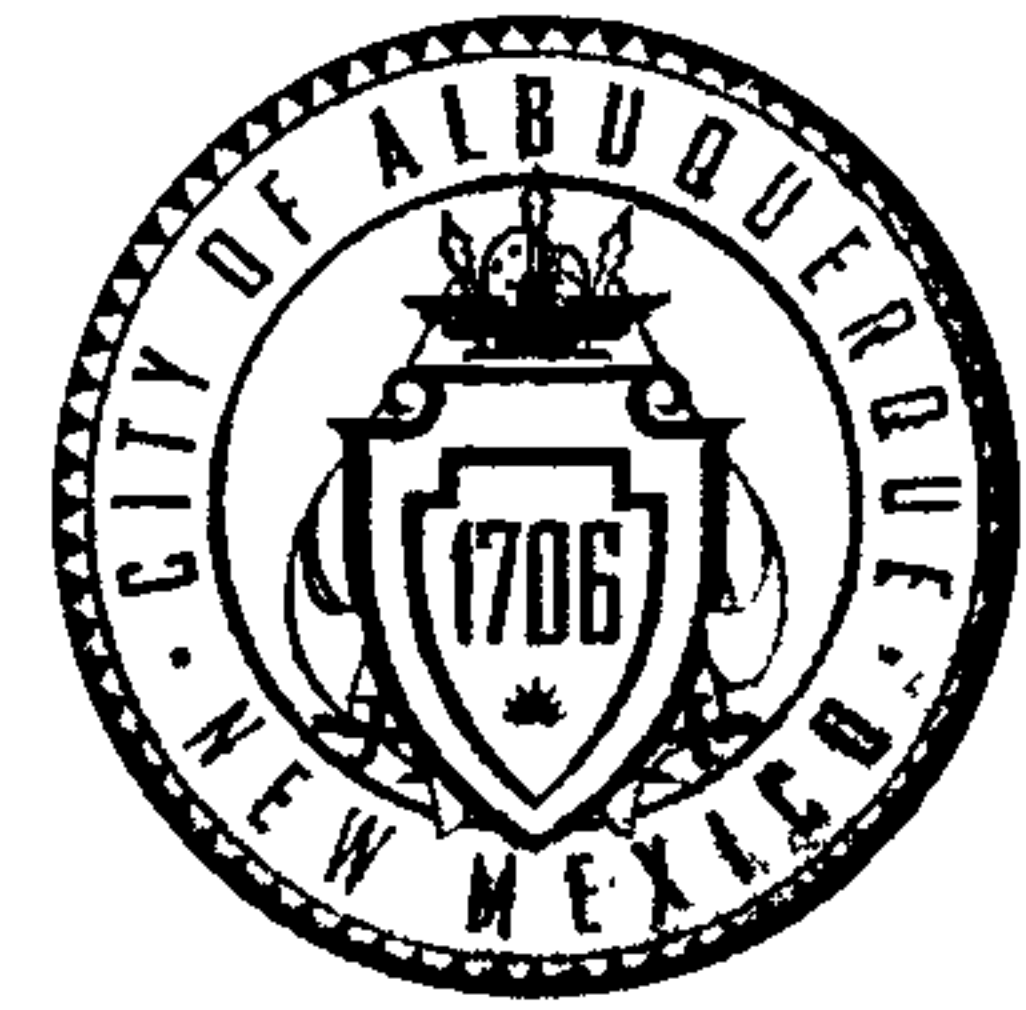


CITY OF ALBUQUERQUE



March 6, 2017

Fred C. Arfman, P.E.
Isaacson & Arfman, P.A.
128 Monroe St NE
Albuquerque, New Mexico 87108

RE: **Unser & Vista Oriente Paving
Grading and Drainage Plan
Engineers Stamp Date 2/15/17 (H10D006A3)**

Dear Mr. Arfman,

Based upon the information provided in your submittal received 3/3/17, this plan is approved for Grading Permit and Paving Permit.

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

Once the project is complete, send the hydrology department a PDF copy of the As-built plan for our records.


PO Box 1293

If you have any questions, please contact me at 924-3999 or Rudy Rael at 924-3977.

Albuquerque

Sincerely,

New Mexico 87103


Shahab Biazar, P.E.
City Engineer, Albuquerque
Planning Department

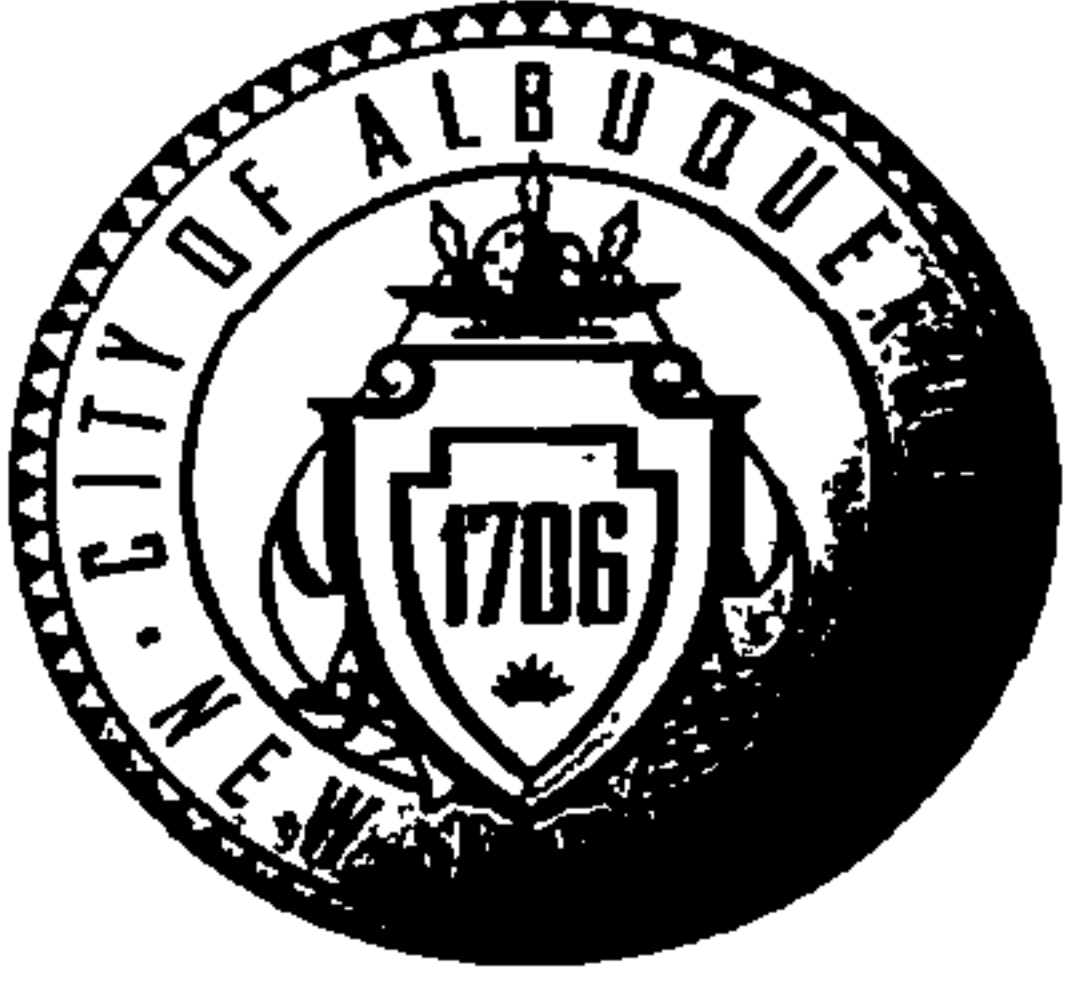
www.cabq.gov

RR/SB
C: File

7/15 Discussed issues
with Jon Niski @ DRC
He will revise & resub.
G & P Plan in response
to DRC Markups.
Aug 7/15

Issues

- ① SW Culvert from 12019 road lot
- ② Min. Cover on Pipe
- ③ Pumpstar Drains-Hole on G&P.
- ④ Grade SE corner to SW Culverts



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

H10P006A3

Project Title: Unser & Vista Oriente Paving Building Permit #: _____ City Drainage #: 1197

DRB#: _____ EPC#: _____ Work Order#: _____

Legal Description: A Portion of Lot 1-B-3, Ladera Industrial Center

City Address: 2220 Unser Blvd. NW - Albuquerque, NM 87114

Engineering Firm: Isaacson & Arfman, P.A. Contact: Fred C. Arfman / Bryan J. Bobrick

Address: 128 Monroe Street NE - Albuquerque, NM 87108

Phone#: (505) 268-8828 Fax#: _____ E-mail: freda@iacivil.com
bryanb@iacivil.com

Owner: _____ Contact: _____

Address: _____

Phone#: _____ Fax#: _____ E-mail: _____

Architect: Martin FM Grummer Architect Contact: Martin Grummer

Address: 331 Wellesley Place NE - Albuquerque, NM 87106

Phone#: (505) 265-2507 Fax#: _____ E-mail: _____

Other Contact: Surv-Tek, Inc. Contact: Russ P. Hugg

Address: 9384 Valley View Drive - Albuquerque, NM 87114

Phone#: (505) 897-3366 Fax#: _____ E-mail: _____

Check all that Apply:

DEPARTMENT:

- ☒ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION
☐ MS4/ EROSION & SEDIMENT CONTROL

TYPE OF SUBMITTAL:

☐ ENGINEER ARCHITECT CERTIFICATION

☐ CONCEPTUAL G & D PLAN

☒ GRADING PLAN

☐ DRAINAGE MASTER PLAN

☐ DRAINAGE REPORT

☐ CLOMR/LOMR

☐ TRAFFIC CIRCULATION LAYOUT (TCL)

☐ TRAFFIC IMPACT STUDY (TIS)

☐ EROSION & SEDIMENT CONTROL PLAN (ESC)

☐ OTHER (SPECIFY) _____

CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ BUILDING PERMIT APPROVAL
☐ CERTIFICATE OF OCCUPANCY

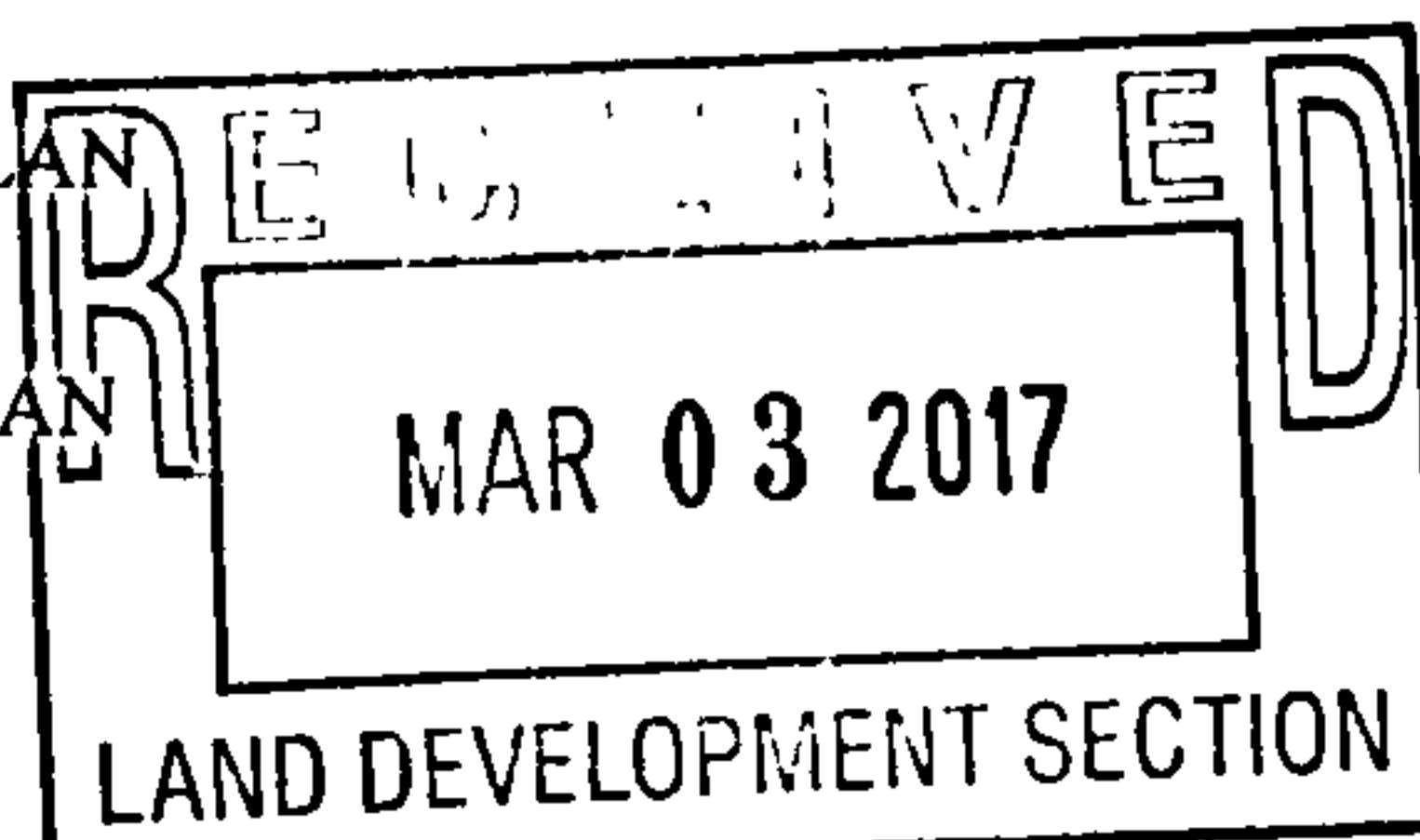
- ☐ PRELIMINARY PLAT APPROVAL
☐ SITE PLAN FOR SUB'D APPROVAL
☐ SITE PLAN FOR BLDG. PERMIT APPROVAL
☐ FINAL PLAT APPROVAL
☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
☐ FOUNDATION PERMIT APPROVAL
☐ GRADING PERMIT APPROVAL
☐ SO-19 APPROVAL
☒ PAVING PERMIT APPROVAL
☐ GRADING/ PAD CERTIFICATION
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR

- ☐ PRE-DESIGN MEETING
☐ OTHER (SPECIFY) _____

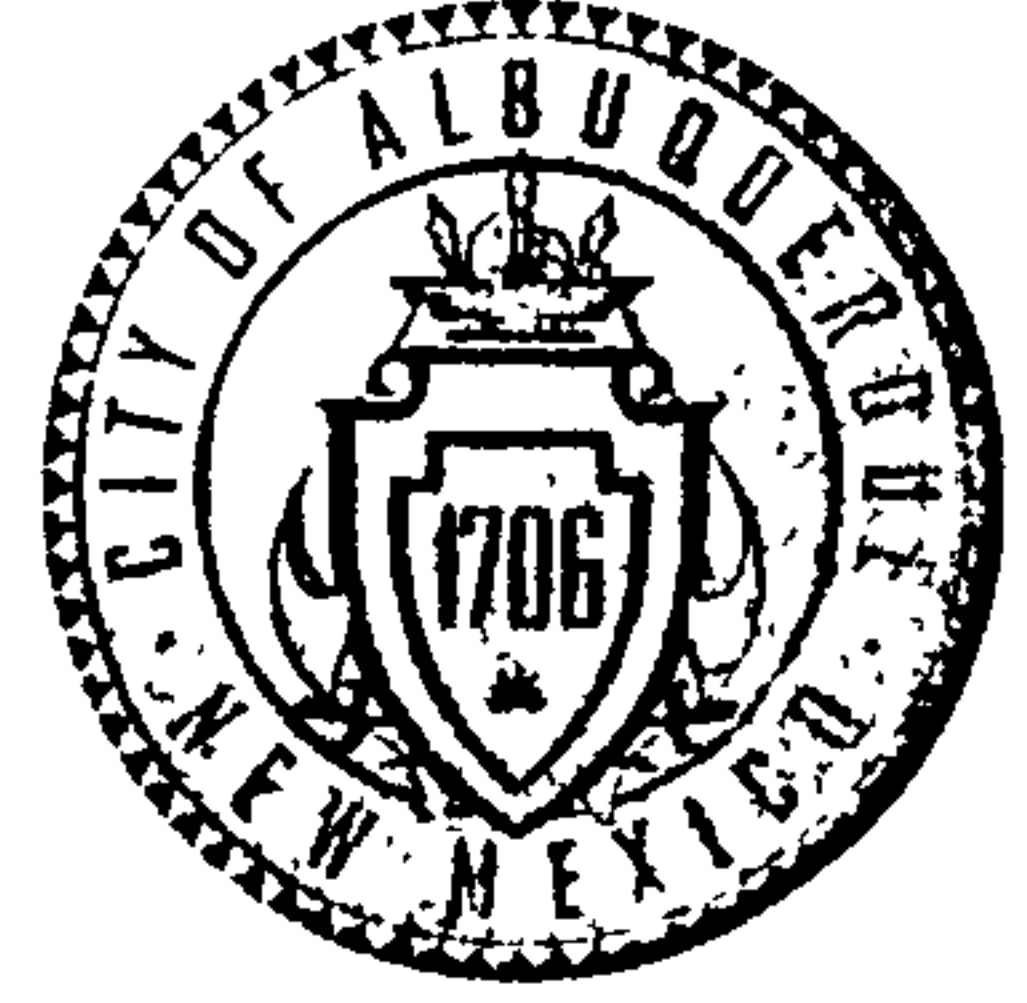
IS THIS A RESUBMITTAL?: ☐ Yes ☒ No

DATE SUBMITTED: March 3, 2017 By: Fred C. Arfman

COA STAFF: _____ ELECTRONIC SUBMITTAL RECEIVED: _____



CITY OF ALBUQUERQUE



April 25, 2008

Ronald R. Bohannon, P.E.
Tierra West, LLC
5571 Midway Park Place NE
Albuquerque, NM 87109

Re: Unser and Vista Oriente Grading and Drainage Plan
Engineer's Stamp dated 3-11-08 (H10/D006A3)

Dear Mr. Bohannon,

Based upon the information provided in your submittal received 3-11-08, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

PO Box 1293

Albuquerque

NM 87103

- The top of the 15" plastic storm drain in the drive entrance is approximately at 93.6. There does not appear to be enough cover over the pipe. The as-built plan shows the 15" line to be RCP, however, I visited the site and the storm drain is plastic.
- Provide grades on the walkway near the sidewalk culvert headwall. It appears there may be a conflict between the walkway and the 15" RCP.

If you have any questions, you can contact me at 924-3695.

www.cabq.gov

Sincerely,

Curtis A. Cherne

Curtis A. Cherne, P.E.

Senior Engineer, Planning Dept.

Development and Building Services

C: file

*Called twice to determine if this plan would work.
No response from TW. ~ 1-1/2 wks.*

Curtis

DRAINAGE AND TRANSPORTATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Unser & Vista Oriente
DRB #: _____ EPC #: _____

3
ZONE MAP/DRG. FILE #: H-10/D6A2
WORK ORDER #: _____

LEGAL DESCRIPTION LOTS 1B AND 1D OF LADERA INDUSTRIAL PARK

CITY ADDRESS: UNSER BOULEVARD NW BETWEEN OLD OURAY ROAD NW AND VISTA ORIENTE STREET NW

ENGINEERING FIRM: TIERRA WEST, LLC
ADDRESS: 5571 MIDWAY PARK PLACE NE
CITY, STATE: ALBUQUERQUE, NM

CONTACT: JOEL HERNANDEZ
PHONE: (505) 858-3100
ZIP CODE: 87109

OWNER: CAP, II - C/O GEORGE RAINHART ARCHITECTS
ADDRESS: 2325 SAN PEDRO NE, SUITE 2-B
CITY, STATE: ALBUQUERQUE, NM

CONTACT: JON STERN
PHONE: (505) 884-9110 Ext. 110
ZIP CODE: 87110

ARCHITECT: GEORGE RAINHART ARCHITECTS & ASSOCIATES
ADDRESS: 2325 SAN PEDRO NE, SUITE 2-B
CITY, STATE: ALBUQUERQUE, NM

CONTACT: JON STERN
PHONE: (505) 884-9110 Ext. 110
ZIP CODE: 87110

SURVEYOR: SURV-TEK, INC
ADDRESS: 9384 VALLEY VIEW DRIVE
CITY, STATE: ALBUQUERQUE, NM

CONTACT: RUSS HUGG
PHONE: (505) 897-3366
ZIP CODE: 87114

CONTRACTOR: _____
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

CHECK TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL, *REQUIRES TCL or equal*
☒ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEERS CERTIFICATION (TCL)
☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
☐ OTHER Construction Change

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
☐ CERTIFICATE OF OCCUPANCY (PERM.)
☐ CERTIFICATE OF OCCUPANCY (TEMP.)
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ SO-19

WAS A PRE-DESIGN CONFERENCE ATTENDED:

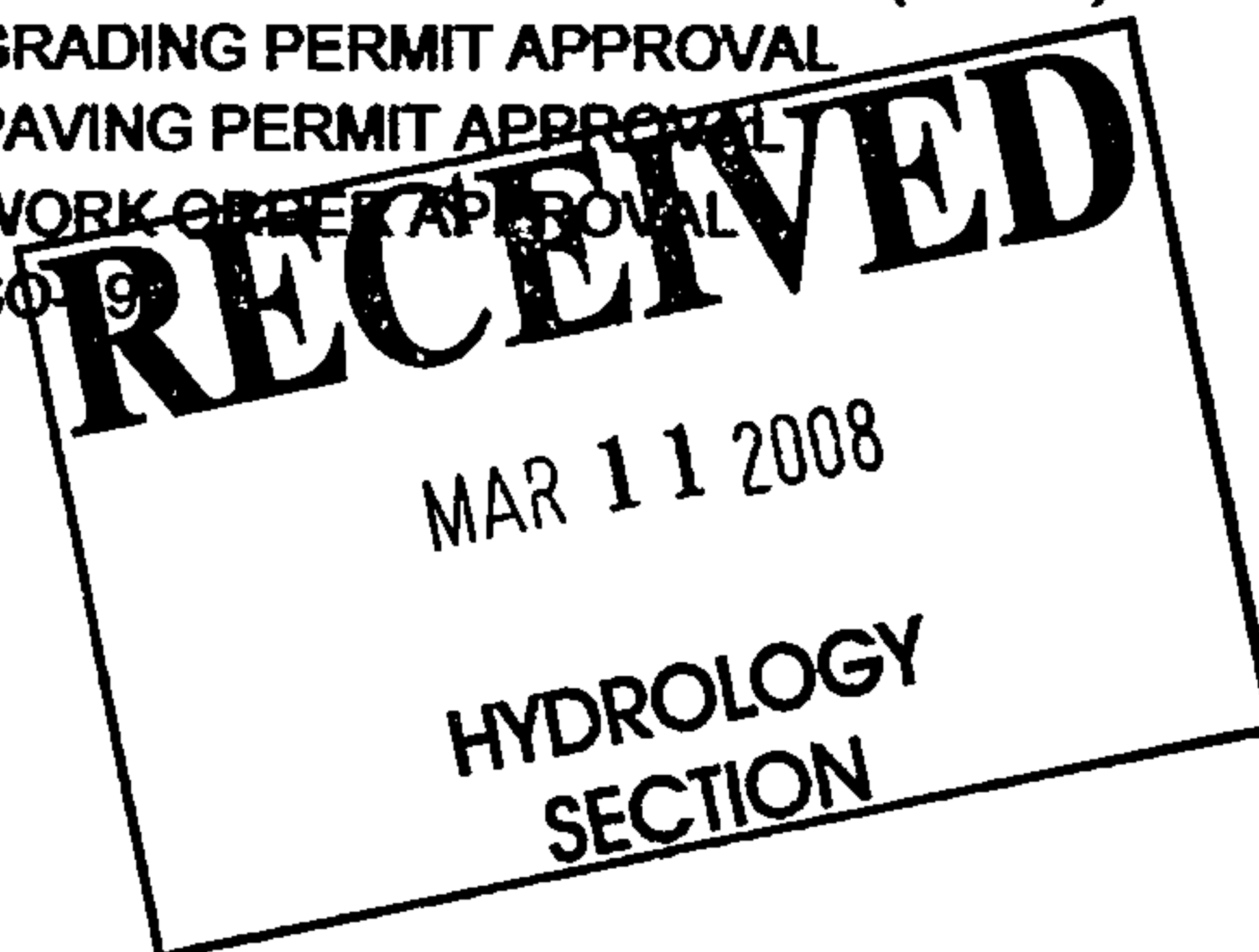
- ☐ YES
☒ NO
☐ COPY PROVIDED

DATE SUBMITTED: 3/11/2008

BY: Jonathan D. Niski, EI

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage 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 submittal 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 Sector Plans.
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.



gan

TIERRA WEST, LLC

July 1, 2008

Mr. Curtis A. Cherne, P.E.
Senior Engineer, Planning Department
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

**RE: Unser and Vista Oriente Grading and Drainage Plan
Engineer's Stamp dated 12-2-08 (H10/D00gA3)**

Dear Mr. Cherne:

Pursuant to your letter dated April 25, 2008, Tierra West LLC, on behalf of the owner would like to address the comments listed in that correspondence. The responses are as follows:

- 1) The top of the 15" plastic storm drain in the drive entrance is approximately at 93.6. There does not appear to be enough cover over the pipe. The as-built plan shows the 15" line to be RCP, however, I visited the site and the storm drain is plastic.
The labeling was changed to reflect the HDPE material and the entrance was raised to provide enough cover over the pipe.
- 2) Provide grades on the walkway near the sidewalk culvert headwall. It appears there may be a conflict between the walkway and the 15" RCP.
The location of the pedestrian connection was changed to avoid any conflict with the pipe and provide a better ADA connection.

If you have any questions or need additional information regarding this matter, please do not hesitate to call me.

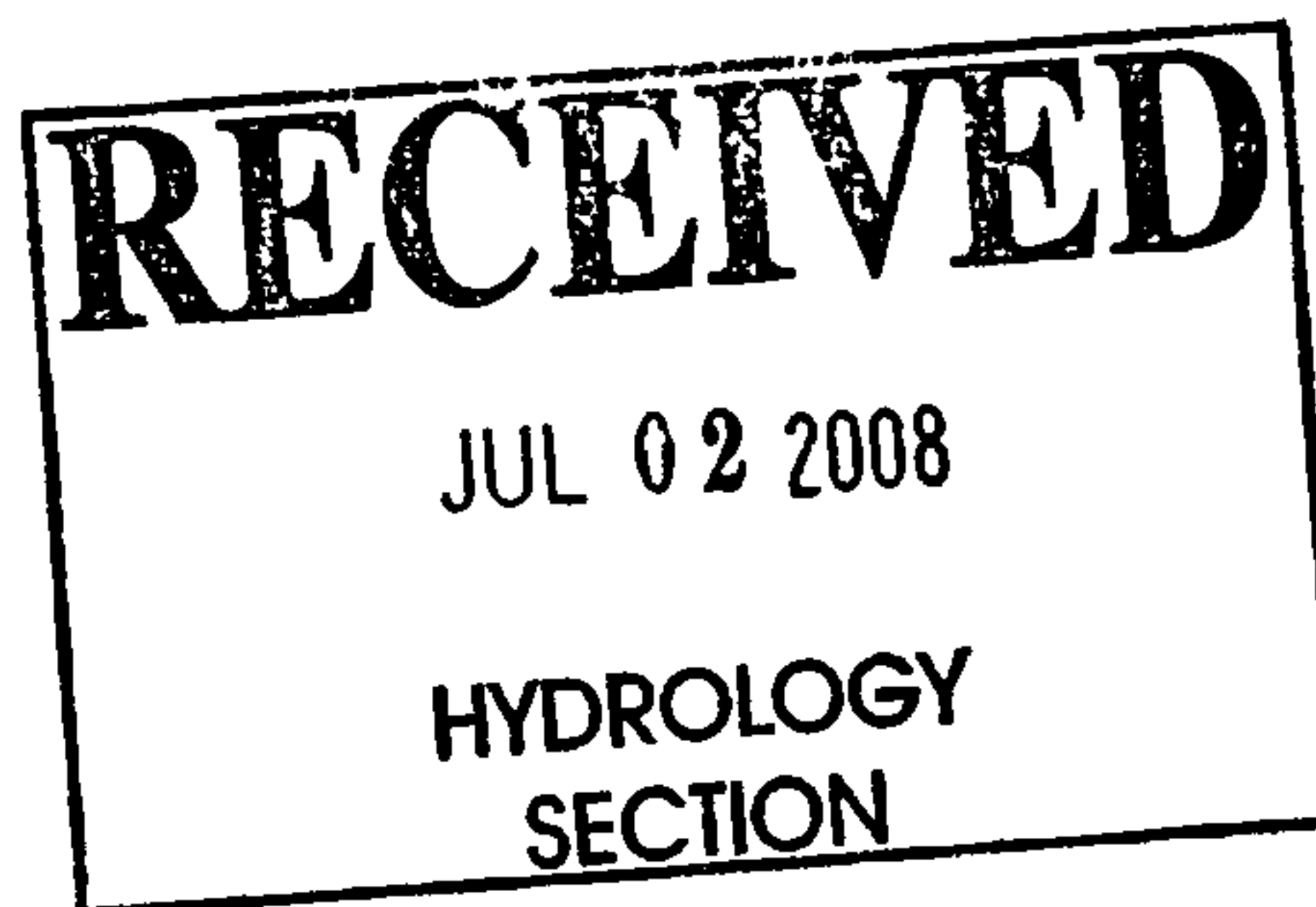
Sincerely,



Jonathan D. Niski, E.I.

JN: 27079
JDN/bdm

Z:\2007\27079. C. Cherne Response ltr 07-1-08



5571 Midway Park Place NE Albuquerque, NM 87109
(505) 858-3100 Fax (505) 858-1118 1-800-245-3102
tierrawestllc.com

Current DRC
Project Number: _____

FIGURE 12

INFRASTRUCTURE LIST

(Rev. 3-05)

EXHIBIT "A"

TO SUBDIVISION IMPROVEMENTS AGREEMENT

DEVELOPMENT REVIEW BOARD (D.R.B.) REQUIRED INFRASTRUCTURE LIST

ORIGINAL

Date Submitted: _____

Date Site Plan Approved: 4-30-08

Date Preliminary Plat Approved: _____

Date Preliminary Plat Expires: _____

DRB Project No.: 1002404

DRB Application No.: 08-7023

Unser & Vista Oriente

PROPOSED NAME OF PLAT AND/OR SITE DEVELOPMENT PLAN

Lots 1-B and 1-D, Ladera Industrial Center

EXISTING LEGAL DESCRIPTION PRIOR TO PLATTING ACTION

Following is a summary of PUBLIC/PRIVATE infrastructure required to be constructed or financially guaranteed for the above development. This listing is not necessarily a complete listing. During the SIA process and/or in the review of the construction drawings, if the DRC Chair determines that appurtenant items and/or unforeseen items have not been included in the infrastructure listing, the DRC Chair may include those items in the listing and related financial guarantee. Likewise, if the DRC Chair determines that appurtenant or non-essential items can be deleted from the listing, those items may be deleted as well as the related portions of the financial guarantee. All such revisions require approval by the DRC Chair, the User Department and applicant. If such approvals are obtained, these revisions to the listing will be incorporated administratively. In addition, any unforeseen items which arise during construction which are necessary to complete the project and which normally are the Subdivider's responsibility will be required as a condition of project acceptance and close out by the City.

Financially Guaranteed DRC #	Constructed Under DRC #	Size
<input type="text"/>	<input type="text"/>	6"
<input type="text"/>	<input type="text"/>	6"
<input type="text"/>	<input type="text"/>	6"
<input type="text"/>	<input type="text"/>	6"
<input type="text"/>	<input type="text"/>	12'
<input type="text"/>	<input type="text"/>	12'
<input type="text"/>	<input type="text"/>	
<input type="text"/>	<input type="text"/>	

Type of Improvement	Location	From	To
Waterline	Lot 1	Vista Oriente	North PL of Lot 1
Waterline	Lot 1	East PL of Lot 1	West PL of Lot 1
Waterline	Lot 2	South PL of Lot 2	Middle of Lot 2
Waterline	Lot 2	Middle of Lot 2	NW corner of Lot 2
Left Turn Lane	Vista Oriente	Unser Blvd.	Entrance
2nd Left Turn Lane Striping	Vista Oriente	Entrance	Unser Blvd.

Future Roadway Improvements - Ladera Dr. & Unser Blvd.
Enclosure 504 (834, 504)

Rls

Construction Certification		
Inspector	P.E.	City Crest Engineer
/	/	/
/	/	/
/	/	/
/	/	/
/	/	/
/	/	/
/	/	/

PAGE 2 OF 3
(REV. 9-00)

NOTES

If the site is located in a floodplain, then the financial guarantee will not be released until the LOMR is approved by FEMA.

Street lights per City requirements.

REVISION	DATE	DRC CHAIR	USER DEPARTMENT	AGENT JOHNER

Figure 6: Notice of DRC SessionProcessing Date 7/9/08Project#: 738983Zone Atlas: H-9

DRB#: _____

Project Name: Vista Oriente Utility + Paving Improvements☒ Scheduled with DRC on Tuesday July 15, 2008 at 1:30
☐ No DRC Meeting Scheduled. Please return at comments by _____Project Location: E. of Unser Blvd N. of Vista Oriente NWTYPE OF PROJECT: ☒-AHBA ☐-CIP ☐-SAD/PID ☐-ABCWUAPROJECT COORDINATOR: Jonathan Niski Phone: 858-3100Company: Tierra WestDesign Engineer: SAME Phone: _____

Company: _____

The Project Is Scheduled For the Following DRC Session:☐-Pre-Design Review ☐-Final Plan Review ☐- _____
☒-Preliminary Plan Review ☐-Signature Review ☐-Route for Signature**The Project Relates to City Infrastructure Systems:**☒-Water ☐-San. Sewer ☒-Paving ☐-Storm Drainage ☐- _____**The Attached Package Includes:**

Indicated below are the Departments/Divisions that have received project documents and/or are invited to attend. (It will be the Project Coordinator's responsibility to notify consulting engineering firms of date and time of scheduled DRC meetings).

D- Drawings MU- Markups M- Memo Only E- Estimate R- Report

			D	MU	M	E	R
DRC Chairman	<u>Stephen</u>	Design Review Section	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Traffic Dev.	<u>Nilo</u>	Transportation Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utility Dev.	<u>Jeremy Hoover</u>	Utility Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Utility Des.	<u>(CIP)</u>	Utility Design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydr. Dev.	<u>Curtis</u>	Hydrology Development	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Hydr. Des.	<u>(CIP)</u>	Hydrology Design	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Anthony Lopez/ <u>Paul Olson</u>		Construction Division	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Const. Div.	<u>(CIP) Ted Korbin</u>	Construction Division	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Kevin Broderick/Andrew Gallegos		Traffic Operations Division	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Donald Bartlett		Risk Management	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
George Gee		City Architect	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gene Bustamante		General Services Department	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Parks & Rec.		Parks & Recreation Department	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Project Manager			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Notified Kelly of DRC meeting date & time on 7/9/08 at 11:15 via County



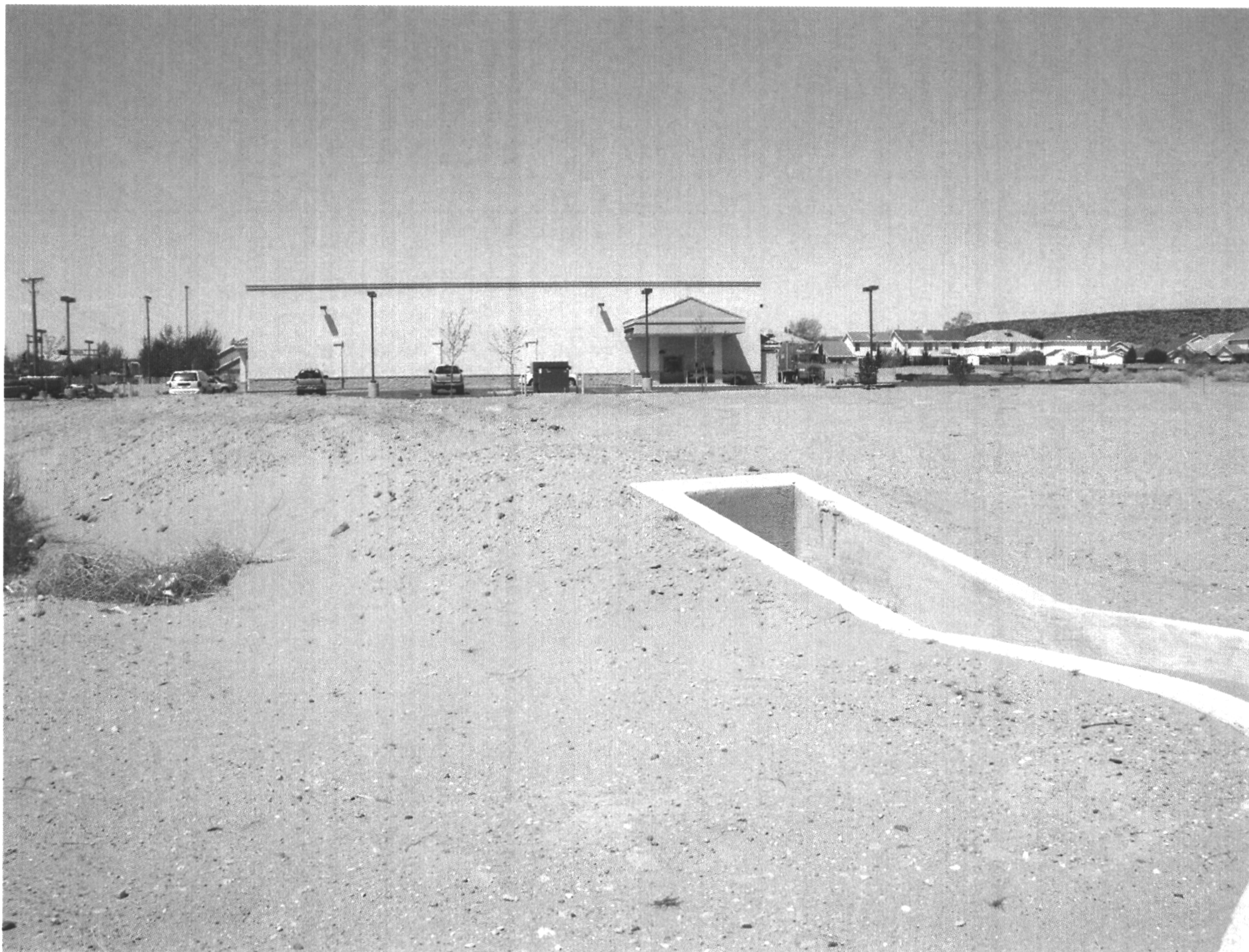
Plugged sidewalk culvert



Drivepad east of Walgreens looking north



Mound over storm drain looking east



Storm drain outfall

5571 Midway Park Place NE Albuquerque, NM 87109
(505) 858-3100 Fax (505) 858-1118 1-800-245-3102
tierrawestllc.com

TIERRA WEST, LLC

March 10, 2008

Mr. Curtis A. Cherne, P.E.
Senior Engineer, Planning Department
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

**RE: Unser and Vista Oriente Grading and Drainage Plan
Engineer's Stamp dated 12-2-08 (H10/D00gA3)**

Dear Mr. Cherne:

Pursuant to your letter dated March 3, 2008, Tierra West LLC, on behalf of the owner would like to address the comments listed in that correspondence. The responses are as follows:

- 1) At the Walgreens site and near Vista Oriente the plan is proposing to build walkways across channels. More information is required in these areas.
The walkways were adjusted to avoid the conflicts and sidewalk culverts were added where a conflict was unavoidable.
- 2) Will the swale along the eastern edge of the site be landscaped? If not, some material will need to be installed near the outlet to prevent sediment from entering the street.
The swale will be landscaped and the type of material in the swale will be coordinated with the land super to prevent erosion.

If you have any questions or need additional information regarding this matter, please do not hesitate to call me.

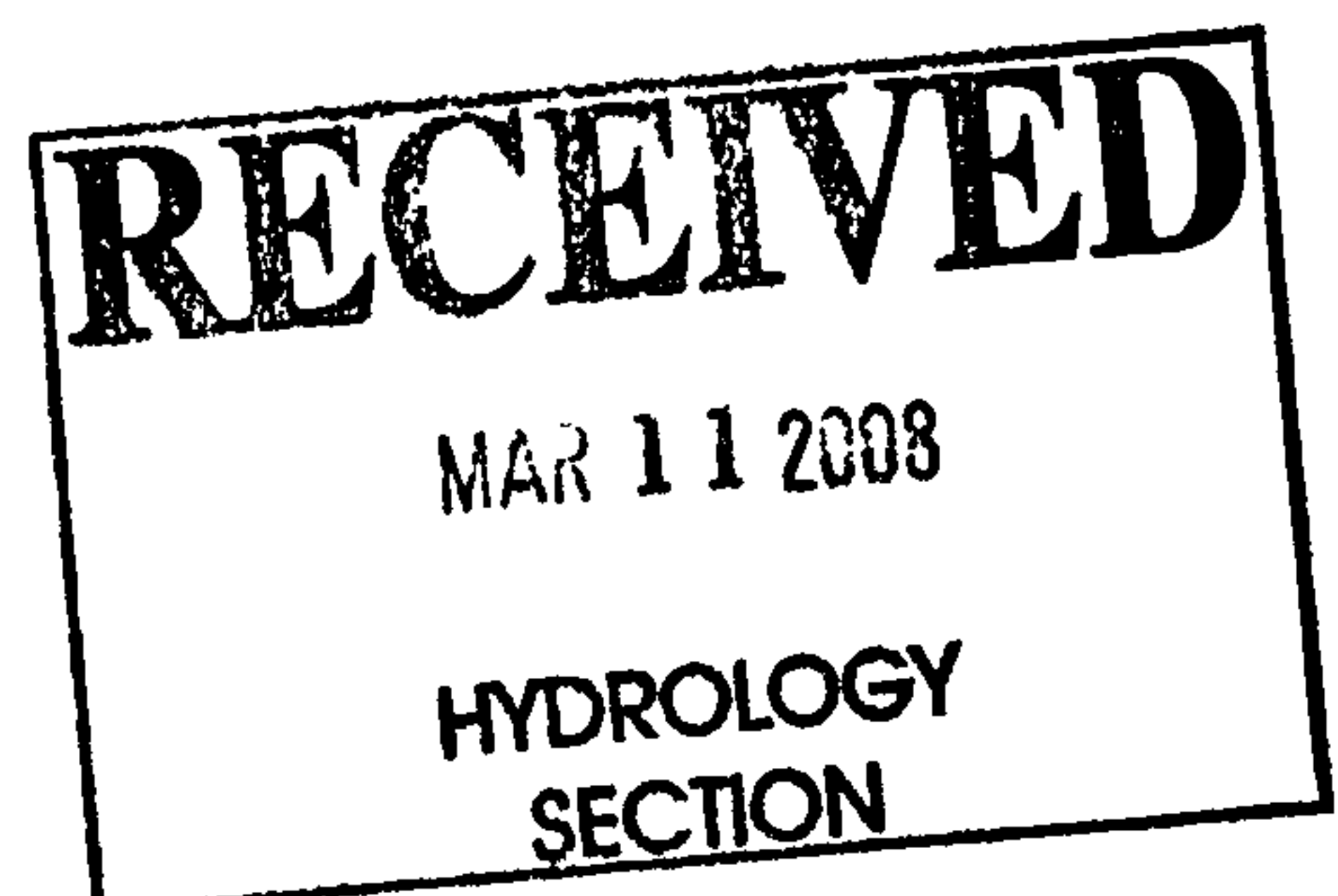
Sincerely,



Jonathan D. Niski, E.I.

JN: 27079
JDN/bdm

Z:\2007\27079: C. Cherne Response ltr 03-10-08.doc



CITY OF ALBUQUERQUE



March 3, 2008

Ronald R. Bohannon, P.E.
Tierra West, LLC
5571 Midway Park Place NE
Albuquerque, NM 87109

**Re: Unser and Vista Oriente Grading and Drainage Plan
Engineer's Stamp dated 1-2-08 (H10/D006A3)**

Dear Mr. Bohannon,

Based upon the information provided in your submittal received 1-3-08, the above referenced plan is approved for Site Development action by the DRB.

However, the above referenced plan cannot be approved for Building Permit until the following comments are addressed:

- At the Walgreens site and near Vista Oriente the plan is proposing to build walkways across channels. More information is required in these areas.
- Will the swale along the eastern edge of the site be landscaped? If not, some material will need to be installed near the outlet to prevent sediment from entering the street.

If you have any questions, you can contact me at 924-3695.

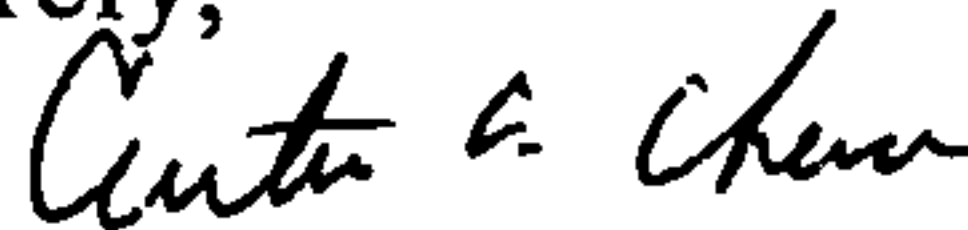
P.O. Box 1293

Albuquerque

New Mexico 87103

www.cabq.gov

Sincerely,


Curtis A. Cherne, P.E.
Senior Engineer, Planning Dept.
Development and Building Services

C: file

DRAINAGE AND TRANSPORTATION SHEET

(REV. 1/28/2003rd)

PROJECT TITLE: Shopping Center @ Unser & Vista Oriente ZONE MAP/DRG. FILE #: H-10/D006A2
DRB #: _____ EPC #: _____ WORK ORDER #: _____

LEGAL DESCRIPTION LOTS 1B AND 1D OF LADERA INDUSTRIAL PARK
CITY ADDRESS: UNSER BOULEVARD NW BETWEEN OLD OURAY ROAD NW AND VISTA ORIENTE STREET NW

ENGINEERING FIRM: TIERRA WEST, LLC CONTACT: JOEL HERNANDEZ
ADDRESS: 5571 MIDWAY PARK PLACE NE PHONE: (505) 858-3100
CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87109

OWNER: CAP, II - C/O GEORGE RAINHART ARCHITECTS CONTACT: JON STERN
ADDRESS: 2325 SAN PEDRO NE, SUITE 2-B PHONE: (505) 884-9110 Ext. 110
CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87110

ARCHITECT: GEORGE RAINHART ARCHITECTS & ASSOCIATES CONTACT: JON STERN
ADDRESS: 2325 SAN PEDRO NE, SUITE 2-B PHONE: (505) 884-9110 Ext. 110
CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87110

SURVEYOR: SURV-TEK, INC CONTACT: RUSS HUGG
ADDRESS: 9384 VALLEY VIEW DRIVE PHONE: (505) 897-3366
CITY, STATE: ALBUQUERQUE, NM ZIP CODE: 87114

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

CHECK TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☒ DRAINAGE PLAN 1st SUBMITTAL, *REQUIRES TCL or equal*
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL GRADING & DRAINAGE PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERTIFICATION (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ ENGINEERS CERTIFICATION (TCL)
☐ ENGINEERS CERTIFICATION (DRB APPR. SITE PLAN)
☐ OTHER Construction Change

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
☐ CERTIFICATE OF OCCUPANCY (PERM.)
☐ CERTIFICATE OF OCCUPANCY (TEMP.)
☐ GRADING PERMIT APPROVAL
☐ PAVING PERMIT APPROVAL
☐ WORK ORDER APPROVAL
☐ SO-19

WAS A PRE-DESIGN CONFERENCE ATTENDED:

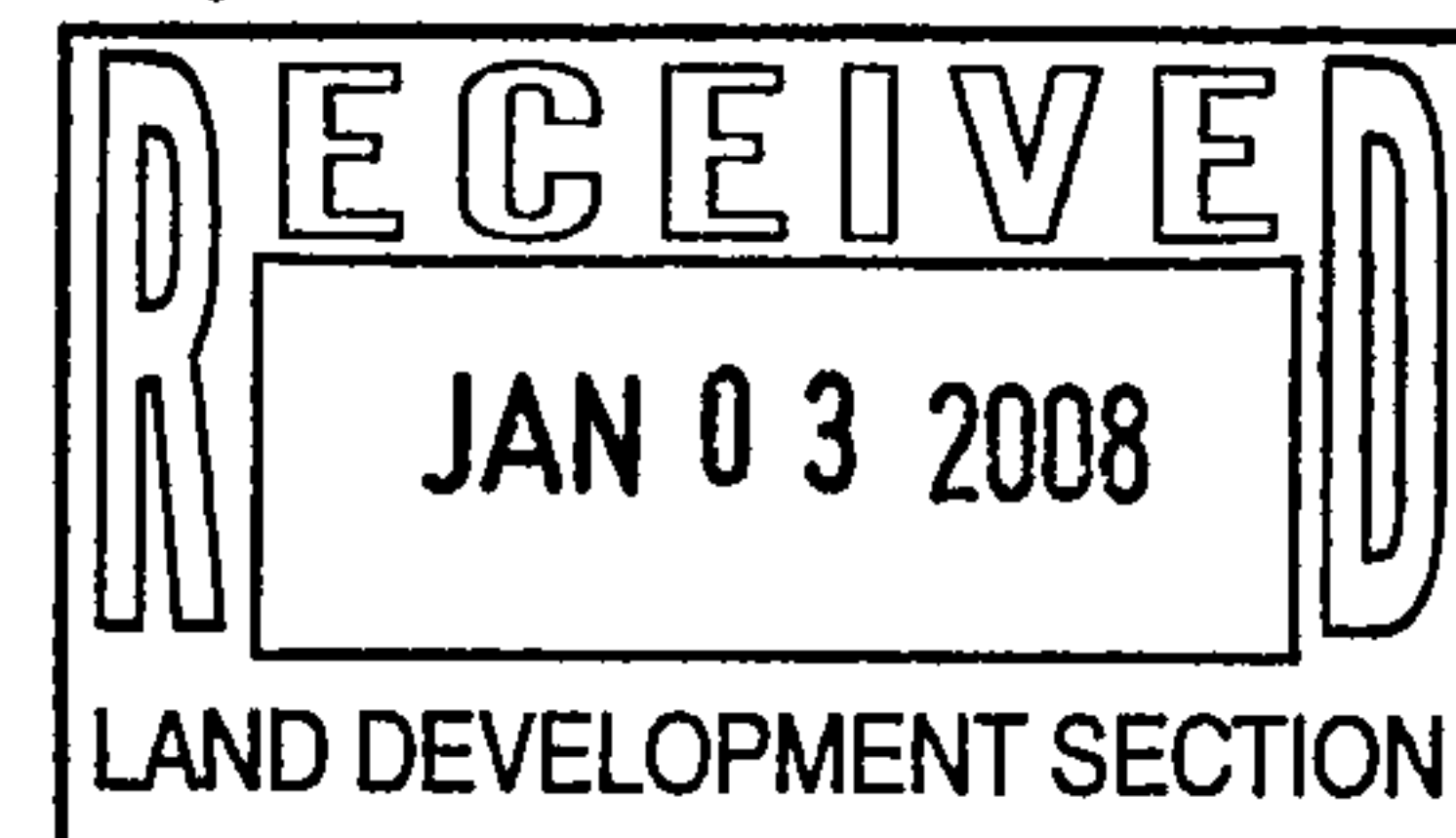
☐ YES
☒ NO
☐ COPY PROVIDED

DATE SUBMITTED: 1/3/2008 BY: Jonathan D. Niski, EI

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage 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 submittal 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 Sector Plans.
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.

PAID \$100.00



gan

TIERRA WEST, LLC

January 2, 2008

Mr. Bradley L. Bingham, P.E.
Senior Engineer
City of Albuquerque
P.O. Box 1293
Albuquerque, NM 87103

**RE: Lots 1B and 1D Ladera Industrial Center
(H10/D6A2)**

Dear Mr. Bingham:

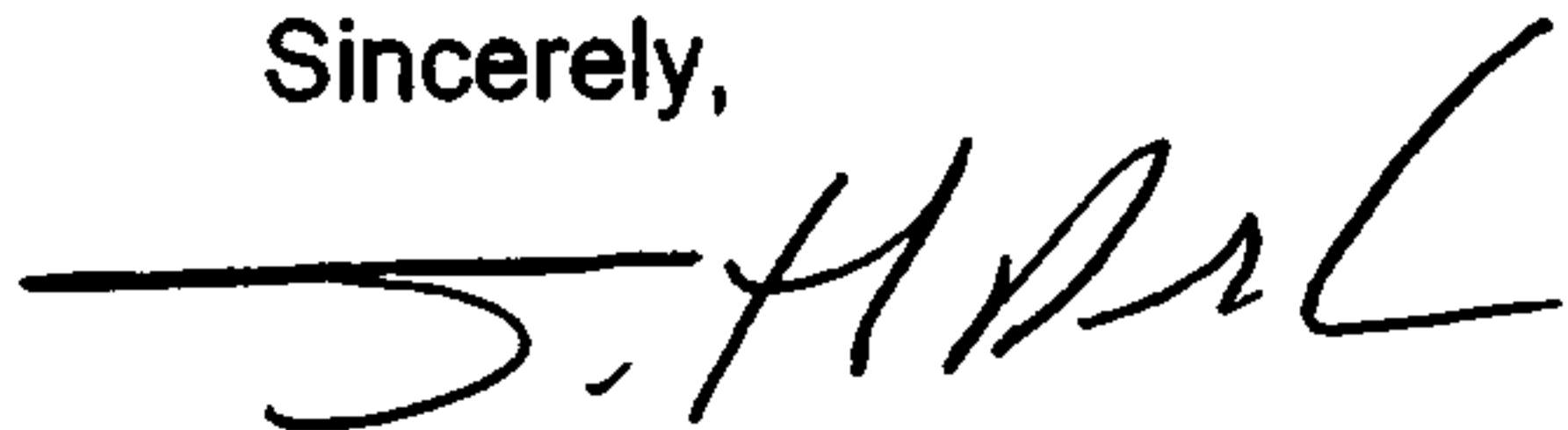
Tierra West, LLC, on behalf of the owners of Lots 1B and 1D (Peterson Properties), is submitting this drainage letter and analysis for approval for Building Permit for the shopping center located at 98th Street and Vista Oriente.

The drainage for these lots was approved with the Walgreen's Drainage Report (H10/D6A2) approved June 26, 2007. This letter provides additional information as to the actual discharge from the site based on the EPC approved Site Plan.

Based on that drainage report the total discharge for all of Lot 1 to Vista Oriente is 36 cfs. The Walgreen's site was shown to discharge 8.0 cfs with the rest of the center discharging 28 cfs. Based on the new layout and calculations, Lots 1B and 1D will still discharge 28.0 cfs, thereby conforming to the previous approved drainage report.

Please review the information enclosed with this letter and provide any comments you may have. If there are no comments please provide a letter or approval for Building Permit. If you have any questions, or require any additional information, please do not hesitate to contact me.

Sincerely,



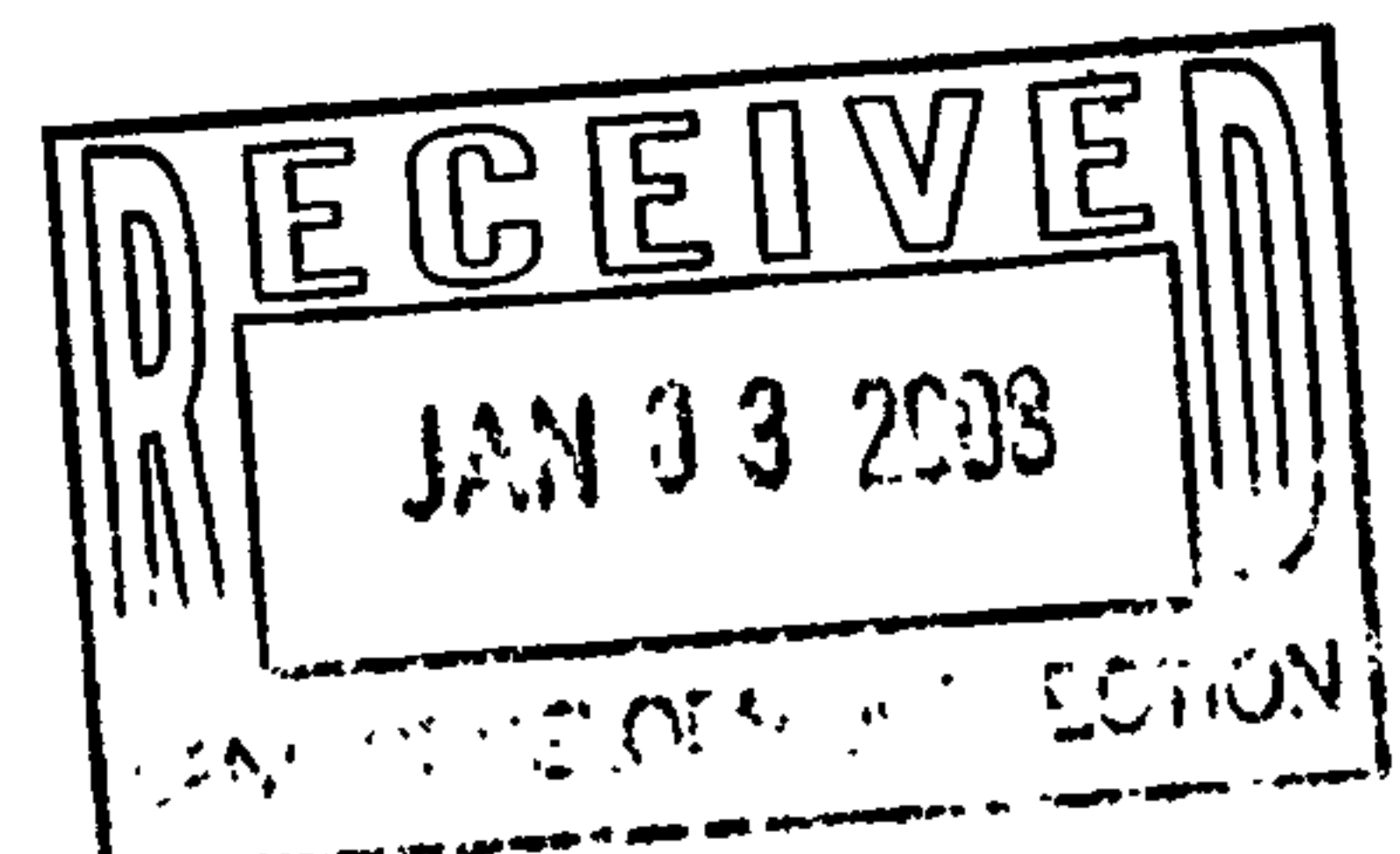
Jonathan D. Niski, EI

Enclosures

JN: 27079
jdn

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2007 27079 Correspondence Brad Bingham 122707



Channel Capacity

	Top Width	Bottom Width	Depth	Area	WP	R	Slope	Q Provided	Q Required	Velocity
	(ft)	(ft)	(ft)	(ft^2)	(ft)		(%)	(cfs)	(cfs)	(ft/s)
Basin A Curb	3	3	0.5	1.50	4.00	0.3750	0.8	6.93	5.92	3.95
Basin B Curb	2	2	0.5	1.00	3.00	0.3333	8.8	14.17	3.70	3.70
Basin F Swale	10	0	1	5.00	10.20	0.4903	1	30.88	10.48	2.10

Manning's Equation:

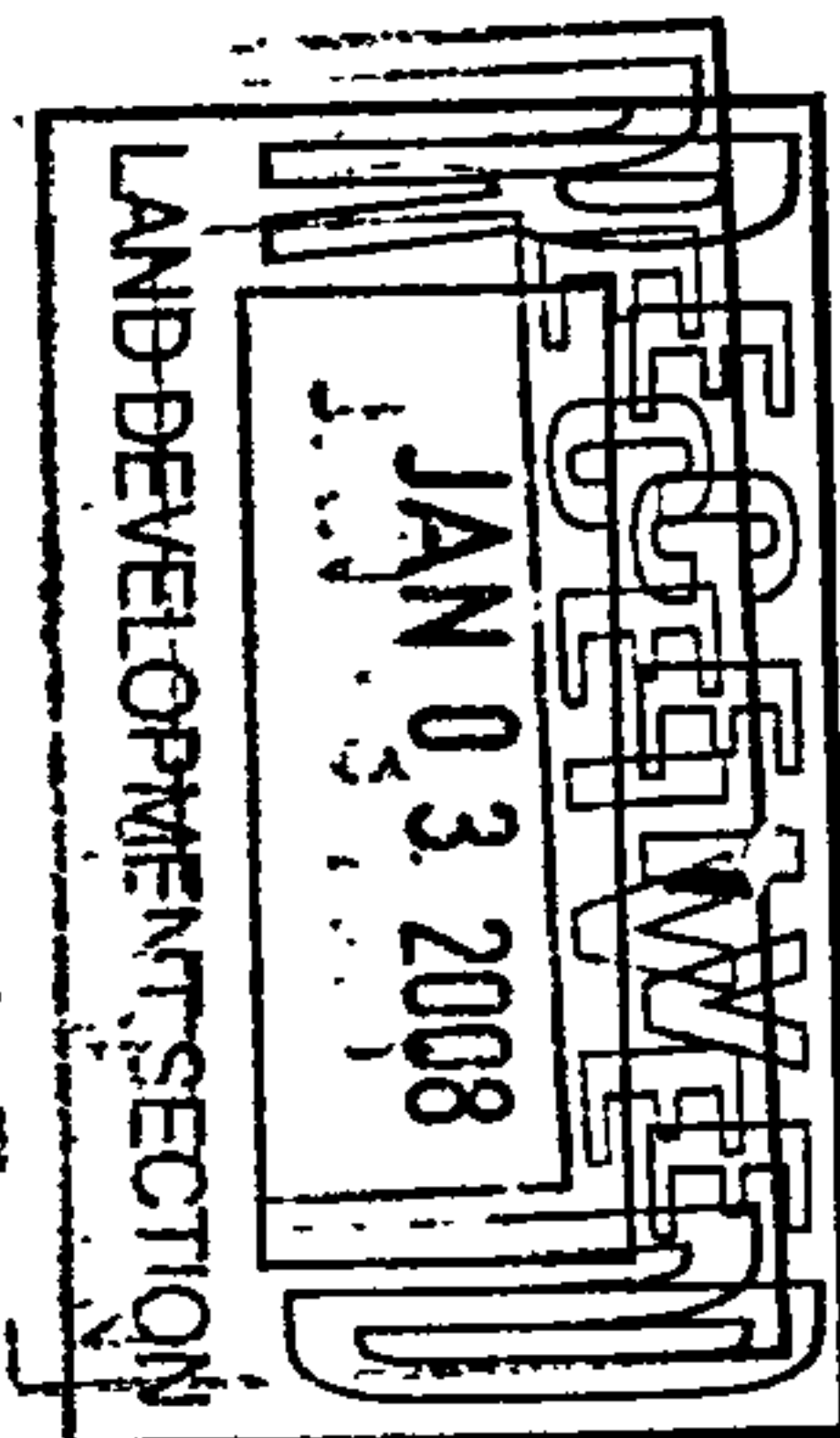
$$Q = 1.49/n * A * R^{(2/3)} * S^{(1/2)}$$

A = Area

R = D/4

S = Slope

n = 0.015



LOT 1-A



Weighted E Method

On-Site Basins

Basin	Area (sf)	Area (acres)	Treatment A		Treatment B		Treatment C		Treatment D		100-Year			10-Year		
			%	(acres)	%	(acres)	%	(acres)	%	(acres)	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs	Weighted E (ac-ft)	Volume (ac-ft)	Flow cfs
A	64,566	1.48	0%	0	16%	0.24	0%	0.00	84%	1.25	1.762	0.218	5.92	1.077	0.133	3.78
B	37,868	0.87	0%	0	5%	0.04	0%	0.00	95%	0.83	1.905	0.138	3.70	1.189	0.086	2.42
C	41,286	0.95	0%	0	10%	0.09	0%	0.00	90%	0.85	1.840	0.145	3.92	1.138	0.090	2.54
D	70,517	1.62	0%	0	11%	0.18	0%	0.00	89%	1.44	1.827	0.246	6.66	1.128	0.152	4.30
E	67,092	1.54	0%	0	16%	0.25	0%	0.00	84%	1.29	1.762	0.226	6.15	1.077	0.138	3.93
F	18,359	0.42	0%	0	100%	0.42	0%	0.00	0%	0.00	0.670	0.024	0.86	0.220	0.008	0.32
G	8,985	0.21	0%	0	30%	0.06	0%	0.00	70%	0.14	1.580	0.027	0.76	0.934	0.016	0.46
7.09												1.024	27.96		0.623	17.75

Equations:

Weighted E = $E_a \cdot A_a + E_b \cdot A_b + E_c \cdot A_c + E_d \cdot A_d$ / (Total Area)

Volume = Weighted D * Total Area

Flow = $Q_a \cdot A_a + Q_b \cdot A_b + Q_c \cdot A_c + Q_d \cdot A_d$

Excess Precipitation, E (Inches)		
Zone 1	100-Year	10 - Year
E _a	0.44	0.08
E _b	0.67	0.22
E _c	0.99	0.44
E _d	1.97	1.24

Peak Discharge (cfs/acre)		
Zone 1	100-Year	10 - Year
Q _a	1.29	0.24
Q _b	2.03	0.76
Q _c	2.87	1.49
Q _d	4.37	2.89

