

**ITEM 614, MAINTAINING TRAFFIC**

ON US 35 A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES EXCEPT FOR A PERIOD NOT EXCEED 60 CONSECUTIVE CALENDER DAYS , WHEN TWO WAY ONE LANE TRAFFIC WILL BE MAINTAINED THROUGH THE USE OF TEMPORARY TRAFFIC SIGNALS. SIGNALS SHALL BE OVERHEAD MOUNTED IN ACCORDANCE WITH THE DETAILS SOWN ON TRAFFIC SCD MT-96.20. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$3,900 FOR EACH DAY THE ROADWAY TRAFFIC IS NOT MAINTAINED IN ITS ORIGINAL CONFIGURATION BEYOND THE SPECIFIED LIMIT.

ON US 127 A MINIMUM OF ONE LANE OF TRAFFIC IN EACH DIRECTION SHALL BE MAINTAINED AT ALL TIMES, EXCEPT FOR A PERIOD NOT EXCEED 30 CONSECUTIVE CALENDER DAYS , WHEN THROUGH TRAFFIC MAY BE DETOURED AS SHOWN ON SHEET 6. A DISINCENTIVE SHALL BE ASSESSED IN THE AMOUNT OF \$3,900 FOR EACH DAY THE ROADWAY TRAFFIC IS NOT MAINTAINED IN ITS ORIGINAL CONFIGURATION BEYOND THE SPECIFIED LIMIT.

NOTICE OF CLOSURE SIGNS (W20-H13) SHALL BE ERECTED BY THE CONTRACTOR PRIOR TO THE SCHEDULED ROAD OR RAMP CLOSURE IN ACCORDANCE WITH THE NOTICE OF CLOSURE TIME TABLE BELOW. [AT THE APPROVAL OF THE ENGINEER, PORTABLE CHANGEABLE MESSAGE SIGNS MAY BE USED IN LIEU OF THE STANDARD FLATSHEET SIGN FOR CLOSURE DURATIONS OF LESS THAN 1 WEEK.]

THE SIGNS SHALL BE ERECTED ON THE RIGHT-HAND SIDE OF THE ROAD/RAMP FACING TRAFFIC. THEY SHALL BE PLACED SO AS NOT TO INTERFERE WITH THE VISIBILITY OF ANY OTHER TRAFFIC CONTROL SIGNS. ON ROADWAYS, THEY SHOULD BE ERECTED AT OR NEAR THE POINT OF CLOSURE. THE SIGNS MAY BE ERECTED ANYWHERE ON RAMPS AS LONG AS THEY ARE VISIBLE TO THE MOTORISTS USING THE RAMP. ON ENTRANCE RAMPS, THE SIGN SHALL BE ERECTED WELL IN ADVANCE OF THE MERGE AREA TO AVOID DISTRACTING MOTORISTS.

NOTICE OF CLOSURE SIGN TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO LISTED CONTACTS
RAMP & ROAD CLOSURES	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	7 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	2 BUSINESS DAYS PRIOR TO CLOSURE

THE SIGN SHALL DISPLAY THE DATE OF THE CLOSURE IN MMM-DD FORMAT AND THE NUMBER OF DAYS OF THE CLOSURE. THE LAST LINE OF THE W20-H13 SIGN LISTS A PHONE NUMBER WHICH A MOTORIST MAY CALL FOR ADDITIONAL INFORMATION. THIS IS TO BE A SPECIFIC OFFICE WITHIN THE DISTRICT RATHER THAN THE GENERAL SWITCHBOARD NUMBER.

LENGTH AND DURATION OF LANE CLOSURES AND RESTRICTIONS SHALL BE AT THE APPROVAL OF THE ENGINEER. IT IS THE INTENT TO MINIMIZE THE IMPACT TO THE TRAVELING PUBLIC. LANE CLOSURES OR RESTRICTIONS OVER SEGMENTS OF THE PROJECT IN WHICH NO WORK IS ANTICIPATED WITHIN A REASONABLE TIME FRAME, AS DETERMINED BY THE ENGINEER, SHALL NOT BE PERMITTED. THE LEVEL OF UTILIZATION OF MAINTENANCE OF TRAFFIC DEVICES SHALL BE COMMENSURATE WITH THE WORK IN PROGRESS.

ALL WORK AND TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH C&MS 614 AND OTHER APPLICABLE PORTIONS OF THE SPECIFICATIONS, AS WELL AS THE OHIO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC, UNLESS SEPARATELY ITEMIZED IN THE PLAN.

**ITEM 622 - PORTABLE CONCRETE BARRIER**

THE FOLLOWING ESTIMATED QUANTITIES FOR ITEM 622 - PORTABLE CONCRETE BARRIER HAVE BEEN CARRIED TO THE GENERAL SUMMARY. PLACE BARRIER FOR THE PRE-35-2.46 LOCATION AS SHOWN IN THE MAINTANCE OF TRAFFIC PLAN AND PHASE CONSTRUCTION DETAILS FOR STRUCTURE No.: PRE-35-0246.

PRE-35-0246  
PORTABLE BARRIER, UNANCHORED..... 430 FT  
PORTABLE BARRIER, ANCHORED..... 40 FT

**NOTIFICATION OF TRAFFIC RESTRICTIONS**

THROUGHOUT THE DURATION OF THE PROJECT, THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IN WRITING OF ALL TRAFFIC RESTRICTIONS AND UPCOMING MAINTENANCE OF TRAFFIC CHANGES. THE CONTRACTOR SHALL ENSURE THE WRITTEN NOTIFICATION IS SUBMITTED IN A TIMELY MANNER TO ALLOW THE PROJECT ENGINEER TO MEET THE REQUIRED TIME FRAMES SET FORTH IN THE TABLE BELOW TO INFORM THE LISTED CONTACTS.

THIS NOTIFICATION SHALL BE RECEIVED BY THE PROJECT ENGINEER PRIOR TO THE PHYSICAL SETUP OF ANY APPLICABLE SIGNS OR MESSAGE BOARDS. INFORMATION SHOULD INCLUDE, BUT IS NOT LIMITED TO, ALL CONSTRUCTION ACTIVITIES THAT IMPACT OR INTERFERE WITH TRAFFIC AND SHALL LIST THE SPECIFIC LOCATION, TYPE OF WORK, ROAD STATUS, DATE AND TIME OF RESTRICTION, DURATION OF RESTRICTION, NUMBER OF LANES MAINTAINED, NUMBER OF LANES CLOSED, MINIMUM VERTICAL CLEARANCE, MINIMUM WIDTH OF DRIVABLE PAVEMENT, DETOUR ROUTES, IF APPLICABLE, AND ANY OTHER INFORMATION REQUESTED BY THE PROJECT ENGINEER.

NOTIFICATION TIME TABLE		
ITEM	DURATION OF CLOSURE	NOTICE DUE TO LISTED CONTACTS
RAMP & ROAD CLOSURES	>= 2 WEEKS	21 CALENDAR DAYS PRIOR TO CLOSURE
	> 12 HOURS & < 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 12 HOURS	4 BUSINESS DAYS PRIOR TO CLOSURE
LANE CLOSURES & RESTRICTIONS	>= 2 WEEKS	14 CALENDAR DAYS PRIOR TO CLOSURE
	< 2 WEEKS	5 BUSINESS DAYS PRIOR TO CLOSURE
START OF CONSTRUCTION & TRAFFIC PATTERN CHANGES	N/A	14 CALENDAR DAYS PRIOR TO IMPLEMENTATION

ANY UNFORESEEN CONDITIONS NOT SPECIFIED IN THE PLANS REQUIRING TRAFFIC RESTRICTIONS SHALL ALSO BE REPORTED TO THE PROJECT ENGINEER USING THE NOTIFICATION TIME TABLE.

CONTACT THE FOLLOWING:  
-DISTRICT PUBLIC INFORMATION OFFICER BY EMAIL AT DOT.D08.PIO@DOT.OHIO.GOV  
-DISTRICT PERMIT SECTION BY EMAIL AT D08.PERMITS@DOT.OHIO.GOV  
-CENTRAL OFFICE SPECIAL HAUL PERMITS SECTION BY EMAIL AT HAULING.PERMITS@DOT.OHIO.GOV

**DELINEATION OF PORTABLE AND PERMANENT BARRIER**

BARRIER REFLECTORS AND OBJECT MARKERS SHALL BE INSTALLED ON ALL PORTABLE BARRIER (PB) USED FOR TRAFFIC CONTROL; AND, ON PERMANENT CONCRETE BARRIER (INCLUDING BRIDGE PARAPETS) LOCATED WITHIN 5 FEET OF THE EDGE OF THE ADJACENT TRAVEL LANE.

BARRIER REFLECTORS SHALL CONFORM TO C&MS 626, EXCEPT THAT THE SPACING SHALL BE AS PER TRAFFIC SCD MT-101.70. OBJECT MARKERS AND THEIR INSTALLATION SHALL CONFORM TO C&MS 614.03 AND SCD MT-101.70. WHEN THE PB CONTAINS GLARE SCREEN, ONE SET OF THREE VERTICAL STRIPES OF SHEETING SHALL BE CONSIDERED EQUIVALENT TO AN OBJECT MARKER, ONE-WAY.

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN INCLUDED IN THE PLANS AND CARRIED TO THE GENERAL SUMMARY:

ITEM 614, BARRIER REFLECTOR, TYPE 1 (BI-DIRECTIONAL) 12 EACH

ITEM 614, OBJECT MARKER, TWO-WAY 12 EACH

PAYMENT SHALL BE FULL COMPENSATION FOR ALL MATERIAL, LABOR, INCIDENTALS AND EQUIPMENT NECESSARY FOR FURNISHING, INSTALLING, MAINTAINING AND REMOVING EACH OF THE ABOVE ITEMS.

**ITEM 614, WORK ZONE IMPACT ATTENUATOR FOR 24" WIDE HAZARDS (BIDIRECTIONAL)**

THIS ITEM SHALL CONSIST OF FURNISHING AND INSTALLING A NON-GATING IMPACT ATTENUATOR. FURNISH AN IMPACT ATTENUATOR FROM THE OFFICE OF ROADWAY ENGINEERING'S APPROVED LIST FOR WORK ZONE IMPACT ATTENUATORS, FROM THE ROADWAY STANDARDS APPROVED PRODUCTS WEB PAGE. INSTALLATION SHALL BE AT THE LOCATIONS SPECIFIED IN THE PLANS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE CONTRACTOR SHALL REPAIR OR REPLACE A DAMAGED UNIT WITHIN 24 HOURS OF A DAMAGING IMPACT. WHEN BIDIRECTIONAL DESIGNS ARE SPECIFIED, THE CONTRACTOR SHALL SUPPLY APPROPRIATE TRANSITIONS. WHEN GATING IMPACT ATTENUATORS ARE DESIRED, THE CONTRACTOR SHALL SUBMIT DOCUMENTATION TO THE ENGINEER FOR ACCEPTANCE.

THE COST FOR THE ADDITIONAL BARRIER REQUIRED FOR A GATING IMPACT ATTENUATOR SHALL BE INCLUDED IN THE COST OF THE GATING IMPACT ATTENUATOR.

PAYMENT FOR THE ABOVE WORK SHALL BE MADE AT THE UNIT PRICE BID AND SHALL INCLUDE ALL LABOR, TOOLS, EQUIPMENT AND MATERIALS NECESSARY TO CONSTRUCT AND MAINTAIN A COMPLETE AND FUNCTIONAL IMPACT ATTENUATOR SYSTEM, INCLUDING ALL RELATED BACKUPS, TRANSITIONS, LEVELING PADS, HARDWARE AND GRADING, NOT SEPARATELY SPECIFIED, AS REQUIRED BY THE MANUFACTURER.

**WORK ZONE MARKINGS AND SIGNS**

THE FOLLOWING ESTIMATED QUANTITIES HAVE BEEN CARRIED TO THE GENERAL SUMMARY FOR USE AT LOCATIONS IDENTIFIED BY THE ENGINEER FOR WORK ZONE PAVEMENT MARKINGS AND SIGNS PER THE REQUIREMENTS OF C&MS 614.04 AND 614.11.

PRE-35-0246  
WORK ZONE STOP LINE, CLASS 1, 740.06, TYPE 1..... 36 FT  
WORK ZONE EDGE LINE, CLASS 1, 4", 740.06, TYPE 1..... 0.13 MI  
WORK ZONE CENTER LINE, CLASS 1, 740.06, TYPE 1..... 0.19 MI

**FLOODLIGHTING**

FLOODLIGHTING OF THE WORK SITE FOR OPERATIONS CONDUCTED DURING NIGHTTIME PERIODS SHALL BE ACCOMPLISHED SO THAT THE LIGHTS DO NOT CAUSE GLARE TO THE DRIVERS ON THE ROADWAY. TO ENSURE THE ADEQUACY OF THE FLOODLIGHT PLACEMENT, THE CONTRACTOR AND THE ENGINEER SHALL DRIVE THROUGH THE WORK SITE EACH NIGHT WHEN THE LIGHTING IS IN PLACE AND OPERATIVE PRIOR TO COMMENCING ANY WORK. IF GLARE IS DETECTED, THE LIGHT PLACEMENT AND SHIELDING SHALL BE ADJUSTED TO THE SATISFACTION OF THE ENGINEER BEFORE WORK PROCEEDS.

PAYMENT FOR ALL LABOR, EQUIPMENT AND MATERIALS SHALL BE INCLUDED IN THE LUMP SUM CONTRACT PRICE FOR ITEM 614, MAINTAINING TRAFFIC.

**DESIGNATED LOCAL DETOUR ROUTE**

IN ADDITION TO THE OFFICIAL, SIGNED DETOUR ROUTE, A LOCAL ROUTE HAS BEEN DETERMINED TO BE THE SECONDARY, UNSIGNED DETOUR ROUTE OR "DESIGNATED LOCAL DETOUR ROUTE." THIS ROUTE IS SHOWN ON SHEET 6. DURING THE TIME THAT TRAFFIC IS DETOURED, THE CONTRACTOR SHALL MAINTAIN THIS ROUTE IN A CONDITION WHICH IS REASONABLY SMOOTH AND FREE FROM HOLES, RUTS, RIDGES, BUMPS, DUST AND STANDING WATER. ONCE THE DETOUR IS REMOVED AND TRAFFIC RETURNED TO ITS NORMAL PATTERN, THE DESIGNATED LOCAL DETOUR ROUTE SHALL BE RESTORED TO A CONDITION THAT IS EQUIVALENT TO THAT WHICH EXISTED PRIOR TO ITS USE FOR THIS PURPOSE. ALL SUCH WORK SHALL BE PERFORMED WHEN AND AS DETERMINED BY THE ENGINEER.

THE FOLLOWING ESTIMATED QUANTITIES ARE PROVIDED FOR USE AS DETERMINED BY THE ENGINEER TO MAINTAIN AND SUBSEQUENTLY RESTORE THE DESIGNATED LOCAL DETOUR ROUTE.

ITEM 253, PAVEMENT REPAIR ..... 5 CU. YD.  
ITEM 407, NON-TRACKING TACK COAT..... 5 GAL.  
ITEM 614, ASPHALT CONCRETE FOR MAINTAINING TRAFFIC..... 5 CU. YD.  
ITEM 616, WATER..... 1 M. GAL

SHEET NUM.										PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
3	4	8	9							01/STR/BR		EXT	TOTAL			
<b>ROADWAY</b>																
LUMP			1,425							LUMP	201	11001	LS		CLEARING AND GRUBBING, AS PER PLAN	3
			4							1,425	202	38000	1,425	FT	GUARDRAIL REMOVED	
			4							4	202	42001	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE A, AS PER PLAN	3
			4							4	202	42010	4	EACH	ANCHOR ASSEMBLY REMOVED, TYPE E	
			2							2	202	42040	2	EACH	ANCHOR ASSEMBLY REMOVED, TYPE T	
			6							6	202	47000	6	EACH	BRIDGE TERMINAL ASSEMBLY REMOVED	
		1								1	209	15050	1	MILE	RESHAPING UNDER GUARDRAIL	
			1,425							1,425	606	15100	1,425	FT	GUARDRAIL, TYPE MGS WITH LONG POSTS	
			8							8	606	26150	8	EACH	ANCHOR ASSEMBLY, MGS TYPE E (NCHRP 350 OR MASH 2016)	
			2							2	606	26550	2	EACH	ANCHOR ASSEMBLY, MGS TYPE T	
			8							8	606	35002	8	EACH	MGS BRIDGE TERMINAL ASSEMBLY, TYPE 1	
										LUMP	878	25000	LS		INSPECTION AND COMPACTION TESTING OF UNBOUND MATERIALS	
<b>EROSION CONTROL</b>																
1,000										1,000	659	10000	1,000	SY	SEEDING AND MULCHING	
0.1										0.1	659	20000	0.1	TON	COMMERCIAL FERTILIZER	
0.2										0.2	659	31000	0.2	ACRE	LIME	
5										5	659	35000	5	MGAL	WATER	
										5,000	832	30000	5,000	EACH	EROSION CONTROL	
<b>ENVIRONMENTAL / REMEDIATION</b>																
LUMP										LUMP	SPECIAL	69098400	LS		MISC.: WORK INVOLVING ASBESTOS CONTAINING MATERIALS	3
<b>PAVEMENT</b>																
		399								399	202	23500	399	SY	WEARING COURSE REMOVED	
5										5	253	02000	5	CY	PAVEMENT REPAIR	
		2,679								2,679	254	01000	2,679	SY	PAVEMENT PLANING, ASPHALT CONCRETE (T=1.5")	
5		256								261	407	20000	261	GAL	NON-TRACKING TACK COAT	
		127								127	441	50000	127	CY	ASPHALT CONCRETE SURFACE COURSE, TYPE 1, (448), PG64-22	
		40								40	441	50200	40	CY	ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE 1, (448) (VARIABLE FROM 0" TO 3")	
<b>TRAFFIC CONTROL</b>																
46										46	626	00110	46	EACH	BARRIER REFLECTOR, TYPE 2 (BI-DIRECTIONAL)	
11										11	621	00100	11	EACH	RPM	
11										11	621	54000	11	EACH	RAISED PAVEMENT MARKER REMOVED	
2										2	630	84900	2	EACH	REMOVAL OF GROUND MOUNTED SIGN AND DISPOSAL	
2										2	630	86002	2	EACH	REMOVAL OF GROUND MOUNTED POST SUPPORT AND DISPOSAL	
0.44										0.44	645	00116	0.44	MILE	EDGE LINE, 6", TYPE A3	
0.22										0.22	645	00310	0.22	MILE	CENTER LINE, TYPE A3	
0.04										0.04	646	10010	0.04	MILE	EDGE LINE, 6"	
0.02										0.02	646	10200	0.02	MILE	CENTER LINE	
<b>STRUCTURE OVER 20 FOOT SPAN (PRE-35-0246 SFN: 6800076)</b>																
<b>STRUCTURE OVER 20 FOOT SPAN (PRE-127-2049 SFN: 6802796)</b>																
<b>MAINTENANCE OF TRAFFIC</b>																
	4									4	614	12384	4	EACH	WORK ZONE IMPACT ATTENUATOR, 24" WIDE HAZARDS, (BIDIRECTIONAL)	
	0.13									0.13	614	22210	0.13	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	
	36									36	614	26400	36	FT	WORK ZONE STOP LINE, CLASS I, 740.06, TYPE I	
	0.19									0.19	614	21550	0.19	MILE	WORK ZONE CENTER LINE, CLASS III, 642 PAINT	
	430									430	622	41100	430	FT	PORTABLE BARRIER, UNANCHORED	
	40									40	622	41110	40	FT	PORTABLE BARRIER, ANCHORED	
	12									12	614	13310	12	EACH	BARRIER REFLECTOR, TYPE 1 (BI-DIRECTIONAL)	
	12									12	614	13360	12	EACH	OBJECT MARKER, TWO WAY	
5										5	614	13000	5	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
1										1	616	10000	1	MGAL	WATER	
<b>INCIDENTALS</b>																
										LUMP	614	11000	LS		MAINTAINING TRAFFIC	
										LUMP	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
										LUMP	624	10000	LS		MOBILIZATION	

GENERAL SUMMARY

DESIGN AGENCY



DESIGNER  
GTF

REVIEWER  
JAO

PROJECT ID  
102780

SHEET TOTAL  
8 31

PRE-85/E 25E246000.49

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**STANDARD DRAWINGS AND SUPPLEMENTAL SPECIFICATIONS**

REFER TO THE FOLLOWING STANDARD BRIDGE DRAWING(S):

DS-1-92 DATED (REVISED) 7/18/2003  
PSBD-2-07 DATED (REVISED) 7/20/2018  
TST-1-99 DATED (REVISED) 7/20/2018

AND TO THE FOLLOWING SUPPLEMENTAL SPECIFICATION(S):

SS846 DATED 4/17/2015

**DESIGN SPECIFICATIONS**

THIS SUPERSTRUCTURE CONFORMS TO THE "LRFD BRIDGE DESIGN SPECIFICATIONS" ADOPTED BY THE AMERICAN ASSOCIATION OF STATE HIGHWAY AND TRANSPORTATION OFFICIALS, 8TH EDITION AND THE ODOT BRIDGE DESIGN MANUAL, 2020

**OPERATIONAL IMPORTANCE**

A LOAD MODIFIER OF 1.0 HAS BEEN ASSUMED FOR THE DESIGN OF THIS STRUCTURE IN ACCORDANCE WITH THE AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS, ARTICLE 1.3.5 AND THE ODOT BRIDGE DESIGN MANUAL, 2020.

**DESIGN LOADING**

DESIGN LOADING: HL-93  
FUTURE WEARING SURFACE (FWS) OF 0.060 KIPS/SQ.FT.

**DESIGN DATA**

REINFORCING STEEL - MINIMUM YEILD STRENGTH 60 KSI  
CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 4.0 KSI (SUBSTRUCTURE)

CONCRETE CLASS QC3 - COMPRESSIVE STRENGTH 4.5 KSI (SUPERSTRUCTURE)

CONCRETE FOR PRESTRESSED BEAMS:  
COMPRESSIVE STRENGTH (FINAL) - 7.0 KSI  
COMPRESSIVE STRENGTH (RELEASE) - 5.0 KSI

PRESTRESSING STRAND:  
ASTM A416, SEVEN-WIRE UNCOATED, GRADE 270  
0.6" DIAMETER, AREA = 0.217 IN<sup>2</sup>  
ULTIMATE STRENGTH = 270 KSI  
INITIAL STRESS = 202.5 KSI (LOW RELAXATION STRANDS)

**DECK PROTECTION METHOD**

PRE-35-0246  
TYPE 3 WATERPROOFING  
ASPHALT CONCRETE OVERLAY  
SEALING OF CONCRETE SURFACES  
STAINLESS STEEL DRIP STRIP

PRE-127-2049  
EPOXY COATED REINFORCING STEEL  
2.5" CONCRETE COVER  
SEALING OF CONCRETE SURFACES  
STAINLESS STEEL DRIP STRIP

**MONOLITHIC WEARING SURFACE**

MONOLITHIC WEARING SURFACE IS ASSUMED, FOR DESIGN PURPOSES, TO BE 1 INCH THICK.

**ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN**

SUPERSTRUCTURE REMOVAL:  
THIS WORK CONSISTS OF THE REMOVAL OF THE EXISTING BRIDGE PRESTRESSED CONCRETE BOX BEAM SUPERSTRUCTURE FOR BRIDGES PRE-35-0246 & . THE EXISTING ABUTMENTS SHALL REMAIN IN PLACE AND INCORPORATED INTO THE NEW BRIDGE STRUCTURE. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. ITEMS TO BE REMOVED INCLUDE ALL EXISTING MATERIALS BEING REPLACED BY NEW CONSTRUCTION AND MISCELLANEOUS ITEMS THAT ARE NOT SHOWN TO BE INCORPORATED INTO THE FINAL CONSTRUCTION AND ARE DIRECTED TO BE REMOVED BY THE ENGINEER. PERFORM WORK CAREFULLY DURING REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE NEW STRUCTURE SUCH AS THE ABUTMENTS AND APPROACH SLABS. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE-RAMS WILL NOT BE PERMITTED. SUBMIT ENGINEERED DRAWINGS ACCORDING TO CMS 501.05.

THE CONTRACTOR MUST REVIEW THE STRUCTURE WHEN PREPARING HIS BID. THE CONTRACTOR WILL REVIEW THE CONDITION OF THE STRUCTURE TO DETERMINE WHAT DEBRIS WILL FALL FROM THE STRUCTURE DURING REMOVAL. THE CONTRACTOR WILL DETERMINE THE CORRESPONDING COST TO CLEAN UP ANY AND ALL DEBRIS WHICH FALLS FROM THE STRUCTURE DURING THE REMOVAL OPERATION. NO ADDITIONAL COST WILL BE RECOGNIZED TO CLEAN DEBRIS RESULTING FROM THE STRUCTURE REMOVAL OPERATION.

SUBSTRUCTURE REMOVAL:  
THIS WORK CONSISTS OF THE REMOVAL PORTIONS OF THE ABUTMENT WINGWALLS. THE PROVISIONS OF ITEM 202 APPLY EXCEPT AS SPECIFIED BY THE FOLLOWING NOTES. PERFORM WORK CAREFULLY DURING REMOVALS TO PROTECT PORTIONS OF SUCH SYSTEMS THAT ARE TO BE SALVAGED AND INCORPORATED INTO THE NEW STRUCTURE. THE USE OF EXPLOSIVES, HEADACHE BALLS AND/OR HOE RAMS WILL NOT BE PERMITTED.

THE CONTRACTOR MUST REVIEW THE STRUCTURE WHEN PREPARING HIS BID. THE CONTRACTOR WILL REVIEW THE CONDITION OF THE STRUCTURE TO DETERMINE WHAT DEBRIS WILL FALL FROM THE STRUCTURE DURING REMOVAL. THE CONTRACTOR WILL DETERMINE THE CORRESPONDING COST TO CLEAN UP ANY AND ALL DEBRIS WHICH FALLS FROM THE STRUCTURE DURING THE REMOVAL OPERATION. NO ADDITIONAL COST WILL BE RECOGNIZED TO CLEAN DEBRIS RESULTING FROM THE STRUCTURE REMOVAL OPERATION.

MEASUREMENT & PAYMENT: THE DEPARTMENT WILL MEASURE THE QUANTITY OF REMOVALS ON A LUMP SUM BASIS. THE DEPARTMENT WILL PAY FOR THE ACCEPTED QUANTITIES OF REMOVALS AT THE CONTRACT PRICE FOR ITEM 202 - PORTIONS OF STRUCTURE REMOVED, AS PER PLAN.

**BEARING PAD SHIMS**

PLACE 1/8" THICK PREFORMED BEARING PAD SHIMS, PLAN AREA 18.0 INCHES BY 10.0 INCHES, UNDER THE ELASTOMERIC BEARING PADS WHERE REQUIRED FOR PROPER BEARING. FURNISH TWO SHIMS PER BEAM. THE DEPARTMENT WILL MEASURE THIS ITEM BY THE TOTAL NUMBER SUPPLIED. THE DEPARTMENT WILL PAY FOR ACCEPTED QUANTITIES AT THE CONTRACT PRICE FOR ITEM 516 - 1/8" PREFORMED BEARING PADS. ANY UNUSED SHIMS WILL BECOME THE PROPERTY OF THE STATE.

**FINAL DECK SURFACE ELEVATIONS**

FINAL DECK SURFACE ELEVATIONS SHOWN REPRESENT THE DECK SURFACE LOCATION AFTER ALL ANTICIPATED DEAD LOAD DEFLECTIONS HAVE OCCURRED.

**ITEM 512 - SEALING OF CONCRETE SURFACES, (EPOXY-URETHANE)**

THIS ITEM INCLUDES SEALING THE CONCRETE SUPERSTRUCTURE AND SUBSTRUCTURE SURFACES AS DESIGNATED IN THE PLANS. THE COLOR OF THE URETHANE COATING SHALL BE FEDERAL COLOR STANDARD NO. 17778 (LIGHT NEUTRAL).

PAYMENT FOR THIS WORK SHALL INCLUDE ALL EQUIPMENT, MATERIAL AND LABOR NECESSARY TO PERFORM THIS TASK. PAYMENT SHALL BE MADE AT THE BID PRICE PER SQUARE YARD.

**EXISTING STRUCTURE VERIFICATION**

EXISTING STRUCTURE VERIFICATION: DETAILS AND DIMENSIONS SHOWN ON THESE PLANS PERTAINING TO THE EXISTING STRUCTURE HAVE BEEN OBTAINED FROM PLANS OF THE EXISTING STRUCTURE AND 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 SECTIONS 102.05, 105.02 AND 513.04.

BASE CONTRACT BID PRICES UPON A RECOGNITION OF THE UNCERTAINTIES DESCRIBED ABOVE AND UPON A PREBID EXAMINATION OF THE EXISTING STRUCTURE. HOWEVER, THE DEPARTMENT WILL PAY FOR ALL PROJECT WORK BASED UPON ACTUAL DETAILS AND DIMENSIONS WHICH HAVE BEEN VERIFIED IN THE FIELD.

**DECK PLACEMENT DESIGN ASSUMPTIONS**

THE FOLLOWING ASSUMPTIONS OF CONSTRUCTION MEANS AND METHODS WERE MADE FOR THE ANALYSIS AND DESIGN OF THE SUPERSTRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR THE DESIGN OF THE FALSEWORK SUPPORT SYSTEM WITHIN THESE PARAMETERS AND WILL ASSUME RESPONSIBILITY FOR SUPERSTRUCTURE ANALYSIS FOR DEVIATION FROM THESE DESIGN ASSUMPTIONS.

AN EIGHT WHEEL FINISHING MACHINE WITH A MINIMUM WHEEL LOAD OF 2.2 KIPS.

A MINIMUM OUT-TO-OUT WHEEL SPACING AT EACH END OF THE MACHINE OF 103 INCHES.

A MAXIMUM SPACING OF OVERHANG FALSEWORK BRACKETS OF 48 INCHES.

A MAXIMUM DISTANCE FROM THE CENTERLINE OF THE FACIA GIRDER TO THE FACE OF THE SAFETY HANDRAIL OF 65 INCHES.

STRUCTURE GENERAL NOTES  
BRIDGE No.: PRE-35-0246 & PRE-127-2049


DESIGN AGENCY



DESIGNER	GTF
REVIEWER	CAH
PROJECT ID	102780
SHEET	TOTAL
11	31

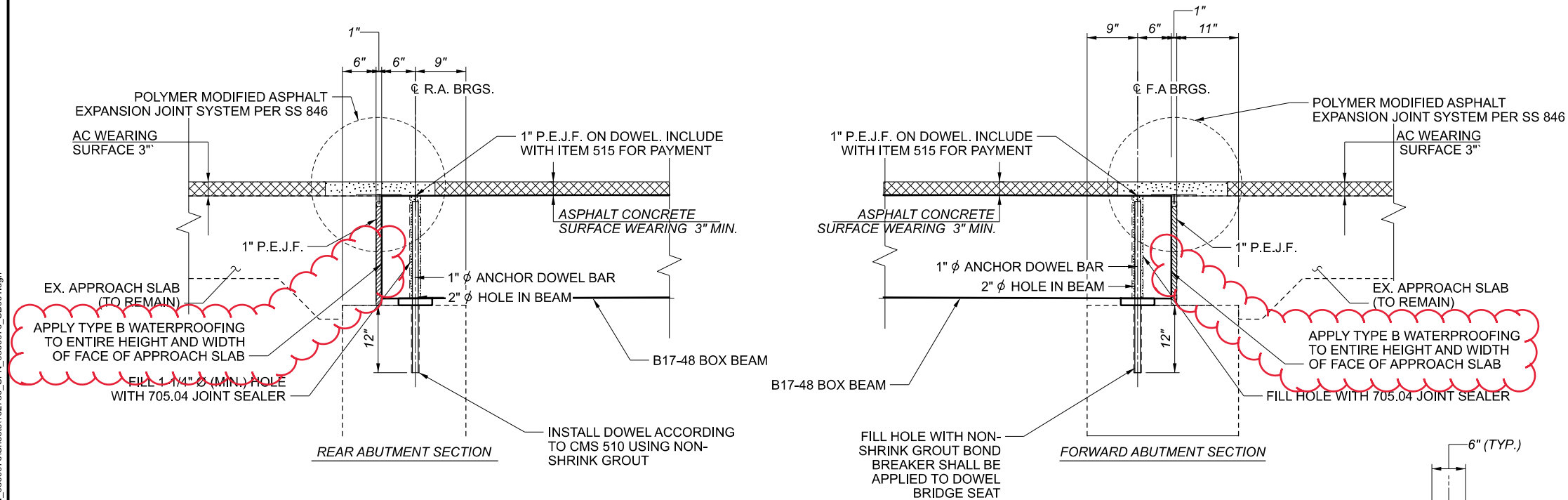
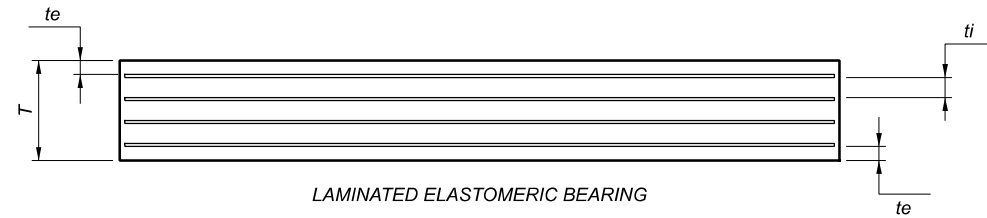
ESTIMATED QUANTITIES - STRUCTURE No.: PRE-35-0246 (01/STR/BR)									
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER.	GEN.	
202	11203	LS	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN			LS		
503	11100	LS	LUMP	COFFERDAMS AND EXCAVATION BRACING				LS	
503	21300	LS	LUMP	UNCLASSIFIED EXCAVATION				LS	
509	10000	213	LB	EPOXY COATED REINFORCING STEEL	213				
510	10000	52	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	52				
511	44110	2	CY	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING	2				
512	10000	110	SY	SEALING OF CONCRETE SURFACES	94		16		
512	33010	170	SY	TYPE 3 WATERPROOFING				170	
512	44401	14	SY	TYPE B WATERPROOFING			14		
512	74000	94	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	94				
515	10030	10	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, B17-48 (36'-0" LONG)			10		
516	13600	131	SF	1" PREFORMED EXPANSION JOINT FILLER	18		113		
516	41100	40	EACH	1/8" PREFORMED BEARING PAD				40	
516	43100	40	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (T=2.5")				40	
517	70000	86	FT	RAILING (TWIN STEEL TUBE)				86	
SPECIAL	51822300	72	FT	STEEL DRIP STRIP			72		
846	00110	23	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM			23		

STRUCTURE ESTIMATED QUANTITIES  
 BRIDGE No.: PRE-35-0246  
 U.S. ROUTE 35 OVER ELKHORN CREEK

SFN	6800076
DESIGN AGENCY	
DESIGNER	CHECKER
GTF	
REVIEWER	CAH
PROJECT ID	102780
SUBSET	TOTAL
2	10
SHEET	TOTAL
13	31

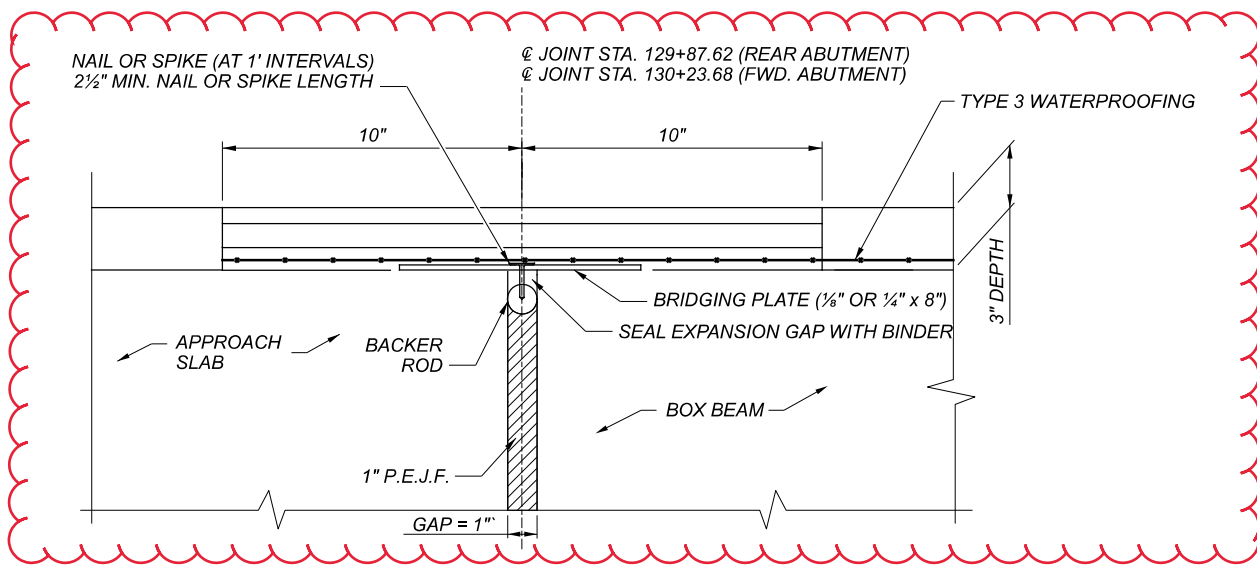
REAR & FORWARD ABUTMENT ELASTOMERIC BEARING PAD DATA											
BRIDGE NO.	SUB-STRUCTURE	ELASTOMERIC PAD						REACTIONS			
		T	NO. OF INTER. LAYERS	ti	te	STEEL LAMINATES		TYPE	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	MAXIMUM DESIGN LOAD (K)
						NO.	THICK.				
PRE-35-0246	ABUTMENTS	1.25"	3	0.350"	0.125"	4	0.0747"	EXP.	19.70	55.80	75.50

ti = THICKNESS OF INTERNAL ELASTOMER LAYER  
 te = THICKNESS OF EXTERNAL ELASTOMER LAYER  
 T = TOTAL THICKNESS OF ELASTOMERIC BEARING

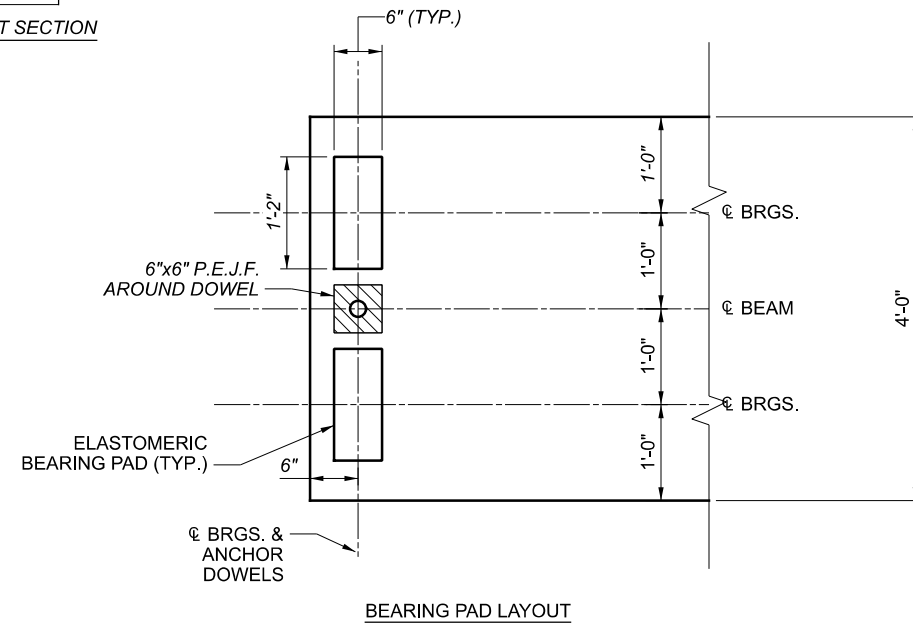


ELASTOMERIC BEARINGS:  
 THE ELASTOMER SHALL HAVE A HARDNESS OF 60 DUROMETER. THE BEARINGS WERE DESIGNED UNDER DIVISION 1, SECTION 14.6.6 (METHOD A) OF THE AASHTO STANDARD SPECIFICATIONS FOR HIGHWAY BRIDGES.

TYPE 3 WATERPROOFING  
 PLACE WATERPROOFING ON THE TOP EXTERIOR SURFACE OF THE PRECAST BOX BEAMS BEFORE THE FIRST LAYER OF ASPHALTIC CONCRETE IS APPLIED. APPLY THE PRIMER AND MEMBRANE TO OVERLAY THE VERTICAL EXTERIOR SIDES OF THE STRUCTURE BY 12".



POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM  
 WIDTH = 1.67 FT LENGTH = 40.00 FT DEPTH = 0.167 FT (2" THICK)  
 VOLUME = 1.67 \* 40.00 \* 0.167 = 11.16 CU FT  
 FINAL VOLUME = 2 EXPANSION JOINTS \* 11.16 CU FT = 23 CU FT



DESIGNER/CHECKER	GTF
REVIEWER	CAH
PROJECT ID	102780
SUBSET	TOTAL
7	10
SHEET	TOTAL
18	31

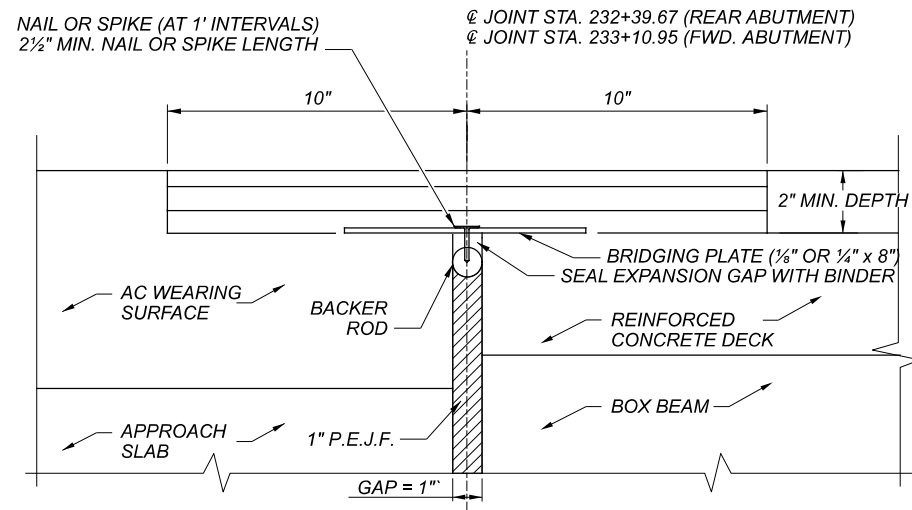
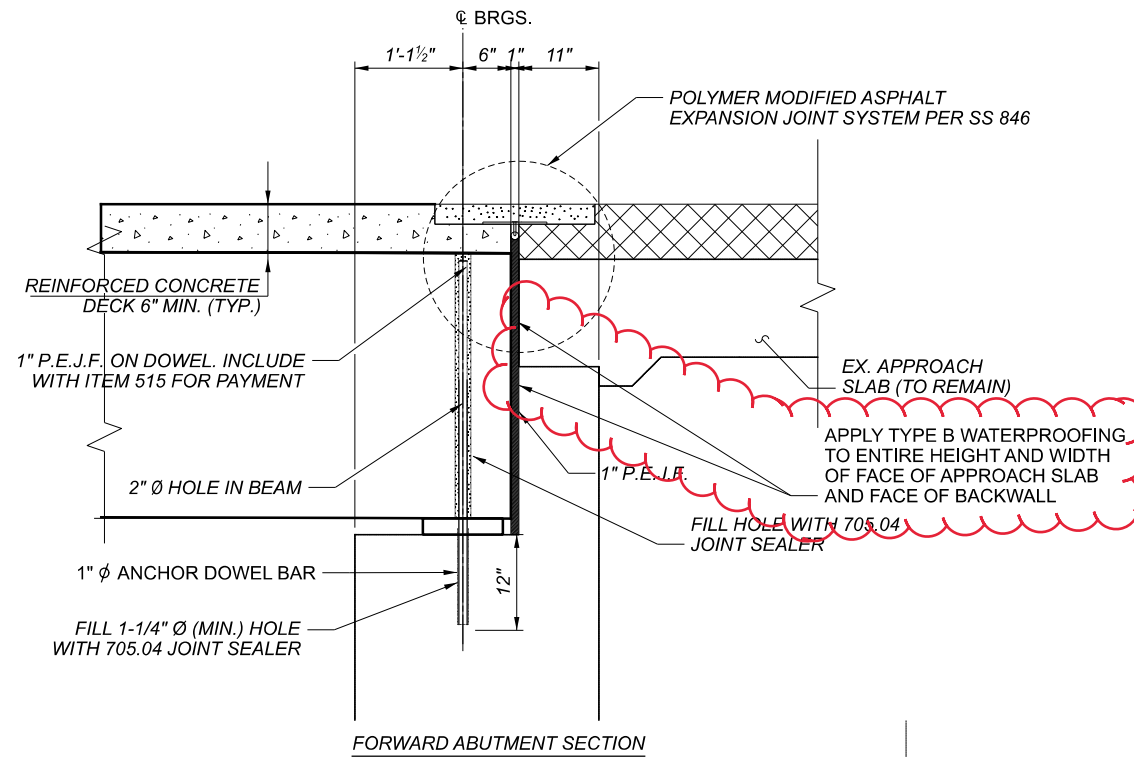
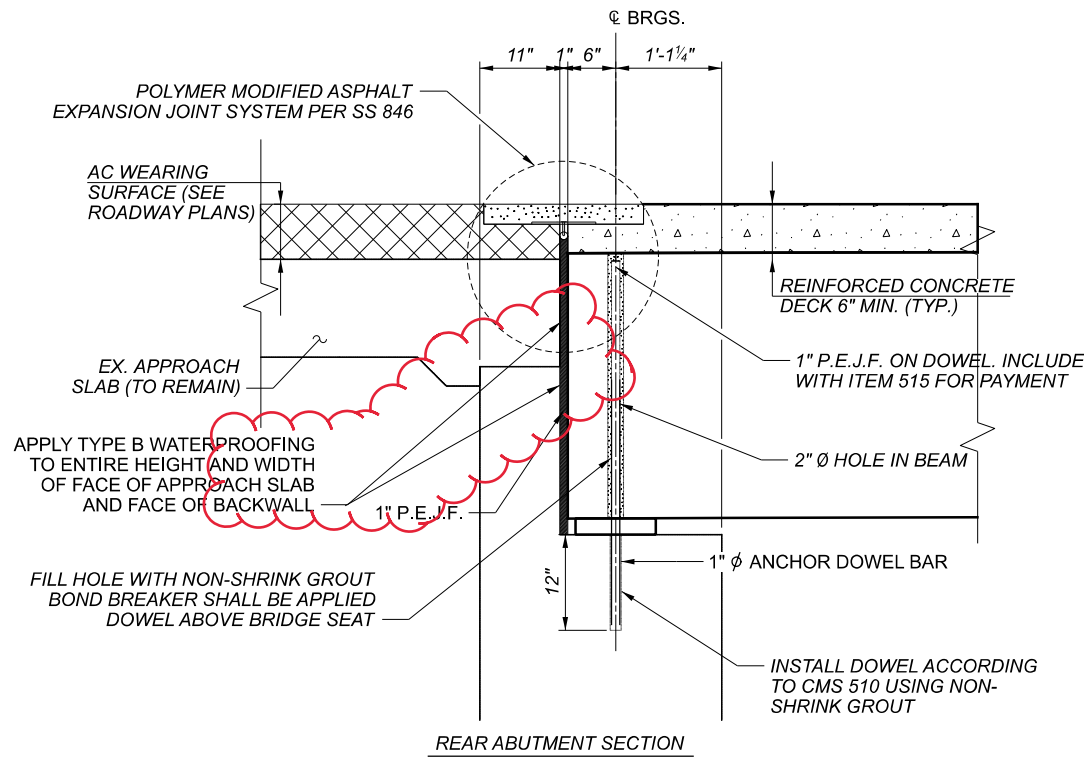
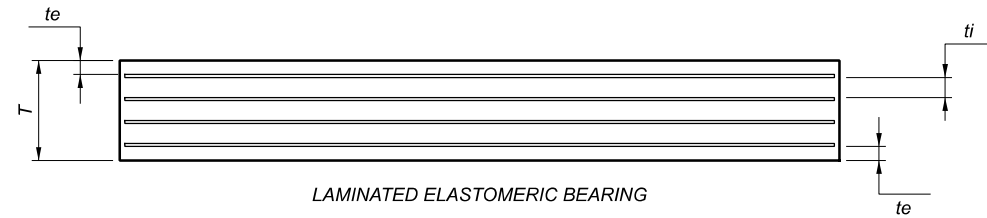
ESTIMATED QUANTITIES - STRUCTURE No.: PRE-127-2049 (01/STR/BR)							
ITEM	EXTENSION	TOTAL	UNIT	DESCRIPTION	ABUT.	PIERS	SUPER. GEN.
202	11203	LS	LUMP	PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN	LS		
503	11100	LS	LUMP	COFFERDAMS AND EXCAVATION BRACING			LS
503	21300	LS	LUMP	UNCLASSIFIED EXCAVATION			LS
509	10000	7403	LB	EPOXY COATED REINFORCING STEEL	230		7173
510	10000	70	EACH	DOWEL HOLES WITH NONSHRINK, NONMETALLIC GROUT	70		
511	44110	2	CY	CLASS QC1 CONCRETE, ABUTMENT NOT INCLUDING FOOTING	2		
511	21522	40	CY	CLASS QC2 CONCRETE, SUPERSTRUCTURE			40
512	10000	149	SY	SEALING OF CONCRETE SURFACES	90		59
512	44400	18	SY	TYPE B WATERPROOFING			18
512	74000	90	SY	REMOVAL OF EXISTING COATINGS FROM CONCRETE SURFACES	90		
515	12080	10	EACH	PRESTRESSED CONCRETE COMPOSITE BOX BEAM BRIDGE MEMBERS, LEVEL 1, CB33-36 (71'-4" LONG)			10
516	13600	201	SF	1" PREFORMED EXPANSION JOINT FILLER	36		165
516	41100	40	EACH	1/8" PREFORMED BEARING PAD			40
516	43100	40	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ONLY (NEOPRENE) (T=1.25")			40
517	70000	150	FT	RAILING (TWIN STEEL TUBE)			150
SPECIAL	51822300	143	FT	STEEL DRIP STRIP			143
846	00110	17	CF	POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM			17

STRUCTURE ESTIMATED QUANTITIES  
 BRIDGE No.: PRE-127-2049  
 U.S. 127 OVER PRICE CREEK

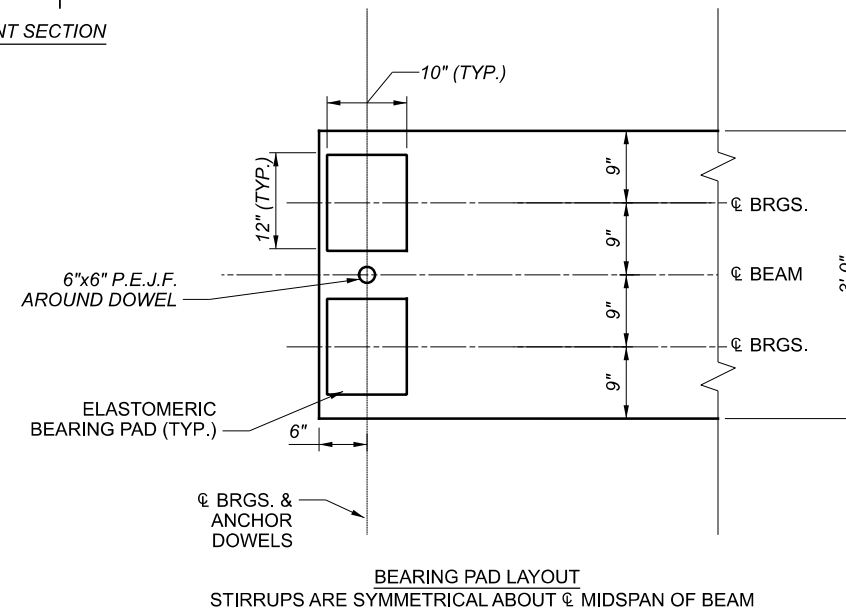
SFN	6802796
DESIGN AGENCY	
DESIGNER	CHECKER
GTF	
REVIEWER	CAH
PROJECT ID	102780
SUBSET	TOTAL
2	11
SHEET	TOTAL
23	31

REAR & FORWARD ABUTMENT ELASTOMERIC BEARING PAD DATA											
BRIDGE NO.	SUB-STRUCTURE	ELASTOMERIC PAD						REACTIONS			
		T	NO. OF INTER. LAYERS	ti	te	STEEL LAMINATES		TYPE	DEAD LOAD (KIPS)	LIVE LOAD (KIPS)	MAXIMUM DESIGN LOAD (K)
						NO.	THICK.				
PRE-127-2049	ABUTMENTS	2.00"	2	0.500"	0.35"	4	0.0747"	EXP.	36.20	56.80	93.00

ti = THICKNESS OF INTERNAL ELASTOMER LAYER  
 te = THICKNESS OF EXTERNAL ELASTOMER LAYER  
 T = TOTAL THICKNESS OF ELASTOMERIC BEARING



**POLYMER MODIFIED ASPHALT EXPANSION JOINT SYSTEM**  
 WIDTH = 1.67 FT    LENGTH = 30 FT    DEPTH = 0.167 FT (2" THICK)  
 VOLUME = 1.67' \* 30.00' \* 0.167' = 8.37 CU FT  
 FINAL VOLUME = 2 EXPANSION JOINTS \* 8.37 CU FT = 17 CU FT



SFN	6802796
DESIGN AGENCY	
DESIGNER/CHECKER	GTF
REVIEWER	CAH
PROJECT ID	102780
SUBSET	7
TOTAL	11
SHEET	27
TOTAL	31