

DISTRICT 10 - BRIDGE DEPARTMENT

MUSKINGUM DRIVE, BOX 658, MARIETTA OHIO 45750

COUNTY: NOB ROUTE: 513 SECTION: 9.17

SHEET 1 OF 6

ITEM 202 - WEARING COURSE REMOVED

$$(109.77')(24.5')/9 = 287.93 \text{ SY}$$

$$(15')(16')/9 \times 2 = 53.33 \text{ SY} \leftarrow \text{APP. SL AB}$$

ITEM 511 - CLASS RC2 CONCRETE, SUPER

$$(118.74')(70')(1.83')/27 = 241.44 \text{ CY}$$

AT REAR ABUT: $\frac{1}{2}(3.31' + 3.25')(1.73')(2.25')/27 = 0.47 \text{ CY}$

$$(1.42')(34.65')(2.25')/27 = 4.10 \text{ CY}$$

$$\frac{1}{2}(3.25' + 3.18')(1.73')(2.25')/27 = 0.46 \text{ CY}$$

AT FWD ABUT: $\frac{1}{2}(3.25' + 3.21')(1.73')(2.25')/27 = 0.47 \text{ CY}$

$$(1.42')(34.65')(2.25')/27 = 4.10 \text{ CY}$$

$$\frac{1}{2}(3.30' + 3.25')(1.73')(2.25')/27 = 0.47 \text{ CY}$$

251.51 CY

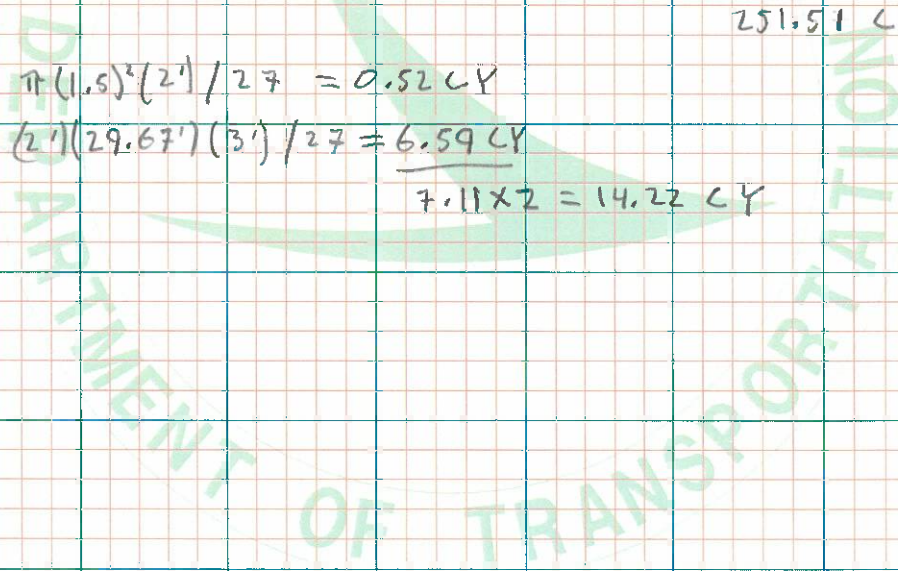
PIERS: $\pi(1.5)^2(2')/27 = 0.52 \text{ CY}$

$$(2')(29.67')(3')/27 = 6.59 \text{ CY}$$

$$7.11 \times 2 = 14.22 \text{ CY}$$

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SHEET 2 OF 6

ITEMS 11 - CLASS QC1 CONCRETE, ABUTMENT

$$\text{REAR: } (3')(3')(52.5') / 27 = 17.5 \text{ CY}$$

$$\frac{1}{2}(2.98' + 4.85')(3.75')(2.25') / 27 = 1.22 \text{ CY}$$

$$(4.85')(1.30')(2.25') / 27 = 0.53 \text{ CY}$$

$$\frac{1}{2}(1.46' + 2.83')(38.31')(2.25') / 27 = 6.85 \text{ CY}$$

$$(6.09')(2.64')(2.25') / 27 = 1.34 \text{ CY}$$

$$\frac{1}{2}(6.09' + 2.84')(6.5')(2.25') / 27 = 2.42 \text{ CY}$$

$$\underline{29.86 \text{ CY}}$$

$$\text{FORWARD: } (3')(3')(52') / 27 = 17.33 \text{ CY}$$

$$\frac{1}{2}(2.91' + 5.82')(7.25')(2.25') / 27 = 2.42 \text{ CY}$$

$$(5.82')(1.31')(2.25') / 27 = 0.64 \text{ CY}$$

$$\frac{1}{2}(2.53' + 1.52')(38.31')(2.25') / 27 = 6.46 \text{ CY}$$

$$(4.90')(2.64')(2.25') / 27 = 1.08 \text{ CY}$$

$$\frac{1}{2}(4.90' + 3.65')(2.5')(2.25') / 27 = 0.89 \text{ CY}$$

$$\underline{28.82 \text{ CY}}$$

$$\text{TOTAL: } 29.86 + 28.82 = 58.68 \text{ CY}$$

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ITEMS 12 - SEALING OF CONCRETE SURFACES

SUPER: $(1.83' + 0.5')(114.69') / 9 \times 2 = 59.38 \text{ SY}$

AT REAR ABUT: $(1.73')(2.25') / 9 = 0.43 \text{ SY}$

$(1.73')(2.25') / 9 = 0.43 \text{ SY}$

$\frac{1}{2}(3.31 + 3.25')(1.73') / 9 = 0.63 \text{ SY}$

$(1.42')(34.65') / 9 = 5.47 \text{ SY}$

$\frac{1}{2}(3.25' + 3.18')(1.73') / 9 = 0.62 \text{ SY}$

AT FWD ABUT: $(1.73')(2.25') / 9 = 0.43 \text{ SY}$

$(1.73')(2.25') / 9 = 0.43 \text{ SY}$

$\frac{1}{2}(3.21' + 3.25')(1.73') / 9 = 0.62 \text{ SY}$

$(1.42')(34.65') / 9 = 5.47 \text{ SY}$

$\frac{1}{2}(3.25' + 3.30')(1.73') / 9 = 0.63 \text{ SY}$

74.54 SY

PIERS: $2\pi(1.5')(2') = 2.09 \text{ SY}$

$\pi(1.5)^2 / 9 = 0.79 \text{ SY}$

$(29.67')(3') / 9 = 9.89 \text{ SY}$

$(29.67')(2') / 9 \times 2 = 13.19 \text{ SY}$

25.96 x 2 = 51.92 SY

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ITEMS 12 - SEALING OF CONCRETE SURFACES

REAR ABUTMENT: $\frac{1}{2}(2.11' + 3.98')(3.75') / 9 = 1.23 \text{ SY}$

$(3.98')(0.65') / 9 = 0.29 \text{ SY}$

$\frac{1}{2}(0.59' + 1.96')(38.31') / 9 = 5.43 \text{ SY}$

$(5.22')(3.29') / 9 = 1.91 \text{ SY}$

$\frac{1}{2}(5.22' + 1.97')(6.5') / 9 = 2.60 \text{ SY}$

$(2.11')(2.25') / 9 = 0.53 \text{ SY}$

$(4.19' + 1.30')(2.25') / 9 = 1.37 \text{ SY}$

$(5.71')(1') / 9 = 0.63 \text{ SY}$

$(1.97')(2.25') / 9 = 0.49 \text{ SY}$

$(7.27' + 2.64')(2.25') / 9 = 1.47 \text{ SY}$

$(8.49')(1') / 9 = 0.94 \text{ SY}$

16.89 SY

FWD ABUTMENT: $\frac{1}{2}(1.41' + 5.04')(7.25') / 9 = 2.60 \text{ SY}$

$(5.04')(0.67') / 9 = 0.38 \text{ SY}$

$\frac{1}{2}(1.75' + 0.74')(38.31') / 9 = 5.30 \text{ SY}$

$(4.12')(3.29') / 9 = 1.51 \text{ SY}$

$\frac{1}{2}(4.12' + 2.87')(2.5') / 9 = 1.94 \text{ SY}$

$(1.41')(2.25') / 9 = 0.35 \text{ SY}$

$(8.11' + 1.31')(2.25') / 9 = 2.36 \text{ SY}$

$(4.21')(1') / 9 = 1.02 \text{ SY}$

$(2.87')(2.25') / 9 = 0.72 \text{ SY}$

$(2.80' + 2.64')(2.25') / 9 = 1.36 \text{ SY}$

$(4.48')(1') / 9 = 0.50 \text{ SY}$

18.04 SY

TOTAL = $16.89 + 18.04 = 34.93 \text{ SY}$

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ITEM 516 - 1/2" PE SF

$$\text{REAR ABUTMENT: } (0.75')(38.12') = 28.59 \text{ SF}$$

$$\text{FWD ABUTMENT: } (0.75')(38.12') = 28.59 \text{ SF}$$

ITEM 516 - 1" PE SF

$$\text{REAR ABUTMENT: } (0.67')(38.12') = 25.54 \text{ SF}$$

$$(3.39')(2.60') = 8.81 \text{ SF}$$

$$(3.26')(2.60') = 8.50 \text{ SF}$$

$$\underline{42.85 \text{ SF}}$$

$$\text{FWD ABUTMENT: } (0.67')(38.12') = 25.54 \text{ SF}$$

$$(3.29')(2.60') = 8.55 \text{ SF}$$

$$(3.38')(2.60') = 8.79 \text{ SF}$$

$$\underline{42.88 \text{ SF}}$$

$$\text{TOTAL} = 42.85 + 42.88 = 85.73 \text{ SF}$$

ITEM 516 - NYLON REINFORCED NEOPRENE SHEETING

$$\text{REAR ABUTMENT: } (52.5')(3') = 157.5 \text{ SF}$$

$$(4.89')(3') = 14.67 \text{ SF}$$

$$(4.76')(3') = 14.28 \text{ SF}$$

$$\underline{186.45 \text{ SF}}$$

$$\text{FWD ABUTMENT: } (52.0')(3') = 156 \text{ SF}$$

$$(4.79')(3') = 14.37 \text{ SF}$$

$$(4.60')(3') = 13.80 \text{ SF}$$

$$\underline{184.17 \text{ SF}}$$

$$\text{TOTAL} = 186.45 + 184.17 = 370.62 \text{ SF}$$

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ITEM 518 - POROUS BACKFILL

$$\text{REAR ABUTMENT: } \frac{1}{2}(4.48' + 6.35')(3.75')(2') / 27 = 1.50 \text{ CY}$$

$$(6.35')(3.78')(2') / 27 = 1.78 \text{ CY}$$

$$(6.31')(34.65')(2') / 27 = 16.20 \text{ CY}$$

$$(7.59')(3.82')(2') / 27 = 2.15 \text{ CY}$$

$$\frac{1}{2}(7.59' + 4.34')(6.5')(2') / 27 = 2.87 \text{ CY}$$

$$\underline{24.50 \text{ CY}}$$

$$\text{FWD ABUTMENT: } \frac{1}{2}(3.69' + 7.32')(7.25')(2') / 27 = 2.96 \text{ CY}$$

$$(7.32')(3.79')(2') / 27 = 2.06 \text{ CY}$$

$$(7.28')(34.65')(2') / 27 = 18.69 \text{ CY}$$

$$(6.4')(3.81')(2') / 27 = 1.81 \text{ CY}$$

$$\frac{1}{2}(6.4' + 5.15')(2.5')(2') / 27 = 1.07 \text{ CY}$$

$$\underline{26.59 \text{ CY}}$$

$$\text{TOTAL: } 24.50 + 26.59 = 51.09 \text{ CY}$$

ITEM 526 - APPROACH SLABS

$$(25')(30') / 9 \times 2 = 166.67 \text{ SY}$$

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