

### BRIDGE SAMPLE PLANS - REHABILITATION

*Reference: IDM 14 Plan Preparation*

The following set of sample bridge rehabilitation plans has been created to illustrate a typical set for designers. This set is provided for illustrative purposes only. See the title sheet for complete Intended Use and Disclaimer Information.

#### Summary of Revisions (for future use)

Sheet	Revision Date	Note



**PURPOSE:**

The purpose of this drawing is to provide an overview of the project, including project data, design data, project location, and approval signatures.

PROJECT 0000000	DESIGNATION 9999999
CONTRACT B-00000	BRIDGE FILE 156-78-00000 B

1 Match Title Block Text Style

STRUCTURE INFORMATION				
STRUCTURE	TYPE	SPAN AND SKEW	OVER	STATION
156-78-00000 B	Continuous Composite Steel Beam Bridge	7 Spans: Unit 1: 43'-0" & 42'-3" Unit 2: 60'-0", 72'-0" & 60'-0" Unit 3: 42'-3" & 43'-0" Skew: 0°	Log Lick Creek	☺ Structure 259+85.00 Line "K"

2

KIN PROJECT INFORMATION	
DESIGNATION	PROJECT DESCRIPTION
0000000 (LEAD)	TITLE OR BRIEF DESCRIPTION OF LEAD ASSOCIATED PROJECT
1111111	TITLE OR BRIEF DESCRIPTION OF ASSOCIATED PROJECT
9999999	TITLE OR BRIEF DESCRIPTION OF PROJECT DESCRIBED IN THESE PLANS

14

**REQUIRED ELEMENTS:**

- 1 Project Information Block (Upper Left and Lower Right Corners)
- 2 Structure Information Table
- 3 Project Numbers
- 4 Reference Post
- 5 Project Work Description
- 6 Project Location Map:  
- North Arrow and Scale  
- Begin and End Project Callouts
- 7 Traffic/Design Data Table  
- See IDM Fig 14-3C for acceptable values for Design Data Table
- 8 County Location Map
- 9 Latitude and Longitude
- 10 Project Length Table  
- Do not include length of S-lines  
- Do not include length of incidental construction
- 11 Hydrologic Unit Code (Where needed for a waterway permit application, typ. HUC 12)
- 12 Standard Specification Reference
- 13 Signature Block and PE Seal
- 14 Kin Project Information Table (when applicable)
- 15 Owner and LPA Employee in Reponsible Charge (ERC) signatures (LPA Projects Only)

**INTENDED USE AND DISCLAIMER INFORMATION:**

This set of sample plan sheets is provided for illustrative purposes only. The callouts and notes in this sample plan are intended only to show a need for a callout, level of specificity, and its expected appearance. INDOT makes no guarantee of the accuracy of data used for this hypothetical project although every attempt has been made to produce a reasonable design in accordance with the current *Indiana Design Manual*. The Designer must determine specific content of plan sheets and notes for his/her individual project. In the event of a conflict, the policies stated in the current *Indiana Design Manual* and *INDOT CAD Standards Manual* will govern.

# INDIANA DEPARTMENT OF TRANSPORTATION



## BRIDGE REHABILITATION PLANS

Text Height = 0.70"

FOR SPANS OVER 20 FEET

Text Height = 0.37"

ROUTE: SR 156 AT: RP 4+88

4 Text Height = 0.40"

DESIGNATION NO. 9999999 P.E.  
R/W  
9999999 CONST.

3 Text Height = 0.46"

This note placed only when applicable.

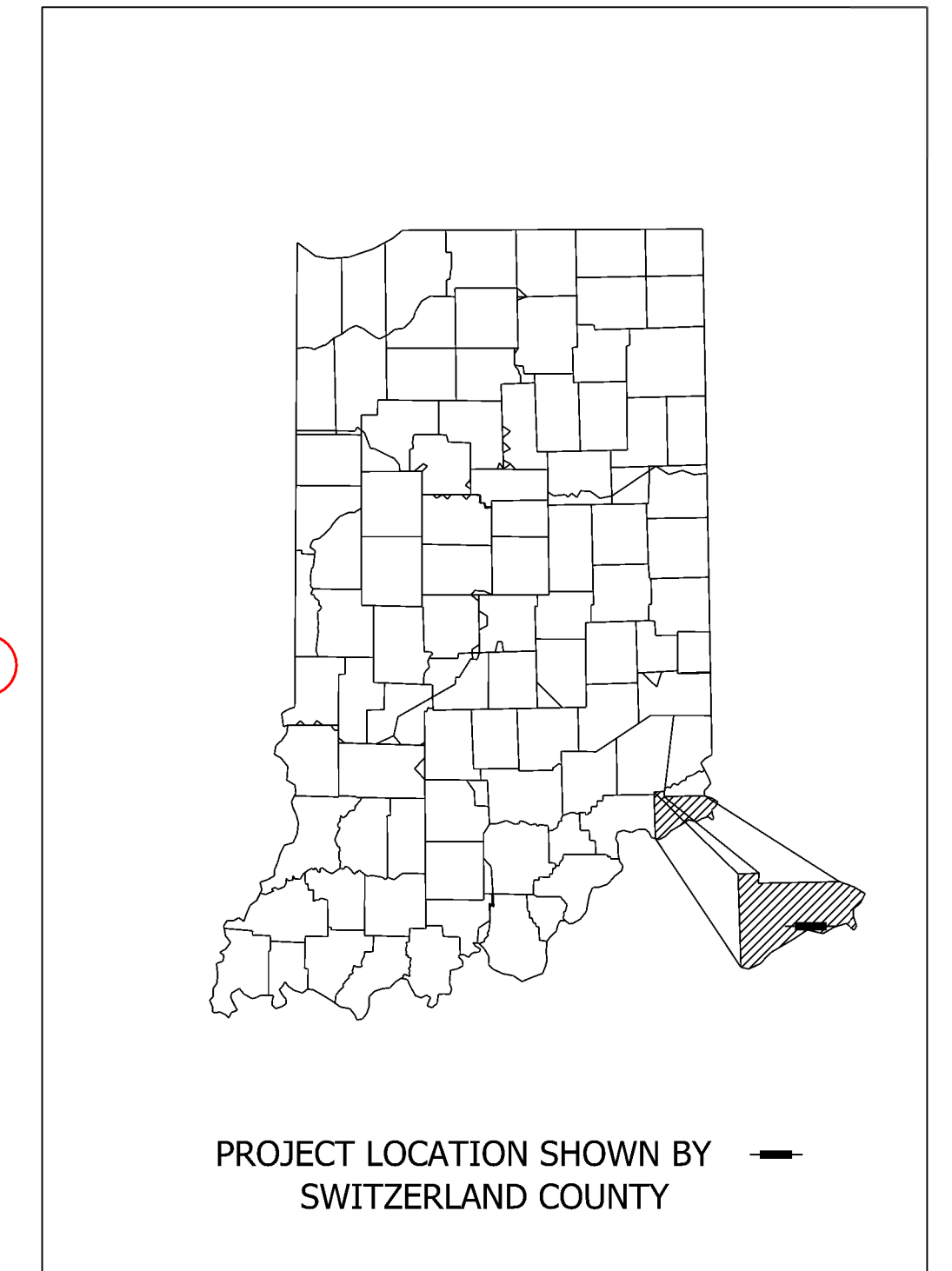
NO ADDITIONAL RIGHT-OF-WAY REQUIRED FOR THIS PROJECT

Partial Superstructure Replacement and Full Deck Replacement on SR 156 over Log Lick Creek  
Located 1.27 Miles West of S.R. 101 in  
Sections 3 & 8, 4, T-1-N, R-2-W, York Township, Switzerland County, Indiana

5

A complete description of the location for the project must be shown. This is not the survey legal description. Location Description: 18 Pt Text

Text Style: 14 Pt Text 8



PROJECT LOCATION SHOWN BY SWITZERLAND COUNTY

Text Style: 14 Pt Text 9

LATITUDE: 38°46'48.36" N LONGITUDE: 84°59'23.39" W

Text Style: 14 Pt Text 10

BRIDGE LENGTH: 0.070 MI.  
ROADWAY LENGTH: 0.008 MI.  
TOTAL LENGTH: 0.078 MI.  
MAX. GRADE: 1.59 %

Show lengths to three decimal places. Do not round.

11

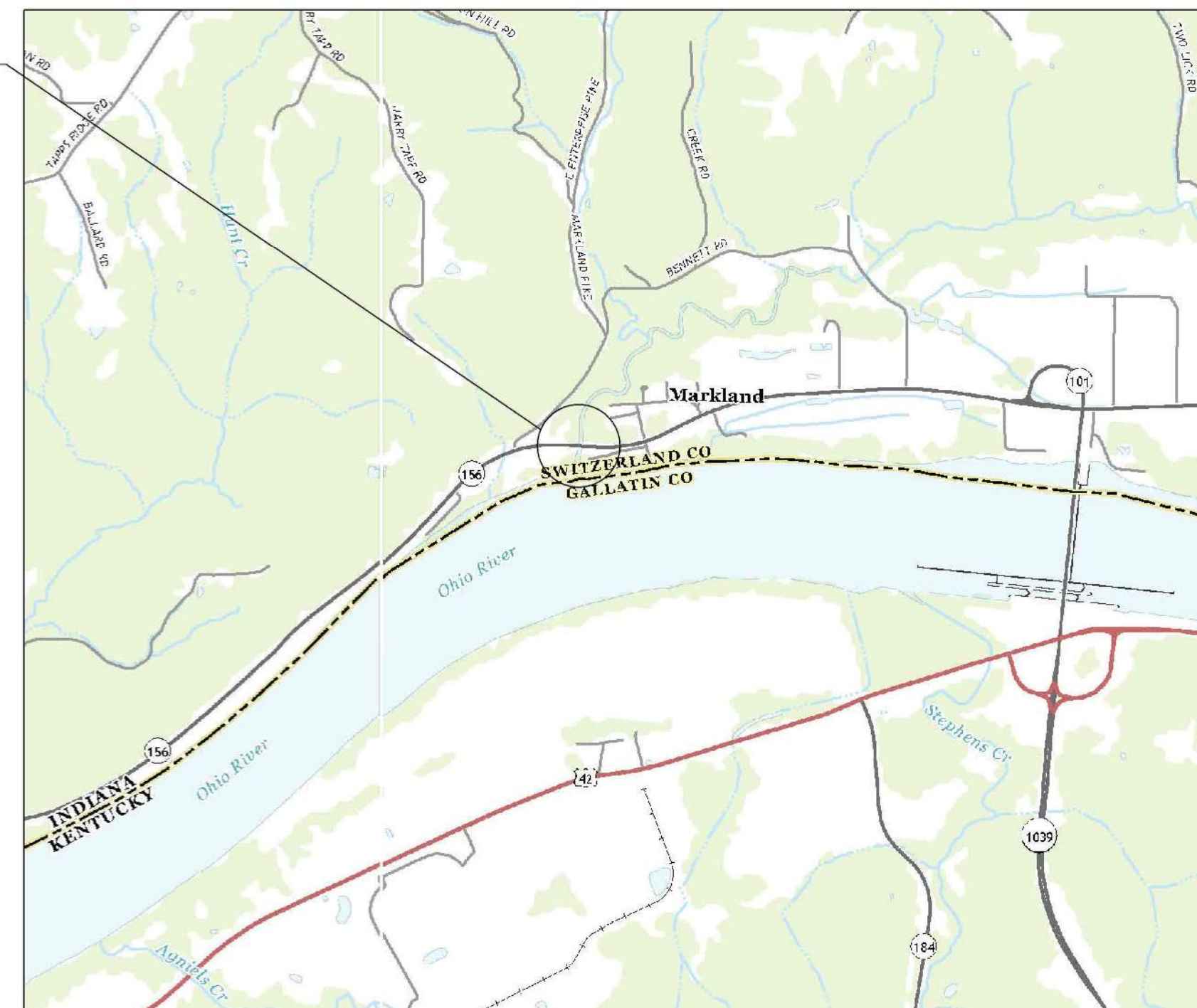
HUC 12: 050902031007

SCALE: 1" = 2000'

Typical Scales:  
1" = 500'  
1" = 1000'  
1" = 2000'  
1" = 4000'  
1" = 5000'

6

Location Map must be of sufficient enough scope and appropriate scale to clearly depict the relation of the project to the area in which it is being placed.  
Location Map Text Callouts: 14 Pt Text  
Location Map Labels: 12 Pt Text Min.  
Section Labels: 18 Pt Text



LOCATION MAP

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

BOARD OF COMMISSIONERS

APPROVED BY \_\_\_\_\_ DATE \_\_\_\_\_

SWITZERLAND COUNTY ENGINEER

ATTESTED \_\_\_\_\_ DATE \_\_\_\_\_

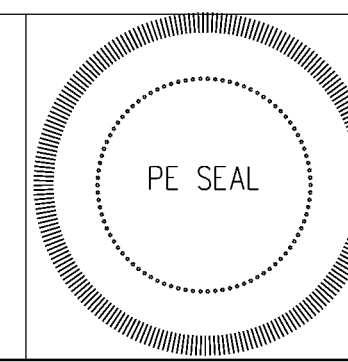
SWITZERLAND COUNTY, INDIANA

13

Text Style: 14 Pt Text 12

INDIANA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS DATED 2024 TO BE USED WITH THESE PLANS.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



PLANS PREPARED BY: Engineer of Record 317-555-1234  
PHONE NUMBER

CERTIFIED BY: Engineer of Record Signature MM/DD/YY  
DATE

APPROVED FOR LETTING: \_\_\_\_\_ INDIANA DEPARTMENT OF TRANSPORTATION DATE

1

BRIDGE FILE	
156-78-00000 B	
DESIGNATION	
9999999	
SHEET	
1	of 71
CONTRACT	PROJECT
B-00000	0000000

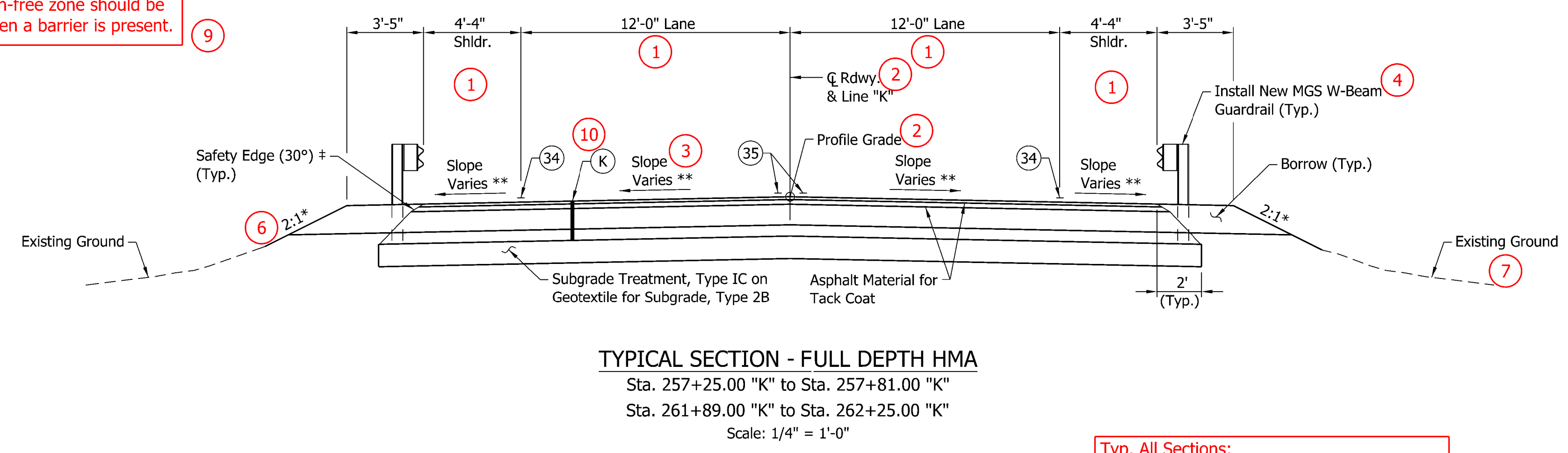




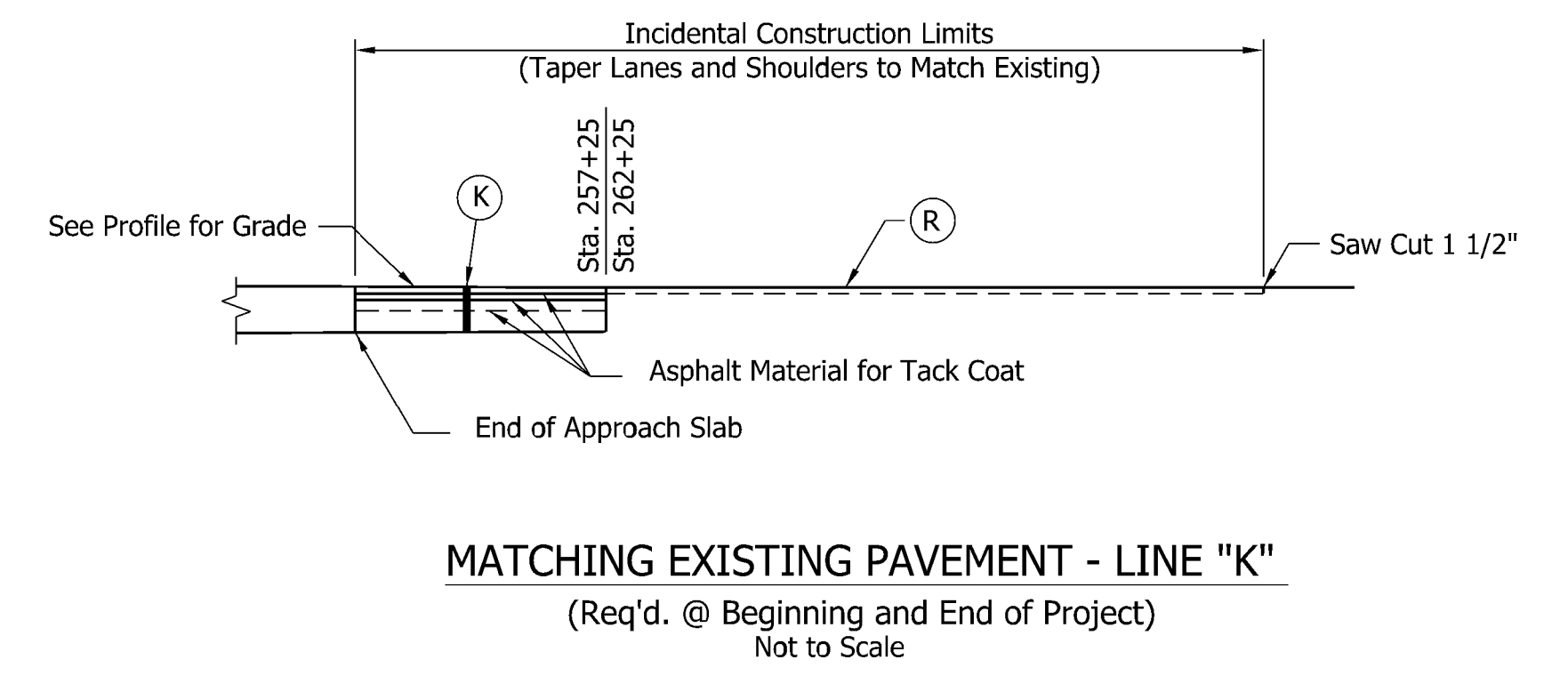
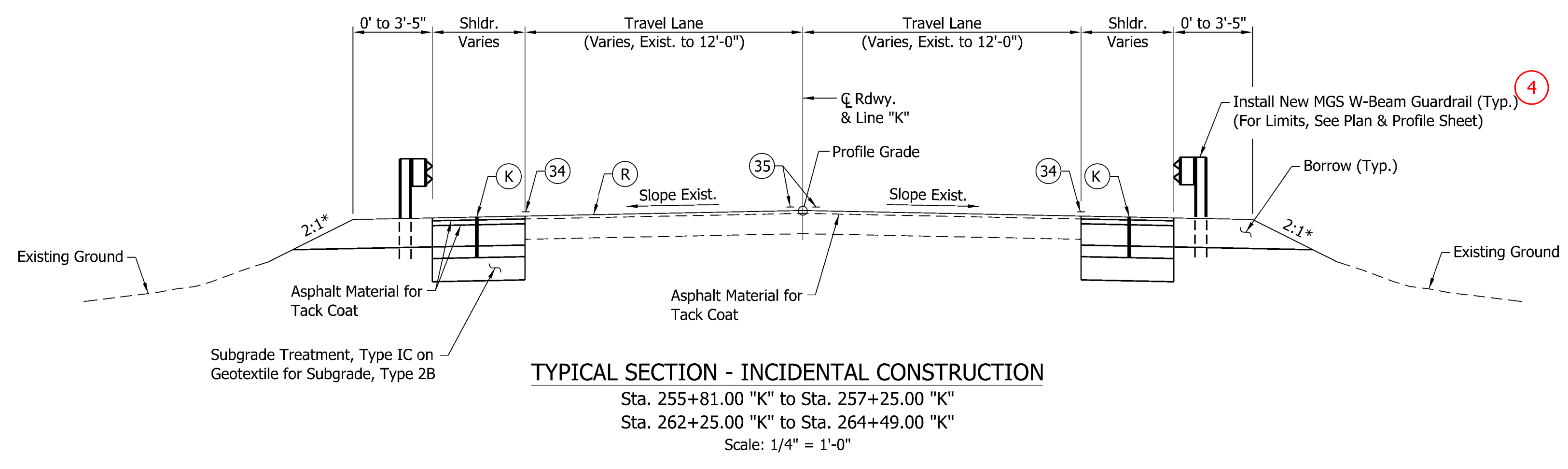
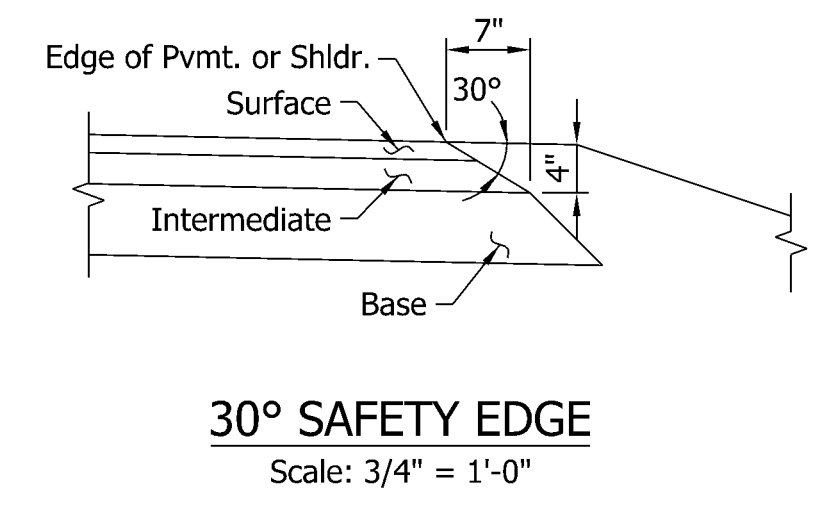
**PURPOSE:**  
The purpose of this drawing is to show materials, details, and dimensions for roadway sections which vary from those included in the Standard Drawings.

**NOTE:** Neither clear zone nor obstruction-free zone should be shown when a barrier is present.

- 11 LEGEND**
- (R) Milling Asphalt, 1 1/2" 165 lbs/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm
  - (K) 165 lbs/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 70, Intermediate, 19.0 mm on 1210 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm on 6 in. of Compacted Aggregate, No. 53
  - (34) Line, Paint, Solid, White, 4 in.
  - (35) Line, Paint, Solid, Yellow, 4 in.



**Typ. All Sections:**  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



- REQUIRED ELEMENTS:**
- 1 Lane and Shoulder Widths
  - 2 Profile Grade, Construction Centerline, paper Relocation Line, and Survey Line Locations
  - 3 Cross Slopes
  - 4 Curbs and Guardrails
  - 5 Sidewalk Locations and Widths
  - 6 Side Slopes
  - 7 Ditches
  - 8 Bicycle Facilities
  - 9 Clear Zone (4R projects) or Obstruction-Free Zone (3R Projects)
  - 10 Pavement Design
  - 11 Legend See IDM Fig. 14-3A for Recommended Plans Legends
  - 12 Signature Block and PE Seal

**NOTES**

The pavement safety edge is not required in locations of guardrail, or barrier rail; however, the Contractor has the option to construct the pavement safety edge within these limits if they choose.

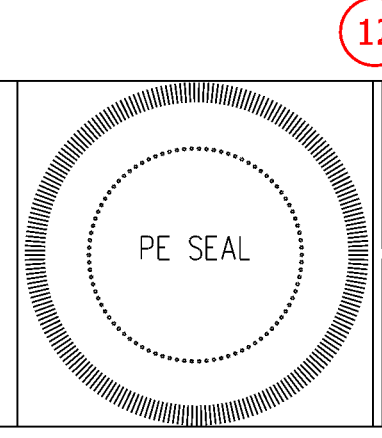
\* See Cross Sections for Slope.

\*\* Transition Slope and Width between Approach Slab & Existing Section.

For Plan & Profile Sheet, See Sht. 8.

‡ Safety Edge (30°) applicable to Surface & Intermediate Layers only.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

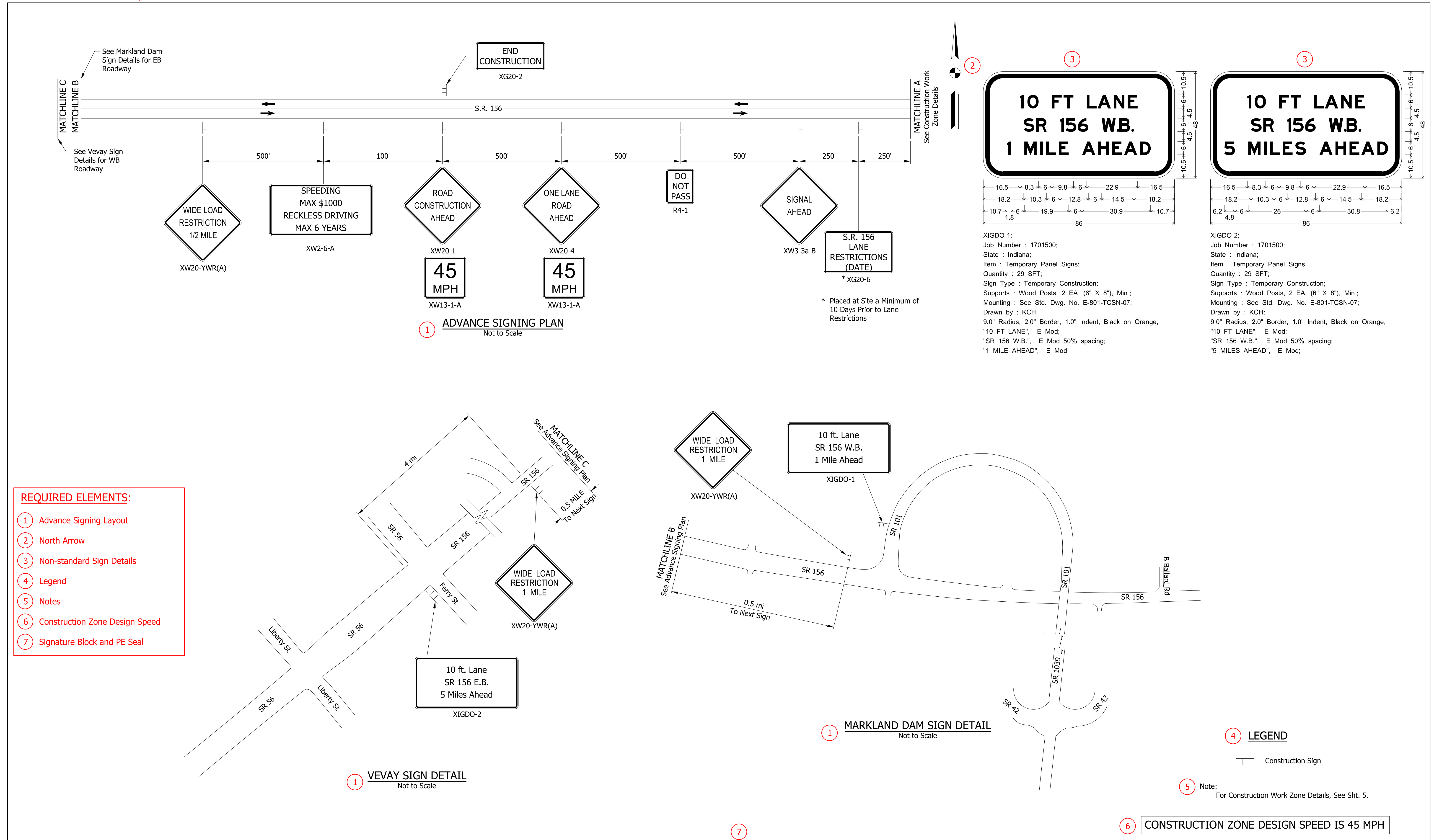
INDIANA  
DEPARTMENT OF TRANSPORTATION

TYPICAL CROSS SECTIONS

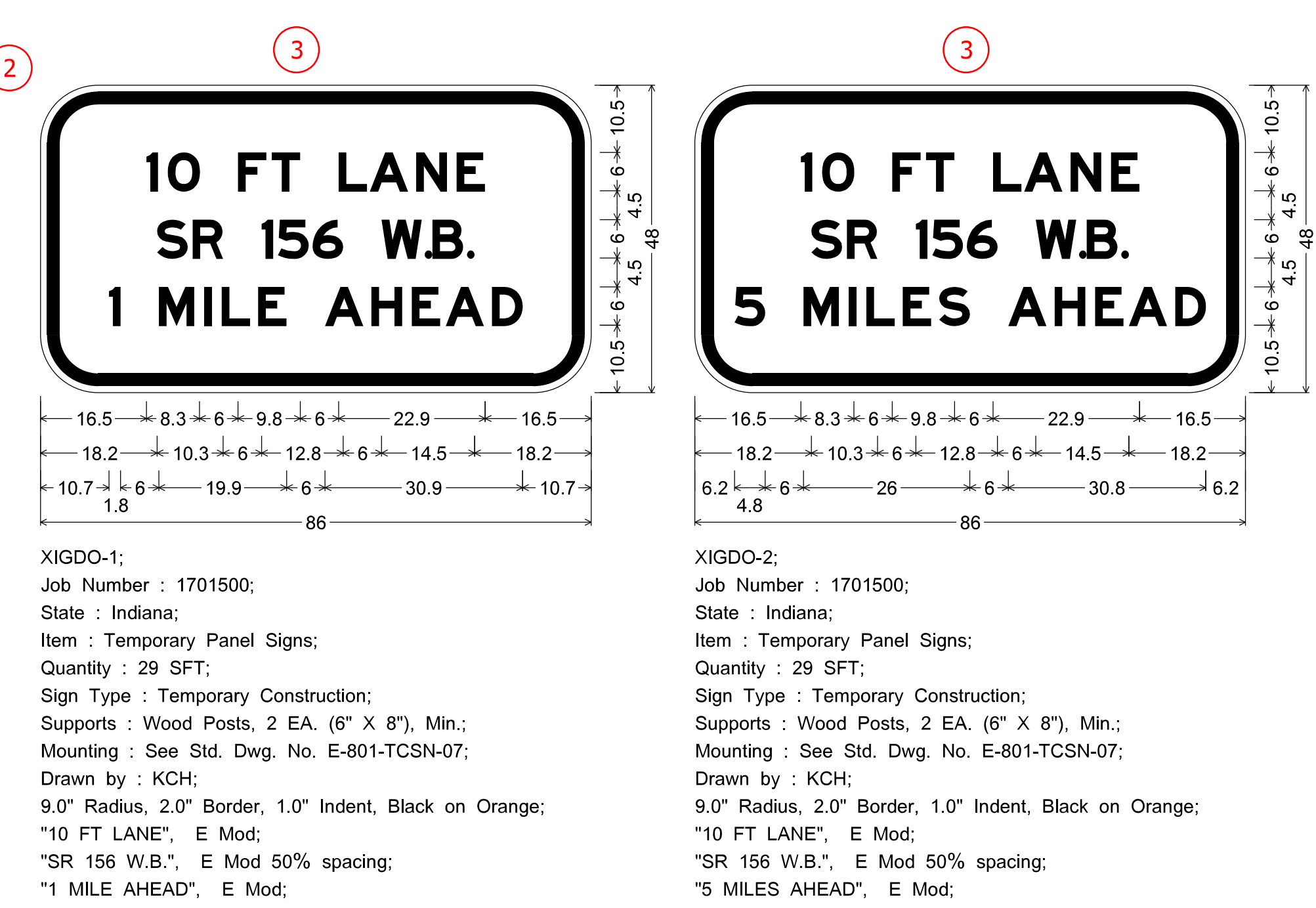
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
	9999999
	SHEET
	3 of 71
CONTRACT	PROJECT
B-00000	0000000



**PURPOSE:**  
The purpose of this drawing is to show the Advance Signing Plan layout and details.



- REQUIRED ELEMENTS:**
- ① Advance Signing Layout
  - ② North Arrow
  - ③ Non-standard Sign Details
  - ④ Legend
  - ⑤ Notes
  - ⑥ Construction Zone Design Speed
  - ⑦ Signature Block and PE Seal



**⑦** Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text

RECOMMENDED FOR APPROVAL *Engineer of Record Signature* MM/DD/YY  
DESIGN ENGINEER DATE

DESIGNED: ABC DRAWN: PQR  
CHECKED: BCD CHECKED: RST

**INDIANA DEPARTMENT OF TRANSPORTATION**

**MAINTENANCE OF TRAFFIC DETAILS**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
N/A	9999999
SHEET	
4 of 71	
CONTRACT	PROJECT
B-00000	0000000

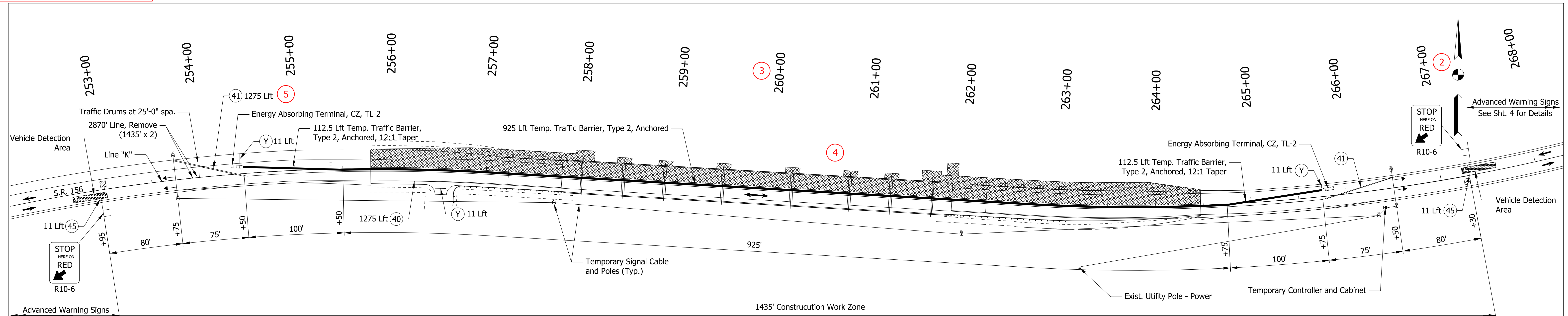
**⑥** CONSTRUCTION ZONE DESIGN SPEED IS 45 MPH

**⑤** Note:  
For Construction Work Zone Details, See Sht. 5.

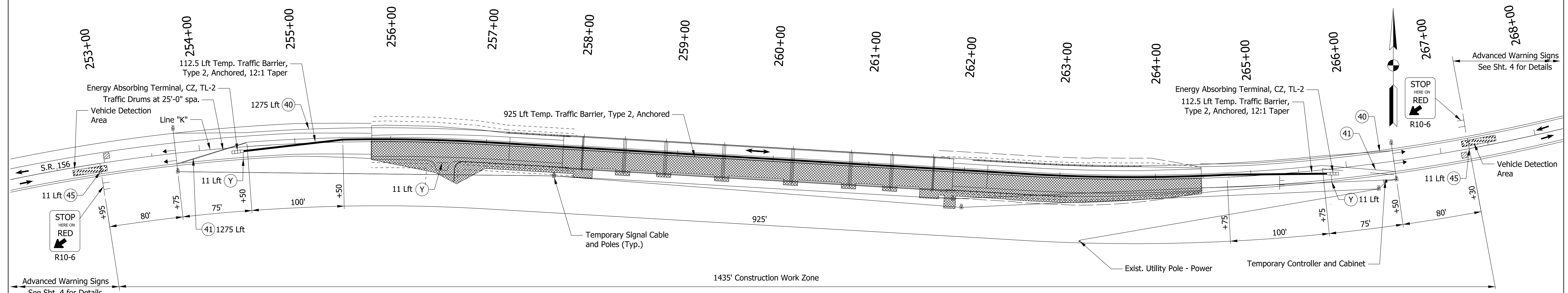
**④** LEGEND  
--- Construction Sign



**PURPOSE:**  
The purpose of this drawing is to show Traffic Control Layout and devices by Construction/MOT Phase.



1 PHASE I  
SCALE: 1" = 50'



1 PHASE II  
SCALE: 1" = 50'

9

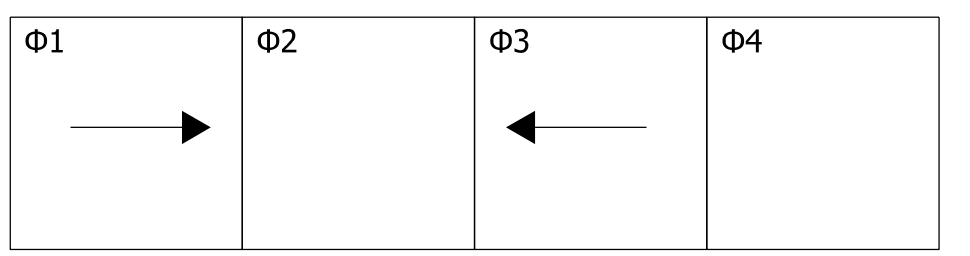
ESTIMATED MOT QUANTITIES				
ITEM	UNIT	PHASE I	PHASE II	TOTAL
Maintaining Traffic	LSUM	1	1	1
Fixed Temporary Signal, With Detection	LSUM	1	1	1
Construction Sign, A	EACH	18	18	18
Construction Sign, B	EACH	12	12	12
Construction Sign, C	EACH	2	2	2
Snowplowable Raised Pavement Marker, Removed	EACH	19	0	19
Snowplowable Raised Pavement Marker	EACH	19	0	19
Barricade, III-B	LFT	36	36	36
Line, Remove	LFT	2405	405	2810
Temporary Pavement Marking, Removable, 4 in.	LFT	2550	2550	5100
Temporary Pavement Marking, Removable, 24 in.	LFT	22	0	22
Temporary Traffic Barrier, Anchored, Type 2	LFT	1150	1150	1150

Typ. Table:  
Table Title: 18 Pt Text  
Table Data: 12 Pt Text

6 LEGEND

- (40) Temporary Pavement Marking, Removable, 4 in. (White)
- (41) Temporary Pavement Marking, 4 in. (Yellow)
- (45) Temporary Pavement Marking, Removable, 24 in. (White)
- (Y) Barricade, III-B
- [Hatched Box] Area of Construction
- [Circle with 'Y'] Construction Drum with Warning Lights
- [Arrow] Direction of Traffic
- [Symbol] Traffic Signal Poles
- [Symbol] Temporary Traffic Signal Head, 3 Section
- [Symbol] Construction Sign

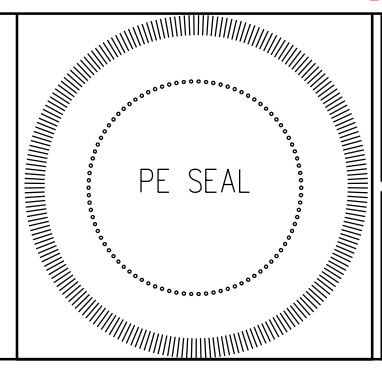
7 PHASE DIAGRAM



8 CONSTRUCTION ZONE DESIGN SPEED IS 45 MPH

- REQUIRED ELEMENTS:**
- 1 Plan View by Phase
  - 2 North Arrow
  - 3 Alignment and Stations
  - 4 Construction Area
  - 5 Pavement Markings w/ Estimated Quantities
  - 6 Legend
  - 7 Temporary Traffic Signal Phase Diagram (when needed)
  - 8 Construction Zone Design Speed
  - 9 MOT Quantity Summary Table
  - 10 Signature Block and PE Seal

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

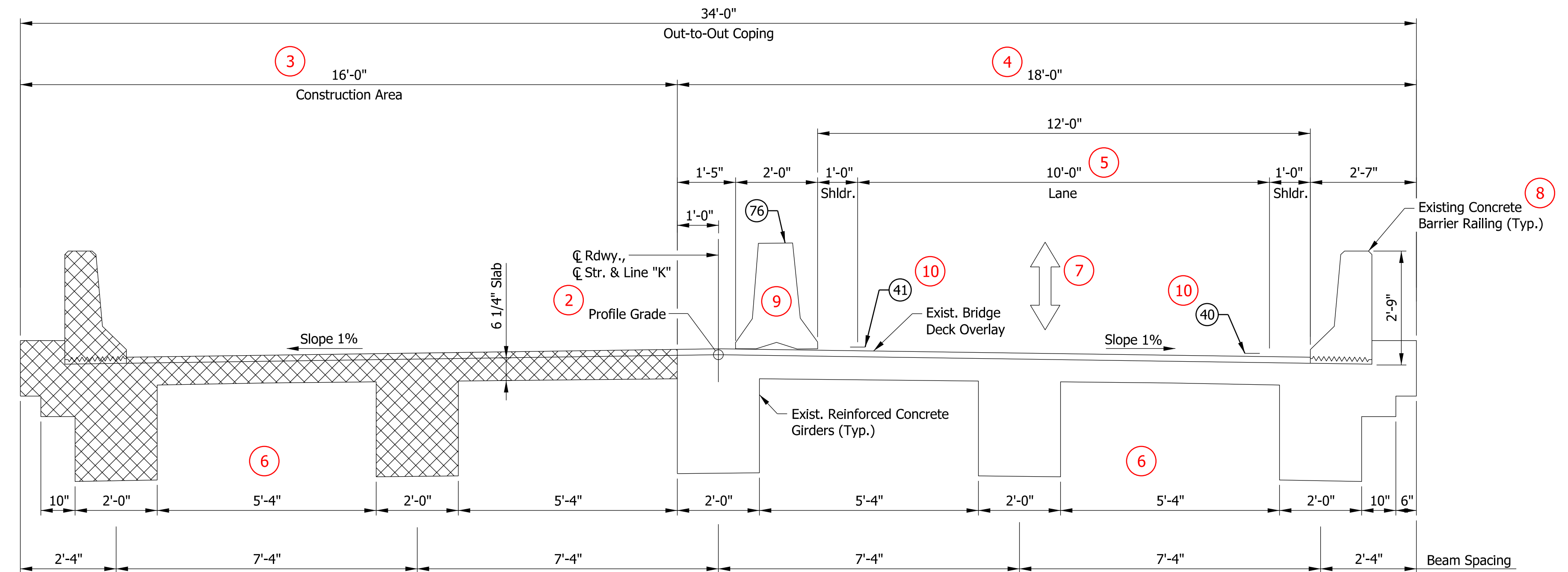
INDIANA  
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
N/A	9999999
	SHEET
	5 of 71
CONTRACT	PROJECT
B-00000	0000000

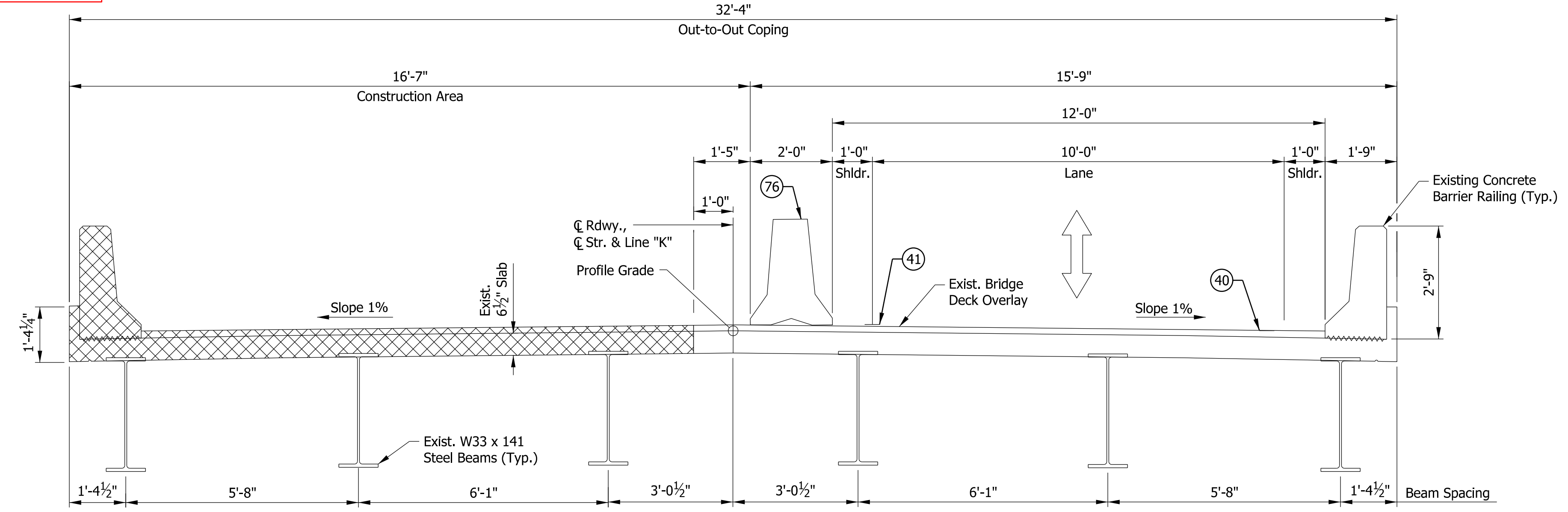


**PURPOSE:**  
The purpose of this drawing is to show Traffic Control Devices and travel lanes by Construction/MOT Phase.



1 TYPICAL SECTION - PHASE I  
(SPANS "A", "B", "F", "G")  
Scale: 1/2" = 1'-0"

Typ. All Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



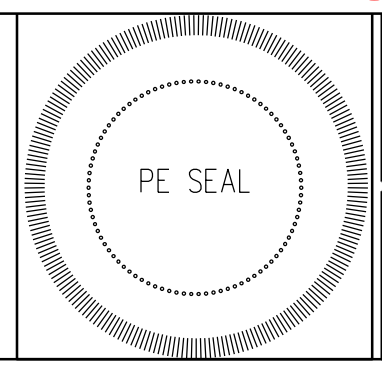
1 TYPICAL SECTION - PHASE I  
(SPANS "C" thru "E")  
Scale: 1/2" = 1'-0"

- REQUIRED ELEMENTS:**
- 1 Typical Structure Sections for Construction Phase
  - 2 Profile Grade & Construction Survey Lines
  - 3 Construction Area
  - 4 Traffic Area
  - 5 Shoulder & Lane Widths
  - 6 Superstructure Information (Existing & New Construction)
  - 7 Traffic Flow Direction
  - 8 Guardrail or Bridge Railing in Traffic Area
  - 9 Traffic Control Devices
  - 10 Temporary Pavement Markings
  - 11 Legend  
See IDM Fig. 14-3A for Recommended Plans Legends
  - 12 Construction Zone Design Speed
  - 13 Signature Block and PE Seal

- 11 LEGEND
- 40 Temporary Pavement Marking, Removable, 4 in. (White)
  - 41 Temporary Pavement Marking, 4 in. (Yellow)
  - 76 Temporary Traffic Barrier, Type 2, Anchored
  - Area of Construction

12 CONSTRUCTION ZONE DESIGN SPEED IS 45 MPH

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



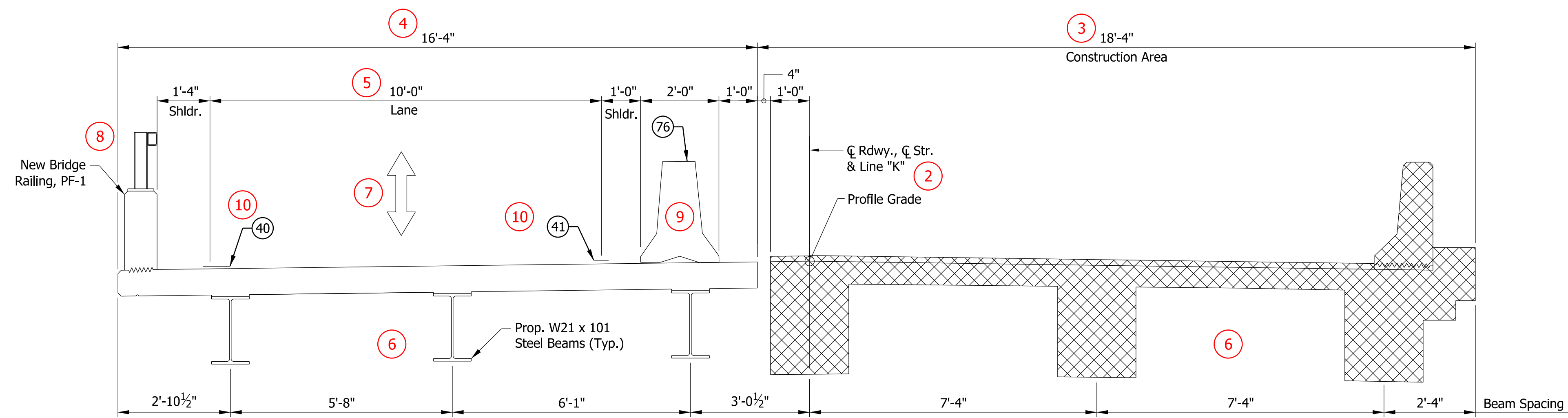
RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

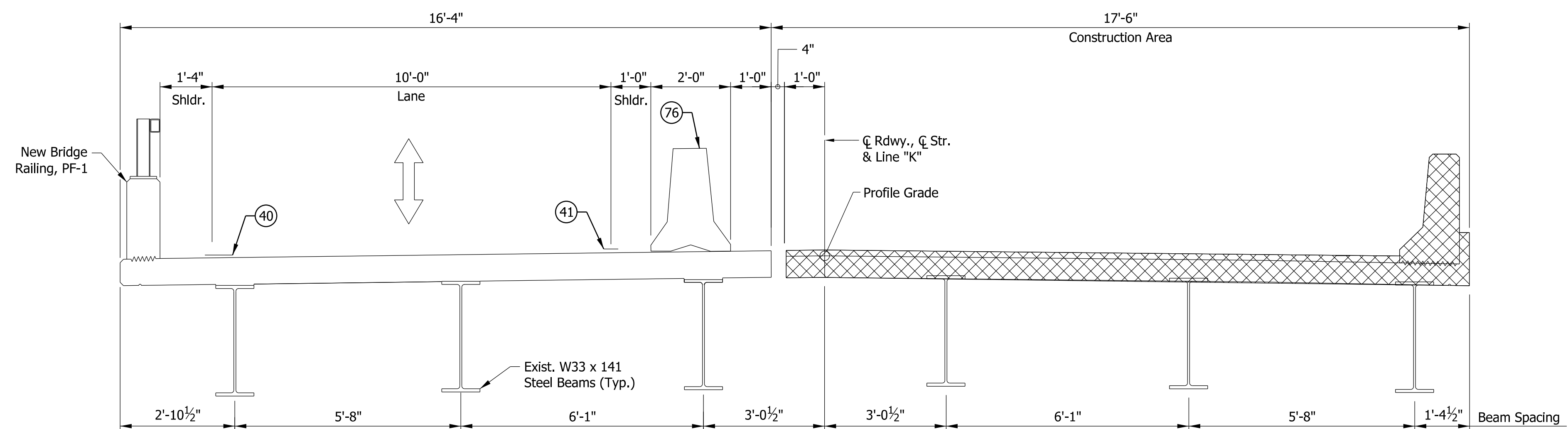
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
	9999999
	SHEET
	6 of 71
CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**  
The purpose of this drawing is to show Traffic Control Devices and travel lanes by Construction/MOT Phase.



Typ. All Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

1 TYPICAL SECTION - PHASE II  
(SPANS "A", "B", "F", "G")  
Scale: 1/2" = 1'-0"



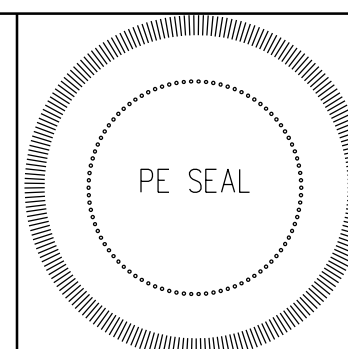
1 TYPICAL SECTION - PHASE II  
(SPANS "C" thru "E")  
Scale: 1/2" = 1'-0"

- REQUIRED ELEMENTS:**
- 1 Typical Structure Sections for Construction Phase
  - 2 Profile Grade & Construction Survey Lines
  - 3 Construction Area
  - 4 Traffic Area
  - 5 Shoulder & Lane Widths
  - 6 Superstructure Information (Existing & New Construction)
  - 7 Traffic Flow Direction
  - 8 Guardrail or Bridge Railing in Traffic Area
  - 9 Traffic Control Devices
  - 10 Temporary Pavement Markings
  - 11 Legend  
See IDM Fig. 14-3A for Recommended Plans Legends
  - 12 Construction Zone Design Speed
  - 13 Signature Block and PE Seal

- 11 LEGEND
- 40 Temporary Pavement Marking, Removable, 4 in. (White)
  - 41 Temporary Pavement Marking, 4 in. (Yellow)
  - 76 Temporary Traffic Barrier, Type 2, Anchored
  - Area of Construction

12 CONSTRUCTION ZONE DESIGN SPEED IS 45 MPH

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

MAINTENANCE OF TRAFFIC

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
	9999999
	SHEET
	7 of 71
CONTRACT	PROJECT
B-00000	0000000



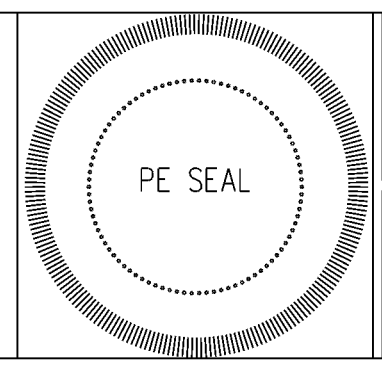
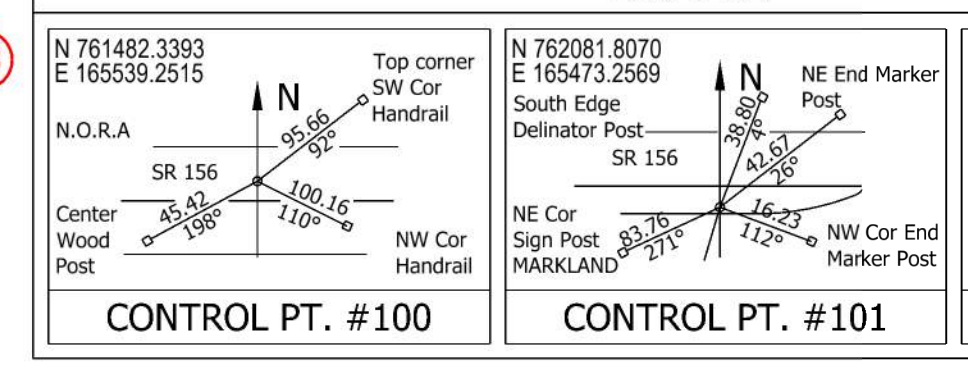
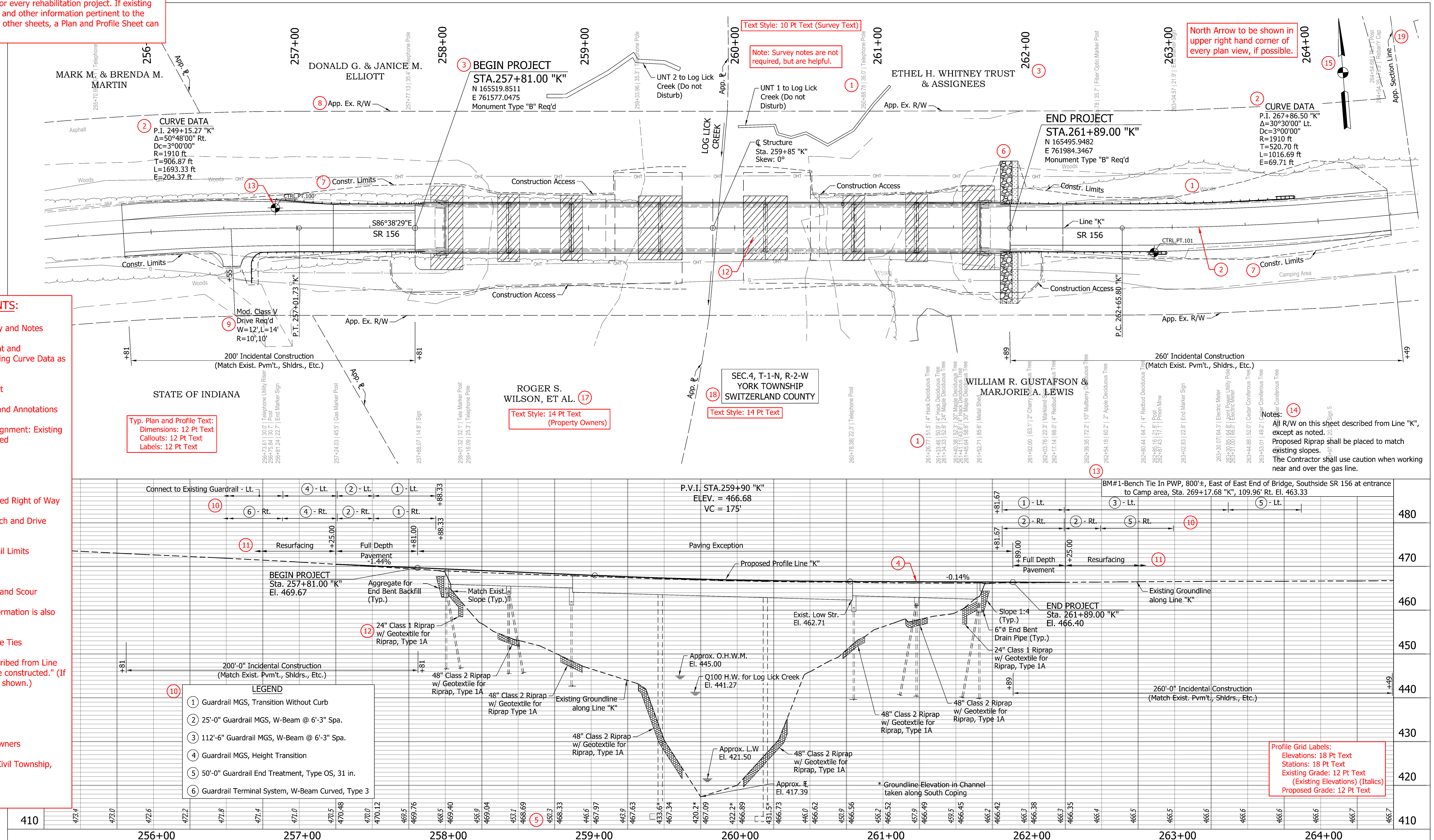
**PURPOSE:**  
 The purpose of the Plan and Profile sheet is to facilitate Engineering and Construction by providing complete topo, alignment data, R/W, and profile information from beginning to end of Project. Plan and Profile is not necessary for every rehabilitation project. If existing R/W, proposed guardrail and other information pertinent to the project can be shown on other sheets, a Plan and Profile Sheet can be omitted.

- REQUIRED ELEMENTS:**
- Existing Topography and Notes
  - Horizontal Alignment and Annotations, Including Curve Data as Needed
  - Begin/End of Project
  - Vertical Alignment and Annotations
  - Elevations Along Alignment: Existing (Italics) and Proposed
  - Drainage Features
  - Construction Limits
  - Existing and Proposed Right of Way
  - Public Road Approach and Drive Locations
  - Barrier and Guardrail Limits
  - Paving Limits
  - Permanent Erosion and Scour Protection (Optional if this information is also shown on Layout)
  - Alignment Reference Ties
  - Note: "All R/W described from Line \_\_\_ Line \_\_\_ to be constructed." (If multiple alignments shown.)
  - North Arrow
  - Sheet Scales
  - Existing Property Owners
  - Township, Range, Civil Township, and County
  - Section Line

Typ. Plan and Profile Text:  
 Dimensions: 12 Pt Text  
 Callouts: 12 Pt Text  
 Labels: 12 Pt Text

- LEGEND**
- Guardrail MGS, Transition Without Curb
  - 25'-0" Guardrail MGS, W-Beam @ 6'-3" Spa.
  - 112'-6" Guardrail MGS, W-Beam @ 6'-3" Spa.
  - Guardrail MGS, Height Transition
  - 50'-0" Guardrail End Treatment, Type OS, 31 in.
  - Guardrail Terminal System, W-Beam Curved, Type 3

Profile Grid Labels:  
 Elevations: 18 Pt Text  
 Stations: 18 Pt Text  
 Existing Grade: 12 Pt Text  
 (Existing Elevations) (Italics)  
 Proposed Grade: 12 Pt Text



RECOMMENDED FOR APPROVAL  
**Engineer of Record Signature**  
 DESIGN ENGINEER MM/DD/YY DATE  
 DESIGNED: ABC DRAWN: PQR  
 CHECKED: BCD CHECKED: RST

INDIANA DEPARTMENT OF TRANSPORTATION  
**PLAN & PROFILE LINE "K"**

16 HORIZONTAL SCALE 1" = 30'	BRIDGE FILE 156-78-00000 B
16 VERTICAL SCALE 1" = 10'	DESIGNATION 9999999
SHEET 8 of 71	
CONTRACT B-00000 PROJECT 0000000	

Reference Ties Text:  
 Labels: 8 Pt Text  
 Titles: 12 Pt Text

Title Block Text:  
 Labels: 10 Pt Text  
 Signature: 12 Pt Text

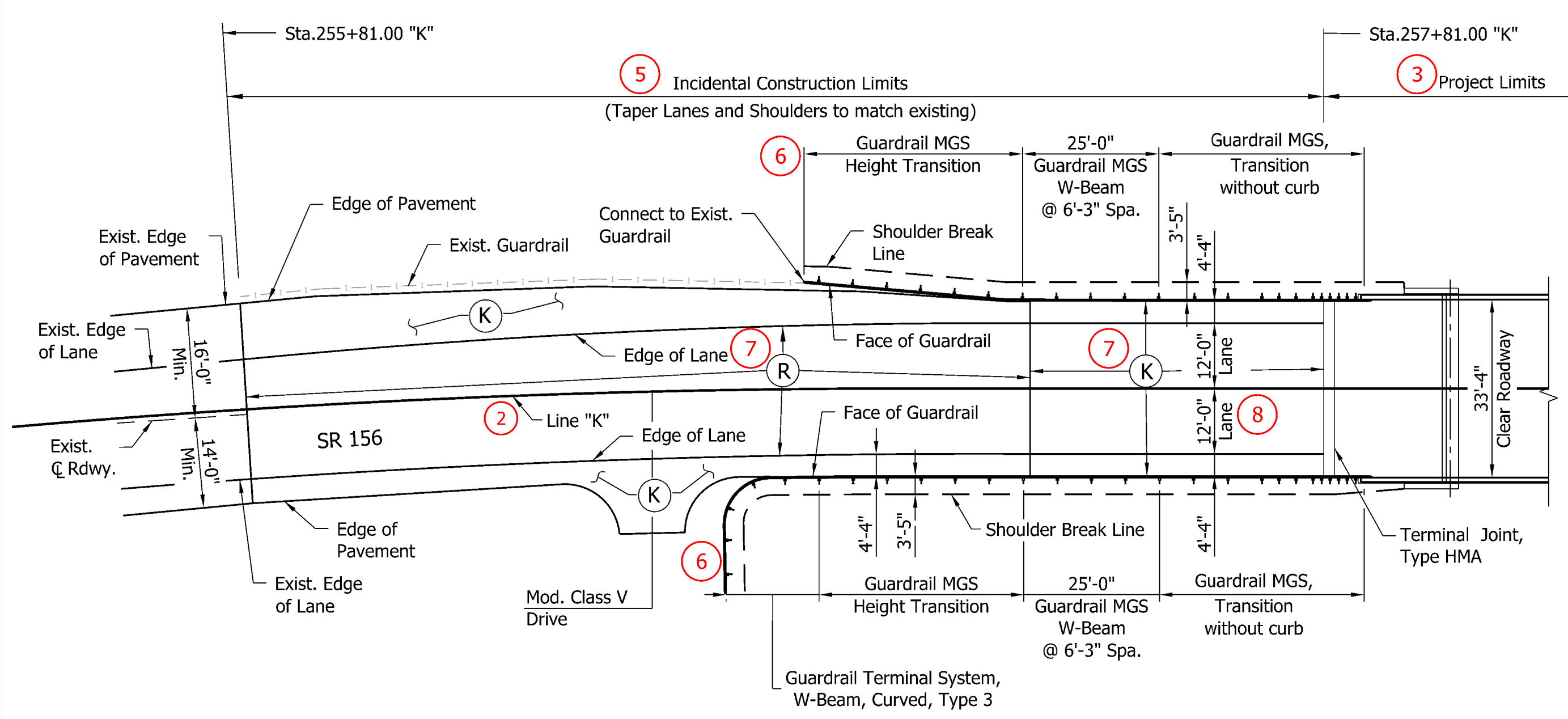
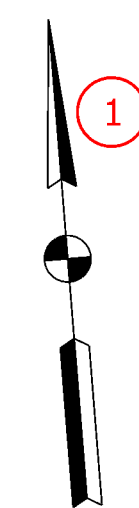


**PURPOSE:**  
 The purpose of this drawing is to facilitate Engineering and Construction by providing Approach and Incidental Construction Details.

Typ. All Notes Blocks:  
 Titles: 18 Pt Text  
 Section Headings: 14 Pt Text  
 Notes Body: 12 Pt Text

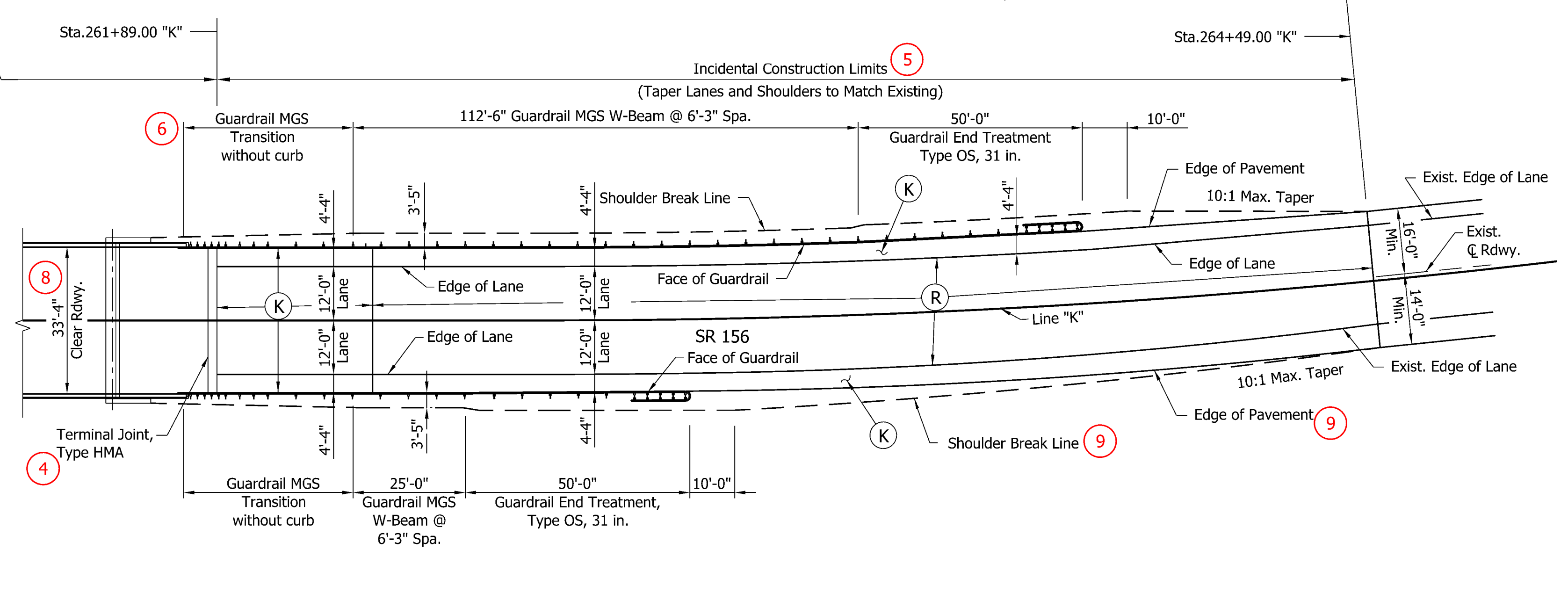
- 10 LEGEND**
- (R) Milling Asphalt, 1 1/2" 165 lbs/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm
  - (K) 165 lbs/syd QC/QA-HMA, 3, 70, Surface, 9.5 mm on 275 lbs/syd QC/QA-HMA, 3, 70, Intermediate, 19.0 mm on 880 lbs/syd QC/QA-HMA, 3, 64, Base, 25.0 mm on 6 in. of Compacted Aggregate, No. 53 on Subgrade Treatment, Type IC on Geotextile for Pavement, Type 2B

North Arrow to be shown in upper right hand corner of every plan, if possible.



**SHOULDER AND GUARDRAIL DETAILS**  
 (Req'd. at Begin of Project)

Typ. Plan View Text:  
 Dimensions: 12 Pt Text  
 Callouts: 12 Pt Text  
 Labels: 12 Pt Text

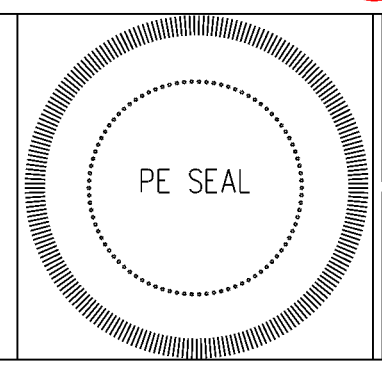


**SHOULDER AND GUARDRAIL DETAILS**  
 (Req'd. at End Of Project)

Typ. All Views:  
 View Title: 18 Pt Text  
 View Sub-Title: 14 Pt Text  
 Dimensions and Text Callouts: 12 Pt Text

- REQUIRED ELEMENTS:**
- 1 North Arrow
  - 2 Survey Line Designation
  - 3 Project Limits
  - 4 Terminal Joint (if required)
  - 5 Incidental Construction Limits
  - 6 Guardrail Limits
  - 7 Paving Limits and Pavement Design
  - 8 Lane and Shoulder Widths, Clear Roadway
  - 9 Edge of Pavement, Shoulder Break
  - 10 Legend  
See IDM Fig. 14-3A for Recommended Plans Legends
  - 11 Signature Block and PE Seal

Title Block Text:  
 Labels: 10 Pt Text  
 Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
 DEPARTMENT OF TRANSPORTATION

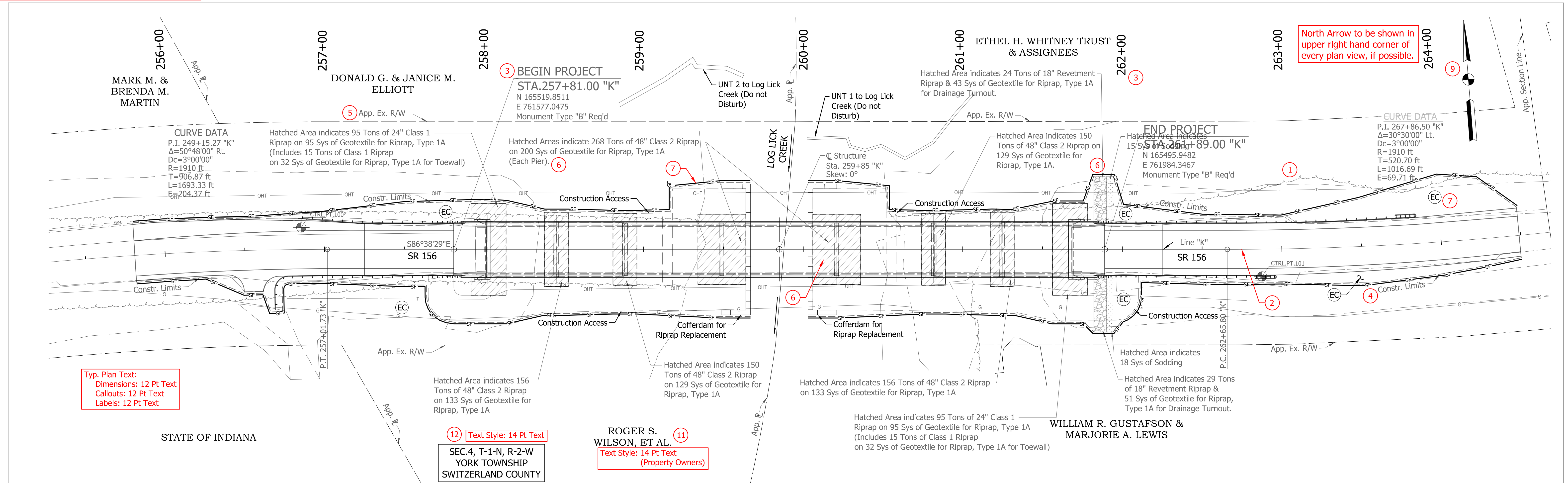
**CONSTRUCTION LAYOUT DETAILS**

HORIZONTAL SCALE	BRIDGE FILE
1" = 20'	156-78-00000 B
VERTICAL SCALE	DESIGNATION
	9999999
	SHEET
	9 of 71
CONTRACT	PROJECT
B-00000	0000000



**PURPOSE:**

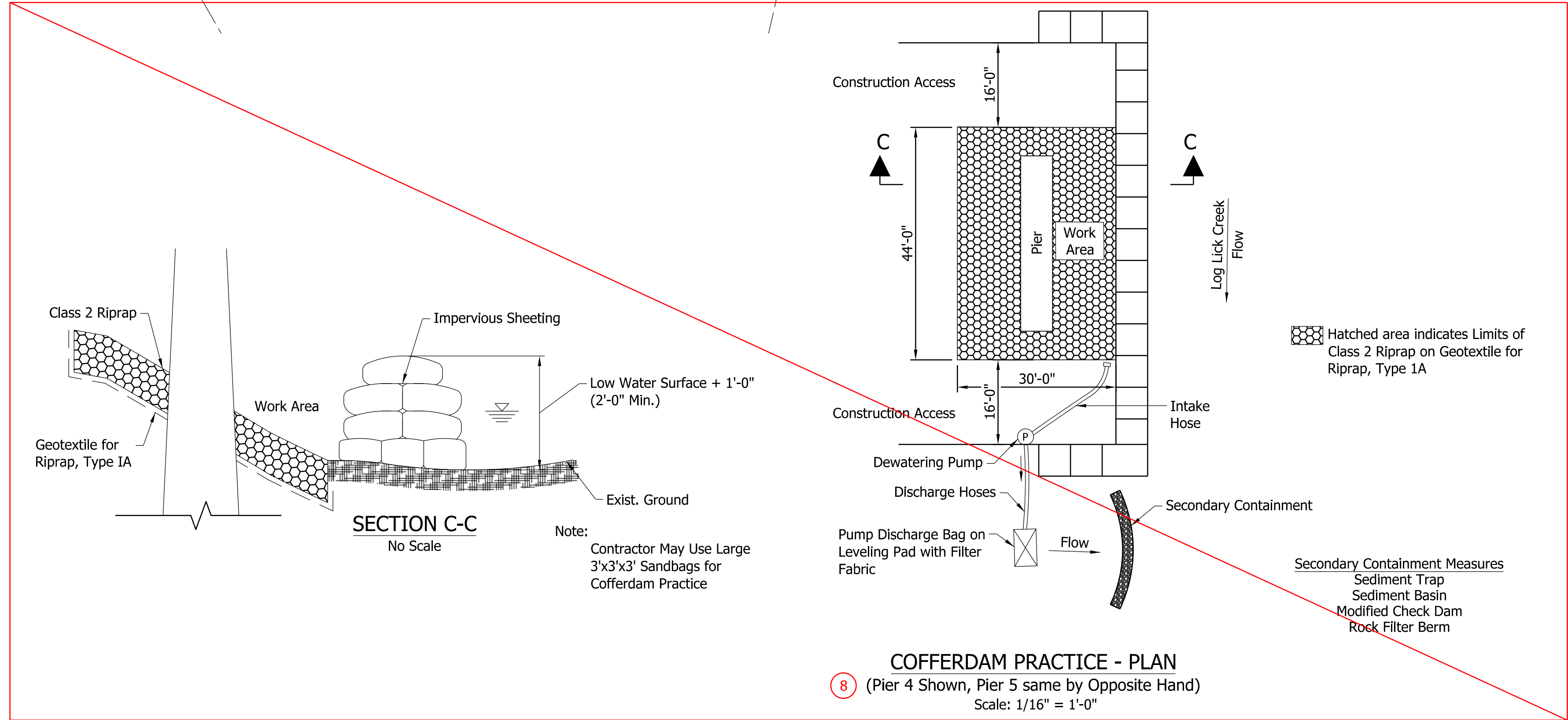
The purpose of the Erosion Control Plan sheet is to facilitate Engineering and Construction by providing topo, alignment data, R/W, and proposed temporary erosion control measures from Beginning to End of Project.



Typ. Plan Text:  
Dimensions: 12 Pt Text  
Callouts: 12 Pt Text  
Labels: 12 Pt Text

**REQUIRED ELEMENTS:**

- 1 Existing Topography (Contours not shown)
- 2 Horizontal Alignment and Annotations, Including Curve Data as Needed
- 3 Begin/End of Project
- 4 Construction Limits
- 5 Existing and Proposed Right of Way
- 6 Permanent Erosion Control Measures
- 7 Temporary Erosion Control Measures
- 8 Erosion Control Details (as needed)
- 9 North Arrow
- 10 Sheet Scales
- 11 Existing Property Owners
- 12 Township, Range, Civil Township, and County
- 13 Legend
- 14 Notes
- 15 Signature Block and PE Seal

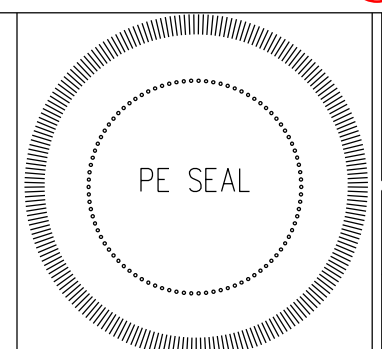


Details for cofferdams, causeways and other non-erosion control related temporary works should be included with the approved environmental permits in the Final Tracings submission and not in the design plans.

**13 LEGEND**

- Temporary Silt Fence
- EC Erosion Control Blankets
- [Hatched Pattern] Retevment Riprap on Geotextile for Riprap Type 1A
- [Diagonal Pattern] Class 1 or 2 Riprap on Geotextile for Riprap Type 1A
- [Dotted Pattern] Sodding

14 Notes:  
Erosion Control Blankets are to be used on side slopes steeper than 3:1.  
Install Temporary Inlet Protection at existing deck drains during construction.



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
DESIGNED: ABC	DRAWN: PQR	DATE
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

**EROSION CONTROL PLAN  
LINE "K"**

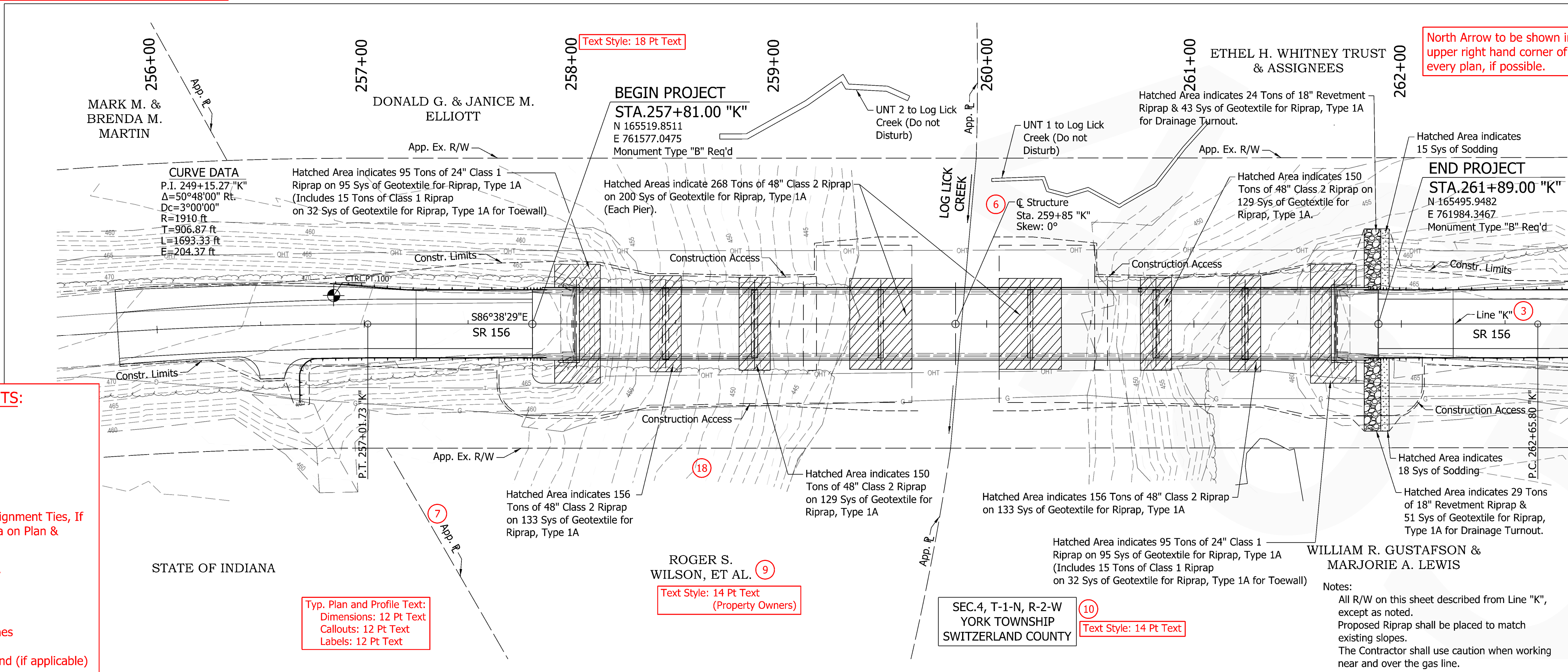
10 HORIZONTAL SCALE	BRIDGE FILE
1" = 30'	156-78-00000 B
10 VERTICAL SCALE	DESIGNATION
1" = 10'	9999999
	SHEET
	8 of 71
CONTRACT	PROJECT
B-00000	0000000

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text

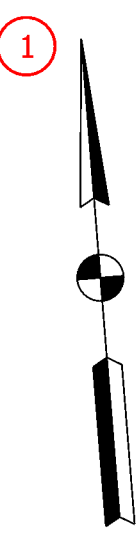


**PURPOSE:**  
 The purpose of the Layout sheet is to show the bridge construction details in relationship to the existing topography, and property owners, as well as hydraulic data and earthwork estimates.

- REQUIRED ELEMENTS:**
- North Arrow
  - Sheet Scales
  - Line Designation
  - Reference Points, Alignment Ties, If Not Identical to Data on Plan & Profile Sheet
  - Existing Topography
  - Skew Angle
  - Existing Property Lines
  - Temporary Runaround (if applicable)
  - Property Owners
  - Township, Range, Civil Township, and County
  - Profile Grade Data (Existing & Proposed)
  - Begin and End Stations for Structure Limits
  - Stations (on profile grid)
  - Elevations (Existing and Proposed)
  - Indication of Existing Structure
  - Hydraulic Data, Hydraulic Scour Data, and Earthwork Tabulation
  - Project Title  
 - Superstructure Type  
 - No. of Spans  
 - Span Lengths  
 - Skew  
 - Clear Roadway Width  
 - Route/Crossing  
 - County
  - Existing Contours at 1' with Labels at 5'



North Arrow to be shown in upper right hand corner of every plan, if possible.



**15 EXISTING STRUCTURE**  
 Existing Structure is a 3-Span Continuous Non-Composite Steel Beam Bridge (60'-0", 72'-0", 60'-0") with two 2-Span Reinforced Concrete Girder Approach Spans (4 @ 40'-0"). Structure Number 156-78-00000 A (To Be Rehabilitated)

**16 HYDRAULIC SCOUR DATA**

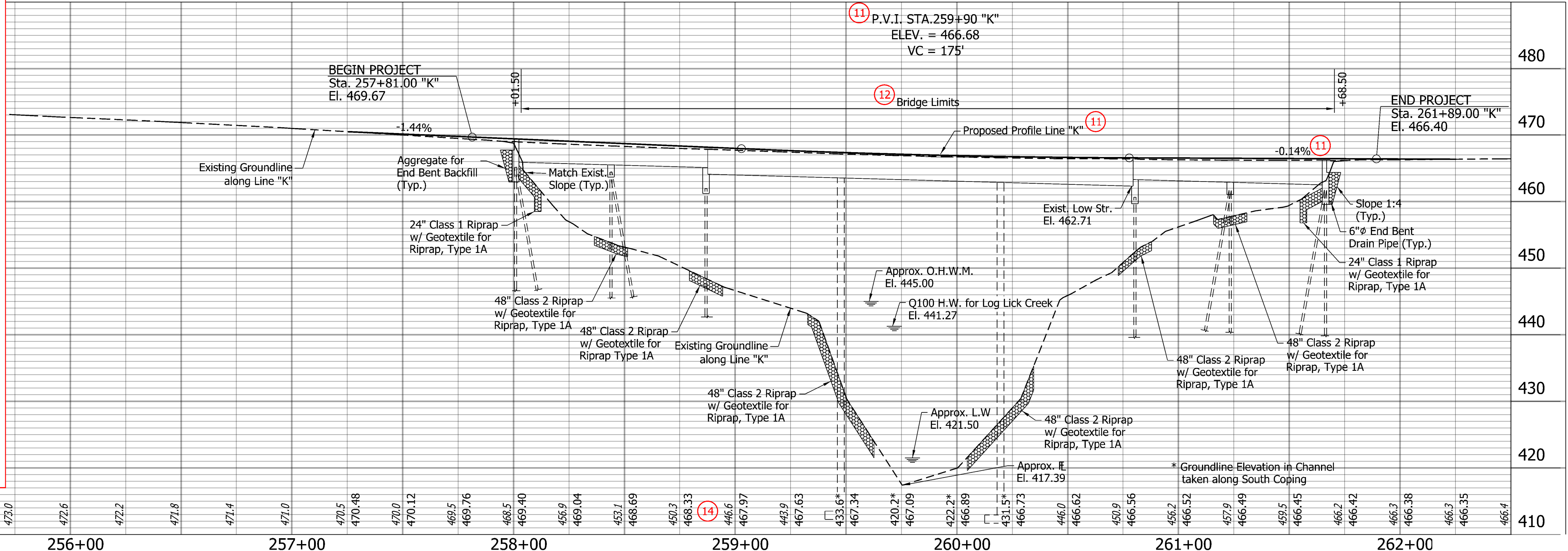
Drainage Area	23.7 Sq. Mi
Design Discharge, Q100	9,460 cfs
High Water Elevation, Q100	El. 441.27
Contraction Scour, Q100	1.36 ft
Total Scour, Q100	12.85 ft
Flowline Elevation	El. 417.39
Low Scour Elev., Q100	El. 404.54
Max. Velocity, Q100	11.26 ft/sec
Avg. Velocity, Q100	8.27 ft/sec

**16 EARTHWORK SUMMARY**

Common Excavation	300 Cys
Usable Common Excavation (50%)	150 Cys
Fill + 25%	160 Cys
Borrow	10 Cys

The estimated quantities for Benching are 105 Cys for Cut and 130 Cys for Fill and are not included in the Earthwork Summary.

Typ. All Notes Blocks:  
 Titles: 18 Pt Text  
 Section Headings: 14 Pt Text  
 Notes Body: 12 Pt Text



Profile Grid Labels:  
 Elevations: 18 Pt Text  
 Stations: 18 Pt Text  
 Existing Grade: 12 Pt Text  
 (Existing Elevations) (Italics)  
 Proposed Grade: 12 Pt Text

Text Style: 18 Pt Text

**17 CONTINUOUS COMPOSITE STEEL BEAM BRIDGE**  
 7 SPANS: UNIT 1: 43'-0" & 42'-3"  
 UNIT 2: 60'-0", 72'-0" & 60'-0"  
 UNIT 3: 42'-3" & 43'-0"  
 33'-4" CLEAR ROADWAY SKEW: SQUARE  
 SR 156 OVER LOG LICK CREEK  
 SWITZERLAND COUNTY

	RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i> DESIGN ENGINEER MM/DD/YY DATE	INDIANA DEPARTMENT OF TRANSPORTATION  <b>LAYOUT LINE "K"</b>	<b>2</b> HORIZONTAL SCALE 1" = 30' BRIDGE FILE 156-78-00000 B
	DESIGNED: ABC	DRAWN: PQR		<b>2</b> VERTICAL SCALE 1" = 10' DESIGNATION 9999999
	CHECKED: BCD	CHECKED: RST		SHEET 11 of 71
				CONTRACT B-00000 PROJECT 0000000

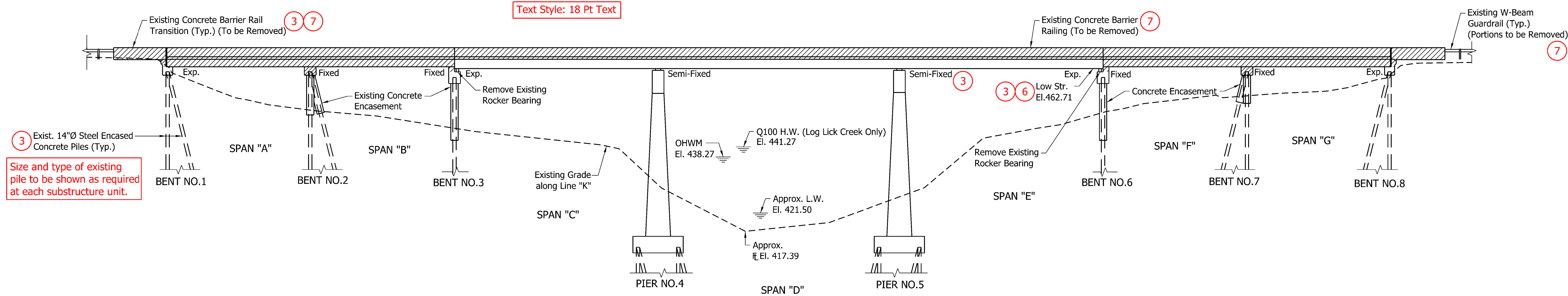
Title Block Text:  
 Labels: 10 Pt Text  
 Signature: 12 Pt Text



**PURPOSE:**

The purpose of this General Plan - Existing is to show necessary information about the existing structure including removal limits.

STRUCTURE BUILT ON A 400' VERTICAL CURVE



3 Exist. 14"Ø Steel Encased Concrete Piles (Typ.)  
Size and type of existing pile to be shown as required at each substructure unit.

Text Style: 18 Pt Text

Typ. All Views:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

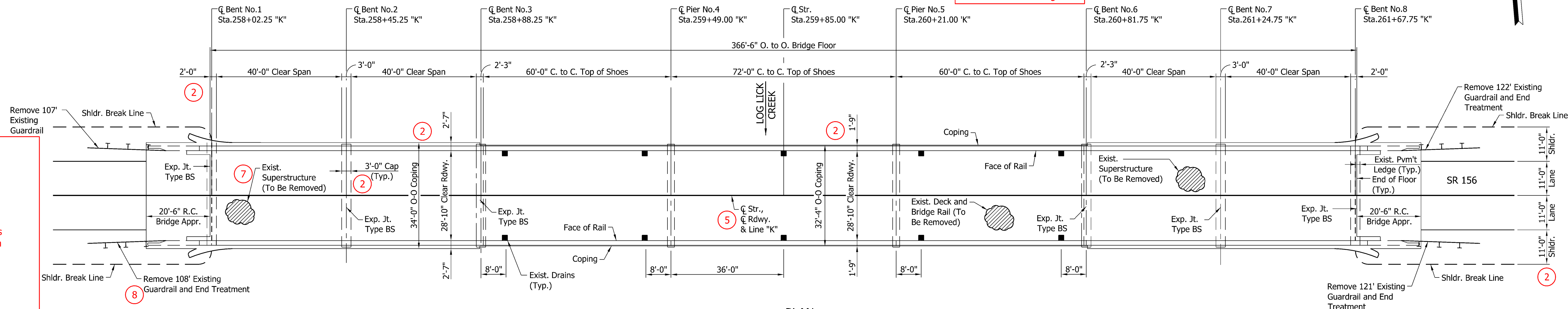
ELEVATION 3  
Scale: 1/16" = 1'-0"

North Arrow to be shown in upper right hand corner of every plan view, if possible.

Bent No. and Station to be shown at each existing bent.

**REQUIRED ELEMENTS:**

- 1 North Arrow
- 2 Plan
  - Superstructure Dimensions
  - Substructure Dimensions
  - Bridge Approach Dimensions
  - Lane/Shoulder Configuration
- 3 Elevation
  - Pile Size and Type
  - Substructure Fixity
  - Low Structure El.
  - Bridge Railing
- 4 Title (Existing Structure)
  - Superstructure Type
  - No. of Spans
  - Span Lengths
  - Skew
  - Clear Roadway Width
  - Route/Crossing
  - County
- 5 Line Designation
- 6 Clearances
  - Low Structure Elevation for Waterway Crossing
  - Min. Clearance (Vertical and Horizontal) and Point of Minimum Clearance in Plan View for Street or Railroad Crossing
- 7 Limits of Existing Structure Removal
- 8 Limits of Guardrail and Pavement Removal
- 9 Signature Block and PE Seal

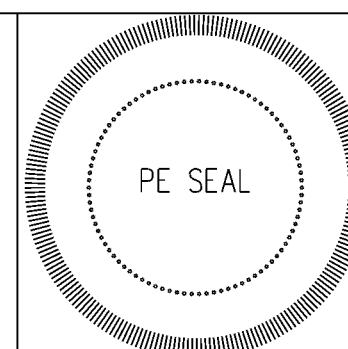


PLAN  
Scale: 1/16" = 1'-0"

Notes:  
For Typical Section, Design Data & General Notes, See Sht. 14.  
Hatched areas indicate Portions to be Removed.

CONTINUOUS STEEL BEAM (MAIN) AND REINFORCED CONCRETE GIRDER (APPROACH) BRIDGE  
 7 SPANS: UNIT 1: 2 @ 40'-0"  
 UNIT 2: 60'-0", 72'-0" & 60'-0"  
 UNIT 3: 2 @ 40'-0"  
 28'-10" CLEAR ROADWAY SKEW: SQUARE  
 SR 156 OVER LOG LICK CREEK  
 SWITZERLAND COUNTY

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

GENERAL PLAN  
EXISTING

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
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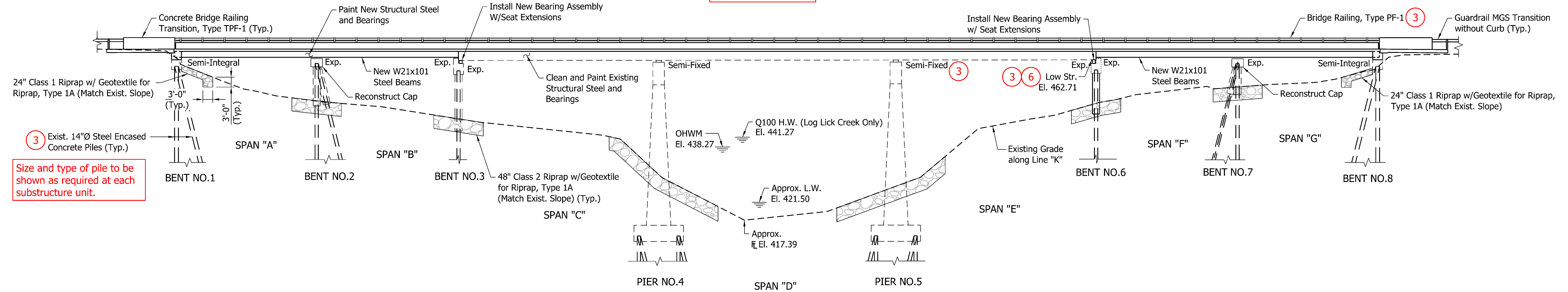


**PURPOSE:**

The purpose of this General Plan - Proposed is to show necessary information to proceed with the final detail drawings.

**STRUCTURE BUILT ON A 175' VERTICAL CURVE**

Text Style: 18 Pt Text



Typ. All Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

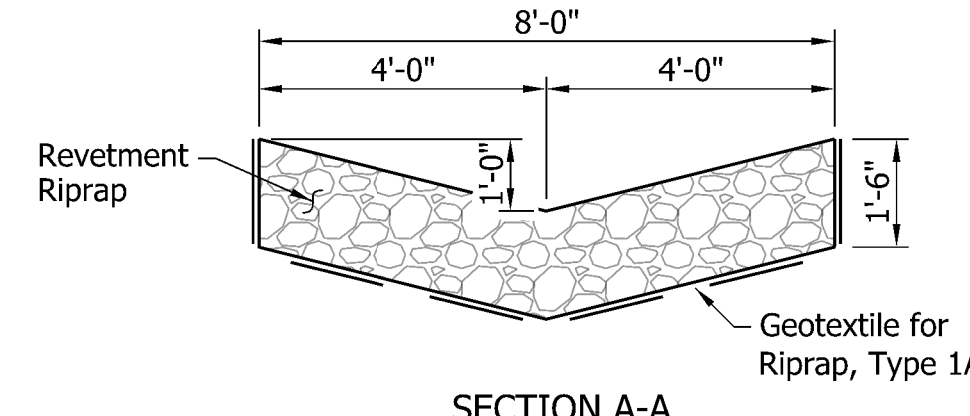
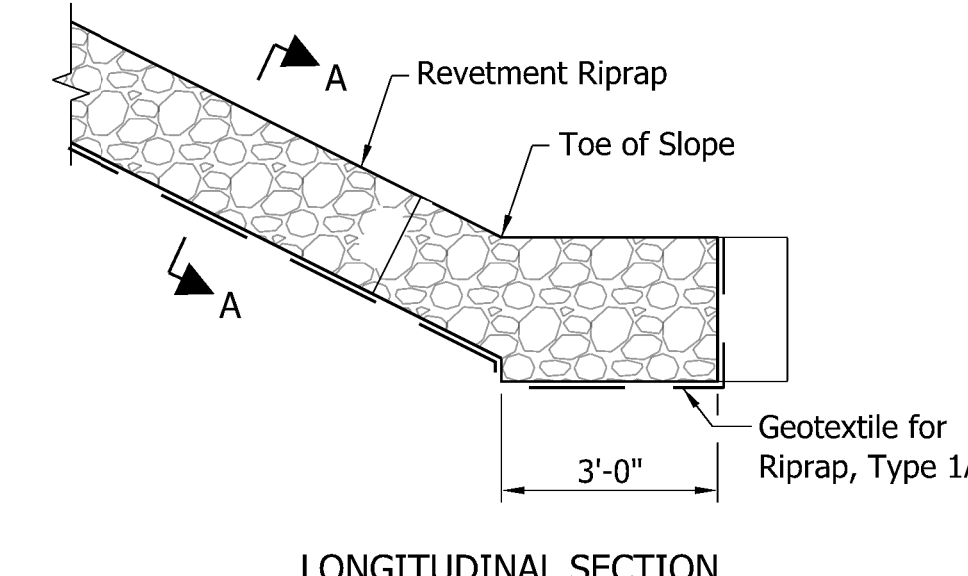
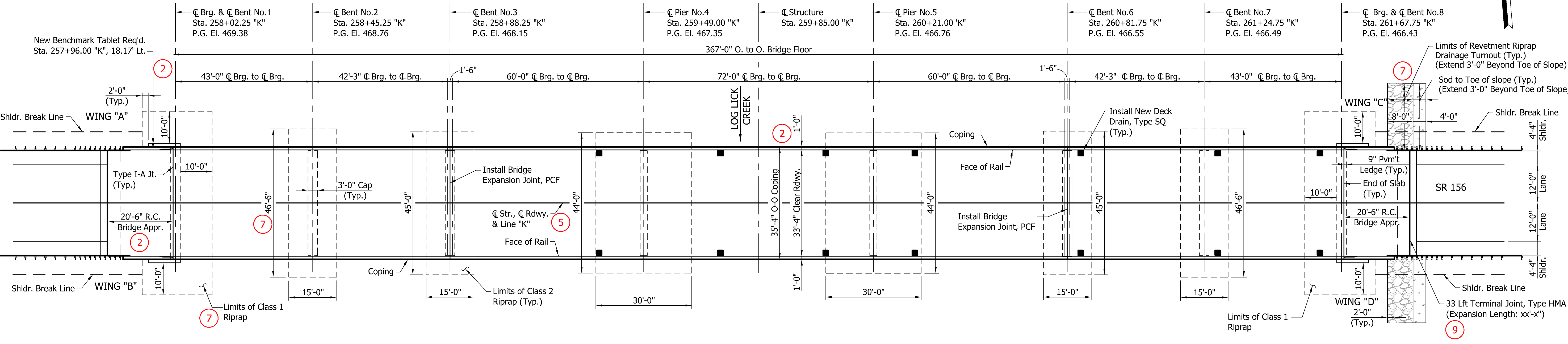
**ELEVATION**  
Scale: 1/16" = 1'-0"

Bent No., Station, & Profile Grade  
Elevation to be shown at each bent.

North Arrow to be shown in upper right hand corner of every plan view, if possible.

**REQUIRED ELEMENTS:**

- 1 North Arrow
- 2 Plan
  - Superstructure Dimensions
  - Substructure Dimensions
  - Bridge Approach Dimensions
  - Lane/Shoulder Configuration
- 3 Elevation
  - Pile Size and Type
  - Substructure Fixity
  - Low Structure El.
  - Bridge Railing
- 4 Title (Proposed Structure)
  - Superstructure Type
  - No. of Spans
  - Span Lengths
  - Skew
  - Clear Roadway Width
  - Route/Crossing
  - County
- 5 Line Designation
- 6 Clearances
  - Low Structure Elevation for Waterway Crossing
  - Min. Clearance (Vertical and Horizontal) and Point of Minimum Clearance in Plan View for Street or Railroad Crossing
- 7 Limits of Proposed Slope/Scour Protection
- 8 Proposed Deck Drain Locations
- 9 Terminal Joint Information
- 10 Signature Block and PE Seal



**RIPRAP DRAINAGE TURNOUT DETAIL**  
Scale: 3/8"=1'-0"

**PLAN**  
Scale: 1/16" = 1'-0"

**DECK DRAIN LOCATIONS (Each Coping)**

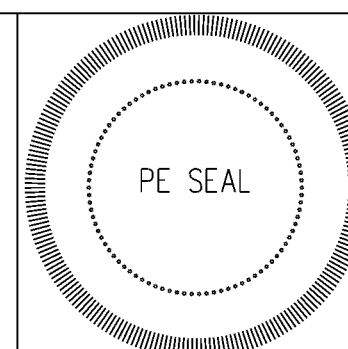
Station
* 259+35.00 "K"
* 259+73.00 "K"
* 260+06.00 "K"
* 260+34.00 "K"
* 260+86.00 "K"
261+29.00 "K"
261+61.00 "K"

\* Drains connect to Bridge Drainage System, For details see Sht 44.

Text Style: 18 Pt Text 4 CONTINUOUS COMPOSITE STEEL BEAM BRIDGE  
7 SPANS: UNIT 1: 43'-0" & 42'-3"  
UNIT 2: 60'-0", 72'-0" & 60'-0"  
UNIT 3: 42'-3" & 43'-0"  
33'-4" CLEAR ROADWAY SKEW: SQUARE  
SR 156 OVER LOG LICK CREEK  
SWITZERLAND COUNTY

Note: For Typical Section, Design Data & General Notes, See Sht 14.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA DEPARTMENT OF TRANSPORTATION  
**GENERAL PLAN PROPOSED**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
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CONTRACT	PROJECT
B-00000	0000000



**PURPOSE:**

The purpose of the General Plan - Typical Section is to show necessary information to proceed with the final detail drawings.

**REQUIRED ELEMENTS:**

- 1 Existing Typical Section
- 2 Proposed Typical Section
- 3 Structure Dimensions
  - Lane/Shoulder Configuration
  - O. to O. Coping
  - Clear Roadway
  - Beam Spacing
  - Guardrail Type and Height
- 4 Limits of Removal
- 5 Limits of Surface Seal
- 6 Deck Drains
- 7 General Notes
- 8 Tie New Survey to Existing Plans
- 9 Indication of Existing Structure
- 10 Design Data
- 11 Construction Loading Data
- 12 Seismic Design Data
- 13 Jacking Loads (when temporary support of the existing structure is required)
- 14 Title (Proposed Structure)
  - Superstructure Type
  - No. of Spans
  - Span Lengths
  - Skew
  - Clear Roadway Width
  - Route/Crossing
  - County
- 15 Line Designation
- 16 Signature Block and PE Seal

**7 GENERAL NOTES**

Reinforcing steel covering shall be 2 1/2" in top and 1" minimum in the bottom of the floor slabs and 2" in all other parts unless noted.

All exposed faces of wing walls, tops of pier caps and concrete railing shall be sealed in accordance with Article 702.21 of Specifications. Estimated Quantity = 4,454 Sft.

Portions of Present Structure to be removed.

8 Data shown for existing bridge and subsequent geometry for proposed structure taken from original structure plans. Due to the unknown original datum from the existing plans, the Q100 Elevation from the hydraulics and the Low Water Elevation from the existing plans were adjusted by 1.33' which is the approximate difference between the bridge seat elevations from the existing plans versus the 2019 survey.

9 Plans for existing structure are on file in the Research and Document Section at the Indiana Department of Transportation, as Bridge File No. 156-78-03115 and are available upon request. The existing bridge was built and alignment was established under Project No. S-33(5) and Contract No. 4418.

Where new work is to be fitted to old work, the Contractor shall check and verify all dimensions, elevations, and conditions in the field and report any errors or discrepancies to the Engineer and assume responsibility for their correctness and the fit of the new construction to the existing structure.

**10 DESIGN DATA**

**LIVE LOAD**

Originally designed for H20-S16-44 loading in accordance with 1953 AASHTO Specifications.

New Deck, New Steel Beams in Approach Spans, and reconstructed bent caps designed for HL-93 loading in accordance with the AASHTO LRFD Bridge Design Specifications, Ninth Edition, 2020.

Existing Steel Beams in Main Spans checked for HS20-44 loading with impact and distribution of loads, in accordance with 2002 AASHTO Standard Specifications.

**DEAD LOAD**

Actual weight plus 35 psf (composite) for future wearing surface and 15 psf for permanent metal deck forms.

**FLOOR SLAB**

Designed with a 7 1/2" structural depth plus 1/2" sacrificial wearing surface.

**DESIGN STRENGTHS**

To be in accordance with AASHTO LRFD Bridge Design Specifications, Ninth Edition, 2020.

**CONCRETE**

Class "C": f'c=4000 psi  
Class "A": f'c=3500 psi

**REINFORCING STEEL**

Grade 60: fy=60,000 psi

**STRUCTURAL STEEL**

All new Structural Steel to be ASTM A709 Grade 50 unless otherwise noted.  
Existing Structural Steel Fy=36 ksi as indicated in existing plans.

**12 SEISMIC DATA**

AASHTO Guide Specifications for LRFD Seismic Bridge Design, Second Edition, 2011 and Interims through 2015.

Seismic Design Category "A"  
S1 = 0.052g  
Site Class D (Assumed)  
Fv = 2.4

**LEGEND**

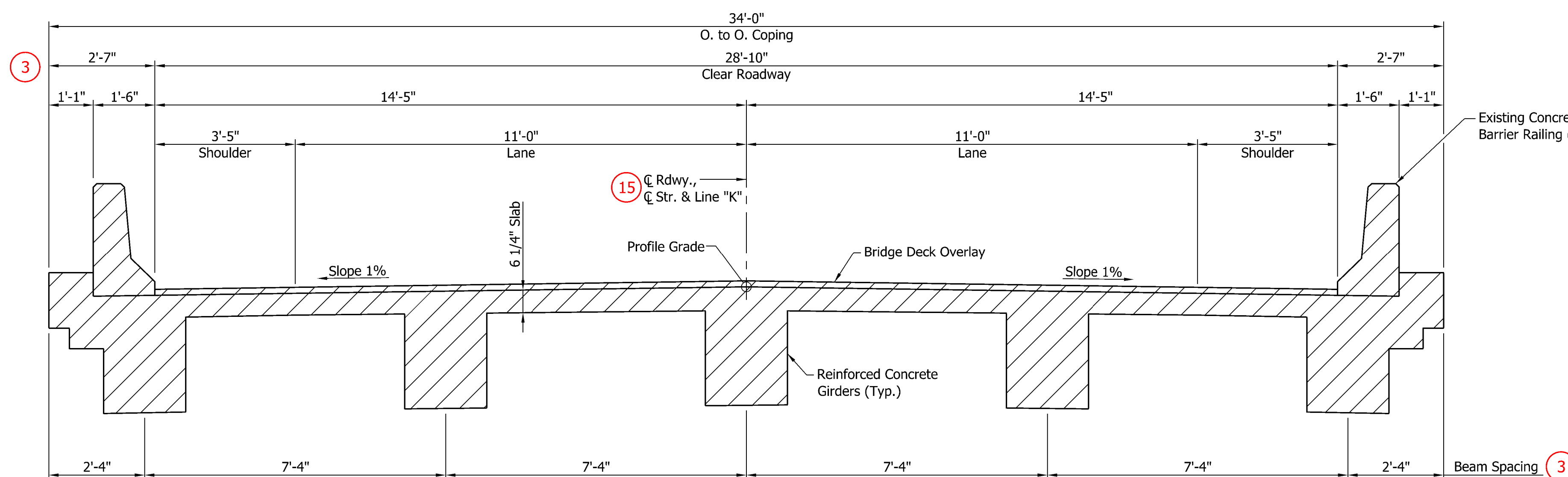
- 34 Line, Multi-Component, Solid, White, 4 in.
- 35 Line, Multi-Component, Solid, Yellow, 4 in.

11 13 Note: For Construction Loading & Jacking Loads, See Sht. 15.

**14 CONTINUOUS COMPOSITE STEEL BEAM BRIDGE**

7 SPANS: UNIT 1: 43'-0" & 42'-3"  
UNIT 2: 60'-0", 72'-0" & 60'-0"  
UNIT 3: 42'-3" & 43'-0"

33'-4" CLEAR ROADWAY SKEW: SQUARE  
SR 156 OVER LOG LICK CREEK  
SWITZERLAND COUNTY

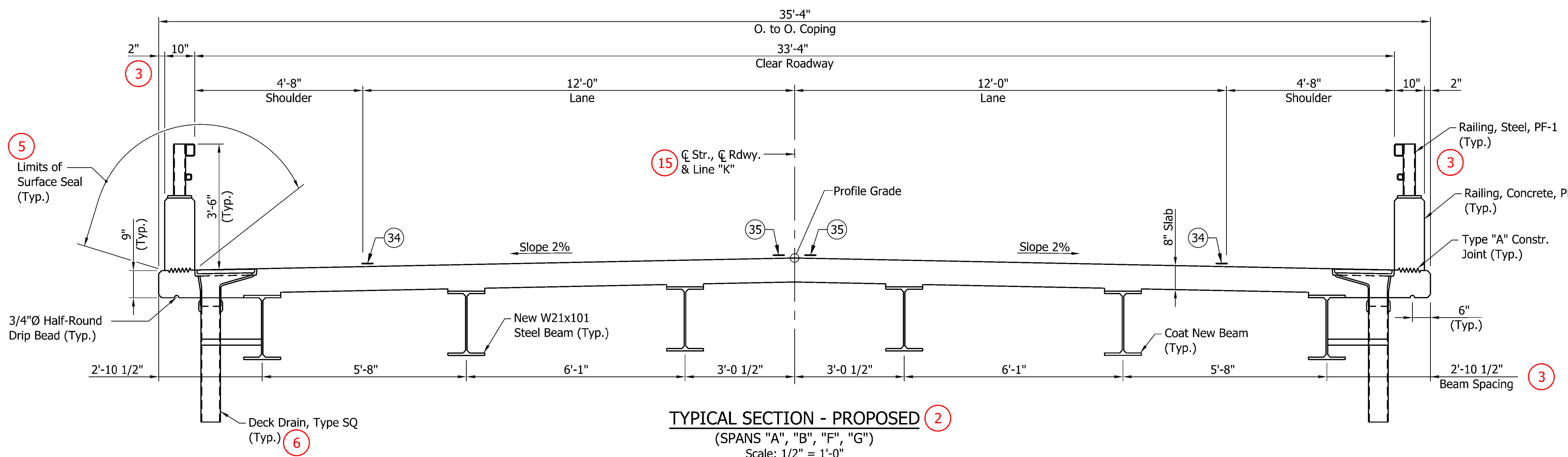


Typ. All Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

**TYPICAL SECTION - EXISTING 1**

(SPANS "A", "B", "F", "G")  
Scale: 1/2" = 1'-0"

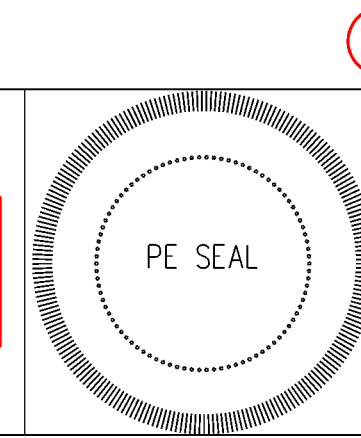
4 Notes:  
Hatched areas indicate Portions to be Removed.  
Concrete Girder spans shall be removed outside of bat roosting season unless exclusionary measures are taken. (See Special Provisions.)



**TYPICAL SECTION - PROPOSED 2**

(SPANS "A", "B", "F", "G")  
Scale: 1/2" = 1'-0"

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



16

RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

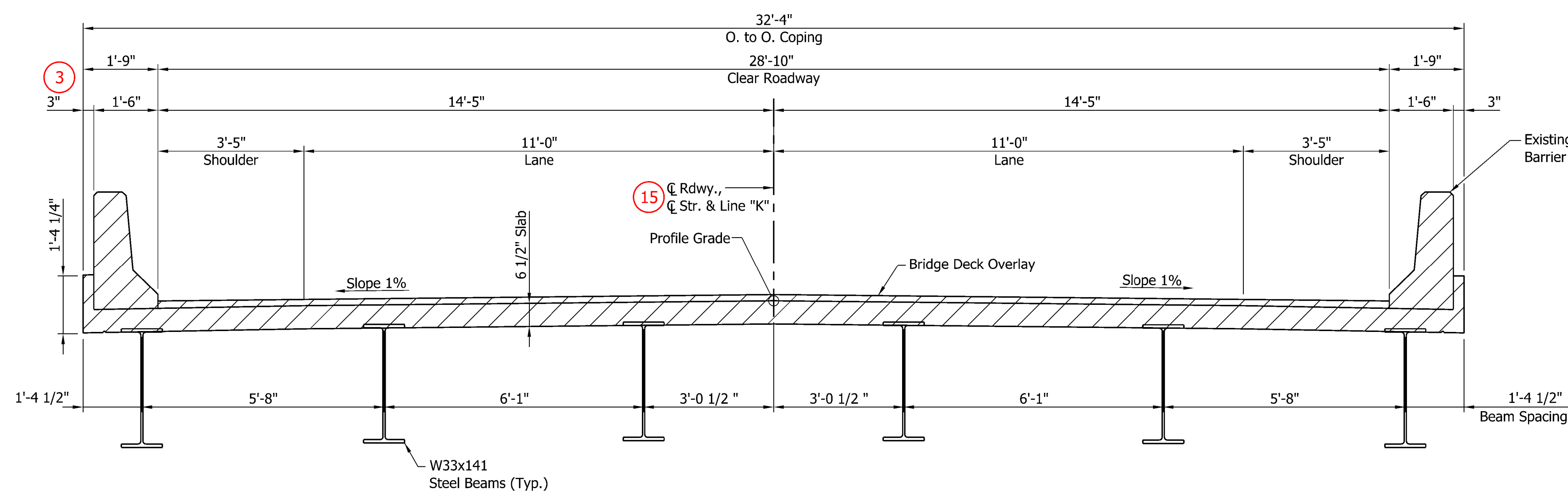
INDIANA DEPARTMENT OF TRANSPORTATION

GENERAL PLAN TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
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CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

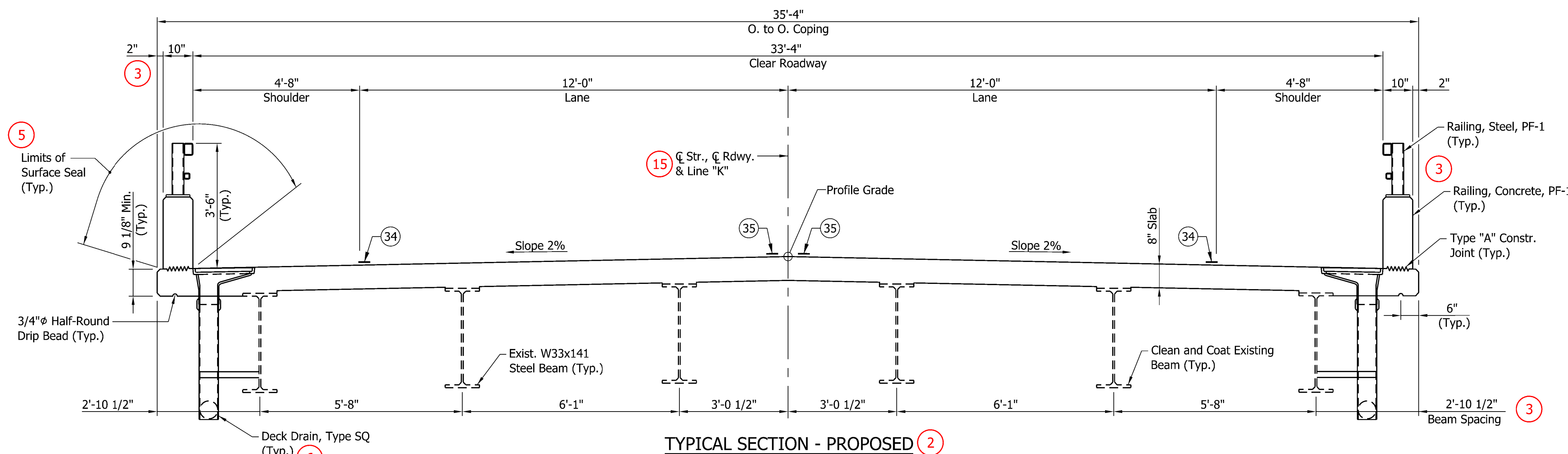
The purpose of the General Plan - Typical Section is to show necessary information to proceed with the final detail drawings.



Typ. All Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

**TYPICAL SECTION - EXISTING**  
(SPANS "C" Thru "E")  
Scale: 1/2" = 1'-0"

Note: Hatched areas indicate Portions to be Removed.



Text Style: 18 Pt Text

**TYPICAL SECTION - PROPOSED**  
(SPANS "C" Thru "E")  
Scale: 1/2" = 1'-0"

Note: For General Notes & Design Data, See Sht. 14.

**LEGEND**

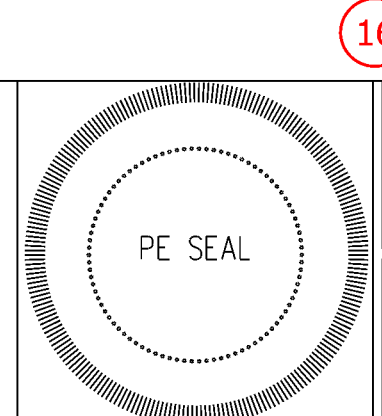
- 34 Line, Multi-Component, Solid, White, 4 in.
- 35 Line, Multi-Component, Solid, Yellow, 4 in.

**14 CONTINUOUS COMPOSITE STEEL BEAM BRIDGE**  
7 SPANS: UNIT 1: 43'-0" & 42'-3"  
UNIT 2: 60'-0", 72'-0" & 60'-0"  
UNIT 3: 42'-3" & 43'-0"  
33'-4" CLEAR ROADWAY SKEW: SQUARE  
SR 156 OVER LOG LICK CREEK  
SWITZERLAND COUNTY

**REQUIRED ELEMENTS:**

- 1 Existing Typical Section
- 2 Proposed Typical Section
- 3 Structure Dimensions  
- Lane/Shoulder Configuration  
- Out to Out Coping  
- Clear Roadway  
- Beam Spacing  
- Guardrail Type and Height
- 4 Limits of Removal
- 5 Limits of Surface Seal
- 6 Deck Drains
- 7 General Notes
- 8 Tie New Survey to Existing Plans
- 9 Indication of Existing Structure
- 10 Design Data
- 11 Construction Loading Data
- 12 Seismic Design Data
- 13 Jacking Loads (when temporary support of the existing structure is required)
- 14 Title (Proposed Structure)  
- Superstructure Type  
- No. of Spans  
- Span Lengths  
- Skew  
- Clear Roadway Width  
- Route/Crossing  
- County
- 15 Line Designation
- 16 Signature Block and PE Seal

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION  
  
GENERAL PLAN  
TYPICAL SECTIONS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
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**11 CONSTRUCTION LOADING**

The exterior beam has been checked for strength, deflection and overturning using the construction loads shown below. Cantilever overhang brackets were assumed for support of the deck overhang past the edge of the exterior beam. The finishing machine was assumed to be supported 6 inches outside the vertical coping form. The top overhang brackets were assumed to be located 6 inches past the edge of the vertical coping form. The bottom overhang brackets were assumed to be braced against the intersection of the beam bottom flange and web. The Contractor shall use blocking or other methods to ensure beam rotation does not occur prior to or during concrete placement on the exterior beam.

**DECK FALSEWORK LOADS**

Designed for 15 psf for permanent metal stay-in-place deck forms, removable deck forms and 2' exterior walkway.

**CONSTRUCTION LIVE LOAD**

Designed for 20 psf Construction Live Load extending 2' past the edge of coping and 75 plf vertical force applied at a distance of 6 inches outside the face of coping over a 30 foot length of deck area centered with the finishing machine.

**FINISHING MACHINE LOAD**

4500 lbs distributed over 10 feet along the coping.

**WIND LOAD**

Designed for 70 mph horizontal wind loading in accordance with AASHTO LRFD 3.8.1.

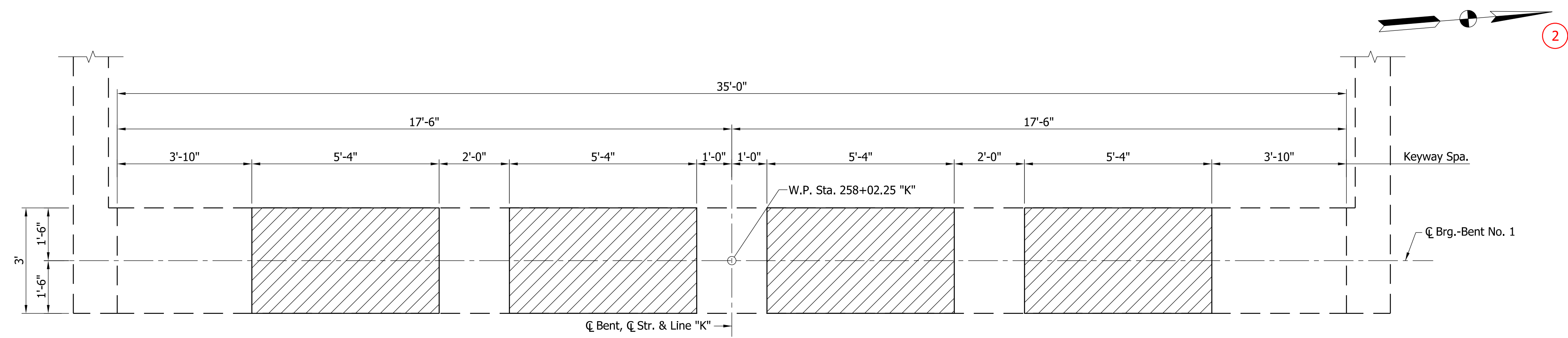
**13 JACKING LOADS**

All beams with bearing replacements shall be jacked simultaneously for each phase an equal amount to a distance no greater than 1/4". No field welding on existing structural steel elements will be permitted. No jacking will be permitted while under traffic. Jacking Load = 5 Kips/ Beam for steel weight only.



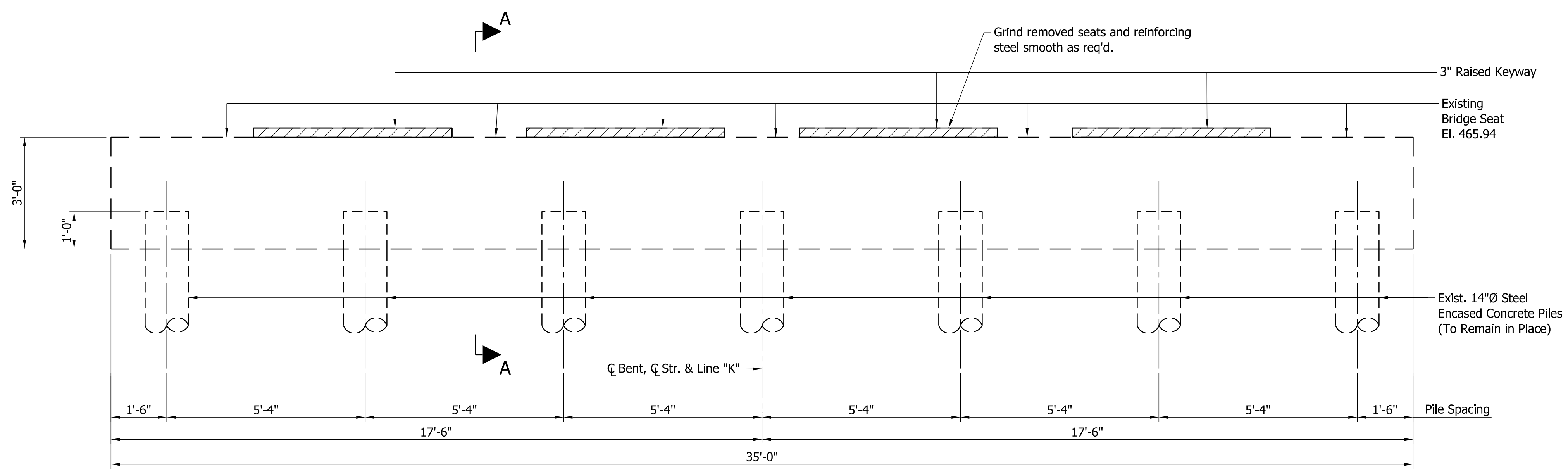
**PURPOSE:**

The purpose of this Bent Removal Details sheet is to show physical dimensions and limits of removal of material on an existing bent/pier.

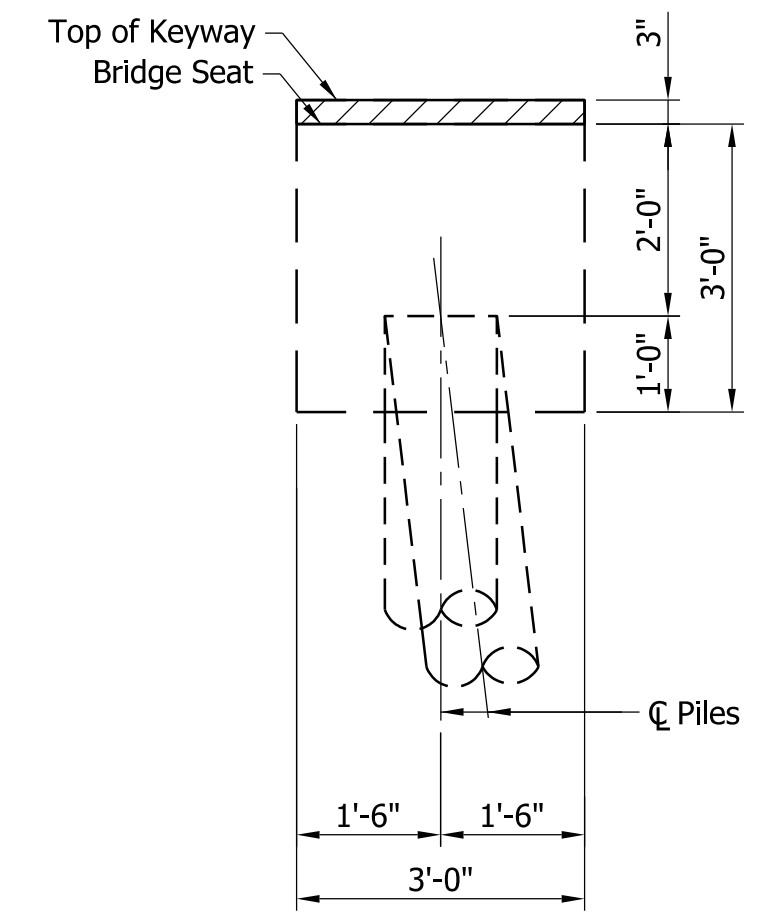


1 **PLAN**  
Scale: 1/2" = 1'-0" Looking Back Station

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



3 **ELEVATION**  
Scale: 1/2" = 1'-0" Looking Back Station

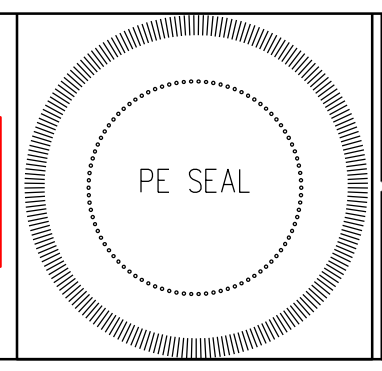


4 **SECTION A-A**  
Scale: 1/2" = 1'-0"

- REQUIRED ELEMENTS:**
- 1 Plan Showing Hatched Removal Limits
  - 2 North Arrow
  - 3 Elevation Showing Hatched Removal Limits
  - 4 Sections as Necessary Showing Hatched Removal Limits
  - 5 Notes
  - 6 Signature Block and PE Seal

5 Notes:  
Hatched areas indicate portions to be removed.  
For General Notes, see Sht. 14.  
For Superstructure Details, see Shts. 42 - 51.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

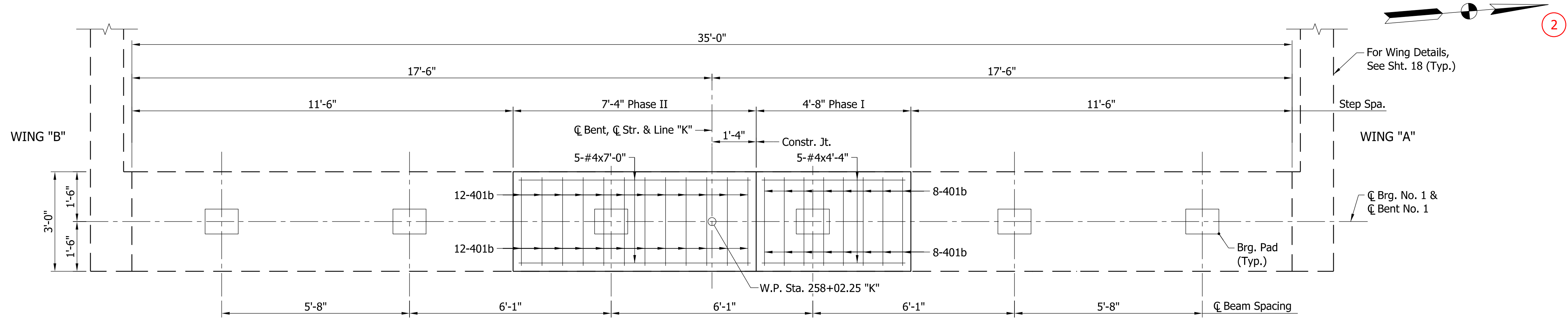
**BENT NO. 1  
REMOVAL DETAILS**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
	9999999
	SHEET
	16 of 71
CONTRACT	PROJECT
B-00000	0000000



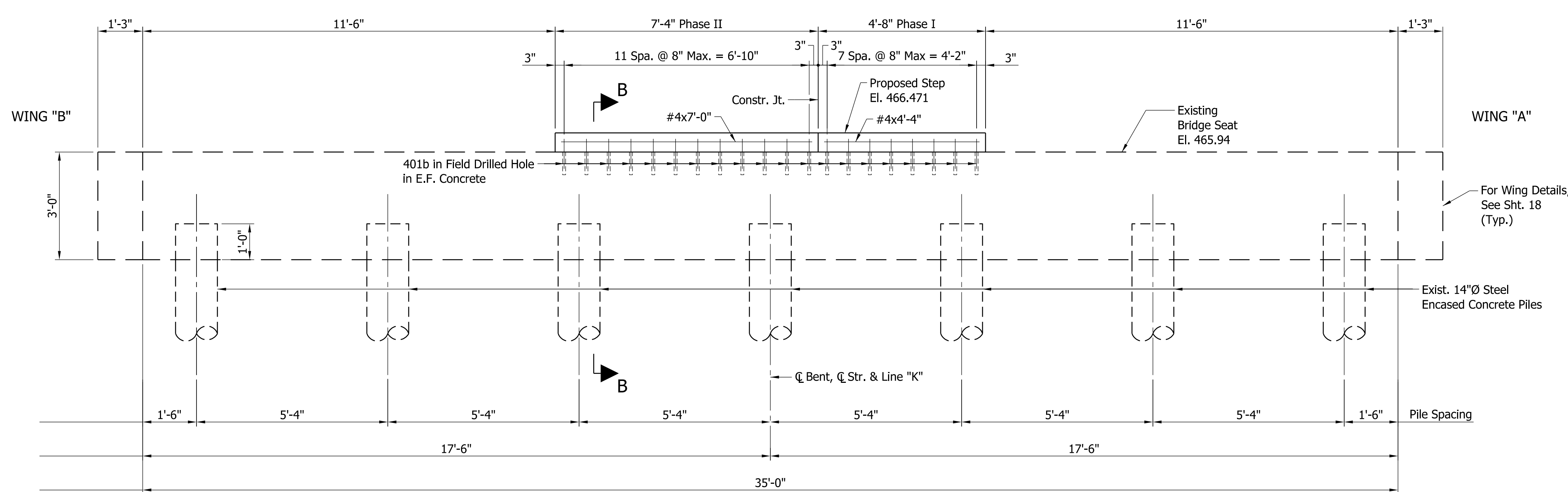
**PURPOSE:**

The purpose of this Bent Reconstruction Details sheet is to show physical dimensions, reinforcement and pertinent information necessary for reconstruction of bent/pier.

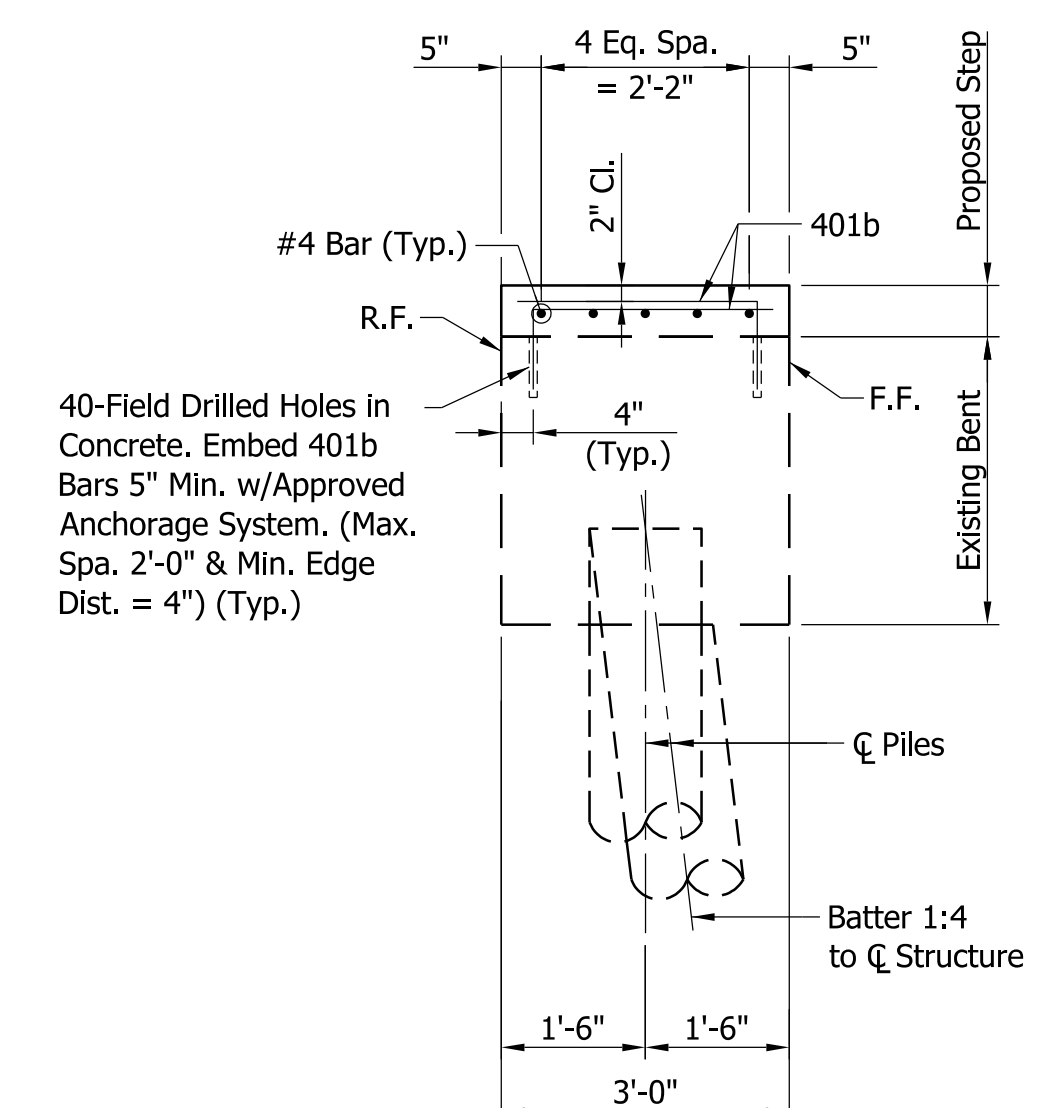


**1 PLAN**  
Scale: 1/2" = 1'-0"  
Looking Back Station

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



**3 ELEVATION**  
Scale: 1/2" = 1'-0"  
Looking Back Station

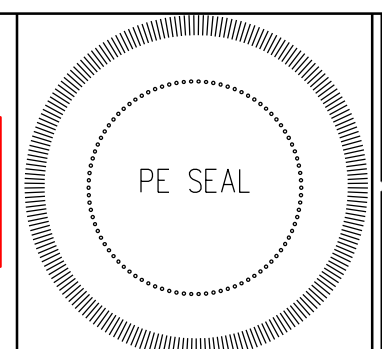


**4 SECTION B-B**  
Scale: 1/2" = 1'-0"

- REQUIRED ELEMENTS:**
- 1 Plan
  - 2 North Arrow
  - 3 Elevation Showing Reinforcing
  - 4 Sections as Necessary
  - 5 Notes
  - 6 Signature Block and PE Seal

- 5 Notes:**
- For General Notes, see Sht. 14.
  - For Removal Details, see Sht. 16.
  - For Bearing Assembly Details, see Sht. 38.
  - For Superstructure Details, see Shts. 42 - 51.
  - For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.
  - For Bar Bending Diagrams and Bill of Materials, see Sht. 18.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

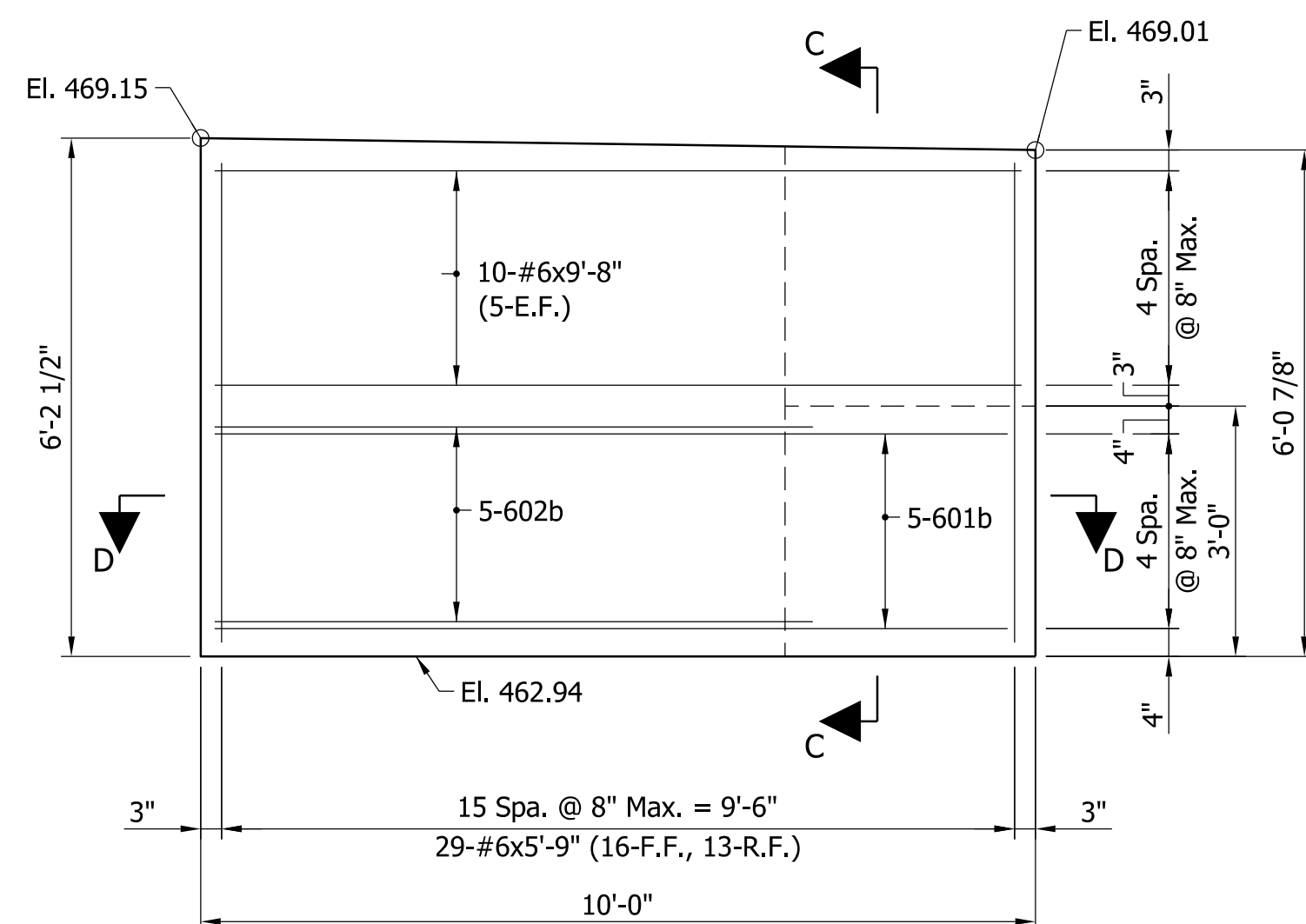
**BENT NO. 1  
RECONSTRUCTION DETAILS**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
	9999999
	SHEET
	17 of 71
CONTRACT	PROJECT
B-00000	0000000

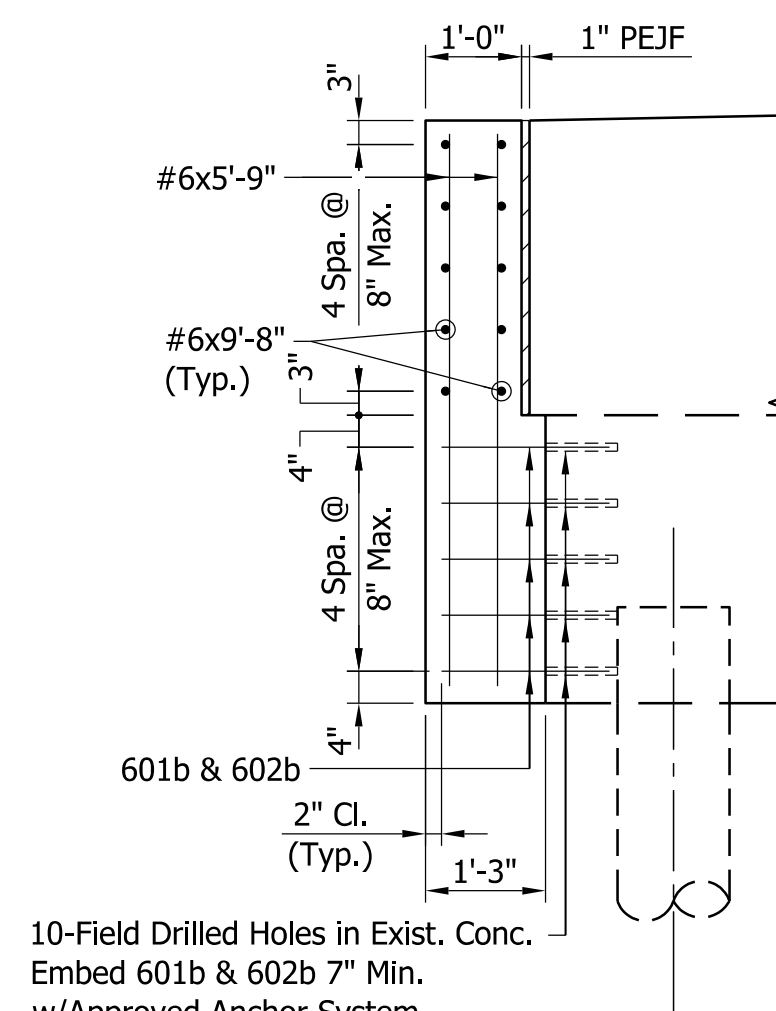


**PURPOSE:**

The purpose of this Bent Reconstruction Details sheet is to show physical dimensions, reinforcement and pertinent information necessary for reconstruction of bent/pier.



**1 WING "B" ELEVATION**  
(Wing "A" Same By Opposite Hand)  
Scale: 1/2" = 1'-0"



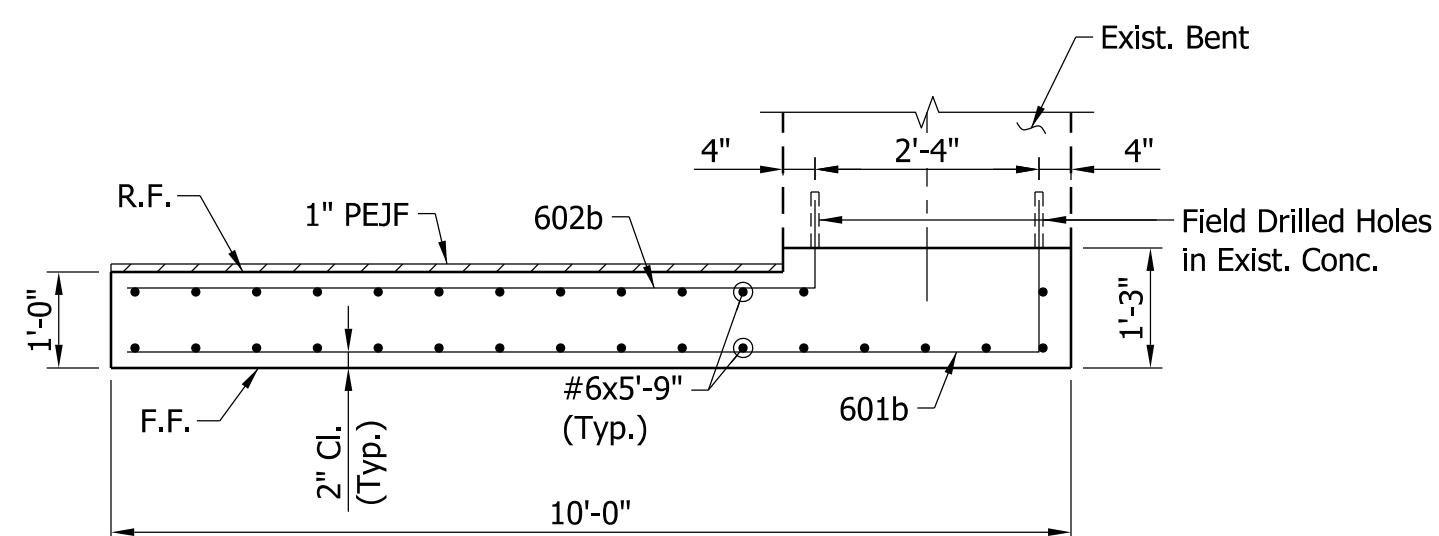
10-Field Drilled Holes in Exist. Conc.  
Embed 601b & 602b 7" Min.  
w/Approved Anchor System  
(Max. Spa. 2'-0" & Min. Edge Dist. = 4") (Typ.) (5 Ea. Fa.)

**SECTION C-C**  
Scale: 1/2" = 1'-0"

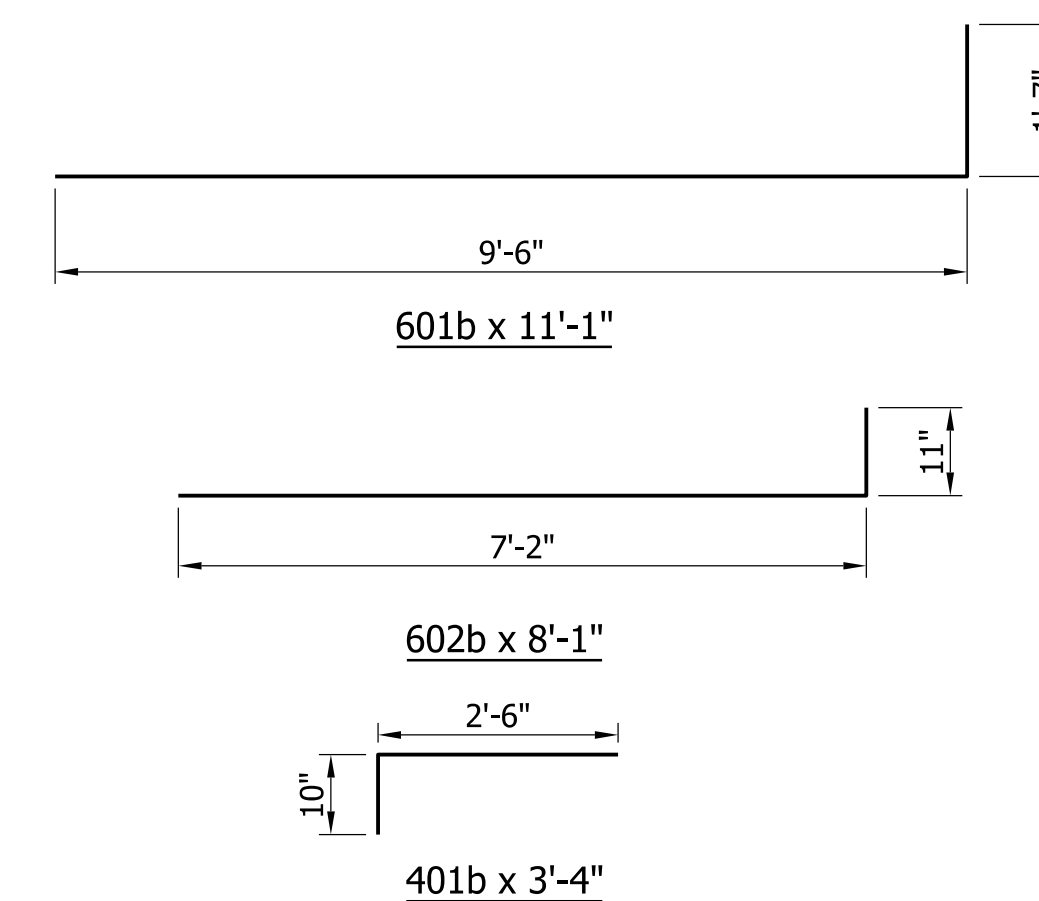
When the construction is to be phased, Bills of Materials should be separated by phase.

BILL OF MATERIALS BENT NO. 1			
REINFORCING BARS			
SIZE or MARK	No. of BARS	LENGTH	WEIGHT (Lbs)
601b	10	8'-1"	
602b	10	11'-1"	
#6	20	9'-8"	
#6	58	5'-9"	
Total #6			1078
401b	40	3'-4"	
#4	5	7'-0"	
#4	5	4'-4"	
Total #4			126
Total Reinforcing Bars			1204
CONCRETE			
Concrete Class "A" in Substructure			
Phase I			2.7 Cys
Phase II			2.8 Cys
Total Concrete "A" in Substructure			5.5 Cys
MISCELLANEOUS			
Field Drilled Hole in Concrete			60 Ea
Aggregate for End Bent Backfill			13 Cys
Pipe, End Bent Drain, 6"			47 Lft
Geotextile for Underdrain, Type 2B			40 Sys
Surface Seal (Est. Quantity)			120 Sft

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



**SECTION D-D**  
Scale: 1/2" = 1'-0"



Bar bending diagrams are not shown to scale. However, they should be drawn to approximate proportions.

**3 BAR BENDING DETAILS**  
Not to Scale

Show bar mark and total length of bar, rounded to nearest 1 in.

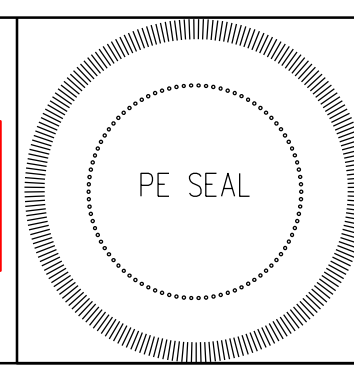
Typ. All Bar Bending Diagrams:  
Title: 18 Pt Text  
Bar Mark Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text  
See IDM 405-2.0 for guidance regarding detailing reinforcing steel.

**REQUIRED ELEMENTS:**

- 1 Wing Elevation
- 2 Sections as Necessary
- 3 Reinforcing Bar Bending Diagrams
- 4 Bill of Materials
- 5 Notes
- 6 Signature Block and PE Seal

Notes:  
For General Notes, see Sht. 14.  
For Removal Details, see Sht. 16.  
For Bearing Assembly Details, see Sht. 38.  
For Superstructure Details, see Shts. 42 - 51.  
For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

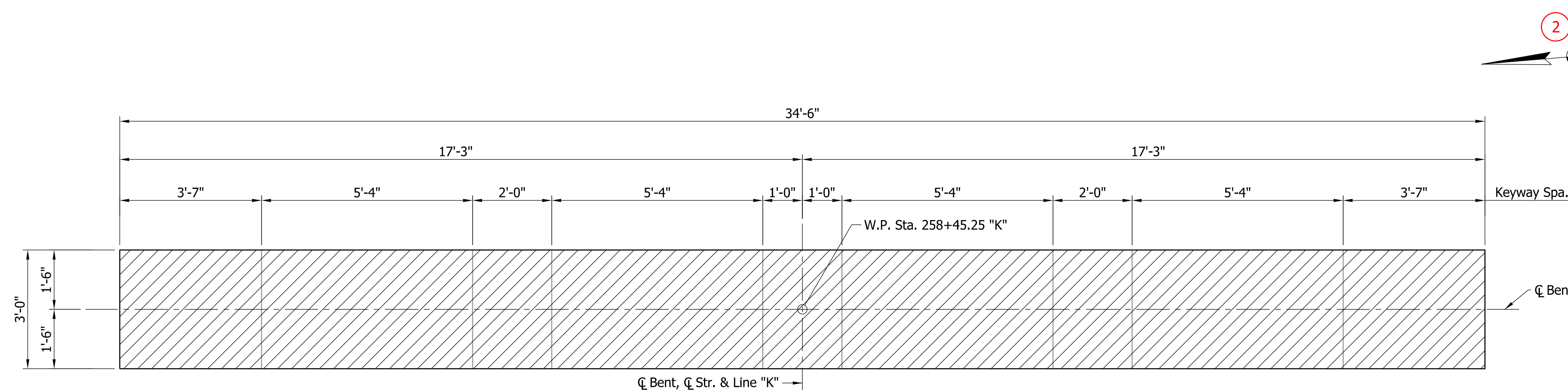
BENT NO.1  
RECONSTRUCTION DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
	9999999
SHEET	
CONTRACT	PROJECT
B-00000	0000000



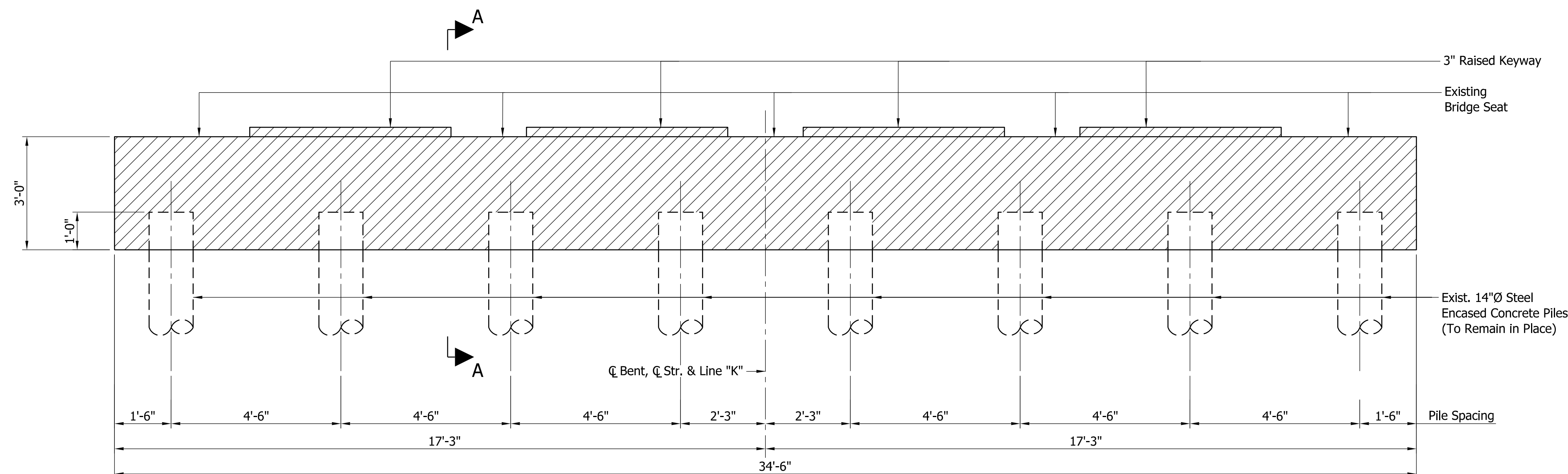
**PURPOSE:**

The purpose of this Bent Removal Details sheet is to show physical dimensions and limits of removal of material on an existing bent/pier.

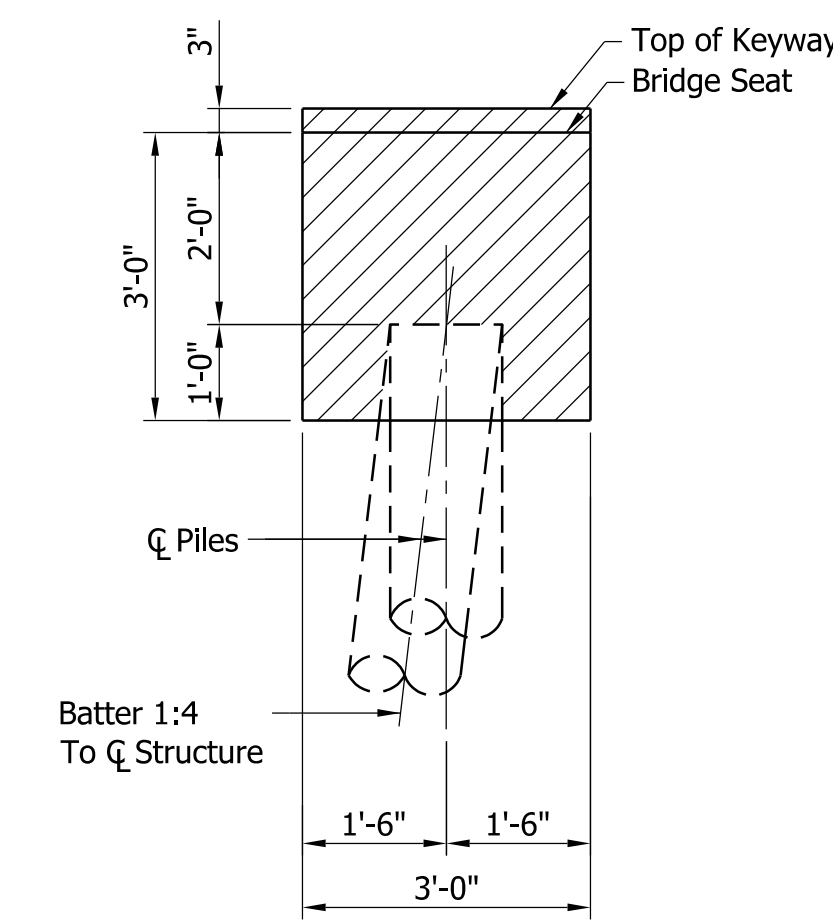


1 PLAN  
Scale: 1/2" = 1'-0" Looking Ahead Station

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



3 ELEVATION  
Scale: 1/2" = 1'-0" Looking Ahead Station



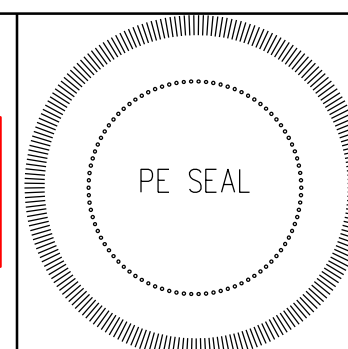
4 SECTION A-A  
Scale: 1/2" = 1'-0"

**REQUIRED ELEMENTS:**

- 1 Plan Showing Hatched Removal Limits
- 2 North Arrow
- 3 Elevation Showing Hatched Removal Limits
- 4 Sections as Necessary Showing Hatched Removal Limits
- 5 Notes
- 6 Signature Block and PE Seal

5 Notes:  
Hatched areas indicate portions to be removed.  
For General Notes, see Sht. 14.  
For Reconstruction Details, see Sht. 20.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

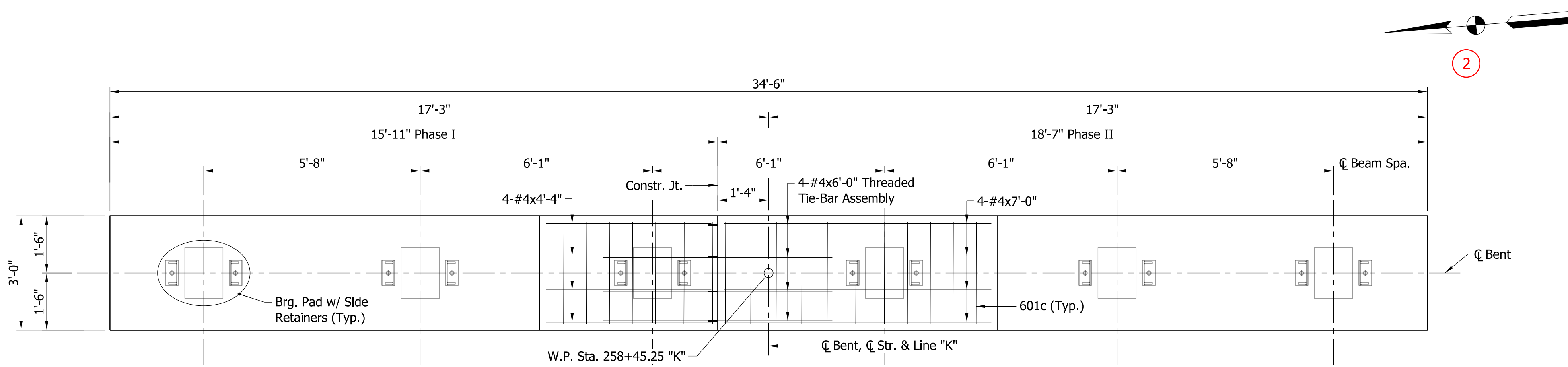
**BENT NO. 2  
REMOVAL DETAILS**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	19 of 71
CONTRACT	PROJECT
B-00000	0000000

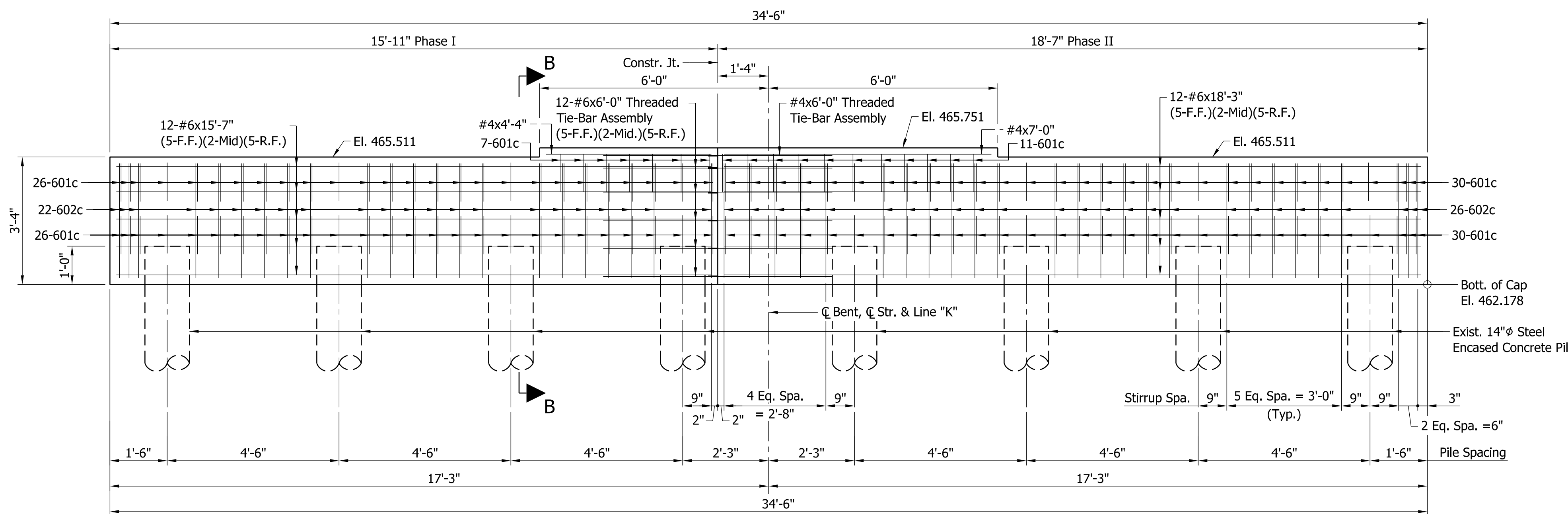


**PURPOSE:**

The purpose of this Bent Reconstruction Details sheet is to show physical dimensions, reinforcement and pertinent information necessary for reconstruction of bent/pier.



Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



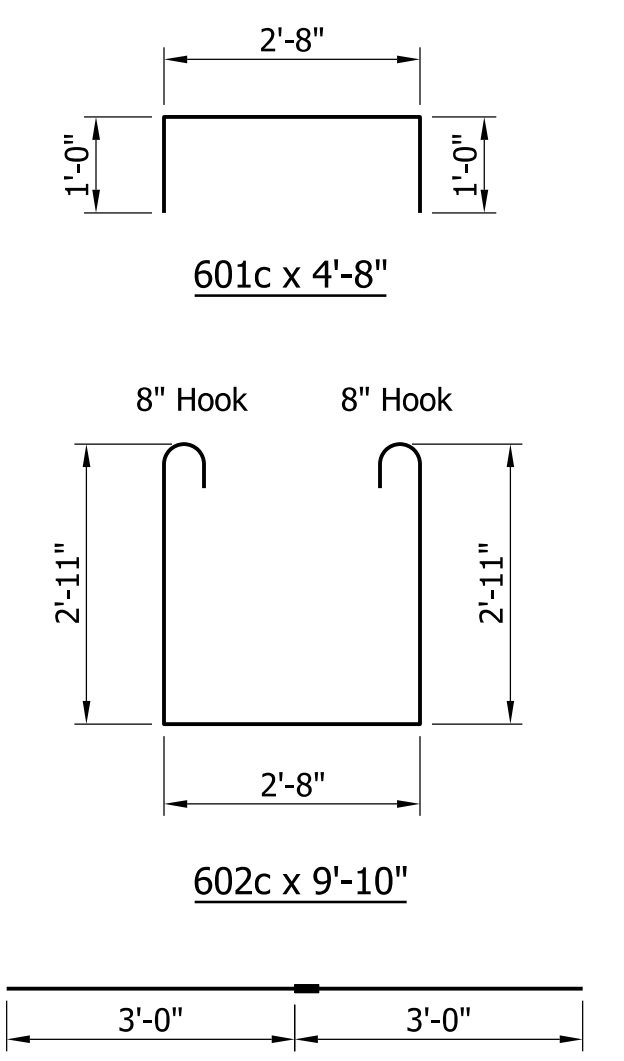
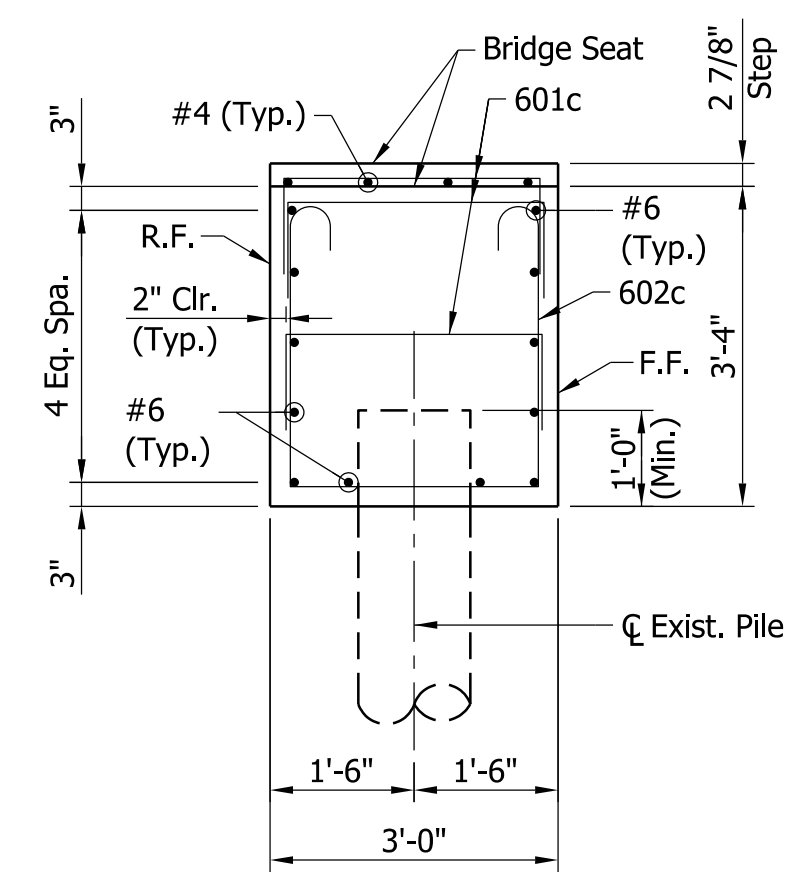
- REQUIRED ELEMENTS:**
- 1 Plan
  - 2 North Arrow
  - 3 Elevation Showing Reinforcing
  - 4 Sections as Necessary
  - 5 Notes
  - 6 Signature Block and PE Seal

**BILL OF MATERIALS  
BENT NO. 2**

REINFORCING BARS			
SIZE or MARK	No. of BARS	LENGTH	WEIGHT (Lbs)
601c	130	4'-8"	
602c	48	9'-10"	
#6	12	18'-3"	
#6	12	15'-7"	
Total #6			2230
#4	4	7'-0"	
#4	4	4'-4"	
Total #4			31
Total Reinforcing Bars			2261
CONCRETE			
Concrete Class "A" in Substructure			
Phase I			6.0 Cys
Phase II			7.1 Cys
Total Concrete "A" in Substructure			13.1 Cys
MISCELLANEOUS			
Threaded Tie-Bar Assembly (#4)			4 Ea
Threaded Tie-Bar Assembly (#6)			12 Ea

When the construction is to be phased, Bills of Materials should be separated by phase.

Bar bending diagrams are not shown to scale. However, they should be drawn to approximate proportions.

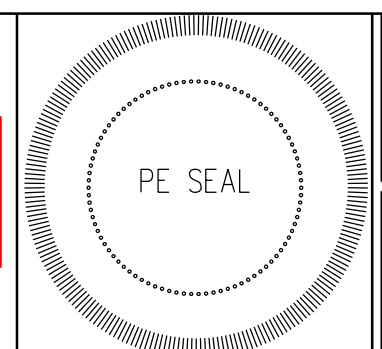


Show bar mark and total length of bar, rounded to nearest 1 in.

Typ. All Bar Bending Diagrams:  
Title: 18 Pt Text  
Bar Mark Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text  
See IDM 405-2.0 for guidance regarding detailing reinforcing steel.

- Notes:**
- For General Notes, see Sht. 14.
  - For Removal Details, see Sht. 19.
  - For Bearing Assembly Details, see Sht. 39.
  - For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

**BENT NO. 2  
RECONSTRUCTION DETAILS**

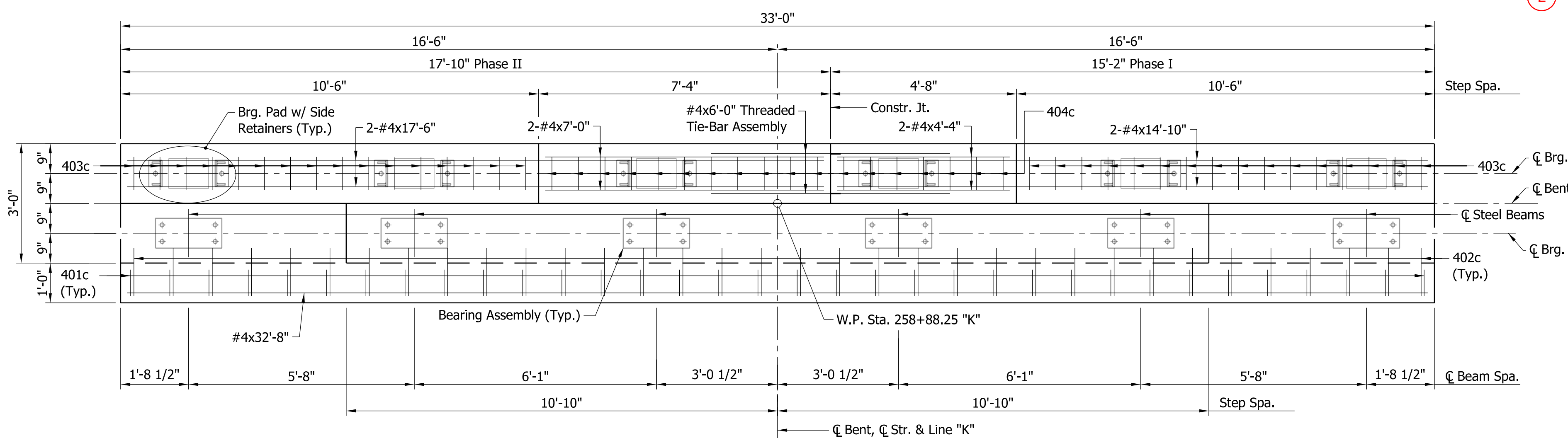
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	20 of 70
CONTRACT	PROJECT
B-00000	0000000





**PURPOSE:**

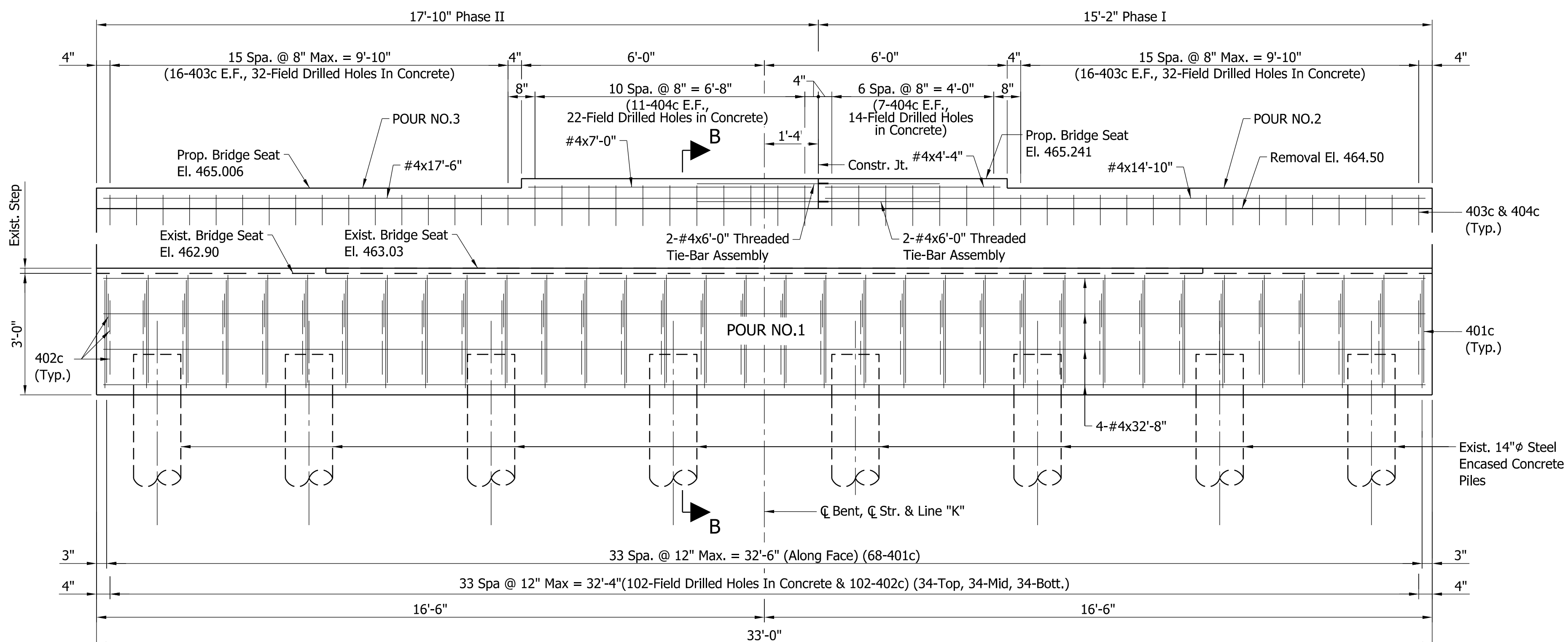
The purpose of this Bent Reconstruction Details sheet is to show physical dimensions, reinforcement and pertinent information necessary for reconstruction of bent/pier.



**1 PLAN**  
(Looking Back Station)  
Scale: 1/2" = 1'-0"

Note: "Looking Back Station" called out since non-typical for an interior bent.

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



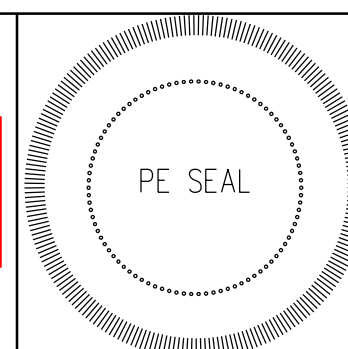
**3 ELEVATION**  
(Looking Back Station)  
Scale: 1/2" = 1'-0"

Note: "Looking Back Station" called out since non-typical for an interior bent.

**REQUIRED ELEMENTS:**

- 1 Plan
- 2 North Arrow
- 3 Elevation Showing Reinforcing
- 4 Sections as Necessary
- 5 Notes
- 6 Signature Block and PE Seal

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
DESIGNED: ABC	DRAWN: PQR	DATE
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

**BENT NO. 3  
RECONSTRUCTION DETAILS**

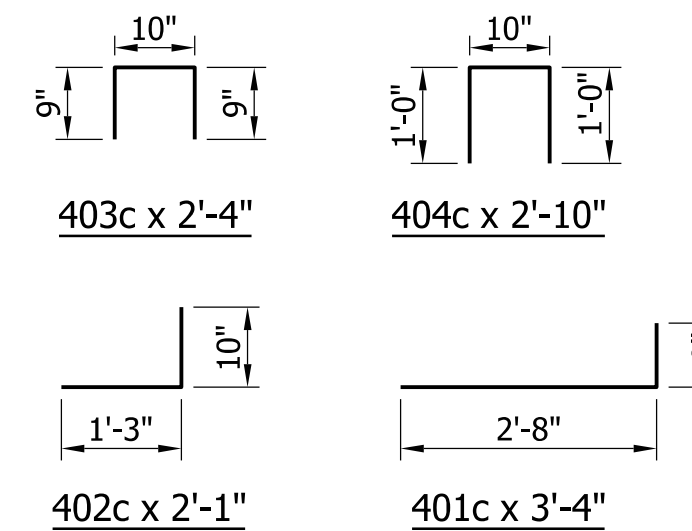
**BILL OF MATERIALS  
BENT NO. 3**

REINFORCING BARS			
SIZE or MARK	No. of BARS	LENGTH	WEIGHT (Lbs)
401c	68	3'-4"	
402c	102	2'-1"	
403c	32	2'-4"	
404c	18	2'-10"	
#4	4	32'-8"	
#4	2	17'-6"	
#4	2	14'-10"	
#4	2	7'-0"	
#4	2	4'-4"	
Total #4			522
Total Reinforcing Bars			522
CONCRETE			
Concrete Class "A" in Substructure			
Pour No. 1			3.8 Cys
Pour No. 2			0.5 Cys
Pour No. 3			0.6 Cys
Total Class "A" in Substructure			4.9 Cys
MISCELLANEOUS			
Field Drilled Holes in Concrete			202 Ea
Threaded Tie-Bar Assembly (#4)			4 Ea
Surface Seal (Est. Quantity)			99 Sft

When the construction is to be phased, Bills of Materials should be separated by phase.

Bar bending diagrams are not shown to scale. However, they should be drawn to approximate proportions.

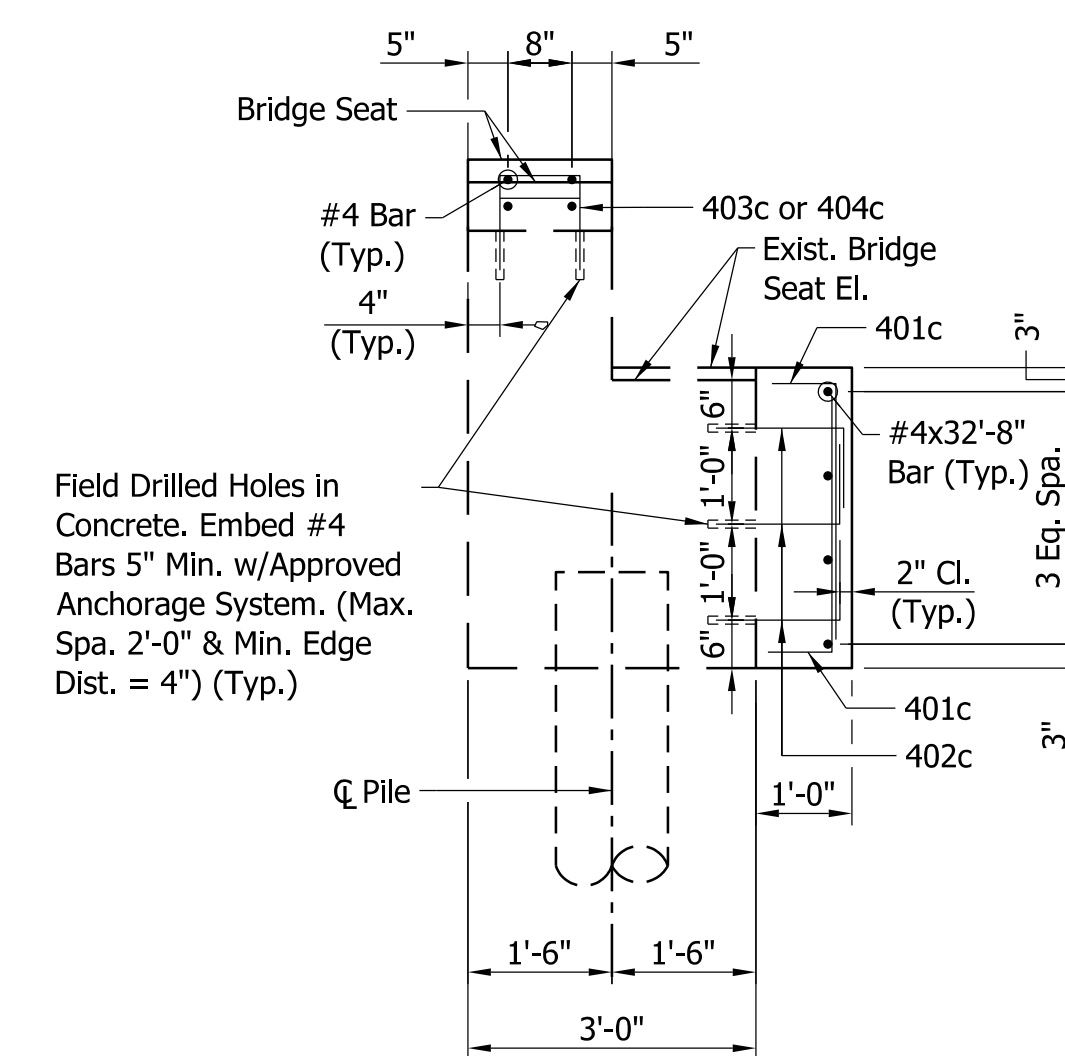
Show bar mark and total length of bar, rounded to nearest 1 in.



**THREADED TIE-BAR ASSEMBLY**

**3 BAR BENDING DETAILS**  
Not to Scale

Typ. All Bar Bending Diagrams:  
Title: 18 Pt Text  
Bar Mark Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text  
See IDM 405-2.0 for guidance regarding detailing reinforcing steel.



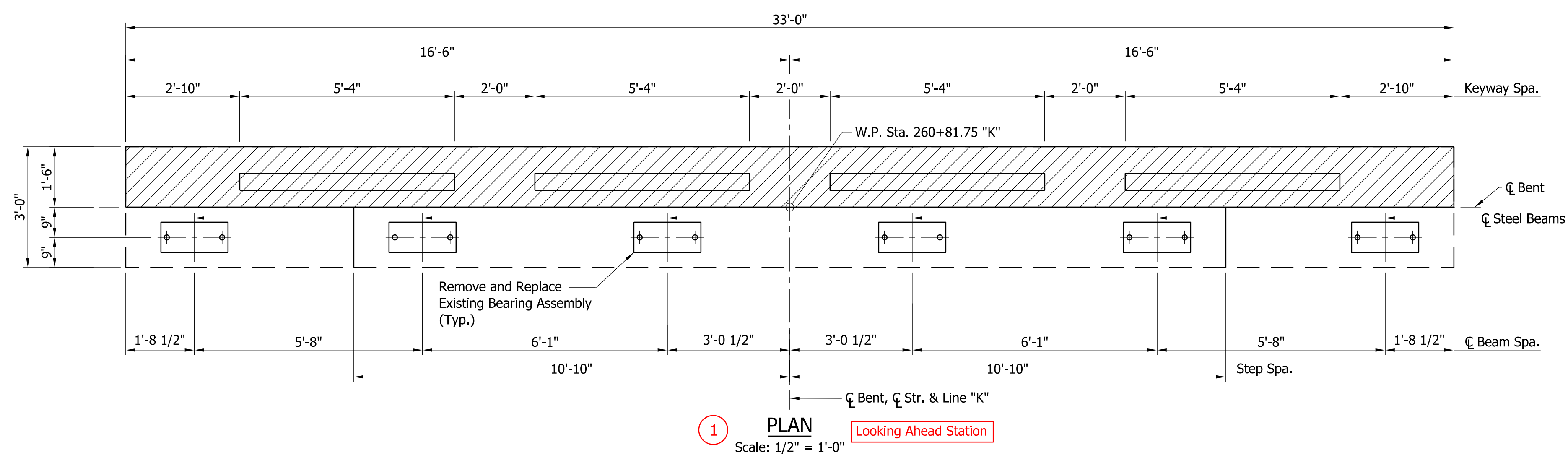
**4 SECTION B-B**  
Scale: 1/2" = 1'-0"

- 5 Notes:**
- For General Notes, see Sht. 14.
  - For Removal Details, see Sht. 21.
  - For Bearing Assembly Details, see Shts. 40 & 41.
  - For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.

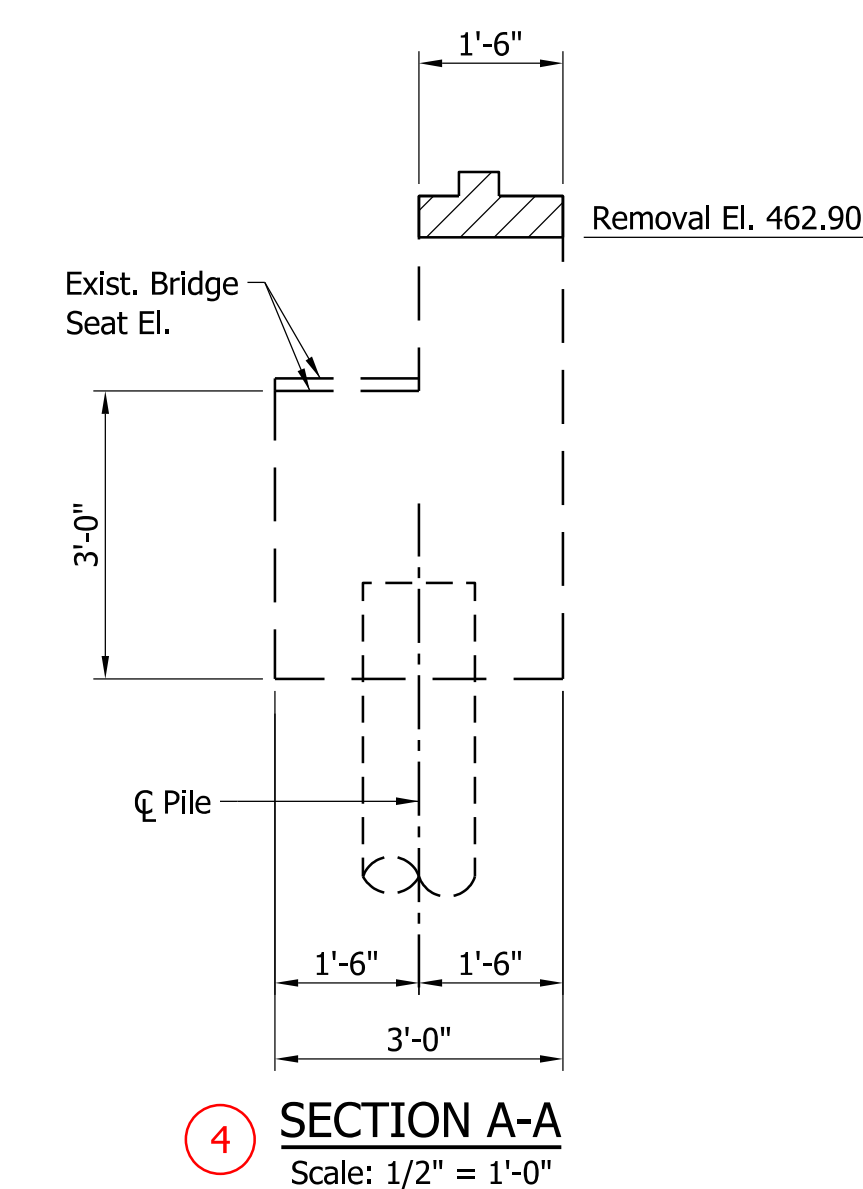
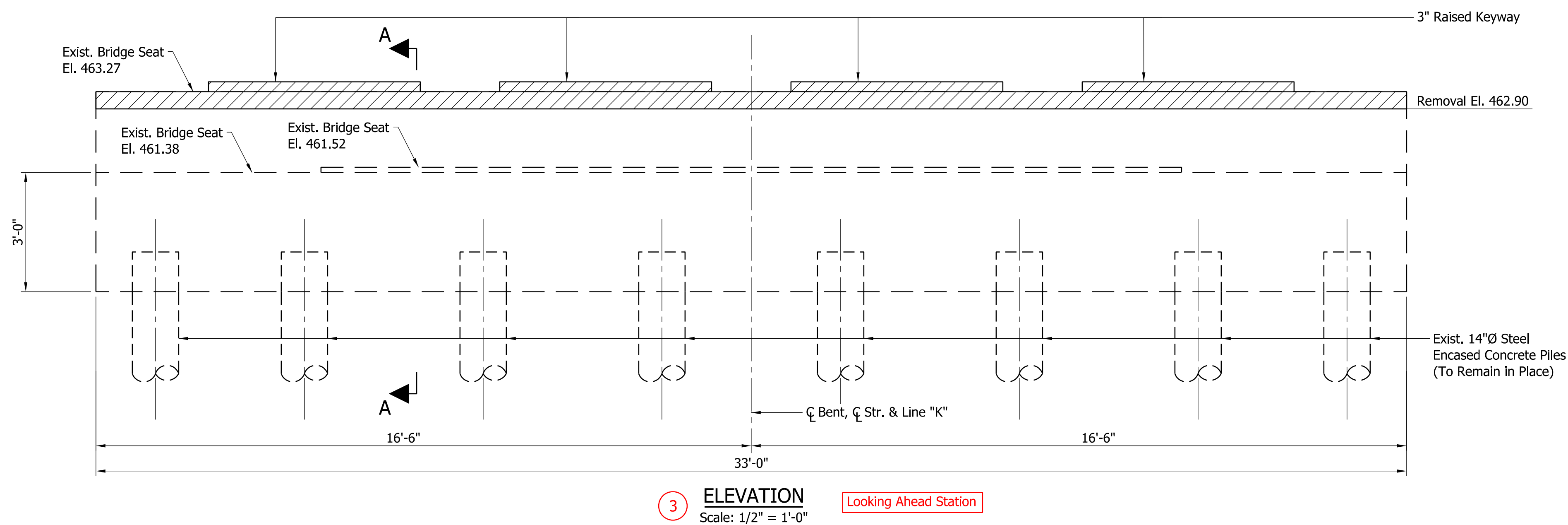
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
SHEET	
22	of 71
CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

The purpose of this Bent Removal Details sheet is to show physical dimensions and limits of removal of material on an existing bent/pier.



Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

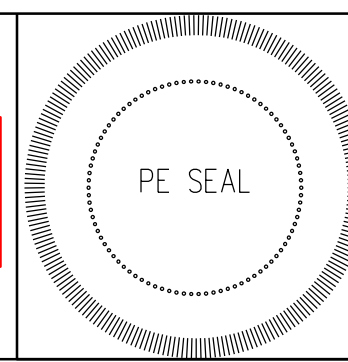


**REQUIRED ELEMENTS:**

- 1 Plan Showing Hatched Removal Limits
- 2 North Arrow
- 3 Elevation Showing Hatched Removal Limits
- 4 Sections as Necessary Showing Hatched Removal Limits
- 5 Notes
- 6 Signature Block and PE Seal

5 Notes:  
Hatched areas indicate portions to be removed.  
For General Notes, see Sht. 14.  
For Reconstruction Details, see Sht. 24.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



6

RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

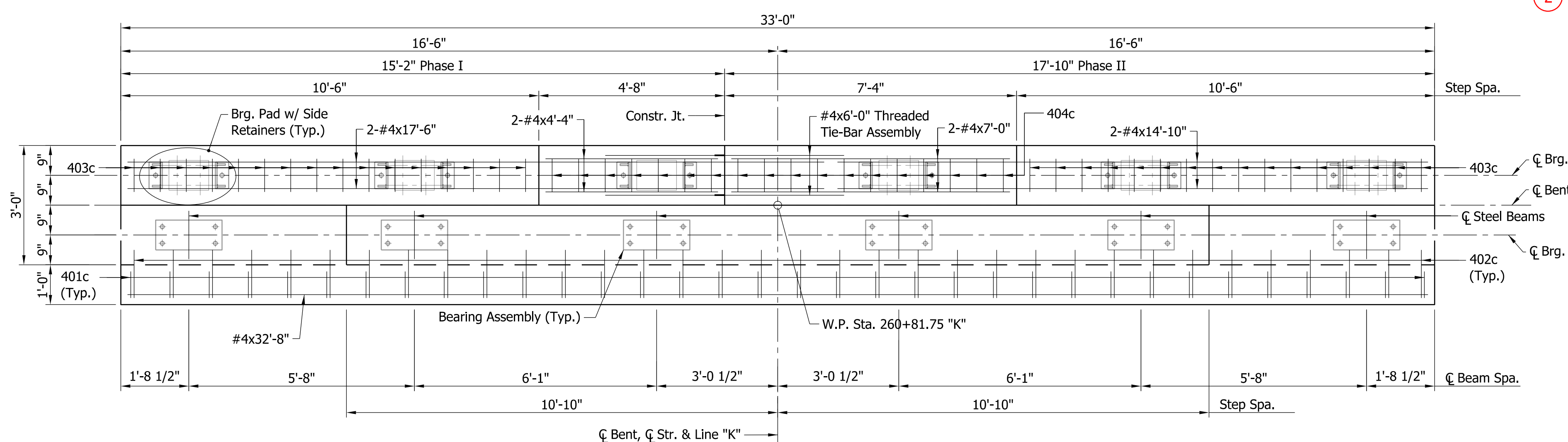
BENT NO. 6  
REMOVAL DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	23 of 71
CONTRACT	PROJECT
B-00000	0000000



**PURPOSE:**

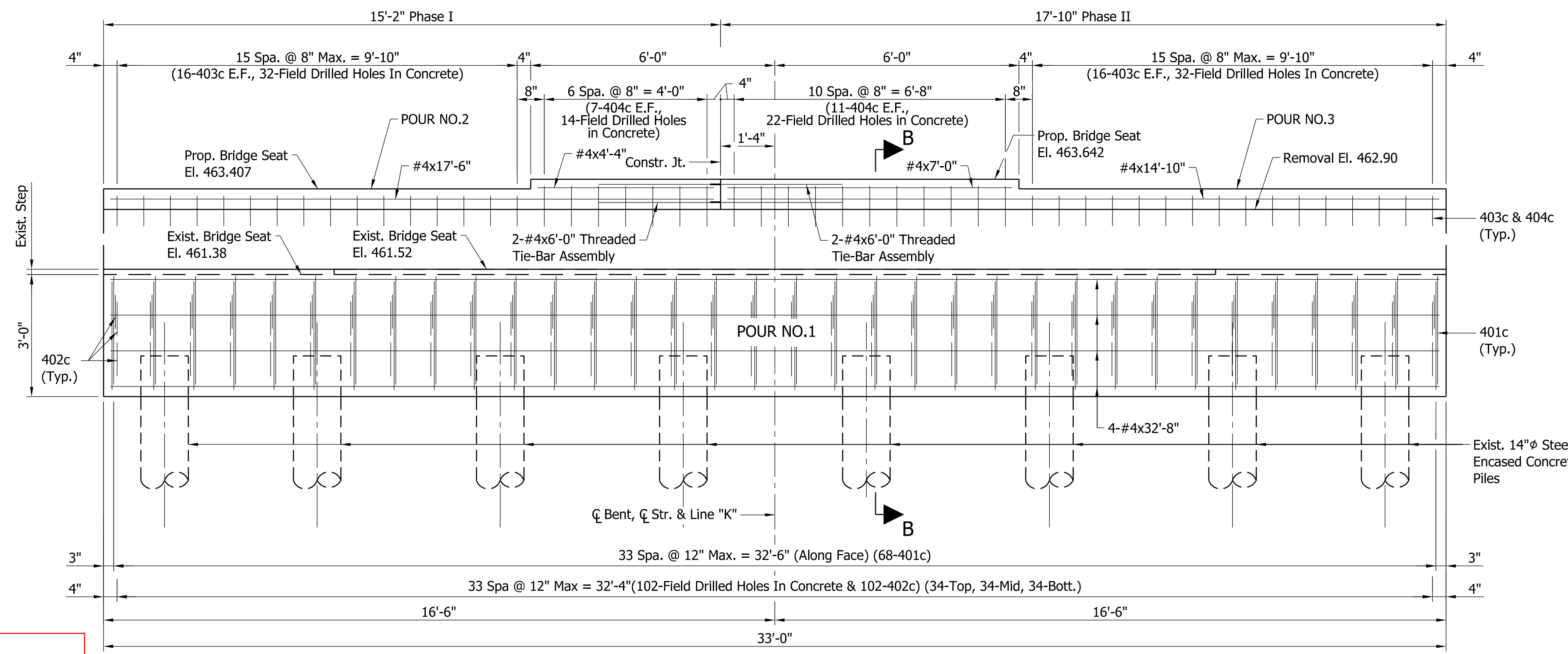
The purpose of this Bent Reconstruction Details sheet is to show physical dimensions, reinforcement and pertinent information necessary for reconstruction of bent/pier.



**1 PLAN**  
Scale: 1/2" = 1'-0"  
Looking Ahead Station

When the construction is to be phased, Bills of Materials should be separated by phase.

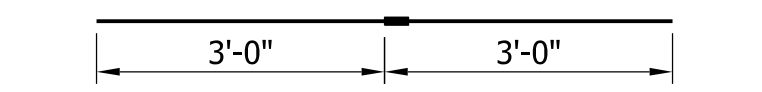
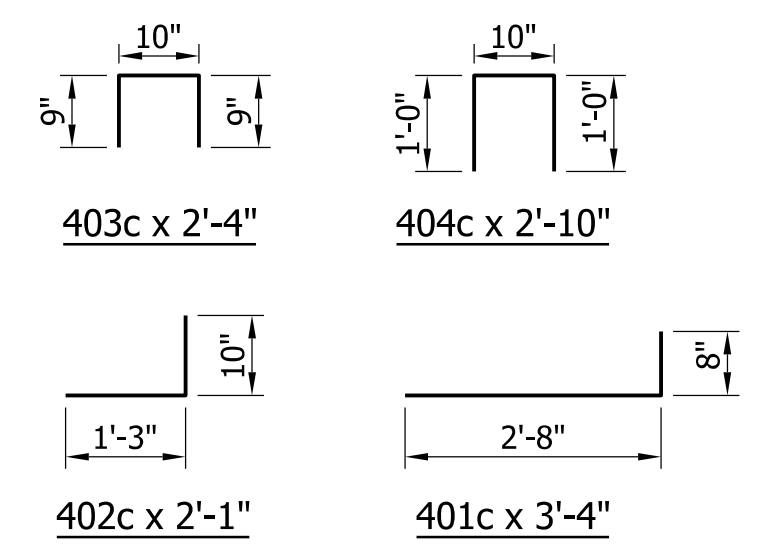
Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



**3 ELEVATION**  
Scale: 1/2" = 1'-0"  
Looking Ahead Station

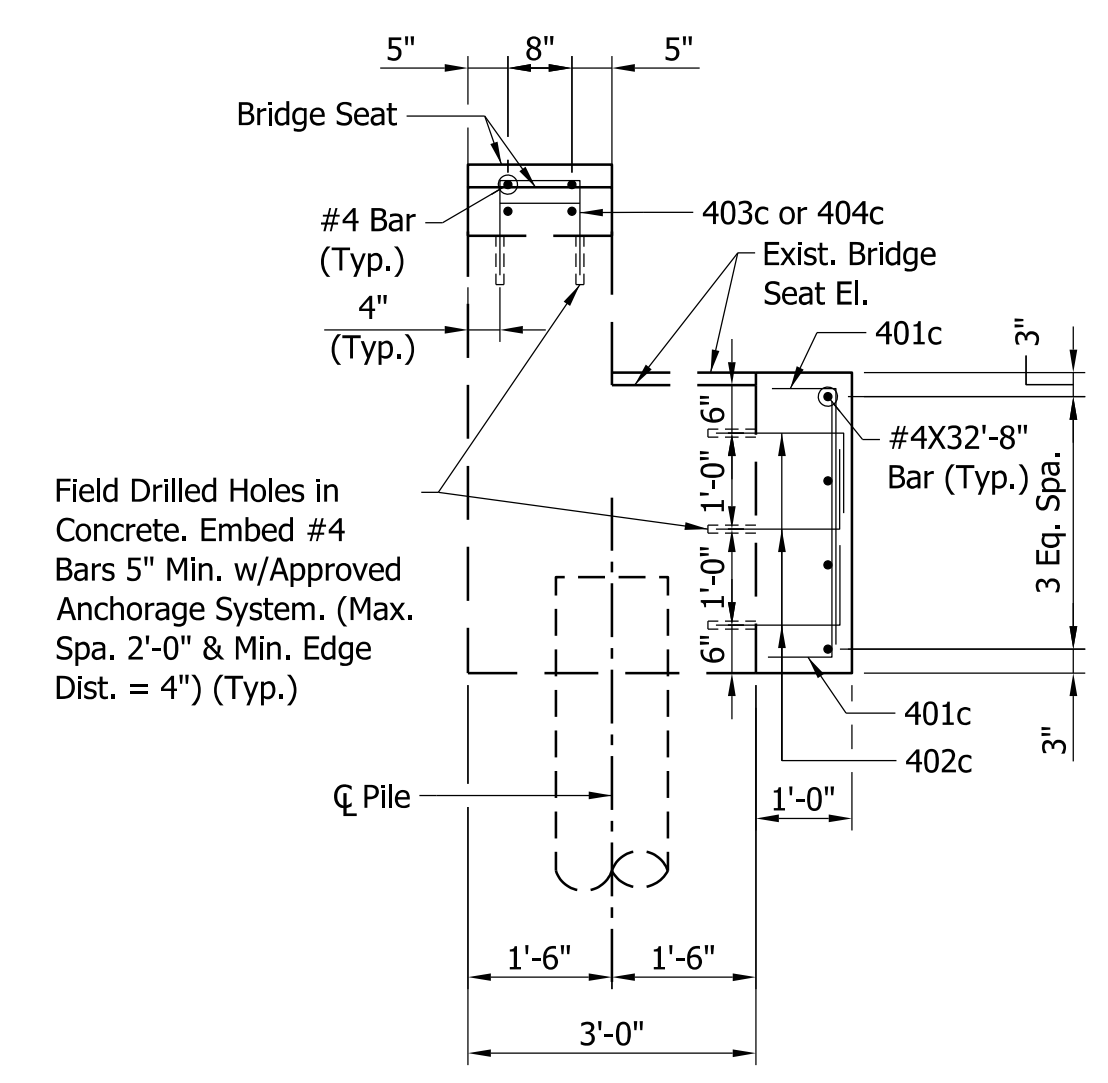
Bar bending diagrams are not shown to scale. However, they should be drawn to approximate proportions.

Show bar mark and total length of bar, rounded to nearest 1 in.



**4 THREADED TIE-BAR ASSEMBLY**  
**5 BAR BENDING DETAILS**  
Not to Scale

Typ. All Bar Bending Diagrams:  
Title: 18 Pt Text  
Bar Mark Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text  
See IDM 405-2.0 for guidance regarding detailing reinforcing steel.

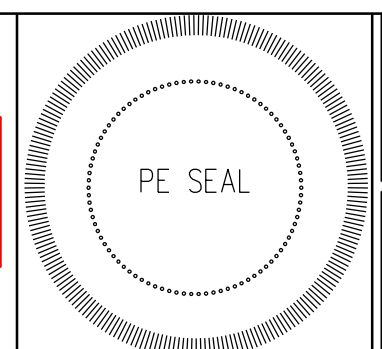


**4 SECTION B-B**  
Scale: 1/2" = 1'-0"

- REQUIRED ELEMENTS:**
- 1 Plan
  - 2 North Arrow
  - 3 Elevation Showing Reinforcing
  - 4 Sections as Necessary
  - 5 Notes
  - 6 Signature Block and PE Seal

**5 Notes:**  
For General Notes, see Sht. 14.  
For Removal Details, see Sht. 23.  
For Bearing Assembly Details, see Shts. 40 & 41.  
For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

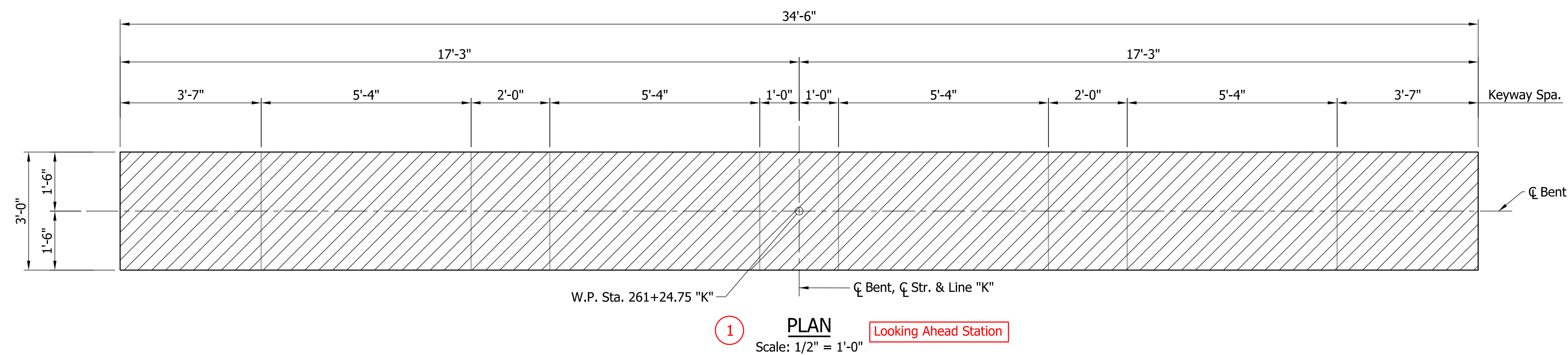
INDIANA  
DEPARTMENT OF TRANSPORTATION

**BENT NO. 6  
RECONSTRUCTION DETAILS**

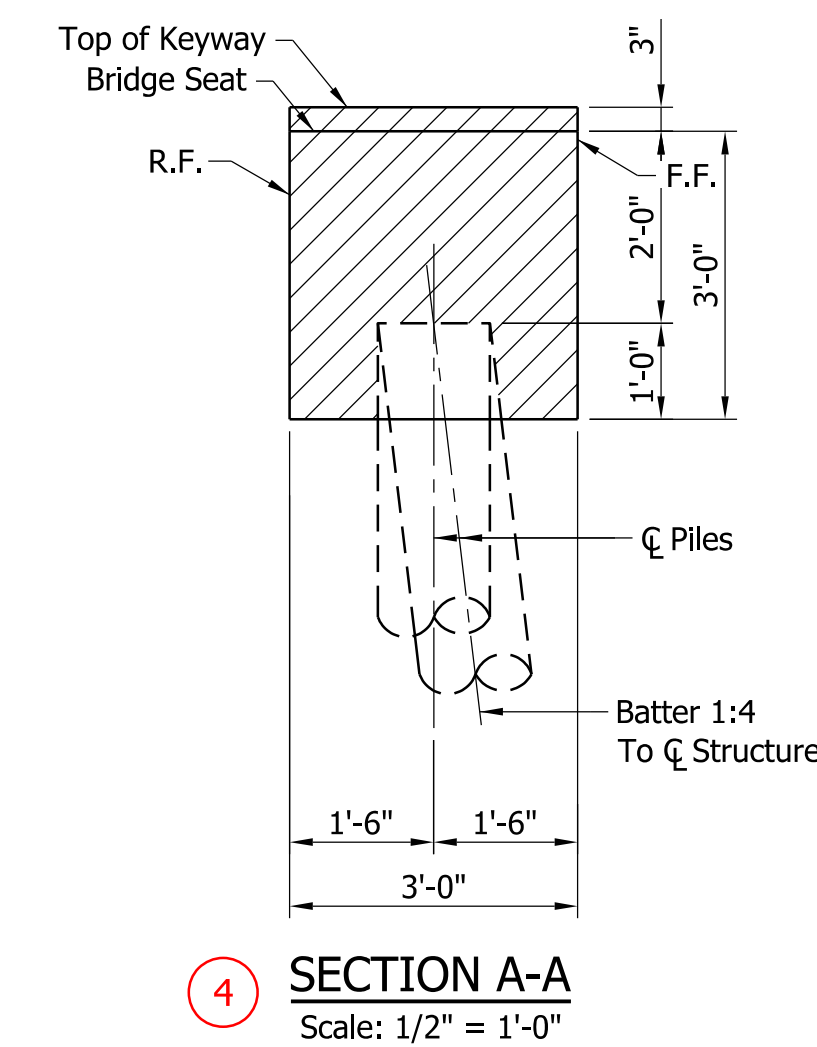
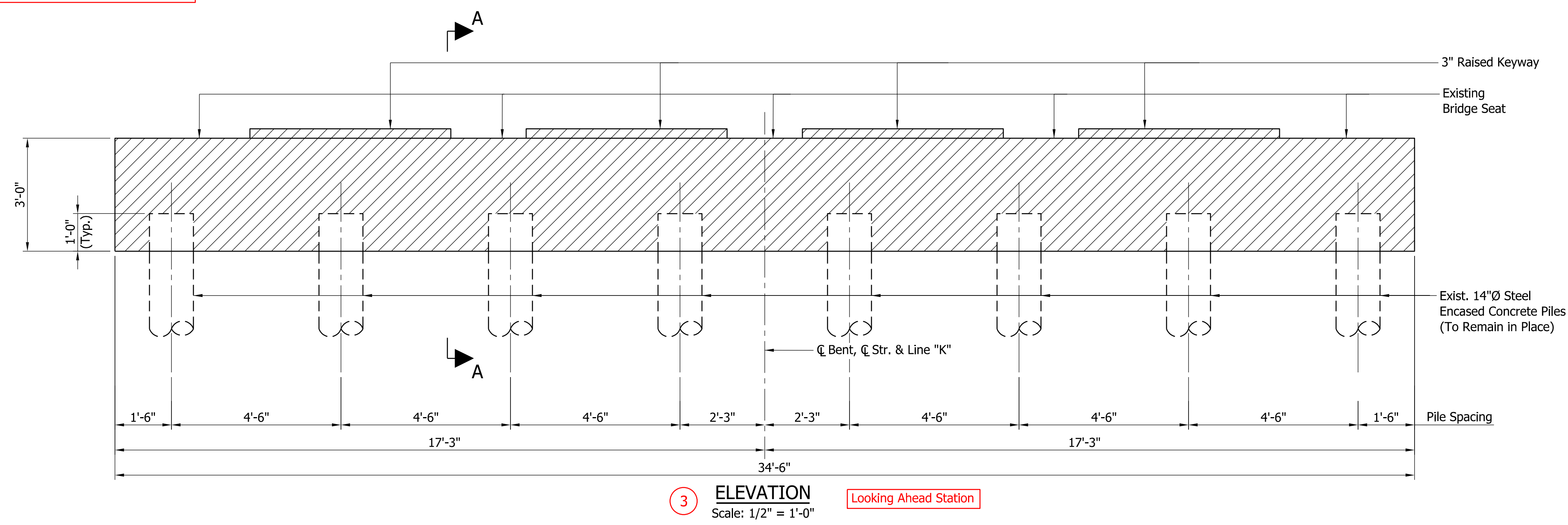
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	24 of 71
CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

The purpose of this Bent Removal Details sheet is to show physical dimensions and limits of removal of material on an existing bent/pier.



Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

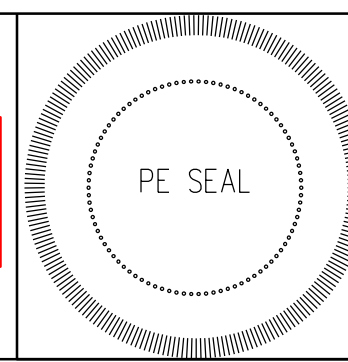


**REQUIRED ELEMENTS:**

- 1 Plan Showing Hatched Removal Limits
- 2 North Arrow
- 3 Elevation Showing Hatched Removal Limits
- 4 Sections as Necessary Showing Hatched Removal Limits
- 5 Notes
- 6 Signature Block and PE Seal

5 Notes:  
Hatched areas indicate portions to be removed.  
For General Notes, see Sht. 14.  
For Reconstruction Details, see Sht. 26.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



6

RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

BENT NO. 7  
REMOVAL DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	25 of 71
CONTRACT	PROJECT
B-00000	0000000



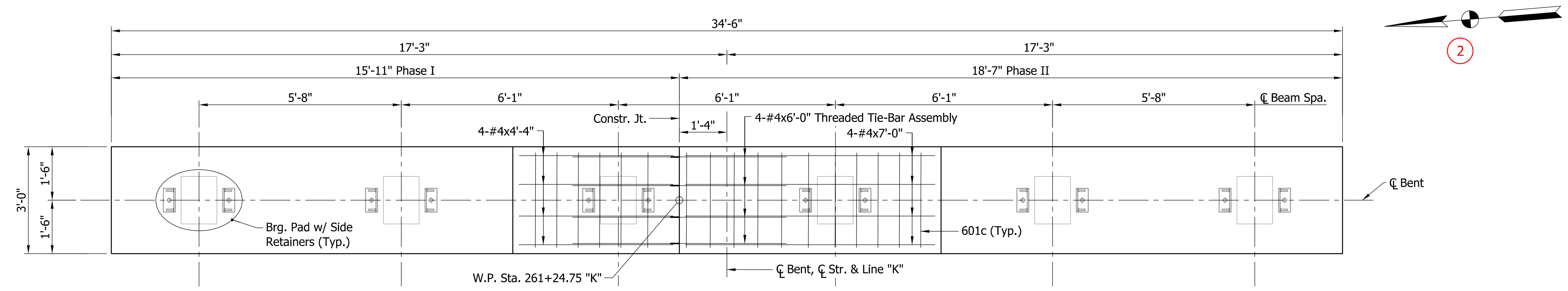
**PURPOSE:**

The purpose of this Bent Reconstruction Details sheet is to show physical dimensions, reinforcement and pertinent information necessary for reconstruction of bent/pier.

4

When the construction is to be phased, Bills of Materials should be separated by phase.

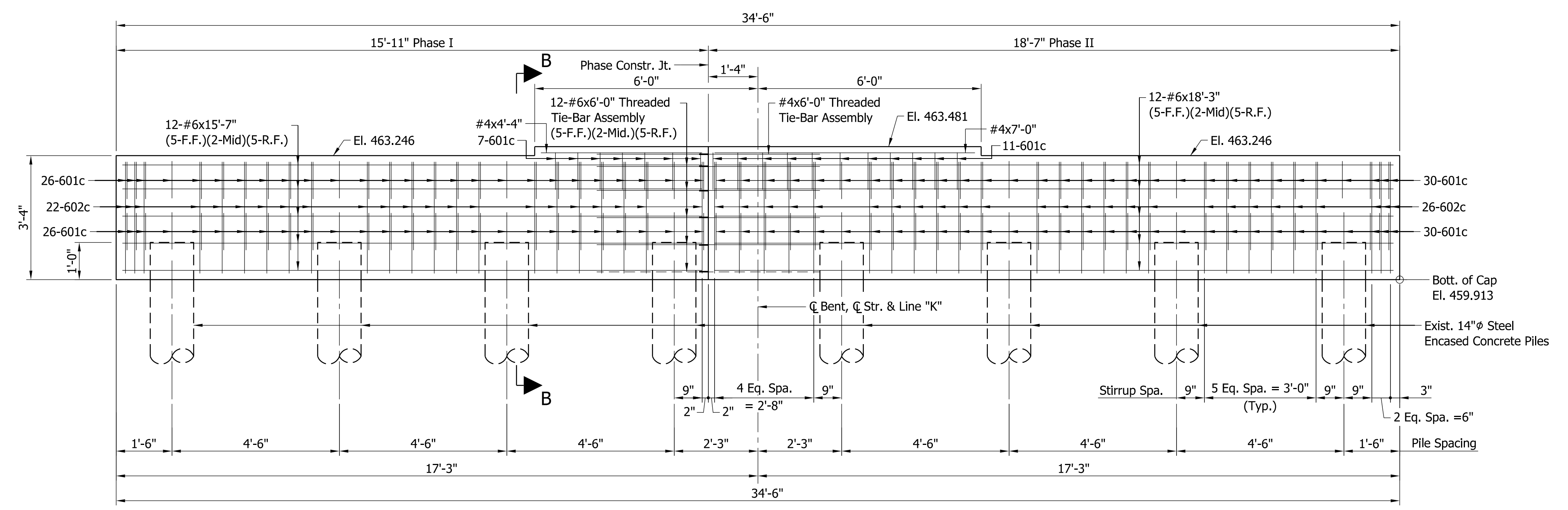
BILL OF MATERIALS BENT NO. 7			
REINFORCING BARS			
SIZE or MARK	No. of BARS	LENGTH	WEIGHT (Lbs)
601c	130	4'-8"	
602c	48	9'-10"	
#6	12	18'-3"	
#6	12	15'-7"	
Total #6			2230
#4	4	7'-0"	
#4	4	4'-4"	
Total #4			31
Total Reinforcing Bars			2261
CONCRETE			
Concrete Class "A" in Substructure			
Phase I			6.0 Cys
Phase II			7.1 Cys
Total Concrete "A" in Substructure			13.1 Cys
MISCELLANEOUS			
Threaded Tie-Bar Assembly (#4)			4 Ea
Threaded Tie-Bar Assembly (#6)			12 Ea



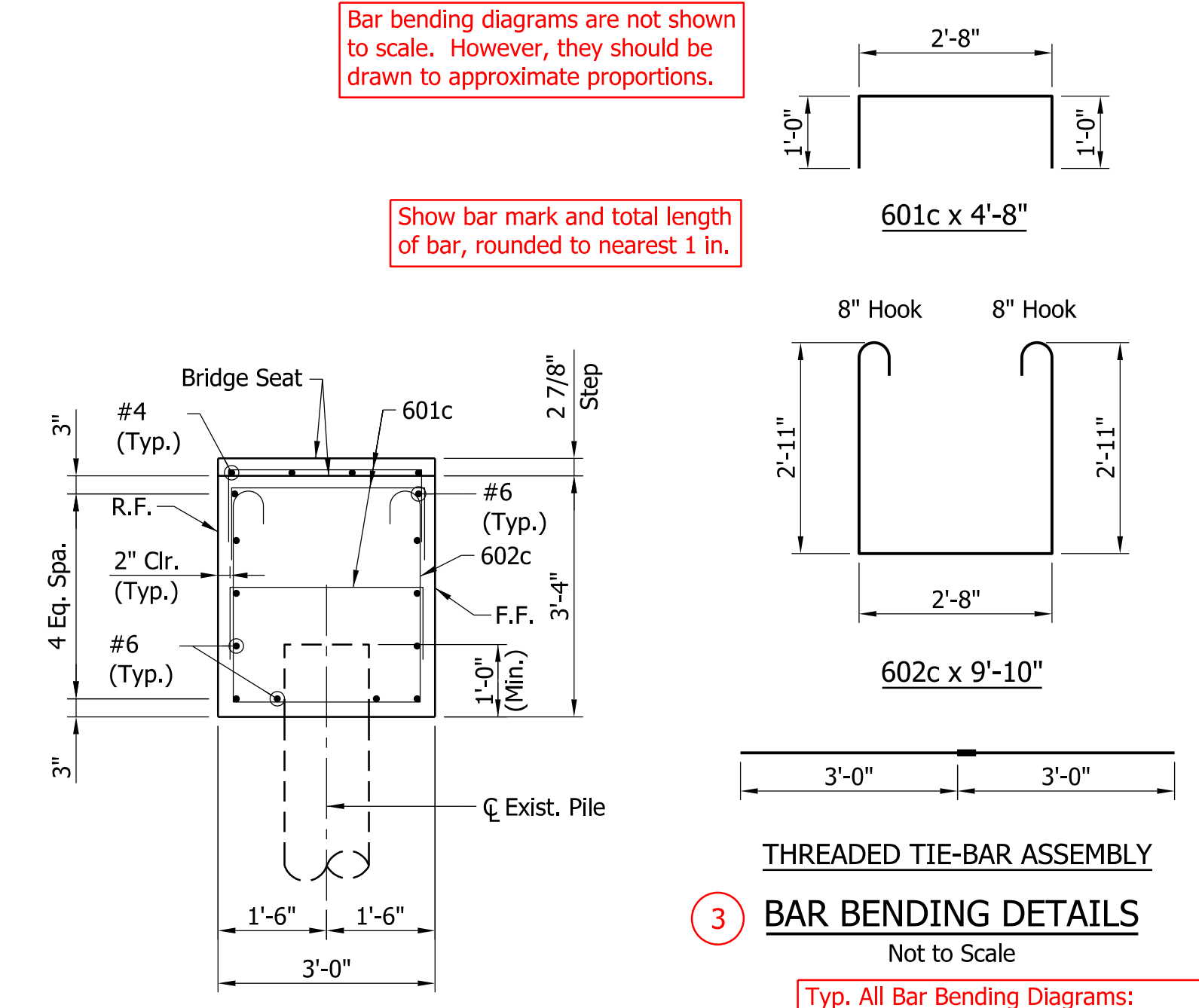
1 PLAN  
Scale: 1/2" = 1'-0"  
Looking Ahead Station

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

Bar bending diagrams are not shown to scale. However, they should be drawn to approximate proportions.



3 ELEVATION  
Scale: 1/2" = 1'-0"  
Looking Ahead Station



4 SECTION B-B  
Scale: 1/2" = 1'-0"

3 BAR BENDING DETAILS  
Not to Scale

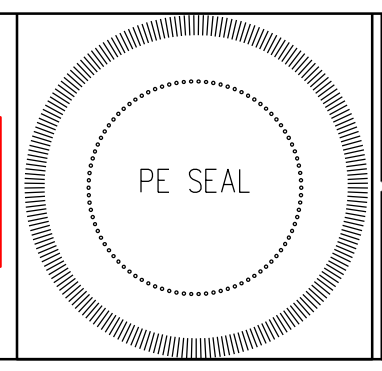
Typ. All Bar Bending Diagrams:  
Title: 18 Pt Text  
Bar Mark Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text  
See IDM 405-2.0 for guidance regarding detailing reinforcing steel.

- REQUIRED ELEMENTS:**
- 1 Plan
  - 2 North Arrow
  - 3 Elevation Showing Reinforcing
  - 4 Sections as Necessary
  - 5 Notes
  - 6 Signature Block and PE Seal

**MIN. LAP LENGTH**  
2'-10" #6 Bars to #6 Bars

5 Notes:  
For General Notes, see Sht. 14.  
For Removal Details, see Sht. 25.  
For Bearing Assembly Details, see Sht. 39.  
For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

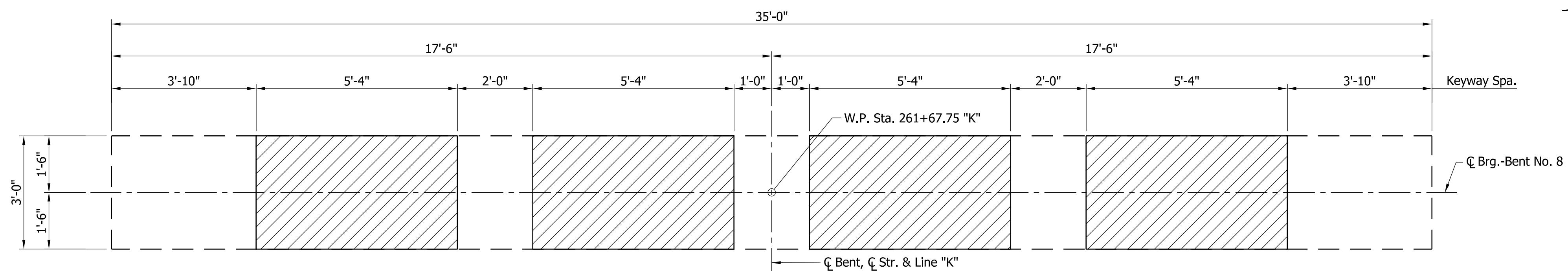
INDIANA  
DEPARTMENT OF TRANSPORTATION

**BENT NO. 7  
RECONSTRUCTION DETAILS**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
SHEET	
26	of 71
CONTRACT	PROJECT
B-00000	0000000

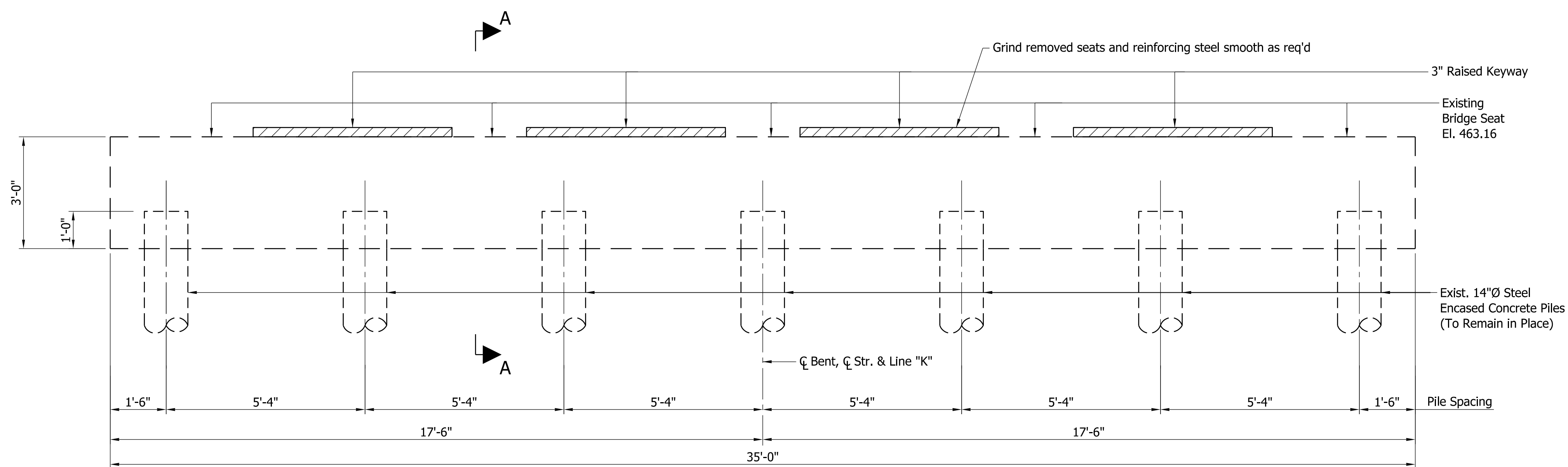
**PURPOSE:**

The purpose of this Bent Removal Details sheet is to show physical dimensions and limits of removal of material on an existing bent/pier.

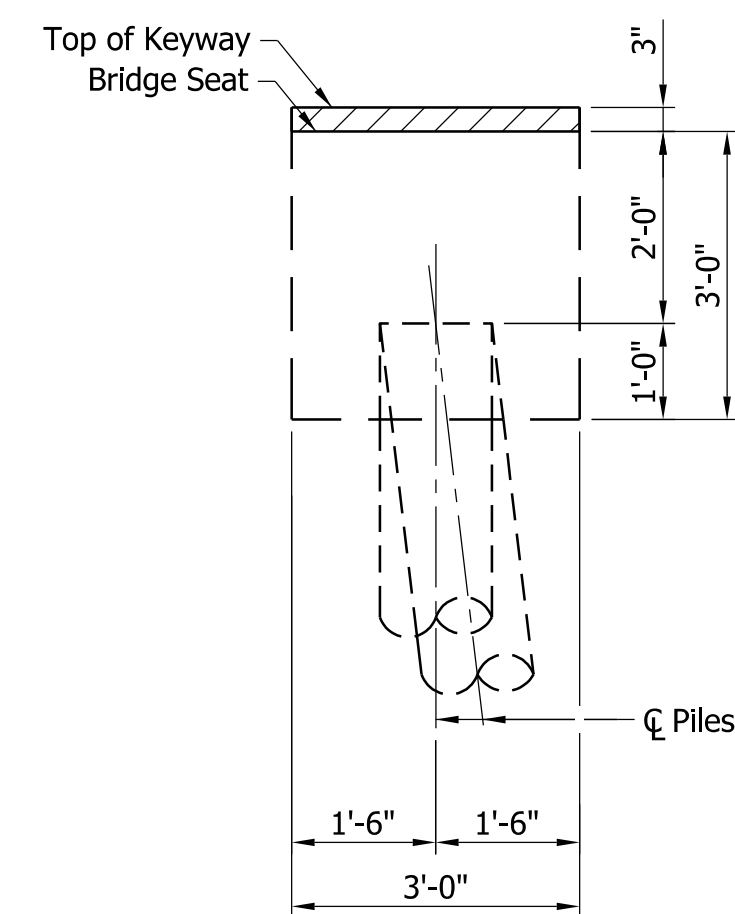


1 PLAN  
Scale: 1/2" = 1'-0" Looking Ahead Station

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



3 ELEVATION  
Scale: 1/2" = 1'-0" Looking Ahead Station



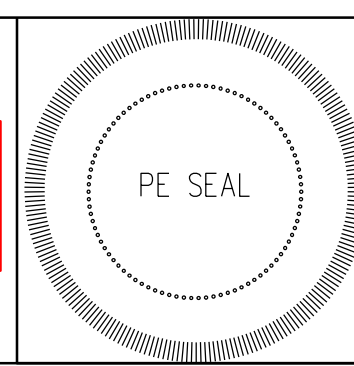
4 SECTION A-A  
Scale: 1/2" = 1'-0"

**REQUIRED ELEMENTS:**

- 1 Plan Showing Hatched Removal Limits
- 2 North Arrow
- 3 Elevation Showing Hatched Removal Limits
- 4 Sections as Necessary Showing Hatched Removal Limits
- 5 Notes
- 6 Signature Block and PE Seal

5 Notes:  
For General Notes, see Sht. 14.  
For Reconstruction Details, see Sht. 28.  
For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

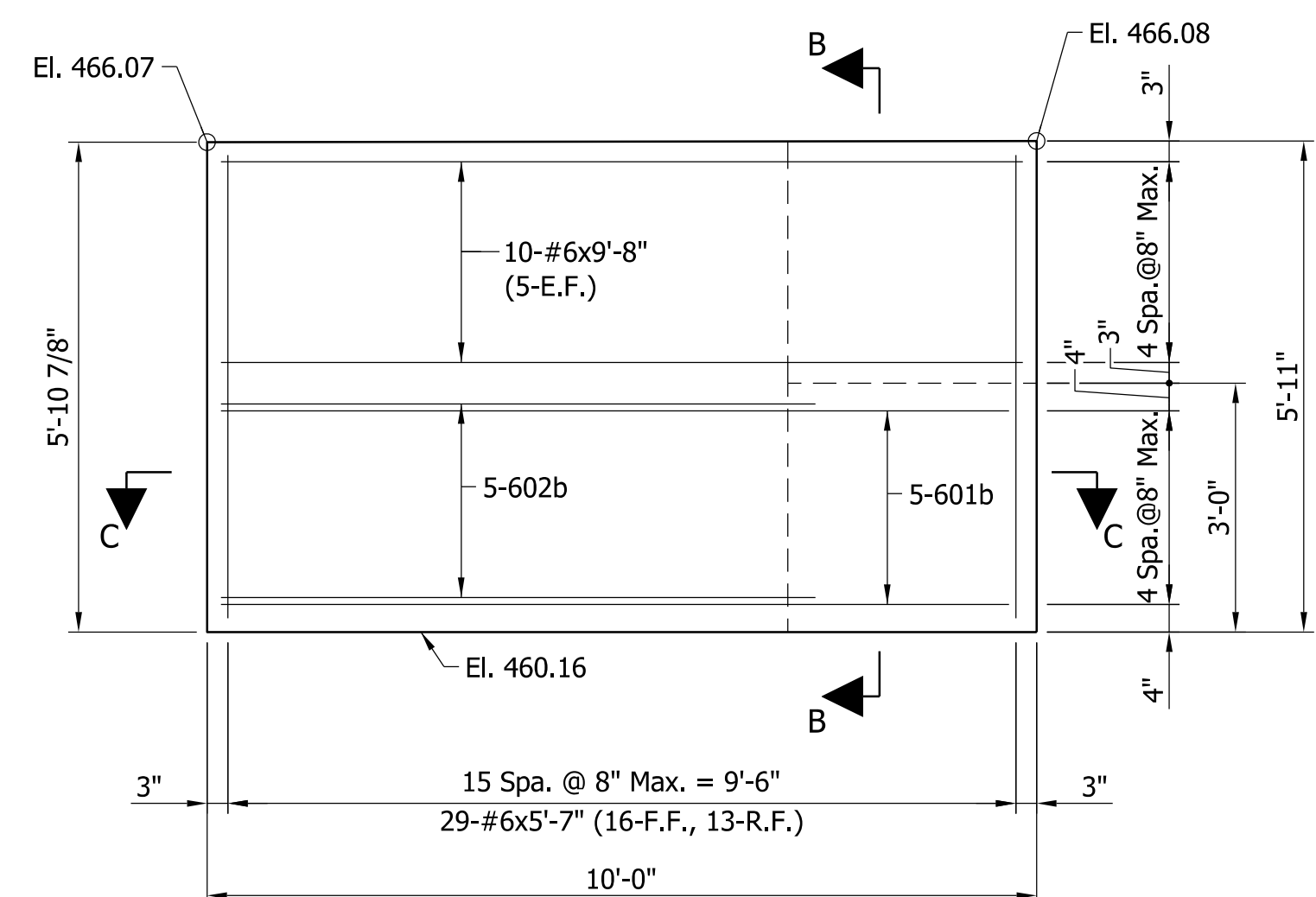
BENT NO. 8  
REMOVAL DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	27 of 71
CONTRACT	PROJECT
B-00000	0000000



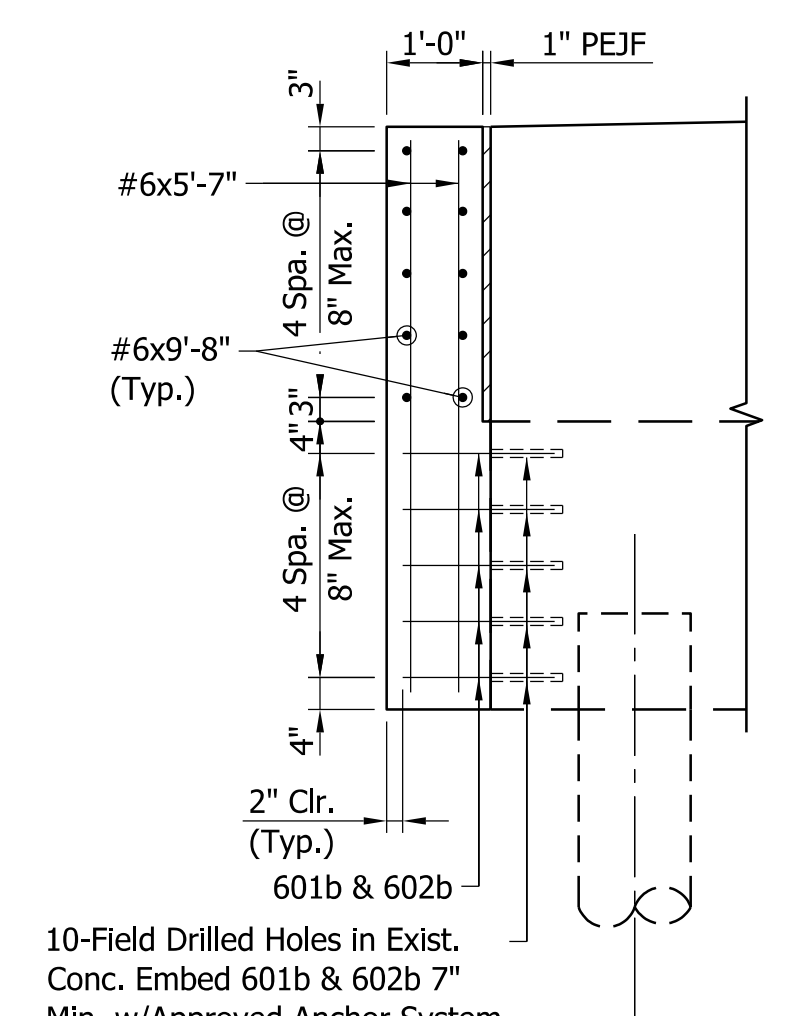
**PURPOSE:**

The purpose of this Bent Reconstruction Details sheet is to show physical dimensions, reinforcement and pertinent information necessary for reconstruction of bent/pier.



**1 WING "C" ELEVATION**  
(Wing "D" Same By Opposite Hand)  
Scale: 1/2" = 1'-0"

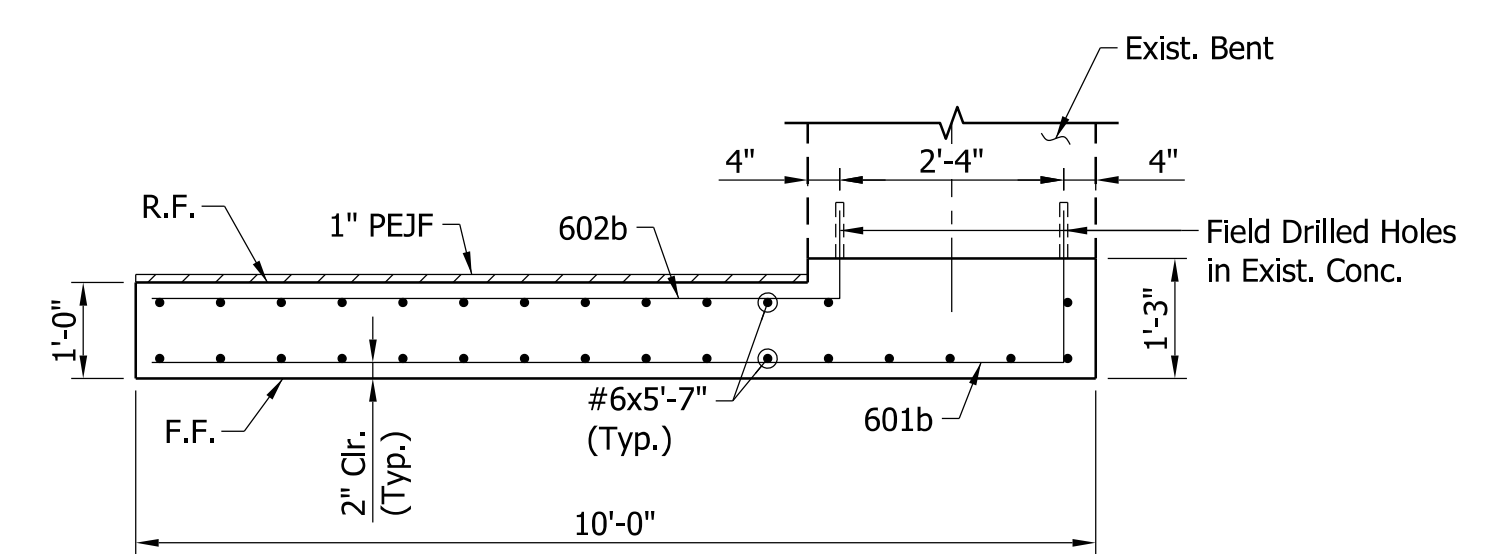
Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



**2 SECTION B-B**  
Scale: 1/2" = 1'-0"

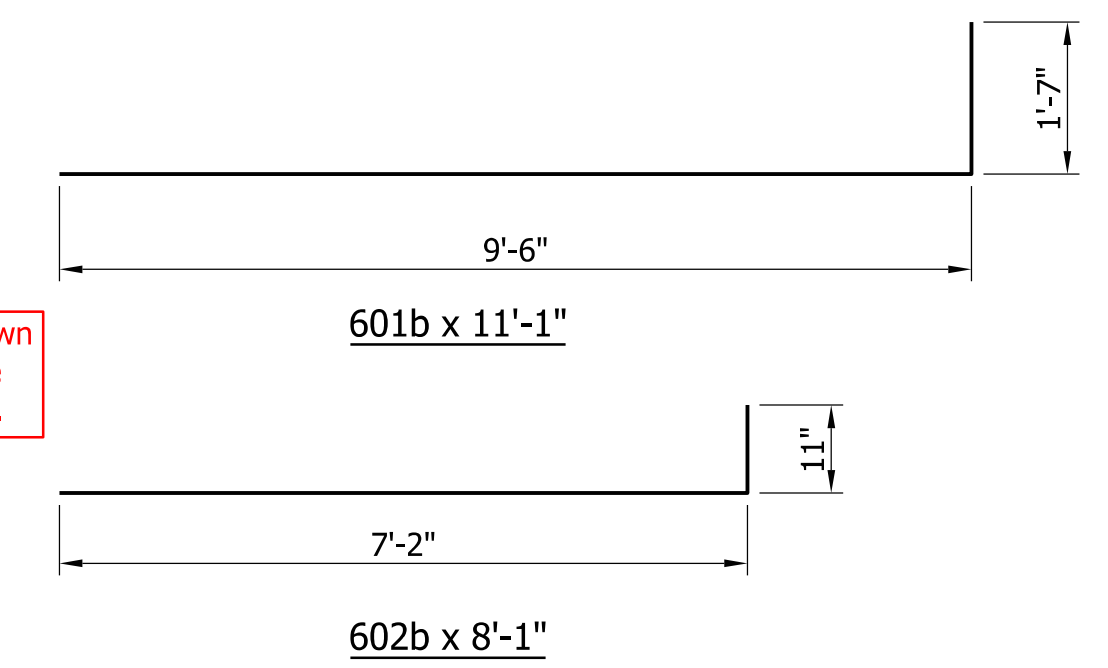
When the construction is to be phased, Bills of Materials should be separated by phase.

BILL OF MATERIALS BENT NO. 8			
REINFORCING BARS			
SIZE or MARK	No. of BARS	LENGTH	WEIGHT (Lbs)
601b	10	8'-1"	
602b	10	11'-1"	
#6	20	9'-8"	
#6	58	5'-7"	
Total #6			1063
Total Reinforcing Bars			1063
CONCRETE			
Concrete Class "A" in Substructure			
Phase I			2.3 Cys
Phase II			2.3 Cys
Total Concrete "A" in Substructure			4.6 Cys
MISCELLANEOUS			
Field Drilled Hole in Concrete			20 Ea
Surface Seal (Est. Quantity)			99 Sft
Aggregate for End Bent Backfill			13 Cys
Geotextile for Underdrain, Type 2B			41 Sys
Pipe, End Bent Drain, 6"			47 Lft



**2 SECTION C-C**  
Scale: 1/2" = 1'-0"

Bar bending diagrams are not shown to scale. However, they should be drawn to approximate proportions.



**3 BAR BENDING DETAILS**  
Not to Scale

Show bar mark and total length of bar, rounded to nearest 1 in.

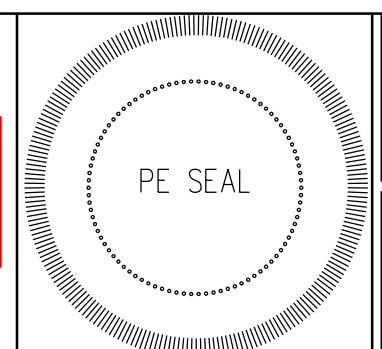
Typ. All Bar Bending Diagrams:  
Title: 18 Pt Text  
Bar Mark Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text  
See IDM 405-2.0 for guidance regarding detailing reinforcing steel.

**REQUIRED ELEMENTS:**

- 1 Wing Elevation
- 2 Sections as Necessary
- 3 Reinforcing Bar Bending Diagrams
- 4 Bill of Materials
- 5 Notes
- 6 Signature Block and PE Seal

**5 Notes:**  
For General Notes, see Sht. 14.  
For Removal Details, see Sht. 27.  
For Bearing Assembly Details, see Sht. 38.  
For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
DESIGNED: ABC	DRAWN: PQR	DATE
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

**BENT NO. 8  
RECONSTRUCTION DETAILS**

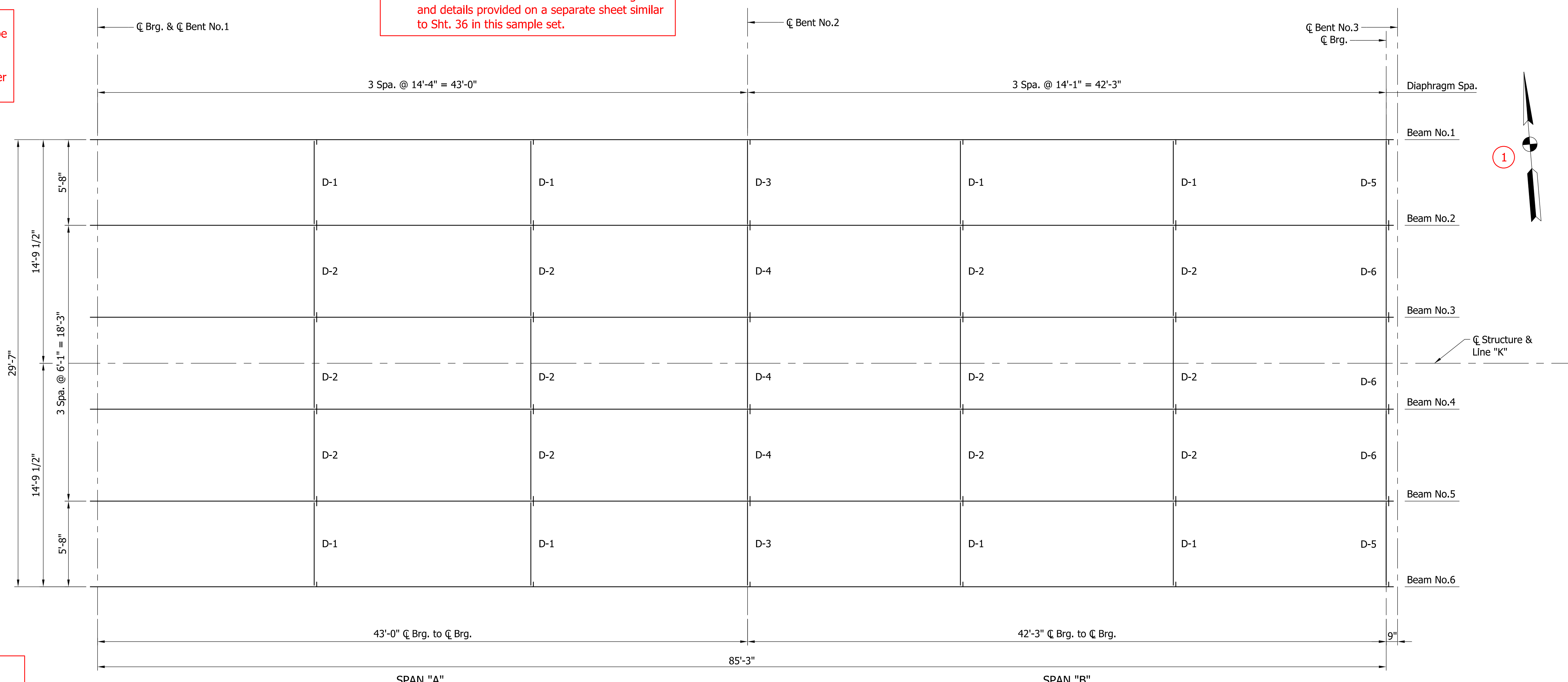
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
SHEET	
CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

The purpose of this Framing Plan sheet is to provide all necessary tie-in dimensions and beam end details as required.

Note: The first interior cross-frame or intermediate diaphragm should be located no further than 10' from face of bent when an integral or semi-integral end bent is used per IDM Ch. 407.

Note: The new beams in this sample project did not require a splice. When a splice is required, the locations should be shown on this Framing Plan and details provided on a separate sheet similar to Sht. 36 in this sample set.



Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

**2 FRAMING PLAN**  
Scale: 1/4" = 1'-0"

- REQUIRED ELEMENTS:**
- 1 North Arrow
  - 2 Framing Plan
  - 3 Fabrication & Erection Notes w/Estimated Weight of Structural Steel
  - 4 Sheet Notes
  - 5 Signature Block and PE Seal

Note: The limits on bridge beam painting/coating of 50W structural steel should be clearly shown on plans, per Design Memo 23-10.

**3 FABRICATION AND ERECTION NOTES**

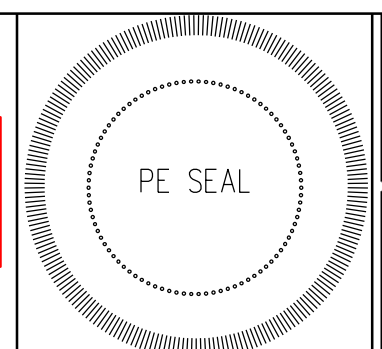
All Structural Steel is to be ASTM A709, Grade 50, unless noted.  
All Bolts shall be High Strength F3125 Grade A325 Type 1 Bolts, 7/8" diameter, unless noted. Open holes shall be 15/16" diameter, unless noted.  
All Anchor Bolts shall be ASTM F1554, Grade 105, unless noted.  
All Threaded Studs shall be ASTM F1554, Grade 105, unless noted.  
Coating limits shall be as shown on Std. Dwg. series E 619-PRWS.  
Clean existing steel and coat all new and existing steel except top of beams and shear connectors. See Sht. 58 for dried coat film information.  
Per Original Bridge Plans, Lead Based Primer may be present on Top Flange. The remainder of the bridge was last painted in 1979 and the presence of lead is unknown.

Estimated weight of structural steel:

62,240 lbs	(A709 Grade 50)
296 lbs	(F3125 Grade A325 Type 1 Bolts)
116 lbs	(F1554 Grade 105 Anchor Bolts)
104 lbs	(F1554 Grade 105 Threaded Studs)
62,756 lbs	(Total)

**4 Notes:**  
For General Notes, see Sht. 14.  
For Diaphragm Details, see Sht. 32.  
For Bearing Details, see Shts. 38 - 41.  
For Superstructure Details, see Shts. 42 - 51.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

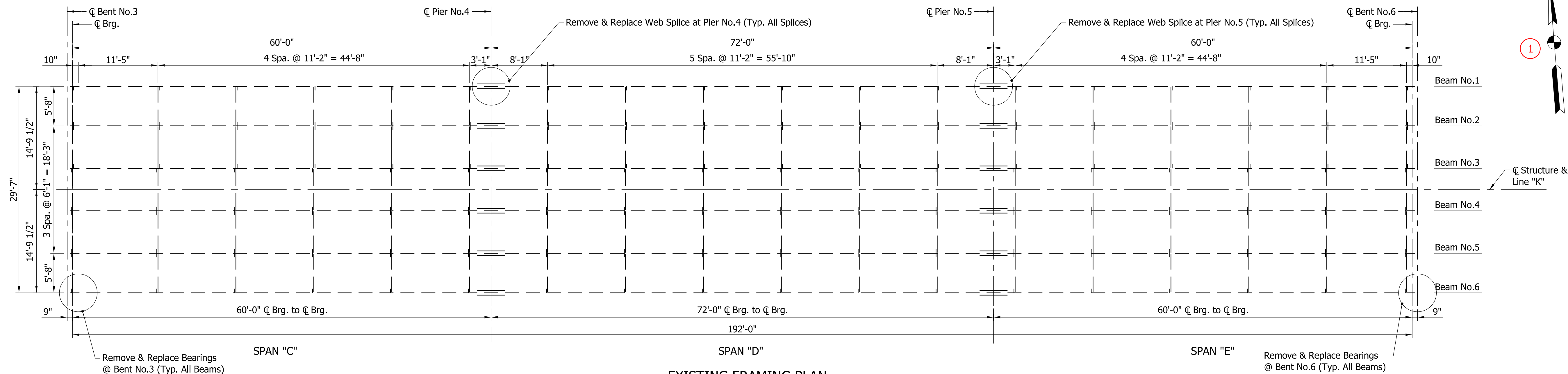
**FRAMING PLAN  
SPANS "A" - "B"**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
SHEET	
29 of 71	
CONTRACT	PROJECT
B-00000	0000000



**PURPOSE:**

The purpose of this Framing Plan sheet is to provide all necessary tie-in dimensions and beam end details as required.



2 EXISTING FRAMING PLAN  
Scale: 1/8" = 1'-0"

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

- REQUIRED ELEMENTS:**
- 1 North Arrow
  - 2 Framing Plan
  - 3 Fabrication & Erection Notes w/Estimated Weight of Structural Steel
  - 4 Sheet Notes
  - 5 Signature Block and PE Seal

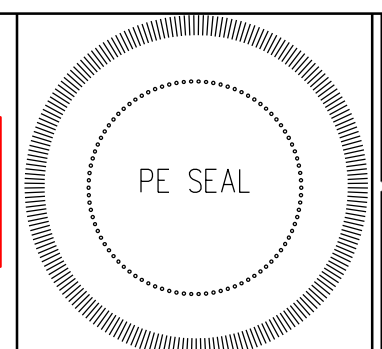
3 **FABRICATION AND ERECTION NOTES**  
 All Structural Steel is to be ASTM A709, Grade 50, unless noted.  
 All Bolts shall be High Strength F3125 Grade A325 Type 1 Bolts, 7/8" diameter, unless noted. Open holes shall be 15/16" diameter, unless noted.  
 All Anchor Bolts shall be ASTM F1554, Grade 105, unless noted.  
 Clean existing steel and coat all new and existing steel except top of beams and shear connectors. See Sht. 58 for dried coat film information.  
 Per Original Bridge Plans, Lead Based Primer may be present on Top Flange. The remainder of the bridge was last painted in 1979 and the presence of lead is unknown.

Estimated weight of structural steel:

4,684 lbs	(A709 Grade 50)
758 lbs	(F3125 Grade A325 Type 1 Bolts)
117 lbs	(F1554 Grade 105 Anchor Bolts)
5,559 lbs	(Total)

4 **Notes:**  
 For General Notes, see Sht. 14.  
 For Web Splice Retrofit Detail, see Sht. 34.  
 For Bearing Details, see Sht. 41.  
 For Superstructure Details, see Shts. 42 - 51.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

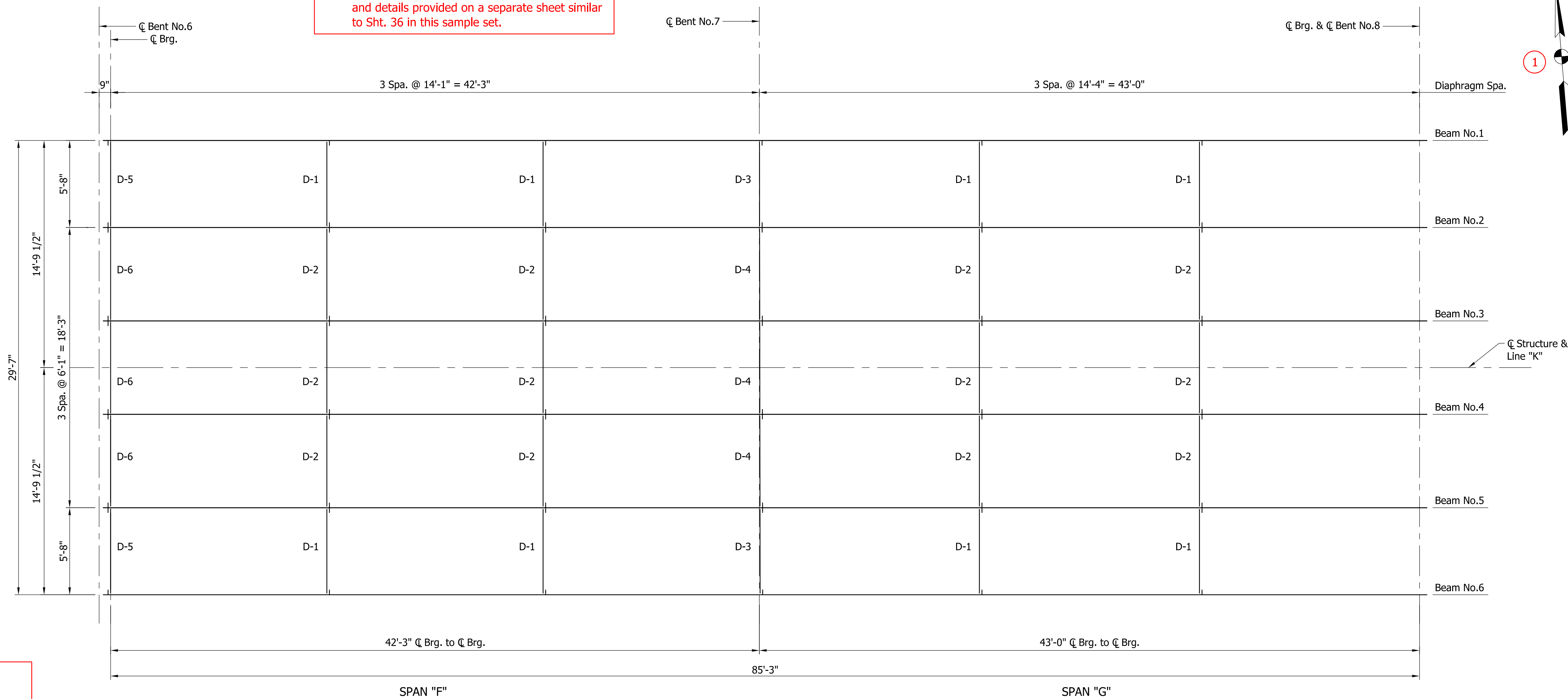
**FRAMING PLAN  
SPANS "C" - "E"**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
SHEET	
30 of 71	
CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

The purpose of this Framing Plan sheet is to provide all necessary tie-in dimensions and beam end details as required.

Note: The new beams in this sample project did not require a splice. When a splice is required, the locations should be shown on this Framing Plan and details provided on a separate sheet similar to Sht. 36 in this sample set.



Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

**2 FRAMING PLAN**  
Scale: 1/4" = 1'-0"

**REQUIRED ELEMENTS:**

- 1 North Arrow
- 2 Framing Plan
- 3 Fabrication & Erection Notes w/Estimated Weight of Structural Steel
- 4 Sheet Notes
- 5 Signature Block and PE Seal

Note: The limits on bridge beam painting/coating of 50W structural steel should be clearly shown on plans, per Design Memo 23-10.

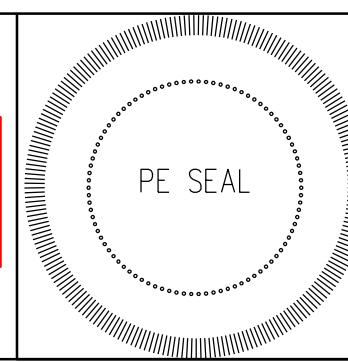
**3 FABRICATION AND ERECTION NOTES**

All Structural Steel is to be ASTM A709, Grade 50, unless noted.  
All Bolts shall be High Strength F3125 Grade A325 Type 1 Bolts, 7/8" diameter, unless noted. Open holes shall be 15/16" diameter, unless noted.  
All Anchor Bolts shall be ASTM F1554, Grade 105, unless noted.  
All Threaded Studs shall be ASTM F1554, Grade 105, unless noted.  
Clean existing steel and coat all new and existing steel except top of beams and shear connectors. See Sht. 58 for dried coat film information.  
Per Original Bridge Plans, Lead Based Primer may be present on Top Flange. The remainder of the bridge was last painted in 1979 and the presence of lead is unknown.

Estimated weight of structural steel:	62,168 lbs	(A709 Grade 50)
	296 lbs	(F3125 Grade A325 Type 1 Bolts)
	116 lbs	(F1554 Grade 105 Anchor Bolts)
	104 lbs	(F1554 Grade 105 Threaded Studs)
	<u>62,684 lbs</u>	(Total)

Notes:  
For General Notes, see Sht. 14.  
For Diaphragm Details, see Sht. 32.  
For Bearing Details, see Shts. 38 - 41.  
For Superstructure Details, see Shts. 42 - 51.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

**FRAMING PLAN  
SPANS "F" - "G"**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
SHEET	
31 of 71	
CONTRACT	PROJECT
B-00000	0000000



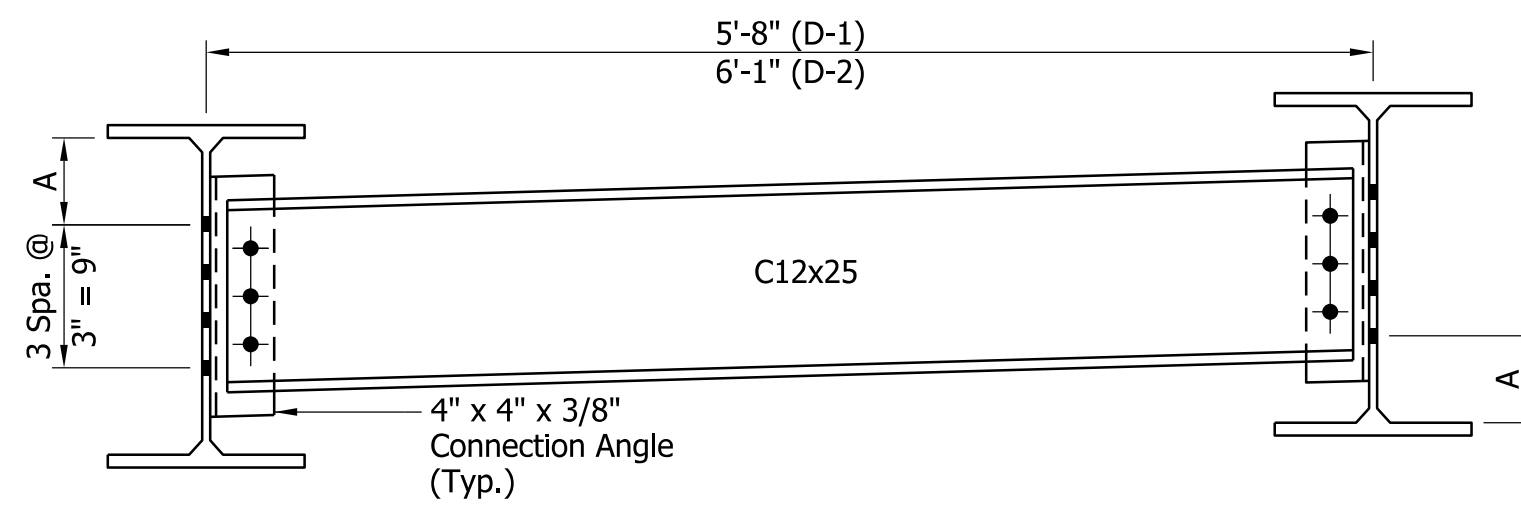
**PURPOSE:**

The purpose of this Structural Steel Details sheet is to provide dimensions and details required for fabrication and installation of steel diaphragms.

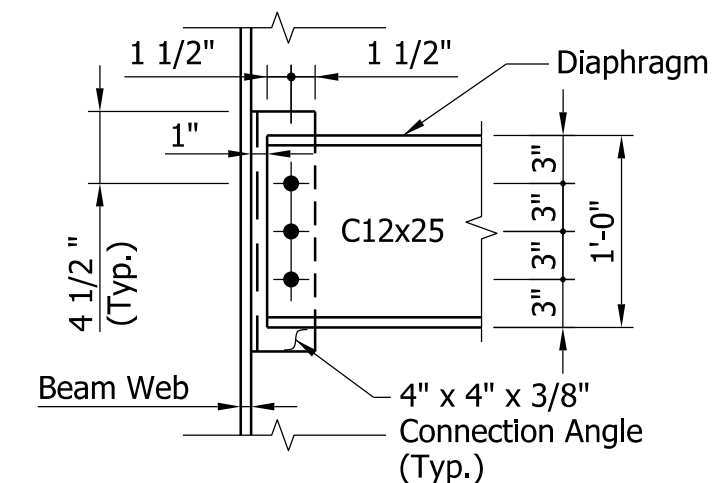
Note: Bolted diaphragm connections are allowed per AASHTO LRFD. Forthcoming IDM updates will address this.

Typ. All Views and Sections:  
 Section Title: 18 Pt Text  
 Section Sub-Title: 14 Pt Text  
 Dimensions and Text Callouts: 12 Pt Text

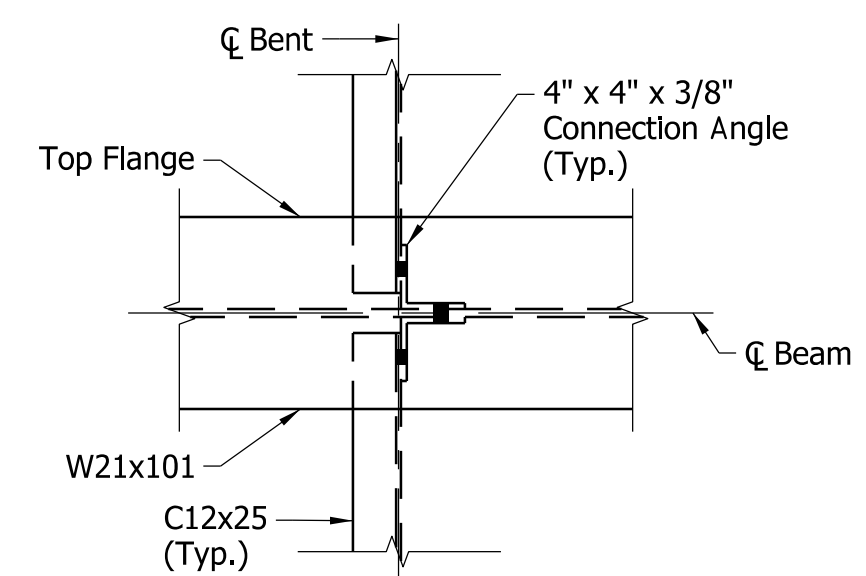
- REQUIRED ELEMENTS:**
- 1 Diaphragm Elevation and Connection Details
  - 2 Bearing Stiffener, Transverse Stiffener & Connection Plate Details as Required by Design
  - 3 Notes
  - 4 Signature Block and PE Seal



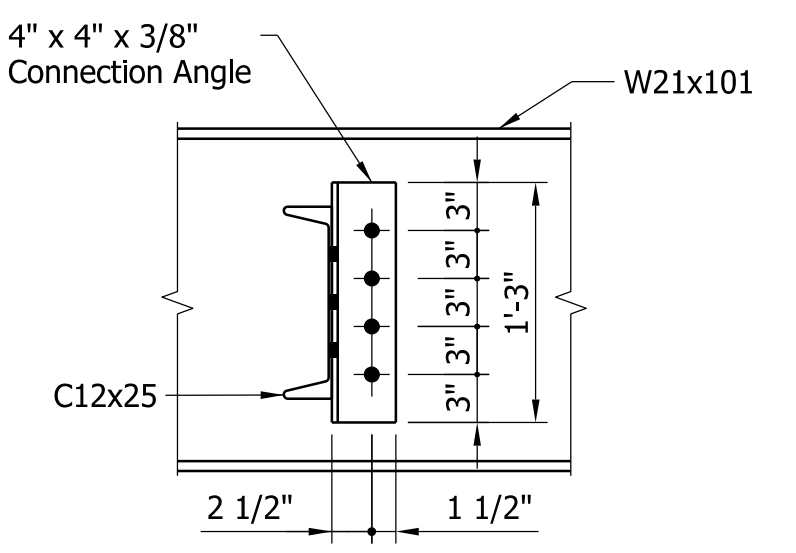
DIAPHRAGM ELEVATION - D-1 & D-2



CONNECTION DETAIL - D-1 & D-2

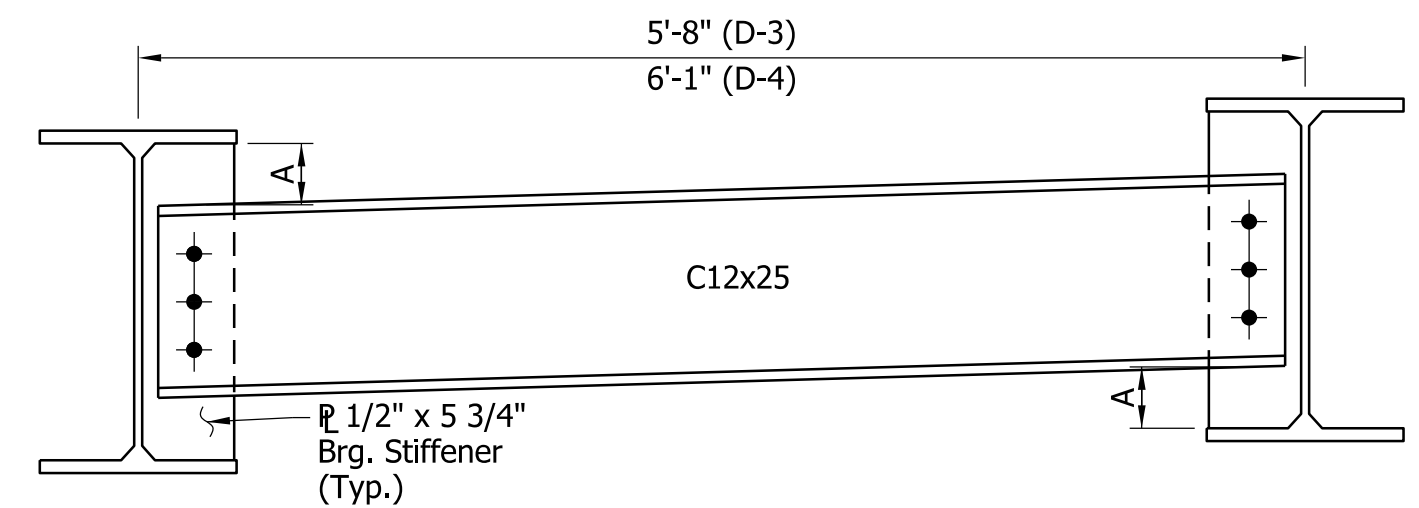


PLAN - D-1 & D-2

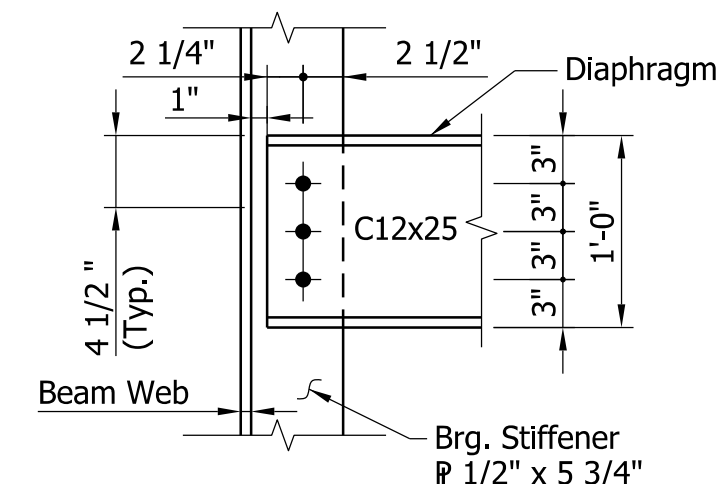


BEAM ELEVATION - D-1 & D-2

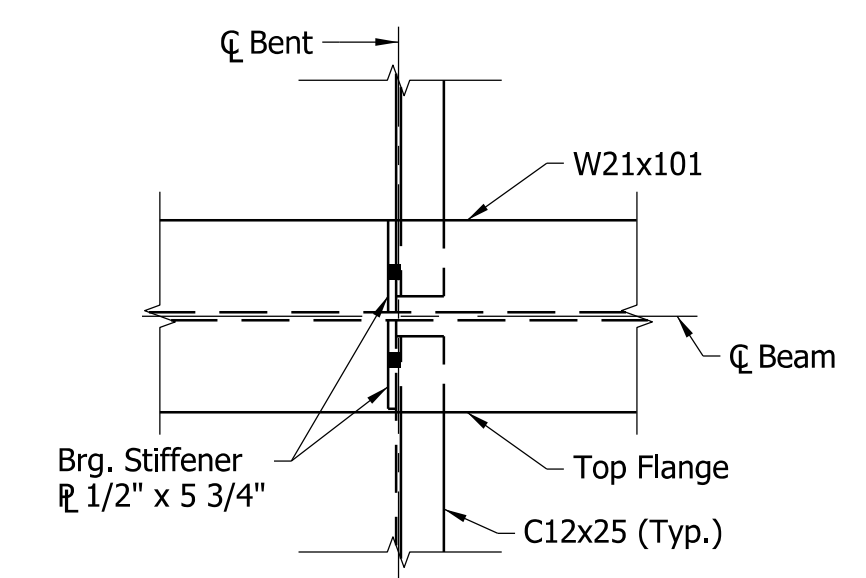
1 TYPICAL DIAPHRAGM - D-1 & D-2  
 Scale: 1"=1'-0"



DIAPHRAGM ELEVATION - D-3 & D-4

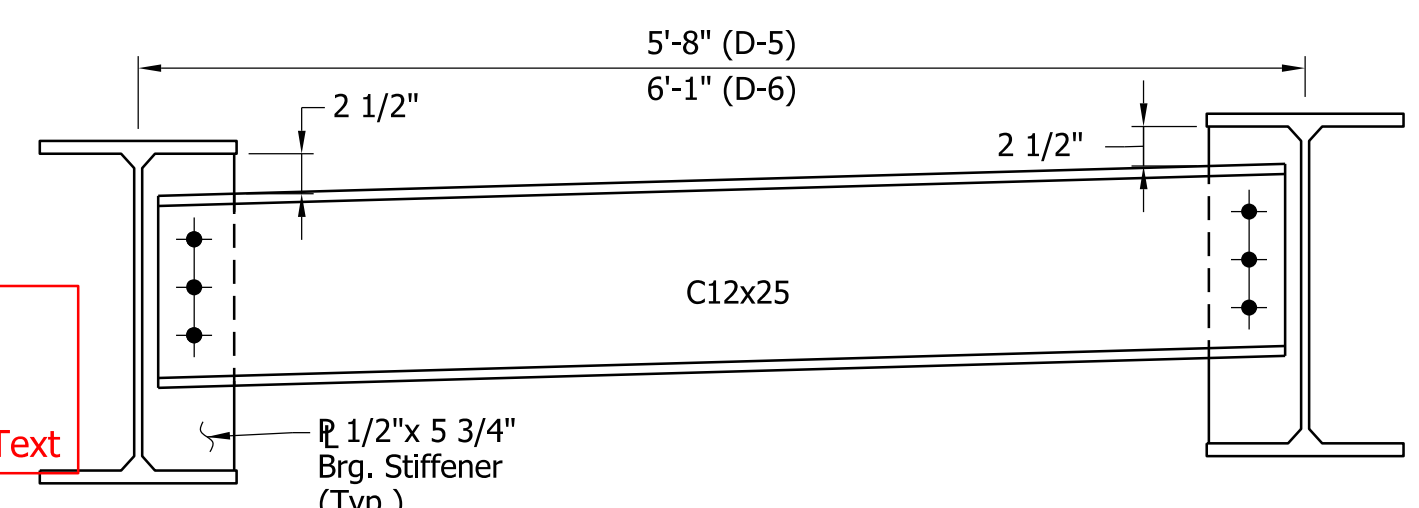


CONNECTION DETAIL - D-3 & D-4

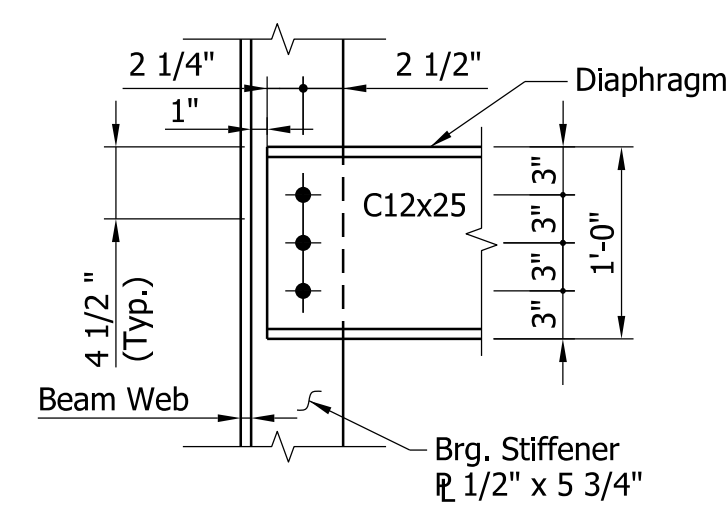


PLAN - D-3 & D-4

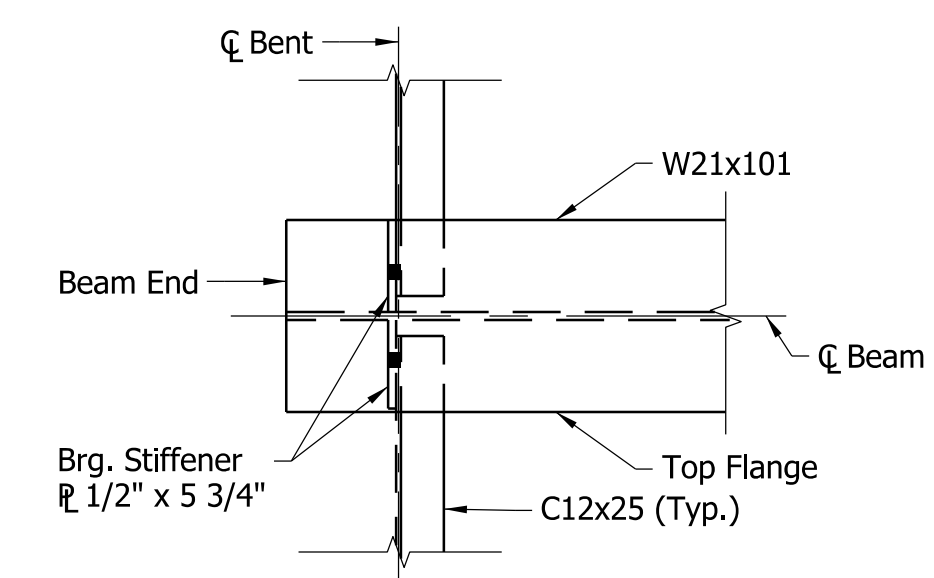
1 TYPICAL DIAPHRAGM - D-3 & D-4  
 Scale: 1"=1'-0"



DIAPHRAGM ELEVATION - D-5 & D-6

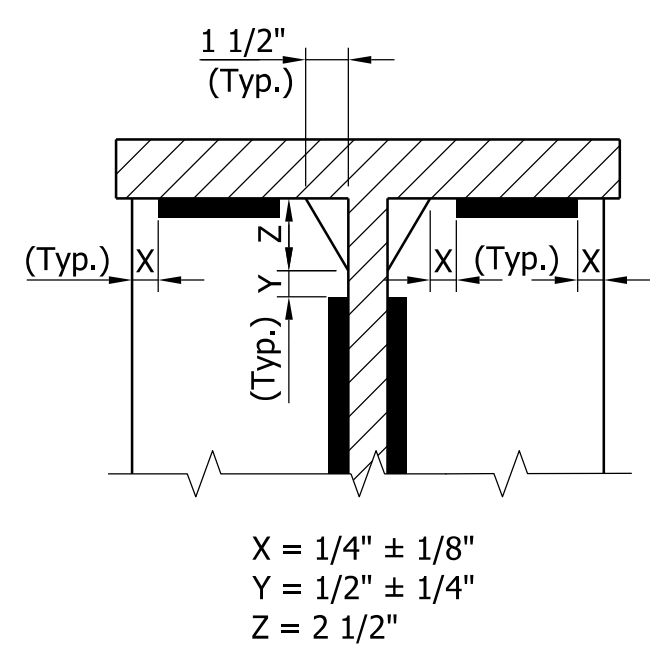


CONNECTION DETAIL - D-5 & D-6

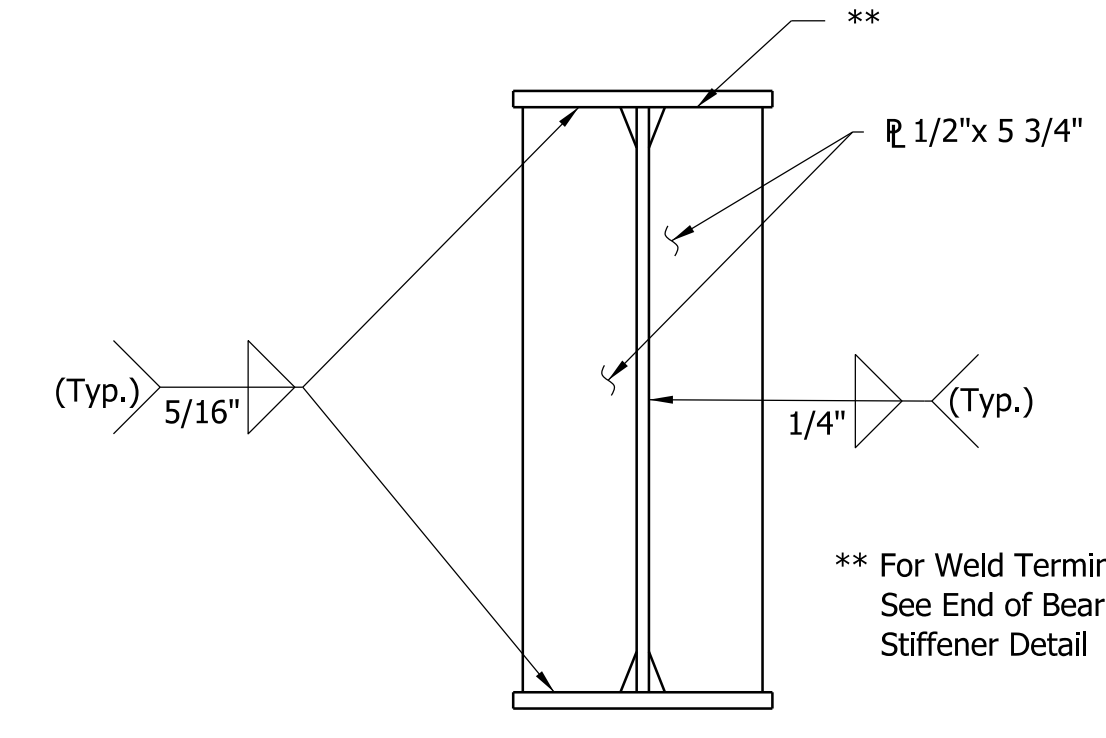


PLAN - D-5 & D-6

1 TYPICAL DIAPHRAGM - D-5 & D-6  
 Scale: 1"=1'-0"



2 END OF BEARING STIFFENER DETAIL  
 Not to Scale

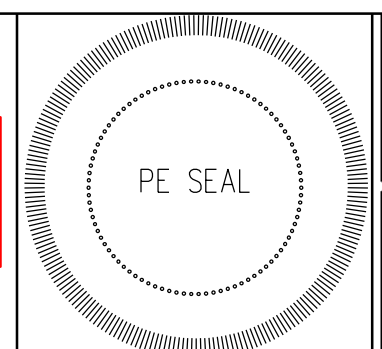


4 BEARING STIFFENER DETAIL  
 Not to Scale

Note: Designer should see IDM for alternate detail to include for tension flange connections and other details not included in this sample plan set.

3 Notes:  
 For General Notes, see Sht. 14.  
 For Framing Plan & Erection Notes, see Shts. 29 - 31.  
 Dimension "A" shall be equal.

Title Block Text:  
 Labels: 10 Pt Text  
 Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

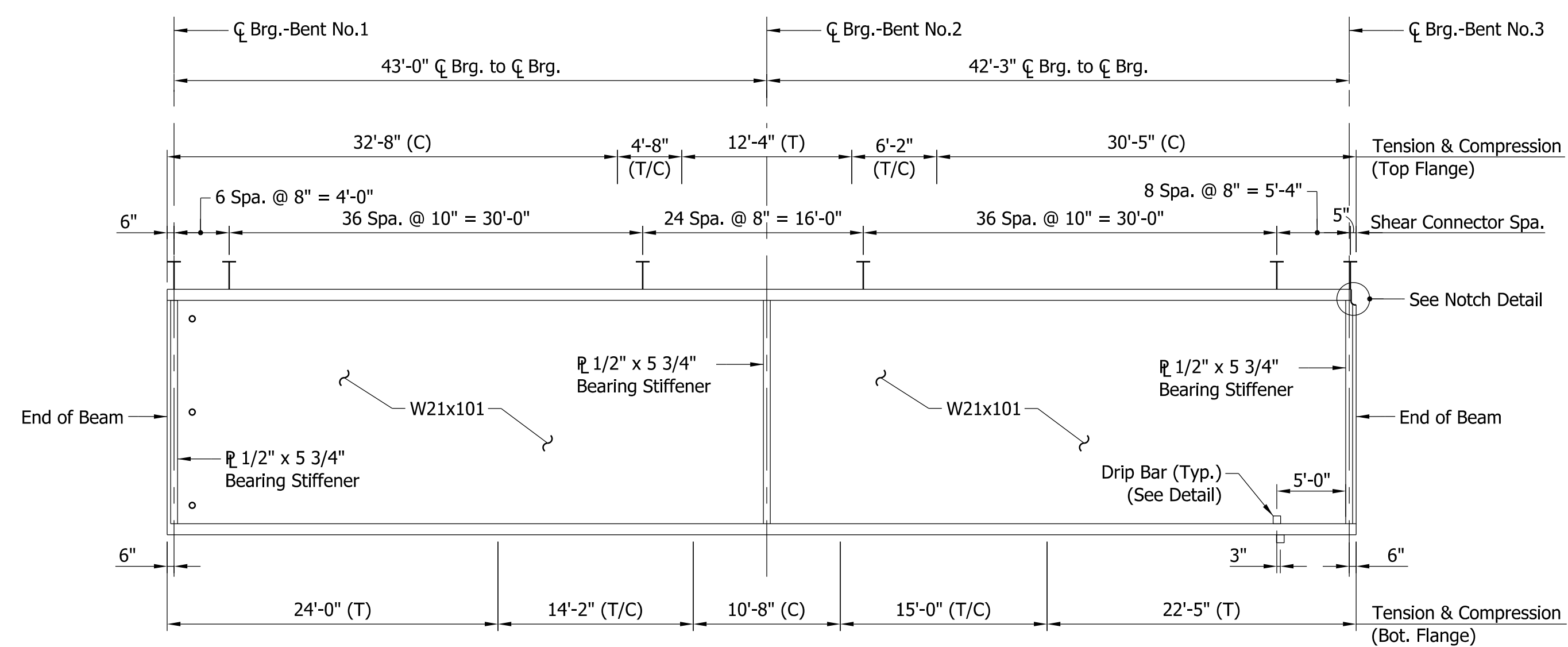
INDIANA  
 DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	32 of 71
CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

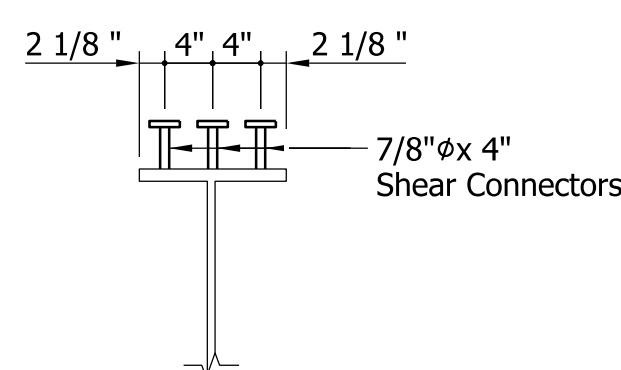
The purpose of this Structural Steel Details sheet is to provide all necessary dimensions details required for steel beam fabrication for end span beams.



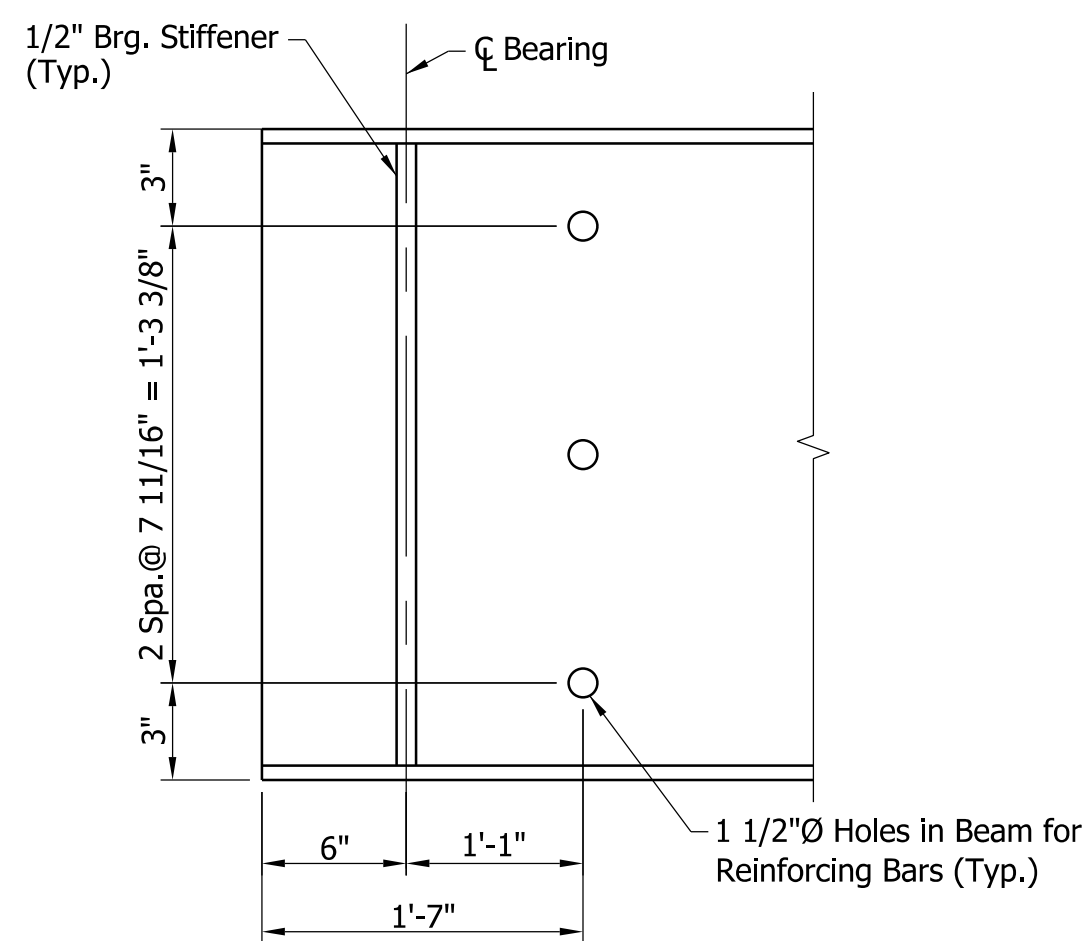
1 **BEAM ELEVATION**  
Not to Scale

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

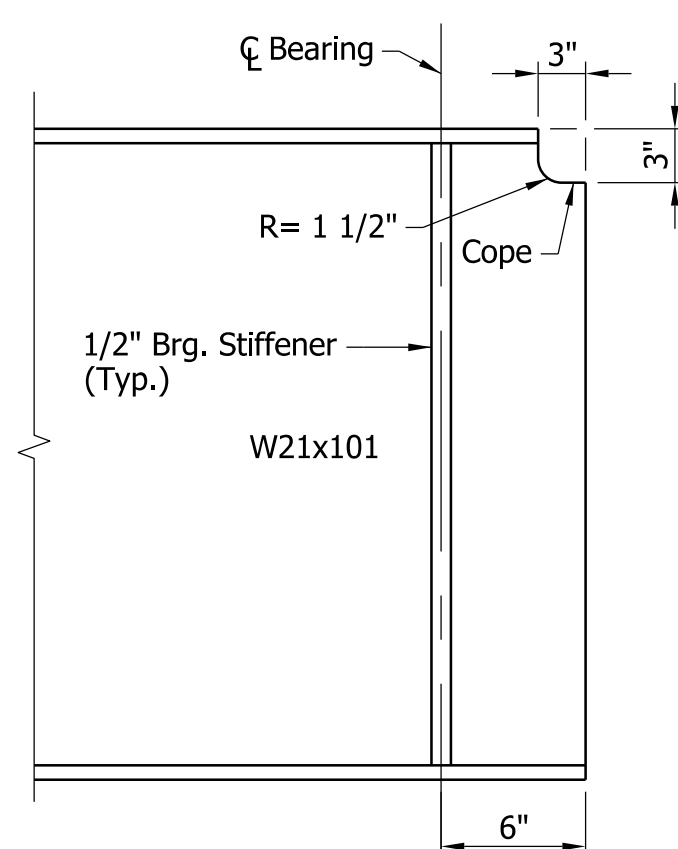
Note: When possible, this notch should be avoided in rolled beams. It is not always possible to avoid on rehabilitation projects.



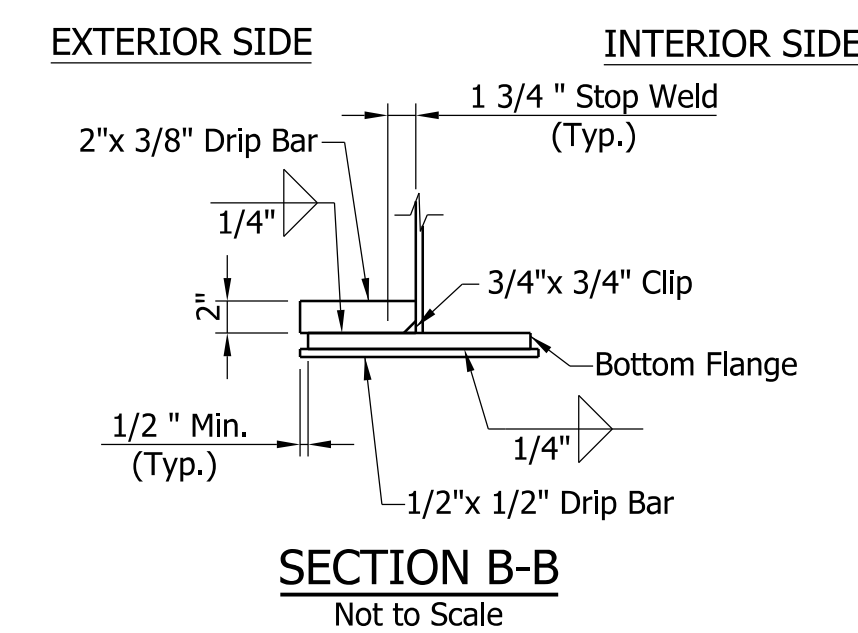
2 **SHEAR CONNECTORS TYPICAL DETAIL**  
Scale: 3/4" = 1'-0"



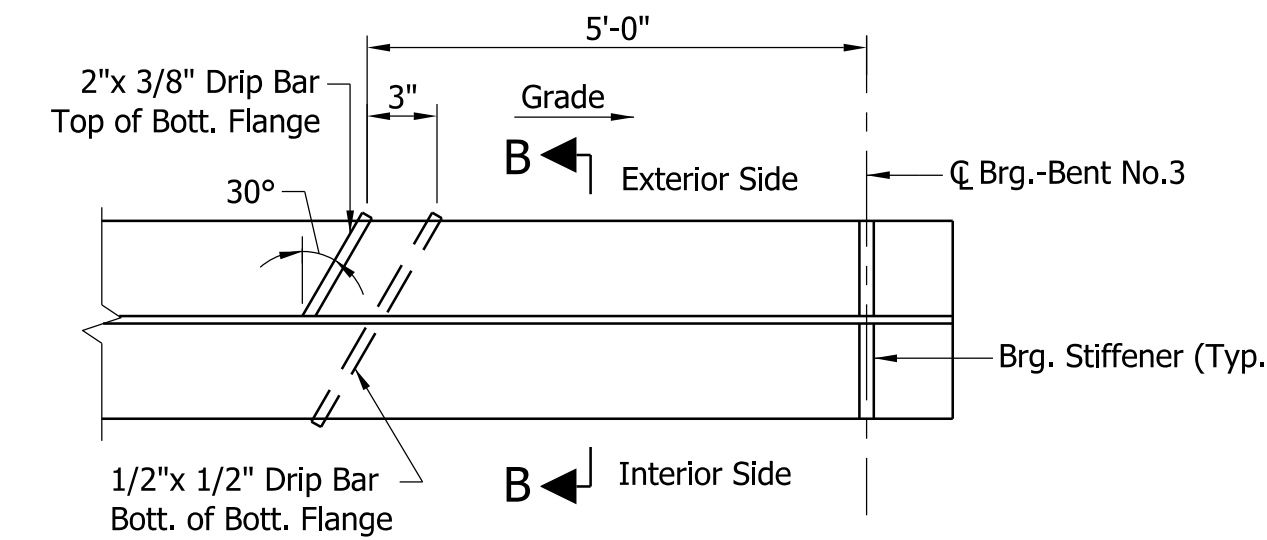
3 **BEAM WEB HOLE DETAIL @ BENT NO. 1**  
Not to Scale



4 **NOTCH DETAIL FOR END OF BEAM @ BENT NO. 3**  
Not to Scale



Note:  
Drip Bars shall be located on the upward slope of all exterior girders adjacent to bents and piers.  
Drip Bars shall be caulked with dark brown caulking against flange, web and fillet welds.



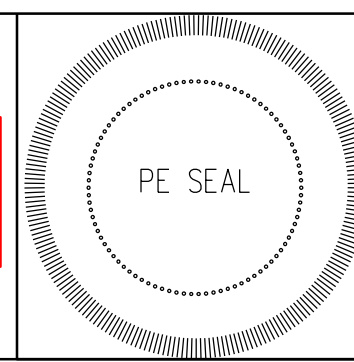
5 **TYPICAL DRIP BAR DETAIL**  
Not to Scale

**REQUIRED ELEMENTS:**

- 1 Beam Elevation w/ T&C Diagram
- 2 Shear Connectors Details (when req'd.)
- 3 Beam Web Hole Detail
- 4 Notch Detail for End of Beam (when req'd.)
- 5 Drip Bar Detail
- 6 Notes
- 7 Signature Block and PE Seal

6 Notes:  
For General Notes, see Sht. 14.  
For Framing Plan & Erection Notes, see Shts. 29 - 31.  
Beam ends and bearing stiffeners shall be fabricated such that they are vertical under full dead load.  
Shear connectors located within the limits of the deck drain shall be relocated to miss the deck drain.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



7

RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

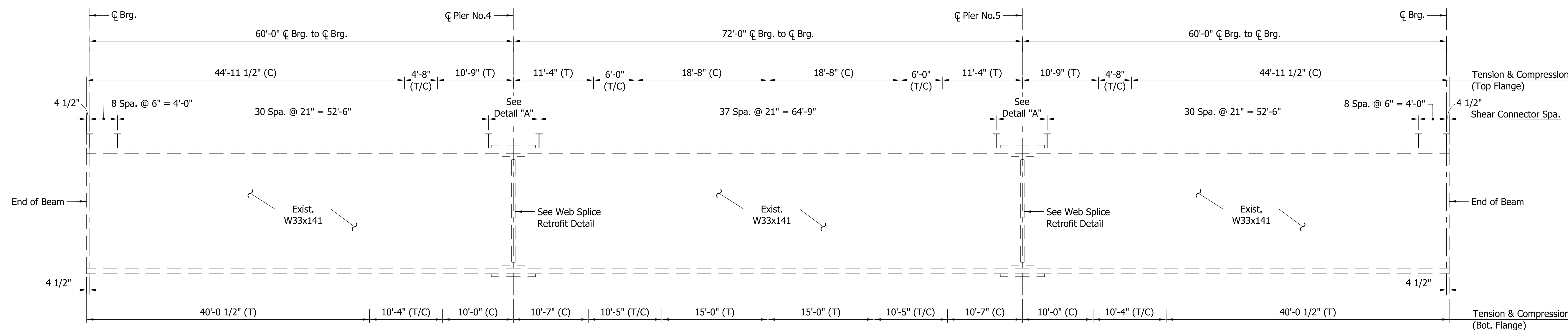
STRUCTURAL STEEL DETAILS  
SPANS "A" - "B"

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	33 of 71
CONTRACT	PROJECT
B-00000	0000000



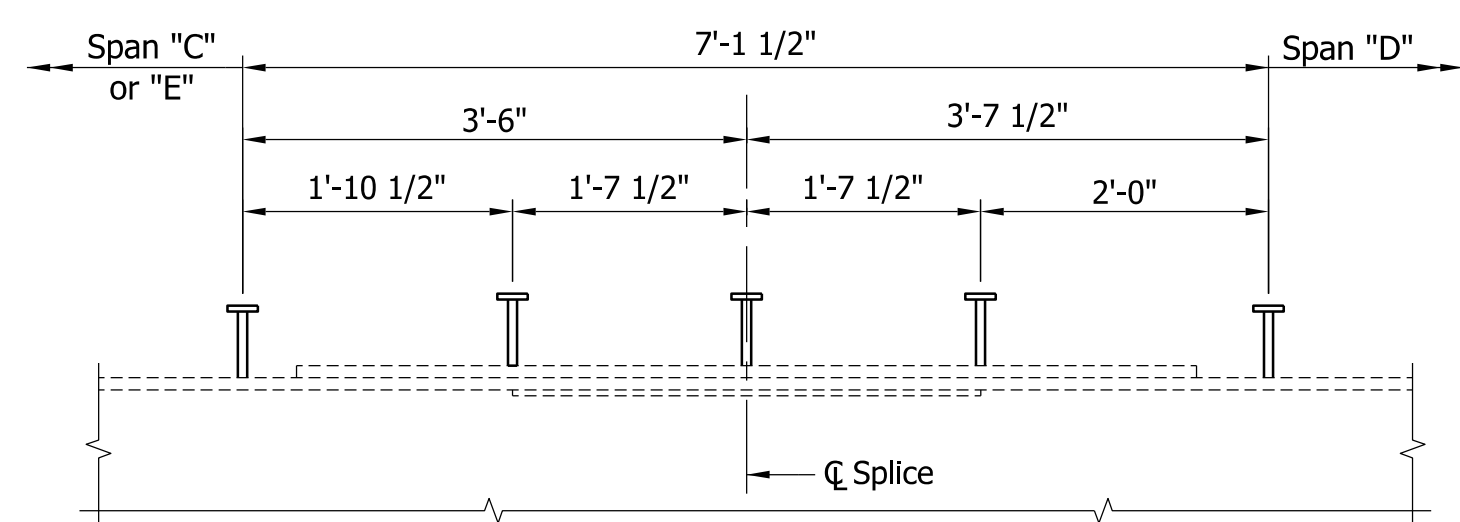
**PURPOSE:**

The purpose of this Structural Steel Details sheet is to provide all necessary dimensions details required for steel beam fabrication for interior span beams.

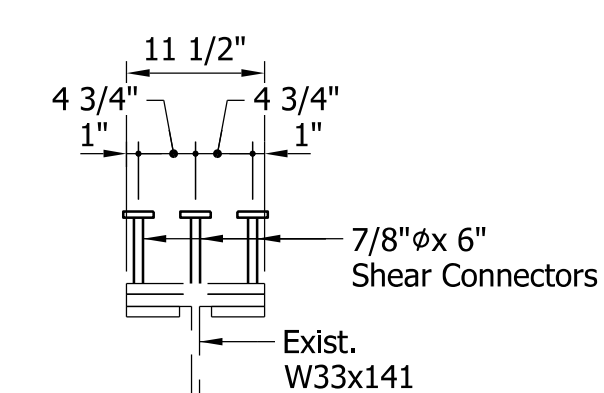


1 **BEAM ELEVATION**  
Not to Scale

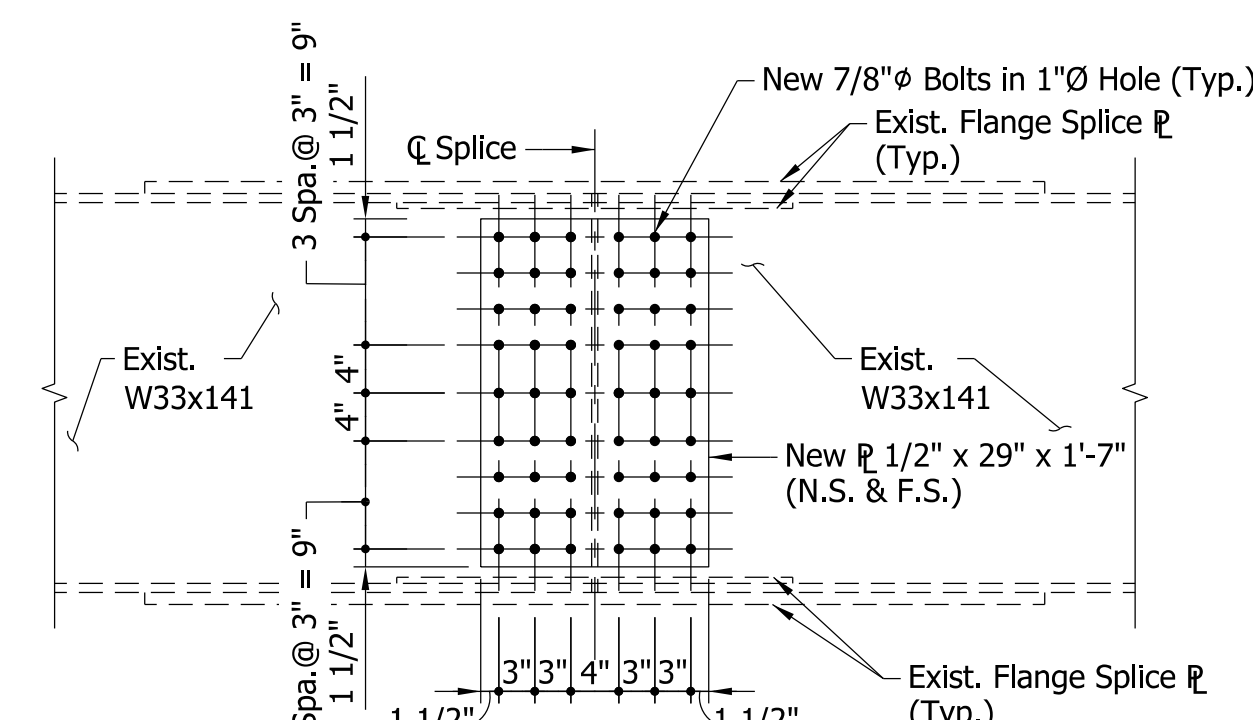
Typ. All Views and Sections:  
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Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



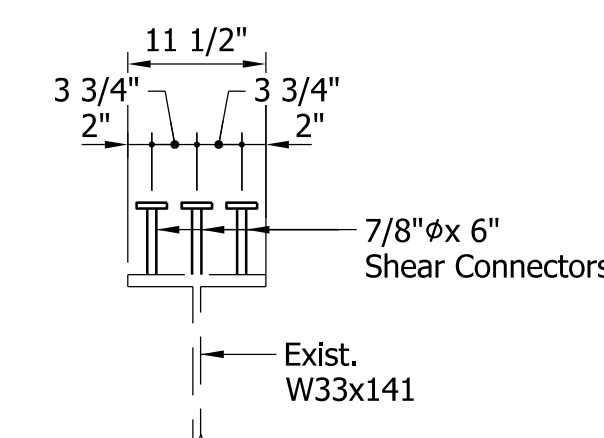
2 **DETAIL "A"**  
Scale: 3/4" = 1'-0"



2 **SHEAR CONNECTORS TYPICAL DETAIL @ SPLICE**  
Scale: 3/4" = 1'-0"



3 **WEB SPLICE RETROFIT DETAIL**  
Scale: 3/4" = 1'-0"



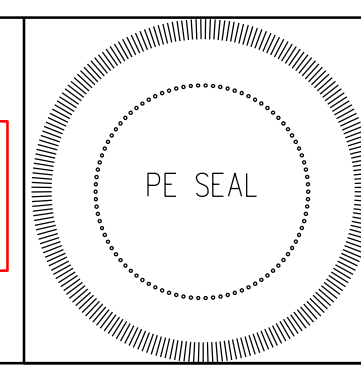
2 **SHEAR CONNECTORS TYPICAL DETAIL**  
Scale: 3/4" = 1'-0"

4 Notes:  
For General Notes, see Sht. 14.  
For Framing Plan & Erection Notes, see Shts. 29 - 31.  
All Bolts in new Web Splice shall be High Strength F3125 Grade A325 Type 1 Bolts, 7/8"  $\emptyset$ .  
All Holes for new Web Splice Plates shall be 1"  $\emptyset$ .

**REQUIRED ELEMENTS:**

- 1 Beam Elevation w/ T&C Diagram
- 2 Shear Connectors Details (when req'd.)  
Typical Section  
Detail at Splice  
Detail at Connection Plate
- 3 Web Splice Details
- 4 Notes
- 5 Signature Block and PE Seal

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



6

RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

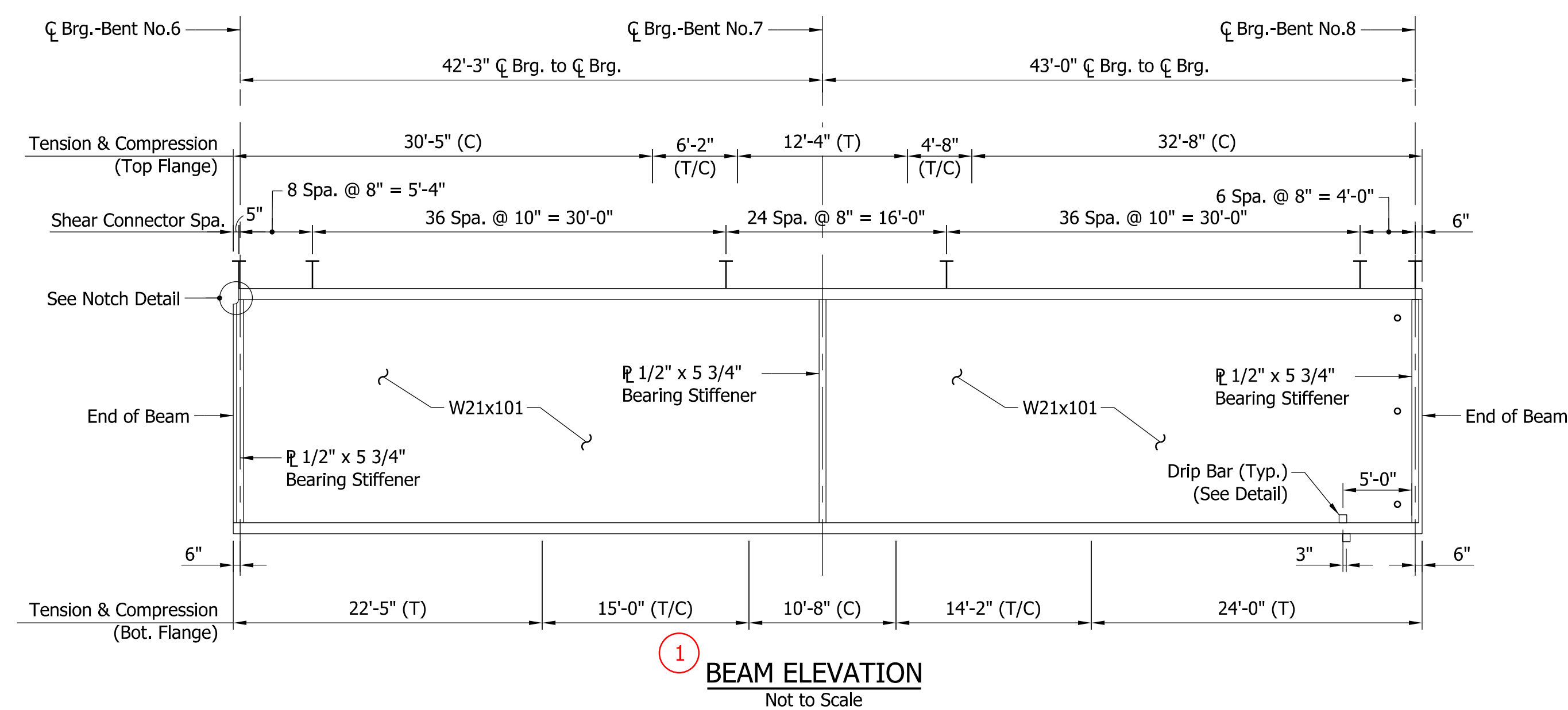
INDIANA  
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS  
SPANS "C" - "E"

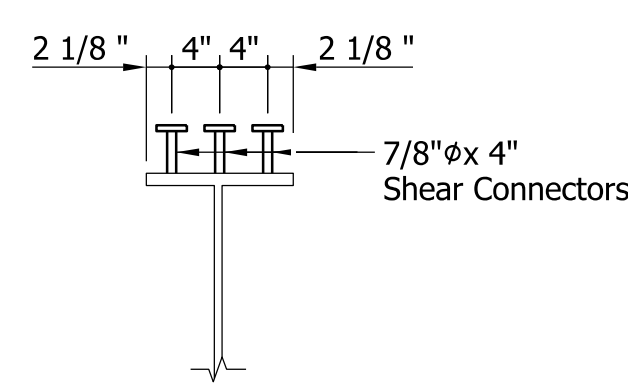
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	34 of 71
CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

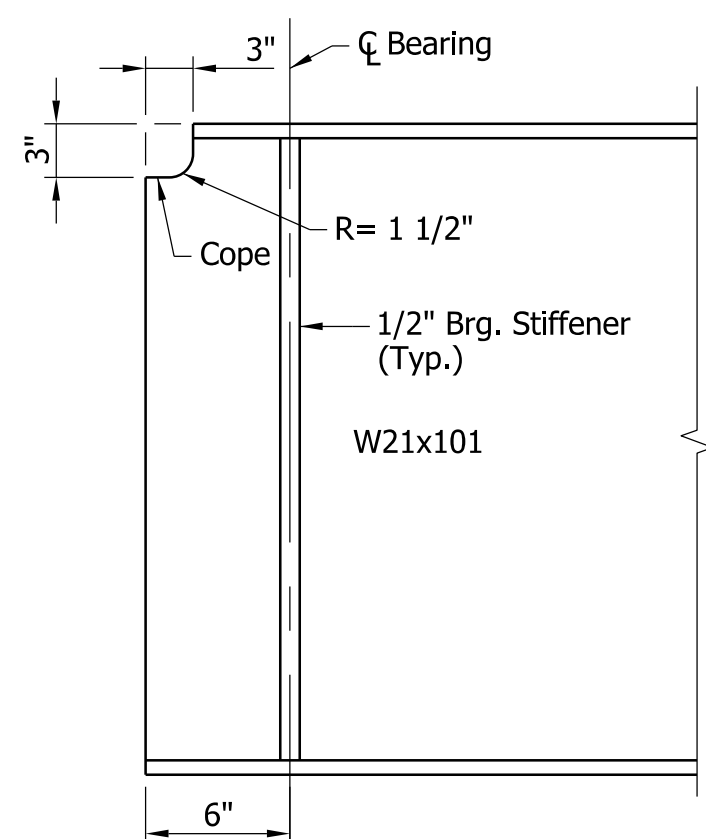
The purpose of this Structural Steel Details sheet is to provide all necessary dimensions details required for steel beam fabrication for end span beams.



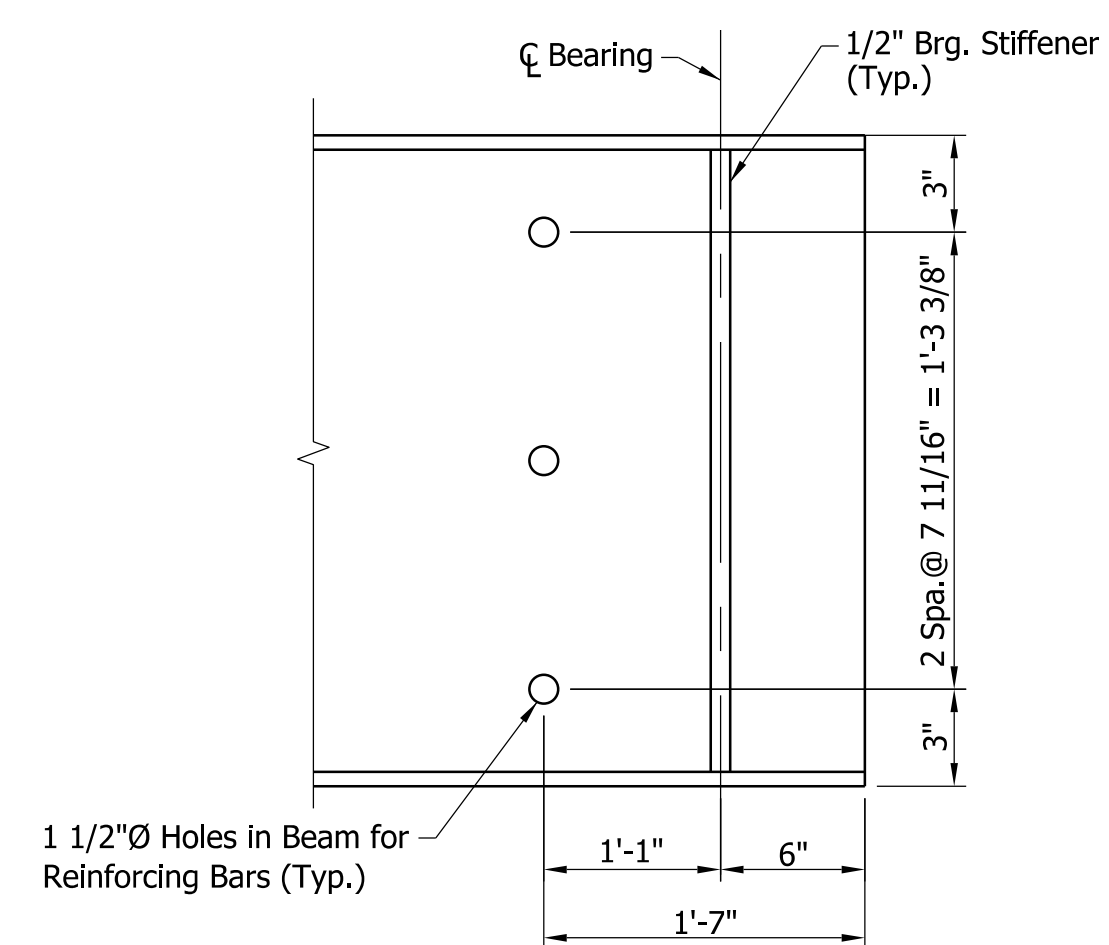
Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



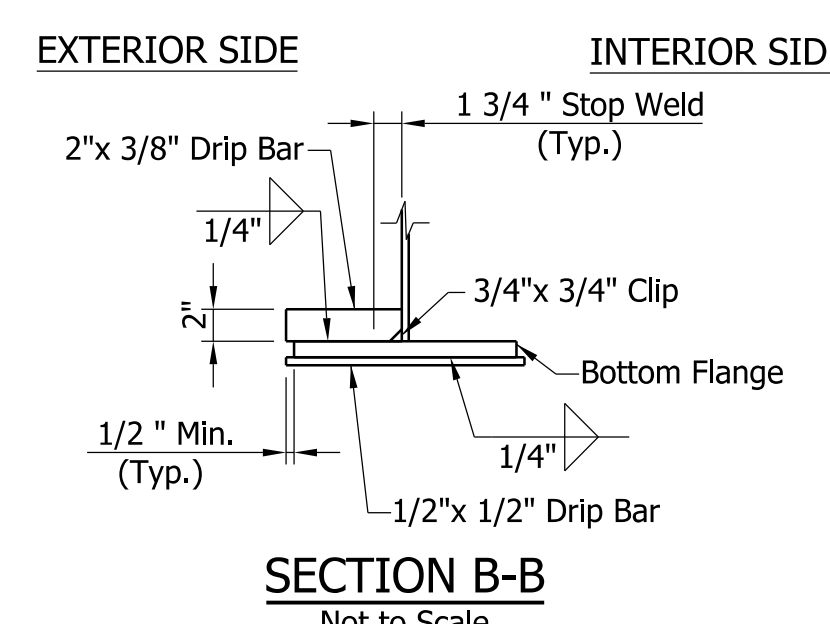
2 SHEAR CONNECTORS TYPICAL DETAIL  
Scale: 3/4" = 1'-0"



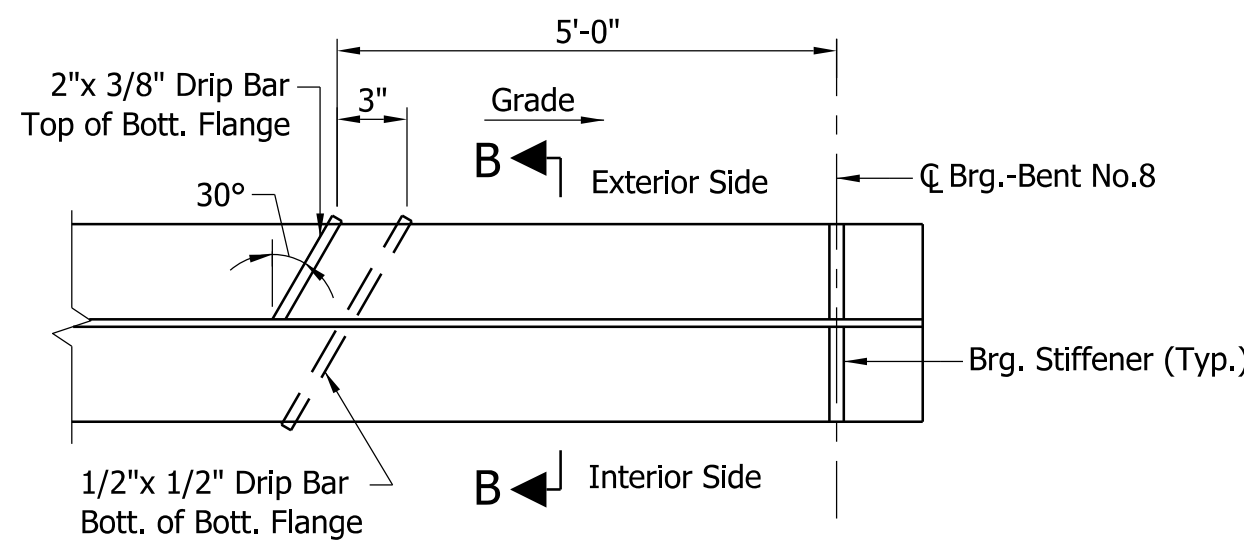
4 NOTCH DETAIL FOR END OF BEAM @ BENT NO. 6  
Not to Scale



3 BEAM WEB HOLE DETAIL @ BENT NO. 8  
Not to Scale



Note:  
Drip Bars shall be located on the upward slope of all exterior girders adjacent to bents and piers.  
Drip Bars shall be caulked with dark brown caulking against flange, web and fillet welds.

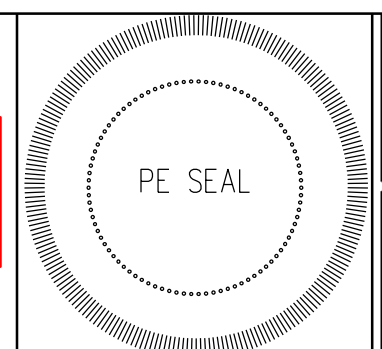


5 TYPICAL DRIP BAR DETAIL  
Not to Scale

- REQUIRED ELEMENTS:**
- 1 Beam Elevation w/ T&C Diagram
  - 2 Shear Connectors Details (when req'd.)
  - 3 Beam Web Hole Detail
  - 4 Notch Detail for End of Beam (when req'd.)
  - 5 Notes
  - 6 Signature Block and PE Seal

5 Notes:  
For General Notes, see Sht. 14.  
For Framing Plan & Erection Notes, see Shts. 29 - 31.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS  
SPANS "F" - "G"

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	35 of 71
CONTRACT	PROJECT
B-00000	0000000

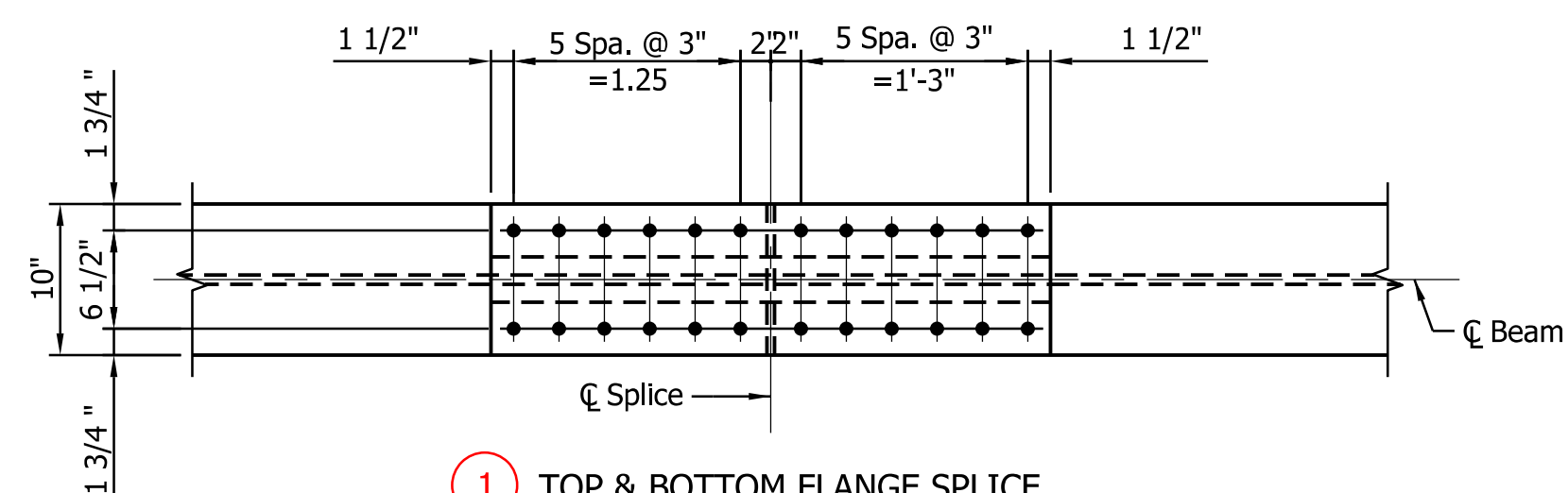


**PURPOSE:**

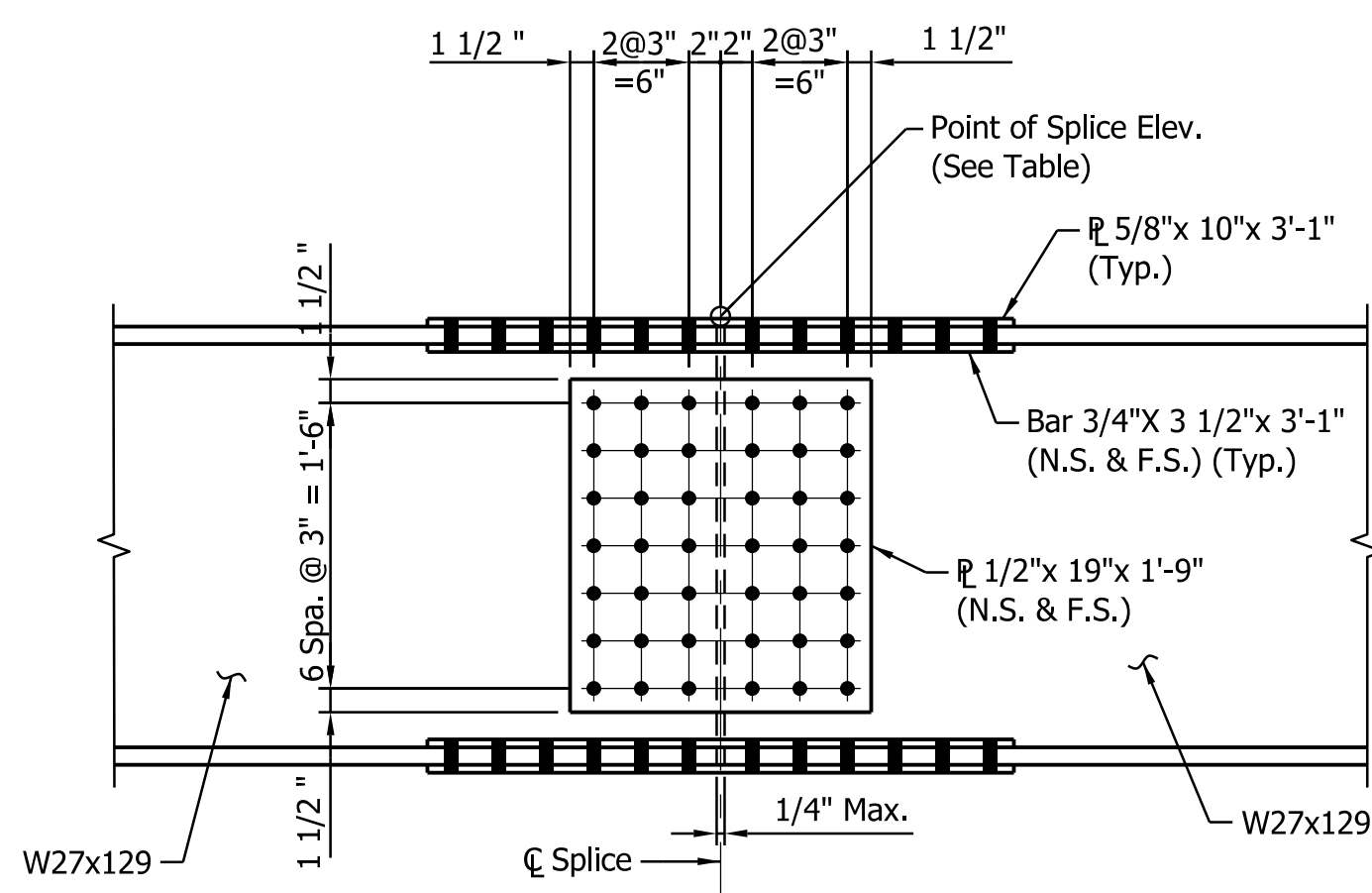
The purpose of this Structural Steel Details sheet is to provide all necessary dimensions details required for fabrication and installation of beam field splices.

**NOTE:**

The splice details shown on this sheet are not related to the rest of the project for this set of sample rehab plans. The details are for illustrative purposes only and should be included as appropriate for a project with steel beams or plate girders.



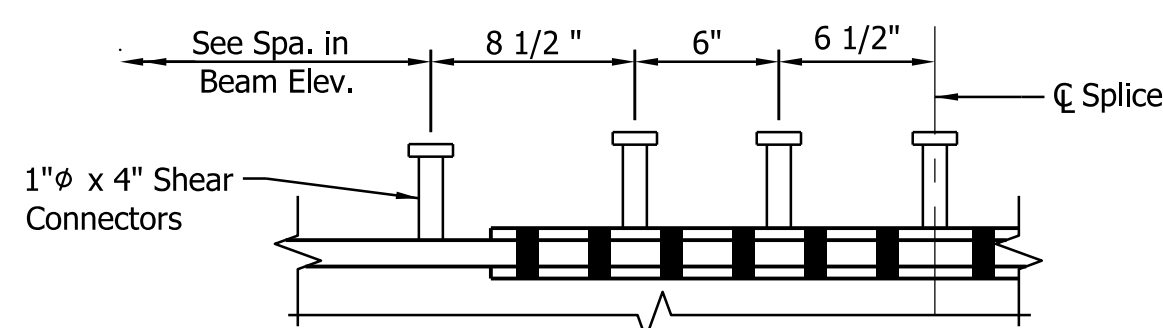
1 TOP & BOTTOM FLANGE SPLICE



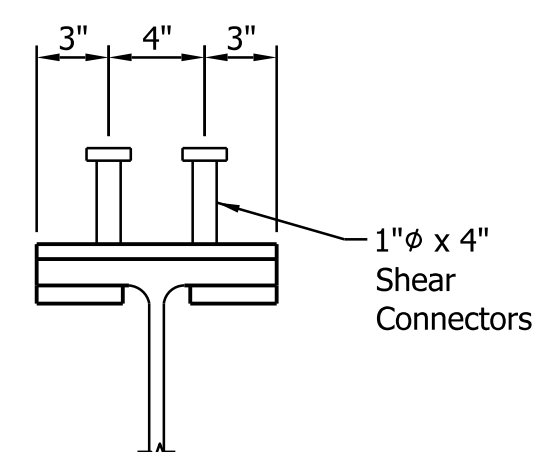
2 TYPICAL SPLICE DETAIL  
Scale: 1" = 1'-0"

Note:  
Due to Bolt Clearance, Flange Splice Bolts may need to be installed prior to Web Splice Bolts.

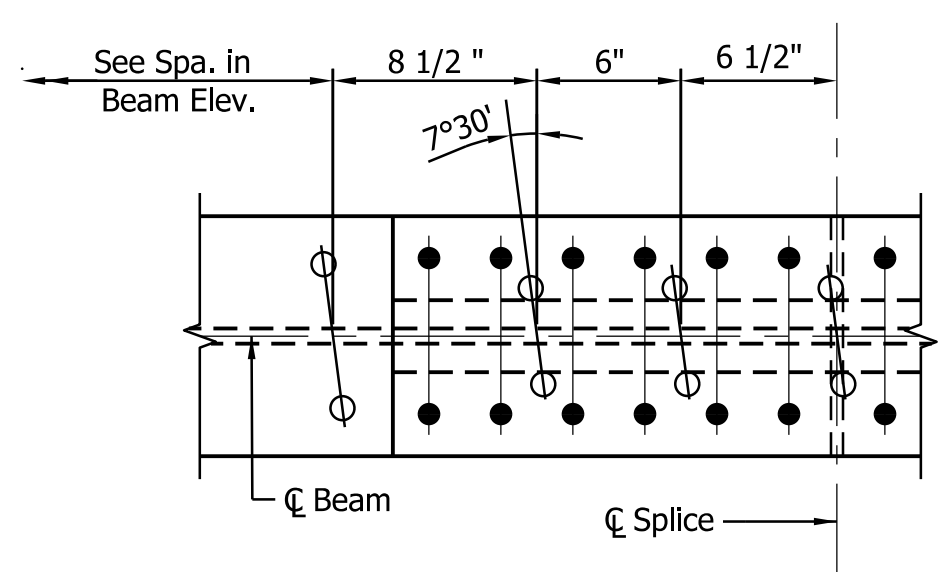
Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



ELEVATION



SHEAR CONNECTORS  
TYPICAL DETAIL @ SPLICE  
Scale: 1 1/2" = 1'-0"



PLAN

2 DETAIL "C"  
Scale: 1 1/2" = 1'-0"

3

TOP OF SPLICE ELEVATIONS			
	Optional Splice 1-1	Splice 3-1	Optional Splice 4-1
Beam No. 1	1022.631	1023.260	1022.036
Beam No. 2	1022.781	1023.380	1022.139
Beam No. 3	1022.925	1023.498	1022.237
Beam No. 4	1023.070	1023.614	1022.335
Beam No. 5	1023.214	1023.731	1022.432
Beam No. 6	1023.232	1023.722	1022.404
Beam No. 7	1023.126	1023.589	1022.250
Beam No. 8	1023.019	1023.454	1022.096
Beam No. 9	1022.912	1023.320	1021.942
Beam No. 10	1022.800	1023.182	1021.783

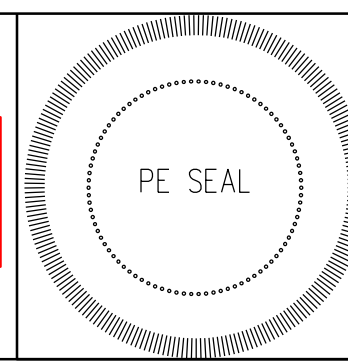
Note:  
Top of beam splice shall be adjusted to these elevations before bolting field splice connections. These elevations are with falsework removed and carrying steel dead load only.

**REQUIRED ELEMENTS:**

- 1 Typical Splice Detail Elevation showing Web Splice Plates  
Plan View(s) showing Top & Bottom Flange Plates
- 2 Detail showing configuration with Shear Connectors
- 3 Top of Splice Elevations Table
- 4 Notes
- 5 Signature Block and PE Seal

4 Notes:  
For General Notes, see Sht. 14.  
For Framing Plan & Erection Notes, see Shts. 29-31.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



5

RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

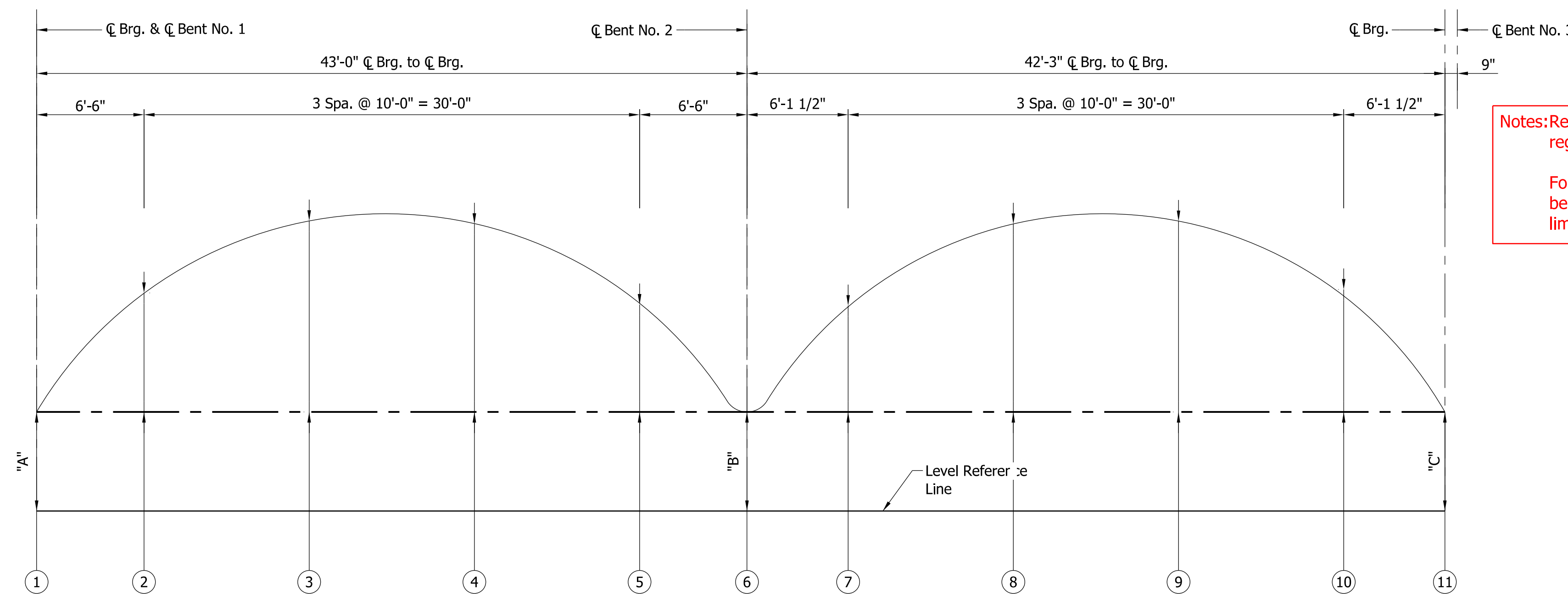
INDIANA  
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS  
SPLICE DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	36 of 71
CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

The purpose of this Structural Steel Details sheet is to provide No Load Camber and Reaming Information required for steel beam fabrication.



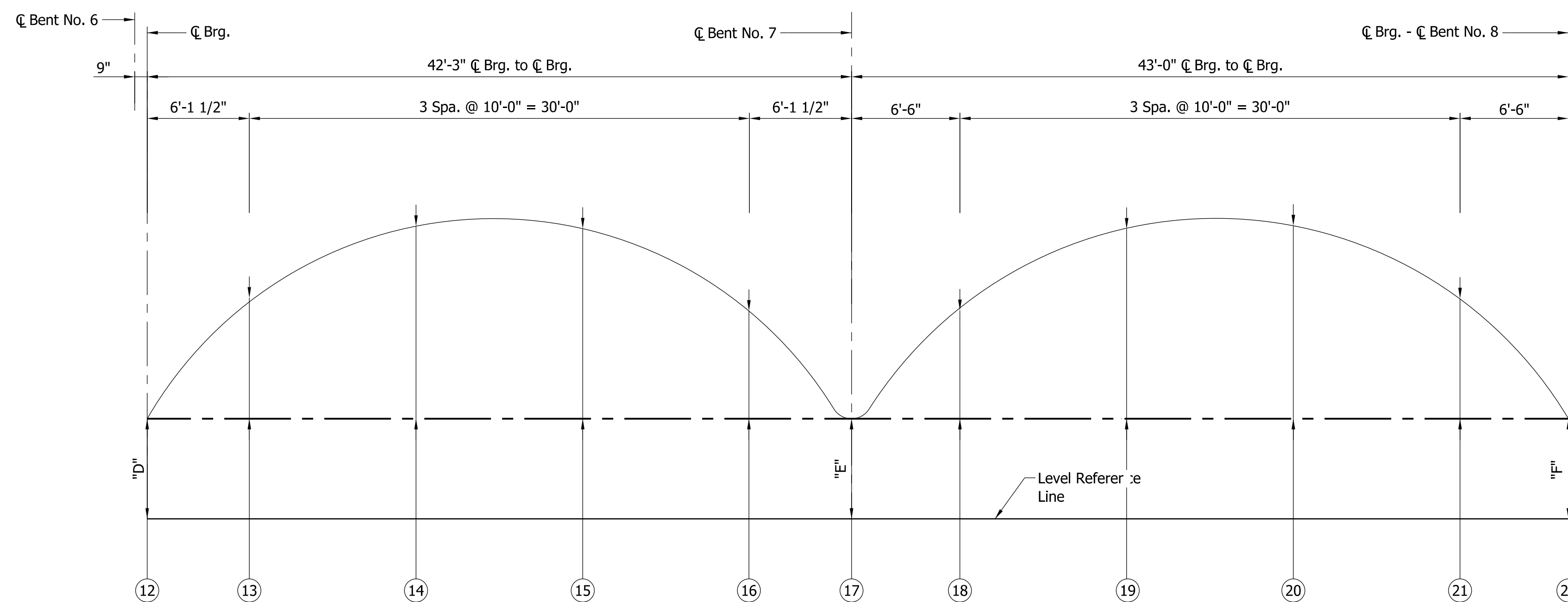
Notes: Refer to IDM for current practice regarding spacing.  
For smaller spans 10th points may be too close. Spacing should be limited to a minimum of 8'.

1 NO LOAD CAMBER AND REAMING DIAGRAM - SPANS "A" - "B"

Note: If a field splice is required, that location should also be included in the Camber Diagrams and Table of Cambers.

3

BLOCKING DIMENSIONS			
LOCATION	"A"	"B"	"C"
Beam No. 1 - 6	12"	12"	12"



2 NO LOAD CAMBER AND REAMING DIAGRAM - SPANS "F" - "G"

Typ. Table:  
Table Title: Text Height = 0.25"  
Table Data: 12 Pt Text

3

BLOCKING DIMENSIONS			
LOCATION	"D"	"E"	"F"
Beam No. 1 - 6	12"	12"	12"

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

**REQUIRED ELEMENTS:**

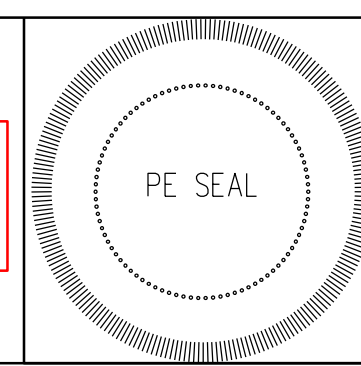
- 1 No Load Camber and Reaming Diagram
- 2 Table of Cambers
- 3 Blocking Dimensions Table
- 4 Notes
- 5 Signature Block and PE Seal

2 TABLE OF CAMBERS (in.)

POINT	LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	
Beams 1-6	Dead Load - Steel Beam	0.00	0.03	0.05	0.04	0.01	0.00	0.01	0.04	0.05	0.02	0.00	0.00	0.02	0.05	0.04	0.01	0.00	0.01	0.04	0.05	0.03	0.00	
	Dead Load - Slab and Forms	0.00	0.18	0.32	0.25	0.07	0.00	0.05	0.22	0.28	0.15	0.00	0.00	0.15	0.28	0.22	0.05	0.00	0.07	0.25	0.32	0.18	0.00	
	Dead Load - Railing	0.00	0.01	0.02	0.02	0.01	0.00	0.00	0.02	0.02	0.01	0.00	0.00	0.01	0.02	0.02	0.00	0.00	0.01	0.02	0.02	0.01	0.00	0.00
	Subtotal - Dead Load	0.00	0.22	0.39	0.31	0.08	0.00	0.06	0.27	0.35	0.19	0.00	0.00	0.19	0.35	0.27	0.06	0.00	0.08	0.31	0.39	0.22	0.00	
	Geometric Camber	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
	Total Camber	0.00	0.22	0.39	0.31	0.08	0.00	0.06	0.27	0.35	0.19	0.00	0.00	0.19	0.35	0.27	0.06	0.00	0.08	0.31	0.39	0.22	0.00	

4 Notes:  
For General Notes, see Sht. 14.  
For Framing Plan & Erection Notes, see Shts. 29 - 31.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



5

RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

STRUCTURAL STEEL DETAILS

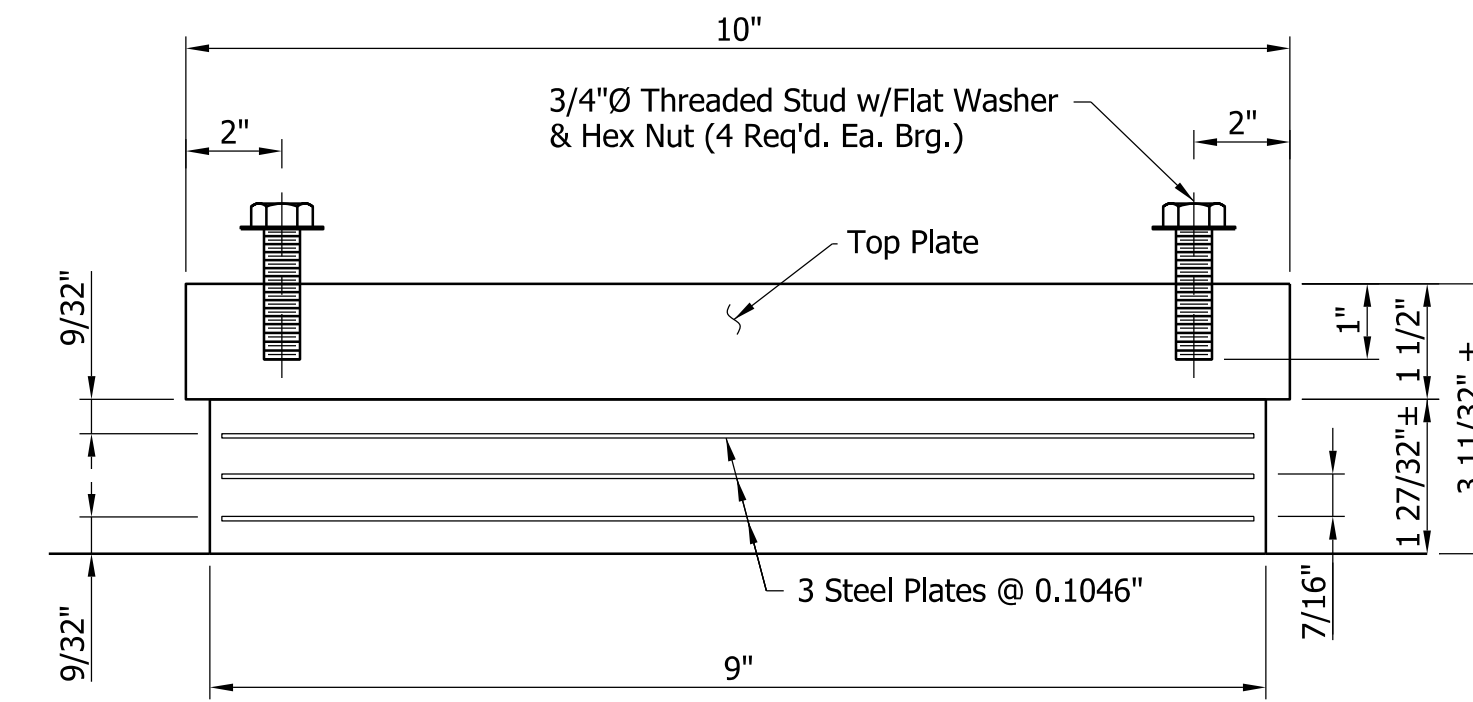
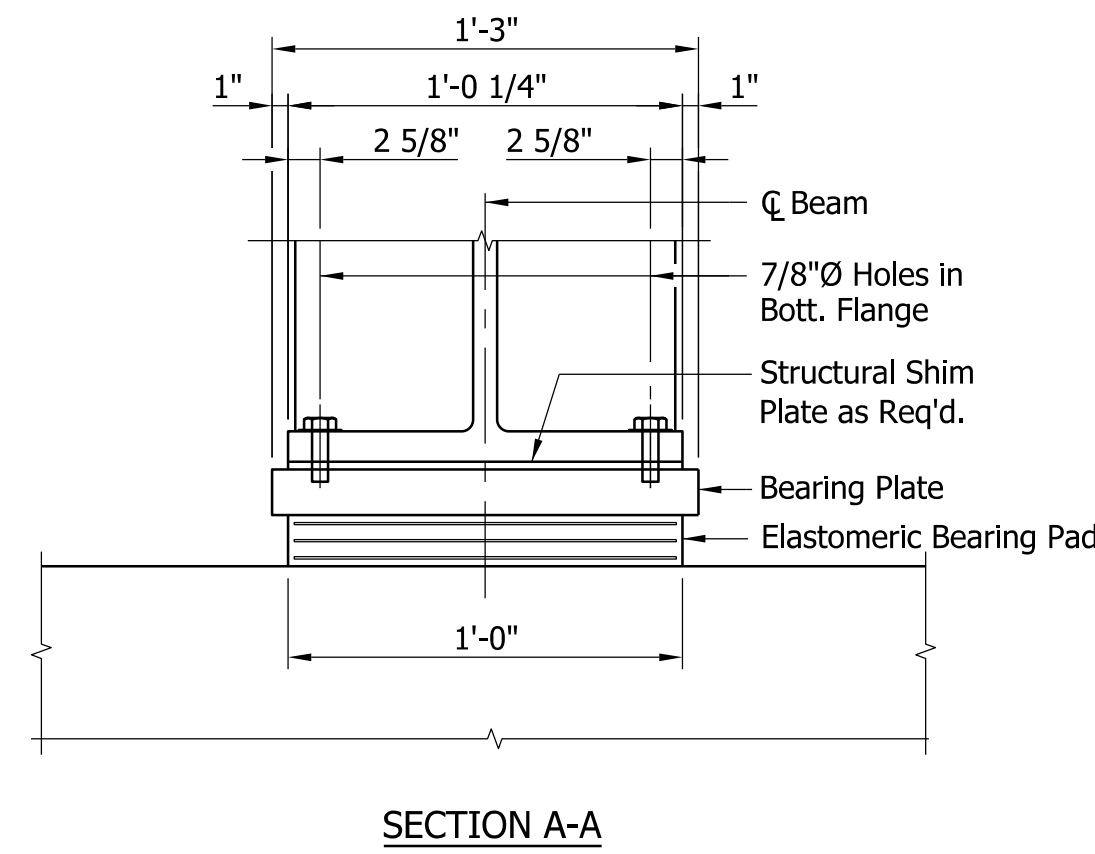
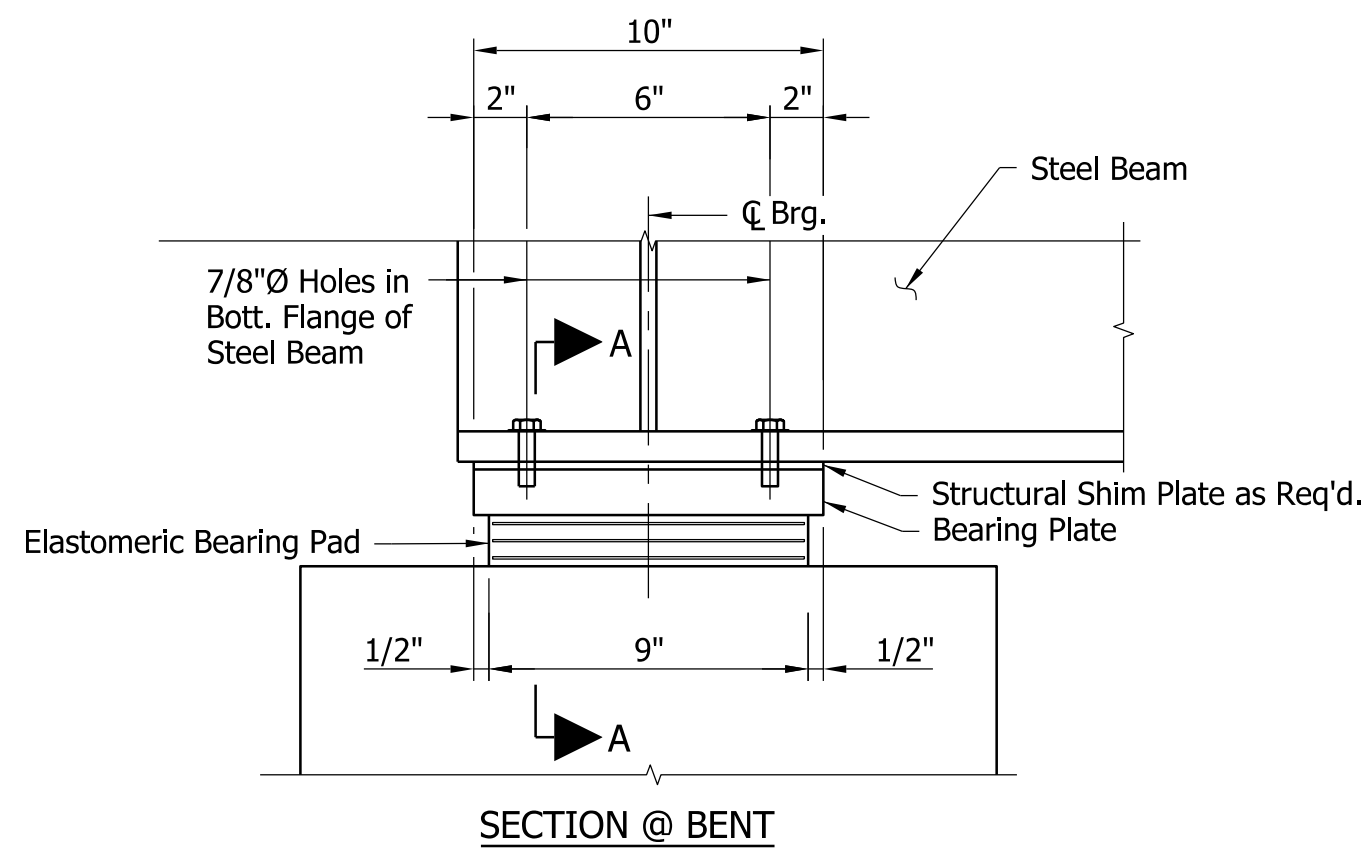
HORIZONTAL SCALE	BRIDGE FILE
NONE	156-78-00000 B
VERTICAL SCALE	DESIGNATION
NONE	9999999
	SHEET
	37 of 71
CONTRACT	PROJECT
B-00000	0000000



**PURPOSE:**

The purpose of this Bearing Assembly Details sheet is to provide information necessary for fabrication of the steel beam elastomeric bearing pad and bearing assembly at the end bents.

Note: It is common to show a plan view detail of bearings with clearances on Bent or Framing Plan sheet. (Dimensions shown on Sht. 17 of these Sample Plans.)

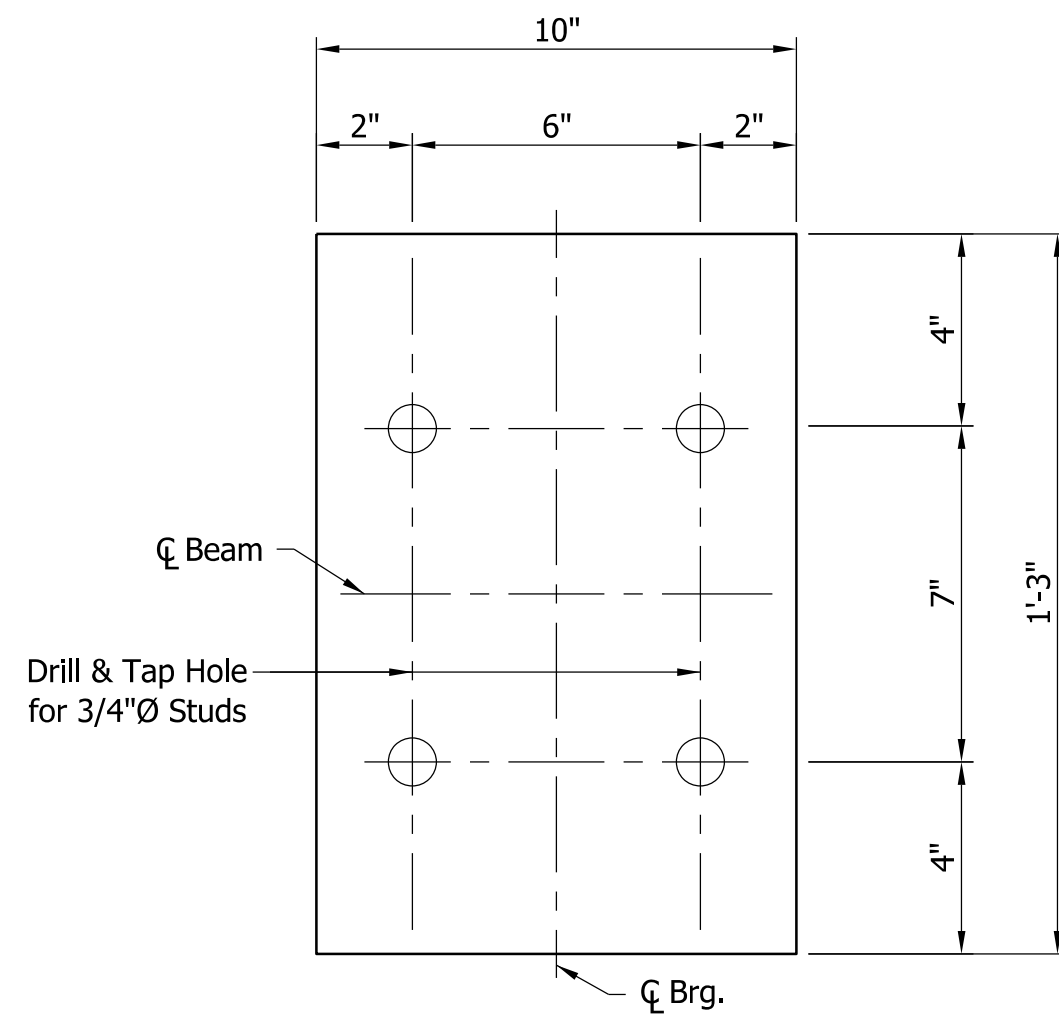


Typ. All Views and Sections:  
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Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

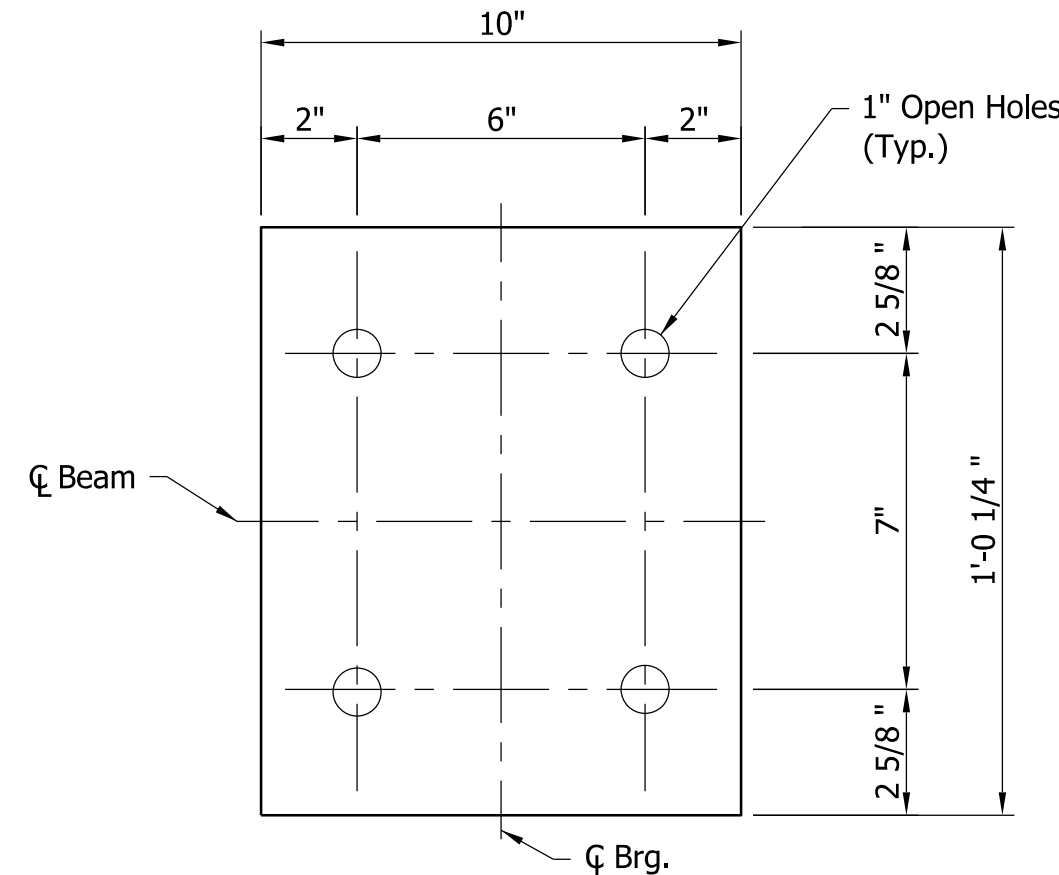
**1 ELASTOMERIC BEARING ASSEMBLY**  
Not To Scale

Bearing Plate to be Vulcanized to Elastomeric Pad

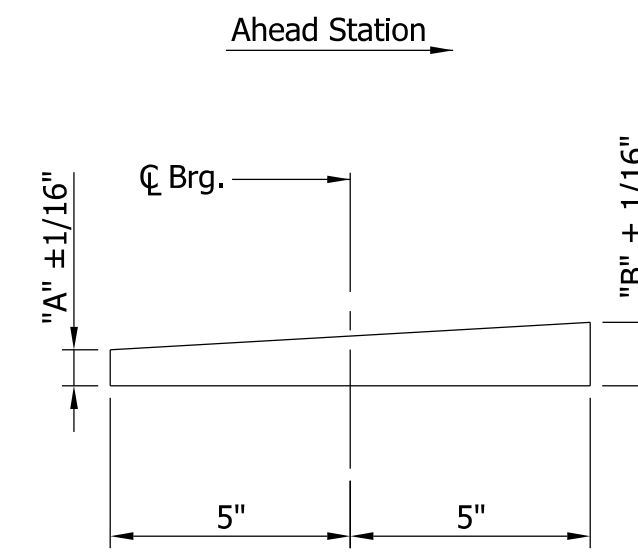
Notes:  
Elastomeric Material shall have 55 (±5) Durometer Elastomeric.  
(a) Side Retainer (Place at both faces of all beams)  
(b) 1 1/8" φ x 1'-3" Anchor Bolt w/ Cut Washer under Nut. (ASTM F1554, Gr. 105) (Typ.)  
(c) Shim Plate (see Table of Shims)



**2 BEARING PLATE**  
Scale: 3" = 1'-0"



**3 BEVELED SHIM PLATE**  
Scale: 3" = 1'-0"



Typ. Table:  
Table Title: 18 Pt Text  
Table Data: 12 Pt Text

**4 TABLE OF SHIMS**

Beam Line	1		2		3		4		5		6	
	A	B	A	B	A	B	A	B	A	B	A	B
Bent No. 1	4 1/8"	4"	5 1/2"	5 3/8"	5/8"	1/2"	5/8"	1/2"	5 1/2"	5 3/8"	4 1/8"	4"
Bent No. 8	2"	2"	3 3/8"	3 3/8"	4 7/8"	4 7/8"	4 7/8"	4 7/8"	3 3/8"	3 3/8"	2"	2"

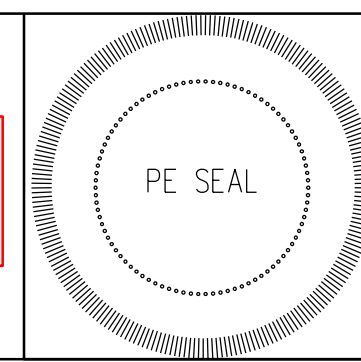
Note:  
For Dimension "A" & "B" location, see Beveled Shim Plate Detail. Shims packs to consist of two or more shim plates with a minimum shim plate thickness of 1/8".

**REQUIRED ELEMENTS:**

- 1 Elastomeric Bearing Assembly Details  
Bearing Assembly  
Section at Bent  
Section through Steel Beam
- 2 Top Plate Detail
- 3 Beveled Shim Plate Detail
- 4 Table of Shims
- 5 Notes
- 6 Signature Block and PE Seal

5 Notes:  
For General Notes, see Sht. 14.  
For Fabrication & Erection Notes, see Sht. 29 - 31.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL: *Engineer of Record Signature* MM/DD/YY  
DESIGN ENGINEER DATE

DESIGNED: ABC DRAWN: PQR  
CHECKED: BCD CHECKED: RST

INDIANA  
DEPARTMENT OF TRANSPORTATION

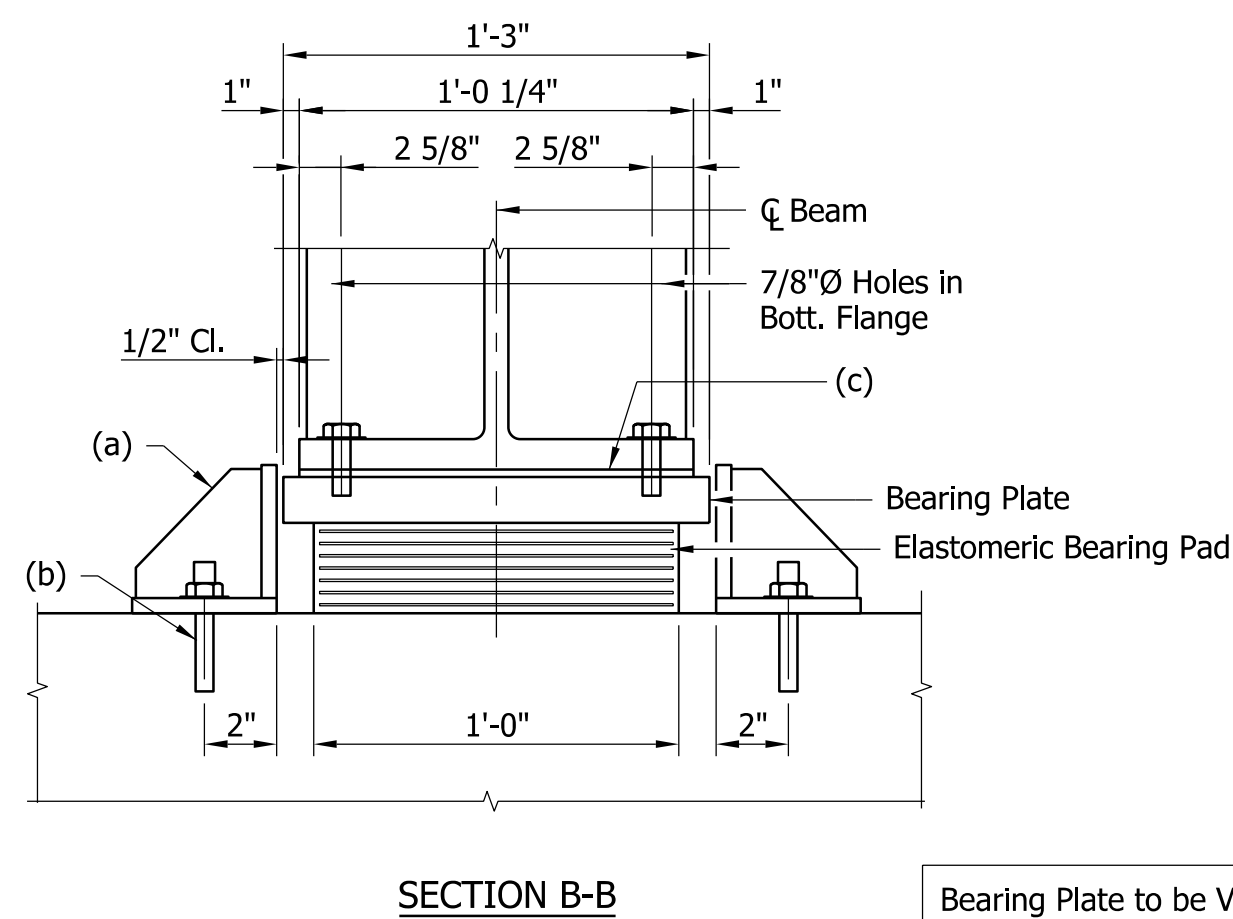
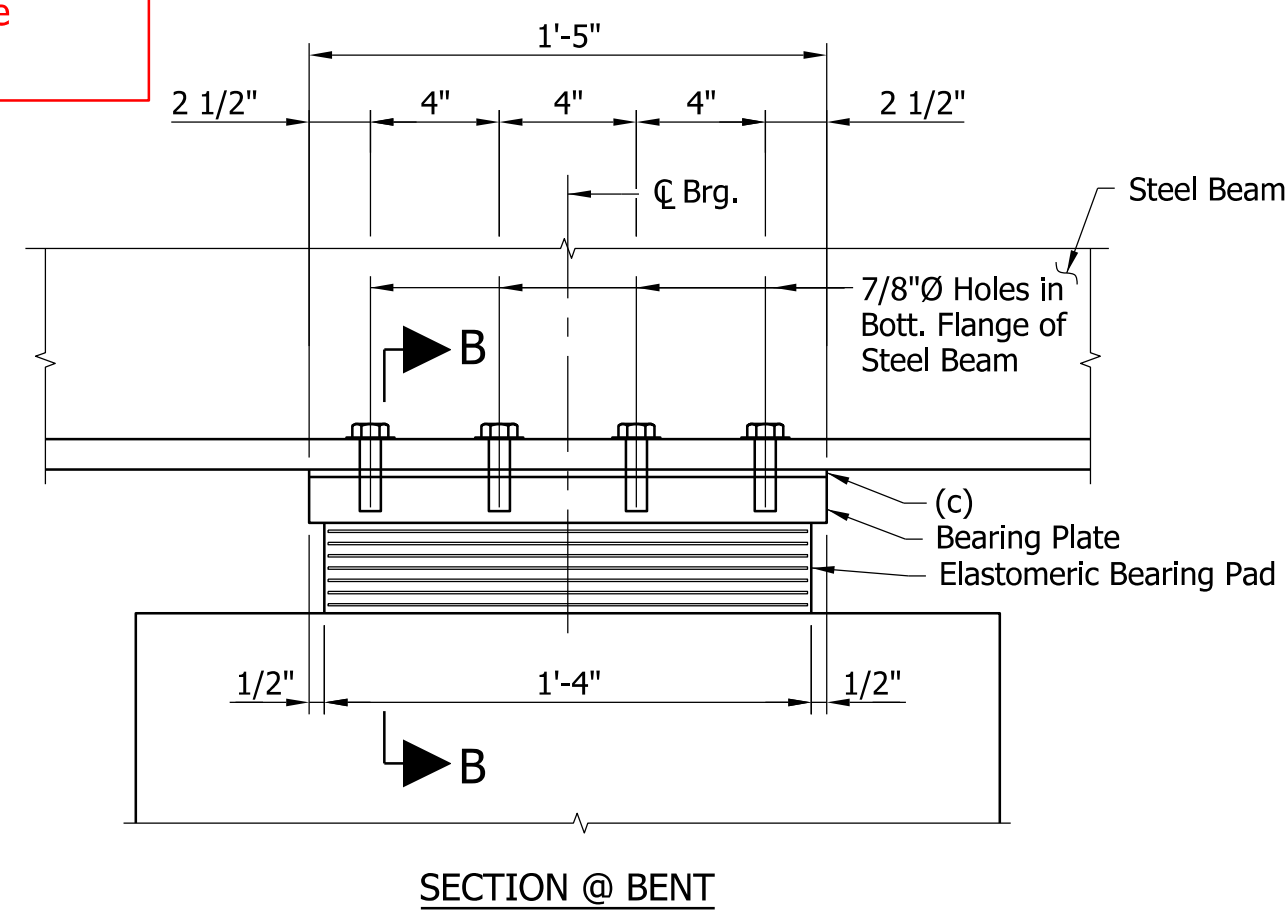
BEARING ASSEMBLY DETAILS  
BENT NO. 1 & BENT NO. 8

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
SHEET	
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CONTRACT	PROJECT
B-00000	0000000

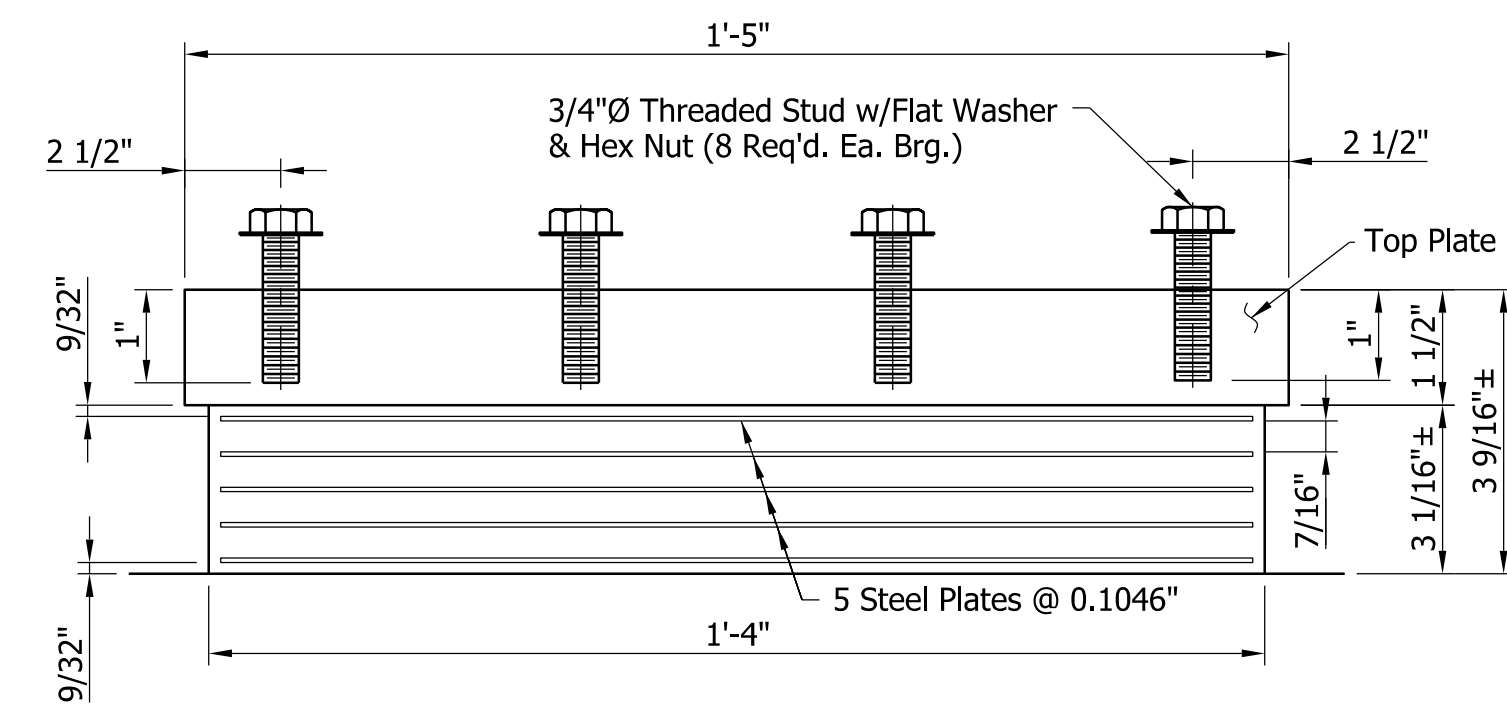
**PURPOSE:**

The purpose of this Bearing Assembly Details sheet is to provide information necessary for fabrication of the steel beam elastomeric bearing pad and bearing assembly at the interior bents.

Note: It is common to show a plan view detail of bearings with clearances on Bent or Framing Plan sheet. (Dimensions shown on Shts. 20 & 26 of these Sample Plans.)



Bearing Plate to be Vulcanized to Elastomeric Pad

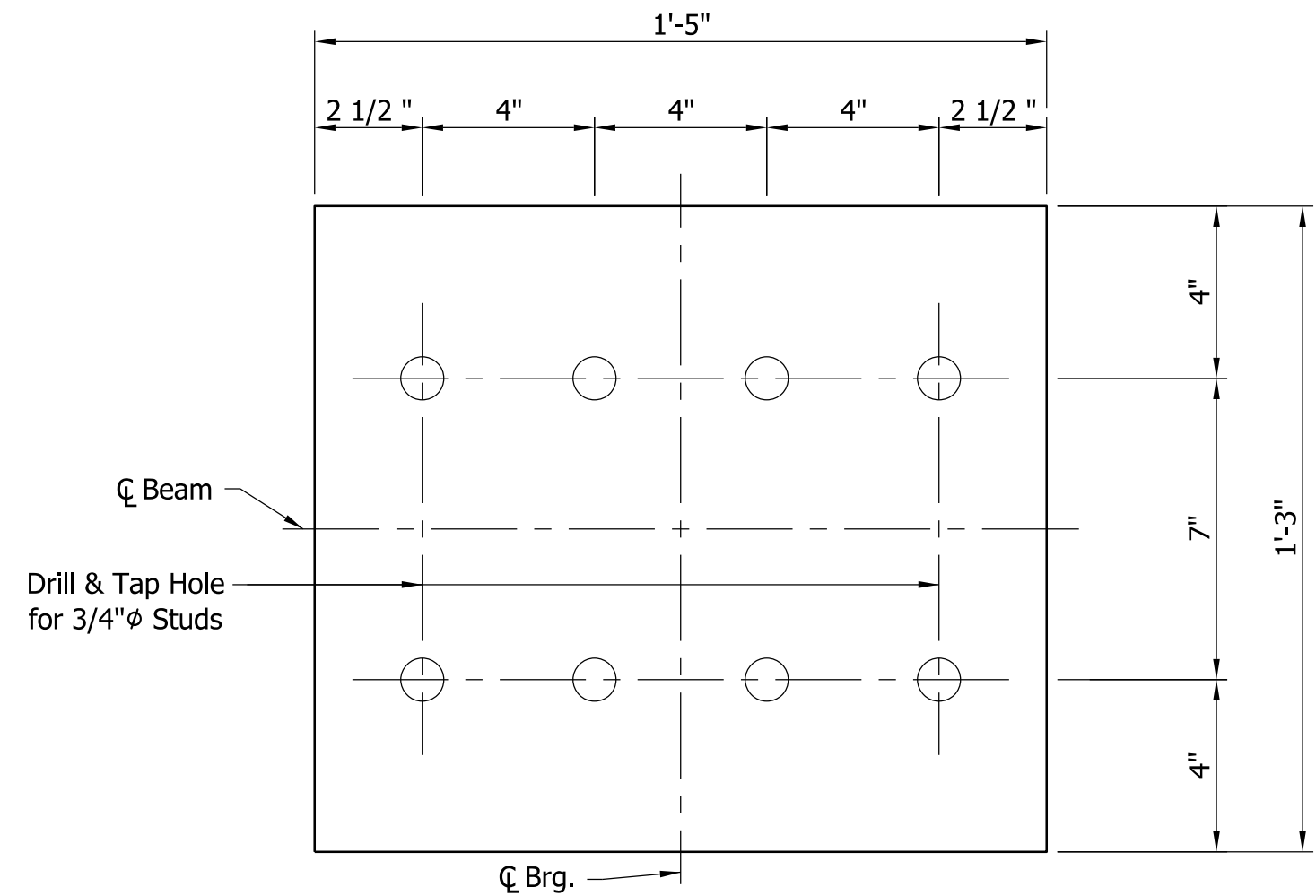


Notes:  
Elastomeric Material shall have 55± Durometer hardness.

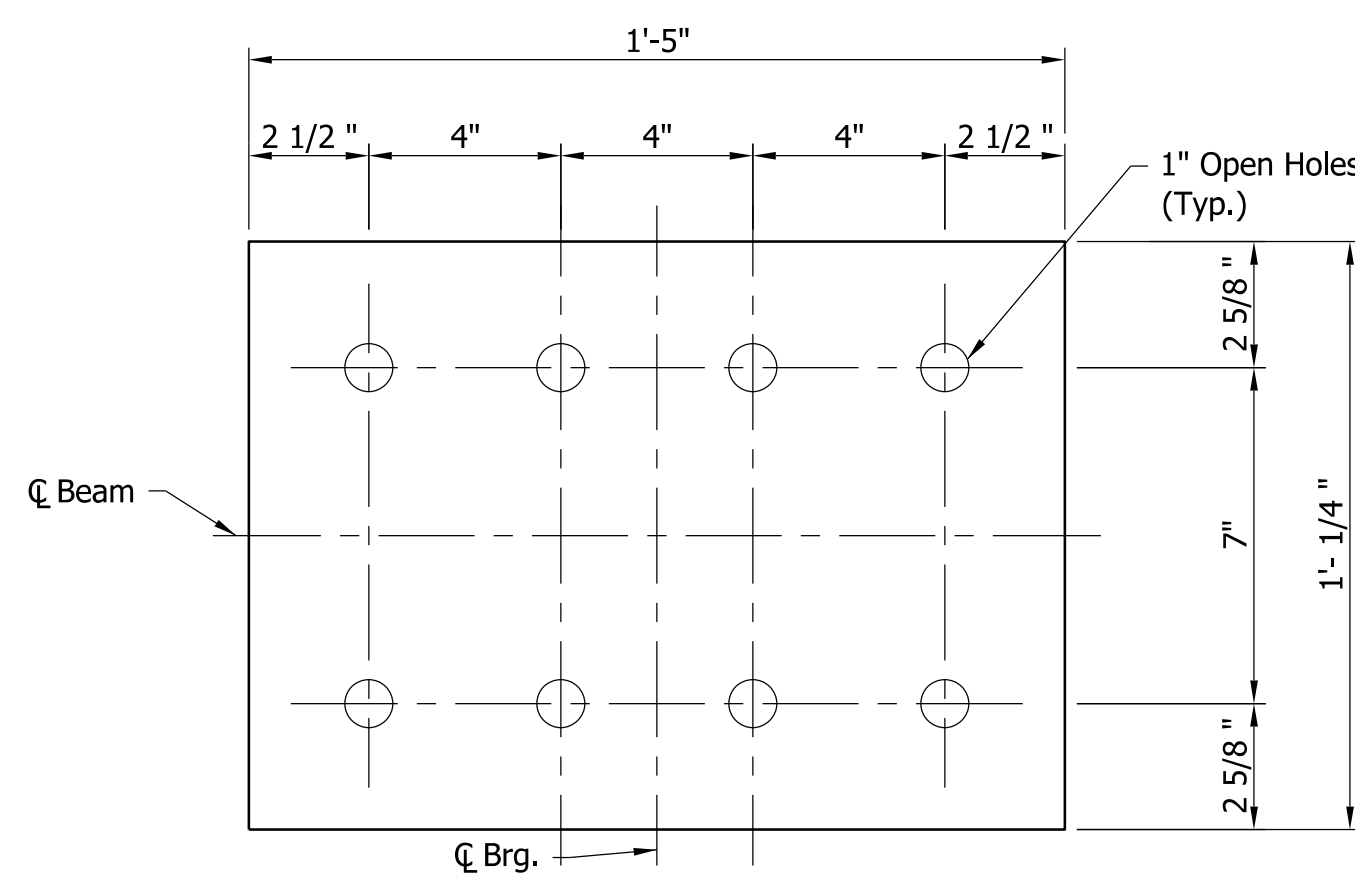
- (a) Side Retainer (Place at both faces of all Beams)
- (b) 1 1/8" x 1'-3" Anchor Bolt w/ Cut Washer under Nut. (ASTM F1554, Gr.105) (Typ.)
- (c) Shim Plate (See Table of Shims)

1 ELASTOMERIC BEARING ASSEMBLY  
Not to Scale

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



2 BEARING PLATE  
Scale: 3" = 1'-0"



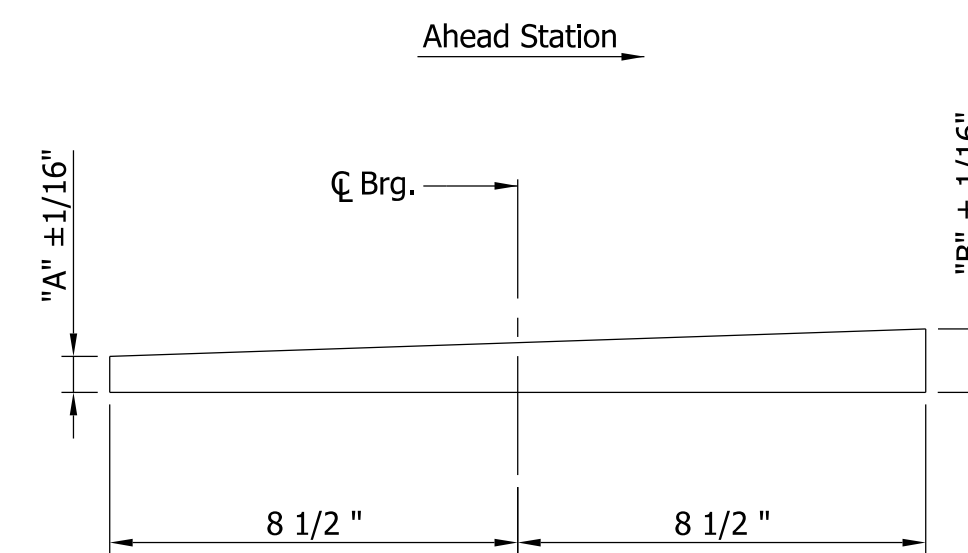
3 BEVELED SHIM PLATE  
Scale: 3" = 1'-0"

Typ. Table:  
Table Title: 18 Pt Text  
Table Data: 12 Pt Text

4

TABLE OF SHIMS												
Beam Line	1		2		3		4		5		6	
	A	B	A	B	A	B	A	B	A	B	A	B
Bent No. 2	5/8"	1/2"	2"	1 7/8"	5/8"	1/2"	5/8"	1/2"	2"	1 7/8"	5/8"	1/2"
Bent No. 7	1/2"	1/2"	1 7/8"	1 7/8"	1/2"	1/2"	1/2"	1/2"	1 7/8"	1 7/8"	1/2"	1/2"

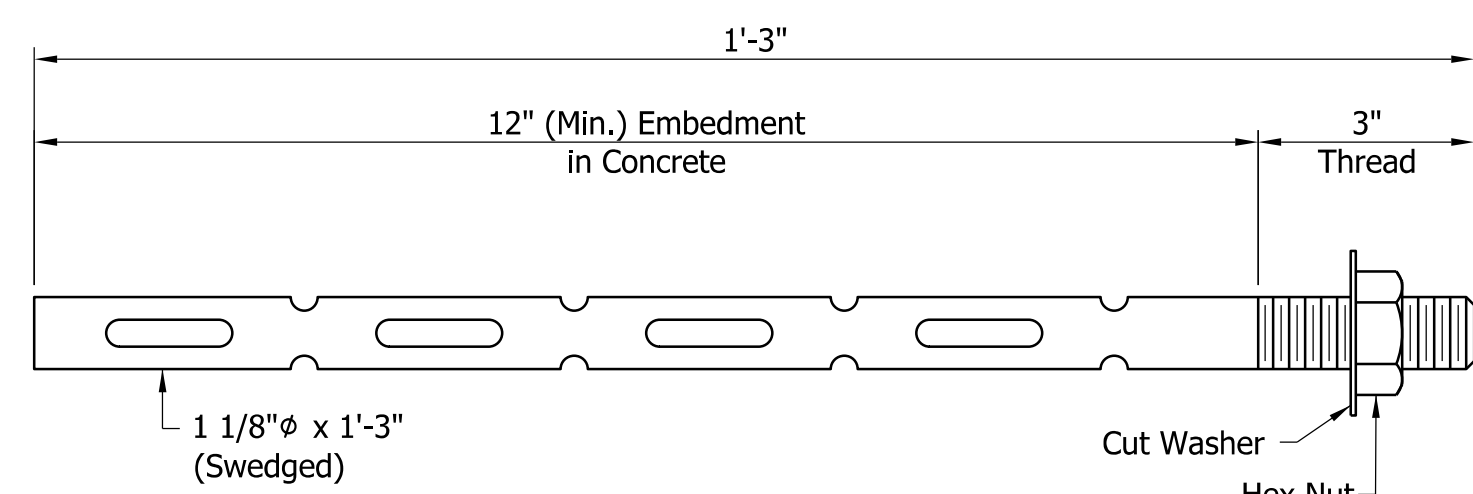
Note:  
For Dimension "A" & "B" location, see Beveled Shim Plate Detail. Shims packs to consist of two or more shim plates with a minimum shim plate thickness of 1/8".



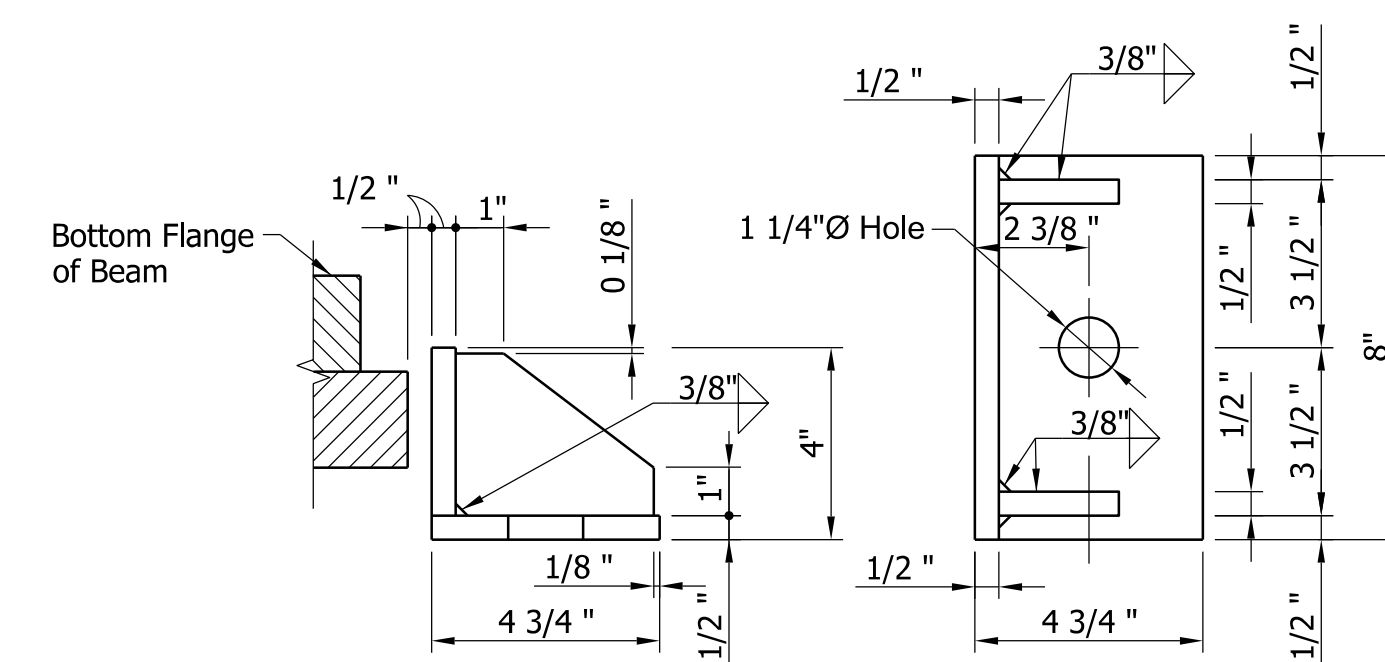
5 SIDE RETAINER  
Scale: 3" = 1'-0"

**REQUIRED ELEMENTS:**

- 1 Elastomeric Bearing Assembly Details  
Bearing Assembly  
Section at Bent  
Section through Steel Beam
- 2 Top Plate Detail
- 3 Beveled Shim Plate Detail
- 4 Table of Shims
- 5 Side Retainer Detail
- 6 Anchor Bolt Detail
- 7 Notes
- 8 Signature Block and PE Seal



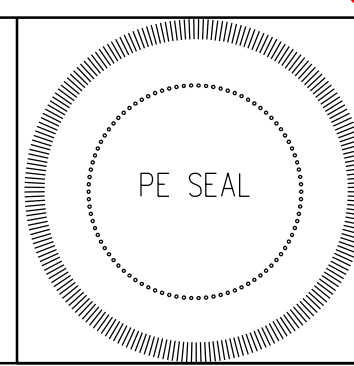
6 ANCHOR BOLT  
(No Paint)  
Not to Scale



5 SIDE RETAINER  
Scale: 3" = 1'-0"

7 Notes:  
For General Notes, see Sht. 14.  
For Fabrication & Erection Notes, see Sht. 29 - 31.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

BEARING ASSEMBLY DETAILS  
BENT NO. 2 & BENT NO. 7

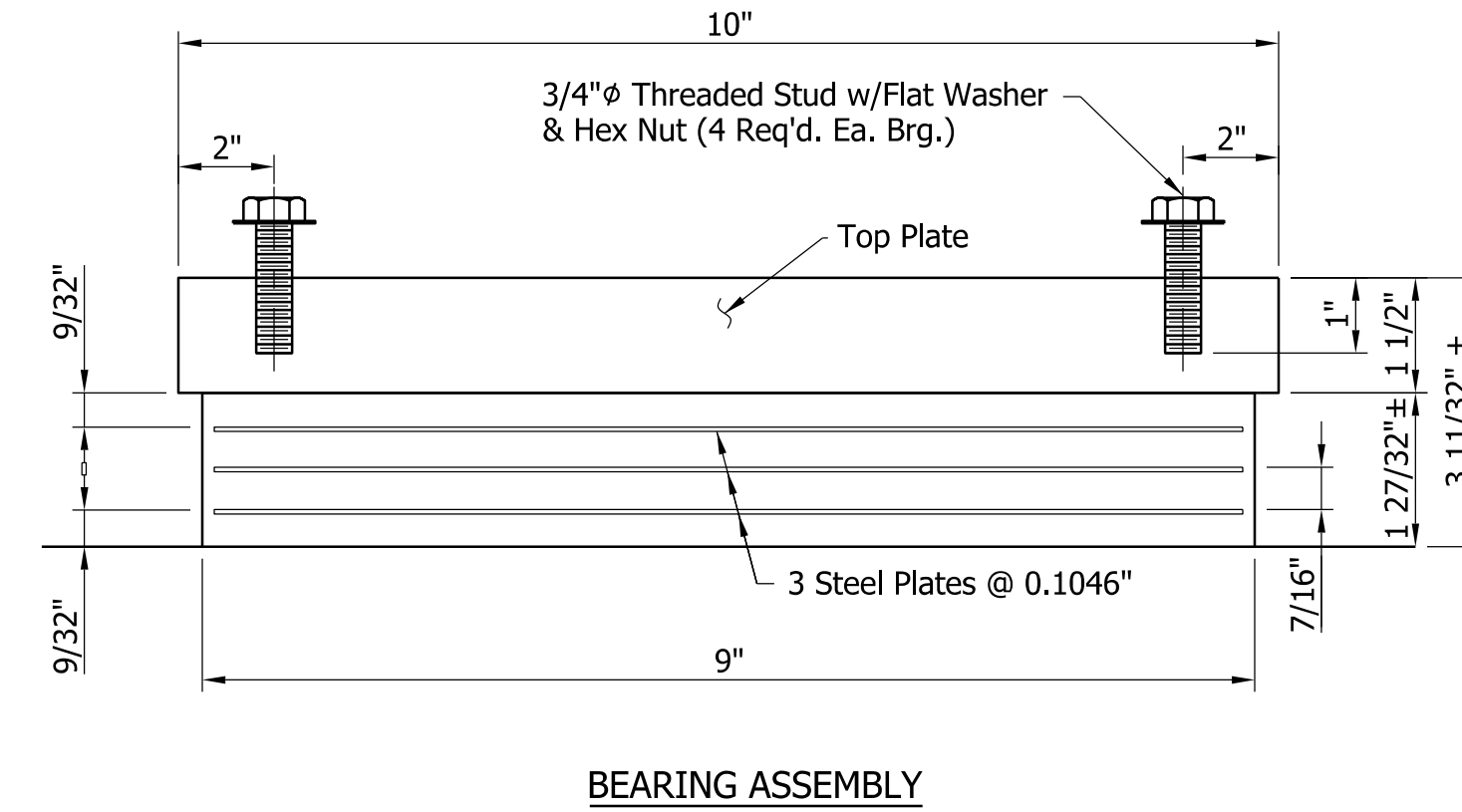
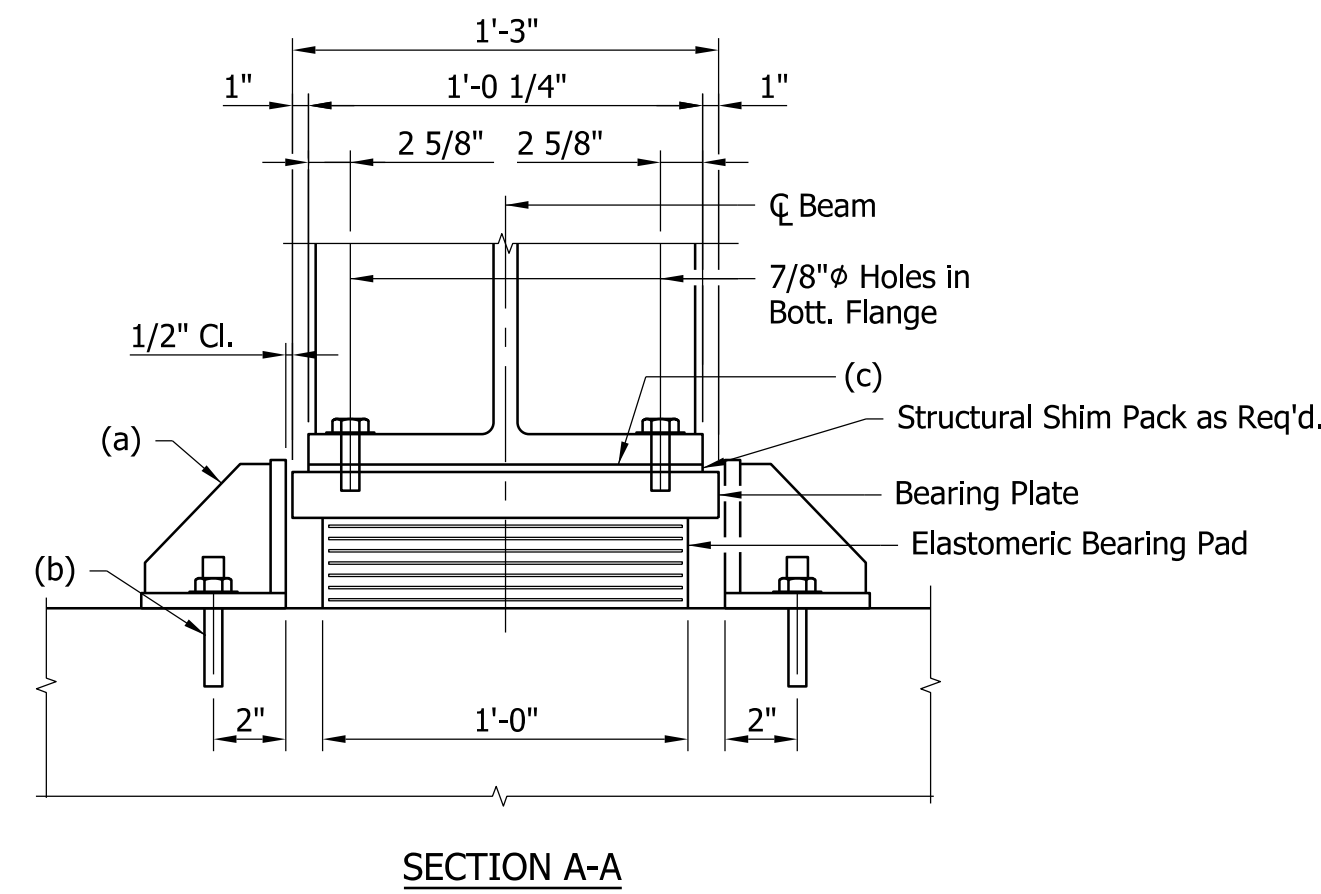
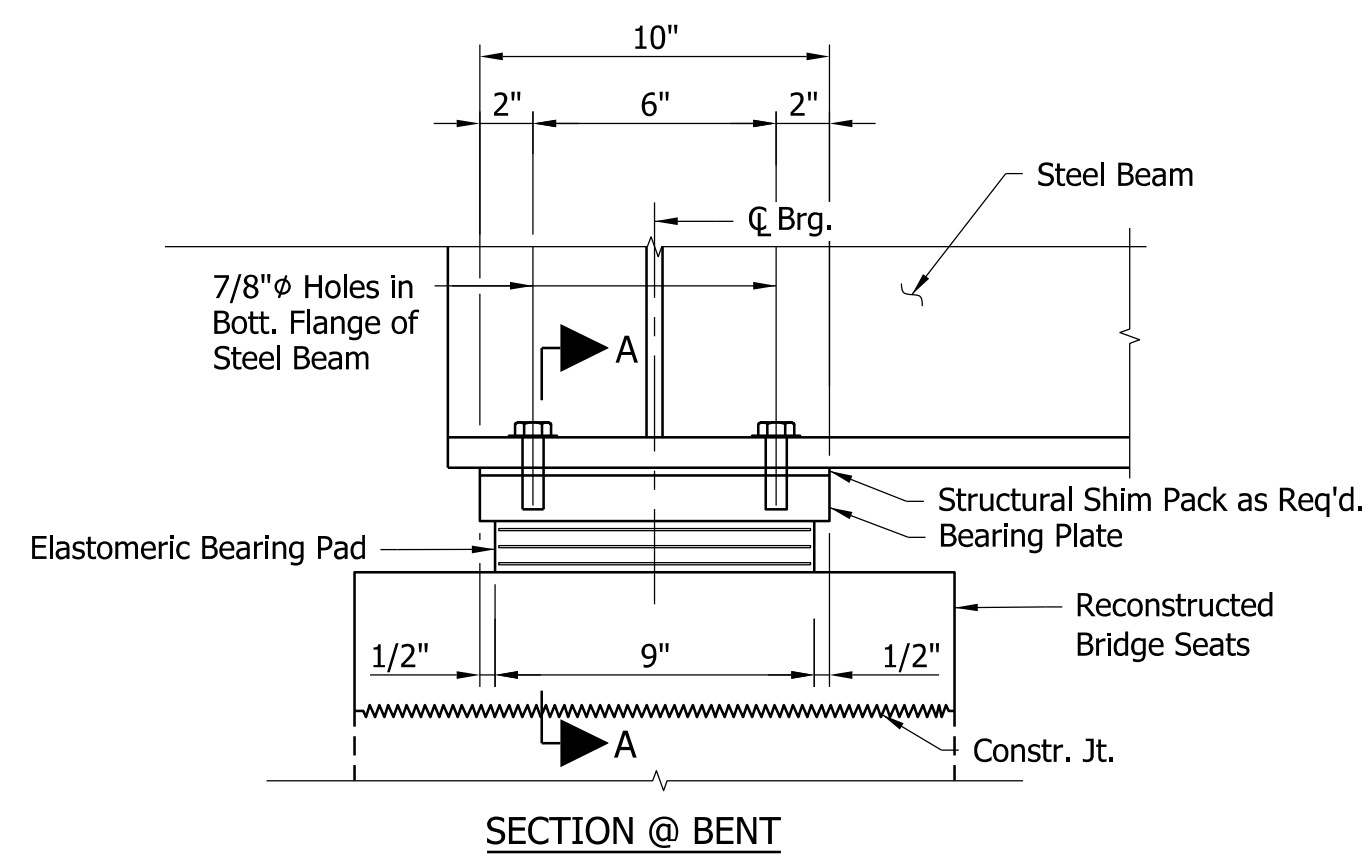
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	39 of 71
CONTRACT	PROJECT
B-00000	0000000



**PURPOSE:**

The purpose of this Bearing Assembly Details sheet is to provide information necessary for fabrication of the steel beam elastomeric bearing pad and bearing assembly at the interior bents.

Note: It is common to show a plan view detail of bearings with clearances on Bent or Framing Plan sheet. (Dimensions shown on Shts. 22 & 24 of these Sample Plans.)

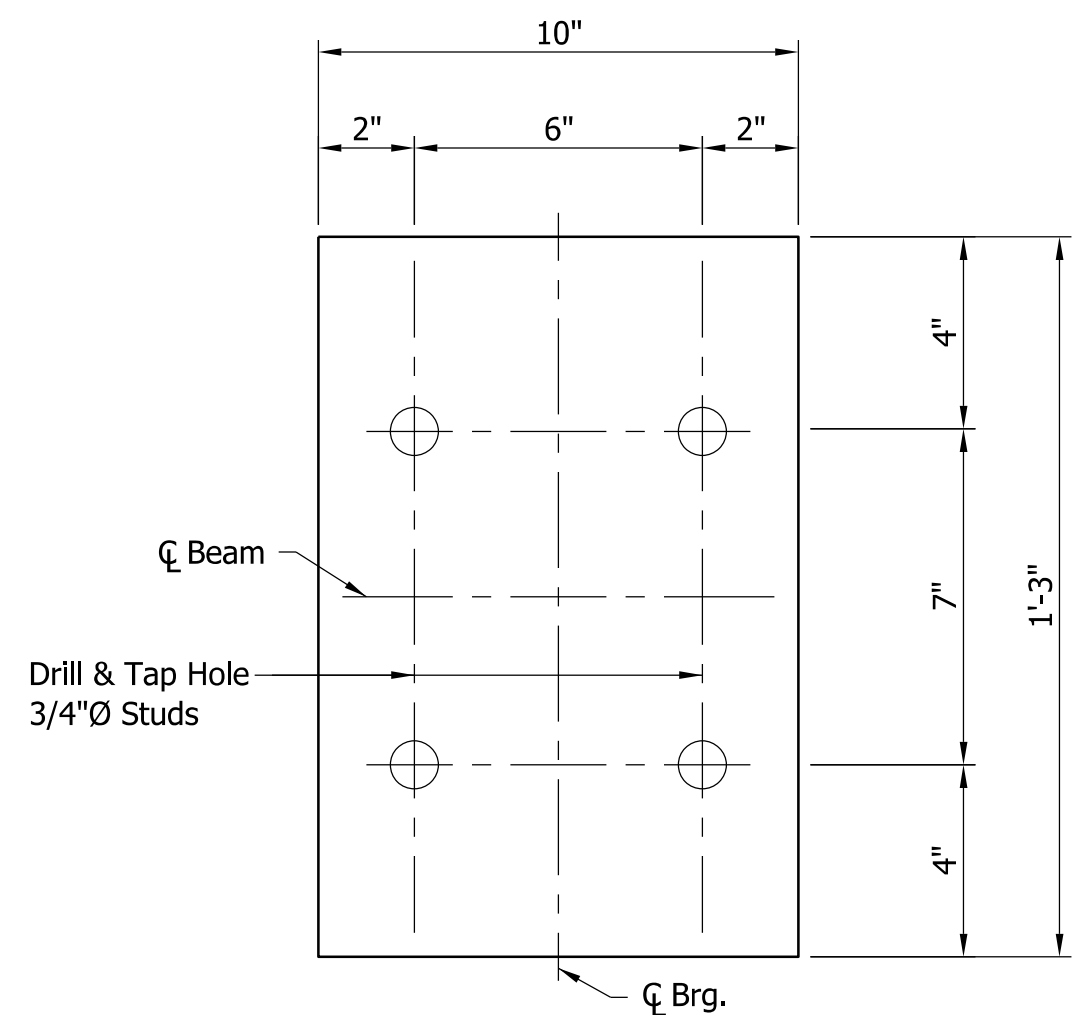


1 ELASTOMERIC BEARING ASSEMBLY  
Not To Scale

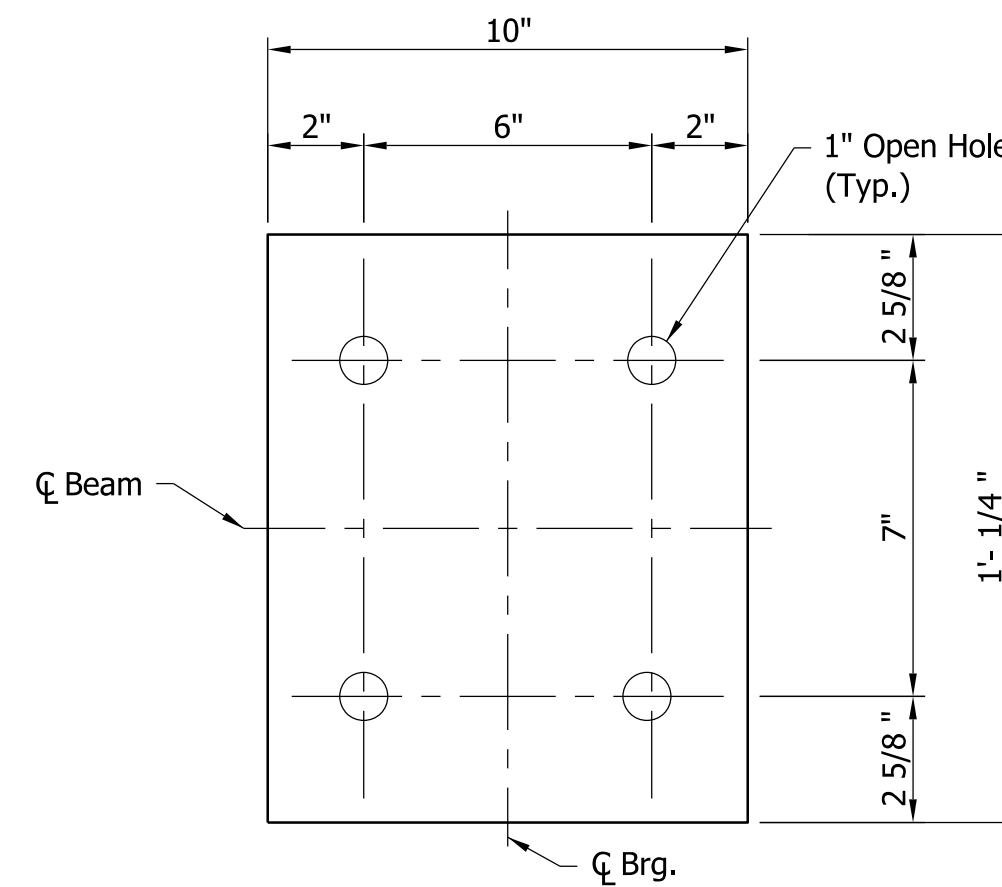
Bearing Plate to be Vulcanized to Elastomeric Pad

Notes:  
Elastomeric Material shall have 55 (+5) Durometer Elastomeric.  
(a) Side Retainer (Place at both faces of all beams)  
(b) 1 1/8"  $\phi$  x 1'-3" Anchor Bolt w/ Cut Washer under Nut. (ASTM F1554, Gr. 105) (Typ.)  
(c) Shim Plate (see Table of Shims)

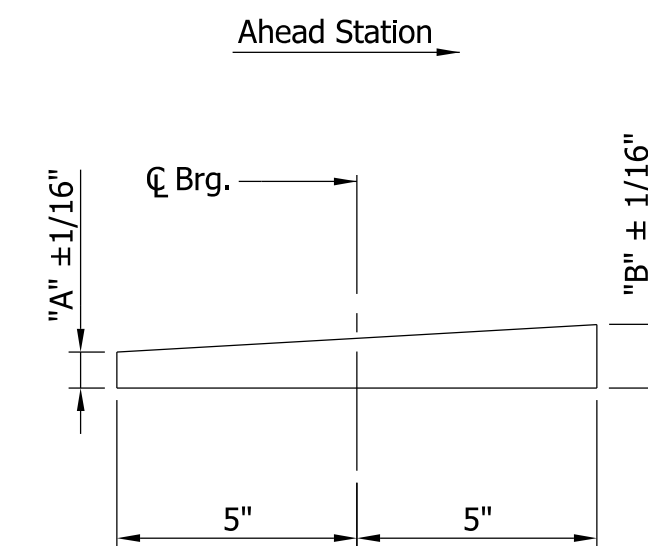
Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



2 BEARING PLATE  
Scale: 3" = 1'-0"



3 BEVELED SHIM PLATE  
Scale: 3" = 1'-0"



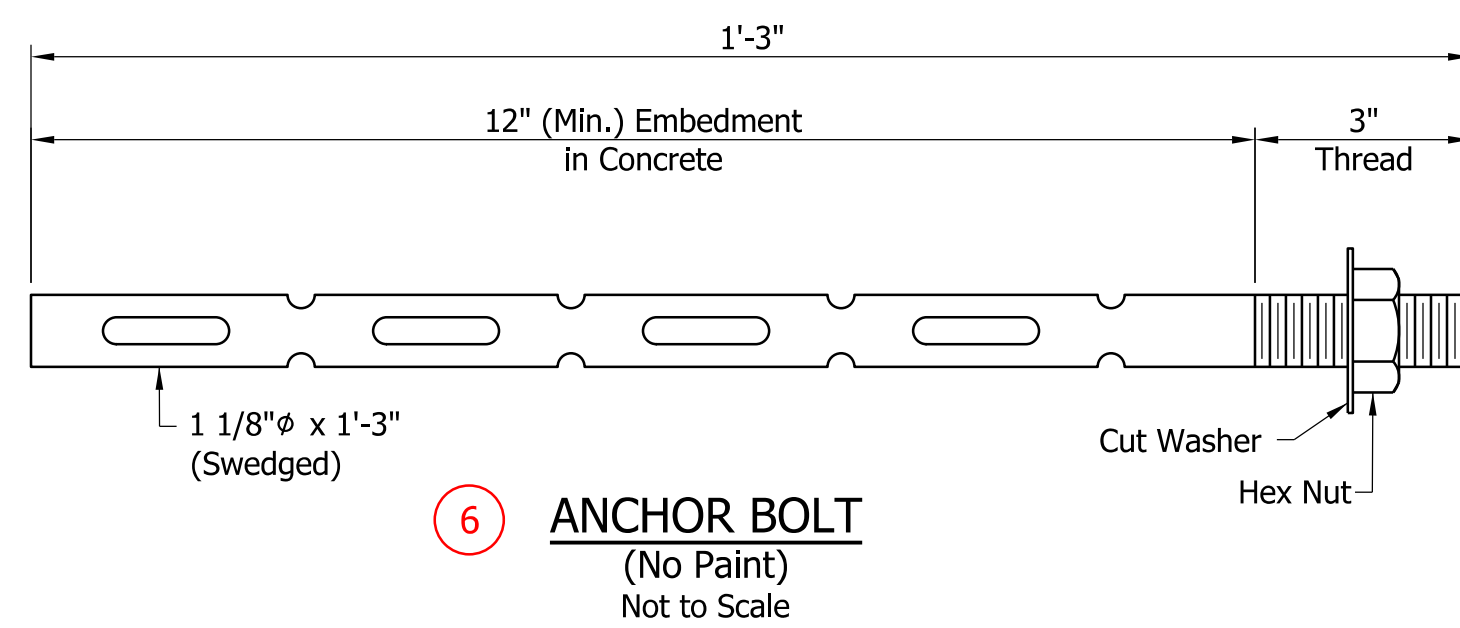
4

TABLE OF SHIMS												
Beam Line	1		2		3		4		5		6	
	A	B	A	B	A	B	A	B	A	B	A	B
Bent No. 3	5/8"	1/2"	2"	1 7/8"	5/8"	1/2"	5/8"	1/2"	2"	1 7/8"	5/8"	1/2"
Bent No. 6	1/2"	1/2"	1 7/8"	1 7/8"	1/2"	1/2"	1/2"	1/2"	1 7/8"	1 7/8"	1/2"	1/2"

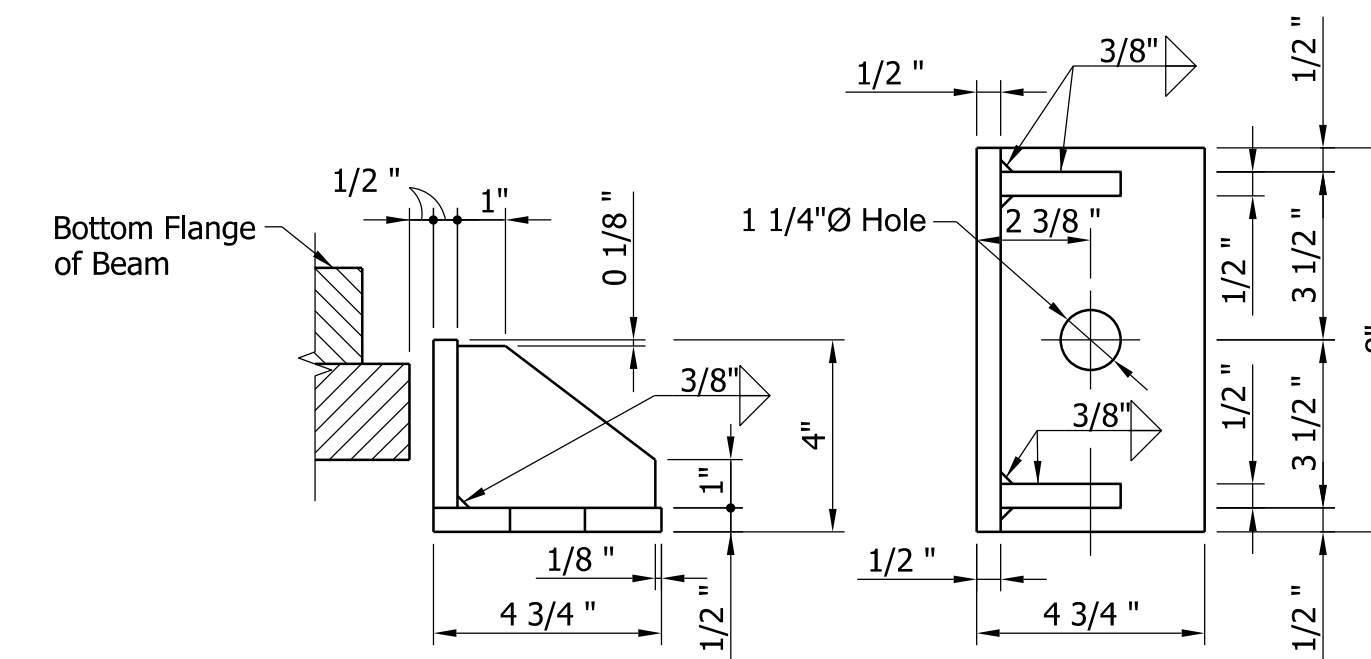
Note:  
For Dimension "A" & "B" location, see Beveled Shim Plate Detail. Shims packs to consist of two or more shim plates with a minimum shim plate thickness of 1/8".

**REQUIRED ELEMENTS:**

- 1 Elastomeric Bearing Assembly Details  
Bearing Assembly  
Section at Bent  
Section through Steel Beam
- 2 Top Plate Detail
- 3 Beveled Shim Plate Detail
- 4 Table of Shims
- 5 Side Retainer Detail
- 6 Anchor Bolt Detail
- 7 Notes
- 8 Signature Block and PE Seal



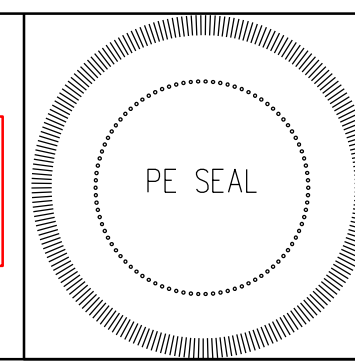
6 ANCHOR BOLT  
(No Paint)  
Not to Scale



5 SIDE RETAINER  
Scale: 3" = 1'-0"

7 Notes:  
For General Notes, see Sht. 14.  
For Fabrication & Erection Notes, see Sht. 29 - 31.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



8

RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

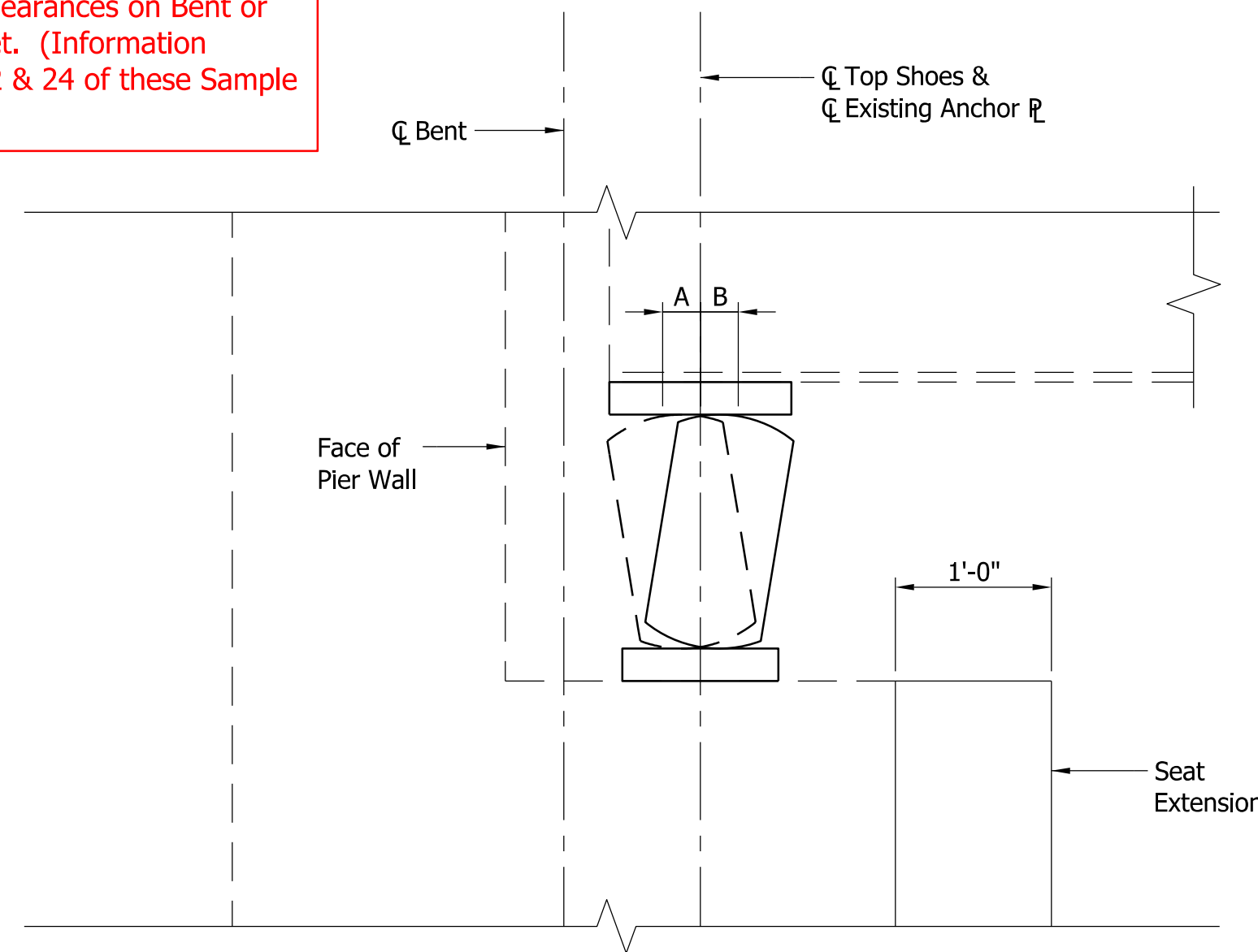
BEARING ASSEMBLY DETAILS  
BENT NO. 3 & BENT NO. 6 - APPROACH SPANS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	40 of 71
CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

The purpose of this Bearing Assembly Details sheet is to provide information necessary for fabrication of the steel beam rocker bearing assembly at the interior bents.

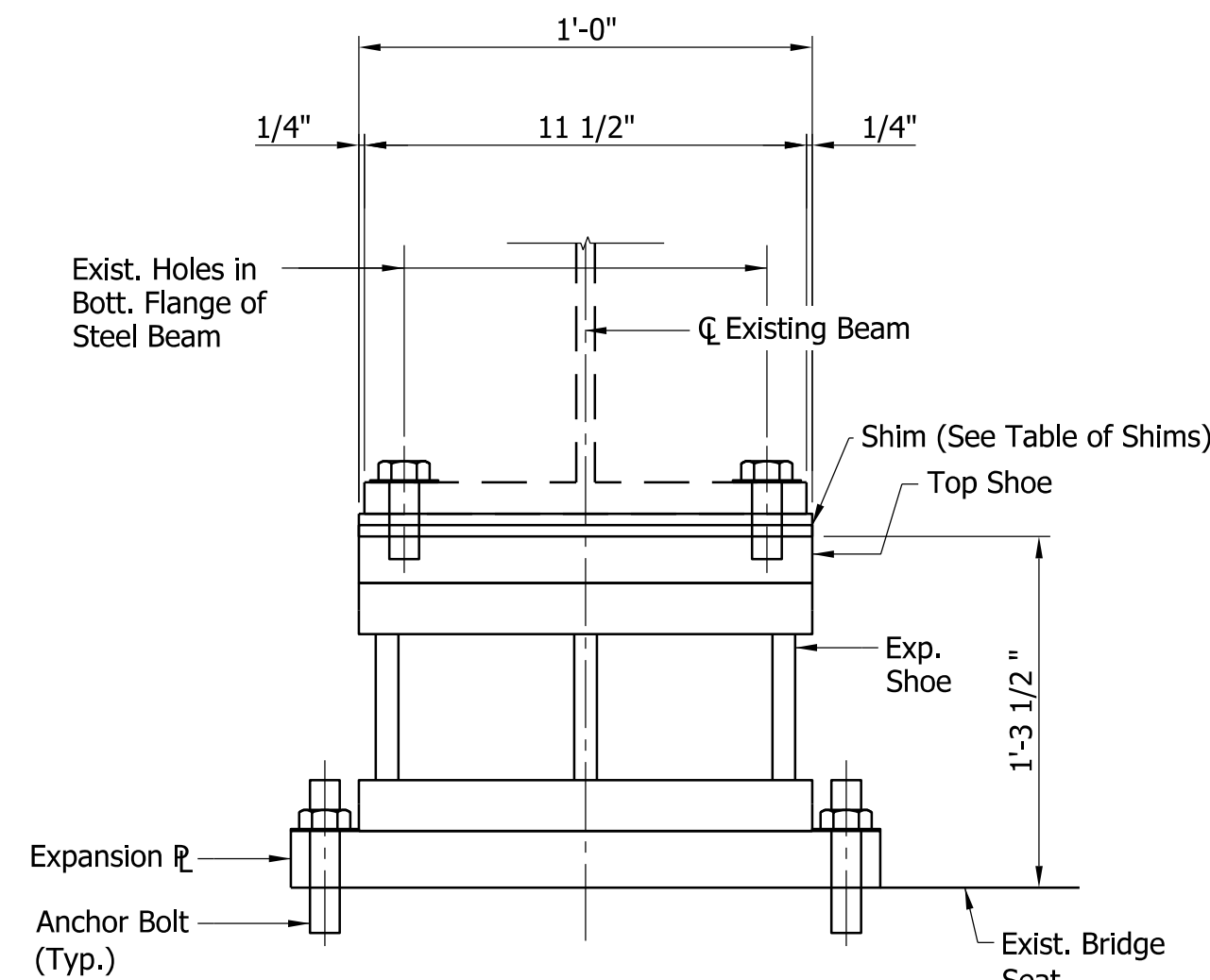
Note: It is common to show a plan view detail of bearings with clearances on Bent or Framing Plan sheet. (Information shown on Shts. 22 & 24 of these Sample Plans.)



1 BEARING INSTALLATION  
(Bent No.3 Shown, Bent No.6 Same by Opposite Hand)  
Scale: 1" = 1'-0"

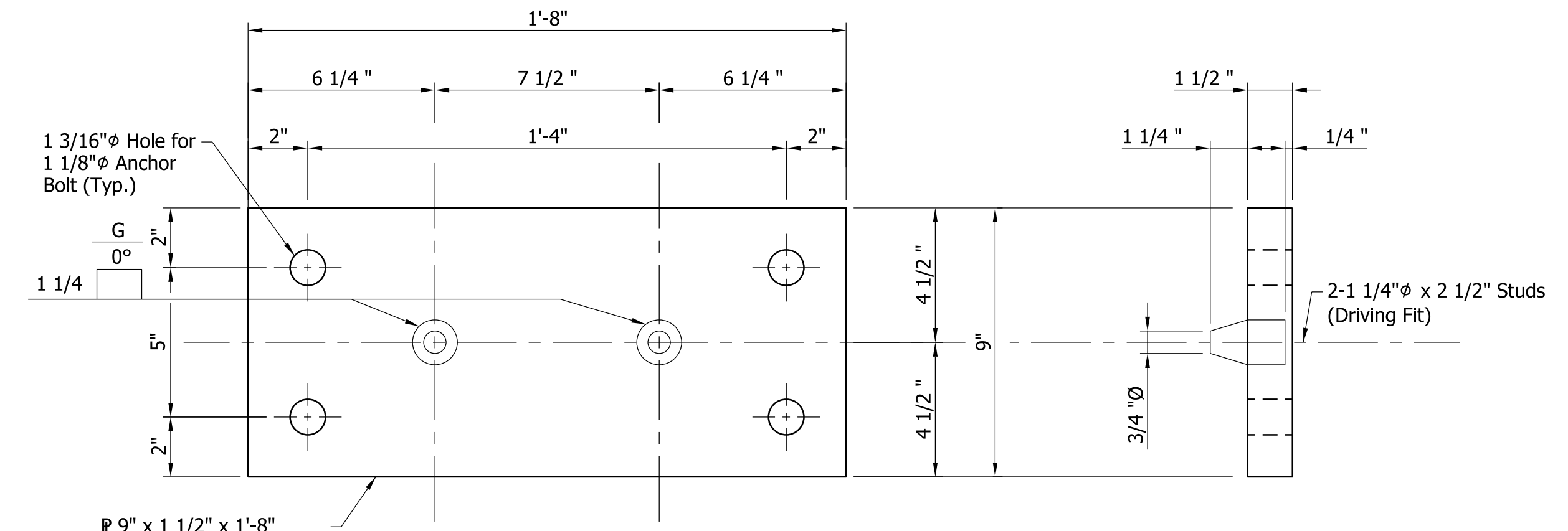
Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

TEMP. (°F)	DIMENSION A				DIMENSION B		
	0	20	40	60	80	100	120
Bent No. 3	7/16"	5/16"	1/8"	0"	1/8"	5/16"	7/16"
Bent No. 6	7/16"	5/16"	1/8"	0"	1/8"	5/16"	7/16"

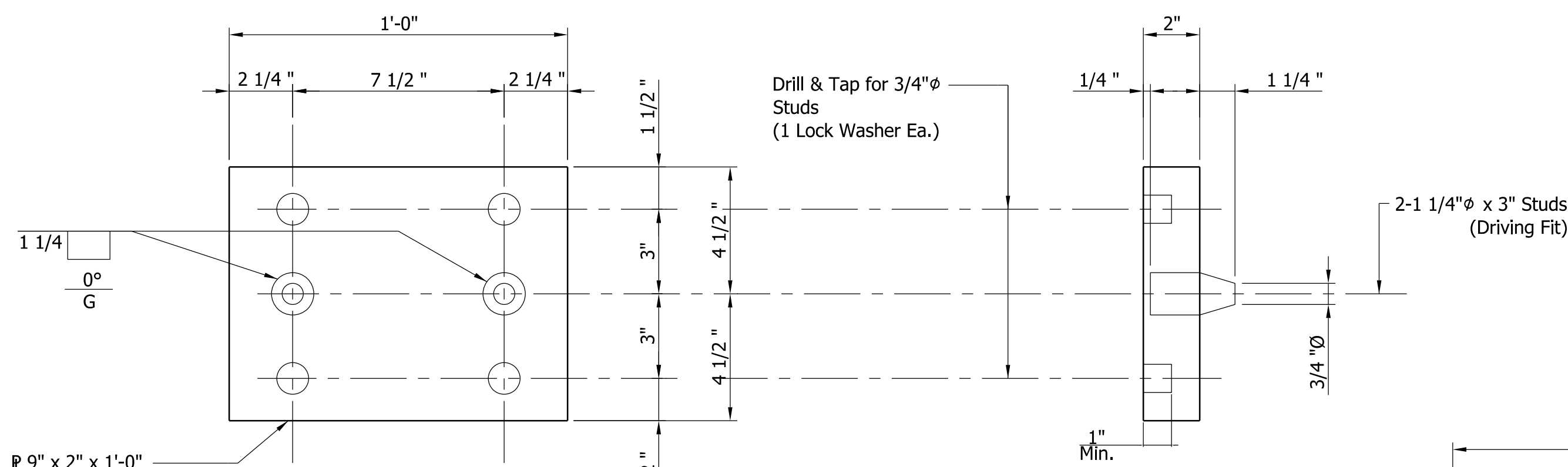


2 EXPANSION SHOE ASSEMBLY  
Scale: 3" = 1'-0"

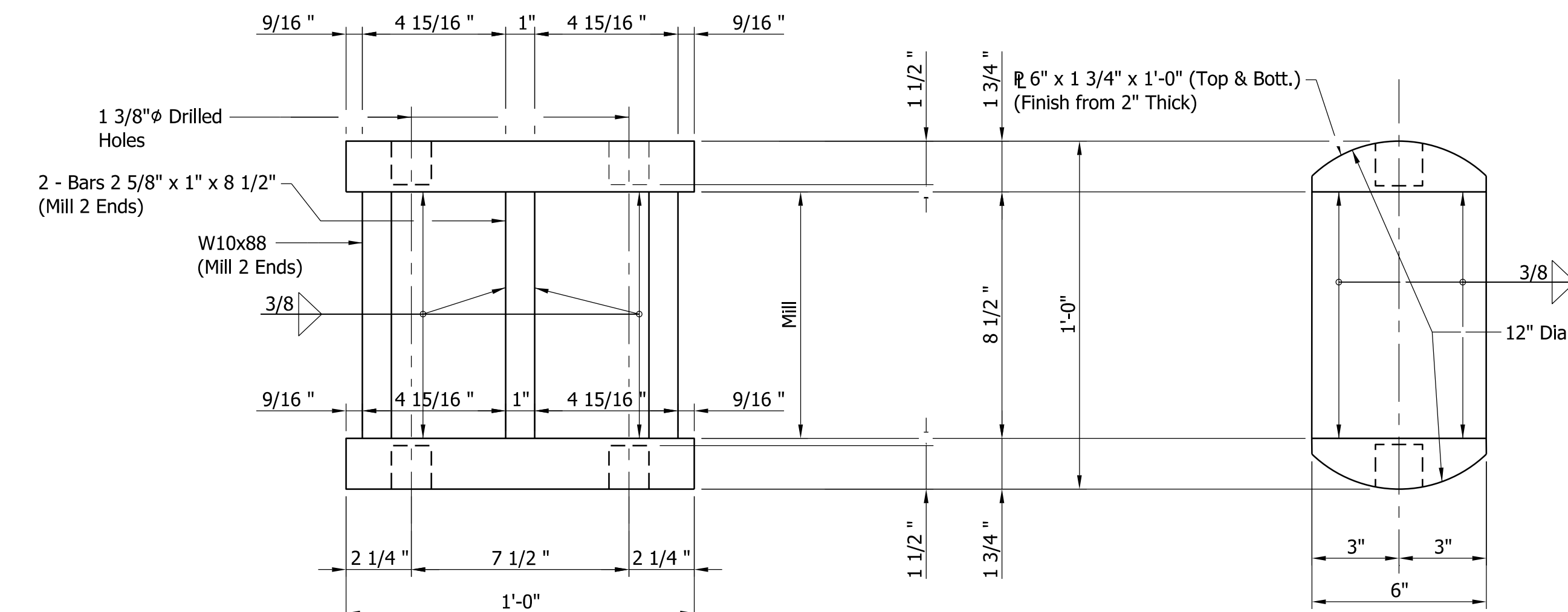
Note: Elastomeric Bearings are preferred to Rocker Bearings. However, Designer must verify that existing substructure can accommodate additional design loads if changed to elastomeric bearings.



3 EXPANSION PLATE  
Scale: 3" = 1'-0"



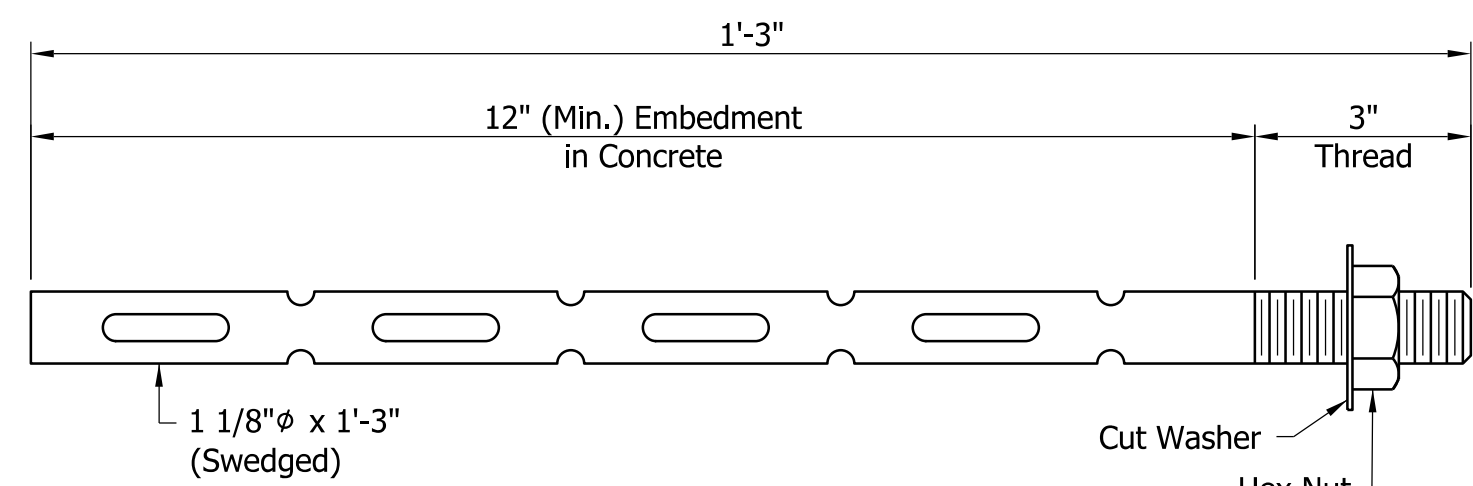
4 TOP SHOE  
Scale: 3" = 1'-0"



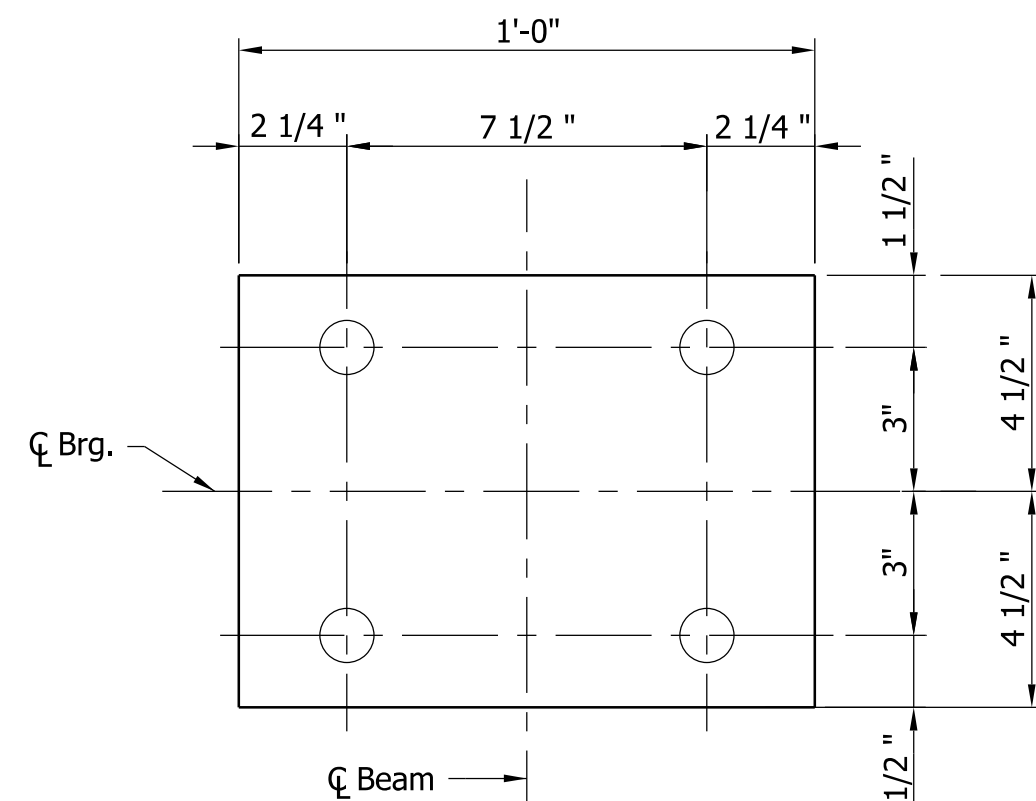
5 EXPANSION SHOE  
Scale: 3" = 1'-0"

**REQUIRED ELEMENTS:**

- 1 Rocker Bearing Installation Detail
- 2 Expansion Shoe Detail and Assembly
- 3 Expansion Plate Detail
- 4 Top Shoe Detail
- 5 Expansion Shoe Detail
- 6 Shim Plate Detail
- 7 Table of Shims
- 8 Anchor Bolt Detail
- 9 Notes
- 10 Signature Block and PE Seal



8 ANCHOR BOLT  
(No Paint)  
Not to Scale



6 SHIM PLATE  
Scale: 3" = 1'-0"

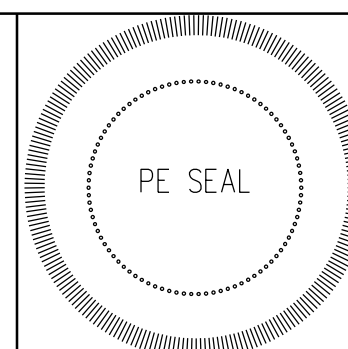
7

BEAM	SHIM THICKNESS
No. 1	1/2"
No. 2	0"
No. 3	13/16"
No. 4	13/16"
No. 5	0"
No. 6	1/2"

Typ. Table:  
Table Title: 18 Pt Text  
Table Data: 12 Pt Text

9 Notes:  
For General Notes, see Sht. 14.  
For Fabrication & Erection Notes, see Sht. 29 - 31.  
For Seat Extension Details, see Shts. 22 & 24.  
All Studs shall be F1554, Grade 105, 3/4" diameter unless noted.  
A709 Grade 50 Steel for the pintles may be used in lieu of A662, Grade F.  
All exposed surfaces of bearing shall be coated.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	Engineer of Record Signature	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

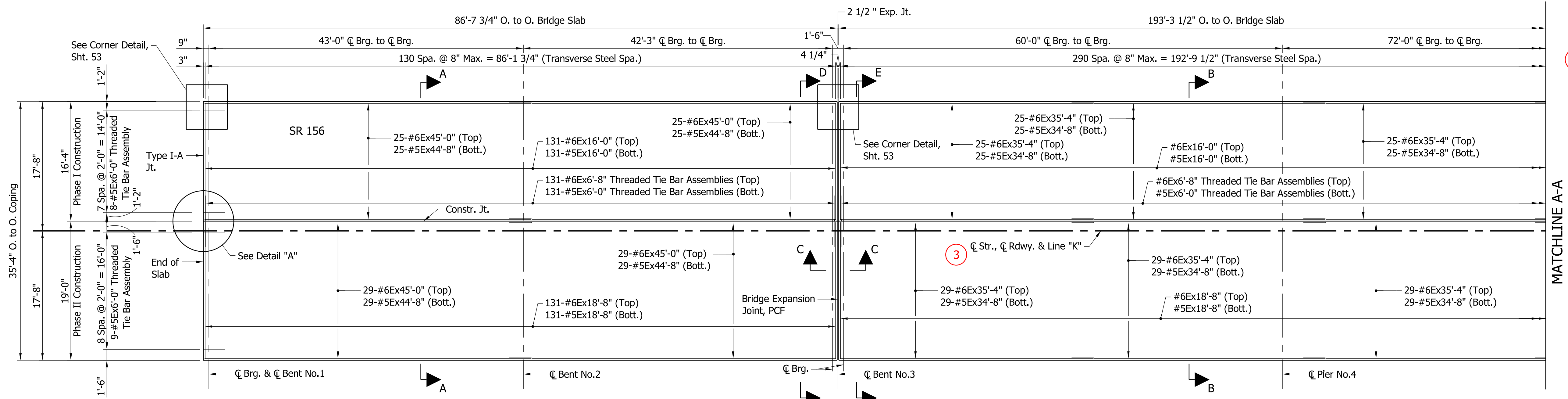
BEARING ASSEMBLY DETAILS  
BENT NO. 3 & BENT NO. 6 - MAIN SPAN

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	41 of 71
CONTRACT	PROJECT
B-00000	0000000



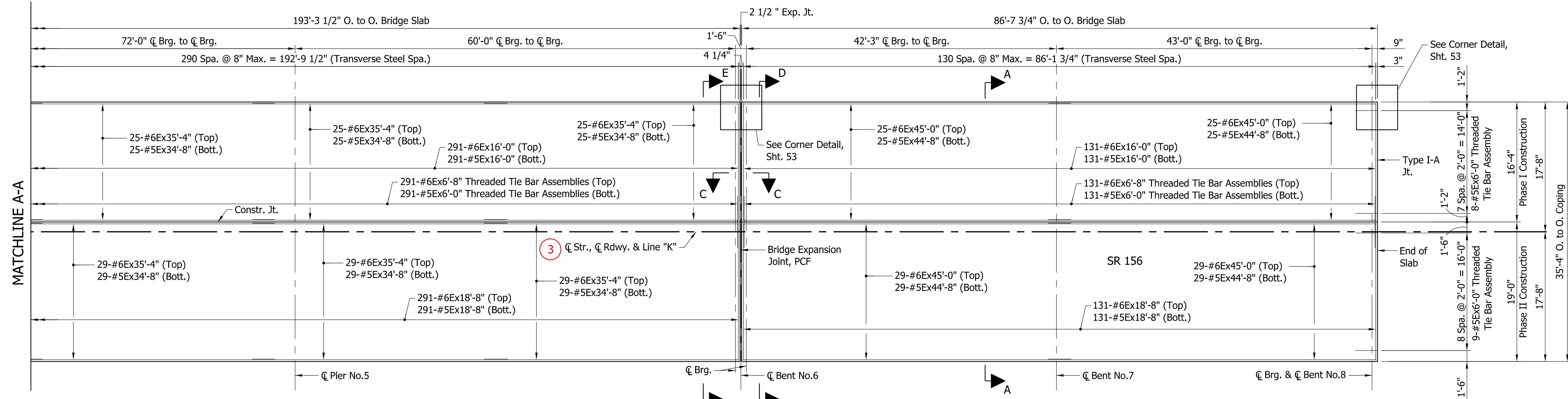
**PURPOSE:**

The purpose of these Superstructure Details sheets is to show physical dimensions and pertinent information necessary for the contractor to construct the bridge deck.



Typ. All Views and Sections:  
 Section Title: 18 Pt Text  
 Section Sub-Title: 14 Pt Text  
 Dimensions and Text Callouts: 12 Pt Text

2 SLAB PLAN  
 Scale: 1/8" = 1'-0"



2 SLAB PLAN  
 Scale: 1/8" = 1'-0"

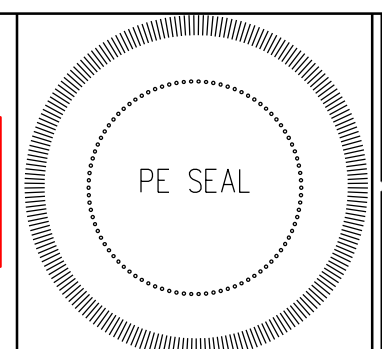
1 MINIMUM LAP LENGTHS  
 3'-9" (#6E to #6E)  
 3'-0" (#5E to #5E)

5 Notes:  
 For General Notes, see Sht. 14.  
 For additional details, see Shts. 43 - 51.  
 For Section A-A & B-B, see Sht. 43.  
 For Section C-C, D-D & E-E, see Sht. 44.  
 For Detail "A", see Sht. 43.  
 For Deck Drain Details, see Sht. 45.  
 For locations of deck drains, see Sht. 13.  
 For Railing Details, see Sht. 52.  
 For Bar Bending Diagrams and Bill of Materials, see Sht. 51.  
 For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.  
 "E" denotes Epoxy Coated Reinforcing Steel.

**REQUIRED ELEMENTS:**

- 1 North Arrow
- 2 Deck Floor Plan
- 3 Line Designation
- 4 Skew Angle
- 5 Notes
- 6 Signature Block and PE Seal

Title Block Text:  
 Labels: 10 Pt Text  
 Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

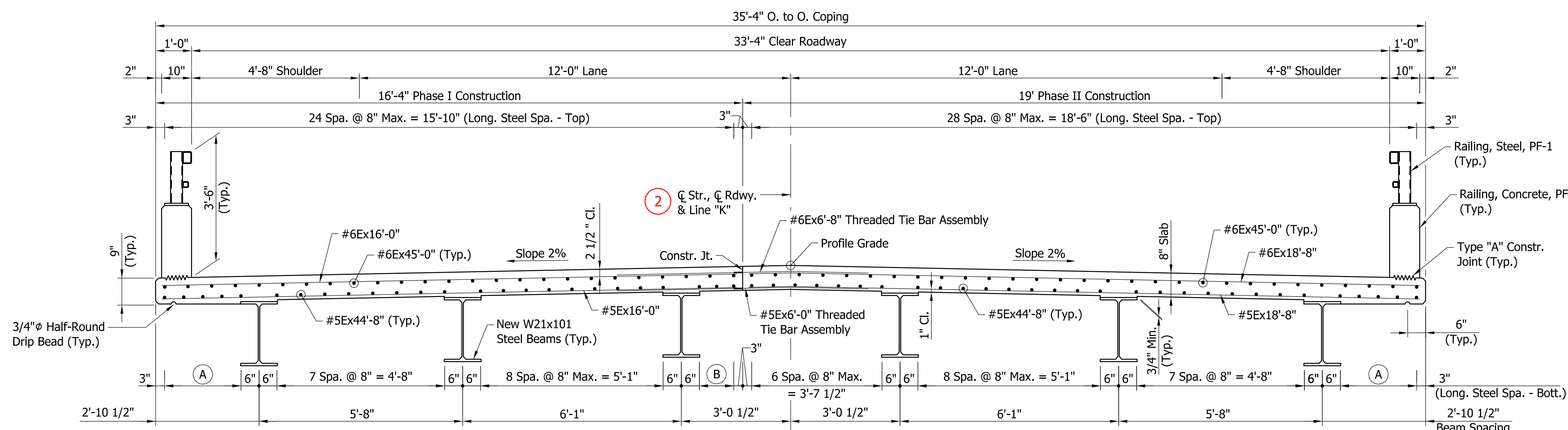
INDIANA  
 DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'-0"	156-78-00000 B
VERTICAL SCALE	DESIGNATION
1/8" = 1'-0"	9999999
	SHEET
	42 of 71
CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

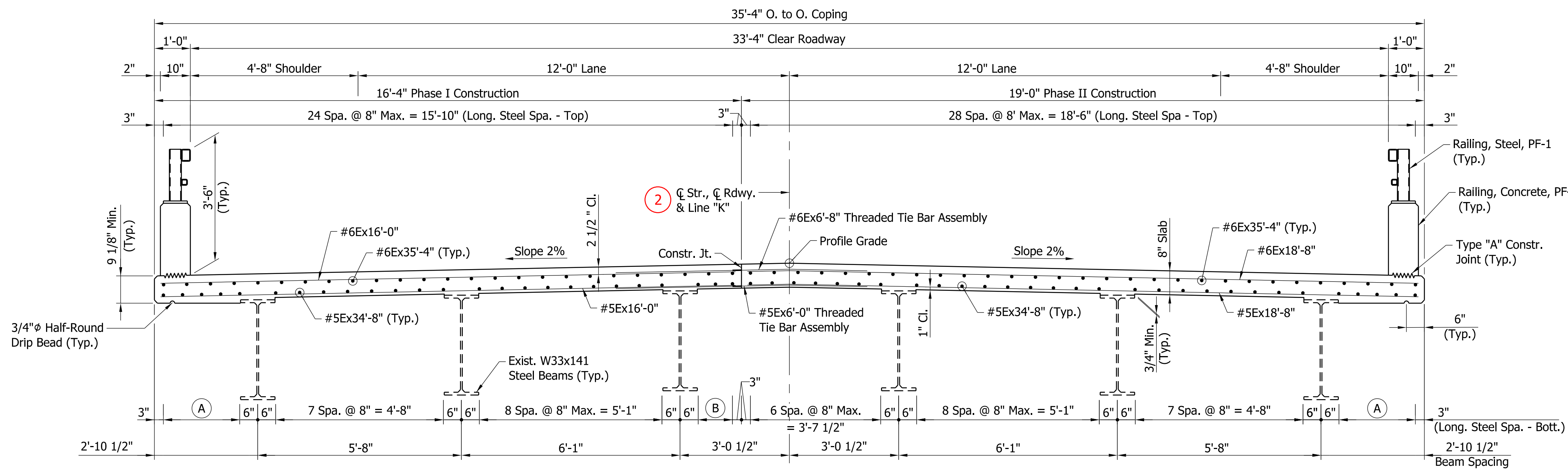
The purpose of these Superstructure Details sheets is to show physical dimensions and pertinent information necessary for the contractor to construct the bridge deck.



**SECTION A-A**  
(SPANS "A", "B", "F", "G")  
Scale: 1/2"=1'-0"

A 4 Spa. @ 8" Max. = 2'-1 1/2"  
B 2 Spa. @ 8" Max. = 11 1/2"

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

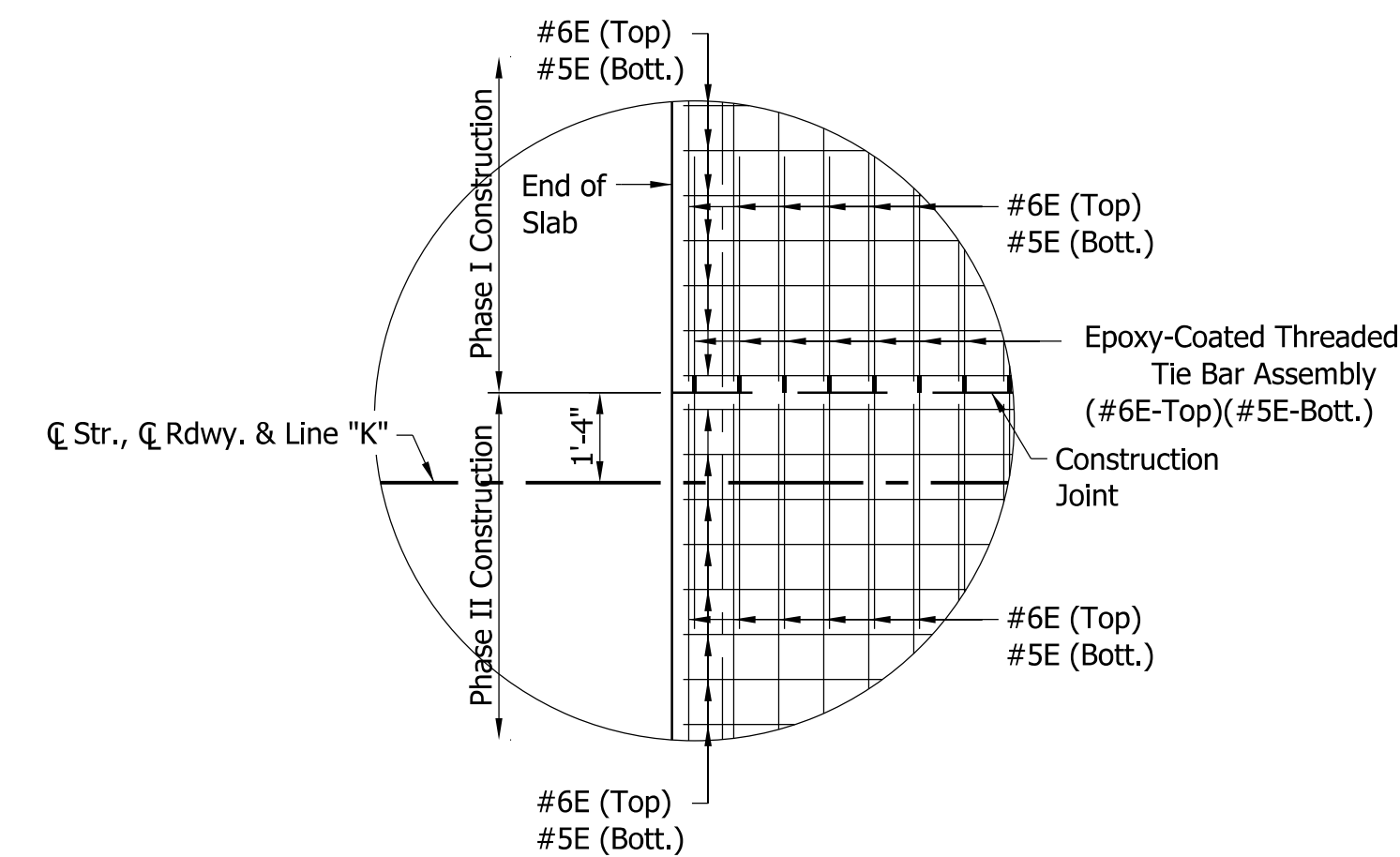


**SECTION B-B**  
(SPANS "C" Thru "E")  
Scale: 1/2"=1'-0"

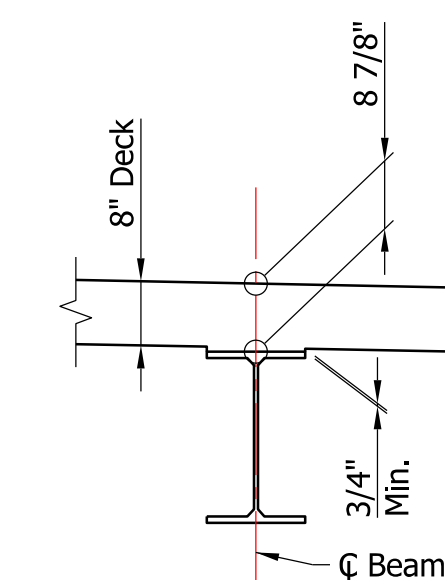
A 4 Spa. @ 8" Max. = 2'-1 1/2"  
B 2 Spa. @ 8" Max. = 11 1/2"

**REQUIRED ELEMENTS:**

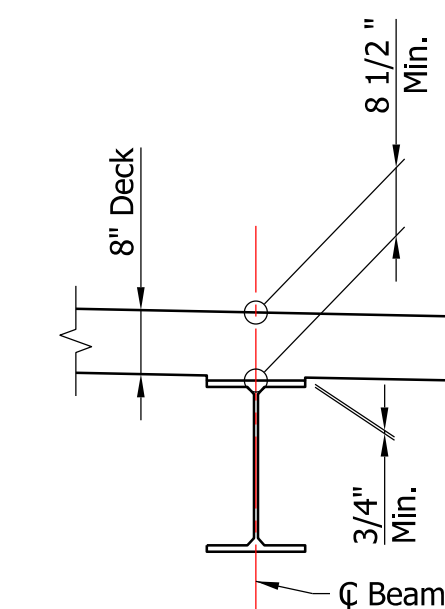
- 1 Typical Section
- 2 Line Designation and Phase Construction Lines (when necessary) Tied to Survey Line
- 3 Details as Needed
- 4 Notes
- 5 Signature Block and PE Seal



**DETAIL "A"**  
Scale: 3/8" = 1'-0"



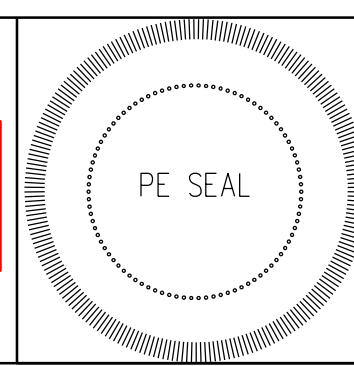
**SECTION @ BEAMS**  
(Spans "A", "B", "F", & "G")  
Not To Scale



**SECTION @ BEAMS**  
(Spans "C" thru "E")  
No Scale

- 4 Notes:
- For General Notes, see Sht. 14.
  - For additional details, see Shts. 42 & 44 - 51.
  - For Location of Section A-A & B-B, see Sht. 42.
  - For Location of Detail "A", see Sht. 42.
  - For Slab Plan, see Sht. 42.
  - For Railing Details, see Sht. 52.
  - For Bar Bending Diagrams and Bill of Materials, see Sht. 51.
  - For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.
  - "E" denotes Epoxy Coated Reinforcing Steel.
  - For Type "A" Construction Joint, see Std. Dwg. E 702-CJTA-01.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

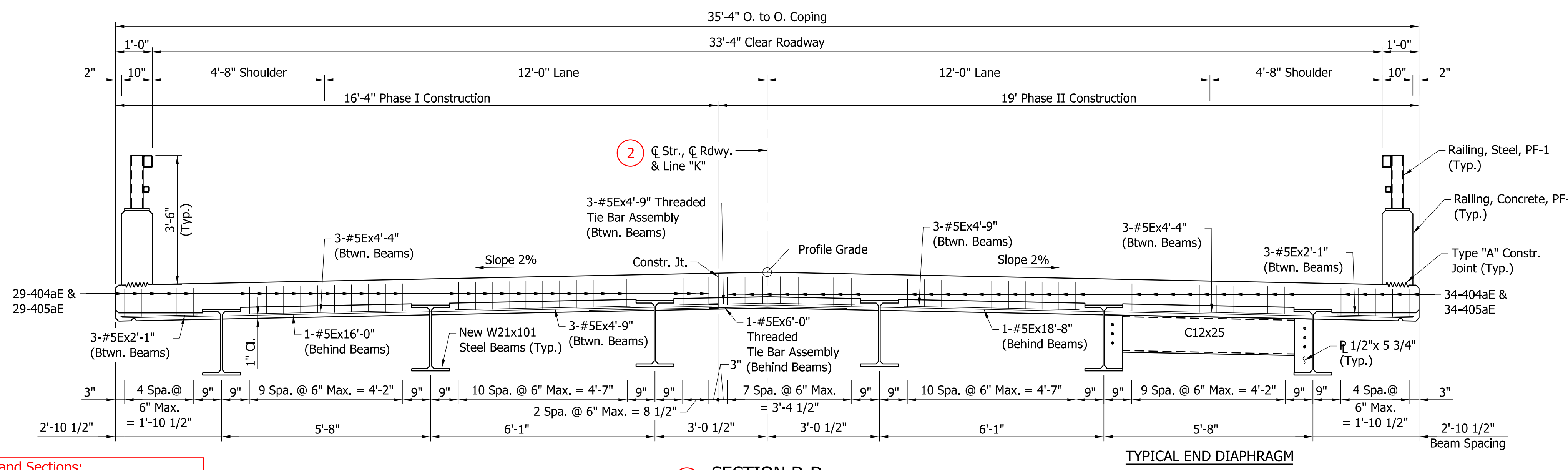
SUPERSTRUCTURE DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	43 of 71
CONTRACT	PROJECT
B-00000	0000000



**PURPOSE:**

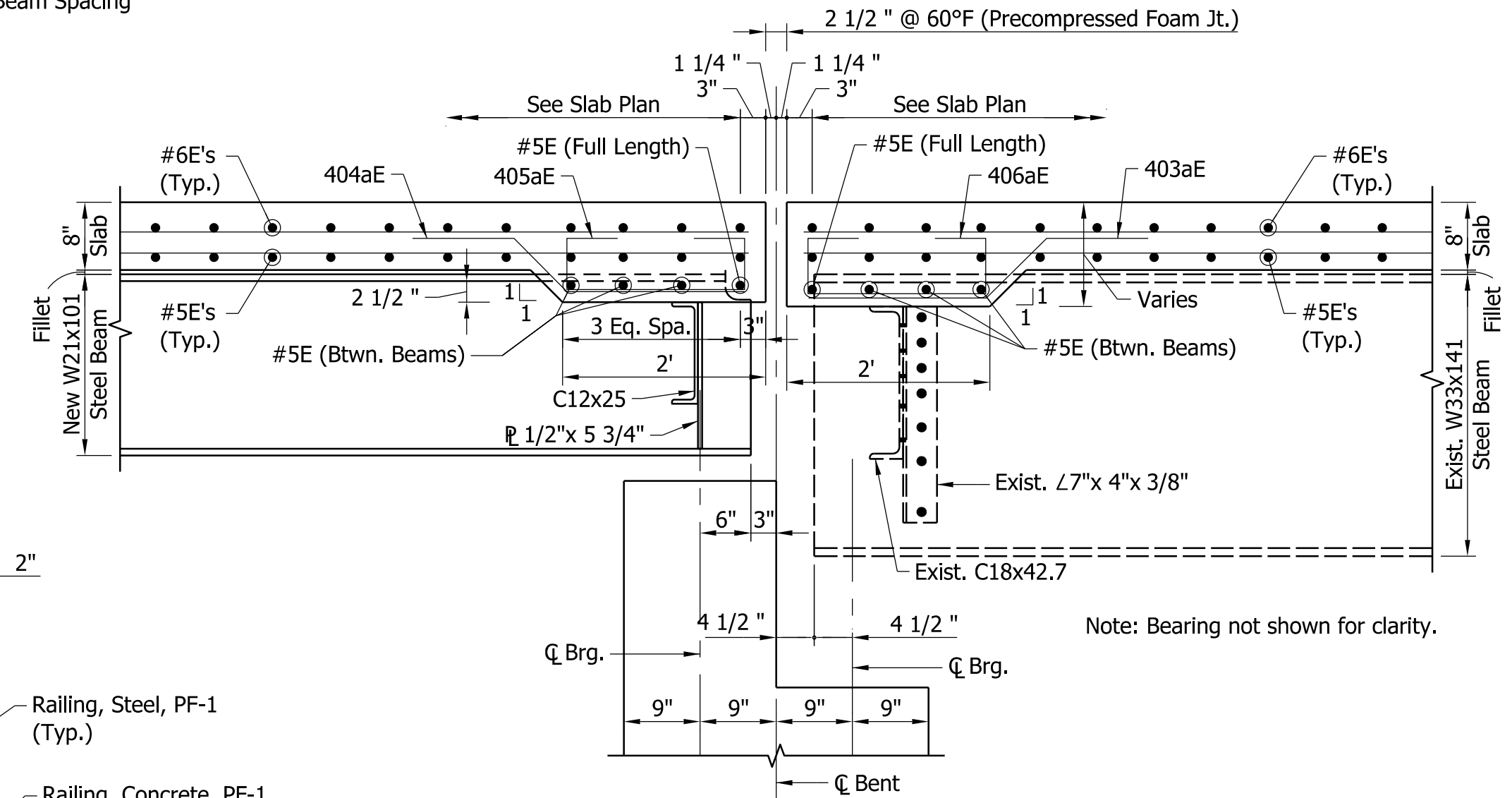
The purpose of these Superstructure Details sheets is to show physical dimensions and pertinent information necessary for the contractor to construct the bridge deck.



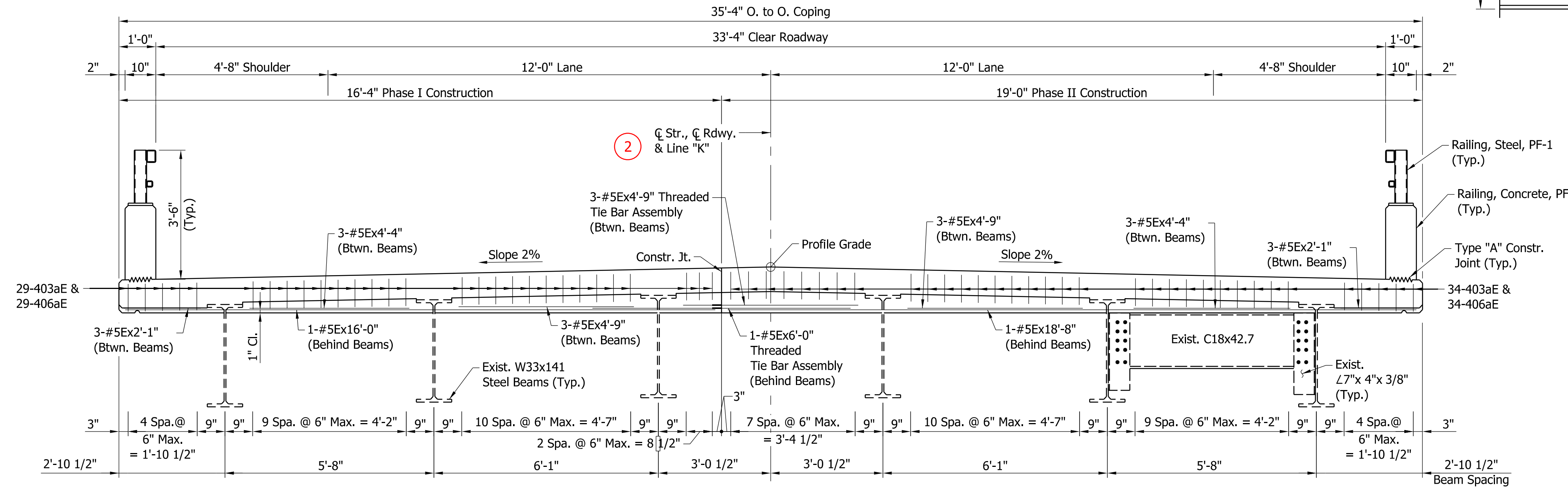
**1 SECTION D-D**  
Scale: 1/2"=1'-0"

Note: A Joint Setting Table may be required for expansion lengths exceeding 150 ft.

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



**2 SECTION C-C**  
Scale: 3/4" = 1'-0"

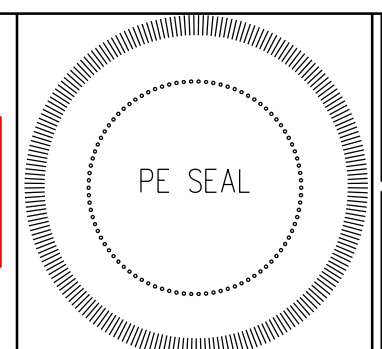


**1 SECTION E-E**  
Scale: 1/2"=1'-0"

- 4 Notes:**
- For General Notes, see Sht. 14.
  - For additional details, see Shts. 42, 43 & 45 - 51.
  - For Location of Section C-C, D-D & E-E, see Sht. 42.
  - For Slab Plan, see Sht. 42.
  - For End Diaphragm Details, see Sht. 32.
  - For Railing Details, see Shts. 52.
  - For Bar Bending Diagrams and Bill of Materials, see Sht. 51.
  - For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.
  - "E" denotes Epoxy Coated Reinforcing Steel.
  - For Type "A" Construction Joint, see Std. Dwg. E 702-CJTA-01.

- REQUIRED ELEMENTS:**
- 1 Typical Section
  - 2 Line Designation
  - 3 Details as Needed
  - 4 Notes
  - 5 Signature Block and PE Seal

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

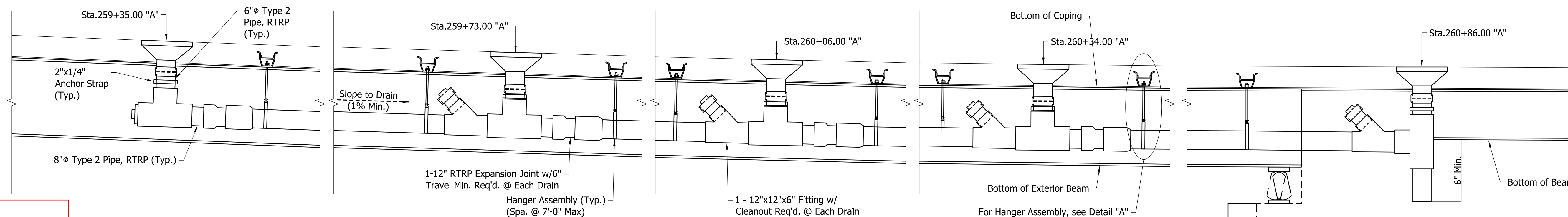
SUPERSTRUCTURE DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	44 of 71
CONTRACT	PROJECT
B-00000	0000000

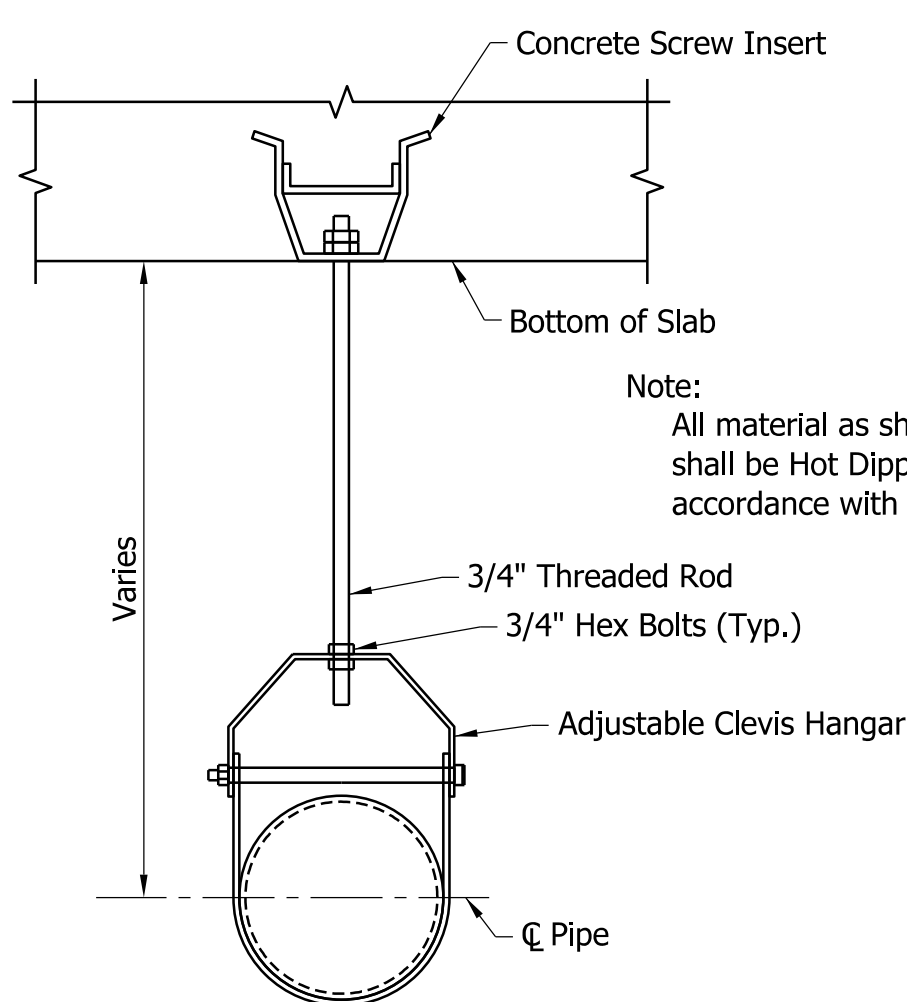
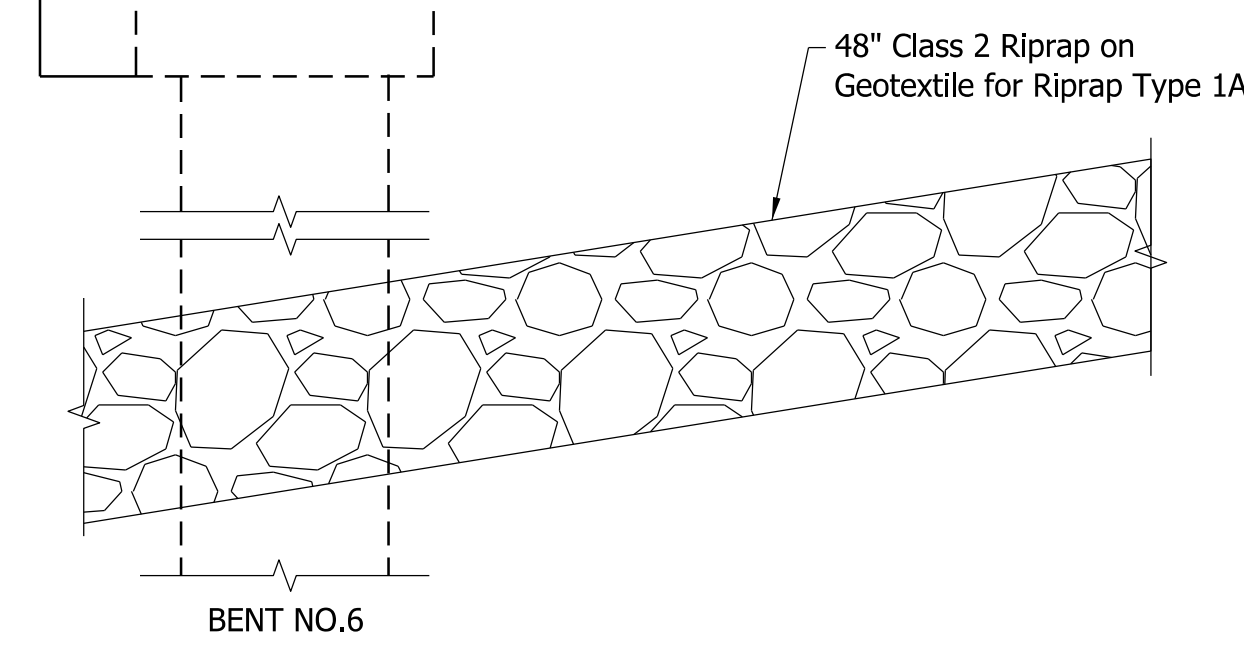
**PURPOSE:**

The purpose of this Superstructure Details sheet is to show information necessary for the contractor to construct a deck drain pipe system.

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

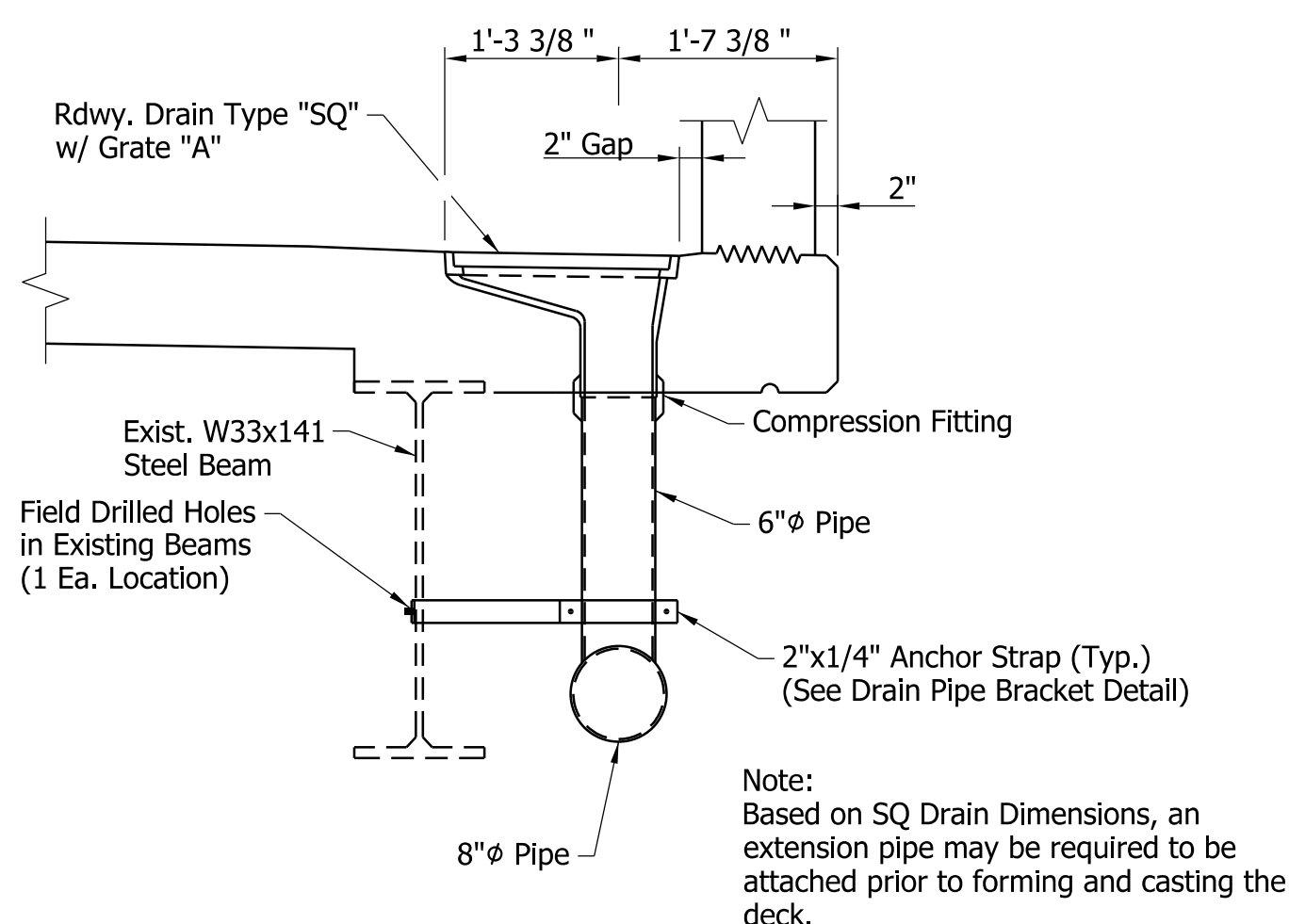


2 PARTIAL SECTION @ BENT NO.6  
Scale: 1/2" = 1'-0"



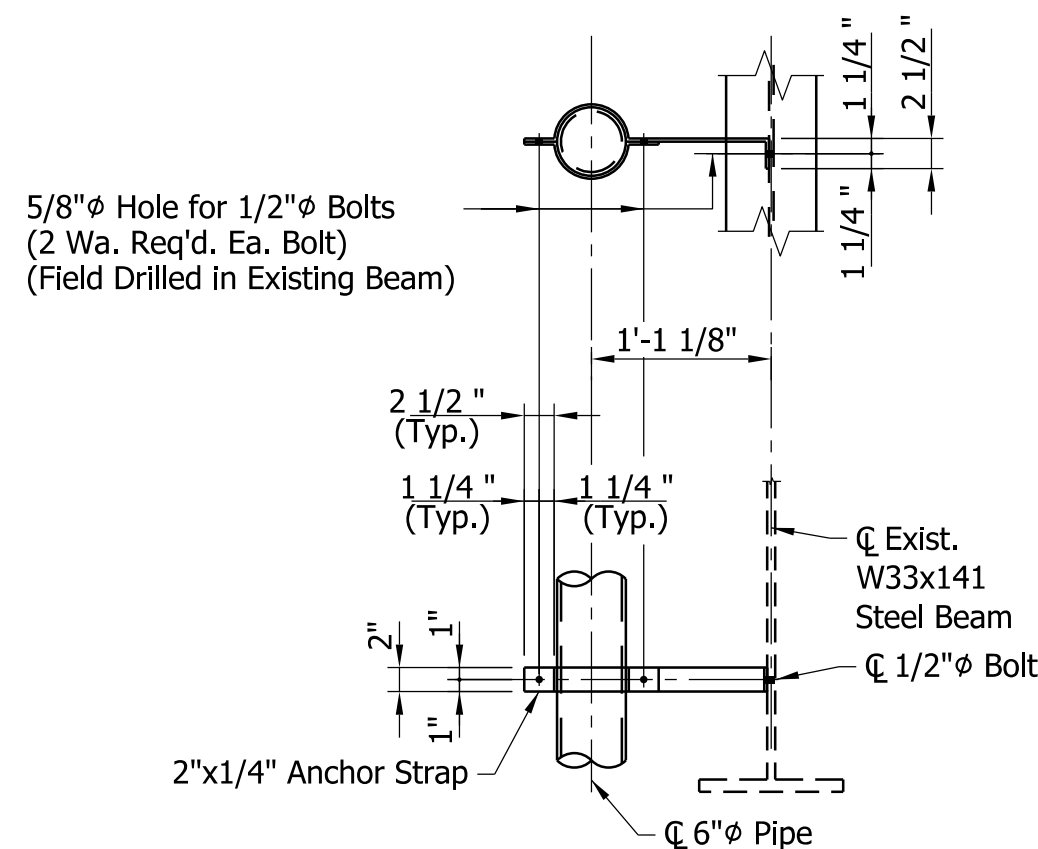
2 DETAIL "A"  
Not To Scale

Note:  
All material as shown for the Hanger Assembly shall be Hot Dipped Galvanized Carbon Steel in accordance with ASTM A153.

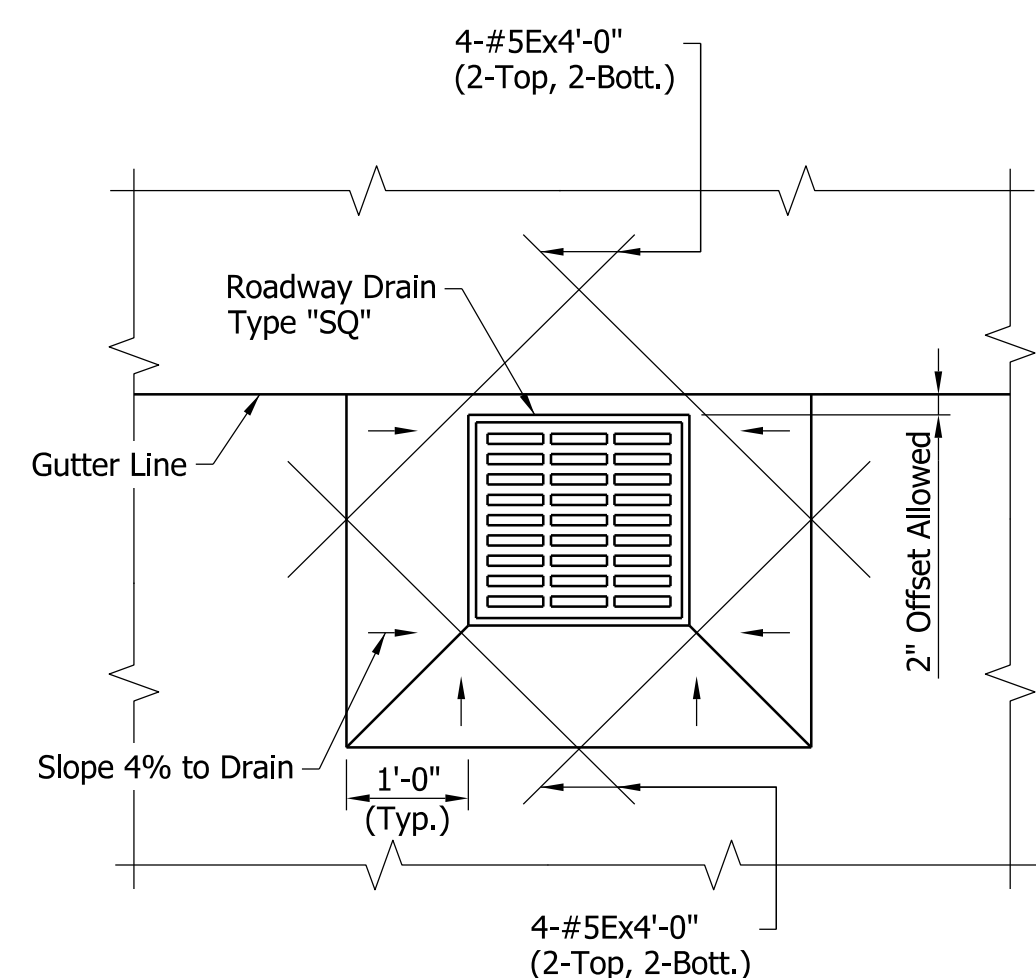


2 ROADWAY DRAIN TYPE "SQ" FOR DRAIN SYSTEM  
(8 Req'd.)  
Scale: 3/4" = 1'-0"

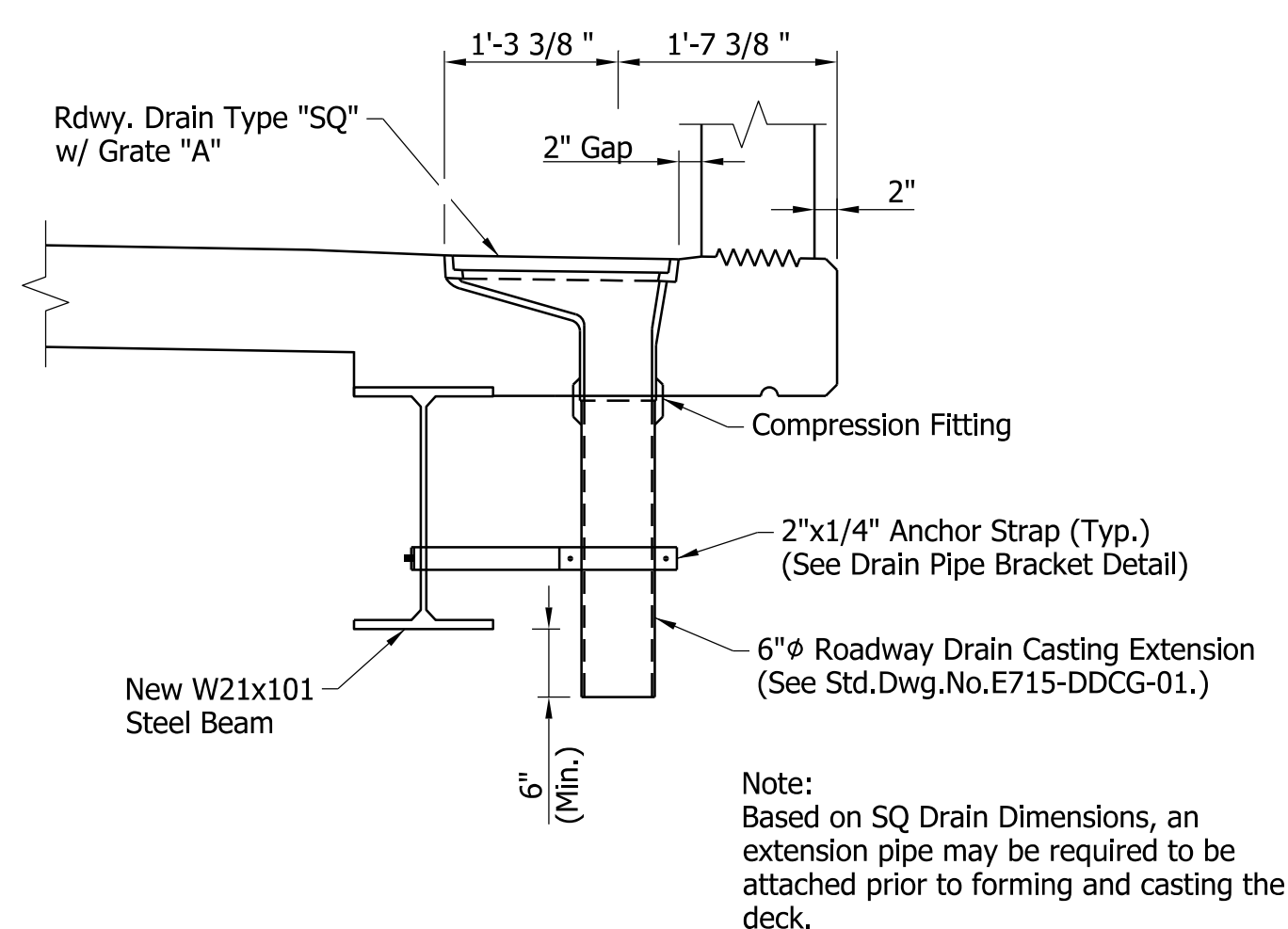
Note:  
Based on SQ Drain Dimensions, an extension pipe may be required to be attached prior to forming and casting the deck.



2 DRAIN PIPE BRACKET DETAIL FOR DRAIN SYSTEM  
(8 Req'd.)  
Not To Scale

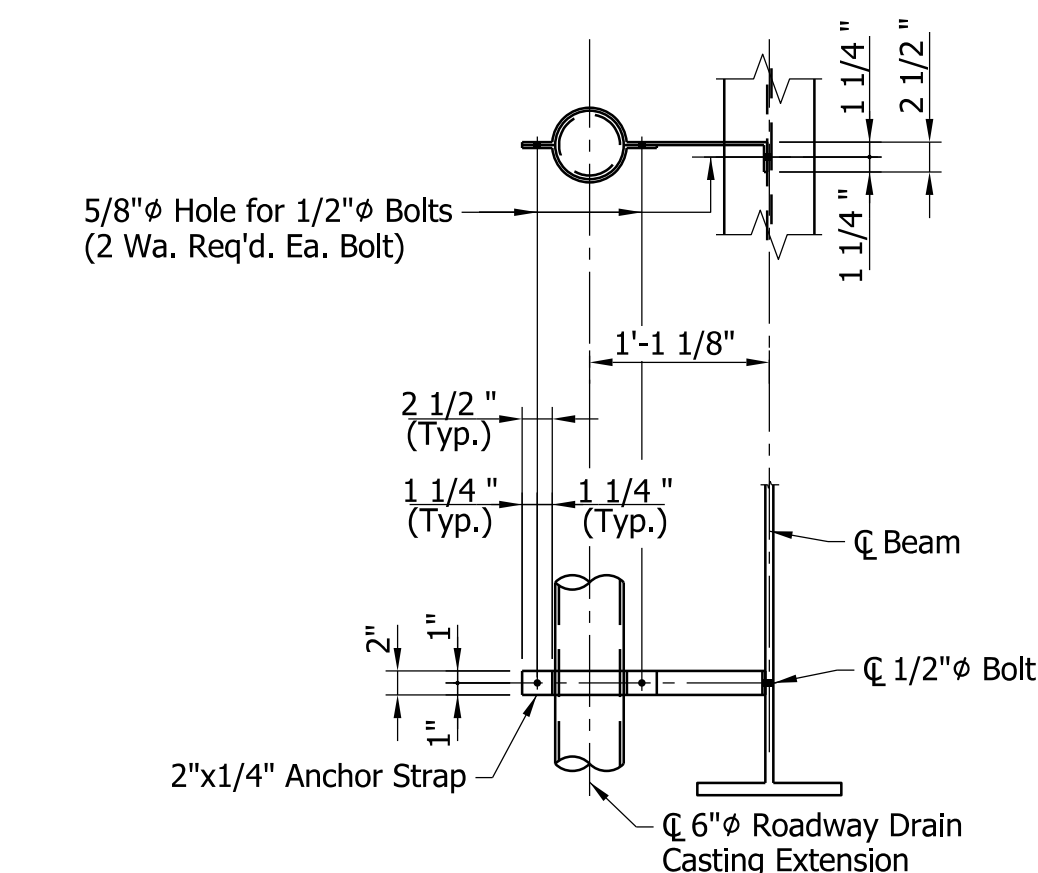


1 TYP. ADDITIONAL REINFORCING AT ROADWAY DRAIN TYPE "SQ"  
(14 Req'd.)  
Scale: 3/4" = 1'-0"



1 ROADWAY DRAIN TYPE "SQ"  
(6 Req'd.)  
Scale: 3/4" = 1'-0"

Note:  
Based on SQ Drain Dimensions, an extension pipe may be required to be attached prior to forming and casting the deck.



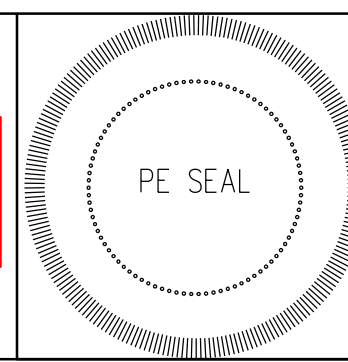
1 DRAIN PIPE BRACKET DETAIL  
(6 Req'd.)  
Not To Scale

**REQUIRED ELEMENTS:**

- 1 Roadway Drain Details  
Drain Section  
Additional Deck Reinforcing Detail  
Drain Pipe Bracket Detail
- 2 Roadway Drain Pipe System Details  
(When Req'd.)  
Elevation along Drain Pipe  
Drain Section  
Drain Pipe Bracket Details
- 3 Notes
- 4 Signature Block and PE Seal

Notes:  
3 For General Notes, see Sht. 14.  
For Slab Plan, see Sht. 42.  
For Roadway Drain Locations, see Sht. 13.  
For Bar Bending Diagrams and Bill of Materials, see Sht. 51.  
For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.  
"E" denotes Epoxy Coated Reinforcing Steel.  
RTRP denotes Reinforced Thermosetting Resin Pipe.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

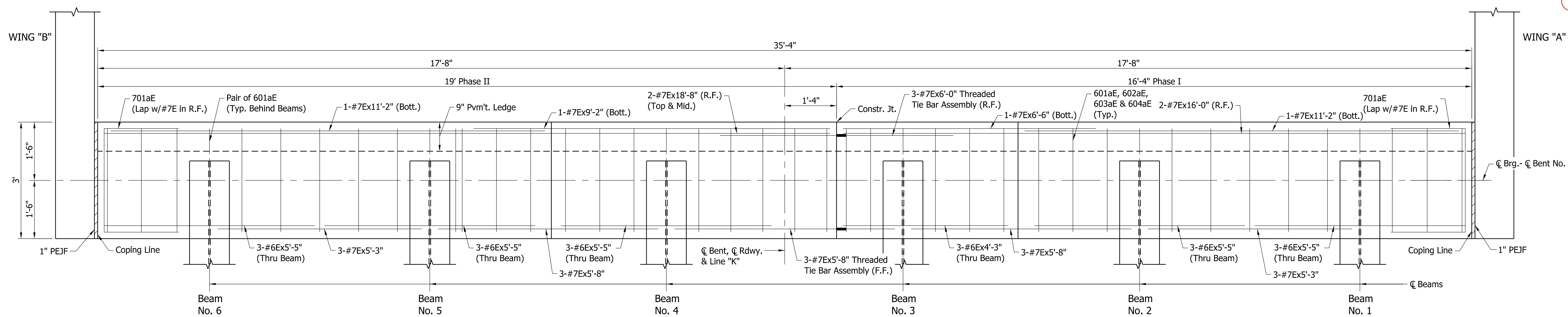
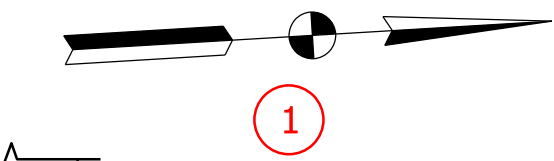
SUPERSTRUCTURE DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	45 of 71
CONTRACT	PROJECT
B-00000	0000000



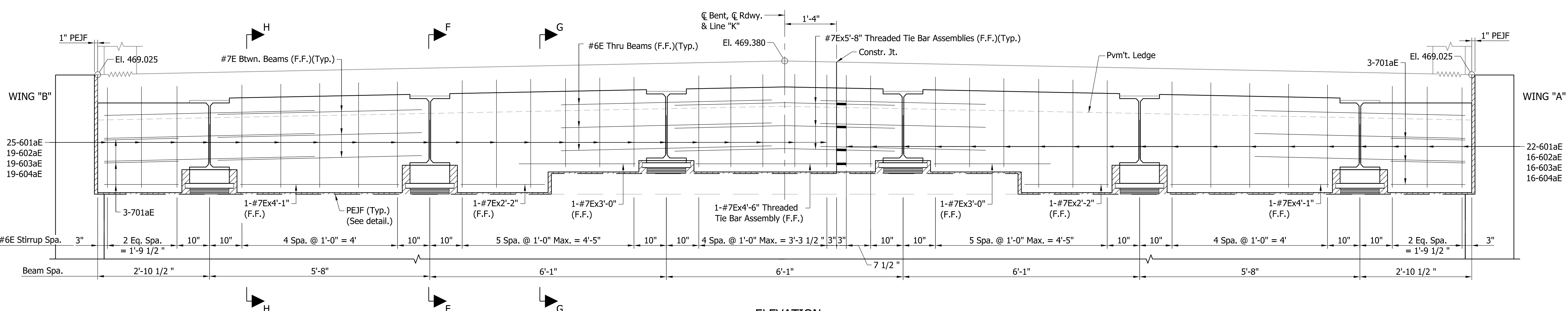
**PURPOSE:**

The purpose of this Superstructure Details sheet is to show physical dimensions and pertinent information necessary for the contractor to construct the end diaphragm for a semi-integral end bent conversion.



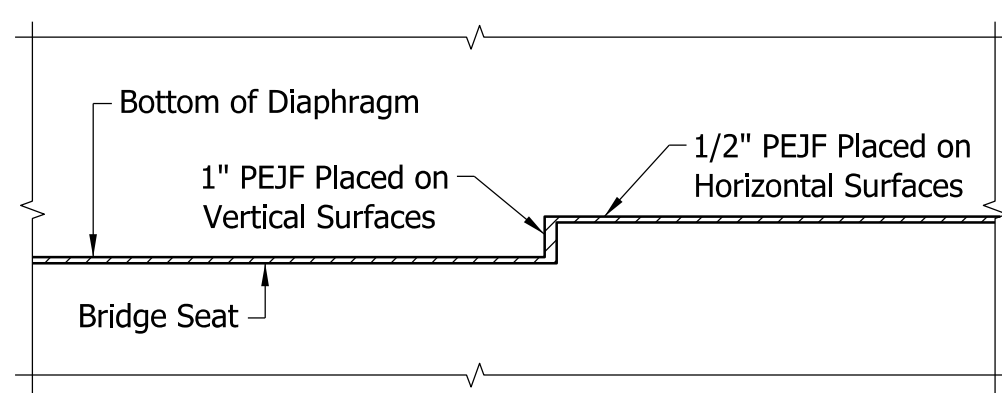
**2 PLAN**  
Scale: 3/4" = 1'-0"  
Looking Back Station

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



**3 ELEVATION**  
Scale: 3/4" = 1'-0"  
Looking Back Station

- REQUIRED ELEMENTS:**
- ① North Arrow
  - ② Plan
  - ③ Elevation
  - ④ Bridge Seat Detail
  - ⑤ Notes
  - ⑥ Signature Block and PE Seal

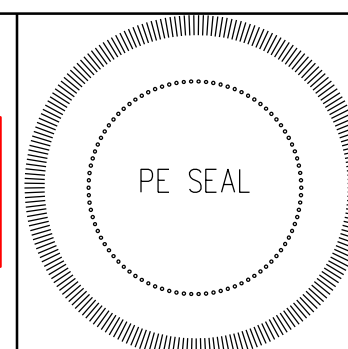


**4 BRIDGE SEAT DETAIL**  
Scale: 3/4" = 1'-0"

**5 Notes:**

- For General Notes, see Sht. 14.
- For Section F-F, G-G & H-H, see Sht. 48.
- For additional details, see Shts. 42 - 45 & 47 - 51.
- For Bent No. 1 Details, see Shts. 16 - 18.
- For Detail of Drilled Holes through Steel Beams, see Sht. 33.
- For Slab Plan, see Sht. 42.
- For Railing Details, see Sht. 52.
- For Bar Bending Diagrams and Bill of Materials, see Sht. 51.
- For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.
- "E" denotes Epoxy Coated Reinforcing Steel.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

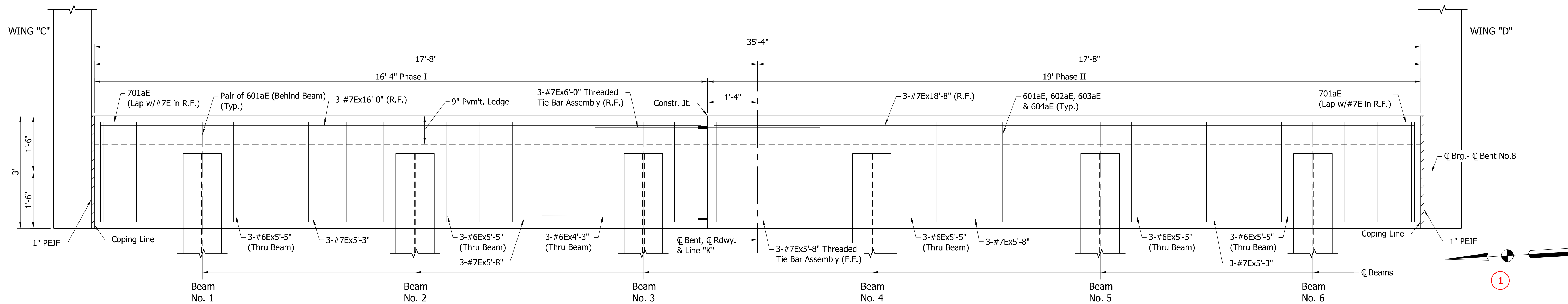
INDIANA  
DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE DETAILS  
BENT NO. 1 RECONSTRUCTION**

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
	9999999
	SHEET
	46 of 71
CONTRACT	PROJECT
B-00000	0000000

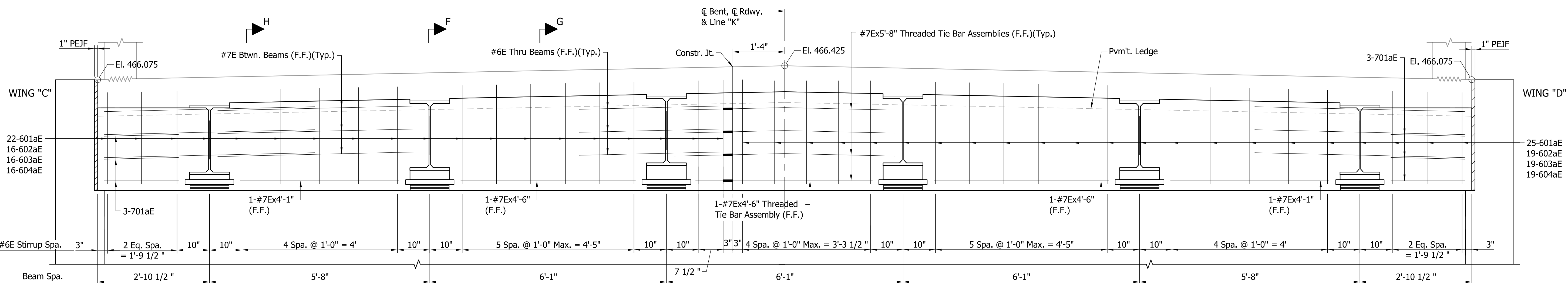
**PURPOSE:**

The purpose of this Superstructure Details sheet is to show physical dimensions and pertinent information necessary for the contractor to construct the end diaphragm for a semi-integral end bent conversion.



2 PLAN  
Scale: 3/4" = 1'-0" Looking Ahead Station

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



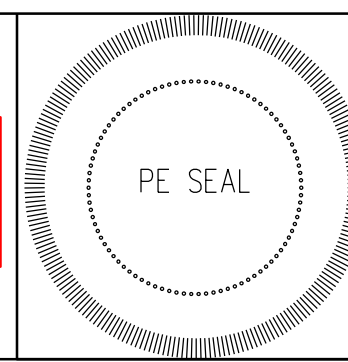
3 ELEVATION  
Scale: 3/4" = 1'-0" Looking Ahead Station

**REQUIRED ELEMENTS:**

- 1 North Arrow
- 2 Plan
- 3 Elevation
- 4 Notes
- 5 Signature Block and PE Seal

- 4 Notes:
- For General Notes, see Sht. 14.
  - For Section F-F, G-G & H-H, see Sht. 48.
  - For additional details, see Shts. 42 - 46 & 48 - 51.
  - For Bent No. 8 Details, see Shts. 27 - 28.
  - For Detail of Drilled Holes through Steel Beams, see Sht. 35.
  - For Slab Plan, see Sht. 42.
  - For Railing Details, see Sht. 52.
  - For Bar Bending Diagrams and Bill of Materials, see Sht. 51.
  - For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.
  - "E" denotes Epoxy Coated Reinforcing Steel.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



5

RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
DESIGNED: ABC	DRAWN: PQR	DATE
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

**SUPERSTRUCTURE DETAILS  
BENT NO.8 RECONSTRUCTION**

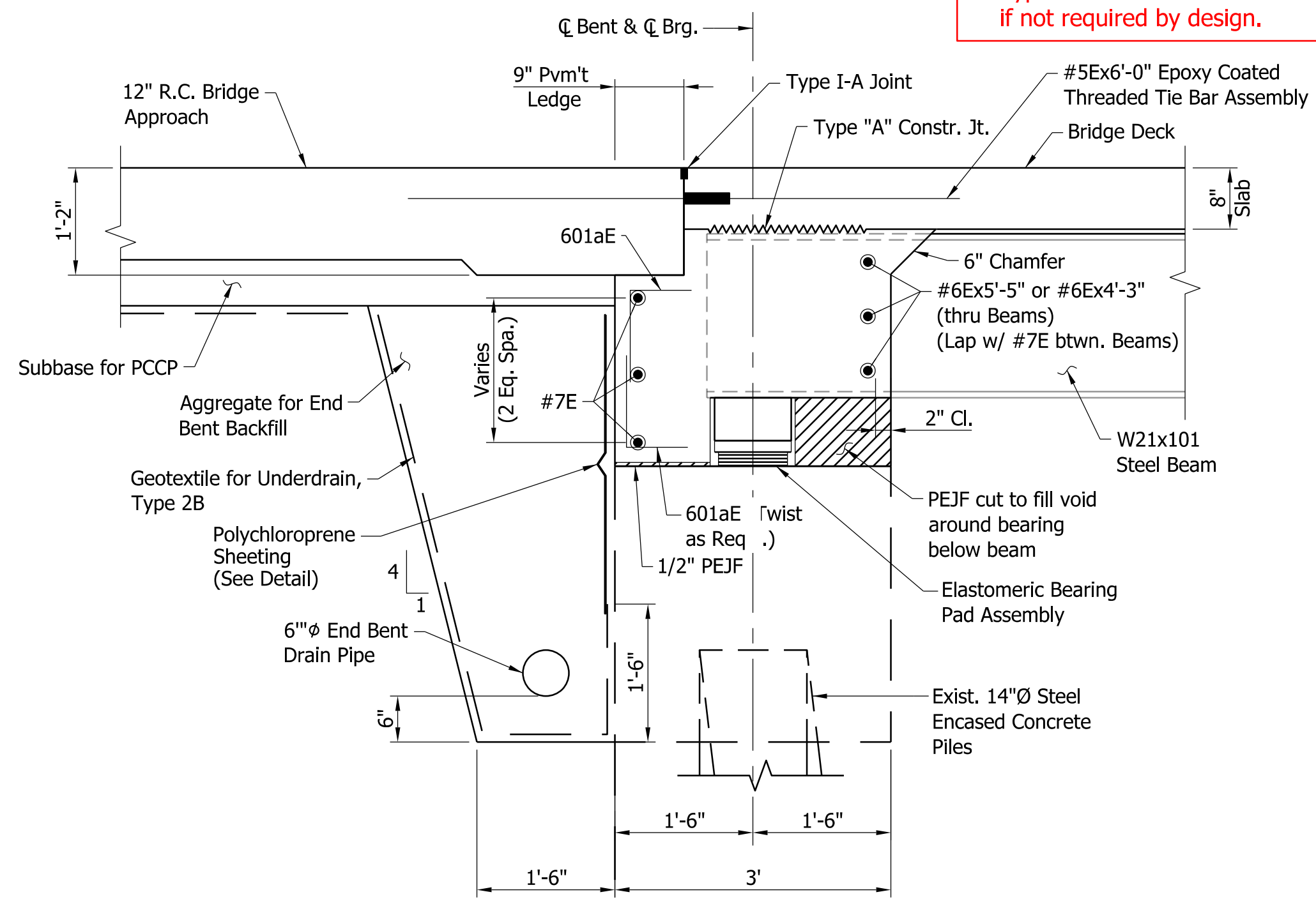
HORIZONTAL SCALE	BRIDGE FILE
3/4" = 1'-0"	156-78-00000 B
VERTICAL SCALE	DESIGNATION
3/4" = 1'-0"	9999999
	SHEET
	47 of 71
CONTRACT	PROJECT
B-00000	0000000



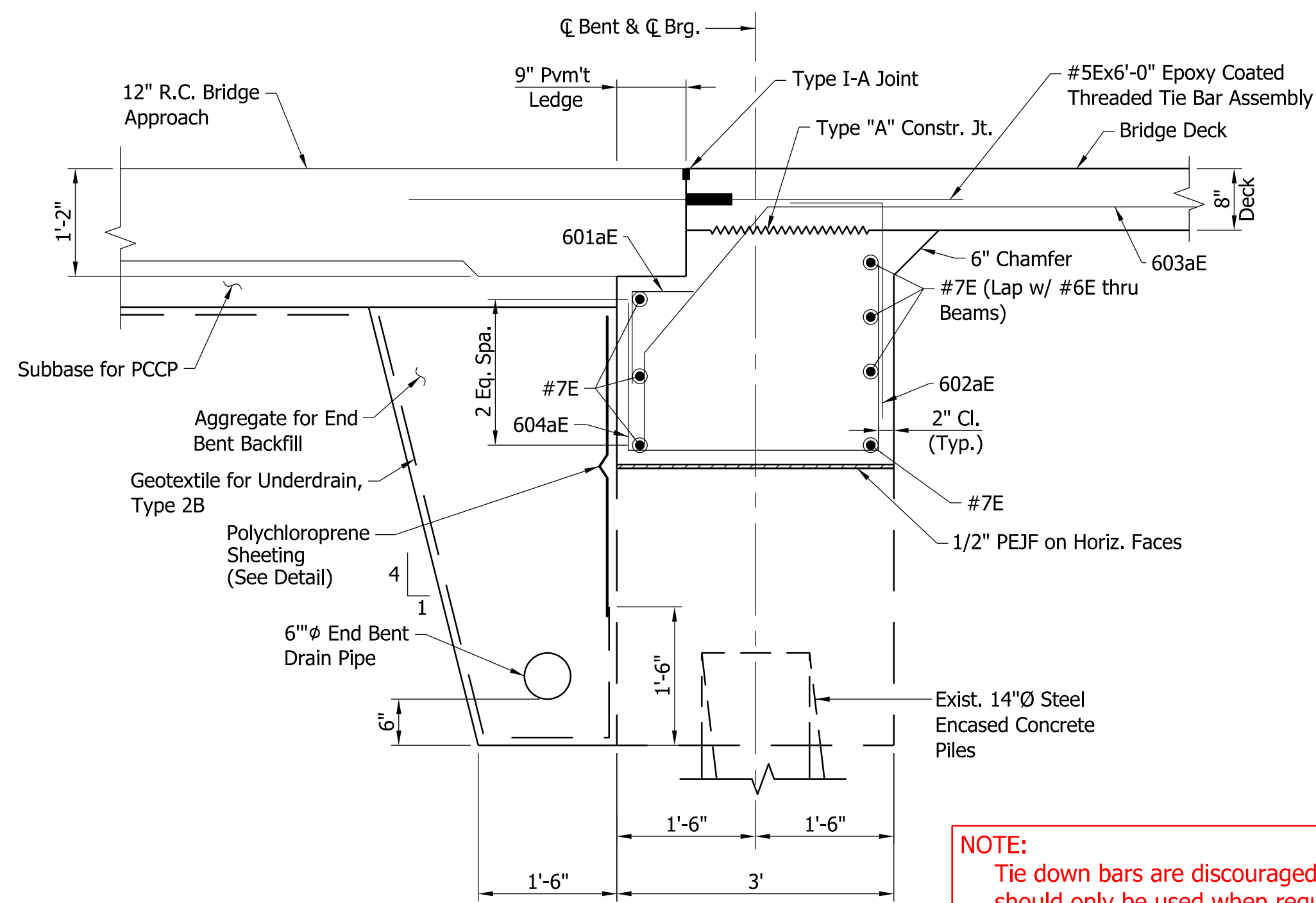
**PURPOSE:**

The purpose of this Superstructure Details sheet is to show physical dimensions and pertinent information necessary for the contractor to construct the end diaphragm for a semi-integral end bent conversion.

**NOTE:**  
Type "A" Construction Joint is Optional if not required by design.



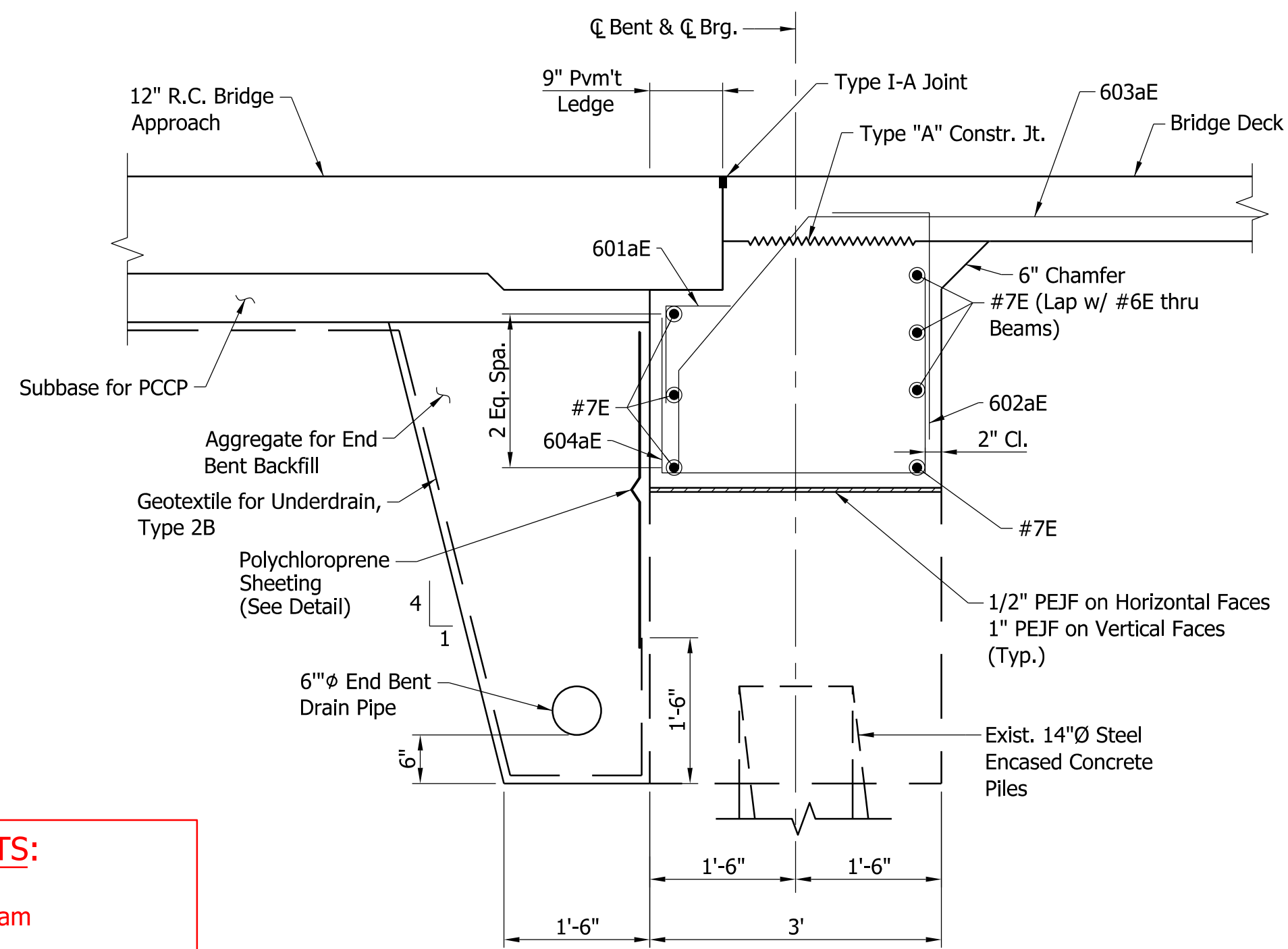
1 SECTION F-F  
Scale: 3/4" = 1'-0"



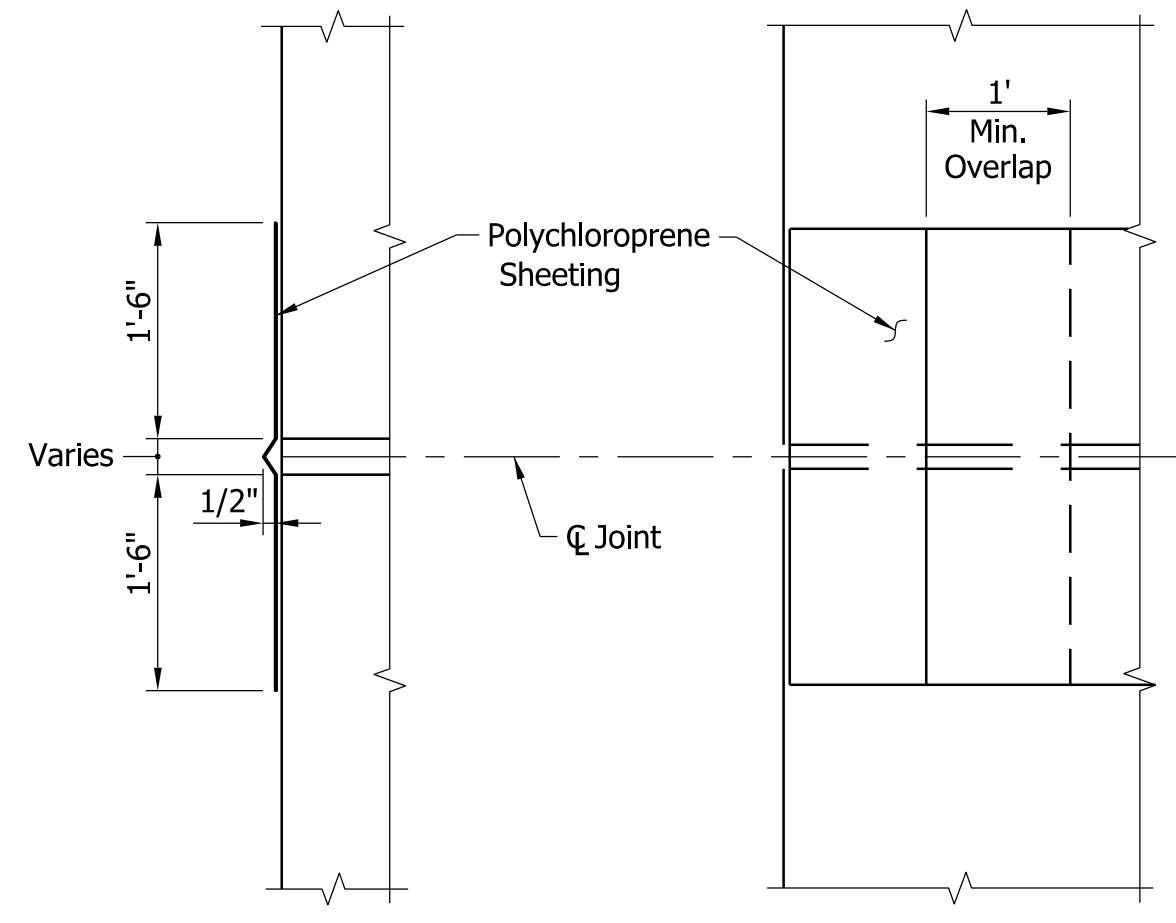
2 SECTION G-G  
Scale: 3/4" = 1'-0"

**NOTE:**  
Tie down bars are discouraged and should only be used when required by analysis for seismic or uplift forces.

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



2 SECTION H-H  
Scale: 3/4" = 1'-0"



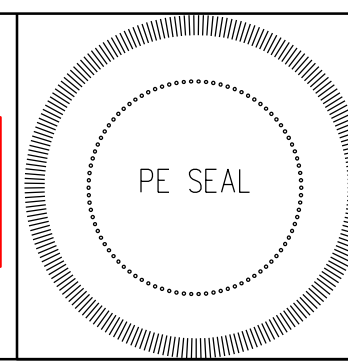
3 POLYCHLOROPRENE SHEETING DETAIL  
Scale: 3/4" = 1'-0"

**REQUIRED ELEMENTS:**

- 1 Typical Section at Beam
- 2 Typical Section between Beams
- 3 Polychloroprene Sheeting Detail
- 4 Notes
- 5 Signature Block and PE Seal

- 4 Notes:
- For General Notes, see Sht. 14.
  - For additional details, see Shts. 42 - 47 & 49 - 51.
  - For Slab Plan, see Sht. 42.
  - For Railing Details, see Sht. 52.
  - For Pavement Ledge Details, see Sht. 57.
  - For Bar Bending Diagrams and Bill of Materials, see Sht. 51.
  - For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.
  - "E" denotes Epoxy Coated Reinforcing Steel.
  - For Type "A" Construction Joint, see Std. Dwg. E 702-CJTA-01.
  - For Detail of Drilled Holes Through Steel Beams, see Shts. 33 & 35.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



5

RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

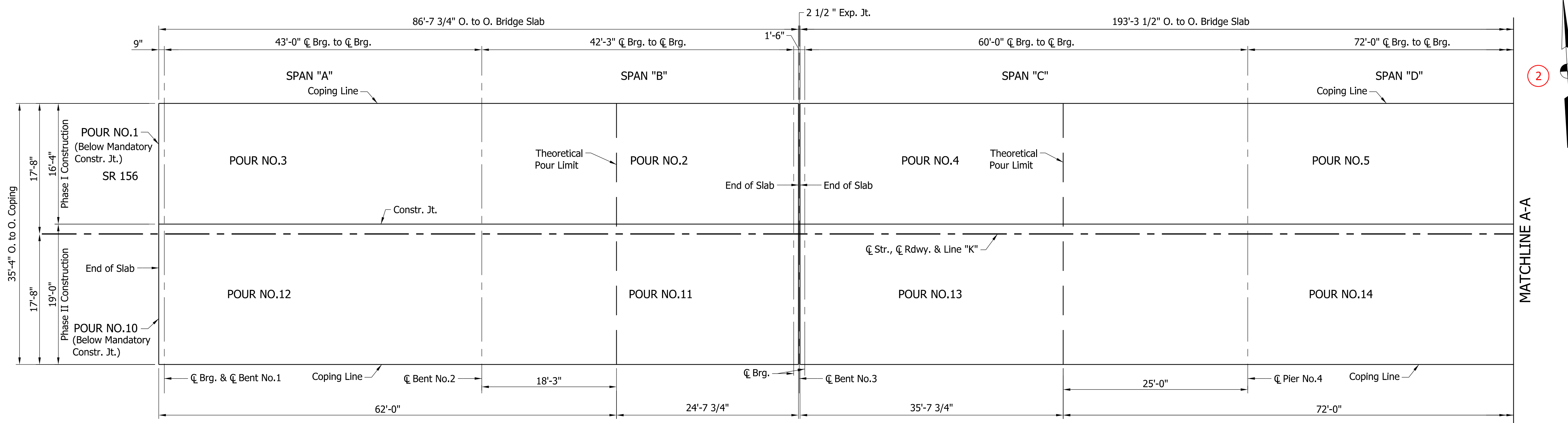
INDIANA  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	48 of 71
CONTRACT	PROJECT
B-00000	0000000

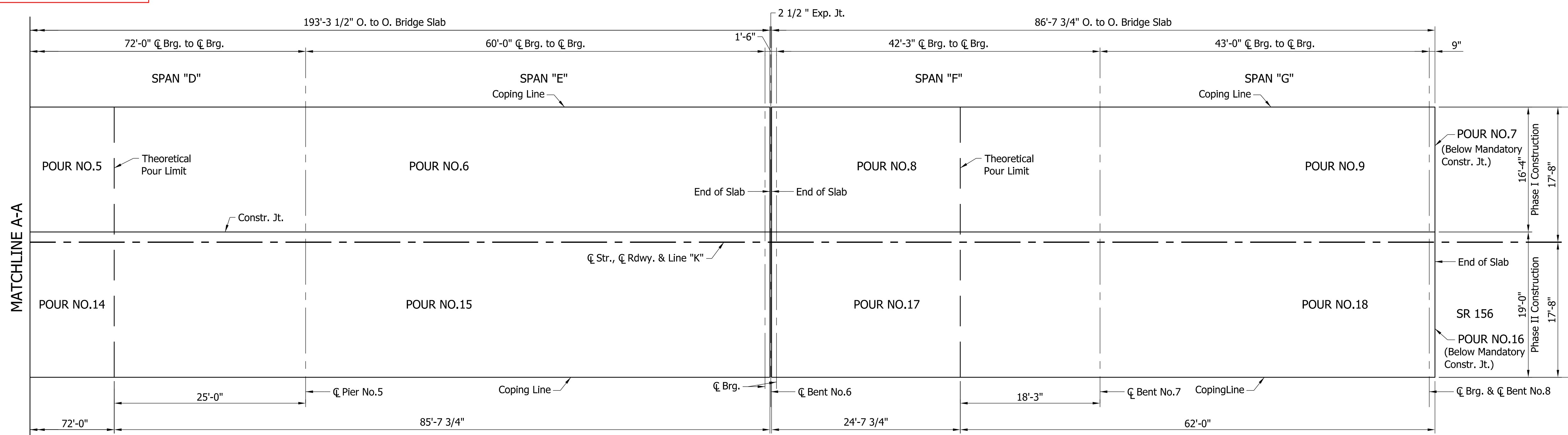
**PURPOSE:**

The purpose of this Superstructure Details sheet is to show the Pour Sequence and other pertinent instructions related to placing concrete in the deck.



① **POUR SEQUENCE**  
Scale: 1/8" = 1'-0"

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



① **POUR SEQUENCE**  
Scale: 1/8" = 1'-0"

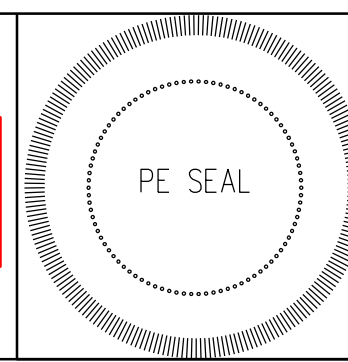
**REQUIRED ELEMENTS:**

- ① Pour Sequence Plan
- ② North Arrow
- ③ Notes
- ④ Signature Block and PE Seal

- ③ Notes:  
Sequence of pours to be made in order of pour numbers. The Contractor may change the sequence of pours or location of construction joints subject to approval of the Engineer.  
  
The overhang formwork for Beam No.1 and Beam No.6 in Spans "A" - "B" and Spans "F" - "G" shall be supported to prevent over-rotation during deck placement.

- ③ Notes:  
For General Notes, see Sht. 14.  
For additional details, see Shts. 42 - 48, 51 & 52.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

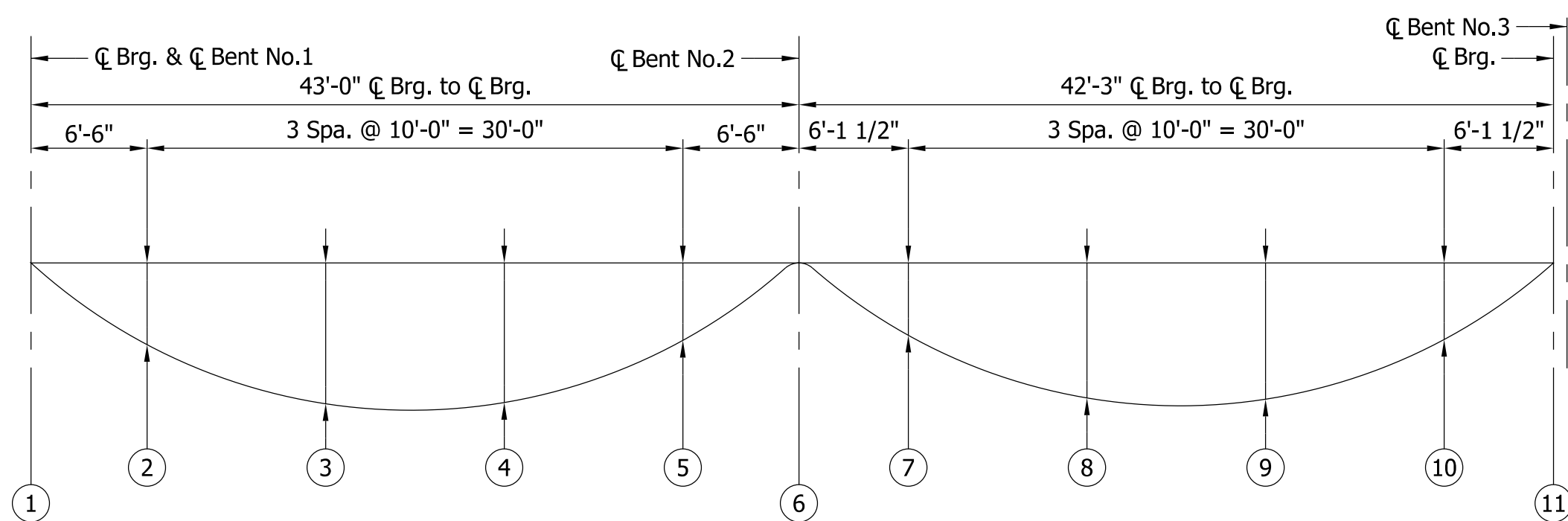
SUPERSTRUCTURE DETAILS

HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'-0"	156-78-00000 B
VERTICAL SCALE	DESIGNATION
1/8" = 1'-0"	9999999
	SHEET
	49 of 71
CONTRACT	PROJECT
B-00000	0000000

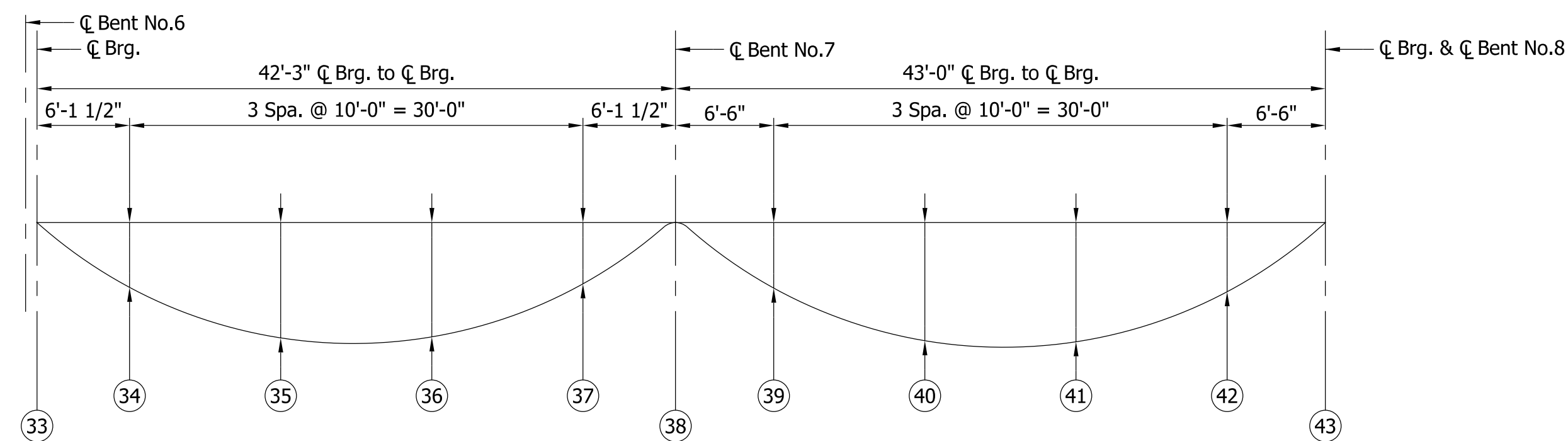


**PURPOSE:**

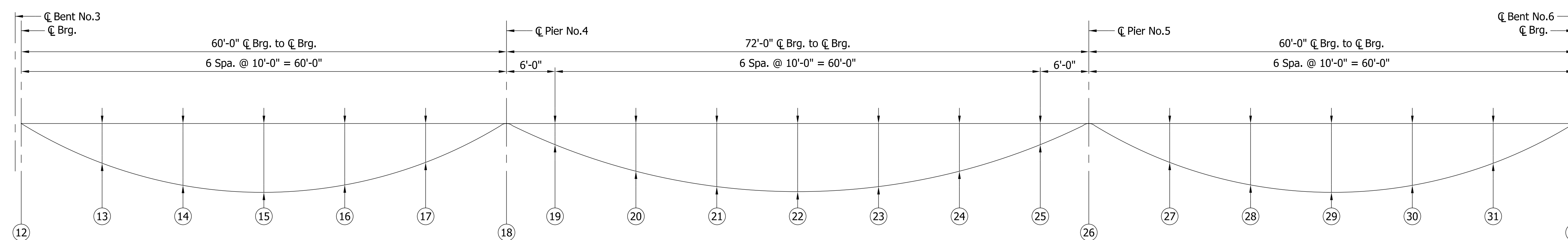
The purpose of this Superstructure Details sheet is to provide Dead Load Deflections in support of the Screed elevations used to place the floor slab and coping.



1 CONCRETE DEAD LOAD DEFLECTION DIAGRAM  
(Spans "A" & "B")  
Not To Scale



1 CONCRETE DEAD LOAD DEFLECTION DIAGRAM  
(Spans "F" & "G")  
Not To Scale



1 CONCRETE DEAD LOAD DEFLECTION DIAGRAM  
(Spans "C", "D" & "E")  
Not To Scale

See IDM 405-3.02 for information related to computation of slab dead-load deflections and development of the diagram.

2

CONCRETE DEAD LOAD DEFLECTION TABLE (in.)

LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
Beams 1-6	0.0	-0.2	-0.3	-0.3	-0.1	0.0	-0.1	-0.2	-0.3	-0.2	0.0	0.0	-0.3	-0.4	-0.4	-0.3	-0.1	0.0	-0.0	-0.2	-0.3	-0.4	-0.3	-0.2	-0.0	0.0	-0.1	-0.3	-0.4	-0.4	-0.3	0.0	0.0	-0.2	-0.3	-0.2	-0.1	0.0	-0.1	-0.3	-0.3	-0.2	0.0

Note:  
All Dead Load Deflections are in inches.

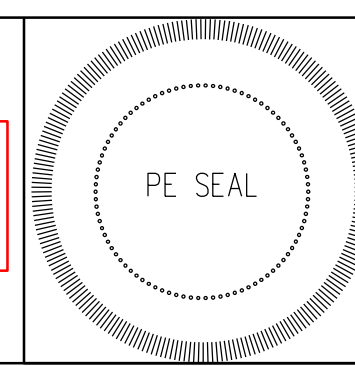
**REQUIRED ELEMENTS:**

- 1 Concrete Dead Load Deflection Diagram
- 2 Concrete Dead Load Deflection Table
- 3 Notes
- 4 Signature Block and PE Seal

3 Notes:  
For General Notes, see Sht. 14.  
For Screeds, see Shts. 54 - 56.

4

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL  
*Engineer of Record Signature* MM/DD/YY  
DESIGN ENGINEER DATE

DESIGNED: ABC DRAWN: PQR  
CHECKED: BCD CHECKED: RST

INDIANA  
DEPARTMENT OF TRANSPORTATION

SUPERSTRUCTURE DETAILS

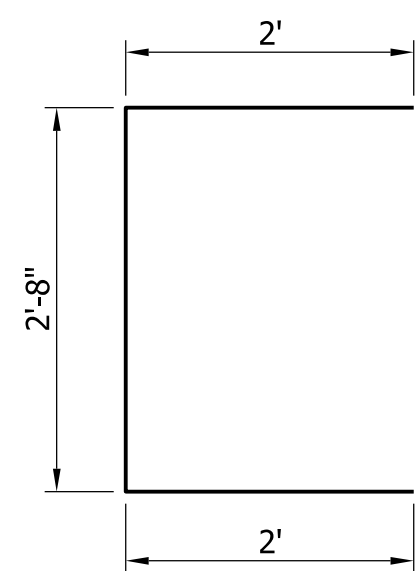
HORIZONTAL SCALE	BRIDGE FILE
NONE	156-78-00000 B
VERTICAL SCALE	DESIGNATION
NONE	9999999
SHEET	
50	of 71
CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

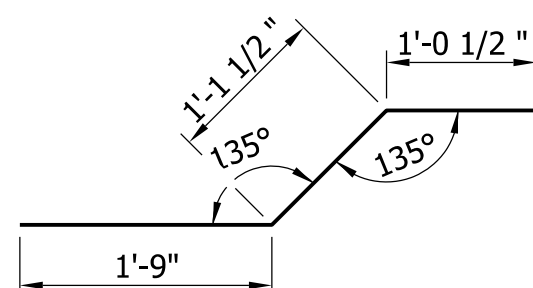
The purpose of this Superstructure Details sheet is to show the Bar Bending Details and Bill of Materials required for construction of the Superstructure.

3'-0"	3'-0"	#5Ex6'-0" Bars
3'-8"	1'-1"	#5Ex4'-9" Bars
3'-4"	3'-4"	#6Ex6'-8" Bars
3'-0"	3'-0"	#7Ex6'-0" Bars
3'-7"	11"	#7Ex4'-6" Bars
4'-2"	1'-6"	#7Ex5'-8" Bars

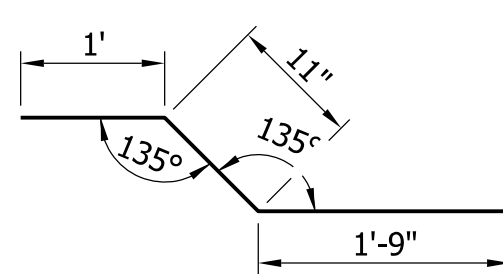
THREADED TIE BAR ASSEMBLY, EPOXY COATED



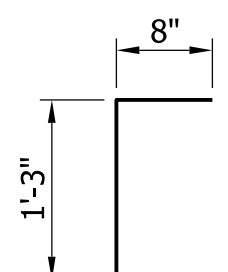
701aE x 6'-8"



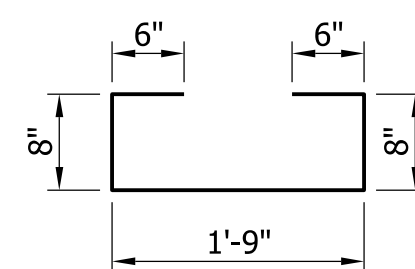
403aE x 3'-11"



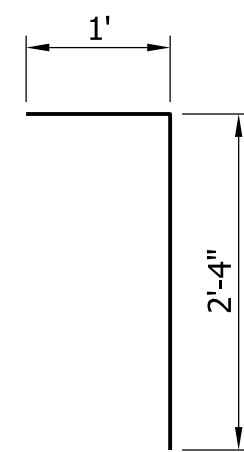
404aE x 3'-8"



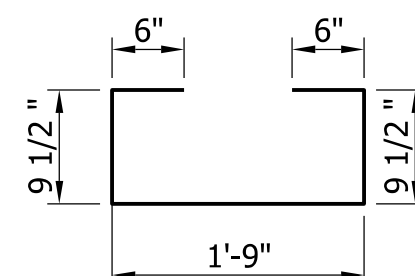
601aE x 1'-11"



405aE x 4'-1"

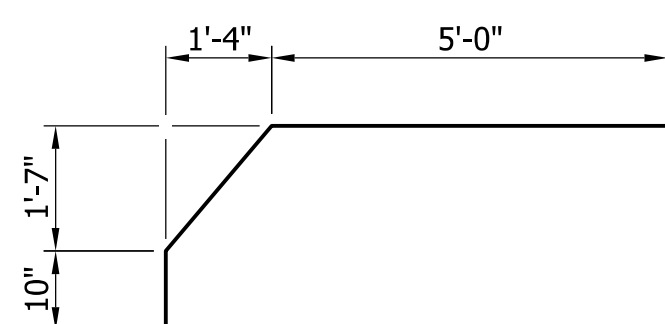


602aE x 3'-4"

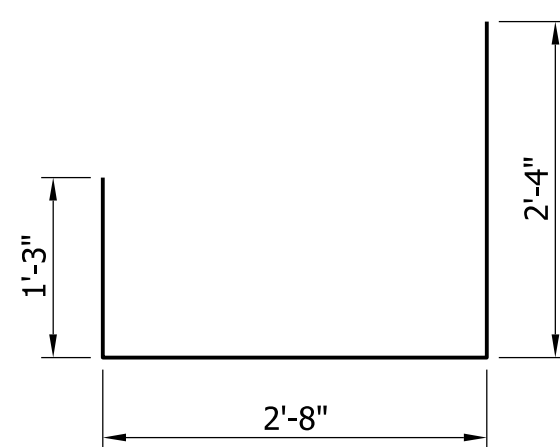


406aE x 4'-4"

Bar bending diagrams are not shown to scale. However, they should be drawn to approximate proportions.



603aE x 7'-11"



604aE x 6'-3"

**BAR BENDING DETAILS**

Not to Scale

When the construction is to be phased, Bills of Materials should be separated by phase.

6

**BILL OF MATERIALS SUPERSTRUCTURE PHASE I**

EPOXY COATED REINFORCING BARS			
SIZE or MARK	No. of BARS	LENGTH	WEIGHT (Lbs)
701aE	6	6'-8"	
#7E	5	16'-0"	
#7E	1	11'-2"	
#7E	1	6'-6"	
#7E	6	5'-8"	
#7E	6	5'-3"	
#7E	1	4'-6"	
#7E	2	4'-1"	
#7E	1	3'-0"	
#7E	1	2'-2"	
Total #7E			451

601aE	44	1'-11"	
602aE	32	3'-4"	
603aE	32	7'-11"	
604aE	32	6'-3"	
#6E	100	45'-0"	
#6E	150	35'-4"	
#6E	553	16'-0"	
#6E	12	5'-5"	
#6E	6	4'-3"	
Total #6E			29113

#5E	100	44'-8"	
#5E	150	34'-8"	
#5E	557	16'-0"	
#5E	12	4'-9"	
#5E	12	4'-4"	
#5E	56	4'-0"	
#5E	12	2'-1"	
Total #5E			20000

403aE	58	3'-11"	
404aE	58	3'-8"	
405aE	58	4'-1"	
406aE	58	4'-4"	
Total #4E			6935

Total Epoxy Coated Reinforcing Bars	56519
-------------------------------------	-------

CONCRETE		
Concrete Class "C" in Superstructure		
Pour No.1	4.4 Cys	
Pour No.2	10.8 Cys	
Pour No.3	26.9 Cys	
Pour No.4	16.4 Cys	
Pour No.5	31.8 Cys	
Pour No.6	38.5 Cys	
Pour No.7	4.4 Cys	
Pour No.8	10.8 Cys	
Pour No.9	26.9 Cys	
Total Class "C" Conc. in Superstructure		170.9 Cys

MISCELLANEOUS	
Bridge Expansion Joint, PCF	33 Lft
Grates, Basins, and Fittings, Cast Iron	7 Ea
Pipe Roadway Drain, Casting Extension	2 Ea
Threaded Tie Bar Assembly, Epoxy Coated (#7E)	14 Ea
Threaded Tie Bar Assembly, Epoxy Coated (#6E)	553 Ea
Threaded Tie Bar Assembly, Epoxy Coated (#5E)	603 Ea
Field Drilled Holes in Concrete	4 Ea

**BILL OF MATERIALS SUPERSTRUCTURE PHASE II**

EPOXY COATED REINFORCING BARS			
SIZE or MARK	No. of BARS	LENGTH	WEIGHT (Lbs)
701aE	6	6'-8"	
#7E	5	18'-8"	
#7E	1	11'-2"	
#7E	1	9'-2"	
#7E	6	5'-8"	
#7E	6	5'-3"	
#7E	1	4'-6"	
#7E	2	4'-1"	
#7E	1	3'-0"	
#7E	1	2'-2"	
Total #7E			484

601aE	50	1'-11"	
602aE	38	3'-4"	
603aE	38	7'-11"	
604aE	38	6'-3"	
#6E	116	45'-0"	
#6E	174	35'-4"	
#6E	553	18'-8"	
#6E	18	5'-5"	
Total #6E			33867

#5E	116	44'-8"	
#5E	174	34'-8"	
#5E	557	18'-8"	
#5E	12	4'-9"	
#5E	12	4'-4"	
#5E	56	4'-0"	
#5E	12	2'-1"	
Total #5E			22912

403aE	68	3'-11"	
404aE	68	3'-8"	
405aE	68	4'-1"	
406aE	68	4'-4"	
Total #4E			7042

Total Epoxy Coated Reinforcing Bars	64333
-------------------------------------	-------

CONCRETE		
Concrete Class "C" in Superstructure		
Pour No.10	5.1 Cys	
Pour No.11	12.5 Cys	
Pour No.12	31.0 Cys	
Pour No.13	18.8 Cys	
Pour No.14	36.6 Cys	
Pour No.15	44.3 Cys	
Pour No.16	5.1 Cys	
Pour No.17	12.5 Cys	
Pour No.18	31.0 Cys	
Total Class "C" Conc. in Superstructure		196.9 Cys

MISCELLANEOUS	
Bridge Expansion Joint, PCF	38 Lft
Grates, Basins, and Fittings, Cast Iron	7 Ea
Pipe Roadway Drain, Casting Extension	2 Ea
Field Drilled Holes in Concrete	6 Ea

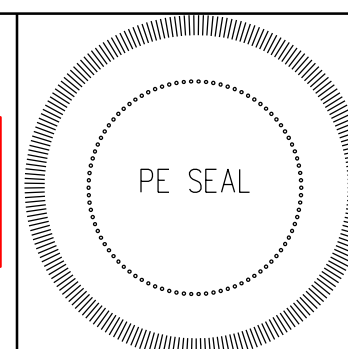
- REQUIRED ELEMENTS:**
- 1 Reinforcing Bar Bending Details and Cutting Diagrams
  - 2 Bill of Materials
  - 3 Notes
  - 4 Signature Block and PE Seal

Typ. All Bar Bending Diagrams:  
 Title: 18 Pt Text  
 Bar Mark Title: 14 Pt Text  
 Dimensions and Text Callouts: 12 Pt Text  
 See IDM 405-2.0 for guidance regarding detailing reinforcing steel.

5 Show bar mark and total length of bar, rounded to nearest 1 in.

7 Notes:  
 For General Notes, see Sht. 14.  
 For additional details, see Shts. 42 - 50.  
 For Slab Plan, see Sht. 42.  
 For Railing Details, see Sht. 52.  
 For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.  
 "E" denotes Epoxy Coated Reinforcing Steel.

Title Block Text:  
 Labels: 10 Pt Text  
 Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

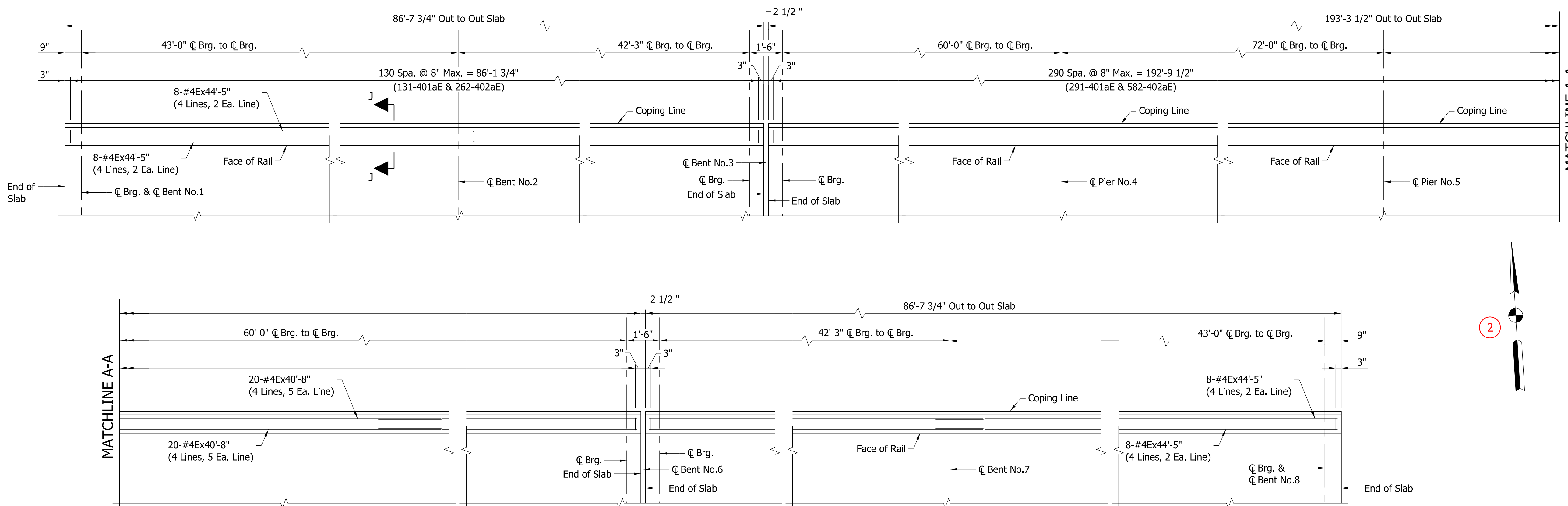
INDIANA DEPARTMENT OF TRANSPORTATION	
SUPERSTRUCTURE DETAILS	

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
	9999999
SHEET	
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CONTRACT	PROJECT
B-00000	0000000



**PURPOSE:**

The purpose of this Railing Details sheet is to show physical dimensions, reinforcing, and pertinent information necessary for the contractor to construct the bridge railing and bridge railing transitions.



6

**BILL OF MATERIALS  
BRIDGE RAILING**

EPOXY COATED REINFORCING BARS			
SIZE or MARK	No. of BARS	LENGTH	WEIGHT (Lbs)
401aE	1106	3'-11"	
402aE	2212	3'-10"	
#4E	64	44'-5"	
#4E	80	40'-8"	
Total #4E			12630
Total Epoxy Coated Reinforcing Bars			12630
MISCELLANEOUS			
Railing, Steel, PF-1			752 Lft
Railing, Concrete, PF-1			734 Lft
Barrier Delineator			20 Ea
Surface Seal (Est. Quantity)			3540 Sft

2

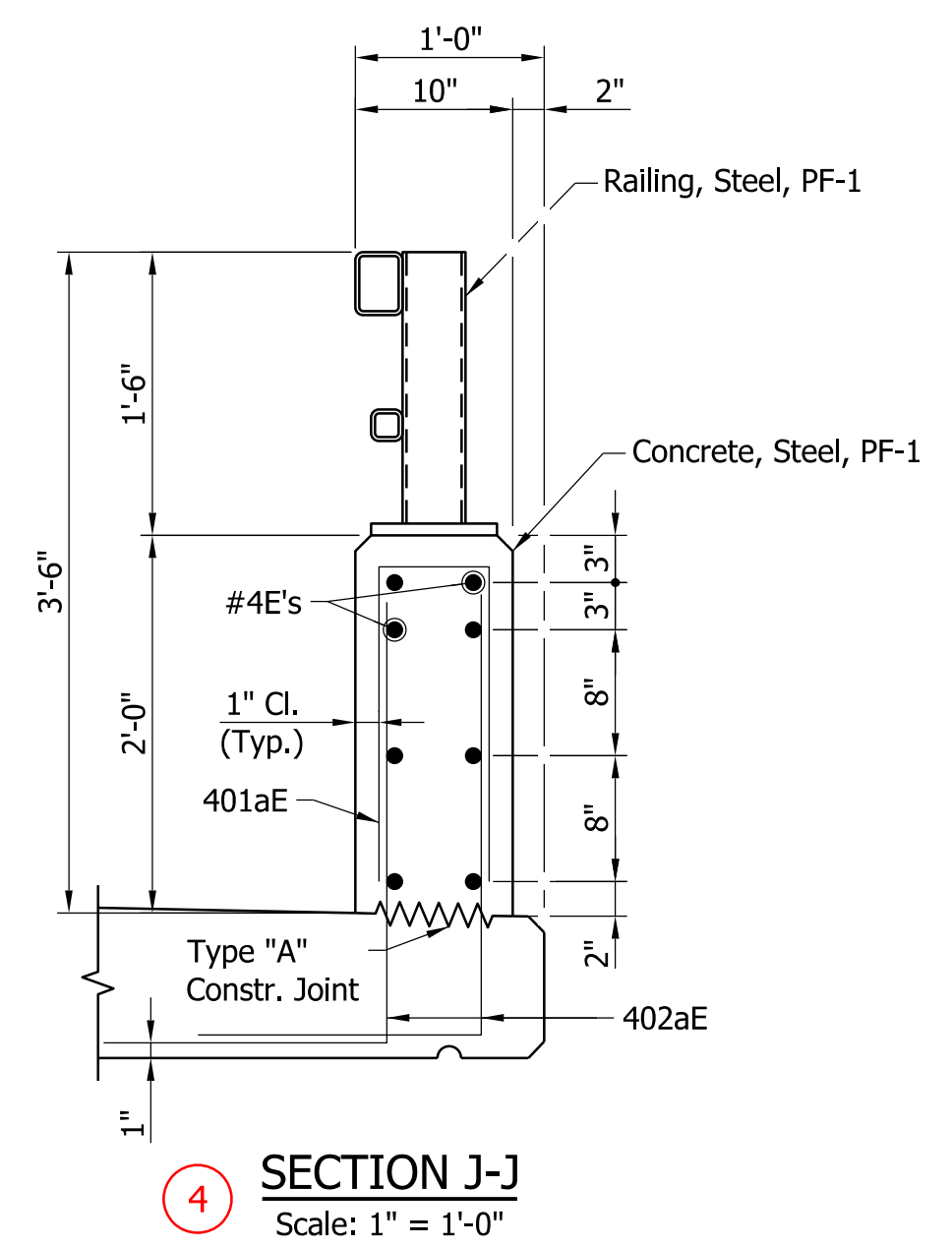
When the construction is to be phased, Bills of Materials should be separated by phase.

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

1 **RAILING PLAN - NORTH COPING**  
(South Coping Same by Opposite Hand)  
Scale: 3/8" = 1'-0"

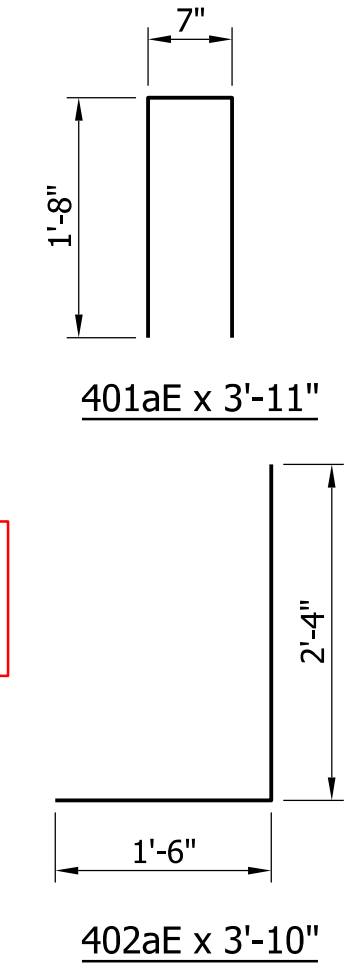
MINIMUM LAP LENGTHS  
2'-6" (#4E to #4E)

- REQUIRED ELEMENTS:**
- 1 Railing Plan
  - 2 North Arrow
  - 3 Elevation(s), when required to show unique railing elements.
  - 4 Section(s) Showing Dimensions and Reinforcing
  - 5 Reinforcing Bar Bending Details
  - 6 Bill of Materials
  - 7 Notes
  - 8 Signature Block and PE Seal



4 **SECTION J-J**  
Scale: 1" = 1'-0"

Bar bending diagrams are not shown to scale. However, they should be drawn to approximate proportions.



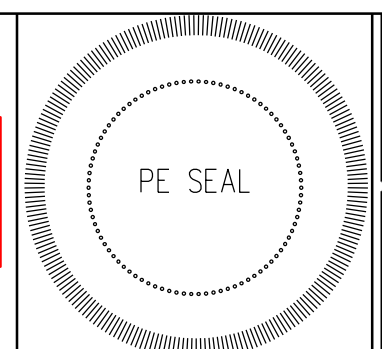
5 **BAR BENDING DETAILS**  
Not to Scale

Show bar mark and total length of bar, rounded to nearest 1 in.

Typ. All Bar Bending Diagrams:  
Title: 18 Pt Text  
Bar Mark Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text  
See IDM 405-2.0 for guidance regarding detailing reinforcing steel.

7 Notes  
For General Notes, see Sht. 14.  
For PF-1 Railing Details, see Std. Dwg. E 706-BRPP-01 thru -05.  
For Slab Plan, see Sht. 42.  
For Type "A" Construction Joint, see Std. Dwg. E 702-CJTA-01.  
For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.  
"E" denotes Epoxy Coated Reinforcing Steel.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

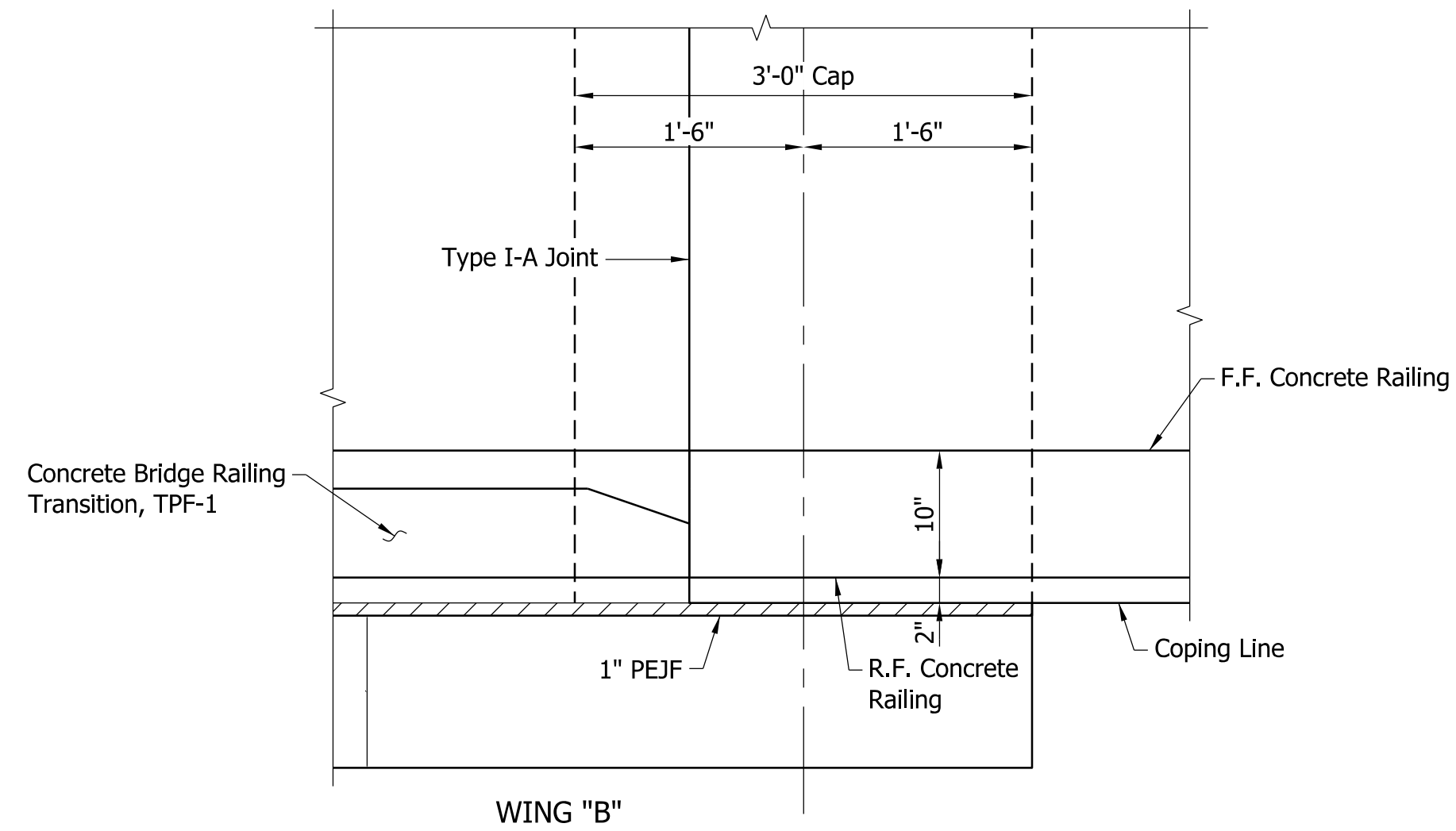
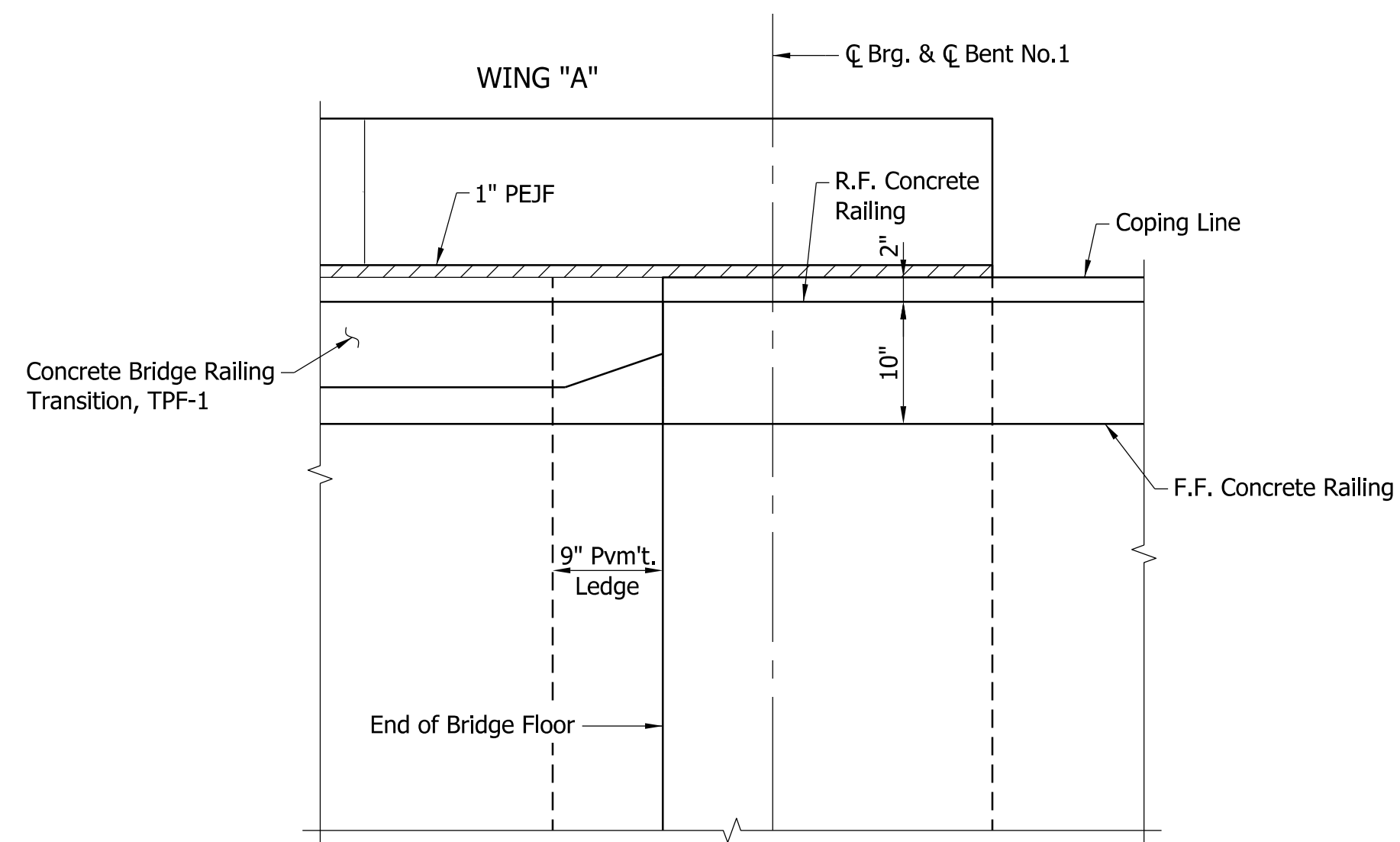
INDIANA  
DEPARTMENT OF TRANSPORTATION

**RAILING DETAILS**

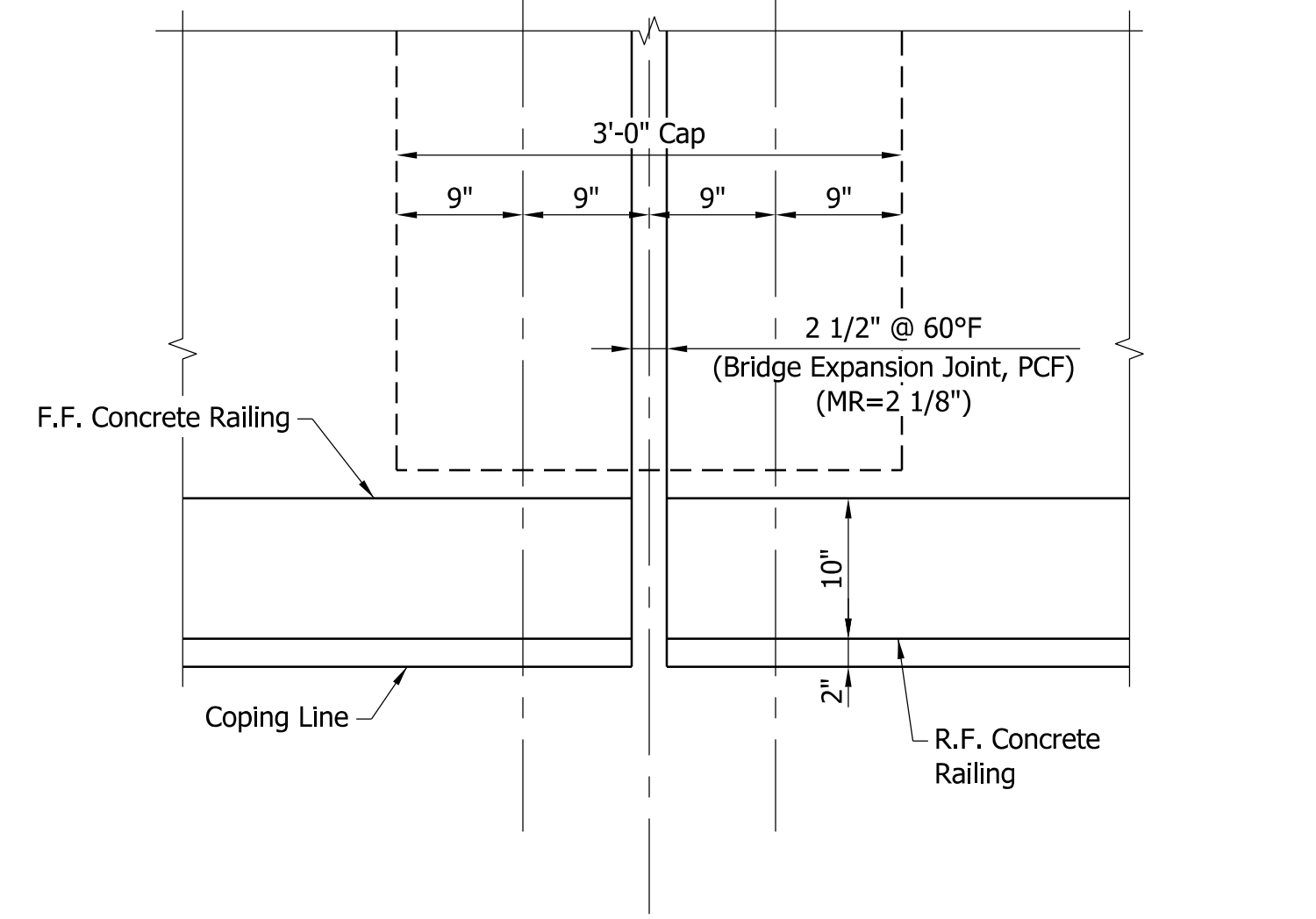
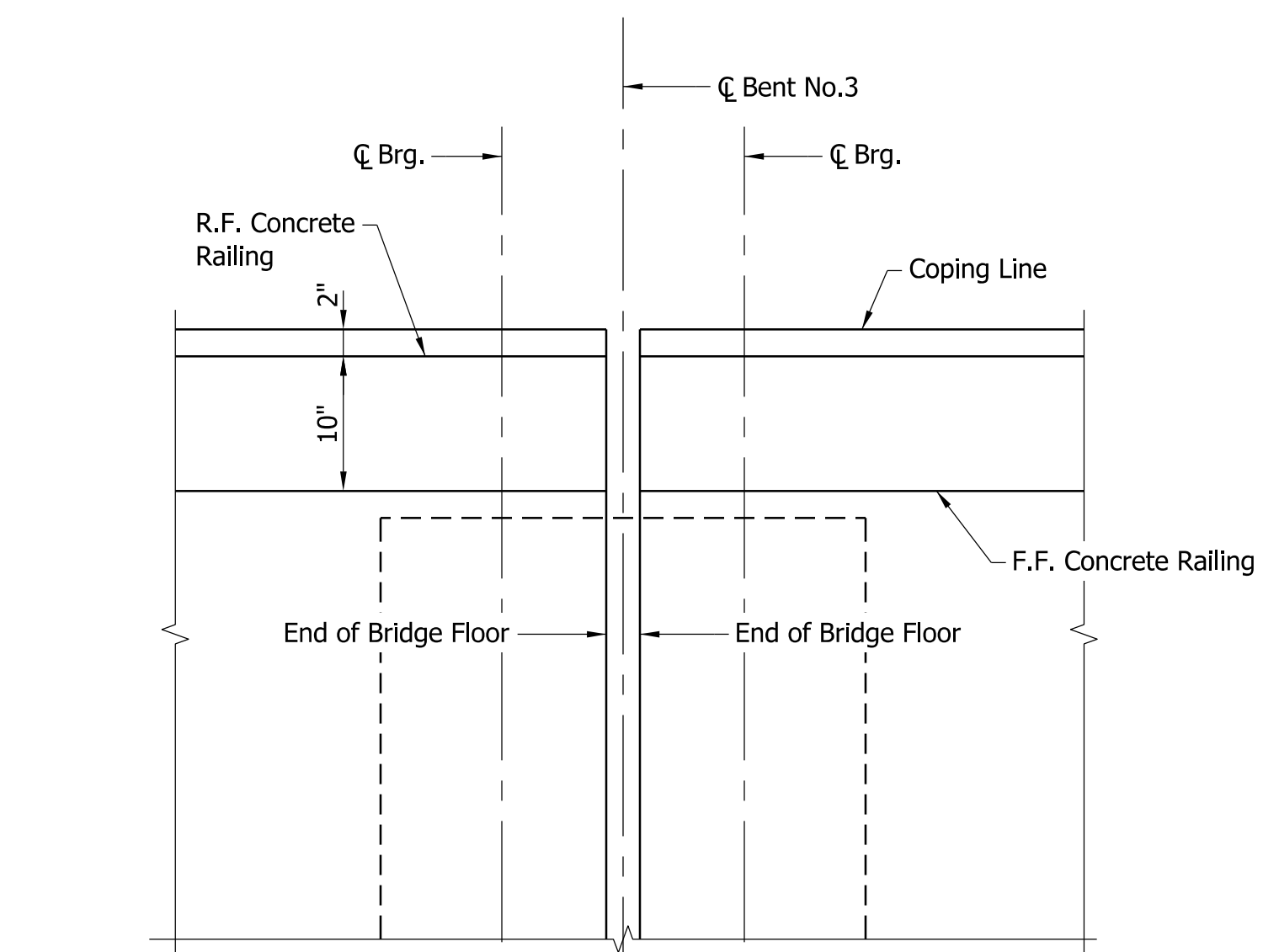
HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
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CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

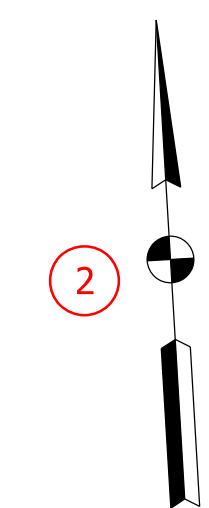
The purpose of this Superstructure Details sheet is to show additional physical dimensions and pertinent information at the ends of the bridge necessary for the contractor to construct the bridge deck.



**1 CORNER DETAILS - BENT NO.1**  
(Bent No.8 Same by Opposite Hand)  
Scale: 1" = 1'-0"



**1 CORNER DETAILS - BENT NO.3**  
(Bent No.6 Same by Opposite Hand)  
Scale: 1" = 1'-0"



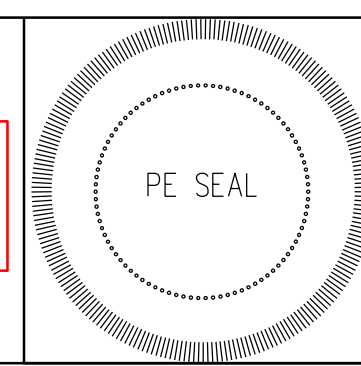
Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

**REQUIRED ELEMENTS:**

- 1 Corner Details
- 2 North Arrow
- 3 Notes
- 4 Signature Block and PE Seal

**3 Notes:**  
For General Notes, see Sht. 14.  
For Slab Plan, see Sht. 42.  
For Railing Details, see Sht. 52.  
For Concrete Bridge Railing Transition, TPF-1, see Std. Dwgs. E 706-TTPP-01 thru -03.  
For Type I-A Joint, see Std. Dwg. E 609-BRJT-01.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



**4**

RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

CORNER DETAILS

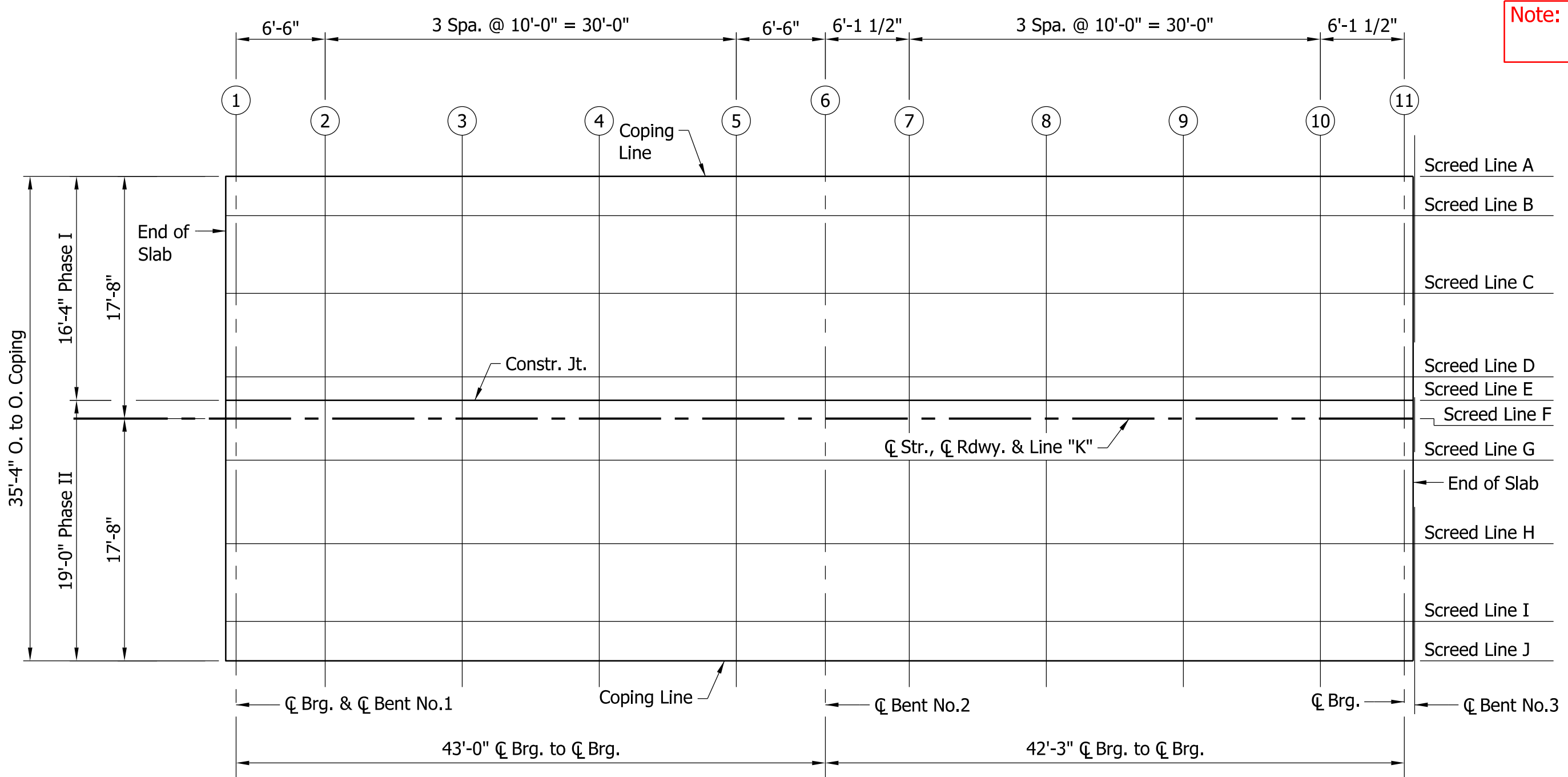
HORIZONTAL SCALE	BRIDGE FILE
1" = 1'-0"	156-78-00000 B
VERTICAL SCALE	DESIGNATION
1" = 1'-0"	9999999
	SHEET
	53 of 71
CONTRACT	PROJECT
B-00000	0000000



**PURPOSE:**

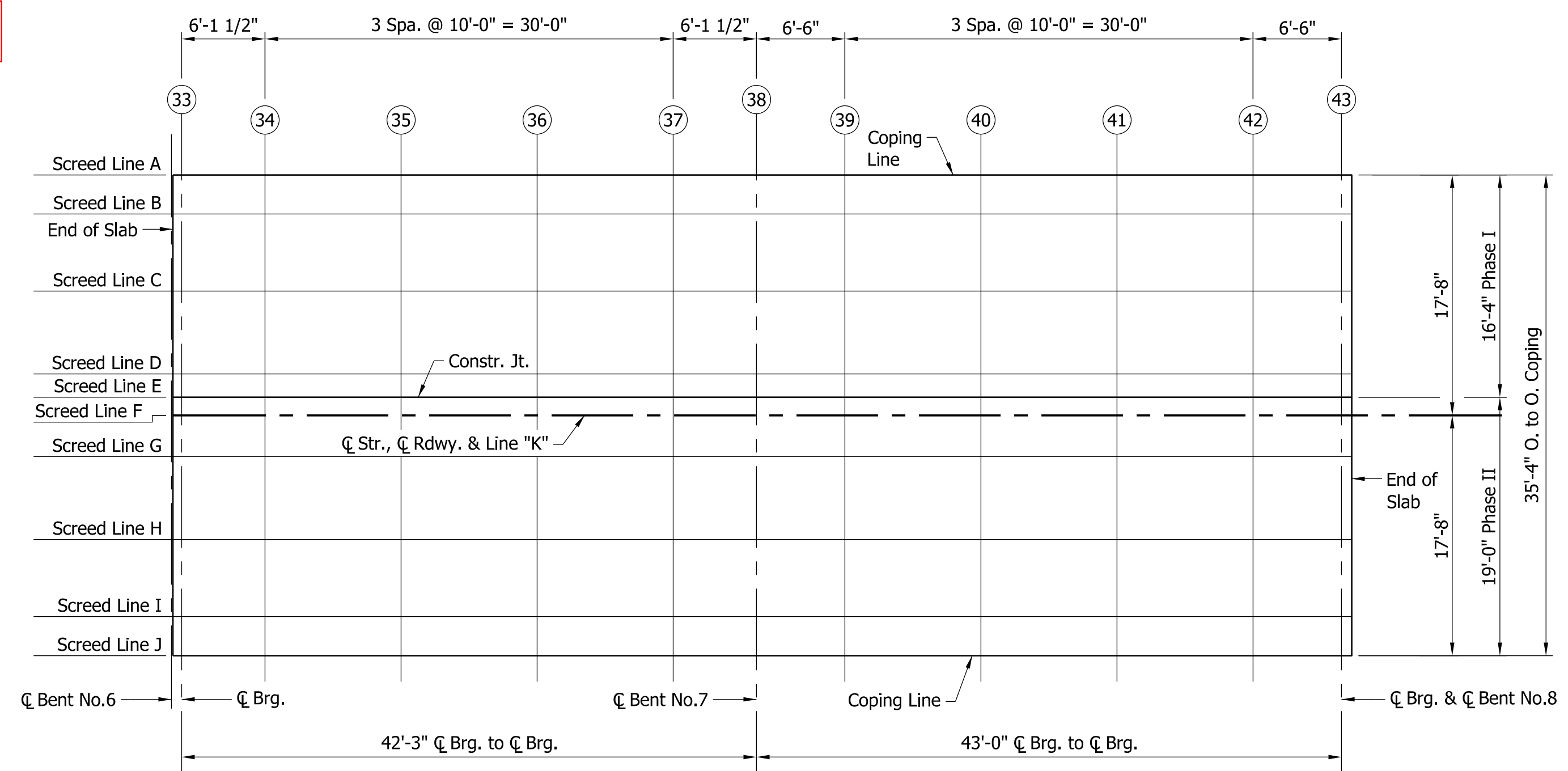
The purpose of these Screed Details sheets is to provide elevations for setting forms in order to place the floor slab and coping.

Note: Refer to IDM for current practice regarding spacing to be used.

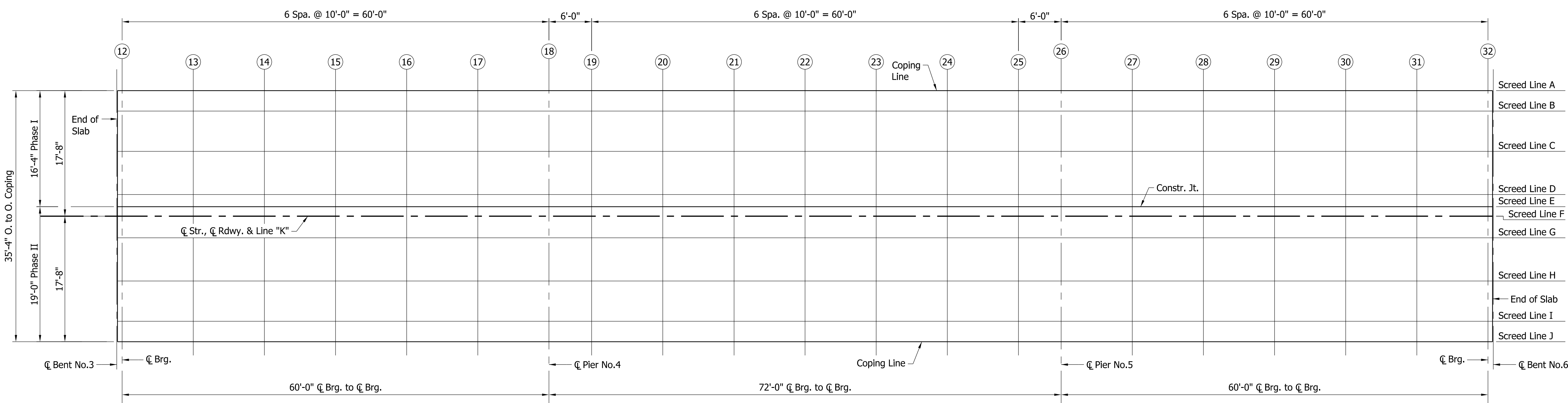


1 **SCREED PLAN**  
(Spans "A" & "B")  
Scale: 1/8" = 1'-0"

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text



1 **SCREED PLAN**  
(Spans "F" & "G")  
No Scale



1 **SCREED PLAN**  
(Spans "C", "D" & "E")  
Scale: 1/8" = 1'-0"

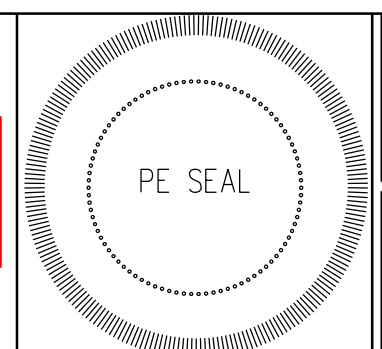
3 Notes:  
After Beams are set or existing deck is removed, take elevations at all screed points on top of Beams. Enter these elevations in the table on Sht. 55. Subtract these elevations from the tabulated elevations and use the resulting dimensions as the height for setting screed forms above these points. These dimensions remain constant regardless of how much or in what order the concrete is poured. DO NOT SET SCREED FORMS BY LEVELING. No concrete in the floor slab shall be poured until the above operations are completed. Screed elevations as shown in the tables include an allowance for concrete dead load deflections.  
For General Notes, see Sht. 14.  
For Screed Typical Sections, see Sht. 55.  
For Concrete Dead Load Deflection Diagram, see Sht. 50.  
For Table of Screed Elevations, see Sht. 56.

**REQUIRED ELEMENTS:**

- 1 Plan
- 2 North Arrow
- 3 Procedure and Notes
- 4 Signature Block and PE Seal

See *IDM 404-2.02(01)* for information related to determination of screed elevations and development of the Plan of Screeds.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

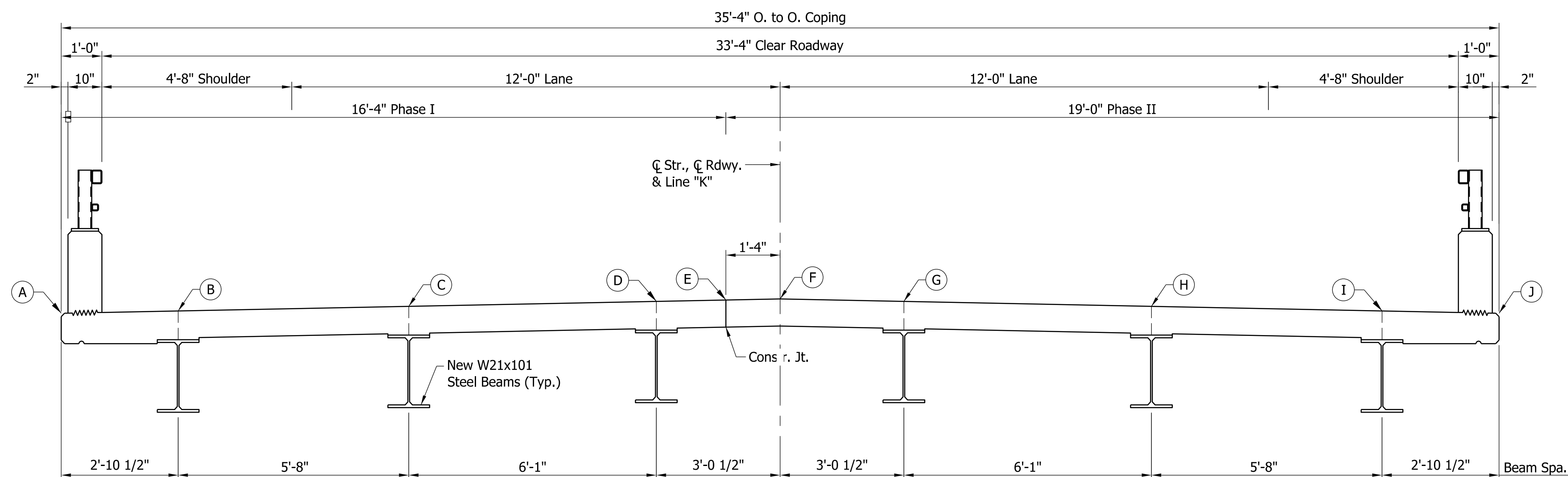
INDIANA  
DEPARTMENT OF TRANSPORTATION

**SCREEDS**

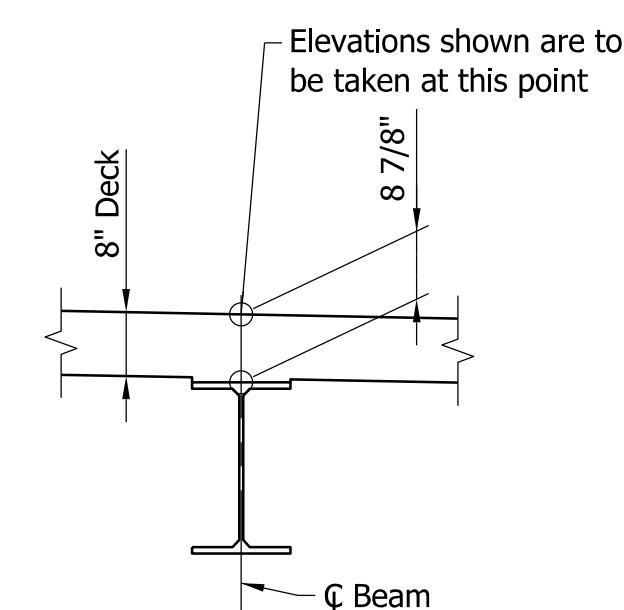
HORIZONTAL SCALE	BRIDGE FILE
1/8" = 1'-0"	156-78-00000 B
VERTICAL SCALE	DESIGNATION
1/8" = 1'-0"	9999999
	SHEET
	54 of 71
CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

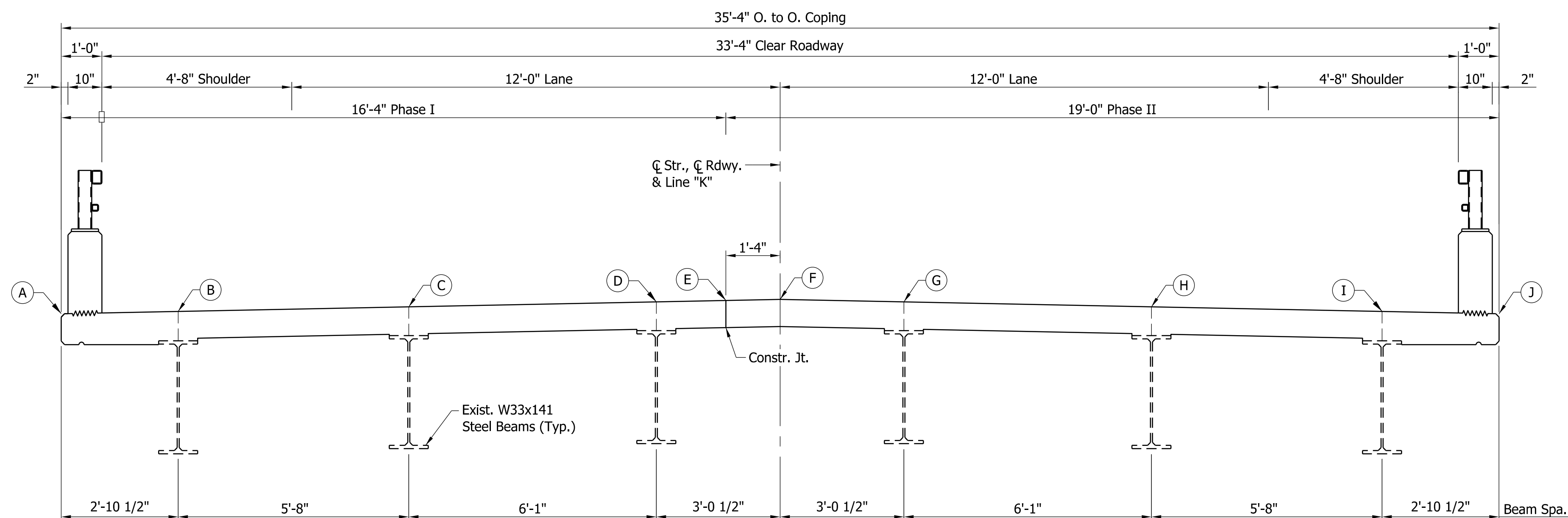
The purpose of these Screenshot Details sheets is to provide elevations for setting forms in order to place the floor slab and coping.



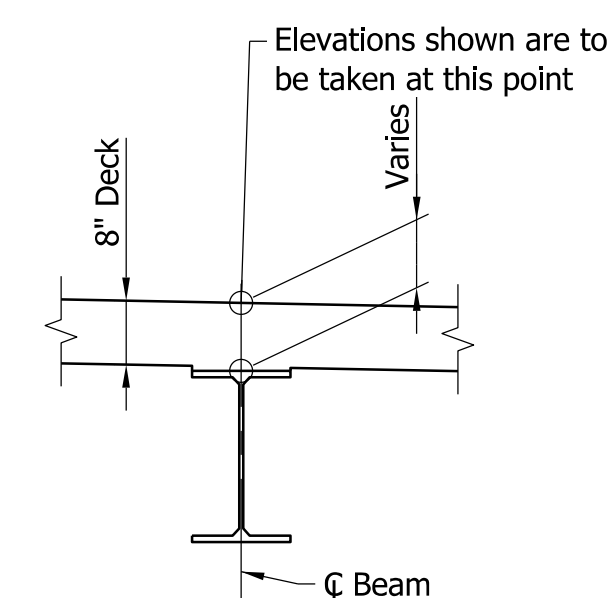
1 TYPICAL SECTION  
(SPANS "A", "B", "F", "G")  
Scale: 1/2"=1'-0"



2 SECTION @ BEAMS  
(Spans "A", "B", "F", & "G")  
Not To Scale



1 TYPICAL SECTION  
(SPANS "C" Thru "E")  
Scale: 1/2"=1'-0"



2 SECTION @ BEAMS  
(Spans "C" thru "E")  
No Scale

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

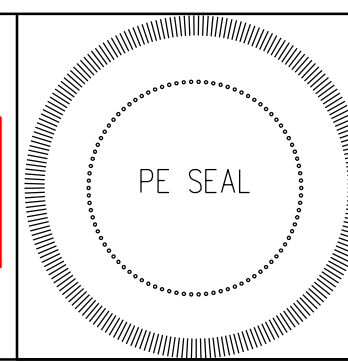
See *IDM 404-2.02(01)* for information related to determination of screed elevations and development of the Plan of Screeds.

**REQUIRED ELEMENTS:**

- 1 Transverse Section
- 2 Section at Beam showing Locations of Elevations
- 3 Procedure and Notes
- 4 Signature Block and PE Seal

- 3 Notes:
- After Beams are set or existing deck is removed, take elevations at all screed points on top of Beams. Enter these elevations in the table on Sht. 55. Subtract these elevations from the tabulated elevations and use the resulting dimensions as the height for setting screed forms above these points. These dimensions remain constant regardless of how much or in what order the concrete is poured. DO NOT SET SCREED FORMS BY LEVELING. No concrete in the floor slab shall be poured until the above operations are completed.
- Screed elevations as shown in the tables include an allowance for concrete dead load deflections.
- For General Notes, see Sht. 14.  
For Screed Plan, see Sht. 54.  
For Concrete Dead Load Deflection Diagram, see Sht. 50.  
For Table of Screed Elevations, see Sht. 56.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



4

RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

SCREEDS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
	55 of 71
CONTRACT	PROJECT
B-00000	0000000



**PURPOSE:**

The purpose of these Screed Details sheets is to provide elevations for setting forms in order to place the floor slab and coping.

1

TABLE OF SCREED ELEVATIONS

POINT	LOCATION	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	
A	Elevation - Top of Screed	469.025	468.945	468.815	468.665	468.505	468.405	468.320	468.195	468.055	467.900	467.800	467.775	467.655	467.525	467.390	467.250	467.115	466.990	466.930	466.840	466.760	466.680	466.595	466.510	466.435	466.395	466.355	466.325	466.300	466.270	466.230	466.195	
	Elevation - Top of Beam																																	
	Distance - Top of Beam to Top of Screed																																	
B	Elevation - Top of Screed	469.085	469.005	468.875	468.725	468.565	468.465	468.380	468.250	468.115	467.955	467.855	467.835	467.710	467.585	467.450	467.310	467.175	467.050	466.990	466.900	466.820	466.740	466.655	466.570	466.490	466.455	466.410	466.385	466.355	466.325	466.290	466.250	
	Elevation - Top of Beam																																	
	Distance - Top of Beam to Top of Screed																																	
C	Elevation - Top of Screed	469.195	469.120	468.985	468.835	468.675	468.575	468.495	468.365	468.225	468.070	467.970	467.945	467.825	467.695	467.560	467.420	467.285	467.165	467.100	467.015	466.930	466.850	466.765	466.680	466.605	466.570	466.525	466.495	466.470	466.440	466.405	466.365	
	Elevation - Top of Beam																																	
	Distance - Top of Beam to Top of Screed																																	
D	Elevation - Top of Screed	469.320	469.240	469.110	468.960	468.800	468.700	468.615	468.485	468.350	468.190	468.090	468.070	467.945	467.820	467.685	467.545	467.410	467.285	467.225	467.135	467.055	466.975	466.890	466.805	466.725	466.690	466.645	466.620	466.590	466.560	466.525	466.485	
	Elevation - Top of Beam																																	
	Distance - Top of Beam to Top of Screed																																	
E	Elevation - Top of Screed	469.350	469.275	469.145	468.995	468.830	468.735	468.650	468.520	468.380	468.225	468.125	468.105	467.980	467.850	467.715	467.580	467.440	467.320	467.260	467.170	467.090	467.005	466.925	466.840	466.760	466.725	466.680	466.650	466.625	466.595	466.560	466.520	
	Elevation - Top of Beam																																	
	Distance - Top of Beam to Top of Screed																																	
F	Elevation - Top of Screed	469.380	469.300	469.170	469.020	468.860	468.760	468.675	468.545	468.410	468.255	468.150	468.130	468.005	467.880	467.745	467.605	467.470	467.345	467.285	467.195	467.115	467.035	466.950	466.865	466.790	466.750	466.705	466.680	466.650	466.620	466.585	466.550	
	Elevation - Top of Beam																																	
	Distance - Top of Beam to Top of Screed																																	
G	Elevation - Top of Screed	469.320	469.240	469.110	468.960	468.800	468.700	468.615	468.485	468.350	468.190	468.090	468.070	467.945	467.820	467.685	467.545	467.410	467.285	467.225	467.135	467.055	466.975	466.890	466.805	466.725	466.690	466.645	466.620	466.590	466.560	466.525	466.485	
	Elevation - Top of Beam																																	
	Distance - Top of Beam to Top of Screed																																	
H	Elevation - Top of Screed	469.195	469.120	468.985	468.835	468.675	468.575	468.495	468.365	468.225	468.070	467.970	467.945	467.825	467.695	467.560	467.420	467.285	467.165	467.100	467.015	466.930	466.850	466.765	466.680	466.605	466.570	466.525	466.495	466.470	466.440	466.405	466.365	
	Elevation - Top of Beam																																	
	Distance - Top of Beam to Top of Screed																																	
I	Elevation - Top of Screed	469.085	469.005	468.875	468.725	468.565	468.465	468.380	468.250	468.115	467.955	467.855	467.835	467.710	467.585	467.450	467.310	467.175	467.050	466.990	466.900	466.820	466.740	466.655	466.570	466.490	466.455	466.410	466.385	466.355	466.325	466.290	466.250	
	Elevation - Top of Beam																																	
	Distance - Top of Beam to Top of Screed																																	
J	Elevation - Top of Screed	469.025	468.945	468.815	468.665	468.505	468.405	468.320	468.195	468.055	467.900	467.800	467.775	467.655	467.525	467.390	467.250	467.115	466.990	466.930	466.840	466.760	466.680	466.595	466.510	466.435	466.395	466.355	466.325	466.300	466.270	466.230	466.195	
	Elevation - Top of Beam																																	
	Distance - Top of Beam to Top of Screed																																	

1

TABLE OF SCREED ELEVATIONS

POINT	LOCATION	33	34	35	36	37	38	39	40	41	42	43
A	Elevation - Top of Screed	466.190	466.195	466.195	466.175	466.145	466.135	466.130	466.130	466.125	466.100	466.075
	Elevation - Top of Beam											
	Distance - Top of Beam to Top of Screed											
B	Elevation - Top of Screed	466.250	466.255	466.250	466.235	466.205	466.190	466.190	466.190	466.180	466.155	466.130
	Elevation - Top of Beam											
	Distance - Top of Beam to Top of Screed											
C	Elevation - Top of Screed	466.365	466.370	466.365	466.345	466.315	466.305	466.300	466.305	466.295	466.270	466.245
	Elevation - Top of Beam											
	Distance - Top of Beam to Top of Screed											
D	Elevation - Top of Screed	466.485	466.490	466.485	466.470	466.440	466.425	466.425	466.425	466.415	466.390	466.365
	Elevation - Top of Beam											
	Distance - Top of Beam to Top of Screed											
E	Elevation - Top of Screed	466.520	466.525	466.520	466.500	466.475	466.460	466.455	466.460	466.450	466.425	466.400
	Elevation - Top of Beam											
	Distance - Top of Beam to Top of Screed											
F	Elevation - Top of Screed	466.545	466.550	466.550	466.530	466.500	466.485	466.485	466.485	466.480	466.450	466.425
	Elevation - Top of Beam											
	Distance - Top of Beam to Top of Screed											
G	Elevation - Top of Screed	466.485	466.490	466.485	466.470	466.440	466.425	466.425	466.425	466.415	466.390	466.365
	Elevation - Top of Beam											
	Distance - Top of Beam to Top of Screed											
H	Elevation - Top of Screed	466.365	466.370	466.365	466.345	466.315	466.305	466.300	466.305	466.295	466.270	466.245
	Elevation - Top of Beam											
	Distance - Top of Beam to Top of Screed											
I	Elevation - Top of Screed	466.250	466.255	466.250	466.235	466.205	466.190	466.190	466.190	466.180	466.155	466.130
	Elevation - Top of Beam											
	Distance - Top of Beam to Top of Screed											
J	Elevation - Top of Screed	466.190	466.195	466.195	466.175	466.145	466.135	466.130	466.130	466.125	466.100	466.075
	Elevation - Top of Beam											
	Distance - Top of Beam to Top of Screed											

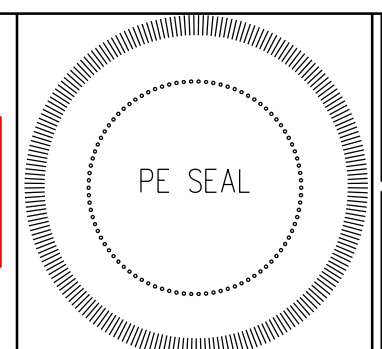
**REQUIRED ELEMENTS:**

- 1 Table of Screed Elevations
- 2 Procedure and Notes
- 3 Signature Block and PE Seal

2 Notes:  
 For General Notes, see Sht. 14.  
 For Screed Typical Sections, see Sht. 55.  
 For Screed Plan, see Sht. 54.

3

Title Block Text:  
 Labels: 10 Pt Text  
 Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

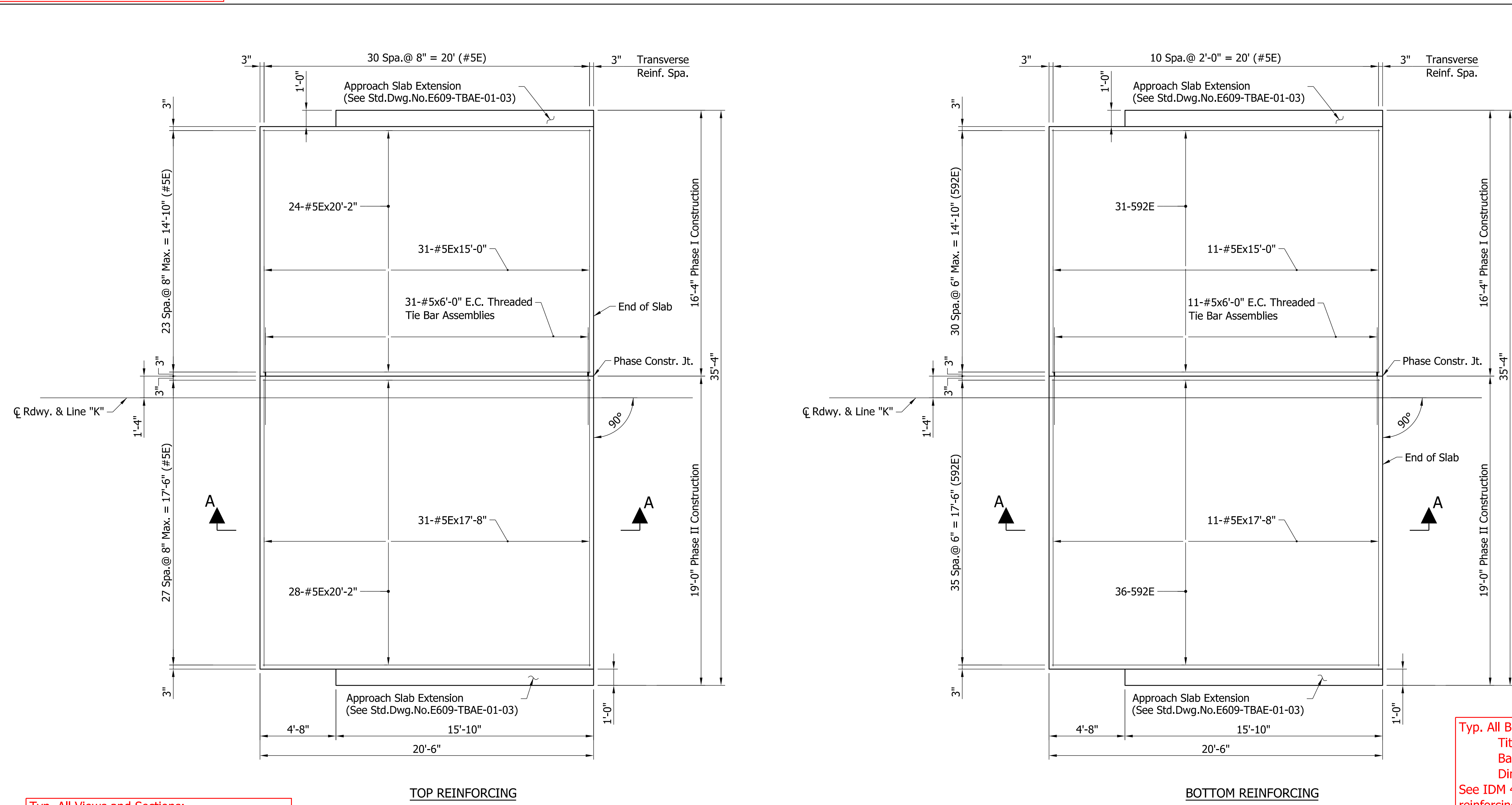
INDIANA  
 DEPARTMENT OF TRANSPORTATION

SCREEDS

HORIZONTAL SCALE	BRIDGE FILE
NONE	156-78-00000 B
VERTICAL SCALE	DESIGNATION
NONE	9999999
	SHEET
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CONTRACT	PROJECT
B-00000	0000000

**PURPOSE:**

The purpose of this Approach Slab Details sheet is to provide all necessary dimensions and reinforcing details needed to construct the bridge approach slab.



**8 BILL OF MATERIALS  
APPROACH SLAB - BENT NO. 1  
(BENT NO. 8 SAME)**

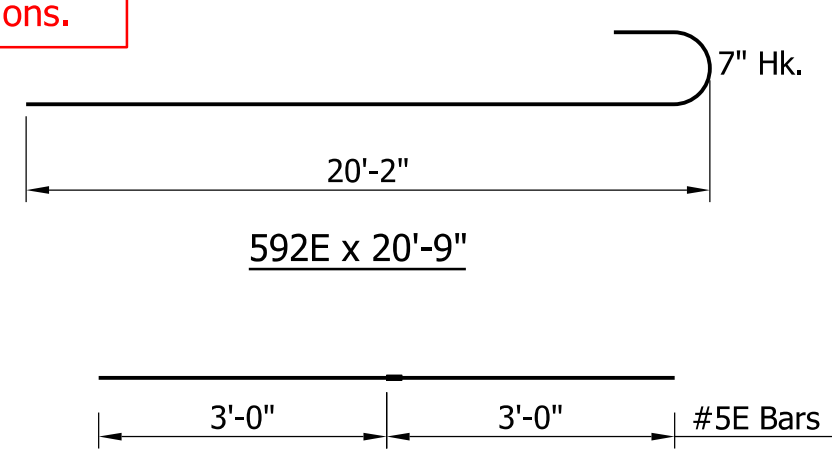
EPOXY COATED REINFORCING BARS			
SIZE or MARK	No. of BARS	LENGTH	WEIGHT (Lbs)
592E	67	20'-9"	
#5E	52	20'-2"	
#5E	42	17'-8"	
#5E	42	15'-0"	
Total #5E			3975
Total from Br. Railing Transition, TPF-1 (2)			1460
Total from Approach Slab Extension (2)			460
Total Epoxy Coated Reinforcing Bars			5895

MISCELLANEOUS	
Reinf. Conc. Bridge Approach, 12"	80 Sys
Terminal Joint, Type HMA	33 Lft
Threaded Tie Bar Assembly, Epoxy Coated (#5E)	42 Ea
Concrete Bridge Railing Transition, TPF-1	2 Ea
Geotextile for Pavement, Type 2B	101 Sys
Subbase for PCCP	20 Cys
Surface Seal (Est. Quantity)	238 Sft
Subgrade Treatment, Type IC	86 Sys

When the construction is to be phased, Bills of Materials should be separated by phase.

Bar bending diagrams are not shown to scale. However, they should be drawn to approximate proportions.

Show bar mark and total length of bar, rounded to nearest 1 in.



THREADED TIE-BAR ASSEMBLY, EPOXY COATED

**5 BAR BENDING DETAILS  
Not To Scale**

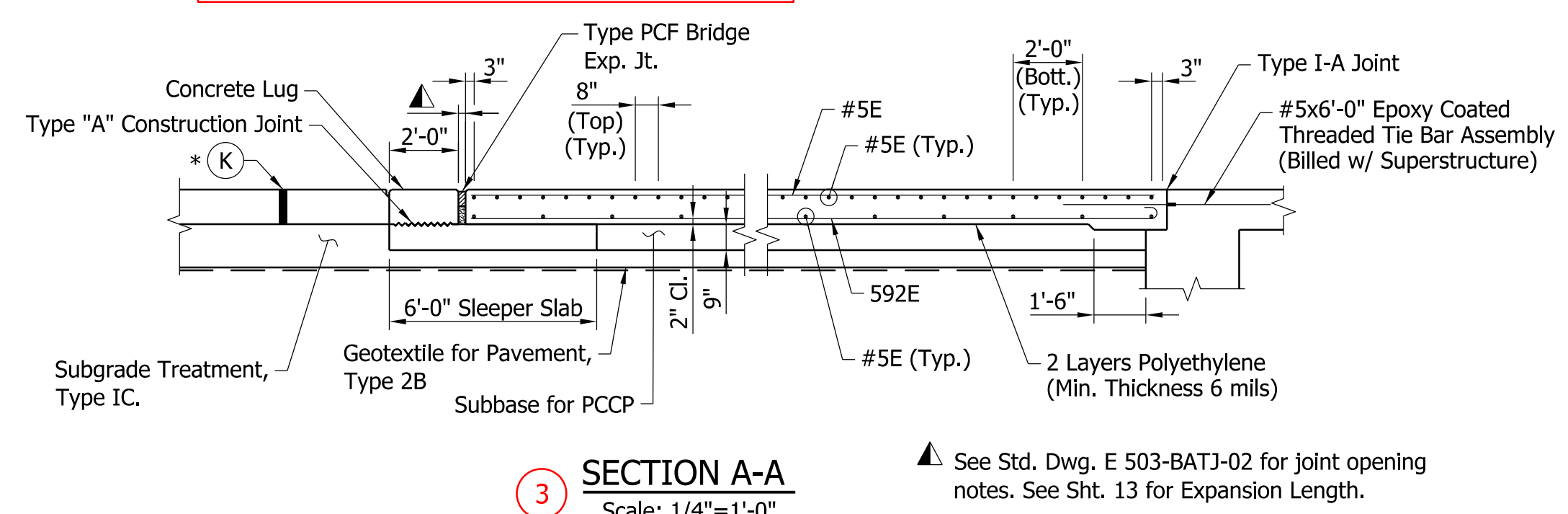
Typ. All Bar Bending Diagrams:  
Title: 18 Pt Text  
Bar Mark Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text  
See IDM 405-2.0 for guidance regarding detailing reinforcing steel.

Typ. All Views and Sections:  
Section Title: 18 Pt Text  
Section Sub-Title: 14 Pt Text  
Dimensions and Text Callouts: 12 Pt Text

**2 APPROACH SLAB PLAN - BENT NO.1  
(Bent No.8, Same by Opposite Hand)  
Scale: 1/4"=1'-0"**

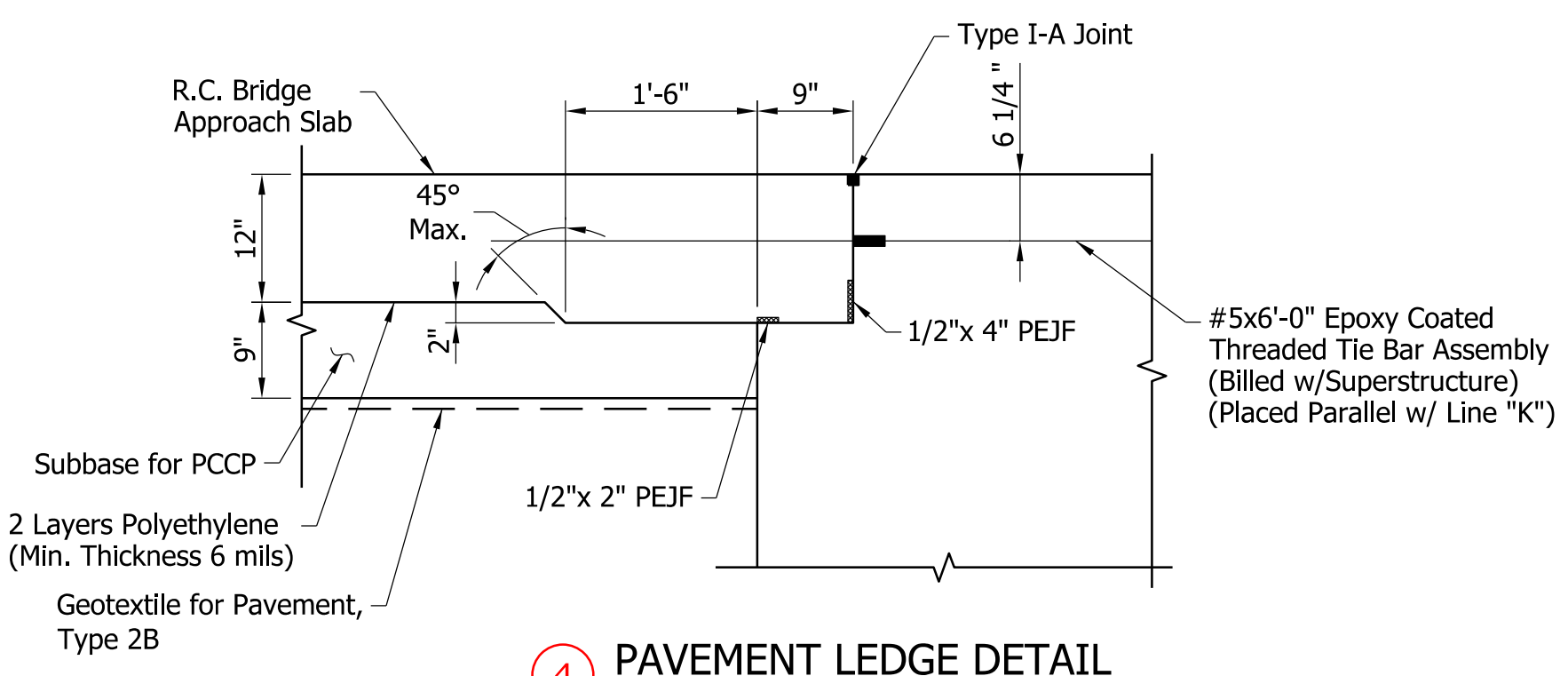
- REQUIRED ELEMENTS:**
- 1 North Arrow
  - 2 Approach Slab Plan
  - 3 Section
  - 4 Pavement Ledge Detail
  - 5 Reinforcing Bar Bending Details and Cutting Diagrams
  - 6 Bill of Materials
  - 7 Notes
  - 8 Signature Block and PE Seal

Note: A Joint Setting Table may be required for expansion lengths exceeding 150 ft.



**3 SECTION A-A  
Scale: 1/4"=1'-0"**

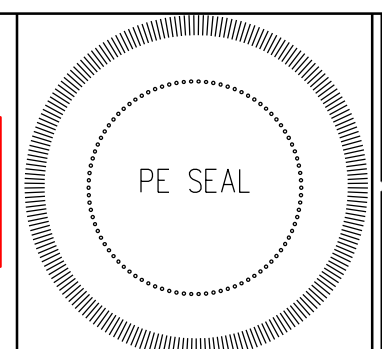
See Std. Dwg. E 503-BATJ-02 for joint opening notes. See Sht. 13 for Expansion Length.  
\* For Legend, see Sht. 3.



**4 PAVEMENT LEDGE DETAIL  
Scale: 3/4" = 1'-0"**

Notes:  
For General Notes, see Sht. 14.  
For Additional R.C. Bridge Approach Slab Details, see Std. Dwg. E 609-RCBA-04.  
For Reinforcing Bar Notes, see Std. Dwg. E 703-BRST-01.  
"E" denotes Epoxy Coated Reinforcing Steel.

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL	<i>Engineer of Record Signature</i>	MM/DD/YY
	DESIGN ENGINEER	DATE
DESIGNED: ABC	DRAWN: PQR	
CHECKED: BCD	CHECKED: RST	

INDIANA  
DEPARTMENT OF TRANSPORTATION

APPROACH SLAB DETAILS

HORIZONTAL SCALE	BRIDGE FILE
AS NOTED	156-78-00000 B
VERTICAL SCALE	DESIGNATION
AS NOTED	9999999
	SHEET
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CONTRACT	PROJECT
B-00000	0000000



**PURPOSE:**

The purpose of this Bridge Summary sheet is to summarize quantities by superstructure, substructure elements, and approach structure for the bridge.

**1 SUMMARY OF BRIDGE QUANTITIES**

ITEM	CONCRETE				PIPE ROADWAY DRAIN CASTING EXTENSION	PIPE, END BENT PIPE, 6"	RAILING, CONCRETE, PF-1	RAILING, STEEL, PF-1	CONCRETE BRIDGE RAILING TRANSITION, TPF-1	THREADED TIE BAR ASSEMBLY	REINF. BARS	REINF. BARS, EPOXY COATED	THREADED TIE BAR ASSEMBLY, EPOXY COATED	REINF. CONC. BRIDGE APPROACH (12")	TERMINAL JOINT, TYPE HMA	FIELD DRILLED HOLE IN CONCRETE	FIELD DRILLED HOLE	BRIDGE EXPANSION JOINT, PCF	GRATES, BASINS AND FITTINGS, CAST IRON	AGGREGATE FOR END BENT BACKFILL	GEOTEXTILE FOR UNDERDRAIN, TYPE 2B	GEOTEXTILE FOR PAVEMENT, TYPE 2B	SUBBASE FOR PCCP	SUBGRADE TREATMENT, TYPE IC	RIPRAP, CLASS 1	RIPRAP, CLASS 2	GEOTEXTILE FOR RIPRAP, TYPE 1A	SURFACE SEAL*	STRUCTURAL STEEL*	SHEAR STUD CONNECTORS		
	CLASS C	CLASS A	CLASS B																													
	SUPERSTR.	SUBSTR.	ABOVE FTG.	IN FTG.																												
	CYS	CYS	CYS	CYS																												
BENT NO. 1		5.5				47					1204					65				13	40					110		127	120			
BENT NO. 2		13.1								16	2261																	156	133			
BENT NO. 3		4.9								4	522					202												150	129	99		
PIER NO. 4																												268	200			
PIER NO. 5																												268	200			
BENT NO. 6		4.9								4	522					202												150	129	99		
BENT NO. 7		13.1								16	2261																	156	133			
BENT NO. 8		4.6				47					1063					25				13	41				110		127	120				
SUPERSTRUCTURE	367.8				4							120852	1170			8		71	14												130999	2196
BRIDGE RAILING							734	752				12630																			3540	
R.C. BRIDGE APPROACH - BENT NO. 1									2		5895	42	80	33								101	20	86							238	
R.C. BRIDGE APPROACH - BENT NO. 8									2		5895	42	80	33								101	20	86							238	
TOTALS	367.8	46.1			4	94	734	752	4	40	7833	145272	1254	160	66	494	8	71	14	26	81	202	40	172	220	1148	1178	4454	130999	2196		

\* Estimated Quantity

**2 BRIDGE COATING LOCATIONS AND INFORMATION**

**ADDITIONAL INFORMATION**

CONTRACT BRIDGE NO. (1)	DES. NO.	BRIDGE FILE NUMBER	ROUTE AND CROSSING	ROUTE	REF. POST	COUNTY	LOCATION	YEAR BUILT	YEAR LAST PAINTED	EXISTING PRIMER TYPE (HAZARDOUS OR NON-HAZARDOUS)	NO. SPANS	SPAN LENGTHS	SURF. AREA STRUCTURAL STEEL (SFT) (2)	NEW COATING COLOR NAME (NUMBER) (3)	CLEAN AND COAT CASTING (EACH)	ROADWAY DRAIN CASTING EXTENSION (EACH)	CLEAN AND COAT BEARING ASSY. (EACH)	CLEAN AND COAT STEEL PILING (SFT) (2)
2	9999999	156-78-00000 B	SR 156 OVER LOG LICK CREEK	SR 156	4+88	SWITZERLAND	1.27 MI. WEST OF SR 101	1958	1979	HAZARDOUS	7	UNIT 1: 43'-0" & 42'-3" UNIT 2: 60'-0", 72'-0" & 60'-0" UNIT 3: 42'-3" & 43'-0"	20,300	GREEN	-	-	12	-

\* Clean existing bearing assemblies at Pier No. 4 and Pier No. 5. Paint all new and existing bearing assemblies.

(1)See RSP 101-B-042, Bridge Numbers for Pay Item.

(2)Quantities shown are approximate. The Contractor shall determine the quantities upon which to base its bid.

(3)See Standard Specifications section 909.02 for allowable color numbers for full or partial bridge coating. Color numbers should only be included in the table for color names not listed in 909.02.

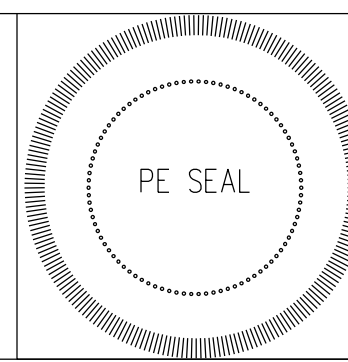
Typ. Table:  
Table Title: Text Height = 0.25"  
Table Data: 12 Pt Text

**REQUIRED ELEMENTS:**

- 1 Summary of Bridge Quantities Table
- 2 Bridge Coating Locations and Information, If Needed
- 3 Signature Block and PE Seal

3

Title Block Text:  
Labels: 10 Pt Text  
Signature: 12 Pt Text



RECOMMENDED FOR APPROVAL  
*Engineer of Record Signature* MM/DD/YY  
DESIGN ENGINEER DATE

DESIGNED: ABC DRAWN: PQR  
CHECKED: BCD CHECKED: RST

INDIANA DEPARTMENT OF TRANSPORTATION  
BRIDGE SUMMARY OF QUANTITIES

HORIZONTAL SCALE	BRIDGE FILE
N/A	156-78-00000 B
VERTICAL SCALE	DESIGNATION
N/A	9999999
SHEET	
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