

REVISED HYDROLOGY DATA SHEET

DATE: October 7, 2002

MEMORANDUM TO ROAD DESIGN SQUAD LEADER Jim Sease

FROM HYDRAULIC DESIGN ENGINEER Mark. W. Hammond

SUBJECT: Hydrology Data for Bridge Over Calhoun Creek

Rt/Rd SC 28 Construction PIN 26436

Bridge Length 120 Ft. Bridge Roadway Width 44 Ft.

Beg. Station 109+37.16 End Station 110+57.16 Skew Angle 0°

Minimum F. G. Elev. 543.2 End Fill Slope 2:1

Riprap Req'd Yes X No _____ To Elevation 540.94

COMMENTS: _____

Minimum Low Chord Elevation = 541.0'

HIGH WATER DATA:

50 Year H. W. Elev. = 538.94 including 0.28 Ft. Backwater

100 Year H. W. Elev. = 539.26 including 0.32 Ft. Backwater

Highwater Elevation = 542.2 (1928)

Highwater Elevation = 531.2 (1953)

HYDROLOGY DATA:

D. A. = 5.413 sq. mi.

$$Q_{50} = \frac{1188.14}{1.0000} \text{ cfs}$$

Area furnished under

Elev. 538.94 = 345.8 sq. ft.

Vel. = 3.99 ft/sec

$$Q_{100} = \underline{1373.61} \text{ cfs}$$

Area furnished under

Elev. 539.26 = 378.4 sq. ft.

Vel = 4.29 ft/sec

OVERTOPPING FLOOD:

Q = 3900 cfs

Probability = less than 0.2%

Hydraulic Design Engineer

cc: Bridge Design Squad Leader Jerry Phipps