CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION/DESIGN HYDROLOGY SECTION

PRE-DESIGN CONFERENCE RECAP

HYDROLOGY SECTION PROJECT NO.: H-21 DATE: 3/8/85

PLANNING DIVISION NOS. EPC: _____ DRB: _____

SUBJECT: Mike Williams Property

LEGAL DESCRIP.: Lots 26 & 27 Blk 88-B Snow Heights Add'n.

APPROVAL REQUESTED

_____ PRELIMINARY PLAT
_____ SITE DEVELOPMENT PLAN
X FINAL PLAT
X BUILDING PERMIT
_____ ROUGH GRADING

RECEIVED
APR 15 1985
HYDROLOGY SECTION

WHO:	REPRESENTING:
ATTENDANCE: Elvidio Diniz	Resource Tech
Carlos Saviffe	" "
Billy Goolsby	City

_____ Conceptual Drainage Plan/Report required for Preliminary Plat and/or Site Development Plan sign-off.

X Approved Drainage Plan/~~Report~~ required for Final Plat and/or Building Permit sign-off.

_____ Subdivision Improvements Agreement or Financial Security required.

FINDINGS: ① Discharge to be determined by analysis of downstream capacity. ② Please provide a copy of recorded Plat ~~prior~~ showing common easement prior to C.O. sign-off.

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: Billy J. Goolsby	SIGNED: E. V. Diniz
TITLE: CE/Design Hydrology	TITLE: President
DATE: 3/8/85	DATE: 3/8/85

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

GENERAL

Zone Atlas page H-21; Flood Hazard Zone C

LAND USE

Present - Lots 26 and 27 of Snow Heights Addition are undeveloped and both lots are bounded by Martha St. NE. on the southwest and by lot 23 on the northeast. Lot 26 is bounded on the southeast by Lot 25, and Lot 27 is bounded by a chain link fence on the northwest. A paved bike path lies a few feet from and parallel to the chain link fence bounding Lot 27; the Embudo Drain lies a few feet beyond the bike path. A shallow swale (Swale 2) collects runoff from the area along and adjacent to the bike path, and directs the runoff into Martha St. NE. which is paved with sidewalk, curb and gutter. There is a concrete transition and driveway cut from the bike path through the sidewalk down to Martha St. NE. near the southwest corner of Lot 27. Martha St. NE. crosses the Embudo Drain through a dip section.

Proposed - Lots 26 and 27 will each be developed with a 4-Plex, with a common driveway serving the two buildings. This driveway will also act as a drainage swale (Swale 1) for the buildings.

SOIL TYPE

On-Site

Tijeras Series - Gravelly fine sandy loam covers the site and is classified as Hydrologic Soil Group B.

Off-Site (contributing drainage area of Swale 2)

Embudo Series - Gravelly fine sandy loam covers the off-site areas that drain through Swale 2 and is classified as Hydrologic Soil Group B

TOTAL AREA

On-Site

Lots 26 and 27 are each:
60 ft. x 121 ft. = 7,260 sq. ft. (0.1659 acres)
Total area of lots 26 and 27 is 14,520 sq. ft. (0.3318 acres)

Off-Site (contributing drainage area of Swale 2)

Total area is 43,030 sq. ft. (0.998 acres)

HYDROLOGY

TIME OF CONCENTRATION

On-Site - Lots 26 and 27 (combined area)

Flow length = 162 feet
Elevation difference = 7.5 feet
Time of Concentration = 1.28 minutes; use Tc = 10 minutes

Off-Site (contributing drainage area of Swale 2)

Flow length = 670 feet
Elevation difference = 20 feet
Time of Concentration = 4.52 minutes;
Velocity = 2.47 ft./sec.; adjusted velocity = 1.0 ft./sec.
Adjusted Time of Concentration = 11.16 minutes
(Velocity and Time of Concentration adjusted according to the DPM, Section 22.2)

6 - HR. RAINFALL DEPTH

10-yr. = 1.62 in.
100-yr. = 2.46 in.

RAINFALL INTENSITY

On-Site

10-yr. = 3.42 in./hr.
100-yr. = 5.20 in./hr.

Off-Site (contributing area to Swale 2)

10-yr. = 3.24 in./hr.
100-yr. = 4.92 in./hr.

RUNOFF COEFFICIENTS

On-Site

Undeveloped Conditions - lots 26 and 27:
impervious area 0%; C = 0.32

Developed Conditions -
Lot 26 impervious area = 80%; C = 0.76
Lot 27 impervious area = 79%; C = 0.76

Off-Site (contributing area to Swale 2)

Present Developed Conditions -

impervious area = 40%; C = 0.52

RUNOFF RATES

Peak Discharge, cfs.:	Frequency 10-yr.	100-yr.
On-Site		
Undeveloped conditions Lots 26 and 27	0.36	0.55
Developed conditions Lots 26 and 27	0.86	1.31
Off-Site (contributing area to Swale 2)		
Present developed conditions	1.66	2.53

RUNOFF VOLUMES

Total Volume, cu.ft.:		
On-Site		
Undeveloped conditions Lots 26 and 27	624	948
Developed conditions Lots 26 and 27	1,483	2,252
Off-Site (contributing drainage area to Swale 2)		
Present developed conditions	3,021	4,587

OFF-SITE FLOWS

Site inspection determined that no flow enters lots 26 and 27 from Lot 23 due to a concrete block fence along the east side of Lot 26; and no flow enters Lots 26 or 27 from Lot 25 also due to a concrete block fence between the two lots.

Off-site flows enter Lot 27 through Swale 2. Swale 2 begins at Menaul Blvd. NE. and continues for about 600 feet before entering the southwest corner of Lot 27 and continues through Lot 27 for about 20 feet and then exits Lot 27 at Martha St. NE. (which drains immediately into the Embudo Drain). The contributing drainage area for Swale 2 begins at Menaul Blvd. NE. and consists of several lots located immediately east from the Embudo Drain as well as the paved bike path and the swale area. Swale 2 will be rip-rap lined from its entrance into Lot 27, along the paved bike path to the sidewalk and Martha St. NE..

STREET FLOWS

Martha St. NE. dips down into the channel bottom of the Embudo Drain. The flow from lots 26 and 27 will drain down the main driveway between the buildings (Swale 1) and discharge into Martha St. NE. which drains immediately into the Embudo Drain. The Embudo Drain is concrete lined with a very large capacity; therefore the increase in the 100-yr. peak discharge of 0.76 cfs. with development of lots 26 and 27 will be insignificant to the capacity of the Embudo Drain.

HYDRAULICS

SWALE CAPACITY

On-Site (Swale 1)
- Flow width 7 ft.
- Flow depth 0.18 ft.
- Slope 0.0048
- Velocity 1.7 ft./sec.
- Discharge Q = 1.31 cfs.
- Freeboard 0.77 ft.

Off-Site (Swale 2)
- Flow width 5.2 ft.
- Flow depth 0.2 ft.
- Slope 0.0435
- Velocity 3.5 ft./sec.
- Discharge Q = 2.53 cfs.

DRAINAGE INFORMATION SHEET

PROJECT TITLE: 4-PLEX'ES FOR mike williams ZONE ATLAS/DRNG. FILE #: H-21/D280

LEGAL DESCRIPTION: LOTS 26 & 27 BLK. 88-B SNOW HEIGHTS ADD'N

CITY ADDRESS: 2204 MARTHA ST. NE. (LOT 26), 2208 MARTHA ST. NE. (LOT 27)

ENGINEERING FIRM: RESOURCE TECHNOLOGY INC CONTACT: ELVIDIO DINIZ

ADDRESS: 7800 MARBLE AVE. NE. ALB. NM 87110 PHONE: 266-3320

OWNER: mike williams CONTACT: mike williams

ADDRESS: 7309 WILLIAMS NE. ALB. NM 87109 PHONE: 296-1500 or 821-7412

ARCHITECT: SANDIA DESIGNERS CONTACT: NORM ZETER

ADDRESS: 1429 SAN RAFAEL PHONE: 298-2842

SURVEYOR: RESOURCE TECHNOLOGY INC. CONTACT: ELVIDIO DINIZ

ADDRESS: 7800 MARBLE AVE. NE. ALB. NM 87110 PHONE: 266-3320

CONTRACTOR: _____ CONTACT: _____

ADDRESS: _____ PHONE: _____

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HYDROLOGY SECTION

PRE-DESIGN MEETING:

✓ YES

___ NO

✓ COPY OF CONFERENCE RECAP SHEET PROVIDED

S. NO. 85-188 3/19/85 delegated

NS NO. _____

PROJ. NO. _____

TYPE OF SUBMITTAL:

___ DRAINAGE REPORT

✓ DRAINAGE PLAN

___ CONCEPTUAL GRADING & DRAINAGE PLAN

✓ GRADING PLAN

___ EROSION CONTROL PLAN

___ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

___ 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: _____

BY: _____

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

DESIGN HYDROLOGY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-7644

May 23, 1985

Mr. Elvidio Diniz
Resource Technology, Inc.
7800 Marble Avenue NE
Albuquerque, NM 87110

REF: DRAINAGE PLAN FOR 4-PLEXES FOR MIKE WILLIAMS (H21-D26) RECEIVED APRIL 15, 1985

Dear Elvidio:

The above referenced plan, dated April 12, 1985, is approved for Building permit.

Please attach a copy of this approved plan to the construction set prior to Hydrology sign-off.

If I can be of further assistance, please contact me at 766-7644.

Sincerely,

Carlos A. Montoya
City/County Flood Plain Admin.

CAM:mrk