Arroyo Grande LLC
3410 Inman Court NE
Albuquerque, New Mexico 87110

March 31, 1997

City Of Albuquerque
Mr. Aquirre
City Engineer
Albuquerque, New Mexico

RE: 5 sites on Topeka SE
Lots 8-G, 8-F, 8-E, 8-D and 8-C
of South Broadway Acres

At your request, Arroyo Grande LLC will have its engineer certify the grading of each lot prior to its requesting a building permit.

Sincerely,

Thomas R. Lukes

Thomas R. Lukes

DRB Case # 96-488

Drainage file # M14/D23

Richard Montoya - 809 La Guayra N.E.

SF-1 SHORT FORM WARRANTY DEED (Joint Tenants) - Rev. 11-65 - New Mexico Statutory Form

WARRANTY DEED (Joint Tenants) 49347

ADOLPH MONTOYA and RUTH M. MONTOYA, his wife

for consideration paid, grant

to RICHARD MONTOYA

and EMILY MONTOYA, his wife

as joint tenants the following described real estate in Bernalillo County, New Mexico:

A tract of land situate in the community of San Jose, Bernalillo County, New Mexico, and more particularly described as follows:

Beginning, for a tie, at the Northeast corner of Block numbered One (1) of Montoya's Second Replat of Lots numbered Five (5), Six (6), Seven (7) and part of Lot Eight (8), in Block lettered "A", South Broadway Acres, a subdivison of a tract of land situate in said Bernalillo County, New Mexico, as the same is shown and designated on the plat thereof filed in the office of the County Clerk of said County on the 13th day of June, 1946, said point marking the intersection of the Southerly right of way line of Bethel Avenue SE with the Easterly right of way line of Topeka Street SE, and running thence N.86 deg. 50' W., 50.06 feet to the point marking the intersection of the Southerly right of way line of said Bethel Avenue SE with the Westerly right of way line of said Topeka Street SE; thence running S. 4 deg. 06'W., 292.13 feet along the Westerly right of way line of said Topeka Street SE to the Northeast and beginning corner No. 1 of the tract herein set forth; thence continuing

S. 4 deg. 06'W., 267.10 feet to the Southeast corner No. 2 of the tract herein set forth; thence leaving said Topeka Street SE and running

N. 88 deg. 50'W., 235.66 feet to the Southwest corner No. 3 of the tract herein set forth; thence

N. 3 deg. 49'E., 267.03 feet to the Northwest corner No. 4 of the tract herein set forth; thence

S. 88 deg. 50'E., 236.98 feet to the Northeast and beginning corner No. 1 of the tract herein set forth.

with warranty covenants.

WITNESS our hand S and seal S this 27th day of April, 19 66

(Seal) Adolph Montoya (Seal)

(Seal) Ruth M. Montoya (Seal)

ACKNOWLEDGMENT FOR NATURAL PERSONS

STATE OF NEW MEXICO }ss

COUNTY OF Bernalillo

The foregoing instrument was acknowledged before me this 27th day of April, 19 66

by ADOLPH MONTOYA and RUTH M. MONTOYA, his wife

(Name or Names of Person or Persons Acknowledging)

My commission expires: (Seal)

Notary Public

FOR RECORDER'S USE ONLY

STATE OF NEW MEXICO
COUNTY OF BERNALILLO
FILED FOR RECORD

MAY 11 3:59 PM 1957

BY [illegible]
LUCY [illegible]
COUNTY CLERK

ACKNOWLEDGMENT FOR CORPORATION

STATE OF NEW MEXICO }ss

COUNTY OF

The foregoing instrument was acknowledged before me this

day of , 19

by

(Name of Officer)

(Title of Officer) of (Name of Corporation Acknowledging It)

(Corporation Seal)

My commission expires: Notary Public

END

CITY OF
Albuquerque
Public Works Department

Martin J. Chávez, Mayor

Robert E. Gurulé, Director

January 15, 1997

Ronald R. Bohannan, P.E.
Tierra West Dev. Mgt. Ser.
4421 McCleod Rd. N.E. Suite D
Albuquerque, New Mexico 87109

R.E.: REVISED DRAINAGE PLAN FOR TOPEKA SUBDIVISION (M14-D23) REVISION DATED 1/2/97

Dear Mr. Bohannan:

Based on the information provided on your January 3, 1997 submittal, the above referenced site is approved for Preliminary Plat, Site Plan,Grading, and Building Permit.
Please be advised that a Top Soil Permit will be required prior to Rough Grading.
Also, Engineer Certification per the D.P.M. checklist will be required after the grading is completed.
If I can be of further assistance, please feel free to call me at 924-3986.

C: Andrew Garcia

Sincerely

Bernie J. Montoya

Bernie J. Montoya C.E.
Engineering Associate

DRAINAGE INFORMATION SHEET

PROJECT TITLE: *TOPEKA SUBDIVISION* ZONE ATLAS/DRNG. FILE #: M-14 / 123

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

LEGAL DESCRIPTION: *Lots 8-C, 8-D, 8-E, 8-F, 8-G, BLOCK "A" SOUTH BROADWAY ACRES UNIT NO. 1*

CITY ADDRESS: *WEST OF TOPEKA STREET, SOUTH OF BETHEL AVENUE, NEAR THE AT & SF RAILROAD*

ENGINEERING FIRM: *TIERRA WEST DEV. MAGT. SER.* CONTACT: *RONALD R. BOHANNAN OR SHAHAB BIAZAR*

ADDRESS: *4421 McCleod Rd. NE Suite D, 87109* PHONE: *(505) 883-7592*

OWNER: *TOM LUKES* CONTACT: *TOM LUKES*

ADDRESS: *3410 INMAN COURT, ALB 87110* PHONE: _____

ARCHITECT: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: *Precision Surveys* CONTACT: *Larry Medrano*

ADDRESS: *2929 Coors Blvd, NW Suite 105* PHONE: *(505) 839 - 0569*

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

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

PRE-DESIGN MEETING:

_____ YES
X NO
_____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

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

DATE SUBMITTED: *01/02/97*

BY: *SARA McCOLLAM*

RECEIVED
JAN - 3 1996
HYDROLOGY DIVIS

Tierra West Development Management Services

January 2, 1997

Mr. John P. Curtin, P.E.
Hydrology Department
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Topeka Subdivision (M-14/D23) Engineer's Stamp Dated 1-2-97

Dear Mr. Curtin:

This is a letter regarding the comments received from you concerning the Topeka Subdivision drainage report.

1. The pads have been raised so they are higher than the surrounding grades.

2. The Grading and Drainage plan now shows ultimate and interim conditions for the perimeter walls and the side yard swales.

3. The vertical scale on section B-B has been raised to 1"=5' in order to exaggerate the grade differences. The San Jose Lateral has been added to section B-B.

4. Attached is a memo from Larry Medrano of Precision Surveys, Inc. regarding the San Jose Lateral. He states that there are no existing easements or rights of way for the ditch adjacent to the site. Precision Surveys has confirmed all easements with the title company and MRGCD.

If you have any questions regarding this matter, please do not hesitate to call me.

Sincerely,

Sara McCollam

Sara McCollam

Enclosures

cc: Tom Lukes

JN: 960075
scm

RECEIVED
JAN - 3 1996
HYDROLOGY DIVISION

960075: comment2.ltr

4421 McLeod Rd. NE, Suite D • Albuquerque, NM 87109 • (505) 883-7592

PRECISION SURVEYS, INC.

Memo

To: Ron Bohannan

From: Larry Medrano

Date: December 24, 1996

Re: Lots 8-C to 8-G, Block A, South Broadway Acres

Ron,

As requested, I have tried to determine if the ditch located to the west of the subject property is subject to any existing easements or rights of way.

A title commitment for the property was prepared by Fidelity National Title Insurance Company. There is no mention of any easements or rights of way for any ditches. The standard exception for MRGCD tracts which reads *"Any and all rights, liens, claims or equities in favor of the Middle Rio Grande Conservancy District, which may affect the insured premises"* is the only reference made. This exception typically appears on all title commitments affecting MRGCD tracts.

A location map and a portion of the plat was faxed to Ms Wendy Vigil with the MRGCD mapping department. Ms Vigil stated that a portion of the San Jose Lateral had been abandoned and that MRGCD shows no easements or rights of way in the vicinity of the subject property. Ms Vigil stated that the existing ditch may be private.

A recent plat to the north of the subject property does not show a ditch easement. A request has been made with the title company to see if any of the adjoining deeds make reference to any ditch easements. The conveying documents for the subject property make no reference to any ditch easements.

Please call me if you have any questions or if you need additional information.

[illegible] COORS BLVD NW, SUITE 105 PHONE [illegible]
ALBUQUERQUE, NEW MEXICO [illegible] FAX [illegible]

CITY OF
Albuquerque
P.O. Box 1293 Albuquerque, NM 87103

December 23, 1996

Martin J. Chávez, Mayor

Ronald R. Bohannan, PE
Tierra West Dev Mgt Ser
4421 McCleod Rd NE Suite D
Albuquerque, NM 87109

RE: DRAINAGE REPORT FOR TOPEKA SUBDIVISION (M-14/D23)
RECEIVED DECEMBER 16, 1996 FOR SITE DEV PLAN, P PLAT & R GRADING
ENGINEER'S STAMP DATED 12-11-96

Dear Mr. Bohannan:

Based on the information included in the submittal referenced above, City Hydrology accepts the Drainage Report for Site Development Plan. The following comments must be addressed before the Grading Plan will be accepted for Preliminary Plat & Rough Grading:

On the Typical Lot Layout, the proposed grades on the west edge of the pad are higher than the pad. Section A-A must indicate the condition that will be certified if it is different from the ultimate condition. Indicate how the San Jose Lateral will interface with the Subdivision on Section B-B. Contact MRGCD to see if there is an easement for the San Jose Lateral or if one must be granted.

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

John P. Curtin

John P. Curtin, P.E.
Civil Engineer, Hydrology

c: Fred Aguirre, DRB 96-488

960075

DRAINAGE REPORT

for

Topeka Subdivision

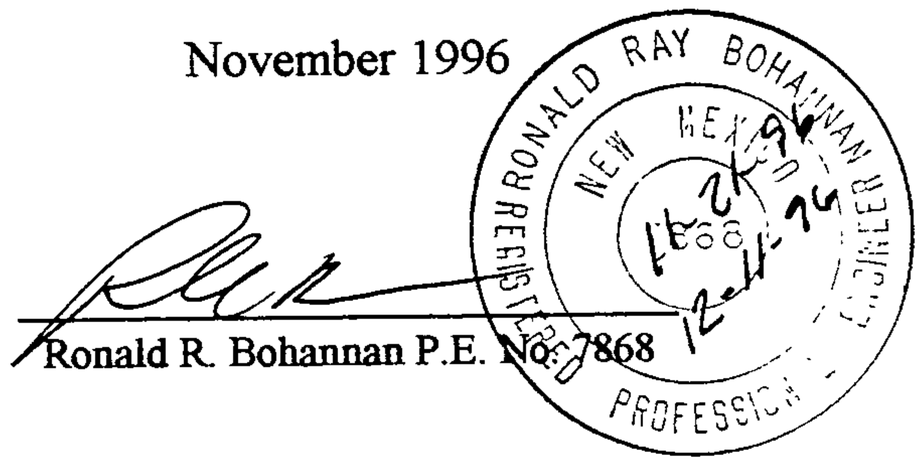
Prepared by

Tierra West Development Management Services
4421 McLeod Road NE, Suite D
Albuquerque, New Mexico 87109

Prepared for

Tom Lukes
3410 Inman Court, NE
Albuquerque, New Mexico 87110

November 1996



Ronald R. Bohannan P.E. No. 7868

CITY OF
Albuquerque
P.O. Box 1293 Albuquerque, NM 87103

December 2, 1996

Martin J. Chávez, Mayor

Ronald R. Bohannan, PE
Tierra West Dev Mgt Ser
4421 McCleod Rd NE Suite D
Albuquerque, NM 87109

RE: DRAINAGE REPORT FOR TOPEKA SUBDIVISION (M-14/D23)
RECEIVED NOVEMBER 25, 1996 FOR SITE DEV PLAN, P PLAT & R GRADING
ENGINEER'S STAMP DATED 11-21-96

Dear Mr. Bohannan:

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

Section A-A must indicate the interim condition without the common wall and the ultimate condition with the common wall. Provide a longitudinal section B-B through the typical lot. The proposed grades indicate that there is not adequate slope away from the pads and to the street. Where is the invert of the San Jose Lateral? Will the perimeter wall interfere with the Lateral?

Note 3 indicates that Topeka has 6" curbs. Typical City streets have 8" curbs. Is Note 3 incorrect? There is a high point in Topeka. Lots 8-F & 8-G will drain south to Descanso. Indicate Abajo Rd on the Plan.

If you have any questions about this project, You may contact me at 768-2727.

Sincerely,

John P. Curtin, P.E.
Civil Engineer, Hydrology

c: Fred Aguirre, DRB 96-488

DRAINAGE INFORMATION SHEET

PROJECT TITLE: *TOPEKA SUBDIVISION* **ZONE ATLAS/DRNG. FILE #:** *M-14/~~A~~ 23*

DRB #: *96-488* **EPC #:** _____ **WORK ORDER #:** _____

LEGAL DESCRIPTION: *Lots 8-C, 8-D, 8-E, 8-F, 8-G, BLOCK "A" SOUTH BROADWAY ACRES UNIT NO. 1*

CITY ADDRESS: *WEST OF TOPEKA STREET, SOUTH OF BETHEL AVENUE, NEAR THE AT & SF RAILROAD*

ENGINEERING FIRM: *TIERRA WEST DEV. MAGT. SER.* **CONTACT:** *RONALD R. BOHANNAN OR SHAHAB BIAZAR*

ADDRESS: *4421 McCleod Rd. NE Suite D, 87109* **PHONE:** *(505) 883-7592*

OWNER: *TOM LUKES* **CONTACT:** *TOM LUKES*

ADDRESS: *3410 INMAN COURT, ALB 87110* **PHONE:** _____

ARCHITECT: _____ **CONTACT:** _____

ADDRESS: _____ **PHONE:** _____

SURVEYOR: *Precision Surveys* **CONTACT:** *Larry Medrano*

ADDRESS: *2929 Coors Blvd, NW Suite 105* **PHONE:** *(505) 839 - 0569*

CONTRACTOR: _____ **CONTACT:** _____

ADDRESS: _____ **PHONE:** _____

TYPE OF SUBMITTAL:

- X DRAINAGE REPORT
- ___ DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION
- ___ OTHER

PRE-DESIGN MEETING:

- ___ YES
- X NO
- ___ COPY PROVIDED

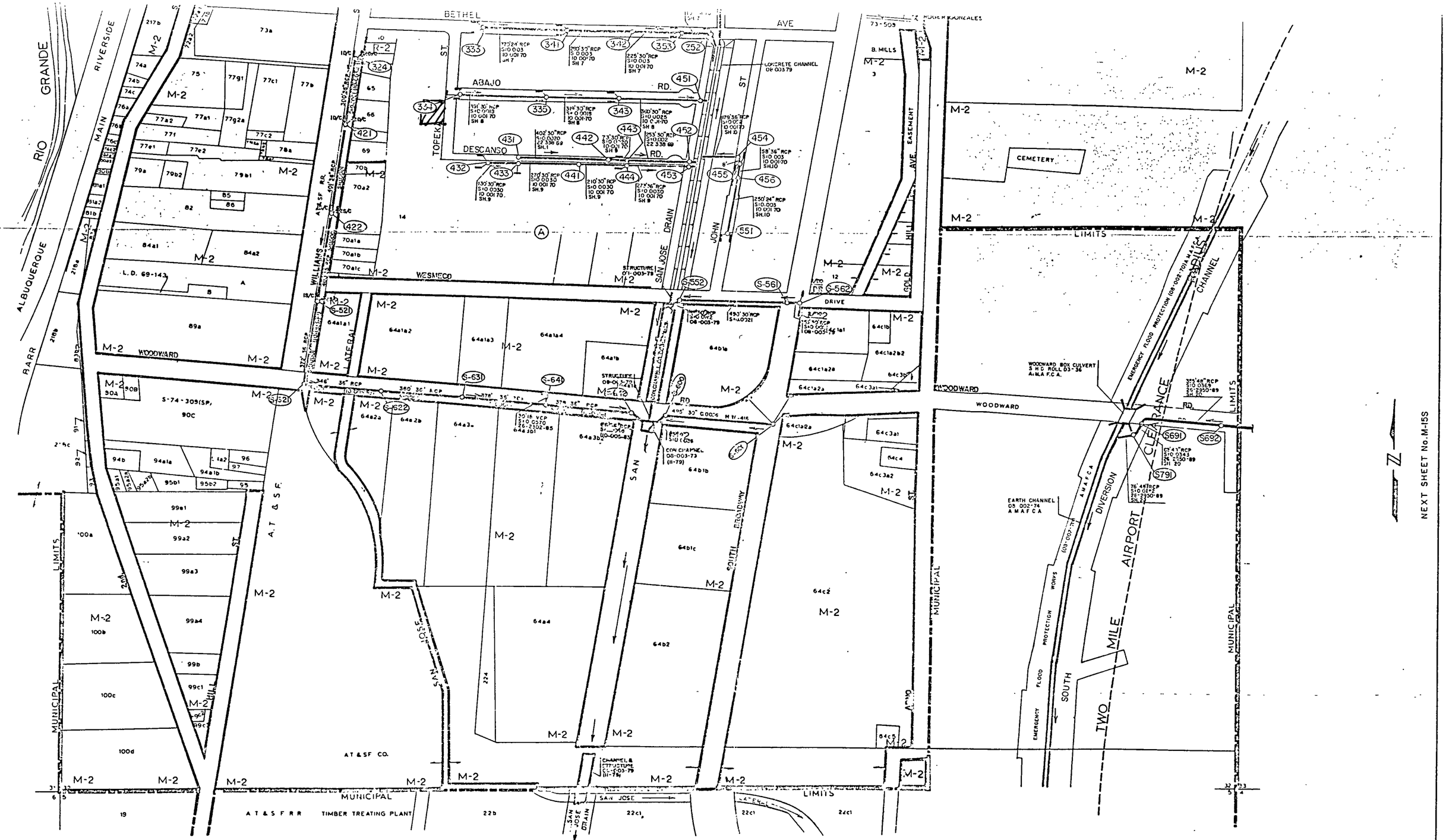
CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAN APPROVAL
- X PRELIMINARY PLAT APPROVAL
- X S. DEV. PLAN FOR SUB'D. APPROVAL
- ___ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- ~~X~~ BUILDING PERMIT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY APPROVAL
- X GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S. A. D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- ___ *OTHER*

RECEIVED NOV 25

DATE SUBMITTED: *11/22/96*

BY: *SARA McCOLLAM*



200 100 0 SCALE 200 400

DRAINAGE FACILITIES MAP

LEGEND	NOTES
STORM SEWER LINE	1 MANHOLE IDENTIFICATION REQUIRES BOTH THE MAP GRID & MANHOLE NO
MANHOLE	2 MANHOLE NUMBERS CARRIED FROM ADJACENT MAPS HAVE THE MAF GRID SHOWN.
(S-112) MANHOLE NUMBER	
STORM INLET NUMBER, TYPE, GRATES	

REVISIONS	
DATE	REMARKS
4-11-88 PAY	EMERGENCY FLOOD PROTECTION WORKS
5-3-89 PAY	BOX CULVERT ON WOODWARD RD
4-17-89 PAY	ADDED PROJ 2950 ON WOODWARD RD

MAP GRID

M-14S

Tierra West Development
Management Services

December 11, 1996

Mr. John P. Curtin, P.E.
Hydrology Department
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Topeka Subdivision (M-14/D23)

Dear Mr. Curtin:

This is a letter regarding the comments received from you concerning the drainage report for Topeka Subdivision.

1. Section A-A on the grading and drainage plan has been revised to show the common wall. A longitudinal section B-B has been shown through the typical lot.

2. There was a misprint on the typical lot layout that showed no slope between the streets and the pad. This has been corrected and the lot layout shows that there is adequate slope.

3. The invert of the San Jose Lateral has been clearly marked on the grading and drainage plan. There is no longer a perimeter wall along the back of the property that would interfere with the San Jose Lateral.

4. Note 3 which indicated that Topeka Street has 6" curbs was incorrect. Topeka has 8" curbs.

5. Topeka Street has a high point and Lots 8-F and 8-G will drain south to the storm drain system in Descanso. The drainage report has been changed to reflect this.

6. Abajo Road has been indicated on the plans.

If you have any questions regarding this matter, please do not hesitate to call me.

Sincerely,

Sara McCollam

Sara McCollam

Enclosures

cc: Tom Lukes

JN: 960075
scm

RECEIVED
DEC 16

960075: comment.ltr

4421 McLeod Rd. NE, Suite D • Albuquerque, NM 87109 • (505) 883-7592

DRAINAGE INFORMATION SHEET

PROJECT TITLE: *TOPEKA SUBDIVISION* ZONE ATLAS/DRNG. FILE #: *M-14 / D23*

DRB #: *96-488* EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION: *Lots 8-C, 8-D, 8-E, 8-F, 8-G, BLOCK "A" SOUTH BROADWAY ACRES UNIT NO. 1*

CITY ADDRESS: *WEST OF TOPEKA STREET, SOUTH OF BETHEL AVENUE, NEAR THE AT & SF RAILROAD*

ENGINEERING FIRM: *TIERRA WEST DEV. MAGT. SER.* CONTACT: *RONALD R. BOHANNAN OR SHAHAB BIAZAR*

ADDRESS: *4421 McCleod Rd. NE Suite D, 87109* PHONE: *(505) 883-7592*

OWNER: *TOM LUKES* CONTACT: *TOM LUKES*

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ARCHITECT: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

SURVEYOR: *Precision Surveys* CONTACT: *Larry Medrano*

ADDRESS: *2929 Coors Blvd, NW Suite 105* PHONE: *(505) 839 - 0569*

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

TYPE OF SUBMITTAL:

- X DRAINAGE REPORT
- ___ DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION
- ___ OTHER

PRE-DESIGN MEETING:

- ___ YES
- X NO
- ___ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAN APPROVAL
- X PRELIMINARY PLAT APPROVAL
- X S. DEV. PLAN FOR SUB'D. APPROVAL
- ___ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- X BUILDING PERMIT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY APPROVAL
- X GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S. A. D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- ___ *OTHER*

RECEIVED DEC 16

DATE SUBMITTED: *12/11/96*

BY: *SARA McCOLLAM*

TABLE OF CONTENTS

Zone Atlas Map M-14 1

Location 2

Existing Drainage Conditions 2

FEMA Map and Soil Conditions 2

FEMA Map 350002-0034 3

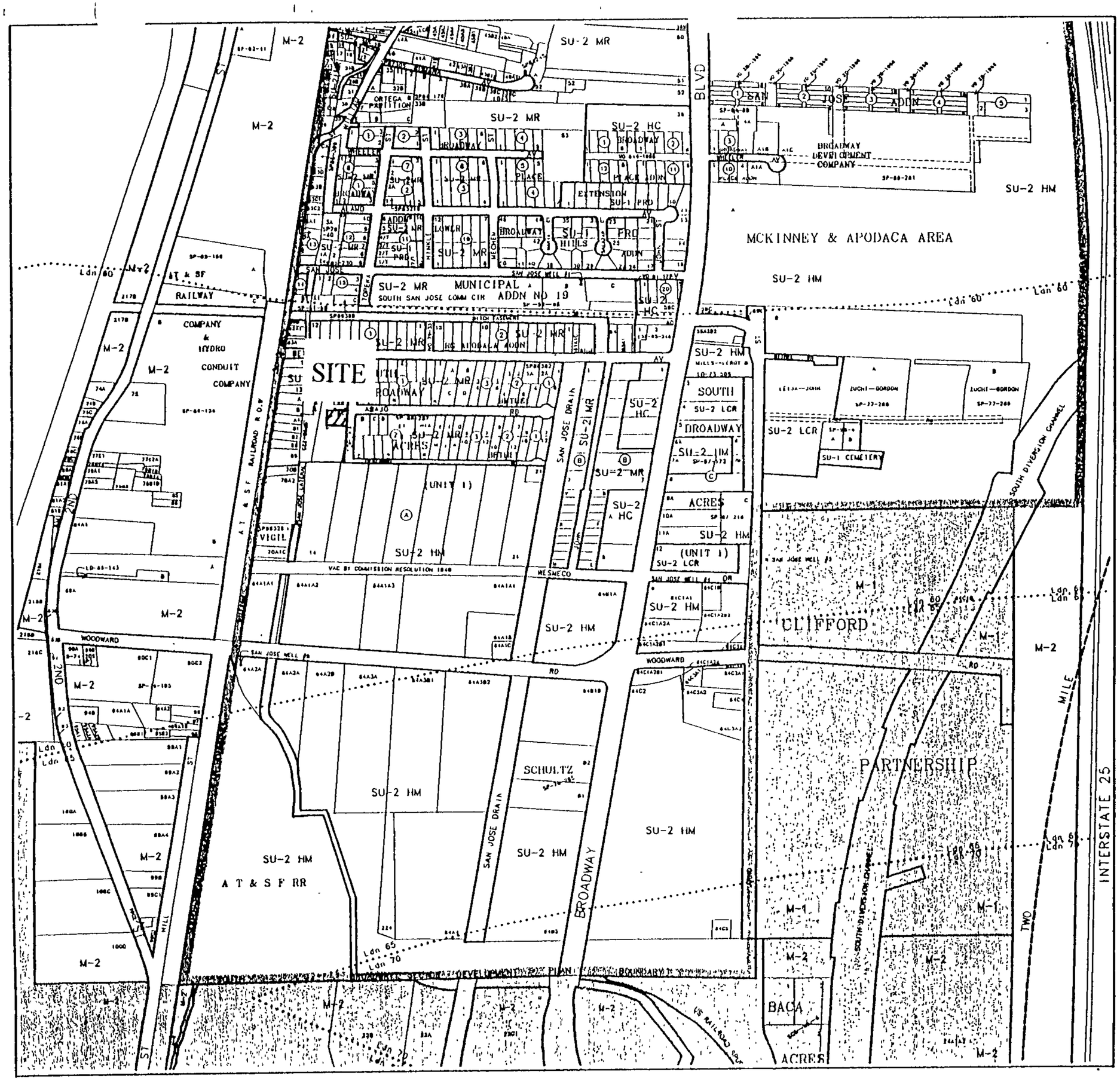
On-Site Drainage Management Plan 4

Summary 4

Runoff Calculations 5

Runoff Summary Tables for Proposed and Existing Drainage Basins 7

AHYMO Runoff Input and Summary Output for Proposed and Existing Drainage Basins 9


SITE
SU-2 MR
SU-2 HC
SU-2 HM
SU-2 LCR
SU-1 PRO
SU-1 CEMETERY
M-2
M-1
MCKINNEY & APODACA AREA
BROADWAY DEVELOPMENT COMPANY
SAN JOSE ADDN
MUNICIPAL ADDN NO 19
SOUTH SAN JOSE COMM CTR
RG APODACA ADDN
ORTEGA PARTITION
VIGIL
(UNIT 1)
ACRES
SOUTH
BROADWAY
CLIFFORD
PARTNERSHIP
SCHULTZ
BACA
A T & S F RR
A T & S F RAILROAD R.O.W.
AT & SF RAILWAY
COMPANY & HYDRO CONDUIT COMPANY
SAN JOSE DRAIN
SOUTH DIVERSION CHANNEL
INTERSTATE 25
BROADWAY
WOODWARD RD
SAN JOSE WELL RD
WESMECO
VAC BY COMMISSION RESOLUTION 1848
BROADWAY SECONDARY DEVELOPMENT PLAN BOUNDARY
US RAILROAD CO.
GRAPHIC SCALE IN FEET
250 0 500 1000
CITY OF Albuquerque
Albuquerque Geographic Information System
PLANNING DEPARTMENT
©Copyright 1996
Map Amended through April 19, 1996
LEGAL DESCRIPTION
TION
R3E
SEC 32
UNIFORM PROPERTY CODE
1-014-085
M-14-Z

Location

The site is a proposed five lot single family subdivision. The site is located in the South Valley west of Broadway Boulevard and just north of Woodward Avenue, near the Atchinson-Topeka and Santa Fe Railroad. The site is shown on the attached Zone Atlas Map M-14 and contains approximately 1.45 acres. It is identified as lots 8-C, 8-D, 8-E, 8-F and 8-G, Block "A" South Broadway Acres Unit No. 1. The purpose of this report is to provide the drainage analysis and management plan for the proposed subdivision.

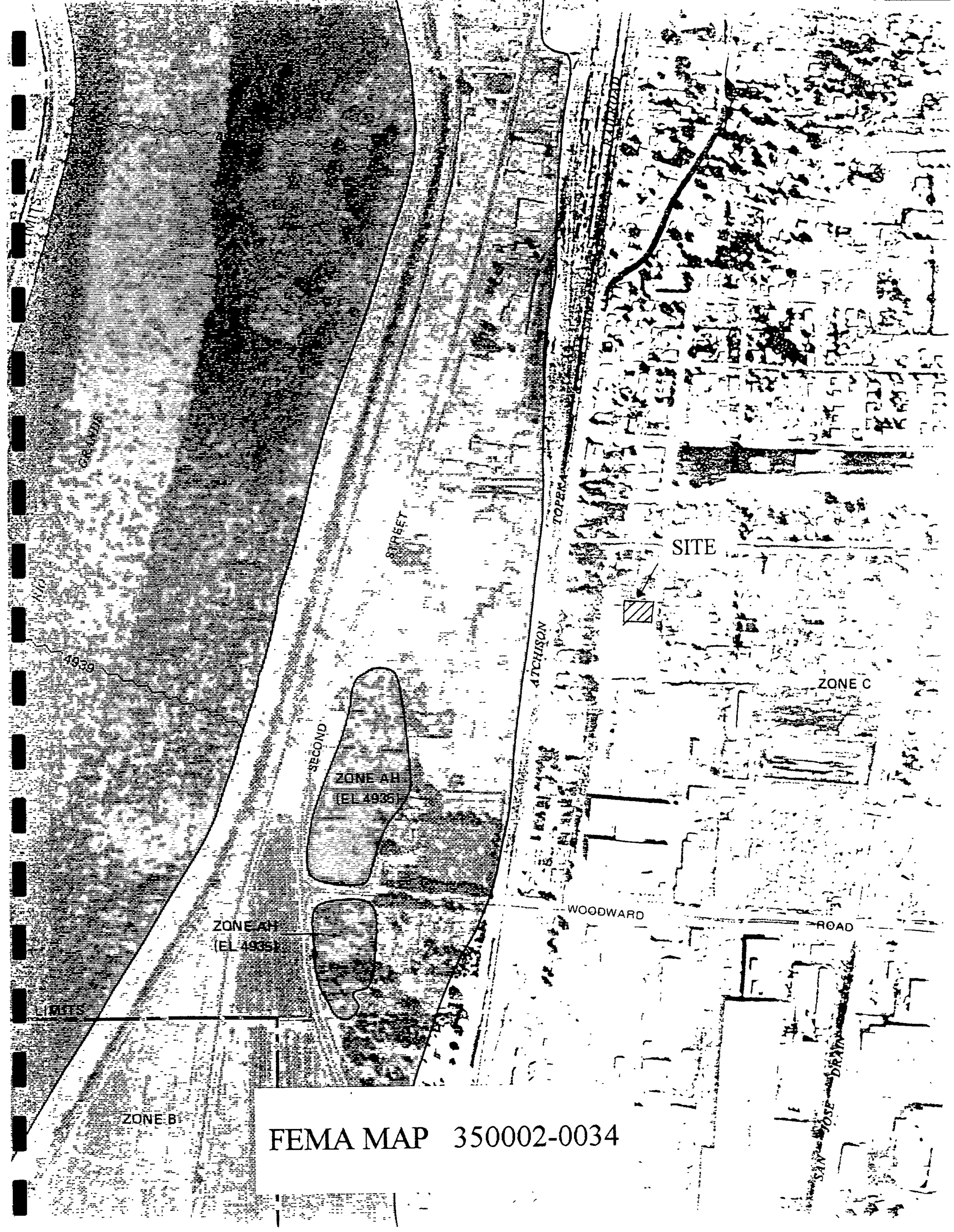
Existing Drainage Conditions

The site is currently undeveloped. There is one existing basin on the site which generates a runoff flow of 3.34 cfs. This basin drains towards Topeka Street and is picked up by an existing drop inlet in Topeka Street which drains to the storm sewer in Abajo Road. There are no off-site flows entering the site. Flows from the west are intercepted by the San Jose Lateral which runs directly west of the site. Flows from the east are intercepted by Topeka Road. The natural topography of the area keeps offsite flows to the north and south from entering the site. The site is typical of the valley with very float slopes. The average slope across the site is 1.0 percent.

FEMA Map and Soil Conditions

This site is located on FEMA Map section 350002 panel 34 as shown on the attached excerpt. The map shows that the site does not lie within any 100 year flood plains.

The site contains one type of soil from the Soil Conservation Service Soil Survey of Bernalillo County. The soil is a Glendale clay loam. The runoff is slow, the hazard of water erosion is slight, and the permeability is moderately slow.



FEMA MAP 350002-0034

On-Site Drainage Management Plan

The proposed drainage management is to direct the developed flows towards Topeka Avenue and from there the existing storm sewer will collect the flows. There are two developed basins on the site that will free discharge to Topeka and continue the existing drainage pattern. Basin 1 has a developed runoff flow of 3.22 cfs and will be picked up by the 30" storm drain in Abajo Road. Basin 2 has a developed runoff flow of 2.50 cfs and will be picked up by the storm drain in Descanso Road.

Summary

There are two developed drainage basins on the site. Basin 1 has a runoff flow of 3.22 cfs and Basin 2 has a runoff flow of 2.50 cfs. The basins will continue the existing drainage pattern and drain to Topeka Avenue. The increase in flow from 3.34 cfs is negligible compared to the overall basin. This flow will not create any adverse conditions downstream.

Runoff
Calculations

RUNOFF CALCULATIONS

This site is located in Zone 2

LAND TREATMENT

Proposed
B = 20%
C = 20%
D = 60%

Existing
B = 100%

DEPTH (INCHES) @ 100-YEAR STORM

P_{60} = 2.01 inches

P_{360} = 2.35 inches

P_{1440} = 2.75 inches

DEPTH (INCHES) @ 10-YEAR STORM

P_{60} = 2.01 x 0.667
= 1.34 inches

P_{360} = 1.57

P_{1440} = 1.83

See the summary output from AHYMO calculations.

Runoff
Summary Tables
for
Proposed and Existing
Drainage Basins

DRAINAGE BASINS

Existing

BASIN	AREA (SF)	AREA (AC)	AREA (MI^2)
1	63037.71	1.4471	0.002261

Proposed

BASIN	AREA (SF)	AREA (AC)	AREA (MI^2)
1	35492.06	0.8148	0.001273
2	27545.77	0.6324	0.000988

RUNOFF CALCULATION RESULTS

Existing

BASIN	Q-100 CFS	Q-10 CFS	V-100 AC-FT	V-10 AC-FT
1	3.34	1.37	0.094	0.034

Proposed

BASIN	Q-100 CFS	Q-10 CFS	V-100 AC-FT	V-10 AC-FT
1	3.22	1.96	0.112	0.065
2	2.50	1.52	0.087	0.050

AHYMO
Runoff Input
and
Summary Output
for
Proposed and Existing
Drainage Basins

```
*****************************************************************
*                      TOPEKA SUBDIVISION                       *
*****************************************************************
*       100-YEAR, 6-HR STORM  (UNDER EXISTING CONDITIONS)       *
*****************************************************************
*
START                 TIME=0.0
*
* BASIN 1
*
RAINFALL              TYPE=1 RAIN QUARTER=0.0 IN
                      RAIN ONE=2.01 IN RAIN SIX=2.35 IN
                      RAIN DAY=2.75 IN DT=0.02253 HR
COMPUTE NM HYD        ID=1 HYD NO=100.1 AREA=0.002261 SQ MI
                      PER A=0.00 PER B=100.00 PER C=0.00 PER D=0.00
                      TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD             ID=1 CODE=1
*
*
*****************************************************************
*        10-YEAR, 6-HR STORM  (UNDER EXISTING CONDITIONS)       *
*****************************************************************
*
START                 TIME=0.0
*
* BASIN 1
*
RAINFALL              TYPE=1 RAIN QUARTER=0.0 IN
                      RAIN ONE=1.34 IN RAIN SIX=1.57 IN
                      RAIN DAY=1.83 IN DT=0.02253 HR
COMPUTE NM HYD        ID=1 HYD NO=110.1 AREA=0.002261 SQ MI
                      PER A=0.00 PER B=100.00 PER C=0.00 PER D=0.00
                      TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD             ID=1 CODE=1
*
*
FINISH
```

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994 RUN DATE (MON/DAY/YR) =11/05/1996

INPUT FILE = A:E.DAT USER NO.= R_BOHANN.I01

COMMAND	HYDROGRAPH IDENTIFICATION	FROM ID NO.	TO ID NO.	AREA (SQ MI)	PEAK DISCHARGE (CFS)	RUNOFF VOLUME (AC-FT)	RUNOFF (INCHES)	TIME TO PEAK (HOURS)	CFS PER ACRE	PAGE = 1 NOTATION	
START										TIME=	.00
RAINFALL TYPE= 1										RAIN6=	2.350
COMPUTE NM HYD	100.10	-	1	.00226	3.34	.094	.77901	1.532	2.310	PER IMP=	.00
START										TIME=	.00
RAINFALL TYPE= 1										RAIN6=	1.570
COMPUTE NM HYD	110.10	-	1	.00226	1.37	.034	.27917	1.532	.947	PER IMP=	.00
FINISH											

```
*****************************************************************
*                      TOPEKA SUBDIVISION                       *
*****************************************************************
*       100-YEAR, 6-HR STORM  (UNDER PROPOSED CONDITIONS)       *
*****************************************************************
*
START                 TIME=0.0
*
* BASIN 1
*
RAINFALL              TYPE=1 RAIN QUARTER=0.0 IN
                      RAIN ONE=2.01 IN RAIN SIX=2.35 IN
                      RAIN DAY=2.75 IN DT=0.02253 HR
COMPUTE NM HYD        ID=1 HYD NO=100.1 AREA=0.001273 SQ MI
                      PER A=0.00 PER B=20.00 PER C=20.00 PER D=60.00
                      TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD             ID=1 CODE=1
*
* BASIN 2
*
COMPUTE NM HYD        ID=1 HYD NO=100.2 AREA=0.000988 SQ MI
                      PER A=0.00 PER B=20.00 PER C=20.00 PER D=60.00
                      TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD             ID=1 CODE=1
*
*
*****************************************************************
*        10-YEAR, 6-HR STORM  (UNDER PROPOSED CONDITIONS)       *
*****************************************************************
*
START                 TIME=0.0
*
* BASIN 1
*
RAINFALL              TYPE=1 RAIN QUARTER=0.0 IN
                      RAIN ONE=1.34 IN RAIN SIX=1.57 IN
                      RAIN DAY=1.83 IN DT=0.02253 HR
COMPUTE NM HYD        ID=1 HYD NO=110.1 AREA=0.001273 SQ MI
                      PER A=0.00 PER B=20.00 PER C=20.00 PER D=60.00
                      TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD             ID=1 CODE=1
*
* BASIN 2
*
COMPUTE NM HYD        ID=1 HYD NO=110.2 AREA=0.000988 SQ MI
                      PER A=0.00 PER B=20.00 PER C=20.00 PER D=60.00
                      TP=-0.1333 HR MASS RAINFALL=-1
PRINT HYD             ID=1 CODE=1
*
*
FINISH
```

AHYMO SUMMARY TABLE (AHYMO194) - AMAFCA Hydrologic Model - January, 1994 RUN DATE (MON/DAY/YR) =12/11/1996

INPUT FILE = A:P.DAT USER NO.= R_BOHANN.I01

PAGE = 1

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	
START										TIME=	.00
RAINFALL TYPE= 1										RAIN6=	2.350
COMPUTE NM HYD	100.10	-	1	.00127	3.22	.112	1.64409	1.510	3.947	PER IMP=	60.00
COMPUTE NM HYD	100.20	-	1	.00099	2.50	.087	1.64409	1.510	3.953	PER IMP=	60.00
START										TIME=	.00
RAINFALL TYPE= 1										RAIN6=	1.570
COMPUTE NM HYD	110.10	-	1	.00127	1.96	.065	.95490	1.510	2.406	PER IMP=	60.00
COMPUTE NM HYD	110.20	-	1	.00099	1.52	.050	.95491	1.510	2.409	PER IMP=	60.00
FINISH											