

OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

FAI-188-14.48

CALC. BY RLM
 DATE 1-25-91
 CHKD. BY SM
 DATE 9-27-91

FHWA REGION	STATE	FEDERAL PROJECT	PLAN NO.
5	OHIO		
PLAN NO. <u>176</u>			

1
25

PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINI		NET LENGTH MILES	TOWNSHIP	CITY	VILLAGE
				BEGIN	END				
1	FAI	SR 188	(14.48-14.83)(16.53)	14.48	16.74	1.75		LANCASTER	
2	FAI	SR 188	(16.02)(16.74)(22.64)	16.02	26.53	9.58			
3	FAI	SR 188	(21.89 - 22.30)	21.89	22.64	0.72			PLEASANTVILLE

The Standard 1991 Specifications of the State of Ohio, Department of Transportation, including changes and Supplemental Specifications listed in the plans and proposal shall govern these improvements.

I hereby approve these plans and declare that the making of these improvements will require the closing of the highways to traffic on Parts No. NONE and that detours will be provided by State forces. The closing to traffic of the highways will not be required on Parts No. 1,2&3 and provisions for the maintenance and safety of traffic will be indicated in the proposal.

Approved _____
 Date 9-30-91

Cash Miel
 District Deputy Director
 of Transportation

Approved _____
 Date 10-8-91

B. D. Hanbilanic
 Engineer of Bridges

Approved _____
 Date 12-2-91

Keith C. Swearingen
 Engineer of Maintenance

Approved _____
 Date 12-2-91

Alexander H. Hynds
 Deputy Director, Operations

Approved _____
 Date _____

Assistant Deputy Director,
 Program Development

Approved _____
 Date _____

Chief Engineer, Construction

Approved _____
 Date _____

Chief Engineer, Design

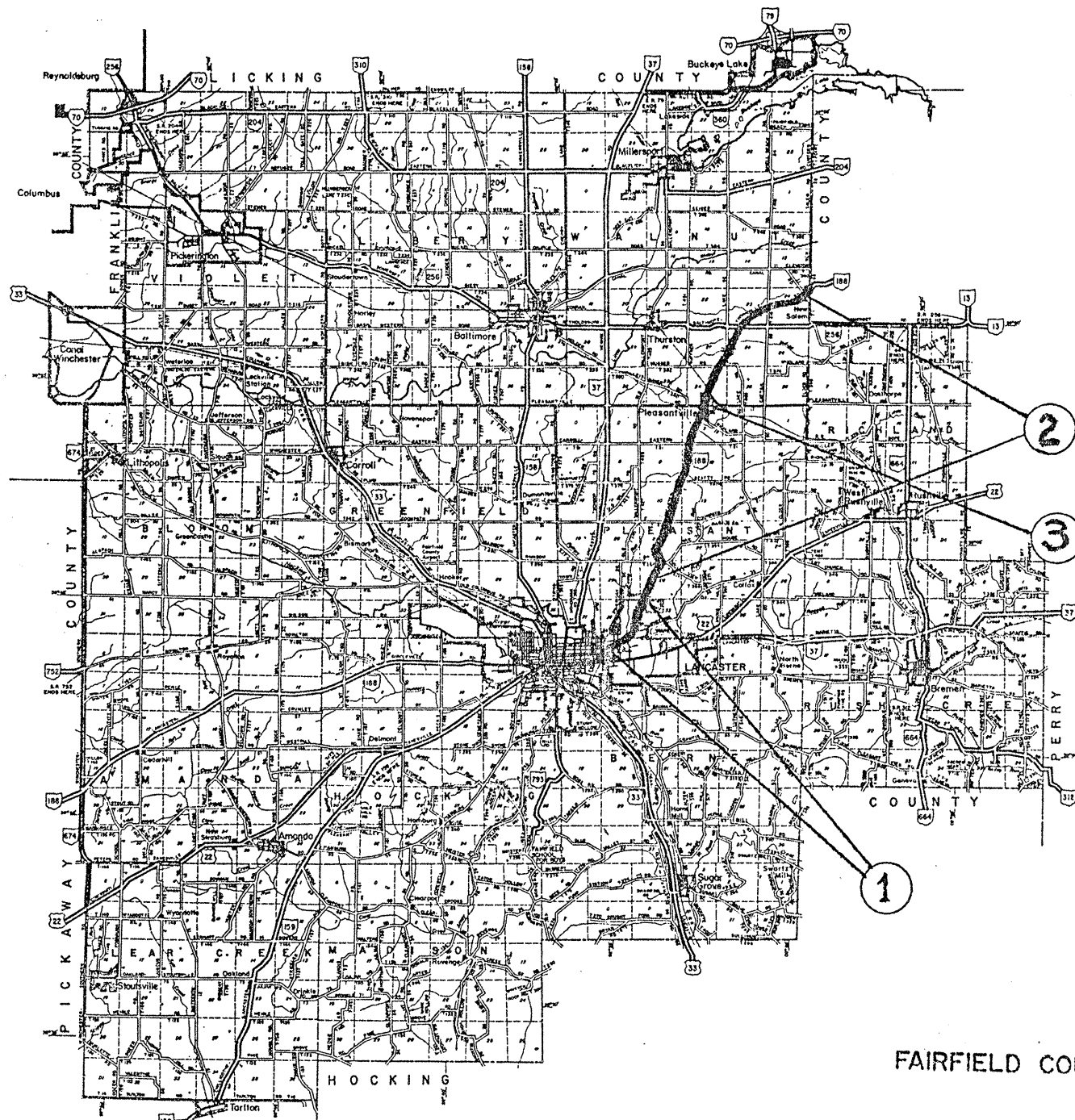
Approved _____
 Date _____

Assistant Director,
 Department of Transportation

Approved _____
 Date 12-2-91

Gerry Wray
 Director, Department of Transportation

LOCATION MAP



FAIRFIELD COUNTY



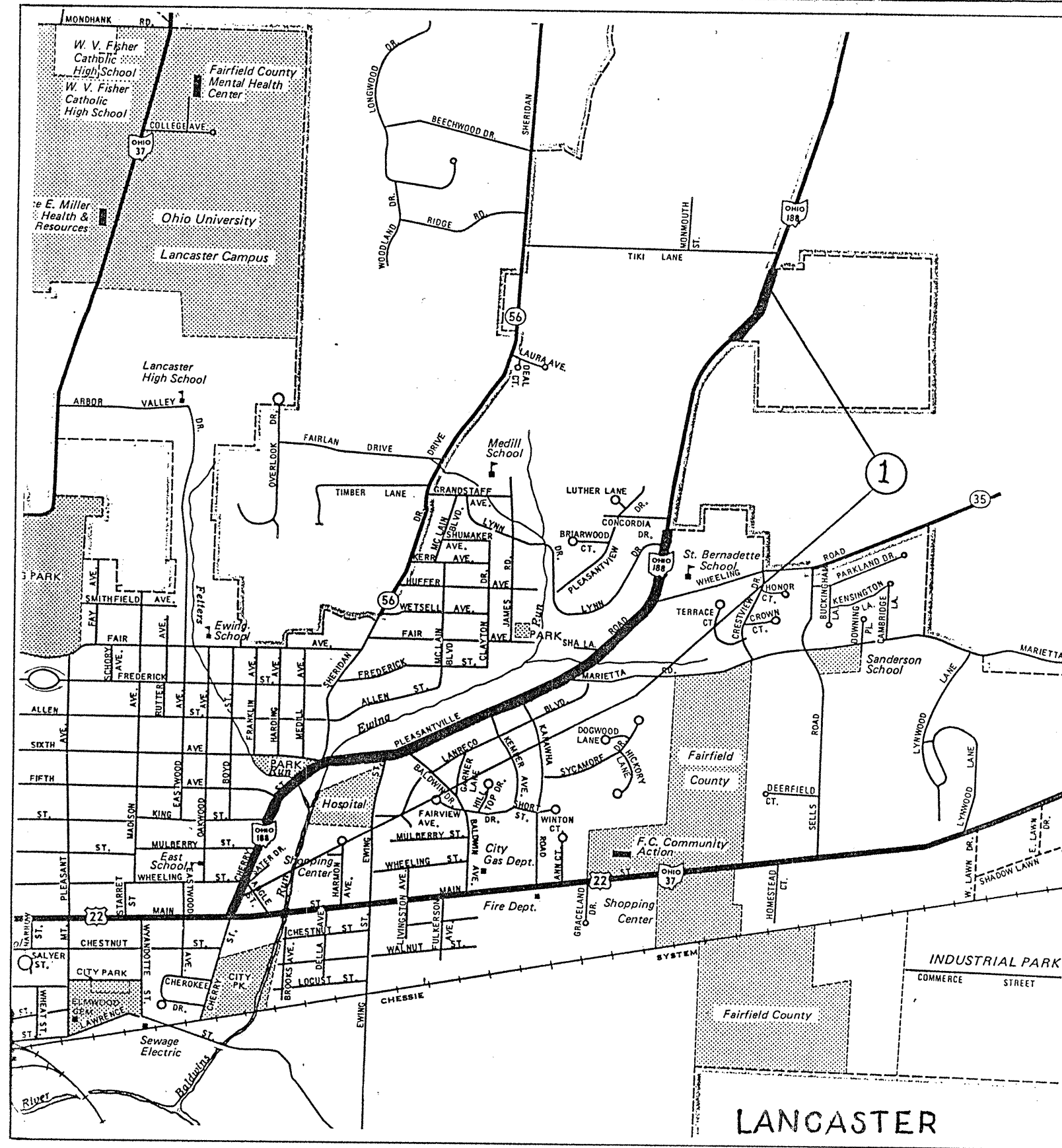
PORTION TO BE IMPROVED

STANDARD DRAWINGS		SUPPLEMENTAL SPECIFICATIONS	
BP-5	10-01-87	SS 802	4-13-90
BP-6	10-01-87		
MT-97.10	04-29-88		
MT-97.11	10-04-89		
MT-99.10	11-14-86		
MT-99.20	04-29-88		

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26-7-e

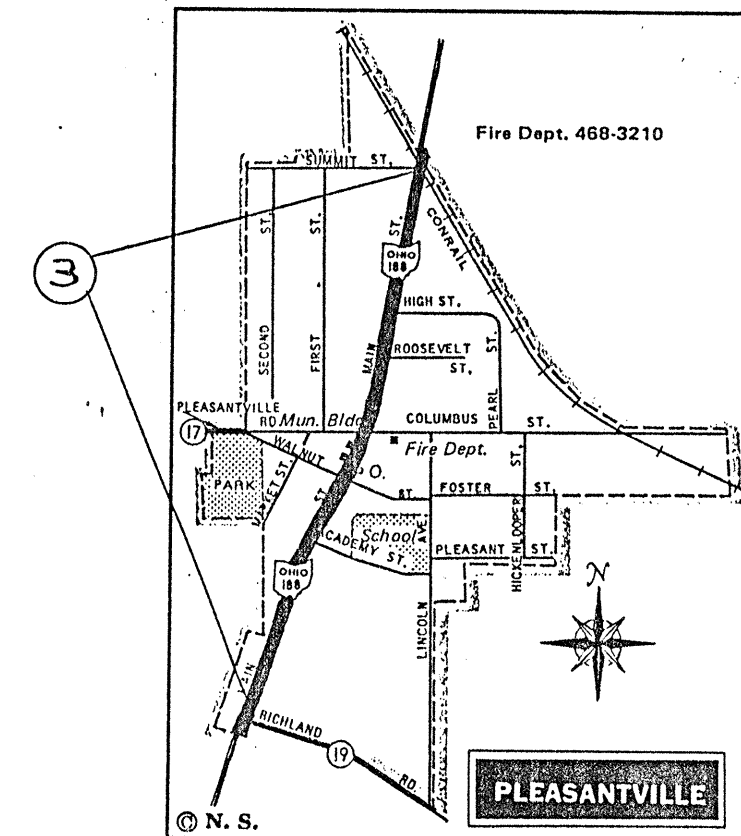


CALC. BY RLM
DATE 7-26-97
CHKD. BY SRM
DATE 9-27-97

PLAN NO. 176

2
25

FAI-188-14.48



LOCATION MAPS FOR LANCASTER AND PLEASANTVILLE

GENERAL NOTES

SHOULDER RESTORATION

IN ORDER TO PROVIDE POSITIVE DRAINAGE FROM THE ROADWAY SURFACE TO THE SHOULDER BREAK, (6' MINIMUM WIDTH OR AS DIRECTED BY THE ENGINEER) THE EXISTING ROADWAY SHOULDERS SHALL BE GRADED AND SHAPED USING A GRADER OF ADEQUATE SIZE TO PERFORM THE WORK TO THE SATISFACTION OF THE ENGINEER. PAYMENT FOR ALL OF THE ABOVE GRADING AND SHAPING WORK, INCLUDING LABOR AND INCIDENTALS, SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - GRADER RENTAL, AND SHALL BE FOR THE ACTUAL NUMBER OF GRADER HOURS WORKED.

ALL EXCESS MATERIAL REMAINING AFTER THE GRADER WORK IS COMPLETED, SHALL BE REMOVED AND DISPOSED OF BY THE CONTRACTOR. PAYMENT FOR ALL OF THE ABOVE REMOVAL WORK SHALL BE PAID FOR AT THE UNIT PRICE BID FOR ITEM SPECIAL - LOADER RENTAL, AND SHALL BE FOR THE ACTUAL NUMBER OF LOADER HOURS WORKED. ANY OTHER EQUIPMENT, LABOR OR INCIDENTALS REQUIRED TO COMPLETE THIS ITEM SHALL BE INCLUDED THEREIN FOR PAYMENT. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THE ABOVE PURPOSES.

	PART 1	PART 2	PART 3
ITEM SPECIAL - GRADER RENTAL	1	29	2
ITEM SPECIAL - LOADER RENTAL	1	14	1

PAVEMENT MARKING

STOP LINES, CROSSWALK LINES, CHANNELIZING LINES, TURN ARROWS, ETC., SHOWN ON THE PLAN ARE TAKEN FROM EXISTING MARKINGS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PLACE NEW PAVEMENT MARKINGS AS NEAR AS POSSIBLE TO THE EXISTING LOCATIONS UNLESS OTHERWISE DESIGNATED BY THE ENGINEER.

614 MAINTAINING TRAFFIC PROVISIONS FOR INSTALLATION OF BARRIER REFLECTORS

TRAFFIC SHALL BE MAINTAINED ON THE EXISTING PAVEMENT AT ALL TIMES EXCEPT AS APPROVED BY THE ENGINEER. THE CONTRACTOR SHALL SET UP AND OPERATE HIS EQUIPMENT IN SUCH A MANNER THAT THE ENCROACHMENT UPON THE TRAVELED WIDTH OF PAVEMENT WILL BE KEPT TO A MINIMUM.

ALL TRAFFIC CONTROL DEVICES AND APPLICATIONS SHALL CONFORM TO THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS. WHEN IT IS NECESSARY TO CLOSE ALL OR PART OF A LANE, TRAFFIC CONTROL SHALL BE AS SHOWN ON DWG.MT-97.10. WHEN WORK CAN BE CONFINED TO THE SHOULDER TRAFFIC CONTROL SHALL BE SHOWN ON SHEET 25 OR FIGURE C-12 OF THE OMUTCD AS APPLICABLE.

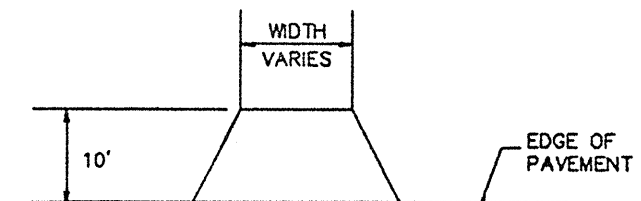
THE ENGINEER MAY SUSPEND WORK IN ORDER TO RELIEVE TRAFFIC CONGESTION AT ANYTIME. PAYMENTS FOR THIS WORK SHALL BE MADE UNDER ITEM 614, MAINTAINING TRAFFIC.

RESIDENCE AND COMMERCIAL DRIVES

AN ESTIMATED QUANTITY OF ITEM 448 ASPHALT CONCRETE HAS BEEN INCLUDED IN THE PLAN TO BE USED AS DIRECTED BY THE ENGINEER TO PAVE APPROACH AREAS TO EXISTING DRIVEWAYS. PAVING SHALL EXTEND 10 FEET INTO THE DRIVEWAY, MEASURED FROM THE EDGE OF THE PAVEMENT, OR PAVED BERM. THICKNESS SHALL BE APPROXIMATELY THE SAME AS THE ROADWAY PAVEMENT AND/OR PAVED BERM. FIELD DRIVES OR OIL WELL DRIVES WILL NOT BE PAVED. ANY GRADING OF EXISTING DRIVES, TACK OR PRIME COAT, ALL MATERIAL, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE WORK ON DRIVES SHALL BE INCLUDED IN THE UNIT BID PRICE FOR ITEM 448 ASPHALT CONCRETE, SURFACE COURSE, TYPE 1 AC-20 (DRIVEWAYS).

THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY FOR THE PURPOSE DESCRIBED ABOVE.

PART	1	2	3
CU.YD.	5	117	18



EXTRA ASPHALT FOR SPOT-LEVELING

A QUANTITY OF 448 ASPHALT CONCRETE HAS BEEN INCLUDED IN THE PLAN TO BE USED AT THE DIRECTION OF THE ENGINEER FOR PRE-LEVELING WHERE THE PAVEMENT IS LOW OR DETERIORATED. THE QUANTITY OF ITEM 448 SHOWN BELOW HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 448 ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 1, AC-20,

PART	1	2	3
CU.YD.	0	100	50 ⁽¹⁾

(1) TO BE USED IN PLEASANTVILLE WHERE PAVEMENT WIDTH DOES NOT AGREE WITH WIDTH SHOWN ON PLAN SHEET AND FOR EXTRA AREAS NOT SHOWN ON PLAN.

ITEM 408 BITUMINOUS PRIME COAT

AFTER COMPLETION OF PRIME COAT ANY SUBSEQUENT TREATMENT SHALL BE WHEN DIRECTED BY THE ENGINEER.

CALC. BY _____
 DATE _____
 CHKD. BY _____
 DATE _____

PLAN NO. **176**

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FAI-188-14.48

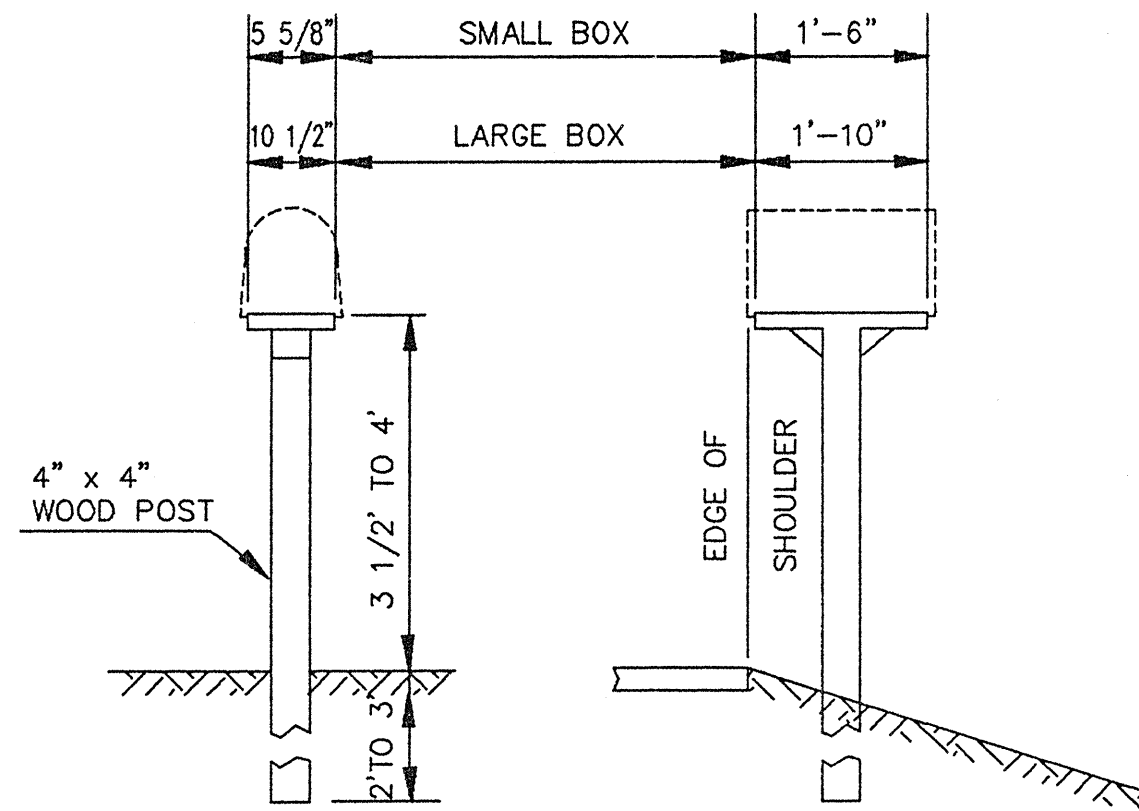
GENERAL NOTES

ITEM SPECIAL - MAILBOX SUPPORTS

THIS ITEM SHALL CONSIST OF REPLACING AND RESETTING DESIGNATED MAILBOX SUPPORTS WITH PRESSURE TREATED FOUR INCH (NOMINAL) TIMBER POSTS MEETING AASHTO M 133-81 AWPA P 8. MAILBOX SUPPORTS SHALL BE CONSTRUCTED AS PER THE DRAWING ON THIS SHEET. ALL MATERIAL, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THE REMOVAL AND INSTALLATION OF THE EXISTING MAILBOX ON THE NEW TIMBER POSTS AND RESETTING THE MAILBOX POSTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM SPECIAL - MAILBOX SUPPORTS.

THE FOLLOWING QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY FOR THE ABOVE PURPOSE.

ITEM SPECIAL - MAILBOX SUPPORTS	PART 1	PART 2	PART 3
	0	39	0



TYPICAL MAILBOX LOCATION AND MOUNTING HEIGHT

ITEM 617 COMPACTED AGGREGATE, TYPE A,
 AS PER PLAN

ALL AGGREGATE SHALL BE 100% CRUSHED LIMESTONE.

MAIL BOX TURN OUTS

A QUANTITY OF ASPHALT CONCRETE HAS BEEN PROVIDED IN THE PLAN TO COVER MAIL BOX TURN OUTS. TURN OUTS SHALL BE PAVED AS SHOWN IN THE DETAIL IN DRAWING BP-6, 10-1-87.

ANY EXTRA GRADING OF THE SHOULDERS, PRIME OR TACK COAT, MATERIALS, LABOR, EQUIPMENT TOOLS AND INCIDENTALS NECESSARY TO COMPLETE MAIL BOX TURN OUTS SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 448 ASPHALT CONCRETE SURFACE COURSE TYPE 1, AC-20, AS PER PLAN.

ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN.

PART	1	2	3
CuYd.	4	110	0

PAVED SHOULDERS

THE SHOULDERS SHALL BE PAVED AT THE SAME TIME AS THE ROADWAY PAVING OR AS DIRECTED BY THE ENGINEER.

RAISED PAVEMENT MARKER REMOVED FOR STORAGE, AS PER PLAN

REMOVAL OF RAISED PAVEMENT MARKERS SHALL CONFORM WITH SECTION NO. 202.071 IN THE CONSTRUCTION AND MATERIAL SPECIFICATIONS MANUAL EXCEPT FOR THE FOLLOWING:

AFTER PAVEMENT MARKERS HAVE BEEN REMOVED BY THE CONTRACTOR, HE WILL THEN BE RESPONSIBLE TO TAKE THE REMOVED MARKERS TO A STATE GARAGE THAT WILL BE DESIGNATED BY THE ENGINEER. THE PROJECT ENGINEER SHALL GIVE THE DISTRICT MAINTENANCE ENGINEER 24 HOUR NOTICE PRIOR TO DELIVERY AND THE PROJECT ENGINEER SHALL BE RESPONSIBLE FOR FURNISHING ALL NECESSARY TRANSFER DOCUMENTATION WITH ALL DELIVERIES. PAYMENT FOR ALL WORK DESCRIBED ABOVE SHALL BE PAID FOR UNDER ITEM 202 RAISED PAVEMENT MARKERS REMOVED FOR STORAGE, AS PER PLAN.

CALC. BY RLM
DATE 7-29-91
CHKD. BY SRM
DATE 9-27-91

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GENERAL NOTES

ITEM 614 WORK ZONE MARKING SIGNS

A QUANTITY OF A EACH WORK ZONE MARKING SIGNS (B EACH "NO EDGE LINES" OW-167 AND C EACH "UNMARKED NO PASSING ZONES" OW-168) ARE CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER.

PART	1	2	3
A	5	32	6
B	0	16	3
C	5	16	3

ITEM 254 PAVEMENT PLANING, BITUMINOUS

PAVEMENT PLANING SHALL BEGIN AT SLM 14.48(USR 22), USING A BUTT JOINT, AND CONTINUE TO SLM 16.04(WHERE CURB AND GUTTER ENDS). PLANING DEPTH SHALL BE 1 1/2". PLANING SHALL CONTINUE THRU BRIDGE NO. FAI-188-14.83 AND 14.94. PLANING FROM USR 22 TO SIXTH AVE.(CHERRY ST.) SHALL BE FROM CURB TO CURB. PLANING WHERE CONCRETE GUTTER IS EXPOSED SHALL BE BETWEEN THE CONCRETE GUTTERS. A BUTT JOINT SHALL BE PROVIDED AT SIXTH AVE. AND SHERIDAN AVE.. SEE DRAWING ON SHEET 13. INTERSECTING STREETS SHALL BE PLANED AS DIRECTED BY THE ENGINEER. BUTT JOINTS SHALL BE PROVIDED WHERE THE PLANING ENDS ON INTERSECTING STREETS. EXTREME CARE SHALL BE EXERCISED TO AVOID DAMAGE TO EXISTING CATCH BASINS, MANHOLES AND VALVE BOXES. DO NOT DAMAGE STRUCTURAL EXPANSION JOINTS ON BRIDGE NO. FAI-188-1494. ALL PLANED AREAS SHALL BE OVERLAID WITH 1 1/2" OF ITEM 448 ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20. THE PROPOSED PROFILE SHALL BE THE SAME AS EXISTING.

PLANING DEPTH IN PLEASANTVILLE SHALL BE 1 1/2". INTERSECTING STREETS SHALL BE PLANED AS DIRECTED BY THE ENGINEER. PLANING SHALL CONTINUE BEYOND THE RAILROAD CROSSING TO THE NORTH CORP. LINE. BUTT JOINTS SHALL BE PROVIDED AT THE RAILROAD CROSSING. PAVED BERM AREAS SHALL BE PLANED. PAYMENT FOR PLANING WILL BE AS MEASURED BY THE ENGINEER. PLANING QUANTITIES ARE SHOWN ON SHEETS 18 AND 19.

UTILITIES NOTIFICATION

COOPERATION WITH THE FOLLOWING UTILITY COMPANIES SHALL BE AS DESCRIBED IN SECTION 105.06 OF THE STATE OF OHIO, DEPARTMENT OF TRANSPORTATION CONSTRUCTION AND MATERIALS SPECIFICATIONS.

COLUMBIA GAS TRANSMISSION CORP.
SUNBERRY WOODS OFFICE PARK
P.O. BOX 6164
4111 EXECUTIVE PARKWAY
WESTERVILLE, OH 43081
ATTN: MARK BRODT (614) 895-5033

LANCASTER WATER DEPARTMENT
225 N. MEMORIAL DRIVE
LANCASTER, OH 43130
ATTN: RICK MEACHEM
(614) 687-6631

LANCASTER MUNICIPAL GAS COMPANY
1507 E. MAIN ST.
LANCASTER, OH 43130
(614) 687-6670

COLUMBIA GAS OF OHIO
942 W. GOODALE BLVD.
P.O. BOX 2586
COLUMBUS, OH 43212
ATTN: CHRISTINE POPELLA
MYRON HOSKINS
(614) 460-2240

GTE NORTH, INCORPORATED
131 NORTH COURT ST.
CIRCLEVILLE, OH 43113
ATTN: GARY WACHENSCHWANZ, SR, ENGR.
(614) 474-5033

L. KENT HUSTON, PE
CITY ENGINEER
104 E. MAIN ST.
LANCASTER, OH 43130
(614) 460-2240

ITEM 802 BARRIER REFLECTORS

AN ESTIMATED QUANTITY OF TYPE A BARRIER REFLECTORS HAS BEEN INCLUDED IN THE PLAN TO BE INSTALLED ON ALL EXISTING TYPE 5 GUARDRAIL. REFLECTORS SHALL BE INSTALLED IN ACCORDANCE WITH SUPPLEMENTAL SPECIFICATION 802 AS DIRECTED BY THE ENGINEER. THE ESTIMATED QUANTITIES SHOWN BELOW HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 802 BARRIER REFLECTORS, TYPE A
PART 1 20 EACH
PART 2 50 EACH

PAVEMENT MARKING TYPICAL DETAILS

FED. RD. DIV.	STATE	PROJECT
5	OHIO	

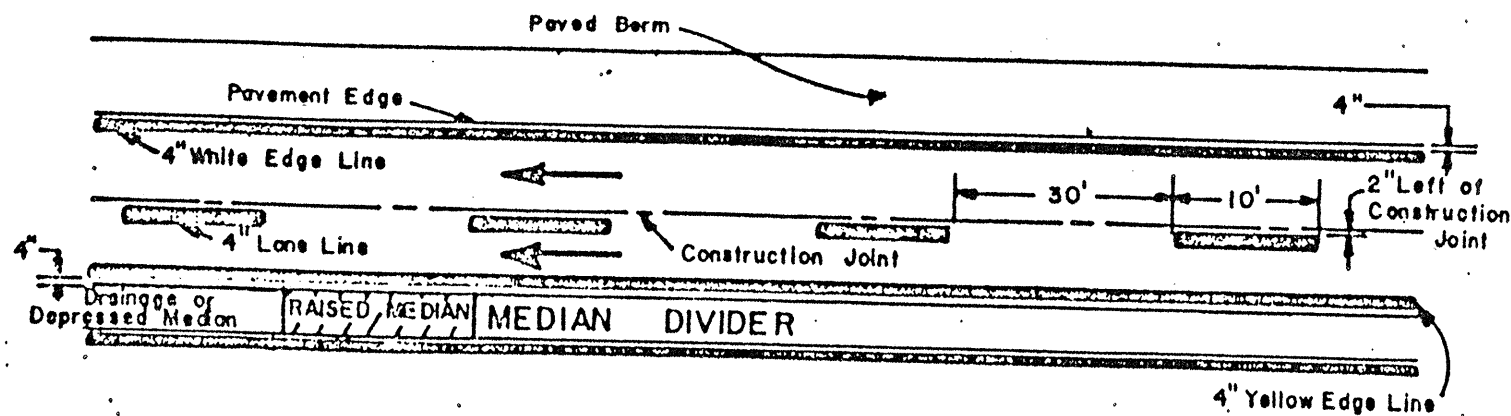
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CALC. BY RLM
DATE 9-25-91

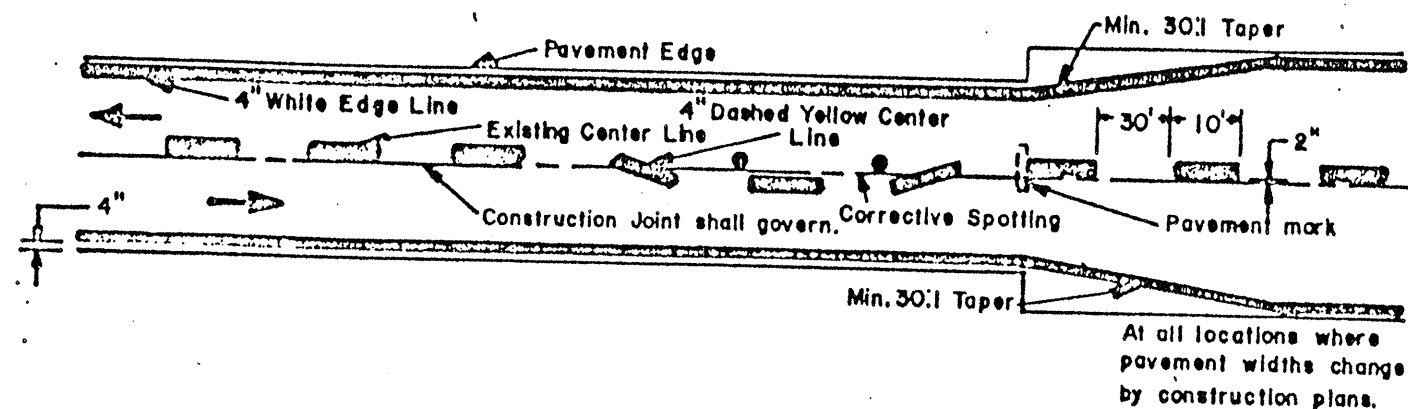
CHKD. BY SRM
DATE 9-27-91

PLAN NO. 176

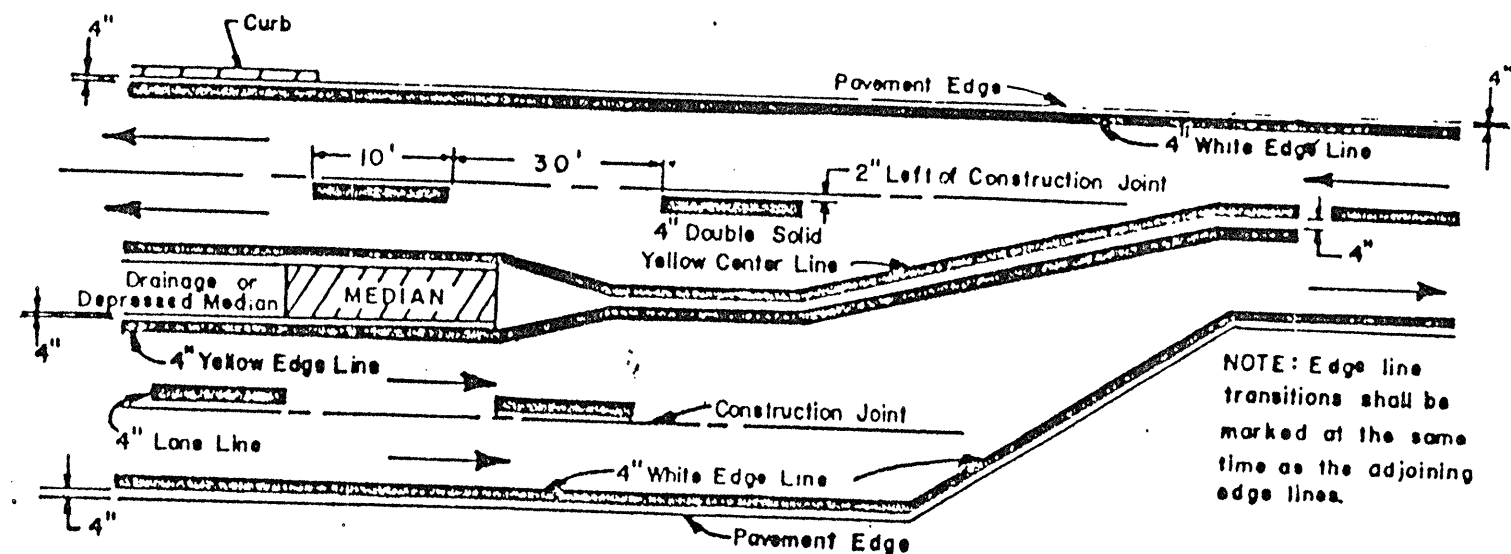
FREEWAY & EXPRESSWAY MAINLINE MARKINGS



TWO LANE MARKINGS



MULTILANE DIVIDED & UNDIVIDED HIGHWAY MARKINGS



NOTES:

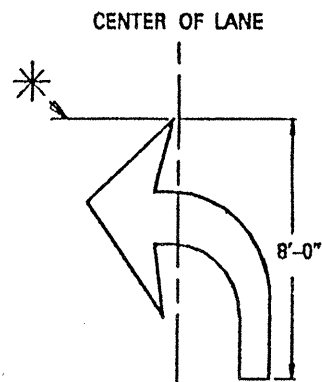
1. THE DISTANCE FROM THE PAVEMENT EDGE TO THE NEAR SIDE EDGE OF THE EDGELINE MAY BE INCREASED WITH THE APPROVAL OF THE ENGINEER IN ORDER TO MAINTAIN UNIFORM LANE WIDTH.
2. SEE TC 72.20 FOR ENTRANCE AND EXIT RAMP MARKINGS.
3. The cycle length for dashed lines shall be 40 feet plus or minus 6 inches. The minimum length of dash shall be sufficiently long to maintain a 3:1 ratio between length of gap and length of dash.

OHIO DEPARTMENT OF TRANSPORTATION	
PAVEMENT MARKING TYPICAL DETAILS	DATE 11/80

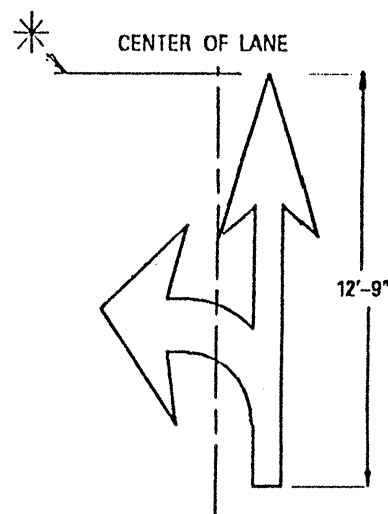
WORD AND SYMBOL MARKING DETAILS

FED RD DIVISION	STATE	PROJECT
5	OHIO	

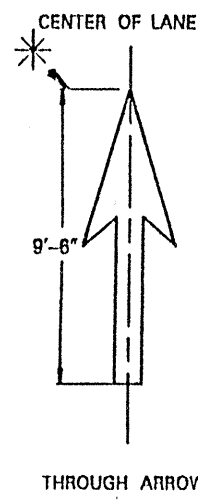
PLAN NO. 176



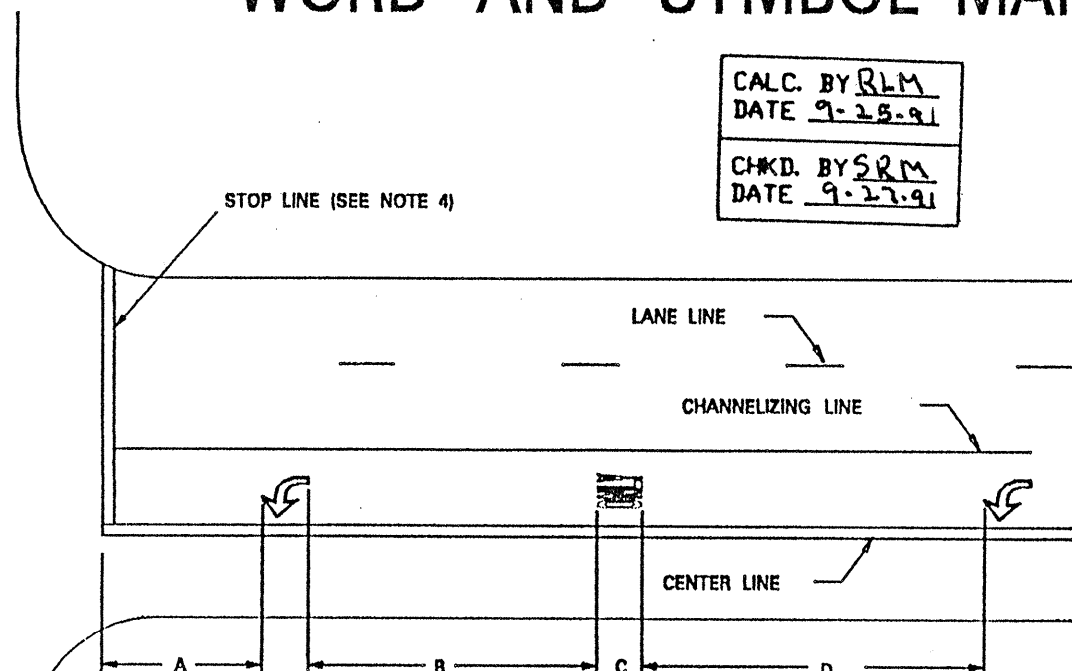
TURN ARROW
(LEFT ARROW SHOWN
RIGHT ARROW OPPOSITE)



COMBINED ARROW
(THREE HEAD DIRECTIONAL ARROWS
CAN BE ACHIEVED BY THE COMBINATION
OF TURN ARROWS.)



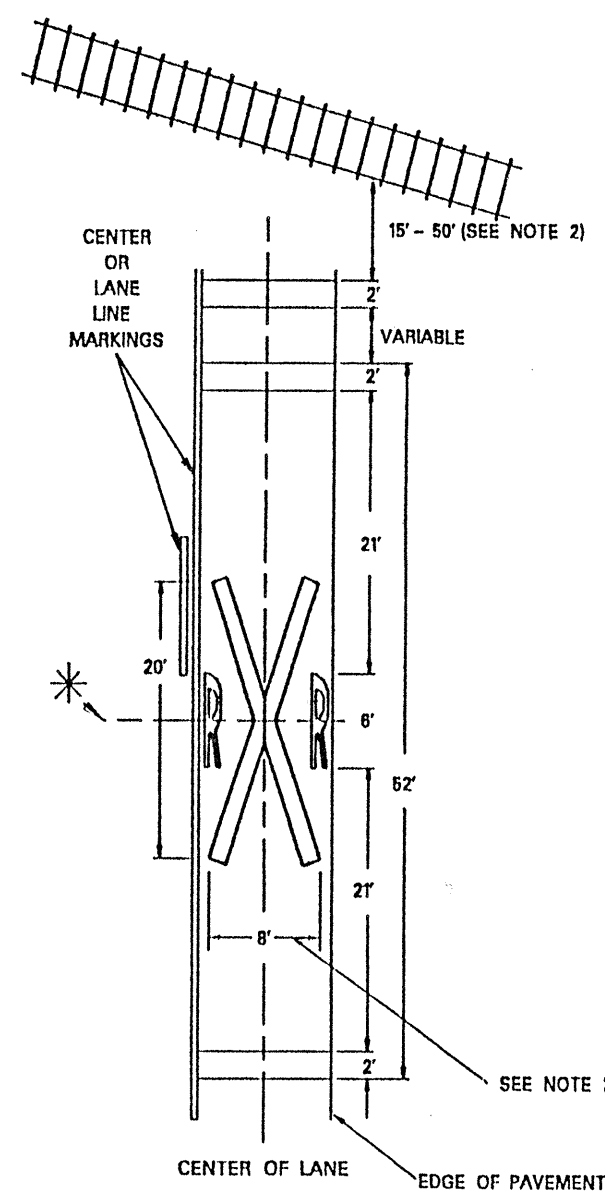
THROUGH ARROW



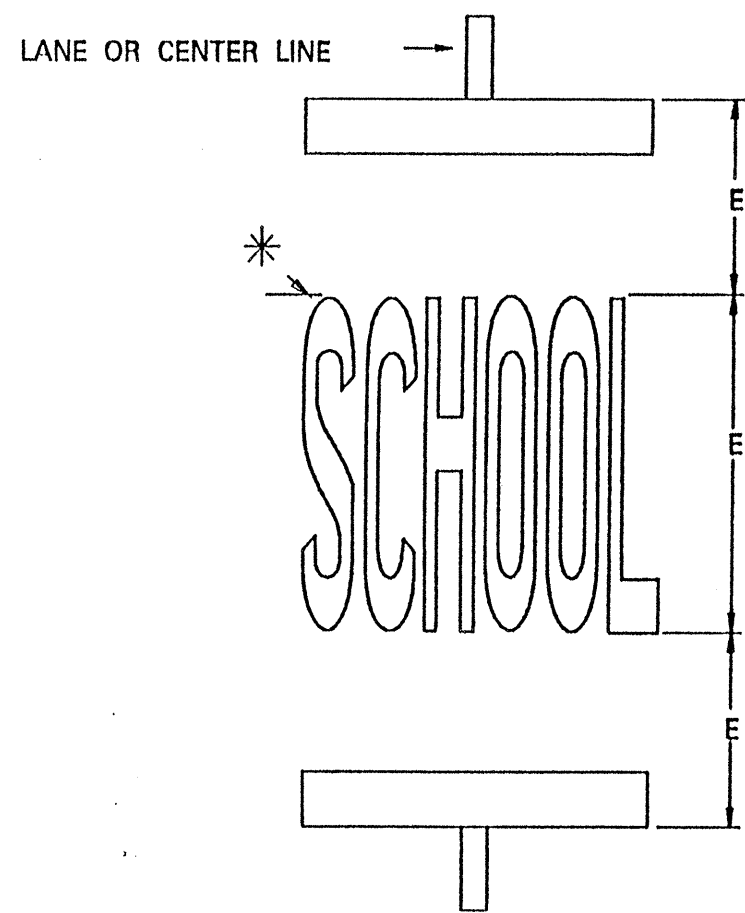
NOTE:
STOP LINE LOCATED MIN. 40' FROM
AT LEAST ONE SIGNAL HEAD WHICH APPLIES
TO THAT APPROACH

TYPE	DIMENSIONS (FEET)			
	A	B	C	D
RURAL	30 MIN.	32-80	8	32-80
URBAN	10 MIN.	32-80	6	24-80

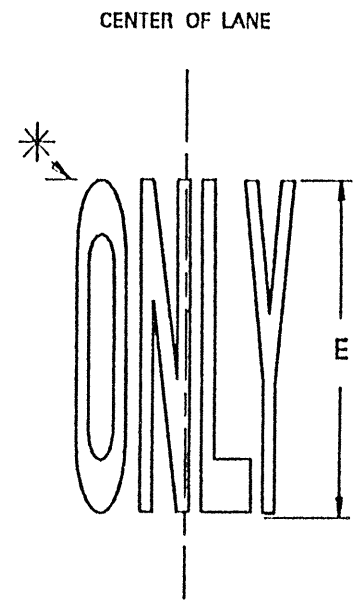
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- NOTES:
- ON MULTI-LANE APPROACHES, THE TRANSVERSE LINES USED WITH THE RAILROAD SYMBOLS SHALL EXTEND ACROSS ALL APPROACH LANES AND SYMBOLS SHALL BE PLACED IN EACH APPROACH LANE.
 - THE RAILROAD SYMBOL SHALL BE LOCATED SO THAT THE W-94, "RAILROAD ADVANCE WARNING SIGN", IS WITHIN THE TWO TRANSVERSE BOUNDARY LINES OF THE RAILROAD SYMBOL. THE STOP LINE SHALL BE LOCATED FOR BEST SIGHT DISTANCE WITHIN 15 FEET TO 50 FEET OF THE NEAR EDGE OF THE TRACKS. STOP LINES SHALL BE PERPENDICULAR TO THE CENTER LINE OF THE ROADWAY. WIDTH OF "X" MAY VARY ACCORDING TO LANE WIDTH.
 - ON MULTI-LANE APPROACHES, THE TRANSVERSE LINES USED WITH THE WORD "SCHOOL" SHALL EXTEND ACROSS ALL APPROACH LANES WITH A SINGLE WORD "SCHOOL" CENTERED ACROSS THE APPROACH LANES. ON TWO LANE ROADWAYS, THE TRANSVERSE LINES SHALL EXTEND ACROSS THE ROADWAY WITH THE WORD "SCHOOL" CENTERED ACROSS THE ROADWAY. CENTER OR LANE LINES SHALL NOT PASS THROUGH THE "SCHOOL" MARKING.
 - THE STOP LINE SHOULD BE PLACED WHERE CROSS-CORNER VISION IS MAXIMUM, IN NO CASE MORE THAN 30 FEET OR LESS THAN 4 FEET FROM THE NEAREST EDGE OF THE INTERSECTING ROADWAY. FOR NORMAL INTERSECTIONS A MAXIMUM DISTANCE OF 10 FEET IS RECOMMENDED.
- IF A MARKED CROSSWALK IS PRESENT, THE STOP LINE SHOULD BE PLACED 4 FEET IN ADVANCE OF AND PARALLEL TO THE NEAREST CROSSWALK.
- FOR TRAFFIC PAINT AND POLYESTER APPLICATION, TEMPLATE GAPS SHALL BE FILLED WITH MARKING MATERIAL IN ACCORDANCE WITH 841.03. FOR EXTRUDED THERMOPLASTIC MATERIAL, THESE GAPS MAY REMAIN UNFILLED IN ACCORDANCE WITH 844.03.



TYPE	INCHES
	E
RURAL	96
URBAN	72



* INDICATES STATION REFERENCE POINT

EDGE LINE SUB-SUMMARY

FAI-188-14.48

CALC. BY *MLM*
DATE *9-25-91*
CHKD. BY *SRM*
DATE *9-27-91*

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CO.	ROUTE	S.L.M.		WHITE EDGE LINE QU.			YELLOW EDGE LINE QU.			PARTICIPATION TYPE				EDGE LINE TOTAL MILES	REMARKS
		FROM	TO	TOTAL MILES	HIGHWAY	RAMP	TOTAL MILES	HIGHWAY	RAMP	IRG	FG	RSG	NON FED STATE		
FAI	SR 188	16.53	16.74	0.42	0.21								PART 1	0.42	LANCASTER SOUTH CORP. TO LANCASTER NORTH CORP.
FAI	SR 188	16.74	21.89	10.30	5.15								PART 2	10.30	LANCASTER NORTH CORP. TO PLEASANTVILLE SOUTH CORP.
		21.89	21.92	0.03	0.03								PART 2	0.03	RIGHT SIDE ONLY
		22.64	26.53	7.78	3.89								PART 2	7.78	PLEASANTVILLE NORTH CORP. TO PERRY CO. LINE
FAI	SR 188	TOTALS		18.11	9.07								PART 2	18.11	
FAI	SR 188	21.89	21.92	0.03	0.03								PART 3	0.03	LEFT SIDE ONLY
		21.92	22.64	1.44	0.72								PART 3	1.44	PLEASANTVILLE SOUTH CORP. TO PLEASANTVILLE NORTH CORP.
FAI	SR 188	TOTALS		1.47	0.75								PART 3	1.47	

PAVEMENT MARKING SUB-SUMMARY

CALC. BY RLM
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PLAN NO. 176

644 THERMOPLASTIC

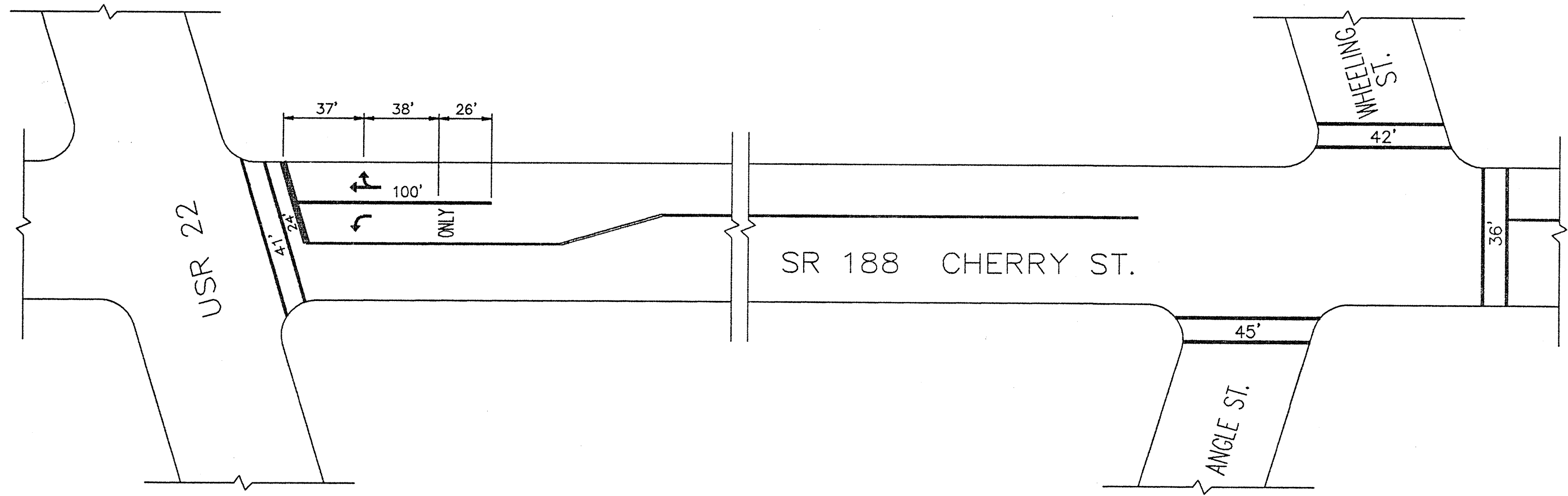
CO.	ROUTE	SIDE	24" TRANSVERSE LINES		STOP LINE 24" LIN.FT.	12" CROSSWALK LINES WHITE LIN.FT.	WORD ON PAVEMENT				LANE ARROWS				RAILROAD SYMBOL ON PAVEMENT EACH	DOTTED LINES		8" CHANNEL LINE LIN.FT.	REMARKS
			WHITE LIN.FT.	YELLOW LIN.FT.			ONLY		SCHOOL		TURN		THRU EACH	COMB. EACH		WHITE LIN.FT.	YELLOW LIN.FT.		
							72" EACH	96" EACH	72" EACH	96" EACH	LEFT EACH	RIGHT EACH							
PART 2	CONTINUED FROM PREVIOUS	SHEET																	
	ON SR 188													1					PLACE AS DIRECTED
	MUSSER RD.	LT			29														PLACE 18' FROM SR 188 C
	LAKE RD. (CONNECTOR)	RT			17														PLACE 15' FROM SR 188 C
	LAKE RD.	RT			22														PLACE 16' FROM SR 188 C
	LAKE RD. (CO.RD.62)	LT			17														PLACE 21' FROM SR 188 C
	SR 256	RT			17														PLACE 17' FROM SR 188 C
	SR 256	LT			17														PLACE 18' FROM SR 188 C
	CATTAIL RD.	RT			13														PLACE 17' FROM SR 188 C
	CATTAIL RD.	LT			19														PLACE 19' FROM SR 188 C
	NEW SALEM RD.	RT			23														PLACE 18' FROM SR 188 C
	CANAL RD. (CO.RD.11)	LT			23														PLACE 20' FROM SR 188 C
PART 2	TOTALS				434									1					
PART 3	SR 188 IN PLEASANTVILLE																		
	RICHLAND RD.(CO.RD.19)	RT			31														PLACE 51' FROM SR 188 C
	ON SR 188								1										SEE SHEET 15
	ACADEMY ST	RT				62													SEE SHEET 15
	WALNUT ST.	RT				44													SEE SHEET 15
	WALNUT ST.	LT				78													SEE SHEET 15
	ON SR 188 AFTER WALNUT ST.					74													SEE SHEET 15
	ON SR 188 BEFORE COLUMBUS ST.					82													SEE SHEET 15
	COLUMBUS ST.	LT				74													SEE SHEET 15
	COLUMBUS ST.	RT				80													SEE SHEET 15
	ON SR 188 AFTER COLUMBUS ST.					100													SEE SHEET 15
	ON SR 188								1										SEE SHEET 15
	ON SR 188 BEFORE HIGH ST.					52													SEE SHEET 15
	ON SR 188													1					PLACE AS DIRECTED
PART 3	TOTALS				31	646			2					1					

CALC. BY RLM
DATE 9-28-97
CHKD. BY SRM
DATE 9-27-97

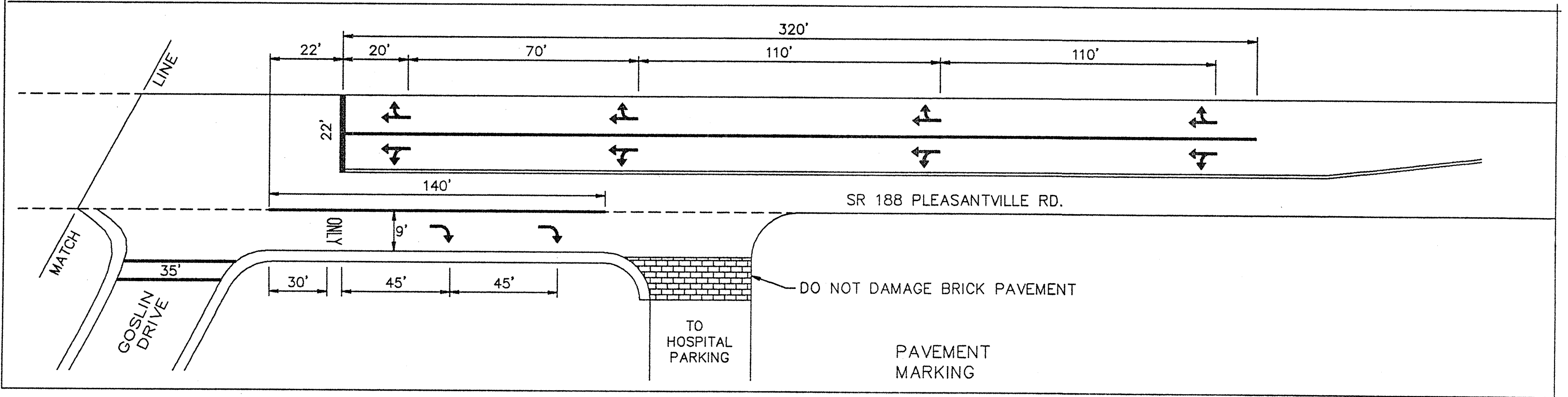
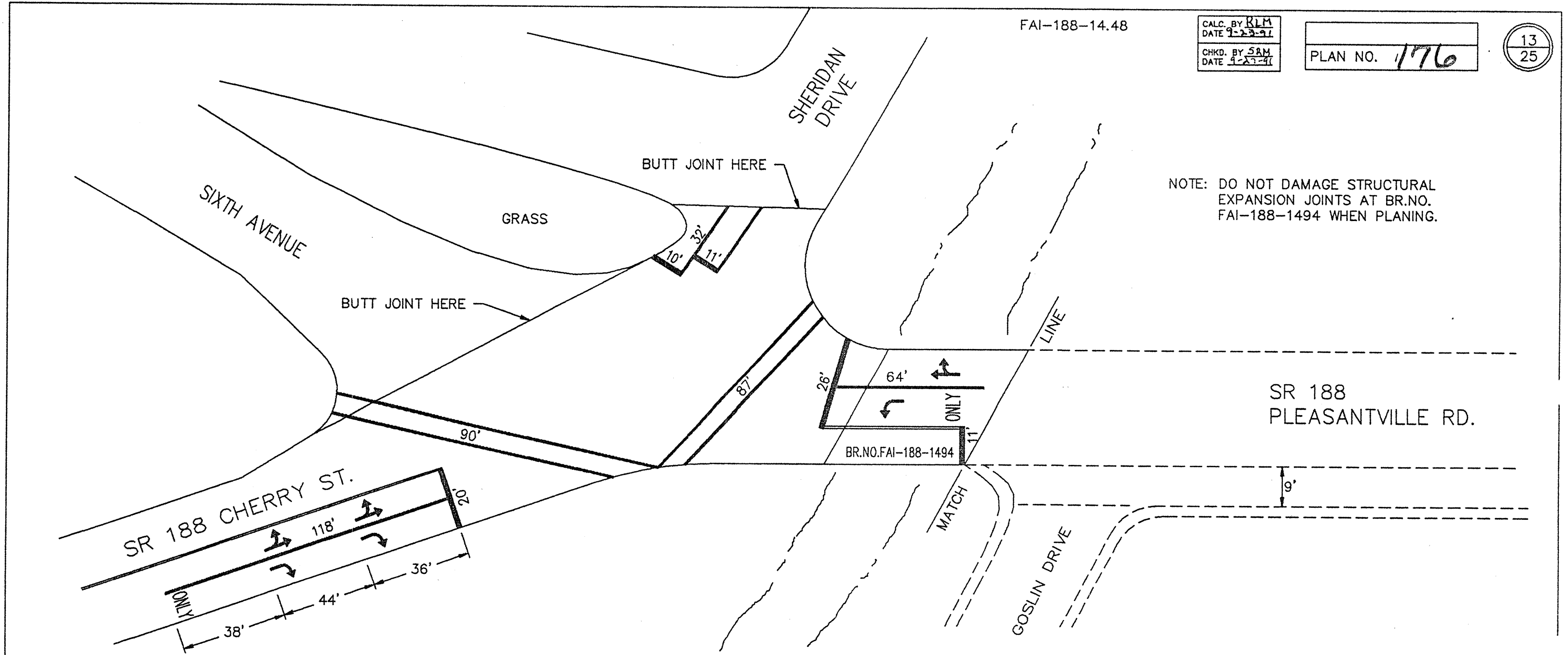
PLAN NO. 176

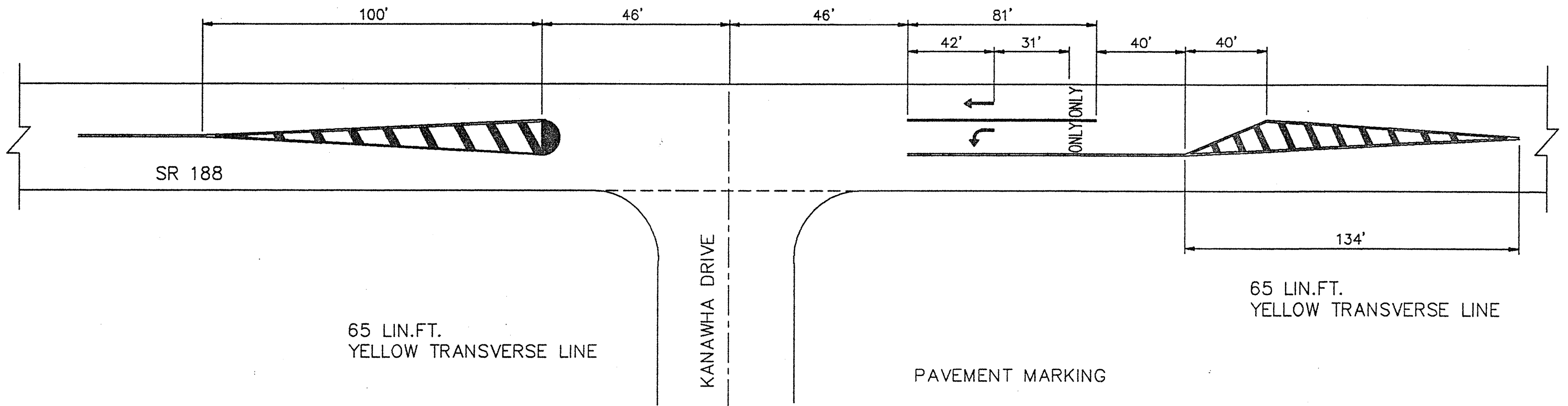
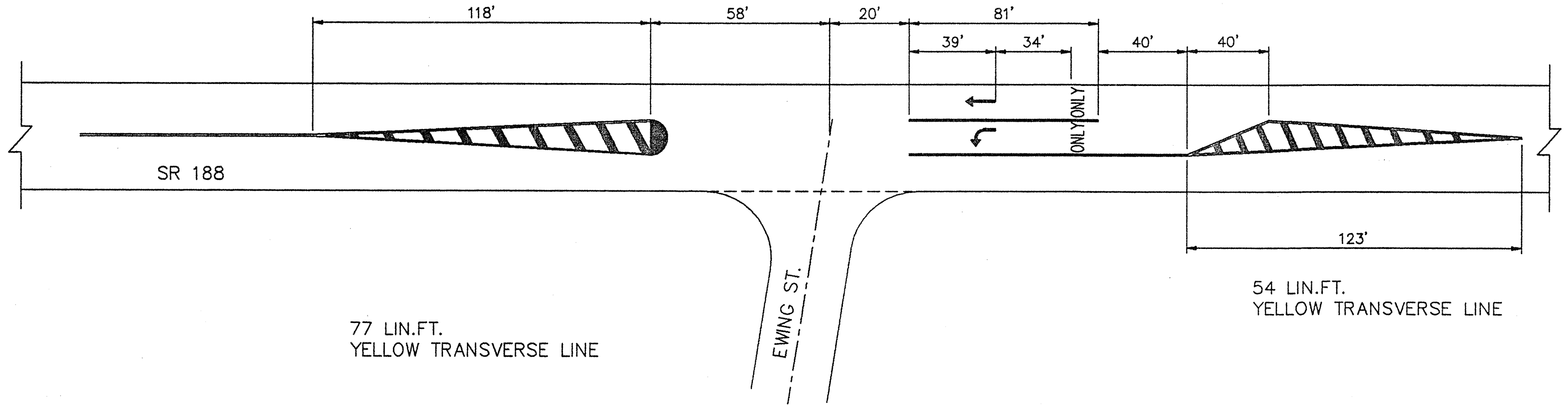
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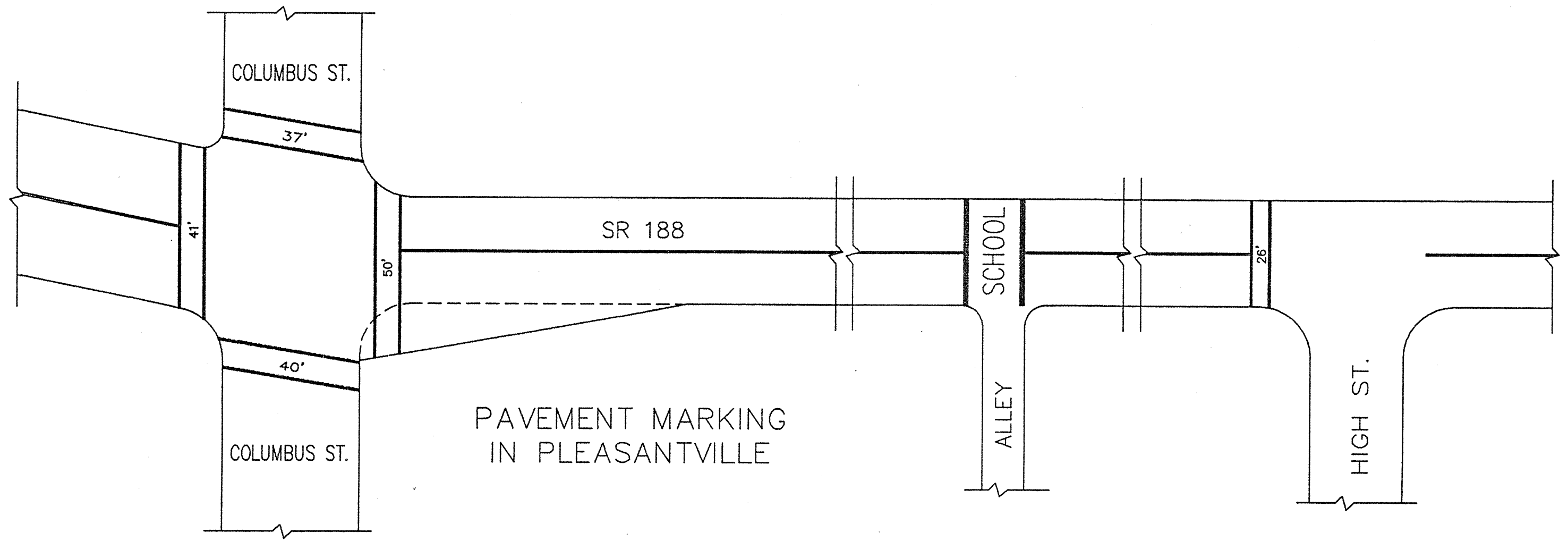
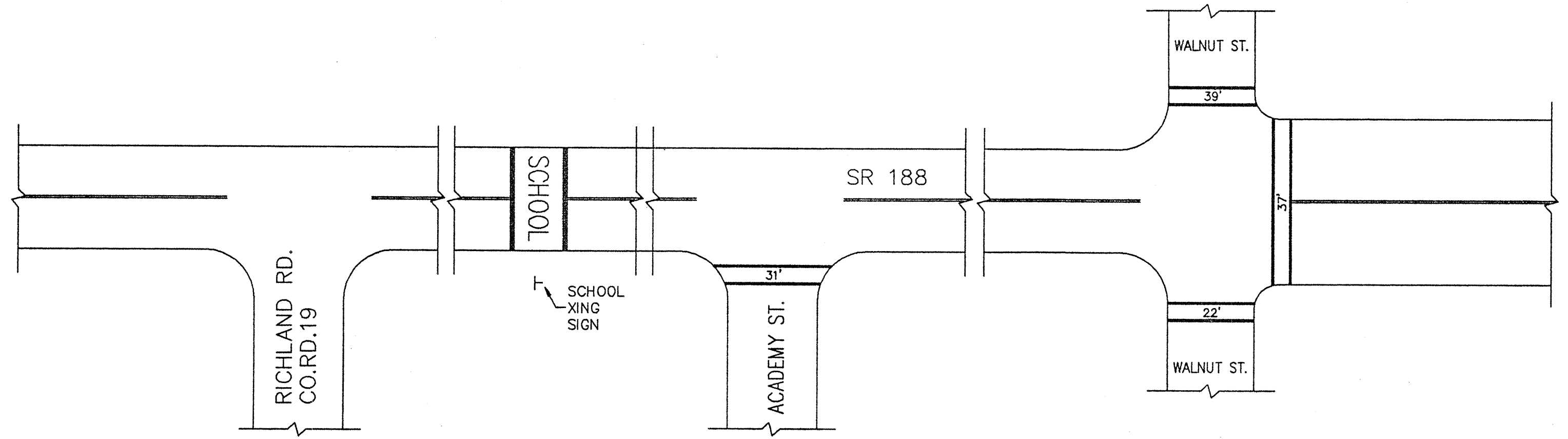
FAI-188-14.48

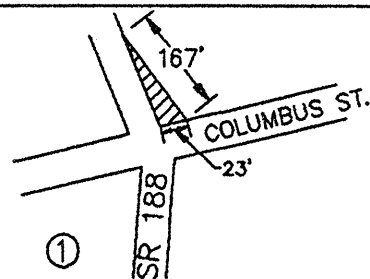
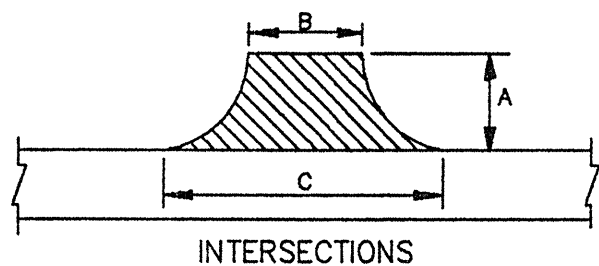


PAVEMENT MARKING









EXTRA AREA AND DEDUCTIONS

FAI-188-14.48

CALC. BY RLM
DATE 9-25-91

CHKD. BY SRM
DATE 9-27-91

PLAN NO. 176

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25

- (1) INTERMEDIATE COURSE, TYPE 1
- (2) SURFACE COURES, TYPE 1

PART	ROUTE	LOG POINT TO LOG POINT	SIDE	DESCRIPTION	INTERSECTIONS			AREA IN SQ. YD.	PROPOSED ITEMS										
					A IN FEET	B IN FEET	C IN FEET		407		ASPHALT CONCRETE			EXISTING SURFACE	408	254			
									TACK COAT @ 0.05 gal./s.y. GAL.	COVER AGGR. @ 1 lbs./s.y. TON	THICK INCHES	CU. YD.							
									ITEM 448 (1)	ITEM 448 (2)									
2	SR 188	CONTINUED FROM		PREVIOUS SHEET															
			RT	SR 256	13	26	55	59	3		1	2	2	1.25	ASPH.				
			LT	SR 256	18	26	59	85	4		1	2	3	1.25	ASPH.				
			RT	CATTAIL ROAD	32	16	52	121	6		1	3	4	1.25	ASPH.				
			LT	CATTAIL ROAD (CO. RD. 80)	39	20	74	204	10		1	6	7	1.25	ASPH.				
			RT	NEW SALEM RD.	31	21	72	160	8		1	4	6	1.25	ASPH.				
			LT	CANAL RD. CO. RD. 82	29	21	69	145	7		1	4	5	1.25	ASPH.				
2	SR 188	TOTALS CARRIED TO SHEET 18						3476	174			90	122				167		
3	SR 188	IN PLEASANTVILLE	RT	RICHLAND RD. (CO. RD. 19)	37	22	77	204	10		1	6	7	1.25	ASPH.				
			RT	ACADEMY ST.	23	22	42	82	4				3	1.5	ASPH.		82		
			RT	ALLEY	4	15	15	7	1				1	1.5	ASPH.		7		
			RT	ALLEY	10	10	13	13	1				1	1.5	ASPH.		13		
			LT	ALLEY	10	9	20	16	1				1	1.5	ASPH.		16		
			LT	WALNUT ST.	22	30	44	90	5				4	1.5	ASPH.		90		
			RT	WALNUT ST.	7	23	25	19	1				1	1.5	ASPH.		19		
			LT	COLUMBUS ST.	13	28	37	47	2				2	1.5	ASPH.		47		
			RT	COLUMBUS ST.	6	40	40	27	1				1	1.5	ASPH.		27		
			RT	EXTRA AREA @ COLUMBUS ST. (1)	167	23		213	11				9	1.5	ASPH.		213		
			RT	ALLEY	14	10	20	23	1				1	1.5	ASPH.		23		
			RT	ALLEY	8	13	22	16	1				1	1.5	ASPH.		16		
			RT	ALLEY	4	13	25	8	1				1	1.5	ASPH.		8		
			RT	HIGH ST.	20	22	41	70	4				3	1.5	ASPH.		70		
			LT	SUMMIT ST.	34	18	50	128	6				5	1.5	ASPH.		128		
3	SR 188	TOTALS CARRIED TO SHEET 19						963	50			6	41				759		

ASPHALT CONCRETE

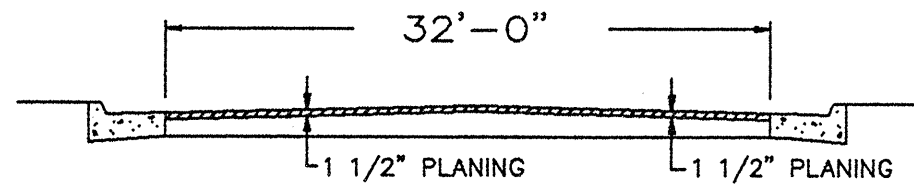
CALC. BY RLM
DATE 9-23-91

CHKD. BY SRM
DATE 9-27-91

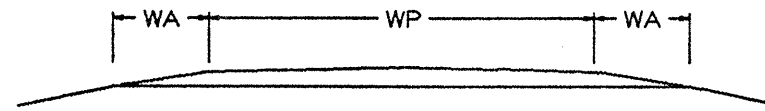
PLAN NO. 176

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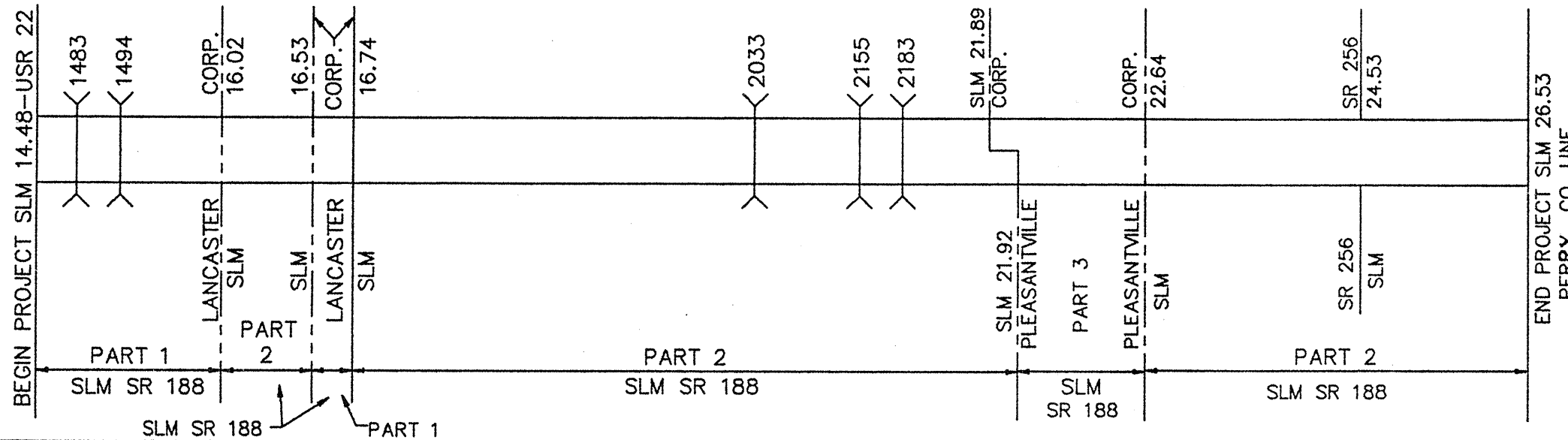
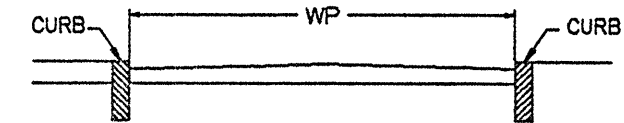
TYPICAL 1



TYPICAL 2



TYPICAL 3



BRIDGE TREATMENT
PART 1

FAI-188-1483 60.50'X36.0' SEE SHEET
FAI-188-1494 62.89'X36.0' SEE SHEET

PART 2

FAI-188-2033 17.71'X24.0' SEE SHEET
FAI-188-2155 20.50'X26.0' SEE SHEET
FAI-188-2183 22.17'X28.33 SEE SHEET

* ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, AC-20
** ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20

(1) FIELD MEASURED (2) BRIDGE LENGTH X PAVEMENT WIDTH PAVEMENT DATA

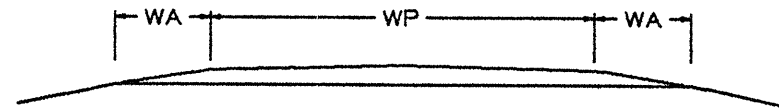
PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		WP FEET	TYPICAL	EXISTING TYPE PAVEMENT	PAVEMENT AREA SQ. YDS.	PROPOSED PAVEMENT						614 TEMPORARY CENTER LINE, CLASS II MILE	202 RAISED PAVEMENT MARKERS REMOVED FOR STORAGE AS PER PLAN EACH	254 PAVEMENT PLANING, BITUMINOUS SQ. YD.	408 BITUMINOUS PRIME COAT GAL.	614 TEMPORARY CHANNELIZING LINE CLASS II LIN. FT.	614 TEMPORARY STOP LINE CLASS I LIN. FT.	
			MILES	LIN. FT.					407		ASPHALT CONCRETE		ITEM 448 * THICK INCHES CU. YDS.	ITEM 448 ** THICK INCHES CU. YDS.							ITEM _____ THICK INCHES CU. YDS.
									TACK COAT @ 0.05 gal./s.y. GALS.	COVER AGGR. lbs./s.y. TONS	THICK INCHES	THICK INCHES									
1	SR 188	14.48-14.90	0.42	2218	36	1	404	8872	444			1.5	370	0.84							
		14.90-16.02	1.12	5914	32	1	404	21028	1051			1.5	876	2.24							
		16.53-16.74	0.21	1109	21 ⁽¹⁾	2	404	2588	129	1.0	72	1.25	90	0.42							
		EXTRA AREA FROM SHEET 16					2449	119				104				2413	15				
		EXTRA TACK COAT FOR LONGITUDINAL JOINT						32													
		DEDUCT FOR BRIDGES (2)					(466)	(23)				(19)				(466)					
1	SR 188	TOTALS	1.75	9241				34471	1752		72	1439	3.50			31847	15	1872	226		
2	SR 188	16.02-16.04	0.02	106	32	1	404	375	19			1.5	16	0.04		375					
		16.04-16.07	0.03	158	32	2	404	563	28	1.0	16	1.25	20	0.06							
		16.07-16.53	0.46	2429	21 ⁽¹⁾	2	404	5668	283	1.0	157	1.25	197	0.92							
		16.74-21.89	5.15	27192	21 ⁽¹⁾	2	404	63448	3172	1.0	1762	1.25	2203	10.30							
		21.89-21.92	0.03	158	11.25 11.25	2	404	198	10	1.0	6	1.25	7	0.06							
		22.64-26.53	3.89	20539	18.5 ⁽¹⁾	2	404	42219	2111	1.0	1173	1.25	1466	7.78							
		EXTRA AREA FROM SHEET 17					3476	174			90	122				167					
		EXTRA TACK COAT FOR LONGITUDINAL JOINT						146													
		DEDUCT FOR BRIDGES (2)					(141)	(7)		(4)	(5)										
2	TOTALS		9.58	50582				115806	5936		3200	4026	19.16	967	542						

ASPHALT CONCRETE

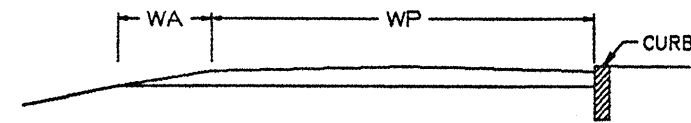
CALC. BY RLH
DATE 9-25-91
CHKD. BY SAM
DATE 9-27-91

PLAN NO. 176

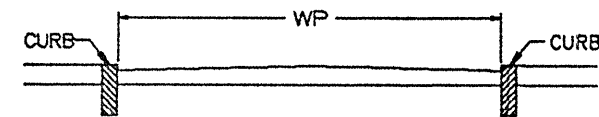
TYPICAL 2



TYPICAL 3



TYPICAL 4



- (1) INTERMEDIATE COURSE, TYPE 1, AC-20
- (2) SURFACE COURSE, TYPE 1, AC-20

PAVEMENT DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		WP FEET	TYPICAL	EXISTING TYPE PAVEMENT	PAVEMENT AREA SQ. YDS.	PROPOSED PAVEMENT						614 TEMPORARY CENTER LINE, CLASS II MILE	202 RAISED PAVEMENT MARKER, REMOVED FOR STORAGE, AS PER PLAN EACH	254 PAVEMENT PLANING, BITUMINOUS 1 1/2" MAX. SQ. YD.
			MILES	LIN. FT.					407		ASPHALT CONCRETE						
									TACK COAT @ 0.05 gal./s.y. GALS.	COVER AGGR. lbs./s.y. TONS	ITEM 448 ⁽¹⁾ THICK INCHES AVG.	CU. YDS.	ITEM 448 ⁽²⁾ THICK INCHES	CU. YDS.			
3	SR 188	21.89-21.92	(0.03)	(158)	11.25 11.25	2	404	198	10		1.0	6	1.25	7			
		21.92-22.04	0.12	634	22.5	2	404	1585	79				1.5	66	0.24		1585
		22.04-22.06	0.02	106	24	3	404	283	14				1.5	12	0.04		283
		22.06-22.09	0.03	158	24	4	404	421	21				1.5	18	0.06		421
		22.09-22.17	0.08	422	24	3	404	1125	56				1.5	47	0.16		1125
		22.17-22.24	0.07	370	24	2	404	987	49				1.5	41	0.14		987
		22.24-22.30	0.06	317	35.7	3	404	1257	63				1.5	52	0.12		1257
		22.30-22.64	0.34	1795	24	2	404	4787	239				1.5	199	0.68		4787
		EXTRA AREA FROM SHEET 17						963	50		6			41			759
		EXTRA TACK COAT FOR LONGITUDINAL JOINT							13								
3	SR 188	TOTALS	0.72	3644				11606	594		12		483		1.44		11204

PAVED SHOULDERS

CALC. BY RLM
DATE 9-25-91

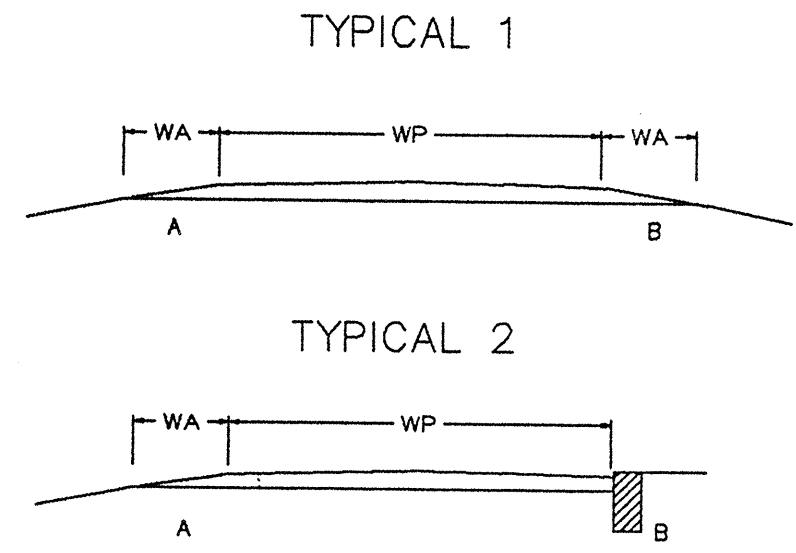
CHKD. BY SRM
DATE 9-27-91

FHWA REGION	STATE	PROJECT
5	OHIO	

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25

PLAN NO.
176

* NOTES



- (1) INTERMEDIATE COURSE, TYPE 1, AC-20
- (2) SURFACE COURSE, TYPE 1, AC-20

1. ~~ITEM 203 LINEAR GRADING:~~
This work shall consist of preparing a subgrade for the shoulder paving by excavating the existing shoulder material to the depth shown on the plan, or as directed by the Engineer to remove any unstable material and by shaping and compacting the subgrade. The unsound or broken edge of bituminous pavements shall first be trimmed to a line established by the Engineer. The existing shoulder then shall be excavated and the subgrade shaped and compacted. Compaction shall be carried out to the satisfaction of the Engineer by means of trench roller, 401.11. Areas graded in excess of depths specified or directed by the Engineer shall be backfilled to desired grade using 617 Compacted Aggregate at the Contractor's expense. Excavation material shall be disposed of as indicated in the plan.
 - a. Used to back up shoulders where required; the balance to be disposed as directed by the Engineer.
 - b. Disposed of by the Contractor at his own responsibility outside the limits of the right of way.
 - c. Wasted adjacent to the pavement and within the right of way as directed by the Engineer.
2. ~~ITEM 402 ASPHALT CONCRETE:~~
Prior to placing a bituminous mixture for shoulder paving, the edge of the existing pavement, for the full depth of the trench, shall be coated with bituminous material in accordance with 401.12.
3. ~~ITEM 301 BITUMINOUS AGGREGATE BASE~~
May be used in lieu of Item 402 Asphalt Concrete.
4. ~~ITEM 617 COMPACTED AGGRGATE:~~
A quantity of Item 617 Compacted Aggregate has been provided for areas where the shoulders were low prior to grading and/or low areas caused by removal of unsuitable material.
5. ~~ITEM 408 BITUMINOUS PRIME COAT:~~
After application of the Prime Coat, no further treatment shall be performed until so directed by the Engineer.
6. ~~SHIELD:~~ The Contractor shall provide a shield to prevent the spraying or drifting of liquid bituminous material onto the edge of the pavement or edge-lines. The attention of the Contractor is directed to 107.12 of the Specifications.

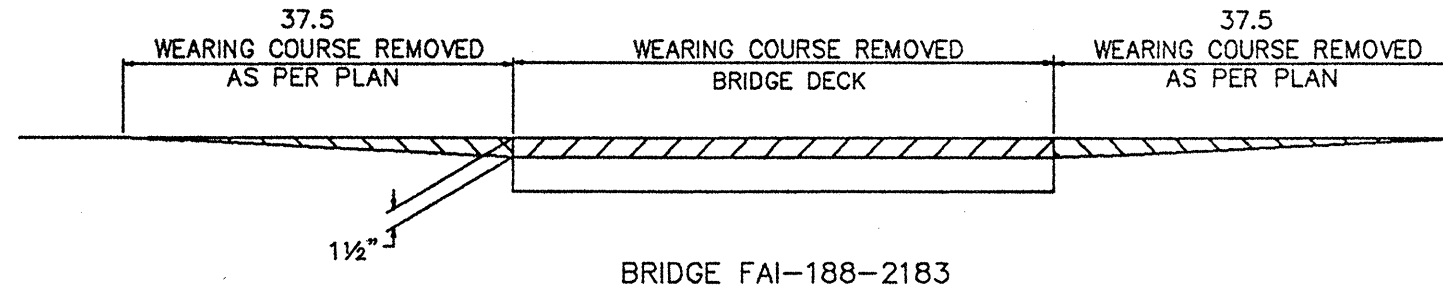
PAVED SHOULDER DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		TYPICAL	PROPOSED WIDTH (FT.)				SHOULDER AREA SQ.YDS.	448		617		407		254		* NOTES		
			MILES	LIN.FT.		A	B	C	D		ASPHALT CONCRETE (1)	ASPHALT CONCRETE (2)	COMPACTED AGGREGATE	WATER	TACK COAT @ 0.05 gal./sq.yd.	PAVEMENT PLANING, BITUMINOUS					
											AVG. THICK INCHES	AVG. THICK INCHES	TYPE A, AS PER PLAN 2' WIDE 2 1/4" AVER. THICKNESS TO BACK UP PAVED BERM	M GAL	GALS.	SQ.YD.					
3	SR 188	CONTINUED	FROM	PREVIOUS	SHEET																
		22.24-22.30	0.06	317	2	2				70			1.50	3			4		4		70
		22.30-22.64	0.34	1795	1	2	2			798			1.50	33			50		40		798
3	SR 188	TOTALS	0.72	3802						1467			1	61			92	1	74		1432

BRIDGE DECK TREATMENT

FAI-188-14.48

CALC. BY: RLM DATE: 1-25-91 CHECKED BY: SRM DATE: 2-7-91	OHIO FHWA REGION 5	22 25
PLAN NO. 176		

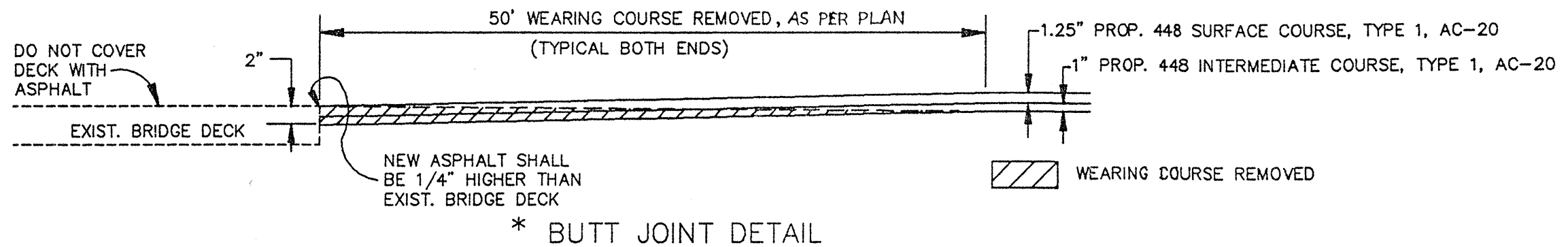


BRIDGE DECK DATA

(1) INCLUDES PAVED BERMS

PART	COUNTY, ROUTE, BRIDGE NO.	LENGTH (BRIDGE LIMITS) LIN.FT.	WIDTH LIN.FT.	BRIDGE DECK AREA SQ.YDS.	202	BRIDGE DECK REPAIR			SPECIAL				516	ASPHALT CONCRETE		407	202	
					WEARING COURSE REMOVED DEPTH 1.5"	<input type="checkbox"/> SS-845 LATEX MODIFIED CONCRETE <input type="checkbox"/> SS-850 DENSE CONCRETE			PATCHING		STEEL DRIP STRIP SQ.FT.	DECK WATERPROOFING		VERT. EXT. OF STR. EXP. JOINTS LIN.FT.	THICK INS.	448 SURFACE COURSE, TYPE 1, AC-20 CU.YDS.	TACK COAT @ 0.05 GAL./SQ.YD. GAL.	WEARING COURSE REMOVED, AS PER PLAN SQ.YD.
						" THICK OVERLAY SQ.YDS.	VARIABLE THICKNESS OVERLAY CU.YDS.	FULL-DEPTH REPAIR CU.YDS.	TYPE	SQ.YD.		MEMBRANE WATERPROOFING SHEET TYPE 1 SQ.YDS.	MEMBRANE WATERPROOFING SQ.YDS.					
1	FAI-188-1483	60.50	36.0	242.0	242.0								1.5	10	12			
	FAI-188-1494	62.89	36.0	251.56	251.56								1.5	11	13			
1	TOTALS				493.56									21	25			
2	FAI-188-2033	DO NOT PAVE THIS BRIDGE - USE BUTT JOINT - *																278 ⁽¹⁾
	FAI-188-2155	20.50	26.0	59.22									2.25	4	3			
	FAI-188-2183	22.17	28.33	69.79	69.79								1.5	3	3		209 ⁽¹⁾	
2	TOTALS				69.79									7	6		487	

NOTE: FOR ADDITIONAL INFORMATION SEE DWG. BP-5, 10-1-87



PTMR679 (STAND)

GENERAL SUMMARY

CALC. BY _____
DATE _____
CHKD. BY _____
DATE _____

PLAN NO.
176



ITEM	PART 1	PART 2	PART 3	PART 4	PART 5	PART 6	PART 7	PART 8	ITEM	ITEM EXT. NO.	GRAND TOTAL PART 1,2,3	UNIT	DESCRIPTION
202	494	70	-						202	23500	564	SQ.YD.	WEARING COURSE REMOVED
202	-	487	-						202	23501	487	SQ.YD.	WEARING COURSE REMOVED, AS PER PLAN
202	-	967	-						202	54101	967	EACH	RAISED PAVEMENT MARKER REMOVED FOR STORAGE, AS PER PLAN
SPECIAL	1	29	2						SPECIAL	20363000	32	HOUR	GRADER RENTAL
SPECIAL	1	14	1						SPECIAL	20363500	16	HOUR	LOADER RENTAL
254	31847	542	12636						254	01000	45025	SQ.YD.	PAVEMENT PLANING, BITUMINOUS
407	1802	7058	668						407	10000	9528	GALLON	TACK COAT
408	15	-	-						408	10000	15	GALLON	BITUMINOUS PRIME COAT
448	1477	4808	544						448	16000	6829	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20
448	4	110	0						448	16001	114	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20, AS PER PLAN
448	86	3921	63						448	14000	4070	CU.YD.	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, AC-20
448	5	117	18						448	16004	140	CU.YD.	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, AC-20 (DRIVEWAY)
614	LUMP	LUMP	LUMP						614	11000	LUMP	LUMP	MAINTAINING TRAFFIC
614	5	32	6						614	12460	43	EACH	WORK ZONE MARKING SIGN
614	3.50	19.16	1.44						614	21400	24.10	MILE	TEMPORARY CENTER LINE, CLASS II

GENERAL NOTES

TRAFFIC:

Traffic shall be maintained at all times. The length of restricted traffic zones shall be kept to a minimum consistent with the specification requirements for protection of completed courses.

RAILROAD CROSSINGS:

The new surface course shall be feathered or butt jointed to meet the rail grades as specified.

TACK COAT:

The tack coat operation shall be as determined at a pre-construction conference as per 407.05, and application rates shall not exceed 0.10 gal. per sq. yd. In addition to the requirements of 407.05 the tack coat shall be applied immediately ahead of the paving operation or as otherwise determined by the Project Engineer.

INTERMEDIATE COURSE, SPOT LEVELING AND PATCHING:

This material shall be placed in a separate operation where and as directed by the Engineer.

ALIGNMENT AND PROFILE:

The work proposed by this project is for the resurfacing of the existing pavement. The alignment of the existing pavement will not be changed, and the profile of the proposed surface will be similar to that of the existing pavement except that it will be raised an amount equal to the thickness of the resurfacing course or courses specified in these plans.

Spreading equipment shall be capable of having an automatic profile control device added to be used when directed by the Engineer. The minimum length of the ski for this device shall be 30'.

CONTROL OF ONE WAY TRAFFIC:

In addition to the requirements of the Ohio Manual of Uniform Traffic Control Devices and Material Specifications the following requirements shall apply. Communications between flaggers shall be by two-way radio during the paving operations. Payment for the above shall be included in Item 614, Maintaining Traffic.

COVER AGGREGATE:

Cover aggregate shall conform to 703.06.

BRIDGES:

The proposed depth of asphalt resurfacing shall be altered to match the proposed depth of the treatment on the structures. The resurfacing thickness shall be adjusted as required at the approximate rate of 25 ft. per inch of difference in thickness unless otherwise directed by the Engineer.

CALC. BY _____
DATE _____
CHKD. BY _____
DATE _____

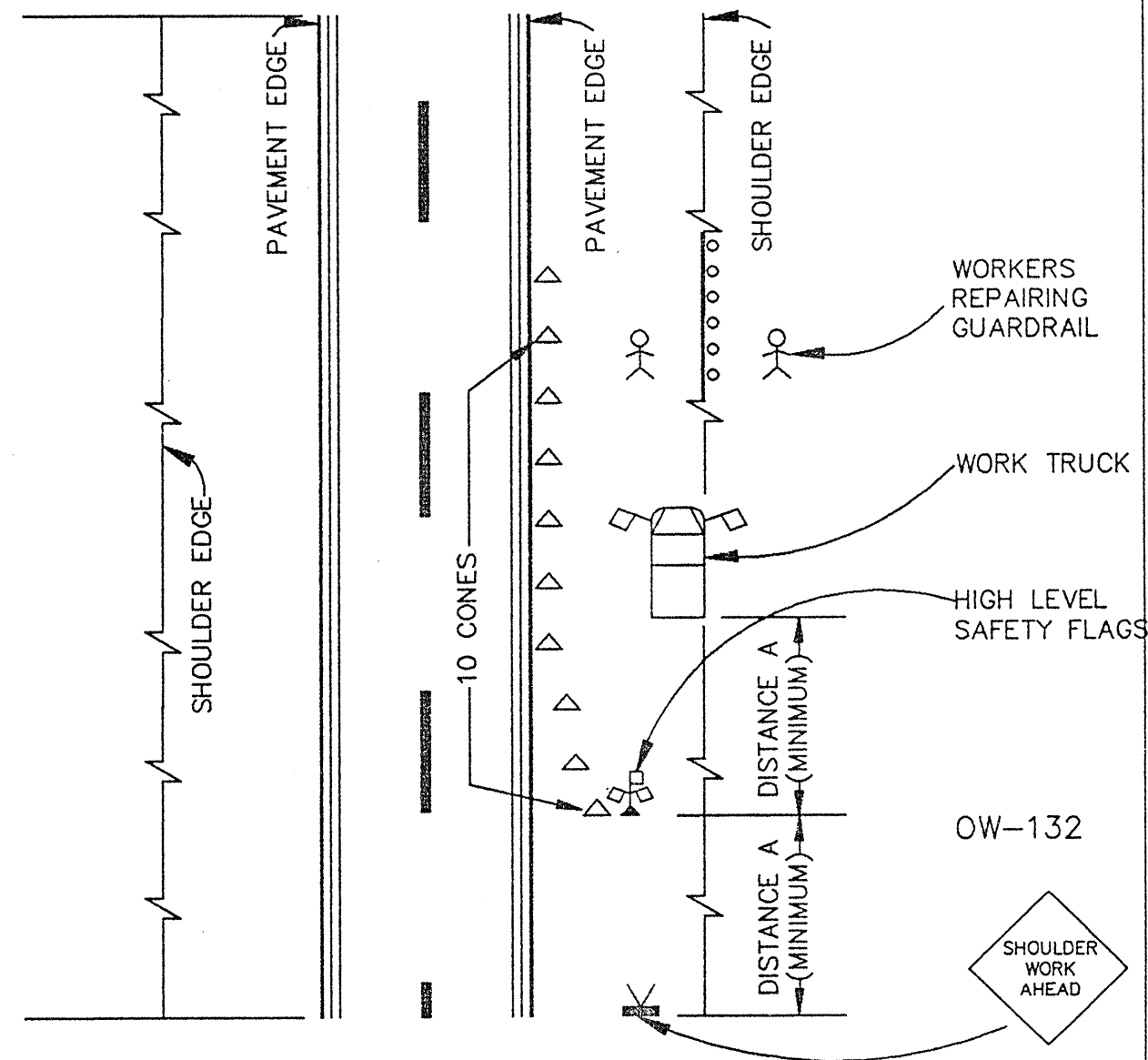
GENERAL SUMMARY

PLAN NO. **176**

ITEM	PART 1	PART 2	PART 3						ITEM	ITEM EXT. NO.	GRAND TOTAL PART	UNIT	DESCRIPTION
614	1872	-	-						614	23604	1872	LIN.FT.	TEMPORARY CHANNELIZING LINE, CLASS II
614	226	-	-						614	26000	226	LIN.FT.	TEMPORARY STOP LINE, CLASS I
617	31	1396	92						617	10101	1519	CU.YD.	COMPACTED AGGREGATE, TYPE A, AS PER PLAN
617	1	13	1						617	25000	15	M GAL	WATER
619	LUMP	LUMP	LUMP						619	15000	LUMP	LUMP	FIELD OFFICE, TYPE A
624	LUMP	LUMP	LUMP						624	10000	LUMP	LUMP	MOBILIZATION
642	0.42	18.11	1.47						642	00102	20.00	MILE	EDGE LINE, TYPE 2
642	1.75	9.58	0.72						642	00302	12.05	MILE	CENTER LINE, TYPE 2
644	936	-	-						644	00400	936	LIN.FT.	CHANNELIZING LINE
644	305	434	31						644	00500	770	LIN.FT.	STOP LINE
644	1052	-	646						644	00600	1698	LIN.FT.	CROSSWALK LINE
644	261	-	-						644	00700	261	LIN.FT.	TRANSVERSE LINE
644	114	-	-						644	00900	114	SQ.FT.	ISLAND MARKING
644	-	1	1						644	01000	2	EACH	RAILROAD SYMBOL MARKING
644	-	-	2						644	01100	2	EACH	SCHOOL SYMBOL MARKING, 72"
644	22	-	-						644	01300	22	EACH	LANE ARROW
644	8	-	-						644	01400	8	EACH	WORD ON PAVEMENT, 72"
SPECIAL	-	39	-						SPECIAL	69050000	39	EACH	MAILBOX SUPPORTS
802	20	50	-						802	00100	70	EACH	BARRIER REFLECTOR, TYPE A

CALC. BY	_____
DATE	_____
CHKD. BY	_____
DATE	_____

TYPICAL APPLICATIONS OF TRAFFIC CONTROL DEVICES FOR STATIONARY OPERATIONS ON THE SHOULDER



NOTES:
SPACE THE CONES AT 50' MAXIMUM.

FOR WORK WITHIN THE MEDIAN, INSTALL THE SAME CONES AND SIGNS FOR BOTH DIRECTIONS OF TRAVEL.

TYPE OF ROADWAY	DISTANCE
	A-FT.
URBAN	200
STANDARD	500
EXPRESSWAY	750