HYDROLOGY M14/D3 ONE PLAN

M 14/ D3

1 PLAN

C.A. (PAT) COONCE & ASSOC.
ENVIRONMENTAL, WATER RESOURCES, & SANITARY CONSULTING ENGINEERS

12324 PINERIDGE, N.E.
ALBUQUERQUE, N.M. 87112

PHONE (505) 296-1089

Sept. 27, 1981

RECEIVED
SEP 28 1981
ENGINEERING

Mr. Brian Burnett
City of Albuquerque
Hydrology Dept.
P.O.Box 1293
Albuquerque, New Mexico

Re.:Storage Building for Harris Auto Sales.

Dear Brian:

In response to your latter dtd. Sept.16,1981, the following information applies:

(2a) From an onsite inspection, I would estimate that an average of approximately 50 feet of the adjacent lots drain to this property.
The west half of the property on the uphill south side has hose back yards which abutt this property and from the condition of grass and grading they probably contribute no run off.
The average slope is 3% which results in an overland flow rate of 1.75 fps for nearly barren soil. Using a max. q storm of 5.4 inches/hr. for 10 minutes and a runoff coefficient of 0.40, the result would be a max. q runoff of 0.0025 cfs/lf or a depth of 0.0014 ft.

(2b) From an onsite inspection of Arno S.E. the swales appear to be adequet for this property. There are no sings of it cutting through this property. The flow pattern along Arno is to the north as indicated on the plan.

(2c) Using the assumed 0.40 and 0.90 coefficient of runoff for the undeveloped and developed states respectively the max. q runoff for the building site is 0.54 abd 1.2 cfs for the undeveloped and developed site.

(2d) Street access is at Broadway S.E. at the 4938 contour. The building is a storage shed with a fall of 8 inches in 30 ft. to the west. All of the roof runoff will be in a sheet into the pond.

Yours truly,

C.A.Coonce

C.A.Coonce

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

M14-D3

September 17, 1981

Mr. Bevo Pettiford
Bev-Co Construction Company
1810 Byron S.W.
Albuquerque, New Mexico 87105

Re: STORAGE BUILDING FOR HARRIS AUTO SALES

Dear Mr. Pettiford:

Enclosed is a copy of the approval letter to Pat Coonce. I apologize for any misunderstandings and the delay in receiving a building permit. Be assured that in future work I will attempt to make professional and timely responses to your concerns and requests.

Very truly yours,

Brian G. Burnett
Civil Engineer/Hydrology

BGB/fs

Enclosure

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

M14-D3

September 16, 1981

Mr. Pat Coonce
C. A. Coonce & Associates
12324 Pineridge Ave. N.E.
Albuquerque, New Mexico 87112

Re: STORAGE BUILDING FOR HARRIS AUTO SALES

Dear Pat

Enclosed are copies of correspondence concerning the referenced site. Although an approval letter has been issued, would you please supply this office with Items #2a, #2b, #2c, #2d and #4 (requested in my letter of August 31, 1981) at the earliest possible date. Please include with these items two copies of the revised plans.

If I can be of further help on these matters, please call.

Very truly yours,

Brian G. Burnett

Brian G. Burnett
Civil Engineer/Hydrology

BGB/fs

Enclosures

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

M14-D3

September 10, 1981

Mr. Pat Coonce
C. A. Coonce & Associates
12324 Pinoridge Avenue N.E.
Albuquerque, New Mexico 87112

Re: HARRIS AUTO SALES OFFICE BUILDING

Dear Pat:

Enclosed is a copy of the letter to Mr. Bevo Pettiford granting a 30-day conditional approval of the construction plans. During this period, a drainage plan must be approved by this office.

If I can be of further help on this matter, please call.

Very truly yours,

Brian G. Burnett
Civil Engineer/Hydrology

BGB/fs

Enclosure

MUNICIPAL DEVELOPMENT DEPARTMENT

Richard S. Heller, P.E., City Engineer ENGINEERING DIVISION Telephone (505) 766-7467

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

M14-D3

September 10, 1981

Mr. Bevo Pettiford
Bev-Co Construction Company
1810 Byron S.W.
Albuquerque, New Mexico 87105

Re: HARRIS AUTO SALES OFFICE BUILDING

Dear Mr. Pettiford:

This letter is to inform you that a 30-day conditional approval of the construction plans will be granted by the Hydrology Department. Mr. Fred Aguirre will be forwarded a copy of this letter so he may sign off without delay.

If I can be of further help on this matter, please call.

Very truly yours,

Brian G. Burnett
Civil Engineer/Hydrology

BGB/fs

MUNICIPAL DEVELOPMENT DEPARTMENT
Richard S. Heller, P.E., City Engineer ENGINEERING DIVISION Telephone (505) 766-7467

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

M14-D3

August 31, 1981

Mr. Pat Coonce
C. A. Coonce & Associates
12324 Pineridge N.E.
Albuquerque, New Mexico 87112

RE: STORAGE BUILDING FOR HARRIS AUTO SALES

Dear Pat:

I have made an initial review of the referenced report and forward the following comments. The numbers indicated refer to the Drainage Report (DR) and Construction Plan (CP) Checklists.

1. DR #4 - In future submittals, please delineate the site on a pertinent Flood Hazard Boundary Map. The Master Drainage Study (MDS) should be used for this purpose for projects within its study limits. The current F.H.B.M., published by the National Flood Insurance Program, should be used for sites outside the MDS boundary.

2. Please supply this office with the following information:

   a) DR #7 - The offsite watershed delineated on City topo maps, watershed size, and contributing flow. A means of handling the off-site flows must be provided if the velocity, quantity, or location is altered. (This request is based on your Comment (8-9) which states that there is surface sheet flow from the adjacent lot to the south).

   b) DR #10 - A statement addressing off-site conditions which affect drainage. For example, what is the flow pattern along Arno Street, and does the indicated swale protect the site from these flows?

   c) DR #13 - Calculations showing on-site undeveloped and developed flow rates.

   d) DR #21H & CP #18 - Notes defining street access locations (including spot elevations), roof drain direction and locations, and all other areas whose definition would increase clarity.

3. DR #15B2 - For the proposed pond, please supply the following:

   a) Field data identifying soil condition and infiltration capacity.

   b) A detailed cross-section.

   c) Capacity calculations.

   d) Detailed specifications outlining the construction procedure.

   e) A statement by the Engineer acknowledging responsibility for the facility being built in substantial compliance with the approved plan.

4. DR #23 - A completed drainage covenant will be required for this site.

If I can answer any questions concerning these matters, please call.

Very truly yours,

Brian G. Burnett

Brian Burnett
Civil Engineer/Hydrology

BGB/fs

cc: J. C. Harris
file/Reading
8224A

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

M14-D3

September 10, 1981

Mr. Pat Coonce
C. A. Coonce & Associates
12324 Pineridge Avenue N.E.
Albuquerque, New Mexico 87112

Re: HARRIS AUTO SALES OFFICE BUILDING

Dear Pat:

Enclosed is a copy of the letter to Mr. Bevo Pettiford granting a 30-day conditional approval of the construction plans. During this period, a drainage plan must be approved by this office.

If I can be of further help on this matter, please call.

Very truly yours,

Brian G. Burnett
Civil Engineer/Hydrology

BGB/fs

Enclosure

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

M14-D3

September 10, 1981

Mr. Bevo Pettiford
Bev-Co Construction Company
1810 Byron S.W.
Albuquerque, New Mexico 87105

Re: HARRIS AUTO SALES OFFICE BUILDING

Dear Mr. Pettiford:

This letter is to inform you that a 30-day conditional approval of the construction plans will be granted by the Hydrology Department. Mr. Fred Aguirre will be forwarded a copy of this letter so he may sign off without delay.

If I can be of further help on this matter, please call.

Very truly yours,

Brian G. Burnett
Civil Engineer/Hydrology

BGB/fs

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DRAINAGE REPORT REQUIREMENTS
CHECKLIST

PROJECT TITLE Storage Building For Harris Auto Sales

DATE Aug. 20, 1981 ZONE ATLAS PAGE NO. M-14-Z

REVIEWER Brian G. Burnett

LEGAL ADDRESS 2929 Broadway S.E.

ENGINEERING FIRM C.A. Coonce & Assoc. CONTACT C.A. Coonce

ADDRESS 12324 Pineridge N.E. 87112 PHONE 296-1089

OWNER Harris Sales, Inc. CONTACT J.C. Harris

ADDRESS 2920 Broadway SE PHONE 242-9261 or 242-2729

~~ARCHITECT~~/SURVEYOR Elder Co. CONTACT Ned or Ross Elder

ADDRESS 530 Jefferson N.E. PHONE 268-1830

Approval of the submitted drainage will be granted when the following items have been satisfied. Please be advised that approval of the drainage report does not constitute approval of the construction plans (See Construction Plan Requirements Checklist). The pertinent sections of the City of Albuquerque Subdivision Ordinance and/or the AMAFCA Resolution 80-15 (labelled A and B respectively) are identified in parenthesis after each requirement.

GENERAL:

YES	NO	NA	SEE COMMENTS	
	✓			1. ENGINEER CERTIFIES
	✓			2. PLANNING HISTORY - Planning and zoning action history (A-21B; B-7).
				3. PROFESSIONAL CERTIFICATION - Professional's stamp with signature and date (B-4F and B-7B):
✓				A. Engineer who prepared the Drainage Report.
✓				B. Engineer or Surveyor who performed the survey.
✓				C. Engineer, Architect, or Surveyor who prepared the grading plan.
✓			✓	4. FLOOD HAZARD - Delineation of site on pertinent Flood Hazard Boundary Map (A-21B; B-7B).
✓			✓	5. WATERSHED SOILS - Delineation of site and contributing off-site watersheds on SCS Bernalillo County Soil Survey Maps (A-21B; B-7B).
	✓			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 (A-21D;B-7B).

OFF-SITE CONDITIONS:

YES	NO	NA	SEE COMMENTS	
	✓			7. WATERSHED AREA - Delineation of off-site contributing watersheds on City of Albuquerque Ortho-Topo Area Maps at scale 1" = 200' or 1" = 500' (A-6B15; B-7B).
				8. STORM FLOWS - Quantification of off-site rates of flow caused by contributing watersheds for the:
	✓		✓	A. 10 year frequency storm (A-6B15)
	✓		✓	B. 100 year frequency storm (A-6B15 B-2E).
				9. FLOW DEPTH AND VELOCITY
	✓		✓	A. Off-site flow velocities determined (A-6B15).
	✓		✓	B. Off-site flow depths determined (A-6B15).
	✓		✓	C. Locations indicated for A and B above (A-6B15).
	✓			10. OTHER CONDITIONS - Discussion of any off-site conditions or drainage facilities that affect site drainage (A-21A5f; B-7B).
				11. PROPOSED TREATMENT - Adequate treatment of off-site flows including:
✓				A. Definition of required drainage facilities (A-21B; B-4A).
✓				B. Location and configuration of facilities defined in A above (A-21B; B-4A).
✓				C. Quantification that off-site flow draining through site shall do so at a rate of flow velocity, quantity, and location which does not exceed the capacity on such site and downstream drainage facilities OR does so in a manner similar to that which existed before such alteration (B-4A).
	✓		✓	12. ROW-EASEMENTS - Delineation of R.O.W. and/or Easement configuration necessary to accommodate #11 above (A-21B;B-7B).

ON-SITE CONDITIONS:

YES	NO	NA	SEE COMMENTS	
✓				13. FLOW VOLUMES AND RATES - Calculations showing on-site undeveloped and developed flow volumes and rates (B-4F).
				14. FLOW DEPTH AND VELOCITY:
✓				A. On-site flow velocities determined (A-6B15).
✓				B. On-site flow velocities determined (A-6B15).
✓				C. Locations indicated for A and B above (A-6B15).
				15. PROPOSED TREATMENT - Adequate treatment of on-site flows including:
✓				A. Definition of required drainage facilities (A-21B; B-4F).
✓				B. Location and configuration of facilities defined in A above (A-21B; B-4F).
✓				1. Pond volume calculations (B-4B).
	✓		✓	2. Positive discharge of ponds with required rate and outlet calculations (B-4B).
✓				3. Pond emergency spillway calculations (B-7B)

YES	NO	NA	SEE COMMENTS	
	✓			4. Pond fencing required for depths greater than 18" (B-7B).
	✓			5. Pond landscaping provisions and commitments (A-21B).
	✓			6. Pond maintenance provisions and commitments. SEE ATTACHED STANDARD COVENANT (A-21B).
		✓		7. Channel characteristics including flow depths and velocities (A-21B).
		✓		8. Storm sewer characteristics including capacity and hydraulic grade line calculations (A-21B).
		✓		9. Hydraulic characteristics of other storm drainage facilities listed in 80-15; Sec. 2c(A-21B).
		✓		C. Quantification that on-site flow shall discharge at a rate of flow, velocity, quantity, and location which does not exceed the capacity of downstream drainage facilities OR does so in a manner similar to that which existed before such alteration (B-4B).
		✓		16. ROW-EASEMENTS - Delineation of R.O.W. and/or easement configuration necessary to accommodate #13 above (A-21B).

PLAN DRAWINGS:

YES	NO	NA	SEE COMMENTS	
				17. DRAFTING STANDARDS:
✓				A. North Arrow indicated (A-21A2).
	✓		1"=30'	B. Standard engineering scales used - 1" = 10' for sites less than one acre; 1" = 20' for sites less than five acres; 1" = 50' for sites greater than five acres (A-21A2).
✓				C. Legend.
				18. SITE DESCRIPTION:
✓				A. Copy of zone atlas page with property outlined (A-21A6).
✓				B. Legal description (A-21A6).
				19. BENCH MARKS:
✓				A. Reference Albuquerque Control Survey Vertical Datum Location (A-21A5e; B-7A).
✓				B. Site ground elevation based on mean sea level datum as established by the U.S. Coast and Geodetic Survey, North American datum 1929 (A-21A5e; B-7A).
	✓			C. Temporary bench mark description (A-21A5e; B-7A).
				20. EXISTING SITE CONDITIONS:
✓				A. Existing contours per Subdivision Ordinance A-21A5el and AMAFCA 80-15 B-7A.
✓				B. Spot elevations adequately showing conditions on-site (A-21A5el; B-7A).

YES	NO	NA	SEE COMMENTS	
✓				C. Contours and spot elevations extending a minimum of 15' beyond property line (A-21A5el; B-7A).
✓				D. Identification of all existing structures located on-site or on adjacent property (15' minimum) with particular attention to retaining and garden walls (A-21B; B-7B).
✓				E. Identification of all existing drainage facilities located on-site or on adjacent property (A-21B; B-7B).
✓				F. Pertinent elevation(s) of structures and facilities defined in D and E above with Mean Sea Level designation (A-21B; B-7A).
✓				G. Indication of all existing easements and right-of-ways on, or adjacent to the site with dimensions and purpose shown (A-21A5b & c).
✓		✓	No Curbs	H. Existing City top of curb and flow line elevations with Mean Sea Level designation (A-21B; B-7B).

21. PROPOSED SITE CONDITIONS:

✓				A. Proposed contours (per Subdivision Ordinance A-21A5el and AMAFCA 80-15 Sec. 7A) superimposed over existing contours, adequately supporting the drainage plan (A-21A11; B-7A).
✓				B. Indication of all proposed easements and right-of-ways on or adjacent to the site with dimensions and purpose shown (A-21A5G & C).
		✓		C. Proposed 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: At present there is 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 (A-21A7).
✓				D. Internal contributory drainage areas, including roof areas, outlined on plan (A-21B; B-7B).
	✓			E. Proposed (City approved) top of curb elevations with Mean Sea Level designation (A-21B; B-7B).
✓				F. Flow lines defined by arrows and spot elevations with Mean Sea Level designation (A-21B; B-7B).
✓				G. 100 year pond depth determined and outlined on the plan (A-21B;B-7B).
✓				H. Notes defining property line, asphalt sidewalks, planting areas, ponding areas, and all other areas whose definition would increase clarity (A-21A5c & g; B-7A).
✓				I. Finish building floor elevation(s) with Mean Sea Level designation (A-21A11; B-7A).
✓				J. Slopes (cut or fill) with height of less than 18", not steeper than 2:1. Slopes with height greater than 18", not steeper than 3:1 (A-21B; B-5).

✓				K. Elevation of property line at least 1 ft. above flowline (A-21B).
	✓		✓	L. Retaining wall required when a vertical grade change greater than 18" is indicated (A-21B; B-7A).
✓				M. Details of ponds, swales, rundowns, curb cuts, water blocks, and all other significant drainage structures with contours, cross-sections, and spot elevations when appropriate. NOTE: All proposed construction within the public right-of-way must follow the City Engineer's Special Order No. 19 (A-21B; B-7B).

OTHER:

YES	NO	NA	SEE COMMENTS	
	✓			22. Erosion Control Plan (A-21B; B-7B).
	✓			23. Owners commitment to construct, operate, and maintain drainage facilities in substantial compliance with drainage report and grading plan (A21B).

COMMENTS: (4) No Flood Hazard

(5) No major off site Flows Across this Tract

(8-9) only surface sheet flow from adj. lot To south

(12) No easement required

(15-B-2) Since there is no paving, less erosion will occur by letting the impounded waters percolate into the soils. The percolation rate is high and should only be a temporary nuisence on a used car lot

(21L) Site Fenced