

Pronghorn Engineering, LLC

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Talking Rock Architect Review Committee

December 22, 2025

To Whom It May Concern,

I was contracted by the developer of 5636 W. Meriah Ln, Prescott AZ, 86305 to evaluate for the lowest finished floor elevation possible based on the location of the building envelope.

The building envelope sits adjacent to a small wash that collects at the crossing of Silent Moon Lane at the southern property line through 4 - 18" Culverts. Based on the drainage report for Phase III Drainage Report for Talking Rock Phase 10, 12, 13 by Shephard Wesnitzer, Inc dated January 2006, the expected flow in the wash is 52.91 CFS.

Based on survey data provided Allen Consulting Engineers, Inc., in November of 2025, a cross section was developed (attached) and a 1D flow analysis of flow within this channel. This analysis indicated that a high water elevation of 5000 could be expected at the upstream side. Yavapai County Flood Control District requires that Finished Floor be set at a minimum of 1' above the 100-yr flood elevation.

The minimum allowable finished floor elevation is 5001.00.

Warm Regards,

G. Shane Allen, P.E.



Channel Report

Blakeman Residence

Channel 1

USER-DEFINED

Total Depth = 0.48 ft
 Invert Elevation = 4999.52 ft
 Channel Slope = 3.100 %
 Manning's n = Composite

DISCHARGE

Method = Known Q
 Known Q = 52.91 cfs

CALCULATION SAMPLE

Flow	Depth	Area	Velocity	WP	n-value	Crit Depth	HGL	EGL	Max Shear	Top Width
(cfs)	(ft)	(sqft)	(ft/s)	(ft)	Composite	(ft)	(ft)	(ft)	(lb/sqft)	(ft)
52.91	0.42	16.70	3.17	59.69	0.035	0.44	4999.94	5000.10	0.81	59.68

