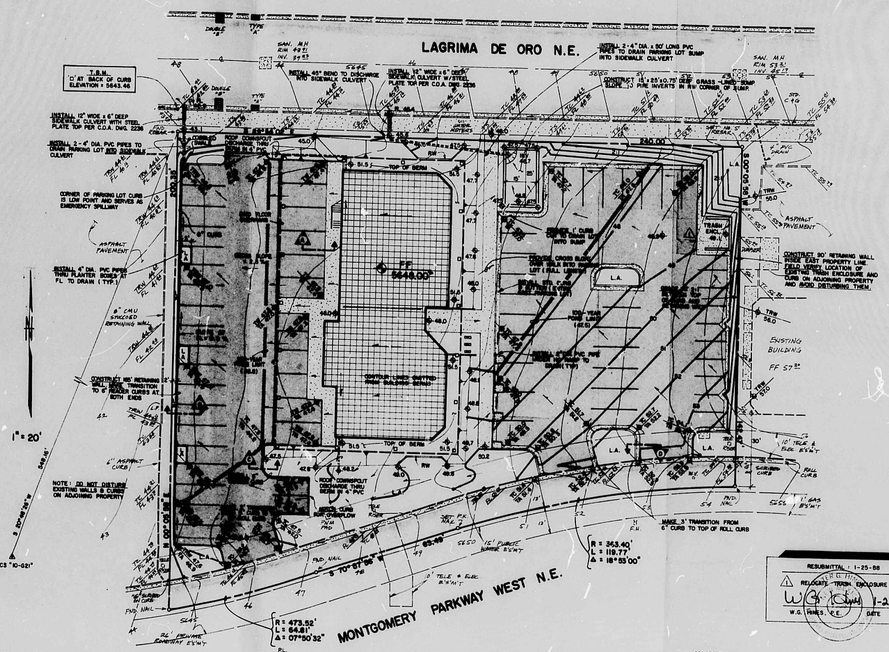
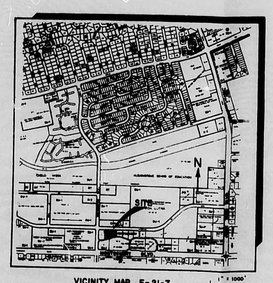


RESUBMITTAL: 1-25-88
RELOCATE TRASH ENCLOSURE
W.G. HINES, P.E. 1-25-88 DATE



VICINITY MAP F-21-Z

1" = 1000'

FLOOD HAZARD MAP

1" = 1000'

NOTICE TO CONTRACTOR

1. An excavation/construction permit will be required before beginning any work within City rights-of-way. An approved copy of these plans must be submitted at the time of application for this permit.
2. All work detailed on these plans to be performed, except as otherwise noted or provided hereon, shall be constructed in accordance with the latest Standard Specifications for Public Work Construction.
3. Two working days prior to any excavation, contractor must contact Line Locating Service, 765-1234, for location of existing utilities.
4. Prior to construction, the contractor shall compute and verify the horizontal and vertical locations of all obstructions. Should a conflict arise between proposed improvements and existing utilities, it shall be resolved within a reasonable amount of time.
5. Backfill compaction shall be according to AMERICAN street use.
6. Maintenance of these facilities shall be the responsibility of the Owner of the property served.
7. Contractor is responsible for obtaining excavation permit for sidewalk culvert/drain.
8. Proof of acceptance will be required prior to sign off for Certificate of Occupancy (C.O.).

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY

DESIGN APPROVAL: Hydrology Section — Date

INSPECTION APPROVAL: Construction Section — Date

ACCEPTANCE: Construction Section/Parks — Date

SCOPE:

The proposed improvements are comprised of a two-story office building and associated paved parking areas, sidewalks and landscaped areas. Two stormwater detention ponds with controlled outlets will be created in the construction of the parking areas.

The present site is undeveloped land sloping at approximately 3% grade from east to west. The property abuts Lagrima de Oro N.E. on the south. The site is to be accessed by the construction of Montgomery Parkway West on the south. The lots adjacent on the east and west of the site are fully developed commercial properties.

The site, Lot 2A of Montgomery Business Park, formerly consisted of Lots 2 and 3 before being replatted into one lot.

The intent of this plan is to show:

a) Grading relationships between the existing ground elevations and proposed finished elevations in order to facilitate positive drainage to designated discharge points.

b) The extent of proposed site improvements, including buildings, walks and pavement.

c) The flow rate/volume of rainfall runoff across or around these improvements and methods of handling these flows to meet City requirements for drainage management.

d) The relationship of onsite improvements with existing neighboring property to insure an orderly transition between proposed and surrounding grades.

DRAINAGE PLAN CONCEPT

The development of this site is a part of the Phase I Development of Montgomery Business Park and is in compliance with the Montgomery Business Park Drainage Study, Albuquerque, by Bohannan-Huston, Inc. in November, 1982, and approved by the City of Albuquerque, January 20, 1983 (F21-D37). Because of insufficient downstream capacity, development requires onsite detention and controlled discharge.

Two ponds (1500 CF and 1100 CF) will be formed on a part two of the paved parking areas. Runoff will be directed to the ponds by curbs and gutters and through a 6" diameter PVC pipe into Lagrima de Oro. The water will pass through each set of pipes with the ponds full as per the Master Plan recommendations.

GENERAL NOTES:

LEGAL: Lot 2A of Montgomery Business Park, Albuquerque, NM. Replatted to combine former Lots 2 and 3.

SURVEYOR: Gordon J. Douglas & Associates, P.C., Albuquerque, NM.

B.M.: ACS brass cap stamped "10-G22", set flush with curb on southwest corner of intersection of Montgomery Blvd. N.E. and Morris Street N.E. Elevation = 5,636.111'.

T.B.M.: Mark on back of curb at extension of west property line to Lagrima de Oro N.E. Elevation = 5,643.46'.

SOILS: Per the SCS Soil Survey of Bernalillo County, the soil is Embudo-Tijeras Complex (EMT), a sandy loam. The soil is classified as hydrologic soil "Group B".

FLOOD HAZARD: Per FEMA Map No. 18, the site is not in a flood hazard area.

OFF-SITE DRAINAGE: Flows north and south of the site are carried in Lagrima de Oro and Montgomery Parkway West, respectively, to large roads the property from the west. Balance flows from the lot east of the site are insignificant.

EROSION CONTROL: All sediment generated during construction is to be retained on site by temporary dikes along the east and north property lines.

CALCULATIONS: Calculations are based on the City of Albuquerque D.P.M. Manual, Vol. II (1975) and Vol. III-Sewer design, using the Rational Formula to compare the existing and proposed runoff rates.

RATIONAL METHOD: Q = CIA

Area of site: 39,940 SF = 0.9169 AC

Runoff Coefficient:

Existing Site:
Unoccupied Area = 18,185 SF
Paved Area = 3,175 SF

$C_p = (36,411)(0.41) = 0.37$ / 39,940

$C_p = (3,175)(0.9) = 0.07$ / 39,940

Composite $C = 0.44$

Developed Site:
Roof Area = 6,000 SF
Landscaped Area = 2,000 SF
Paved Area = 22,266 SF

$C_r = (6,000)(0.9) = 0.22$ / 39,940

$C_l = (2,000)(0.41) = 0.05$ / 39,940

$C_p = (22,266)(0.9) = 0.51$ / 39,940

Composite $C = 0.80$

Rainfall Intensity:

$I = P_6 (1.84)^{-0.14} = 5.28$" per hour

where $P_6 = 2.7$"(100 yr, 6-hr)
$T_c = 10$ minutes

Existing Condition:

$Q_{100} = (0.44)(5.28)(0.92) = 2.1$ cfs

$V_{100} = (0.44)(5.28)(39,940)/12 = 5661$ CF

Developed Condition:

$Q_{100} = (0.80)(5.28)(0.92) = 3.9$ cfs

$V_{100} = (0.80)(5.28)(39,940)/12 = 6557$ CF

SUMMARY:
$Q_{100} = (3.9-2.1) = 1.8$ cfs (increase)
$V_{100} = (6557-5661) = 896$ CF (increase)

POND SIZING

(Note: 85 of the site in Montgomery Parkway West (street, which drains away from the property and does not affect drainage area calculations.)

WEST POND:
Size Required (Master Plan) = 5,989.5 x $\frac{78.0}{4}$ = 1783

Area (Parmarly Lot 2) = 0.92 (0.5) Acre) = 0.47 Acre
Volume = 1500 CF

Size Proposed = $[(100')(30')] + \frac{(20')(30')}{2}](10.5'$ avg. depth) = 1638 CF

EAST POND:
Size Required as Area = (0.92)(0.41 Ac.) = 0.38 Acre

Volume = 1100 CF

Size Proposed

$[(72')(30')] + (20')(30') + \frac{(15')(20')}{2}](10.5'$ avg depth) + $[(15')(25')(10.75')]$

= 1100CF

DISCHARGE RATE, 6" DIAMETER PIPE

Both Ponds: Qout = $C_d A\sqrt{2gh}$ (h = 0.85' at 46.5' & 47.5' W.S.E. for W & E ponds)

Qout = (0.6)(0.00)$\sqrt{(2)(32.2)(0.5)}$ = 0.25 cfs

Use 2 pipes = 0.50 cfs

LEGEND

	SIDEWALK, CURB & GUTTER (EXISTING, PROPOSED)
	PROPOSED ASPHALT
	BUILDING (EXISTING, PROPOSED)
	PROPERTY LINE
10.3 F.F.	EXISTING SPOT ELEVATION
	EXISTING CONTOUR
10.3	PROPOSED SPOT ELEVATION
10	PROPOSED CONTOUR
	SURFACE FLOW DIRECTION (EXISTING, PROPOSED)
L.A.	LANDSCAPED AREA
T.O.W.	TOP OF GRADE WALL (LESS THAN 18" HIGH)
T.R.W.	TOP OF RETAINING WALL (MORE THAN 18" HIGH)
T.A.	TOP OF ASPHALT
T.C.	TOP OF CURB
F.L.	FLOW LINE
F.F.	FINISHED FLOOR
T.W.	TOP OF WALK

RECEIVED
JAN 25 1988
HYDROLOGY SECTION

WEISS-HINES ENGINEERING INC.
1100 ALVARADO N.E. SUITE B
ALBUQUERQUE, NEW MEXICO 87110
(505) 266-5402

REVISIONS	DATE

DESIGNED W. Hines 1-25-88
DRAWN J.K. 1-25-88
CHECKED J.K. 1-25-88

MONTGOMERY PARKWAY PROFESSIONAL CENTER
GRADING / DRAINAGE PLAN

W.G. HINES 1-25-88

SHEET 1 OF 1

F-21/D037P

REF 21 DATE 6/24/53 CODE LSP
8

CITY OF ALBUQUERQUE

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Karen Acuna
CITY CLERK RECORDER

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NOTARY PUBLIC
STATE OF NEW MEXICO
My Commission Expires May 8, 1988
Norberta Sanchez

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CITY OF ALBUQUERQUE
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PLANS/PLATS ON FILE

FILE DESC: F-21/D037P

PLANS/PLATS 1

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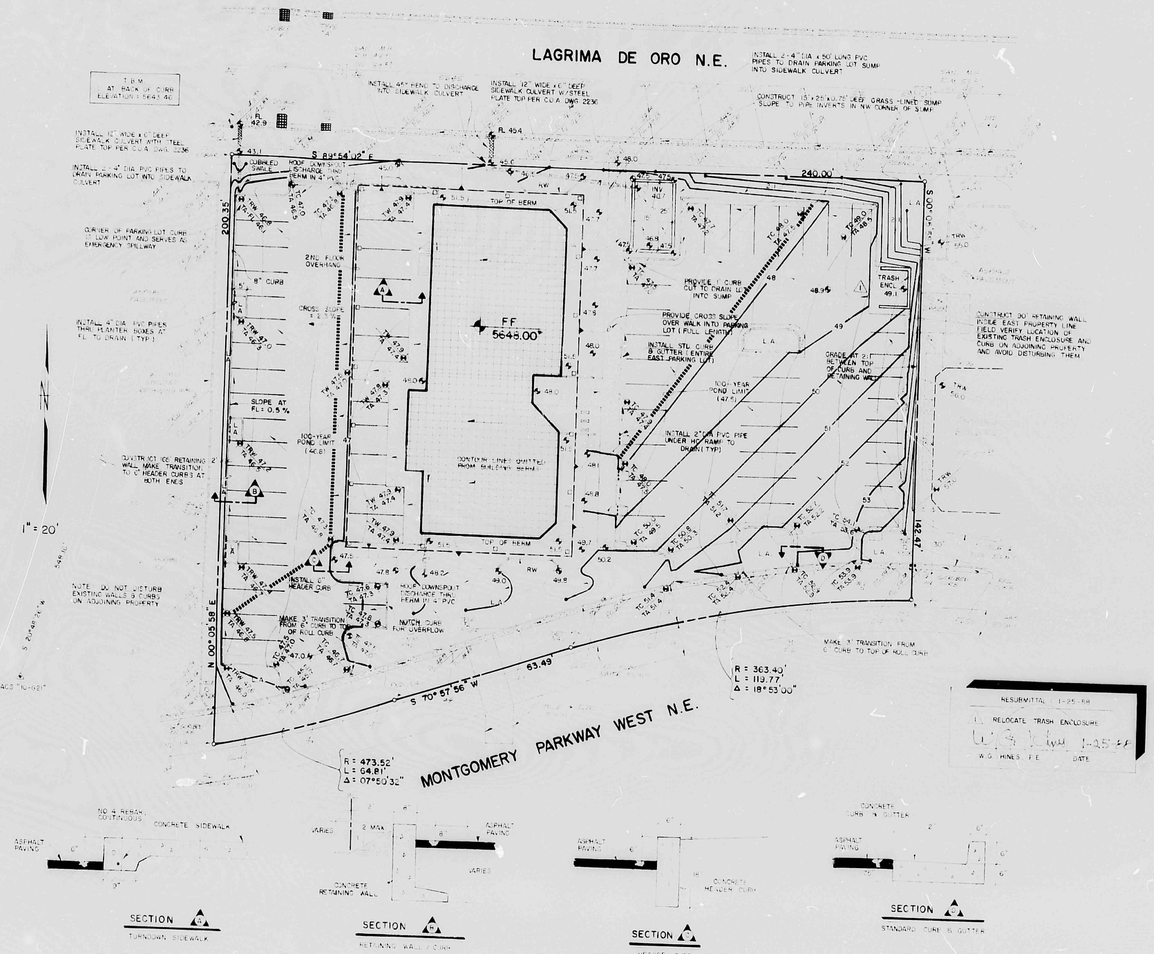
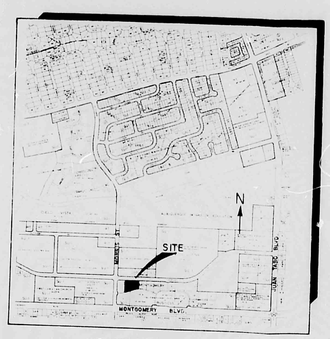
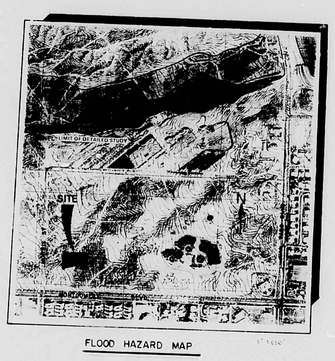
CITY OF ALBUQUERQUE

C D F





VICINITY MAP F-21-Z



FLOOD HAZARD MAP

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4. Prior to construction, the contractor shall excavate and verify the horizontal and vertical location of all obstructions. Should a conflict arise, 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 standards.
6. Maintenance of items facilities shall be the responsibility of the Owner of the property owned.
7. Contractor is responsible for obtaining excavation permit for sidewalk culvert/drain.
8. Proof of acceptance will be required prior to sign off for certificate of occupancy.

PRELIMINARY PLAN APPROVED WITHIN CITY ZONING JURISDICTION

DESIGN APPROVAL: Barney Montoya 1/27/88
Development Review Board Chairman — Date

INSPECTION APPROVAL: Construction Section — Date

ACCEPTANCE: Construction Section/Parkwatch — Date

LEGEND

- SIDEWALK, CURB & GUTTER (EXISTING, PROPOSED)
- PROPOSED ASPHALT
- BUILDING (EXISTING, PROPOSED)
- PROPERTY LINE
- 12.7x EXISTING SPOT ELEVATION
- EXISTING CONTOUR
- 12.5 PROPOSED SPOT ELEVATION
- 10 PROPOSED CONTOUR
- SURFACE FLOW DIRECTION (EXISTING, PROPOSED)
- L.A. LANDSCAPED AREA
- T.G.W. TOP OF GRADE WALL (LESS THAN 18" HIGH)
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- T.A. TOP OF ASPHALT
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- F.L. FLOW LINE
- F.F. FINISHED FLOOR
- T.W. TOP OF WALL

F-21/D037P

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1100 ALVARADO N.E. SUITE B
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(505) 268-3444

REVISIONS	DATE

DESIGNED
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GRADING / DRAINAGE PLAN

ENGINEERING

W.G. Hines 1-13-88

SHEET 1 OF 1

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Karen Acree
CITY CLERK RECORDER

OFFICIAL SEAL
NORBERTA SANCHEZ
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STATE OF NEW MEXICO
My Commission Expires Nov 8 1988
Norberta Sanchez

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CITY OF ALBUQUERQUE

C D