

OHIO TURNPIKE COMMISSION

THE JAMES W. SHOCKNESSY OHIO TURNPIKE

CONTRACT RMP 43-84-06 DECK REPLACEMENT AND WIDENING OHIO TURNPIKE BRIDGES OVER S.R. 99

M.P. 111.2

STATION 270+28.05 ERIE COUNTY

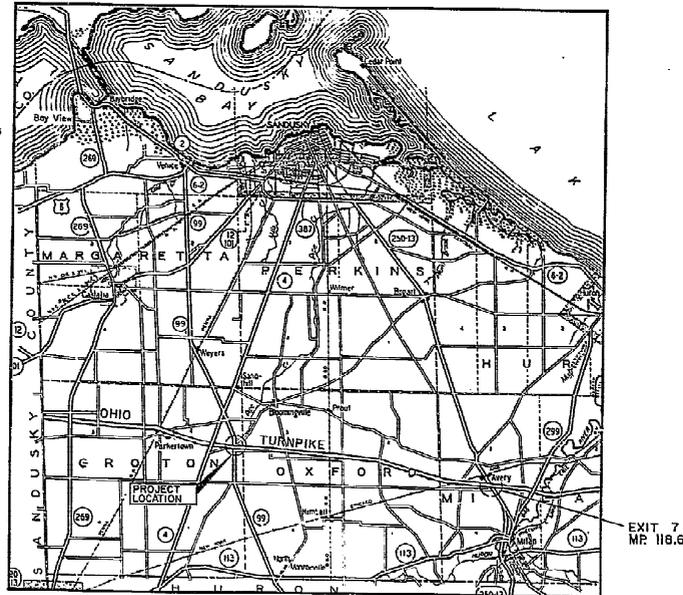
ORIGINAL CONTRACT SECTION C-33

INDEX OF SHEETS

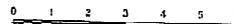
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OHIO DEPARTMENT OF TRANSPORTATION STANDARD DRAWINGS

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|----------------|--------------------------------|
| DP-2 (12-6-76) | MC-3 (6-1-73) |
| BP-5 (7-16-81) | MC-7 (10-15-76) |
| BP-7 (6-12-76) | MC-8A (5-1-81) |
| F-2 (5-1-76) | TC-35.10 (10-5-77) |
| F-3 (5-1-76) | DR-1 (5-29-79) |
| GR-1 (2-5-82) | SD-1-69, SHEET 3 & 4 (6-12-69) |
| GR-2B (2-5-82) | |
| GR-3 (2-5-82) | |



SCALE IN MILES



APPROVED FOR
THE OHIO TURNPIKE COMMISSION
BY

Alan Blair

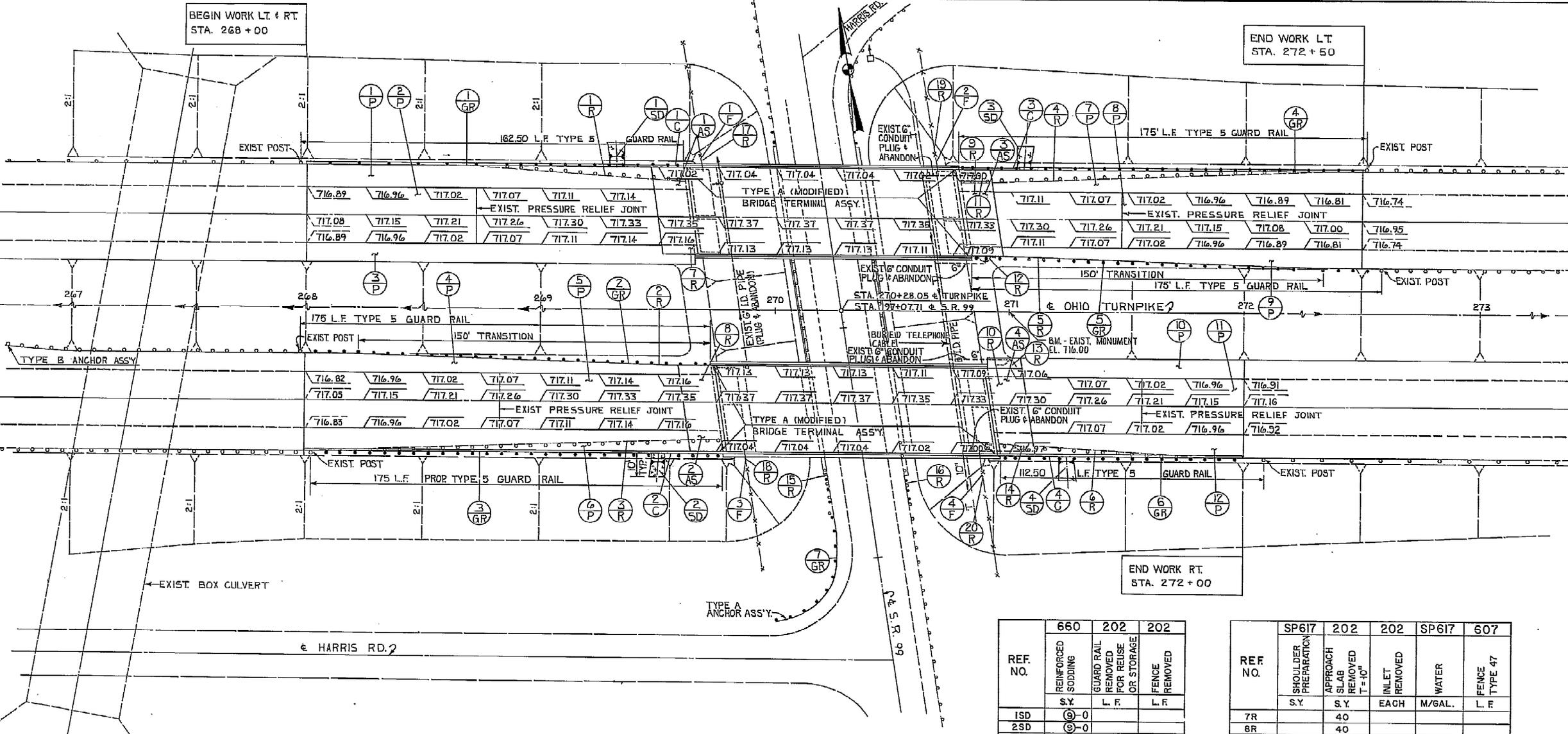
CHIEF ENGINEER
3-20-84
DATE

PLANS PREPARED BY AND RECOMMENDED BY
RACKOFF ENGINEERS, INC.

Melvin Rackoff
MELVIN RACKOFF

BEGIN WORK LT. & RT.
STA. 268 + 00

END WORK LT.
STA. 272 + 50



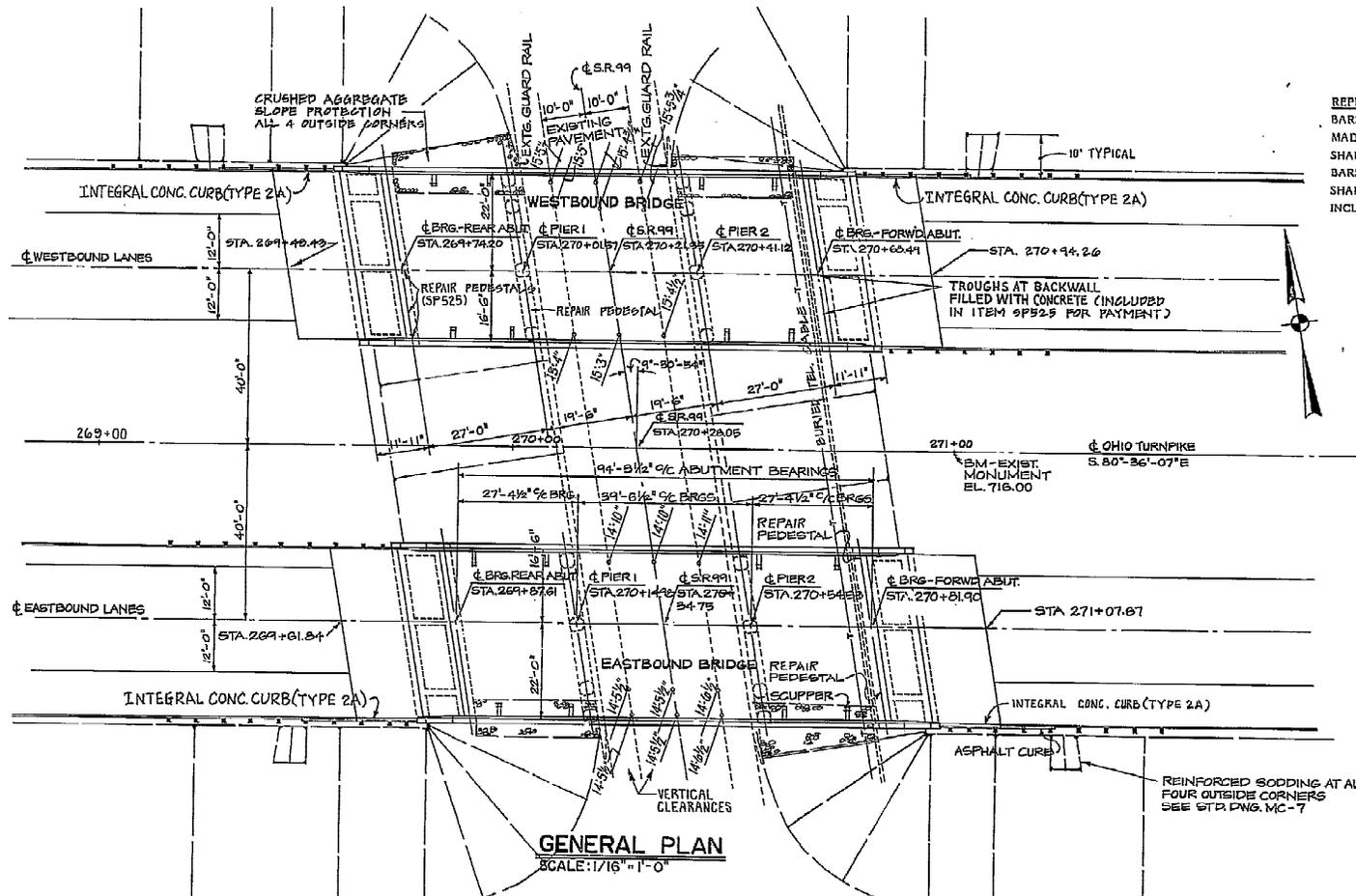
REF. NO.	304	402	SP408	SP414	SP414	203	SP617	SP627	402	SP404	SP407	202
	AGGREGATE BASE T=4"	ASPHALT CONCRETE T=5"	PRIME COAT	AGGREGATE FOR SHOULDER SURFACE TREATMENT	BITUMINOUS MATERIAL FOR SHOULDER TREATMENT	EXCAVATION NOT INCLUDING EMBANKMENT CONSTRUCT.	COMPACTED AGGREGATE	STONE SHOULDER PROTECTION	ASPHALT CONCRETE AVG. T=2.5"	ASPHALT CONCRETE T=1"	TACK COAT	WEARING COURSE REMOVED
	C.Y.	C.Y.	GALS.	S.Y.	GALS.	C.Y.	C.Y.	TON	C.Y.	C.Y.	GALS.	S.Y.
1P	19	22	57	160	41	41		14	26	11	28	396
2P												
3P	16	18	46	125	32	34	9					
4P	14	16	40	112	29	31		15				
5P									28	12	31	432
6P	17	25	65	187	46	48		16				
7P	17	25	62	175	44	47		15				
8P									28	12	29	416
9P	13	15	38	112	27	29		15				
10P	11	13	32	87	23	25	6		17	7	18	247
11P												
12P	12	14	35	100	25	27		9				
TOTAL	119	147	375	1058	267	282	15	84	99	42	106	1491

REF. NO.	SP611	SP606	606	606	SP609	606
	REINFORCED CONCRETE APPROACH SLABS	GUARD RAIL REBUILT, TYPE 5	BRIDGE TERMINAL ASSEMBLY TYPE A	ANCHOR ASSEMBLY TYPE A	ASPHALT CONCRETE CURB	GUARD RAIL STANDARD TYPE 5
	S.Y.	L. F.	EACH			L. F.
1AS	65					
2AS	65					
3AS	65					
4AS	65					
1GR		178.00				
2GR		175.00				
3GR		175.00				
4GR		175.00				
5GR		175.00				
6GR		127.50				
7GR						75
1C						(1)-147
2C						(1)-166
3C						(1)-159
4C						(1)-89
TOTAL	260	1005.5	6	1		(4)-561 75

REF. NO.	660	202	202
	REINFORCED SODDING	GUARD RAIL REMOVED FOR REUSE OR STORAGE	FENCE REMOVED
	S.Y.	L. F.	L. F.
1SD	(3)-0		
2SD	(3)-0		
3SD	(3)-0		
4SD	(3)-0		
1R		178.00	
2R		175.00	
3R		175.00	
4R		175.00	
5R		175.00	
6R		127.50	
15R		150.00	
16R		150.00	
17R			55
18R			55
19R			55
20R			55
TOTAL	(3)-0	1305	220

REF. NO.	SP617	202	202	SP617	607
	SHOULDER PREPARATION	APPROACH SLAB REMOVED T=10"	INLET REMOVED	WATER	FENCE TYPE 47
	S.Y.	S.Y.	EACH	M/GAL.	L. F.
7R		40			
8R		40			
9R		40			
10R		40			
11R					
12R					
13R					
14R					
1F					55
2F					55
3F					55
4F					55
3P	74				
10P	49				
TOTAL	123	160	4	2	220

NO.	REVISIONS	BY	DATE
OHIO TURNPIKE COMMISSION			
OHIO TURNPIKE			
ROADWAY PLAN, SUB-SUMMARY			
OHIO TURNPIKE OVER S.R. 99			
RACKOFF ENGINEERS, INC. ENGINEERS - CONSULTANTS			
COLUMBUS			OHIO
DESIGNED J.W.	CHECKED R.A.K.	DATE 3-2-84	
DRAWN D.L.R.	IN CHARGE J.W.W.	SCALE 1"=20'	
CONTRACT NO. RMP 43-84-06 SHEET 4 OF 24			



REPLACEMENT OF EXISTING REINFORCING STEEL: ANY EXISTING REINFORCING BARS WHICH ARE TO BE INCORPORATED INTO THE NEW WORK AND WHICH ARE MADE UNUSABLE BY THE CONTRACTOR'S CONCRETE REMOVAL OPERATIONS SHALL BE REPLACED WITH NEW BARS AT HIS COST. ANY EXISTING REINFORCING BARS DEEMED BY THE ENGINEER TO BE UNUSABLE BECAUSE OF CORROSION SHALL BE REPLACED WITH NEW BARS. AN ALLOWANCE OF 300 POUNDS IS INCLUDED IN ITEM SP524 FOR THIS PURPOSE.

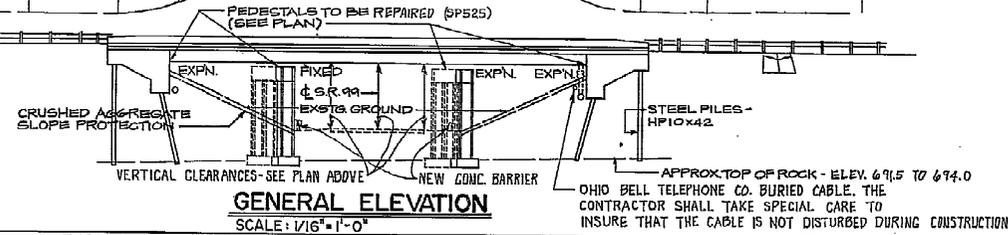
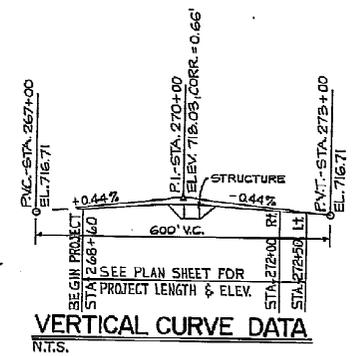
SCOPE OF WORK
REMOVAL OF: EXISTING ALUMINUM RAILING, CONCRETE PARAPETS, CONCRETE DECK, STEEL EXPANSION DAMS AND THEIR SUPPORT PLATES AND ANGLES, ABUTMENT SLABS, ABUTMENT PARAPETS, ABUTMENT ALUMINUM RAILING, ABUTMENT BACKWALL DOWN TO FIRST CONSTRUCTION JOINT (LEAVING EXISTING BACKWALL IN PLACE), OUTSIDE ABUTMENT CHEEK WALLS, DECK SCUPPERS, AND APPROACH SLABS.
REPLACEMENT OR CONSTRUCTION OF: CONCRETE DECK, DEFLECTION PARAPETS, COMPRESSION SEAL EXPANSION DAMS WITH SUPPORTS, SCUPPERS, TOP OF ABUTMENT BACKWALLS, ABUTMENT WIDENING, PIER WIDENING, ABUTMENT DEFLECTION PARAPETS, APPROACH SLABS, WIDENED CRUSHED AGGREGATE SLOPE PROTECTION.

REFERENCE SHALL BE MADE TO STANDARD DRAWINGS

DR-1 (DATED 5-29-79)
 SD-1-69 (DATED 6-12-69) SHEETS 3 AND 4

CHEM-TRETE BSM 40 WEATHERPROOFING TO BE APPLIED TO: (A) TOP, ROADWAY SIDE, END SURFACES AND OUTSIDE OF DEFLECTION PARAPETS, (B) TOP SURFACE OF DECK AND ABUTMENT SLABS, AND (C) UNDERSIDE FROM PARAPET TO FIRST BEAM.

DESIGN SPECIFICATIONS: THIS STRUCTURE CONFORMS TO "STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 1977, INCLUDING THE 1978, 1979, 1980, 1981 AND 1982 INTERIM SPECIFICATIONS AND THE OHIO "SUPPLEMENT" TO THESE SPECIFICATIONS.



DESIGN DATA:
 DESIGN LOADING: HS 20-44 CASE I AND THE ALTERNATE MILITARY LOADING, AND CHECKED FOR 21^K SINGLE AXLE, 24^K TANDEM AXLE AND 90^K TRUCK
 CONCRETE CLASS S, SUPERSTRUCTURE-COMPRESSIVE STRENGTH 4500 P.S.I., $f_c = 1300$ P.S.I., USING NO. 57 SIZE AGGREGATE.
 CONCRETE CLASS C, SUBSTRUCTURE - COMPRESSIVE STRENGTH 4000 P.S.I., $f_c = 1333$ P.S.I.
 REINFORCING STEEL - ASTM A615, A616, A617 - GRADE 60, MINIMUM YIELD STRENGTH 60,000 P.S.I., $f_y = 24,000$ P.S.I., FUSION BONDED EPOXY COATED, ASTM A775-S1. SPIRAL REINF. MAY BE PLAIN BARS, ASTM A662 OR A663
 STRUCTURAL STEEL - ASTM A36 - UNIT STRESS 20,000 P.S.I. ANY RIVETS OR BOLTS REMOVED TO BE REPLACED WITH HIGH STRENGTH BOLTS OF LIKE SIZE, ASTM A325.
 DECK PROTECTION METHOD: CLASS S CONCRETE AND EPOXY COATED REINFORCING STEEL, CHEM-TRETE BSM 40 WEATHERPROOFING.

PORTLAND CEMENT SHALL BE TYPE II OR TYPE V CONFORMING TO AASHTO SPECIFICATION M85-80.

AGGREGATES: FINE AGGREGATE SHALL BE NATURAL SAND. COARSE AGGREGATE SHALL BE CRUSHED CARBONATE STONE.

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF EXISTING STRUCTURE AND/OR FROM FIELD OBSERVATIONS AND MEASUREMENTS. CONSEQUENTLY, THEY ARE INDICATIVE OF THE EXISTING STRUCTURE AND THE PROPOSED WORK BUT THEY SHALL BE CONSIDERED TENTATIVE AND APPROXIMATE. THE CONTRACTOR IS REFERRED TO CMS SECTION 513.02 AND OHIO TURNPIKE COMMISSION GENERAL CONDITIONS - SECTION 6-2.04 AND 6-5.02

CONTRACT BID PRICES SHALL BE BASED UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE 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.

ESTIMATED QUANTITIES								
ITEM	TOTAL	UNIT	DESCRIPTION	SUPER.	ABUTS.	PIERS	GEN'L.	AS BUILT
SP202	LUMP	SUM	PORTIONS OF STRUCTURES REMOVED				LUMP	
503	128	CU. YD.	UNCLASSIFIED EXCAVATION INCLUDING ROCK			60		
905	LUMP	SUM	PILE DRIVING EQUIPMENT MOBILIZATION			60		
507	170	LIN. FT.	STEEL PILES, HP10 x 42			170		74.4
509	10,438	LBS.	REINFORCING STEEL, GRADE 60			3046	1392	
510	168	LIN. FT.	DOWEL HOLES, USING SP 893 GROUT ANCHORING			148	20	
SP511	292	CU. YD.	CLASS S CONCRETE, SUPER & ABUT. SLABS (INCLUDING PARAPETS)	233		59		322
SP511	47	CU. YD.	CLASS C CONCRETE, ABUT. BELOW SLABS			47		
SP511	29	CU. YD.	CLASS C CONCRETE, PIER CAPS AND COLUMNS				29	
SP511	10	CU. YD.	CLASS C CONCRETE, FOOTINGS				10	
513	360	EA.	WELDED STUD SHEAR CONNECTORS	360				
513	20,200	LBS.	STRUCTURAL STEEL, AISC CATEGORY I	20,200				19,902
513	13,100	LBS.	STRUCTURAL STEEL AISC CERTIFICATION NOT REQUIRED	13,100				12,882
SP514	LUMP	SUM	FIELD PAINTING OF EXT'G. STRUCTURAL STEEL					
SP514	35,500	LBS.	FIELD PAINTING OF NEW STRUCTURAL STEEL					35,864
516	3100	LBS.	BEARING DEVICES, INCLUDING 1/8" SHEET LEAD OR 1/8" PREFORMED BRG. PADS	3100				3080
518	16	EA.	SCUPPERS, INCLUDING SUPPORTS	16				
518	7	CU. YD.	POROUS BACKFILL			7		
SP525	14	SQ. FT.	REPAIR OF ABUTMENTS AND PIERS			12	2	25
SP527	LUMP	SUM	FALSEWORK AND TEMPORARY BRACING				LUMP	
SP528	52	EACH	REPLACE EXISTING RIVETS WITH NEW HIGH STRENGTH BOLTS	52				72
SP533A	81	LIN. FT.	1/4 INCH PREFORMED ELASTIC JOINT SEAL			81		
SP533A	81	LIN. FT.	2 1/2 INCH PREFORMED ELASTIC JOINT SEAL			81		
SP536	1716	SQ. YD.	CHEM-TRETE BSM 40 WEATHERPROOFING	1207	509			
601	136	SQ. YD.	CRUSHED AGGREGATE SLOPE PROTECTION				136	
SP524	83,647	LBS.	EPOXY COATED REINFORCING STEEL, GRADE 60	60,137	15,818	7392	300	73,157
503	5	CU. YD.	EMBANKMENT, AS PER 503.10			5		

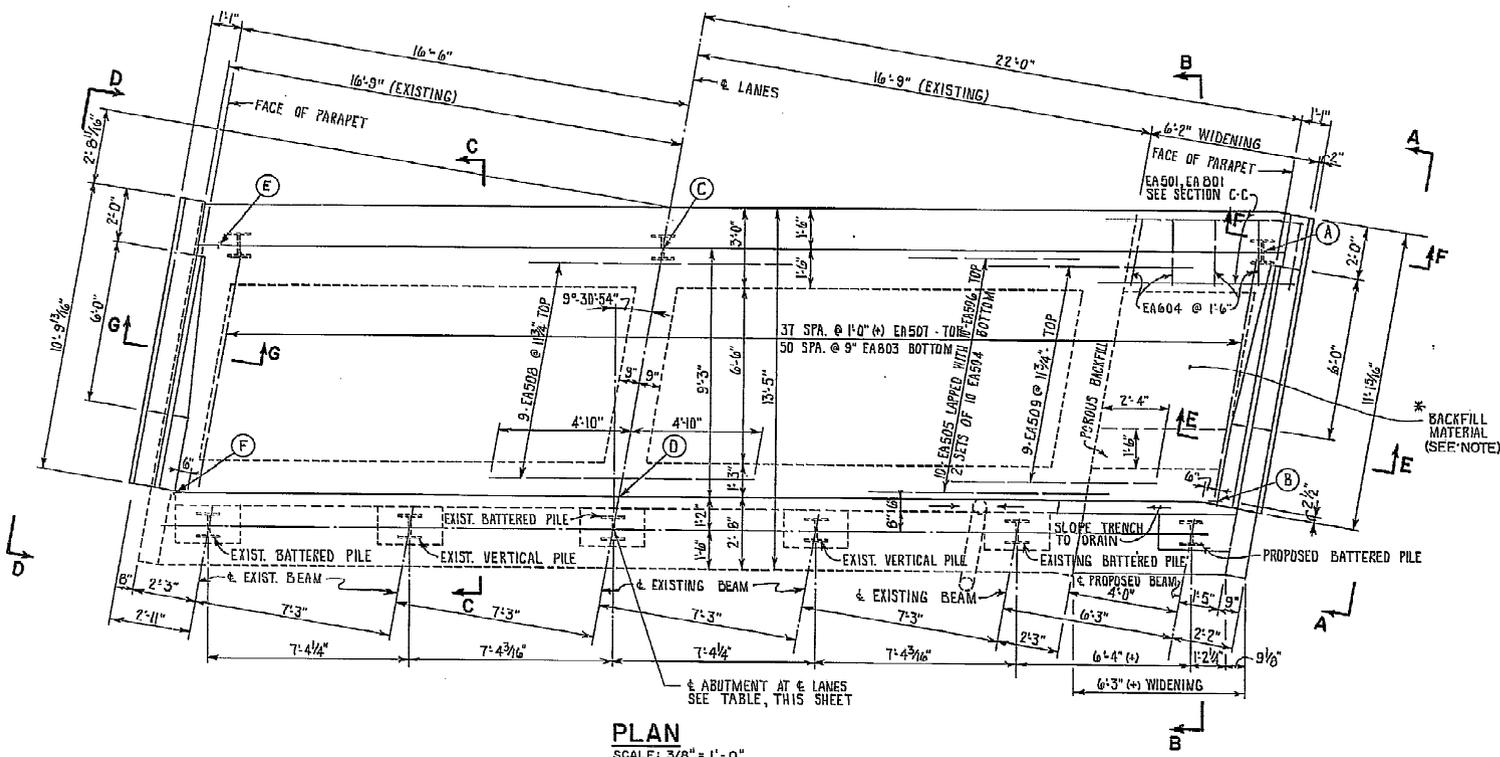
NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE

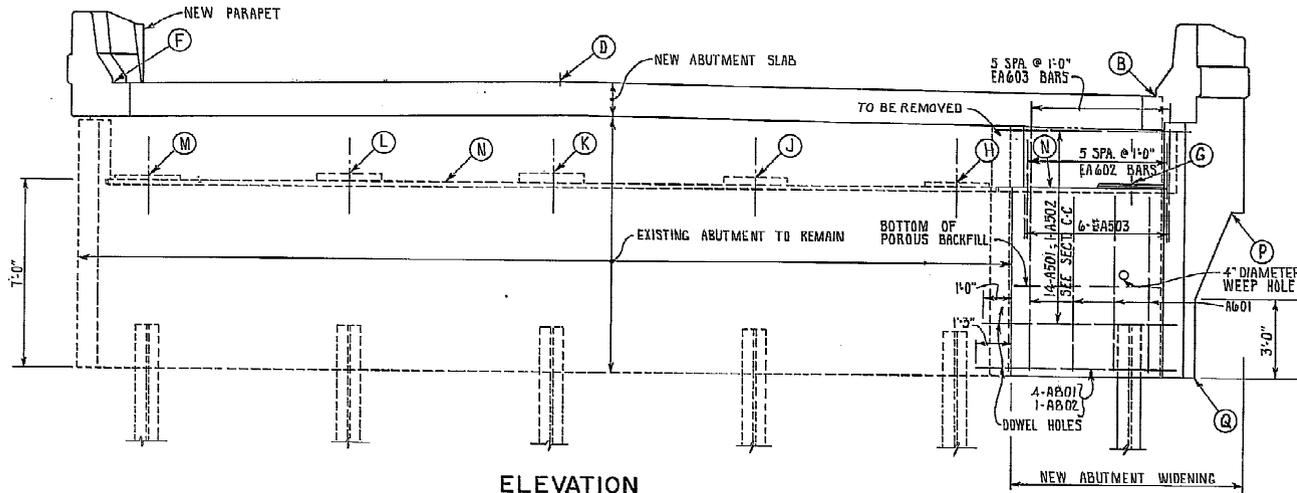
GENERAL PLAN & ELEVATION, GEN'L. NOTES AND ESTIMATED QUANTITIES
OHIO TURNPIKE OVER S.R. 99

RACKOFF ENGINEERS, INC.
 ENGINEERS - CONSULTANTS

COLUMBUS	DESIGNED R.A.K.	CHECKED F5	DATE 3-2-84
	DRAWN B.J.M.	IN CHARGE RAK	SCALE 1/16" = 1'-0"
	CONTRACT NO. RMP 43-84-06		SHEET 5 OF 24



PLAN
SCALE: 3/8" = 1'-0"



ELEVATION
SCALE: 3/8" = 1'-0"

ELEVATIONS									
		A	B	C	D	E	F	G	H
WESTBOUND BRIDGE	REAR ABUTMENT	717.02	717.03	717.36	717.36	717.11	717.12	713.74	713.72
	FORWARD ABUTMENT	716.99	717.00	717.32	717.33	717.07	717.03	713.72	713.68
EASTBOUND BRIDGE	REAR ABUTMENT	711.03	717.03	717.37	717.37	717.12	711.12	713.75	713.72
	FORWARD ABUTMENT	716.97	716.98	717.31	717.32	717.06	711.07	713.70	713.67
STATIONS									
		R	A	B	E	F			
WESTBOUND BRIDGE	REAR ABUTMENT	269+74.20	269+58.86	269+69.43	269+65.12	269+75.68			
	FORWARD ABUTMENT	270+68.49	270+76.65	270+66.09	270+82.90	270+72.34			
EASTBOUND BRIDGE	REAR ABUTMENT	269+87.61	269+79.45	269+90.02	269+13.20	269+83.76			
	FORWARD ABUTMENT	270+81.90	270+91.73	270+86.67	270+90.98	270+80.42			

WESTBOUND BRIDGE									
		A	B	E	F				
REAR ABUTMENT	STA. R	G	H	J	K	L	M	N	
	STA. R	F	E	D	C	B	A		
FORWARD ABUTMENT	STA. R	M	L	K	J	H	G	F	
	STA. R	N	M	L	K	J	H	G	F

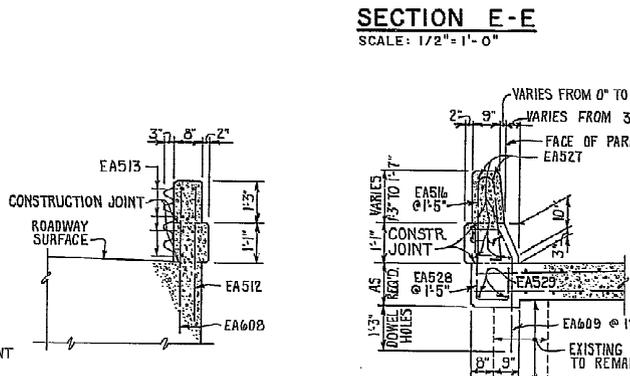
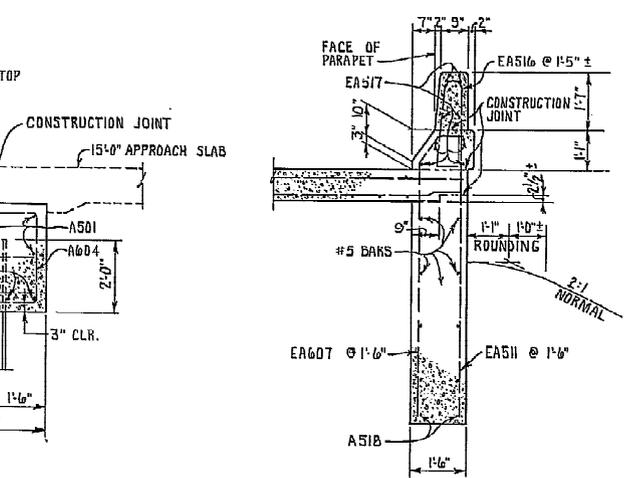
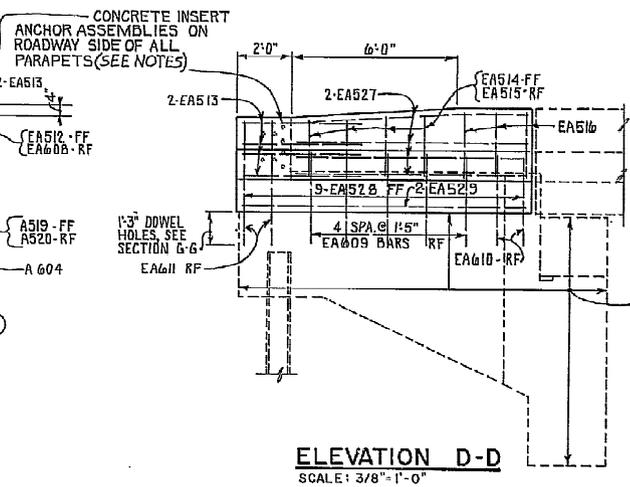
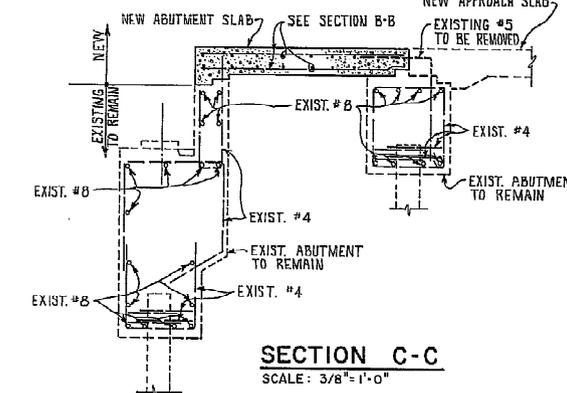
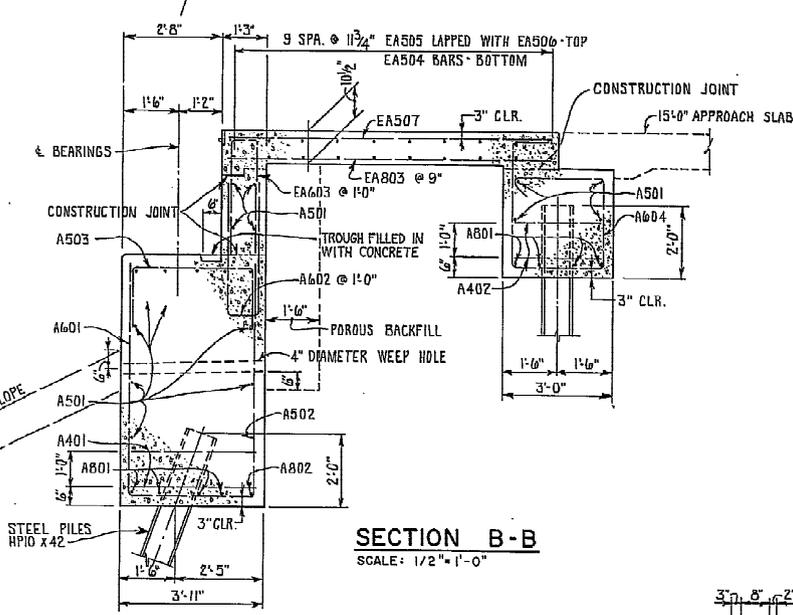
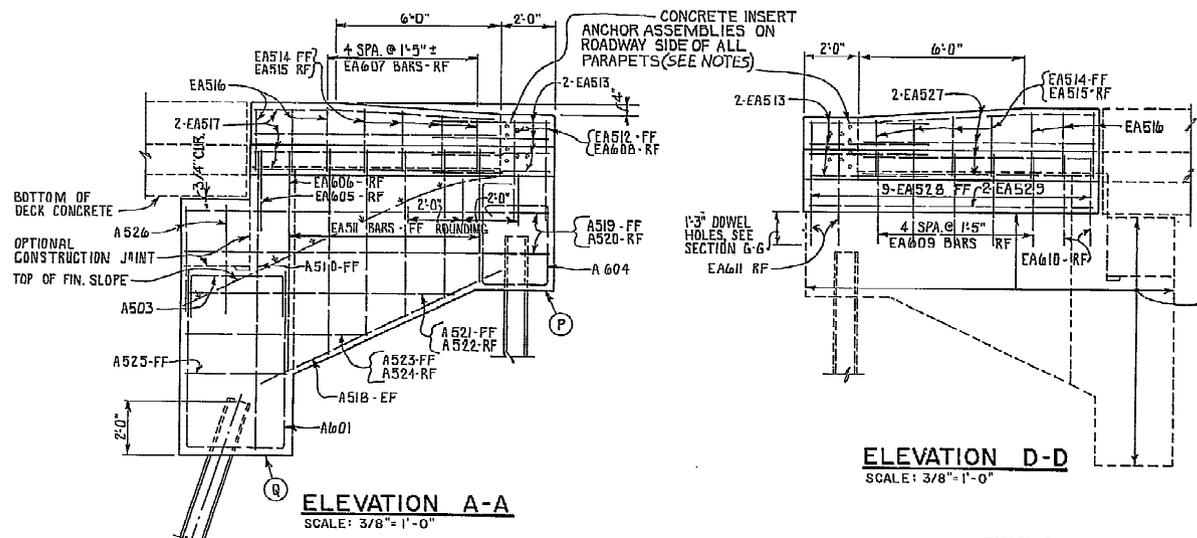
EASTBOUND BRIDGE									
		A	B	E	F				
REAR ABUTMENT	STA. R	G	H	J	K	L	M	N	
	STA. R	F	E	D	C	B	A		
FORWARD ABUTMENT	STA. R	M	L	K	J	H	G	F	
	STA. R	N	M	L	K	J	H	G	F

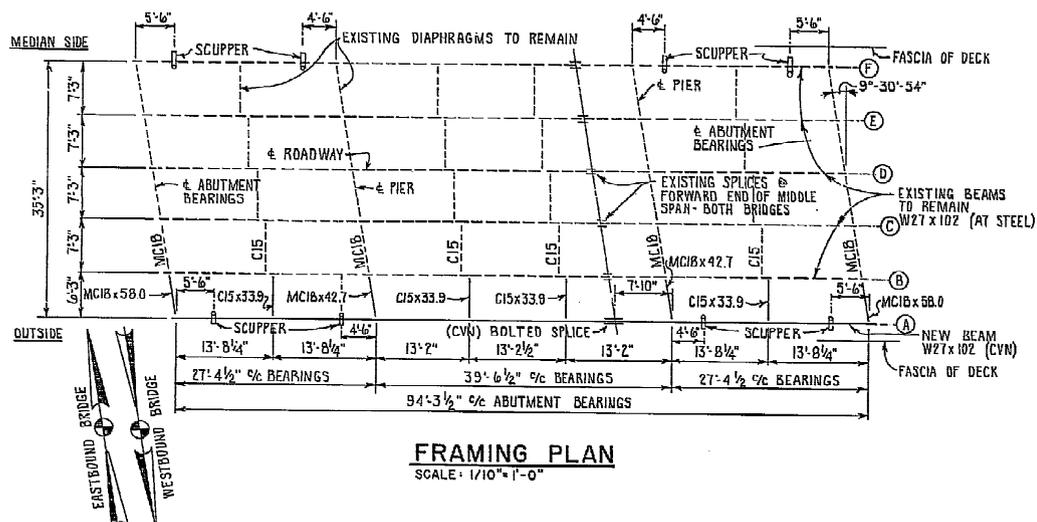
ABUTMENT NOTES :

- BRIDGE SEAT REINFORCING:** REINFORCING STEEL IN THE VICINITY OF THE BRIDGE SEAT SHALL BE ACCURATELY PLACED TO AVOID INTERFERENCE WITH THE DRILLING OF BEARING ANCHOR HOLES.
- BEARING ANCHORS:** AT THE OPTION OF THE CONTRACTOR, BEARING ANCHORS (OR FRAMED HOLES) LOCATED AND SUPPORTED BY PLATES, MAY BE CAST IN PLACE.
- POROUS BACKFILL,** 1'-0" THICK, SHALL EXTEND UP TO THE PLANE OF THE SUBGRADE AND Laterally TO THE ENDS OF THE WINGWALLS.
- FOR ELEVATIONS AND SECTIONS - SEE SHT. 7**

* BACKFILL SHALL BE PLACED IN ACCORDANCE WITH 503 BETWEEN THE EXISTING WINGWALLS AND THE NEW WINGWALLS EXTENDING FROM THE EXISTING GROUND LINE TO THE BOTTOM OF THE DECK SLAB. INCLUDE WITH ITEM 503, EMBANKMENT, AS PER 503.10, FOR PAYMENT.

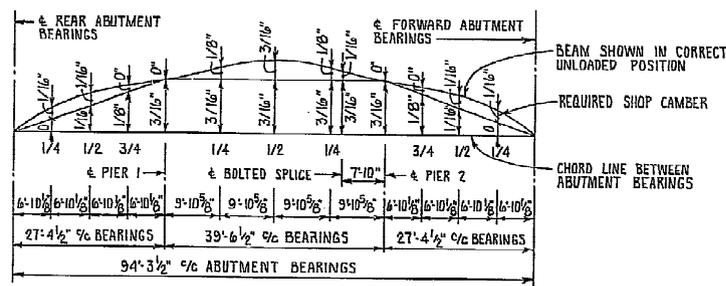
NO.	REVISIONS	BY	DATE
OHIO TURNPIKE COMMISSION OHIO TURNPIKE			
ABUTMENTS			
OHIO TURNPIKE OVER S.R. 99			
RACKOFF ENGINEERS, INC. ENGINEERS - CONSULTANTS			
COLUMBUS	OHIO		
DESIGNED R.A.K.	CHECKED R.S.O.	DATE 3-2-84	
DRAWN K.W.F.	IN CHARGE R.A.K.	SCALE 3/8" = 1'-0"	
CONTRACT NO. RMP 43-84-06 SHEET 6 OF 24			





NEW BEAMS SHALL BE CAMBERED IN ACCORDANCE WITH THE FOLLOWING TABLE:

DEFLECTION AND CAMBER - NEW BEAMS	END SPANS			MIDDLE SPAN		
	SPAN POINT →	1/4 POINT	MIDPOINT	1/4 POINT	MIDPOINT	SPLICE
DEFLECTION DUE TO WEIGHT OF STEEL	0	0	0	0	0	0
DEFLECTION DUE TO REMAINING DEAD LOAD	1/16"	1/16"	0	1/8"	3/16"	1/16"
ADJUSTMENT REQUIRED FOR VERTICAL CURVE	0	0	0	0	0	0
REQUIRED SHOP CAMBER	1/16"	1/16"	0	1/8"	3/16"	1/16"



SUPERSTRUCTURE NOTES
INSTALLATION OF SEAL: DURING INSTALLATION OF THE SUPPORT/ARMOR FOR THE SUPERSTRUCTURE SIDE OF THE EXPANSION JOINT SEAL, THE SEATING OF BEAMS ON BEARINGS SHALL BE CAREFULLY OBSERVED TO ASSURE THAT POSITIVE BEARING IS MAINTAINED. PROPER VERTICAL FIT OF THE SUPPORT/ARMOR ON THE BEAMS SHALL BE ACHIEVED BY POSITIONING OF THE SUPPORT ANGLES RATHER THAN BY CLAMPING FORCE.

WHERE A SHAPE OR PLATE IS DESIGNATED (CVN) THE MATERIAL SHALL MEET SPECIFIED MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS MATERIAL IN 711.01 OF CHS.

HIGH STRENGTH BOLTS FOR BEAM BOLTED FIELD SPLICES SHALL BE 1" DIA A325. ALL OTHER CONNECTIONS SHALL HAVE 7/8" DIA UNLESS NOTED.

SCUPPERS SHALL BE IN ACCORDANCE WITH STD. DWG. SD-1-69 EXCEPT THAT SCUPPER PIPES SHALL EXTEND 8" BELOW THE BOTTOM OF THE BEAMS INSTEAD OF THE 2".

DECK SLAB DEPTH: THE DISTANCE SHOWN FROM TOP OF DECK SLAB TO TOP OF STEEL BEAM IS THE DESIGN DIMENSION. THE QUANTITY OF DECK CONCRETE TO BE PAID FOR SHALL BE BASED ON THIS DIMENSION. EVEN THOUGH DEVIATION FROM IT MAY BE NECESSARY BECAUSE THE TOP FLANGE OF THE BEAM MAY NOT HAVE THE EXACT CAMBER OR CONFORMATION REQUIRED TO PLACE IT PARALLEL TO THE FINISHED GRADE.

A HAUNCH WIDTH OF 9" SHALL BE USED FOR COMPUTING QUANTITY OF CONCRETE. HOWEVER, THE HAUNCH WIDTH MAY VARY BETWEEN 6" AND 12" PROVIDED THAT THE SLOPE SHALL BE NOT MORE THAN 1:4 FOR A HAUNCH LESS THAN 9" WIDTH.

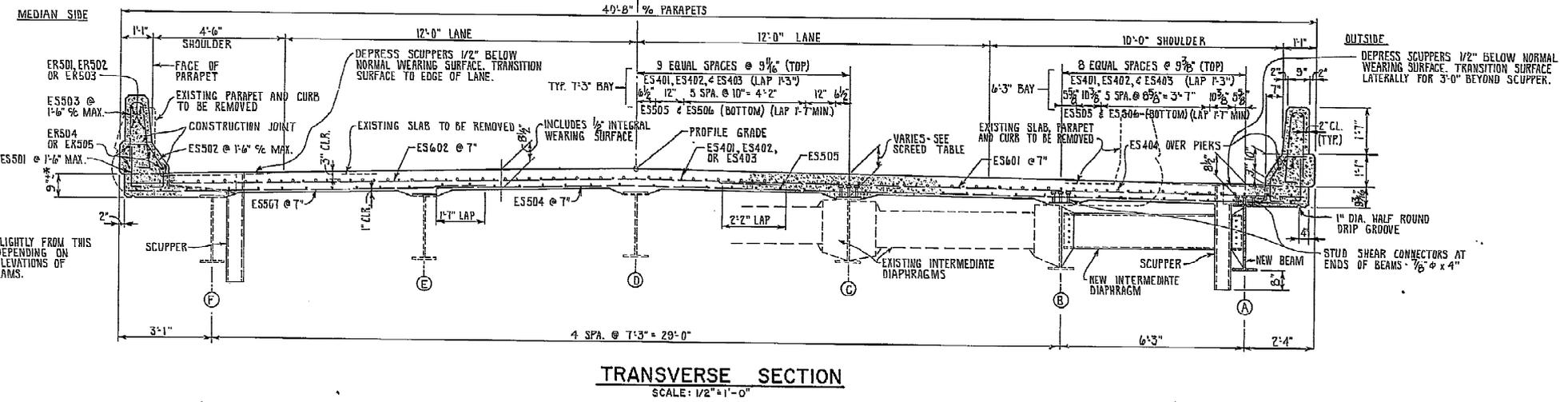
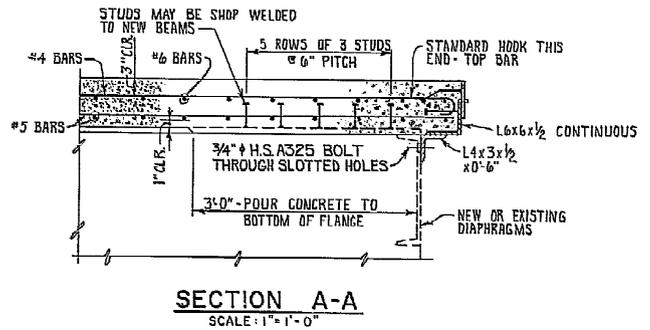
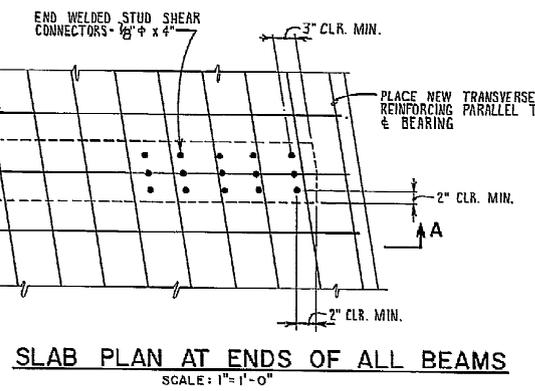
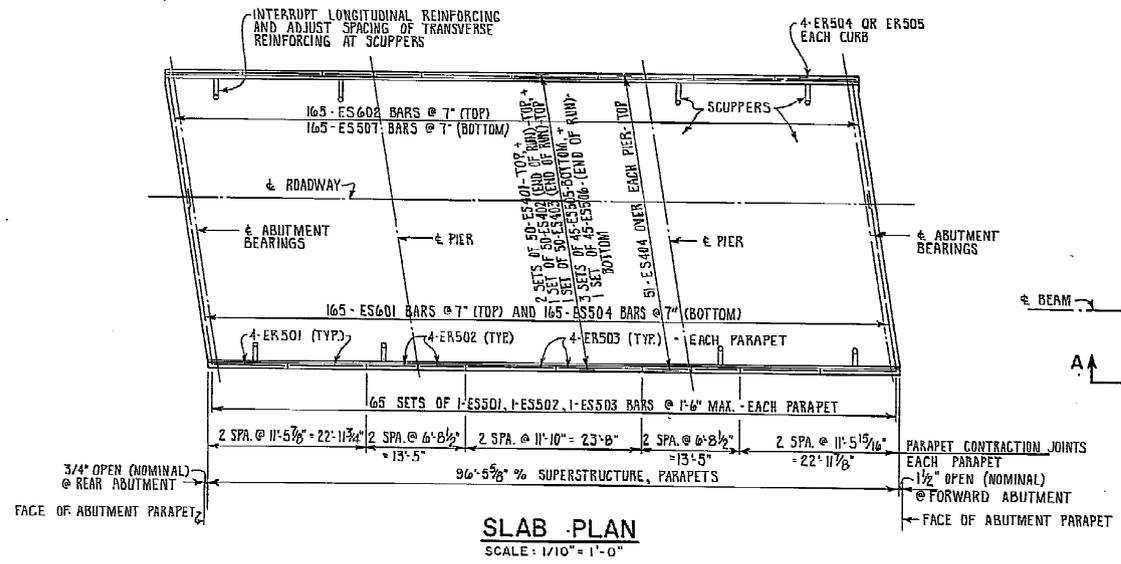
WELDED ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE MAY BE MADE TO AREAS OF THE FASCIA BEAM FLANGES DESIGNATED "COMPRESSION". ATTACHMENTS SHALL NOT BE MADE TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE NOT CLOSER THAN 1" FROM EDGE OF FLANGE, BE NOT MORE THAN 2" LONG, AND BE NOT SMALLER THAN THE MINIMUM SIZE REQUIRED BY AASHTO. SEE SHEET 10 FOR DIAGRAM.

WELDED STUD SHEAR CONNECTORS SHALL CONFORM TO AASHTO M169.
BOLTED BEAM SPLICE DETAILS: SEE STD. DWG. SD-1-69, SHEET 4

THE DEFLECTION JOINTS IN THE BARRIER CURB MAY BE EITHER 1/4" GRAY SPONGE RUBBER OR 1/4" GRAY CELLULAR POLYVINYL CHLORIDE (PVC SPONGE). EITHER MATERIAL SHALL MEET THE REQUIREMENTS OF AASHTO M-153, TYPE 1, EXCEPT THE DENSITY OF THE PVC SPONGE SHALL BE NOT LESS THAN 20 LBS PER CU FT.

BARRIER CURBS SHALL BE PLACED IN ALTERNATE SECTIONS BY THE USE OF BULKHEADS AND AFTER PLACEMENT OF SPONGE FILLER. THE FILLER SHALL BE ATTACHED TO THE FACE OF THE CONCRETE ON ONE SIDE, FLUSH WITH THE SURFACE OF CONCRETE AND EXPOSED EDGES SHALL BE FREE OF MORTAR. THERE SHALL BE NO DEVIATION FROM THIS PROCEDURE.

INCLUDE WITH ITEM SP511, CLASS S CONCRETE, SUPERSTRUCTURE AND ABUTMENT SLABS (INCLUDING PARAPETS), FOR PAYMENT.



NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE
DECK CROSS-SECTION, SLAB PLAN, FRAMING PLAN, NOTES
OHIO TURNPIKE OVER S.R. 99
RACKOFF ENGINEERS, INC.
ENGINEERS - CONSULTANTS

COLUMBUS OHIO
DESIGNED R.S.O./R.A.K. CHECKED F.S. DATE 3-2-84
DRAWN K.W.F. IN CHARGE R.A.K. SCALE AS NOTED
CONTRACT NO. RMP 43-84-06 SHEET 9 OF 24

* - MAY VARY SLIGHTLY FROM THIS DIMENSION, DEPENDING ON MEASURED ELEVATIONS OF EXISTING BEAMS.

WEST BOUND LANES

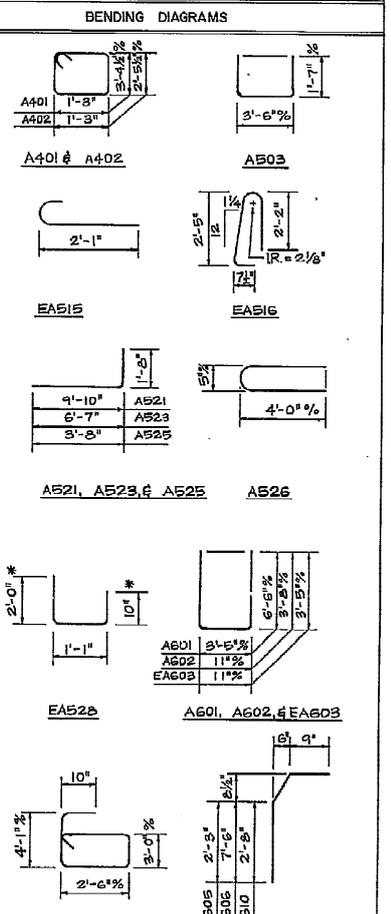
LOCATION	BRG-RA	1/4	1/2	3/4	PIER 1	1/6	2/6	3/6	4/6	5/6	PIER 2	3/4	1/2	1/4	BRG-FA
STATION	269+70.61	269+77.45	269+84.30	269+91.14	269+97.98	270+04.82	270+11.67	270+18.52	270+25.37	270+32.22	270+39.07	270+45.92	270+52.77	270+59.62	270+66.47
REQ'D SCREED ELEVATION	717.03	717.03	717.04	717.04	717.04	717.04	717.05	717.05	717.04	717.04	717.03	717.02	717.02	717.01	717.00
ACT TOP OF STEEL ELEV															
SLAB THICKNESS															
STATION	269+70.72	269+77.57	269+84.41	269+91.25	269+98.10	270+04.94	270+11.79	270+18.64	270+25.49	270+32.34	270+39.19	270+46.04	270+52.89	270+59.74	270+66.59
REQ'D SCREED ELEVATION	717.04	717.04	717.05	717.06	717.07	717.10	717.10	717.09	717.08	717.07	717.06	717.05	717.03	717.01	717.01
ACT TOP OF STEEL ELEV	716.32	716.32	716.33	716.35	716.36	716.38	716.38	716.37	716.36	716.37	716.36	716.35	716.32	716.30	716.26
SLAB THICKNESS	.72	.72	.72	.71	.71	.72	.72	.72	.72	.72	.71	.71	.73	.73	.75
STATION	269+71.17	269+78.01	269+84.86	269+91.70	269+98.55	270+05.40	270+12.25	270+19.10	270+25.95	270+32.80	270+39.65	270+46.50	270+53.35	270+60.20	270+67.05
REQ'D SCREED ELEVATION	717.14	717.14	717.14	717.15	717.16	717.18	717.18	717.17	717.16	717.15	717.14	717.13	717.11	717.09	717.11
ACT TOP OF STEEL ELEV	716.33	716.33	716.33	716.33	716.33	716.33	716.33	716.32	716.32	716.31	716.30	716.29	716.27	716.25	716.25
SLAB THICKNESS	.81	.81	.81	.82	.83	.85	.85	.85	.85	.85	.86	.86	.86	.86	.86
STATION	269+72.45	269+79.29	269+86.14	269+92.99	269+99.84	270+06.69	270+13.54	270+20.39	270+27.24	270+34.09	270+40.94	270+47.79	270+54.64	270+61.49	270+68.34
REQ'D SCREED ELEVATION	717.25	717.26	717.26	717.27	717.28	717.30	717.30	717.29	717.29	717.29	717.28	717.27	717.26	717.24	717.22
ACT TOP OF STEEL ELEV	716.44	716.44	716.44	716.44	716.45	716.45	716.45	716.45	716.45	716.44	716.43	716.42	716.41	716.38	716.38
SLAB THICKNESS	.81	.82	.82	.83	.84	.85	.85	.85	.85	.84	.84	.84	.85	.84	.84
STATION	269+74.20	269+81.04	269+87.89	269+94.74	269+101.59	270+08.44	270+15.29	270+22.14	270+28.99	270+35.84	270+42.69	270+49.54	270+56.39	270+63.24	270+70.09
REQ'D SCREED ELEVATION	717.31	717.31	717.31	717.32	717.33	717.35	717.35	717.34	717.34	717.34	717.33	717.32	717.31	717.29	717.29
ACT TOP OF STEEL ELEV	716.55	716.56	716.56	716.55	716.55	716.56	716.56	716.55	716.55	716.55	716.54	716.53	716.52	716.49	716.49
SLAB THICKNESS	.82	.81	.81	.83	.83	.85	.85	.85	.85	.84	.84	.84	.84	.83	.85
STATION	269+75.42	269+82.26	269+89.11	269+95.96	269+102.81	270+10.66	270+17.51	270+24.36	270+31.21	270+38.06	270+44.91	270+51.76	270+58.61	270+65.46	270+72.31
REQ'D SCREED ELEVATION	717.25	717.25	717.25	717.27	717.27	717.29	717.29	717.28	717.27	717.27	717.26	717.25	717.24	717.22	717.22
ACT TOP OF STEEL ELEV	716.45	716.45	716.44	716.44	716.44	716.44	716.44	716.43	716.43	716.43	716.42	716.41	716.40	716.37	716.37
SLAB THICKNESS	.80	.81	.82	.83	.83	.85	.85	.85	.84	.84	.84	.84	.84	.82	.81
STATION	269+76.63	269+83.47	269+90.32	269+97.17	269+104.02	270+11.87	270+18.72	270+25.57	270+32.42	270+39.27	270+46.12	270+52.97	270+59.82	270+66.67	270+73.52
REQ'D SCREED ELEVATION	717.14	717.14	717.15	717.15	717.14	717.15	717.15	717.15	717.15	717.14	717.13	717.12	717.12	717.11	717.11
ACT TOP OF STEEL ELEV	716.32	716.31	716.31	716.32	716.33	716.35	716.35	716.36	716.36	716.35	716.34	716.33	716.32	716.31	716.30
SLAB THICKNESS	.82	.83	.84	.82	.81	.80	.79	.79	.80	.79	.79	.80	.80	.81	.81
STATION	269+78.01	269+84.86	269+91.70	269+98.55	269+105.40	270+13.12	270+20.00	270+26.88	270+33.76	270+40.64	270+47.52	270+54.40	270+61.28	270+68.16	270+75.04
REQ'D SCREED ELEVATION	717.12	717.12	717.12	717.12	717.12	717.13	717.13	717.13	717.13	717.12	717.11	717.10	717.10	717.09	717.08
ACT TOP OF STEEL ELEV															
SLAB THICKNESS															

EAST BOUND LANES

LOCATION	BRG-RA	1/4	1/2	3/4	PIER 1	1/6	2/6	3/6	4/6	5/6	PIER 2	3/4	1/2	1/4	BRG-FA
STATION	269+84.14	269+91.00	269+97.86	270+04.72	270+11.58	270+18.44	270+25.30	270+32.16	270+39.02	270+45.88	270+52.74	270+59.60	270+66.46	270+73.32	270+80.18
REQ'D SCREED ELEVATION	717.12	717.12	717.12	717.12	717.12	717.13	717.13	717.13	717.12	717.11	717.10	717.10	717.09	717.09	717.08
ACT TOP OF STEEL ELEV															
SLAB THICKNESS															
STATION	269+85.15	269+92.02	269+98.89	270+05.71	270+12.58	270+19.44	270+26.30	270+33.16	270+40.02	270+46.88	270+53.74	270+60.60	270+67.46	270+74.32	270+81.18
REQ'D SCREED ELEVATION	717.14	717.16	717.17	717.17	717.18	717.20	717.21	717.23	717.20	717.18	717.16	717.15	717.13	717.12	717.10
ACT TOP OF STEEL ELEV	716.37	716.36	716.36	716.39	716.33	716.32	716.32	716.32	716.32	716.33	716.32	716.31	716.30	716.29	716.27
SLAB THICKNESS	.77	.80	.81	.78	.85	.88	.89	.91	.88	.85	.84	.84	.83	.83	.83
STATION	269+86.29	269+93.17	270+00.05	270+06.92	270+13.79	270+20.66	270+27.54	270+34.41	270+41.29	270+48.16	270+55.04	270+61.92	270+68.80	270+75.68	270+82.56
REQ'D SCREED ELEVATION	717.26	717.27	717.28	717.29	717.30	717.32	717.32	717.32	717.32	717.30	717.28	717.26	717.25	717.23	717.21
ACT TOP OF STEEL ELEV	716.49	716.48	716.47	716.46	716.45	716.45	716.44	716.44	716.44	716.43	716.42	716.42	716.41	716.40	716.39
SLAB THICKNESS	.79	.81	.83	.85	.87	.88	.89	.92	.90	.89	.87	.86	.85	.84	.83
STATION	269+87.61	269+94.49	270+01.37	270+08.25	270+15.13	270+22.01	270+28.89	270+35.77	270+42.65	270+49.53	270+56.41	270+63.29	270+70.17	270+77.05	270+83.93
REQ'D SCREED ELEVATION	717.37	717.38	717.39	717.40	717.41	717.42	717.43	717.43	717.43	717.41	717.39	717.37	717.36	717.34	717.32
ACT TOP OF STEEL ELEV	716.58	716.57	716.57	716.57	716.56	716.55	716.55	716.54	716.54	716.54	716.54	716.53	716.53	716.51	716.51
SLAB THICKNESS	.83	.85	.86	.87	.89	.91	.93	.95	.93	.91	.89	.87	.87	.85	.85
STATION	269+88.82	269+95.70	270+02.59	270+09.47	270+16.35	270+23.23	270+30.11	270+36.99	270+43.87	270+50.75	270+57.63	270+64.51	270+71.39	270+78.27	270+85.15
REQ'D SCREED ELEVATION	717.26	717.28	717.29	717.29	717.29	717.31	717.31	717.31	717.30	717.28	717.26	717.24	717.23	717.21	717.21
ACT TOP OF STEEL ELEV	716.46	716.46	716.46	716.46	716.46	716.46	716.45	716.45	716.45	716.44	716.44	716.43	716.42	716.41	716.39
SLAB THICKNESS	.84	.85	.86	.87	.87	.89	.91	.93	.90	.89	.88	.87	.86	.85	.85
STATION	269+90.04	269+96.92	270+03.81	270+10.69	270+17.57	270+24.45	270+31.33	270+38.21	270+45.09	270+51.97	270+58.85	270+65.73	270+72.61	270+79.49	270+86.37
REQ'D SCREED ELEVATION	717.14	717.16	717.17	717.17	717.18	717.20	717.21	717.23	717.20	717.18	717.16	717.14	717.13	717.11	717.09
ACT TOP OF STEEL ELEV	716.35	716.34	716.34	716.34	716.34	716.35	716.34	716.32	716.32	716.31	716.30	716.29	716.28	716.27	716.26
SLAB THICKNESS	.83	.86	.87	.87	.88	.89	.91	.93	.92	.91	.90	.89	.89	.88	.85
STATION	269+91.09	269+97.97	270+04.85	270+11.73	270+18.61	270+25.49	270+32.37	270+39.25	270+46.13	270+53.01	270+59.89	270+66.77	270+73.65	270+80.53	270+87.41
REQ'D SCREED ELEVATION	717.08	717.06	717.07	717.08	717.09	717.10	717.11	717.13	717.10	717.08	717.06	717.05	717.03	717.01	716.99
ACT TOP OF STEEL ELEV	716.36	716.36	716.36	716.37	716.35	716.37	716.38	716.37	716.36	716.35	716.35	716.35	716.34	716.33	716.32
SLAB THICKNESS	.73	.74	.75	.75	.76	.77	.77	.80	.78	.76	.75	.74	.73	.72	.71
STATION	269+92.20	269+99.08	270+05.96	270+12.84	270+19.72	270+26.60	270+33.48	270+40.36	270+47.24	270+54.12	270+61.00	270+67.88	270+74.76	270+81.64	270+88.52
REQ'D SCREED ELEVATION	717.03	717.04	717.04	717.05	717.05	717.04	717.04	717.04	717.03	717.02	717.01	717.00	717.00	716.99	716.96
ACT TOP OF STEEL ELEV															
SLAB THICKNESS															

ABUTMENTS

MARK	NO.	LENGTH	WEIGHT	SHAPE	WB RA	BR FA	EB RA	BR FA
A401	8	10'-3"	55	BT	2	2	2	2
A402	8	8'-5"	45	BT	2	2	2	2
A501	72	7'-0"	526	S	18	18	18	18
A502	4	6'-0"	25	S	1	1	1	1
A503	24	6'-7"	165	BT	6	6	6	6
A510	4	11'-0"	46	S	1	1	1	1
A512	8	9'-9"	21	S	2	2	2	2
A514	8	10'-3"	111	S	2	2	2	2
A520	8	10'-8"	29	S	2	2	2	2
A521	4	11'-5"	45	BT	1	1	1	1
A522	4	7'-6"	31	S	1	1	1	1
A523	4	8'-2"	34	BT	1	1	1	1
A524	4	4'-4"	15	S	1	1	1	1
A525	4	5'-3"	22	BT	1	1	1	1
A526	8	8'-3"	69	BT	2	2	2	2
A601	16	16'-3"	391	BT	4	4	4	4
A602	24	8'-1"	291	BT	6	6	6	6
A604	16	13'-2 1/2"	316	BT	4	4	4	4
A801	32	7'-3"	619	S	8	8	8	8
A802	4	6'-0"	64	S	1	1	1	1
TOTAL			3,046					



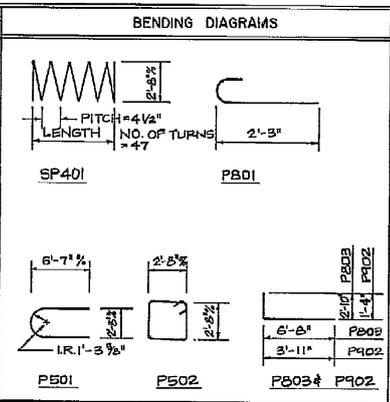
EPOXY COATED REINFORCING STEEL - ABUTMENTS

EA504	80	20'-10"	1738	S	20	20	20	20
EA505	40	30'-0"	1252	S	10	10	10	10
EA506	40	11'-8"	487	S	10	10	10	10
EA507	152	9'-0"	1427	S	38	38	38	38
EA508	36	9'-8"	363	S	9	9	9	9
EA509	36	7'-5"	278	S	9	9	9	9
EA511	4 SERIES OF 6	①	163	S	①	①	①	①
EA512	8	3'-9"	31	S	2	2	2	2
EA513	164	4'-4"	289	S	16	16	16	16
EA514	32	2'-1"	70	S	8	8	8	8
EA515	32	2'-8"	89	BT	8	8	8	8
EA516	24	5'-3"	131	BT	6	6	6	6
EA517	32	8'-9"	292	S**	8	8	8	8
EA527	32	8'-5"	281	S**	10	10	10	10
EA528	36	3'-8"	138	BT	9	9	9	9
EA529	8	10'-5"	87	S	2	2	2	2
EA603	24	7'-1"	273	BT	6	6	6	6
EA605	4	3'-9"	23	BT	1	1	1	1
EA606	4	9'-0"	54	BT	1	1	1	1
EA607	4 SERIES OF 2	⑤	220	BT	1 SERIES OF 2			
EA608	8	4'-1"	49	S	2	2	2	2
EA609	4 SERIES OF 5	⑥	120	BT	1 SERIES OF 5			
EA610	8	4'-1"	49	BT	2	2	2	2
EA611	8	4'-7"	55	S	2	2	2	2
EA803	204	9'-0"	4902	S	51	51	51	51
TOTAL			12,772					

- NOTES**
- ① ONE SET OF SIX; VARIES FROM 8'-2" TO 4'-10" - INCREMENT = 8"
 - ② VARIES FROM 7" TO 9" - INCREMENT = 7/16"
 - ③ VARIES FROM 2" TO 6" - INCREMENT = 1"
 - ④ VARIES FROM 4'-2" TO 7'-10" - INCREMENT = 11"
 - ⑤ VARIES FROM 5'-4" TO 9'-4" - INCREMENT = 1'-0"
 - ⑥ VARIES FROM 3'-10" TO 4'-2" - INCREMENT = 1"
- * APPROXIMATE MEASUREMENT TO BE FIELD VERIFIED.
 ** REINFORCING STEEL TO BE FIELD BENT.

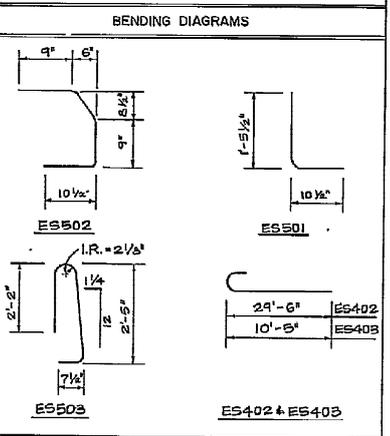
PIERS

MARK	NO.	LENGTH	WEIGHT	SHAPE	WESTBOUND P1	P2	P1	P2
SP401	4	16'-8"	1249	BT	1	1	1	1
P501	4	14'-9"	62	BT	1	1	1	1
P502	20	11'-3"	235	BT	5	5	5	5
P801	16	3'-2"	135	BT	4	4	4	4
P802	16	6'-2"	263	S	4	4	4	4
P803	8	9'-3"	195	BT	2	2	2	2
P804	8	6'-8"	142	S	2	2	2	2
P805	28	4'-6"	326	S	7	7	7	7
P806	28	6'-1"	455	S	7	7	7	7
P901	52	19'-5"	3433	S	13	13	13	13
P902	52	5'-0"	884	BT	13	13	13	13
TOTAL WEIGHT			7392					



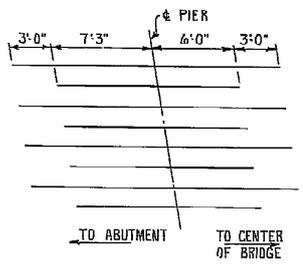
EPOXY COATED REINFORCING STEEL - SUPERSTRUCTURE

MARK	NO.	LENGTH	WEIGHT	SHAPE	WESTBOUND	EASTBOUND
ES401	200	30'-0"	4008	S	100	100
ES402	100	30'-0"	2004	BT	50	50
ES403	100	10'-11"	729	BT	50	50
ES404	204	16'-3"	2214	S	102	102
ES501	280	2'-3"	610	BT	130	130
ES502	260	3'-0"	214	BT	130	130
ES503	260	5'-3"	1424	BT	130	130
ES504	330	30'-0"	10,326	S	165	165
ES505	270	30'-0"	8448	S	135	135
ES506	90	10'-11"	1025	S	45	45
ES507	330	12'-2"	4125	S	165	165
ER601	64	11'-2"	745	S	32	32
ER602	96	6'-4"	634	S	48	48
ER603	32	11'-6"	384	S	16	16
ER604	48	30'-0"	1502	S	24	24
ER605	16	10'-11"	182	S	8	8
ES601	330	20'-0"	9913	S	165	165
ES602	330	22'-8"	11,235	S	165	165
TOTAL WEIGHT			60,385			



REINFORCING STEEL: REFER TO C.M.S. SECTIONS 106.03, 700, 709.01 THROUGH 709.05 AND 709.08. SUFFICIENT ADDITIONAL REINFORCING STEEL SHALL BE PROVIDED FOR SAMPLING. RANDOM SAMPLES SHALL BE REPLACED IN THE STRUCTURES BY ADDITIONAL STEEL, SPLICED IN ACCORDANCE WITH 509.08.

NOTE: "E" PREFIX TO BAR NUMBERS INDICATES EPOXY COATED.

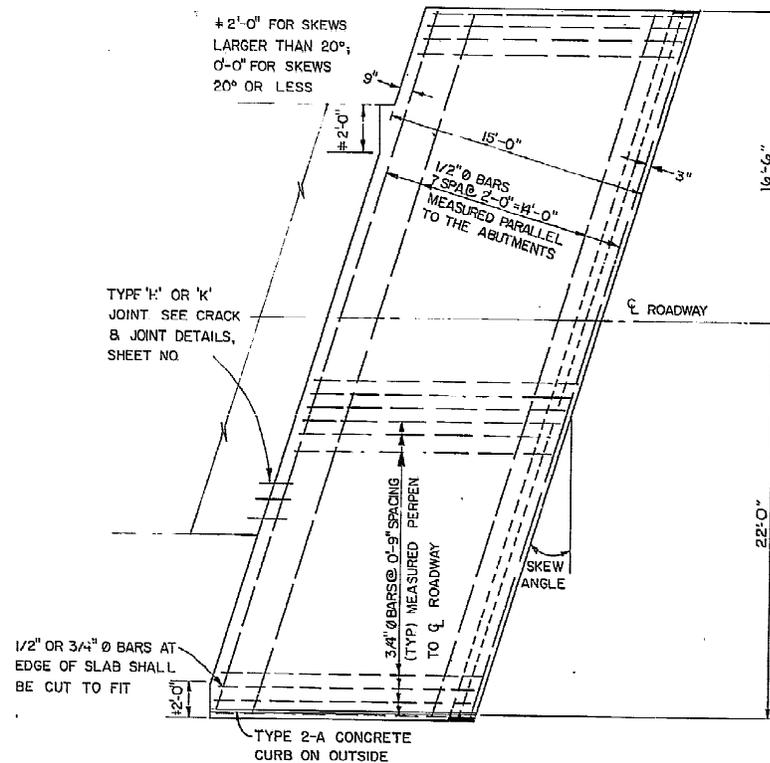


STAGGER DIAGRAM OF ES404 BARS OVER PIERS
NO SCALE

NO.	REVISIONS	BY	DATE

OHIO TURNPIKE COMMISSION
OHIO TURNPIKE REINFORCING STEEL
 OHIO TURNPIKE OVER S.R. 99
 RACKOFF ENGINEERS, INC.
 ENGINEERS - CONSULTANTS

COLUMBUS OHIO
 DESIGNED RAK/RSD CHECKED KWF DATE 3-2-84
 DRAWN B.J.M. IN CHARGE RAK SCALE NO SCALE
 CONTRACT NO. RMP-43-84-06 SHEET 13 OF 24



APPROACH SLAB FOR SKEWED BRIDGE

NOTE 1: PREFORMED ELASTOMERIC JOINT SEALER 705 II (1 1/4" FOR 1/2" JOINT) DEPRESSED 1/8" BELOW ROADWAY, PLACED IN 1/2" X 2 1/4" GROOVE.

NOTE 2: TYPE A WATERPROOFING SHALL NOT EXTEND ABOVE THE BOTTOM OF THE GROOVE INTO WHICH THE PREFORMED ELASTOMERIC JOINT SEALER IS TO BE PLACED. IT SHALL BE APPLIED TO THE ENTIRE AREA OF THE ABUTMENT OR SUPERSTRUCTURE WHICH COMES INTO CONTACT WITH THE APPROACH SLAB.

NOTE 3: TYPE 2-A CURB TO BE INCLUDED IN UNIT PRICE BID FOR ITEM GII APPROACH SLABS.

GENERAL: THIS DRAWING PROVIDES DESIGN AND GENERAL CONSTRUCTION DETAILS. THE PROJECT PLANS WILL SHOW SKEW, CURBS (IF ANY), ESTIMATED QUANTITY (SQ. YDS.) AND SPECIAL NOTES AND DETAILS, WHERE NECESSARY. FOR CONDITIONS OTHER THAN THOSE INDICATED HEREON, THE APPROACH SLAB SHALL BE ADAPTED TO FIT THE ENDS OF THE BRIDGE AND THE APPROACH PAVEMENT.

DESIGN DATA

CONCRETE CLASS C COMPRESSIVE STRENGTH 4000' PSI
REINFORCING STEEL ASTM A615, A616 OR A617 - GRADE 60 MIN YIELD STRENGTH 60,000 PSI

PREFORMED EXPANSION JOINT FILLER AND SEALER AT THE CORNERS AND SIDES OF THE APPROACH SLAB SHALL BE INCLUDED IN THE PRICE BID PER SQ YARD FOR THE APPROACH SLAB

PREFORMED ELASTOMERIC JOINT SEALER SHOWN AT THE BRIDGE LIMIT END OF THE APPROACH SLAB BE INCLUDED IN THE PRICE BID PER SQ YARD FOR THE APPROACH SLAB

TYPE A WATERPROOFING SHOWN AT THE ABUTMENT SLAB SHALL BE INCLUDED IN THE PRICE BID PER SQ YARD FOR THE APPROACH SLAB.

LONGITUDINAL CONSTRUCTION JOINTS REQUIRED FOR STAGE CONSTRUCTION SHALL BE AS PER 51109.

CURBS, BRIDGES WITH SIDEWALKS FOR BRIDGES CONSTRUCTED WITH RAISED SIDEWALKS, DEFLECTOR PARAPETS OR OTHER TYPES OF CONSTRUCTION WHICH RETAIN ROADWAY SURFACE DRAINAGE, THE APPROACH SLABS SHALL EITHER INCLUDE INTEGRAL CURBS OR BE CONSTRUCTED IN CONJUNCTION WITH BRIDGE CURBS. CURB HEIGHT SHALL BE TRANSITIONED UNIFORMLY BETWEEN BRIDGE CURB HEIGHT AND APPROACH CURB HEIGHT IN LENGTH AS FOLLOWS: WHERE WINGWALL EXTENDS BEYOND END OF APPROACH SLAB, USE A MINIMUM LENGTH OF 10 FT BEYOND END OF WINGWALL. WHERE THE APPROACH SLAB EXTENDS BEYOND THE END OF WINGWALL, TRANSITION IN THIS LENGTH. HOWEVER, THE TRANSITION LENGTH SHALL NOT BE LESS THAN 10 FT AND THE TRANSITION SHALL EXTEND BEYOND THE END OF THE APPROACH SLAB IF NECESSARY.

APPROACH SLAB WIDTH APPROACH SLABS SHALL BE THE SAME WIDTH AS THE BRIDGE ROADWAY, UNLESS SHOWN OTHERWISE ON THE PLANS.

CROWN SHALL CONFORM TO THAT OF THE APPROACH PAVEMENT AND BRIDGE DECK 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.

TRANSVERSE JOINT DETAILS AT THE APPROACH PAVEMENT END OF THE APPROACH SLAB SHALL BE EITHER TYPE 'K' OR 'H' AS DETAILED ON THE PLANS. PAYMENT FOR THE TRANSVERSE JOINT SHALL BE AT THE UNIT PRICE BID PER LIN FT FOR THE TYPE OF JOINT FURNISHED

OHIO TURNPIKE COMMISSION

REINFORCED CONCRETE
APPROACH SLABS

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