

CALCULATIONS

GENERAL SUMMARY

<p>ITEM 203 - EXCAVATION STA. 5+92 TO STA. 5+99 = 7 L.F. EL. 582.13 - 573.02 = 9.11' EL. 582.13 - 577.40 = 4.73' AREA = $(9.11 + 4.73) \times 7 \div 2 =$ VOLUME = $5.38 \times [(53.5 + \frac{13+11}{2}) \div 3] =$ STA. 6+36 TO STA. 6+52 = 16 L.F. EL. 581.36 - 577.80 = 3.56' EL. 581.36 - 570.40 = 10.96' AREA = $(3.56 + 10.96) \times 16 \div 2 =$ VOLUME = $12.91 \times [(53.5 + \frac{12.5+14}{2}) \div 3] =$ TOTAL =</p> <p>ITEM 203 - SUBGRADE COMPACTION APPROACH SLAB STA. 5+74.50 TO STA. 5+89.50 = 15 L.F. STA. 6+54.50 TO STA. 6+69.50 = 15 L.F. TOTAL = 30 L.F. AREA = $30 \times 28 \div 9 =$ PAVEMENT AREA FROM ITEM 408 =</p> <p>ITEM 301 - 9" BITUMINOUS AGGREGATE BASE WIDENED PAVEMENT STA. 4+00 TO STA. 4+37.88 = 37.88 L.F. STA. 7+78.45 TO STA. 8+00 = 21.55 L.F. TOTAL = 59.43 L.F. AREA = $59.43 \times 3.5 \times 2 \div 9 =$ VOLUME = $46.22 \times 9 \div 36 =$ ITEM 304 - 8" AGGREGATE BASE AS PER PLAN STA. 4+50 TO STA. 5+74.50 = 124.50 L.F. STA. 6+69.50 TO STA. 7+50.00 = 80.50 L.F. TOTAL = 205.00 L.F. AREA = $2 \times 205 \times \frac{(14+16)}{2} \div 9 =$</p> <p>ITEM 304 - 6" AGG. BASE, AS PER PLAN APPROACH SLAB STA. 5+74.50 TO STA. 5+89.50 = 15 L.F. STA. 6+54.50 TO STA. 6+69.50 = 15 L.F. TOTAL = 30 L.F. AREA = $30 \times (28+3) \div 9 =$ VOLUME = $103.33 \times 0.5 \div 3 =$ ITEM 402 - ASPHALT CONCRETE, AC-20 STA. 4+50 TO STA. 5+74.50 = 124.50 L.F. STA. 6+69.50 TO STA. 7+50 = 80.50 L.F. TOTAL = 205.00 L.F. AREA = $2 \times 205 \times \frac{(12+14)}{2} \div 9 =$</p> <p>ITEM 403 - ASPHALT CONCRETE, AC-20 STA. 4+00 TO STA. 4+37.88 = 37.88 L.F. STA. 7+78.45 TO STA. 8+00 = 21.55 L.F. TOTAL = 59.43 L.F. AREA = $2 \times 59.43 \times 9 \div 9 =$ AVERAGE THICKNESS = 0.226' VOLUME = $118.86 \times 0.226 \div 3 =$ WIDENED PAVEMENT STA. 4+00 TO STA. 4+37.88 = 37.88 L.F. STA. 7+78.45 TO STA. 8+00 = 21.55 L.F. TOTAL = 59.43 L.F. AREA = $59.43 \times 2 \times 3 \div 9 =$ THICKNESS = 1.75" VOLUME = $39.62 \times 1.75 \div 36 =$ TOTAL =</p> <p>ITEM 404 - ASPHALT CONCRETE, AC-20 PAVEMENT STA. 4+00 TO STA. 4+50 = 50 L.F. STA. 7+50 TO STA. 8+00 = 50 L.F. TOTAL = 100 L.F. AREA = $100 \times 24 \div 9 =$ VOLUME = $266.67 \times 1.25 \div 36 =$ STA. 4+50 TO STA. 5+74.50 = 124.50 L.F. STA. 6+69.50 TO STA. 7+50 = 80.50 L.F. TOTAL = 205.00 L.F. AREA = $2 \times 205 \times \frac{(12+14)}{2} \div 9 =$ VOLUME = $592.22 \times 1.25 \div 36 =$ TOTAL =</p>	<p>5.38 S.Y. 117.46 C.Y. 12.91 S.Y. 287.25 C.Y. 404.71 C.Y. USE 405 C.Y. 93.33 S.Y. 592.22 S.Y. 685.55 S.Y. USE 686 S.Y. 46.22 S.Y. 11.56 C.Y. USE 12 C.Y. 683.34 S.Y. 103.33 S.Y. 17.22 C.Y. USE 18 C.Y. 592.22 S.Y. 118.86 S.Y. 8.95 C.Y. 39.62 S.Y. 193 C.Y. 10.88 C.Y. USE 11 C.Y. 266.67 S.Y. 9.26 C.Y. 592.22 S.Y. 20.56 C.Y. 29.82 C.Y. USE 30 C.Y.</p>	<p>ITEM 407 - TACK COAT STA. 4+00 TO STA. 4+37.88 = 37.88 L.F. STA. 7+78.45 TO STA. 8+00 = 21.55 L.F. TOTAL = 59.43 L.F. AREA = $2 \times 59.43 \times 9 \div 9 =$ VOLUME = $118.86 \times 0.1 \text{ GAL./S.Y.} =$ ITEM 408 - BITUMINOUS PRIME COAT WIDENED PAVEMENT STA. 4+00 TO STA. 4+37.88 = 37.88 L.F. STA. 7+78.45 TO STA. 8+00 = 21.55 L.F. TOTAL = 59.43 L.F. AREA = $59.43 \times 2 \times 3 \div 9 =$ VOLUME = $39.62 \times 0.4 \text{ GAL./S.Y.} =$ PAVEMENT AREA FROM ITEM 402 = 592.22 S.Y. VOLUME = $592.22 \times 0.4 \text{ GAL./S.Y.} =$ TOTAL =</p> <p>ITEM 611 - APPROACH SLAB (T=12") STA. 5+74.50 TO STA. 5+89.50 = 15 L.F. STA. 6+54.50 TO STA. 6+69.50 = 15 L.F. TOTAL = 30 L.F. AREA = $30 \times 28 \div 9 =$</p> <p>ITEM 642 - EDGE LINES (WHITE) STA. 2+50 TO STA. 9+50 = 700 L.F. 2 x 700 = 5280</p> <p>ITEM 642 - CENTER LINE STA. 2+50 TO STA. 9+50 = 700 L.F. 700 = 5280</p> <p>ITEM 659 - WATER AREA TO BE WATERED FROM PLAN SHEET = 1193 S.Y. 1193 x 2 x 9 S.F./S.Y. x 120 GAL./1000 S.F. = 1000 GAL./M.GAL.</p> <p>ITEM 659 - COMMERCIAL FERTILIZER AREA TO BE SEEDED FROM PLAN SHEET = 1193 S.Y. 1193 x 9 x 20 LB./1000 S.F. = 2000 =</p> <p>ITEM 304 - 8" AGGREGATE BASE AS PER PLAN (CONT.) STA. 4+37.88 TO STA. 4+50 = 12.12 L.F. STA. 7+50 TO STA. 7+78.45 = 28.45 L.F. TOTAL = 40.57 L.F. AREA = $2 \times 40.57 \times 14 \div 9 =$ AREA FROM PART I = TOTAL = VOLUME = $809.59 \times 8 \div 36 =$</p> <p>ITEM 402 - ASPHALT CONCRETE, AC-20 (CONT.) AREA FROM ITEM 304 (CONT.) = AREA FROM ITEM 402 (PART I) = TOTAL = VOLUME = $718.44 \times 1.75 \div 36 =$</p> <p>ITEM 404 - ASPHALT CONCRETE, AC-20 UNDER GUARDRAIL STA. 3+92.85 TO STA. 5+82.35 = 189.50 L.F. STA. 6+61.65 TO STA. 8+01.15 = 139.50 L.F. TOTAL = 329.00 L.F. AREA = $2 \times 329 \times 2 \div 9 =$ VOLUME = $146.22 \times .33 \div 3 =$</p> <p>ITEM 608 - 4" CONCRETE WALK STA. 5+74.50 TO STA. 5+89.00 = 14.50 L.F. STA. 6+55.00 TO STA. 6+69.50 = 14.50 L.F. TOTAL = 29.00 L.F. AREA = $2 [29 \times (5'-0" - 6")] =$</p>	<p>118.86 S.Y. 11.89 GAL. USE 12 GAL. 39.62 S.Y. 15.85 GAL. 592.22 S.Y. 236.89 GAL. 252.74 GAL. USE 253 GAL. 93.33 S.Y. USE 93 S.Y. 0.265 MI. USE 0.265 MI. 0.133 MI. USE 0.133 MI. 2577 M.GAL. USE 3 M.GAL. 0.11 TONS USE 0.11 TONS 126.22 S.Y. 683.34 S.Y. 809.59 S.Y. 179.90 C.Y. USE 180 C.Y. 34.92 C.Y. USE 35 C.Y. 146.22 S.Y. 16.08 C.Y. USE 16 C.Y. 261 S.F. USE 261 S.F.</p>
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SHEET NUMBER				ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	FOR "AS PER PLAN" SEE SHEET NO.
4	5	6	9						
LUMP				201	11000	LUMP		• ROADWAY • CLEARING AND GRUBBING	
		607		202	23000	607	SQ.YD.	PAVEMENT REMOVED	
		119		202	23500	119	SQ.YD.	WEARING COURSE REMOVED	
		726		202	38000	726	LIN.FT.	GUARDRAIL REMOVED	
	405	68		203	12000	473	CU.YD.	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCTION	
		352		203	20000	352	CU.YD.	EMBANKMENT	
	686			203	50000	686	SQ.YD.	SUBGRADE COMPACTION	
7				203	60001	7	STA.	LINEAR GRADING, AS PER PLAN	4
		650		606	13000	650	LIN.FT.	GUARDRAIL, TYPE 5	
		4		606	35000	4	EACH	BRIDGE TERMINAL ASSEMBLY, TYPE I	
	261			608	10000	261	SQ.FT.	4" CONCRETE WALK	
								• DRAINAGE •	
		60		603	01500	60	LIN.FT.	6" CONDUIT, TYPE F, 707.17, NONPERF. ASTM 3034 SDR 35 OR S931	
		2		SPECIAL 604	36600	2	EACH	PRECAST REINFORCED CONCRETE OUTLET	3
								• EROSION CONTROL •	
		214		601	34100	214	CU.YD.	ROCK CHANNEL PROTECTION, TYPE B WITHOUT FILTER FABRIC	
	0.11	1193		659	10000	1193	SQ.YD.	SEEDING AND MULCHING	
	3			659	20000	0.11	TON	COMMERCIAL FERTILIZER	
				659	35000	3	M.GAL.	WATER	
	50			207	70000	50	EACH	STRAW OR HAY BALES	
	250			207	30000	250	LIN.FT.	FILTER FABRIC FENCE	
								• PAVEMENT •	
		60		609	26000	60	LIN.FT.	CURB, TYPE G	
	12			301	10002	12	CU.YD.	BITUMINOUS AGGREGATE BASE, AC-20	
	198			304	20001	198	CU.YD.	AGGREGATE BASE, AS PER PLAN	4
		35		402	20000	35	CU.YD.	ASPHALT CONCRETE, AC-20	
		11		403	20000	11	CU.YD.	ASPHALT CONCRETE, AC-20	
		30		404	20000	30	CU.YD.	ASPHALT CONCRETE, AC-20	
		16		404	30000	16	CU.YD.	ASPHALT CONCRETE, AC-20, UNDER GUARDRAIL	
		12		407	10000	12	GAL.	TACK COAT	
		253		408	10000	253	GAL.	BITUMINOUS PRIME COAT	
		93		611	10001	93	SQ.YD.	REINFORCED CONCRETE APPROACH SLAB (T=12"), AS PER PLAN	4
								• MAINTENANCE OF TRAFFIC •	
		1482		614	12800	1482	EACH	TEMPORARY RAISED PAVEMENT MARKER	
		30		614	13300	26	EACH	BARRIER REFLECTOR, TYPE B	
		91		614	13302	91	EACH	BARRIER REFLECTOR, TYPE B2	
		52		614	13202	52	EACH	BARRIER REFLECTOR, TYPE A2	
		234		614	13350	234	EACH	OBJECT MARKER	
		0.02		614	21300	0.02	MILE	TEMPORARY CENTERLINE, CLASS I, 740.05, TYPE C	
		0.03		614	22300	0.03	MILE	TEMPORARY EDGE LINE, CLASS I, 740.05, TYPE C	
		24		614	26600	24	LIN.FT.	TEMPORARY STOP LINE, CLASS I, 740.05, TYPE C	
		975		615	20000	975	SQ.YD.	TEMPORARY PAVEMENT, CLASS A	
		2360		622	40020	2360	LIN.FT.	PORTABLE CONCRETE BARRIER, 32"	
		170		622	40040	170	LIN.FT.	PORTABLE CONCRETE BARRIER, 32", BRIDGE MOUNTED	
		0.13		614	21400	0.13	MILE	TEMPORARY CENTER LINE, CLASS 2	
								• TRAFFIC CONTROL •	
		0.27		642	00102	0.27	MILE	EDGE LINE, TYPE 2	
		0.13		642	00302	0.13	MILE	CENTER LINE, TYPE 2	
								STRUCTURE OVER 20 FEET SEE SHEET 13	
				LUMP	614	11000	LUMP	MAINTAINING TRAFFIC	
					619	15000	LUMP	FIELD OFFICE, TYPE A	
					623	10000	LUMP	CONSTRUCTION LAYOUT STAKES	
					624	10000	LUMP	MOBILIZATION	
				SPECIAL	61925000	LUMP		COMPUTER EQUIPMENT FOR TYPE A OFFICE	