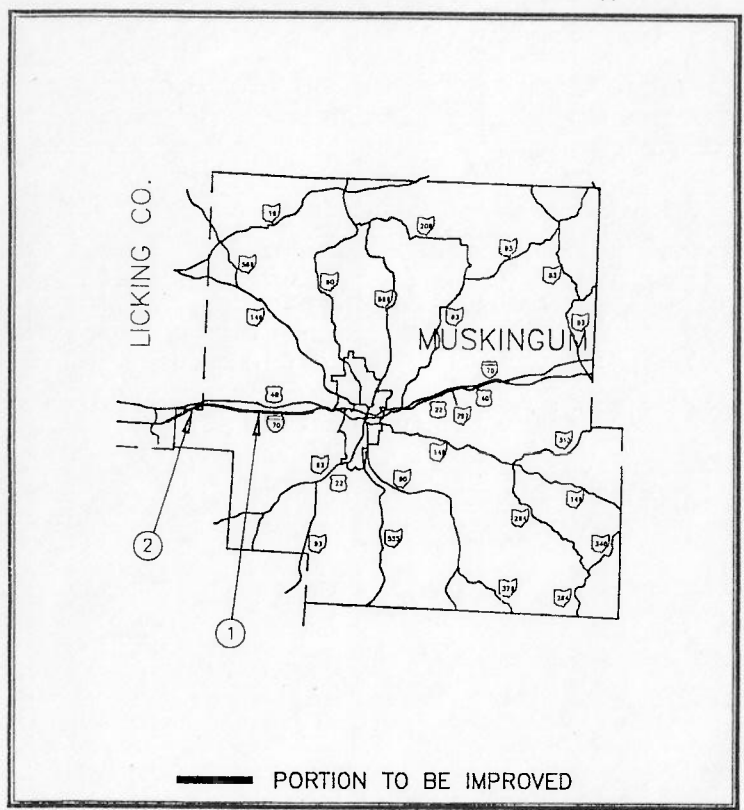


OHIO DEPARTMENT OF TRANSPORTATION

DATE: 5/2/94
 CHG: 5/2/94
 DATE: 5/2/94

PLAN NO. 833(99)

LOCATION MAP



PROJECT DESCRIPTION:

UPGRADING 7.91 MILE OF IR 70 IN MUS. CO. AND 0.49 MILE OF IR 70 IN LIC. CO., THIS INCLUDES PLANING AND SOME PAVEMENT REPAIR IN MUS. CO.. THE ENTIRE PROJECT WILL RECEIVE ASPHALT OVERLAYS, ALSO, TRAFFIC CONTROL, PAVEMENT MARKINGS AND RAISED PAVEMENT MARKERS.

PART	COUNTY	ROUTE	SECTIONS	PROJECT TERMINII		NET LENGTH MILES	CITY	VILLAGE
				BEGIN	END			
1	MUS	IR 70	(0.73-0.76)(1.43-5.70)	0.73	8.64	7.91		
2	LIC	IR 70	(28.93)	28.93	29.42	0.49		

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1993 SPECIFICATIONS

THE STANDARD 1993 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 Cash Muid
 DATE 7-7-94 DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION

APPROVED B. D. Humphreys
 DATE 7-12-94 ENGINEER OF BRIDGES

APPROVED W. L. Sweeney
 DATE 7-10-94 ENGINEER OF MAINTENANCE

APPROVED Alexander H. Hynds
 DATE 7-15-94 DEPUTY DIRECTOR OF OPERATIONS

APPROVED Jerry Wham
 DATE 7-15-94 DIRECTOR, DEPARTMENT OF TRANSPORTATION

APPROVED George L. Baughman
 DATE 7-1-94

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:
D5
 District Maintenance

STANDARD DRAWINGS		STANDARD DRAWINGS		STANDARD DRAWINGS	
MT-95.30	10-10-88	GR-2.1	5-6-91	MC-9.2	5-6-91
MT-98.12	6-24-93	GR-4.1	5-6-91	MT-95.40	10-1-92
MT-98.13	6-24-93	GR-8.1	1-31-94		
MT-98.14	6-24-93	BP-3.1	2-21-92		
MT-98.15	6-24-93	TC-35.10	8-29-84		
MT-99.10	11-14-86	TC-65.10	2-1-90		
MT-99.20	4-29-88	TC-65.11	2-1-90		
MT-102.20	8-25-89	TC-72.20	2-26-82		

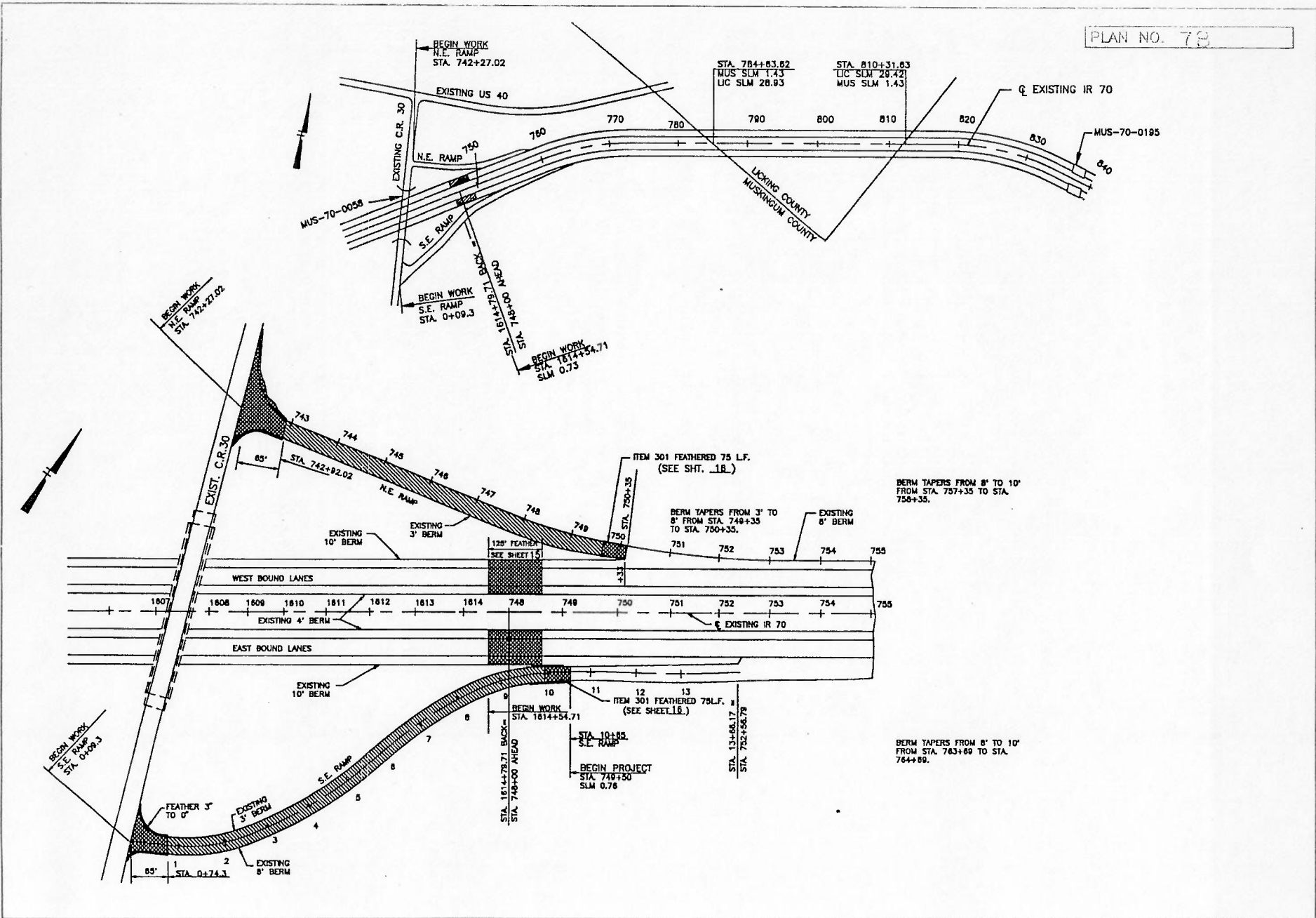
SUPPLEMENTAL SPECIFICATIONS	
802	4-13-90
862	12-16-88
962	1-23-90

07-06-94 (MAINT - C) 1-70TS

833(99)

FEDERAL PROJECT NO. STATE
 PID NO. 14300
 CONSTRUCTION PROJECT NO.
 TITLE SHEET
 MUS-70-(0.73)(1.43)
 LIC-70-28.93
 1/35

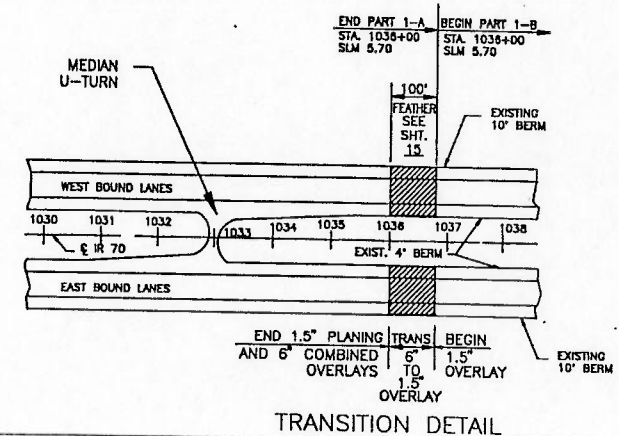
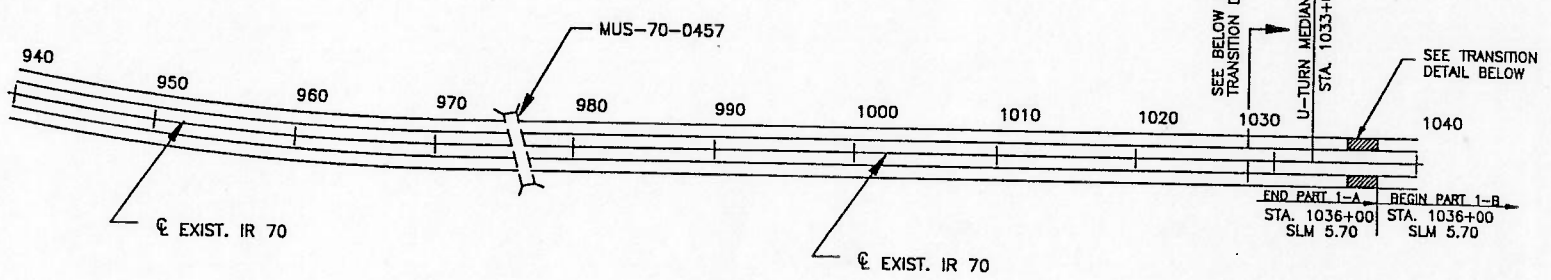
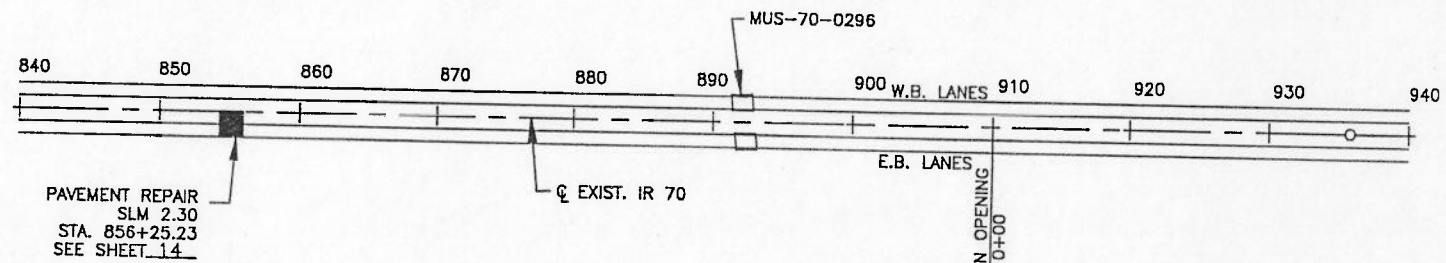
PLAN NO. 79



LOCATION PLAN

MUS-70-(0.73)(1.43)
LIC-70-28.93

PLAN NO. 73



06-30-94 (MAINT - C) M70DTL2

LOCATION PLAN

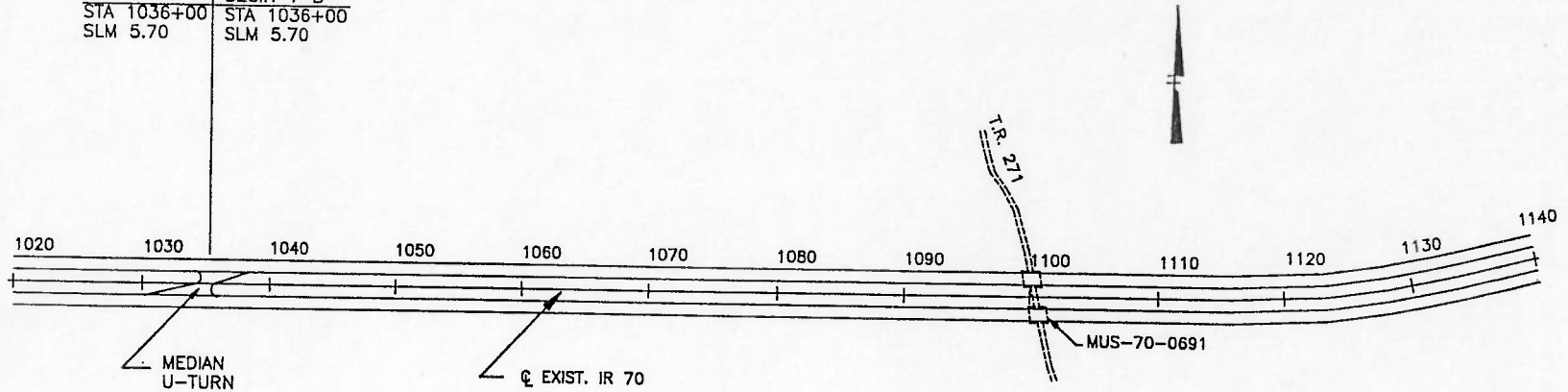
MUS-70-(0.73)(1.43)
LIC-70-28.93

3/25

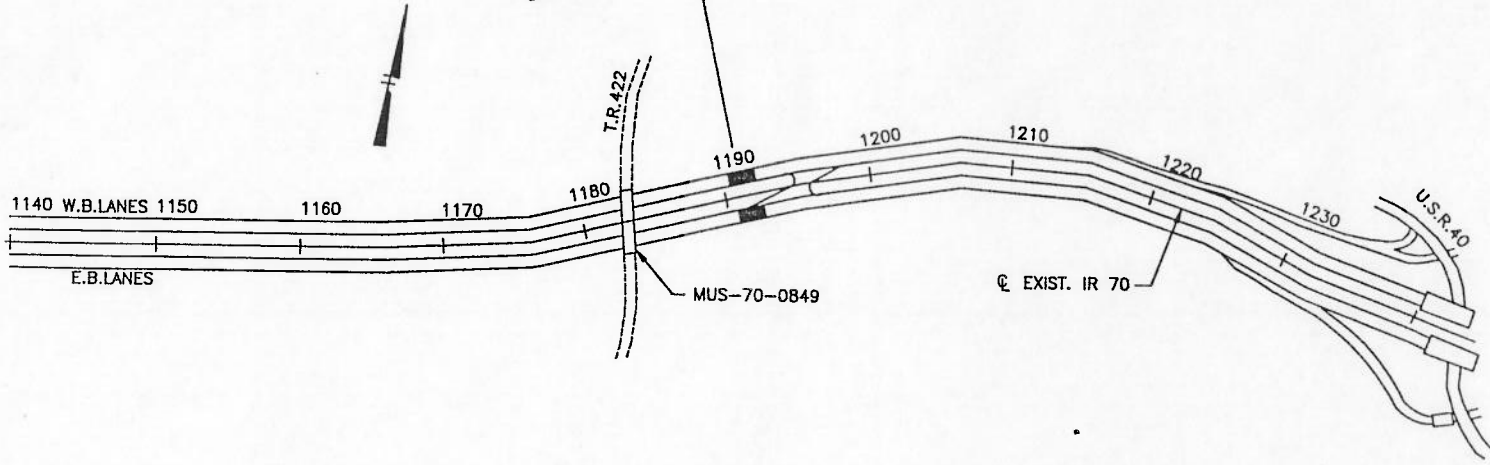
NOTE: SEE PREVIOUS SHEET
FOR TRANSITION DETAIL.

PLAN NO. 78

END 1-A	BEGIN 1-B
STA 1036+00	STA 1036+00
SLM 5.70	SLM 5.70



END RESURFACING
STA. 1191+75
SLM 8.64



06-30-94 (MAINT - C) M70DTL1

LOCATION PLAN

MUS-70-(0.73)(1.43)
LC-70-28.95

CONSTRUCTION PLAN

REFERENCE IS HEREBY MADE TO THE FOLLOWING DESIGNATED PLAN FOR FORMER CONSTRUCTION PROJECTS OF WHICH COVER AREAS INCLUDED IN THE PROPOSED IMPROVEMENTS.

- MUS-70-5.72 (8.63) MUS-70-(0.76)-(1.43)
- PROJ. 281 (85) LIC-70-28.93
- PROJ. 413 (88)

COPIES OF THESE PLANS ARE ON FILE EITHER AT THE DISTRICT 5 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION OR AT THE OFFICE OF THE ADMINISTRATION OF CONTRACT SALES COLUMBUS, OHIO.

PROFILE AND ALIGNMENT

THE PROPOSED PAVEMENT RESURFACING COURSES SHALL FOLLOW THE ALIGNMENT AND PROFILE OF THE EXISTING PAVEMENT. PREVIOUS CONSTRUCTION PLANS SHOWING THE ORIGINAL ALIGNMENT AND PROFILE GRADE ARE ON FILE FOR INSPECTION IF NECESSARY AT THE O.D.O.T. DISTRICT 5 OFFICE AS PROJECTS SHOWN ON THIS SHEET.

IN THE MUS-70-0.73(5.70) AND LIC-70-28.93(29.42) AREA AFTER PLANING 3", THE PROPOSED ASPHALT OVERLAYS SHALL HAVE A UNIFORM THICKNESS OF APPROXIMATELY 7.5 INCHES. IN THE MUS-70-5.70(8.64) AREA THE PROPOSED ASPHALT CONCRETE OVERLAY SHALL HAVE A UNIFORM THICKNESS OF APPROXIMATELY 1.5 INCHES.

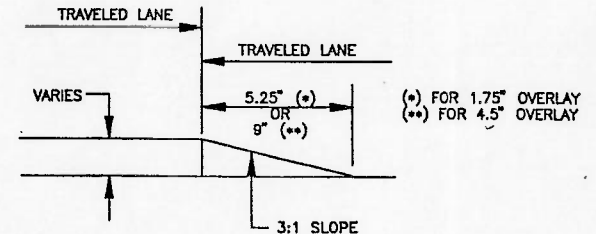
WEDGE TREATMENT TO BE USED FOR DROP-OFFS

ITEM 404 ASPHALT CONCRETE, AC-20, AS PER PLAN HAS BEEN ALLOCATED TO BE USED ON DROP-OFFS GREATER THAN 1.5". THE AFOREMENTIONED WEDGE SHALL BE GROUND OFF IMMEDIATELY PRIOR TO RESURFACING THE ABUTTING PAVEMENT COURSE. THE ABUTTING PAVEMENT COURSE SHALL BE PAVED IMMEDIATELY AFTER THE PLANING OPERATION, TRAFFIC SHOULD NEVER BE ALLOWED TO CROSS-OVER ANY DROP-OFFS GREATER THAN 1.5". SEE DETAIL BELOW FOR MORE INFORMATION. ESTIMATED QUANTITIES HAVE BEEN PROVIDED FOR ALL WORK AS DESCRIBED ABOVE AND THEY HAVE BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 254 PAVEMENT PLANING, BITUMINOUS
PART 1-3766 SQ.YD. PART 2-343 SQ.YD.

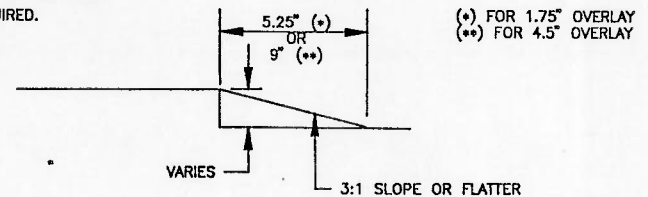
ITEM 404 ASPHALT CONCRETE, AC-20, AS PER PLAN
PART 1-506 CU.YD. PART 2-49 CU.YD.

NOTE: OW-171-48 AND
OWP-171-48 SIGNS
REQUIRED.



MAINLINE WEDGE TREATMENT
(FOR ASPHALT OVERLAYS GREATER THAN 1.5")

NOTE: OW-151-48 SIGNS
REQUIRED.



SHOULDER WEDGE TREATMENT

GENERAL NOTES

MUS-70-(0.73)(1.43)
LIC-70-28.93

ITEM 802 - BARRIER REFLECTORS

AN ESTIMATED QUANTITY OF BARRIER REFLECTORS HAS BEEN INCLUDED IN THE PLAN TO BE PLACED AS DIRECTED BY THE ENGINEER WHERE NEW GUARDRAIL IS ERECTED. REFLECTORS SHALL BE PLACED IN ACCORDANCE WITH THE SPECIFICATIONS. THE FOLLOWING QUANTITIES ARE ESTIMATED. PAYMENT WILL BE FOR ACTUAL AMOUNT INSTALLED AS DETERMINED BY THE ENGINEER. QUANTITIES ARE CARRIED TO THE GENERAL SUMMARY.

PART	1	2	
TYPE A	31	3	EACH

ITEM 203 LINEAR GRADING, AS PER PLAN

THIS ITEM SHALL CONSIST OF EXCAVATING TOPSOIL, PLACING GRANULAR MATERIAL AND APPLYING HERBICIDE AS SPECIFIED IN THE PLANS AND IN ACCORDANCE WITH THE FOLLOWING:

ALL COLLECTED DEBRIS AND TOPSOIL, INCLUDING RHIZOMES, ROOTS AND OTHER VEGETATIVE PLANT MATERIAL SHALL BE REMOVED AND DISPOSED OF AS SPECIFIED IN SECTION 203.05 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS.

THE REMOVED MATERIAL SHALL BE REPLACED WITH COMPACTABLE GRANULAR MATERIAL CONFORMING TO 203.02 AND SHALL BE PLACED TO GRADE AS DETAILED ON THE TYPICAL SECTION OR AS APPROVED BY THE ENGINEER.

HERBICIDE SHALL BE TREFLAN E.C., SPIKE OR AN APPROVED EQUAL AND SHALL BE APPLIED TO THE PREPARED AREA AFTER FINAL LEVELING AND GRADING HAS BEEN COMPLETED. THE APPLICATION SHALL BE JUST PRIOR TO PAVING AND SHALL STRICTLY ADHERE TO THE MANUFACTURER'S LABEL INSTRUCTIONS.

ONLY PROPERLY LICENSED PERSONNEL SHALL APPLY HERBICIDES AS REQUIRED BY THE OHIO REVISED CODE.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 203, LINEAR GRADING.

ITEM 404 ASPHALT CONCRETE, AC-20 (UNDER GUARDRAIL), AS PER PLAN

THIS ITEM SHALL CONSIST OF PAVING UNDER GUARDRAIL AS SPECIFIED IN THE PLANS AND IN ACCORDANCE WITH THE FOLLOWING:

PAVING SHALL CONSIST OF PLACING ITEM 404 TO THE DEPTH SPECIFIED USING ONE OF THE FOLLOWING METHODS:

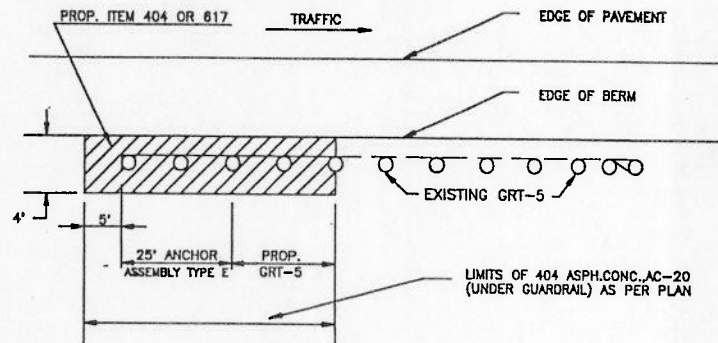
- METHOD A: 1) SET GUARDRAIL POSTS
2) PLACE ITEM 404
- METHOD B: 1) PLACE ITEM 404
2) BORE ASPHALT AT POST LOCATIONS (SEE NOTE 1)
3) SET GUARDRAIL POSTS
4) PATCH AROUND POSTS (SEE NOTE 2)

NOTE 1: BORING OF ASPHALT MAY BE EXCLUDED IF STEEL POSTS ARE TO BE USED.

NOTE 2: THE MATERIAL USED FOR PATCHING SHALL BE A BITUMINOUS CONCRETE APPROVED BY THE ENGINEER. PATCHING AREAS SHALL BE COMPACTED USING EITHER HAND OR MECHANICAL METHODS. FINISHED SURFACES SHALL BE SMOOTH AND SLOPED TO DRAIN AWAY FROM THE POSTS.

ALTERNATE METHODS MAY BE USED WITH PRIOR APPROVAL OF THE ENGINEER.

ALL EQUIPMENT, MATERIALS AND LABOR REQUIRED TO PERFORM THE WORK OUTLINED ABOVE, WITH EXCEPTION OF SETTING GUARDRAIL POSTS, SHALL BE INCLUDED FOR PAYMENT UNDER ITEM 404 ASPHALT CONCRETE, AC-20 (UNDER GUARDRAIL), AS PER PLAN.



TYPICAL PLACEMENT OF ITEM 404 OR 617 FOR TYPE E ANCHOR ASSEMBLIES AND PROPOSED TYPE 5 GUARDRAIL

GENERAL NOTES

MUS-70-(0.73)(1.43)
LIC-70-28.93

CONTINGENCY QUANTITIES

THE CONTRACTOR SHALL NOT ORDER MATERIALS OR PERFORM WORK FOR PLAN ITEMS SET UP TO BE USED "AS DIRECTED BY THE ENGINEER" UNLESS AUTHORIZED BY THE ENGINEER. THE ACTUAL WORK LOCATIONS AND QUANTITIES USED AT THE ENGINEER'S DISCRETION SHALL BE MADE A MATTER OF RECORD BY THE INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT.

PAVEMENT REPAIR, AS PER PLAN

AFTER THE PLANING OPERATION HAS BEEN PERFORMED PAVEMENT REPAIR SHALL BE DONE AT SLM 2.38 (PART 1) IN THE EASTBOUND LANES. TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF HALF WIDTH CONSTRUCTION. A MINIMUM LANE WIDTH OF 12'-0" SHALL BE MAINTAINED FOR ONE-WAY TRAFFIC. SEE DRAWING MT-95.40, 10-1-92 FOR PROPER TRAFFIC CONTROL PROCEDURES. PAVEMENT REPAIR SHALL BE PERFORMED DURING THE HOURS AS DESCRIBED IN THE PERTINENT NOTE ON THIS SHEET.

A SAW CUT SHALL BE PERFORMED AS SHOWN IN THE PROPOSED PAVEMENT REPAIR DETAIL. ALL MATERIALS SHALL BE CAREFULLY REMOVED SO AS NOT TO DAMAGE ADJOINING PAVEMENT AND PAVED BERM. CARE SHALL BE TAKEN NOT TO DAMAGE EXISTING PIPE UNDERDRAINS WHILE CONSTRUCTING REPAIR. ALL NECESSARY PIPE BENDS AND BRANCHES SHALL BE FURNISHED AND INSTALLED IN ORDER TO RECONNECT PROPOSED PIPE TO EXISTING PIPE UNDERDRAINS.

AN ESTIMATED QUANTITY OF ITEM 304 HAS BEEN ALLOCATED TO BE USED "AS DIRECTED BY THE ENGINEER" FOR REPLACEMENT OF UNSUITABLE SUB-BASE AS DEEMED NECESSARY BY THE ENGINEER.

AFTER THE REPAIR HAS BEEN COMPLETED TO THE SATISFACTION OF THE ENGINEER, THE ROADWAY AND PAVED BERM SHALL BE OVERLAYED ACCORDINGLY WITH THE REMAINDER OF THE PROJECT.

ALL MATERIAL, TACK COAT, LABOR, EQUIPMENT, TOOLS AND INCIDENTALS NECESSARY TO COMPLETE THIS PAVEMENT REPAIR AS DESCRIBED ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 253, PAVEMENT REPAIR, AS PER PLAN. THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR THE PURPOSE DESCRIBED ABOVE.

PART 1

- ITEM 203 EXCAVATION NOT INCLUDING EMBANK. CONST. 64 CU.YD.
- ITEM 253 PAVEMENT REPAIR, AS PER PLAN 225 CU.YD.
- ITEM 304 AGGREGATE BASE 64 CU.YD.

ITEM 605 - 4" SHALLOW PIPE UNDERDRAIN, AS PER PLAN

THIS QUANTITY HAS BEEN PROVIDED TO BE USED WITHIN THE AREA OF PAVEMENT REPAIR AS SHOWN ON SHEET 14. WORK COMPLETED AND ACCEPTED UNDER THIS ITEM AND MEASURED WILL BE PAID FOR AT THE CONTRACT PRICE BID PER LINEAR FOOT FOR ITEM 605 - 4" SHALLOW PIPE UNDERDRAIN, AS PER PLAN WHICH PRICE WILL BE FULL COMPENSATION FOR EXCAVATION AND BACKFILL; FOR FURNISHING MATERIALS; INCLUDING MATERIALS FOR SPLICES AND OUTLET FITTINGS; AND FOR ALL LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK. THE FOLLOWING QUANTITY HAS BEEN CARRIED TO THE GENERAL SUMMARY.

ITEM 605 - 4" SHALLOW PIPE UNDERDRAIN, AS PER PLAN 200 LIN.FT.(PART 1)

SPECIAL - OUTLET CONNECTION

EXISTING PAVED BERM SHALL BE SAW CUT, NECESSARY SAW CUTTING OF THE EXISTING PAVED BERM WILL BE PERFORMED WITH THE PAVEMENT REPAIR OPERATION IN ORDER TO ESTABLISH A CONNECTION FROM THE 4" SHALLOW PIPE UNDERDRAIN, AS PER PLAN TO THE EXISTING 6" DEEP PIPE UNDERDRAIN. AFTER BACKFILLING AS PER 603.08 IN THE 1993 CMS MANUAL, THE REMAINDER OF THE OPEN TRENCH SHALL BE FILLED WITH ITEM 301 BITUMINOUS AGGREGATE BASE, PLACED AND COMPACTED IN LAYERS OF 3" MAXIMUM, VERTICAL FACES OF ADJOINING PAVED BERM SHALL BE COATED WITH TACK COAT PRIOR TO PLACING ITEM 301.

ANY MATERIALS NOT SHOWN AS SEPERATE PAY ITEMS TO COMPLETE THIS TASK, ALL EXCAVATION AND BACKFILL; MATERIAL FOR SPLICES AND OUTLET FITTINGS, LABOR, TOOLS, EQUIPMENT AND INCIDENTALS NECESSARY TO COMPLETE THE WORK DESCRIBED ABOVE SHALL BE PAID FOR UNDER ITEM 603, 4" CONDUIT, TYPE E, 707.19.

- ITEM 603 4" CONDUIT, TYPE E, 707.19 30 LIN.FT. (PART 1)
- ITEM 304 AGGREGATE BASE (12"± DEPTH) 3 CU.YD. (PART 1)
- ITEM 301 BITUMINOUS AGGREGATE BASE (8"± DEPTH) 2 CU.YD. (PART 1)

INFORMATION ONLY

- TEE OUTLET FITTING 4" X 4" 1 EACH
- TEE OUTLET FITTING 6" X 4" 1 EACH
- 4" X 90 DEG. BEND 1 EACH

WORK RESTRICTIONS AND LANE CLOSURES

THE PERMITTED HOURS OF OPERATION FOR THE PAVEMENT REPAIR AT SLM 2.38± ARE 8:00 PM TO 6:00 AM ON MONDAY THRU THURSDAY AND 8:00 PM FRIDAY UNTIL 6:00 AM MONDAY. ALL LANES OF TRAFFIC SHALL BE OPEN TO TRAFFIC AT ALL OTHER TIMES.

TWO 12' LANES OF TRAFFIC SHALL BE MAINTAINED BETWEEN THE HOURS OF 12:00 PM (NOON) TO 8:00 PM ON WEEKENDS. ONE LANE OF TRAFFIC WILL BE PERMITTED AT ALL OTHER TIMES OF OPERATION.

THE CONTRACTOR MUST WORK THE ENTIRE LENGTH OF THE WORK ZONE. WHEN NECESSARY TO USE THE BERM TO MAINTAIN TWO LANES OR MORE, TRAFFIC CONTROL DEVICES SHALL BE AS PER STANDARD CONSTRUCTION DRAWING MT-102.20. ALL CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED AND RESTORED AS PER MT-102.20.

ITEM 614 MAINTAINING TRAFFIC

TRAFFIC CONTROL SHALL BE MAINTAINED AS PER DETAIL SHEETS AND SPECIFICATIONS AND AS OUTLINED IN THE CONSTRUCTION AND MAINTENANCE OPERATIONS SECTION OF THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS AND IN ADDITION, THE FOLLOWING REQUIREMENTS SHALL APPLY. CLOSING 1 LANE OF A MULTI-LANE DIVIDED HIGHWAY DETAILED ON STANDARD DRAWING MT-95.40, 10-1-92.

THE CONTRACTOR SHALL SUBMIT IN WRITING A SCHEDULE OF OPERATIONS TO THE DEPUTY DIRECTOR AND RECEIVE APPROVAL BEFORE WORK IS STARTED ON THE PROJECT.

PAYMENT FOR ALL THE ABOVE SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC, EXCEPT FOR THE QUANTITIES SHOWN BELOW.

TRAFFIC SHALL NOT BE RESTRICTED BY LANE CLOSURE AT ANY TIME ON A STATE HOLIDAY.

THE FOLLOWING QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS SHOWN ON DRAWING MT-95.40, 10-1-92, AT THE PAVEMENT REPAIR AREA AT SLM 2.30± (EASTBOUND LANES).

ITEM 614 TEMPORARY EDGE LINE, CLASS 1	0.49 MILE
ITEM 622 PORTABLE CONCRETE BARRIER, 32"	1094 LIN.FT.
ITEM 642 REMOVAL OF PAVEMENT MARKING	2798 LIN.FT.

ITEM 622 PORTABLE CONCRETE BARRIER, 32"

AS PER 622.08 THE METHOD OF MEASUREMENT FOR PORTABLE CONCRETE BARRIERS SHALL INCLUDE THE TOTAL LINEAR FEET OF EACH INDIVIDUAL PLACEMENT OF BARRIER. EACH RE-USE OF BARRIER SECTIONS SHALL BE MEASURED SEPERATELY FOR PAYMENT.

WORK PROCEDURE FOR PLANING:

THE DEPTH OF PLANING SHALL BE 3" ON THE MAINLINE FROM SLM 0.73 TO SLM 5.70 (UNLESS OTHERWISE NOTED). ITEM 301 BITUMINOUS AGGREGATE BASE SHALL BE PAVED IMMEDIATELY AFTER THE PLANING OPERATION IN ANY GIVEN LANE. TOTAL DEPTH OF ITEM 301 IS 4.5" THIS SHALL BE LAID AND COMPACTED IN 2 LAYERS OF EQUAL THICKNESS. TRAFFIC CAN BE DIRECTED BACK IN A PLANED LANE AFTER ONE HALF OF THE TOTAL DEPTH OF ITEM 301 HAS RECEIVED FINAL ROLLING. TRAFFIC WILL AT NO TIME BE PERMITTED TO CROSS ON TO PLANED SURFACE PRIOR TO PLACING ITEM 301 MATERIAL.

ITEM 202 GUARDRAIL REMOVED FOR STORAGE:

GUARDRAIL, STANDARD TERMINALS, POSTS AND MISCELLANEOUS HARDWARE DESIGNATED FOR SALVAGE SHALL BE STORED ON THE PROJECT AS DIRECTED BY THE ENGINEER FOR REMOVAL BY STATE FORCES. ALL MATERIAL NOT CONSIDERED SALVAGEABLE SHALL BE DISPOSED OF BY THE CONTRACTOR AS DIRECTED. PAYMENT FOR THE ABOVE SHALL BE INCLUDED IN THE UNIT PRICE BID FOR ITEM 202 GUARDRAIL REMOVED FOR STORAGE.

ITEM 202 GUARDRAIL REMOVED FOR RE-USE:

GUARDRAIL, POSTS, STANDARD TERMINALS AND MISCELLANEOUS HARDWARE DESIGNATED FOR RE-USE SHALL BE REMOVED AND STORED FOR RE-USE AS DIRECTED BY THE ENGINEER, THIS WORK WILL BE PAID IN THE UNIT PRICE BID FOR ITEM 202 GUARDRAIL REMOVED FOR RE-USE.

BERM RESHAPING:

BERMS AT LOCATIONS WHERE EXISTING GUARDRAIL IS REMOVED OR WHERE NEW GUARDRAIL IS TO BE ERECTED SHALL BE RESHAPED AS DIRECTED BY THE ENGINEER TO INSURE A SMOOTH SURFACE FREE OF ALL IRREGULARITIES. EXCESS EXCAVATION SHALL BE DISPOSED OF AS DIRECTED BY THE ENGINEER. PAYMENT FOR RESHAPING BERMS AS DESCRIBED SHALL BE INCLUDED IN THE CONTRACT PRICE BID PER LINEAR FOOT FOR ITEM SPECIAL, BERM RESHAPING.

LIQUID ANTI-STRIP MATERIAL:

LIQUID ANTI-STRIP MATERIAL SHALL BE PLACED IN THE 4.5" OF 301 BITUMINOUS AGGREGATE BASE, AC-20. THE APPLICATION RATE SHALL FOLLOW THE PROPOSAL NOTE.

08-29-94 (MAINT - C) 1-70GN1

GENERAL NOTES

MUS-70-(0.73)(1.43)
LIC-70-28.93

ITEM SPECIAL-LAW ENFORCEMENT OFFICER WITH PATROL CAR:

IN ADDITION TO THE REQUIREMENTS OF ITEM 614, A UNIFORMED OFF DUTY STATE HIGHWAY PATROLMAN AND OFFICIAL PATROL CAR WITH EMERGENCY FLASHERS OPERATING, SHALL BE PROVIDED DURING ANY WEEKLY FIRST DAY SET-UP PERIOD AND LAST DAY TEARDOWN PERIOD. THIS REQUIREMENT DOES NOT PRECLUDE THE CONTRACTORS USE OF STATE HIGHWAY PATROLMAN FOR OTHER PURPOSES IN THE PROJECT AREA. HOWEVER WHERE SUCH USAGE IS AT THE OPTION OF THE CONTRACTOR, PAYMENT FOR THE STATE HIGHWAY PATROLMAN'S SERVICES INVOLVED SHALL BE INCLUDED IN THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC.

INFORMATION REGARDING ARRANGEMENTS AND PAYMENTS BY THE CONTRACTOR FOR SPECIAL DUTY PATROL SERVICES MAY BE OBTAINED BY CONTACTING THE OHIO HIGHWAY PATROL, 660 EAST MAIN STREET, COLUMBUS, OHIO. TELEPHONE 466-2660. THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE GENERAL SUMMARY FOR THIS PURPOSE.

ITEM SPECIAL-LAW ENFORCEMENT OFFICER WITH PATROL CAR - 80 HOURS.

ITEM 614 WORK ZONE MARKING SIGNS

A TOTAL QUANTITY OF A EACH WORK ZONE MARKING SIGNS (B EACH "NO EDGE LINES" OW-167 AND HAS BEEN CARRIED TO THE GENERAL SUMMARY TO BE USED AS DIRECTED. BY THE ENGINEER. ALSO INCLUDED ARE C EACH "ROAD CONSTRUCTION AHEAD" OW-128 AND D EACH "END ROAD CONSTRUCTION" OC-B, ALSO, E EACH "UNEVEN LANE SYMBOL" OW-171-48 AND E "UNEVEN LANE" OWP-171-48 AND G EACH "LOW SHOULDER" OW-151-48 SHALL BE USED AS DIRECTED BY THE ENGINEER.

PART	1	2
TOTAL=		
A	50	16
B	12	4
C	4	
D	4	
E	10	4
F	10	4
G	10	4

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:

ONCE PAVEMENT MARKERS HAVE BEEN REMOVED THE OPENING THAT REMAINS IN THE ROADWAY SHALL BE CLEANED FREE OF ALL DEBRIS, TACKED AND FILLED WITH ASPHALT CONCRETE BY THE END OF THE SAME CONSTRUCTION DAY AS REMOVAL OF RAISED PAVEMENT MARKERS.

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.

ITEM 606 RAISING TYPE 5, GUARDRAIL

WHERE DESIGNATED ON THE GUARDRAIL DATA SHEETS THE EXISTING TYPE 5 GUARDRAIL SHALL BE RAISED ON THE EXISTING WOOD POSTS AS PER DRAWING GR-2.1, 5-6-91. SO AS TO OBTAIN THE STANDARD 27 INCH HEIGHT. THE RAIL SHALL BE REATTACHED TO THE POSTS USING NEW POST BOLTS. THE RAIL SHALL BE DISMANTLED ONLY TO THE EXTENT NECESSARY TO FIELD BORE NEW BOLT HOLES IN THE WOOD POSTS, AND TO RECONNECT THE RAIL AND BLOCK TO EXISTING POSTS.

NO ANCHOR ASSEMBLIES OR BRIDGE TERMINAL ASSEMBLIES WILL REQUIRE ADJUSTMENT. WHEN RAISING EXISTING GRT-5 AND PERFORMING THE TRANSITION IN HEIGHT TO AN EXISTING ANCHOR ASSEMBLY, THE LAST 12.5 FEET OF GUARDRAIL SHALL BE USED FOR THAT TRANSITION. WHEN ADJUSTING TO EXISTING BRIDGE TERMINAL ASSEMBLIES OR EXISTING CONCRETE BARRIER THE TRANSITION SHALL BE TAPERED AT A RATE OF 25 TO 1. ALL TRANSITION SECTIONS OF EXISTING GRT-5 WILL BE INCLUDED IN THE FINAL MEASURED QUANTITY TO BE PAID FOR AS ITEM 606, RAISING TYPE 5 GUARDRAIL.

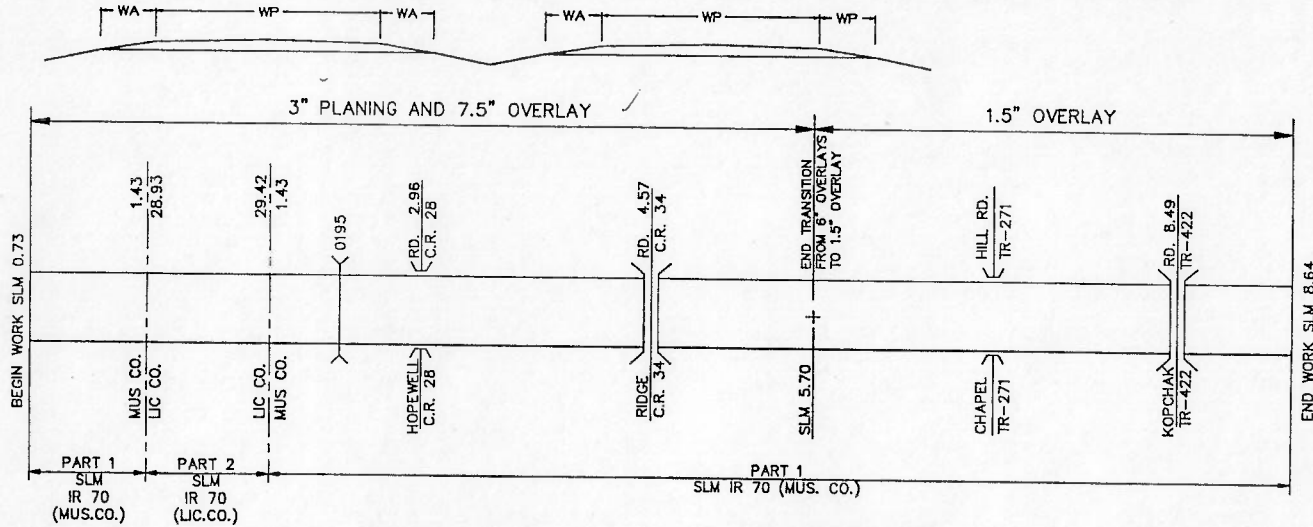
PAYMENT FOR ALL OF THE ABOVE SHALL BE AT THE UNIT PRICE BID PER LINEAR FOOT OF ITEM 606, RAISING TYPE 5 GUARDRAIL, WHICH SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK; THIS INCLUDES THE REMOVAL OF RAIL, BLOCKOUTS AND HARDWARE; REDRILLING EXISTING WOOD POSTS, SALVAGING WOOD BLOCKS OR FURNISHING NEW DRILLED WOOD BLOCKS IF EXISTING WOOD BLOCK IS DETERIORATED PAST THE POINT OF RE-USE, FURNISHING NEW STEEL BLOCKS (WHEN REQUIRED), FURNISHING NEW POST BOLTS AND RE-ATTACHING THE GUARDRAIL TO THE EXISTING POSTS.

GENERAL NOTES

TYPICAL 1

ASPHALT CONCRETE

PLAN NO.



BRIDGE DEDUCTIONS
 BRIDGE LIMITS HAVE BEEN DEDUCTED OUT OF MAINLINE QUANTITIES. SEE SHT. 18 FOR BRIDGE TREATMENT.

• CALCULATED FROM PREVIOUS PLAN

PAVEMENT DATA

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		WP FEET	TYPICAL	EXISTING TYPE PAVEMENT	PAVEMENT AREA SQ. YDS.	PROPOSED PAVEMENT					254 PAVEMENT PLANING BITUMINOUS 3"	202 RAISED PAVEMENT MARKER REMOVED FOR STORAGE EACH	614 TEMPORARY LANE LINE, CLASS II MILE		
			MILES	LIN. FT.					407 TACK COAT @ 0.05 gal./s.y. GALS.	COVER AGGR. lbs./s.y. TONS	ASPHALT CONCRETE						SURFACE COURSE, TYPE 1, AC-20' CU. YDS.	
											ITEM 301 THICK INCHES	ITEM 446 THICK INCHES	ITEM 446 INTERMEDIATE COURSE, TYPE 2, AC-20' CU. YDS.					
1	IR 70(MUS)	0.73-5.70	4.97	26242	48	1	846	143372	7169	4.5	17922	1.75	6970	1.25	4978	143372		
		5.70-8.64	2.94	15523	48	1	848	81960	4098					1.50	3415			39.76
		EXTRA TACK COAT FOR LONGITUDINAL JOINTS						524										5.88
		EXTRA AREAS FROM SHEET 11					4744	237				231	164	3731				
1	TOTALS		7.91	41765			230076	12028		17922		7201	-	8557	147103	1089		45.64
2	IR 70(LIC)	28.93-29.42	0.49	2587	48	1	846	13696	685	4.5	1712	1.75	666	1.25	476	13696		1.96
		EXTRA TACK COAT FOR LONGITUDINAL JOINTS							23									
2	TOTALS		0.49	2587			13696	708		1712		666		476	13696	64		1.96

CB-25-94 (MAINT - C) (1-70AC)

PLAN NO.

ASPHALT CONCRETE

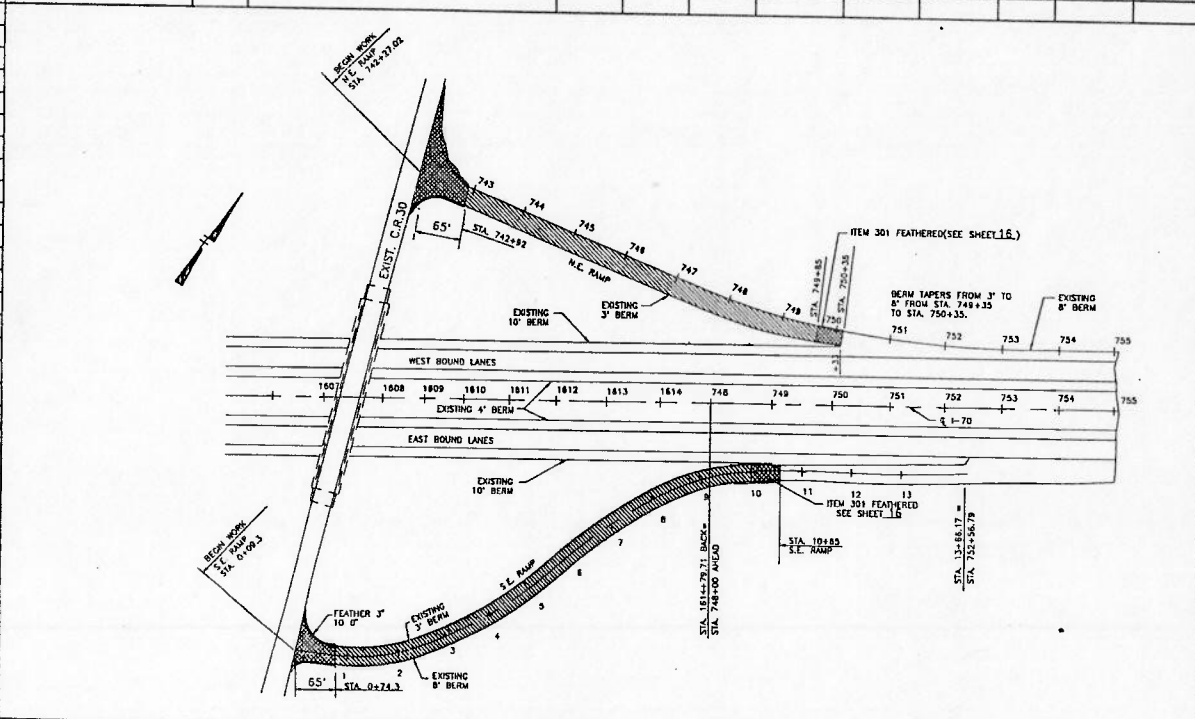
MUS-70-(0.73)(1.43)
 LIC-70-28.93

EXTRA AREAS

PLAN NO. 70

* CALCULATED FROM PREVIOUS PLAN

PART	ROUTE	STATION TO STATION	DESCRIPTION	LENGTH		WIDTH "W" IN FEET	AREA IN SQ. YD.	PROPOSED ITEMS							
				MILES	LIN. FT.			407		ASPHALT CONCRETE			EXISTING SURFACE	254	
								TACK COAT @ 0.05 gal./s.y.	COVER AGGR. @ 1 lbs./s.y. TON	THICK INCHES	CU. YD.				THICK INCHES
				446 INTERMEDIATE COURSE, TYPE 2, AC-20	446 SURFACE COURSE, TYPE 1, AC-20	PAVEMENT PLANING BITUMINOUS 1.5" SQ.YD.									
1-A	IR 70	0+09.3 - 0+74.3	S.E. ENTR. RAMP FROM C.R.30				*320	16		1.75	16	11	1.25	320	
		0+74.3 - 10+65	S.E. ENTR. RAMP FROM C.R.30		991	16	1762	88		1.75	86	61	1.25	1762	
		742+27.02-742+92.02	N.E. EXIT RAMP TO C.R.30				*328	16		1.75	16	11	1.25	328	
		742+92.02-750+35	N.E. EXIT RAMP TO C.R.30		742.98	16	1321	66		1.75	64	46	1.25	1321	
		SEE SHTS. 3 AND 4	MEDIAN U-TURNS (2)			*1013	51		1.75	49	35	1.25			
1-A	TOTALS		(CARRIED TO SHT. 10.)			4744	237			231	164		3731		



08-25-94 (MAINT - C) M70EA1

EXTRA AREAS

MUS-70-(0.73)(1.43)
LIC-70-28.93

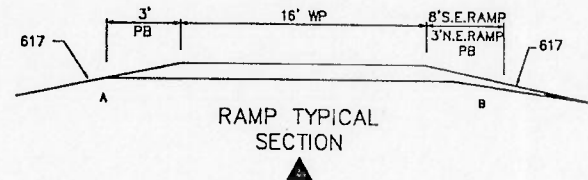
PAVED SHOULDERS

TYPICAL 1



IR 70
MAIN LINE
TYPICAL SECTION

* NOTE:
ITEM 301 BITUMINOUS AGGREGATE BASE
SHALL BE PLACED AND COMPACTED IN
2 LAYERS OF EQUAL THICKNESS.



RAMP TYPICAL SECTION

▲ SEE NEXT SHEET FOR DETAIL
OF RAMP STATIONING

* CALCULATED FROM PREVIOUS PLAN

PAVED SHOULDER DATA

*** 5'X 3.5" AVG. THICKNESS

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		TYPICAL	PROPOSED WIDTH (FT.)				SHOULDER AREA SQ. YDS.	446				301		407	617			STATIONING				
			MILES	LIN. FT.		A	B	C	D		ASPHALT CONCRETE		BITUMINOUS AGGREGATE BASE		TACK COAT	COMPACTED AGGREGATE	SHOULDER PREPARATION	WATER							
											THICK INCHES	INTERMEDIATE COURSE, TYPE 2, AC-20	THICK INCHES	SURFACE COURSE TYPE 1, AC-20					AVG. THICK INCHES	CU. YDS.		CU. YDS.	TYPE A 5'X 5" AVER. THICKNESS TO BACK UP PAVED BERM	SQ. YDS.	M GALS.
1	IR 70	0.73-0.76	0.03	158	1	10	4	4	10	492	1.75	24	1.25	17	4.5	62	25		49		0.45				
		0.76-0.78	0.02	106	1	12	4	4	8	330	1.75	16	1.25	12	4.5	41	17		33		0.30				
		0.78-0.91	0.13	686	1	8	4	4	8	1829	1.75	89	1.25	64	4.5	229	92		212		1.93				
		0.91-0.93	0.02	106	1	9	4	4	8	294	1.75	14	1.25	10	4.5	37	15		33		0.30				
		0.93-1.03	0.10	528	1	10	4	4	8	1525	1.75	74	1.25	53	4.5	191	76		163		1.49				
		1.03-1.05	0.02	106	1	10	4	4	9	318	1.75	16	1.25	11	4.5	40	16		33		0.30				
		1.05-5.70	4.65	24552	1	10	4	4	10	76384	1.75	3713	1.25	2653	4.5	9548	3819		7578		68				
		STA.																							
	S.E. RAMP	RADIUS			▲	3	8			100*	1.75	5	1.25	4			5		8***		0.07				
		0+74.3-10+65		990.7	▲	3	8			1211	1.75	59	1.25	42			61		107***		0.98				
		10+65-13+66.17		301.17	▲		8			268	1.75	13	1.25	9			13		16***		0.15				
		PART 1 HAS BEEN CONTINUED ON NEXT SHEET																							

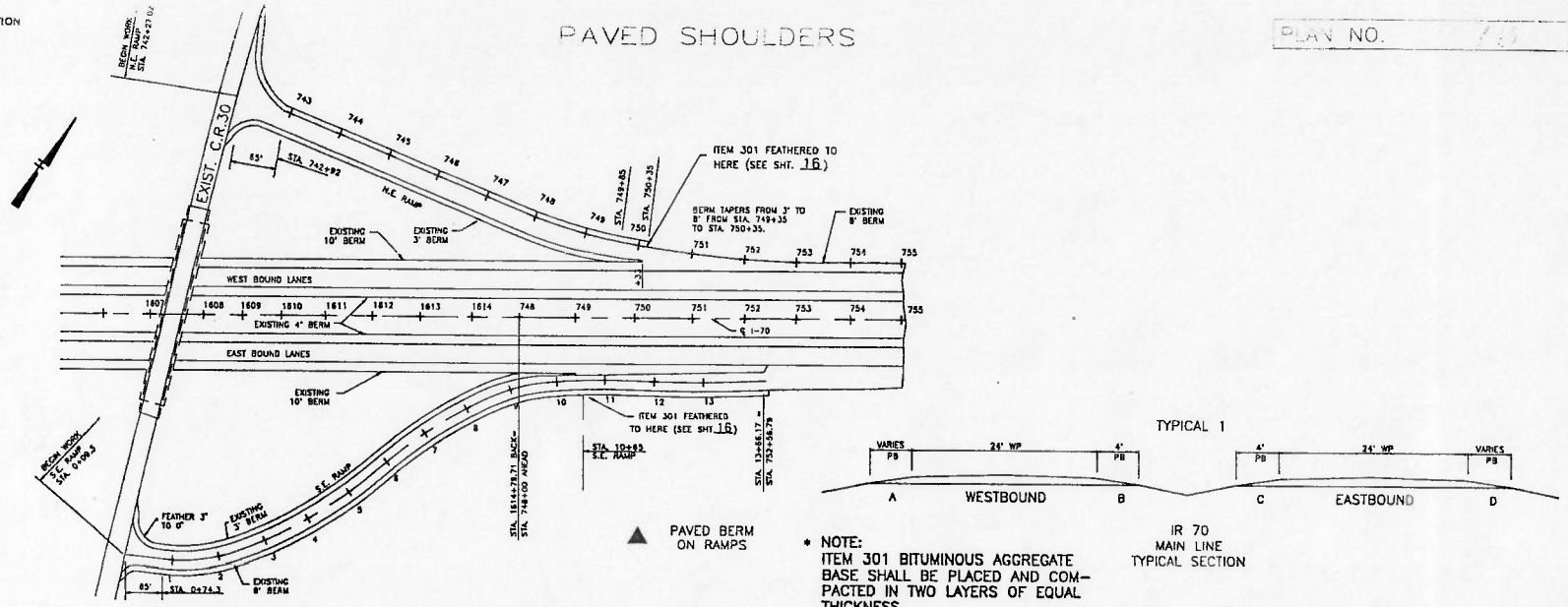
08-29-94 (MAINT - C) (1-70)PS1

PAVED SHOULDERS

MUS-70-(0.73)(1.43)
LIC-70-28.93

PAVED SHOULDERS

PLAN NO. 13



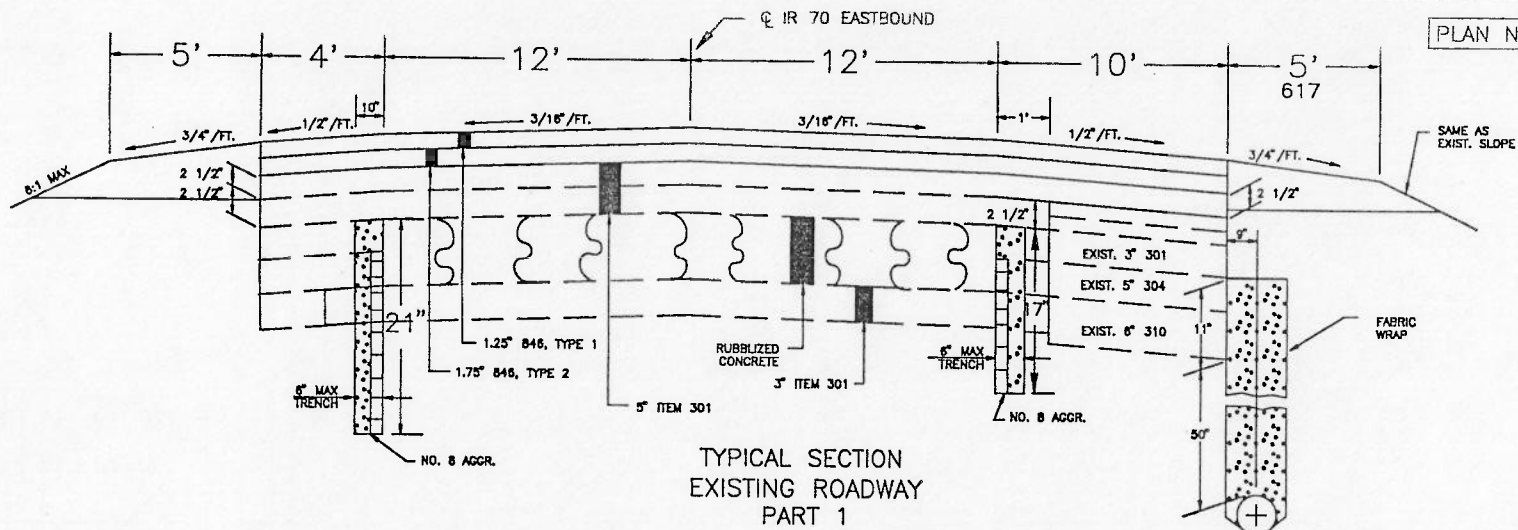
* CALCULATED FROM PREVIOUS PLAN

PAVED SHOULDER DATA

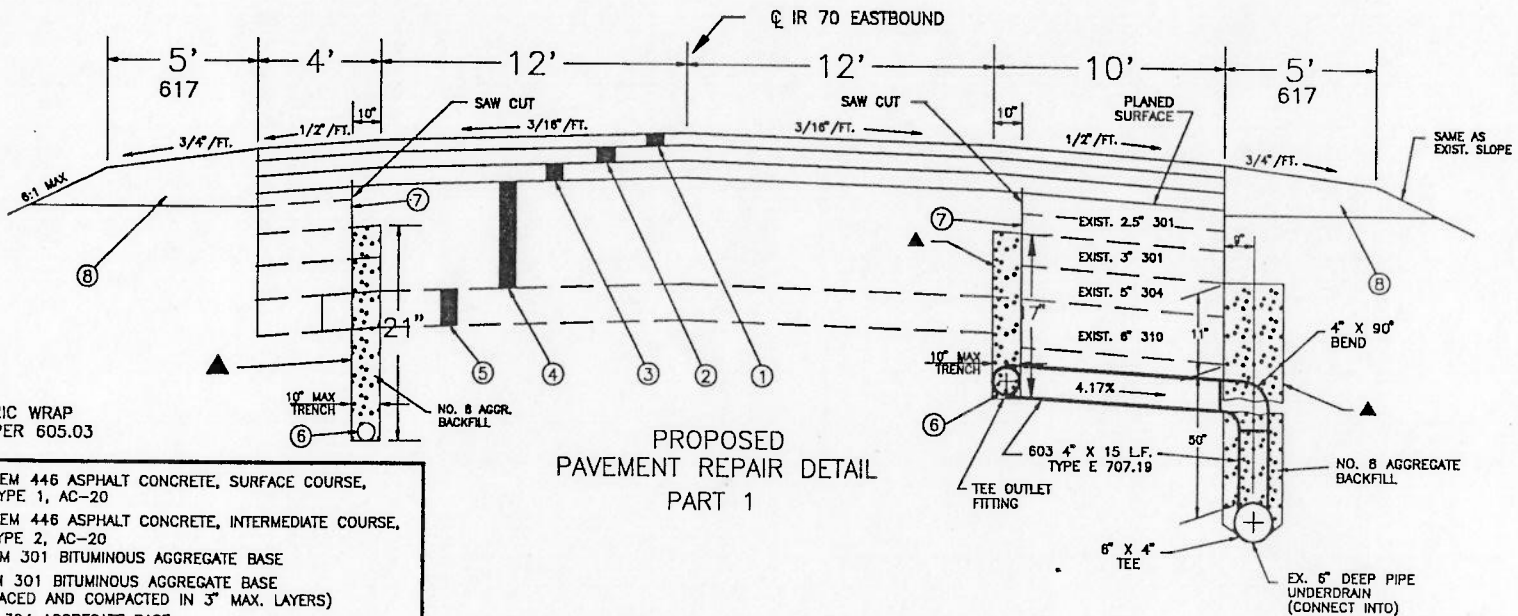
** 5' X 2" AVG. THICKNESS

*** 5' X 5" AVG. THICKNESS

PART	ROUTE	LOG POINT TO LOG POINT	LENGTH		TYPICAL	PROPOSED WIDTH (FT.)				SHOULDER AREA SQ. YDS.	446 ASPHALT CONCRETE			301 BITUMINOUS AGGREGATE BASE		407 TACK COAT	617 COMPACTED AGGREGATE			SHOULDER PREPARATION	WATER	NOTES	
			MILES	LIN. FT.		A	B	C	D		THICK INCHES	INTERMEDIATE COURSE, TYPE 2, AC-20	SURFACE COURSE, TYPE 1, AC-20	AVG. THICK INCHES	CU. YDS.	GALS.	CU. YDS.	SQ. YDS.	M GALS.				
PART 1 HAS BEEN CONTINUED FROM PREVIOUS SHEET																							
1	N.E. RAMP	STA. 742+92-743+00			▲	3	3			64*	1.75	3	1.25	2			3			10		0.09	
		743+00-749+35	8	635	▲	3	3			3	1.75	1	1.25	1			1		1		0.01		
		749+35-749+85		50	▲	3	3			41	1.75	2	1.25	1			2		5		0.05		
		749+85-750+35		50	▲	3	3			54	1.75	3	1.25	2			3		5		0.05		
		5.70-8.64	2.94	15523	1	10	4	4	10	48294			1.5	2012			2415		1916**		17.46		
1	TOTALS									131630		4053		4908			10148	6584	10238		92.26		
2	IR 70	28.93-29.42	0.49	2587	1	10	4	4	10	8048	1.75	391	1.25	279	4.5	1006	402		799***		7		



TYPICAL SECTION
EXISTING ROADWAY
PART 1



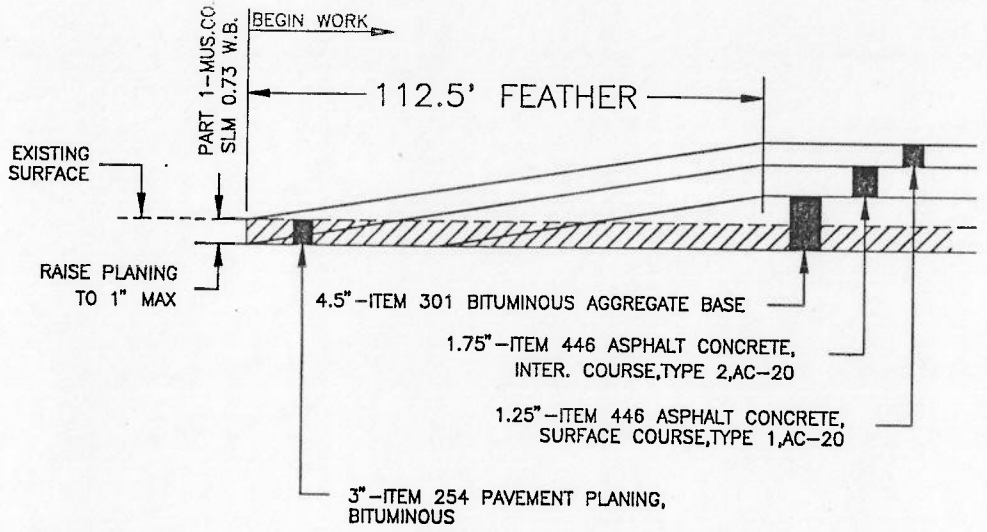
PROPOSED
PAVEMENT REPAIR DETAIL
PART 1

- ① 1.25" ITEM 446 ASPHALT CONCRETE, SURFACE COURSE, TYPE 1, AC-20
- ② 1.75" ITEM 446 ASPHALT CONCRETE, INTERMEDIATE COURSE, TYPE 2, AC-20
- ③ 4.5" ITEM 301 BITUMINOUS AGGREGATE BASE
- ④ 14" ITEM 301 BITUMINOUS AGGREGATE BASE (PLACED AND COMPACTED IN 3" MAX. LAYERS)
- ⑤ 4" ITEM 304 AGGREGATE BASE
- ⑥ ITEM 605 - 4" SHALLOW PIPE UNDERDRAIN, AS PER PLAN
- ⑦ ITEM 407 TACK COAT
- ⑧ 5" ITEM 617 COMPACTED AGGREGATE, TYPE A

▲ FABRIC WRAP
AS PER 605.03

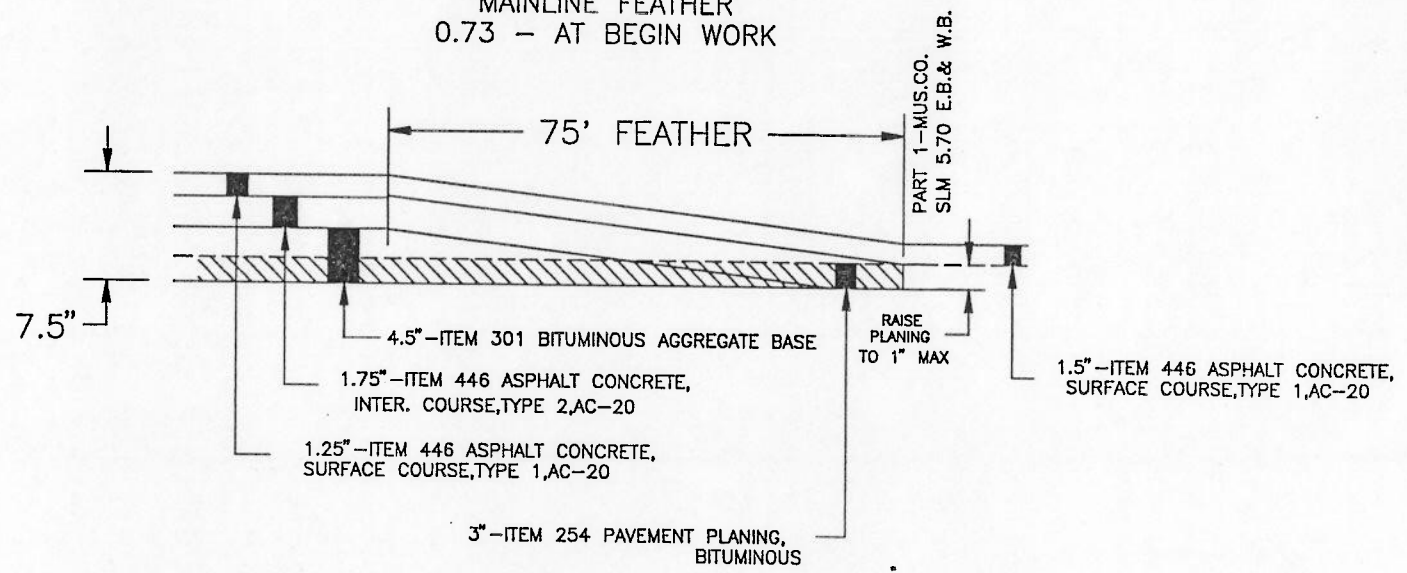
PLAN NO. 70

PLAN NO. 78



NOTE: ASPHALT SHALL BE FEATHERED AT THE RATE OF 25 FEET PER INCH. SEE DRAWING BP-3.1, 2-21-92 FOR ANY ADDITIONAL INFORMATION.

MAINLINE FEATHER
0.73 - AT BEGIN WORK



MAINLINE FEATHER
TRANSITION FROM 7.5" OVERLAYS AND 3" PLANING
TO 1.5" OVERLAY AT SLM 5.70 - EAST BOUND AND WESTBOUND

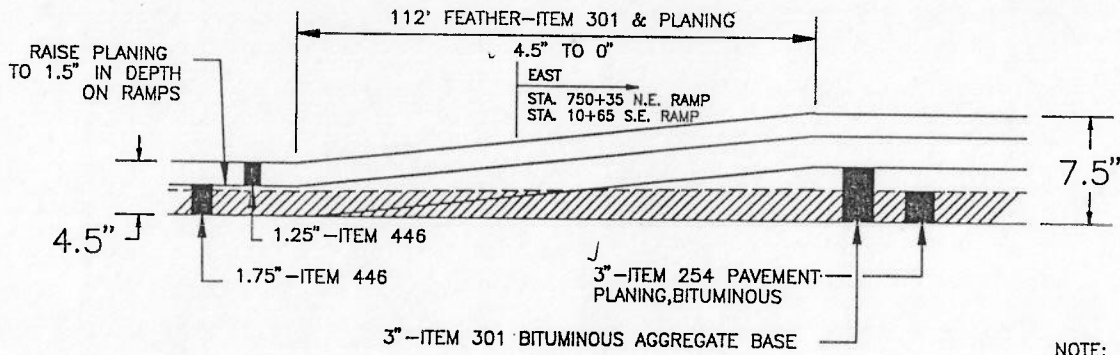
08-29-94 (MAINT - C) I-70DTL1

FEATHER DETAILS

MUS-70-(0.73)(1.43)
LIC-70-28.95

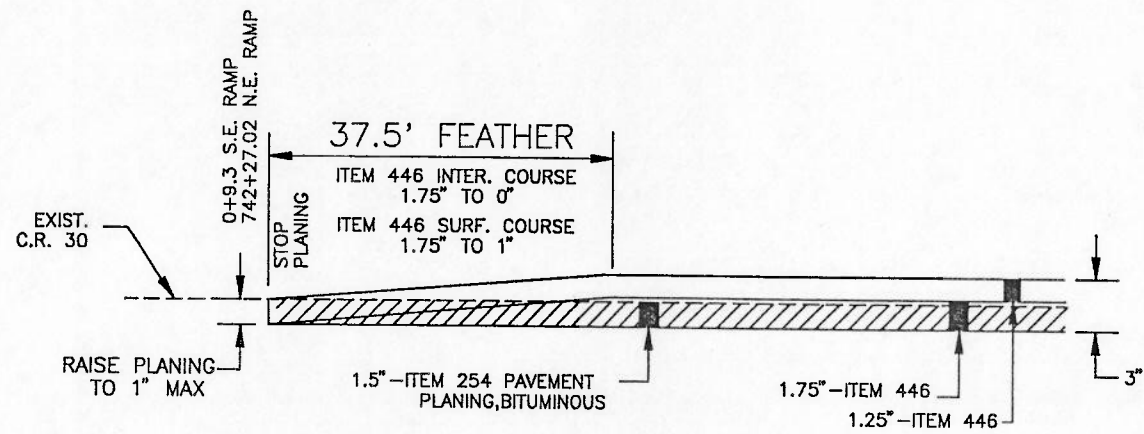
15/35

PLAN NO. 78



NOTE: ASPHALT SHALL BE FEATHERED AT THE RATE OF 25 FEET PER INCH. SEE DRAWING BP-3.1, 2-21-92 FOR ADDITIONAL INFORMATION.

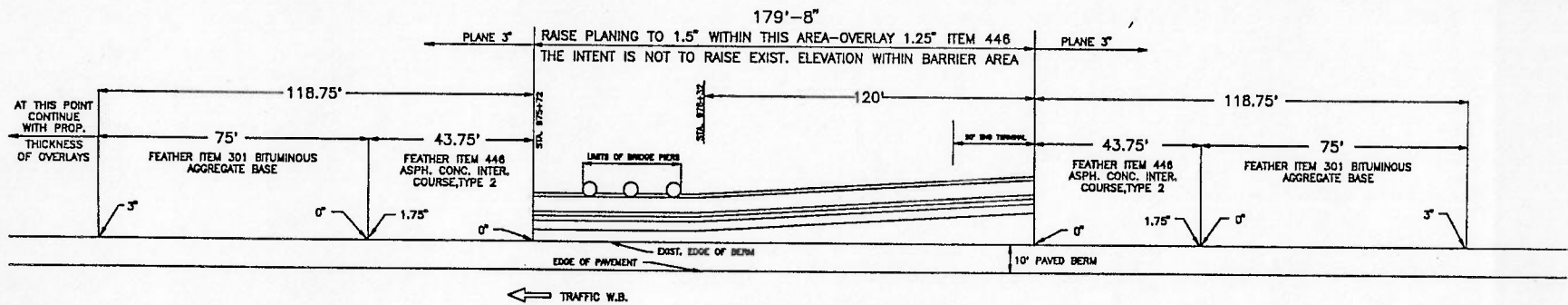
RAMP FEATHERS
 (FOR FEATHERING ITEM 301 FROM MAINLINE)
 STA. 750+35 N.E. RAMP
 STA. 10+65 S.E. RAMP



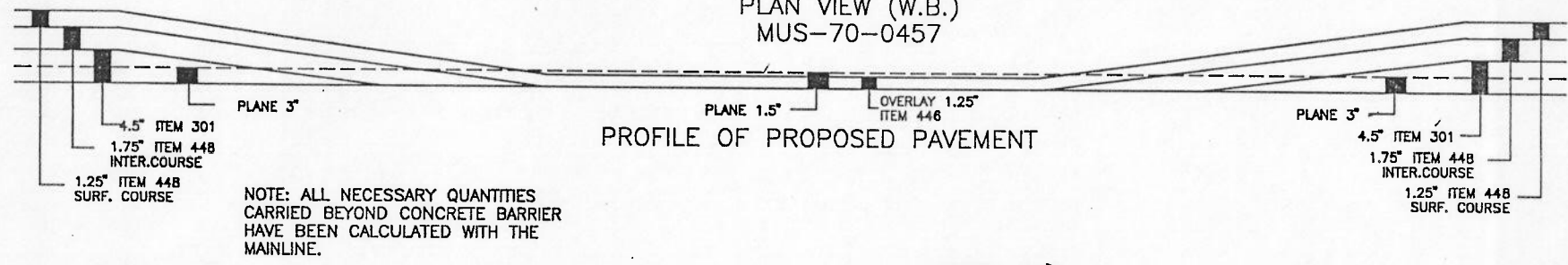
RAMP FEATHERS
 AT C.R. 30
 STA. 0+09.3 S.E. RAMP
 STA. 742+27.02 N.E. RAMP

FEATHER DETAILS

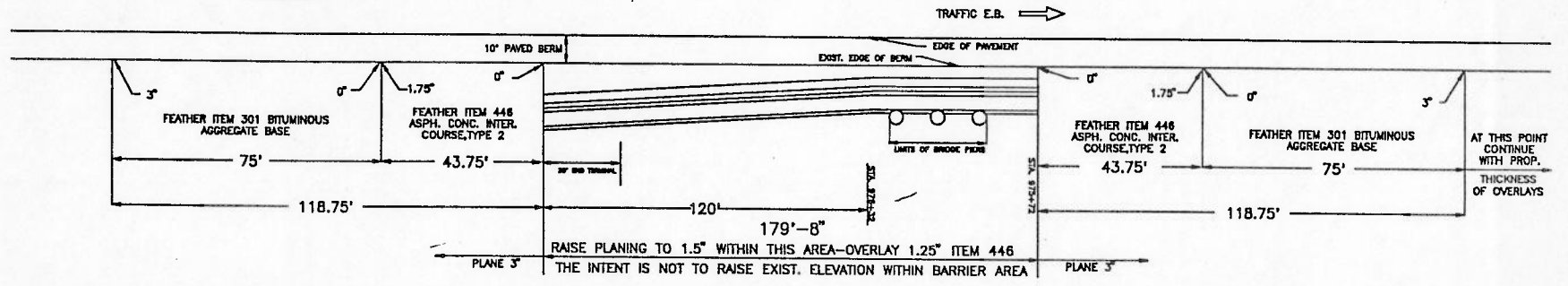
PLAN NO. 70



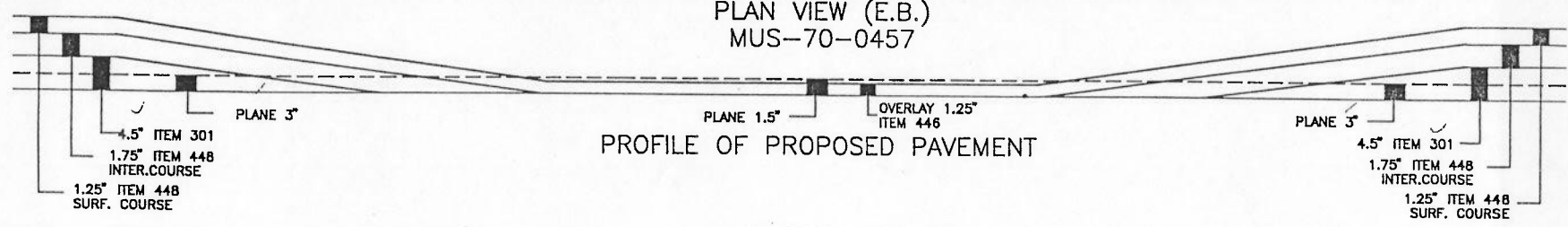
PLAN VIEW (W.B.)
MUS-70-0457



PROFILE OF PROPOSED PAVEMENT



PLAN VIEW (E.B.)
MUS-70-0457

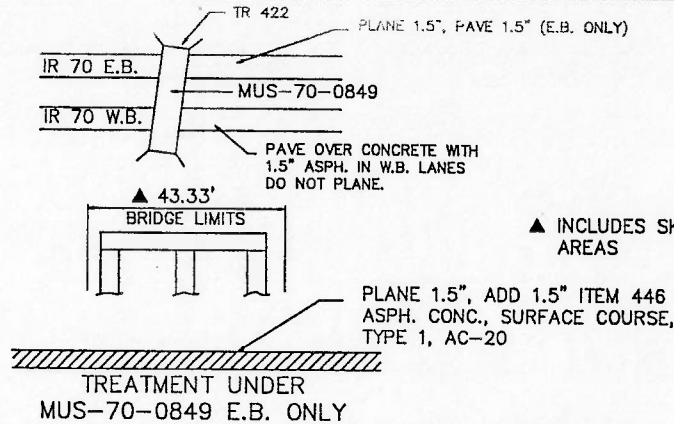


PROFILE OF PROPOSED PAVEMENT

08-29-94 (MAINT - C) I-70DET1

PLAN AND PROFILE OF PLANING AND OVERLAYS AT MUS-70-0457

MUS-70-(0.43)(1.43)
LIC-70-28.93



PLAN NO. 78

NOTE: QUANTITIES WITHIN THE BRIDGE LIMITS HAVE BEEN CARRIED BELOW. ALL QUANTITIES BEYOND THAT HAVE BEEN CALCULATED WITH THE MAINLINE QUANTITIES.

▲ INCLUDES SKEWED AREAS

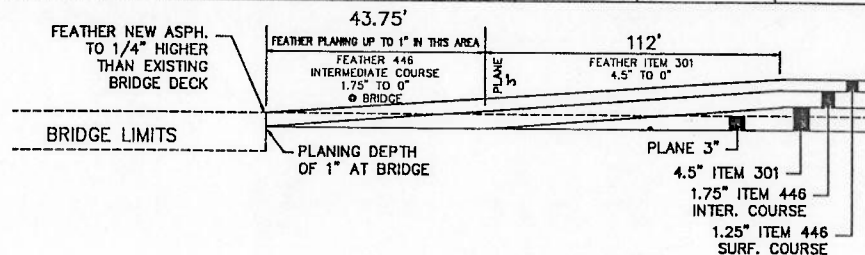
PLANE 1.5", ADD 1.5" ITEM 446 ASPH. CONC., SURFACE COURSE, TYPE 1, AC-20

TREATMENT UNDER
MUS-70-0849 E.B. ONLY

BRIDGE DECK DATA

PART	COUNTY, ROUTE, BRIDGE NO.	LENGTH (BRIDGE LIMITS) *IR 70 LENGTH LIN.FT.	WIDTH LIN.FT.	BRIDGE DECK AREA SQ.YDS.	202 WEARING COURSE REMOVED DEPTH SQ.YDS.	BRIDGE DECK REPAIR			SPECIAL			ASPHALT CONCRETE			407 TACK COAT ● 0.05 GAL./SQ.YD.	254 PAVEMENT PLANING BITUMINOUS (1.5" DEPTH) SQ.YD.			
						□ SS-845 LATEX MODIFIED CONCRETE □ SS-850 DENSE CONCRETE			PATCHING		STEEL DRIP STRIP SQ.FT.	DECK WATERPROOFING		446 INTERMEDIATE COURSE, TYPE 2, AC-20 CU.YDS.			THICK INS.	446 SURFACE COURSE, TYPE 1, AC-20 CU.YDS.	THICK INS.
						*" 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	MUS-70-0195L	197.66	40	879		(SEE DETAIL BELOW)													
	MUS-70-0195R	197.66	40	879		(SEE DETAIL BELOW)													
	MUS-70-0296L	139.07	40	618		(SEE DETAIL BELOW)													
	MUS-70-0296R	139.07	40	618		(SEE DETAIL BELOW)													
	MUS-70-0457EB	*30.33	38	128		(SEE SHEET 17)							26	1.25	38	759			
	MUS-70-0457WB	*30.33	38	128		(SEE SHEET 17)							26	1.25	38	759			
	MUS-70-0691L	112.10	39	486		(SEE SHTS. 19 THRU 24)													
	MUS-70-0691R	112.10	39	486		(SEE SHTS. 19 THRU 24)													
	MUS-70-0849EB	*43.33	38	183		(SEE DETAIL ABOVE)							8	1.50	9	183			
	MUS-70-0849WB	*43.33	38	183		(SEE DETAIL ABOVE)							8	1.50	9				
1	TOTALS			4588									68		94	1701			

PLANING AND FEATHERING ASPHALT AT EXIST. BRIDGE DECKS
MUS-70-0195 L & R
MUS-70-0296 L & R
(TYPICAL BOTH ENDS OF BRIDGE)



NOTE: DETAIL IS FOR INFORMATION ONLY. QUANTITIES FOR PLANING AND ASPHALT HAVE BEEN CALCULATED WITH THE MAINLINE.

BRIDGE NOTES

REFERENCE

DETAILED DRAWINGS OF THE EXISTING STRUCTURES MAY BE INSPECTED IN THE DISTRICT 5 OFFICE OF THE OHIO DEPARTMENT OF TRANSPORTATION, JACKSONTOWN, OHIO.

DESIGN SPECIFICATIONS

THESE STRUCTURE MODIFICATIONS CONFORM TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1993, AND THE OHIO SUPPLEMENT TO THESE SPECIFICATIONS.

EXISTING STRUCTURE VERIFICATION

DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURES HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURES AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURES AND THE PROPOSED WORK, BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTIONS 102.05 AND 105.02.

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURES BY THE CONTRACTOR. HOWEVER, ALL PROJECT WORK SHALL BE BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED BY THE CONTRACTOR IN THE FIELD.

GENERAL PROVISIONS

THE CONTRACTOR'S ATTENTION IS CALLED TO ALL OF SECTION 109 OF THE CONSTRUCTION AND MATERIAL SPECIFICATIONS OF THE OHIO DEPARTMENT OF TRANSPORTATION.

MOBILIZATION

THE CONTRACTOR SHALL ON ANY CONTRACT FOR WHICH HIS BID EXCEEDS \$50,000.00 INCLUDE AN AMOUNT TO COVER ANY APPLICABLE EXPENDITURES REFERRED TO UNDER ITEM 624 OF THE 1993 CONSTRUCTION AND MATERIAL SPECIFICATIONS. PAYMENT SHALL BE THE LUMP SUM BID PRICE FOR ITEM 624, MOBILIZATION.

CONSTRUCTION NOTIFICATION

IN ORDER FOR ODOT TO PROPERLY PERMIT OVERSIZE LOADS, PREPARE PROPER SIGNING WHEN REQUIRED AND FURTHER TO NOTIFY THE GENERAL MOTORING PUBLIC, THE CONTRACTOR SHALL NOTIFY (IN WRITING) THE DISTRICT 5 CONSTRUCTION ENGINEER WITH COPIES FOR THE DISTRICT 5 TRAFFIC ENGINEER AND PROJECT ENGINEER NOT LESS THAN 21 DAYS BEFORE ACTIVATING SUCH CLOSURE OR LANE RESTRICTION.
SEND NOTIFICATION TO:

CHRISTOPHER ENGLE
DISTRICT 5 CONSTRUCTION ENGINEER
P. O. BOX 306
JACKSONTOWN, OHIO 43030
PHONE: (614) 323-4400 EXT. 240

ESTIMATED QUANTITIES

AN ESTIMATED AMOUNT OF THE FOLLOWING QUANTITIES HAS BEEN INCLUDED IN THE GENERAL SUMMARY FOR BIDDING PURPOSES. BUT FINAL QUANTITIES SHALL BE DETERMINED BY ACTUAL FIELD MEASUREMENTS AT THE COMPLETION OF THE WORK.

ITEM SPECIAL PATCHING CONCRETE BRIDGE DECKS, TYPE B	MUS-70-0691L	MUS-70-0691R
	33 SQ. YD.	39 SQ. YD.

REMOVED MATERIALS

ALL REMOVED MATERIALS UNLESS NOTED ELSEWHERE IN THE PLANS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED BY HIM FROM THE JOB SITE.

ITEM 614 MAINTAINING TRAFFIC

THROUGH TRAFFIC SHALL BE MAINTAINED AT ALL TIMES BY USE OF HALF WIDTH CONSTRUCTION. A MINIMUM LANE WIDTH OF 12'-0" SHALL BE MAINTAINED FOR THE ONE WAY TRAFFIC. IF A WORKING HOUR ONLY CLOSURE IS NECESSARY SEE STANDARD DRAWING MT-95.30 DATED 10-10-88 FOR SIGN LOCATIONS, TAPE LENGTHS AND OTHER REQUIREMENTS. EQUIPMENT, LABOR, MATERIALS AND INCIDENTALS NECESSARY TO PROVIDE THIS METHOD OF TRAFFIC CONTROL SHALL BE INCIDENTAL TO THE LUMP SUM BID FOR ITEM 614 MAINTAINING TRAFFIC.

BRIDGE NO.	DECK AREA SQ. YD.	SOBTRIDED	
		METHOD	DATE
MUS-70-0691R	498	CHAINED	3-15-12
MUS-60-0691L	498	CHAINED	3-15-12

OHIO DEPARTMENT OF TRANSPORTATION

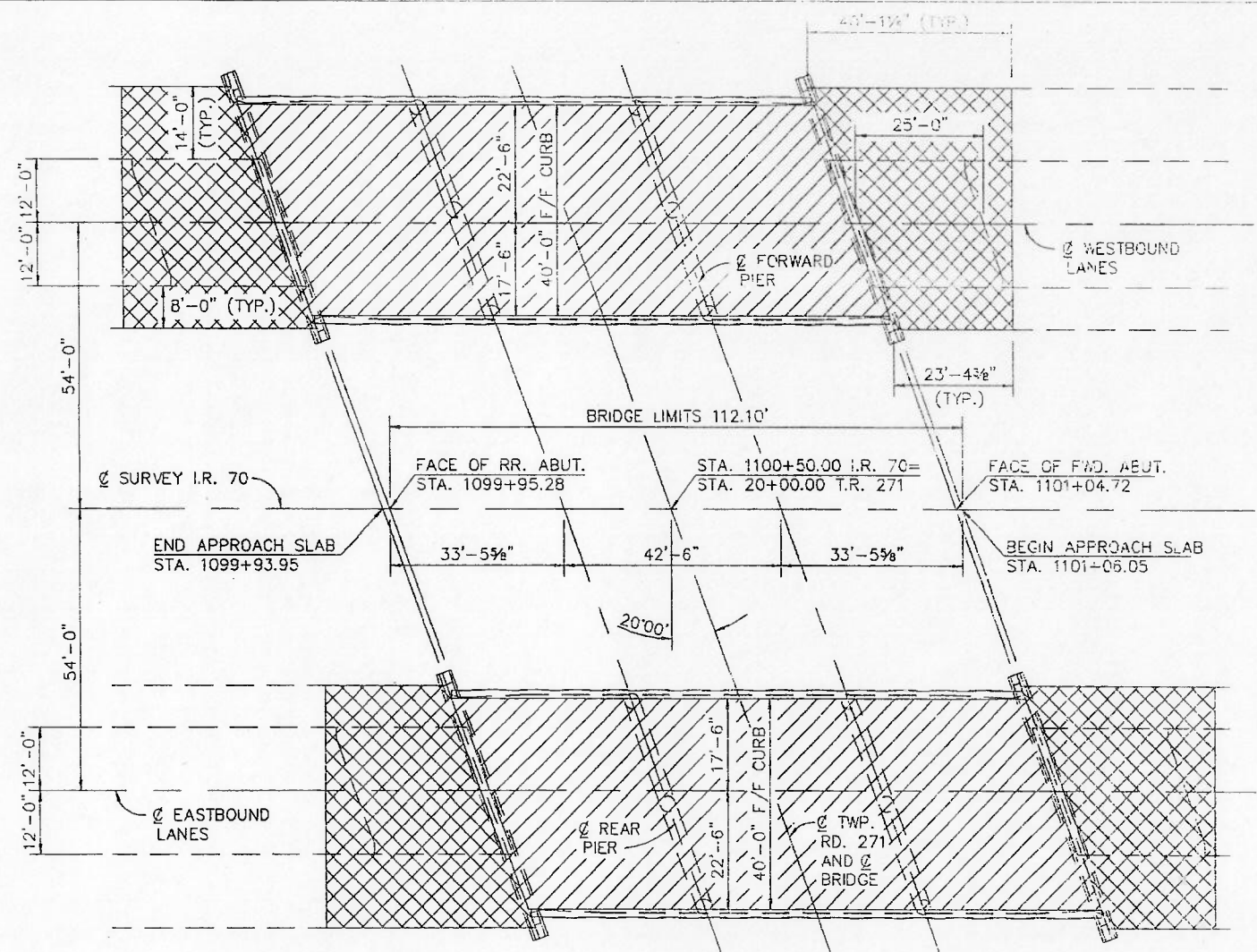
BRIDGE NOTES
BRIDGE NO. MUS-70-0691/R

MUS-70-(0.73) (1-43)
LIC-70-2893

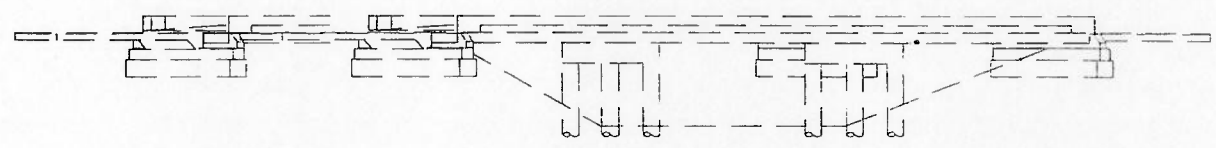
1/6

19
35

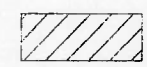
PART 1 BRIDGE NO. MUS-70 0691L	PART 1 BRIDGE NO. MUS-70 0691R	ITEM	ITEM EXT.	GRAND TOTAL	UNIT	DESCRIPTION	PLAN 78	DATE CHECKED DATE	DRN DATE	RSE
324	324	202	23500	648	SQ. YD.	WEARING COURSE REMOVED				
498	498	SPECIAL 51273500	996		SQ. YD.	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN *				
51	51	SPECIAL 51631300	102		LIN. FT.	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM *				
33	39	SPECIAL 51912300	72		SQ. YD.	PATCHING CONCRETE BRIDGE DECKS, TYPE B *				



PLAN



ELEVATION

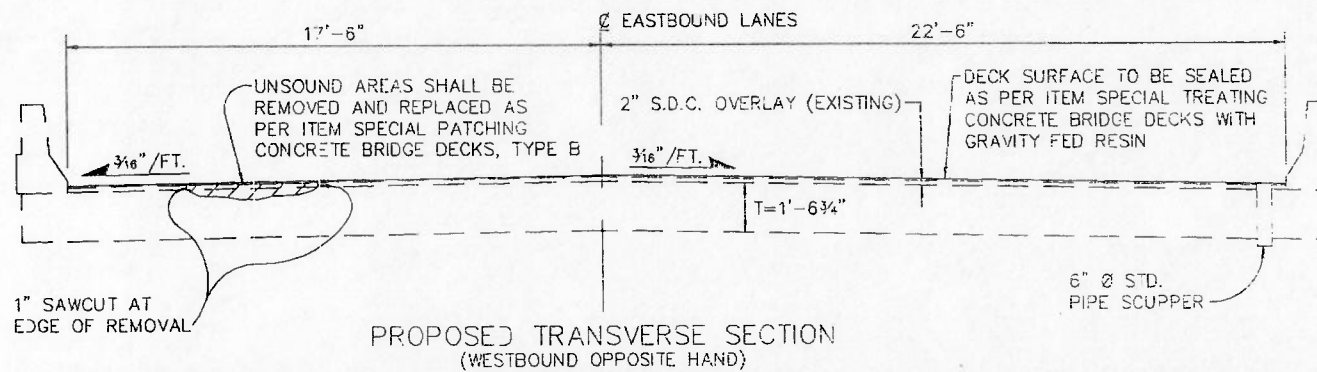
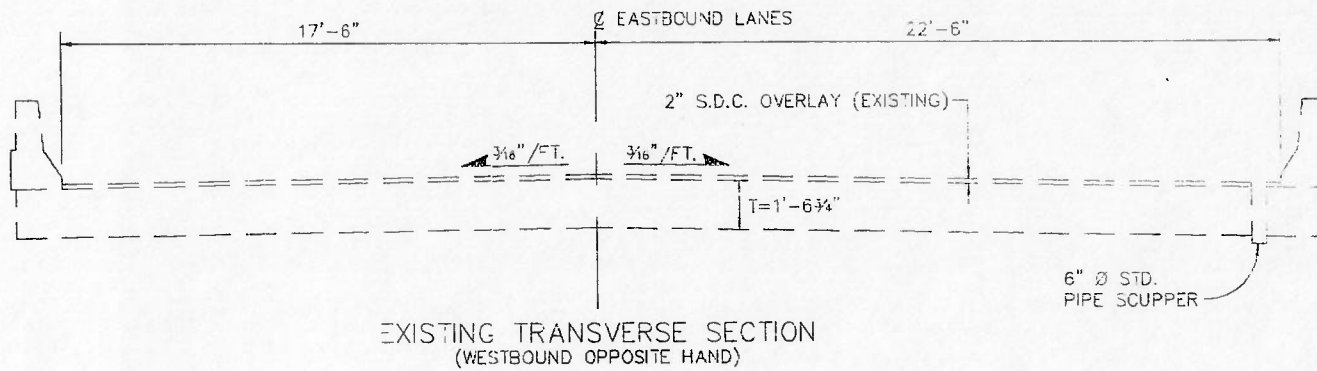


AREA TO BE SOUNDED AND PATCHED AS PER ITEM SPECIAL PATCHING CONCRETE BRIDGE DECKS, TYPE B THEN SEALING THE DECK AS PER ITEM SPECIAL TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN



2 1/2" ± ASPHALT TO BE REMOVED FROM ROADWAY AND PAVED BERMS TO MATCH SURFACE OF CONCRETE APPROACH SLAB, SEE SHEET 3/8 FOR PROFILE

DESIGNER	D.D.H.	DATE	1/24/84
CHECKER	D.D.H.	DATE	1/24/84
APPROVED	D.D.H.	DATE	1/24/84
PROJECT NO.	MUS-70-(0.73) (1.43)		
BRIDGE NO.	70-0691L/R		
SCALE	AS SHOWN		
PROJECT	OHIO DEPARTMENT OF TRANSPORTATION		
DATE	1/24/84		
BY	D.D.H.		
CHECKED	D.D.H.		
APPROVED	D.D.H.		
PROJECT NO.	MUS-70-(0.73) (1.43)		
BRIDGE NO.	70-28.93		
SCALE	AS SHOWN		
PROJECT	OHIO DEPARTMENT OF TRANSPORTATION		
DATE	1/24/84		
BY	D.D.H.		
CHECKED	D.D.H.		
APPROVED	D.D.H.		



OHIO DEPARTMENT OF TRANSPORTATION

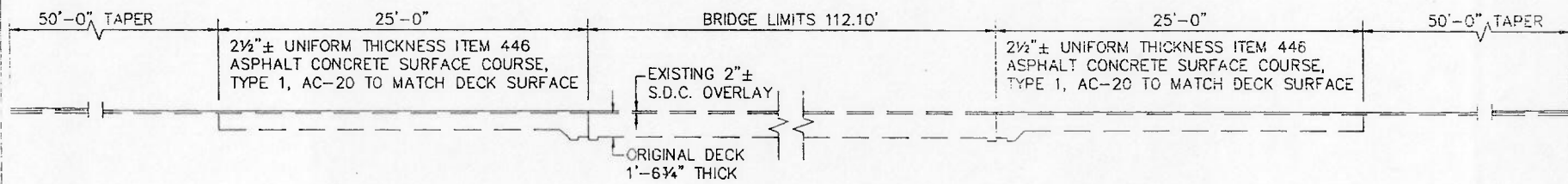
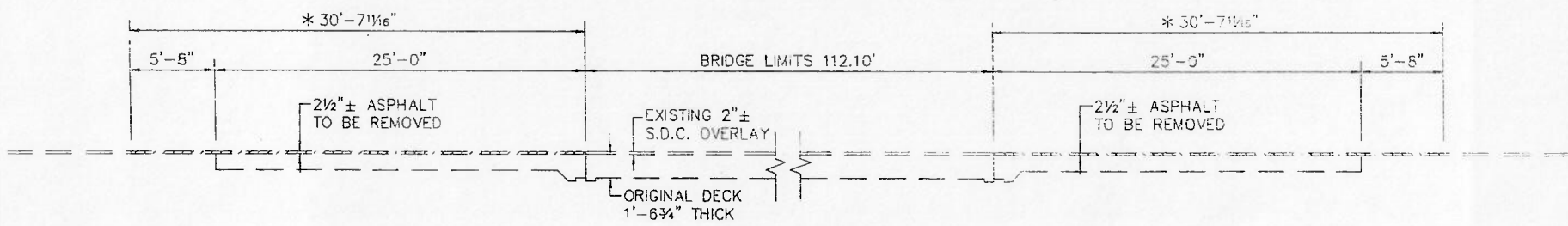
DATE: 9/27/93
 DRAWN BY: D.D.H.
 CHECKED BY: D.D.H.
 APPROVED BY: D.D.H.

TRANSVERSE SECTION
 BRIDGE NO. MUS-70-0691L/R

MUS-70-(0.73) (1-43)
 LIC-70-28.93



* NOTE:
REMOVAL LENGTH VARIES
SEE SHEET 376 FOR LENGTHS



NOTE:
FOR ITEM 446 ASPHALT CONCRETE
SURFACE COURSE, TYPE 1, AC-20
QUANTITIES SEE SHEET

OHIO DEPARTMENT OF TRANSPORTATION
BRIDGE NO. MUS-70-0691L/R
PROFILE SECTION
MUS-70-(0.73) (1.43)
LIC-70-28.93
DATE: 10/1/03
DESIGNED BY: [Signature]
CHECKED BY: [Signature]
APPROVED BY: [Signature]
D.D.H. / D.D.H.

GENERAL NOTES AND DETAILS FOR POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM

PLAN 78

ITEM SPECIAL - POLYMER-MODIFIED ASPHALT EXPANSION JOINT SYSTEM

THIS ITEM SHALL BE USED TO SEAL THE EXPANSION/CONTRACTION JOINTS AS PER THESE DETAILS AND THE MANUFACTURER'S REQUIREMENTS USING A POLYMER-MODIFIED ASPHALT SYSTEM. THE PRIME CONTRACTOR SHALL OBTAIN THE SERVICES OF ONE OF THE FOLLOWING LICENSED APPLICATORS WHO SHALL FURNISH AND INSTALL THE NEW BRIDGE EXPANSION JOINT SYSTEM AFTER ALL PAVING ON THE AFFECTED BRIDGE(S) HAS BEEN COMPLETED.

PAVETECH ENGINEERED SYSTEMS INC.
2575 US. RT. 22 & 3, OFFICE 1
MANEVILLE, OHIO 45309
TEL.: 1-800-258-0152

LINEAR DYNAMICS, INC.
400 LAWDEX PLAZA
PARSIPPANY, NJ 07054
TEL.: (201) 884-0300

MATERIALS:

BRIDGING PLATE:

MILD STEEL OR ALUMINUM 1/8" OR 1/4" THICK PLATE, 6" WIDE

BINDER:

TYPE: POLYMER MODIFIED ASPHALT
SOFTENING POINT: 180 DEGREES F. MIN.
FLOW: 3 MM. MAX. AT 140 DEGREES F.
PENETRATION: 9 MM. MAX. AT 77 DEGREES F.
1 MM. MAX. AT 0 DEGREES F.
ASTM D 3407
DUCTILITY: 40 CM. MIN. ASTM D 113
RESILIENCE: 60% MIN. AT 77 DEGREES F.
TENSIL ADHESION: 700% MIN.
SPECIFIC GRAVITY: 1.10 ± 0.05
POURING TEMP.: 350 - 390 DEGREES F.

AGGREGATE:

TYPE: CRUSHED, DOUBLE WASHED, AND DRIED GRANITE OR BASALT

GRADATION:

THE GRADATION OF THE AGGREGATE VARIES BY MANUFACTURER AND SHALL BE AS PER THE MANUFACTURER'S RECOMMENDATIONS FOR THE SYSTEM BEING USED ON THIS PROJECT

BACKER ROD:

PROPERTY	NOMINAL VALUE	TEST METHOD
DENSITY	2.0 LBS/CU FT	ASTM D 1622
TENSILE STRENGTH	25 PSI	ASTM D 1623
WATER ABSORPTION BY VOLUME	0.5%	ASTM C 509
COMPRESSION DEFLECTION AT 8 PSI	25%	ASTM D 1621
TEMPERATURE RESISTANCE	-45 TO +450 DEGREES F	

INSTALLATION PROCEDURES:

SAWING AND SURFACE PREPARATION:

AFTER ALL PAVING OPERATIONS ARE COMPLETED, THE OVERLAY IS TO BE TRANSVERSELY SAW CUT FULL DEPTH (20" CENTERED OVER JOINT OPENING, UNLESS OTHERWISE NOTED). ALL MATERIAL, INCLUDING WATERPROOFING MATERIAL, BETWEEN THE SAW CUTS SHALL BE REMOVED. THE EXPOSED CONCRETE, STEEL SURFACES, AND CUT SURFACES SHALL BE THOROUGHLY CLEANED AND DRIED USING A HOT COMPRESSED AIR (HCA) LANCE. THE LANCE SHALL PRODUCE A FLAME RETARDED AIR STREAM TEMPERATURE OF 3,000 DEGREES F. AT A VELOCITY OF 3,000 FEET PER SECOND WITH 15 PSIG CHAMBER PRESSURE. IF THERE IS AN INTERRUPTION DUE TO WEATHER OR OTHER CAUSES, THE OPERATION WILL BE REPEATED WITH THE HCA LANCE IMMEDIATELY BEFORE THE TANKING OPERATION. ALSO, 6" OF THE ROAD SURFACE ON EITHER SIDE OF THE JOINT WILL BE DRIED SO THAT A SUITABLE SURFACE FOR BITUMEN ADHESION IS OBTAINED.

SEALING OF EXPANSION JOINT:

THE EXPANSION JOINT GAP IS TO BE SEALED AND A BRIDGING PLATE CENTERED ALONG IT. A VERY NARROW GAP SHALL BE SEALED BY POURING HOT BINDER INTO THE GAP. CAPS OF 1/8" OR MORE SHALL FIRST BE FILLED WITH AN APPROPRIATE SIZED BACKER ROD. THE BACKER ROD SHALL BE INSTALLED SO THAT IT IS BETWEEN 1/8" AND 1-1/8" BELOW THE TOP OF THE EXISTING GAP. THE GAP SHALL THEN BE FILLED WITH BINDER. ADDITIONAL BINDER SHALL BE SPREAD OVER THE SURFACE AREA WHERE THE METAL PLATE WILL BE PLACED.

BOND BREAKER:

THE BRIDGING PLATE SHALL THEN BE CENTERED OVER THE EXISTING JOINT AND BEDDED INTO THE HOT BINDER. THE BRIDGING PLATES SHALL BE BUTT JOINTED TO ACCOMMODATE THE ENTIRE JOINT LENGTH. SPIKE HOLES SHALL BE DRILLED AT 1 FOOT INTERVALS ALONG THE LONGITUDINAL CENTERLINE OF THE PLATES. SECURE PLATE TO BACKER ROD WITH NAILS OR SPIKES. BUTT JOINTS SHALL BE SEALED WITH HOT BINDER AND ALLOWED TO COOL BEFORE THE JOINT IS TANKED.

TANKING:

ALL PREPARED, EXPOSED SURFACES OF THE JOINT SHALL BE SEALED WITH BINDER. THE HOT BINDER SHALL BE POURED OVER THE FLOOR AREA OF THE JOINT AND SPREAD TO COAT ALL EXPOSED SURFACES. THE BINDER SHALL BE A MINIMUM OF 1/32" THICK ON THE BOTTOM OF THE JOINT CAVITY, WITH POOLS OF GREATER THICKNESS WHERE THERE ARE SURFACE IRREGULARITIES. THE BINDER APPLICATION TEMPERATURE SHALL BE BETWEEN 350 AND 390 DEGREES F. THE BINDER SHALL NOT BE HEATED ABOVE 410 DEGREES F. NOR ALLOWED TO COOL TO 390 DEGREES F. FOR MORE THAN 1 HOUR.

BUILD-UP OF JOINT LAYERS:

AGGREGATE PREPARATION:

AGGREGATE SHALL BE HEATED TO A TEMPERATURE OF 275 TO 325 DEGREES F. IN A SUITABLE ROTATING DRUM WITH A HEAT SOURCE ATTACHED OR USING A HOT COMPRESSED AIR LANCE TO REMOVE ALL DUST AND MOISTURE.

AGGREGATE PROPORTION AND LAYER THICKNESS:

THE AGGREGATE SHALL BE MIXED WITH THE BINDER SUCH THAT THE MINIMUM AGGREGATE CONTENT BY WEIGHT SHALL BE 68%. THE HEATED AGGREGATE AND BINDER SHALL BE COMBINED IN LAYERS NOT LESS THAN 3/4 OF AN INCH NOR EXCEEDING 2 INCHES. THE THICKNESS OF EACH LAYER CAN BE VARIED, WITHIN THESE LIMITS, TO ACHIEVE THE REQUIRED JOINT THICKNESS. THE OBJECTIVE IS TO COAT EACH STONE AND TO FILL THE VOIDS BETWEEN WHILE AVOIDING AN EXCESS OF BINDER. THE AIM IS TO ACHIEVE THE MAXIMUM CONTENT OF STONE CONSISTANT WITH ALL STONES BEING COATED WITH BINDER AND A MAXIMUM VOID CONTENT OF 2%. TO ACHIEVE THIS, THE AGGREGATE AND THE BINDER SHALL BE RAKED TO MIX AND LEVEL. EACH LAYER SHALL BE ALLOWED TO COOL BEFORE PLACEMENT OF SUBSEQUENT LAYERS.

AGGREGATE PREPARATION:

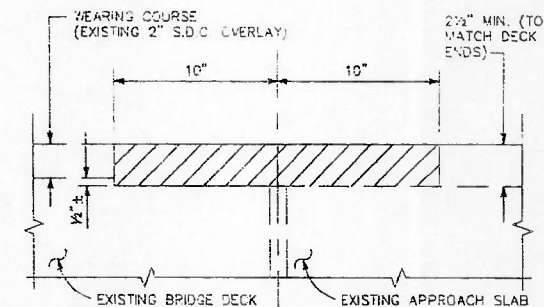
THE TOP LAYER SHALL NOT BE LESS THAN 1/2 INCH AND NOT EXCEED 1 INCH. IN PREPARING THE TOP LAYER, THE RATIO OF AGGREGATE TO BINDER SHALL BE APPROXIMATELY 6:1 BY WEIGHT. THIS RATIO IS NOT ABSOLUTELY VITAL SINCE ADDITIONAL BINDER WILL INFILTRATE THE TOP LAYER FROM BOTH BELOW AND ABOVE. THE TOP LAYER SHALL BE OVERFILLED AND COMPACTED TO THE LEVEL OF THE ADJACENT SURFACES USING A ROLLER OR VIBRATORY PLATE COMPACTOR. IMMEDIATELY AFTER COMPLETION OF THE COMPACTION, SUFFICIENT BINDER SHALL BE SPREAD OVER THE JOINT TO FILL THE SURFACE VOIDS AND COAT THE SURFACE STONE. THE FINISHED JOINT SHALL THEN BE DUSTED WITH A FINE, DRY AGGREGATE TO PREVENT THICKNESS. THE COMPLETED JOINT SHALL BE ALLOWED TO COOL TO THE SURFACE TEMPERATURE OF THE DECK BEFORE IT IS EXPOSED TO TRAFFIC.

MAINTENANCE OF TRAFFIC:

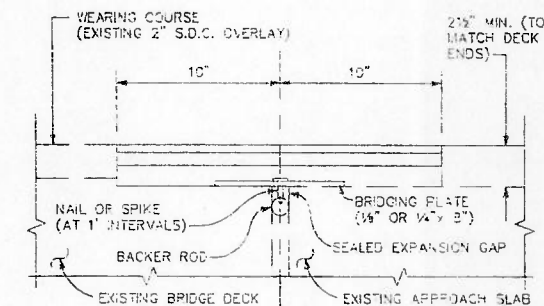
IF NECESSARY TO FACILITATE TRAFFIC MAINTENANCE, THE JOINT SHALL BE INSTALLED IN TWO (2) HALF-WIDTH PHASES. DURING PHASE 1 APPROXIMATELY HALF OF THE TOTAL JOINT SHALL BE INSTALLED. DURING PHASE 2, A MINIMUM OF TWO (2) INCHES OF THE PHASE 1 JOINT SHALL BE REMOVED, AT OR NEAR THE CENTERLINE WITH THE REMAINDER OF THE JOINT INSTALLED. IN ALL CASES, OPERATIONS SHALL BE SCHEDULED SO THAT ALL LANES CAN BE OPEN TO TRAFFIC DURING ALL NON-WORKING HOURS.

PAYMENT:

PAYMENT FOR ALL THE ABOVE SHALL BE AT THE UNIT PRICE BID PER LINEAR FOOT OF SEALED JOINT IN PLACE FOR ITEM SPECIAL, POLYMER MODIFIED ASPHALT BINDER EXPANSION JOINT SEALER. THIS SHALL INCLUDE ALL LABOR, EQUIPMENT, MATERIALS AND INCIDENTALS NECESSARY TO COMPLETE THE ABOVE WORK.



EXISTING CONCRETE
SLAB JOINT



PROPOSED CONCRETE
SLAB JOINT

OHIO DEPARTMENT OF TRANSPORTATION DISTRICT 5
 DATE: 11/14/07
 DRAWN BY: [Signature]
 CHECKED BY: [Signature]
 APPROVED BY: [Signature]
 D.D.H.
 D.D.H.
 GENERAL NOTES AND DETAILS FOR POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM
 BRIDGE NO. MUS-70-0881/R
 MUS-70-(0.73) (1.43)
 LIC-70-28293
 6/6
 [Signature]

10700670

LOCATION SUB-SUMMARY

PLAN NO. 78

DETAIL	
1	MULTILANE UNDIVIDED
1	TYPICAL SPACING

DETAIL	
2	TAPERED ACCELERATION LANE
3	DECELERATION LANE
4	PARALLEL ACCELERATION LANE
5	MULTILANE DIVIDED/EXPRESSWAY

DETAIL	
6	STOP APPROACH
7	ONE LANE APPROACH W/LT. TURN LANE
8	THRU APPROACH
9	TWO LANE APPROACH W/LT. TURN LANE

DETAIL	
10	4 LANE DIVIDED TO 2 LANE TRANSITION
11	4 LANE UNDIVIDED TO 2 LANE TRANSITION
12	TWO LANE NARROW BRIDGE
13	TWO WAY LEFT TURN LANE
14	ONE LANE BRIDGE
15	HORIZONTAL CURVE

DETAIL	
16	HORIZONTAL CURVE ALT.
17	STOP APPROACH ALT.
	GAP CENTERLINE AT 80' TYP.

P A R T	LOCATION				D E T A I L	RPM	INSTALLATION ONLY			PRISMATIC RETRO-REFLECTOR COLORS					R E M A R K S			
	C O U N T Y	R O U T E	S.L.M. SECTION				P R I S M A T I C R E T R O- R E F L E C T O R	RPM			O N - W A Y		T W O - W A Y					
			F R O M	T O							W H I T E	Y E L L O	W H I T E	Y E L L O		W H I T E	Y E L L O	R E D
		IR 70	EAST	BOUND														
1	MUS		0.73	1.43	5	46			46									
2	LIC		28.93	29.42	5	32			32									
1	MUS		1.43	8.64	5	476			476									
1	MUS		0.76		2	25			20	5					ON RAMP FROM C.R. 30			
		IR 70	WEST	BOUND														
1	MUS		0.73	1.43	5	46			26				20					
2	LIC		28.93	29.42	5	32			32									
1	MUS		1.43	8.64	5	476			476									
1	MUS		0.76		2	20			15	5					OFF RAMP TO C.R. 30			
1	TOTALS					1089			1059	10			20					
2	TOTALS					64			64									

MD-23

08-30-94 (MAINT - C) 1-70LSS

DRAWN
CHECKED

LOCATION SUB-SUMMARY

MUS-70-(0.73)(1.43)
LIC-70-28.93

25
35

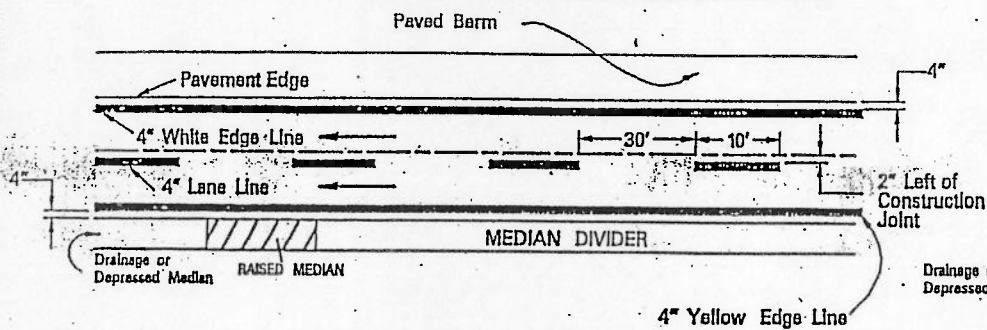
CALC. BY SKB
 DATE 7-6-94
 CHECKED BY _____
 DATE _____

FED. RD. DIVISION	STATE	PROJECT
5	OHIO	

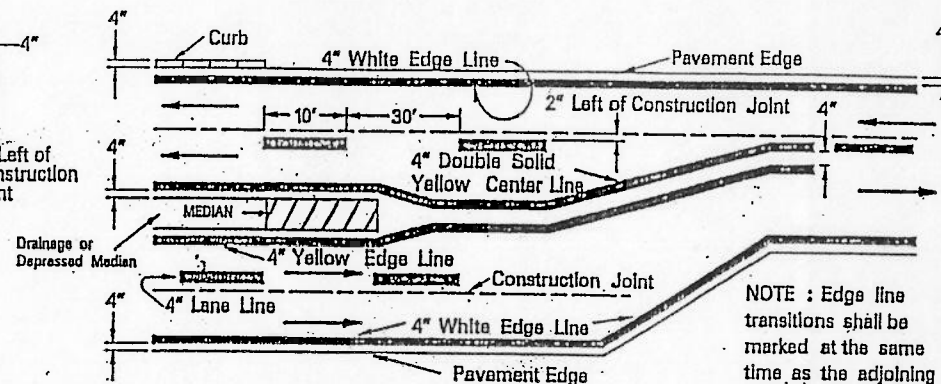
26
35

PLAN NO.: 78
 MUS-70-(0.73)(1.43)
 LIC-70-28.93

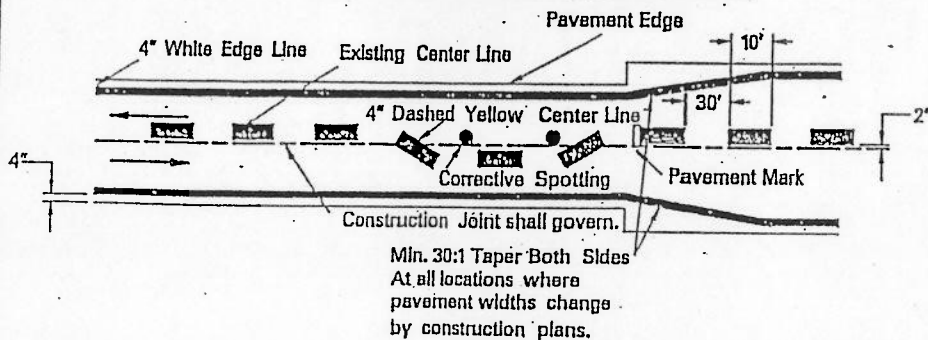
FREEWAY & EXPRESSWAY MAINLINE MARKINGS



MULTILANE DIVIDED & UNDIVIDED HIGHWAY MARKINGS



TWO LANE MARKINGS



NOTES:

1. The distance from the pavement edge to the nearside 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
 9-88
 8-91

PAVEMENT MARKING SUB-SUMMARY

PLAN NO. 124

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		
MUS	IR 70	E.B.																301	10+65 S.E. RAMP TO 13+66.17 S.E. RAMP
		E.B.																349	752+56.79 E.B. - 756+05.79 E.B.
		W.B.	205		70													600	750+35 W.B. - 753+35 W.B.
MUS	N.E. RAMP IR 70 (PART 1)	TOTALS	205		70													1250	PLACE AS DIRECTED

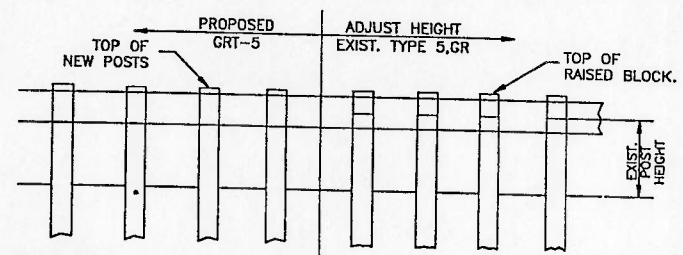
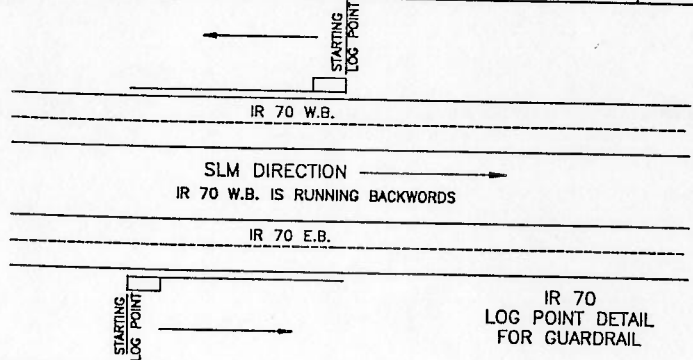
PAVEMENT MARKING

NOTE: ASPHALT HAS BEEN CALCULATED ON ANY PROPOSED GRT-5 AND TYPE E, AA REMOVED FOR RE-USE ON GUARDRAIL RUNS SLM 5.75 TO SLM 8.45 BECAUSE THE EXISTING GRT-5 CURRENTLY HAS ASPHALT UNDER IT.

PLAN NO. 73

PART	ROUTE	STARTING LOG POINT	SIDE	202	203	404	606			202	606	SPECIAL	BERM RESHAPING	LIN.FT.
				REMOVE TYPE E ANCHOR ASSEMBLY FOR STORAGE	LINEAR GRADING STA.	ASPHALT CONCRETE, (UNDER GUARDRAIL) A.P.P. CU.YD.	RAISING TYPE 5 GUARDRAIL	GUARDRAIL TYPE 5 (PRECEEDING EXIST. RUN OF GRT-5)	GUARDRAIL TYPE 5 (USE TO CONNECT TO NEXT RUN OF GRT-5)	TYPE E ANCHOR ASSEMBLY REMOVED FOR RE-USE	ANCHOR ASSEMBLY REBUILT, TYPE E			
				EACH	STA.	CU.YD.	EACH	LIN.FT.	LIN.FT.	LIN.FT.	EACH			
1	IR70E.B	0.78	RT					525	112.5		1	1		162.5
		1.18	RT					375			1	1		
		1.59	RT					887.5	112.5		1	1		162.5
		1.88	RT					325			1	1		
		1.89	LT					262.5			1	1		
		1.98	RT					337.5						
		2.12	RT					1262.5	112.5		1	1		162.5
		2.89	RT					262.5			1	1		
		2.92	LT					125			1	1		
		2.97	RT					112.5			1	1		
		3.07	RT					275						
		3.39	RT					1375			1	1		
		3.74	RT					1637.5			1	1		
		4.10	RT					1212.5			1	1		
		4.54	LT					325			1	1		
		4.68	RT					2050	162.5		1	1		212.5
		5.20	RT					525			1	1		
		5.51	RT					575	112.5		1	1		162.5
		5.75	RT		0.94	3		587.5	50		1	1		

PART 1 IR 70 E.B. HAS BEEN CONTINUED ON NEXT SHEET



NOTE: SEE DRAWING GR-2.1.5-6-91 FOR PROPER CONSTRUCTION METHODS ON BOTH ITEMS.

DETAIL OF JOINING PROP. GRT-5 WITH RAISING OF EXIST. GRT-5

GUARDRAIL DATA

5-11-94 1-70GRD1

MUS-70-(0.73)(1.43)
LIC-70-28.93

NOTE: ASPHALT HAS BEEN CALCULATED ON ANY PROPOSED GRT-5 AND TYPE E, AA REMOVED FOR RE-USE ON GUARDRAIL RUNS SLM 5.75 TO SLM 8.45 BECAUSE THE EXISTING GRT-5 CURRENTLY HAS ASPHALT UNDER IT.

PLAN NO. 78

PART	ROUTE	STARTING LOG POINT	SIDE	202	203	404	606			202	606	SPECIAL	617							
				REMOVE TYPE E ANCHOR ASSEMBLY FOR STORAGE	LINEAR GRADING	ASPHALT CONCRETE, (UNDER GUARDRAIL) A.P.P.	RAISING TYPE 5 GUARDRAIL	GUARDRAIL TYPE 5 (PRECEEDING EXIST. RUN OF GRT-5)	GUARDRAIL TYPE 5 (USE TO CONNECT TO NEXT RUN OF GRT-5)	TYPE E ANCHOR ASSEMBLY REMOVED FOR RE-USE	ANCHOR ASSEMBLY REBUILT, TYPE E	BERM RESHAPING	COMPACTED AGGREGATE, TYPE A							
				EACH	STA.	CU.YD.	EACH	LIN.FT.	LIN.FT.	LIN.FT.	EACH		LIN.FT.	CU.YD.						
PART 1 IR 70 E.B. CONTINUED FROM PREVIOUS SHEET																				
		5.99	RT		1.56	5		575	112.5				1	1						
		6.18	RT		1.56	5		525	112.5				1	1						
		6.51	RT		2.06	6		1050	162.5				1	1						
		6.83	RT		0.94	3		312.5	50				1	1						
		6.84	LT					262.5												
		6.91	RT					375												
		6.93	LT					112.5												
		7.23	RT		1.56	5		837.5	112.5				1	1						
		7.79	RT		2.06	6		1162.5	162.5				1	1						
		8.19	RT					1425					1	1						
		8.45	LT					162.5												
1	IR70EB	TOTALS			10.68	33		19837.5	1375				21	21				862.5		
2	IR70EB	1.36	RT	1 @ 1.62				2000		262.5			1	1				312.5		

GUARDRAIL DATA

(1) SLM'S RUN OPPOSITE TRAFFIC DIRECTION.

NOTE: ASPHALT HAS BEEN CALCULATED ON ANY PROPOSED GRT-5 AND TYPE E, AA REMOVED FOR RE-USE ON GUARDRAIL RUNS SLM 6.04 TO SLM 8.54 BECAUSE THE EXISTING GRT-5 CURRENTLY HAS ASPHALT UNDER IT.

PART	ROUTE	ENDING LOG POINT (1)	SIDE	202	203	404	606				202	606	SPECIAL	617							
				REMOVE TYPE E ANCHOR ASSEMBLY FOR STORAGE	LINEAR GRADING	ASPHALT CONCRETE, (UNDER GUARDRAIL) A.P.P.	RAISING TYPE 5 GUARDRAIL	GUARDRAIL TYPE 5 (PRECEDING EXIST. RUN OF GRT-5)	GUARDRAIL TYPE 5 (USE TO CONNECT TO NEXT RUN OF GRT-5)	TYPE E ANCHOR ASSEMBLY REMOVED FOR RE-USE	ANCHOR ASSEMBLY REBUILT, TYPE E	BERM RESHAPING	COMPACTED AGGREGATE, TYPE A								
				EACH	STA.	CU.YD.	EACH	LIN.FT.	LIN.FT.	LIN.FT.	EACH		LIN.FT.	CU.YD.							
1	IR70WB	8.54	RT					162.5				1	1								
	MUS.CO.	8.51	LT					112.5													
		8.46	RT		0.94	3		1162.5	50			1	1								
		8.21	RT					1325				1	1								
		7.79	RT		0.94	3		375	50			1	1								
		7.50	RT					112.5				1	1								
		7.08	RT					637.5				1	1								
		7.02	LT					325													
		6.94	RT					900													
		6.92	LT					162.5													
		6.43	RT		2.56	8		1525	212.5			1	1								
		6.04	RT		1.56	5		787.5	112.5			1	1								
		5.73	RT					737.5				1	1								
		5.47	RT					1900	162.5			1	1						212.5		
		4.89	RT					625	162.5			1	1						212.5		
		4.63	LT					162.5													
		4.48	RT	1	4.34			1162.5	162.5	200		1	1						412.5		
		4.14	RT					1212.5	112.5			1	1						162.5		
		3.11	RT					212.5	212.5			1	1						262.5		
		3.07	LT					212.5													
		3.07	RT					112.5	50			1	1						100		
		2.58	RT					537.5	50			1	1						100		
		2.09	RT					262.5	50			1	1						100		
		2.08	LT					262.5													
		2.00	RT					1687.5													
		2.01	LT					162.5													
		1.36	RT					370													
1	IR70WB	TOTALS			1	6.00	19	17207.5	1387.5	200		17	17						1562.5		

GUARDRAIL DATA

08-29-94(MAINT - C)-70GRD3

MUS-70-(0.73)(1.43)
LIC-70-28.93

(1) SLM'S RUN OPPOSITE TRAFFIC DIRECTION.

PART	ROUTE	ENDING LOG POINT (1)	SIDE	202	203	404	606			202	606	SPECIAL	617						
				REMOVE TYPE E ANCHOR ASSEMBLY FOR STORAGE EACH	LINEAR GRADING STA.	ASPHALT CONCRETE, (UNDER GUARDRAIL) A.P.P. CU.YD.	RAISING TYPE 5 GUARDRAIL EACH	GUARDRAIL TYPE 5 (PRECEEDING EXIST. RUN OF GRT-5) LIN.FT.	GUARDRAIL TYPE 5 (USE TO CONNECT TO NEXT RUN OF GRT-5) LIN.FT.	TYPE E ANCHOR ASSEMBLY REMOVED FOR RE-USE EACH	ANCHOR ASSEMBLY REBUILT, TYPE E	BERM RESHAPING LIN.FT.	COMPACTED AGGREGATE, TYPE A CU.YD.						
	LIC.CO.																		
2	IR70WB	29.53	RT				675	112.5		1	1	162.5							
		29.32	RT				1362.5	162.5		1	1	212.5							
2	IR70WB	TOTALS					2037.5	275		2	2	375							

GUARDRAIL DATA

PLAN NO. 78

GENERAL SUMMARY

ITEM	PART 1	PART 2							ITEM	ITEM EXT. NO.	GRAND TOTAL PARTS 1 AND 2	UNIT	DESCRIPTION
202	648								202	23500	648	SQ.YD.	WEARING COURSE REMOVED
202	1	1							202	42508	2	EACH	ANCHOR ASSEMBLY REMOVED FOR STORAGE, (TYPE E)
202	38	3							202	42806	41	EACH	ANCHOR ASSEMBLY REMOVED FOR RE-USE,(TYPE E)
202	1089	64							202	54101	1153	EACH	RAISED PAVEMENT MARKER REMOVED FOR STORAGE,AS PER PLAN
203	16.68								203	60001	16.68	STATION	LINEAR GRADING, AS PER PLAN
253	225								253	02001	225	CU.YD.	PAVEMENT REPAIR, AS PER PLAN
254	152570	14039							254	01000	166609	SQ.YD.	PAVEMENT PLANING, BITUMINOUS
301	28072	2718							301	10002	30790	CU.YD.	BITUMINOUS AGGREGATE BASE, AC-20
304	67								304	20000	67	CU.YD.	AGGREGATE BASE
404	506	49							404	20001	555	CU.YD.	ASPHALT CONCRETE, AC-20, AS PER PLAN
404	55								404	30001	55	CU.YD.	ASPHALT CONCRETE, AC-20 (UNDER GUARDRAIL) AS PER PLAN
407	18943	1110							407	10000	20053	GALLON	TACK COAT
446	11254	1057							446	01200	12311	CU.YD.	ASPHALT CONCRETE,INTERMEDIATE COURSE,TYPE 2,AC-20
446	13533	755							446	01400	14288	CU.YD.	ASPHALT CONCRETE,SURFACE COURSE,TYPE 1,AC-20
603	30								603	00400	30	LIN.FT.	4" CONDUIT, TYPE E, (707.19)
605	200								605	05101	200	LIN.FT.	4" SHALLOW PIPE UNDERDRAIN, AS PER PLAN
606	2962.5	537.5							606	13000	3500	LIN.FT.	GUARDRAIL, TYPE 5
606	37045	4037.5							606	17000	41082.5	LIN.FT.	RAISING TYPE 5 GUARDRAIL
606	38	3							606	27850	41	EACH	ANCHOR ASSEMBLY REBUILT, TYPE E
SPECIAL	996								SPECIAL	51273500	996	SQ.YD.	TREATING CONCRETE BRIDGE DECKS WITH GRAVITY FED RESIN
SPECIAL	102								SPECIAL	51631300	102	LIN.FT.	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM
SPECIAL	28072	2718							SPECIAL	44825020	30790	POUND	LIQUID ANTI-STRIP MATERIAL FOR 703.04 OR 703.05 AGGREGATE
SPECIAL	72								SPECIAL	51912300	72	SQ.YD.	PATCHING CONCRETE BRIDGE DECKS, TYPE B
SPECIAL	2425	687.5							SPECIAL	60650000	3112.5	LIN.FT.	RESHAPING BERM
SPECIAL	80								SPECIAL	61411100	80	HR	LAW ENFORCEMENT OFFICER WITH PATROL CAR

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GENERAL SUMMARY

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GENERAL SUMMARY

ITEM	PART 1	PART 2							ITEM	ITEM EXT. NO.	GRAND TOTAL PART 1 AND 2	UNIT	DESCRIPTION
614	LUMP	LUMP							614	11000	LUMP	LUMP	MAINTAINING TRAFFIC
614	50	16							614	12460	66	EACH	WORK ZONE MARKING SIGN
614	45.64	1.96							614	20400	47.6	MILE	TEMPORARY LANE LINE, CLASS II
614	0.49								614	22000	0.49	MILE	TEMPORARAY EDGE LINE, CLASS I
617	10238'	799							617	10100	11037	CU.YD.	COMPACTED AGGREGATE, TYPE A
617	92 /	7							617	25000	99	MGAL.	WATER
619	LUMP	LUMP							619	15000	LUMP	LUMP	FIELD OFFICE, TYPE A
622	1094								622	40020	1094	LIN.FT.	PORTABLE CONCRETE BARRIER, 32"
624	LUMP	LUMP							624	10000	LUMP	LUMP	MOBILIZATION
642	32.4	1.96							642	00102	34.36	MILE	EDGE LINE, TYPE 2
642	15.94'	0.98							642	00202	16.92	MILE	LANE LINE, TYPE 2
642	2798								642	30000	2798	LIN.FT.	REMOVAL OF PAVEMENT MARKING
644	1250								644	00400	1250	LIN.FT.	CHANNELIZING LINE
644	70								644	00500	70	LIN.FT.	STOP LINE
644	205								644	00700	205	LIN.FT.	TRANSVERSE LINE
802	31	3							802	00100	34	EACH	BARRIER REFLECTOR, TYPE A
862	1089	64							862	00100	1153	EACH	RAISED PAVEMENT MARKER

GENERAL SUMMARY

MUS-70-(0.73)(1.43)
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