

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK LISTED IN THE GENERAL SUMMARY FOR ITEMS DESIGNATED BY PLAN NOTE TO BE USED "AS DIRECTED BY THE ENGINEER UNLESS AUTHORIZED BY THE ENGINEER". THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DIRECTION SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THE PROJECT.

PERMANENT PAVEMENT MARKINGS

THE CONTRACTOR SHALL REFERENCE ALL PAVEMENT MARKINGS INCLUDING AUXILIARY PAVEMENT MARKINGS BEFORE THE START OF THE RESURFACING OPERATION. THIS WILL BE NECESSARY TO ASSURE THE CORRECT PLACEMENT OF MARKINGS IN ORIGINAL LOCATIONS. EXCEPT AS FOLLOWS, EXIT RAMP GORES AT CINCINNATI DAYTON RD AND TYLERSVILLE WILL BE UPGRADED TO CHEVERON MARKINGS AS PER TC-72.20.

PAYMENT FOR THIS OPERATION SHALL BE INCLUDED WITH EACH RESPECTIVE PAVEMENT MARKING ITEM.

ITEM 623- CONSTRUCTION LAYOUT STAKES, AS PER PLAN

PRIOR TO THE START OF ROADWAY OPERATION, THE CONTRACTOR SHALL REFERENCE THE LENGTH OF THE PROJECT ON BOTH SIDES OF THE ROADWAY, IN A MANNER SATISFACTORY TO THE ENGINEER. THE PAVEMENT SHALL BE REFERENCED IN 1000' FEET INCREMENTS, OR IN INCREMENTS ACCEPTABLE TO THE ENGINEER, IN A SEMIPERMANENT CONDITION.

UTILITIES

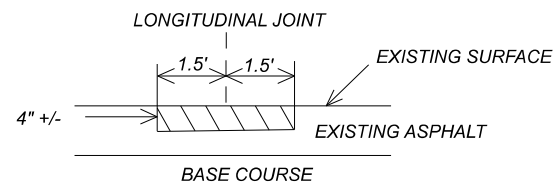
THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

ITEM 254- PAVEMENT PLANING, ASPHALT CONCRETE

THE PLANING SHALL BE SCHEDULED SO AS TO BE COVERED BY THE SURFACE COURSE PRIOR TO REOPENING THE LANE TO TRAFFIC. THE COST OF THE ABOVE SHALL BE INCLUDED IN THE UNIT BID PRICE FOR THE RESPECTIVE ITEM. A DISINCENTIVE IN THE AMOUNT OF \$24,000 PER DAY SHALL BE ASSESSED FOR EACH DAY, OR PORTION THEREOF, A PLANED SURFACE IS OPEN TO TRAFFIC.

ITEM 253- PAVEMENT REPAIR B - (LONGITUDINAL JOINTS)

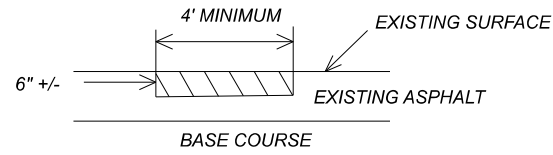
AN ESTIMATED QUANTITY OF 2157 CU YDS OF ITEM 253- PAVEMENT REPAIR HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED BETWEEN SLM 0.00 TO 5.21 (APPROXIMATELY 11 LANE MILES) AS DIRECTED BY THE ENGINEER. THIS OPERATION SHALL BE PERFORMED BEFORE PAVEMENT PLANING OF ROADWAY.



EXISTING DETERIORATED ASPHALT SHALL BE REMOVED TO A MAXIMUM DEPTH OF 4" INCHES OR AS DIRECTED BY THE ENGINEER AND REPLACED WITH ITEM 301, ASPHALT CONCRETE.

ITEM 253- PAVEMENT REPAIR A

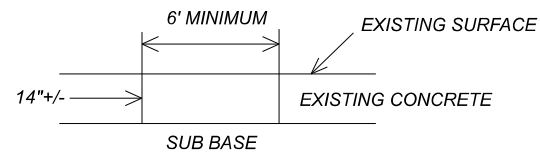
AN ESTIMATED QUANTITY OF 200 CU YDS OF ITEM 253- PAVEMENT REPAIR HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED BETWEEN SLM 0.00 TO 5.21 AS DIRECTED BY THE ENGINEER. THIS OPERATION SHALL BE PERFORMED BEFORE PAVEMENT PLANING OF ROADWAY.



EXISTING DETERIORATED ASPHALT SHALL BE REMOVED TO A MAXIMUM DEPTH OF 6" INCHES OR AS DIRECTED BY THE ENGINEER AND REPLACED WITH ITEM 301, ASPHALT CONCRETE. THE LOCATIONS AND SIZE OF REPAIRS SHALL BE DETERMINED BY THE ENGINEER.

ITEM 255- FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT CLASS RRCM

AN ESTIMATED QUANTITY OF 980 SQ YDS OF ITEM 255- PAVEMENT REPAIR HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED BETWEEN IR 75 SLM 5.21-5.51 AS DIRECTED BY THE ENGINEER. THIS OPERATION SHALL BE PERFORMED BEFORE DIAMOND GRINDING OF ROADWAY.

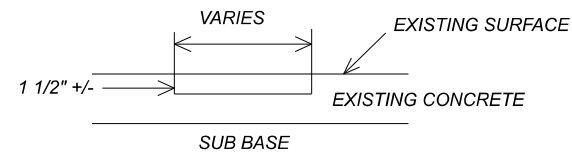


EXISTING DETERIORATED CONCRETE SHALL BE REMOVED TO A MAXIMUM DEPTH OF 14" INCHES OR AS DIRECTED BY THE ENGINEER AND REPLACED WITH CLASS RRCM CONCRETE. THE REPAIRS SHALL BE DETERMINED BY THE ENGINEER.

ITEM 255 FULL DEPTH PAVEMENT SAWING
 A QUANTITY OF 2944 FT ITEM 255 FULL DEPTH PAVEMENT SAWING HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 256- BONDED PATCHING CEMENT CONCRETE PAVEMENT, TYPE C

AN ESTIMATED QUANTITY OF 2240 SQ FT OF ITEM 256- PAVEMENT REPAIR HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED FROM SLM 5.21 TO 5.51 AS DIRECTED BY THE ENGINEER. THIS OPERATION SHALL BE PERFORMED BEFORE DIAMOND GRINDING OF ROADWAY.



ITEM 257 DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT

THIS WORK CONSIST OF DIAMOND GRINDING AND TEXTURING PORTLAND CEMENT CONCRETE PAVEMENT LONGITUDINALLY TO SUBSTANTIALLY ELIMINATE JOINT AND CRACK FAULTING AND TO RESTORE PROPER RIDING CHARACTERISTICS TO THE PAVEMENT SURFACE. THIS WORK IS TO TAKE PLACE ON IR 75 IN BUTLER CO, NORTH AND SOUTH BOUND FROM THE 5.21 SLM TO 5.51 SLM FOR THE FULL WIDTH OF THE PAVEMENT. A QUANTITY OF 24,800 SQ YD HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 258 LOAD TRANSFER RETROFIT

THIS WORK CONSIST OF SAWING SLOTS ACROSS TRANSVERSE CRACKS, CLEANING THE SLOT INJECTING CAULKING FILLER, PLACING A DOWEL BAR IN THE SLOT, AND FILLING THE SLOT WITH A PATCHING MATERIAL. ALL LOCATIONS OF RETROFIT SHALL BE DETERMINED BY THE ENGINEER OR REPRESENTATIVE AND AND SHALL FOLLOW STANDARD DRAWING B.P. 2.6. A QUANTITY OF 702 EACH DOWEL BARS HAS BEEN CARRIED TO THE GENERAL SUMMARY.

UTILITIES

THERE ARE NO UNDERGROUND UTILITIES SHOWN ON THIS PLAN. THE NATURE OF THE WORK REQUIRED BY THIS PROJECT WILL NOT AFFECT ANY KNOWN UNDERGROUND UTILITIES THAT EXIST UNDER OR ADJACENT TO THE WORK AREA.

ITEM 814 PAVEMENT MARKINGS

ITEM 814 CARDINAL DIRECTION, AND ELONGATED ROUTE SHIELD SYMBOL ARE TO BE PLACED BEFORE PAVEMENT IS OPEN TO TRAFFIC. THE SHIELDS TO BE PROVIDED ARE TO BE 8' WIDE BY 20' LONG (10' NUMBER SIZE) AND THE WORD ON PAVEMENT HEIGHT IS 8'.

ITEM 644 AIR SPEED ZONE MARKING

AIR SPEED ZONE MARKINGS SHALL BE WHITE AND 24 INCHES WIDE MEASURED IN THE DIRECTION OF TRAVEL AND 4 FEET IN LENGTH. ON TWO-LANE ROADWAYS WITH PAVED SHOULDERS LESS THAN 4 FEET IN WIDTH, THE AIR SPEED ZONE MARKINGS SHALL BE PLACED WITH 2 FEET ON EACH SIDE OF THE CENTER LINE OR EDGE LINE MARKINGS. WHEN PAVED SHOULDERS OF SUFFICIENT WIDTH ARE AVAILABLE, THE AIR SPEED ZONE MARKINGS SHALL BE PLACED ON THE SHOULDERS.

PLACE THE MARKINGS AT 0.25 MILE INTERVALS OVER A 1 MILE LENGTH OF ROADWAY.

IT IS THE CONTRACTOR'S RESPONSIBILITY TO HAVE THE MARKINGS LAID OUT BY A REGISTERED SURVEYOR. A RECORD IS TO BE KEPT AND ONE ORIGINAL SIGNED AND SEALED DOCUMENT IS TO BE SENT TO THE DISTRICT TRAFFIC ENGINEER AND ONE COPY IS TO BE SENT TO THE DISTRICT CONSTRUCTION ENGINEER.

MATERIALS, EQUIPMENT AND APPLICATION SHALL BE ACCORDING TO THE TYPE OF PAVEMENT MARKING MATERIAL USED.

PAYMENT SHALL BE ACCORDING TO THE PAVEMENT MARKING MATERIAL USED AND SHALL INCLUDE THE SURVEYING WORK. THE FIVE MARKINGS PLACED IN EACH 1 MILE OF ROADWAY SHALL EQUAL ONE ZONE. ONE ZONE SHALL BE MEASURED AS 1 EACH FOR AIR SPEED ZONE MARKING.

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER:

ITEM 644 SPECIAL - AIR SPEED ZONE MARKING
 27 EACH

ITEM 442 ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447), AS PER PLAN

GREAT CARE SHALL BE TAKEN TO MAINTAIN THE EXISTING PAVEMENT CROSS-SLOPE (CROWN), INTERSECTION CROSS-SLOPES (CROWN), AS WELL AS ALL LONGITUDINAL SLOPES DURING THE PAVING OPERATIONS.

LOCATE LONGITUDINAL JOINTS IN THE SURFACE COURSE SUBJECT TO THE FOLLOWING REQUIREMENTS:

PLACE THE MAINLINE PAVEMENT SURFACE COURSE WITH A SINGLE COLD LONGITUDINAL JOINT LOCATED BETWEEN LANES 2 (LEFT-CENTER LANE) AND 3 (RIGHT-CENTER LANE). A COLD LONGITUDINAL JOINT IS PERMITTED BETWEEN THE SHOULDER AND MAINLINE PAVEMENT. NO OTHER COLD JOINTS ARE PERMITTED IN THE SURFACE COURSE OF MAINLINE PAVEMENT.

DESIGN AGENCY



DESIGNER
 JED

REVIEWER
 JDO

PROJECT ID
 102568

SHEET TOTAL
 3 9

ITEM 614, WORK ZONE SPEED ZONES (WZSZS)

THE FOLLOWING WORK ZONE SPEED ZONE (WZSZ) SPEED LIMIT REVISION(S) HAVE BEEN APPROVED FOR USE ON THIS PROJECT WHEN WORK ZONE CONDITIONS AND FACTORS ARE MET AS DESCRIBED BELOW:

WZSZ	REVISION NUMBER	COUNTY & ROUTE	DIRECTION
WZ-	45103	BUT-75	NB/SB

POTENTIAL WZSZ LOCATIONS SHALL HAVE AN ORIGINAL (PRE-CONSTRUCTION) POSTED SPEED LIMIT OF =55 MPH, A QUALIFYING WORK ZONE CONDITION OF AT LEAST 0.5 MILE IN LENGTH, AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS, AND A WORK ZONE CONDITION IN PLACE THAT REDUCES THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS (I.E., LANE CLOSURE, LANE SHIFT, CROSSOVER, CONTRAFLOW AND/OR SHOULDER CLOSURE). THE LENGTH OF THE WORK ZONE CONDITION IS MEASURED FROM THE BEGINNING OF THE TAPER FOR THE SUBJECT WORK ZONE CONDITION IMPACTING THE TRAVEL LANES AND/OR SHOULDER TO THE END OF THE DOWNSTREAM TAPER, WHERE DRIVERS ARE RETURNED TO TYPICAL ALIGNMENT. AN EXPECTED WORK DURATION OF AT LEAST THREE HOURS IS REQUIRED TO BALANCE THE ADDITIONAL EXPOSURE CREATED BY INSTALLING AND REMOVING WZSZ SIGNING WITH THE TIME NEEDED TO COMPLETE THE WORK.

IF THE WORK ZONE MEETS THESE MINIMUM CRITERIA, IT SHALL BE ANALYZED FURTHER USING TABLE 1 BELOW TO DETERMINE IF AND WHEN IT QUALIFIES FOR A SPEED LIMIT REDUCTION. DEPENDING ON THE ORIGINAL POSTED SPEED LIMIT, THE TYPE OF TEMPORARY TRAFFIC CONTROL USED, AND WHETHER OR NOT WORKERS ARE PRESENT, A WARRANTED WZSZ WILL VARY IN THE APPROVED SPEED LIMIT TO BE POSTED OVER TIME.

C&MS ITEM 614, PARAGRAPH 614.02(B), INDICATES THAT TWO DIRECTIONS OF A DIVIDED HIGHWAY ARE CONSIDERED SEPARATE HIGHWAY SECTIONS. THEREFORE, IF THE WORK ON A MULTI-LANE DIVIDED HIGHWAY IS LIMITED TO ONLY ONE DIRECTION, A SPEED LIMIT REDUCTION IN THE DIRECTION OF THE WORK DOES NOT AUTOMATICALLY CONSTITUTE A SPEED LIMIT REDUCTION IN THE OPPOSITE DIRECTION. EACH DIRECTION SHALL BE ANALYZED INDEPENDENTLY FROM EACH OTHER.

ALL WZSZS FLUCTUATE BETWEEN TWO APPROVED REDUCED SPEED LIMITS OR BETWEEN AN APPROVED REDUCED SPEED LIMIT AND THE ORIGINAL POSTED SPEED LIMIT. ONLY ONE OF TWO SIGNING STRATEGIES SHALL BE USED TO IMPLEMENT A WZSZ. THE PRIMARY SIGNING STRATEGY USES DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLIES. WZSZS USING DSL SIGN ASSEMBLIES SHALL BE IN ACCORDANCE WITH THIS NOTE, SUPPLEMENTAL SPECIFICATION (SS) 808, AND TRAFFIC SCD MT-104.10. ONLY ONE WARRANTED SPEED LIMIT APPLIES AT ANY ONE TIME; SPEED LIMIT REDUCTIONS ARE NOT CUMULATIVE. WZSZS SHALL NOT BE USED FOR MOVING/MOBILE ACTIVITIES, AS DEFINED IN OMTCD PART 6.

WHEN LOOKING UP THE WARRANTED WORK ZONE SPEED LIMITS, ALWAYS USE THE ORIGINAL, PRE-CONSTRUCTION, POSTED SPEED LIMIT. DO NOT USE A PRIOR OR CURRENT WORK ZONE SPEED LIMIT AS A LOOK UP VALUE IN THE TABLE. POSITIVE PROTECTION IS GENERALLY REGARDED AS PORTABLE BARRIER OR OTHER RIGID BARRIER IN USE ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WITHOUT POSITIVE PROTECTION IS GENERALLY REGARDED AS USING DRUMS, CONES, SHADOW VEHICLE, ETC., ALONG THE WORK AREA WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WORKERS ARE CONSIDERED AS BEING PRESENT WHEN ON-SITE, WORKING WITHIN THE SUBJECT WARRANTED WORK ZONE CONDITION. WHEN THE WORK ZONE CONDITION REDUCING THE EXISTING FUNCTIONALITY OF THE TRAVEL LANES OR SHOULDERS IS REMOVED, THE SPEED LIMIT DISPLAYED SHALL RETURN TO THE ORIGINAL POSTED SPEED LIMIT.

TABLE 1: WARRANTED WORK ZONE SPEED LIMITS (MPH) FOR WORK ZONES ON HIGH-SPEED (=55 MPH) MULTI-LANE HIGHWAYS

ORIGINAL POSTED SPEED LIMIT	WITH POSITIVE PROTECTION		WITHOUT POSITIVE PROTECTION	
	WORKERS PRESENT	WORKERS NOT PRESENT	WORKERS PRESENT	WORKERS NOT PRESENT
70	60	65	55	65
65	55	60	50	60
60	55	60	50	60
55	50	55	45	55

THE FOLLOWING ESTIMATED QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY. ITEM 808, DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY(IES)..... 12 SIGN MONTH(S) ASSUMING 6 DSL SIGN ASSEMBLY(IES) FOR 2 MONTH(S)

ITEM 614- WORK ZONE MARKINGS (WZ)

THE CONTRACTOR SHALL PLACE THE ASPHALT SURFACE COURSE AND WORK ZONE PAVEMENT MARKINGS OR PERMANENT PAVEMENT MARKINGS PRIOR TO OPENING THE ROADWAY TO TRAFFIC. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF C&MS 614.11.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY:

ITEM 614- WZ LANE LINE 6", CLASS III, 642 PAINT - 24.16 MILES

ITEM 614-WZ CHANNELIZING LINE 12", CLASS III, 642 PAINT - 6,050 FEET

ITEM 614- WZ EDGE LINE 6", CLASS III, 642 PAINT - 30.83 MILES

ITEM 614-WZ STOP LINE, CLASS III, 642 PAINT - 110 FEET

ITEM 614- WZ LANE ARROWS, CLASS III, 642 PAINT - 20 EACH

ITEM 614-WZ DOTTED LINE 6", CLASS III, 642 PAINT - 5970 FEET

ITEM 614-WZ DOTTED LINE 12", CLASS III, 642 PAINT - 1935 FEET

ITEM 614- WZ LANE LINE 6", CLASS I, 642 PAINT - 11.0 MILES

DESIGN AGENCY



DESIGNER

JED

REVIEWER

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PROJECT ID

102568


SHEET TOTAL

5 | 9

SHEET NUM.											PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
2	3	5	6	7	8						01/MS/PV	EXT	TOTAL				
PAVEMENT																	
200											200	253	02000	200	CY	PAVEMENT REPAIR (A)	
2,157											2,157	253	02000	2,157	CY	PAVEMENT REPAIR (B), LONGITUDINAL JOINTS	
			450,365								450,365	254	01000	450,365	SY	PAVEMENT PLANING, ASPHALT CONCRETE, 2"	
			4,514								4,514	254	01600	4,514	SY	PATCHING PLANED SURFACE	
2,944											2,944	255	20000	2,944	FT	FULL DEPTH PAVEMENT SAWING	
980											980	255	10500	980	SY	FULL DEPTH PAVEMENT REMOVAL AND RIGID REPLACEMENT, CLASS RRCM	2
2,240											2,240	256	10200	2,240	SF	BONDED PATCHING OF PORTLAND CEMENT CONCRETE PAVEMENT, TYPE C	2
24,800											24,800	257	10000	24,800	SY	DIAMOND GRINDING PORTLAND CEMENT CONCRETE PAVEMENT	
702											702	258	10000	702	EACH	RETROFIT DOWEL BAR	
			40,533								40,533	407	20000	40,533	GAL	NON-TRACKING TACK COAT	
											25,021	442	10300	25,021	CY	ASPHALT CONCRETE SURFACE COURSE, 12.5 MM, TYPE A (447)	
											17,825	442	00100	17,825	CY	ANTI-SEGREGATION EQUIPMENT	
											16.2	618	40600	16.2	MILE	RUMBLE STRIPS, SHOULDER (ASPHALT CONCRETE)	
TRAFFIC CONTROL																	
											1,596	621	00100	1,596	EACH	RPM	
											1,596	621	54000	1,596	EACH	RAISED PAVEMENT MARKER REMOVED	
											25.5	642	00114	25.5	MILE	EDGE LINE, 6", TYPE 1A	
											34.48	642	00214	34.48	MILE	LANE LINE, 6", TYPE 1A	
											6,050	642	00414	6,050	FT	CHANNELIZING LINE, 12", TYPE 1A	
											6,392	642	01516	6,392	FT	DOTTED LINE, 6", TYPE 1A	
											2,230	642	01570	2,230	FT	DOTTED LINE, 12", TYPE 1A	
											110	644	00500	110	FT	STOP LINE	
											332	644	00720	332	FT	CHEVRON MARKING	
											20	644	01300	20	EACH	LANE ARROW	
27											27	SPECIAL	64440000	27	EACH	AIR SPEED ZONE MARKING	7
											4	814	00010	4	EACH	INTERSTATE ELONGATED ROUTE SHIELD SYMBOL MARKING, TYPE B125	
											4	814	00016	4	EACH	CARDINAL DIRECTION (NORTH, SOUTH, WEST & EAST) MARKING, TYPE B125	
MAINTENANCE OF TRAFFIC																	
	600										600	614	11110	600	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
			11								11	614	20010	11	MILE	WORK ZONE LANE LINE, CLASS I, 6"	
			24.16								24.16	614	20560	24.16	MILE	WORK ZONE LANE LINE, CLASS III, 6", 642 PAINT	
			30.83								30.83	614	22360	30.83	MILE	WORK ZONE EDGE LINE, CLASS III, 6", 642 PAINT	
			6,050								6,050	614	23690	6,050	FT	WORK ZONE CHANNELIZING LINE, CLASS III, 12", 642 PAINT	
			5,970								5,970	614	24610	5,970	FT	WORK ZONE DOTTED LINE, CLASS III, 4", 642 PAINT, 6"	
			1,935								1,935	614	24610	1,935	FT	WORK ZONE DOTTED LINE, CLASS III, 4", 642 PAINT, 12"	
			110								110	614	26610	110	FT	WORK ZONE STOP LINE, CLASS III, 642 PAINT	
			20								20	614	30650	20	EACH	WORK ZONE ARROW, CLASS III, 642 PAINT	
			12								12	808	18700	12	SNMT	DIGITAL SPEED LIMIT (DSL) SIGN ASSEMBLY	
INCIDENTALS																	
											LUMP	614	11000		LS	MAINTAINING TRAFFIC	
											LUMP	623	10001		LS	CONSTRUCTION LAYOUT STAKES AND SURVEYING, AS PER PLAN	2
											LUMP	624	10000		LS	MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER
JED

REVIEWER
JDO

PROJECT ID
102568

SHEET TOTAL
6 9