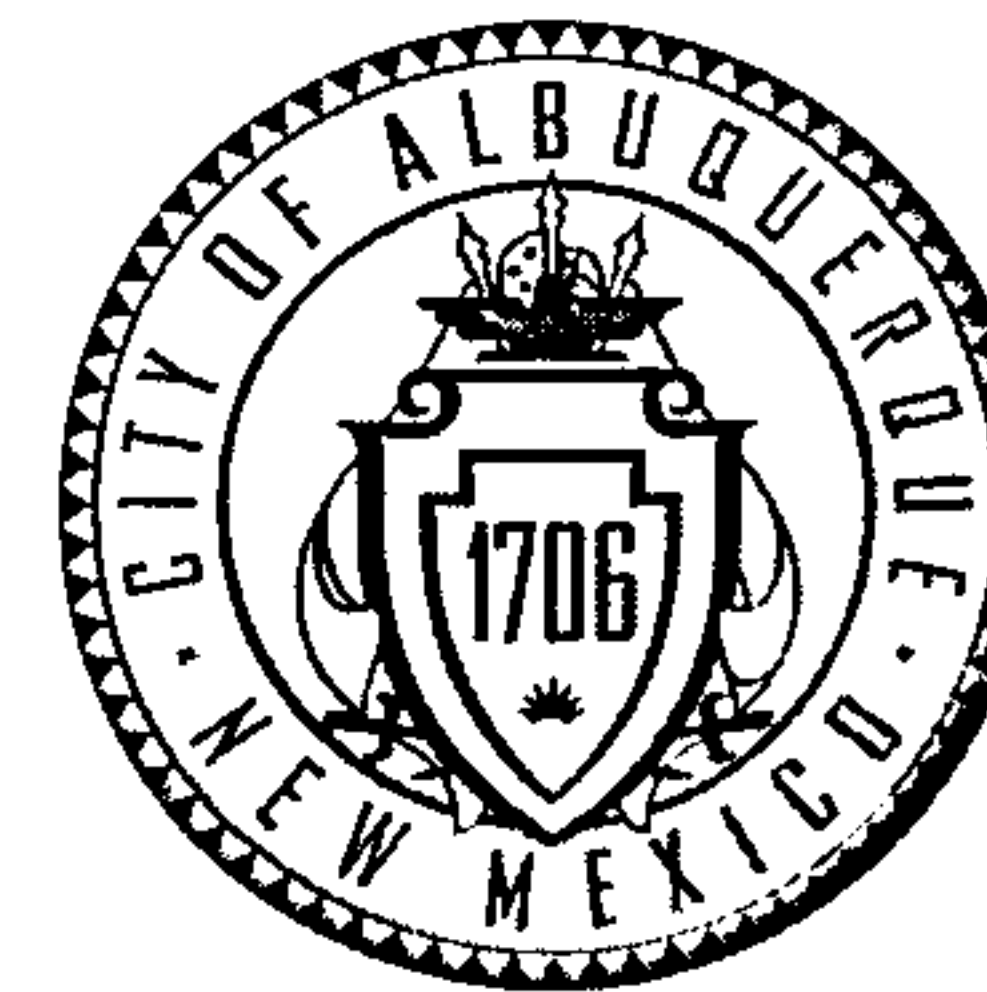


CITY OF ALBUQUERQUE



July 30, 2014

Guy Jackson, PE
Guy Jackson & Associates, LLC
10522 Florence Ave NE
Albuquerque, NM 87122

**Re: Lot 7 Rancho De Candelaria
3609 Conrado NW
Request Permanent C.O. - Accepted
Engineer's Stamp dated: 7-6-14 (G13D023A)
Certification dated: 7-30-14**

Dear Mr. Jackson,

Based on the Certification received 7/30/2014, the site is acceptable for release of Certificate of Occupancy by Hydrology.

PO Box 1293

If you have any questions, you can contact me at 924-3695 or Rudy Rael at 924-3977.

Albuquerque

New Mexico 87103

www.cabq.gov

Sincerely,

Rita Harmon, P.E.
Senior Engineer, Planning Dept.
Development and Review Services

C: RR/RH
CO Clerk
email

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: **Lot , Rancho de Candelaria**
ZONE MAP/DRG. FILE # G-13
DRB#: NA EPC#: NA WORK ORDER#: NA

LEGAL DESCRIPTION: Lot 7 -Rancho de Candelaria
CITY ADDRESS: 3609 Conrado NW

6130023A

ENGINEERING FIRM: GUY JACKSON & ASSOCIATES, LLC
ADDRESS: 10522 FLORENCE AVE. NE
CITY, STATE: Albuquerque, NM

CONTACT: GUY JACKSON, PE
PHONE: 235-1426
ZIP CODE: 87122

OWNER: Las Ventanas, NM, Inc
ADDRESS: PO Box 10600,
CITY, STATE: Albuquerque, NM

CONTACT: Scott Ashcraft
PHONE: 505-362-6824
ZIP CODE: 87184

ARCHITECT: NA
ADDRESS: NA
CITY, STATE: NA

CONTACT: NA
PHONE: NA
ZIP CODE: NA

SURVEYOR: Harris Surveying.
ADDRESS: 2412-D Monroe St. NE
CITY, STATE: ALBUQUERQUE, NM

CONTACT: Tony Harris
PHONE: 889-8645
ZIP CODE: 87109

CONTRACTOR: TBD
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

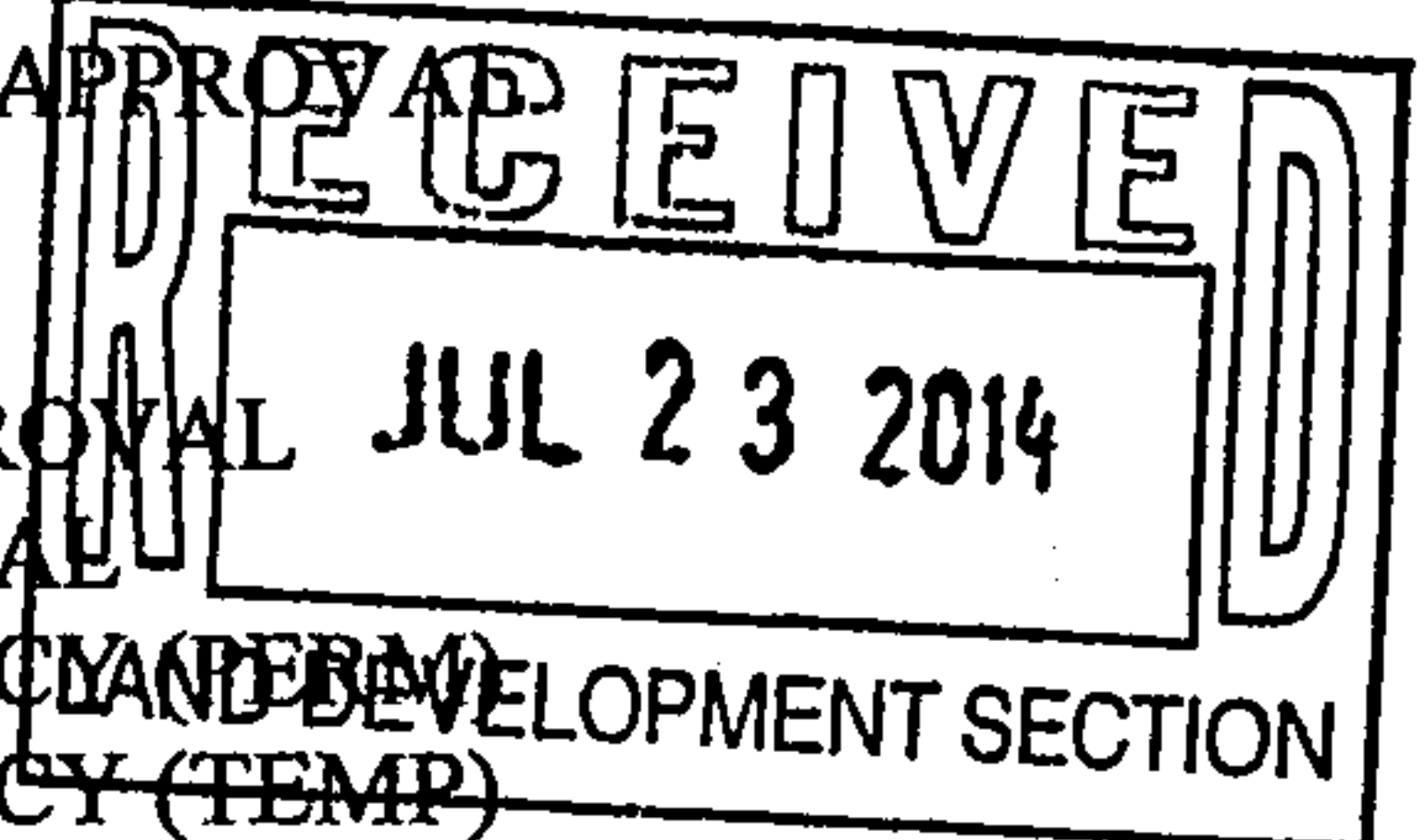
TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☒ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☒ OTHER (SPECIFY) -Revision

CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. 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

☒ OTHER (SPECIFY) *Revision to APPROVED PLAN*



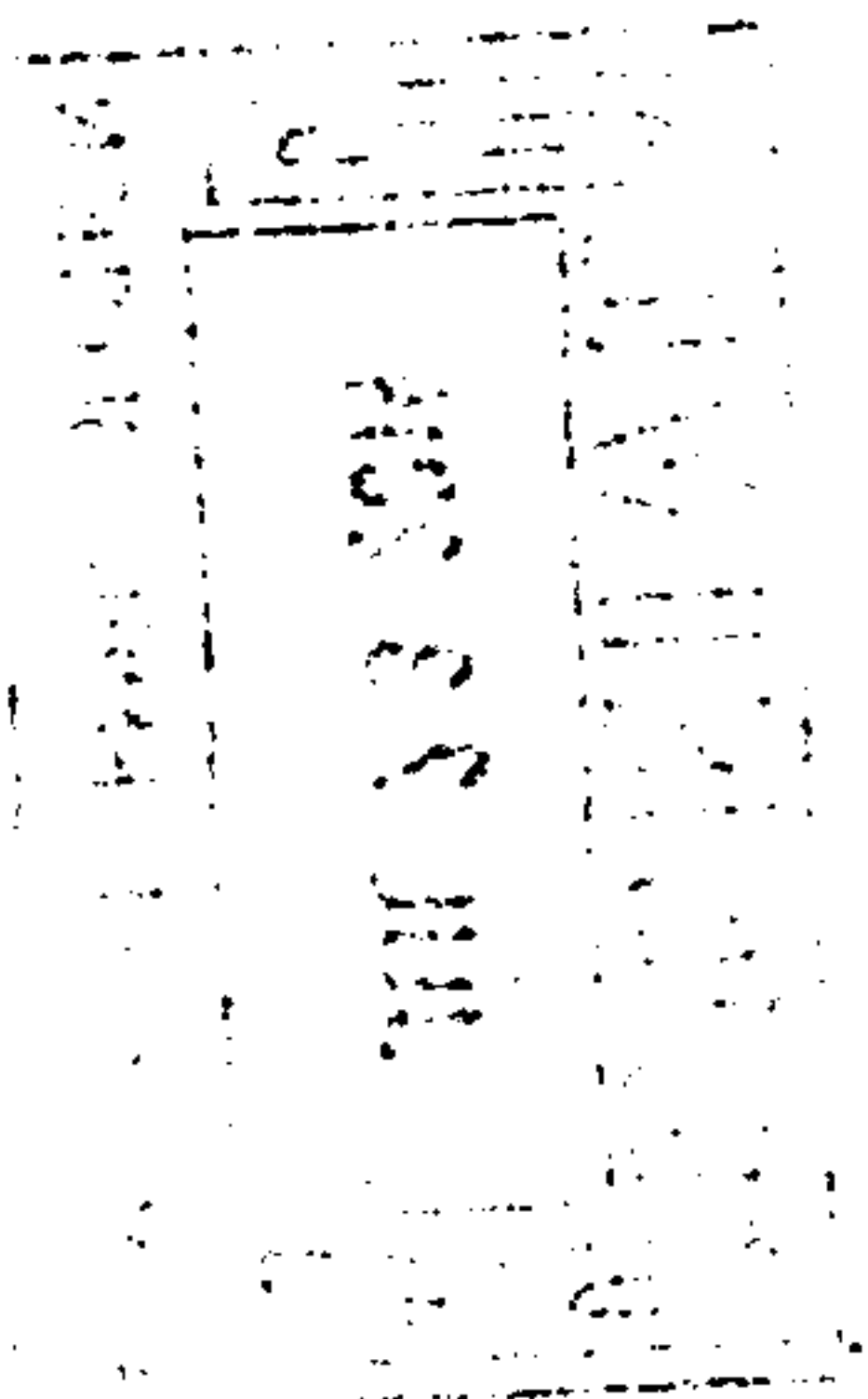
WAS A PRE-DESIGN CONFERENCE ATTENDED:
☐ YES
☒ NO
☐ COPY PROVIDED

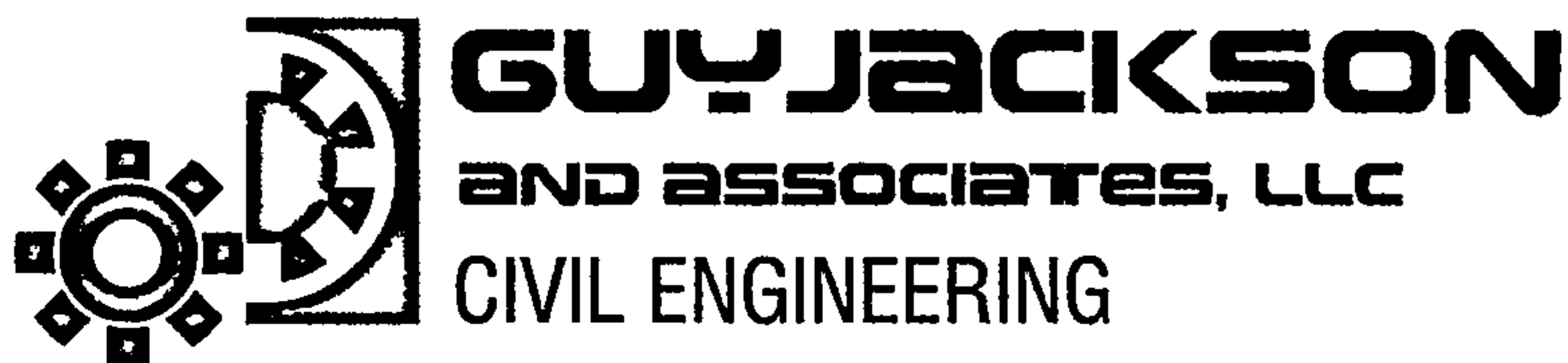
SUBMITTED BY: GUY JACKSON, PE DATE: 7-6-14

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define 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 (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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.

Shahab gave Gung
Jackson a Verbal Yes
for the retaining wall
7/30/2014





February 24, 2014

Rudy Rael, PE
Plan Checker,
Hydrology Development Section
Development & Building Services
PO Box 1293
Albuquerque, New Mexico 87103

**Re: Lots 7, Rancho de Candelaria, NW, Albuquerque, NM
(Zone Atlas Map G-13)**

Dear Rudy:

I'm attaching 2 copies of the revisions to the previously approved grading & drainage plan as well as a copy of the revised calculations.

The reason for the changes is that the contractor moved the building 4' to the north along the east property line and that he also raised the finished floor 3 inches.

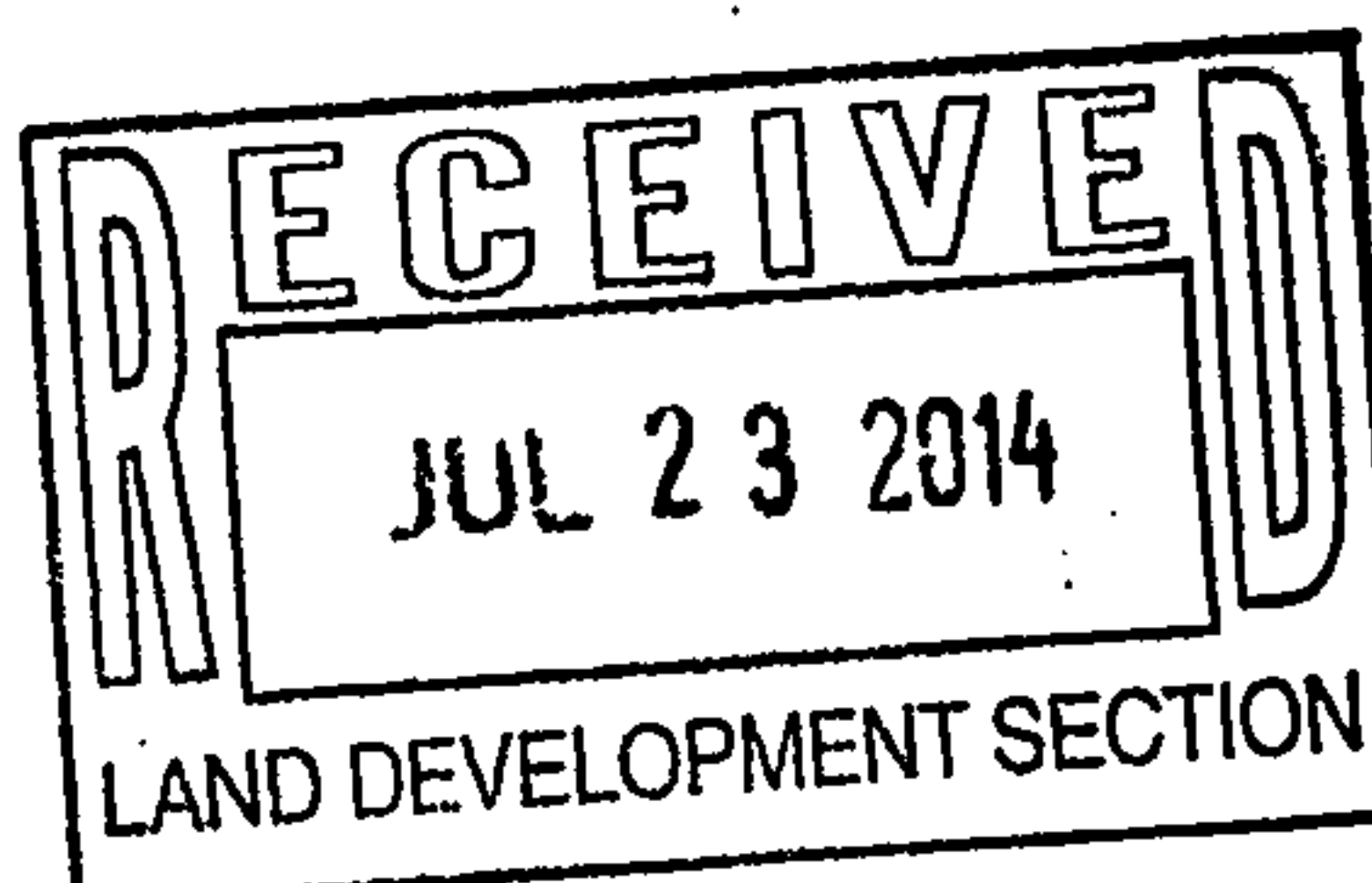
They are nearing completion of the project of which I'll obtain as-built data for certification once I have reviewed the final documents for conformance to the plan.

Please contact me if you have any questions or comments.

Sincerely,

GUY JACKSON & ASSOCIATES, LLC

Guy C. Jackson, PE
President
10522 Florence Ave. NE
Albuquerque, NM 87122
505-235-1426



GJA,LLC

CMI Engineering

PROJECT Lot 7 Rancho de Candelaria
 PROJECT NO.
 DATE 06/23/14
 BY GJA

DPM Section 22.2 - Hydrology

Part A-Watersheds less than 40 acres.
 January, 1993

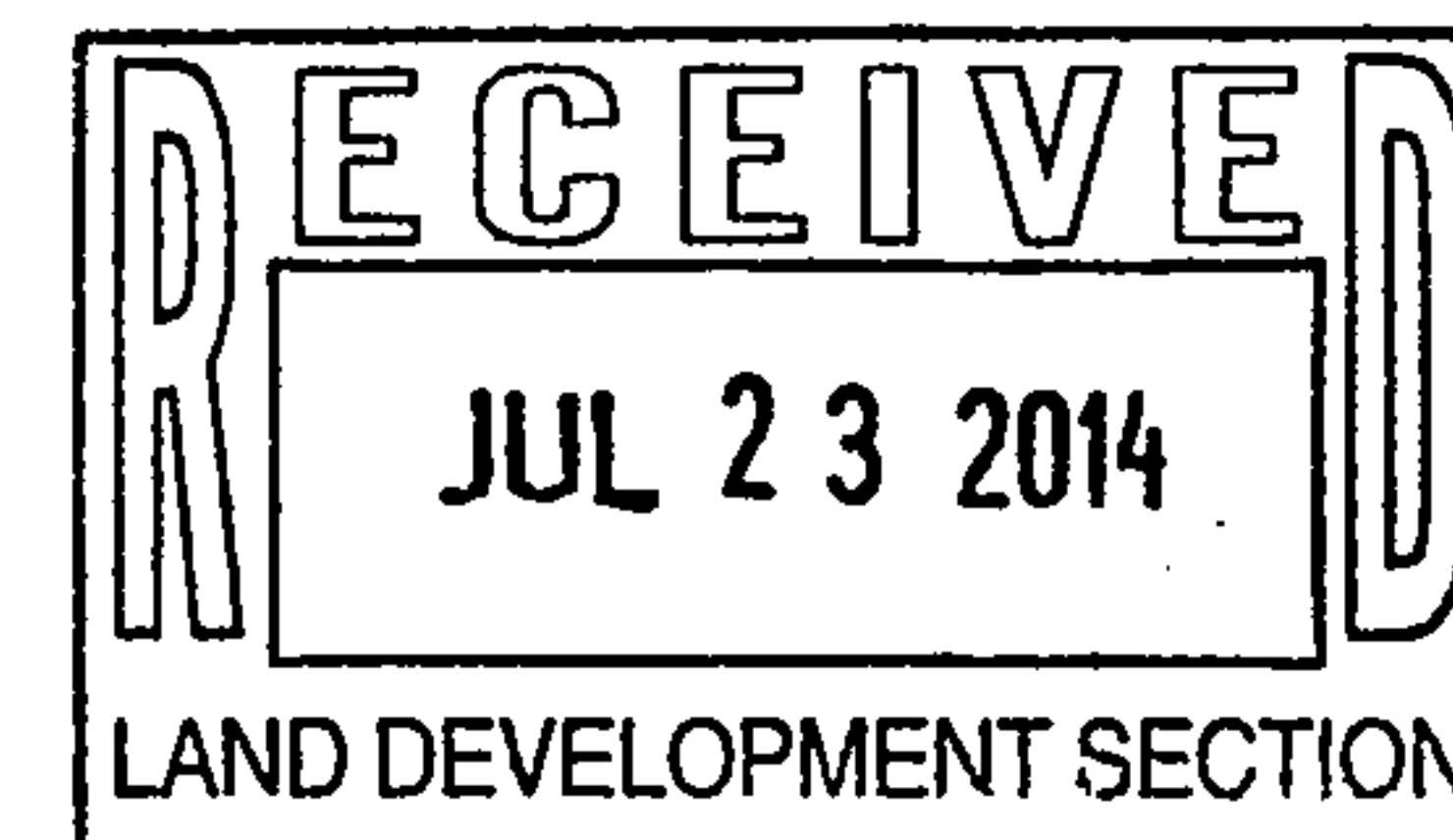
INSTRUCTIONS

- * Spread sheet requires three input areas (dark cells):
 - Location
 - >A.1 Precipitation Zone
 - >A.3 Land Treatments
- * Values from the tables are automatically placed using "if" statements.
- * Table values should be checked for correctness for each use.

SUMMARY

Location	Basin A(Dev)	Basin B(Dev)					TOTALS	
Precipitation Zone	2	2	2	2	2	2		
Land Area	0.15	0.10	0.00	0.00	0.00	0.25	acres	
Excess Precipitation Volume								
>>> 100-year 6-hour (design)	0.02	0.0123	#DIV/0!	#DIV/0!	#DIV/0!	0.03	acre-ft.	
10-year 6-hour	0.01	0.01	#DIV/0!	#DIV/0!	#DIV/0!	0.02	acre-ft.	
2-year 6-hour	0.01	0.00	#DIV/0!	#DIV/0!	#DIV/0!	0.01	acre-ft.	
100-year 24-hour	0.0210	0.0138	#DIV/0!	#DIV/0!	#DIV/0!	0.03	acre-ft.	
Peak Discharge Rates (DPM)								
>>> Q100 (design)	0.54	0.36	0.00	0.00	0.00	0.90	cfs	
Q10	0.32	0.21	0.00	0.00	0.00	0.54	cfs	
Q2	0.16	0.10	0.00	0.00	0.00	0.26	cfs	

CALCULATIONS FOLLOW



INPUT AND CALCULATIONS

LOCATION		Basin A(Dev)	Basin B(Dev)						
>A.1 PRECIPITATION ZONE (from Table A-1)		2	2	2	2	2	2	2	
TOTALS									
>A.2 DEPTHS									
(from Table A-2)									
100-YEAR STORM (P60)		2.01	2.01	2.01	2.01	2.01	2.01	2.01	inches
100-YEAR STORM (P360)		2.35	2.35	2.35	2.35	2.35	2.35	2.35	inches
100-YEAR STORM (P1440)		2.75	2.75	2.75	2.75	2.75	2.75	2.75	inches
10-YEAR (P360) (Calculated: P360*RPF10)		1.57	1.57	1.57	1.57	1.57	1.57	1.57	inches
2-YEAR (P360) (Calculated: P360*RPF2)		1.02	1.02	1.02	1.02	1.02	1.02	1.02	inches
>A.3 LAND TREATMENTS (AI)									
		TOTALS							
Treatment A		0.00	0.00	0.00	0.00	0.00	0.00	0.00	acres
Treatment B		0.04	0.03	0.00	0.00	0.00	0.00	0.07	acres
Treatment C		0.04	0.03	0.00	0.00	0.00	0.00	0.07	acres
Treatment D		0.07	0.04	0.00	0.00	0.00	0.00	0.11	acres
Total Area		0.15	0.10	0.00	0.00	0.00	0.00	0.25	acres
>A.4 ABSTRACTIONS		See A.5	See A.5	See A.5	See A.5	See A.5	See A.5	See A.5	

CALCULATIONS FOLLOW

INPUT AND CALCULATIONS (CON'T)

>A.5 EXCESS PRECIPITATION 6 HOUR AND 24 HOUR (EI)							TOTALS
from Table A-8							
100-year 6-hour							
Treatment A	0.53	0.53	0.53	0.53	0.53	0.53	inches
Treatment B	0.78	0.78	0.78	0.78	0.78	0.78	inches
Treatment C	1.13	1.13	1.13	1.13	1.13	1.13	inches
Treatment D	2.12	2.12	2.12	2.12	2.12	2.12	inches
WEIGHTED E (Sum EI*A/A)	1.49	1.48	#DIV/0!	#DIV/0!	#DIV/0!	1.49	inches
VOLUME V100:6h (E*A)	0.01866	0.01229	#DIV/0!	#DIV/0!	#DIV/0!	0.0309	acre-ft.
	812.64	535.35	#DIV/0!	#DIV/0!	#DIV/0!	1,347.99	ft^3
=====							=====
10-year 6-hour							
Treatment A	0.13	0.13	0.13	0.13	0.13	0.13	inches
Treatment B	0.28	0.28	0.28	0.28	0.28	0.28	inches
Treatment C	0.52	0.52	0.52	0.52	0.52	0.52	inches
Treatment D	1.34	1.34	1.34	1.34	1.34	1.34	inches
WEIGHTED E (Sum EI*A/A)	0.83	0.82	#DIV/0!	#DIV/0!	#DIV/0!	0.83	inches
VOLUME V10:6h (E*A)	0.01	0.01	#DIV/0!	#DIV/0!	#DIV/0!	0.02	acre-ft.
	453.92	297.58	#DIV/0!	#DIV/0!	#DIV/0!	751.50	ft^3
=====							=====
2-year 6-hour							
Treatment A	0.00	0.00	0.00	0.00	0.00	0.00	inches
Treatment B	0.02	0.02	0.02	0.02	0.02	0.02	inches
Treatment C	0.15	0.15	0.15	0.15	0.15	0.15	inches
Treatment D	0.79	0.79	0.79	0.79	0.79	0.79	inches
WEIGHTED E (Sum EI*A/A)	0.41	0.40	#DIV/0!	#DIV/0!	#DIV/0!	0.41	inches
VOLUME V2:6h (E*A)	0.01	0.00	#DIV/0!	#DIV/0!	#DIV/0!	0.01	acre-ft.
	223.38	145.22	#DIV/0!	#DIV/0!	#DIV/0!	368.69	ft^3
=====							=====
100-year 24-hour							
VOLUME V100:24h							
(V100-6h+Ad*P1440-P360)/12)	0.02	0.01	#DIV/0!	#DIV/0!	#DIV/0!	0.0347	acre-ft.
	913.12	600.26	#DIV/0!	#DIV/0!	#DIV/0!	1,513.38	ft^3
=====							=====

CALCULATIONS FOLLOW

INPUT AND CALCULATIONS (CON'T)

>A.6 PEAK DISCHARGE RATE FOR SMALL WATERSHEDS (QI)							
from Table A-9							
100-year						TOTALS	
Treatment A	1.56	1.56	1.56	1.56	1.56	1.56	cfs/acre
Treatment B	2.28	2.28	2.28	2.28	2.28	2.28	cfs/acre
Treatment C	3.14	3.14	3.14	3.14	3.14	3.14	cfs/acre
Treatment D	4.70	4.70	4.70	4.70	4.70	4.70	cfs/acre
Q100 (Sum QI*AI)	0.54	0.36	0.00	0.00	0.00	0.90	cfs
=====							
10-year							
Treatment A	0.38	0.38	0.38	0.38	0.38	0.38	cfs/acre
Treatment B	0.95	0.95	0.95	0.95	0.95	0.95	cfs/acre
Treatment C	1.71	1.71	1.71	1.71	1.71	1.71	cfs/acre
Treatment D	3.14	3.14	3.14	3.14	3.14	3.14	cfs/acre
Q10 (Sum QI*AI)	0.32	0.21	0.00	0.00	0.00	0.54	cfs
=====							
2-year							
Treatment A	0.00	0.00	0.00	0.00	0.00	0.00	cfs/acre
Treatment B	0.08	0.08	0.08	0.08	0.08	0.08	cfs/acre
Treatment C	0.60	0.60	0.60	0.60	0.60	0.60	cfs/acre
Treatment D	1.86	1.86	1.86	1.86	1.86	1.86	cfs/acre
Q2 (Sum QI*AI)	0.16	0.10	0.00	0.00	0.00	0.26	cfs
=====							

CALCULATIONS FOLLOW

LOT 7

REQUIRED FOUNDATION VOLUME

6/23

North Pond

Basin

$$P_{10} = 10 - (2.49 / (P_{1000}))^{1.4}$$

$$= 3.95$$

$$V_{1000} = V_{360} + [A_0 * (P_{10} - P_{360}) / 12.5]$$

(Volume)

$$= 0.01866 + 0.0692 (0.1333)$$

$$= 0.01866 + 0.00923 = 0.02789 \text{ AC-FT}$$

$$= 1215 \text{ cfs}$$

South Pond

Basin

$$P_{10} = 3.95, P_{1000} = 2.75, P_{360} = 2.35$$

$$V_{1000} = V_{360} + [A_0 * (P_{10} - P_{360}) / 12.5]$$

$$= 0.01229 + 0.0447 (0.1333)$$

$$= 0.01229 + 0.00596 = 0.01825 \text{ AC-FT}$$

$$= 795 \text{ cfs}$$

(Low) (Low)

$$P_{360} = 2.35$$

(Low) (Low)

$$P_{1000} = 2.75$$

BASIN A

$$A_{TOTAL} = 6536.64 \text{ \#}$$

$$= 0.1501 \text{ AC}$$

$$A_{PERV} = 3520.88 \text{ \#}$$

$$= 0.0808 \text{ AC}$$

@ 50% LS:

$$A_C = 0.0404 \text{ AC}$$

$$A_B = 0.0404 \text{ AC}$$

$$A_D = 3015.76 \text{ \#}$$

$$= 0.0692 \text{ AC}$$

BASIN B

$$A_{TOTAL} = 4354.19 \text{ \#}$$

$$= 0.1000 \text{ AC}$$

$$A_{PERV} = 2405.89 \text{ \#}$$

$$= 0.0552 \text{ AC}$$

$$A_D = 1948.31 \text{ \#}$$

$$= 0.0447 \text{ AC}$$

@ 50% LS:

$$A_C = 0.0276 \text{ AC}$$

$$A_B = 0.0276 \text{ AC}$$

TOTAL BASINS: $A_{TOT} = 10890.93 \text{ \#} = 0.25 \text{ AC}$

$$A_C = 0.0404 + 0.0276 = 0.0680$$

$$A_B = \text{ " } + \text{ " } = 0.068 \text{ AC}$$

$$A_D = 3015.76$$

$$+ 1948.31$$

$$4964.07 \text{ \#}$$

$$10890.93$$

45% D

water master

gradic flow

requirements (5-9-04)

located

SOUTH POND

$A_{REQ} = 846cs$

012417

BASIN B

Aven 66

TOP SURF
area of 66

area of 66 to 67.5

$66 \rightarrow 67.5 \quad A_1 = 427 \times 1.5' = 641cs$



$66 \rightarrow 67.5 \quad A_2 = \frac{1}{2} (210.2 + 0) 1.5 = 158cs$

$A_{TOT} = 641 + 158 = 799cs > 795cs$

OK

ADJUSTMENTS MADE FOR $A_{REQ} = 795cs$;

Deduct ^{SE} corner of building area & move to Basin A;

$A_{ROOF} = \frac{149}{270} \cancel{70}$

Deduct SE corner of previous area $5' \times 18.6' = 93.17 \cancel{4}$

NORTH POND ADJUSTMENTS

BASIN A

ELEV	AREA	Vol	Σ Vol
67	1320	0	0
68.5	2094	2567	2567

$67 - 68.5$

$A = \frac{1}{2} (1320 + 2094) 1.5 = 2567 > 1215$

$67.5 \quad 1490 \quad 0 \quad 0$
 $68.5 \quad 2094$
 $A = \frac{1}{2} (1490 + 2094) 1 = 1797cs > 1215$

OK

NEW CONTIGUOUS BASIN A / NORTH POND

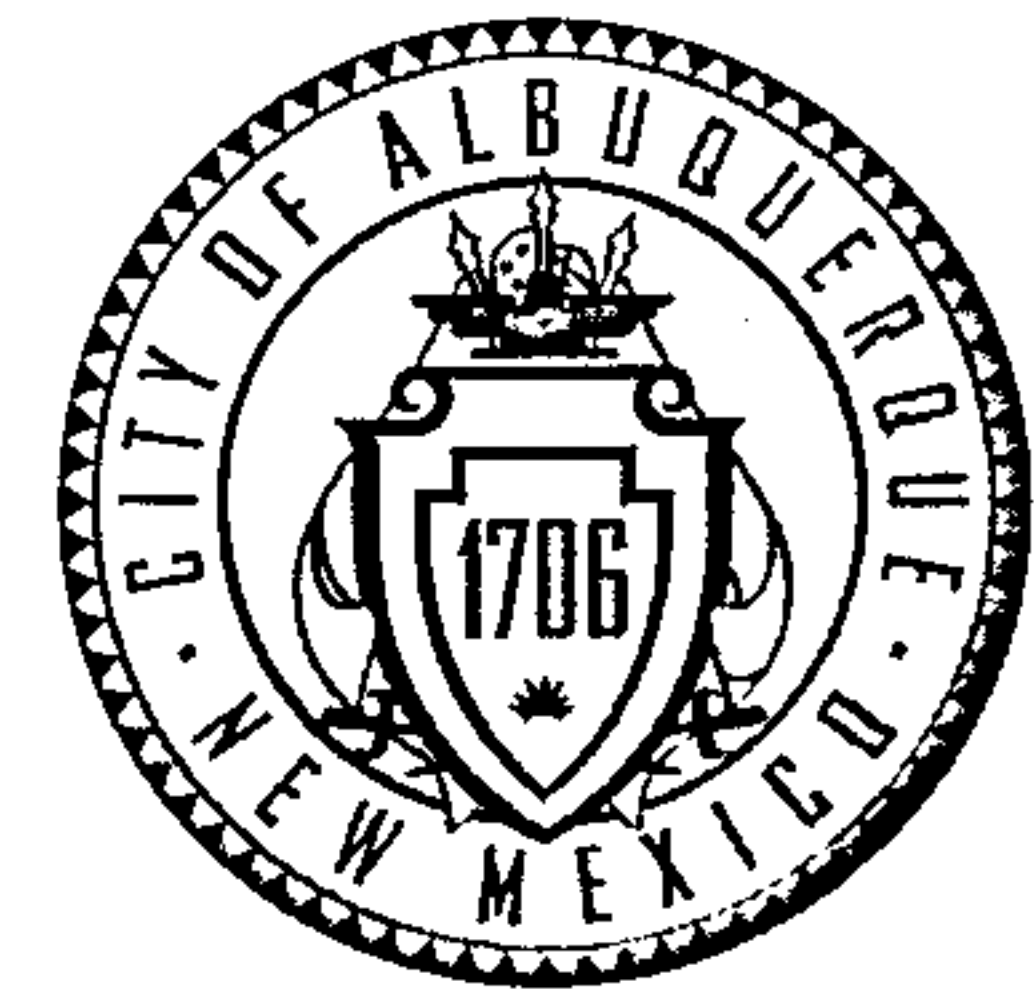
ELEV	AREA	Vol	Σ Vol
67.5	1350	0	0
68.5	1720	1540	1540

FINAL $67.5 \quad 1445 \quad 0$

$A = \frac{1}{2} (1445 + 1720) 1.5 = 2121 > 1215$

$68.75 \quad 1733$
 $A = 1540cs$
 $1721 > 1215$ OK

CITY OF ALBUQUERQUE



February 26, 2014

Guy Jackson, P.E.
Guy Jackson & Associates, LLC
10522 Florence Ave. NE
Albuquerque, New Mexico 87122

**RE: Lot 7 Conrado Ct NW
Grading and Drainage Plan
Engineers Stamp Date 2/24/14 (G13D023A)**

Dear Mr. Jackson,

Based upon the information provided in your submittal received 2/24/14, the above referenced Grading and Drainage Plan is approved for Building Permit.

Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required. Attach a copy of this approved plan to each of the Building Permit sets prior to seeking approval by the Hydrology section.

PO Box 1293

If you have any questions, please contact me at 924-3986 or Rudy Rael at 924-3977.

Albuquerque

Sincerely,

New Mexico 87103

www.cabq.gov

Curtis Cherne, P.E.
Principal Engineer, Hydrology
Planning Department

RR/CC
C: File

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: **Lot , Rancho de Candelaria**
ZONE MAP/DRG. FILE # G-13
DRB#: NA EPC#: NA WORK ORDER#: NA

613D023A

LEGAL DESCRIPTION: Lot 7 -Rancho de Candelaria
CITY ADDRESS: 3609 Conrado NW

ENGINEERING FIRM: GUY JACKSON & ASSOCIATES, LLC
ADDRESS: 10522 FLORENCE AVE. NE
CITY, STATE: Albuquerque, NM

CONTACT: GUY JACKSON, PE
PHONE: 235-1426
ZIP CODE: 87122

OWNER: Las Ventanas, NM, Inc
ADDRESS: PO Box 10600,
CITY, STATE: Albuquerque, NM

CONTACT: Scott Ashcraft
PHONE: 505-362-6824
ZIP CODE: 87184

ARCHITECT: NA
ADDRESS: NA
CITY, STATE: NA

CONTACT: NA
PHONE: NA
ZIP CODE: NA

SURVEYOR: Harris Surveying.
ADDRESS: 2412-D Monroe St. NE
CITY, STATE: ALBUQUERQUE, NM

CONTACT: Tony Harris
PHONE: 889-8645
ZIP CODE: 87109

CONTRACTOR: TBD
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

TYPE OF SUBMITTAL:

☐ DRAINAGE REPORT
☐ DRAINAGE PLAN 1st SUBMITTAL
☐ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☐ EROSION CONTROL PLAN
☒ ENGINEER'S CERT (HYDROLOGY)
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☐ TRAFFIC CIRCULATION LAYOUT
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☐ OTHER (SPECIFY) _____

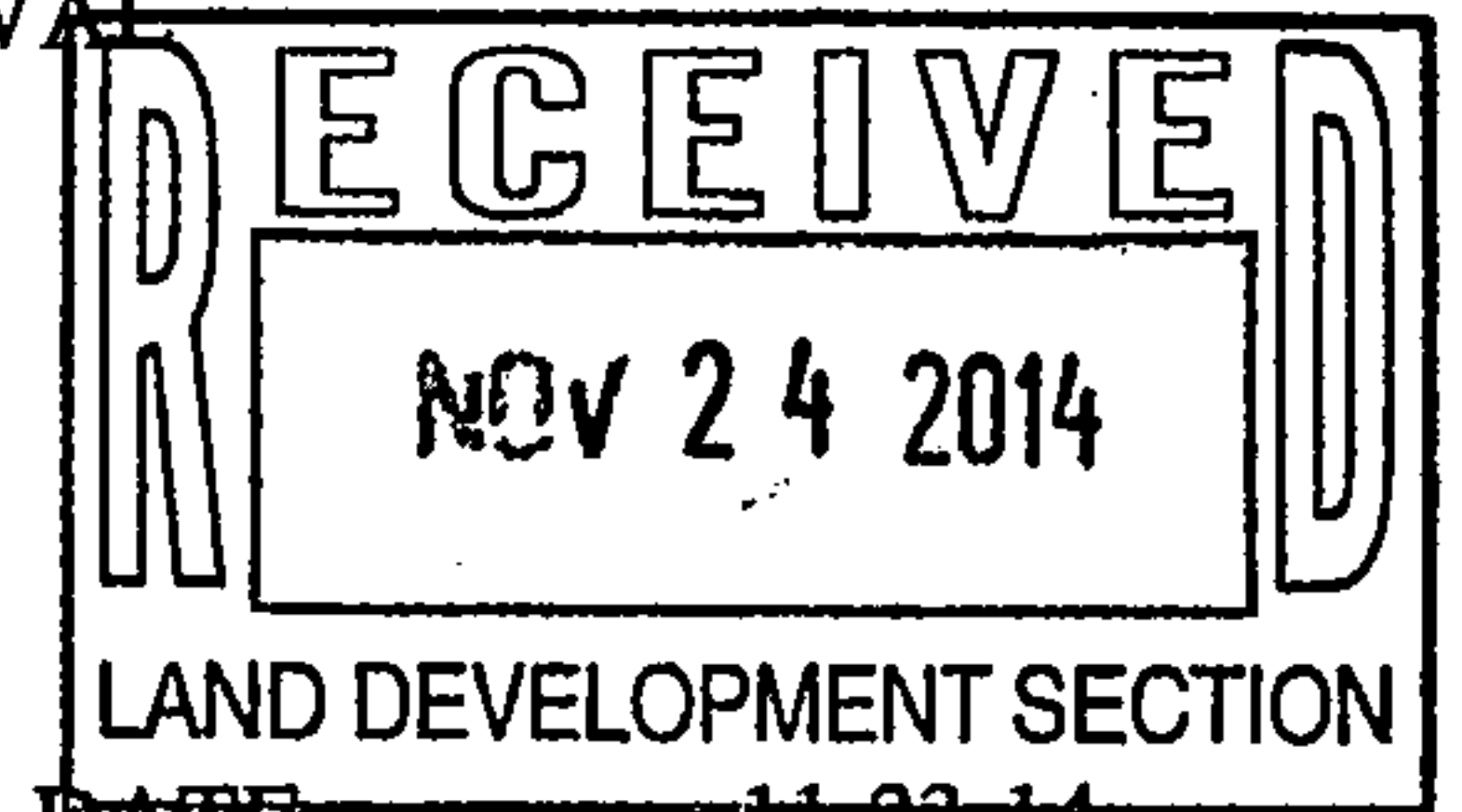
CHECK TYPE OF APPROVAL SOUGHT:

☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
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☐ S. DEV. FOR BLDG. PERMIT APPROVAL
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☐ FOUNDATION PERMIT APPROVAL
☐ 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:

☐ YES
☒ NO
☐ COPY PROVIDED

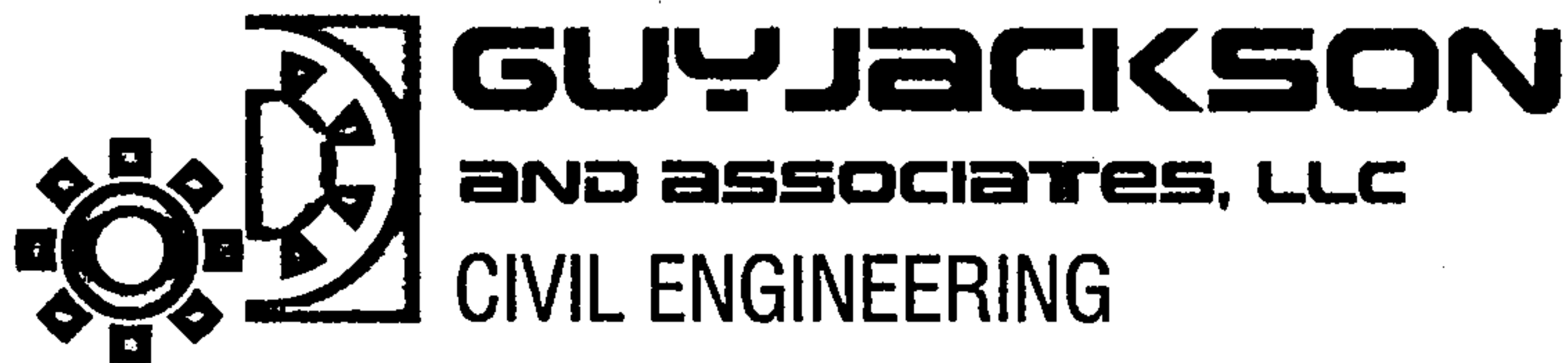
SUBMITTED BY: GUY JACKSON, PE



DATE: 11-23-14

Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define 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 (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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.



November 23, 2014

Rudy Rael, PE
Plan Checker,
Hydrology Development Section
Development & Building Services
PO Box 1293
Albuquerque, New Mexico 87103

**Re: Lot 7, Rancho de Candelaria, 3609 Conrado, NW, Albuquerque, NM
(Zone Atlas Map G-13)**

Dear Rudy:
I'm providing the following material for
Certificate of Occupancy approval:

- One (1) drainage information sheet
- Two (2) copies of the drainage & grading plan with as-built info and certification language.

Please review the attached material for revised issuance of Certificate of Occupancy.

This certification supplements the engineer's certification letter dated July 30, 2014 which referenced obtaining completed construction as-builts of the southern drainage pond and wall that separates lots 6 & 7.

Please contact me if you have any questions or comments.
I appreciate your help on this.

Sincerely, **Guy Jackson, PE**

Digitally signed by Guy Jackson, PE
DN: CN = Guy Jackson, PE, C = US, O = Guy
Jackson and Associates, LLC
Date: 2014.11.23 09:13:33 -0700

GUY JACKSON & ASSOCIATES, LLC

Guy C. Jackson, PE
President
10522 Florence Ave. NE
Albuquerque, NM 87122
505-235-1426

BASIN A

2/10/14

$$\text{TOTAL } 6792.07 \text{ A} = .16 \text{ AC}$$

$$\text{AC} = 3848.60 \\ + 1699.31$$

$$\text{AD} = 2772.08$$

$$\underline{4017.91}$$

$$41\% \text{ D}$$

$$59\% \text{ C}$$

$$.59 \times 0.16 \text{ AC} = 0.09 \text{ AC (C)} \quad .41 \times .16 \text{ AC} = 0.07 \text{ AC (D)}$$

BASIN B

$$\text{TOTAL} = 4101.03 \text{ A} = 0.09 \text{ AC}$$

$$\text{AC} = 106.89$$

$$+ 236.70$$

$$+ 382.53$$

$$+ 1180.23$$

$$\underline{1906.35 \text{ A}}$$

$$46\% \text{ C}$$

$$.46 \times 0.09 = .04 \text{ AC (C)}$$

$$\text{AD} = 1105.81$$

$$+ 421.49$$

$$\underline{655.61}$$

$$2182.91$$

$$53\% \text{ D}$$

$$.53 \times .09 = .05 \text{ AC (D)}$$

TOTAL BASINS

$$\text{TOTAL} = 10890.75 \text{ A}$$

$$4017.91$$

$$+ 1906.35$$

$$2772.08$$

$$+ 2182.91$$

$$\underline{5924.26 \text{ A}}$$

$$54\% \text{ C}$$

$$4954.99 \text{ A} = 0.11375 \text{ AC}$$

$$45\% \text{ D} \checkmark \text{ meets}$$

21

$$Q = \frac{1.49}{.01}$$

$$Q = 114.62 (.3491) (.167) (.$$

$$14.9 (.3491) (.167) (.008)$$

$$8.8 \times 10^{-3}$$

$$.008 \text{ ft/s}$$

$$\begin{array}{r} 68.5 \\ 42 \end{array} \quad 68.13$$

$$Q = \frac{1.496}{.01} (.3491) (.167)^{2/3} (.008)^{1/3}$$

$$= 1.4 \text{ cfs}$$

Disapproved – Timothy Rybarczyk
201191033 Submitted 05/04/2011 Reviewed 05/24/2011
Patio Cover
Timothy Rybarczyk: Plans Examiner.
(505) 924-3955

4411 Altura Ave NE
SFD 400 Sq.Ft. \$33,000
R-3-U VB 2006 IRC

Please provide the following:

1. All exterior lighting and receptacles shall be provided with GFI protection.

3609 ^{ConRADDO LN NW}
~~2012~~

82107

B ^{P#} 201392540

DRAINAGE AND TRANSPORTATION INFORMATION SHEET
(Rev. 12/05)

PROJECT TITLE: Lot, Rancho de Candelaria
ZONE MAP/DRG. FILE # G-13
DRB#: NA EPC#: NA WORK ORDER#: NA

LEGAL DESCRIPTION: Lot 7 - Rancho de Candelaria
CITY ADDRESS: 3609 Conrado NW

G-13 D-23A

ENGINEERING FIRM: GUY JACKSON & ASSOCIATES, LLC
ADDRESS: 10522 FLORENCE AVE. NE
CITY, STATE: Albuquerque, NM

CONTACT: GUY JACKSON, PE
PHONE: 235-1426
ZIP CODE: 87122

OWNER: Las Ventanas, NM, Inc
ADDRESS: PO Box 10600,
CITY, STATE: Albuquerque, NM

CONTACT: Scott Ashcraft
PHONE: 505-362-6824
ZIP CODE: 87184

ARCHITECT: NA
ADDRESS: NA
CITY, STATE: NA

CONTACT: NA
PHONE: NA
ZIP CODE: NA

SURVEYOR: Harris Surveying.
ADDRESS: 2412-D Monroe St. NE
CITY, STATE: ALBUQUERQUE, NM

CONTACT: Tony Harris
PHONE: 889-8645
ZIP CODE: 87109

CONTRACTOR: TBD
ADDRESS: _____
CITY, STATE: _____

CONTACT: _____
PHONE: _____
ZIP CODE: _____

TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
☒ DRAINAGE PLAN 1st SUBMITTAL
☒ DRAINAGE PLAN RESUBMITTAL
☐ CONCEPTUAL G & D PLAN
☒ GRADING PLAN
☐ EROSION CONTROL PLAN
☐ ENGINEER'S CERT (HYDROLOGY)
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT
☐ ENGINEER/ARCHITECT CERT (TCL)
☐ ENGINEER/ARCHITECT CERT (DRB S.P.)
☐ ENGINEER/ARCHITECT CERT (AA)
☐ OTHER (SPECIFY) _____

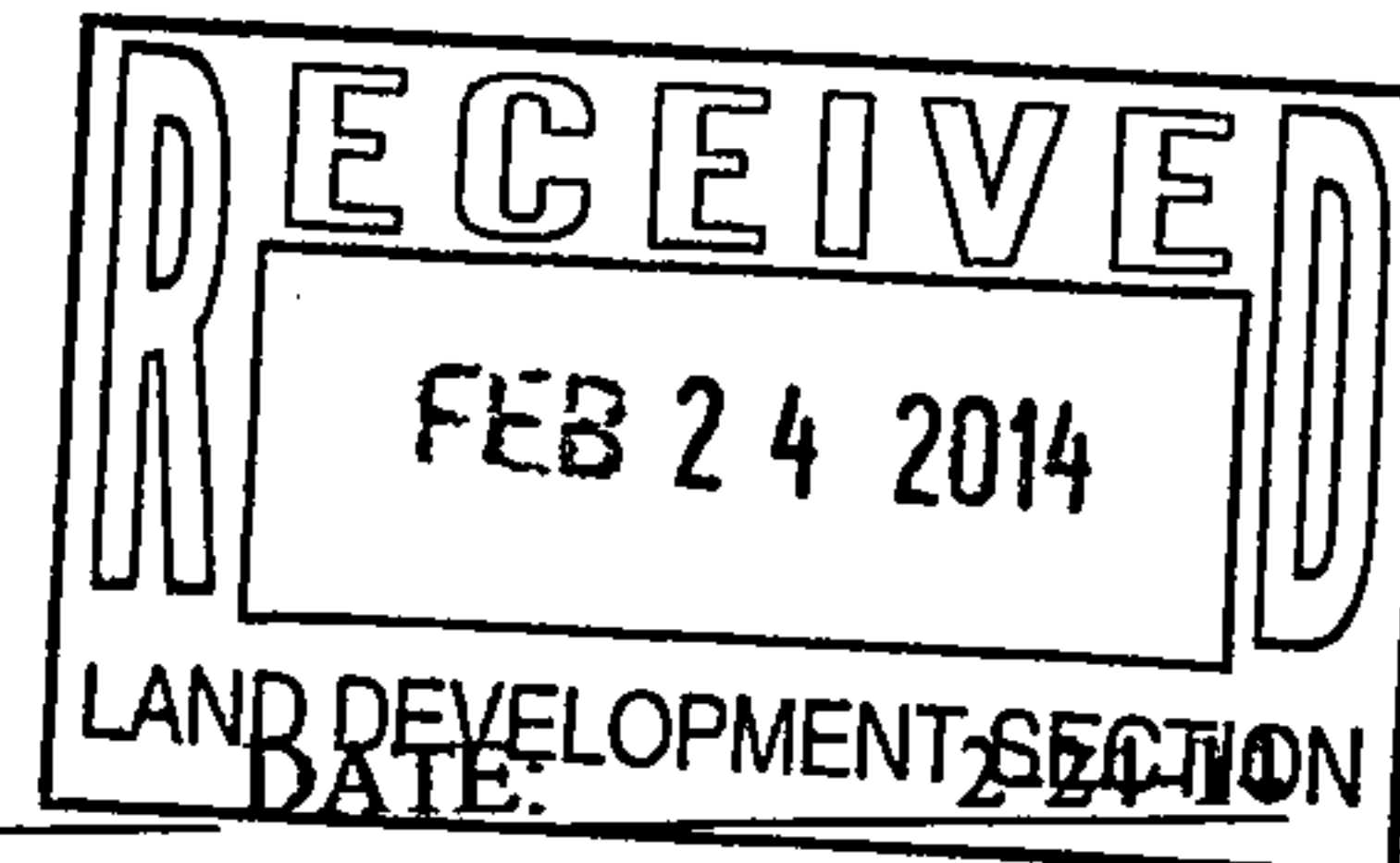
CHECK TYPE OF APPROVAL SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
☐ PRELIMINARY PLAT APPROVAL
☐ S. DEV. PLAN FOR SUB'D APPROVAL
☐ S. DEV. FOR BLDG. PERMIT APPROVAL
☐ SECTOR PLAN APPROVAL
☐ FINAL PLAT APPROVAL
☒ FOUNDATION PERMIT APPROVAL
☒ BUILDING PERMIT APPROVAL - R
☐ 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:

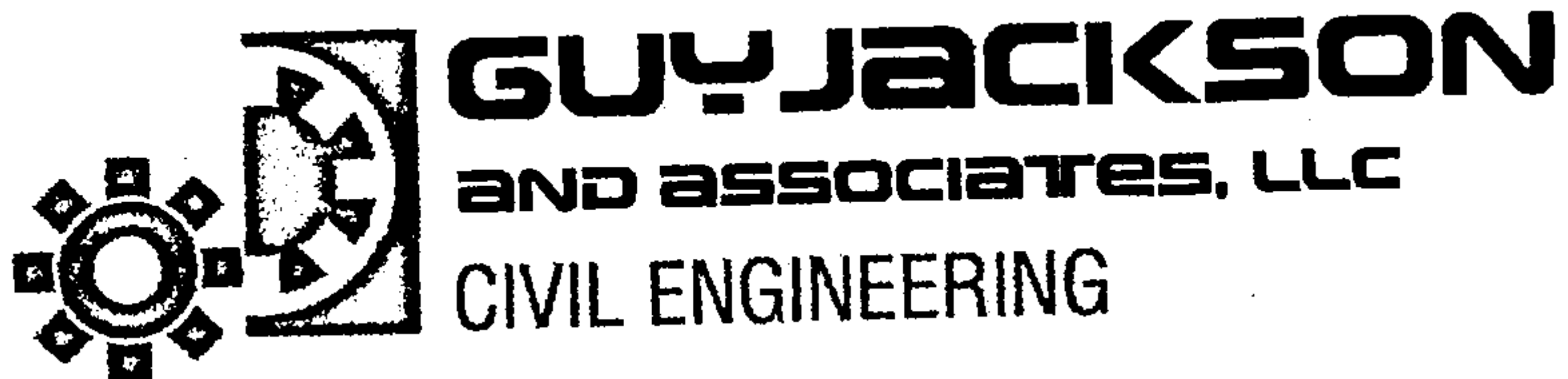
- ☐ YES
☒ NO
☐ COPY PROVIDED

SUBMITTED BY: GUY JACKSON, PE



Requests for approvals of Site Development Plans and/or Subdivision Plats shall be accompanied by a drainage submittal. The particular nature, location and scope to the proposed development define 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 (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 subdivision containing more than ten (10) lots or constituting five (5) acres or more.



February 24, 2014

Rudy Rael, PE
Plan Checker,
Hydrology Development Section
Development & Building Services
PO Box 1293
Albuquerque, New Mexico 87103

**Re: Lots 7, Rancho de Candelaria, NW, Albuquerque, NM
(Zone Atlas Map G-13)**

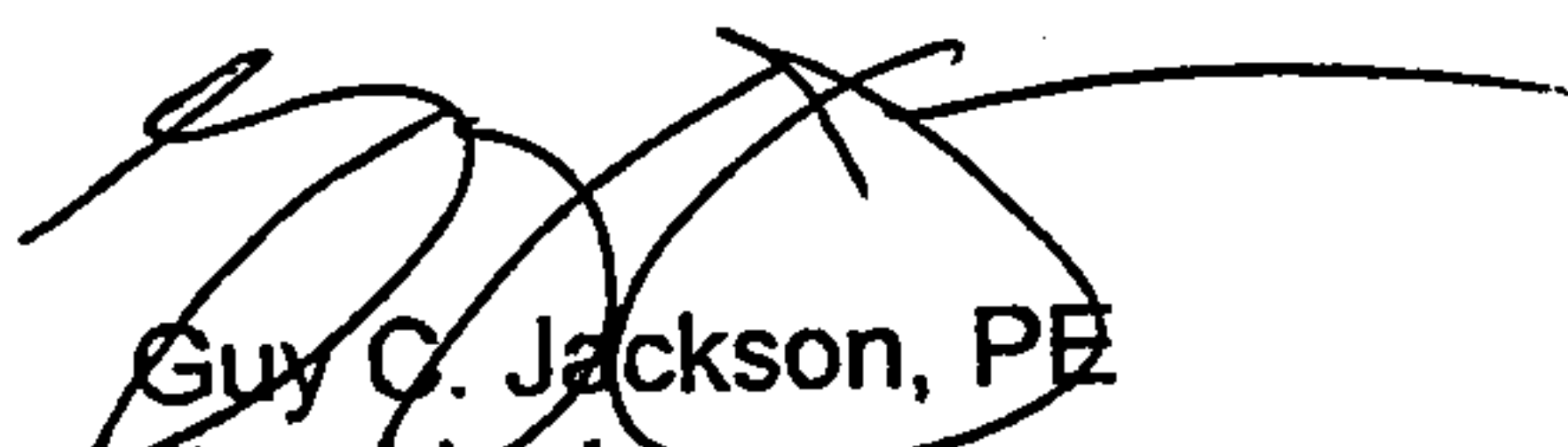
Dear Rudy:
Per our discussion yesterday, I'm providing the following revised material:
For Building Permit approval:

- One (1) drainage information sheet
- One (1) copy of the drainage & grading plan with revised notes, pond and drain pipe configurations
- One (1) copy of the drainage calculations, exhibits and spreadsheet

Please review the attached plan and accompanying master grading and drainage plan for the Ranch de Candelaria Subdivision prepared and certified by Richard Lovato dated 11/27/05.

Please contact me if you have any questions or comments.
Sincerely,

GUY JACKSON & ASSOCIATES, LLC


Guy C. Jackson, PE
President
10522 Florence Ave. NE
Albuquerque, NM 87122
505-235-1426

A. prop = 10890.93¢

0.25AC(G)

0.25AC(G)

0.25AC(G)



1

BASIN A

Zone 2

$$\text{TOTAL } 6792.07\text{¢} = .16\text{AC}$$

$$\begin{array}{r} \text{AC} = 3848.60 \\ + 169.31 \\ \hline 4017.91 \end{array}$$

$$\text{AD} = 2772.08$$

41% D

59% C

$$.59 \times 0.16 \text{AC} = 0.09 \text{AC (C)} \quad .41 \times .16 \text{AC} = 0.07 \text{AC (D)}$$

BASIN B

$$\text{TOTAL} = 4101.03\text{¢} = 0.09\text{AC}$$

$$\begin{array}{r} \text{AC} = 106.89 \\ + 236.70 \\ + 382.53 \\ + 1180.23 \\ \hline 1906.35\text{¢} \end{array}$$

46% C

$$.46 \times 0.09 = .04 \text{AC (C)}$$

$$\begin{array}{r} \text{AD} = 1105.81 \\ + 421.49 \\ \hline 655.61 \\ \hline 2182.91 \end{array}$$

53% D

$$.53 \times .09 = .05 \text{AC (D)}$$

$$\text{TOTAL} = 10890.75\text{¢}$$

TOTAL BASINS

$$\begin{array}{r} 4017.91 \\ + 1906.35 \\ \hline 5924.26\text{¢} \end{array}$$

54% C

$$\begin{array}{r} 2772.08 \\ + 2182.91 \\ \hline 4954.99\text{¢} = 0.11575\text{AC} \end{array}$$

45% D ✓

meets master grading
& drainage plan (3-9-04) County
requirements.

10042-10 DAY STORM

ZONE KLAS G-13

$$P_{1440} = 2.6 \text{ in} \\ (24 \text{ hr}) \quad (\text{figure 22.2})$$

$$P_{360} = 2.2 \text{ in} \\ (6 \text{ hr}) \quad (\text{figure 22.2})$$

$$P_{10} = 10 - (24.9 / P_{1440})^{1.4}$$

$$= 10 - 24.9 / 3.81$$

$$= 3.47 \text{ in}$$

$$V_{10 \text{ DAY}} = V_{360} + \left[A_D * (P_{10} - P_{360}) / 12 \text{ in/ft} \right]$$

$$= 0.03 + \left[.11375 * (3.47 - 2.2) / 12 \text{ in/ft} \right]$$

$$= 0.03 + 0.012 = 0.042 \text{ AC-FT} \\ = 1829.5 \text{ CF (REQUIRED)}$$

Volume Provided (SEE SHEET 4/9)

POND VOLUME

POND A

$$65.5: A = 10097$$

$$67: A = 15107$$

$$\begin{aligned} V &= \frac{10097 + 15107}{2} (1.5') \\ &= 18897 \text{ CF} \end{aligned}$$

POND B VOL

$$66: A = 327$$

$$67: A = 1877$$

$$V = \frac{327 + 1877}{2} (1.5) = 557 \text{ CF}$$

$$V_{\text{TOTAL PROVIDED}} = 1944 \text{ CF}$$

$$V_{\text{TOTAL REQUIRED}} (\text{see sheet 3/9}) = 1830 \text{ CF}$$

$$V_{\text{PROVIDED}} > V_{\text{REQUIRED}}$$

$$\text{WSEL} \Rightarrow \frac{1944 - 1166}{1} = \frac{1830 - 1166}{d}$$

$$d = 0.85$$

$$(V_{\text{today}}) \text{ WSEL} = 66.85$$

Drainage Summary

Drainage Summary

Project: Lot 7 Rancho de Candelaria
 Project Number:
 Date: 02/20/14
 By: GJA

Site Location

Precipitation Zone

2 Per Table A-1 COA DPM Section 22.2

Existing summary

Basin Name	Basin A	Basin B				TOTAL
Soil Treatment (acres)						
Area "A"	0.00	0.00	0.00	0.00	0.00	0.00
Area "B"	0.00	0.00	0.00	0.00	0.00	0.00
Area "C"	0.125	0.125	0.00	0.00	0.00	0.25
Area "D"	0.00	0.00	0.00	0.00	0.00	0.00
TOTAL	0.125	0.125	0.00	0.00	0.00	0.25
Excess Runoff (acre-feet)						
100yr. 6hr.	0.01	0.01	#DIV/0!	#DIV/0!	#DIV/0!	0.024
10yr. 6hr.	0.01	0.01	#DIV/0!	#DIV/0!	#DIV/0!	0.01
2yr. 6hr.	0.00	0.00	#DIV/0!	#DIV/0!	#DIV/0!	0.00
100yr. 24hr.	0.01	0.01	#DIV/0!	#DIV/0!	#DIV/0!	0.02
TOTAL	0.03	0.03	#DIV/0!	#DIV/0!	#DIV/0!	0.06
Peak Discharge (cfs)						
100 yr.	0.39	0.39	0.00	0.00	0.00	0.79
10yr.	0.21	0.21	0.00	0.00	0.00	0.43
2yr.	0.08	0.08	0.00	0.00	0.00	0.15
TOTAL	0.68	0.68	0.00	0.00	0.00	1.36

Proposed summary

Basin Name	Basin A(Dev)	Basin B(Dev)				TOTAL
Soil Treatment (acres)						
Area "A"	0.00	0.00	0.00	0.00	0.00	0.00
Area "B"	0.00	0.00	0.00	0.00	0.00	0.00
Area "C"	0.095	0.05	0.00	0.00	0.00	0.15
Area "D"	0.060	0.04	0.00	0.00	0.00	0.10
TOTAL	0.16	0.09	0.00	0.00	0.00	0.25
Excess Runoff (acre-feet)						
100yr. 6hr.	0.02	0.01	#DIV/0!	#DIV/0!	#DIV/0!	0.031
10yr. 6hr.	0.01	0.01	#DIV/0!	#DIV/0!	#DIV/0!	0.02
2yr. 6hr.	0.01	0.00	#DIV/0!	#DIV/0!	#DIV/0!	0.01
100yr. 24hr.	0.02	0.01	#DIV/0!	#DIV/0!	#DIV/0!	0.03
TOTAL	0.06	0.03	#DIV/0!	#DIV/0!	#DIV/0!	0.09
Peak Discharge (cfs)						
ps	0.58	0.35	0.00	0.00	0.00	0.93
10yr.	0.35	0.21	0.00	0.00	0.00	0.56
2yr.	0.17	0.10	0.00	0.00	0.00	0.27
TOTAL	1.10	0.66	0.00	0.00	0.00	1.76

Existing hyd.

GJA, LLC

Civil Engineering

PROJECT Lot 7 Rancho de Candelaria
PROJECT NO.
DATE 02/20/14
BY GJA

DPM Section 22.2 - Hydrology

Part A-Watersheds less than 40 acres.
January, 1993

INSTRUCTIONS

- * Spread sheet requires three input areas (dark cells):
 - Location
 - >A.1 Precipitation Zone
 - >A.3 Land Treatments
- * Values from the tables are automatically placed using "if" statements.
- * Table values should be checked for correctness for each use.

SUMMARY

Location	0	Basin A	Basin B			TOTALS	
Precipitation Zone		2	2	2	2	2	
Land Area		0.13	0.13	0.00	0.00	0.25	acres
Excess Precipitation Volume							
>>> 100-year 6-hour (design)		0.01	0.01	#DIV/0!	#DIV/0!	0.02	acre-ft.
10-year 6-hour		0.01	0.01	#DIV/0!	#DIV/0!	0.01	acre-ft.
2-year 6-hour		0.00	0.00	#DIV/0!	#DIV/0!	0.00	acre-ft.
100-year 24-hour		0.01	0.01	#DIV/0!	#DIV/0!	0.02	acre-ft.
Peak Discharge Rates (DPM)							
>>> Q100 (design)		0.39	0.39	0.00	0.00	0.79	cfs
Q10		0.21	0.21	0.00	0.00	0.43	cfs
Q2		0.08	0.08	0.00	0.00	0.15	cfs

CALCULATIONS FOLLOW

6/9

Existing hyd.

INPUT AND CALCULATIONS

LOCATION		Basin A	Basin B				
>A.1 PRECIPITATION ZONE (from Table A-1)		2	2	2	2	2	
>A.2 DEPTHS							TOTALS
(from Table A-2)							
100-YEAR STORM (P60)		2.01	2.01	2.01	2.01	2.01	inches
100-YEAR STORM (P360)		2.35	2.35	2.35	2.35	2.35	inches
100-YEAR STORM (P1440)		2.75	2.75	2.75	2.75	2.75	inches
10-YEAR (P360) (Calculated: P360*RPF10)		1.57	1.57	1.57	1.57	1.57	inches
2-YEAR (P360) (Calculated: P360*RPF2)		1.02	1.02	1.02	1.02	1.02	inches
>A.3 LAND TREATMENTS (AI)							
Treatment A		0.00	0.00	0.00	0.00	0.00	acres
Treatment B		0.00	0.00	0.00	0.00	0.00	acres
Treatment C		0.13	0.13	0.00	0.00	0.25	acres
Treatment D		0.00	0.00	0.00	0.00	0.00	acres
Total Area		0.13	0.13	0.00	0.00	0.25	acres
>A.4 ABSTRACTIONS		See A.5	See A.5	See A.5	See A.5	See A.5	

CALCULATIONS FOLLOW

6/1

Existing hyd.

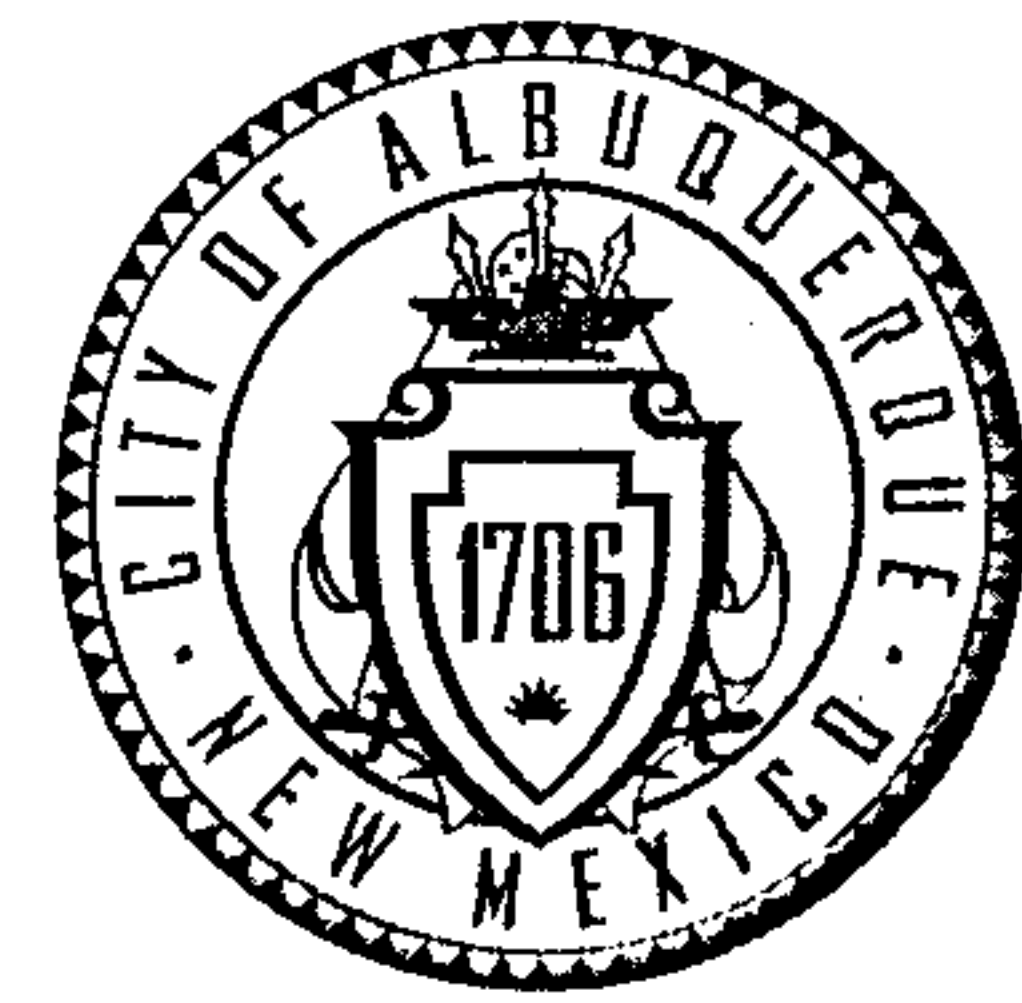
INPUT AND CALCULATIONS (CON'T)

>A.6 PEAK DISCHARGE RATE FOR SMALL WATERSHEDS (QI) from Table A-9						
100-year						
Treatment A	1.56	1.56	1.56	1.56	1.56	cfs/acre
Treatment B	2.28	2.28	2.28	2.28	2.28	cfs/acre
Treatment C	3.14	3.14	3.14	3.14	3.14	cfs/acre
Treatment D	4.70	4.70	4.70	4.70	4.70	cfs/acre
Q100 (Sum QI*AI)	0.39	0.39	0.00	0.00	0.79	cfs
=====						
10-year						
Treatment A	0.38	0.38	0.38	0.38	0.38	cfs/acre
Treatment B	0.95	0.95	0.95	0.95	0.95	cfs/acre
Treatment C	1.71	1.71	1.71	1.71	1.71	cfs/acre
Treatment D	3.14	3.14	3.14	3.14	3.14	cfs/acre
Q10 (Sum QI*AI)	0.21	0.21	0.00	0.00	0.43	cfs
=====						
2-year						
Treatment A	0.00	0.00	0.00	0.00	0.00	cfs/acre
Treatment B	0.08	0.08	0.08	0.08	0.08	cfs/acre
Treatment C	0.60	0.60	0.60	0.60	0.60	cfs/acre
Treatment D	1.86	1.86	1.86	1.86	1.86	cfs/acre
Q2 (Sum QI*AI)	0.08	0.08	0.00	0.00	0.15	cfs
=====						

CALCULATIONS FOLLOW

6/6

CITY OF ALBUQUERQUE



November 25, 2014

Guy Jackson, PE
Guy Jackson & Associates, LLC
10522 Florence Ave NE
Albuquerque, NM 87122

**Re: Lot 7 Rancho De Candelaria
3609 Conrado NW
Request Permanent C.O. - Accepted
Engineer's Stamp dated: 7-6-14 (G13D023A)
Certification dated: 11-22-14**

Dear Mr. Jackson,

Based on the Certification received 11/23/2014, the site is acceptable for release of Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3695 or Rudy Rael at 924-3977.

PO Box 1293

Albuquerque

New Mexico 87103

Sincerely,

Curtis Cherne, P.E.
Principal Engineer, Planning Dept.
Development and Review Services

www.cabq.gov

C: RR/CC
email