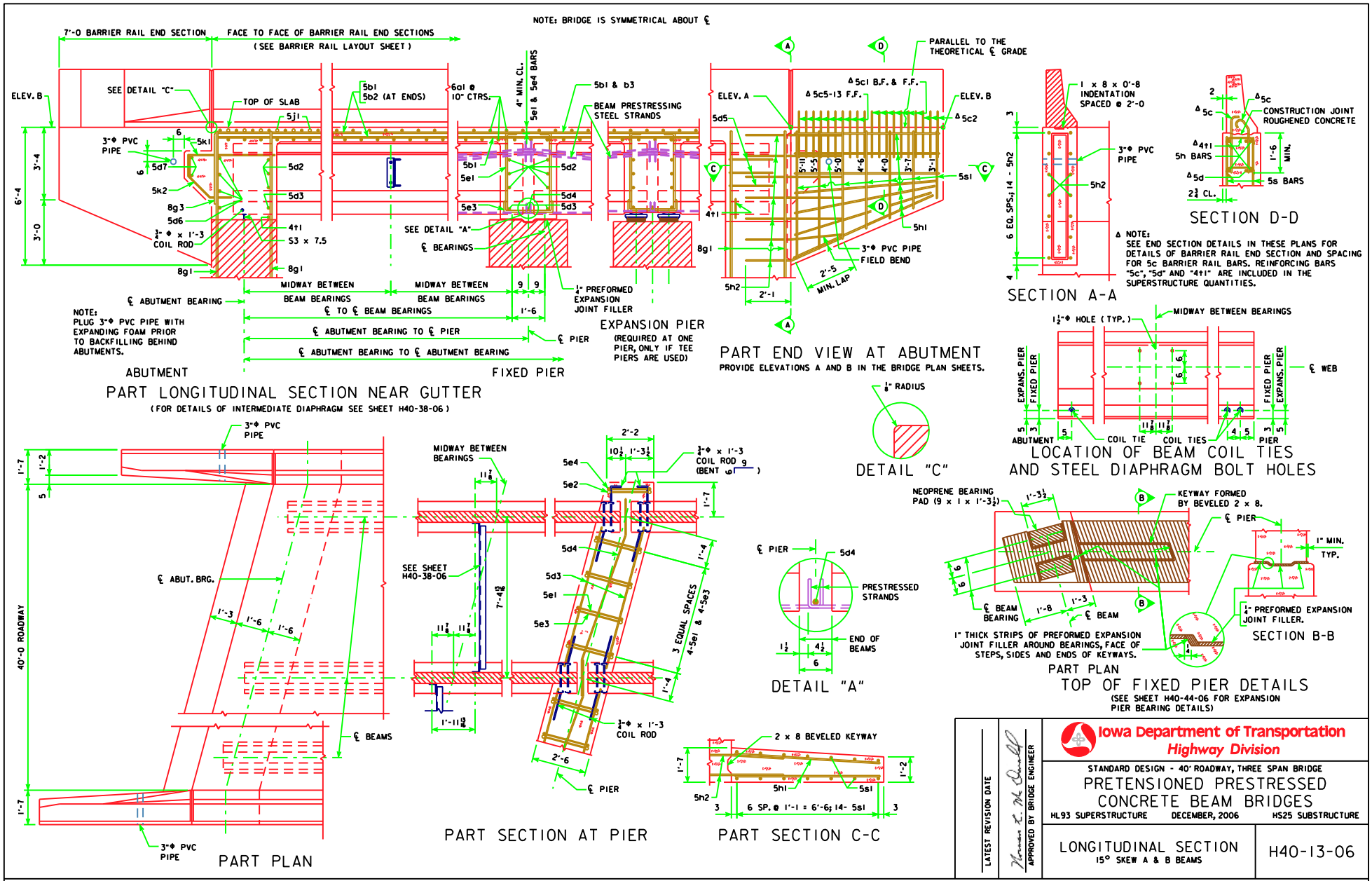
NOTE: BRIDGE IS SYMMETRICAL ABOUT ℄
7'-0 BARRIER RAIL END SECTION
FACE TO FACE OF BARRIER RAIL END SECTIONS
(SEE BARRIER RAIL LAYOUT SHEET)
ELEV. B
SEE DETAIL "C"
TOP OF SLAB
5j1
5b1
5b2 (AT ENDS)
6a1 @ 10" CTRS.
4" MIN. CL.
5e1 & 5e4 BARS
5b1 & b3
BEAM PRESTRESSING STEEL STRANDS
3"Φ PVC PIPE
5k1
5d7
5k2
8g3
5d6
¾"Φ x 1'-3 COIL ROD
5d2
5d3
4t1
S3 x 7.5
8g1
SEE DETAIL "A"
℄ BEARINGS
5b1
5e1
5e3
5d4
5d3
MIDWAY BETWEEN BEAM BEARINGS
MIDWAY BETWEEN BEAM BEARINGS
℄ ABUTMENT BEARING
℄ TO ℄ BEAM BEARINGS
℄ ABUTMENT BEARING TO ℄ PIER
℄ ABUTMENT BEARING TO ℄ ABUTMENT BEARING
℄ PIER
¼" PREFORMED EXPANSION JOINT FILLER
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 LONGITUDINAL SECTION NEAR GUTTER
(FOR DETAILS OF INTERMEDIATE DIAPHRAGM SEE SHEET H40-38-06)
PARALLEL TO THE THEORETICAL ℄ GRADE
ELEV. A
Δ5c1 B.F. & F.F.
Δ5c5-13 F.F.
ELEV. B
Δ5c2
5d5
5s1
5h1
3"Φ PVC PIPE
FIELD BEND
2'-5 MIN. LAP
5h2
2'-1
PART END VIEW AT ABUTMENT
PROVIDE ELEVATIONS A AND B IN THE BRIDGE PLAN SHEETS.
1 x 8 x 0'-8 INDENTATION SPACED @ 2'-0
3"Φ PVC PIPE
5h2
6 EQ. SPS.; 14 - 5h2
SECTION A-A
Δ5c
CONSTRUCTION JOINT ROUGHENED CONCRETE
Δ4t1
5h BARS
Δ5d
5s BARS
2¾ CL.
1'-6 MIN.
SECTION D-D
Δ NOTE:
SEE END SECTION DETAILS IN THESE PLANS FOR DETAILS OF BARRIER RAIL END SECTION AND SPACING FOR 5c BARRIER RAIL BARS. REINFORCING BARS "5c", "5d" AND "4t1" ARE INCLUDED IN THE SUPERSTRUCTURE QUANTITIES.
1½"Φ HOLE (TYP.)
MIDWAY BETWEEN BEARINGS
EXPANS. PIER
FIXED PIER
℄ WEB
ABUTMENT
COIL TIE
COIL TIES
PIER
LOCATION OF BEAM COIL TIES AND STEEL DIAPHRAGM BOLT HOLES
⅛" RADIUS
DETAIL "C"
3"Φ PVC PIPE
℄ ABUT. BRG.
40'-0 ROADWAY
℄ BEAMS
3"Φ PVC PIPE
PART PLAN
MIDWAY BETWEEN BEARINGS
SEE SHEET H40-38-06
7'-4 13/16
2'-2
10½ 1'-3½
¾"Φ x 1'-3 COIL ROD (BENT 9 6)
5e4
5e2
5d4
5d3
5e1
5e3
3 EQUAL SPACES 4-5e1 & 4-5e3
¾"Φ x 1'-3 COIL ROD
2'-6
℄ PIER
PART SECTION AT PIER
℄ PIER
5d4
PRESTRESSED STRANDS
END OF BEAMS
DETAIL "A"
2 x 8 BEVELED KEYWAY
5h1
5s1
5h2
6 SP. @ 1'-1 = 6'-6; 14- 5s1
PART SECTION C-C
NEOPRENE BEARING PAD (9 x 1 x 1'-3½)
KEYWAY FORMED BY BEVELED 2 x 8.
℄ PIER
1" MIN. TYP.
℄ BEAM BEARING
℄ BEAM
1" THICK STRIPS OF PREFORMED EXPANSION JOINT FILLER AROUND BEARINGS, FACE OF STEPS, SIDES AND ENDS OF KEYWAYS.
¼" PREFORMED EXPANSION JOINT FILLER.
SECTION B-B
PART PLAN
TOP OF FIXED PIER DETAILS
(SEE SHEET H40-44-06 FOR EXPANSION PIER BEARING DETAILS)
LATEST REVISION DATE
APPROVED BY BRIDGE ENGINEER
Iowa Department of Transportation
Highway Division
STANDARD DESIGN - 40' ROADWAY, THREE SPAN BRIDGE
PRETENSIONED PRESTRESSED CONCRETE BEAM BRIDGES
HL93 SUPERSTRUCTURE
DECEMBER, 2006
HS25 SUBSTRUCTURE
LONGITUDINAL SECTION
15° SKEW A & B BEAMS
H40-13-06