

CITY OF ALBUQUERQUE

Planning Department
David Campbell, Director



Mayor Timothy M. Keller

July 23, 2018

Jeffery Wooten, P.E.
Wooten Engineering
1005 21st St SE, Suite A5
Rio Rancho, NM 87124

**RE: Rain Tunnel Car Spa
5401 Sevilla Ave NW
Drainage Report for Variance
Engineer's Stamp Date: 7/12/2018
Hydrology File: F11D016**

Dear Mr. Wooten:

PO Box 1293

Based on the submittal received 7/12/18, the Drainage Report is approved for Work Order-Variance for a waterblock of 0.275' (3.3") minimum in height.

Albuquerque

If you have any questions, please contact me at 924-3695 or dpeterson@cabq.gov.

NM 87103

Sincerely,

www.cabq.gov

Dana Peterson, P.E.
Senior Engineer, Planning Dept.
Development Review Services



City of Albuquerque

Planning Department

Development & Building Services Division

DRAINAGE AND TRANSPORTATION INFORMATION SHEET (REV 6/2018)

Project Title: Rain Tunnel Car Spa **Building Permit #:** _____ **Hydrology File #:** F11-D016

DRB#: _____ **EPC#:** _____ **Work Order#:** 730889

Legal Description: Tract J, Vista La Luz

City Address: 5401 Sevilla Ave NW

Applicant: Wooten Engineering **Contact:** Jeffrey T. Wooten, P.E.

Address: 1005 21st Street SE, Suite 13, Rio Rancho, NM 87124

Phone#: 505-980-3560 **Fax#:** n/a **E-mail:** jeffwooten.pe@gmail.com

Other Contact: _____ **Contact:** _____

Address: _____

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

TYPE OF DEVELOPMENT: ☐ PLAT ☐ RESIDENCE ☐ DRB SITE ☒ ADMIN SITE

Check all that Apply:

DEPARTMENT:

☒ HYDROLOGY/ DRAINAGE
☐ TRAFFIC/ TRANSPORTATION

TYPE OF SUBMITTAL:

☐ ENGINEER/ARCHITECT CERTIFICATION
☐ PAD CERTIFICATION
☐ CONCEPTUAL G & D PLAN
☐ GRADING PLAN
☒ DRAINAGE REPORT
☐ DRAINAGE MASTER PLAN
☐ FLOODPLAIN DEVELOPMENT PERMIT APPLIC
☐ ELEVATION CERTIFICATE
☐ CLOMR/LOMR
☐ TRAFFIC CIRCULATION LAYOUT (TCL)
☐ TRAFFIC IMPACT STUDY (TIS)
☐ STREET LIGHT LAYOUT
☐ OTHER (SPECIFY) _____
☐ PRE-DESIGN MEETING?

IS THIS A RESUBMITTAL?: ☒ Yes ☐ No

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

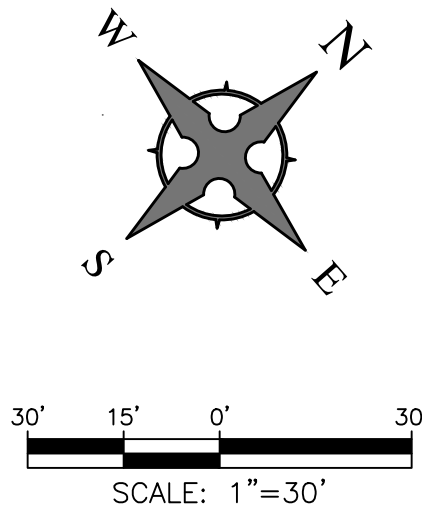
☐ SIA/ RELEASE OF FINANCIAL GUARANTEE
☐ FOUNDATION PERMIT APPROVAL
☐ GRADING PERMIT APPROVAL
☐ SO-19 APPROVAL
☐ PAVING PERMIT APPROVAL
☐ GRADING/ PAD CERTIFICATION
☐ WORK ORDER APPROVAL
☐ CLOMR/LOMR
☐ FLOODPLAIN DEVELOPMENT PERMIT
☒ OTHER (SPECIFY) VARIANCE REQUEST

DATE SUBMITTED: July 12, 2018 **By:** Jeffrey T. Wooten, P.E.

COA STAFF:

ELECTRONIC SUBMITTAL RECEIVED: _____

FEE PAID: _____



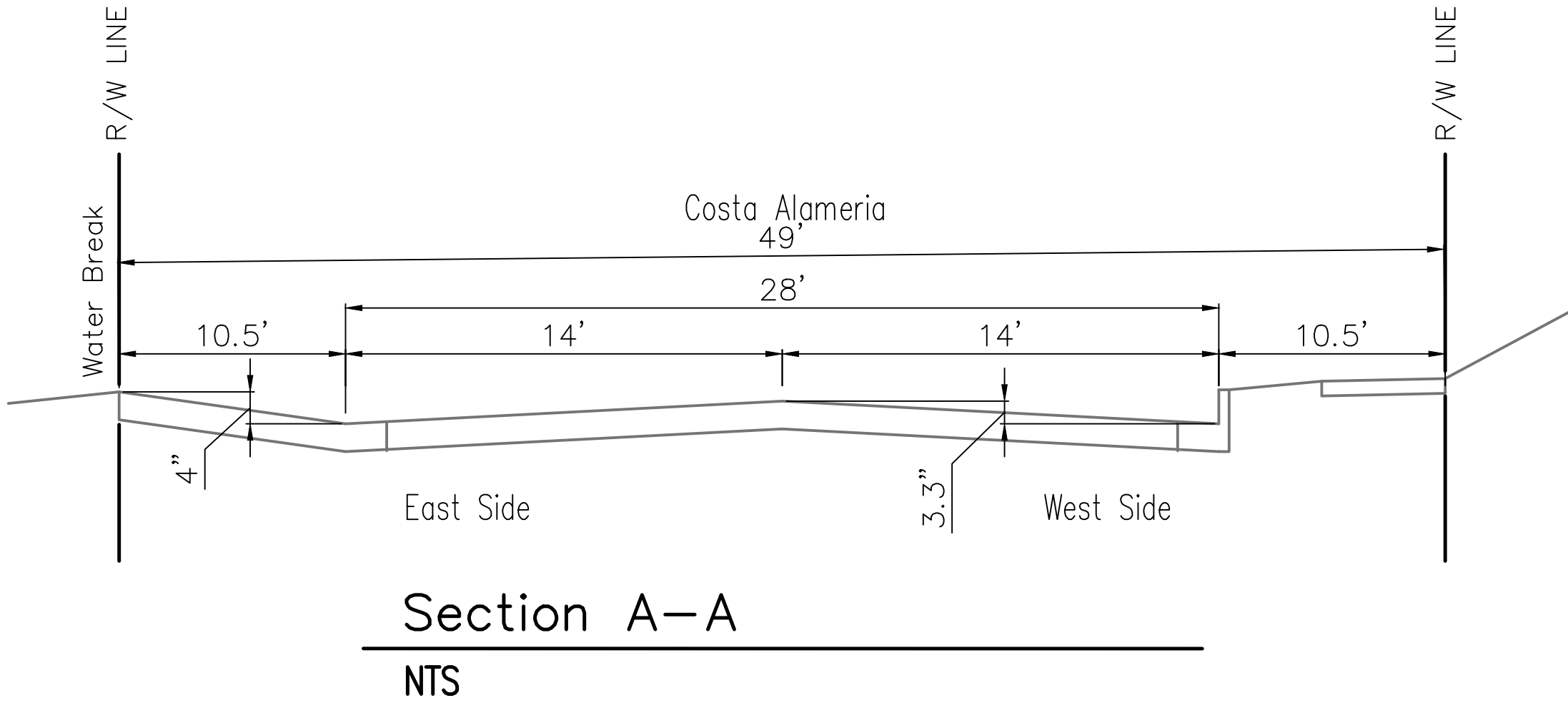
WATER BREAK VARIANCE REQUEST SUMMARY

INTRODUCTION
The purpose of this submittal is to request a variance to the standard DPM water break requirement of 10 inches for the proposed driveway along Costa Alameria Rd NW. The actual water break proposed for this driveway is 4 inches.

HYDROLOGIC CONDITIONS
Per the Drainage Calculations Table this sheet, the approximate runoff for the 100-Yr, 6-Hr storm in Basin A is 0.41cfs. The approximate runoff for the 100-Yr, 6-Hr storm in Basin B is 1.17cfs. According to the Street Capacity Calculations this sheet, both the east and west sides of the roadway have excess capacity and neither the crown nor the water break will be exceeded.

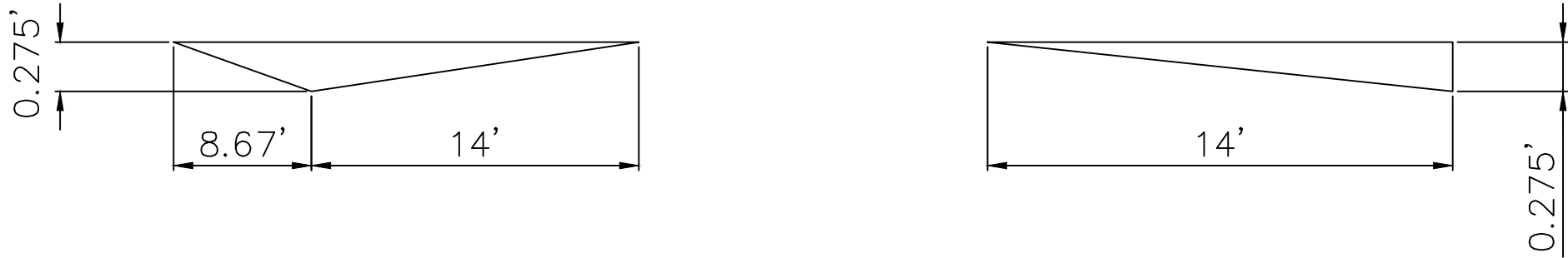
CONCLUSION
Per the roadway cross section and calculations this sheet, the 4-inch water break for the proposed driveway is adequate to keep roadway drainage from draining onto the Rain Tunnel site. With this submittal, we are requesting approval of the requested water break variance.

Drainage Calculations for Water Break Variance Request										
Ultimate Development Conditions Basin Data Table										
This table is based on the COA DPM Section 22.2, Zone: 1										
BASIN	Area (SQ. FT.)	Area (AC.)	Land Treatment Percentages				Q(100) (cfs/ac.)	Q(100) (CFS)	WTE (inches)	V(100) ₃₆₀ (CF)
A	4193	0.10	0.0%	0.0%	10.0%	90.0%	4.22	0.41	1.87	654
B	14116	0.32	0.0%	0.0%	50.0%	50.0%	3.62	1.17	1.48	1741
TOTAL	18309	0.42						1.58		2395
										2756
										3839



EAST ROADWAY CAPACITY CALCULATIONS
 $Q_{cap} = A \cdot \frac{1.486}{n} \cdot (R)^{2/3} \cdot (S)^{1/2} = 7.15 \text{ cfs}$
where:
A = 3.12 SF
n = 0.015
R = A/WP = 0.138
S = 0.0075 (0.75%)
WP = 22.67

EAST ROADWAY CAPACITY CALCULATIONS
 $Q_{cap} = A \cdot \frac{1.486}{n} \cdot (R)^{2/3} \cdot (S)^{1/2} = 4.36 \text{ cfs}$
where:
A = 1.93 SF
n = 0.015
R = A/WP = 0.135
S = 0.0075 (0.75%)
WP = 14.275



Wooten Engineering
1005 21st St SE, Suite 13
Rio Rancho, N.M. 87124
Phone: (505) 980-3560

CITY OF ALBUQUERQUE PUBLIC WORKS DIVISION ENGINEERING GROUP			
Rain Tunnel Car Spa WATER BREAK VARIANCE REQUEST EXHIBIT			
DESIGN REVIEW COMMITTEE	CITY ENGINEER APPROVAL	LAST DESIGN UPDATE	MO./DAY/YR.
CITY PROJECT NO.	ZONE MAP NO.	SHEET #	
730889	F-11-Z	1 of 1	