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SHEET NUM.					PART.	ITEM	ITEM	GRAND	UNIT	DESCRIPTION	SEE SHEET NO.
4	5	6	25		01/STR/B R		EXT	TOTAL			
										STRUCTURE OVER 20 FOOT SPAN (LAW-141-1298) (CONTINUED)	
			91		91	503	21100	91	CY	UNCLASSIFIED EXCAVATION	
			62,687		62,687	509	10000	62,687	LB	EPOXY COATED REINFORCING STEEL	
			2		2	511	33501	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	22
			242		242	511	34446	242	CY	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK	
			59		59	511	43510	59	CY	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING	
			130		130	512	10100	130	SY	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	
			41		41	512	33000	41	SY	TYPE 2 WATERPROOFING	
			207,000		207,000	513	10241	207,000	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2, AS PER PLAN	22-24
			3,228		3,228	513	20000	3,228	EACH	WELDED STUD SHEAR CONNECTORS	
			3		3	516	13600	3	SF	1" PREFORMED EXPANSION JOINT FILLER	
			90		90	516	13900	90	SF	2" PREFORMED EXPANSION JOINT FILLER	
			97		97	516	14020	97	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	
			4		4	516	44100	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (13"X15"X2.55") AND LOAD PLATE (14"X16"X1.5") (NEOPRENE)	
			4		4	516	44100	4	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES ( 13"X15"X2.55" ) AND LOAD PLATE (14"X16"X1.625") (NEOPRENE)	
			8		8	516	44200	8	EACH	ELASTOMERIC BEARING WITH INTERNAL LAMINATES (16.5"X15.5"X3.12") AND LOAD PLATE (17.5"X17.5"X1.5") (NEOPRENE)	
			406		406	517	70000	406	FT	RAILING (TWIN STEEL TUBE)	
			49		49	518	21200	49	CY	POROUS BACKFILL WITH GEOTEXTILE FABRIC	
			488		488	SPECIAL	51822300	488	FT	STEEL DRIP STRIP	39
			65		65	518	40000	65	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	
			84		84	518	40010	84	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	
			181		181	526	25010	181	SY	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")	
			65		65	526	90010	65	FT	TYPE A INSTALLATION	
			154		154	613	41201	154	CY	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	22
										MAINTENANCE OF TRAFFIC	
50					50	410	12000	50	CY	TRAFFIC COMPACTED SURFACE, TYPE A OR B	
	80				80	614	11110	80	HOUR	LAW ENFORCEMENT OFFICER WITH PATROL CAR FOR ASSISTANCE	
		6			6	614	12338	6	EACH	WORK ZONE IMPACT ATTENUATOR (BIDIRECTIONAL)	
		4			4	614	13000	4	CY	ASPHALT CONCRETE FOR MAINTAINING TRAFFIC	
		9	28		37	614	13310	37	EACH	BARRIER REFLECTOR, TYPE 1 (BI-DIRECTIONAL)	
		4			4	614	13314	4	EACH	BARRIER REFLECTOR, TYPE 3 (BI-DIRECTIONAL)	
		13	28		41	614	13360	41	EACH	OBJECT MARKER, TWO WAY	
			0.18		0.18	614	21000	0.18	MILE	WORK ZONE CENTER LINE, CLASS I	
			0.32		0.32	614	22010	0.32	MILE	WORK ZONE EDGE LINE, CLASS I, 6"	
			0.19		0.19	614	22210	0.19	MILE	WORK ZONE EDGE LINE, CLASS I, 6", 740.06, TYPE I	
			20		20	614	26000	20	FT	WORK ZONE STOP LINE, CLASS I	
			79		79	615	20000	79	SY	PAVEMENT FOR MAINTAINING TRAFFIC, CLASS A	
3					3	616	10000	3	MGAL	WATER	
			990		990	622	41000	990	FT	PORTABLE BARRIER, 32"	
			200		200	622	41020	200	FT	PORTABLE BARRIER, 32", BRIDGE MOUNTED	
										INCIDENTALS	
					LS	614	11000	LS		MAINTAINING TRAFFIC	
					6	619	16010	6	MNTH	FIELD OFFICE, TYPE B	
					LS	623	10000	LS		CONSTRUCTION LAYOUT STAKES AND SURVEYING	
					LS	624	10000	LS		MOBILIZATION	

**GENERAL SUMMARY**

**LAW - 141 - 12.98**

CALCULATED  
AA  
CHECKED  
EAK

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LAW-141-1298 ESTIMATED QUANTITIES						MADE BY CCJ	CHECKED BY BTJ		
						DATE 10/10/18	DATE 10/17/18		
ITEM	ITEM EXT.	TOTAL	UNITS	DESCRIPTION	LAW-141-1298				SHT. REF.
					ABUTS.	PIERS	SUPER.	GENERAL	
202	11203	LUMP		PORTIONS OF STRUCTURE REMOVED, OVER 20 FOOT SPAN, AS PER PLAN				LUMP	3
202	22900	70	SQ YD	APPROACH SLAB REMOVED				70	
202	23500	595	SQ YD	WEARING COURSE REMOVED				595	
503	11101	LUMP		COFFERDAMS AND EXCAVATION BRACING, AS PER PLAN				LUMP	3
503	21100	91	CU YD	UNCLASSIFIED EXCAVATION	91				
509	10000	62687	LB	EPOXY COATED REINFORCING STEEL	8991		53696		
511	33501	2	EACH	SEMI-INTEGRAL DIAPHRAGM GUIDE, AS PER PLAN	2				3
511	34446	242	CU YD	CLASS QC2 CONCRETE WITH QC/QA, BRIDGE DECK			242		
511	43510	59	CU YD	CLASS QC1 CONCRETE, ABUTMENT INCLUDING FOOTING	59				
512	10100	130	SQ YD	SEALING OF CONCRETE SURFACES (EPOXY-URETHANE)	43		87		
512	33000	41	SQ YD	TYPE 2 WATERPROOFING	41				
513	10241	207000	LB	STRUCTURAL STEEL MEMBERS, LEVEL 2, AS PER PLAN			207000		3, 4, 5
513	20000	3228	EACH	WELDED STUD SHEAR CONNECTORS			3228		
516	13600	3	SQ FT	1" PREFORMED EXPANSION JOINT FILLER	3				
516	13900	90	SQ FT	2" PREFORMED EXPANSION JOINT FILLER	90				
516	14020	97	FT	SEMI-INTEGRAL ABUTMENT EXPANSION JOINT SEAL	97				
516	44100	4	EACH	ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES (13"x15"x2.55") AND LOAD PLATE (14"x16"x1.5") (NEOPRENE)	4				
516	44100	4	EACH	ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES (13"x15"x2.55") AND LOAD PLATE (14"x16"x1.625") (NEOPRENE)	4				
516	44200	8	EACH	ELASTOMERIC BEARINGS WITH INTERNAL LAMINATES (16.5"x15.5"x3.12") AND LOAD PLATE (17.5"x17.5"x1.5") (NEOPRENE)		8			
517	70000	406	FT	RAILING (TWIN STEEL TUBE)			406		
518	21200	49	CU YD	POROUS BACKFILL WITH GEOTEXTILE FABRIC	49				
SPECIAL	518E22300	488	FT	SPECIAL - STEEL DRIP STRIP			488		20
518	40000	65	FT	6" PERFORATED CORRUGATED PLASTIC PIPE	65				
518	40010	84	FT	6" NON-PERFORATED CORRUGATED PLASTIC PIPE, INCLUDING SPECIALS	84				
526	25010	181	SQ YD	REINFORCED CONCRETE APPROACH SLABS WITH QC/QA (T=15")				181	
526	90010	65	FT	TYPE A INSTALLATION				65	
613	41201	154	CU YD	LOW STRENGTH MORTAR BACKFILL, AS PER PLAN	154				3

DESIGN AGENCY

PRIMEVU

8415 Plaster Place, Suite 300  
Columbus Ohio 43240

DESIGNED AMT CHECKED CCJ

DRAWN AMT REVISED

REVIEWED EDW STRUCTURE FILE NUMBER 4402530

DATE 7/29/2019

ESTIMATED QUANTITIES

BRIDGE NO. LAW-141-1298

SR 141 OVER SYMMES CREEK

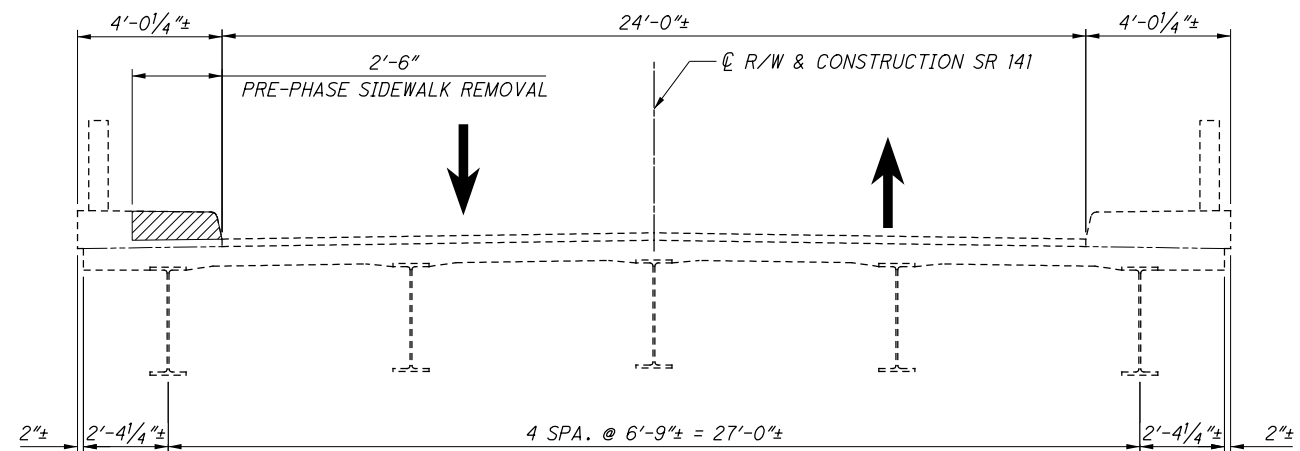
LAW-141-12.98

PID No. 96285

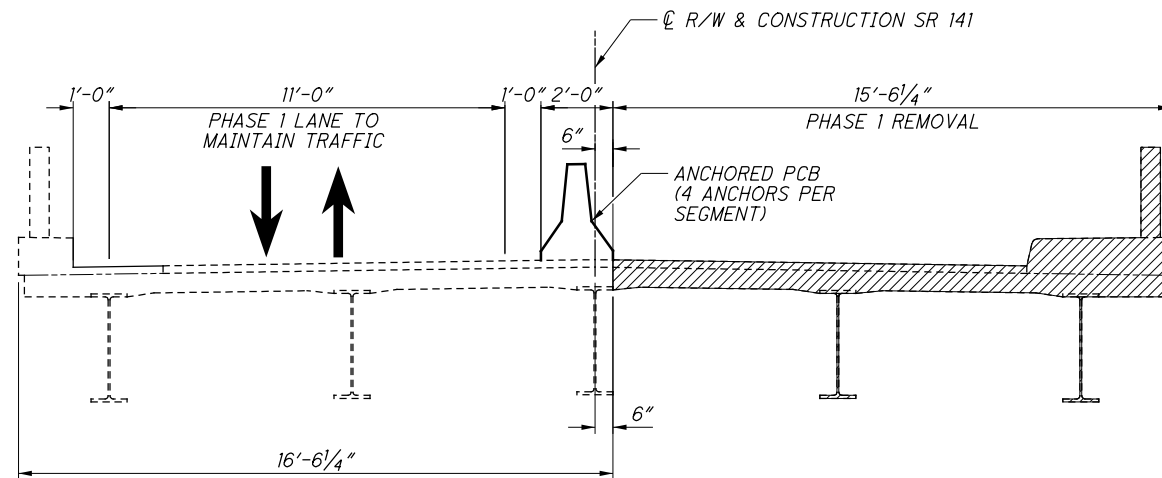
6 / 28

25  
52

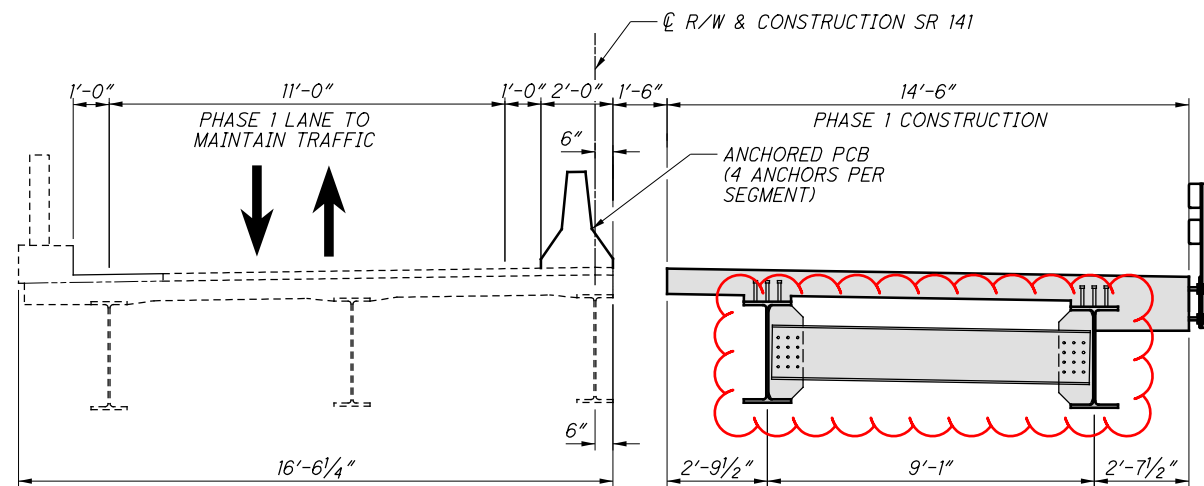
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**PRE-PHASE 1 REMOVAL**



**PHASE 1 REMOVAL**



**PHASE 1 CONSTRUCTION**

**PRE-PHASE 1 REMOVAL:**

1. REMOVE 2'-6" PORTION OF EXISTING NORTH SIDEWALK AS SHOWN. REMOVAL USING FLAGGERS PER STANDARD DRAWING MT-97.10. ADD TEMPORARY BRIDGE PAVEMENT IN REMOVAL AREA. PAYMENT FOR SIDEWALK REMOVAL SHALL BE INCLUDED IN ITEM 202 - PORTIONS OF STRUCTURE REMOVED, OVER 20' SPAN, AS PER PLAN.

**PHASE 1 REMOVAL:**

1. INSTALL PORTABLE BARRIER ON EXISTING STRUCTURE IN THE LOCATION SHOWN.
2. SHIFT TRAFFIC TO THE NORTH SIDE OF THE EXISTING STRUCTURE AND MAINTAIN ONE-LANE, TWO-WAY TRAFFIC.
3. REMOVE THE SOUTH PORTION OF SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN.
4. REMOVE THE SOUTH PORTION OF THE EXISTING SUBSTRUCTURES TO THE LIMITS SHOWN IN THE PLANS.

**PHASE 1 CONSTRUCTION:**

1. MAINTAIN ONE-LANE, TWO-WAY TRAFFIC ON THE NORTH SIDE OF THE EXISTING STRUCTURE AS SHOWN.
2. CONSTRUCT THE SOUTH PORTIONS OF THE SUBSTRUCTURES AS SHOWN IN THE PLANS.
3. CONSTRUCT THE SOUTH PORTIONS OF THE SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN.

**NOTES:**

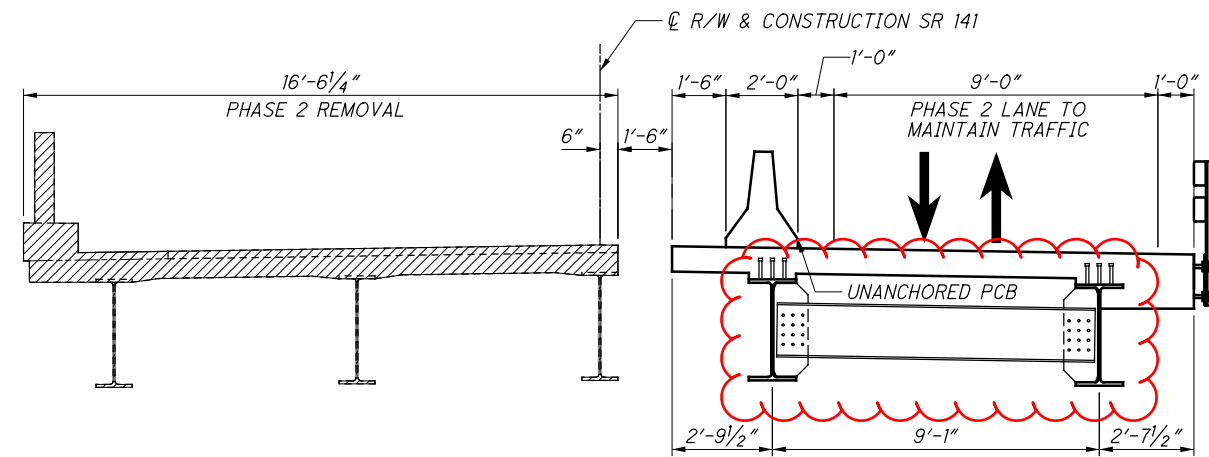
1. PAYMENT FOR PCB INCLUDED IN ROADWAY GENERAL SUMMARY.
2. FOR ADDITIONAL PORTABLE CONCRETE BARRIER NOTES, SEE STANDARD DRAWING PCB-91.

**LEGEND:**

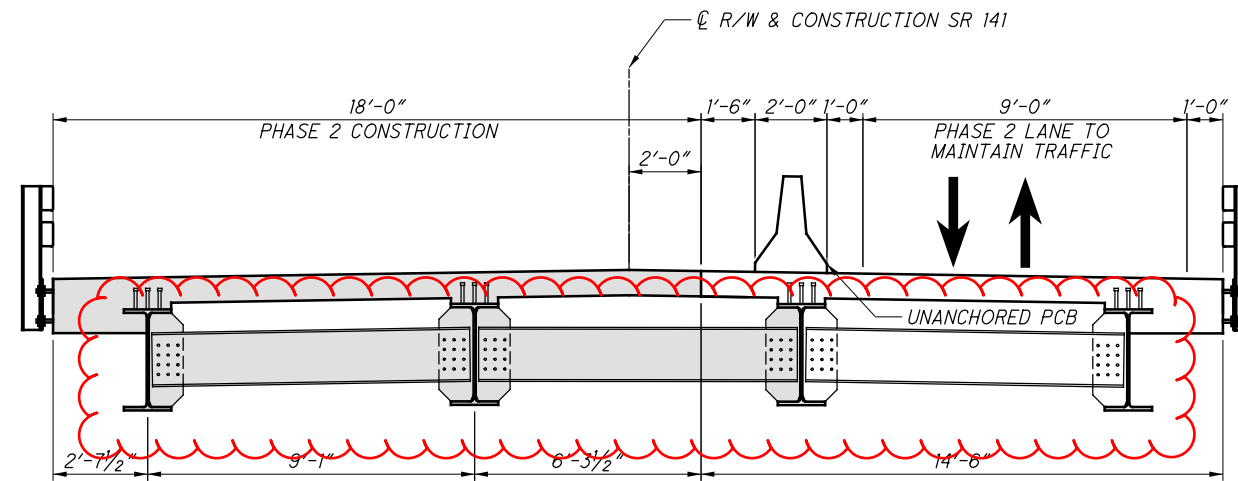
- = LIMITS OF REMOVAL
- = NEW CONSTRUCTION

<p><b>LAW-141-12.98</b></p> <p>PID No. 96285</p>	<p><b>PART WIDTH CONSTRUCTION DETAILS - PHASE 1</b></p> <p>BRIDGE NO. LAW-141-1298</p> <p>SR 141 OVER SYMMES CREEK</p>	<p>DESIGN AGENCY</p> <p><b>PRIMEV</b></p> <p>8415 Pulaski Place, Suite 300</p> <p>Columbus Ohio 43240</p>	<p>DATE</p> <p>7/29/2019</p> <p>REVIEWED</p> <p>EDW</p> <p>STRUCTURE FILE NUMBER</p> <p>4402530</p>
<p>7 / 28</p>	<p>26</p>	<p>52</p>	<p>DESIGNED</p> <p>CCJ</p> <p>CHECKED</p> <p>AMT</p>
<p>DRAWN</p> <p>CCJ</p> <p>REVISED</p>	<p>DESIGNED</p> <p>CCJ</p> <p>CHECKED</p> <p>AMT</p>	<p>DRAWN</p> <p>CCJ</p> <p>REVISED</p>	<p>REVIEWED</p> <p>EDW</p> <p>STRUCTURE FILE NUMBER</p> <p>4402530</p>

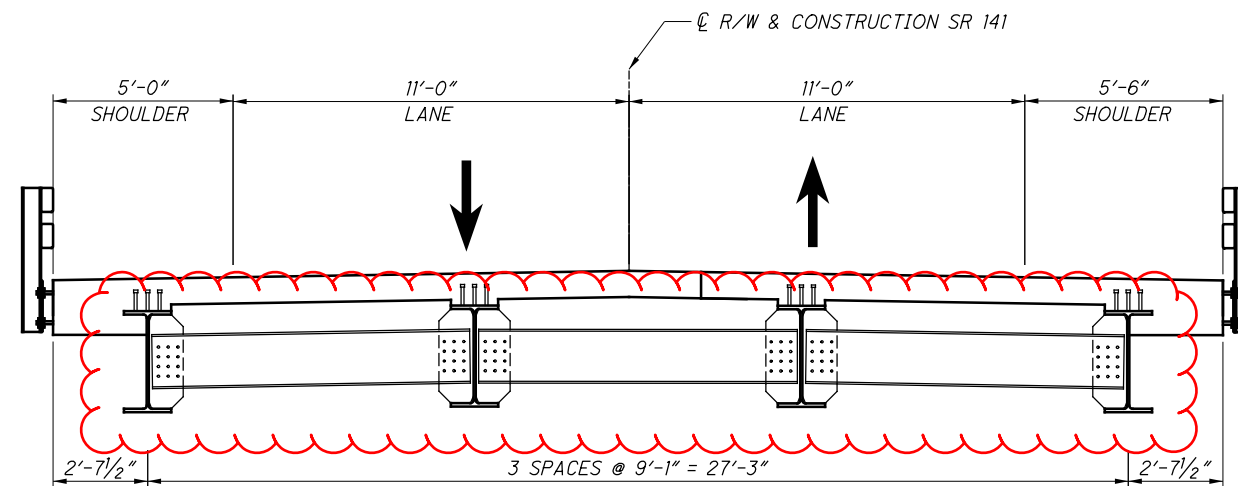
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**PHASE 2 REMOVAL**



**PHASE 2 CONSTRUCTION**



**FINAL TRANSVERSE SECTION**

**PHASE 2 REMOVAL:**

1. INSTALL PORTABLE BARRIER ON PROPOSED STRUCTURE IN THE LOCATION SHOWN.
2. SHIFT TRAFFIC TO THE SOUTH SIDE OF THE BRIDGE AND MAINTAIN ONE-LANE, TWO-WAY TRAFFIC.
3. REMOVE THE NORTH PORTION OF THE EXISTING SUPERSTRUCTURE AND APPROACH SLABS TO THE LIMITS SHOWN.
4. REMOVE THE NORTH PORTION OF THE EXISTING SUBSTRUCTURES AS SHOWN IN THE PLANS.

**PHASE 2 CONSTRUCTION:**

1. MAINTAIN ONE-LANE, TWO-WAY TRAFFIC ON THE SOUTH SIDE OF THE BRIDGE AS SHOWN.
2. CONSTRUCT THE NORTH PORTIONS OF THE SUBSTRUCTURES TO THE LIMITS SHOWN IN THE PLANS.
3. CONSTRUCT THE REMAINDER OF THE NEW SUPERSTRUCTURE AND APPROACH SLABS.

**NOTES:**

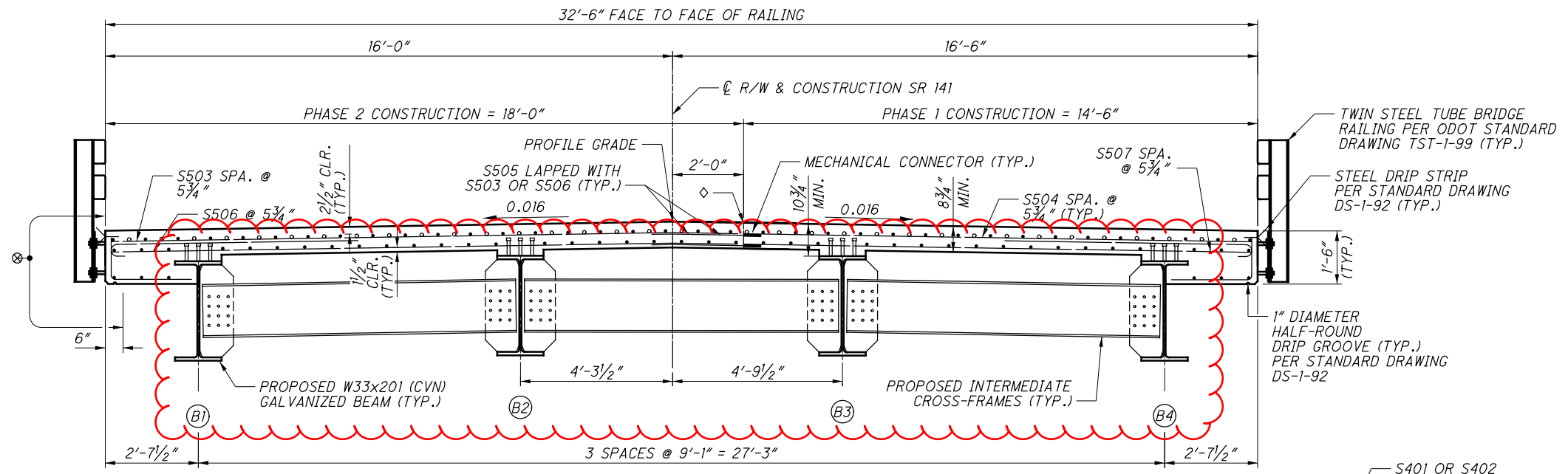
1. PAYMENT FOR PCB INCLUDED IN ROADWAY GENERAL SUMMARY.
2. FOR ADDITIONAL PORTABLE CONCRETE BARRIER NOTES, SEE STANDARD DRAWING PCB-91.

**LEGEND:**

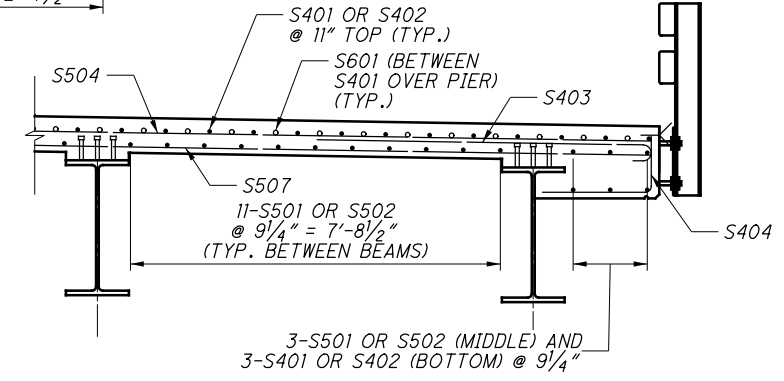
- = LIMITS OF REMOVAL
- = NEW CONSTRUCTION

<p>DESIGN AGENCY <b>PRIMEV</b> 8415 Pulsar Place, Suite 300 Columbus Ohio 43240</p>	<p>DATE 7/29/2019</p>	<p>REVIEWED EDW</p>	<p>STRUCTURE FILE NUMBER 4402530</p>	<p>DESIGNED CCJ</p>	<p>CHECKED AMT</p>
<p><b>PART WIDTH CONSTRUCTION DETAILS - PHASE 2</b></p>					
<p>BRIDGE NO. LAW-141-1298 SR 141 OVER SYMMES CREEK</p>					
<p><b>LAW-141-12.98</b></p>					
<p>PID No. 96285</p>					
<p>8 / 28</p>					
<p>27</p>					
<p>52</p>					

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**TRANSVERSE SECTION**



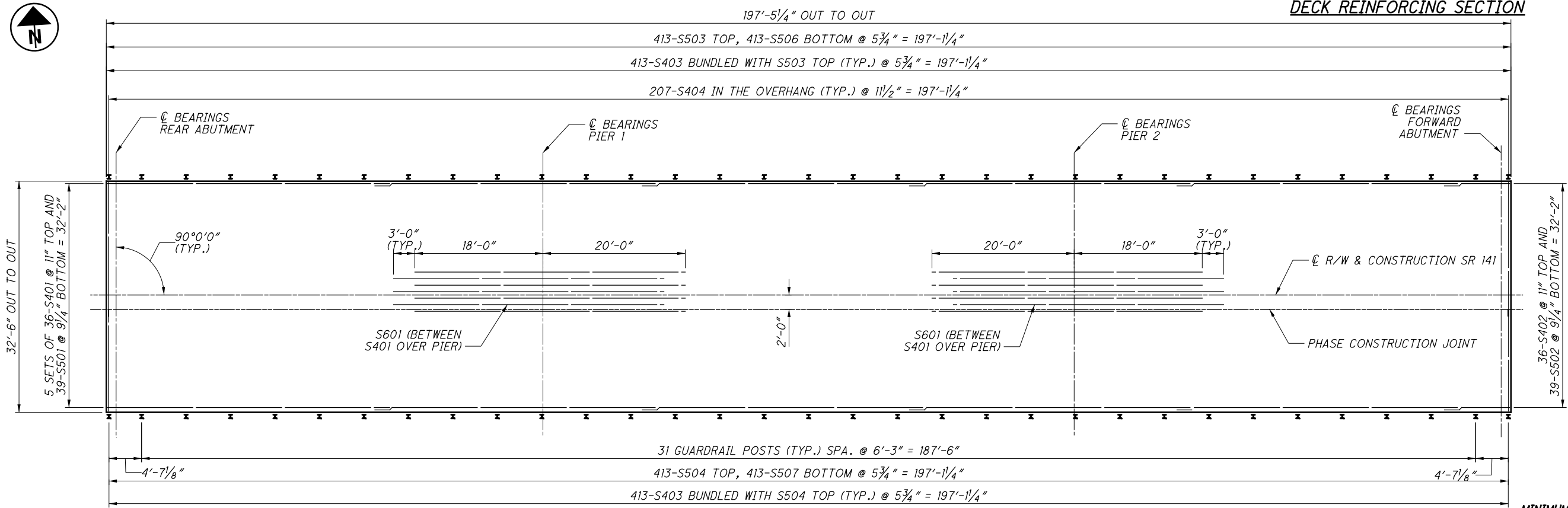
**DECK REINFORCING SECTION**

**LEGEND:**

- ⊗ SEALING OF CONCRETE SURFACES (EPOXY URETHANE) (TYP.)
- ◇ 2'-0" WIDE HMWM SEAL OVER PHASE CONSTRUCTION JOINT

**NOTES:**

1. THE ESTIMATED QUANTITY OF DECK SLAB CONCRETE IS BASED ON THE CONSTANT DECK THICKNESS, AS SHOWN, PLUS THE QUANTITY OF CONCRETE THAT FORMS EACH GIRDER HAUNCH. THE ESTIMATE ASSUMES A CONSTANT HAUNCH THICKNESS OF 2 INCHES AND A CONSTANT HAUNCH WIDTH BETWEEN THE EDGE TO EDGE OF EACH BEAM FLANGE. DEVIATE FROM THIS HAUNCH THICKNESS AS NECESSARY TO PLACE THE DECK SURFACE AT THE FINISHED GRADE.  
  
THE HAUNCH THICKNESS WAS MEASURED AT THE CENTERLINE OF THE BEAM, FROM THE SURFACE OF THE DECK TO THE BOTTOM OF THE TOP FLANGE MINUS THE DECK SLAB THICKNESS. THE AREA OF ALL EMBEDDED STEEL PLATES HAD BEEN DEDUCTED FROM THE HAUNCH QUANTITY IN ACCORDANCE WITH 511.23.
2. WHERE A SHAPE OF PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN 711.01.
3. FOR ADDITIONAL INFORMATION NOT SHOWN, SEE STANDARD DRAWING GSD-1-19.

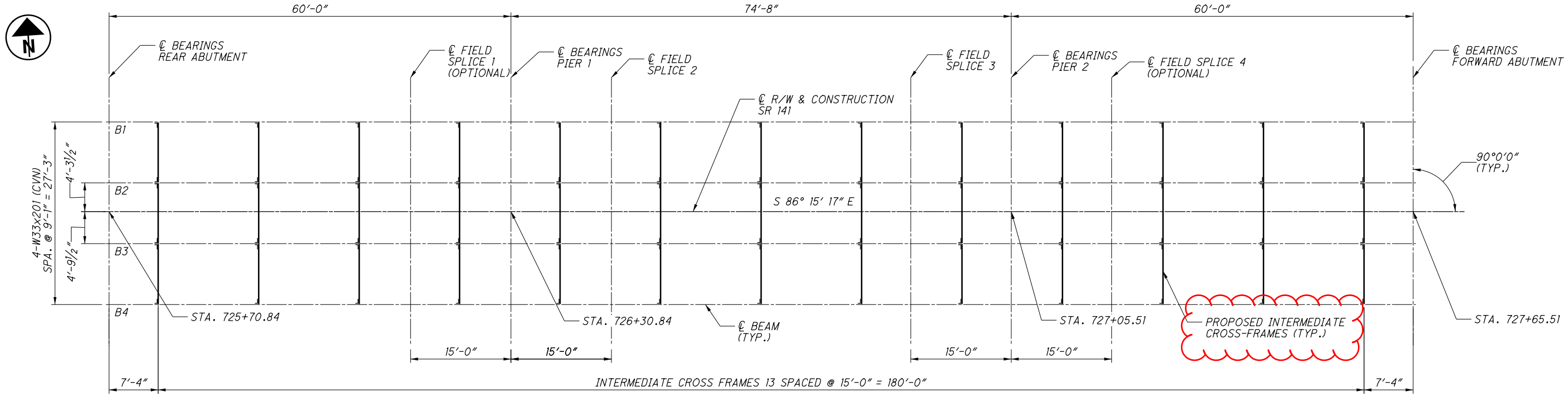


**DECK PLAN**

**MINIMUM LAP LENGTHS:**  
 #4 BARS = 1'-11"  
 #5 BARS = 2'-5"

 845 Pulaski Place, Suite 300 Columbus, Ohio 43240	DESIGN AGENCY <b>PRIMEV</b> 845 Pulaski Place, Suite 300 Columbus, Ohio 43240	DATE 7/29/2019	REVIEWED EDW	STRUCTURE FILE NUMBER 4402530
DRAWN CCJ	CHECKED AMT	DESIGNED CCJ	REVISOR CCJ	STRUCTURE FILE NUMBER 4402530
<b>TRANSVERSE SECTION AND DECK PLAN</b> BRIDGE NO. LAW-141-1298 SR 141 OVER SYMMES CREEK				
<b>LAW-141-12.98</b> PID No. 96285				
20 / 28				
39 52				

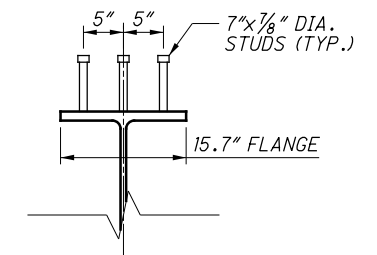
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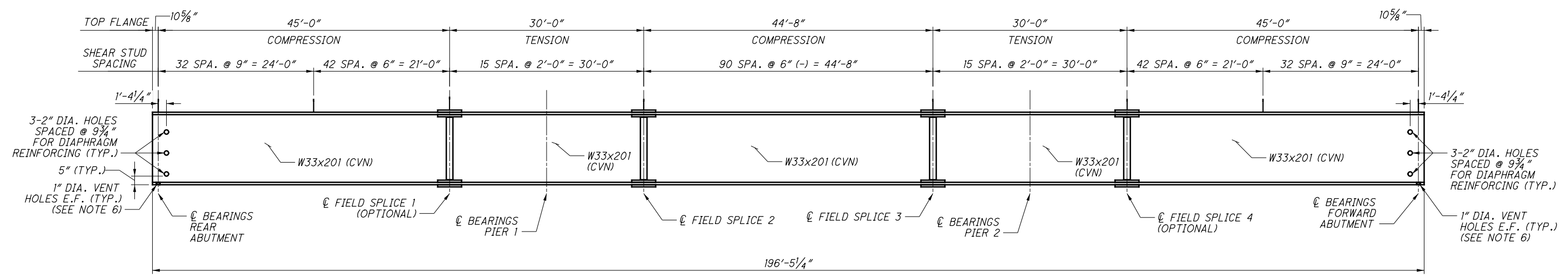
**FRAMING PLAN**

**NOTES:**

1. WELD ATTACHMENT OF SUPPORTS FOR CONCRETE DECK FINISHING MACHINE TO AREAS OF THE FASCIA STRINGER FLANGES DESIGNATED "COMPRESSION". DO NOT WELD ATTACHMENTS TO AREAS DESIGNATED "TENSION". FILLET WELDS TO COMPRESSION FLANGES SHALL BE AT LEAST 1" FROM EDGE OF FLANGE, BE NO MORE THAN 2" LONG, AND BE AT LEAST 1/4" FOR THICKNESSES UP TO 3/4" OR 5/16" FOR GREATER THAN 3/4" THICK.
2. ALL STRUCTURAL STEEL SHALL BE ASTM A709, GRADE 50, GALVANIZED.
3. WHERE A SHAPE OR PLATE IS DESIGNATED (CVN), FURNISH MATERIAL THAT MEETS THE MINIMUM NOTCH TOUGHNESS REQUIREMENTS AS SPECIFIED IN CMS 711.01.
4. FOR ADDITIONAL INFORMATION NOT SHOWN, SEE STANDARD DRAWINGS GSD-1-96.
5. FOR SPLICE DETAILS, SEE SHEET 22/28.
6. FOR VENT HOLE LOCATIONS, SEE SHEET 26/28.



**SHEAR STUD DETAIL**



**TYPICAL BEAM ELEVATION**

 8415 Pulaski Place, Suite 300 Columbus, Ohio 43240
DESIGN AGENCY <b>PRIMEV</b> 8415 Pulaski Place, Suite 300 Columbus, Ohio 43240
REVIEWED DATE 7/29/2019 EDW STRUCTURE FILE NUMBER 4402530
DRAWN AMT REVISED CHECKED CCJ
<b>FRAMING PLAN AND BEAM ELEVATION</b> BRIDGE NO. LAW-141-1298 SR 141 OVER SYMMES CREEK
<b>LAW-141-12.98</b> PID No. 96285
21 / 28
40 52