

# CITY OF ALBUQUERQUE

*Planning Department*  
Suzanne Lubar, Director



*Mayor Richard J. Berry*

February 23, 2017

Fred C. Arfman, P.E.  
Isaacson & Arfman, PA  
128 Monroe St NE  
Albuquerque, NM 87108

**Re:**

**Elan-Santa Monica Place Senior Assisted Living/Memory Care  
6901 San Vicente Ave. NE  
Request Permanent C.O. - Accepted  
Engineer's Stamp dated: 10-16-15 (D18D054B)  
Certification dated: 2-10-17**

PO Box 1293

Albuquerque

New Mexico 87103

[www.cabq.gov](http://www.cabq.gov)

Dear Mr. Arfman,

Based upon the information provided in your submittal received 2/23/20167, the above referenced Certification received is acceptable for the release of permanent Certificate of Occupancy by Hydrology.

If you have any questions, you can contact me at 924-3999 or Totten Elliott at 924-3982.

Sincerely,

Shahab Biazar, P.E.  
City Engineer, Planning Dept.  
Development Review Services

TE/SB

C: email, Cordova, Camille C.; Miranda, Rachel; Sandoval, Darlene M.; Blocker, Lois



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Elan - Santa Monica Place (Senior Assisted Living/Memory Care) Building Permit #: \_\_\_\_\_ City Drainage #: D18/D054B

DRB#: 1003916 EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_

Legal Description: The Eastern Portion of Tract 3, Santa Monica Place

City Address: 6901 San Vicente Ave. NE - Albuquerque, NM 87109

Engineering Firm: Isaacson & Arfman, P.A. Contact: Fred C. Arfman

Address: 128 Monroe Street NE - Albuquerque, NM 87108

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

Owner: Titan Senior Living Contact: Kurt Browning

Address: 6300 Riverside Plaza Lane NW, Suite 200 - Albuquerque, NM 87120

Phone#: (505) 998-0163 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Architect: D 2 Architecture, LLC Contact: \_\_\_\_\_

Address: 2201 North Lamar Street, Suite 300 - Dallas, TX 75202

Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Other Contact: Terra Land Surveys, LLC (As-Builts) Contact: Christopher A. Medina

Address: 4436 Corrales Road -- Corrales, NM 87048

Phone#: (505) 792-0513 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Check all that Apply:

**DEPARTMENT:**

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

**CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:**

- ☐ BUILDING PERMIT APPROVAL  
☒ CERTIFICATE OF OCCUPANCY

**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) \_\_\_\_\_

☐ 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

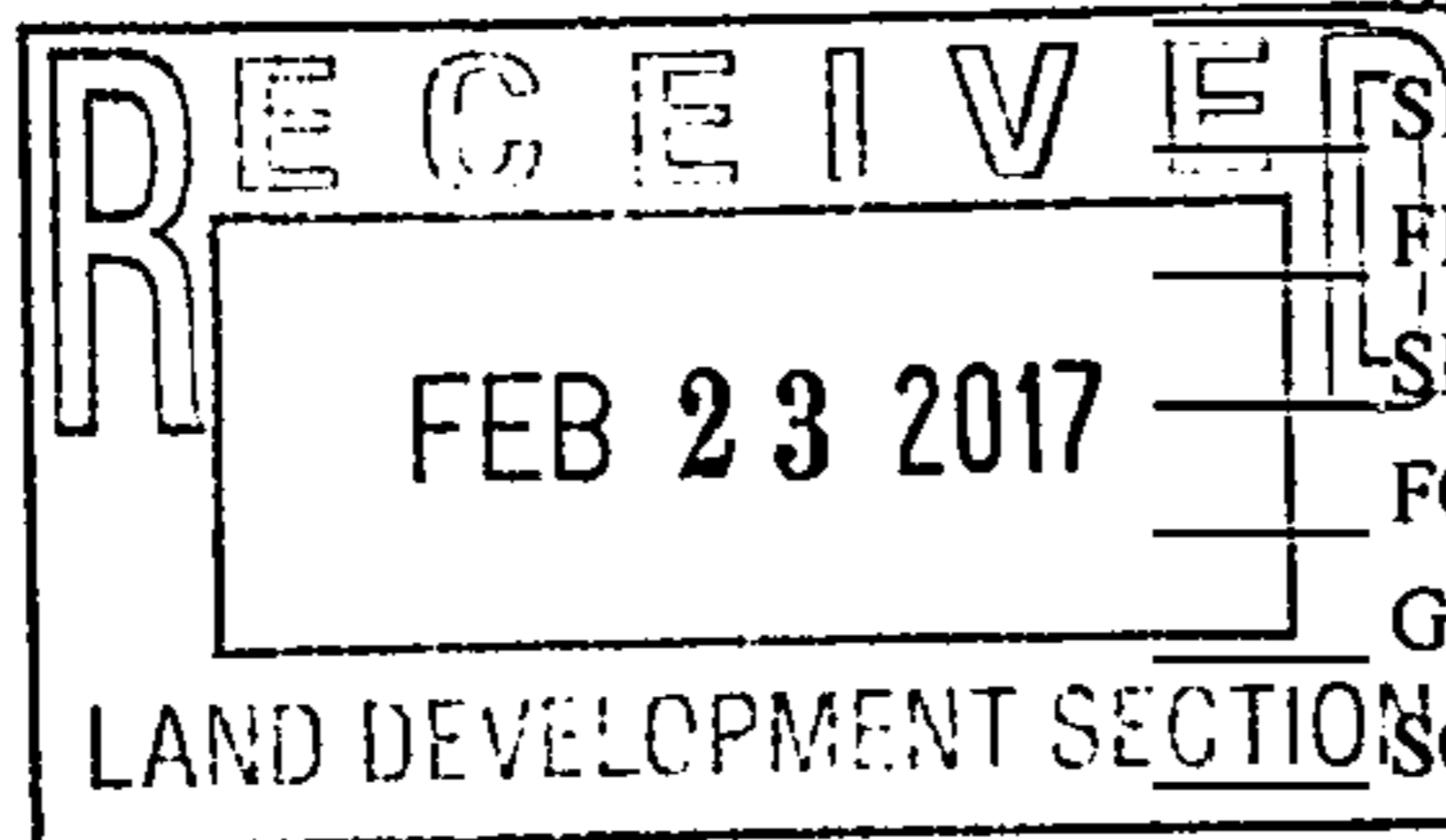
☐ PRE-DESIGN MEETING

☐ OTHER (SPECIFY) \_\_\_\_\_

IS THIS A RESUBMITTAL?: ☒ Yes ☐ No

DATE SUBMITTED: February 23, 2017 By: Fred C. Arfman

COA STAFF: \_\_\_\_\_ ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_



# CITY OF ALBUQUERQUE



February 14, 2017

Fred C. Arfman, P.E.  
Isaacson & Arfman, PA  
128 Monroe St NE  
Albuquerque, NM 87108

**Re: Elan-Santa Monica Place Senior Assisted Living/Memory Care  
6901 San Vicente Ave. NE  
Request for Temporary 60-Day CO – Accepted  
Engineer's Stamp dated: 10-16-15 (D18D054B)  
Certification dated: 2-10-17**

Dear Mr. Arfman,

Based on the certification provided in your submittal received 2/10/2017, the above referenced is approved for a 60-day Temporary Release of Occupancy by Hydrology. However, before a permanent CO can be accepted the following comments must be addressed.

PO Box 1293

Albuquerque

- Note #18 - 4" pipes from pond thru perimeter wall to curb are missing.
- Two (2) curb cuts are missing at far SW corner.
- Inlet is missing at note #8 - depressed landscaping area in middle of East side.

An inspection by our office will need to take place after these corrections are made.

New Mexico 87103

If you have any questions, you can contact me at 924-3999 or Totten Elliott at 924-3982.

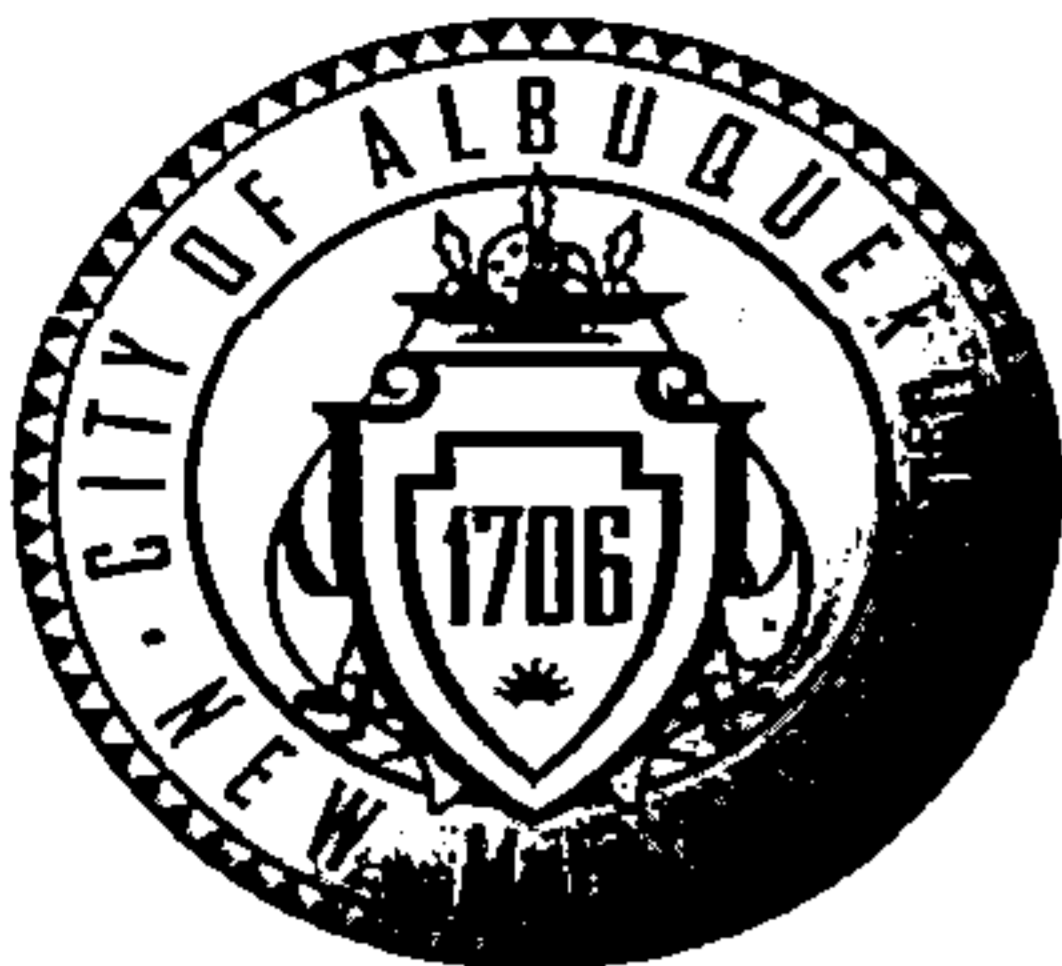
[www.cabq.gov](http://www.cabq.gov)

Sincerely,

Shahab Biazar, P.E.  
City Engineer, Planning Dept.  
Development Review Services

TE/SB

C: email, Cordova, Camille C.; Connor, Miranda, Rachel; Sandoval, Darlene M.;  
Blocker, Lois



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Elan - Santa Monica Place (Senior Assisted Living/Memory Care) Building Permit #: \_\_\_\_\_ City Drainage #: D18/D054B

DRB#: 1003916 EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_

Legal Description: The Eastern Portion of Tract 3, Santa Monica Place

City Address: \_\_\_\_\_

Engineering Firm: Isaacson & Arfman, P.A. Contact: Fred C. Arfman

Address: 128 Monroe Street NE - Albuquerque, NM 87108

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

Owner: Titan Senior Living Contact: Kurt Browning

Address: 6300 Riverside Plaza Lane NW, Suite 200 - Albuquerque, NM 87120

Phone#: (505) 998-0163 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Architect: D2 ARCHITECTURE Contact: PATRICK DONNELL

Address: \_\_\_\_\_

Phone#: 972-672-7760 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

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

Address: 9384 Valley View Drive NW - Albuquerque, NM 87114

Phone#: (505) 897-3366 Fax#: (505) 897-3377 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

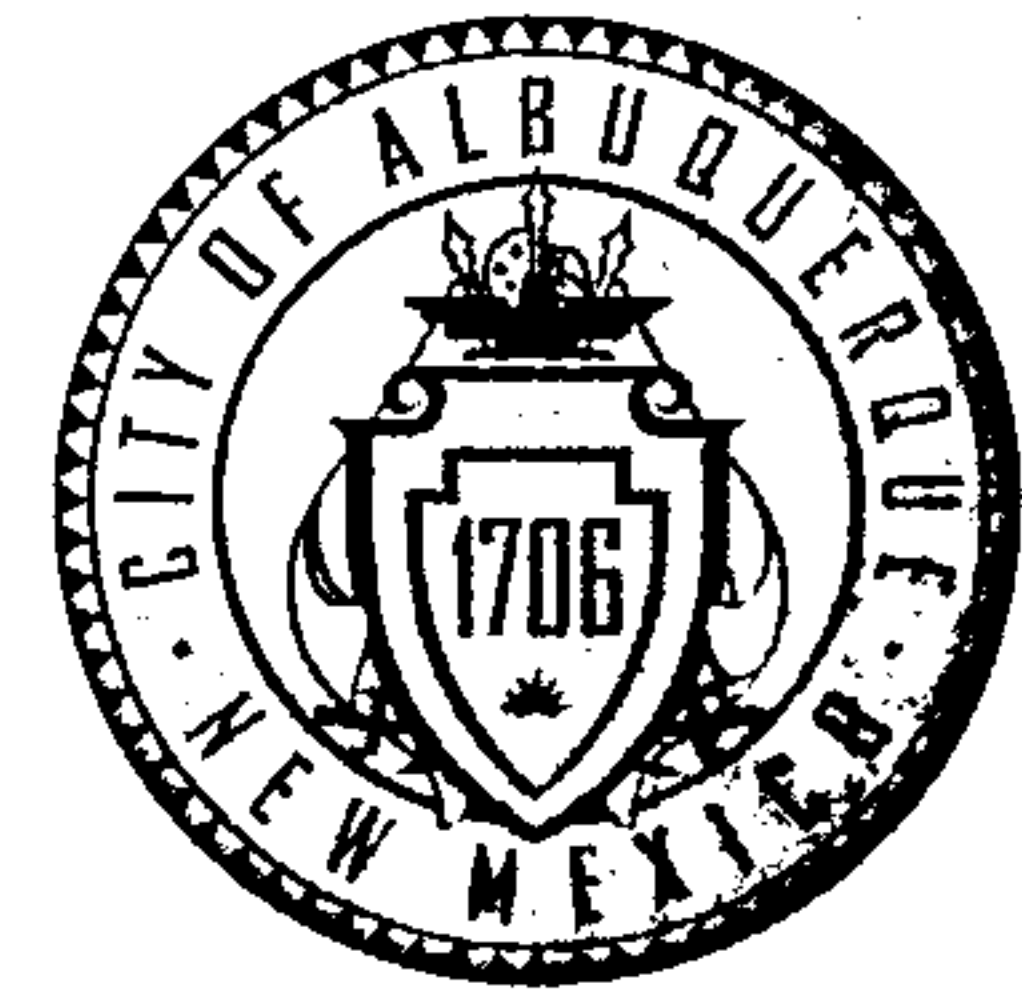
☐ OTHER (SPECIFY) \_\_\_\_\_

IS THIS A RESUBMITTAL?: ☐ Yes ☒ No

DATE SUBMITTED: February 10, 2017 By: Fred C. Arfman

COA STAFF: \_\_\_\_\_ ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

# CITY OF ALBUQUERQUE



February 14, 2017

Fred Arfman R.A.  
Isaacson & Arfman, P.A.  
128 Monroe St NE  
Albuquerque, NM 87108

**Re: Elan – Santa Monica Pl, 6901 San Vicente Ave Ne**  
**Request for Certificate of Occupancy- Transportation Development**  
Engineer's/Architect's Stamp dated 10-30-14 (D18-D054B)  
Certification dated 02-14-17

Dear Mr. Arfman,

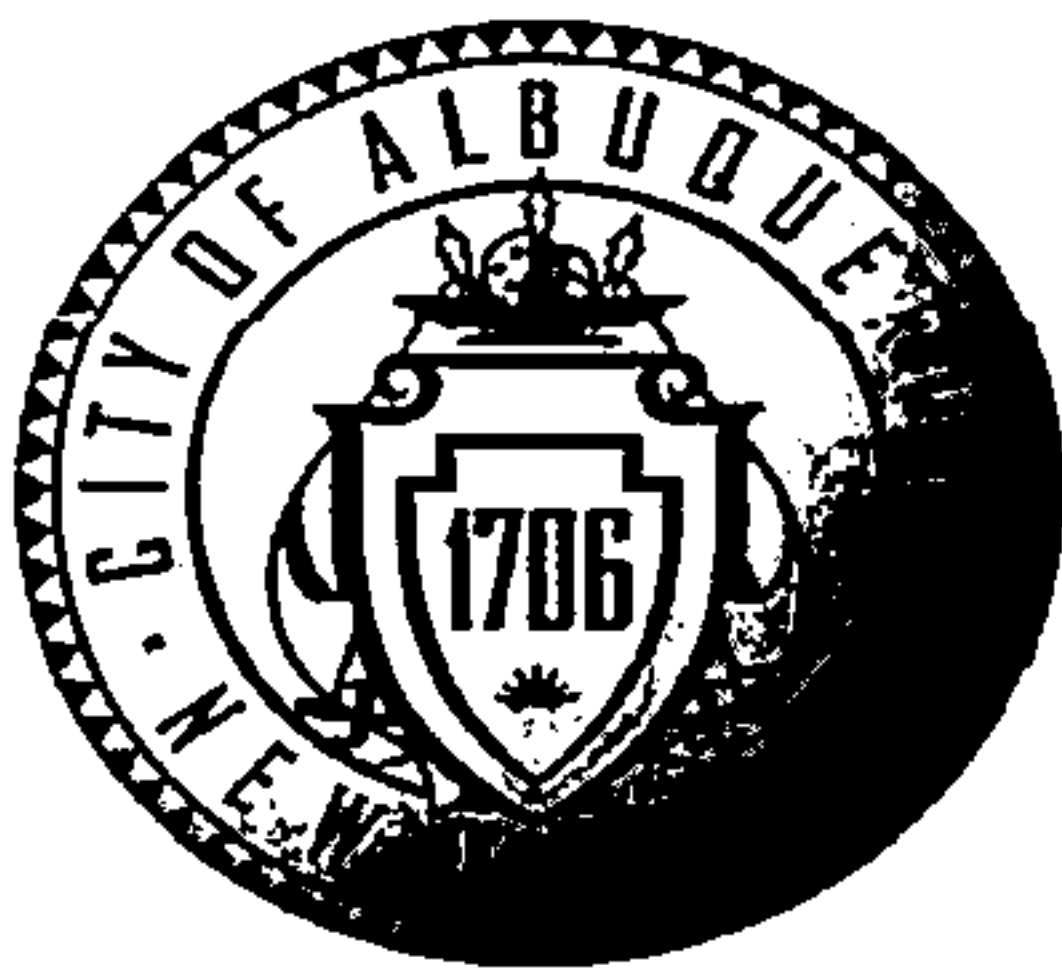
Based upon the information provided in your submittal received 02-14-17, Transportation Development has no objection to the issuance of a Permanent Certificate of Occupancy. This letter serves as a "green tag" from Transportation Development for a Permanent Certificate of Occupancy to be issued by the Building and Safety Division.

If you have any questions, please contact me at (505) 924-3630.

Sincerely,

Logan Patz  
Senior Engineer, Planning Dept.  
Development Review Services

LWP via: email  
C: CO Clerk, File



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 09/2015)

Project Title: Elan - Santa Monica Place (Senior Assisted Living/Memory Care) Building Permit #: \_\_\_\_\_ City Drainage #: D18/D054B

DRB#: 1003916 EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_

Legal Description: The Eastern Portion of Tract 3, Santa Monica Place

City Address: 6901 SAN VICENTE AVE. NE

Engineering Firm: Isaacson & Arfman, P.A. Contact: Fred C. Arfman

Address: 128 Monroe Street NE - Albuquerque, NM 87108

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

Owner: Titan Senior Living Contact: Kurt Browning

Address: 6300 Riverside Plaza Lane NW, Suite 200 - Albuquerque, NM 87120

Phone#: (505) 998-0163 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Architect: DZ ARCHITECTURE, LLC Contact: \_\_\_\_\_

Address: 2001 N. LAMAR ST. DALLAS, TX 75202

Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Other Contact: Surv-Tek, Inc. (CHRISTOPHER MEDINA - AS-BUILTS) Contact: Russ P. Hugg CHRIS MEDINA

Address: 9384 Valley View Drive NW - Albuquerque, NM 87114

Phone#: (505) 897-3366 Fax#: (505) 897-3377 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) \_\_\_\_\_

IS THIS A RESUBMITTAL?: ☐ Yes ☒ No

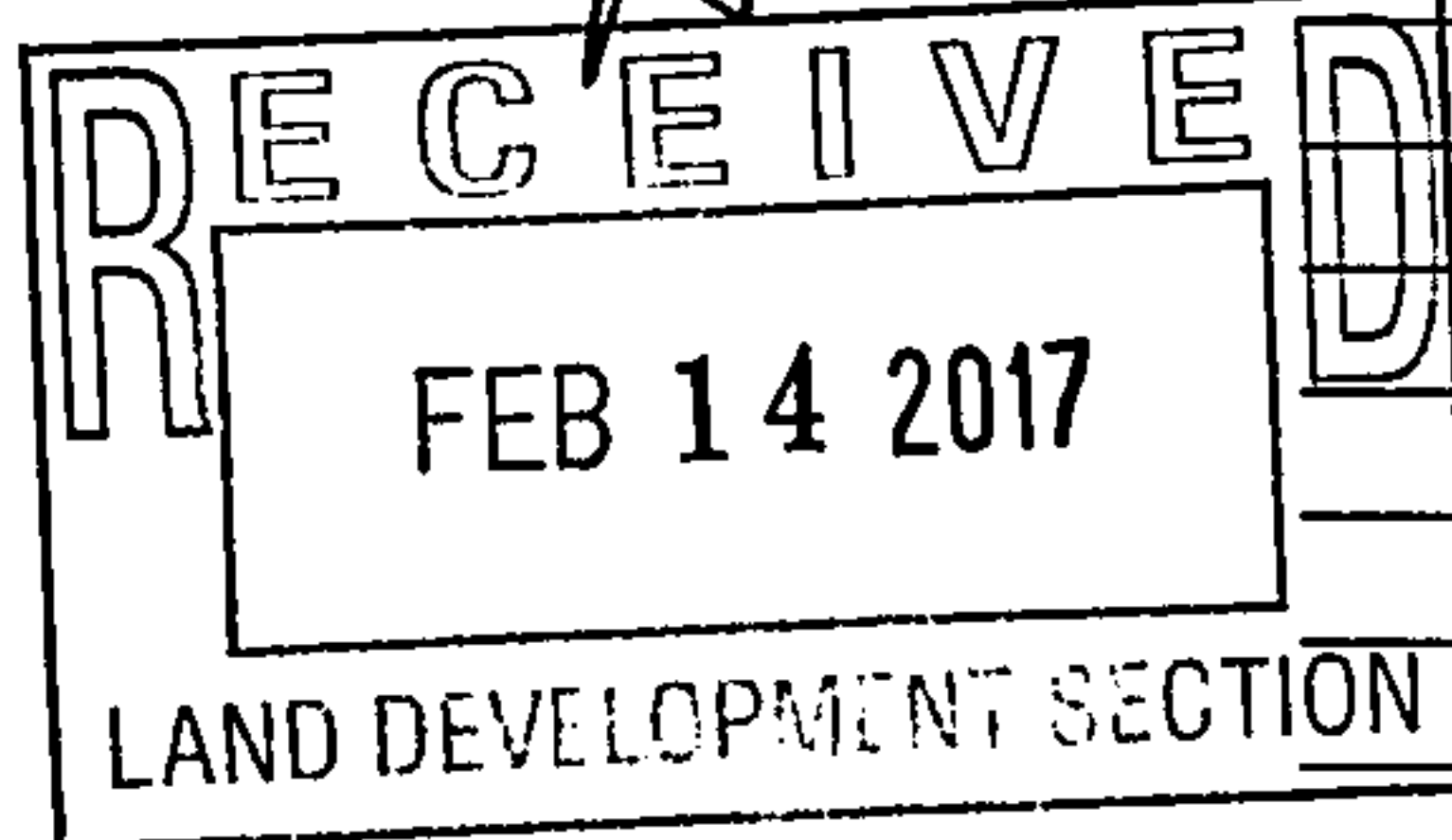
DATE SUBMITTED: February 14, 2017 By: Fred C. Arfman

### CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

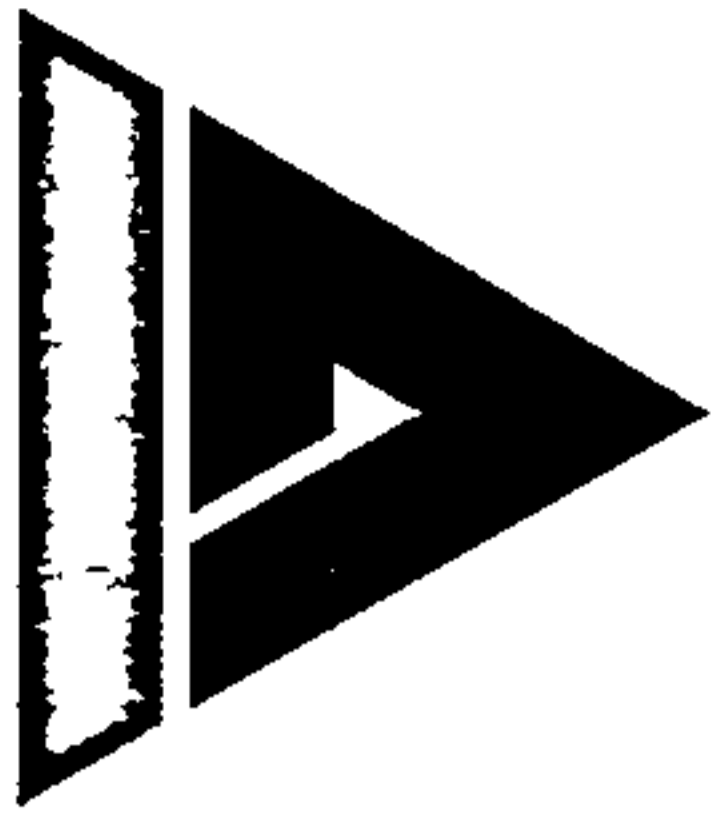
- ☐ BUILDING PERMIT APPROVAL  
☒ CERTIFICATE OF OCCUPANCY

- ☐ 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) \_\_\_\_\_



COA STAFF: ELECTRONIC SUBMITTAL RECEIVED: \_\_\_\_\_

**TRAFFIC CERTIFICATION**

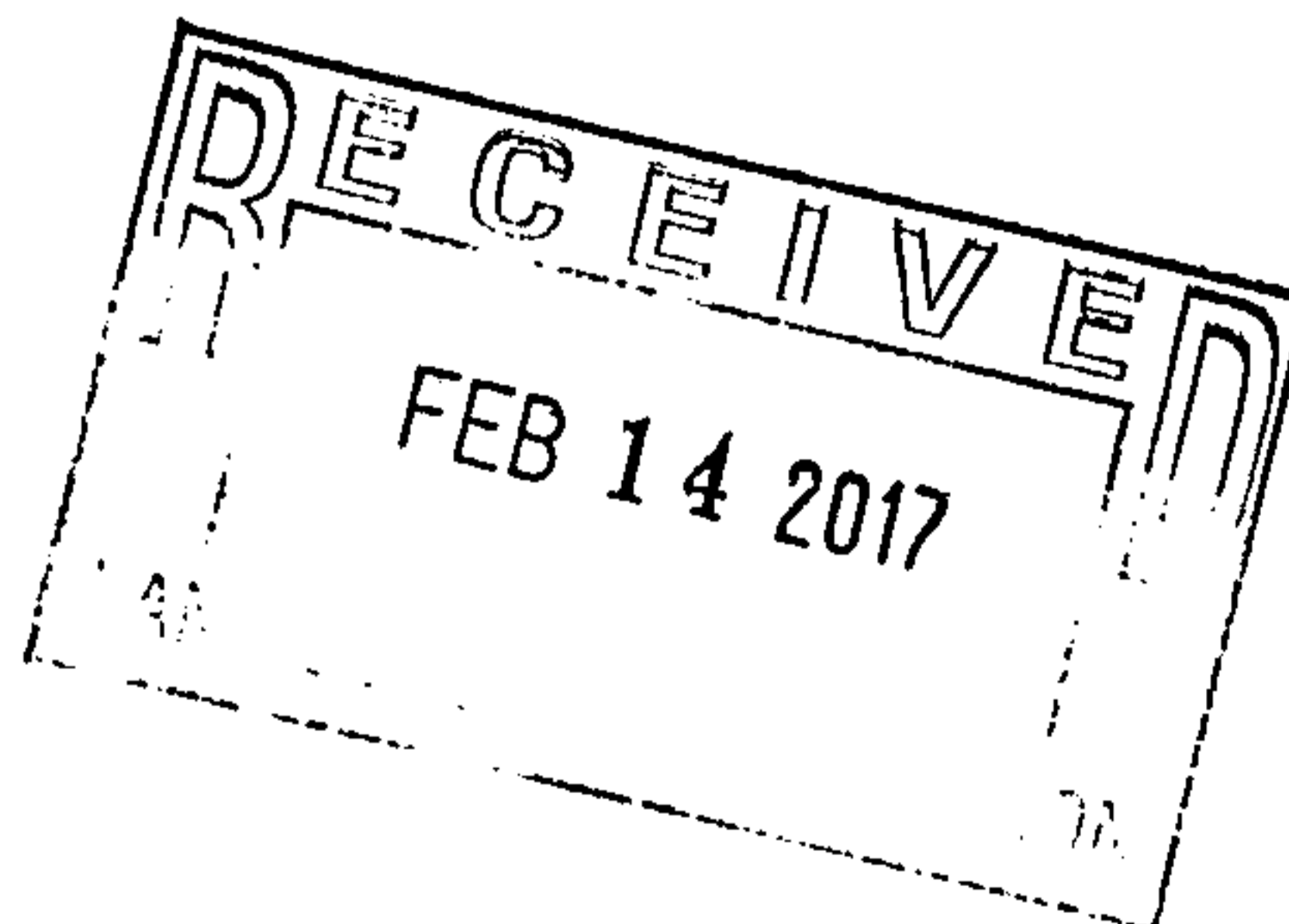
I, **Fred C. Arfman**, NMPE No. **7322** OF THE FIRM Isaacson & Arfman, PA, HEREBY CERTIFY THAT THIS PROJECT IS IN SUBSTANTIAL COMPLIANCE WITH AND IN ACCORDANCE WITH THE DESIGN INTENT OF THE DRB APPROVED PLAN DATED **October 14, 2014**. THE RECORD INFORMATION EDITED ONTO THE ORIGINAL DESIGN DOCUMENT HAS BEEN OBTAINED BY **Fred C. Arfman** OF THE FIRM **Isaacson & Arfman, PA**. I FURTHER CERTIFY THAT I HAVE PERSONALLY VISITED THE PROJECT SITE ON **February 13, 2017** AND HAVE DETERMINED BY VISUAL INSPECTION THAT THE SURVEY DATA PROVIDED IS REPRESENTATIVE OF ACTUAL SITE CONDITIONS AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. THIS CERTIFICATION IS SUBMITTED IN SUPPORT OF A REQUEST FOR **PERMANENT CERTIFICATE OF OCCUPANCY**.

THE RECORD INFORMATION PRESENTED HEREON IS NOT NECESSARILY COMPLETE AND INTENDED ONLY TO VERIFY SUBSTANTIAL COMPLIANCE OF THE TRAFFIC ASPECTS OF THIS PROJECT. THOSE RELYING ON THE RECORD DOCUMENT ARE ADVISED TO OBTAIN INDEPENDENT VERIFICATION OF ITS ACCURACY BEFORE USING IT FOR ANY OTHER PURPOSE.

  
Fred C. Arfman, PE No. 7322



February 14, 2017  
Date





Fred Arfman &lt;freda@iacivil.com&gt;

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**Elan Assisted Living Facility (D18/D054B)**

1 message

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**Fred Arfman** <freda@iacivil.com>  
To: plndrs@cabq.gov

Tue, Feb 14, 2017 at 9:42 AM

City Transportation Division,

Here attached is the Traffic Certification prepared by our office for the referenced project.

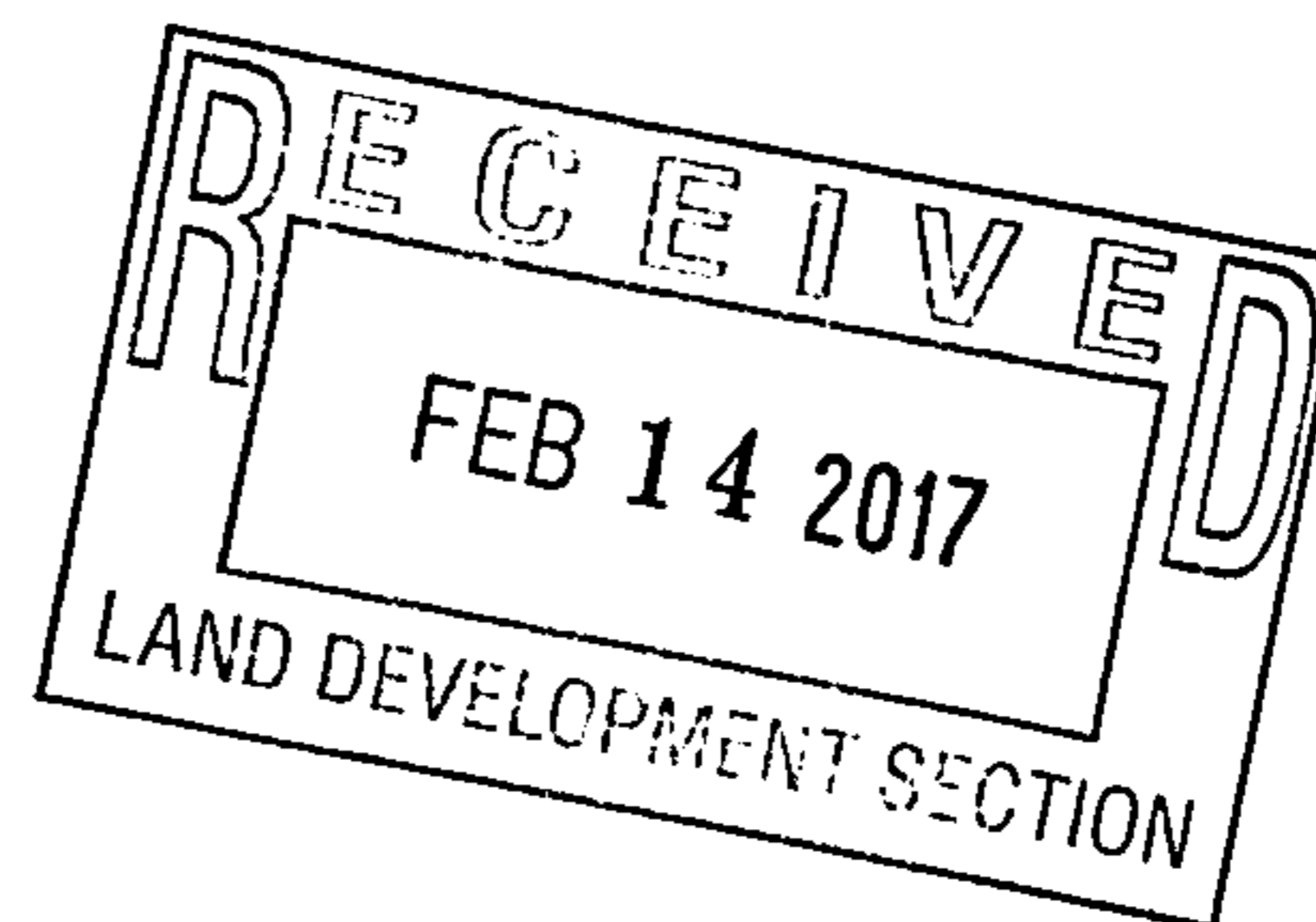
Please reply if additional information is required to secure the Permanent CO from Transportation.

Thanks,

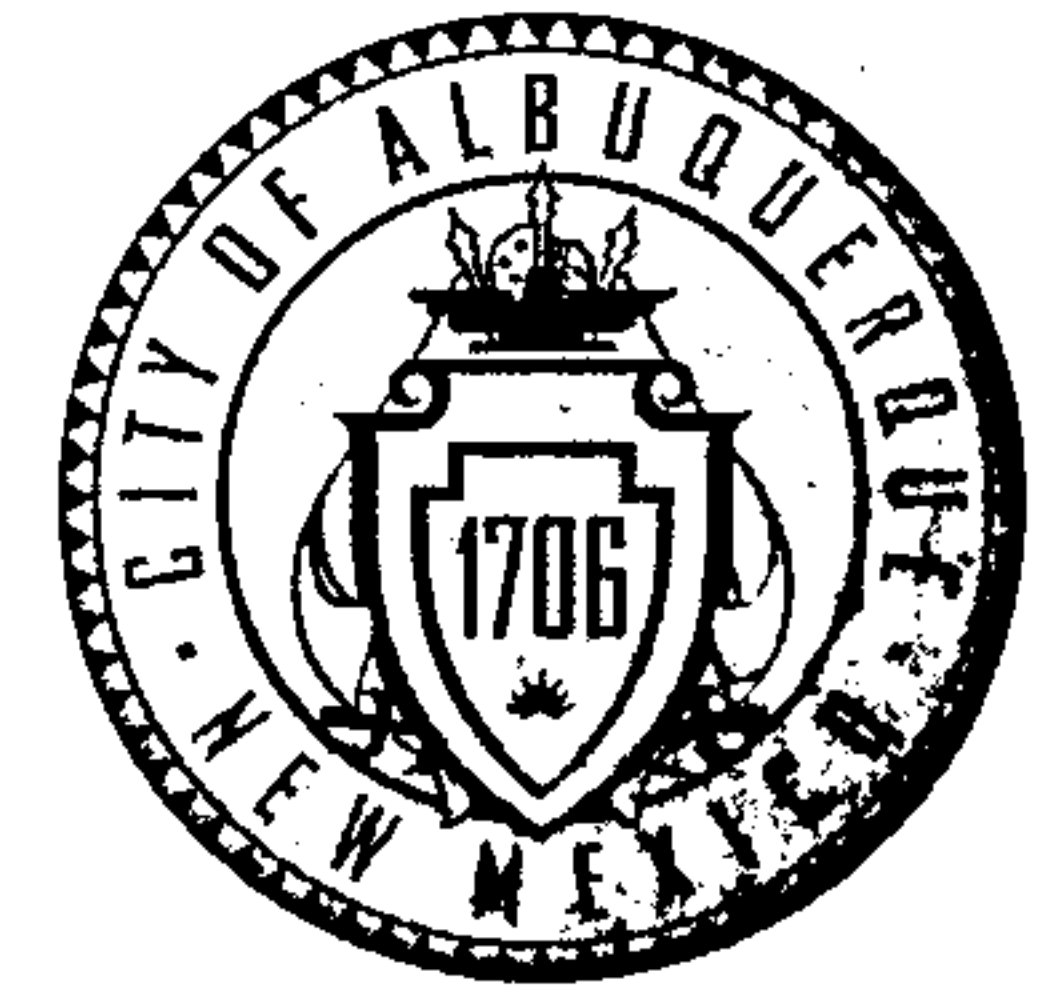
Fred

Fred  
**Fred C. Arfman, P.E.**  
**Principal/ President**  
Isaacson & Arfman, P.A.  
Consulting Engineering Associates  
128 Monroe St. N.E.  
Albuquerque, NM 87108  
Phone: (505)268-8828  
Fax: (505)268-2632  
email: freda@iacivil.com

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**2 attachments** **2017 02-14 Site Plan Traf. Cert..pdf**  
3655K **2017 02-14 Traffic Cert Stamped.pdf**  
351K

# CITY OF ALBUQUERQUE



November 24, 2015

Richard J. Berry, Mayor

Fred C. Arfman  
Isaacson & Arfman, P.A.  
128 Monroe Street NE  
Albuquerque, NM, 87108

**RE: Santa Monica Place (Senior Assisted Living/Memory Care)  
East End of Tract 3  
Grading and Drainage Plan  
Engineer's Stamp Date 10-16-2015 (File: D18D054B)**

Dear Mr. Arfman:

Based upon the information provided in your submittal received 10-23-2015, the above-referenced plan is approved for SO-19 Permit. The Grading Permit and Building Permit are approved with the following conditions:

- Specify class IV RCP for the 24" storm drain that will be placed under the retaining wall (or other class only if justified).
- It is assumed that the hatched rectangles shown within the ponds are the percolation pits referenced in Keyed Note 7 on Sheet CG-101.

Please attach a copy of this approved plan in the construction sets when submitting for a building permit. Prior to Certificate of Occupancy release, Engineer Certification per the DPM checklist will be required.

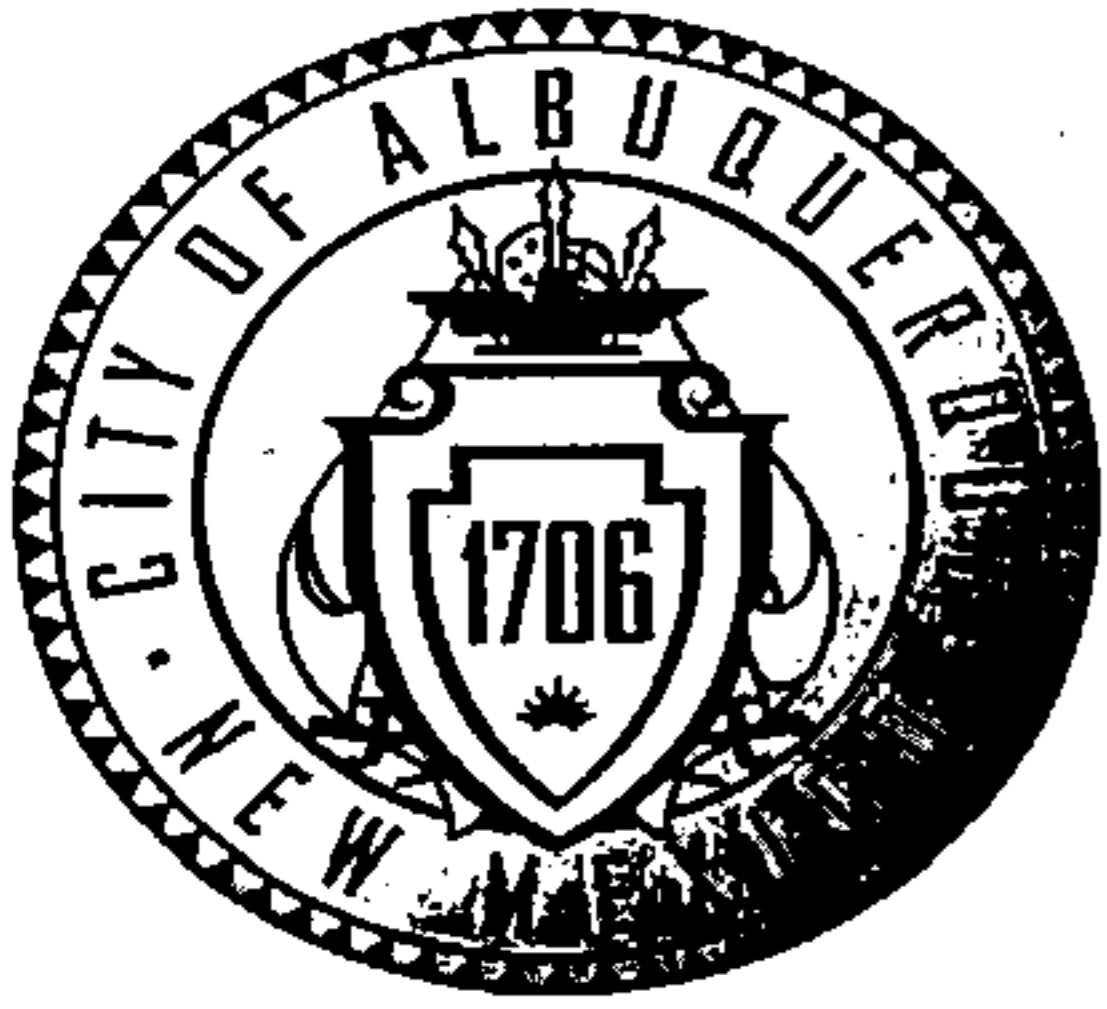
If you have any questions, you can contact me at 924-3986.

Sincerely,

Abiel Carrillo, P.E.  
Principal Engineer, Planning Dept.  
Development Review Services

Orig: Drainage file

D18D054B\_SO19\_BP\_GP\_APPR.docx



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Elan - Santa Monica Place (Senior Assisted Living/Memory Care) Building Permit #: \_\_\_\_\_ City Drainage #: D18 D054B

DRB#: 1003916 EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_

Legal Description: The Eastern Portion of Tract 3, Santa Monica Place

City Address: \_\_\_\_\_

Engineering Firm: Isaacson & Arfman, P.A. Contact: Asa Nilsson-Weber

Address: 128 Monroe Street NE - Albuquerque, NM 87108

Phone#: (505) 268-8828 Fax#: \_\_\_\_\_ E-mail: asaw@iacivil.com

Owner: Del Rey Investments, LLC Contact: Kurt Browning

Address: 6300 Riverside Plaza Lane NW, Suite 200 - Albuquerque, NM 87120

Phone#: (505) 998-0163 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Architect: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

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

Address: 9384 Valley View Drive NW - Albuquerque, NM 87114

Phone#: (505) 897-3366 Fax#: (505) 897-3377 E-mail: \_\_\_\_\_

Contractor: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

### TYPE OF SUBMITTAL:

- ☒ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL
- ☒ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL G & D PLAN
- ☒ GRADING PLAN
- ☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ☐ ENGINEER'S CERT (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEER'S CERT (TCL)
- ☐ ENGINEER'S CERT (DRB SITE PLAN)
- ☐ ENGINEER'S CERT (ESC)
- ☐ SO-19
- ☐ OTHER (SPECIFY) \_\_\_\_\_

### CHECK TYPE OF APPROVAL/ACCEPTANCE 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
- ☐ CERTIFICATE OF OCCUPANCY (PERM)
- ☐ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☒ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ GRADING CERTIFICATION
- ☒ SO-19 APPROVAL
- ☐ ESC PERMIT APPROVAL
- ☐ ESC CERT. ACCEPTANCE
- ☐ OTHER (SPECIFY) \_\_\_\_\_

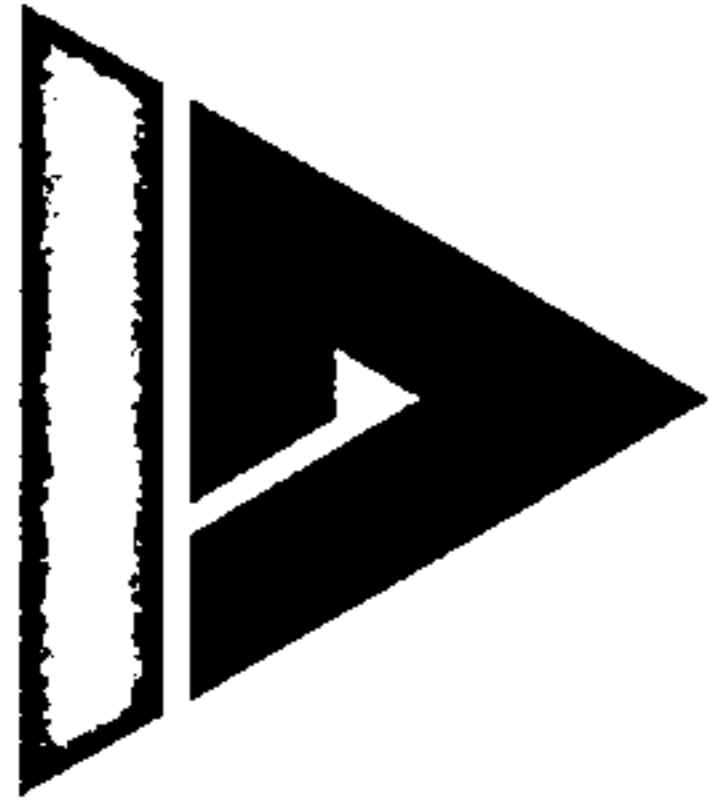
WAS A PRE-DESIGN CONFERENCE ATTENDED: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Copy Provided

DATE SUBMITTED: June 10, 2015 By: Fred Arfman

Isaacson & Arfman, P.A.

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 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 (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
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development



October 23, 2015

Rita Harmon, P.E.  
Senior Engineer, Hydrology  
City of Albuquerque Planning Dept.

RE: ELAN-SANTA MONICA PLACE (D18D054B)

Dear Ms. Harmon,

Attached with this letter is are two copies of the revised grading and drainage plans and supplemental information packet for your final review. Revisions were made based on your review comments dated June 24, 2015 as follows:

- All roof drains will discharge at grade and pass to first flush retention basins as shown. ✓
- The covered sidewalk culverts have been identified with Keyed Note 21. Once the shallow first flush volume fills, the excess will pass west via the westernmost covered sidewalk culvert. ✓
- C • Percolation trenches have been added to the first flush basins. ~~████~~ ? ✓
- C • See Sheet CG-502 for a profile of the 24" RCP penetrating the proposed retaining wall.
- The three covered sidewalk culverts will be constructed as part of this project. An S.O.19 block is provided on Sheet CG-101. *ok*

In addition to those revisions, the overall building has gotten smaller and the main entrance has shifted west. This has enabled us to revise the storm drain system and adjust grades. The updated storm drain calculations are provided in the supplemental packet.

Please don't hesitate to call me or Fred Arfman, the project engineer at 268-8828 with any additional questions or comments.

Sincerely,  
Isaacson & Arfman, PA

  
Bryan Bobrick



Bryan Bobrick &lt;bryanb@iacivil.com&gt;

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**Elan-Santa Monica (D18 D054B) Resubmittal to COA Hydrology**

1 message

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**Bryan Bobrick** <bryanb@iacivil.com>

Fri, Oct 23, 2015 at 10:23 AM

To: COA Planning Development Review Services &lt;PLNDRS@cabq.gov&gt;, Fred Arfman &lt;freda@iacivil.com&gt;, Ruth Lozano &lt;ruthl@iacivil.com&gt;

**Bryan Bobrick**  
**Isaacson & Arfman, P.A.**  
128 Monroe N.E.  
Albuquerque, NM 87108  
(505) 268-8828

---

**6 attachments****2047 DRAINAGE REPORT 2015 10-01.pdf**  
1322K**CIVIL G-100 GRADING AND DRAINAGE NOTES.pdf**  
600K**CIVIL G-101 GRADING AND DRAINAGE PLAN.pdf**  
1343K**CIVIL G-102 OFF-SITE GRADING AND DRAINAGE PLAN.pdf**  
346K**CIVIL G-501 STORM DRAIN DETAILS.pdf**  
636K**CIVIL G-502 DRAINAGE DETAILS.pdf**  
925K



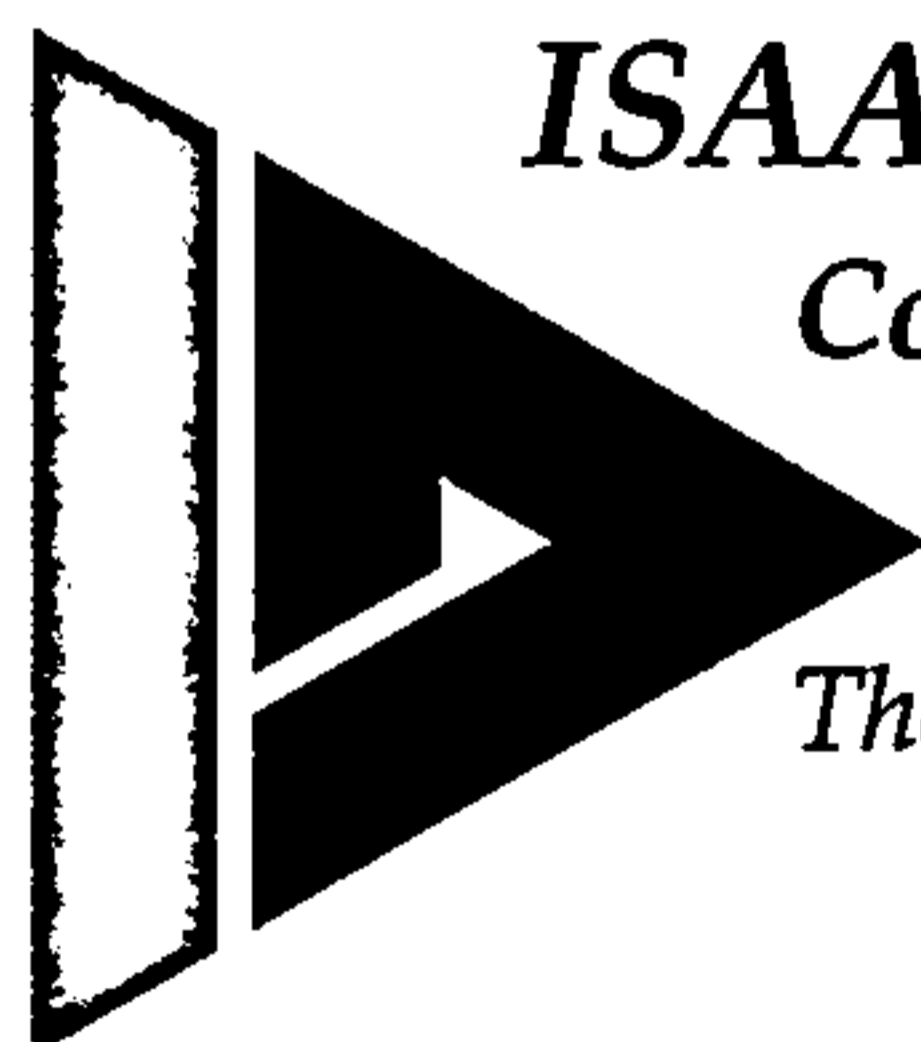
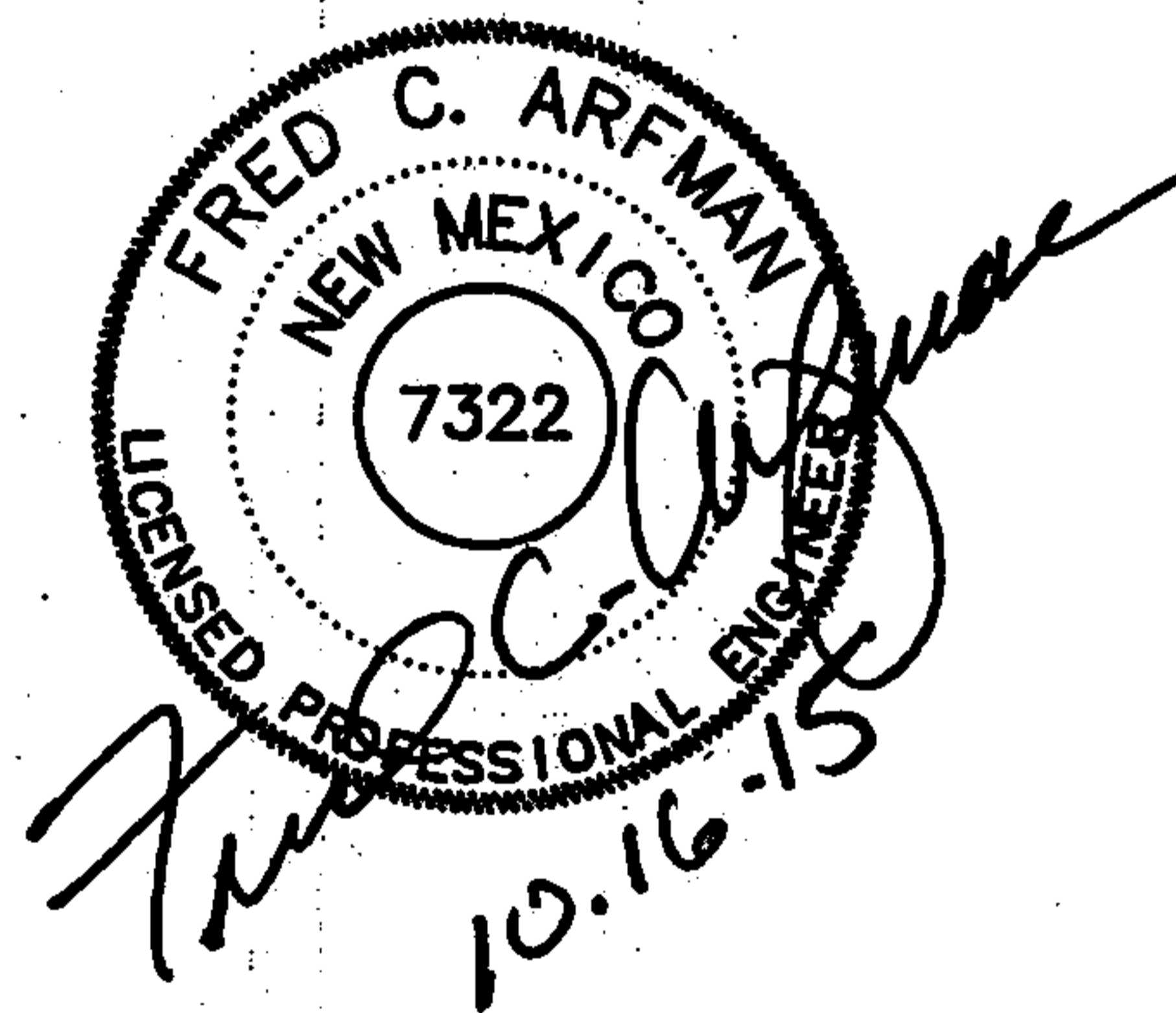
OCTOBER 1, 2015

Supplemental Information for

for

TRACT 3-B  
SANTA MONICA PLACE  
DRAINAGE AND GRADING PLAN  
I&A PROJECT NO. 2047

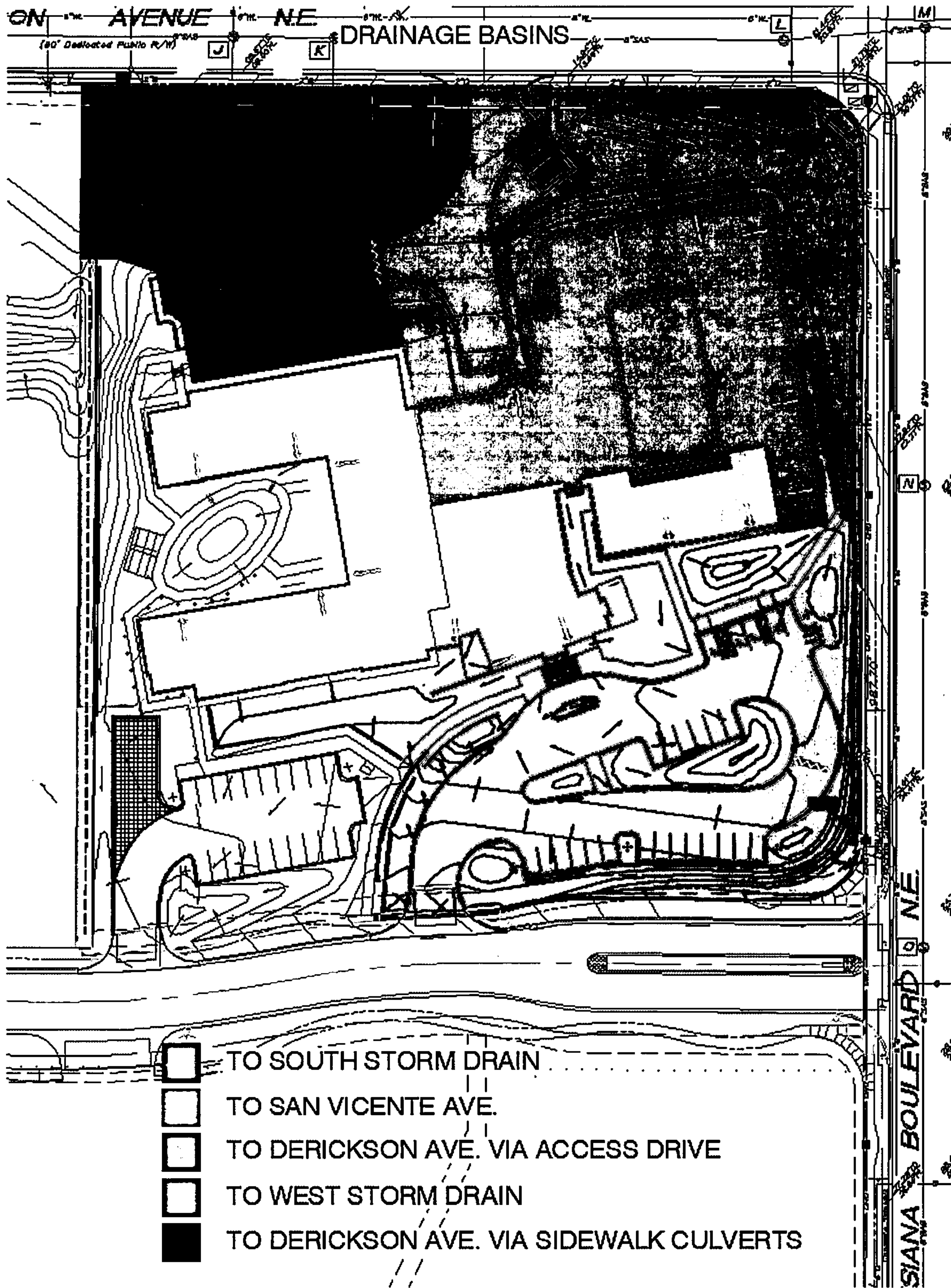
By



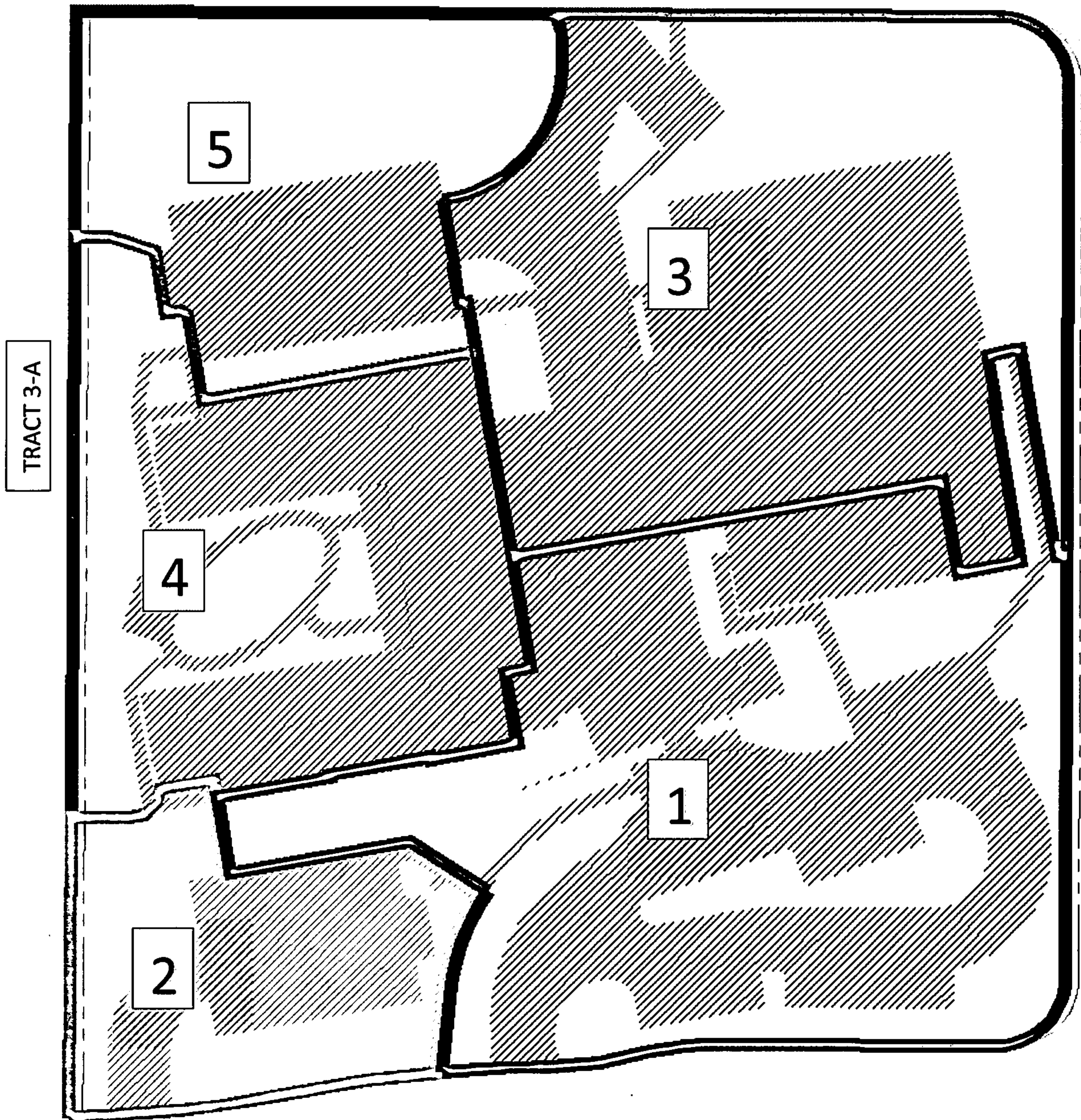
**ISAACSON & ARFMAN, P.A.**  
*Consulting Engineering Associates*

*Thomas O. Isaacson, PE(RET.) & LS(RET.)  
Fred C. Arfman, PE  
Åsa Nilsson-Weber, PE*

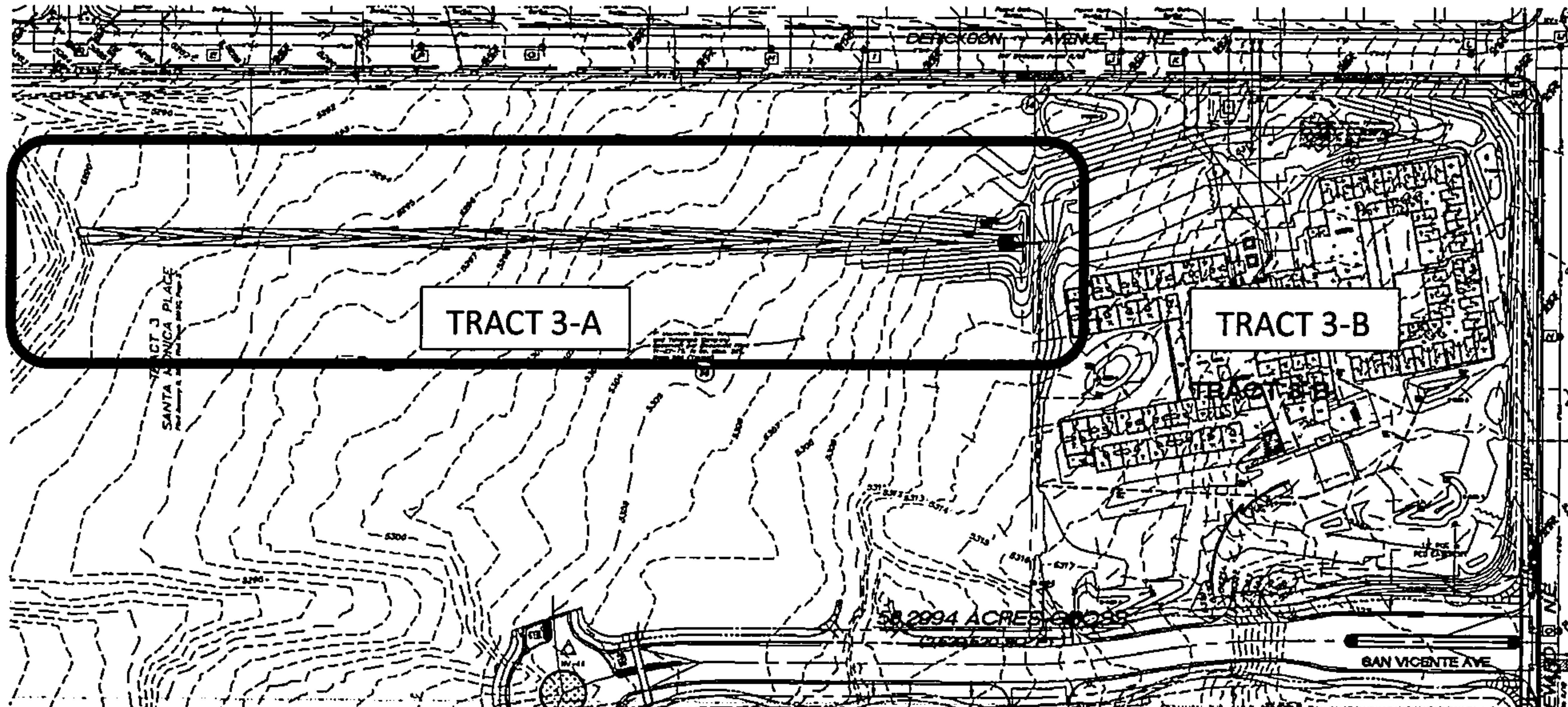
# DRAINAGE BASINS



**DRAINAGE BASINS WITH  
IMPERVIOUS AREAS:**



# PERMISSION TO GRADE ON TRACT 3-A GRANTED BY PLAT



## DRAINAGE EASEMENT NOTES

- A. There is an existing interim Cross Lot Drainage Easement granted by plat filed January 6, 2012 in Plat Book 2012C, Page 2 for the mutual benefit of the owners of Tracts 1 thru 4 until future development occurs. Tracts 1 thru 4 will discharge drainage to the existing drainage facilities/outfalls located at the intersection of Derickson and San Pedro as outlined in the Conceptual Drainage Report prepared by Isaacson & Arfman, P.A. dated 12-2-11. Owners/Developers of any of the tracts are allowed to grade interim drainage facilities such as grading, berming, ponding or outfall structures on adjacent undeveloped property and will be maintained by the benefiting tract owner until such time that future development (TBD) of the undeveloped property is complete and applicable interim facilities are no longer required. Notwithstanding anything herein to the contrary, the interim Cross Lot Drainage Easement may not be terminated without the approval of the City Engineer.

Said Easement within Tracts 3 and 4, Santa Monica Place is VACATED by 14DRB-\_\_\_\_\_.

- B. A New Public and Private Interim Drainage Easement shall be granted by this plat over Tract 3-A, for the benefit of Tracts 3-B, 4-A and 4-B. Owners of said Tracts 3-B, 4-A and 4-B shall be allowed to grade Interim Drainage Facilities on Tract 3-A. Said Interim Drainage Facilities shall be maintained by the owner of Tract 3-A until such time that future development (TBD) of Tract 3-B is complete and applicable Interim Facilities are no longer required.

# DRAINAGE BASIN / FIRST FLUSH CALCULATIONS

.open

BASIN NO.	1	DESCRIPTION	TO SOUTH STORM DRAIN
-----------	---	-------------	----------------------

Area of basin flows =	62758	SF	=	1.4	Ac.
First Flush Volume	=	Basin Area			
	x	% Impervious			
	x	0.34" / 12			
FIRST FLUSH VOL.	=	996 CF			
					LAND TREATMENT
				A =	0%
				B =	22%
				C =	22%
				D =	56%

BASIN NO.	2	DESCRIPTION	TO SAN VICENTE AVE
-----------	---	-------------	--------------------

Area of basin flows =	19099	SF	=	0.4	Ac.
First Flush Volume	=	Basin Area			
	x	% Impervious			
	x	0.34" / 12			
FIRST FLUSH VOL.	=	281 CF			
					LAND TREATMENT
				A =	0%
				B =	24%
				C =	24%
				D =	52%

BASIN NO.	3	DESCRIPTION	TO SAN VICENTE AVE VIA ACCESS DRIVE
-----------	---	-------------	-------------------------------------

Area of basin flows =	53746	SF	=	1.2	Ac.
First Flush Volume	=	Basin Area			
	x	% Impervious			
	x	0.34" / 12			
FIRST FLUSH VOL.	=	975 CF			
					LAND TREATMENT
				A =	0%
				B =	18%
				C =	18%
				D =	64%

BASIN NO.	4	DESCRIPTION	TO WEST STORM DRAIN
-----------	---	-------------	---------------------

Area of basin flows =	35828	SF	=	0.8	Ac.
First Flush Volume	=	Basin Area			
	x	% Impervious			
	x	0.34" / 12			
FIRST FLUSH VOL.	=	629 CF			
					LAND TREATMENT
				A =	0%
				B =	19%
				C =	19%
				D =	62%

BASIN NO.	5	DESCRIPTION	TO DERRICKSON AVE VIA SIDEWALK CULVERTS
-----------	---	-------------	---

Area of basin flows =	26901	SF	=	0.6	Ac.
First Flush Volume	=	Basin Area			
	x	% Impervious			
	x	0.34" / 12			
FIRST FLUSH VOL.	=	244 CF			
					LAND TREATMENT
				A =	0%
				B =	34%
				C =	34%
				D =	32%

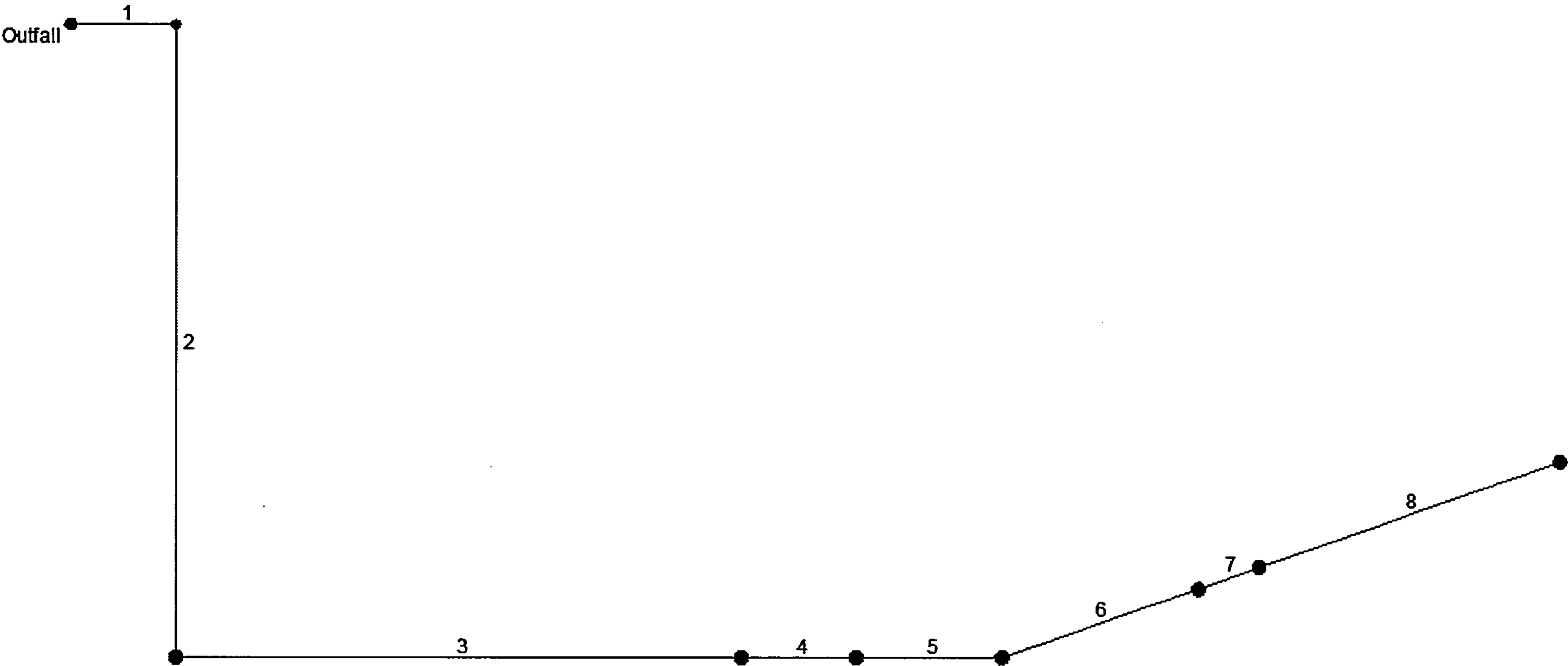
$$\begin{aligned}
 \text{TOTAL D} &= 1.4(.56) + 0.4(.52) + \\
 &1.2(.64) + 0.8(.62) + 0.6(.32) \\
 &= 2.45 \text{ ac}
 \end{aligned}$$

RUN DATE (MON/DAY/YR) =05/12/2015

USER NO.= AHYMO Temp User:20122010

[illegible]

Hydraflow Storm Sewers Extension for Autodesk® AutoCAD® Civil 3D® Plan

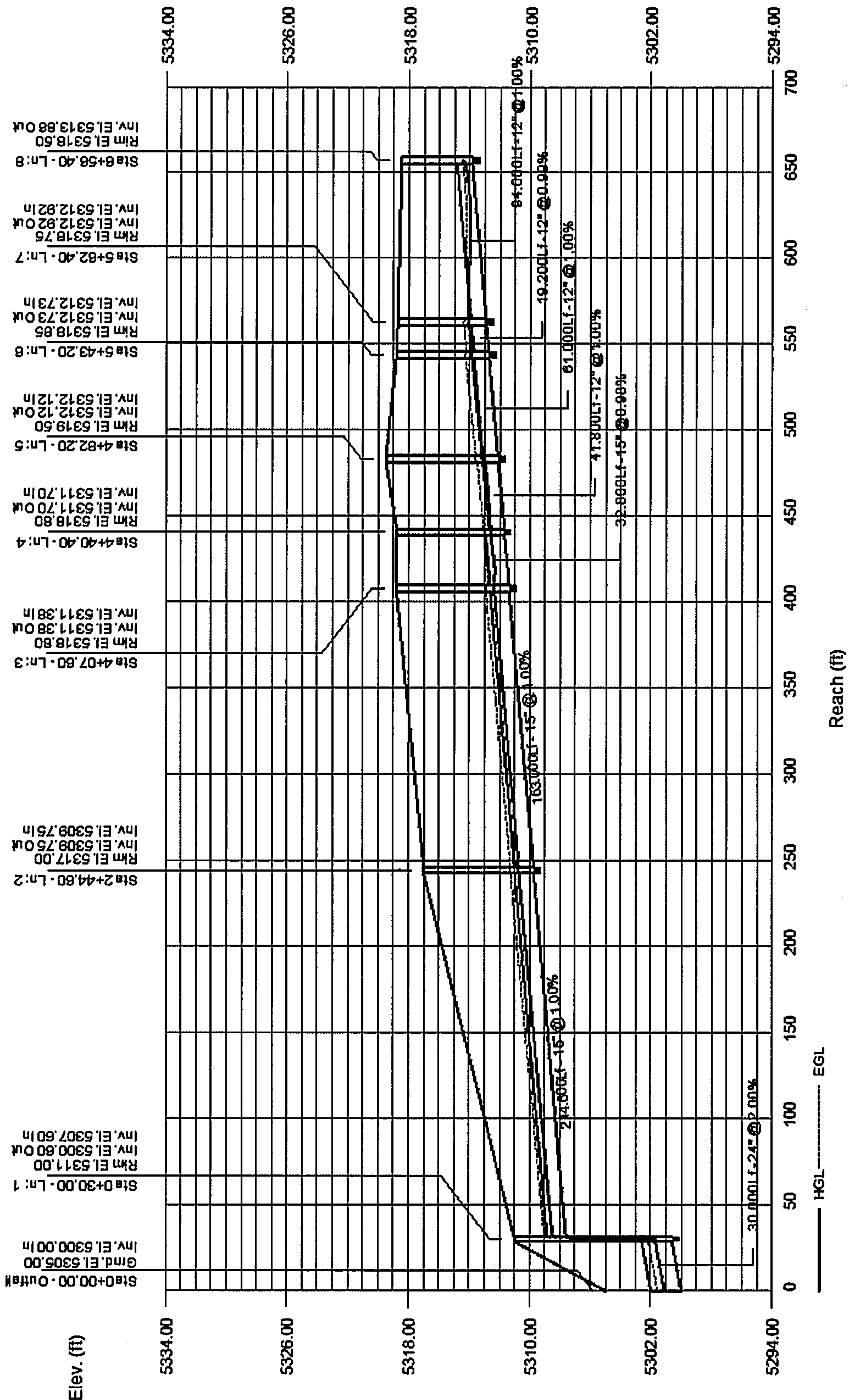


# Hydraulic Grade Line Computations

Line	Size  (in)	Q  (cfs)	Downstream								Len  (ft)	Upstream								Check		JL coeff  (K)	Minor loss  (ft)
			Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)		Invert elev (ft)	HGL elev (ft)	Depth (ft)	Area (sqft)	Vel (ft/s)	Vel head (ft)	EGL elev (ft)	Sf (%)	Ave Sf (%)	Enrgy loss (ft)		
1	24	9.50	5300.00	5301.10	1.10	1.77	5.37	0.45	5301.55	0.000	30.000	5300.00	5301.70	1.10**	1.77	5.36	0.45	5302.15	0.000	0.000	n/a	1.50	0.67
2	15	6.00	5307.60	5308.49	0.89*	0.94	6.41	0.52	5309.01	0.000	214.600	5309.75	5310.74	0.99**	1.04	5.76	0.52	5311.26	0.000	0.000	n/a	1.00	0.52
3	15	6.00	5309.75	5310.74	0.99*	1.04	5.76	0.52	5311.26	0.000	163.000	5311.38	5312.37	0.99**	1.04	5.76	0.52	5312.89	0.000	0.000	n/a	0.15	0.08
4	15	5.00	5311.38	5312.37	0.99	0.95	4.80	0.43	5312.80	0.000	32.800	5311.70	5312.61j	0.91**	0.95	5.25	0.43	5313.04	0.000	0.000	n/a	0.15	n/a
5	12	4.00	5311.70	5312.61	0.91	0.71	5.35	0.44	5313.05	0.942	41.800	5312.12	5312.97j	0.85**	0.71	5.63	0.49	5313.46	1.015	0.978	0.409	0.44	0.22
6	12	4.00	5312.12	5313.19	1.00	0.79	5.09	0.40	5313.59	1.075	61.000	5312.73	5313.84	1.00	0.79	5.09	0.40	5314.25	1.075	1.075	0.656	0.15	0.06
7	12	3.50	5312.73	5313.90	1.00	0.79	4.46	0.31	5314.21	0.823	19.200	5312.92	5314.06	1.00	0.79	4.46	0.31	5314.37	0.823	0.823	0.158	0.15	0.05
8	12	1.00	5312.92	5314.11	1.00	0.31	1.27	0.03	5314.13	0.067	94.000	5313.86	5314.28j	0.42**	0.32	3.17	0.16	5314.44	0.486	0.277	0.260	1.00	0.16
Project File: 2047 Elan South.slm														Number of lines: 8					Run Date: 10/1/2015				
Notes: * Normal depth assumed.; ** Critical depth.; j-Line contains hyd. jump. ; c = cir e = ellip b = box																							

# Storm Sewer Profile

Proj. file: 2047 Elan South.stm



## **APPENDIX:**

- **Excerpts from the Master Drainage Report dated October 9, 2014**
  - **Cover**
  - **Proposed Conditions with comparison inset**
  - **Tract 3-B and 4-B Construction**
  - **Summary**

OCTOBER 9, 2014

# MASTER DRAINAGE REPORT

Update to Master Drainage Report for Santa Monica Place, dated 02/21/12

FOR

TRACTS 3-A, 3-B, 4-A, & 4-B  
SANTA MONICA PLACE  
(Replat of Tracts 3 & 4, Santa Monica Place)

Louisiana Blvd. and Derickson Ave. NE



Åsa Nilsson-Weber, P.E.

Date



**ISAACSON & ARFMAN, P.A.**

*Consulting Engineering Associates*

*Thomas O. Isaacson, PE & LS [Ret.]*

*Fred C. Arfman, PE*

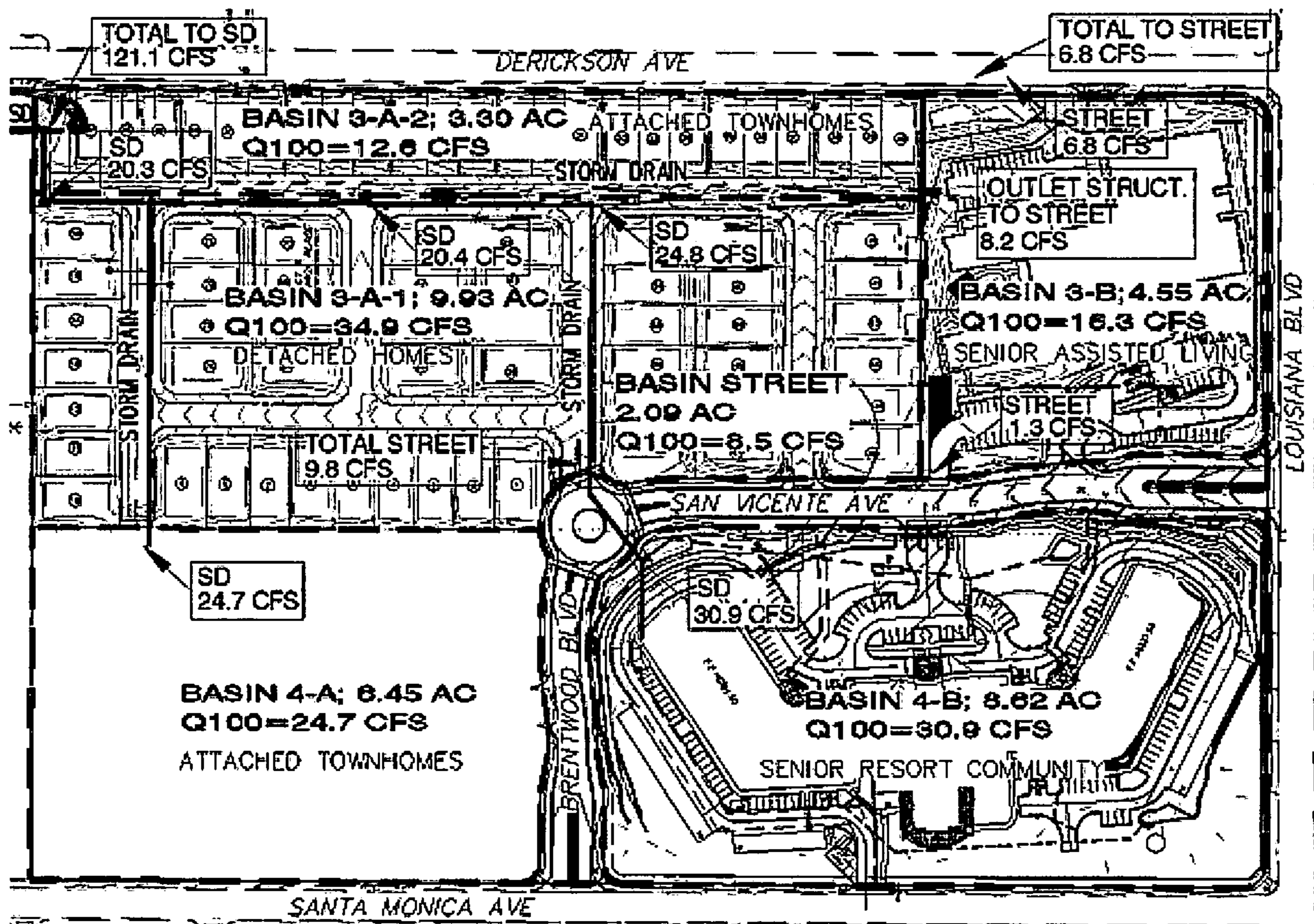
*Åsa Nilsson-Weber, PE*

## IV. PROPOSED CONDITIONS

Tract 3-B will be developed as an assisted living facility and Tract 4-B as a senior resort. Site plans and preliminary grading plans have been developed for both tracts. Tract 4-A will be developed with attached townhomes—there is currently no site plan for this tract. Tract 3-A will be developed with a mixture of attached townhomes and detached single-family homes—a preliminary layout has been developed.

San Vicente Ave. / Brentwood Blvd. will be constructed, including any required storm drain, rundowns and utilities. Work order plans are in the process of being prepared.

The 100-yr, 6-hr flow rates for each tract were calculated using AHYMO based on NOAA Atlas 14 rainfall data and assigned land treatments—see Appendix A. Tract 3-A was split into two basins—3-A-1 (single detached homes) and 3-A-2 (attached townhomes). The land treatments were based on the site plans for Tracts 3-B and 4-B, and per Table 5 from DPM Section 22.2 for the remaining tracts—see Appendix A.



Proposed Basin Exhibit

Per the AHYMO calculations for the developed property:

Q100 to Derickson (Basins 3 and 5) = 6.63 cfs (allowable = 6.8 cfs)

Q100 west (Basins 1 and 4) = 8.27 cfs (allowable = 8.2 cfs)

Q100 south to San Vicente Ave. (Basin 2) = 1.57 cfs (allowable = 1.3 cfs).

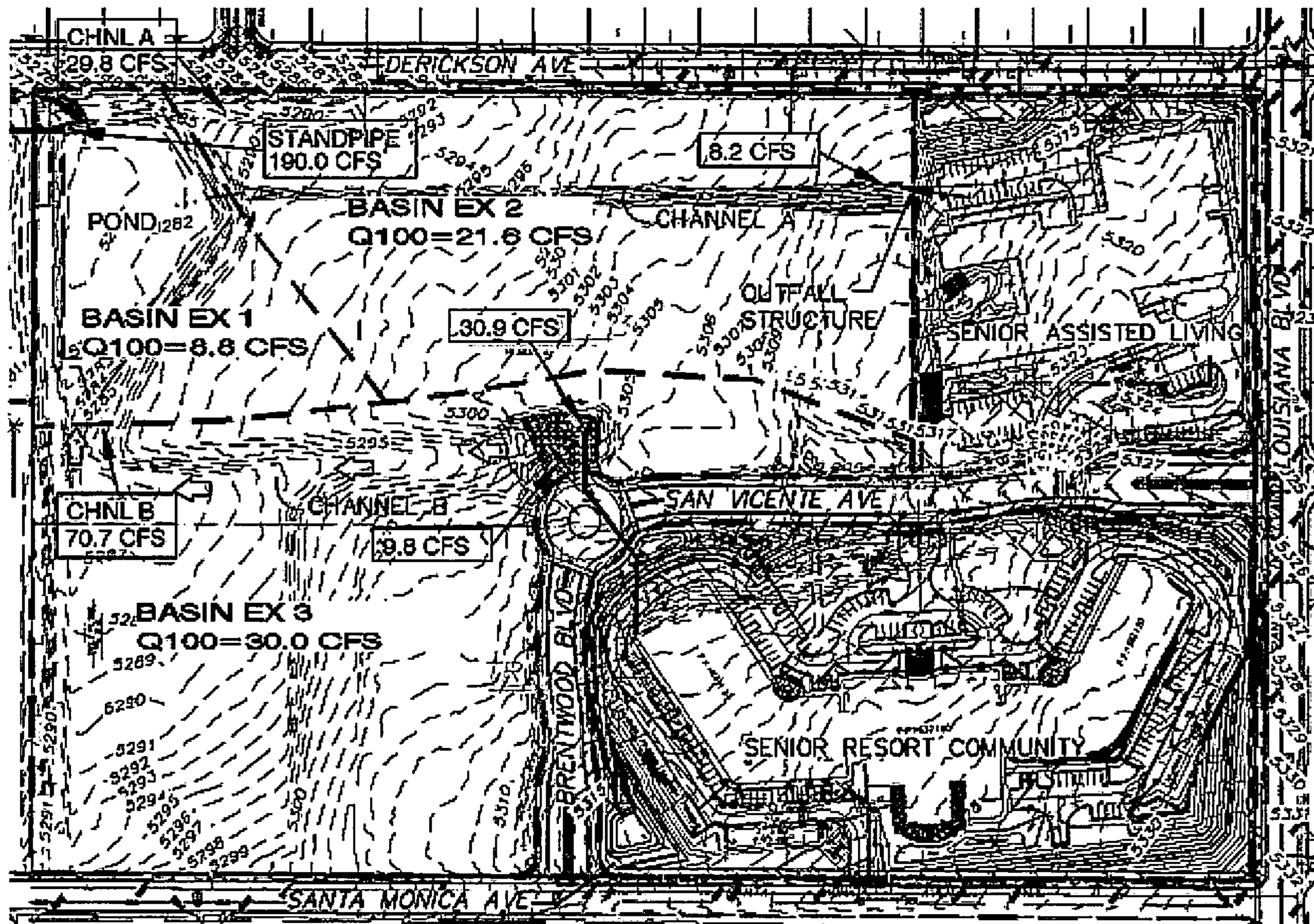
The minor difference in discharge to San Vicente Ave. and to the west storm drain will be factored into the final design for the future storm system (same owner).

## TRACTS 3-B AND TRACT 4-B CONSTRUCTION

When Tract 3-B develops, an outfall structure shall be constructed to convey flows to the west at the future roadway alignment in Tract 3-A. An interim channel (Channel A) shall be graded to convey flows to the pond. See Appendix B for channel capacity calculations.

Upon development of Tract 4-B, the temporary standpipe shall be removed and the onsite storm drain system shall be connected to the 18" storm drain installed with the San Vicente Ave. and Brentwood Blvd. construction. The storm drain will continue to discharge into the existing channel and be directed to the pond via the existing channel (Channel B). The channel calculations were based on the narrowest section of the channel. See Appendix B for channel capacity calculations. Velocities in both channels are approximately 4.5 fps, which is non-erosive.

The earthen channels shall be maintained by the Owner of Tract 3-A until the subdivision storm drain system is constructed.



Interim Drainage Exhibit—Tracts 3-B and 4-B Construction

## **VI. SUMMARY**

The following items shall be required for construction of each tract / street. Improvements are listed in the anticipated order of development of each tract.

### **SAN VICENTE AVE. / BRENTWOOD BLVD.**

- *Submit an interim grading & drainage plan to support the Public Work Order.*
- Install a manhole and 24" storm drain (public) under roundabout.
- Install an 18" storm drain and a temporary standpipe (private) on Tract 4-B.
- Outlet erosion control north of the roundabout at Channel B.

### **TRACT 3-B**

- *Submit a grading & drainage plan including interim offsite channel grades to support the Building Permit.*
- Construct outfall structure to convey flows west.
- Construct Channel A from Tract 3-B to the existing pond.

### **TRACT 4-B**

- *Submit a grading & drainage plan to support the Building Permit.*
- Remove temporary standpipe on Tract 4-B and connect the new onsite storm drain to the 18" storm drain installed with San Vicente Ave. and Brentwood Blvd. improvements.

### **TRACT 4-A**

- *Submit a grading & drainage plan to support the Public Work Order and Building Permit.*
- *Submit a drainage report with hydrology/hydraulic calculations including storm drain calculations.*
- Install a storm drain stub to Tract 3-A for interim discharge to pond.
- Construct the infrastructure required for the development.

### **TRACT 3-A**

- *Submit a grading & drainage plan to support the Public Work Order and Building Permit Plans.*
- *Submit a drainage report with hydrology/hydraulic calculations, including storm drain calculations.*
- Remove the rock in Channel B, existing pond and temporary standpipe.
- Construct the infrastructure required for the development, including the ultimate storm drain system.

# CITY OF ALBUQUERQUE



June 24, 2015

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

**RE: Elan-Santa Monica Place (Senior Assisted Living/Memory Care)  
6901 San Vicente NE  
Grading and Drainage Plan  
Engineers Stamp Date 6/10/15 (D18D054B)**

Dear Mr. Arfman,

Based upon the information provided in your submittal received 6/10/15 for the above mentioned plan dated 6/10/15 cannot be approved for Grading Permit or building permit until the following comments have been addressed.

- Roof flows must go through a pond before entering the storm sewer system. ✓
- The pond on the west side of the building contains three different points of accepting flows which are not identified. The pad to the west of this pond, is this the emergency overflow? Provide a profile.
- Plan CG-502 shows a percolation pit, is this being used and where is it located?
- Provide a profile for the 24" RCP penetrating the retaining wall/s headed toward the temporary bubble up outlet.
- Provide the work order number and a detail for the three sidewalk culverts in Derickson Ave. Call out COA specification.

PO Box 1293

Albuquerque

New Mexico 87103

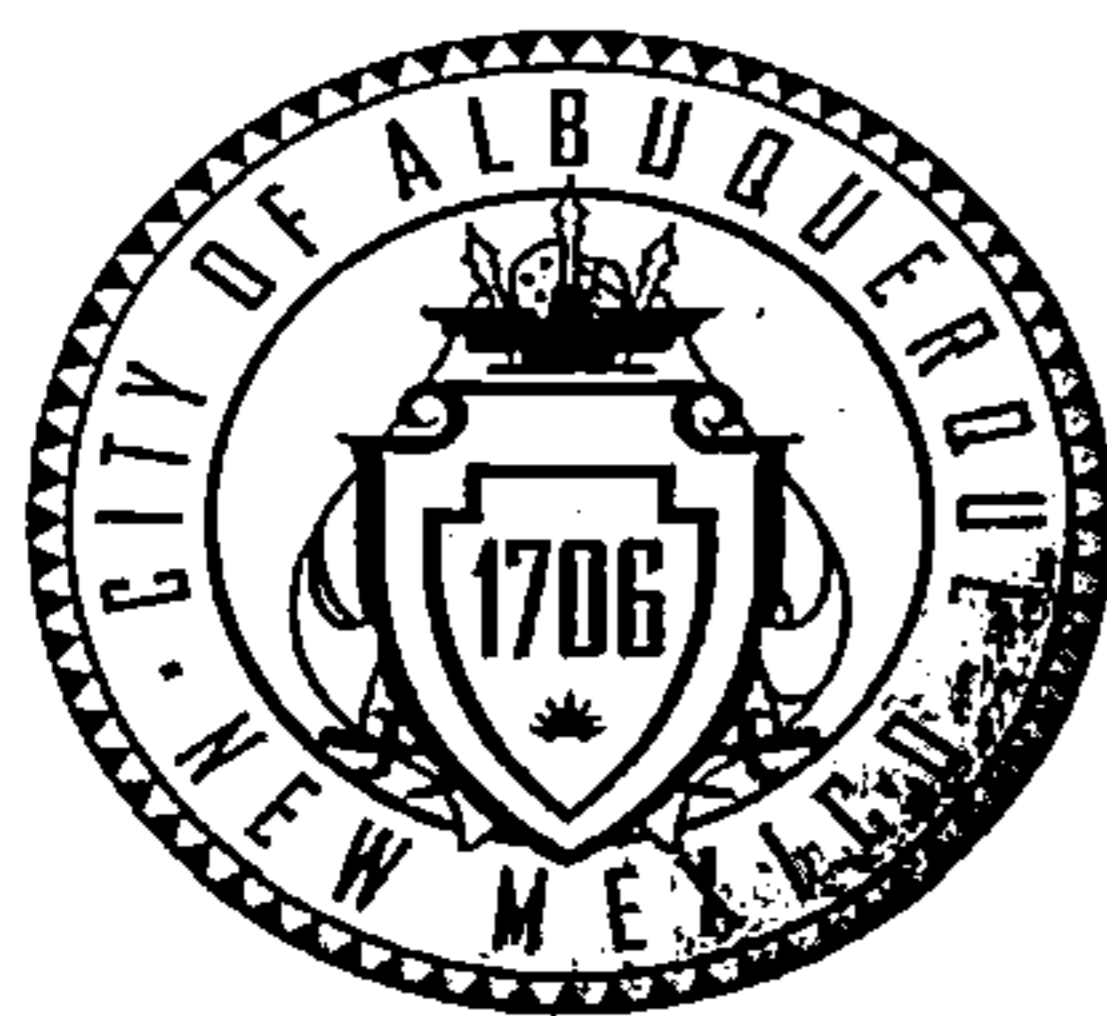
[www.cabq.gov](http://www.cabq.gov)

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

Sincerely,

Rita Harmon, P.E.  
Senior Engineer, Hydrology  
Planning Department

RR/CC  
C: File



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Elan - Santa Monica Place (Senior Assisted Living/Memory Care) Building Permit #: \_\_\_\_\_ City Drainage #: D18 D054B

DRB#: 1003916 EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_

Legal Description: The Eastern Portion of Tract 3, Santa Monica Place

City Address: \_\_\_\_\_

Engineering Firm: Isaacson & Arfman, P.A. Contact: Åsa Nilsson-Weber

Address: 128 Monroe Street NE - Albuquerque, NM 87108

Phone#: (505) 268-8828 Fax#: \_\_\_\_\_ E-mail: asaw@iacivil.com

Owner: Del Rey Investments, LLC Contact: Kurt Browning

Address: 6300 Riverside Plaza Lane NW, Suite 200 - Albuquerque, NM 87120

Phone#: (505) 998-0163 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Architect: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

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

Address: 9384 Valley View Drive NW - Albuquerque, NM 87114

Phone#: (505) 897-3366 Fax#: (505) 897-3377 E-mail: \_\_\_\_\_

Contractor: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

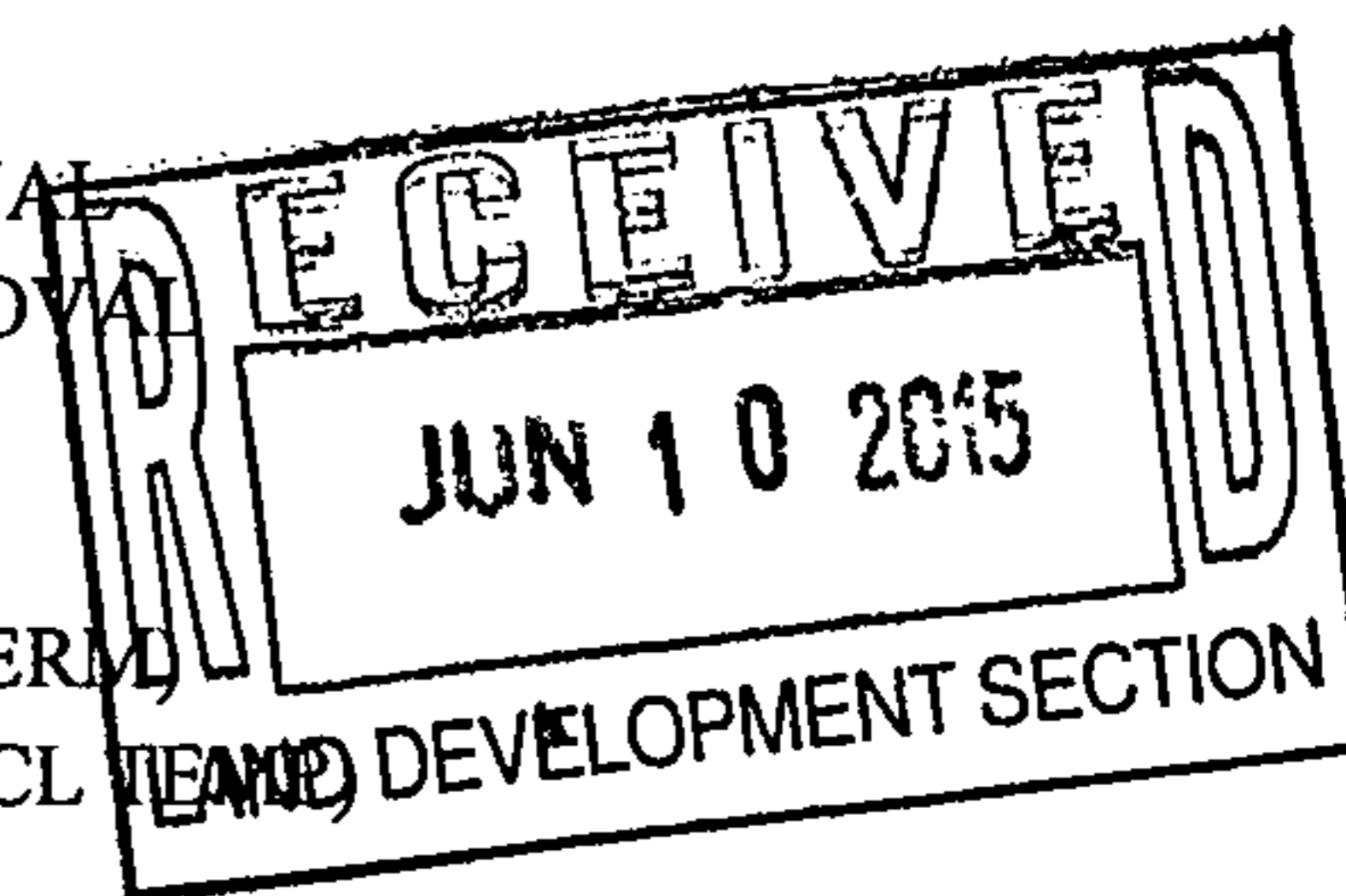
Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

### TYPE OF SUBMITTAL:

- ☒ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL
- ☒ DRAINAGE PLAN RESUBMITTAL
- ☐ CONCEPTUAL G & D PLAN
- ☒ GRADING PLAN
- ☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ☐ ENGINEER'S CERT (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEER'S CERT (TCL)
- ☐ ENGINEER'S CERT (DRB SITE PLAN)
- ☐ ENGINEER'S CERT (ESC)
- ☐ SO-19
- ☐ OTHER (SPECIFY) \_\_\_\_\_

### CHECK TYPE OF APPROVAL/ACCEPTANCE 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
- ☐ CERTIFICATE OF OCCUPANCY (PERM)
- ☐ CERTIFICATE OF OCCUPANCY (TCL)
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ GRADING CERTIFICATION
- ☐ SO-19 APPROVAL
- ☐ ESC PERMIT APPROVAL
- ☐ ESC CERT. ACCEPTANCE
- ☐ OTHER (SPECIFY) \_\_\_\_\_



WAS A PRE-DESIGN CONFERENCE ATTENDED: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Copy Provided

DATE SUBMITTED: June 10, 2015 By: Fred Arfman

Isaacson & Arfman, P.A.

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 defines the degree of drainage detail. One or more of the following levels of submittal may be required based on the following:

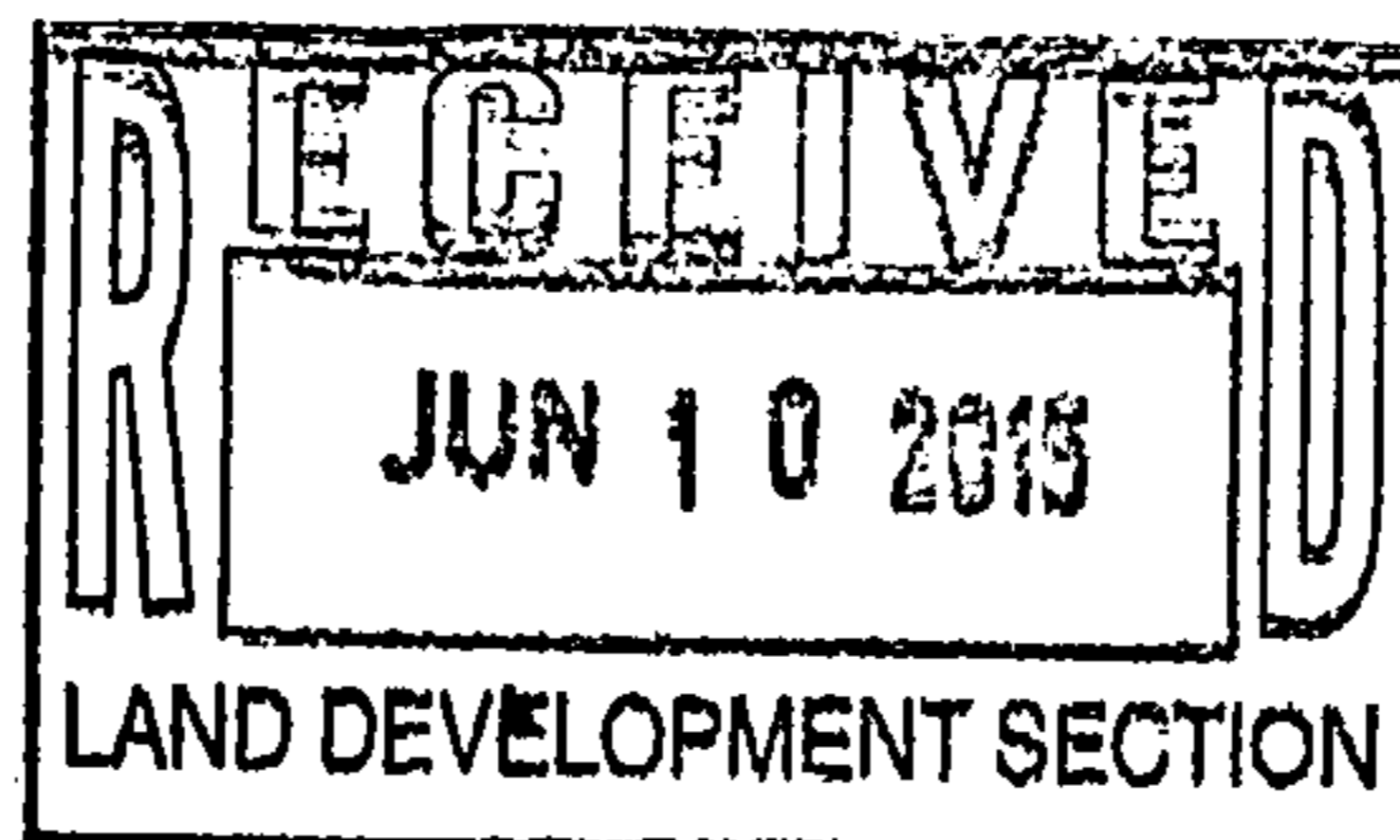
1. **Conceptual Grading and Drainage Plan:** Required for approval of Site Development Plans greater than five (5) acres and Sector Plans
2. **Drainage Plans:** Required for building permits, grading permits, paving permits and site plans less than five (5) acres
3. **Drainage Report:** Required for subdivision containing more than ten (10) lots or constituting five (5) acres or more
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

## **Bryan Bobrick**

---

**From:** Bryan Bobrick <bryanb@iacivil.com>  
**Sent:** Wednesday, June 10, 2015 9:46 AM  
**To:** 'PLNDRS@cabq.gov'  
**Subject:** Hydrology Submittal for COA Drainage # D18/D054B - ELAN - TRACT 3-B, SANTA MONICA PLACE  
**Attachments:** 2047 DRAINAGE REPORT 06-09-2015.pdf; 2047 ELAN SUBMITTAL 06-09-2015.pdf

**Bryan J. Bobrick**  
Isaacson & Arfman, P.A.  
Consulting Engineering Associates  
128 Monroe St. N.E.  
Albuquerque, NM 87108  
Phone: (505)268-8828  
Fax: (505)268-2632  
[bryanb@iacivil.com](mailto:bryanb@iacivil.com)

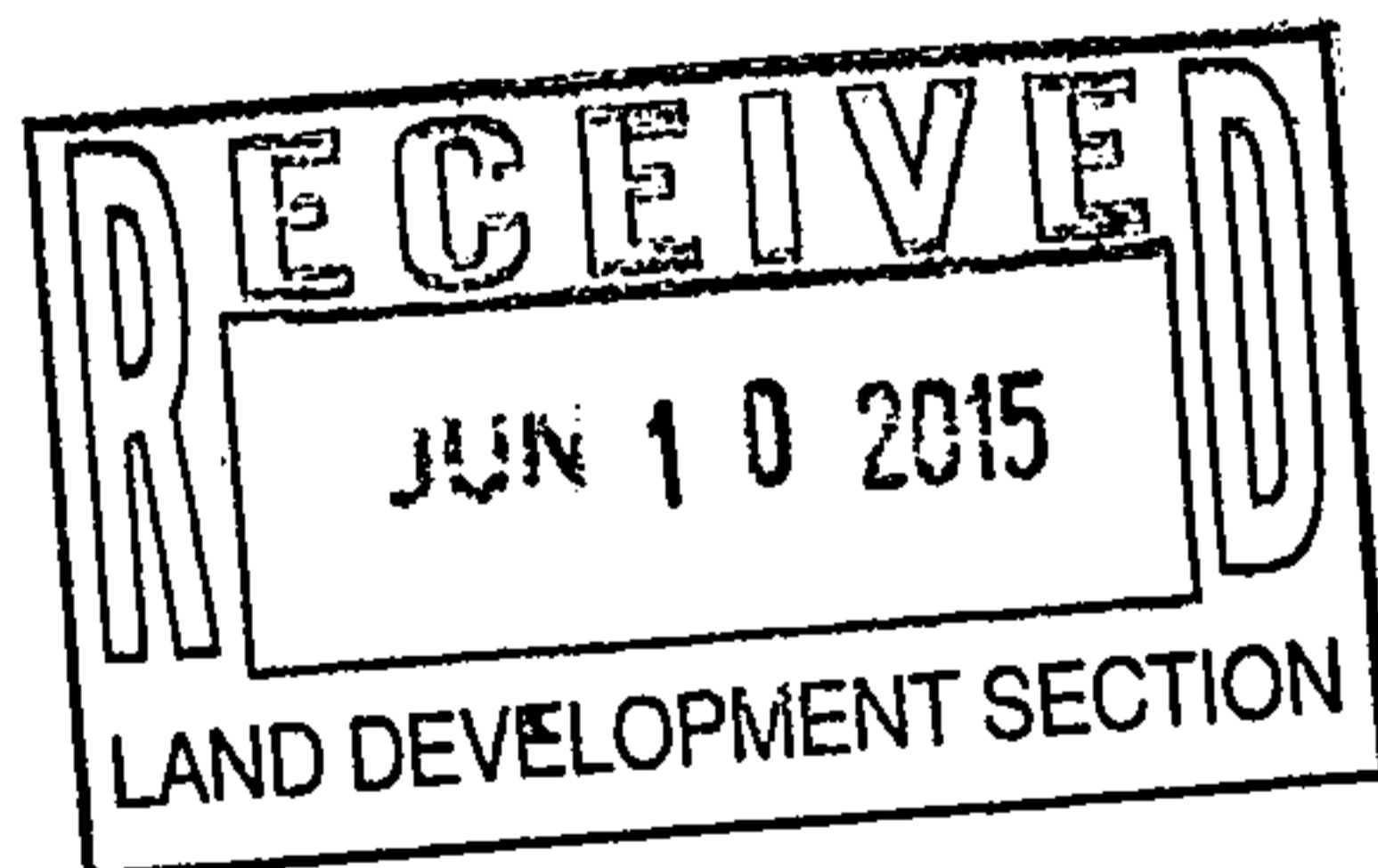


JUNE 9, 2015

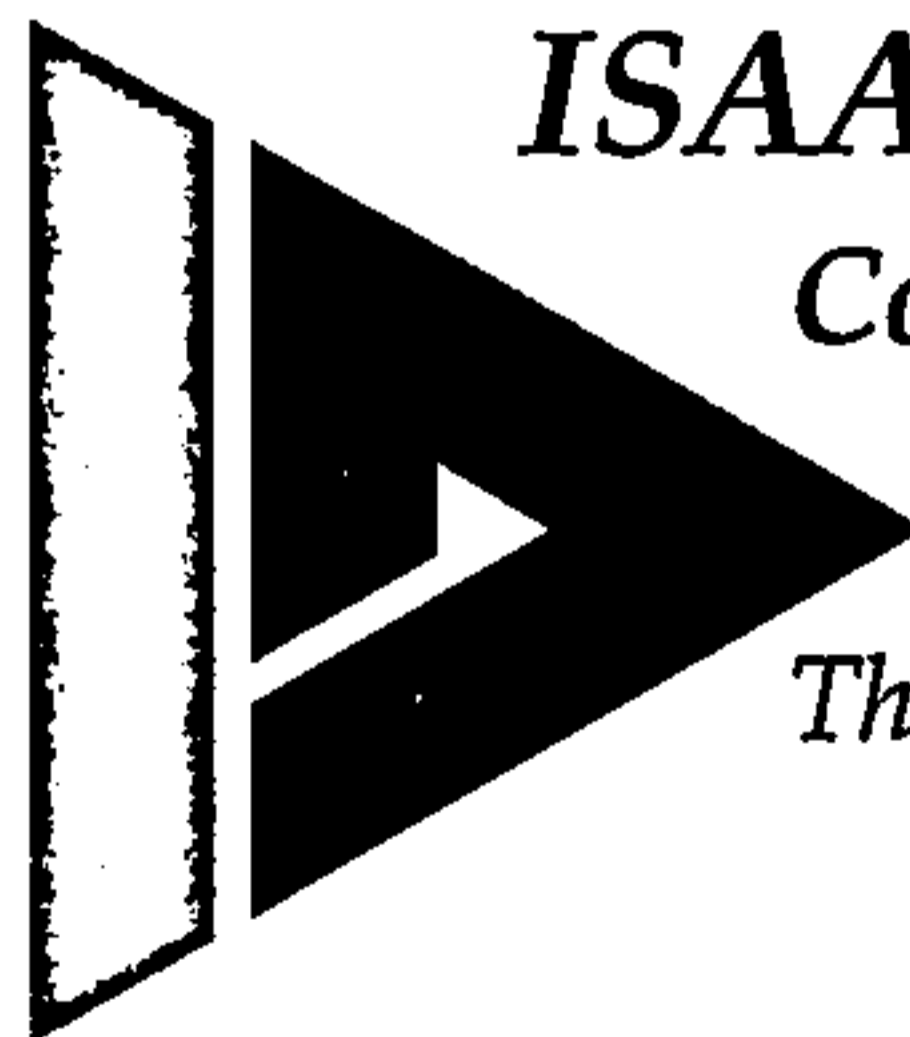
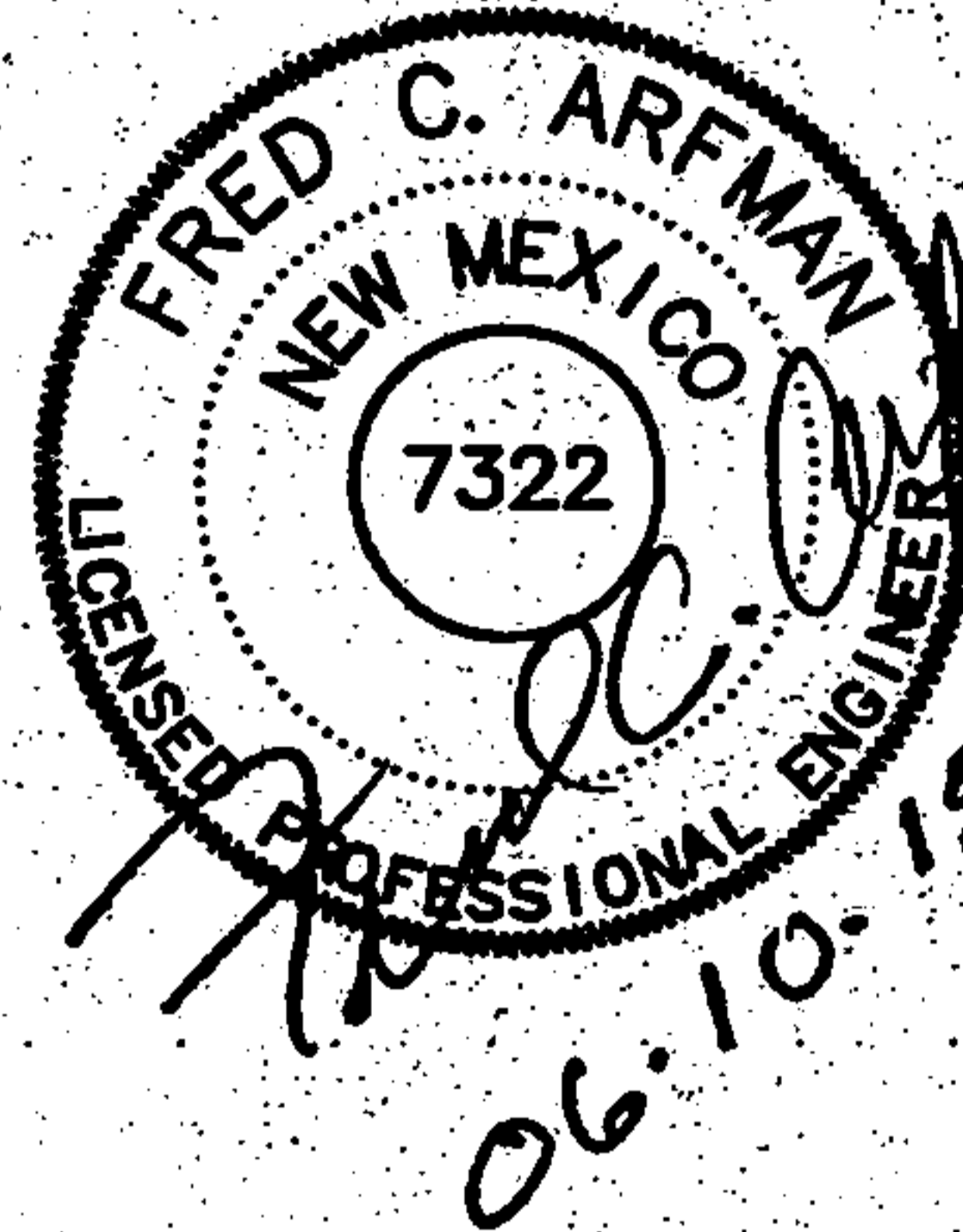
# Supplemental Information for

for

## TRACT 3-B SANTA MONICA PLACE DRAINAGE AND GRADING PLAN I&A PROJECT NO. 2047



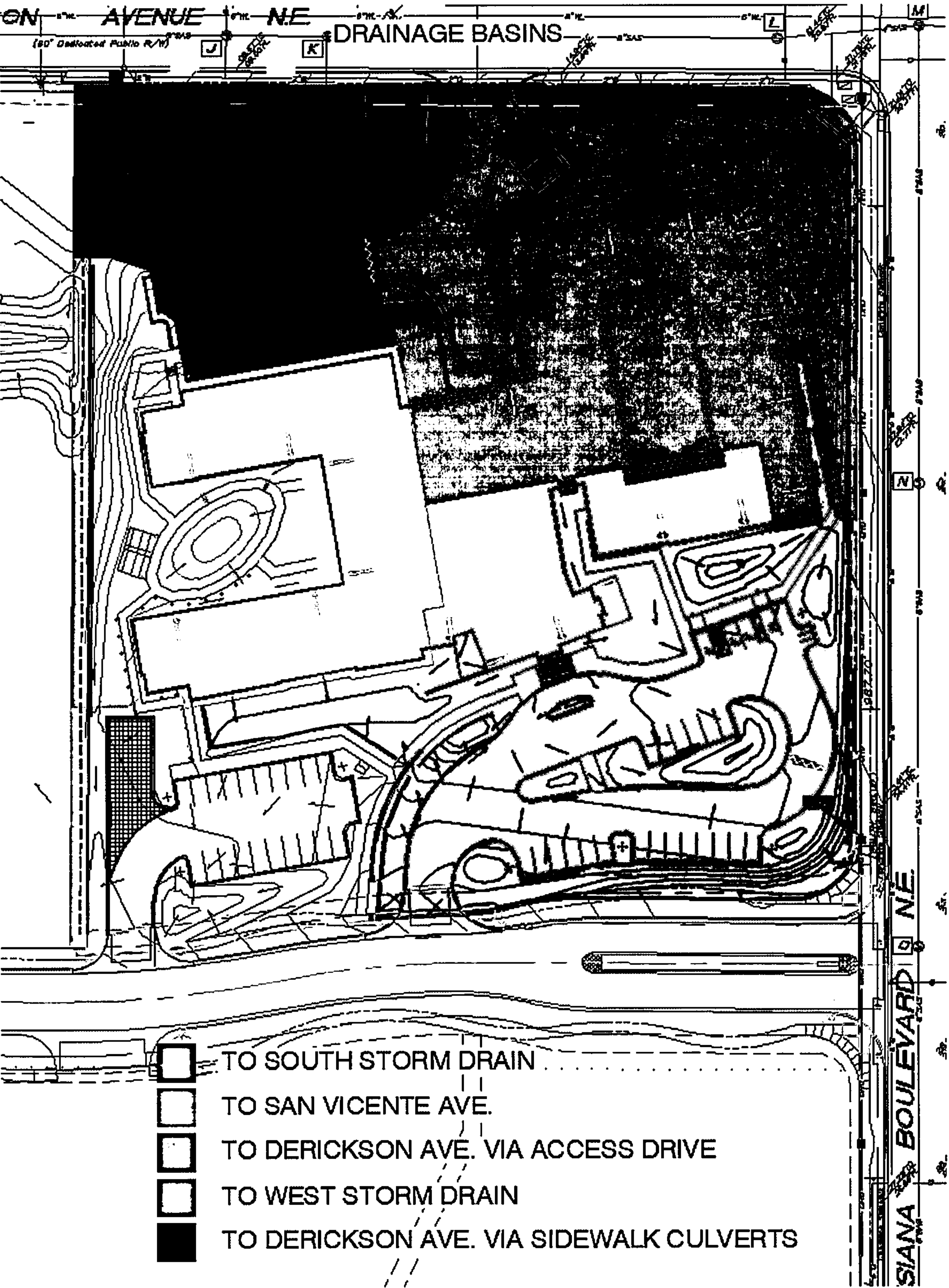
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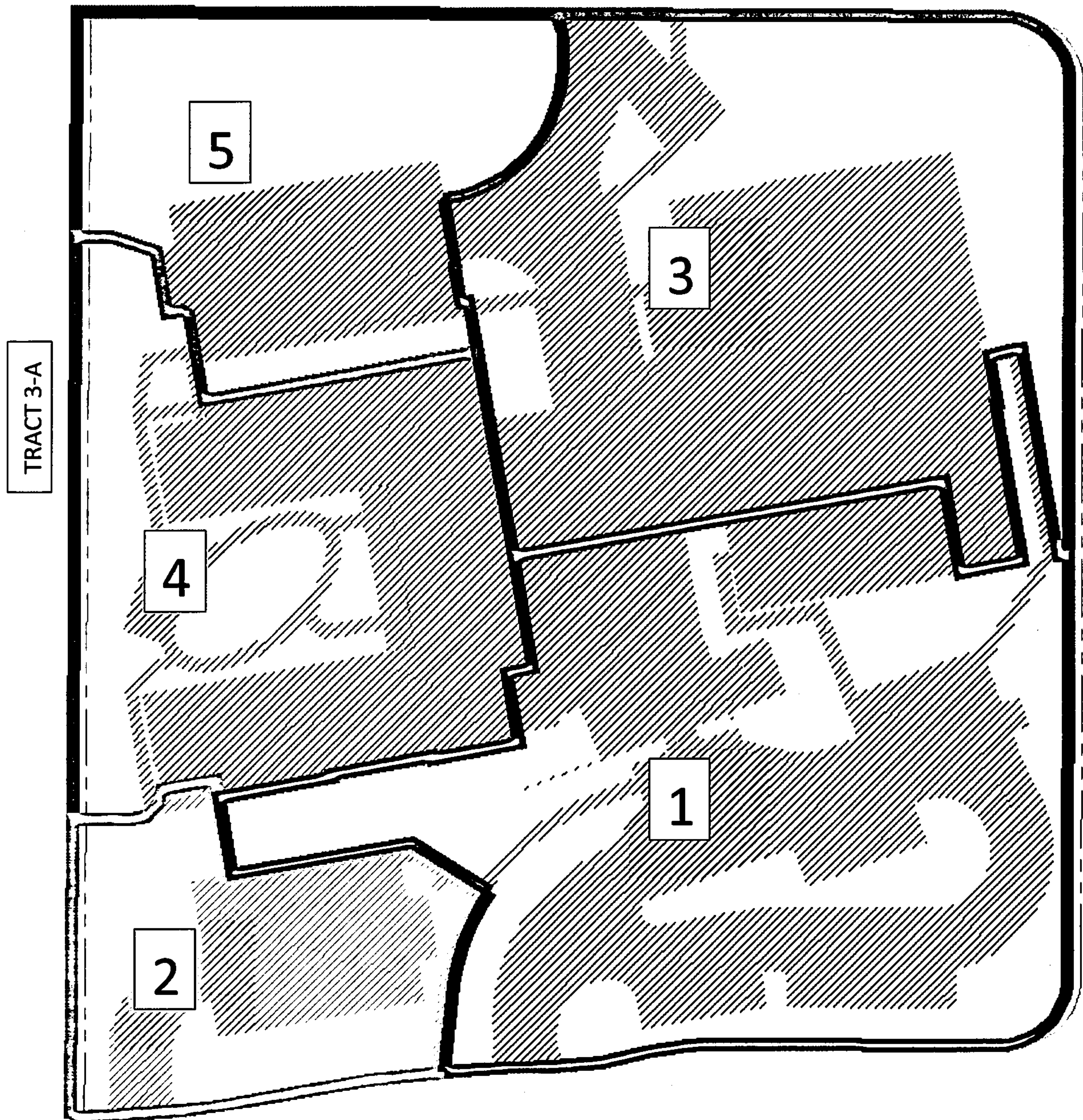
**ISAACSON & ARFMAN, P.A.**  
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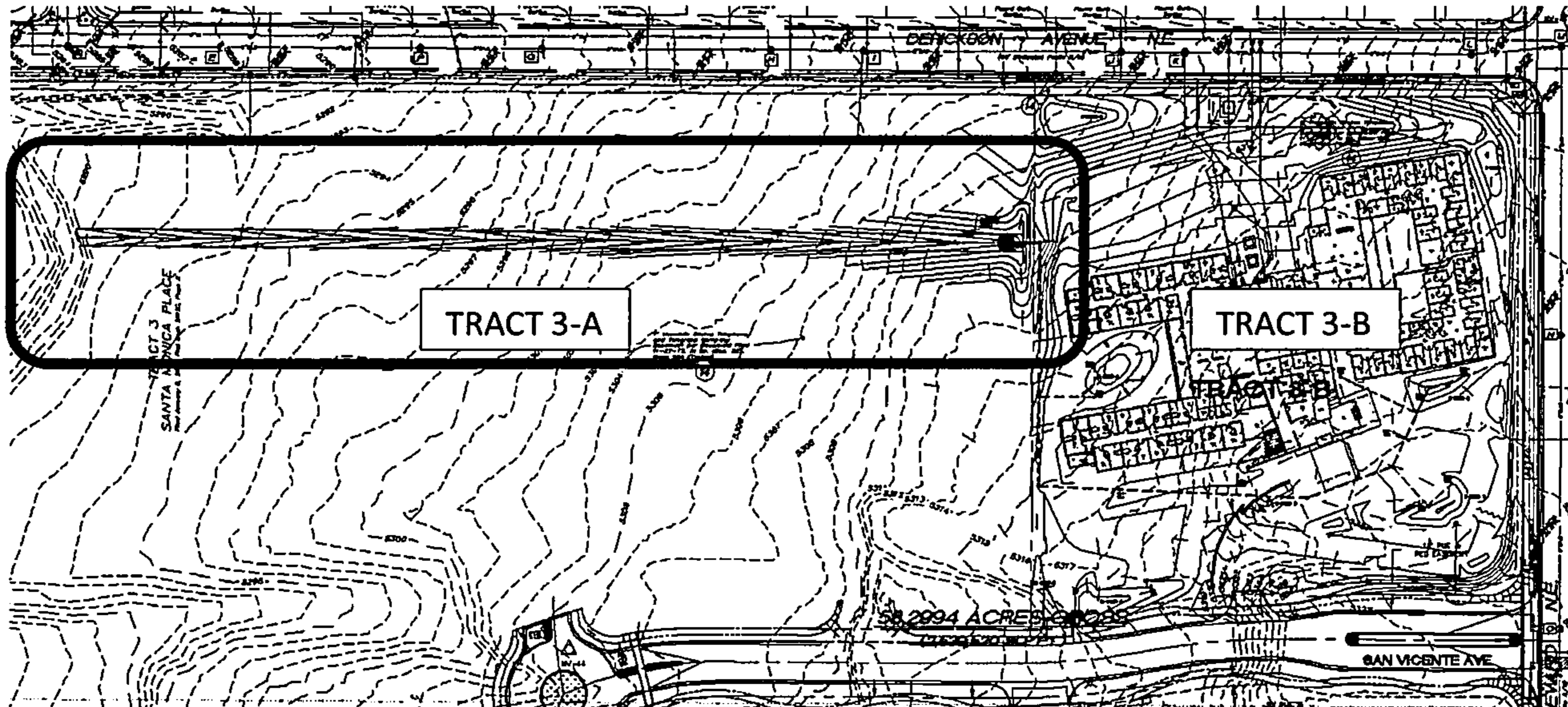
DRAINAGE BASINS



**DRAINAGE BASINS WITH  
IMPERVIOUS AREAS:**



# PERMISSION TO GRADE ON TRACT 3-A GRANTED BY PLAT



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Said Easement within Tracts 3 and 4, Santa Monica Place is VACATED by 14DRB-\_\_\_\_\_?

- B. A New Public and Private Interim Drainage Easement shall be granted by this plat over Tract 3-A, for the benefit of Tracts 3-B, 4-A and 4-B. Owners of said Tracts 3-B, 4-A and 4-B shall be allowed to grade Interim Drainage Facilities on Tract 3-A. Said Interim Drainage Facilities shall be maintained by the owner of Tract 3-A until such time that future development (TBD) of Tract 3-B is complete and applicable Interim Facilities are no longer required.

# DRAINAGE BASIN / FIRST FLUSH CALCULATIONS

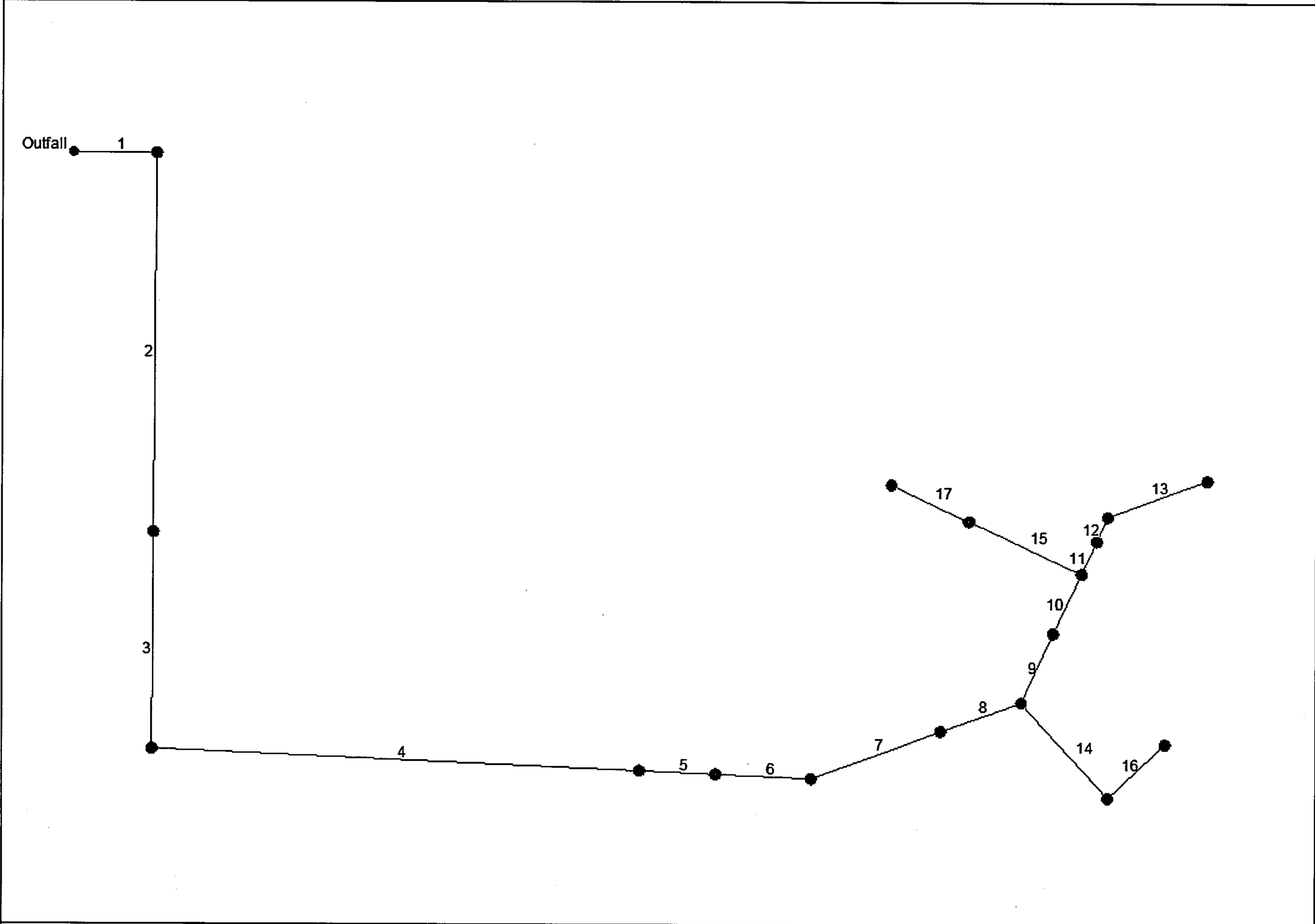
BASIN NO.	1	DESCRIPTION	TO SOUTH STORM DRAIN
Area of basin flows =	62758	SF	= 1.4 Ac.
The following calculations are based on Treatment areas as shown in table to the right			
Sub-basin Weighted Excess Precipitation (see formula above)			LAND TREATMENT
Weighted E = 1.81 in.			A = 0%
Sub-basin Volume of Runoff (see formula above)			B = 22%
V <sub>360</sub> = 9455 CF			C = 22%
Sub-basin Peak Discharge Rate: (see formula above)			D = 56%
Q <sub>p</sub> = 6.0 cfs			FIRST FLUSH VOL.
			996 CF
BASIN NO.	2	DESCRIPTION	TO SAN VICENTE AVE
Area of basin flows =	19099	SF	= 0.4 Ac.
The following calculations are based on Treatment areas as shown in table to the right			
Sub-basin Weighted Excess Precipitation (see formula above)			LAND TREATMENT
Weighted E = 1.76 in.			A = 0%
Sub-basin Volume of Runoff (see formula above)			B = 24%
V <sub>360</sub> = 2797 CF			C = 24%
Sub-basin Peak Discharge Rate: (see formula above)			D = 52%
Q <sub>p</sub> = 1.8 cfs			FIRST FLUSH VOL.
			281 CF
BASIN NO.	3	DESCRIPTION	TO DERICKSON AVE VIA SIDEWALK
Area of basin flows =	53746	SF	= 1.2 Ac.
The following calculations are based on Treatment areas as shown in table to the right			
Sub-basin Weighted Excess Precipitation (see formula above)			LAND TREATMENT
Weighted E = 1.91 in.			A = 0%
Sub-basin Volume of Runoff (see formula above)			B = 18%
V <sub>360</sub> = 8546 CF			C = 18%
Sub-basin Peak Discharge Rate: (see formula above)			D = 64%
Q <sub>p</sub> = 5.3 cfs			FIRST FLUSH VOL.
			975 CF
BASIN NO.	4	DESCRIPTION	TO WEST STORM DRAIN
Area of basin flows =	35828	SF	= 0.8 Ac.
The following calculations are based on Treatment areas as shown in table to the right			
Sub-basin Weighted Excess Precipitation (see formula above)			LAND TREATMENT
Weighted E = 1.88 in.			A = 0%
Sub-basin Volume of Runoff (see formula above)			B = 19%
V <sub>360</sub> = 5622 CF			C = 19%
Sub-basin Peak Discharge Rate: (see formula above)			D = 62%
Q <sub>p</sub> = 3.5 cfs			FIRST FLUSH VOL.
			629 CF
BASIN NO.	5	DESCRIPTION	TO DERICKSON AVE VIA SIDEWALK CULVERTS
Area of basin flows =	26901	SF	= 0.6 Ac.
The following calculations are based on Treatment areas as shown in table to the right			
Sub-basin Weighted Excess Precipitation (see formula above)			LAND TREATMENT
Weighted E = 1.51 in.			A = 0%
Sub-basin Volume of Runoff (see formula above)			B = 34%
V <sub>360</sub> = 3377 CF			C = 34%
Sub-basin Peak Discharge Rate: (see formula above)			D = 32%
Q <sub>p</sub> = 2.3 cfs			FIRST FLUSH VOL.
			244 CF

RUN DATE (MON/DAY/YR) =05/12/2015

USER NO.= AHYMO Temp User:20122010

[illegible]

Hydraflow Storm Sewers Extension for Autodesk® AutoCAD® Civil 3D® Plan



Line No.	Area Dn  (sqft)	Area Up  (sqft)	Byp Ln No	Coeff C1  (C)	Coeff C2  (C)	Coeff C3  (C)	Capac Full  (cfs)	Crit Depth  (ft)	Cross SI, Sw  (ft/ft)	Cross SI, Sx  (ft/ft)	Curb Len  (ft)	Defl Ang  (Deg)	Depth Dn  (ft)	Depth Up  (ft)	DnStm Ln No	Dmg Area  (ac)	Easting X  (ft)	EGL Dn  (ft)	EGL Up  (ft)	Energy Loss  (ft)	
1	1.77	1.77	Sag	0.20	0.50	0.90	41.29	1.10	0.020	0.020	----	0.477	1.10	1.10**	Outfall	0.00	1545212.12	5301.55	5302.55	0.000	
2	1.23	1.23	1	0.20	0.50	0.90	6.98	1.12	----	----	----	89.890	1.25	1.25	1	0.00	1545211.25	5309.49	5311.32	1.830	
3	1.23	1.23	2	0.20	0.50	0.90	7.00	0.99	----	----	----	-0.092	1.25	1.25	2	0.00	1545210.88	5311.11	5311.09	0.574	
4	1.23	1.23	3	0.20	0.50	0.90	7.00	0.97	----	----	----	-87.786	1.25	1.25	3	0.00	1545386.25	5312.04	5313.24	1.207	
5	0.79	0.79	4	0.20	0.50	0.90	3.82	0.93	----	----	----	0.113	1.00	1.00	4	0.00	1545413.75	5313.66	5314.18	0.520	
6	0.79	0.79	5	0.20	0.50	0.90	3.89	0.87	----	----	----	-0.104	1.00	1.00	5	0.00	1545448.13	5314.04	5314.47	0.428	
7	0.79	0.79	6	0.20	0.50	0.90	3.83	0.87	----	----	----	-22.617	1.00	1.00	6	0.00	1545494.88	5314.67	5315.29	0.619	
8	0.79	0.79	7	0.20	0.50	0.90	3.89	0.83	----	----	----	0.195	1.00	1.00	7	0.00	1545523.50	5315.26	5315.56	0.295	
9	0.79	0.79	8	0.20	0.50	0.90	3.82	0.37	----	----	----	-45.139	1.00	1.00	8	0.00	1545535.13	5315.55	5315.56	0.012	
10	0.79	0.79	9	0.20	0.50	0.90	3.88	0.37	----	----	----	0.005	1.00	1.00	9	0.00	1545545.13	5315.56	5315.58	0.010	
11	0.35	0.35	10	0.20	0.50	0.90	1.31	0.33	----	----	----	0.140	0.67	0.67	10	0.00	1545550.63	5315.61	5315.63	0.019	
12	0.35	0.35	11	0.20	0.50	0.90	1.33	0.33	----	----	----	-0.516	0.67	0.67	11	0.00	1545554.63	5315.63	5315.65	0.014	
13	0.35	0.35	12	0.20	0.50	0.90	1.30	0.33	----	----	----	45.466	0.67	0.67	12	0.00	1545590.75	5315.67	5315.73	0.056	
14	0.79	0.79	8	0.20	0.50	0.90	5.72	0.74	----	----	----	67.545	1.00	1.00	8	0.00	1545554.75	5315.76	5316.04	0.280	
15	0.35	0.35	10	0.20	0.50	0.90	1.98	0.25	----	----	----	-89.966	0.67	0.67	10	0.00	1545505.24	5315.59	5315.61	0.023	
16	0.79	0.79	14	0.20	0.50	0.90	5.59	0.52	----	----	----	-90.318	1.00	1.00	14	0.00	1545575.75	5316.10	5316.14	0.043	
17	0.35	0.28	15	0.20	0.50	0.90	1.96	0.14	----	----	----	-0.058	0.67	0.50	15	0.00	1545476.99	5315.60	5315.60	0.002	
Project File: 2047 Elan South.ssm													Number of lines: 17				Date: 5/4/2015				
NOTES: ** Critical depth																					

## **APPENDIX:**

- **Excerpts from the Master Drainage Report dated October 9, 2014**
  - **Cover**
  - **Proposed Conditions with comparison inset**
  - **Tract 3-B and 4-B Construction**
  - **Summary**

OCTOBER 9, 2014

# MASTER DRAINAGE REPORT

Update to Master Drainage Report for Santa Monica Place, dated 02/21/12

FOR

TRACTS 3-A, 3-B, 4-A, & 4-B  
SANTA MONICA PLACE  
(Replat of Tracts 3 & 4, Santa Monica Place)

Louisiana Blvd. and Derickson Ave. NE



---

Åsa Nilsson-Weber, P.E.

Date



**ISAACSON & ARFMAN, P.A.**

*Consulting Engineering Associates*

Thomas O. Isaacson, PE & LS [Ret.]

Fred C. Arfman, PE

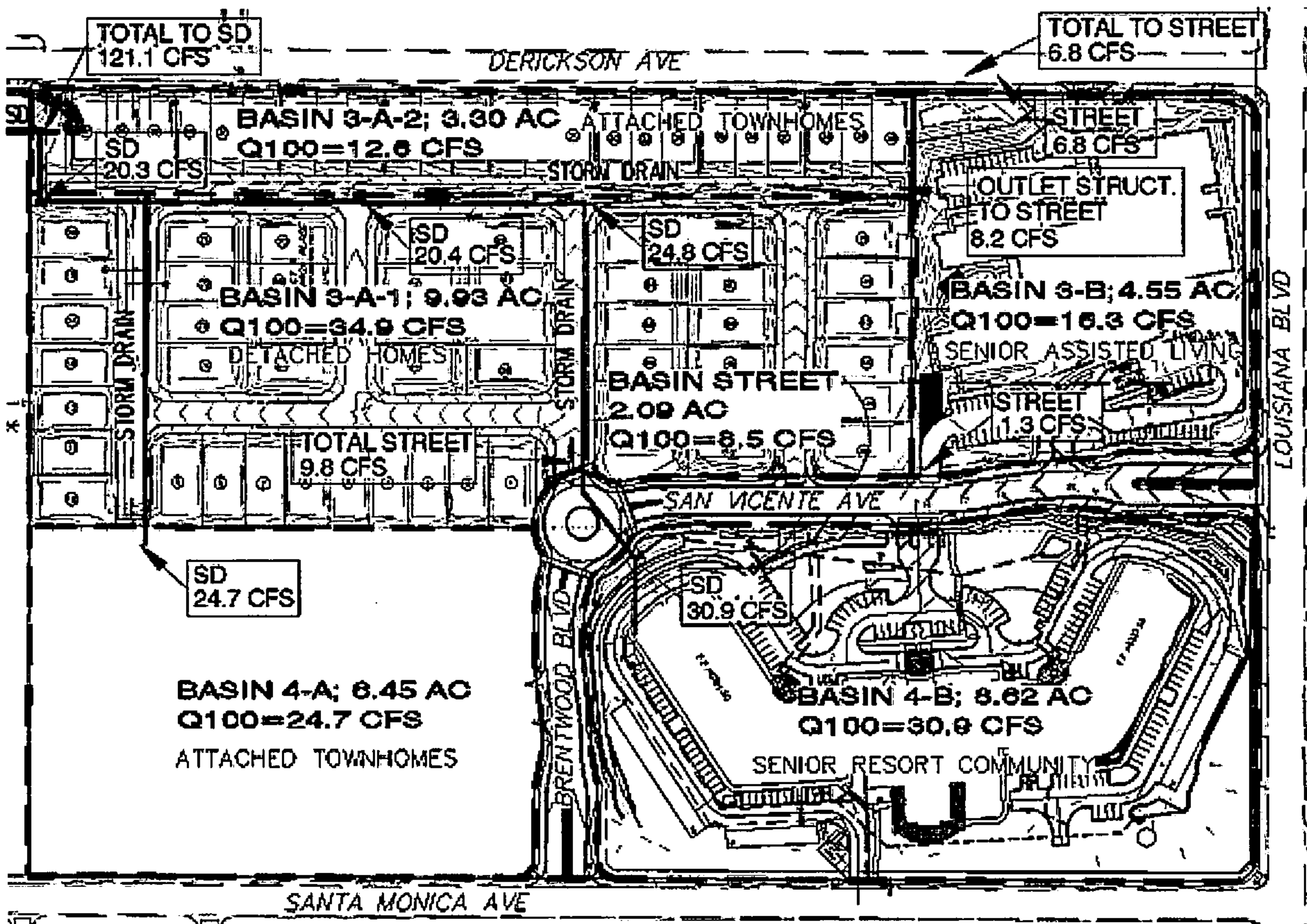
Åsa Nilsson-Weber, PE

## IV. PROPOSED CONDITIONS

Tract 3-B will be developed as an assisted living facility and Tract 4-B as a senior resort. Site plans and preliminary grading plans have been developed for both tracts. Tract 4-A will be developed with attached townhomes—there is currently no site plan for this tract. Tract 3-A will be developed with a mixture of attached townhomes and detached single-family homes—a preliminary layout has been developed.

San Vicente Ave. / Brentwood Blvd. will be constructed, including any required storm drain, rundowns and utilities. Work order plans are in the process of being prepared.

The 100-yr, 6-hr flow rates for each tract were calculated using AHYMO based on NOAA Atlas 14 rainfall data and assigned land treatments—see Appendix A. Tract 3-A was split into two basins—3-A-1 (single detached homes) and 3-A-2 (attached townhomes). The land treatments were based on the site plans for Tracts 3-B and 4-B, and per Table 5 from DPM Section 22.2 for the remaining tracts—see Appendix A.



Proposed Basin Exhibit

Per the AHYMO calculations for the developed property:

Q100 to Derickson (Basins 3 and 5) = 6.63 cfs (allowable = 6.8 cfs)

Q100 west (Basins 1 and 4) = 8.27 cfs (allowable = 8.2 cfs)

Q100 south to San Vicente Ave. (Basin 2) = 1.57 cfs (allowable = 1.3 cfs).

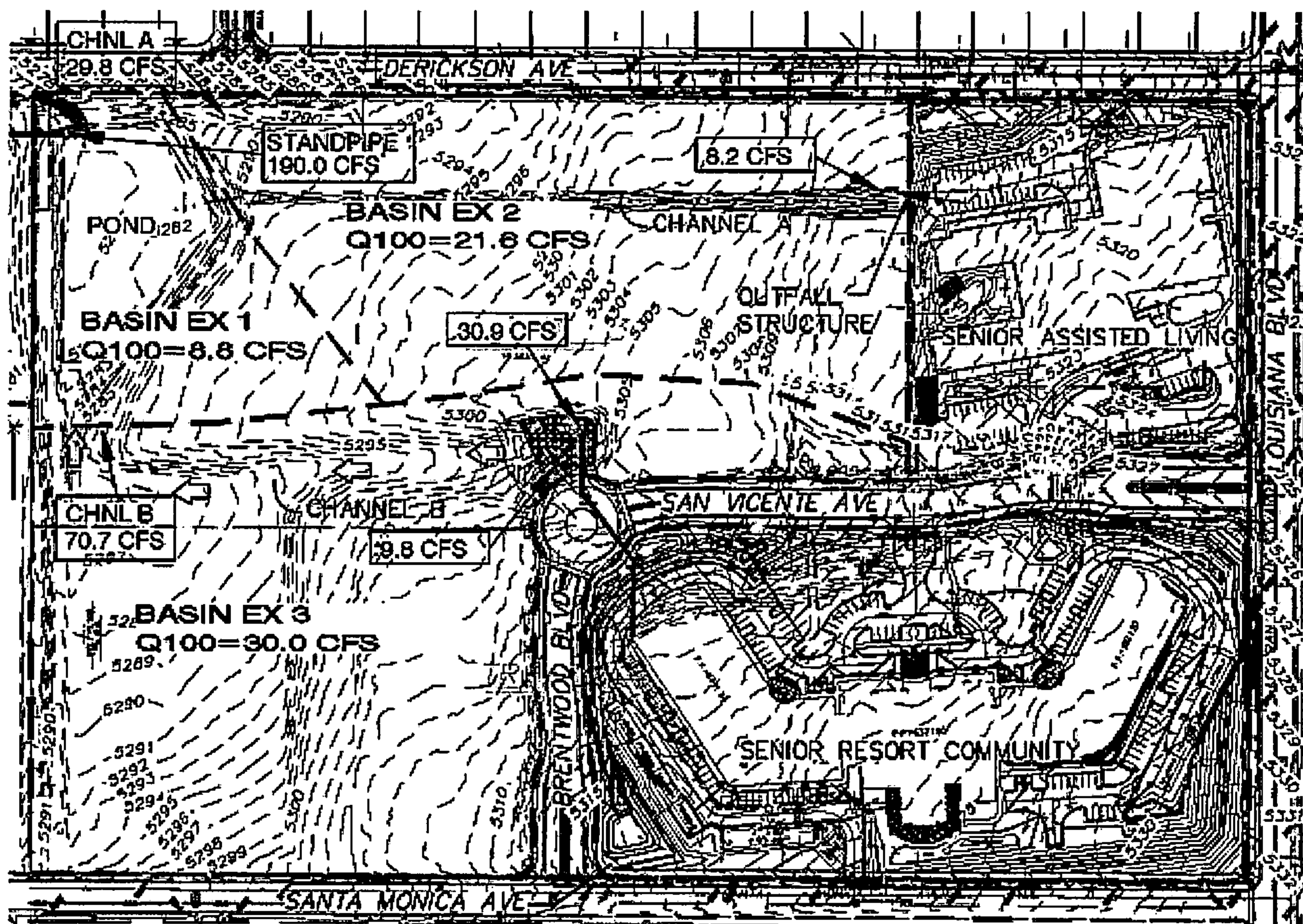
The minor difference in discharge to San Vicente Ave. and to the west storm drain will be factored into the final design for the future storm system (same owner).

## TRACTS 3-B AND TRACT 4-B CONSTRUCTION

When Tract 3-B develops, an outfall structure shall be constructed to convey flows to the west at the future roadway alignment in Tract 3-A. An interim channel (Channel A) shall be graded to convey flows to the pond. See Appendix B for channel capacity calculations.

Upon development of Tract 4-B, the temporary standpipe shall be removed and the onsite storm drain system shall be connected to the 18" storm drain installed with the San Vicente Ave. and Brentwood Blvd. construction. The storm drain will continue to discharge into the existing channel and be directed to the pond via the existing channel (Channel B). The channel calculations were based on the narrowest section of the channel. See Appendix B for channel capacity calculations. Velocities in both channels are approximately 4.5 fps, which is non-erosive.

The earthen channels shall be maintained by the Owner of Tract 3-A until the subdivision storm drain system is constructed.



Interim Drainage Exhibit—Tracts 3-B and 4-B Construction

## VI. SUMMARY

The following items shall be required for construction of each tract / street. Improvements are listed in the anticipated order of development of each tract.

### **SAN VICENTE AVE. / BRENTWOOD BLVD.**

- *Submit an interim grading & drainage plan to support the Public Work Order.*
- Install a manhole and 24" storm drain (public) under roundabout.
- Install an 18" storm drain and a temporary standpipe (private) on Tract 4-B.
- Outlet erosion control north of the roundabout at Channel B.

### **TRACT 3-B**

- *Submit a grading & drainage plan including interim offsite channel grades to support the Building Permit.*
- Construct outfall structure to convey flows west.
- Construct Channel A from Tract 3-B to the existing pond.

### **TRACT 4-B**

- *Submit a grading & drainage plan to support the Building Permit.*
- Remove temporary standpipe on Tract 4-B and connect the new onsite storm drain to the 18" storm drain installed with San Vicente Ave. and Brentwood Blvd. improvements.

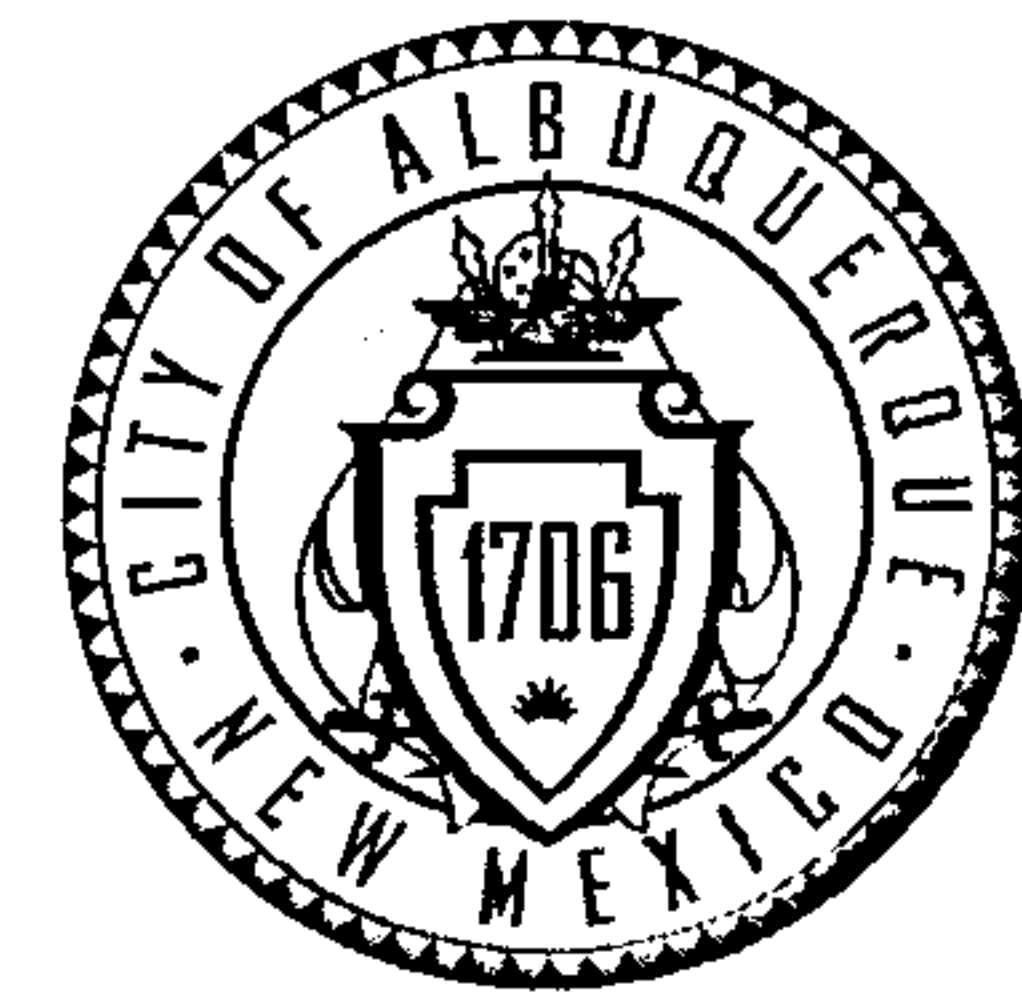
### **TRACT 4-A**

- *Submit a grading & drainage plan to support the Public Work Order and Building Permit.*
- *Submit a drainage report with hydrology/hydraulic calculations including storm drain calculations.*
- Install a storm drain stub to Tract 3-A for interim discharge to pond.
- Construct the infrastructure required for the development.

### **TRACT 3-A**

- *Submit a grading & drainage plan to support the Public Work Order and Building Permit Plans.*
- *Submit a drainage report with hydrology/hydraulic calculations, including storm drain calculations.*
- Remove the rock in Channel B, existing pond and temporary standpipe.
- Construct the infrastructure required for the development, including the ultimate storm drain system.

# CITY OF ALBUQUERQUE



October 27, 2014

Ms. Asa Weber, PE  
Isaacson & Arfman, PA  
1287 Monroe Street NE  
Albuquerque, NM 87108

**Re: Elan – Santa Monica Place, Tract 3B  
Conceptual Grading and Drainage Plan  
No Engineer's Date (D18D054B)**

Dear Ms. Weber,

Based upon the information provided in your submittal received 10-24-14, the above referenced plan is approved for Site Development Plan for Building Permit action by DRB..

If you have any questions, you can contact me at 924-3994.

Sincerely,

Amy L. D. Niese, P.E.  
Senior Engineer, Hydrology  
Planning Department

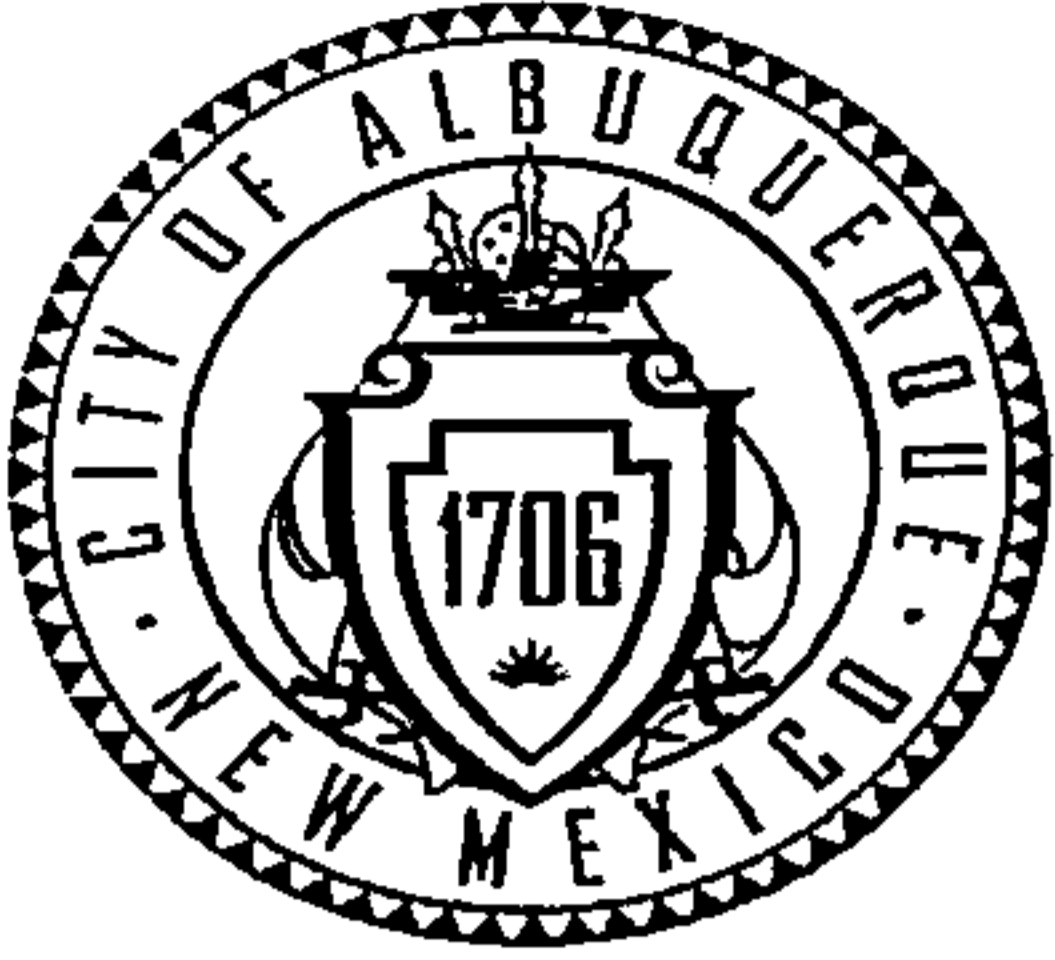
PO Box 1293

Albuquerque

New Mexico 87103

C: e-mail

[www.cabq.gov](http://www.cabq.gov)



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Elan - Santa Monica Place (Senior Assisted Living/Memory Care) Building Permit #: \_\_\_\_\_ City Drainage #: D18 D054B

DRB#: 1003916 EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_

Legal Description: The Eastern Portion of Tract 3, Santa Monica Place

City Address: \_\_\_\_\_

Engineering Firm: Isaacson & Arfman, P.A. Contact: Asa Nilsson-Weber

Address: 128 Monroe Street NE - Albuquerque, NM 87108

Phone#: (505) 268-8828 Fax#: \_\_\_\_\_ E-mail: asaw@iacivil.com

Owner: Del Rey Investments, LLC Contact: Kurt Browning

Address: 6300 Riverside Plaza Lane NW, Suite 200 - Albuquerque, NM 87120

Phone#: (505) 998-0163 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Architect: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

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

Address: 9384 Valley View Drive NW - Albuquerque, NM 87114

Phone#: (505) 897-3366 Fax#: (505) 897-3377 E-mail: \_\_\_\_\_

Contractor: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

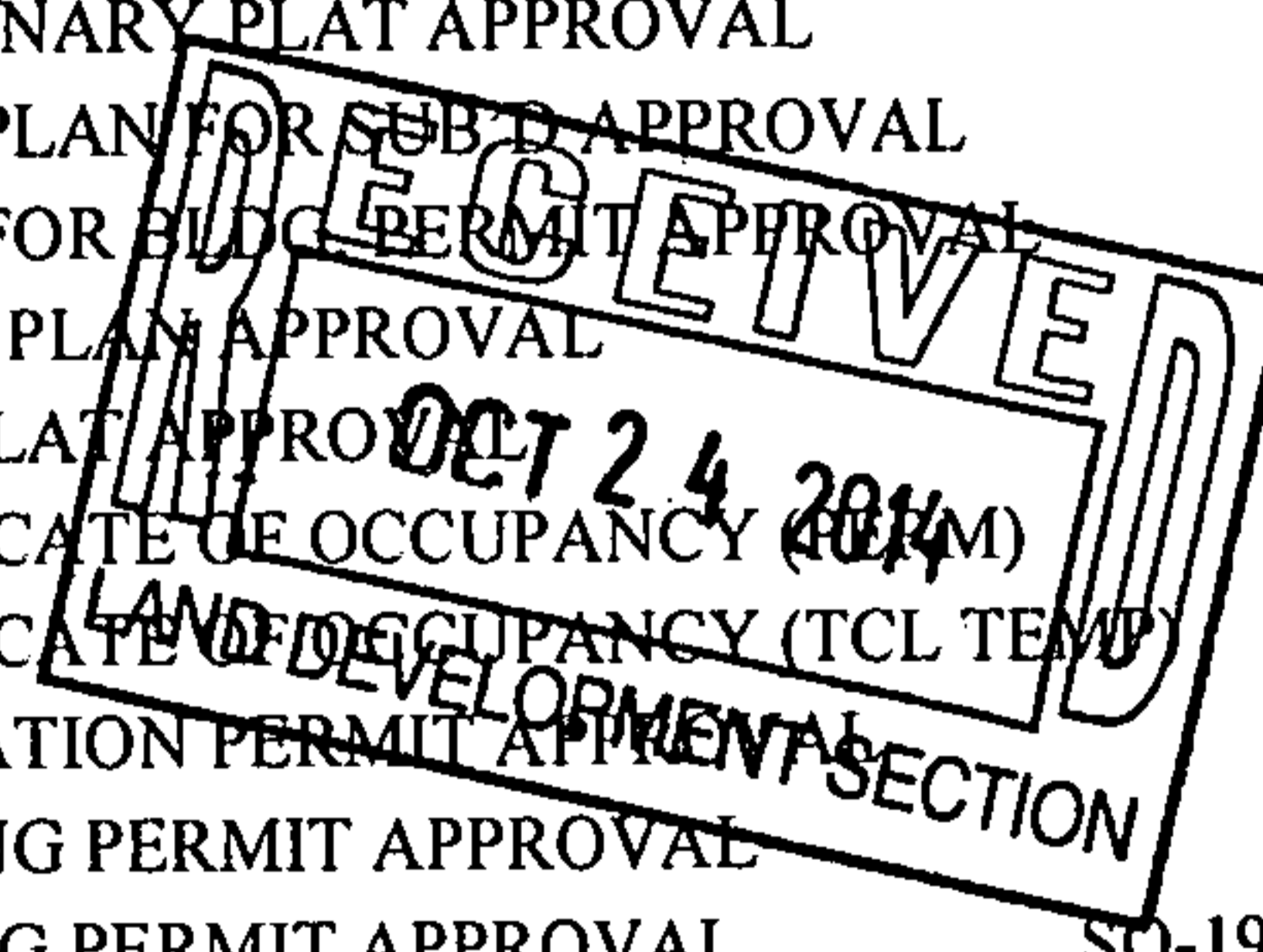
Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

### TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☒ CONCEPTUAL G & D PLAN Resubmittal
- ☐ GRADING PLAN
- ☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ☐ ENGINEER'S CERT (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEER'S CERT (TCL)
- ☐ ENGINEER'S CERT (DRB SITE PLAN)
- ☐ ENGINEER'S CERT (ESC)
- ☐ SO-19
- ☐ OTHER (SPECIFY) \_\_\_\_\_

### CHECK TYPE OF APPROVAL/ACCEPTANCE SOUGHT:

- ☐ SIA/FINANCIAL GUARANTEE RELEASE
- ☐ PRELIMINARY PLAT APPROVAL
- ☐ S. DEV. PLAN FOR SUB D APPROVAL
- ☒ S. DEV. FOR BUILD PERMIT APPROVAL
- ☐ SECTOR PLAN APPROVAL
- ☐ FINAL PLAT APPROVAL
- ☐ CERTIFICATE OF OCCUPANCY (COM)
- ☐ CERTIFICATE OF DEVELOPMENT (TCL TEMP)
- ☐ FOUNDATION PERMIT APPROVAL
- ☐ BUILDING PERMIT APPROVAL
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ GRADING CERTIFICATION
- ☐ SO-19 APPROVAL
- ☐ ESC PERMIT APPROVAL
- ☐ ESC CERT. ACCEPTANCE
- ☐ OTHER (SPECIFY) \_\_\_\_\_



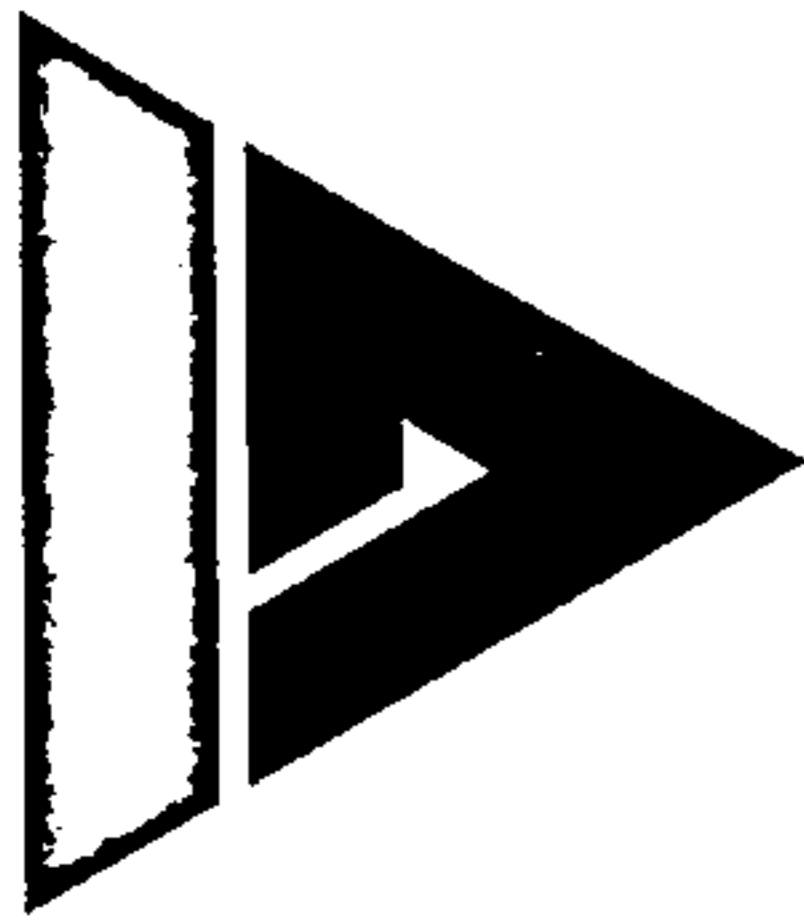
WAS A PRE-DESIGN CONFERENCE ATTENDED: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Copy Provided

DATE SUBMITTED: October 24, 2014 By: Asa Nilsson-Weber  
Isaacson & Arfman, P.A.

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 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 (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
4. **Erosion and Sediment Control Plan:** Required for any new development and redevelopment site with 1-acre or more of land disturbing area, including project less than 1-acre than are part of a larger common plan of development

*Ad = 2.37 FRC*



# A Transmittal From

Isaacson & Arfman, P.A.

Consulting Engineering Associates

TO: Amy Niese, PE  
City of Albuquerque  
Hydrology

DATE: 10/24/14  
JOB NO: 2047

FROM: Åsa Nilsson-Weber

REFERENCE: Elan, Santa Monica Place--D18D054B

**WE ARE SENDING YOU ATTACHED THE FOLLOWING ITEMS:**

Conceptual Grading & Drainage Plan.

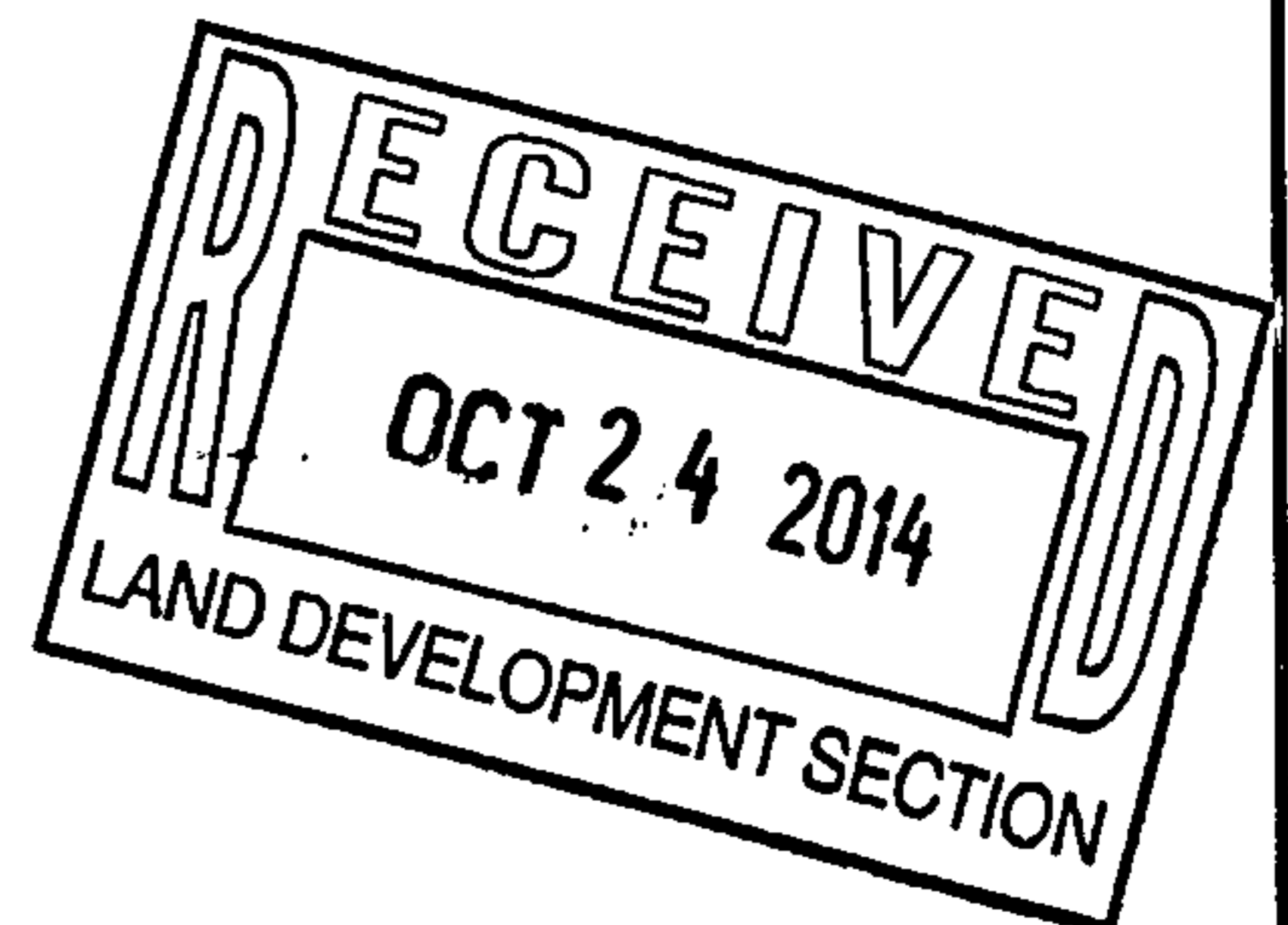
Your comments from October 21, 2014 have been addressed as follows:

1. Discharge rates were revised per MDR.
2. First flush volumes required were identified; first flush retention areas identified; volumes provided shall be provided with final G&D plan.
3. A second sheet was added to show the offsite channel.

**THIS INFORMATION IS TRANSMITTED:**

- |  |   |
|--|---|
| <input type="checkbox"/> As per your request                     | <input type="checkbox"/> For your files           |
| <input checked="" type="checkbox"/> For your review and approval | <input type="checkbox"/> For your use             |
| <input type="checkbox"/> For your information                    | <input type="checkbox"/> Please review and return |
| <input type="checkbox"/> For your attention                      | <input type="checkbox"/> For return to your files |
| <input type="checkbox"/> For your signature                      | <input type="checkbox"/> Please advise            |
| <input type="checkbox"/>   | <input type="checkbox"/>                          |

**COMMENTS**



RECEIVED BY: \_\_\_\_\_

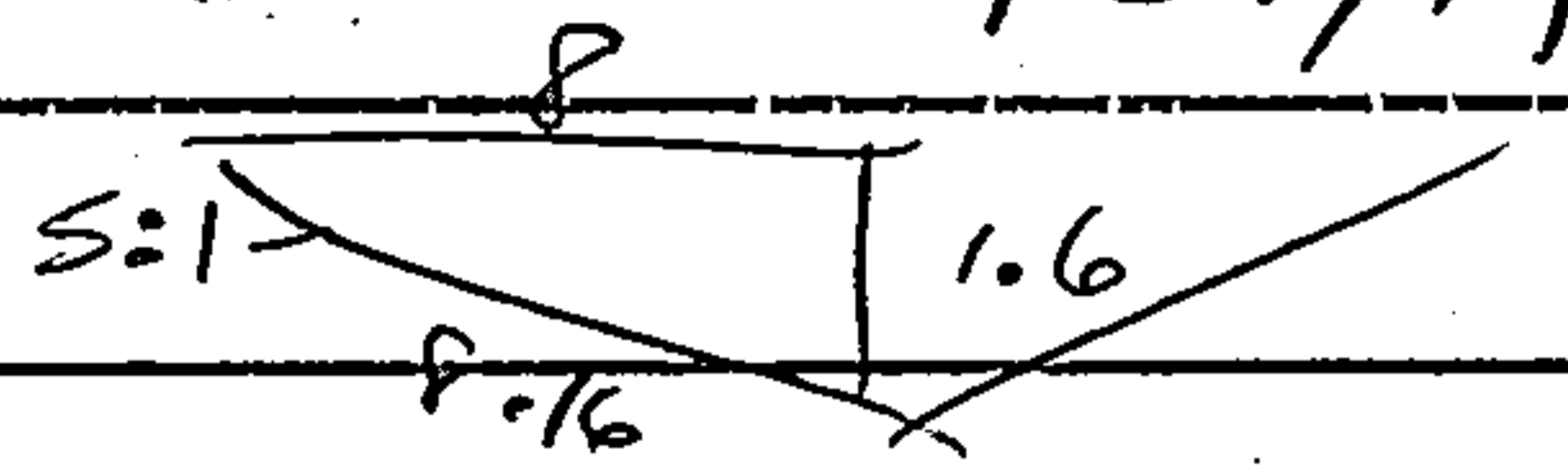
DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

COPIES TO: \_\_\_\_\_

Elan

10/27/14

$$Q = 1.49 \frac{A R^{2/3} S^{1/2}}{n}$$



$$R = \frac{A}{WP} = \frac{12.8}{16.32} = .78 \quad \frac{1}{5} = \frac{?}{8} \quad ? = 1.6 \quad C^2 = 8^2 + 1.6^2$$
$$C = \sqrt{8^2 + 1.6^2} = 8.16$$

$$A = 2 \left( \frac{1}{2} \right) (8) (1.6) = 12.8$$

$$WP = 2(8.16) = 16.32$$

$$S = .0185 \quad n = .03$$

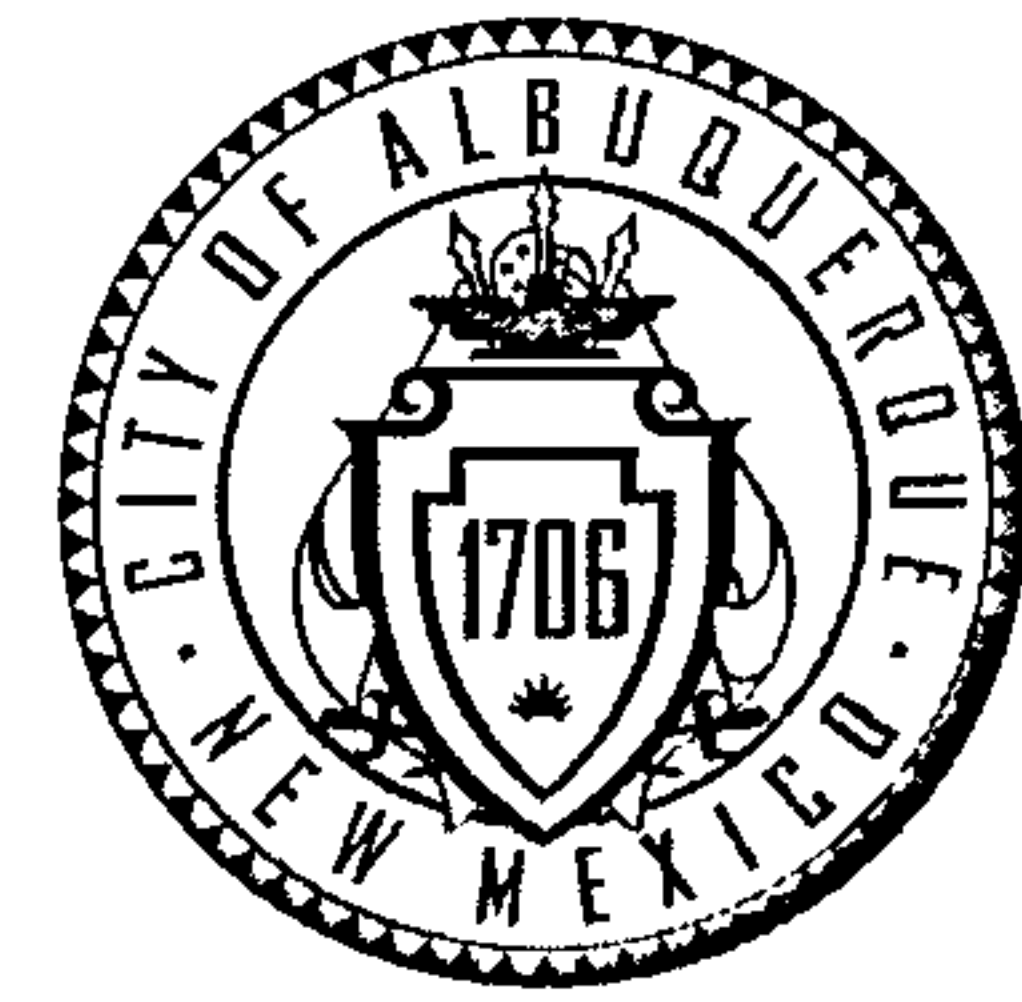
$$Q = 1.49 (12.8) (.78)^{2/3} \sqrt{.0185} / .03 = 73.54 \text{ cfs} \checkmark$$

> 80 cfs

FF 2920 REP

Navigation + areas provided but no vol.

# CITY OF ALBUQUERQUE



October 21, 2014

Mr. Fred C. Arfman, PE  
Isaacson & Arfman, PA  
1287 Monroe Street NE  
Albuquerque, NM 87108

**Re: Elan – Santa Monica Place  
Conceptual Grading and Drainage Plan  
No Engineer's Date (D18D054B)**

Dear Mr. Arfman,

Based upon the information provided in your submittal received 10-16-14, the above referenced plan is not approved for Site Development Plan action by DRB nor Building Permit. Address the following comments:

1. The Master Drainage Report for Tracts 3A, 3B, 4A, and 4B has been approved. The report specifies the drainage development parameters for the proposed Tract 3B (Elan's tract). Show how the site is meeting those requirements. All basins shown on this plan are discharging more than is allowable by the MDR. The allowable discharge for this site is 16.3 cfs not 23.8 cfs. Revise the calculations and narrative accordingly. Make sure the AHYMO run and the basin descriptions match also.
2. A discussion of the First Flush has been added to the plans. The volume required and the volume provided should be included also. Do you have sufficient room for the First Flush with the current site plan?

Per the City Drainage ordinance, the 90<sup>th</sup> Percentile Storm Event, which is 44 inches, is to be managed. Reduce 0.44 inch by the 0.1 inch for the initial impervious abstraction in Table A-6 of Section 22 of the DPM. Multiply the remaining 0.34 inch by your impervious area. This is the portion to retain.

3. Include the design for Channel A on Tract 3A with your Grading and Drainage Plan.

If you have any questions, you can contact me at 924-3994.

Sincerely,

Amy L. D. Niese, P.E.  
Senior Engineer, Hydrology  
Planning Department

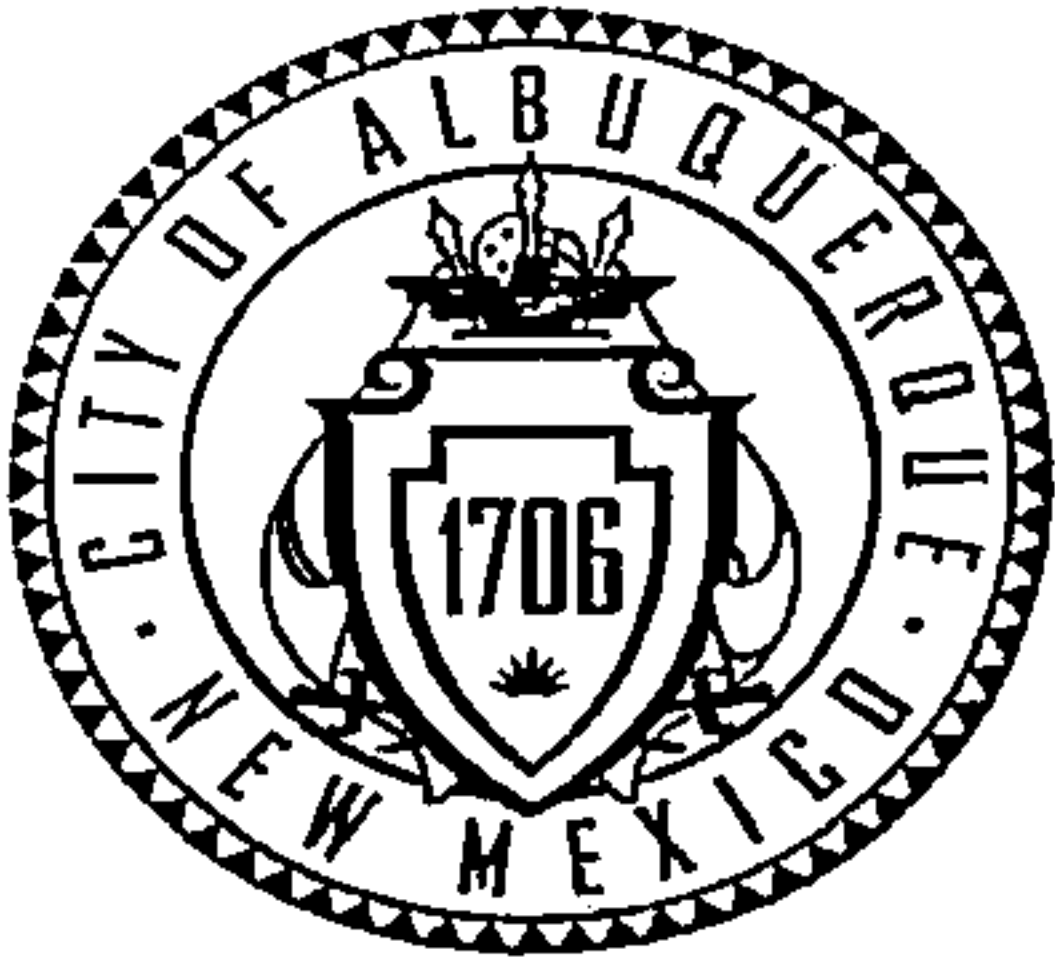
C: e-mail

PO Box 1293

Albuquerque

New Mexico 87103

[www.cabq.gov](http://www.cabq.gov)



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

D18D054B

Project Title: Elan - Santa Monica Place (Senior Assisted Living/Memory Care) Building Permit #: \_\_\_\_\_ City Drainage #: D18D054C

DRB#: 1003916 EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_

Legal Description: The Eastern Portion of Tract 3, Santa Monica Place

City Address: \_\_\_\_\_

Engineering Firm: Isaacson & Arfman, P.A. Contact: Fred C. Arfman

Address: 128 Monroe Street NE - Albuquerque, NM 87108

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

Owner: Del Rey Investments, LLC Contact: Kurt Browning

Address: 6300 Riverside Plaza Lane NW, Suite 200 - Albuquerque, NM 87120

Phone#: (505) 998-0163 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Architect: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

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

Address: 9384 Valley View Drive NW - Albuquerque, NM 87114

Phone#: (505) 897-3366 Fax#: (505) 897-3377 E-mail: \_\_\_\_\_

Contractor: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

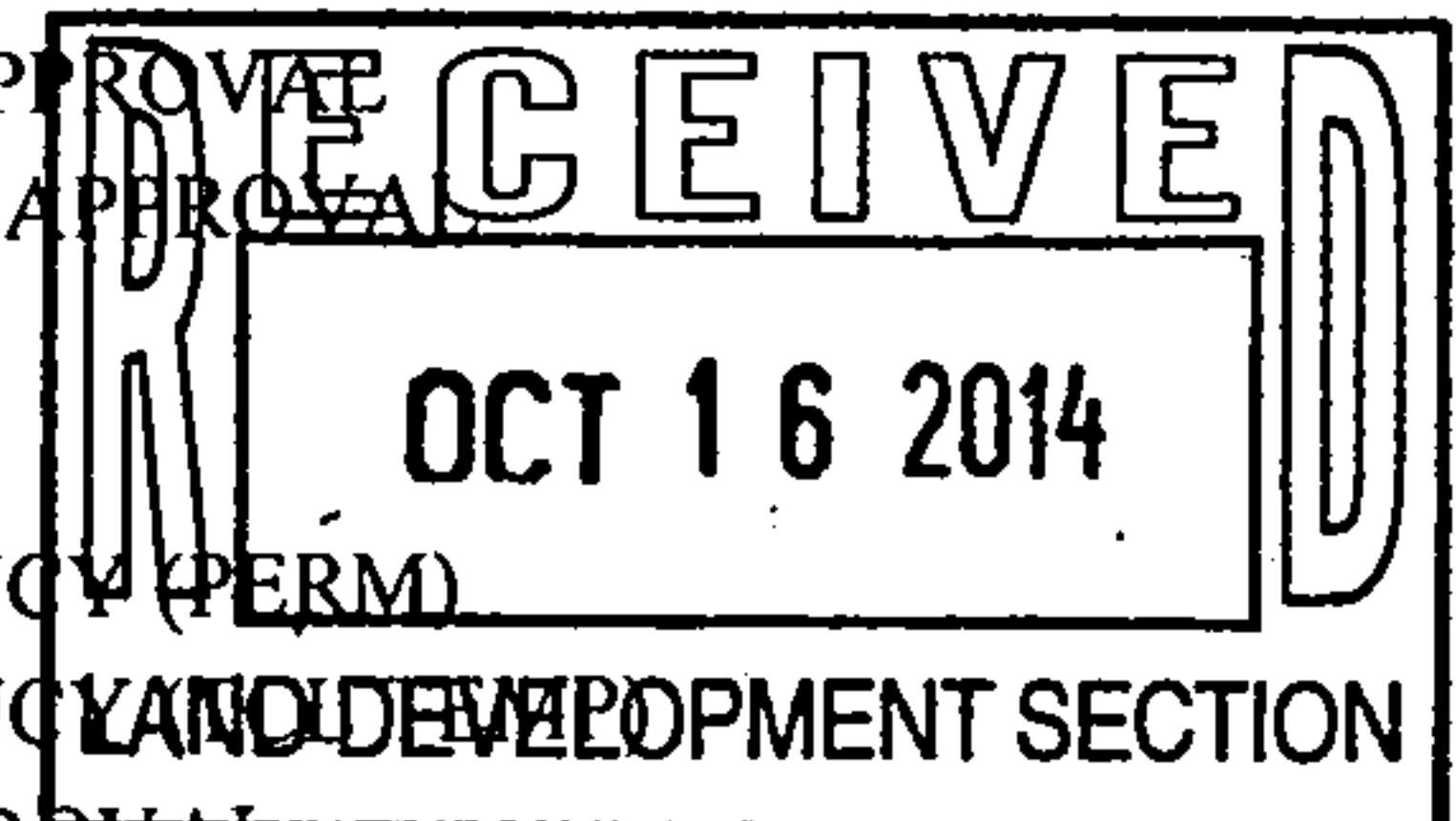
Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

### TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☒ CONCEPTUAL G & D PLAN Resubmittal
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- ☐ ENGINEER'S CERT (HYDROLOGY)
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- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEER'S CERT (TCL)
- ☐ ENGINEER'S CERT (DRB SITE PLAN)
- ☐ ENGINEER'S CERT (ESC)
- ☐ SO-19
- ☐ OTHER (SPECIFY) \_\_\_\_\_

### CHECK TYPE OF APPROVAL/ACCEPTANCE 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
- ☐ CERTIFICATE OF OCCUPANCY (PERM)
- ☐ CERTIFICATE OF OCCUPANCY AND DEVELOPMENT SECTION
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
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- ☐ GRADING CERTIFICATION
- ☐ SO-19 APPROVAL
- ☐ ESC PERMIT APPROVAL
- ☐ ESC CERT. ACCEPTANCE
- ☐ OTHER (SPECIFY) \_\_\_\_\_



WAS A PRE-DESIGN CONFERENCE ATTENDED: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Copy Provided

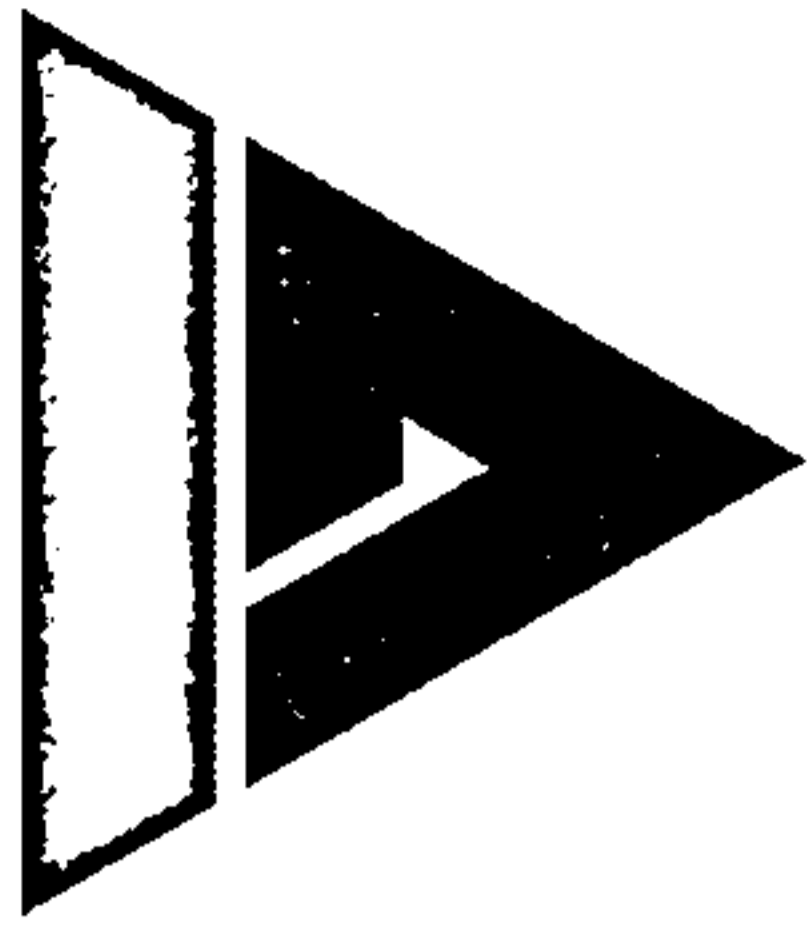
DATE SUBMITTED: October 15, 2014 By: Fred C. Arman, PE

Isaacson & Arfman, P.A.

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 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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Ad = ? FILE



# A Transmittal From

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## Isaacson & Arfman, P.A.

Consulting Engineering

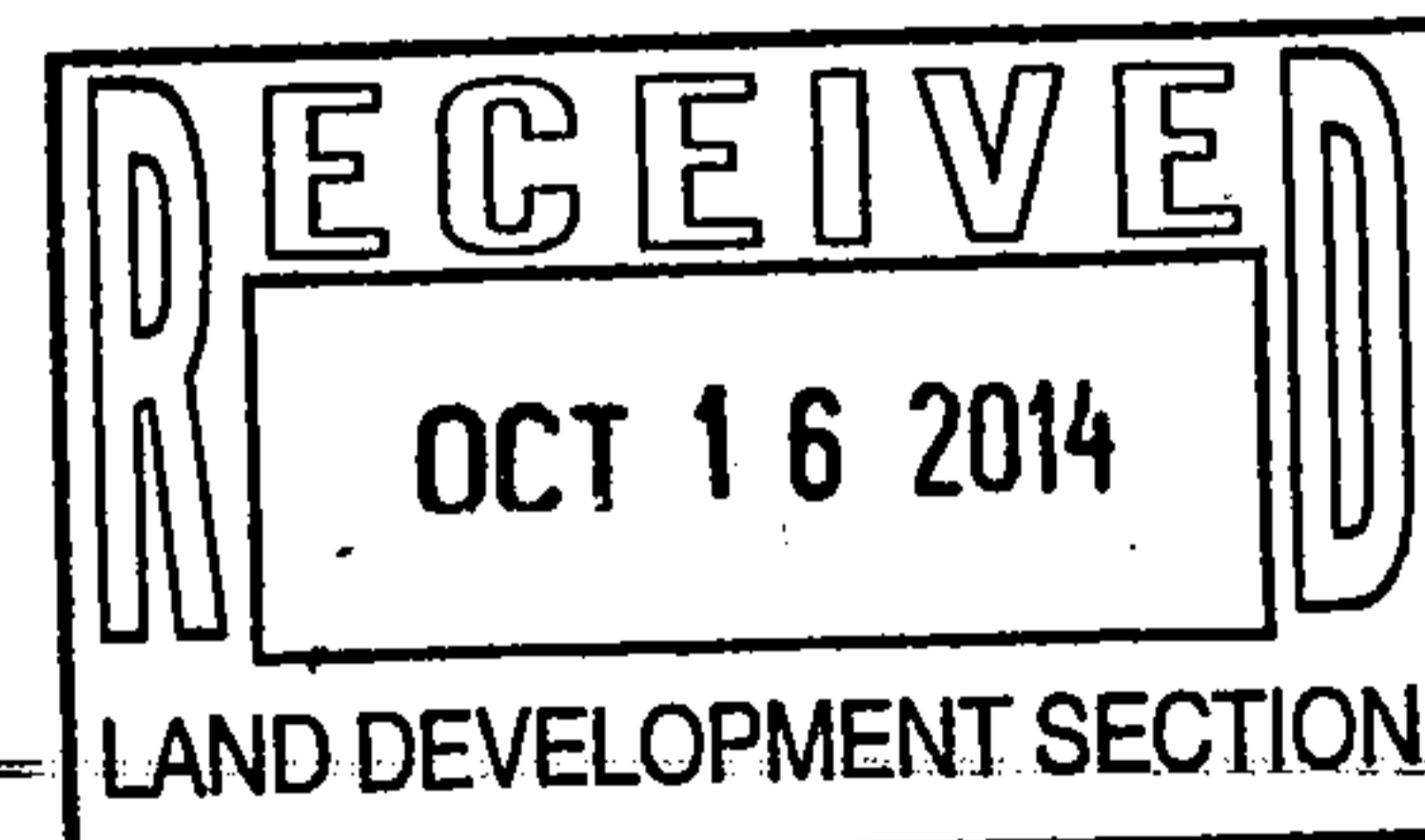
TO: COA Hydrology  
Attn: Amy Niese, PE

DATE: 15 October 2014  
JOB NO: 2047

FROM:

REFERENCE: D18/054C: ELAN-- Santa Monica Place

<b>WE ARE SENDING YOU ATTACHED THE FOLLOWING ITEMS:</b>	
1 updated Conceptual G&D Plan – see comment below	
<b>THIS INFORMATION IS TRANSMITTED:</b>	
<input type="checkbox"/> As per your request	<input checked="" type="checkbox"/> For your files
<input type="checkbox"/> For your review and approval	<input type="checkbox"/> For your use
<input type="checkbox"/> For your information	<input type="checkbox"/> Please review and return
<input type="checkbox"/> For your attention	<input type="checkbox"/> For return to your files
<input type="checkbox"/> For your signature	<input type="checkbox"/> Please advise
<input type="checkbox"/>	<input type="checkbox"/>
<b>COMMENTS</b>	
<p>This plan is provided as required to show the updated site base which included minor site plan revisions. The grading and drainage concept and overall basin analysis remains unchanged.</p> <p>As noted on the plan, the 'first flush' will be managed as required.</p>	

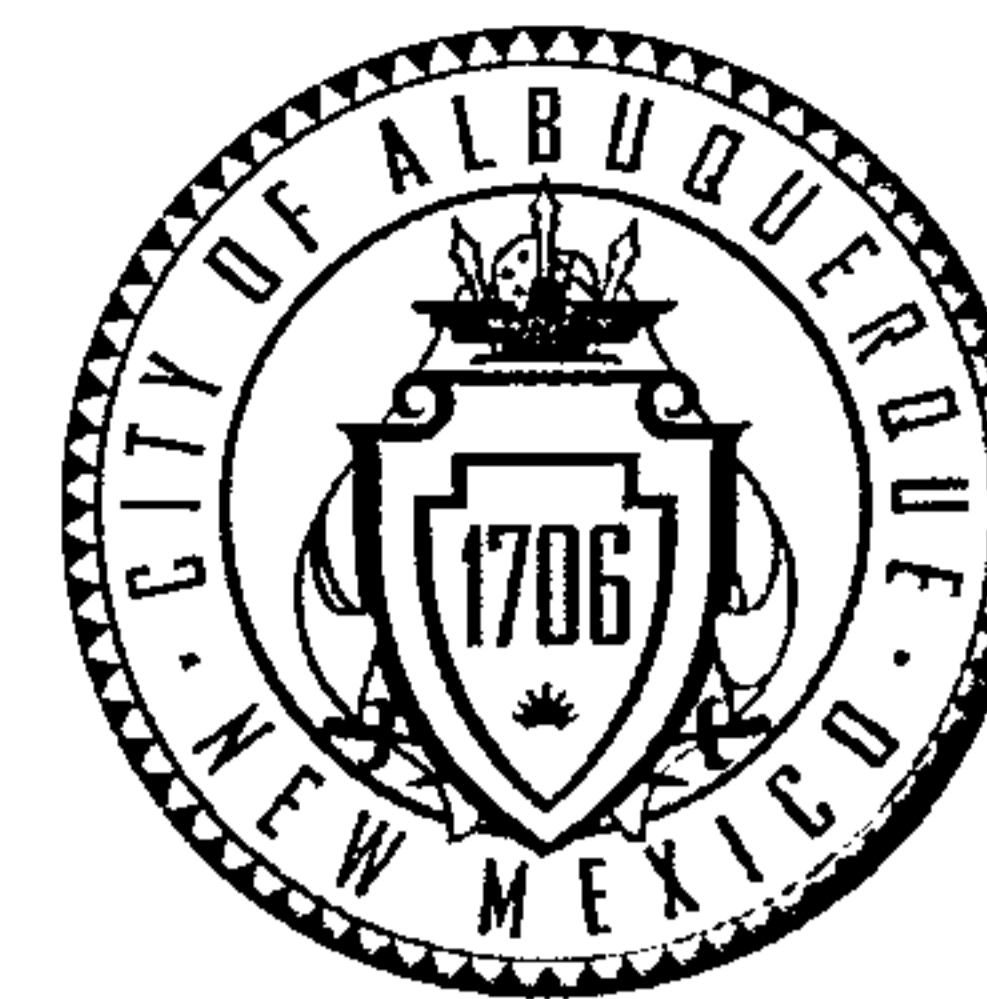


RECEIVED BY: \_\_\_\_\_

DATE: \_\_\_\_\_ TIME: \_\_\_\_\_

COPIES TO: \_\_\_\_\_

# CITY OF ALBUQUERQUE



August 13, 2014

Mr. Fred C. Arfman, PE  
Isaacson & Arfman, PA  
1287 Monroe Street NE  
Albuquerque, NM 87108

**Re: Elan – Santa Monica Place  
Conceptual Grading and Drainage Plan  
No Engineer's Date (D18D054B)**

Dear Mr. Arfman,

Based upon the information provided in your submittal received 7-14-14, the above referenced plan is approved for Site Development Plan action by EPC. Address the following comments with the DRB submittal:

1. Previously, you had received Hydrology comments for EPC regarding this site. The comments were to manage the first flush and provide calculations on a revised Conceptual Grading and Drainage Plan. The purpose of this comment was to make sure you had sufficient room with the proposed layout for the water harvesting. Although conceptual water harvesting ponds are shown, no calculations were provided with the resubmittal. Please provide them with the next submittal.

Per the City Drainage ordinance, the 90<sup>th</sup> Percentile Storm Event, which is 44 inches, is to be managed. Reduce 0.44 inch by the 0.1 inch for the initial impervious abstraction in Table A-6 of Section 22 of the DPM. Multiply the remaining 0.34 inch by your impervious area. This is the portion to retain.

2. Isaacson and Arfman prepared the Santa Monica Tracts 1-4 Master Drainage Report which was approved and which includes the area of this site. The MDP included provisions for the development of Tracts 3 and 4. However, the MDP did not address further subdivision of Tracts 3 and 4 which was not expected at that time. Update the MDP to reflect the proposed subdivision of Tracts 3 and 4. Discuss which property or properties that will be responsible for installing the proposed 42 inch and 36 inch storm drain across Tract 3 and removing the existing pond and storm pipe on Tract 3. Also address the interim conditions as each smaller tract develops without the others developing.

Although Tracts 1 through 4 have a cross-lot drainage easement from the Bulk Land Plat, provide a low erosive interim solution such as rip-rap for drainage from the proposed Tract 3B to the existing standpipe in the current Tract 3.

San Vicente Avenue was not included in the basins for this site. Include San Vicente Avenue in the basin and flow analysis when updating the MDP.

3. Per the Santa Monica Tracts 1-4 Master Drainage Report, the allowable discharge for Tract 3, which is 19.36 acres, is 79.2 cfs or 4.09 cfs/acre. Since this proposed development is 4.6 acres, the allowable discharge is 18.8 cfs not 23.8 cfs as described in the summary. The actual proposed discharge in your summary is 18.7 cfs which is

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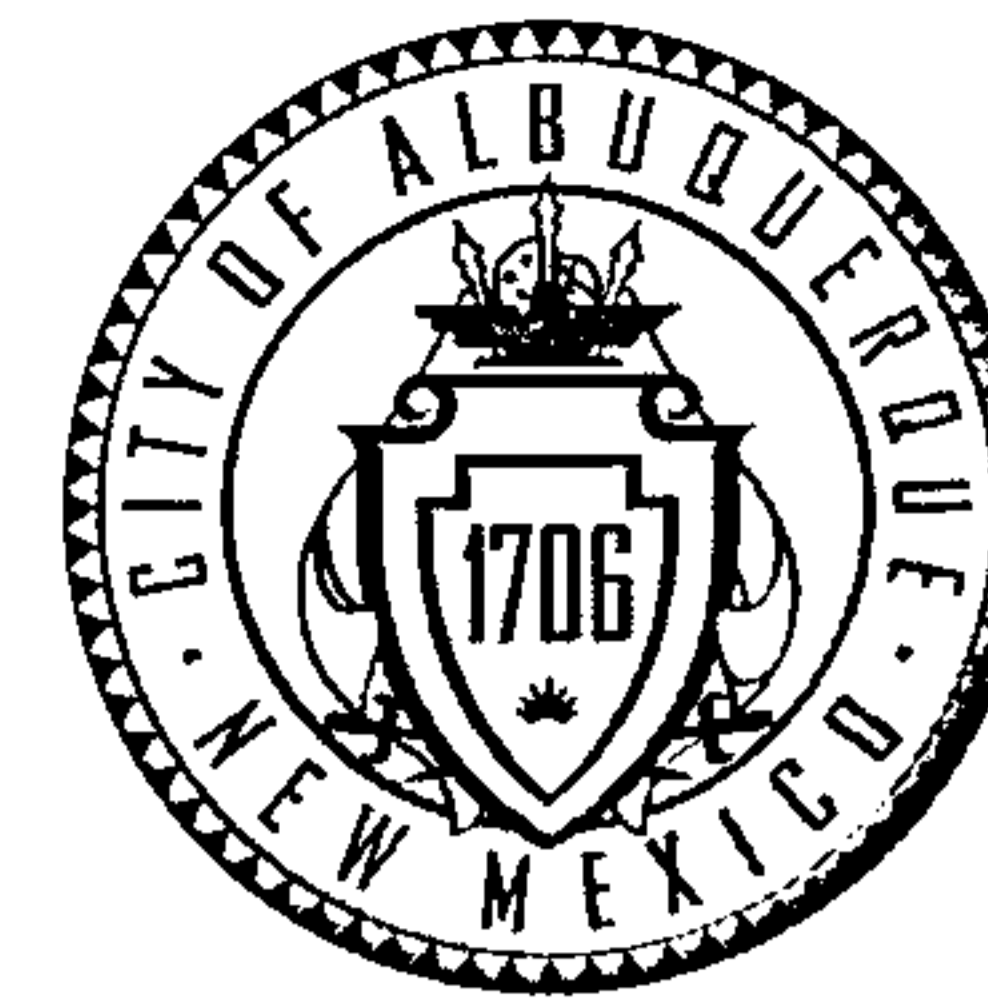
PO Box 1293

Albuquerque

New Mexico 87103

[www.cabq.gov](http://www.cabq.gov)

# CITY OF ALBUQUERQUE



below the allowable 18.8 cfs. Revise the summary to reflect the allowable amount as 18.8 cfs.

4. The AHYMO run shows Basin 1 as 7.8 cfs, Basin 2 as 9.3 cfs, and Basin 3 as 1.6 cfs. However, the flows under the basin descriptions in the grading part of the plan are different and total more than 18.8 cfs. Revise the descriptions to reflect the correct flows.
5. How much flow is coming from the offsite basin for Tract 4? How are you addressing those historical flows on your site until Tract 4 and San Vicente Avenue is developed?

If you have any questions, you can contact me at 924-3994.

Sincerely,

Amy L. D. Niese, P.E.  
Senior Engineer, Hydrology  
Planning Department

PO Box 1293

Albuquerque

New Mexico 87103

C: e-mail  
file

[www.cabq.gov](http://www.cabq.gov)

Elan - Santa Monica Place Tract 3B(N)  
D18 D054 B

$$A = 4.6 \text{ AC}$$

Per MDP Tract 3: 19.36 AC, 79.2 cfs  
 $\rightarrow \frac{79.2}{19.36} = 4.09 \text{ cfs/ac}$

$\therefore$  ~~PER~~ WHEN  $A = 4.6 \text{ AC} \rightarrow 18.8 \text{ cfs allowed}$

Report saying Basin 1 <sup>in line w/ Tract 1 report for Basin D</sup> (7.8) cfs to Derickson  
Basin 2 - 9.3 cfs to STANDPIPE Tracts  
Basin 3 = 1.7 cfs " " "  
 $18.7 \text{ cfs} \leq 18.8 \checkmark$

Tract 3-A <sup>to west</sup> will be allowed

$$10 - 7.8 = 2.2 \text{ cfs}$$

Cross-lot drainage easement across all Tracts.  
Allows grading also.

- San Vicente Ave is mostly part of Tract 4
- $A = 4.6$  so allowable  $Q$  should be 18.8 cfs
- Water harvesting cals
- $Q$  on basins should match  $Q$  in AHJ/MO run
- ~~Only allowed 18.8 cfs per MDP~~

Clearly show how getting Basins 2+3 flows to standpipe

$$A_D = 2.37 \text{ AC} \quad Q = 18.7$$

over

from fact report

Basin EX-1  $110.5 \text{ cfs} = 3.98 \text{ cfs/ac}$

~~27.84 ac~~

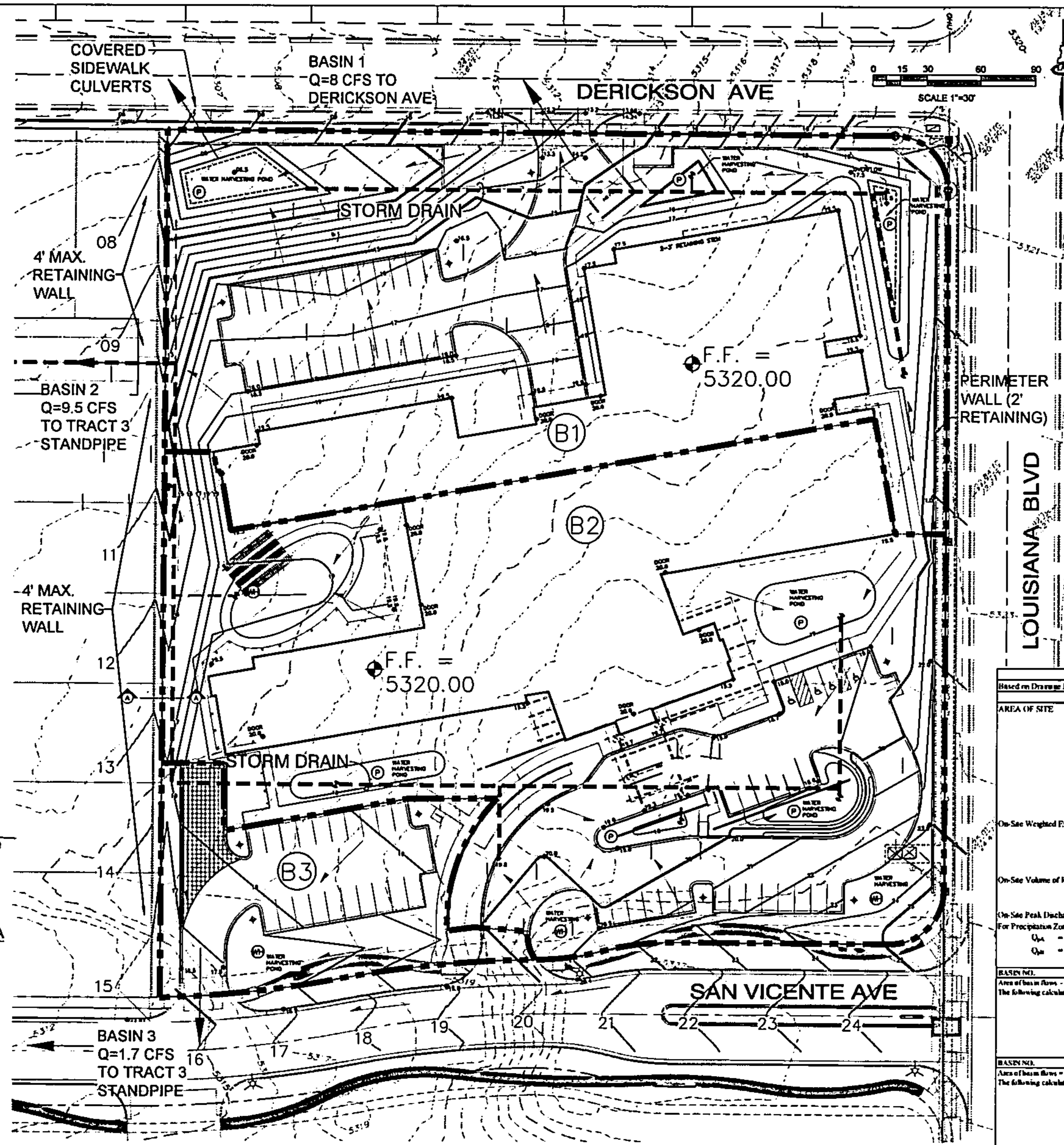
~~4.09 cfs~~

Proposing 4.6 ac

so  $4.6 \times 3.98 = 18.25 \text{ cfs exist}$

Historical discharge Pop Basin  $2+3 = 9.3 + 1.6 = 10.9 \text{ cfs}$  18.25 exist

CAN DISCHARGE TO MATCH 3A



# DRAINAGE CONCEPT

THE MASTER DRAINAGE REPORT (DMR) BY ISAACSON & ARFMAN, P.A., DATED FEBRUARY 21, 2012, OUTLINED DRAINAGE REQUIREMENTS FOR EACH TRACT WITHIN SANTA MONICA PLACE (TRACTS 1 - 4). THIS PROPERTY IS A PORTION OF TRACT 3 (15.5781 ACRES) WITH LAND TREATMENTS ESTIMATED AT 20%RB, 20%R, AND 60% D.

PER THE DMR, "TRACT 3 SHALL BE ALLOWED TO SURFACE DISCHARGE MAX. 10 CFS TO DERICKSON AVE, AND THE REMAINDER OF 69.2 CFS INTO THE STORM DRAIN SYSTEM CONNECTION TO THE DERICKSON AVE. STORM DRAIN."

THE PROPOSED CONSTRUCTION SITE CONSISTS OF APPROXIMATELY 30% OF THE OVERALL AREA OF TRACT 3. THUS, THIS PORTION OF TRACT 3 SHOULD RELEASE APPROXIMATELY 30% X (10+69.2) = 23.8 CFS.

THE SITE HAS BEEN DIVIDED INTO TWO BASINS: DISCHARGE TO DERICKSON (SUB-BASIN 1) AND DISCHARGE WEST TO ENTER THE STORM DRAIN STANDPIPE (SUB-BASINS 2 AND 3).

BASIN 1: CONSISTS OF THE NORTHERN 40% OF THE PROPERTY WHICH WILL DISCHARGE APPROXIMATELY 8 CFS TO DERICKSON AVE, VIA SIDEWALK CULVERTS.

WITH AN ALLOWABLE OF 10 CFS FROM THE TOTAL TRACT, THIS WILL LEAVE APPROXIMATELY 2 CFS FOR THE REMAINDER OF TRACT 3 WHICH IS PLANNED FOR SINGLE FAMILY RESIDENTIAL AND IS EXPECTED TO DRAIN ALMOST ENTIRELY TO THE INTERNAL FUTURE PUBLIC STORM DRAIN EXTENSION. NOTE THAT PER THE APPROVED DRAINAGE REPORT FOR TRACT 1, ONLY 7.8 OF THE ALLOWABLE 10 CFS FROM THAT TRACT WILL BE DISCHARGED TO DERICKSON AVE, LEAVING AN ADDITIONAL 2.2 CFS AVAILABLE.

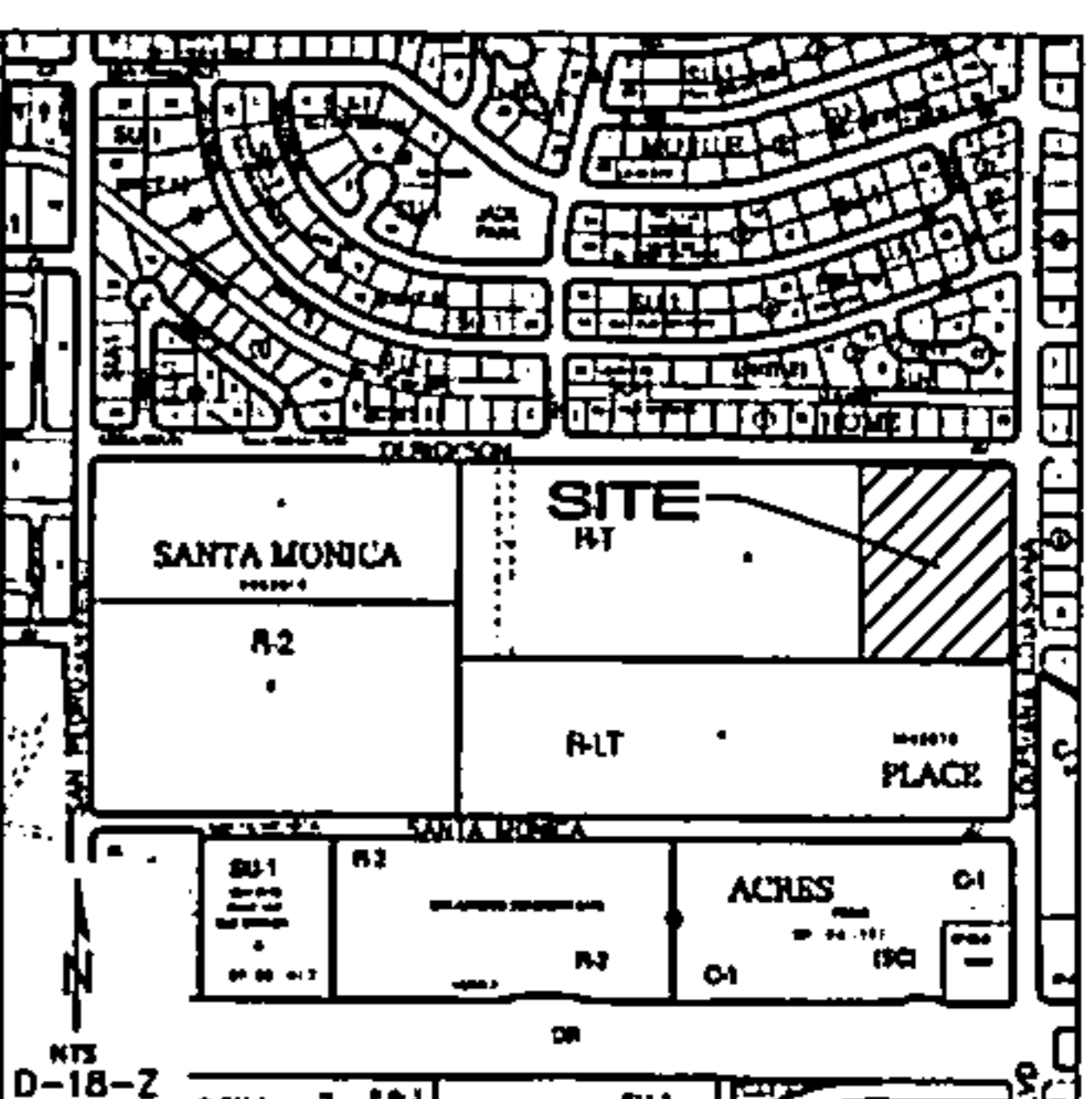
BASINS 2 AND 3: CONSISTS OF THE SOUTHERN 60% OF THE PROPERTY WHICH WILL DISCHARGE APPROXIMATELY 10.9 CFS TO THE UNDEVELOPED PORTION OF TRACT 3 EITHER VIA STORM DRAIN (BASIN 2) OR AS SURFACE DISCHARGE TO THE PROPOSED SOUTH PUBLIC STREET (BASIN 3). TEMPORARY PONDS AND EARTH SWALES WITH EROSION PROTECTION AS NEEDED WILL BE CONSTRUCTED TO PASS THE CONCENTRATED FLOW TO THE EXISTING POND TO ENTER THE PUBLIC STORM DRAIN SYSTEM AT THE PROVIDED STANDPIPE (TO BE CONSTRUCTED AS PART OF CPM 689984).

THESE BASIN CALCULATIONS DO NOT ACCOUNT FOR ANY WATER HARVESTING OR DETENTION BASINS WHICH MAY REDUCE THE TOTAL DISCHARGE RATES.

ALL LANDSCAPE AREAS, OTHER THAN THOSE ADJACENT TO THE BUILDING, WILL BE DEPRESSED FOR WATER HARVESTING.

18" DEEP DETENTION PONDS WITHIN EACH OF THE BASIN AREAS WILL BE UTILIZED TO DETAIN DISCHARGE, UTILIZE FOR LANDSCAPING / INFILTRATION AND RELEASE EXCESS.

STORMWATER CONTROL MEASURES ARE REQUIRED TO PROVIDE MANAGEMENT OF "FIRST FLUSH" (DEFINED AS THE 30TH PERCENTILE STORM EVENT OR 0.44" OF STORMWATER WHICH DISCHARGES DIRECTLY TO A PUBLIC STORM DRAINAGE SYSTEM).



## PROJECT DATA

PROPERTY: THE SITE IS A PREVIOUSLY DEVELOPED (MOBILE HOME) PROPERTY LOCATED WITHIN C.O.A. WQNTY MAP D-18. THE SITE IS BOUND TO THE SOUTH BY UNDEVELOPED PROPERTY, TO THE WEST BY APARTMENTS, TO THE EAST BY LOUISIANA BLVD. AND TO THE NORTH BY DERICKSON AVE.

PROPOSED IMPROVEMENTS: THE PROPOSED IMPROVEMENTS INCLUDE AN APPROXIMATELY 59,500 SF SENIOR LIVING FACILITY WITH ASSOCIATED ASPHALT PAVED DRIVES, PARKING, PEDESTRIAN WALKS AND LANDSCAPING.

LEGAL: THE EASTERN PORTION OF TRACT 3, SANTA MONICA PLACE, ALBUQUERQUE, NM

AREA: 4.6 ACRES

BENCHMARK: VERTICAL DATUM IS BASED UPON THE ALBUQUERQUE CONTROL SURVEY BENCHMARK "16-E18", ELEVATION = 5269.166 (NGVD83)

OFF-SITE: NO OFF-SITE DRAINAGE IMPACTS THIS PROPERTY.

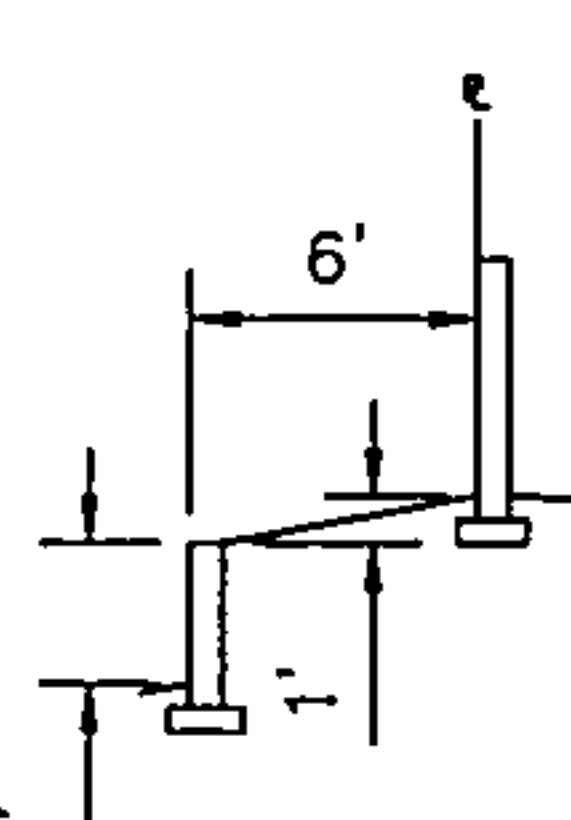
FLOOD HAZARD: THE SUBJECT PROPERTY LIES WITHIN ZONE "X" (AREAS DETERMINED TO BE OUTSIDE 0.2% ANNUAL CHANCE FLOOD PLAIN) IN ACCORDANCE WITH THE NATIONAL FLOOD INSURANCE PROGRAM RATE MAP NO. 35001C0137 F, EFFECTIVE DATE 11-19-03.

SURVEYOR: RUSS P. HUGG, SURV-TEX, INC., (505)897-3366, ALBUQUERQUE, NEW MEXICO.

## LEGEND

- B2 - DRAINAGE BASIN
- CONCEPTUAL STORM DRAIN
- ⊙ PROPOSED DETENTION POND / STORM DRAIN INLET LOCATION (18" DEEP)
- PROPOSED FLOW DIRECTION
- F.F. = PROPOSED FINISH FLOOR ELEVATION
- ⊙ PROPOSED WATER HARVESTING BASIN (6" DEPRESSED)

SECTION A-A  
SCALE: 1"=5'



Calculations: Elan Senior Living Facility : May 23, 2014  
Based on Drainage Design Criteria for City of Albuquerque Section 22.2 DPM, Vol 2, dated Jan, 1993

ON-SITE

AREA OF SITE	198332 SF	EXCESS PRECIP:
100-year, 6-hour DEVELOPED FLOWIN:		
Area A =	0	0% E <sub>a</sub> = 0.66
Area B =	35780	18% E <sub>a</sub> = 0.92
Area C =	59960	30% E <sub>a</sub> = 1.29
Area D =	101133	52% E <sub>a</sub> = 2.36
Total Area =	198332	100%

On-Site Weighted Excess Precipitation (100-Year, 6-Hour Storm)  
Weighted E =  $\frac{L_{aA} + L_{aB} + L_{aC} + L_{aD}}{A_A + A_B + A_C + A_D}$   
Developed E = 1.78 in

On-Site Volume of Runoff V<sub>360</sub> =  $EPA \cdot 12$   
Developed V<sub>360</sub> = 29416 CF

On-Site Peak Discharge Rate:  $Q_p = Q_{pA} + Q_{pB} + Q_{pC} + Q_{pD} = 43,960$   
For Precipitation Zone 3  
 $Q_{pA} = 1.87$   $Q_{pB} = 3.45$   
 $Q_{pC} = 2.60$   $Q_{pD} = 5.02$   
Developed Q<sub>p</sub> = 18.7 CFS

BASIN NO. 1 DESCRIPTION: DRAINAGE TO DERICKSON AVE.  
Area of basin flows = 82170 SF  
The following calculations are based on Treatment areas as shown in table to the right

Sub-basin Weighted Excess Precipitation (see formula above)	LAND TREATMENT
Weighted E = 1.78 in	A = 0%
Sub-basin Volume of Runoff (see formula above)	B = 18%
V <sub>360</sub> = 12218 CF	C = 30%
Sub-basin Peak Discharge Rate (see formula above)	D = 52%
Q <sub>p</sub> = 7.8 cfs	

BASIN NO. 2 DESCRIPTION: DRAINAGE WEST TO PUBLIC STORM DRAIN STANDPIPE  
Area of basin flows = 98326 SF  
The following calculations are based on Treatment areas as shown in table to the right

Sub-basin Weighted Excess Precipitation (see formula above)	LAND TREATMENT
Weighted E = 1.78 in	A = 0%
Sub-basin Volume of Runoff (see formula above)	B = 18%
V <sub>360</sub> = 15617 CF	C = 30%
Sub-basin Peak Discharge Rate (see formula above)	D = 52%
Q <sub>p</sub> = 9.3 cfs	

BASIN NO. 3 DESCRIPTION: DRAINAGE SOUTH TO PUBLIC STORM DRAIN STANDPIPE  
Area of basin flows = 17426 SF  
The following calculations are based on Treatment areas as shown in table to the right

Sub-basin Weighted Excess Precipitation (see formula above)	LAND TREATMENT
Weighted E = 1.78 in	A = 0%
Sub-basin Volume of Runoff (see formula above)	B = 18%
V <sub>360</sub> = 2585 CF	C = 30%
Sub-basin Peak Discharge Rate (see formula above)	D = 52%
Q <sub>p</sub> = 1.6 cfs	

ISAACSON & ARFMAN, P.A.  
Consulting Engineering Associates  
228 Monroe Street N.E.  
Albuquerque, New Mexico 87108  
PH: 505-263-8823 www.isaacson.com

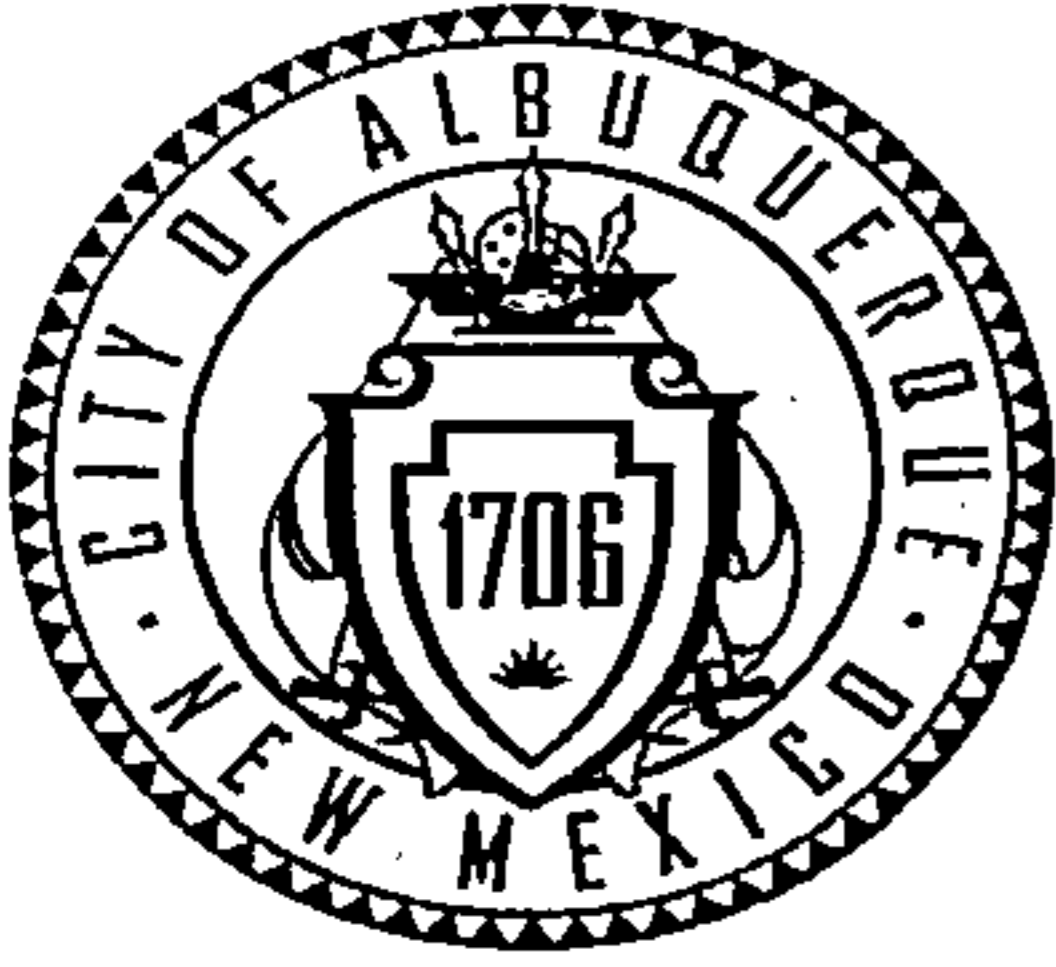
2017 CG-101 - Conceptual design Aug 01, 2014

ELAN - Santa Monica Place  
(Senior Assisted Living/Memory Care)

## CONCEPTUAL GRADING & DRAINAGE PLAN

Date:	No.:	Revised:	Date:	Job No.:
7/31/14				2047
Drawn By:	BUB			CG:101
Check By:	FCA			SH CF

sent 8/12/14



# City of Albuquerque

Planning Department

Development & Building Services Division

## DRAINAGE AND TRANSPORTATION INFORMATION SHEET

(REV 02/2013)

Project Title: Elan - Santa Monica Place (Senior Assisted Living/Memory Care) Building Permit #: \_\_\_\_\_ City Drainage #: D18D054B

DRB#: 1003916 EPC#: \_\_\_\_\_ Work Order#: \_\_\_\_\_

Legal Description: The Eastern Portion of Tract 3, Santa Monica Place

City Address: \_\_\_\_\_

Engineering Firm: Isaacson & Arfman, P.A. Contact: Fred C. Arfman

Address: 128 Monroe Street NE - Albuquerque, NM 87108

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

Owner: Del Rey Investments, LLC Contact: Kurt Browning

Address: 6300 Riverside Plaza Lane NW, Suite 200 - Albuquerque, NM 87120

Phone#: (505) 998-0163 Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

Architect: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

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

Address: 9384 Valley View Drive NW - Albuquerque, NM 87114

Phone#: (505) 897-3366 Fax#: (505) 897-3377 E-mail: \_\_\_\_\_

Contractor: \_\_\_\_\_ Contact: \_\_\_\_\_

Address: \_\_\_\_\_

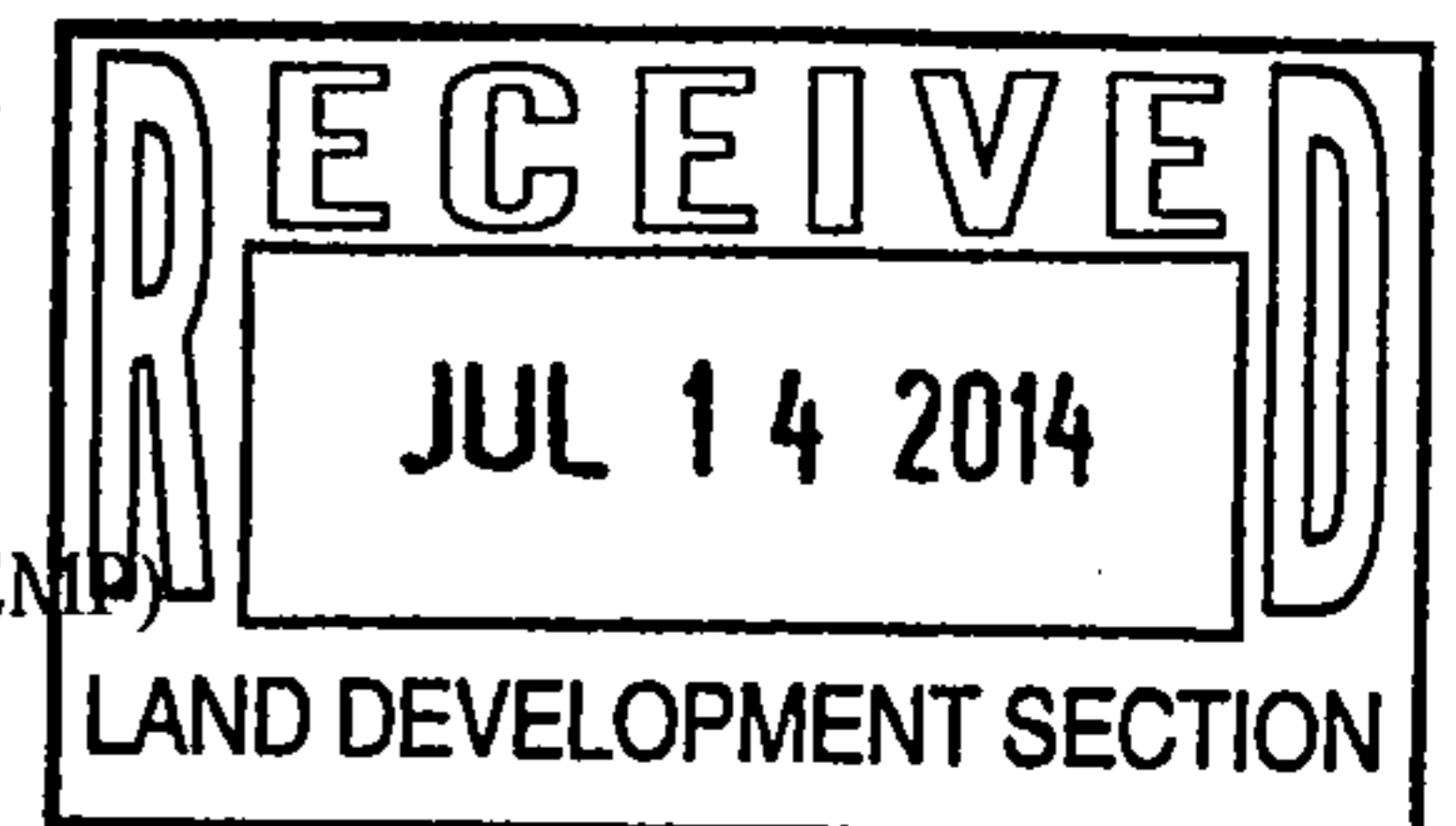
Phone#: \_\_\_\_\_ Fax#: \_\_\_\_\_ E-mail: \_\_\_\_\_

### TYPE OF SUBMITTAL:

- ☐ DRAINAGE REPORT
- ☐ DRAINAGE PLAN 1st SUBMITTAL
- ☐ DRAINAGE PLAN RESUBMITTAL
- ☒ CONCEPTUAL G & D PLAN
- ☐ GRADING PLAN
- ☐ EROSION & SEDIMENT CONTROL PLAN (ESC)
- ☐ ENGINEER'S CERT (HYDROLOGY)
- ☐ CLOMR/LOMR
- ☐ TRAFFIC CIRCULATION LAYOUT (TCL)
- ☐ ENGINEER'S CERT (TCL)
- ☐ ENGINEER'S CERT (DRB SITE PLAN)
- ☐ ENGINEER'S CERT (ESC)
- ☐ SO-19
- ☐ OTHER (SPECIFY) \_\_\_\_\_

### CHECK TYPE OF APPROVAL/ACCEPTANCE 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
- ☐ CERTIFICATE OF OCCUPANCY (PERM)
- ☐ CERTIFICATE OF OCCUPANCY (TCL TEMP)
- ☐ FOUNDATION PERMIT APPROVAL
- ☒ BUILDING PERMIT APPROVAL
- ☐ GRADING PERMIT APPROVAL
- ☐ PAVING PERMIT APPROVAL
- ☐ WORK ORDER APPROVAL
- ☐ GRADING CERTIFICATION
- ☐ SO-19 APPROVAL
- ☐ ESC PERMIT APPROVAL
- ☐ ESC CERT. ACCEPTANCE
- ☐ OTHER (SPECIFY) \_\_\_\_\_



WAS A PRE-DESIGN CONFERENCE ATTENDED: \_\_\_\_\_ Yes \_\_\_\_\_ No \_\_\_\_\_ Copy Provided

DATE SUBMITTED: July 11, 2014 By: Fred C. Arman, PE

Isaacson & Arfman, P.A.

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## Bryan Bobrick

---

**From:** Sims, Timothy E. <tsims@cabq.gov>  
**To:** Bryan Bobrick  
**Sent:** Monday, July 14, 2014 7:06 AM  
**Subject:** Read: Elan Senior Living - Hydrology Submittal

Your message

**To:** Sims, Timothy E.; Cherne, Curtis  
**Cc:** 'Fred Arfman'  
**Subject:** Elan Senior Living - Hydrology Submittal  
**Sent:** Fri, 11 Jul 2014 14:17:45 -0600

was read on Mon, 14 Jul 2014 07:06:29 -0600

