J. Krenik, P.E.
Mark Goodwin & Assoc.
P.O. Box 90606
Albuquerque, New Mexico 87199

RE: ENCANTO VILLAGE UNITS 2 & 3 (L-10/D17)
Engineers Certification for Release of Financial Guaranty
Engineers Stamp dated 3/22/1999
Engineers Certification dated 1/7/2003

Dear Greg:

Based upon the information provided in your Engineers Certification submittal dated 1/7/2003, the above referenced plan is adequate to satisfy the Grading and Drainage Certification for Release of Financial Guaranty.

If you have any questions, please call me at 924-3981.

Sincerely,

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

c: Arlene Portillo, COA--Project # 633881 unit 2, #633981 unit 3
File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

L-10/D17

(REV.1/11/2002)

PROJECT TITLE. Encanto Village Unit 2 & 3 ZONE MAP/DRB.FILE#: ~~L-10~~

DRB#: 1000485 EPC# _____ WORK ORDER#: _____

LEGAL DESCRIPTION: Tracts 63-66, Unit 2, Town of Atrisco Grant, and Tract B, Encanto Village Unit 1

CITY ADDRESS: _____

ENGINEERING FIRM: Mark Goodwin & Associates, PA CONTACT: Gregory J. Krenik, PE

ADDRESS: P.O. Box 90606 Albuquerque NM 87119 PHONE: 828-2200

CITY, STATE: Albuquerque NM ZIP CODE: 87119

OWNER: American Southwest Homes, Ltd. Co. CONTACT: Nick Bell

ADDRESS: 919 Salamanca NW PHONE: 341-4324

CITY, STATE: Albuquerque, NM ZIP CODE: 87107

ARCHITECT: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

CITY, STATE: _____ ZIP CODE: _____

SURVEYOR: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

CITY, STATE: _____ ZIP CODE: _____

CONTRACTOR: N/A CONTACT: _____

ADDRESS: _____ PHONE: _____

CITY, STATE: _____ ZIP CODE: _____

TYPE OF SUBMITTAL:

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

WAS A PRE-DESIGN CONFERENCE ATTENDED:

____ YES
____ NO
____ COPY PROVIDED

DATE SUBMITTED: 1-7-03

CHECK TYPE OF APPROVAL SOUGHT:

__X__ SIA / FINANCIAL GUARANTY RELEASE
____ PRELIMINARY PLAT APRROVAL
____ 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)

RECEIVED
JAN 07 2003
HYDROLOGY SECTION

RECEIVED
JAN 06 2003
HYDROLOGY SECTION

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 to 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)
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

August 14, 2003

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

Re: Encanto Village, Unit 1, Grading Certification
Engineer's Stamp dated 3-22-99
Engineer's Certification dated 8-13-03 (L10/D17)

Dear Mr. Krenik,

Based upon the information provided in your submittal dated 8-14-03, the above referenced certification is acceptable for Release of SIA and Financial Guarantees.

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: Arlene Portillo, CPN 614981
file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV. 1/28/2003rd)

L10 - D17

PROJECT TITLE: Encanto Village, Unit 1 — ZONE MAP/DRG. FILE #: L-10
DRB #: 98-276 — EPC#: _____ — WORK ORDER#:

LEGAL DESCRIPTION: Tracts 61-64, Unit 2, Town of Atrisco Grant, Tracts 13-14, VE Barrett Subd
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: American Southwest Homes, Ltd., Co. — CONTACT: Nick Bell
ADDRESS: 919 Salamanca NW — PHONE: 341-3424
CITY, STATE: Albuquerque, NM — ZIP CODE: 87107

ARCHITECT: N/A — CONTACT:
ADDRESS: _____ — PHONE:
CITY, STATE: _____ — ZIP CODE:

SURVEYOR: N/A — CONTACT:
ADDRESS: _____ — PHONE:
CITY, STATE: _____ — ZIP CODE:

CONTRACTOR: N/A — CONTACT:
ADDRESS: _____ — PHONE:
CITY, STATE: _____ — ZIP CODE:

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL, ***REQUIRES 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)
- ☐ 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

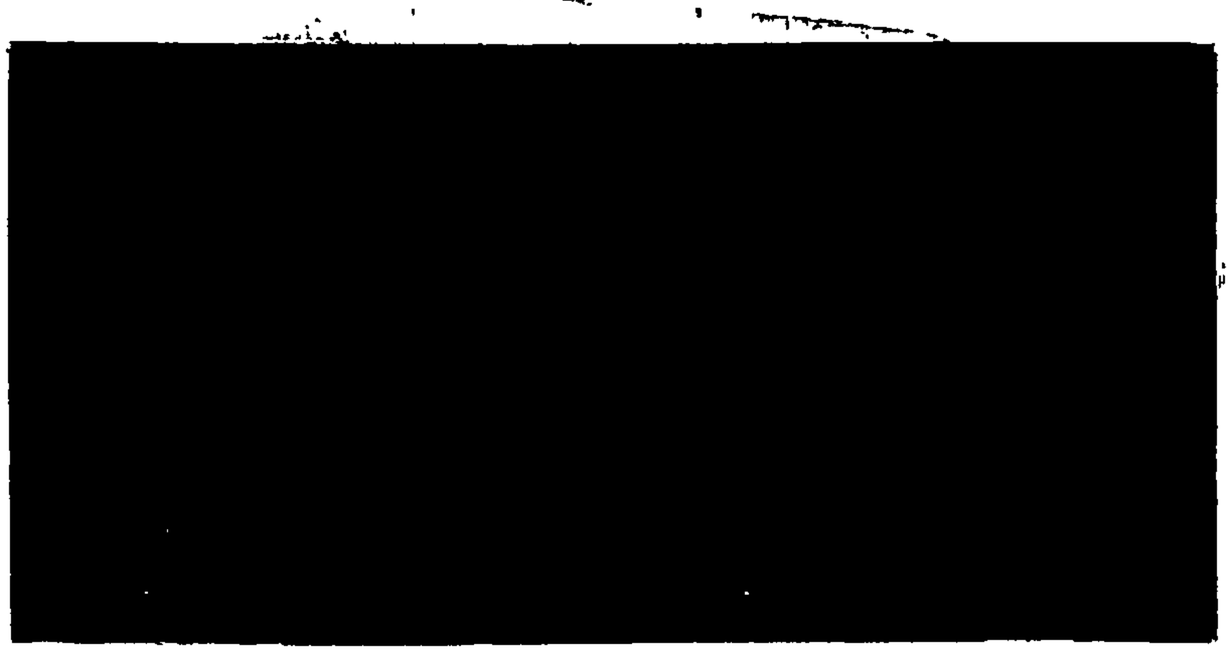
RECEIVED
AUG 14 2003
HYDROLOGY SECTION

614981

DATE SUBMITTED: 8/13/03 — 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 ot 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:

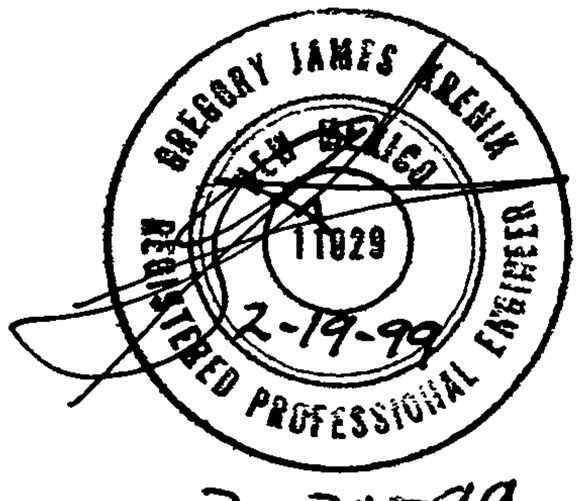
1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five (5) acres and Sector Plans.
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5) acres.
3. **Drainage Report**: Required for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



DRAINAGE REPORT

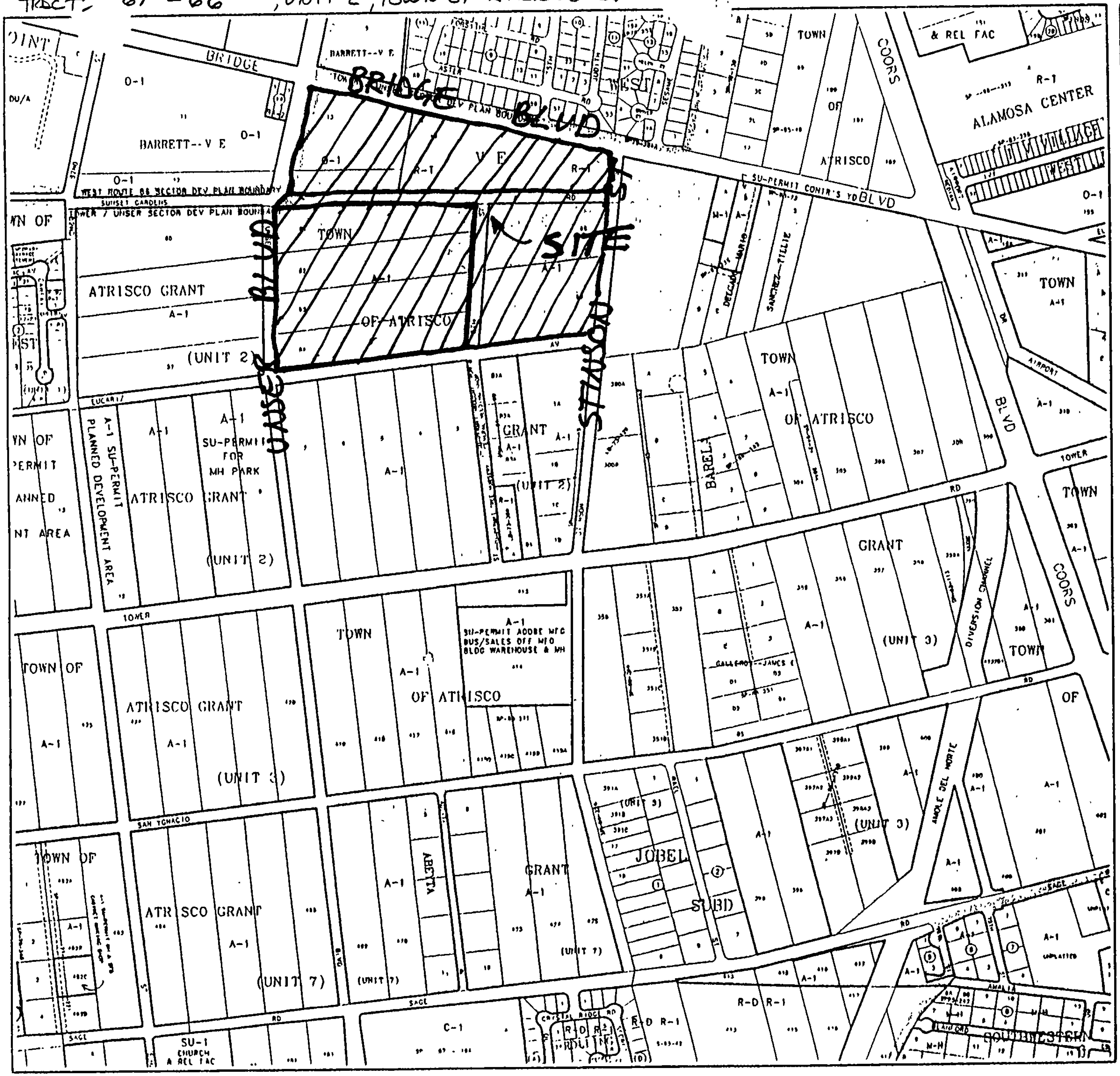
FOR

ENCANTO VILLAGE



3-30-99

TRACT: 61 - 66, UNIT 2, TOWN OF ATRISCO



GRAPHIC SCALE IN FEET

250 0 500 1000

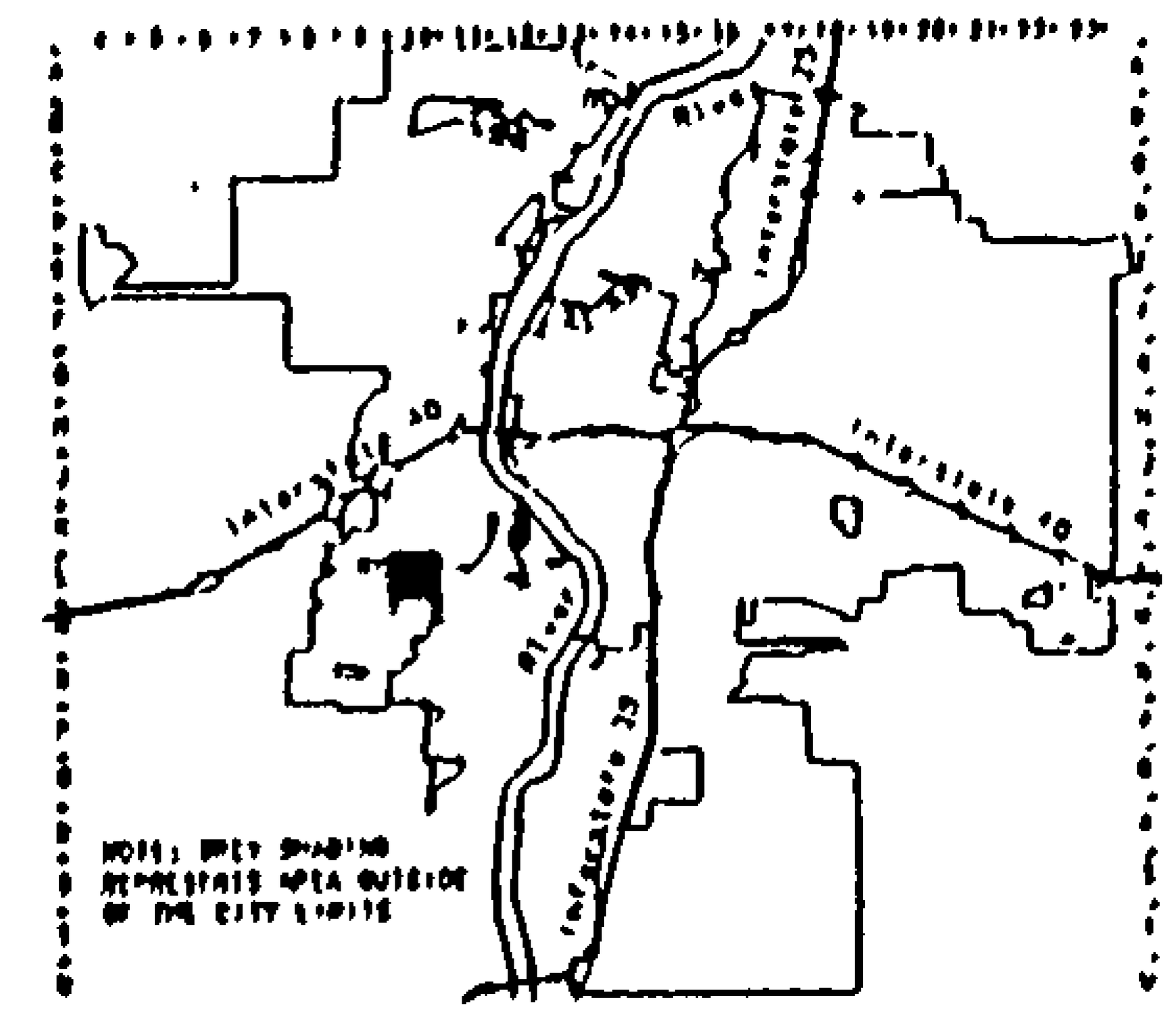
CITY OF Albuquerque

AGIS

PLANNING DEPARTMENT

© Copyright 1997

Map Amended through February 17, 1997



LEGAL DESCRIPTION

T10N

R2E

SEC 37

UNIFORM PROPERTY CODE

1-010-098

L-10-Z

46' R/W & 28' FF

%D = (4' + .6' + 28' + .6' + 4')/46 = 0.81 = 81%

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

PROJECT ENCANTO VILLAGE
SUBJECT DRAINAGE CALCS
BY GSK DATE 1-28-99
CHECKED _____ DATE _____
SHEET 1 OF ____

- SITE DOES NOT LIE IN A 100 YEAR FLOOD ZONE. FIRM Maps 328 & 329
- OFFSITE FLOWS DO NOT IMPACT THE SITE. ✓
- DIRECT DISCHARGE IS ALLOWED TO THE AMOLE CHANNEL ALONG BRIDGE BLVD.
- SITE CONSISTS OF 291 LOTS N=6.4
- SITE DRAINS FROM SW TO NE.
- TOTAL AREA = 45.7422 AC
- PAD SIZE = 36 x 70 = 2520 SF
- DRIVE PAD = 20 x 20 = 400 SF
- FIND UNDEVELOPED AREAS

LOTS = 291 x (2520 + 400) = 849,720 SF = 19.5069 AC TYPE "D"

ROW = 7.9486 AC

80% D & 20% B

6.3588 AC 1.5898 AC

TYPE "B"	TYPE "D"	
18.2867	19.5069	
1.5898	6.3588	
19.8765	25.8657	= 45.7422 AC
		= 0.071472 SM
43.45 %	56.55 %	

- FIND RUNOFF

P_1 = 1.90 in

P_6 = 2.25 in

P_{24} = 2.65 in

FROM AHYMO OUTPUT SHEETS 10-12

Q = 156.60 CFS

- FIND RUNOFF PER LOT

156.60/291 = 0.5381 CFS PER LOT

D. Mark Goodwin & Associates, P.A.
Consulting Engineers
P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmg@swcp.com

PROJECT ENCANTO VILLAGE
SUBJECT DRAINAGE CALCS
BY GJK DATE 4-28-99
CHECKED _____ DATE _____
SHEET 2 OF ____

Revised 3-30-99

- FIND CAPACITY OF MOUNTABLE CURB

S = 0.7692 % n = 0.017 28'-F-F

d = 0.33
wp = 28.66
A = 4.735
V = 2.308 F/s
Q = 10.93 CFS

$d + \frac{v^2}{2g} = 0.41 < 0.33 + .19$ OK

- FIND NO. OF LOTS BEFORE TRANSITION TO STD C+G.

$10.93 / 0.5381 = 20.31$ SAY 20 LOTS

- FIND CAPACITY OF STD C+G

S = 0.7692 % n = 0.017 28' F-F

d = 0.61
wp = 29.22
A = 10.95
V = 3.985 F/s
Q = 43.63 CFS

$d + v^2/2g = 0.86 \approx 0.67 + 0.19$ OK

- FIND NO. OF LOTS

$43.63 / 0.5381 = 81.09$ SAY 81 LOTS

- THIS PROJECT WILL TRY AND SURFACE DRAIN AS MUCH RUNOFF INTO THE AMOLE CHANNEL AS POSSIBLE WITHOUT USING UNDERGROUND STORMDRAIN.

TO DO THIS WE WILL DIVIDE THE SUBDIVISION INTO THREE DRAINAGE BASINS USING STREETS F, G & I AS THE TRANSMISSION VEHICLE.

BASIN 1 - IS THE WESTERN BASIN - 96 LOTS
BASIN 2 - IS THE CENTER BASIN - 97 LOTS
BASIN 3 - IS THE EASTERN BASIN - 98 LOTS

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PROJECT ENCANTO VILLAGE
SUBJECT DRAINAGE CALCS
BY GJK DATE 1-28-99
CHECKED _____ DATE _____
SHEET 3 OF ____
Revised 3-30-99

- DETERMINE OUTFALL FOR BASIN 1

$Q = 96 \times 0.5381 = 51.66$ CFS

DESIGN WILL CONSIST OF A STUB STREET ACTING AS RUNDOWN

- SIZE WIER OPENING

$Q = 2.95 L H^{1.5}$

USE $L = 30'$

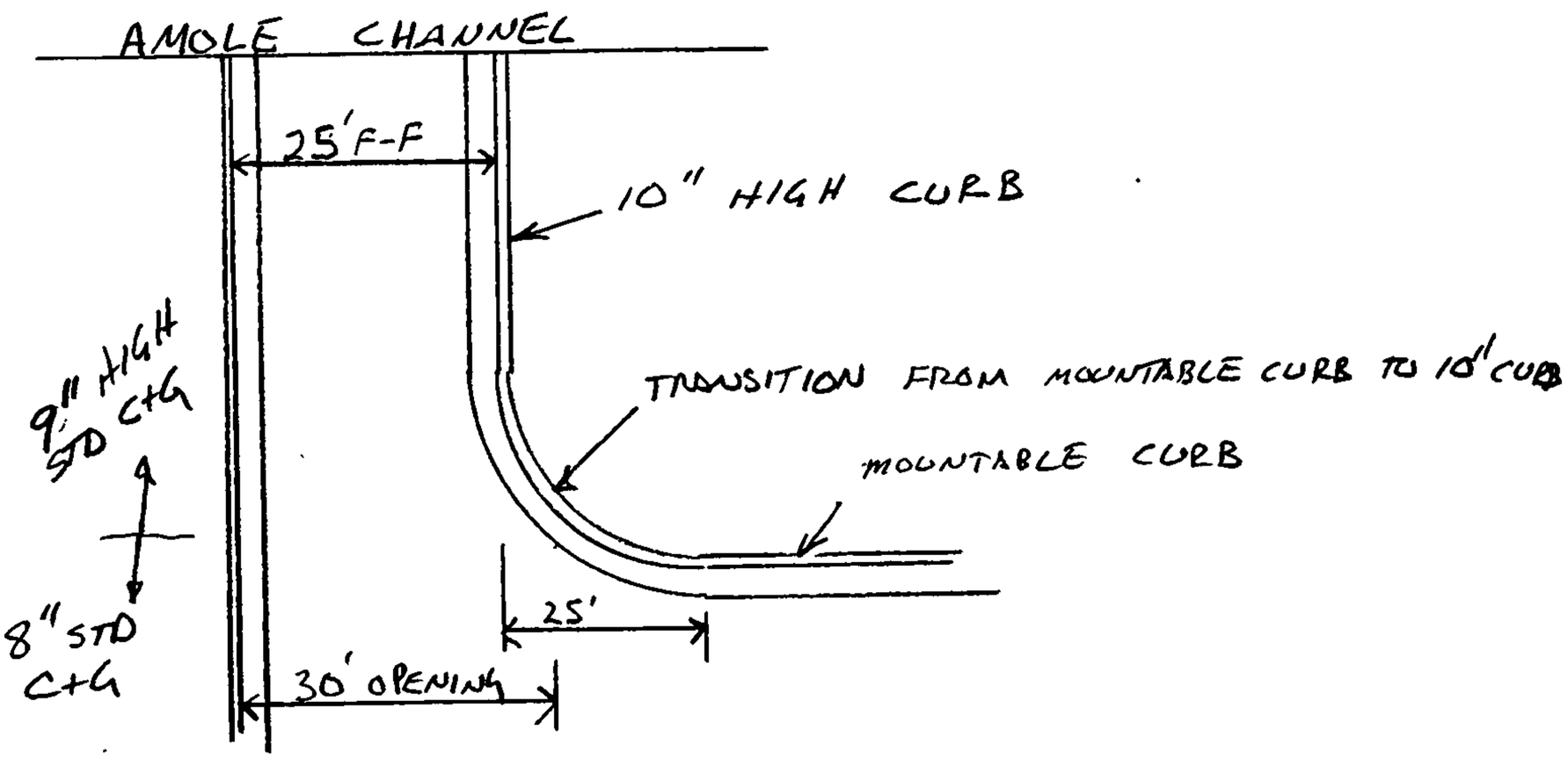
$H = 0.70' < 0.85'$ OK

- SIZE CHANNEL

$w = 25'$ $S = 1.0\%$ $n = 0.017$ NO CROWN?

$d = 0.43$
$wP = 25.86$
$A = 10.75$
$V = 4.87$ F/s
$Q = 52.34$ CFS ≈ 51.66 OK

$d + V^2/2g = 0.80' < .67 + .19$ OK



- DETERMINE OUTFALL FOR BASIN 2

$Q = 97 \times 0.5381 = 52.20$ CFS

DESIGN WILL CONSIST OF A CONCRETE CHANNEL

- SIZE WIER OPENING

USE $30' = L$ $H = 0.70' < 0.85'$ OK

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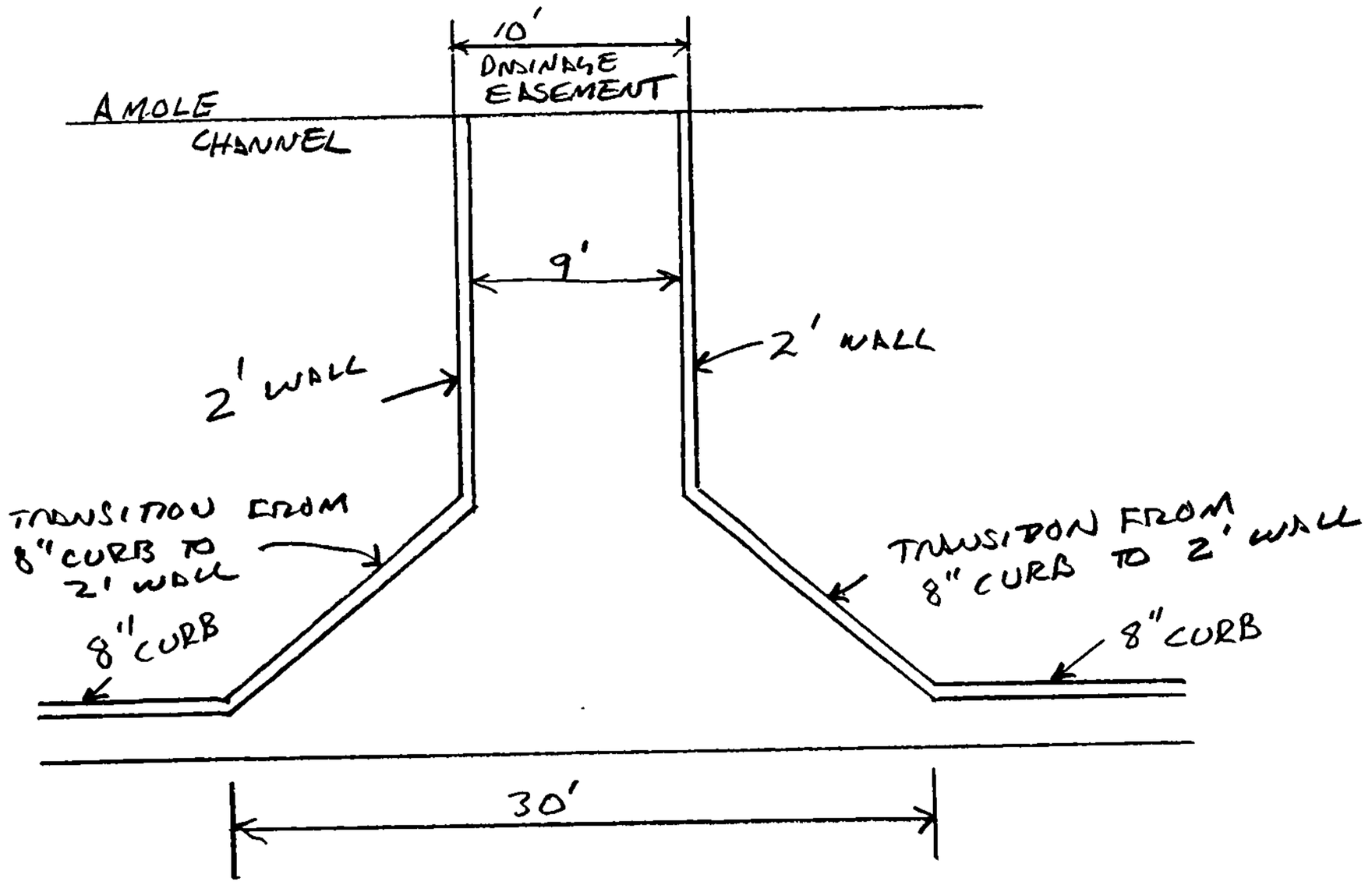
PROJECT ENCANTO VILLAGE
SUBJECT DRAINAGE CALCS
BY GJK DATE 1-28-99
CHECKED _____ DATE _____
SHEET 4 OF ____
Revised 3-30-99

- SIZE CHANNEL

WIDTH = 9' S = 1.38% n = 0.013

d = 0.64
WP = 10.28
A = 5.76
V = 9.13 F/S
Q = 52.57 CFS ≈ 52.20 OK

$d + V^2/2g = 1.93$ USE 2' WALL



- DETERMINE OUTFALL FOR BASIN 3

Q = 98 x 0.5381 = 52.73 CFS

DESIGN WILL BE THE SAME AS BASIN 1

- WIER OPENING

L = 30' H = 0.71' < 0.85' OK

- SIZE CHANNEL

w = 25' S = 1.0% n = 0.017 NO CROWN

d = 0.43
WP = 25.86
A = 10.75
V = 4.87 F/S
Q = 52.34 CFS ≈ 52.73 OK

$d + U^2/2g = 0.80' < 1.67 + .19$ OK

Via Partia

#Lots = 96 − 12 − 3 = 81

- Capacity of Std C&G Reached at boundary between Lot 11 & 12

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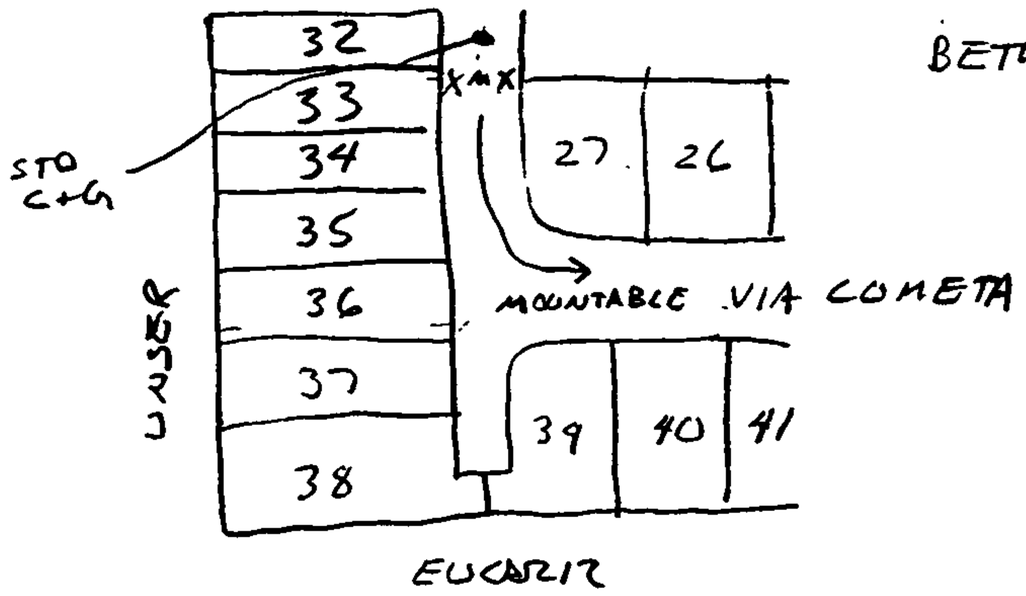
PROJECT ENCANTO VILLAGE
SUBJECT DRAINAGE CALCS
BY GSK DATE 1-28-99
CHECKED _____ DATE _____
SHEET 5 OF ____

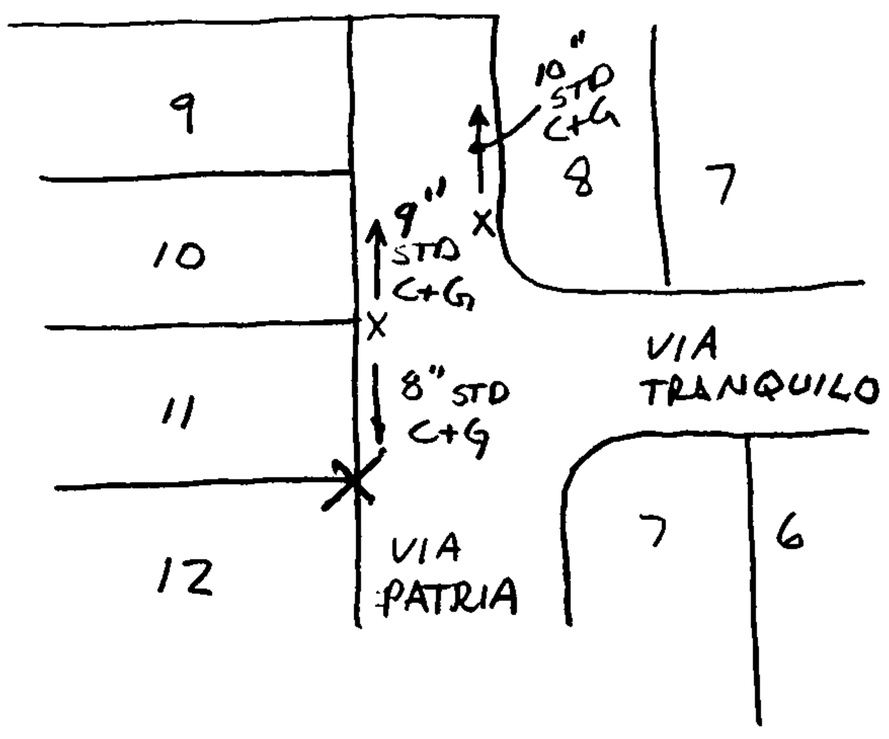
Revised 3-30-99

- DETERMINE TRANSISIONS FROM MOUNTABLE TO STANDARD CURB FOR BASIN 1.
  - ALL STREETS ARE AT S = 0.7692 %
  - EAST-WEST STREETS WILL BE MOUNTABLE C+G BECAUSE THERE ARE LESS THAN 20 LOTS ON THE STREET. SEE SHEET 2.
- STANDARD C+G WILL BEGIN ON VIA PATRIA BETWEEN LOTS 33 + 32 BLOCK 1



- FIND TRANSITION ON VIA PATRIA BEFORE CHANNEL.
  - TRANSITION NEEDS TO BE AT THE POINT WHERE STREET WIDTH IS 25'-F-F.

  FOR THIS PURPOSE WE WILL HAVE THE TRANSITION BETWEEN LOTS



TRANSITION FROM 8" STD C+G TO 9" STD C+G WILL OCCUR BETWEEN LOTS 10 + 11 BLK 1

TRANSITION FROM MOUNTABLE TO TO 10" STD C+G WILL OCCUR THROUGH THE RETURN OF LOT 8 BLOCK 1.

THIS HEIGHT IS DUE BECAUSE THE DISTANCE FROM FACE OF CURB TO PL IS ONLY 3' ON THIS SIDE OF THE ROAD.

Via Arbolado

#Lot = 97-8-8

D. Mark Goodwin & Associates, P.A.
Consulting Engineers
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e-mail: dmg@swcp.com

PROJECT ENCANTO VILLAGE
SUBJECT DRAINAGE CALCS
BY GJK DATE 1-28-99
CHECKED ____ DATE ____
SHEET 6 OF ____

REVISED 3-30-99

- DETERMINE TRANSITIONS FROM MOUNTABLE TO STANDARD C+G FOR <u>BASIN 2.</u>
  - THE SLOPE VARIES PER STREET FROM 0.7692% TO 2.6316%

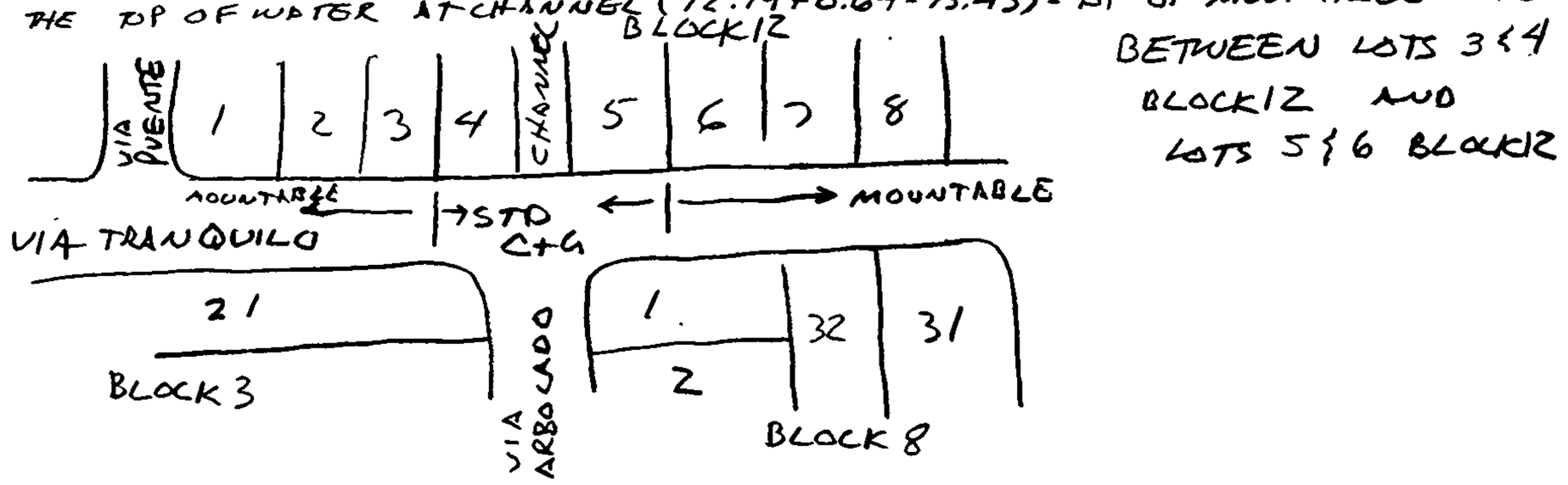
    FIND CAPACITY OF 2.6316% STREET 28' F-F

    $d = 0.29$
    $wP = 13.665'$
    $A = 1.8114$
    $V_{1/2} = 3.6865$ F/S
    $Q_{1/2} = 6.678$ CFS

    $d + \frac{V^2}{2g} = 0.50 < 0.51$ OK/2

    - FIND NO. OF LOTS = $6.678/0.5381 = 12.41$ say 12 EACH SIDE

- EAST-WEST STREETS WILL BE MOUNTABLE C+G
- VIA ARBOLADO WILL BE STD C+G
- TRANSITION ON VIA TRANQUILO ON EACH SIDE OF CHANNEL WILL OCCUR WHERE THE TOP OF WATER AT CHANNEL (72.79+0.64=73.43) = TOP OF MOUNTABLE CURB BETWEEN LOTS 3 & 4 BLOCK 12 AND LOTS 5 & 6 BLOCK 12



- DETERMINE TRANSITIONS FROM MOUNTABLE TO STANDARD C+G FOR <u>BASIN 3.</u>
  - SLOPE VARIES FROM 1.0%, 1.15%, 1.679% TO 2.00%
  - FIND CAPACITIES OF STREETS $n = 0.017$ 28' F-F

1.15%	1.67%	2.00%
$d = 0.33$	$d = 0.33$	$d = 0.32$
$wp = 28.66'$	$wp = 28.66'$	$wp = 28.64'$
$A = 4.735$	$A = 4.735$	$A = 4.455$
$V = 2.82$ F/S	$V = 3.40$ F/S	$V = 3.575$ F/S
$Q = 13.36$ CFS	$Q = 16.10$ CFS	$Q = 15.929$ CFS
NUMBER OF LOTS = 24.83	NUMBER OF LOTS = 29.92	NUMBER OF LOTS = 29.60
SAY 24 LOTS	SAY 29 LOTS	SAY 29 LOTS

$d + \frac{V^2}{2g} = 0.52$ OK/2

Via Canale

Lots = 98 - 17 - 2 = 79 < 81 OK

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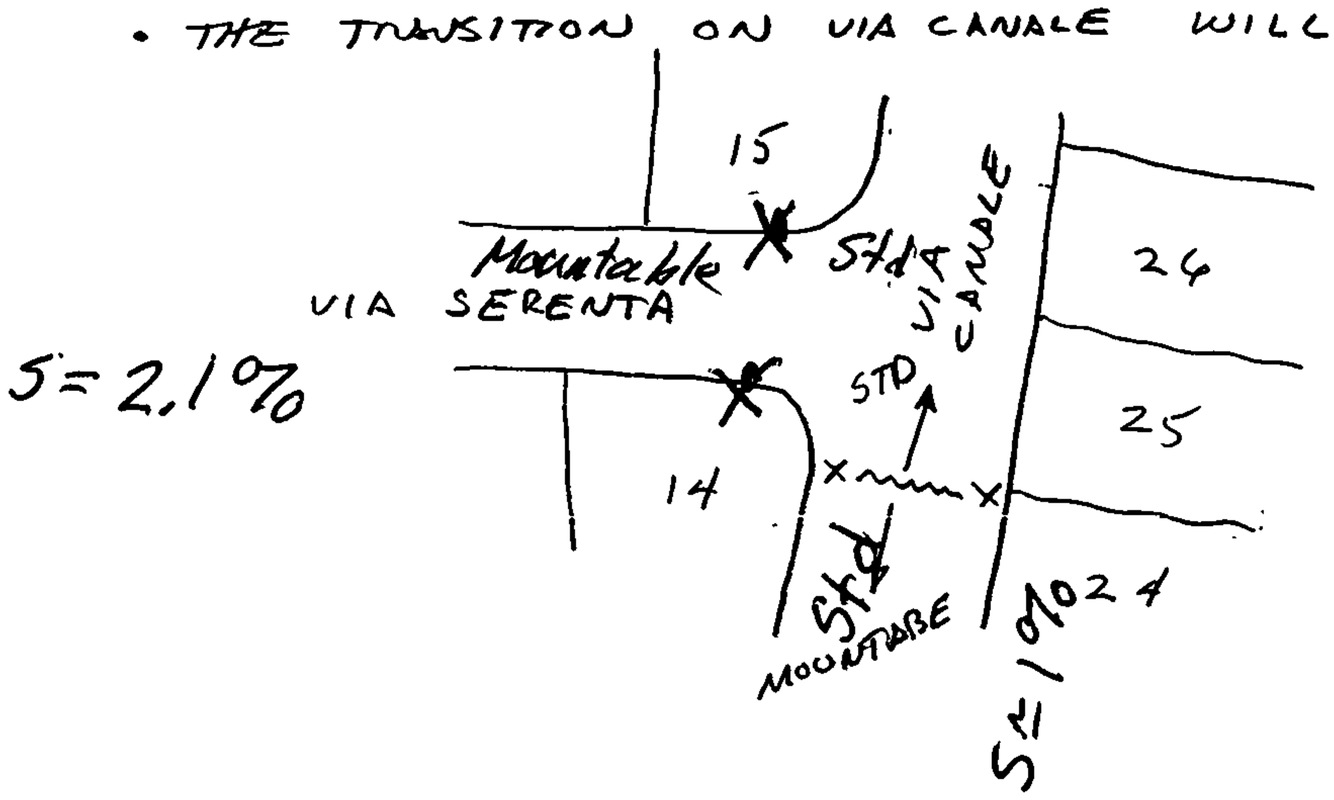
PROJECT ENCANTO VILLAGE
SUBJECT DRAINAGE CALCS
BY GJK DATE 1-28-99
CHECKED _____ DATE _____
SHEET 7 OF ____

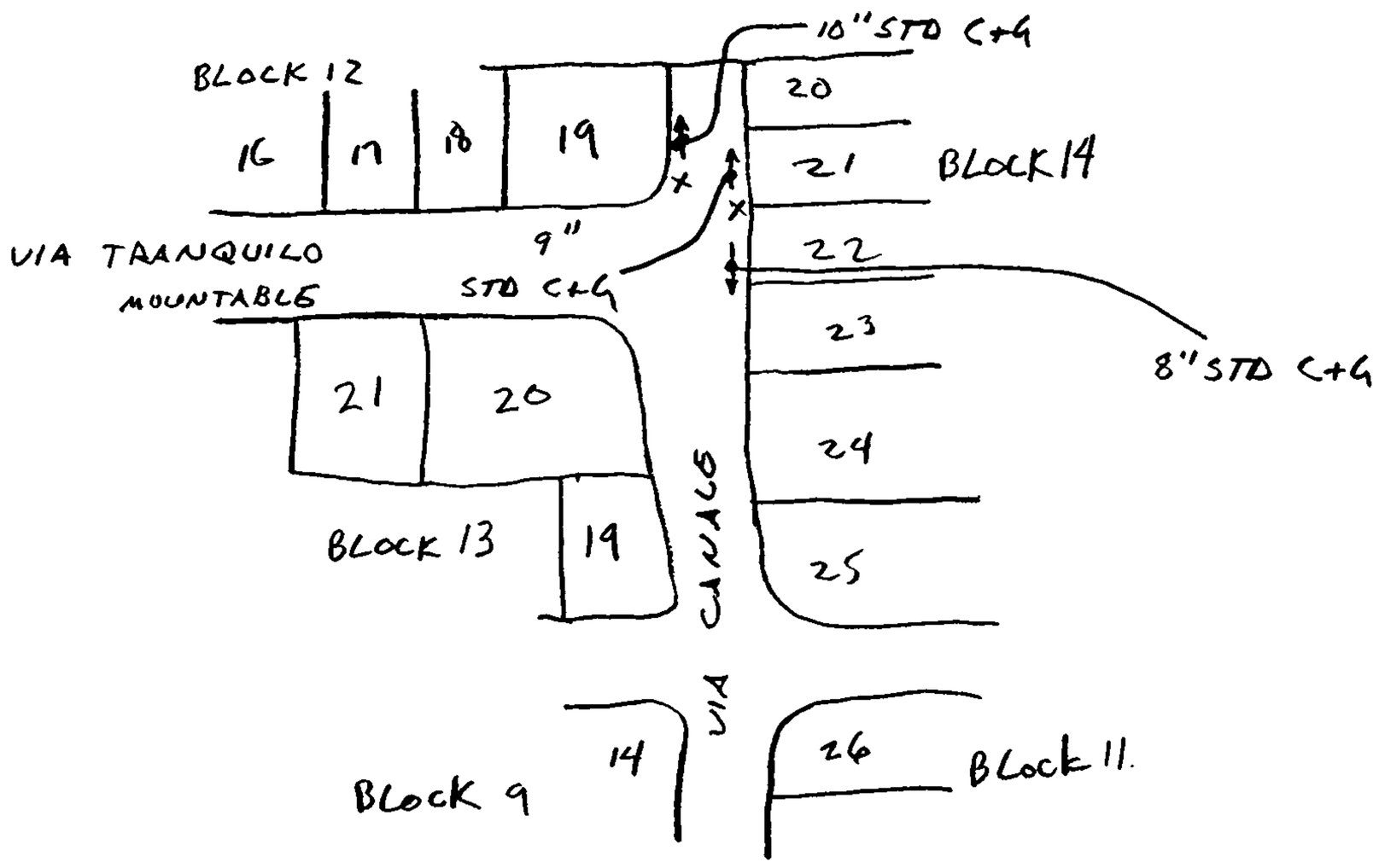
REVISED 3-30-99

- EAST-WEST STREETS WILL BE MOUNTABLE CURB.
- THE TRANSITION ON VIA CANALE WILL BETEEN LOTS 24 & 25 BLOCK 2

(25 LOTS)



- FIND TRANSITION ON VIA CANLE BEFORE CHANNEL



TRANSITIONS WILL BE THE SAME AS THOSE ON STREET F. SEE SHEET 5.

- TRANSITION FROM 8" STD C+G TO 9" STD C+G WILL OCCUR BETWEEN LOTS 21 & 22 BLK 3.
- TRANSITION FROM MOUNTABLE TO 10" STD C+G WILL OCCUR THROUGH THE RETURN OF LOT 19 BLOCK 3.
- THE 10" HEIGHT IS DUE TO THE DISTANCE FROM FACE OF CURB TO R IS ONLY 3' ON THIS SIDE OF THE ROAD.

D. Mark Goodwin & Associates, P.A.
Consulting Engineers
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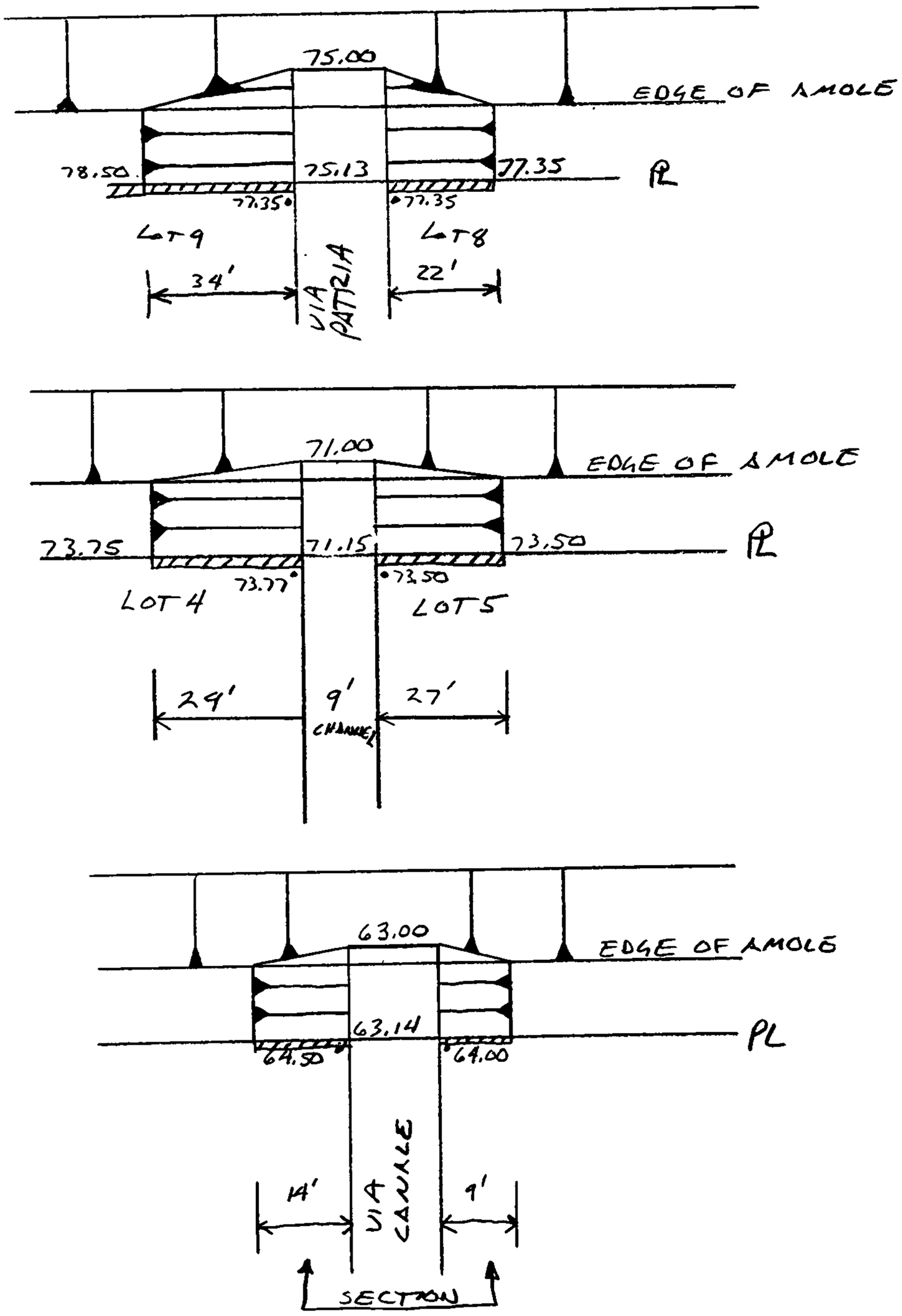
e-mail: dmg@swcp.com

PROJECT ENCANTO VILLAGE
SUBJECT DRAINAGE CALCS
BY GJK DATE 1-28-99
CHECKED ____ DATE ____
SHEET 8 OF ____

• DETAIL OF CHANNEL CONNECTIONS



EXISTING CHANNEL IS TO BE CUT OUT WHERE NEW CHANNELS INTERSECT.

EDGE OF AMOLE

10:1 10:1

SECTION

Stinson & Eucariz

%o D = (6+.6+20)/30 = 0.887 = 88.7 %

4'SW

%o D = (4+.6+20)/30 = 0.82 = 82%

D. Mark Goodwin & Associates, P.A.
Consulting Engineers
P.O. BOX 90606, ALBUQUERQUE, NM 87199
(505) 828-2200 FAX 797-9539
e-mail: dmg@swcp.com

PROJECT ENCANTO VILLAGE
SUBJECT DRAINAGE CALCS
BY GJK DATE 3-30-99
CHECKED _____ DATE _____
SHEET 9 OF ___

- DETERMINE RUNOFF FOR EUCARIZ & STINSON

EUCARIZ RUNOFF WILL SPLIT AT STINSON WHERE THE NORTH HALF WILL TURN TO BRIDGE AND THE SOUTH HALF TO TOWER.

AREA OF EUCARIZ = 1545 x 30 = 46,350 ☐ = 1.06405 AC
AREA OF STINSON = 1000 x 60 = 60,000 ☐ = 1.37741 AC
TOTAL 2.44146 AC

USE 85% D
15% C

FROM AHYMO OUTPUT SHEETS 13-15

Q = 10.32 CFS

- TOTAL Q FROM BASIN

Q = 156.60 + 10.32
= 166.92 < 170.43 CFS per GREINER REPORT

OK

```
START                    TIME=0.0
 **** HYDROGRAPH FOR ENCANTO VILLAGE RUNOFF
 AINFALL                 TYPE=1 RAIN QUARTER=0.0 IN
                         RAIN ONE=1.90 IN RAIN SIX=2.25 IN
                         RAIN DAY=2.65 IN DT=0.03333 HR
 'OMPUTE NM HYD          ID=1 HYD NO=101.1 AREA=0.071472 SQ MI
                         PER A=0 B=43.45 C=0 D=56.55
                         TP=0.1333 HR MASS RAINFALL=-1
 'RINT HYD               ID=1 CODE=1
 'INISH
```

```
    AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
          RUN DATE (MON/DAY/YR) = 02/18/1999
          START TIME (HR:MIN:SEC) = 11:43:30      USER NO.= M_GOODWN.I01
          INPUT FILE = VISTADP.DAT

START                    TIME=0.0
***** HYDROGRAPH FOR ENCANTO VILLAGE RUNOFF
RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN
                         RAIN ONE=1.90 IN RAIN SIX=2.25 IN
                         RAIN DAY=2.65 IN DT=0.03333 HR

                   COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 H
                   DT =     .033330 HOURS        END TIME =     5.999400 HOURS
                      .0000   .0018   .0036   .0055   .0074   .0094   .0114
                      .0134   .0155   .0177   .0199   .0222   .0245   .0269
                      .0293   .0319   .0345   .0372   .0399   .0428   .0458
                      .0489   .0521   .0554   .0589   .0625   .0663   .0703
                      .0745   .0789   .0836   .0888   .0944   .1004   .1133
                      .1421   .1865   .2502   .3372   .4515   .5973   .7788
                     1.0003  1.2059  1.2918  1.3643  1.4288  1.4874  1.5414
                     1.5916  1.6384  1.6823  1.7237  1.7627  1.7995  1.8344
                     1.8674  1.8987  1.9284  1.9566  1.9834  1.9898  1.9958
                     2.0014  2.0068  2.0120  2.0169  2.0216  2.0262  2.0306
                     2.0349  2.0390  2.0430  2.0469  2.0507  2.0543  2.0579
                     2.0614  2.0648  2.0681  2.0713  2.0745  2.0776  2.0806
                     2.0836  2.0865  2.0894  2.0922  2.0949  2.0976  2.1003
                     2.1029  2.1055  2.1080  2.1105  2.1129  2.1153  2.1177
                     2.1201  2.1224  2.1247  2.1269  2.1291  2.1313  2.1335
                     2.1356  2.1377  2.1398  2.1418  2.1439  2.1459  2.1478
                     2.1498  2.1517  2.1537  2.1555  2.1574  2.1593  2.1611
                     2.1629  2.1647  2.1665  2.1683  2.1700  2.1718  2.1735
                     2.1752  2.1769  2.1785  2.1802  2.1818  2.1834  2.1850
                     2.1866  2.1882  2.1898  2.1914  2.1929  2.1944  2.1959
                     2.1975  2.1990  2.2004  2.2019  2.2034  2.2048  2.2063
                     2.2077  2.2091  2.2105  2.2119  2.2133  2.2147  2.2161
                     2.2174  2.2188  2.2201  2.2215  2.2228  2.2241  2.2254
                     2.2267  2.2280  2.2293  2.2306  2.2318  2.2331  2.2343
                     2.2356  2.2368  2.2381  2.2393  2.2405  2.2417  2.2429
                     2.2441  2.2453  2.2465  2.2476  2.2488  2.2500

COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.071472 SQ MI
                         PER A=0 B=43.45 C=0 D=56.55
                         TP=0.1333 HR MASS RAINFALL=-1

     K =    .072790HR     TP =    .133300HR     K/TP RATIO =    .546062     SHAPE CONSTANT, N =
     UNIT PEAK =    159.32     CFS    UNIT VOLUME =     .9993        B =    525.44       P60 = 1.90
     AREA =        .040417 SQ MI     IA =     .10000 INCHES     INF =     .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033330


     K =    .130316HR     TP =    .133300HR     K/TP RATIO =    .977612     SHAPE CONSTANT, N =
     UNIT PEAK =    76.518     CFS    UNIT VOLUME =     1.000        B =    328.45       P60 = 1.90
     AREA =        .031055 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 =      1.44175 INCHES      =        5.4957 ACRE-FEET
 PEAK DISCHARGE RATE =     156.60 CFS  AT   1.500 HOURS   BASIN AREA =   .0715 SQ. MI.


FINISH

 NORMAL PROGRAM FINISH              END TIME (HR:MIN:SEC) = 11:43:30
```

```
START                TIME=0.0
:**** HYDROGRAPH FOR EUCARIZ & STINSON RUNOFF
!AINFALL             TYPE=1 RAIN QUARTER=0.0 IN
                     RAIN ONE=1.90 IN RAIN SIX=2.25 IN
                     RAIN DAY=2.65 IN DT=0.03333 HR
:OMPUTE NM HYD       ID=1 HYD NO=101.1 AREA=0.003815 SQ MI
                     PER A=0 B=0 C=15 D=85
                     TP=0.1333 HR MASS RAINFALL=-1
'RINT HYD            ID=1 CODE=1
'INISH
```

```
     AHYMO PROGRAM (AHYMO194) - AMAFCA Hydrologic Model - January, 1994
          RUN DATE (MON/DAY/YR) = 03/30/1999
          START TIME (HR:MIN:SEC) = 09:22:10      USER NO.= M_GOODWN.I01
          INPUT FILE = EUCSTI.DAT

START                    TIME=0.0
***** HYDROGRAPH FOR EUCARIZ & STINSON RUNOFF
RAINFALL                 TYPE=1 RAIN QUARTER=0.0 IN
                         RAIN ONE=1.90 IN RAIN SIX=2.25 IN
                         RAIN DAY=2.65 IN DT=0.03333 HR

                    COMPUTED 6-HOUR RAINFALL DISTRIBUTION BASED ON NOAA ATLAS 2 - PEAK AT 1.40 H
                    DT =     .033330 HOURS        END TIME =     5.999400 HOURS
                       .0000   .0018   .0036   .0055   .0074   .0094   .0114
                       .0134   .0155   .0177   .0199   .0222   .0245   .0269
                       .0293   .0319   .0345   .0372   .0399   .0428   .0458
                       .0489   .0521   .0554   .0589   .0625   .0663   .0703
                       .0745   .0789   .0836   .0888   .0944   .1004   .1133
                       .1421   .1865   .2502   .3372   .4515   .5973   .7788
                      1.0003  1.2059  1.2918  1.3643  1.4288  1.4874  1.5414
                      1.5916  1.6384  1.6823  1.7237  1.7627  1.7995  1.8344
                      1.8674  1.8987  1.9284  1.9566  1.9834  1.9898  1.9958
                      2.0014  2.0068  2.0120  2.0169  2.0216  2.0262  2.0306
                      2.0349  2.0390  2.0430  2.0469  2.0507  2.0543  2.0579
                      2.0614  2.0648  2.0681  2.0713  2.0745  2.0776  2.0806
                      2.0836  2.0865  2.0894  2.0922  2.0949  2.0976  2.1003
                      2.1029  2.1055  2.1080  2.1105  2.1129  2.1153  2.1177
                      2.1201  2.1224  2.1247  2.1269  2.1291  2.1313  2.1335
                      2.1356  2.1377  2.1398  2.1418  2.1439  2.1459  2.1478
                      2.1498  2.1517  2.1537  2.1555  2.1574  2.1593  2.1611
                      2.1629  2.1647  2.1665  2.1683  2.1700  2.1718  2.1735
                      2.1752  2.1769  2.1785  2.1802  2.1818  2.1834  2.1850
                      2.1866  2.1882  2.1898  2.1914  2.1929  2.1944  2.1959
                      2.1975  2.1990  2.2004  2.2019  2.2034  2.2048  2.2063
                      2.2077  2.2091  2.2105  2.2119  2.2133  2.2147  2.2161
                      2.2174  2.2188  2.2201  2.2215  2.2228  2.2241  2.2254
                      2.2267  2.2280  2.2293  2.2306  2.2318  2.2331  2.2343
                      2.2356  2.2368  2.2381  2.2393  2.2405  2.2417  2.2429
                      2.2441  2.2453  2.2465  2.2476  2.2488  2.2500

COMPUTE NM HYD           ID=1 HYD NO=101.1 AREA=0.003815 SQ MI
                         PER A=0 B=0 C=15 D=85
                         TP=0.1333 HR MASS RAINFALL=-1

     K =    .072649HR     TP =    .133300HR     K/TP RATIO =    .545000      SHAPE CONSTANT, N =
     UNIT PEAK =    12.803     CFS    UNIT VOLUME =     .9985        B =    526.28       P60 = 1.90
     AREA =        .003243 SQ MI     IA =     .10000 INCHES     INF =     .04000 INCHES PER HOUR
     RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT =    .033330


     K =    .106205HR     TP =    .133300HR     K/TP RATIO =    .796738      SHAPE CONSTANT, N =
     UNIT PEAK =    1.6620     CFS    UNIT VOLUME =     .9925        B =    387.15       P60 = 1.90
     AREA =        .000572 SQ MI     IA =     .35000 INCHES     INF =     .83000 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 = 1.86672 INCHES = .3798 ACRE-FEET
PEAK DISCHARGE RATE = 10.32 CFS AT 1.500 HOURS BASIN AREA = .0038 SQ. MI.

FINISH

NORMAL PROGRAM FINISH END TIME (HR:MIN:SEC) = 09:22:10

DEVELOPMENT & BUILDING SERVICE CENTER
ONE STOP
600 SECOND ST. N.W./2ND FLOOR

ATTENTION: Terri

505-924-~~3900~~ 3981

Records Withdrawal Form

Project No. L-10/D-17 **Date:** 1-30-01

Project Title: Encanto Village

(a) File b. Mylars c. Redlines/Comments
d. Other _____

Requested By: KEVIN DAGGETT **Phone No.:** 228 - 7821
Company

Comments: Drainage Report for Encanto Village

Anticipated Return Date: _____

Receipt Acknowledged

I here by accept full responsibility for the security of the above noted records/plans until return receipt acknowledgement is completed. Records/plans will be returned to the Development & Building Services Center on or before the indicated anticipated return date.

Delivery Picked Up By:

Name: RAY SEDILLO **Organization:** Reliable
Print

Signed: Ray Sedillo **Date:** 1-30-01
Phone No. 247-1578

Office Use Only

Return Acknowledged

Received by: Mitch Reynolds **Date:** 1-31-01
Print

ORIGINAL

D.R.B. Case No. 98-276
D.R.C. Project No. _____
Date Submitted 10-13-99
Prelim. Plat Approved 11-24-99
Prelim. Plat Expires 11-24-00

Figure 12

EXHIBIT "A"
To Subdivision Improvements Agreement
DEVELOPMENT REVIEW BOARD (DRB) REQUIRED INFRASTRUCTURE LISTING
for Encanto Village, Units 2 & 3

Following is a summary of Public/Private Infrastructure required to be constructed or financially guaranteed to be constructed for the above development. This summary is not necessarily a complete listing. During the design process, if the City determines that appurtenant items have not been included in the summary, those items will be included in the listing and related financial guarantee, if the items normally are the Subdivider responsibility. In addition, any unforseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility are the responsibility of the Subdivider and will be included in the financial guarantee provided to the City.

Size	Type Improvement	Location	From	To
		UNIT 2		
~~25'~~ 31' FF	Art Pvmt (E side) 10' Asphalt Bikepath (E side) Std C & G (E side) Ext. Asphalt Curb (E side)	Unser Blvd	Lot 13, Blk 6	Eucariz Rd
48' ~~38'~~ FF Private (Entrance	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Arbolado	Eucariz Rd	Via Cometa
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Cometa	Via Patria	Lot 27, Blk 9
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C& G (both sides)	Via Serenita	Via Patria	Lot 27, Blk 8
28' FF Private	Res Pvmt 4' Sdwk (Both sides)* Mount C & G (both sides)	Via Sereno	Via Patria	Lot 1, Blk 8
25' FE Public	Art Pvmt (N side) 4' Sdwk (N side) Std C & G (N side)	Eucariz Rd	Unser Blvd	Lot 6, Blk 10
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Std C & G (both sides)	Via Patria	Via Cometa	Lot 13, Blk 6
46' 6'	CONCRETE SDWK	LOT 16-P1	VIA SERENO	UNSER BLVD THRU
6'	concrete sdwk	LOT 30-P1	VIA PATRIA	EUCARIZ AVE S/W

D.R.B. Case No. 98-276
D.R.C. Project No. _____
Date Submitted 10-13-99
Prelim. Plat Approved 11-24-99
Prelim. Plat Expires 11-24-00

Size	Type Improvement	Location	From	To
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Std C& G (both sides)	Via Arbolado	Via Cometa	Lot 5, Blk 7
25' FF Private	Res Pvmt 4' Sdwk (W side)* Std C & G (Both Sides)	Via Patria	Via Cometa	Lot 13, Blk 6
6"	PVC Waterline	Via Serenita	Entire Length	
6"	PVC Waterline	Via Arbolado	Lot 5, Blk 7	Via Cometa
6"	PVC Waterline	Via Cometa	Via Arbolado	Lot 27, Blk 9
8"	PVC Waterline	Via Cometa	Via Patria	Via Arbolado
8"	PVC Waterline	Via Patria	25' Water & SAS Esmt	Via Cometa
10"	PVC Waterline	Eucariz Rd	Unser Blvd	Lot 6, Blk 10
8"	PVC Waterline	Via Arblado	Via Cometa	Eucariz Rd
6"	PVC Waterline	Via Sereno	Entire Length	
8"	SAS	Eucariz Rd	Unser	Lot 6, Blk 10
8"	SAS	Via Serenita	Entire Length	
8"	SAS	Via Cometa	Entire Length	
8"	SAS	Via Patria	Lot 13, Blk 6	Termination
8"**	SAS	Via Sereno	Entire Length	
		UNIT 3		
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Cometa	Lot 27, Blk 9	Via Canale
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C& G (both sides)	Via Serenita	Lot 27, Blk 8	Via Canale
28' FF Private	Res Pvmt 4' Sdwk (Both sides)* Mount C & G (both sides)	Via Sereno	Lot 1, Blk 8	Stinson St
48'FF	FROM VIA CANALE TO STINSON			
25' FE Public	Art Pvmt (N side) 4' Sdwk (N side) Std C & G (N side)	Eucariz Rd	Lot 6, Blk 10	Stinson St
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Std C & G (both sides)	Via Canale	Via Cometa	Lot 4, Blk 12

D.R.B. Case No. 98-276
D.R.C. Project No. _____
Date Submitted 10-13-99
Prelim. Plat Approved 11-24-99
Prelim. Plat Expires 11-24-00

Size	Type Improvement	Location	From	To
25' FF Public	Art Pvmt (W side) 4' Sdwk (W side) Std C & G (W side)	Stinson St	Eucariz Rd	Lot 4, Blk 12
6"	PVC Waterline	Via Serenita	Entire Length	
6"	PVC Waterline	Via Cometa	Entire Length	
6"	PVC Waterline	Via Sereno	Via Arbolado	Via Canale
6"	PVC Waterline	Via Canale	Via Cometa	Via Sereno
10"	PVC Waterline	Eucariz Rd	Lot 6, Blk 10	Stinson St
10"	PVC Waterline	Stinson St	Eucariz Rd	Lot 4, Blk 12
8"	SAS	Eucariz Rd	Lot 6, Blk 10	Stinson St
8"	SAS	Via Serenita	Entire Length	
8"	SAS	Via Cometa	Entire Length	
8"	SAS	Via Canale	Via Cometa	Via Sereno
8"**	SAS	Via Sereno	Entire Length	
8"	SAS	Stinson St	Eucariz Rd	Via Sereno

D.R.B. Case No. 98-276
D.R.C. Project No. ______
Date Submitted 10-13-99
Prelim. Plat Approved 11-24-99
Prelim. Plat Expires 11-24-00

Engineer's Certification for Grading and Drainage per DPM including Perimeter Walls as shown on the Grading Plan for Release of SIA and Financial Guarantees. ~~Financial Guarantee is not required for this item.~~

Water infrastructure to include valves, fittings, valveboxes and fire hydrants.

Sanitary sewer to include manholes and service connections.

Street lights per DPM.

* Deferred

** Financially Guaranteed w/Project No. 5929.81 Whispering Pointe, Unit I

Prepared By: ______
Print Name: Gregory J. Krenik, PE
Firm: Mark Goodwin & Associates, PA

* *

Development Review Board Member Approvals

	11-24-99	Bradley L. Bingham	11-24-99
Transportation Dev.	Date	Utility Dev.	Date
Edward Q. Stang	11-24-99		11-24-99
Parks, Design & Development/C.I.P.	Date	Engineer/AMAFCA	Date
	11/24/99		
DRB Chairman	Date		

Author: John P. [illegible]in at CABQ-DOWNTOWN
Date: 07/15/1999 10:54 AM
Priority: Normal
Receipt Requested
TO: Billy J. Goolsby
CC: Fred J. Aguirre, Steve A. Boberg
Subject: Sign-off Encanto Village

Billy:

I will be on vacation next week and I have delegated signature for this project to Steve Boberg. Steve will sign the plans when he is satisfied that adequate access to the Amole channel has been provided. If the perimeter wall is extended across the two streets and the easement, then Steve believes that the Developer must grant additional drainage right of way for a 15' maintenance road.

John

Greg is trying to schedule a meeting w/ Glenn to discuss Access to Amole Channel.
John Curtin
7-15-99

Author: John P. in at CABQ-DOWNTOWN
Date: 07/14/1999 10:46 AM
Priority: Normal
Receipt Requested
TO: Billy J. Goolsby
CC: Glenn C. Jurgensen at CABQ-PINO
Subject: Encanto Village CPN 6174.81

Billy:

I will not be at the DRC at 1:30 PM today. I will try to bring my mark ups by before I go to my other meeting. The main commment that I have is that Storm Maintenance does not want the developer to extend the perimeter wall across the channel/streets that discharge into the Amole Channel. There isn't a maintenance road on the south side of the Amole channel and Storm Maintenance needs to access the channel at these locations. Greg should discuss this with Ed Elwell or Glenn Jurgensen.

John Curtin

FIGURE 6

CITY OF ALBUQUERQUE

NOTICE OF D.R.C. MEETING

6-7-99

(DATE)

6/14

DRB NO: 98-276

PROJECT NO: 617481

ZONE ATLAS: L-10 / D17

PROJECT NAME: ENCANTO VILLAGE SUBD.

LOCATION: B/W BRIDGE & EUCARIZ & B/W LINSER & STINSON ST.

TYPE OF PROJECT: AHBA ✓ CIP ___ PWC ___ SAD ___ ALL PRIVATE ___

Contact Person: GREG KRENIK **Phone:** 828-2200

Firm: MARK GOODWIN & Assoc.

✓ Scheduled with the D.R.C. on 6-16-99 at 1:30 Plaza Del Sol/2nd Fl.

___ No DRC Meeting Scheduled. Please return any comments by _____

The Project Is Scheduled For:

/ / Design Report Review / / Final Plan Review

/ / Pre-Design Meeting / / Signoff of Plans

/✓/ Preliminary Plan Review / / _____

The Project Relates To:

/✓/ Water /✓/ San. Sewer /✓/ Paving / / Storm Drainage / / _____

The Attached Package Includes:

/D/ Drawings /S/ Spec's /E/ Estimate /R/ Report /M/ Memo Only

Indicated below are the Departments/Divisions that have received project documents and/or are invited to attend. It will be the Project Managers responsiblity to notify consulting engineering firms of date and time of scheduled meetings.

/D/ DRC Chairman	Project Review Section	All Drawings
/D/ Traffic Repres	Transportation Development	All Drawings
/D/ Utility Dev.(Bob Kane)	Utility Design	All AHBA Drawings
/ / Utility Dev.(Keith Reed)	Utility Design	All CIP Drawings
/D/ Hydro Repres: CURTIN	Hydrology	All Drawings
/D/ Const. Repres.	Construction	All Drawings
/D/ Ray Chavez	Traffic Operations	All Drawings
/D/ Sergio Miranda	Water (Shutoff Plan)	All Water Shutoff
/D/ CIP/Parks Repres.	Parks & Recreation	ALL Landscaping
/ / Andre Houle	Street Maintenance	All Paving
/ / Kevin Broderick	Utility Coordinator	ALL PWC & CIP
/D/ Tom Murphy	Transit Department	All Drawings
/ / Joe Luehring	Construction Coordinator	CIP/Memo
/ / Jim Fink	Line Maintenance	CIP & SAS/Memo
/ / George Gee	City Architect	Arch. Drawings
/ / Lee Lunsford	SAD Engineer	SAD/Memo
/ / Tom Ellis	Park Mangement	Parks/Community Ctrs/APS
/ / Gene Bustamante	General Services Dept.	Arch. Drawings
/ / Greg Smith	PWD/Legal	Specs & Dwgs.
/ / Richard Sertich	Planning Department	CIP/Memos
/ / CIP Project Manager	CIP	CIP/Memos
/ / Donald Bartlett	Risk Management	Arch. Drawings
/ / _____	_____	_____

DRCNOTIC. 10/19/95

FAX TRANSMITTAL

URS Greiner Woodward Clyde

5971 JEFFERSON BOULEVARD, NE
SUITE 101
ALBUQUERQUE, NM 87109
TEL: (505) 345-3999 • FAX: (505) 345-8393

DATE: 30 March 1999

PAGE 1 OF: 3 5

TO: LOREN MEINS

FROM: SHEILA JOHNSON

FIRM: COA

SUBJECT: ARNOLE - STINSON EASEMENT

FAX NO: 768-3629

CC:

MEMO:

LOREN

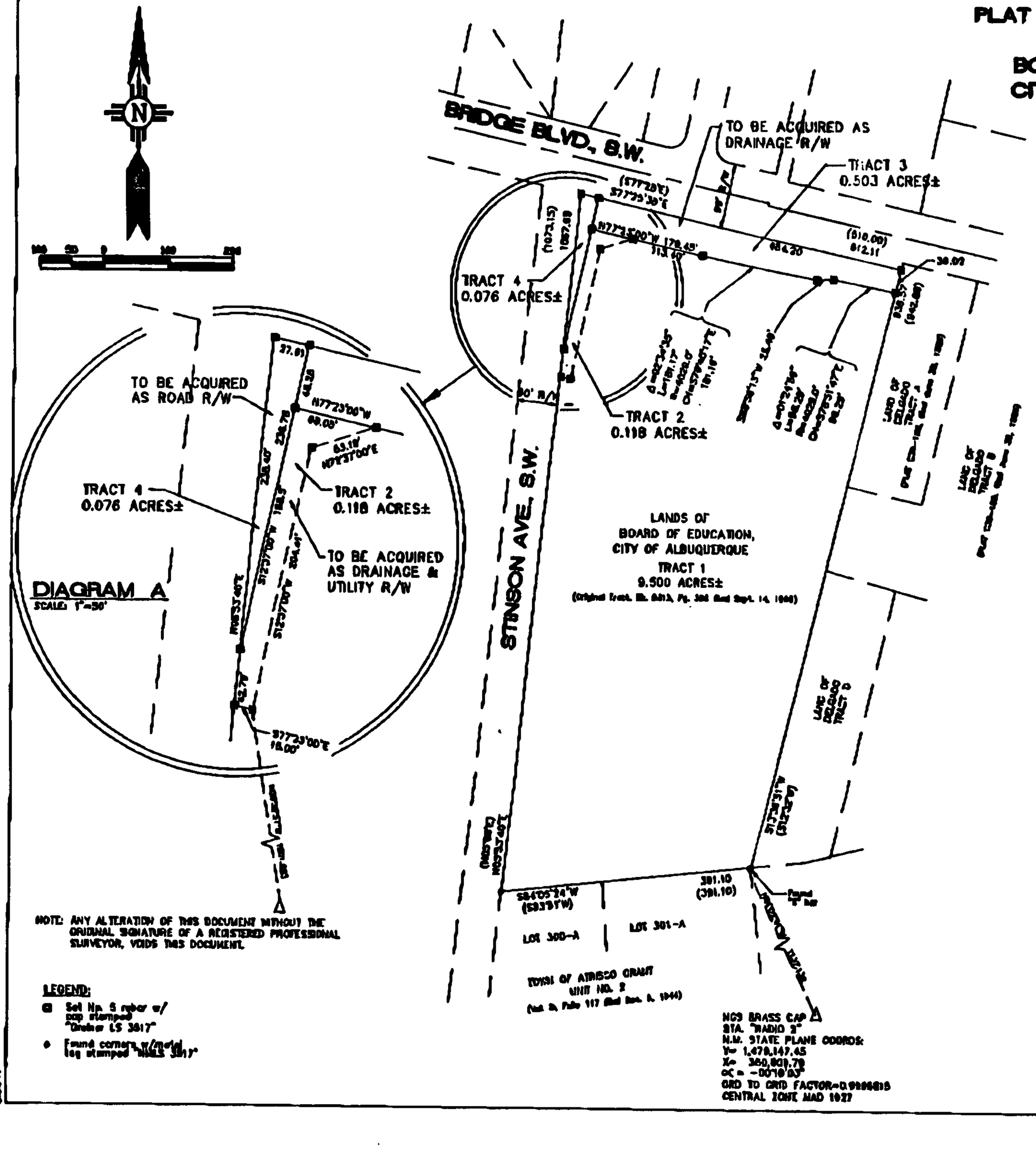
HERE IS WHAT I COULD FIND.

PLEASE CALL IF YOU NEED MORE INFO.

Sheila

PLAT OF TRACTS 1, 2, 3 AND 4
LANDS OF
BOARD OF EDUCATION
CITY OF ALBUQUERQUE

CITY OF ALBUQUERQUE
BERNALILLO COUNTY, NEW MEXICO
OCTOBER, 1991



NOTE: ANY ALTERATION OF THIS DOCUMENT WITHOUT THE ORIGINAL SIGNATURE OF A REGISTERED PROFESSIONAL SURVEYOR, VOIDS THIS DOCUMENT.

LEGEND:

- ⊡ Set No. 5 rebar w/ cap stamped "Greiner LS 3817"
- • Found corner w/rebar tag stamped "NMLS 3817"

Greiner

LEGAL DESCRIPTION
BOARD OF EDUCATION TRACT 2

Being that certain parcel of land comprising a portion of Tract 1, as the same is shown and designated on the Plat of the LANDS OF BOARD OF EDUCATION CITY OF ALBUQUERQUE filed in the office of the County Clerk of Bernalillo County, New Mexico on September 14, 1966 in Volume D813, Folio 395, and said portion being more particularly described as follows:

BEGINNING FOR A TIE, at NGS Brass Cap Monument stamped "RADIO 2", having New Mexico State Plane Coordinate Values (Central Zone) of Y=1,479,147.45 and X= 360,609.79, thence; N 09° 30' 57" W a distance of 1901.86 feet to the Southeast corner of the parcel herein described, and the TRUE POINT OF BEGINNING, thence;

N 77° 23' 00" W a distance of 15.00 feet to the Southwest corner of the parcel herein described, said corner being also on the Easterly right-of-way line of Stinson Avenue, SW, and running thence along said Easterly right-of-way line;

N 05° 53' 40" E a distance of 42.79 feet to a point, thence leaving said Easterly right-of-way line;

N 12° 37' 00" E a distance of 188.50 feet to the Northwest corner of the parcel herein described, thence;

S 77° 23' 00" E a distance of 66.05 feet to the Northeast corner of the parcel herein described, thence;

S 72° 37' 00" W a distance of 53.18 feet to a point, thence;

S 12° 37' 00" W a distance of 204.41 feet to the Southeast corner of the parcel herein described and the point of beginning.

Parcel herein described contains 5125.80 square feet (0.118 acres), more or less.

LEGAL DESCRIPTION
BOARD OF EDUCATION TRACT 3

Being that certain parcel of land comprising a portion of Tract 1, as the same is shown and designated on the Plat of the LANDS OF BOARD OF EDUCATION CITY OF ALBUQUERQUE filed in the office of the County Clerk of Bernalillo County, New Mexico on September 14, 1966 in Volume D813, Folio 395, and said portion being more particularly described as follows:

BEGINNING FOR A TIE, at NGS Brass Cap Monument stamped "RADIO 2", having New Mexico State Plane Coordinate Values (Central Zone) of Y=1,479,147.45 and X= 360,609.79, thence; N 05° 25' 40" W a distance of 2021.25 feet to the Southeast corner of the parcel herein described, and the TRUE POINT OF BEGINNING, thence;

Northwesterly, along an arc of 98.29 feet to the left, (said arc having a Radius of 4029.00 feet, a central angle of 01° 24' 59" and a chord which bears N 78° 51' 47" W a distance of 98.29 feet) to a point of tangency, thence;

S 88° 56' 13" W a distance of 25.49 feet to a point, thence;

Northwesterly, along an arc of 181.17 feet to the right, (said arc having a Radius of 4029.00 feet, a central angle of 02° 34' 35" and a chord which bears N 78° 40' 17" W a distance of 181.16 feet), to a point of tangency, thence;

N 77° 23' 00" W a distance of 179.45 feet to the Southwest corner of the parcel herein described, thence;

N 12° 37' 00" E a distance of 48.28 feet to the Northwest corner of the parcel herein described, said corner being also on the Southerly right-of-way line of Bridge Boulevard, SW, and running thence along said Southerly right-of-way line;

S 77° 25' 38" E a distance of 484.20 feet to the Northeast corner of the parcel herein described, thence leaving said Southerly right-of-way line;

S 13° 36' 51" W a distance of 36.02 feet to the Southeast corner of the parcel herein described and the point of beginning.

Parcel herein described contains 21,889.814 square feet (0.503 acres), more or less.

LEGAL DESCRIPTION
BOARD OF EDUCATION TRACT 4

Being that certain parcel of land comprising a portion of Tract 1, as the same is shown and designated on the Plat of the LANDS OF BOARD OF EDUCATION CITY OF ALBUQUERQUE filed in the office of the County Clerk of Bernalillo County, New Mexico on September 14, 1966 in Volume D813, Folio 395, and said portion being more particularly described as follows:

BEGINNING FOR A TIE, at NGS Brass Cap Monument stamped "RADIO 2", having New Mexico State Plane Coordinate Values (Central Zone) of Y=1,479,147.45 and X= 360,609.79, thence; N 09° 35' 23" W a distance of 1948.77 feet to the Southern most corner of the parcel herein described, said corner being also on the Easterly right-of-way line of Stinson Avenue, SW, and the TRUE POINT OF BEGINNING, and running thence along said Easterly right-of-way line;

N 05° 53' 40" E a distance of 238.40 feet to the Northwest corner of the parcel herein described, being the point of intersection of the Easterly right-of-way line of Stinson Avenue, SW, and the Southerly right-of-way line of Bridge Boulevard, SW, and running thence along said Southerly right-of-way line;

S 77° 25' 38" E a distance of 27.91 feet to the Northeast corner of the parcel herein described, thence leaving said Southerly right-of-way line;

S 12° 37' 00" W a distance of 236.78 feet to the Southern most corner of the parcel herein described and the point of beginning.

Parcel herein described contains 3303.84 square feet (0.076 acres), more or less.

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

April 6, 1999

Gregory J. Krenik, PE
Mark Goodwin & Assoc. PA
P.O. Box 90606
Albuquerque, NM 87199

RE: DRAINAGE REPORT FOR ENCANTO VILLAGE (L-10/D17)
RECEIVED MAR 30, 1999 FOR PRELIMINARY PLAT & GRADING PERMIT
ENGINEER'S STAMP DATED 3-30-99

Dear Mr. Krenik:

Based on the additional information information submitted on Mar 19, 1999, City Hydrology accepts the Drainage Report for Preliminary Plat and Grading Permit.

The tee intersections at Tranquillo & Partia, Tranquillo & Arbolado and Tranquillo & Canale must be examined carefully during the DRC review because of the converging flows. I suggest that you specify the location of the drivepads on Lots 10 & 11 on Partia, Lot 4 next to the 10' drainage easement and Lots 21 & 22 on Canales.

Engineer's Certification of grading and drainage must be approved by City Hydrology before the Financial Guaranty will be released.

If I can be of further assistance, You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Project Manager, PWD/Hyd

C: Andrew Garcia
DRB 98-276

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Encanto Village

ZONEATLAS/DRNG.FILE#: L-10 / D17

DRB#: 98-276 EPC#

WORK ORDER#:

LEGAL DESCRIPTION: Tracts 61-64, Unit 2, Town of Atrisco Grant, Tracts 13-14, VE Barrett Subdivision

CITY ADDRESS:

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	Gregory J. Krenik, PE
ADDRESS:	P.O. Box 90606 Albuquerque 87199	PHONE:	(505) 828-2200
OWNER:	American Southwest Homes, Ltd. Co.	CONTACT	Nick Bell
ADDRESS	919 Salamanca NW	PHONE.	(505) 341-4640
ARCHITECT	N/A	CONTACT:	
ADDRESS:		PHONE:	
SURVEYOR:	N/A	CONTACT:	
ADDRESS:		PHONE:	
CONTACTOR:	N/A	CONTACT:	
ADDRESS:		PHONE:	

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN
____ CONCEPTUAL GRADING & DRAINAGE PLAN
____ GRADING PLAN
____ EROSION CONTROL
____ ENGINEER'S CERTIFICATION
_X_ OTHER - *ADDITIONAL INFORMATION*
____ EASEMENT VACATION

PRE-DESIGN MEETING:

____ YES
____ NO
____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APRROVAL
_X_ PRELIMINARY PLAT APRROVAL
____ 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
____ CERTIFICATION OF OCCUPANCY APPROVAL
_X_ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ S.A.D. DRAINAGE REPORT
____ DRAINAGE REQUIREMENTS
____ OTHER
____ RELEASE OF FINANCIAL GUARANTY

DATE SUBMITTED 3-30-99

BY:

Gregory J. Krenik, PE

RECEIVED
MAR 3 0 1999
HYDROLOGY SECTION

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

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

March 30, 1999

Mr. John P. Curtin, PE
Project Manager, PWD/Hydrology
P.O. Box 1293
Albuquerque, NM 87103

Re: Encanto Village (L10/D17)

Dear Mr. Curtin:

This is an itemized response to your letter of March 29, 1999 and part of the resubmittal.

1. *The land treatments shown are what is actually in this subdivision. Types B and D are all that has been used with the surrounding subdivisions in this area.*
   I've added the north half of Eucariz and all of Stinson runoff to the calculations. I used 85% D and 15% C for this calculation.
   The pad dimensions include the patios.
   The 10' drainage easement is included in the ROW calculations.
2. *I've modified the calculations for 28' FF streets.*
   In Unit 3, Via Sereno and Via Serenta are at steeper slopes and can handle 24 to 29 lots before the transition to standard curb and gutter.
3. *The "Tower/Sage DMP" indicates that Eucariz, Tract 64 and south half of Tract 65 drain south. This is not what actually can happen in the field. Eucariz will be the high point and half of Eucariz will drain to Bridge while half drains to Tower.*
   SAD 222 only goes east to 82nd Street and ends at the pond between Tower and San Ygnacio (see enclosed map). The 42" storm drain is a future project that will need to be modified because the 42" RCP will need to be reduced in size since at the beginning point no runoff will enter the system.
   We changed the note on the plat (see revised plat).
4. *I've included a copy of the revised plat and infrastructure list.*

Please call if you have any questions or concerns.

Sincerely,

MARK GOODWIN & ASSOCIATES, PA

Gregory J. Krenik, PE
Vice President

GJK/st

f:\\encanto vil\comments no2

D.R.B. Case No. 98-276
D.R.C. Project No. _____
Date Submitted 3-16-99
Prelim. Plat Approved _____
Prelim. Plat Expires _____

Figure 12

EXHIBIT "A"
To Subdivision Improvements Agreement
DEVELOPMENT REVIEW BOARD (DRB) REQUIRED INFRASTRUCTURE LISTING
for Encanto Village, Units 1 & 2

Following is a summary of Public/Private Infrastructure required to be constructed or financially guaranteed to be constructed for the above development. This summary is not necessarily a complete listing. During the design process, if the City determines that appurtenant items have not been included in the summary, those items will be included in the listing and related financial guarantee, if the items normally are the Subdivider responsibility. In addition, any unforseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility are the responsibility of the Subdivider and will be included in the financial guarantee provided to the City.

Size	Type Improvement	Location	From	To
		UNIT 1		
25' FF Public	Art Pvmt (E side) 10' Asphalt Bikepath (E side) Std C & G (E side) Ext. Asphalt Curb (E side)	Unser Blvd	Lot 21, Blk 1	Bridge Blvd
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Belleza	Via Patria	Via Abrolado
25' FF Private	Res Pvmt 4' Sdwk (W side)* Mount C & G (both sides)	Via Paz	Via Tranquilo	Termination
40' FF Private (Entrance)	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Puente	Bridge Blvd	Via Tranquilo
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Std C & G (both sides)	Via Patria	Lot 22, Blk 1	Via Tranquilo
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Std C& G (both sides)	Via Arbolado	Lot 6, Blk 8	Via Tranguilo
25' FF Private	Res Pvmt 4' Sdwk (W side)* Mount C & G (both sides)	Via Patria	Via Tranquilo	North Prop Line

D.R.B. Case No. 98-276
D.R.C. Project No. _____
Date Submitted 3-16-99
Prelim. Plat Approved _____
Prelim. Plat Expires _____

Size	Type Improvement	Location	From	To
24' FE Public	Arterial Pvmt	Bridge Blvd	Unser Blvd	Stinson St
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Canale	Lot 23, Blk 14	Via Tranquilo
25' FF Private	Res Pvmt 4' Sdwk (E side)* Mount C & G (both sides)	Via Canale	Via Tranquilo	North Prop Line
25' FE	Art Pvmt (W side) 6' Sdwk (W side) Std C & G (W side)	Stinson St	Lot 23, Blk 14	Bridge Blvd
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Tranquilo	Via Patria	Via Canale
N/A	Signalization***	Bridge/Unser	$30,000 Modified Procedure C	
6"	PVC Waterline	25' Wtr/SAS Esmt	Via Canale	Stinson St
6"	PVC Waterline	Via Patria	25' Water & SAS Esmt	Via Tranquilo
6"	PVC Waterline	Via Tranquilo	Entire Length	
6"	PVC Waterline	Via Belleza	Entire Length	
6"	PVC Waterline	Via Paz	Entire Length	
6"	PVC Waterline	Via Canale	Entire Length	
6"	PVC Waterline	Via Arbolado	Via Tranquilo	Lot 6, Blk 8
8"	PVC Waterline	Unser Blvd	Bridge Blvd	25' Water & SAS Esmt
8"	PVC Waterline	25' Wtr/ SAS Esmt	Unser Blvd	Via Patria
10"	PVC Waterline	Stinson St	25' Wtr/SAS Esmt	Exist Stub at AMOLE
8"	SAS	Via Tranquilo	Entire Length	
8"	SAS	Via Belleza	Entire Length	
8"	SAS	Via Patria	Lot 21, Blk 1	Via Tranquilo
8"	SAS	Via Canale	Lot 20, Blk 14	25' SAS Esmt
8"	SAS	Via Paz	Entire Length	
8"	SAS	Via Arbolado	Lot 7, Bld 8	Via Tranquilo
8"	SAS	25' SAS Esmt	Via Canale	25' Wtr/SAS Esmt
8"**	SAS	25' Wtr/SAS Esmt	Via Arbolado	Bridge/Stinson
9'	Conc channel/rundown	10' PDE[1]	Via Tranquilo	AMOLE Channel
22'	Concrete rundown	AMOLE Row & Via Patria		
22'	Concrete rundown	AMOLE Row & Via Canale		

D.R.B. Case No. 98-276
D.R.C. Project No. _____
Date Submitted 3-16-99
Prelim. Plat Approved _____
Prelim. Plat Expires _____

UNIT 2

Size	Type Improvement	Location	From	To
25' FF	Art Pvmt (E side) 10' Asphalt Bikepath (E side) Std C & G (E side) Ext. Asphalt Curb (E side)	Unser Blvd	Lot 21, Blk 1	Eucariz Rd
38' FF Private (Entrance	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Arbolado	Eucariz Rd	Via Cometa
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Cometa	Via Patria	Termination (East Prop. Line)
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C& G (both sides)	Via Serenita	Via Patria	Termination (East Prop. Line)
28' FF Private	Res Pvmt 4' Sdwk (Both sides)* Mount C & G (both sides)	Via Sereno	Via Patria	Termination (East Prop. Line)
25' FE Public	Art Pvmt (N side) 6' Sdwk (N side) Std C & G (N side)	Eucariz Rd	Unser Blvd	Lot 2, Blk 11
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Std C & G (both sides)	Via Patria	Via Cometa	Lot 22, Blk 1
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Std C& G (both sides)	Via Arbolado	Via Cometa	Lot 6, Blk 8
25' FF Private	Res Pvmt 4' Sdwk (W side)* Std C & G (Both Sides)	Via Patria	Via Cometa	Termination
6"	PVC Waterline	Via Serenita	Entire Length	
6"	PVC Waterline	Via Arbolado	Lot 6, Blk 8	Via Cometa
6"	PVC Waterline	Via Cometa	Via Arbolado	Termination
10"	PVC Waterline	Eucariz Rd	Unser Blvd	Lot 2, Blk 11
8"	PVC Waterline	Via Cometa	Via Patria	Via Arbolado
8"	PVC Waterline	Via Patria	25' Water & SAS Esmt	Via Cometa
8"	PVC Waterline	Via Arblado	Via Cometa	Eucariz Rd
6"	PVC Waterline	Via Sereno	Entire Length	

D.R.B. Case No. 98-276
D.R.C. Project No. ________
Date Submitted 3-16-99
Prelim. Plat Approved ________
Prelim. Plat Expires ________

Size	Type Improvement	Location	From	To
8"	SAS	Eucariz Rd	Unser	Lot 2, Blk 11
8"	SAS	Via Serenita	Entire Length	
8"	SAS	Via Cometa	Entire Length	
8"	SAS	Via Patria	Lot 21, Blk 1	Termination
8"**	SAS	Via Sereno	Entire Length	

(1) PDE - Private Drainage Easement

Engineer's Certification for Grading and Drainage per DPM including Perimeter Walls as shown on the Grading Plan for Release of SIA and Financial Guarantees. Financial Guarantee is not required for this item.

Water infrastructure to include valves, fittings, valveboxes and fire hydrants.

Sanitary sewer to include manholes and service connections.

Street lights per DPM.

* Deferred

** Financially Guaranteed w/Project No. 5929.81 Whispering Pointe, Unit I

*** To include conduit installation on work order.

Prepared By: ____________________
Print Name: Gregory J. Krenik, PE
Firm: Mark Goodwin & Associates, PA

* *

Development Review Board Member Approvals

Transportation Dev. ____________ Date

Utility Dev. ____________ Date

Parks, Design & Development, C.I.P. ____________ Date

Engineer/AMAFCA ____________ Date

DRB Chairman ____________ Date

FAX

CITY OF Albuquerque

Public Works Department Hydrology Division
P.O. Box 1293
Room 301
Albuquerque, NM 87103
TEL: (505) 768-2650
FAX: (505) 768-2765

Date 3-29-99
Number of Pages
(including cover sheet) 3

To: Greg Krenik
Mark Goodwin & Assoc

Phone 828-2200
Fax 797-9539

From: John Curtin

Extension 2727

REMARKS: Will mail the letter tommorrow. Hopefully this covers everything.

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 29, 1999

Gregory J. Krenik, PE
Mark Goodwin & Assoc. PA
P.O. Box 90606
Albuquerque, NM 87199

RE: DRAINAGE REPORT FOR ENCANTO VILLAGE (L-10/D17)
RECEIVED FEB 19, 1999 FOR PRELIMINARY PLAT & GRADING PERMIT
ENGINEER'S STAMP DATED 2-19-99

Dear Mr. Krenik:

Based on the additional information information submitted on Mar 19, 1999, City Hydrology has the following comments that must be addressed:

Using Table A-5 and N=6.4 DU/Ac, then %D=60% for the entire subdivision. Since this area is a desert it is not reasonable to assume that the landowners will landscape their lots with irrigated lawns. I recommend 20% B and 20% C for the pervious area. The Greiner report indicates that Stinson Street is part of Basin 21E. The Grading Plan indicates that Eucariz also drains to the Stinson storm drain. Attached calculations indicate that the proposed flow exceeds the allowable discharge calculated by Greiner by about 4.5 cfs. If you calculate the right of way separately, I recommend that you use 15% C and 85% D to account for drivepads, handicapped ramps and intersections. Also is the 10' drainage easement in Basin 2 included in the right of way? Does your pad dimensions include a patio or is that additional?

The Street capacity calculations are for 32' F-F streets. The infrastructure list indicates 28' F-F streets. It should not effect the mountable curb streets, but it will decrease the capacity of the standard curb streets. In Unit 3, Via Sereno (22) and Via Serenta (20) exceed the 18 lot limit for mountable curb.

The "Tower/Sage DMP" by AAR indicates that Eucariz, Tract 64 and the southern half of Tract 65 drain to the south. Does the proposed street grade for Eucariz match the approved grades for SAD 222? It may make sense to postpone Unit 2 until SAD 222 constructs the 42" storm drain in Stinson south of Eucariz. Why does note 10 on the Plat assign street maintenance to the Vista Sandia HOA instead of the Encanto Village HOA?

If I can be of further assistance, You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Project Manager, PWD/Hyd

C: Andrew Garcia
DRB 98-276

ENCANTO VILLAGE

3-29-99
JPC

$n = 291/45.7 = 6.4$

$\%D = 7\sqrt{(6.4)^2 + 5(6.4)} = 60\%$

Assume 20% C + 20% B

$Q = 45.7[.2(2.03) + .2(2.87) + .6(4.37)] = 164.6$ cfs

EUCARIZ AVENUE

$A \simeq 35'(1500') = 52{,}500$ SF $= 1.205$ Ac

$\%D = (25.6' + 6')/35' = 0.90 = 90\%$

$Q = 1.205[.1(2.87) + .9(4.37)] = 5.1$ cfs

STINSON STREET

$A \simeq 60'(900') = 54{,}000$ SF $= 1.240$ Ac

$Q = 1.240[.1(2.87) + .9(4.37)] = 5.2$ cfs

TOTAL FLOW

Encanto	164.6
Eucariz	5.1
Stinson	5.2
	174.9 cfs ≈ 170.4 cfs

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Encanto Village ZONEATLAS/DRNG,FILE# L-10/D17

DRB#: 98-276 EPC# WORK ORDER#:

LEGAL DESCRIPTION: Tracts 61-64, Unit 2, Town of Atrisco Grant, Tracts 13-14, VE Barrett Subdivision

CITY ADDRESS:

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT:	Gregory J. Krenik, PE
ADDRESS.	P.O. Box 90606 Albuquerque 87199	PHONE.	(505) 828-2200
OWNER:	American Southwest Homes, Ltd Co.	CONTACT.	Nick Bell
ADDRESS	919 Salamanca NW	PHONE:	(505) 341-4640
ARCHITECT	N/A	CONTACT:	
ADDRESS:		PHONE:	
SURVEYOR	N/A	CONTACT:	
ADDRESS:		PHONE:	
CONTACTOR:	N/A	CONTACT:	
ADDRESS:		PHONE	

TYPE OF SUBMITTAL:

- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- ____ GRADING PLAN
- ____ EROSION CONTROL
- ____ ENGINEER'S CERTIFICATION
- _X_ OTHER – ADDITIONAL INFORMATION
- ____ EASEMENT VACATION

PRE-DESIGN MEETING:

- ____ YES
- ____ NO
- ____ COPY PROVIDED

RECEIVED
MAR 19 1999
HYDROLOGY SECTION

CHECK TYPE OF APPROVAL SOUGHT:

- ____ SKETCH PLAT APRROVAL
- _X_ PRELIMINARY PLAT APRROVAL
- ____ 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
- ____ CERTIFICATION OF OCCUPANCY APPROVAL
- _X_ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ S.A D DRAINAGE REPORT
- ____ DRAINAGE REQUIREMENTS
- ____ OTHER
- ____ RELEASE OF FINANCIAL GUARANTY

DATE SUBMITTED: 3-18-99

BY:

Gregory J. Krenik, PE

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

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

March 18, 1999

Mr. John Curtin, PE
Project Manager, PWD/HYD
Old City Hall
P.O. Box 1293
Albuquerque, NM 87103

Re: Encanto Village (L-10/D-17)

Dear Mr. Curtin:

This letter is an itemized response to your letter of March 16, 1999, and part of the resubmittal.

1. *This site falls on FIRM maps 35001C0328 and 35001C0329. The 100 year flood is contained within the Tierra Bayita Channel as shown on the maps. These maps are dated September 20, 1996.*
2. *Downstream capacity for the Tierra Bayita Channel is shown in the report by URS Greiner, Inc. which I've attached a copy to go with this file. I've tagged the pages which include our site and we generate less flow then was anticipated.*
3. *This pertains to your comment on the fax you sent today.*

   The rundowns are designed with 10:1 ramps on each side for maintenance vehicles to be able to drive the length of the channel. This information I received from Glen Jurgenson.

Please call with any questions or concerns.

Sincerely,

MARK GOODWIN & ASSOCIATES, PA

Gregory J. Kreink, PE
Vice President

GJK/st

f:\\encanto.vil\comments no1

FINAL DESIGN REPORT
AMOLE DEL NORTE
STORM DIVERSION FACILITIES
TIERRA BAYITA DRAINAGE FACILITIES
PHASE III

CITY PROJECT NO. 4076.03
March, 1998

Greiner Job No. E30000114 & E30000115

Prepared for:

City of Albuquerque
Public Works Department
P.O. Box 1293
Albuquerque, New Mexico 87103

Daniel L. Morehead, PE & PS
Associate Vice President

Mark S. Holstad, PE
Project Manager

URS Greiner, Inc.
5971 Jefferson Boulevard, NE Suite 101
Albuquerque, New Mexico 87109

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994 RUN DATE (MON/DAY/YR) =02/26/1998
INPUT FILE = AMOLE.DAT USER NO.= GREINRNM.STE

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	NOTATION	
										RAIN6=	2.210
*S 100 YEAR, 6 HOUR STORM											
RAINFALL TYPE= 1										PK BF =	1.02
*S ALL FLOWS INCLUDE A 2% BULKING FACTOR											
SEDIMENT BULK										PER IMP=	.00
COMPUTE NM HYD	11D	-	11	.02500	21.77	.615	.46095	1.533	1.361	PER IMP=	8.00
COMPUTE NM HYD	10D	-	10	.03360	36.63	1.108	.61847	1.533	1.703		
ADD HYD	10.10	10&11	1	.05860	58.40	1.723	.55127	1.533	1.557		
ROUTE	R1	1	2	.05860	42.04	1.723	.55127	1.600	1.121		
COMPUTE NM HYD	12D	-	12	.24070	462.31	20.498	1.59678	1.567	3.001	PER IMP=	65.00
ADD HYD	R12	12& 2	4	.29930	501.92	22.221	1.39208	1.567	2.620		
DIVIDE HYD	PIPE	4	3	.26269	315.00	19.503	1.39208	1.500	1.874		
	POND	AND	5	.03661	186.92	2.718	1.39207	1.567	7.978		
ROUTE	RR12	3	4	.26269	315.00	19.503	1.39208	1.667	1.874		
*s RECALL FLOW FROM AMOLE DEL NORTE PHASE IIIC - DETENTION BASINS											
RECALL HYD	501.00	-	10	1.06120	97.00	101.925	1.80088	2.950	.143		
COMPUTE NM HYD	19D	-	19	.08970	202.80	8.212	1.71647	1.533	3.533	PER IMP=	75.00
ADD HYD	19.10	19&10	5	1.15090	239.79	102.748	1.67393	1.567	.326		
ROUTE	R19.1	5	6	1.15090	236.32	102.630	1.67200	1.567	.321		
ADD HYD	19.20	6& 4	7	1.41359	551.30	122.133	1.61998	1.567	.609		
ROUTE	19.30	7	8	1.41359	551.28	122.090	1.61941	1.600	.609		
COMPUTE NM HYD	16A	-	1	.01282	34.51	1.253	1.83290	1.500	4.206	PER IMP=	85.00
COMPUTE NM HYD	16F	-	2	.03493	80.83	2.847	1.52798	1.500	3.616	PER IMP=	63.00
ADD HYD	16F.1	1& 2	3	.04775	115.33	4.100	1.60983	1.500	3.774		
ROUTE	16F.2	3	4	.04775	112.16	4.100	1.60984	1.533	3.670		
COMPUTE NM HYD	16B	-	1	.01520	40.91	1.486	1.83290	1.500	4.205	PER IMP=	85.00
ADD HYD	16B.1	1& 4	3	.06295	151.18	5.586	1.66369	1.533	3.753		
COMPUTE NM HYD	16G	-	2	.02011	49.99	1.770	1.65010	1.500	3.884	PER IMP=	70.00
ADD HYD	16G.1	2& 3	16	.08306	199.09	7.355	1.66040	1.533	3.745		
ADD HYD	16.10	16& 8	9	1.49665	730.13	129.445	1.62169	1.533	.762		
ROUTE	16.20	9	1	1.49665	730.06	129.412	1.62127	1.567	.762		
COMPUTE NM HYD	16D	-	10	.01119	30.12	1.094	1.83290	1.500	4.206	PER IMP=	85.00
ADD HYD	16D.1	1&10	1	1.50784	754.97	130.506	1.62285	1.567	.782		
COMPUTE NM HYD	17W	-	17	.08020	173.01	7.342	1.71647	1.567	3.371	PER IMP=	75.00
DIVIDE HYD	86TH	17	17	.06327	82.00	5.792	1.71646	1.433	2.025		
	82TH	AND	18	.01693	91.01	1.550	1.71646	1.567	8.398		
ADD HYD	17.10	17& 1	2	1.57111	836.97	136.298	1.62662	1.567	.832		
ROUTE	17.20	2	3	1.57111	835.00	136.233	1.62584	1.567	.830		
ROUTE	17.30	3	4	1.57111	834.48	136.215	1.62562	1.567	.830		
ADD HYD	17.40	4&18	5	1.58804	925.49	137.765	1.62659	1.567	.911		
COMPUTE NM HYD	BPD	-	6	.03420	77.22	2.615	1.43350	1.500	3.528	PER IMP=	50.00
ADD HYD	6.10	6& 5	7	1.62224	991.01	140.380	1.62252	1.567	.955		
ROUTE	6.20	7	8	1.62224	978.45	140.302	1.62162	1.600	.942		
COMPUTE NM HYD	21D	-	21	.01010	24.83	.881	1.63469	1.500	3.841	PER IMP=	70.00
ADD HYD	21.10	21& 8	6	1.63234	995.91	141.182	1.62170	1.600	.953		
*s UNSER BOULEVARD FLOWS TO CHANNEL - FLOW FROM NORTH OF BRIDGE BLVD											
*s THE FOLLOWING HYDROGRAPH IS TAKEN FROM THE MASTER DRAINAGE PLAN FOR THE											
*s ATRISCO BUSINESS PARK - SEPTEMBER 1992 & REVISED MARCH 1993 & SEPT 1993											
*s by Easterling and Associates & REPRESENTS THE ENTIRE UNSER DIVERSION											
RECALL HYD	180.16	-	2	.67890	248.30	73.770	2.03740	1.550	.571		

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	NOTATION	
				.67890	247.01	73.770	2.03740	1.600	.568		
ROUTE	R2	2	3	.67890	247.54	73.770	2.03740	1.600	.570		
ROUTE	R3	3	4	.16640	342.65	15.680	1.76677	1.567	3.217	PER IMP=	80.00
COMPUTE NM HYD	13D	-	13	.16640	336.38	15.680	1.76678	1.600	3.159		
ROUTE	R13	13	5	.84530	583.91	86.967	1.92905	1.600	1.079		
ADD HYD	13.10	5& 4	5	.06510	171.89	6.190	1.78282	1.500	4.126	PER IMP=	80.00
COMPUTE NM HYD	17E	-	17	.91040	703.48	93.157	1.91859	1.567	1.207		
ADD HYD	17.10	17& 5	7	.91040	688.34	93.079	1.91700	1.633	1.181		
ROUTE	R6	7	8								
*S FLOW FROM NORTH ON UNSER TO CHANNEL - ADD TO FLOW FROM BRIDGE											
ADD HYD	CHANNEL	8& 6	9	2.54274	1682.47	234.261	1.72743	1.600	1.034		
*s UNSER BLVD - FLOW FROM SOUTH OF BRIDGE EMPTYING TO THE CHANNEL											
*s THE FOLLOWING IS TAKEN FROM SUNSET GARDENS/UNSER BLVD STORM DRAIN											
*s DESIGN ANALYSIS REPORT, DATED 12/5/97 BY RYALS ENGINEERING AND											
*s CONSTRUCTION SERVICES AS REVISED BY TUCKER GREEN, PER SE ENGENEERING											
COMPUTE NM HYD	I	-	1	.00952	18.97	.626	1.23320	1.500	3.113	PER IMP=	38.00
COMPUTE NM HYD	H	-	2	.01501	37.31	1.321	1.65010	1.500	3.884	PER IMP=	70.00
ADD HYD	208.00	1& 2	3	.02453	56.28	1.947	1.48828	1.500	3.585		
*s DIVIDE SO 1ST 8.6 CFS (ID=6) S ON 90TH (ON HOLD): ID=4 E ON SUNSET GARDENS											
DIVIDE HYD	90.S.PAST.SG	3	6	.01035	8.60	.821	1.48828	1.333	1.298		
	SG.E.OF.90	AND	4	.01418	47.68	1.126	1.48828	1.500	5.253		
ROUTE MCUNGE	209.00	4	5	.01418	47.57	1.119	1.47973	1.567	5.241	CCODE =	.2
COMPUTE NM HYD	J	-	1	.00228	6.09	.221	1.81798	1.500	4.172	PER IMP=	85.00
ADD HYD	210.00	1& 5	3	.01646	53.08	1.340	1.52653	1.533	5.038		
COMPUTE NM HYD	SITE.II	-	1	.00839	19.75	.696	1.55434	1.500	3.679	PER IMP=	65.00
*S PARTIAL WATERBLOCK ==> FLOW > 11.6cfs TO 86TH											
DIVIDE HYD	S2.TO.S3	1	2	.00732	11.60	.607	1.55431	1.433	2.475		
	S2.TO.86TH	AND	7	.00107	8.15	.088	1.55431	1.500	11.934		
COMPUTE NM HYD	SITE.III	-	1	.02360	55.53	1.956	1.55434	1.500	3.677	PER IMP=	65.00
ADD HYD	SITE.OUT	1& 2	16	.03092	67.13	2.563	1.55433	1.500	3.392		
*S TOTAL FLOW SUNSET GARDENS WEST OF 86TH											
ADD HYD	SG.W.OF.86	3&16	5	.04738	118.05	3.904	1.54467	1.533	3.893		
COMPUTE NM HYD	C	-	1	.00127	3.50	.128	1.88389	1.500	4.301	PER IMP=	90.00
ADD HYD	218.00	1& 7	3	.00234	11.65	.216	1.73326	1.500	7.787		
ADD HYD	86&SG.N&W	3& 5	7	.04972	128.76	4.120	1.55353	1.533	4.046		
COMPUTE NM HYD	NN	-	1	.01830	33.56	1.116	1.14350	1.500	2.865	PER IMP=	36.40
ADD HYD	INTO.JYDN	1& 6	3	.02865	42.16	1.937	1.26804	1.500	2.299		
ROUTE MCUNGE	300.00	3	5	.02865	40.55	1.927	1.26109	1.600	2.211	CCODE =	.1
COMPUTE NM HYD	NS	-	1	.01719	34.79	1.185	1.29219	1.500	3.162	PER IMP=	46.60
ROUTE MCUNGE	302.00	1	2	.01719	34.26	1.185	1.29208	1.567	3.114	CCODE =	.2
ADD HYD	304.00	2& 5	3	.04584	73.97	3.111	1.27270	1.600	2.521		
COMPUTE NM HYD	JYD	-	17	.02353	55.37	1.951	1.55434	1.500	3.677	PER IMP=	65.00
ADD HYD	JYD.E.AT.86	3&17	4	.06937	118.68	5.062	1.36823	1.533	2.673		
ROUTE MCUNGE	86.S.OF.SG	4	5	.06937	118.57	5.060	1.36766	1.567	2.671	CCODE =	.1
ADD HYD	TOT.SG&86	5& 7	6	.11909	240.79	9.180	1.44526	1.533	3.159		
ROUTE	308.00	6	5	.11909	238.77	9.180	1.44527	1.567	3.133		
COMPUTE NM HYD	T	-	1	.00467	12.45	.453	1.81798	1.500	4.166	PER IMP=	85.00
ADD HYD	310.00	1& 5	3	.12376	249.07	9.632	1.45932	1.567	3.145		
COMPUTE NM HYD	U	-	1	.01032	25.09	.892	1.62025	1.500	3.799	PER IMP=	70.00
ADD HYD	312.00	1& 3	19	.13408	270.07	10.524	1.47171	1.567	3.147		
COMPUTE NM HYD	V	-	11	.03200	67.84	2.315	1.35662	1.500	3.313	PER IMP=	50.00
ADD HYD	SG.AT.82ND	11&19	3	.16608	330.10	12.839	1.44953	1.533	3.106		
ROUTE	314.00	3	5	.16608	328.29	12.839	1.44953	1.567	3.089		

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	NOTATION
COMPUTE NM HYD	W	-	12	.03422	77.86	2.716	1.48844	1.500	3.555	PER IMP= 60.00
ADD HYD	316.00	12& 5	3	.20030	394.29	15.556	1.45618	1.533	3.076	
COMPUTE NM HYD	X	-	13	.01058	27.37	.989	1.75207	1.500	4.042	PER IMP= 80.00
ADD HYD	SG.AT.UNSER	13& 3	4	.21088	420.45	16.544	1.47102	1.533	3.115	
ROUTE	318.00	4	5	.21088	418.41	16.544	1.47102	1.567	3.100	
COMPUTE NM HYD	Y	-	14	.01954	52.58	1.910	1.83290	1.500	4.205	PER IMP= 85.00
*s TOTAL FLOW FROM UNSER APROX 300' S OF AMOLE CHANNEL										
ADD HYD	FUT.TO.AMOLE	14& 5	7	.23042	468.17	18.455	1.50171	1.533	3.175	
*S TOTAL FLOW TO HEAD OF CONCRETE CHANNEL										
ADD HYD	CHANNEL	7& 9	5	2.77316	2112.30	252.716	1.70867	1.600	1.190	
ROUTE	R5	5	6	2.77316	2113.42	252.546	1.70752	1.600	1.191	
COMPUTE NM HYD	18W	-	18	.11220	231.19	9.624	1.60831	1.567	3.220	PER IMP= 68.00
ADD HYD	18.10	18& 6	7	2.88536	2330.57	262.170	1.70366	1.600	1.262	
ROUTE	R7	7	8	2.88536	2333.99	262.092	1.70316	1.600	1.264	
COMPUTE NM HYD	21E	-	21	.06560	170.43	6.024	1.72180	1.500	4.059	PER IMP= 70.00
ADD HYD	21.10	21& 8	9	2.95096	2453.09	268.116	1.70357	1.600	1.299	
ROUTE	R9	9	10	2.95096	2457.37	268.063	1.70324	1.600	1.301	
COMPUTE NM HYD	18E	-	18	.00750	17.13	.620	1.54928	1.500	3.569	PER IMP= 70.00
ADD HYD	18.10	18&10	11	2.95846	2469.38	268.683	1.70285	1.600	1.304	
ROUTE	R11	11	12	2.95846	2473.55	268.617	1.70243	1.600	1.306	
FINISH										

```
*
**********************************************************************************
*
*s TOTAL FLOW FROM UNSER APROX 300' S OF AMOLE CHANNEL
*   ADD TO FLOW FROM BRIDGE & UNSER NORTH
ADD HYD                ID OUT= 7  HYD= FUT.TO.AMOLE   IDIN I= 14   IDIN II= 5
PRINT HYD              ID= 7   CODE= 1
*
**********************************************************************************
*
*S  TOTAL FLOW TO HEAD OF CONCRETE CHANNEL
*ADD SUNSET GARDENS/UNSER BLVD FLOW TO CHANNEL
ADD HYD                ID=5  HYD=CHANNEL  ID=7  ID=9
PRINT HYD              ID=5  CODE=1
*_____________________________________________________________________
* ROUTE FLOW DOWN CONCRETE TRAPAZOIDAL CHANNEL PARALLEL TO BRIDGE BLVD.
*   STA 41+06 TO STA 30+25
COMPUTE RATING CURVE CID=1  VSNO=1  NO SEG=1  MIN ELEV=0
                       MAX ELEV=7.5  CH SLOPE=0.004  FP SLOPE=0.004
                       N=0.013   DIST=40
                       DIST  ELEV
                       0      7.5
                       15     0
                       25     0
                       40     7.5
COMPUTE TRAVEL TIME ID=6  REACH NO=1  NOVS=1  L=1081  SLP=0.004
ROUTE                  ID=6  HYD=R5  INFLOW ID=5  DT=0.0
PRINT HYD              ID=6  CODE=1
*
COMPUTE NM HYD         ID=18  HYD=18W  AREA=0.1122   PER A=0   PER B=27
                       PER C=5  PER D=68  TP=0.1817  MASS RAIN=-1
PRINT HYD              ID=18  CODE=1
*
*ADD BASIN 18W TO CHANNEL FLOW
ADD HYD                ID=7  HYD=18.1  ID=18   ID=6
PRINT HYD              ID=7  CODE=1
*
*ROUTE FLOW DOWN CHANNEL STA 31+25 TO 23+50
COMPUTE RATING CURVE CID=1  VSNO=1  NO SEG=1  MIN ELEV=0
                       MAX ELEV=6.5  CH SLOPE=0.0144  FP SLOPE=0.0144
                       N=0.013   DIST=36
                       DIST  ELEV
                       0      6.5
                       13     0
                       23     0
                       36     6.5
COMPUTE TRAVEL TIME ID=8  REACH NO=1  NOVS=1  L=775   SLP=0.0144
ROUTE                  ID=8  HYD=R7  INFLOW ID=7  DT=0.0
PRINT HYD              ID=8  CODE=1
*
COMPUTE NM HYD         ID=21  HYD=21E  AREA=0.0656   PER A=0   PER B=0
                       PER C=30  PER D=70  TP=0.1333  MASS RAIN=-1
PRINT HYD              ID=21  CODE=1
*
*ADD 21E FLOW TO CHANNEL AT THE 42" STORM DRAIN TIE AT STINSON ST
ADD HYD                ID=9  HYD=21.1  ID=21  ID=8
PRINT HYD              ID=9  CODE=1
*
*ROUTE FLOW DOWN CHANNEL - STA 23+50 TO 17+30
COMPUTE RATING CURVE CID=1  VSNO=1  NO SEG=1  MIN ELEV=0
                       MAX ELEV=6.5  CH SLOPE=0.022   FP SLOPE=0.022
                       N=0.013   DIST=26.1
```

K = .106176HR TP = .133300HR K/TP RATIO = .796520 SHAPE CONSTANT, N = 4.500118

UNIT PEAK = 57.170 CFS UNIT VOLUME = 1.000 B = 387.23 P60 = 1.9000

AREA = .019680 SQ MI IA = .35000 INCHES INF = .83000 INCHES PER HOUR
RUNOFF COMPUTED BY INITIAL ABSTRACTION/INFILTRATION NUMBER METHOD - DT = .033333

BULKING FACTOR APPLIED TO HYDROGRAPH. FACTOR = 1.02000 AT PEAK FLOW.

PRINT HYD ID=21 CODE=1

HYDROGRAPH FROM AREA 21E

RUNOFF VOLUME = 1.72180 INCHES = 6.0240 ACRE-FEET
PEAK DISCHARGE RATE = 170.43 CFS AT 1.500 HOURS BASIN AREA = .0656 SQ. MI.

THIS IS GREATER THAN OUR 156.60 CFS

*

*ADD 21E FLOW TO CHANNEL AT THE 42" STORM DRAIN TIE AT STINSON ST

ADD HYD ID=9 HYD=21.1 ID=21 ID=8
PRINT HYD ID=9 CODE=1

OUTFLOW HYDROGRAPH REACH 21.10

RUNOFF VOLUME = 1.70357 INCHES = 268.1143 ACRE-FEET
PEAK DISCHARGE RATE = 2453.09 CFS AT 1.600 HOURS BASIN AREA = 2.9510 SQ. MI.

*

*ROUTE FLOW DOWN CHANNEL - STA 23+50 TO 17+30

COMPUTE RATING CURVE CID=1 VSNO=1 NO SEG=1 MIN ELEV=0
MAX ELEV=6.5 CH SLOPE=0.022 FP SLOPE=0.022
N=0.013 DIST=26.1

DIST	ELEV
0	6.5
0.1	4
8	0
18	0
26	4
26.1	6.5

RATING CURVE VALLEY SECTION 1.0

WATER SURFACE ELEV	FLOW AREA SQ FT	FLOW RATE CFS	TOP WIDTH FT
.00	.00	.00	.00
.34	3.65	28.81	11.36
.68	7.77	93.31	12.72
1.03	12.36	187.73	14.08
1.37	17.41	311.00	15.44
1.71	22.92	463.23	16.80
2.05	28.90	645.04	18.16
2.39	35.35	857.31	19.52
2.74	42.26	1101.04	20.88
3.08	49.63	1377.31	22.24
3.42	57.47	1687.24	23.60
3.76	65.78	2031.97	24.96
4.11	74.53	2426.24	25.91
4.45	83.39	2879.52	25.94
4.79	92.27	3355.15	25.96
5.13	101.16	3851.21	25.99
5.47	110.06	4366.03	26.02
5.82	118.96	4898.15	26.05
6.16	127.88	5446.27	26.07
6.50	136.80	6009.27	26.10

FAX

CITY OF Albuquerque

Public Works Department Hydrology Division
P.O. Box 1293
Room 301
Albuquerque, NM 87103
TEL: (505) 768-2650
FAX: (505) 768-2765

Date 3-18-99

Number of Pages
(including cover sheet) 2

To: Greg Krenik
MGA

Phone 828-2200
Fax 797-9539

From: John Curtin

Extension 2727

REMARKS: Here is a copy of the letter. Also, Rundowns mus not block Maintenance Road.

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 16, 1999

Gregory J. Krenik, PE
Mark Goodwin & Assoc. PA
P.O. Box 90606
Albuquerque, NM 87199

RE: DRAINAGE REPORT FOR ENCANTO VILLAGE (L-10/D17)
RECEIVED FEB 19, 1999 FOR PRELIMINARY PLAT & GRADING PERMIT
ENGINEER'S STAMP DATED 2-19-99

Dear Mr. Krenik:

Based on the information included in the submittal referenced above, City Hydrology has the following comments that must be addressed:

Indicate the FIRM maps used to determine that the site does not lie in a 100 year flood zone. Note the date when the FIRM maps were approved.

Verify the downstream capacity of the Amole Channel. Free discharge is not automatic. Until AMAFCA releases their study of the Southwest Channels by Leedshill Herkenhoff, the Boyle Report titled "Investigation Phase Report for the Re-Evaluation Study of the Amole del Norte Storm Diversion Facility" dated June 1984 is being used to determine capacity. It appears that the site is in Basin 21D of the Boyle Report.

If I can be of further assistance, You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Project Manager, PWD/Hyd

C: Andrew Garcia
DRB 98-276

DRAINAGE INFORMATION SHEET

PROJECT TITLE: Encanto Village

ZONEATLAS/DRNG.FILE#: ~~L-10~~ L-10/D17

DRB#: 98-276 EPC# _____

WORK ORDER#: _____

LEGAL DESCRIPTION: Tracts 61-64, Unit 2, Town of Atrisco Grant, Tracts 13-14, VE Barrett Subdivision

CITY ADDRESS: _____

ENGINEERING FIRM:	Mark Goodwin & Associates, PA	CONTACT	Gregory J. Krenik, PE
ADDRESS.	P.O Box 90606 Albuquerque 87199	PHONE:	(505) 828-2200
OWNER:	American Southwest Homes, Ltd. Co.	CONTACT.	Nick Bell
ADDRESS.	919 Salamanca NW	PHONE	(505) 341-4640
ARCHITECT	N/A	CONTACT:	
ADDRESS.		PHONE:	
SURVEYOR	N/A	CONTACT:	
ADDRESS:		PHONE:	
CONTACTOR:	N/A	CONTACT:	
ADDRESS:		PHONE:	

TYPE OF SUBMITTAL:

- X DRAINAGE REPORT
- X DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ____ EROSION CONTROL
- ____ ENGINEER'S CERTIFICATION
- ____ OTHER
- ____ EASEMENT VACATION

CHECK TYPE OF APPROVAL SOUGHT:

- ____ SKETCH PLAT APRROVAL
- X PRELIMINARY PLAT APRROVAL
- ____ 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
- ____ CERTIFICATION OF OCCUPANCY APPROVAL
- X GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ S.A.D. DRAINAGE REPORT
- ____ DRAINAGE REQUIREMENTS
- ____ OTHER
- ____ RELEASE OF FINANCIAL GUARANTY

PRE-DESIGN MEETING:

- ____ YES
- ____ NO
- ____ COPY PROVIDED

RECEIVED
FEB 19 1999
HYDROLOGY SECTION

DATE SUBMITTED. 2-19-99

BY _____

Gregory J. Krenik, PE

D.R.B. Case No. 98-276
D.R.C. Project No. _____
Date Submitted 3-1-99
Prelim. Plat Approved _____
Prelim. Plat Expires _____

Figure 12

EXHIBIT "A"
To Subdivision Improvements Agreement
DEVELOPMENT REVIEW BOARD (DRB) REQUIRED INFRASTRUCTURE LISTING
for Encanto Village, Units 1 & 2

Following is a summary of Public/Private Infrastructure required to be constructed or financially guaranteed to be constructed for the above development. This summary is not necessarily a complete listing. During the design process, if the City determines that appurtenant items have not been included in the summary, those items will be included in the listing and related financial guarantee, if the items normally are the Subdivider responsibility. In addition, any unforseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility are the responsibility of the Subdivider and will be included in the financial guarantee provided to the City.

Size	Type Improvement	Location	From	To
		UNIT 1		
25' FF	Art Pvmt (E side) 6' Sdwk (E side) Std C & G (E side) Ext. Curb (E side)	Unser Blvd	Eucariz Rd	Bridge Blvd
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Belleza	Via Patria	Via Abolado
22' FF Private	Res Pvmt 4' Sdwk (W side)* Mount C & G (both sides)	Via Paz	Via Tranquilo	Termination
40' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Puente	Bridge Blvd	Via Tranquilo
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Std C & G (both sides)	Via Patria	Lot 22, Blk 1	Via Tranquilo
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Std C& G (both sides)	Via Arbolado	Lot 6, Blk 8	Via Tranguilo

Size	Type Improvement	Location	From	To

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Prelim. Plat Expires _____

28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Canale	Lot 23, Blk 14	Via Tranquilo
22' FF Private	Res Pvmt 4' Sdwk (E side)* Mount C & G (both sides)	Via Canale	Via Tranquilo	North Prop Line
25' FE	Art Pvmt (W side) 6' Sdwk (W side) Std C & G (W side)	Stinson St	Lot 23, Blk 14	Bridge Blvd
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Tranquilo	Via Patria	Via Canale
6"	PVC Waterline	Via Patria	25' Water & SAS Esmt	Via Tranquilo
6"	PVC Waterline	Via Tranquilo	Entire Length	
6"	PVC Waterline	Via Belleza	Entire Length	
6"	PVC Waterline	Via Paz	Entire Length	
6"	PVC Waterline	Via Canale	Entire Length	
6"	PVC Waterline	Via Arbolado	Via Tranquilo	Lot 6, Blk 8
10"	PVC Waterline	Unser Blvd	Sunset Gardens Rd	25' Water & SAS Esmt
10"	PVC Waterline	25' Wtr/ SAS Esmt	Unser Blvd	Via Patria
10"	PVC Waterline	Stinson St	Lot 23, Blk 14	Exist Stub at AMOLE
8"	SAS	Via Tranquilo	Entire Length	
8"	SAS	Via Belleza	Entire Length	
8"	SAS	Via Patria	Lot 21, Blk 1	Via Tranquilo
8"	SAS	Via Canale	Lot 20, Blk 14	25' SAS Esmt
8"	SAS	Via Paz	Entire Length	
8"	SAS	Via Arbolado	Via Belleza	Via Tranquilo
8"	SAS	25' SAS Esmt	Via Canale	25' Wtr/SAS Esmt
9'	Conc channel/rundown	10' PDE[1]	Via Tranquilo	AMOLE Channel
22'	Concrete rundown	AMOLE Row & Via Patria		
22'	Concrete rundown	AMOLE Row & Via Canale		

Size	Type Improvement	Location	From	To

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UNIT 2

38' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Arbolado	Eucariz Rd	Via Cometa
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C & G (both sides)	Via Cometa	Via Patria	Termination
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Mount C& G (both sides)	Via Serenita	Via Patria	Termination
28' FF Private	Res Pvmt 4' Sdwk (Both sides)* Mount C & G (both sides)	Via Sereno	Via Patria	Termination
25' FE	Art Pvmt (N side) 6' Sdwk (N side) Std C & G (N side)	Eucariz Rd	Unser Blvd	Lot 2, Blk 11
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Std C & G (both sides)	Via Patria	Via Cometa	Lot 22, Blk 1
28' FF Private	Res Pvmt 4' Sdwk (both sides)* Std C& G (both sides)	Via Arbolado	Via Cometa	Lot 6, Blk 8
22' FF Private	Res Pvmt 4' Sdwk (W side)* Mount C & G (both sides)	Via Patria	Via Tranquilo	North Prop Line
22' FF Private	Res Pvmt 4' Sdwk (W Side)* Std C & G (Both Sides)	Via Patria	Via Cometa	Termination
6"	PVC Waterline	Via Serenita	Entire Length	
6"	PVC Waterline	Via Arbolado	Lot 6, Blk 8	Via Cometa
6"	PVC Waterline	Via Cometa	Via Arbolado	Termination
8"	PVC Waterline	Eucariz Rd	Unser Blvd	Lot 2, Blk 11
10"	PVC Waterline	Via Cometa	Via Patria	Via Arbolado
Size	Type Improvement	Location	From	To
10"	PVC Waterline	Via Patria	25' Water & SAS Esmt	Via Cometa

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10"	PVC Waterline	Via Arblado	Via Cometa	Eucariz Rd
10"	PVC Waterline	Via Sereno	Entire Length	
8"	SAS	Via Serenita	Entire Length	
8"	SAS	Via Cometa	Entire Length	
8"	SAS	Via Patria	Lot 21, Blk 1	Termination

(1) PDE - Private Drainage Easement

Engineer's Certification for Grading and Drainage per DPM including Perimeter Walls as shown on the Grading Plan for Release of SIA and Financial Guarantees. Financial Guarantee is not required for this item.

Water infrastructure to include valves, fittings, valveboxes and fire hydrants.

Sanitary sewer to include manholes and service connections.

Street lights per DPM.

* Deferred

Prepared By: ____________________
Print Name: Gregory J. Krenik, PE
Firm: Mark Goodwin & Associates, PA

* *

Development Review Board Member Approvals

Transportation Dev.	Date	Utility Dev.	Date
Parks, Design & Development, C.I.P.	Date	Engineer/AMAFCA	Date
DRB Chairman	Date		