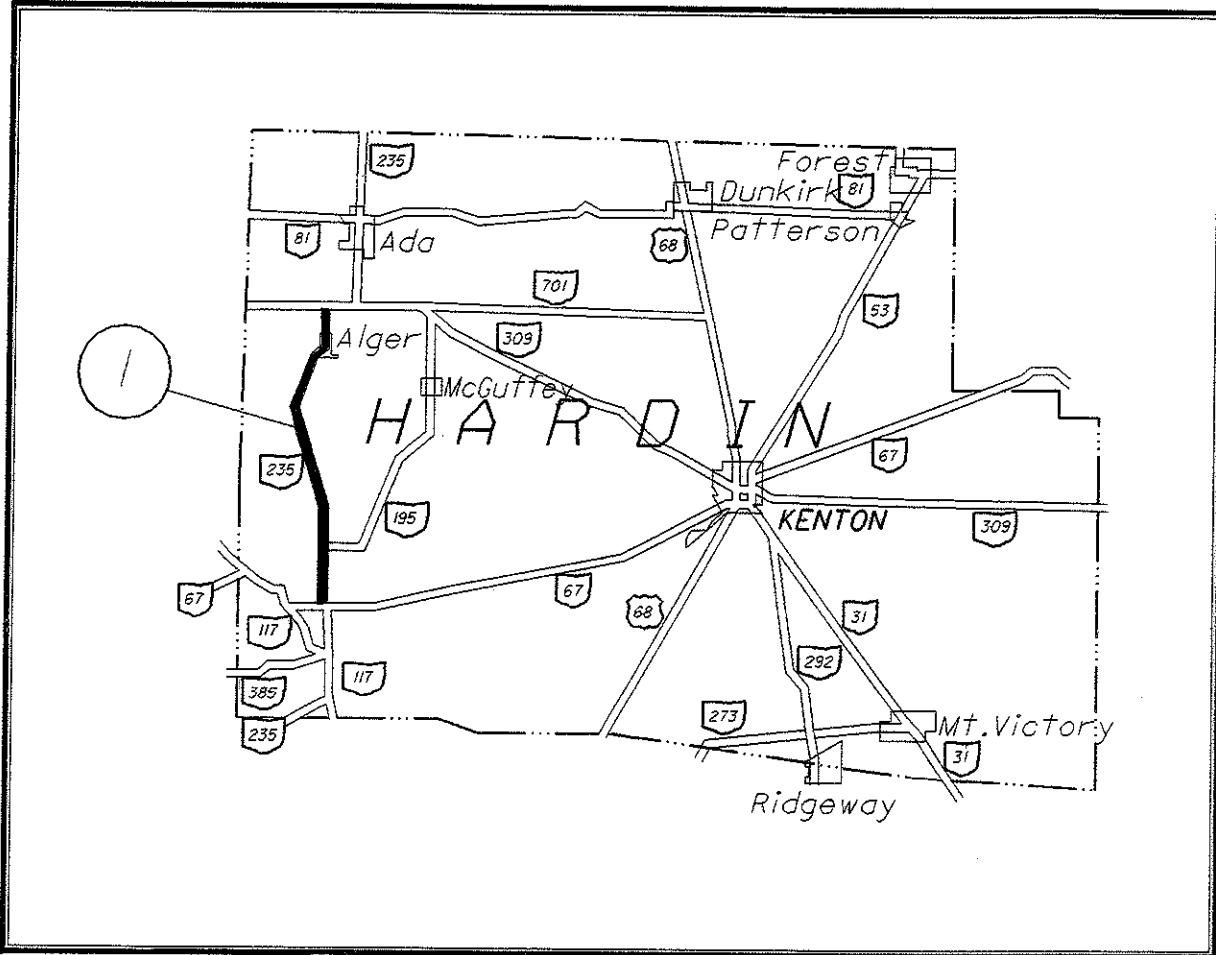


OHIO DEPARTMENT OF TRANSPORTATION
 HAR-235-2.36
 ALGER
 ROUNDHEAD & MARION TOWNSHIPS
 HARDIN COUNTY

PLAN NO. _____

LOCATION MAP



— PORTION TO BE IMPROVED

PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINI		NET LENGTH MILES	CITY/VILLAGE
				BEGIN	END		
1	HAR	SR235	(2.36-13.85)	2.36	14.98	12.60	ALGER

INDEX OF SHEETS: 2002 SPECIFICATIONS

- TITLE SHEET 1
- GENERAL NOTES 2-3
- MAILBOX TURNOUT 4
- ASPHALT CONCRETE 5
- PAVEMENT MARKING SUB-SUMMARY 6
- GENERAL SUMMARY 7

THE STANDARD 2002 SPECIFICATIONS OF THE STATE OF OHIO DEPARTMENT OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PLANS AND THE PROPOSAL SHALL GOVERN THESE IMPROVEMENTS.

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.

APPROVED *[Signature]*
 DATE 4/17/03 DISTRICT DEPUTY DIRECTOR

APPROVED *[Signature]*
 DATE 4-28-03 DIRECTOR, DEPARTMENT OF TRANSPORTATION

Project Earth Disturbed Area = 0
 Estimated Contractor Earth Disturbed Area = 0
 Notice of Intent Earth Disturbed Area = N/A

UNDERGROUND UTILITIES
 TWO WORKING DAYS
BEFORE YOU DIG
 CALL 1-800-362-2764 (TOLL FREE)
 OHIO UTILITIES PROTECTION SERVICE
 NON-MEMBERS MUST BE CALLED DIRECTLY

PLAN PREPARED BY:
 DISTRICT ONE
 DEPARTMENT OF
 TRANSPORTATION
 1885 N. McCULLOUGH
 LIMA, OHIO 45802

ENGINEERS SEAL

Signed *[Signature]*
 Date 4-14-03

STANDARD DRAWINGS		STANDARD DRAWINGS		STANDARD DRAWINGS	
MT-97.10	04-19-02	TC-41.10	01-19-01		
MT-97.11	04-19-02	TC-41.20	01-19-01		
MT-99.20M	01-30-95	TC-52.10	04-20-01		
MT-105.10	10-18-02	TC-52.20	04-20-01		
MT-105.11	10-18-02	TC-65.10	10-19-01		
BP-3.1	07-28-00	TC-65.12	10-19-01		

SUPPLEMENTAL SPECIFICATIONS

832	02-12-03
833	02-12-03

HAR - SR 235 - 2.36
 030386 PID - 24308
 Dist 1 7/16/2003

FEDERAL PROJECT NO. NONE
 PID NO. 24308
 CONSTRUCTION PROJECT NO. _____
 TITLE SHEET
 HAR-235-2.36
 1/7

GENERAL NOTES

PLAN NO.

TRAFFIC:

TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. THE LENGTH OF RESTRICTED TRAFFIC ZONES SHALL BE KEPT TO A MINIMUM CONSISTENT 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. FOR THE MOST PART THE PROPOSED SURFACE WILL BE RAISED AN AVERAGE OF 1 3/4 INCHES. THE REMAINDER OF THE MATERIAL IS TO BE USED AS DETERMINED BY THE ENGINEER TO CORRECT THE EXISTING CROSS-SLOPE, ROUGH OR WEAK PAVEMENT, RUTTED AREAS, OR APPROACHES TO INTERSECTIONS, RAILROAD CROSSINGS OR BRIDGES.

SPREADING EQUIPMENT WILL HAVE 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 FEET.

INTERMEDIATE COURSE, SPOT LEVELING AND PATCHING:

THIS MATERIAL SHALL BE PLACED IN A SEPARATE OPERATION WHERE AND AS DIRECTED BY THE ENGINEER.

ITEM 407 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 GALLON PER SQUARE YARD OF TACK COAT FOR ESTIMATING PURPOSES ONLY.

THE CONTRACTOR SHALL NOTE THAT ADDITIONAL CLEANING AND SURFACE PREPARATIONS MAY BE REQUIRED WITHIN THE CORPORATE LIMITS OF THE MUNICIPALITIES ON THIS PROJECT. ANY AND ALL ADDITIONAL WORK SHALL BE INCIDENTAL TO 407.04 PREPARATION OF SURFACE.

EXTRA AREAS:

PRIVATE DRIVES SHALL BE FEATHERED IN APPROXIMATELY 6 FEET USING 448 ASPHALT CONCRETE. SOME DRIVES MAY REQUIRE MORE THAN 6 FEET TO ALLOW FOR AN ADEQUATE TRANSITION TO THE MAINLINE PAVEMENT. THESE TRANSITIONS WILL BE AS DIRECTED BY THE ENGINEER. THE 448 ASPHALT CONCRETE QUANTITIES FOR DRIVES, MAILBOXES, BRIDGE APPROACHES AND INTERSECTIONS ARE INCLUDED IN THE EXTRA AREA QUANTITIES.

ASPHALT CONCRETE PLACEMENT ON SHOULDERS:

THE ASPHALT CONCRETE ON THE SHOULDERS SHALL BE PLACED AT THE SAME TIME THAT THE ASPHALT CONCRETE IS PLACED ON THE ADJACENT LANES OF PAVEMENT. THE SHOULDER MATERIAL SHALL BE PLACED PARALLEL TO THE EXISTING SHOULDER GRADES.

ITEM 448 ASPHALT CONCRETE SURFACE COURSE TYPE 1, PG64-22, AS PER PLAN:

THIS ITEM SHALL MEET ALL REQUIREMENTS OF SPECS 401,441 AND 448 WITH THE FOLLOWING EXCEPTION:

1) NO RECYCLED ASPHALT PAVEMENT SHALL BE USED IN THE SURFACE COURSE. ALL COSTS ASSOCIATED WITH THE EQUIPMENT, LABOR AND MATERIALS NECESSARY FOR SUPPLYING AND PLACING THIS ITEM SHALL BE INCLUDED IN THE PRICE BID PER CUBIC YARD FOR ITEM 448 ASPHALT CONCRETE SURFACE COURSE TYPE 1, PG64-22, AS PER PLAN.

WEARING COURSE REMOVED:

A QUANTITY OF WEARING COURSE REMOVED HAS BEEN SUPPLIED TO BE USED AS DIRECTED BY THE ENGINEER FOR THE TRANSITION BETWEEN AREAS TO BE PLANED AND/OR AREA TO JUST RECEIVE A SURFACE COURSE. THIS QUANTITY IS TO BE USED FOR A BUTT JOINT AS PER BP-3.1 (ASPHALT CONCRETE TEMPORARY WEDGES SHALL BE PLACED PRIOR TO OPENING TO TRAFFIC AT ALL BUTT JOINTS), TO REMOVE IRREGULARITIES IN THE PAVEMENT AND TO TRANSITION FROM THE MAINLINE PAVEMENT INTO AN INTERSECTION. THESE AREAS SHALL BE RESURFACED WITHIN (7) SEVEN CALENDAR DAYS OF REMOVAL. IF THIS IS NOT DONE, LIQUIDATED DAMAGES WILL BE LEVIED AS PER SECTION 108.07 OF THE ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS.

MAINTAINING TRAFFIC AT PLANED AREAS:

THE CONTRACTOR SHALL ARRANGE HIS OPERATIONS SO THAT TRAFFIC IS RETURNED TO AN AREA WHEN THE PLANING IS COMPLETE. THE PLANED AREA SHALL BE CLEANED TO THE SATISFACTION OF THE ENGINEER PRIOR TO PLACING TEMPORARY MARKINGS.

ALL REQUIRED WORK ZONE PAVEMENT MARKINGS SHALL BE PLACED PRIOR TO OPENING THE AREA TO TRAFFIC. NO PLANED SURFACE SHALL REMAIN OPEN TO TRAFFIC MORE THAN (7) DAYS BEFORE BEING COVERED WITH AN ASPHALT COURSE. IF THIS IS NOT DONE, LIQUIDATED DAMAGES WILL BE LEVIED AS PER SECTION 108.07 OF THE ODOT CONSTRUCTION AND MATERIALS SPECIFICATIONS.

ITEM 604 MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN:

INCLUDED IN THE GENERAL SUMMARY FOR USE ON THIS PROJECT IS A CONTINGENCY QUANTITY OF 2 EACH - ITEM 604 MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN. THIS ITEM SHALL INCLUDE ALL COSTS ASSOCIATED WITH THE LABOR AND EQUIPMENT TO OBTAIN THE MONUMENT BOX RISER FROM THE ENGINEER AND INSTALL IT TO THE ENGINEER'S SATISFACTION. THE USE OF THIS ITEM SHALL BE "AS DIRECTED BY THE ENGINEER."

CONVERSION OF METRIC STANDARD DRAWINGS:

THE METRIC STANDARD DRAWINGS REFERENCED IN THIS PLAN SHALL BE CONVERTED TO ENGLISH UNITS USING SI (METRIC) TO ENGLISH CONVERSION FACTORS PROVIDED IN SECTION 109.02 OF THE 2002 CONSTRUCTION AND MATERIALS SPECIFICATIONS. CONVERSIONS SHALL BE APPROPRIATELY PRECISE AND SHALL REFLECT STANDARD INDUSTRY ENGLISH VALUES WHERE SUITABLE. VALUES WHERE SUITABLE.

RAISED PAVEMENT MARKERS, REMOVED FOR STORAGE, AS PER PLAN:

THIS ITEM SHALL MEET ALL REQUIREMENTS OF 202 RAISED PAVEMENT MARKER REMOVED FOR STORAGE AND ADDITIONALLY THE CONTRACTOR SHALL DELIVER ALL REMOVED AND NON-PERFORMED RAISED PAVEMENT MARKERS TO A SPECIFIED LOCATION IN LIMA AT THE ODOT DISTRICT ONE TRAFFIC GARAGE LOCATED AT 2100 N. WEST ST., LIMA, OHIO.

CONTACT THE ROADWAY SERVICES ENGINEER AT 419-222-9055 7 DAYS PRIOR TO DELIVERY.

ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN THE LUMP SUM PRICE BID ITEM 202 RAISED PAVEMENT MARKER REMOVED FOR STORAGE, AS PER PLAN.

CALCULATIONS

CHECKED

GENERAL NOTES

HAR-235-2.36

2/7

GENERAL NOTES

PLAN NO.

ITEMS 251 & 253 - PARTIAL DEPTH PAVEMENT REPAIR & PAVEMENT REPAIR:

THESE ITEMS OF WORK SHALL CONSIST OF THE REMOVAL OF THE EXISTING PAVEMENT OR PAVED BERM WHICH MAY BE ASPHALT, BRICK, CONCRETE, OR A COMBINATION OF EACH, IN AREAS OF EXISTING PAVEMENT FAILURE.

THE ENGINEER SHALL DESIGNATE THE LOCATIONS AND LIMITS OF THE AREAS TO BE PREPARED. THE REPAIR AREAS SHALL BE ROUGHLY RECTANGULAR IN SHAPE AND CUT OR SAWED TO A NEAT LINE. THE PAVEMENT SHALL BE REMOVED WITHIN THE DESIGNATED AREAS BY METHODS WHICH WILL NOT DAMAGE THE ADJACENT PAVEMENT. THE DEPTH OF REMOVAL, AS DIRECTED BY THE ENGINEER, SHALL BE SUFFICIENT TO REMOVE ALL DETERIORATED PAVEMENT (MAXIMUM - 3.0 INCHES FOR ITEM 251 PARTIAL DEPTH REPAIR AND MORE THAN 3 INCHES AVERAGE FOR ITEM 253 PAVEMENT REPAIR). THE MATERIALS SO REMOVED SHALL BE DISPOSED OF IN ACCORDANCE WITH 203.01.

THE VERTICAL FACES OF THE REPAIR AREA SHALL BE TACKED PRIOR TO PLACING THE 301 FOR ITEM 253 PAVEMENT REPAIR AND/OR 448 ASPHALT FOR ITEM 251 PARTIAL DEPTH REPAIR. THIS MATERIAL SHALL BE PLACED AND COMPACTED TO FINISH FLUSH WITH THE ADJACENT EXISTING PAVEMENT SURFACE PRIOR TO PLACING THE PROPOSED ASPHALT CONCRETE OVERLAY ALL COMPACTION SHALL BE ACHIEVED BY MECHANICAL METHODS TO THE SATISFACTION OF THE ENGINEER.

PAYMENT SHALL INCLUDE ALL LABOR, EQUIPMENT AND MATERIALS NECESSARY TO COMPLETE THE PAVEMENT REPAIR. AN ESTIMATED QUANTITY IS PROVIDED IN THE SUMMARY TO BE USED AS DIRECTED BY THE ENGINEER. PAYMENT WILL BE MADE AT THE UNIT PRICE BID PER SQUARE YARD OF ITEM 251 PARTIAL DEPTH PAVEMENT REPAIR AND PER CUBIC YARD ITEM 253 PAVEMENT REPAIR.

251 PARTIAL DEPTH PAVEMENT REPAIR	_____50_____	SQUARE YARD
253 PAVEMENT REPAIR	_____100_____	CUBIC YARD

ITEM 617 COMPACTED AGGREGATE TYPE A, AS PER PLAN

THIS ITEM SHALL MEET ALL REQUIREMENTS FOR ITEM 617 COMPACTED AGGREGATE TYPE A WITH THE FOLLOWING EXCEPTION:

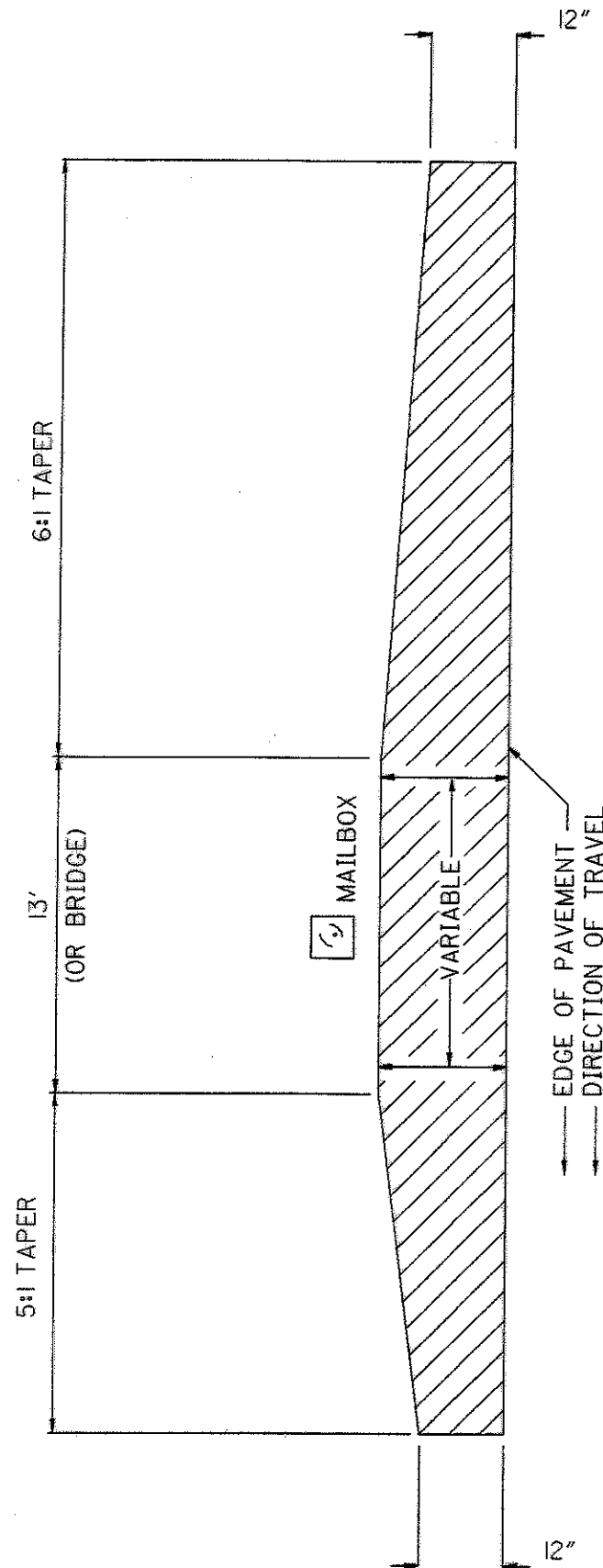
1) NO RECYCLED ASPHALT CONCRETE PAVEMENT SHALL BE USED IN THIS ITEM

ALL COSTS ASSOCIATED WITH THE EQUIPMENT, LABOR AND MATERIALS NECESSARY FOR SUPPLYING AND PLACING THIS ITEM SHALL BE INCLUDED IN THE PRICE BID PER CUBIC YARD FOR ITEM 617 COMPACTED AGGREGATE TYPE A, AS PER PLAN.

CALCULATIONS
CHECKED

GENERAL NOTES

HAR-235-2.36



SINGLE - MAILBOX TURNOUT & BRIDGE APPROACHES

* IF THERE IS A DISTANCE OF 100 FEET OR LESS BETWEEN MAILBOXES: APPROCHES SHALL BE PAVED THRU TO LAST MAILBOX. THIS AREA SHALL REPRESENT LOCATION OF BRIDGE (VARIABLE LENGTH, NO WORK) FOR BRIDGE APPROACHES.

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

THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXCAVATING OF MATERIALS FROM ALL STONE DRIVEWAYS AND MAILBOX APPROACHES TO A DEPTH OF 2 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 6 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 PRIME COAT HAS BEEN SET UP TO BE USED IN THE AREAS OF EXCAVATION.

AN ADDITIONAL QUANTITY OF 448 ASPHALT CONCRETE PG64-22, AS PER PLAN HAS BEEN SET UP TO BE USED IN THOSE AREAS EXCAVATED FOR DRIVEWAYS, MAILBOX AND BRIDGE 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 448 ASPHALT CONCRETE PG64-22, AS PER PLAN.

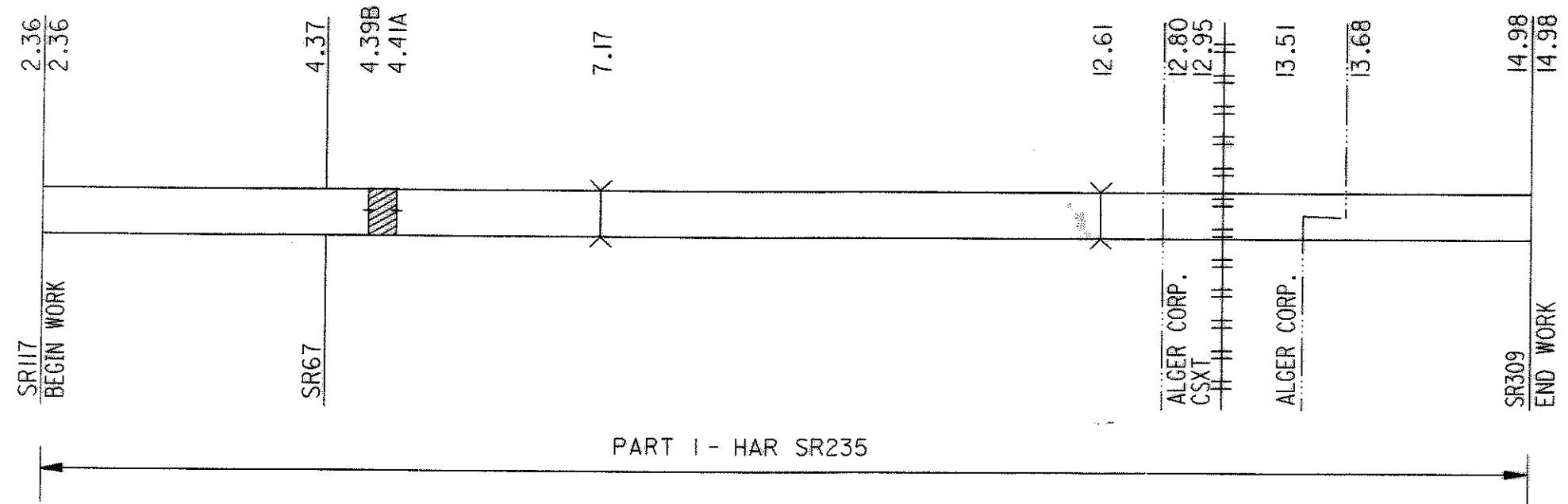
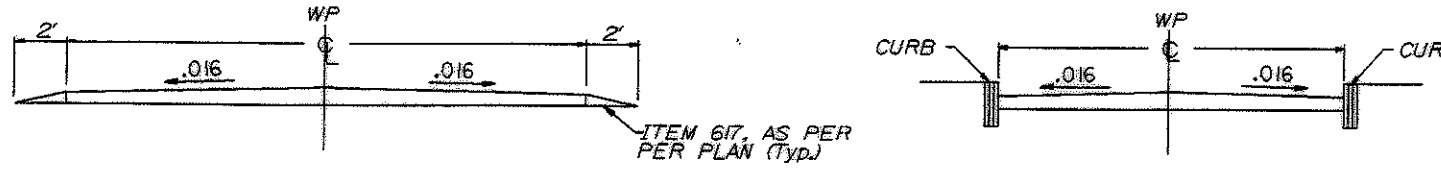
MAILBOX TURNOUT

HAR-235-2.36

TYPICAL 1 ASPHALT CONCRETE TYPICAL 2

PLAN NO.

STA. EQUATION:
4.39 BACK =
4.41 AHEAD.
DEDUCT 0.02 MILE.



*NOTE: ESTIMATED QUANTITIES

NOTE: DRAWINGS NOT TO SCALE

NOTE: ALL TOTALS CARRIED TO GENERAL SUMMARY

NOTE: MAILBOX, DRIVES AND INTERSECTION QUANTITIES ARE INCLUDED IN THE EXTRA AREAS

† = VARIABLE

MB = MONUMENT BOX

PAVEMENT DATA

PART	ROUTE	LOG POINT		LENGTH		WP FEET PAVT.	TYPICAL	EXISTING TYPE PAVT.	PAVEMENT AREA SQUARE YARDS	PROPOSED PAVEMENT						WEARING COURSE REMOVED 1 INCH AVG. DEPTH SQUARE YARD	304 AGGREGATE BASE CUBIC YARD	254 PAVEMENT PLANING ASPHALT CONCRETE 1 1/2 INCH AVG. SQUARE YARD	254 PATCHING PLANED SURFACE SQUARE YARD	617 COMPACTED AGGREGATE TYPE A AS PER PLAN 2 @ 2 FT. 2 INCH AVG. THICKNESS CUBIC YARD		
		FROM	TO	MILES	FEET					407 TACK COAT @ 0.075 GAL/YD ² GALLON	407 TACK COAT FOR INTERMEDIATE COURSE @ 0.075 GAL/YD ² GALLON	408 PRIME COAT @ 0.40 GAL/YD ² GALLON	448 ASPHALT CONCRETE									
											THICK INCHES AVG.	SURFACE COURSE TYPE III AS PER PLAN CUBIC YARD	THICK INCHES AVG.	SURFACE COURSE TYPE II AS PER PLAN CUBIC YARD	THICK INCHES AVG.						INTERMEDIATE COURSE TYPE I P664-22 CUBIC YARD	
I	SR235	2.36	4.39	2.03	10718	24	1	404	28581	2144	2144								265			
I	SR235	4.39	12.80	8.39	44299	22	1	404	108286	8121	8121			1.25	992	.50	1504		1096			
I	SR235	12.80	12.95	0.15	792	24	1	404	2112	158	158			1.25	73	.50	29		20			
I	SR235	12.95	13.01	0.06	317	22	1	404	775	58	58			1.25	27	.50	11		8			
I	SR235	13.01	13.04	0.03	158	35	2	404	614	46				1.50	26			614	1			
I	SR235	13.04	13.11	0.07	370	43	2	404	1768	133				1.50	74			1768	3			
I	SR235	13.11	13.13	0.02	106	35	2	404	412	31				1.50	17			412	1			
I	SR235	13.13	13.16	0.03	158	25	1	404	439	33	33			1.25	15	.50	6		4			
I	SR235	13.16	14.98	1.82	9610	23	1	404	2456	184	184			1.25	85	.50	34		237			
	EXTRA AREAS								7229	542	542			†	251	†	100					
	TOTAL PART	1		12.60	66528				152672	11450	11240	*126			5320		2081	*1999	*25	2794	5	1630

ASPHALT CONCRETE

HAR-235-2.36

GENERAL SUMMARY

PLAN NO.

PART I	ITEM	EXTENSION	GRAND TOTAL	UNIT	DESCRIPTION
1999	202	23500	1999	SQ YARD	WEARING COURSE REMOVED
830	202	54101	830	EACH	RAISED PAVEMENT MARKERS REMOVED FOR STORAGE, AS PER PLAN
50	251	01000	50	SQ YARD	PARTIAL DEPTH PAVEMENT REPAIR
100	253	02000	100	CU YARD	PAVEMENT REPAIR
2794	254	01000	2794	SQ YARD	PAVEMENT PLANING, ASPHALT CONCRETE
5	254	01600	5	SQ YARD	PATCHING PLANED SURFACE
25	304	20000	25	CU YARD	AGGREGATE BASE
11450	407	10000	11450	GALLON	TACK COAT
11240	407	14000	11240	GALLON	TACK COAT FOR INTERMEDIATE COURSE
126	408	10000	126	GALLON	PRIME COAT
2081	448	46020	2081	CU YARD	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I, PG64-22
5320	448	47021	5320	CU YARD	ASPHALT CONCRETE SURFACE COURSE, TYPE I, PG64-22, AS PER PLAN
2	604	39501	2	EACH	MONUMENT BOX ADJUSTED TO GRADE, AS PER PLAN
50	614	12460	50	EACH	WORK ZONE MARKING SIGN
25.20	614	21400	25.20	MILE	WORK ZONE CENTER LINE, CLASS II
1630	617	10101	1630	CU YARD	COMPACTED AGGREGATE, TYPE A, AS PER PLAN
846	621	00200	846	EACH	RAISED PAVEMENT MARKER, INSTALLATION ONLY
24.96	642	00090	24.96	MILE	EDGE LINE
12.60	642	00290	12.60	MILE	CENTER LINE
75	647	18070	75	FT	STOP LINE, TYPE C
LUMP	614	11000	LUMP		MAINTAINING TRAFFIC
LUMP	624	10000	LUMP		MOBILIZATION

CALCULATIONS
CHECKED

GENERAL SUMMARY

HAR-235-2.36

