INDEX OF BT STUB BRIDGE STANDARDS

STANDARD	DESCRIPTION
2092-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - 0 SKEW
2092-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - 0 SKEW
2093-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - (R.A.) 0°01-7°30 SKEWS
2093-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - (R.A.) 0°01-7°30 SKEWS
2094-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - (R.A.) 7°31-15 SKEWS
2094-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - (R.A.) 7°31-15 SKEWS
2095-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - (R.A.) 15°01-30 SKEWS
2095-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - (R.A.) 15°01-30 SKEWS
2096-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - (L.A.) 0°01-7°30 SKEWS
2096-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - (L.A.) 0°01-7°30 SKEWS
2097-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - (L.A.) 7°31-15 SKEWS
2097-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - (L.A.) 7°31-15 SKEWS
2098-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - (L.A.) 15°01-30 SKEWS
2098-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - (L.A.) 15°01-30 SKEWS
2099-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - 0 SKEW
2099-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - 0 SKEW
2100-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - (R.A.) 0°01-7°30 SKEWS
2100-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - (R.A.) 0°01-7°30 SKEWS
2101-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - (R.A.) 7°31-15 SKEWS
2101-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - (R.A.) 7°31-15 SKEWS
2102-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - (R.A.) 15°01-30 SKEWS
2102-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - (R.A.) 15°01-30 SKEWS
2103-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - (L.A.) 0°01-7°30 SKEWS
2103-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - (L.A.) 0°01-7°30 SKEWS
2104-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - (L.A.) 7°31-15 SKEWS
2104-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - (L.A.) 7°31-15 SKEWS
2105-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT DETAILS - (L.A.) 15°01-30 SKEWS
2105-BTE	"BTE" BEAMS - STUB ABUTMENT DETAILS - (L.A.) 15°01-30 SKEWS
2106-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT BAR LIST 0° SKEWS
2106-BTE	"BTE" BEAMS - STUB ABUTMENT BAR LIST 0° SKEWS
2107-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT BAR LIST 0°01-7°30 SKEWS
2107-BTE	"BTE" BEAMS - STUB ABUTMENT BAR LIST 0°01-7°30 SKEWS
2108-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT BAR LIST 7°31-15 SKEWS
2108-BTE	"BTE" BEAMS - STUB ABUTMENT BAR LIST 7°31-15 SKEWS
2109-BTCD	"BTC" OR "BTD" BEAMS - STUB ABUTMENT BAR LIST 15°01-30 SKEWS
2109-BTE	"BTE" BEAMS - STUB ABUTMENT BAR LIST 15°01-30 SKEWS
4542-BTCDE	PART PLAN & LONGIT. SECT. - "BTC", "BTD", & "BTE" BEAMS, STUB ABUT., 0 SKEW
4543-BTCDE	PART PLAN & LONGIT. SECT. - "BTC", "BTD", & "BTE" BEAMS, STUB ABUT. (L.A.) 0°01 - 7°30 SKEW
4544-BTCDE	PART PLAN & LONGIT. SECT. - "BTC", "BTD", & "BTE" BEAMS, STUB ABUT. (L.A.) 7°31 - 15° SKEW
4545-BTCDE	PART PLAN & LONGIT. SECT. - "BTC", "BTD", & "BTE" BEAMS, STUB ABUT. (L.A.) 15°01 - 30° SKEW
4546-BTCDE	PART PLAN & LONGIT. SECT. - "BTC", "BTD", & "BTE" BEAMS, STUB ABUT. (R.A.) 0°01 - 7°30 SKEW
4547-BTCDE	PART PLAN & LONGIT. SECT. - "BTC", "BTD", & "BTE" BEAMS, STUB ABUT. (R.A.) 7°31 - 15° SKEW
4548-BTCDE	PART PLAN & LONGIT. SECT. - "BTC", "BTD", & "BTE" BEAMS, STUB ABUT. (R.A.) 15°01 - 30° SKEW
4549-BTCDE	STUB ABUT. "BTC, BTD, & BTE" BEAMS, BAR LIST & SUPER. DETAILS - 0 SKEW
4550-BTCDE	STUB ABUT. "BTC, BTD, & BTE" BEAMS, BAR LIST & SUPER. DETAILS - 0°01 - 7°30 SKEW
4551-BTCDE	STUB ABUT. "BTC, BTD, & BTE" BEAMS, BAR LIST & SUPER. DETAILS - 7°31 - 15° SKEW
4552-BTCDE	STUB ABUT. "BTC, BTD, & BTE" BEAMS, BAR LIST & SUPER. DETAILS - 15°01 - 30° SKEW
4556-BTC-4	30' RDW. PPCB ("BTC" 4 BEAMS - STUB ABUT.) CROSS SECTION
4556-BTD-4	30' RDW. PPCB ("BTD" 4 BEAMS - STUB ABUT.) CROSS SECTION
4556-BTE-4	30' RDW. PPCB ("BTE" 4 BEAMS - STUB ABUT.) CROSS SECTION
4556-BTE-5	30' RDW. PPCB ("BTE" 5 BEAMS - STUB ABUT.) CROSS SECTION

INDEX OF BT STUB BRIDGE STANDARDS

STANDARD	DESCRIPTION
4559-BTC-5	40' RDW. PPCB ("BTC" 5 BEAMS - STUB ABUT.) CROSS SECTION
4559-BTC-6	40' RDW. PPCB ("BTC" 6 BEAMS - STUB ABUT.) CROSS SECTION
4559-BTD-5	40' RDW. PPCB ("BTD" 5 BEAMS - STUB ABUT.) CROSS SECTION
4559-BTE-5	40' RDW. PPCB ("BTE" 5 BEAMS - STUB ABUT.) CROSS SECTION
4559-BTE-6	40' RDW. PPCB ("BTE" 6 BEAMS - STUB ABUT.) CROSS SECTION
4560-BTC-6	44' RDW. PPCB ("BTC" 6 BEAMS - STUB ABUT.) CROSS SECTION
4560-BTD-6	44' RDW. PPCB ("BTD" 6 BEAMS - STUB ABUT.) CROSS SECTION
4560-BTE-6	44' RDW. PPCB ("BTE" 6 BEAMS - STUB ABUT.) CROSS SECTION
4561-BTC-5	40' RDW. PPCB ("BTC" 5 BEAMS - STUB ABUT.) CROSS SECTION (SYMM CROWN)
4561-BTC-6	40' RDW. PPCB ("BTC" 6 BEAMS - STUB ABUT.) CROSS SECTION (SYMM CROWN)
4561-BTD-5	40' RDW. PPCB ("BTD" 5 BEAMS - STUB ABUT.) CROSS SECTION (SYMM CROWN)
4561-BTE-5	40' RDW. PPCB ("BTE" 5 BEAMS - STUB ABUT.) CROSS SECTION (SYMM CROWN)
4561-BTE-6	40' RDW. PPCB ("BTE" 6 BEAMS - STUB ABUT.) CROSS SECTION (SYMM CROWN)

INDEX OF BT STUB STANDARDS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

ENGLISHBTSTUBBRIDGES.DGN - 100-BTS - THIS SHEET ISSUED 02-10.

DESIGN TEAM	INDEX OF BT STUB ABUTMENT BRIDGE STANDARDS	STANDARD SHEET 100-BTS	COUNTY	PROJECT NUMBER	SHEET NUMBER

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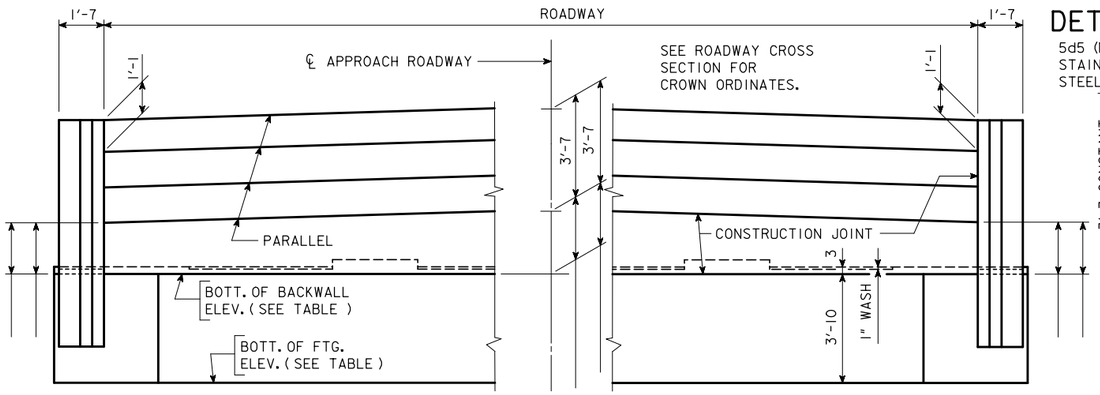
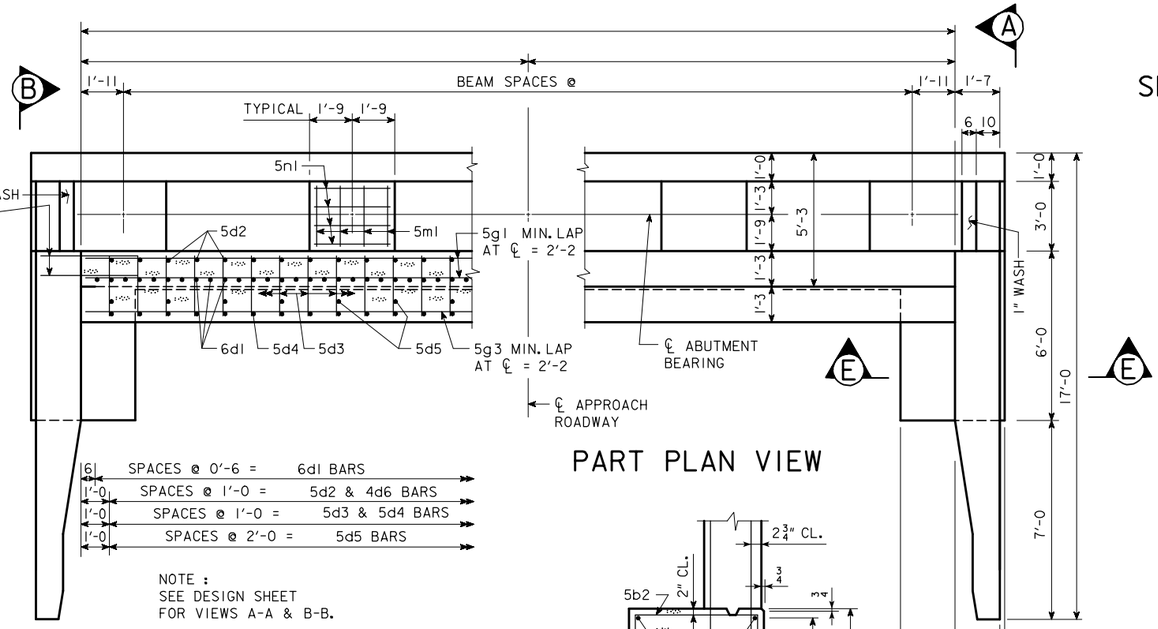


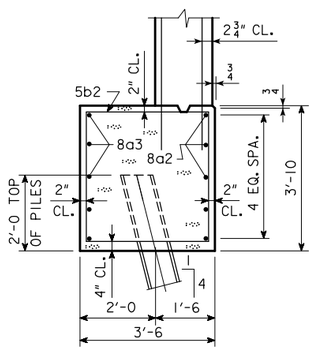
REAR ELEVATION

NOTE :
PLACE 5m1 AND 5n1 BARS
UNDER EACH BEAM.

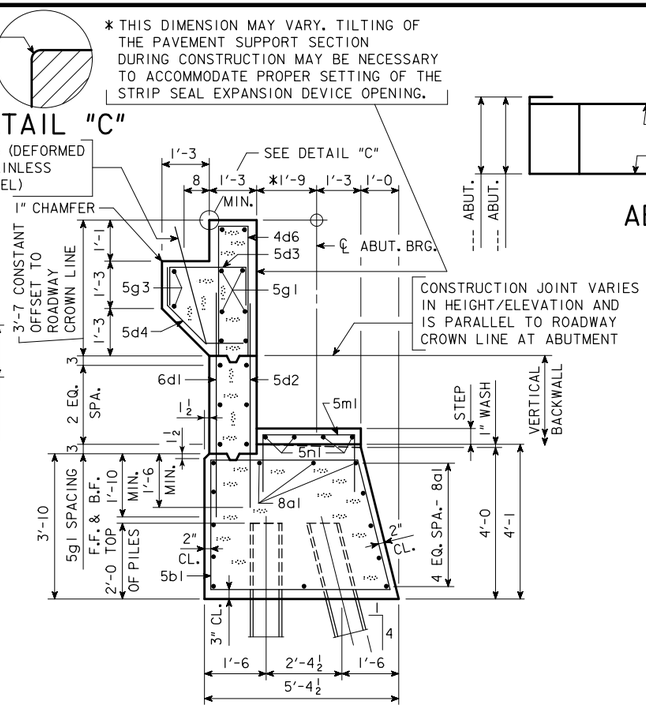


PART PLAN VIEW

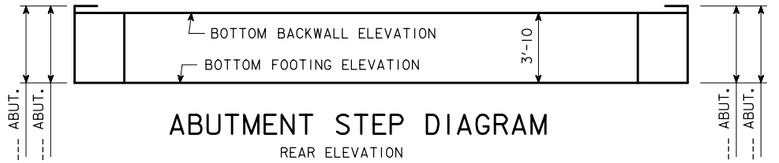
PART SECTION THROUGH BACKWALL



SECTION E-E



SECTION THROUGH ABUTMENT
EXPANSION DEVICE NOT SHOWN



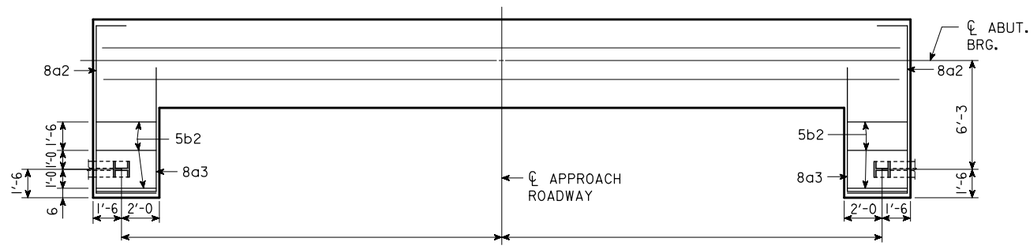
ABUTMENT STEP DIAGRAM
REAR ELEVATION

TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

TABLE OF ABUTMENT STEPS

STEP	ABUTMENT	ABUTMENT
a		



PILING LAYOUT

NOTE :
DIMENSIONS SHOWN ON PILING LAYOUT ARE AT BOTTOM OF FOOTING. BATTER PILES IN THE DIRECTION SHOWN.
---- - HP10x42 STEEL BEARING PILING REQUIRED AT EACH ABUTMENT.

NOTE: BARRIER RAIL NOT SHOWN IN DETAILS.

ABUTMENT FOOTING DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2092-BTCD - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTC" OR "BTD" BEAMS - STUB ABUT. DETAILS - 0° SKEW	STANDARD SHEET 2092-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

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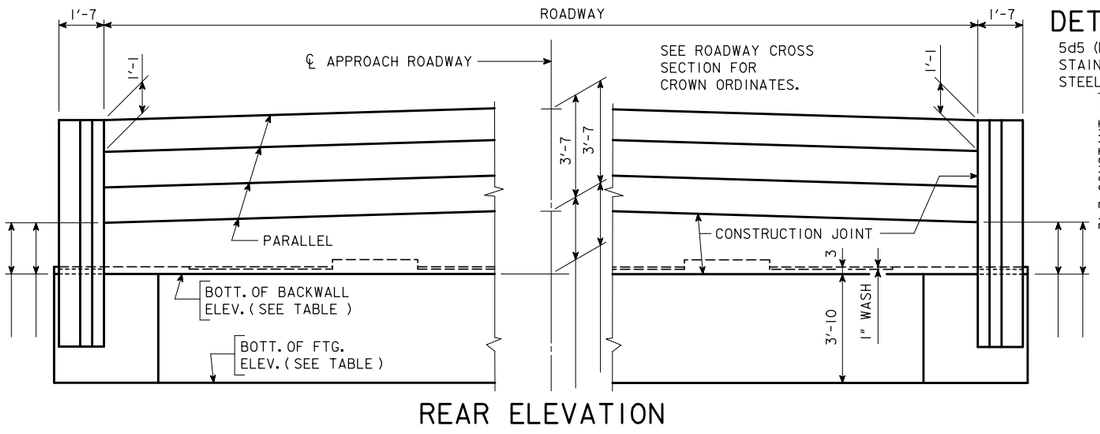
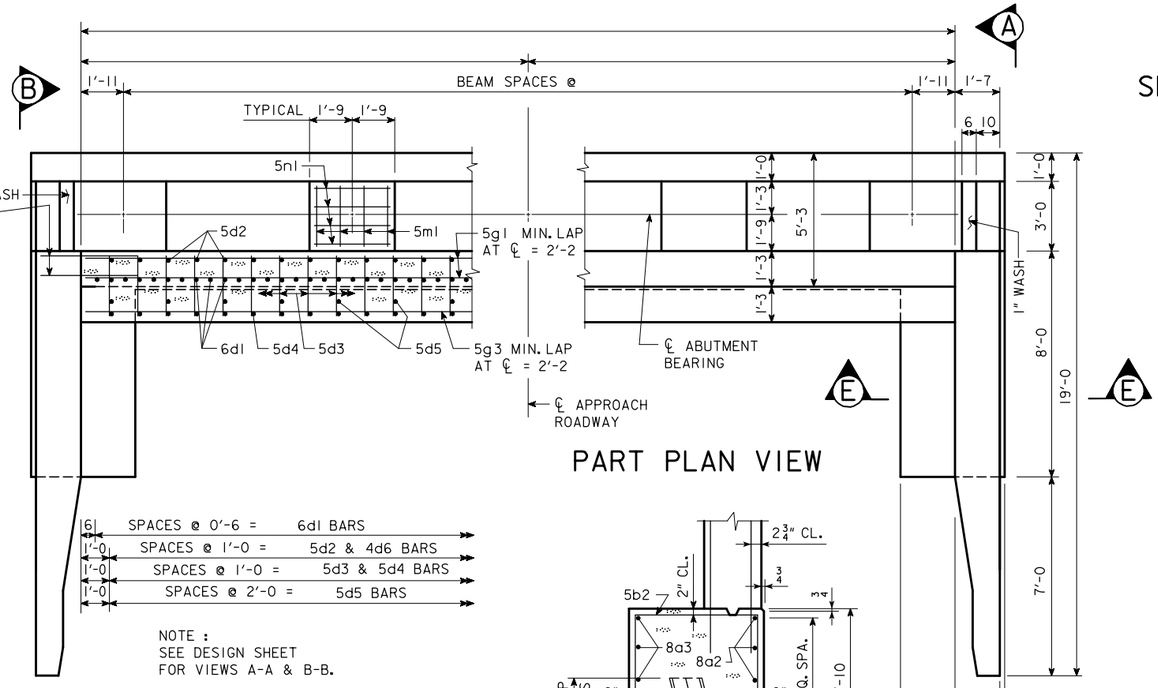


REAR ELEVATION

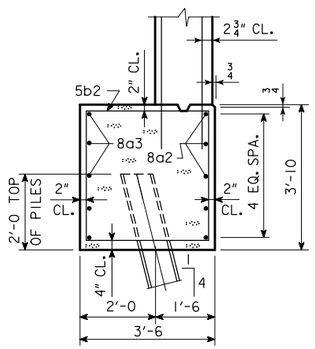
NOTE :
PLACE 5m1 AND 5n1 BARS
UNDER EACH BEAM.



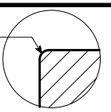
PART PLAN VIEW

NOTE :
SEE DESIGN SHEET
FOR VIEWS A-A & B-B.

PART SECTION THROUGH BACKWALL

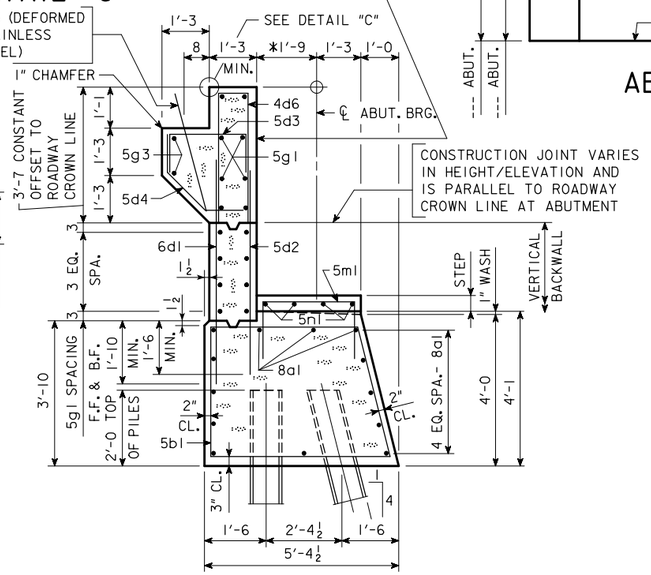


SECTION E-E



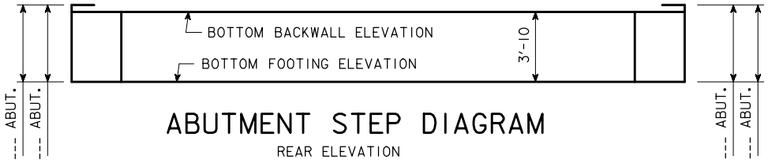
DETAIL "C"

* THIS DIMENSION MAY VARY. TILTING OF THE PAVEMENT SUPPORT SECTION DURING CONSTRUCTION MAY BE NECESSARY TO ACCOMMODATE PROPER SETTING OF THE STRIP SEAL EXPANSION DEVICE OPENING.



SECTION THROUGH ABUTMENT

EXPANSION DEVICE NOT SHOWN



ABUTMENT STEP DIAGRAM

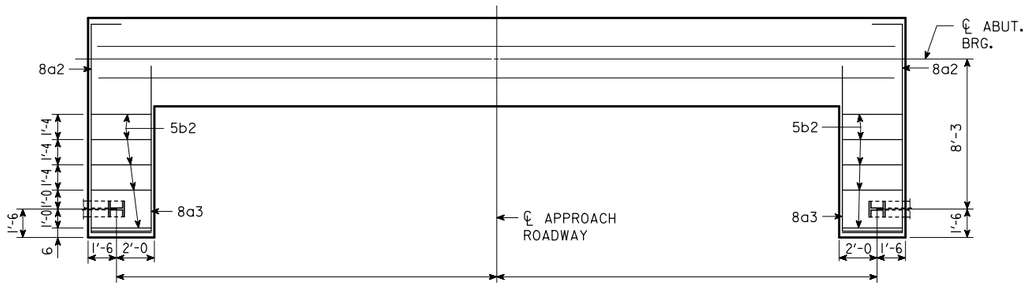
REAR ELEVATION

TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

TABLE OF ABUTMENT STEPS

STEP	ABUTMENT	ABUTMENT
a		



PILING LAYOUT

NOTE :
DIMENSIONS SHOWN ON PILING LAYOUT ARE AT BOTTOM OF FOOTING. BATTER PILES IN THE DIRECTION SHOWN.
---- - HP10x42 STEEL BEARING PILING REQUIRED AT EACH ABUTMENT.

NOTE: BARRIER RAIL NOT SHOWN IN DETAILS.

ABUTMENT FOOTING DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2092-BTE - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTE" BEAMS - STUB ABUT. DETAILS - 0° SKEW	STANDARD SHEET 2092-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

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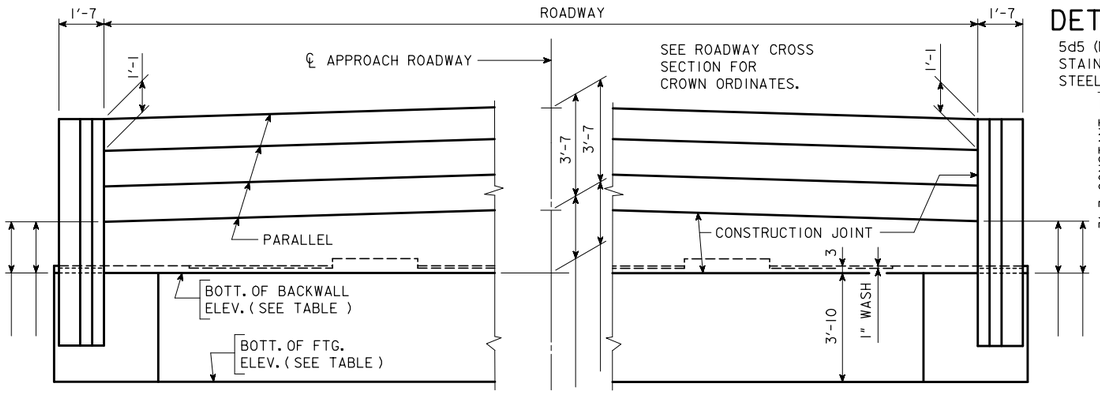
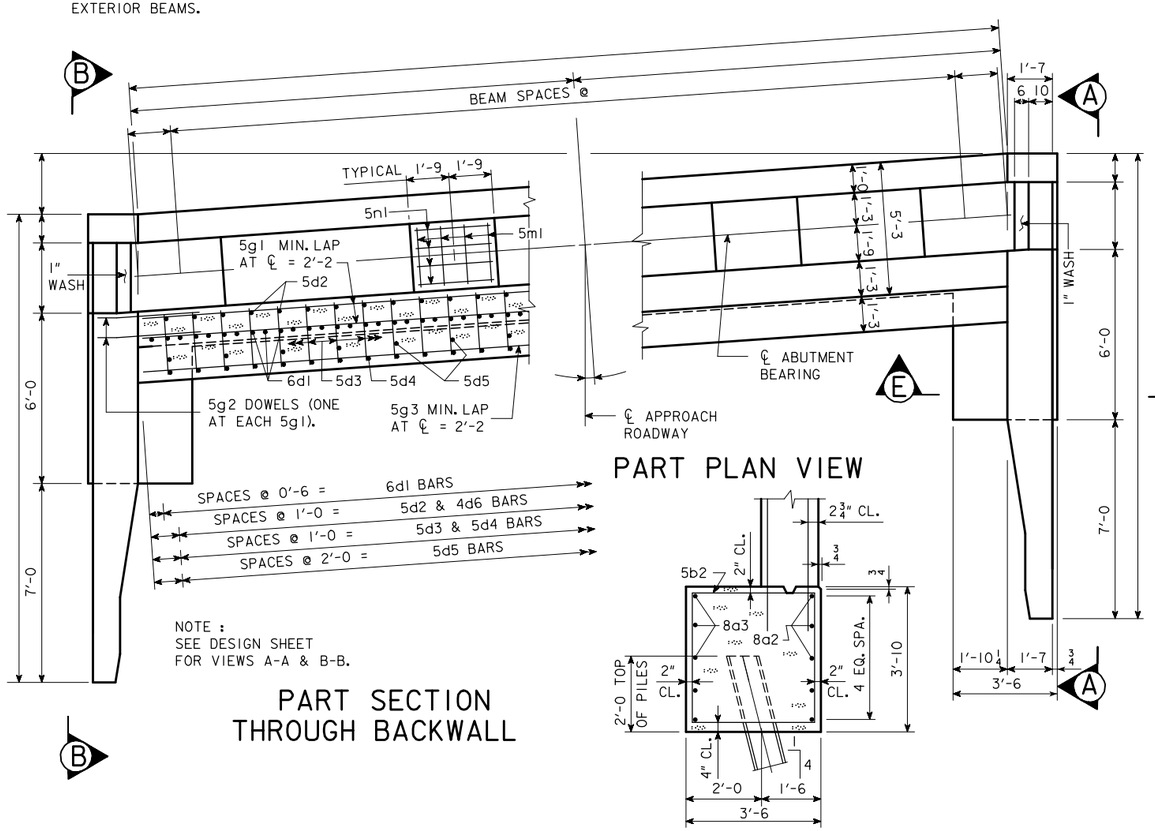


REAR ELEVATION

NOTE :
PLACE 5m1 AND 5n1 BARS UNDER EACH BEAM. FLARE 5m1 BARS AND FIELD CUT 5n1 BARS TO FIT STEPS AT THE EXTERIOR BEAMS.

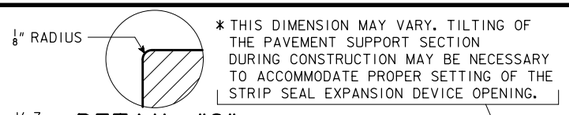


NOTE :
SEE DESIGN SHEET FOR VIEWS A-A & B-B.

PART PLAN VIEW

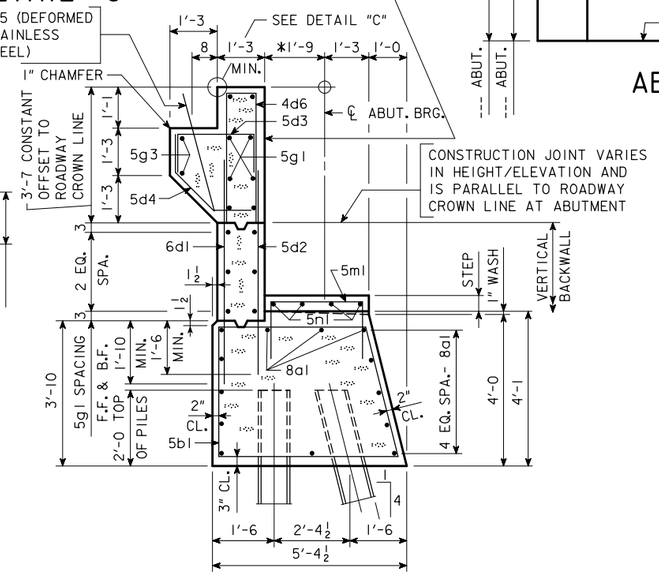
PART SECTION THROUGH BACKWALL

SECTION E-E



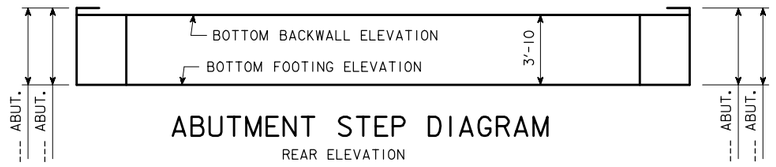
DETAIL "C"

* THIS DIMENSION MAY VARY. TILTING OF THE PAVEMENT SUPPORT SECTION DURING CONSTRUCTION MAY BE NECESSARY TO ACCOMMODATE PROPER SETTING OF THE STRIP SEAL EXPANSION DEVICE OPENING.



SECTION THROUGH ABUTMENT

EXPANSION DEVICE NOT SHOWN



ABUTMENT STEP DIAGRAM

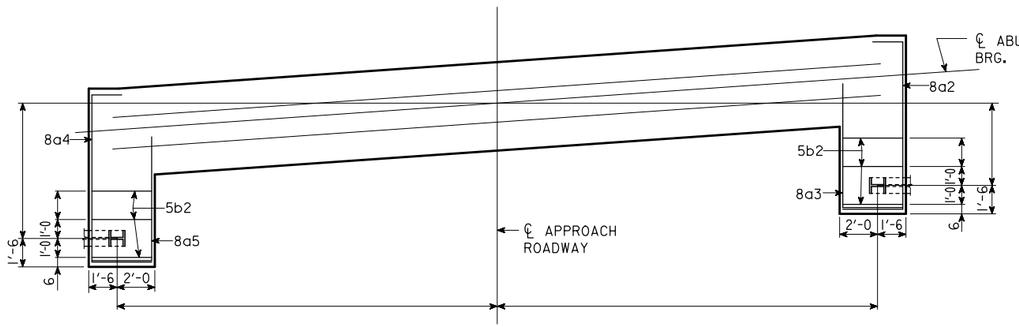
REAR ELEVATION

TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

TABLE OF ABUTMENT STEPS

STEP	ABUTMENT	ABUTMENT
a		



PILING LAYOUT

NOTE :
DIMENSIONS SHOWN ON PILING LAYOUT ARE AT BOTTOM OF FOOTING. BATTER PILES IN THE DIRECTION SHOWN.
---- - HP10x42 STEEL BEARING PILING REQUIRED AT EACH ABUTMENT.

NOTE: BARRIER RAIL NOT SHOWN IN DETAILS.

ABUTMENT FOOTING DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTC" OR "BTD" BEAMS - STUB ABUT. DETAILS - (R.A.) 0°01' - 7°30' SKEW	STANDARD SHEET 2093-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2093-BTCD - THIS SHEET ISSUED 07-08.

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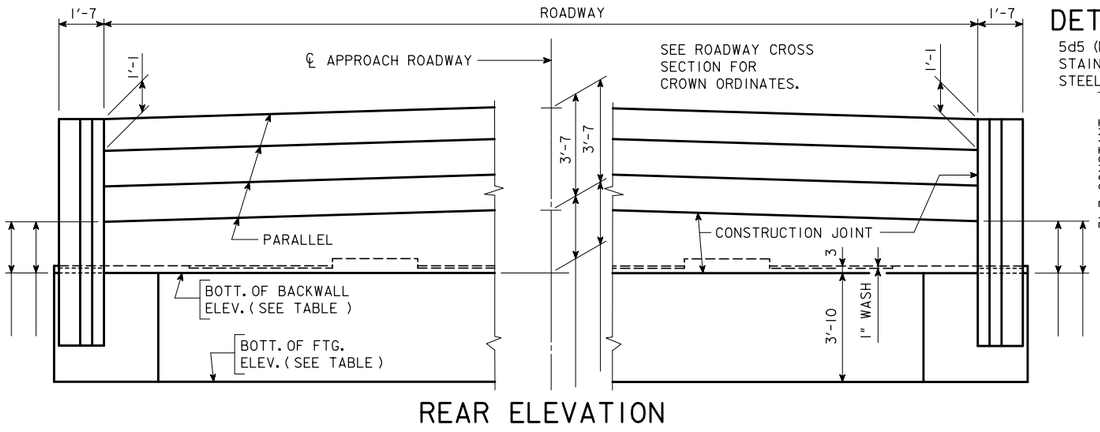
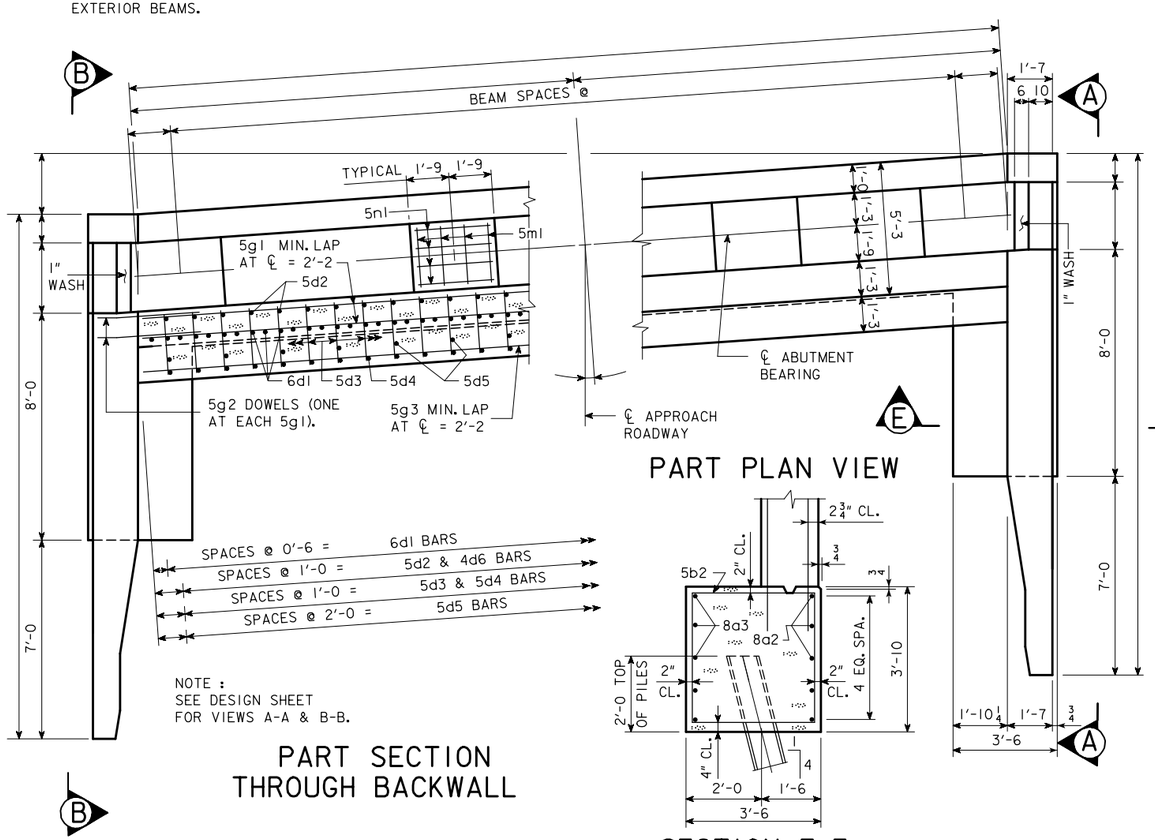


REAR ELEVATION

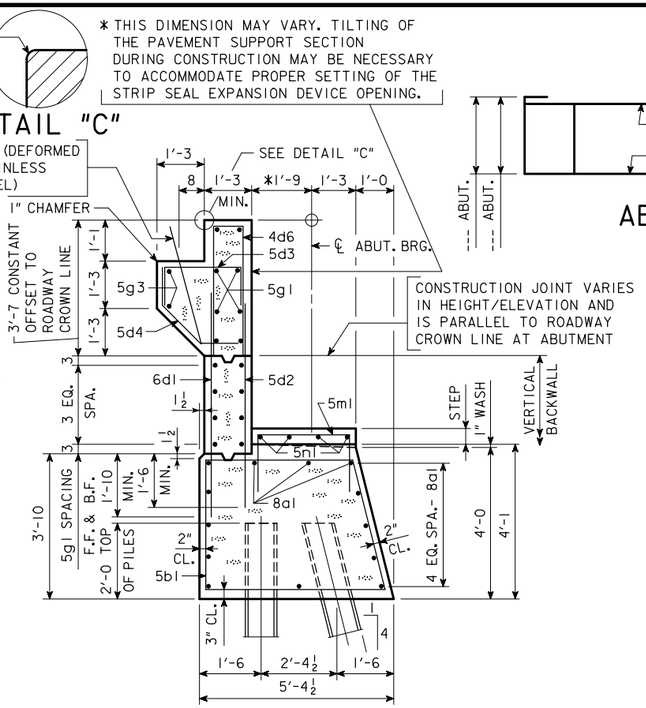
NOTE :
PLACE 5m1 AND 5n1 BARS UNDER EACH BEAM. FLARE 5m1 BARS AND FIELD CUT 5n1 BARS TO FIT STEPS AT THE EXTERIOR BEAMS.



PART PLAN VIEW

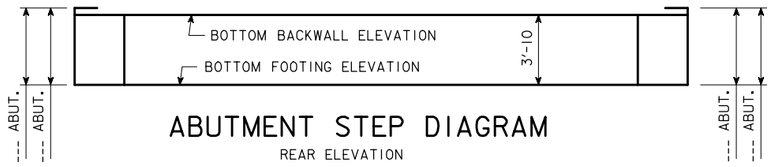
PART SECTION THROUGH BACKWALL

SECTION E-E



SECTION THROUGH ABUTMENT

EXPANSION DEVICE NOT SHOWN



ABUTMENT STEP DIAGRAM

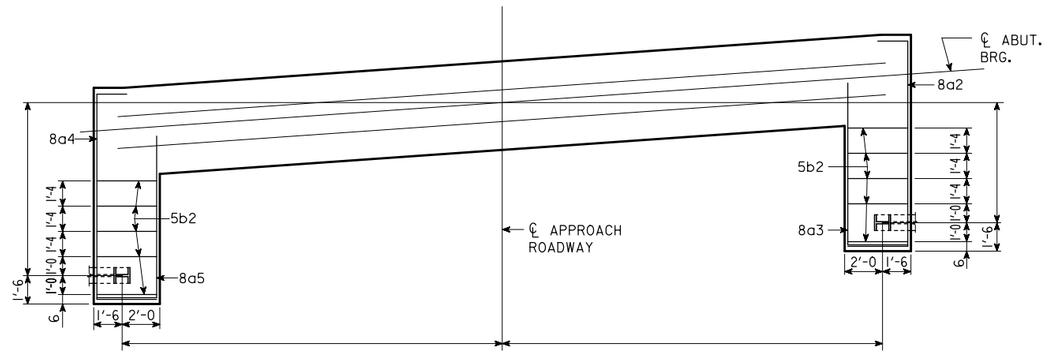
REAR ELEVATION

TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

TABLE OF ABUTMENT STEPS

STEP	ABUTMENT	ABUTMENT
a		



PILING LAYOUT

NOTE :
DIMENSIONS SHOWN ON PILING LAYOUT ARE AT BOTTOM OF FOOTING. BATTER PILES IN THE DIRECTION SHOWN.
---- - HP10x42 STEEL BEARING PILING REQUIRED AT EACH ABUTMENT.

NOTE: BARRIER RAIL NOT SHOWN IN DETAILS.

ABUTMENT FOOTING DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

REVISED 10-10 - ADDED 2 ADDITIONAL 5g1 BARS IN LOWER BACKWALL.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2093-BTE - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTE" BEAMS - STUB ABUT. DETAILS - (R.A.) 0°01' - 7°30' SKEW	STANDARD SHEET 2093-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

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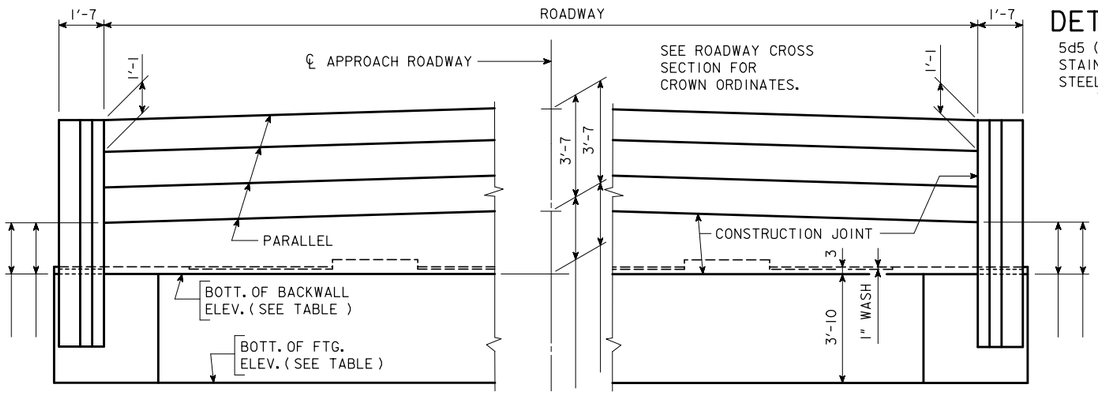
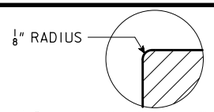
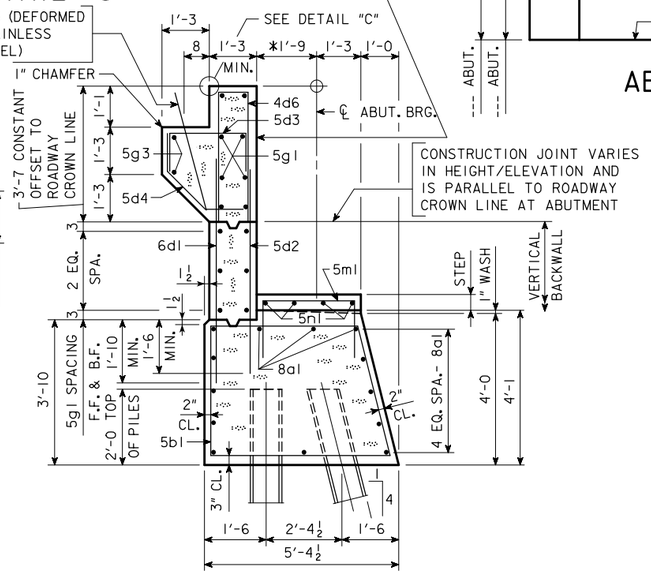


REAR ELEVATION



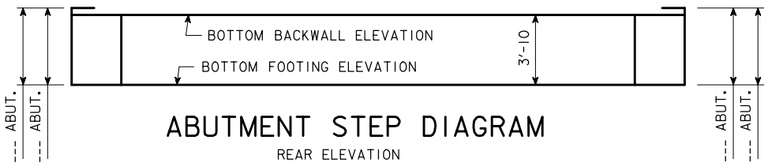
DETAIL "C"

* THIS DIMENSION MAY VARY. TILTING OF THE PAVEMENT SUPPORT SECTION DURING CONSTRUCTION MAY BE NECESSARY TO ACCOMMODATE PROPER SETTING OF THE STRIP SEAL EXPANSION DEVICE OPENING.



SECTION THROUGH ABUTMENT

EXPANSION DEVICE NOT SHOWN



ABUTMENT STEP DIAGRAM

REAR ELEVATION

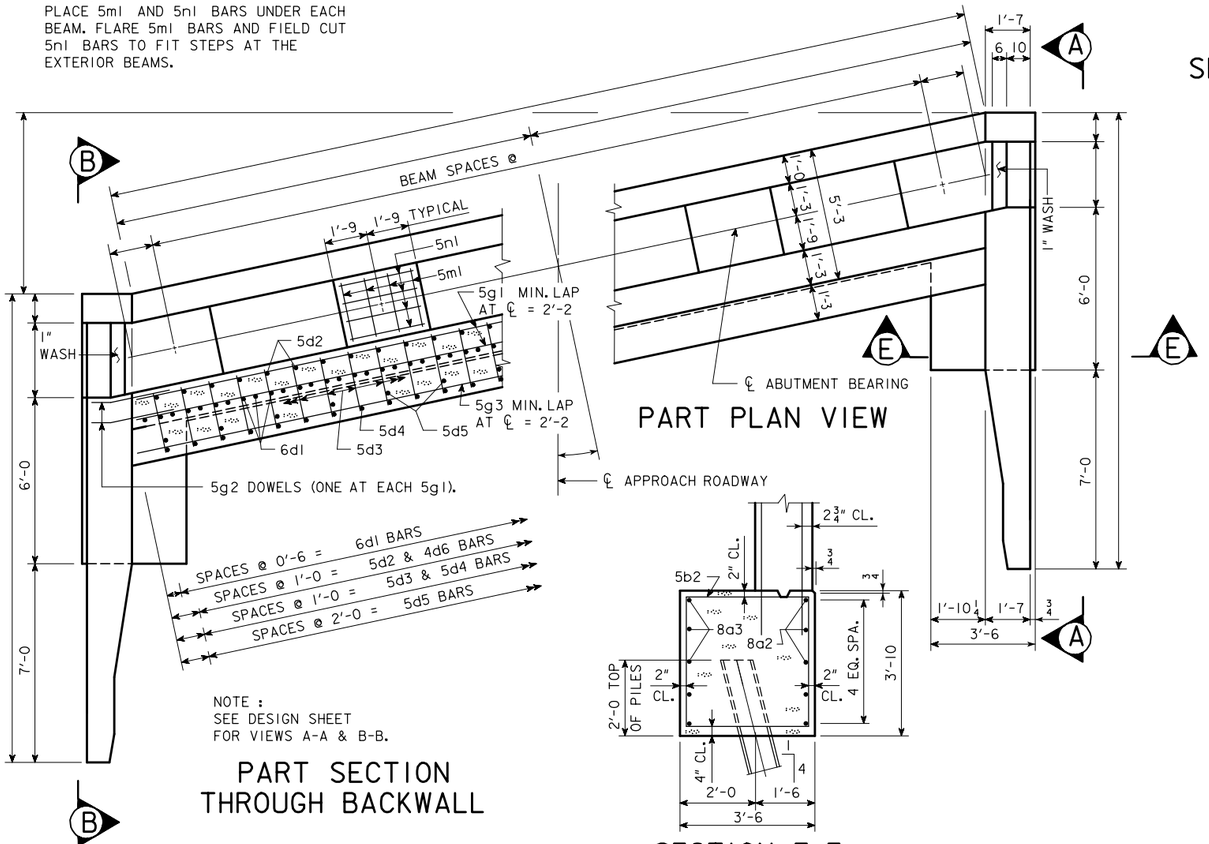
TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

TABLE OF ABUTMENT STEPS

STEP	ABUTMENT	ABUTMENT
a		

NOTE :
PLACE 5m1 AND 5n1 BARS UNDER EACH BEAM. FLARE 5m1 BARS AND FIELD CUT 5n1 BARS TO FIT STEPS AT THE EXTERIOR BEAMS.

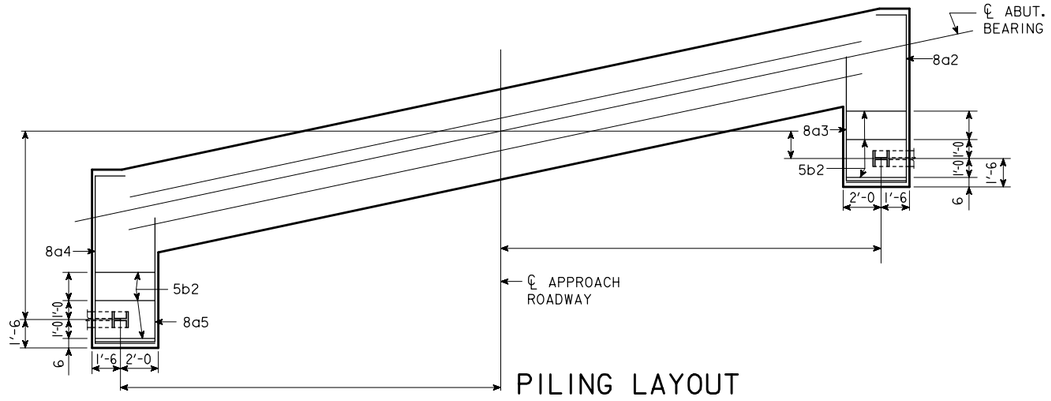


PART PLAN VIEW

NOTE :
SEE DESIGN SHEET FOR VIEWS A-A & B-B.

PART SECTION THROUGH BACKWALL

SECTION E-E



PILING LAYOUT

NOTE :
DIMENSIONS SHOWN ON PILING LAYOUT ARE AT BOTTOM OF FOOTING. BATTER PILES IN THE DIRECTION SHOWN.
____ - HP10x42 STEEL BEARING PILING REQUIRED AT EACH ABUTMENT.

NOTE: BARRIER RAIL NOT SHOWN IN DETAILS.

ABUTMENT FOOTING DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2094-BTCD - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTC" OR "BTD" BEAMS - STUB ABUT. DETAILS - (R.A.) 7°31' - 15° SKEW	STANDARD SHEET 2094-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

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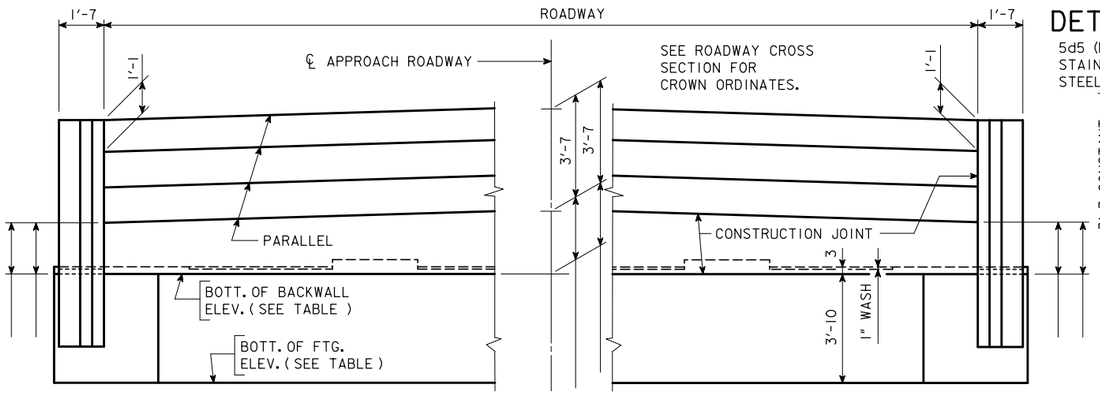
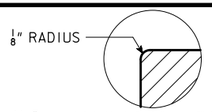
BENCH MARK :

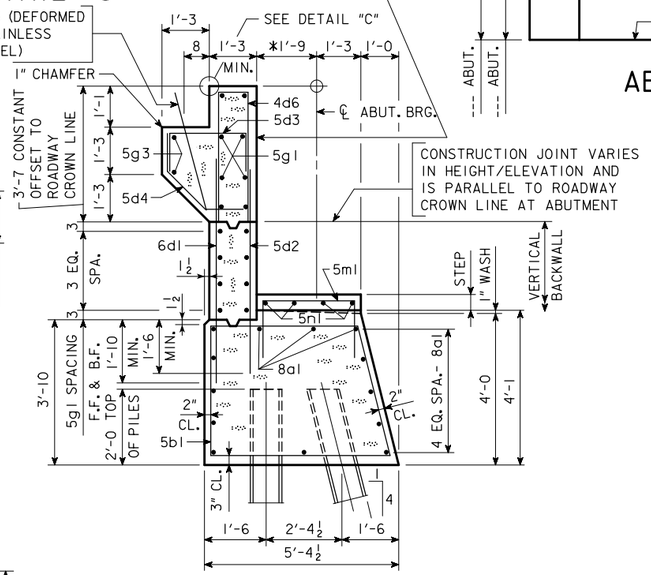


REAR ELEVATION



DETAIL "C"

* THIS DIMENSION MAY VARY. TILTING OF THE PAVEMENT SUPPORT SECTION DURING CONSTRUCTION MAY BE NECESSARY TO ACCOMMODATE PROPER SETTING OF THE STRIP SEAL EXPANSION DEVICE OPENING.



SECTION THROUGH ABUTMENT

EXPANSION DEVICE NOT SHOWN

ABUTMENT STEP DIAGRAM

REAR ELEVATION

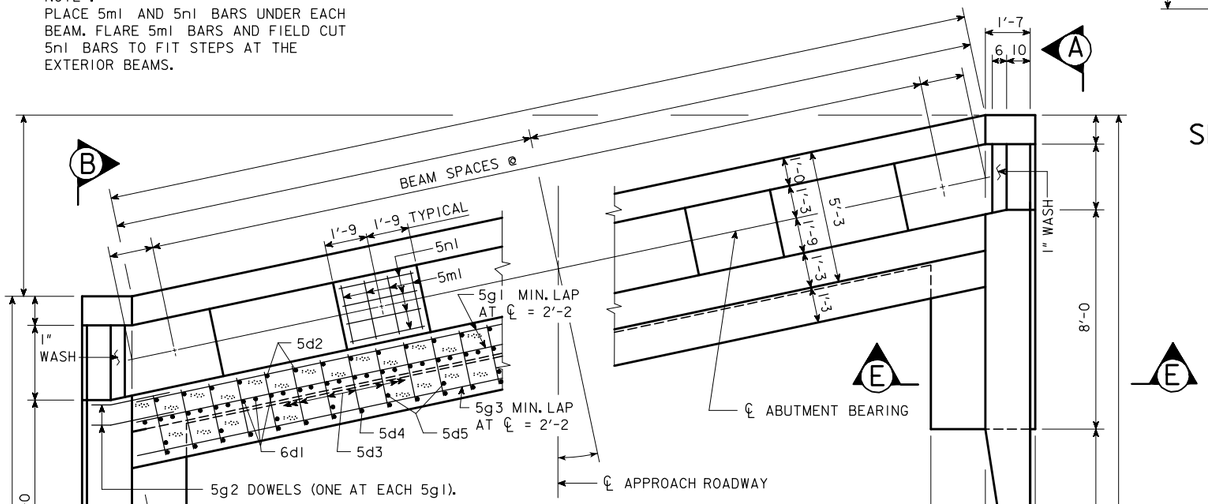
TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

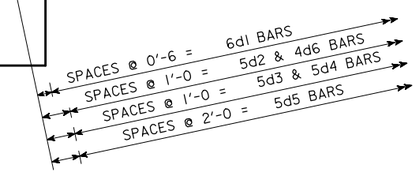
TABLE OF ABUTMENT STEPS

STEP	ABUTMENT	ABUTMENT
a		

NOTE :
PLACE 5m1 AND 5n1 BARS UNDER EACH BEAM. FLARE 5m1 BARS AND FIELD CUT 5n1 BARS TO FIT STEPS AT THE EXTERIOR BEAMS.

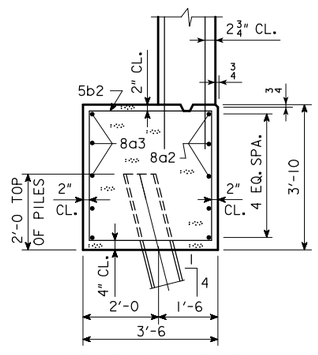


PART PLAN VIEW

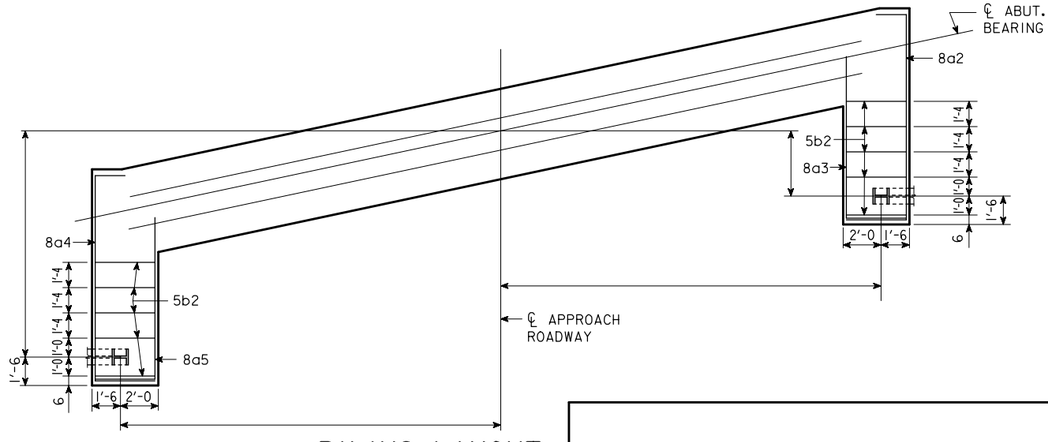


NOTE :
SEE DESIGN SHEET FOR VIEWS A-A & B-B.

PART SECTION THROUGH BACKWALL



SECTION E-E



PILING LAYOUT

NOTE :
DIMENSIONS SHOWN ON PILING LAYOUT ARE AT BOTTOM OF FOOTING. BATTER PILES IN THE DIRECTION SHOWN.
____ - HP10x42 STEEL BEARING PILING REQUIRED AT EACH ABUTMENT.

NOTE: BARRIER RAIL NOT SHOWN IN DETAILS.

ABUTMENT FOOTING DETAILS

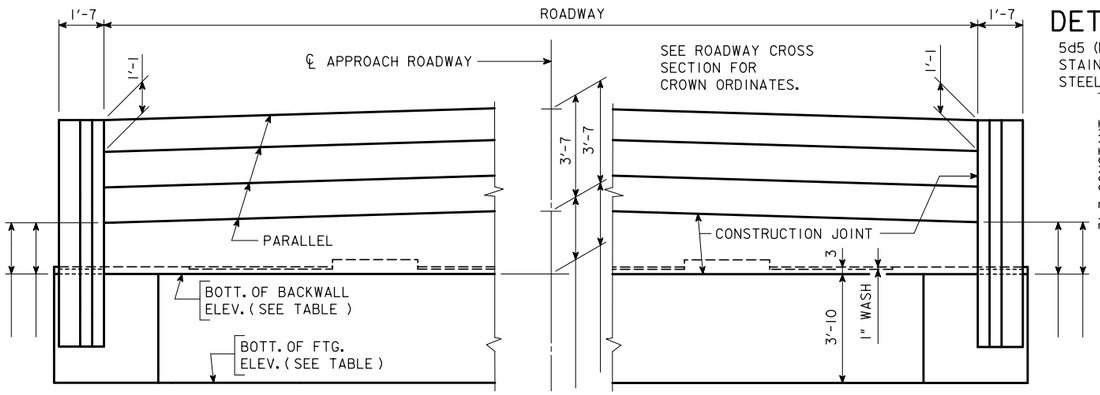
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

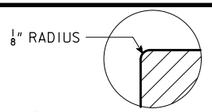
REVISED 10-10 - ADDED 2 ADDITIONAL 5g1 BARS IN LOWER BACKWALL.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2094-BTE - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTE" BEAMS - STUB ABUT. DETAILS - (R.A.) 7°31' - 15° SKEW	STANDARD SHEET 2094-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

BENCH MARK :



REAR ELEVATION



DETAIL "C"

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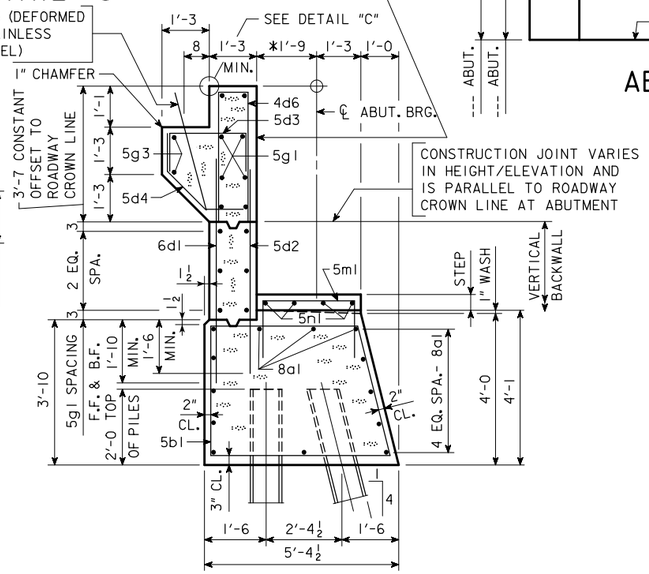


SECTION THROUGH ABUTMENT

EXPANSION DEVICE NOT SHOWN

ABUTMENT STEP DIAGRAM

REAR ELEVATION

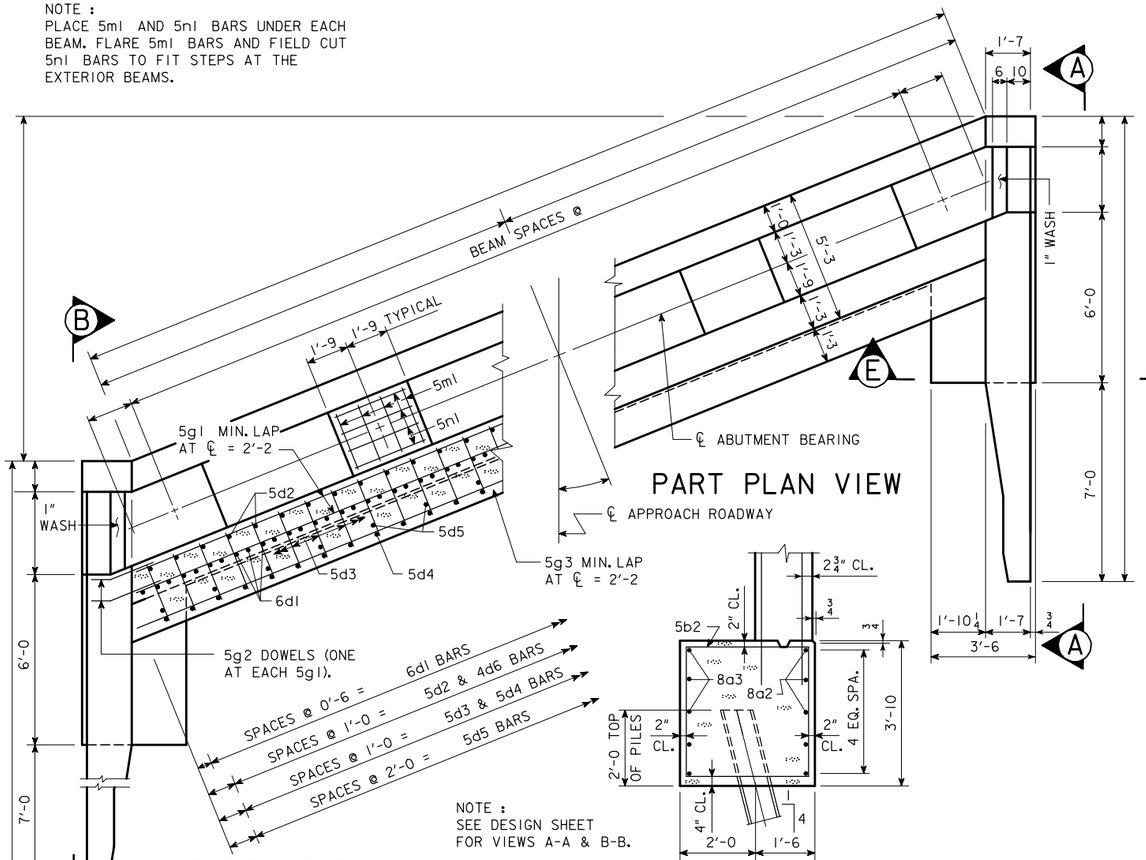
TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

TABLE OF ABUTMENT STEPS

STEP	ABUTMENT	ABUTMENT
a		

NOTE :
PLACE 5m1 AND 5n1 BARS UNDER EACH BEAM. FLARE 5m1 BARS AND FIELD CUT 5n1 BARS TO FIT STEPS AT THE EXTERIOR BEAMS.



PART PLAN VIEW

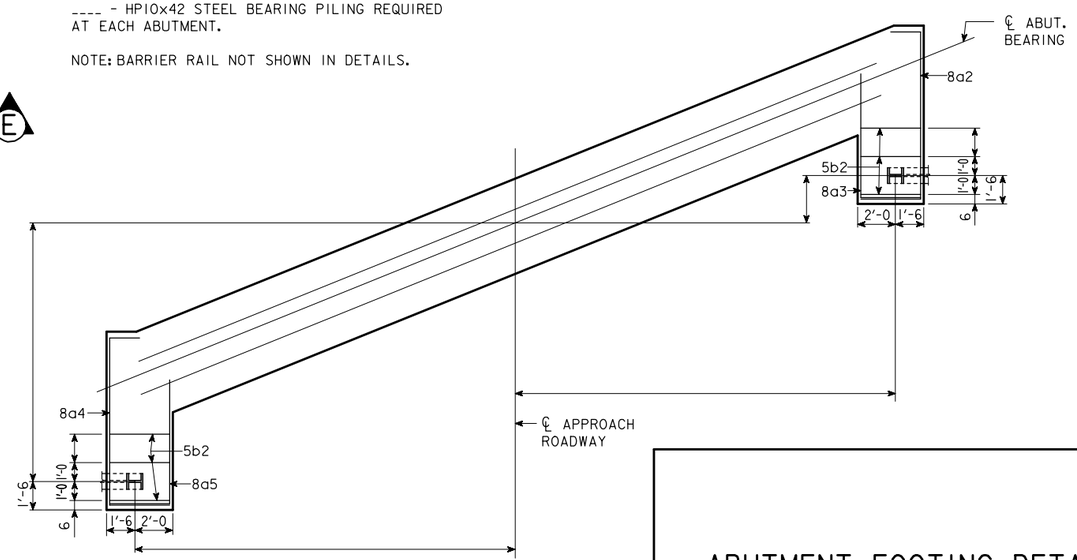
PART SECTION THROUGH BACKWALL

NOTE :
SEE DESIGN SHEET FOR VIEWS A-A & B-B.

SECTION E-E

NOTE :
DIMENSIONS SHOWN ON PILING LAYOUT ARE AT BOTTOM OF FOOTING. BATTER PILES IN THE DIRECTION SHOWN.
---- - HP10x42 STEEL BEARING PILING REQUIRED AT EACH ABUTMENT.

NOTE: BARRIER RAIL NOT SHOWN IN DETAILS.



PILING LAYOUT

ABUTMENT FOOTING DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTC" OR "BTD" BEAMS - STUB ABUT. DETAILS - (R.A.) 15°01' - 30° SKEW	STANDARD SHEET 2095-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2095-BTCD - THIS SHEET ISSUED 07-08.

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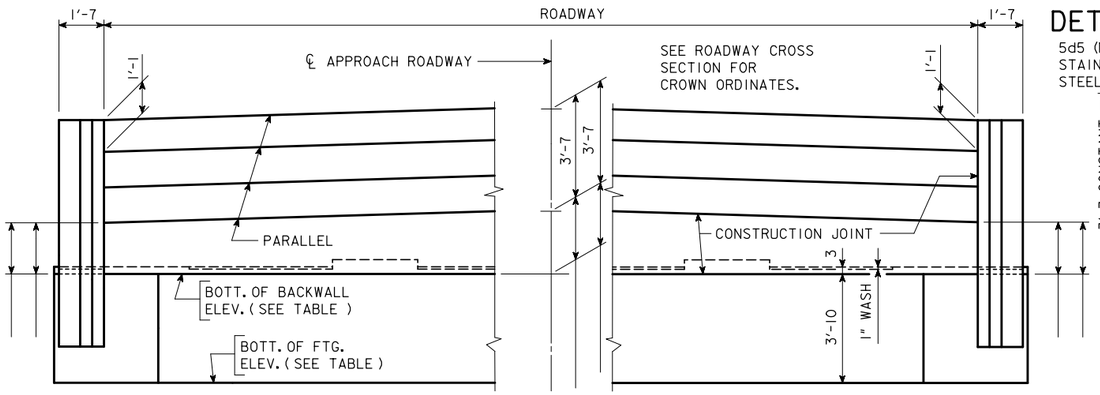
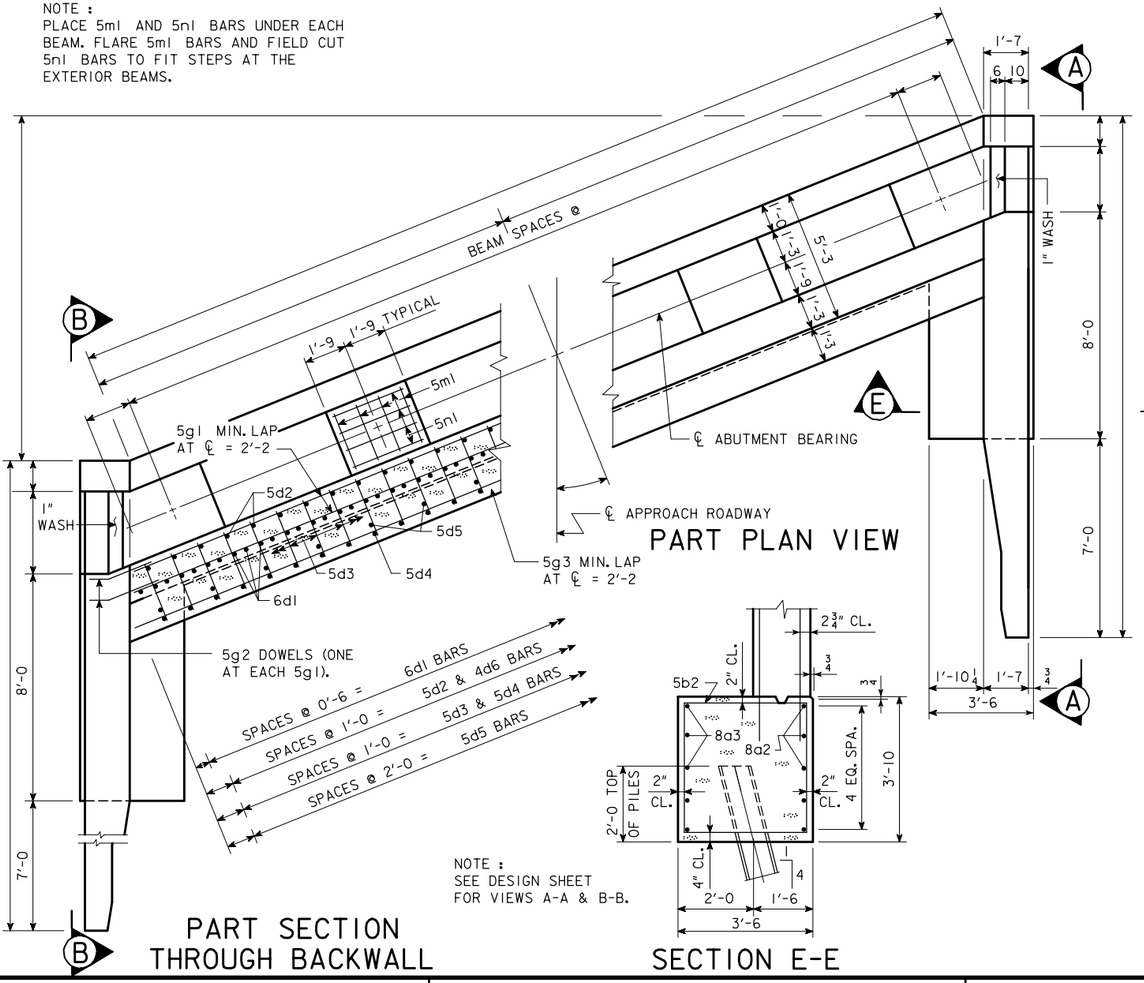
BENCH MARK :



REAR ELEVATION

NOTE :
PLACE 5m1 AND 5n1 BARS UNDER EACH BEAM. FLARE 5m1 BARS AND FIELD CUT 5n1 BARS TO FIT STEPS AT THE EXTERIOR BEAMS.



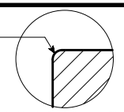
PART PLAN VIEW

PART SECTION THROUGH BACKWALL

NOTE :
SEE DESIGN SHEET FOR VIEWS A-A & B-B.

SECTION E-E

1/8" RADIUS



DETAIL "C"

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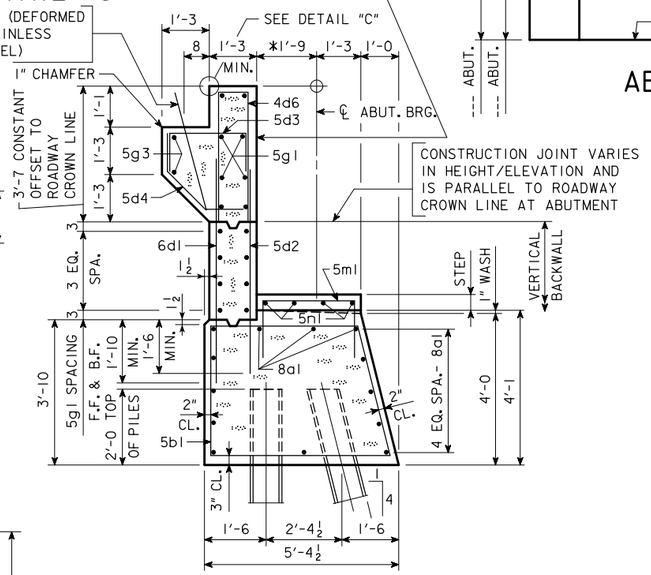

SECTION THROUGH ABUTMENT

EXPANSION DEVICE NOT SHOWN

ABUTMENT STEP DIAGRAM

REAR ELEVATION

TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

TABLE OF ABUTMENT STEPS

STEP	ABUTMENT	ABUTMENT
a		

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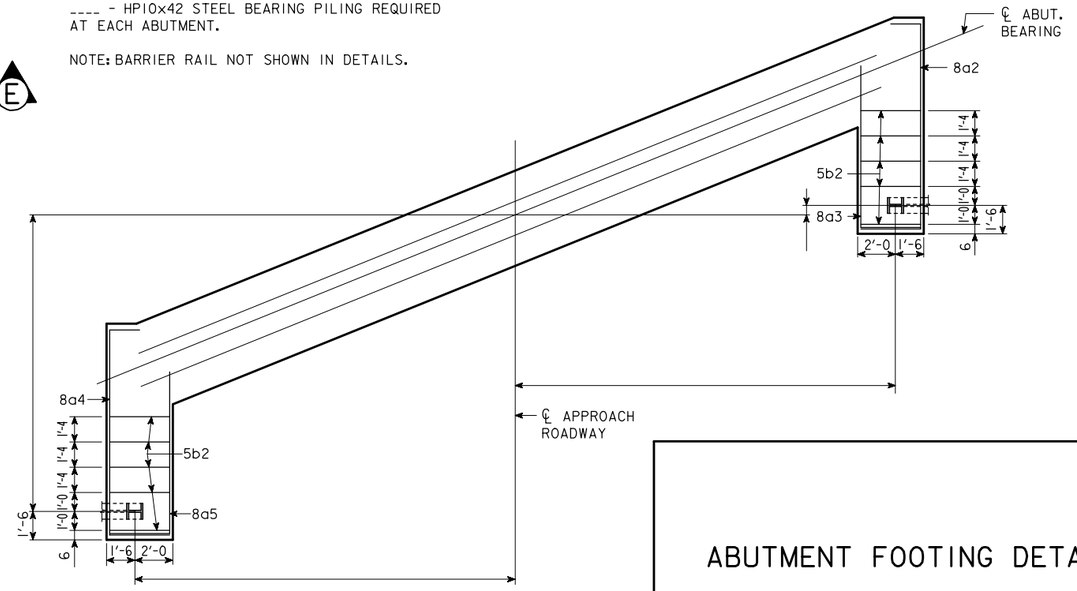
NOTE: BARRIER RAIL NOT SHOWN IN DETAILS.



PILING LAYOUT

ABUTMENT FOOTING DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

REVISED 10-10 - ADDED 2 ADDITIONAL 5g1 BARS IN LOWER BACKWALL.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2095-BTE - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTE" BEAMS - STUB ABUT. DETAILS - (R.A.) 15°01' - 30° SKEW	STANDARD SHEET 2095-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

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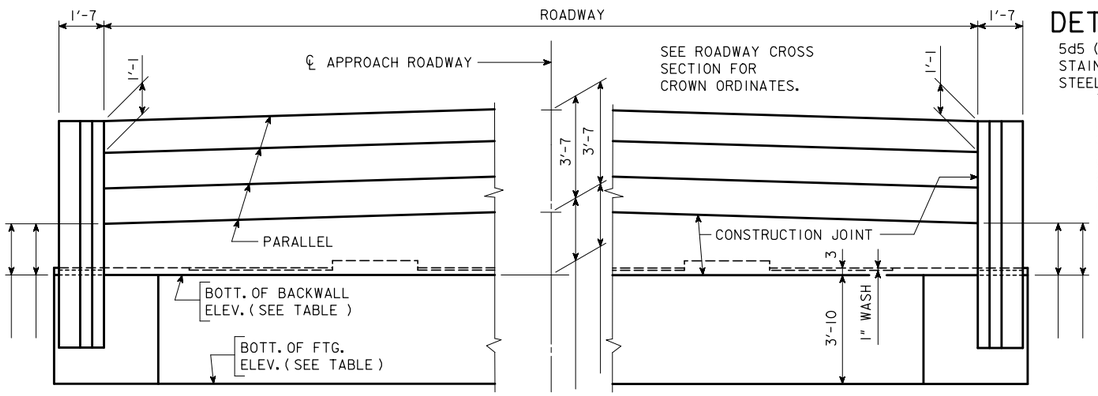
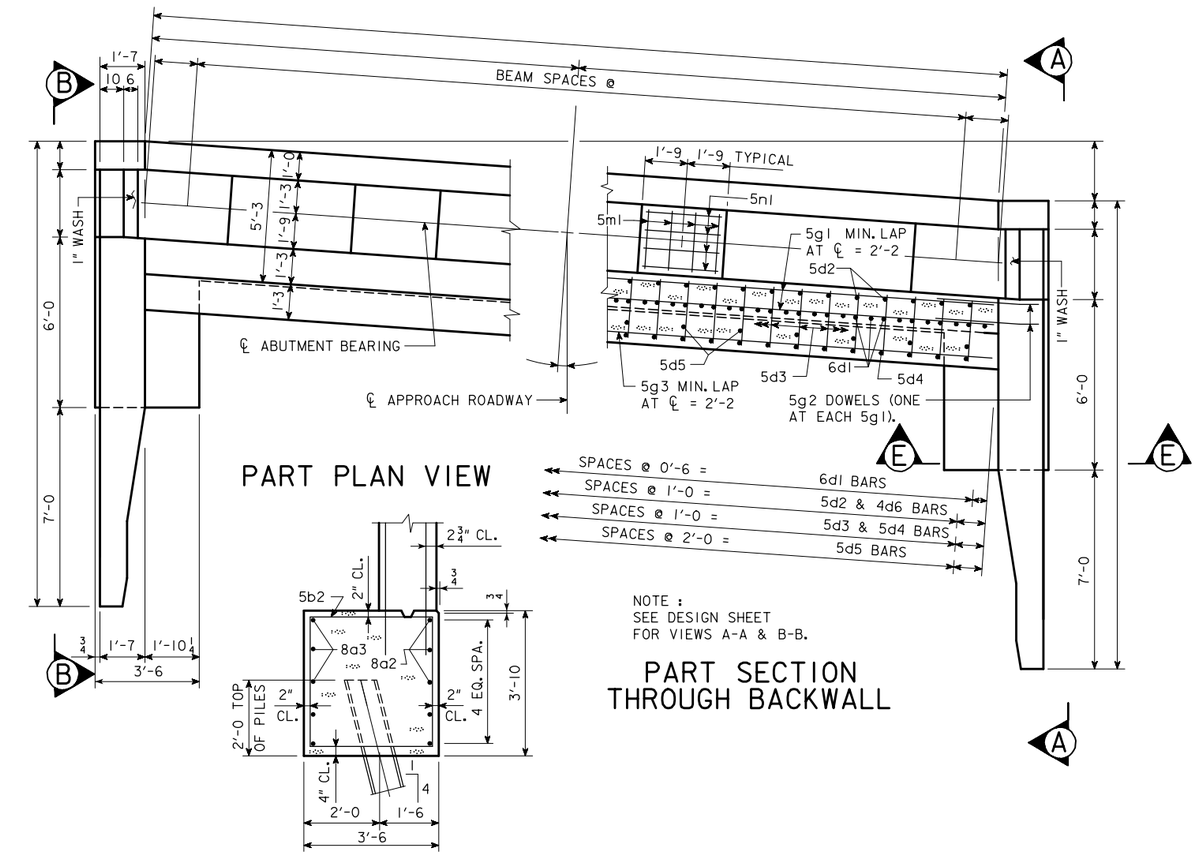
BENCH MARK :



REAR ELEVATION

NOTE :
PLACE 5ml AND 5nl BARS UNDER EACH BEAM. FLARE 5ml BARS AND FIELD CUT 5nl BARS TO FIT STEPS AT THE EXTERIOR BEAMS.



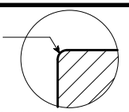
PART PLAN VIEW

SECTION E-E

NOTE :
SEE DESIGN SHEET FOR VIEWS A-A & B-B.

PART SECTION THROUGH BACKWALL

⅛" RADIUS



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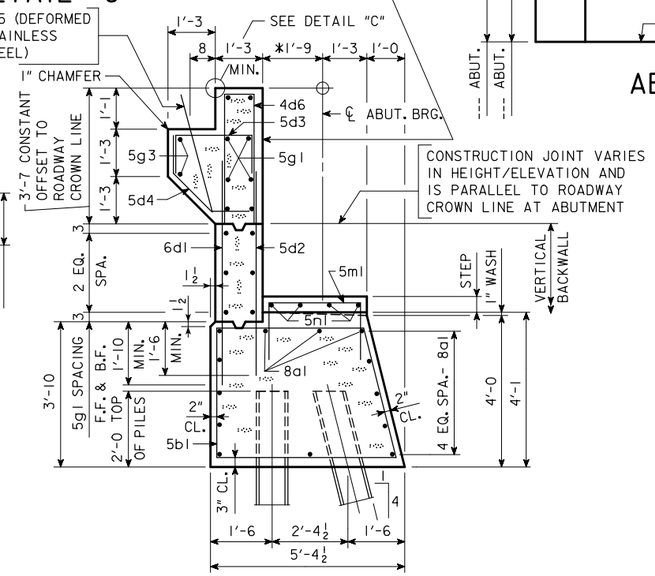
DETAIL "C"



SECTION THROUGH ABUTMENT

EXPANSION DEVICE NOT SHOWN

ABUTMENT STEP DIAGRAM

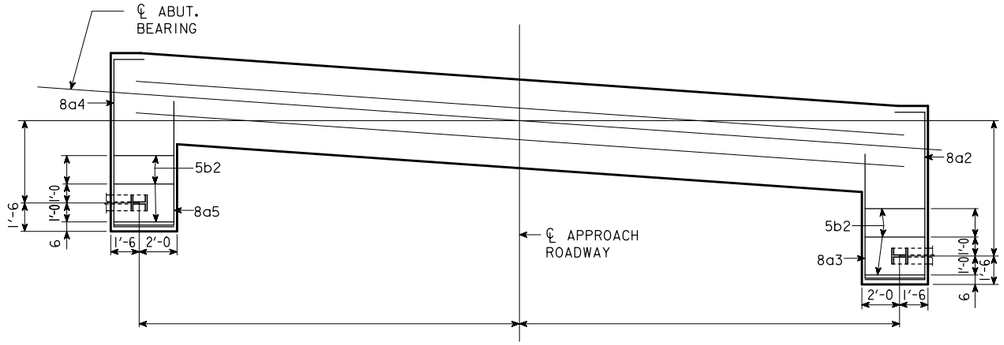
REAR ELEVATION

TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

TABLE OF ABUTMENT STEPS

STEP	ABUTMENT	ABUTMENT
a		



PILING LAYOUT

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NOTE: BARRIER RAIL NOT SHOWN IN DETAILS.

ABUTMENT FOOTING DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTC" OR "BTD" BEAMS - STUB ABUT. DETAILS - (L.A.) 0°01' - 7°30' SKEW	STANDARD SHEET 2096-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2096-BTCD - THIS SHEET ISSUED 07-08.

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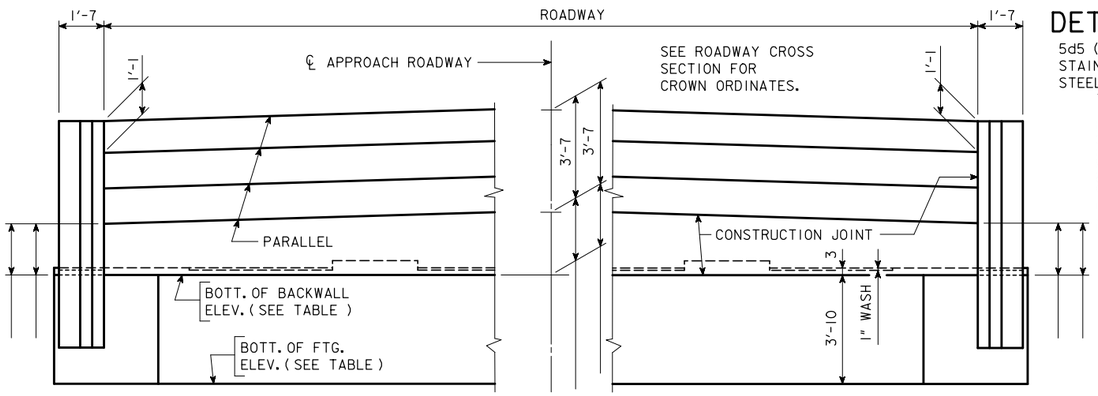
BENCH MARK :



REAR ELEVATION

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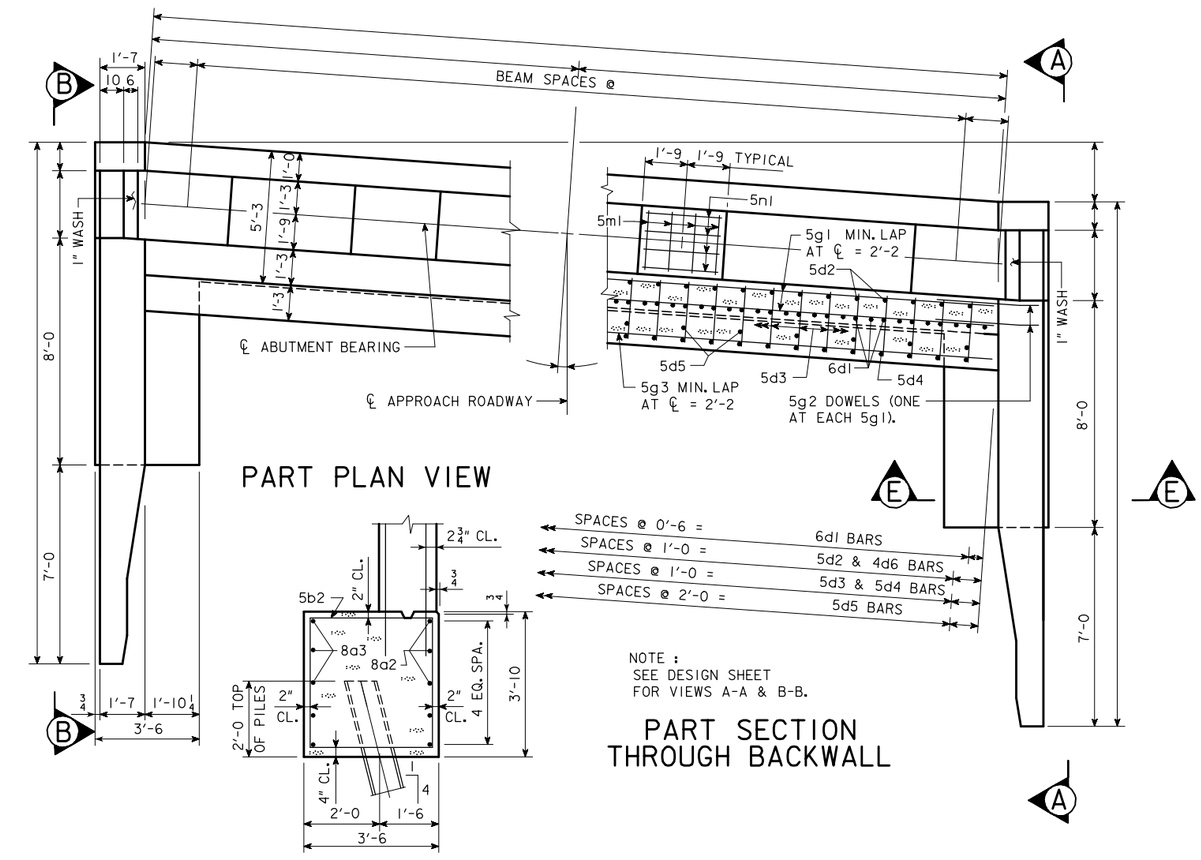
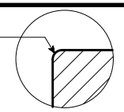


PART PLAN VIEW

PART SECTION THROUGH BACKWALL

SECTION E-E

1/8" RADIUS



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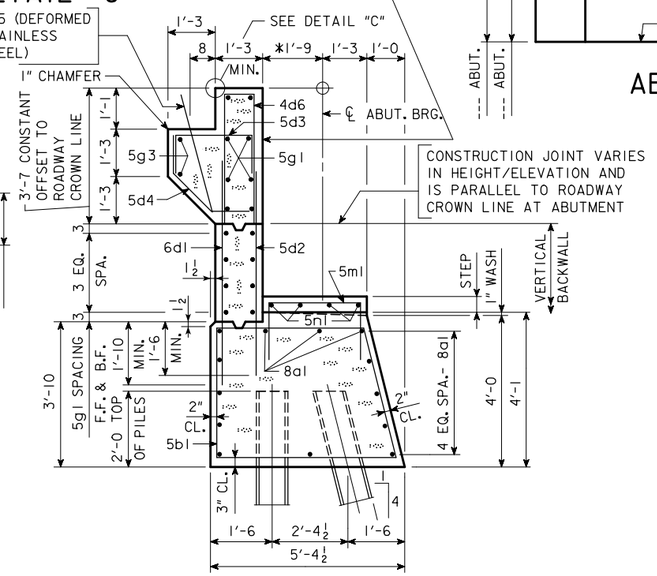
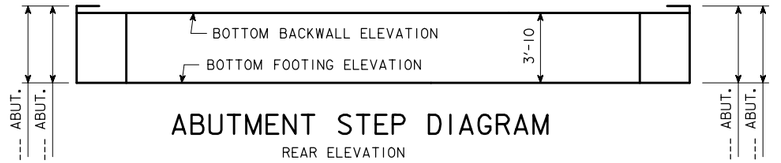


SECTION THROUGH ABUTMENT

EXPANSION DEVICE NOT SHOWN



ABUTMENT STEP DIAGRAM

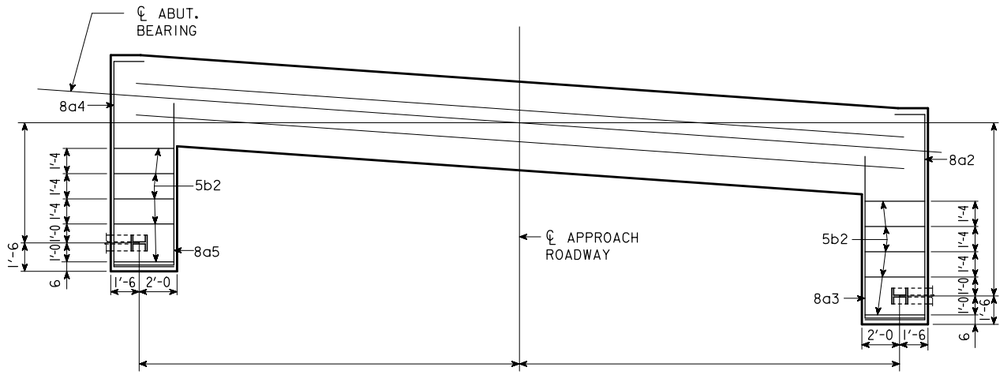
REAR ELEVATION

TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

TABLE OF ABUTMENT STEPS

STEP	ABUTMENT	ABUTMENT
a		



PILING LAYOUT

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____ - HP10x42 STEEL BEARING PILING REQUIRED AT EACH ABUTMENT.

NOTE: BARRIER RAIL NOT SHOWN IN DETAILS.

ABUTMENT FOOTING DETAILS

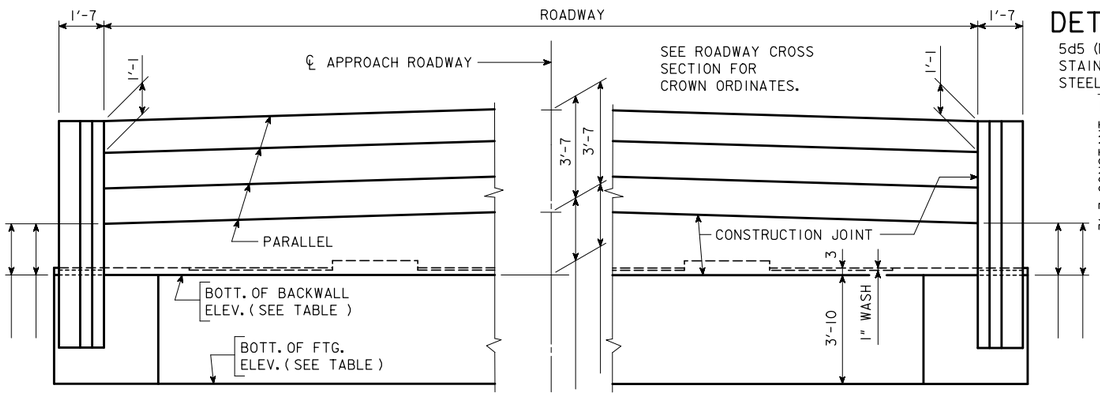
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

REVISED 10-10 - ADDED 2 ADDITIONAL 5g1 BARS IN LOWER BACKWALL.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2096-BTE - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTE" BEAMS - STUB ABUT. DETAILS - (L.A.) 0°01' - 7°30' SKEW	STANDARD SHEET 2096-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

BENCH MARK :



REAR ELEVATION

NOTE :
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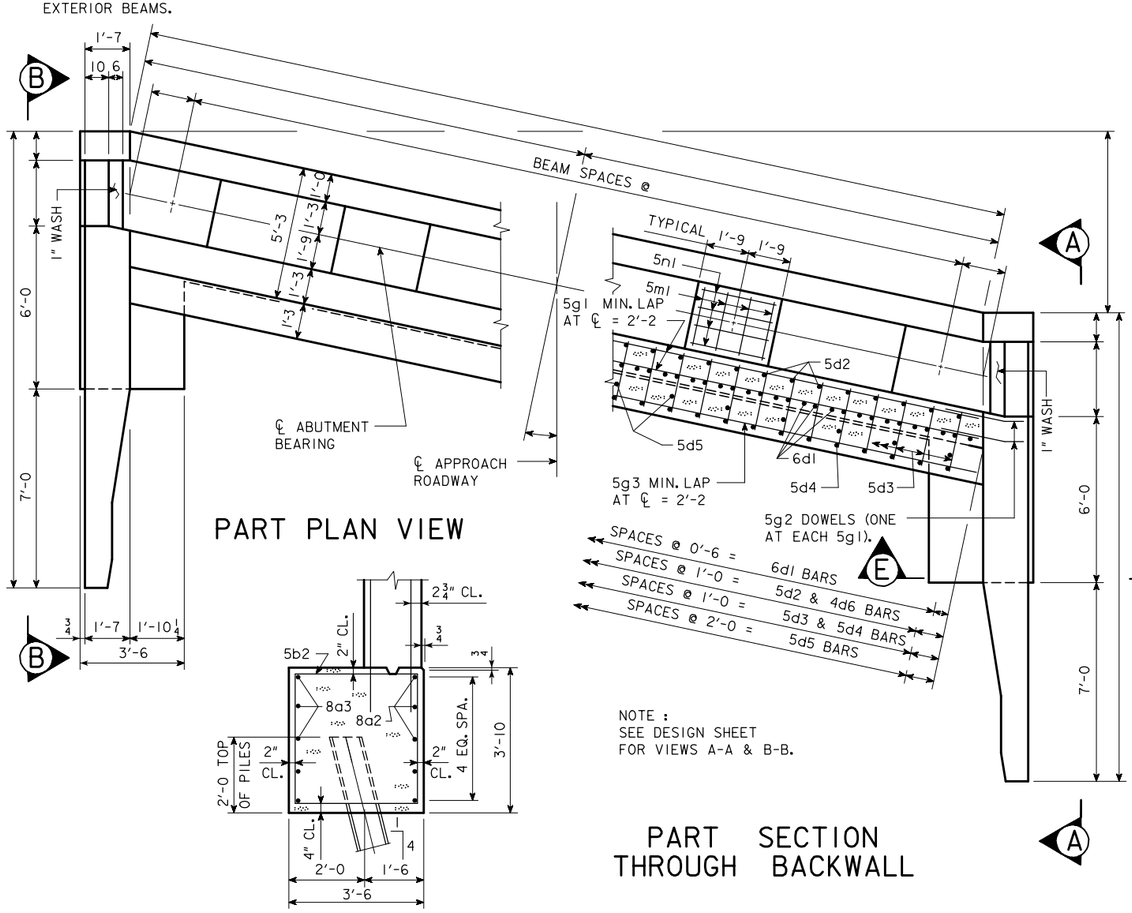


PART PLAN VIEW

NOTE :
SEE DESIGN SHEET FOR VIEWS A-A & B-B.

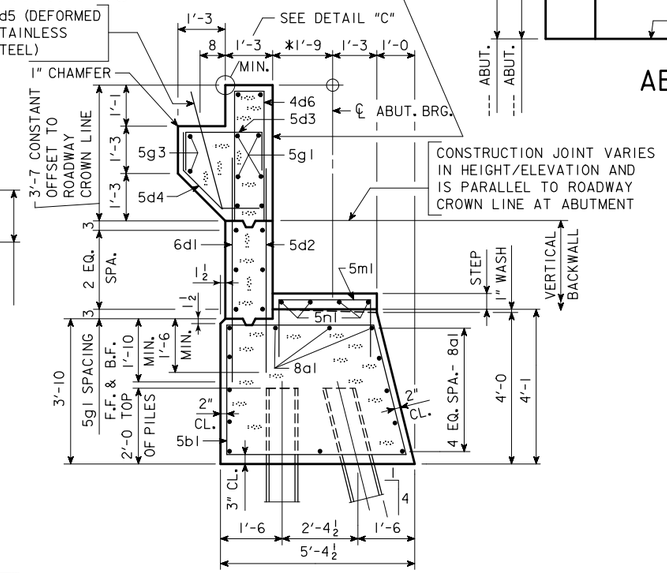
PART SECTION THROUGH BACKWALL

SECTION E-E

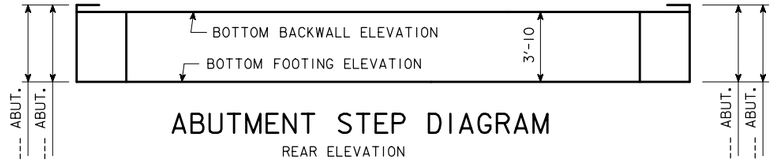
$\frac{1}{8}$" RADIUS

* THIS DIMENSION MAY VARY. TILTING OF THE PAVEMENT SUPPORT SECTION DURING CONSTRUCTION MAY BE NECESSARY TO ACCOMMODATE PROPER SETTING OF THE STRIP SEAL EXPANSION DEVICE OPENING.

DETAIL "C"



SECTION THROUGH ABUTMENT
EXPANSION DEVICE NOT SHOWN



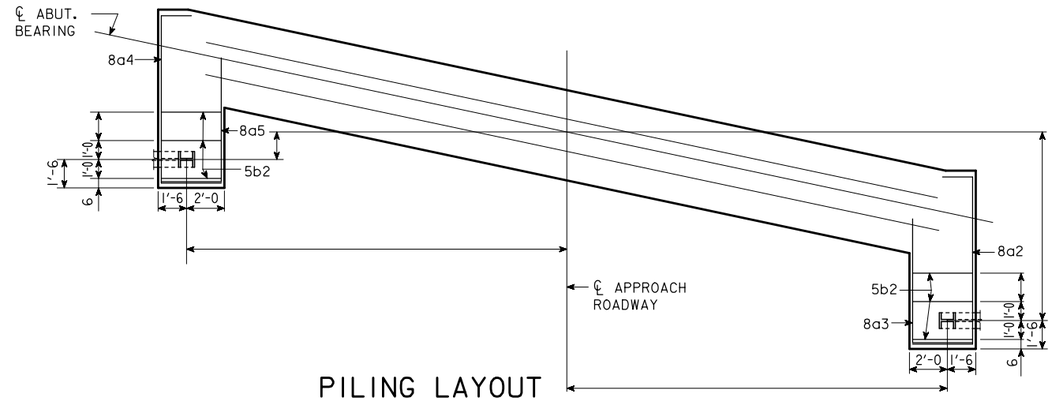
ABUTMENT STEP DIAGRAM
REAR ELEVATION

TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

TABLE OF ABUTMENT STEPS

STEP	ABUTMENT	ABUTMENT
a		



PILING LAYOUT

NOTE :
DIMENSIONS SHOWN ON PILING LAYOUT ARE AT BOTTOM OF FOOTING. BATTER PILES IN THE DIRECTION SHOWN.
____ - HP10x42 STEEL BEARING PILING REQUIRED AT EACH ABUTMENT.

NOTE: BARRIER RAIL NOT SHOWN IN DETAILS.

ABUTMENT FOOTING DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2097-BTCD - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTC" OR "BTD" BEAMS - STUB ABUT. DETAILS - (L.A.) 7°31' - 15° SKEW	STANDARD SHEET 2097-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

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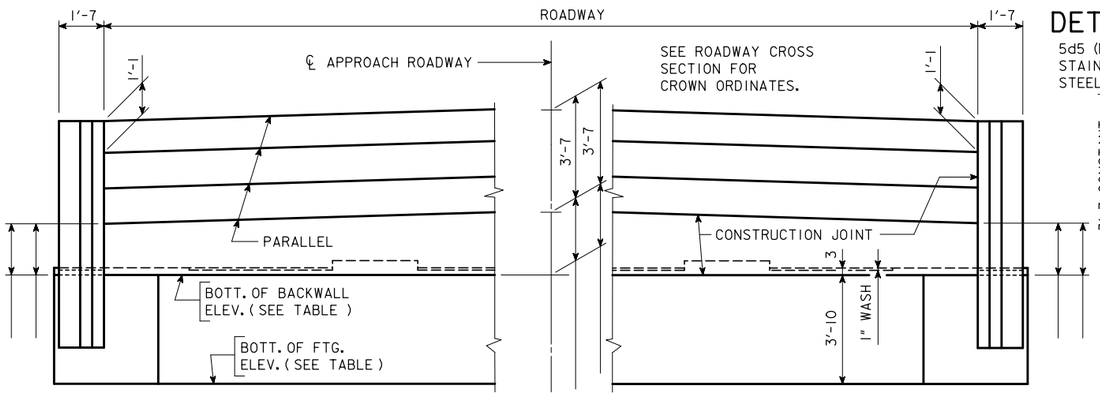
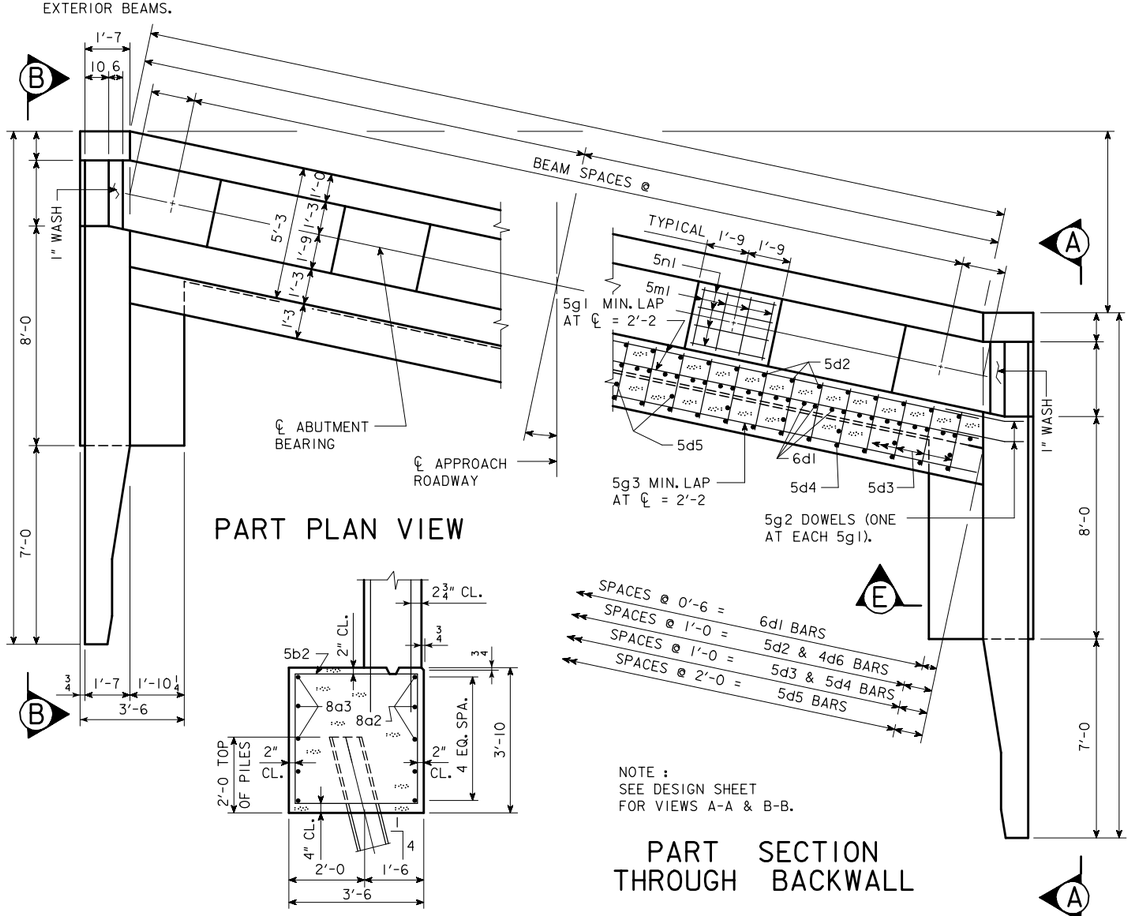
BENCH MARK :



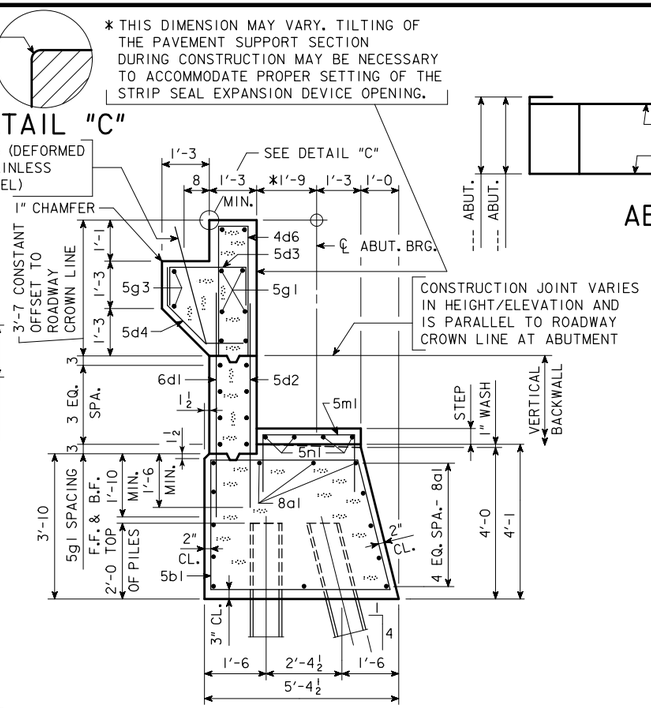
REAR ELEVATION

NOTE :
PLACE 5m1 AND 5n1 BARS UNDER EACH BEAM. FLARE 5m1 BARS AND FIELD CUT 5n1 BARS TO FIT STEPS AT THE EXTERIOR BEAMS.



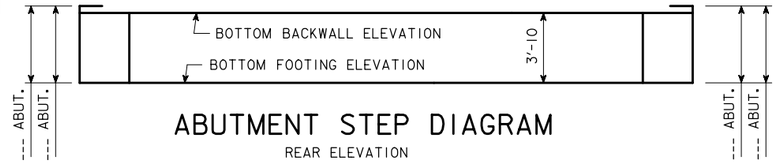
SECTION E-E

PART PLAN VIEW



SECTION THROUGH ABUTMENT

EXPANSION DEVICE NOT SHOWN



ABUTMENT STEP DIAGRAM

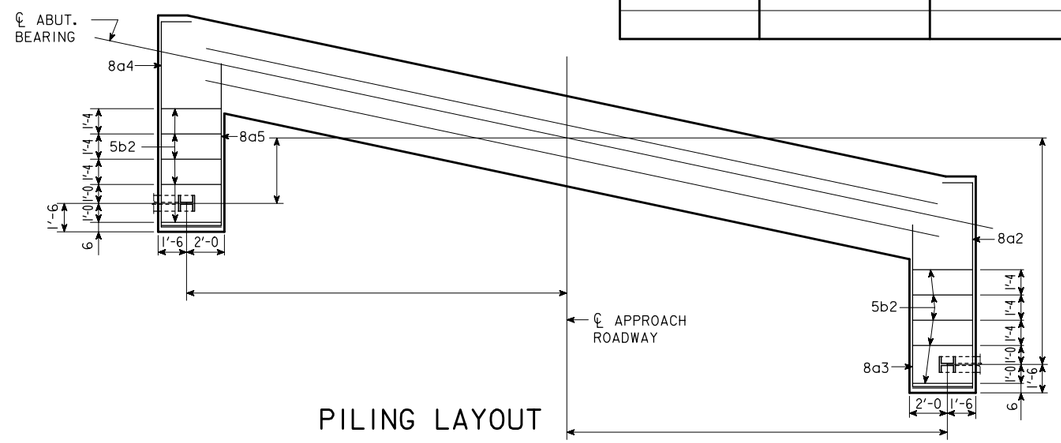
REAR ELEVATION

TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

TABLE OF ABUTMENT STEPS

STEP	ABUTMENT	ABUTMENT
a		



PILING LAYOUT

NOTE :
DIMENSIONS SHOWN ON PILING LAYOUT ARE AT BOTTOM OF FOOTING. BATTER PILES IN THE DIRECTION SHOWN.
____ - HP10x42 STEEL BEARING PILING REQUIRED AT EACH ABUTMENT.

NOTE: BARRIER RAIL NOT SHOWN IN DETAILS.

ABUTMENT FOOTING DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

REVISED 10-10 - ADDED 2 ADDITIONAL 5g1 BARS IN LOWER BACKWALL.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2097-BTE - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTE" BEAMS - STUB ABUT. DETAILS - (L.A.) 7°31' - 15° SKEW	STANDARD SHEET 2097-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

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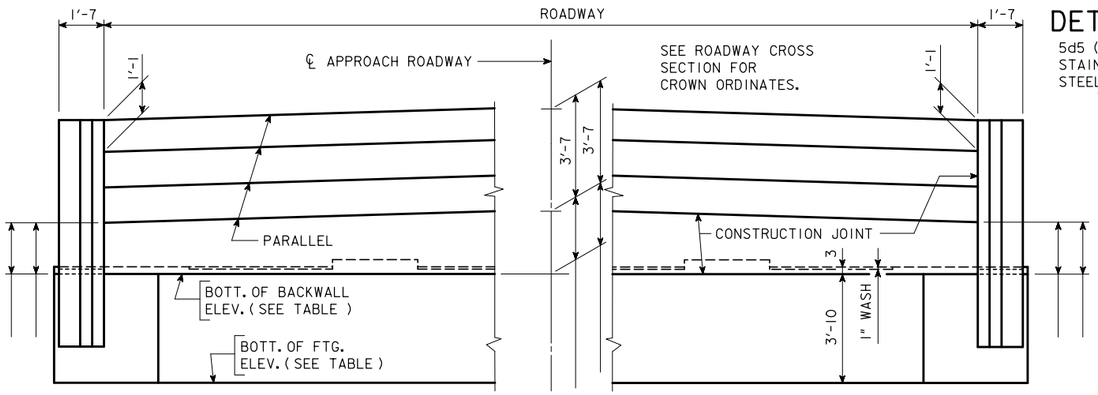
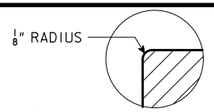
BENCH MARK :

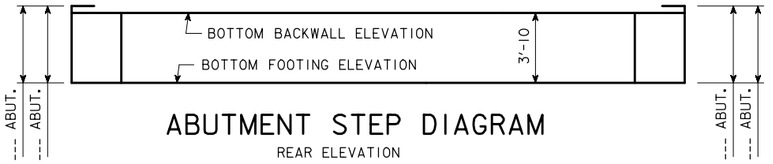


REAR ELEVATION



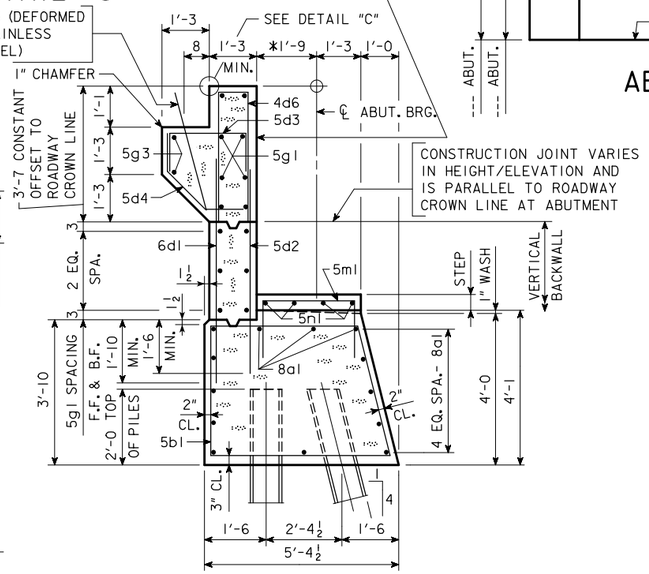
DETAIL "C"

* THIS DIMENSION MAY VARY. TILTING OF THE PAVEMENT SUPPORT SECTION DURING CONSTRUCTION MAY BE NECESSARY TO ACCOMMODATE PROPER SETTING OF THE STRIP SEAL EXPANSION DEVICE OPENING.



ABUTMENT STEP DIAGRAM

REAR ELEVATION



SECTION THROUGH ABUTMENT

EXPANSION DEVICE NOT SHOWN

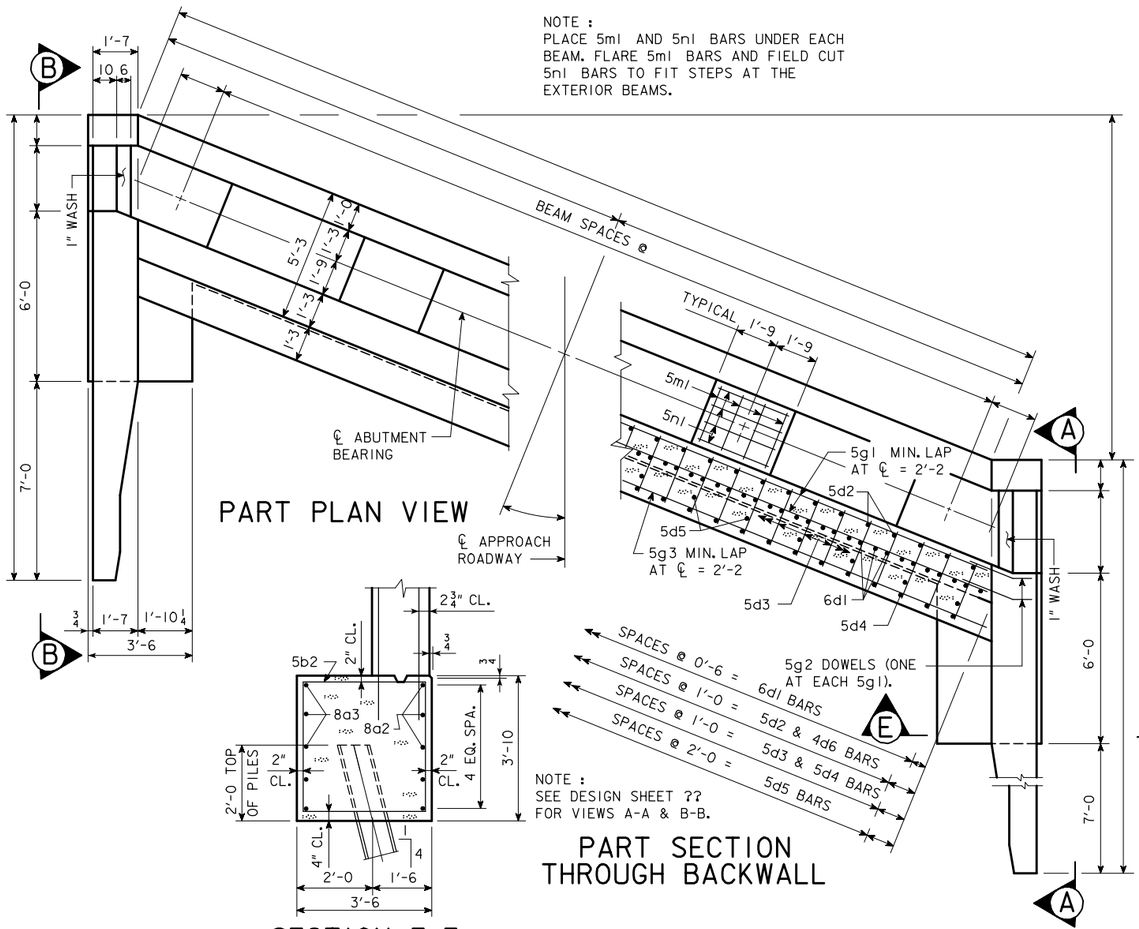
TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

TABLE OF ABUTMENT STEPS

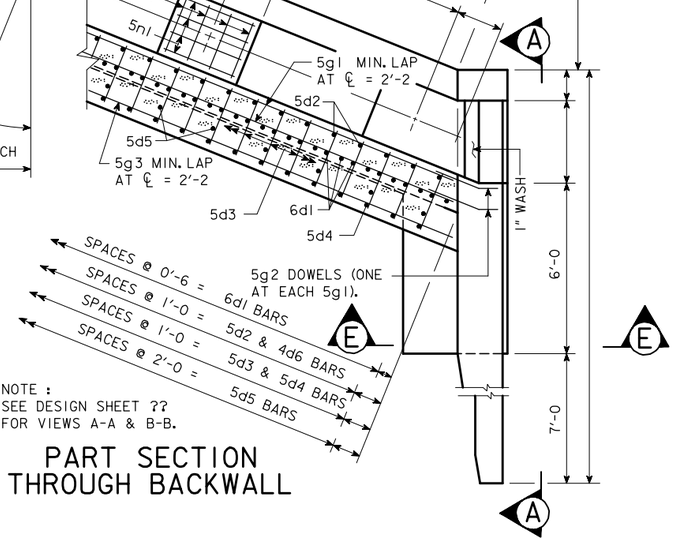
STEP	ABUTMENT	ABUTMENT
a		

NOTE :
PLACE 5m1 AND 5n1 BARS UNDER EACH BEAM. FLARE 5m1 BARS AND FIELD CUT 5n1 BARS TO FIT STEPS AT THE EXTERIOR BEAMS.



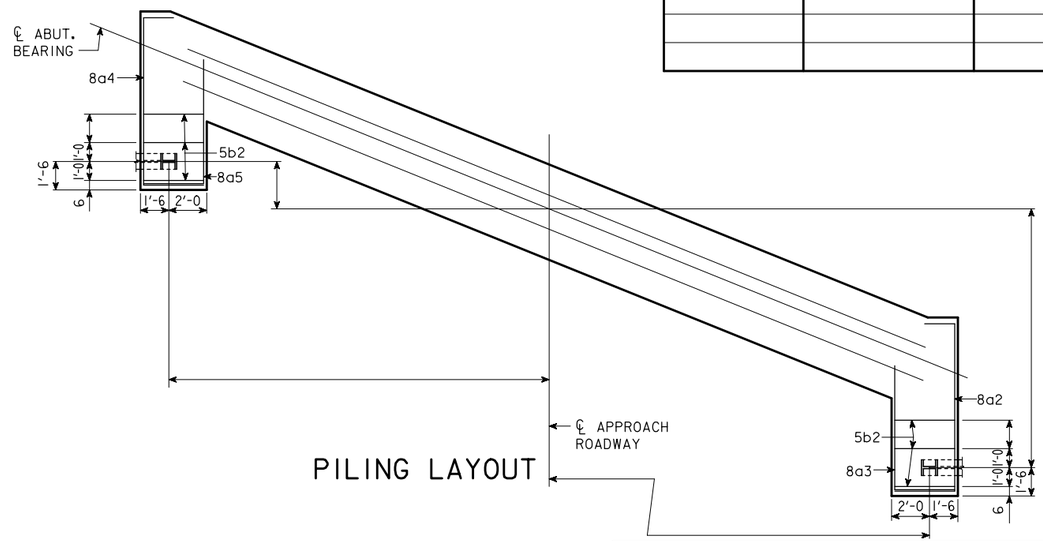
PART PLAN VIEW

SECTION E-E



NOTE :
SEE DESIGN SHEET ?? FOR VIEWS A-A & B-B.

PART SECTION THROUGH BACKWALL



PILING LAYOUT

NOTE :
DIMENSIONS SHOWN ON PILING LAYOUT ARE AT BOTTOM OF FOOTING. BATTER PILES IN THE DIRECTION SHOWN.
---- - HP10x42 STEEL BEARING PILING REQUIRED AT EACH ABUTMENT.

NOTE: BARRIER RAIL NOT SHOWN IN DETAILS.

ABUTMENT FOOTING DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2098-BTCD - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTC" OR "BTD" BEAMS - STUB ABUT. DETAILS - (L.A.) 15°01' - 30° SKEW	STANDARD SHEET 2098-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

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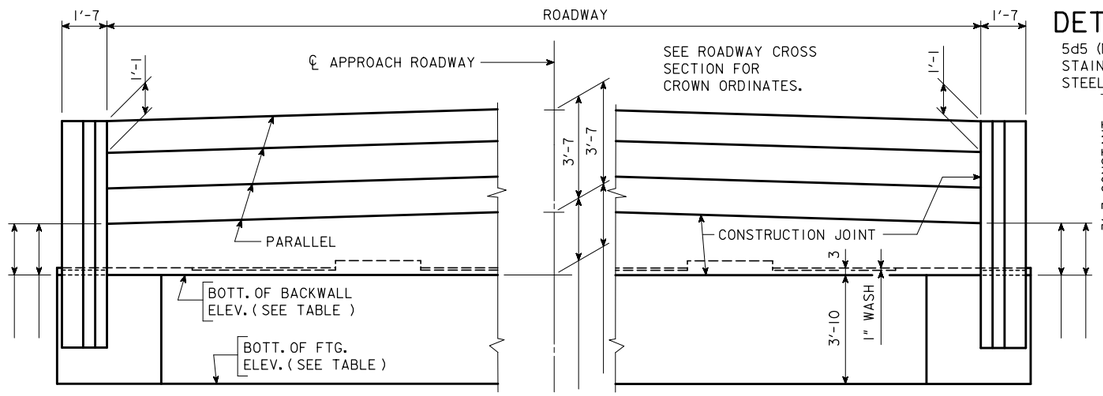
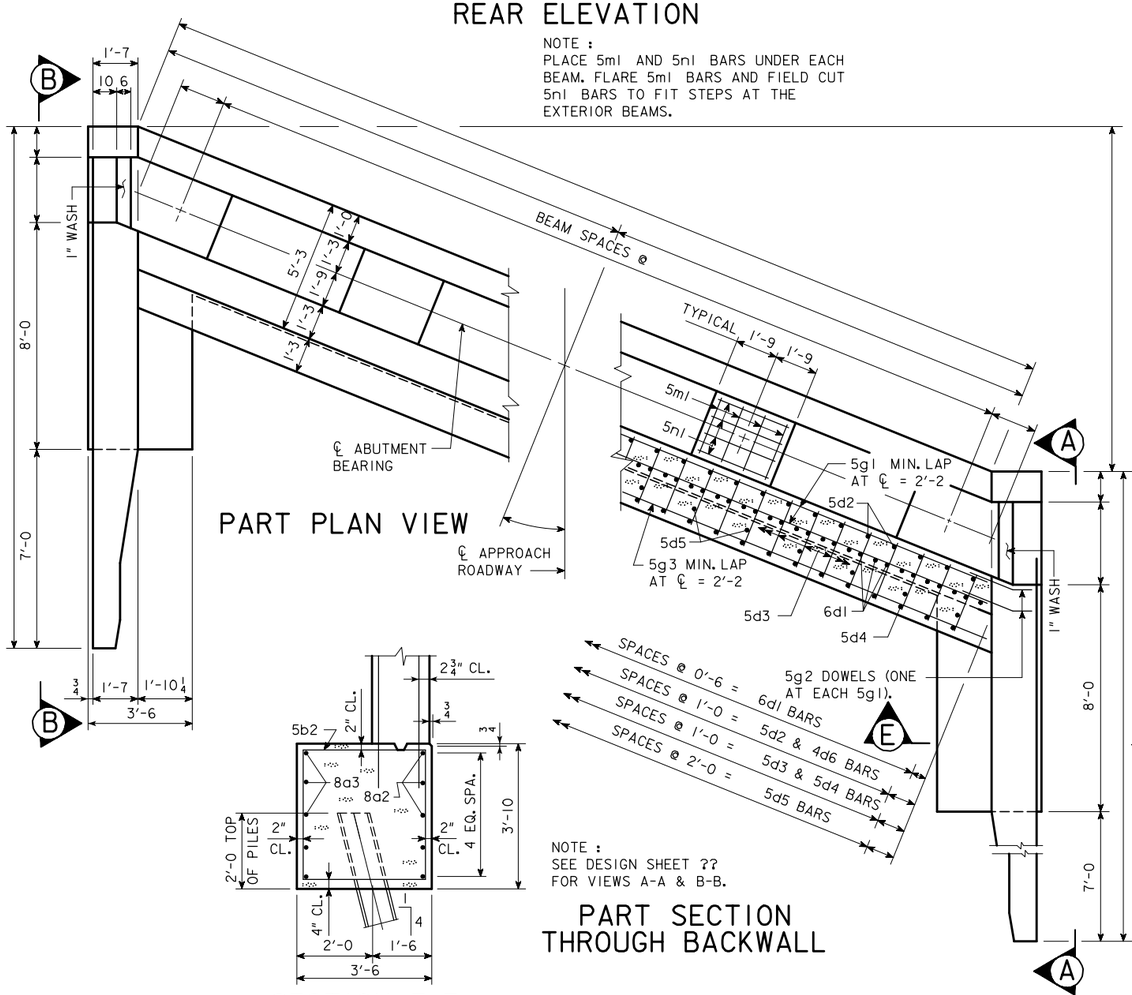
BENCH MARK :



REAR ELEVATION

NOTE :
PLACE 5m1 AND 5n1 BARS UNDER EACH BEAM. FLARE 5m1 BARS AND FIELD CUT 5n1 BARS TO FIT STEPS AT THE EXTERIOR BEAMS.



PART PLAN VIEW

PART SECTION THROUGH BACKWALL

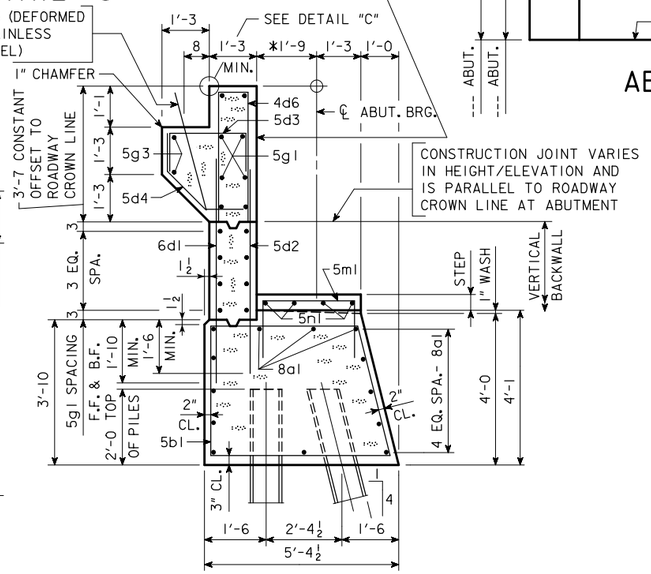
NOTE :
SEE DESIGN SHEET ?? FOR VIEWS A-A & B-B.

SECTION E-E

$\frac{1}{8}$" RADIUS

* THIS DIMENSION MAY VARY. TILTING OF THE PAVEMENT SUPPORT SECTION DURING CONSTRUCTION MAY BE NECESSARY TO ACCOMMODATE PROPER SETTING OF THE STRIP SEAL EXPANSION DEVICE OPENING.

DETAIL "C"



SECTION THROUGH ABUTMENT

EXPANSION DEVICE NOT SHOWN

ABUTMENT STEP DIAGRAM

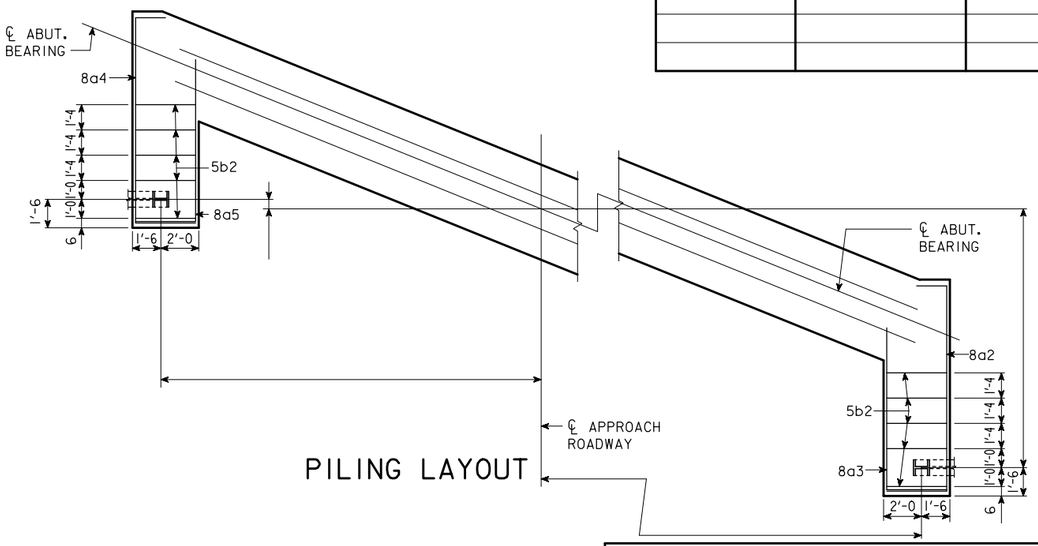
REAR ELEVATION

TABLE OF ABUTMENT ELEVATIONS

POINT	ABUTMENT	ABUTMENT
ELEV. A		
BOTT.BACKWALL ELEV.		
BOTT. FTG. ELEV.		

TABLE OF ABUTMENT STEPS

STEP	ABUTMENT	ABUTMENT
a		



PILING LAYOUT

NOTE :
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____ - HP10x42 STEEL BEARING PILING REQUIRED AT EACH ABUTMENT.

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ABUTMENT FOOTING DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

REVISED 10-10 - ADDED 2 ADDITIONAL 5g1 BARS IN LOWER BACKWALL.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2098-BTE - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTE" BEAMS - STUB ABUT. DETAILS - (L.A.) 15°01' - 30° SKEW	STANDARD SHEET 2098-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

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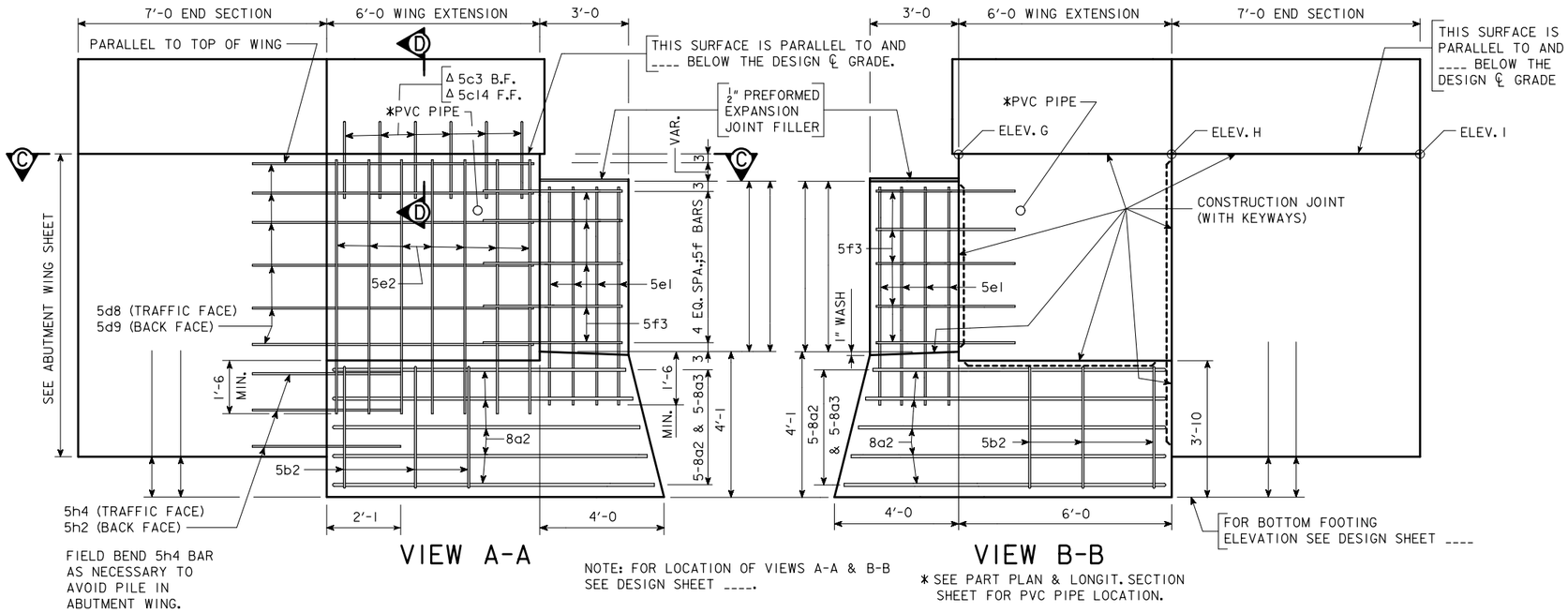
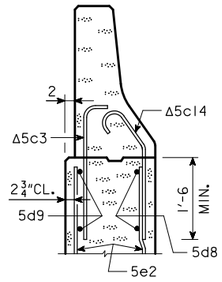
BENCH MARK:

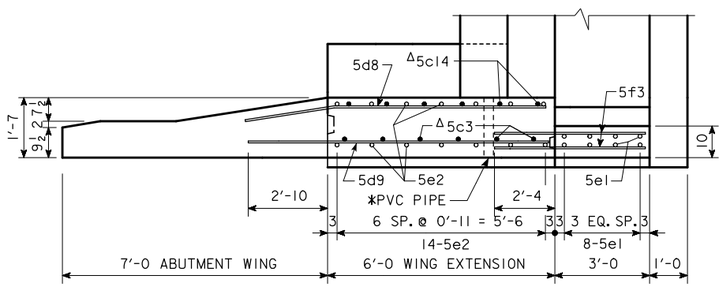


NOTE: FOR LOCATION OF VIEWS A-A & B-B SEE DESIGN SHEET ____.

* SEE PART PLAN & LONGIT. SECTION SHEET FOR PVC PIPE LOCATION.



PART SECTION D-D



SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.

TABLE OF WINGWALL ELEVATIONS

LOCATION	ELEV. G	ELEV. H	ELEV. I

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTC" OR "BTD" BEAM STUB ABUT. DETAILS - 0° SKEW	STANDARD SHEET 2099-BTCD		COUNTY	PROJECT NUMBER	SHEET NUMBER

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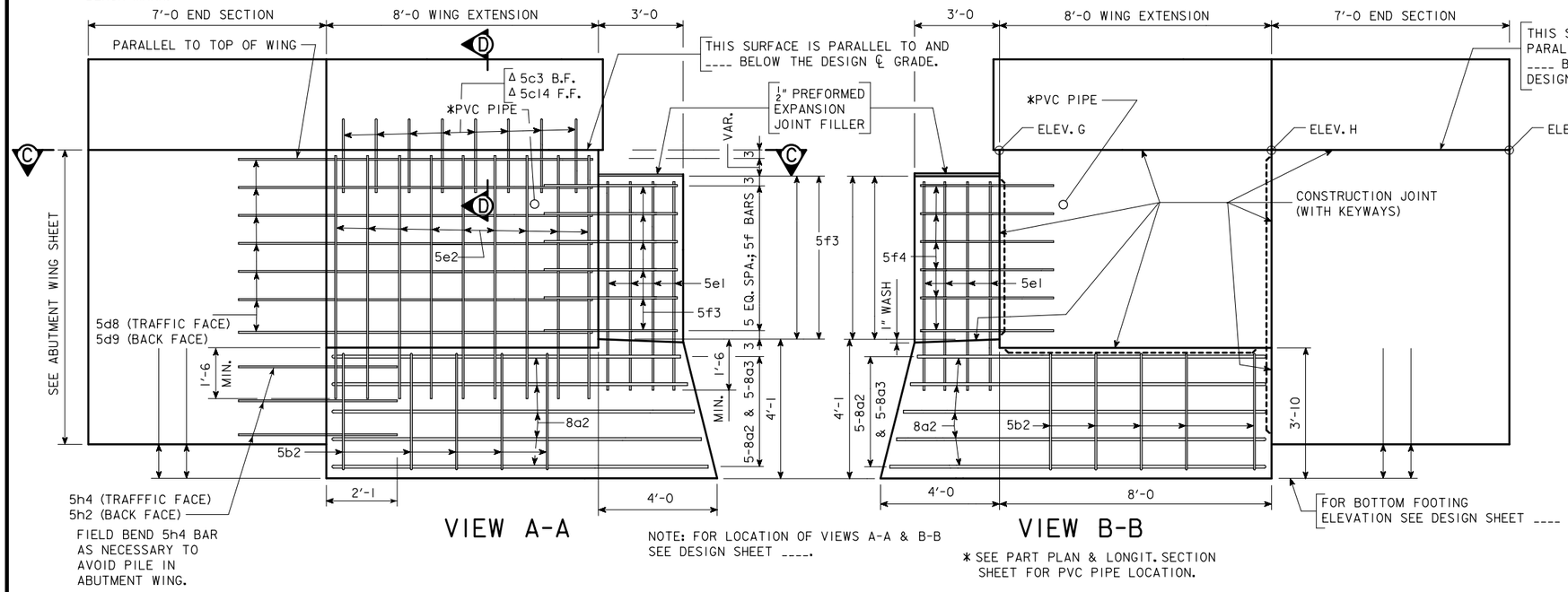
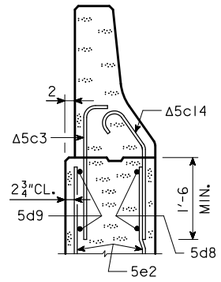
CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2099-BTCD - THIS SHEET ISSUED 07-08.

BENCH MARK:

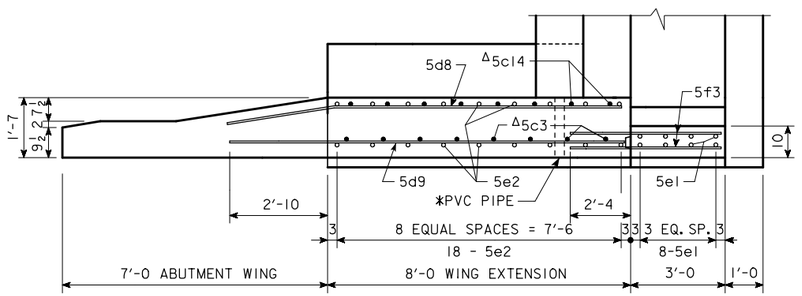


NOTE: FOR LOCATION OF VIEWS A-A & B-B SEE DESIGN SHEET ____.

* SEE PART PLAN & LONGIT. SECTION SHEET FOR PVC PIPE LOCATION.



PART SECTION D-D



SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.

TABLE OF WINGWALL ELEVATIONS

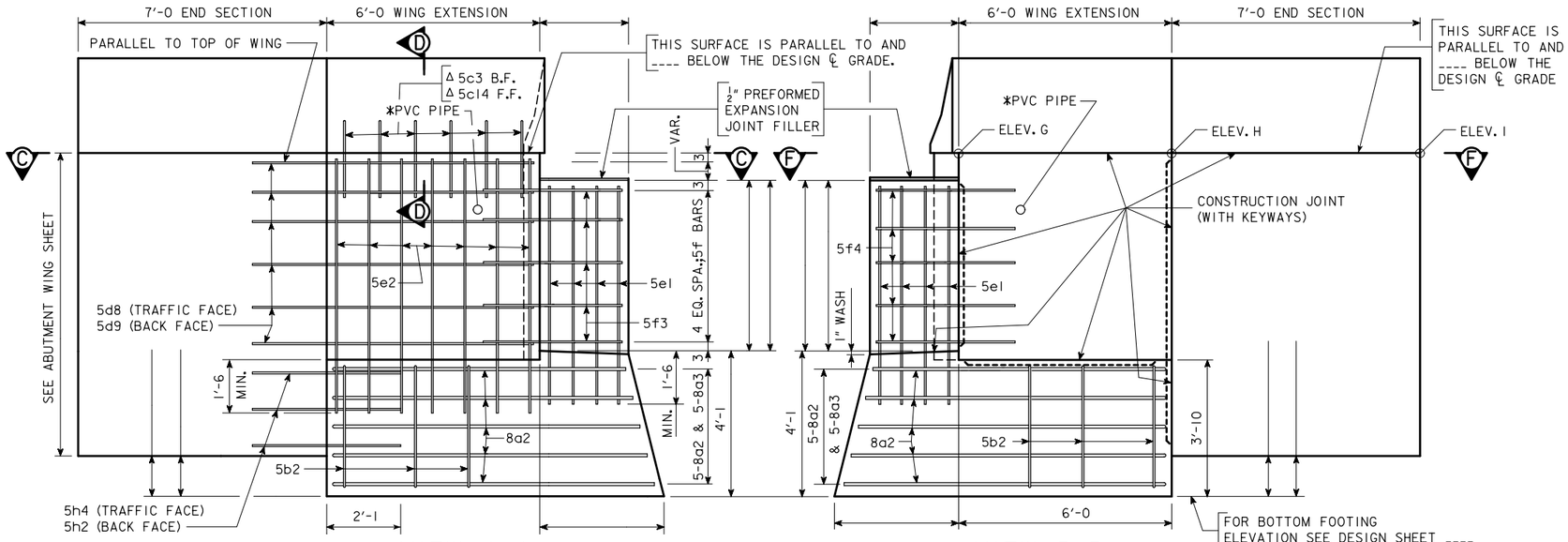
LOCATION	ELEV. G	ELEV. H	ELEV. I

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2099-BTE - THIS SHEET ISSUED 07-08.

BENCH MARK:

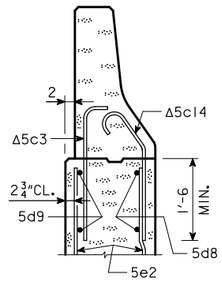


VIEW A-A

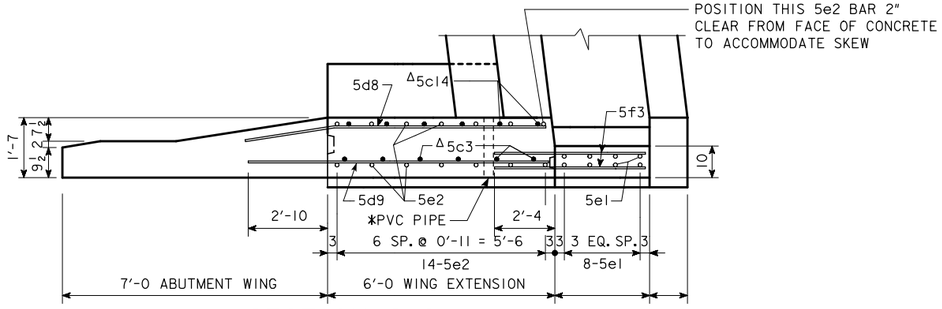
VIEW B-B

NOTE: FOR LOCATION OF VIEWS A-A & B-B SEE DESIGN SHEET ____.

* SEE PART PLAN & LONGIT. SECTION SHEET FOR PVC PIPE LOCATION.



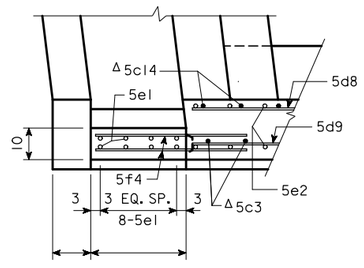
PART SECTION D-D



SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.



PART SECTION F-F

TABLE OF WINGWALL ELEVATIONS

LOCATION	ELEV. G	ELEV. H	ELEV. I

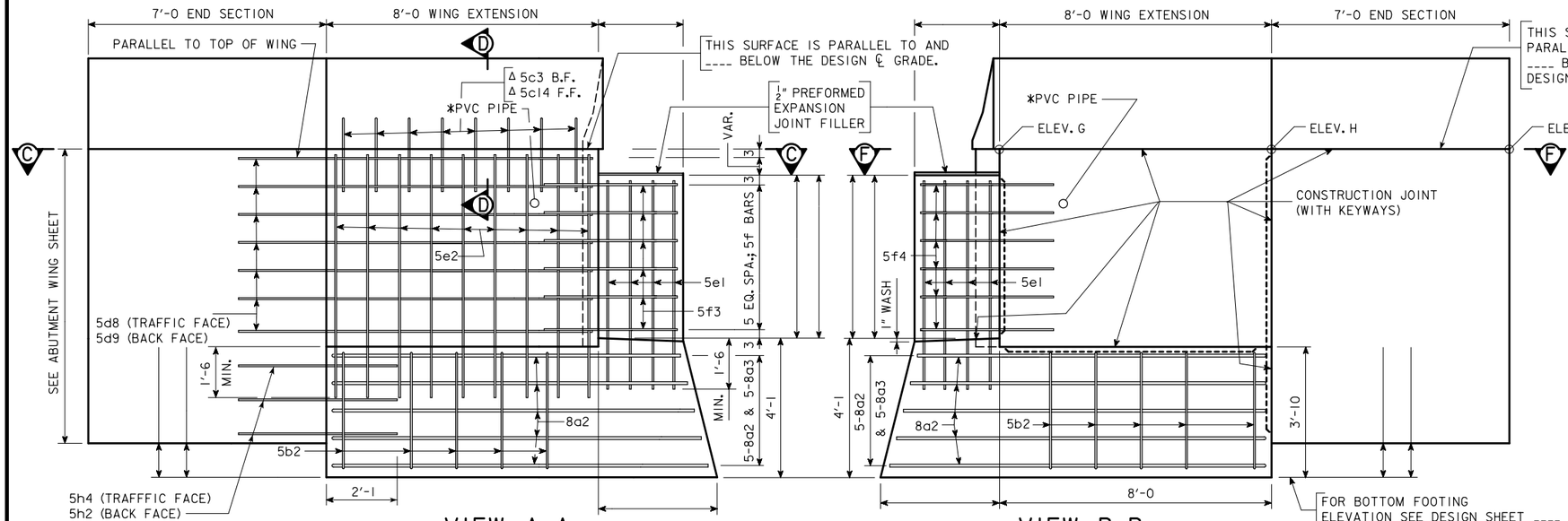
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

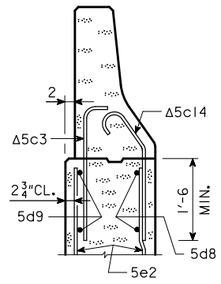
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTC" OR "BTD" BEAM STUB ABUT. DETAILS - (R.A.) 0°01' - 7°30' SKEW	STANDARD SHEET 2100-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

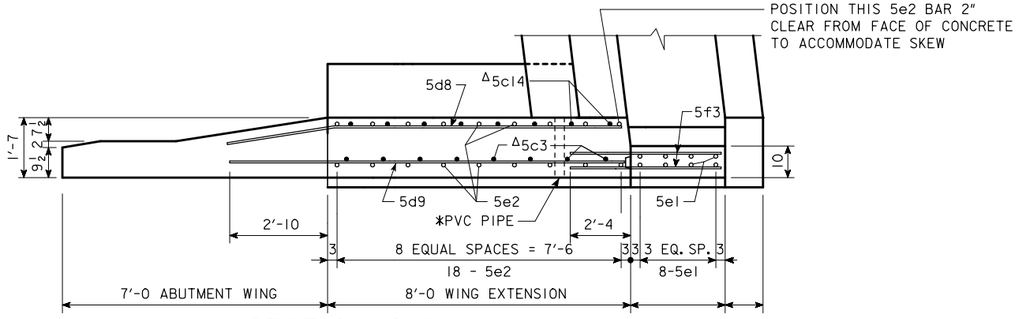
CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2100-BTCD - THIS SHEET ISSUED 07-08.

BENCH MARK:





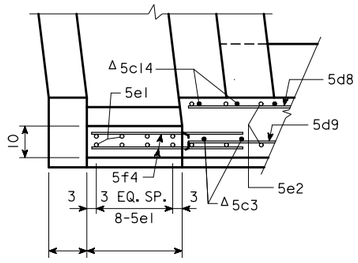
PART SECTION D-D



SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.



PART SECTION F-F

TABLE OF WINGWALL ELEVATIONS

LOCATION	ELEV. G	ELEV. H	ELEV. I

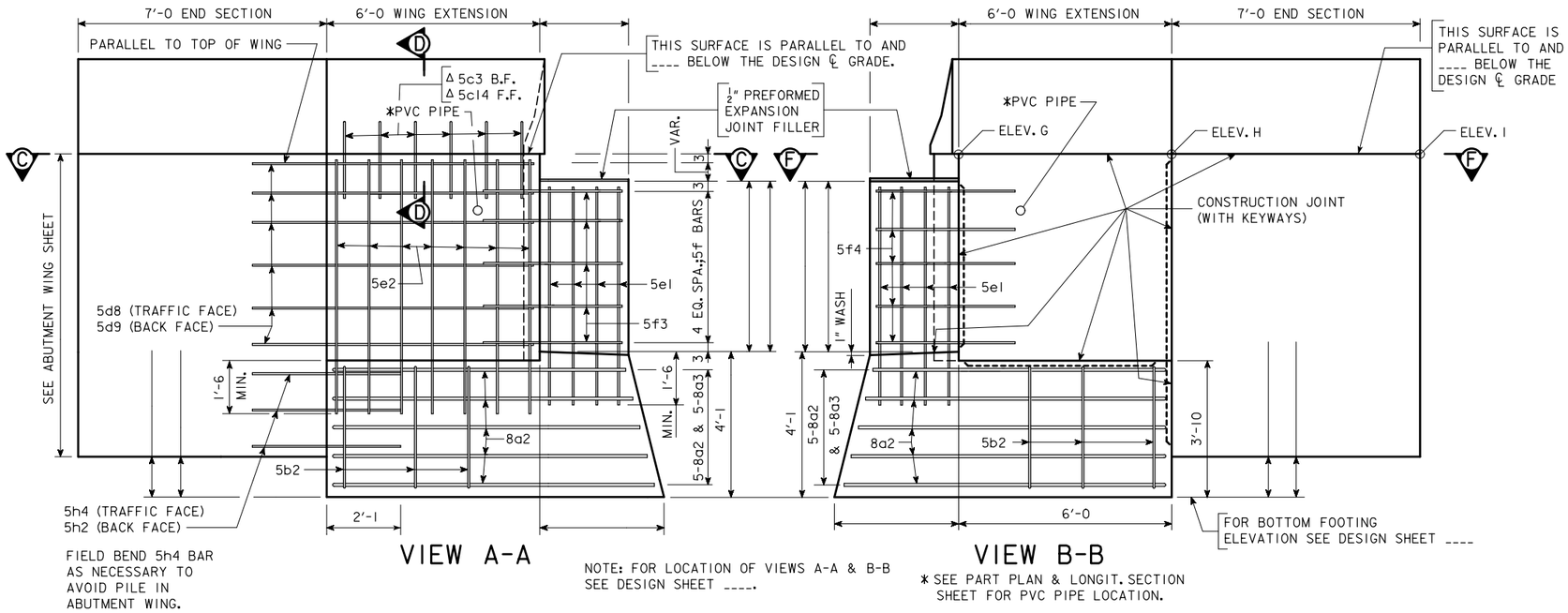
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTE" BEAM STUB ABUT. DETAILS - (R.A.) 0°01' - 7°30' SKEW	STANDARD SHEET 2100-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

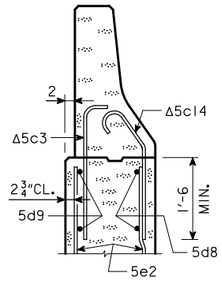
CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2100-BTE - THIS SHEET ISSUED 07-08.

BENCH MARK:

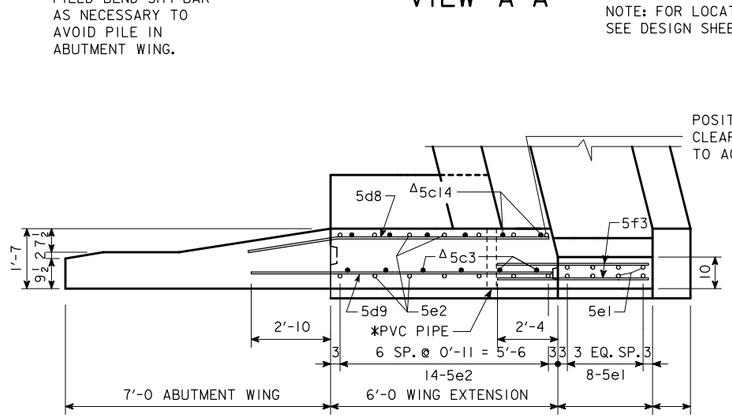


NOTE: FOR LOCATION OF VIEWS A-A & B-B SEE DESIGN SHEET ____.

* SEE PART PLAN & LONGIT. SECTION SHEET FOR PVC PIPE LOCATION.



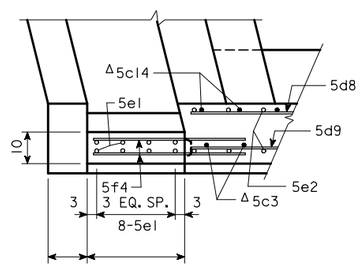
PART SECTION D-D



SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.



PART SECTION F-F

TABLE OF WINGWALL ELEVATIONS

LOCATION	ELEV. G	ELEV. H	ELEV. I

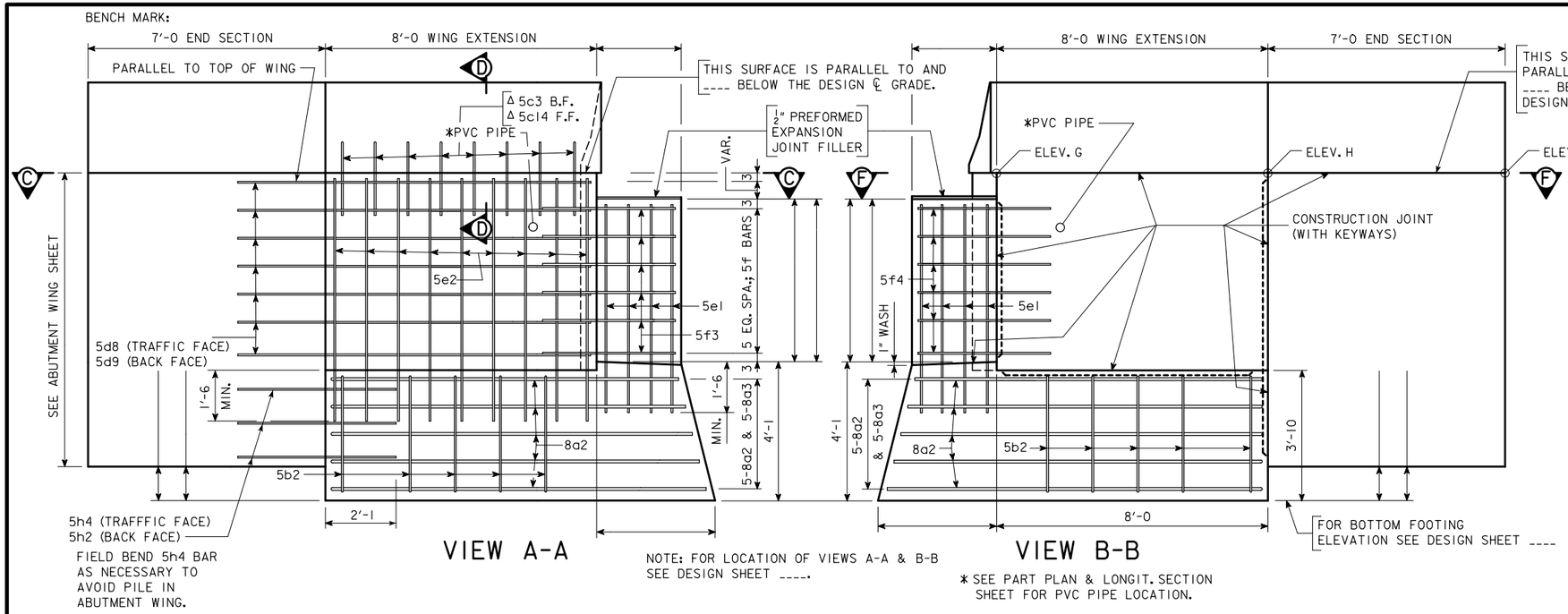
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

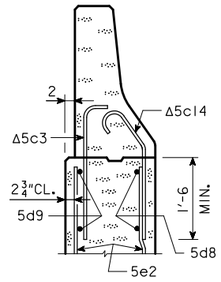
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTC" OR "BTD" BEAM STUB ABUT. DETAILS - (R.A.) 7°31' - 15° SKEW	STANDARD SHEET 2101-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

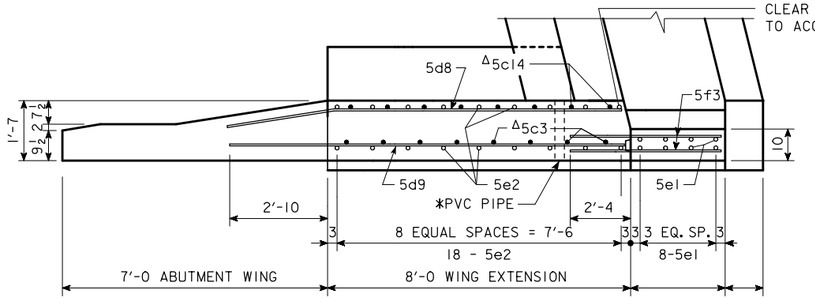
6/26/2015 1:27:11 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 2101-BTCD 11x17_pdf.pltcfg

CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2101-BTCD - THIS SHEET ISSUED 07-08.





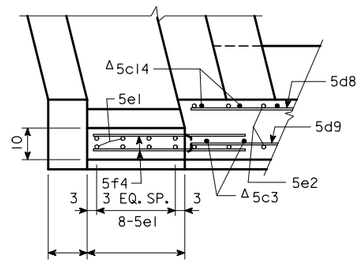
PART SECTION D-D



SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.



PART SECTION F-F

TABLE OF WINGWALL ELEVATIONS

LOCATION	ELEV. G	ELEV. H	ELEV. I

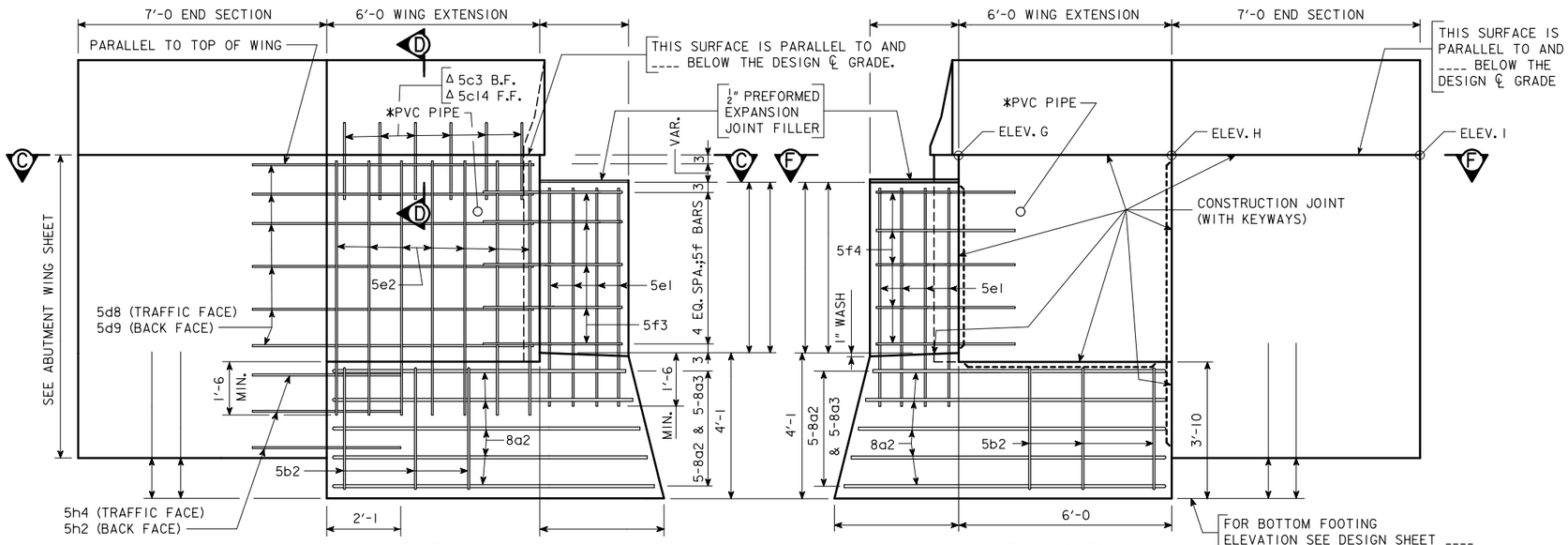
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

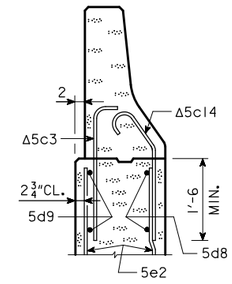
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTE" BEAM STUB ABUT. DETAILS - (R.A.) 7°31' - 15° SKEW	STANDARD SHEET 2101-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

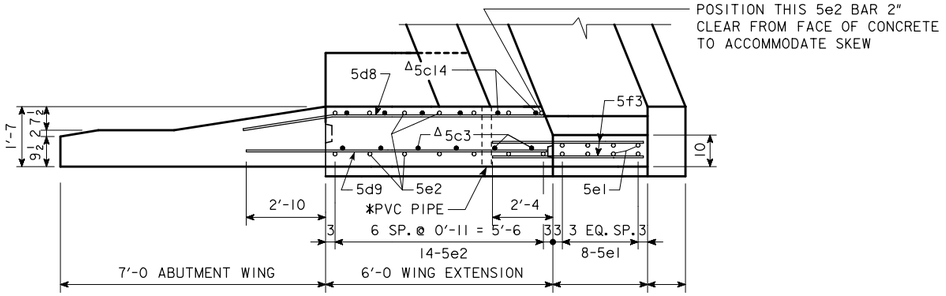
CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2101-BTE - THIS SHEET ISSUED 07-08.

BENCH MARK:





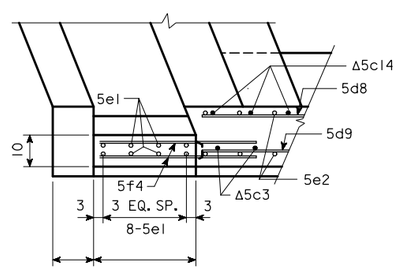
PART SECTION D-D



SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.



PART SECTION F-F

TABLE OF WINGWALL ELEVATIONS

LOCATION	ELEV. G	ELEV. H	ELEV. I

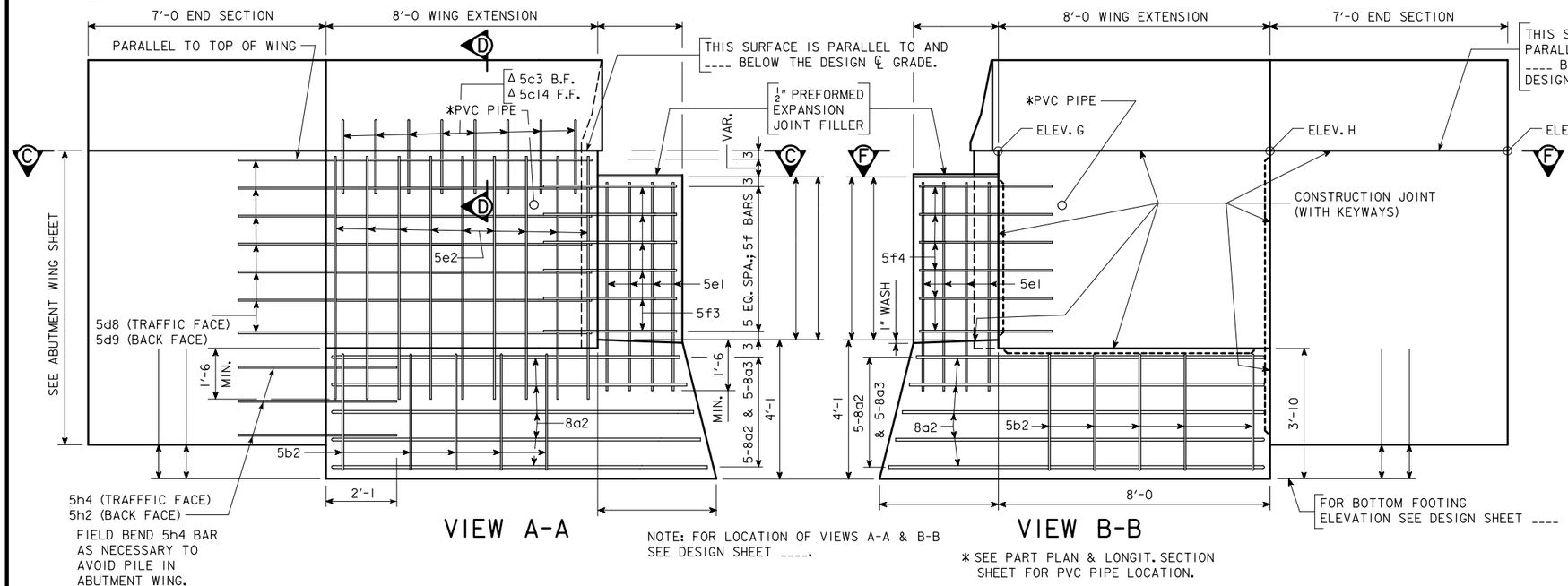
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTC" OR "BTD" BEAM STUB ABUT. DETAILS - (R.A.) 15°01' - 30° SKEW	STANDARD SHEET 2102-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2102-BTCD - THIS SHEET ISSUED 07-08.

BENCH MARK:

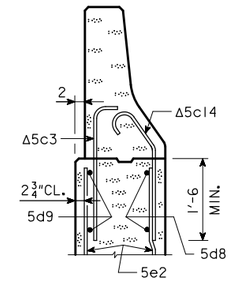


VIEW A-A

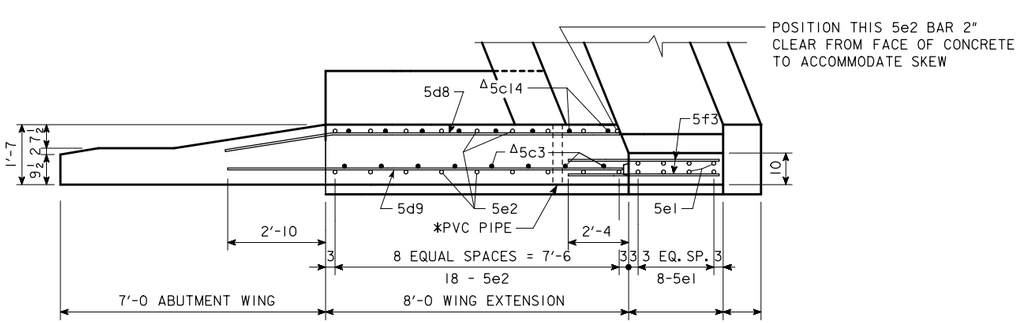
NOTE: FOR LOCATION OF VIEWS A-A & B-B SEE DESIGN SHEET ____.

VIEW B-B

* SEE PART PLAN & LONGIT. SECTION SHEET FOR PVC PIPE LOCATION.



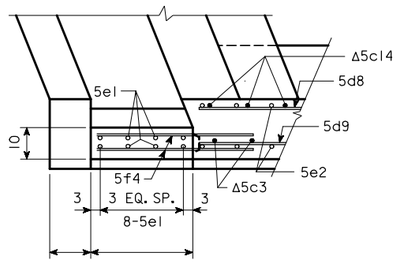
PART SECTION D-D



SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.



PART SECTION F-F

TABLE OF WINGWALL ELEVATIONS

LOCATION	ELEV. G	ELEV. H	ELEV. I

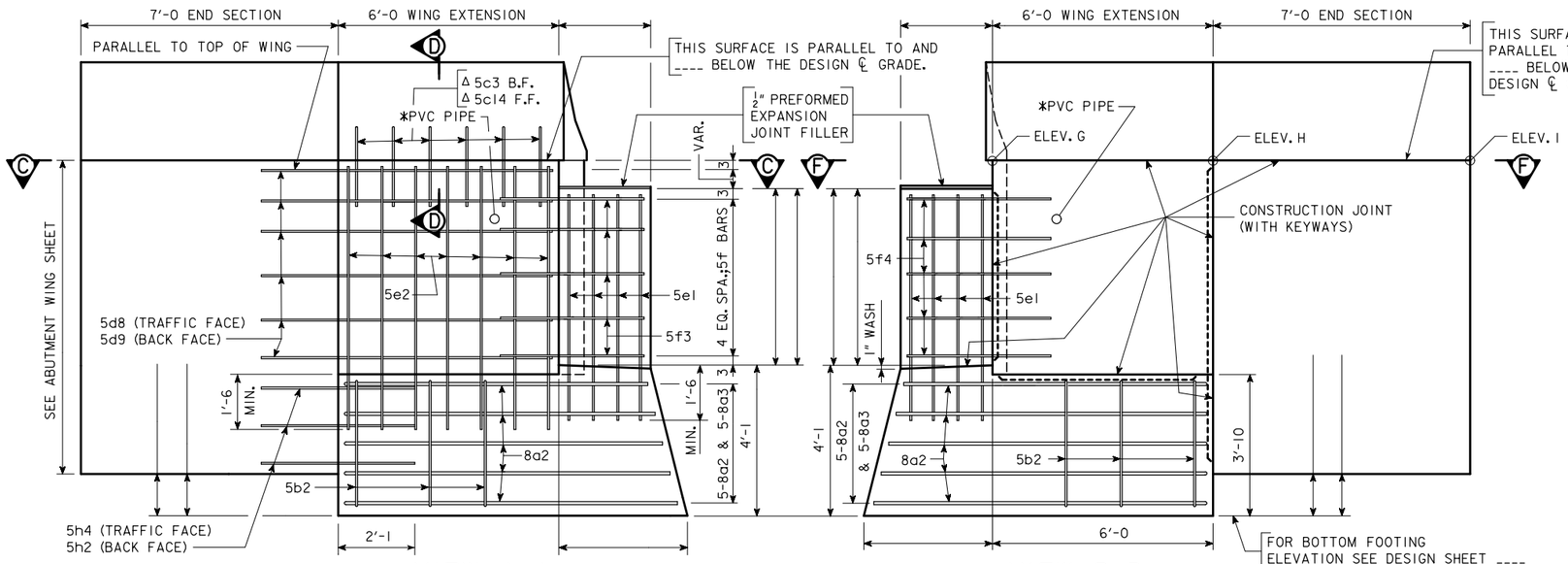
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTE" BEAM STUB ABUT. DETAILS - (R.A.) 15°01' - 30° SKEW	STANDARD SHEET 2102-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

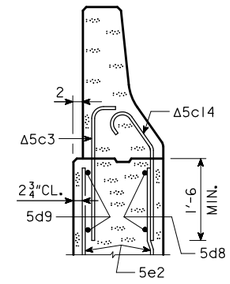
CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2102-BTE - THIS SHEET ISSUED 07-08.

BENCH MARK:

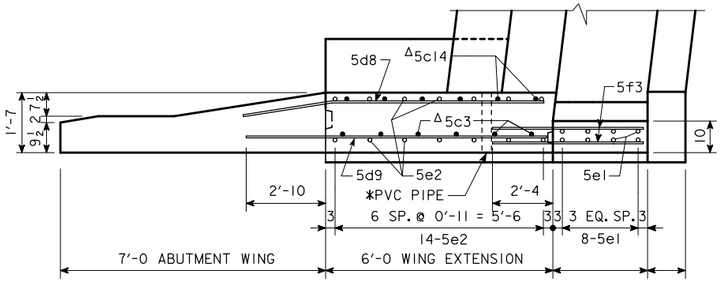


NOTE: FOR LOCATION OF VIEWS A-A & B-B SEE DESIGN SHEET ____.

* SEE PART PLAN & LONGIT. SECTION SHEET FOR PVC PIPE LOCATION.



PART SECTION D-D

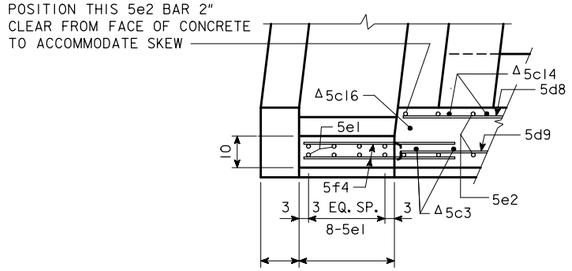


SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.

POSITION THIS 5e2 BAR 2" CLEAR FROM FACE OF CONCRETE TO ACCOMMODATE SKEW



PART SECTION F-F

TABLE OF WINGWALL ELEVATIONS

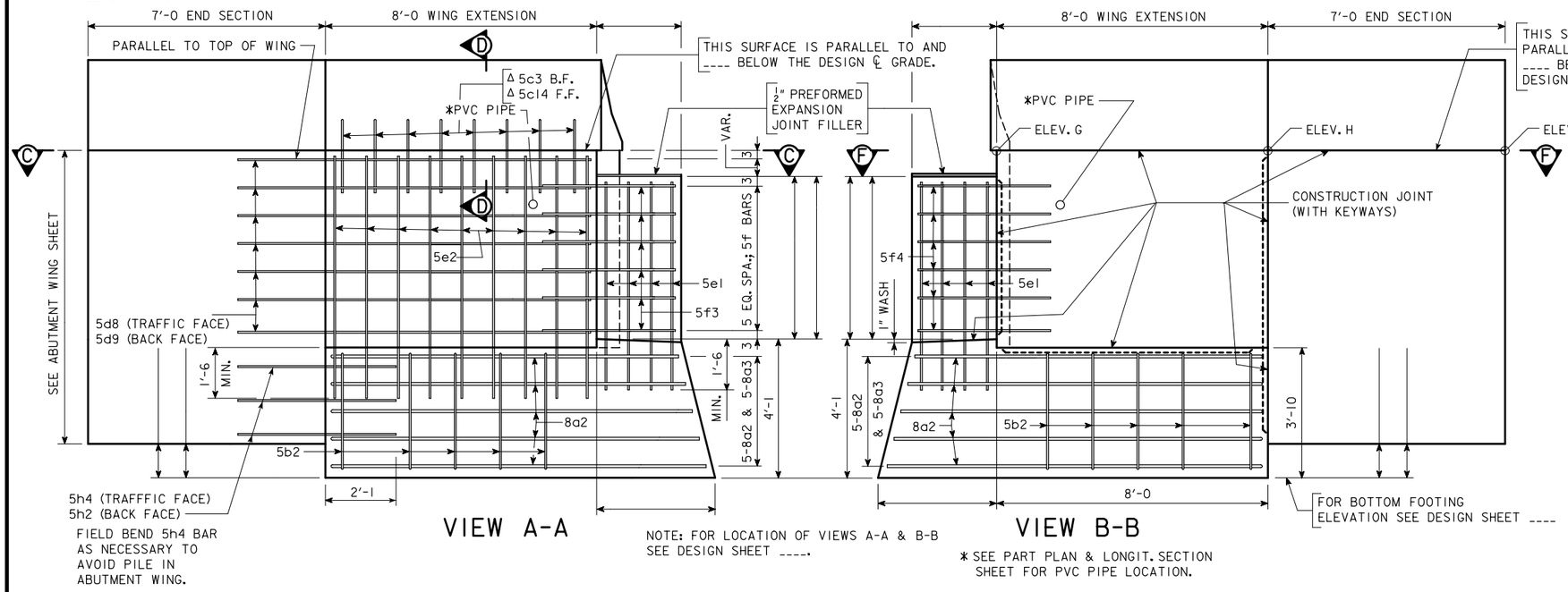
LOCATION	ELEV. G	ELEV. H	ELEV. I

CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2103-BTCD - THIS SHEET ISSUED 07-08.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTC" OR "BTD" BEAM STUB ABUT. DETAILS - (L.A.) 0°01' - 7°30' SKEW	STANDARD SHEET 2103-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

BENCH MARK:

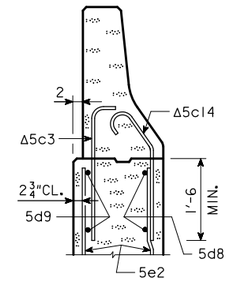


VIEW A-A

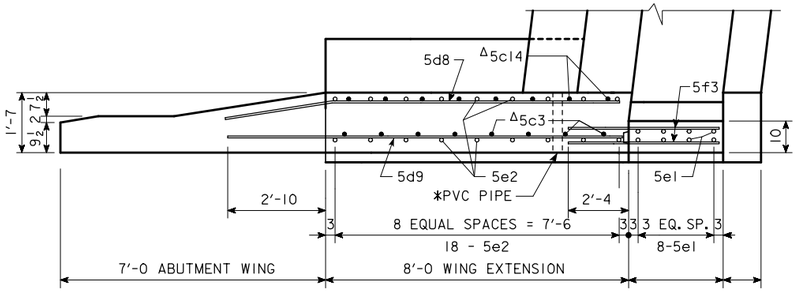
VIEW B-B

NOTE: FOR LOCATION OF VIEWS A-A & B-B SEE DESIGN SHEET ____.

* SEE PART PLAN & LONGIT. SECTION SHEET FOR PVC PIPE LOCATION.



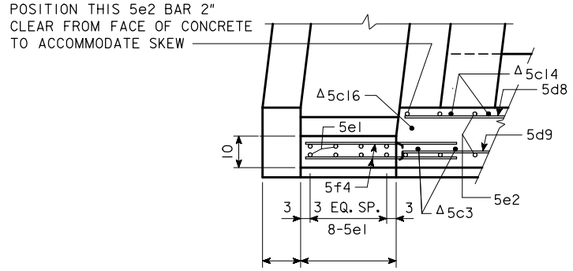
PART SECTION D-D



SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.



PART SECTION F-F

TABLE OF WINGWALL ELEVATIONS

LOCATION	ELEV. G	ELEV. H	ELEV. I

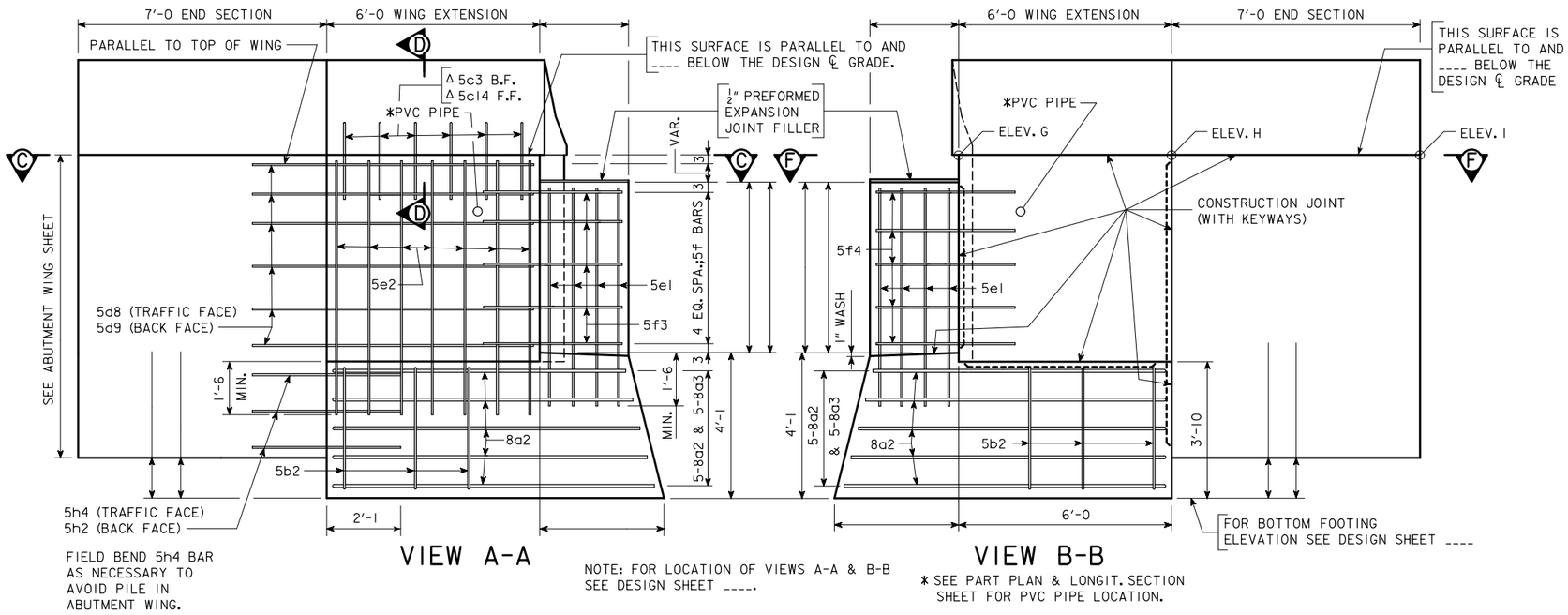
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

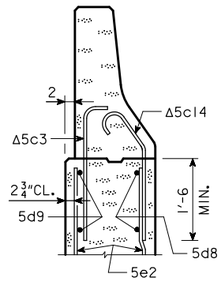
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2103-BTE - THIS SHEET ISSUED 07-08.

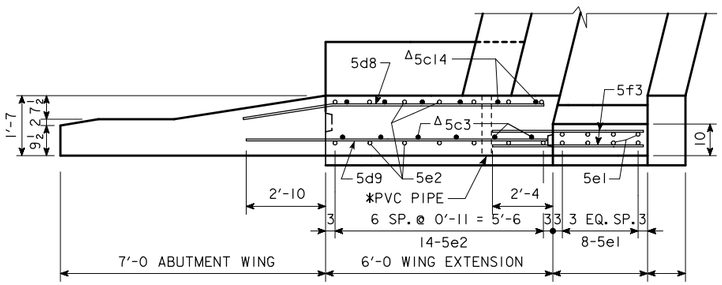
DESIGN TEAM	"BTE" BEAM STUB ABUT. DETAILS - (L.A.) 0°01' - 7°30' SKEW	STANDARD SHEET 2103-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

BENCH MARK:





PART SECTION D-D

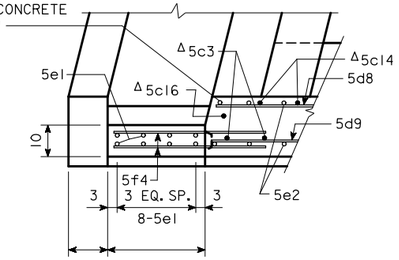


SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.

POSITION THIS 5e2 BAR 2" CLEAR FROM FACE OF CONCRETE TO ACCOMMODATE SKEW



PART SECTION F-F

TABLE OF WINGWALL ELEVATIONS

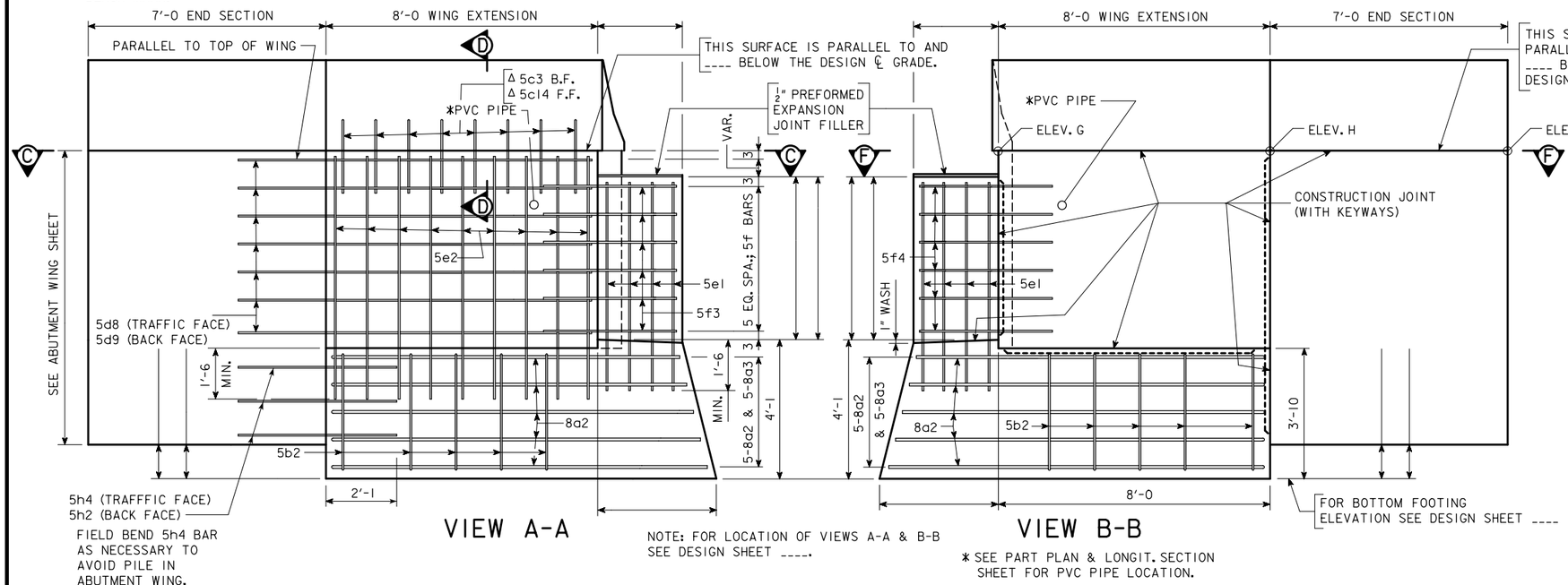
LOCATION	ELEV. G	ELEV. H	ELEV. I

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2104-BTCD - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTC" OR "BTD" BEAM STUB ABUT. DETAILS - (L.A.) 7°31'-15° SKEW	STANDARD SHEET 2104-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

BENCH MARK:

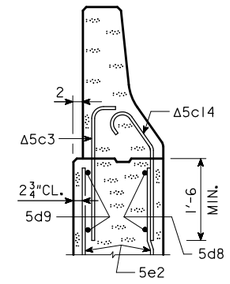


VIEW A-A

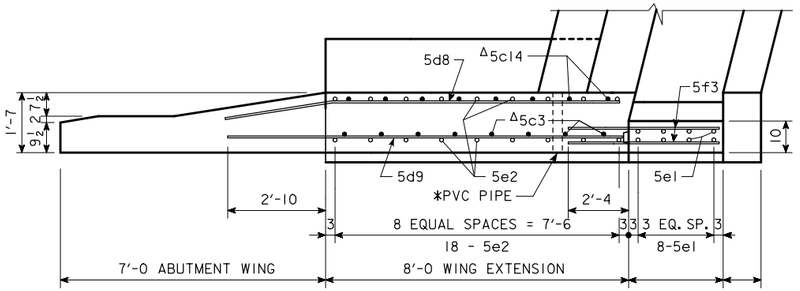
VIEW B-B

NOTE: FOR LOCATION OF VIEWS A-A & B-B SEE DESIGN SHEET ____.

* SEE PART PLAN & LONGIT. SECTION SHEET FOR PVC PIPE LOCATION.



PART SECTION D-D

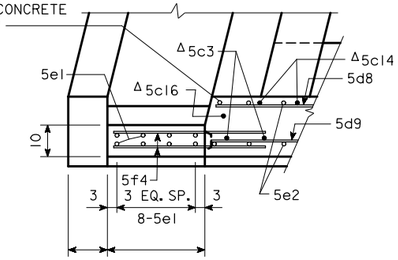


SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.

POSITION THIS 5e2 BAR 2" CLEAR FROM FACE OF CONCRETE TO ACCOMMODATE SKEW



PART SECTION F-F

TABLE OF WINGWALL ELEVATIONS

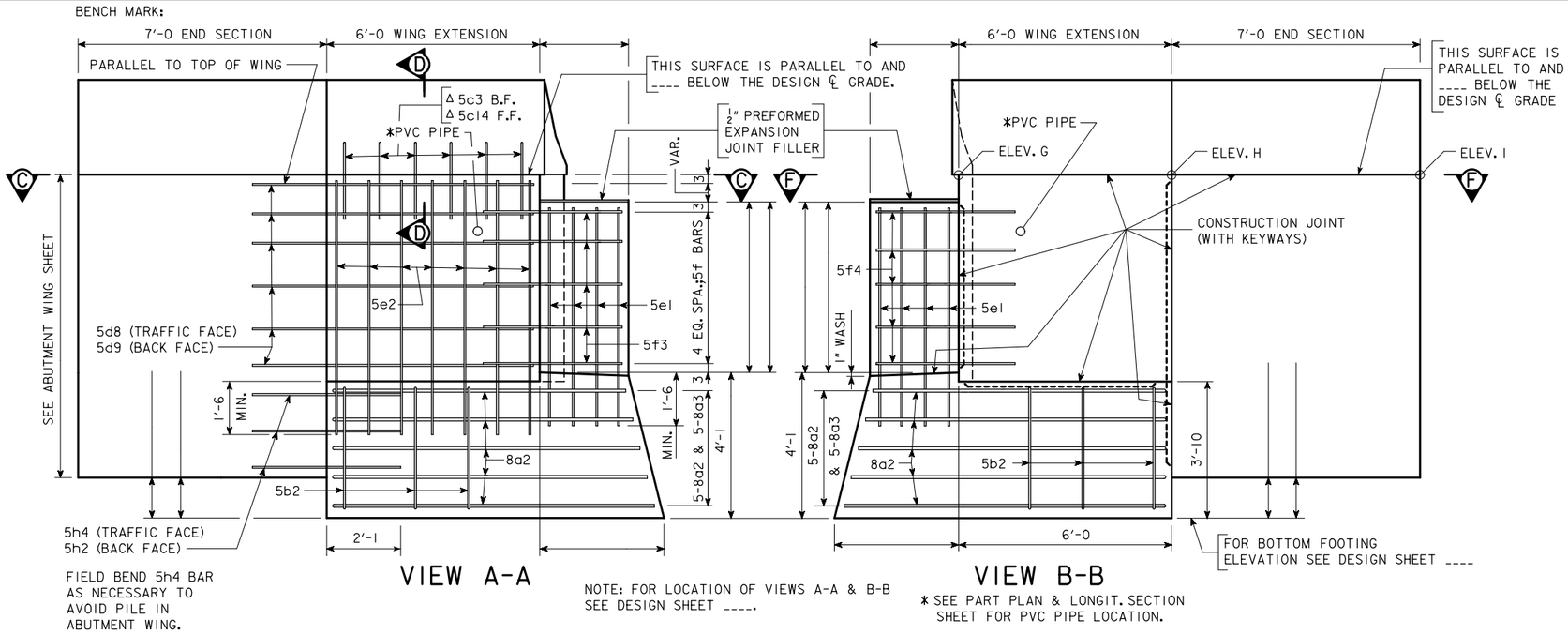
LOCATION	ELEV. G	ELEV. H	ELEV. I

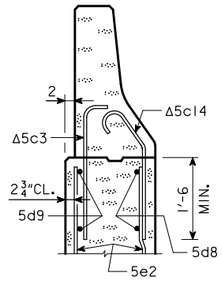
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

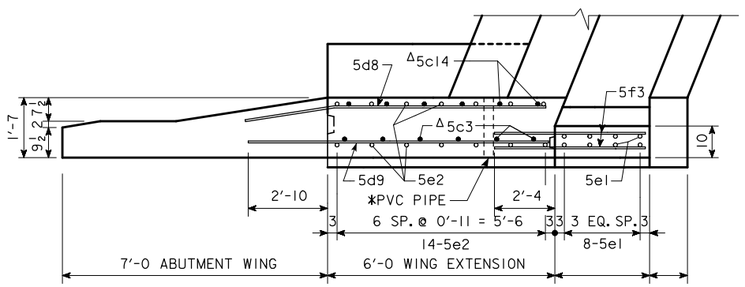
CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2104-BTE - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTE" BEAM STUB ABUT. DETAILS - (L.A.) 7°31'-15° SKEW	STANDARD SHEET 2104-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER





PART SECTION D-D

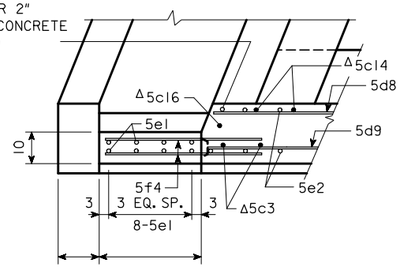


SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.

POSITION THIS 5e2 BAR 2" CLEAR FROM FACE OF CONCRETE TO ACCOMMODATE SKEW



PART SECTION F-F

TABLE OF WINGWALL ELEVATIONS			
LOCATION	ELEV. G	ELEV. H	ELEV. I

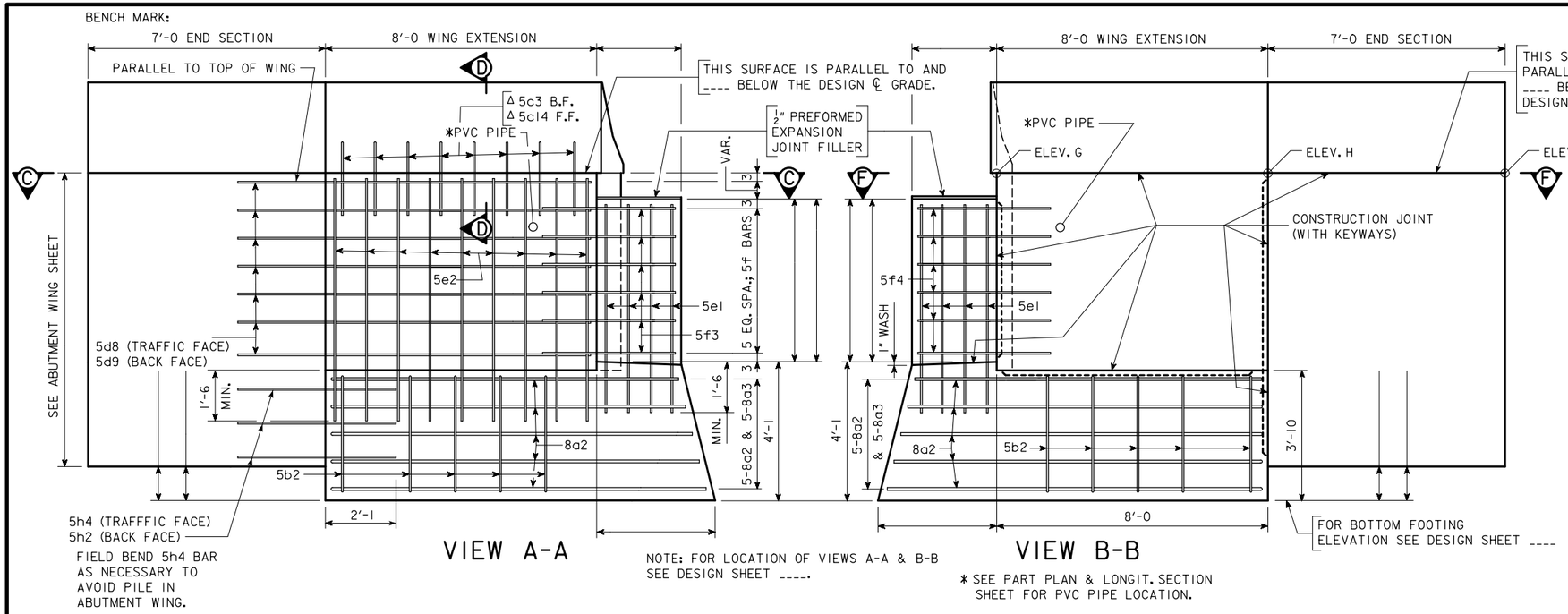
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

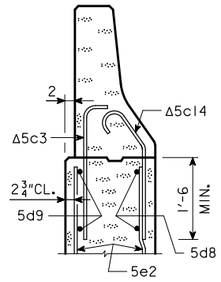
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTC" OR "BTD" BEAM STUB ABUT. DETAILS - (L.A.) 15°01'-30° SKEW	STANDARD SHEET 2105-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

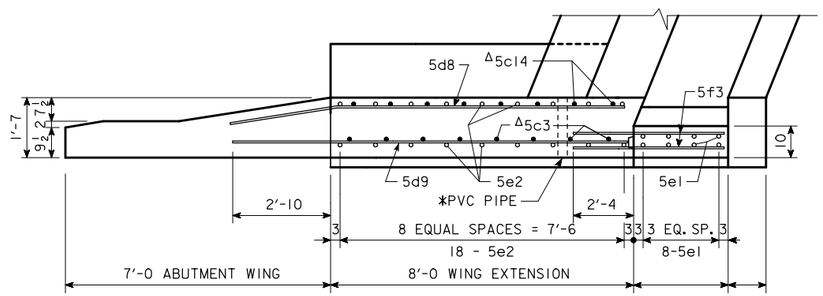
CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2105-BTCD - THIS SHEET ISSUED 07-08.

6/26/2015 1:27:31 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 2105-BTCD 11x17_pdf.pltcfg





PART SECTION D-D

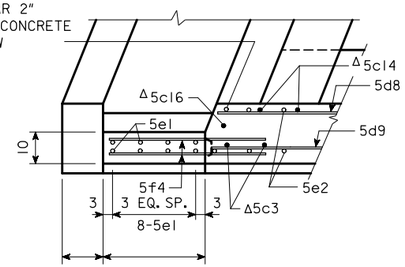


SECTION C-C

NOTE: BARRIER RAIL NOT SHOWN IN SECTION C-C.

Δ NOTE: SEE DESIGN SHEET ____ IN THESE PLANS FOR DETAILS OF BARRIER RAIL WING EXTENSIONS. REINFORCING BARS 5c3 AND 5c14 ARE INCLUDED IN THE BARRIER RAIL QUANTITIES.

POSITION THIS 5e2 BAR 2" CLEAR FROM FACE OF CONCRETE TO ACCOMMODATE SKEW



PART SECTION F-F

TABLE OF WINGWALL ELEVATIONS

LOCATION	ELEV. G	ELEV. H	ELEV. I

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTE" BEAM STUB ABUT. DETAILS - (L.A.) 15°01'-30° SKEW	STANDARD SHEET 2105-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

CORRECTION 04-14 - CHANGED NOTE ABOUT BARRIER RAIL BARS 5c3 & 5c14 TO BARRIER RAIL QTYS. INSTEAD OF BRIDGE DECK QTYS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2105-BTE - THIS SHEET ISSUED 07-08.

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ABUTMENT NOTES:

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

THE MASKWALL IS TO BE POURED BEFORE THE SUPERSTRUCTURE DECK IS POURED.

CONSTRUCTION JOINT KEYWAYS ARE TO BE FORMED WITH BEVELED 2x6's.

THE PORTION OF THE BACKWALL CONTAINING THE ABUTMENT ANCHORAGE OF THE EXPANSION DEVICE IS TO BE PLACED AFTER THE BRIDGE DECK IS PLACED.

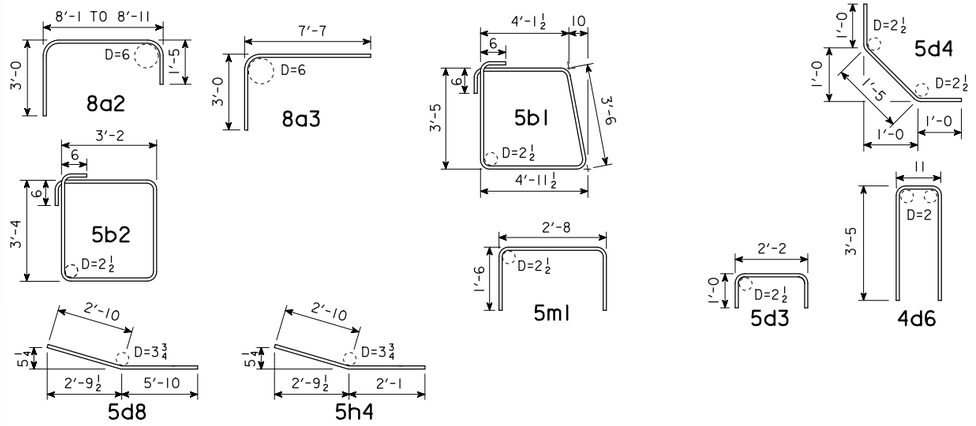
CONCRETE SEALER IS TO BE APPLIED TO THE ABUTMENT BRIDGE SEAT IN ACCORDANCE WITH THE CURRENT IOWA D.O.T. STANDARD SPECIFICATIONS.

THE COST OF PREFORMED EXPANSION JOINT FILLER, AND COST OF FURNISHING AND PLACING CONCRETE SEALER IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

PAVING NOTCH DOWELS SHALL BE STAINLESS STEEL DEFORMED BAR GRADE 60, MEETING THE REQUIREMENTS OF MATERIALS I.M. 452.

IF NECESSARY TO PREVENT DAMAGE TO THE END OF THE BRIDGE DECK AND BACKWALL FROM CONSTRUCTION EQUIPMENT, AN APPROPRIATE METHOD OF PROTECTION APPROVED BY THE ENGINEER SHALL BE PROVIDED BY THE BRIDGE CONTRACTOR AT NO EXTRA COST TO THE STATE.

BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D = PIN DIA

REINFORCING BAR LIST - ONE ABUTMENT

	BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
EPOXY COATED BARS	8a1	FOOTING LONGITUDINAL	—			
	8a2	WING FOOTING	⌐	10	VARIES	345
	8a3	WING FOOTING	⌐	10	10'-7	283
	5b1	FOOTING HOOPS	⊓		17'-0	
	5b2	WING FOOTING HOOPS	⊓	6	14'-0	88
	6d1	BACKWALL VERTICAL B.F.	—			
	5d2	BACKWALL VERTICAL F.F.	—			
	5d3	PAVING NOTCH	⌐		4'-2	
	5d4	PAVING NOTCH	⌐		3'-5	
	4d6	BACKWALL VERTICAL HOOP	⊏⊐		7'-9	
	5d8	WING EXTENSION FF HORIZONTAL	/		8'-8	
	5d9	WING EXTENSION BF HORIZONTAL	—		8'-8	
	5e1	MASKWALL VERTICAL	—	16		
	5e2	WING EXTENSION VERTICAL	—	28		
	5f3	MASKWALL HORIZONTAL	—	20	4'-10	101
	5g1	BACKWALL LONGITUDINAL	—			
	5g2	BACKWALL DOWELS	—	28	4'-5	129
	5g3	PAVING NOTCH LONGITUDINAL	—			
	5h2	WING EXTENSION BF HORIZONTAL	—	6	4'-11	31
	5h4	WING EXTENSION FF HORIZONTAL	/	6	4'-11	31
	5m1	BEAM STEPS TRANSVERSE	⌐		5'-8	
	5n1	BEAM STEPS LONGITUDINAL	—		2'-8	
		REINFORCING STEEL - EPOXY COATED - TOTAL (LBS.)				
S.S. BARS	5d5	PAVING NOTCH DOWELS (STAINLESS STEEL)	—		3'-6	
		STAINLESS STEEL - TOTAL (LBS.)				

CONCRETE PLACEMENT QUANTITIES

LOCATION	ABUT.	ABUT.
FOOTING AND STEPS		
BACKWALL BELOW CONSTR. JOINT		
BACKWALL ABOVE CONSTR. JOINT		
? WING EXTENSION		
? WING EXTENSION		
? WING MASKWALL		
? WING MASKWALL		
TOTAL (C.Y.)		

NOTE:
CONCRETE AND REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

REVISED 07-14 - CHANGED THE 5m1 HORIZONTAL BAR LENGTH TO 2'-8 TO ACCOMMODATE THE 3'-0 TRANSVERSE DISTANCE OF THE BEAM STEPS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2106-BTCD - THIS SHEET ISSUED 07-08.

ABUTMENT QUANTITIES

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTC & BTD" BEAM STUB ABUT. BAR LIST - 0° SKEW	STANDARD SHEET 2106-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

6/26/2015 1:27:33 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 2106-BTCD 11x17_pdf.pltcfg

ABUTMENT NOTES:

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

THE MASKWALL IS TO BE POURED BEFORE THE SUPERSTRUCTURE DECK IS POURED.

CONSTRUCTION JOINT KEYWAYS ARE TO BE FORMED WITH BEVELED 2x6's.

THE PORTION OF THE BACKWALL CONTAINING THE ABUTMENT ANCHORAGE OF THE EXPANSION DEVICE IS TO BE PLACED AFTER THE BRIDGE DECK IS PLACED.

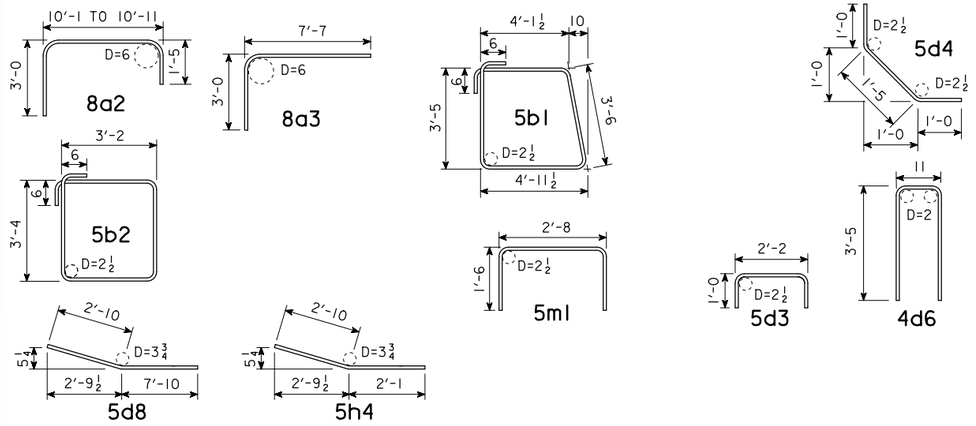
CONCRETE SEALER IS TO BE APPLIED TO THE ABUTMENT BRIDGE SEAT IN ACCORDANCE WITH THE CURRENT IOWA D.O.T. STANDARD SPECIFICATIONS.

THE COST OF PREFORMED EXPANSION JOINT FILLER, AND COST OF FURNISHING AND PLACING CONCRETE SEALER IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

PAVING NOTCH DOWELS SHALL BE STAINLESS STEEL DEFORMED BAR GRADE 60, MEETING THE REQUIREMENTS OF MATERIALS I.M. 452.

IF NECESSARY TO PREVENT DAMAGE TO THE END OF THE BRIDGE DECK AND BACKWALL FROM CONSTRUCTION EQUIPMENT, AN APPROPRIATE METHOD OF PROTECTION APPROVED BY THE ENGINEER SHALL BE PROVIDED BY THE BRIDGE CONTRACTOR AT NO EXTRA COST TO THE STATE.

BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D = PIN DIA

REINFORCING BAR LIST - ONE ABUTMENT

	BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
EPOXY COATED BARS	8a1	FOOTING LONGITUDINAL	——			
	8a2	WING FOOTING	⌐¬	10	VARIES	398
	8a3	WING FOOTING	⌐	10	12'-7	336
	5b1	FOOTING HOOPS	⊓		17'-0	
	5b2	WING FOOTING HOOPS	⊓	10	14'-0	146
	6d1	BACKWALL VERTICAL B.F.	——			
	5d2	BACKWALL VERTICAL F.F.	——			
	5d3	PAVING NOTCH	⌐		4'-2	
	5d4	PAVING NOTCH	⌐		3'-5	
	4d6	BACKWALL VERTICAL HOOP	⊏⊐		7'-9	
	5d8	WING EXTENSION FF HORIZONTAL	⌐	14	10'-8	156
	5d9	WING EXTENSION BF HORIZONTAL	——	14	10'-8	156
	5e1	MASKWALL VERTICAL	——	16		
	5e2	WING EXTENSION VERTICAL	——	28		
	5f3	MASKWALL HORIZONTAL	——	24	4'-10	120
	5g1	BACKWALL LONGITUDINAL	——			
	5g2	BACKWALL DOWELS	——	32	4'-5	147
	5g3	PAVING NOTCH LONGITUDINAL	——			
	5h2	WING EXTENSION BF HORIZONTAL	——	6	4'-11	31
	5h4	WING EXTENSION FF HORIZONTAL	⌐	6	4'-11	31
	5m1	BEAM STEPS TRANSVERSE	⌐		5'-8	
	5n1	BEAM STEPS LONGITUDINAL	——		2'-8	
		REINFORCING STEEL - EPOXY COATED - TOTAL (LBS.)				
S.S. BARS	5d5	PAVING NOTCH DOWELS (STAINLESS STEEL)	——		3'-6	
		STAINLESS STEEL - TOTAL (LBS.)				

CONCRETE PLACEMENT QUANTITIES

LOCATION	ABUT.	ABUT.
FOOTING AND STEPS		
BACKWALL BELOW CONSTR. JOINT		
BACKWALL ABOVE CONSTR. JOINT		
? WING EXTENSION		
? WING EXTENSION		
? WING MASKWALL		
? WING MASKWALL		
TOTAL (C.Y.)		

NOTE:
CONCRETE AND REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

REVISED 07-14 - CHANGED THE 5m1 HORIZONTAL BAR LENGTH TO 2'-8 TO ACCOMMODATE THE 3'-0 TRANSVERSE DISTANCE OF THE BEAM STEPS.
ADDED 2'-0 TO THE HORIZONTAL LEG OF THE 8a2 BARS TO ACCOMMODATE THE FULL LENGTH OF THE WING EXTENSION AND ABUTMENT FOOTING.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2106-BTE - THIS SHEET ISSUED 07-08.

ABUTMENT QUANTITIES

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTE" BEAM STUB ABUT. BAR LIST - 0° SKEW	STANDARD SHEET 2106-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

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ABUTMENT NOTES:

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

THE MASKWALL IS TO BE POURED BEFORE THE SUPERSTRUCTURE DECK IS POURED.

CONSTRUCTION JOINT KEYWAYS ARE TO BE FORMED WITH BEVELED 2x6's.

THE PORTION OF THE BACKWALL CONTAINING THE ABUTMENT ANCHORAGE OF THE EXPANSION DEVICE IS TO BE PLACED AFTER THE BRIDGE DECK IS PLACED.

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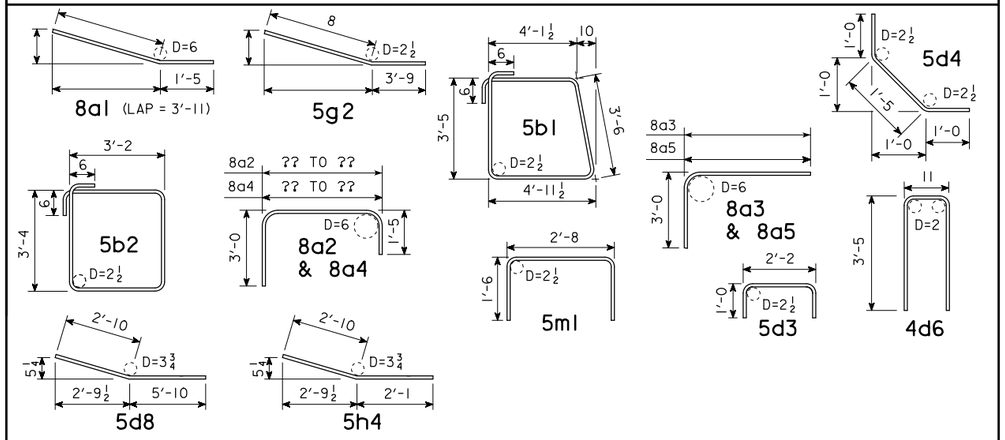
THE COST OF PREFORMED EXPANSION JOINT FILLER, AND COST OF FURNISHING AND PLACING CONCRETE SEALER IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

PAVING NOTCH DOWELS SHALL BE STAINLESS STEEL DEFORMED BAR GRADE 60, MEETING THE REQUIREMENTS OF MATERIALS I.M. 452.

IF NECESSARY TO PREVENT DAMAGE TO THE END OF THE BRIDGE DECK AND BACKWALL FROM CONSTRUCTION EQUIPMENT, AN APPROPRIATE METHOD OF PROTECTION APPROVED BY THE ENGINEER SHALL BE PROVIDED BY THE BRIDGE CONTRACTOR AT NO EXTRA COST TO THE STATE.

BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D = PIN DIA

CONCRETE PLACEMENT QUANTITIES

LOCATION	ABUT.	ABUT.
FOOTING AND STEPS		
BACKWALL BELOW CONSTR. JOINT		
BACKWALL ABOVE CONSTR. JOINT		
? WING EXTENSION		
? WING EXTENSION		
? WING MASKWALL		
? WING MASKWALL		
TOTAL (C.Y.)		

NOTE:
CONCRETE AND REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

REINFORCING BAR LIST - ONE ABUTMENT

	BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
EPOXY COATED BARS	8a1	FOOTING LONGITUDINAL	——	26		
	8a2	WING FOOTING	⌐¬	5	VARIES	
	8a3	WING FOOTING	⌐¬	5		
	8a4	WING FOOTING	⌐¬	5	VARIES	
	8a5	WING FOOTING	⌐¬	5		
	5b1	FOOTING HOOPS	⊓		17'-0	
	5b2	WING FOOTING HOOPS	⊓	6	14'-0	88
	6d1	BACKWALL VERTICAL B.F.	——			
	5d2	BACKWALL VERTICAL F.F.	——			
	5d3	PAVING NOTCH	⌐		4'-2	
	5d4	PAVING NOTCH	⌐		3'-5	
	4d6	BACKWALL VERTICAL HOOP	⊏⊐		7'-9	
	5d8	WING EXTENSION FF HORIZONTAL	⟋		8'-8	
	5d9	WING EXTENSION BF HORIZONTAL	——		8'-8	
	5e1	MASKWALL VERTICAL	——	16		
	5e2	WING EXTENSION VERTICAL	——	28		
	5f3	MASKWALL HORIZONTAL	——	10		
	5f4	MASKWALL HORIZONTAL	——	10		
	5g1	BACKWALL LONGITUDINAL	——			
	5g2	BACKWALL DOWELS	——	28	4'-5	129
	5g3	PAVING NOTCH LONGITUDINAL	——			
	5h2	WING EXTENSION BF HORIZONTAL	——	6	4'-11	31
	5h4	WING EXTENSION FF HORIZONTAL	⟋	6	4'-11	31
	5m1	BEAM STEPS TRANSVERSE	⌐¬		5'-8	
	5n1	BEAM STEPS LONGITUDINAL	——		2'-8	
		REINFORCING STEEL - EPOXY COATED - TOTAL (LBS.)				
S.S. BARS	5d5	PAVING NOTCH DOWELS (STAINLESS STEEL)	——		3'-6	
		STAINLESS STEEL - TOTAL (LBS.)				

ABUTMENT QUANTITIES

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

REVISED 07-14 - CHANGED THE 5m1 HORIZONTAL BAR LENGTH TO 2'-8 TO ACCOMMODATE THE 3'-0 TRANSVERSE DISTANCE OF THE BEAM STEPS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2107-BTCD - THIS SHEET ISSUED 07-08.

DESIGN TEAM	"BTC & BTD" BEAM STUB ABUT. BAR LIST - 0°01' - 7°30' SKEW	STANDARD SHEET 2107-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

6/26/2015 1:27:35 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 2107-BTCD 11x17_pdf.pltcfg

ABUTMENT NOTES:

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CONSTRUCTION JOINT KEYWAYS ARE TO BE FORMED WITH BEVELED 2x6's.

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PAVING NOTCH DOWELS SHALL BE STAINLESS STEEL DEFORMED BAR GRADE 60, MEETING THE REQUIREMENTS OF MATERIALS I.M. 452.

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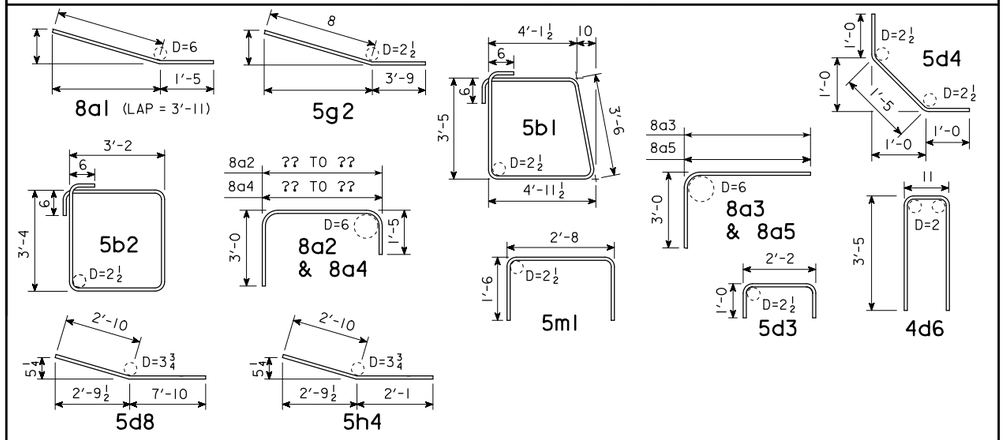
BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D = PIN DIA

REINFORCING BAR LIST - ONE ABUTMENT

	BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
EPOXY COATED BARS	8a1	FOOTING LONGITUDINAL	——	26		
	8a2	WING FOOTING	⌐	5	VARIES	
	8a3	WING FOOTING	⌐	5		
	8a4	WING FOOTING	⌐	5	VARIES	
	8a5	WING FOOTING	⌐	5		
	5b1	FOOTING HOOPS	⊓		17'-0	
	5b2	WING FOOTING HOOPS	⊓	10	14'-0	146
	6d1	BACKWALL VERTICAL B.F.	——			
	5d2	BACKWALL VERTICAL F.F.	——			
	5d3	PAVING NOTCH	⌐		4'-2	
	5d4	PAVING NOTCH	⌐		3'-5	
	4d6	BACKWALL VERTICAL HOOP	⊏		7'-9	
	5d8	WING EXTENSION FF HORIZONTAL	⟋	14	10'-8	156
	5d9	WING EXTENSION BF HORIZONTAL	——	14	10'-8	156
	5e1	MASKWALL VERTICAL	——	16		
	5e2	WING EXTENSION VERTICAL	——	28		
	5f3	MASKWALL HORIZONTAL	——	12		
	5f4	MASKWALL HORIZONTAL	——	12		
	5g1	BACKWALL LONGITUDINAL	——			
	5g2	BACKWALL DOWELS	——	32	4'-5	147
	5g3	PAVING NOTCH LONGITUDINAL	——			
	5h2	WING EXTENSION BF HORIZONTAL	——	6	4'-11	31
	5h4	WING EXTENSION FF HORIZONTAL	⟋	6	4'-11	31
	5m1	BEAM STEPS TRANSVERSE	⌐		5'-8	
	5n1	BEAM STEPS LONGITUDINAL	——		2'-8	
		REINFORCING STEEL - EPOXY COATED - TOTAL (LBS.)				
S.S. BARS	5d5	PAVING NOTCH DOWELS (STAINLESS STEEL)	——		3'-6	
		STAINLESS STEEL - TOTAL (LBS.)				

CONCRETE PLACEMENT QUANTITIES

LOCATION	ABUT.	ABUT.
FOOTING AND STEPS		
BACKWALL BELOW CONSTR. JOINT		
BACKWALL ABOVE CONSTR. JOINT		
? WING EXTENSION		
? WING EXTENSION		
? WING MASKWALL		
? WING MASKWALL		
TOTAL (C.Y.)		

NOTE:
CONCRETE AND REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

REVISED 07-14 - CHANGED THE 5m1 HORIZONTAL BAR LENGTH TO 2'-8 TO ACCOMMODATE THE 3'-0 TRANSVERSE DISTANCE OF THE BEAM STEPS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2710-BTE - THIS SHEET ISSUED 07-08.

ABUTMENT QUANTITIES

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTE" BEAM STUB ABUT. BAR LIST - 0°01' - 7°30' SKEW	STANDARD SHEET 2107-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

6/26/2015 1:27:36 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 2107-BTE 11x17_pdf.pltcfg

ABUTMENT NOTES:

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

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CONSTRUCTION JOINT KEYWAYS ARE TO BE FORMED WITH BEVELED 2x6's.

THE PORTION OF THE BACKWALL CONTAINING THE ABUTMENT ANCHORAGE OF THE EXPANSION DEVICE IS TO BE PLACED AFTER THE BRIDGE DECK IS PLACED.

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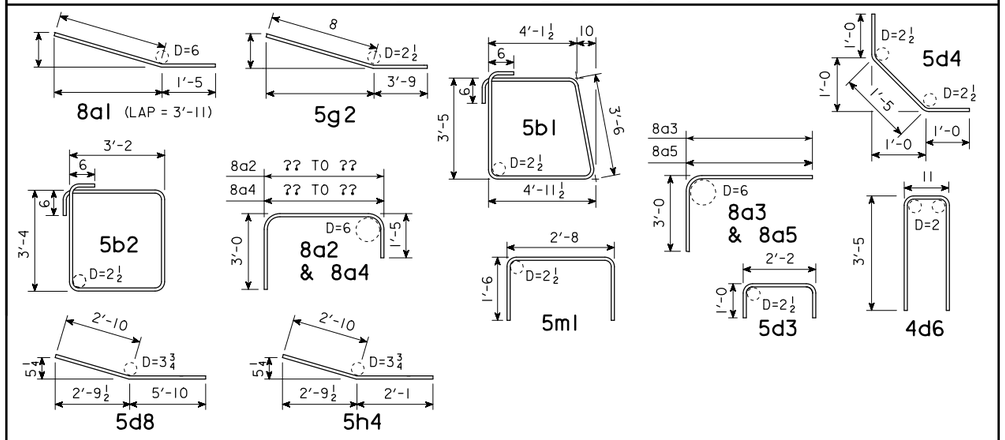
BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D = PIN DIA

REINFORCING BAR LIST - ONE ABUTMENT

	BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
EPOXY COATED BARS	8a1	FOOTING LONGITUDINAL	——	26		
	8a2	WING FOOTING	⌐	5	VARIES	
	8a3	WING FOOTING	⌐	5		
	8a4	WING FOOTING	⌐	5	VARIES	
	8a5	WING FOOTING	⌐	5		
	5b1	FOOTING HOOPS	⊓		17'-0	
	5b2	WING FOOTING HOOPS	⊓	6	14'-0	88
	6d1	BACKWALL VERTICAL B.F.	——			
	5d2	BACKWALL VERTICAL F.F.	——			
	5d3	PAVING NOTCH	⌐		4'-2	
	5d4	PAVING NOTCH	⌐		3'-5	
	4d6	BACKWALL VERTICAL HOOP	⊏		7'-9	
	5d8	WING EXTENSION FF HORIZONTAL	/		8'-8	
	5d9	WING EXTENSION BF HORIZONTAL	——		8'-8	
	5e1	MASKWALL VERTICAL	——	16		
	5e2	WING EXTENSION VERTICAL	——	28		
	5f3	MASKWALL HORIZONTAL	——	10		
	5f4	MASKWALL HORIZONTAL	——	10		
	5g1	BACKWALL LONGITUDINAL	——			
	5g2	BACKWALL DOWELS	——	28	4'-5	129
	5g3	PAVING NOTCH LONGITUDINAL	——			
	5h2	WING EXTENSION BF HORIZONTAL	——	6	4'-11	31
	5h4	WING EXTENSION FF HORIZONTAL	/	6	4'-11	31
	5m1	BEAM STEPS TRANSVERSE	⌐		5'-8	
	5n1	BEAM STEPS LONGITUDINAL	——		2'-8	
		REINFORCING STEEL - EPOXY COATED - TOTAL (LBS.)				
S.S. BARS	5d5	PAVING NOTCH DOWELS (STAINLESS STEEL)	——		3'-6	
		STAINLESS STEEL - TOTAL (LBS.)				

CONCRETE PLACEMENT QUANTITIES

LOCATION	ABUT.	ABUT.
FOOTING AND STEPS		
BACKWALL BELOW CONSTR. JOINT		
BACKWALL ABOVE CONSTR. JOINT		
? WING EXTENSION		
? WING EXTENSION		
? WING MASKWALL		
? WING MASKWALL		
TOTAL (C.Y.)		

NOTE:
CONCRETE AND REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

REVISED 07-14 - CHANGED THE 5m1 HORIZONTAL BAR LENGTH TO 2'-8 TO ACCOMMODATE THE 3'-0 TRANSVERSE DISTANCE OF THE BEAM STEPS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2108-BTCD - THIS SHEET ISSUED 07-08.

ABUTMENT QUANTITIES

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTC & BTD" BEAM STUB ABUT. BAR LIST - 7°30' - 15° SKEW	STANDARD SHEET 2108-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

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ABUTMENT NOTES:

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

THE MASKWALL IS TO BE POURED BEFORE THE SUPERSTRUCTURE DECK IS POURED.

CONSTRUCTION JOINT KEYWAYS ARE TO BE FORMED WITH BEVELED 2x6's.

THE PORTION OF THE BACKWALL CONTAINING THE ABUTMENT ANCHORAGE OF THE EXPANSION DEVICE IS TO BE PLACED AFTER THE BRIDGE DECK IS PLACED.

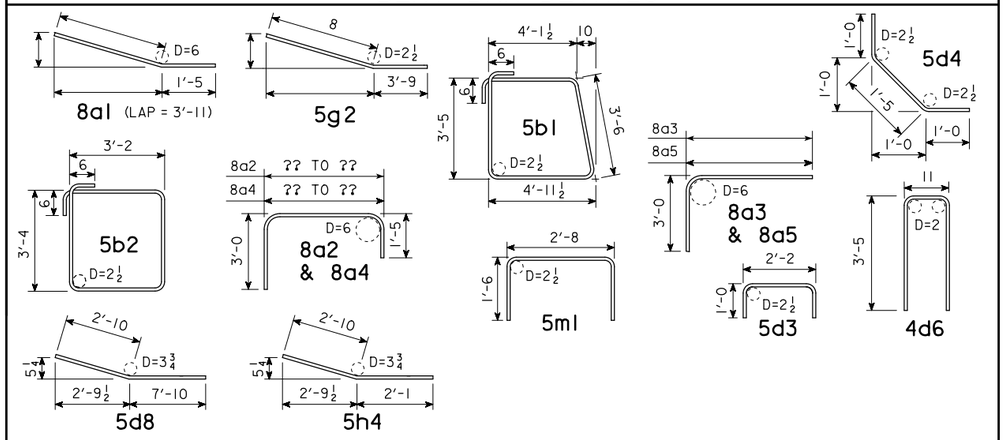
CONCRETE SEALER IS TO BE APPLIED TO THE ABUTMENT BRIDGE SEAT IN ACCORDANCE WITH THE CURRENT IOWA D.O.T. STANDARD SPECIFICATIONS.

THE COST OF PREFORMED EXPANSION JOINT FILLER, AND COST OF FURNISHING AND PLACING CONCRETE SEALER IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

PAVING NOTCH DOWELS SHALL BE STAINLESS STEEL DEFORMED BAR GRADE 60, MEETING THE REQUIREMENTS OF MATERIALS I.M. 452.

IF NECESSARY TO PREVENT DAMAGE TO THE END OF THE BRIDGE DECK AND BACKWALL FROM CONSTRUCTION EQUIPMENT, AN APPROPRIATE METHOD OF PROTECTION APPROVED BY THE ENGINEER SHALL BE PROVIDED BY THE BRIDGE CONTRACTOR AT NO EXTRA COST TO THE STATE.

BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D = PIN DIA

REINFORCING BAR LIST - ONE ABUTMENT

	BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
EPOXY COATED BARS	8a1	FOOTING LONGITUDINAL	——	26		
	8a2	WING FOOTING	⌐	5	VARIES	
	8a3	WING FOOTING	⌐	5		
	8a4	WING FOOTING	⌐	5	VARIES	
	8a5	WING FOOTING	⌐	5		
	5b1	FOOTING HOOPS	⊓		17'-0	
	5b2	WING FOOTING HOOPS	⊓	10	14'-0	146
	6d1	BACKWALL VERTICAL B.F.	——			
	5d2	BACKWALL VERTICAL F.F.	——			
	5d3	PAVING NOTCH	⌐		4'-2	
	5d4	PAVING NOTCH	⌐		3'-5	
	4d6	BACKWALL VERTICAL HOOP	⊏⊐		7'-9	
	5d8	WING EXTENSION FF HORIZONTAL	/	14	10'-8	156
	5d9	WING EXTENSION BF HORIZONTAL	——	14	10'-8	156
	5e1	MASKWALL VERTICAL	——	16		
	5e2	WING EXTENSION VERTICAL	——	28		
	5f3	MASKWALL HORIZONTAL	——	12		
	5f4	MASKWALL HORIZONTAL	——	12		
	5g1	BACKWALL LONGITUDINAL	——			
	5g2	BACKWALL DOWELS	——	32	4'-5	147
	5g3	PAVING NOTCH LONGITUDINAL	——			
	5h2	WING EXTENSION BF HORIZONTAL	——	6	4'-11	31
	5h4	WING EXTENSION FF HORIZONTAL	/	6	4'-11	31
	5m1	BEAM STEPS TRANSVERSE	⌐		5'-8	
	5n1	BEAM STEPS LONGITUDINAL	——		2'-8	
		REINFORCING STEEL - EPOXY COATED - TOTAL (LBS.)				
S.S. BARS	5d5	PAVING NOTCH DOWELS (STAINLESS STEEL)	——		3'-6	
		STAINLESS STEEL - TOTAL (LBS.)				

CONCRETE PLACEMENT QUANTITIES

LOCATION	ABUT.	ABUT.
FOOTING AND STEPS		
BACKWALL BELOW CONSTR. JOINT		
BACKWALL ABOVE CONSTR. JOINT		
? WING EXTENSION		
? WING EXTENSION		
? WING MASKWALL		
? WING MASKWALL		
TOTAL (C.Y.)		

NOTE:
CONCRETE AND REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

REVISED 07-14 - CHANGED THE 5m1 HORIZONTAL BAR LENGTH TO 2'-8 TO ACCOMMODATE THE 3'-0 TRANSVERSE DISTANCE OF THE BEAM STEPS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2108-BTE - THIS SHEET ISSUED 07-08.

ABUTMENT QUANTITIES

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTE" BEAM STUB ABUT. BAR LIST - 7°30' - 15° SKEW	STANDARD SHEET 2108-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

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ABUTMENT NOTES:

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

THE MASKWALL IS TO BE POURED BEFORE THE SUPERSTRUCTURE DECK IS POURED.

CONSTRUCTION JOINT KEYWAYS ARE TO BE FORMED WITH BEVELED 2x6's.

THE PORTION OF THE BACKWALL CONTAINING THE ABUTMENT ANCHORAGE OF THE EXPANSION DEVICE IS TO BE PLACED AFTER THE BRIDGE DECK IS PLACED.

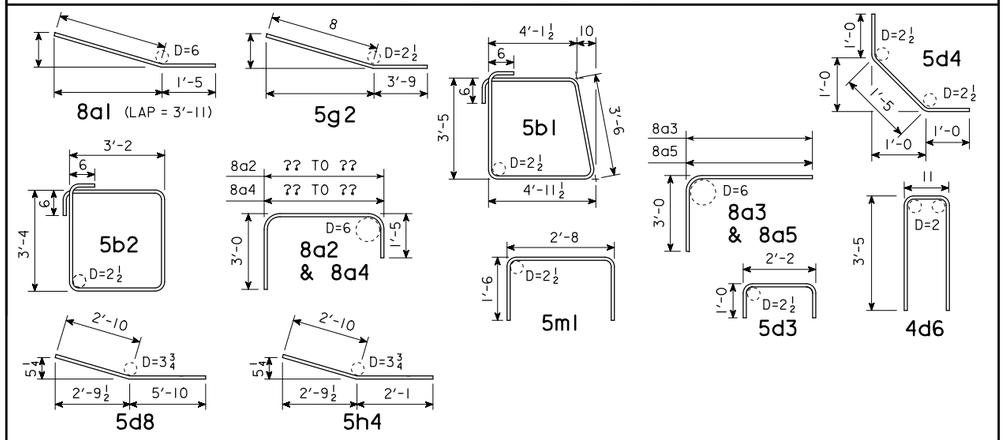
CONCRETE SEALER IS TO BE APPLIED TO THE ABUTMENT BRIDGE SEAT IN ACCORDANCE WITH THE CURRENT IOWA D.O.T. STANDARD SPECIFICATIONS.

THE COST OF PREFORMED EXPANSION JOINT FILLER, AND COST OF FURNISHING AND PLACING CONCRETE SEALER IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

PAVING NOTCH DOWELS SHALL BE STAINLESS STEEL DEFORMED BAR GRADE 60, MEETING THE REQUIREMENTS OF MATERIALS I.M. 452.

IF NECESSARY TO PREVENT DAMAGE TO THE END OF THE BRIDGE DECK AND BACKWALL FROM CONSTRUCTION EQUIPMENT, AN APPROPRIATE METHOD OF PROTECTION APPROVED BY THE ENGINEER SHALL BE PROVIDED BY THE BRIDGE CONTRACTOR AT NO EXTRA COST TO THE STATE.

BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D = PIN DIA

REINFORCING BAR LIST - ONE ABUTMENT

	BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
EPOXY COATED BARS	8a1	FOOTING LONGITUDINAL	——	26		
	8a2	WING FOOTING	⌐	5	VARIES	
	8a3	WING FOOTING	⌐	5		
	8a4	WING FOOTING	⌐	5	VARIES	
	8a5	WING FOOTING	⌐	5		
	5b1	FOOTING HOOPS	⊓		17'-0	
	5b2	WING FOOTING HOOPS	⊓	6	14'-0	88
	6d1	BACKWALL VERTICAL B.F.	——			
	5d2	BACKWALL VERTICAL F.F.	——			
	5d3	PAVING NOTCH	⌐		4'-2	
	5d4	PAVING NOTCH	⌐		3'-5	
	4d6	BACKWALL VERTICAL HOOP	⊏⊐		7'-9	
	5d8	WING EXTENSION FF HORIZONTAL	⟋		8'-8	
	5d9	WING EXTENSION BF HORIZONTAL	——		8'-8	
	5e1	MASKWALL VERTICAL	——	16		
	5e2	WING EXTENSION VERTICAL	——	28		
	5f3	MASKWALL HORIZONTAL	——	10		
	5f4	MASKWALL HORIZONTAL	——	10		
	5g1	BACKWALL LONGITUDINAL	——			
	5g2	BACKWALL DOWELS	——	28	4'-5	129
	5g3	PAVING NOTCH LONGITUDINAL	——			
	5h2	WING EXTENSION BF HORIZONTAL	——	6	4'-11	31
	5h4	WING EXTENSION FF HORIZONTAL	⟋	6	4'-11	31
	5m1	BEAM STEPS TRANSVERSE	⌐		5'-8	
	5n1	BEAM STEPS LONGITUDINAL	——		2'-8	
		REINFORCING STEEL - EPOXY COATED - TOTAL (LBS.)				
S.S. BARS	5d5	PAVING NOTCH DOWELS (STAINLESS STEEL)	——		3'-6	
		STAINLESS STEEL - TOTAL (LBS.)				

CONCRETE PLACEMENT QUANTITIES

LOCATION	ABUT.	ABUT.
FOOTING AND STEPS		
BACKWALL BELOW CONSTR. JOINT		
BACKWALL ABOVE CONSTR. JOINT		
? WING EXTENSION		
? WING EXTENSION		
? WING MASKWALL		
? WING MASKWALL		
TOTAL (C.Y.)		

NOTE:
CONCRETE AND REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

REVISED 07-14 - CHANGED THE 5m1 HORIZONTAL BAR LENGTH TO 2'-8 TO ACCOMMODATE THE 3'-0 TRANSVERSE DISTANCE OF THE BEAM STEPS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2109-BTCD - THIS SHEET ISSUED 07-08.

ABUTMENT QUANTITIES

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTC & BTD" BEAM STUB ABUT. BAR LIST - 15°01' - 30' SKEW	STANDARD SHEET 2109-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER

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ABUTMENT NOTES:

MINIMUM CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR IS TO BE 2" UNLESS OTHERWISE NOTED OR SHOWN.

THE MASKWALL IS TO BE POURED BEFORE THE SUPERSTRUCTURE DECK IS POURED.

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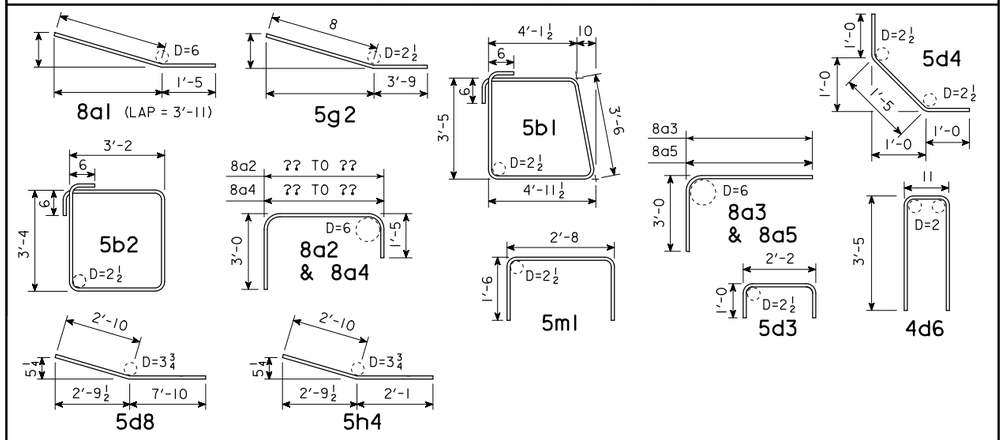
IF NECESSARY TO PREVENT DAMAGE TO THE END OF THE BRIDGE DECK AND BACKWALL FROM CONSTRUCTION EQUIPMENT, AN APPROPRIATE METHOD OF PROTECTION APPROVED BY THE ENGINEER SHALL BE PROVIDED BY THE BRIDGE CONTRACTOR AT NO EXTRA COST TO THE STATE.

BENT BAR DETAILS



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D = PIN DIA

REINFORCING BAR LIST - ONE ABUTMENT

	BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
EPOXY COATED BARS	8a1	FOOTING LONGITUDINAL	——	26		
	8a2	WING FOOTING	⌐	5	VARIES	
	8a3	WING FOOTING	⌐	5		
	8a4	WING FOOTING	⌐	5	VARIES	
	8a5	WING FOOTING	⌐	5		
	5b1	FOOTING HOOPS	⊓		17'-0	
	5b2	WING FOOTING HOOPS	⊓	10	14'-0	146
	6d1	BACKWALL VERTICAL B.F.	——			
	5d2	BACKWALL VERTICAL F.F.	——			
	5d3	PAVING NOTCH	⌐		4'-2	
	5d4	PAVING NOTCH	⌐		3'-5	
	4d6	BACKWALL VERTICAL HOOP	⊏⊐		7'-9	
	5d8	WING EXTENSION FF HORIZONTAL	/	14	10'-8	156
	5d9	WING EXTENSION BF HORIZONTAL	——	14	10'-8	156
	5e1	MASKWALL VERTICAL	——	16		
	5e2	WING EXTENSION VERTICAL	——	28		
	5f3	MASKWALL HORIZONTAL	——	12		
	5f4	MASKWALL HORIZONTAL	——	12		
	5g1	BACKWALL LONGITUDINAL	——			
	5g2	BACKWALL DOWELS	——	32	4'-5	147
	5g3	PAVING NOTCH LONGITUDINAL	——			
	5h2	WING EXTENSION BF HORIZONTAL	——	6	4'-11	31
	5h4	WING EXTENSION FF HORIZONTAL	/	6	4'-11	31
	5m1	BEAM STEPS TRANSVERSE	⌐		5'-8	
	5n1	BEAM STEPS LONGITUDINAL	——		2'-8	
		REINFORCING STEEL - EPOXY COATED - TOTAL (LBS.)				
S.S. BARS	5d5	PAVING NOTCH DOWELS (STAINLESS STEEL)	——		3'-6	
		STAINLESS STEEL - TOTAL (LBS.)				

CONCRETE PLACEMENT QUANTITIES

LOCATION	ABUT.	ABUT.
FOOTING AND STEPS		
BACKWALL BELOW CONSTR. JOINT		
BACKWALL ABOVE CONSTR. JOINT		
? WING EXTENSION		
? WING EXTENSION		
? WING MASKWALL		
? WING MASKWALL		
TOTAL (C.Y.)		

NOTE:
CONCRETE AND REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

REVISED 07-14 - CHANGED THE 5m1 HORIZONTAL BAR LENGTH TO 2'-8 TO ACCOMMODATE THE 3'-0 TRANSVERSE DISTANCE OF THE BEAM STEPS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 2109-BTE - THIS SHEET ISSUED 07-08.

ABUTMENT QUANTITIES

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	"BTE" BEAM STUB ABUT. BAR LIST - 15°01' - 30' SKEW	STANDARD SHEET 2109-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER

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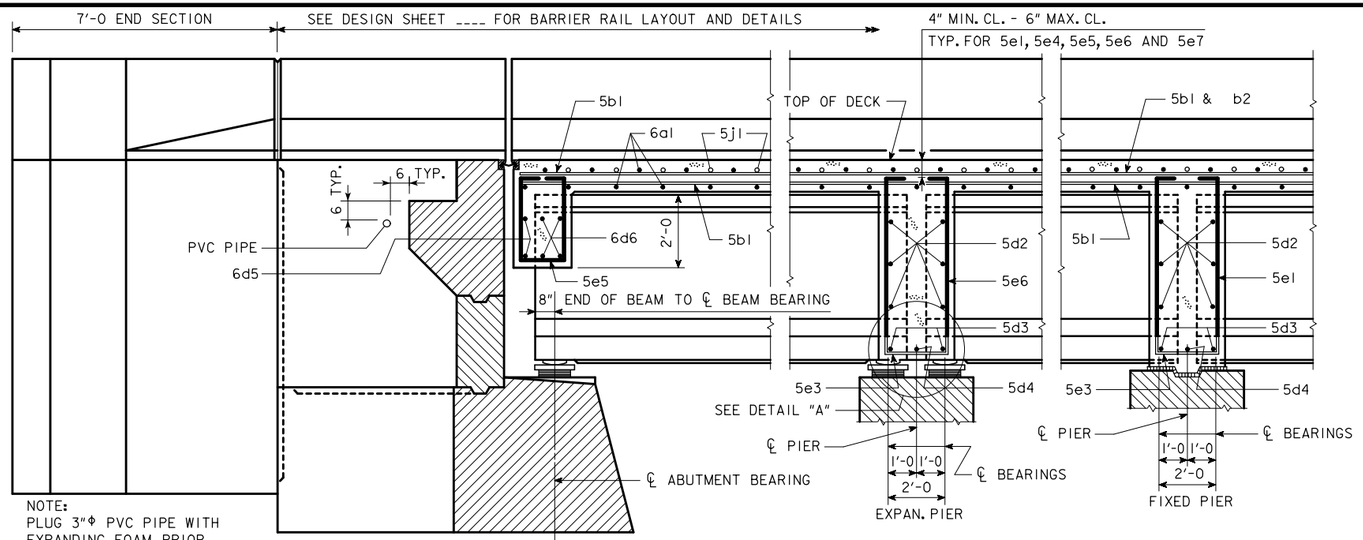
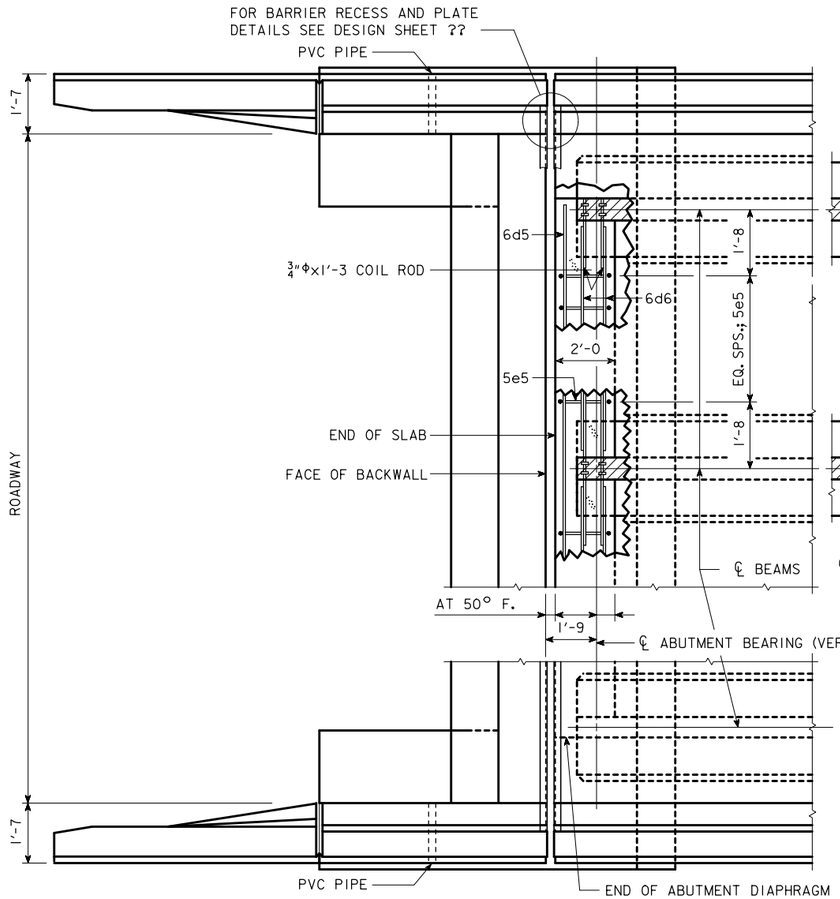


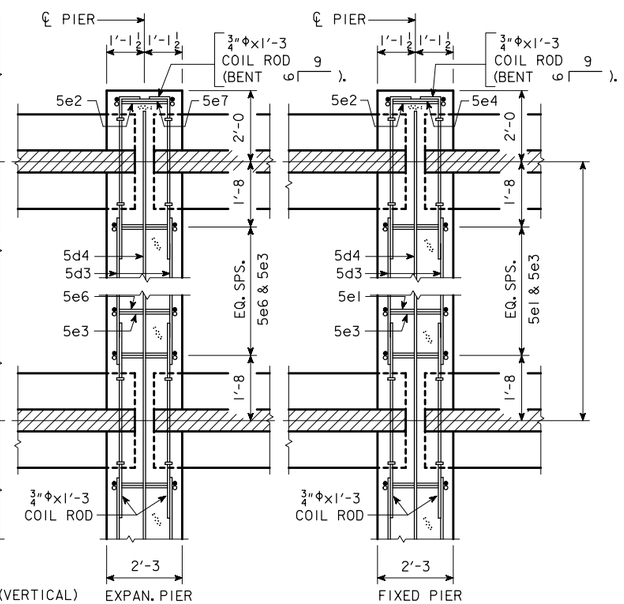
NOTE:
PLUG 3"Φ PVC PIPE WITH EXPANDING FOAM PRIOR TO BACKFILLING BEHIND ABUTMENTS.

PART LONGITUDINAL SECTION NEAR GUTTER

(FOR DETAILS OF INTERMEDIATE DIAPHRAGM SEE DESIGN SHEET ____).

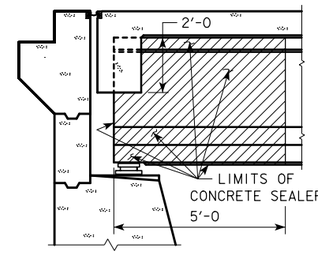


PART PLAN VIEW



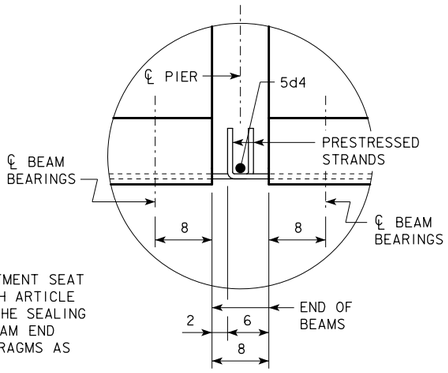
PART SECTION

(SEE CROSS SECTION THRU SLAB FOR NUMBER OF DIAPHRAGM HOOP BARS BETWEEN BEAMS)

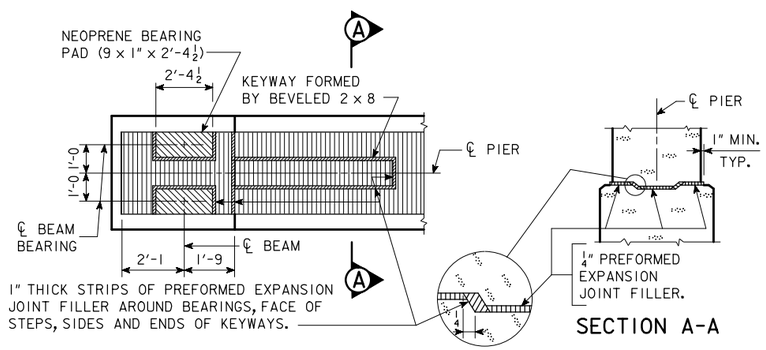


CONCRETE SEALER SHALL BE APPLIED TO THE ABUTMENT SEAT AND PRESTRESSED BEAM ENDS IN ACCORDANCE WITH ARTICLE 2403.03, P, 3, OF THE STANDARD SPECIFICATIONS. THE SEALING SHALL INCLUDE PORTIONS OF THE PRESTRESSED BEAM END THAT ARE NOT EMBEDDED IN THE ABUTMENT DIAPHRAGMS AS DETAILED ON THIS SHEET.

CONCRETE SEALER LIMITS FOR PRESTRESSED BEAM



DETAIL "A"



PART PLAN

SECTION A-A

TOP OF FIXED PIER DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

CORRECTION 10-10 - CONCRETE SEALER ARTICLE 2403.21 D CHANGED TO ARTICLE 2403.03, P, 3.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4542-BTCDE - THIS SHEET ISSUED 07-08.

DESIGN TEAM	PART PLAN & LONGIT. SECTION - "BTC", "BTD" OR "BTE" BEAMS, STUB ABUT., 0° SKEW	STANDARD SHEET 4542-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER

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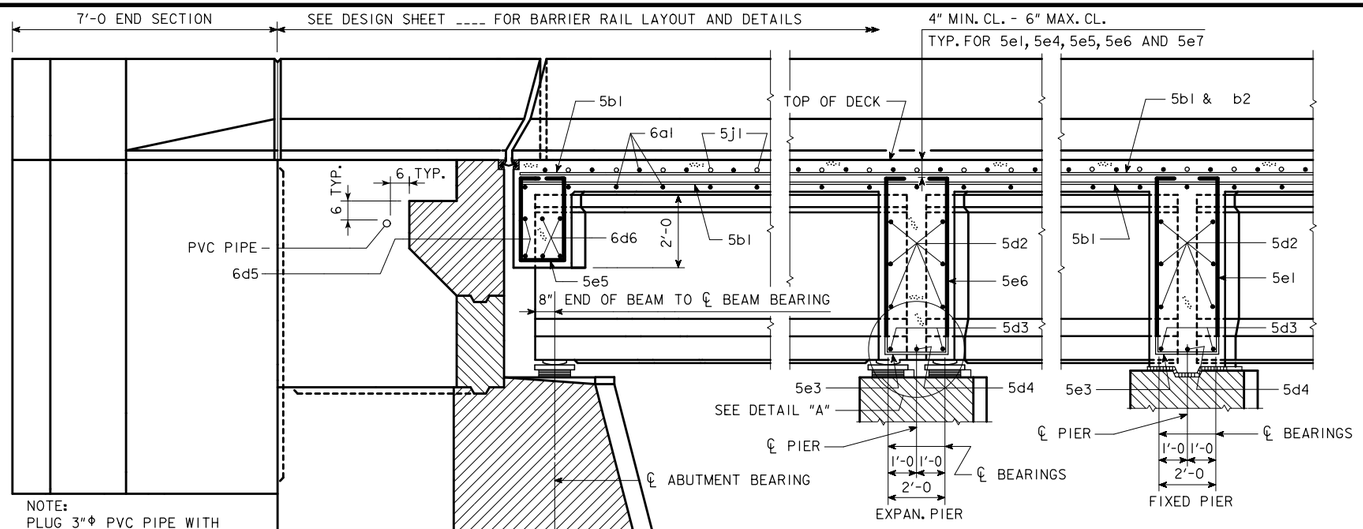
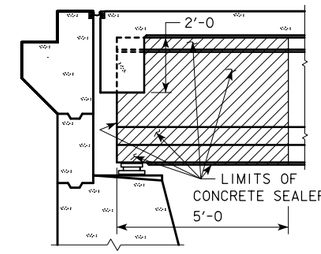


NOTE:
PLUG 3"Φ PVC PIPE WITH EXPANDING FOAM PRIOR TO BACKFILLING BEHIND ABUTMENTS.

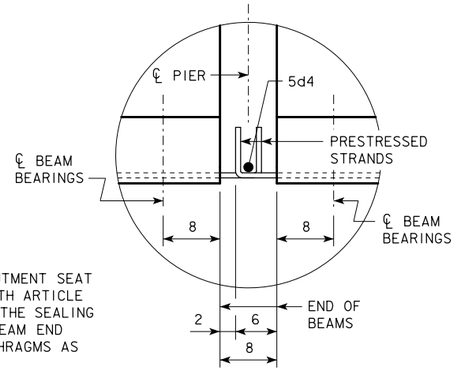
PART LONGITUDINAL SECTION NEAR GUTTER

(FOR DETAILS OF INTERMEDIATE DIAPHRAGM SEE DESIGN SHEET ____).

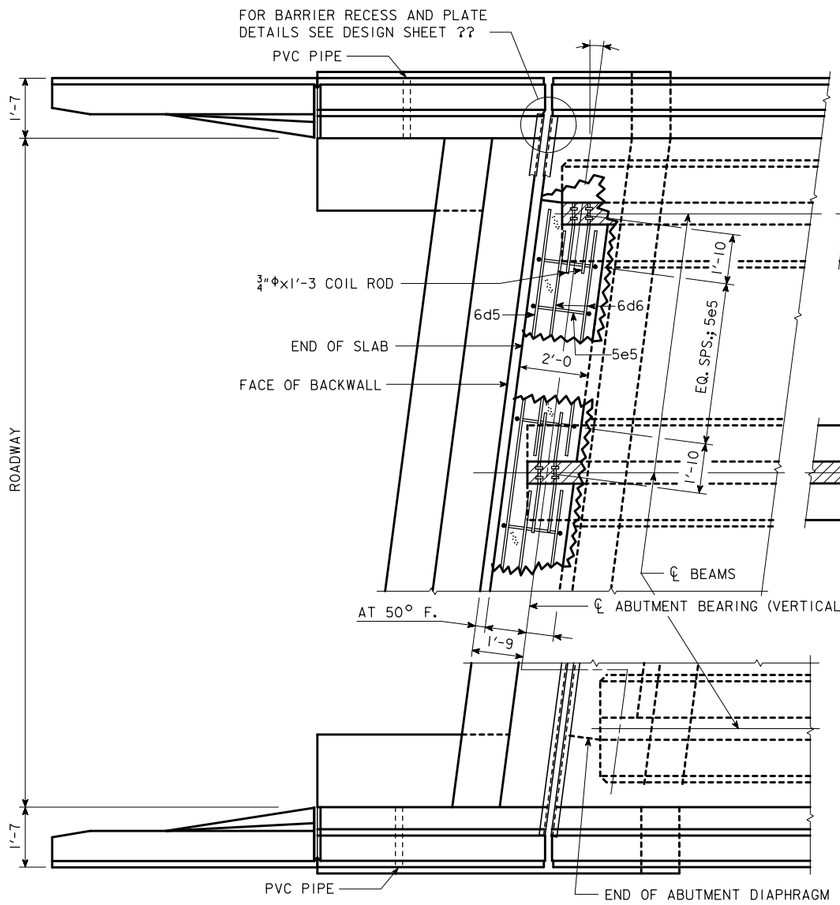


CONCRETE SEALER SHALL BE APPLIED TO THE ABUTMENT SEAT AND PRESTRESSED BEAM ENDS IN ACCORDANCE WITH ARTICLE 2403.03, P, 3, OF THE STANDARD SPECIFICATIONS. THE SEALING SHALL INCLUDE PORTIONS OF THE PRESTRESSED BEAM END THAT ARE NOT EMBEDDED IN THE ABUTMENT DIAPHRAGMS AS DETAILED ON THIS SHEET.

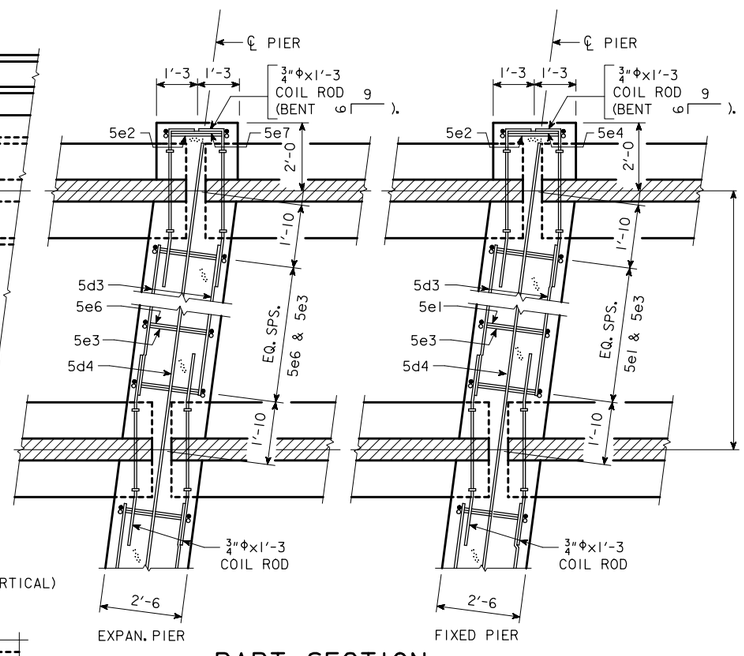
CONCRETE SEALER LIMITS FOR PRESTRESSED BEAM



DETAIL "A"

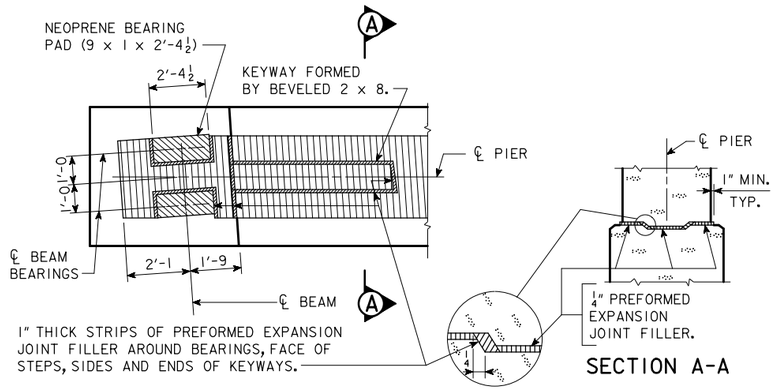


PART PLAN VIEW



PART SECTION

(SEE CROSS SECTION THRU SLAB FOR NUMBER OF DIAPHRAGM HOOP BARS BETWEEN BEAMS)



PART PLAN

TOP OF FIXED PIER DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	PART PLAN & LONGIT. SECTION - "BTC", "BTD" OR "BTE" BEAMS, STUB ABUT., 0°01' - 7°30' SKEW L. A.	STANDARD SHEET 4543-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER

CORRECTION 10-10 - CONCRETE SEALER ARTICLE 2403.21 D CHANGED TO ARTICLE 2403.03, P, 3.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4543-BTCDE - THIS SHEET ISSUED 07-08.

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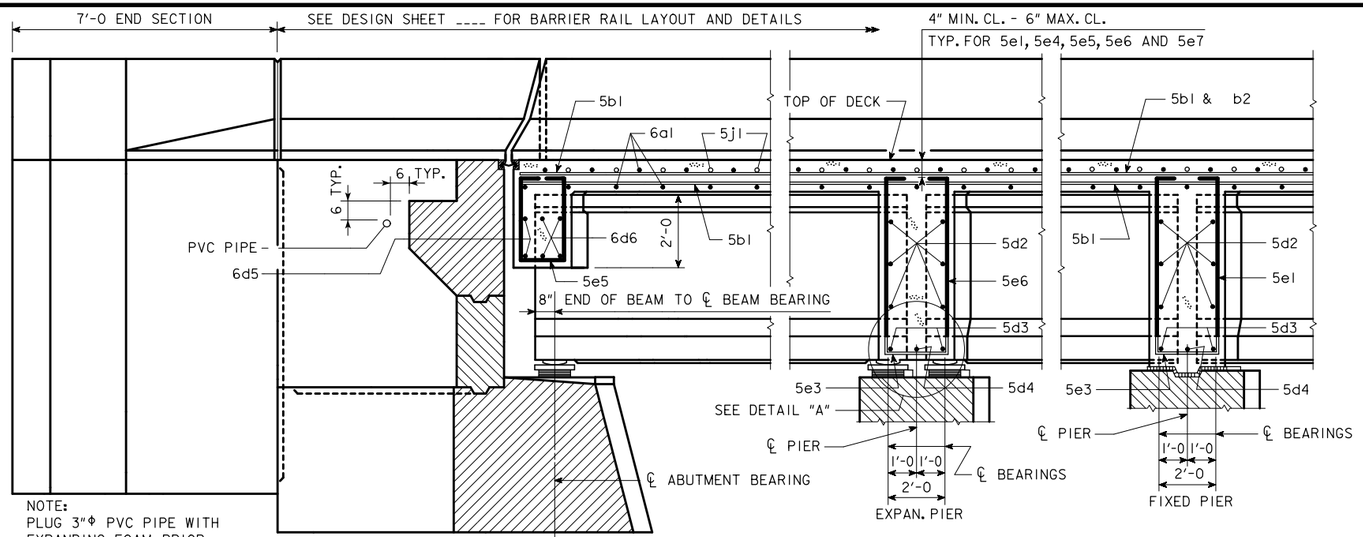
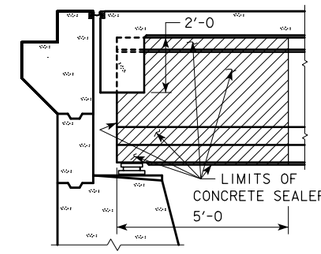


NOTE:
PLUG 3"Φ PVC PIPE WITH EXPANDING FOAM PRIOR TO BACKFILLING BEHIND ABUTMENTS.

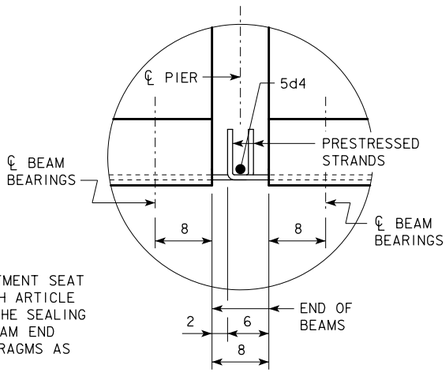
PART LONGITUDINAL SECTION NEAR GUTTER

(FOR DETAILS OF INTERMEDIATE DIAPHRAGM SEE DESIGN SHEET ____).

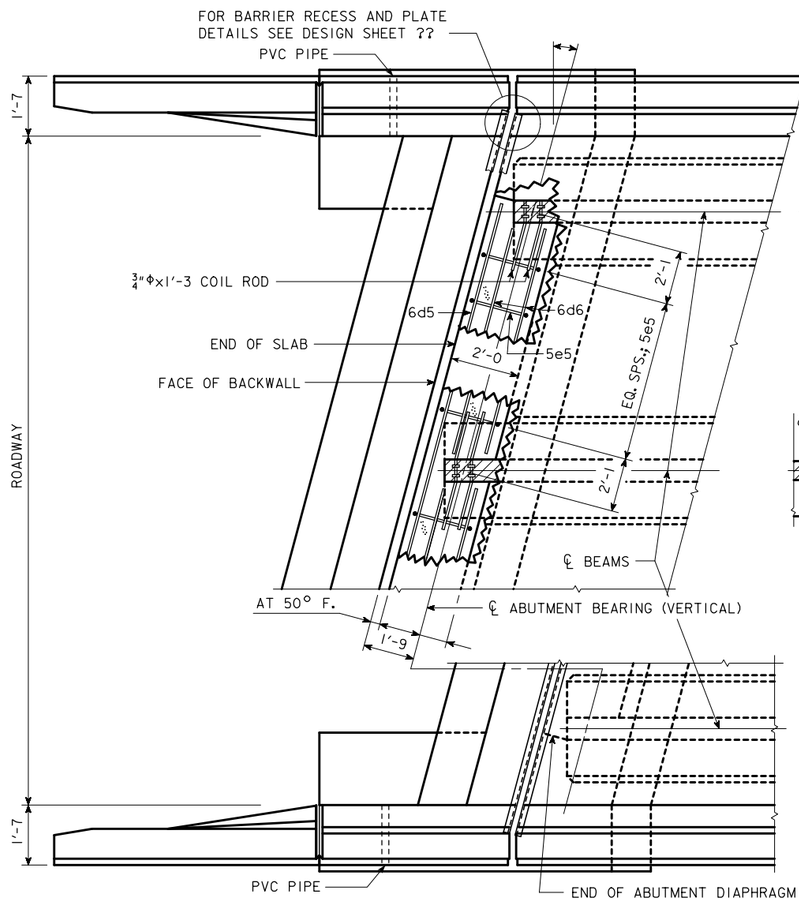


CONCRETE SEALER SHALL BE APPLIED TO THE ABUTMENT SEAT AND PRESTRESSED BEAM ENDS IN ACCORDANCE WITH ARTICLE 2403.03, P, 3, OF THE STANDARD SPECIFICATIONS. THE SEALING SHALL INCLUDE PORTIONS OF THE PRESTRESSED BEAM END THAT ARE NOT EMBEDDED IN THE ABUTMENT DIAPHRAGMS AS DETAILED ON THIS SHEET.

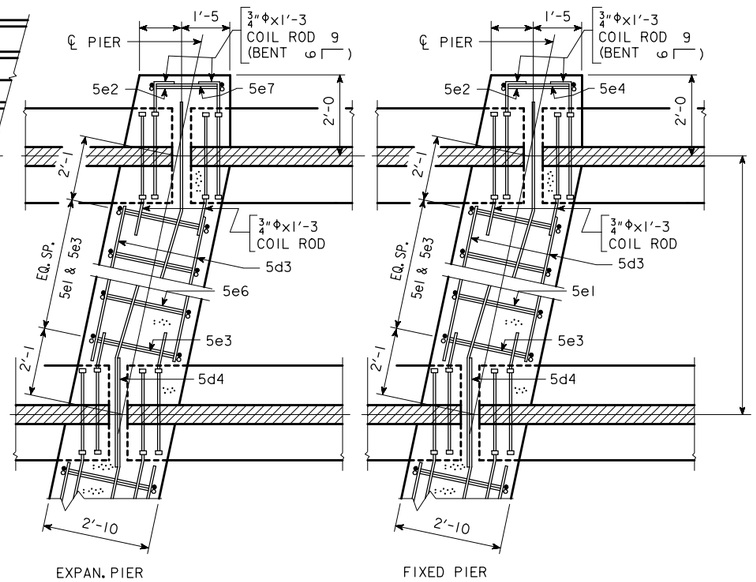
CONCRETE SEALER LIMITS FOR PRESTRESSED BEAM



DETAIL "A"

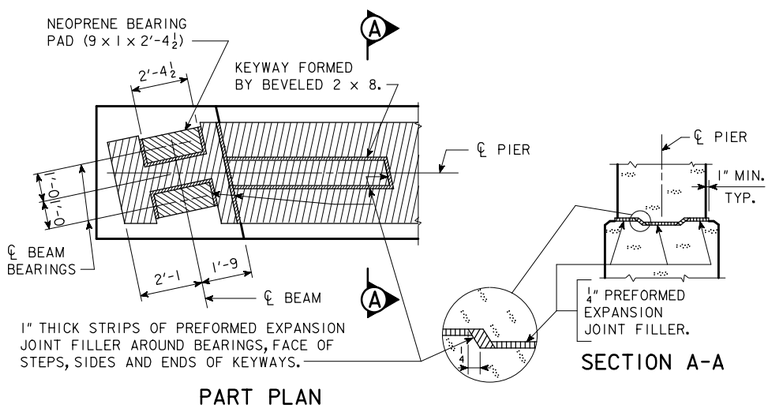


PART PLAN VIEW



PART SECTION

(SEE CROSS SECTION THRU SLAB FOR NUMBER OF DIAPHRAGM HOOP BARS BETWEEN BEAMS)



SECTION A-A

PART PLAN

TOP OF FIXED PIER DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	PART PLAN & LONGIT. SECTION - "BTC", "BTD" OR "BTE" BEAMS, STUB ABUT., 7°31' - 15° SKEW L. A.	STANDARD SHEET 4544-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER

CORRECTION 10-10 - CONCRETE SEALER ARTICLE 2403.2I D CHANGED TO ARTICLE 2403.03, P, 3.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4544-BTCDE - THIS SHEET ISSUED 07-08.

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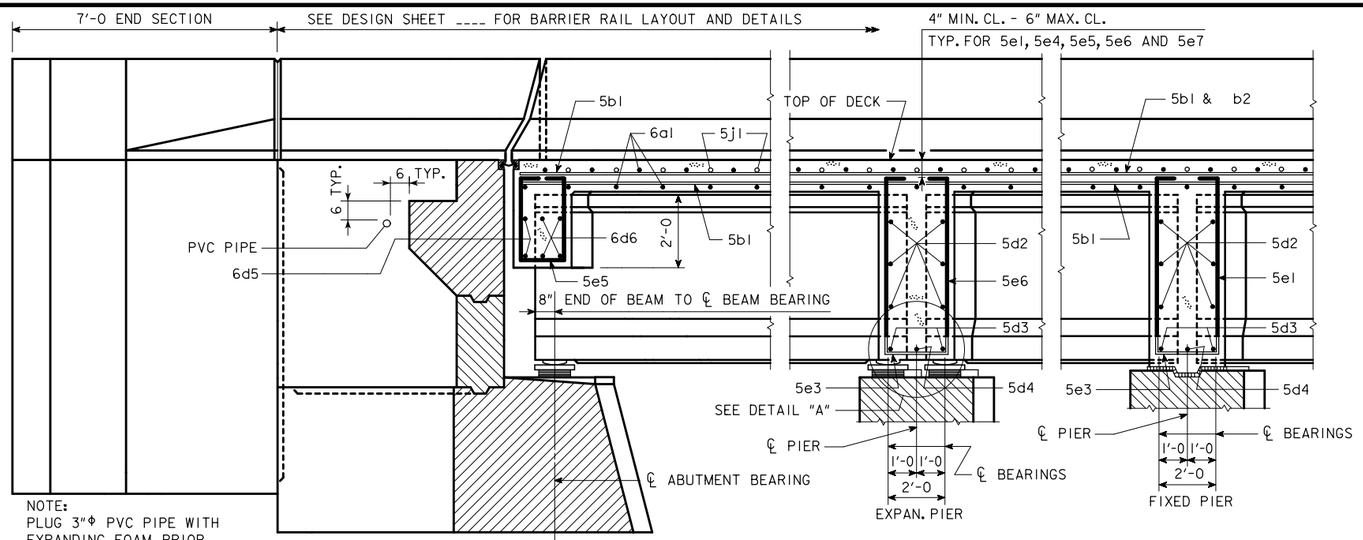
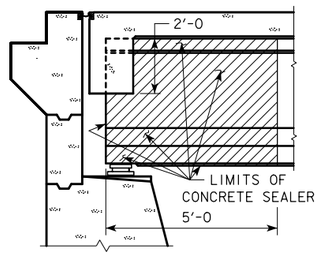


NOTE:
PLUG 3"Φ PVC PIPE WITH EXPANDING FOAM PRIOR TO BACKFILLING BEHIND ABUTMENTS.

PART LONGITUDINAL SECTION NEAR GUTTER

(FOR DETAILS OF INTERMEDIATE DIAPHRAGM SEE DESIGN SHEET ____).



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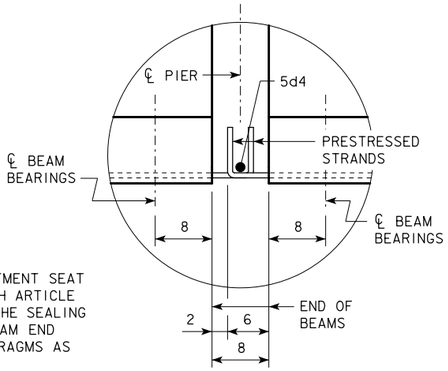
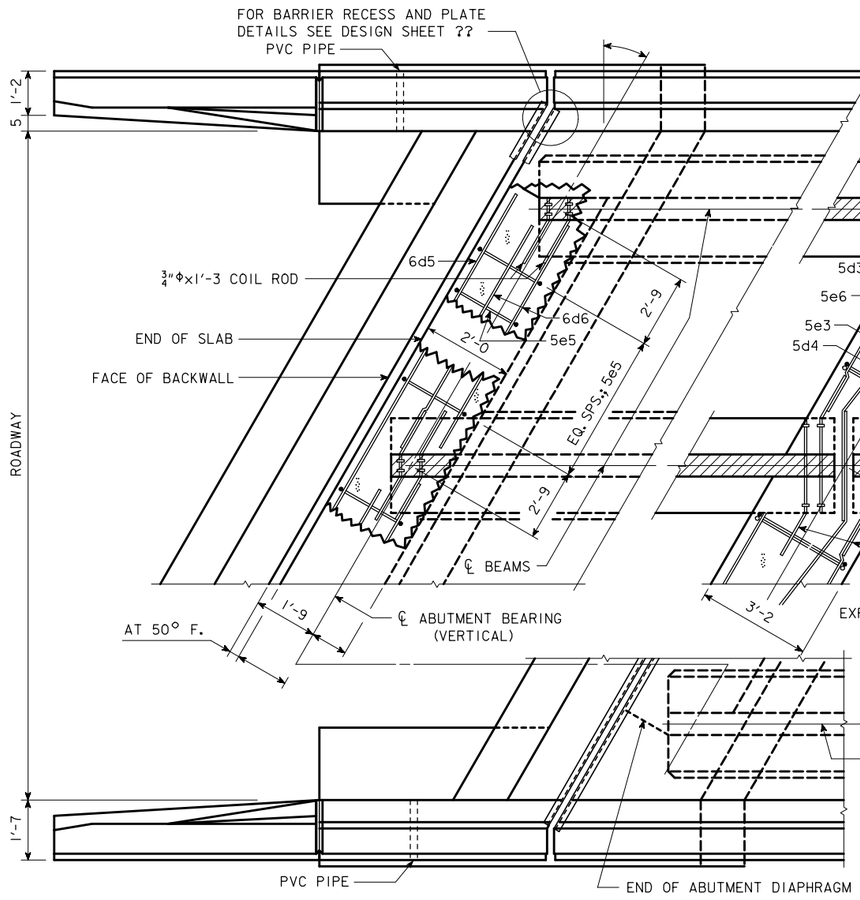
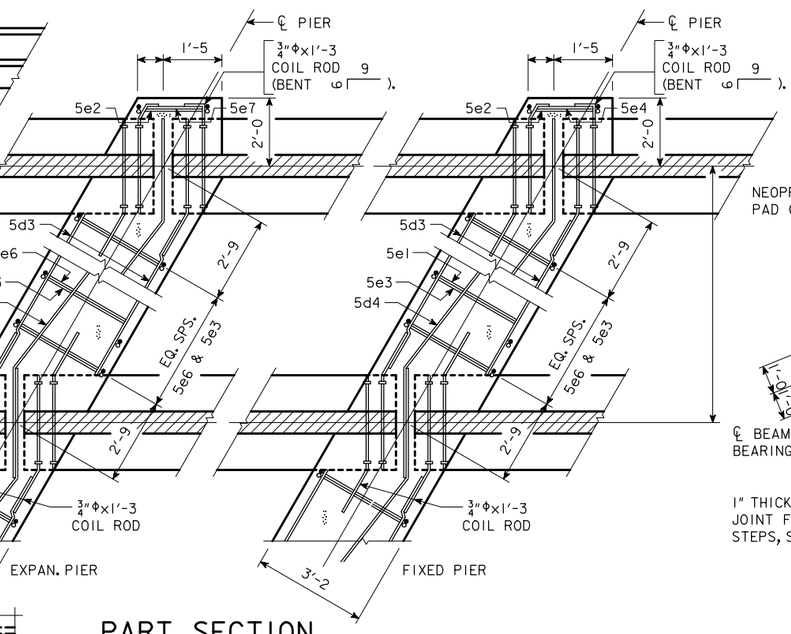
CONCRETE SEALER LIMITS FOR PRESTRESSED BEAM



DETAIL "A"

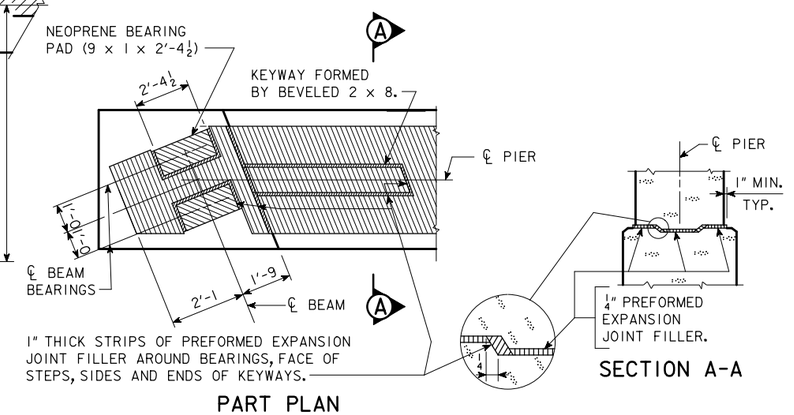


PART PLAN VIEW



PART SECTION

(SEE CROSS SECTION THRU SLAB FOR NUMBER OF DIAPHRAGM HOOP BARS BETWEEN BEAMS)



PART PLAN

SECTION A-A

TOP OF FIXED PIER DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	PART PLAN & LONGIT. SECTION - "BTC", "BTD" OR "BTE" BEAMS, STUB ABUT., 15°01' - 30° SKEW L.A.	STANDARD SHEET 4545-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER

CORRECTION 10-10 - CONCRETE SEALER ARTICLE 2403.21 D CHANGED TO ARTICLE 2403.03, P, 3.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4545-BTCDE - THIS SHEET ISSUED 07-08.

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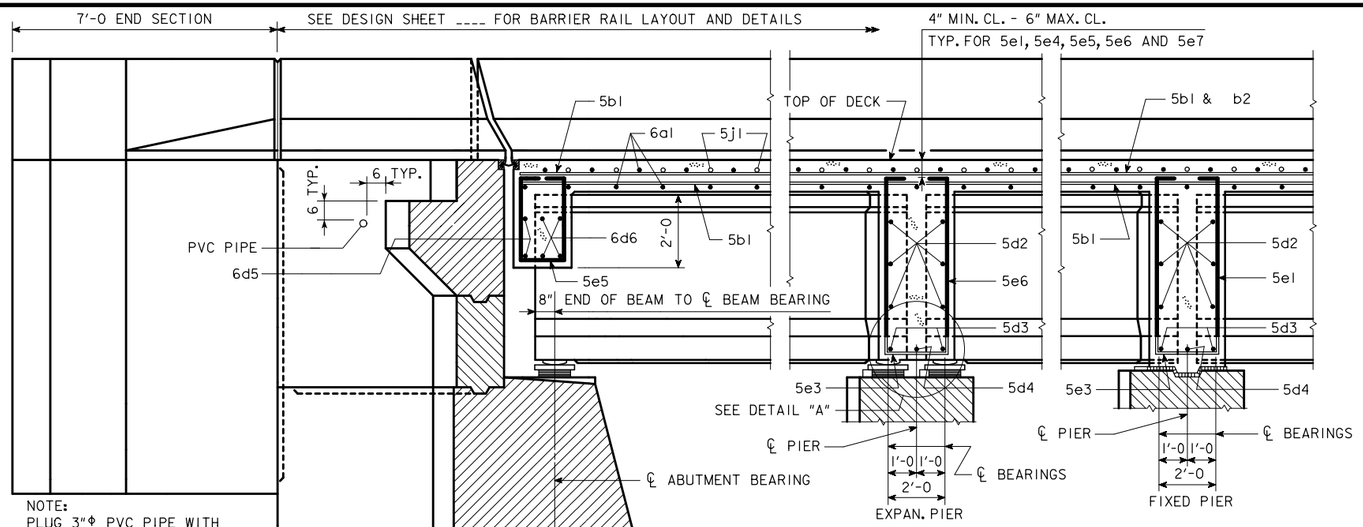
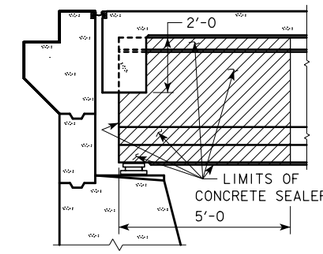


NOTE:
PLUG 3"Φ PVC PIPE WITH EXPANDING FOAM PRIOR TO BACKFILLING BEHIND ABUTMENTS.

PART LONGITUDINAL SECTION NEAR GUTTER

(FOR DETAILS OF INTERMEDIATE DIAPHRAGM SEE DESIGN SHEET ____).



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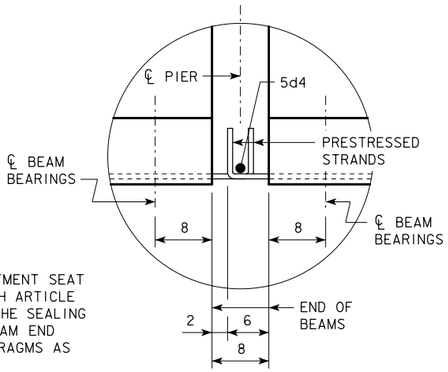
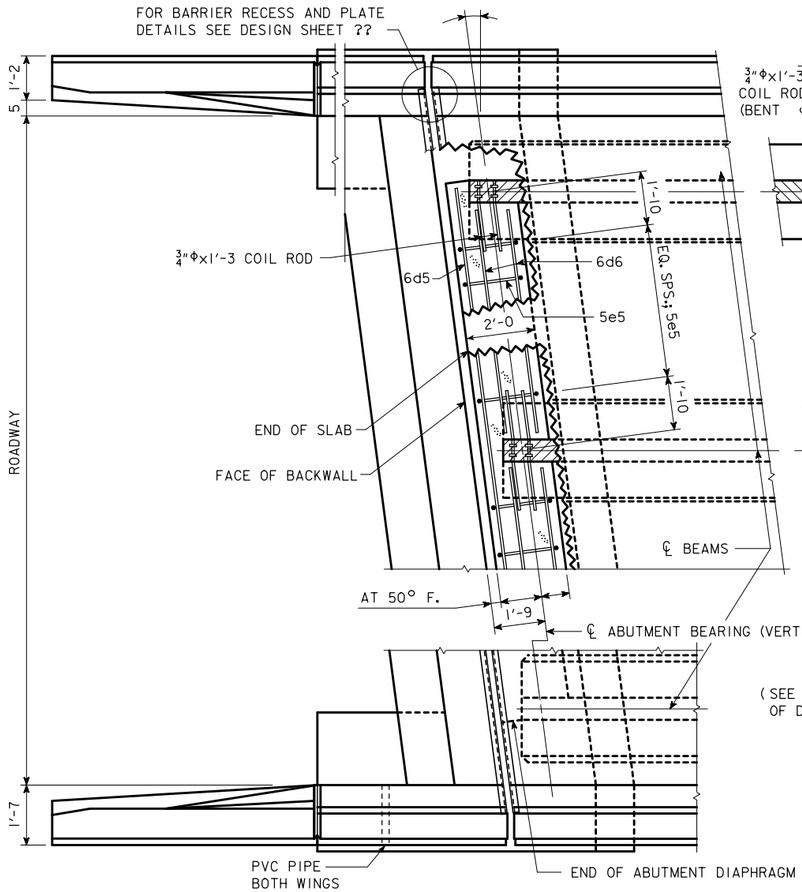
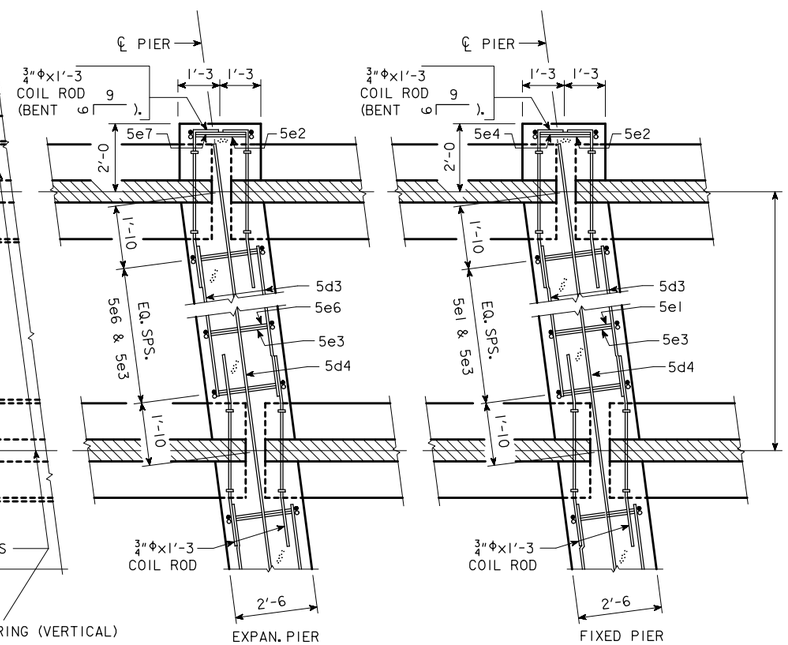
CONCRETE SEALER LIMITS FOR PRESTRESSED BEAM



DETAIL "A"

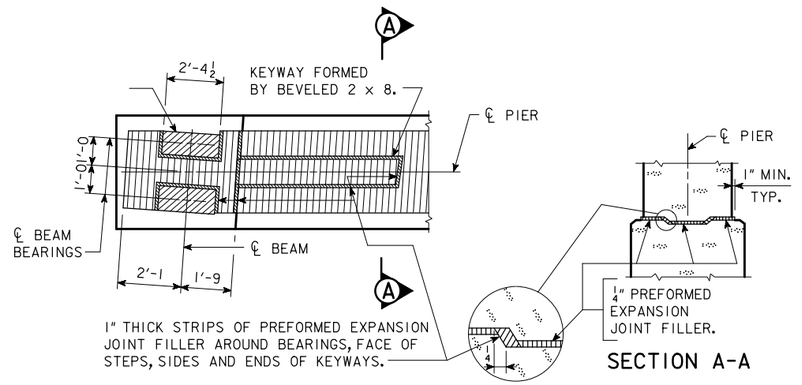


PART PLAN VIEW



PART SECTION

(SEE CROSS SECTION THRU SLAB FOR NUMBER OF DIAPHRAGM HOOP BARS BETWEEN BEAMS)



PART PLAN

TOP OF FIXED PIER DETAILS

SECTION A-A

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	PART PLAN & LONGIT. SECTION - "BTC", "BTD" OR "BTE" BEAMS, STUB ABUT., 0°01' - 7°30' SKEW R.A.	STANDARD SHEET 4546-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER

CORRECTION 10-10 - CONCRETE SEALER ARTICLE 2403.21 D CHANGED TO ARTICLE 2403.03, P, 3.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4546-BTCDE - THIS SHEET ISSUED 07-08.

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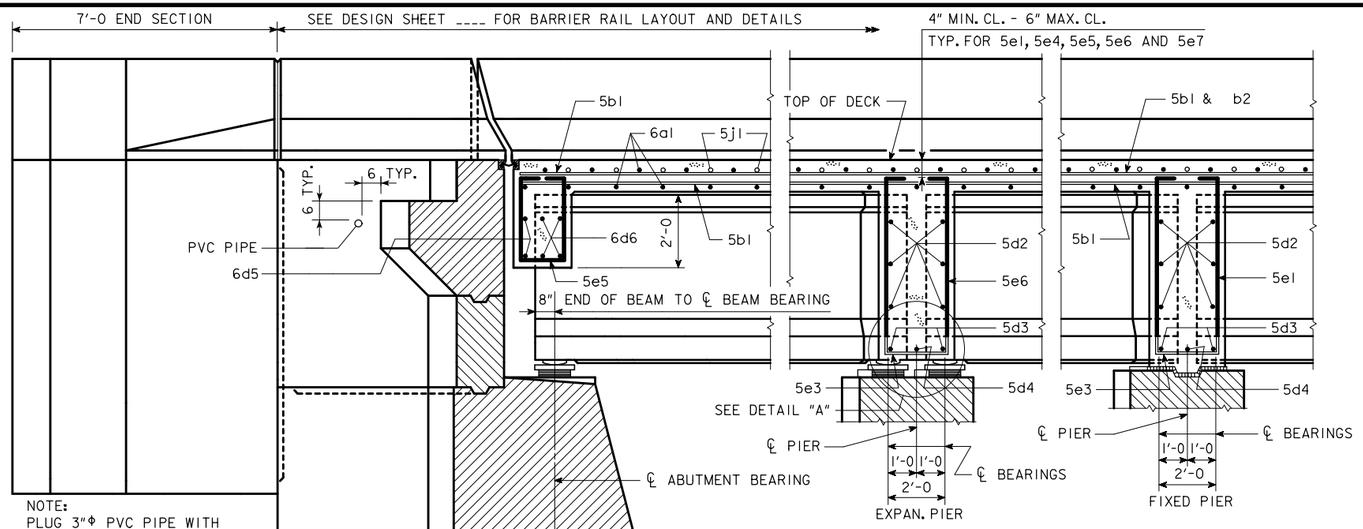
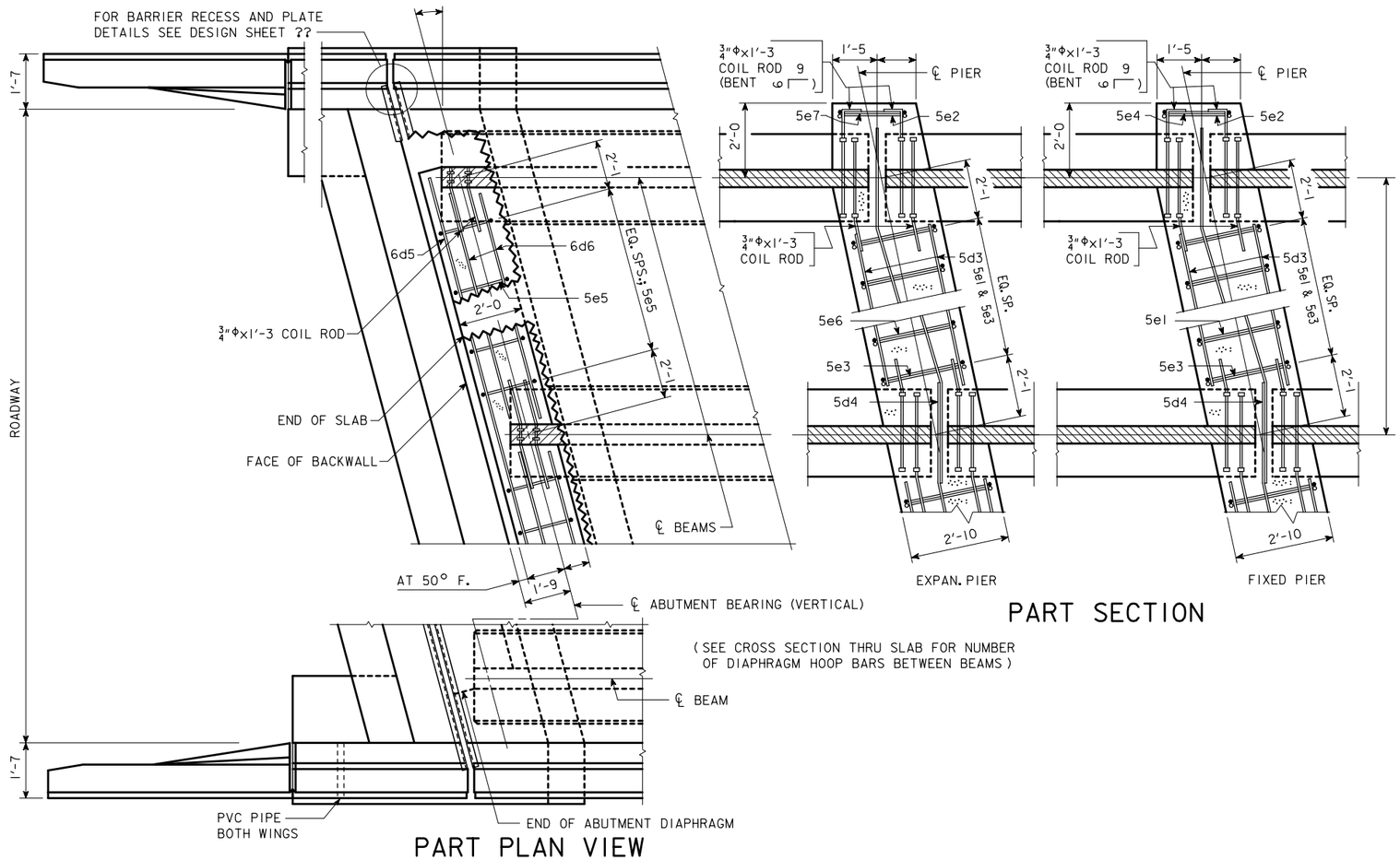


NOTE:
PLUG 3"Φ PVC PIPE WITH EXPANDING FOAM PRIOR TO BACKFILLING BEHIND ABUTMENTS.

PART LONGITUDINAL SECTION NEAR GUTTER

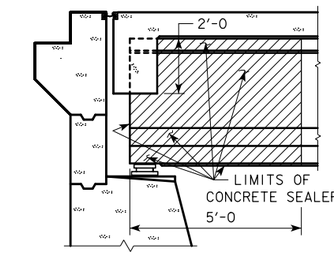
(FOR DETAILS OF INTERMEDIATE DIAPHRAGM SEE DESIGN SHEET ____).



(SEE CROSS SECTION THRU SLAB FOR NUMBER OF DIAPHRAGM HOOP BARS BETWEEN BEAMS)

PART SECTION

PART PLAN VIEW



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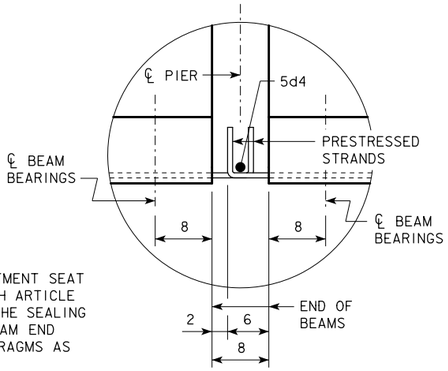
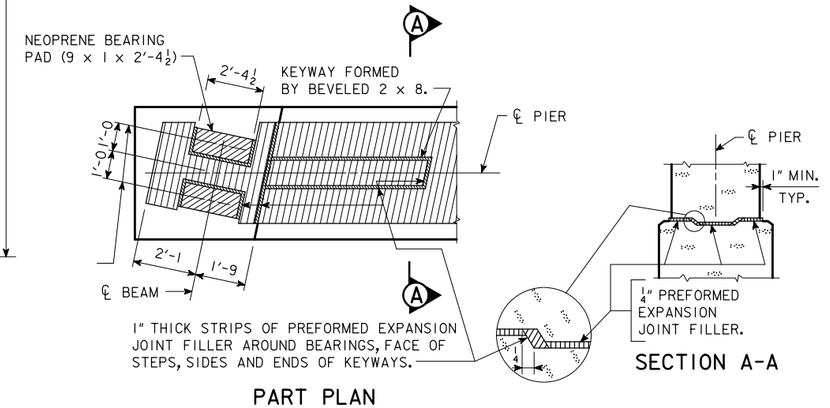
CONCRETE SEALER LIMITS FOR PRESTRESSED BEAM



DETAIL "A"



PART PLAN

TOP OF FIXED PIER DETAILS

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	PART PLAN & LONGIT. SECTION - "BTC", "BTD" OR "BTE" BEAMS, STUB ABUT., 7°31' - 15° SKEW R.A.	STANDARD SHEET 4547-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER

CORRECTION 10-10 - CONCRETE SEALER ARTICLE 2403.21 D CHANGED TO ARTICLE 2403.03, P, 3.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4547-BTCDE - THIS SHEET ISSUED 07-08.

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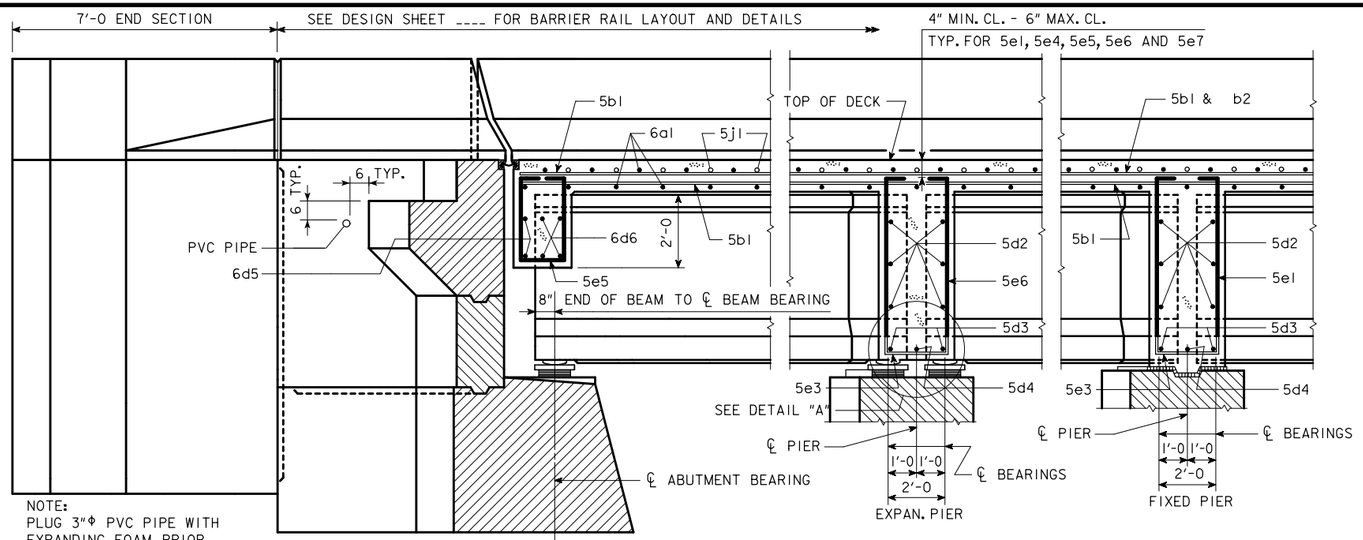
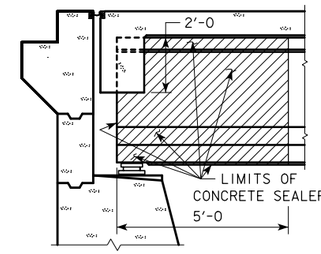


PART LONGITUDINAL SECTION NEAR GUTTER

(FOR DETAILS OF INTERMEDIATE DIAPHRAGM SEE DESIGN SHEET ____).



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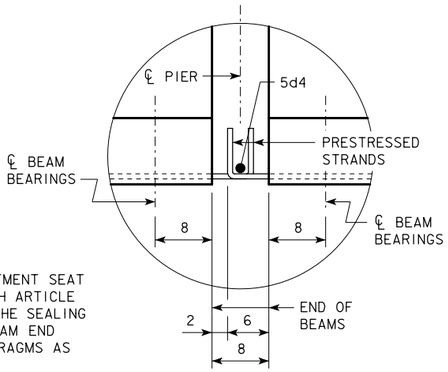
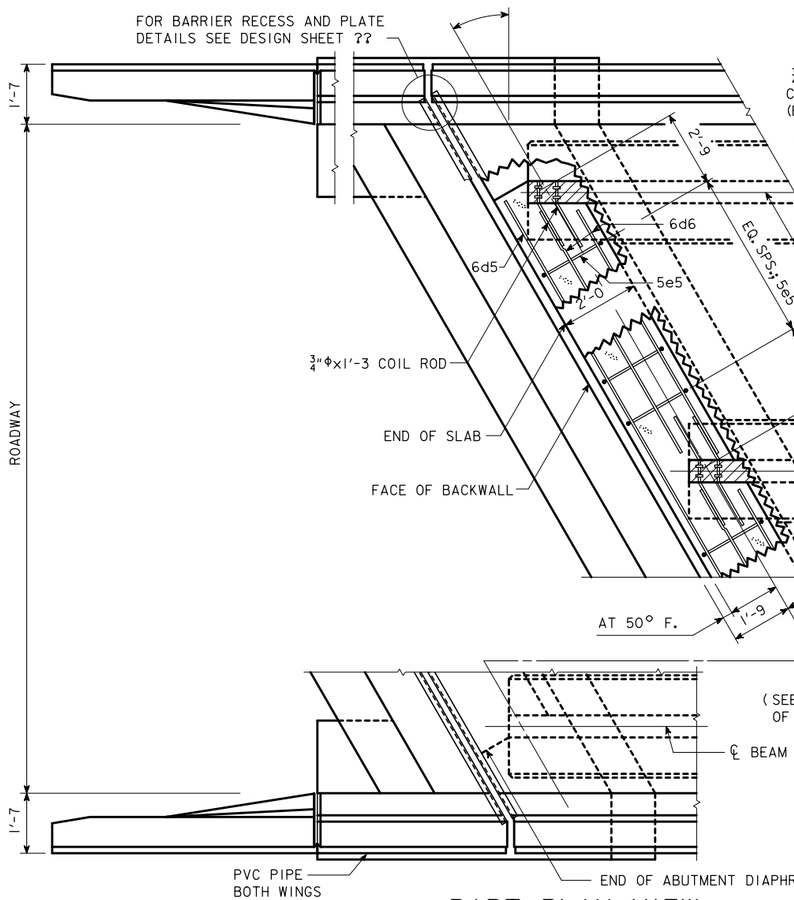
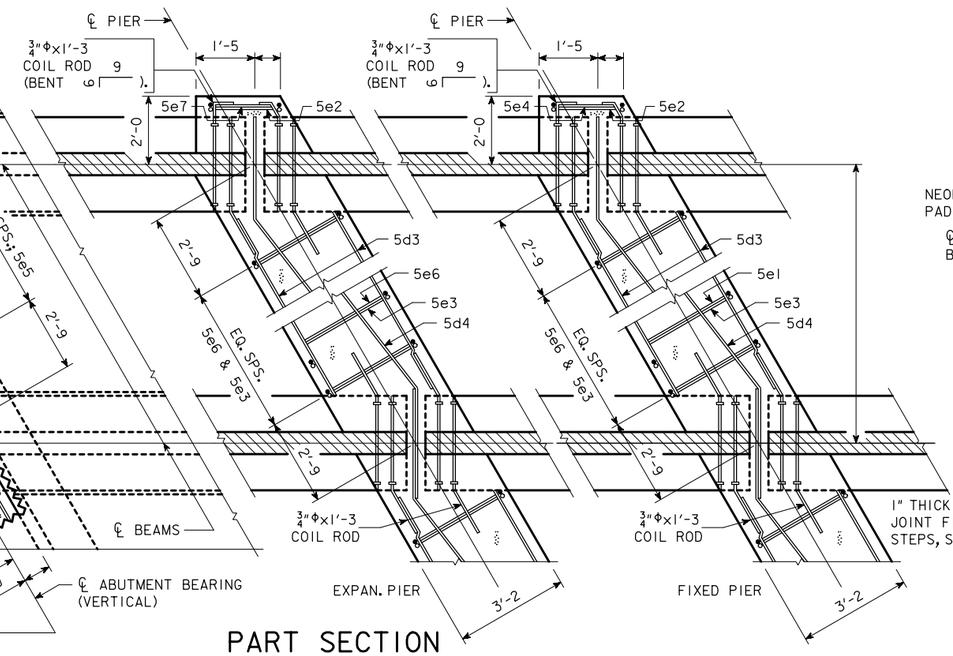
CONCRETE SEALER LIMITS FOR PRESTRESSED BEAM



DETAIL "A"

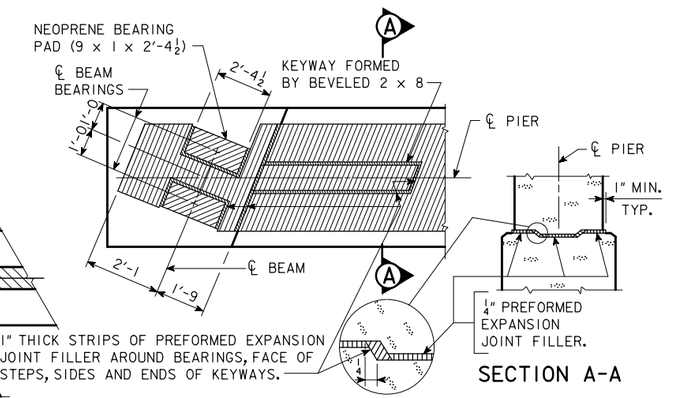




PART SECTION

(SEE CROSS SECTION THRU SLAB FOR NUMBER OF DIAPHRAGM HOOP BARS BETWEEN BEAMS)

PART PLAN VIEW



PART PLAN

SECTION A-A

TOP OF FIXED PIER DETAILS

CORRECTION 10-10 - CONCRETE SEALER ARTICLE 2403.2I D CHANGED TO ARTICLE 2403.03, P, 3.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4548-BTCDE - THIS SHEET ISSUED 07-08.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	PART PLAN & LONGIT. SECTION - "BTC", "BTD" OR "BTE" BEAMS, STUB ABUT., 15°01' - 30° SKEW R.A.	STANDARD SHEET 4548-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER

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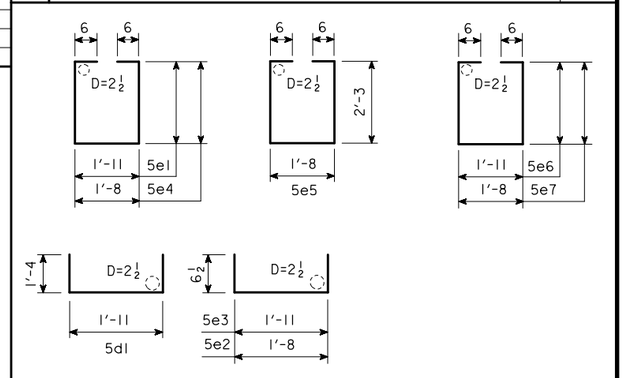
REVISED 07-2015 - CHANGED CONCRETE PLACEMENT NOTE TO ACCOUNT FOR THE POSSIBLE ADDITION OF A RETARDING ADMIXTURE TO THE CONCRETE.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4549-BTCDE - THIS SHEET ISSUED 07-08.

REINFORCING BAR LIST - BRIDGE DECK

EPOXY COATED REINFORCING

BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
6a1	DECK TRANSV. TOP & BOTT.	——			
5b1	DECK LONGIT. TOP & BOTT.	——			
b2	DECK LONGIT. TOP AT PIERS	——			
5d1	PIER DIAPH. ENDS	⌊⌋		4'-7	
5d2	PIER DIAPH. LONGIT.	——			
5d3	PIER DIAPH. LONGIT.	——			
5d4	PIER DIAPH. LONGIT.				
6d5	ABUT. DIAPH.	——			
6d6	ABUT. DIAPH. LONGIT.	——			
5e1	PIER DIAPH. HOOPS	⊏⊐			
5e2	PIER DIAPH. TIES ENDS	⌊⌋		2'-9	
5e3	PIER DIAPH. TIES	⌊⌋		3'-0	
5e4	PIER DIAPH. HOOPS ENDS	⊏⊐			
5e5	ABUT. DIAPH. HOOPS	⊏⊐		7'-5	
5e6	EXPAN. PIER DIAPH. HOOPS	⊏⊐			
5e7	EXPAN. PIER DIAPH. HOOPS ENDS	⊏⊐			
		——			
6j1	DECK TRANSV. TOP (AT RAIL)	——		6'-3	
	REINFORCING STEEL EPOXY COATED - TOTAL (LBS.)				



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D= PIN DIAMETER.

BENT BAR DETAILS

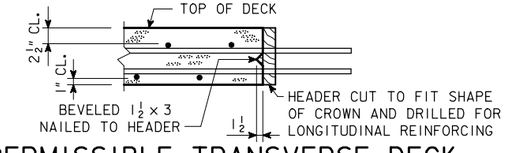
CONCRETE PLACEMENT QUANTITIES

LOCATION	QUANTITY
SECTION 1, DECK & ABUT. DIAPH.	
SECTION 2, DECK	
SECTION 3, DECK & ABUT. DIAPH.	
SECTION 4, DECK & PIER DIAPH.	
SECTION 5, DECK & PIER DIAPH.	
TOTAL (CU. YDS.)	

NOTE:
CONCRETE AND REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

CONCRETE PLACEMENT DIAGRAM

NOTE: CONCRETE DECK SHALL BE PLACED IN SECTIONS AND SEQUENCES INDICATED. ALTERNATE PROCEDURES FOR PLACING DECK CONCRETE MAY BE SUBMITTED FOR APPROVAL TOGETHER WITH A STATEMENT OF THE PROPOSED METHOD AND EVIDENCE THAT THE CONTRACTOR POSSESSES THE NECESSARY EQUIPMENT AND FACILITIES TO ACCOMPLISH THE REQUIRED RESULTS. FOR APPROVED ALTERNATE PROCEDURES THE ENGINEER SHALL DETERMINE IF A RETARDING ADMIXTURE IS REQUIRED TO MAINTAIN PLASTICITY OF THE CONCRETE DECK DURING PLACEMENT.



PERMISSIBLE TRANSVERSE DECK CONSTRUCTION JOINT

DECK, ABUT. & DIAPH. QUANTITIES

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	STUB ABUT. BTC, BTD & BTE BEAMS - BAR LIST & SUPER. DETAILS - 0° SKEW	STANDARD SHEET 4549-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER

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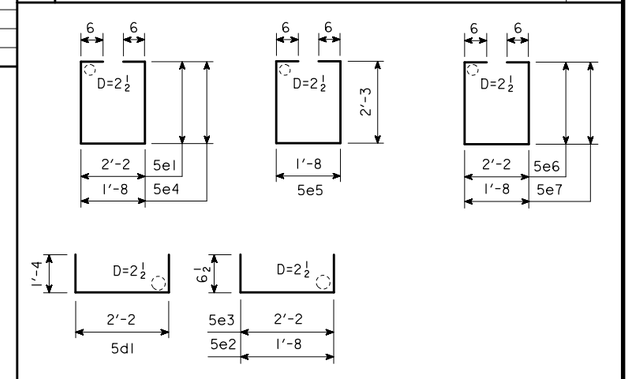
REVISED 07-2015 - CHANGED CONCRETE PLACEMENT NOTE TO ACCOUNT FOR THE POSSIBLE ADDITION OF A RETARDING ADMIXTURE TO THE CONCRETE.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4550-BTCDE - THIS SHEET ISSUED 07-08.

REINFORCING BAR LIST - BRIDGE DECK

EPOXY COATED REINFORCING

BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
6a1	DECK TRANSV. TOP & BOTT.	——			
5b1	DECK LONGIT. TOP & BOTT.	——			
b2	DECK LONGIT. TOP AT PIERS	——			
5d1	PIER DIAPH. ENDS	⌊⌋		4'-10	
5d2	PIER DIAPH. LONGIT.	——			
5d3	PIER DIAPH. LONGIT.	——			
5d4	PIER DIAPH. LONGIT.	——			
6d5	ABUT. DIAPH.	——			
6d6	ABUT. DIAPH. LONGIT.	——			
5e1	PIER DIAPH. HOOPS	⊏⊐			
5e2	PIER DIAPH. TIES ENDS	⌊⌋		2'-9	
5e3	PIER DIAPH. TIES	⌊⌋		3'-3	
5e4	PIER DIAPH. HOOPS ENDS	⊏⊐			
5e5	ABUT. DIAPH. HOOPS	⊏⊐		7'-2	
5e6	EXPAN. PIER DIAPH. HOOPS	⊏⊐			
5e7	EXPAN. PIER DIAPH. HOOPS ENDS	⊏⊐			
6j1	DECK TRANSV. TOP (AT RAIL)	——		6'-3	
	REINFORCING STEEL EPOXY COATED - TOTAL (LBS.)				



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D= PIN DIAMETER.

BENT BAR DETAILS

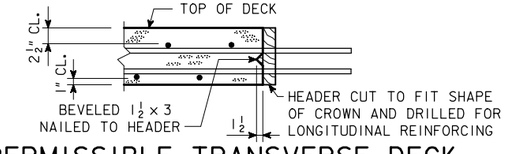
CONCRETE PLACEMENT QUANTITIES

LOCATION	QUANTITY
SECTION 1, DECK & ABUT. DIAPH.	
SECTION 2, DECK	
SECTION 3, DECK & ABUT. DIAPH.	
SECTION 4, DECK & PIER DIAPH.	
SECTION 5, DECK & PIER DIAPH.	
TOTAL (CU. YDS.)	

NOTE:
CONCRETE AND REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

CONCRETE PLACEMENT DIAGRAM

NOTE: CONCRETE DECK SHALL BE PLACED IN SECTIONS AND SEQUENCES INDICATED. ALTERNATE PROCEDURES FOR PLACING DECK CONCRETE MAY BE SUBMITTED FOR APPROVAL TOGETHER WITH A STATEMENT OF THE PROPOSED METHOD AND EVIDENCE THAT THE CONTRACTOR POSSESSES THE NECESSARY EQUIPMENT AND FACILITIES TO ACCOMPLISH THE REQUIRED RESULTS. FOR APPROVED ALTERNATE PROCEDURES THE ENGINEER SHALL DETERMINE IF A RETARDING ADMIXTURE IS REQUIRED TO MAINTAIN PLASTICITY OF THE CONCRETE DECK DURING PLACEMENT.



PERMISSIBLE TRANSVERSE DECK CONSTRUCTION JOINT

DECK, ABUT. & DIAPH. QUANTITIES

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	STUB ABUT. BTC, BTD & BTE BEAMS - BAR LIST & SUPER. DETAILS - 0°01' - 7°30' SKEW	STANDARD SHEET 4550-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER

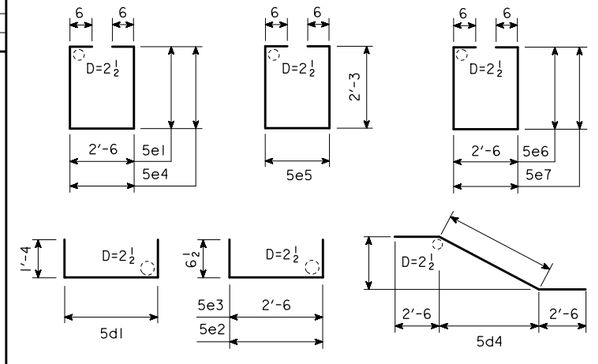
6/26/2015 1:27:57 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 4550-BTCDE 11x17_pdf.pltcfg

REVISED 07-2015 - CHANGED CONCRETE PLACEMENT NOTE TO ACCOUNT FOR THE POSSIBLE ADDITION OF A RETARDING ADMIXTURE TO THE CONCRETE.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4551-BTCDE - THIS SHEET ISSUED 07-08.

REINFORCING BAR LIST - BRIDGE DECK

EPOXY COATED REINFORCING

BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
6a1	DECK TRANSV. TOP & BOTT.	——			
6a2	SLAB TRANSV. TOP ENDS	——			
6a3	SLAB TRANSV. BOTT. ENDS	——			
5b1	DECK LONGIT. TOP & BOTT.	——			
b2	DECK LONGIT. TOP AT PIERS	——			
5d1	PIER DIAPH. ENDS	⌊⌋			
5d2	PIER DIAPH. LONGIT.	——			
5d3	PIER DIAPH. LONGIT.	——			
5d4	PIER DIAPH. LONGIT.	◹			
6d5	ABUT. DIAPH.	——			
6d6	ABUT. DIAPH. LONGIT.	——			
5e1	PIER DIAPH. HOOPS	⊏⊐			
5e2	PIER DIAPH. TIES ENDS	⌊⌋			
5e3	PIER DIAPH. TIES	⌊⌋		3'-7	
5e4	PIER DIAPH. HOOPS ENDS	⊏⊐			
5e5	ABUT. DIAPH. HOOPS	⊏⊐		7'-2	
5e6	EXPAN. PIER DIAPH. HOOPS	⊏⊐			
5e7	EXPAN. PIER DIAPH. HOOPS ENDS	⊏⊐			
6j1	DECK TRANSV. TOP (AT RAIL)	——		6'-3	
	REINFORCING STEEL EPOXY COATED - TOTAL (LBS.)				



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D= PIN DIAMETER.

BENT BAR DETAILS

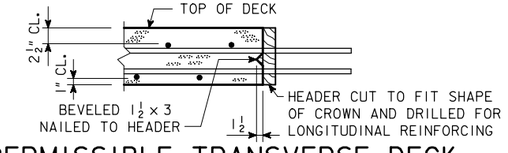
CONCRETE PLACEMENT QUANTITIES

LOCATION	QUANTITY
SECTION 1, DECK & ABUT. DIAPH.	
SECTION 2, DECK	
SECTION 3, DECK & ABUT. DIAPH.	
SECTION 4, DECK & PIER DIAPH.	
SECTION 5, DECK & PIER DIAPH.	
TOTAL (CU. YDS.)	

NOTE:
CONCRETE AND REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

CONCRETE PLACEMENT DIAGRAM

NOTE: CONCRETE DECK SHALL BE PLACED IN SECTIONS AND SEQUENCES INDICATED. ALTERNATE PROCEDURES FOR PLACING DECK CONCRETE MAY BE SUBMITTED FOR APPROVAL TOGETHER WITH A STATEMENT OF THE PROPOSED METHOD AND EVIDENCE THAT THE CONTRACTOR POSSESSES THE NECESSARY EQUIPMENT AND FACILITIES TO ACCOMPLISH THE REQUIRED RESULTS. FOR APPROVED ALTERNATE PROCEDURES THE ENGINEER SHALL DETERMINE IF A RETARDING ADMIXTURE IS REQUIRED TO MAINTAIN PLASTICITY OF THE CONCRETE DECK DURING PLACEMENT.



PERMISSIBLE TRANSVERSE DECK CONSTRUCTION JOINT

DECK, ABUT. & DIAPH. QUANTITIES

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	STUB ABUT. BTC, BTD & BTE BEAMS - BAR LIST & SUPER. DETAILS - 7°31' - 15° SKEW	STANDARD SHEET 4551-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER

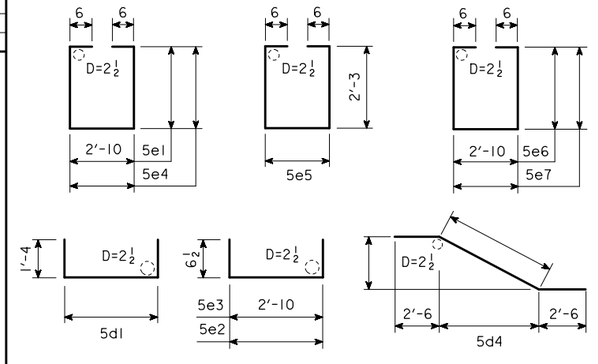
6/26/2015 1:27:58 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 4551-BTCDE 11x17_pdf.pltcfg

REVISED 07-2015 - CHANGED CONCRETE PLACEMENT NOTE TO ACCOUNT FOR THE POSSIBLE ADDITION OF A RETARDING ADMIXTURE TO THE CONCRETE.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4552-BTCDE - THIS SHEET ISSUED 07-08.

REINFORCING BAR LIST - BRIDGE DECK

EPOXY COATED REINFORCING

BAR	LOCATION	SHAPE	NO.	LENGTH	WEIGHT
6a1	DECK TRANSV. TOP & BOTT.	——			
6a2	SLAB TRANSV. TOP ENDS	——			
6a3	SLAB TRANSV. BOTT. ENDS	——			
5b1	DECK LONGIT. TOP & BOTT.	——			
b2	DECK LONGIT. TOP AT PIERS	——			
5d1	PIER DIAPH. ENDS	⌊⌋			
5d2	PIER DIAPH. LONGIT.	——			
5d3	PIER DIAPH. LONGIT.	——			
5d4	PIER DIAPH. LONGIT.	◹			
6d5	ABUT. DIAPH.	——			
6d6	ABUT. DIAPH. LONGIT.	——			
5e1	PIER DIAPH. HOOPS	⊏⊐			
5e2	PIER DIAPH. TIES ENDS	⌊⌋			
5e3	PIER DIAPH. TIES	⌊⌋		3'-11	
5e4	PIER DIAPH. HOOPS ENDS	⊏⊐			
5e5	ABUT. DIAPH. HOOPS	⊏⊐		7'-2	
5e6	EXPAN. PIER DIAPH. HOOPS	⊏⊐			
5e7	EXPAN. PIER DIAPH. HOOPS ENDS	⊏⊐			
6j1	DECK TRANSV. TOP (AT RAIL)	——		6'-3	
	REINFORCING STEEL EPOXY COATED - TOTAL (LBS.)				



NOTE: ALL DIMENSIONS ARE OUT TO OUT. D= PIN DIAMETER.

BENT BAR DETAILS

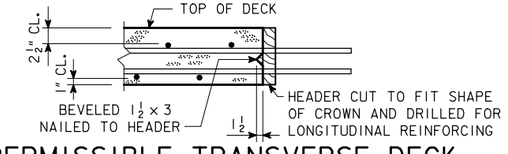
CONCRETE PLACEMENT QUANTITIES

LOCATION	QUANTITY
SECTION 1, DECK & ABUT. DIAPH.	
SECTION 2, DECK	
SECTION 3, DECK & ABUT. DIAPH.	
SECTION 4, DECK & PIER DIAPH.	
SECTION 5, DECK & PIER DIAPH.	
TOTAL (CU. YDS.)	

NOTE:
CONCRETE AND REINFORCING STEEL QUANTITIES ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

CONCRETE PLACEMENT DIAGRAM

NOTE: CONCRETE DECK SHALL BE PLACED IN SECTIONS AND SEQUENCES INDICATED. ALTERNATE PROCEDURES FOR PLACING DECK CONCRETE MAY BE SUBMITTED FOR APPROVAL TOGETHER WITH A STATEMENT OF THE PROPOSED METHOD AND EVIDENCE THAT THE CONTRACTOR POSSESSES THE NECESSARY EQUIPMENT AND FACILITIES TO ACCOMPLISH THE REQUIRED RESULTS. FOR APPROVED ALTERNATE PROCEDURES THE ENGINEER SHALL DETERMINE IF A RETARDING ADMIXTURE IS REQUIRED TO MAINTAIN PLASTICITY OF THE CONCRETE DECK DURING PLACEMENT.



PERMISSIBLE TRANSVERSE DECK CONSTRUCTION JOINT

DECK, ABUT. & DIAPH. QUANTITIES

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	STUB ABUT. BTC, BTD & BTE BEAMS - BAR LIST & SUPER. DETAILS - 15°01' - 30° SKEW	STANDARD SHEET 4552-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER

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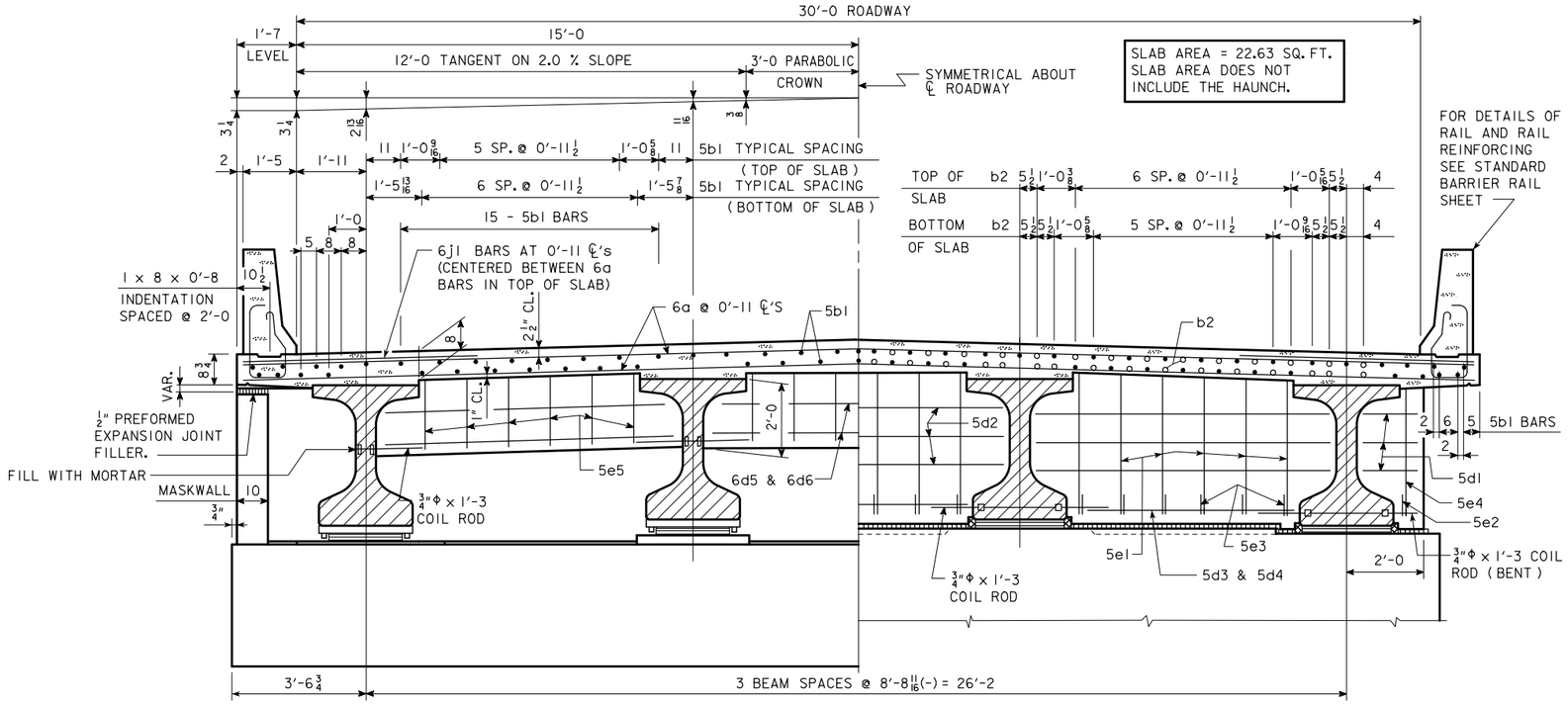
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4556-BTC-4 - THIS SHEET ISSUED 07-08.

TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTC BEAM BAR SIZE
30'-0	** 4
35'-0	** 4
40'-0	** 4
45'-0	** 4
50'-0	** 4
55'-0	** 4
60'-0	** 6
65'-0	** 7
70'-0	** 7
75'-0	** 8
80'-0	** 9
85'-0	** 9
90'-0	7
95'-0	7
100'-0	8
105'-0	8
110'-0	8
115'-0	8
120'-0	8
125'-0	——
130'-0	——
135'-0	——
140'-0	——
145'-0	——
150'-0	——
155'-0	——

THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

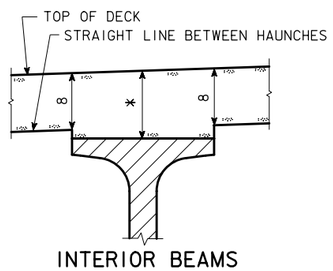
** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.



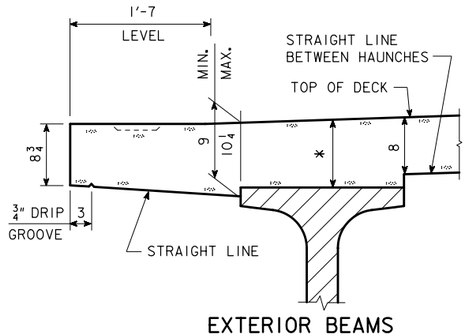
HALF SECTION NEAR ABUTMENT

HALF SECTION NEAR PIER

(FIXED PIER SHOWN)



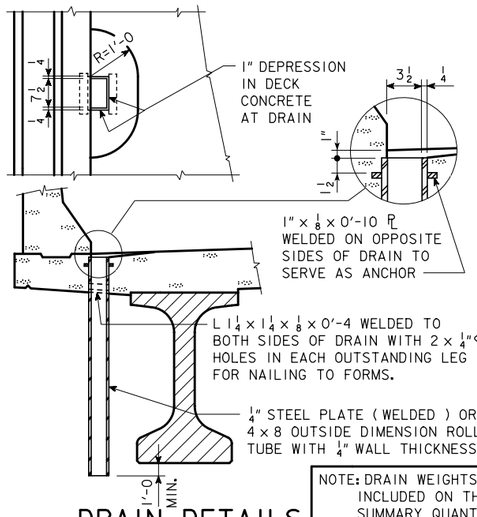
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE "SITUATION PLAN" FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR "____".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTC
DRAIN WEIGHT (LBS.)	106
DRAIN LENGTH (FT.)	5'-5¾

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

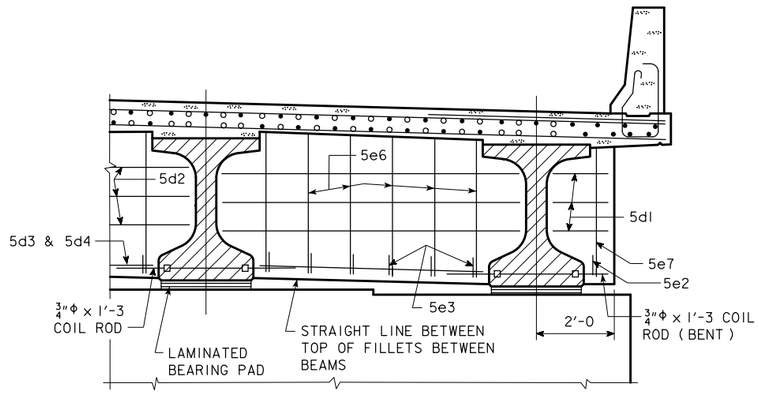
ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

ALL DECK AND DIAPHRAGM REINFORCING IS TO BE WIRED IN PLACE AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED.

TOP TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 2½" CLEAR BELOW TOP OF DECK. BOTTOM TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 1" CLEAR ABOVE BOTTOM OF DECK. TOP AND BOTTOM REINFORCING STEEL IS TO BE SUPPORTED BY INDIVIDUAL BAR CHAIRS SPACED AT NOT MORE THAN 3'-0 CENTERS LONGITUDINALLY AND TRANSVERSELY, OR BY CONTINUOUS ROWS OF BAR HIGH CHAIRS OR DECK BOLSTERS SPACED 4'-0 APART. I.M. 451.01 REQUIREMENTS SHALL APPLY FOR BAR CHAIRS, BAR HIGH CHAIRS, AND DECK BOLSTERS.



HALF SECTION NEAR PIER

(EXPANSION PIER SHOWN)

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	30' RDWY. PPCB (BTC 4 BEAMS - STUB ABUT.) CROSS SECTION (SPANS 30' - 120')	STANDARD SHEET 4556-BTC-4	COUNTY	PROJECT NUMBER	SHEET NUMBER

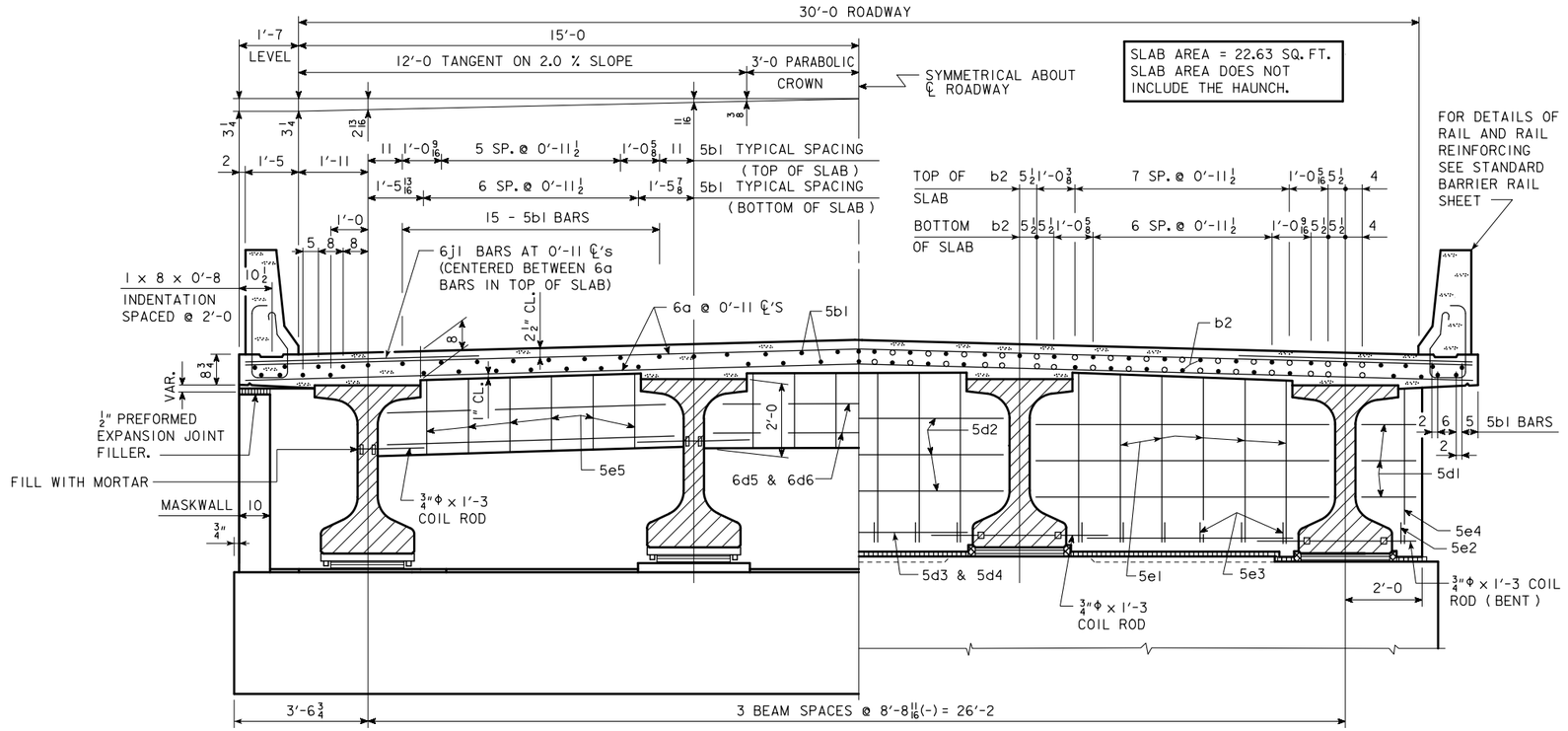
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4556-BTD-4 - THIS SHEET ISSUED 07-08.

TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTD BEAM BAR SIZE
30'-0	——
35'-0	——
40'-0	——
45'-0	——
50'-0	** 4
55'-0	** 4
60'-0	** 5
65'-0	** 6
70'-0	** 6
75'-0	** 7
80'-0	** 8
85'-0	** 8
90'-0	** 9
95'-0	** 9
100'-0	7
105'-0	7
110'-0	8
115'-0	8
120'-0	8
125'-0	8
130'-0	9
135'-0	9
140'-0	——
145'-0	——
150'-0	——
155'-0	——

THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

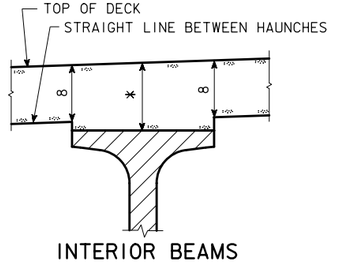
** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.



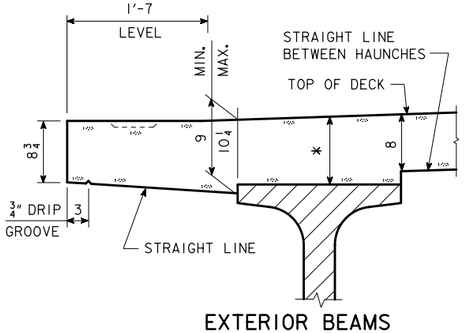
HALF SECTION NEAR ABUTMENT

HALF SECTION NEAR PIER

(FIXED PIER SHOWN)



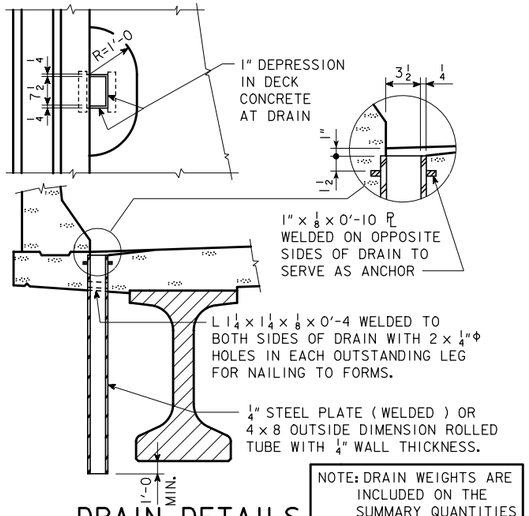
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE " SITUATION PLAN " FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR " ____ ".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTD
DRAIN WEIGHT (LBS.)	120
DRAIN LENGTH (FT.)	6'-2¾

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

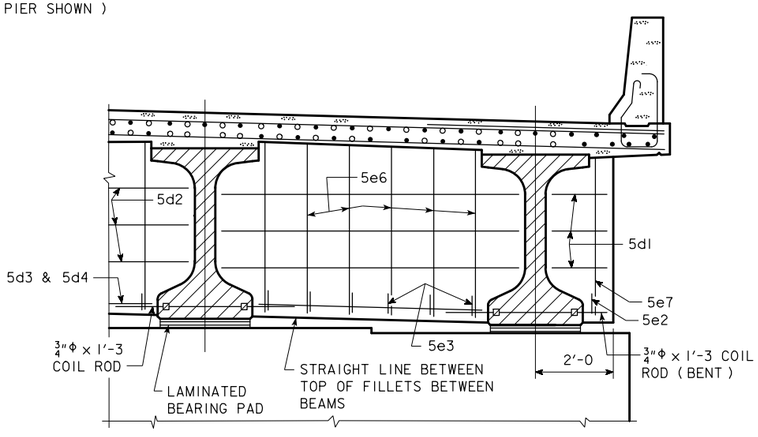
ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

ALL DECK AND DIAPHRAGM REINFORCING IS TO BE WIRED IN PLACE AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED.

TOP TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 2½" CLEAR BELOW TOP OF DECK. BOTTOM TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 1" CLEAR ABOVE BOTTOM OF DECK. TOP AND BOTTOM REINFORCING STEEL IS TO BE SUPPORTED BY INDIVIDUAL BAR CHAIRS SPACED AT NOT MORE THAN 3'-0 CENTERS LONGITUDINALLY AND TRANSVERSELY, OR BY CONTINUOUS ROWS OF BAR HIGH CHAIRS OR DECK BOLSTERS SPACED 4'-0 APART. I.M. 451.01 REQUIREMENTS SHALL APPLY FOR BAR CHAIRS, BAR HIGH CHAIRS, AND DECK BOLSTERS.



HALF SECTION NEAR PIER

(EXPANSION PIER SHOWN)

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	30' RDWY. PPCB (BTD 4 BEAMS - STUB ABUT.) CROSS SECTION (SPANS 50' - 135')	STANDARD SHEET 4556-BTD-4	COUNTY	PROJECT NUMBER	SHEET NUMBER

6/26/2015 1:28:02 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 4556-BTD-4 11x17_pdf.pltcfg

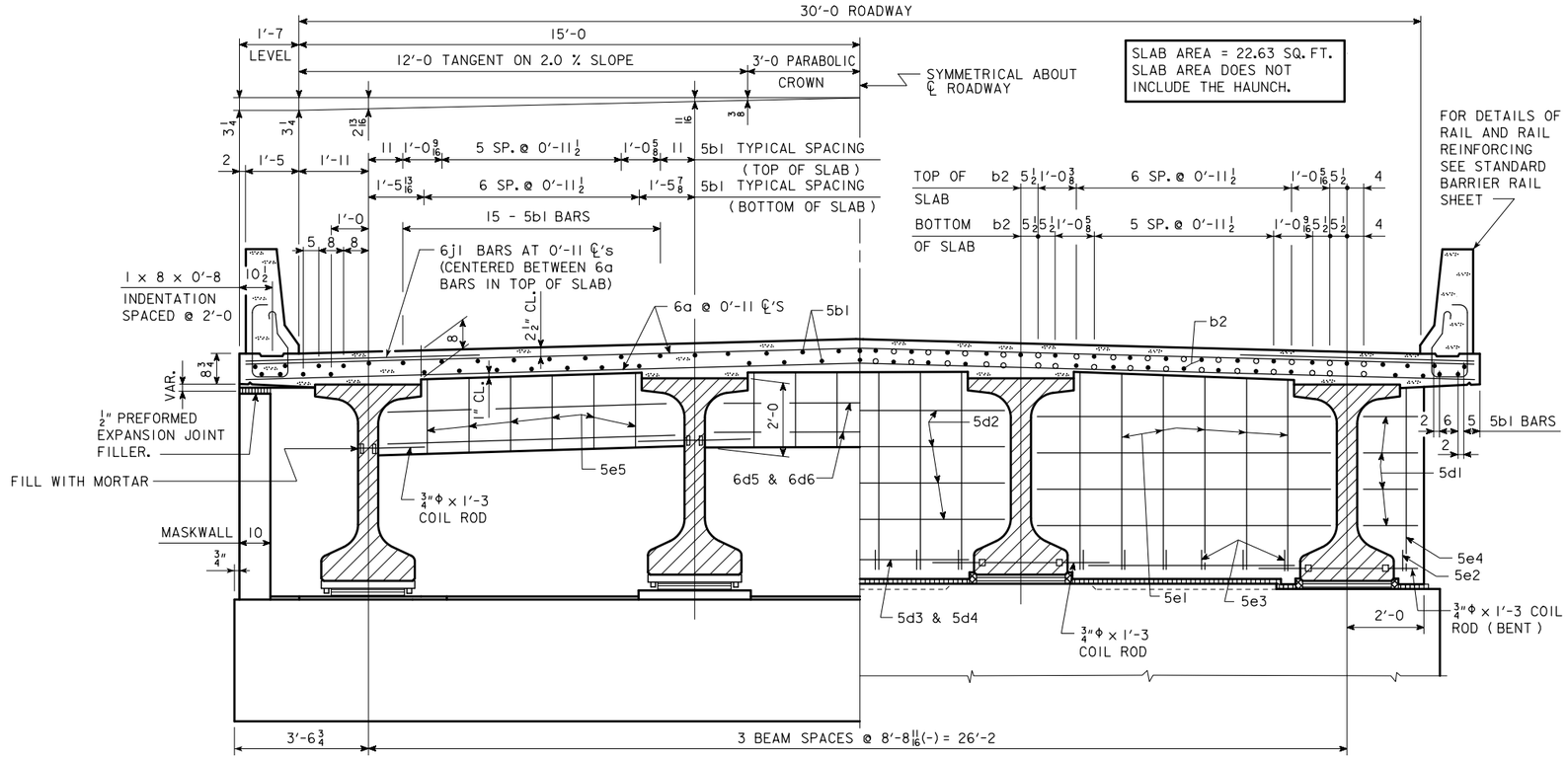
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4556-BTE-4 - THIS SHEET ISSUED 07-08.

TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTE BEAM BAR SIZE
30'-0	———
35'-0	———
40'-0	———
45'-0	———
50'-0	———
55'-0	———
60'-0	** 4
65'-0	** 5
70'-0	** 6
75'-0	** 6
80'-0	** 7
85'-0	** 7
90'-0	** 8
95'-0	** 8
100'-0	** 9
105'-0	** 9
110'-0	7
115'-0	7
120'-0	7
125'-0	8
130'-0	8
135'-0	8
140'-0	9
145'-0	9
150'-0	9
155'-0	9

THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

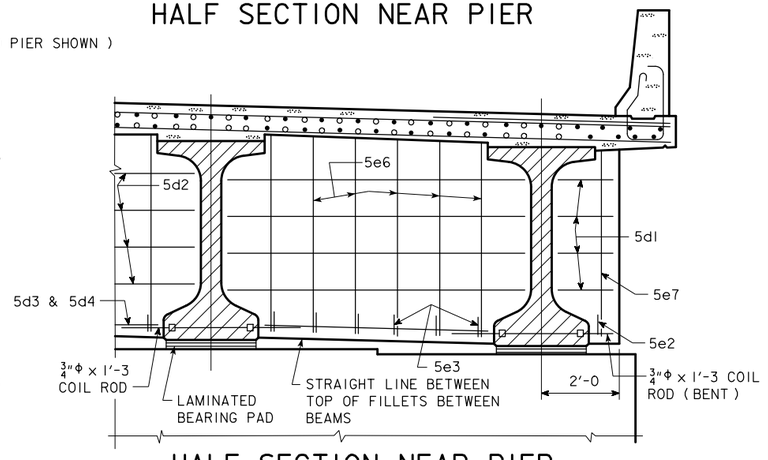
** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.



HALF SECTION NEAR ABUTMENT

HALF SECTION NEAR PIER

(FIXED PIER SHOWN)



(EXPANSION PIER SHOWN)

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

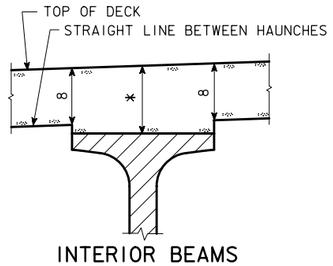
ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

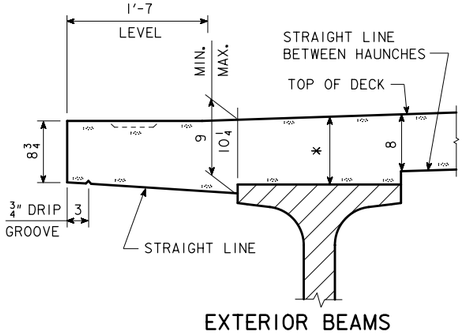
CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

ALL DECK AND DIAPHRAGM REINFORCING IS TO BE WIRED IN PLACE AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED.

TOP TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 2½" CLEAR BELOW TOP OF DECK. BOTTOM TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 1" CLEAR ABOVE BOTTOM OF DECK. TOP AND BOTTOM REINFORCING STEEL IS TO BE SUPPORTED BY INDIVIDUAL BAR CHAIRS SPACED AT NOT MORE THAN 3'-0 CENTERS LONGITUDINALLY AND TRANSVERSELY, OR BY CONTINUOUS ROWS OF BAR HIGH CHAIRS OR DECK BOLSTERS SPACED 4'-0 APART. I.M. 451.01 REQUIREMENTS SHALL APPLY FOR BAR CHAIRS, BAR HIGH CHAIRS, AND DECK BOLSTERS.



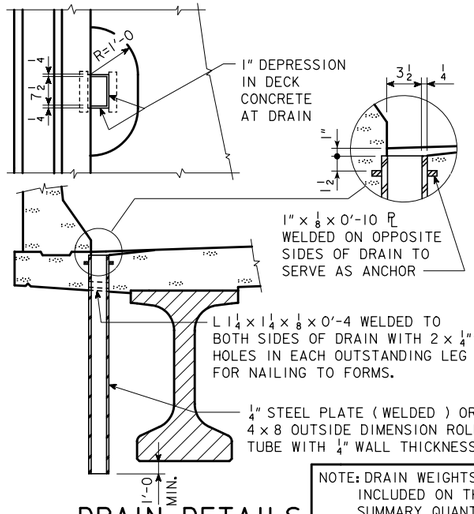
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE " SITUATION PLAN " FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR " ____ ".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTE
DRAIN WEIGHT (LBS.)	136
DRAIN LENGTH (FT.)	6'-11¾

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	30' RDWY. PPCB (BTE 4 BEAMS - STUB ABUT.) CROSS SECTION (SPANS 60' - 150')	STANDARD SHEET 4556-BTE-4	COUNTY	PROJECT NUMBER	SHEET NUMBER

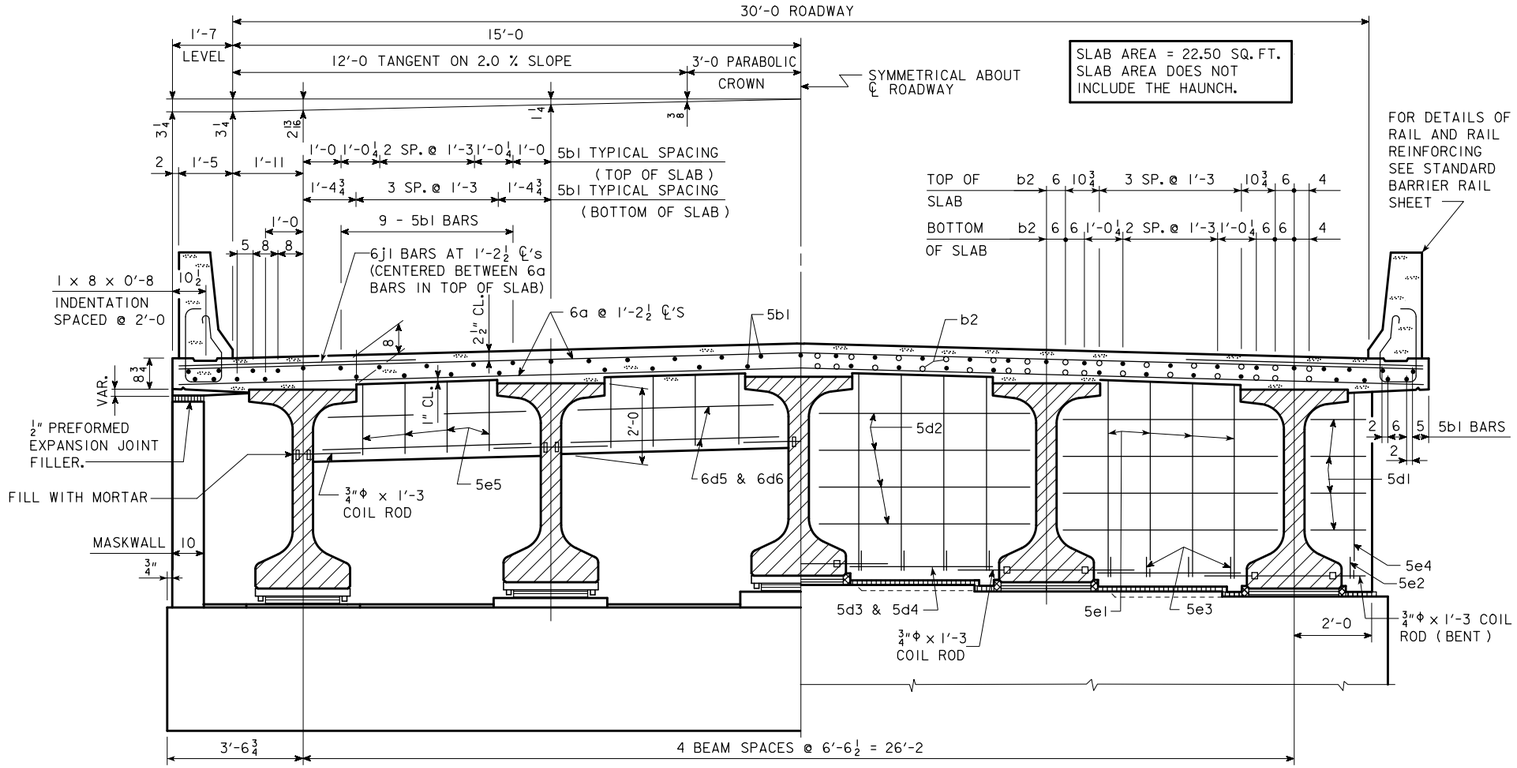
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4556-BTE-5 - THIS SHEET ISSUED 07-08.

TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTE BEAM BAR SIZE
30'-0	——
35'-0	——
40'-0	——
45'-0	——
50'-0	——
55'-0	——
60'-0	** 4
65'-0	** 5
70'-0	** 6
75'-0	** 6
80'-0	** 7
85'-0	** 7
90'-0	** 8
95'-0	** 8
100'-0	** 9
105'-0	** 9
110'-0	7
115'-0	7
120'-0	7
125'-0	8
130'-0	8
135'-0	8
140'-0	9
145'-0	9
150'-0	9
155'-0	9

THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

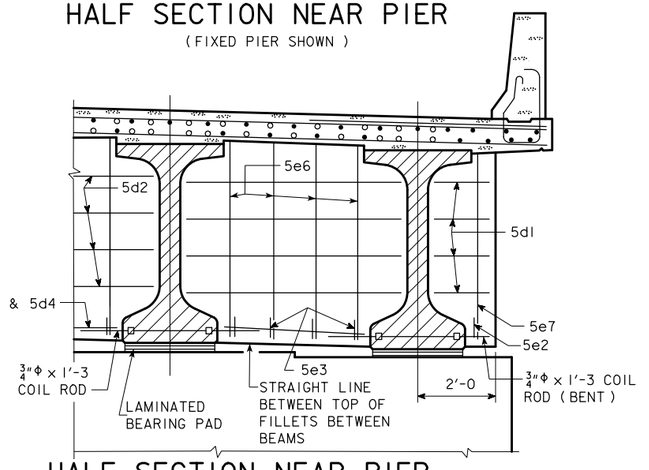
** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.



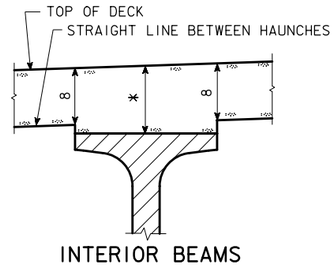
HALF SECTION NEAR ABUTMENT

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

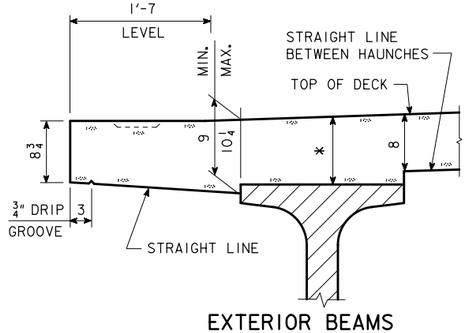
HALF SECTION NEAR PIER
(FIXED PIER SHOWN)



HALF SECTION NEAR PIER
(EXPANSION PIER SHOWN)



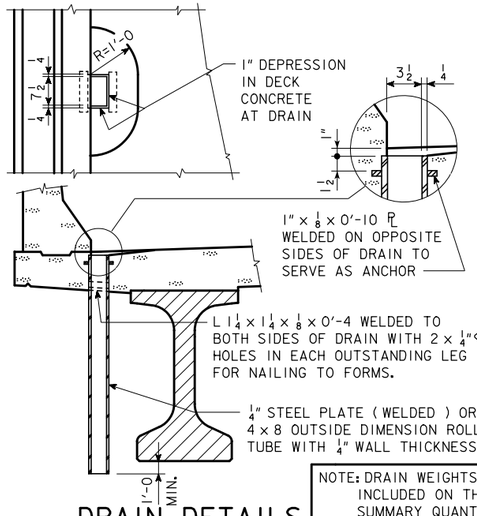
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE " SITUATION PLAN " FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR " ____ ".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTE
DRAIN WEIGHT (LBS.)	136
DRAIN LENGTH (FT.)	6'-11¾

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

ALL DECK AND DIAPHRAGM REINFORCING IS TO BE WIRED IN PLACE AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED.

TOP TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 2½" CLEAR BELOW TOP OF DECK. BOTTOM TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 1" CLEAR ABOVE BOTTOM OF DECK. TOP AND BOTTOM REINFORCING STEEL IS TO BE SUPPORTED BY INDIVIDUAL BAR CHAIRS SPACED AT NOT MORE THAN 3'-0 CENTERS LONGITUDINALLY AND TRANSVERSELY, OR BY CONTINUOUS ROWS OF BAR HIGH CHAIRS OR DECK BOLSTERS SPACED 4'-0 APART. I.M. 451.01 REQUIREMENTS SHALL APPLY FOR BAR CHAIRS, BAR HIGH CHAIRS, AND DECK BOLSTERS.

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	30' RDWY. PPCB (BTE 5 BEAMS - STUB ABUT.) CROSS SECTION (SPAN 155')	STANDARD SHEET 4556-BTE-5	COUNTY	PROJECT NUMBER	SHEET NUMBER

6/26/2015 1:28:05 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 4556-BTE-5 11x17_pdf.pltcfg

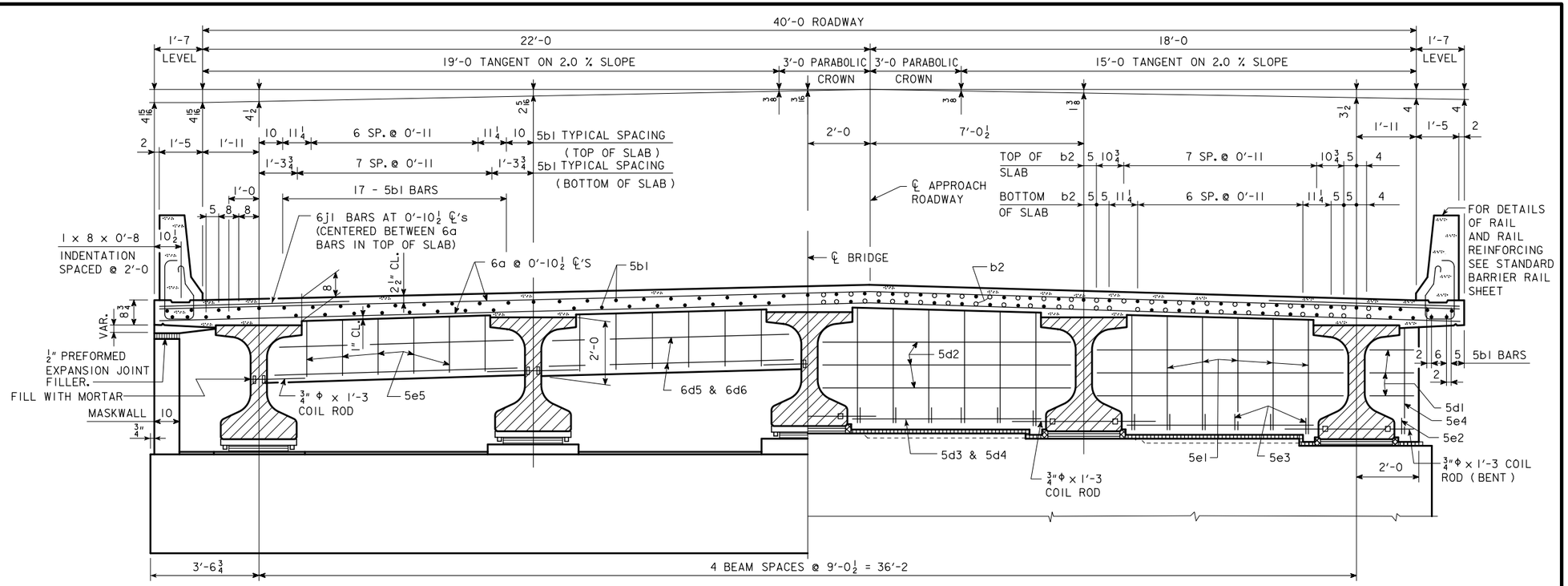
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4559-BTC-5 - THIS SHEET ISSUED 07-08.

TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTC BEAM BAR SIZE
30'-0	** 4
35'-0	** 4
40'-0	** 4
45'-0	** 4
50'-0	** 4
55'-0	** 4
60'-0	** 6
65'-0	** 7
70'-0	** 7
75'-0	** 8
80'-0	** 9
85'-0	** 9
90'-0	7
95'-0	7
100'-0	8
105'-0	8
110'-0	8
115'-0	8
120'-0	8
125'-0	——
130'-0	——
135'-0	——
140'-0	——
145'-0	——
150'-0	——
155'-0	——

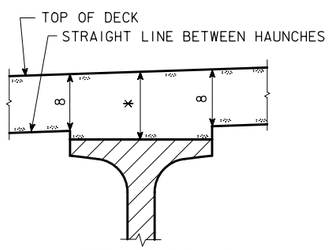
THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.

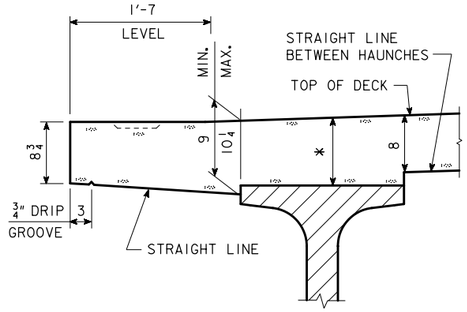


HALF SECTION NEAR ABUTMENT

SLAB AREA = 29.27 SQ. FT.
SLAB AREA DOES NOT INCLUDE THE HAUNCH.



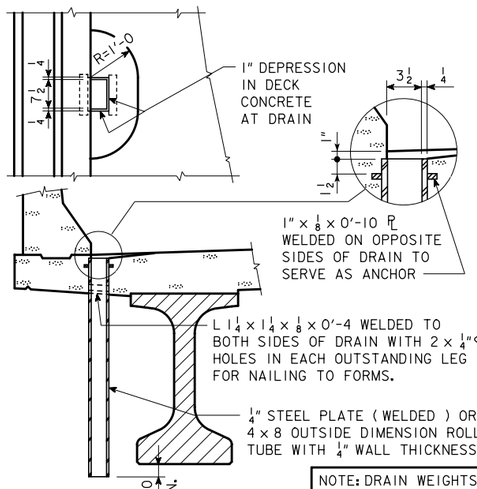
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE " SITUATION PLAN " FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR " ____ ".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTC
DRAIN WEIGHT (LBS.)	106
DRAIN LENGTH (FT.)	5'-5¾

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

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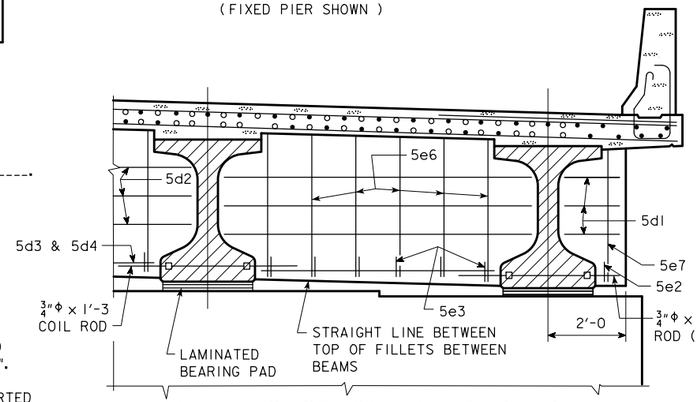
TRANSVERSE DECK REINFORCING MAY BE SPLICED WITH ONE LAP LOCATED AS FOLLOWS:
TOP BAR - LAP MIDWAY BETWEEN BEAMS (MIN. LAP = 1'-10).
BOTTOM BARS - LAP OVER BEAMS (MIN. LAP = 1'-10).

PAYMENT FOR REINFORCING BARS SHALL BE BASED ON NO SPLICES, AND NO ALLOWANCE SHALL BE MADE FOR THE ADDITIONAL LENGTH OF BAR REQUIRED FOR THE USE OF SPLICES.

HALF SECTION NEAR PIER

(FIXED PIER SHOWN)



HALF SECTION NEAR PIER

(EXPANSION PIER SHOWN)

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	40' RDWY. PPCB (BTC 5 BEAMS - STUB ABUT.) CROSS SECTION (SPANS 30' - 115')	STANDARD SHEET 4559-BTC-5	COUNTY	PROJECT NUMBER	SHEET NUMBER

6/26/2015 1:28:07 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 4559-BTC-5 11x17_pdf.pltcfg

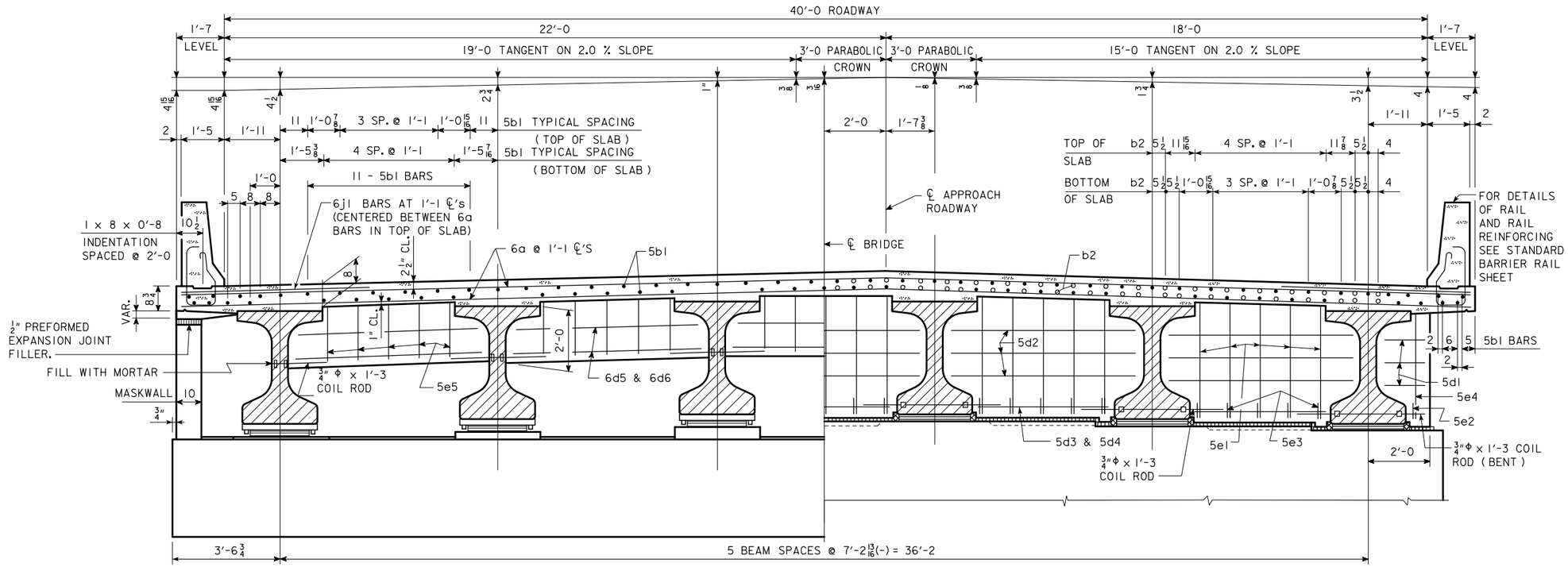
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4559-BTC-6 - THIS SHEET ISSUED 07-08.

TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTC BEAM BAR SIZE
30'-0	** 4
35'-0	** 4
40'-0	** 4
45'-0	** 4
50'-0	** 4
55'-0	** 4
60'-0	** 6
65'-0	** 7
70'-0	** 7
75'-0	** 8
80'-0	** 9
85'-0	** 9
90'-0	7
95'-0	7
100'-0	8
105'-0	8
110'-0	8
115'-0	8
120'-0	8
125'-0	——
130'-0	——
135'-0	——
140'-0	——
145'-0	——
150'-0	——
155'-0	——

THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

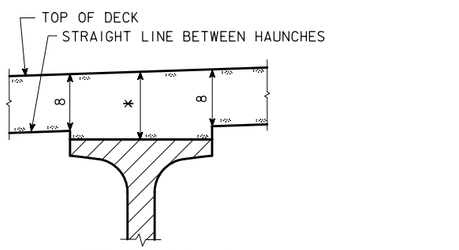
** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.



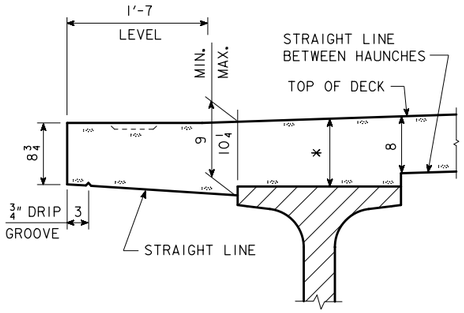
HALF SECTION NEAR ABUTMENT

SLAB AREA = 29.24 SQ. FT.
SLAB AREA DOES NOT INCLUDE THE HAUNCH.

HALF SECTION NEAR PIER
(FIXED PIER SHOWN)



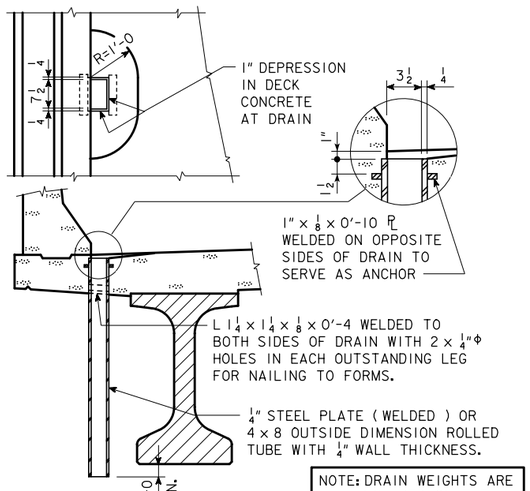
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE " SITUATION PLAN " FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR " ____ ".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTC
DRAIN WEIGHT (LBS.)	106
DRAIN LENGTH (FT.)	5'-5¾

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

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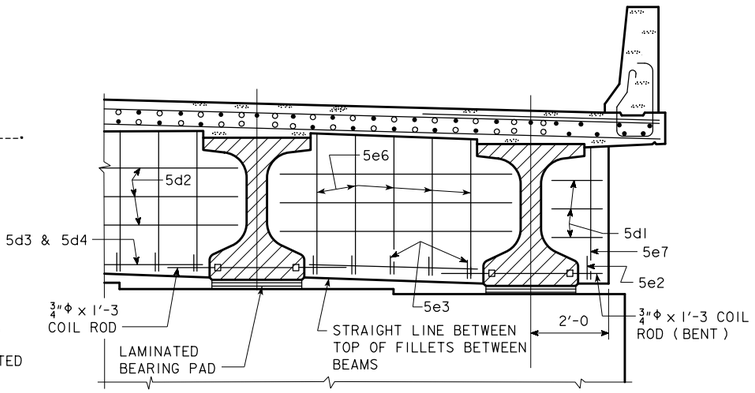


HALF SECTION NEAR PIER
(EXPANSION PIER SHOWN)

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

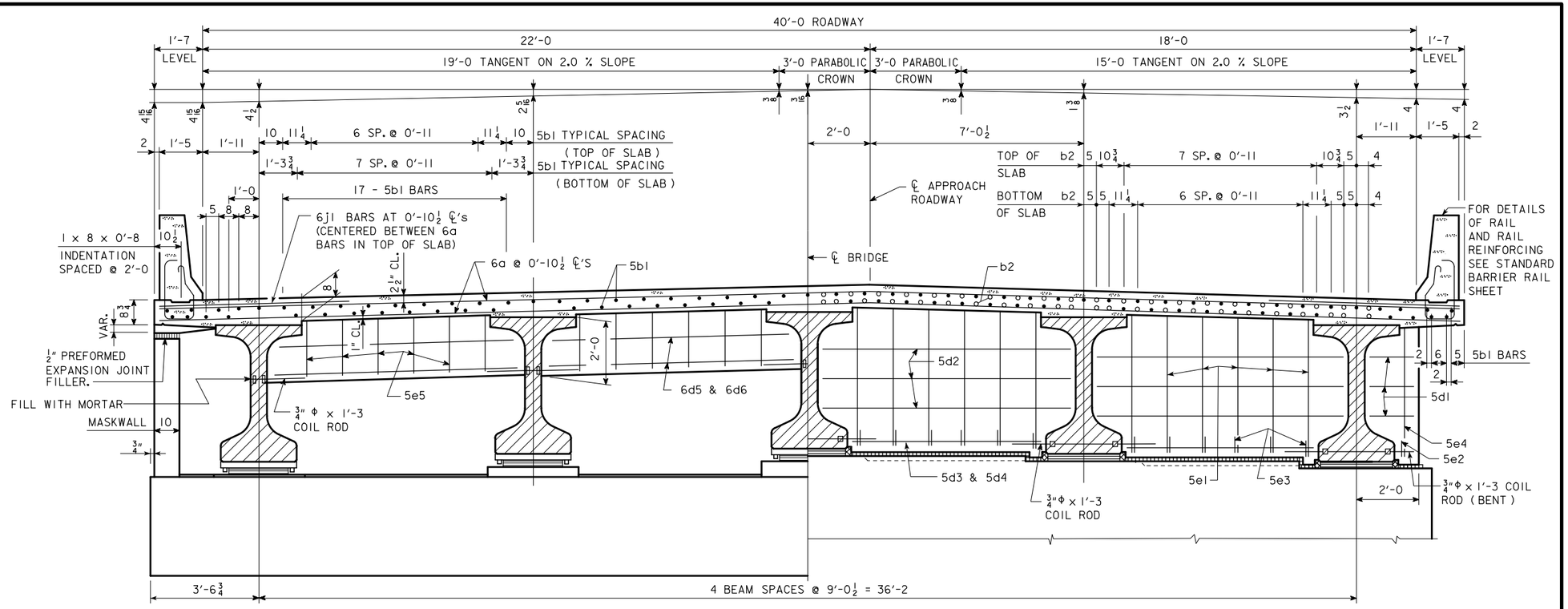
DESIGN TEAM	40' RDWY. PPCB (BTC 6 BEAMS - STUB ABUT.) CROSS SECTION (SPAN 120')	STANDARD SHEET 4559-BTC-6	COUNTY	PROJECT NUMBER	SHEET NUMBER

6/26/2015 1:28:08 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 4559-BTC-6 11x17_pdf.pltcfg

TABLE OF SIZE OF 'b2' BAR	
LONGEST ADJACENT SPAN	BTD BEAM BAR SIZE
30'-0	——
35'-0	——
40'-0	——
45'-0	——
50'-0	** 4
55'-0	** 4
60'-0	** 5
65'-0	** 6
70'-0	** 6
75'-0	** 7
80'-0	** 8
85'-0	** 8
90'-0	** 9
95'-0	** 9
100'-0	7
105'-0	7
110'-0	8
115'-0	8
120'-0	8
125'-0	8
130'-0	9
135'-0	9
140'-0	——
145'-0	——
150'-0	——
155'-0	——

THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.



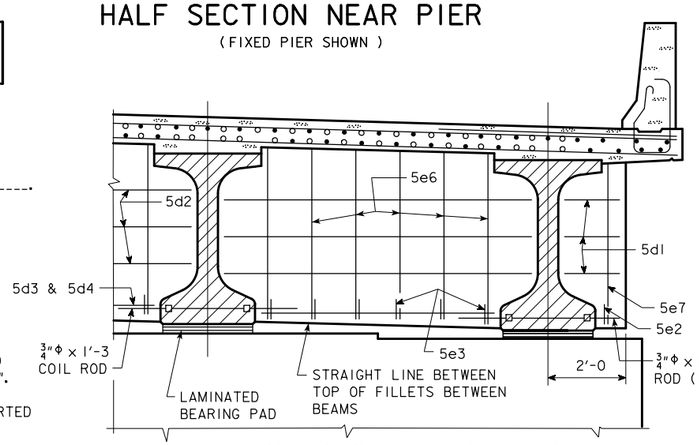
HALF SECTION NEAR ABUTMENT

SLAB AREA = 29.27 SQ. FT.
SLAB AREA DOES NOT INCLUDE THE HAUNCH.

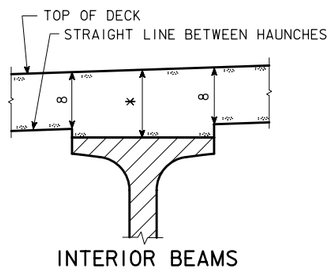
NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

HALF SECTION NEAR PIER

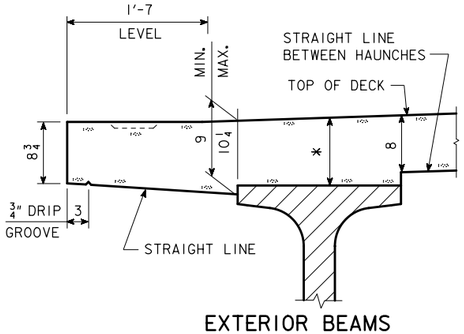
(FIXED PIER SHOWN)



(EXPANSION PIER SHOWN)



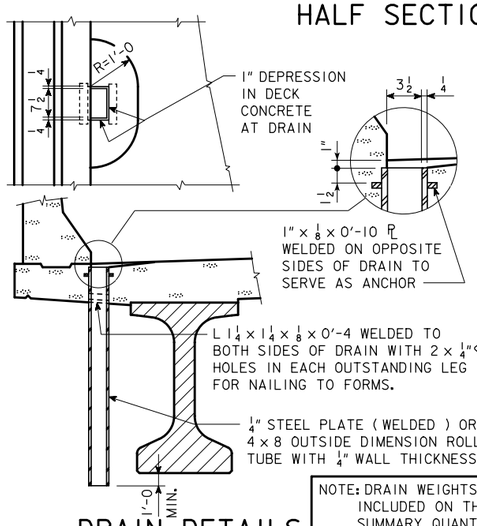
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE " SITUATION PLAN " FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR " ____ ".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTD
DRAIN WEIGHT (LBS.)	120
DRAIN LENGTH (FT.)	6'-2¾

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

ALL DECK AND DIAPHRAGM REINFORCING IS TO BE WIRED IN PLACE AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED.

TOP TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 2½" CLEAR BELOW TOP OF DECK. BOTTOM TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 1" CLEAR ABOVE BOTTOM OF DECK. TOP AND BOTTOM REINFORCING STEEL IS TO BE SUPPORTED BY INDIVIDUAL BAR CHAIRS SPACED AT NOT MORE THAN 3'-0 CENTERS LONGITUDINALLY AND TRANSVERSELY, OR BY CONTINUOUS ROWS OF BAR HIGH CHAIRS OR DECK BOLSTERS SPACED 4'-0 APART. I.M. 451.01 REQUIREMENTS SHALL APPLY FOR BAR CHAIRS, BAR HIGH CHAIRS, AND DECK BOLSTERS.

TRANSVERSE DECK REINFORCING MAY BE SPLICED WITH ONE LAP LOCATED AS FOLLOWS:
TOP BAR - LAP MIDWAY BETWEEN BEAMS (MIN. LAP = 1'-10).
BOTTOM BARS - LAP OVER BEAMS (MIN. LAP = 1'-10).

PAYMENT FOR REINFORCING BARS SHALL BE BASED ON NO SPLICES, AND NO ALLOWANCE SHALL BE MADE FOR THE ADDITIONAL LENGTH OF BAR REQUIRED FOR THE USE OF SPLICES.

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	40' RDWY. PPCB (BTD 5 BEAMS - STUB ABUT.) CROSS SECTION (SPANS 50' - 135')	STANDARD SHEET 4559-BTD-5	COUNTY	PROJECT NUMBER	SHEET NUMBER

CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4559-BTD-5 - THIS SHEET ISSUED 07-08.

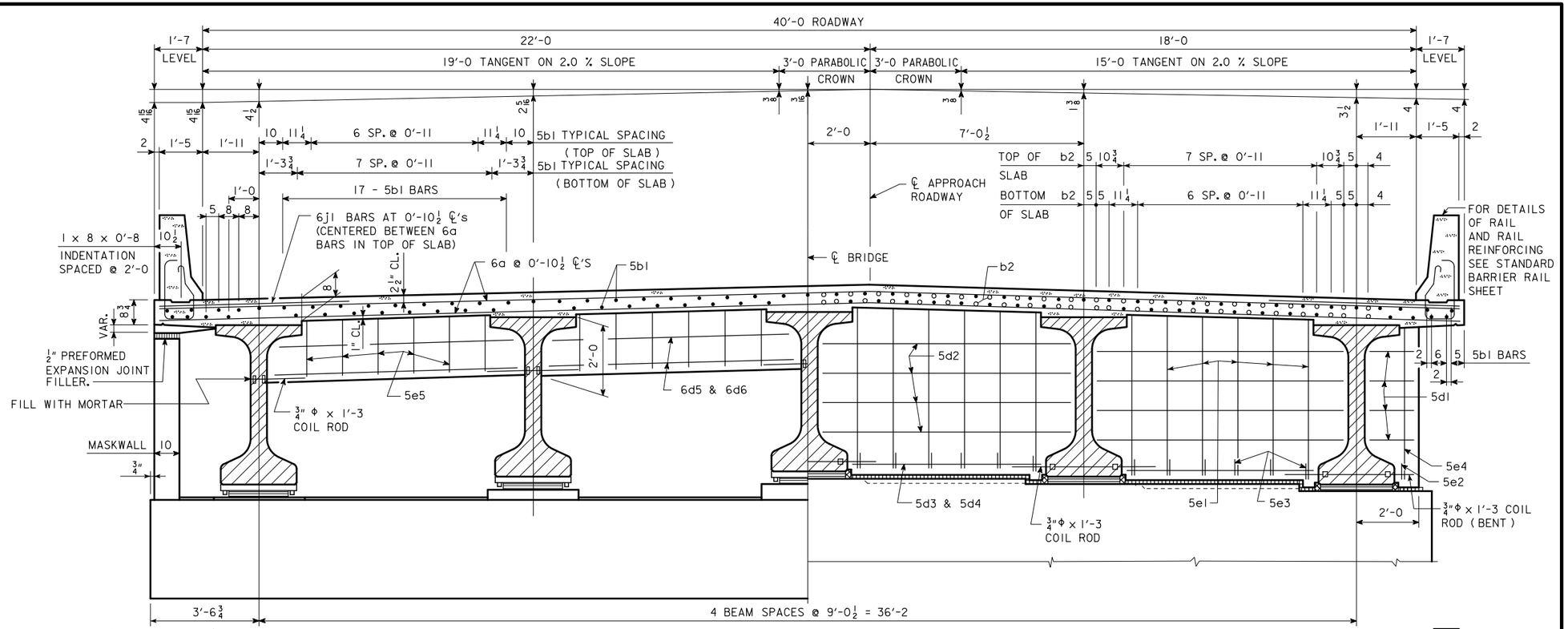
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4559-BTE-5 - THIS SHEET ISSUED 07-08.

TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTE BEAM BAR SIZE
30'-0	——
35'-0	——
40'-0	——
45'-0	——
50'-0	——
55'-0	——
60'-0	** 4
65'-0	** 5
70'-0	** 6
75'-0	** 6
80'-0	** 7
85'-0	** 7
90'-0	** 8
95'-0	** 8
100'-0	** 9
105'-0	** 9
110'-0	7
115'-0	7
120'-0	7
125'-0	8
130'-0	8
135'-0	8
140'-0	9
145'-0	9
150'-0	9
155'-0	9

THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.



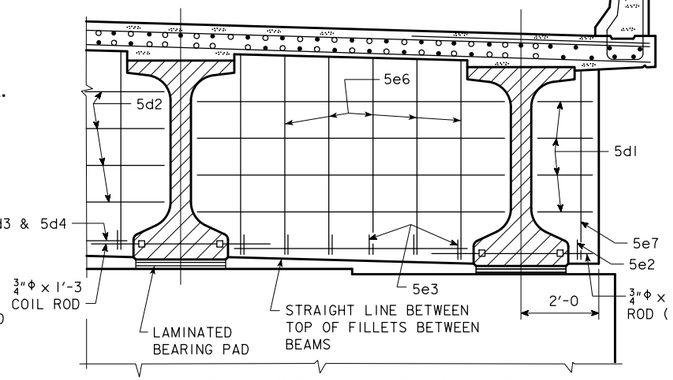
HALF SECTION NEAR ABUTMENT

SLAB AREA = 29.27 SQ.FT.
SLAB AREA DOES NOT INCLUDE THE HAUNCH.

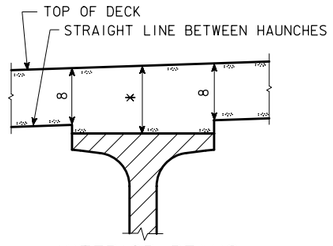
NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

HALF SECTION NEAR PIER

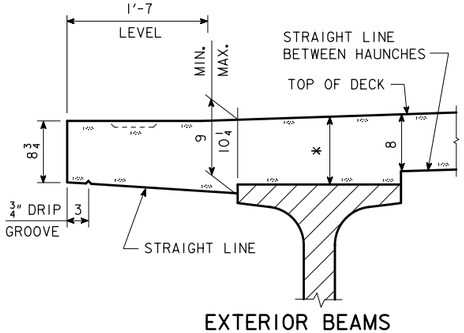
(FIXED PIER SHOWN)



(EXPANSION PIER SHOWN)



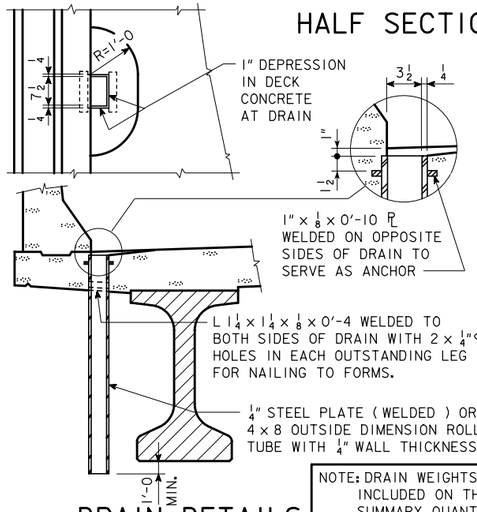
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE " SITUATION PLAN " FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR " ____ ".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTE
DRAIN WEIGHT (LBS.)	136
DRAIN LENGTH (FT.)	6'-11¾

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

ALL DECK AND DIAPHRAGM REINFORCING IS TO BE WIRED IN PLACE AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED.

TOP TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 2½" CLEAR BELOW TOP OF DECK. BOTTOM TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 1" CLEAR ABOVE BOTTOM OF DECK. TOP AND BOTTOM REINFORCING STEEL IS TO BE SUPPORTED BY INDIVIDUAL BAR CHAIRS SPACED AT NOT MORE THAN 3'-0 CENTERS LONGITUDINALLY AND TRANSVERSELY, OR BY CONTINUOUS ROWS OF BAR HIGH CHAIRS OR DECK BOLSTERS SPACED 4'-0 APART. I.M. 451.01 REQUIREMENTS SHALL APPLY FOR BAR CHAIRS, BAR HIGH CHAIRS, AND DECK BOLSTERS.

TRANSVERSE DECK REINFORCING MAY BE SPLICED WITH ONE LAP LOCATED AS FOLLOWS:

TOP BAR - LAP MIDWAY BETWEEN BEAMS (MIN. LAP = 1'-10).

BOTTOM BARS - LAP OVER BEAMS (MIN. LAP = 1'-10).

PAYMENT FOR REINFORCING BARS SHALL BE BASED ON NO SPLICES, AND NO ALLOWANCE SHALL BE MADE FOR THE ADDITIONAL LENGTH OF BAR REQUIRED FOR THE USE OF SPLICES.

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	40' RDWY. PPCB (BTE 5 BEAMS - STUB ABUT.) CROSS SECTION (SPANS 60' - 150')	STANDARD SHEET 4559-BTE-5	COUNTY	PROJECT NUMBER	SHEET NUMBER

6/26/2015 1:28:11 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 4559-BTE-5 11x17_pdf.pltcfg

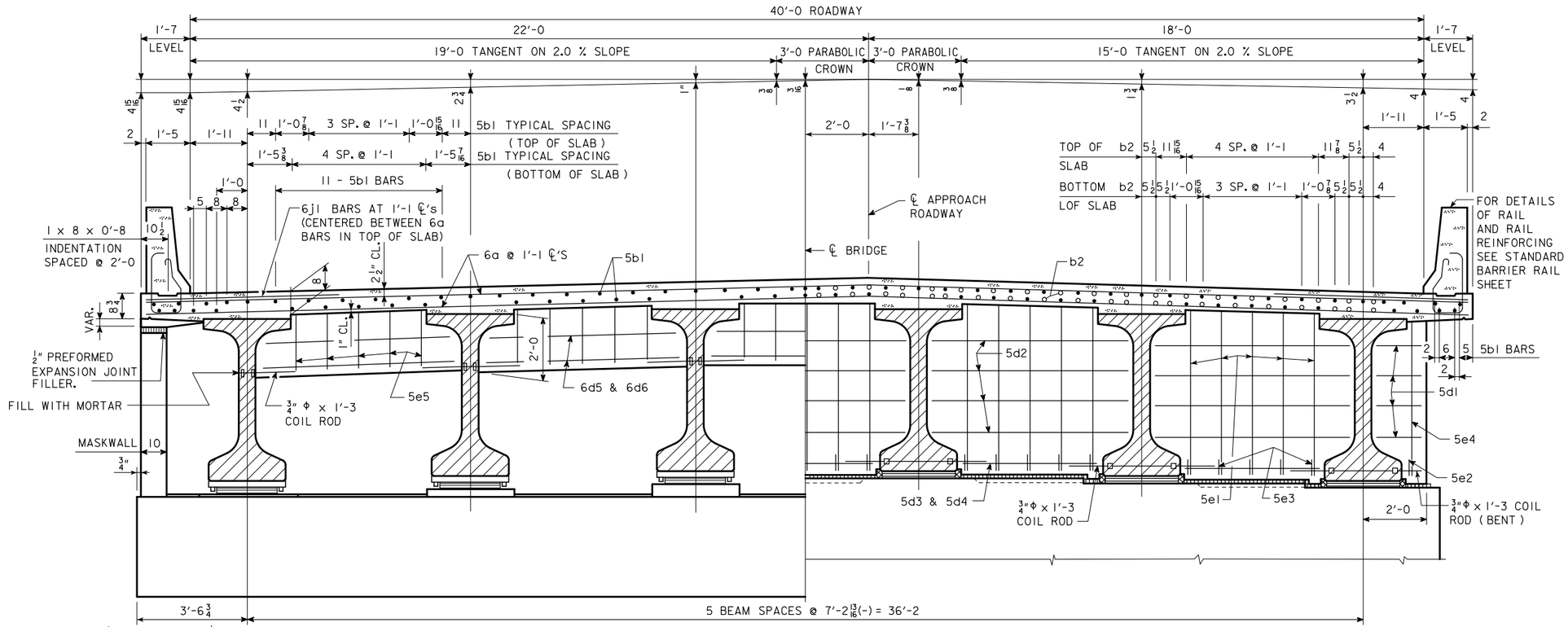
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4559-BTE-6 - THIS SHEET ISSUED 07-08.

TABLE OF SIZE OF 'b2' BAR

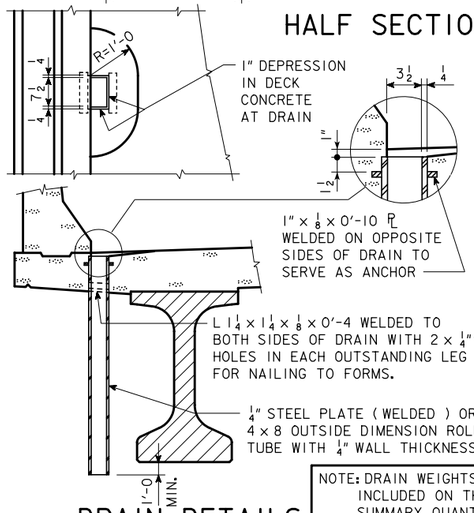
LONGEST ADJACENT SPAN	BTE BEAM BAR SIZE
30'-0	——
35'-0	——
40'-0	——
45'-0	——
50'-0	——
55'-0	——
60'-0	** 4
65'-0	** 5
70'-0	** 6
75'-0	** 6
80'-0	** 7
85'-0	** 7
90'-0	** 8
95'-0	** 8
100'-0	** 9
105'-0	** 9
110'-0	7
115'-0	7
120'-0	7
125'-0	8
130'-0	8
135'-0	8
140'-0	9
145'-0	9
150'-0	9
155'-0	9

THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.



HALF SECTION NEAR ABUTMENT



DRAIN DETAILS

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE "SITUATION PLAN" FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR "____".
WEIGHT IS BASED ON ROLLED TUBE.

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

DATA FOR ONE DRAIN	
BEAM SIZE	BTE
DRAIN WEIGHT (LBS.)	136
DRAIN LENGTH (FT.)	6'-11¾

SLAB AREA = 29.24 SQ. FT.
SLAB AREA DOES NOT INCLUDE THE HAUNCH.

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

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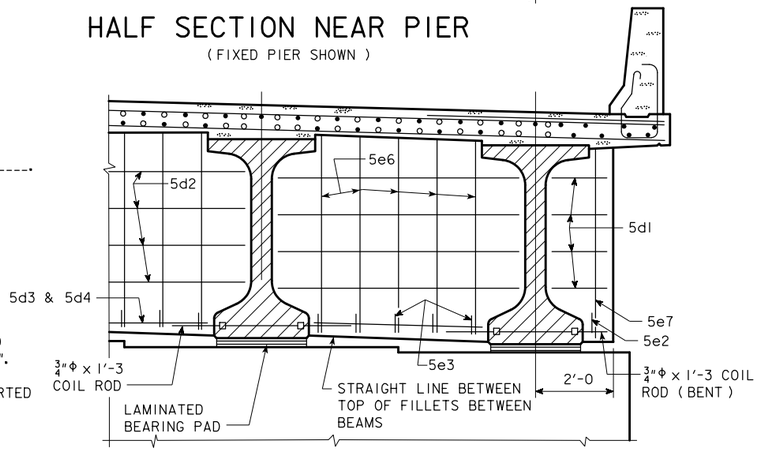
TRANSVERSE DECK REINFORCING MAY BE SPLICED WITH ONE LAP LOCATED AS FOLLOWS:
TOP BAR - LAP MIDWAY BETWEEN BEAMS (MIN. LAP = 1'-10).
BOTTOM BARS - LAP OVER BEAMS (MIN. LAP = 1'-10).

PAYMENT FOR REINFORCING BARS SHALL BE BASED ON NO SPLICES, AND NO ALLOWANCE SHALL BE MADE FOR THE ADDITIONAL LENGTH OF BAR REQUIRED FOR THE USE OF SPLICES.

HALF SECTION NEAR PIER

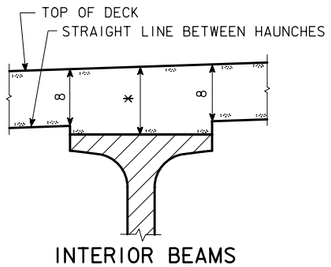
(FIXED PIER SHOWN)



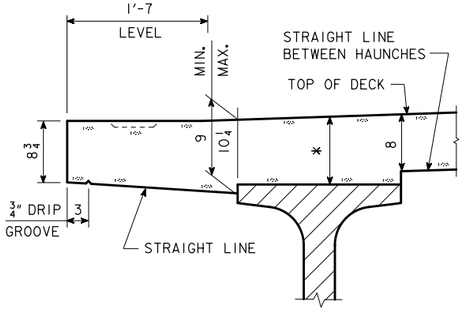
HALF SECTION NEAR PIER

(EXPANSION PIER SHOWN)

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.



INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	40' RDWY. PPCB (BTE 6 BEAMS - STUB ABUT.) CROSS SECTION (SPAN 155')	STANDARD SHEET 4559-BTE-6	COUNTY	PROJECT NUMBER	SHEET NUMBER

6/26/2015 1:28:13 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 4559-BTE-6 11x17_pdf.pltcfg

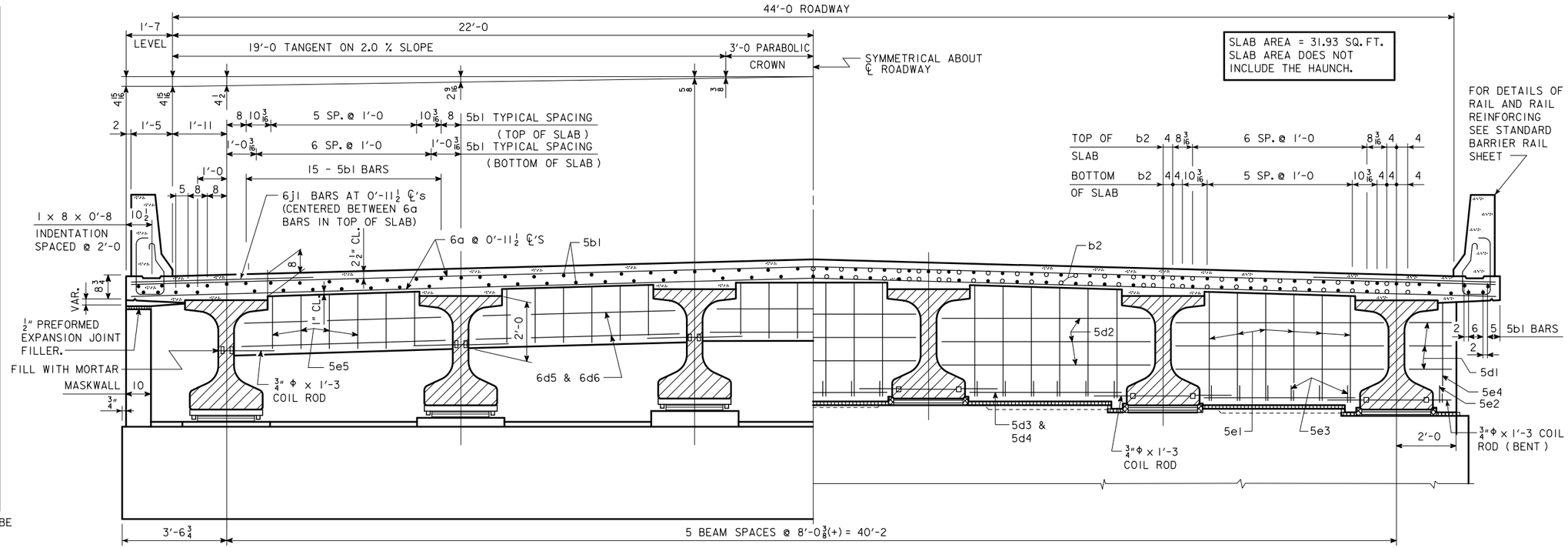
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4560-BTC-6 - THIS SHEET ISSUED 07-08.

TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTC BEAM BAR SIZE
30'-0	** 4
35'-0	** 4
40'-0	** 4
45'-0	** 4
50'-0	** 4
55'-0	** 4
60'-0	** 6
65'-0	** 7
70'-0	** 7
75'-0	** 8
80'-0	** 9
85'-0	** 9
90'-0	7
95'-0	7
100'-0	8
105'-0	8
110'-0	8
115'-0	8
120'-0	8
125'-0	——
130'-0	——
135'-0	——
140'-0	——
145'-0	——
150'-0	——
155'-0	——

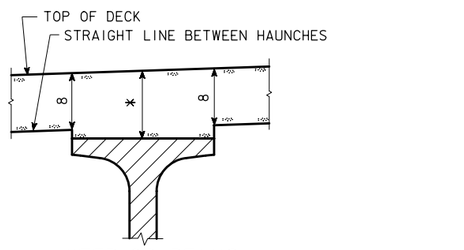
THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.

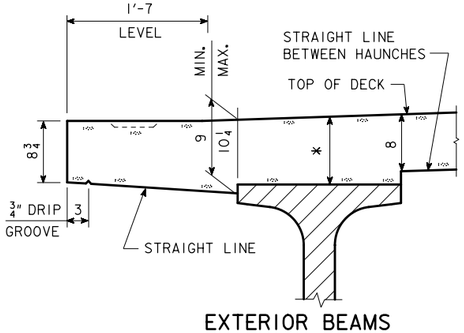


HALF SECTION NEAR ABUTMENT

HALF SECTION NEAR PIER
(FIXED PIER SHOWN)



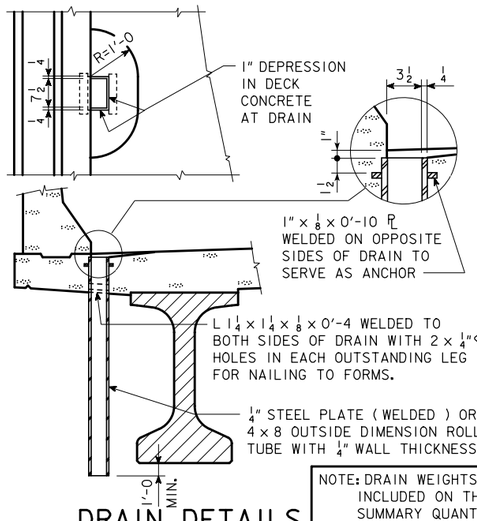
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE "SITUATION PLAN" FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR "____".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTC
DRAIN WEIGHT (LBS.)	106
DRAIN LENGTH (FT.)	5'-5¾

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

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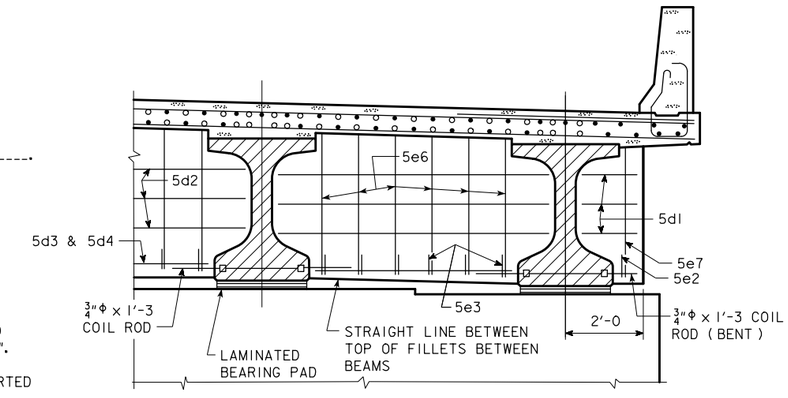
TRANSVERSE DECK REINFORCING MAY BE SPLICED WITH ONE LAP LOCATED AS FOLLOWS:

TOP BAR - LAP MIDWAY BETWEEN BEAMS (MIN. LAP = 1'-10).

BOTTOM BARS - LAP OVER BEAMS (MIN. LAP = 1'-10).

PAYMENT FOR REINFORCING BARS SHALL BE BASED ON NO SPLICES, AND NO ALLOWANCE SHALL BE MADE FOR THE ADDITIONAL LENGTH OF BAR REQUIRED FOR THE USE OF SPLICES.



HALF SECTION NEAR PIER
(EXPANSION PIER SHOWN)

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	44' RDWY. PPCB (BTC 6 BEAMS - STUB ABUT.) CROSS SECTION (SPANS 30' - 120')	STANDARD SHEET 4560-BTC-6	COUNTY	PROJECT NUMBER	SHEET NUMBER

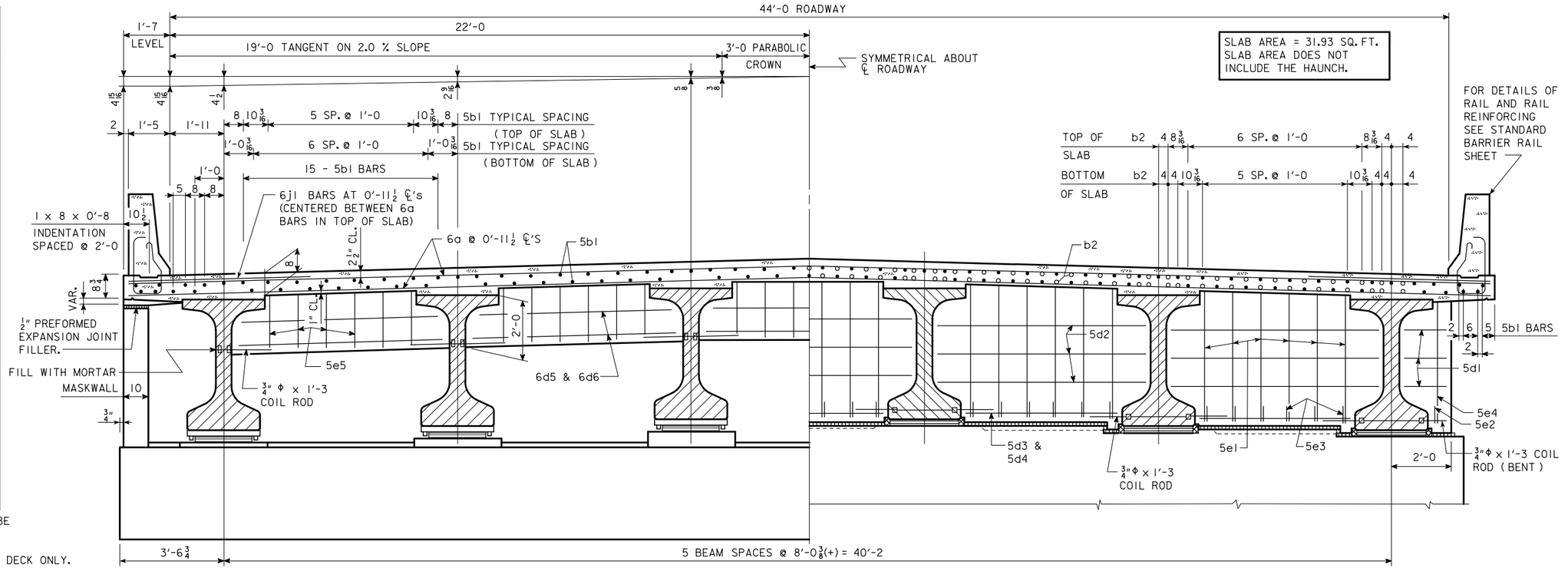
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4560-BTD-6 - THIS SHEET ISSUED 07-08.

TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTD BEAM BAR SIZE
30'-0	——
35'-0	——
40'-0	——
45'-0	——
50'-0	** 4
55'-0	** 4
60'-0	** 5
65'-0	** 6
70'-0	** 6
75'-0	** 7
80'-0	** 8
85'-0	** 8
90'-0	** 9
95'-0	** 9
100'-0	7
105'-0	7
110'-0	8
115'-0	8
120'-0	8
125'-0	8
130'-0	9
135'-0	9
140'-0	——
145'-0	——
150'-0	——
155'-0	——

THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

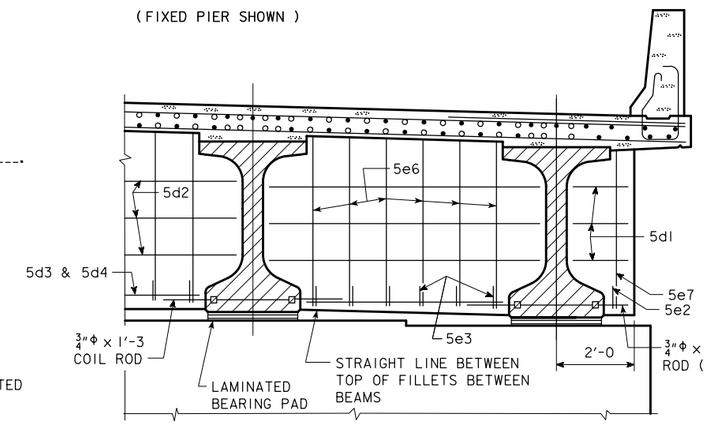
** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.



HALF SECTION NEAR ABUTMENT

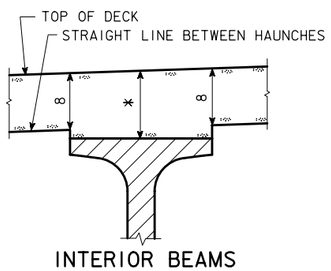
HALF SECTION NEAR PIER

(FIXED PIER SHOWN)

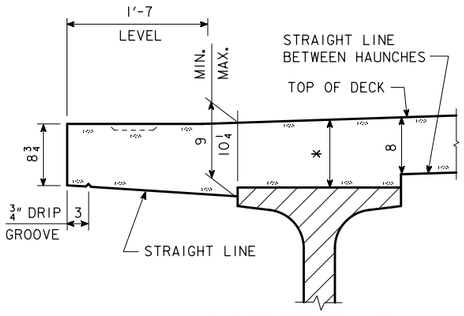


HALF SECTION NEAR PIER

(EXPANSION PIER SHOWN)



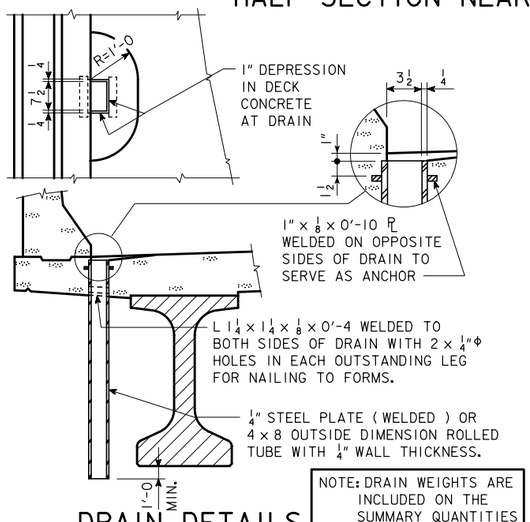
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE "SITUATION PLAN" FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR "____".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTD
DRAIN WEIGHT (LBS.)	120
DRAIN LENGTH (FT.)	6'-2 3/4

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES 1/2" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

ALL DECK AND DIAPHRAGM REINFORCING IS TO BE WIRED IN PLACE AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED.

TOP TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 2 1/2" CLEAR BELOW TOP OF DECK. BOTTOM TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 1" CLEAR ABOVE BOTTOM OF DECK. TOP AND BOTTOM REINFORCING STEEL IS TO BE SUPPORTED BY INDIVIDUAL BAR CHAIRS SPACED AT NOT MORE THAN 3'-0 CENTERS LONGITUDINALLY AND TRANSVERSELY, OR BY CONTINUOUS ROWS OF BAR HIGH CHAIRS OR DECK BOLSTERS SPACED 4'-0 APART. I.M. 451.01 REQUIREMENTS SHALL APPLY FOR BAR CHAIRS, BAR HIGH CHAIRS, AND DECK BOLSTERS.

TRANSVERSE DECK REINFORCING MAY BE SPLICED WITH ONE LAP LOCATED AS FOLLOWS:

TOP BAR - LAP MIDWAY BETWEEN BEAMS (MIN. LAP = 1'-10).

BOTTOM BARS - LAP OVER BEAMS (MIN. LAP = 1'-10).

PAYMENT FOR REINFORCING BARS SHALL BE BASED ON NO SPLICES, AND NO ALLOWANCE SHALL BE MADE FOR THE ADDITIONAL LENGTH OF BAR REQUIRED FOR THE USE OF SPLICES.

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	44' RDWY. PPCB (BTD 6 BEAMS - STUB ABUT.) CROSS SECTION (SPANS 50' - 135')	STANDARD SHEET 4560-BTD-6	COUNTY	PROJECT NUMBER	SHEET NUMBER

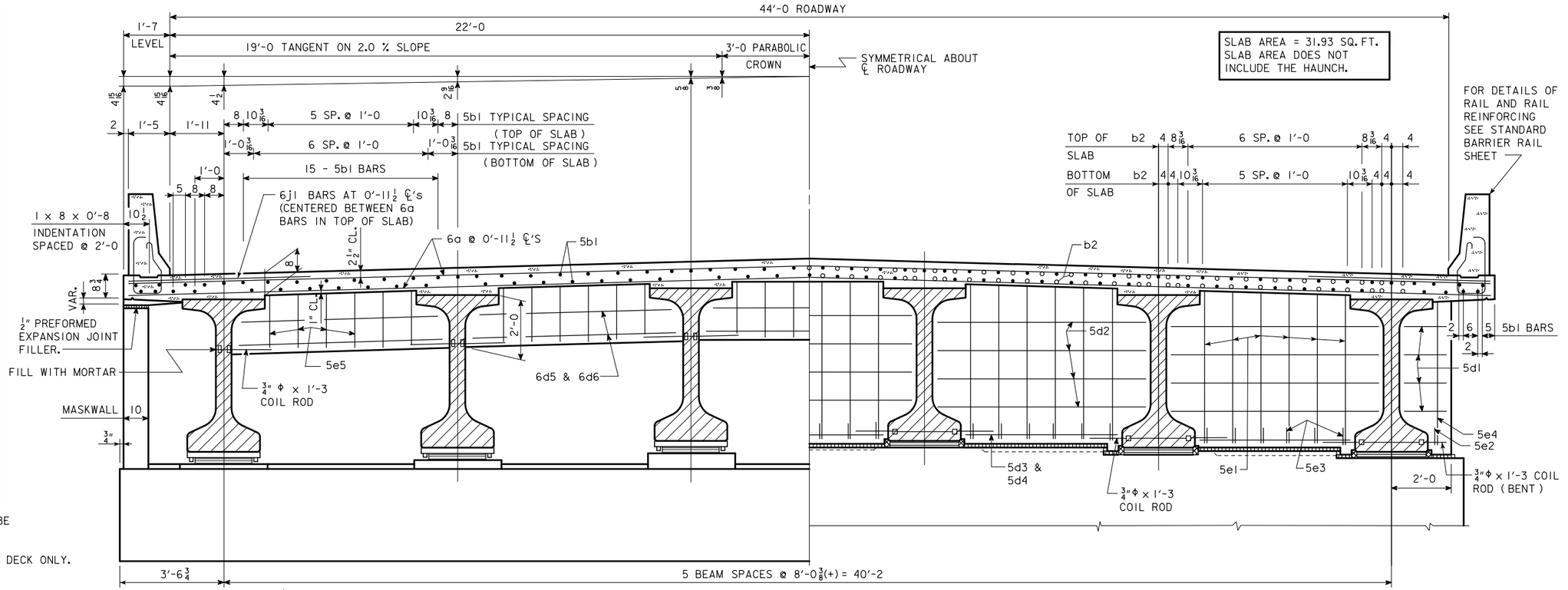
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4560-BTE-6 - THIS SHEET ISSUED 07-08.

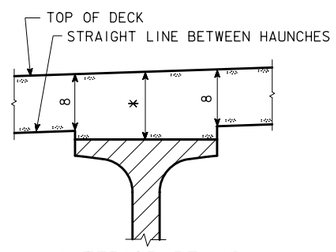
TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTE BEAM BAR SIZE
30'-0	——
35'-0	——
40'-0	——
45'-0	——
50'-0	——
55'-0	——
60'-0	** 4
65'-0	** 5
70'-0	** 6
75'-0	** 6
80'-0	** 7
85'-0	** 7
90'-0	** 8
95'-0	** 8
100'-0	** 9
105'-0	** 9
110'-0	7
115'-0	7
120'-0	7
125'-0	8
130'-0	8
135'-0	8
140'-0	9
145'-0	9
150'-0	9
155'-0	9

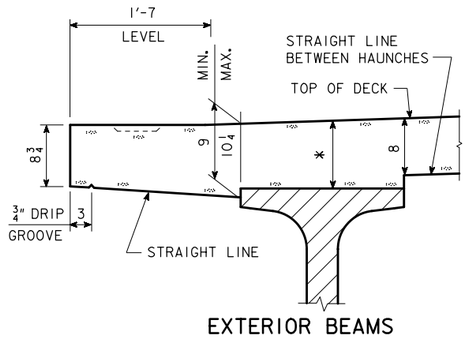
THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.





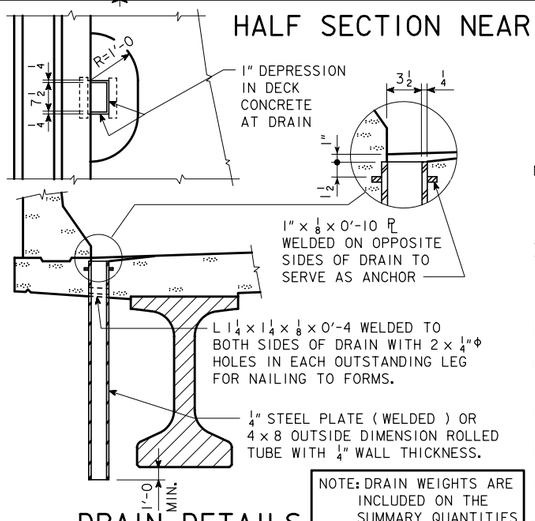
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE " SITUATION PLAN " FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR " ____ ".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTE
DRAIN WEIGHT (LBS.)	136
DRAIN LENGTH (FT.)	6'-11 3/4

HALF SECTION NEAR ABUTMENT

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES 1/2" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

ALL DECK AND DIAPHRAGM REINFORCING IS TO BE WIRED IN PLACE AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED.

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TRANSVERSE DECK REINFORCING MAY BE SPLICED WITH ONE LAP LOCATED AS FOLLOWS:

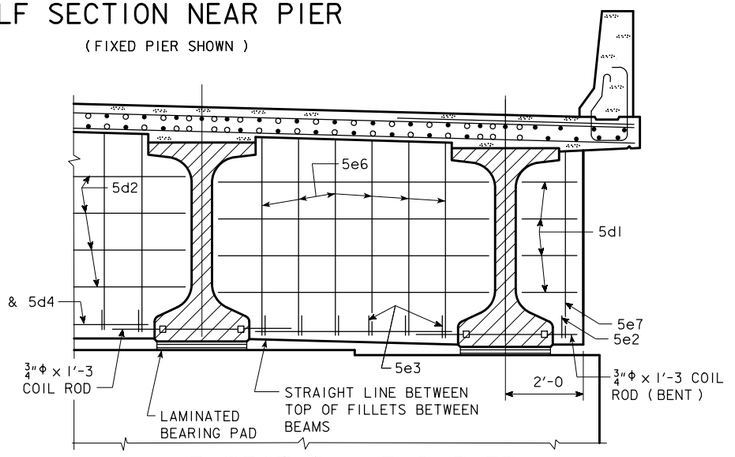
TOP BAR - LAP MIDWAY BETWEEN BEAMS (MIN. LAP = 1'-10).

BOTTOM BARS - LAP OVER BEAMS (MIN. LAP = 1'-10).

PAYMENT FOR REINFORCING BARS SHALL BE BASED ON NO SPLICES, AND NO ALLOWANCE SHALL BE MADE FOR THE ADDITIONAL LENGTH OF BAR REQUIRED FOR THE USE OF SPLICES.

HALF SECTION NEAR PIER

(FIXED PIER SHOWN)



HALF SECTION NEAR PIER

(EXPANSION PIER SHOWN)

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	44' RDWY. PPCB (BTE 6 BEAMS - STUB ABUT.) CROSS SECTION (SPANS 60' - 155')	STANDARD SHEET 4560-BTE-6	COUNTY	PROJECT NUMBER	SHEET NUMBER

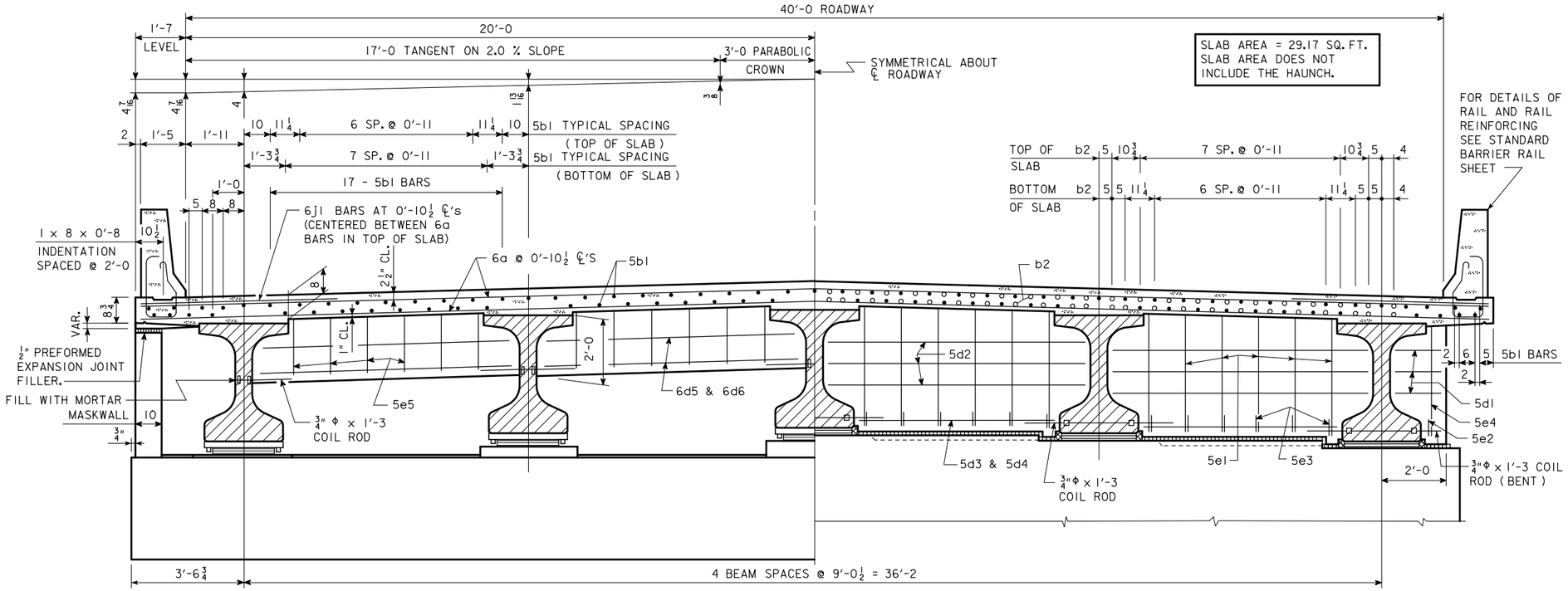
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4561-BTC-5 - THIS SHEET ISSUED 07-08.

TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTC BEAM BAR SIZE
30'-0	** 4
35'-0	** 4
40'-0	** 4
45'-0	** 4
50'-0	** 4
55'-0	** 4
60'-0	** 6
65'-0	** 7
70'-0	** 7
75'-0	** 8
80'-0	** 9
85'-0	** 9
90'-0	7
95'-0	7
100'-0	8
105'-0	8
110'-0	8
115'-0	8
120'-0	8
125'-0	——
130'-0	——
135'-0	——
140'-0	——
145'-0	——
150'-0	——
155'-0	——

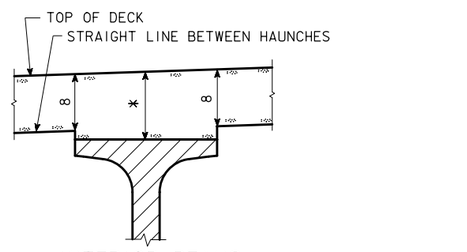
THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.

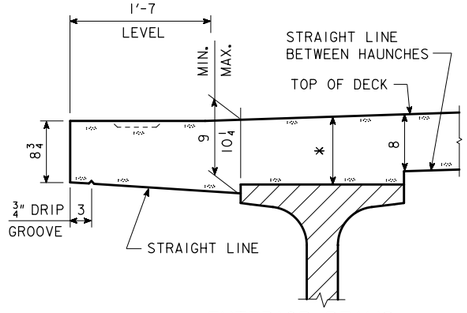


HALF SECTION NEAR ABUTMENT

HALF SECTION NEAR PIER
(FIXED PIER SHOWN)



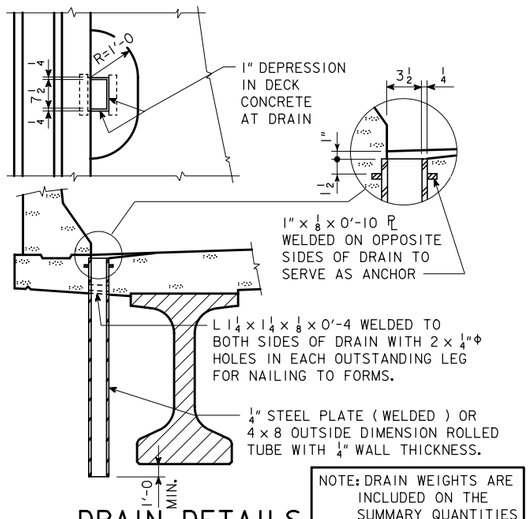
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE "SITUATION PLAN" FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR "____".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTC
DRAIN WEIGHT (LBS.)	106
DRAIN LENGTH (FT.)	5'-5¾

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

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TRANSVERSE DECK REINFORCING MAY BE SPLICED WITH ONE LAP LOCATED AS FOLLOWS:
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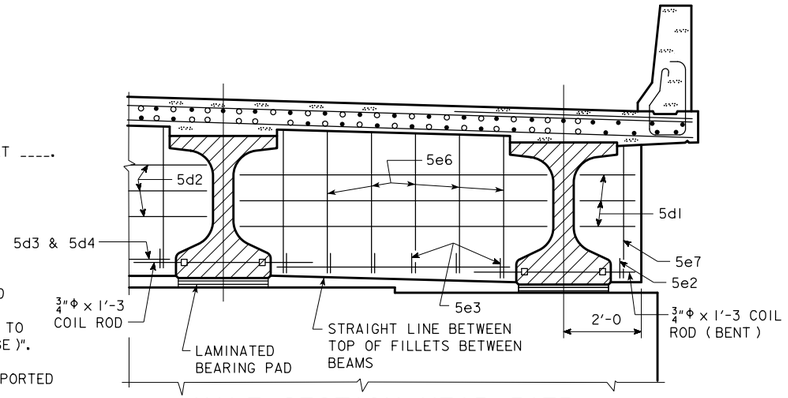
BOTTOM BARS - LAP OVER BEAMS (MIN. LAP = 1'-10).

PAYMENT FOR REINFORCING BARS SHALL BE BASED ON NO SPLICES, AND NO ALLOWANCE SHALL BE MADE FOR THE ADDITIONAL LENGTH OF BAR REQUIRED FOR THE USE OF SPLICES.



HALF SECTION NEAR PIER
(EXPANSION PIER SHOWN)

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	40' RDWY. PPCB (BTC 5 BEAMS - STUB ABUT.) CROSS SECTION (SYMM. CROWN) (SPANS 30' - 115')	STANDARD SHEET 4561-BTC-5	COUNTY	PROJECT NUMBER	SHEET NUMBER

6/26/2015 1:28:19 PM bkloss W:\Highway\Bridge\MethodsSection\CADD Concept Drafts\EnglishBTStubBridges.dgn 4561-BTC-5 11x17_pdf.pltcfg

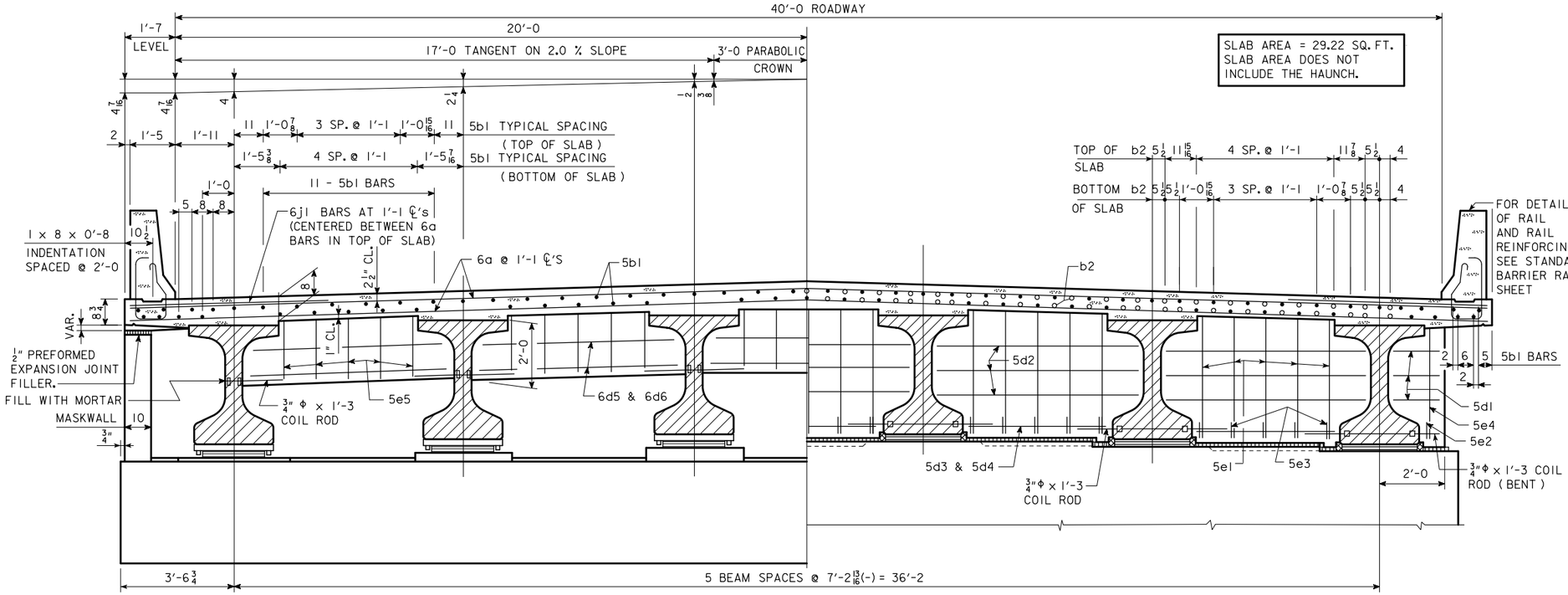
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4561-BTC-6 - THIS SHEET ISSUED 07-08.

TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTC BEAM BAR SIZE
30'-0	~~**4~~
35'-0	~~**4~~
40'-0	~~**4~~
45'-0	~~**4~~
50'-0	~~**4~~
55'-0	~~**4~~
60'-0	~~**6~~
65'-0	~~**7~~
70'-0	~~**7~~
75'-0	~~**8~~
80'-0	~~**9~~
85'-0	~~**9~~
90'-0	~~7~~
95'-0	~~7~~
100'-0	~~8~~
105'-0	~~8~~
110'-0	~~8~~
115'-0	~~8~~
120'-0	8
125'-0	——
130'-0	——
135'-0	——
140'-0	——
145'-0	——
150'-0	——
155'-0	——

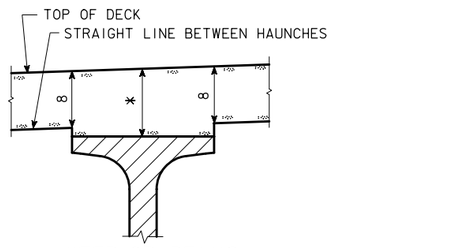
THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.

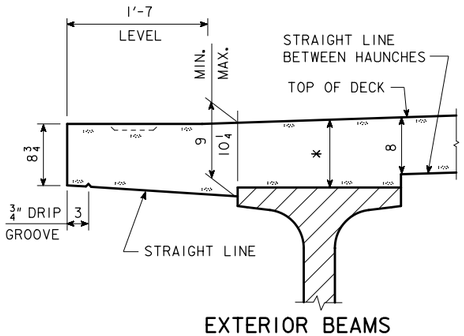


HALF SECTION NEAR ABUTMENT

HALF SECTION NEAR PIER
(FIXED PIER SHOWN)



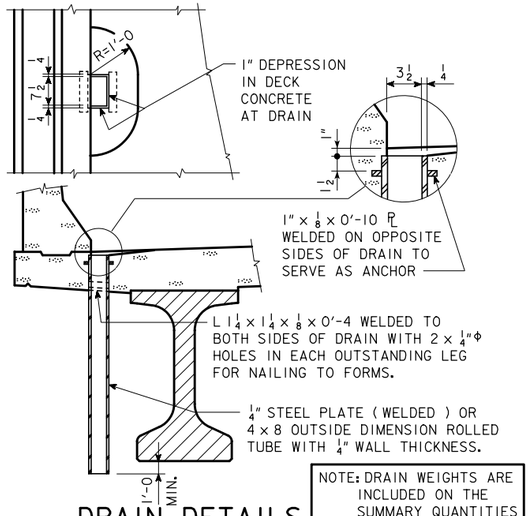
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE "SITUATION PLAN" FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR "____".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTC
DRAIN WEIGHT (LBS.)	106
DRAIN LENGTH (FT.)	5'-5¾

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

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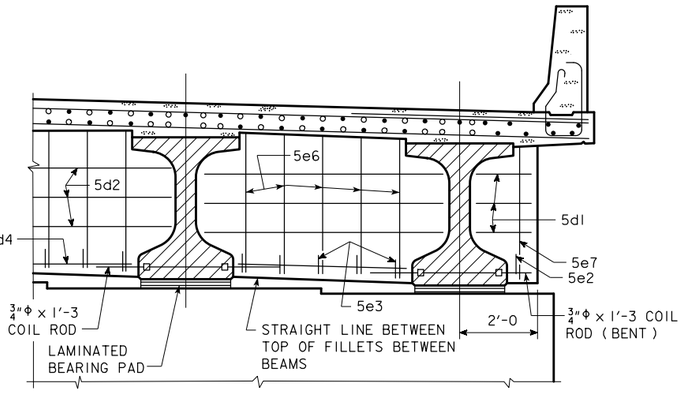

HALF SECTION NEAR PIER
(EXPANSION PIER SHOWN)

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	40' RDWY. PPCB (BTC 6 BEAMS - STUB ABUT.) CROSS SECTION (SYMM. CROWN) (SPAN 120')	STANDARD SHEET 4561-BTC-6	COUNTY	PROJECT NUMBER	SHEET NUMBER

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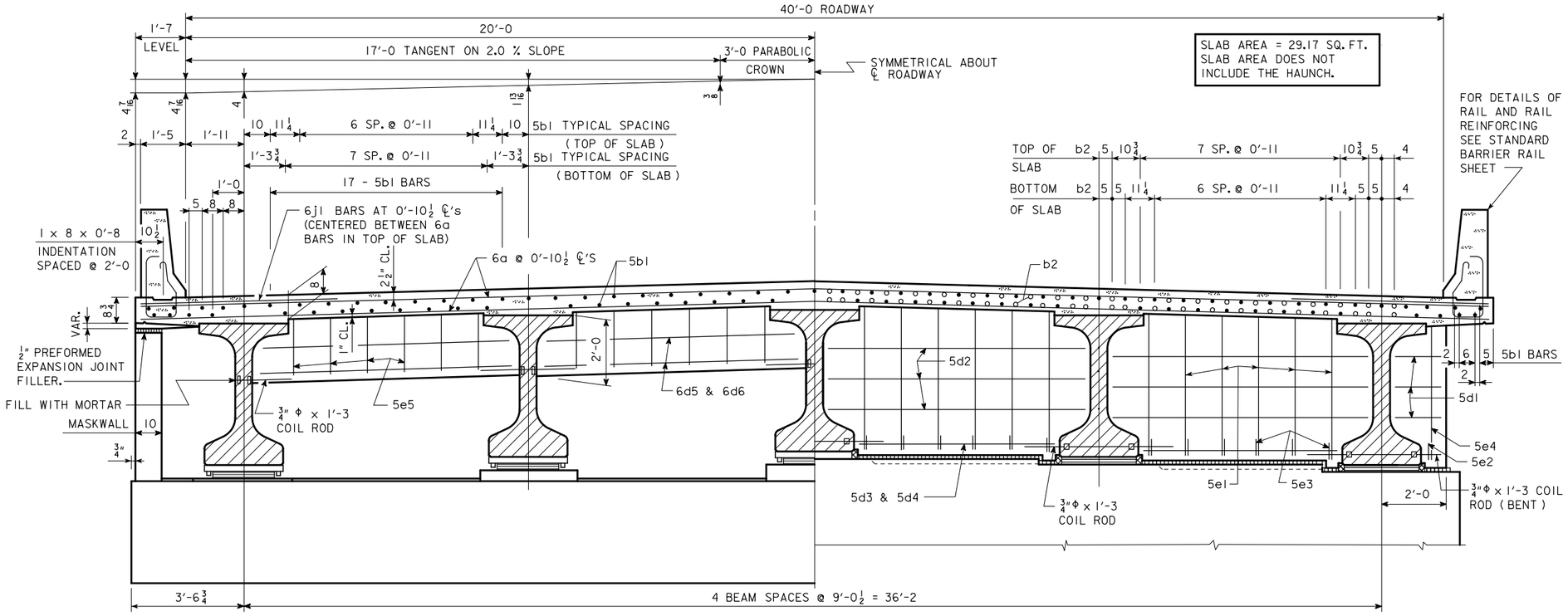
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4561-BTD-5 - THIS SHEET ISSUED 07-08.

TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTD BEAM BAR SIZE
30'-0	——
35'-0	——
40'-0	——
45'-0	——
50'-0	** 4
55'-0	** 4
60'-0	** 5
65'-0	** 6
70'-0	** 6
75'-0	** 7
80'-0	** 8
85'-0	** 8
90'-0	** 9
95'-0	** 9
100'-0	7
105'-0	7
110'-0	8
115'-0	8
120'-0	8
125'-0	8
130'-0	9
135'-0	9
140'-0	——
145'-0	——
150'-0	——
155'-0	——

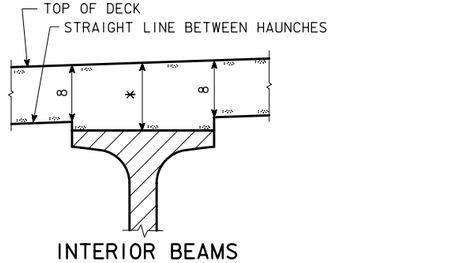
THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.

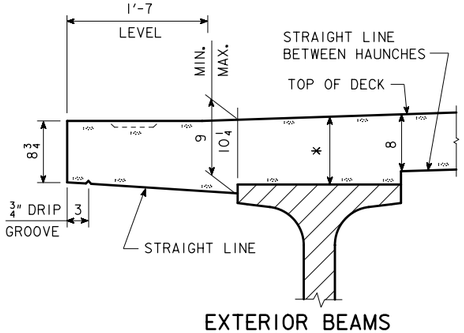


HALF SECTION NEAR ABUTMENT

HALF SECTION NEAR PIER
(FIXED PIER SHOWN)



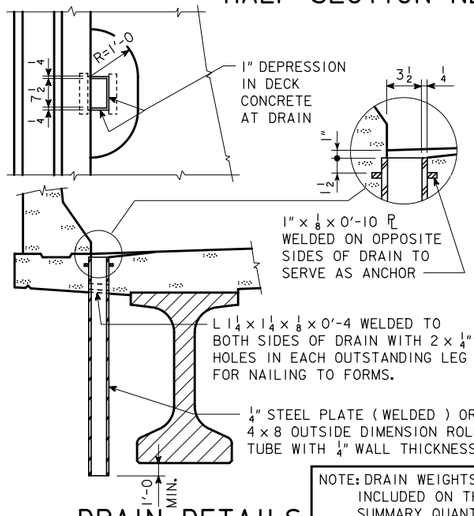
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE " SITUATION PLAN " FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR " ____ ".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTD
DRAIN WEIGHT (LBS.)	120
DRAIN LENGTH (FT.)	6'-2¾

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

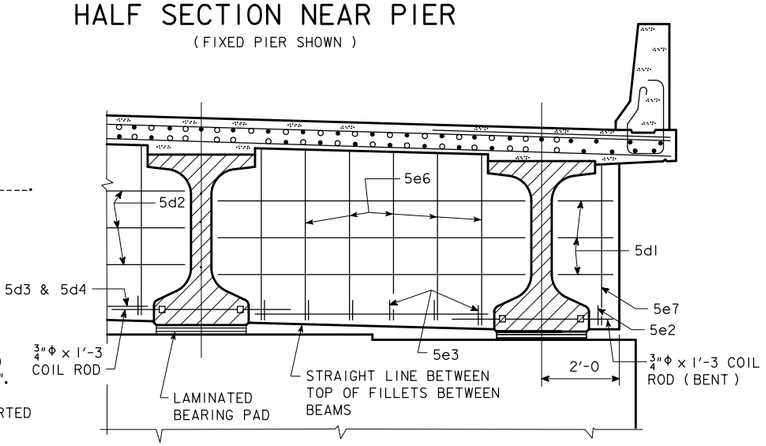
CLEAR DISTANCE FROM FACE OF CONCRETE TO NEAR REINFORCING BAR SHALL BE 2 INCHES UNLESS OTHERWISE NOTED OR SHOWN.

ALL DECK AND DIAPHRAGM REINFORCING IS TO BE WIRED IN PLACE AND ADEQUATELY SUPPORTED BEFORE CONCRETE IS PLACED.

TOP TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 2½" CLEAR BELOW TOP OF DECK. BOTTOM TRANSVERSE REINFORCING STEEL IS TO BE PARALLEL TO AND 1" CLEAR ABOVE BOTTOM OF DECK. TOP AND BOTTOM REINFORCING STEEL IS TO BE SUPPORTED BY INDIVIDUAL BAR CHAIRS SPACED AT NOT MORE THAN 3'-0 CENTERS LONGITUDINALLY AND TRANSVERSELY, OR BY CONTINUOUS ROWS OF BAR HIGH CHAIRS OR DECK BOLSTERS SPACED 4'-0 APART. I.M. 451.01 REQUIREMENTS SHALL APPLY FOR BAR CHAIRS, BAR HIGH CHAIRS, AND DECK BOLSTERS.

TRANSVERSE DECK REINFORCING MAY BE SPLICED WITH ONE LAP LOCATED AS FOLLOWS:
TOP BAR - LAP MIDWAY BETWEEN BEAMS (MIN. LAP = 1'-10).
BOTTOM BARS - LAP OVER BEAMS (MIN. LAP = 1'-10).

PAYMENT FOR REINFORCING BARS SHALL BE BASED ON NO SPLICES, AND NO ALLOWANCE SHALL BE MADE FOR THE ADDITIONAL LENGTH OF BAR REQUIRED FOR THE USE OF SPLICES.



HALF SECTION NEAR PIER
(EXPANSION PIER SHOWN)

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	40' RDWY. PPCB (BTD 5 BEAMS - STUB ABUT.) CROSS SECTION (SYMM. CROWN) (SPANS 50' - 135')	STANDARD SHEET 4561-BTD-5	COUNTY	PROJECT NUMBER	SHEET NUMBER

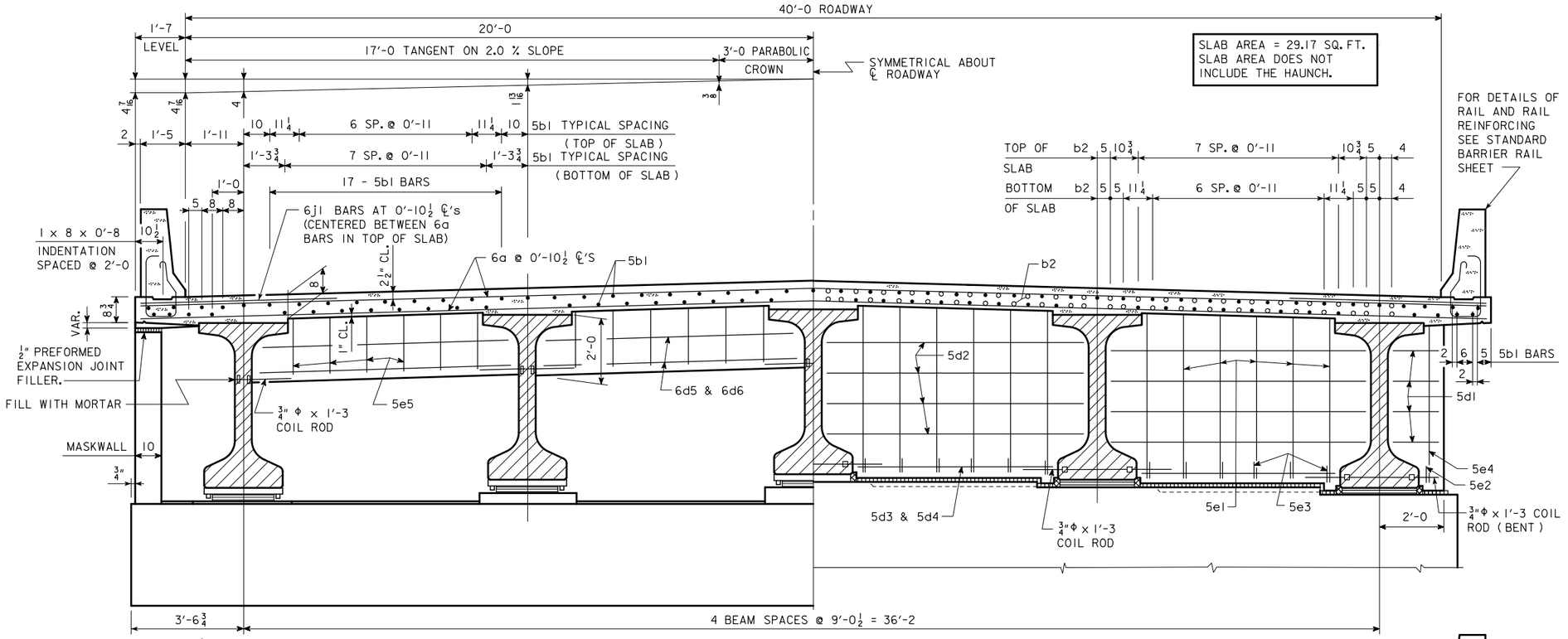
CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4561-BTE-5 - THIS SHEET ISSUED 07-08.

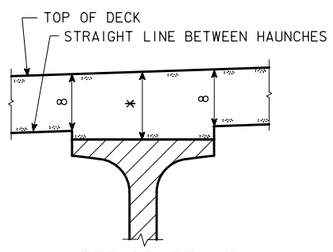
TABLE OF SIZE OF 'b2' BAR

LONGEST ADJACENT SPAN	BTE BEAM BAR SIZE
30'-0	——
35'-0	——
40'-0	——
45'-0	——
50'-0	——
55'-0	——
60'-0	** 4
65'-0	** 5
70'-0	** 6
75'-0	** 6
80'-0	** 7
85'-0	** 7
90'-0	** 8
95'-0	** 8
100'-0	** 9
105'-0	** 9
110'-0	7
115'-0	7
120'-0	7
125'-0	8
130'-0	8
135'-0	8
140'-0	9
145'-0	9
150'-0	9
155'-0	~~9~~

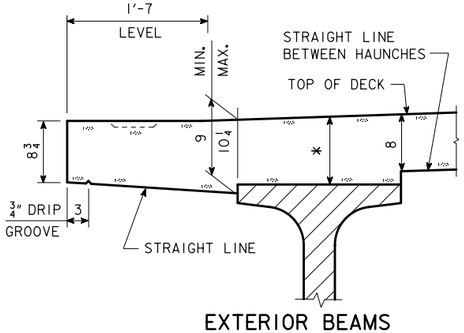
THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.





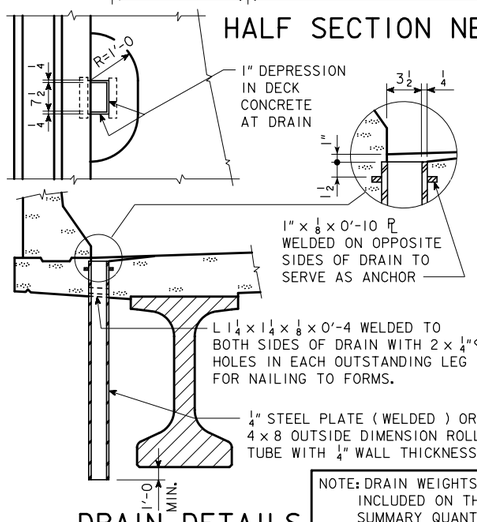
INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

* FOR DECK THICKNESS OVER BEAMS SEE HAUNCH AND CAMBER DETAILS ON DESIGN SHEET ____.



DRAIN DETAILS

NOTE: DRAIN WEIGHTS ARE INCLUDED ON THE SUMMARY QUANTITIES SHEET.

NOTE :
DRAINS ARE TO BE GALVANIZED. ____ DRAINS REQUIRED.
SEE " SITUATION PLAN " FOR LOCATION. WEIGHT OF DRAINS IS INCLUDED IN THE QUANTITY FOR " ____ ".
WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTE
DRAIN WEIGHT (LBS.)	136
DRAIN LENGTH (FT.)	6'-11¾

HALF SECTION NEAR ABUTMENT

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

THE BRIDGE DECK AS SHOWN INCLUDES ½" INTEGRAL WEARING SURFACE.

THE PIER AND ABUTMENT DIAPHRAGM CONCRETE IS TO BE PLACED MONOLITHICALLY WITH THE BRIDGE DECK.

COST OF ALL PREFORMED EXPANSION JOINT FILLER MATERIAL IS TO BE INCLUDED IN THE PRICE BID FOR "STRUCTURAL CONCRETE (BRIDGE)".

ALL BEAMS ARE TO BE SET VERTICAL.

FORMS FOR THE BRIDGE DECK AND BARRIER RAIL ARE TO BE SUPPORTED BY THE PRESTRESSED CONCRETE BEAMS.

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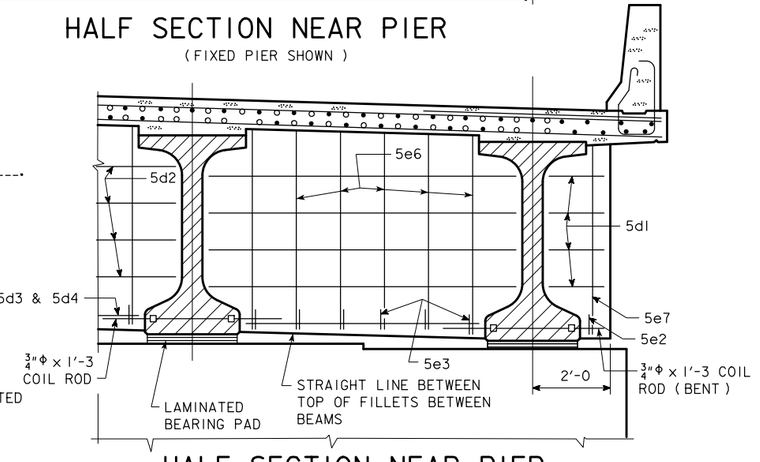
TRANSVERSE DECK REINFORCING MAY BE SPLICED WITH ONE LAP LOCATED AS FOLLOWS:
TOP BAR - LAP MIDWAY BETWEEN BEAMS (MIN. LAP = 1'-10).
BOTTOM BARS - LAP OVER BEAMS (MIN. LAP = 1'-10).

PAYMENT FOR REINFORCING BARS SHALL BE BASED ON NO SPLICES, AND NO ALLOWANCE SHALL BE MADE FOR THE ADDITIONAL LENGTH OF BAR REQUIRED FOR THE USE OF SPLICES.

HALF SECTION NEAR PIER

(FIXED PIER SHOWN)



HALF SECTION NEAR PIER

(EXPANSION PIER SHOWN)

NOTE: "STAINLESS STEEL" LEVEL OR "REBAR EPOXY A" LEVEL SHOULD BE ON OR OFF DEPENDING ON BARRIER RAIL STEEL EMBEDDED IN THE BRIDGE DECK.

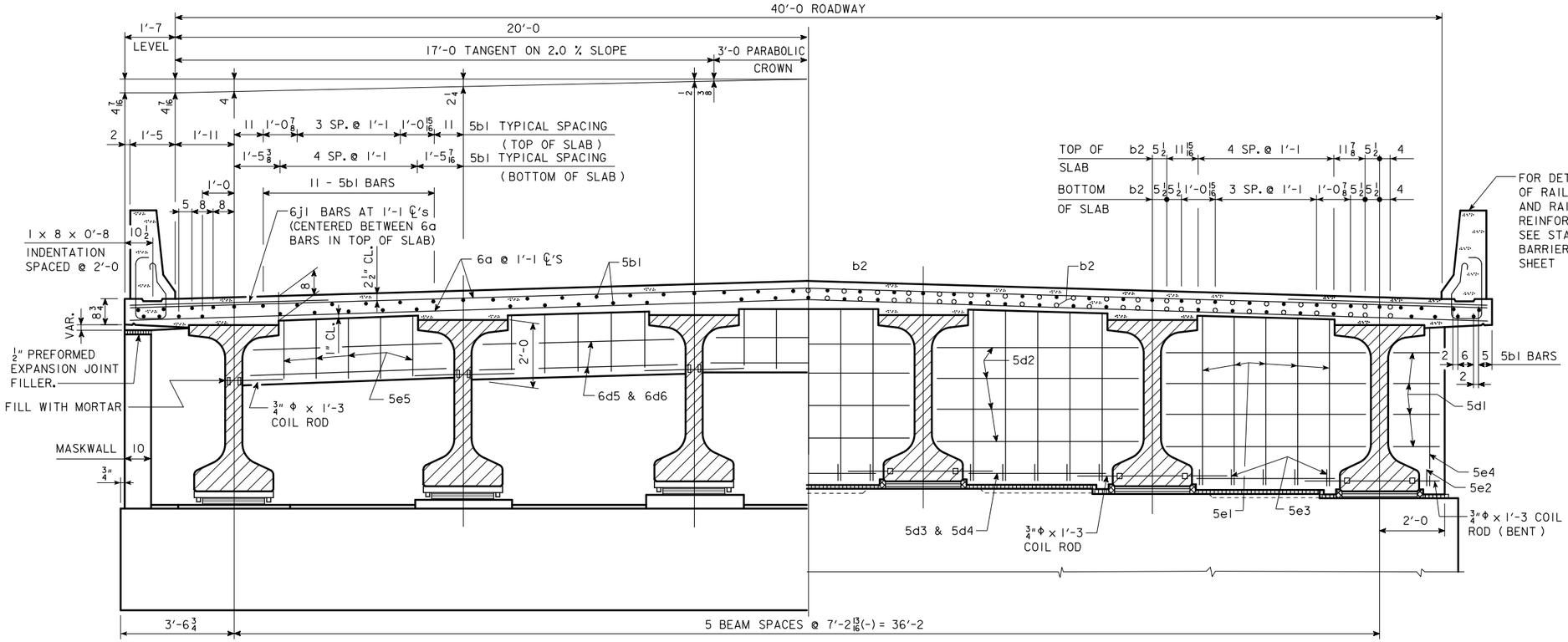
IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION
DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

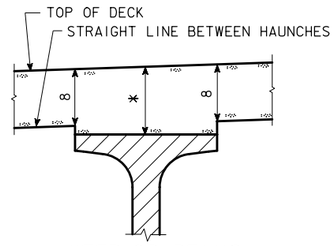
DESIGN TEAM	40' RDWY. PPCB (BTE 5 BEAMS - STUB ABUT.) CROSS SECTION (SYMM. CROWN) (SPANS 60' - 150')	STANDARD SHEET 4561-BTE-5	COUNTY	PROJECT NUMBER	SHEET NUMBER

TABLE OF SIZE OF 'b2' BAR	
LONGEST ADJACENT SPAN	BTE BEAM BAR SIZE
30'-0	——
35'-0	——
40'-0	——
45'-0	——
50'-0	——
55'-0	——
60'-0	~~** 4~~
65'-0	~~** 5~~
70'-0	~~** 6~~
75'-0	~~** 6~~
80'-0	~~** 7~~
85'-0	~~** 7~~
90'-0	~~** 8~~
95'-0	~~** 8~~
100'-0	~~** 9~~
105'-0	~~** 9~~
110'-0	~~7~~
115'-0	~~7~~
120'-0	~~7~~
125'-0	~~8~~
130'-0	~~8~~
135'-0	~~8~~
140'-0	~~9~~
145'-0	~~9~~
150'-0	~~9~~
155'-0	9

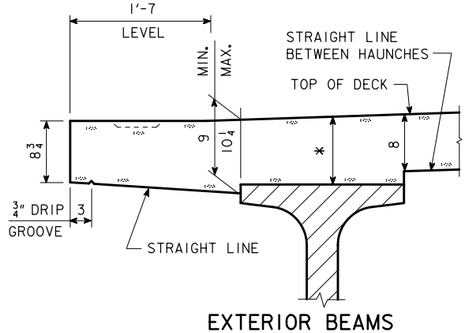
THE MIDPOINT OF THE 'b2' BAR IS TO BE PLACED AT THE ℄ OF PIER.

** INDICATES 'b2' BAR PLACED IN TOP DECK ONLY.





INTERIOR BEAMS



EXTERIOR BEAMS

TYPICAL DECK AND HAUNCH DETAIL

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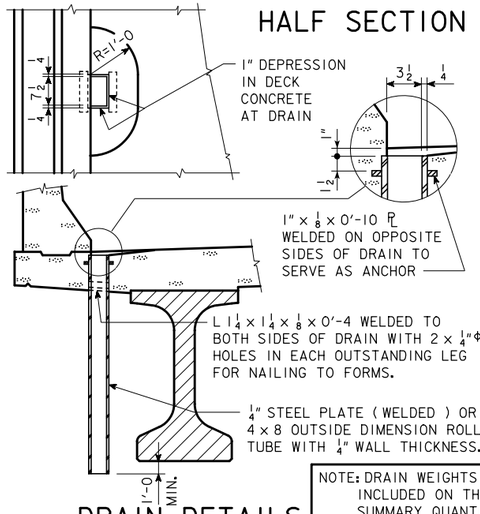

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WEIGHT IS BASED ON ROLLED TUBE.

DATA FOR ONE DRAIN	
BEAM SIZE	BTE
DRAIN WEIGHT (LBS.)	136
DRAIN LENGTH (FT.)	6'-11¾

HALF SECTION NEAR ABUTMENT

SLAB AREA = 29.22 SQ. FT.
SLAB AREA DOES NOT INCLUDE THE HAUNCH.

NOTE: FOR DETAILS OF INTERMEDIATE DIAPHRAGMS SEE DESIGN SHEET ____.

SUPERSTRUCTURE NOTES:

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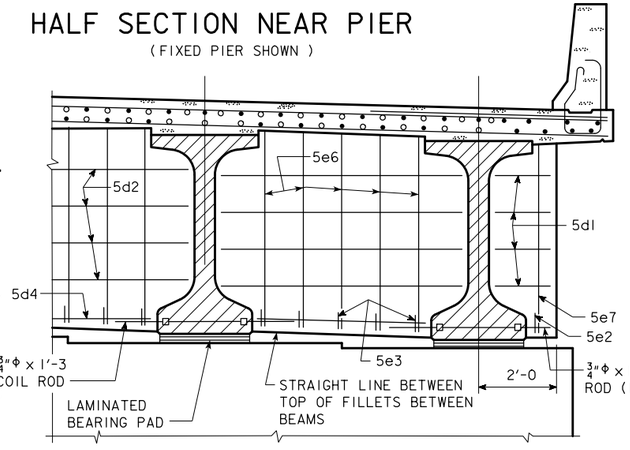
HALF SECTION NEAR PIER

(FIXED PIER SHOWN)



HALF SECTION NEAR PIER

(EXPANSION PIER SHOWN)

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IOWA DEPARTMENT OF TRANSPORTATION - HIGHWAY DIVISION

DESIGN SHEET NO. ____ OF ____ FILE NO. _____ DESIGN NO. _____

DESIGN TEAM	40' RDWY. PPCB (BTE 6 BEAMS - STUB ABUT.) CROSS SECTION (SYMM. CROWN) (SPAN 155')	STANDARD SHEET 4561-BTE-6	COUNTY	PROJECT NUMBER	SHEET NUMBER

CORRECTION 04-14 - ADDED REFERRAL NOTE TO SUMMARY QUANTITIES SHEET FOR THE DRAIN WEIGHT. NOTE ABOUT CHOICE OF EPOXY OR STAINLESS STEEL DECK TO BARRIER RAIL BARS.
ENGLISHBTSTUBABUTMENTBRIDGES.DGN - 4561-BTE-6 - THIS SHEET ISSUED 07-08.