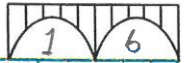


DISTRICT 10 - PRODUCTION

MUSKINGUM DRIVE, BOX 658, MARIETTA OHIO 45750

COUNTY: WAS ROUTE: 555 SECTION: 19.29



CLASS QC 2 CONCRETE, SUPERSTRUCTURE

$$(115.50)(38)(1.792) / 27 = 291.30 \text{ CY}$$

$$(3.36)(2.25)(1.61) / 27 = 0.45 \text{ CY}$$

$$(1.50)(2.25)(41.09) / 27 = 5.14 \text{ CY}$$

$$(3.41)(2.25)(1.64) / 27 = 0.47 \text{ CY}$$

$$(3.37)(2.25)(1.93) / 27 = 0.54 \text{ CY}$$

$$(1.50)(2.25)(47.82) / 27 = 5.98 \text{ CY}$$

$$(3.39)(2.25)(1.85) / 27 = 0.52 \text{ CY}$$

304.40 cu. yd.

PIER 1 : $(2)(3)(37.85) / 27 = 8.41 \text{ CY}$

$$2 [\pi (1.5)^2 (2)] / 27 = 1.05 \text{ CY}$$

9.46 cu. yd.

PIER 2 : $(2)(3)(40.17) / 27 = 8.93 \text{ CY}$

$$2 [\pi (1.5)^2 (2)] / 27 = 1.05 \text{ CY}$$

9.98 cu. yd.

PIER TOTAL = $9.46 + 9.98 = 19.44 \text{ cu. yd.}$

DATE:

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DISTRICT 10 - PRODUCTION

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CLASS GCI CONCRETE ABUTMENT

REAR :

$$(3')(3')(65.17') / 27 = 21.72 \text{ CY}$$

$$\frac{1}{2}(2.32' + 7.82')(11')(2.25') / 27 = 4.69 \text{ CY}$$

$$(7.82')(2.20')(2.25') / 27 = 1.43 \text{ CY}$$

$$\frac{1}{2}(4.46' + 4.70')(6.01')(2.25') / 27 = 2.29 \text{ CY}$$

$$\frac{1}{2}(4.70' + 2.01')(38.62')(2.25') / 27 = 10.80 \text{ CY}$$

$$(5.42')(1.39')(2.25') / 27 = 0.63 \text{ CY}$$

$$\frac{1}{2}(5.42' + 2.42')(6')(2.25') / 27 = 1.96 \text{ CY}$$

43.48 CY

FORWARD :

$$(3')(3')(72.5') / 27 = 24.17 \text{ CY}$$

$$\frac{1}{2}(1.93' + 5.68')(7.5')(2.25') / 27 = 2.38 \text{ CY}$$

$$(5.68')(2.91')(2.25') / 27 = 1.38 \text{ CY}$$

$$\frac{1}{2}(2.31' + 4.15')(44.73')(2.25') / 27 = 12.04 \text{ CY}$$

$$\frac{1}{2}(4.15' + 3.79')(6.87')(2.25') / 27 = 2.27 \text{ CY}$$

$$(7.18')(2.14')(2.25') / 27 = 1.28 \text{ CY}$$

$$\frac{1}{2}(7.18' + 3.88')(8.25')(2.25') / 27 = 3.80 \text{ CY}$$

47.32

TOTAL = 43.48 + 47.32 = 90.80 CU. YD.

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DISTRICT 10 - PRODUCTION

MUSKINGUM DRIVE, BOX 658, MARIETTA OHIO 45750

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SEALING OF CONCRETE SURFACES (NON-EPOXY)

SUPER : $(21.5' + 6') / 12 \times 113.26' / 9 = 28.84 \text{ SY}$

$(21.5' + 6') / 12 \times 109.98' / 9 = 28.00 \text{ SY}$

$(3.27')(1.61') / 9 = 0.58 \text{ SY}$

$(1.42')(41.09') / 9 = 6.48 \text{ SY}$

$(3.32')(1.64') / 9 = 0.60 \text{ SY}$

$(3.28')(1.93') / 9 = 0.70 \text{ SY}$

$(1.42')(47.82') / 9 = 7.54 \text{ SY}$

$(3.31')(1.85') / 9 = 0.68 \text{ SY}$

73.42 SQ. YD.

PIER 1 : $(2' + 3' + 2')(37.83') / 9 = 29.42 \text{ SY}$

$2\pi(1.5)(2') / 9 = 2.09 \text{ SY}$

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

32.30 SQ. YD.

PIER 2 : $(2' + 3' + 2')(40.17') / 9 = 31.24 \text{ SY}$

$2\pi(1.5)(2') / 9 = 2.09 \text{ SY}$

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

34.12 SQ. YD.

PIER TOTAL = $32.30 + 34.12 = 66.42 \text{ SQ. YD.}$

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DISTRICT 10 - PRODUCTION

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SEALING OF CONCRETE SURFACES (NON-EPOXY)	
REAR ABUTMENT :	
$\frac{1}{2}(1.18' + 6.68')(11')$	$= 4.80 \text{ SY}$
$(6.68')(2.65')$	$= 1.97 \text{ SY}$
$\frac{1}{2}(3.32' + 3.56')(6.01')$	$= 2.30 \text{ SY}$
$\frac{1}{2}(3.56' + 0.87')(38.62')$	$= 9.50 \text{ SY}$
$(4.28')(0.89')$	$= 0.42 \text{ SY}$
$\frac{1}{2}(4.28' + 1.28')(6')$	$= 1.85 \text{ SY}$
$(1.18')(2.25')$	$= 0.30 \text{ SY}$
$(12.30')(2.25')$	$= 3.08 \text{ SY}$
$(3.91')(2.25')$	$= 0.98 \text{ SY}$
$(14.46')(1')$	$= 1.61 \text{ SY}$
$(1.28')(2.25')$	$= 0.32 \text{ SY}$
$(6.71')(2.25')$	$= 1.68 \text{ SY}$
$(3.66')(2.25')$	$= 0.77 \text{ SY}$
$(9.61')(1')$	$= 1.07 \text{ SY}$
<u>30.65 SY</u>	
FORWARD ABUTMENT :	
$\frac{1}{2}(0.60' + 4.35')(7.5')$	$= 2.06 \text{ SY}$
$(4.35')(3.82')$	$= 1.85 \text{ SY}$
$\frac{1}{2}(0.98' + 2.82')(44.73')$	$= 9.44 \text{ SY}$
$\frac{1}{2}(2.82' + 2.46')(6.97')$	$= 2.02 \text{ SY}$
$(5.85')(1.74')$	$= 0.87 \text{ SY}$
$\frac{1}{2}(5.85' + 2.55')(8.25')$	$= 3.85 \text{ SY}$
$(0.60')(2.25')$	$= 0.15 \text{ SY}$
$(8.99')(2.25')$	$= 2.10 \text{ SY}$
$(5.05')(2.25')$	$= 1.26 \text{ SY}$
$(11.54')(1')$	$= 1.28 \text{ SY}$
$(2.55')(2.25')$	$= 0.64 \text{ SY}$
$(8.89')(2.25')$	$= 2.22 \text{ SY}$
$(4.00')(2.25')$	$= 1.00 \text{ SY}$
$(13.14')(1')$	$= 1.46 \text{ SY}$
<u>30.20 SY</u>	

DATE:

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TOTAL = 30.65 + 30.20 = 60.85 SQ. YD.

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CALCULATED BY: _____ DATE: _____
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<u>1/2" PREFORMED EXPANSION JOINT FILLER</u>	
REAR ABUTMENT :	$(0.75')(44.52') = 33.39 \text{ SF}$
FORWARD ABUTMENT :	$(0.75')(51.81') = 38.86 \text{ SF}$
	<u>72.25 SQ. FT.</u>
<u>1" PREFORMED EXPANSION JOINT FILLER</u>	
REAR ABUTMENT :	$(0.67')(44.52') = 29.83 \text{ SF}$
	$(2.42')(3.36') = 8.13 \text{ SF}$
	$(2.46')(3.41') = 8.39 \text{ SF}$
	<u>46.35 SF</u>
FORWARD ABUTMENT :	$(0.67')(51.81') = 34.71 \text{ SF}$
	$(2.90')(3.37') = 9.77 \text{ SF}$
	$(2.77')(3.39') = 9.39 \text{ SF}$
	<u>53.87 SF</u>
	TOTAL = $46.35 + 53.87 = 100.22 \text{ SQ. FT.}$
<u>NYLON REINFORCED NEOPRENE SHEETING</u>	
REAR ABUTMENT :	$(3')(65.17') = 195.51 \text{ SF}$
	$(3')(4.96') = 14.88 \text{ SF}$
	$(3')(4.91') = 14.73 \text{ SF}$
	<u>224.82 SF</u>
FORWARD ABUTMENT :	$(3')(72.5') = 217.50 \text{ SF}$
	$(3')(4.87') = 14.61 \text{ SF}$
	$(3')(4.89') = 14.67 \text{ SF}$
	<u>246.78 SF</u>
	TOTAL = $224.82 + 246.78 = 471.60 \text{ SQ. FT.}$

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POROUS BACKFILL WITH GEOTEXTILE FABRIC

REAR ABUTMENT :

$$\frac{1}{2}(3.82' + 9.32')(11')(2') / 27 = 5.35 \text{ CY}$$
$$(9.32')(3.46')(2') / 27 = 2.39 \text{ CY}$$
$$\frac{1}{2}(8.92' + 9.09')(4.30')(2') / 27 = 2.87 \text{ CY}$$
$$\frac{1}{2}(9.09' + 6.52')(36.85')(2') / 27 = 21.30 \text{ CY}$$
$$(6.92')(3.61')(2') / 27 = 1.85 \text{ CY}$$
$$\frac{1}{2}(6.92' + 3.92')(6')(2') / 27 = 2.41 \text{ CY}$$

36.17 cu. yd.

FORWARD ABUTMENT :

$$\frac{1}{2}(3.43' + 7.18')(7.5')(2') / 27 = 2.95 \text{ CY}$$
$$(7.18')(4.04')(2') / 27 = 2.15 \text{ CY}$$
$$\frac{1}{2}(6.78' + 8.54')(42.78')(2') / 27 = 24.27 \text{ CY}$$
$$\frac{1}{2}(8.54' + 8.28')(4.93')(2') / 27 = 3.07 \text{ CY}$$
$$(8.68')(4.89')(2') / 27 = 3.14 \text{ CY}$$
$$\frac{1}{2}(8.68' + 5.38')(8.25')(2') / 27 = 4.30 \text{ CY}$$

39.88 CY

TOTAL = 36.17 + 39.88 = 76.05 (U. YD.)

REINFORCED CONCRETE APPROACH SLAB

$$(38')(25') / 9 \times 2 = 211.11 \text{ SY}$$

DATE:

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