UTILITIES

THE CONTRACTOR SHALL USE THE FOLLOWING PROCEDURE AT EACH LOCATION WHERE WORK IS PERFORMED, IN ACCORDANCE WITH SECTIONS 105.07 AND 107.16 IN THE CONSTRUCTION AND MATERIALS SPECIFICATIONS.

THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER, THE OHIO UTILITIES PROTECTION SERVICE (OUPS), THE OHIO & GAS PROCEDURES UNDERGROUND PROTECTION SERVICE (OGPUPS), THE OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 4 HEAD-QUARTERS AND ALL NON REGISTERED UTILITY OWNERS AT LEAST TWO (2) WORKING DAYS PRIOR TO COMMENCING CONSTRUCTION IN ALL AREAS.

OUPS 1-800-362-2764 (CONTACT LIMITED BASIS PARTICIPANTS DIRECTLY)
OGPUPS 1-800-925-0988
ODOT 330-786-2267 MICHELLE CHANEY

THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE NOT SHOWN ON THE PLANS, BUT CAN BE OBTAINED FROM THE OWNERS OF THE UTILITIES. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO UTILITIES.

WORK LIMITS

THE WORK LIMITS SHOWN ON THESE PLANS ARE FOR PHYSICAL CONSTRUCTION ONLY. PROVIDE THE INSTALLATION AND OPERATION OF ALL WORK ZONE TRAFFIC CONTROL AND WORK ZONE TRAFFIC CONTROL DEVICES REQUIRED BY THESE PLANS WHETHER INSIDE OR OUTSIDE THESE WORK LIMITS.

PAVEMENT MARKING LANE WIDTHS

THE NORMAL LANE WIDTH FOR THE PAVEMENT MARKINGS ON THIS PROJECT SHALL BE AS FOLLOWS:

ROUTE	S.L.M.	TO S.L.M.	LANE WIDTH
SR 170	0.78	0.88	11′
SR 170	1.36	4.29	11′
SR 170	5.71	10.94	11′

PAVEMENT MARKING DETAILS

THE PAVEMENT MARKING DETAIL SHEETS WILL BE SUPPLIED TO THE CONTRACTOR AT THE PRE-CONSTRUCTION MEETING. FOR ANY LOCATIONS THAT PAVEMENT MARKING DETAILS HAVE NOT BEEN MADE AVAILABLE TO THE CONTRACTOR, IT WILL BE THE CONTRACTORS RESPONSIBILITY TO PUT BACK NEW PAVEMENT MARKINGS IN THE ORIGINAL LOCATIONS.

PROFILE AND ALIGNMENT

PLACE THE PROPOSED PAVEMENT TO FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PLACE THE PROPOSED ASPHALT CONCRETE OVERLAY AS SHOWN ON THE TYPICAL SECTIONS.

DRIVEWAYS

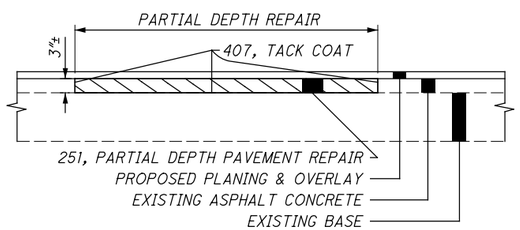
THE CONTRACTOR WILL NOT BE PERMITTED TO LEAVE A DIFFERENCE IN ELEVATION BETWEEN THE MAINLINE ASPHALT SURFACE COURSE AND THE EXISTING DRIVEWAYS. IF APPROVED BY THE ENGINEER, AN ASPHALT WEDGE WITH A MINIMUM WIDTH OF 2′ MAY BE PLACED EITHER ON THE ROADWAY SHOULDER OR DRIVEWAY DEPENDENT UPON WHICH SIDE IS HIGH. A QUANTITY OF MAINLINE SURFACE COURSE ASPHALT HAS BEEN PROVIDED IN THE CALCULATIONS AND GENERAL SUMMARY TO PERFORM THIS ITEM OF WORK.

IN THE EVENT THAT THE ENGINEER DETERMINES ADDITIONAL WORK IS NECESSARY TO PROPERLY ADDRESS FIELD CONDITIONS, AN ITEM FOR WEARING COURSE REMOVED HAS BEEN PROVIDED. THE REMOVAL DEPTH IS DEPENDENT UPON THE ELEVATION DIFFERENCE AND ALLOW FOR 1″-2″ OF COMPACTED ASPHALT MATERIAL TO BE PLACED.

ITEM 251 - PARTIAL DEPTH PAVEMENT REPAIR (441)

A QUANTITY OF THIS ITEM SHALL BE PROVIDED FOR USE AS DIRECTED BY THE ENGINEER. THE ITEM SHALL CONSIST OF REPAIRING EXISTING LOCATIONS EXHIBITING SURFACE DETERIORATION AND PLACING ITEM 441 ASPHALT CONCRETE, TYPE 2. THE ASPHALT CONCRETE SHALL BE COMPACTED WITH A TYPE I PNEUMATIC TIRE ROLLER AND A STEEL WHEEL ROLLER AS PER 401.13. IT IS NOT THE INTENT TO REPAIR EVERY DETERIORATED AREA WITHIN THE PROJECT. THE ENGINEER SHALL DETERMINE WHICH AREAS ARE TO BE REPAIRED. UNLESS OTHERWISE DIRECTED BY THE ENGINEER, THIS ITEM SHALL BE PERFORMED AFTER THE COMPLETION OF MAINLINE PAVEMENT PLANING. ALSO, THIS ITEM SHALL COMMENCE WITHIN 7 DAYS OF THE COMPLETION OF MAINLINE PAVEMENT PLANING. PAYMENT SHALL BE BASED ON THE ACTUAL NUMBER OF SQUARE YARDS OF PAVEMENT REPAIR. THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY:

251, PARTIAL DEPTH PAVEMENT REPAIR (441), 2,500 SY



ITEM 254 - PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (SLM 10.52-10.94)

THIS ITEM OF WORK SHALL BE PERFORMED IN CONFORMANCE WITH ITEM 254 IN THE CMS EXCEPT THE DEPTH SHALL VARY FROM 2½″ TO THE TOP OF THE BRICK WHICHEVER IS FIRST. THIS WORK SHALL BE PERFORMED SO THAT THE BRICK BASE IS NOT DISTURBED. ALL EQUIPMENT, LABOR, TOOLS, AND OTHER INCIDENTALS REQUIRED TO PERFORM THIS WORK SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN.

ITEM 408 - PRIME COAT, AS PER PLAN

APPLY "MC-70" AT A RATE OF 0.4 GALLONS PER SQUARE YARD, OR AS DETERMINED BY THE ENGINEER, TO THE COMPLETED COMPACTED AGGREGATE SHOULDER.

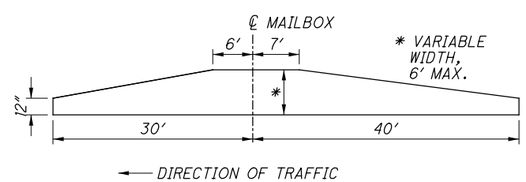
ITEM 424 - FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN

703.05 DO NOT USE ANY AGGREGATE FROM A SOURCE DESIGNATED "SR" OR "SRH" ACCORDING TO THE OFFICE OF MATERIALS MANAGEMENT (OMM) IN ANY JOB MIX FORMULA (JMF) FOR THIS ITEM.

PAVED MAILBOX APPROACHES

ALL EXISTING MAIL BOX APPROACHES WILL BE PAVED WITH ASPHALT CONCRETE AS PER TYPICAL SHOWN OR AS NEAR AS PRACTICAL. AGGREGATE APPROACHES SHALL HAVE A 2 IN. MIN. THICKNESS; IMPROVED APPROACHES SHALL HAVE A 2 IN. MIN. THICKNESS. THE CONTRACTOR SHALL PAVE THE MAILBOX APPROACHES WITH THE PAVING OF THE MAINLINE AND SHOULDERS. PAYMENT SHALL BE AS FOLLOWS:

ALL GRADING, TACK, TOOLS, EQUIPMENT, MATERIAL AND INCIDENTALS REQUIRED TO LAYOUT AND CONSTRUCT THE MAILBOX APPROACHES SHALL BE INCLUDED IN THE UNIT BID FOR ITEM 424, FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN.



ITEM 611 - CATCH BASIN ADJUSTED TO GRADE
ITEM 611 - CATCH BASIN RECONSTRUCTED TO GRADE

THE FOLLOWING QUANTITY HAS BEEN CARIED TO THE GENERAL SUMMARY AND IS TO BE USED AS DIRECTED BY THE ENGINEER TO ADJUST EXISTING CATCH BASINS TO GRADE.

611, CATCH BASIN ADJUSTED TO GRADE, 6 EACH
611, CATCH BASIN RECONSTRUCTED TO GRADE, 2 EACH

revised note

ITEM 611 - MANHOLE ADJUSTED TO GRADE, AS PER PLAN
ITEM 623 - MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN
ITEM 638 - VALVE BOX ADJUSTED TO GRADE, AS PER PLAN

IN ADDITION TO THE REQUIREMENTS OF CMS 611.10.D FOR MANHOLES, 623.05 FOR MONUMENT BOXES, OR 638.18 FOR VALVE BOXES, THE CONTRACTOR WILL MAKE A CLEAN CIRCULAR CUT AROUND THE CASTING (A MINIMUM OF 1′-0″ OUTSIDE THE CASTING) AND REMOVE AND DISCARD THE EXISTING CASTING. INSTALL A NEW CASTING TO GRADE (ACCORDING TO TOLERANCES AS SHOWN ON STANDARD CONSTRUCTION DRAWING BP-3.1) AFTER THE PAVEMENT SURFACE COURSE HAS BEEN REPLACED.

CMS 499 CLASS QCMS CONCRETE (DYE THE CONCRETE SUCH THAT ITS COLOR CLOSELY MATCHES THE COLOR OF THE SURROUNDING PAVEMENT) WILL BE USED FOR BACKFILLING THE FULL PAVEMENT SECTION AND THE JOINT BETWEEN THE ASPHALT AND CONCRETE WILL BE SEALED WITH CMS 702.01 PG BINDER. EPOXY COATED REBAR SHALL BE PLACED IN THE CONCRETE AT 6″ MAXIMUM ON CENTER AND A MINIMUM OF 3.5″ CLEARANCE FROM THE TOP, BOTTOM AND SIDES. THE CONCRETE WILL BE VIBRATED SUFFICIENTLY TO ELIMINATE AIR POCKETS UNDER THE FRAME.

PAYMENT WILL INCLUDE REMOVAL OF THE EXISTING MATERIAL, INSTALLATION AND FURNISHING OF A NEW CASTING, AND ALL LABOR AND MATERIALS REQUIRED TO COMPLETE THIS ITEM OF WORK AS DESCRIBED.

611, MANHOLE ADJUSTED TO GRADE, AS PER PLAN, 7 EACH
623, MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN, 27 EACH
638, VALVE BOX ADJUSTED TO GRADE, AS PER PLAN, 15 EACH

VALVE BOX COORDINATION

THE CONTRACTOR SHALL NOTIFY AQUA OHIO (ANDY HIPPLEY: 330-397-0776) AT LEAST 5 DAYS PRIOR TO ANY PAVEMENT OPERATIONS TO HAVE THE EXISTING WATER VALVE BOXES LOCATED AND MARKED. THIS COORDINATION SHALL BE INCIDENTAL TO ITEM 638 - VALVE BOX ADJUSTED TO GRADE, AS PER PLAN.

INTERSECTIONS

INTERSECTIONS WILL BE RESURFACED 10 FT. BEYOND THE EDGE LINE, UNLESS OTHERWISE DIRECTED BY THE ENGINEER OR INDICATED IN THE PLAN. INTERSECTIONS SHALL BE PAVED AFTER COMPLETION OF THE SURFACE COURSE. A BUTT JOINT, AS PER STANDARD CONSTRUCTION DRAWING BP-3.1, SHALL BE USED TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING PAVEMENT. USE THE SAME ASPHALT CONCRETE AS THE MAINLINE PAVEMENT UNLESS SHOWN OTHERWISE ON THE ASPHALT CONCRETE CALCULATIONS SHEET. ANY GRADING OR PRIME NECESSARY TO ACCOMPLISH THIS WORK SHALL BE INCLUDED IN THE COST OF THE PERTINENT BID ITEM.

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SHEET NUM.											PART.		ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
		4	5	7	10	11	12	13	14	15		01/STR/PV	02/S>2/PV		EXT	TOTAL		
																	ROADWAY	
					10	10	10					20	10	202	23500	30	SY	WEARING COURSE REMOVED	
										1,288		104	1,184	202	30000	1,288	SF	WALK REMOVED	
										54			54	202	32000	54	FT	CURB REMOVED	
			402									158	244	209	60200	402	STA	LINEAR GRADING	
					9	307	461					311	465	209	72000	777	STA	PREPARING SUBGRADE FOR SHOULDER PAVING	
										453		44	409	608	10000	453	SF	4" CONCRETE WALK	
										815		60	755	608	52000	815	SF	CURB RAMP	
		27										14	13	623	39501	27	EACH	MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN	4
																	EROSION CONTROL	
			22,335									8,778	13,557	659	10000	22,335	SY	SEEDING AND MULCHING	
			3.02									1.19	1.83	659	20000	3.02	TON	COMMERCIAL FERTILIZER	
			4.63									1.82	2.81	659	31000	4.63	ACRE	LIME	
			120.6									47.4	73.2	659	35000	120.6	MGAL	WATER	
												1,500	1,500	832	30000	3,000	EACH	EROSION CONTROL	
																	DRAINAGE	
		6											6	611	98630	6	EACH	CATCH BASIN ADJUSTED TO GRADE	
		1	2									2	1	611	98634	3	EACH	CATCH BASIN RECONSTRUCTED TO GRADE	
										1			1	611	99654	1	EACH	MANHOLE ADJUSTED TO GRADE	
		7											7	611	99655	7	EACH	MANHOLE ADJUSTED TO GRADE, AS PER PLAN adjusted quantities	4
			2									2		611	99660	2	EACH	MANHOLE RECONSTRUCTED TO GRADE	
																	PAVEMENT	
		2,500										1,250	1,250	251	01000	2,500	SY	PARTIAL DEPTH PAVEMENT REPAIR (441)	
					1,312							1,312		254	01000	1,312	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T=3")	
							8,573						8,573	254	01001	8,573	SY	PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T=2 1/2")	4
							3,429						3,429	407	13900	3,429	GAL	TACK COAT, 702.13	
					198	4,447	4,498					4,589	4,553	407	20000	9,143	GAL	NON-TRACKING TACK COAT	
					76	2,723	4,093					2,760	4,131	408	10001	6,892	GAL	PRIME COAT, AS PER PLAN	4
					47		298					47	298	424	12001	345	CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN (T=1 1/4")	4
						1,391	2,365					1,374	2,382	424	12001	3,756	CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN (T=1")	4
							298						298	441	50200	298	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448) (T=1 1/4")	
					64							64		441	50300	64	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 2, (448) (T=1 3/4")	
										32			32	609	26000	32	FT	CURB, TYPE 6	
					11	379	569					384	574	617	10101	959	CY	COMPACTED AGGREGATE, AS PER PLAN (T = 2")	5
						49,410	83,865					48,800	84,476	897	01010	133,275	SY	PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T = 1")	
																	WATER WORK	
		15											15	638	10801	15	EACH	VALVE BOX ADJUSTED TO GRADE, AS PER PLAN	4
																	TRAFFIC CONTROL	
								528				208	256	621	00100	528	EACH	RPM	
								424				181	243	621	54000	424	EACH	RAISED PAVEMENT MARKER REMOVED	
									15.3			5.94	9.36	646	10010	15.3	MILE	EDGE LINE, 6"	
									0.27				0.27	646	10110	0.27	MILE	LANE LINE, 6"	
									8.24			2.97	5.27	646	10200	8.24	MILE	CENTER LINE	
									385				385	646	10300	385	FT	CHANNELIZING LINE, 8"	
									292			12	280	646	10400	292	FT	STOP LINE	
									1,096				1,096	646	10500	1,096	FT	CROSSWALK LINE	
									4			2	2	646	20110	4	EACH	SCHOOL SYMBOL MARKING, 96"	
									10				10	646	20300	10	EACH	LANE ARROW	
									40				40	646	20504	40	FT	DOTTED LINE, 6"	
																	TRAFFIC SIGNALS	
				9									9	632	26501	9	EACH	DETECTOR LOOP, AS PER PLAN	7

CALCULATED CMR
CHECKED MAC

GENERAL SUMMARY

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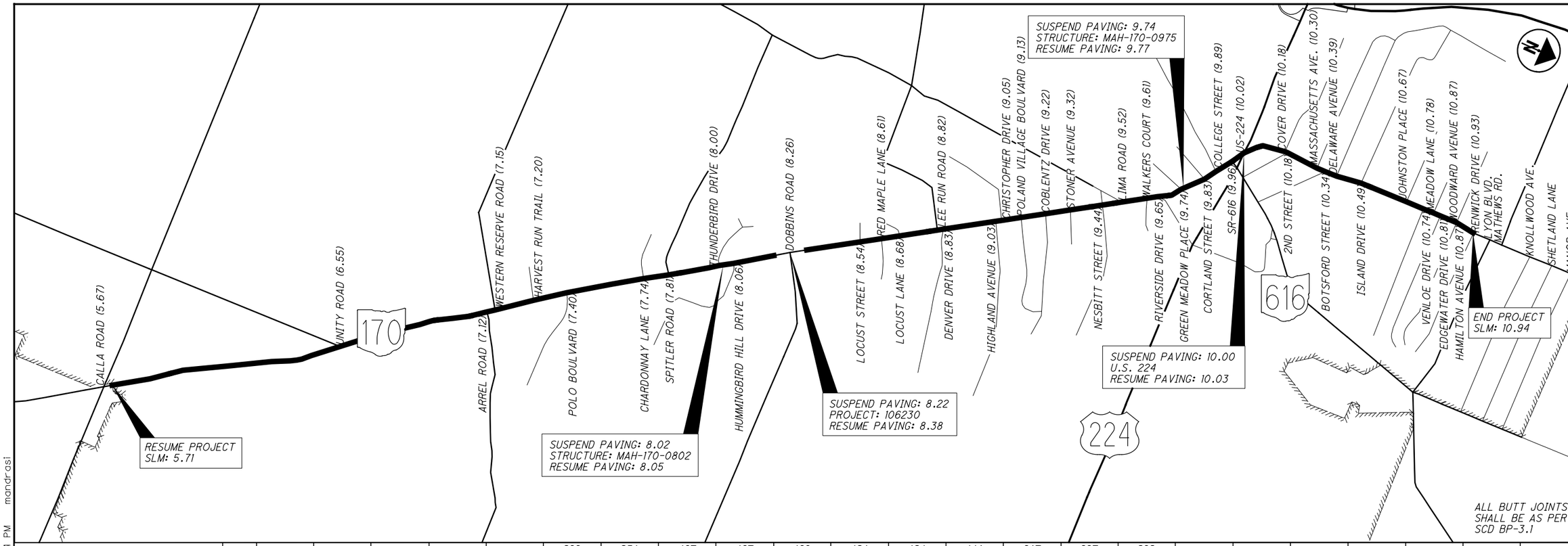

SLM RANGE			TYPICAL SECTION	SIDE	DISTANCE (D)	AVERAGE WIDTH (W)	SURFACE AREA (A) A=DxW/9	CADD GENERATED AREA	209 PREPARING SUBGRADE FOR SHOULDER PAVING	254 PAVEMENT PLANING, ASPHALT CONCRETE, AS PER PLAN (T=2 1/2")	407 TACK COAT, 702.13 @ 0.08 GAL/SY	407 NON-TRACKING TACK COAT @ 0.09 GAL/SY	408 PRIME COAT, AS PER PLAN @ 0.40 GAL/SY	424 FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN (T=1")	424 FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN (T=1 1/4")	441 ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448) (T=1 1/4")	617 COMPACTED AGGREGATE, AS PER PLAN (T = 2")	897 PAVEMENT PLANING, ASPHALT CONCRETE, CLASS A (T = 1")	202 WEARING COURSE REMOVED
					FT	FT	SY	SY	STA	SY	GAL	GAL	GAL	CY	CY	CY	CY	SY	SY
SR-170																			
5.71	TO	6.93	3		6441.60	26.00	18609.07		128.83		1488.73		1145.17	516.92			159.05	18609.07	
6.93	TO	7.16	3		1214.40	30.00	4048.00		24.29			364.32	215.89	112.44			29.99	4048.00	
7.16	TO	7.62	3		2428.80	28.00	7556.27		48.58			680.06	431.79	209.90			59.97	7556.27	
7.62	TO	7.70	3		422.40	26.00	1220.27		8.45			109.82	75.09	33.90			10.43	1220.27	
7.70	TO	8.00	3		1584.00	30.00	5280.00		31.68			475.20	281.60	146.67			39.11	5280.00	
8.00	TO	8.02	3		105.60	32.00	375.47		2.11			33.79	18.77	10.43			2.61	375.47	
8.05	TO	8.22	3		897.60	32.00	3191.47		17.95			287.23	159.57	88.65			22.16	3191.47	
8.38	TO	8.79	3		2164.80	32.00	7697.07		43.30			692.74	384.85	213.81			53.45	7697.07	
8.79	TO	9.22	3		2270.40	26.00	6558.93		45.41			590.30	403.63	182.19			56.06	6558.93	
9.22	TO	9.40	3		950.40	32.00	3379.20		19.01			304.13	168.96	93.87			23.47	3379.20	
9.40	TO	9.74	4		1795.20	32.00	6382.93				510.63			177.30				6382.93	
9.77	TO	10.00	4		1214.40	40.00	5397.33				431.79			149.93				5397.33	
10.03	TO	10.08	4		264.00	40.00	1173.33				93.87			32.59				1173.33	
10.08	TO	10.52	3		2323.20	30.00	7744.00		46.46			696.96	413.01	215.11			57.36	7744.00	
10.52	TO	10.94	5		2217.60	34.00	8377.60		44.35	8377.60	670.21		394.24		290.89	290.89	54.76		
INTERSECTIONS					10.00	VARIES		2917.78		194.44	233.42	262.60		81.05	6.75	6.75		2723.33	
DRIVEWAYS					2.00	VARIES		781.33						30.00					10.00
MAILBOX APPROACHES					VARIES	VARIES		2528.33						70.23				2528.33	
								SUBTOTALS	460.42	8572.04	3428.64	4497.16	4092.59	2364.98	297.64	297.64	568.41	83865.00	10.00
								TOTALS CARRIED TO GENERAL SUMMARY	461	8573	3429	4498	4093	2365	298	298	569	83865	10

adjusted quantities

CALCULATED CMR
CHECKED MAC

PAVEMENT CALCULATIONS

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