



Application Number: PL2022228  
Application Type: Commercial Final Development Plan  
Application Name: Living Faith Parking Lot Addition  
Location: 1121 SW Hook Road, Lee's Summit, MO 64082

The As-Built detention basin constructed to serve Living Faith Church is detailed below. The approved Storm Water Drainage Study for the project was revised June 28, 2022 based on City comments received June 17, 2022.

Allowable Peak Discharge Rates for Sub-basin A, as outlined in Table 5-3, are as follows.

Sub-basin	Q2 (cfs)	Q10 (cfs)	Q100 (cfs)
A	2.98	11.92	17.88

The as-built detention basin data may be found on as-built Sheet C.202 attached to this document. The approved report detailed potential future conditions with the proposed detention design in Tables 6-5 and 6-6. This as-built report details the constructed or proposed condition with the as-built detention basin in Tables 6-5 and 6-6 below.

Table 6-5 Proposed Conditions & As-Built Detention Basin Data

	Peak Q In (cfs)	Tp In (min.)	Peak Q Out (cfs)	Tp Out (min)	Peak W.S.E.	Max. Storage Vol. (cf)
Basin A						
2-Year	15.03	721	3.23	735	1009.20	16,787
10-Year	27.20	721	11.39	731	1009.85	27,522
100-Year	45.50	721	18.12	731	1010.79	45,033

Table 6-6 below provides a comparison of runoff data between Proposed/Constructed and Existing Conditions in addition to Proposed Conditions and Allowable Release Rates at the Point of Interest.

Table 6-6 Point of Interest Discharge Comparison

		Q2 (cfs)	Q10 (cfs)	Q100 (cfs)
Point A	Proposed	3.23	11.39	18.12
	Existing	12.56	24.26	42.38
	Difference	-9.26	-12.87	-24.26
	Allowable	2.98	11.92	17.88
	Difference	0.25	-0.53	0.24

The proposed peak discharge rates are significantly lower than existing rates and are lower to within 10% difference of the allowable rates. A complete As-built Hydraflow Report is attached for reference. Freeboard conditions are detailed on As-Built Sheet C.202.

The As-Built Detention Basin will provide the necessary attenuation for the proposed conditions. The anticipated future conditions will not be met as discussed in the Approved Report. If additional improvements are to be made in the future another storm drainage study will be required.

Thanks,

Matt Schlicht