BF 85017 Highway 216 Over Whitemud Creek
Hydrotechnical Summary

Channel Capacity :

S = 0.002
B = 8 m, h = 3.5 m, T_h = 18 m
Use n = 0.04

At Bank Height : Y = 3.5 m, V = 1.9 m/s, Q = 90 cms
At Channel Capacity : Y = 4.5 m, V = 2.5 m/s, Q = 155 cms

Historical Highwater Data :

WSC Gauge 05DF006 (DA~335km^2, operating 1969 – present) reports high flow events in April 1974 (Q~115 cms), and April 1982 (Q~50 cms).

The storm on basin tool reports large rainfall events in June 1944 (135mm), July 1982 (125mm), July 1937 (115mm), September 1958 (110mm), and July 1990 (110mm)

Basin Runoff Potential :

d=40mm, Tp = 20 hrs, q = 0.56 cms/km^2
Gross DA= 340km^2
Qp= 190 cms

Conclusion :

The channel capacity values are within the basin runoff potential :

Y = 4.5 m, V = 2.5 m/s, Q = 155 cms.