

**LOCATION MAP**

SEE SHEET 2 FOR ADDITIONAL LOCATIONS

LATITUDE: N 41° 4' 2" LONGITUDE: W 83° 30' 6"



PORTION TO BE IMPROVED	—————	—————
INTERSTATE HIGHWAY	—————	—————
FEDERAL ROUTES	—————	—————
STATE ROUTES	—————	—————
COUNTY & TOWNSHIP ROADS	—————	—————
OTHER ROADS	—————	—————

**DESIGN DESIGNATION** US 224

CURRENT ADT (2019)	7043
DESIGN YEAR ADT (2041)	8100
DESIGN HOURLY VOLUME (2041)	750
DIRECTIONAL DISTRIBUTION	0.53
TRUCKS (24 HOUR B&C)	0.05
DESIGN SPEED	55 mph
LEGAL SPEED	55 mph
DESIGN FUNCTIONAL CLASSIFICATION:	
MINOR ARTERIAL	



PLAN PREPARED BY:  
District One  
Ohio Department of Transportation  
Lima, Ohio

STATE OF OHIO  
DEPARTMENT OF TRANSPORTATION  
**HAN / ALL / HAR -  
224 / 235 / 309 - VAR.**

**Marion and Biglick Townships  
in Hancock County  
Bath and Auglaize Townships in Allen County  
Liberty, Marion, Cessna and Pleasant  
Townships in Hardin County**

**INDEX OF SHEETS:**

TITLE SHEET	1
LOCATION MAP	2
GENERAL NOTES	3 - 5
ASPHALT CONCRETE (RESURFACING)	6
ASPHALT CONCRETE (RUMBLE STRIPES ONLY)	7
PAVEMENT MARKING SUB-SUMMARY	8
INTERSECTION SUB-SUMMARY	9
GENERAL SUMMARY	10

**PROJECT DESCRIPTION**

REHABILITATION OF 8.61 MILES OF ROADWAY ON US 224 IN HANCOCK COUNTY. REHABILITATE BY RESURFACING AND PLACING PAVEMENT MARKINGS. ALSO ADD CENTERLINE RUMBLE STRIPES TO SR 309 IN ALLEN COUNTY AND TO SR 235 AND SR 309 IN HARDIN COUNTY. TOTAL CENTERLINE RUMBLE STRIPE PLACEMENT IS 21.92 MILES.

**EARTH DISTURBED AREAS**

PROJECT EARTH DISTURBED AREA:	N/A *
ESTIMATED CONTRACTOR EARTH DISTURBED AREA:	N/A *
NOTICE OF INTENT EARTH DISTURBED AREA:	N/A *

\* - (MAINTENANCE PROJECT)

**2019 SPECIFICATIONS**

THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES LISTED IN THE PROPOSAL SHALL GOVERN THIS IMPROVEMENT.

I HEREBY APPROVE THESE PLANS AND DECLARE THAT THE MAKING OF THESE IMPROVEMENTS WILL NOT REQUIRE THE CLOSING OF THE HIGHWAY AND PROVISIONS FOR THE MAINTENANCE AND SAFETY OF TRAFFIC WILL BE AS INDICATED IN THE PROPOSAL.

**ENGINEERS SEAL**

**SIGNED:** *Eric J. Scheckelhoff*  
**DATE:** 2-11-2021

STANDARD CONSTRUCTION DRAWINGS				SUPPLEMENTAL SPECIFICATIONS	
BP-3.1	1/17/20	TC-64.10	1/17/20	800	1/15/21
BP-5.1	1/18/19	TC-65.10	1/17/14	832	10/19/18
BP-7.1	7/17/20	TC-65.11	7/21/17	872	4/17/20
		TC-71.10	1/19/18	874	4/17/20
				875	1/18/19
MT-97.10	4/19/19	DM-4.3	1/15/16		
MT-97.12	1/20/17	DM-4.4	1/15/16		
MT-99.20	4/19/19				
MT-101.90	7/17/20				
MT-105.10	1/17/20				
MT-110.10	7/19/13				
TC-41.20	10/18/13				
TC-42.20	10/18/13				
TC-52.10	10/18/13				
TC-52.20	1/15/21				

APPROVED *Christopher A. Hughes*  
DATE 02/11/2021 DISTRICT DEPUTY DIRECTOR

APPROVED \_\_\_\_\_  
DATE \_\_\_\_\_ DIRECTOR, DEPARTMENT OF TRANSPORTATION

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FEDERAL PROJECT NO. **E191(150)**  
CONSTRUCTION PROJECT NO. **107676**  
RAILROAD INVOLVEMENT **None**  
**HAN / ALL / HAR -  
224 / 235 / 309 - VAR.**  
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PAVEMENT PREPARATION:

IN ADDITION TO THE REQUIREMENTS OD SPEC. 641.05, THE ITEM SHALL CONSIST OF REMOVING AND DISPOSING OF EXCESSIVE AMOUNTS OF LOSE OR FOREIGN MATERIAL FROM THE SURFACE TO BE MARKED TO THE SATISFACTION OF THE ENGINEER. THIS SHALL INCLUDE THE AREA AROUND THE SURFACE TO BE MARKED, THE ENTIRE AREA SHALL BE CLEANED, NOT JUST THE LINES TO BE MARKED. ALL WORK SHALL BE INCIDENTAL TO 641.

FLOODLIGHTING:

FLOODLIGHTING OF THE WORK SITE FOR ANY OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE HIGHWAY. TO INSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK ZONE EACH NIGHT WHEN LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT, AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTANING TRAFFIC.

DAMAGE CLAIMS:

IN ADDITION TO 107.10 AND 107.12 OF THE C&MS BOOK, THE FOLLOWING SHALL APPLY:

COPIES OF ALL DAMGE CLAIMS OR WRITTEN COMPLAINTS MADE AGAINST THE CONTRACTOR OR SUBCONTRACTOR RESULTING FROM FIELD PAINTING OF PAVEMENT MARKINGS SHALL BE PROVIDED TO THE ODOT DISTRICT CONSTRUCTION ENGINEER WITHIN SEVEN (7) DAYS OF RECEIPT. THE CONTRACTOR SHALL RESPOND TO EACH CLAIM OR COMPLAINT IN A TIMELY MANNER, BUT IN NO CASE SHALL RESPONSE TAKE MORE THEN FIFTEEN (15) DAYS. A COPY OF THE RESPONSE SHALL BE PROVIDED TO THE ODOT DISTRICT CONSTRUCTION ENGINEER AT THE TIME IT IS SENT TO THE CLAIMANT OR COMPLAINANT.

GRINDING MATERIAL:

THE GRINDING MATERIAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE PAVED SURFACE OF THE ROADWAY.

PAVEMENT MARKINGS:

IN ADDITION TO THE STANDARD CONSTRUCTION DRAWINGS IN THE CMS, THE FOLLOWING ADDITIONAL CONDITIONS SHALL APPLY.

THE RUMBLE STRIPE SHALL BE DUST-FREE AND DRY WHEN THE PAVEMENT MARKINGS ARE APPLIED. PAVEMENT MARKINGS SHALL NOT BE PLACED OVER ANY PROPOSED CRACK SEALANT UNTIL THE SEALANT HAS CURED.

RAISED PAVEMENT MARKERS:

THIS PROJECT CONTAINS EXISTING RAISED PAVEMNT MARKERS. THE CONTRACTOR IS CAUTIONED NOT TO PERMIT CRACK SEAL MATERIAL TO COVER THE REFLECTIVE ELEMENTS OF THE MARKERS. IF A REFLECTIVE ELEMENT IS COVERED IT SHALL BE REPLACED WITH A NEW REFLECTOR OF THE CORRECT TYPE AND COLOR WITHIN THREE WORKING DAYS. SUCH REPLACEMENT WILL BE ENTIRELY AT THE CONTRACTOR'S EXPENSE.

WORK ON STRUCTURES:

THIS PROJECT CONTAINS STRUCTURES WHICH MAY HAVE CONCRETE APPROACH SLABS AND DECKS OR CONCRETE OVERLAYS. THE CONTRACTOR SHALL OMIT CRACK SEALING WORK ON THE CONCRETE PORTIONS OF THEESE STRUCTURES WITH THE EXCEPTION OF SEALING THE JOINT AT THE PAVEMENT AND APPROACH SLAB AND THE JOINT AT THE APPROACH SLAB AND BACKWALL, AS DIRECTED BY THE ENGINEER.

PROGRESSION OF WORK:

FOLLOWING THE PLACEMENT OF THE CENTERLINE RUMBLE STRIPE AND PRIOR TO THE PLACEMENT OF PAVEMENT MARKINGS, THE LONGITUDINAL, PAVEMENT JOINT ALONG THE CENTERLINE OF THE ROADWAY SHALL BE SEALED. CRACK SEALING SHALL BE PERFORMED IN ACCORDANCE WITH THE PROVISIONS OF CMS 423. CARE SHALL BE EXERCISED NOT TO UNNECESSARILY OBLITERATE EXISTING PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS. IN THE EVENT THAT EXISTING MARKINGS ARE OBLITERATED, THE CONTRACTOR SHALL ERECT THE NECESSARY WORK ZONE MARKING SIGNS AND INSTALL TEMPORARY PAVEMENT MARKINGS IN THOSE AREASC WHERE THE OBLITERATION HAS OCCURED PER THE REQUIREMENTS OF THE CONSTRUCTION DRAWINGS.

OBLITERATION MEANS ANY PERMANENT PAVEMENT MARKING TOTALLY COVERED OR COVERED TO THE EXTENT THAT THE REMAINING MARKINGS DO NOT PROVIDE GUIDANCE AS DETERMINED BY THE ENGINEER.

THE COSTS ASSOCIATED WITH THE REQUIREMENTS ABOVE SHALL BE CONSIDERED INCIDENTAL AND SHALL BE INCLUDED IN THE UNIT BID PRICE OF ITEM 423 CRACK SEALING, TYPE I.

UPON COMPLETION OF CRACK SEALING OPERATIONS ON EACH SECTION, THE CONTRACTOR SHALL INSTALL PERMANENT PAVEMENT MARKINGS AS PAID FOR IN THIS PLAN.

AIRWAY/HIGHWAY CLEARANCE FOR AIRPORTS AND HELIPORTS:

THIS PROJECT HAS BEEN IDENTIFIED AS BEING WITHIN THE INFLUENCE AREA OF A PUBLIC USE AIRPORT OR HELIPORT. NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT AT MAXIMUM OPERATING HEIGHT SHALL EXCEED A HEIGHT OF 25 FT. IF ANY TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT WILL EXCEED THE HEIGHT, FURTHER COORDINATION WITH THE FEDERAL AVIATION ADMINISTRATION (FAA), AND ODOT OFFICE OF AVIATION, WILL BE NECESSARY PRIOR TO ERECTING SUCH TEMPORARY STRUCTURES OR OPERATING SUCH EQUIPMENT ON TE PROJECT. THE CONTRACTOR WILL BE REQUIRED TO SUBMIT FORM 7460-1 TO THE FAA. NOTIFY THE ODOT OFFICE OF AVIATION WHEN SUBMITTING FAA FORM 7460-1.

NO TEMPORARY STRUCTURES OR CONSTRUCTION EQUIPMENT SHALL EXCEED THE PERMISSABLE HEIGHT, UNTIL A COPY OF THE FAA APPROVAL AND THE ODOT OFFICE OF AVIATION PERMIT HAS BEEN FURNISHED TO THE PROJECT ENGINEER.

Express Processing Center  
The Federal Aviation Administration  
Southwest Regional Office  
Air Trafficce Airspace Branch ASW-520  
2601 Meacham Blvd.  
Fort Worth, TX 76137-4298

Ohio Departmenty of Transportation  
Office of Aviation  
2829 West Dublin-Granville Road  
Columbus, Ohio 43235  
614-387-2346

CONTACT INFORMATION:

COUNTY	COUNTY MANAGER	PHONE NO.
HANCOCK	DEIDRA NOEL	419-999-6731
HARDIN	CHRIS O'FLAHERTY	419-999-6742
ALLEN	JASON HOSCHAK	419-999-6711

NOTE:

LOCATION POINTS (FROM & TO) ARE GIVEN IN STRAIGHT LINE MILEAGE (S.L.M.)

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

IF THE FOLLOWING CONDITIONS APPLY AND WHERE TRAFFIC IS ALLOWED TO CROSS THE EDGE OF THE NEW PAVEMENT LANE, THE CONTRACTOR DOES NOT NEED TO COMPLETE THE LONGITUDINAL JOINT OF THE ADJACENT LANE WITHIN 24 HOURS AS STATED IN CMS 401.17.

1. ALONG AREAS WITHIN THE PROJECT'S WORK LIMITS WERE ITEM 874, LONGITUDINAL JOINT PREPARATION IS SPECIFIED AND THE CONTRACTOR CHOSSES TO USE METHOD 1 FOR ITEM 874, LONGITUDINAL JOINT PREPARATION.
2. THE DROP-OFF BETWEEN THE ADJACENT TRAVELED LANE IS LESS THAN OR EQUAL TO ONE AND A HALF INCHES (1 1/2") AND MEETS CONDITION 1 OF STANDARD CONSTRUCTION DRAWING MT-101.90.
3. CONTRACTOR PROVIDES AND ERECTS THE APPROPRIATE SIGNS AS PER SCD MT-101.90. ALL COST ASSOCIATED FOR PROVIDING AND PLACING THE SIGNS SHALL BE INCIDENTAL TO THIS ITEM.

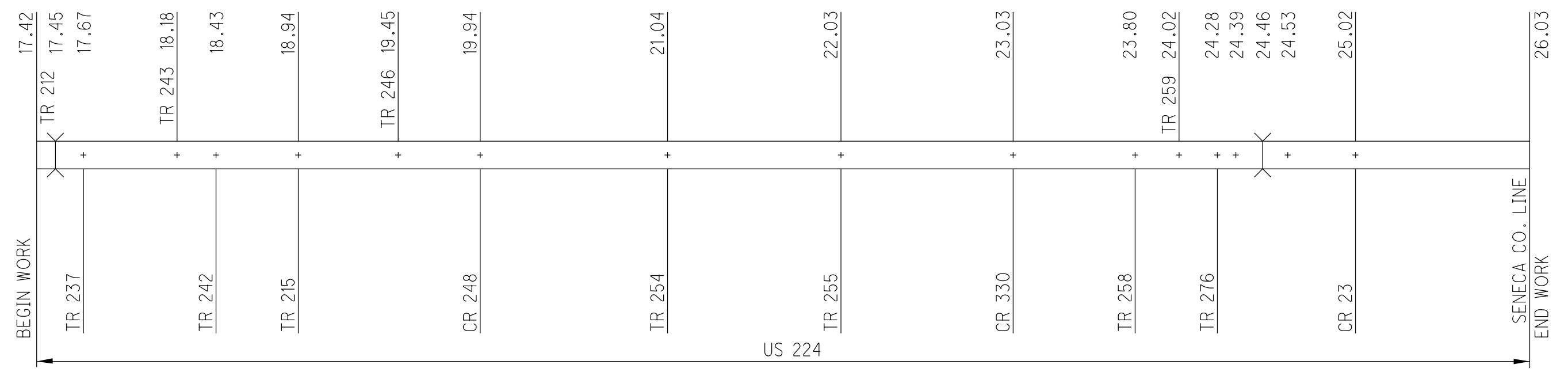
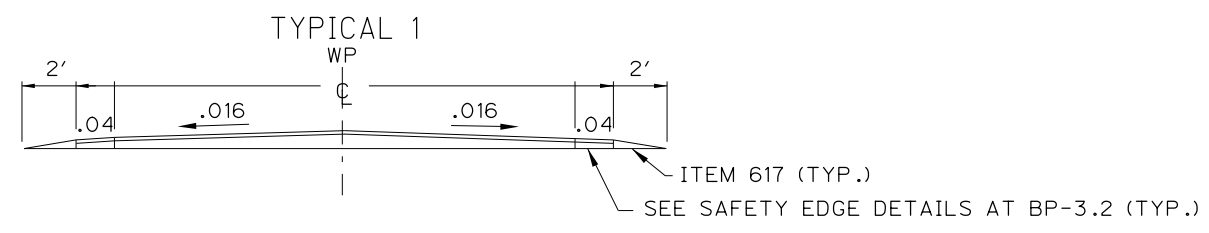
THE ABOVE SHALL BE APPLIED PER THE APPROVAL AND TO THE SATISFACTION OF THE PROJECT ENGINEER.

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NOTE: ALL TOTALS CARRIED TO GENERAL SUMMARY

NOTE: MAILBOX AND DRIVE QUANTITIES ARE INCLUDED IN THE EXTRA AREAS

NOTE: DRAWINGS NOT TO SCALE



PAVEMENT DATA

ROUTE	FROM	TO	PLAN SPLITS	DISTANCE		PAVT WIDTH	TYPICAL SECTION	PAVT AREA	202	407	424	304	617	874	875
				WEARING COURSE REMOVED	NON-TRACKING TACK COAT				FINE GRADED POLYMER ASPHALT CONCRETE TYPE B AS PER PLAN	AGGREGATE BASE	COMPACTED AGGREGATE	LOGITUDINAL JOINT PREPARATION	LONGITUDINAL JOINT ADHESIVE		
	SLM	SLM		MILES	FEET	FEET		SY	GAL	CY	CY	CY	MILE	LB	
US 224	17.42	17.44	02/S<2/PV	0.02	106	30.5	1	358	358	30	10		3		18
US 224	17.44	17.45	02/S<2/PV	0.01	bridge	no work									
US 224	17.45	17.60	02/S<2/PV	0.15	792	30.5	1	2684	170	228	75		20		132
US 224	17.60	17.65	02/S<2/PV	0.05	264	36.5 *	1	1071		91	30		7		44
US 224	17.65	17.76	02/S<2/PV	0.11	581	42	1	2710		230	75		14		97
US 224	17.76	17.86	02/S<2/PV	0.10	528	36 *	1	2112		180	59		13		88
US 224	17.86	18.33	02/S<2/PV	0.47	2482	30	1	8272		703	230	5	61		414
US 224	18.33	19.94	02/S<2/PV	1.61	8501	30	1	28336		2409	787	10	210	1.61	
Extra Areas								304		26	8				
Intersections								1287	360	110	33				
Total Plan Split 02									888	4007	1307	15	328	1.61	793
US 224	19.94	24.47	01/STR/PV	4.53	23918	29.5	1	78399	164	6664	2178	25	591	4.53	
US 224	24.47	24.49	01/STR/PV	0.02	bridge	no work									
US 224	24.49	26.03	01/STR/PV	1.54	8131	29.5	1	26652	328	2265	740	15	100	1.54	
Extra Areas								864		73	24				
Intersections								1192	189	101	36				
Total Plan Split 01									681	9104	2978	40	691	6.07	
Totals									1569	13111	4285	55	1019	7.68	793

ASPHALT CONCRETE

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INTERSECTION	PLAN SPLITS	SLM	SIDE	PAVT AREA	202	407	424
					WEARING COURSE REMOVED	TACK COAT	FINE GRADED POLYMER ASPHALT CONCRETE TYPE B AS PER PLAN
				SQ YD	SQ YD	GAL	CU YD
TR 212	02/S<2/PV	17.42	L	116.7	116.7	9.9	3.2
TR 237	02/S<2/PV	17.67	R	117.7	18.7	10.0	3.3
Eastern Woods	02/S<2/PV	17.76	L	138.1	65.1	11.7	3.8
Westwood Rd.	02/S<2/PV	17.87	R	92.1	16.1	7.8	2.6
Hickory Lane	02/S<2/PV	17.98	R	16.5	16.5	1.4	0.5
Hickory Lane	02/S<2/PV	18.06	R	34.3	12.1	2.9	1.0
TR 243	02/S<2/PV	18.18	L	135.7	19.3	11.5	3.8
TR 242	02/S<2/PV	18.34	R	89.6	14.1	7.6	2.5
TR 215	02/S<2/PV	18.94	R	107.7	16.1	9.2	3.0
TR 215	02/S<2/PV	18.94	L	92.8	14.7	7.9	2.6
TR 246	02/S<2/PV	19.45	L	139.5	18.7	11.9	3.9
CR 248	02/S<2/PV	19.94	R	102.4	16.7	8.7	2.8
CR 248	02/S<2/PV	19.94	L	103.6	14.7	8.8	2.9
<b>Plan Split 02</b>				<b>1287</b>	<b>360</b>	<b>109</b>	<b>36</b>
TR 254	01/STR/PV	21.04	R	119.2	18.1	10.1	3.3
TR 254	01/STR/PV	21.04	L	63.9	19.3	5.4	1.8
TR 255	01/STR/PV	22.03	R	100.5	14.7	8.5	2.8
TR 255	01/STR/PV	22.03	L	71.8	16.1	6.1	2.0
CR 330	01/STR/PV	23.03	R	128.5	18.7	10.9	3.6
CR 330	01/STR/PV	23.03	L	103.7	17.3	8.8	2.9
TR 258	01/STR/PV	23.77	R	128.2	15.3	10.9	3.6
TR 259	01/STR/PV	24.02	L	64.5	13.3	5.5	1.8
TR 276	01/STR/PV	24.28	R	56.9	13.3	4.8	1.6
CR 23	01/STR/PV	25.02	R	110.8	18.7	9.4	3.1
CR 23	01/STR/PV	25.02	L	244.3	24.1	20.8	6.8
<b>Plan Split 01</b>				<b>1192</b>	<b>189</b>	<b>101</b>	<b>33</b>
<b>Sub-Totals</b>				<b>2479</b>	<b>548</b>	<b>211</b>	<b>69</b>

Intersection subtotals for HAN-224 carried to sheet 6.

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**INTERSECTION SUB-SUMMARY**

**HAN / ALL / HAR -  
224 / 235 / 309 - VAR.**



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SHEET NUM.				PART.				ITEM	ITEM EXT	GRAND TOTAL	UNIT	DESCRIPTION	SEE SHEET NO.	
3	6	7	8	01/STR/PV	02/S&C2/PV	03/STR/OT	04/S&C2/OT							
											<b>ROADWAY</b>			
	1,569				681	888		202	23500	1,569	SY	WEARING COURSE REMOVED		
					3	1		623	39500	4	EACH	MONUMENT BOX ADJUSTED TO GRADE		
											<b>EROSION CONTROL</b>			
					700	300		832	30000	1,000	EACH	EROSION CONTROL		
											<b>PAVEMENT</b>			
	150				73	77		253	02000	150	CY	PAVEMENT REPAIR		
		55			40	15		304	20000	55	CY	AGGREGATE BASE		
		13,111			9,103	4,008		407	20000	13,111	GAL	NON-TRACKING TACK COAT		
			25,341					423	00100	25,341	LB	CRACK SEALING, TYPE I		
		4,285			2,978	1,307		424	12001	4,285	CY	FINE GRADED POLYMER ASPHALT CONCRETE, TYPE B, AS PER PLAN	5	
		1,019			691	328		617	10100	1,019	CY	COMPACTED AGGREGATE		
				15.36	12.14	3.22		618	41000	15.36	MILE	RUMBLE STRIPES, EDGE LINE (ASPHALT CONCRETE)		
				21.92	6.07	1.61	20.79	618	43000	29.6	MILE	RUMBLE STRIPES, CENTER LINE (ASPHALT CONCRETE)		
		7.68		7.68	6.07	1.61		874	21000	7.68	MILE	LONGITUDINAL JOINT PREPARATION		
		793				793		875	10000	793	LB	LONGITUDINAL JOINT ADHESIVE		
											<b>TRAFFIC CONTROL</b>			
				583	401	182		621	00100	583	EACH	RPM		
				583	401	182		621	54000	583	EACH	RAISED PAVEMENT MARKER REMOVED		
				17.18	12.14	5.04		642	00104	17.18	MILE	EDGE LINE, 6", TYPE 1		
				8.74	6.07	2.67		642	00300	8.74	MILE	CENTER LINE, TYPE 1		
			21.92				20.79	643	00300	21.92	MILE	CENTER LINE		
				268		268		643	00404	268	FT	CHANNELIZING LINE, 12"		
				37	24	13		643	00500	37	FT	STOP LINE		
				5		5		643	01300	5	EACH	LANE ARROW		
											<b>MAINTENANCE OF TRAFFIC</b>			
	104				59	25	15	5	614	12460	104	EACH	WORK ZONE MARKING SIGN	
	8.61				6.09	2.52			614	21000	8.61	MILE	WORK ZONE CENTER LINE, CLASS I	
	17.22				12.18	5.04			614	21400	17.22	MILE	WORK ZONE CENTER LINE, CLASS II	
											<b>INCIDENTALS</b>			
					LS			614	11000	LS		MAINTAINING TRAFFIC		
					LS			624	10000	LS		MOBILIZATION		

**GENERAL SUMMARY**

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