



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

February 8, 1983

Mr. Duane Logan, PE
Geotechnical Research & Services, LTD
501 Kinley NE
Albuquerque, New Mexico 87102

Re: DAV Building (H19-D23)

Dear Mr. Logan:

The referenced drainage plan is approved contingent on the acceptance of the alley grades by the Design Section. A copy of the approved alley grades will be required before the building plans can be released.

If you have any questions regarding the above, please feel free to call me at 766-7644.

Sincerely,

Fred J. Aguirre, PE
Civil Engineer/Hydrology

FJA/el

cc: Drainage File
Reading File

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Heller, P.E., City Engineer

ENGINEERING DIVISION

Telephone (505) 766-7467

AN EQUAL OPPORTUNITY EMPLOYER



City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 4, 1983

Mr. Duane Logan, P.E.
Geotechnical Research and Services, LTD
501 Kinley NE
Albuquerque, New Mexico 87102

Re: DAV Building (H-19-D23) Dated - 12/17/82

Dear Mr. Logan:

The drainage plan submitted for the referenced site cannot be given a complete review without the information checked in red on the attached checklist. Please provide the information with your next resubmittal.

If you have any questions regarding the above, feel free to call me at 766-7644.

Sincerely,

Fred J. Aguirre, PE
Civil Engineer/Hydrology

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Attachment

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DRAINAGE REPORT AND DRAINAGE PLAN CHECKLIST

Drainage Report: A drainage report is a comprehensive analysis of the drainage control, flood control and erosion control constraints on and impacts resulting from a proposed platting, development or construction project. Drainage reports are required for subdivisions containing more than 10 lots or constituting 5 acres or more, platting or construction within a designated flood hazard area and for any platting or development adjacent to a major arroyo. Engineer's certification may be required if not strongly recommended for major projects, projects requiring numerous drainage inspections during construction, projects in flood hazard areas and phased projects.

Drainage Plan: A short detailed presentation required for small, simple development approvals. Drainage plans are prepared with or on the detailed grading plan and address both on-site and off-site drainage control, flood control and erosion control issues. Drainage plans are required for building permits, site development plans and landscaping plans for developments involving less than 5 acres.

Although the checklist and information required for both the Drainage Report and Drainage Plan are quite similar, they are not one in the same. Basically the difference between the two is one of detail. The same report which was accepted for the subdivision of a large tract of land may not be adequate for the construction of each subdivided parcel.

NOTE: The following checklist is intended to be used as a guide for preparing your drainage report or plan to meet any or all drainage requirements. It is only a guide. Some items may not be applicable to your particular project; some items may require more detail.

GENERAL INFORMATION:

1. Completed Information Sheet - see Information Sheet.
- * ✓ 2. Planning History - planning and zoning action history.
3. Professional's stamp with signature and date.
 - A. Engineer who prepared the drainage report.
 - B. Engineer or surveyor who performed the survey.
- ✓ 4. Flood Hazard - delineation of site on pertinent Flood Hazard Boundary Map.
5. Watershed Soils - delineation of site and contributing off-site watersheds on SCS Bernalillo County Soil Survey Maps.
6. Soils - soils investigation report for ponding within 15 ft. from planned or existing structure or closer than 15 ft. from the property line minus the required setback on adjacent property. For ponds 18" deep or less, water may be impounded adjacent to street ROW but not closer than 10' from pavement. For ponds deeper than 18", water shall not pond closer than 15' to the pavement.
7. Drainage Report or Drainage Plan - two copies
8. Erosion Control Plan - see Erosion Control Plan Checklist

Drainage Report and Drainage Plan Checklist
Page 1 of 4

OFF-SITE CONDITIONS

9. Watershed Area - delineation of off-site contributing watersheds on City of Albuquerque Ortho-Topo Area Maps at scale 1" = 200' or 1" = 500'.
10. Storm Flows - quantification of off-site rate of flow caused by contributing watersheds for the:
 - A. 10 year frequency storm.
 - B. 100 year frequency storm.
11. Flow Depth and Velocity
 - A. Off-site flow velocities determined.
 - B. Off-site flow depths determined.
 - C. Locations indicated for A and B above.
12. Other Conditions - discussion of any off-site conditions or drainage facilities that affect site drainage.
- ✓ 13. Proposed Treatment - adequate treatment of off-site flows including:
 - * ✓ A. Definition of required drainage facilities.
 - * ✓ B. Location and configuration of facilities defined in A above.
 - * ✓ C. Verification of adequacy of downstream systems
14. Rights-of-Way and Easements - delineation of R/W and/or easement configuration necessary to accommodate #13 above.

ON-SITE CONDITIONS:

- * ✓ 15. Flow Volumes and Rates - calculations showing on-site undeveloped and developed flow volumes and rates.
16. Flow Depth and Velocity:
 - A. On-site flow velocities determined.
 - B. On-site flow depths determined.
 - C. Locations indicated for A and B.
- ✓ 17. Proposed Treatment - adequate treatment of on-site flows including:
 - ✓ A. Definition of required drainage facilities.
 - * ✓ 1. Pond volume calculations including routing if applicable.
 - * ✓ 2. Positive discharge of pond with required rate and outlet calculations.
 - ✓ 3. Pond emergency spillway calculations.
 4. Pond fencing required for depths greater than 18".
 5. Pond landscaping provisions and commitments.
 6. Pond maintenance provisions and commitments if required. See Drainage Covenant.
 7. Channel characteristics including flow depths and velocities.
 8. Storm sewer characteristics including capacity and hydraulic grade line calculations.
 9. Hydraulic characteristics of other storm drainage facilities listed in AMAFCA Resolution.
 - B. Verification of adequacy of downstream systems
18. Rights-of-Way and Easements - delineation of R/W and/or easement configuration necessary to accommodate #17 above.
19. Nuisance Waters - adequate provisions for nuisance waters provided on-site

Drainage Report and Drainage Plan Checklist
Page 2 of 4

PLAN DRAWINGS:

20. Drafting Standards:
 - A. North Arrow.
 - B. Scales - recommended engineering scales:
 1. 1" = 20' for sites less than 5 acres
 2. 1" = 50' for sites 5 acres or more
 - C. Legend - see DPM Manual, Vol. 2, tables 27.3a - 27.3d for recommended standard symbols
 - D. Plan drawings size 24" x 36"
21. Site Description:
 - A. Vicinity map showing location of the development in relation to well-known landmarks, municipal boundaries and zone atlas map index number.
 - B. Legal description or current plat.
22. Bench Marks - location, description and elevation of the:
 - A. Albuquerque Control Survey Vertical Datum.
 - B. Temporary bench mark on-site.
23. Existing Conditions:
 - A. Existing Contours - vertical intervals for contour maps shall not exceed the following:
 1. One foot intervals for slopes under 1% with sufficient spot elevations at key points to adequately show the site's topography.
 2. Two feet for slopes between 1% and 5%.
 3. Five feet for slopes in excess of 5%.
 - B. Spot elevations adequately showing conditions on-site.
 - C. Contours and spot elevations extending a minimum of 25' beyond property line.
 - D. Identification of all existing structures located on-site or on adjacent property extending a minimum of 25' beyond property line with particular attention to retaining and garden walls.
 - E. Identification of all existing drainage facilities located on-site or on adjacent property.
 - F. Pertinent elevation(s) of structures and facilities defined in D and E above with Mean Sea Level designation.
 - G. Indication of all existing easements and rights-of-way on or adjacent to the site with dimensions and purpose shown.
 - ✓ H. Existing City top of curb and flow line elevations with Mean Sea Level designation.
24. Proposed Conditions:
 - A. Proposed Contours - vertical intervals for contour maps shall not exceed the following:
 1. One foot intervals for slopes under 1% with sufficient spot elevations at key points to adequately show the site's topography.
 2. Two feet for slopes between 1% and 5%.
 3. Five feet for slopes in excess of 5%.
 - B. Indication of all proposed easements and rights-of-way on or adjacent to the site with dimensions and purpose shown.
 - ✓ C. City Engineer approved street and alley grades when site abuts a dedicated unpaved street or alley. These grades are available at no charge from the City Engineer's Office. An advance request will expedite your project. NOTE: There may be up to a 3 month wait to have the City Engineer supply grades. However, to expedite the plans, the City Engineer will review grades provided by an engineer.

- D. Internal contributory drainage areas, including roof areas, outlined on plan.
- ✓ E. City approved street and/or alley grades.
- ✓ F. Flow lines defined by arrows and spot elevations with Mean Sea Level designation.
- G. Pond(s) 100 year water surface elevation outlined and indicated on plan.
- H. Notes defining property line, asphalt sidewalks, planting areas, ponding areas, and all other areas whose definition would increase clarity.
- I. Finish building floor elevation(s) with complete Mean Sea Level designation.
- J. Slopes (cut or fill) with height of less than 3', not steeper than 2:1. Slopes with height greater than 3', not steeper than 3:1.
- K. Elevation of property line at least .33' above adjacent top of curb.
- L. Retaining walls indicated for vertical grade changes greater than 18".
- M. Details of ponds, swales, rundowns, curb cuts, water blocks, emergency spillways, retaining walls, pond outlets, safety fences, slopes, and all other significant drainage structures with contours, cross-sections, spot elevations and supporting calculations when appropriate. All cross-sections must be drawn to standard engineering scale or adequately dimensioned.
- N. The following phases of development outlined and numbered in sequential order of construction with a proposed erosion plan (see Erosion Control Plan Checklist)
 - 1. Rough grading
 - 2. Phased development
 - 3. Construction phase
 - 4. Permanent phase
- O. Required spot elevations for the standard City drivepad.
- P. Proposed construction of private storm drain improvements within the City right-of-way.

COMMENTS: Item 2. - Were there any drainage requirements with the approval of the existing building shown on the plan? Item 13.A. - The proposed plan to block

off-site is not acceptable. These flows must be accommodated within the property limits and routed to the City R/W. Item 13.C. and 17.B. - Address the adequacy

of the unimproved alley to convey the proposed storm runoff with respect to erosion and existing drainage pattern. Item 15, 17.A.1.&2. - Unable to follow the calculations provided for the required pond volume. Provide units and reference the values used in the calculations.

Note: The ponding requirements are not based on the difference between the developed and undeveloped flow rate but is based on the allowable discharge rate from the developed site.

- D. Internal contributory drainage areas, including roof areas, outlined on plan.
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Note: The ponding requirements are not based on the difference between the developed and undeveloped flow rate but is based on the allowable discharge rate from the developed site.



GEOTECHNICAL RESEARCH & SERVICES, LTD.

501 KINLEY, NE • ALBUQUERQUE, NEW MEXICO 87102
(505) 247-0102

INFORMATION SHEET

PROJECT TITLE D A V Building TYPE OF SUBMITTAL Drainage Plan

ZONE ATLAS PAGE NO. H-19-023 CITY ADDRESS 2511 Utah Street, NE

LEGAL DESCRIPTION Lot 19, Blk 4, Sombre Del Monte

ENGINEERING FIRM Geotech Research CONTACT Duane Logan

ADDRESS 501 Kinley NE PHONE 247-0102

OWNER _____ CONTACT _____

ADDRESS _____ PHONE _____

ARCHITECT Garcia/McConnell CONTACT Lawrence Garcia

ADDRESS 3801 Eubank, NE PHONE 292-7229

SURVEYOR Geotech Research CONTACT Duane Logan

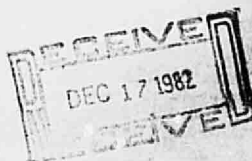
ADDRESS 501 Kinley, NE PHONE 247-0102

CONTRACTOR _____ CONTACT _____

ADDRESS _____ PHONE _____

DATE SUBMITTED 12/17/82

BY Duane Logan



FOUNDATION INVESTIGATION • HYDROLOGIC STUDIES
LAND SURVEYS • STRUCTURAL ANALYSIS • LINEAR DEVELOPMENT