BF 71106 Hwy 35 Over Whitemud River
Hydrotechnical Summary

Channel Capacity :

S = 0.00035
B = 15 m, h = 4 m, T_h = 35 m
Use AT equation

At Bank Height : Y = 4 m, V = 1.2 m/s, Q = 120 cms
At Channel Capacity : Y = 5 m, V = 1.4 m/s, Q = 200 cms

Historical Highwater Data :

HW was observed in May 1978 (adjacent flooding). The 1998 design was based on Y ~ 6m (Q ~ 160cms).

WSC gauge 07HA005 (DA = 2010km^2, 1972 – Now) reports Q = 120cms in May 1974 and May 1978 (gauged near peak, stage rise ~ 4m).

Basin Runoff Potential :

Gross DA = 2040 km^2, exceeds range of technique

Conclusion :

The channel capacity estimate is consistent with historic observations. Recommended parameters :

Y = 5.0 m, V = 1.4 m/s, Q = 200 cms.
EL 627.0 m (17622-C)