PUBLIC WORKS/HYDROLOGY

G14/D47

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G14/D47

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FILE COPY

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Louis Saavedra
MAYOR

December 12, 1989

James Domenick
AVID Engineering, Inc.
6100 Seagull, NE Suite #102
Albuquerque, New Mexico 87109

RE: DRAINAGE PLAN FOR LOT 9, BLOCK C OF DAVIDSON ADDITION
(G-14/D47) ENGINEER'S STAMP DATED DECEMBER 4, 1989

Dear Mr. Domenick:

Based on the additional information provided on your submittal of December 5, 1989, the referenced plan is approved for Preliminary & Final Plat.

Please be advised, the plat should identify the drainage maintenance covenant agreement for the private road.

If you should have any questions, please do not hesitate to call me at 768-2650.

Cordially Yours

Gilbert Aldaz, P.E. & L.S.
Civil Engineer/Hydrology

GA/bsj
(WP+1435)

PUBLIC WORKS DEPARTMENT

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

ENGINEERING GROUP

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER

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AVID ENGINEERING, INC.

Civil • Structural • Transportation

December 4, 1989

RECEIVED
DEC 05 1989
HYDROLOGY SECTION

Mr. Gilbert Aldaz, P.E. & L.S.
Hydrology Department
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: DRAINAGE PLAN FOR LOT 9 OF DAVIDSON ADDITION (G-14-D47). TRANSMITTAL OF REVISED DRAINAGE PLAN.

Dear Mr. Aldaz:

Enclosed are two (2) copies of the revised Drainage Plan for the referenced project for your review and approval. This report has been updated to include responses to your comments (Numbers 2 and 3) from your November 14, 1989 letter to me. Mr. Fred Aguirre requested us to provide the responses as an update to the drainage plan rather than in letter form.

Comment Number 1 and comment Number 4 from the November 14, 1989 letter do not relate specifically to the plan, so they are not included in the revision. They are addressed in my November 15, 1989 letter to you, but if you need any additional information, please feel free to call me.

Thank you for your attention to this project. We look forward to receiving notification of approval of the drainage plan.

Sincerely,

James Domenick

James V. Domenick, P.E.
Principal

JVD/krc

xc: Raleigh Zellers
Fred Aguirre

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FILE COPY

City of Albuquerque
P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

ALBUQUERQUE NEW MEXICO 1706

KEN SCHULTZ
MAYOR

December 1, 1989

James Domenick
AVID Engineering, Inc.
6100 Seagull, NE Suite #102
Albuquerque, New Mexico 87109

RE: DRAINAGE PLAN FOR LOT 9, BLOCK C OF DAVIDSON ADDITION (G-14/D47) ENGINEER'S STAMP DATED ~~OCTOBER 25,~~ DECEMBER 5, 1989 GA

Dear Mr. Domenick:

Based on the additional information provided on your submittal of November 28, 1989, the referenced plan is approved for Preliminary & Final Plat.

Please be advised, the plat should identify the drainage maintenance covenant agreement for the private road.

If you should have any questions, please do not hesitate to call me at 768-2650.

Cordially Yours,

Gilbert Aldaz

Gilbert Aldaz, P.E. & L.S.
Civil Engineer/Hydrology

GA/bsj
(WP+1435)

PUBLIC WORKS DEPARTMENT

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

ENGINEERING GROUP

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER

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G14/D47

AVID ENGINEERING, INC.

Civil • Structural • Transportation

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NOV 28 1989
HYDROLOGY

November 15, 1989

Mr. Gilbert Aldaz, P.E. & L.S.
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

**RE: DRAINAGE PLAN FOR LOT 9 OF DAVIDSON ADDITION.
RESPONSE TO COMMENTS ON DRAINAGE PLAN SUBMITTED
OCTOBER 25, 1989.**

Dear Mr. Aldaz:

Thank you for your letter of November 14, 1989, with your comments on the drainage plan. We have reviewed the comments and offer the following responses to them:

1. We will request the surveyor to designate the easement for the private road to also include drainage and utility uses.

update where plat is?

✓2. Our statement of "no significant off-site flows" in the drainage plan was unclear. Based on all available information including a field survey, flood maps, etc., as well as my own field investigation of the site, I do not believe there will be any off-site flows onto the proposed subdivision. Flows in Candelaria Road will be contained within the curb and gutter, and storm water on adjacent lots either ponds on-site or drains to Candelaria Road.

✓3. The proposed swale is a wide section with a very flat slope, and we have calculated a maximum flow velocity of 1.2 cfs during the 100-year runoff. Because this velocity is so low, there will be no potential for carrying sediment into Candelaria Road.

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4. As you and I discussed on the phone, the DRB infrastructure list showing the storm drain improvements is due to an oversight on the part of the surveyor. He mistakenly included the existing adjacent improvements rather than those which are needed. There are no storm drain improvements required for this project.

Please feel free to call me if you have any questions.

Sincerely,

James Domenick

James V. Domenick, P.E.
Principal

JVD/krc

xc: Raleigh Zellers

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FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

KEN SCHULTZ
MAYOR

November 14, 1989

James Domenick
AVID Engineering, Inc.
6100 Seagull, NE Suite #102
Albuquerque, New Mexico 87109

RE: DRAINAGE PLAN FOR LOT 9 OF DAVIDSON ADDITION
(G-14/D47) ENGINEER'S STAMP DATED OCTOBER 25, 1989

Dear Mr. Domenick:

Based on the information provided on your submittal of October 25, 1989, the following comments should be addressed prior to Preliminary and Final Plat approval:

1. The proposed plat should indicates the private road as being inclusive of a drainage and utility easement.

2. The report indicates "no significant off-site flows", please address if there are off-site flows, or none exist.

3. Please address if sediment deposition could occur from the proposed swale into Candelaria Road.

4. Attached is a DRB Infrastructure List identifying storm drain improvements, please address why they are not shown on the plan.

If you should have any questions, please feel free to call me at 768-2650.

Cordially yours,

Gilbert Aldaz, P.E. & L.S.
Civil Engineer/Hydrology

Enclosure: Infrastructure List

GA/bsj
(WP+1435)

PUBLIC WORKS DEPARTMENT

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

ENGINEERING GROUP

Telephone (505) 768-2500

AN EQUAL OPPORTUNITY EMPLOYER

25 × 10

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11/8/89

G14/D47 DAVIDSON ADDITION

1) HOW IS SEDIMENT BEING CONTROLLED FROM GOING INTO CANDELALIA ROAD (PAVED)

2) THE INFRASTRUCTURE LIST DOES NOT CORRELATE WITH THE DRAINAGE PLAN.

24" STORM SEWER

6' SIDEWALK

68' ASPHALT PAVING

CURB & GUTTER

25×

0000 0000 0677

AVID ENGINEERING, INC.

Civil • Structural • Transportation

October 25, 1989

Mr. Fred Aguirre
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RECEIVED
OCT 26 1989
HYDROLOGY SECTION

HAND DELIVERED

RE: DAVIDSON ADDITION, LOT, 9, BLOCK C REPLAT.
DRB CASE NO. 89-0374.
DRAINAGE PLAN.

Dear Fred:

Enclosed is the Drainage Plan for Davidson Addition, Lot 9, Block C Replat for your review and approval.

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

Sincerely,

James V. Domenick, P.E.
Principal

JD/kc

Enclosure

xc: Raleigh Zellers

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

PRE-DESIGN CONFERENCE

DRAINAGE FILE/ZONE ATLAS PAGE NO.: G14 DATE: 10/20/89
EPC NO.: _____ DRB NO.: 89-374 / ZONE: G14
SUBJECT: _____
STREET ADDRESS: _____
LEGAL DESCRIPTION: Lot 9, Block C, Davidson Add.

APPROVAL REQUESTED:
- ✓ PRELIMINARY PLAT
- ✓ FINAL PLAT
- ___ SITE DEVELOPMENT PLAN
- ___ BUILDING PERMIT
- ___ GRADING/PAVING PERMIT
- ___ OTHER

ATTENDANCE:	WHO	REPRESENTING
	Jim Domenick	Avid Eng
	Raleigh Zellers	Owner
	Fred Aguirre	City

FINDINGS:
An approved drainage plan is required for subject request. The drainage plan will need to address the following:
(1) Offsite flows impacting site
(2) Method of discharging flows to Carlisle
(3) Free discharge acceptable, given that the basin is developed and no 100yr flooding condition exists downstream.
(4) Gravel Road is acceptable per the City's Subdivision Ordinance

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

SIGNED: [illegible] SIGNED: James Domenick
TITLE: _____ TITLE: _____
DATE: 10/20/89 DATE: 10/20/89

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

25 x 10

0000 0000 0679

DRAINAGE PLAN

FOR

LOT 9 OF DAVIDSON ADDITION

PREPARED FOR

RALEIGH ZELLERS
914 CANDELARIA NW
ALBUQUERQUE, NM 87107

PREPARED BY

AVID ENGINEERING, INC.
6100 SEAGULL LANE NE
SUITE 102
ALBUQUERQUE, NM 87109

DECEMBER 4, 1989

RECEIVED
DEC 0 5 1989
HYDROLOGY SECTION

JAMES V. DOMENICK
NEW MEXICO
No. 7643
REGISTERED PROFESSIONAL ENGINEER

PREPARED UNDER THE DIRECTION OF:

James Domenick DATE 12/4/89
James V. Domenick
N.M.P.E. #7643

25 x 10

0000 0000 0680

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PROPOSED DRAINAGE PLAN	2
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FIGURE 3 - DRAINAGE PLAN	
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RUNOFF CALCULATIONS	

25×10

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DRAINAGE INFORMATION SHEET

PROJECT TITLE: Davidson Addition ZONE ATLAS/DRNG. FILE #: G-14

LEGAL DESCRIPTION: Davidson Addition, Lot 9, Block C

CITY ADDRESS: 914 Candelaria NW, Albuquerque, NM

ENGINEERING FIRM: AVID Engineering, Inc. CONTACT: James Domenick

ADDRESS: 6100 Seagull NE, Suite 102 PHONE: 881-5357
Albuquerque, NM 87109

OWNER: Raleigh Zellers CONTACT:

ADDRESS 914 Candelaria NW PHONE: 294-1340
Albuquerque, NM 87107

ARCHITECT: N/A CONTACT:

ADDRESS: PHONE:

SURVEYOR: Leonard Martinez CONTACT: James Domenick

ADDRESS: c/o AVID Engineering, Inc. PHONE: 881-5357
6100 Seagull NE, Suite 102

CONTRACTOR: Albuquerque, NM 87109 CONTACT:

ADDRESS: N/A PHONE:

PRE-DESIGN MEETING:

X YES

___ NO

X COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. 89-0374

EPC NO. N/A

PROJECT NO. N/A

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT

X DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAIN. PLAN

___ GRADING PLAN

___ EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

X PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

X FINAL PLAT APPROVAL

___ BUILDING PERMIT APPROVAL

___ FOUNDATION PERMIT APPROVAL

___ CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

OTHER _____ (SPECIFY)

DATE SUBMITTED: October 25, 1989

BY: James Domenick

Rev. 11/84

25×

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

PRE-DESIGN CONFERENCE

DRAINAGE FILE/ZONE ATLAS PAGE NO.: G14 DATE: 10/20/89
EPC NO.: DRB NO.: 89-374 / ZONE: G14
SUBJECT:
STREET ADDRESS:
LEGAL DESCRIPTION: LOT 9, BLOCK C, DAVIDSON ADD.

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

ATTENDANCE:	WHO	REPRESENTING
	JIM DOMENICK	AVID ENG
	RALEIGH ZELLERS	OWNER
	FRED AGUIRRE	CITY

FINDINGS:

An approved drainage plan is required for subject request. The drainage plan will need to address the following:

(1) Offsite flows impacting site
(2) Method of discharging flows to Candelaria
(3) Free discharge acceptable, given that the basin is developed and no 100yr flooding conditions exists downstream.

(4) Grover Road is acceptable per the City's Subdivision Ordinance

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

SIGNED: Fred Aguirre SIGNED: James Domenick
TITLE: TITLE:
DATE: 10/20/89 DATE: 10/20/89

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

25×

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DRAINAGE PLAN
FOR
LOT 9 OF DAVIDSON ADDITION

INTRODUCTION

This report presents the summary of existing drainage conditions and recommendations for the proposed subdivision of Lot 9 of the Davidson Addition near 9th Street and Candelaria in Albuquerque's north valley. The project site contains approximately 0.53 acres, and is located on Zone Atlas sheet G-14 as shown on the Vicinity Map in Figure 1.

The legal description of the property is:

> Lot 9 in Block C of Plat of Davidson Addition to the City of Albuquerque as the same is shown and designated on sold Plat filed for record in the office of the County Clerk in Bernalillo County in Plat Book D1, Page 38, on September 12, 1923.

Figure 2 shows a portion of the proposed subdivision. It's purpose is to divide the existing Lot 9 into four separate residential lots which are zoned R2 for townhouses. Access will be provided by a 22 foot wide gravel road located in a 26 foot wide private easement, as shown in Figure 2. The proposed Lot 9B currently contains two existing townhouses. The owner plans to develop the remaining lots in a similar manner.

EXISTING CONDITIONS

The proposed subdivision is an "infill" project, and is located in a well developed area of the north valley. A review of the flood hazard boundary map shows that the project is within the 500 year flood plain, but not within the 100 year flood hazard boundary area. Based on a visit to the project site and a review of the available topographic and flood maps, we feel there will be no offsite flows from the adjacent properties passing into the proposed subdivision. This lot, and those adjacent to it, either retain stormwater onsite to infiltrate, or drain to Candelaria Road. There is also a block wall along most of the eastern boundary of the property which would block offsite flows. Flows within Candelaria Road will be contained within the existing curb and gutter.

25×10

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Currently, any storm runoff which is not retained onsite is carried to Candelaria Road, and then west to a drop inlet located approximately 490 feet west of the entrance to the property.

PROPOSED DRAINAGE PLAN

The focus of the drainage plan is to insure that major storm runoff can be conveyed to Candelaria Road where it will be carried into the existing storm drain. Since there are adequate downstream facilities, free discharge of storm runoff into the road is permitted, and no onsite ponding is required.

The expected peak discharge from the subdivision under fully-developed conditions is approximately 1.28 cfs. This runoff will be carried to Candelaria Road in a small ditch section along the west side of the gravel access road. The road itself will have a 1-1/2% cross slope to insure the drainage to the ditch. The road and ditch themselves will maintain a minimum slope of 0.5% towards Candelaria Road. The individual lots will be graded to drain to the ditch section. Figure 3 shows a grading plan with existing and proposed spot elevations, as well as the location of the ditch and flow patterns. Figure 4 is a typical section of the road and ditch section.

Since the drainage swale carrying runoff to Candelaria Road has a mild slope with non-erosive velocities, no additional measures are needed for erosion protection. We have calculated a maximum velocity of 1.2 feet per second in the swale, so there is no potential for carrying sediment into Candelaria Road.

SUMMARY AND RECOMMENDATIONS

The proposed subdivision will be designed to provide free discharge of storm runoff to Candelaria Road. These flows will be carried in the road to a drop inlet approximately 490 feet west of the site. The runoff from the individual lots will be carried to Candelaria Road in a small ditch section adjacent to the gravel access road to be provided in the private road easement.

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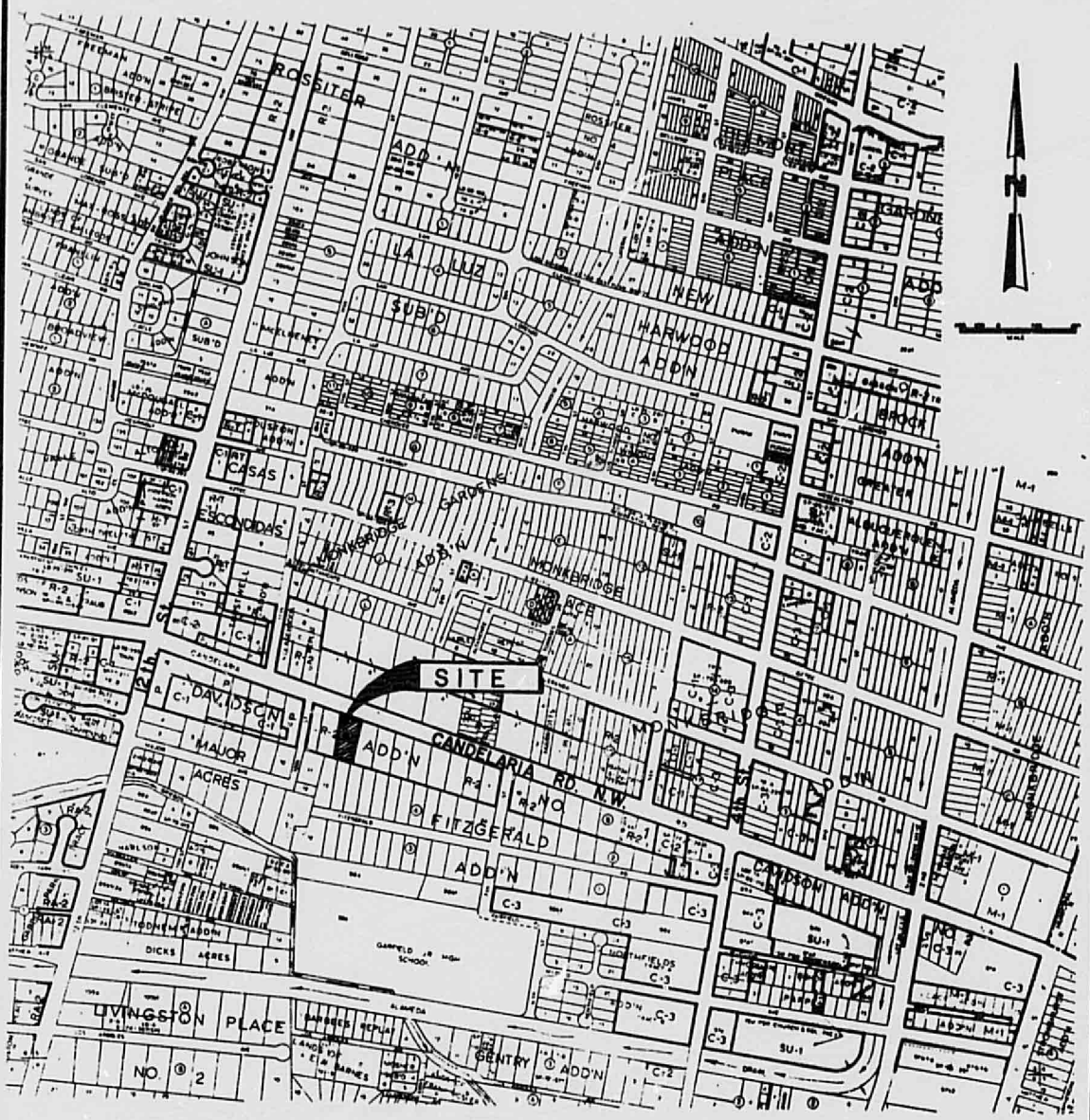

G-14-Z

VICINITY MAP

Figure 1

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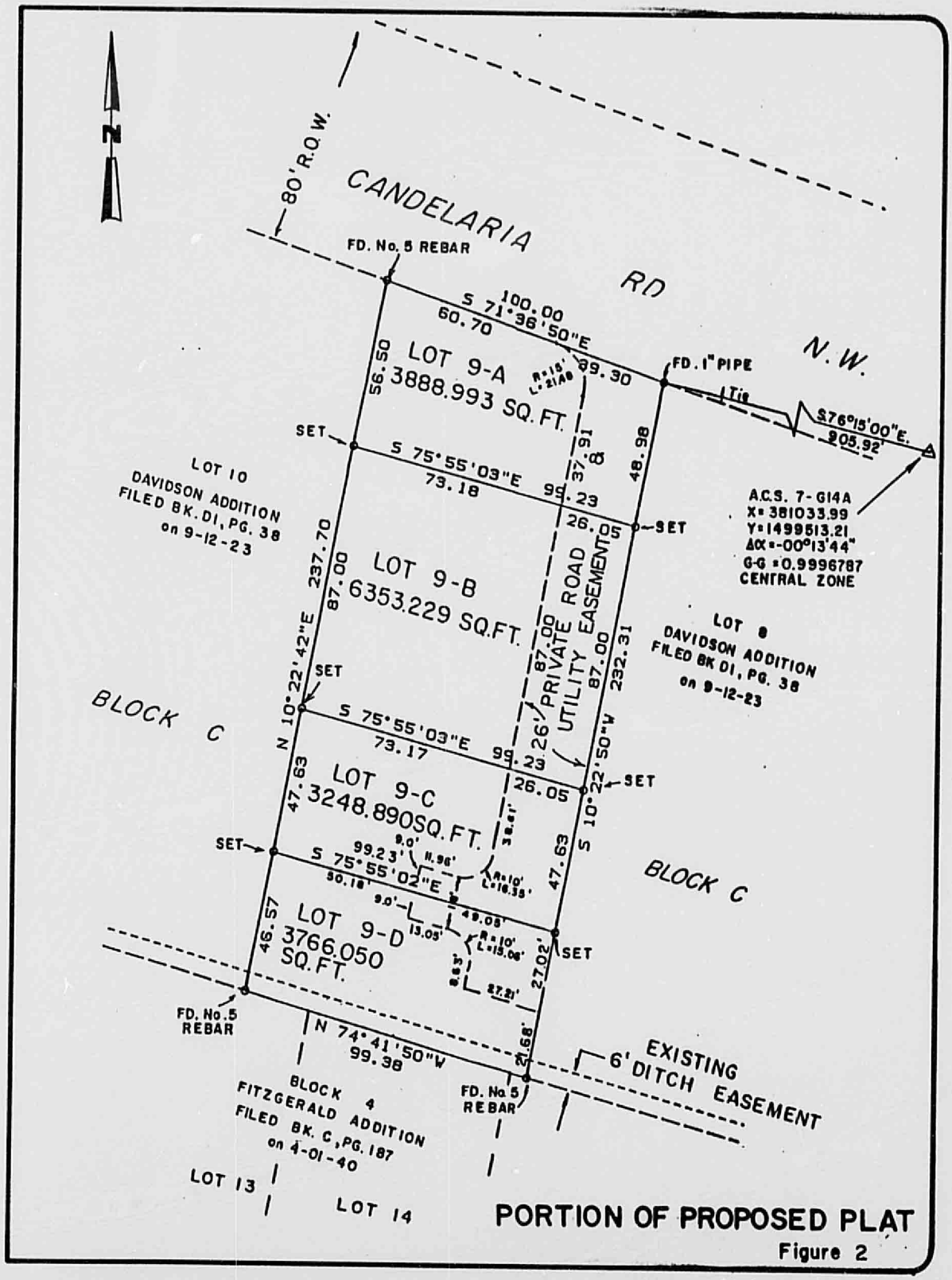

PORTION OF PROPOSED PLAT

Figure 2

25×

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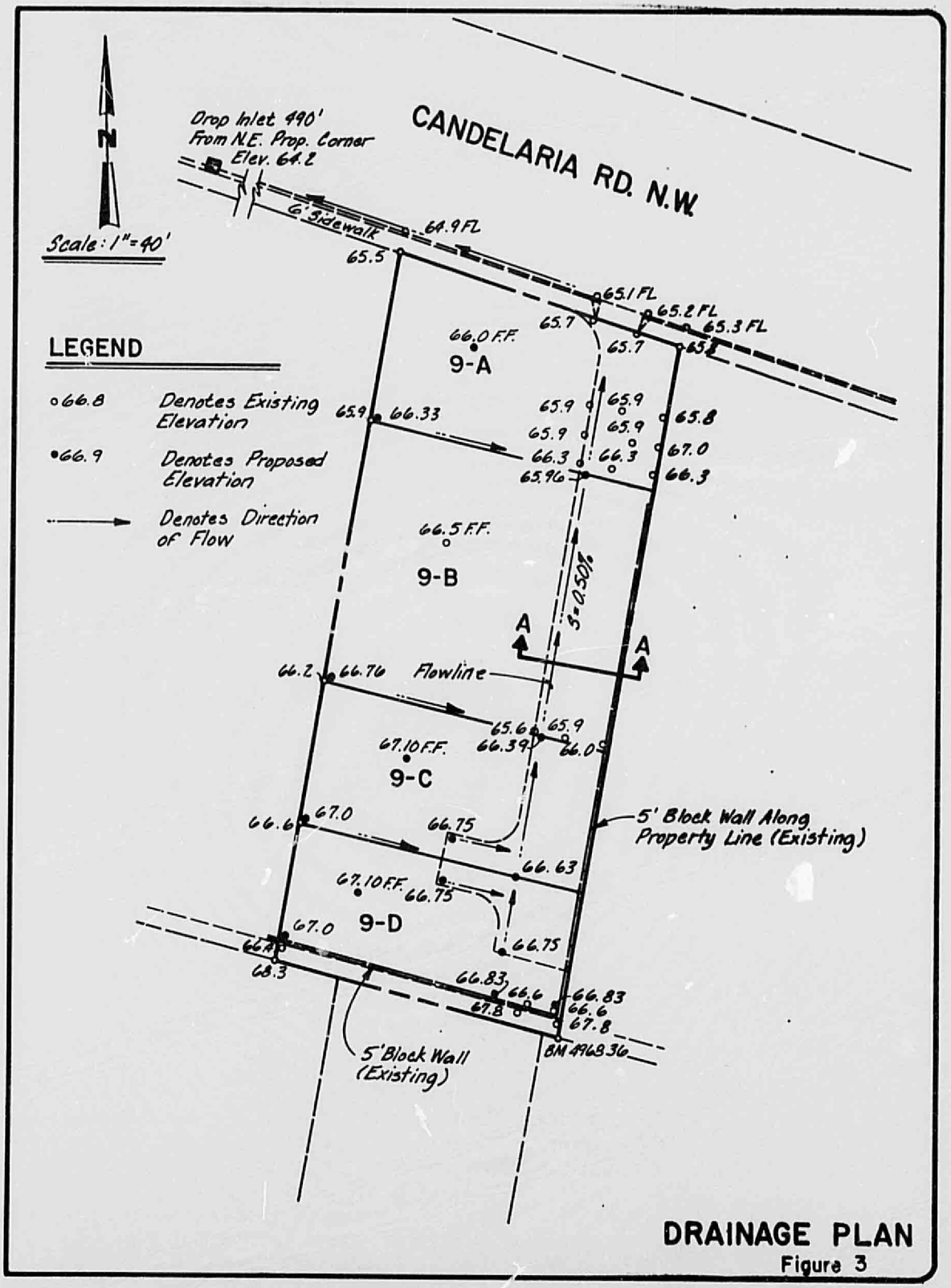

DRAINAGE PLAN

Figure 3

25×10

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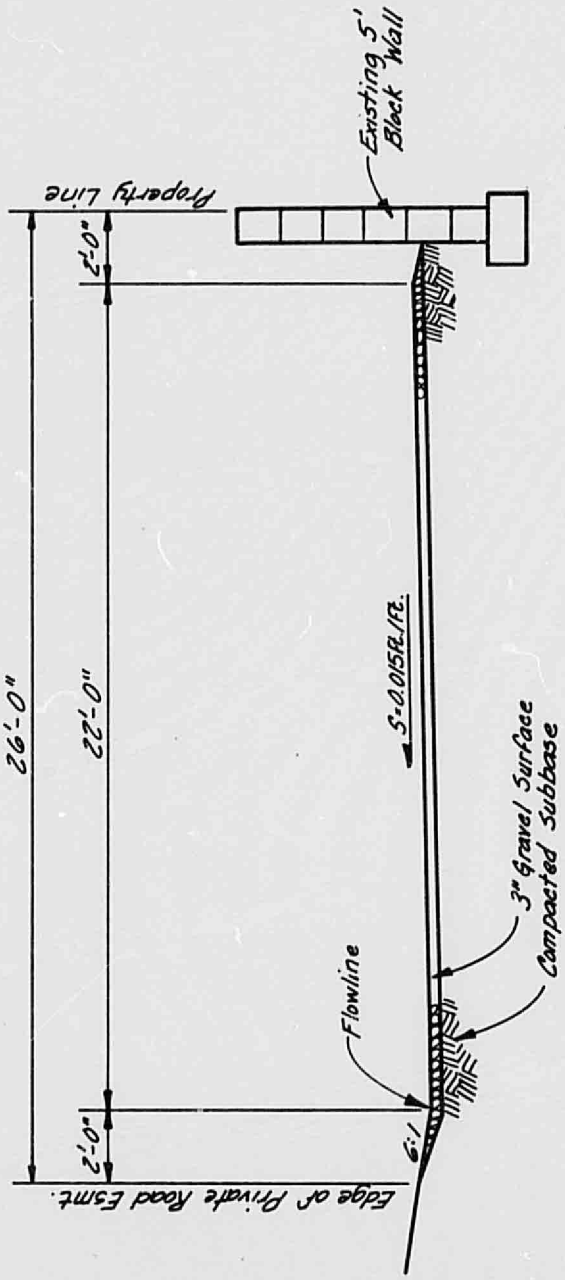

TYPICAL SECTION

SECTION A-A

TYPICAL SECTION
Figure 4

25×

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AVID ENGINEERING, INC.

CALCULATE RUNOFF FOR DAVIDSON SUBDIVISION

REF: DPM, Vol 3, CHAP 22

$Q = C i A$ (USE RATIONAL METHOD)

(1) $A = 0.53$ Ac

(2) SOIL TYPE: GILA LOAM
HYDROLOGIC GROUP B
FROM SCS SOIL SURVEY

ASSUME 40 % IMPERVIOUS

∴ FROM PLATE 22.2 C-1
"C" = 0.52

(3) CALCULATE i:

RAINFALL = 2.2 in

T_c = 10 min (MINIMUM)

$i = (2.2)(6.84)(10)^{-0.51}$

$= 4.65$ in/hr

PROJECT NAME DAVIDSON ADDITION SHEET 1 OF 2
PROJECT NO. BY JD DATE 10/24/89
SUBJECT DRAINAGE PLAN CH'D DATE

25×10

0000 0000 0690

AVID ENGINEERING, INC.

$$Q = CiA = (0.52)(4.65)(0.53)$$
$$= 1.28 \text{ cfs}$$

MAX FLOW DEPTH = 0.20 FT WITH A ROAD + DITCH SLOPE = 0.005 (USING MANNING EQ'N)

PROJECT NAME DAVIDSON ADDITION SHEET 2 OF 2
PROJECT NO. BY JD DATE 10/24/89
SUBJECT DRAINAGE PLAN CH'D DATE

25×10

25 x