

BRO-221-3.91 + VAR. (PID 102849) Concrete Step Quantities

Bridge No BRO-221-0391

Top Step: $\pm 626 \text{ SF} \times 2 \text{ Ft.} = 1,252 \text{ CF}$

Middle Step: $(22.75' \times 9' + 9' \times 15') \times 2 \text{ Ft} = 679.5 \text{ CF}$

Bot. Step: $25.75' \times 9' \times 2' = 463.5 \text{ CF}$

Lt. Cutoff wall: $\pm 29' \times 8' \times 2' = 464 \text{ CF}$

Rt. cutoff wall: $(6' \times 6' + 4' \times 9') \times 2' = 144 \text{ CF}$

Front Cutoff wall: $(8' \times 18.75' + 6' \times 6' + 25.75' \times 4') \times 2' = 578 \text{ CF}$

Total CF = $3,581 \text{ CF} \times \frac{1 \text{ CY}}{27 \text{ CF}} = 133 \text{ CY}$

Bridge No BRO-221-0574

Top Step: $\pm 4' \times \pm 42.33' \times 2' = 339 \text{ CF}$

2nd step: $\pm 10' \times \pm 55' \times 2' = 1,100 \text{ CF}$

3rd step: $10' \times \pm 55' \times 2' = 1,100 \text{ CF}$

4th step: $8' \times 55' \times 2' = 880 \text{ CF}$

5th step: " = 880 CF

Lt. Cutoff wall: $(10' \times 4' + 8' \times 6' + 6' \times 4' + 8' \times 4') \times 2' = 288 \text{ CF}$

Rt. Cutoff wall: " = 288 CF

Front Cutoff wall: $\pm 55' \times 4' \times 2' = 440 \text{ CF}$

Total CF: $5,315 \text{ CF} \times \frac{1 \text{ CY}}{27 \text{ CF}} = 197 \text{ CY} + 4 \text{ CY} = 201 \text{ CY}$ wing wall extension

Bridge No BRO-221-0590

Top Step: $\pm 181 \text{ SF} \times 2' = 362 \text{ CF}$

2nd Step: $\pm 346 \text{ SF} \times 2' = 692 \text{ CF}$

3rd, 4th, 5th Step: $8' \times \pm 41.5' \times 2' \times 3 \text{ steps} = 1,992 \text{ CF}$

Lt./Rt. Cutoff wall: $((2.5' + 4.7') \times 10' + 4' \times 8' \times 2 + 4' \times 6' \times 2 + 8' \times 4' \times 2) \times 2' = 496 \text{ CF}$

Front Cutoff wall: $\pm 37.5' \times 4' \times 2' = 300 \text{ CF}$

Total CF: $3,842 \text{ CF} \times \frac{1 \text{ CY}}{27 \text{ CF}} = 143 \text{ CY}$