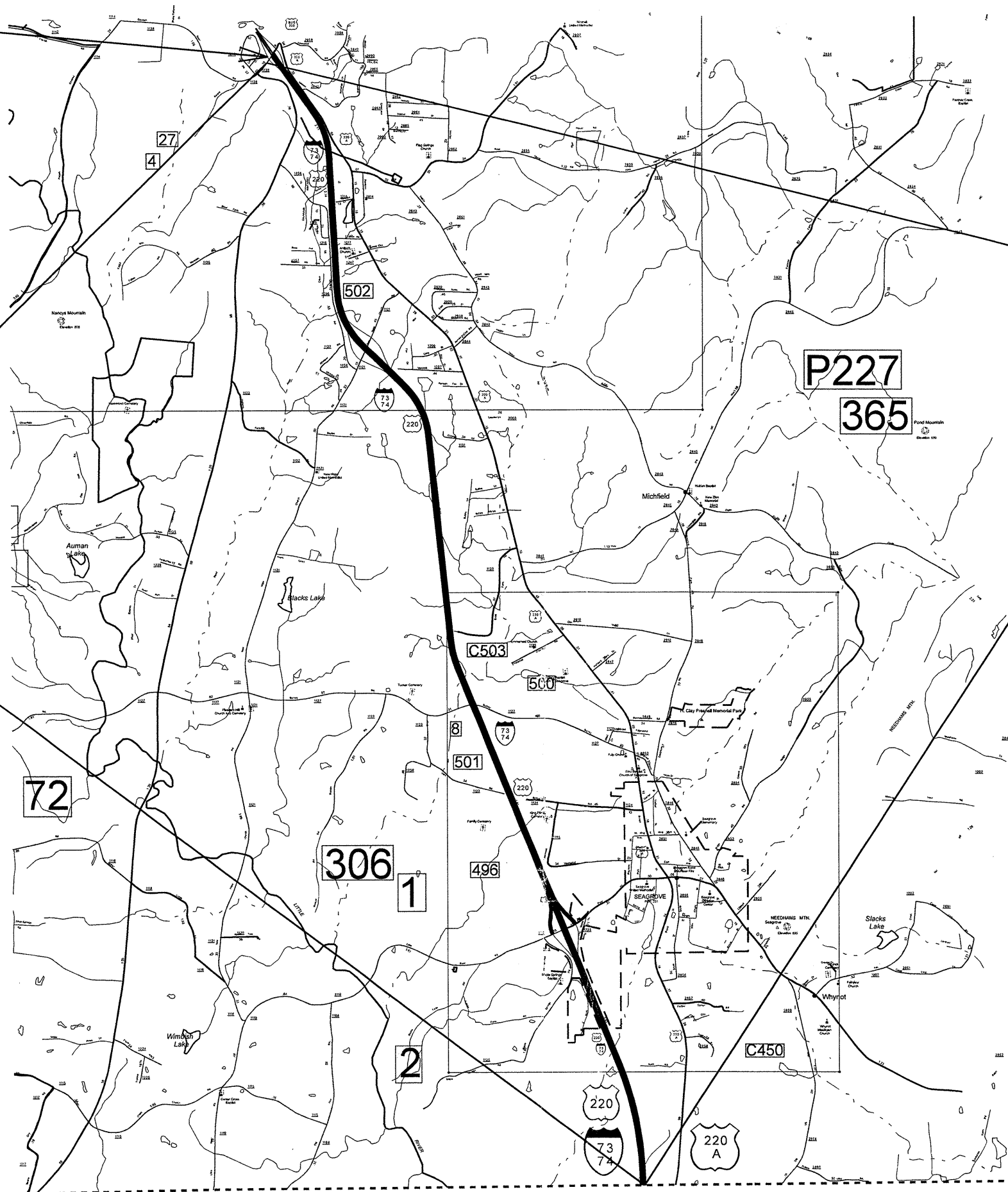


BEGIN I-4407



2

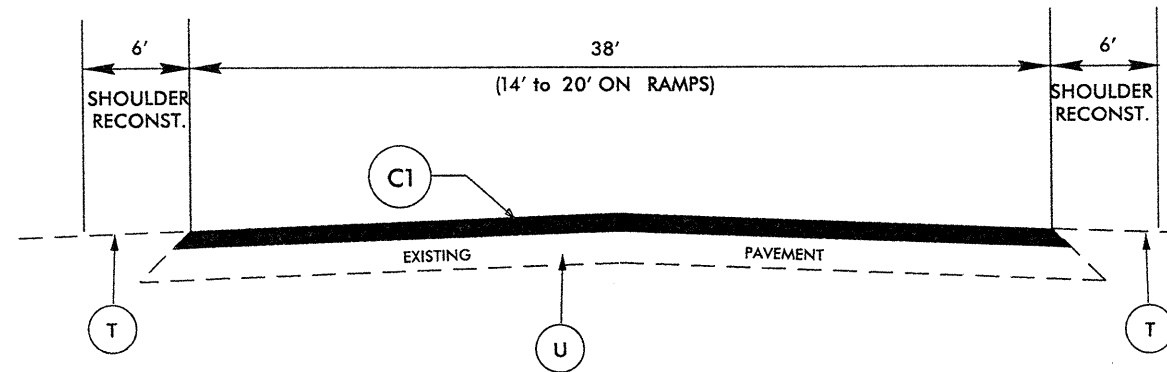
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RANDOLPH COUNTY

MONTGOMERY COUNTY

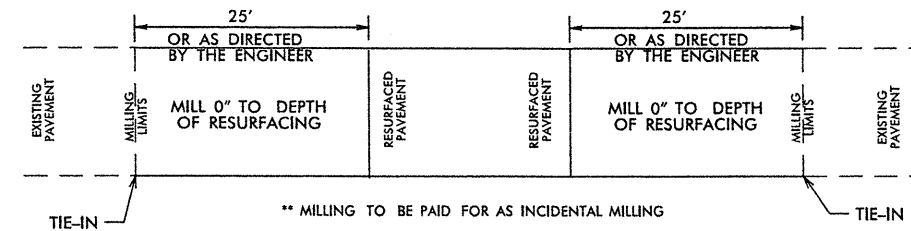
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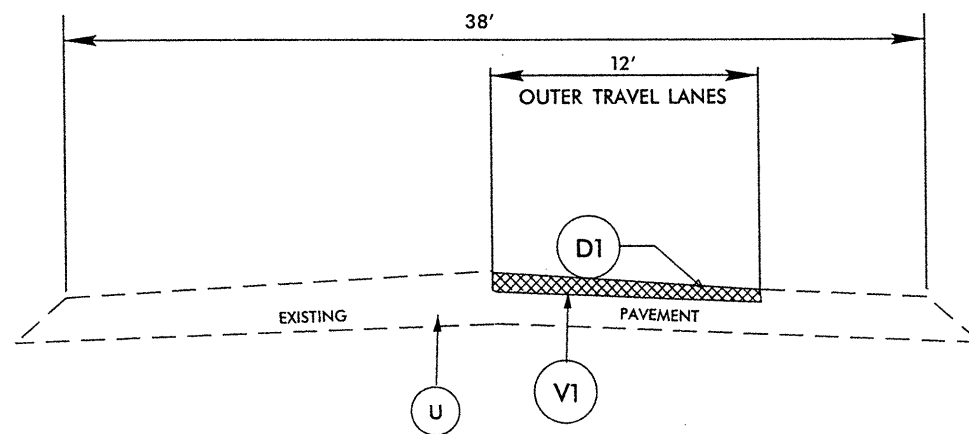
TYPICAL SECTION NO.1

CONTRACTOR SHALL ALSO REPLACE MILLED RUMBLE STRIPS ON BOTH SHOULDERS PER RDY STD. DWG 665.01

USE THIS TYPICAL ON RAMPS ALSO.



PAVEMENT TIE-IN DETAIL



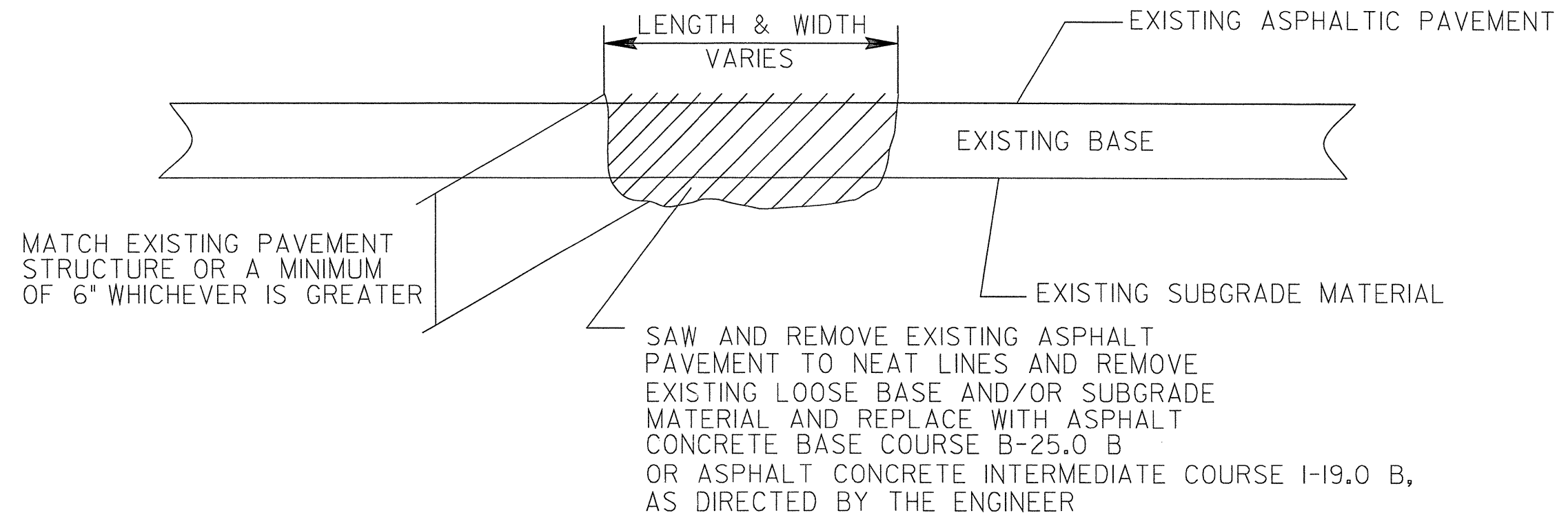
TYPICAL SECTION NO.2

* NOTE: TYPICAL NOT USED ON RAMPS.

PAVEMENT SCHEDULE	
C1	PROP. APPROX. 1.5" ASPHALT CONC. SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
D1	PROP. APPROX. 2.5 " ASPHALT CONC. INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 285 LBS. PER SQ. YD.
V1	MILLING 2.5"
T	AGGREGATE SHOULDER BORROW
U	EXISTING PAVEMENT

DETAILS OF REPAIRING EXISTING PAVEMENT PRIOR TO RESURFACING

DETAIL



5/14/99
 25-MA V. 2011 09/16
 2-Resurfacing\Randolph\Randolph_Submittal\patch-detail.txd

PROJECT NO.	SHEET NO.	TOTAL NO.
8CR.10761.17	4	

SUMMARY OF QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	TYP	FINAL SURFACE TESTING REQUIRED	LENGTH MI	WIDTH FT	GENERIC GRADING ITEM AGGREGATE SHOULDER BORROW TON	SHOULDER RECONSTRUCTION SMI	2.5" MILLING SY	INCIDENTAL MILLING SY	INTERMEDIATE COURSE, I19.0C TONS	SURFACE COURSE, S9.5C TONS	PG 64-22 PLANT MIX TONS	PG 70-22 PLANT MIX TONS	PATCHING EXISTING PAVEMENT TONS	MILLED RUMBLE STRIPS LF
8CR.10761.17	Randolph	1	I-73 NB	FROM MONTGOMERY CO TO BEGIN. OF TIP PROJECT I-4407	1,2	YES	8.11	38	1,900	18.22	57,094	600	8,695	17,000	409	1,020	350	85,642
TOTAL FOR MAP NO. 1							8.11		1,900	18.22	57,094	600	8,695	17,000	409	1,020	350	85,642
		2	I-73 SB	FROM BEGIN. OF TIP PROJECT I-4407 TO MONTGOMERY CO	1,2	YES	8.11	38	1,900	18.22	57,094	600	8,700	17,000	409	1,020	600	85,642
TOTAL FOR MAP NO. 2							8.11		1,900	18.22	57,094	600	8,700	17,000	409	1,020	600	85,642
TOTAL FOR PROJ NO. 8CR.10761.17							8.11		3,800	36.44	114,188	1,200	17,395	34,000	818	2,040	950	171,284
GRAND TOTAL							8.11		3,800	36.44	114,188	1,200	17,395	34,000	818	2,040	950	171,284

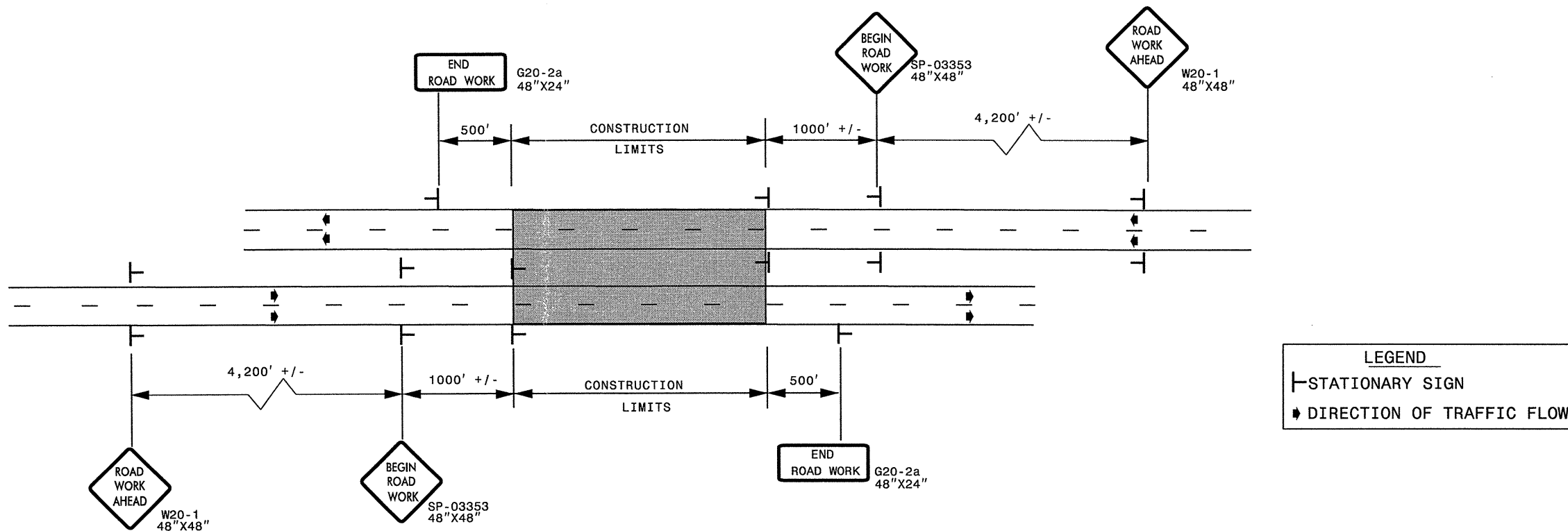
THERMOPLASTIC AND PAINT QUANTITIES

PROJECT NO	COUNTY	MAP NO	ROUTE	DESCRIPTION	4589000000-N	4510000000-N	4688000000-E		4690000000-E	4700000000-E	4725000000-E	4815000000-E		4825000000-E	4900000000-N	4775000000-E
					GENERIC TRAFFIC CONTROL ITEM - TRAFFIC CONTROL LS	LAW ENFORCEMENT HR	6" X 90 M WHITE THERMO LF	6" X 90 M YELLOW THERMO LF	6" X 120 M WHITE THERMO LF	12" X 90 M WHITE THERMO LF	THERMO STR ARROW 90 M EA	6" WHITE PAINT LF	6" YELLOW PAINT LF	12" WHITE PAINT LF	CRYSTAL & RED MARKERS EA	COLD APPLIED PLASTIC PAVT. MARKING LINES, TYPE III(6") LF
8CR.10761.17	Randolph	1	I-73 NB	FROM MONTGOMERY CO TO BEGIN. OF TIP PROJECT I-4407		20	53,530	42,825	10,750	2,000	6	53,530	48,660	1,500	560	375
TOTAL FOR MAP NO. 1							53,530	42,825	10,750	2,000	6	53,530	48,660	1,500	560	375
		2	I-73 SB	FROM BEGIN. OF TIP PROJECT I-4407 TO MONTGOMERY CO		20	53,530	42,825	10,750	2,000	6	53,530	48,660	1,500	560	375
TOTAL FOR MAP NO. 2							53,530	42,825	10,750	2,000	6	53,530	48,660	1,500	560	375
TOTAL FOR PROJ NO. 8CR.10761.17					1	40	107,060	85,650	21,500	4,000	12	107,060	97,320	3,000	1,120	750
GRAND TOTAL					1	40	107,060	85,650	21,500	4,000	12	107,060	97,320	3,000	1,120	750

ADVANCED WORK ZONE WARNING SIGNING FOR FREEWAYS (4 LANES OR GREATER)

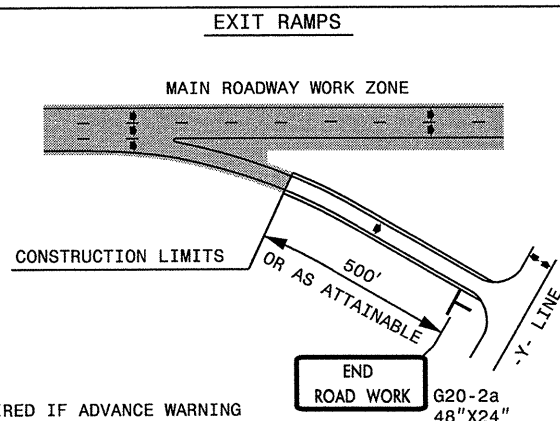
PROJ. REFERENCE NO. 8CR.10761.17	SHEET NO. TCP-1
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DETAIL A



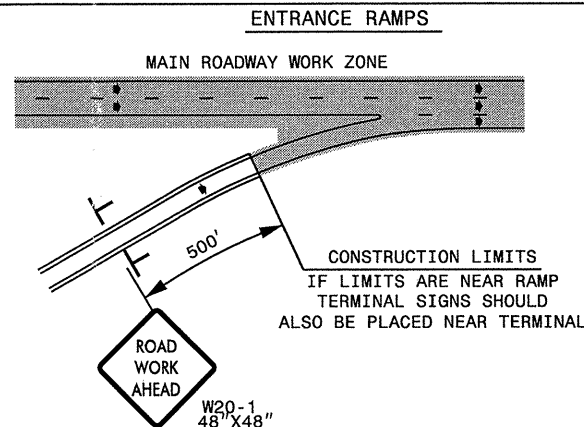
* USE THE "\$250 SPEEDING PENALTY" SIGN, SPEED LIMIT SIGN, AND ORANGE PANEL; ONLY WHEN A "\$250 SPEEDING PENALTY" ORDINANCE HAS BEEN ISSUED BY THE REGIONAL TRAFFIC ENGINEER.

DETAIL B

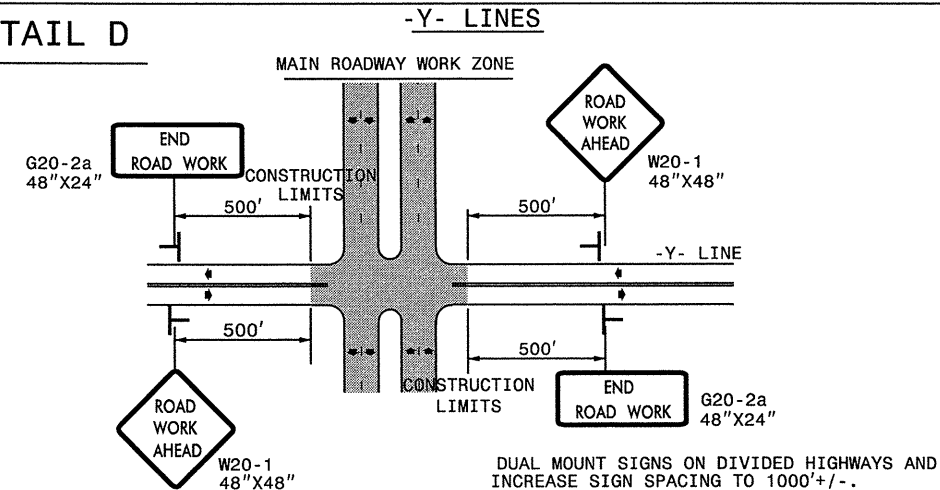


NOTE: SIGN NOT REQUIRED IF ADVANCE WARNING SIGNS HAVE BEEN PLACED ALONG -Y- LINE THAT RAMP INTERSECTS. IF CONSTRUCTION LIMITS ARE AT END OF RAMP, PLACE SIGN AT END OF RAMP.

DETAIL C



DETAIL D



GENERAL NOTES

- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.
- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK.
- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.
- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.
- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.
- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01. REMOVE ENTIRE POST WHEN REMOVING SIGNS WITH SPLICED POSTS.
- DO NOT BACK BRACE SIGN SUPPORTS.








APPROVED: _____	DATE: _____	ADVANCED WORK ZONE WARNING SIGNS FOR FREEWAYS (4 LANES OR GREATER)	
SEAL 	SCALE: NONE		REVISIONS
	DATE: 8/03		03/04
	DWG. BY: JI		
	DESIGN BY: JI		
	REVIEWED BY: _____		CADD FILE

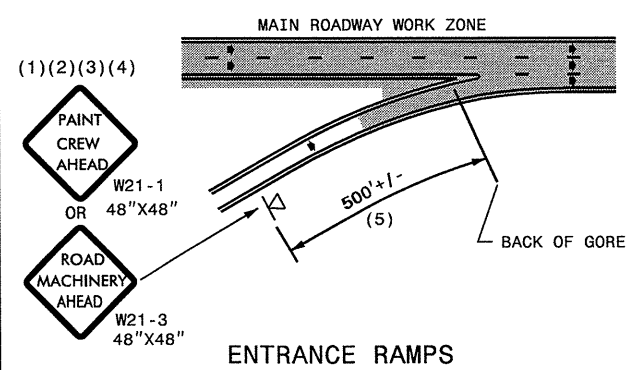
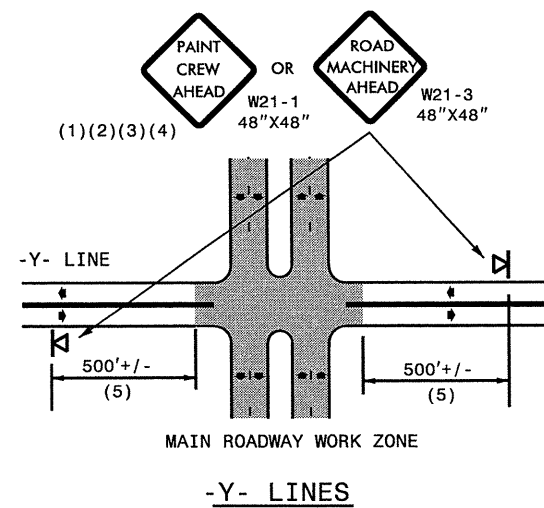
03-JUN-2011 11:41 \\DOT\OFFSR001\DOT\GROUPS-WZTC\Resurfacing\2010\Centr\div\2010\Div08\C202799_8CR.10761.17_Rendolph_173_US220_Jww\11x17-C202799_8CR.10761.17_freeways_4lanes_or_greater_stationary.dgn

GENERAL NOTES

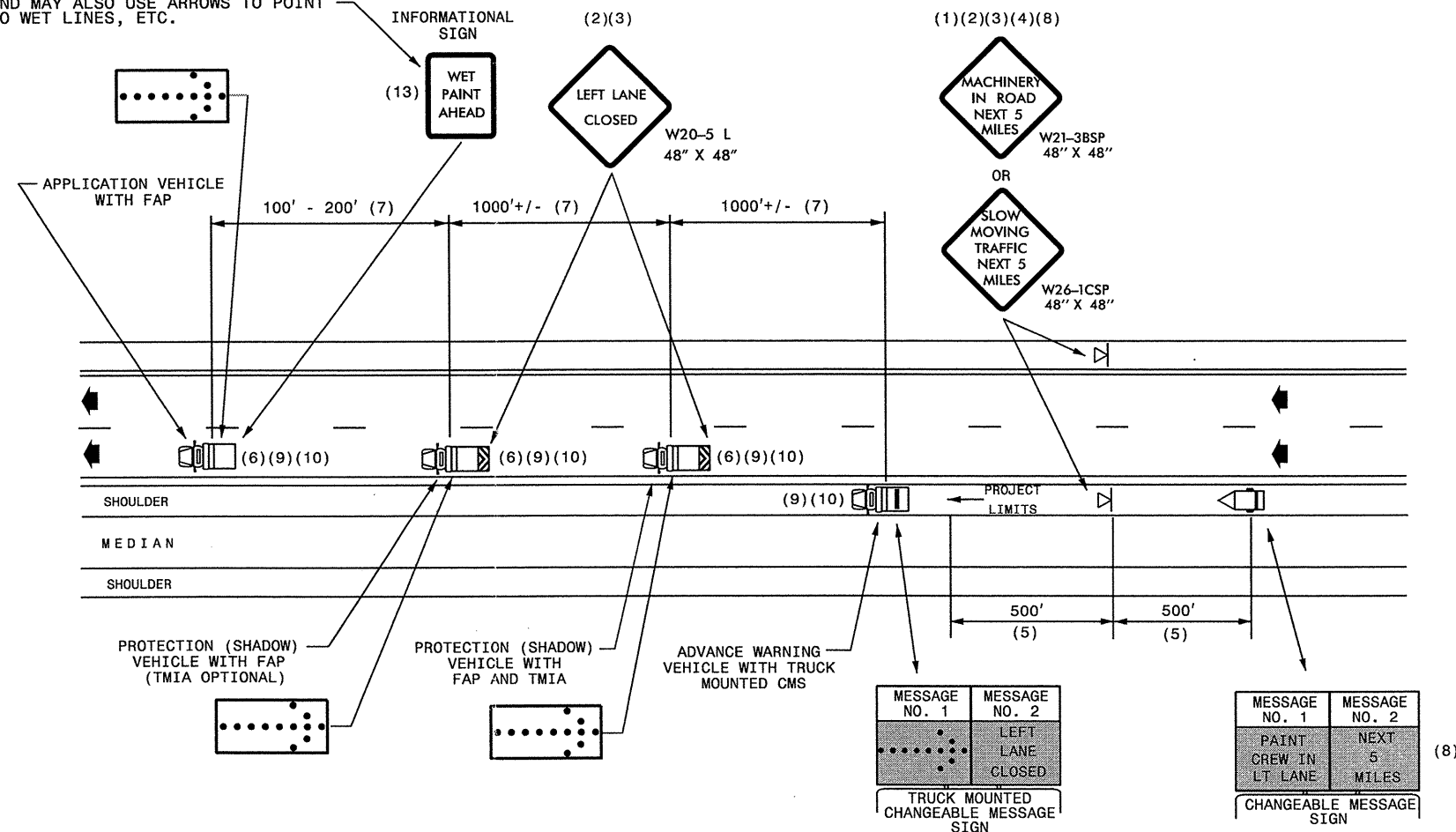
- (1) THE FOLLOWING OPTIONS MAY BE USED FOR ADVANCE WARNING SIGNS:
 - A. TRUCK MOUNTED SIGNS
 - B. TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (CMS)
 - C. GROUND MOUNTED ADVANCE WARNING SIGNS (MUST CIRCLE TO PICK UP SIGNS)
 - D. GROUND MOUNTED CHANGEABLE MESSAGE SIGN (CMS) (MUST USE CIRCLE TO PICK UP SIGNS)
- (2) ALL ADVANCE WARNING SIGNS MUST BE 48" X 48" WITH FLUORESCENT ORANGE TYPE VII, VIII OR IX SHEETING. IF SPACE LIMITATIONS ON SHOULDER PROHIBIT A 48" X 48" SIGN, A SMALLER SIGN CAN BE USED WITH APPROVAL FROM ENGINEER.
- (3) SIGNS ON VEHICLES SHOULD BE MOUNTED A MINIMUM OF ONE (1) FOOT FROM THE GROUND AND SHOULD NOT BLOCK THE MOTORIST'S SIGHT OF THE FLASHING ARROW PANEL AND/OR LIGHTBAR.
- (4) GROUND MOUNTED ADVANCED WARNING SIGNS SHOULD BE MOUNTED A MINIMUM OF FIVE (5) FEET FROM THE GROUND TO BOTTOM OF SIGN.
- (5) SIGN SPACING SHOULD BE ADJUSTED FOR HORIZONTAL AND VERTICAL CURVES, ETC. TO IMPROVE SIGHT DISTANCES.
- (6) ADDITIONAL VEHICLES SHOULD BE USED IN WORK CARAVAN TO FACILITATE DRYING OF PAVEMENT MARKING MATERIAL (TMIA'S ARE OPTIONAL ON THESE ADDITIONAL VEHICLES). HOWEVER, THE FIRST VEHICLE MOTORISTS SEE IN THE TRAVEL LANE SHALL HAVE A TMIA.
- (7) ADJUST DISTANCE AS NEEDED TO PREVENT MOTORISTS FROM ENTERING SPACE BETWEEN THE APPLICATION AND PROTECTION VEHICLE. DISTANCE CAN BE LENGTHENED TO ACCOMMODATE SIGHT DISTANCE NEEDS.
- (8) ROUND UP MILEAGE TO NEXT WHOLE MILE. WORK ZONE SHOULD NOT EXCEED FIVE (5) MILES IN LENGTH.
- (9) RADIO COMMUNICATION BETWEEN VEHICLES IS REQUIRED.
- (10) USE OF A LIGHT BAR ON ALL VEHICLES IS PREFERRED, BUT A ROTATING BEACON MAY BE USED INSTEAD.
- (11) IF WORK IS PERFORMED AT NIGHT, THE WORK AREA MUST BE ILLUMINATED WITH MACHINE AND/OR TOWER LIGHTS AS APPROVED BY THE ENGINEER.
- (12) ALL TRAFFIC CONTROL DEVICES WILL BE CONSIDERED INCIDENTAL TO THE PAY ITEMS FOR PAVEMENT MARKING AND MARKERS.
- (13) INFORMATIONAL SIGNS SHOULD BE ACTIVITY SPECIFIC, i.e. "PAINT CREW IN ROAD". SIGNS MAY BE RECTANGULAR OR DIAMOND SHAPE. SIGN SIZE SHOULD BE BASED ON THE MOTORIST ABILITY TO RECOGNIZE SIGN WHEN TRAVELING FIVE (5) MILES ABOVE POSTED SPEED LIMIT.

LEGEND

-  PORTABLE SIGN. SIGNS MUST BE NCHRP-350 AND NCDOT APPROVED.
-  DIRECTION OF TRAFFIC FLOW
-  APPLICATION VEHICLE WITH LIGHT BAR
-  PROTECTION VEHICLE WITH TRUCK MOUNTED IMPACT ATTENUATOR (TMIA) AND LIGHT BAR (SEE ROADWAY STANDARD NO. 1165.01). TMIA MUST BE NCHRP-350 TEST LEVEL 3 (60+MPH) APPROVED.
-  ADVANCE WARNING VEHICLE WITH TRUCK MOUNTED CHANGEABLE MESSAGE SIGN (CMS) AND LIGHT BAR. MESSAGE SIGN LETTER HEIGHT SHOULD BE A MINIMUM OF 10 INCHES.
-  FLASHING ARROW PANEL, TYPE "B" (60"X30" MIN.), APPROPRIATE DIRECTION INDICATED
-  CHANGEABLE MESSAGE SIGN



MAY USE "WET PAINT STAY OFF LINE", "WET PAINT AHEAD" OR SIMILAR INFORMATIONAL MESSAGE AND MAY ALSO USE ARROWS TO POINT TO WET LINES, ETC.



MOVING OPERATION CARAVAN

(OPERATIONS TRAVELING 3 MPH OR FASTER)
PLACING PAVEMENT MARKING OR MARKERS
ON INTERSTATE ROADWAYS

DRAWING NUMBER 8
IMPLEMENTATION DATE: 11/03/04
REVISED: