BRIDGE SAMPLE PLANS

*Reference: IDM 14 Plan Preparation*

The following set of sample bridge plans has been created to illustrate a typical set for designers.

<table>
<thead>
<tr>
<th>Sheet</th>
<th>Revision Date</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>02/07/2019</td>
<td>Made changes to the HUC number and to note #11. For more information concerning HUC numbers: <a href="https://www.in.gov/idem/nps/2422.htm">https://www.in.gov/idem/nps/2422.htm</a>.</td>
</tr>
</tbody>
</table>
INDIANA DEPARTMENT OF TRANSPORTATION

BRIDGE PLANS

ROUTE: SR 57 AT: RP 45+94

PROJECT NO. 9999999 P.E.

9999999 R/W

9999999 CONST.

Bridge Replacement on SR 57 over Veale Creek
Located 1.94 Miles South of US 50
Section 16, T-2-N, R-7-W, Washington Township, Daviess County

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

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
7. Hydrologic Unit Code
8. County Location Map
9. Latitude and Longitude
10. Project Length Table
11. Hydrologic Unit Code (Where needed for a watershed permit application, use HUC 12)
12. Standard Specification References
13. Signature Block and PE Seal
14. Kin Project Information Table (when applicable)
15. Owner and LDA Employees in Responsible Charge (VAC) signatures (LDA Project only)

Intended Use and Disclaimer Information:
This set of sample plan sheets is provided for illustrative purposes only. The sample and rules in this sample plan are intended only to show a need for a cultural, temporal, or spatial context, and its expected appearance. INDOT reserves the right to control the accuracy of data used for the hypertext project although every attempt has been made to produce a reasonable design in accordance with the current Indiana Design Manual. The Engineer must determine specific content of data for the individual project. In the event of a conflict, the policies stated in the current Indiana Design Manual and INDOT CAD Standards Manual will govern.

TRAFFIC DATA

P.M.

MAX. 3.0 P.D.

A.A.D.T.

MAX. 6.0 P.D.

MAX. 9.0 P.D.

TOTAL V.P.D.

MAX. 3.0 P.D.

MAX. 6.0 P.D.

MAX. 9.0 P.D.

MAX. 3.0 P.D.

MAX. 6.0 P.D.

MAX. 9.0 P.D.

DESIGN DATA

STATE COLLECTOR

THEATRICAL CLASSIFICATION

STATE COLLECTOR

SURFACE MINED

TOOLING

RESIDUAL

INDETERMINATE

FUNCTIONAL CLASSIFICATION

2032

2012

12

10

8

6

4

2

0

STATE COLLECTOR

STATE COLLECTOR

STATE COLLECTOR

STATE COLLECTOR

STATE COLLECTOR

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STATE COLLECTOR
The purpose of this Index sheet is to provide a listing of all sheets in the plans, utilities contact information, and a record of revisions to the plans.

### UTILITIES

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<th>POWER:</th>
<th>WATER:</th>
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<tr>
<td>WASHINGTON POWER &amp; LIGHT</td>
<td>DAVIESE COUNTY RURAL WATER</td>
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<tr>
<td>WASHINGTON, IN 47501</td>
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<td>(812) 296-9290</td>
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<td>814 - LENOIR 55</td>
<td>814 - LENOIR 55</td>
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<tr>
<td>8TH AVENUE, 28, IN 8076</td>
<td>8TH AVENUE, 28, IN 8076</td>
</tr>
<tr>
<td>(812) 472-9407</td>
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### REVISIONS

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### REQUIRED ELEMENTS:

1. **Sheet Index**
2. **Utilities Information**
   - Name
   - Address
   - Contact Person
   - Contact Phone No.
3. **Revisions Block**
4. **Signature Block and PE Seal**

### INDEX

<table>
<thead>
<tr>
<th>SHEET NO.</th>
<th>DRAWING NO.</th>
<th>SUBJECT</th>
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<tbody>
<tr>
<td></td>
<td>C1</td>
<td>C2 CENTER PLAN</td>
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<td>C2</td>
<td>C3 CANTILEVER NO. 1 AND NO. 2 DETAILS</td>
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<td>C3</td>
<td>C4 PARK NO. 1 AND NO. 2 DETAILS</td>
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<td>C4</td>
<td>C5 DRAWING</td>
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<tr>
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<td>C5</td>
<td>C6 WING DETAILS</td>
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<td></td>
<td>C6</td>
<td>C7 APPROACH DETAILS</td>
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<td></td>
<td>C7</td>
<td>C8 ROAD SUMMARY</td>
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<tr>
<td></td>
<td>C8</td>
<td>C9 CROSSECTIONS</td>
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Note: Only two sheets of cross sections have been included in this sample plan set to illustrate format.

See IDM 14 3.07(02) for information regarding sequence of sheets where additional sheets are required for a project.
The purpose of this drawing is to show materials, details, and provisions 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.

TYPICAL FILL SECTION

TYPICAL DITCH SECTION

TYPICAL INCIDENTAL SECTION

TYPICAL TEMPORARY RUNAROUND SECTION

TYPICAL SECTION WITH GUARDRAIL

**IMPORTANT**: See IDM Fig. 14-3A for recommended plans legends.
REQUIRED ELEMENTS:
1. Existing Topography and Notes
2. Horizontal Alignment and Annotations, Including Curve Data as Needed
3. Beginning/End of Temporary Runaround, Station Equations
4. Vertical Alignment and Annotations
5. Elevations Along Alignment: Existing (Static) and Proposed
6. Drainage Features
7. Construction Limits
8. Proposed Right of Way
9. Public Road Approach and Drive Locations
10. Barrier and Guardrail Limits
11. Temporary Erosion Protection, Sheet Piling
12. Alignment Reference Ties, If Not Identical to Plan and Profile Data
13. Notes: "R/W described from Line" Line "A" to be constructed." (If Multiple Alignments Shown)
14. North Arrow
15. Notes, Temporary Runaround Type, Temporary Bridge Design Criteria
16. Sheet Scales
17. Townships, Ranges, Civil Township, and County
18. Section Line

NOTES:
1. Proposed Temporary Runaround Type A required. See Standard Drawing E 713-TCTR-01 through -04 for details. Workzone Design Speed = 45 mph
2. Temporary Bridge Required. Minimum Clear Roadway = 28'-0" Width = 30'-0" Height = 6'-0"
3. Required Roadway Opening Zone = 15'-0" Designed for HS-20 Truck Loading

IN Ho-000000
1/12"=1'-0"

WASHINGTON TWP., DAVIESS CO.

SECTION 16, T-7-N, R-7-W

IN THE NAME OF GOD, A MEN

B.C. 1942

DEPARTMENT OF TRANSPORTATION

TEMPORARY RUNAROUND
LINE "TR"

[Diagram of Temporary Runaround with labels and notes]

[Sheet Piling Diagram]

[Profile Diagram]
PURPOSE:
The purpose of this drawing is to show permanent signing and pavement markings required.

SIGN & POST SUMMARY

<table>
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<th>SIGN</th>
<th>POST LENGTH</th>
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BRIDGE REFERENCE POST MARKER TABLE

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PAVEMENT MARKINGS SUMMARY TABLE

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required elements:
1. horizontal alignment
2. begin/end of project
3. north arrow
4. sheet scale
5. sign callouts
6. pavement markings and callouts
7. sign and post summary table (on separate sheet if large)
8. pavement marking summary
9. legend
10. signature block and PE seal
The purpose of the Layout sheet is to show the bridge construction details in preparation for the final design and property owners, as well as hydraulic data and earthwork calculations.

**REQUIRED ELEMENTS:**

1. North Arrow
2. Scale Scales
3. Line Designation
4. Reference Points, Adjustment Trips, If Not Identifiable in Plans or Profile Sheets
5. Existing Topography
6. Slope Angles
7. Existing Property Lines
8. Temporary Contours (If applicable)
9. Property Owners
10. Township, Range, Civil Township, and County
11. Profile Grade Data
12. Begin and End Stations for Structure Limits
13. Stations (on profile grids)
14. Elevations (Existing and Proposed)
15. Indication of Existing Structure
16. Hydraulic Data, Hydraulic Stress Data, and Earthwork Calculations
17. Project Title - Superstructure Type - No. of Spans - Span Lengths
18. Roadway Width
19. existing Contours at 1" with Labels at 5'

**EXISTING STRUCTURE**

The existing structure is a single span concrete and steel bridge over a 36'-4" clear span and 24" clear roadway rail. The bridge is made of standard concrete and steel I-beams with a 36'-4" span.

**HYDRAULIC DATA**

- Waterway Opening Required: 529.02 ft.
- Waterway Opening Provided: 529.02 ft.
- Discharge Channel: 36'-4"
- Velocity: 7.86 cfs
- Q100 Velocity: 7.86 cfs
- Estimated Scour Elev.: 459.27 ft
- VC = 3000.00 ft.
- Approx. L. W.: 450 ft.
- Slope Perpendicular to Road: 2:1
- 90° Skew: 20° Rt.
- 6" Ø End Bent Drain
- Line "A"

**HYDRAULIC SCOUR DATA**

- Q500 Discharge: = 1000.0 ft.
- Velocity at Q500: 7.86 cfs
- Flow Plane (Intersection): 34.62 ft
- Line Structure: 459.27 ft
- Existing Elevation: 459.27 ft
- Existing Low Structure Elev.: 459.27 ft
- Existing Low Structure Elev.: 459.27 ft

**EARTHWORK TABULATION**

- Total Reference Elevation: 562.82
- Total Reference Elevation: 562.82
- Total Reference Elevation: 562.82
- Total Reference Elevation: 562.82
- Total Reference Elevation: 562.82

**DESIGNATION**

- Bridge File: BRIDGE FILE
- Designation: INDIANA

**SIGNATURES**

- Project Title: PREFERENCES
- Layout: 10 pt. Text
- Signature: 12 pt. Text

**REFERENCES**

- Page 18 of 18
- 12 pt. Text

**NOTES**

- No direct payment for drafting. Drafting will be paid for as per Contractual Agreement.
Preliminary Details:
The purpose of this Pier Details sheet is to show the pier construction, reinforcement, and pertinent information necessary for construction.

Pier No. 3 El. 439.94
Pier No. 2 El. 439.83
Bottom of Footing

#4 x 2'-2" (Typ.)

3' - 6"
1'-0"
18'-0"
2'-6"
1'-9"
6"
Bearing

#6 x 22'-6"

Pier No. 3 El. 461.31
Pier No. 2 El. 461.27

Keyway (Typ.)
3" x 8" x 4'-0"

CONCRETE DIMENSIONS

MIN. LAP
3'-4"

Pier No. 3 El. 461.59
Pier No. 2 El. 461.55

Scale:
ELEVATION
PLAN

Pier No. 2 El. 461.55
Pier No. 3 El. 461.31

4 - #6 x 8'-7" (Typ.)

2'-11" x 12 Columns

Required Elements:
1. North Arrow
2. Cap Pan
3. Elevation showing Dimensions and Reinforcing Steel
4. Vertical Sections as Needed
5. Cap Section
6. Notes
7. Signature Block and PE Seal

Notes:
1. For General Notes, see Drawing C2.
2. For Reinforcing Bar Notes, see Standard Drawing E 703-BRST-01.
3. For Bill of Materials, see Drawing C6.

For Bill of Materials, see Drawing C6.
The purpose of this Pier Details sheet is to show additional details necessary for construction and Bill of Materials for piers.

**PURPOSE:**

The purpose of this Pier Details sheet is to show additional details necessary for construction and Bill of Materials for piers.

**CONCRETE DIMENSIONS**

**FOOTING PLAN**

**REINFORCING STEEL**

**PILE PLAN**

**BAR BENDING DETAILS**

**SECTION C-C**

**BILL OF MATERIALS**

For Reinforcing Steel:

- Concrete Bars: 12 in Circumference
- Concrete Bars: 12 in Circumference
- Concrete Bars: 12 in Circumference
- Concrete Bars: 12 in Circumference

**MISCELLANEOUS**

- Steel H-Pile: HP 12 x 74
- Steel H-Pile: HP 12 x 74

**NOTES**

1. For General Notes, see Drawing C7.
2. For Reinforcing Bar Bending Diagrams, see Standard Drawing 00-0006-DT-WC.
3. Bill of Materials
4. Notes
5. Signature Block and PE Seal

**REQUIRED ELEMENTS:**

1. North Arrow
2. Footing Plan
3. Pile Plan
4. Pile Connection Detail
5. Reinforcing Bar Bending Diagrams
6. Bill of Materials
7. Notes
8. Signature Block and PE Seal

**BILL OF MATERIALS FOR PIER NO. 2 (PIER NO. 3 SAME UNLESS NOTED)**

**REINFORCING STEEL**

- Steel H-Pile: HP 12 x 74
- Steel H-Pile: HP 12 x 74

**MISCELLANEOUS**

- Steel H-Pile: HP 12 x 74
- Steel H-Pile: HP 12 x 74

**NOTES**

1. For General Notes, see Drawing C7.
2. For Reinforcing Bar Bending Diagrams, see Standard Drawing 00-0006-DT-WC.
3. Bill of Materials
4. Notes
5. Signature Block and PE Seal

**REQUIRED ELEMENTS:**

1. North Arrow
2. Footing Plan
3. Pile Plan
4. Pile Connection Detail
5. Reinforcing Bar Bending Diagrams
6. Bill of Materials
7. Notes
8. Signature Block and PE Seal
The purpose of this Framing Plan sheet is to provide all necessary tie-in dimensions and beam-end details as required.

1. For General Notes, see Drawing C2.
2. For Beam Details, see Drawings C8 and C9.
3. For Bearing Assembly Details, see Drawing C9.

**NOTES**

- Framing Plan
- Beam Bearing Seat Detail at End Bent
- Beam Bearing Seat Detail at Pier
- Notes
- Signature Block and PE Seal

**REQUIRED ELEMENTS**

- North Arrow
- Framing Plan
- Beam Bearing Seat Detail at End Bent
- Beam Bearing Seat Detail at Pier
- Notes
- Signature Block and PE Seal

**DIMENSIONS AND TEXT CALLOUTS**

- Dimensions and Text Callouts: 12 Pt Text
- Section Sub-Title: 14 Pt Text
- Section Title: 18 Pt Text
- Typ. All Views and Sections: 12 Pt Text
A 03/2013

Purpose:
The purpose of this Beam Details sheet is to show the longitudinal beam information necessary for fabrication of the beams and related design data.

Dimensions and Text Callouts: 12 Pt Text
View Sub-Title: 14 Pt Text
View Title: 18 Pt Text

Dimensions:

- 11 Spa. @ 12" = 12'-0" (Typ. each end.)
- 11 Spa. @ 6" = 5'-6"
- 10 Spa. @ 12" = 12'-0" (Typ.)
- 14 - 1/2" Ø Low Relaxation (ASTM A416) Prestressing Strands
- Initial pull per strand, 33.82 kips.
- Prestressing steel shall be 0.5" uncoated, low relaxation, seven-wire strand, 270 ksi (703-003).
- 2 - 1/2" Ø Low Relaxation (ASTM A416) Prestressing Strands

REINFORCING STEEL:
- 1401E, & 402 Bars (Typ.)
- Spacing for 301, 302, 303, and 304 Bars (Typ.)
- Bars (Typ. Both Ends)
- 3 - 1" Ø Holes for #6E Bars (Typ.)
- 1" Ø Holes in Web for #6E Bars (Typ.)

REINFORCING STEEL (Epoxy Coated):
- Reinforcing bars designated "E" shall be epoxy coated.
- Reinforcing Bars shall be Grade 60 ksi minimum yield strength.

CONCRETE:
- Concrete strength at 28 days, f′c = 7,000 psi.
- Concrete strength at release, f′c = 6,000 psi.

GENERAL NOTES - BEAMS:
1. Beams shall be cast a minimum 90 days prior to pouring the deck.
2. Beams are to be level and sagged at the bearings prior to handling, storage, and transportation.
3. Cast all strands protruding a 1/2" from beam.
4. Bearing area on the beam shall be made using a 300 ksi inserts.
5. For Type 3 Elastomeric Bearing Pad, see Standard Drawing 057-14-000000.
6. For Fabrication Tolerances of Prestressed Beams, see Standard Drawing 057-14-000000.
7. For Preowing notes, see Standard Drawing C9-BRST-01.
8. Beams are to be lifted and supported at the bearing points during handling, storage, and transportation. Beams shall be cast a minimum 90 days prior to pouring the deck.
9. Beams shall be cast a minimum 90 days prior to pouring the deck.
10. Beams shall be cast a minimum 90 days prior to pouring the deck.

REQUIRED ELEMENTS:
1. Beam Dimensions
2. Reinforcing Bars
3. Prestressing Strands
4. Design Data, Example only. Project specific information required.
5. General Notes for Beams. Example only. Project specific information required.

Beam Details Sheet

1. Beam Dimensions
2. Reinforcing Bars
3. Prestressing Strands
4. Design Data, Example only. Project specific information required.
5. General Notes for Beams. Example only. Project specific information required.
The purpose of this Beam Details sheet is to show the transverse beam dimensions and reinforcing bar information necessary for fabrication of the beams.

**Section A-B**
- Scale: 1" = 1'-0"

**Section B-B**
- Scale: 1" = 1'-0"

**Beam Details**
- I-Beam
- Steel Plate, 9" x 18" x 3/8" (1 Total)

**Beam Bearing Assembly Details**
- Elastomeric Bearing Pad, Type 2
- Steel Plate, 10" x 12" x 3/8" (1 Total)
- Steel Plate, 10" x 12" x 3/8" (1 Total)

**Notes**
1. For general beam notes and design data, see Drawing C8.
2. Scale: 1" = 1'-0"
The purpose of this Beam Details sheet is to show the longitudinal and section information necessary for the fabrication of the beam, as well as the required drawing title. This sheet is produced using the appropriate standard beam details sheet template covering the:

**REQUIRED ELEMENTS:**
1. Beam Elevation
2. Beam Sections—End Span and Midspan
3. End Treatment Plan Views
4. Beam Bearing Plate Assembly for Embellished Piers
5. Reinforcing Bar Spacing Details
6. Design Data—Example only, Project specific information required
7. General Notes for beams. Example only, Project specific information required
8. Completed Summary Table: Beam Data
9. Prestressing Strand Data
10. Signature Block and PE Seal

**GENERAL NOTES - BEAMS**

1. Beams shall be cast a minimum 28 days prior to pouring the deck.
2. Beams are to be lifted and supported at the bearing points during erection.
3. Beams shall be scored with a minimum 28 days of age.
4. Reinforcing bars designated "E" shall be epoxy coated.
5. For Reinforcing Bar Notes, see Standard Drawing E 703-BRST-01.
6. Scale: 1" = 1'-0" (Horizontal Scale: 1/2" = 1'-0"
7. Beam Bearing Plate Assembly

**BEAM DETAILS**

**AASHTO I-BEAM, TYPE II**

**PLANT VIEW**

**END VIEW (SECTION A-A)**

**MIDSPAN SECTION B-B**

**END TREATMENT AT: END BENT**

**BEAM ELEVATION**

**BAR BENDING DETAILS**

**PRESTRESSING STRAND DATA**

**REINFORCING BAR DATA**

**BEAM DATA**

**COMPONENTS**

**END SECTION A-A**

**MIDSPAN SECTION B-B**

**FROM:**

**TO:**

**COLUMNS**

**COUNTS, SPACING, & DIMENSIONS**

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<tr>
<td>G</td>
<td>25</td>
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**TOTALS**

**NOTE:**
All dimensions are in inches unless otherwise specified. Beam dimensions include tolerances of ±6".
The purpose of these Superstructure Details sheets is to show physical dimensions and pertinent information necessary for the contractor to construct the bridge deck.

### Required Elements
- North Arrow
- Deck Floor Plan
- Line Designation
- Slope Angle
- Typical Section
- Details as Needed
- Notes
- Signature Block and PE Seal

### Notes
1. All reinforcing shall be epoxy-coated where noted.
2. For Section A-A, see Drawing C11.
3. For reinforcing bar bending diagrams, see Drawing C11.
4. The top reinforcing in the deck shall be securely tied down to the deck forms and/or beams to prevent lifting during concrete placement.
5. Suitable restraint shall be provided to prevent the rotation of the restraint elements from construction loads such as forms, machine, etc.

### Dimensions and Text Callouts
- 12 Pt Text
- 14 Pt Text
- 18 Pt Text

### Typical Section
- Scale: $\frac{1}{4}" = 1'-0"$

### FLOOR PLAN
- Scale: $\frac{1}{4}" = 1'-0"$

### TYPICAL SECTION
- Scale: $\frac{1}{4}" = 1'-0"$
The purpose of these Superstructure Details sheets is to show physical dimensions and pertinent information necessary for the contractor to construct the bridge.

**PURPOSE:**

1. Typical Section along C of Pier
2. Section Through Beams
3. Section Between Beams
4. Pour Notes
5. Pour Sequence Diagram
6. Section A-A
7. Section B-B
8. Section C-C
9. Typical Section along C of Pier
10. Details of Reinforcing Bar Bending Diagrams
11. Bar Bending Details and Cutting Diagrams
12. Bill of Materials
13. Bill of Reinforcing Bar Notes
14. Bill of Materials
15. Bill of Reinforcing Bar Notes
16. Paint Schedule
17. PE Seal
18. Signature Block and PE Seal

**RECOMMENDED ELEMENTS:**

1. Typical Section along C of Pier
2. Section Through Beams
3. Pour Notes
4. Pour Sequence Diagram
5. Details of Reinforcing Bar Bending Diagrams
6. Bill of Materials
7. Bill of Reinforcing Bar Notes
8. Paint Schedule
9. PE Seal
10. Signature Block and PE Seal

**NOTES:**

1. All reinforcing bars shall be epoxy-coated.
2. For Reinforcing Bar Notes, see Standard Drawing 057-14-000000.
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.

The 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.

**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.

**REINFORCING STEEL**

- **Concrete Bridge Railing Type FC**
  - Bar Mark Title: 14 Pt Text
  - Bar Mark: 14 Pt Text
  - Section Title: 18 Pt Text
  - Dimensions and Text Callouts: 12 Pt Text
  - Typical All Views and Sections:
    - All Views and Sections:
      - Section Title: 18 Pt Text
      - Section Sub-Title: 14 Pt Text
      - Text Block Text:
        - Labels: 10 Pt Text
        - Signature: 12 Pt Text
      - Mark Size: 12 Pt Text
      - Bar Mark:
        - Bar Mark Title: 14 Pt Text
        - Bar Mark: 14 Pt Text

**ELEVATION - ROADWAY SIDE**

- **Concrete Bridge Railing Type FC**
- **Concrete Bridge Railing Transition Type TFC**
- **Concrete Bridge Railing Transition Type TFC**
- **Concrete Bridge Railing Transition Type TFC**

**SECTION A-A**

- **Concrete Bridge Railing Transition Type TFC**

**RAIL BENDING DETAILS**

- **Concrete Bridge Railing Type FC**
- **Concrete Bridge Railing Transition Type TFC**

**NOTES**

1. All interior views shall be approximated.
2. For bending bar notes, see Standard Drawing 7-904-001-T.
3. For identifying concrete guardrail, see Standard Drawing 4-105-501.
4. For additional details of concrete bridge railing, see Standard Drawing 3-706-FC and 3-706-TFC, through BA.

**BILL OF MATERIALS**

- **REINFORCING STEEL**
  - **Type FC**
  - **Type TFC**
  - **Type TGB**
  - **Conduit**

**REQUIRED ELEMENTS**

1. Railing Plan
2. North Arrow
3. Section(s) Showing Dimensions and Reinforcing for Bridge Railing and Bridge Railing Transitions
4. Section(s) Showing Dimensions and Reinforcing
5. Reinforcing Bar Bending Details
6. Bill of Materials
7. Notes
8. Signature Block and PE Seal
PLAN OF SCREEDS

TABLE OF SCREED ELEVATIONS

PROCEDURE AND NOTES

1. After beams are set, line elevations at all screed points in the plan. Then draw details of the slab. Subtract these elevations from the computed deflections and use the resulting elevations as the height for the setting for the concrete slab. These details remain constant regardless of how much or how little concrete is poured.

2. Do not set forms by leveling.

3. Do not set forms above these points. These elevations were determined experimentally.

4. After beams are set, take elevations at all points in the slab. Enter these elevations in the table. Subtract these elevations from the tabulated elevations on top of beams. Enter these elevations in the table.

5. This procedure is essential for accurate setting of forms. Use the resulting elevations as the height for the setting for the concrete slab. These details remain constant regardless of how much or how little concrete is poured.

REQUIRED ELEMENTS:

1. Plan
2. North Arrow
3. Transverse Section
4. Table of Screed Elevations
5. Concrete Dead Load Deflection Diagram
6. Procedure and Notes
7. Signature Block and PE Seal

SCALE: Not to Scale

PLAN OF SCREEDS

TABLE OF SCREED ELEVATIONS

PROCEDURE AND NOTES

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SCALE: Not to Scale

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TABLE OF SCREED ELEVATIONS

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5. This procedure is essential for accurate setting of forms. Use the resulting elevations as the height for the setting for the concrete slab. These details remain constant regardless of how much or how little concrete is poured.
The purpose of this Approach Slab Details sheet is to provide all necessary dimensional and reinforcing details needed to construct the bridge approach slab.

**PURPOSE:**

P lo t: 3 /7 /2 0 1 4

**1:** North Arrow

**2:** Approach Slab Plan

**3:** Section

**4:** Reinforcing Bar Bending Details and Cutting Diagrams

**5:** Bill of Materials

**6:** Notes

**7:** Signature Block and PE Seal

**REQUIRED ELEMENTS:**

1. North Arrow
2. Approach Slab Plan
3. Section
4. Reinforcing Bar Bending Details and Cutting Diagrams
5. Bill of Materials
6. Notes
7. Signature Block and PE Seal

**APPROACH SLAB AT END BENT NO. 1**

Plan Showing Top Reinforcement

**APPROACH SLAB AT END BENT NO. 4**

Plan Showing Bottom Reinforcement

**SECTION THROUGH APPROACH**

Scale: 1" = 1'-0"

**BAR BENDING DETAILS**

Not to Scale

**NOTES:**

1. For details of Approach Slab, see Standard Drawing B-99999. Approach Slab shall be designed and detailed for width and thickness of 12'
2. All reinforcing bars in approach slab shall be epoxy coated.
3. All reinforcing bar in approach slab shall be epoxy coated.
4. For General Notes, see Drawing C2.
5. RCBA shall be surface sealed.

**BILL OF MATERIALS**

R.C. BRIDGE APPROACH (END BENT NO. 1 AND NO. 4 SAME)

<table>
<thead>
<tr>
<th>SIZE &amp; TYPE</th>
<th>NO. OF BARS</th>
<th>LENGTH</th>
<th>WEIGHT</th>
</tr>
</thead>
<tbody>
<tr>
<td>581</td>
<td>23</td>
<td>47'-2&quot;</td>
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</tr>
<tr>
<td>582</td>
<td>23</td>
<td>11'-2&quot;</td>
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<td>583</td>
<td>29</td>
<td>10'-6&quot;</td>
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<td>584</td>
<td>29</td>
<td>27'-9&quot;</td>
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<td>585</td>
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<td>30'-0&quot;</td>
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<td>34</td>
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<td></td>
</tr>
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<td>587</td>
<td>34</td>
<td>60'-6&quot;</td>
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<td>588</td>
<td>34</td>
<td>68'-6&quot;</td>
<td></td>
</tr>
<tr>
<td>589</td>
<td>34</td>
<td>30'-0&quot;</td>
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</tr>
<tr>
<td>600</td>
<td>34</td>
<td>68'-6&quot;</td>
<td></td>
</tr>
</tbody>
</table>

Total No. of Bars: 34

Total Weight: 1148 lbs
### Purpose

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

### Summary of Bridge Quantities Table

#### REQUIRED ELEMENTS:
1. Summary of Bridge Quantities Table
2. Signature Block and PE Seal

---

**Table Data:** 12 Pt Text  
**Table Title:** Text Height = 0.25"  
**Typ. Table:**
The purpose of the Road Summary sheet is to summarize quantities for the project in addition to the bridge structure itself.

### Road Summary

**PURPOSE**

- Permanent Erosion Control Summary Table
- Mailbox Approaches, If Needed
- Underdrain Table
- Monument Table
- R/W Marker Table
- Guardrail Summary Table
- Pavement Quantities and Approach Table

**REQUIRED ELEMENTS:**

1. Pavement Quantities and Approach Table
2. Structure Data Table
3. Permanent Erosion Control Summary Table
4. Guardrail Summary Table
5. Monument Table
6. R/W Marker Table
7. Underdrain Table, If Needed
8. Mailbox Approaches, If Needed
9. Signature Block and PE Seal

**Note:** All road summary tables have been shown on this sample for format and typical location only. Tables may not be left off of plans for which there are no relevant quantities.