OHIO DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

FHWA REGION	STATE	FEDERAL PROJECT	
5	OHIO		

1/7

PLAN NO. 50

PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINII BEGIN	PROJECT TERMINII END	NET LENGTH MILES	TOWNSHIP	CITY	VILLAGE
1	All	SR117	(18.73-24.69)	18.73	28.61	9.88			

1990 - 2 Lane Resurfacing

The Standard 19 89 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 and provisions for the maintenance and safety of traffic will be as indicated in the proposal.

Approved Date 6-28-89 — James L. Schmidt — District Deputy Director of Transportation

JEM Approved Date 7-10-89 — B. D. Sanfilippo — Engineer of Bridges

Approved Date _____ — Engineer of Maintenance

Approved Date 8-30-89 — James R. Longenecker — Chief Engineer, Operations — Deputy Director of 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 8-30-89 — Bernard B. Hurst — Director, Department of Transportation

LOCATION MAP

PORTION TO BE IMPROVED

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED:

DIVISION ADMINISTRATOR _____ DATE _____

STANDARD DRAWINGS		SUPPLEMENTAL SPECIFICATIONS	
BP-5	10-01-87		
MT-99.10	11-14-86		
MT-99.20	04-29-88		
MC-1	06-13-69		

MAIN
M0255 scanned
(6977)(69)
88-11-11
BN

FHWA REGION	STATE	PROJECT	
5	OHIO		

2
7

PLAN NO.
50

SINGLE – MAILBOX TURNOUT

* IF THERE IS A DISTANCE OF 100' OR LESS BETWEEN MAILBOXES: APPROACHES SHALL BE PAVED THRU TO LAST MAILBOX.

** IF THERE IS A DISTANCE OF 50' OR LESS BETWEEN DRIVEWAY AND MAILBOX: APPROACH SHALL BE PAVED THRU TO MAILBOX.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATION OF MATERIALS FROM ALL STONE DRIVEWAYS AND MAILBOX APPROACHES TO A DEPTH OF (2) TWO INCHES BELOW EXISTING PAVEMENT. EXCAVATED MATERIAL SHALL BE DISPOSED OF BY THE CONTRACTOR AT HIS OWN RESPONSIBILITY OUTSIDE THE LIMITS OF THE HIGHWAY RIGHT OF WAY.

WHEN UNSTABLE MATERIAL IS ENCOUNTERED, EXCAVATION OF THIS MATERIAL SHALL BE TO A DEPTH OF SIX INCHES BELOW EXISTING PAVEMENT ELEVATION. AN ESTIMATED QUANTITY OF 304 AGGREGATE BASE HAS BEEN SET UP FOR BACKFILL OF THESE AREAS.

AN ESTIMATED QUANTITY OF 408 BITUMINOUS PRIME COAT HAS BEEN SET UP TO BE USED IN THE AREAS OF EXCAVATION.

AN ADDITIONAL QUANTITY OF 403 ASPHALT CONCRETE AC-20 HAS BEEN SET UP TO BE USED IN THOSE AREAS EXCAVATED FOR DRIVEWAYS AND MAILBOX APPROACHES.

ALL WORK, MATERIALS, EXCEPT 304 AND 408, LABOR AND EQUIPMENT NECESSARY TO COMPLETE THE ABOVE DESCRIBED WORK SHALL BE INCIDENTAL TO THE PLACEMENT OF THE 403 ASPHALT CONCRETE AC-20.

DEPARTMENT OF TRANSPORTATION
M&R707 REV. 9-1-83

FHWA REGION	STATE	PROJECT	
5	OHIO		

ALL-S.R.117-18.73

3/7

PLAN NO. 50

ASPHALT CONCRETE

PAVEMENT DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH MILES	LENGTH LIN. FT.	WP FEET	TYPICAL	EXISTING TYPE PAVEMENT	PAVEMENT AREA SQ. YD.	PROPOSED PAVEMENT 407 TACK COAT @ 0.075 gal./s.y. GAL.		ASPHALT CONCRETE ITEM 403 THICK INCHES MIN.	ITEM 403 CU. YD.	ITEM 404 THICK INCHES AVE.	ITEM 404 CU. YD.	ITEM _____ THICK INCHES	ITEM _____ CU. YD.	202 WEARING COURSE REMOVED SQ. YDS.	604*** MONUMENT BOXES ADJUSTED TO GRADE EACH
1	SR 117	18.73–19.98	1.25	6600	52	2	404	38133	2860				1 1/4	1324			1000**	3
	SR 117	19.98–28.61	8.63	45566	22	1	404	111384	8354				1 1/4	3868			1000**	2
	EXTRA AREAS PART 1							14951	1121				VAR.	519				
	TOTAL PART 1		9.88	52166				164468	12335					5711			2000	5

* NOTE: EXTRA AREAS FOR INTERSECTIONS

** NOTE: ESTIMATED QUANTITY

*** APPROXIMATE LOCATIONS:

MILE POST	18.8
MILE POST	18.9
MILE POST	19.3
MILE POST	20.0
MILE POST	20.1

DOT 1820

DEPARTMENT OF TRANSPORTATION
M & R 713 REV. 9-1-83

QUANTITIES			
Calc.		Chk'd.	
Date		Date	

FHWA REGION	STATE	PROJECT	
5	OHIO		

ALL.-S.R.117-18.73

4/7

PLAN NO. 50

PAVED SHOULDERS

TYPICAL 1

**NOTE: Additional Quantities for all Mailbox and Driveway Approaches.

* NOTES

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 diposed 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 MILES	LENGTH LIN.FT.	TYPICAL	PROPOSED WIDTH (FT.) A	B	C	D	SHOULDER AREA SQ. YD.	203 LINEAR GRADING DEPTH INCHES	**STA.	403 SPOT LEVELING 0"MIN THICK INCHES	CU. YD.	404 ASPHALT CONCRETE AVG. THICK INCHES	CU. YD.	408 PRIME Bit. Matl. @.40 gal./s.y. GAL.	407 TACK COAT TACK COAT @.075 gal./s.y. GAL.		617 COMPACTED AGGREGATE 2' WIDE X 2" THICK BOTH SIDES TYPE A CU. YD.	617 WATER M. GALS	304 AGGREGATE BASE CU. YD.		* NOTES
1	SR 117	19.98-28.61	8.63	45566	1	4.0	4.0			40503			VAR.	294**	1 1/4	1406	2000**	3038		1125	5			
	EXTRA AREAS PART 1									4050					VAR.	141		304				100**		
	TOTAL PART 1		8.63	45566						44553				294		1547	2000 ·	3342		1125	5	100		

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO		

5/7

PLAN NO. 50

GENERAL NOTES

1. FLAGGERS SHALL BE USED TO CONTROL TR[illegible]IC CONTINUOUSLY FOR AS LONG AS ONE LANE OPERATION IS IN EFFECT. [illegible]AGGERS SHALL BE ABLE TO COMMUNICATE WITH EACH OTHER AT ALL [illegible]MES EITHER VERBALLY OR BY MEANS OF RADIO OR FIELD TELEPHONES. FLAGGER STATIONS SHALL BE ADEQU[illegible]ELY ILLUMINATED FOR NIGHT T[illegible] OPERATIONS BY USE OF A 175 WATT [illegible]IMUM LUMINAIRE.

2. CONES MAY BE SUBSTITUTED FOR BARRI[illegible]S OR DRUMS FOR THE LANE CLOSURES DURING DAYLIGHT HOURS ONL[illegible]

3. WHEN THE AMBIENT TEMPERATURE EXCEE[illegible] DEGREES F, THE ENGINEER MAY INCREASE THE LENGTH OF CLOSURE TO [illegible] FOR SUFFICIENT COOLING OF THE NEW PAVEMENT.

   THE ENGINEER MAY SHORTEN THE MAX[illegible]WABLE LENGTH OF CLOSURE TO RELIEVE EXCESSIVE TRAFFIC BACKUPS.

   ALL TRAFFIC CONTROL SIGNS, CHANN[illegible] DEVICES, AND FLAGGERS SHALL BE MOVED FORWARD BEFORE THE CLOSU[illegible]CHES THE MAXIMUM ALLOWABLE LENGTH. ONLY ONE SIDE OF THE ROA[illegible] BE CLOSED AT ANY TIME IN A WORK AREA.

4. THE TYPE B HIGH INTENSITY BARRICADE WARNING LIGHT SHOWN ON THE ROAD CONSTRUCTION AHEAD SIGN IS REQUIRED WHENEVER NIGHT LANE CLOSURE IS NECESSARY.

5. TYPE C STEADY BURNING BARRICADE WARNING LIGHTS SHALL BE ERECTED ON DRUMS OR BARRICADES FOR NIGHT LANE CLOSURES.

6. THE ADVANCE WARNING SIGNS "OW-128" "OW-121" AND "OW-125" SHALL BE MOVED BACK AS REQUIRED BY THE QUEUING OF STOPPED VEHICLES.

7. WITHIN THE LENGTH OF CLOSURE, PROVISION SHALL BE MADE TO CONTROL TRAFFIC ENTERING FROM INTERSECTING STREETS AND MAJOR DRIVES AS NECESSARY TO PREVENT WRONG WAY MOVEMENTS AND TO KEEP VEHICLES OFF OF NEW PAVEMENT NOT READY FOR TRAFFIC.

REV. 4/87

OHIO DEPARTMENT OF TRANSPORTATION	
FLAGGERS CLOSING 1 LANE OF A 2 LANE HIGHWAY	DATE 12/80
PAVING OPERATIONS	
CR	CX

FED. RD. DIVISION	STATE	PROJECT	
5	OHIO		

PLAN NO. 50

6/7

GENERAL NOTES.

1. The location of the advance warning signs should be adjusted to provide for adequate sight distance for the existing vertical and horizontal roadway alignment. The distances shown are minimums.

2. Flaggers shall be used to control traffic continuously for as long as a one lane operation is in effect. The flaggers shall communicate with each other at all times as described in the Ohio Manual of Uniform Traffic Control Devices (OMUTCD) in Section 7H: Control of Traffic Through Work Areas.

3. Cones drums or barricades shall be spaced at approximately 50' to 60' center to center for the first 1000 feet of the work area and at a maximum of 100' to 120' center to center for the balance of the work area. Cones, drums or barricades on the advance and return tapers shall be spaced at 10' center to center. Cones may be substituted for barricades or drums for the lane closures during daylight hours only.

4. Several small work sites close together shall be combined into one work area to make a closure not more than 2000 feet long including tapers. Closures of more than 2000 feet may be approved by the Engineer. The minimum length between closures shall be 2000 feet. Only one side of the road shall be closed in any one work area.

5. The work vehicles shown at the beginning and end of the work area shall be in place and unoccupied whenever workers are in the work area. These work vehicles shall be removed from the pavement whenever workers are not in the work area. Other protective devices may be used in lieu of the work vehicles shown when approved by the Engineer. The vehicles shall be equipped with a 360° rotating or flashing amber beacon clearly visible a minimum of a ¼ mile.

6. The Type A flashing barricade warning lights shown on the "Road Construction Ahead" and the "One Lane Road Ahead" signs are required whenever a night lane closure is necessary.

7. Type C steady burning barricade warning lights shall be erected on drums or barricades for night lane closures. The maximum spacing shall be identical to the channelizing device spacing requirements described in Note 3.

8. Adequate area illumination to clearly identify the flagger station at night for long term operations shall be provided by using 150 watt minimum high pressure sodium luminaires or 250 watt minimum mercury luminaires. Luminaires shall be located adjacent to one flagger station for each direction of traffic as shown above. The mounting height for temporary luminaires shall be a minimum of 27 feet above the pavement and the overhead conductor clearance shall be 20 feet above the pavement.

OHIO DEPARTMENT OF TRANSPORTATION

FLAGGERS CLOSING 1 LANE OF A 2 LANE HIGHWAY

DATE 12/82

7G-1

Rev EEF 9/84

DEPARTMENT OF TRANSPORTATION
M & R 710 REV. 4-85

FHWA REGION	STATE	PROJECT	
5	OHIO		

PLAN NO. 50

ALL-S.R.117-18.73

GENERAL SUMMARY

ITEM	PART 1		GRAND TOTAL	UNIT	ITEM EXT.	DESCRIPTION
407	15677		15677	GAL.	4071000	TACK COAT
403	294		294	CU.YD.	4032500	ASPHALT CONCRETE, AC-20, SPOT LEVELING
404	7258		7258	CU.YD.	4042000	ASPHALT CONCRETE,AC-20
408	2000		2000	GALS.	4081000	BITUMINOUS PRIME COAT
202	2000		2000	SQ. YD.	2022350	WEARING COURSE REMOVED
304	100		100	CU. YD.	3042000	AGGREGATE BASE
604	5		5	EACH	6043950	MONUMENT BOXES ADJUSTED TO GRADE
614	40		40	EACH	6142146	WORK ZONE MARKING SIGNS
614	1.50		1.50	MILES	6142040	TEMPORARY LANE LINES, CLASS II
614	9.88		9.88	MILES	6142140	TEMPORARY CENTER LINES, CLASS II
624	LUMP		LUMP	LUMP	6241000	MOBILIZATION
617	5		5	M. GALS	6172500	WATER
617	1125		1125	CU.YD.	6171010	COMPACTED AGGREGATE, TYPE A
614	LUMP		LUMP	LUMP	6141100	MAINTAINING TRAFFIC

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 & BRIDGE TREATMENT:
THE NEW SURFACE COURSE SHALL BE FEATHERED OR BUTT JOINTED TO MEET THE PROFILE AS SPECIFIED 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.

INTERMEDIATE COURSE, SPOT LEVELING AND PATCHING:
THIS MATERIAL SHALL BE PLACED IN A SEPERATE OPERATION WHERE AND AS DIRECTED BY THE ENGINEER.

ASPHALT CONCRETE PLACEMENT ON SHOULDERS:
THE ASPHALT CONCRETE ON THE SHOULDERS MAY BE PLACED AT THE SAME TIME THE ASPHALT CONCRETE IS PLACED ON THE ADJACENT LANES OF PAVEMENT, HOWEVER THE SHOULDERS SHALL BE PLACED IN A SEPARATE OPERATION IF THE CONTRACTOR'S EQUIPMENT DOES NOT HAVE THE CAPABILITY TO PLACE THE MATERIAL PARALLEL TO THE EXISTING SHOULDER GRADES.

TACK COAT
THE RATE OF APPLICATION OF 407 TACK COAT SHALL BE SUBJECT TO ADJUSTMENT, AS DIRECTED BY THE ENGINEER. PLAN QUANTITIES INDICATE AN AVERAGE APPLICATION RATE OF 0.075 GALLONS PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

ITEM 604, MONUMENT BOXES ADJUSTED TO GRADE
INSTALL 1 1/8" METAL ADJUSTING RING OR CASTING IN ACCORDANCE WITH MANUFACTURER OF MONUMENT BOX AND THE ENGINEER.

WEARING COURSE REMOVED
THESE AREAS SHALL BE RESURFACED WITHIN SEVEN (7) CALENDAR DAYS OF REMOVAL. IF THIS IS NOT DONE, LIQUIDATED DAMAGES WILL BE LEVIED AS PER SECTION 108.07 OF THE O.D.O.T. CONSTRUCTION AND MATERIALS SPECIFICATIONS.