City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

January 7, 2002

Ronald R. Bohannan, P.E.
Tierra West, LLC
8509 Jefferson NE
Albuquerque, New Mexico 87113

RE: WHATABURGER @ LA CUEVA TOWN CTR. LOT 4 (C-19/D11D7)
(8100 Wyoming NE)
ENGINEERS CERTIFICATION FOR CERTIFICATE OF OCCUPANCY
ENGINEERS STAMP DATED 9/13/2001
ENGINEERS CERTIFICATION DATED 12/6/2001

Dear Mr. Bohannan:

Based upon the information provided in your Engineers Certification submittal dated 1/7/2002, the above referenced site is approved for a Permanent Certificate of Occupancy.

If I can be of further assistance, please contact me at 924-3981.

Sincerely,

Teresa A. Martin
Hydrology Plan Checker
Public Works Department

BLB

C: Vickie Chavez, COA
drainage file
approval file

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

September 18, 2001

David Soule, PE
Tierra West LLC
8509 Jefferson NE
Albuquerque, NM 87113

Re: La Cueva Town Center, Lot 4A, Whataburger Drainage Report
Engineer's Stamp dated 9-13-01 (C19/D11D7)

Dear Mr. Soule,

Based upon the information provided in your submittal dated 9-13-01, the above referenced site is approved for Building Permit.

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

Also, prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

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

Sincerely,

Bradley L. Bingham, PE
Sr. Engineer, Hydrology

C: file

DRAINAGE REPORT

for

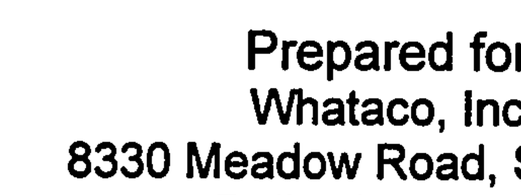
Whataburger at La Cueva Town Center
Albuquerque, New Mexico

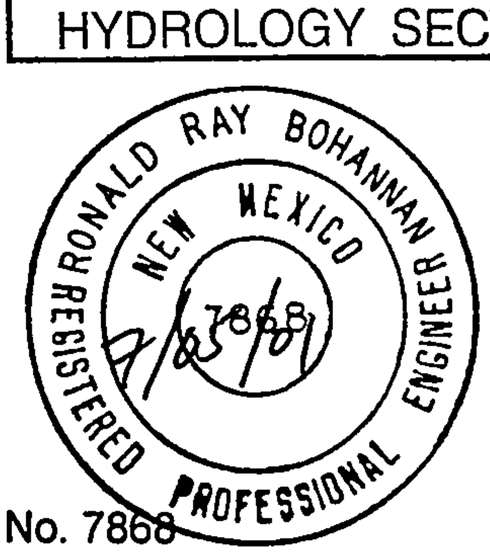
Prepared by

Tierra West, LLC
8509 Jefferson Boulevard NE
Albuquerque, New Mexico 87113

Prepared for
Whataco, Inc
8330 Meadow Road, Suite 102
Dallas TX 75231

July 2001





Ronald R. Bohannan P.E. No. 7868

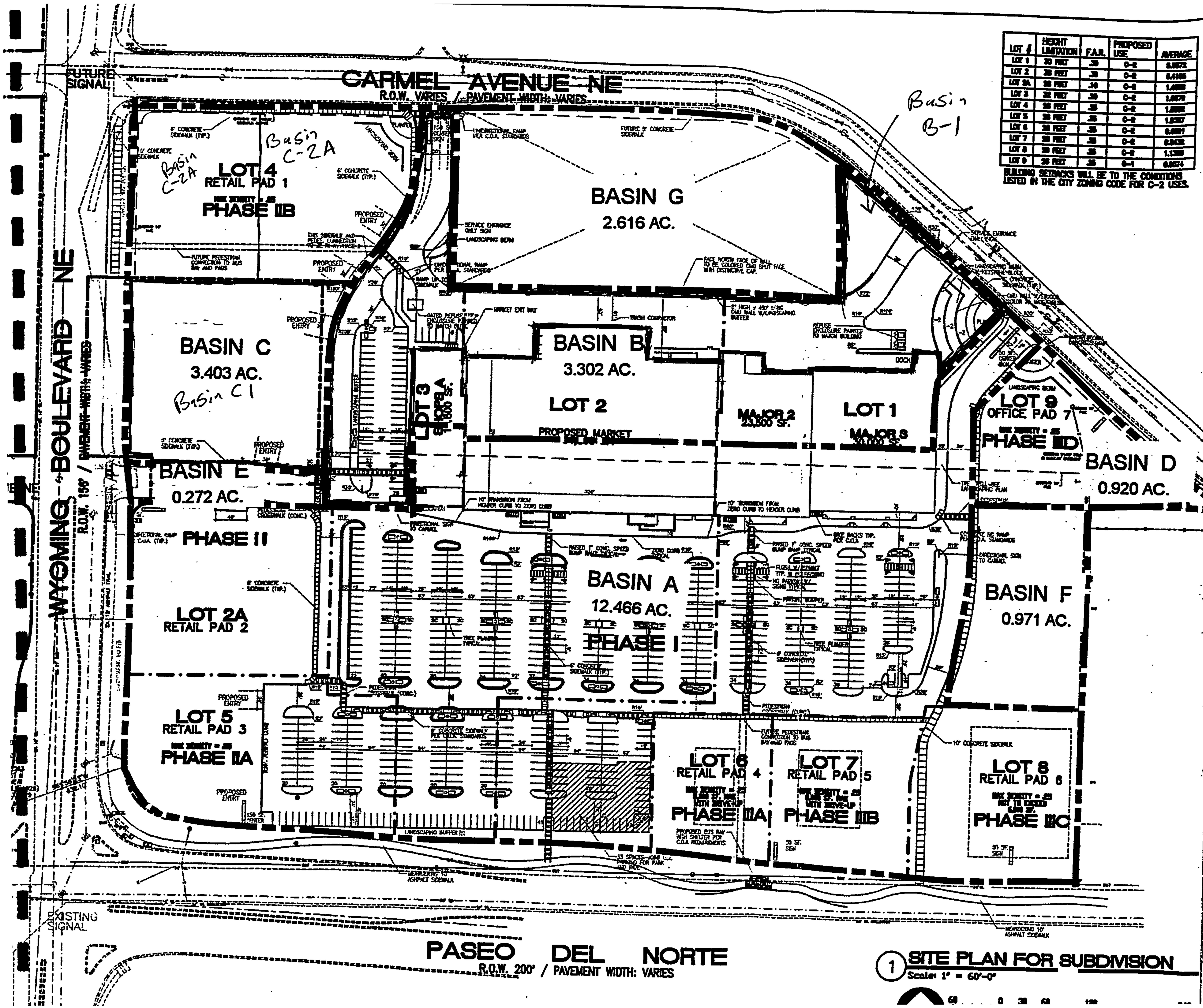
PURPOSE

The purpose of this report is to prove the development of the subject 1.855-acre property, for the use as a Restaurant and future pad site, is in accordance with the DPM Chapter 22. This report demonstrates that the proposed improvements do not adversely effect the surrounding properties or the upstream or downstream facilities.

INTRODUCTION

The subject of this report, as shown on the Exhibit A vicinity map, is a 1.855-acre parcel of land located on the southeast corner of Wyoming Boulevard and Carmel Avenue. The site is located on Zone Atlas page C-19. The site currently exists as a rough graded lot within the La Cueva Town Center. The legal description of the property is Lot 4 of La Cueva Town Center. As shown on FIRM map 35001C0141D, the site lies within flood zone X.

This site was analyzed within the Drainage Report and Grading Plan for the La Cueva Town Center (C19-D11D) previously submitted by Tierra West, LLC, with the stamp date of 3/29/99. The City of Albuquerque Hydrology Section approved the Drainage Management Plan on 5/11/99. Based upon the approved Drainage Management Plan, this site is located within basin C of the La Cueva Town Center. The approved Master Plan indicates this parcel is allowed free discharge if the land treatments are equal to or less than 85% D, and 15% B. Since our improvements are consistent with developed condition assumptions within the La Cueva Town Center Drainage Plan, the site should be allowed free discharge.



LOT #	HEIGHT LIMITATION	F.A.R.	PROPOSED USE	AVERAGE
LOT 1	[illegible] FEET	[illegible]	C-2	[illegible]
LOT 2	[illegible] FEET	[illegible]	C-2	[illegible]
LOT 2A	[illegible] FEET	[illegible]	C-2	[illegible]
LOT 3	[illegible] FEET	[illegible]	C-2	[illegible]
LOT 4	[illegible] FEET	.35	C-2	[illegible]
LOT 5	[illegible] FEET	.35	C-2	[illegible]
LOT 6	[illegible] FEET	.35	C-2	[illegible]
LOT 7	[illegible] FEET	.35	C-2	[illegible]
LOT 8	[illegible] FEET	.35	C-2	[illegible]
LOT 9	[illegible] FEET	.35	C-1	[illegible]

BUILDING SETBACKS WILL BE TO THE CONDITIONS LISTED IN THE CITY ZONING CODE FOR C-2 USES.

LEGAL DESCRIPTION:

BUILDING AREA & PARKING CALCULATIONS:

PARKING NOTES:

BIKE RACKS:

NOTES:

VICINITY MAP
NTS

① SITE PLAN FOR SUBDIVISION
Scale: 1" = 60'-0"

SIGNATURE BLOCK

PLANNING DIRECTOR — DATE
TRAFFIC ENGINEER — DATE
AMAFCA — DATE
CITY ENGINEER — DATE
WATER RESOURCES, UTILITIES DIVISION — DATE

PROJECT TITLE
LA CUEVA TOWN CENTER

GEORGE RAINHART, ARCHITECT & ASSOCIATES P.C.
2325 SAN PEDRO NE, SUITE 2-B
ALBUQUERQUE, NEW MEXICO 87110
PHONE (505) 884-9110 FAX (505) 837-9877

LA CUEVA TOWN CENTER - BASIN MAP

EXISTING CONDITIONS

The site slopes from east to west with general grades between 3-5%. The site was rough graded with the construction of the La Cueva Town Center. As discussed within the La Cueva Town Center drainage report, no offsite flows currently enter the site. The upland developed flow from basin B, as described in the La Cueva Town Center Drainage Report, are captured by a drop inlet located adjacent to this site's proposed driveway connection at the east property line. The onsite flows and the flows generated by the adjacent lot to the south flow from east to west where they are diverted to an existing Double D inlet located at the northwest corner of the site. Once the flows are captured they are conveyed to the Wyoming storm drain via an 18" reinforced concrete pipe.

PROPOSED CONDITIONS

The proposed improvements consist of the construction of a WhataBurger Restaurant and a future pad site. As shown in Exhibit B, the entire site lies within Basin C as described within the Cueva Town Center drainage plan. As shown in Appendix A, the proposed land treatments are consistent with the developed condition assumptions for this site within the La Cueva Town Center's drainage management plan. Due to the proposed vehicular connection to the main center, the existing drop inlet will not function as proposed and a portion of the flows generated in basin B will pass over the inlet and enter the site. As shown in Exhibit B, this report assumes the entire basin B, which lies outside of the building and its roof drainage system, will enter the site through the new driveway connection. As shown in appendix B, the driveway has adequate capacity to accept this flow.

Once the entire site is developed the entire onsite flows, generated from the roof and pavement areas, combined with the offsite flows, the future pad site and the adjacent site to the

south, will surface drain to the existing Double D inlet located at the northwest corner of the site. As shown in Appendix A, the future combined total flow will be 25.21 cfs during the 100-year, 6-hour storm event. Since the future pad site will remain undeveloped, a 3' curb opening and a desilting pond will be constructed at its west property line. As shown in Appendix B, the desilting pond has been sized to pond the 2-year, 6- hours storm event and the curb opening has been sized for the 100-year event. The undeveloped site to the south will also remain undeveloped for the near term. As shown on the grading plan, an 8' curb opening will accept both the future and interim storm runoff with a temporary desilting pond located upstream from the opening. As shown in Appendix A, the desilting pond has been sized to pond more than the 2-year, 6- hours storm event. The curb opening and onsite infrastructure have been sized to accept the fully developed 100-year, 6-hour storm event of 7.22 CFS, which will sheet flow to this opening.

The predicted 100-year peak runoff generated from this site will be 4.36 CFS. The future pad site will generate a peak run off of 4.25 cfs. The site to the south will generate a peak discharge of 7.22 cfs and the offsite basin B will discharge 9.38 cfs onto the site. As shown in appendix B, the existing Double D inlet was modeled using the orifice equation and will capture the entire peak flow rate with a maximum water surface elevation of 5394.84. The outfall for this inlet has the same junction as the upland portion of the center. The underground conduit leaving this site is an 18" RCP with a 13.01% slope, as shown in Appendix B. It has a capacity of 37.99 cfs, which is greater than the 25.21 cfs required. If this inlet clogs or if the flow exceeds the predicted 100-year peak rate, the flow will discharge through an emergency overflow located at the northwest curb line and enter into the Wyoming Boulevard right-of-way.

SUMMARY AND RECOMMENDATIONS

This site is an existing lot within the La Cueva Town Center, which is an existing

commercial shopping center. The City of Albuquerque Hydrology Section approved the drainage management plan for the entire center. This La Cueva Town Center master drainage plan assumed fully developed conditions for our site. The proposed improvements are consistent with the land treatment types used for the developed condition for this site within the La Cueva Town Center's drainage plan. The development of this site is consistent with the DPM Chapter 22 Hydrology section. Since this site encompasses less than 5 acres, a NPDES permit is not required prior to any construction activity. No improvements are to occur within the City right-of-way, therefore an infrastructure list is not required. It is recommended this development be approved for rough grading, Site Plan for Subdivision and Site Plan for Building Permit.

RUNOFF RATE COMPARISON

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.

DEVELOPED RATE OF RUNOFF (CFS)

BASIN	Q_{PA}	A_A	Q_{PB}	A_B	Q_{PC}	A_C	Q_{PD}	A_D	Total CFS
Basin B-1	1.87	0.00	2.60	0.1	3.45	0.20	5.02	1.68	9.38
Basin C-1	1.87	0.00	2.60	0.10	3.45	0.20	5.02	1.25	7.22
Basin C-2A	1.87	0.00	2.60	0.07	3.45	0.12	5.02	0.73	4.25
Basin C-2B	1.87	0.00	2.60	0.06	3.45	0.11	5.02	0.76	4.36
Total									25.21

* Combined Basin C-1 and C2 allowed 15.849 cf

UNDEVELOPED RUNOFF RATE COMPARISON

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.

100 YEAR-6 HOUR
DEVELOPED RATE OF RUNOFF (CFS)

BASIN	Q_{PA}	A_A	Q_{PB}	A_B	Q_{PC}	A_C	Q_{PD}	A_D	Total CFS
Undeveloped portion of Basin C-1	1.87	0.77	2.60	0.78	3.45	0.0	5.02	0.00	3.47
Undeveloped portion of Basin C-2A	1.87	0.47	2.60	0.47	3.45	0.00	5.02	0.00	2.10

2 YEAR-6 HOUR
DEVELOPED VOLUME (CUBIC FEET)

BASIN	Q_{PA}	A_A	Q_{PB}	A_B	Q_{PC}	A_C	Q_{PD}	A_D	Total CF
Undeveloped portion of Basin C-1	0.00	0.77	0.06	0.78	0.20	0.00	0.89	0.00	169.9
Undeveloped portion of Basin C-2A	0.00	0.47	0.06	0.47	3.45	0.00	0.89	0.00	102.4

DROP INLET CALCULATIONS

Location	TYPE OF INLET	AREA (SF)	Q* (CFS)	H (FT)	H ALLOW (FT)
Whata inlet	Single D	11.34	25.21	0.2132	0.95

ORIFICE EQUATION

Q = CA sqrt(2gH)

C = 0.6

g = 32.2

Pipe Capacity

Manning's Equation:

Q = 1.49/n * A * R^(2/3) * S^(1/2)

A = Area

R = D/4

S = Slope

n = 0.013

WHATA STORM SEWER

Pipe	D	Slope	Area	R	Q Provided	Q Required	Velocity
	(in)	(%)	(ft^2)		(cfs)	(cfs)	(ft/s)
onsite MH to DI	18	13.01	1.77	0.375	37.99	25.21	14.27

Curb Opening Capacities

Weir Equation:

$$Q = CLH^{3/2}$$

Q= flow (cfs)
C = 2.75
H = Curb Height (ft)
L = width of opening

Driveway opening from main center

$$Q_{max} = 2.75(24)(.5)^{3/2} = 23.33 \text{ cfs}$$

Q_{req}= 9.38 cfs

Curb opening/ overflow from lot 4B

$$Q_{max} = 2.75(3)(.5)^{3/2} = 2.92 \text{ cfs}$$

Q_{req}= 2.10 cfs

Southern curb opening for undeveloped lot

$$Q_{max} = 2.75(8)(.5)^{3/2} = 7.78 \text{ cfs}$$

Q_{req}= 7.22 cfs

Emergency Overflow

$$Q_{max} = 2.75(26)(.5)^{3/2} = 25.28 \text{ cfs}$$

Q_{req}= 25.21 cfs

City of Albuquerque

P.O. BOX 1293 ALBUQUERQUE, NEW MEXICO 87103

Public Works Department
Transportation Development Services Section

January 4, 2001

Ronald R. Bohannan, PE
8509 Jefferson NE
Albuquerque, NM 87113

Re: Certification Submittal for Final Building Certificate of Occupancy for
Whataburger at La Cueva Town Center, [C19 / D11D7]
8100 L1 Wyoming
Engineer's Stamp Dated 12/27/01

Dear Mr. Bohannan:

The TCL / Letter of Certification submitted is sufficient for acceptance by this office for final Certificate of Occupancy (C.O.). Notification has been made to Building and Safety and final C.O. has been logged in by Vicki Chavez in the Building Safety Section downstairs.

Sincerely,

Leslie Romero
Engineering Associate
Development and Building Services
Public Works Department

c: Architect
Terri Martin, Hydrology
Office file

DRAINAGE INFORMATION SHEET

(REV. 11/01/2001)

C-19/D11D7

PROJECT TITLE: Whataburger at La Cueva Town Center
ZONE ATLAS/DRG. FILE #: C-19\D11\D
DRB 1000163 EPC #:
WORK ORDER #:

LEGAL DESCRIPTION Lot 4, La Cueva Town Center
CITY ADDRESS: 8100 L1 Wyoming

ENGINEERING FIRM:	TIERRA WEST, LLC	CONTACT:	David Soule
ADDRESS:	8509 JEFFERSON NE	PHONE:	(505) 858-3100
CITY, STATE:	ALBUQUERQUE, NM	ZIP CODE:	87113
OWNER:	Whataco	CONTACT:	
ADDRESS:		PHONE:	
CITY, STATE:		ZIP CODE:	
ARCHITECT:	ArchiTex	CONTACT:	Barry Thompson
ADDRESS:	5477 Glen Lakes Dr. Ste. 109	PHONE:	(214)369-1117
CITY, STATE:	Dallas, Texas	ZIP CODE:	75231
SURVEYOR:	Larry Arguelles, Jr. P.L.S.	CONTACT:	Larry Arguelles, Jr.
ADDRESS:	2912 San Ygnacio Rd. SW	PHONE:	(505)975-0998
CITY, STATE:	ALBUQUERQUE, NM	ZIP CODE:	87121
CONTRACTOR:	Hart Construction, Inc.	CONTACT:	Dennis Wissing
ADDRESS:	2919 NW Suite B	PHONE:	(505)345-4001
CITY, STATE:	Albuquerque, NM	ZIP CODE:	87107

CHECK TYPE OF SUBMITTAL:

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

CHECK TYPE OF APPROVAL SOUGHT:

- ____ SIA / FINANACIAL 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) - SO # 19 Permit

WAS A PRE-DESIGN CONFERENCE ATTENDED:

- ____ YES
- X NO
- ____ COPY PROVIDED

RECEIVED
JAN 03 2002
HYDROLOGY SECTION

DATE SUBMITTED: 1/3/02 BY: Ronald Bohannan

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

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

1/4/02 Approved / called Vicci

TIERRA WEST, LLC

8509 Jefferson NE
Albuquerque, NM 87113

(505) 858-3100
fax (505) 858-1118

twllc@tierrawestllc.com
1-800-245-3102

January 3, 2002

Mr. Mike Zamora
City of Albuquerque
Development and Building Services
Public Works Department
P.O. Box 1293
Albuquerque, NM 87103

RE: Final Traffic Control Plan (Site Plan) Certification
Lot 4, La Cueva Town Center, Wyoming at Paseo Del Norte, C-19\D11\D7
8100 L1 Wyoming

Dear Mike:

Enclosed please find one copy of the As-built Site Plan for Subdivision and the Information Sheet for Whataburger at La Cueva Town Center. Previous items (such as the pedestrian asphalt sidewalk, curb, and site landscaping) are now complete. All work is in substantial compliance with the approved site plan. We are, therefore, requesting Final Certification of the Site Plan for Certificate of Occupancy.

If you have any questions, please do not hesitate to contact me.

Sincerely,

Ronald R. Bohannan, PE

Enclosures

cc: Ben Spencer (w/out enclosures)
Dennis Wissing (w/out enclosures)

JN 210007
RRB/ma

RECEIVED
JAN 03 2002
HYDROLOGY SECTION

210007:2107rco10302.FinalTrfCert