City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

August 26, 2003

Jean J. Bordenave, PE
Bordenave Designs
P.O. Box 91194
Albuquerque, NM 87199

Re: Jardinero Professional Plaza Grading and Drainage Plan Certification
Engineer's Stamp dated 8-21-03 (C19/D11E)

Dear Mr. Bordenave,

Based upon the information provided in your submittal dated 8-22-03, the above referenced certification is approved for Permanent Certificate of Occupancy release from Hydrology.

If you have any questions, you can contact me at 924-3986.

Sincerely,

Bradley L. Bingham, PE
Sr. Engineer, Planning Dept.
Development and Building Services

C: Certificate of Occupancy clerk
file

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/11/2002)

PROJECT TITLE: JARDINERO PROF. PLAZA ZONE MAP/DRG. FILE #: C19/D11E
DRB #: _____ EPC#: _____ WORK ORDER#: _____

LEGAL DESCRIPTION: LOTS 11,12,21&22 BLOCK 20, TRACT 2, UNIT 3 NORTH ALB ACRES
CITY ADDRESS: _____

ENGINEERING FIRM: BORDENAVE DESIGNS CONTACT: J. BORDENAVE
ADDRESS: PO BOX 91194 PHONE: 823-1344
CITY, STATE: ALB, NM ZIP CODE: 87199-1194

OWNER: W. GARDNER CONTACT: W. GARDNER
ADDRESS: 5342 WYOMING NE SUITE B PHONE: 828-2669
CITY, STATE: ALB NM ZIP CODE: 87110

ARCHITECT: M. SNAPP DESIGN CONTACT: M. SNAPP
ADDRESS: 6125 4th ST. NW PHONE: 344-7526
CITY, STATE: ALB NM ZIP CODE: 87107

SURVEYOR: SURVEYS SOUTHWEST LTD CONTACT: D. GURNEY
ADDRESS 333 LOMAS NE PHONE: 247-4444
CITY, STATE: ALB NM ZIP CODE: _____

CONTRACTOR: _____ CONTACT: _____
ADDRESS: _____ PHONE: _____
CITY, STATE: _____ ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:
- ____ DRAINAGE REPORT
- ____ DRAINAGE PLAN
- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- ____ GRADING PLAN
- ____ EROSION CONTROL PLAN
- X ENGINEER'S CERTIFICATION (HYDROLOGY)
- ____ CLOMR/LOMR
- ____ TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ ENGINEERS CERTIFICATION (TCL)
- ____ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
- ____ OTHER

CHECK TYPE OF APPROVAL SOUGHT:
- ____ SIA / FINANCIAL GUARANTEE RELEASE
- ____ PRELIMINARY PLAT APPROVAL
- ____ S. DEV. PLAN FOR SUB'D. APPROVAL
- ____ S. DEV. PLAN FOR BLDG. PERMIT APPROVAL
- ____ SECTOR PLAN APPROVAL
- ____ FINAL PLAT APPROVAL
- ____ FOUNDATION PERMIT APPROVAL
- ____ BUILDING PERMIT APPROVAL
- X CERTIFICATE OF OCCUPANCY (PERM.)
- ____ CERTIFICATE OF OCCUPANCY (TEMP.)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:
- X YES
- ____ NO
- ____ COPY PROVIDED

DATE SUBMITTED: 08/22/03 BY: _____

RECEIVED
AUG 22 2003
HYDROLOGY SECTION

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature , location and scope ot the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

1. **Conceptual Grading and Drainage Plan**: Required for approval of Site Development Plans greater than five
2. **Drainage Plans**: Required for building permits, grading permits, paving permits and site plans less than five (5)
3. **Drainage Report**: Required for subdivisions containing more than ten (10) lots or constituting five (5) acres or more.

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Planning Department
Transportation Development Services Section

February 26, 2004

Les L. Robinson, Registered Architect
3432 Cuervo NE
Albuquerque, NM 87110

Re: Certification Submittal for Final Building Certificate of Occupancy for
Jardinero Professional Plaza, [C-19 / D11E]
8200 Carmel
Architect's Stamp Dated 02/19/04

Dear Mr. Robinson:

The TCL / Letter of Certification submitted on February 26, 2004 is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to the Building and Safety Section.

Sincerely,

Nilo E. Salgado-Fernandez, P.E.
Senior Traffic Engineer
Development and Building Services
Planning Department

c: Engineer
Hydrology file
CO Clerk

February 19, 2004

Les L. Robinson, Architect
3420 Cuervo NE
Albuquerque, NM 87110

City of Albuquerque
Traffic Engineering Department

Re: 8200 Carmel – Jardinero Professional Plaza

This letter is to certify that the parking areas and traffic circulation as constructed is in substantial compliance with the Site Development Plan approved by the City of Albuquerque, dated December 11,2002.

Sincerely,

Les L. Robinson, Architect

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

March 4, 2003

Jake Bordenave
Bordenave Designs
P.O. Box 91194
Albuquerque, New Mexico 87199-1194

RE: Grading and Drainage Plan for Jardinero Professional Plaza Phase I (C19-D11E)
Dated January 30, 2003

Dear Mr. Bordenave:

The above referenced drainage plan received February 11, 2003 is approved for building permit. Phase I will include the entire storm drain system for Phase I and II. Upon completion of the phase please submit a certification for the project per the DPM for Certificate of Occupancy release.

If you have any questions please call me at 924-3982.

Sincerely,

Carlos A. Montoya
City Floodplain Administrator

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(REV. 1/11/2002)

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DRB #: _____ EPC#: _____ WORK ORDER#: _____

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CITY, STATE: ALB NM ZIP CODE: _____

CONTRACTOR _____ CONTACT: _____
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- ____ CONCEPTUAL GRADING & DRAINAGE PLAN
- _X_ GRADING PLAN
- ____ EROSION CONTROL PLAN
- ____ ENGINEER'S CERTIFICATION (HYDROLOGY)
- ____ CLOMR/LOMR
- ____ TRAFFIC CIRCULATION LAYOUT (TCL)
- ____ ENGINEERS CERTIFICATION (TCL)
- ____ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
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- ____ PRELIMINARY PLAT APPROVAL
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- ____ FINAL PLAT APPROVAL
- ____ FOUNDATION PERMIT APPROVAL
- _X_ BUILDING PERMIT APPROVAL
- ____ CERTIFICATE OF OCCUPANCY (PERM.)
- ____ CERTIFICATE OF OCCUPANCY (TEMP.)
- ____ GRADING PERMIT APPROVAL
- ____ PAVING PERMIT APPROVAL
- ____ WORK ORDER APPROVAL
- ____ OTHER (SPECIFY)

WAS A PRE-DESIGN CONFERENCE ATTENDED:
- _X_ YES
- ____ NO
- ____ COPY PROVIDED

RECEIVED
FEB 11 2003
HYDROLOGY SECTION

DATE SUBMITTED: 02/11/03 BY: _____

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature , location and scope ot the proposed development defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

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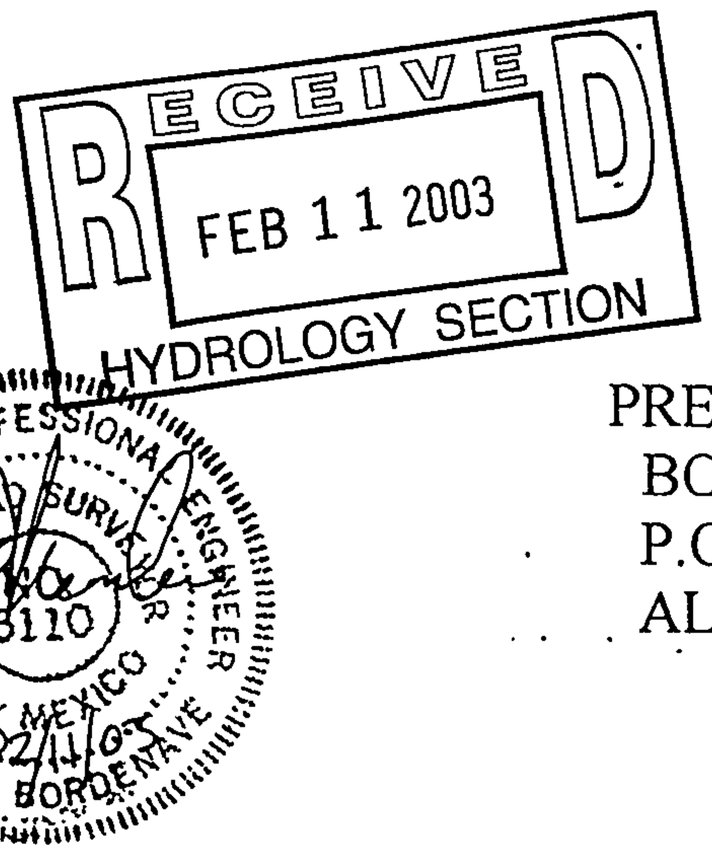
JARDINERO PLAZA

HYDRAULICS

PREPARED 10/31/02
REVISED 02/11/03



PREPARED BY:
BORDENAVE DESIGNS
P.O. BOX 91194
ALBUQUERQUE, NM 87199

BASIN B1 JARDINERO

Worksheet for Circular Channel

Project Description	
Worksheet	Circular Channel - B1
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Full Flow Slope

Input Data		
Mannings Coefficient	0.013	
Diameter	8	in
Discharge	1.17	cfs

Results			
Slope	0.009375	ft/ft	
Depth	0.67	ft	
Flow Area	0 3	ft²	
Wetted Perimeter	0.00	ft	
Top Width	0.00	ft	
Critical Depth	0.51	ft	
Percent Full	100.0	%	
Critical Slope	0.010651	ft/ft	
Velocity	3.35	ft/s	
Velocity Head	0.17	ft	
Specific Energy	0 84	ft	
Froude Number	0.00		
Maximum Discharg	1.26	cfs	
Discharge Full	1.17	cfs	
Slope Full	0.009375	ft/ft	VS 0.0094
Flow Type	N/A		

BASIN B1, B2 JARDINERO
Worksheet for Circular Channel

Project Description	
Worksheet	BASINS B1, B2 JARDINI
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Full Flow Capacity

Input Data		
Mannings Coefficient	0.013	
Slope	0.037800	ft/ft
Diameter	12	in

Results		
Depth	1.00	ft
Discharge	6.93	cfs
Flow Area	0.8	ft²
Wetted Perimeter	3.14	ft
Top Width	0.00	ft
Critical Depth	0.97	ft
Percent Full	100.0	%
Critical Slope	0.033477	ft/ft
Velocity	8.82	ft/s
Velocity Head	1 21	ft
Specific Energy	2.21	ft
Froude Number	0.00	
Maximum Discharg	7.45	cfs
Discharge Full	6.93	cfs
Slope Full	0.037800	ft/ft
Flow Type	N/A	

V@ 6.27

B2 CATCH BASIN

WEIR FLOW

$Q = CLH^{3/2}$

$5.10 = (2.8)(5.9)\,H^{3/2}$

$H = 0.46$ ft ok < 0.5

BASIN C1 JARDINERO

Worksheet for Circular Channel

Project Description	
Worksheet	Circular Channel - C1
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Full Flow Slope

Input Data		
Mannings Coefficient	0.013	
Diameter	8	in
Discharge	0 86	cfs

Results			
Slope	0.005065	ft/ft	
Depth	0.67	ft	
Flow Area	0 3	ft²	
Wetted Perimeter	0.00	ft	
Top Width	0.00	ft	
Critical Depth	0 44	ft	
Percent Full	100.0	%	
Critical Slope	0.008513	ft/ft	
Velocity	2.46	ft/s	
Velocity Head	0 09	ft	
Specific Energy	0.76	ft	
Froude Number	0.00		
Maximum Discharg	0.93	cfs	
Discharge Full	0.86	cfs	
Slope Full	0 005065	ft/ft	VS 0.0051
Flow Type	N/A		

BASINS C1, C2 JARDINERO
Worksheet for Circular Channel

Project Description	
Worksheet	Circular Channel - C2
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Full Flow Slope

Input Data		
Mannings Coefficient	0.013	
Diameter	10	in
Discharge	2.14	cfs

Results		
Slope	0.009541	ft/ft
Depth	0.83	ft
Flow Area	0.5	ft²
Wetted Perimeter	0.00	ft
Top Width	0.00	ft
Critical Depth	0.66	ft
Percent Full	100.0	%
Critical Slope	0.010346	ft/ft
Velocity	3.92	ft/s
Velocity Head	0.24	ft
Specific Energy	1.07	ft
Froude Number	0.00	
Maximum Discharg	2.30	cfs
Discharge Full	2.14	cfs
Slope Full	0.009541	ft/ft
Flow Type	N/A	

vs 0.0132 available w/ surcharge

C2 CATCH BASIN

WEIR FLOW

$Q = CLH^{3/2}$

$1.28 = (2.8)(2.95)H^{3/2}$

$H = 0.29$ ft OK < 0.5'

BASIN C1-C3 JARDINERO
Worksheet for Circular Channel

Project Description	
Worksheet	Circular Channel - C3
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Discharge

Input Data		
Mannings Coefficient	0.013	
Slope	0.007150	ft/ft
Depth	1.50	ft
Diameter	18	in

Results		
Discharge	8.88	cfs
Flow Area	1.8	ft²
Wetted Perimeter	4.71	ft
Top Width	3.65e-8	ft
Critical Depth	1.15	ft
Percent Full	100.0	%
Critical Slope	0.008126	ft/ft
Velocity	5.03	ft/s
Velocity Head	0.39	ft
Specific Energy	1.89	ft
Froude Number	1.27e-4	
Maximum Discharg	9.55	cfs
Discharge Full	8.88	cfs
Slope Full	0.007150	ft/ft
Flow Type	Subcritical	

vs 8.82

C3 ~~CATCH BASIN~~

WEIR FLOW

$Q = C L H^{3/2}$

$6.68 = (2.8)(15.8)(H^{3/2})$

$H = 0.28$ ft ~~0.28~~ < 0.30

BASINS C4 JARDINERO
Worksheet for Circular Channel

Project Description	
Worksheet	Circular Channel - C4
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Full Flow Capacity

Input Data		
Mannings Coefficient	0.013	
Slope	0.003180	ft/ft
Diameter	12	in

Results			
Depth	1.00	ft	
Discharge	2.01	cfs	
Flow Area	0.8	ft²	
Wetted Perimeter	3.14	ft	
Top Width	0.00	ft	
Critical Depth	0.60	ft	
Percent Full	100.0	%	
Critical Slope	0.006876	ft/ft	
Velocity	2.56	ft/s	
Velocity Head	0.10	ft	
Specific Energy	1.10	ft	
Froude Number	0.00		
Maximum Discharg	2.16	cfs	
Discharge Full	2.01	cfs	VS 1.52
Slope Full	0.003180	ft/ft	
Flow Type	N/A		

C4 CATCH BASIN

WEIR FLOW

$Q = CLH^{3/2}$

$1.52 = (2.8)(4.95)H^{3/2}$

$H = 0.23$ ft OK < 0.5

SITE DISCHARGE TO CHANNEL
Worksheet for Circular Channel

Project Description	
Worksheet	Circular Channel - SITE
Flow Element	Circular Channel
Method	Manning's Formula
Solve For	Channel Slope

Input Data		
Mannings Coefficient	0.013	
Depth	1.50	ft
Diameter	18	in
Discharge	8.30	cfs

Results		
Slope	0.006244	ft/ft
Flow Area	1.8	ft²
Wetted Perimeter	4.71	ft
Top Width	3.65e-8	ft
Critical Depth	1.12	ft
Percent Full	100.0	%
Critical Slope	0.007648	ft/ft
Velocity	4.70	ft/s
Velocity Head	0.34	ft
Specific Energy	1.84	ft
Froude Number	1.19e-4	
Maximum Discharg	8.93	cfs
Discharge Full	8.30	cfs
Slope Full	0.006244	ft/ft
Flow Type	Subcritical	

V6 0.0063