

B814

Concrete End Diaphragm (27M, 30MH, 35MH, 36M, 40MH, MN45 – MN63, 82MW & 96MW Prestressed Concrete Beams) (Parapet Abutment)

Approved, and signed, September 22, 2011. Last date revised: December 20, 2018

Revised 12-20-2018

At sheet Title Block:

- Changed sheet title from “Concrete End Diaphragm (27M & 36M, MN45 – MN63, 82MW & 96MW Prestressed Concrete Beams) (Parapet Abutment)” to “Concrete End Diaphragm (27M, 30MH, 35MH, 36M, 40MH, MN45 – MN63, 82MW & 96MW Prestressed Concrete Beams) (Parapet Abutment)”

At SD__05E:

- Changed slope designation from 1:1 to 12:12.

At Section A-A:

- Added 30MH, 35MH and 40MH to several locations in the detail to provide diaphragm dimensions for the new shape.

At circled note ③:

- Added 30MH, 35MH and 40MH to provide diaphragm dimensions for the new shape.

At circled note ④:

- Added 30MH, 35MH and 40MH to provide diaphragm dimensions for the new shape.

Revised 11-06-2013

Removed note: “* Check Length Over Fascia Beam” and the asterisk at the 4'-0” dimension at bar bends SD506E and SD5__05E.

Changed numbered note ⑤ to read: “Add SD507E and SD508E only if No. of bars and lengths are included in bill of reinforcement. Space SD508E at 1'-6” max. for entire length of diaphragm. Refer to “Part Transverse Section” above.”

Added the Designer Note to the detail.

Revised 04-17-2013

This B-detail was updated to convert reinforcing bar marks from metric to U.S. customary bar designations.

Re-Approved 09-22-2011

Updated the detail to include MW shape prestressed beams.

Rearranged reinforcement bar bend details on the detail due to available space.

At SHEET TITLE: changed the sub title *from*: (27M - 54M, MN45 - MN63 Prestressed Concrete Beams)(Parapet Abutment). *to*: (27M & 36M, MN45 - MN63, 82MW & 96MW Prestressed Concrete Beams)(Parapet Abutment).

At the SD1301E bar bend detail: Replaced the 1'-0” dimension with the “_ _ _ _” (to be filled in symbol).

At the PART TRANSVERSE SECTION: changed the note at the beam shape *from* “MN Shape PCB” *to* “MW or MN Shape PCB”

- Lengthened the legs of the SD__05E bars to better represent the actual length.
- Changed the height of the “M” shape beam to better represent the actual height.

- Added SD1608E bars throughout the section.
- Added note “Place additional SD1608E at end of beam as shown per note ⑤ (typ.)” with dimension lines pointing to the reinforcement at the end of the beam.
- Changed the reinforcement dimension label to read: “SD1301E and SD1608E ⑤”

At SECTION A-A:

- Changed the dimension label from the top of beam to the front edge of the diaphragm to read:
10” MIN. for 27M & 36M
1’-1” MIN. for MN45 – MN63
1’-2” MIN. for 82MW & 96MW
- Changed the dimension label from the top of beam to the threaded rods to read:
4” (27M & 36M)
2” (MN45 – MN63)
1 ¾” (82MW & 96MW)
- Changed the 1’-8” dimension label for the depth of diaphragm to read: 36M & MN45
- Changed the 2’-0” dimension label for the depth of diaphragm to read: MN54 & MN63
- Added the 2’-8” dimension for the depth of diaphragm for the 82MW & 96MW beams.
- Separated the 1’-4” and 2” Min. dimensions by moving the 2” dimension and changing it to read “2” MIN. ALONG WEB FACE” for better clarification.
- Changed the reinforcement label *from* SD1607E ⑤ *to* SD1607E entire length of diaphragm ⑤.

Under NOTES:

- Removed the text “SEE PLANS FOR DIMENSION.” From numbered note ②.
- Changed numbered notes ③ to read: 1’-11” (27M); 2’-1” (36M AND MN45); 2’-5” (MN54 AND MN63); 3’-1” (82MW AND 96MW). Based on 3” stool and 9” deck.
- Changed numbered note ④ to read: 1’-10” (27M); 2’-0” (36M AND MN45); 2’-4” (MN54 AND MN63); 3’0” (82MW AND 96MW). Based on note ③.
- Changed numbered note ⑤ to read: Add SD1607E and SD1608E if dimension ② exceeds 1’-8”. Space SD1608E at 1’-6” max. for entire length of diaphragm. Refer to “Part Transverse Section” above.

Revised 04-02-2009

At the PART TRANSVERSE SECTION:

- Changed the dimension from 4" to 4½" CLR at the top of roadway slab to diaphragm reinforcement location.
- Added 9" TYP. Dimension from the beam web to the bottom horizontal diaphragm bars.
- Removed the 3" dimension showing the clearance from the bottom of diaphragm to the reinforcement.
- Changed the beam of the right side of the detail from an M shape to an MN shape. Added leader lines depicting M shape and MN shape.

At SECTION A-A:

- Added a " 2" MIN" dimension to the bottom of diaphragm to end of beam location.
- Added bar designations to the bottom three bars in the end diaphragm.
- Added 10” MIN. dimension from the top of beam to the front edge of the diaphragm for M shapes and 1’-1” MIN dimension for MN shapes.
- Changed the dimension from 4" to 4½" CLR at the top of roadway slab to diaphragm reinforcement location.
- Added bars SD1607E, SD1608E with note ⑤.
- Modified the dimension line indicating the distance from the end of the deck to the CL of the end diaphragm.
- Added “(M SHAPE PCB SHOWN)” under section A-A title.

CHANGES TO REINFORCEMENT:

- Added bar bend for SD1608E with note ⑤.
- Changed height of bar SD1301E. (see note ③)

- Changed height of bar SD1606E and partial length dimension of bar SD__05E. (see note ④)
- Added bars SD1607E and SD1608E if the end of diaphragm dimension exceeds 1'-8". (see note ⑤)

CHANGES TO THE "NOTES:"

- Reduced the height of bar SD1301E by changing note ③ from " 2'-0" (27M); 2'-2" (36M, 45M and MN 45); 2'-6" (54M, MN54 and MN63). Based on 3" stool and 9" deck" to " 1'-11" (27M); 2'-1" (36M, 45M and MN 45); 2'-5" (54M, MN54 and MN63). Based on 3" stool and 9" deck".
- Changed the dimensions on bars SD__05E and SD1606E by adding note ④ " 1'-10" (27M); 2'-0" (36M, 45M and MN 45); 2'-4" (54M, MN54 and MN63). Based on note ③".
- Modified the concrete mix design for the end diaphragms to; "Concrete for end diaphragms shall be the same mix as used in deck", per SSRC meeting 12/01/08.
- Added note ⑤ "Add if dimension ② exceeds 1'-8" "

Revised 06-14-2006

Changed B-Detail subtitle (27M – 54M, MN45 And MN54 Prestressed Concrete Beams) (Parapet Abutment) *to* (27M – 54M, MN45 – MN63 Prestressed Concrete Beams) (Parapet Abutment)

At SECTION A-A:

- changed 2" (MN45 & MN54) *to* 2" (MN45 – MN63)
- changed 54M & MN54 *to* 54M, MN54 & MN63

Under NOTES:

- changed DIAPHRAGM CONCRETE TO BE MIX NO. 3Y43. *to* END DIAPHRAGM SHALL BE CONC. MIX NO. 3Y43.
- changed ALL DIAPHRAGM CONCTETE AND REINFORCEMENT BARS SHOEN ON THIS DETAIL TO BE INCLUDED IN PAYMENT FOR SUPERSTRUCTURE QUANTITIES. *to* QUANTITIES FOR END DIAPHRAGM COCNRETE AND REINFORCEMENT SHOWN ON THIS DETAIL SHALL BE LISTED IN SUPERSTRUCTURE QUANTITIES.
- changed THREADED RODS ARE INCLUDED IN PAYMENT FOR PRESTRESSED CONCRETE BEAMS. *to* THREADED RODS ARE INCIDENTAL TO PRESTRESSED CONCRETE BEAMS.
- changed ③ ... 2'-6" (54M AND MN54). BASED ... *to* ③ ... 2'-6" (54M, MN54 AND MN63). BASED ...

Re-Approved 10-26-2005

Changed B-Detail subtitle (27M – 54M Prestressed Concrete Beams) (Parapet Abutment) *to* (27M – 54M, MN45 And MN54 Prestressed Concrete Beams) (Parapet Abutment)

At PART TRANSVERSE SECTION: Called out EDGE OF TOP FLANGE

At SECTION A-A:

- Specified 4" dimension for top threaded rods for 27M – 54M PCB and added 2" dimension for top threaded rods for MN45 and MN54 PCB
- Specified distance from top of beam to bottom of diaphragm for MN45 and MN54 PCB

Under NOTES: Changed ③ 2'-0" (27M), 2'-2" (36M AND 45M), 2'-6" (54M) ... *to* ③ 2'-0" (27M); 2'-2" (36M, 45M AND MN45); 2'-6" (54M AND MN54). ...

Approved, and signed, November 22, 2002