HYDROLOGY G16/D19 CLOVERLEAF APARTMENTS

G16 / D19

CLOVERLEAF APTS.

4 PLANS

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

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

April 28, 1986

Jeff Mortensen
Tom Mann & Associates, Inc.
811 Dallas, NE
Albuquerque, New Mexico 87110

RE: DRAINAGE PLAN FOR CLOVERLEAF APARTMENTS, PHASE II
(G-16/D19) ENGINEER'S STAMP DATED APRIL 18, 1986

Dear Jeff:

Based on the information provided on your April 24, 1986 submittal, the above referenced drainage plan is approved for Building Permit.

Please attach a copy of this approved drainage plan to the construction sets before Hydrology will sign-off.

If I can be of further assistance, please feel free to call me at 766-7644.

Cordially,

Bernie J. Montoya

Bernie J. Montoya, C.E.
Engineering Assistant/Hydrology

BJM/bsj

DRAINAGE INFORMATION SHEET

PROJECT TITLE: CLOVERLEAF APTS ZONE ATLAS/DRNG. FILE #: G-16/D19

LEGAL DESCRIPTION: TRACT A, MONTGOMERY COMPLEX

CITY ADDRESS: 4300 BRYN MAWR N.E

ENGINEERING FIRM: TOM MANN + ASSOC CONTACT: LEONARD UTTER

ADDRESS: 811 DALLAS NE PHONE: 265-5611

OWNER: LOREN MONTGOMERY CONTACT: LOREN MONTGOMERY

ADDRESS: PHONE: 881-6560

ARCHITECT: ROBERT C. PONTO + ASSOC CONTACT: ROBERT PONTO

ADDRESS: 8101 HARWOOD AVE NE PHONE: 296-5511

SURVEYOR: TOM MANN + ASSOC CONTACT: LEONARD UTTER

ADDRESS: 811 DALLAS NE PHONE: 265-5611

CONTRACTOR: NOT KNOW CONTACT: NOT KNOWN

ADDRESS: PHONE:

PRE-DESIGN MEETING:

✓ YES

___ NO

✓ COPY OF CONFERENCE REPORT SHEET PROVIDED

RECEIVED APR 22 1986 HYDROLOGY SECTION

RECEIVED APR 24 1986 HYDROLOGY SECTION

DRB NO. —

EPC NO. ___

PROJ. NO. G16-D19A

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: 4-22-86

BY: [signature]

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

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

May 17, 1984

Mr. Leonard Utter
Tom Mann & Associates
811 Dallas NE
Albuquerque, NM 87110

REF: REVISED GRADING AND DRAINAGE PLAN FOR CLOVERLEAF APARTMENTS PHASE I (G16-D19A) RECEIVED APRIL 25, 1984

Dear Mr. Utter:

Based on the information provided on your April 25, 1984 resubmittal, the above referenced plan for Phase I of the Cloverleaf Apartments is approved.

Please advise your client that a separate submittal for Phase II will be required at which time the increased developed volume will need to be addressed in as far as further ponding requirements. The pond overflow is designed only for incase the 4" diameter release pipe happens to get plugged and not to route any excess ponding volume onto the street.

The approved "Drainage Facilities Within City R/W" document must be attached to the construction sets before Hydrology will sign off.

If you have any questions or comments, please feel free to call me at 766-7644.

Sincerely,

Billy J. Goolsby

Billy J. Goolsby, PE
City/County Flood Plain Admin.

BJG:BJM:mrk

cc: Greg Olson

Tom Mann Associates, Inc.
Engineers
811 DALLAS, N.E. • ALBUQUERQUE • NEW MEXICO • 87110 • 505-265-5611

30661
April 25, 1984

Billy Goolsby
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Grading and Drainage Plan for Cloverleaf Apartments (G16-D19A)

Dear Mr. Goolsby:

In reference to the ponding area for the above mentioned project, the architect added another building that encroached upon the ponding area and thereby limited the size of the pond. The runoff discharged from the developed area will still be slightly lower than the undeveloped area.

The above referenced site will be developed in two phases. Phase I will contain an area of 0.63 acres. Phase II will contain an area of 0.67 acres. The total area will be 1.3 acres.

Should you have any questions or comments, please do not hesitate to call.

Sincerely,

TOM MANN & ASSOCIATES, INC.

Leonard P. Utter

Leonard Utter
Project Engineer

LU:ra

RECEIVED
APR 25 1984
HYDROLOGY SECTION

INFORMATION SHEET

PROJECT TITLE Cloverleaf Apts TYPE OF SUBMITTAL Drainage Plan

ZONE ATLAS PAGE NO. G-16 CITY ADDRESS 4300 Bryn Mawr NE.

LEGAL DESCRIPTION Tr. A. Montgomery Complex

ENGINEERING FIRM Tom Mann & Assoc. CONTACT Leonard P. Utter

ADDRESS 811 Dallas N.E PHONE 265-5611

OWNER ? CONTACT Architect

ADDRESS PHONE

ARCHITECT Jim Miller CONTACT Jim Miller

ADDRESS PHONE 884-1255

SURVEYOR Tom Mann & Assoc CONTACT Tom Mann

ADDRESS PHONE 265-5611

CONTRACTOR Owner CONTACT Architect

ADDRESS PHONE

PRE-DESIGN MEETING:

✓ YES
___ NO
___ COPY OF CONFERENCE RECAP SHEET PROVIDED

PLEASE CHECK TYPE OF APPROVAL EXPECTED WITH THIS SUBMITTAL:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
___ SITE DEVELOPMENT PLAN APPROVAL
___ FINAL PLAT APPROVAL
✓ BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ ROUGH GRADING PERMIT APPROVAL
___ GRADING/PAVING PERMIT APPROVAL
✓ OTHER Drainage (SPECIFY)

DATE SUBMITTED: ~~10~~ 4-25-84

BY: Leonard P. Utter

RECEIVED
APR 25 1984
HYDROLOGY SECTION

FILE COPY

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

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

April 13, 1984

Mr. Leonard Utter
Tom Mann & Associates, Inc.
811 Dallas, NE
Albuquerque, New Mexico 87110

RE: REVISED GRADING & DRAINAGE PLAN FOR CLOVERLEAF APARTMENTS (G16-D19A) RECEIVED APRIL 2, 1984

Dear Mr. Utter,

I have a problem with this revised plan.

1. The available ponding area is reduced, yet the impervious area is increased.

2. The previous plan indicated that the developed area is 1.2 ac., now you are developing 0.63 ac. which would be a total of 1.83. On this submittal you indicate that the total development is only 1.3 ac. Why the difference?

Should you have any questions or comments, please contact me.

Yours truly,

Billy J. Goolsby

Billy J. Goolsby, P.E.
City/County Flood Ordinance Administrator

BJG/ca

INFORMATION SHEET

PROJECT TITLE CLOVERLEAF APTS TYPE OF SUBMITTAL DRAINAGE PLAN

ZONE ATLAS PAGE NO. G16 CITY ADDRESS 4300 BRYN MAWR

LEGAL DESCRIPTION TR A MONTGOMERY COMPLEX

ENGINEERING FIRM TOM MANN + ASSOC CONTACT LEONARD P. UTTER

ADDRESS 811 DALLAS NE PHONE 265-5611

OWNER ? CONTACT ARCHITECT

ADDRESS PHONE

ARCHITECT JIM MILLER CONTACT JIM MILLER

ADDRESS PHONE 884-1255

SURVEYOR TOM MANN + ASSOC CONTACT TOM MANN

ADDRESS PHONE 265-5611

CONTRACTOR OWNER CONTACT ARCHITECT

ADDRESS PHONE

PRE-DESIGN MEETING:

✓ YES
___ NO
✓ COPY OF CONFERENCE RECAP SHEET PROVIDED (G16-D19a)

PLEASE CHECK TYPE OF APPROVAL EXPECTED WITH THIS SUBMITTAL:

___ SKETCH PLAT APPROVAL
___ PRELIMINARY PLAT APPROVAL
___ SITE DEVELOPMENT PLAN APPROVAL
___ FINAL PLAT APPROVAL
___ BUILDING PERMIT APPROVAL
___ CERTIFICATE OF OCCUPANCY APPROVAL
___ ROUGH GRADING PERMIT APPROVAL
___ GRADING/PAVING PERMIT APPROVAL
✓ OTHER RESUBMITTAL (SPECIFY)

DATE SUBMITTED: 4-2-84

BY: LEONARD P. UTTER

RECEIVED APR 02 1984 HYDROLOGY SECTION

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

December 22, 1983

Mr. Jeffrey Mortensen
Tom Mann & Associates, Inc.
811 Dallas NE
Albuquerque, New Mexico 87110

RE: GRADING & DRAINAGE PLAN FOR CLOVERLEAF APARTMENTS (G16-D19a)
RECEIVED DECEMBER 5, 1983

Dear Jeff:

The above referenced submittal has been addressed and satisfied my concerns. Therefore, the revised plan dated December 5, 1983 is approved.

Please include a copy of this plan in the building plan set, along with the approved "Construction Within Public R/W" documents, prior to sign-off for the building permit.

If I can be of further assistance, please contact me.

Sincerely yours,

Billy J. Goolsby, P.E.
Billy Goolsby
Civil Engineer-Hydrology

BG/ca

811 DALLAS, N.E. • ALBUQUERQUE • NEW MEXICO • 87110 • 505-265-5611

Tom Mann Associates, Inc.
Engineers

30661
December 3, 1983

RECEIVED
DEC 05 1983
ENGINEERING

Mr. Billy Goolsby, P.E.
Civil Engineer/Hydrology
City of Abluquerque
P.O. Box 1293
Albuquerque, NM 87103

Re: Grading and Drainage Plan for Cloverleaf Apartments
(G16-D19a)

Dear Billy:

Transmitted herewith for your review is a revised copy of the grading and drainage plan for the subject project. Where applicable, I have addressed your comments on the plan. Additional responses are listed below.

1. Runoff discharged from the positive discharge pond will cross Bryn Mawr Avenue and flow in a southwesterly direction along the east side of Frontage Road. This pattern of runoff was brought to my attention by Mr. Fred Aguirre who had just studied that area prior to my pre-design conference with him. I agree that the discharge from the pond may occur rather slowly, however, sufficient ponding has been provided for the 100-year rainfall event.

2. At this point, Bryn Mawr does not have a crown and therefore the runoff will flow across the street to the west. This flow will occur at a maximum rate of 0.4 cfs and is not anticipated to create any damage. In addition, the bar ditch along the east side of Frontage Road is heavily vegetated with grasses which are extremely resistant to soil erosion. Based on the information presented above, I feel that there will not be an erosion problem associated with this site.

3. Presently, there is no soil being eroded from the piles of dirt, asphalt, and other construction wastes located to the east of the proposed parking lot. It is because of this that the washing of soil from this pile onto the parking lot is not anticipated. If soil is washed onto the parking lot, it will probably remain there due to the relative flatness of the proposed paved surface. The owner will then be responsible for cleaning the paved area as part of his routine maintenance of the apartment complex.

4. The offsite flows generated from the slopes along the west edge of the North Diversion Channel, the south edge of Montgomery, and the east edge of the Frontage Road will be negligible. This statement is based upon the fact that any runoff generated by these areas will be the result of totally pervious surface which has been observed to be relatively stable. This is to say that no gulley erosion or rivulets have been observed. The soil in this area is gravelly sand with native vegetation. Attached are my calculations upon which I have determined that the offsite flows are negligible.

5. As previously mentioned, it was determined during the pre-design conference held with Mr. Fred Aguirre that the flows along the I-25 Frontage Road do continue in a southwesterly direction. Other than those flows discussed above in Item 4, all other flows along the I-25 Frontage Road will not impact this site.

6. As you had mentioned, the emergency spillway is the drivepad. I have so indicated it on the plan. I have also noted that the responsibility for pond maintenance is the owner's.

7. The right-of-way for Bryn Mawr Avenue N.E. has been shown.

8. At one time there was a temporary storm sewer easement across the property, however, the construction of the North Diversion Channel eliminated the need for that easement. It is my understanding that that easement has been vacated due to the fact that it is no longer needed.

9. We are aware that there is an existing 36" storm drain in Bryn Mawr, however, the outfall for that line was eliminated by the construction of the North Diversion Channel. Because of this, it is no longer an active system.

Hopefully this additional information has provided the clarity needed for you to continue your review of this project. If you should have any further questions or comments concerning this project, please do not hesitate to call.

Sincerely,

TOM MANN & ASSOCIATES, INC.

Jeffrey G. Mortensen, P.E.
Project Engineer

JGM:ra
Encl.

30661

JGM
10/83

ANALYSIS OF OFFSITE FLOWS

$A = 50{,}400$ sf $= 1.2$ Ac

% imp $= 0 \Rightarrow C = 0.34$

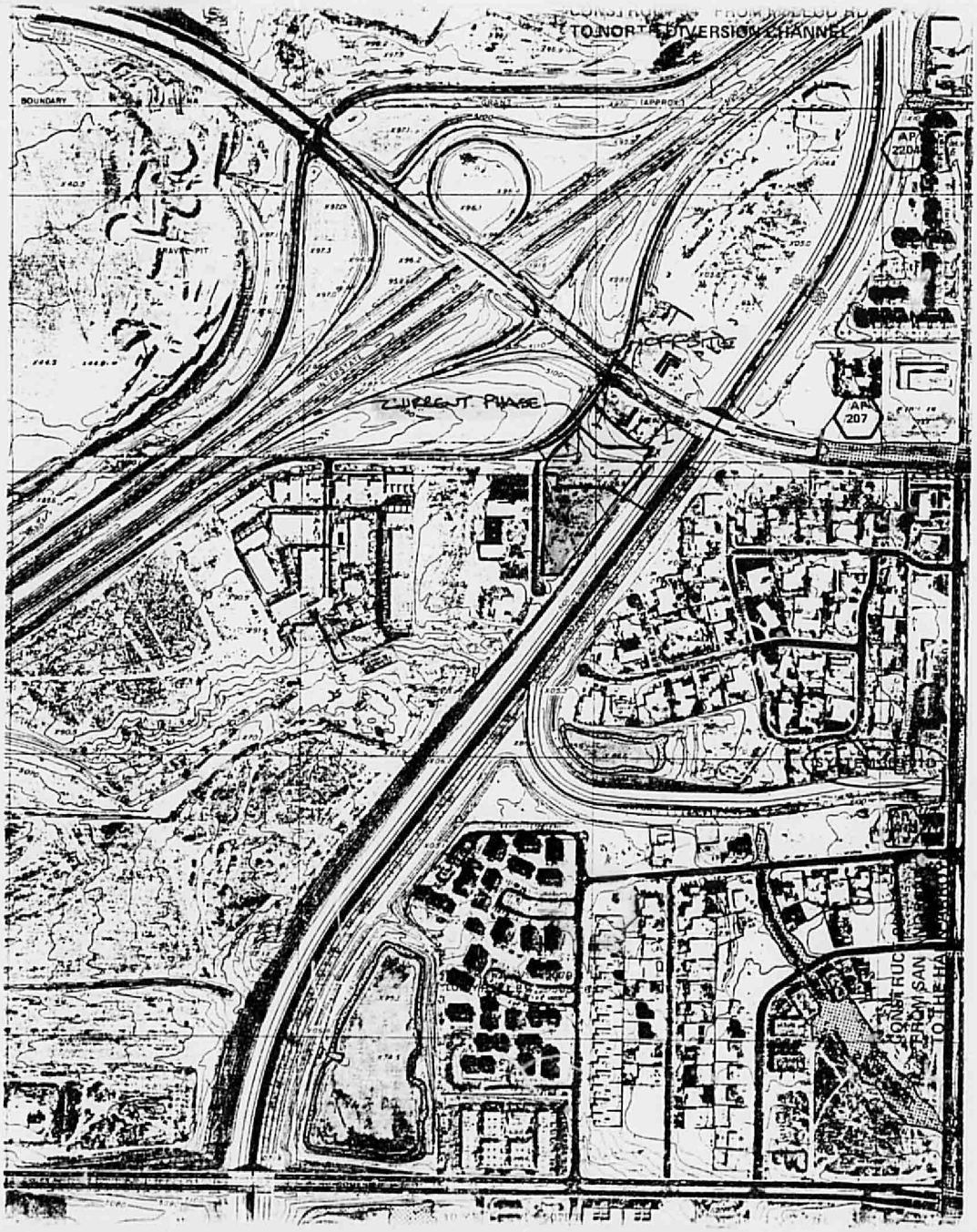
$Q_{100} = 2$ cfs

$L = 640' \pm$

$Q/L = 0.003$ cfs per LF (i.e. sheetflow)

DISREGARDING FRONTAGE ALONG FRONTAGE RD,
$L = 490$, $Q/L = 0.004$ cfs/LF (sheetflow)

IN EITHER CASE, OFFSITE FLOW IS NEGLIGIBLE.



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

MONTGOMERY COMPLEX

A REPLAT OF PORTIONS OF BLOCKS 12, 14, 15, 16 & 17 OF

MONTGOMERY HEIGHTS

AN ADDITION TO THE CITY OF

ALBUQUERQUE, NEW MEXICO

SCALE : 1in = 100ft.

C B BEYER ENGINEERING RH-DRK-MDJ

FEBRUARY 14, 1967

PLAT NO. S - 1504

APPROVED : JANUARY 16, 1967

OCT 10 1969

CITY PLANNING COMMISSION
ALBUQUERQUE, NEW MEXICO

CHAIRMAN

EXECUTIVE SECRETARY

NOTE

This plat was filed for record the second time in order to correct a typographical error. The distance on the boundary line between Tracts F and G was shown on the original recorded plat as 506.22' and said distance should have been 506.20'.

I, C. B. Beyer, a duly qualified Engineer and Land Surveyor licensed under the Laws of the State of New Mexico, do hereby certify that the plat hereon delineated was prepared under my supervision and that the representations thereon are true and correct to the best of my knowledge and belief.

C. B. Beyer
New Mexico Registered Engineer and Land Surveyor No. 201

APPROVED

By _____ For - ALBUQUERQUE METROPOLITAN ARROYO FLOOD CONTROL AUTHORITY

By _____ For - CITY OF ALBUQUERQUE ENGINEERING DEPARTMENT

By _____ For - PUBLIC SERVICE COMPANY OF NEW MEXICO

By _____ For - MOUNTAIN STATES TELEPHONE AND TELEGRAPH COMPANY

By _____ For - SOUTHERN UNION GAS COMPANY

New Mexico Title ... been paid in full and including the ... in the plat upon ...

NEW M...

By ...

The foregoing subdivision of that certain tract of l... comprising a Replat of portions of Blocks 12, 14, 15, ... Albuquerque, New Mexico, as the same are shown and des... County Clerk of Bernalillo County, New Mexico, on the 5... follows:

Beginning at the Northeast corner No. 1 of the tract herein ... Elena Gallegos Grant for Sections 34 and 35, Township 11 N... feet along the line between said Sections 34 and 35 to the s... the existing Northerly right of way line of Montgomery Boulev... of way line of Montgomery Boulevard NE to a point of curve and ... along a curve right having a radius of 1367.50 feet along the ar... along arc of 363.98 feet (chord = N.82°41'16"W., 359.93 feet) to ... A.M.A.F.C.A. North Diversion Channel and corner No. 4 of the tract he... a radius of 1367.50 feet, continuing along said Northerly right of ... Channel, a distance along arc of 296.33 feet (chord = N.68°55'00"W., ... herein set forth, a point marking the intersection of said Northerly ... way line of said North Diversion Channel; thence leaving said Northe... 131.15 feet to corner No. 6 of the tract herein set forth, a point mar... Montana Road NE with said Westerly right of way line of said North Dive... right of way line of said North Diversion Channel to a angle point there... 26'W., 537.80 feet continuing along said Westerly right of way line of said North Diversion Channel to a angle point therein and corner No. 8 of the tr... ing along said Westerly right of way line of said North Diversion Channel to its intersection with the existing Easterly right of way line of Bryn Maw... forth; thence N.0°15'W., 4[illegible].75 feet along said Easterly right of way line of Bryn Mawr Drive NE to a point of curve and corner No. 10 of the tract he... a radius of 160.00 feet a distance along arc of 136.41 feet (chord = N.27°15'15"E., 123.31 feet) to a point of reverse curve and corner No. 11 of the t... of the East Frontage Road of New Mexico State Road 422; thence Northeasterly along a curve left having a radius of 423.29 feet, along said Easterly rig... 120.49 feet (chord = N.46°36'15"E., 123.08 feet) to the end of said curve and corner No. 12 of the tract herein set forth; thence N.38°27'E., 147.23 f... Frontage Road to its intersection with the Southerly right of way line of Montana Road NE, a point on curve and corner No. 13 of the tract herein set f... tract herein set forth, a point marking the intersection of the curved Northerly right of way line of said Montana Road NE with the curved Easterly ri... a curve left having a radius of 423.29 feet, continuing along said Easterly right of way line of said Frontage Road, a distance along arc of 139.95 fe... corner No. 15 of the tract herein set forth, thence N.8°27'E., 33.51 feet continuing along said Easterly right of way line of said Frontage Road to a ... forth; thence Northeasterly along a curve right having a radius of 905.00 feet, continuing along said Easterly right of way line of said Frontage Road ... feet) to the end of said curve and corner No. 17 of the tract herein set forth; thence N.53°27'E., 145.82 feet continuing along said Easterly right of ... boundary of the Elena Gallegos Grant and the Northwest corner No. 18 of the tract herein set forth; thence leaving said Frontage Road and running S.8... Gallegos Grant to the Northeast corner No. 1 and the place of beginning;

And now hereon shown, resurveyed and replatted, comprising Tracts lettered A, B, C, D, E, F and G of MONTGOMERY COMPLEX, a Replat of Portions of Blocks ... City of Albuquerque, New Mexico, is with the free consent and in accordance with the desires of the undersigned owners and proprietors thereof.

Said owners and proprietors do hereby dedicate electric power and telephone line easements as shown on this plat, including easements for overhead, und... ingress and egress and the right to trim or remove interfering trees.

MONTGOMERY HEIGHTS, INC. (Owner and proprietor of Tracts A, B, C, D, E and F)

By _____ President ATTEST: _____ Secretary

STATE OF NEW MEXICO } SS
COUNTY OF BERNALILLO }

The foregoing instrument was acknowledged before me this 21st day of February, 1967, by Eugene C. Montgomery and Earl C. Montgomery, President and Secretary respectively of Montgomery Heights, Inc. a New Mexico Corporation; and by Eugene C. Montgomery and Thelma B. Montgomery, his wife.

Notary Public

I, Gisela Gallignol, City Clerk ... the plat upon which this certifi... Commission of the City of Albuq... February, 1967

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

FILE COPY

City of Albuquerque

November 9, 1983

Mr. Jeff Mortensen
Tom Mann & Associates, Inc.
811 Dallas N.E.
Albuquerque, N.M. 87110

RE: Grading & Drainage Plan for Cloverleaf Apartments (G16-D19A)

Dear Jeff:

I have reviewed the above referenced plan and forward the following comments:

1. According to the spot elevations and contours, the discharged water doesn't go anywhere. The elevation increases in all directions from the invert of the outlet thus, creating a pond in the street.

2. If there is no crown in the street and the flow crosses to the west, will there be erosion problems created jeopardizing the asphalt for the turnout?

3. How will the soil and sediment that will be washed from the dirt pile to the east be prevented from washing onto the parking lot?

4. The text states that off-site flows are not of concern, but, what about the area between the North Diversion Channel and the east property and on the north? All the existing contours indicate the ground slopes toward the site. These flows may be minor but, they should be accounted for.

5. How do the flows along I-25 frontage road continue in the south-western direction? Can they come onto the site?

6. Where is the emergency spillway for the pond? It appears to be the drivepad. If so, it should be identified on the plan. It should be noted that the owner is responsible for pond maintenance.

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Heller, P.E., City Engineer
LaMonte J. Urban, P.L.S., Chief City Surveyor

ENGINEERING DIVISION

123 Central Avenue N.W.
Albuquerque, New Mexico 87102
Telephone (505) 766-7040

7. What is the right-of-way width for Bryn Mawr Avenue?

8. Are there any existing easements on the site?

9. There is an existing 36" storm drain in Bryn Mawr. You may want to investigate the possibility of utilizing it for this site. It is not known as to whether it is an active system or not because it isn't shown on the current location maps. An inspector from this department went to the field to verify that it does exist.

Should you have any questions or comments concerning this review please contact me at 766-7644.

Yours Truly,

Billy J. Goolsby

Billy J. Goolsby P.E.
Civil Engineer/Hydrology

BJG/ccg

306661

INFORMATION SHEET

PROJECT TITLE CLOVERLEAF APTS. TYPE OF SUBMITTAL DRAINAGE PLAN

ZONE ATLAS PAGE NO. G-16 019a CITY ADDRESS 4300 BRYN MAWR

LEGAL DESCRIPTION TR. A MONTGOMERY COMPLEX

ENGINEERING FIRM TOM MANN & ASSOC CONTACT JEFF MORTENSEN

ADDRESS 811 DALLAS NE PHONE 265-5611

OWNER ? CONTACT ARCHITECT

ADDRESS PHONE

ARCHITECT JIM MILLER CONTACT JIM MILLER

ADDRESS PHONE 884-1255

SURVEYOR TOM MANN & ASSOC. CONTACT TOM MANN

ADDRESS PHONE 265-5611

CONTRACTOR OWNER CONTACT ARCHITECT

ADDRESS PHONE

DATE SUBMITTED 10-24-83

BY JEFFREY G. MORTENSEN

RECEIVED

OCT 24 1983

ENGINEERING

Use this Information Sheet when submitting the following:

Drainage report or plan, conceptual grading and drainage plan, engineer's certification plan, erosion plan and grading plan. Provide the information applicable to your submittal.

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

HYDROLOGY SECTION PROJ. NO. _____ DATE: 9/1/83

PLANNING DIVISION NO. _____

CONFERENCE RECAP

SUBJECT: Cloverleaf Apartments (G16)

WHO	REPRESENTING
ATTENDANCE: Jeff Mortensen	
F J Aguirre	

FINDINGS:

1. Inadequate downstream conditions, consequently controlled discharge required
2. Drainage plan required per the DPM
3. Update existing drainage report on file to today's requirements (G16-D19)

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: Project Engineer
DATE: 9/1/83	DATE: 9/1/83

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

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

May 11, 1978

Wain Cooper
Gordon Herkenhoff & Assoc., Inc.
302 Eighth Street NW
Albuquerque, New Mexico 87102

RE: Pullman Apartments

Dear Mr. Cooper:

I am in substantial agreement with the drainage concept submitted for the above referenced complex. The site grading plan, to be supplied with the construction plans, will have to be sufficiently detailed to allow ponds volume verification (cross sections & dimensions) and mode of conveyance of the water to said ponds (existing and proposed contour lines).

Very truly yours,

Bruno Conegliano
Asst. City Engineer-Hydrology

BC/gm

cc; V.M. Kimmick
Jim Smith
Drainage file

781-810.12-78

GORDON HERKENHOFF & ASSOCIATES, INC.
202 Eighth Street, N.W.
Albuquerque, New Mexico 87102

(505) 247-0295

May 8, 1978

Mr. Bruno Conegliano
City Drainage Engineer
4th Floor, City Hall
Albuquerque, New Mexico

RE: PULLMAN APARTMENTS DRAINAGE REPORT

Dear Mr. Conegliano:

Please find enclosed copies of the referenced drainage report for your approval. A decision was made by the architect not to retain the twenty year storm on the roofs with a 3" gravel stop as we discussed on May 4, 1978. As a consequence, the ponds have been sized to accommodate the 100 year storm.

Should you have any questions, please call.

Sincerely,

Charles Campbell

Charles Campbell
CC:er
Encl.

DRAINAGE REPORT

FOR

MONTGOMERY COMPLEX

TRACT A

MARCH 1978

WAIN COOPER
NEW MEXICO
5532
REGISTERED PROFESSIONAL ENGINEER & LAND SURVEYOR

Prepared by:

GORDON BERKENHOFF AND ASSOCIATES, INC.
302 Eighth Street, N.W.
Albuquerque, New Mexico 87102

GENERAL: The purpose of this report is to make general recommendations for on-site drainage. The subject property is located east of the I-25 frontage road, west of the AMAFCA North Diversion Channel and south of Montgomery Boulevard, and as shown on Sheet G-16 of the Zone Atlas. The property is is scheduled to be developed into an apartment complex, with construction occurring in two stages. The Montgomery Development Corporation owns the property and has retained the firm of Allred, Fischer and Puckett to provide architectural services. This drainage report is being prepared at the request of the owners.

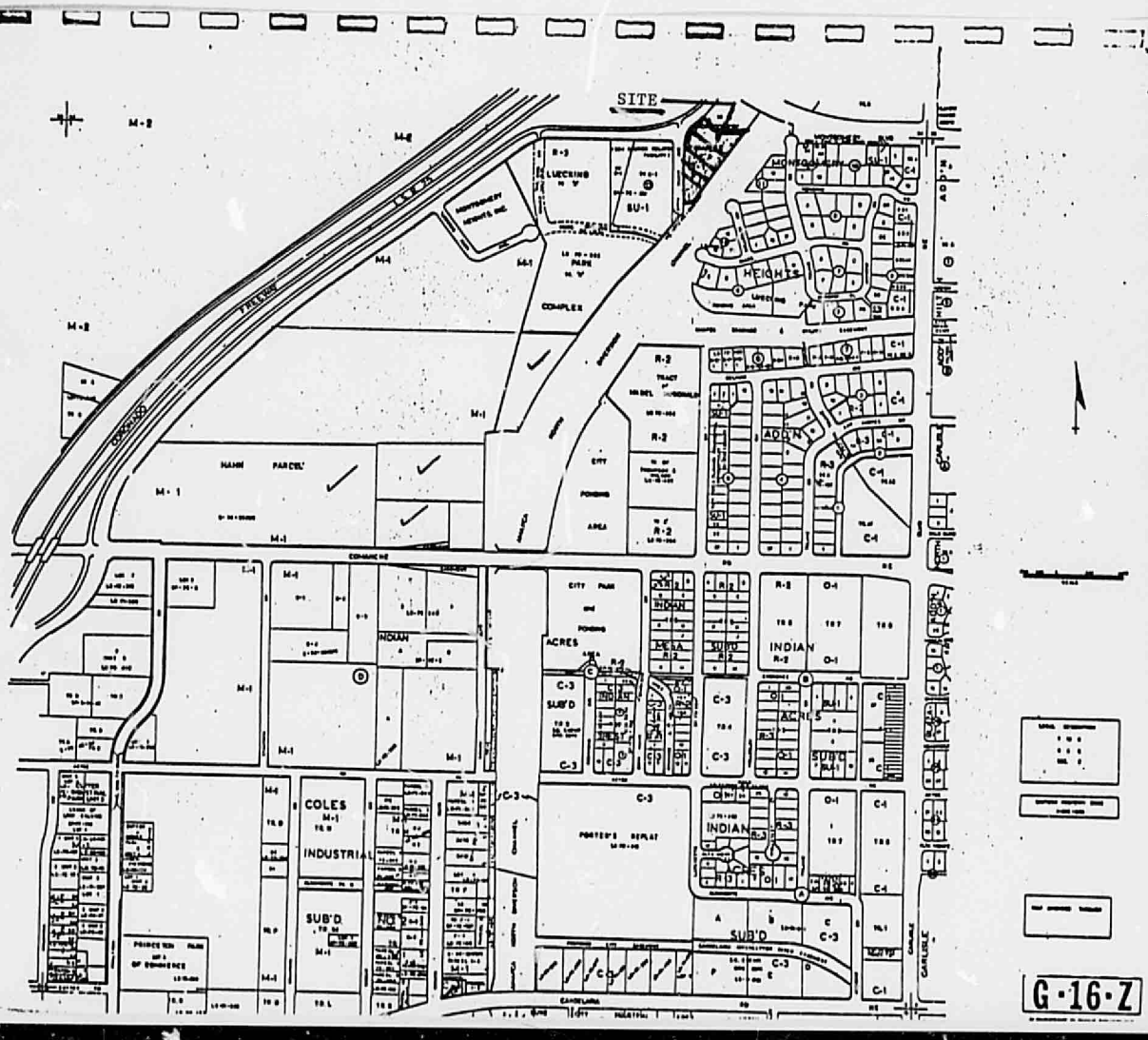
HYDROLOGY: Ponding areas are recommended to provide storage for all on-site storm water. The rainfall from a 100 year 6 hour duration storm is used to determine the pond volumes. A runoff coefficient of 0.95 is used for the following areas: roofs, sidewalks, and paved parking areas. The site has been divided into several areas, as shown on the accompanying map. For each area, a drainage pond capacity was calculated using the rainfall and the runoff coefficients. Landscaped areas are not included since these will be constructed not to contribute any runoff to the larger drainage ponds. Calculations for each are included with this report.

SITE DEVELOPMENT: Ponds shall be constructed as shown on the accompanying drainage map with the volumes as indicated. The building roofs shall drain as indicated on the map. No attempt has been made to provide grading plan as a part of this drainage report. The grading plan shall incorporate the ponding areas as shown, and drainage swales as necessary to carry storm water to the individual ponds. It is mandatory that the drainage areas are

segregated to insure that the ponds are not subject to overflowing.

RECOMMENDATIONS: The following recommendations are made and hereby made a part of this report:

1. That the owner accept this report and its recommendations, and insure that all development meets the ponding requirements.
2. That the City of Albuquerque accept this report, and issue all permits necessary for construction.
3. That any changes in the site plan as herein presented be brought to the attention of the engineer prior to any construction taking place.
4. All landscaped areas not included as a pond be depressed a minimum of 6 inches from all surrounding areas.
5. All finish floor elevators be 1'-0" above nearest top of curb elevation.



G·16·Z

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

TRACT 'A' - MONTGOMERY

Site: 97,922 S.F., 2.25 Ac.

Rainfall: 100 Yr. - 6 Hr., Use 2.4"

Runoff Coefficient: 0.95 (roofs, concrete, asphalt), 0.30 (dirt, undeveloped areas)
Vol. = 2.4"/12" (area) (.95) (1/27)

Area #1

A = 14,490 S.F.
Vol. = 2.4"/12" (14,490) (.95) = 2,753 C.F. retention requirement

Offsite Flow: A = 9,600 S.F.
Vol. = 2.4"/12" (9,600) (.30) = 576 C.F. retention requirement

Total Retention Requirement: 3,329 C.F.

Pond = 2,070 S.F., 2.0' depth
4,140 C.F., retention
.4' freeboard

Area #2

A = 36,720 S.F.
Vol. = 2.4"/12" (36,720) (.95) = 6,976 C.F.

Offsite Flow: N.A.

Total Retention Requirement = 6,976 C.F.

Pond = 2,700 S.F., 3.0' depth
8,100 C.F. retention
.42' freeboard

Area #3

A = 8,280 S.F.
Vol. = 2.4"/12" (8,280) (.95) = 1,573 C.F.

Offsite Flow: N.A.

Total Retention Requirement = 1,573 C.F.

Pond = 1,530 S.F., 1.5' depth
2,295 C.F. retention
.47' freeboard

Area #4

A = 37,800 S.F.
Vol. = 2.4"/12" (37,800) (.95) = 7,182 C.F.

Offsite Flow: A = 13,600 S.F.
Vol. = 2.4"/12" (13,600) (.30) = 816 C.F.

Total Retention Requirement: 7,998

Pond = 10,260 S.F., 1.0' depth
10,260 S.F. retention
.22' freeboard

Area #5

This area consists of offsite flows eminating from north of the site.

A = 48,000 S.F.
Vol. = 2.4"/12" (48,000) (.30) = 2,880 C.F.

Pond = 3,150 S.F., 1.0' depth
3,150 C.F. retention
.09' freeboard

GORDON HERKENHOFF & ASSOCIATES ALBUQUERQUE SANTA FE ENGINEERING COMPUTATIONS	NAME OF PROJECT TRACT 'A' - MONTGOMERY			SHEET NUMBER 1 OF 1
	COMPUTED BY CARPENTER	CHECKED BY	JOB NUMBER 810.12	DATE 3-20-71

RAINFALL = 100 YR. - 6 HR. - USE 2.4"

RUNOFF COEFFICIENT: 0.95 (ROOFS, CONCRETE, ASPHALT)

VOL = 2.4/12 (AREA) (.95) (1/27)

AREA #1

A = 13,500 S.F.

VOL = 2.4/12 (13,500) (.95) (1/27) = 95 CY

AREA #2

A = 7,380 S.F.

VOL = 2.4/12 (7,380) (.95) (1/27) = 52 CY

AREA #3

A = 27,990 SF

VOL = 2.4/12 (27,990) (.95) (1/27) = 196 CY

AREA #4

A = 26,100 SF

VOL = 2.4/12 (26,100) (.95) (1/27) = 184 CY

AREA #5

A = 3780 SF

VOL = 2.4/12 (3780) (.95) (1/27) = 27.. CY

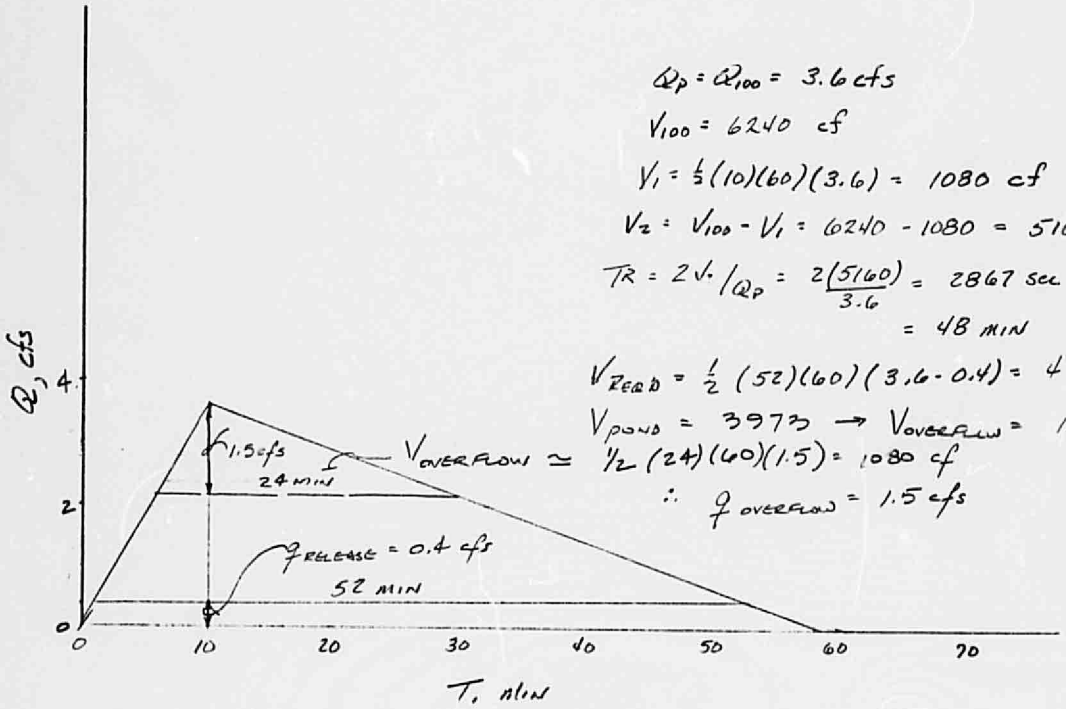
AREA #6

A = 13,500

VOL = 2.4/12 (13,500) (.95) (1/27) = 95 CY

30661
03/14/84 LPM

REVISED HYDROLOGY ANALYSIS



$V_{OVERFLOW} \simeq \frac{1}{2}(24)(60)(1.5) = 1080$ cf

$\therefore q_{OVERFLOW} = 1.5$ cfs

$Q_p = Q_{100} = 3.6$ cfs

$V_{100} = 6240$ cf

$V_1 = \frac{1}{2}(10)(60)(3.6) = 1080$ cf

$V_2 = V_{100} - V_1 = 6240 - 1080 = 5160$ cf

$TR = 2V/Q_p = 2\left(\frac{5160}{3.6}\right) = 2867$ sec

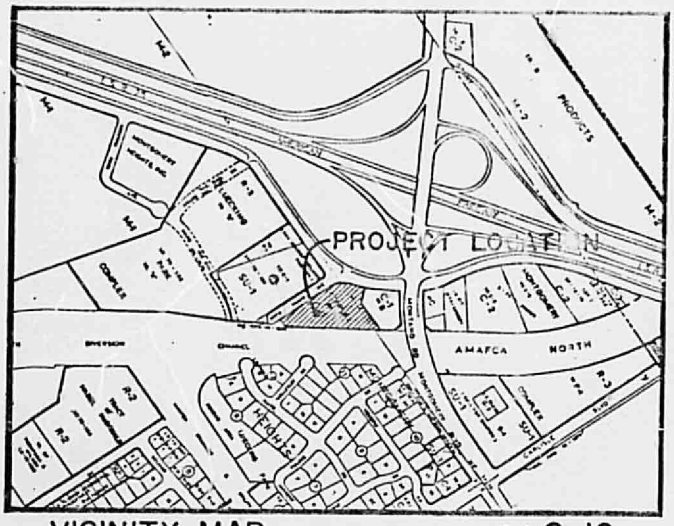
$= 48$ min

$V_{REQD} = \frac{1}{2}(52)(60)(3.6 - 0.4) = 4992$ cf

$V_{POND} = 3973 \rightarrow V_{OVERFLOW} = 1020$ cf

CITY OF ALBUQUERQUE

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



VICINITY MAP G-16

SCALE 1" = 800'

REGISTERED PROFESSIONAL ENGINEER
STATE OF
THOMAS T.
MANN, JR.
NEW MEXICO
AND LAND SURVEYOR

G16-D19A

NOTICE TO CONTRACTOR

1. An excavation/construction permit will be required before beginning any work within City right-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 stated or provided hereon, shall be constructed in accordance with "Contract Documents for City-Wide Utilities and Cash Paving No. 31 "

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 excavate and verify the horizontal and vertical locations of all 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 RESIDENTIAL street use.

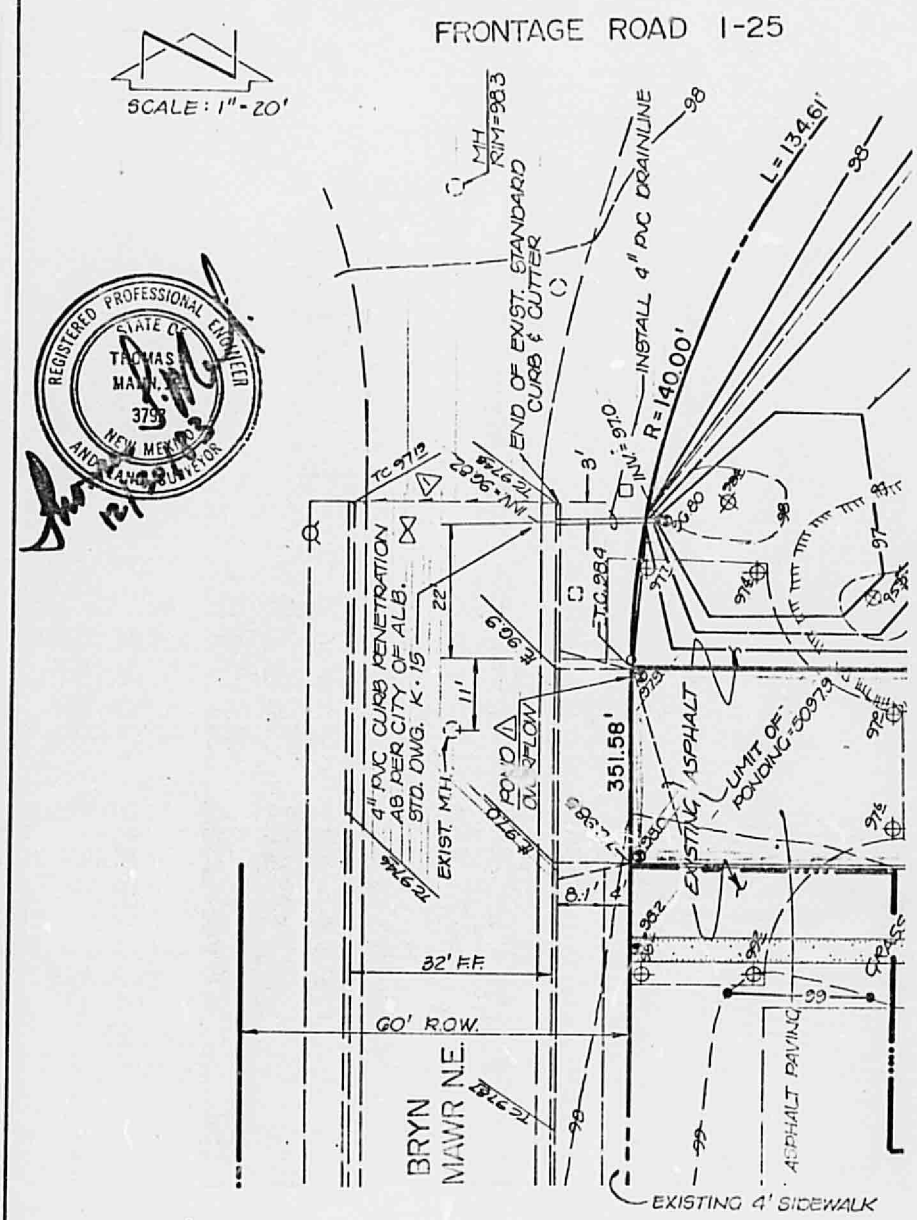
Farmer Corp. P-15422 D-1

JOB No 3-0662

APPROVALS	NAME	DATE	TITLE: CURB PENETRATION CLOVERLEAF APARTMENTS 4300 BRYN MAWR N.E.
A.C.E./DESIGN	J. Kelich	13 Sep 84	
INSPECTOR	Jerry H	9-25-84	
A.C.E./FIELD	Richard R. Orp	9/25/84	PERMIT NO. / SHEET 1 OF 2 / MAP NO. G-16

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

DRAINAGE FACILITIES WITHIN CITY RIGHT-OF-WAY



0-7

JOB No. 3-0662

APPROVALS	NAME	DATE	TITLE: CURB PENETRATION CLOVERLEAF APARTMENTS 4300 BRYN MAWR N.E.	
A.C.E. / DESIGN		3/2/84		
INSPECTOR		9-25-84		
A.C.E. / FIELD		9/25/84	PERMIT NO. SHEET 2 OF 2	MAP NO. G-16