PUBLIC WORKS/HYDROLOGY
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LII/D20

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City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

November 18, 1999

James E. Millington, P.E.
Chavez-Grieves
5639 Jefferson NE
Albuquerque, NM 87109

RE: ATRISCO ELEMENTARY SCHOOL (L11-D20). ENGINEER'S CERTIFICATION FOR CERTIFICATE OF OCCUPANCY APPROVAL. ENGINEER'S STAMP DATED MAY 6, 1998 FOR G&D PLAN. CERTIFICATION DATED NOVEMBER 9, 1999.

Dear Mr. Millington:

Based on the information provided on your November 10,1999 submittal, the above referenced project is approved for Certificate of Occupancy. Thank you for recovering the approved G&D Plan of record.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P. Murray, P.E.
Hydrology

c: WR
File

THE CITY OF ALBUQUERQUE IS AN EQUAL OPPORTUNITY/REASONABLE ACCOMMODATION EMPLOYER

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L-11/D020

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CONSULTING ENGINEERS, INC.

THE ENGINEERING FIRM OF CHOICE

5639 JEFFERSON STREET NE • SUITE 1 • ALBUQUERQUE, NEW MEXICO 87109 • PHONE (505) 344-4080 • FAX (505) 343-8759

LETTER OF TRANSMITTAL

TO: City of Albuquerque
Development Services, Hydrology
Plaza del Sol Bldg
ATTN: John Murry

DATE: 11/9/99
JOB #
RE: Atrisco Elementary School

WE ARE SENDING YOU ___ATTACHED ___UNDER SEPARATE COVER, THE FOLLOWING ITEMS:

___SHOP DRAWINGS	✓ PLANS	___SPECIFICATIONS	___DISKETTE
___CHANGE ORDER	___PRINTS	___CALCULATIONS	___PROPOSAL INFO
___COPY OF LETTER	___SAMPLES	___REPORT	___

COPIES	DATE	NO.	DESCRIPTION
1			Grading & Drainage Plan

THESE ARE TRANSMITTED AS CHECKED BELOW:

___FOR YOUR USE	___FOR REVIEW & COMMENT
✓ AS REQUESTED	___RETURNED AFTER LOAN TO US
___PLEASE CORRECT AND RESUBMIT	___SUBMIT___COPIES FOR DISTRIBUTION
___RESUBMITTAL IS NOT REQUIRED	___RETURN___CORRECTED PRINTS
CORRECTIONS, IF ANY, ARE NOTED	___BIDS/PROPOSALS DUE _____ 199_

REMARKS: Attached per your request is the as-built data plotted on the original G&D plan

RECEIVED
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HYDROLOGY SECTION

COPIES TO:

SIGNED:

IF ENCLOSURES ARE NOT AS NOTED, KINDLY NOTIFY US AT ONCE.

REV.9/95

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DRAINAGE INFORMATION

PROJECT TITLE: ATRISCO ELEMENTARY SCHOOL
ZONE ATLAS/DRNG. FILE #: L-11-Z/D026
DRB#: _____ EPC #: ____
WORK ORDER #: _____
LEGAL DESCRIPTION: ATRISCO ELEMENTARY SCHOOL
CITY ADDRESS: 1201 Atrisco Drive SW, Albuquerque, NM
ENGINEERING FIRM: Chavez-Grieves
CONTACT: James E. Millington P.E.
ADDRESS: 5639 Jefferson NE
PHONE: 344-4080
OWNER: Albuquerque Public Schools
CONTACT: Pat McMurray
ADDRESS: 915 Oak SE
PHONE: [505] 242 5865
ARCHITECT: Wright & Hammer
CONTACT: Denise Hammer
ADDRESS: 1735 Aliso Drive NE, Albuquerque, NM
PHONE: [505] 266 6764
SURVEYOR: _____
CONTACT: _____
ADDRESS: _____
PHONE: _____
CONTRACTOR: _____
CONTACT: _____
ADDRESS: _____
PHONE: _____

TYPE OF SUBMITTAL:

____ DRAINAGE REPORT
____ DRAINAGE PLAN
____ CONCEPTUAL GRADING & DRAINAGE PLAN
____ GRADING PLAN
____ EROSION CONTROL PLAN
_X_ ENGINEER'S CERTIFICATION
____ OTHER

PRE-DESIGN MEETING:

____ YES
____ NO
____ COPY PROVIDED

CHECK TYPE OF APPROVAL SOUGHT:

____ SKETCH PLAT APPROVAL
____ PRELIMINARY PLAT APPROVAL
____ S. DEV. PLAN FOR SUB'D. APPROVAL
____ S. DEV. PLAN FOR BLDG. PRMT. APPROVAL
____ SECTOR PLAN APPROVAL
____ FINAL PLAT APPROVAL
____ FOUNDATION PERMIT APPROVAL
____ BUILDING PERMIT APPROVAL
_X_ CERTIFICATE OF OCCUPANCY APPROVAL
____ GRADING PERMIT APPROVAL
____ PAVING PERMIT APPROVAL
____ S.A.D. DRAINAGE REPORT
____ DRAINAGE REQUIREMENTS
____ OTHER

DATE SUBMITTED: September 20, 1999
BY: James E. Millington P.E.

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CITY OF
Albuquerque

June 11, 1998

James E. Millington, P.E.
Chavez-Grieves
5639 Jefferson NE
Albuquerque, NM 87109

RE: ATRISCO ELEMENTARY SCHOOL (L11-D20). DRAINAGE REPORT, GRADING AND DRAINAGE PLAN FOR BUILDING PERMIT APPROVAL. ENGINEER'S STAMP DATED MAY 6, 1998.

Dear Mr. Millington:

Based on the information provided on your May 6, 1998 submittal, the above referenced project is approved for Building Permit.

Please attach a copy of this approved plan to the construction sets prior to sign-off by Hydrology.

If I can be of further assistance, please feel free to contact me at 924-3984.

Sincerely,

John P. Murray, P.E.
Hydrology

c: Andrew Garcia
File

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DRAINAGE INFORMATION

PROJECT TITLE: Atrisco Elementary School
ZONE ATLAS/DRNG. FILE #: L-11-Z 19 20
DRB#: _____ EPC #: _____
WORK ORDER #: _____
LEGAL DESCRIPTION: Atrisco Elementary School
ADDRESS: 1201 Atrisco Drive SW
ENGINEERING FIRM: Chavez-Grieves
CONTACT: James Alarid
ADDRESS: 5639 Jefferson NE
PHONE: 344-4080
OWNER: Albuquerque Public Schools
CONTACT: Pat McMurray
ADDRESS: 915 Oak SE
PHONE: 242-5865
ARCHITECT: Wright & Hammer
CONTACT: Denise Hammer
ADDRESS: 1735 Aliso Drive NE
PHONE: 266-6764
SURVEYOR: _____
CONTACT: _____
ADDRESS: _____
PHONE: _____
CONTRACTOR: _____
CONTACT: _____
ADDRESS: _____
PHONE: _____

TYPE OF SUBMITTAL:

- X DRAINAGE REPORT
- X DRAINAGE PLAN
- ___ CONCEPTUAL GRADING & DRAINAGE PLAN
- X GRADING PLAN
- ___ EROSION CONTROL PLAN
- ___ ENGINEER'S CERTIFICATION
- ___ OTHER

PRE-DESIGN MEETING:

- ___ YES
- X NO
- ___ COPY PROVIDED

DATE SUBMITTED: May 6, 1998
BY: James Alarid

CHECK TYPE OF APPROVAL SOUGHT:

- ___ SKETCH PLAT APPROVAL
- ___ PRELIMINARY PLAT APPROVAL
- ___ S. DEV. PLAN FOR SUB'D. APPROVAL
- ___ S. DEV. PLAN FOR BLDG. PRMT. APPROVAL
- ___ SECTOR PLAN APPROVAL
- ___ FINAL PLAT APPROVAL
- ___ FOUNDATION PERMIT APPROVAL
- X BUILDING PERMIT APPROVAL
- ___ CERTIFICATE OF OCCUPANCY APPROVAL
- ___ GRADING PERMIT APPROVAL
- ___ PAVING PERMIT APPROVAL
- ___ S.A.D. DRAINAGE REPORT
- ___ DRAINAGE REQUIREMENTS
- ___ OTHER

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5639 JEFFERSON STREET NE • ALBUQUERQUE, NEW MEXICO 87109 • PHONE (505) 344-4080 • FAX (505) 343-8759

GRADING AND DRAINAGE PLAN

FOR

ATRISCO ELEMENTARY SCHOOL

Albuquerque, New Mexico

May 1998

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GRADING AND DRAINAGE PLAN

ATRISCO ELEMENTARY SCHOOL

Albuquerque, New Mexico

JAMES E. MILLER
REGISTERED PROFESSIONAL ENGINEER
7677
5/6/98

May 1998

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LOCATION

This site is located on the property of the existing Atrisco Elementary School south of San Ygnacio Road SW and west of Atrisco Road SW in Albuquerque, NM.

LEGAL DESCRIPTION

The legal description is Atrisco Elementary School.

SURROUNDING DEVELOPMENT

The school is located in a residential area in the south valley. The site of the new building is in the approximate center of the property. Four portable classrooms have been removed from this site in preparation for construction of the new building. There are school buildings to the east, portable classrooms to the south, a sports field to the west, and playground areas to the north.

FLOOD HAZARD ZONES

Panel 3500020329 D of the National Flood Insurance Rate Maps for the City of Albuquerque, dated September 20, 1996, indicates that the entire site is in a designated flood hazard Zone X. Zone X designates "areas of 500-year flood, areas of 100 year flood with average depths of less than 1 foot or with drainage areas less than 1 square mile and areas protected by levees from 100-year flood."

RELATED REPORTS

No related reports were found for this site.

EXISTING SITE CONDITIONS AND DRAINAGE PATTERN

The site for the addition is currently a dirt school yard compacted by human activity and by the four portable classrooms that have recently been removed. There are also asphalt sidewalks and some vegetation. The site is fairly flat. The runoff from the area of the proposed addition flows west where it gathers at the edge of the sports field and is carried north to a small ponding area in the playground with a volume of 2304 cubic feet. In a small, frequent storm event, this pond will be adequate. During a larger event, such as the

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MAY 06 1998
HYDROLOGY SECTION

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100-year design storm, the entire site will be flooded as designated by the flood zone "X" as described previously in this report.

PROPOSED SITE CONDITIONS AND DRAINAGE PATTERN

The proposed drainage pattern is the same as the existing pattern. To ensure that the water drains from the east side of the new building, a concrete valley gutter will gather the runoff at the southeast corner of the building and carry it west to the edge of the sports field. Since the new building essentially replaces the portable classrooms that had been in the same location, the impervious area has increased by a relatively small area. The runoff rate will increase by only 0.06 cfs/acre. Because the change is so small, there is no need for any changes to the current drainage pattern. Since the entire site is in a flood zone, the finished floor elevation has been set about 1.5 feet above the existing grade in an effort to be above the flood water in a 100-year storm event.

HYDROLOGY/HYDRAULICS

The runoff calculations and design have been done in accordance with Section 22.2 of the Development Process Manual of the City of Albuquerque, January 1993.

RUNOFF COMPARISON

Basin	Undeveloped - CFS	Developed - CFS
A	13.22	13.28
TOTAL ONSITE	***13.22***	***13.28***

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APPENDIX A

HYDROLOGIC COMPUTATIONS

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CHAVEZ - GRIEVES / CONSULTING ENGINEERS, Inc.
5639 Jefferson Street NE, Albuquerque, New Mexico 87109 *Phone (505) 344-4080 - Fax (505) 343-8759*

RUNOFF CALCULATIONS - SIMPLIFIED PROCEDURE

By: Colette Hoffman Date: 12-10-97
Project: Atrisco Elementary School Zone Atlas: L-11-Z

This procedure is in accordance with the City of Albuquerque Development Process Manual, Volume 2, Section 22.2, "Hydrology", peak discharge rate for small watersheds less than forty acres in size.

Precipitation Zone from Figure A-1: 1
Land treatment descriptions are in Table A-4.

1. RUNOFF RATE COMPUTATION

Use Equation a-10: $Q_P = Q_{PA} A_A + Q_{PB} A_B + Q_{PC} A_C + Q_{PD} A_D$

Values of Q_{pi} are from Table A-9, and are in CFS/acre. Area values are in acres.

BASIN	Q_{PA}	A_A	Q_{PB}	A_B	Q_{PC}	A_C	Q_{PD}	A_D	Q_P
EXISTING RATE OF RUNOFF (CFS)									
Basin A	1.29	0.000	2.03	0.000	2.87	2.488	4.37	1.392	13.22
Total									13.22
DEVELOPED RATE OF RUNOFF (CFS)									
Basin A	1.29	0.000	2.03	0.000	2.87	2.451	4.37	1.429	13.28
Total									13.28

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2. RUNOFF VOLUME COMPUTATION

Use Equation a-5 to compute weighted excess precipitation:

Weighted E = "E" = $(E_A A_A + E_B A_B + E_C A_C + E_D A_D)/(A_A + A_B + A_C + A_D)$

$(A_A + A_B + A_C + A_D) = \sum A_i$

Use Equation a-6 to compute the volume:

V_{360} = "E" x $(A_A + A_B + A_C + A_D)$ x 3630 feet^3/acre·inch

Values of E_i are from Table A-8, and are in inches. Area values are in acres.

BASIN	E_A	A_A	E_B	A_B	E_C	A_C	E_D	A_D	$\sum A_i$	"E"	V_{360}
EXISTING VOLUME OF RUNOFF (CUBIC FEET)											
Basin A	0.44	0.000	0.67	0.000	0.99	2.488	1.97	1.392	3.880	1.34	18,895
Total											18,895
DEVELOPED VOLUME OF RUNOFF (CUBIC FEET)											
Basin A	0.44	0.000	0.67	0.000	0.99	2.451	1.97	1.429	3.880	1.35	19,027
Total											19,027

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APPENDIX B

DRAWINGS

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PLANS/PLATS ON FILE

FILE DESC: LII/D20

PLANS/PLATS 8

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