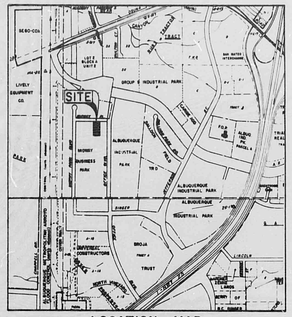
PUBLIC WORKS/HYDROLOGY

E17/D4IU



LOCATION MAP

ZONE ATLAS MAP E-17
SCALE: 1" = 1000'

LEGAL DESCRIPTION

LOT 1-B-1, MIDWAY BUSINESS PARK
(FILED: 7-7-87, BK. C34, PG. 22)

3820 Midway Place NE

LEGEND

- 17 — EXISTING CONTOUR
- 17 — PROPOSED CONTOUR
- 17.50 — PROPOSED SPOT ELEVATION
- ← — SURFACE FLOW DIRECTION
- LANDSCAPING

DRAINAGE CALCULATIONS

TOTAL AREA =	1.00 ACRES
ROOF AREA =	0.28 ACRES
PAVING & SIDEWALK AREA =	0.63 ACRES
LANDSCAPED AREA =	0.09 ACRES

DEVELOPED CONDITIONS

$$\text{COMPOSITE } C = \frac{.28 \times .90 + .63 \times .95 + .09 \times .25}{1.0}$$

$$= 0.873$$

TOTAL VOLUME OF RUNOFF = 0.873 X 2.2 X 1/12 X 1.00
= 0.1601 AC-FT = 6,972 FT^3

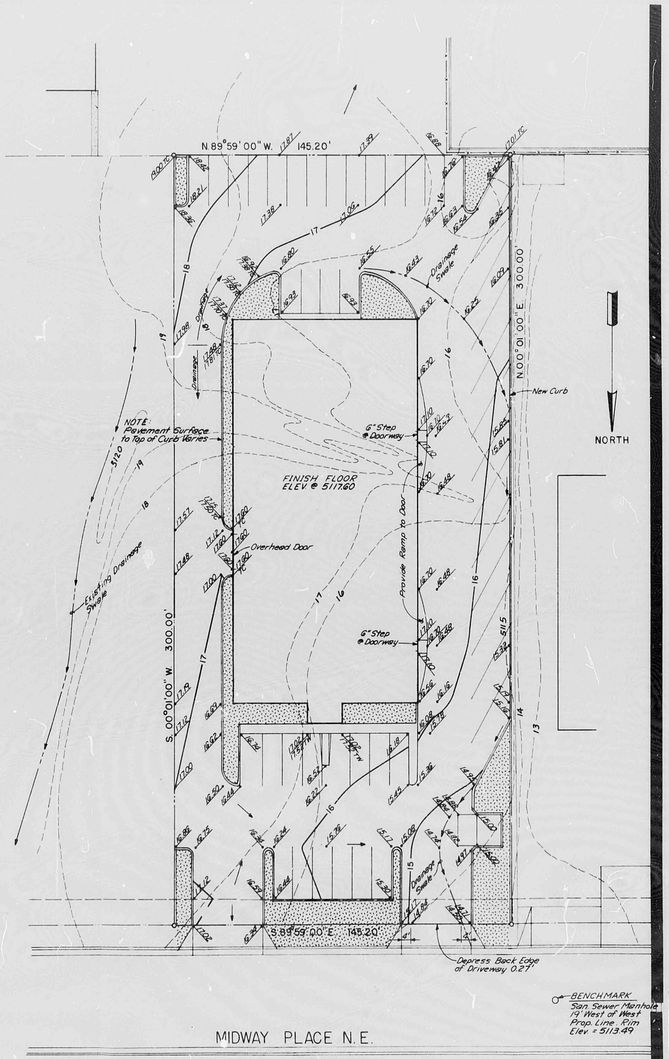
FREE FLOW FROM SITE ALLOWED

100 YEAR - 6 HOUR RAINFALL = 2.2 INCHES
10 YEAR - 6 HOUR RAINFALL = 1.45 INCHES

$I_{100} = 2.2 \times 6.84 \times 10^{-0.51} = 4.65$ INCHES/HR.
$I_{10} = 1.45 \times 6.84 \times 10^{-0.51} = 3.07$ INCHES/HR.

RUNOFF RATE

$Q_{100} = 0.873 \times 4.65 \times 1.00 = 4.06$ CFS
$Q_{10} = 0.873 \times 3.07 \times 1.00 = 2.68$ CFS



GRADING NOTES

1. CONTRACTOR SHALL CLEAR, GRUB AND STRIP SITE OF ALL OBJECTIONABLE MATERIAL PRIOR TO COMMENCING GRADING OPERATIONS. ALL OBJECTIONABLE MATERIAL, TRASH AND DEBRIS SHALL BE REMOVED AND HAULED FROM THE SITE.
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6. ALL SPOT ELEVATIONS SHOWN AT CURB LINE ARE TOP OF PAVEMENT AND 6" BELOW TOP OF CURB UNLESS OTHERWISE INDICATED. ADD 6" TO ELEVATIONS SHOWN FOR TOP OF CURB GRADES UNLESS OTHERWISE INDICATED.

CONCEPTUAL GRADING & DRAINAGE PLAN

SCALE: 1" = 20'

ANDREWS, ASBURY & ROBERT, INC.
CONSULTING ENGINEERS
ALBUQUERQUE 89-546 NEW MEXICO

REGISTERED PROFESSIONAL ENGINEER STATE OF NEW MEXICO JOHN A. ANDREWS
2-14-89

RECEIVED FEB 17 1989 PLANNING DEPARTMENT

MIDWAY BUSINESS PARK
LOT 1-B-1
ALBUQUERQUE, NEW MEXICO
MORNING SUN TRADING CO.

PROJECT NO. CB 0189 DATE 2-14-89

SHEET DRAINAGE PLAN BY RBM

RICHARD B. MOELLER
ARCHITECT, AIA
3737 BIG BEND RD. N.E.
ALBUQUERQUE, NEW MEXICO
87111
(505) 294-2891

SHEET 2

R# 25 DATE 3-15-12 OK E.P.P.

CITY OF ALBUQUERQUE

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The photographic process used meets the Basic Microfilm Standards of the National Micrographics Association (MS115-1977)

DIRECTOR 11/15/12

NOTARY PUBLIC
OFFICIAL SEAL Roberta Duran
NOTARY PUBLIC STATE OF NEW MEXICO
My Commission Expires 12/17/12

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

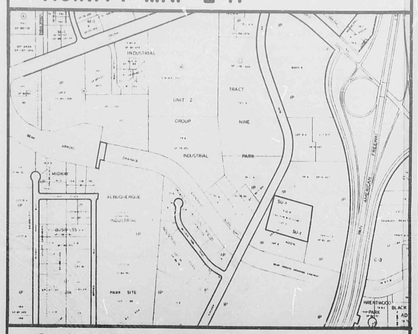
PLANS/PLATS ON FILE

FILE DESC: E17/D41U

PLANS/PLATS 2

E 30 D 24 C 20 B 16 A 12 CITY OF ALBUQUERQUE C D F

VICINITY MAP E-17



SCS SOILS MAP NO. 21

FHBM PANEL NO. 350002 0016

DRAINAGE

Offsite flows enter the site from the adjacent lot to the east. This is relatively new construction and the C.O. has not been issued for the site due to drainage items that are not in compliance with the approved drainage plan. The approved plan indicates that the flows that are now entering the proposed site are to be routed to the street. No other offsite flows enter the site.

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Lot Area = 43560 s.f. @ C = 0.78
Roof Area = 17142 s.f. @ C = 0.90
Paved Area = 15428 s.f. @ C = 0.95
Landscaped Area = 2544 s.f. @ C = 0.25
Landscaped Area = 8446 s.f. @ C = 0.40

Time of Concentration = 10 minutes
6 Hour Rainfall = 2.2 inches (22.2 D-1)
Intensity (100 yr) = 4.65 in./hr.

Site Runoff
100 Year Rate = 3.6 cfs
100 Year Vol. = 5100 cf @ CN = 92
10 Year Rate = 2.4 cfs
10 Year Vol. = 3350 cf

DRAINAGE

Channel Inlet
$Q = 3.6 = CLH^{3/2}$
Use H = 0.5
C = 2.8
Then L = 3.6 ft. Use 4 ft.

Sidewalk Culvert
$Q = 3.6 = \frac{1.489}{n} AR^{2/3} S^{1/2}$
Use n = 0.013
S = 0.01
A = WD , D = 0.56
R = A/w +2D
Then W = 1.3 ft.

V = 1.9 fps @ channel inlet
= 1.9 + AT@ sidewalk culvert
A = g Cosθ
= 32.2 Cos 89.4
= 0.322 ft/sec/sec
$S = 1.9T + \frac{1}{2}AT^2$
T = 4.2 sec. @ S = 17 ft.
= 3.25 fps
Q = 3.6 = AV
Use V = 3.25
A = WD , D = 0.56
Then W = 1.97 ft.
Use w = 2 ft.

BENCHMARK

A square chisled on top of curb at the SSE curb return at the inter. of Jefferson and Osuna 3d. Elev. 5140.04 feet (MSLD)

LEGAL

Lot 1-B-1 Midway Business Park
Filed 07/07/87; Bk C34, Pg 22

NOTES

CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM 260-1990 FOR LOCATION OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
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S.O. 19 NOTES & APPROVAL

NOTICE TO CONTRACTOR

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3. Two (2) working days prior to any excavation, the Contractor must contact New Mexico One Call System 260-1990 for location of existing utilities.
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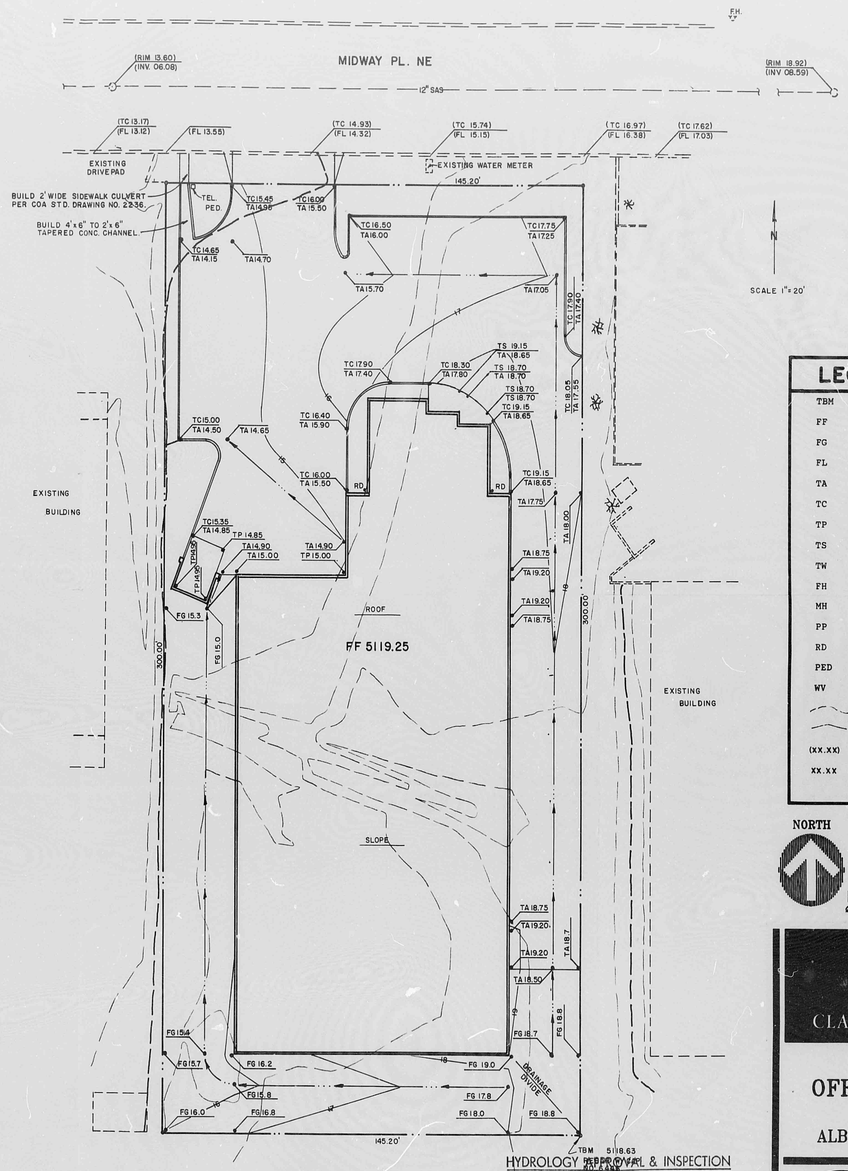
5. Backfill compaction shall be according to Arterial street use.
6. Maintenance of these facilities shall be the responsibility of the Owner of the property served.

APPROVALS	NAME	DATE
A.C.E./DESIGN	Barry J. Montoya	2/4/91
INSPECTOR		
A.C.E./FIELD		



GRADING PLAN

LEGEND

TBM	TEMPORARY BENCH MARK
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOW LINE
TA	TOP OF ASPHALT
TC	TOP OF CURB
TP	TOP OF PAD
TS	TOP OF SIDEWALK
TW	TOP OF WALL
FH	FIRE HYDRANT
MH	MAN HOLE
PP	POWER POLE
RD	ROOF DRAIN
PED	POWER OR TEL. PEDESTAL
WV	WATER VALVE
	EXISTING CONTOUR
	PROPOSED CONTOUR
(XX.XX)	EXISTING ELEVATION
XX.XX	PROPOSED ELEVATION
	AS-BUILT ELEVATION

NORTH

GRADING/ DRAINAGE PLAN

JANUARY 22, 1991 SCALE: 1"=20'-0"

0 5 10 20 30 50

HYDROLOGY REPORT & INSPECTION

APPROVED FOR BUILDING PERMIT
ENGINEER B. Montoya DATE 2/4/91
INSPECTION PERMIT DATE
APPROVAL DATE
S19 APPROVAL DATE
SURVEY DATE
HYDROLOGY BOOK NO. PAGE NO.
SURVEYED BY
COMMENTS

CLAUDIO VIGIL ARCHITECTS

MIDWAY PLACE
OFFICE / WAREHOUSE
MIDWAY PLACE NE
ALBUQUERQUE, NEW MEXICO

RECEIVED JAN 30 1991 HYDROLOGY DIVISION

SHEET C-0

825 Pennsylvania NE Albuquerque, NM 87110
505 265-5000

PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

CITY OF ALBUQUERQUE
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R# 25 DATE 3-15-92 OP ESP

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DIRECTOR 11/5/92

NOTARY PUBLIC

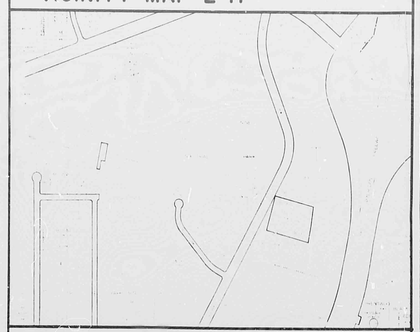
OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 12/08/92

D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D

VICINITY MAP E-17



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FHBM PANEL NO. 350002 0016

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Roof Area = 1714 s.f. ; C = 0.90
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Landscaped Area = 2544 s.f. ; C = 0.35
Landscaped Area = 3446 s.f. ; C = 0.50

Time of Concentration = 10 minutes
6 Hour Rainfall = 2.2 inches (2212 D-1)
Intensity (100 yr) = 4.65 in/hr.

Site Runoff
100 Year Rate = 3.6 cfs
100 Year Vol. = 3100 cf @ CN = 92
10 Year Rate = 2.9 cfs
10 Year Vol. = 2520 cf

DRAINAGE

Channel Inlet
Q = 2.0 x CWH $^{3/2}$
Use H = 0.5
C = 2.8
Then H = 1.0 ft. Use 1.0 ft.

Sidewalk Culvert
Q = 1.8 x (W-2H) H$^{3/2}$
Use H = 0.5
C = 2.0
W = MD , D = 0.76
Z = W/4 - D
Then W = 2.0 ft.

Q = 2.0 for a channel inlet
= 1.0 + ATJ sidewalk culvert
Z = 2 Cos θ
= 32.2 Cos 80.1
= 5.323 ft/ft/sec
S = .01 + ΔAT
Z = .12 sec. ; S = 17.4%
= 3.3 cfs
Q = 1.8 x AV
Use = 4.2
A = MD , D = 1.6
Then W = 2.0 ft.
Use W = 2 ft.

BENCHMARK

A square chisled on top of curb @ the SSE curb return at the inter of Jefferson and Osuna Rd. Elev. 5140.04 feet MSL

LEGAL

Lot 1-B-1 Midway Business Park
Filed 07/07/87; Bk C34, Pg 22

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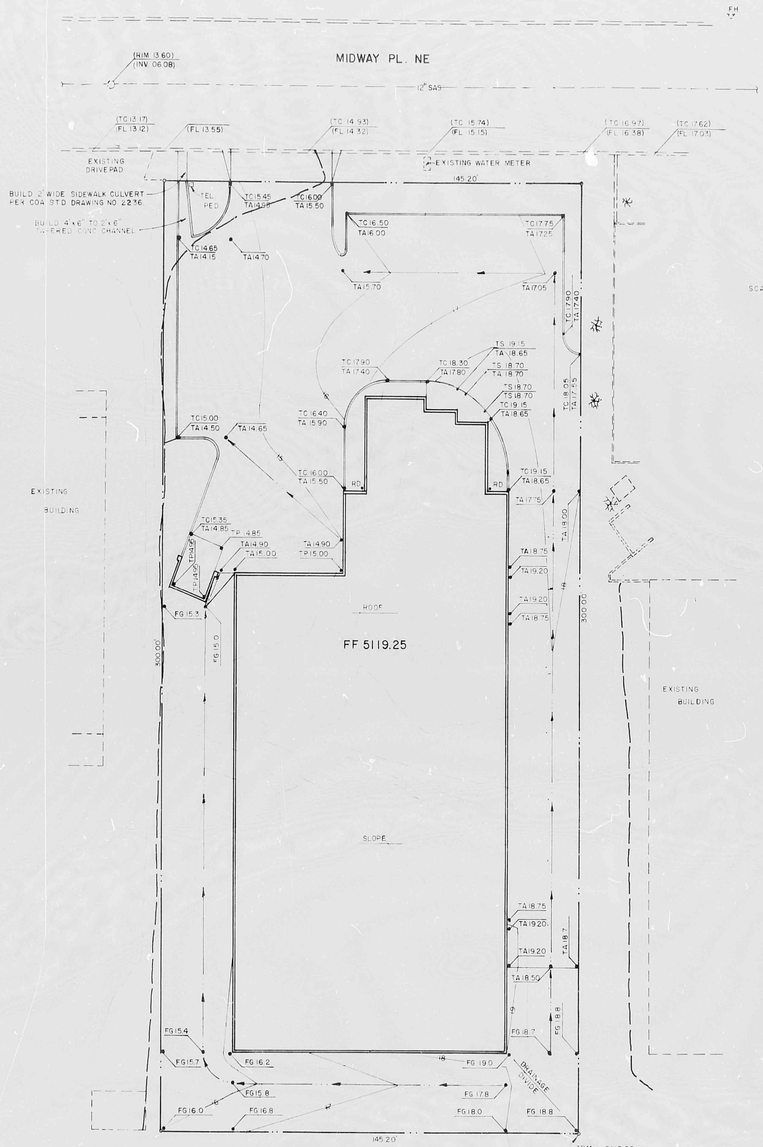
A.C.E./DESIGN		
INSPECTOR		
A.C.E./FIELD		



GRADING PLAN

LEGEND

TBM	TEMPORARY BENCH MARK
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FG	FINISH GRADE
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TA	TOP OF ASPHALT
TC	TOP OF CURB
TP	TOP OF PAD
TS	TOP OF SIDEWALK
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PED	POWER OR TEL. PEDESTAL
WV	WATER VALVE
	EXISTING CONTOUR
	PROPOSED CONTOUR
(XX.XX)	EXISTING ELEVATION
XX.XX	PROPOSED ELEVATION
	AS-BUILT ELEVATION

NORTH

GRADING/ DRAINAGE PLAN

JANUARY 22, 1991 SCALE: 1"=20'-0"

0 5 10 20 30 50

CLAUDIO VIGIL ARCHITECTS

MIDWAY PLACE
OFFICE / WAREHOUSE
MIDWAY PLACE NE
ALBUQUERQUE, NEW MEXICO

REGISTERED PROFESSIONAL ENGINEER AND LAND SURVEYOR NO. 6110 STATE OF NEW MEXICO JAMES BORDEN

HYDROLOGY DIVISION

SHEET
C-0

825 Pennsylvania NE Albuquerque NM 87110
505/265-3000

PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

CITY OF ALBUQUERQUE
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R# 25 DATE 5/15/92 OP

CITY OF ALBUQUERQUE

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DIRECTOR 11/5/92

NOTARY PUBLIC

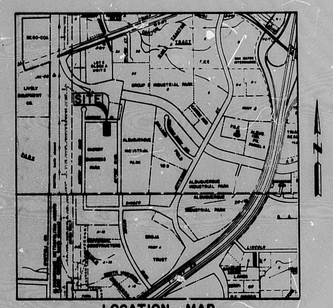
10/05/92

D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE C D

PUBLIC WORKS/HYDROLOGY

E17/D4IU



LOCATION MAP

ZONE ATLAS MAP E-17
SCALE: 1" = 1000'

LEGAL DESCRIPTION

LOT 1-B-1, MIDWAY BUSINESS PARK
(FILED: 7-7-87, BK.C34, PG.22)

3820 Midway Place NE

LEGEND

- 17 — EXISTING CONTOUR
- 17 — PROPOSED CONTOUR
- 17.10 — PROPOSED SPOT ELEVATION
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COMPOSITE C = $\frac{.28 \times .90 + .63 \times .95 + .09 \times .25}{1.0}$

= 0.873

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= 0.1601 AC-FT = 6,972 FT^3

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100 YEAR - 6 HOUR RAINFALL = 2.2 INCHES

10 YEAR - 6 HOUR RAINFALL = 1.45 INCHES

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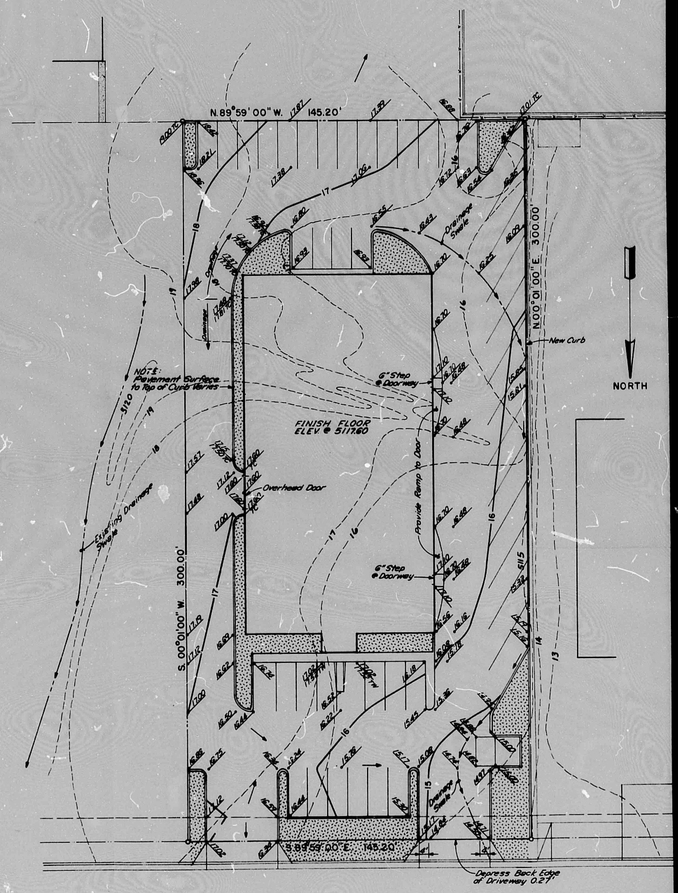

CONCEPTUAL GRADING & DRAINAGE PLAN

SCALE: 1" = 20'

ANDREWS, ASBURY & ROBERT, INC.
CONSULTING ENGINEERS
ALBUQUERQUE 89-846 NEW MEXICO

REGISTERED PROFESSIONAL ENGINEER STATE OF NEW MEXICO JOHN A. ANDREWS
2-14-89

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6. ALL SPOT ELEVATIONS SHOWN AT CURB LINE ARE TOP OF PAVEMENT AND 6" BELOW TOP OF CURB UNLESS OTHERWISE INDICATED. ADD 6" TO ELEVATIONS SHOWN FOR TOP OF CURB GRADES UNLESS OTHERWISE INDICATED.

RECEIVED
FEB 17 1989

MIDWAY BUSINESS PARK LOT 1-B-1 ALBUQUERQUE, NEW MEXICO MORNING SUN TRADING CO.	
PROJECT NO. CB 0189	DATE 2-14-89
SHEET DRAINAGE PLAN	BY RBM
RICHARD B. MOELLER ARCHITECT, AIA 3737 BIG BEND RD. N.E. ALBUQUERQUE, NEW MEXICO 87111 (505) 294-2891	SHEET 2

R# 25 DATE 3-15-12 OP EGP

CITY OF ALBUQUERQUE

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DIRECTOR 11/15/82

NOTARY PUBLIC
OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
MY COMMISSION EXPIRES 12/10/82

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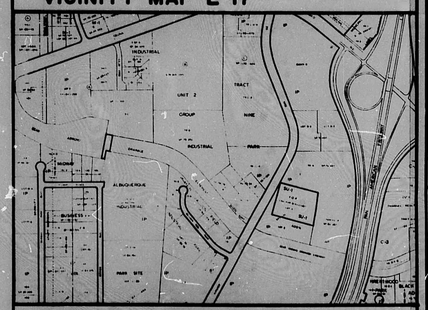
PLANS/PLATS ON FILE

FILE DESC: E17/D41U

PLANS/PLATS 2

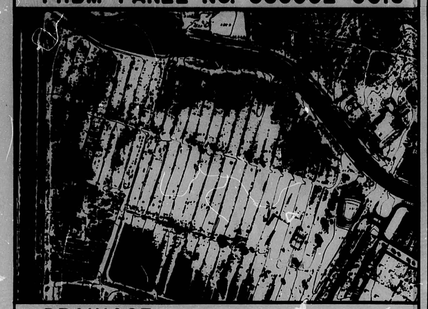
E 30 D 24 C 20 B 16 A 12 CITY OF ALBUQUERQUE C D F

VICINITY MAP E-17



SCS SOILS MAP NO. 21

FHBM PANEL NO. 350002 0016



DRAINAGE

Offsite flows enter the site from the adjacent lot to the east. This is relatively new construction and the C.O. has not been issued for the site due to drainage items that are not in compliance with the approved drainage plan. The approved plan indicates that the flows that are now entering the proposed site are to be routed to the street. No other offsite flows enter the site.

All onsite flows are to be routed to the northwest corner of the site. At that point they will be diverted to the street via a sidewalk culvert. The predesign conference recap states that the proposed site is allowed to direct discharge to the street. All flows generated on impervious surfaces will be contained on non-erodable surface. Pervious surfaces that are no planted are landscaped with gravel on a filter cloth, thus providing a non erodable, pervious surface.

Lot Area = 43560 s.f. @ C = 0.78
Roof Area = 17142 s.f. @ C = 0.90
Paved Area = 15428 s.f. @ C = 0.95
Landscaped Area = 2544 s.f. @ C = 0.25
Landscaped Area = 8446 s.f. @ C = 0.40

Time of Concentration = 10 minutes
6 Hour P.rinfall = 2.2 inches (22.2 D-1)
Intensity (100 yr) = 4.65 in./hr.

Site Runoff
100 Year Rate = 3.6 cfs
100 Year Vol. = 5100 cf @ CN = 92
10 Year Rate = 2.4 cfs
10 Year Vol. = 3350 cf

DRAINAGE

Channel Inlet
$Q = 3.6 = CLH^{3/2}$
Use H = 0.5
C = 2.8
Then L = 3.6 ft. Use 4 ft.

Sidewalk Culvert
$Q = 3.6 = \frac{1.489}{n} AR^{2/3} S^{1/2}$
Use n = 0.013
S = 0.01
A = WD , D = 0.56
R = A/W +2D
Then W = 1.3 ft.

V = 1.9 fps @ channel inlet
= 1.9 + AV@ sidewalk culvert
A = g Cos@
= 32.2 Cos 89.4
= 0.322 ft/sec/sec
$S = 1.9T + \frac{1}{2}AT^2$
T = 4.2 sec. @ S = 17 ft.
= 3.25 fps
Q = 3.6 = AV
Use V = 3.25
A = WD , D = 0.56
Then W = 1.97 ft.
Use w = 2 ft.

BENCHMARK

A square chisled on top of curb at the SSE curb return at the inter" of Jefferson and Osuna Rd. Elev. =140.04 feet (NGSD)

LEGAL

Lot 1-B-1 Midway Business Park
Filed 07/07/87; Bk C34, Pg 22

NOTES

CONSTRUCTION NOTES:

1. TWO (2) WORKING DAYS PRIOR TO ANY EXCAVATION, CONTRACTOR MUST CONTACT NEW MEXICO ONE CALL SYSTEM 260-1990 FOR LOCATION OF EXISTING UTILITIES.
2. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL EXCAVATE AND VERIFY THE HORIZONTAL AND VERTICAL LOCATION OF ALL POTENTIAL OBSTRUCTIONS. SHOULD A CONFLICT EXIST, THE CONTRACTOR SHALL NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED WITH A MINIMUM AMOUNT OF DELAY.
3. ALL WORK ON THIS PROJECT SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL LAWS, RULES AND REGULATIONS CONCERNING CONSTRUCTION SAFETY AND HEALTH.
4. ALL CONSTRUCTION WITHIN PUBLIC RIGHT-OF-WAY SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE CITY OF ALBUQUERQUE STANDARDS AND PROCEDURES.

EROSION CONTROL MEASURES:

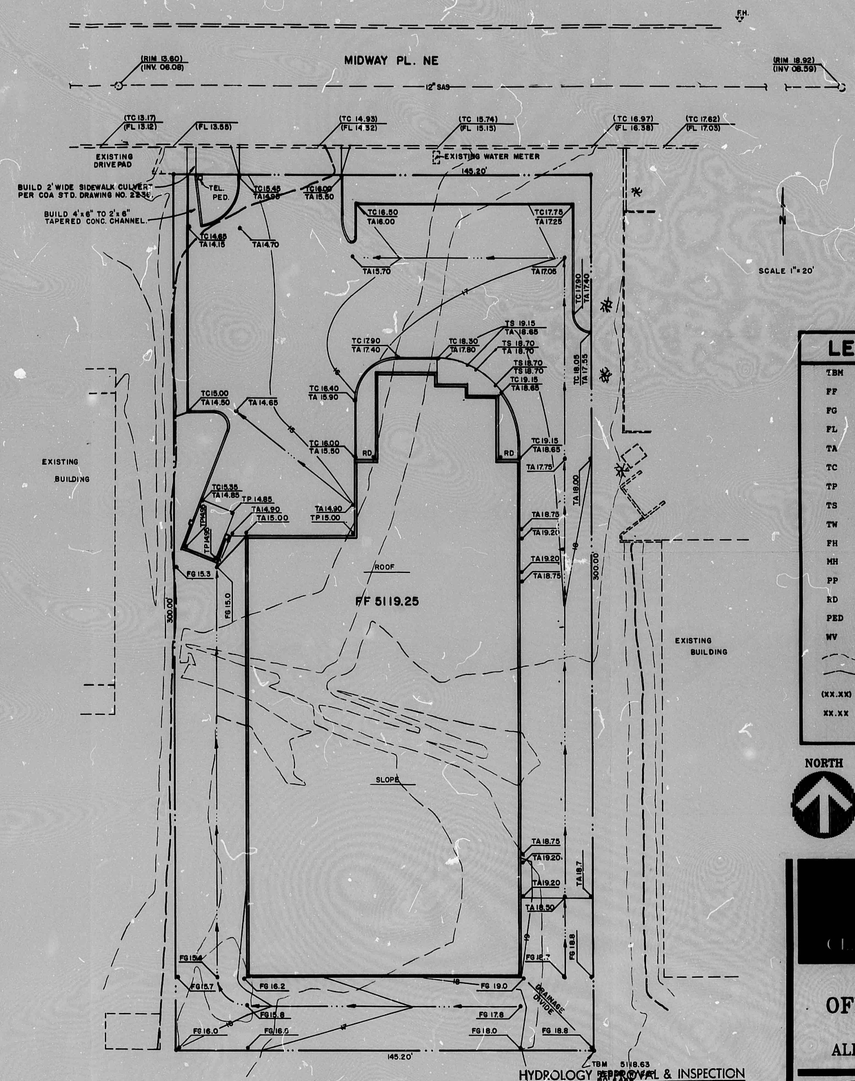
1. THE CONTRACTOR SHALL ENSURE THAT NO SOIL ERODES FROM THE SITE INTO PUBLIC RIGHT-OF-WAY OR ONTO PRIVATE PROPERTY. THIS CAN BE ACHIEVED BY CONSTRUCTING TEMPORARY BERMS AT THE PROPERTY LINES AND WETTING THE SOIL TO KEEP IT FROM BLOWING.
2. THE CONTRACTOR SHALL PROMPTLY CLEAN UP ANY MATERIAL EXCAVATED WITHIN THE PUBLIC RIGHT-OF-WAY SO THAT THE EXCAVATED MATERIAL IS NOT SUSCEPTIBLE TO BEING WASHED DOWN THE STREET.
3. THE CONTRACTOR SHALL SECURE "TOPSOIL DISTURBANCE PERMIT" PRIOR TO BEGINNING CONSTRUCTION.

S.O. 19 NOTES & APPROVAL

NOTICE TO CONTRACTOR

1. An excavation/construction permit permit will be required before beginning any work within the City right-of-way. An approved copy of these plans must be submitted at the time of application for this permit.
2. All work, within the City right-of-way, detailed on these plans to be performed, except as otherwise stated or provided herein, shall be constructed in accordance with City of Albuquerque Standard Specifications for Public Works Construction, 1986.
3. Two (2) working days prior to any excavation, the Contractor must contact New Mexico One Call System 260-1990 for location of existing utilities.
4. Prior to construction, the Contractor shall excavate and verify the horizontal and vertical locations of all potential obstructions. Should a conflict exist, the Contractor shall notify the Engineer so that the conflict can be resolved with a minimum amount of delay.
5. Backfill compaction shall be according to Arterial street use.
6. Maintenance of these facilities shall be the responsibility of the Owner of the property served.

APPROVALS	NAME	DATE
A.C.E./DESIGN	Barry J. Montoya	2/4/91
INSPECTOR		
A.C.E./FIELD		



GRADING PLAN

LEGEND

TBM	TEMPORARY BENCH MARK
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOW LINE
TA	TOP OF ASPHALT
TC	TOP OF CURB
TP	TOP OF PAD
TS	TOP OF SIDEWALK
TW	TOP OF WALL
FH	FIRE HYDRANT
MH	MAN HOLE
PP	POWER POLE
RD	ROOF DRAIN
PED	POWER OR TEL. PEDESTAL
WV	WATER VALVE
	EXISTING CONTOUR
	PROPOSED CONTOUR
(XX.XX)	EXISTING ELEVATION
XX.XX	PROPOSED ELEVATION
	AS-BUILT ELEVATION

NORTH

GRADING/ DRAINAGE PLAN

JANUARY 22, 1991 SCALE: 1"=20'-0"

0 5 10 20 30 50 ?

HYDROLOGY APPROVAL & INSPECTION

APPROVED FOR BUILDING PERMIT
ENGINEER B. Montoya DATE 2/4/91
INSPECTION DATE
APPROVAL DATE APPROVED
SO19 APPROVAL DATE
SURVEY DATE
HYDROLOGY BOOK NO. / PAGE NO.
SURVYED BY
COMMENTS

CLAUDIO NIGH ARCHITECTS

MIDWAY PLACE
OFFICE / WAREHOUSE
MIDWAY PLACE NE
ALBUQUERQUE, NEW MEXICO

RECEIVED JAN 30 1991 HYDROLOGY DIVISION

SHEET C-0

PLAN SHOT TWICE ONCE ON LIGHT ONCE ON DARK

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

R# 25 DATE 3-15-92 OP ESP

CITY OF ALBUQUERQUE

This microimage is certified to be a complete and accurate copy of the original as it appears in the files of the Public Works Department and was created in the normal course of business.

The photographic process used meets the Basic Microfilm Standards of the National Micrographics Association (MS115-1977)

DIRECTOR 11/5/92

NOTARY PUBLIC

OFFICIAL SEAL
Roberta Duran
NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires 7/28/92

D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D

VICINITY MAP E-17

SCS SOILS MAP NO. 21

FHBM PANEL NO. 350002 0016

DRAINAGE

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Lot Area = 43560 s.f. , C = 0.71
Roof Area = 17414 s.f. , C = 0.90
Paved Area = 19428 s.f. , C = 0.95
Landscaped Area = 2344 s.f. , C = 0.35
Landscaped Area = 4406 s.f. , C = 0.45

Time of Concentration = 10 minutes
6 Hour Rainfall = 3.2 inches (3242 Dp)
Intensity, 100 yr. = 4.65 in./hr.

Site Runoff
100 Year Rate = 3.6 cfs
100 Year Vol. = 5100 cf ; CN = 92
10 Year Rate = 2.1 cfs
10 Year Vol. = 3350 cf

DRAINAGE

Channel Inlet
$Q = .9 \times C \times H^{3/2}$
Use H = 0.5
C = .8
Then L = 3.6 ft. Use 4 ft.

Sidewalk Culvert
$Q = 2.6 \times [1.150 \times A]^{3/2} / n^{1/2}$
Use n = 0.012
S = 0.01
A = WD , D = 0.56
R = A/4 -2D
Then W = 1.3 ft.

V = .9 fps ; Channel inlet
1.0 - A'S sidewalk culvert
A = 1 Cos θ
= 12.2 Cos 89.4
= 0.222 ft/sec/sec
S = .07T - .NT
C = .12 sec. ; S = 17 ft.
= 1.5 fps
$Q = 1.6 \times N^{1/2}$
Use = 1.25
A = WD , D = 1.56
Then A = 1.97 ft.
Use W = 2 ft.

BENCHMARK

A square chisled on top of curb at the SSE curb return at the intersection of Jefferson and Osuna Rd. Elev. 5140.04 feet (MSL)

LEGAL

Lot 1-B-1 Midway Business Park
Filed 07/07/87; Bk C24, Pg 12

NOTES

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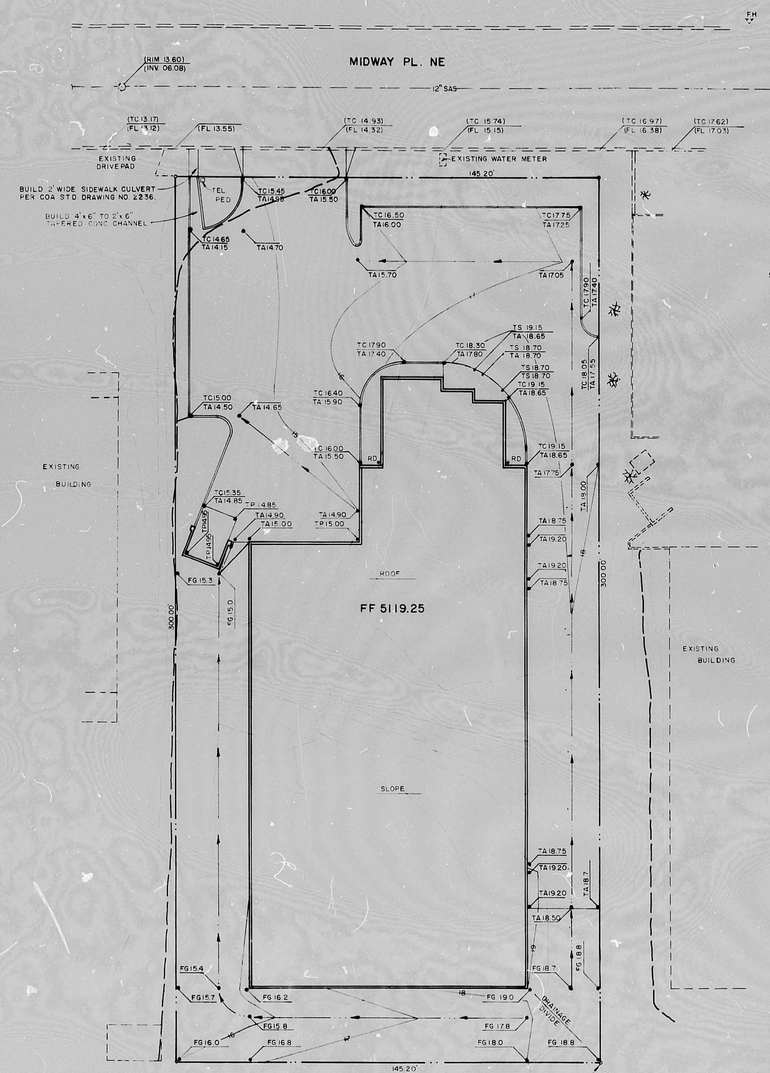
APPROVALS	NAME	DATE
A.C.E./DESIGN	Barry Hunter	2/4/9
INSPECTOR		
A.C.E./FIELD		



GRADING PLAN

HYDROLOGY DIVISION INSPECTION
Barry Hunter 2/4/9

LEGEND

TBM	TEMPORARY BENCH MARK
FF	FINISH FLOOR
FG	FINISH GRADE
FL	FLOW LINE
TA	TOP OF ASPHALT
TC	TOP OF CURB
TP	TOP OF PAD
TS	TOP OF SIDEWALK
TW	TOP OF WALL
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MH	MAN HOLE
PP	POWER POLE
RL	ROOF DRAIN
PED	POWER OR TEL. PEDESTAL
WV	WATER VALVE
	EXISTING CONTOUR
	PROPOSED CONTOUR
(XX.XX)	EXISTING ELEVATION
XX.XX	PROPOSED ELEVATION
	AS-BUILT ELEVATION

NORTH

GRADING/ DRAINAGE PLAN

JANUARY 22, 1991 SCALE: 1"=20'-0"

0 5 10 20 30 50

CLAUDIO VIGIL ARCHITECTS

MIDWAY PLACE
OFFICE / WAREHOUSE
MIDWAY PLACE NE
ALBUQUERQUE, NEW MEXICO

NEW MEXICO PROFESSIONAL LAND SURVEYOR NO. 6110 STATE OF NEW MEXICO

HYDROLOGY DIVISION

SHEET C-0

825 Pennsylvania NE Albuquerque, NM 87110
505/265-3000

BYP-SITE

PLAN SHOT TWICE
ONCE ON LIGHT
ONCE ON DARK

CITY OF ALBUQUERQUE
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R# 25 DATE 5-15-92 OP

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DIRECTOR 11/5/92

NOTARY PUBLIC
07/08/92

D 24 C 20 B 16 A 12

CITY OF ALBUQUERQUE

C D