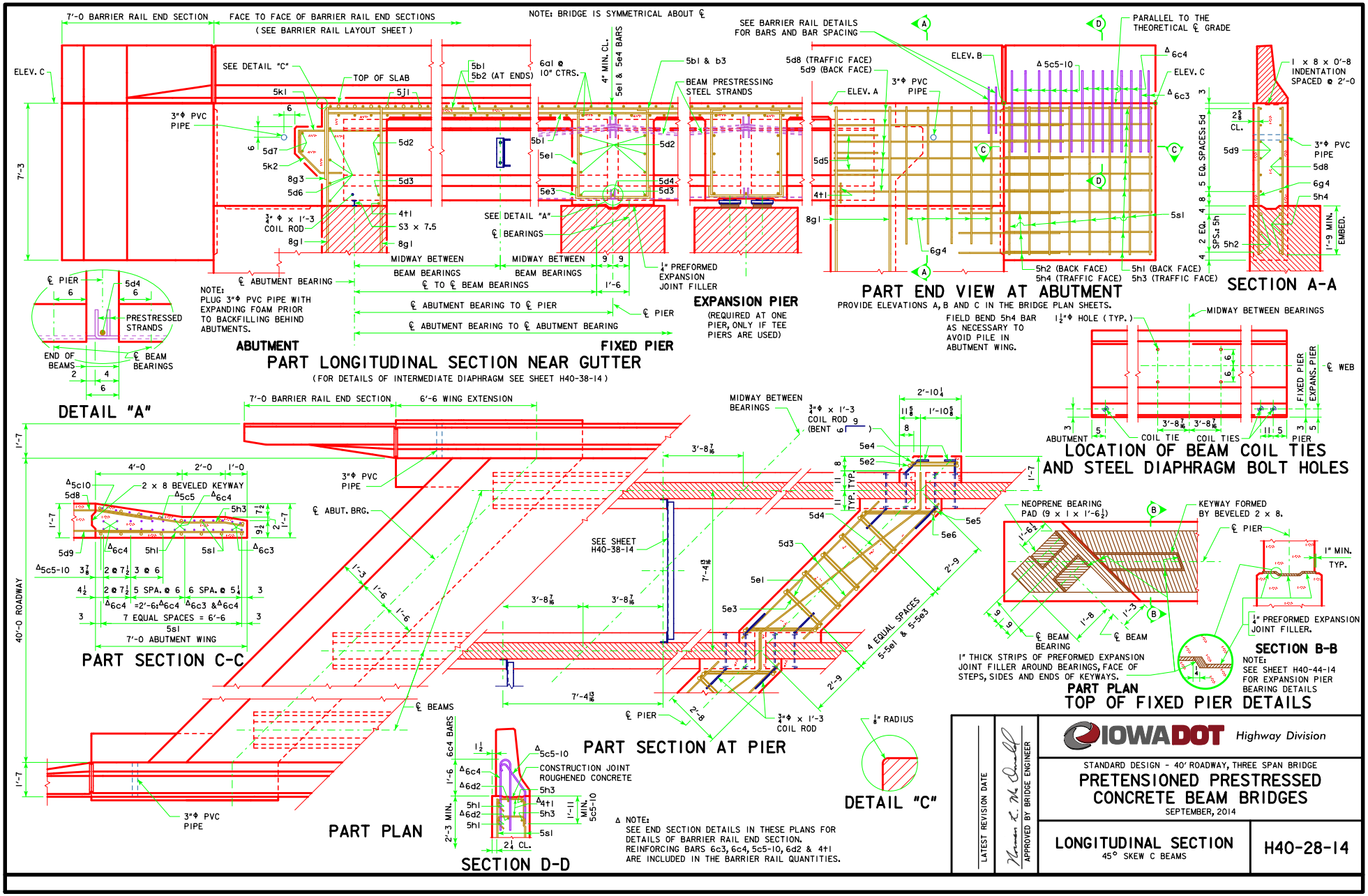

7'-0 BARRIER RAIL END SECTION
FACE TO FACE OF BARRIER RAIL END SECTIONS
(SEE BARRIER RAIL LAYOUT SHEET)
NOTE: BRIDGE IS SYMMETRICAL ABOUT ℄
SEE BARRIER RAIL DETAILS FOR BARS AND BAR SPACING
PARALLEL TO THE THEORETICAL ℄ GRADE
ELEV. C
SEE DETAIL "C"
TOP OF SLAB
5k1
5j1
5b1
5b2 (AT ENDS)
6a1 @ 10" CTRS.
4" MIN. CL.
5e1 & 5e4 BARS
5b1 & b3
BEAM PRESTRESSING STEEL STRANDS
5d8 (TRAFFIC FACE)
5d9 (BACK FACE)
ELEV. A
ELEV. B
3"Φ PVC PIPE
Δ 5c5-10
Δ 6c4
Δ 6c3
1 x 8 x 0'-8 INDENTATION SPACED @ 2'-0
3"Φ PVC PIPE
5d7
5k2
8g3
5d6
5d2
5d3
5e1
5e3
5d4
5d5
4t1
8g1
6g4
5s1
5h2
5h1
5h4
5h3
5h2 (BACK FACE)
5h4 (TRAFFIC FACE)
5h1 (BACK FACE)
5h3 (TRAFFIC FACE)
5 EQ. SPACES: 5d
2 EQ. SPS.: 5h
1'-9 MIN. EMBED.
7'-3
3/4" Φ x 1'-3 COIL ROD
S3 x 7.5
SEE DETAIL "A"
℄ BEARINGS
MIDWAY BETWEEN BEAM BEARINGS
℄ ABUTMENT BEARING
℄ TO ℄ BEAM BEARINGS
℄ ABUTMENT BEARING TO ℄ PIER
℄ ABUTMENT BEARING TO ℄ ABUTMENT BEARING
1/4" PREFORMED EXPANSION JOINT FILLER
℄ PIER
NOTE: PLUG 3"Φ PVC PIPE WITH EXPANDING FOAM PRIOR TO BACKFILLING BEHIND ABUTMENTS.
ABUTMENT
FIXED PIER
EXPANSION PIER
(REQUIRED AT ONE PIER, ONLY IF TEE PIERS ARE USED)
PART END VIEW AT ABUTMENT
PROVIDE ELEVATIONS A, B AND C IN THE BRIDGE PLAN SHEETS.
FIELD BEND 5h4 BAR AS NECESSARY TO AVOID PILE IN ABUTMENT WING.
SECTION A-A
℄ PIER
PRESTRESSED STRANDS
END OF BEAMS
℄ BEAM BEARINGS
DETAIL "A"
PART LONGITUDINAL SECTION NEAR GUTTER
(FOR DETAILS OF INTERMEDIATE DIAPHRAGM SEE SHEET H40-38-14)
1 1/2"Φ HOLE (TYP.)
MIDWAY BETWEEN BEARINGS
℄ WEB
FIXED PIER
EXPANS. PIER
ABUTMENT
COIL TIE
COIL TIES
PIER
LOCATION OF BEAM COIL TIES AND STEEL DIAPHRAGM BOLT HOLES
7'-0 BARRIER RAIL END SECTION
6'-6 WING EXTENSION
MIDWAY BETWEEN BEARINGS
3/4"Φ x 1'-3 COIL ROD (BENT 9)
2'-10 1/4
11 5/8
1'-10 5/8
3'-8 7/16
5e4
5e2
5e5
5e6
5d4
5d3
5e1
5e3
2'-9
4 EQUAL SPACES 5-5e1 & 5-5e3
7'-4 13/16
℄ PIER
3/4"Φ x 1'-3 COIL ROD
℄ ABUT. BRG.
SEE SHEET H40-38-14
3"Φ PVC PIPE
40'-0 ROADWAY
1'-7
4'-0
2'-0
1'-0
2 x 8 BEVELED KEYWAY
Δ5c10
5d8
Δ5c5
Δ6c4
5h3
5d9
Δ6c4
5h1
5s1
Δ6c3
Δ5c5-10
2 @ 7 1/2
3 @ 6
5 SPA. @ 6
6 SPA. @ 5 1/4
Δ6c4 =2'-6: Δ6c4 Δ6c3 & Δ6c4
7 EQUAL SPACES = 6'-6
5s1
7'-0 ABUTMENT WING
PART SECTION C-C
℄ BEAMS
PART PLAN
6c4 BARS
Δ5c5-10
CONSTRUCTION JOINT ROUGHENED CONCRETE
Δ6c4
Δ6d2
5h3
Δ4t1
5h1
Δ6d2
5h3
5h1
5s1
2'-3 MIN.
1'-11 MIN. 5c5-10
2 1/4 CL.
SECTION D-D
PART SECTION AT PIER
1/8" RADIUS
DETAIL "C"
NEOPRENE BEARING PAD (9 x 1 x 1'-6 1/2)
KEYWAY FORMED BY BEVELED 2 x 8.
℄ PIER
1" MIN. TYP.
1/4" PREFORMED EXPANSION JOINT FILLER.
℄ BEAM BEARING
℄ BEAM
1" THICK STRIPS OF PREFORMED EXPANSION JOINT FILLER AROUND BEARINGS, FACE OF STEPS, SIDES AND ENDS OF KEYWAYS.
SECTION B-B
NOTE: SEE SHEET H40-44-14 FOR EXPANSION PIER BEARING DETAILS
PART PLAN
TOP OF FIXED PIER DETAILS
Δ NOTE: SEE END SECTION DETAILS IN THESE PLANS FOR DETAILS OF BARRIER RAIL END SECTION. REINFORCING BARS 6c3, 6c4, 5c5-10, 6d2 & 4t1 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.
LATEST REVISION DATE
APPROVED BY BRIDGE ENGINEER
IOWADOT Highway Division
STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE
PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES
SEPTEMBER, 2014
LONGITUDINAL SECTION
45° SKEW C BEAMS
H40-28-14