## INDOT BRIDGE DESIGN AIDS

### BDA 100-02 | JANUARY 10, 2020 (REV. MAY 20, 2020)

#### BRIDGE SAMPLE PLANS - BRIDGE THIN DECK OVERLAY

Reference: IDM 14-2.05 Bridge Plans, Preservation Project

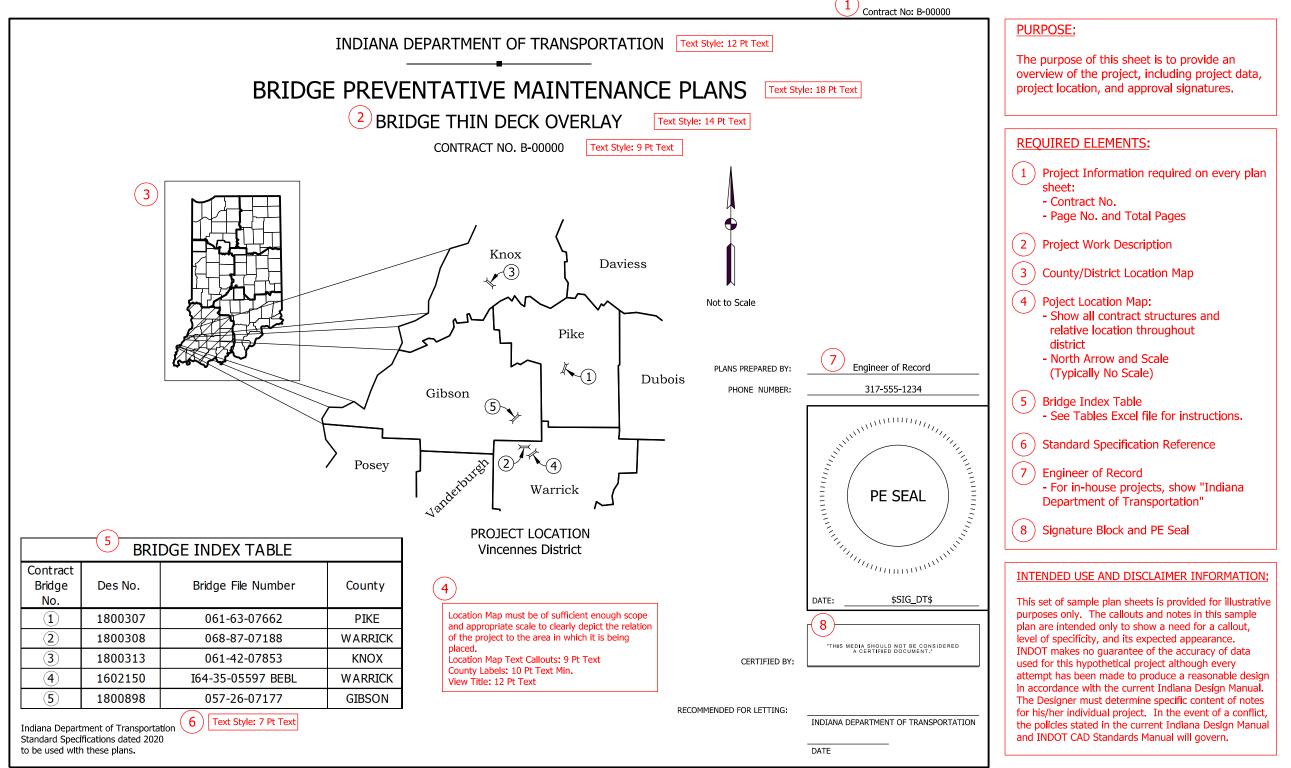
IDM 412-2.01 Preventative Maintenance Project

BDA 412-01 Patching Quantities for Polymeric Overlays

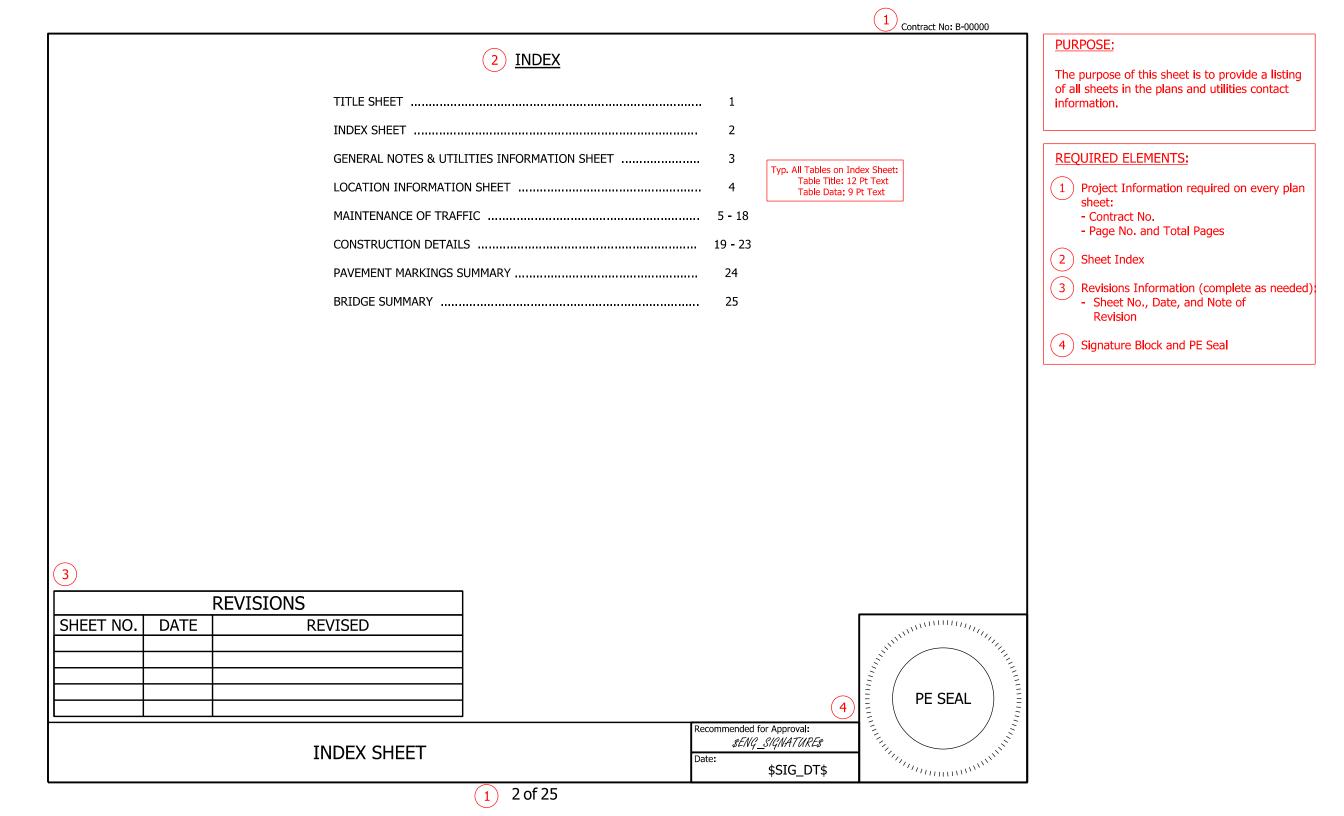
BDA 412-03 Polymeric Overlay Project Considerations

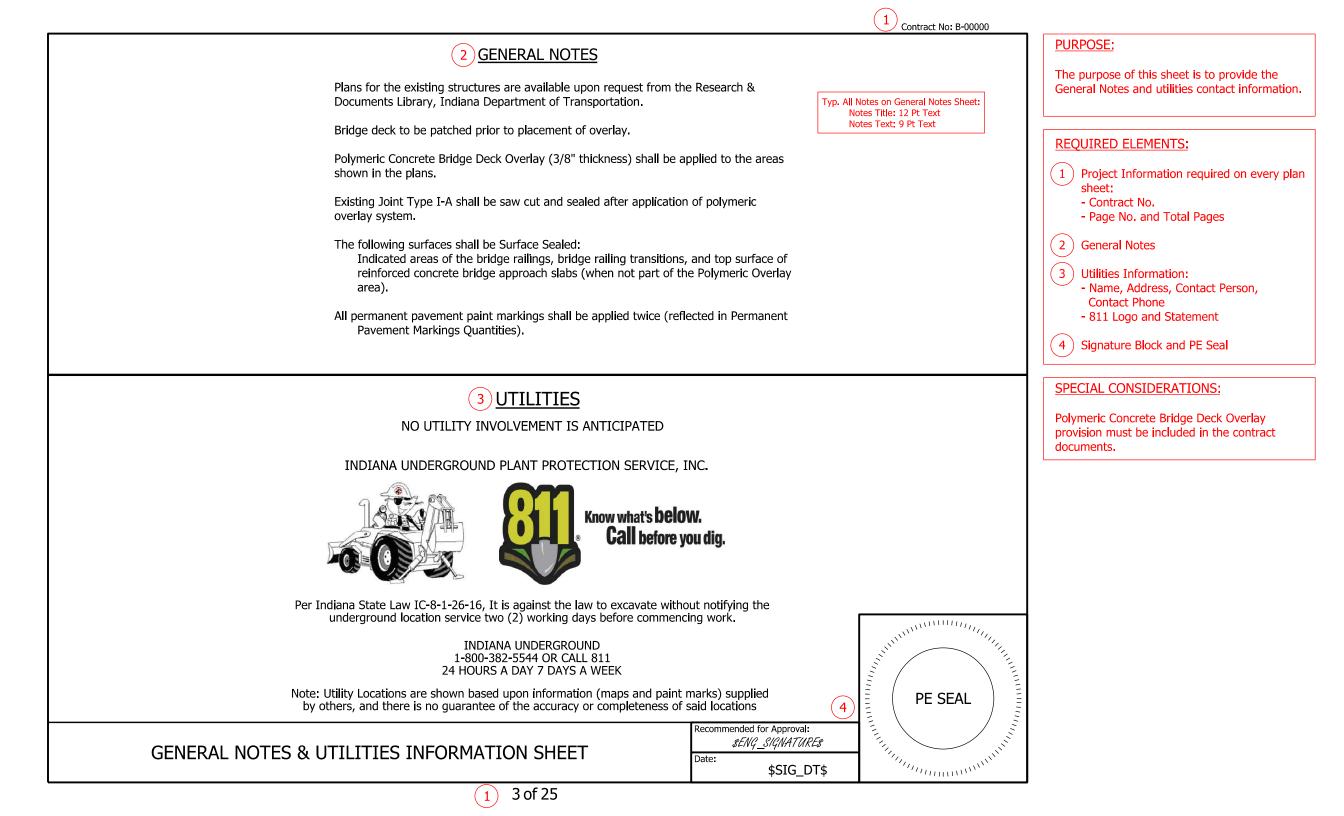
The following set of sample bridge plans has been developed to illustrate a typical set of Bridge Thin Deck Overlay plans. The tables throughout this set of sample plans have been generated using the Excel spreadsheet <u>Tables for Bridge PM Thin Deck Overlay.xlsm</u>. Instructions for using this spreadsheet are provided on the Instructions tab within the file.

The plans were revised May 20, 2020 for minor editorial changes, and to remove the thin deck overlay from the reinforced bridge approach slab on several of the bridges. INDOT has noticed a relatively high percentage of failures of thin deck overlays on reinforced bridge approach slabs, and Construction Memo 20-08 published on May 11, 2020 has directed Designers and Construction to prohibit this application.



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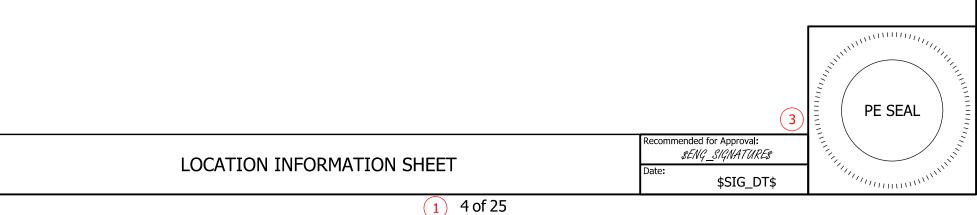




2 BRIDGE LOCATION INFORMATION TABLE								
Contract Bridge No.	Des No.	Bridge File Number (Structure Type)	Route and Crossing	Location	Route	RP	County	Latitude/Longitude
1	1800307	061-63-07662	SR 61 over PATOKA	SR 61	SR 61	35+87	PIKE	Lat.: N 38° 22' 49"
		(Prestressed Concrete Box Beam)	RIVER	02.06 N SR 364				Lon.: W 87° 13' 02"
2	1800308	068-87-07188	SR 68 over BIG CREEK -	SR 68	SR 68	31+96	WARRICK	Lat.: N 38° 11' 39"
		(Prestressed Concrete I Beam or Bulb-T Beam)	NEW CHANNEL	04.30 W SR 61				Lon.: W 87° 22' 29"
3	1800313	061-42-07853	SR 61 over BEECH	SR 61	SR 61	49+85	KNOX	Lat.: N 38° 33' 24"
		(Reinforced Concrete Slab)	CREEK	04.87 N SR 56				Lon.: W 87° 18' 09"
4	1602150	I64-35-05597 BEBL	I-64 EBL over BIG	I-64	I-64	35+81	WARRICK	Lat.: N 38° 11' 12"
		(Reinforced Concrete Slab)	CREEK	03.50 W SR 61				Lon.: W 87° 21' 26"
5	1800898	0898 057-26-07177 SP 57 over SMITH	SR 57 over SMITH FORK	SR 57	SR 57	14+20	GIBSON	Lat.: N 38° 12' 56"
		(Reinforced Concrete Slab)		02.04 N SR 68				Lon.: W 87° 25' 59"

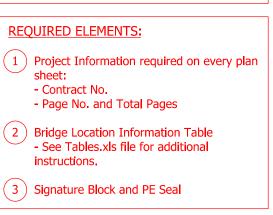
Information Sheet: Table Title: 12 Pt Text Table Data: 9 Pt Text Text Notes: 9 Pt Text

Typ. All Tables and Notes on Location



PURPOSE:

The purpose of this sheet is to provide detailed location data and descriptions for all contract structures.



PURPOSE:

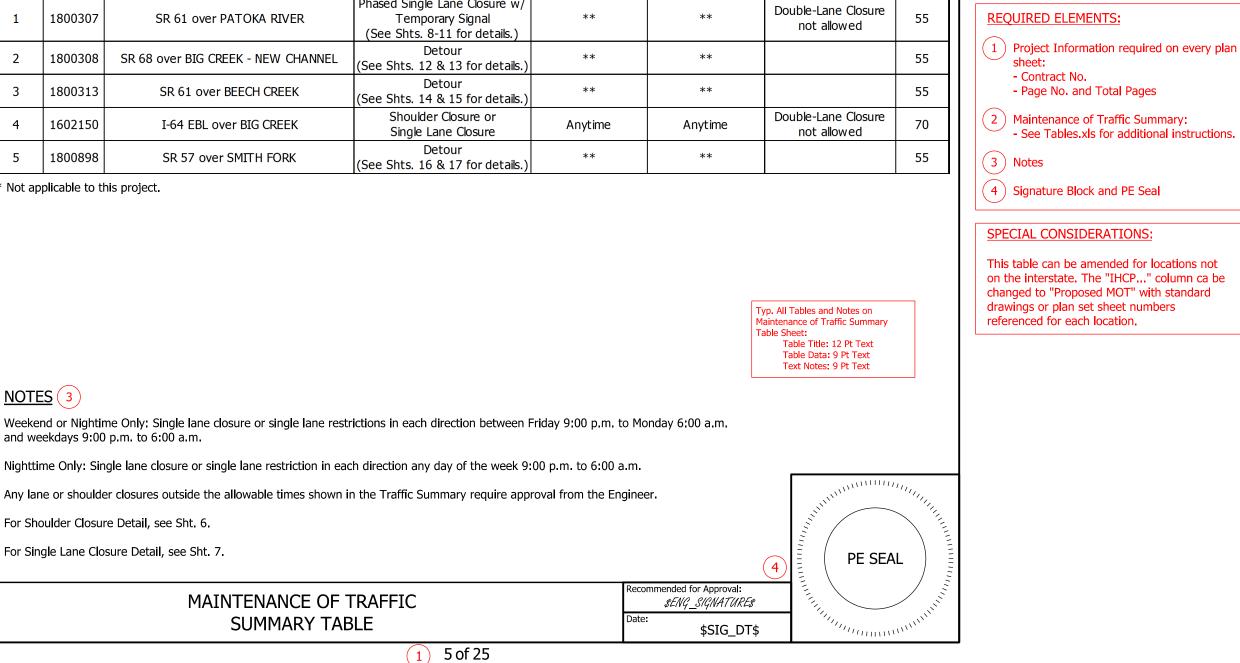
each contract structure.

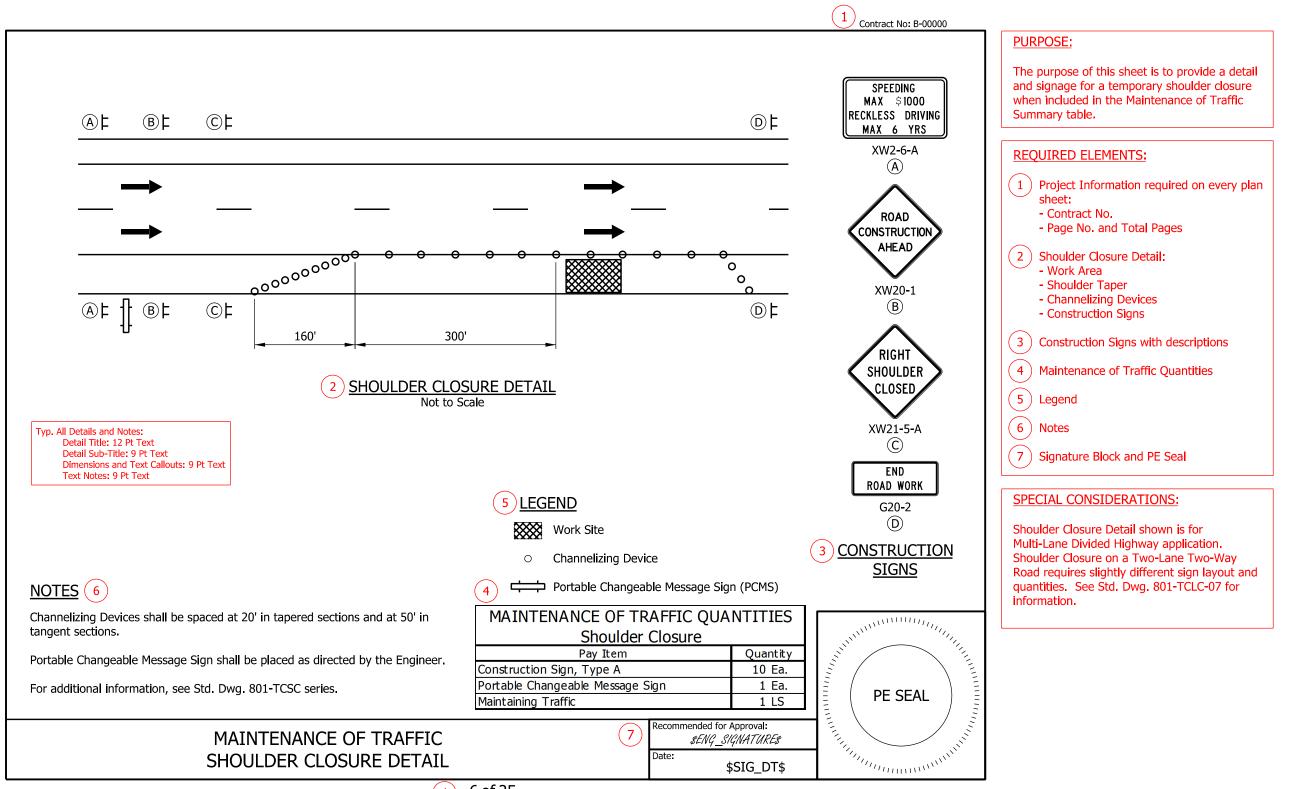
The purpose of this sheet is to provide a summary of Maintenance of Traffic details for

<sup>2</sup> MAINTENANCE OF TRAFFIC SUMMARY										
Contract	1 1	Route and Crossing		IHCP Preapproved T	ime by Closure Type	Comments	Speed Posted			
Bridge No.	Des No.		МОТ Туре	Shoulder Closure	Lane Closure					
1	1800307	SR 61 over PATOKA RIVER	Phased Single Lane Closure w/ Temporary Signal (See Shts. 8-11 for details.)	**	**	Double-Lane Closure not allowed	55			
2	1800308	SR 68 over BIG CREEK - NEW CHANNEL	Detour (See Shts. 12 & 13 for details.)	**	**		55			
3	1800313	SR 61 over BEECH CREEK	Detour (See Shts. 14 & 15 for details.)	**	**		55			
4	1602150	I-64 EBL over BIG CREEK	Shoulder Closure or Single Lane Closure	Anytime	Anytime	Double-Lane Closure not allowed	70			
5	1800898	SR 57 over SMITH FORK	Detour (See Shts. 16 & 17 for details.)	**	**		55			

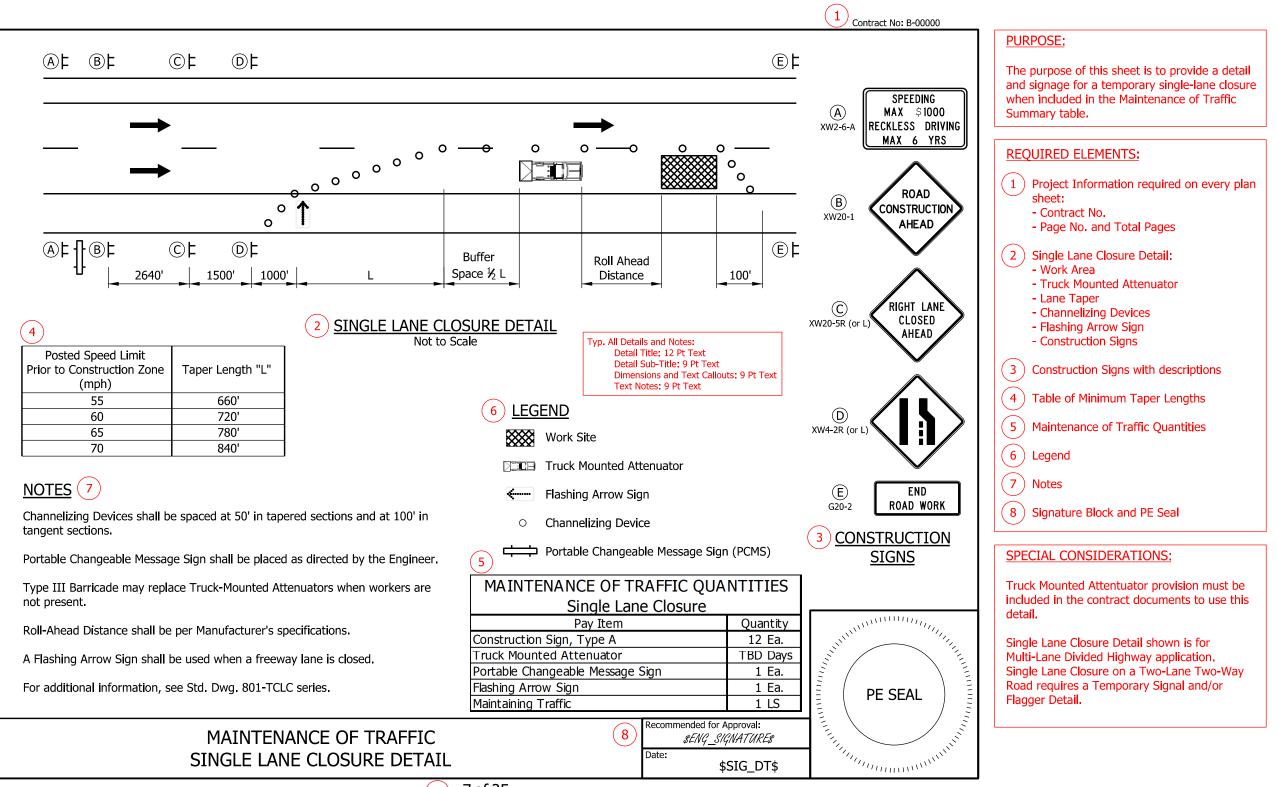
\*\* Not applicable to this project.

NOTES (3)

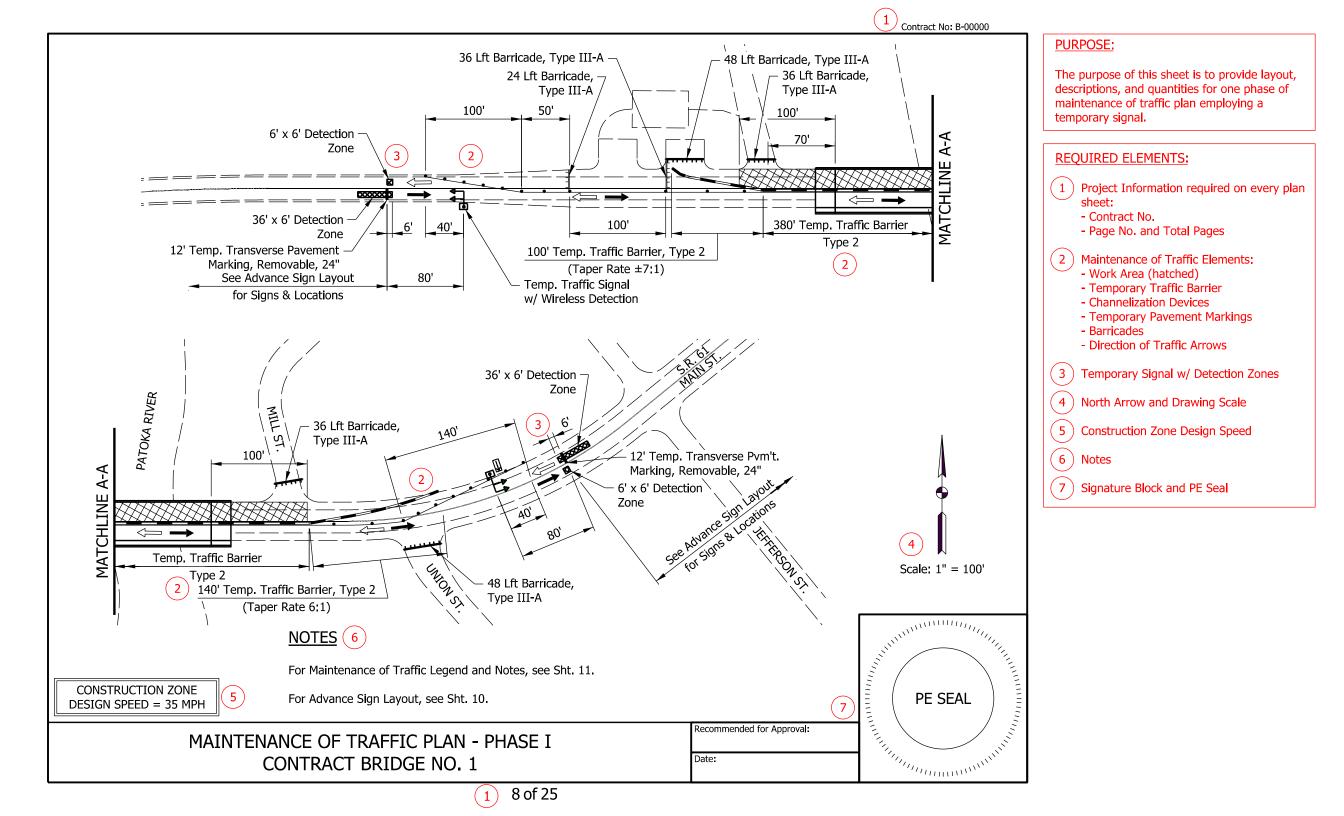


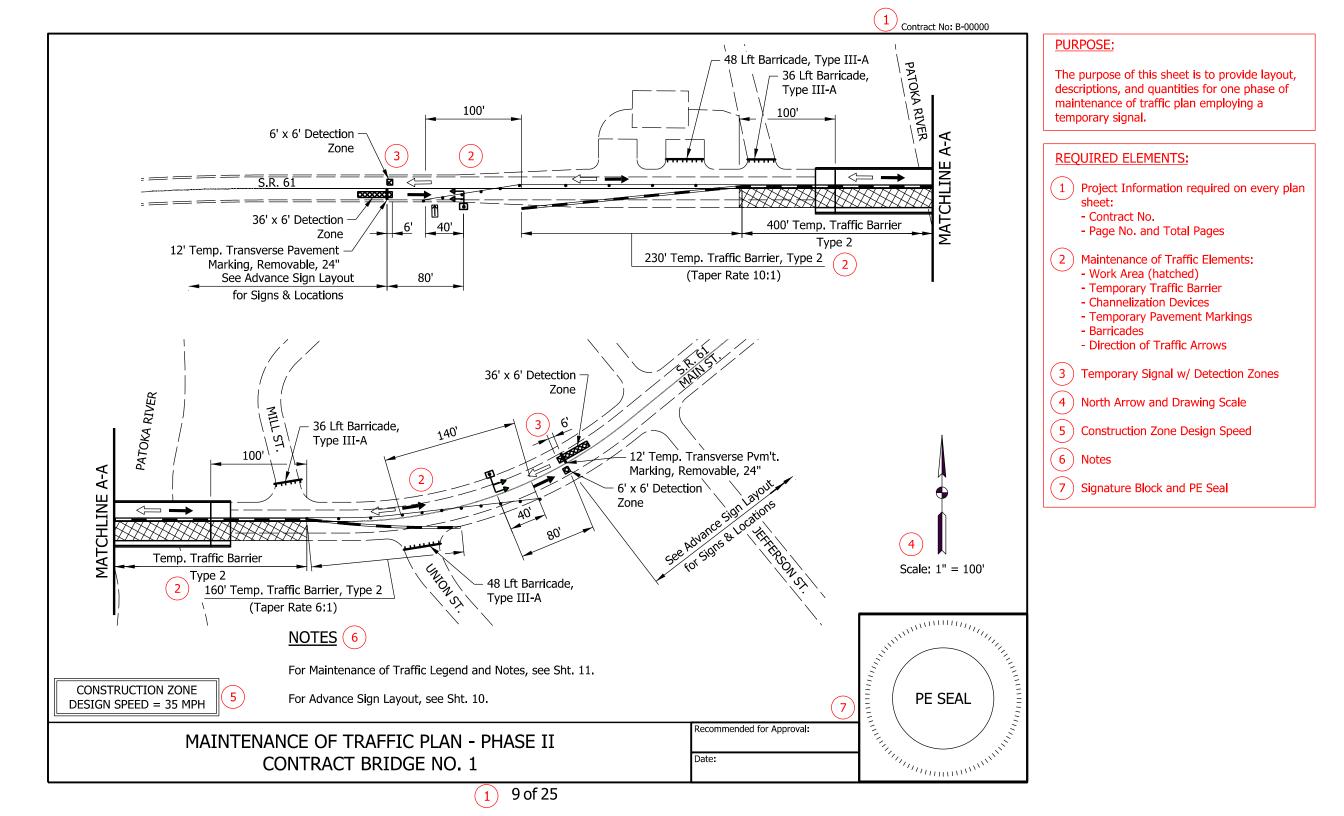


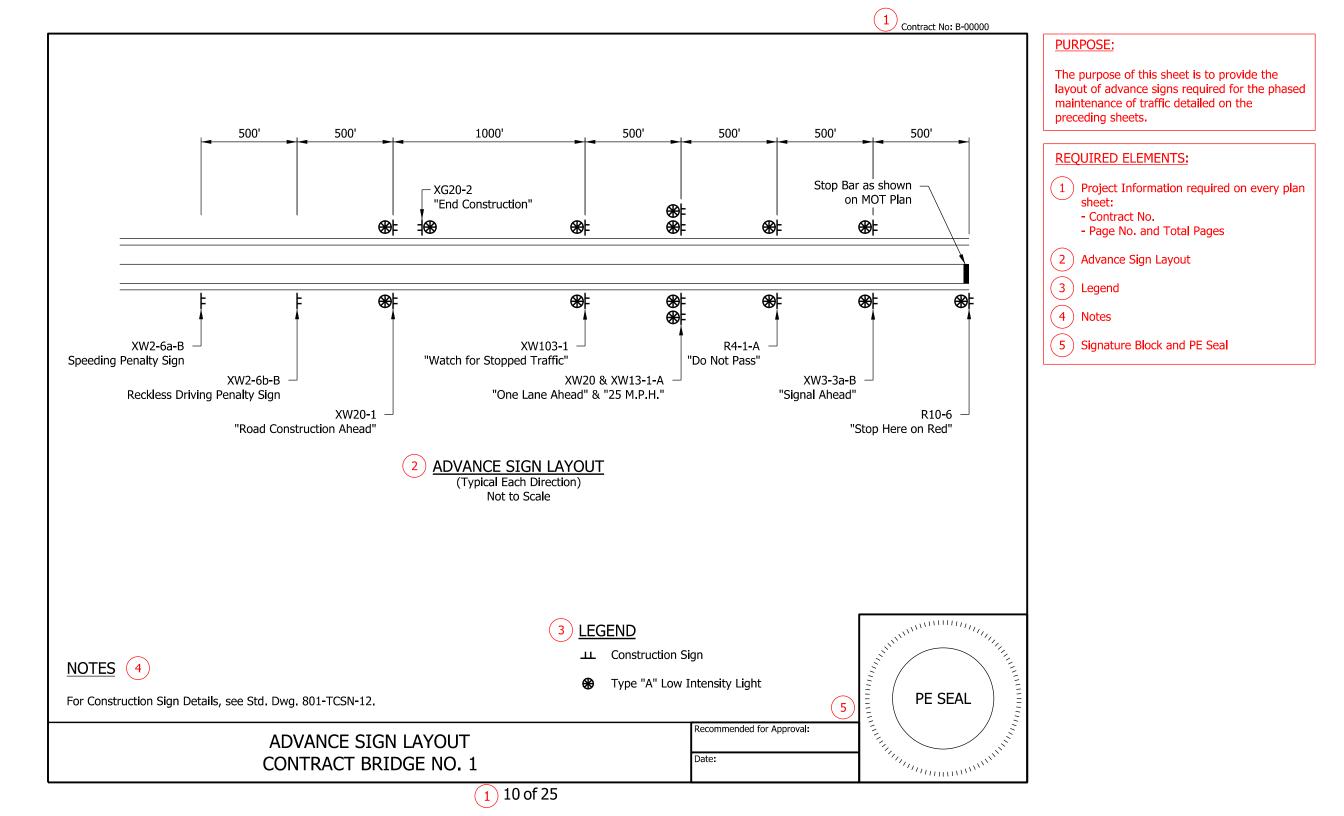
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# NOTES (4)

One lane of traffic shall be maintained throughout the length of the project.

Contractor to provide 11' travel lane and 1' min. shoulder.

Construction Zone Design Speed = 35 mph.

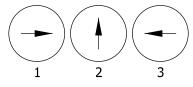
Drums to be spaced at 20' in taper and 40' in tangent section.

# SIGNALIZATION NOTES 5

All signal equipment to remain the property of the Contractor.

Timing information will be furnished by the District Traffic Engineer.

### SIGNAL PHASING DIAGRAM

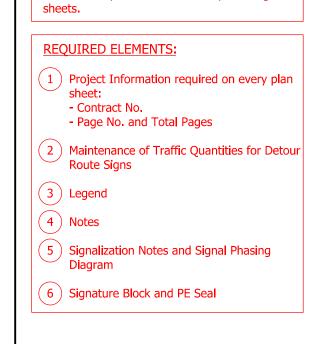


## 3 <u>LEGEND</u>

- ⊥⊥ Construction Sign
- Construction Warning Light, Type A
- ----- Flashing Arrow Sign
- Channelizing Device
- Direction of Traffic
- Work Area
- Temporary Traffic Barrier
- Temporary Traffic Signal & Support
- Barricade, Type III-A

The purpose of this sheet is to provide notes, legend, and maintenance of traffic quantities for the MOT plan detailed on the preceding

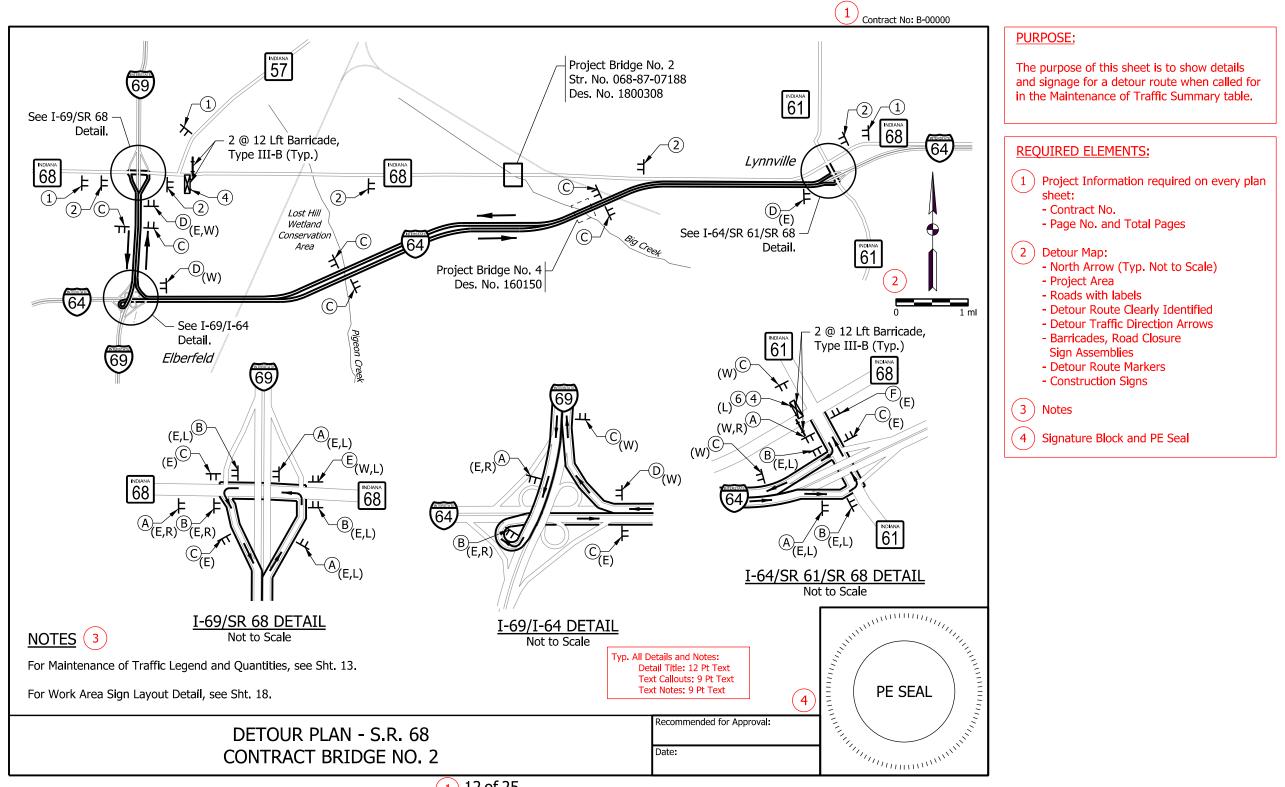
PURPOSE:



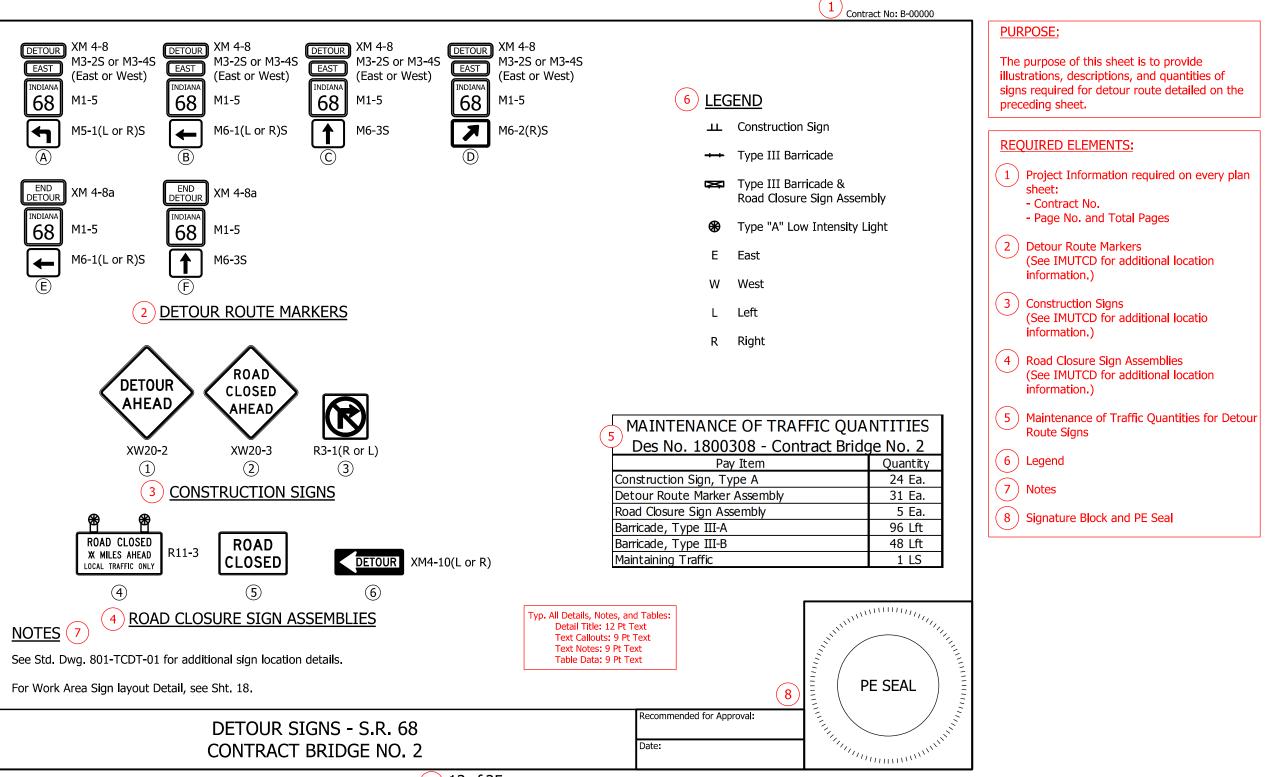
2 MAINTENANCE OF TRAFFIC QUANTITIES Des No. 1800307 - Contract Bridge No. 1					
Pay Item		Quantity Ph. I Ph. II		Total to be Paid	
Construction Sign, Type A	EACH	16	16	16	
Temporary Transverse Pavement Marking, Removable, 24"	LFT	24	24	24	
Temporary Traffic Signal	LS	1	1	1	Typ. All Details, Notes, and Tables: Detail Title: 12 Pt Text Text Callouts: 9 Pt Text Text Notes: 9 Pt Text
Temporary Traffic Barrier, Type 2	LFT	620	790	790	Text Callouts: 9 Pt Text
Barricade, Type III-A	LFT	228	168	228	Detail Title: 12 Pt Text Text Callouts: 9 Pt Text Text Notes: 9 Pt Text Table Data: 9 Pt Text
Flashing Arrow Sign	DAY	2	2	2	
Maintaining Traffic	LS	-	-	1	B PE SEAL
MAINTENANCE OF TRAFFIC CONTRACT BRID	Recommended for Approval:				

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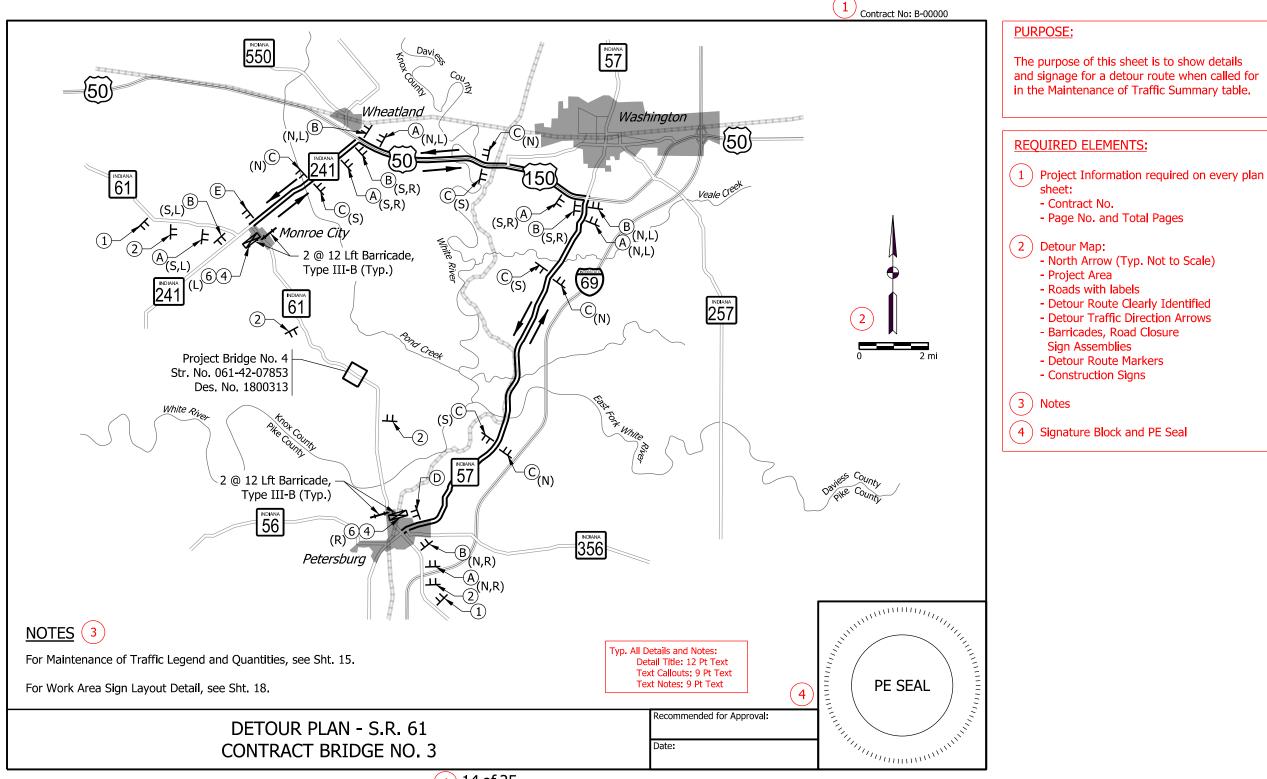


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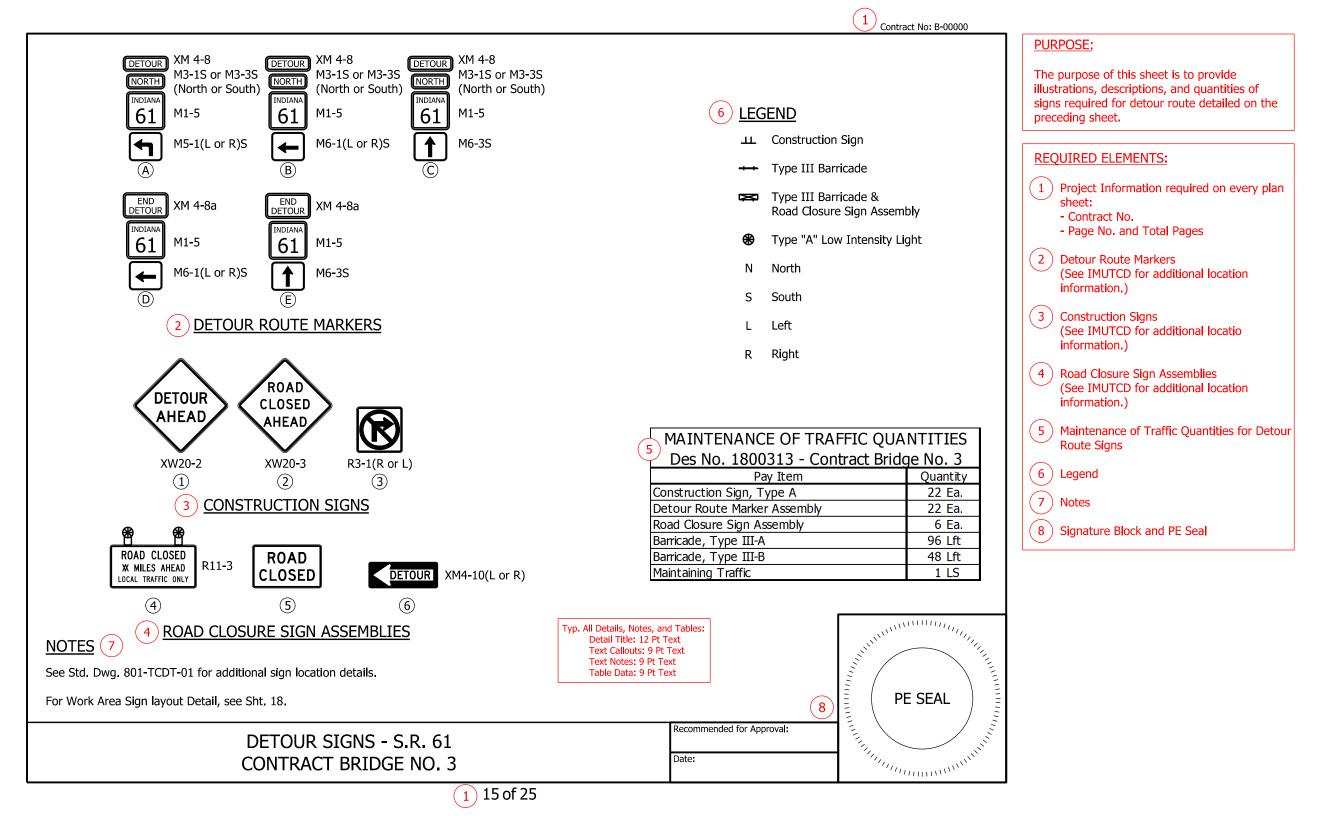


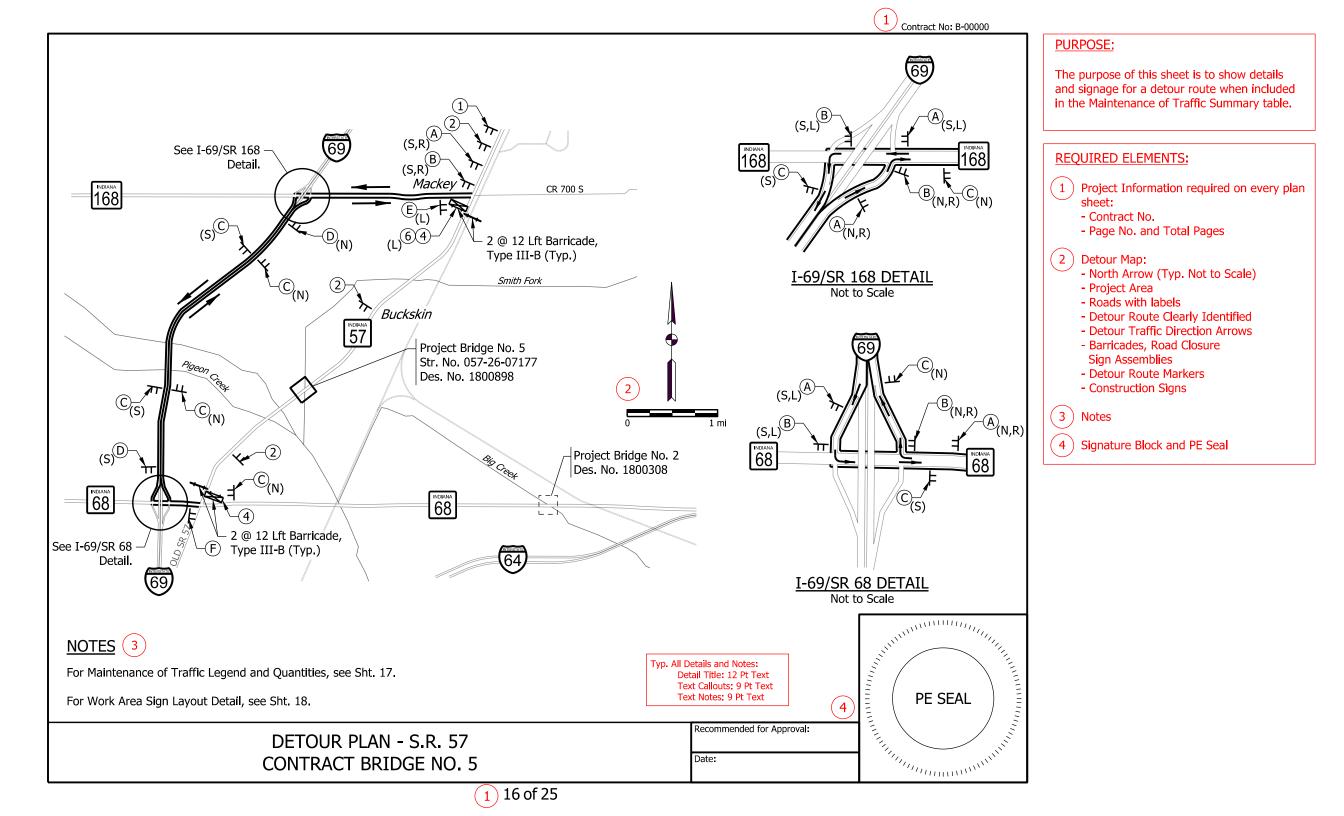
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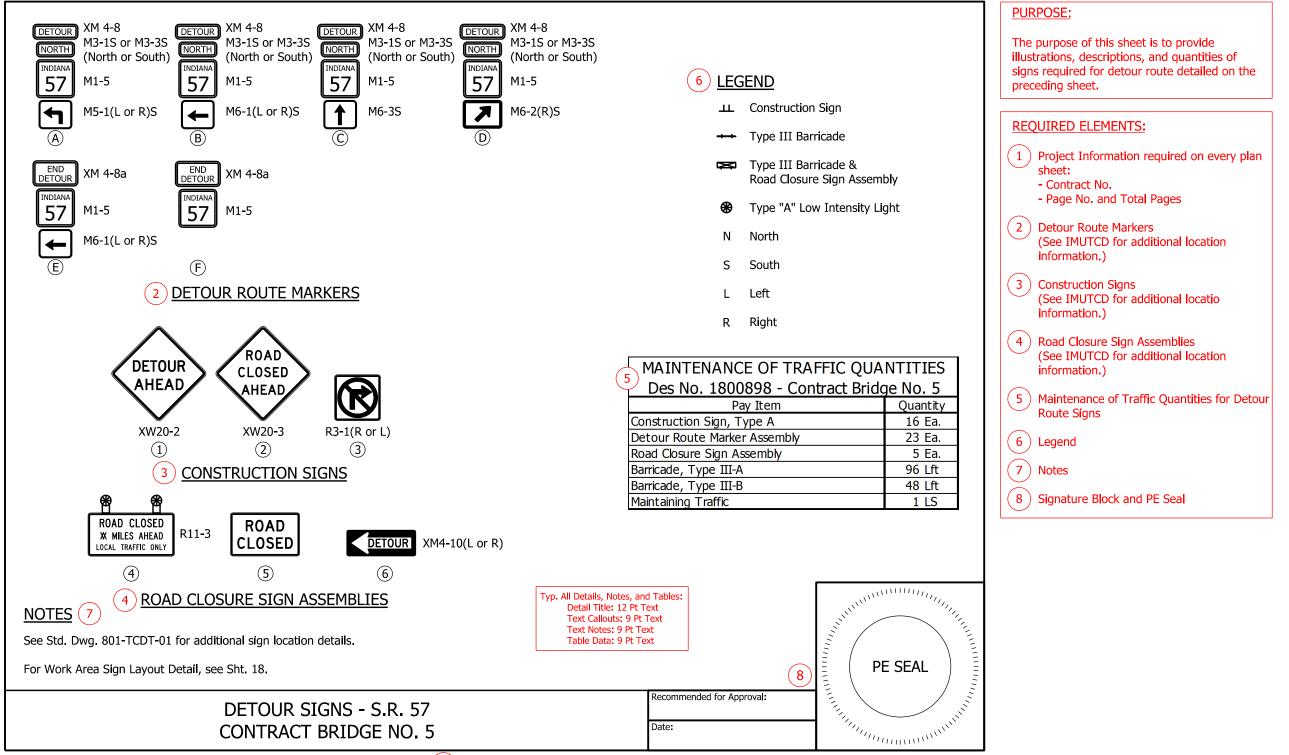
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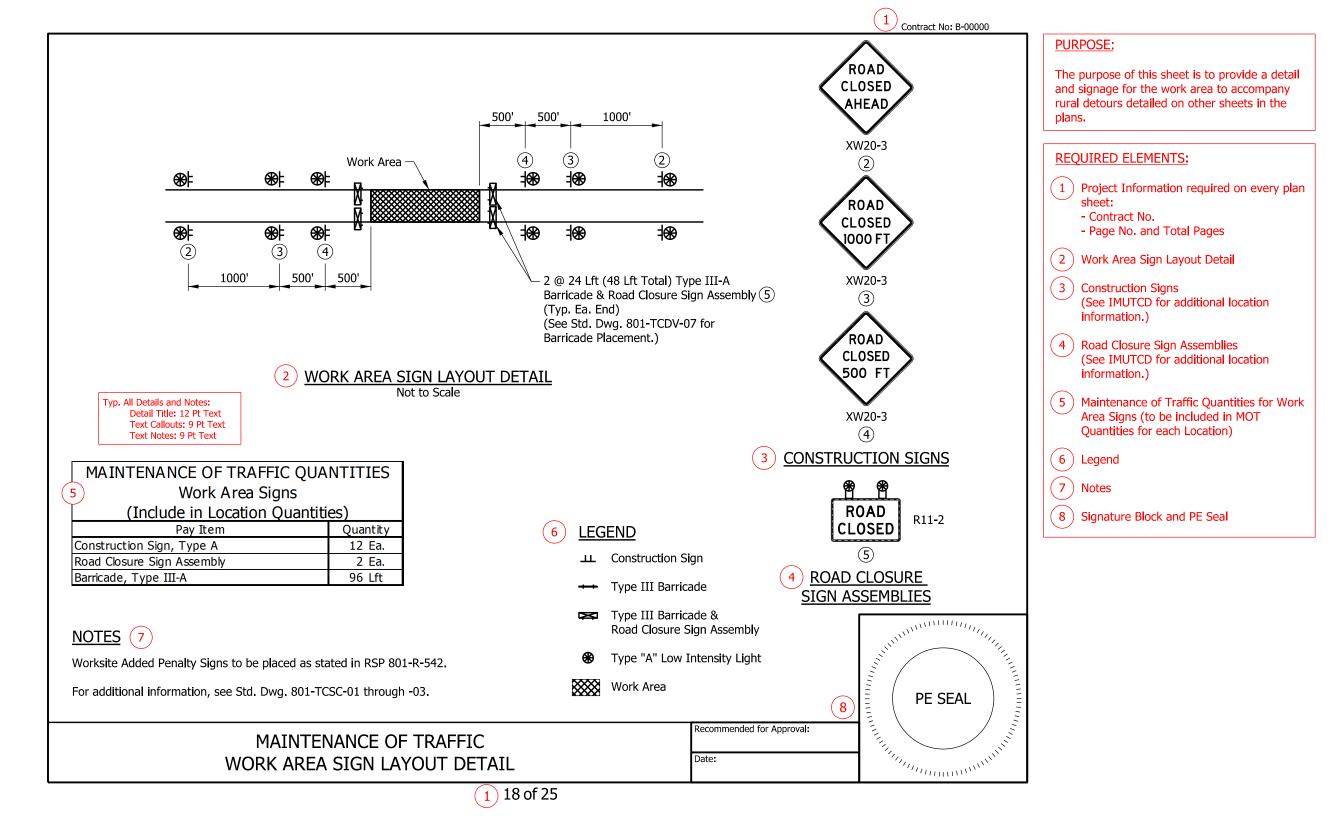


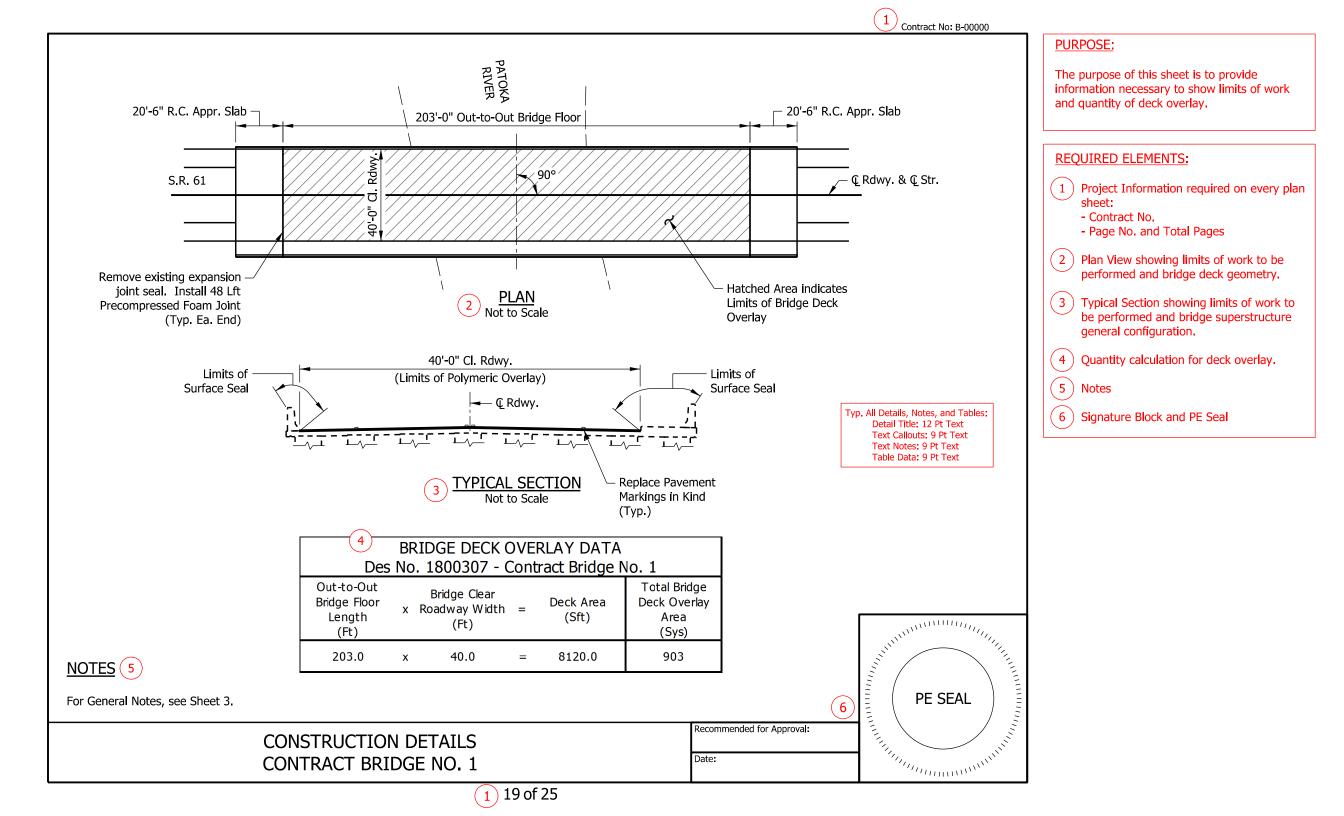


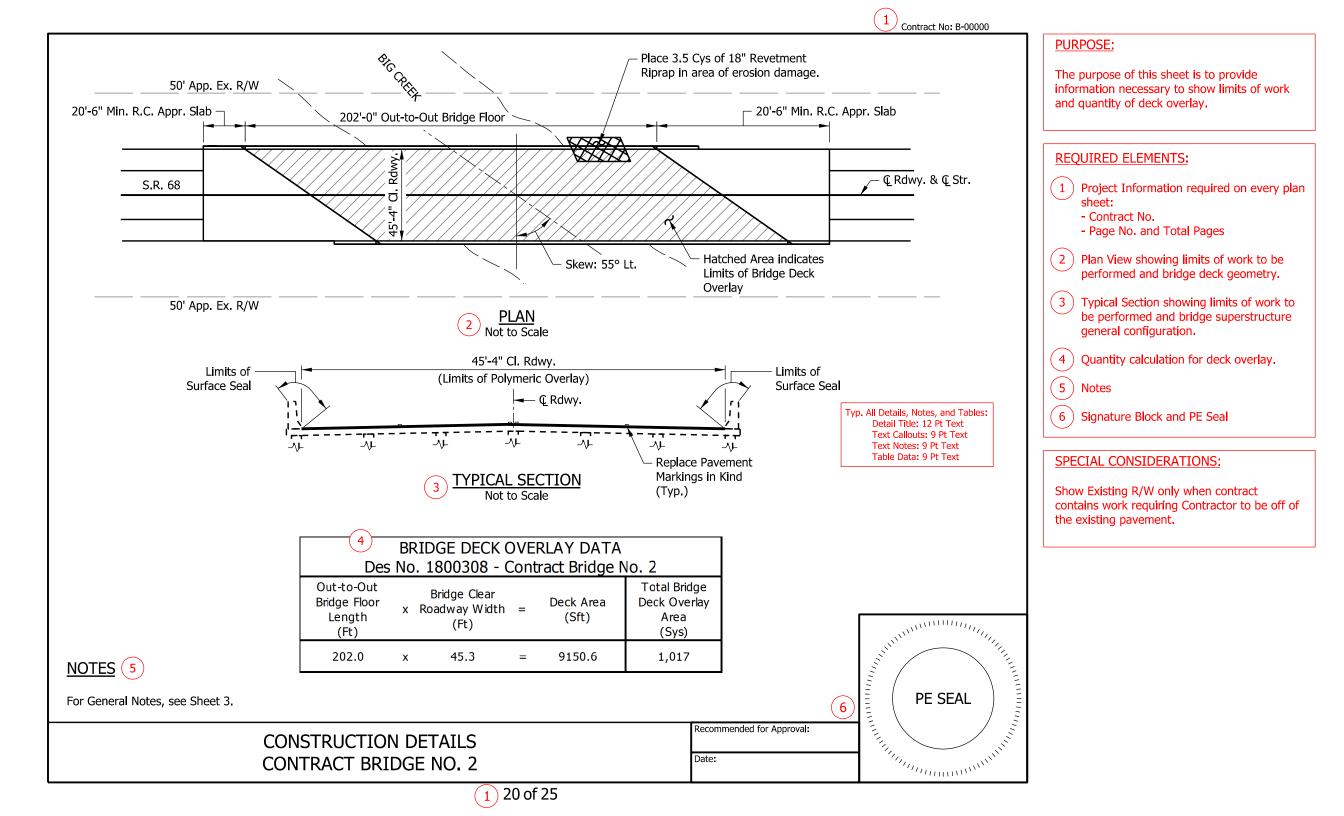
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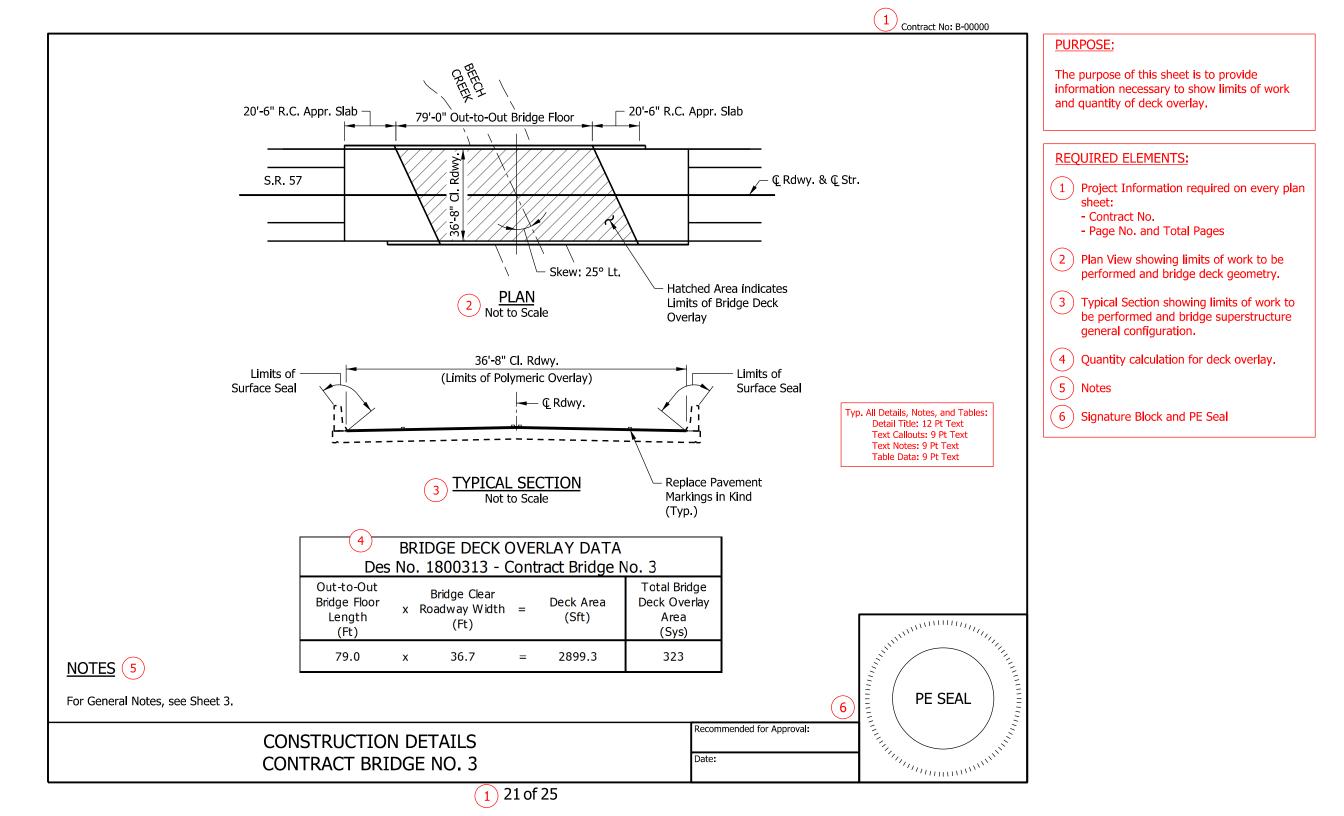
Contract No: B-00000

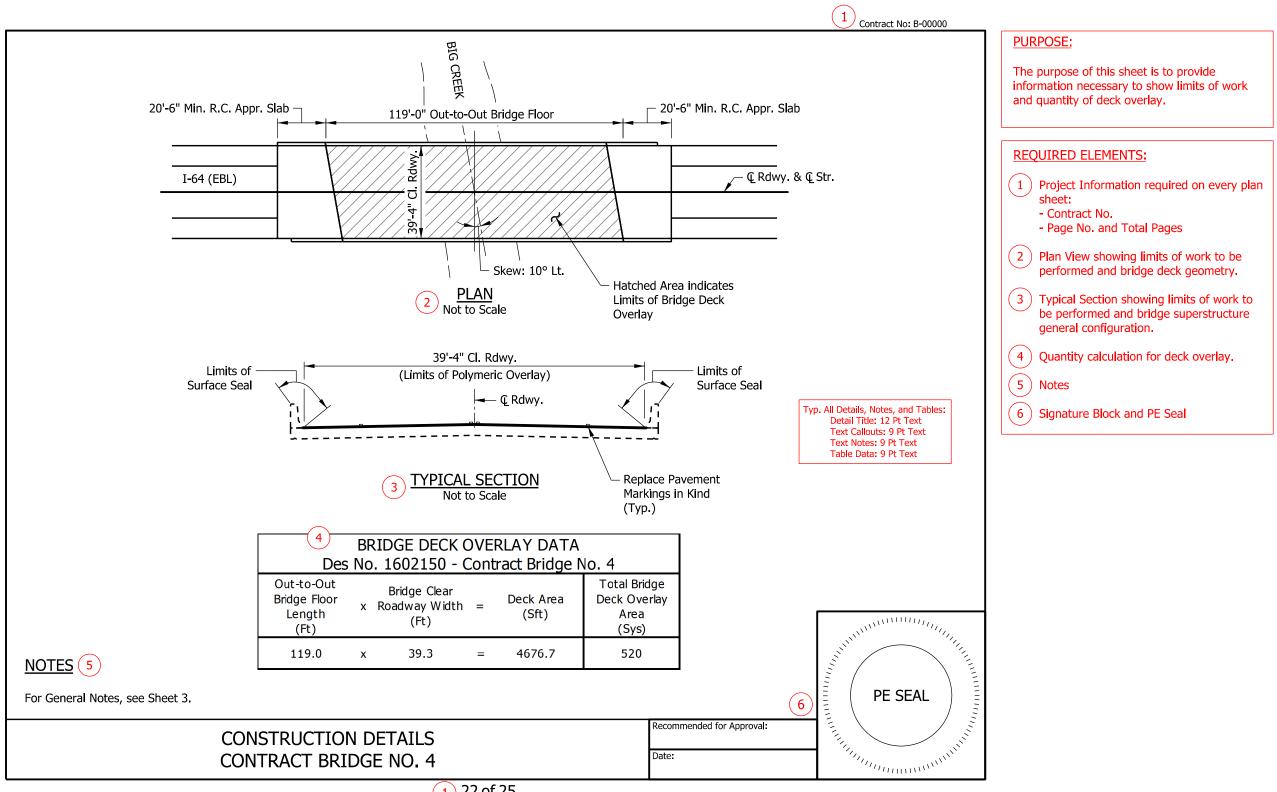
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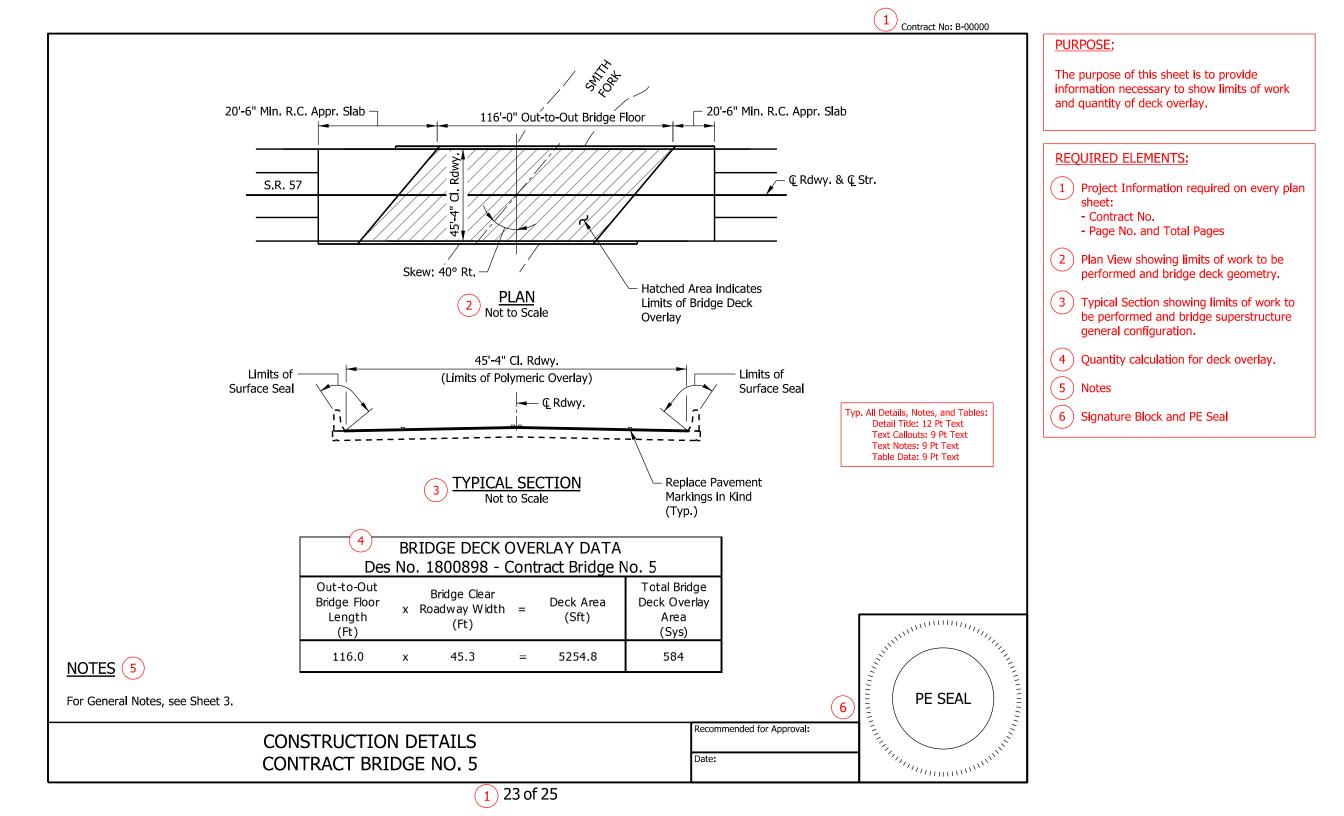


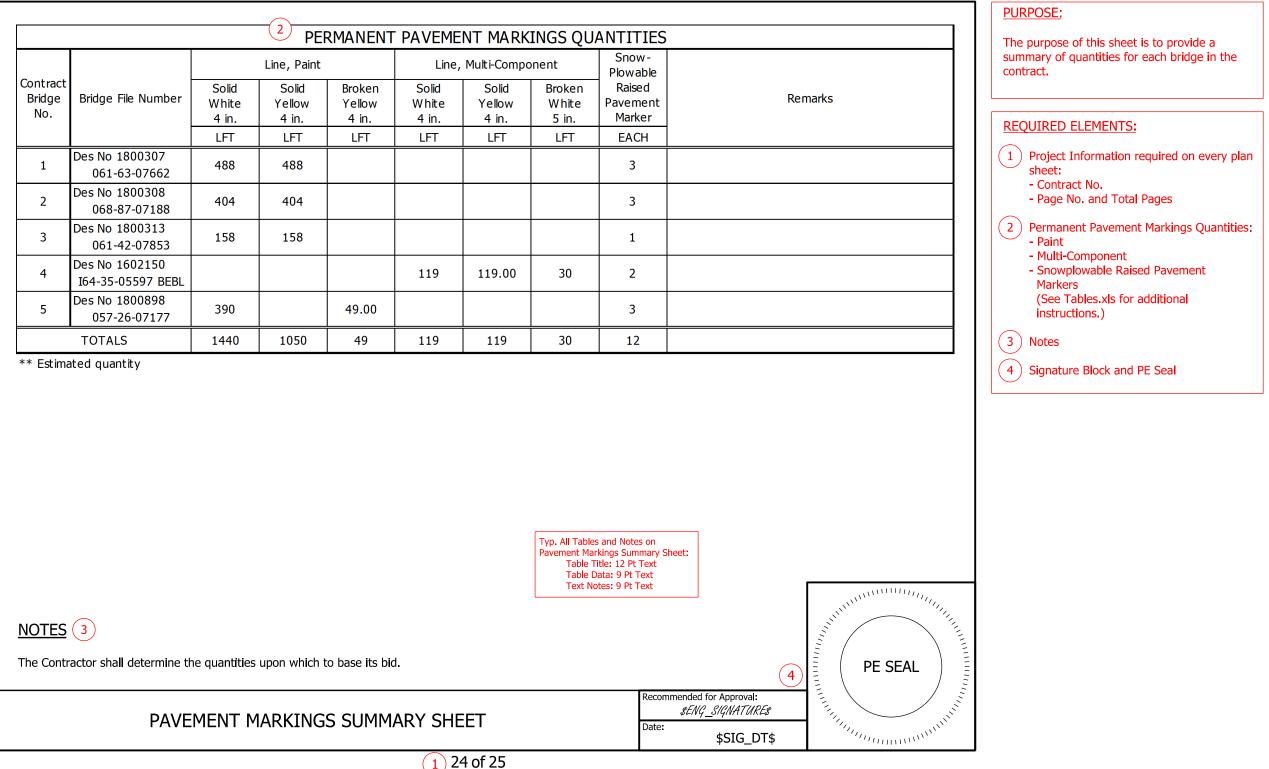






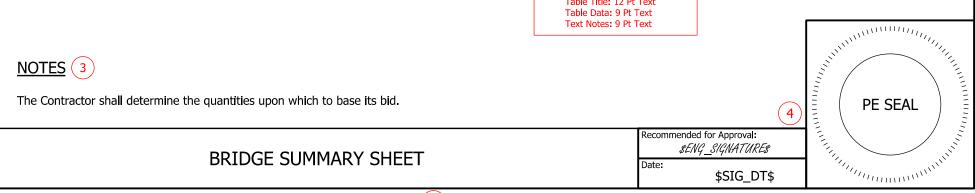
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1 Contract No: B-00000 **PURPOSE:** 2 SUMMARY OF BRIDGE QUANTITIES The purpose of this sheet is to provide a Polymeric Bridge summary of quantities for each bridge in the Concrete Deck Surface Joints in contract. Pre-Riprap, Barrier Contract PCCP Saw Bridge Patching, Seal Compressed Geotextiles Revetment Delineator Bridge File Number Bridge Remarks \*\* Deck Partial and Seal Foam Joint No. Overlay Depth **REQUIRED ELEMENTS:** SYS SFT CYS LFT LFT SYS SFT EACH Des No 1800307 Project Information required on every plan 1) 96 1 903 45 3100 061-63-07662 sheet: - Contract No. Des No 1800308 2 1017 50 6540 3.5 - Page No. and Total Pages 068-87-07188 Des No 1800313 2) Summary of Bridge Quantities: 3 323 3000 15 - Bridge Deck Overlay and related 061-42-07853 Quantities Des No 1602150 520 25 3040 4 (See Tables.xls for additional I64-35-05597 BEBL instructions.) Des No 1800898 5 1140 584 30 (3) 057-26-07177 Notes TOTALS 3347 3.5 165 16820 96 (4) Signature Block and PE Seal \*\* Estimated quantity Typ. All Tables and Notes on Bridge Summary Sheet: Table Title: 12 Pt Text Table Data: 9 Pt Text Text Notes: 9 Pt Text



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