

COMPUTATION & SUB-SUMMARY

FHWA REGION	STATE	PROJECT	
5	OHIO		

LAKE COUNTY
LAK-2-6.14

DECELERATION LANE LENGTHENING (ITEM 203- EXCAVATION NOT INCL. EMB. CONSTR. INCLUDED ON CROSS-SECTION SHEETS)						
	ITEM 605-6" SHALLOW PIPE UNDERDRAIN	ITEM 203 - SUBGRADE COMPACTION	ITEM 301 BITUMINOUS AGGREGATE BASE	ITEM 304 AGGREGATE BASE	ITEM 310 SUBBASE, TYPE II	ITEM 305 - 10" CONCRETE BASE
CITY OF MENTOR 8 LOCATIONS - LENGTH = 1416.67 L.F. 15 TRANSITIONS x 100 L.F. = 1500 L.F. 1 TRANSITION x 83.33 = 83.33 L.F.	1416.67 L.F. 1500 L.F. 83.33 L.F. TOTAL CITY OF MENTOR = 3000 L.F.	FROM ITEM 301: $278 \times 36 \div 3 = 3336$ S.Y. FROM ITEM 305 = 3121 S.Y. TOTAL CITY OF MENTOR = 6457 S.Y.	$1416.67 \text{ L.F.} \times 10' \times 3''/12'' \div 27 = 131 \text{ C.Y.}$ $1500 \text{ L.F.} \times 10' \times 3''/12'' \div 27 = 139 \text{ C.Y.}$ $83.33 \text{ L.F.} \times 10' \times 3''/12'' \div 27 = 8 \text{ C.Y.}$ TOTAL CITY OF MENTOR = 278 C.Y.	$1416.67 \text{ L.F.} \times 10' \times 7''/12'' \div 27 = 306 \text{ C.Y.}$ $1500 \text{ L.F.} \times 10' \times 7''/12'' \div 27 = 324 \text{ C.Y.}$ $83.33 \text{ L.F.} \times 10' \times 7''/12'' \div 27 = 18 \text{ C.Y.}$ TOTAL CITY OF MENTOR = 648 C.Y.	$1416.67 \text{ L.F.} \times ((14' \times 6''/12'') + (8' \times 4.5''/12'')) \div 27 = 525 \text{ C.Y.}$ $1500 \text{ L.F.} \times ((14' \times 6''/12'') + (8' \times 4.5''/12'')) \div 27 = 556 \text{ C.Y.}$ $83.33 \text{ L.F.} \times ((14' \times 6''/12'') + (8' \times 4.5''/12'')) \div 27 = 31 \text{ C.Y.}$ TOTAL CITY OF MENTOR = 1,112 C.Y.	$1416.67 \text{ L.F.} \times 12' \div 9 = 1,889 \text{ S.Y.}$ $1500 \text{ L.F.} \times ((2 + 12)/2 \div 9) = 1,167 \text{ S.Y.}$ $83.33 \text{ L.F.} \times ((2 + 12)/2) \div 9 = 65 \text{ S.Y.}$ TOTAL CITY OF MENTOR = 3,121 S.Y.
PAINESVILLE TWP. 2 LOCATIONS - LENGTH = 400 L.F. 4 TRANSITIONS x 100 L.F. = 400 L.F.	400 L.F. 400 L.F. TOTAL PAINESVILLE TWP. = 800 L.F.	FROM ITEM 301: $74 \times 36 \div 3 = 888$ S.Y. FROM ITEM 305 = 844 S.Y. TOTAL PAINESVILLE TWP = 1732 S.Y.	$400 \text{ L.F.} \times 10' \times 3''/12'' \div 27 = 37 \text{ C.Y.}$ $400 \text{ L.F.} \times 10' \times 3''/12'' \div 27 = 37 \text{ C.Y.}$ TOTAL PAINESVILLE TWP. = 74 C.Y.	$400 \text{ L.F.} \times 10' \times 7''/12'' \div 27 = 86 \text{ C.Y.}$ $400 \text{ L.F.} \times 10' \times 7''/12'' \div 27 = 86 \text{ C.Y.}$ TOTAL PAINESVILLE TWP. = 172 C.Y.	$400 \text{ L.F.} \times ((14' \times 6''/12'') + (8' \times 4.5''/12'')) \div 27 = 148 \text{ C.Y.}$ $400 \text{ L.F.} \times ((14' \times 6''/12'') + (8' \times 4.5''/12'')) \div 27 = 148 \text{ C.Y.}$ TOTAL PAINESVILLE TWP. = 296 C.Y.	$400 \text{ L.F.} \times 12' \div 9 = 533 \text{ S.Y.}$ $400 \text{ L.F.} \times ((2 + 12)/2 \div 9) = 311 \text{ S.Y.}$ TOTAL PAINESVILLE TWP. = 844 S.Y.

ITEM 407 - TACK COAT	COVER AGGREGATE
CITY OF MENTOR - 25539 GAL.	894 TON
PAINESVILLE TWP - 5284 GAL.	185 TON
CITY OF PAINES. - 164 GAL.	6 TON

ITEM 203 - LINEAR GRADING	
CITY OF MENTOR	
MAINLINE	= 144,498 L.F.
RAMP F-1	= 1,950
RAMP F-2	= 1,400
RAMP F-3	= 1,200
RAMP F-4	= 1,800
RAMP F-5	= 1,500
RAMP F-6	= 1,200
S.R. 306	= 2,000
RAMP G-1	= 1,500
RAMP G-2	= 1,400
RAMP G-3	= 1,600
RAMP G-4	= 1,200
RAMP H-1	= 2,200
RAMP H-2	= 1,100
RAMP H-3	= 2,100
RAMP H-4	= 1,400
TOTAL MENTOR	= 168,048 L.F. \div 100 = 1,680 STATIONS
PAINESVILLE TWP	
MAINLINE	= 27,572 L.F.
RAMP I-2	= 4,000
RAMP I-4	= 2,600
TOTAL PAINESVILLE TWP.	= 34,172 L.F. \div 100 = 342 STATIONS
CITY OF PAINESVILLE	
MAINLINE	= 1100 L.F.
TOTAL PAINESVILLE	= 1100 L.F. \div 100 = 11 STATIONS