PLANS/PLATS ON FILE

FILE DESC: D-15/D004

PLANS/PLATS 1

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

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO.: D15 DATE: 2/7/86
PLANNING DIVISION NOS: EPC: _____ DRB: _____
SUBJECT: Addition to North Valley Animal Clinic
STREET ADDRESS (IF KNOWN): 7401 N 4th St.
SUBDIVISION NAME: _____

APPROVAL REQUESTED:

____	PRELIMINARY PLAT	____	FINAL PLAT
____	SITE DEVELOPMENT PLAN	County X	BUILDING PERMIT
____	OTHER	____	ROUGH GRADING

	WHO	REPRESENTING
ATTENDANCE:	Karen Burt	Leedshill/Herkinhoff
	Joann English	Leedshill/Herkinhoff
	Billy Goolsby	City

FINDINGS:

Area is located in a flood hazard zone (AH) El-4987.
It is recommended that on-site ponding or appropriate method be provided to handle the displaced volume due to proposed improvements. Finished floor elevation shall be at or higher than the zone elevation above.

RECEIVED
FEB 27 1986
HYDROLOGY SECTION

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: Karen Burt
TITLE: CE/Design Hydrology TITLE: _____
DATE: 2/7/86 DATE: 2-7-86

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

LEEDSHILL-HERKENHOFF, INC.
500 Copper Avenue N.W.
P. O. Box 1217
Albuquerque, New Mexico 87103
(505) 247-0294

252-5138.12-86

February 26, 1986

RECEIVED
FEB 27 1986
HYDROLOGY SECTION

Bernie Montoya
County Hydrology
123 Central N.W.
Albuquerque, New Mexico 87102

RE: NORTH VALLEY ANIMAL CLINIC

Transmitted herewith are two copies of the drainage plan for the above referenced project. I have also included one set of my calculations used in determining the behavior of the storm water on the site.

As you know, the North Valley Animal Clinic is located in a flood-hazard area based on information from the enclosed Albuquerque Master Drainage Study. The enclosed Flood Insurance Rate Map indicates that the level of flooding will be at an elevation of 4987. As per my meeting with Bill Goolsby, City Hydrology, the elevation of the addition must be at or above this level which is accomplished by matching the existing building at an elevation of 4988.25.

To accommodate the 900 CF of displaced water due to the planned additions, on site ponding is proposed at the west end of the property. This pending area is shown on the enclosed plan and is calculated to hold 1400 CF of water. We are also proposing to route the water from the east sloping building to the west area via 4" PVC as shown on the enclosed Drainage Plan.

Please review the enclosed information and let me know as soon as possible if any additional information is required in order to receive approval.

Sincerely,

Karen Burt

KAREN BURT

er

Encs.

LEEDSHILL-HERKENHOFF, INC.

SUMMARY OF FINDINGS - DRAINAGE PLAN FOR
ADDITION TO NORTH VALLEY ANIMAL CLINIC

GENERAL INFORMATION:

1. Information sheet: attached.

2. Professional Engineer's stamp: on drainage plan drawing. Survey of site performed by Leedshill-Herkenhoff, Inc.

3. Flood hazard: Site is located in both 10-year and 100-year flood hazard areas as shown on the enclosed excerpts from the Albuquerque Master Drainage Study and Flood Insurance Rate Map. The water elevation at time of flooding is shown to be 4987.

4. Watershed soils: Site currently has asphalt paving and two buildings creating impervious conditions while the remaining area is primarily hard packed soils. As shown in the enclosed excerpt from the Bernalillo County Soil Survey, the soil is type B (Embvio soil series Vba and Gb).

5. Soils investigation report: No report was done for this area.

6. Drainage plan: Two copies attached.

DRAINAGE INFORMATION SHEET

-CT TITLE: Addition to North Valley Animal Clinic ZONE ATLAS/DRNG. FILE #: D15 /D4

DESCRIPTION: Lots numbered One(1), Two(2) and Three(3) of the Wershaw Replat of Tract 134-B, M.R.G.C.D., Map 27, Bernalillo County, New Mexico

ADDRESS: 7401 N. 4th St., N.W.

ERING FIRM: Leedshill-Herkenhoff, Inc. CONTACT: Karen Burt

ADDRESS: 500 Copper N.W. PHONE: 247-0294

R: North Valley Animal Clinic CONTACT: Dr. Stephen Derwilis

ADDRESS: 7401 N. 4th St. N.W. PHONE: 898-3065

ITECT: Leedshill-Herkenhoff, Inc. CONTACT: David Tinker

ADDRESS: 500 Copper N.W. PHONE: 247-0294

VOR: Leedshill-Herkenhoff, Inc. CONTACT: Kim Stelzer

ADDRESS: 500 Copper N.W. PHONE: 247-0294

-ACTOR: Hermance Construction CONTACT: Slim Hermance

ADDRESS: 5107 Edith N.E. PHONE: 345-1685

ESIGN MEETING:

X_ YES

_ NO

X_ COPY OF CONFERENCE RECAP SHEET PROVIDED

RECEIVED FEB 26 1986 HYDROLOGY SECTION

DRB NO. --

EPC NO.

PROJ. NO.

OF SUBMITTAL:

_ DRAINAGE REPORT

X_ 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

_X_ BUILDING PERMIT APPROVAL (County)

____ FOUNDATION PERMIT APPROVAL

____ CERTIFICATE OF OCCUPANCY APPROVAL

____ ROUGH GRADING PERMIT APPROVAL

____ GRADING/PAVING PERMIT APPROVAL

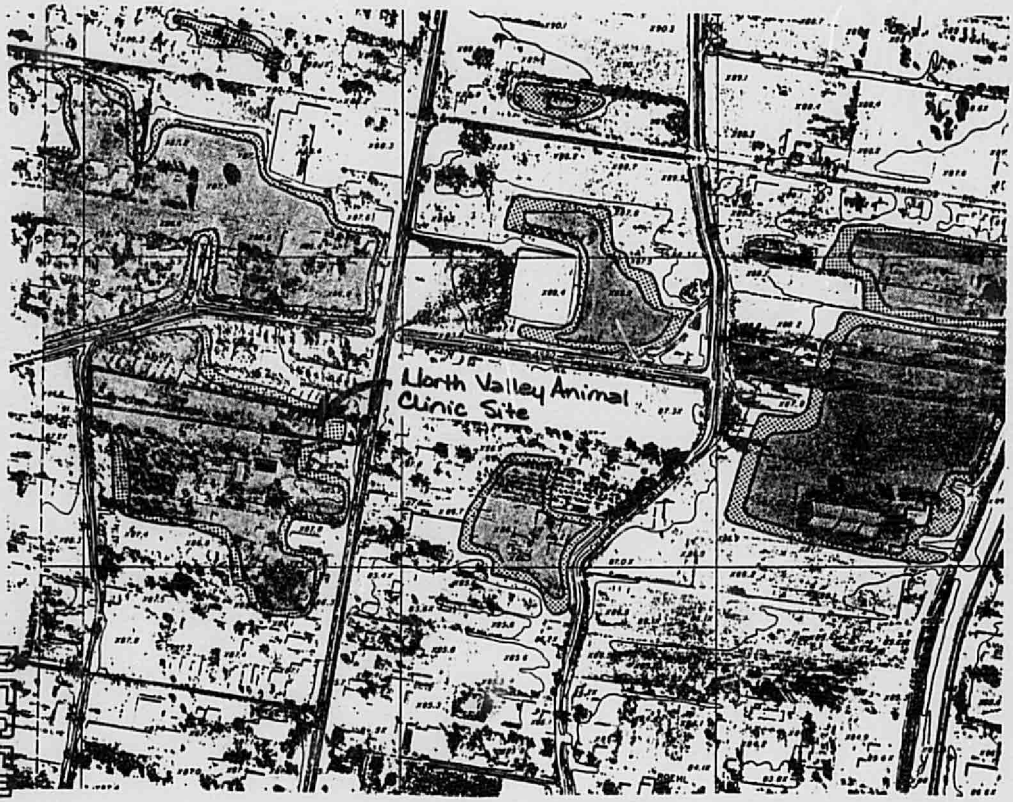
____ OTHER _____ (SPECIFY)

SUBMITTED: _____

BY: Karen Burt

Date: Feb. 26, 1986

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.



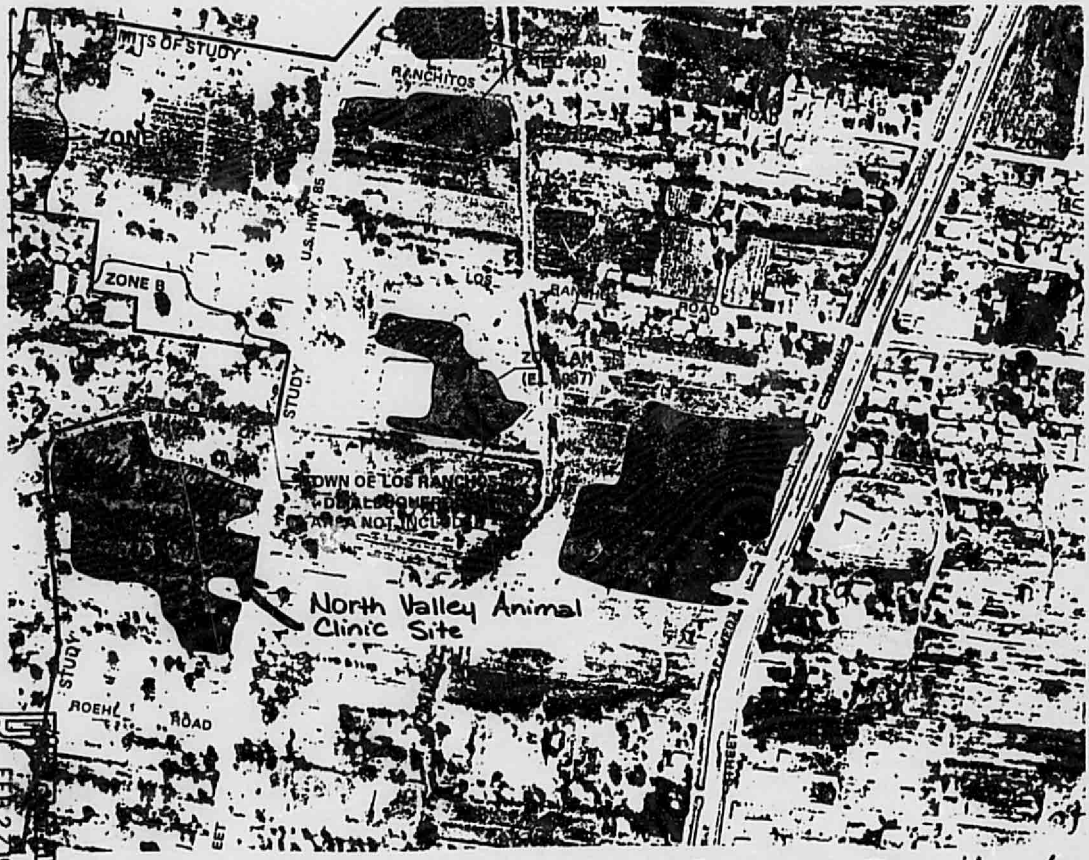
RECEIVED
FEB 27 1986
HYDROLOGY SECTION

ALBUQUERQUE MASTER DRAINAGE STUDY

MAP D-15

SITE LOCATED IN 10-YEAR & 100-YEAR FLOOD HAZARD AREAS

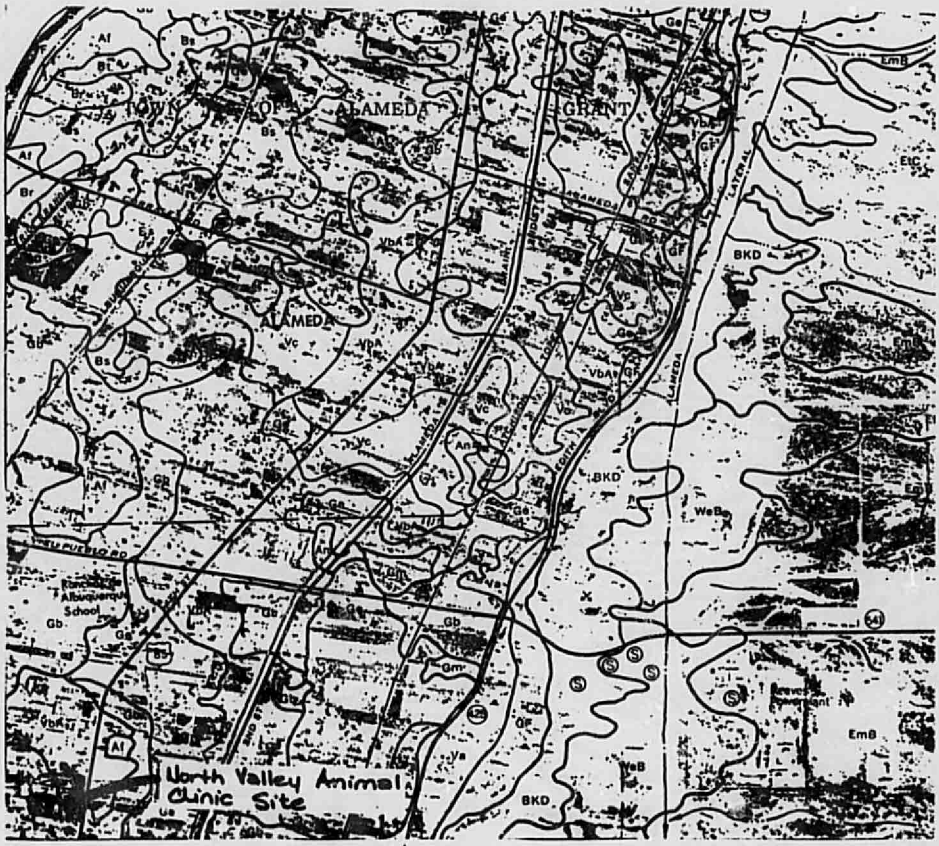
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.



RECEIVED
FEB 27 1986
HYDROLOGY SECTION

FLOOD INSURANCE RATE MAP (FIRM)
PANEL 9 OF 50
COMMUNITY PANEL Nº 350002 0009 C
SITE LOCATED IN ZONE AH (EL. 4987)

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.



RECEIVED
FEB 27 1986
HYDROLOGY SECTION

FROM BERNALILLO COUNTY
SOIL SURVEY ~ MAP 11
SOIL TYPES VbA & Gb
CLASSIFICATION SOIL TYPE B

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 1 OF 8
	COMPUTED BY: KB	CHECKED BY: JE	JOB NUMBER 5138.12	DATE: 2-19-86

AREAS

EXISTING BLDG. (DOES NOT INCLUDE HORSE STALL OR BLDG. AT WEST END) - 3074 SF

ADD'L. BLDG - 943 SF

ADD'L RAMPS - 428 SF

PAVED PARKING - 7354 SF (EXISTING)

PLANTER - 2674 SF

HARD PACKED SOIL - 55,710 SF

TOTAL TRACT AREA = 70,183 SF
= 1.6 AC

CONTOUR AT FAR WEST OF PROPERTY IS 84.0
(from Albuquerque Master Drainage Plan)

RECEIVED
FEB 27 1986
HYDROLOGY SECTION

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 2 OF 8
	COMPUTED BY: KB	CHECKED BY: JR	JOB NUMBER 5138.12	DATE: 2-19-86

EXISTING CONDITION

1- Design per DPM criteria

2- Rainfall (Plak 22.2D-1) - 6 hr. Storm
100 yr. - 2.2"
10 yr. - 0.657 × 2.2 = 1.45" ✓

3- Watershed Areas
a- Area 1 - Bldg. & Asphalt
A = 10,428 SF = 0.24 Ac. ✓
C_n = 98 ✓
L = 851.91 - 48 = 803.91 ✓
ΔE = 88.25 - 84.0 = 4.25 ✓
S = 0.0053 ✓
b- Area 2 - Planters
A = 2674 SF = 0.06 Ac. ✓
C_n = 85 (soil type B, 65% Impervious) ✓
L = 851.91 - 20 = 831.91 ✓
ΔE = 87.5 - 84.0 = 3.5 ✓
S = 0.0042 ✓
c- Area 3 - Hard Packed Soil
A = 55710 + 1371 = 57,081 SF = 1.31 Ac. ✓
C_n = 82 (Soil Type B) ✓
L = 851.91 - 90 = 761.91 ✓
ΔE = 87.5 - 84.0 = 3.5 ✓
S = 0.0046 ✓

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 3 OF 8
	COMPUTED BY: KB	CHECKED BY: JE	JOB NUMBER 5138.12	DATE: 2-19-86

4- Times of Concentration (page 3)

$$T_c = 0.0078 \frac{L^{0.77}}{S^{0.385}}$$

$T_{c1} = 10.12$ min. ✓

$T_{c2} = 11.37$ min. ✓

$T_{c3} = 10.26$ min. ✓

5- Rainfall Intensity (Plate 22.2D-2)

Using $T_c = 10.12$ min, intensity factor = 2.10 ✓

Actual Intensity = $I = 2.10 \times 2.2 = 4.62$ /hr. ✓

6- Runoff Rate (page 17)

$Q = CIA$

100 yr-

$Q_1 = 0.98 \times 4.62 \times 0.24 = 1.087$ CFS ✓

$Q_2 = 0.85 \times 4.62 \times 0.06 = 0.236$ CFS ✓

$Q_3 = 0.82 \times 4.62 \times 1.31 = 4.963$ CFS ✓

$\Sigma Q_{100} = 6.286$ CFS ✓ (TOTAL)

10 yr-

$Q_1 = 0.657 \times 1.087 = 0.714$ CFS

$Q_2 = 0.657 \times 0.236 = 0.155$ CFS

$Q_3 = 0.657 \times 4.963 = 3.261$ CFS

$\Sigma Q_{10} = 4.130$ CFS ✓

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 4 OF 8
	COMPUTED BY: KB	CHECKED BY: JE	JOB NUMBER 5138.12	DATE: 2-19-86

7- Runoff Volume

$$V = \frac{CIA}{12}$$

100 yr. -

$$V_1 = \frac{0.98 \times 4.62 \times 0.24}{12} = 0.091 \text{ Ac·ft}$$

$$V_2 = \frac{0.85 \times 4.62 \times 0.06}{12} = 0.020 \text{ Ac·ft}$$

$$V_3 = \frac{0.82 \times 4.62 \times 1.31}{12} = 0.414 \text{ Ac·ft}$$

$$\Sigma V_{100} = 0.525 \text{ Ac·ft}$$

10 yr -

$$V_1 = 0.657 \times 0.091 = 0.059 \text{ Ac·ft}$$

$$V_2 = 0.657 \times 0.020 = 0.013 \text{ Ac·ft}$$

$$V_3 = 0.657 \times 0.414 = 0.272 \text{ Ac·ft}$$

$$\Sigma V_{10} = 0.344 \text{ Ac·ft}$$

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 5 OF 8
	COMPUTED BY: KB	CHECKED BY: JE	JOB NUMBER 5138.12	DATE: 2-19-86

PROPOSED CONDITION

1- Design per DPM Criteria ✓

2- Rainfall (Plate 22-2D-1) - 6 hr. storm
100 yr = 2.2" ✓
10 yr = 0.657 × 2.2 = 1.45" ✓

3- Watershed Areas
a- Area 1 - Bldg. & Asphalt
A = 10,428 + 1371 = 11,799 SF = 0.27 Ac. ✓
C_n = 98 ✓
L = 851.91 - 48 = 803.91 ✓
ΔE = 88.25 - 84.0 - 4.2 S' ✓
S = 0.0053 ✓
b- Area 2 - Planter
A = 2674 SF = 0.06 Ac. ✓
C_n = 85 (Soil type B, 65% Impervious) ✓
L = 64' ✓
ΔE = 87.5 - 86.5 = 1' ✓
S = 0.0156 ✓
c- Area 3 - Hard Packed Soil
A = 55710 SF = 1.28 Ac. ✓
C_n = 82 (Soil type B) ✓
L = 851.91 - 90 = 761.91' ✓
ΔE = 87.5 - 84.0 = 3.5' ✓
S = 0.0046 ✓

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 6 of 8
	COMPUTED BY: KB	CHECKED BY: JE	JOB NUMBER 5138.12	DATE: 2-19-86

4- Times of Concentration (page 3)

$$T_c = 0.0078 \frac{L^{0.77}}{S^{0.385}}$$

$T_{c1} = 10.12$ min.

$T_{c2} = 0.95$ min. → use 10 min.

$T_{c3} = 10.26$ min.

5- Rainfall Intensity (Plate 22.2D-2)

Using $T_c = 10$ min, intensity factor = 2.114

Actual Intensity = $I = 2.114 \times 2.2 = 4.65$"/hr.

6- Runoff Rate (page 1)

$Q = CIA$

100 yr-

$Q_1 = 0.98 \times 4.65 \times 0.27 = 1.23$ CFS

$Q_2 = 0.85 \times 4.65 \times 0.06 = 0.24$ CFS

$Q_3 = 0.82 \times 4.65 \times 1.28 = 4.88$ CFS

$\Sigma Q_{100} = 6.35$ CFS

10 yr-

$Q_1 = 0.657 \times 1.23 = 0.81$ CFS

$Q_2 = 0.657 \times 0.24 = 0.16$ CFS

$Q_3 = 0.657 \times 4.88 = 3.21$ CFS

$\Sigma Q_{10} = 4.18$ CFS

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 7 OF 8
	COMPUTED BY: KB	CHECKED BY: JE	JOB NUMBER 5138.12	DATE: 2-19-86

7- Runoff Volume

$$V = \frac{CIA}{12}$$

100 yr-

$$V_1 = \frac{0.98 \times 4.65 \times 0.27}{12} = 0.103 \text{ Ac}\cdot\text{ft}$$

$$V_2 = \frac{0.85 \times 4.65 \times 0.06}{12} = 0.020 \text{ Ac}\cdot\text{ft}$$

$$V_3 = \frac{0.82 \times 4.65 \times 1.28}{12} = 0.407 \text{ Ac}\cdot\text{ft}$$

$$\Sigma V_{100} = 0.530 \text{ Ac}\cdot\text{ft} \checkmark$$

10 yr -

$V_1 = 0.657 \times 0.103 = 0.067$ Ac·ft

$V_2 = 0.657 \times 0.020 = 0.013$ Ac·ft

$V_3 = 0.657 \times 0.407 = 0.267$ Ac·ft

$$\Sigma V_{10} = 0.347 \text{ Ac}\cdot\text{ft} \checkmark$$

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 1 OF 2
	COMPUTED BY: KB	CHECKED BY:	JOB NUMBER 5138.12	DATE: 2-26-86

VOLUME OF PROPOSED POND

-found by planimeter

85.5 - 4231 SF
85.0 - 1405 SF

$$VOL = \frac{4231 + 1405}{2} \times 0.5 = 1409 \text{ CF}$$

ACTUAL AMT. OF WATER DISPLACED & RUNOFF GENERATED BY ADDN.

VOL = INC. IN RUNOFF + DISPLACED VOL.

$= (0.530 - 0.525)$ Ac·ft $+ (1371 \text{ SF} \times 0.5')$

$= 0.021$ Ac·ft $= 903$ CF

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT HVAC			SHEET NUMBER 2 OF 2
	COMPUTED BY: KB	CHECKED BY:	JOB NUMBER 5138.12	DATE: 2-26-86

ROOF PORTION SLOPING EAST

Bldg. Addn. Sloping East is approximately 160 SF

$Q = CIA$

$Q_{100} = 0.98 \times 4.65 \times 160 \times \frac{1}{43560}$

$= 0.0167$ CFS

$V = \frac{Q}{A}$

USE 4" PVC

$\therefore V = \frac{0.0167}{\pi/4 \left(4/12\right)^2} = 0.192$ FPS

Manning's Eq.-

$V = \frac{1.486}{n} R^{2/3} \sqrt{S}$

for 1/4 full, $R = 0.1466d = 0.1466 \times 4/12 = 0.04887'$

$V = \frac{1.486}{0.010}(0.04887)^{2/3}\sqrt{S} = 0.192$

$S = 0.000093$

USE MINIMUM SLOPE OF 0.5 % TO KEEP SYSTEM CLEAN.

BOARD OF COUNTY COMMISSIONERS
PATRICK J. PADILLA, CHAIRMAN
DISTRICT 1
ORLANDO VIGIL, MEMBER
DISTRICT 2
LENTON MALRY, MEMBER
DISTRICT 3
PATRICIA H. CASSIDY, MEMBER
DISTRICT 4
MARION M. CUTTRELL, MEMBER
DISTRICT 5
ALEX ABEYTA, JR., COUNTY MANAGER

County of Bernalillo

State of New Mexico

ONE CIVIC PLAZA, N.W.
ALBUQUERQUE, NEW MEXICO 87102

ALVIN J. CAMPBELL, SHERIFF
JAMES B. LEWIS, TREASURER
DOLORES C. WALLER, COUNTY CLERK
JACK H. DARLING, ASSESSOR
ROBERT H. SCOTT, PROBATE JUDGE

February 27, 1986

Karen Burt
Leedshill-Herkenhoff, Inc.
500 Copper, NW
Albuquerque, New Mexico 87102

RE: DRAINAGE PLAN FOR NORTH VALLEY ANIMAL CLINIC
RECEIVED FEBRUARY 27, 1986 (D-15/D4) (BP-86-178)

Dear Ms. Burt:

The above referenced plan, dated February 24, 1986, is approved in compliance with the Floodplain Ordinance.

Upon completion of the project, the owner's engineer will be required to certify.

If you have any questions, call me at 766-7644.

Cordially,

Carlos A. Montoya

Carlos A. Montoya, P.E.
City/County Floodplain Administrator

CAM/bsj

BOARD OF COUNTY COMMISSIONERS
PATRICK J. PADILLA, CHAIRMAN
DISTRICT 1
ORLANDO VIGIL, MEMBER
DISTRICT 2
LENTON MALRY, MEMBER
DISTRICT 3
PATRICIA H. CASSIDY, MEMBER
DISTRICT 4
MARION M. COTTRELL, MEMBER
DISTRICT 5
ALEX ABEYTA, JR., COUNTY MANAGER

County of Bernalillo

State of New Mexico

ONE CIVIC PLAZA, N.W.
ALBUQUERQUE, NEW MEXICO 87102

RECEIVED
MAR 21 1988
HYDROLOGY SECTION

ALVIN J. CAMPBELL, SHERIFF
JAMES B. LEWIS, TREASURER
DOLORES C. WALLER, COUNTY CLERK
JACK H. DARLING, ASSESSOR
ROBERT H. SCOTT, PROBATE JUDGE

June 25, 1987

Karen Burt
Leedshill-Herkenhoff, Inc.
500 Copper Avenue, NW
Albuquerque, New Mexico 87102

RE: CERTIFICATION FOR NORTH VALLEY ANIMAL CLINIC
(D-15/D6) RECEIVED JUNE 23, 1987

Dear Mr. Burt:

The referenced certification, dated June 23, 1987, is approved.

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

Cordially,

Carlos A. Montoya

Carlos A. Montoya, P.E.
City/County Floodplain Administrator

CAM/bsj

RECEIVED
JUL 01 1987
LEEDSHILL-HERKENHOFF, INC.

PLAN/PLATS

ON

FILE

PLANS/PLATS ON FILE

FILE DESC: D-15/D004

PLANS/PLATS 1

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

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO.: D15 DATE: 2/7/86

PLANNING DIVISION NOS: EPC: _____ DRB: _____

SUBJECT: Addition to North Valley Animal Clinic

STREET ADDRESS (IF KNOWN): 7401 N 4th St.

SUBDIVISION NAME: _____

APPROVAL REQUESTED:

____	PRELIMINARY PLAT	____	FINAL PLAT
____	SITE DEVELOPMENT PLAN	County X	BUILDING PERMIT
____	OTHER	____	ROUGH GRADING

	WHO	REPRESENTING
ATTENDANCE:	Karen Burt	Leedshill/Herkinhoff
	Joann English	Leedshill/Herkinhoff
	Billy Goolsby	City

FINDINGS:

Area is located in a flood hazard zone (AH) El-4987.
It is recommended that on-site ponding or appropriate method be provided to handle the displaced volume due to proposed improvements. Finished floor elevation shall be at or higher than the zone elevation above.

RECEIVED
FEB 27 1986
HYDROLOGY SECTION

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: Karen Burt
TITLE: CE/Design Hydrology TITLE: _____
DATE: 2/7/86 DATE: 2-7-86

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

LEEDSHILL-HERKENHOFF, INC.
500 Copper Avenue N.W.
P. O. Box 1217
Albuquerque, New Mexico 87103
(505) 247-0294

252-5138.12-86

February 26, 1986

RECEIVED
FEB 27 1986
HYDROLOGY SECTION

Bernie Montoya
County Hydrology
123 Central N.W.
Albuquerque, New Mexico 87102

RE: NORTH VALLEY ANIMAL CLINIC

Transmitted herewith are two copies of the drainage plan for the above referenced project. I have also included one set of my calculations used in determining the behavior of the storm water on the site.

As you know, the North Valley Animal Clinic is located in a flood-hazard area based on information from the enclosed Albuquerque Master Drainage Study. The enclosed Flood Insurance Rate Map indicates that the level of flooding will be at an elevation of 4987. As per my meeting with Bill Goolsby, City Hydrology, the elevation of the addition must be at or above this level which is accomplished by matching the existing building at an elevation of 4988.25.

To accommodate the 900 CF of displaced water due to the planned additions, on site ponding is proposed at the west end of the property. This pending area is shown on the enclosed plan and is calculated to hold 1400 CF of water. We are also proposing to route the water from the east sloping building to the west area via 4" PVC as shown on the enclosed Drainage Plan.

Please review the enclosed information and let me know as soon as possible if any additional information is required in order to receive approval.

Sincerely,

Karen Burt

KAREN BURT

er

Encs.

LEEDSHILL-HERKENHOFF, INC.

SUMMARY OF FINDINGS - DRAINAGE PLAN FOR
ADDITION TO NORTH VALLEY ANIMAL CLINIC

GENERAL INFORMATION:

1. Information sheet: attached.

2. Professional Engineer's stamp: on drainage plan drawing. Survey of site performed by Leedshill-Herkenhoff, Inc.

3. Flood hazard: Site is located in both 10-year and 100-year flood hazard areas as shown on the enclosed excerpts from the Albuquerque Master Drainage Study and Flood Insurance Rate Map. The water elevation at time of flooding is shown to be 4987.

4. Watershed soils: Site currently has asphalt paving and two buildings creating impervious conditions while the remaining area is primarily hard packed soils. As shown in the enclosed excerpt from the Bernalillo County Soil Survey, the soil is type B (Embudo soil series Vba and Gb).

5. Soils investigation report: No report was done for this area.

6. Drainage plan: Two copies attached.

DRAINAGE INFORMATION SHEET

-CT TITLE: Addition to North Valley Animal Clinic ZONE ATLAS/DRNG. FILE #: D15 /D4

DESCRIPTION: Lots numbered One(1), Two(2) and Three(3) of the Wershaw Replat of Tract 134-B, M.R.G.C.D., Map 27, Bernalillo County, New Mexico

ADDRESS: 7401 N. 4th St., N.W.

ERING FIRM: Leedshill-Herkenhoff, Inc. CONTACT: Karen Burt

ADDRESS: 500 Copper N.W. PHONE: 247-0294

R: North Valley Animal Clinic CONTACT: Dr. Stephen Derwilis

ADDRESS: 7401 N. 4th St. N.W. PHONE: 898-3065

ITECT: Leedshill-Herkenhoff, Inc. CONTACT: David Tinker

ADDRESS: 500 Copper N.W. PHONE: 247-0294

YOR: Leedshill-Herkenhoff, Inc. CONTACT: Kim Stelzer

ADDRESS: 500 Copper N.W. PHONE: 247-0294

ACTOR: Hermance Construction CONTACT: Slim Hermance

ADDRESS: 5107 Edith N.E. PHONE: 345-1685

ESIGN MEETING:

X_ YES

_ NO

X_ COPY OF CONFERENCE RECAP SHEET PROVIDED

RECEIVED FEB 27 1986 HYDROLOGY SECTION

DRB NO. --

EPC NO.

PROJ. NO.

OF SUBMITTAL:

_ DRAINAGE REPORT

X_ 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

X BUILDING PERMIT APPROVAL (County)

____ FOUNDATION PERMIT APPROVAL

____ CERTIFICATE OF OCCUPANCY APPROVAL

____ ROUGH GRADING PERMIT APPROVAL

____ GRADING/PAVING PERMIT APPROVAL

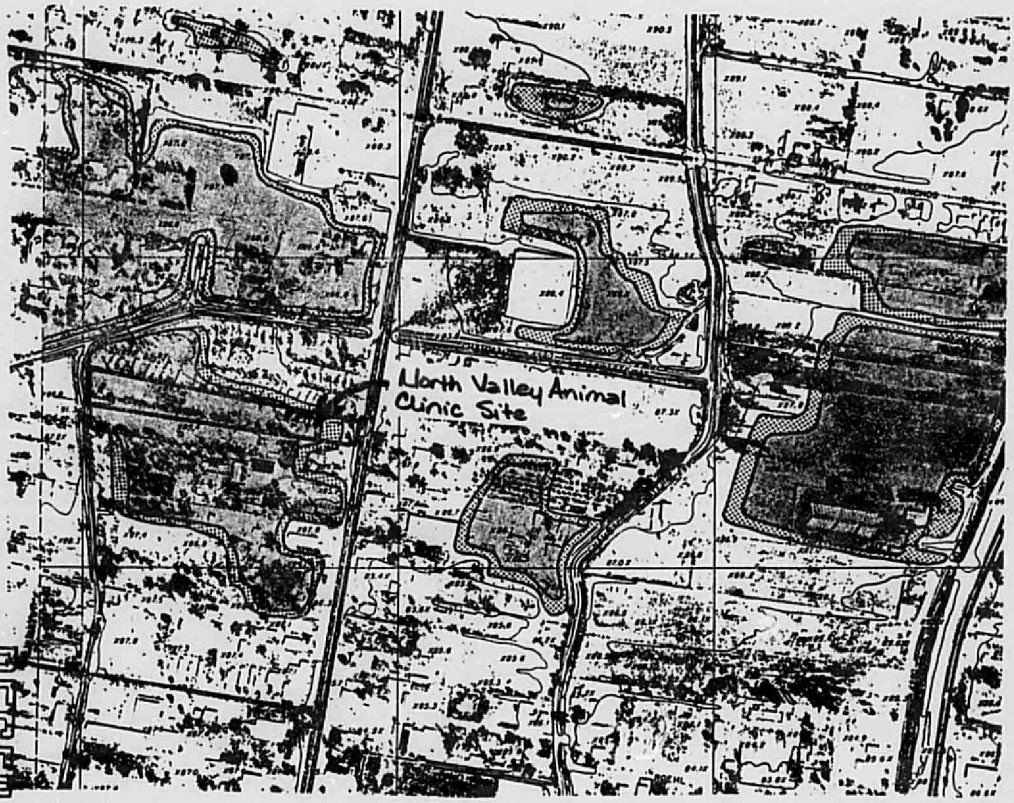
____ OTHER _____ (SPECIFY)

SUBMITTED: _____

BY: Karen Burt

Date: Feb. 26, 1986

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.



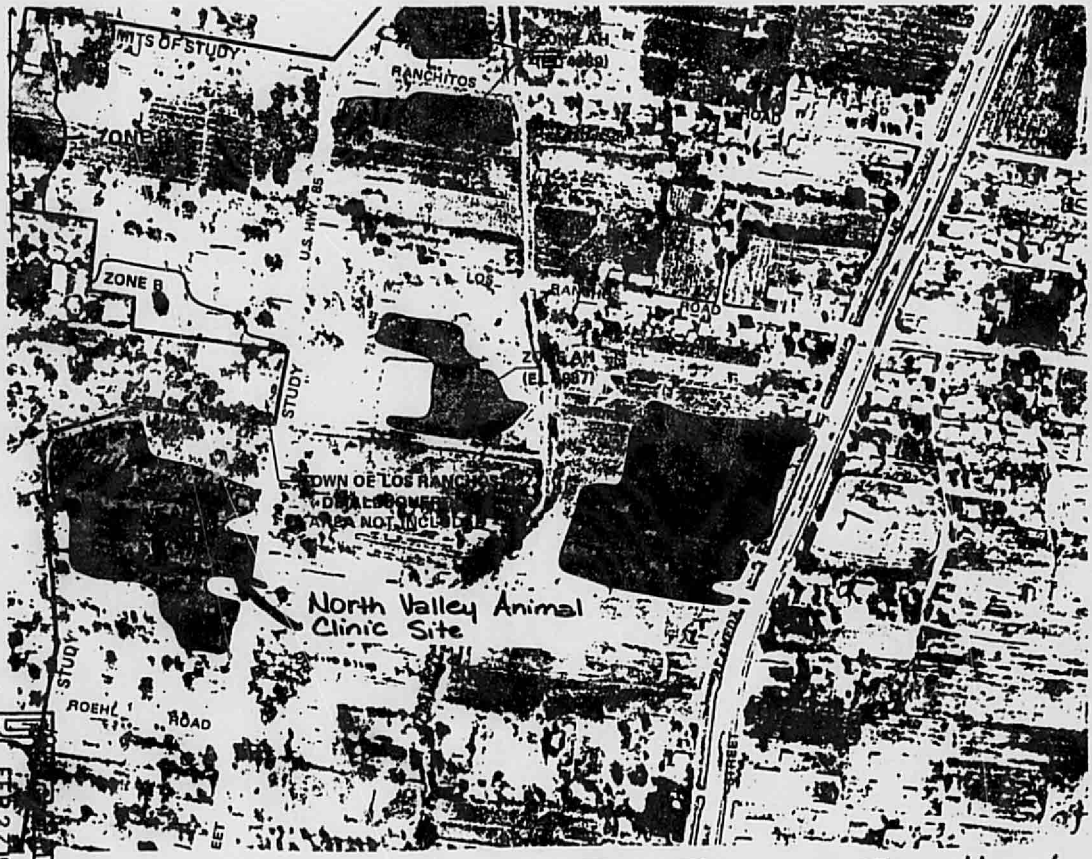
RECEIVED
FEB 27 1986
HYDROLOGY SECTION

ALBUQUERQUE MASTER DRAINAGE STUDY

MAP D-15

SITE LOCATED IN 10-YEAR & 100-YEAR FLOOD HAZARD AREAS

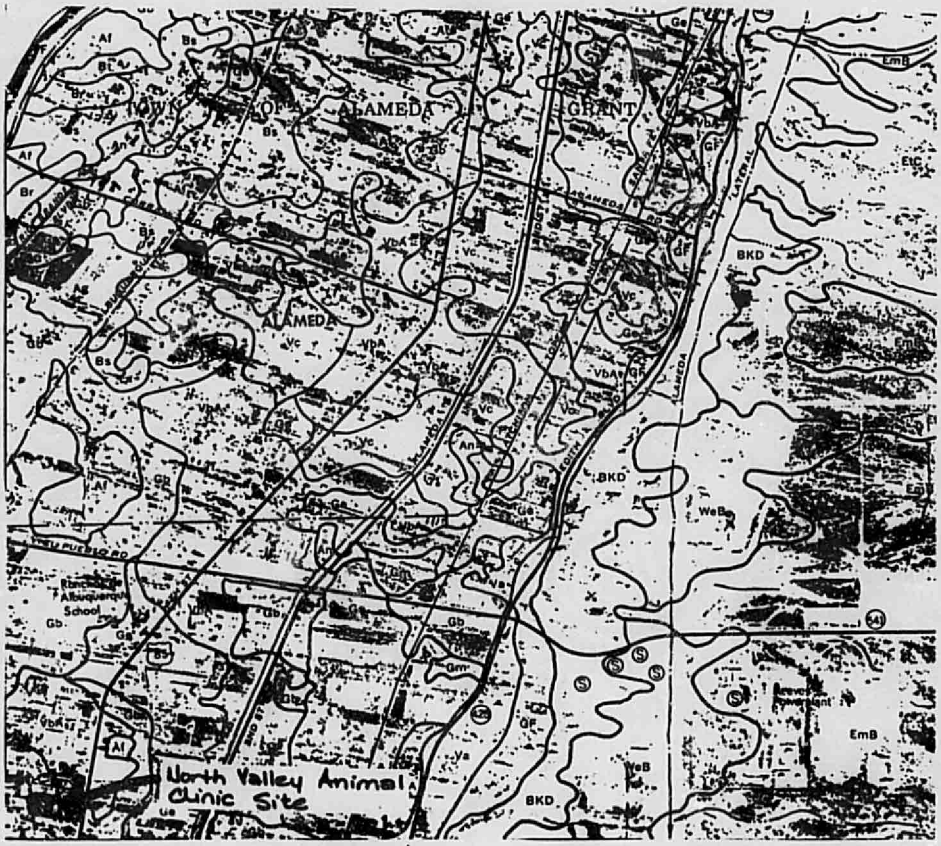
THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.



RECEIVED
FEB 2 7 1986
HYDROLOGY SECTION

FLOOD INSURANCE RATE MAP (FIRM)
PANEL 9 OF 50
COMMUNITY PANEL Nº 350002 0009 C
SITE LOCATED IN ZONE AH (EL. 4987)

THIS MICROIMAGE IS THE BEST POSSIBLE REPRODUCTION DUE TO THE POOR QUALITY OF THE ORIGINAL DOCUMENT.



RECEIVED
FEB 27 1986
HYDROLOGY SECTION

FROM BERNALILLO COUNTY
SOIL SURVEY ~ MAP 11
SOIL TYPES VbA & Gb
CLASSIFICATION SOIL TYPE B

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 1 OF 8
	COMPUTED BY: KB	CHECKED BY: JE	JOB NUMBER 5138.12	DATE: 2-19-86

AREAS

EXISTING BLDG. (DOES NOT INCLUDE HORSE STALL OR BLDG. AT WEST END) - 3074 SF

ADD'L. BLDG - 943 SF

ADD'L RAMPS - 428 SF

PAVED PARKING - 7354 SF (EXISTING)

PLANTER - 2674 SF

HARD PACKED SOIL - 55,710 SF

TOTAL TRACT AREA = 70,183 SF
= 1.6 AC

CONTOUR AT FAR WEST OF PROPERTY IS 84.0
(from Albuquerque Master Drainage Plan)

RECEIVED
FEB 27 1986
HYDROLOGY SECTION

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 2 OF 8
	COMPUTED BY: KB	CHECKED BY: JR	JOB NUMBER 5138.12	DATE: 2-19-86

EXISTING CONDITION

1- Design per DPM criteria

2- Rainfall (Plate 22.2D-1) - 6 hr. Storm
100 yr. - 2.2"
10 yr. - 0.657 × 2.2 = 1.45"

3- Watershed Areas
a- Area 1 - Bldg. & Asphalt
A = 10,428 SF = 0.24 Ac.
C_n = 98
L = 851.91 - 48 = 803.91
ΔE = 88.25 - 84.0 = 4.25
S = 0.0053
b- Area 2 - Planters
A = 2674 SF = 0.06 Ac.
C_n = 85 (soil type B, 65% Impervious)
L = 851.91 - 20 = 831.91
ΔE = 87.5 - 84.0 = 3.5
S = 0.0042
c- Area 3 - Hard Packed Soil
A = 55710 + 1371 = 57,081 SF = 1.31 Ac.
C_n = 82 (Soil Type B)
L = 851.91 - 90 = 761.91
ΔE = 87.5 - 84.0 = 3.5
S = 0.0046

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 3 OF 8
	COMPUTED BY: KB	CHECKED BY: JE	JOB NUMBER 5138.12	DATE: 2-19-86

4- Times of Concentration (page 3)

$$T_c = 0.0078 \frac{L^{0.77}}{S^{0.385}}$$

$T_{c1} = 10.12$ min. ✓

$T_{c2} = 11.37$ min. ✓

$T_{c3} = 10.26$ min. ✓

5- Rainfall Intensity (Plate 22.2D-2)

Using $T_c = 10.12$ min, intensity factor = 2.10 ✓

Actual Intensity = $I = 2.10 \times 2.2 = 4.62$ /hr. ✓

6- Runoff Rate (page 17)

$Q = CIA$

100 yr-

$Q_1 = 0.98 \times 4.62 \times 0.24 = 1.087$ CFS ✓

$Q_2 = 0.85 \times 4.62 \times 0.06 = 0.236$ CFS ✓

$Q_3 = 0.82 \times 4.62 \times 1.31 = 4.963$ CFS ✓

$\Sigma Q_{100} = 6.286$ CFS ✓ (TOTAL)

10 yr-

$Q_1 = 0.657 \times 1.087 = 0.714$ CFS

$Q_2 = 0.657 \times 0.236 = 0.155$ CFS

$Q_3 = 0.657 \times 4.963 = 3.261$ CFS

$\Sigma Q_{10} = 4.130$ CFS ✓

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 4 OF 8
	COMPUTED BY: KB	CHECKED BY: JE	JOB NUMBER 5138.12	DATE: 2-19-86

7- Runoff Volume

$$V = \frac{CIA}{12}$$

100 yr. -

$$V_1 = \frac{0.98 \times 4.62 \times 0.24}{12} = 0.091 \text{ Ac·ft}$$

$$V_2 = \frac{0.85 \times 4.62 \times 0.06}{12} = 0.020 \text{ Ac·ft}$$

$$V_3 = \frac{0.82 \times 4.62 \times 1.31}{12} = 0.414 \text{ Ac·ft}$$

$$\Sigma V_{100} = 0.525 \text{ Ac·ft}$$

10 yr -

$$V_1 = 0.657 \times 0.091 = 0.059 \text{ Ac·ft}$$

$$V_2 = 0.657 \times 0.020 = 0.013 \text{ Ac·ft}$$

$$V_3 = 0.657 \times 0.414 = 0.272 \text{ Ac·ft}$$

$$\Sigma V_{10} = 0.344 \text{ Ac·ft}$$

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 5 OF 8
	COMPUTED BY: KB	CHECKED BY: JE	JOB NUMBER 5138.12	DATE: 2-19-86

PROPOSED CONDITION

1- Design per DPM Criteria ✓

2- Rainfall (Plate 22-2D-1) - 6 hr. storm
100 yr = 2.2" ✓
10 yr = 0.657 × 2.2 = 1.45" ✓

3- Watershed Areas
a- Area 1- Bldg. & Asphalt
A = 10,428 + 1371 = 11,799 SF = 0.27 Ac. ✓
Cn = 98 ✓
L = 851.91 - 48 = 803.91 ✓
ΔE = 88.25 - 84.0 - 4.25' ✓
S = 0.0053 ✓
b- Area 2 - Planter
A = 2674 SF = 0.06 Ac. ✓
Cn = 85 (Soil type B, 65% Impervious) ✓
L = 64' ✓
ΔE = 87.5 - 86.5 = 1' ✓
S = 0.0156 ✓
c- Area 3- Hard Packed Soil
A = 55710 SF = 1.28 Ac. ✓
Cn = 82 (soil type B) ✓
L = 851.91 - 90 = 761.91' ✓
ΔE = 87.5 - 84.0 = 3.5' ✓
S = 0.0046 ✓

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 6 OF 8
	COMPUTED BY: KB	CHECKED BY: JE	JOB NUMBER 5138.12	DATE: 2-19-86

4- Times of Concentration (page 3)

$$T_c = 0.0078 \frac{L^{0.77}}{S^{0.385}}$$

$T_{c1} = 10.12$ min.

$T_{c2} = 0.95$ min. → use 10 min.

$T_{c3} = 10.26$ min.

5- Rainfall Intensity (Plate 22.2D-2)

Using $T_c = 10$ min, intensity factor = 2.114

Actual Intensity = $I = 2.114 \times 2.2 = 4.65$ "/hr.

6- Runoff Rate (page 17)

$Q = CIA$

100 yr-

$Q_1 = 0.98 \times 4.65 \times 0.27 = 1.23$ CFS

$Q_2 = 0.85 \times 4.65 \times 0.06 = 0.24$ CFS

$Q_3 = 0.82 \times 4.65 \times 1.28 = 4.88$ CFS

$\Sigma Q_{100} = 6.35$ CFS

10 yr-

$Q_1 = 0.657 \times 1.23 = 0.81$ CFS

$Q_2 = 0.657 \times 0.24 = 0.16$ CFS

$Q_3 = 0.657 \times 4.88 = 3.21$ CFS

$\Sigma Q_{10} = 4.18$ CFS

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 7 OF 8
	COMPUTED BY: KB	CHECKED BY: JE	JOB NUMBER 5138.12	DATE: 2-19-86

7- Runoff Volume

$$V = \frac{CIA}{12}$$

100 yr-

$$V_1 = \frac{0.98 \times 4.65 \times 0.27}{12} = 0.103 \text{ Ac}\cdot\text{ft}$$

$$V_2 = \frac{0.85 \times 4.65 \times 0.06}{12} = 0.020 \text{ Ac}\cdot\text{ft}$$

$$V_3 = \frac{0.82 \times 4.65 \times 1.28}{12} = 0.407 \text{ Ac}\cdot\text{ft}$$

$$\Sigma V_{100} = 0.530 \text{ Ac}\cdot\text{ft}$$

10 yr -

$V_1 = 0.657 \times 0.103 = 0.067$ Ac·ft

$V_2 = 0.657 \times 0.020 = 0.013$ Ac·ft

$V_3 = 0.657 \times 0.407 = 0.267$ Ac·ft

$$\Sigma V_{10} = 0.347 \text{ Ac}\cdot\text{ft}$$

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT NVAC			SHEET NUMBER 1 OF 2
	COMPUTED BY: KB	CHECKED BY:	JOB NUMBER 5138.12	DATE: 2-26-86

VOLUME OF PROPOSED POND

-found by planimeter

85.5 - 4231 SF
85.0 - 1405 SF

$$VOL = \frac{4231 + 1405}{2} \times 0.5 = 1409 \text{ CF}$$

ACTUAL AMT. OF WATER DISPLACED & RUNOFF GENERATED BY ADD'N.

VOL = INC. IN RUNOFF + DISPLACED VOL.

$= (0.530 - 0.525)$ Ac·ft $+ (1371 \text{ SF} \times 0.5')$

$= 0.021$ Ac·ft $= 903$ CF

LEEDSHILL-HERKENHOFF, INC. ALBUQUERQUE SANTA FE PHOENIX SAN DIEGO SAN FRANCISCO ENGINEERING COMPUTATIONS	NAME OF PROJECT HVAC			SHEET NUMBER 2 OF 2
	COMPUTED BY: KB	CHECKED BY:	JOB NUMBER 5138.12	DATE: 2-26-86

ROOF PORTION SLOPING EAST

Bldg. Addn. Sloping East is approximately 160 SF

$Q = CIA$

$Q_{100} = 0.98 \times 4.65 \times 160 \times \frac{1}{43560}$

$= 0.0167$ CFS

$V = \frac{Q}{A}$

USE 4" PVC

$\therefore V = \frac{0.0167}{\pi/4 \left(4/12\right)^2} = 0.192$ FPS

Manning's Eq.-

$V = \frac{1.486}{n} R^{2/3} \sqrt{S}$

for 1/4 full, $R = 0.1466d = 0.1466 \times 4/12 = 0.04887'$

$V = \frac{1.486}{0.010}(0.04887)^{2/3}\sqrt{S} = 0.192$

$S = 0.000093$

USE MINIMUM SLOPE OF 0.5 % TO KEEP SYSTEM CLEAN.

BOARD OF COUNTY COMMISSIONERS
PATRICK J. PADILLA, CHAIRMAN
DISTRICT 1
ORLANDO VIGIL, MEMBER
DISTRICT 2
LENTON MALRY, MEMBER
DISTRICT 3
PATRICIA H. CASSIDY, MEMBER
DISTRICT 4
MARION M. COTTRELL, MEMBER
DISTRICT 5
ALEX ABEYTA, JR., COUNTY MANAGER

County of Bernalillo

State of New Mexico

ONE CIVIC PLAZA, N.W.
ALBUQUERQUE, NEW MEXICO 87102

ALVIN J. CAMPBELL, SHERIFF
JAMES B. LEWIS, TREASURER
DOLORES C. WALLER, COUNTY CLERK
JACK H. DARLING, ASSESSOR
ROBERT H. SCOTT, PROBATE JUDGE

February 27, 1986

Karen Burt
Leedshill-Herkenhoff, Inc.
500 Copper, NW
Albuquerque, New Mexico 87102

RE: DRAINAGE PLAN FOR NORTH VALLEY ANIMAL CLINIC
RECEIVED FEBRUARY 27, 1986 (D-15/D4) (BP-86-178)

Dear Ms. Burt:

The above referenced plan, dated February 24, 1986, is approved in compliance with the Floodplain Ordinance.

Upon completion of the project, the owner's engineer will be required to certify.

If you have any questions, call me at 766-7644.

Cordially,

Carlos A. Montoya, P.E.
City/County Floodplain Administrator

CAM/bsj

BOARD OF COUNTY COMMISSIONERS
PATRICK J. PADILLA, CHAIRMAN
DISTRICT 1
ORLANDO VIGIL, MEMBER
DISTRICT 2
LENTON MALRY, MEMBER
DISTRICT 3
PATRICIA H. CASSIDY, MEMBER
DISTRICT 4
MARION M. COTTRELL, MEMBER
DISTRICT 5
ALEX ABEYTA, JR., COUNTY MANAGER

County of Bernalillo

State of New Mexico

ONE CIVIC PLAZA, N.W.
ALBUQUERQUE, NEW MEXICO 87102

RECEIVED
MAR 21 1988
HYDROLOGY SECTION

ALVIN J. CAMPBELL, CLERK
JAMES B. LEWIS, TREASURER
DOLORES C. WALLER, COUNTY CLERK
JACK H. DARLING, ASSESSOR
ROBERT H. SCOTT, PROBATE JUDGE

June 25, 1987

Karen Burt
Leedshill-Herkenhoff, Inc.
500 Copper Avenue, NW
Albuquerque, New Mexico 87102

RE: CERTIFICATION FOR NORTH VALLEY ANIMAL CLINIC
(D-15/D6) RECEIVED JUNE 23, 1987

Dear Ms. Burt:

The referenced certification, dated June 23, 1987, is approved.

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

Cordially,

Carlos A. Montoya

Carlos A. Montoya, P.E.
City/County Floodplain Administrator

CAM/bsj

RECEIVED
JUL 01 1987
LEEDSHILL - HERKENHOFF, INC.

PLAN/PLATS

ON

FILE

0 6 2 9

HYDROLOGY D15/D4 2 PLANS

D15/D6

2 PLANS

LEEDSHILL-HERKENHOFF, INC.
500 Copper Avenue N.W.
P. O. Box 1217
Albuquerque, New Mexico 87103
(505) 247-0294

864-5136.12-87

June 22, 1987

Carlos Montoya
Engineering - Hydrology
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87124

RE: NORTH VALLEY ANIMAL CLINIC

Attached are two copies each of the Record Drawings on the Drainage Plan, Information Sheet, and Conference Recap for the above referenced project. As you may recall, the site is located in a flood plain, and there were three primary items incorporated for drainage due to the building addition. They are:

1. Construction of pond for additional runoff and displaced water due to flood plain - Constructed in substantial conformance with the Plan.

2. Finish floor elevation at a above flood level - Constructed in substantial conformance with the Plan.

3. PVC pipe drain to route east sloping roof runoff to pond - The concrete splash pad intended for the outlet was deleted and a 90° bend was installed allowing the runoff to drain onto the concrete ramp. This deviation conforms to the original intent of the drain line and should allow it to function properly.

Please review this information and let me know at your earliest convenience if any additional information is required for approval.

Sincerely,

Karen Burt

KAREN BURT

bz

Encl.

cc: Dr. Stephen Derwelis

RECEIVED
JUN 23 1987
HYDROLOGY SECTION

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

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO.: 11-15 DATE: 2/7/86

PLANNING DIVISION NOS: EPC: _____ DRB: _____

SUBJECT: Addition to North Valley Animal Clinic

STREET ADDRESS (IF KNOWN): 7401 N. 4th St.

SUBDIVISION NAME: _____

APPROVAL REQUESTED:

____	PRELIMINARY PLAT	____	FINAL PLAT
____	SITE DEVELOPMENT PLAN	(County) X	BUILDING PERMIT
____	OTHER	____	ROUGH GRADING

	WHO	REPRESENTING
ATTENDANCE:	Karen Burt	Lindahl Markinkoff
	Joann English	Lindahl/Markinkoff
	Billy Goolsby	City

FINDINGS:

Area is located in a flood hazard zone (AH) El. 4987.
It is recommended that an onsite ponding or appropriate method be provided to handle the displaced volume due to proposed improvements. Finished floor elevation shall be at or higher than the zone elevation above.

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 Goolsby SIGNED: Karen Burt

TITLE: Co/Kuhn Architects TITLE: _____

DATE: 2/7/86 DATE: _____

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

.ITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION/DESIGN HYDROLOGY SECTION

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO.: D15 DATE: 2/7/86

PLANNING DIVISION WOS: EPC: - DRB:

SUBJECT: Addition to North Valley Animal Clinic

STREET ADDRESS (IF KNOWN): 7401 N 4th St.

SUBDIVISION NAME:

APPROVAL REQUESTED:

____	PRELIMINARY PLAT	____	FINAL PLAT
____	SITE DEVELOPMENT PLAN	County X	BUILDING PERMIT
____	OTHER	____	ROUGH GRADING

ATTENDANCE: WHO	REPRESENTING
Karen Burt	Leedshill/Herkinhoff
Jeann English	Leedshill/Herkinhoff
Billy Goolsby	City

FINDINGS:

Area is located in a flood hazard zone (AH) El-4987. It is recommended that on-site ponding or appropriate method be provided to handle the displaced volume due to proposed improvements. Finished floor elevation shall be at or higher than the zone elevation above.

RECEIVED JUN 23 1987 HYDROLOGY SECTION

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: Karen Burt

TITLE: CE/Design Hydrology TITLE:

DATE: 2/7/86 DATE: 2-7-86

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

DRAINAGE INFORMATION SHEET

T TITLE: Addition to North Valley Animal Clinic ZONE ATLAS/DRNG. FILE #: D15

ESCRIPTION: Lots numbered One(1), Two(2) and Three(3) of the Wershaw Replat of Tract 134-B, M.R.G.C.D., Map 27, Bernalillo County, New Mexico

DDRESS: 7401 N. 4th St., N.W.

ERING FIRM: Leedshill-Herkenhoff, Inc. CONTACT: Karen Burt

DDRESS: 500 Copper N.W. PHONE: 247-0294

R: North Valley Animal Clinic CONTACT: Dr. Stephen Derwelis

DDRESS: 7401 N. 4th St. N.W. PHONE: 898-3065

ECT: Leedshill-Herkenhoff, Inc. CONTACT: David Tinker

DDRESS: 500 Copper N.W. PHONE: 247-0294

OR: Leedshill-Herkenhoff, Inc. CONTACT: Kim Stelzer

DDRESS: 500 Copper N.W. PHONE: 247-0294

CTOR: Hermance Construction CONTACT: Slim Hermance

DDRESS: 5107 Edith N.E. PHONE: 345-1685

ESIGN MEETING:

X YES

NO

X COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. --

EPC NO.

PROJ. NO.

OF SUBMITTAL:

DRAINAGE REPORT

DRAINAGE PLAN

CONCEPTUAL GRADING & DRAINAGE PLAN

GRADING PLAN

EROSION CONTROL PLAN

X ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

SKETCH PLAT APPROVAL

PRELIMINARY PLAT APPROVAL

SITE DEVELOPMENT PLAN APPROVAL

FINAL PLAT APPROVAL

BUILDING PERMIT APPROVAL (County)

FOUNDATION PERMIT APPROVAL

X CERTIFICATE OF OCCUPANCY APPROVAL

ROUGH GRADING PERMIT APPROVAL

GRADING/PAVING PERMIT APPROVAL

OTHER _____ (SPECIFY)

SUBMITTED:

BY: Karen Burt

Date: 22 June 87

.ITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION/DESIGN HYDROLOGY SECTION

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO.: D15 DATE: 2/7/86

PLANNING DIVISION NOS: EPC: - DRB:

SUBJECT: Addition to North Valley Animal Clinic

STREET ADDRESS (IF KNOWN): 7401 N 4th St.

SUBDIVISION NAME:

APPROVAL REQUESTED:

___ PRELIMINARY PLAT
___ SITE DEVELOPMENT PLAN
___ OTHER

County X

___ FINAL PLAT
___ BUILDING PERMIT
___ ROUGH GRADING

ATTENDANCE:	WHO	REPRESENTING
	Karen Burt	Leedshill/Herkinhoff
	Joann English	Leedshill/Herkinhoff
	Billy Goolsby	City

FINDINGS:

Area is located in a flood hazard zone (AH) El-4987.
It is recommended that on-site ponding or appropriate method be provided to handle the displaced volume due to proposed improvements.
Finished floor elevation shall be at or higher than the zone elevation above.

RECEIVED
JUN 23 1987
HYDROLOGY SECTION

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: Karen Burt
TITLE: CE/Design Hydrology TITLE:
DATE: 2/7/86 DATE: 2-7-86

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

DRAINAGE INFORMATION SHEET

..' TITLE: Addition to North Valley Animal Clinic ZONE ATLAS/DRNG. FILE #: D15/D6

..ESCRIPTION: Lots numbered One(1), Two(2) and Three(3) of the Wershaw Replat of Tract 134-B, M.R.G.C.D., Map 27, Bernalillo County, New Mexico

..DRESS: 7401 N. 4th St., N.W.

..ERING FIRM: Leedshill-Herkenhoff, Inc. CONTACT: Karen Burt

..DRESS: 500 Copper N.W. PHONE: 247-0294

..R: North Valley Animal Clinic CONTACT: Dr. Stephen Derwelis

..DDRESS: 7401 N. 4th St. N.W. PHONE: 898-3065

..ECT: Leedshill-Herkenhoff, Inc. CONTACT: David Tinker

..DDRESS: 500 Copper N.W. PHONE: 247-0294

..OR: Leedshill-Herkenhoff, Inc. CONTACT: Kim Stelzer

..DDRESS: 500 Copper N.W. PHONE: 247-0294

..TOR: Hermance Construction CONTACT: Slim Hermance

..DDRESS: 5107 Edith N.E. PHONE: 345-1685

..ESIGN MEETING:

X ..ES

_ ..O

X COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. --

EPC NO. _____

PROJ. NO. _____

RECEIVED JUN 23 1987 HYDROLOGY SECTION

.. OF SUBMITTAL:

_ DRAINAGE REPORT

_ DRAINAGE PLAN

_ CONCEPTUAL GRADING & DRAINAGE PLAN

_ GRADING PLAN

_ EROSION CONTROL PLAN

X ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

___ SKETCH PLAT APPROVAL

___ PRELIMINARY PLAT APPROVAL

___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

___ BUILDING PERMIT APPROVAL (County)

___ FOUNDATION PERMIT APPROVAL

X CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY)

..BMITTED: _____

BY: Karen Burt

Date: 22 June 87

FILE COPY

BOARD OF COUNTY COMMISSIONERS
PATRICK J. PADILLA, CHAIRMAN
DISTRICT 1
ORLANDO VIGIL, MEMBER
DISTRICT 2
LENTON MALRY, MEMBER
DISTRICT 3
PATRICIA H. CASSIDY, MEMBER
DISTRICT 4
MARION M. COTTRELL, MEMBER
DISTRICT 5
ALEX ABEYTA, JR., COUNTY MANAGER

County of Bernalillo

State of New Mexico

ONE CIVIC PLAZA, N.W.
ALBUQUERQUE, NEW MEXICO 87102

ALVIN J. CAMPBELL, SHERIFF
JAMES B. LEWIS, TREASURER
DOLORES C. WALLER, COUNTY CLERK
JACK H. DARLING, ASSESSOR
ROBERT H. SCOTT, PROBATE JUDGE

June 25, 1987

Karen Burt
Leedshill-Herkenhoff, Inc.
500 Copper Avenue, NW
Albuquerque, New Mexico 87102

RE: CERTIFICATION FOR NORTH VALLEY ANIMAL CLINIC
(D-15/D6) RECEIVED JUNE 23, 1987

Dear Ms. Burt:

The referenced certification, dated June 23, 1987, is approved.

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

Cordially,

Carlos A. Montoya

Carlos A. Montoya, P.E.
City/County Floodplain Administrator

CAM/bsj

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DISTRICT 1
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PATRICIA H. CASSIDY, MEMBER
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County of Bernalillo

State of New Mexico

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City/County Floodplain Administrator

CAM/bsj

HYDROLOGY D15/D4 2 PLANS

D15/D6

2 PLANS

LEEDSHILL-HERKENHOFF, INC.
500 Copper Avenue N.W.
P. O. Box 1217
Albuquerque, New Mexico 87103
(505) 247-0294

864-5138.12-87

June 22, 1987

Carlos Montoya
Engineering - Hydrology
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87124

RE: NORTH VALLEY ANIMAL CLINIC

Attached are two copies each of the Record Drawings on the Drainage Plan, Information Sheet, and Conference Recap for the above referenced project. As you may recall, the site is located in a flood plain, and there were three primary items incorporated for drainage due to the building addition. They are:

1. Construction of pond for additional runoff and displaced water due to flood plain - Constructed in substantial conformance with the Plan.

2. Finish floor elevation at a above flood level - Constructed in substantial conformance with the Plan.

3. PVC pipe drain to route east sloping roof runoff to pond - The concrete splash pad intended for the outlet was deleted and a 90° bend was installed allowing the runoff to drain onto the concrete ramp. This deviation conforms to the original intent of the drain line and should allow it to function properly.

Please review this information and let me know at your earliest convenience if any additional information is required for approval.

Sincerely,

Karen Burt

KAREN BURT

bz

Encl.

cc: Dr. Stephen Derwelis

RECEIVED
JUN 23 1987
HYDROLOGY SECTION

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

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO.: 115 DATE: 2/7/86

PLANNING DIVISION NOS: EPC: _____ DRB: _____

SUBJECT: Addition to North Valley Animal Clinic

STREET ADDRESS (IF KNOWN): 2421 N. 4th St.

SUBDIVISION NAME: _____

APPROVAL REQUESTED:

____	PRELIMINARY PLAT	____	FINAL PLAT
____	SITE DEVELOPMENT PLAN	(County) X	BUILDING PERMIT
____	OTHER	____	ROUGH GRADING

	WHO	REPRESENTING
ATTENDANCE:	Karen Burt	Lindsley Hankinson
	Joann English	Lindsley/Hankinson
	Billy Goolsby	City

FINDINGS:

Area is located in a flood hazard zone (AH) El. 4987.
It is recommended that an on-site ponding or appropriate method be provided to handle the displaced volume due to proposed improvements. Finished floor elevation shall be at a higher than the zone elevation above.

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 Goolsby	SIGNED:	Karen Burt
TITLE:	CE/Hydrology	TITLE:	
DATE:	2/7/86	DATE:	

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

.ITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION/DESIGN HYDROLOGY SECTION

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO.: D15 DATE: 2/7/86

PLANNING DIVISION NOS: EPC: _____ DRB: _____

SUBJECT: Addition to North Valley Animal Clinic

STREET ADDRESS (IF KNOWN): 7401 N 4th St.

SUBDIVISION NAME: _____

APPROVAL REQUESTED:

____	PRELIMINARY PLAT	____	FINAL PLAT
____	SITE DEVELOPMENT PLAN	County X	BUILDING PERMIT
____	OTHER	____	ROUGH GRADING

ATTENDANCE:	WHO	REPRESENTING
	Karen Burt	Leedshill/Herkinhoff
	Joann English	Leedshill/Herkinhoff
	Billy Goolsby	City

FINDINGS:

Area is located in a flood hazard zone (AH) El-4987. It is recommended that on-site ponding or appropriate method be provided to handle the displaced volume due to proposed improvements. Finished floor elevation shall be at or higher than the zone elevation above.

RECEIVED JUN 3 1987 HYDROLOGY SECTION

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: Karen Burt

TITLE: CE/Design Hydrology TITLE: _____

DATE: 2/7/86 DATE: 2-7-86

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

DRAINAGE INFORMATION SHEET

..' TITLE: Addition to North Valley Animal Clinic ZONE ATLAS/DRNG. FILE #: D15

..ESCRIPTION: Lots numbered One(1), Two(2) and Three(3) of the Wershaw Replat of Tract 134-B, M.R.G.C.D., Map 27, Bernalillo County, New Mexico

..DDRESS: 7401 N. 4th St., N.W.

..ERING FIRM: Leedshill-Herkenhoff, Inc. CONTACT: Karen Burt

..DDRESS: 500 Copper N.W. PHONE: 247-0294

..R: North Valley Animal Clinic CONTACT: Dr. Stephen Derwelis

..DDRESS: 7401 N. 4th St. N.W. PHONE: 898-3065

..ECT: Leedshill-Herkenhoff, Inc. CONTACT: David Tinker

..DDRESS: 500 Copper N.W. PHONE: 247-0294

..OR: Leedshill-Herkenhoff, Inc. CONTACT: Kim Stelzer

..DDRESS: 500 Copper N.W. PHONE: 247-0294

..ECTOR: Hermance Construction CONTACT: Slim Hermance

..DDRESS: 5107 Edith N.E. PHONE: 345-1685

..ESIGN MEETING:

X_ ..ES

_ ..O

X_ COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. --

EPC NO. _____

PROJ. NO. _____

.. OF SUBMITTAL:

_ DRAINAGE REPORT

_ DRAINAGE PLAN

_ CONCEPTUAL GRADING & DRAINAGE PLAN

_ GRADING PLAN

_ EROSION CONTROL PLAN

X_ ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL

____ PRELIMINARY PLAT APPROVAL

____ SITE DEVELOPMENT PLAN APPROVAL

____ FINAL PLAT APPROVAL

____ BUILDING PERMIT APPROVAL (County)

____ FOUNDATION PERMIT APPROVAL

_X_ CERTIFICATE OF OCCUPANCY APPROVAL

____ ROUGH GRADING PERMIT APPROVAL

____ GRADING/PAVING PERMIT APPROVAL

____ OTHER _____ (SPECIFY)

..BMITTED: _____

..Y: Karen Burt

Date: 22 June 87

.ITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION/DESIGN HYDROLOGY SECTION

CONFERENCE RECAP

DRAINAGE FILE/ZONE ATLAS PAGE NO.: D15 DATE: 2/7/86

PLANNING DIVISION NOS: EPC: _____ DRB: _____

SUBJECT: Addition to North Valley Animal Clinic

STREET ADDRESS (IF KNOWN): 7401 N 4th St.

SUBDIVISION NAME: _____

APPROVAL REQUESTED:

_____ PRELIMINARY PLAT
_____ SITE DEVELOPMENT PLAN
_____ OTHER

County X

_____ FINAL PLAT
_____ BUILDING PERMIT
_____ ROUGH GRADING

ATTENDANCE:	WHO	REPRESENTING
	Karen Burt	Leedshill/Herkinhoff
	Joann English	Leedshill/Herkinhoff
	Billy Geelsby	City

FINDINGS:

Area is located in a flood hazard zone (AH) El-4987.
It is recommended that on-site ponding or appropriate method be provided to handle the displaced volume due to proposed improvements.
Finished floor elevation shall be at or higher than the zone elevation above.

RECEIVED
JUN 23 1987
HYDROLOGY SECTION

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. Geelsby SIGNED: Karen Burt
TITLE: CE/Design Hydrology TITLE: _____
DATE: 2/7/86 DATE: 2-7-86

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

DRAINAGE INFORMATION SHEET

T TITLE: Addition to North Valley Animal Clinic ZONE ATLAS/DRNG. FILE #: D15/D6

ESCRIPTION: Lots numbered One(1), Two(2) and Three(3) of the Wershaw Replat of Tract 134-B, M.R.G.C.D., Map 27, Bernalillo County, New Mexico

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DDRESS: 500 Copper N.W. PHONE: 247-0294

CTOR: Hermance Construction CONTACT: Slim Hermance

DDRESS: 5107 Edith N.E. PHONE: 345-1605

ESIGN MEETING:

X YES

NO

X COPY OF CONFERENCE RECAP SHEET PROVIDED

DRB NO. --

EPC NO.

PROJ. NO.

RECEIVED JUN 23 1987 HYDROLOGY SECTION

OF SUBMITTAL:

DRAINAGE REPORT

DRAINAGE PLAN

CONCEPTUAL GRADING & DRAINAGE PLAN

GRADING PLAN

EROSION CONTROL PLAN

X ENGINEER'S CERTIFICATION

CHECK TYPE OF APPROVAL SOUGHT:

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___ SITE DEVELOPMENT PLAN APPROVAL

___ FINAL PLAT APPROVAL

___ BUILDING PERMIT APPROVAL (County)

___ FOUNDATION PERMIT APPROVAL

X CERTIFICATE OF OCCUPANCY APPROVAL

___ ROUGH GRADING PERMIT APPROVAL

___ GRADING/PAVING PERMIT APPROVAL

___ OTHER _____ (SPECIFY)

SUBMITTED:

BY: Karen Burt

Date: 22 June 87

FILE COPY

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ORLANDO VIGIL, MEMBER
DISTRICT 2
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County of Bernalillo

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