DRAINAGE INFORMATION SH

PROJECT TITLE: Barelas Court Townhomes ZONE ATLAS/DRNG. FILE #: K-14 / D42

LEGAL DESCRIPTION: Tract A of the lands of SANCHEZ/CHAVEZ, filed 10/19/88, (Book C37, Page 135)

CITY ADDRESS: Barelas Court, SW 736 Barelas Court, SW

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

ADDRESS: 5801 Osuna NE, #204 87109 PHONE: 881-5357

OWNER: City of Albuquerque CONTACT: Sylvia Fettes

ADDRESS P.O. Box 1293 PHONE: 768-4500

ARCHITECT: Design Collaborative CONTACT: Marc Schiff

ADDRESS: 105 4th St. SW PHONE: 843-9639

SURVEYOR: Wayjohn Surveying CONTACT: Wayne Johnson

ADDRESS: 145 Eubank NE PHONE: 293-1205

CONTRACTOR: S & J Enterprises CONTACT: Ron Carter

ADDRESS: 3535 Princeton NE PHONE: 884-6234

PRE-DESIGN MEETING:

X YES

____ NO

X COPY OF CONFERENCE RECAP SHEET PROVIDED

RECEIVED MAR 14 1989 HYDROLOGY SECTION

DRB NO. 88-430

EPC NO. SD-76-6-[illegible]-88-75

PROJECT NO. 3683

RECEIVED HYDROLOGY SECTION

TYPE OF SUBMITTAL:

X DRAINAGE REPORT

____ DRAINAGE PLAN

____ CONCEPTUAL GRADING & DRAIN. PLAN

____ GRADING PLAN

____ EROSION CONTROL PLAN

____ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL

____ 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: March 8, 1989

BY: James Domenick

DRAINAGE INFORMATION SHE

PROJECT TITLE: Barelas Court ZONE ATLAS/DRNG. FILE #: K-14/D42

LEGAL DESCRIPTION: Tract A of the lands of SANCHEZ/CHAVEZ, filed Oct. 19, 1988 (Book C37, Page 135)

CITY ADDRESS: Barelas Court, SW

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

ADDRESS: 5801 Osuna Rd., NE PHONE: 881-5357

OWNER: City of Albuquerque CONTACT: Sylvia Fettes

ADDRESS P.O. Box 1293 PHONE: 768-4500

ARCHITECT: Design Collaborative CONTACT: Marc Schiff

ADDRESS: 105 Fourth St., SW PHONE: 843-9639

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ADDRESS: 145 Eubank, NE PHONE: 293-1205

CONTRACTOR: S & J Enterprises CONTACT: Ron Carter

ADDRESS: 3535 Princeton, NE PHONE: 884-6234

PRE-DESIGN MEETING

RECEIVED
NOV 07 1988
HYDROLOGY SECTION

X YES

____ NO

X COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. 88-430

EPC NO. SD-76-6-1/Z-88-75

PROJECT NO. None

WP+935

TYPE OF SUBMITTAL:

X DRAINAGE REPORT

____ DRAINAGE PLAN

____ CONCEPTUAL GRADING & DRAIN. PLAN

____ GRADING PLAN

____ EROSION CONTROL PLAN

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CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL

X PRELIMINARY PLAT APPROVAL

X SITE DEVELOPMENT PLAN APPROVAL

____ 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: 11/8/88

BY: James Domenick

CITY OF ALBUQUERQUE
MU PAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION/DESIGN HYDROLOGY SECTION

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO.: K 14 DATE: 10/5/84

PLANNING DIVISION NOS: EPC: _____ DRB: 84-1410

SUBJECT: SL 76-6-1 / Z 44-75

STREET ADDRESS (IF KNOWN): [illegible] (Tramway & Mtn.)

SUBDIVISION NAME: Barr. Court (Tract 39A MRGCD Map N 1)

APPROVAL REQUESTED:

✓	PRELIMINARY PLAT	_____	FINAL PLAT
✓	SITE DEVELOPMENT PLAN	_____	BUILDING PERMIT
_____	OTHER	_____	ROUGH GRADING

_____

ATTENDANCE:	WHO	REPRESENTING
	JIM DOMENICA	AVID ENG
	JUAN BACIGALUPE	AVID ENG
	JOE JENKINS	DESIGN [illegible]
	FRED J. AQUIRRE	City

FINDINGS:

Site Development Plan. Approval:

- As approved conceptual grading & drainage plan for City Engineer's sign off
- Funding not required for the following reasons: (This is an infill site (i.e. the whole area is developed))
- A storm drain system (and) improvements downstream of the development (18" RCP)
- Major concern that must be addressed are offsite flows.

Preliminary Plat Approval.

- An approved drainage report.

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:	[signature]	SIGNED:	[signature]
TITLE:		TITLE:	
DATE:	10/5/84	DATE:	10/5/84

NOTE PLEASE PROVIDE A COPY OF THIS RECAP WITH THE DRAINAGE SUBMITTAL

42.81 TC

42.69 TC
42.02 FL

42.73 FL

42.42 FL
43.57 TC
42.90 FL
43.54 TC
42.87 FL

42.43 FL
43.70 TC

FF 49

41.55 FL

42.40 TC
41.73 FL

41.87 FL

BARELAS COURT

CONSTRUCT 12" WIDE SIDEWALK CULVERT C.O.A DRAWING 2236

42.46 TC
41.79 FL

42.56 TC
41.89 FL

42.04 FL

42.18 FL

42.29 FL

43.60 TC
42.41 FL

42.37 FL
42.90 FL

FF 49

41.66 FL

42.15 FL

42.5 FL

43.04 FL

42.85 TC

43.00 TC

43.58 TC

43.70 TC

43.60 TC

43.0

42.6 FL

42.8

FF 4944.00 FF 4944.00 FF 4944.00

UNIT 11

FF 4943.25 FF 4943.25 FF 4943.25

UNIT 12

CONSTRUCT 30 LF CONC. RUNDOWN

42.8 FL

42.9

42.0

42.8

41.30 FL

42.19 FL

42.61 FL

43.04 FL

43.30 FL

43.50

44.0

R.R TIE RET WALL

42.08

3' Drainage Easement

41.81 FL

41.90

Construct 1'-6" Concrete Rundown

Construct 18" Wide x 6' Long Sidewalk Culvert w/ Steel Plate Top. See COA Std. Drawing 2236

42.3

44.0

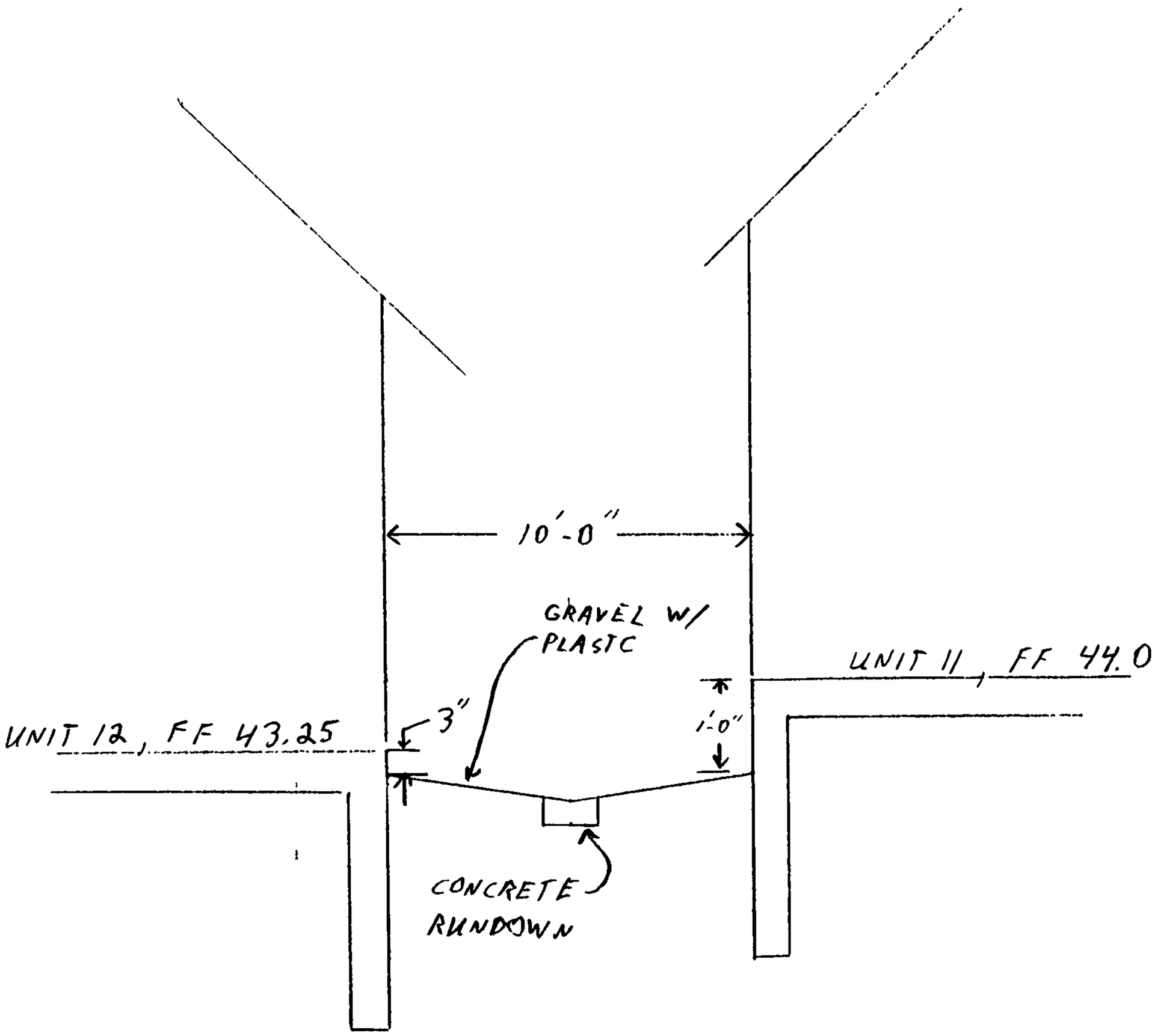
RET WALL
(R.R. TIE)

HYDROLOGY DIVISION

RECEIVED
MAR 7 1990

BARELAS COURT
UNITS 11 + 12
DRAINAGE

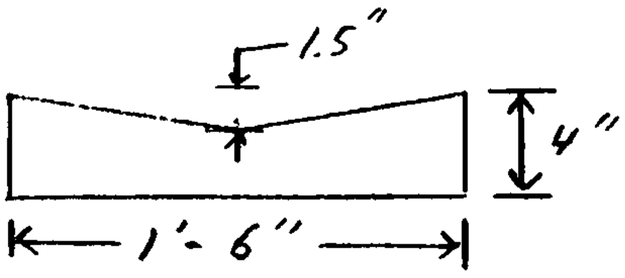
AVID ENGINEERING, INC.



ELEVATION

(SECTION A-A)

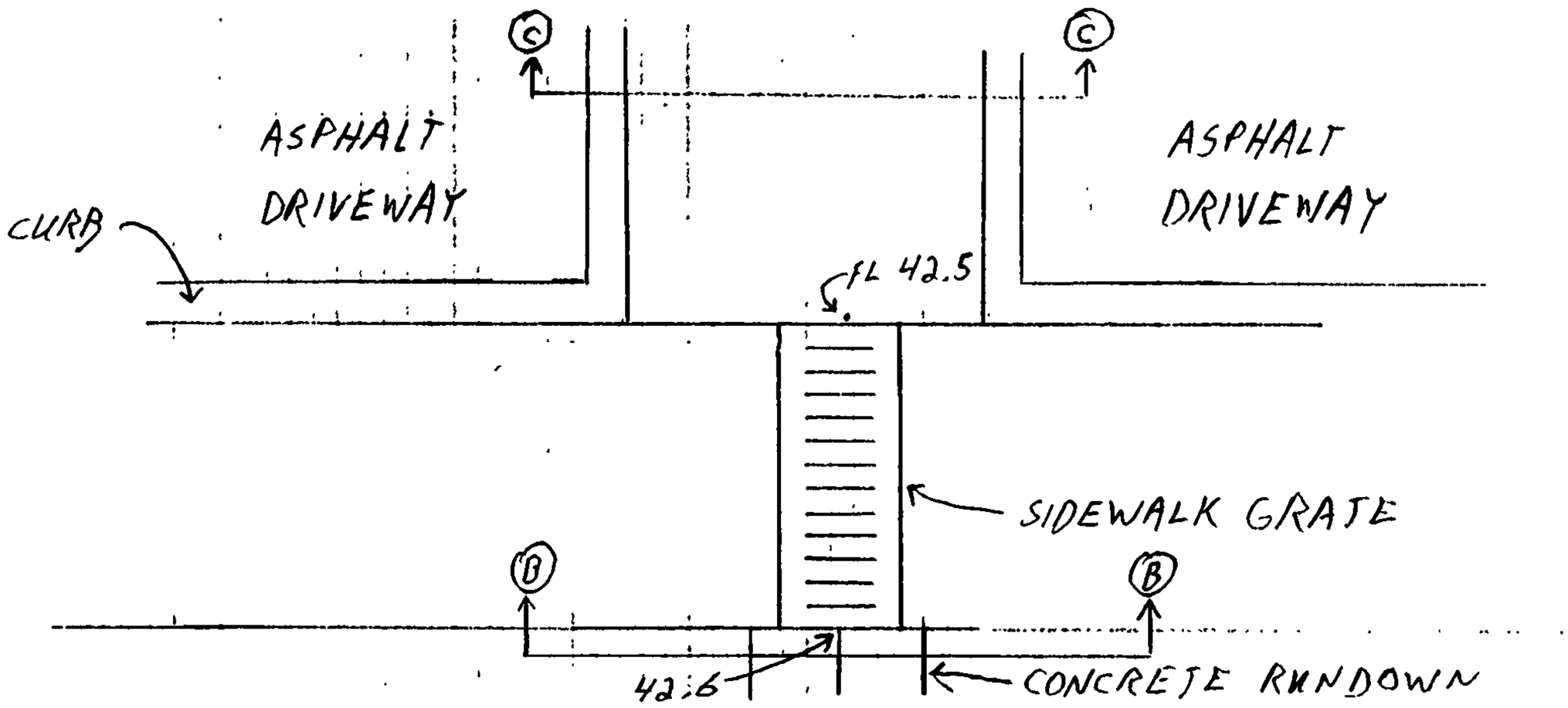
SCALE: 1" = 5' HOR
1" = 2' VERT



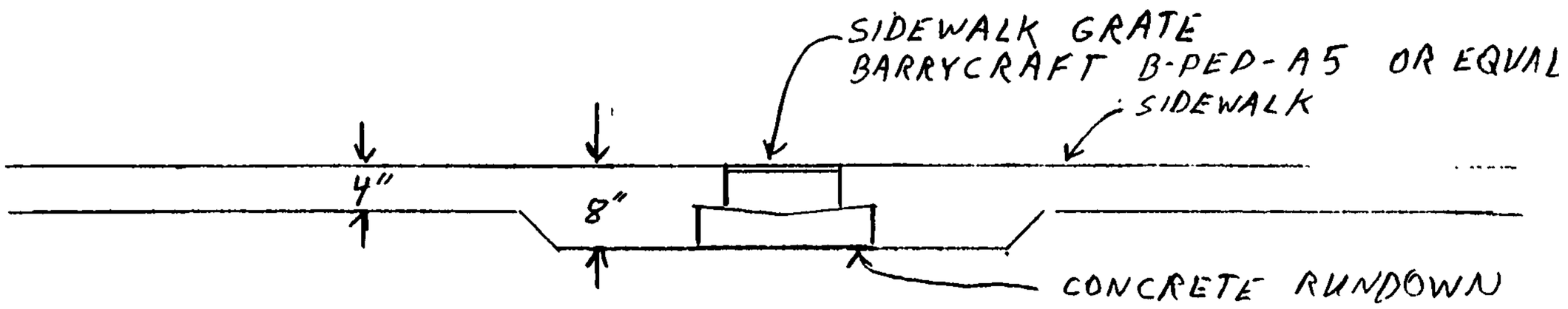
RUNDOWN DETAIL

PROJECT NAME BARELAS COURT SHEET 2 OF 3
PROJECT NO. 88008 BY JD DATE 2/7/90
SUBJECT UNITS 11, 12 - DRAINAGE CHD DATE

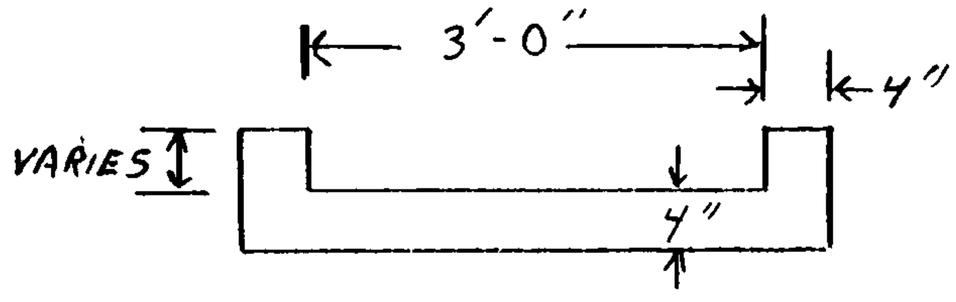
AVID ENGINEERING, INC.



DETAIL AT SIDEWALK



SECTION B-B

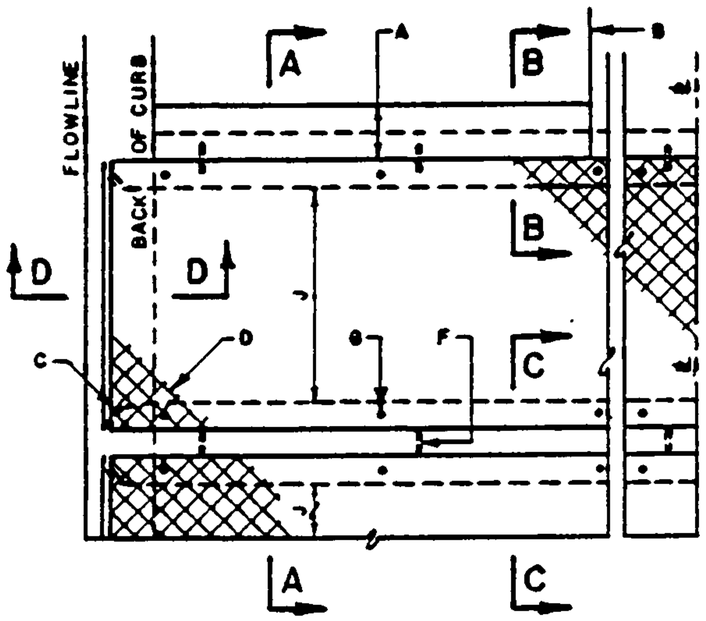


SECTION C-C

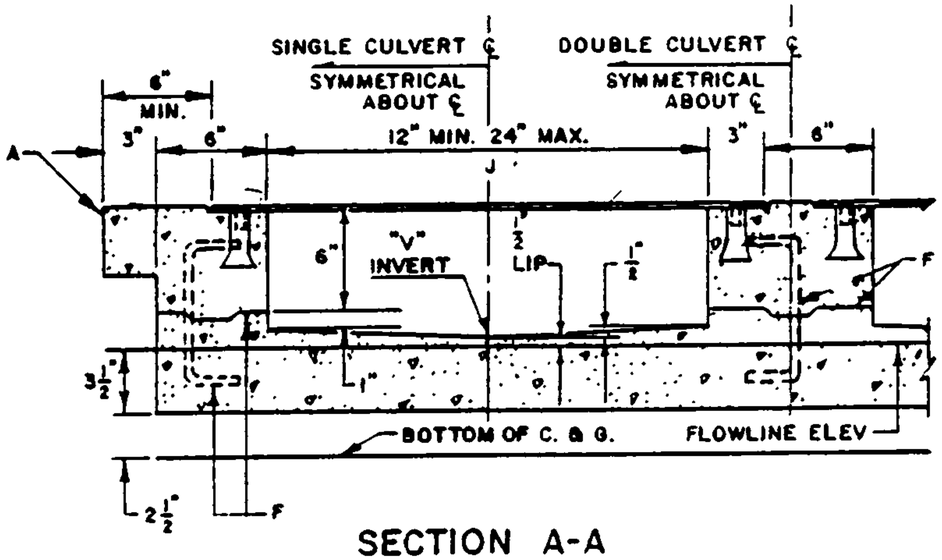
PROJECT NAME BARELAS COURT SHEET 3 OF 3

PROJECT NO. 88009 BY JD DATE 2/7/91

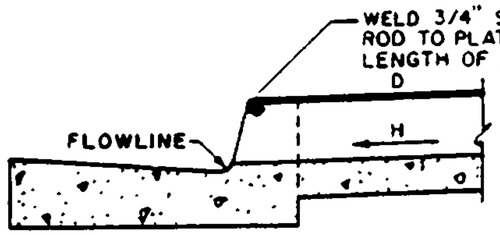
SUBJECT UNITS 11 + 12 - DRAINAGE CHK'D DATE



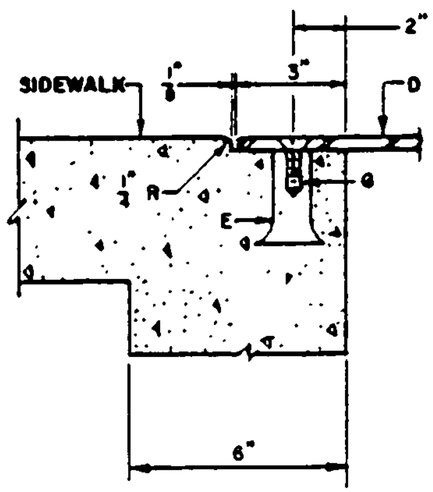
PLAN
SINGLE AND OR MULTIPLE CULVERT



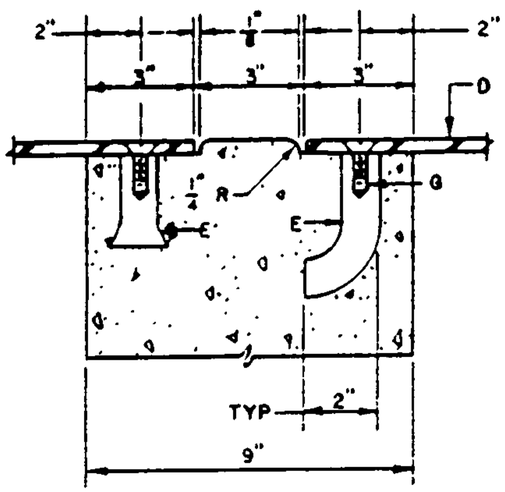
SECTION A-A



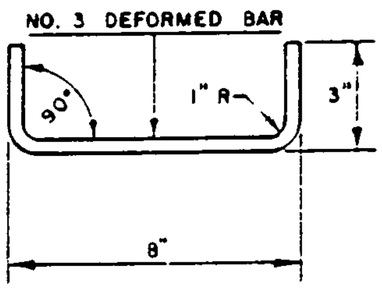
SECTION D-D



SECTION B-B



SECTION C-C



DOWEL DETAIL

GENERAL NOTES:

1. PLACING OF DRAIN THRU EXIST. SIDEWALK AND CURB & GUTTER REQUIRES THAT ENTIRE SIDEWALK AND C & G STONES BE REMOVED AND REPLACED AS DETAILED HEREIN.
2. BOTTOM SLAB OF CULVERT SHALL BE POURED MONOLITHICALLY WITH NEW GUTTER.
3. THE INVERT SHALL BE TROWELED TO PRODUCE A HARD POLISHED SURFACE OF MAX DENSITY AND SMOOTHNESS. INVERT SHALL BE V-SHAPED TO WITHIN 3' OF OUTLET, THEN WARPED TO PARALLEL FLOWLINE AT OUTLET, UNLESS OTHERWISE SHOWN.
4. ALL EXPOSED CONC. SURFACE SHALL MATCH GRADE, COLOR, FINISH AND SCORING OF ADJACENT CURB AND SIDEWALK.
5. SIDEWALK REPLACED DURING CONSTRUCTION SHALL BE POURED MONOLITHICALLY WITH CULVERT WALLS.
6. ~~IF 300 ANCHORS ARE USED, DRILL & TAP FOR~~ F.H. MACHINE SCREW. ATTACH ANCHORS TO PLATE AND SECURE PLATE IN PLACE PRIOR TO POURING OF WALLS.
7. ~~LENGTH OF EACH PLATE SHALL BE SUCH THAT THE WEIGHT WILL NOT EXCEED 300 LBS. AND~~ SHALL BE STRESS RELIEVED AFTER FABRICATION. CLEAN SURFACE OF PLATE AND FRAMING MEMBERS AND PAINT W/ ONE SHOP COAT RED OXIDE AND TWO FINISH COATS ALUMINUM PAINT (AASHTO M 69).
8. THE CITY WILL NOT ASSUME RESPONSIBILITY FOR MAINTENANCE OF ANY SIDEWALK CULVERT INSTALLED BY OR FOR PRIVATE PROPERTY OWNERS.

CONSTRUCTION NOTES:

A. MATCH NEAREST CONTROL JOINT, INSTALL 1/2" EXPANSION JOINT.
B. EDGE OF SIDEWALK OR SETBACK (VARIABLE).
C. 3" RADIUS (TYPICAL).
D. 3/8" CHECKERED STEEL PLATE (~~PAINT PER NOTE 7 ABOVE~~).
E. FOR SECURING PLATE USE 1"X 5" S.S. ROD ANCHOR. "RED HEAD MULTI-SET II SRM-38 ANCHOR" OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S INSTRUCTIONS AT MAX. 24" O.C., A MINIMUM OF 2 PER SIDE AND ONE WITHIN 6" OF EACH END.
F. CONSTRUCTION JOINT IS OPTIONAL. IF USED, SPACE DOWELS AT 18" O.C. MAX., 1 1/2" MINIMUM FROM FACE OF CONCRETE.
G. 3/8" - 16 x 1 1/4" COUNTERSUNK, F.H., STAINLESS STEEL, MACHINE SCREW.
H SLOPE 1/4" PER FT MIN.
J. DRAIN WIDTH PER PLAN (12" MIN., 24" MAX).

CITY OF ALBUQUERQUE

REVISIONS

DRAINAGE
SIDEWALK CULVERT
WITH STEEL PLATE TOP
DWG. 2236

AUG 1986

Pedestrian — Handicap/Bicycle Trench Grating

Pedestrian trench grating

Barrycraft's "pedestrain" trench grating (type HH design: see page 3 is a new improved trench grate design for pedestrian traffic. The 1/4" to 5/16" wide slot helps to provide safer grating to walk on in areas where drainage is required.

When specifying or ordering Barrycraft's "pedestrian" grating, please remember to indicate the type of material required. Barrycraft offers you three choices:

Gray cast iron
Ductile cast iron
Cast aluminum

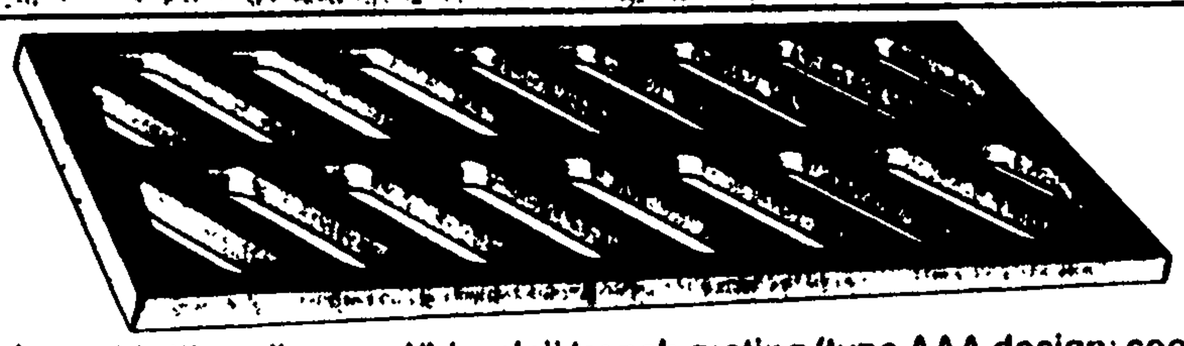
The type L1 frame is standard and will be provided with the pedestrian grating.

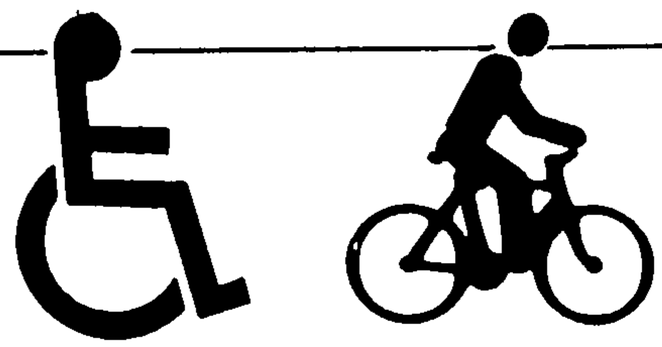
Applications for Barrycraft's "pedestrian" grating include: sidewalks, terraces, shopping malls, around swimming pools and other areas where appearance and public safety are important.

TABLE: Dimensions in Inches

Trench Grating Style	Grate Width "A"	Edge Thickness "B"	Trench Width "C"
B-PED-A1	6	3/4	4
B-PED-A2	8	3/4	6
B-PED-A3	10	3/4	8
B-PED-A4	12	3/4	10
B-PED-A5	14	3/4	12

Handicap/Bicycle trench grating





Barrycraft's "handicapped/bicycle" trench grating (type AAA design: see page 3) is designed to help ease handicapped and bicycle traffic safely over trench grating installations.

Barrycraft's "handicapped/bicycle" trench grating's standard diagonal slotis 1" wide with a maximum slot length of 9". Grates and frames may be ordered or specified in:

Gray cast iron
Ductile cast iron
Cast aluminum

The type L1 frame (see page 3) is standard and will be provided with the handicapped/bicycle grating.

Barrycraft's "handicapped/bicycle" trench grating is particularly suitable in any public area where handicapped and others on small tire traffic have access. Such areas include hospitals, colleges, public sidewalks and shopping malls.

TABLE: Dimensions in Inches

Trench Grating Style	Grate Width "A"	Edge Thickness "B"	Trench Width "C"
B-HCB-A1	6	3/4	4
B-HCB-A2	8	3/4	6
B-HCB-A3	10	3/4	8
B-HCB-A4	12	3/4	10
B-HCB-A5	14	3/4	12

Call Us Toll Free:
See Page 20.
Facsimile Machine Available.

BARELAS COURT TOWNHOMES
DRAINAGE REPORT

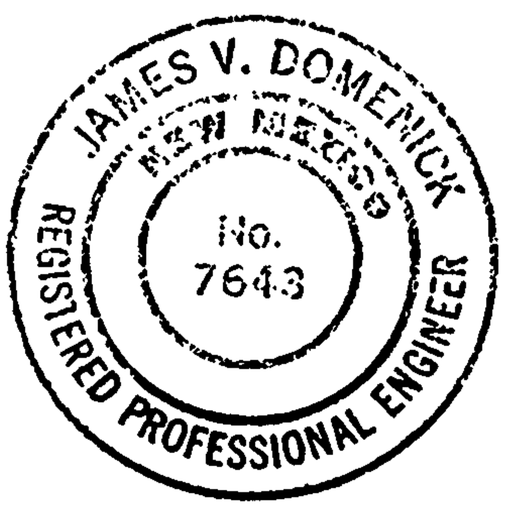
PREPARED FOR

CARTER ELLIOTT CARTER
4002 SILVER SE
SUITE 100
ALBUQUERQUE, NM 87108

PREPARED BY

AVID ENGINEERING, INC.
5801 OSUNA NE
SUITE 204
ALBUQUERQUE, NM 87109

MARCH 1989



PREPARED UNDER THE DIRECTION OF:

James Domenick DATE 3/8/89

James V. Domenick
N.M.P.E. #7643

TABLE OF CONTENTS

DRAINAGE REPORT
FOR
BARELAS COURT TOWNHOMES

INTRODUCTION

This report presents the summary of existing drainage conditions and recommendations for Barelas Court Townhomes, a proposed 14 unit townhome development near 8th Street S.W., and Bridge Street S.W., in Albuquerque, New Mexico. The project site contains approximately 0.94 acres, and is located on the Zone Atlas Sheet K-14 as shown on the vicinity map in Exhibit I.

PLANNING HISTORY

The proposed project is to be on land currently owned by the City of Albuquerque and is planned to be a low income housing development administered through the City Human Services Department. The site is currently platted as a single lot known as Lot 39A of the Lands of Sanchez-Chavez, and will be subdivided as shown on Exhibit I. The project has received approval from the Environmental Planning Commission for a Zone Map Amendment from SU-2/TH to SU-2/SU-1 and site plan approval has been delegated to DRB. Sketch plat review has been completed (DRB number 88-430), the public hearing has been held, and the preliminary plat has been submitted to DRB for review and approval.

EXISTING CONDITIONS

The project site is in the Albuquerque south valley, immediately east of Eighth Street and approximately 0.25 mile north of Bridge Street SW. This is an "infill" project, as the surrounding area is nearly fully developed. A review of the Federal Emergency Management Agency's flood hazard boundary maps shows the project site to be outside the 100 year flood plain but within the 500 year flood limits. A vicinity map and flood hazard map showing the project location is included with Exhibit I.

There are no arroyos or major drainage courses passing through or near the site. Drainage from Eighth Street is restricted from entering the site by existing curb and gutter, and no runoff currently enters the site from either the north or south adjacent properties. However, a portion of the single residential lot to the east of the project site drains to a low point located approximately at the east boundary of the project. Any runoff from rainfall on the site itself also drains to the same low point, as there is no existing outfall to the street.

The Flood Map on Exhibit I shows the topography of the project site and the site to the east, and indicates the depression in which the site runoff currently ponds. This depression is located partially on each of the two lots. The existing drainage area contributing runoff to the depression is 1.38 acres, which produces a 100-year volume of 1002 cubic feet. This volume would pond to a maxixmum surface elevation of 4922.2 feet, which is a depth of about 0.6 foot. Exhibit I shows the hydrology calculations and the approximate limits of ponding under existing conditions.

DRAINAGE PLAN

Exhibit I shows the proposed drainage plan for Barelas Court Townhomes, and includes runoff computations, schematics of proposed improvements, existing elevations, and indications of flow directions. The grading plan shows final spot elevations and the design for proposed drainage improvements. The drainage plan generally will consist of grading the entire site to convey storm runoff to Barelas Court and then to Eighth Street, where it will flow south to the existing storm inlet at the corner of Eight Street and Marquez Lane. No detention or retention ponds will be constructed, as there is adequate downstream capacity to carry the runoff generated by the development.

Roof drains will direct most runoff to the front of each building and discharge to the driveway and/or street. The front lots and driveways will also discharge to Barelas Court, which will have a minimum slope of 0.5% toward Eighth Street. The back lots of the buildings will be graded to carry runoff between the buildings and to the street, or to an 18" concrete rundown located along the back lot-line of some units. Where rundowns are used, they will discharge to the street through a standard under-sidewalk drain. The 100-year peak discharge from the development into Eighth Street will be 2.8 cfs.

The elevation of the eastern end of the site will have to be raised approximately 2.33 feet in order to maintain a positive grade in Barelas Court to Eighth Street. This will require construction of approximately 100 feet of 2.33 foot high retaining wall along the eastern edge of the subdivision, as shown on the Grading Plan. This wall will have a minor effect on the offsite runoff which formerly discharged to the low spot on the project site. The wall will cause this runoff to remain on the site to the east instead of combining with runoff from the project site and ponding on both lots. Calculations shown in Exhibit I indicate the 100-year runoff volume from the site will be 408 cubic feet, and we propose that this water simply be left to pond temporarily and infiltrate behind the retaining wall.

The maximum depth will be less than 0.5 feet, and the calculated water surface elevation is 4922.3 feet, which is 0.1 foot higher than under pre-development conditions. The area where this runoff will pond contains no permanent structures, and is shown on Exhibit I. The area subject to ponding will be slightly larger than that under current conditions.

SUMMARY OF RECOMMENDATIONS

The drainage plan for Barelas Court Townhomes proposes to convey all runoff from the development to Eighth Street and then to an existing storm sewer inlet to the south. The peak discharge generated by the development is 2.8 cfs, which is less than the downstream capacity. A retaining wall on the east side of the site will prevent runoff from an adjacent site from entering the development, and this runoff will be retained on a vacant portion of the residential lot.

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

KEN SCHULTZ
MAYOR

April 11, 1989

James Domenick, P.E.
AVID Engineering, Inc.
5801 Osuna Road, NE Suite 204
Albuquerque, New Mexico 87109

RE: REVISED DRAINAGE PLAN/REPORT SUBMITTAL OF BARELAS COURT TOWNHOUSES (K-14/D42) REVISION DATED MARCH 13, 1989 RECEIVED MARCH 14, 1989

Dear Mr. Domenick:

Based on the information provided on your resubmittal of March 14, 1989, the referenced drainage plan is approved conditionally for Final Plat.

Please be advised that prior to final sign-off of the plat, we will need the following information.

1. Plat must indicate the easements required for the proposed concrete channel.

2. Culvert construction will need to be coordinated through the work order process.

3. Proposed concrete channels and sidewalk culverts must be made part of the infrastructure listing.

If I can be of further assistance, please feel free to call me at 768-2650.

Cordially,

Bernie J. Montoya, C.E.
Engineering Assistant

xc: Sylvia Fettes, Legal Dept.

BJM/bsj
(WP+935)

AVID ENGINEERING, INC.

Civil • Structural • Transportation

March 6, 1990

Mr. Fred Aquirre
Public Works Department
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

RE: BARELAS COURT TOWNHOMES.
PROJECT 3683.
REQUEST FOR APPROVAL OF AMENDED GRADING PLAN.

Dear Fred:

This letter is to request approval of an amended grading plan for the Barelas Court Townhomes project, which is currently under construction. The grading plan was originally approved on April 11, 1989. The owner is trying to obtain FHA mortgage approval for the townhouse units, and that agency has requested some additional improvements over and above those in the approved grading plan.

The additional improvements consist of concrete rundowns on the private portion of the development. The design is such that they cannot drain to the street over the drivepad or the sidewalk, so we would have to drain them to the street under the sidewalk through a standard city sidewalk culvert. The original drainage plan called for this runoff to drain to the street, so there is no change to the flow rates or discharge locations. The attached drawings show the locations of the two proposed sidewalk culverts within the City right-of-way.

We request your approval of this amended grading plan in order to obtain the sidewalk building permit needed to construct the culverts. Please call me if you have questions about the change or need any additional information for your review. I look forward to hearing from you soon.

Sincerely,

James V. Domenick, P.E.
Principal

xc: Ron Carter

Enclosure

6100 Seagull St. NE • Suite 102 • Albuquerque, New Mexico 87109 • (505) 881-5357

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

KEN SCHULTZ
MAYOR

November 28, 1988

James Domenick, P.E.
AVID Engineering, Inc.
5801 Osuna Road, NE Suite 204
Albuquerque, NM 87109

RE: DRAINAGE REPORT SUBMITTAL OF BARELAS COURT TOWNHOUSES, RECEIVED NOVEMBER 7, 1988, FOR PRELIMINARY PLAT AND SITE DEVELOPMENT PLAN APPROVALS. (K-14/D42)

Dear Mr. Domenick:

I have reviewed the above referenced submittal dated 11/7/88 and have the following comments to be addressed prior to approval;

1. The rear yards for lots 6, 7, 10, & 13 must be provided an outfall for surface drainage, either between the buildings or with drainage easements across adjacent lots. For lots 5 thru 8 I recommend providing space between lots 5 & 6 and 7 & 8, or else provide drainage easements and concrete gutters around the corners. For lots 9 thru 14, I recommend that drainage easements be provided along the south property line with a concrete gutter built along the rear lot line sloping east to west, and direct the runoff into 8th Street through a sidewalk culvert.

2. Provide the existing condition hydrology for the area draining to the low spot prior to it's backfilling.

Incorporating the above comments will provide for a much more flexible design of the roofs and rear yard treatments. Past experience and complaints have shown the need for providing outfalls for townhouse rear yards.

If you have any questions call me at 768-2650.

Cordially,

Roger A. Green, PE

Roger A. Green, P.E.
C.E./ Hydrology Section

xc: Marc Schiff, Architect

RAG/(WP+935)

AVID ENGINEERING, INC.
Civil • Structural • Transportation

March 8, 1989

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

Re: Barelas Court Townhomes
Project No. 3683
Resubmittal of Drainage Report

Dear Fred:

We submitted the Preliminary Drainage Report for the referenced project on November 7, 1988. Mr. Roger Green of the Hydrology Section sent us a letter on November 28, 1988, requesting revisions which we have now incorporated into the Final Drainage Report. Enclosed for your review and final plat approval are two (2) copies of the Drainage Report, a Drainage Information sheet, and a copy of the conference recap sheet.

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

Sincerely,

James Domenick

James V. Domenick, P.E.
Principal

/kc

Enclosure

xc: Ron Carter
Marc Schiff
Greg Olson

5801 Osuna Rd. NE • Suite 204 • Albuquerque, New Mexico 87109 • (505) 881-5357

343.50

42.40FL

43.50

FF 4944.10

A

A

43.80 FL

42.92TC
42.25FL

42.34FL

43.60TC

FF 4944.10

43.85 FL

41.

43.90

43.40TC
42.73FL

42.69TC
42.02FL

42.42FL

42.43FL
43.70TC

FF 4944.10

43.57TC
42.90FL

43.54TC
42.87FL

43.80 FL

43.60TC
42.41FL

ARELAS COURT
(NEW)

42.37FL
42.90FL

42.29FL

FF 4944.10

43.75 FL

42.04FL

42.18FL

43.04FL

3' Drainage Esmt.

42.34

Construct 1'-6" Concrete Rundown

43.70TC

43.60TC

43.50TC

SECTION A-A
SHOWN ON
ATTACHED SHEET

ELEV
44.1

RET WALL
(RR. TIE)

FF 4944.00

FF 4944.00

FF 4944.00
UNIT 9

43.35

43.25

BUILD 70 LF
1'-6" CONCRETE
RUNDOWN.
S=0.005

43.4

42.08

43.60

ELEV
44.0

43.50

43.30FL

43.04FL

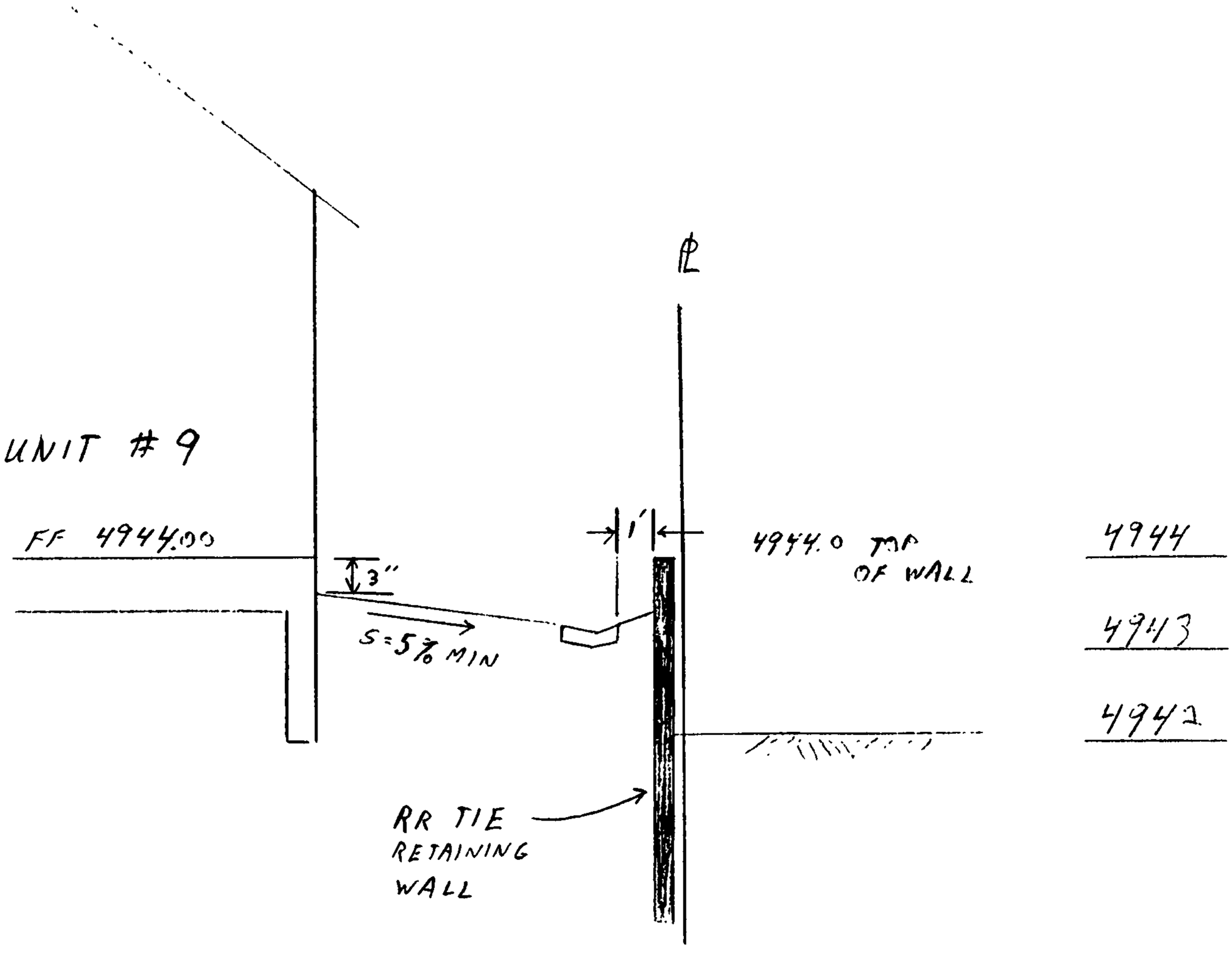
RR TIE RET WALL

42.61FL

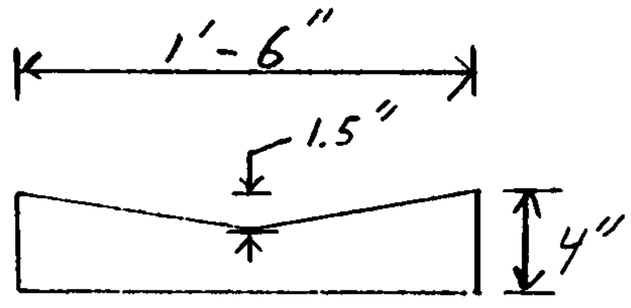
3' Drainage Easement

BARELAS COURT
UNIT #9 - DRAINAGE

AVID ENGINEERING, INC.



SECTION A-A



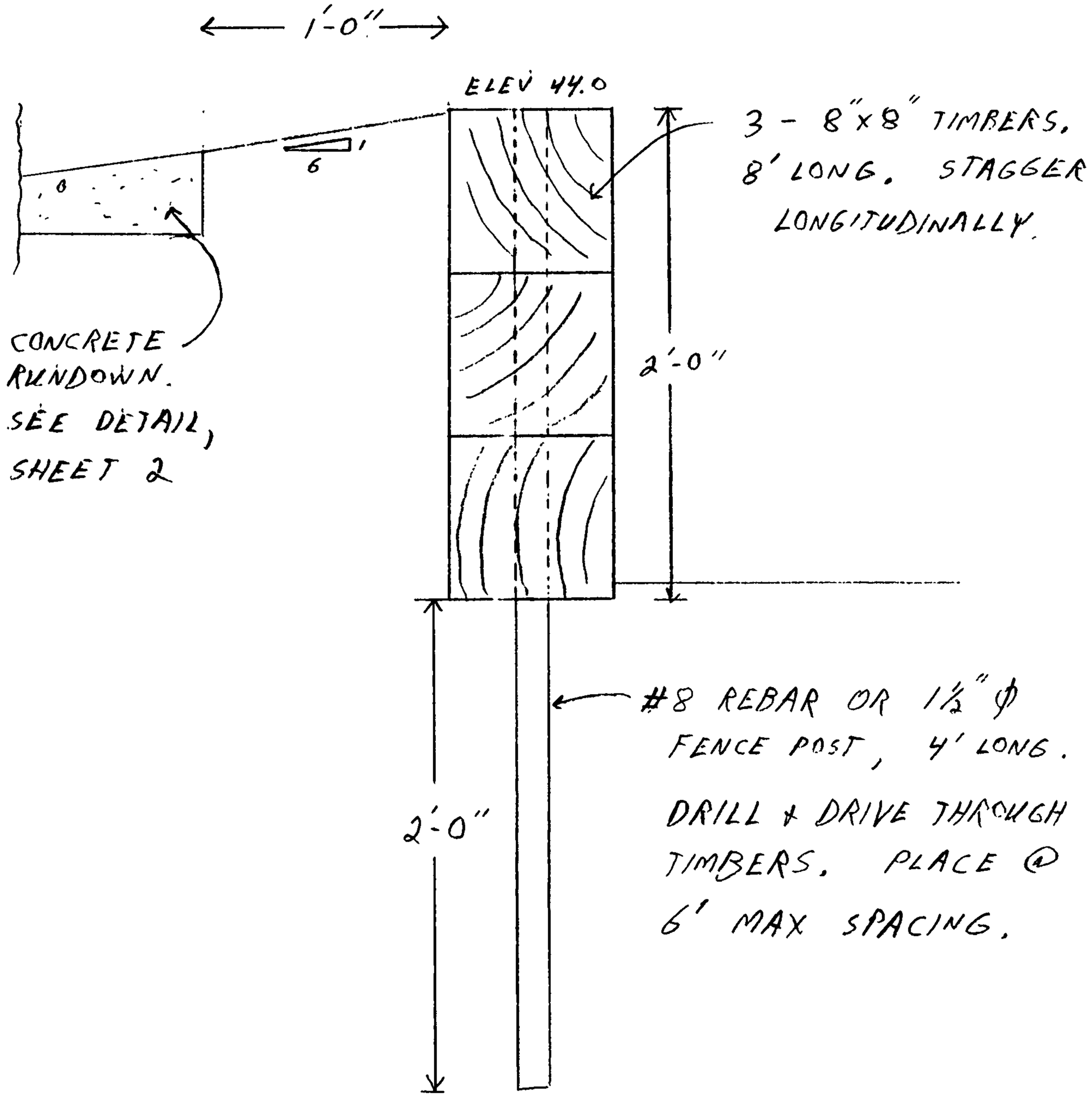
RUNDOWN DETAIL

SCALE: 1" = 5' HORIZ
1" = 2' VERT

PROJECT NAME BARELAS COURT
PROJECT NO 88608
SUBJECT UNIT #9 DRAINAGE

SHEET 2 OF
BY JJ DATE 2/5/93
CHD DATE

AVID ENGINEERING, INC.



PROJECT NAME BARELAS COURT SHEET 3 OF 3

PROJECT NO. 88009 BY JD DATE 2/7/95

SUBJECT UNIT #9 DRAINAGE CHKD DATE

EIGHTH STREET

42.62 TC
41.98 FL

42.90

42.3

42.6

42.4

Construct 18" Wide x 4' Long Sidewalk Culvert w/ Steel Top. See COA Std Drawing 2236

42.6

42.9

42.9

42.8

42.8

42.5

Remove Existing Drivepad & Construct Curb & Gutter & Sidewalk, Match Grade w/ Existing Sidewalk And C&G

UNIT 1

FF 4943.10

UNIT 2

FF 4943.10

60 LF CONCRETE PAVED RUNDOWN
S=0.005

FF 4943.50

FF 4943.50

UNIT #3

42.7

43.45

43

43.117

BARELAS COURT DRAINAGE UNITS 1, 2, + 3

42.29 TC
41.62 FL

42.8

42.8

42.8

42.9

42.1

42.81 TC

42.3 TC

42.69 TC
42.02 FL

43.40 TC
42.73 FL

42.0

CONSTRUCT 12" WIDE SIDEWALK CULVERT. C.O.A. DWG 2236

42.40 TC
41.73 FL

41.55 FL

41.87 FL

41.48 FL

41.41 FL

41.54

BARELAS COURT
(NEW)

41.33 FL

Remove Existing Sidewalk And C&G. Construct New Valley Gutter

41.66 FL

42.46 TC
41.79 FL

42.56 TC
41.89 FL

42.04 FL

42.16 FL

41.85 TC
41.18 FL

42.85 TC

43.00 TC

43.10 TC

43.15

43.50 TC

43.60 TC

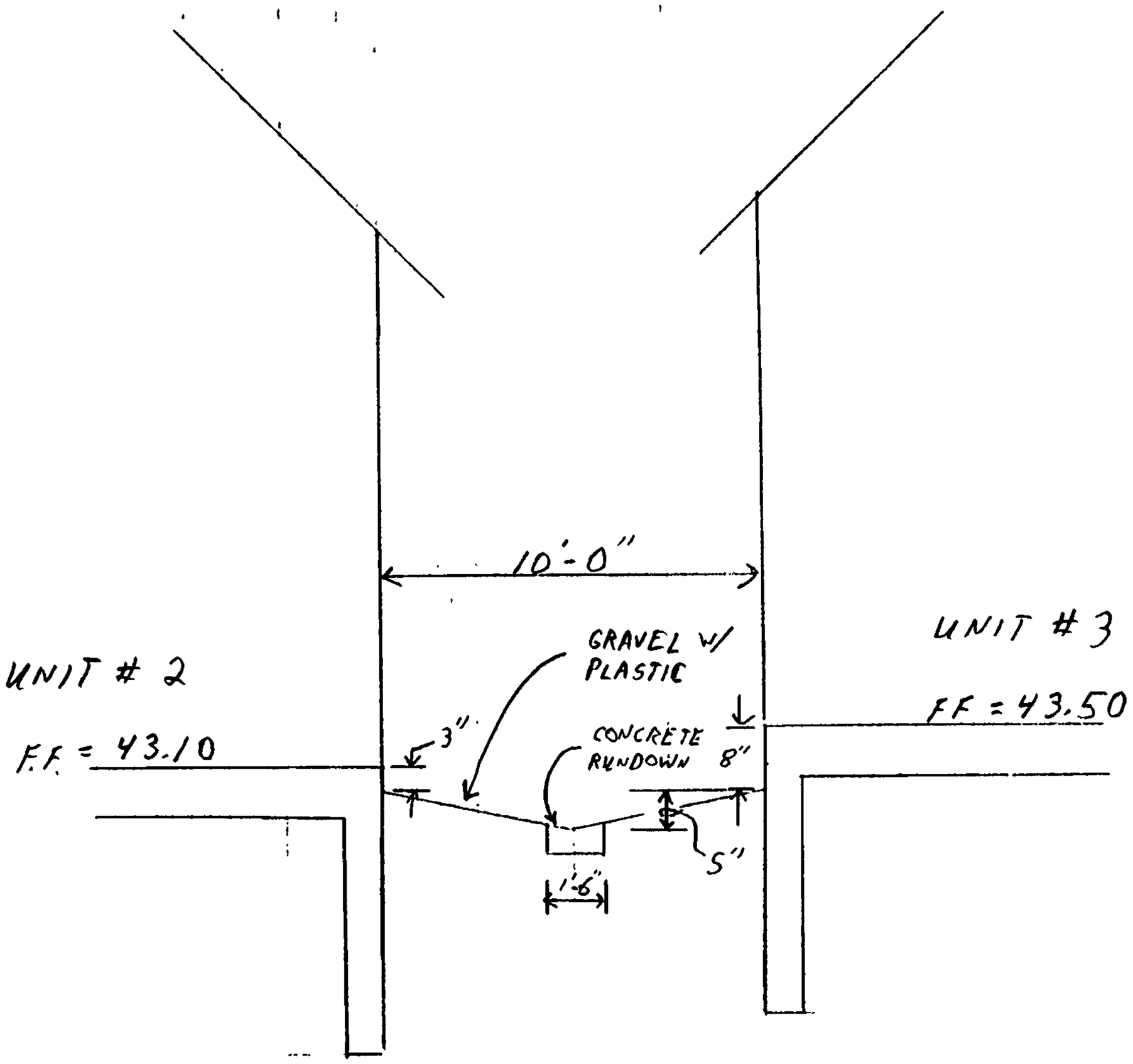
42.34

T 1680

MAR

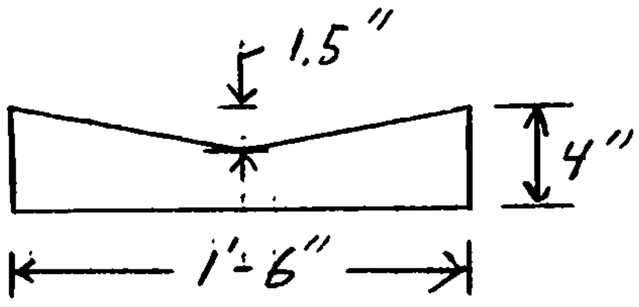
HYDROLOGY DIVISION

AVID ENGINEERING, INC.



ELEVATION

(SECTION C-C)

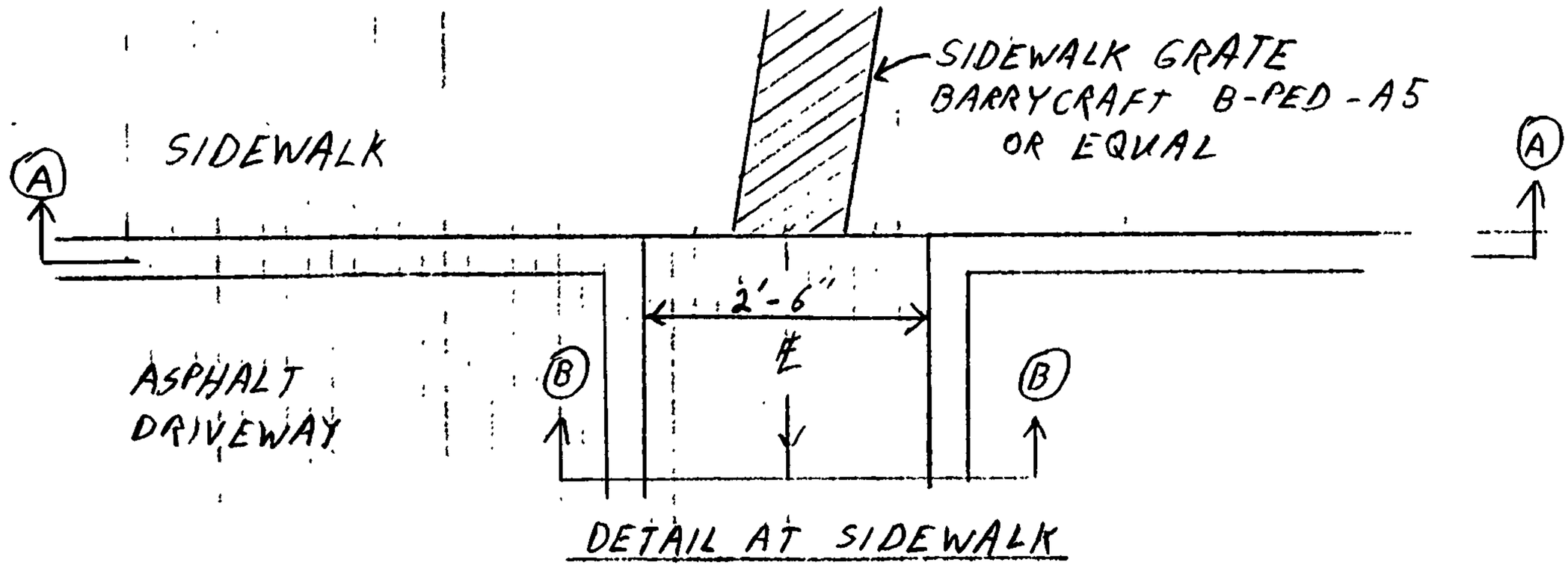


RUNDOWN DETAIL

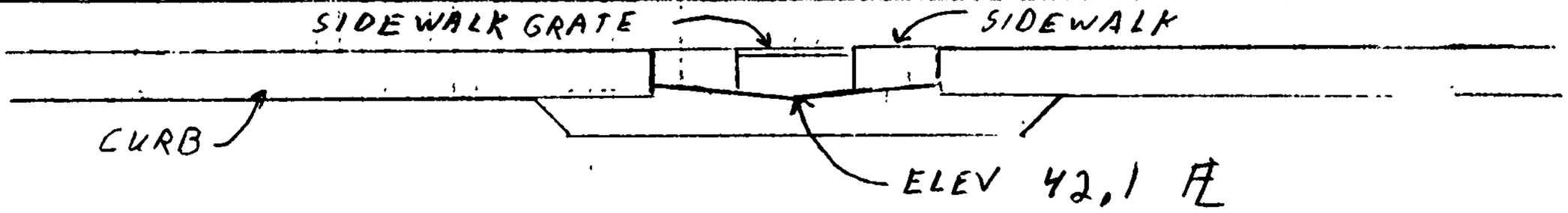
SCALE: 1" = 5' HOR
1" = 2' VERT

PROJECT NAME BARELAS COURT SHEET 2 OF 3
PROJECT NO. 88009 BY JD DATE 2/5/90
SUBJECT UNITS 1, 2, + 3 - DRAINAGE CHK'D DATE

AVID ENGINEERING, INC.

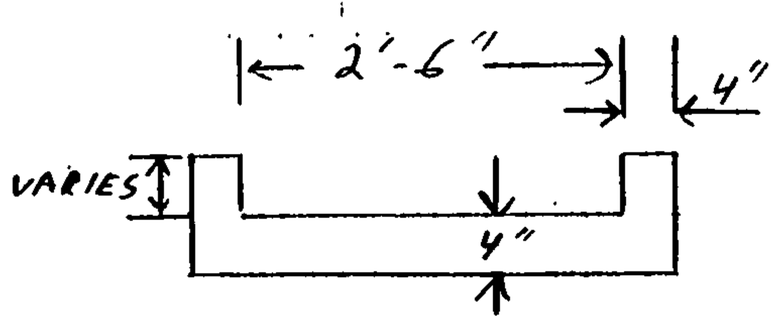


DETAIL AT SIDEWALK



SECTION A-A

SCALE: 1" = 2'

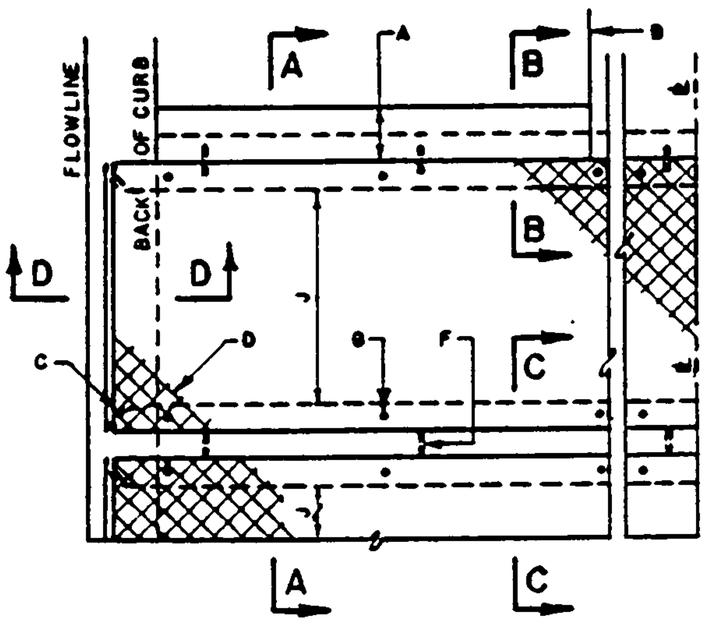


SECTION B-B

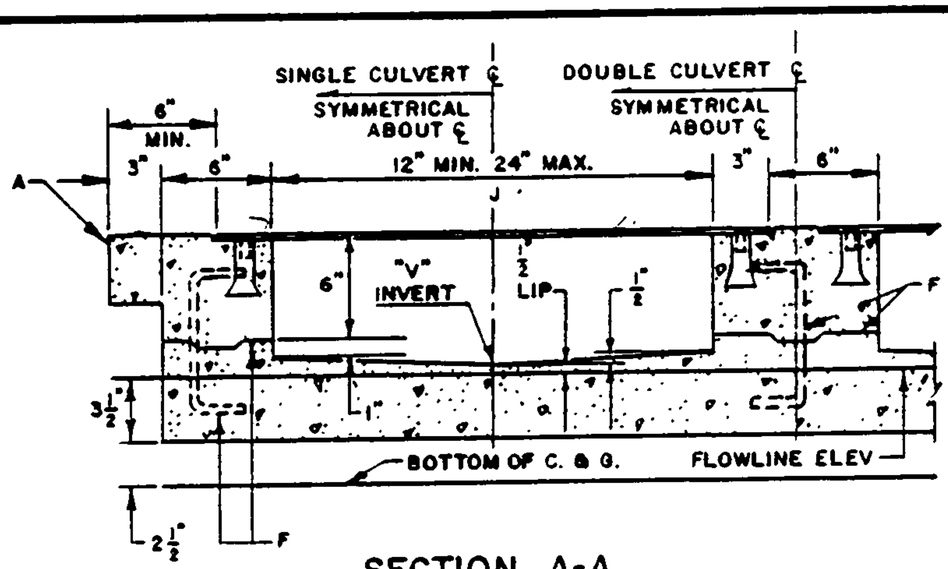
PROJECT NAME BARELAS COURT SHEET 3 OF 3

PROJECT NO. 88009 BY JD DATE 2/5/90

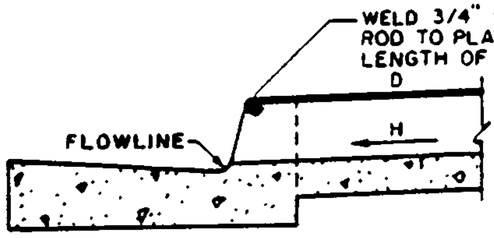
SUBJECT UNITS 1, 2, + 3 - DRAINAGE CH'D DATE



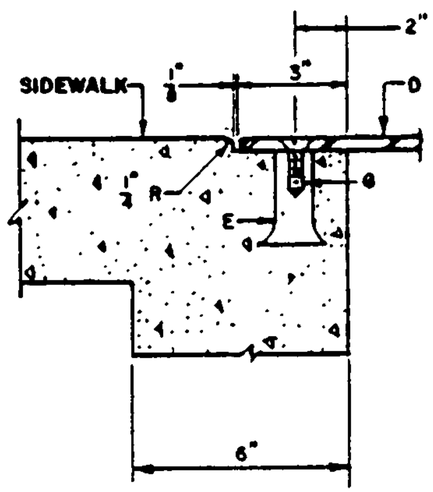
PLAN
SINGLE AND OR MULTIPLE CULVERT



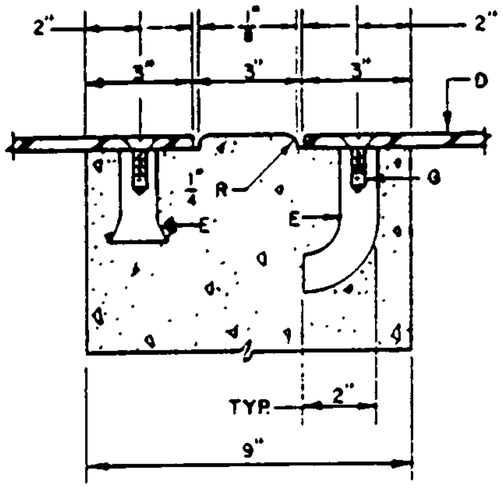
SECTION A-A



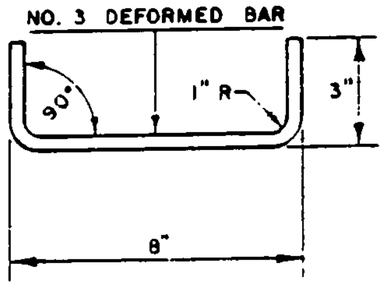
SECTION D-D



SECTION B-B



SECTION C-C



DOWEL DETAIL

GENERAL NOTES:

1. PLACING OF DRAIN THRU EXIST. SIDEWALK AND CURB & GUTTER REQUIRES THAT ENTIRE SIDEWALK AND C & G STONES BE REMOVED AND REPLACED AS DETAILED HEREIN.
2. BOTTOM SLAB OF CULVERT SHALL BE POURED MONOLITHICALLY WITH NEW GUTTER.
3. THE INVERT SHALL BE TROWELED TO PRODUCE A HARD POLISHED SURFACE OF MAX DENSITY AND SMOOTHNESS. INVERT SHALL BE V-SHAPED TO WITHIN 3' OF OUTLET. THEN WARPED TO PARALLEL FLOWLINE AT OUTLET, UNLESS OTHERWISE SHOWN.
4. ALL EXPOSED CONC. SURFACE SHALL MATCH GRADE, COLOR, FINISH AND SCORING OF ADJACENT CURB AND SIDEWALK.
5. SIDEWALK REPLACED DURING CONSTRUCTION SHALL BE POURED MONOLITHICALLY WITH CULVERT WALLS.
6. ~~1/2" BOLT~~ ANCHORS ARE USED, DRILL & TAP FOR F.H. MACHINE SCREW. ATTACH ANCHORS TO PLATE AND SECURE PLATE IN PLACE PRIOR TO POURING OF WALLS.
7. ~~LENGTH OF EACH PLATE SHALL BE SUCH THAT THE WEIGHT WILL NOT EXCEED 300 LBS. AND~~ SHALL BE STRESS RELIEVED AFTER FABRICATION. CLEAN SURFACE OF PLATE AND FRAMING MEMBERS AND PAINT W/ ONE SHOP COAT RED OXIDE AND TWO FINISH COATS ALUMINUM PAINT (AASHTO M 69).
8. THE CITY WILL NOT ASSUME RESPONSIBILITY FOR MAINTENANCE OF ANY SIDEWALK CULVERT INSTALLED BY OR FOR PRIVATE PROPERTY OWNERS.

CONSTRUCTION NOTES:

A. MATCH NEAREST CONTROL JOINT, INSTALL 1/2" EXPANSION JOINT.
B. EDGE OF SIDEWALK OR SETBACK (VARIABLE).
C. 3" RADIUS (TYPICAL).
D. 3/8" CHECKERED STEEL PLATE (~~PAINT PER NOTE 7~~ ABOVE).
E. FOR SECURING PLATE USE 1"X 5" S.S. ROD ANCHOR, "RED HEAD MULTI-SET II SRM-38 ANCHOR" OR APPROVED EQUAL. INSTALL PER MANUFACTURER'S INSTRUCTIONS AT MAX. 24" O.C., A MINIMUM OF 2 PER SIDE AND ONE WITHIN 6" OF EACH END.
F. CONSTRUCTION JOINT IS OPTIONAL. IF USED, SPACE DOWELS AT 18" O.C. MAX., 1 1/2" MINIMUM FROM FACE OF CONCRETE.
G. 3/8" - 16 x 1 1/4" COUNTERSUNK, F.H., STAINLESS STEEL, MACHINE SCREW.
H. SLOPE 1/4" PER FT MIN.
J. DRAIN WIDTH PER PLAN (12" MIN., 24" MAX).

CITY OF ALBUQUERQUE

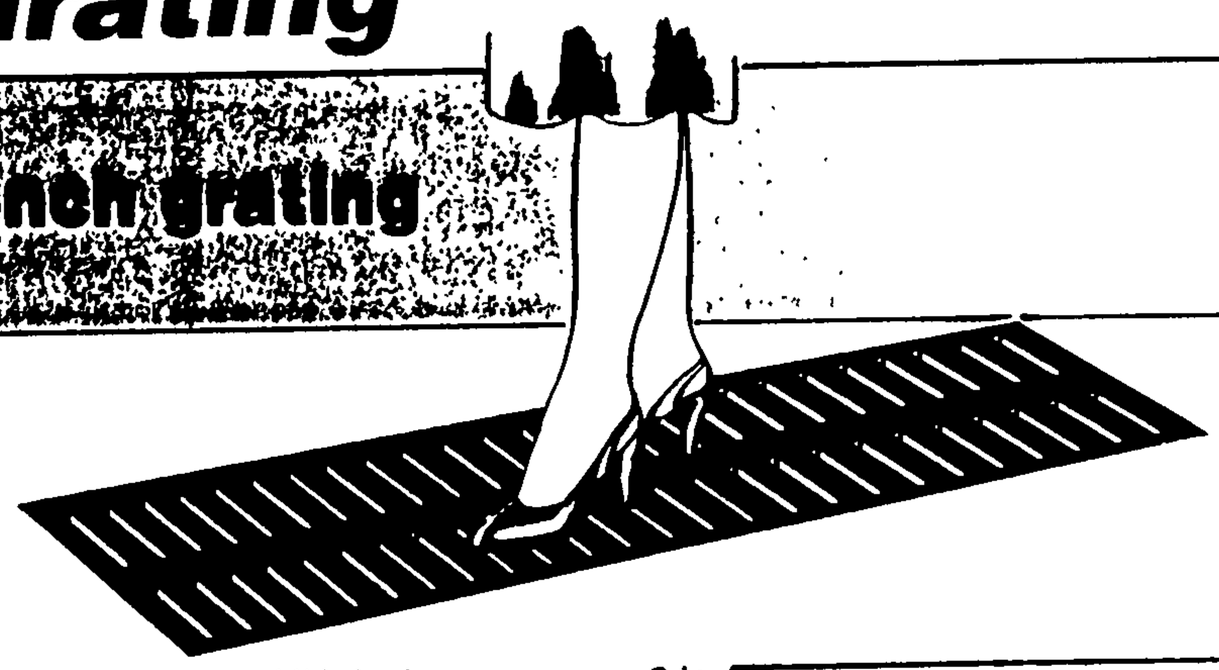
REVISIONS

DRAINAGE
SIDEWALK CULVERT
WITH STEEL PLATE TOP
DWG. 2236

AUG 1986

Pedestrian — Handicap/Bicycle Trench Grating

Pedestrian trench grating



Barrycraft's "pedestrain" trench grating (type HH design: see page 3 is a new improved trench grate design for pedestrian traffic. The 1/4" to 5/16" wide slot helps to provide safer grating to walk on in areas where drainage is required.

When specifying or ordering Barrycraft's "pedestrian" grating, please remember to indicate the type of material required. Barrycraft offers you three choices:

Gray cast iron
Ductile cast iron
Cast aluminum

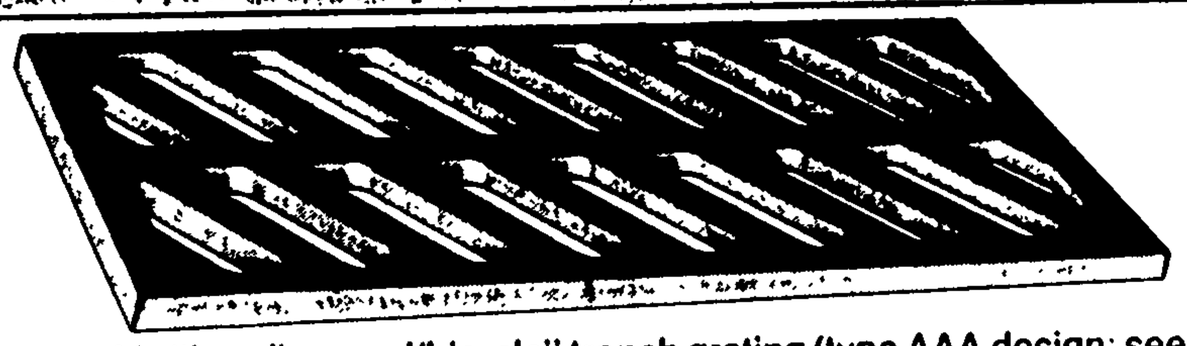
The type L1 frame is standard and will be provided with the pedestrian grating.

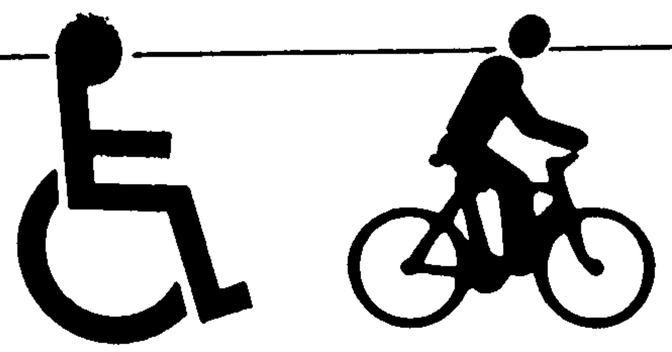
Applications for Barrycraft's "pedestrian" grating include: sidewalks, terraces, shopping malls, around swimming pools and other areas where appearance and public safety are important.

TABLE: Dimensions in Inches

Trench Grating Style	Grate Width "A"	Edge Thickness "B"	Trench Width "C"
B-PED-A1	6	3/4	4
B-PED-A2	8	3/4	6
B-PED-A3	10	3/4	8
B-PED-A4	12	3/4	10
B-PED-A5	14	3/4	12

Handicap/Bicycle trench grating





Barrycraft's "handicapped/bicycle" trench grating (type AAA design: see page 3) is designed to help ease handicapped and bicycle traffic safely over trench grating installations.

Barrycraft's "handicapped/bicycle" trench grating's standard diagonal slotis 1" wide with a maximum slot length of 9". Grates and frames may be ordered or specified in:

Gray cast iron
Ductile cast iron
Cast aluminum

The type L1 frame (see page 3) is standard and will be provided with the handicapped/bicycle grating.

Barrycraft's "handicapped/bicycle" trench grating is particularly suitable in any public area where handicapped and others on small tire traffic have access. Such areas include hospitals, colleges, public sidewalks and shopping malls.

TABLE: Dimensions in Inches

Trench Grating Style	Grate Width "A"	Edge Thickness "B"	Trench Width "C"
B-HCB-A1	6	3/4	4
B-HCB-A2	8	3/4	6
B-HCB-A3	10	3/4	8
B-HCB-A4	12	3/4	10
B-HCB-A5	14	3/4	12

Call Us Toll Free:
See Page 20.
Facsimile Machine Available.