Staffing Changes
### Bridge Details Manual Part I

**Questions? Contact** [leonard.barnes@state.mn.us](mailto:leonard.barnes@state.mn.us)

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<td>Download entire manual (PDF 3 MB)</td>
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B905
Fence Post Anchorage
Approved, and signed, January 5, 2017

Approved 01-05-2017
REMOVED From The B-DETAIL:
• Plan View-Type B, Plan View-Type C and the Grout Alternate details.

Under NOTES:
• Added first note: “All pipe diameters are nominal”.
• Added second note: “See special provisions for requirements not included on this sheet”.
• Added 6th note: “Furnishing and installing fence post anchorages is incidental to the wire fence”.
• Removed “Mn/DOT” from the second, third and fourth notes.
• Added numbered note ①: “Adhesive anchorage with 3/4” dia. anchor rod per spec. 3385, type a with hex nut and washer. Provide an adhesive with a minimum characteristic bond strength in uncracked concrete of 1.5 ksi. Embed the anchorage no less than 5” regardless of characteristic bond strength. Drill through reinforcement (if encountered) to achieve minimum embedment. Ensure hex nut is in contact with the adjacent surface and torque to 60 ft-lbs unless a higher torque is recommended by the manufacturer. Proof load to 7.5 kips. See special provisions for additional requirements.”
• Added numbered note ②: “E70X electrodes for 3/8” post to base plate weld”.
• Under the Double Extra Strong Pipe Weights: Removed the 1½” nominal diameter note.

At TYPICAL SECTION:
• Changed the base plate thickness from ½” to ¾”, and removed the dimension and labeled base plate as ¾”.
• Changed the Anchorage projection above the concrete surface from 2” to 2¼”.
• Changed the weld size from 1/4” to 3/8” and added numbered note ③.
• Changed the anchorage note to: “Approved Adhesive Anchorage ①”.
• Changed the caulk and shim note to: “Caulk and shim base plate per special provisions”.

At PLAN VIEW – TYPE A:
• Added (TYP.) to the 4” dimension and added additional 1½” dimensions to the hole locations.
• Changed the pipe sleeve note to: “Pipe sleeve for intermediate posts and end posts use 2” nominal dia. double extra strong pipe”.

5/17/2017
### Standard Plans

**Standard Drawings for use in Construction Plans**

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<th>Update</th>
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<tr>
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<td>16-05</td>
<td>Bridge Approach Panel Plans</td>
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<td>Standard Plan 661, and 681 (Concrete Median Barrier Single Slope)</td>
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<td>16-03</td>
<td>Standard Plans 690, 692, 694, 695, 696 Type 31 Guardrail</td>
<td>7/26/2016</td>
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<tr>
<td>16-02</td>
<td>Standard Plans 222, 224, 624, and 661</td>
<td>3/15/2016</td>
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Single Slope Barriers

36”
42”
54”

10.8 Degrees
With Concrete Wearing Course
With Pedestrian Path Behind
Single Slope Barriers

COMBINATIONS:
• Monolithic Deck or Concrete Wearing Course
  • With or Without Sidewalk
  • Integral/Semi-Integral Abutment
  • Parapet Abutment
  • 36”, 42”, 54” Heights

• Local Bridges – No Approach Panel

25 New Standard Plans
Solid Median Barriers

36”
42”
54”

2" CLR.

7"
10"
7"

2'0"

5"
3'0"

2" CLR.

M403E

M401E

10"
9"

DECK

PROJ.

CONST. JOINT
ROUGH FINISH

5/17/2017

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COMBINATIONS:

- Monolithic Deck or Concrete Wearing Course
  - With or Without Sidewalk
  - Integral/Semi-Integral Abutment
  - Parapet Abutment
  - 36”, 42”, 54” Heights

49 New Standard Plans
Guard Rail Connection
Control Joints
Control Joints
Light Blisters

VIEW AT LIGHT BLISTER

EXPANSION FITTING
DEFLECTION/EXPANSION FITTING

END OF BRIDGE SLAB

1 1/4" DIA. PVC COATED RSC. BEND IN FIELD TO CLEAR GUARDRAIL POST.

VIEW AT END OF BRIDGE

APPROACH SLAB NOT SHOWN.
EXPANSION JOINT SHOWN.
Light Blisters
Anchor Bolt Cluster

LIGHT POLE BASE PLATE
SEE DETAIL “A”

5” - 6” PROJECTION

1-8” THREADS

1-6” ANCHOR LENGTH

VARIABLE

See Table

ELEVATION

(ANCHOR PLATE ALTERNATE SHOWN)
Parapet on Raised Sidewalk
GUIDANCE UNTIL THE NEW STANDARD?

• Current standard is available on a case-by-case basis upon approval by the State Bridge Design Engineer.
• Cannot be used on bridges on the National Highway System (NHS) unless protected by a traffic barrier, or not mounted on the sidewalk.
• Can be used on non-NHS bridges for design speeds of 35 mph or less.
Chain Link Fence
Chain Link Fence

Baseplate details updated
Pedestrian Railing
Joint Cover Plates

DETAIL "A" ③

½" ± ¼"

6" MINIMUM

¾" RAISED PATTERN COVER PLATE

½"

1"

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Prestressed Beams
Prestressed Beams
Prestressed Beams
### Prestressed Beams

#### Calculated Prestress Losses

<table>
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<td>Elastic Shortening Loss</td>
<td>___ KSI</td>
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<tr>
<td>Long Term Losses</td>
<td>___ KSI</td>
</tr>
<tr>
<td>Total Losses</td>
<td>___ KSI</td>
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#### Minimum Concrete Strength - K.S.I.

<table>
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<tr>
<th></th>
<th>① f'cl</th>
<th>② f'c</th>
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<tbody>
<tr>
<td></td>
<td>___ KSI</td>
<td>___ KSI</td>
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**Designer Note:**

Indicate min. required concrete strength, round concrete strength to one tenth KSI.
As-Built Plan Sheet

### WEARING COURSE

- LOW SPALL
- OTHER
- TYPE OR MANUFACTURER
- EXPANSION JOINTS

- MANUFACTURER'S IDENTIFICATION
- NPS NO. AND/OR LETTER DESIGNATION FOR JOINT USED
- GLASS MANUFACTURER
- SIZE OF GLASS
- MANUFACTURER'S IDENTIFICATION
- NPS NO. AND/OR LETTER DESIGNATION FOR GLASS USED

### ELASTOMERIC BEARING PADS

- PAD MANUFACTURER
- NAME AND ADDRESS CITY, STATE

### SPECIAL SURFACE FINISH

- PRODUCT NAME
- COLOR & TEXTURE
- FINISHING ROADWAY FACES OF BARRIER OR PARAPET

### PAINT SYSTEM

- MATERIAL SPECIFICATION NUMBER
- 240 OR 2470 OR OTHER
- MANUFACTURER
- NAME AND ADDRESS CITY, STATE
- PRIME COAT MATERIAL SPECIFICATION NUMBER
- INMEDIATE COAT MATERIAL SPECIFICATION NUMBER
- FINISH COAT MATERIAL SPECIFICATION NUMBER

### PLAN QUALITY

- RATE 1 (GOOD), 2 (FAIR), OR 3 (POOR). PLEASE COMMENT BELOW

- DIMENSIONS AND DRAWINGS ACCURATELY DESCRIBED, REQUIRED CONSTRUCTION.
- ITEMIZED LIST AND QUANTITIES WERE COMPLETE AND FREE OF ERRORS.
- SCALPS OF DRAWAXS AND OVERALL LEADING LINES AND TEXT WERE DO, NOT SPECIAL PROVISIONS ACCURATELY DESCRIBED SPECIAL WORK AND PAYMENT.

### COMMENTS

- NUMBER OF EACH
- SUPPLEMENTAL AGREEMENT
- COST:

### SUMMARY OF SIGNIFICANT AS-BUILT CHANGES

### NOTIFICATION TO ADD, REMOVE, OR REHAB A STRUCTURE

- PLEASE GO TO THE FOLLOWING WEBSITE AND COMPLETE THE FORM WHEN ADDING, REMOVING, OR REHABILITATING A STRUCTURE:
- CONTACT THE DORSEY INSPECTION MANAGEMENT UNIT AT 651-284-6939 IF YOU HAVE QUESTIONS:

### CHANGE OF VERTICAL CLEARANCE

- PLEASE GO TO THE FOLLOWING WEBSITE WHEN CHANGING THE VERTICAL CLEARANCE OF EXISTING BRIDGE STRUCTURE:
- CONTACT THE DORSEY INSPECTION MANAGEMENT UNIT AT 651-284-6939 IF YOU HAVE QUESTIONS:

### THE AS-BUILT INFORMATION WAS ADDED TO THE PLAN BY:

- INSPECTOR'S NAME
- DATE

- APPROVED BY
- PROJECT ENGINEER/SUPERVISION SIGNATURE
- DATE

- AS-BUILT BRIDGE DATA

- SHEET NO. OF SHEETS

- BRIDGE NO.

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[Link to electronic format available online]
THIS FORM IS AVAILABLE IN AN ELECTRONIC FORMAT AT:
http://www.dot.state.mn.us/bridge/pdf/as-built-bridge-data-r0.xlsx
## As-Built Bridge Plan Sheet

**Bridge Number:**

**Concrete Wearing Course:**

**Expansion Joints:**

**Elastomeric Bearing Pads:**

**Special Surface Finish:**

**Finishing Roadway Faces of Barrier Railing:**

**Anti-Graffiti Coating:**

**Paint System:**

**Plan Quality:**

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Cast-In-Place Retaining Walls
Disc Bearing Standards

GUIDED EXPANSION DISC BEARING

Copyright Cosmec Inc.
Conduits & Utilities

“PVC Coated RSC”
STANDARD IS UNMODIFIED:
Used as drawn with no changes, and with all blanks filled in where expected.

• Box out and place cross-hatching across details that do not apply. Do not remove details.
Modifying Standards
STANDARD IS MODIFIED:
Details, dimensions, or notes have specifically been modified from the standard.

- Place “MODIFIED” under B-Detail or after Figure Number
- Add a box stating what was modified.
- Do not “cloud” changes.
Modifying Standards

MODIFICATIONS:
SECTION A-A AND DETAIL "C" TO REFLECT SPECIALIZED CREEK BOTTOM WITH WEIRS. ADDED CLASS V TO DIMENSION T CHART.
STANDARD IS SUBSTANTIALLY MODIFIED:
Extensive or numerous details, dimensions, or notes have been modified to an extent that ceases to reflect the standard.

- Judgment call on part of engineer if this category applies.
- Remove State Bridge Engineer approval block and figure number.
- Engineer of Record takes full responsibility for details shown.
Questions

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Thank you!

Matthew Pooler

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