

STRUCTURE ESTIMATED QUANTITIES

MECHANICALLY STABILIZED EARTH WALL 4W20 RAMP C5 ADJACENT TO SUBSTATION

**FRA-70/71-12.68/14.86
PID No. 105523**

Franklin County, Ohio

Prepared For:

**The Ohio Department of Transportation
District 6**



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ESTIMATED QUANTITIES

ITEM 203 - ROADWAY, MISC.: CONTROLLED MODULUS COLUMNS

EXT. 98100

$$(4531 \text{ SF CADD AREA}) / 9 = \underline{504 \text{ SY}}$$

ITEM 423 - CRACK SEALING, MISC.: HMWM RESIN SEALING AT MOMENT SLABS

EXT. 98100

$$(18.4' + 42.7' + 182.3') (2') / 9 = \underline{55 \text{ SY}}$$

INCLUDED WITH CONC. SLEEPER SLAB ITEM

ITEM 509 - EPOXY COATED REINFORCING STEEL

EXT. 10000

$$\underline{20,943 \text{ LBS}}$$

ITEM 511 - CLASS RC2 CONCRETE, MISC.: PARAPET INCLUDING SLEEPER SLAB

EXT. 53012 WITH RC/QA

$$(14.41 \text{ SF, SECTION AREA}) \overset{\downarrow \text{DIMENSIONS ALONG CENTROID}}{(18.4' + 42.7' + 182.4')} / 27 = \underline{130 \text{ CY}}$$

ITEM 512 - SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)

EXT. 10100

WALL FACE = 3,339.6 SF (CADD AREA)	= 3,339.6 SF
WALL TOP = (0.83') (2885' CADD LENGTH)	= 239.5 SF
PARAPET = (8.0' PERIMETER) (18.4' + 42.6' + 182.2')	= 1,945.6 SF
	<u>5,524.7 SF</u>

$$5,524.7 \text{ SF} / 9 = \underline{614 \text{ SY}}$$



ITEM 516 - 2" PREFORMED EXPANSION JOINT FILLER

EXT. 13900

$$(2') (42.6' + 159.8') = \underline{405 \text{ SF}}$$

ITEM 840 - MECHANICALLY STABILIZED EARTH WALL AS PER PLAN

EXT. 20001

4,486 SF (CADD AREA)

ITEM 840 - WALL EXCAVATION

EXT. 21000

$(428.8 \text{ SF}) (10') = 4,288 \text{ CF}$	$33,754 \text{ CF} / 27 = \underline{1,251 \text{ CY}}$
$(843.8 \text{ SF}) (9') = 7,594 \text{ CF}$	
$(745.0 \text{ SF}) (7') = 5,215 \text{ CF}$	
$(709.6 \text{ SF}) (5.5') = 3,903 \text{ CF}$	
$(771.4 \text{ SF}) (6.5') = 5,014 \text{ CF}$	
$(1032.0 \text{ SF}) (7.5') = \underline{7,740 \text{ CF}}$	
$33,754 \text{ CF}$	

ITEM 840 - SELECT GRANULAR BACKFILL

EXT. 23000

$(357.0 \text{ SF}) (12.3') = 4,391 \text{ CF}$	$55,148 \text{ CF} / 27 = \underline{2,043 \text{ CY}}$
$(733.0 \text{ SF}) (15.5') = 11,362 \text{ CF}$	
$(633.6 \text{ SF}) (13.8') = 8,744 \text{ CF}$	
$(598.2 \text{ SF}) (12.8') = 7,657 \text{ CF}$	
$(659.9 \text{ SF}) (14.5') = 9,569 \text{ CF}$	
$(889.1 \text{ SF}) (15.1') = \underline{13,425 \text{ CF}}$	
$55,148 \text{ CF}$	



GPD GROUP
Glaus, Pyle, Schomer, Burns & DeHaven, Inc.

Job MSE WALL 4W20

Sheet No. 3

of 3

Calculated by MOJ

Date 1-31-19

Checked by TJW

Date 1-31-19

ITEM 840 - NATURAL SOIL

EXT. 23050

ABOVE SGB

IN FRONT OF WALL

$$\left[(235.3 \text{ SF} + 210.3 \text{ SF}) (2' \text{ AVG}) + (0.8') (286.2') (4.5' \text{ AVG}) \right] / 27 = 72 \text{ CY}$$

ITEM 840 - 6" DRAINAGE PIPE, PERFORATED

EXT. 25010

$$161.1' + 144.0' + 160.1' + 143.0' = \underline{609 \text{ FT}}$$

ITEM 840 - 6" DRAINAGE PIPE NON-PERFORATED

EXT. 25020

$$13.5' + 24.9' = \underline{39 \text{ FT}}$$

ITEM 840 - CONCRETE COPING

EXT. 26000

$$\underline{289 \text{ FT}}$$

ITEM 840 - ON-SITE ASSISTANCE

EXT. 27000

$$\underline{5 \text{ DAYS}}$$

ITEM 840 - SGB INSPECTION AND COMPACTION TESTING

EXT. 28000

$$\underline{\text{LUMP SUM}}$$