



RICHLAND ENGINEERING LIMITED
 29 North Park Street, Mansfield, Ohio 44902
 419/524-0074 • FAX 419/524-1812

CALCULATION SHEET

JOB NO. 119034 SHEET NO. 1 OF 2
 SUBJECT CVY-90-0758 EST. QTY'S
 CALCULATED BY JLS DATE 8/11/2020
 CHECKED BY dh+ DATE 8/20
 REVISED BY JLS DATE 2/8/2021

ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN

LS

ITEM 513 - REPLACEMENT OF DETERIORATED END CROSSFRAMES

WB x 28 (16.0625' x 2 x 28) - (0.26' x 0.75' x 0.0365' x 4 x 490#/CF) = 885.55#

W6 x 17.5 (8.9639' x 2 x 17.5#) - (0.4478 FT² x 0.026' x 490#/CF) -
 (0.2114' x 0.5417' x 0.0417' x 2 x 490#/CF) = 303.35#

W6 x 17.5 SUPP. (1.42' x 2 LOCATIONS x 17.5#) + (0.0833' x 0.33' x 0.4583' x 2 x 490#/CF) = 62.05#

STIFF. PLS (0.0417' x 0.25' x 0.5938' x 6) 490#/CF = 18.20#

STOP WELDS (1.5833' x 2 x 0.22#) + (2.375' x 2 x 0.8#) + (0.59' x 4 x 0.22') +
 (0.25' x 8 x 0.22') + (0.68' x 2 x 2 x 0.08) = 5.67#

TOTAL = 1274.82# x 4 LOCATIONS = 5099.28# = 5100#

5100 LB

ITEM 513 - STRUCTURAL STEEL FOR REHABILITATION

GIRDER REPAIR (0.0417' x 1.0' x 2.5') + (0.0417' x 0.67' x 2.5' x 2) + (0.0417' x 0.67' x 11.0') =
 0.5513 FT³ x 490#/CF = 270.12#

TOTAL = 271 LB

271 LB.

ITEM 516 - JACKING AND TEMPORARY SUPPORT OF SUPERSTRUCTURE, AS PER PLAN

LS

ITEM 519 - PATCHING CONCRETE STRUCTURE, AS PER PLAN

NORTH PARAPET = 12 FT² + 14 FT² + 13 FT² = 39 S.F.

39 S.F.



CALCULATION SHEET

RICHLAND ENGINEERING LIMITED

29 North Park Street, Mansfield, Ohio 44902
419/524-0074 • FAX 419/524-1812

JOB NO. 119034 SHEET NO. 2 OF 2
SUBJECT CW-90-0758 EST. QTY'S
CALCULATED BY JLS DATE 8/11/2020
CHECKED BY dht DATE 8/20
REVISED BY _____ DATE _____

ITEM 519 - PATCHING CONC. BRIDGE DECK-TYPE B (FOR OVERNIGHT REPAIRS)

$$540 \text{ FT}^2 \div 9 = \underline{\underline{60 \text{ S.Y.}}}$$

60 S.Y.

ITEM 607 - VANDAL PROTECTION FENCE, 8' STRAIGHT, COATED FABRIC, AS PER PLAN

$$804.67' \times 2 \text{ OUTSIDE PARAPETS} = 1609.33 = \underline{\underline{1610 \text{ FT}}}$$

1610 FT
