

STATE OF OHIO
DEPARTMENT OF TRANSPORTATION

STA - 241-07.63

OVER TUSCARAWAS RIVER, U.S. 21, CONRAIL, CHESSIE AND N.&W. R.R.
(TREMONT AVE.)

CITY OF MASSILLON, STARK CO. OHIO

FHWA DIVISION	STATE	PROJECT
5	OHIO	

M-2E34(I)
& ISSUE I

STARK COUNTY
STA-241-7.63
TREMONT AVE. S.W.
MASSILLON, OHIO

1
5

PE-7-23

1979 SPECIFICATIONS

EXCEPT WHERE OTHERWISE NOTED, THE STANDARD SPECIFICATIONS OF THE STATE OF OHIO, DEPT. OF TRANSPORTATION, INCLUDING CHANGES AND SUPPLEMENTAL SPECIFICATIONS LISTED IN THE PROPOSAL, SHALL GOVERN THIS IMPROVEMENT.

WE, THE COMMISSIONERS OF STARK COUNTY, OHIO IN FORMAL SESSION HEREBY APPROVE THESE PLANS.

APPROVED Robert C. Schuske

APPROVED James Patrick

APPROVED Thomas W. Spennell COMMISSIONERS

DATE June 3, 1979

I HEREBY APPROVE THESE PLANS & DECLARE THAT THE MAKING OF THIS IMPROVEMENT WILL REQUIRE THE CLOSING OF THE HIGHWAY TO TRAFFIC & THAT DETOURS WILL BE PROVIDED AS INDICATED ON PLANS.

APPROVED Joseph A. Murvet STARK COUNTY ENGINEER

DATE June 4, 1979

APPROVED William M. Goldman DISTRICT DEPUTY DIRECTOR OF TRANSPORTATION

DATE 6-13-79

APPROVED Robert B. Pfeiffer mce ENGINEER, BUREAU OF BRIDGES AND STRUCTURAL DESIGN

DATE 8-1-79

APPROVED P. S. Gathin CHIEF ENGINEER, PLANNING AND DESIGN

DATE 8-12-79

APPROVED David L. Wein DIRECTOR, DEPARTMENT OF TRANSPORTATION

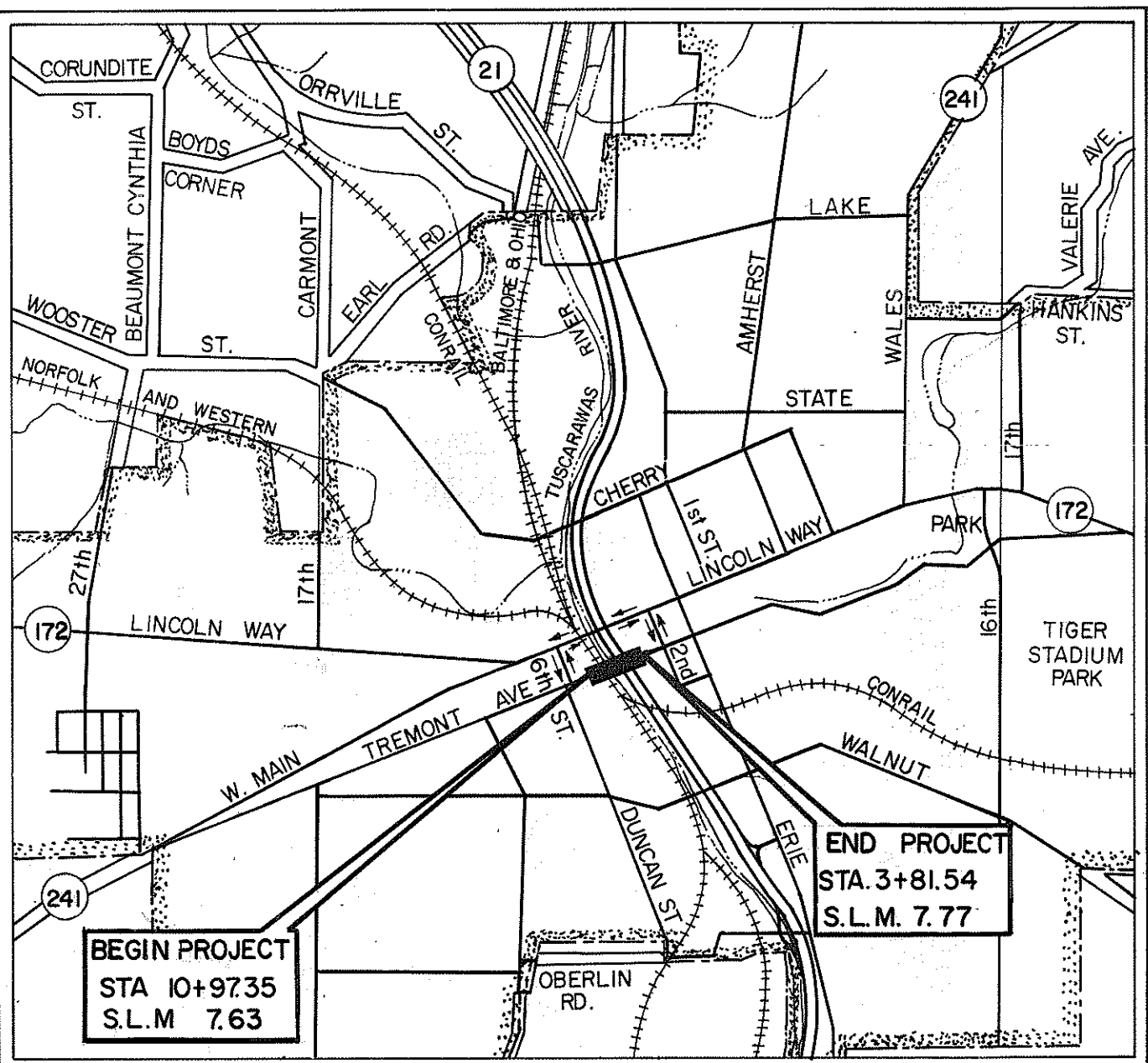
DATE 8-17-79

INDEX OF SHEETS

TITLE SHEET	1
TYPICAL SECTIONS	3
GENERAL NOTES	3
GENERAL PLAN	2
GENERAL SUMMARY	3
TRAFFIC NOTES	3
DETAILS	4, 5

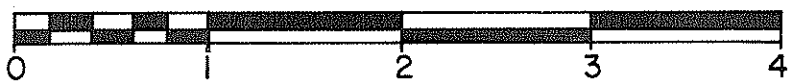
LINE DATA

BEGIN PROJECT	STA. 10+97.35
END PROJECT	STA. 3+81.54
NET LENGTH PROJECT	715.81 FT. = .135 MI.
BEGIN WORK	STA. 11+62
END WORK	STA. 3+20
NET LENGTH WORK	842 FT. = .159 MI.



LOCATION MAP

SCALE IN MILES



PORTION TO BE IMPROVED

STATE HIGHWAY

OTHER ROADS

DETOUR

SCALES

PLAN

PROFILE

HORIZ. : 1" = 30'
VERT. : 1" = 10'



STANDARD DRAWINGS

MC-3	6-1-73
BP-5	4-16-79
BP-11	1-3-75

SUPPLEMENTAL SPECIFICATIONS

1001	1-3-77
836	3-12-75
849	4-25-77
852	6-8-79
921	12-4-72

DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED :

DIVISION ADMINISTRATOR

DATE

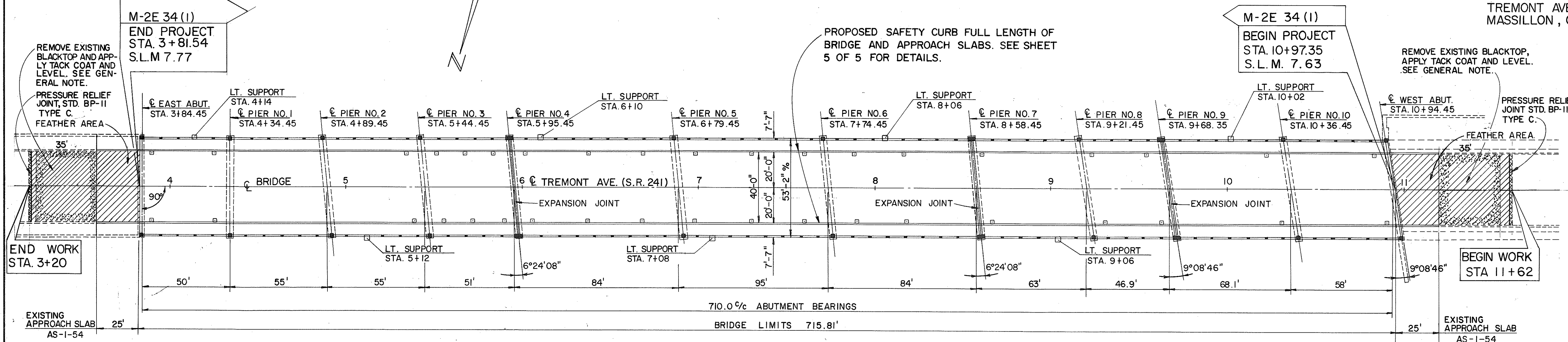
FILE NO.	STA-241-7.63
DATE OF LETTING	197
CONTRACT NO.	

FHWA DIVISION	STATE	PROJECT
5	OHIO	

2
5

STARK COUNTY
STA-241-763
TREMONT AVE. S.W.
MASSILLON, OHIO

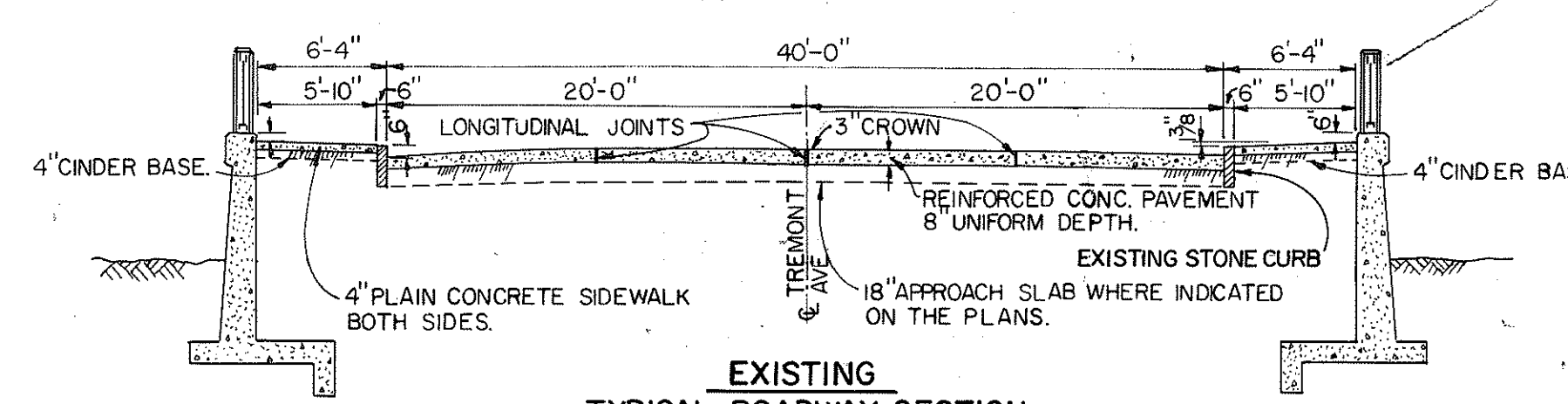
LOCATION OF SCUPPERS	
NORTH SIDE OF ROADWAY	SOUTH SIDE OF ROADWAY
3+90	3+90
4+26	4+26
5+39	5+34
5+56	5+51
5+72	5+67
5+90	5+83
6+06	6+01
6+37	6+37
6+68	6+68
6+98	6+98
7+30	7+30
7+62	7+62
7+92	7+92
8+20	8+20
8+68	8+64
9+32	9+26
9+64	9+57
10+32	10+25
10+92	10+86



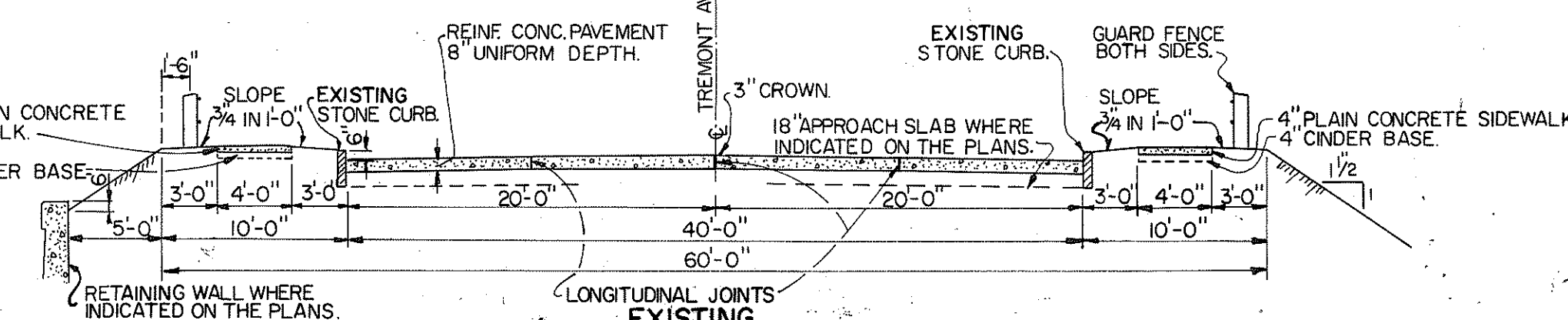
NOTE: THE EXISTING BRIDGE DECK CONDITION IS AS FOLLOWS: (5-9-78)
THE DECK SURFACE EXHIBITS MANY AGGREGATE POP-OUTS. THE FIRST FOUR OF THE ELEVEN SPANS HAS CONSIDERABLE DELAMINATIONS (APPROX. 19%) LOCALIZED TOP LAYER REINFORCING STEEL IS EXPOSED IN SEVERAL OF THE DELAMINATED LOCATIONS. THE REMAINING SPANS HAVE SOME SPALLS NEAR THE EXPANSION JOINTS. THE AMOUNT OF BRIDGE DECK PATCHING WILL BE AS DIRECTED BY THE ENGINEER.

GENERAL PLAN

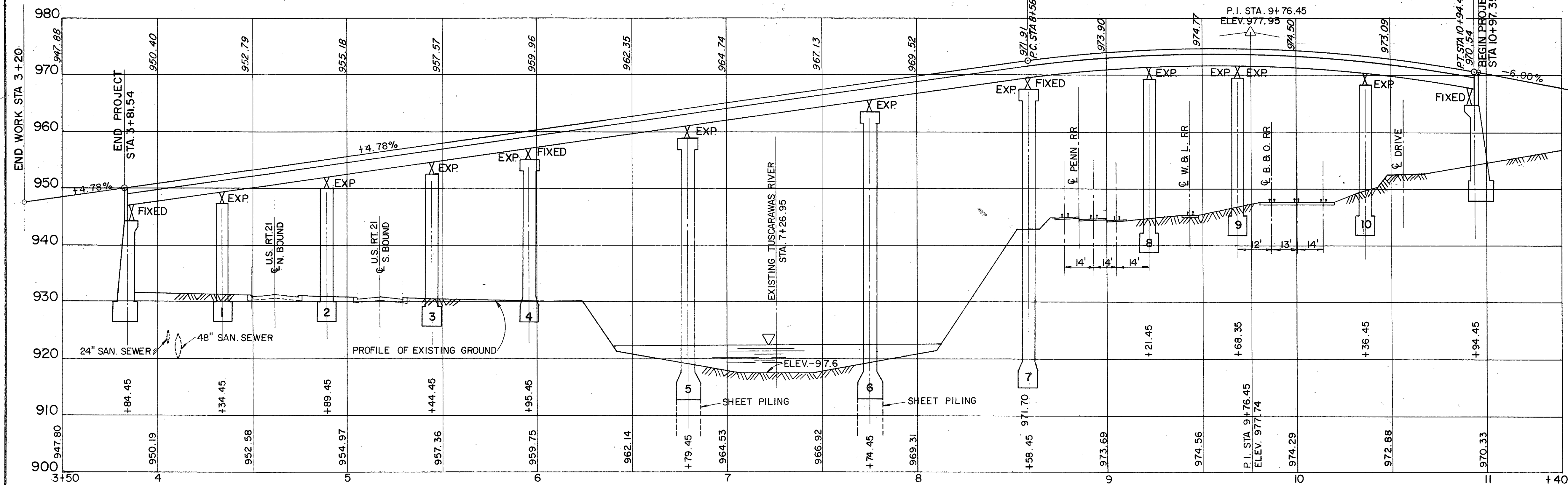
SCALE: 1" = 30'



EXISTING
TYPICAL ROADWAY SECTION
FROM STA. 3+20 TO STA. 3+81.54



EXISTING
TYPICAL ROADWAY SECTION
FROM STA 10+97.35 TO STA 11+62



GENERAL ELEVATION

EXISTING STRUCTURE

TYPE: 11 SPAN, CONTINUOUS STEEL BEAM
SPANS: 50'-0", 2 AT 55'-0", 51'-0", 2 AT 84'-0", 95'-0", 63'-0", 46.9', 68.1', 58'-0"
ROADWAY: REINFORCED CONCRETE DECK, 40'-0" f/f CURBS, 2-7'-7" SIDEWALKS
DESIGN LOADING: CF 400 (57)
SKEWS: 0°00', 6°24'8", 9°8'46" RIGHT FORWARD
WEARING SURFACE: 1" MONOLITHIC CONCRETE
APPROACH SLAB: AS-1-54, (25'-0" LONG)

PROPOSED STRUCTURE

SAME AS ABOVE, EXCEPT, WEARING SURFACE: 2 1/2" ASPHALT CONCRETE. AND NEW REINFORCED CONCRETE SAFETY CURBS.

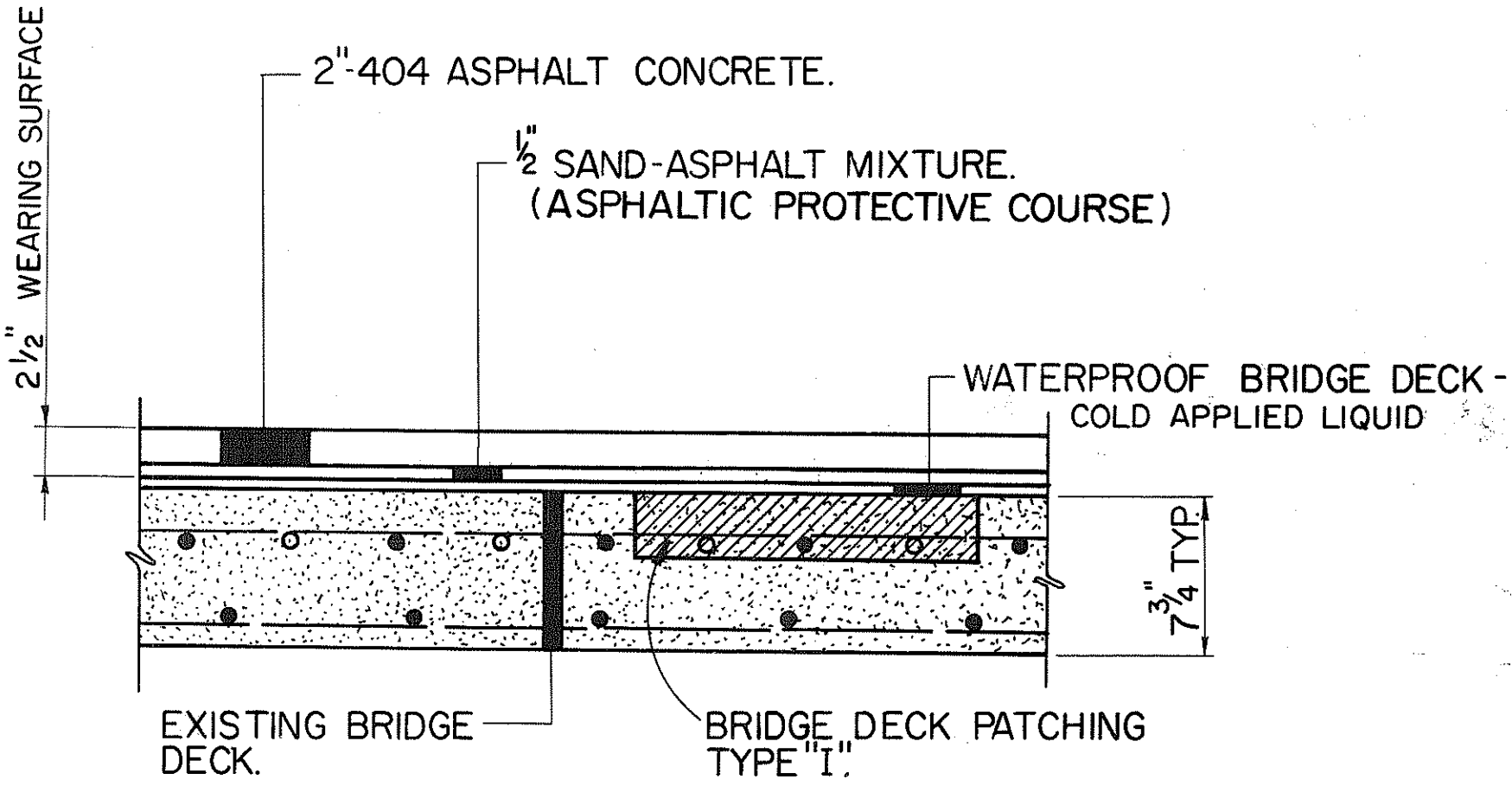
SCALES:
VERT.: 1" = 10'
HORIZ.: 1" = 30'

STARK COUNTY, OHIO						
PLAN AND ELEVATION						
BR. NO. STA-241-07.63 (PE-7-23)						
S.R. 241, TREMONT AVE. VIADUCT, CITY OF MASSILLON						
SECTION 7 PERRY TOWNSHIP						
DESIGNED	DRAWN	CHECKED	F.B.	P.	REVISED	DATE
R.A.L.	T.D.	R.A.L.			R.A.L.	12-77
					R.A.L.	12-79
					C.B.D.	10-11-79

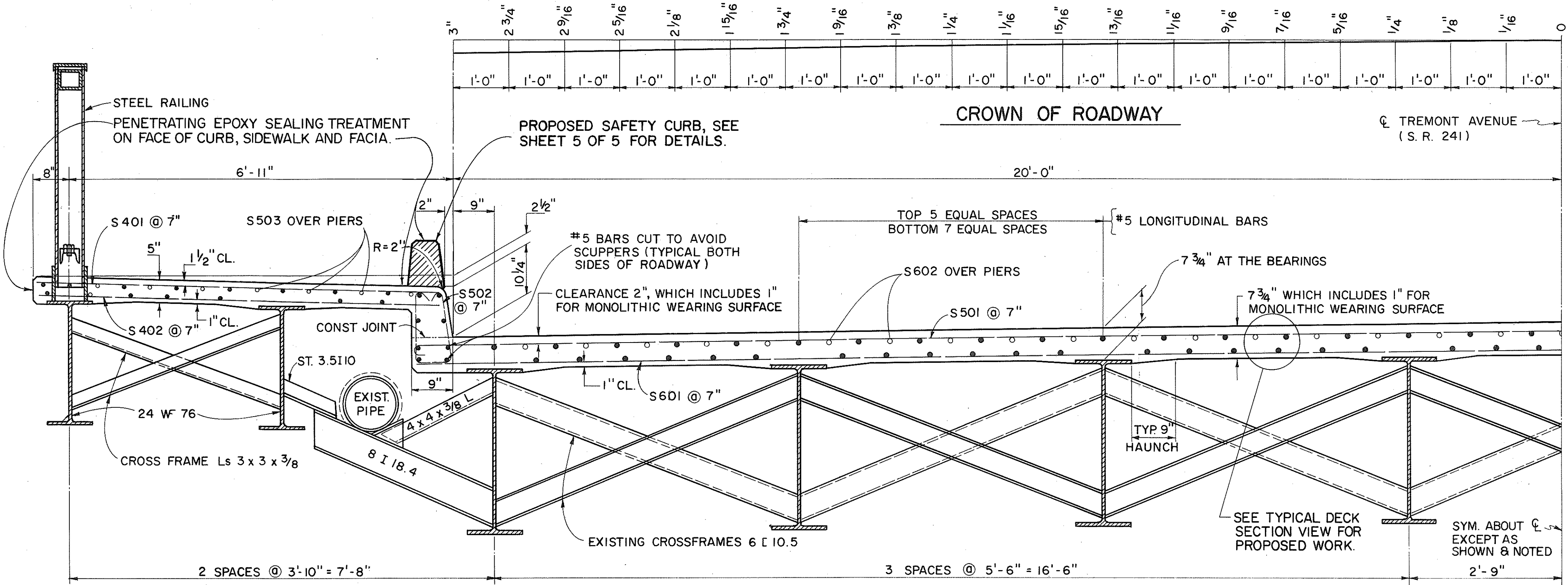
FHWA DIVISION	STATE	PROJECT	
5	OHIO		

3
5

STARK COUNTY
STA-241-7.63
TREMONT AVE. S.W.
MASSILLON, OHIO



TYPICAL DECK SECTION VIEW
(PROPOSED WORK)



EXISTING TYPICAL CROSS SECTION

TRAFFIC: THE DETOUR SHOWN ON SHEET 1 SHALL BE IN EFFECT FOR THE DURATION OF THE PROJECT. UNTIL THE DETOUR IS PLACED INTO EFFECT, TWO-WAY TRAFFIC SHALL BE MAINTAINED AT ALL TIMES. ON THE EXISTING BRIDGE. ALL TEMPORARY BARRICADES, SIGNS AND BARRICADE LIGHTING NECESSARY FOR CLOSING THE ROADWAY AND DETOUR SHALL BE ERCTED & MAINTAINED BY CONTRACTOR IN ACCORDANCE WITH THE "OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS," CURRENT EDITION, LATEST REVISION AND SHALL BE PAID FOR UNDER ITEM 614, MAINTAINING TRAFFIC. ALL SUBJECT TO THE APPROVAL OF 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 IN AN AMOUNT EQUAL TO THE THICKNESS OF THE RESURFACING COURSES SPECIFIED IN THESE PLANS.

SUPPLEMENTAL SPECIFICATION 836: ALL CONCRETE CURING AND PROTECTIVE MEMBRANE SHALL FOLLOW THE LATEST REVISION OF THIS SPECIFICATION DATED 3-12-75.

SUPPLEMENTAL SPECIFICATION 849: THE ELASTOMERIC COMPRESSION SEALS FOR STRUCTURAL STEEL JOINTS SHALL FOLLOW THE LATEST REVISION OF THIS SPECIFICATION DATED 4-25-77.

DECK PROTECTION METHOD: MEMBRANE WATERPROOFING (COLD APPLIED LIQUID) AND ASPHALT CONCRETE OVERLAY.

VERIFICATION: THE ELEVATIONS AND DIMENSIONS RELATED TO THIS PROJECT SHALL BE VERIFIED IN THE FIELD BY THE CONTRACTOR.

EXISTING PLANS: PLANS OF THE EXISTING STRUCTURE MAY BE EXAMINED IN THE STARK COUNTY ENGINEERS OFFICE, 209 WEST TUSCARAWAS ST. CANTON, OHIO 44702.

CROWN: THE PROPOSED CROWN SHALL CONFORM TO THE RATE OF THE CROWN OF EXISTING BRIDGE DECK AND APPROACH PAVEMENT. IF THE RATE OF CROWN OF THE BRIDGE DECK DIFFERS FROM THAT OF THE APPROACH PAVEMENT, A SMOOTH TRANSITION SHALL BE PROVIDED WITHIN THE LIMITS OF THE APPROACH SLAB.

GENERAL NOTES

SUPPLEMENTAL SPECIFICATION 852: THE FACE OF CURB, NEW CURB, SIDEWALK AND SIDEWALK FACIA SHALL BE SEALED ACCORDING TO THE LATEST REVISION OF THIS SPECIFICATION DATED 6-8-79.

FEATHERED AREAS: THE NEW PROPOSED PAVEMENT SHALL BE FEATHERED TO THE EXISTING PAVEMENT USING THE FEATHER EDGE TYPE AS SHOWN IN STD. CONST. DWG. NO. BP-5 AND IN THE GENERAL PLAN VIEW, SHEET 2 OF 4.

FIELD OFFICE: THE CONTRACTOR SHALL PROVIDE A SUITABLE FIELD OFFICE HAVING A MINIMUM OF 150 SQ. FT. OF FLOOR SPACE.

PAVEMENT MARKINGS: THE COUNTY WILL PROVIDE THE PAVEMENT MARKINGS BEFORE OPENING THE BRIDGE TO TRAFFIC.

DETOUR: THE ERECTION, MAINTAINING AND REMOVAL OF DETOUR SIGNS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE DETOUR SIGNS ONLY SHALL BE PROVIDED BY THE COUNTY. ALL OF THE ABOVE IS INCLUDED FOR PAYMENT IN THE LUMP SUM PRICE BID FOR ITEM 614, MAINTAINING TRAFFIC.

EXISTING BLACKTOP PATCH REMOVAL: THE EXISTING BLACKTOP PATCHES ON BOTH APPROACHES SHALL BE REMOVED UNDER ITEM 202, WEARING COURSE REMOVED. THE AREA OF REMOVAL SHALL RECEIVE A TACK COAT UNDER ITEM 407, TACK COAT. AN ESTIMATED QUANTITY OF 12 CUBIC YARDS HAS BEEN ADDED TO ITEM 404 TO LEVEL THIS AREA.

* 9" ± THICK

DESIGN DATA

CONCRETE CLASS C - UNIT STRESS 1333 P.S.I.
REINFORCING STEEL - ASTM A615, A616 OR A617
UNIT STRESS 20,000 P.S.I.

ESTIMATED QUANTITIES: SPECIFIC LOCATIONS AND USAGE OF ESTIMATED QUANTITIES SET UP ON THIS PLAN TO BE USED "AS DIRECTED BY THE ENGINEER" SHALL BE MADE A MATTER OF RECORD BY INCORPORATION INTO THE FINAL CHANGE ORDER GOVERNING COMPLETION OF THIS PROJECT. ESTIMATED QUANTITIES OF MATERIALS SHALL NOT BE ORDERED FOR DELIVERY TO THE PROJECT UNLESS AUTHORIZED BY THE ENGINEER.

GENERAL SUMMARY, CONTINUED

ITEM	QUANTITY	UNIT	DESCRIPTION
202	25	SQ. FT.	WALK REMOVED
202	100	LIN. FT.	CURB REMOVED
509	4,926	LBS.	REINFORCING STEEL
510	1,054	LIN. FT.	DOWEL HOLES
511	4	CU. YDS.	CLASS C CONCRETE, APPROACH SAFETY CURBS
511	41	CU. YDS.	CLASS C CONCRETE, BRIDGE SAFETY CURBS

GENERAL SUMMARY

ITEM	QUANTITY	UNIT	DESCRIPTION	TYPE CODE 6706
SPECIAL	375	SQ. YDS.	PATCHING CONCRETE BRIDGE DECK - TYPE I (SEE PROP. NOTE)	
SPECIAL	3221	SQ. YDS.	MEMBRANE WATERPROOFING, COLD APPLIED LIQUID (SEE PROP. NOTE)	
SPECIAL	44	CU. YDS.	ASPHALTIC PROTECTIVE COURSE (SEE PROP. NOTE)	
404	205	CU. YDS.	ASPHALT CONCRETE (AC-20)	
518	1383	LIN. FT.	SUBDRAINAGE FOR WEARING COURSE AS PER PLAN.	
407	0.11	TONS	COVER AGGREGATE	
849	202	LIN. FT.	ELASTOMERIC COMPRESSION SEALS FOR STRUCTURAL STEEL JOINTS, 3/2" INCH WIDTH INCLUDING VERTICAL EXTENSION OF JOINTS AS PER PLAN	
852	1820	SQ. YD.	SURFACE PREPARATION	
852	109	GAL.	PENETRATING EPOXY COMPOUND	
852	LUMP		TEST SECTIONS	
407	3	GAL.	TACK COAT; RC-250, MS-2, RS-1, SS-1 OR SS-1h	
SPECIAL	80	LIN. FT.	PRESSURE RELIEF JOINT, TYPE C	
SPECIAL	38	EACH	SCUPPER MODIFICATION	
202	32	SQ. YD.	WEARING COURSE REMOVED	
624	LUMP	LUMP	MOBILIZATION	
614	LUMP		MAINTAINING TRAFFIC	
619	LUMP		FIELD OFFICE	

STARK COUNTY, OHIO

DETAILS, GENERAL NOTES AND GENERAL SUMMARY

BR. NO. STA-241-0763 (PE-7-23)
SR. 241, TREMONT AVE. CITY OF MASSILLON, OHIO
SECTION 7, PERRY TWP.

DESIGNED	DRAWN	CHECKED	F.B.	P.	REVISED	DATE
RAL	CB					1-78
						6-78
						2-79
						8-2-79
						10-7-79

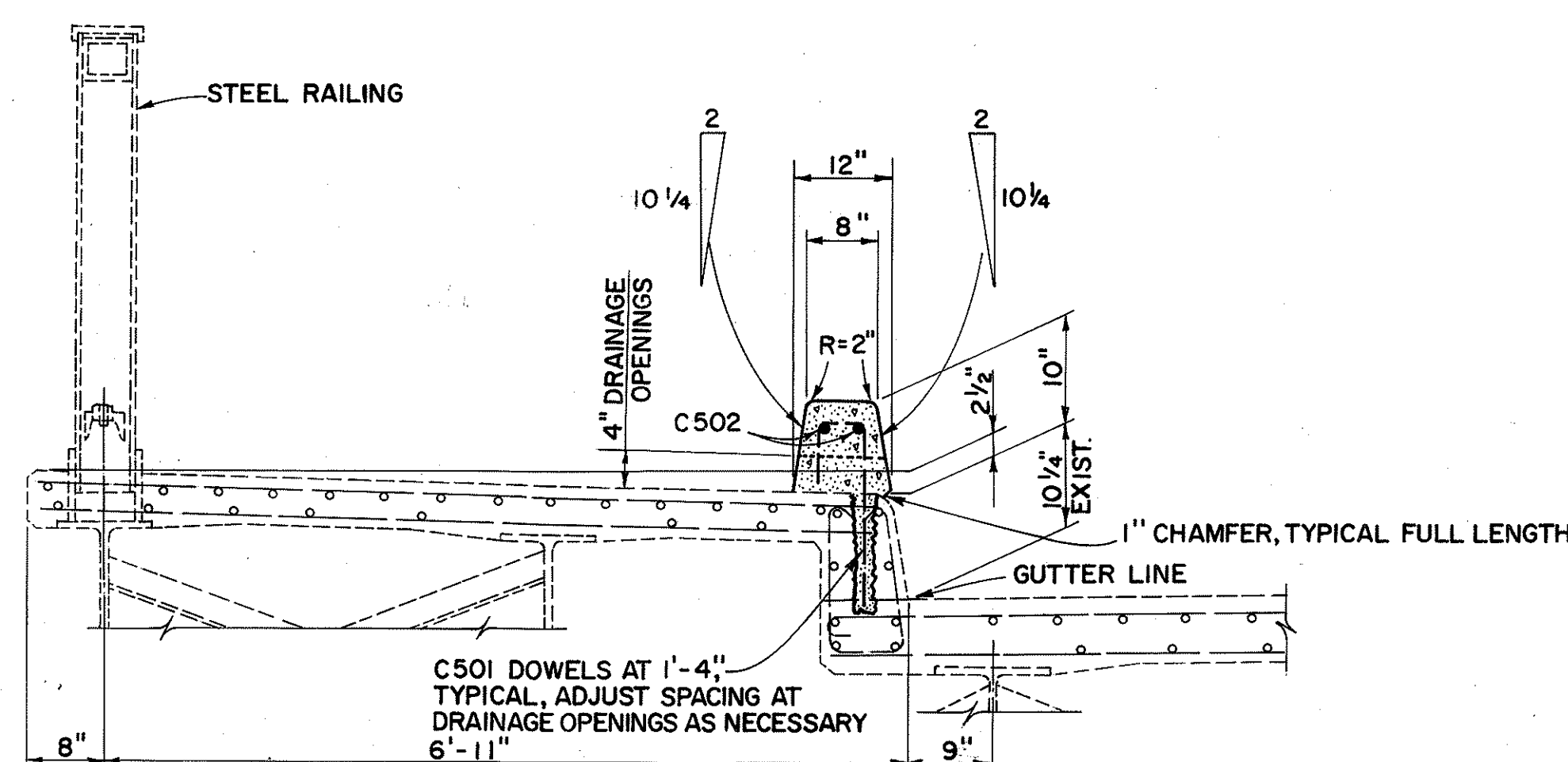
FHWA DIVISION	STATE	PROJECT
5	OHIO	

5
5

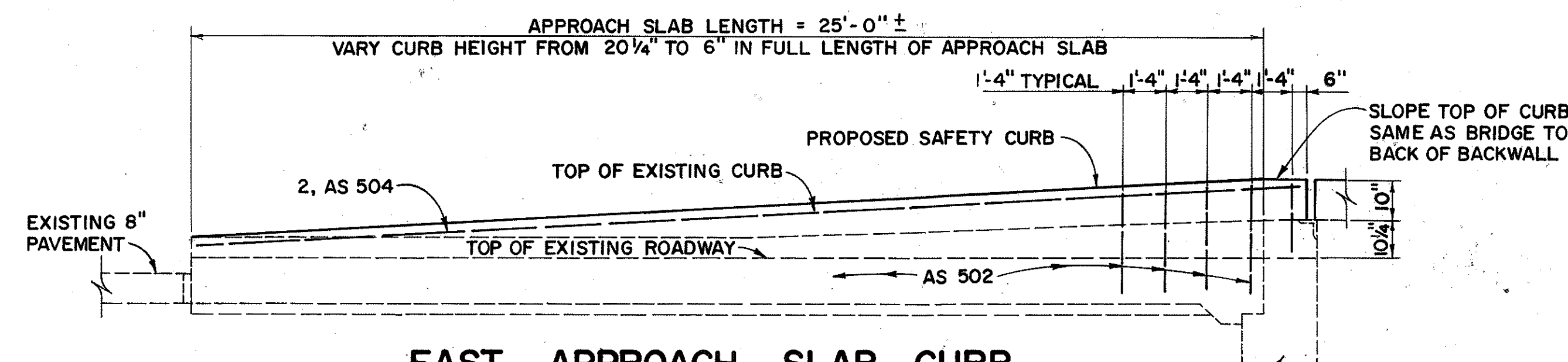
M-2E34(1)

STARK COUNTY
STA-241-7.63
TREMONT AVE. S.W.
MASSILLON, OHIO

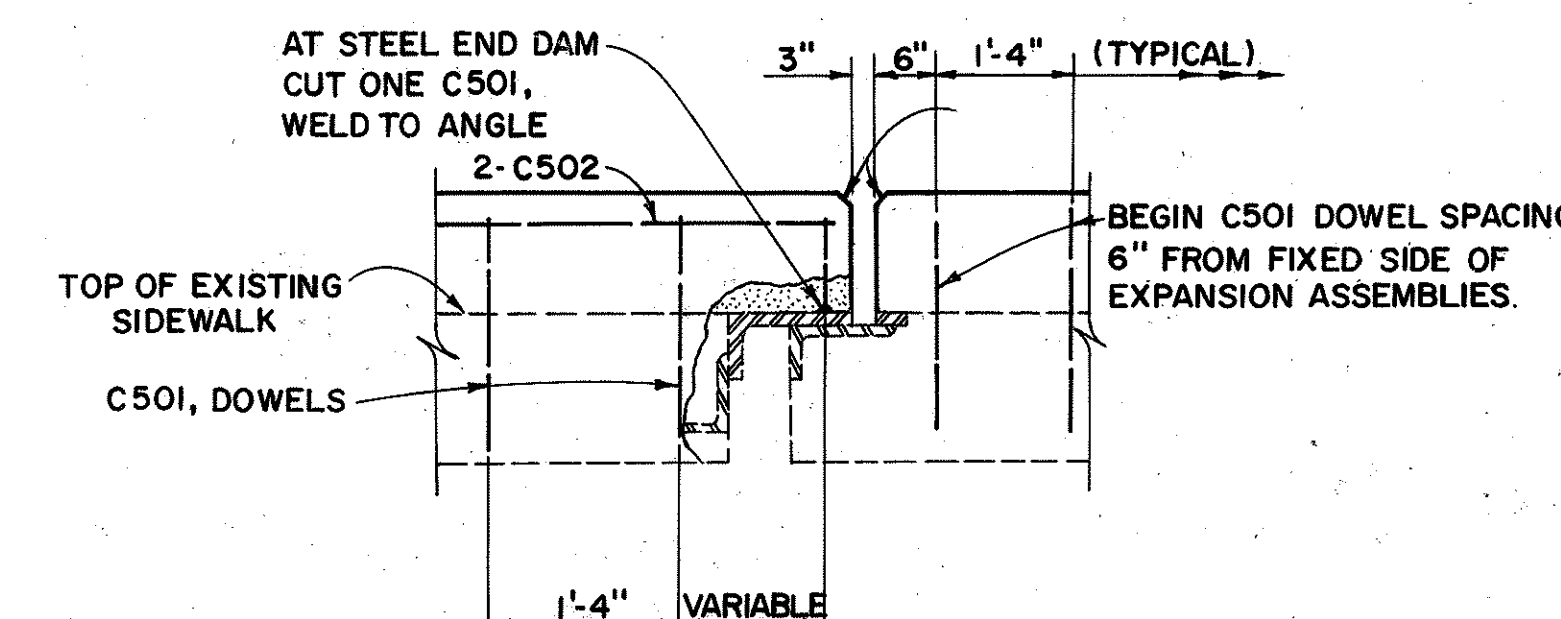
PE-7-23



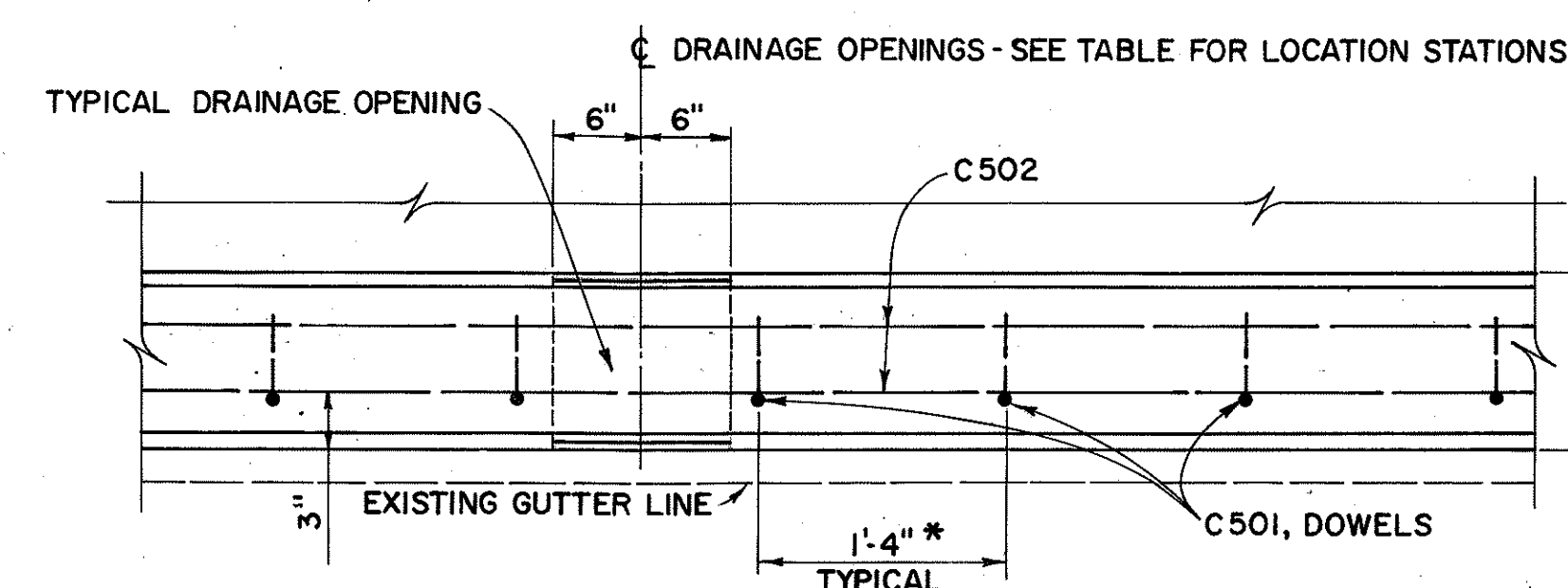
SAFETY CURB SECTION



EAST APPROACH SLAB CURB

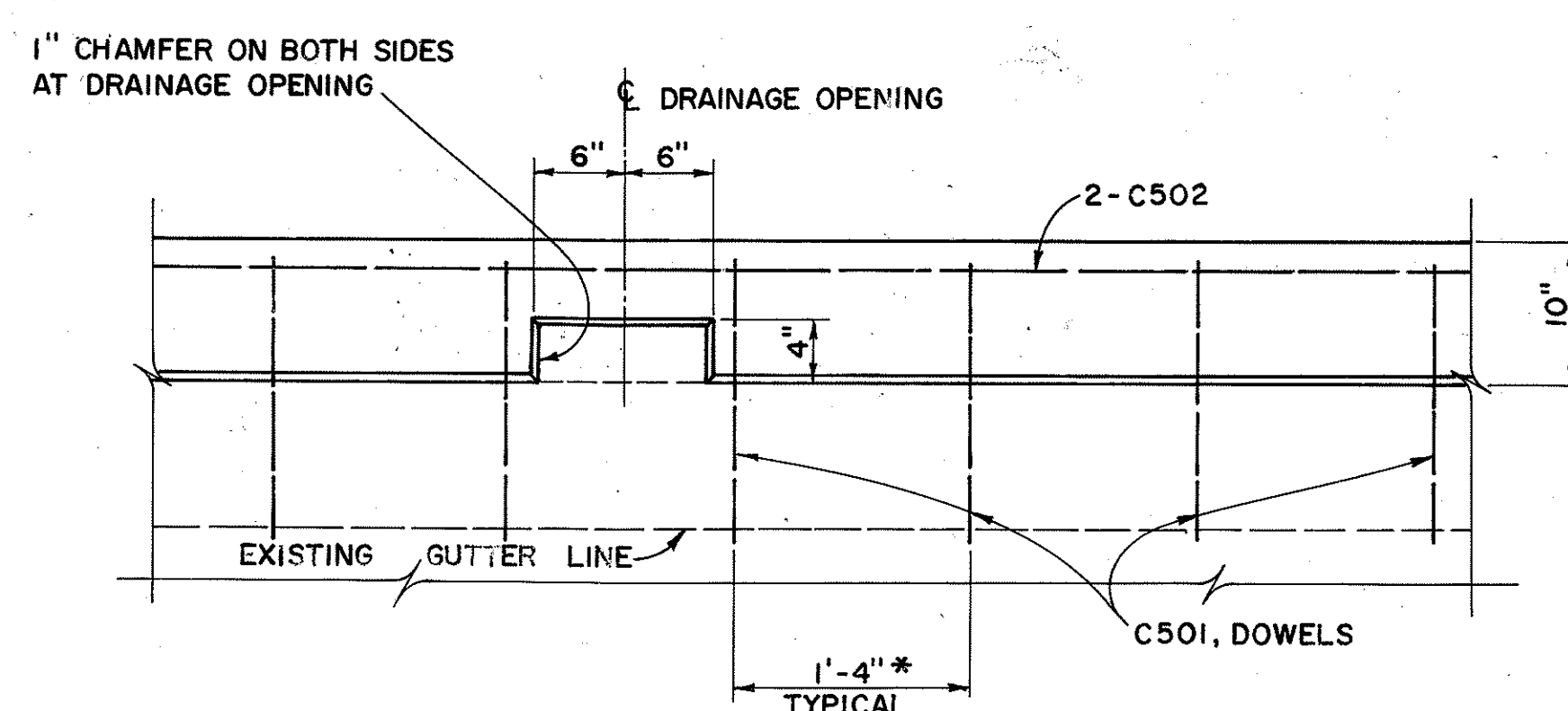


TYPICAL TREATMENT AT EXPANSION ASSEMBLY

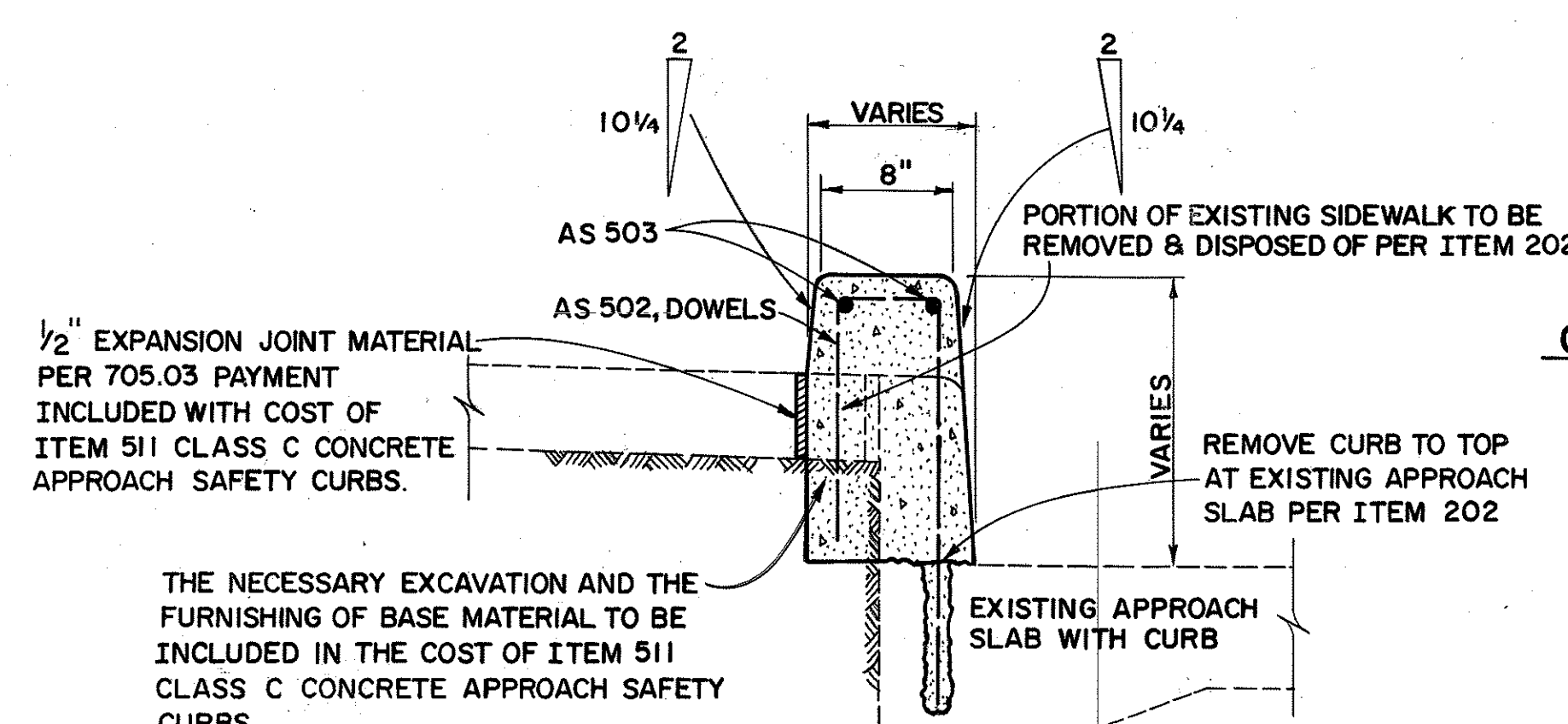


CURB PLAN

* BEGIN C501 DOWEL SPACING 6" FROM FIXED SIDE OF ALL EXPANSION ASSEMBLIES.



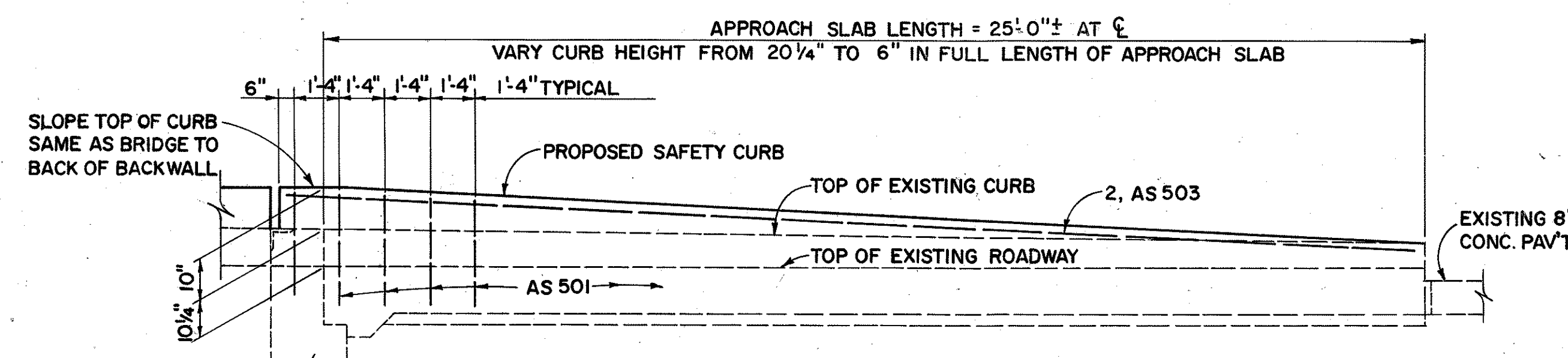
CURB ELEVATION



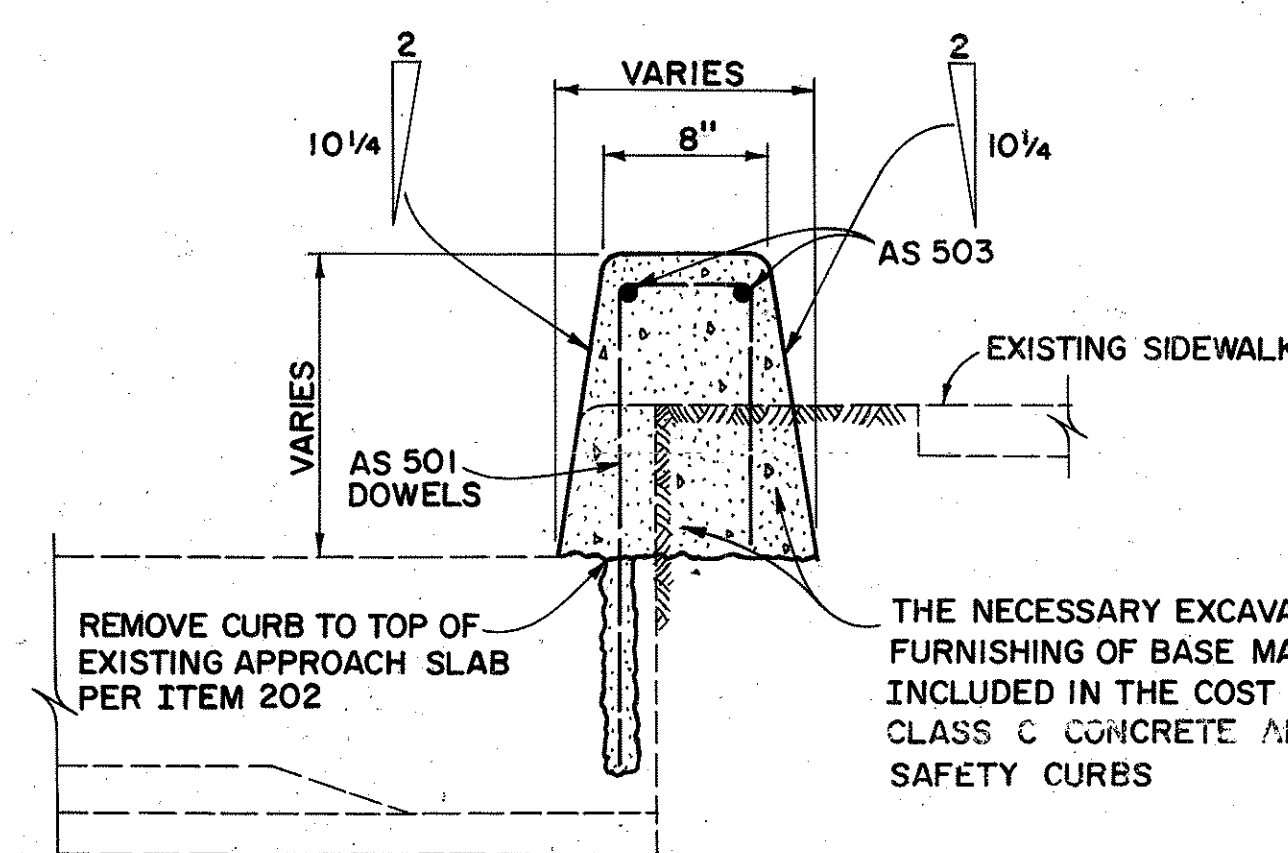
EAST APPROACH SLAB CURB DETAIL

CURB OPENING LOCATIONS

NORTH CURB	SOUTH CURB
3+91	3+91
4+27	4+27
5+40	5+35
5+57	5+52
5+73	5+68
5+91	5+84
6+07	6+02
6+38	6+38
6+69	6+69
6+99	6+99
7+31	7+31
7+63	7+63
7+93	7+93
8+21	8+21
8+69	8+65
9+33	9+27
9+65	9+58
10+31	10+24
10+91	10+85



WEST APPROACH SLAB CURB



WEST APPROACH SLAB CURB DETAIL

REINFORCING STEEL SCHEDULE

MARK	SIZE	NO.	LENGTH	WT./FT.	WEIGHT	SHAPE
C 501	5	1,066	2'-4"	1.043	2,594	1'-6 1/2" U
* AS 501	5	2 SERIES OF 20	1'-8" TO 4'-0"	1.043	113	VARIES 1'-2 1/2" TO 2'-4 1/2" U
* AS 502	5	2 SERIES OF 20	1'-8" TO 4'-0"	1.043	113	4" TO 1'-6" V
C 502	5	89	20'-0"	1.043	1,856	STRAIGHT
AS 503	5	6	20'-0"	1.043	125	STRAIGHT
AS 504	5	6	20'-0"	1.043	125	STRAIGHT
TOTAL					4,926	

* VARIABLE LENGTH INCREMENTS = 3/4"

STARK COUNTY, OHIO
SAFETY CURB DETAILS
BRIDGE NO. STA-241-07.63 (PE-7-23)
S.R. 241, CITY OF MASSILLON

DESIGNED	DRAWN	CHECKED	F. B.	P.	REVISED	DATE
R. A. L.	J. B.	A. L. B.				SEPT. 1979
						" "
						" "