HYDROLOGY M15/D10 4B BDM PHASE II

M15/D10

BDM PHASE II

1 Plan

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

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

June 28, 1984

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

REF: BDM LAB (M15-D10) 6/15/84.

Dear Jeff,

Based on the information provided on your June 15, 1984 submittal, the above referenced drainage plan is approved.

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

Sincerely,

Billy J. Goolsby

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

BJM/BJG/cl

Craddock
Development Company
2309 Renard Place, S.E., Suite 400, Albuquerque, New Mexico 87106, (505) 842-9136

M15-D10

May 17,1984

Mr. Bernie Montoya
Hydrology Section
City of Albuquerque
P.O. Box 1293
Albuquerque, N.M. 87103

Re: BDM PHASE II

Dear Mr. Montoya:

It has been brought to my attention that in order for us to obtain a Certificate of Occupancy for the subject project, several items require clarification. These items are as follows:

1. The proposed inlet and storm drain piping between the Phase I and Phase II buildings are part of a separate permit for the BDM Arcade. That work is in addition to, but separate from, the Phase II Project.

2. The proposed curb along the west edge of the Phase II parking lot has been omitted because a retaining wall will be required there under the BDM Lab Project. To build a curb now and remove it later in order to build the retaining wall would not be very cost effective. Because of this, we have decided to delete the curb from the Phase II contract and to replace it with a retaining wall under the Lab contract. A grading and drainage plan prepared by Tom Mann & Associates for the BDM Lab has been completed and was submitted to the City for review on May 9,

1984. Furthermore, we, as the Owners, agree to accept responsibility for any runoff related damages which may occur at the interface between the two projects until such time as construction is begun on the Lab Project. This acceptance of responsibility pertains to those damages which may be directly attributable to runoff such as the erosion of adjacent soil or the undermining of adjacent pavement. This commitment of responsibility will expire upon the commencement of construction for the BDM Lab Project. At that time, the contractor will have to accept responsibility.

It is based upon the information presented above that a Certificate of Occupancy for the subject project is requested.

Your prompt attention to this matter will be greatly appreciated. If you should have any questions or comments concerning this request, please do not hesitate to call.

Sincerely,

Donald J. Murphy
Vice President/General Manager

CC: Jeff Mortensen, Tom Mann & Associates
Bob Woodward, Bradbury & Stamm

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

SURVEY SECTION
123 Central NW, Albuquerque, NM 87102
(505) 766-5040

April 10, 1984

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

REF: REVISED DRAINAGE PLAN FOR BDM PHASE II (M15-D10) RECEIVED MARCH 22, 1984

Dear Jeff:

The above referenced plan, dated March 21, 1984, is approved.

Please attach a copy of this plan to the construction set prior to issuance of the building permit.

If I can be of further assistance, please contact me at 766-7644.

Sincerely yours,

Billy J. Goolsby

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

BJG:mrk

30423

INFORMATION SHEET

PROJECT TITLE BDM PHASE II TYPE OF SUBMITTAL REVISED PLAN

ZONE ATLAS PAGE NO. M-15 CITY ADDRESS ?

LEGAL DESCRIPTION TRACT 2, NEWPORT IND PARK-WEST, UNIT 1

ENGINEERING FIRM TOM MANN & ASSOC. CONTACT JEFFREY G. MORTENSEN

ADDRESS 811 DALLAS NE PHONE 255-5611

OWNER CRADDOCK CONTACT ARCHITECT

ADDRESS PHONE

ARCHITECT CLAUDIO VIGIL CONTACT CLAUDIO VIGIL

ADDRESS PHONE 247-1000

SURVEYOR TOM MANN CONTACT J.G. MORTENSEN

ADDRESS PHONE

CONTRACTOR NOT KNOWN CONTACT

ADDRESS PHONE

PRE-DESIGN MEETING:

✓ YES
___ NO
✓ COPY OF CONFERENCE RECAP SHEET PROVIDED

M15-D10

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 _____ (SPECIFY)

DATE SUBMITTED: 03/21/84

BY: J.G. MORTENSEN

RECEIVED
MAR 22 1984
HYDROLOGY SECTION

CITY OF ALBUQUERQUE
MUNICIPAL DEVELOPMENT DEPARTMENT
ENGINEERING DIVISION

HYDROLOGY SECTION PROJ. NO. M-15 DATE: 3/13/84

PLANNING DIVISION NO. _____

CONFERENCE RECAP

SUBJECT: Modification to existing drainage Plan for BDM Phase II

WHO	REPRESENTING
ATTENDANCE: Jeff Mortensen	
Billy Goolsby	

FINDINGS: ① Update to existing approved plan required to indicate modification
② Solution to be determined and submitted for review

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: Billy G. Goolsby
TITLE: CE/Hydrology
DATE: 3/13/84

SIGNED: [illegible]
TITLE: VP
DATE: 3/13/84

30423

BDM ARCADE CALCULATIONS

Pipe Capacity (sewer wheel)

$s = 0.0050 \quad d = 6''$

$n = 0.01$

$Q \cong 0.5$ cfs

Inlet Capacity (Orifice)

$Q = CA\sqrt{2gh} = 1.6$ cfs

$C = 0.8$
$A = 0.19635$ sf
$h = 73.8 - 71.9 - \frac{1}{2}(0.5) = 1.65'$
$g = 32.2$ ft/sec^2

@ $Q = 0.4$ cfs,

$\sqrt{2gh} = 2.55$
$2gh = 6.48$
$h = 0.1'$

$\therefore$ depth of ponding is not a concern.

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

October 12, 1983

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

RE: BDM PHASE II REVISED DRAINAGE PLAN DATED 10/12/83 (M15-D10)

Dear Jeff:

The revised plan for the above project is hereby approved. Copies of approved plans must be attached to construction set before Hydrology sign-off.

If you should have any further questions, please feel free to call me.

Very truly yours,

Fred J. Aguirre
Civil Engineer/Hydrology

FJA/tsl

1489

APPLICATION FOR SUBDIVISION AND/OR VACATION

INSTRUCTIONS

PRINT OR TYPE IN BLACK INK ONLY. Use additional sheets if necessary. The completed application is to be submitted to the Planning Division by the applicant or agent. Each application must be accompanied by the filing fee (checks are preferred and made payable to the City of Albuquerque). All attachments must be submitted with the application and, after folding, shall not exceed 8 1/2 x 14 inches. Additional information may be obtained from the Planning Division (505) 766-7422.

APPLICATION FOR:

SUBDIVISION

___ Sketch Plat
___ Preliminary Plat
___ Final Plat

✓ SDP Review

VACATION

___ Public Right-of-Way
___ Private Way
___ Easement

1. APPLICANT INFORMATION

a. Applicant: Craddock Development Telephone: 842-9136
Mailing Address: 2501 Yale SE
Albuquerque N.M Zip Code: 87106
Applicant's Proprietary Interest in the Property: Owner

b. Agent (if any): Tom Mann & Assoc Telephone: 265-5611
Mailing Address: 811 Dallas NE
Zip Code: 87110

c. Signature of applicant/agent: Tom Mann Date: 10/5/83

2. LOCATION OF REQUEST

a. Street Address (if any):

b. Legal Description of the Property:
(1) Lot(s)/Tract(s): 1 & 2 & Tr. 3
(2) Block: Unit 1 / Unit 2
(3) Subdivision-Addition Name/MRGCD Map: Newport Industrial Park-West Unit 1

c. Location of Property by Streets: Randolf & Buena Vista

d. Uniform Property Code:

3. PROJECT DETAILS

a. Present Zoning: IP Proposed: IP
b. Number of Lots Existing: 1 Proposed: 1
c. Number of Dwelling Units Existing: 1 Proposed: 1
d. Total Land Area Covered by Request: Acres: 3.62 Sq. Feet:

4. (VACATION ONLY) REASON FOR REQUEST Use Separate Sheet: Why should the vacation be granted?

5. ATTACHMENTS AS REQUIRED IN SUBDIVISION ORDINANCE See appropriate checklist(s)

****

PLANNING DIVISION INTERNAL USE ONLY

Cross-references: DRB-83-606 No. Signs Issued:
Application and Fee Received by: Dan Wan Date: 10/5/83
Fee Paid: Dollars $ Method of Payment: CREDIT:
TREASURER VALIDATION

Distribution: Secretary-Orig./Case File
Applicant/Agent
Treasurer

MAP NO. M-15
HEARING DATE: 10/18/83

Rev. 3/83

CASE NUMBER: DRB-83-~~274~~ 606

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

30421
September 30, 1983

Mr. Fred Aguirre
City Engineering
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

M15-D10

RECEIVED
OCT 03 1983
ENGINEERING

Re: BDM Phase II

Dear Fred:

Transmitted herewith for your information is one copy of the revised grading and drainage plan for the subject project. This plan has been revised to address the comments of Traffic Engineering during the building permit plan check process. Those changes which were made involve re-grading the driveway entrance to be less than 15%, and providing a handicap ramp at the entrance to the building. These changes are minor, however, I felt that your records should reflect these changes.

If you have any questions or comments concerning this information, please do not hesitate to call.

Sincerely,

TOM MANN & ASSOCIATES, INC.

Jeffrey G. Mortensen, P.E.
Project Engineer

JGM:ra
Encl.
cc: Claudio Vigil/Encl.
Traffic Engineering

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

July 26, 1983

Jeff Mortensen
Tom Mann & Associates
811 Dallas N.E.
Albuquerque, NM 8711

RE: BDM Phase II (REVISED 6/24/83) (M15-D10)

Dear Jeff:

The referenced drainage plan is approved. Please see that copies of the approved plans are attached to the building set for Hydrology sign-off.

Very truly yours,

Fred J. Aguirre, P.E.
Civil Engineer

FJA/tsl

30421

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

DRAINAGE REPORT INFORMATION SHEET

PROJECT TITLE BDM PHASE II (REVISED)

ZONE ATLAS PAGE NO. M15-D10 ~~CITY~~ ADDRESS RANDOLPH RD SE.

LEGAL ADDRESS TRACT 2, NEWPORT INDUSTRIAL PARK-WEST, UNIT 1

ENGINEERING FIRM TOM MANN & ASSOC. CONTACT J. MORTENSEN

ADDRESS 811 DALLAS NE PHONE 265-5611

OWNER CRADDOCK DEVELOPMENT CONTACT DON MURPHY

ADDRESS 2501 YALE SE PHONE 842-1936

ARCHITECT/~~SURVEYOR~~ CLAUDIO VIGIL CONTACT CLAUDIO VIGIL

ADDRESS 2501 YALE SE PHONE 842-1936

DATE SUBMITTED 6-24-83

BY JEFFREY G. MORTENSEN

RECEIVED

JUN 24 1983

ENGINEERING

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

M15 - D10

February 23, 1982

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

RE: BDM PHASE II DRAINAGE PLAN

Dear Jeff:

The referenced report is approved in concept. However, would it be possible to extend a temporary asphalt section from the parking lot to the existing concrete basin. This would prevent:

a. Erosion in the natural channel caused by high velocity runoff from the parking area.

b. The need to maintain the temporary desilting basin.

c. The concrete basin from becoming further clogged with sediment.

In reference to part c. above, a note should be added to the drawing stating that the concrete basin should be cleaned of sediment and weed accumulation.

Let me know what you think about my suggestion. I'll be glad to discuss it with you.

Very truly yours,

BGB

Brian G. Burnett
Civil Engineer/Hydrology

BGB/tsl

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

M15 - D10

February 23, 1982

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

RE: BDM PHASE II DRAINAGE PLAN

Dear Jeff:

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a. Erosion in the natural channel caused by high velocity runoff from the parking area.

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Let me know what you think about my suggestion. I'll be glad to discuss it with you.

Very truly yours,

BGB

Brian G. Burnett
Civil Engineer Hydrology

BGB/tsl

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

M15 - D10

February 23, 1982

RECEIVED
FEB 25 1982
ENGINEERING

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

RE: BDM PHASE II DRAINAGE PLAN

I will discuss this with the Owners.

Dear Jeff:

The referenced report is approved in concept. However, would it be possible to extend a temporary asphalt section from the parking lot to the existing concrete basin? This would prevent:

a. Erosion in the natural channel caused by high velocity runoff from the parking area.

b. The need to maintain the temporary desilting basin.

c. The concrete basin from becoming further clogged with sediment.

In reference to part c. above, a note should be added to the drawing stating that the concrete basin should be cleaned of sediment and weed accumulation.

Let me know what you think about my suggestion. I'll be glad to discuss it with you.

Very truly yours,

Brian G. Burnett
Civil Engineer/Hydrology

BGB/tsl

OK, I agree. thanks for reviewing the plan. Despite my "nagging", your response has come at a good time.

JEFF

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

RECEIVED
JAN 25 1982
ENGINEERING

DRAINAGE REPORT INFORMATION SHEET

PROJECT TITLE BDM PHASE II DRAINAGE PLAN

ZONE ATLAS PAGE NO. M-15 CITY ADDRESS RANDOLPH ROAD

LEGAL ADDRESS TRACT 2, NEWPORT INDUSTRIAL PARK-WEST, UNIT 2

ENGINEERING FIRM TOM MANN & ASSOC CONTACT JEFF MORTENSEN

ADDRESS 811 DALLAS NE PHONE 265-5611

OWNER CRADDOCK DEV. CO. CONTACT CLAUDIO VIGIL

ADDRESS 2501 YALE BLVD. SE PHONE 842-9136

ARCHITECT/~~SURVEYOR~~ CLAUDIO VIGIL CONTACT CLAUDIO VIGIL

ADDRESS 2501 YALE BLVD SE PHONE 842-9136

DATE SUBMITTED 1/ /82

BY JEFF MORTENSEN

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

10302
January 25, 1982

M15-D10

RECEIVED
JAN 25 1982
ENGINEERING

Mr. Brian Burnett
Civil Engineer/Hydrology
City of Albuquerque
P. O. Box 1293
Albuquerque, New Mexico 87103

Re: BDM Phase II Grading and Drainage Plan

Dear Brian:

Transmitted herewith for your review are two (2) prints of the subject plan. Accompanying this plan are supplemental calculations to assist you in your review. It will be advantageous for you to review this plan concurrently with the BDM Master Drainage Plan also submitted at this time.

If you have any questions or comments concerning this submittal, do not hesitate to call.

Sincerely,

TOM MANN & ASSOCIATES, INC.

Jeffrey G. Mortensen
Project Engineer

JGM:bb
Encs.
xc: Claudio Vigil

PROJECT: BDM PHASE II
PROJECT NO.: 1030

DRAINAGE BASIN RUNOFF SUMMARY
CONDITION: EXISTING

DESCRIPTION	AREA (ac)	Q-100 (cfs)	V-100 (cf.)	Q-10 (cfs)	V-10 (cf.)
OFFSITE	15.00	7.0	16,500	1.6	3,700
AREA 1	0.30	0.1	300	0.0	0
AREA 2	2.80	1.3	3,000	0.3	700
OFFSITE + AREA 1	15.30	7.3	16,900	1.6	3,800

RECEIVED
JAN 25 1982
ENGINEERING

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

PROJECT: BPR PHASE II
PROJECT NO.: 1030

DRAINAGE BASIN: OFFSITE
CONDITION: EXISTING

LAND-USE DESCRIPTION:

DESCRIPTION	SOIL GROUP	AREA (ac)	Cv	% OF TOTAL
NATIVE GRASS (BKD/BCD)	F	15.00	68	100 %
COMPOSITE:		15.00	68	100 %

WATERSHED CHARACTERISTICS:

FLOW TYPE: GULLIED
LENGTH: 3400 ft.

DROP: 90 ft.
SLOPE: 2.6 %

TIME OF CONCENTRATION: 0.10 hr.

STORM CHARACTERISTICS:

FREQUENCY: 100 yr.: 6 hr.
RAINFALL: 2.3 in.
RUNOFF: 0.90 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 7.0 c.f.s.

VOLUME: 16,500 c.f. 0.38ac.ft.

FREQUENCY: 10 yr.: 6 hr.
RAINFALL: 1.4 in.
RUNOFF: 0.67 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 1.4 c.f.s.

VOLUME: 3,700 c.f. 0.08ac.ft.

RECEIVED
JAN 25 1982
ENGINEERING

PROJECT: BDM PHASE II
PROJECT NO.: 1030

DRAINAGE BASIN: AREA 1
CONDITION: EXISTING

LAND-USE DESCRIPTION:

DESCRIPTION	SOIL GROUP	AREA (ac)	CN	% OF TOTAL
NATIVE GRASS (BKD/BCD)	A	0.30	68	100 %
COMPOSITE:		0.30	68	100 %

WATERSHED CHARACTERISTICS:

FLOW TYPE: GULLIED
LENGTH: 340 ft.

DROP: 14 ft.
SLOPE: 4.1 %

TIME OF CONCENTRATION: 0.04 hr.

STORM CHARACTERISTICS:

FREQUENCY: 100 yr.; 6 hr.
RAINFALL: 2.3 in.
RUNOFF: 0.00 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 0.1 c.f.s.

VOLUME: 300 c.f. 0.01ac.ft.

FREQUENCY: 10 yr.; 6 hr.
RAINFALL: 1.6 in.
RUNOFF: 0.0 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 0.0 c.f.s.

VOLUME: 0 c.f. 0.00ac.ft.

RECEIVED
JAN 29
ENGINEERING

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

PROJECT: BIM PHASE II
PROJECT NO.: 1050

DRAINAGE BASIN: AREA 2
CONDITION: EXISTING

LAND-USE DESCRIPTION:

DESCRIPTION	SOIL GROUP	AREA (ac)	Cn	% OF TOTAL
NATIVE GRASS (BKD/BCC)	A	2.80	68	100 %
COMPOSITE:		2.80	68	100 %

WATERSHED CHARACTERISTICS:

FLOW TYPE: GULLIED
LENGTH: 500 ft.

DROP: 23 ft.
SLOPE: 4.6 %

TIME OF CONCENTRATION: 0.05 hr.

STORM CHARACTERISTICS:

FREQUENCY: 100 yr.: 6 hr.
RAINFALL: 2.3 in.
RUNOFF: 0.30 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 1.3 c.f.s.

VOLUME: 3,000 c.f. 0.07ac. ft.

FREQUENCY: 10 yr.: 6 hr.
RAINFALL: 1.6 in.
RUNOFF: 0.07 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 0.3 c.f.s.

VOLUME: 700 c.f. 0.02ac.ft.

RECEIVED
JAN 25 1982
ENGINEERING

PROJECT: RIM PHASE II
PROJECT NO.: 1030

DRAINAGE BASIN: OFFSITE - AREA 1
CONDITION: EXISTING

LAND-USE DESCRIPTION:

DESCRIPTION	SOIL GROUP	AREA (ac)	CN	% OF TOTAL
NATIVE GRASS (RKD/BCC)	A	15.30	68	100 %
COMPOSITE:		15.30	68	100 %

WATERSHED CHARACTERISTICS:

FLOW TYPE: GULLIED
LENGTH: 1740 ft.

DROP: 104 ft.
SLOPE: 5.9 %

TIME OF CONCENTRATION: 0.12 hr.

STORM CHARACTERISTICS:

FREQUENCY: 100 yr.: 6 hr.
RAINFALL: 2.3 in.
RUNOFF: 0.30 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 7.2 c.f.s.

VOLUME: 16,900 c.f. 0.39ac.ft.

FREQUENCY: 10 yr.: 6 hr.
RAINFALL: 1.6 in.
RUNOFF: 0.07 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 1.6 c.f.s.

VOLUME: 3,800 c.f. 0.09ac.ft.

RE...
JAN 25
ENGINEERING

PROJECT: BDM PHASE II
PROJECT NO.: 1030

DRAINAGE BASIN RUNOFF SUMMARY
CONDITION: DEVELOPED

DESCRIPTION	AREA (ac)	Q-100 (cfs)	V-100 (cf.)	Q-10 (cfs)	V-10 (cf.)
OFFSITE	15.00	7.0	16,500	1.6	3,700
AREA 1	0.30	0.5	1,900	0.4	1,100
AREA 2	2.80	3.3	7,900	1.4	3,300
OFFSITE + AREA 1	15.30	7.5	17,700	1.8	4,200

RECEIVED
JAN 25 1982
ENGINEERING

PROJECT: BDM PHASE II
PROJECT NO.: 1030

DRAINAGE BASIN: OFFSITE
CONDITION: DEVELOPED

LAND-USE DESCRIPTION:

DESCRIPTION	SOIL GROUP	AREA (ac)	C	% OF TOTAL
NATIVE GRASS (BKD/BCC)	4	15.00	68	100 %
COMPOSITE:		15.00	68	100 %

WATERSHED CHARACTERISTICS:

FLOW TYPE: GULLIES
LENGTH: 1400 ft.

DROP: 90 ft.
SLOPE: 6.4 %

TIME OF CONCENTRATION: 0.10 hr.

STORM CHARACTERISTICS:

FREQUENCY: 100 yr.: 6 hr.
RAINFALL: 2.3 in.
RUNOFF: 0.30 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 7.0 c.f.s.

VOLUME: 16,500 c.f. 0.38ac.ft.

FREQUENCY: 10 yr.: 6 hr.
RAINFALL: 1.6 in.
RUNOFF: 0.07 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 1.5 c.f.s.

VOLUME: 3,700 c.f. 0.08ac.ft.

RECEIVED
JAN 25 1982
ENGINEERING

PROJECT: BDN PHASE II
PROJECT NO.: 1030

DRAINAGE BASIN: AREA 1
CONDITION: DEVELOPED

LAND-USE DESCRIPTION:

DESCRIPTION	SOIL GROUP	AREA (ac)	Cn	% OF TOTAL
IMPERVIOUS AREA		0.30	95	100 %
	COMPOSITE:	0.30	95	100 %

WATERSHED CHARACTERISTICS:

FLOW TYPE: GULLIED
LENGTH: 340 ft.

DROP: 14 ft.
SLOPE: 4.1 %

TIME OF CONCENTRATION: 0.04 hr.

STORM CHARACTERISTICS:

FREQUENCY: 100 yr.: 6 hr.
RAINFALL: 2.8 in.
RUNOFF: 1.77 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.35 cfs/ac/in
PEAK DISCHARGE (Q): 0.8 c.f.s.

VOLUME: 1,900 c.f. 0.04 ac.ft.

FREQUENCY: 10 yr.: 6 hr.
RAINFALL: 1.6 in.
RUNOFF: 1.05 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 0.4 c.f.s.

VOLUME: 1,100 c.f. 0.03 ac.ft.

RECEIVED
JAN 25 1982
ENGINEERING

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

PROJECT: BDM PHASE II
PROJECT NO.: 1030

DRAINAGE BASIN: AREA 2
CONDITION: DEVELOPED

LAND-USE DESCRIPTION:

DESCRIPTION	SOIL GROUP	AREA (ac)	Cr	% OF TOTAL
LANDSCAPING	A	1.00	60	36 %
NATIVE GRASS (BKD/BCD)	A	0.20	68	7 %
IMPERVIOUS AREA		1.60	95	57 %
	COMPOSITE:	2.80	81	100 %

WATERSHED CHARACTERISTICS:

FLOW TYPE: GULLIES
LENGTH: 470 ft.

DROP: 23 ft.
SLOPE: 3.4 %

TIME OF CONCENTRATION: 0.07 hr.

STORM CHARACTERISTICS:

FREQUENCY: 100 yr.; 6 hr.
RAINFALL: 2.3 in.
RUNOFF: 0.78 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 3.2 c.f.s.

VOLUME: 7,900 c.f. 0.18ac.ft.

FREQUENCY: 10 yr.; 6 hr.
RAINFALL: 1.6 in.
RUNOFF: 0.03 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 1.4 c.f.s.

VOLUME: 3,300 c.f. 0.08ac.ft.

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PROJECT: BDM PHASE II
PROJECT NO.: 1030

DRAINAGE BASIN: OFFSITE + AREA 1
CONDITION: DEVELOPED

LAND-USE DESCRIPTION:

DESCRIPTION	SOIL GROUP	AREA (ac)	Cn	% OF TOTAL
NATIVE GRASS (BMD/BCC)	A	15.00	68	98 %
IMPERVIOUS AREA		0.30	95	2 %
	COMPOSITE:	15.30	69	100 %

WATERSHED CHARACTERISTICS:

FLOW TYPE: GULLIED
LENGTH: 1740 ft.

DROP: 104 ft.
SLOPE: 5.9 %

TIME OF CONCENTRATION: 0.13 hr.

STORM CHARACTERISTICS:

FREQUENCY: 100 yr.: 6 hr.
RAINFALL: 2.3 in.
RUNOFF: 0.23 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 7.5 c.f.s.

VOLUME: 17,700 c.f. 0.4ac.ft.

FREQUENCY: 10 yr.: 6 hr.
RAINFALL: 1.7 in.
RUNOFF: 0.06 in.
DISTRIBUTION CURVE: 75
DISCHARGE: 1.55 cfs/ac/in
PEAK DISCHARGE (Q): 1.8 c.f.s.

VOLUME: 4,200 c.f. 0.10ac.ft.

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