

Index of BT Stub Bridge Standards

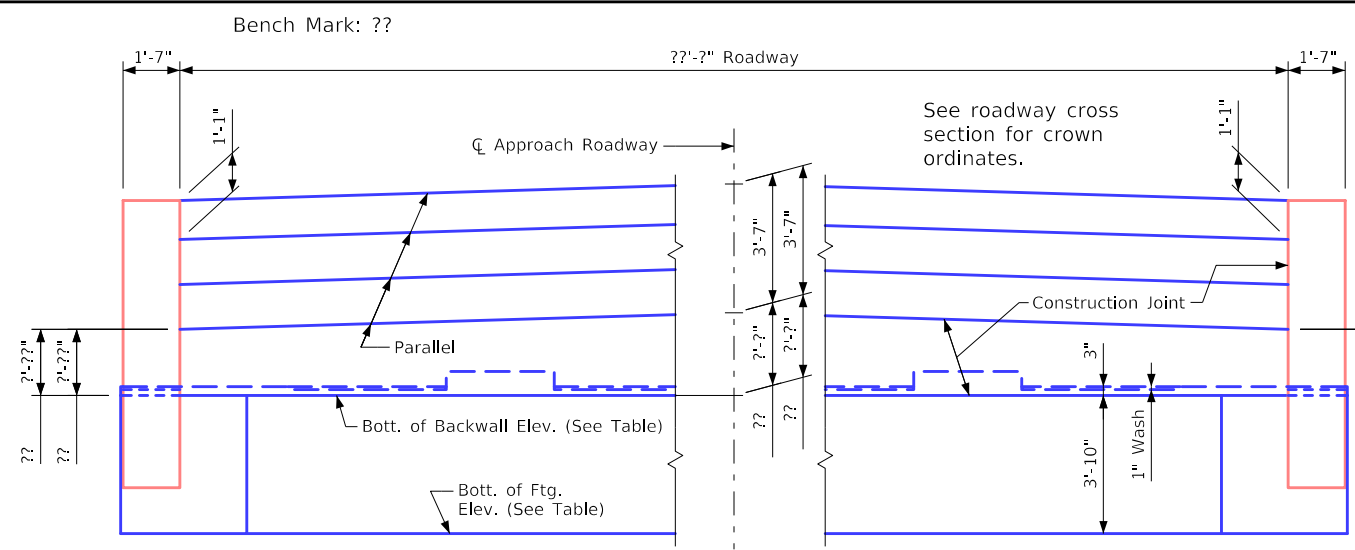
Standard	Description
100-BTS	Index Of BT Stub Standards
2092-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - 0° Skew
2092-BTE	"BTE" Beams - Stub Abutment Details - 0° Skew
2093-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (R.A.) 0°01'-7°30' Skew
2093-BTE	"BTE" Beams - Stub Abutment Details - (R.A.) 0°01'-7°30' Skew
2094-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (R.A.) 7°31'-15° Skew
2094-BTE	"BTE" Beams - Stub Abutment Details - (R.A.) 7°31'-15° Skew
2095-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (R.A.) 15°01'-30° Skew
2095-BTE	"BTE" Beams - Stub Abutment Details - (R.A.) 15°01'-30° Skew
2096-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (L.A.) 0°01'-7°30' Skew
2096-BTE	"BTE" Beams - Stub Abutment Details - (L.A.) 0°01'-7°30' Skew
2097-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (L.A.) 7°31'-15° Skew
2097-BTE	"BTE" Beams - Stub Abutment Details - (L.A.) 7°31'-15° Skew
2098-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (L.A.) 15°01'-30° Skew
2098-BTE	"BTE" Beams - Stub Abutment Details - (L.A.) 15°01'-30° Skew
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' Skew
2100-BTE	"BTE" Beams - Stub Abutment Details - (R.A.) 0°01'-7°30' Skew
2101-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (R.A.) 7°31'-15° Skew
2101-BTE	"BTE" Beams - Stub Abutment Details - (R.A.) 7°31'-15° Skew
2102-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (R.A.) 15°01'-30° Skew
2102-BTE	"BTE" Beams - Stub Abutment Details - (R.A.) 15°01'-30° Skew
2103-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (L.A.) 0°01'-7°30' Skew
2103-BTE	"BTE" Beams - Stub Abutment Details - (L.A.) 0°01'-7°30' Skew
2104-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (L.A.) 7°31'-15° Skew
2104-BTE	"BTE" Beams - Stub Abutment Details - (L.A.) 7°31'-15° Skew
2105-BTCD	"BTC" or "BTD" Beams - Stub Abutment Details - (L.A.) 15°01'-30° Skew
2105-BTE	"BTE" Beams - Stub Abutment Details - (L.A.) 15°01'-30° Skew
2106-BTCD	"BTC" or "BTD" Beams - Stub Abutment Bar List 0° Skew
2106-BTE	"BTE" Beams - Stub Abutment Bar List 0° Skew
2107-BTCD	"BTC" or "BTD" Beams - Stub Abutment Bar List 0°01'-7°30' Skew
2107-BTE	"BTE" Beams - Stub Abutment Bar List 0°01'-7°30' Skew
2108-BTCD	"BTC" or "BTD" Beams - Stub Abutment Bar List 7°31'-15° Skew
2108-BTE	"BTE" Beams - Stub Abutment Bar List 7°31'-15° Skew
2109-BTCD	"BTC" or "BTD" Beams - Stub Abutment Bar List 15°01'-30° Skew
2109-BTE	"BTE" Beams - Stub Abutment Bar List 15°01'-30° Skew
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 ("BTC" 4 Beams - Stub Abut.) Cross Section
4556-BTE-4	30' Rdw. PPCB ("BTC" 4 Beams - Stub Abut.) Cross Section
4556-BTE-5	30' Rdw. PPCB ("BTE" 5 Beams - Stub Abut.) Cross Section

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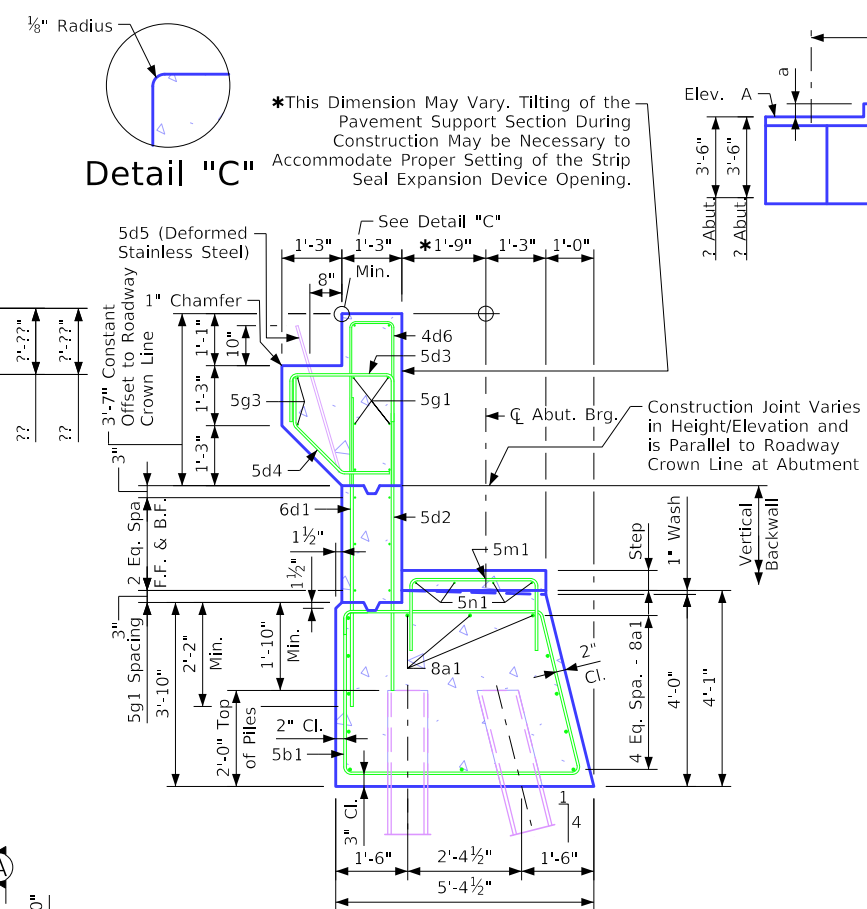
Standard	Description
4559-BTC-5	40' Rdw. PPCB ("BTC" 5 Beams - Stub Abut.) Cross Section
4559-BTC-6	40' Rdw. PPCB ("BTC" 6 Beams - Stub Abut.) Cross Section
4559-BTD-5	40' Rdw. PPCB ("BTD" 5 Beams - Stub Abut.) Cross Section
4559-BTE-5	40' Rdw. PPCB ("BTE" 5 Beams - Stub Abut.) Cross Section
4559-BTE-6	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)

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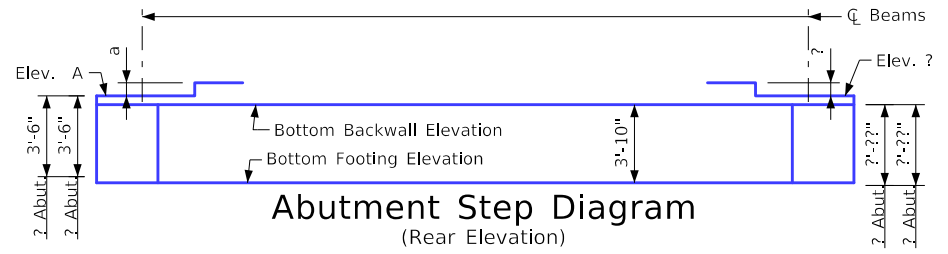
Revised 07-19: Changed Standards 1065 & 1066 Titles Referring to "Slab" to "Deck".
 Issued 02-10.
 BTStubBridges.dgn - 100-BTS - This Sheet Re-Issued 11-2023. Sheet Format Update.



Rear Elevation



Section Through Abutment
Expansion Device not Shown

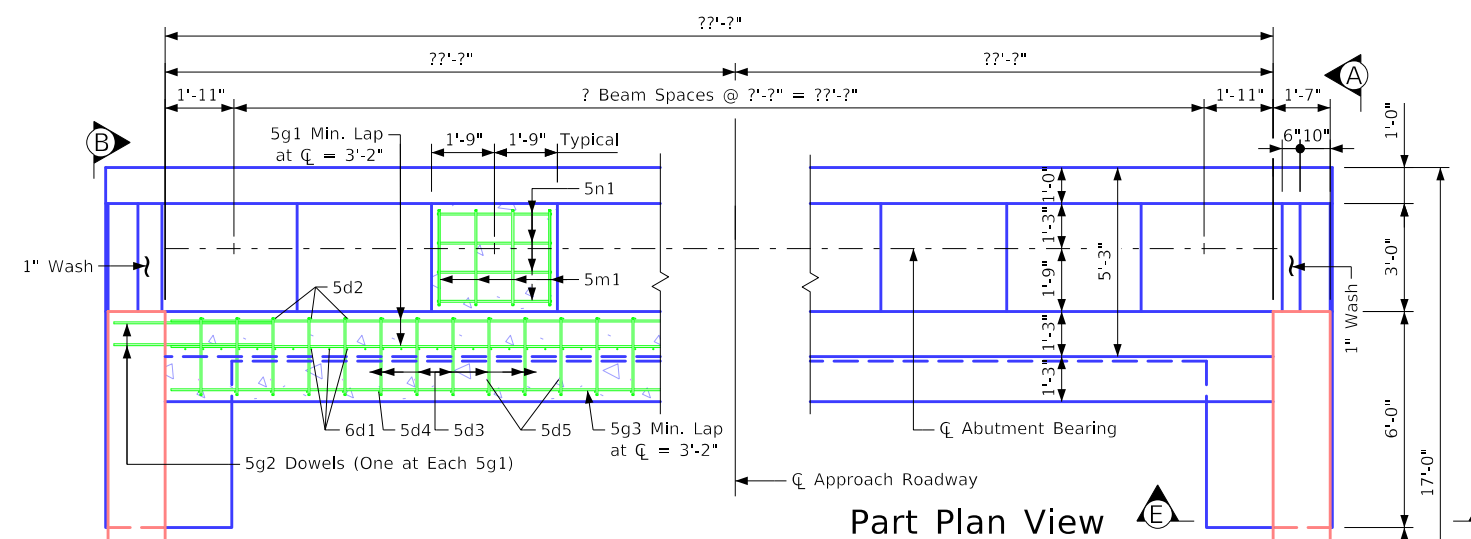


Abutment Step Diagram
(Rear Elevation)

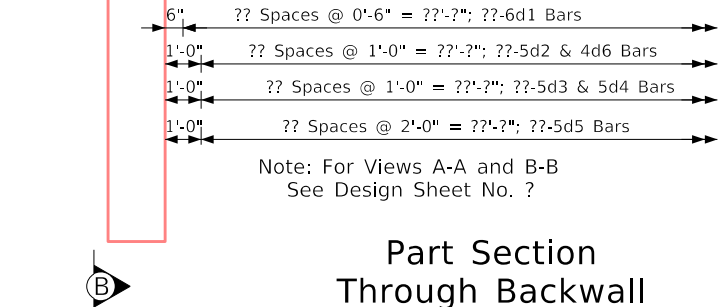
Note: Place 5m1 and 5n1 bars under each beam.

Table of Abutment Elevations		
Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

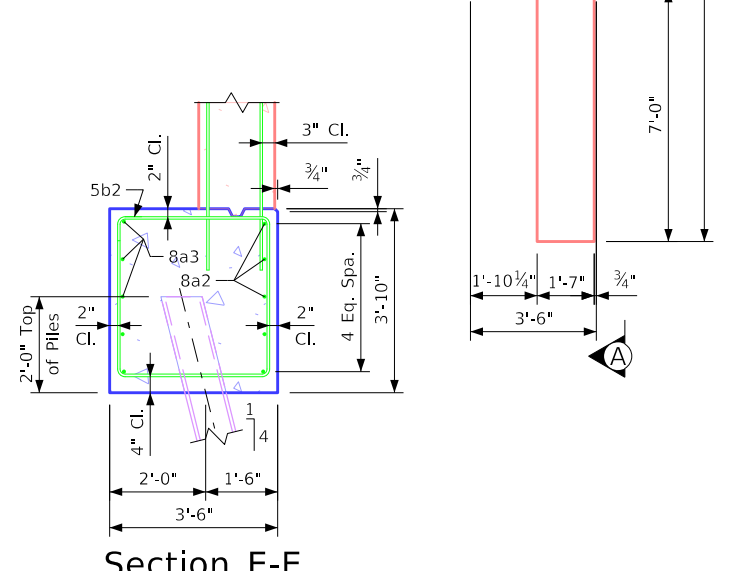
Table of Abutment Steps		
Step	? Abutment	? Abutment
a	???.??	???.??



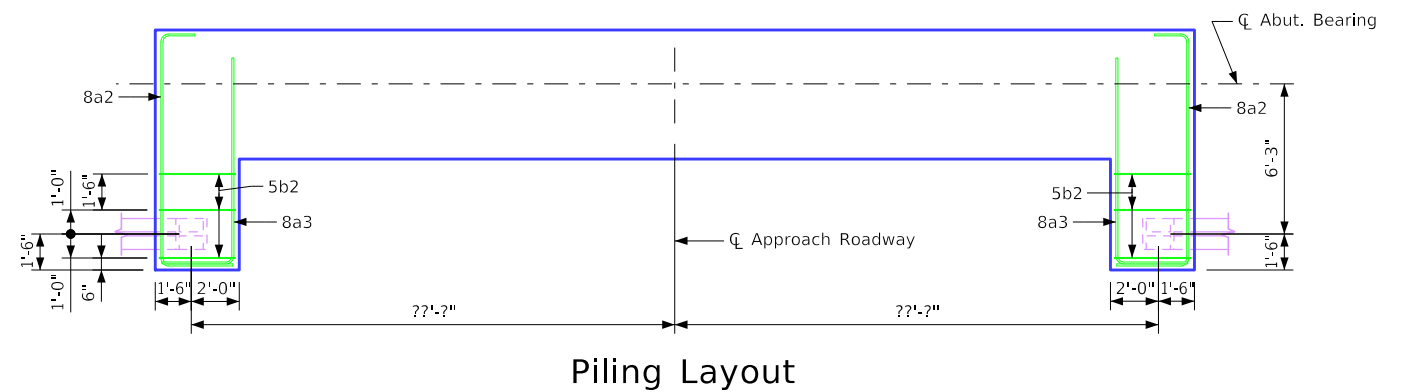
Part Plan View



Part Section Through Backwall



Section E-E

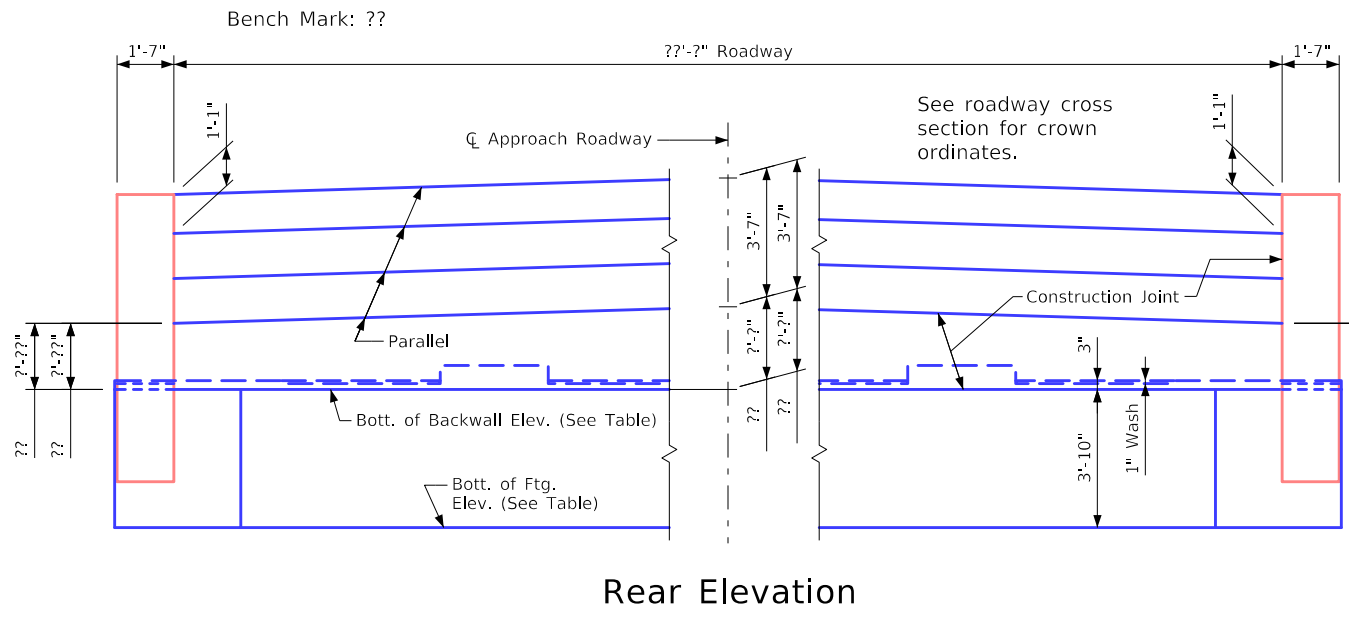


Piling Layout

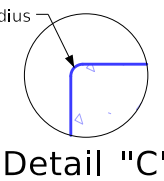
Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown. ?? - HP 10x42 steel bearing piling required at each abutment. Barrier Rail not shown in details.

Abutment Footing Details

Issued 07-08. BTStubBridges.dgn - 2092-BTCD - This Sheet Re-issued 11-2023. Sheet Format Update.

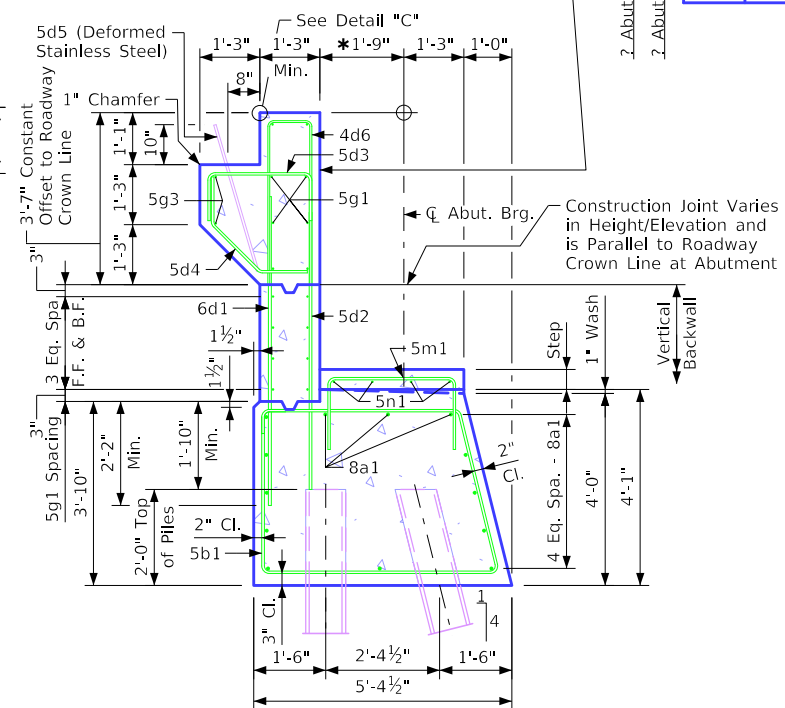


Rear Elevation

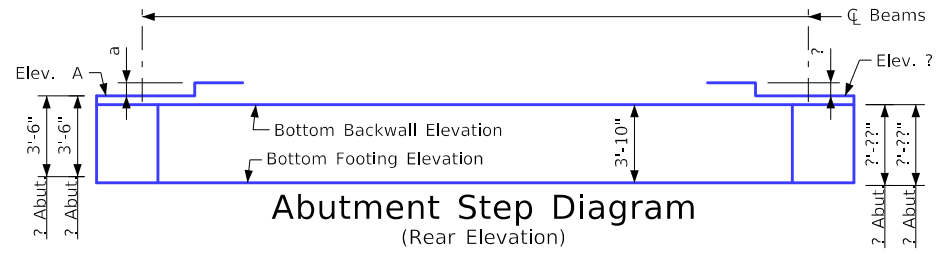


Detail "C"

*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



Abutment Step Diagram (Rear Elevation)

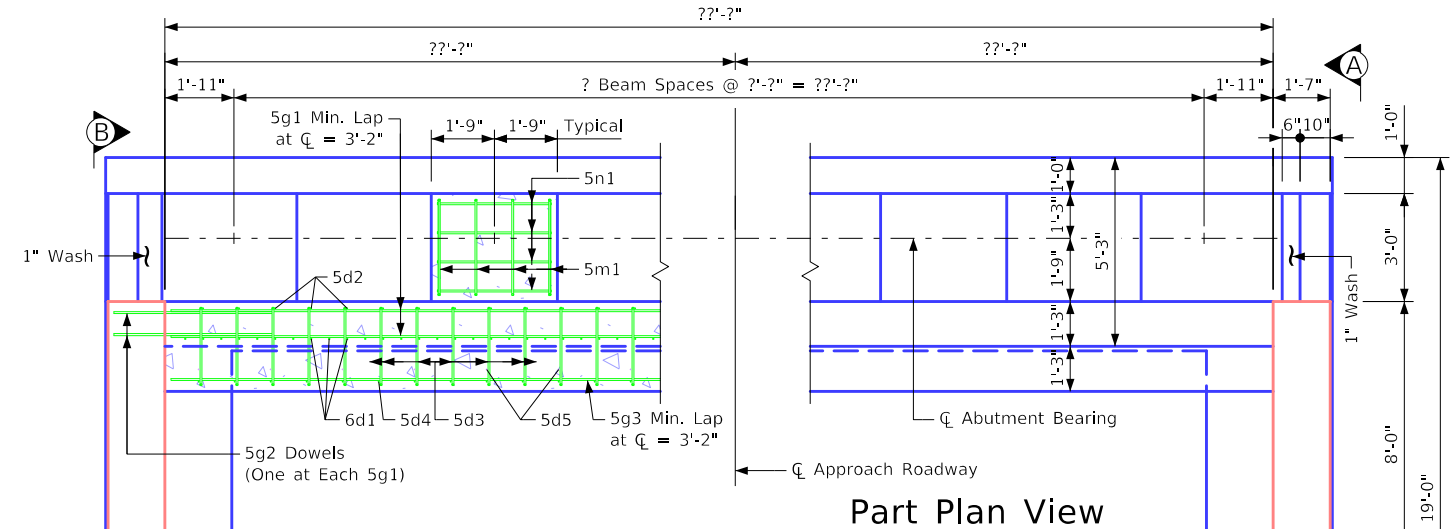
Note: Place 5m1 and 5n1 bars under each beam.

Table of Abutment Elevations

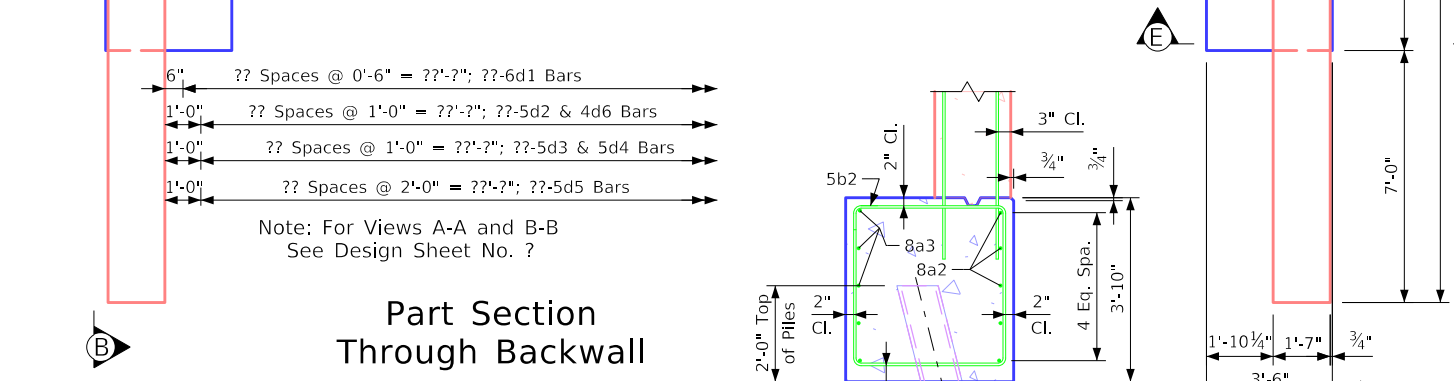
Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

Table of Abutment Steps

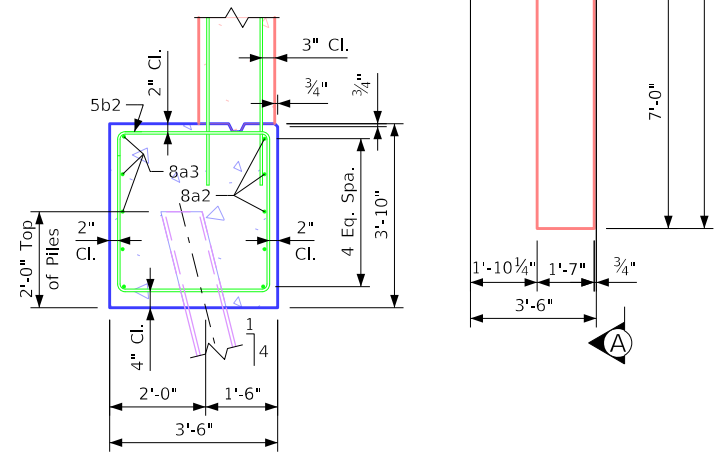
Step	? Abutment	? Abutment
a	???.??	???.??



Part Plan View

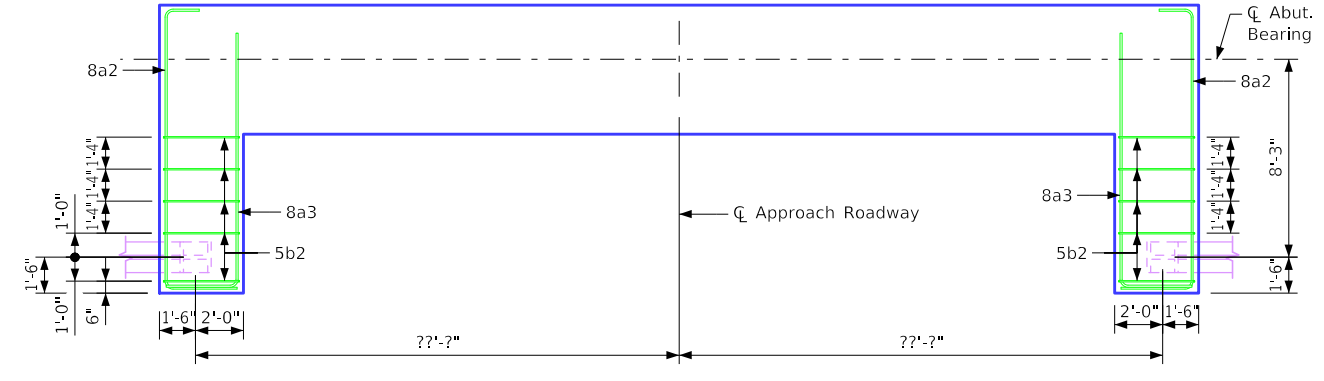


Part Section Through Backwall



Section E-E

Expansion Device not Shown



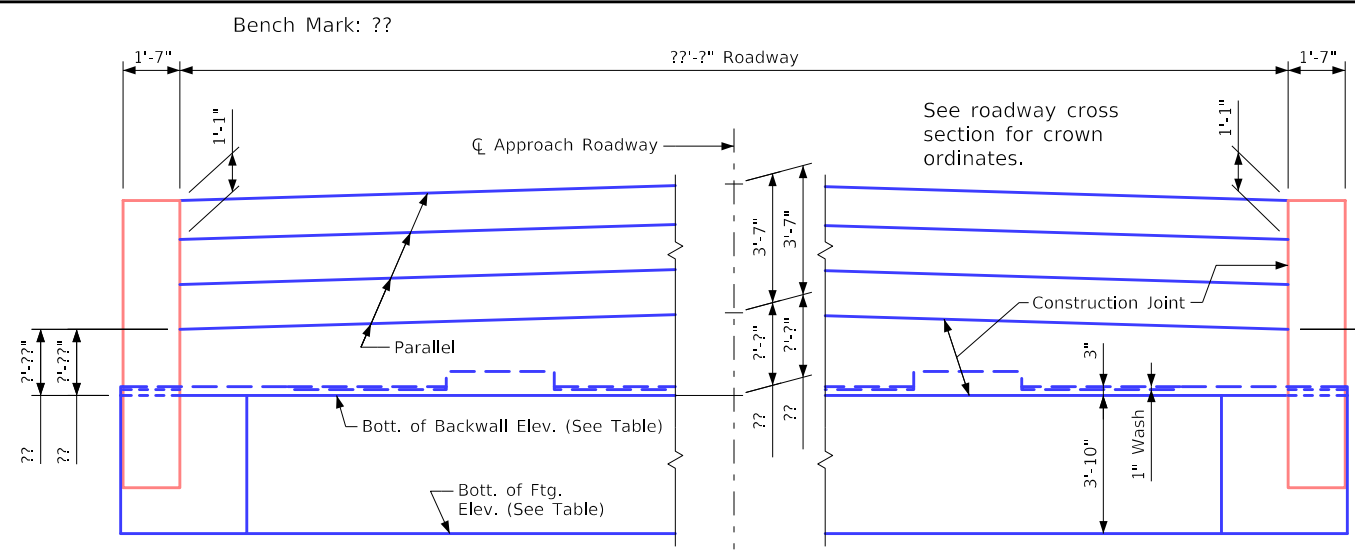
Piling Layout

Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown. ?? - HP 10x42 steel bearing piling required at each abutment. Barrier Rail not shown in details.

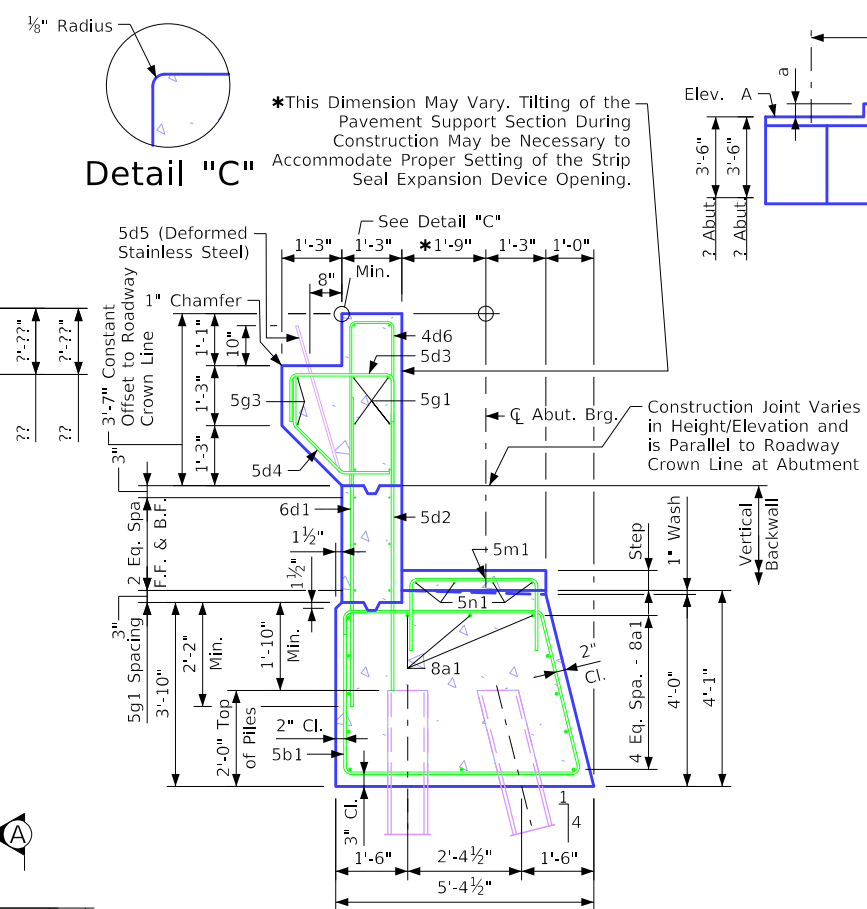
Abutment Footing Details

Issued 07-08. BTStubBridges.dgn - 2092-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.

FILE NO.	ENGLISH	DESIGN TEAM	"BTE" Beams - Stub Abutment Details - 0° Skew	Standard Sheet 2092-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER
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Rear Elevation



Section Through Abutment

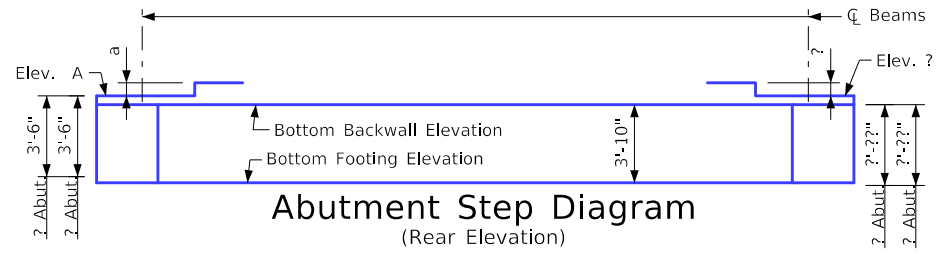
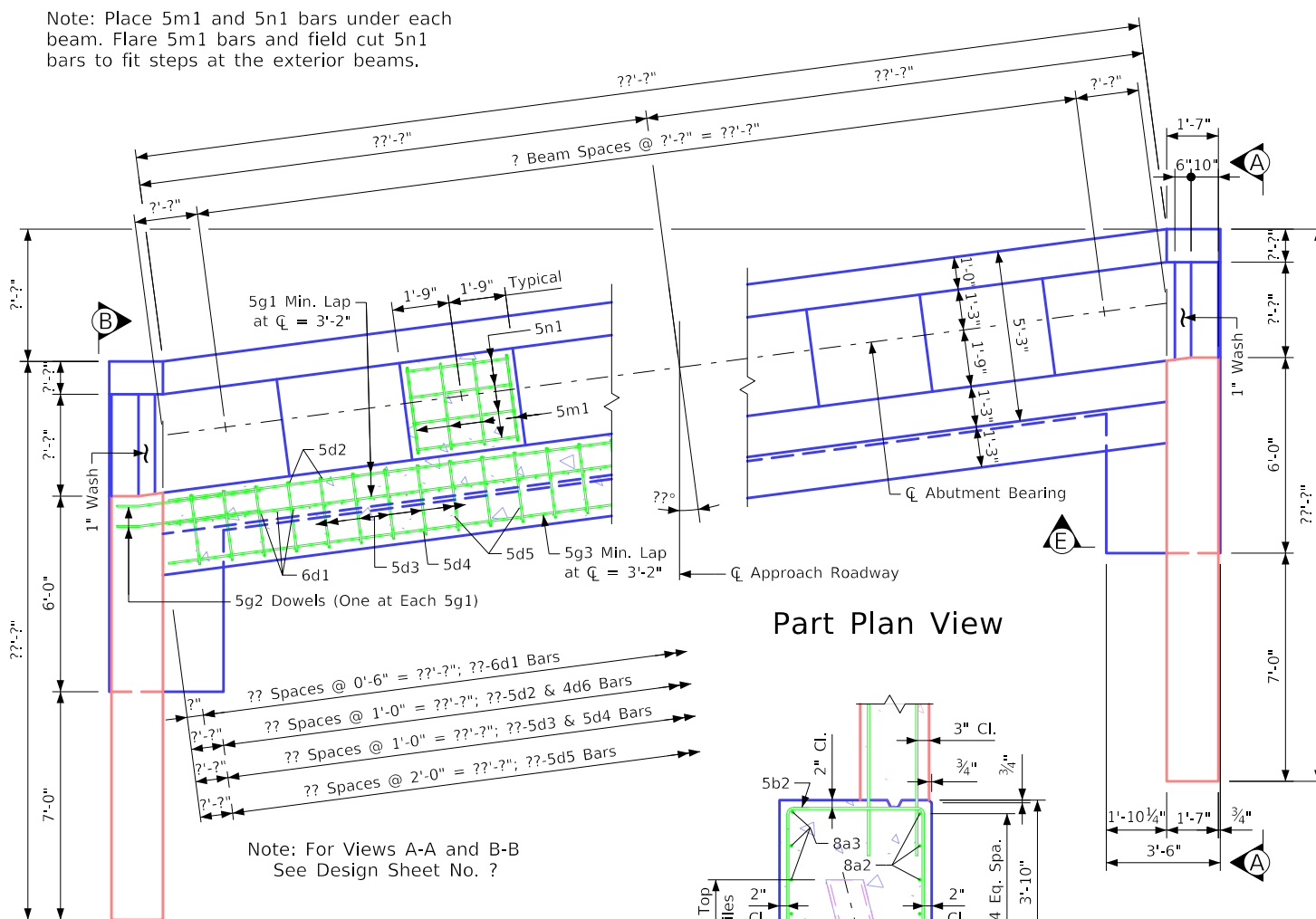


Table of Abutment Elevations

Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

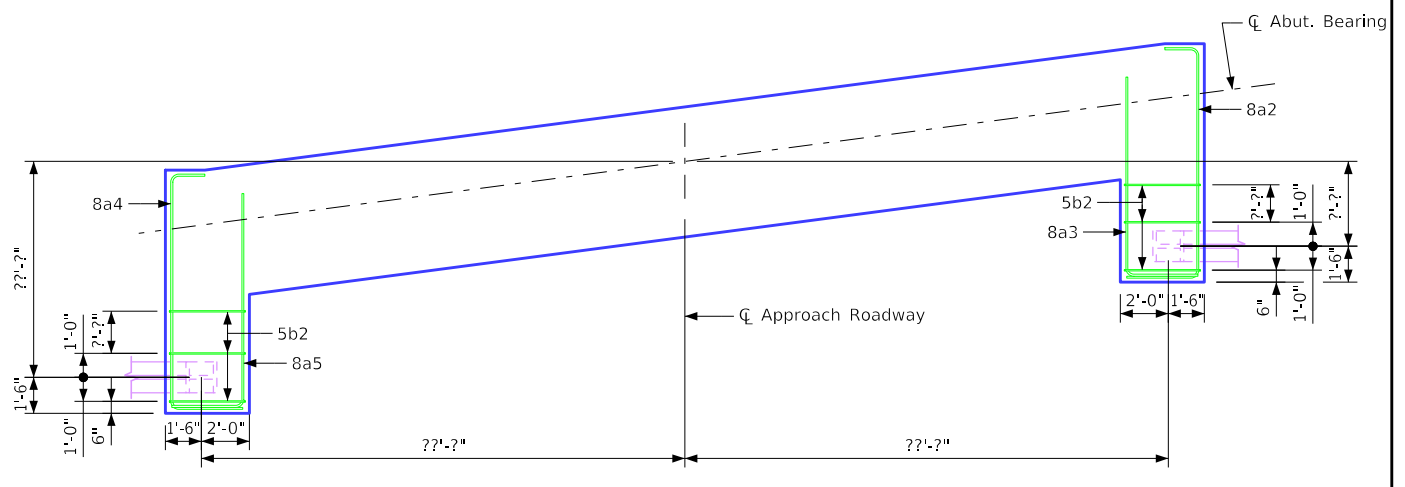
Table of Abutment Steps

Step	? Abutment	? Abutment
a	???.??	???.??

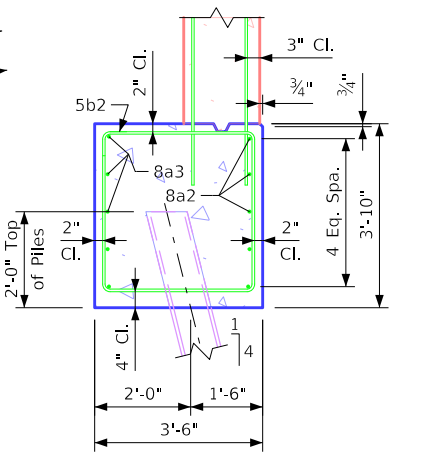


Part Plan View

Part Section Through Backwall



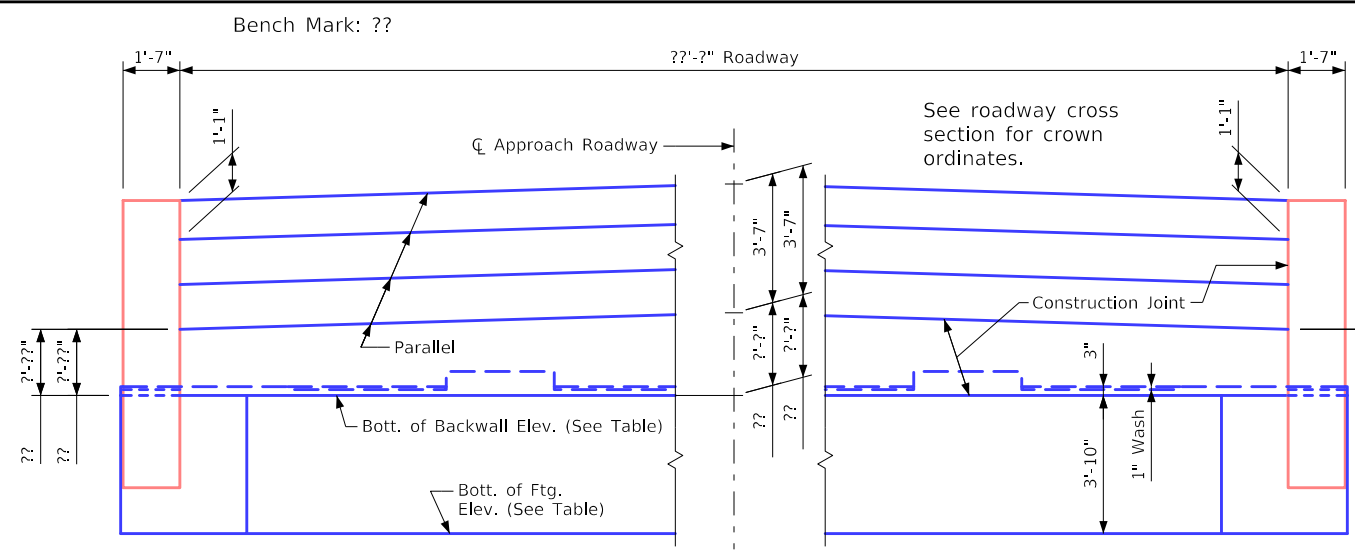
Piling Layout



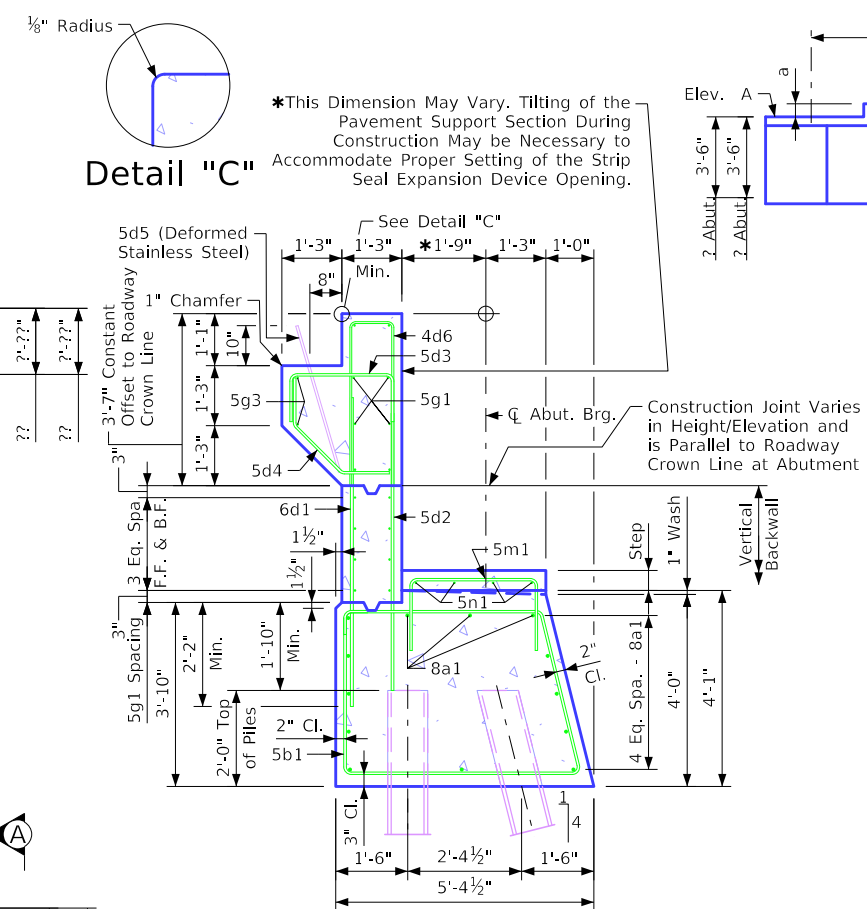
Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown. ?? - HP 10x42 steel bearing piling required at each abutment. Barrier Rail not shown in details.

Abutment Footing Details

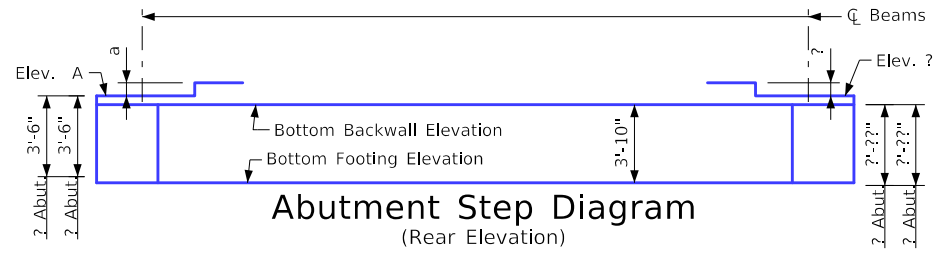
Issued 07-08. BTSubBridges.dgn - 2093-BTCD - This Sheet Re-Issued 11-2023. Sheet Format Update.



Rear Elevation

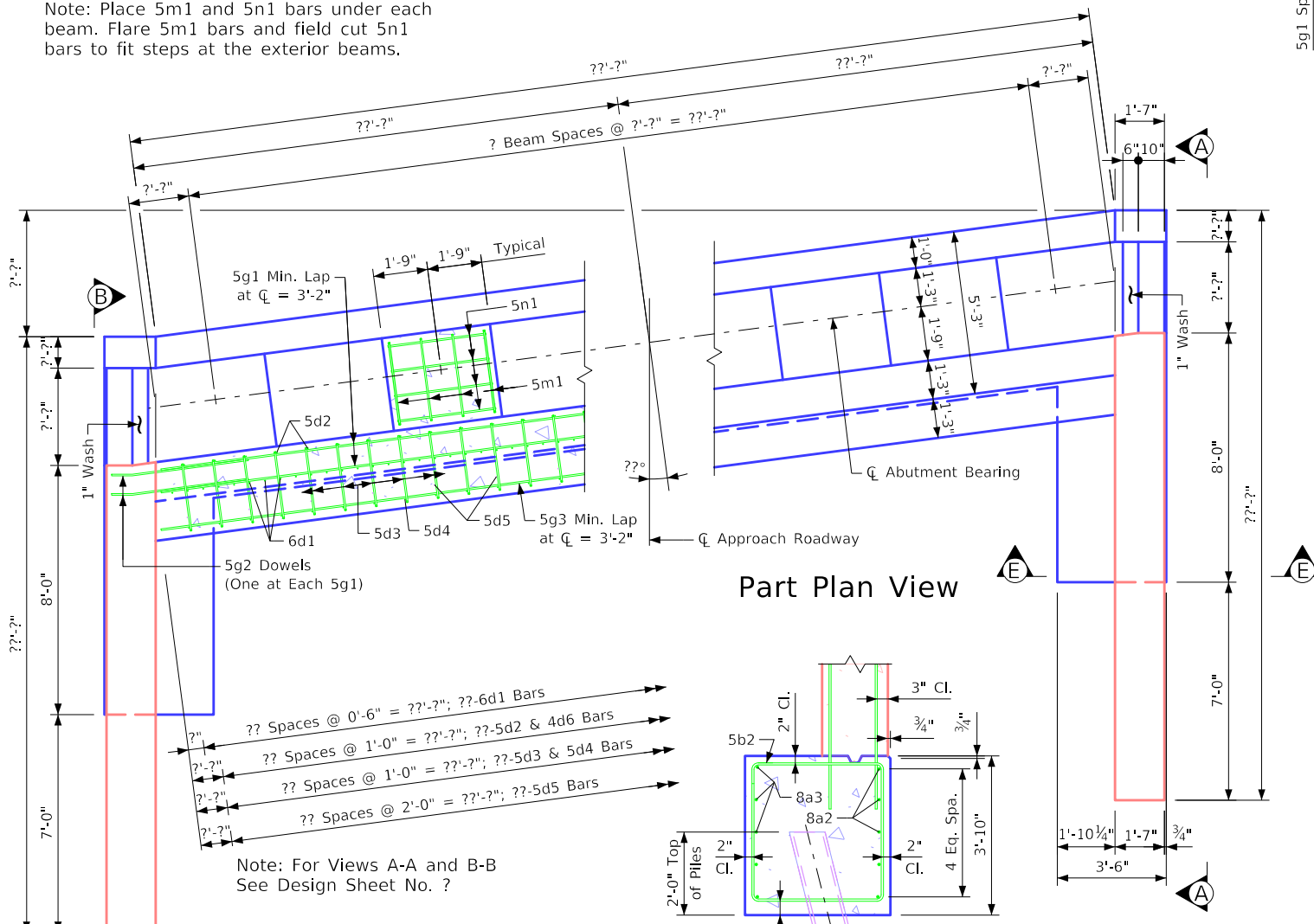


Section Through Abutment
Expansion Device not Shown



Abutment Step Diagram
(Rear Elevation)

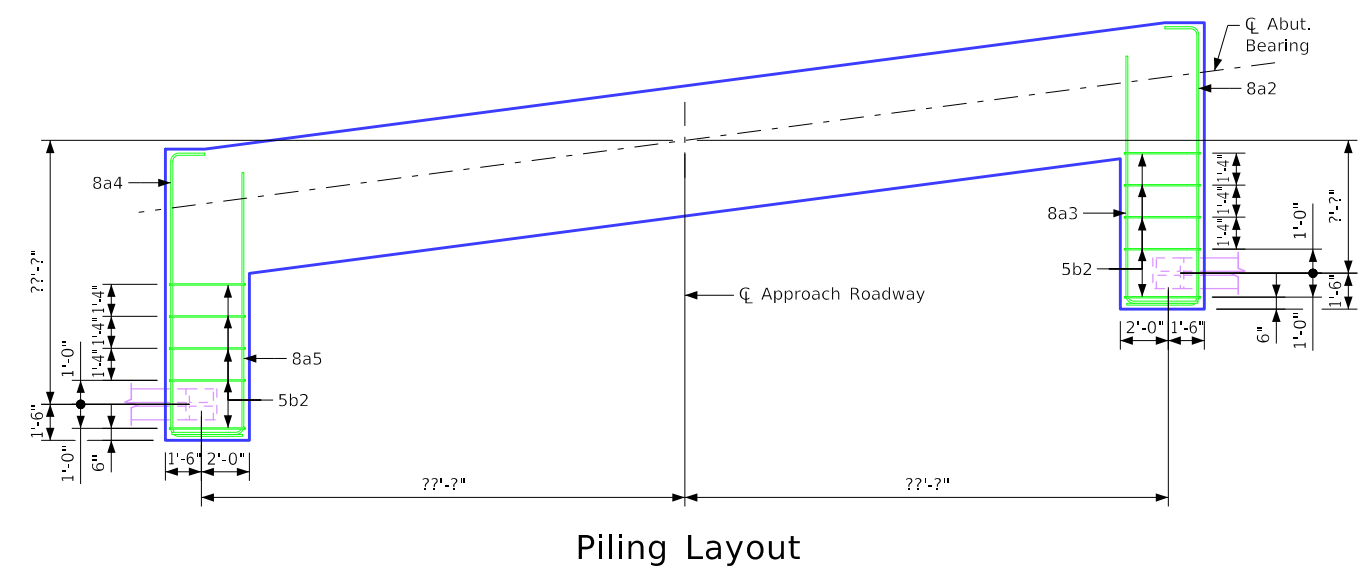
Note: Place 5m1 and 5n1 bars under each beam. Flare 5m1 bars and field cut 5n1 bars to fit steps at the exterior beams.



Part Section Through Backwall

Part Plan View

Section E-E



Piling Layout

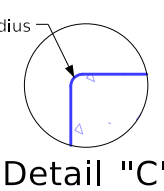
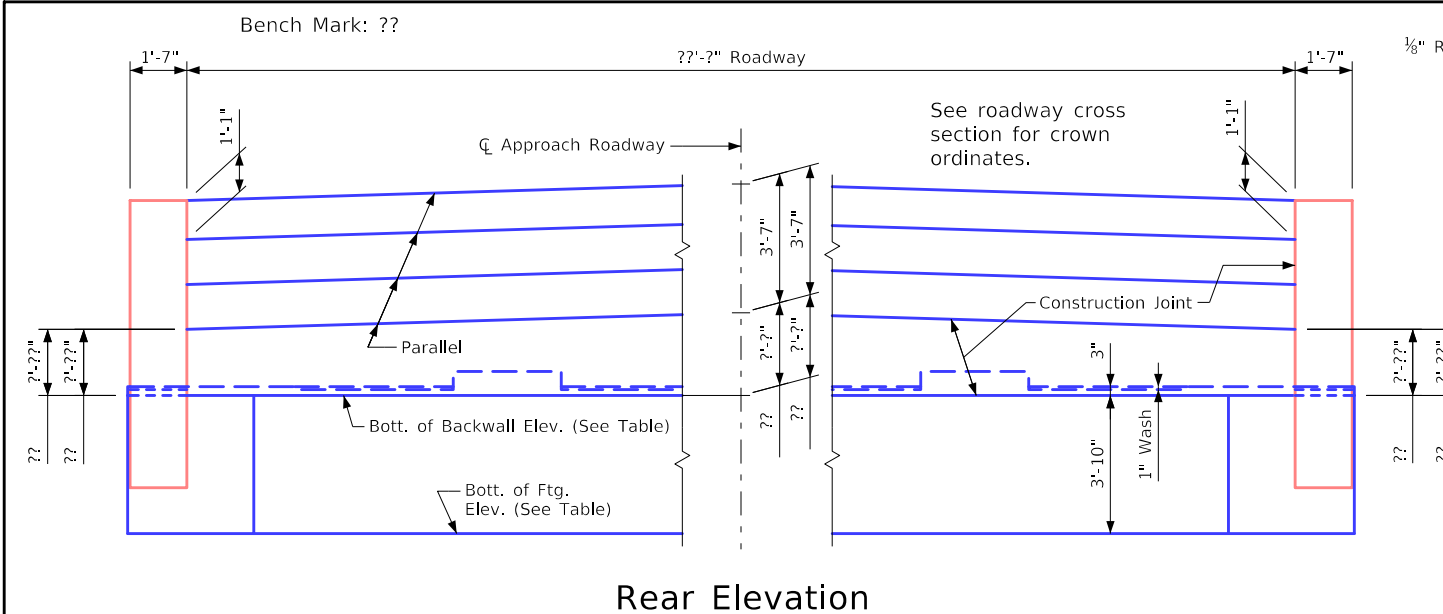
Table of Abutment Elevations		
Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

Table of Abutment Steps		
Step	? Abutment	? Abutment
a	???.??	???.??

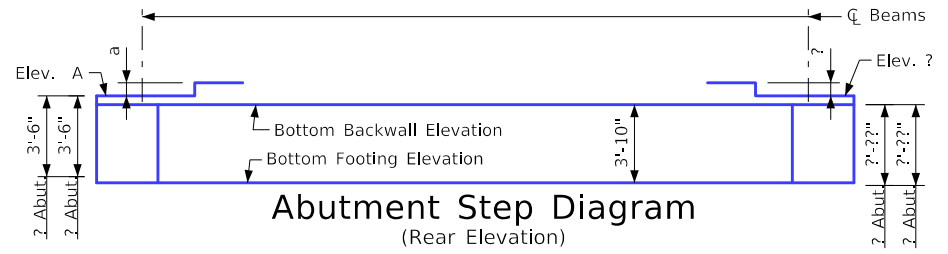
Abutment Footing Details		

Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown. ?? - HP 10x42 steel bearing piling required at each abutment. Barrier Rail not shown in details.

Revised 10-10: Added 2 Additional 5g1 Bars in Lower Backwall. Issued 07-08. BTSubBridges.dgn - 2093-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.



*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.



Note: Place 5m1 and 5n1 bars under each beam. Flare 5m1 bars and field cut 5n1 bars to fit steps at the exterior beams.

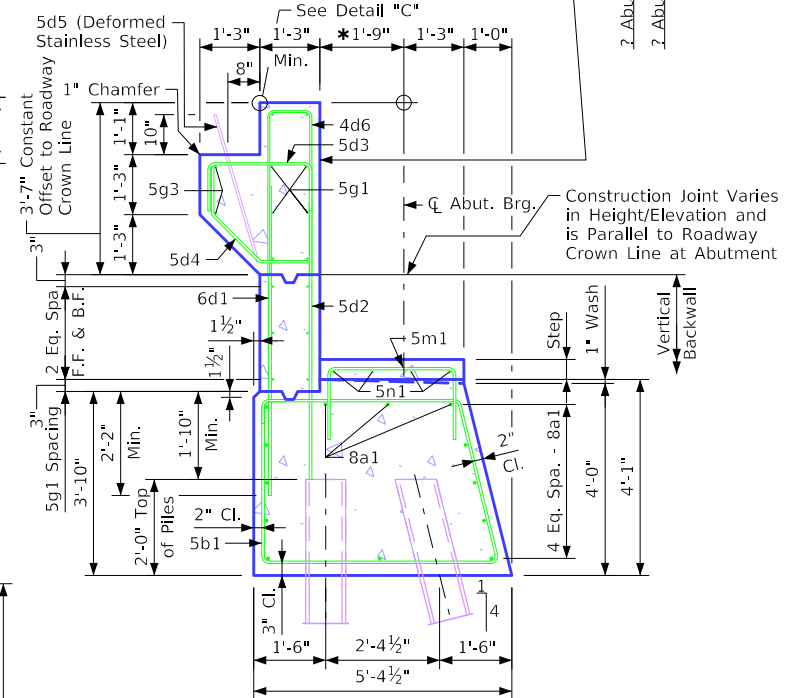
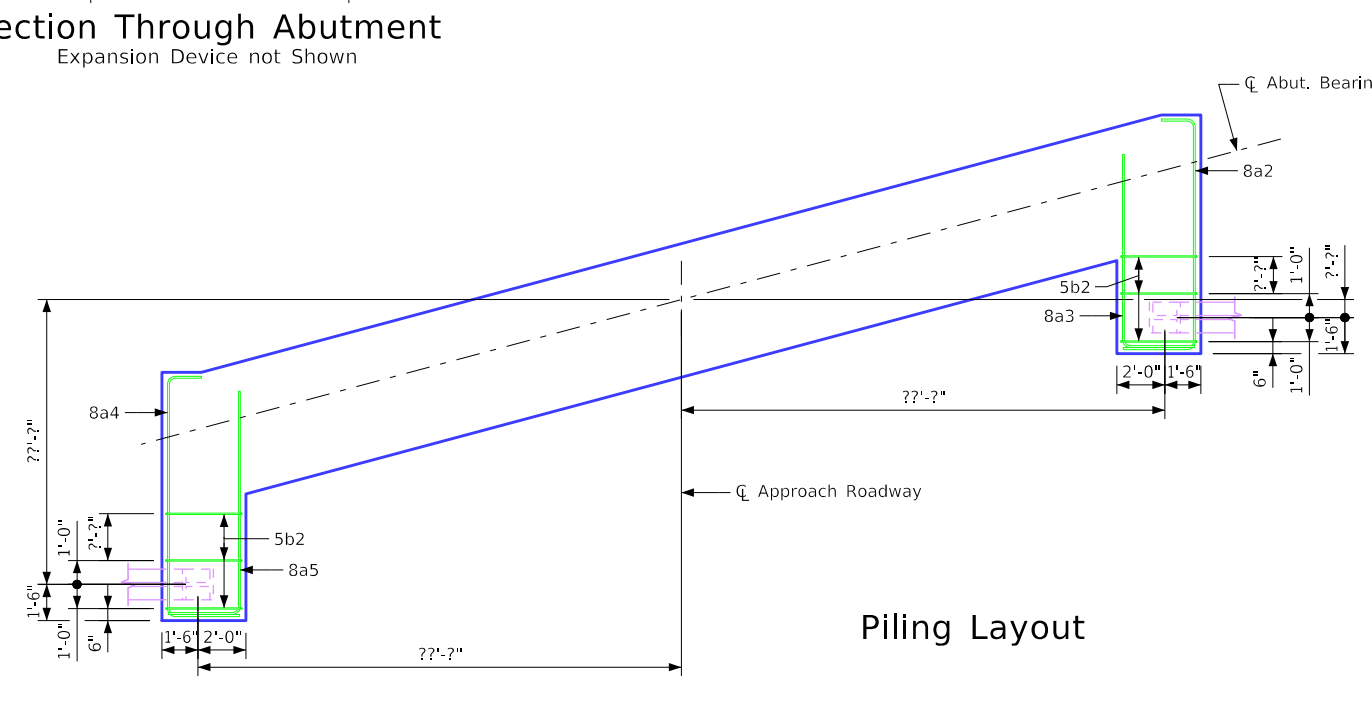
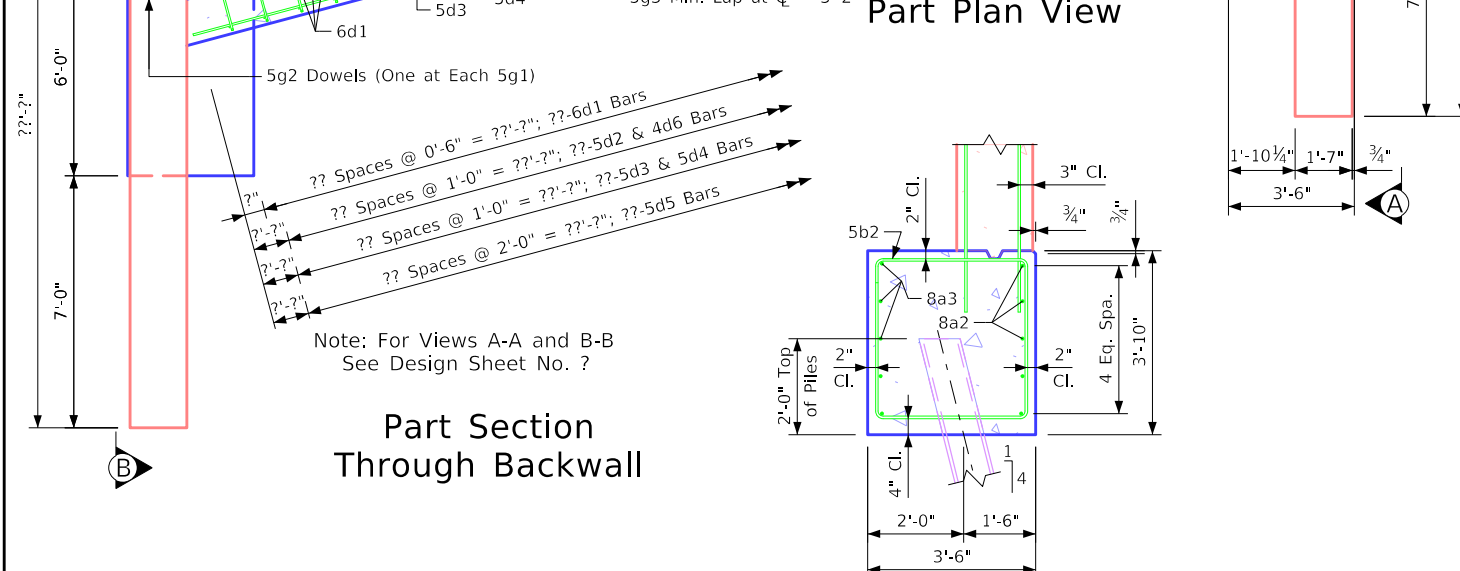
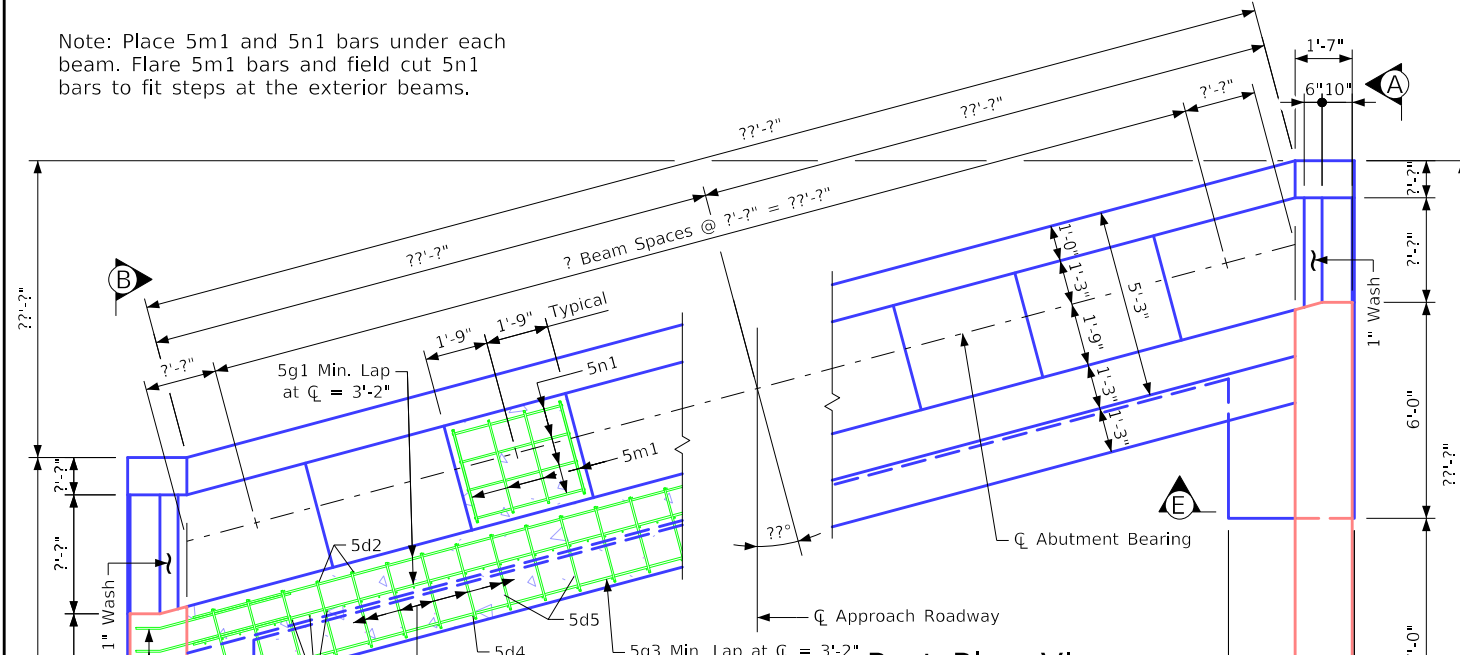


Table of Abutment Elevations

Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

Table of Abutment Steps

Step	? Abutment	? Abutment
a	???.??	???.??



Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown. ?? - HP 10x42 steel bearing piling required at each abutment. Barrier Rail not shown in details.

Abutment Footing Details

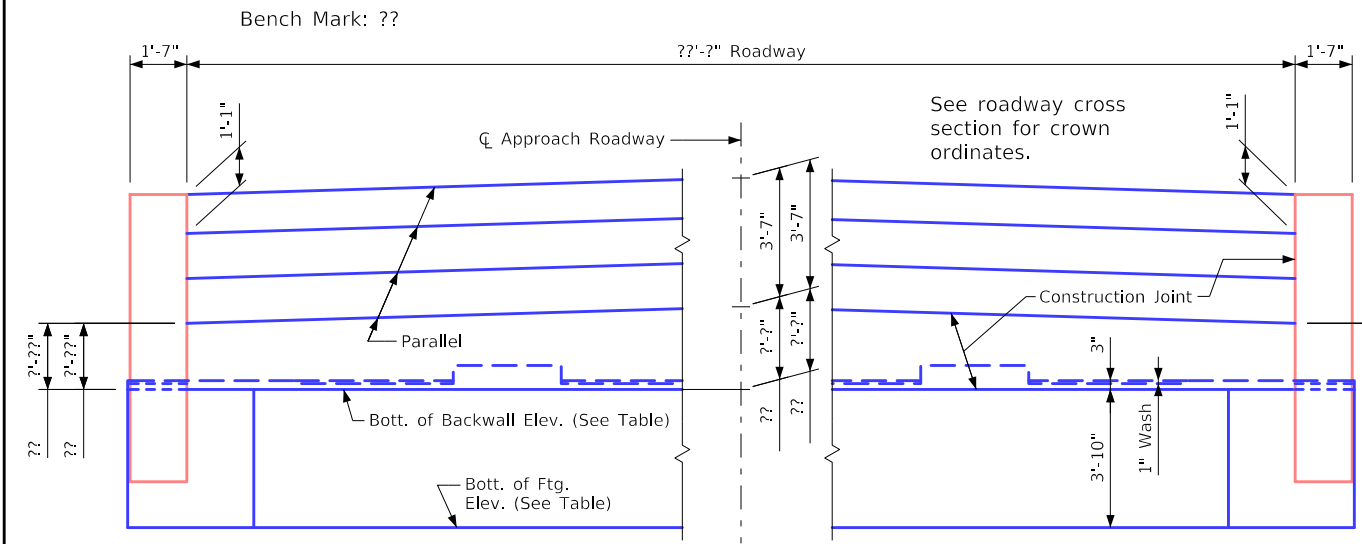
Section E-E

Section A-A

Section B-B

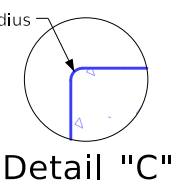
Section C-C

Issued 07-08 .BTStubBridges.dgn - 2094-BTCD - This Sheet Re-Issued 11-2023. Sheet Format Update.



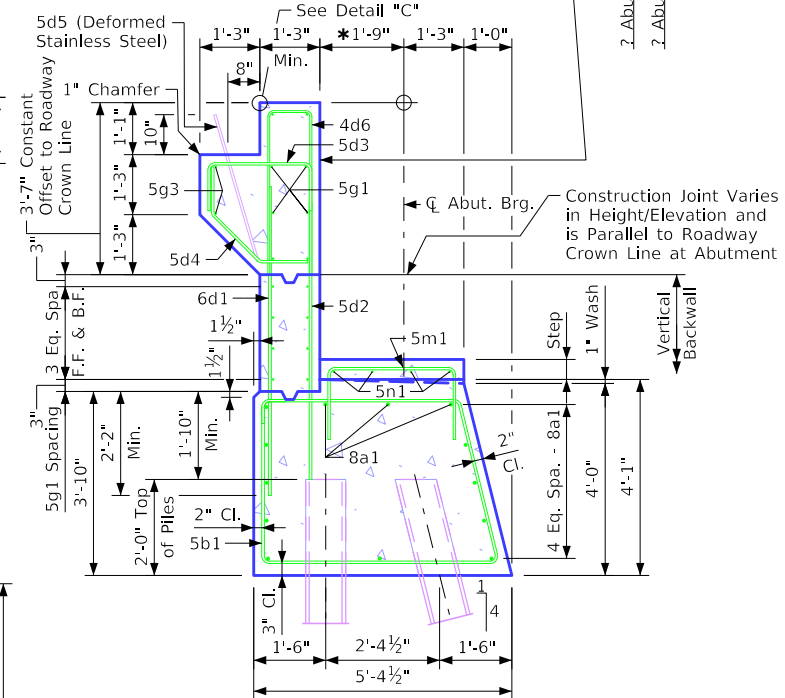
Rear Elevation

Note: Place 5m1 and 5n1 bars under each beam. Flare 5m1 bars and field cut 5n1 bars to fit steps at the exterior beams.



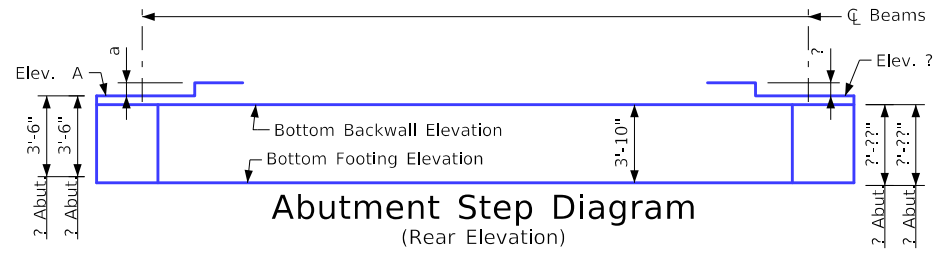
Detail "C"

*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

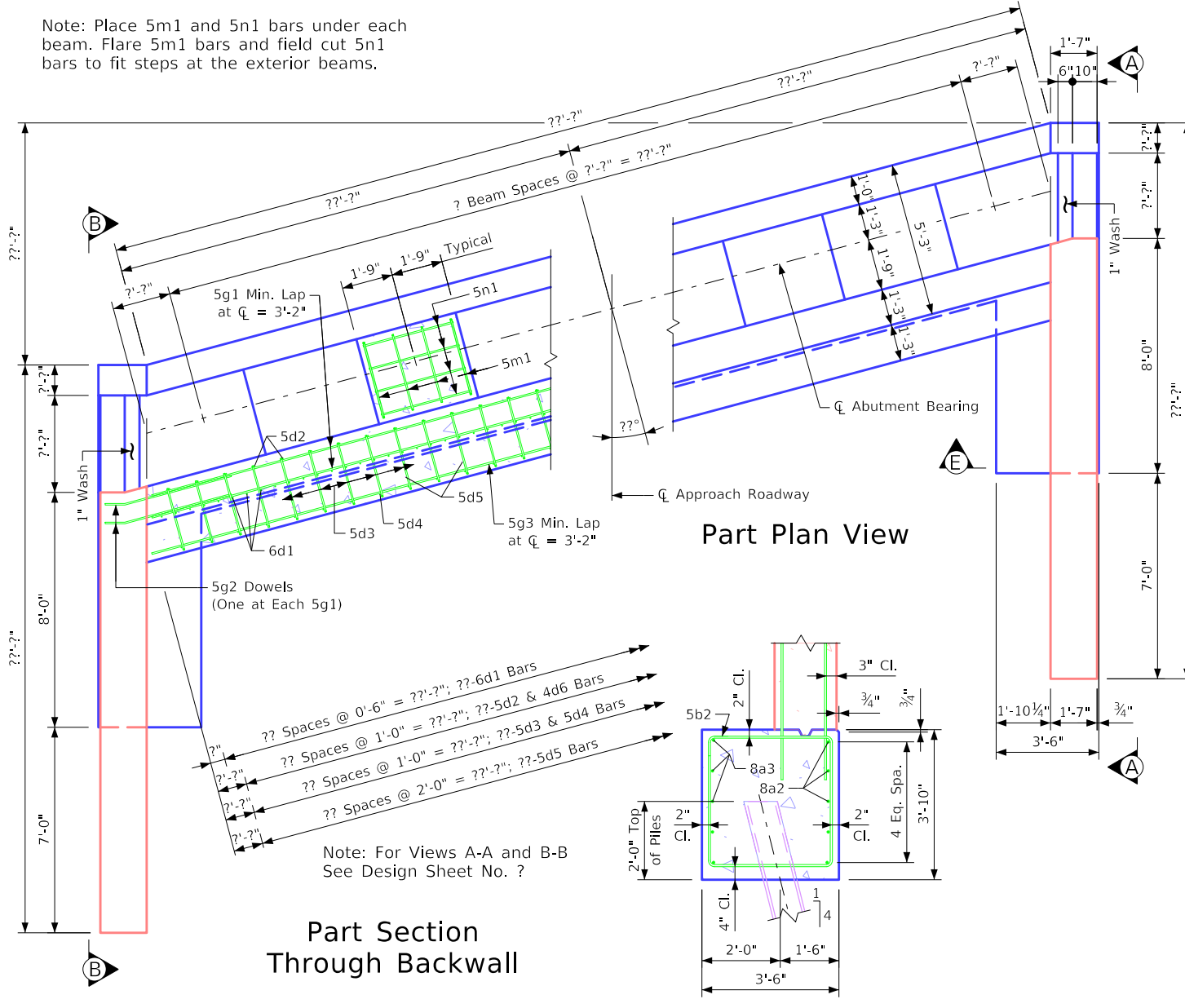
Expansion Device not Shown



Abutment Step Diagram (Rear Elevation)

Table of Abutment Elevations		
Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

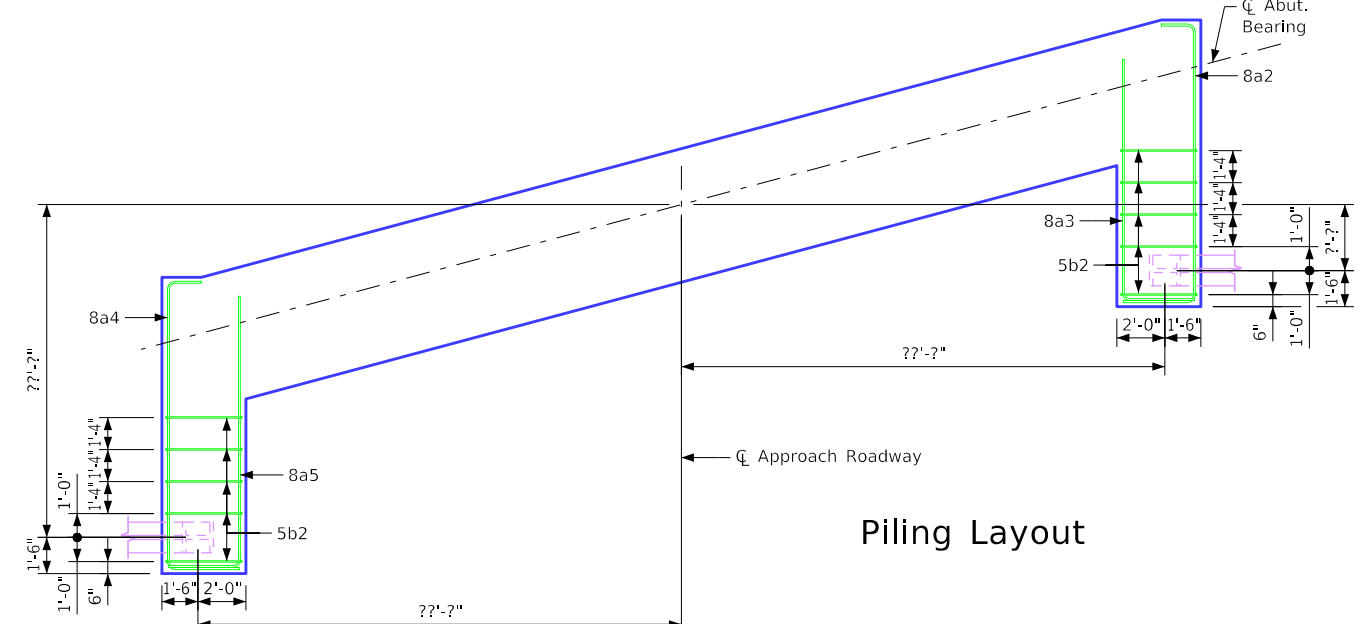
Table of Abutment Steps		
Step	? Abutment	? Abutment
a	???.??	???.??



Part Plan View

Part Section Through Backwall

Section E-E



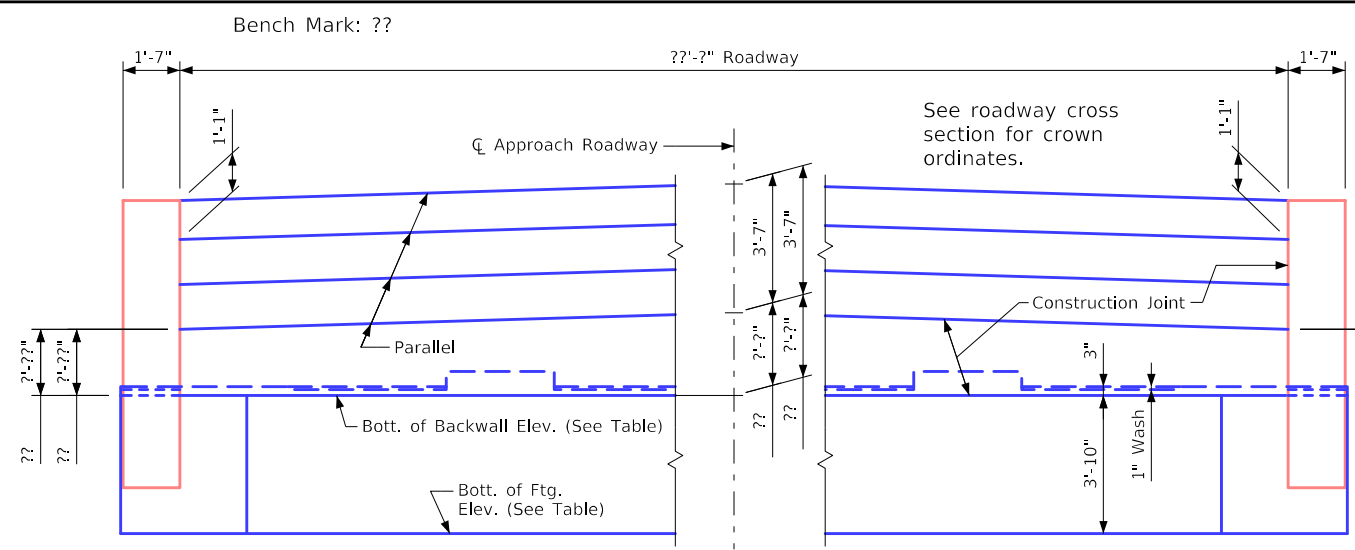
Piling Layout

Abutment Footing Details

Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown. ?? - HP 10x42 steel bearing piling required at each abutment. Barrier Rail not shown in details.

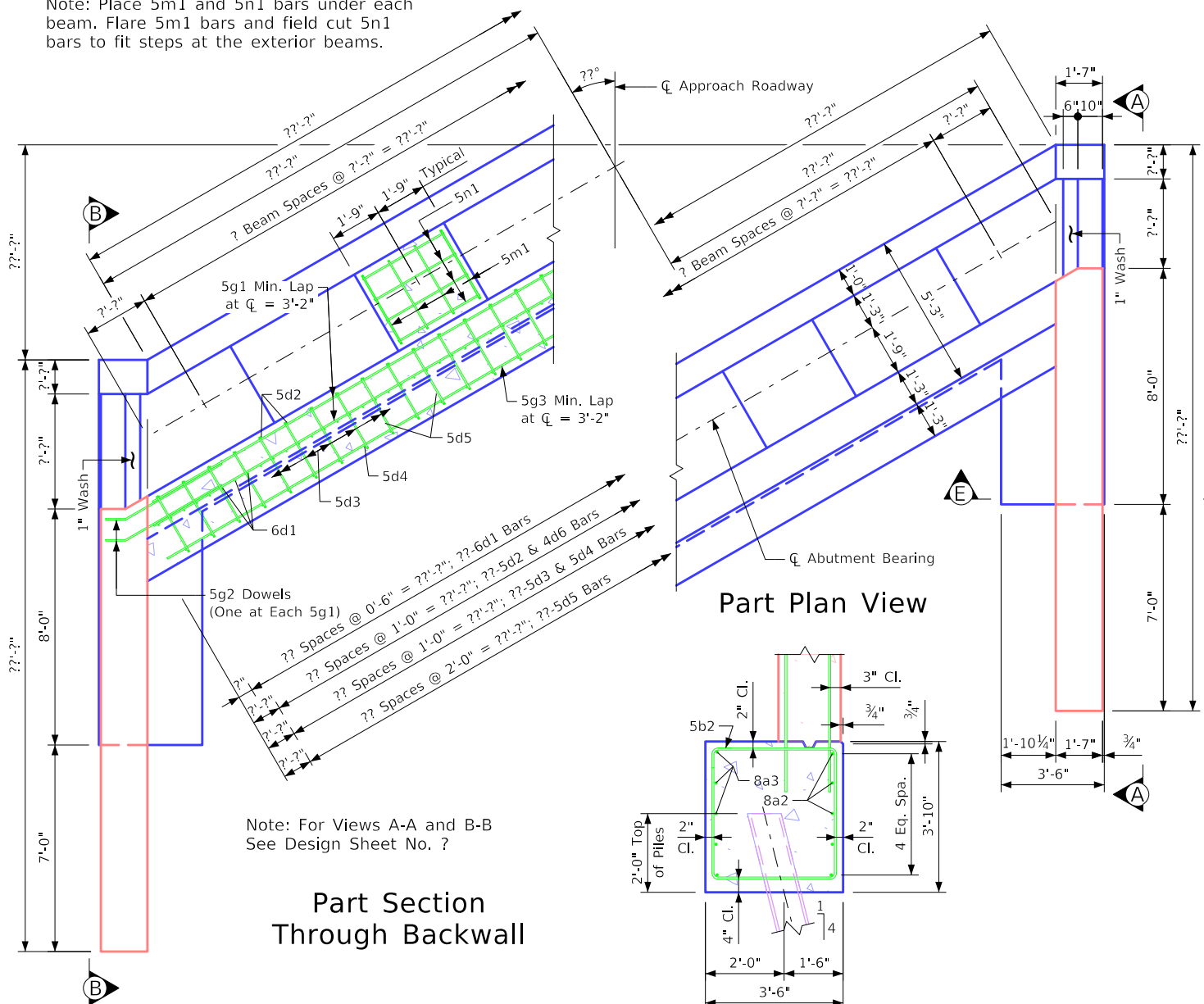
Revised 10-10: Added 2 Additional 5g1 Bars in Lower Backwall. Issued 07-08. BTStubBridges.dgn - 2094-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.

FILE NO.	ENGLISH	DESIGN TEAM	"BTE" Beams - Stub Abut. Details - (R.A.) 7°31' - 15° Skew	Standard Sheet 2094-BTE	COUNTY	PROJECT NUMBER	SHEET NUMBER
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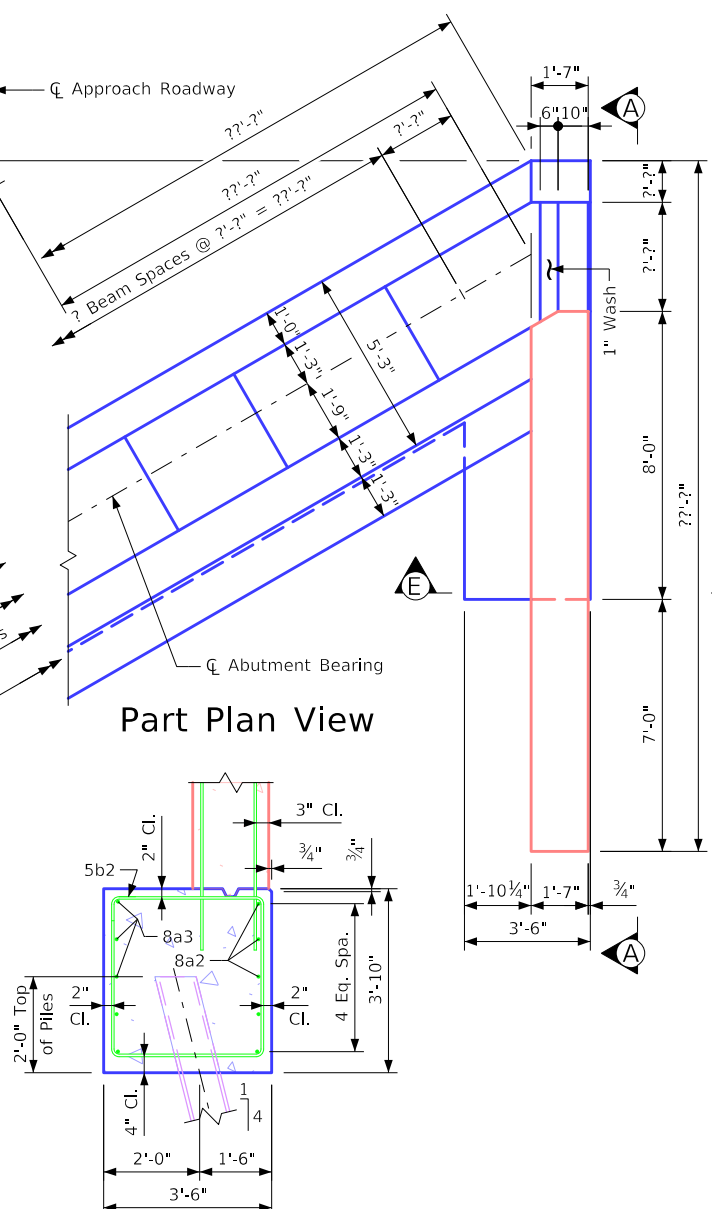
Rear Elevation

Note: Place 5m1 and 5n1 bars under each beam. Flare 5m1 bars and field cut 5n1 bars to fit steps at the exterior beams.

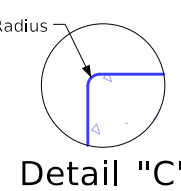


Part Section Through Backwall

Note: For Views A-A and B-B See Design Sheet No. ?

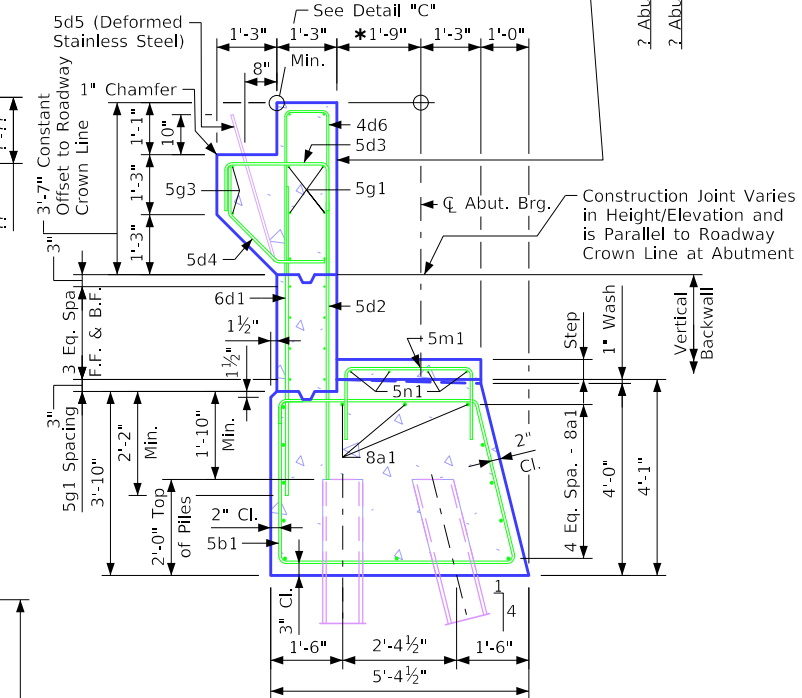


Section E-E



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



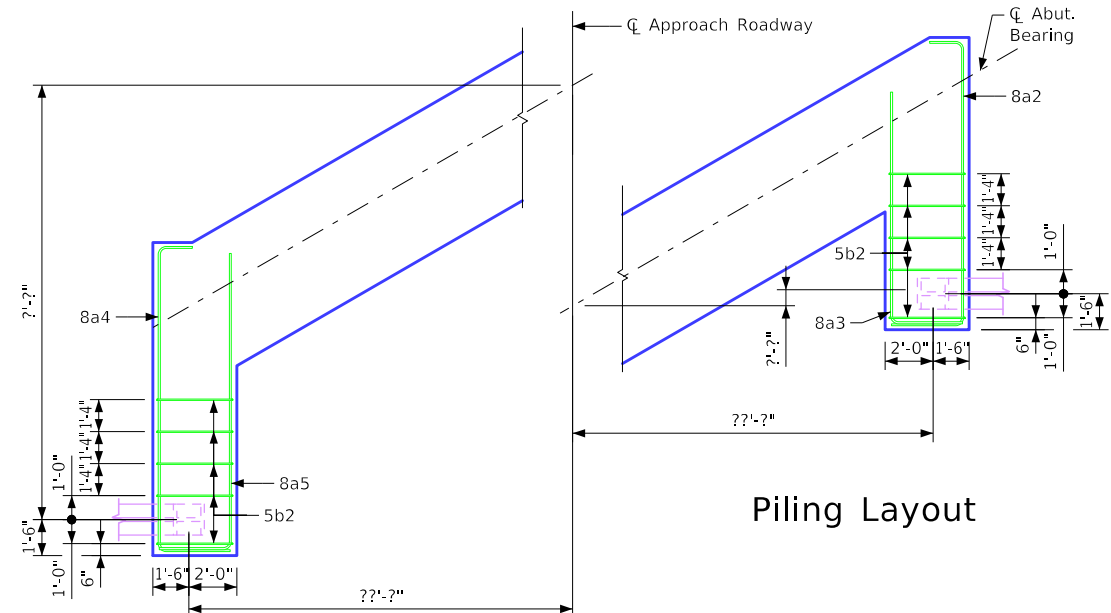
Abutment Step Diagram (Rear Elevation)

Table of Abutment Elevations

Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

Table of Abutment Steps

Step	? Abutment	? Abutment
a	???.??	???.??

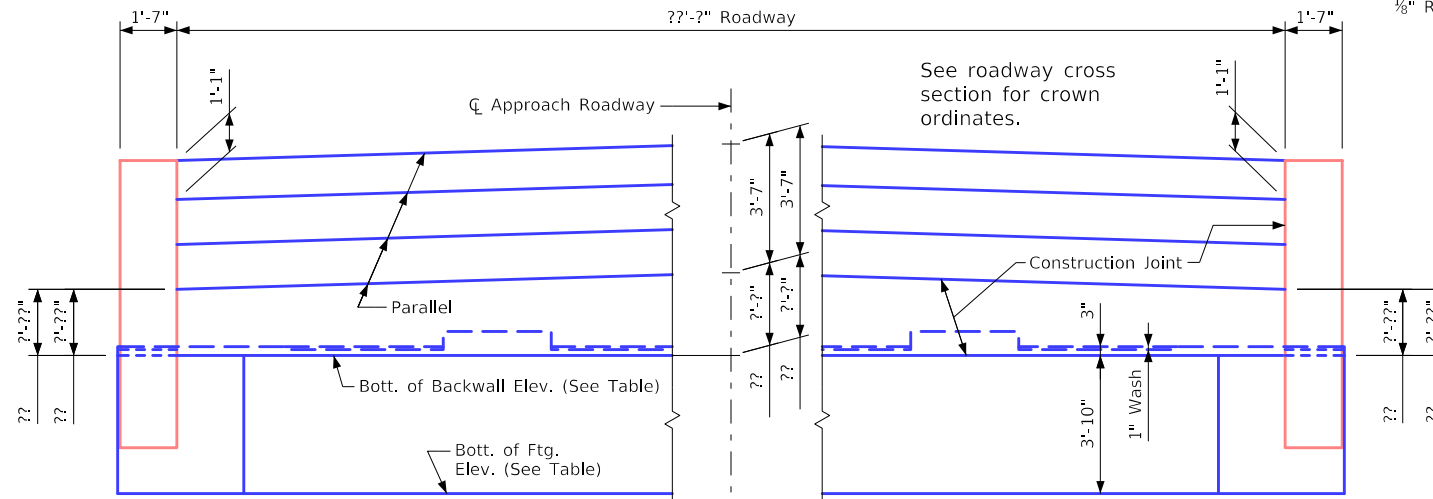


Piling Layout

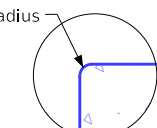
Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown. ?? - HP 10x42 steel bearing piling required at each abutment. Barrier Rail not shown in details.

Abutment Footing Details

Bench Mark: ??

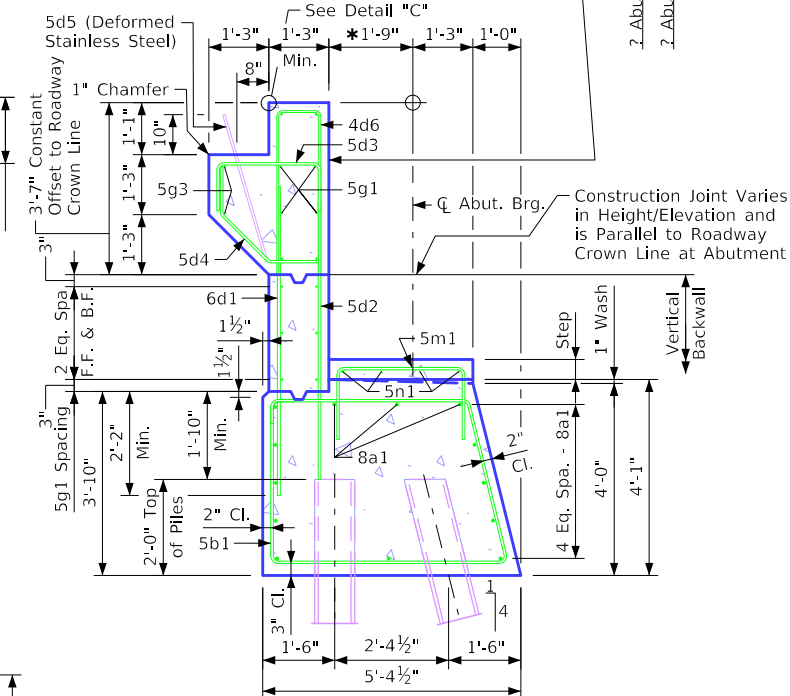


Rear Elevation



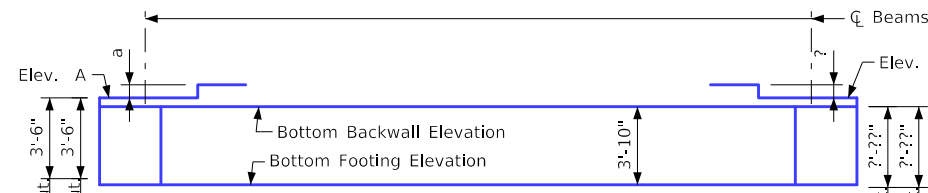
Detail "C"

*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)

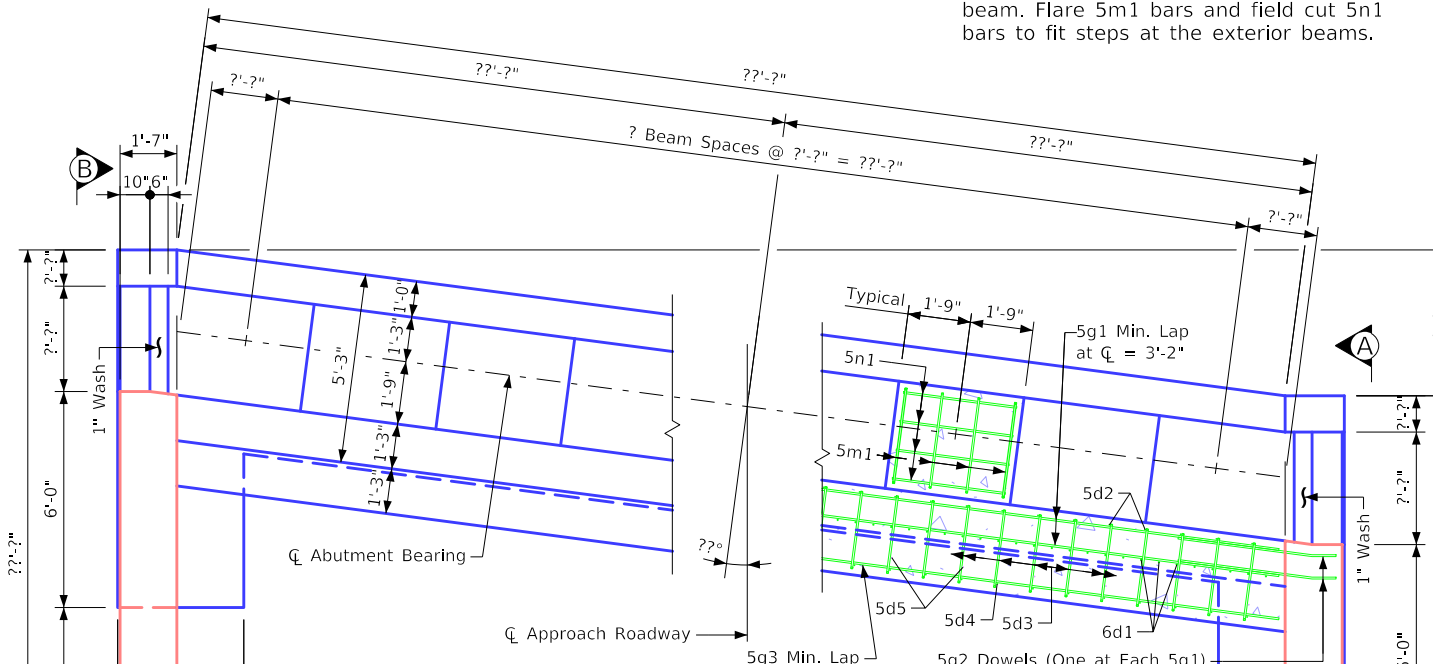
Table of Abutment Elevations

Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

Table of Abutment Steps

Step	? Abutment	? Abutment
a	???.??	???.??

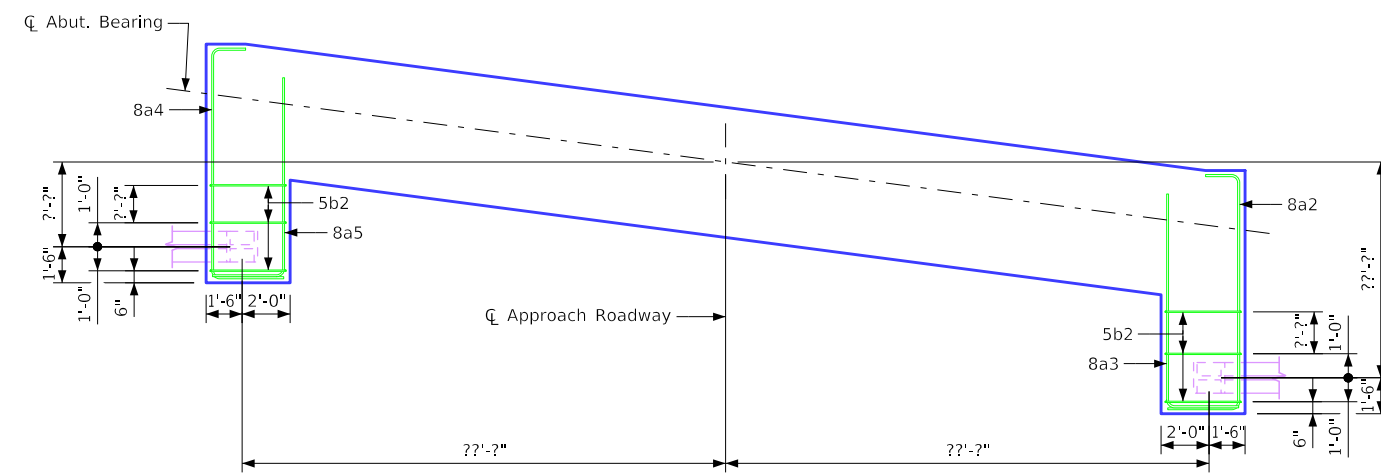
Note: Place 5m1 and 5n1 bars under each beam. Flare 5m1 bars and field cut 5n1 bars to fit steps at the exterior beams.



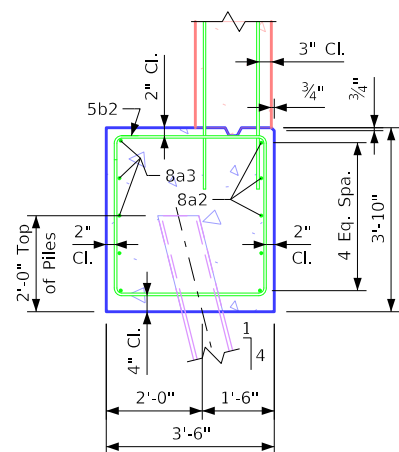
Part Plan View

Part Section Through Backwall

Note: For Views A-A and B-B See Design Sheet No. ?



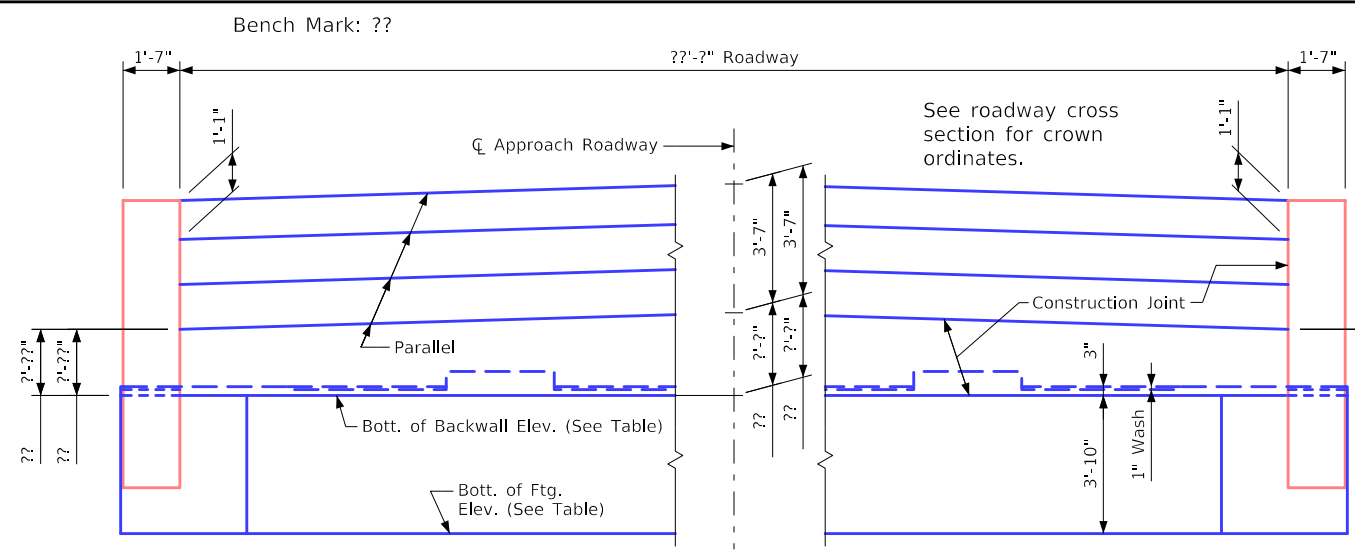
Piling Layout



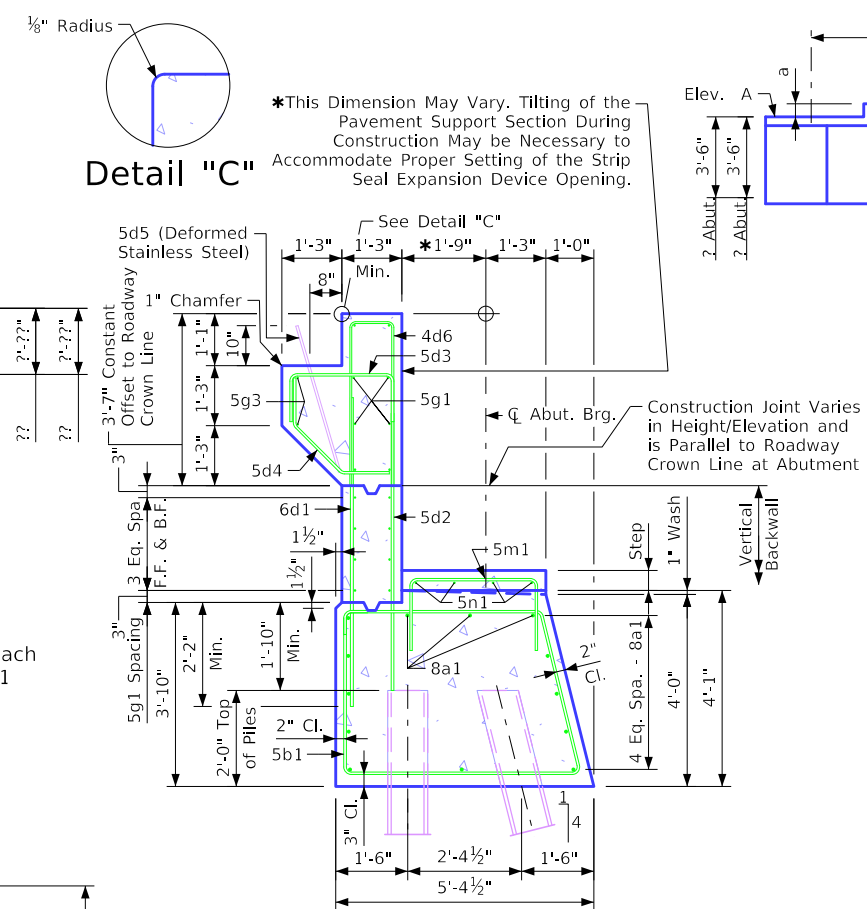
Section E-E

Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown. ?? - HP 10x42 steel bearing piling required at each abutment. Barrier Rail not shown in details.

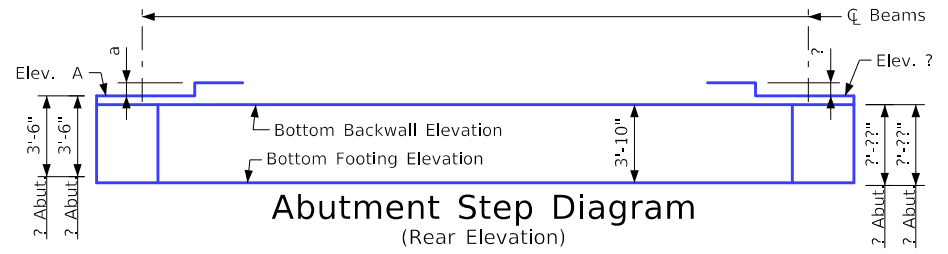
Abutment Footing Details



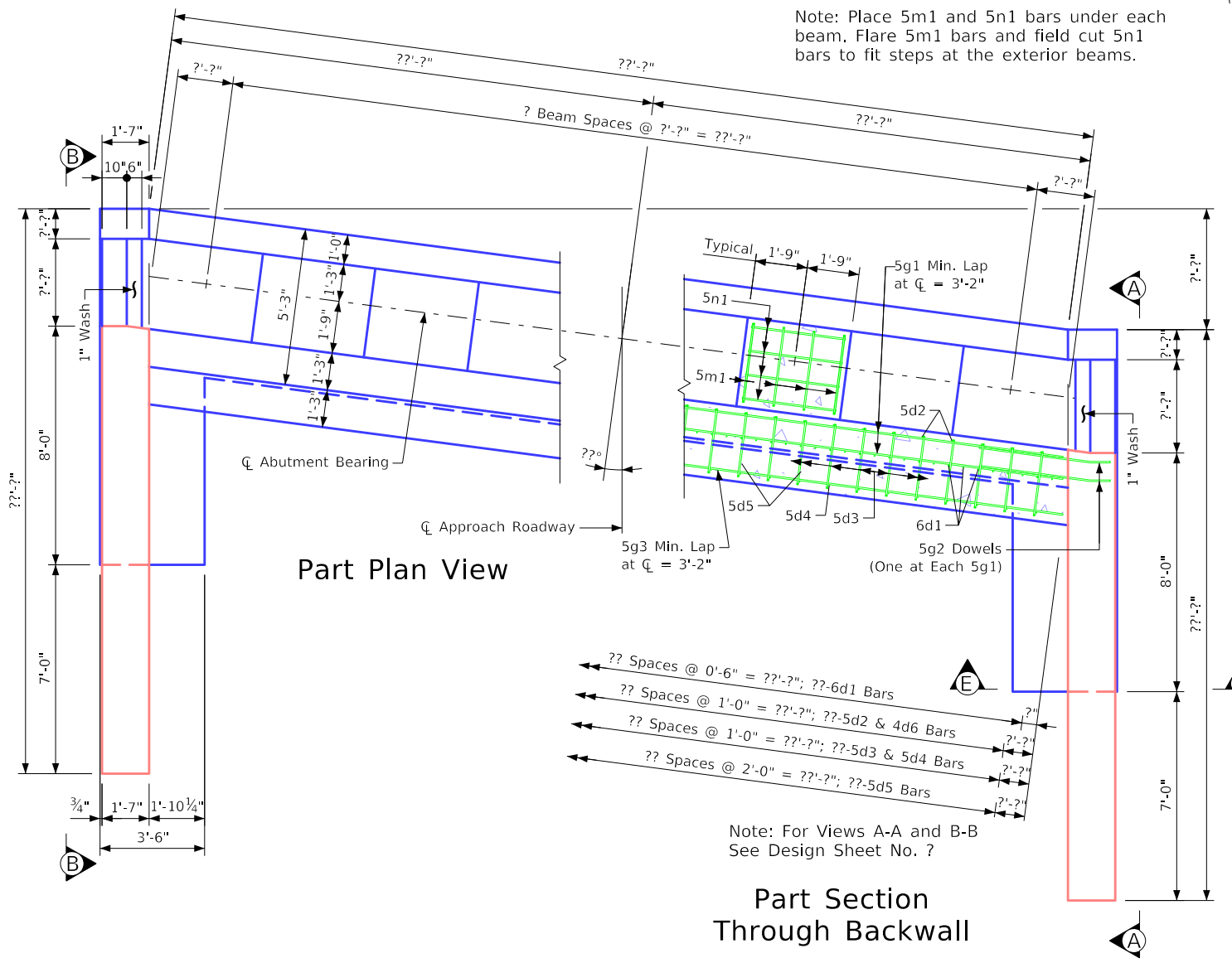
Rear Elevation



Section Through Abutment
Expansion Device not Shown



Abutment Step Diagram
(Rear Elevation)



Part Plan View

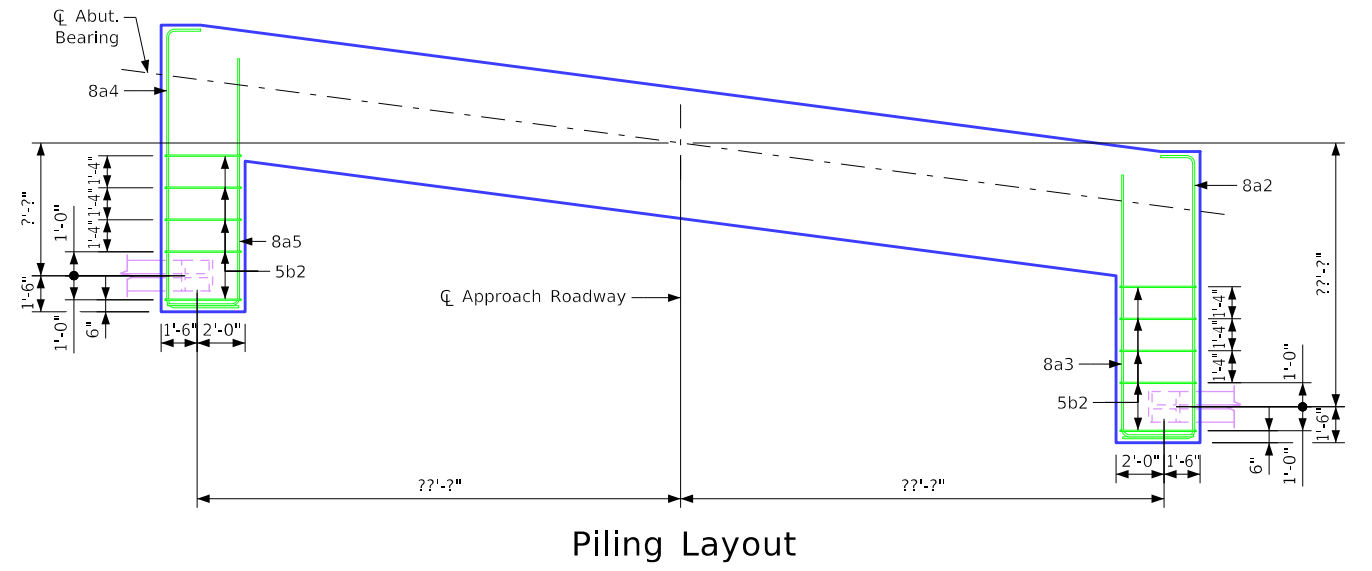
Part Section Through Backwall

Table of Abutment Elevations

Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

Table of Abutment Steps

Step	? Abutment	? Abutment
a	???.??	???.??



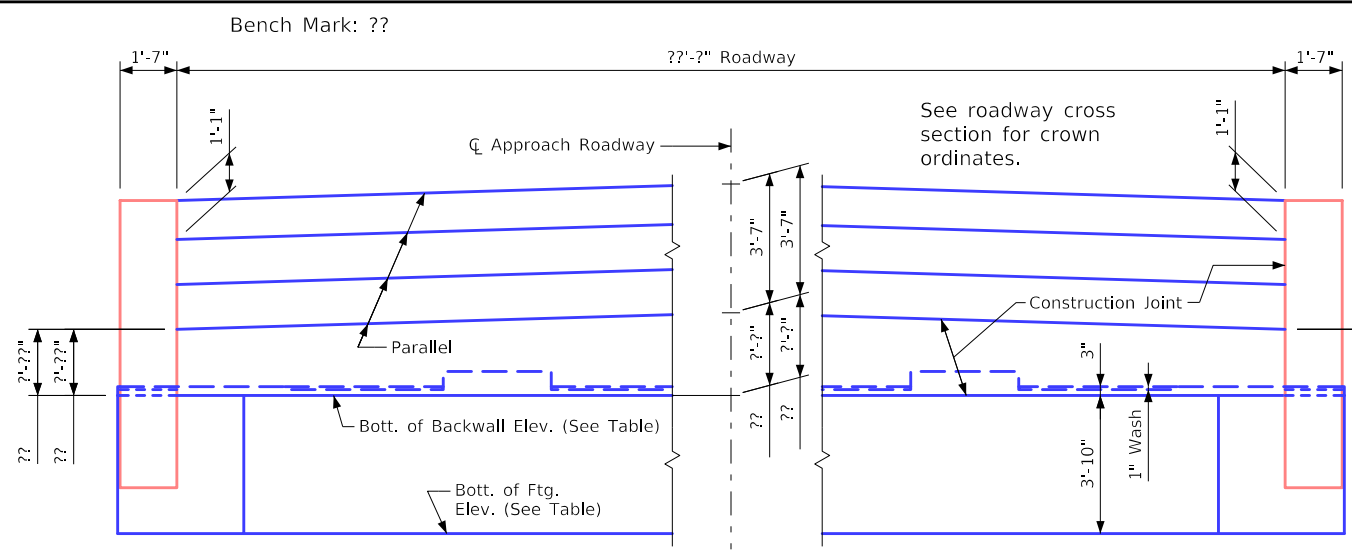
Piling Layout

Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown. ?? - HP 10x42 steel bearing piling required at each abutment. Barrier Rail not shown in details.

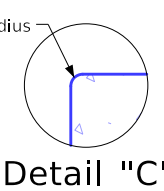
Abutment Footing Details

Revised 10-10: Added 2 Additional 5g1 Bars in Lower Backwall. Issued 07-08. BTSubBridges.dgn - 2096-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.

Issued 07-08. BTSubBridges.dgn - 2097-BTCD - This Sheet Re-issued 11-2023. Sheet Format Update.



Rear Elevation

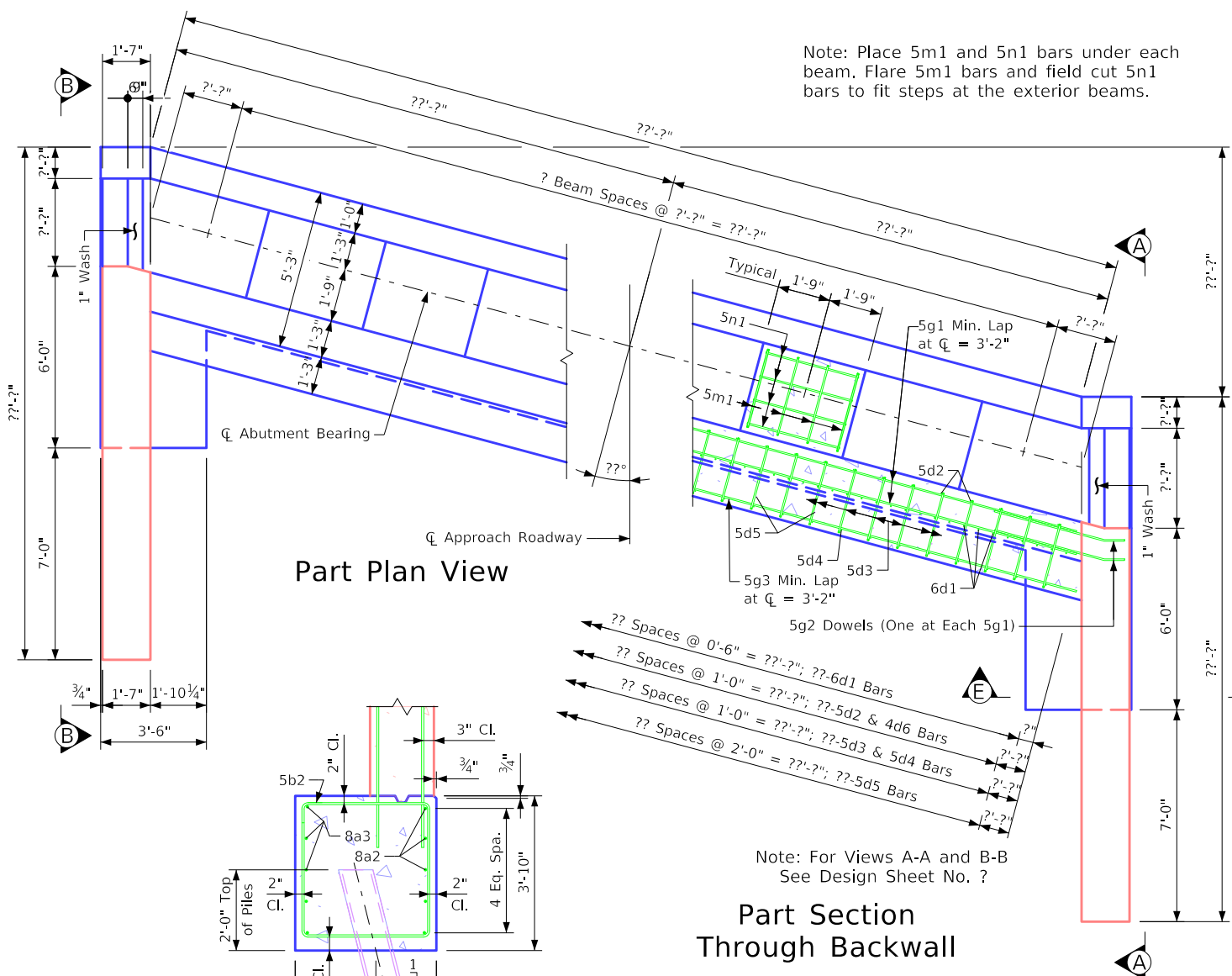


Detail "C"

*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.

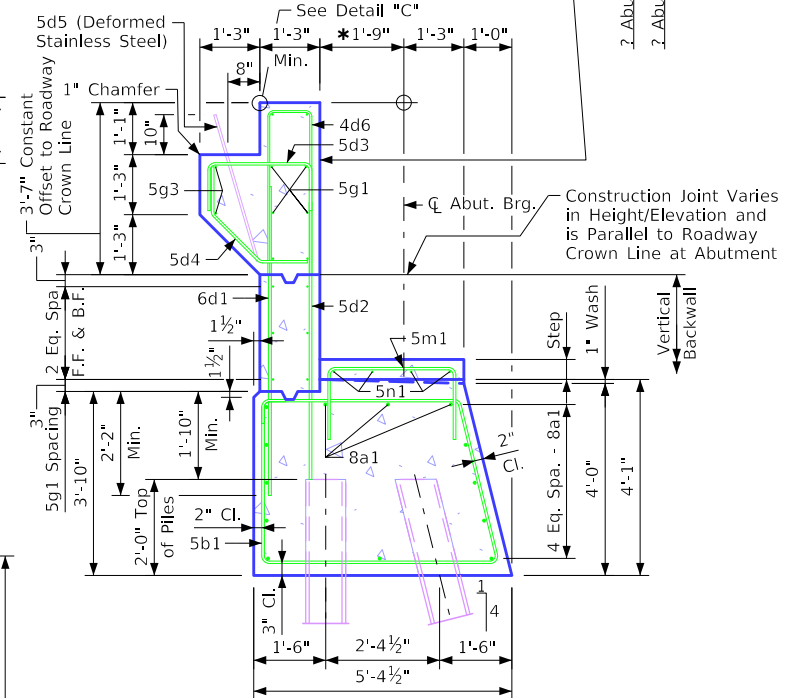


Abutment Step Diagram (Rear Elevation)



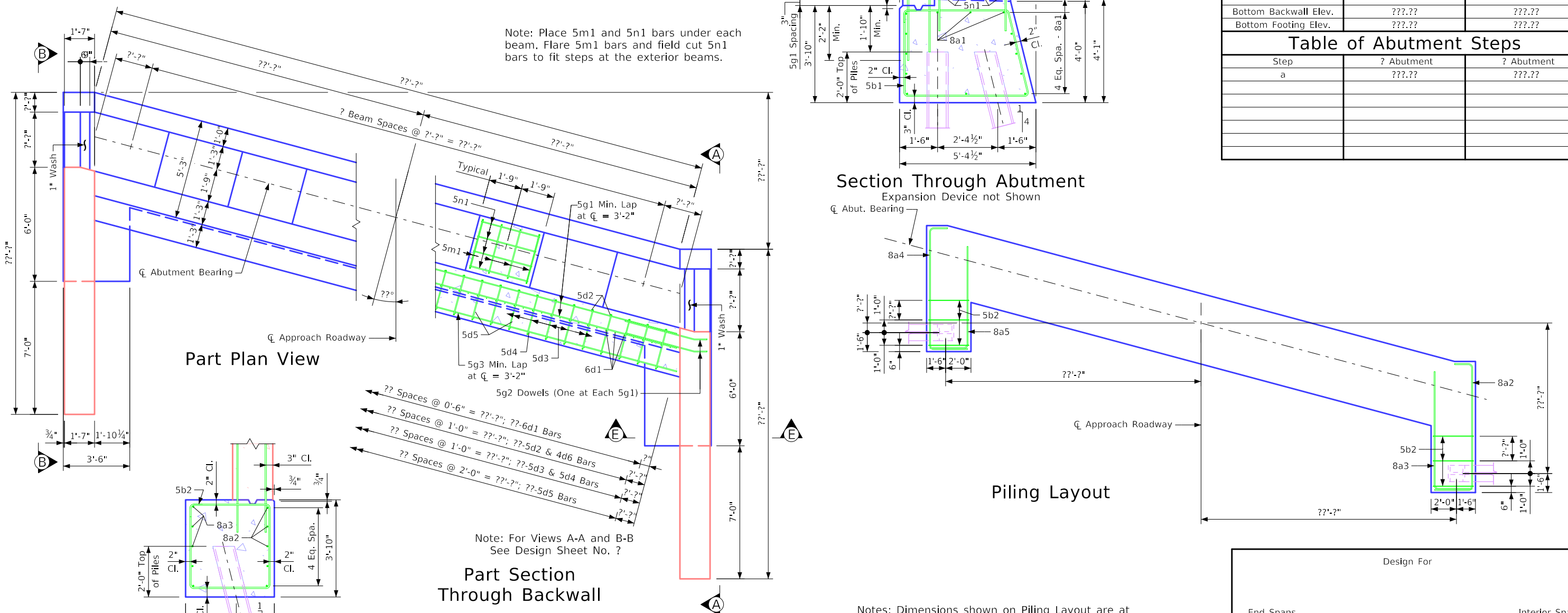
Part Plan View

Part Section Through Backwall



Section Through Abutment

Expansion Device not Shown



Piling Layout

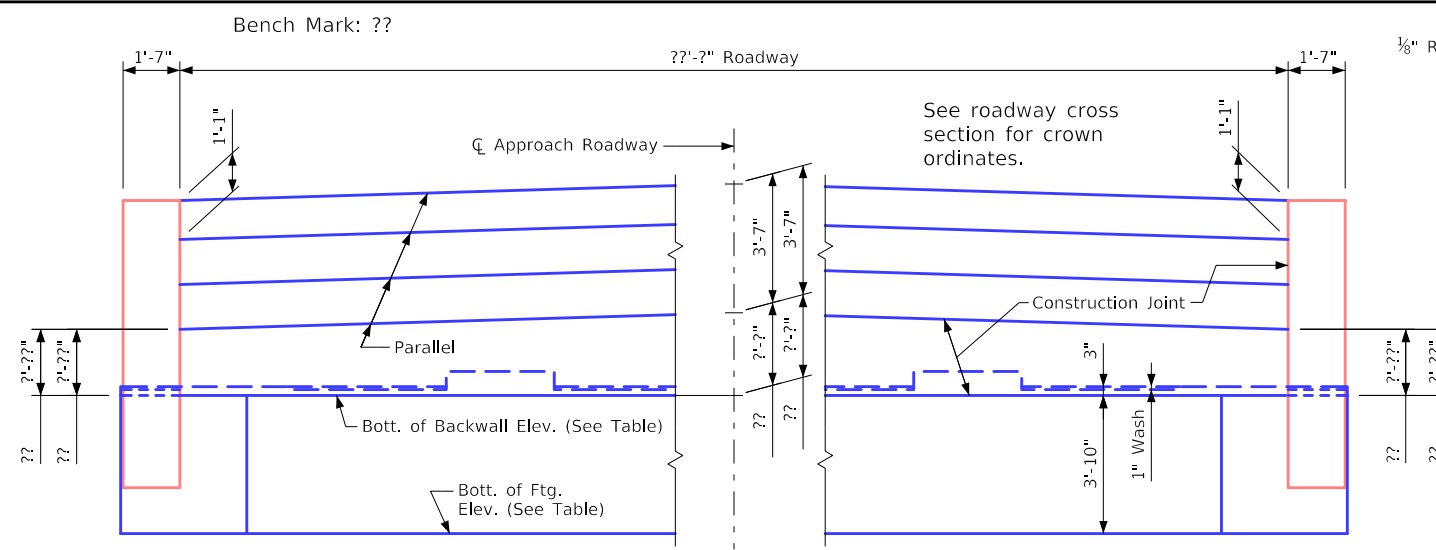
Table of Abutment Elevations		
Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

Table of Abutment Steps		
Step	? Abutment	? Abutment
a	???.??	???.??

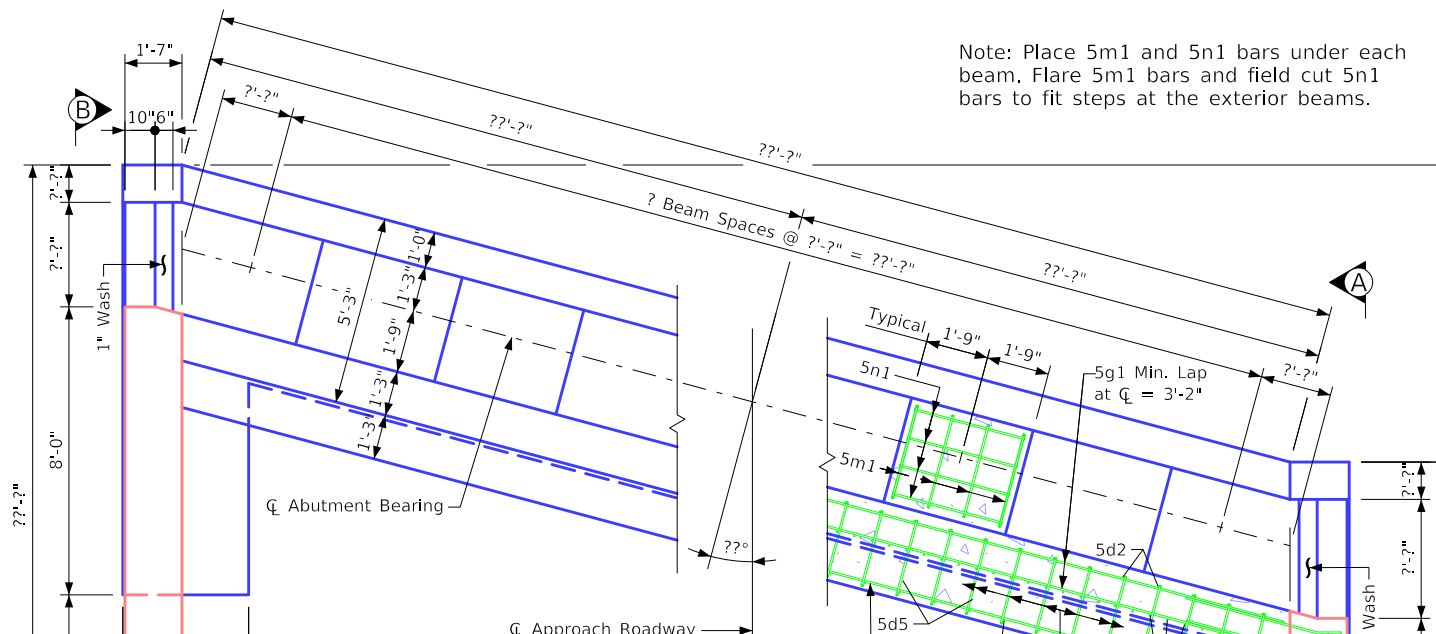
Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown. ?? - HP 10x42 steel bearing piling required at each abutment. Barrier Rail not shown in details.

Design For		
End Spans	Interior Span	
Abutment Footing Details		
STA. ()	Turn-In Date:	
County		
IOWA DEPARTMENT OF TRANSPORTATION		
Design No.	Design Sheet No. 000 of	FHWA No.

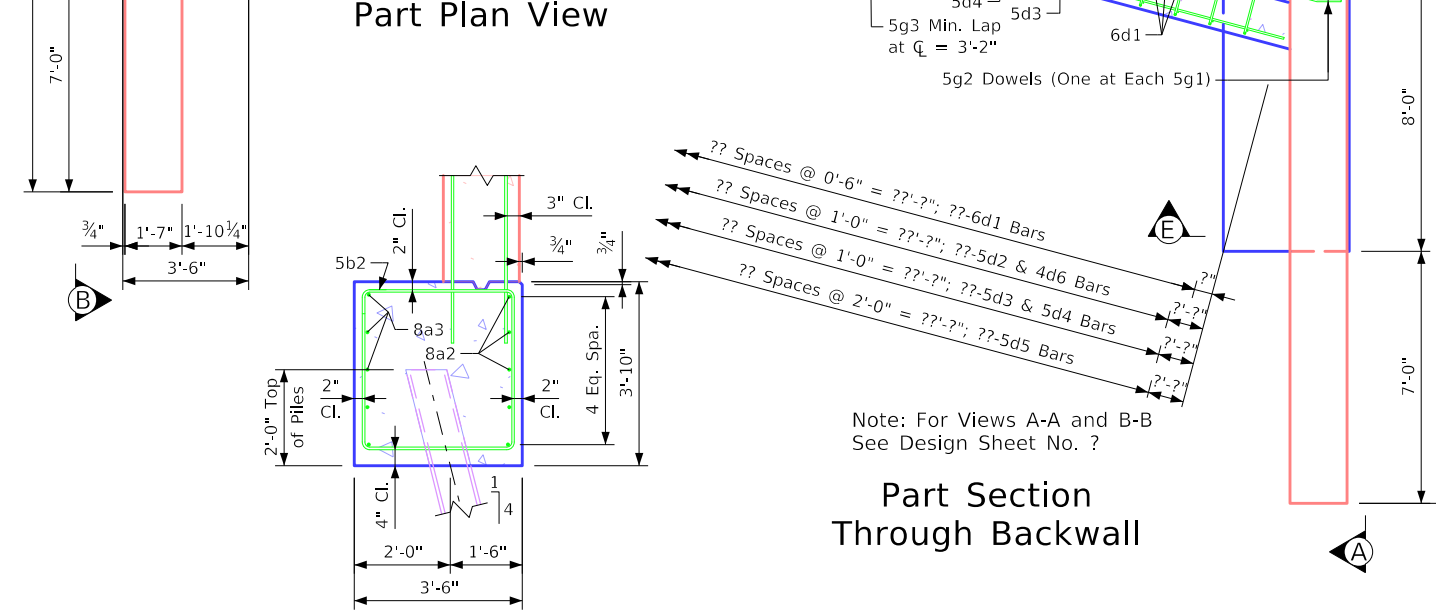
FILE NO.	ENGLISH	DESIGN TEAM	"BTC" or "BTD" Beams - Stub Abut. Details - (L.A.) 7'31' - 15° Skew	Standard Sheet 2097-BTCD	COUNTY	PROJECT NUMBER	SHEET NUMBER	XXX
7:15:30 PM	11/8/2023	bkloss	pw:\NTP\int1.dot.int.lan:PWMain\Documents\Highway\Bridge\Standards\Bridges\BTSubBridges.dgn					



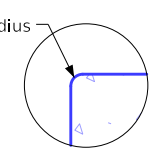
Rear Elevation



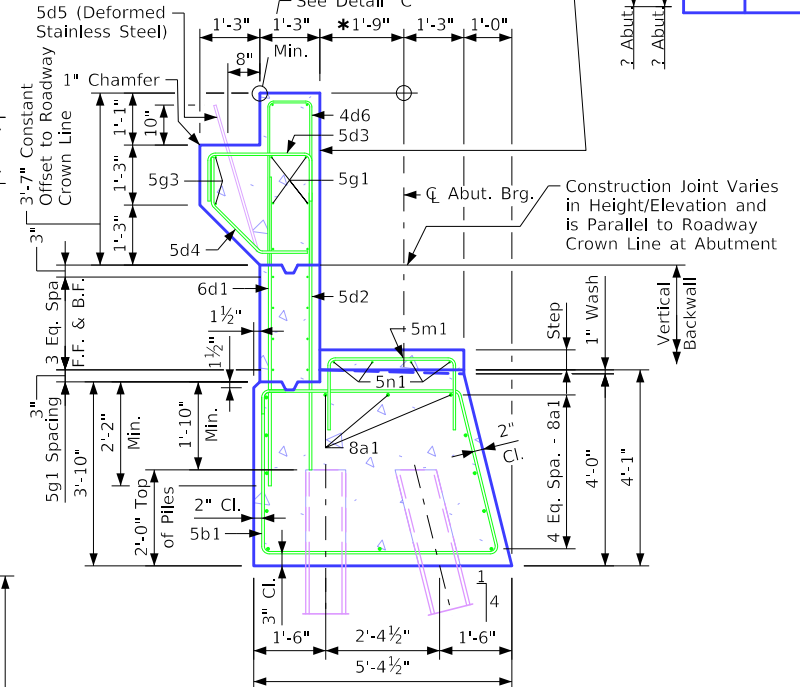
Part Plan View



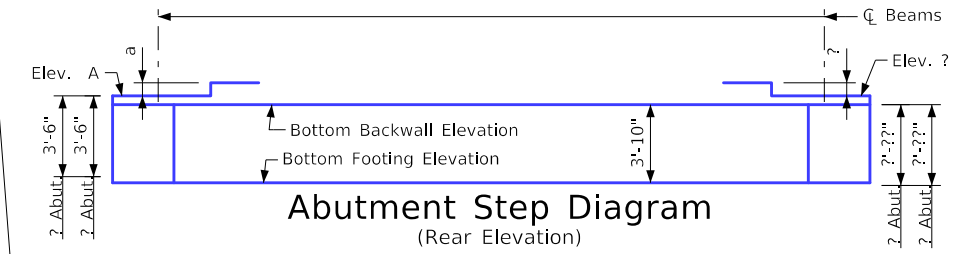
Section E-E



Detail "C"



Section Through Abutment
Expansion Device not Shown



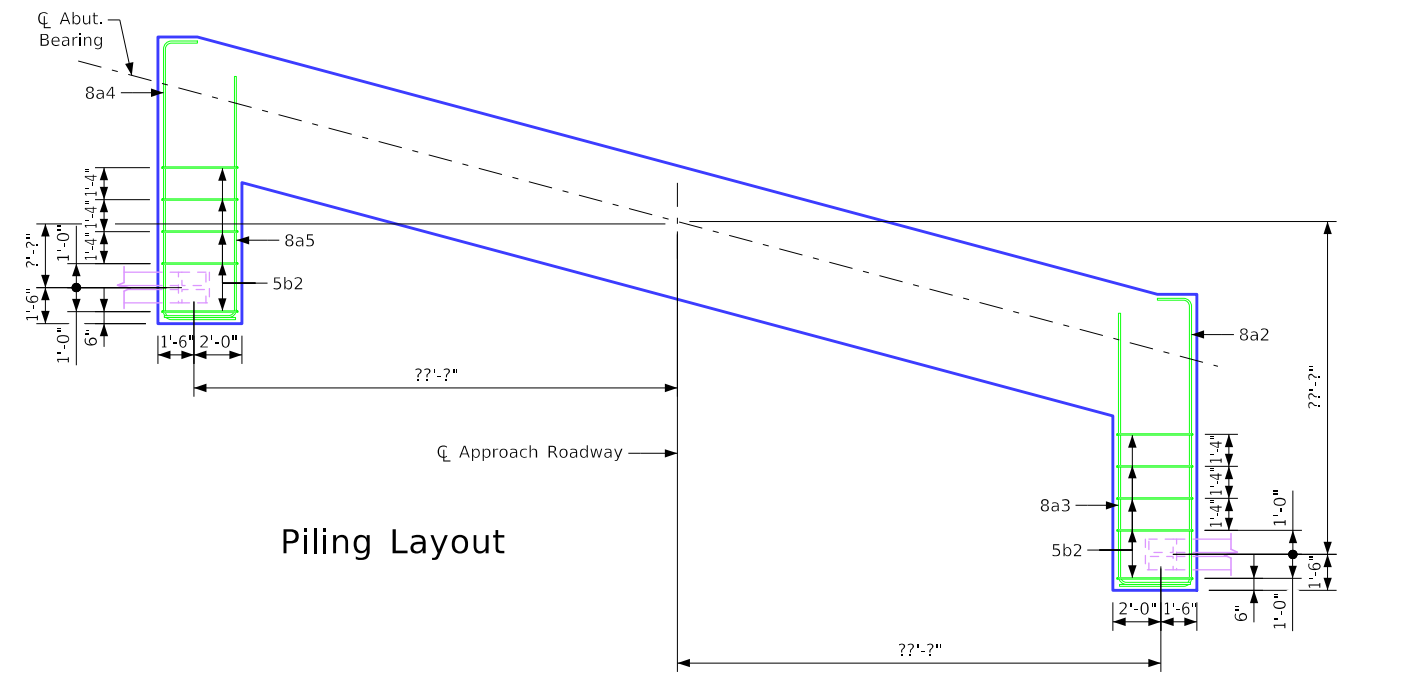
Abutment Step Diagram
(Rear Elevation)

Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

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.

Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown. ?? - HP 10x42 steel bearing piling required at each abutment. Barrier Rail not shown in details.

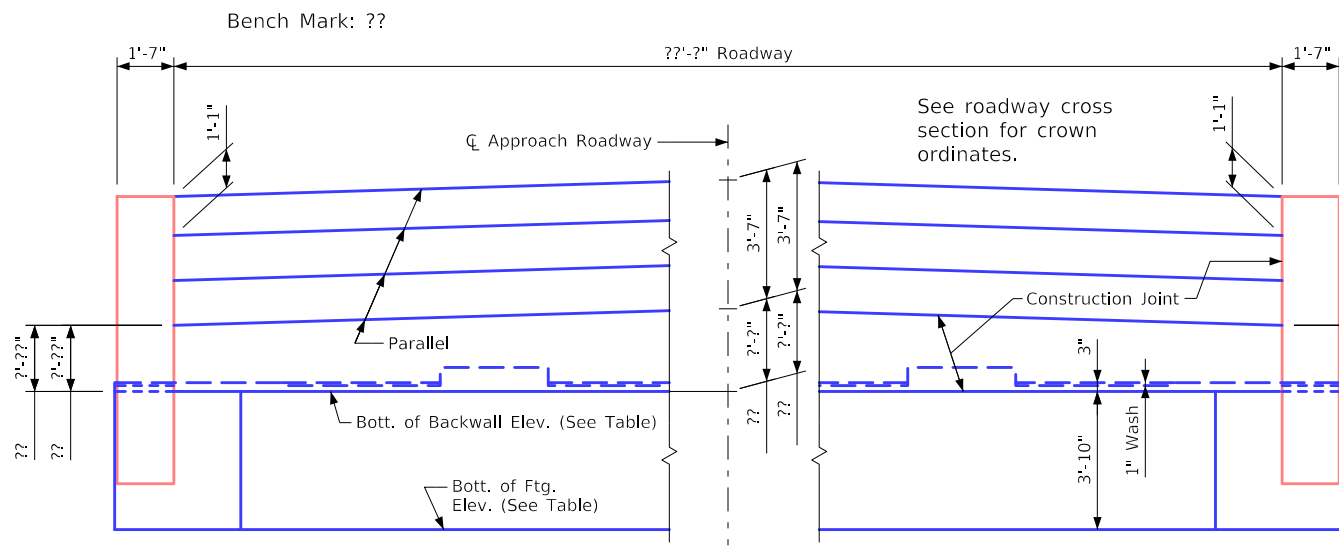


Piling Layout

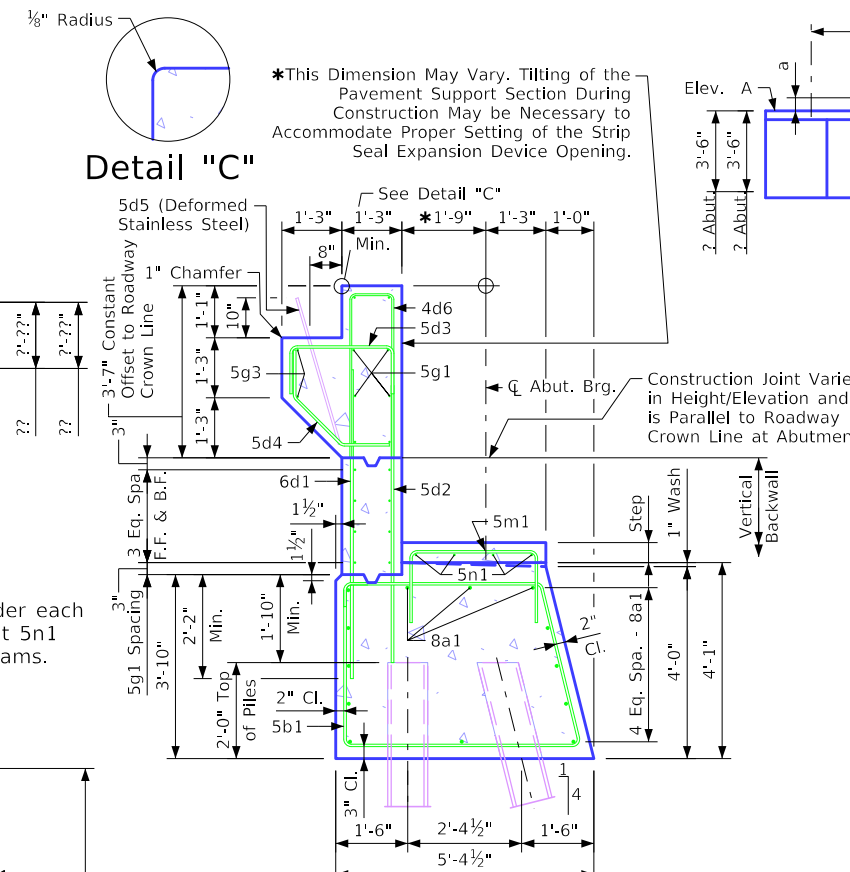


Abutment Footing Details

Revised 10-10: Added 2 Additional 5g1 Bars in Lower Backwall. Issued 07-08. BTSubBridges.dgn - 2097-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.



Rear Elevation



Detail "C"



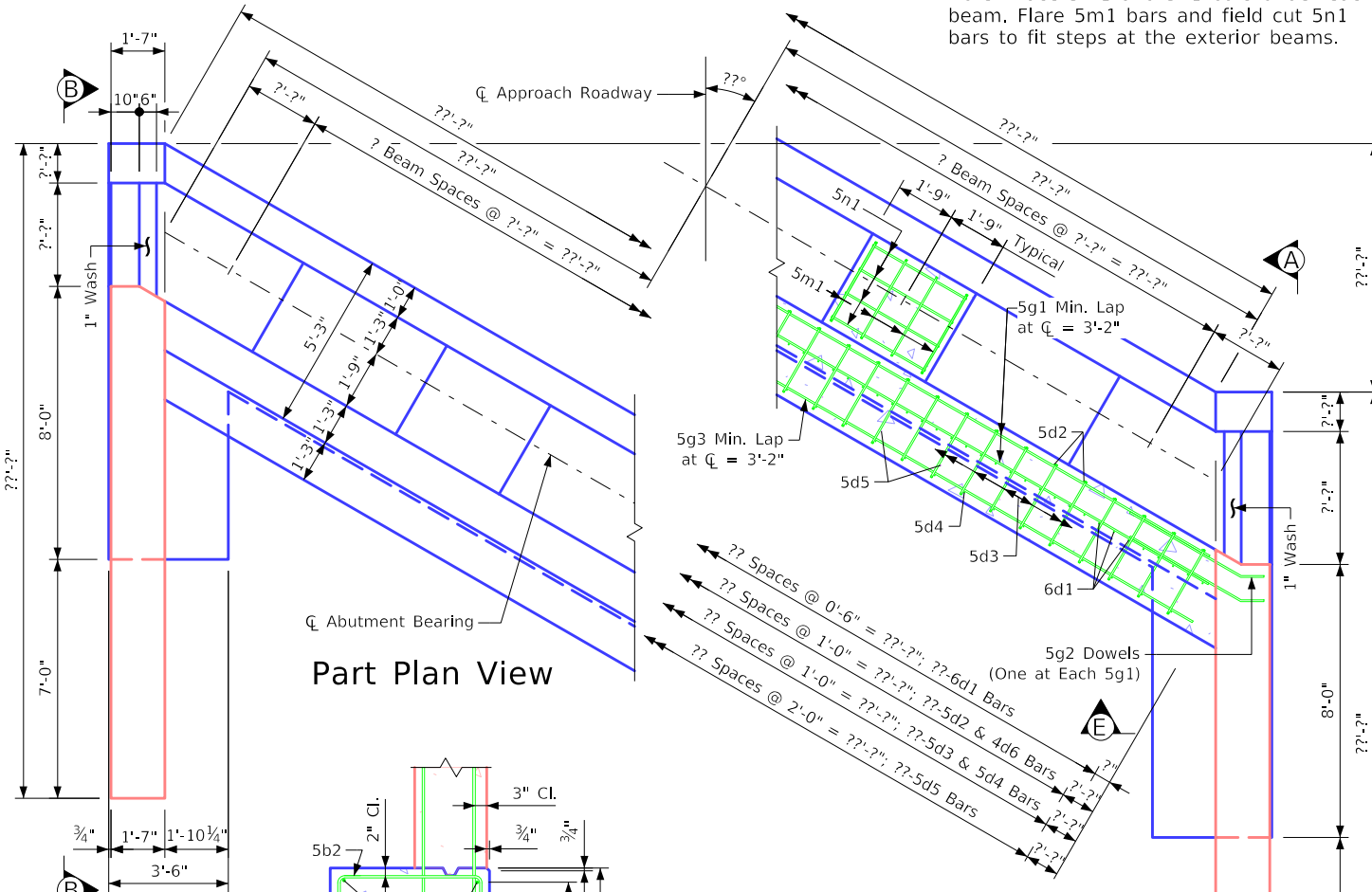
Abutment Step Diagram (Rear Elevation)

Table of Abutment Elevations

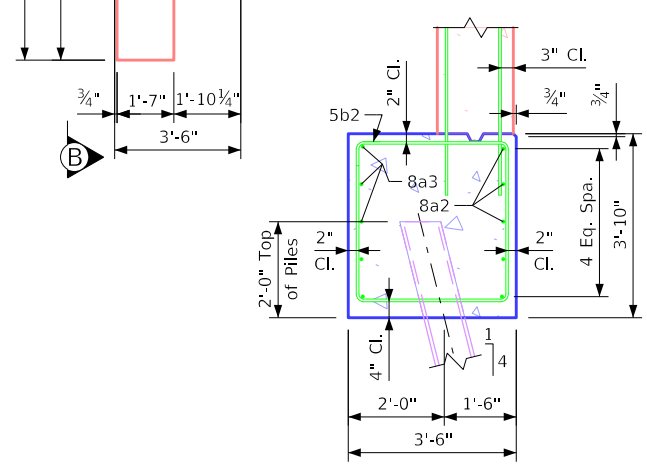
Point	? Abutment	? Abutment
Elev. A	???.??	???.??
Bottom Backwall Elev.	???.??	???.??
Bottom Footing Elev.	???.??	???.??

Table of Abutment Steps

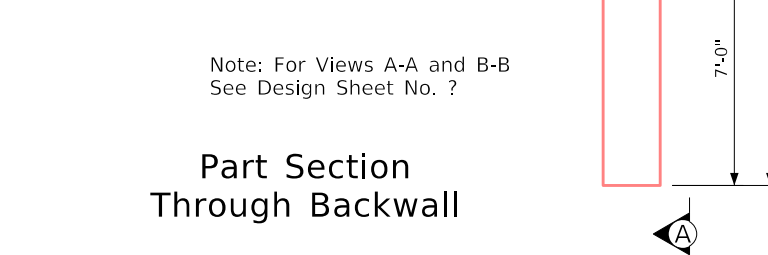
Step	? Abutment	? Abutment
a	???.??	???.??



Part Plan View

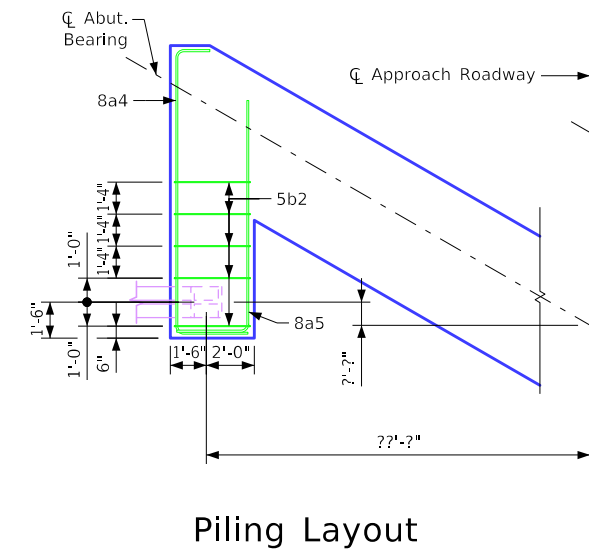


Section E-E

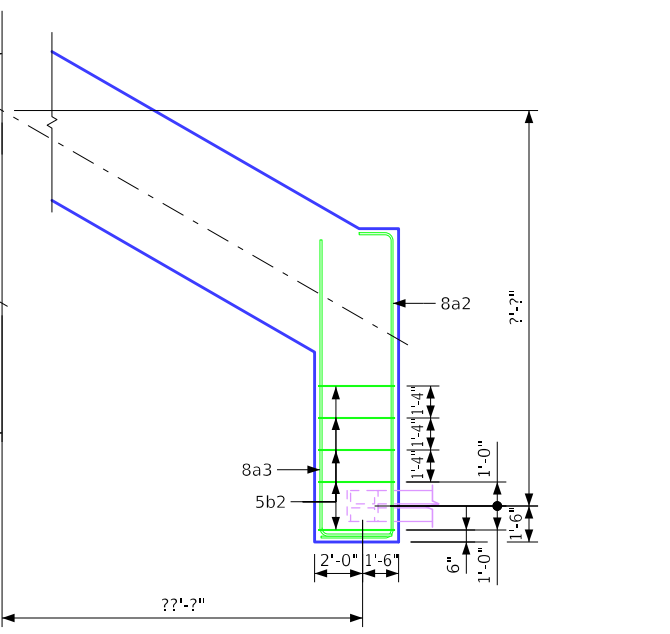


Part Section Through Backwall

Section Through Abutment
Expansion Device not Shown



Piling Layout

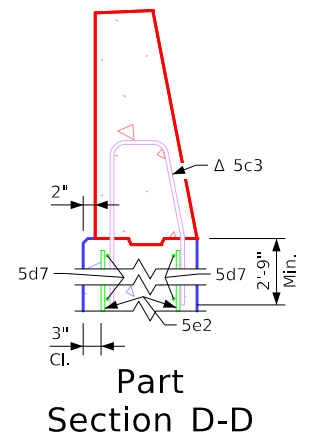
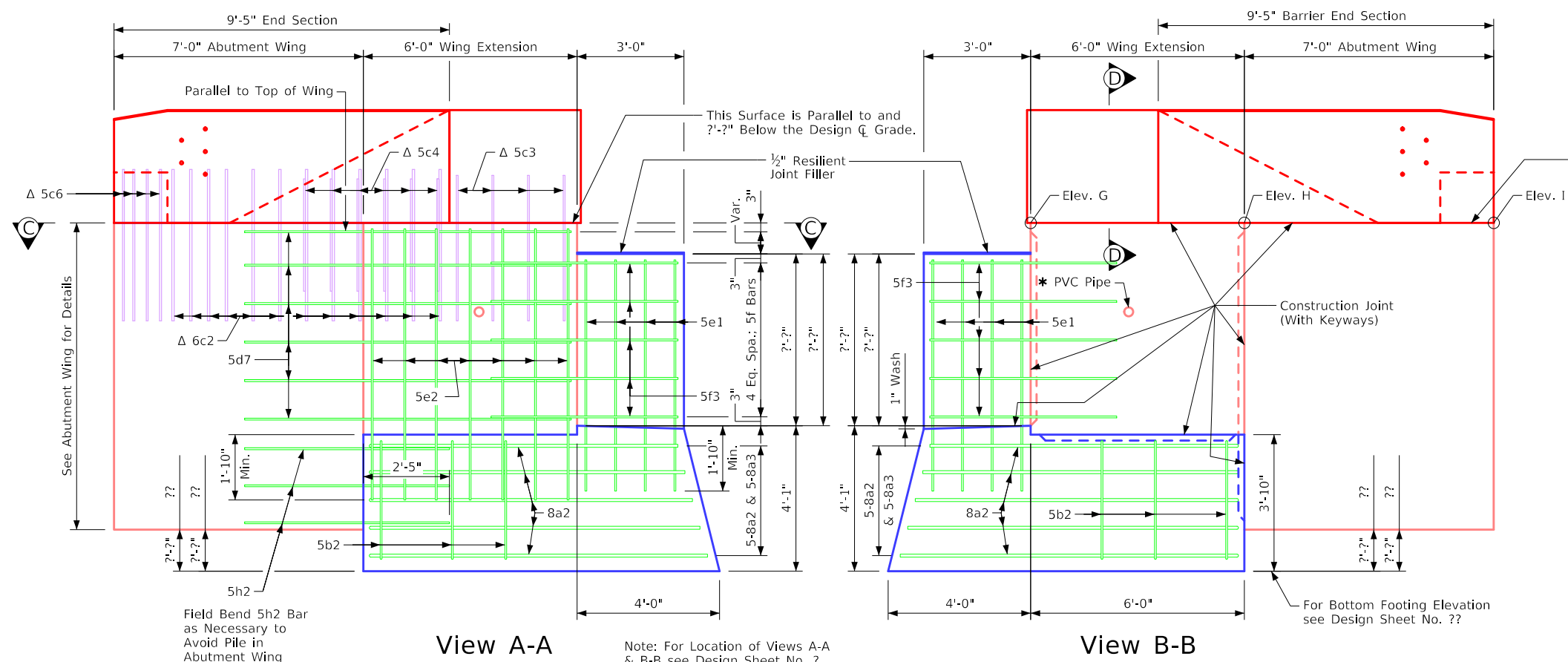


Abutment Footing Details

Notes: Dimensions shown on Piling Layout are at bottom of footing. Batter piles in the direction shown. ?? - HP 10x42 steel bearing piling required at each abutment. Barrier Rail not shown in details.

Revised 10-10: Added 2 Additional 5g1 Bars in Lower Backwall.
Issued 07-08.
BTStubBridges.dgn - 2098-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's. Issued 07-08. BTSubBridges.dgn - 2099-BTCD - This Sheet Re-issued 11-2023. Sheet Format Update.



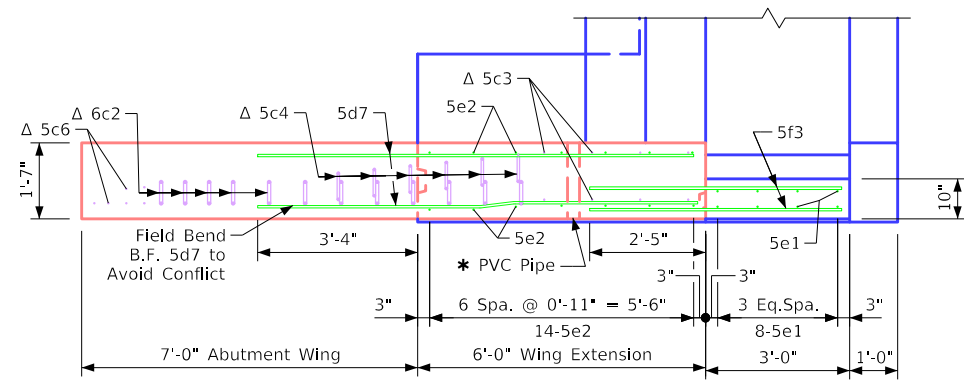
View A-A

View B-B

Note: For Location of Views A-A & B-B see Design Sheet No. ?

* See Part Plan & Longit. Section Sheet for PVC Pipe Location

Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

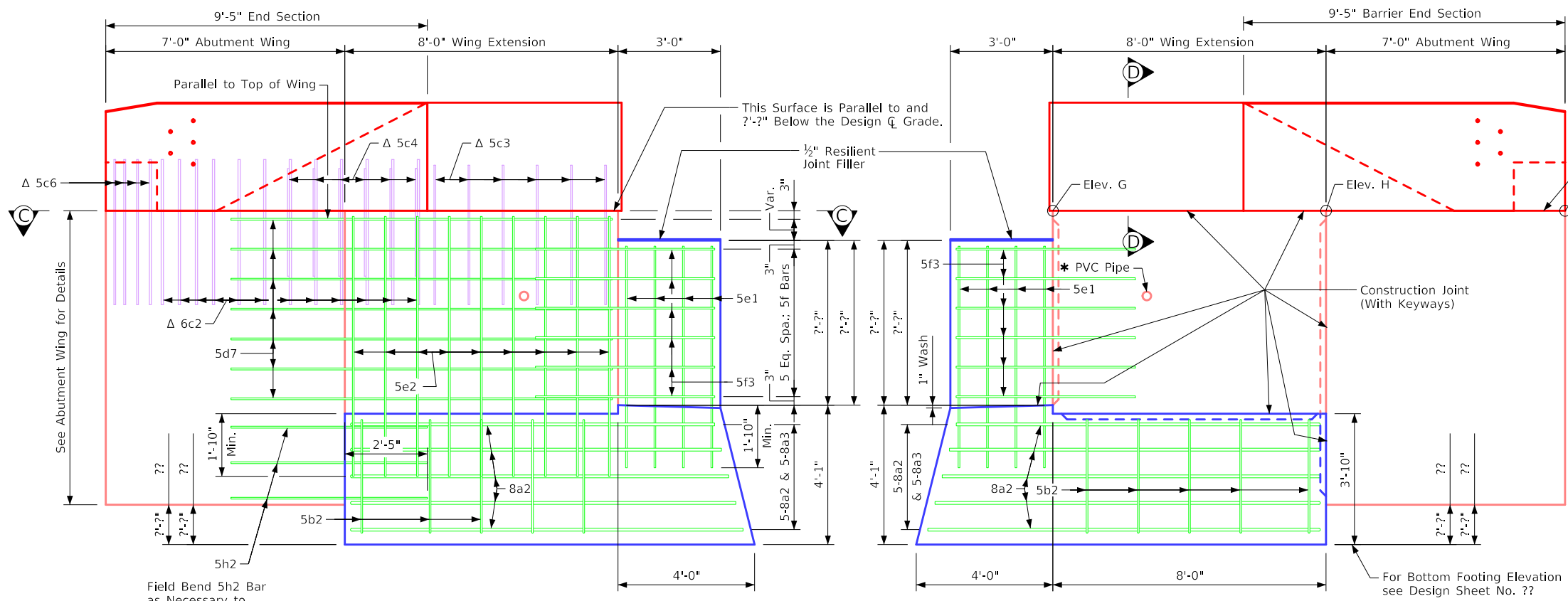
Note: Barrier Rail not shown

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

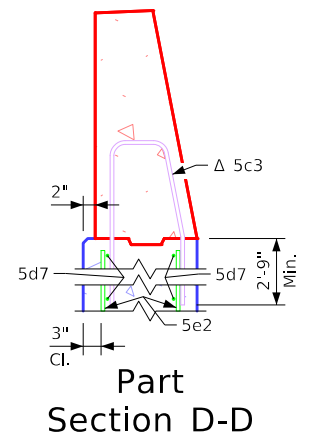
Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
 Issued 07-08.
 BTSubBridges.dgn - 2099-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.



View A-A

View B-B

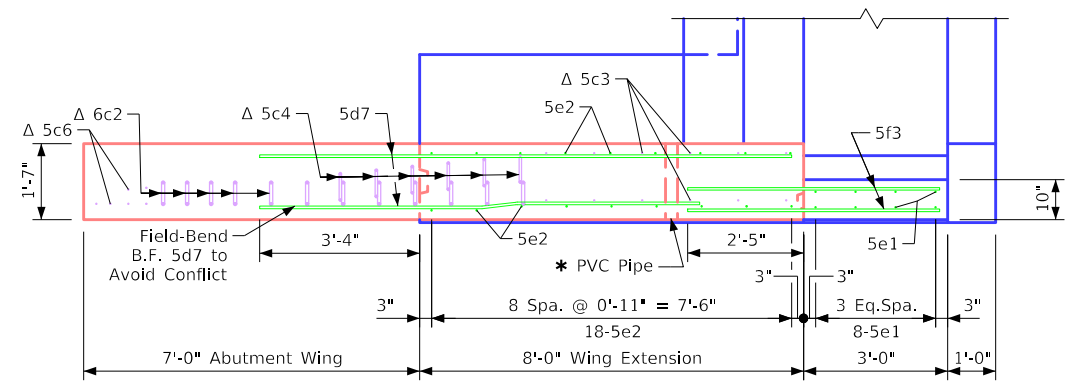


Part Section D-D

Note: For Location of Views A-A & B-B see Design Sheet No. ?

* See Part Plan & Longit. Section Sheet for PVC Pipe Location

Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

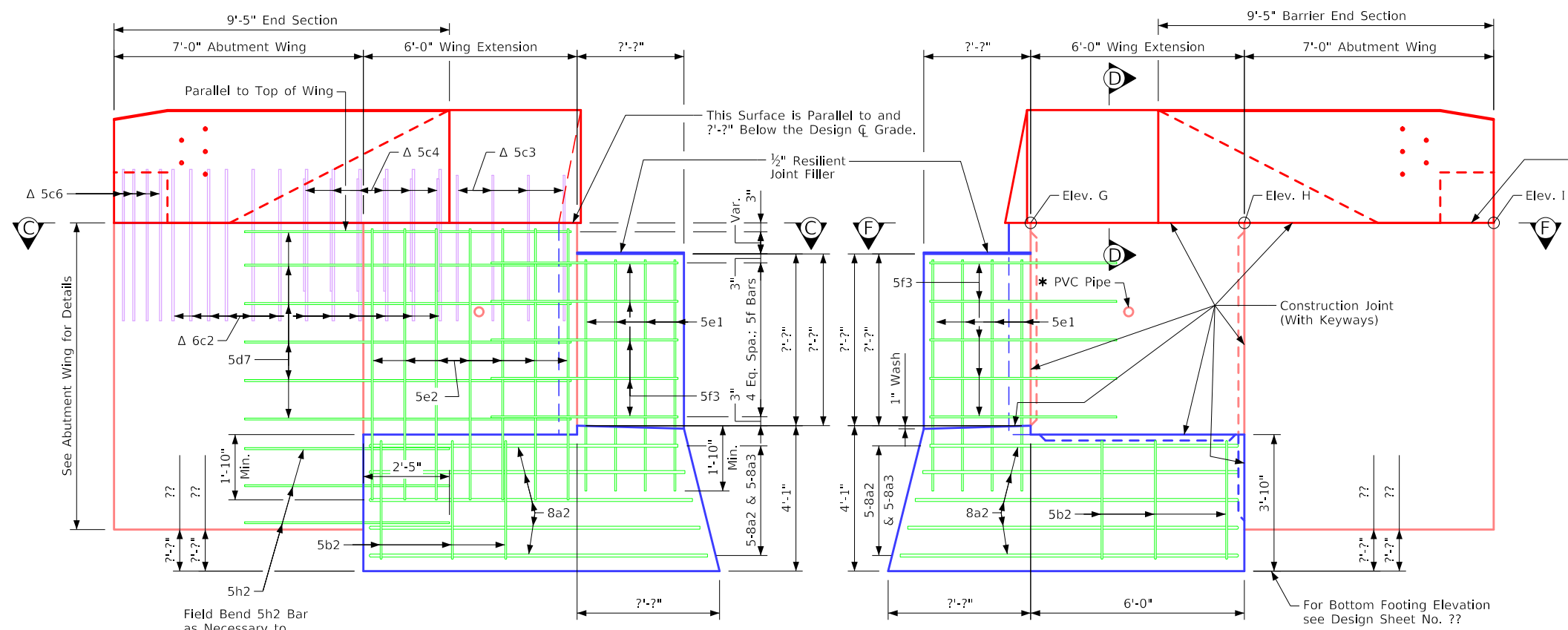
Note: Barrier Rail not shown

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
 Issued 07-08.
 BTSTubBridges.dgn - 2100-BTCD - This Sheet Re-issued 11-2023. Sheet Format Update.

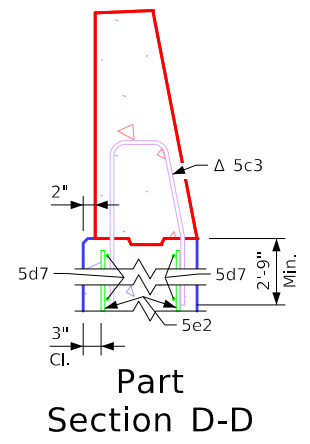


View A-A

View B-B

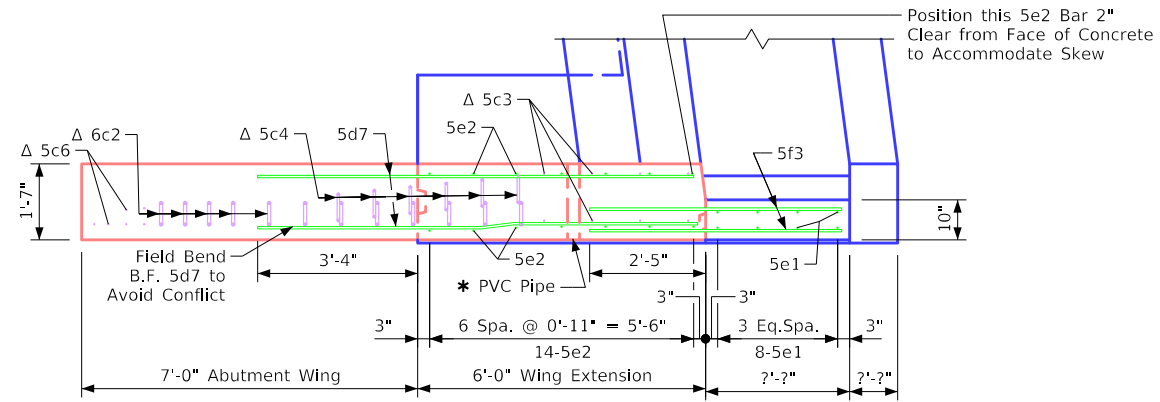
Note: For Location of Views A-A & B-B see Design Sheet No. ?

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



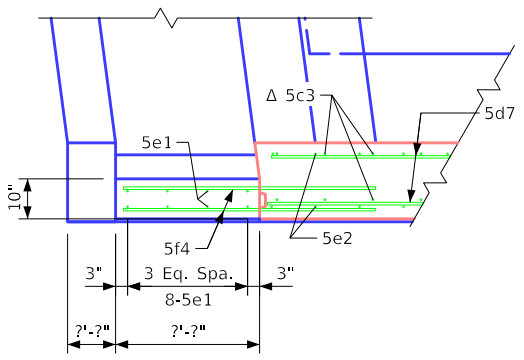
Part Section D-D

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



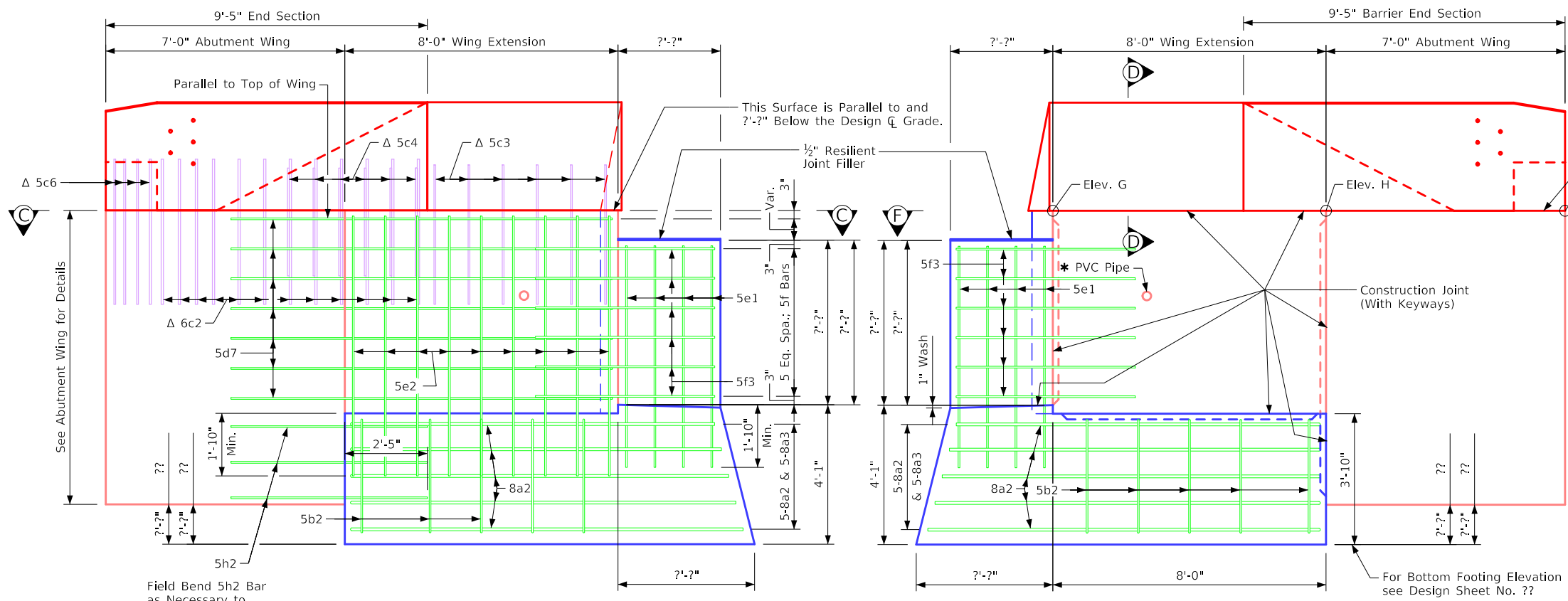
Part Section F-F

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

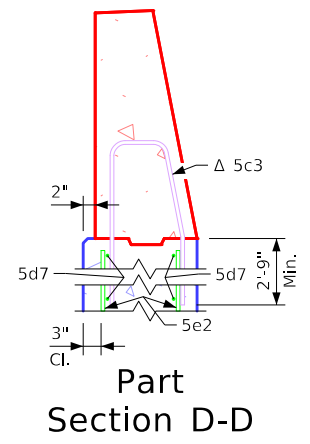
Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
 Issued 07-08.
 BTSubBridges.dgn - 2100-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.



View A-A

View B-B

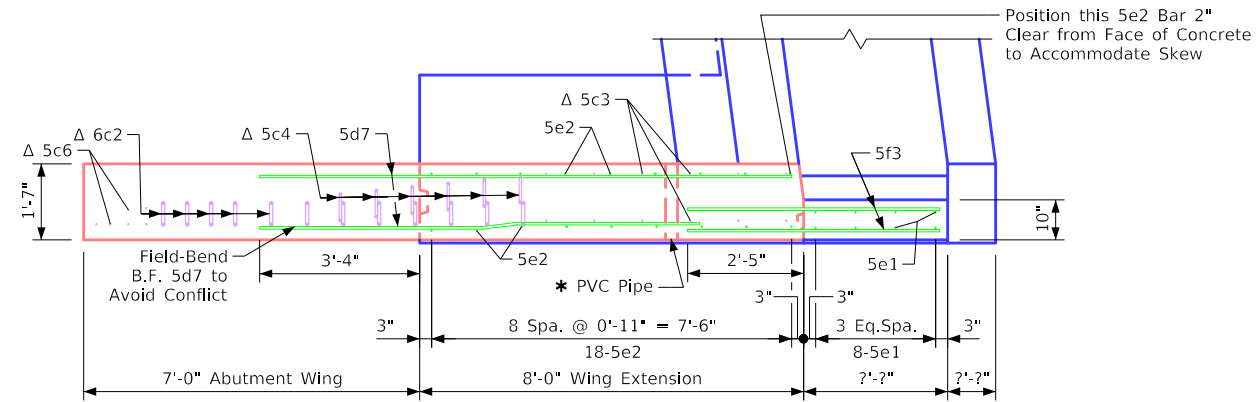


Part Section D-D

Note: For Location of Views A-A & B-B see Design Sheet No. ?

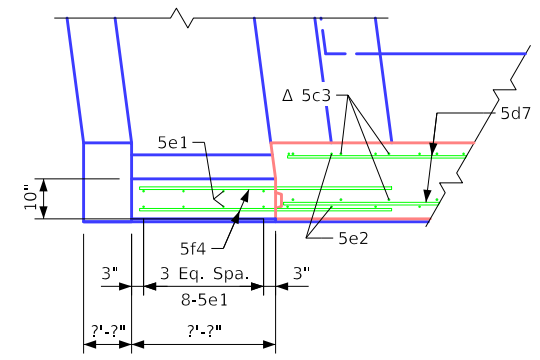
* See Part Plan & Longit. Section Sheet for PVC Pipe Location

Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



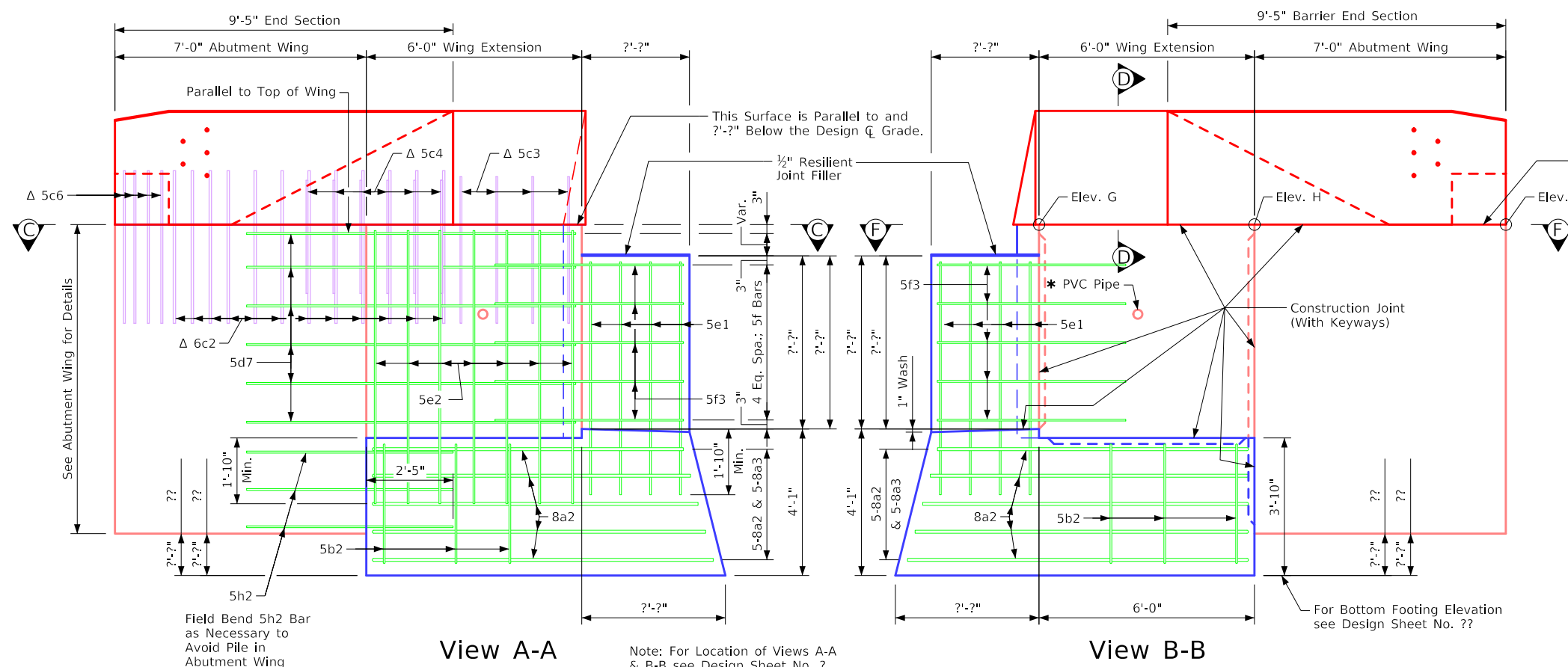
Part Section F-F

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
 Issued 07-08.
 BTSubBridges.dgn - 2101-BTCD - This Sheet Re-issued 11-2023. Sheet Format Update.

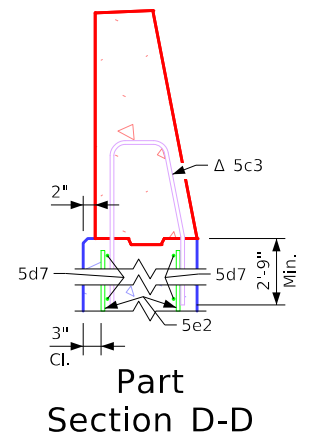


View A-A

View B-B

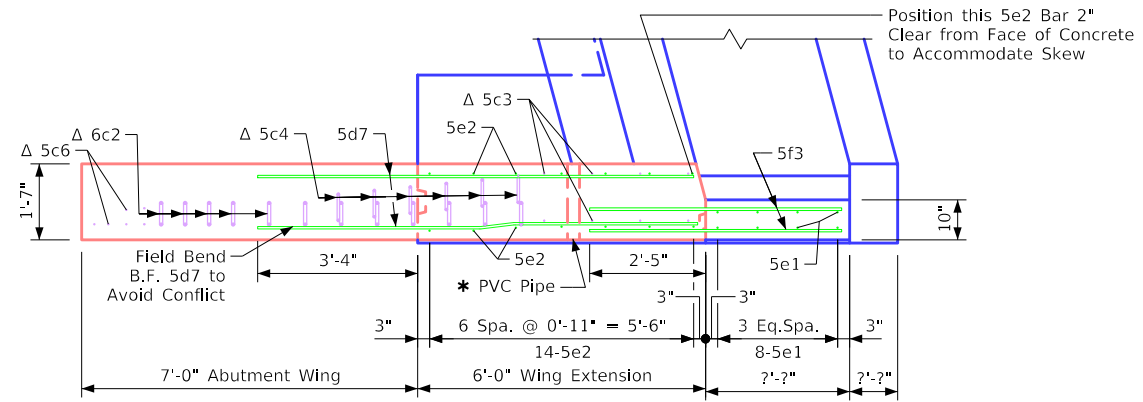
Note: For Location of Views A-A & B-B see Design Sheet No. ?

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



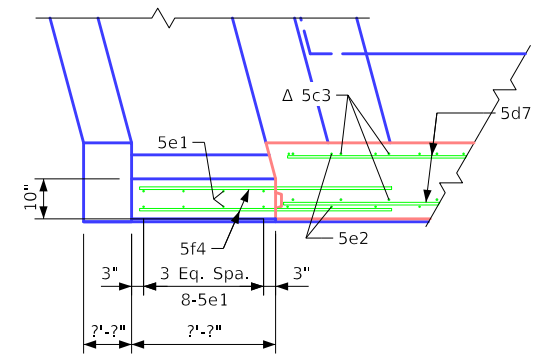
Part Section D-D

Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



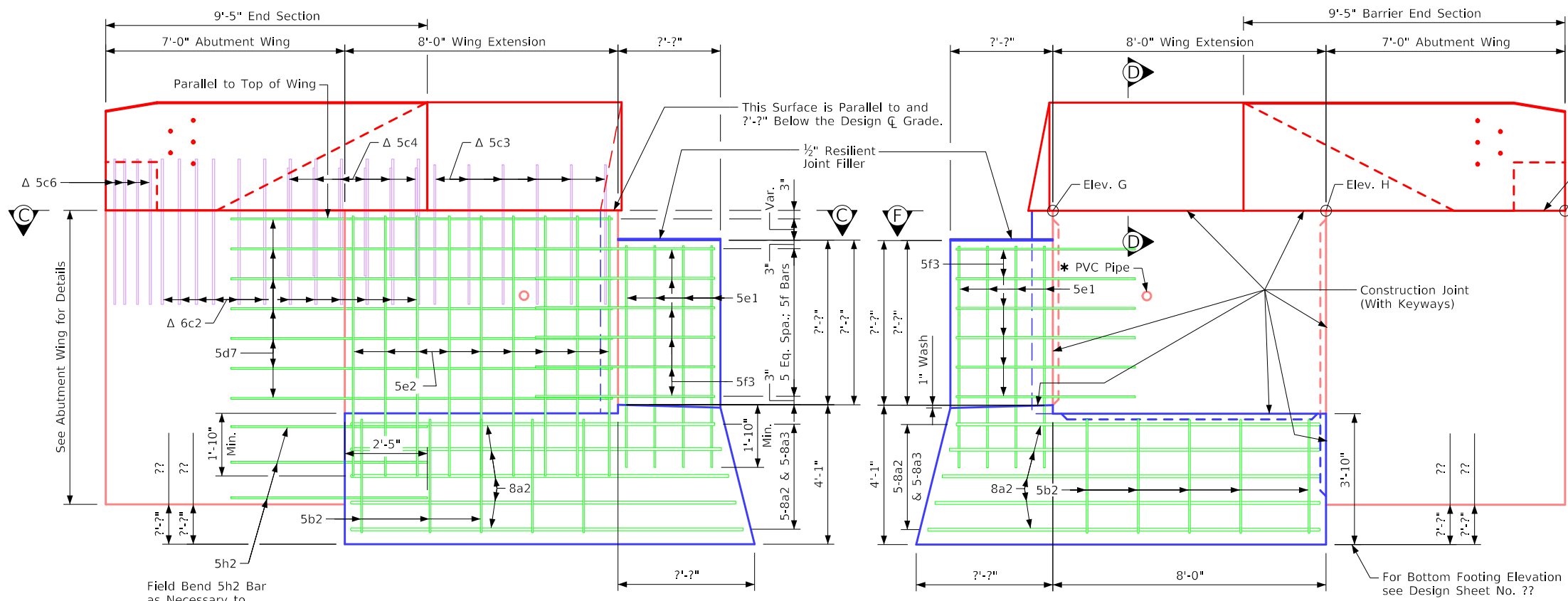
Part Section F-F

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

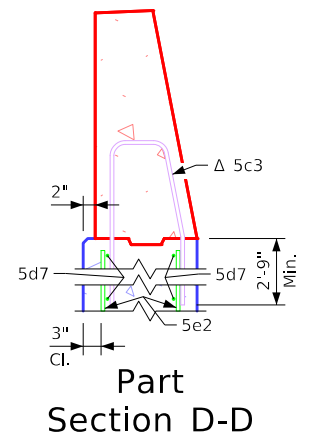
Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
 Issued 07-08.
 BTSubBridges.dgn - 2101-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.



View A-A

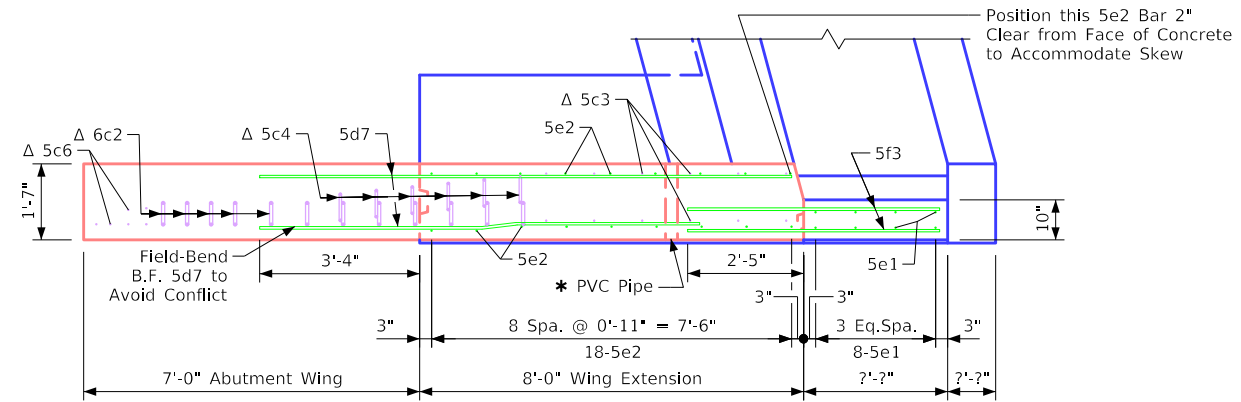
View B-B



Part Section D-D

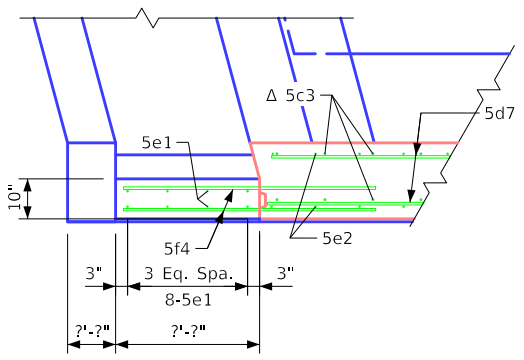
* See Part Plan & Longit. Section Sheet for PVC Pipe Location

Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



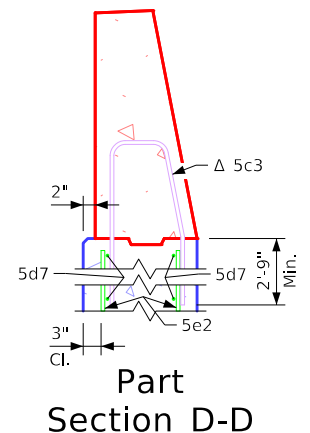
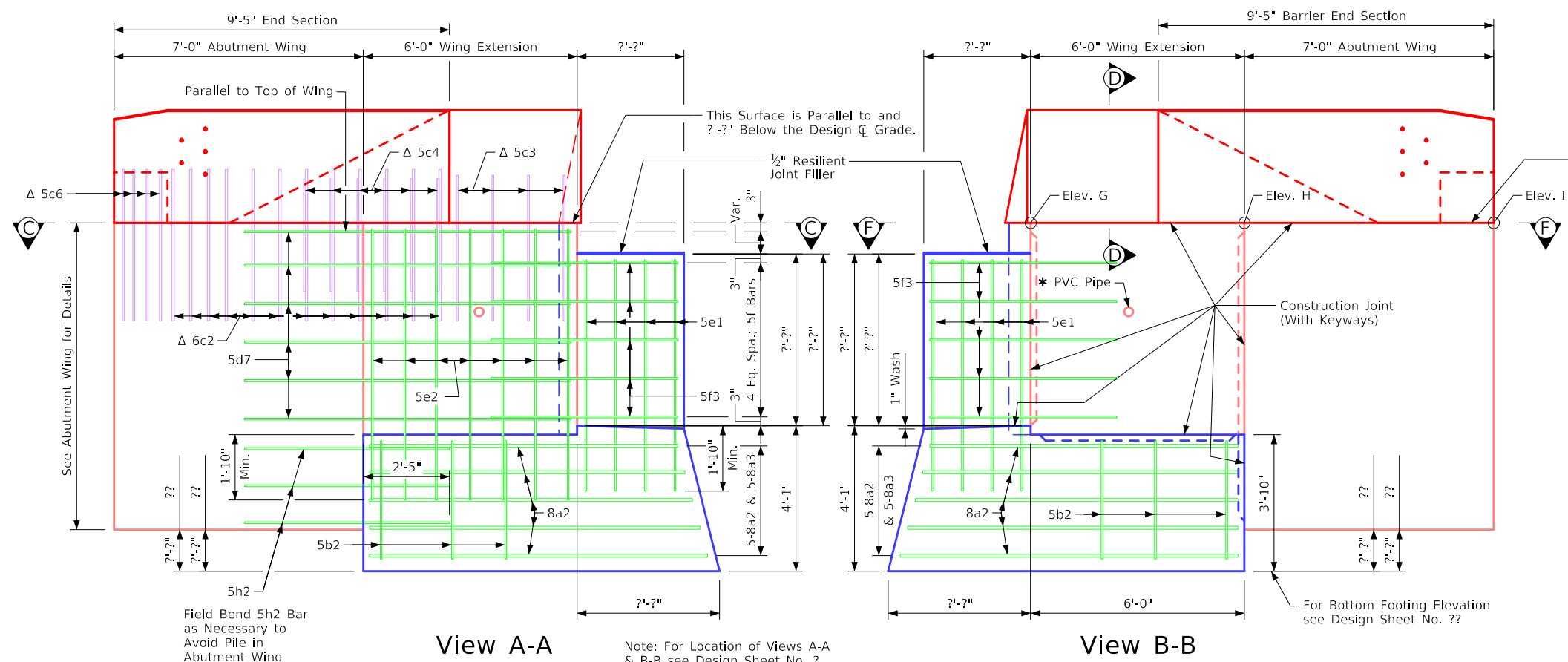
Part Section F-F

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
 Issued 07-08.
 BTSubBridges.dgn - 2102-BTCD - This Sheet Re-issued 11-2023. Sheet Format Update.



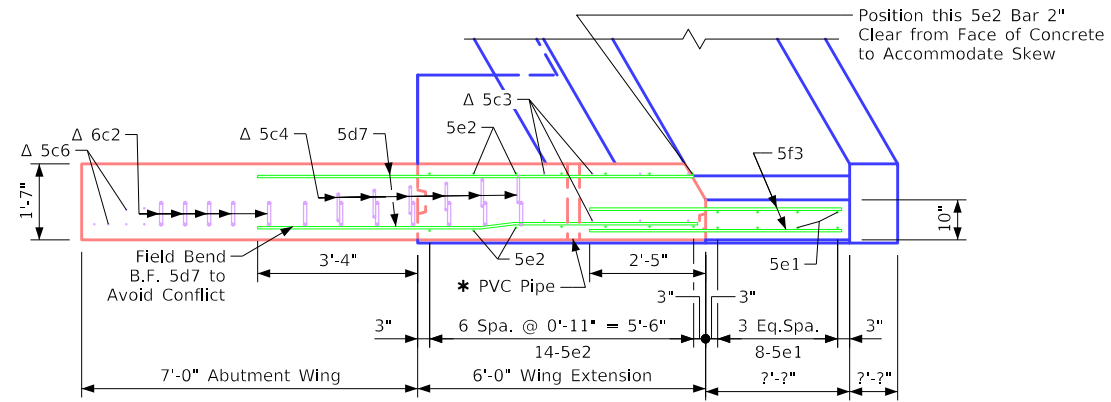
View A-A

View B-B

Note: For Location of Views A-A & B-B see Design Sheet No. ?

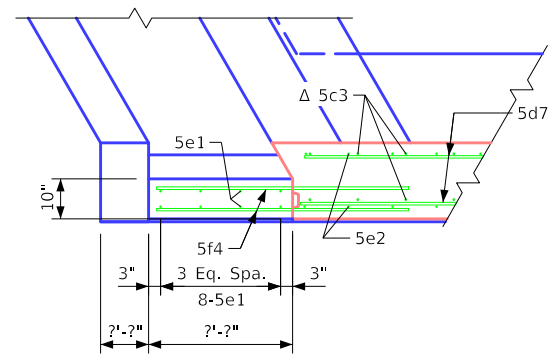
* See Part Plan & Longit. Section Sheet for PVC Pipe Location

Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



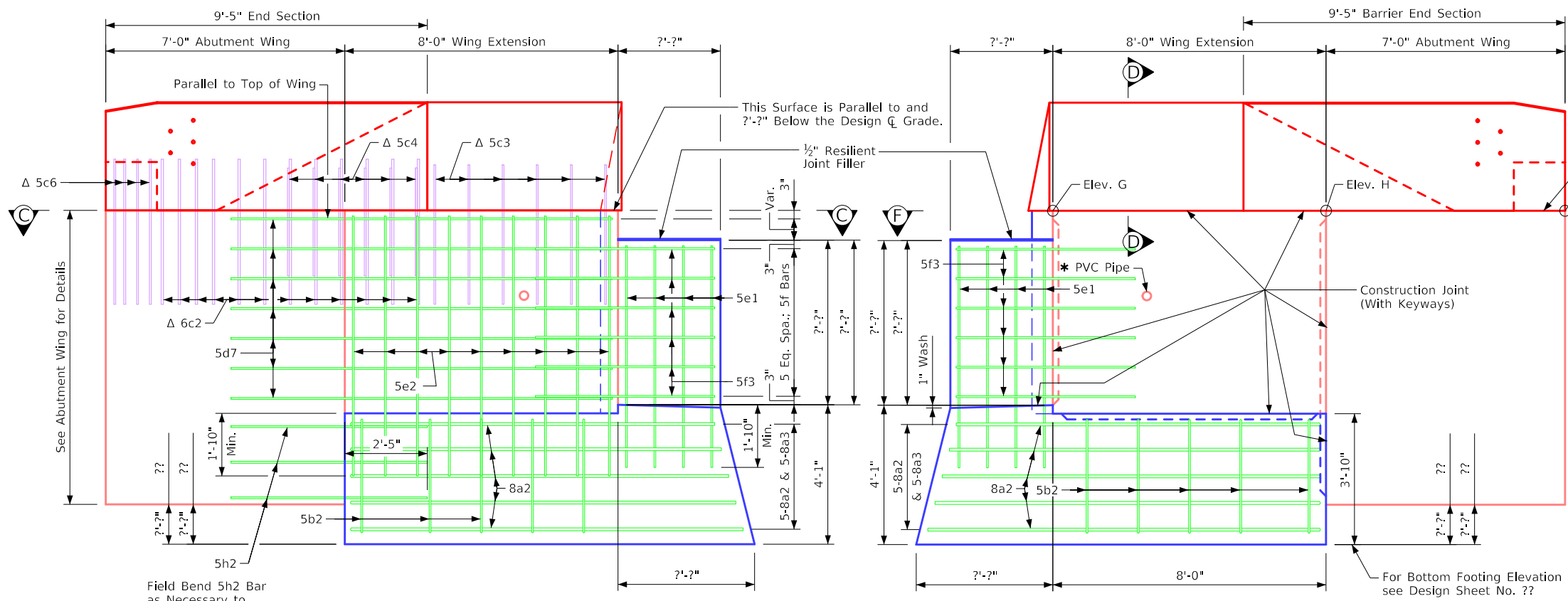
Part Section F-F

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

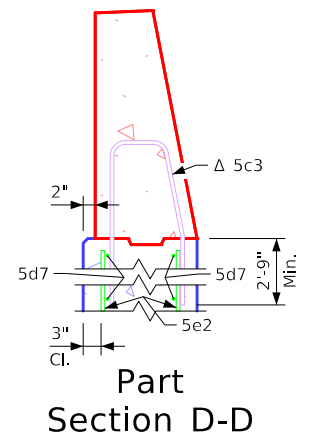
Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
 Issued 07-08.
 BTSubBridges.dgn - 2102-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.



View A-A

View B-B

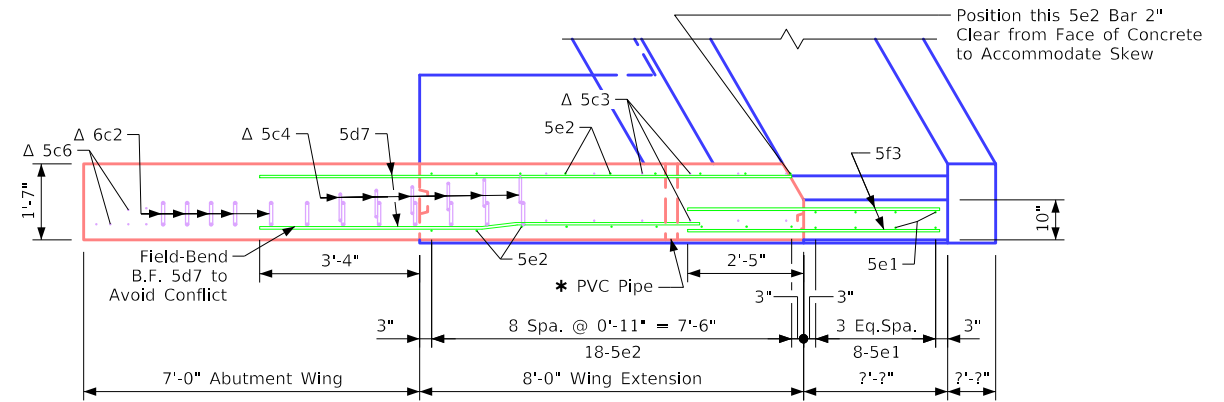


Part Section D-D

Note: For Location of Views A-A & B-B see Design Sheet No. ?

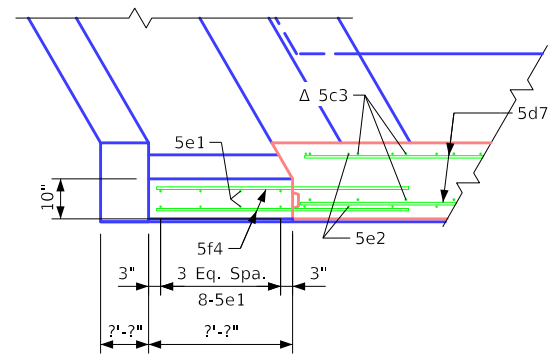
* See Part Plan & Longit. Section Sheet for PVC Pipe Location

Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



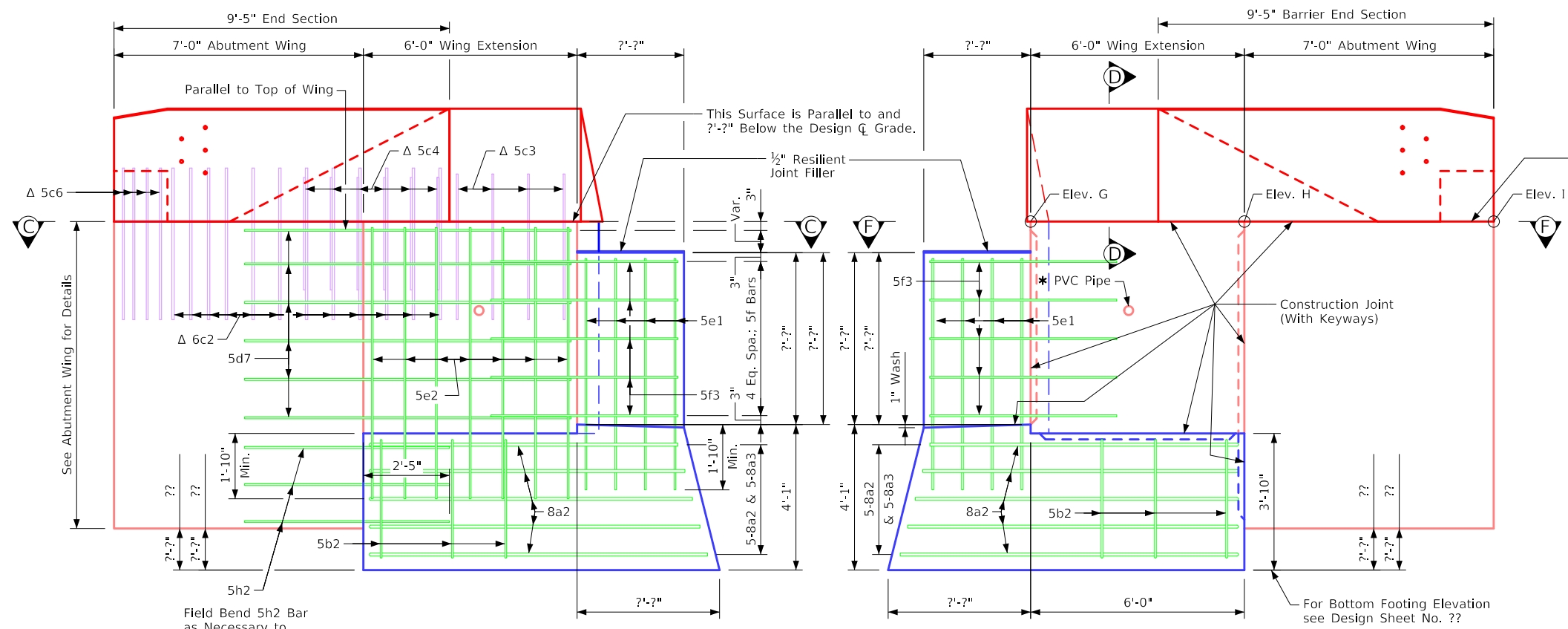
Part Section F-F

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
 Issued 07-08.
 BTSubBridges.dgn - 2103-BTCD - This Sheet Re-issued 11-2023. Sheet Format Update.

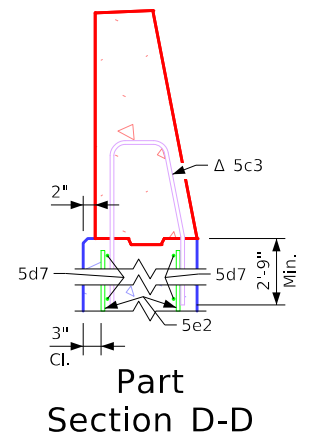


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ?

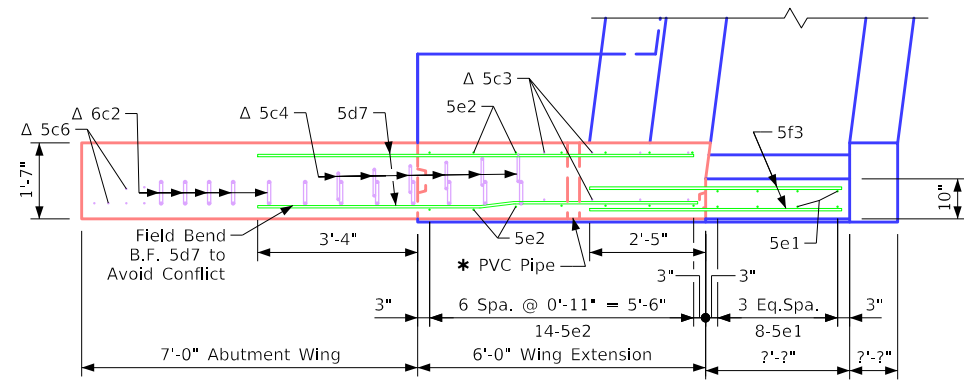
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



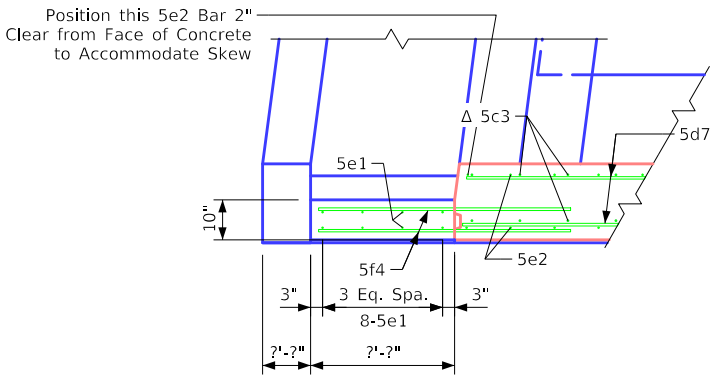
Part Section D-D

Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



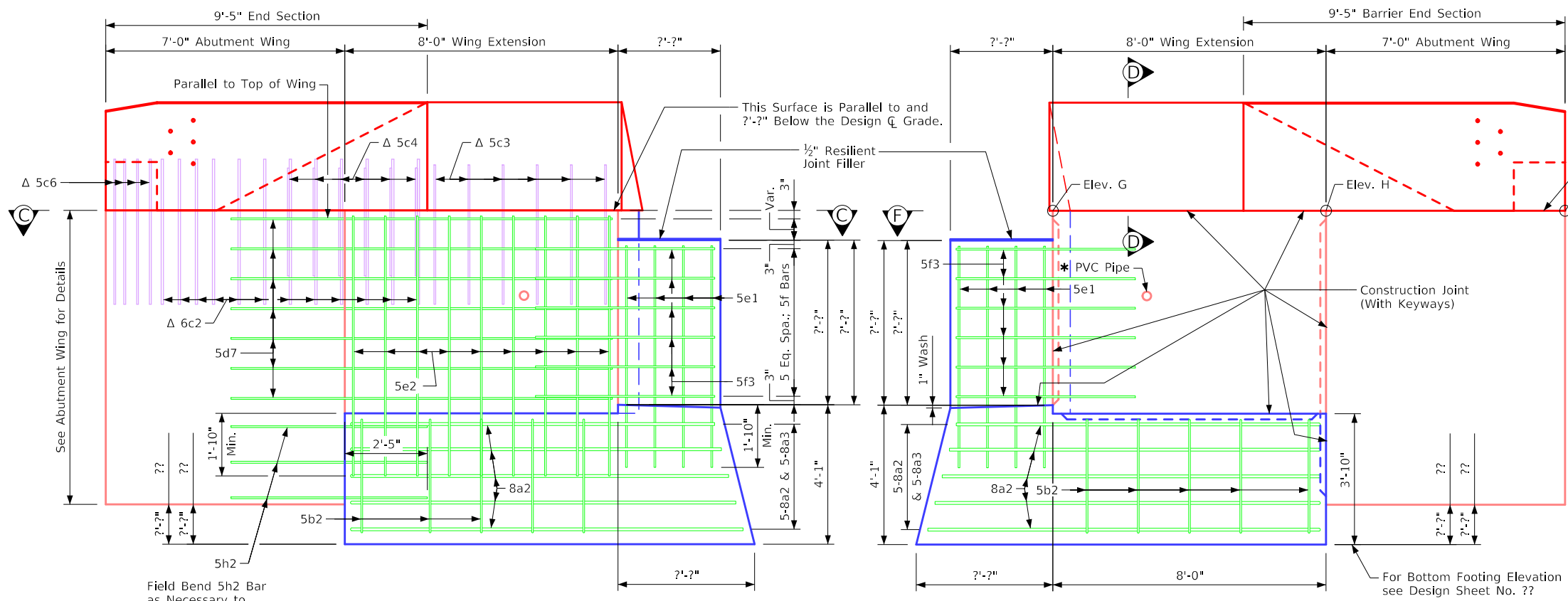
Part Section F-F

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

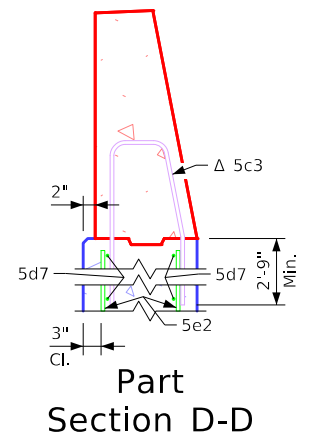
Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
 Issued 07-08.
 BTSubBridges.dgn - 2103-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.



View A-A

View B-B



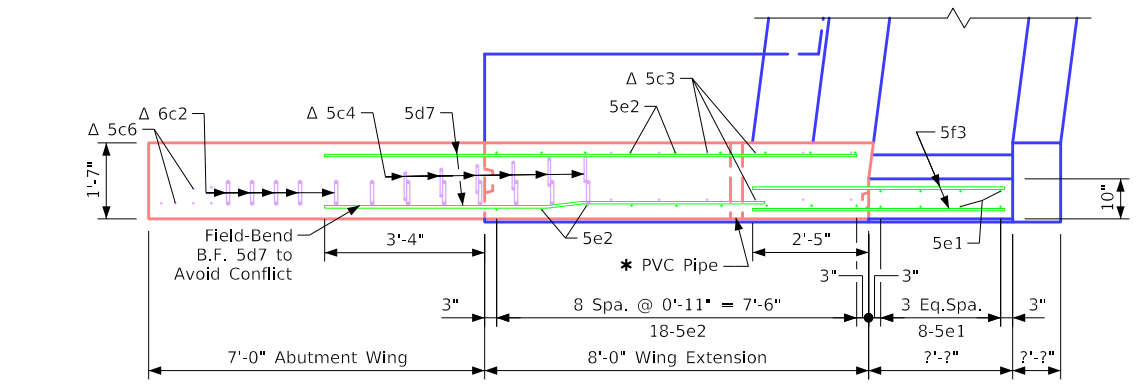
Part Section D-D

Field Bend 5h2 Bar as Necessary to Avoid Pile in Abutment Wing

Note: For Location of Views A-A & B-B see Design Sheet No. ?

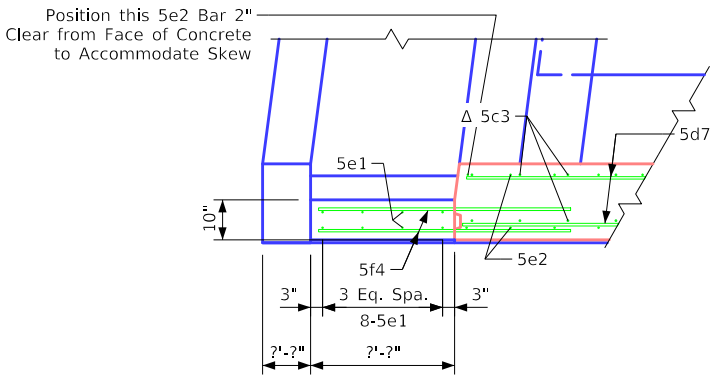
* See Part Plan & Longit. Section Sheet for PVC Pipe Location

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



Part Section F-F

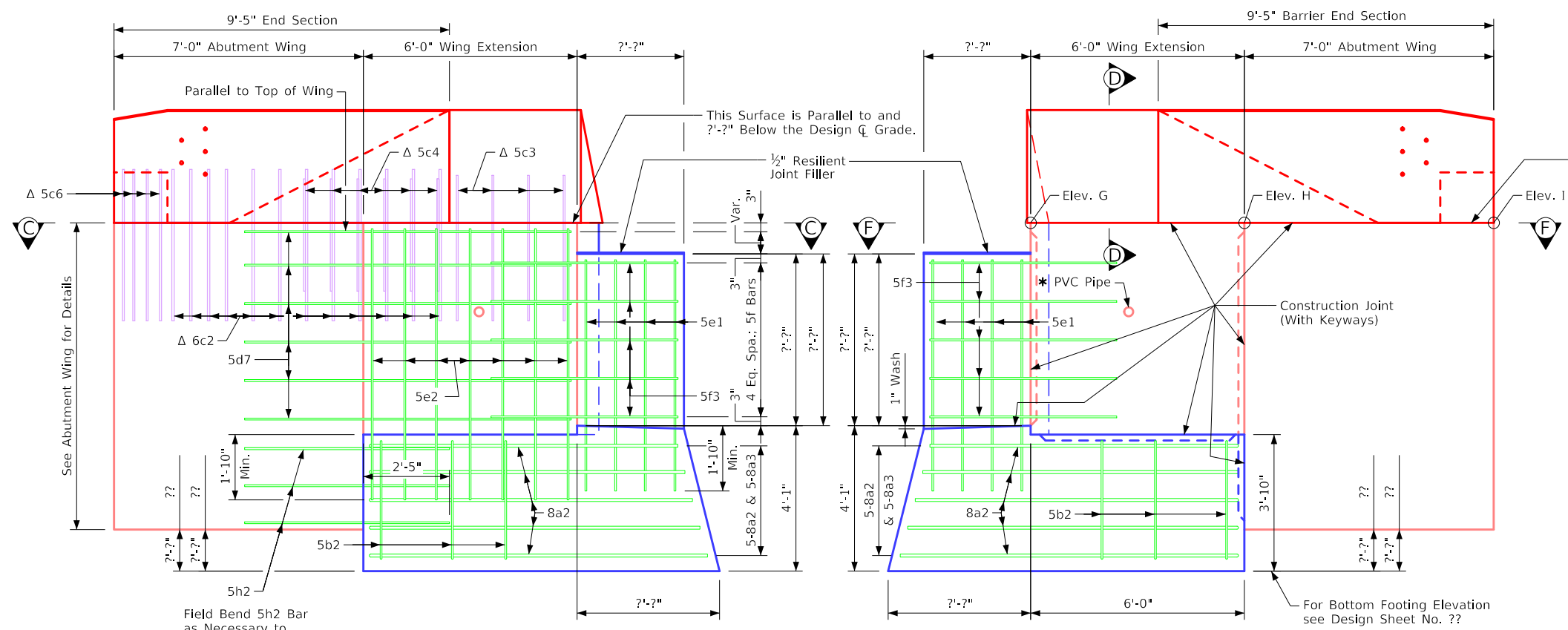
Position this 5e2 Bar 2" Clear from Face of Concrete to Accommodate Skew

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
 Issued 07-08.
 BTSubBridges.dgn - 2104-BTCD - This Sheet Re-issued 11-2023. Sheet Format Update.

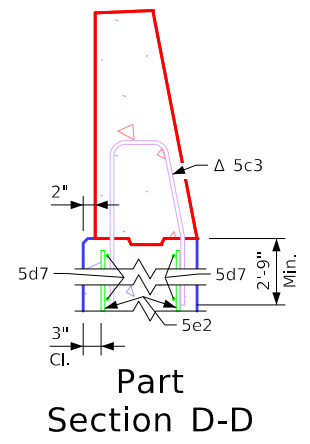


View A-A

Note: For Location of Views A-A & B-B see Design Sheet No. ?

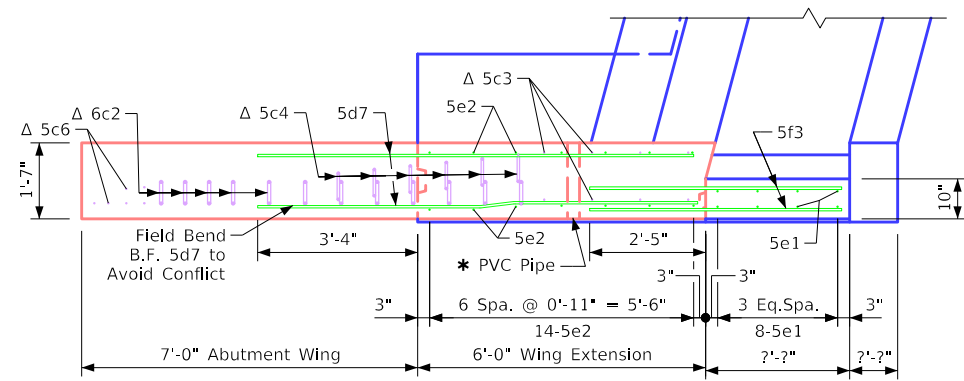
View B-B

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



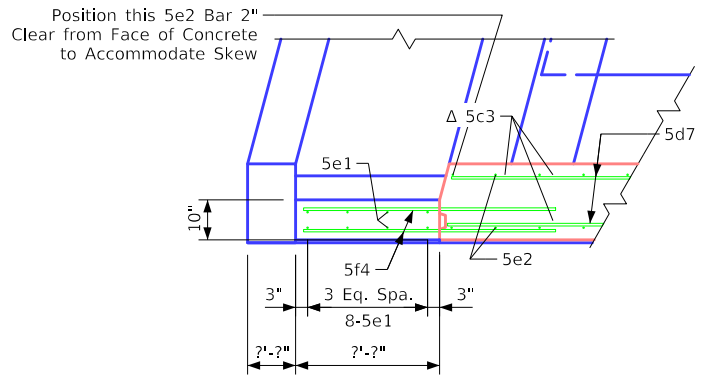
Part Section D-D

Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



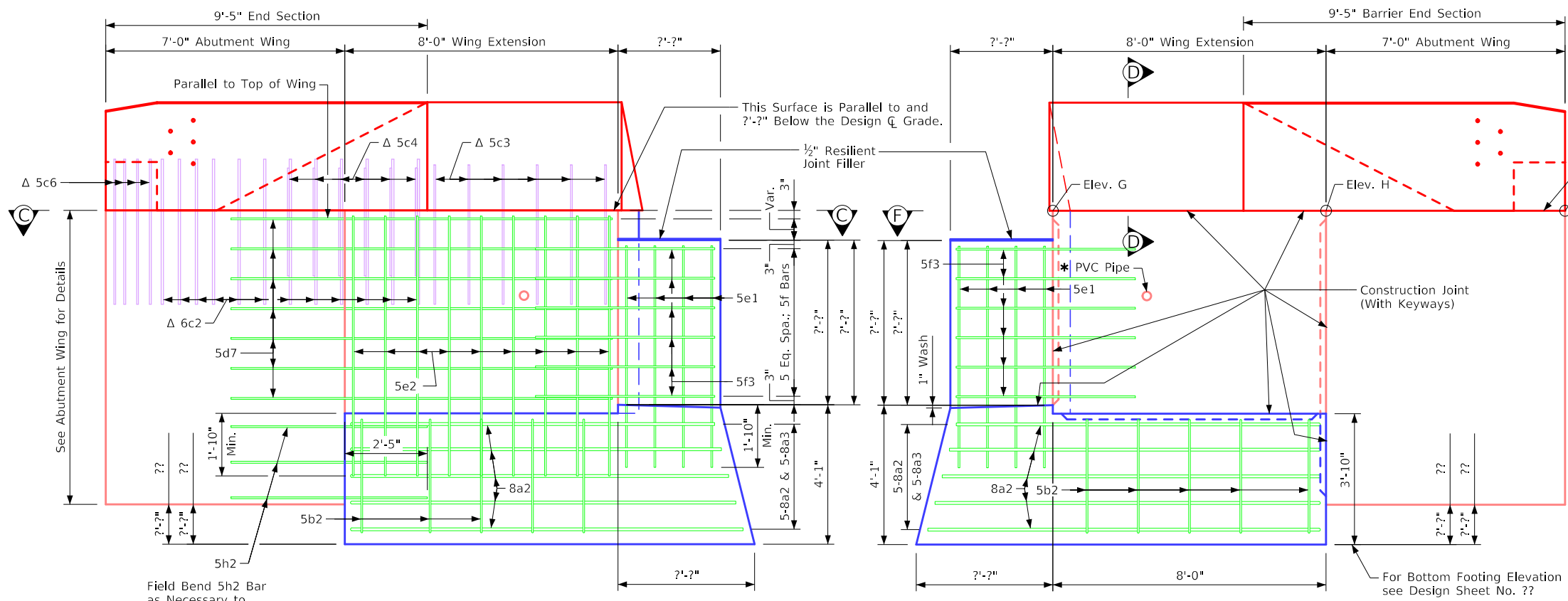
Part Section F-F

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

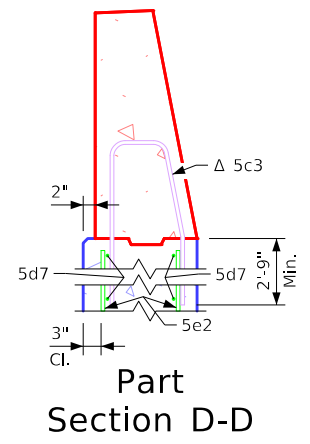
Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
 Issued 07-08.
 BTSubBridges.dgn - 2104-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.



View A-A

View B-B

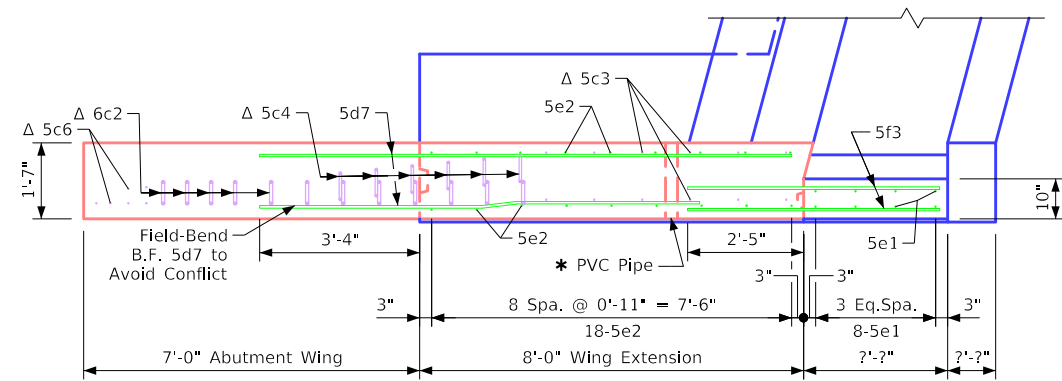


Part Section D-D

Note: For Location of Views A-A & B-B see Design Sheet No. ?

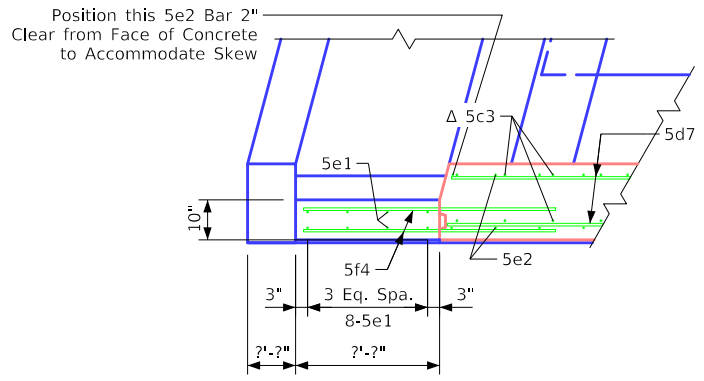
* See Part Plan & Longit. Section Sheet for PVC Pipe Location

Table of Wingwall Elevations			
Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



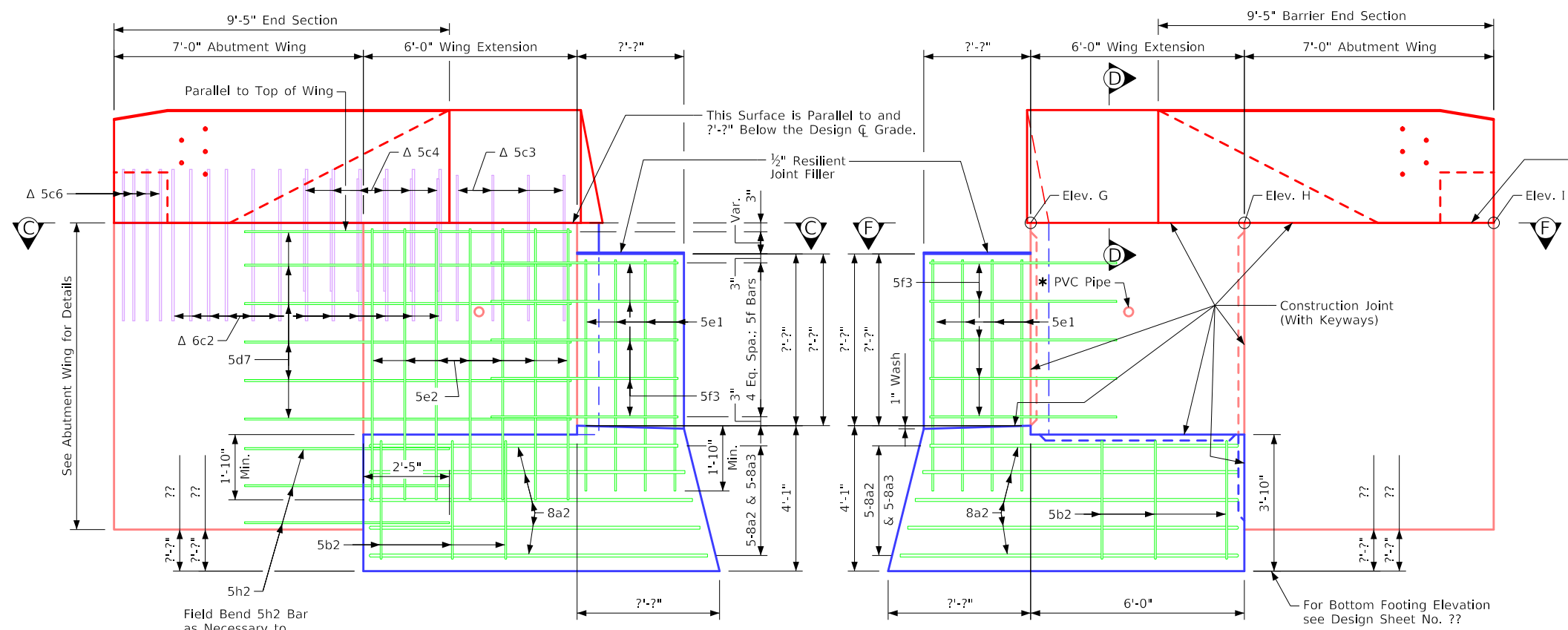
Part Section F-F

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
 Issued 07-08.
 BTSubBridges.dgn - 2105-BTCD - This Sheet Re-issued 11-2023. Sheet Format Update.

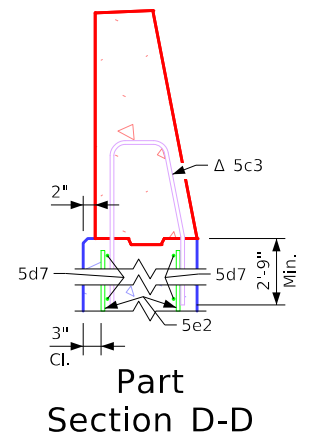


View A-A

View B-B

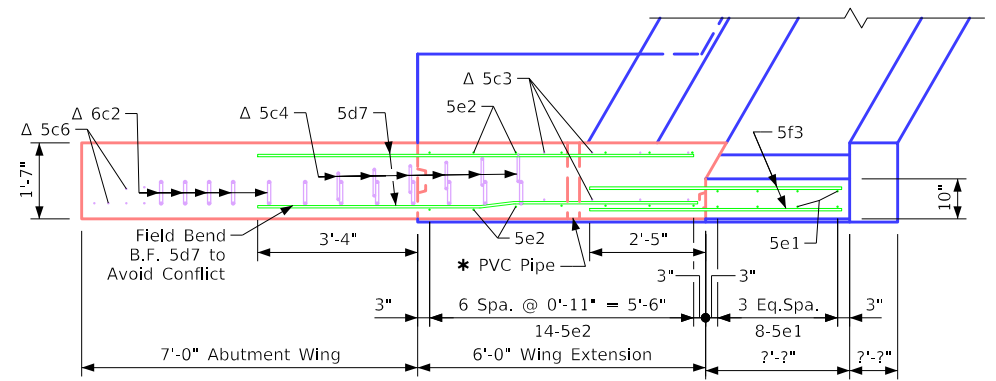
Note: For Location of Views A-A & B-B see Design Sheet No. ?

* See Part Plan & Longit. Section Sheet for PVC Pipe Location



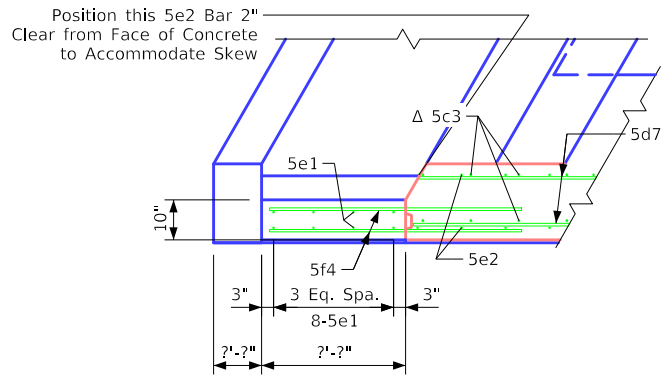
Part Section D-D

Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



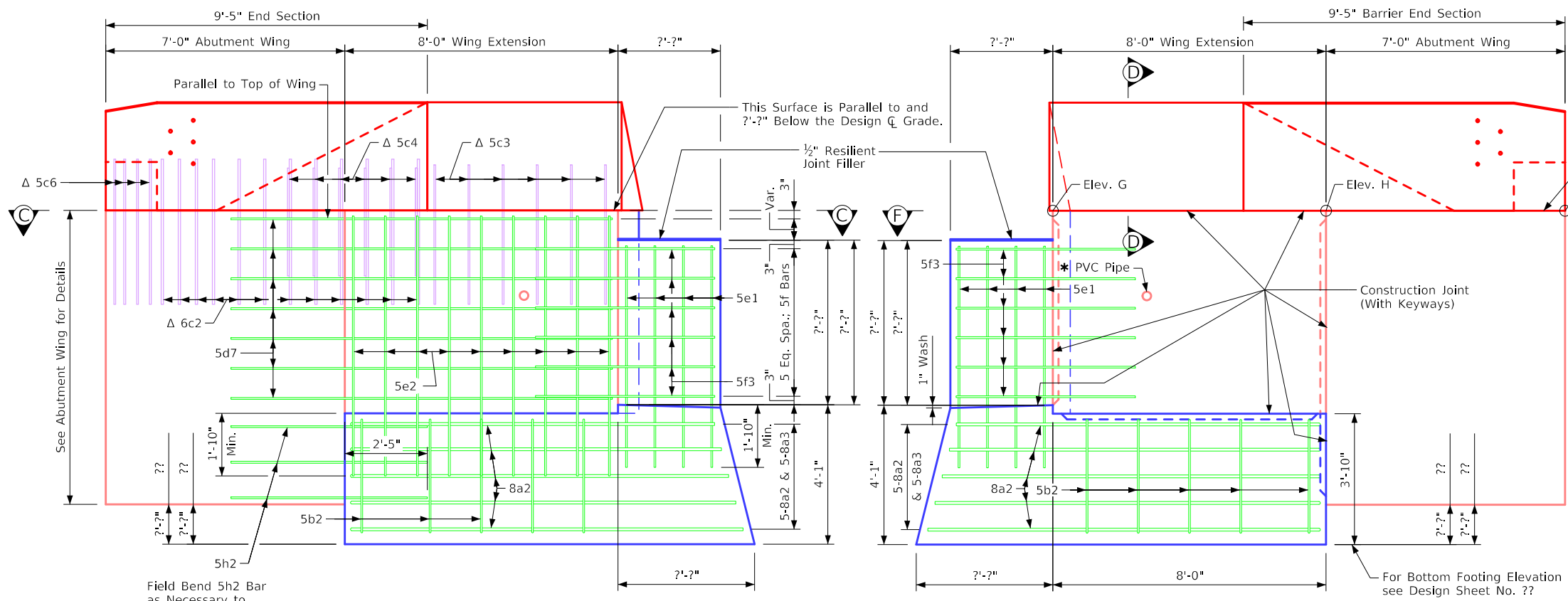
Part Section F-F

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

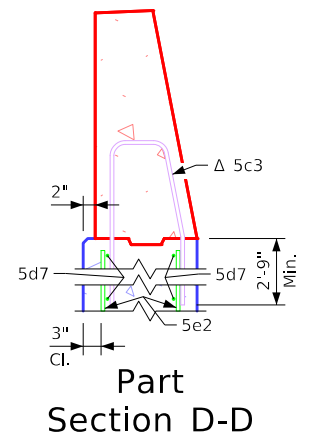
Abutment Longitudinal Section

Correction 04-14: Changed Note About Barrier Rail Bars 5c3 & 5c14 to Barrier Rail Qty's. Instead of Bridge Deck Qty's.
 Issued 07-08.
 BTSubBridges.dgn - 2105-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.



View A-A

View B-B

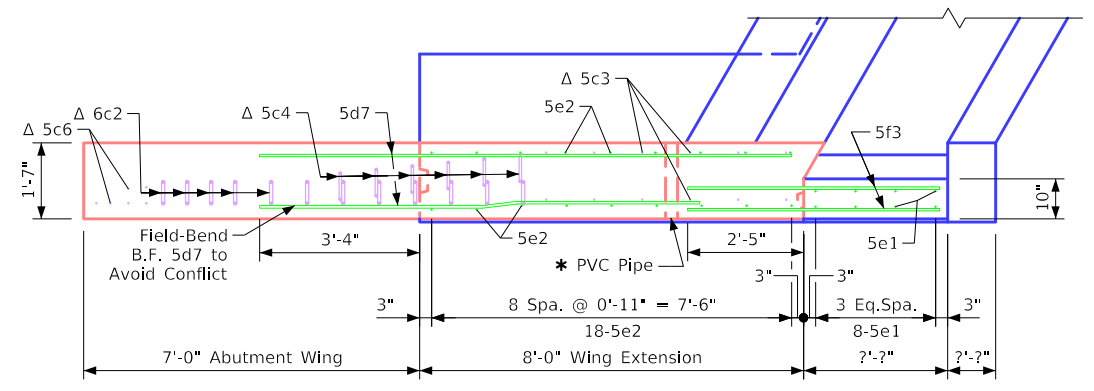


Part Section D-D

Note: For Location of Views A-A & B-B see Design Sheet No. ?

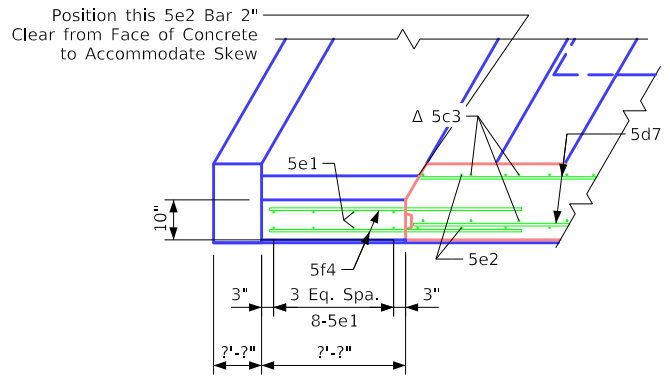
* See Part Plan & Longit. Section Sheet for PVC Pipe Location

Location	Elev. G	Elev. H	Elev. I
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?
?	???.?	???.?	???.?



Section C-C

Note: Barrier Rail not shown



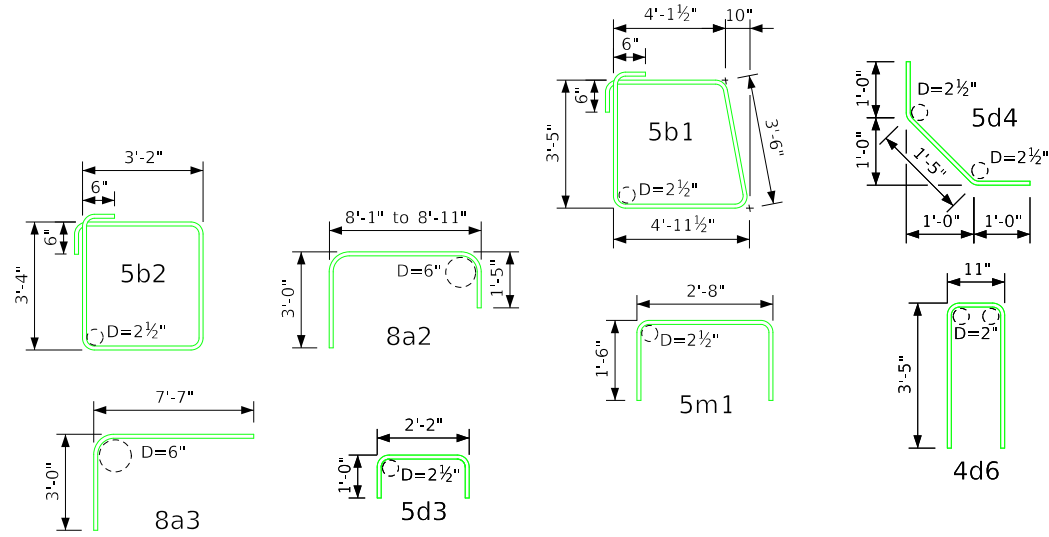
Part Section F-F

Note to Detailer:
 "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Δ Note: See Design Sheet No. ? for details of barrier rail wing extension. Reinforcing bars 6c2, 5c3, 5c4, 5c6 are included in the Barrier Rail quantities.

Abutment Longitudinal Section

Bent Bar Detail



Note: All dimensions are out to out. D = Pin Diameter

Stainless Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
8a1	Footing Longitudinal		??	??'-2"	???
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.		??	??'-2"	???
5d2	Backwall Vertical F.F.		??	??'-2"	???
5d3	Paving Notch		??	4'-2"	???
5d4	Paving Notch		??	3'-5"	???
4d6	Backwall Vertical Hoop		??	7'-9"	???
5d7	Wing Extension Horizontal		24	9'-2"	230
5e1	Maskwall Vertical		16	??'-2"	???
5e2	Wing Extension Vertical		28	??'-2"	???
5f3	Maskwall Horizontal		20	5'-3"	110
5g1	Backwall Longitudinal		??	??'-2"	???
5g2	Backwall Dowels		28	4'-10"	142
5g3	Paving Notch Longitudinal		??	??'-2"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Concrete Placement Quantities

Location	? Abut.	? Abut.
Footing and Steps	???.?	???.?
Backwall Below Construction Joint	???.?	???.?
Backwall Above Construction Joint	???.?	???.?
? Wing Extension	???.?	???.?
? Wing Extension	???.?	???.?
? Wing Maskwall	???.?	???.?
? Wing Maskwall	???.?	???.?
Total (cu. yd.)	???.?	???.?

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

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 resilient joint filler material, and cost of furnishing and placing concrete sealer is to be included in the price bid for "Structural Concrete (Bridge)".

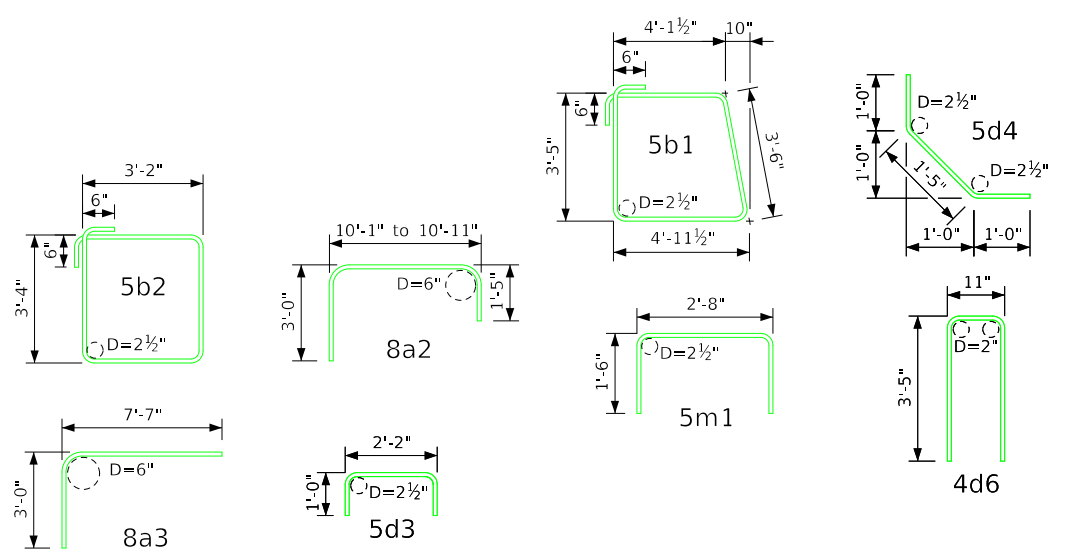
Paving notch dowels shall be stainless steel deformed bar Grade 60, meeting the requirements of Construction and Materials I.M. 452.

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.

Abutment Quantities

Revised 07-2014: 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.
 Issued 07-2008.
 BTStubBridges.dgn - 2106-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.

Bent Bar Detail



Note: All dimensions are out to out. D = Pin Diameter

Stainless Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
8a1	Footing Longitudinal		??	??'-2"	???
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.		??	??'-2"	???
5d2	Backwall Vertical F.F.		??	??'-2"	???
5d3	Paving Notch		??	4'-2"	???
5d4	Paving Notch		??	3'-5"	???
4d6	Backwall Vertical Hoop		??	7'-9"	???
5d7	Wing Extension Horizontal		28	11'-2"	327
5e1	Maskwall Vertical		16	??'-2"	???
5e2	Wing Extension Vertical		36	??'-2"	???
5f3	Maskwall Horizontal		24	5'-3"	132
5g1	Backwall Longitudinal		??	??'-2"	???
5g2	Backwall Dowels		32	4'-10"	162
5g3	Paving Notch Longitudinal		??	??'-2"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

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 resilient joint filler material, 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 Construction and 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.

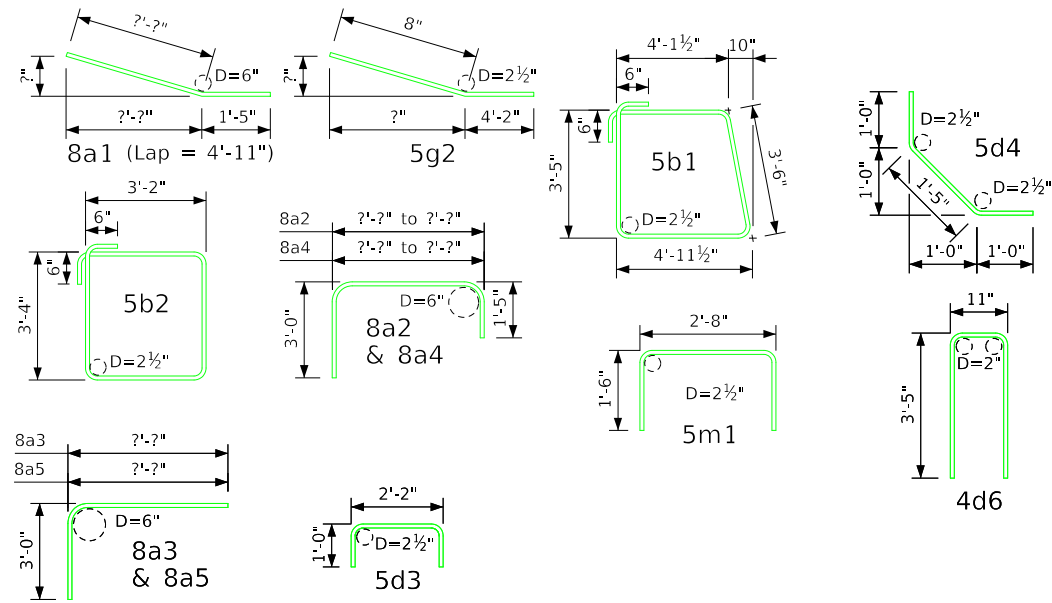
Concrete Placement Quantities

Location	? Abut.	? Abut.
Footing and Steps	???	???
Backwall Below Construction Joint	???	???
Backwall Above Construction Joint	???	???
? Wing Extension	???	???
? Wing Extension	???	???
? Wing Maskwall	???	???
? Wing Maskwall	???	???
Total (cu. yd.)	???	???

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

Abutment Quantities

Bent Bar Detail



Note: All dimensions are out to out. D = Pin Diameter

Stainless Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
8a1	Footing Longitudinal		26	??'-2"	???
8a2	Wing Footing		5	Varies	???
8a3	Wing Footing		5	??'-2"	???
8a4	Wing Footing		5	Varies	???
8a5	Wing Footing		5	??'-2"	???
5b1	Footing Hoops		??	17'-0"	???
5b2	Wing Footing Hoops		6	14'-0"	88
6d1	Backwall Vertical B.F.		??	??'-2"	???
5d2	Backwall Vertical F.F.		??	??'-2"	???
5d3	Paving Notch		??	4'-2"	???
5d4	Paving Notch		??	3'-5"	???
4d6	Backwall Vertical Hoop		??	7'-9"	???
5d7	Wing Extension Horizontal		24	9'-2"	230
5e1	Maskwall Vertical		16	??'-2"	???
5e2	Wing Extension Vertical		28	??'-2"	???
5f3	Maskwall Horizontal		10	??'-2"	???
5f4	Maskwall Horizontal		10	??'-2"	???
5g1	Backwall Longitudinal		??	??'-2"	???
5g2	Backwall Dowels		28	4'-10"	142
5g3	Paving Notch Longitudinal		??	??'-2"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Concrete Placement Quantities

Location	? Abut.	? Abut.
Footing and Steps	???	???
Backwall Below Construction Joint	???	???
Backwall Above Construction Joint	???	???
? Wing Extension	???	???
? Wing Extension	???	???
? Wing Maskwall	???	???
? Wing Maskwall	???	???
Total (cu. yd.)	???	???

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

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.

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Concrete sealer is to be applied to the abutment bridge seat in accordance with the current Iowa D.O.T. Standard Specifications.

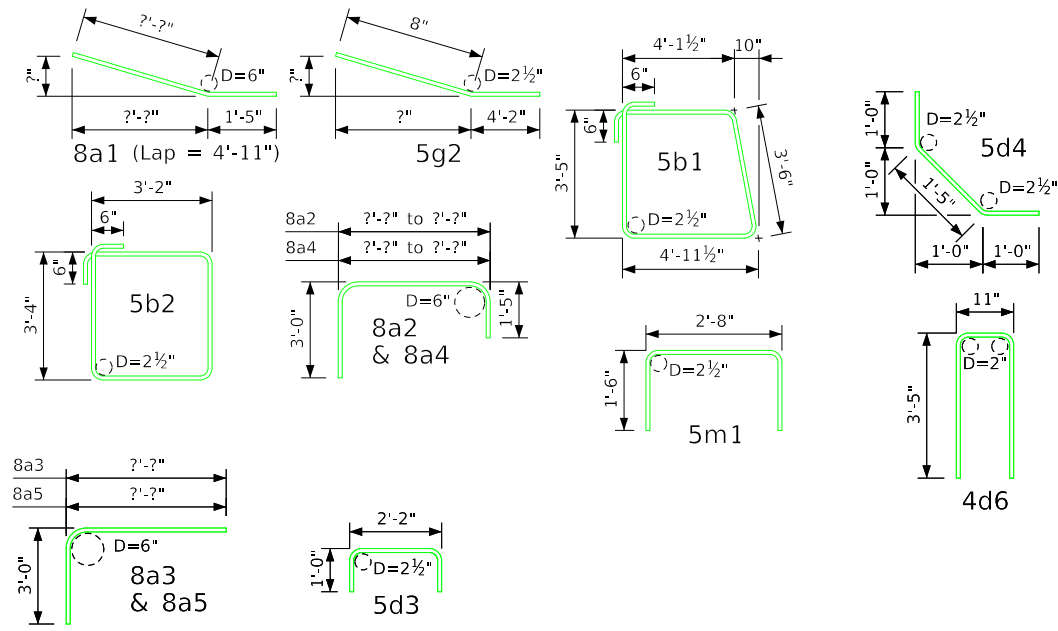
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Paving notch dowels shall be stainless steel deformed bar Grade 60, meeting the requirements of Construction and Materials I.M. 452.

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.

Abutment Quantities

Bent Bar Detail



Note: All dimensions are out to out. D = Pin Diameter

Stainless Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
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"	???
5d7	Wing Extension Horizontal		28	11'-2"	327
5e1	Maskwall Vertical		16	??'-?"	???
5e2	Wing Extension Vertical		36	??'-?"	???
5f3	Maskwall Horizontal		12	??'-?"	???
5f4	Maskwall Horizontal		12	??'-?"	???
5g1	Backwall Longitudinal		??	??'-?"	???
5g2	Backwall Dowels		32	4'-10"	162
5g3	Paving Notch Longitudinal		??	??'-?"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Concrete Placement Quantities

Location	? Abut.	? Abut.
Footing and Steps	???	???
Backwall Below Construction Joint	???	???
Backwall Above Construction Joint	???	???
? Wing Extension	???	???
? Wing Extension	???	???
? Wing Maskwall	???	???
? Wing Maskwall	???	???
Total (cu. yd.)	???	???

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

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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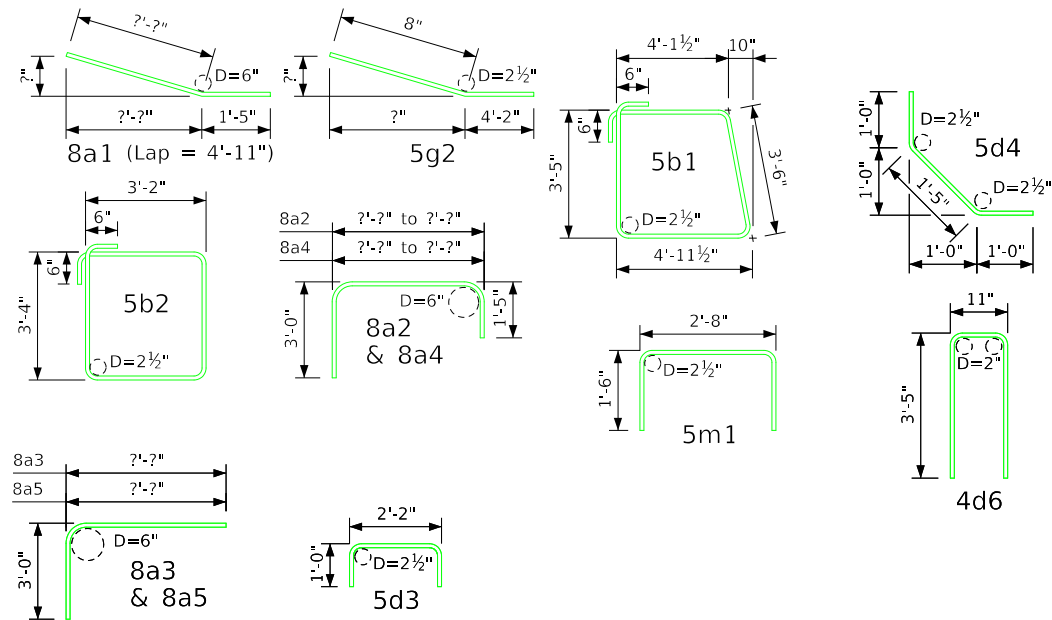
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Abutment Quantities

Bent Bar Detail



Note: All dimensions are out to out. D = Pin Diameter

Stainless Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
8a1	Footing Longitudinal		26	??'-2"	???
8a2	Wing Footing		5	Varies	???
8a3	Wing Footing		5	??'-2"	???
8a4	Wing Footing		5	Varies	???
8a5	Wing Footing		5	??'-2"	???
5b1	Footing Hoops		??	17'-0"	???
5b2	Wing Footing Hoops		6	14'-0"	88
6d1	Backwall Vertical B.F.		??	??'-2"	???
5d2	Backwall Vertical F.F.		??	??'-2"	???
5d3	Paving Notch		??	4'-2"	???
5d4	Paving Notch		??	3'-5"	???
4d6	Backwall Vertical Hoop		??	7'-9"	???
5d7	Wing Extension Horizontal		24	9'-2"	230
5e1	Maskwall Vertical		16	??'-2"	???
5e2	Wing Extension Vertical		28	??'-2"	???
5f3	Maskwall Horizontal		10	??'-2"	???
5f4	Maskwall Horizontal		10	??'-2"	???
5g1	Backwall Longitudinal		??	??'-2"	???
5g2	Backwall Dowels		28	4'-10"	142
5g3	Paving Notch Longitudinal		??	??'-2"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Concrete Placement Quantities

Location	? Abut.	? Abut.
Footing and Steps	???	???
Backwall Below Construction Joint	???	???
Backwall Above Construction Joint	???	???
? Wing Extension	???	???
? Wing Extension	???	???
? Wing Maskwall	???	???
? Wing Maskwall	???	???
Total (cu. yd.)	???	???

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

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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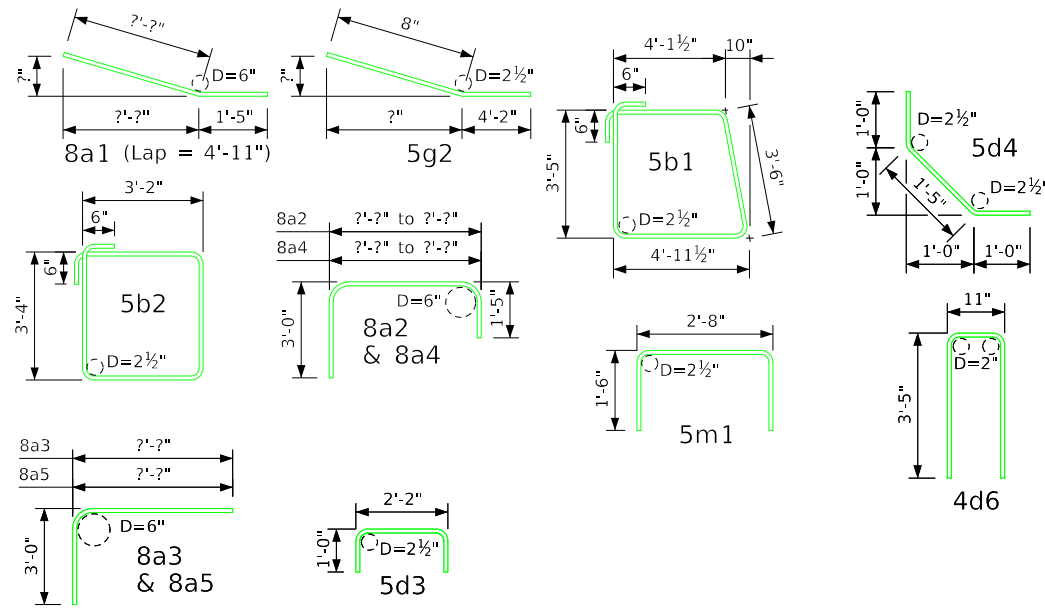
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Abutment Quantities

Bent Bar Detail



Note: All dimensions are out to out. D = Pin Diameter

Stainless Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
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"	???
5d7	Wing Extension Horizontal		28	11'-2"	327
5e1	Maskwall Vertical		16	??'-?"	???
5e2	Wing Extension Vertical		36	??'-?"	???
5f3	Maskwall Horizontal		12	??'-?"	???
5f4	Maskwall Horizontal		12	??'-?"	???
5g1	Backwall Longitudinal		??	??'-?"	???
5g2	Backwall Dowels		32	4'-10"	162
5g3	Paving Notch Longitudinal		??	??'-?"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Concrete Placement Quantities

Location	? Abut.	? Abut.
Footing and Steps	???.?	???.?
Backwall Below Construction Joint	???.?	???.?
Backwall Above Construction Joint	???.?	???.?
? Wing Extension	???.?	???.?
? Wing Extension	???.?	???.?
? Wing Maskwall	???.?	???.?
? Wing Maskwall	???.?	???.?
Total (cu. yd.)	???.?	???.?

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

Abutment Notes:

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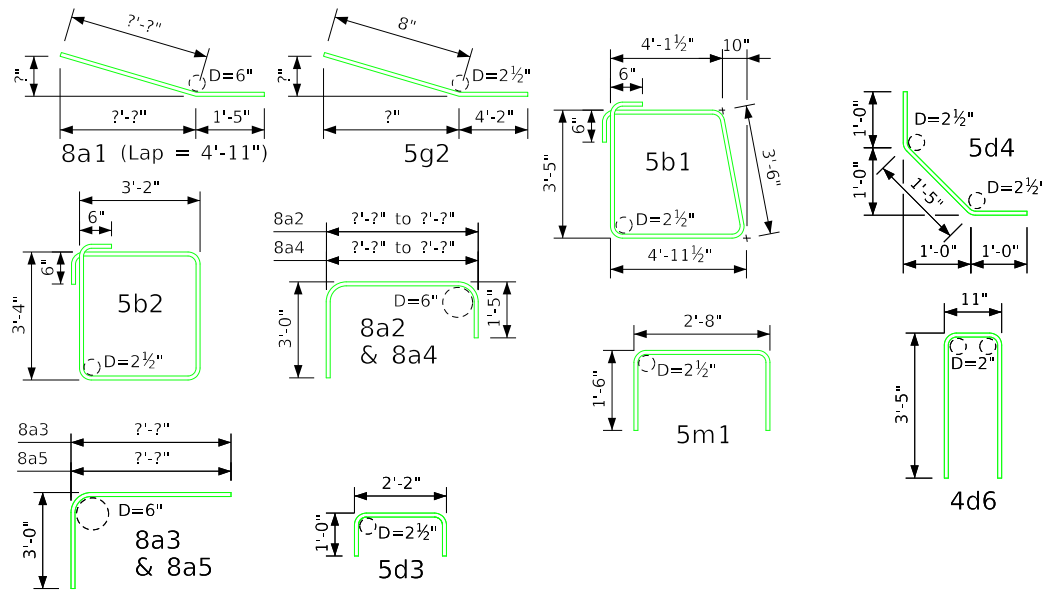
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Abutment Quantities

Bent Bar Detail



Note: All dimensions are out to out. D = Pin Diameter

Stainless Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
8a1	Footing Longitudinal		??	??'-2"	???
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.		??	??'-2"	???
5d2	Backwall Vertical F.F.		??	??'-2"	???
5d3	Paving Notch		??	4'-2"	???
5d4	Paving Notch		??	3'-5"	???
4d6	Backwall Vertical Hoop		??	7'-9"	???
5d7	Wing Extension Horizontal		24	9'-2"	230
5e1	Maskwall Vertical		16	??'-2"	???
5e2	Wing Extension Vertical		28	??'-2"	???
5f3	Maskwall Horizontal		20	5'-3"	110
5g1	Backwall Longitudinal		??	??'-2"	???
5g2	Backwall Dowels		28	4'-10"	142
5g3	Paving Notch Longitudinal		??	??'-2"	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Concrete Placement Quantities

Location	? Abut.	? Abut.
Footing and Steps	???	???
Backwall Below Construction Joint	???	???
Backwall Above Construction Joint	???	???
? Wing Extension	???	???
? Wing Extension	???	???
? Wing Maskwall	???	???
? Wing Maskwall	???	???
Total (cu. yd.)	???	???

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

Abutment Notes:

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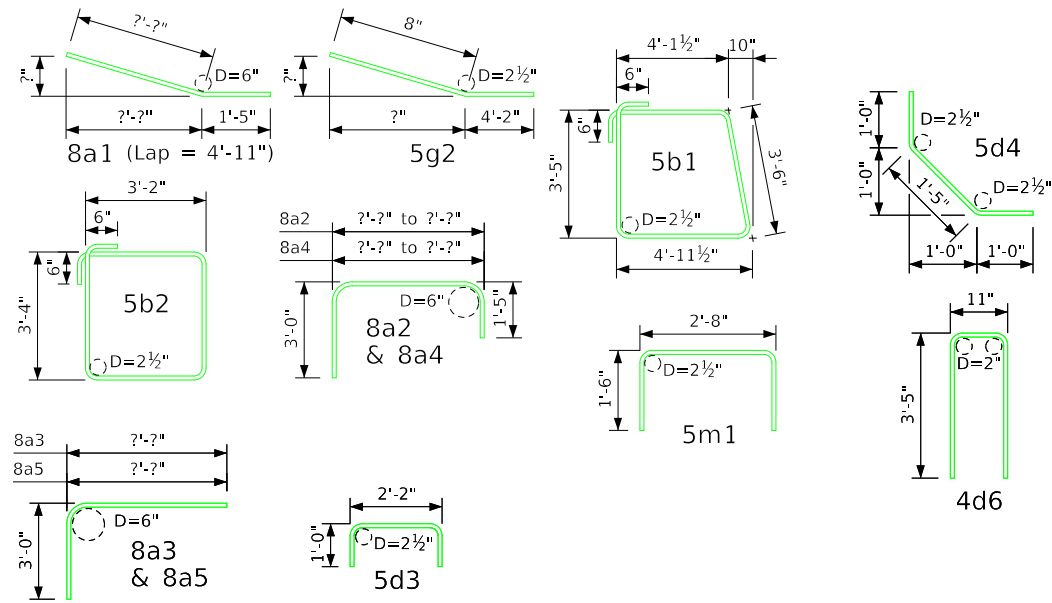
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Abutment Quantities

Bent Bar Detail



Note: All dimensions are out to out. D = Pin Diameter

Stainless Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
5d5	Paving Notch Dowels		??	3'-6"	???
Stainless Steel - Total Weight (lbs.)					???

Epoxy Coated Reinforcing Steel Bar List - One Abutment

Bar	Location	Shape	No.	Length	Weight
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"	???
5d7	Wing Extension Horizontal		28	11'-2"	327
5e1	Maskwall Vertical		16	??'-?''	???
5e2	Wing Extension Vertical		36	??'-?''	???
5f3	Maskwall Horizontal		12	??'-?''	???
5f4	Maskwall Horizontal		12	??'-?''	???
5g1	Backwall Longitudinal		??	??'-?''	???
5g2	Backwall Dowels		32	4'-10"	162
5g3	Paving Notch Longitudinal		??	??'-?''	???
5h2	Wing Extension Horizontal		12	5'-9"	72
5h5	Wing Extension Horizontal		4	4'-0"	17
5h7	Wing Extension Horizontal		6	5'-9"	36
5m1	Beam Step Transverse		??	5'-8"	???
5n1	Beam Step Longitudinal		??	2'-8"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Concrete Placement Quantities

Location	? Abut.	? Abut.
Footing and Steps	???	???
Backwall Below Construction Joint	???	???
Backwall Above Construction Joint	???	???
? Wing Extension	???	???
? Wing Extension	???	???
? Wing Maskwall	???	???
? Wing Maskwall	???	???
Total (cu. yd.)	???	???

Note: Concrete and reinforcing steel quantities are included on the Summary Quantities Sheet.

Abutment Notes:

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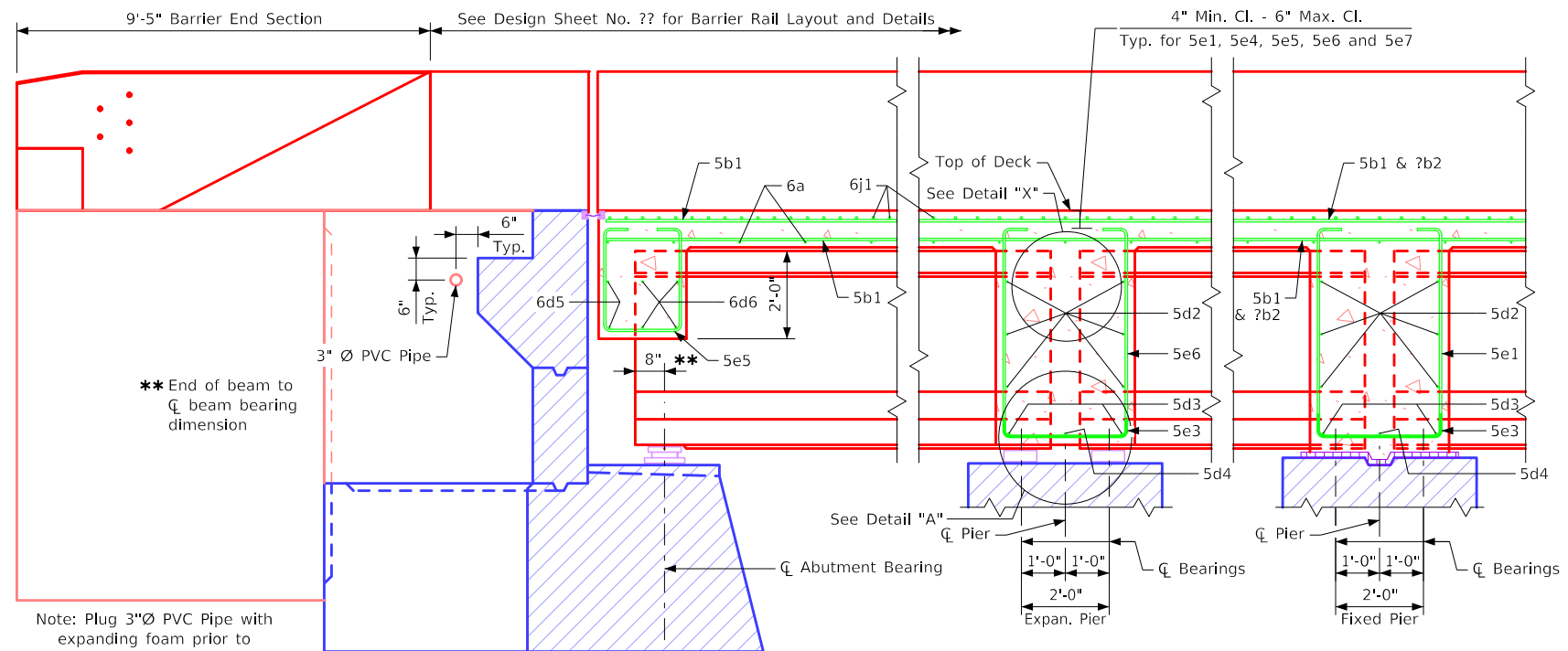
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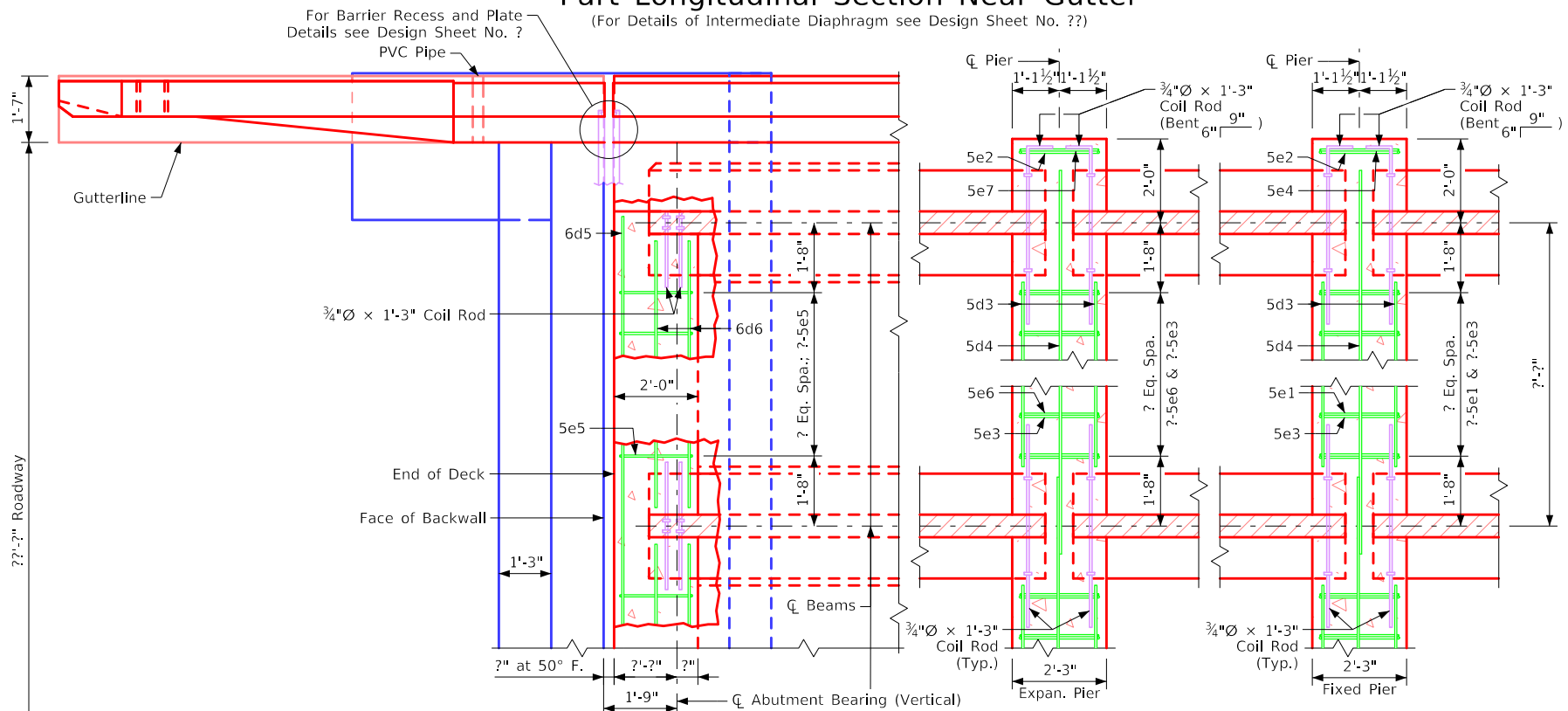
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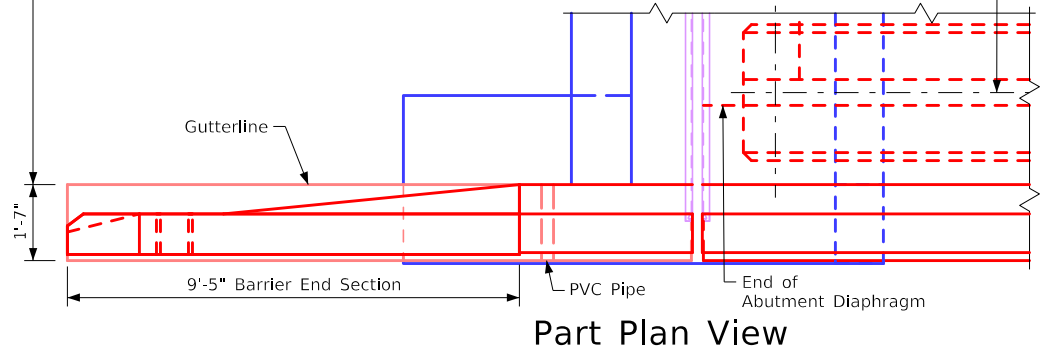
Abutment Quantities



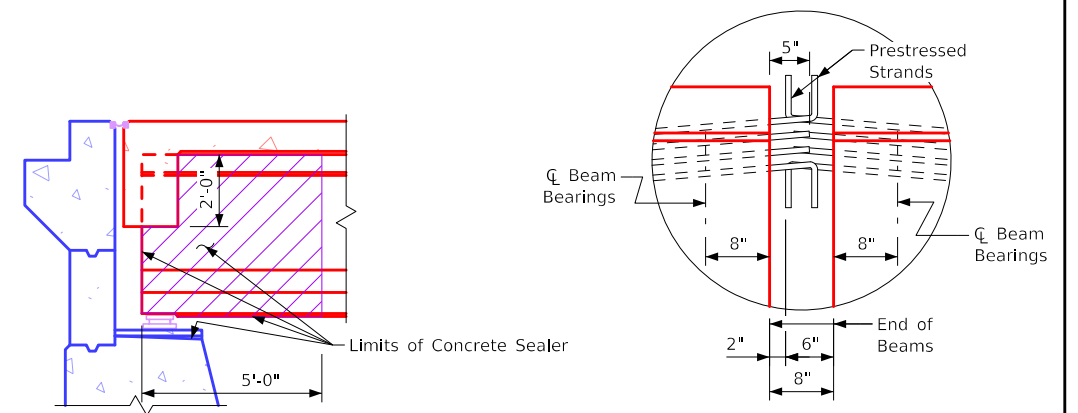
Part Longitudinal Section Near Gutter
(For Details of Intermediate Diaphragm see Design Sheet No. ??)



Part Section
(See Cross Section thru Slab for Number of Diaphragm Hoop Bars Between Beams)



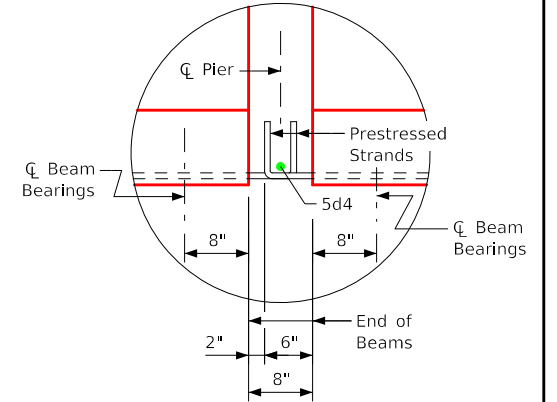
Part Plan View



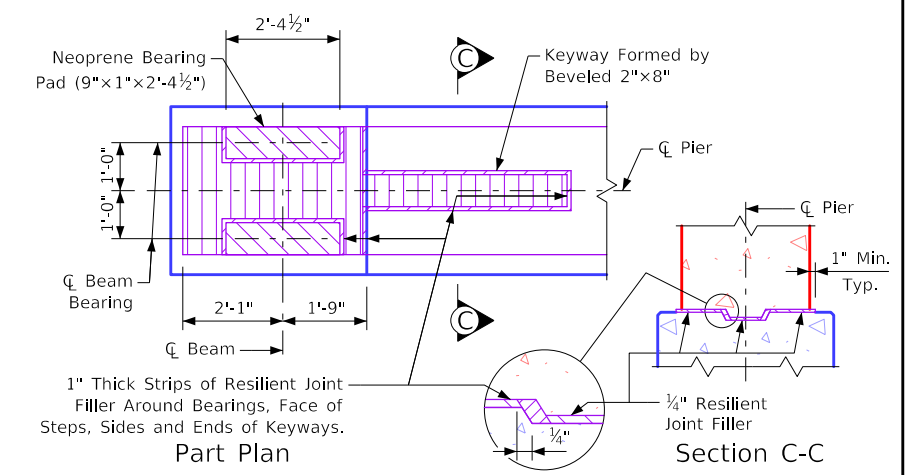
Detail "X"

Concrete sealer shall be applied to the abutment seat, wash surfaces 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 ends that are not embedded in the abutment diaphragms as detailed on this sheet.

Concrete Sealer Limits for Prestressed Beam



Detail "A"



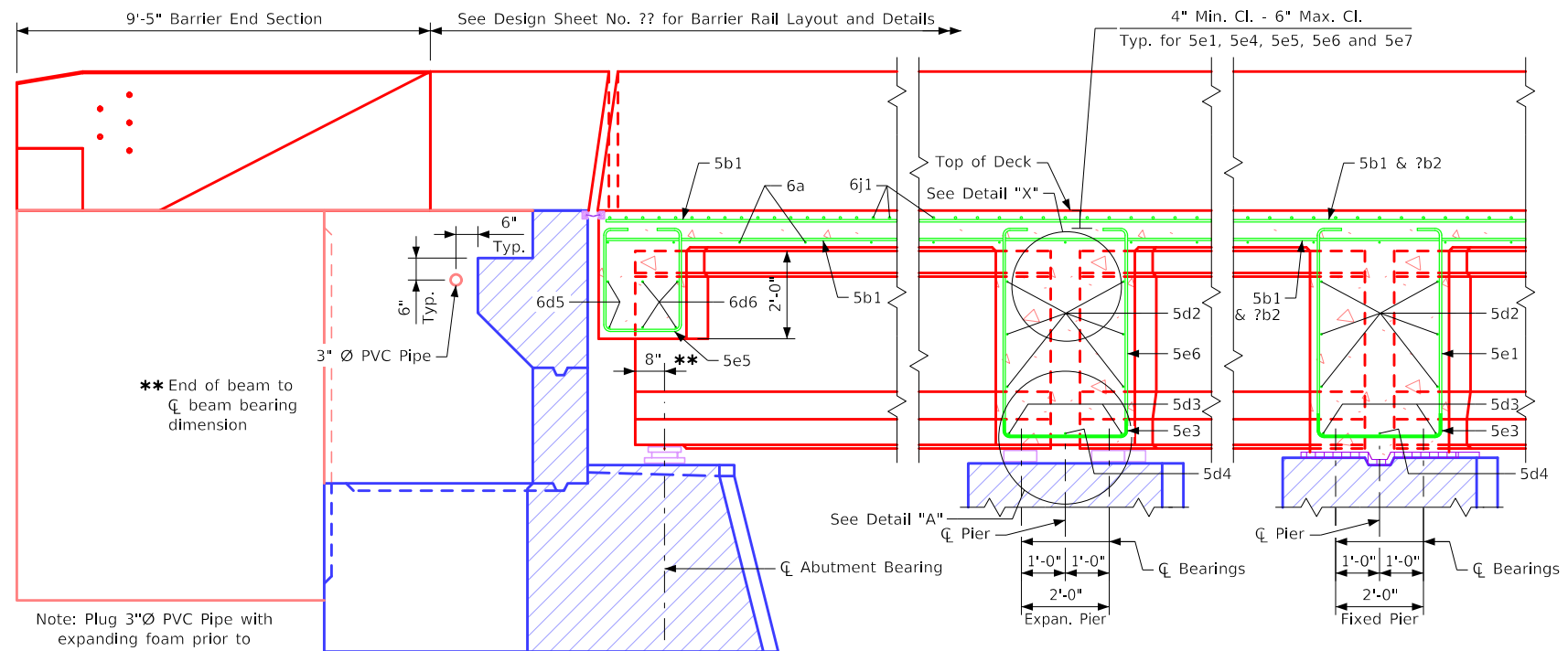
Top of Fixed Pier Details



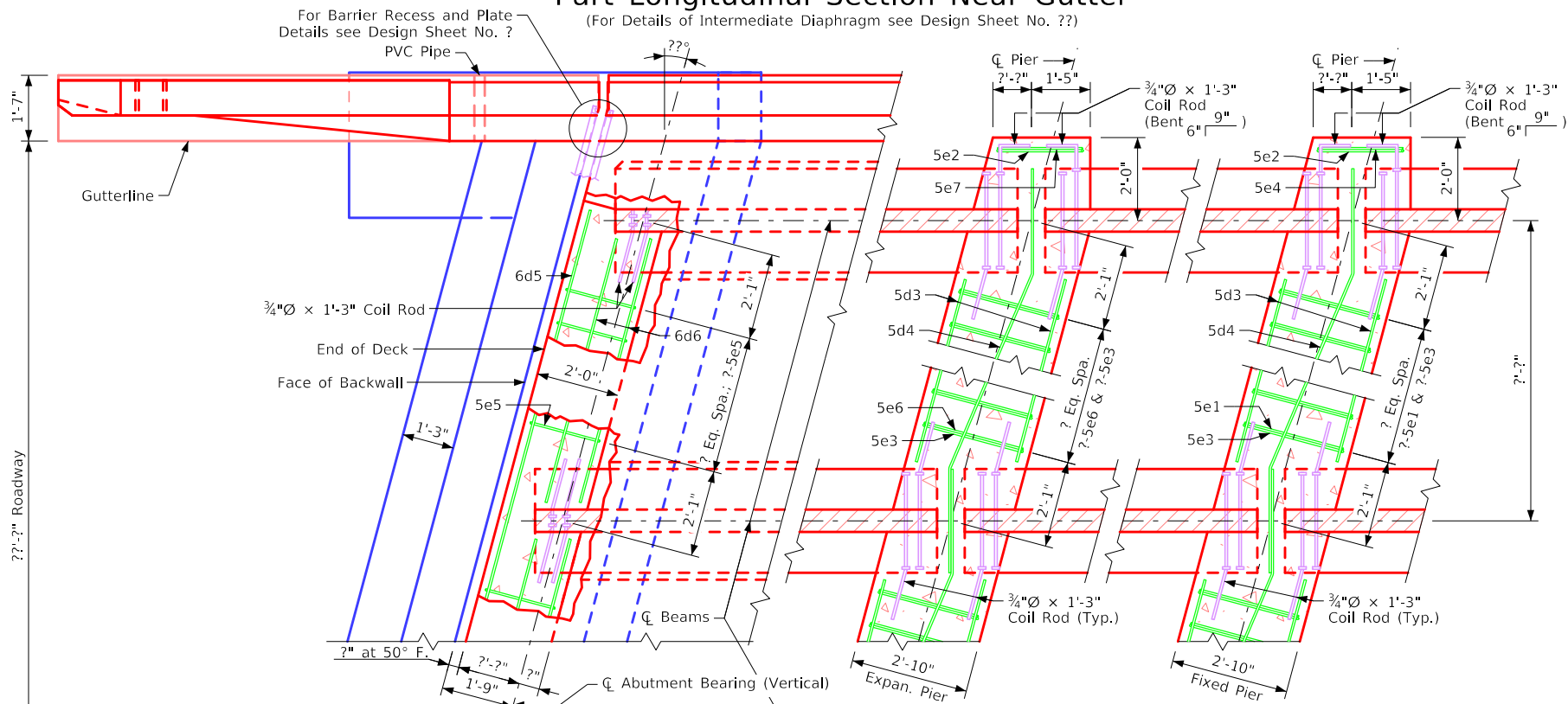
Part Plan & Longit. Section

Correction 10-10: Concrete Sealer Article 2403.21.D Changed to Article 2403.03.P.3 Issued 07-2008. BTSubBridges.dgn - 4542-BTCDE - This Sheet Re-Issued 11-2023. Sheet Format Update.

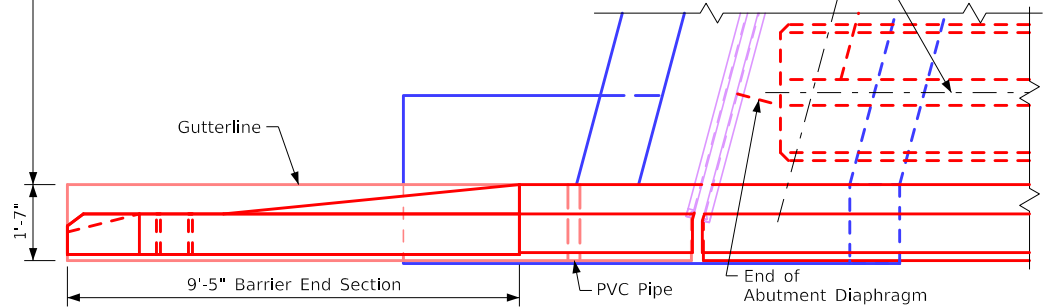
FILE NO.	ENGLISH	DESIGN TEAM	Part Plan & Longit. Section - "BTC", "BTD", or "BTE" Beams, Stub Abut., 0° Skew	Standard Sheet 4542-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER
7:15:47 PM	11/8/2023	bkloss	pw:\NTP\wint1.dot.int.lan:PWMain\Documents\Highway\Bridge\Standards\Bridges\BTSubBridges.dgn				



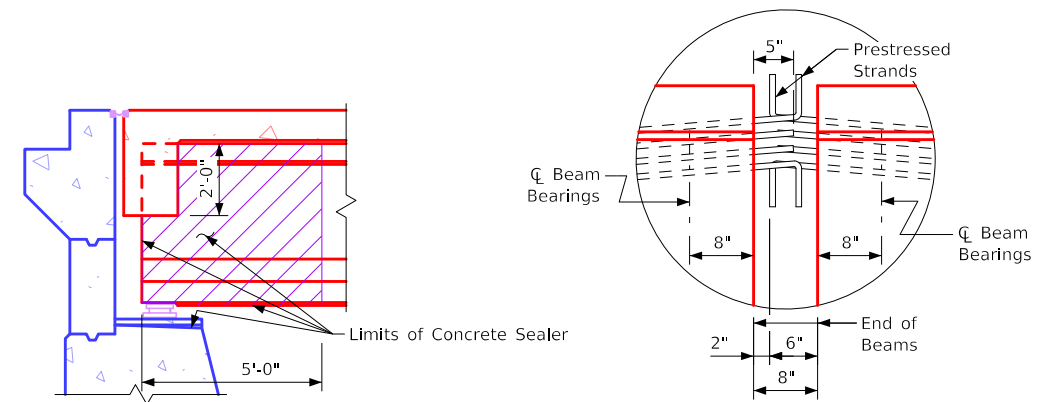
Part Longitudinal Section Near Gutter
(For Details of Intermediate Diaphragm see Design Sheet No. ??)



Part Section
(See Cross Section thru Slab for Number of Diaphragm Hoop Bars Between Beams)

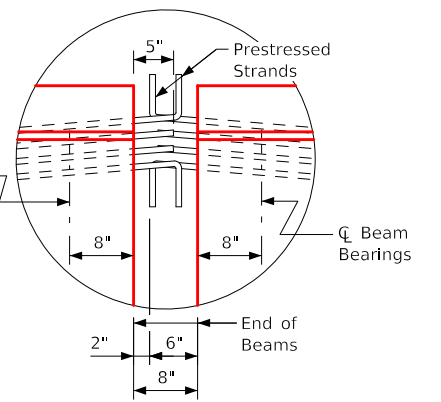


Part Plan View

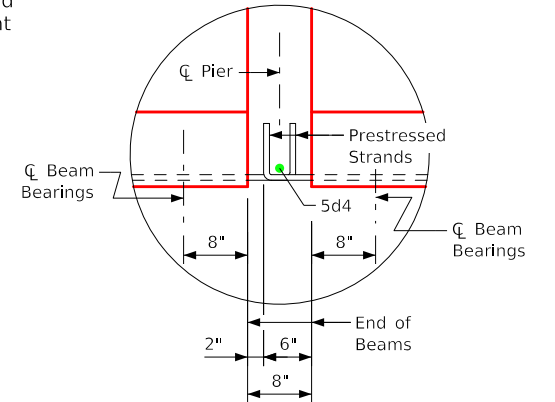


Concrete sealer shall be applied to the abutment seat, wash surfaces and prestressed beam ends in accordance with Article 2403.03, P. 3 of the Standard Specifications. The sealing shall include portions of the prestressed beam ends that are not embedded in the abutment diaphragms as detailed on this sheet.

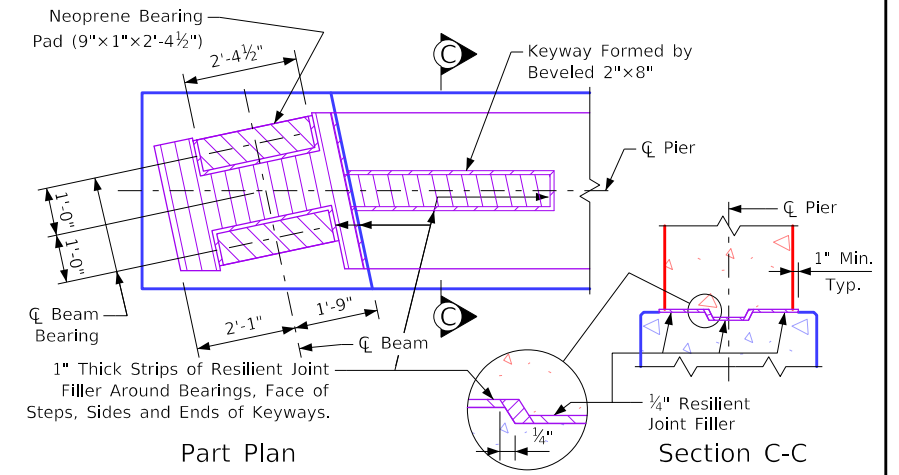
Concrete Sealer Limits for Prestressed Beam



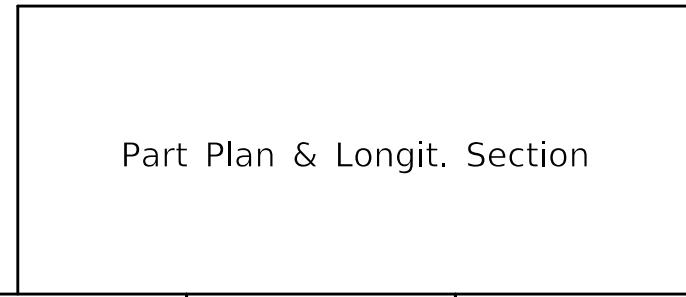
Detail "X"



Detail "A"



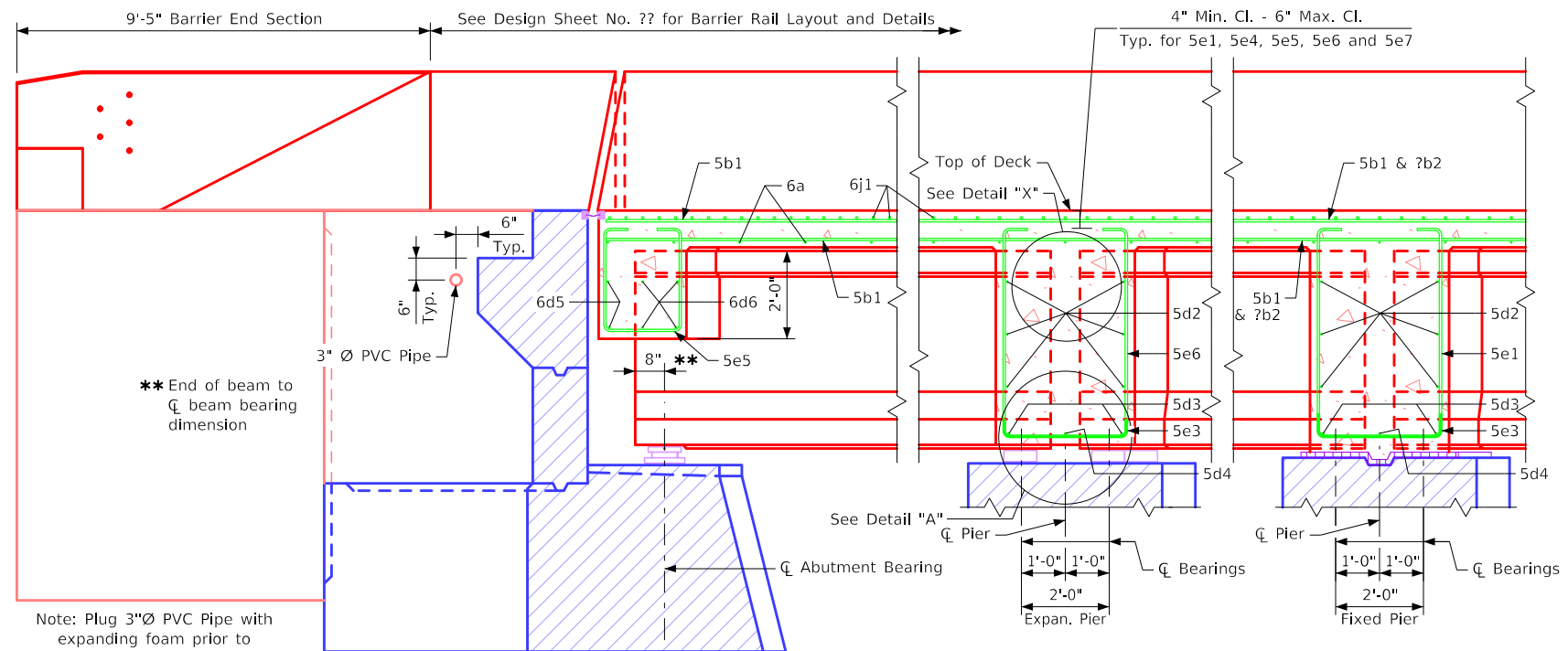
Top of Fixed Pier Details



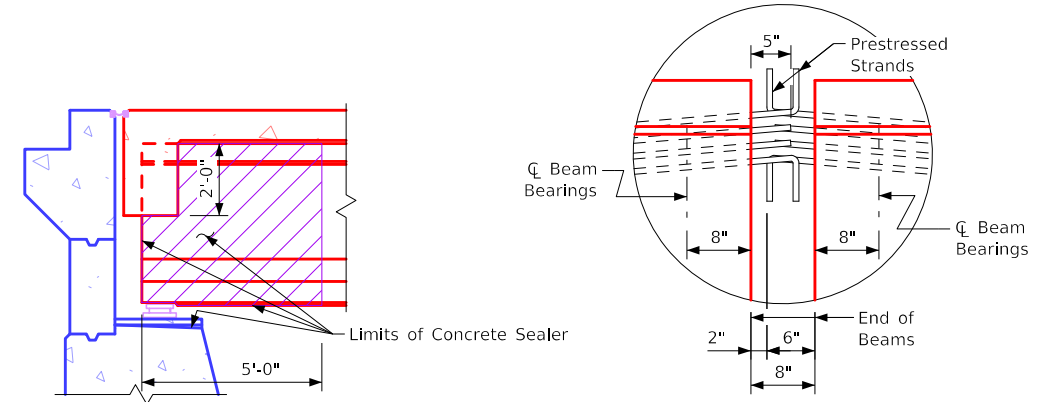
Part Plan & Longit. Section

Correction 10-10: Concrete Sealer Article 2403.21.D Changed to Article 2403.03.P.3 Issued 07-2008. BTSubBridges.dgn - 4544-BTCDE - This Sheet Re-Issued 11-2023. Sheet Format Update.

FILE NO.	ENGLISH	DESIGN TEAM	Part Plan & Longit. Section - "BTC", "BD", or "BTE" Beams, Stub Abut., 7°31' - 15° Skew L.A.	Standard Sheet 4544-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER
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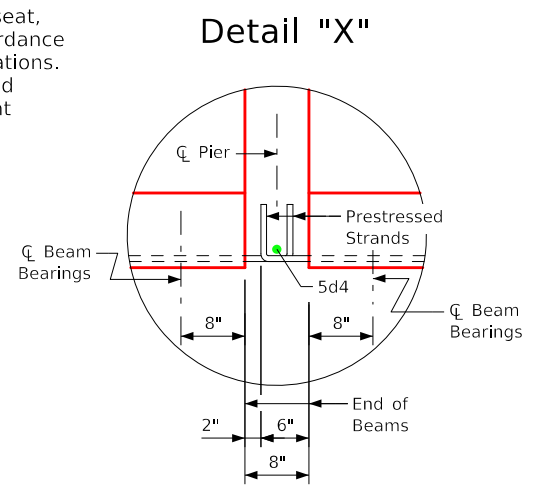


Part Longitudinal Section Near Gutter
(For Details of Intermediate Diaphragm see Design Sheet No. ??)



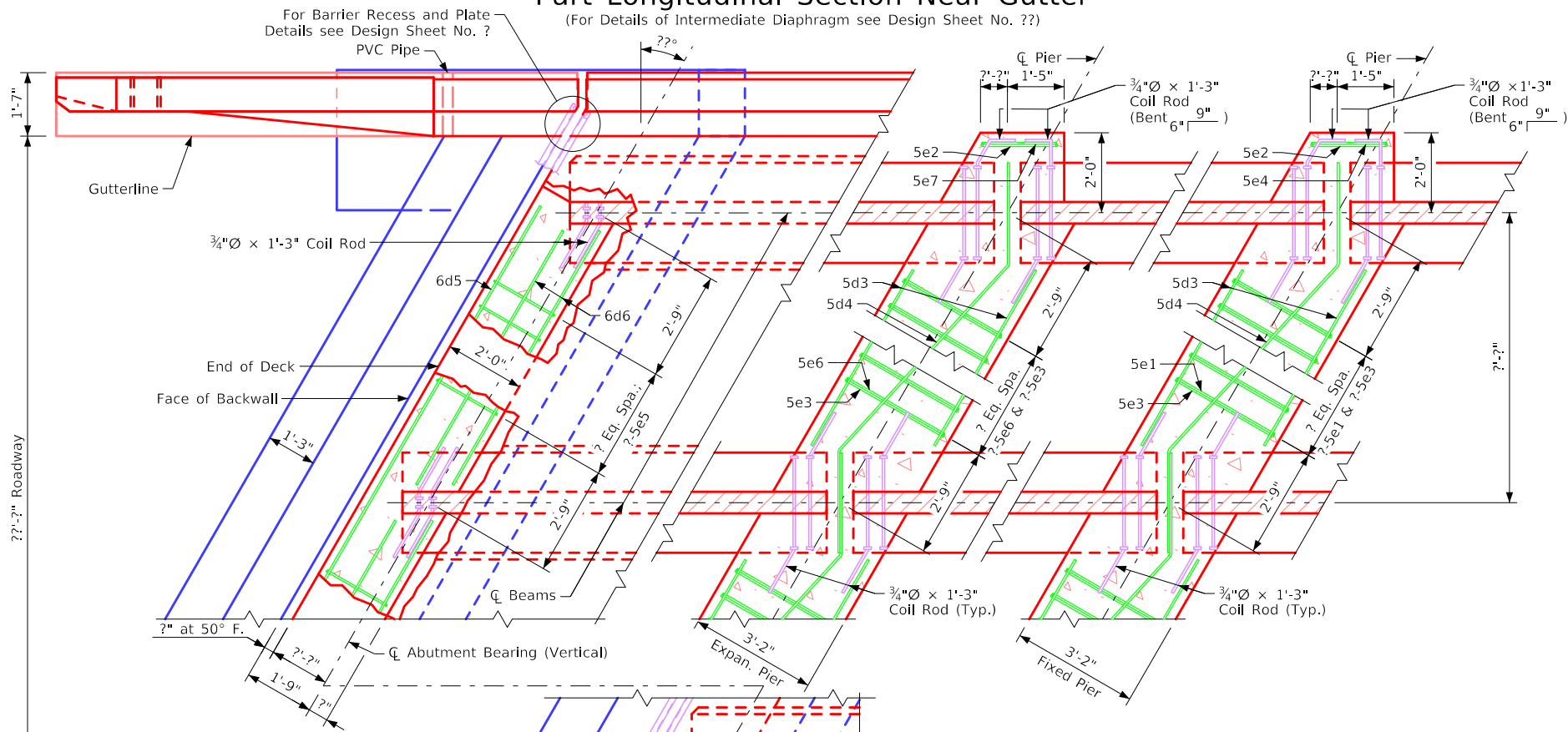
Concrete sealer shall be applied to the abutment seat, wash surfaces and prestressed beam ends in accordance with Article 2403.03, P. 3 of the Standard Specifications. The sealing shall include portions of the prestressed beam ends that are not embedded in the abutment diaphragms as detailed on this sheet.

Concrete Sealer Limits for Prestressed Beam



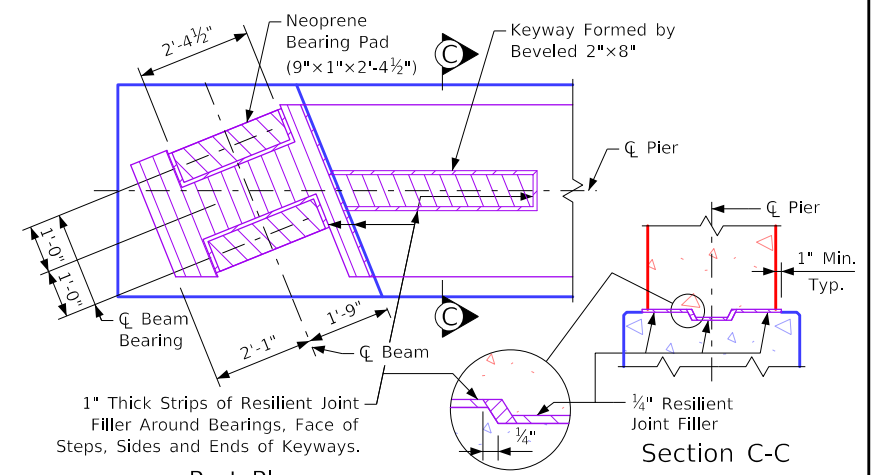
Detail "X"

Detail "A"

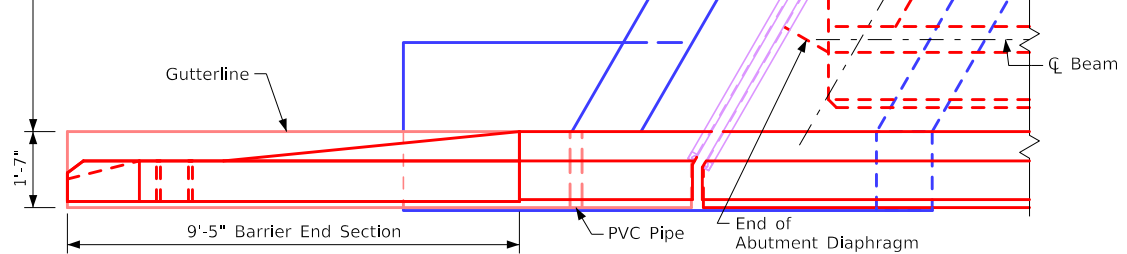


Part Section

(See Cross Section thru Slab for Number of Diaphragm Hoop Bars Between Beams)



Part Plan
Top of Fixed Pier Details

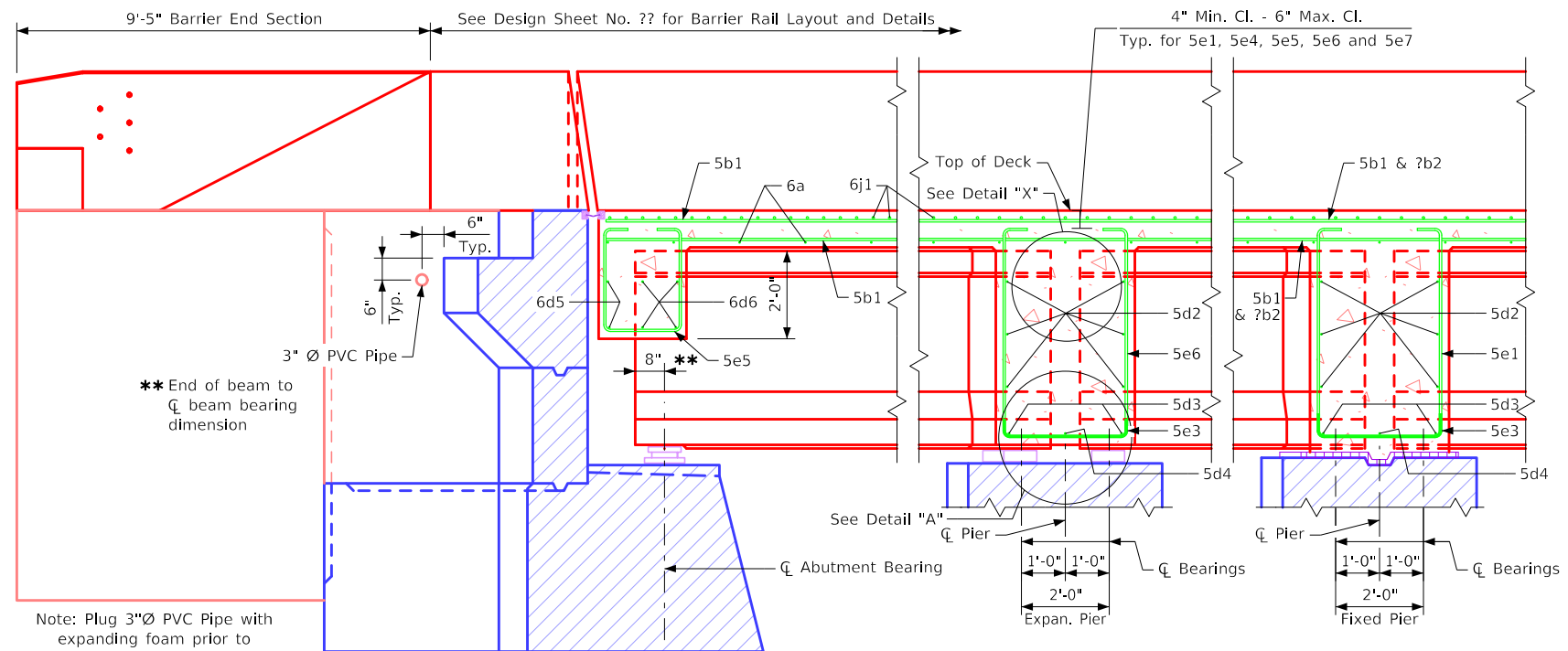


Part Plan View

Part Plan & Longit. Section

Correction 10-10: Concrete Sealer Article 2403.21.D Changed to Article 2403.03.P.3 Issued 07-2008. BTSubBridges.dgn - 4545-BTCDE - This Sheet Re-Issued 11-2023. Sheet Format Update.

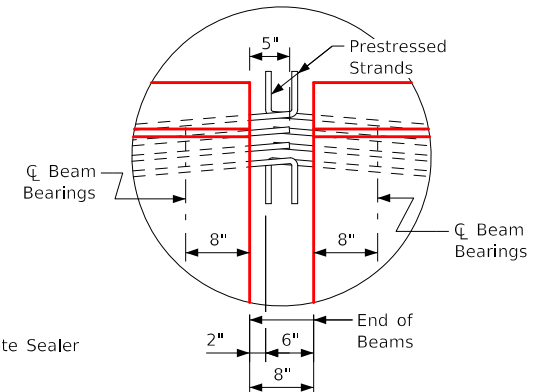
FILE NO.	ENGLISH	DESIGN TEAM	Part Plan & Longit. Section - "BTC", "BTD", or "BTE" Beams, Stub Abut., 15°01' - 30° Skew L.A.	Standard Sheet 4545-BTCDE	COUNTY	PROJECT NUMBER	SHEET NUMBER
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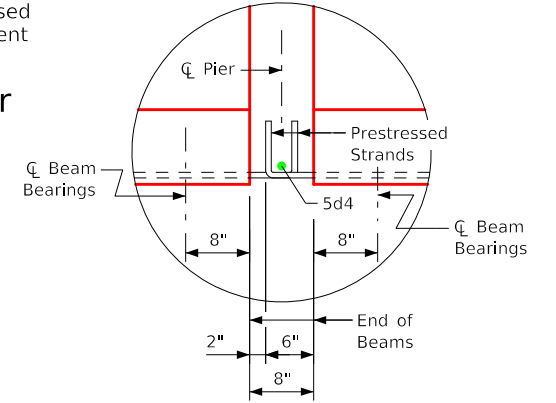
Part Longitudinal Section Near Gutter
(For Details of Intermediate Diaphragm see Design Sheet No. ??)

Concrete sealer shall be applied to the abutment seat, wash surfaces 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 ends that are not embedded in the abutment diaphragms as detailed on this sheet.

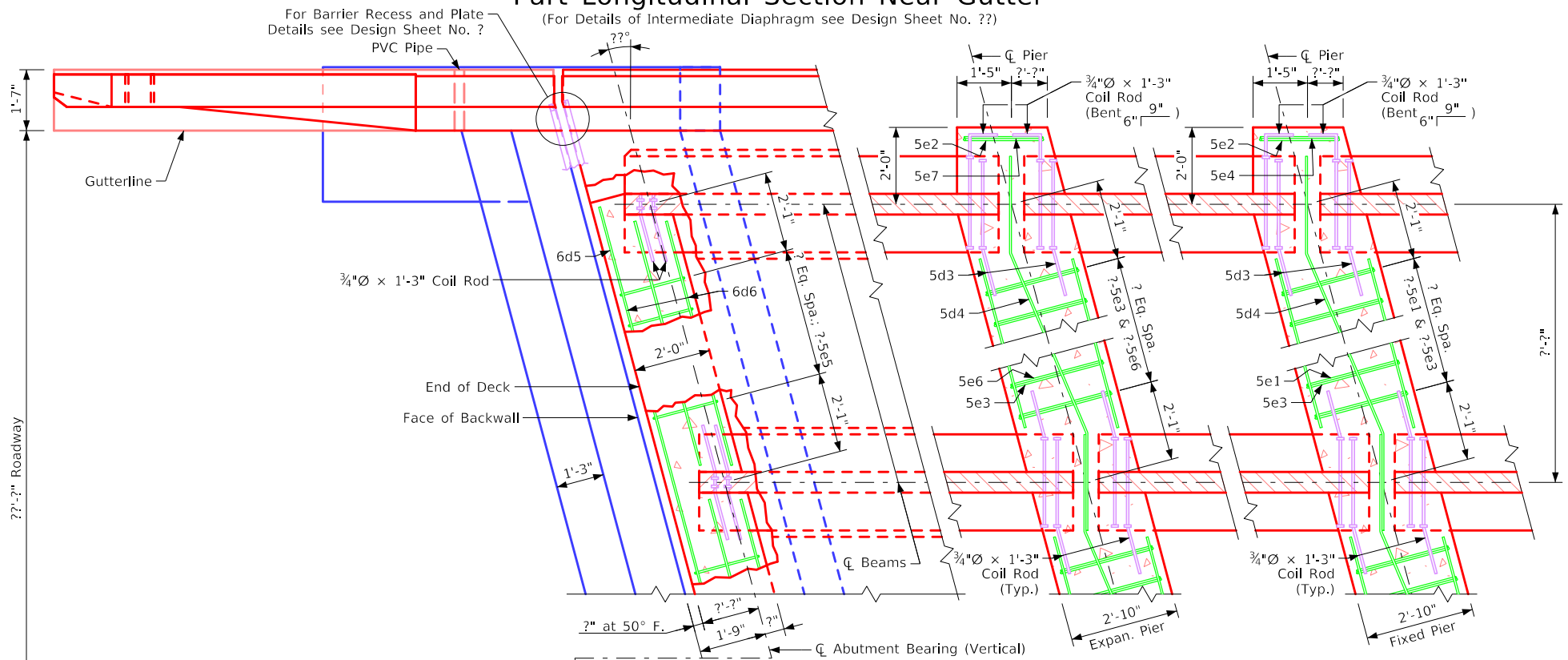
Concrete Sealer Limits for Prestressed Beam



Detail "X"

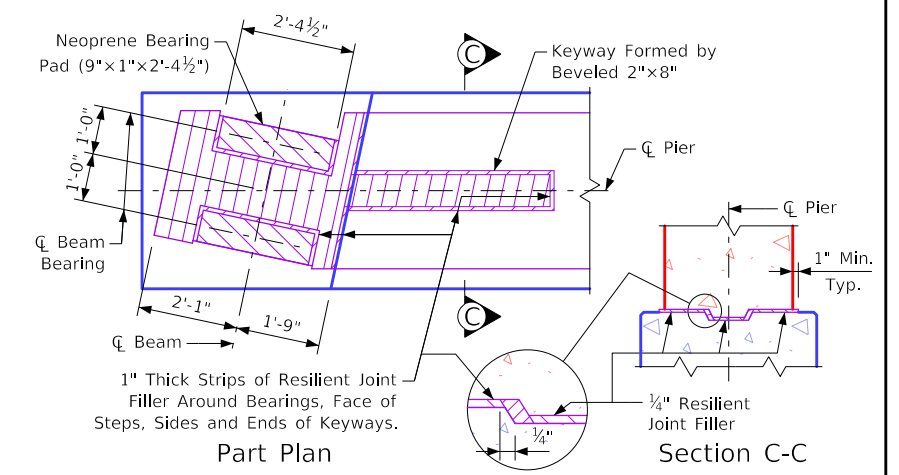


Detail "A"

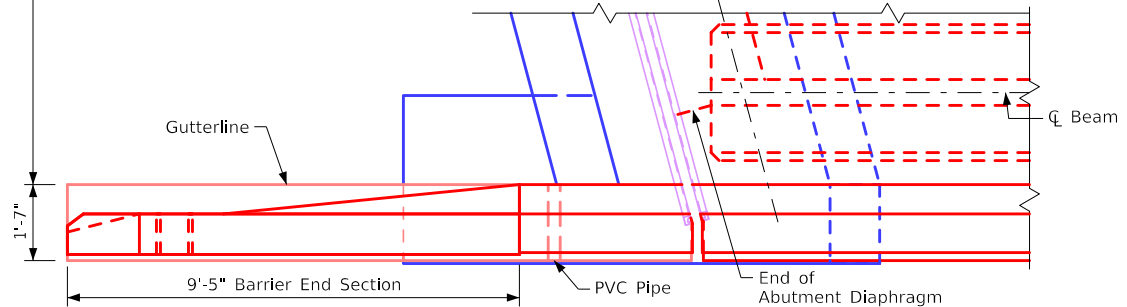


Part Section

(See Cross Section thru Slab for Number of Diaphragm Hoop Bars Between Beams)



Top of Fixed Pier Details



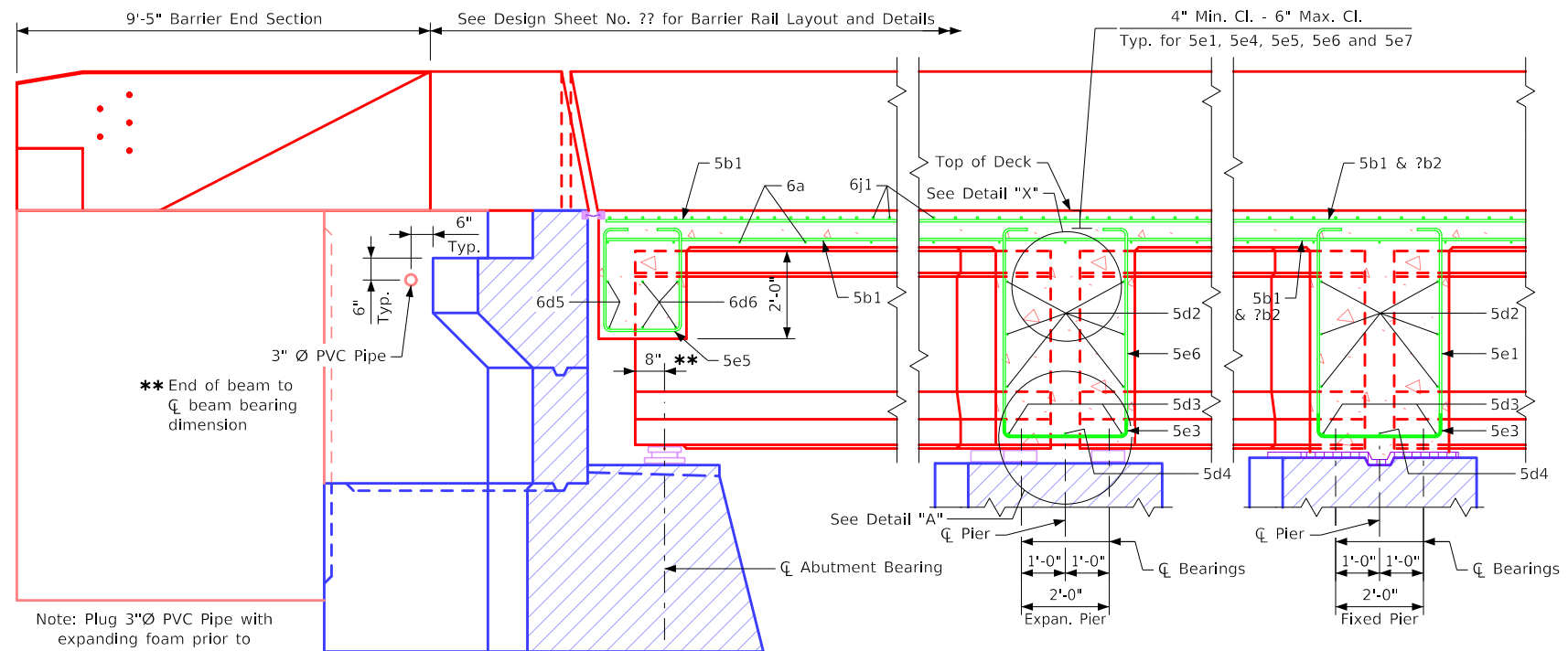
Part Plan View



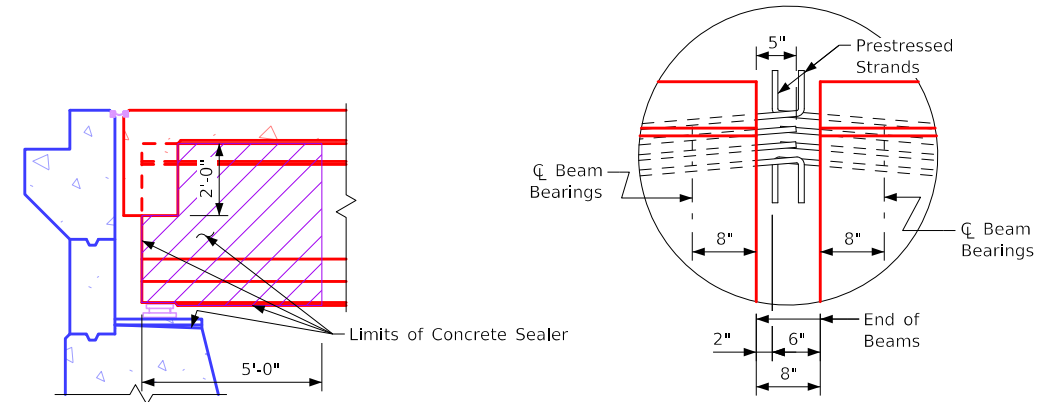
Part Plan & Longit. Section

Correction 10-10: Concrete Sealer Article 2403.21.D Changed to Article 2403.03.P.3 Issued 07-2008. BTSubBridges.dgn - 4547-BTCDE - This Sheet Re-Issued 11-2023. Sheet Format Update.

FILE NO.	ENGLISH	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
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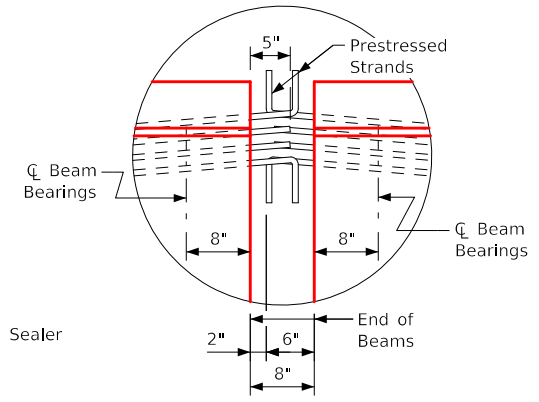


Part Longitudinal Section Near Gutter
(For Details of Intermediate Diaphragm see Design Sheet No. ??)

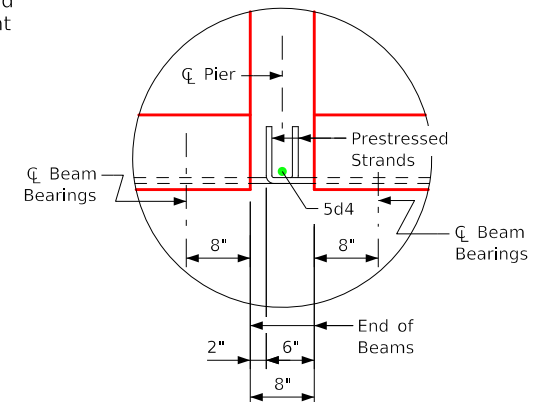


Concrete sealer shall be applied to the abutment seat, wash surfaces and prestressed beam ends in accordance with Article 2403.03, P, 3 of the Standard Specifications. The sealing shall include portions of the prestressed beam ends that are not embedded in the abutment diaphragms as detailed on this sheet.

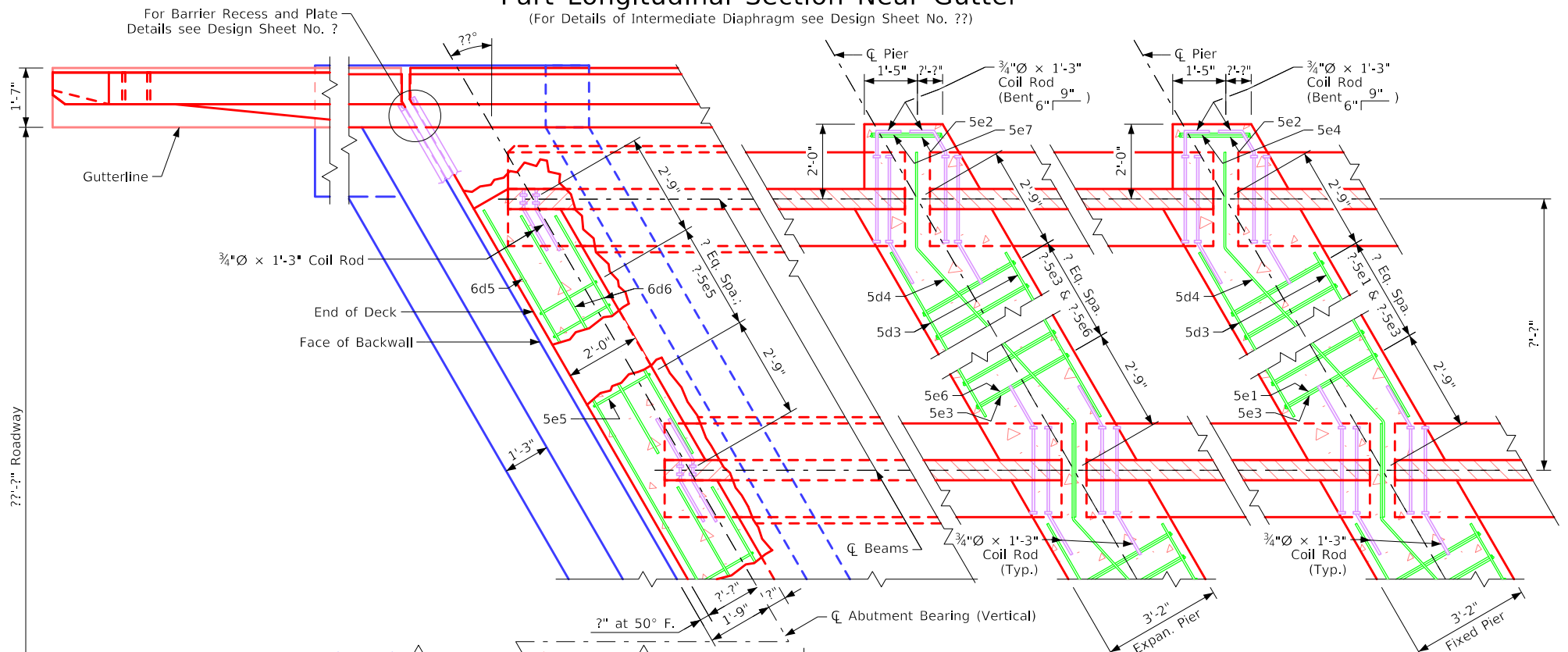
Concrete Sealer Limits for Prestressed Beam



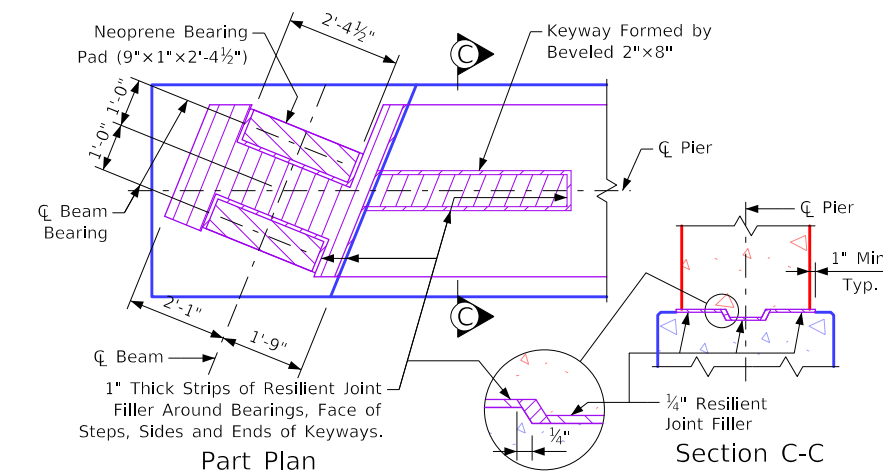
Detail "X"



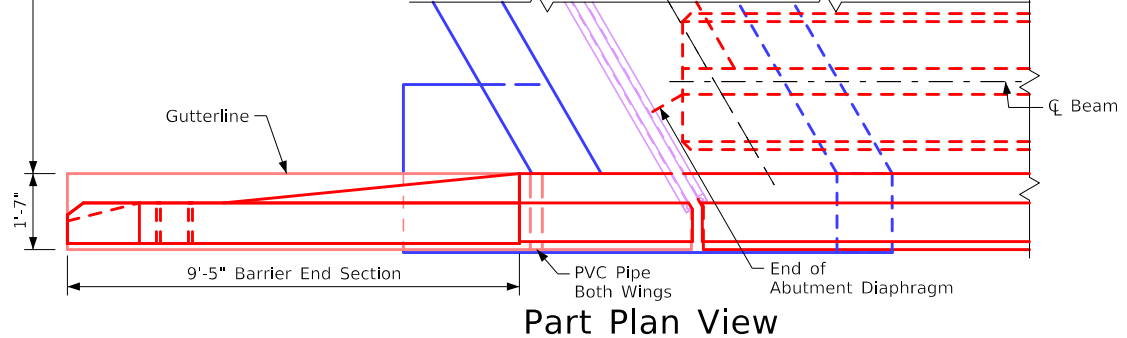
Detail "A"



Part Section
(See Cross Section thru Slab for Number of Diaphragm Hoop Bars Between Beams)



Top of Fixed Pier Details



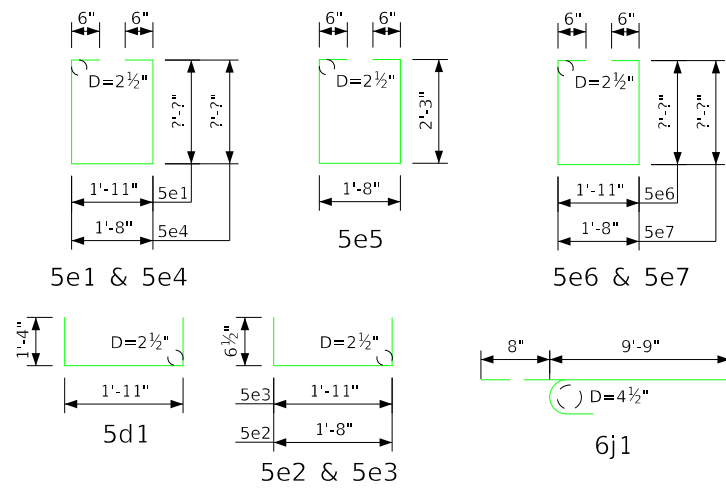
Part Plan View

Part Plan & Longit. Section

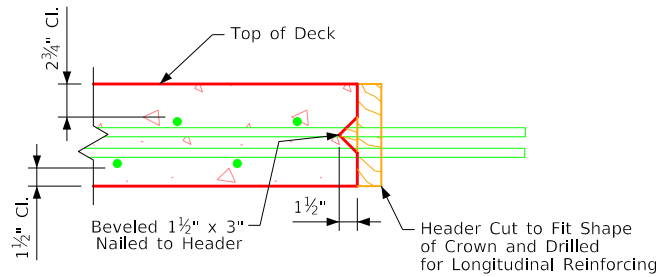
Correction 10-10: Concrete sealer Article 2403.21.D changed to Article 2403.03.P.3 Issued 07-2008. BTSubBridges.dgn - 4548-BTCDE - This Sheet Re-Issued 11-2023. Sheet Format Update.

FILE NO.	ENGLISH	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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Bent Bar Detail



Note: All dimensions are out to out. D= Pin diameter



Permissible Transverse Deck Construction Joint

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.

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.)	???

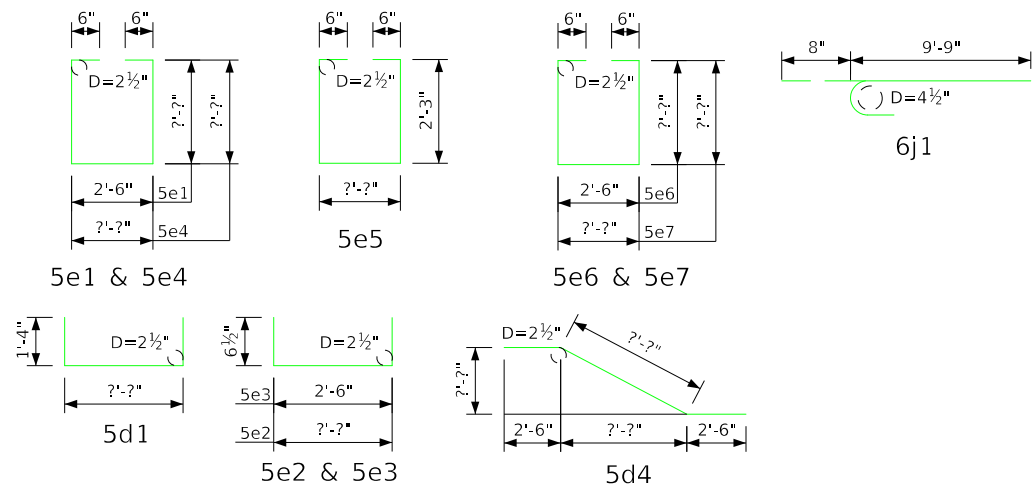
Note: Concrete and reinforcing steel quantities are included on the summary quantities sheet.

Epoxy Coated Reinforcing Steel Bar List - Bridge Deck

Bar	Location	Shape	No.	Length	Weight
6a1	Deck Transv. Top	—	??	??'-?''	???
6a2	Deck Transv. 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. Longit.	—	??	??'-?''	???
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)	—	??	10'-5''	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???

Deck, Abut. & Diaph. Quantities

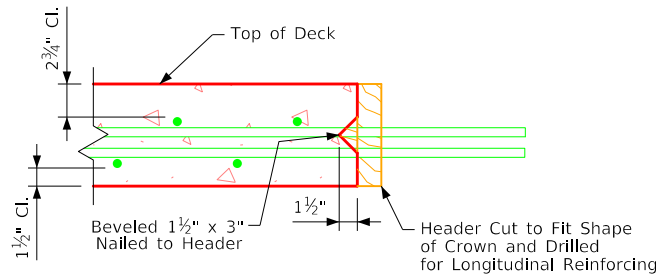
Bent Bar Detail



Note: All dimensions are out to out. D = Pin diameter

Epoxy Coated Reinforcing Steel Bar List - Bridge Deck

Bar	Location	Shape	No.	Length	Weight
6a1	Deck Transv. Top	—	??	??'-?"	???
6a2	Deck Transv. Bott.	—	??	??'-?"	???
6a3	Slab Transv. Top Ends	—	??	??'-?"	???
6a4	Slab Transv. Bott. Ends	—	??	??'-?"	???
5b1	Deck Longit. Top & Bott.	—	??	??'-?"	???
5b2	Deck Longit. Top at Piers	—	??	??'-?"	???
5d1	Pier Diaph. Ends	⌊	??	??'-?"	???
5d2	Pier Diaph. Longit.	—	??	??'-?"	???
5d3	Pier Diaph. Longit.	—	??	??'-?"	???
5d4	Pier Diaph. Longit.	—	??	??'-?"	???
6d5	Abut. Diaph. Longit.	—	??	??'-?"	???
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)	—	??	10'-5"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???



Permissible Transverse Deck Construction Joint

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.)	???.?

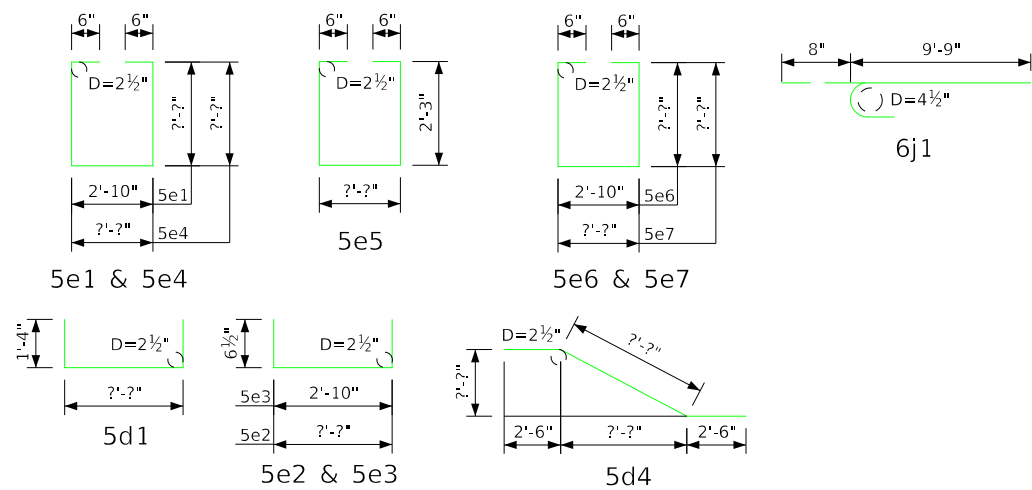
Note: Concrete and reinforcing steel quantities are included on the summary quantities sheet.

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.

Deck, Abut. & Diaph. Quantities

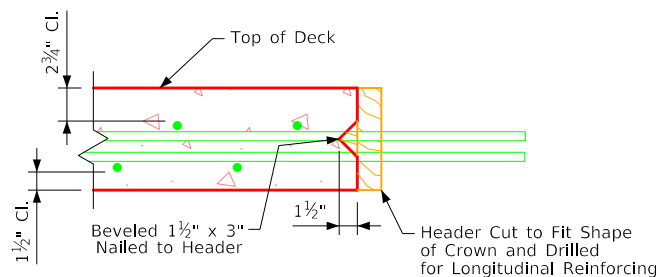
Bent Bar Detail



Note: All dimensions are out to out. D= Pin diameter

Epoxy Coated Reinforcing Steel Bar List - Bridge Deck

Bar	Location	Shape	No.	Length	Weight
6a1	Deck Transv. Top	—	??	??'-2"	???
6a2	Deck Transv. Bott.	—	??	??'-2"	???
6a3	Slab Transv. Top Ends	—	??	??'-2"	???
6a4	Slab Transv. Bott. Ends	—	??	??'-2"	???
5b1	Deck Longit. Top & Bott.	—	??	??'-2"	???
5b2	Deck Longit. Top at Piers	—	??	??'-2"	???
5d1	Pier Diaph. Ends	⌊	??	??'-2"	???
5d2	Pier Diaph. Longit.	—	??	??'-2"	???
5d3	Pier Diaph. Longit.	—	??	??'-2"	???
5d4	Pier Diaph. Longit.	—	??	??'-2"	???
6d5	Abut. Diaph. Longit.	—	??	??'-2"	???
6d6	Abut. Diaph. Longit.	—	??	??'-2"	???
5e1	Pier Diaph. Hoops	⌈	??	??'-2"	???
5e2	Pier Diaph. Ties Ends	⌊	??	??'-2"	???
5e3	Pier Diaph. Ties	⌊	??	3'-7"	???
5e4	Pier Diaph. Hoops Ends	⌈	??	??'-2"	???
5e5	Abut. Diaph. Hoops	⌈	??	7'-2"	???
5e6	Expan. Pier Diaph. Hoops	⌈	??	??'-2"	???
5e7	Expan. Pier Diaph. Hoops Ends	⌈	??	??'-2"	???
6j1	Deck Transv. Top (at Rail)	—	??	10'-5"	???
Epoxy Coated Reinforcing Steel - Total (lbs.)					???



Permissible Transverse Deck Construction Joint

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.

Deck, Abut. & Diaph. Quantities

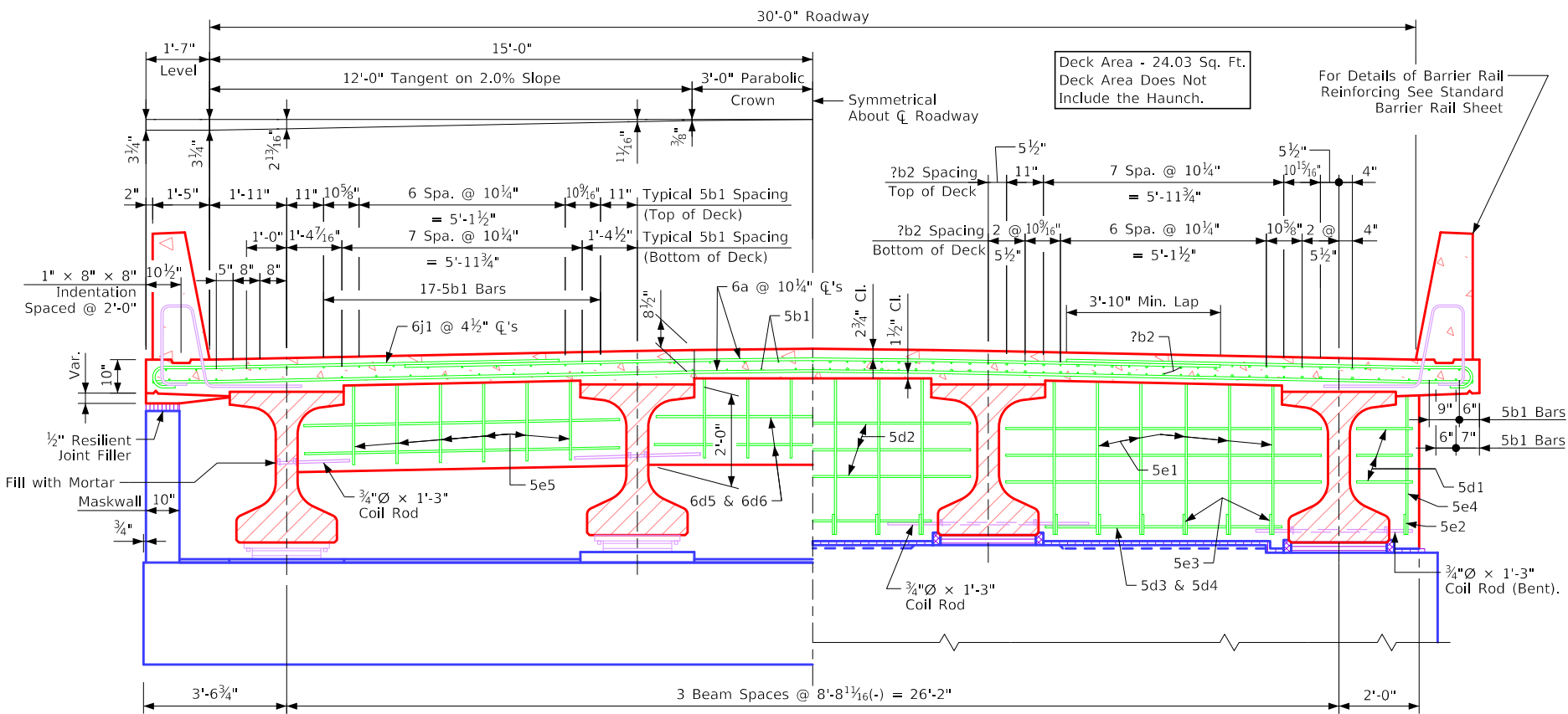
Table of Size of "b2" Bar

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"	----

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.

The midpoint of the "b2" bar is to be placed at the \bar{C} of pier.

** Indicates "b2" bar placed in top deck only.



Half Section Near Abutment

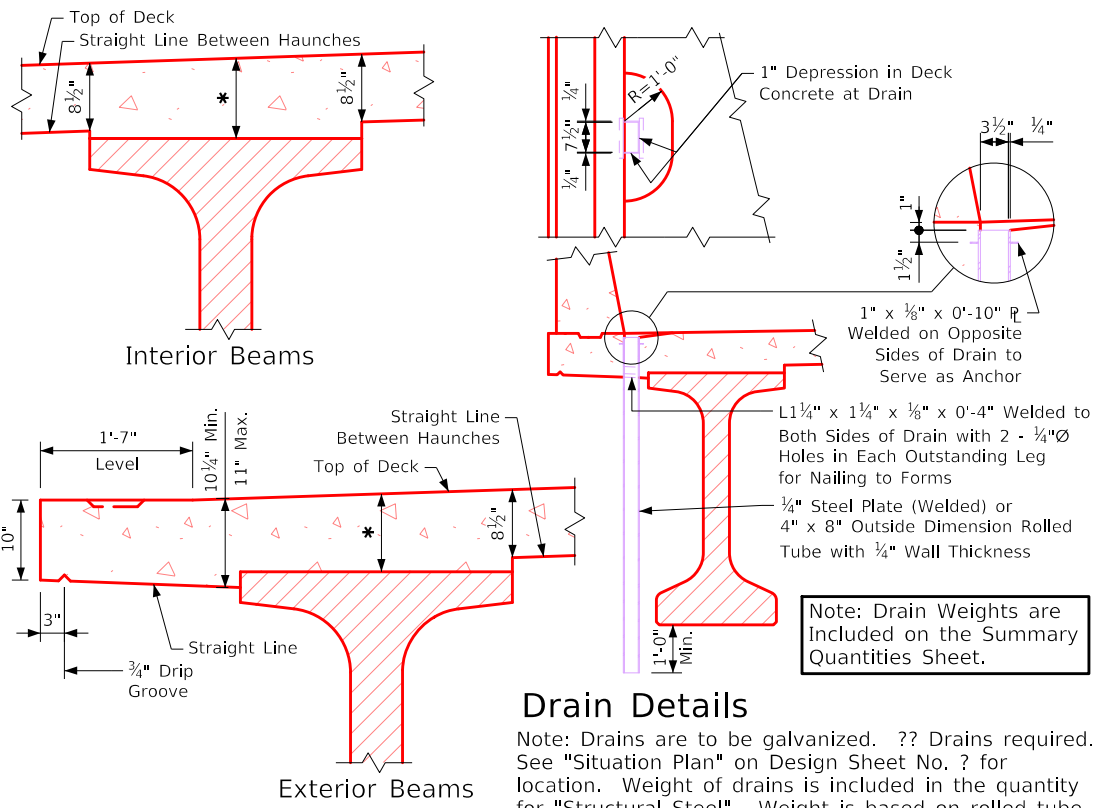
Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ?.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

- The bridge deck as shown includes $\frac{3}{4}$ " integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.
- Cost of all resilient 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 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" 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 $2\frac{3}{4}$ " clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and $1\frac{1}{2}$ " clear above bottom of the 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.

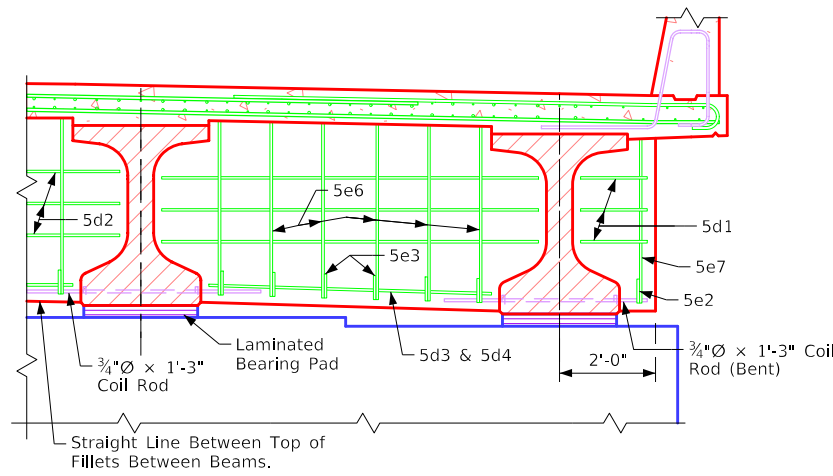


Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ?.

Drain Details
Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain	
Beam Size	BTC
Drain Weight (lbs.)	106
Drain Length (ft.)	5'-6 3/4"



Part Section Near Expansion Pier

BTC 4 Beams - Stub Abut.

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. Issued 07-2008. BTSubBridges.dgn - 4556-BTC-4 - This Sheet Re-Issued 11-2023. Sheet Format Update.

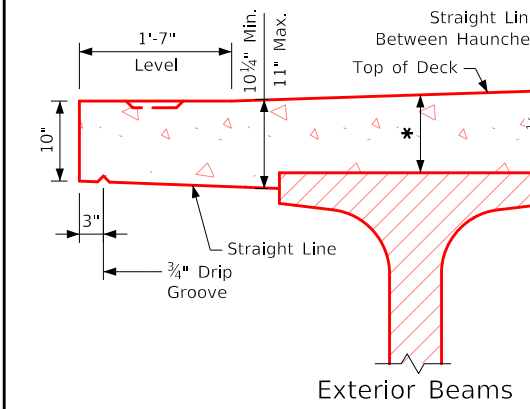
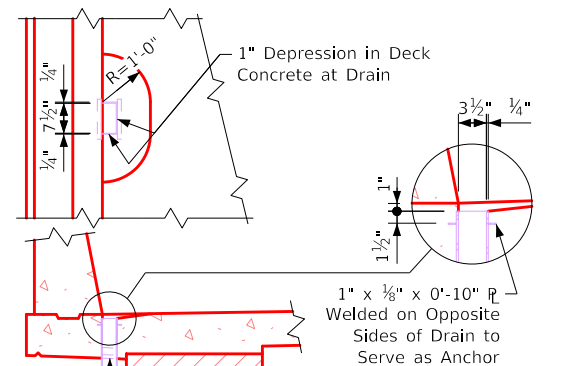
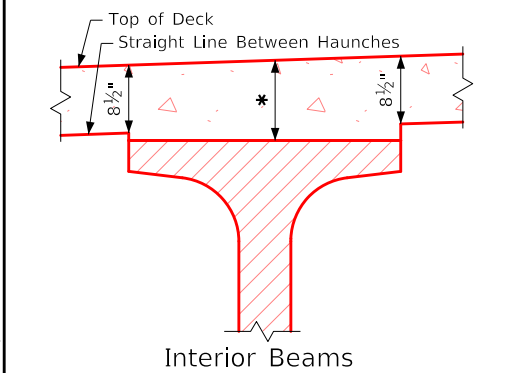
Table of Size of "b2" Bar

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"	----

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.

The midpoint of the "b2" bar is to be placed at the \bar{C} of pier.

** Indicates "b2" bar placed in top deck only.

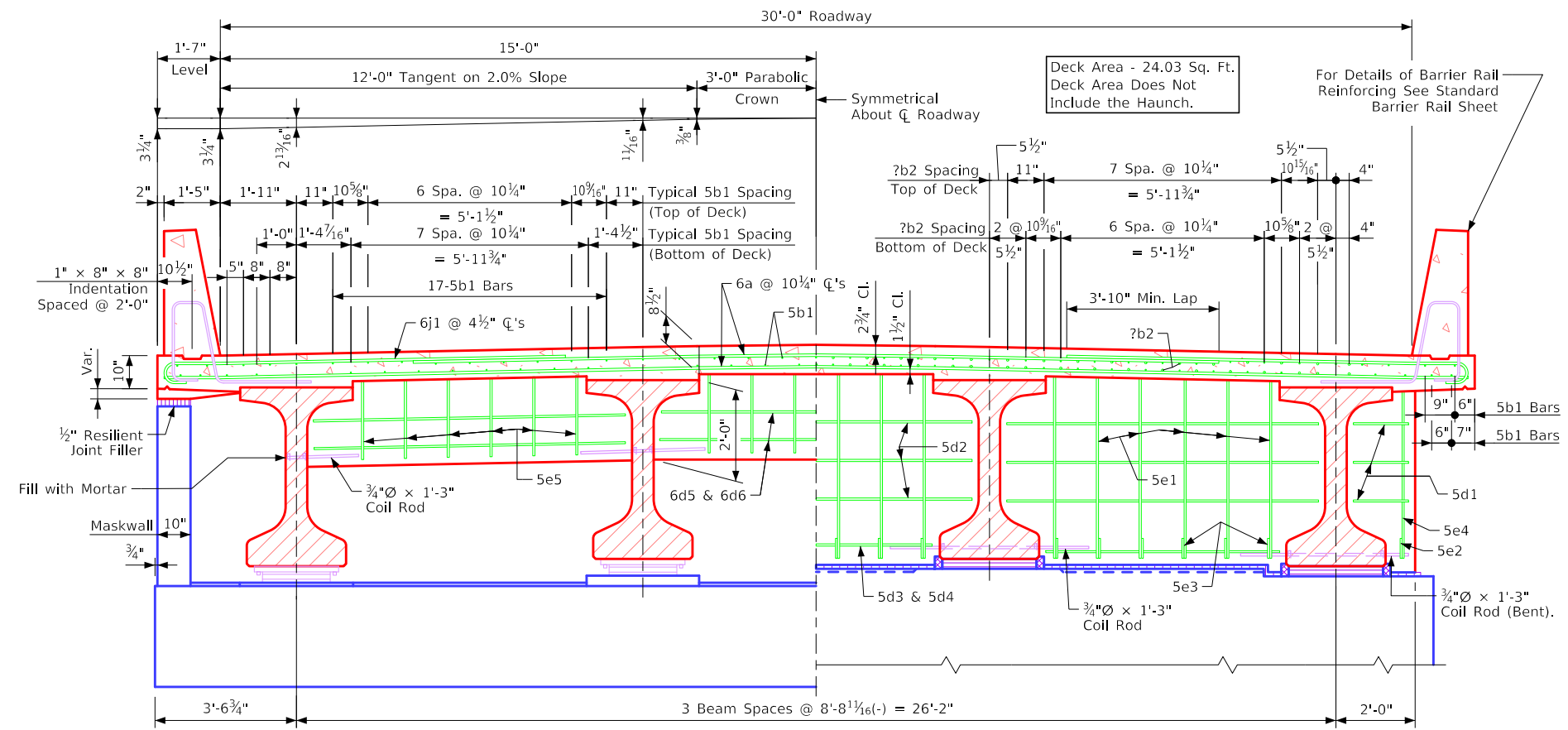


Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ?.

Data for One Drain

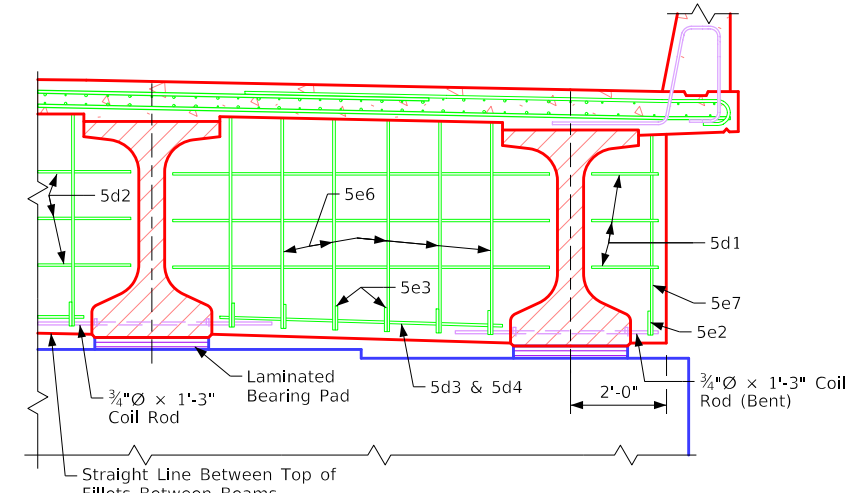
Beam Size	BTD
Drain Weight (lbs.)	120
Drain Length (ft.)	6'-3 3/4"



Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck. Cost of all resilient 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 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" 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 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the 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.



BTD 4 Beams - Stub Abut.

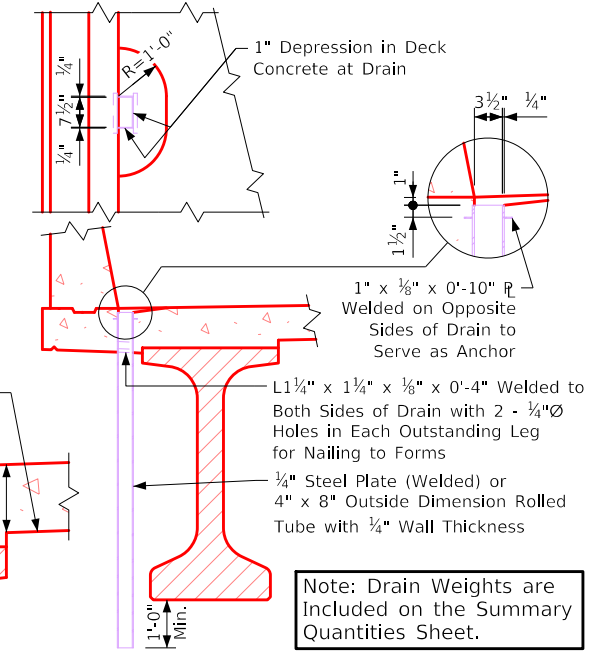
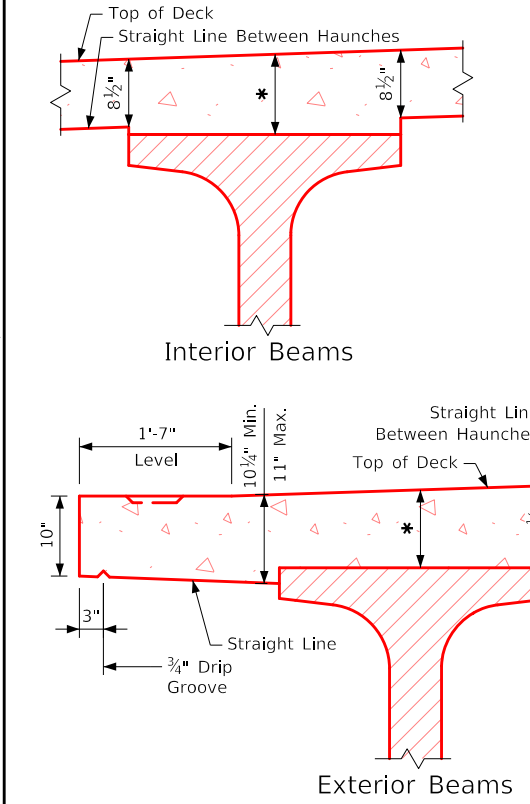
Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars. Issued 07-2008. BTStubBridges.dgn - 4556-BTD-4 - This Sheet Re-Issued 11-2023. Sheet Format Update.

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

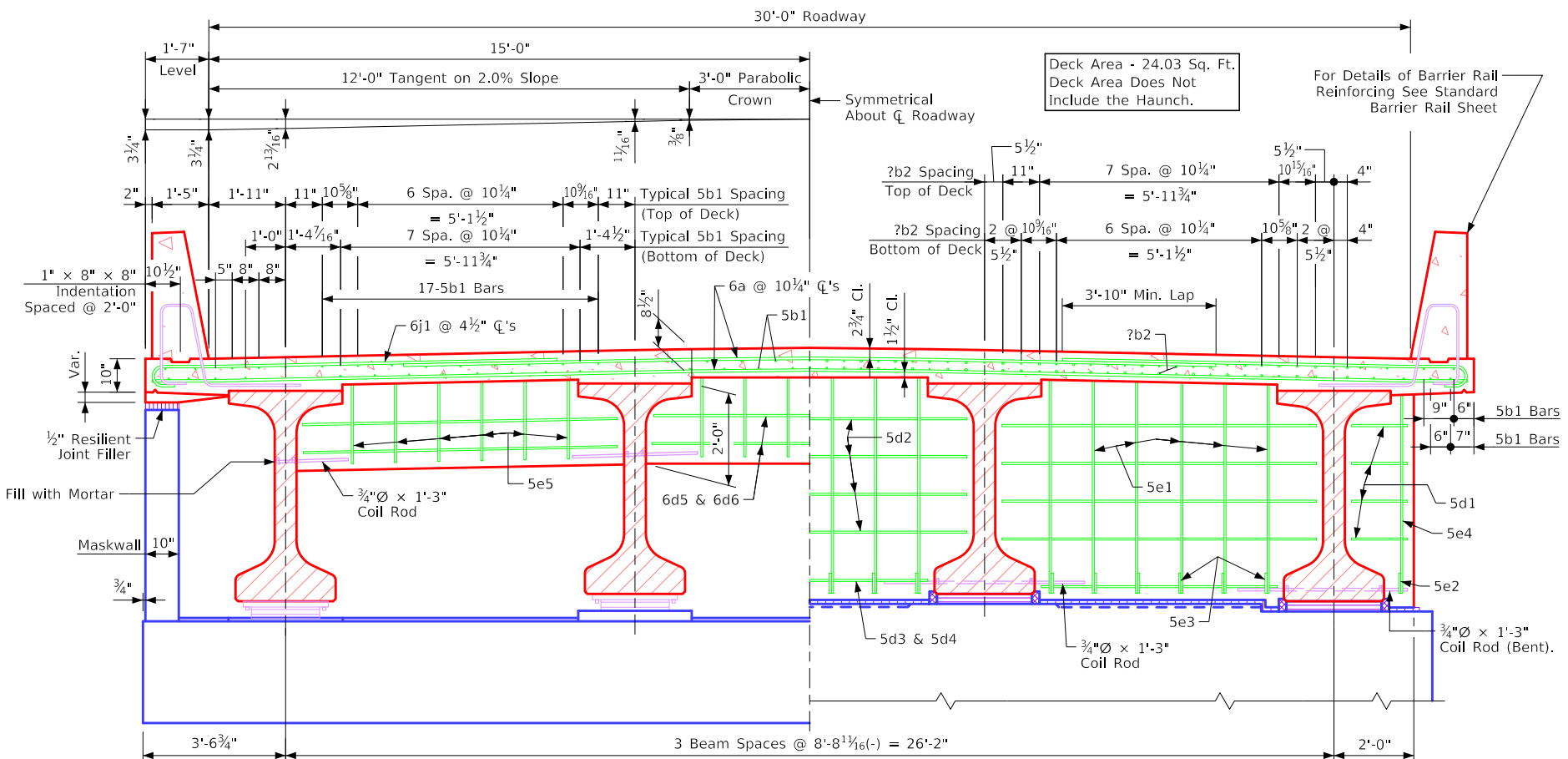
Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.

The midpoint of the "b2" bar is to be placed at the \bar{C} of pier.
** Indicates "b2" bar placed in top deck only.



Drain Details
Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain	
Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 3/4"



Half Section Near Abutment

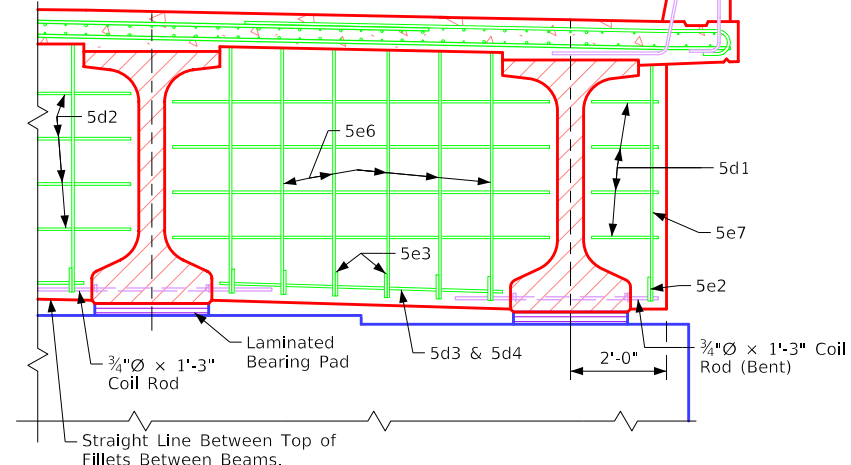
Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ?.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4 inch integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck. Cost of all resilient 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 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 3/4 inches clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2 inches clear above bottom of the deck. Top and bottom reinforcing steel is to be supported by individual bar chairs spaced at not more than 3 feet centers longitudinally and transversely, or by continuous rows of bar high chairs or deck bolsters spaced 4 feet apart. I.M. 451.01 requirements shall apply for bar chairs, bar high chairs, and deck bolsters.



Part Section Near Expansion Pier

BTE 4 Beams - Stub Abut.

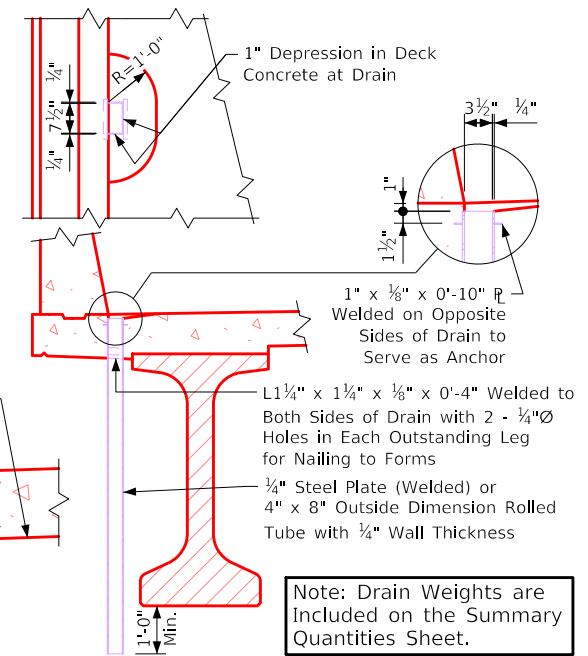
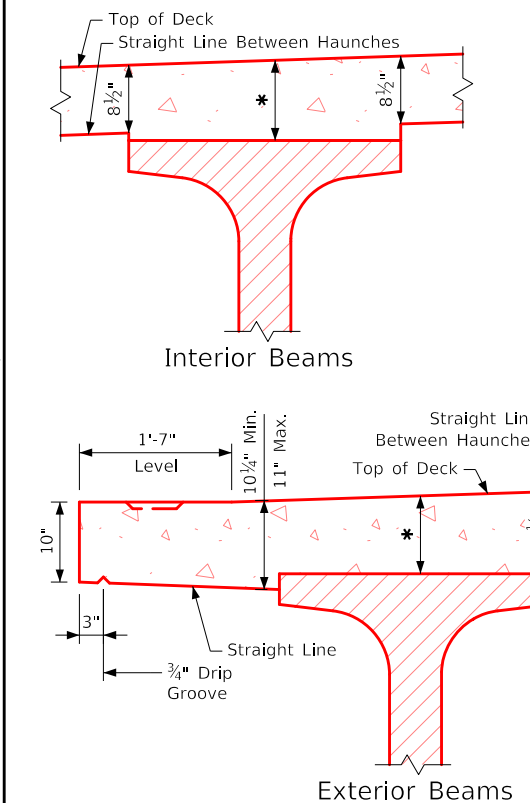
Correction 04-14: Added Referral Note to Summary Quantities Sheet for the Drain Weight. Note About Choice of Epoxy or Stainless Steel Deck to Barrier Rail Bars. Issued 07-2008. BTSubBridges.dgn - 4556-BTE-4 - This Sheet Re-Issued 11-2023. Sheet Format Update.

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
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140'-0"	9
145'-0"	9
150'-0"	9
155'-0"	9

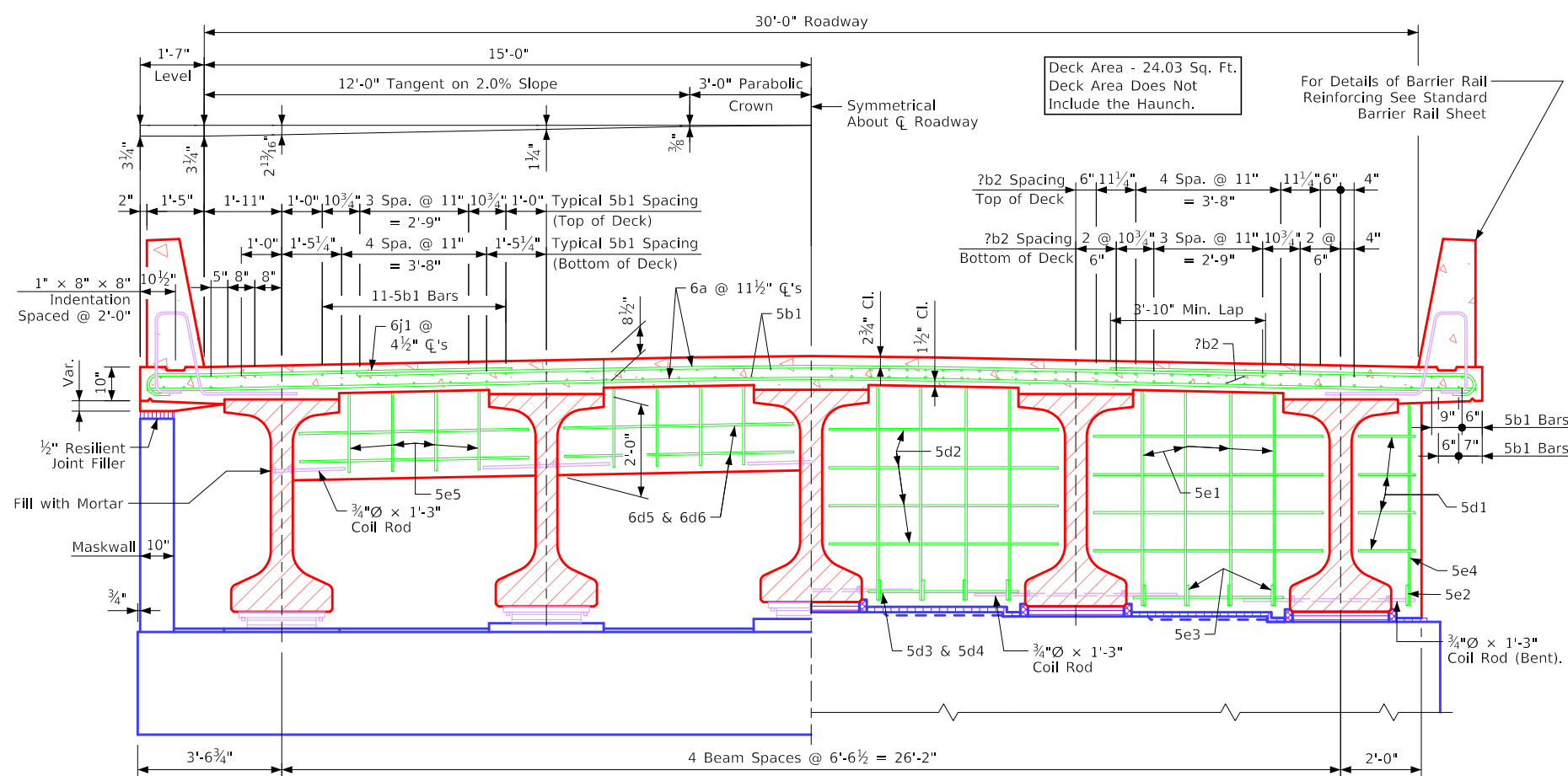
Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.

The midpoint of the "b2" bar is to be placed at the \bar{C} of pier.
** Indicates "b2" bar placed in top deck only.



Drain Details
Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

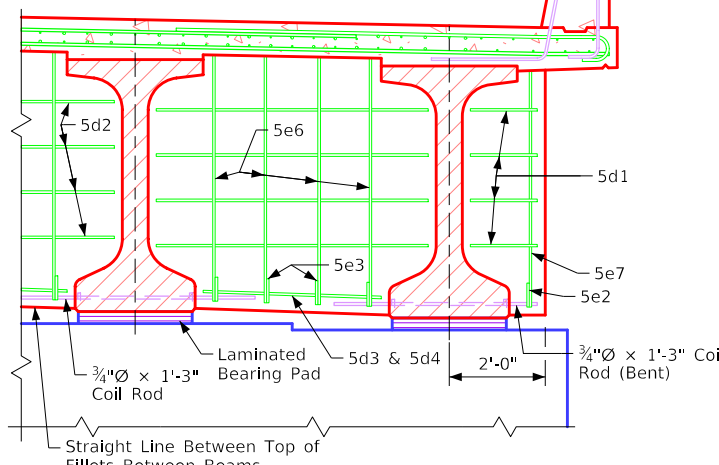
Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 3/4"



Half Section Near Abutment Half Section Near Fixed Pier
Note: For Details of Intermediate Diaphragms See Design Sheet No. ?.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:
The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck. Cost of all resilient 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 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" 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 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the 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.



Part Section Near Expansion Pier

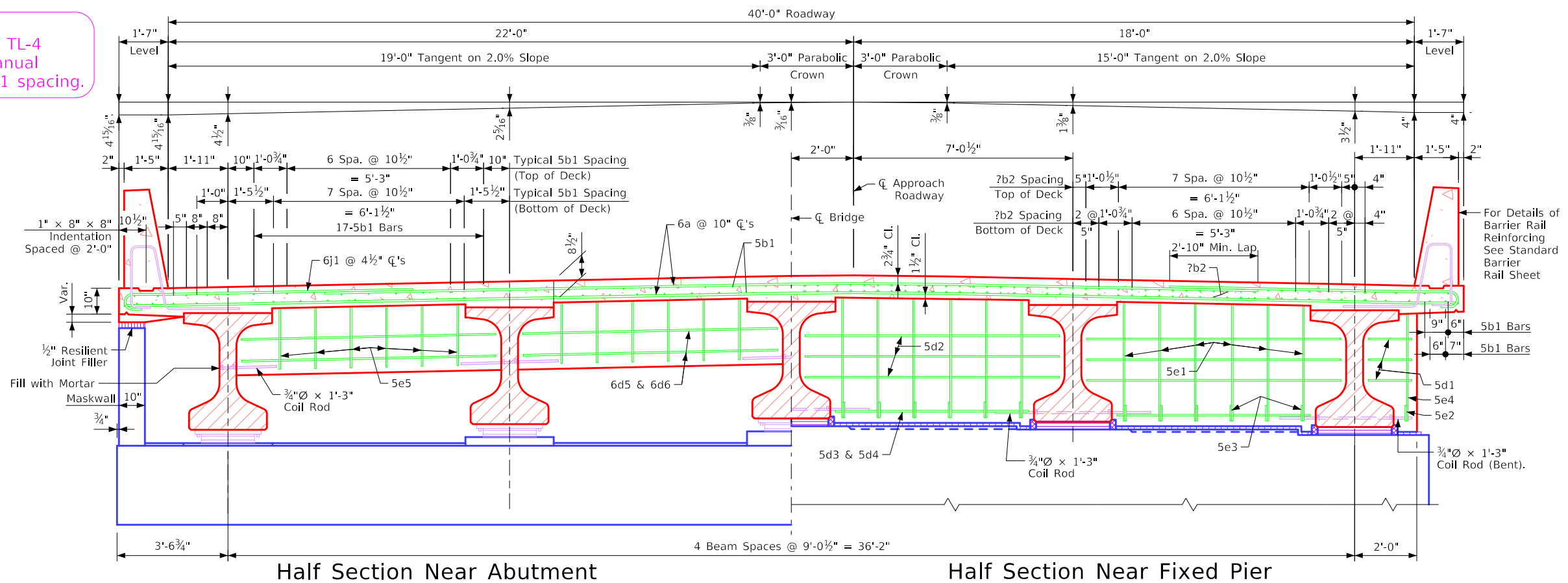
BTE 5 Beams - Stub Abut.

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. Issued 07-2008. BTStubBridges.dgn - 4556-BTE - This Sheet Re-Issued 11-2023. Sheet Format Update.

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"	----

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

Half Section Near Fixed Pier

The midpoint of the "b2" bar is to be placed at the \bar{C} of pier.

** Indicates "b2" bar placed in top deck only.

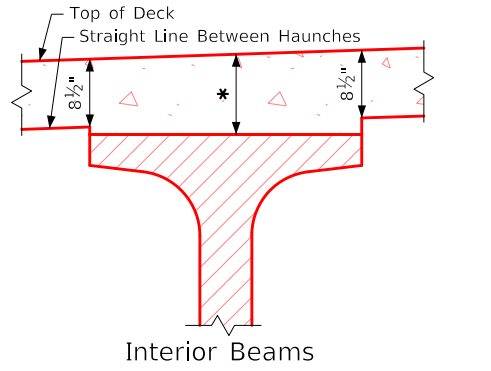
Note: For Details of Intermediate Diaphragms See Design Sheet No. ?.

Deck Area - 31.11 Sq. Ft.
Deck Area Does Not Include the Haunch.

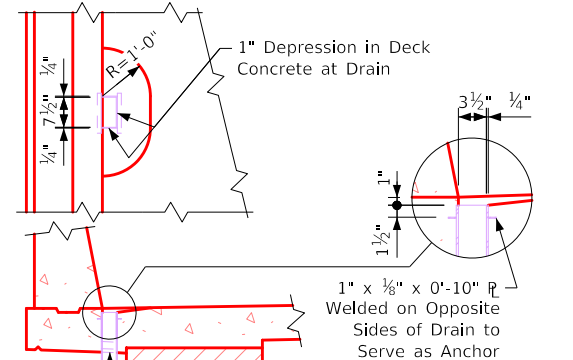
Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

- The bridge deck as shown includes $\frac{3}{4}$ " integral wearing surface.
- The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.
- Cost of all resilient 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 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" 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 $2\frac{3}{4}$ " clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and $1\frac{1}{2}$ " clear above bottom of the 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 = 2'-10").
 - Bottom bars - Lap over beams (min. lap = 3'-7").
- 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.



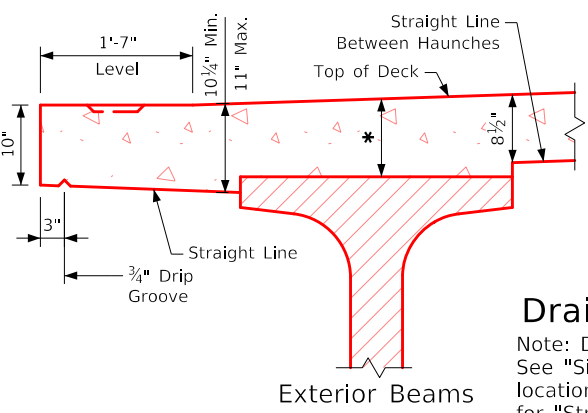
Interior Beams



Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

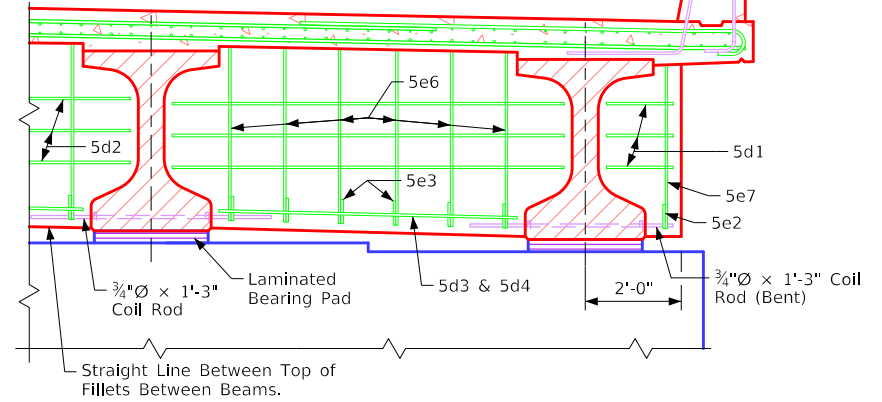
Data for One Drain	
Beam Size	BTC
Drain Weight (lbs.)	106
Drain Length (ft.)	5'-6 $\frac{3}{4}$ "



Exterior Beams

Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ?.



Part Section Near Expansion Pier

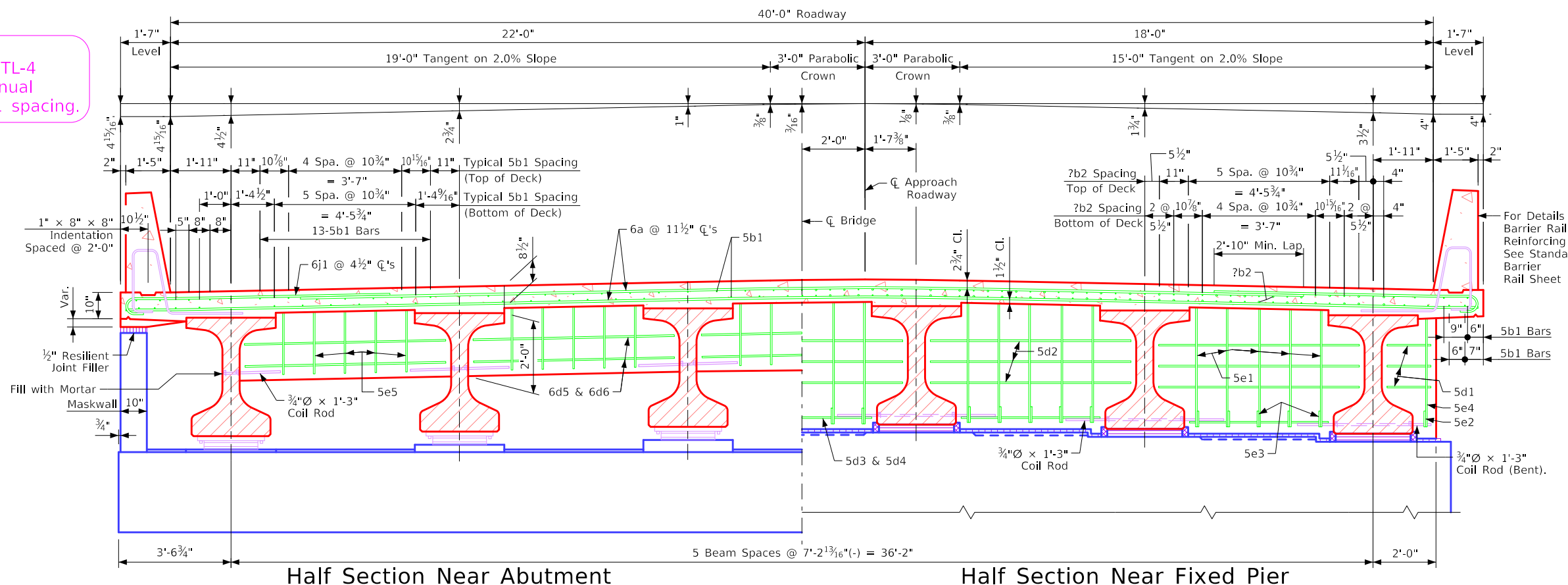
BTC 5 Beams - Stub Abut.

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. Issued 07-2008. BTSubBridges.dgn - 4559-BTC-5 - This Sheet Re-Issued 11-2023. Sheet Format Update.

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"	-----

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

Half Section Near Fixed Pier

The midpoint of the "b2" bar is to be placed at the \bar{C} of pier.

** Indicates "b2" bar placed in top deck only.

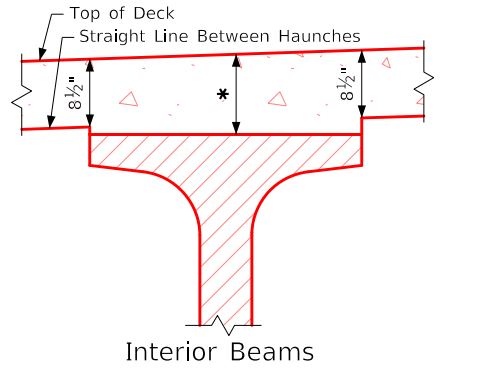
Note: For Details of Intermediate Diaphragms See Design Sheet No. ?.

Deck Area - 31.11 Sq. Ft.
Deck Area Does Not Include the Haunch.

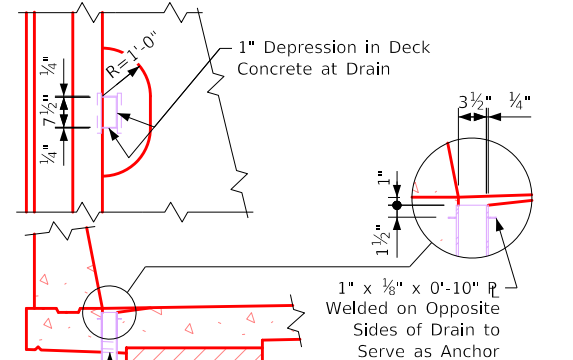
Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

- The bridge deck as shown includes $\frac{3}{4}$ " integral wearing surface.
- The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.
- Cost of all resilient 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 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" 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 $2\frac{3}{4}$ " clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and $1\frac{1}{2}$ " clear above bottom of the 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 = 2'-10").
 - Bottom bars - Lap over beams (min. lap = 3'-7").
- 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.



Interior Beams

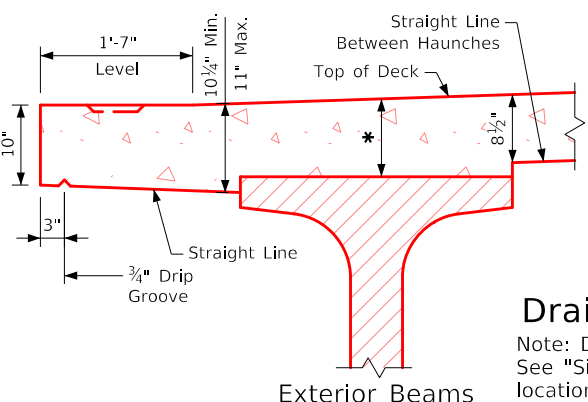


Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain

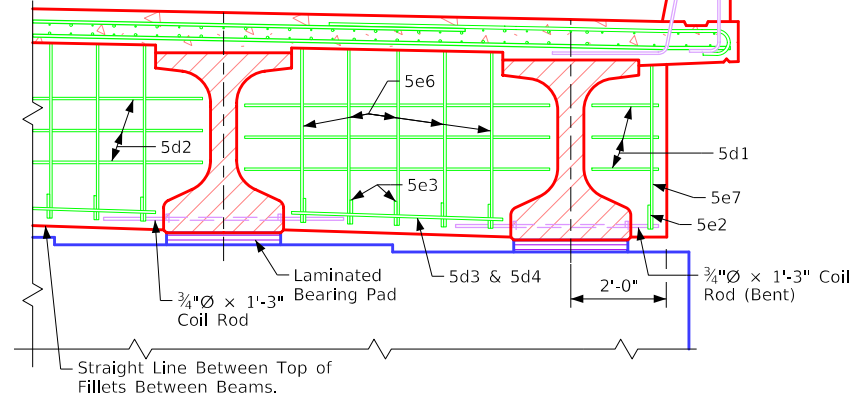
Beam Size	BTC
Drain Weight (lbs.)	106
Drain Length (ft.)	5'-6 $\frac{3}{4}$ "



Exterior Beams

Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ?.



Part Section Near Expansion Pier

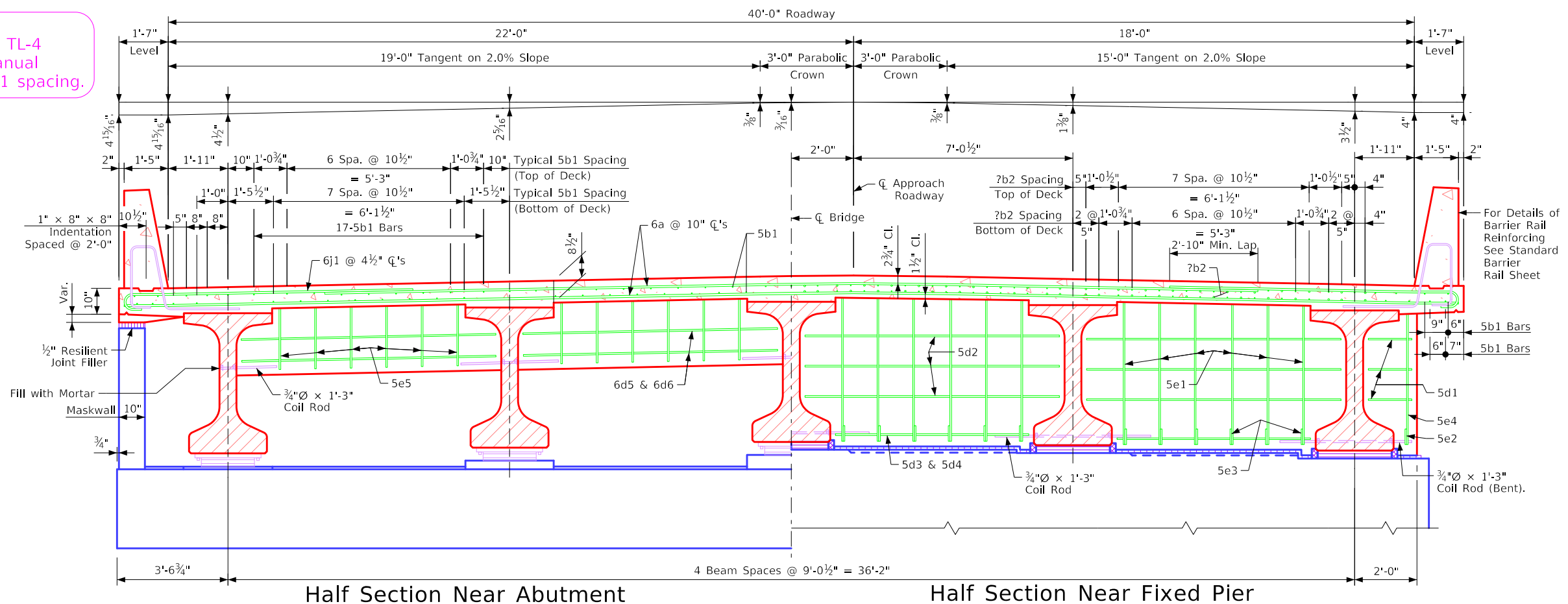
BTC 6 Beams - Stub Abut.

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. Issued 07-2008. BTSubBridges.dgn - 4559-BTC-6 - This Sheet Re-Issued 11-2023. Sheet Format Update.

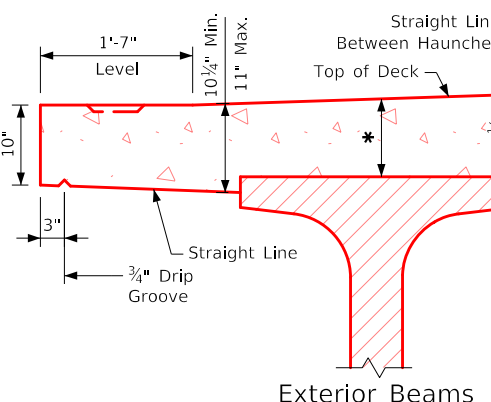
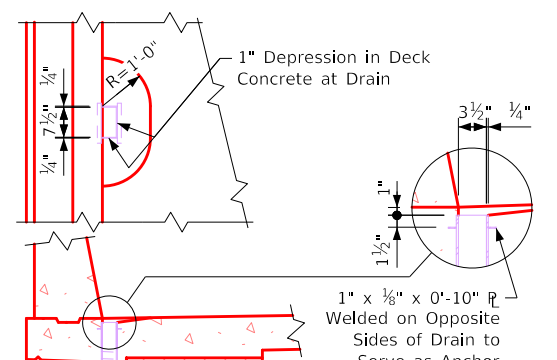
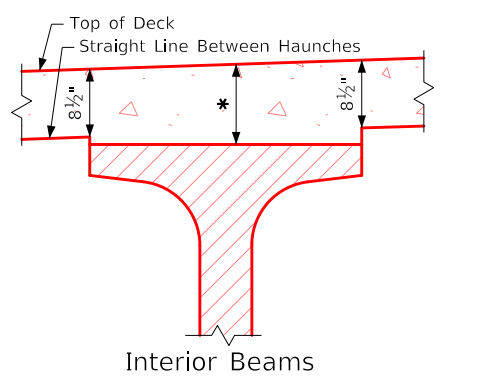
Table of Size of "b2" Bar

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"	----

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



The midpoint of the "b2" bar is to be placed at the centerline of pier.
 ** Indicates "b2" bar placed in top deck only.

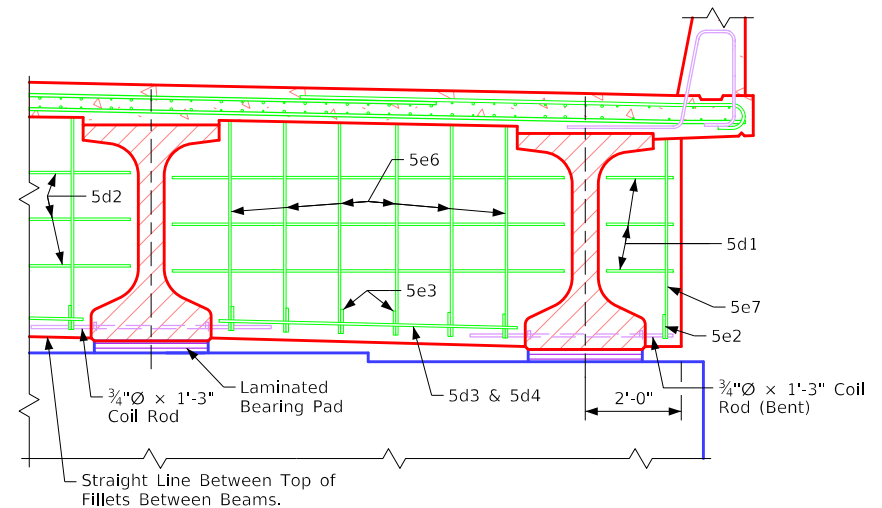


Drain Details
 Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Beam Size	BTD
Drain Weight (lbs.)	120
Drain Length (ft.)	6'-3 3/4"

Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:
 The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck. Cost of all resilient 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 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" 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 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the 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 = 2'-10").
 Bottom bars - Lap over beams (min. lap = 3'-7").
 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.



Part Section Near Expansion Pier

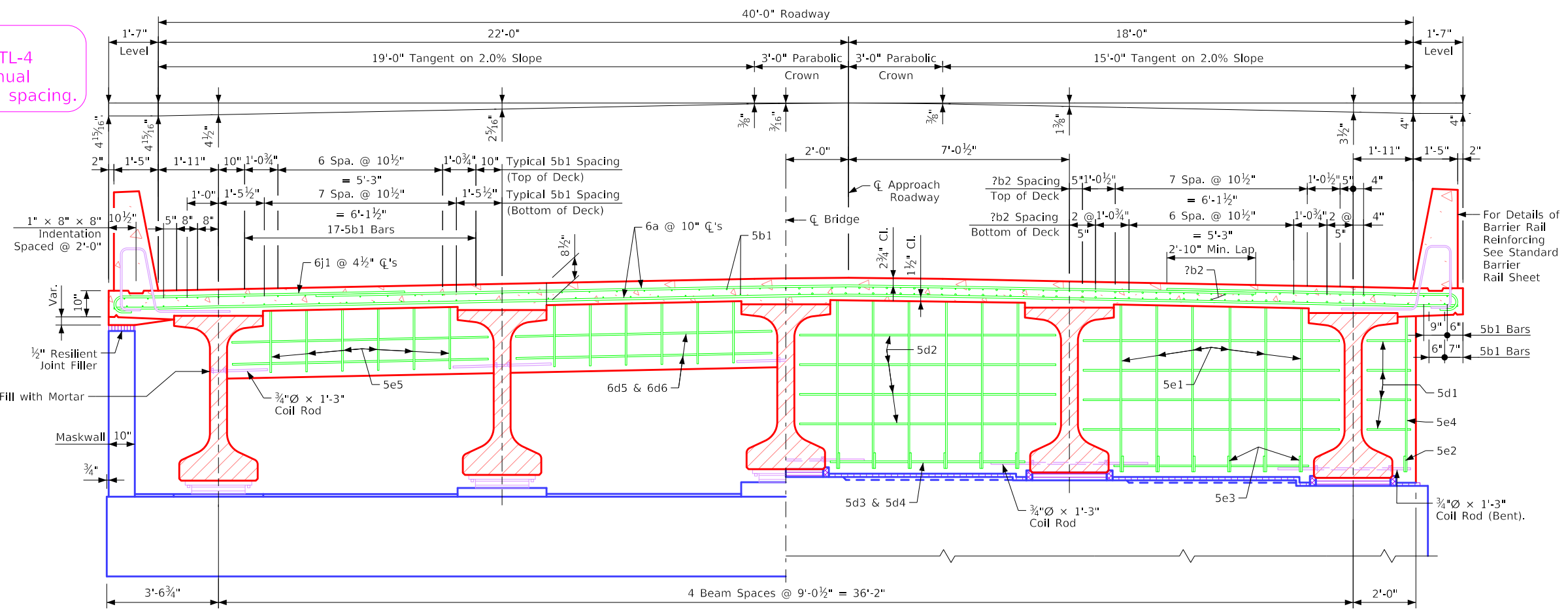
BTD 5 Beams - Stub Abut.

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. Issued 07-2008. BTSubBridges.dgn - 4559-BTD-5 - This Sheet Re-Issued 11-2023. Sheet Format Update.

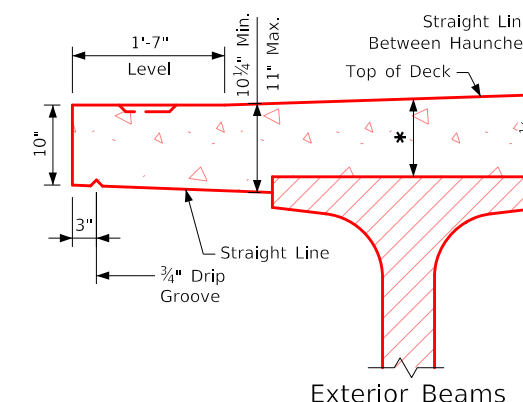
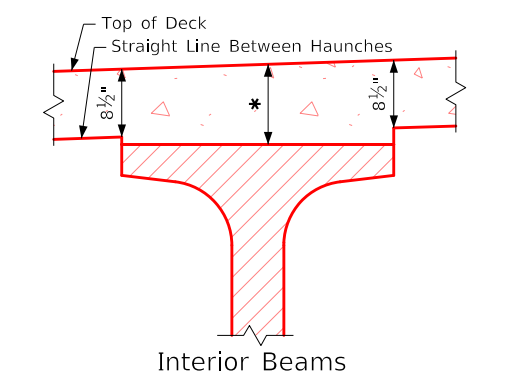
Table of Size of "b2" Bar

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

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.

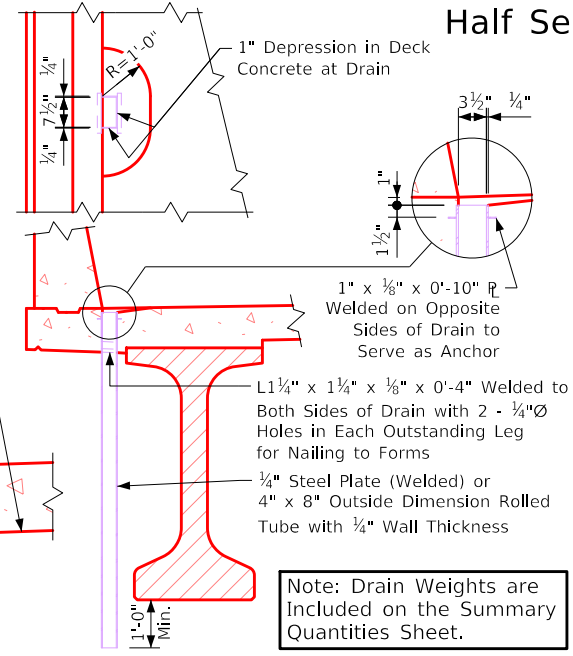


The midpoint of the "b2" bar is to be placed at the C of pier.
** Indicates "b2" bar placed in top deck only.



Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ?.



Drain Details
Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain	
Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 3/4"

Half Section Near Abutment

Note: For Details of Intermediate Diaphragms See Design Sheet No. ?.

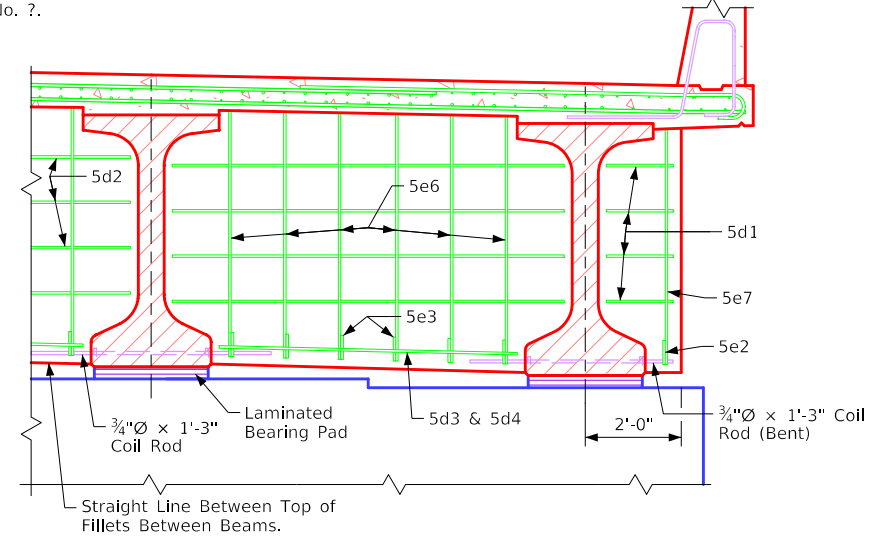
Deck Area - 31.11 Sq. Ft.
Deck Area Does Not Include the Haunch.

Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface.
The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.
Cost of all resilient 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 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" 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 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the 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 = 2'-10").
Bottom bars - Lap over beams (min. lap = 3'-7").
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 Fixed Pier



Part Section Near Expansion Pier

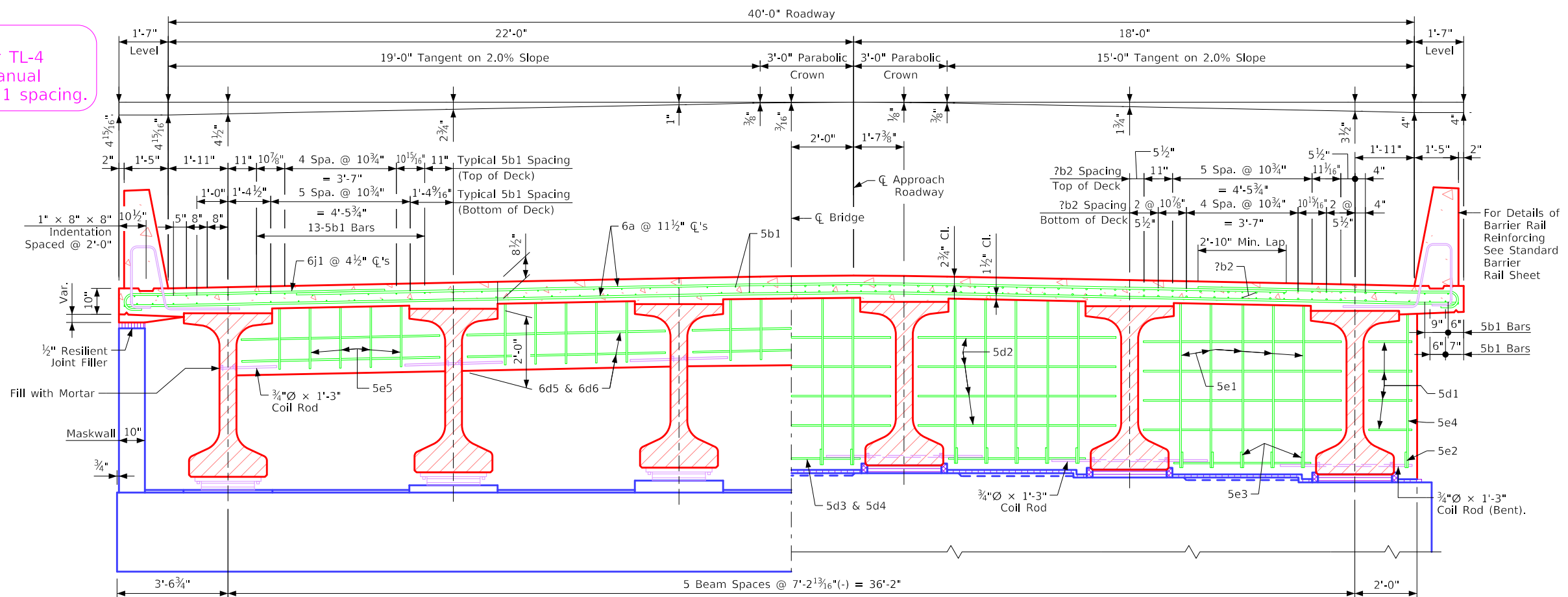
BTE 5 Beams - Stub Abut.

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. Issued 07-2008. BTSubBridges.dgn - 4559-BTE-5 - This Sheet Re-Issued 11-2023. Sheet Format Update.

Table of Size of "b2" Bar

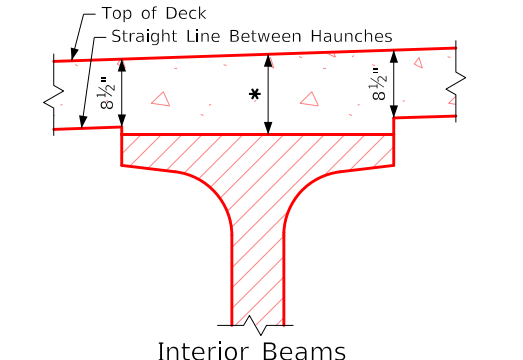
Longest Adjacent Span	BTE Beam Bar Size
30'-0"	.....
35'-0"	.....
40'-0"	.....
45'-0"	.....
50'-0"	.....
55'-0"	.....
60'-0"	** 4
65'-0"	** 5
70'-0"	** 6
75'-0"	** 6
80'-0"	** 7
85'-0"	** 7
90'-0"	** 8
95'-0"	** 8
100'-0"	** 9
105'-0"	** 9
110'-0"	7
115'-0"	7
120'-0"	7
125'-0"	8
130'-0"	8
135'-0"	8
140'-0"	9
145'-0"	9
150'-0"	9
155'-0"	9

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.

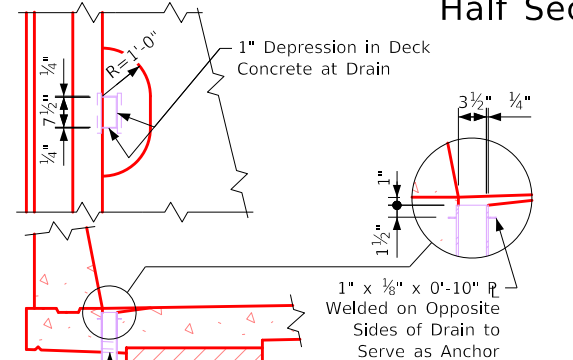


Half Section Near Abutment

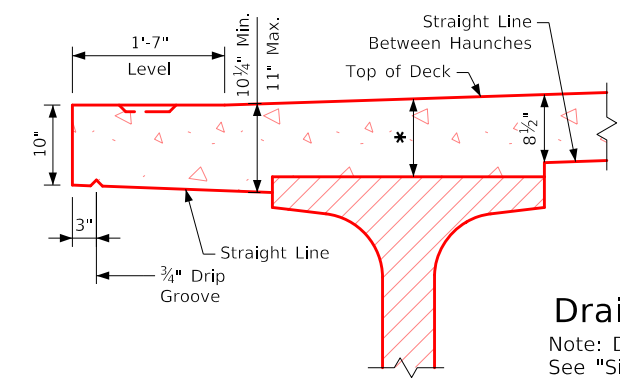
Half Section Near Fixed Pier



Interior Beams



Drain Details



Typical Deck and Haunch Detail

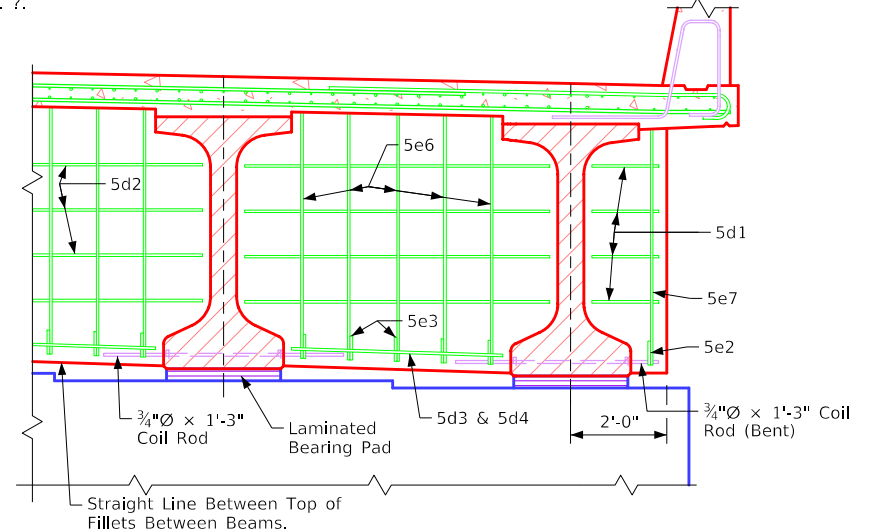
* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ?.

Data for One Drain	
Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 3/4"

Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck. Cost of all resilient 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 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" 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 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the 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 = 2'-10"). Bottom bars - Lap over beams (min. lap = 3'-7"). 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.



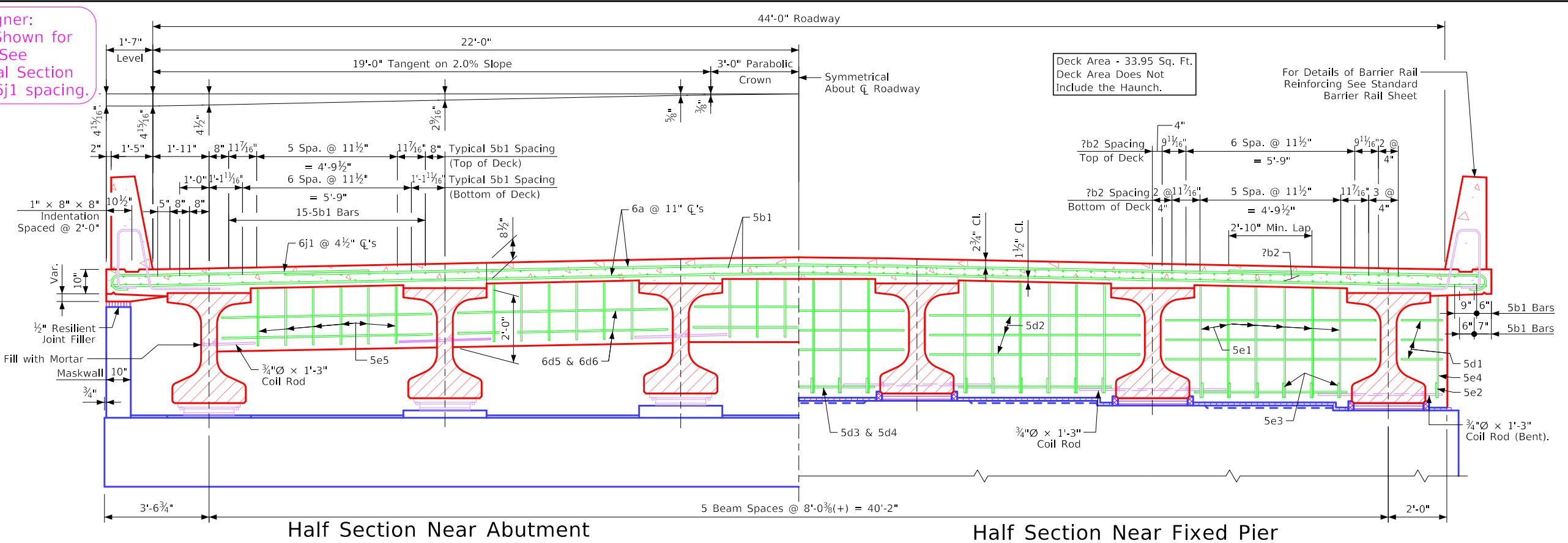
Part Section Near Expansion Pier

BTE 6 Beams - Stub Abut.

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. Issued 07-2008. BTSubBridges.dgn - 4559-BTE-6 - This Sheet Re-Issued 11-2023. Sheet Format Update.

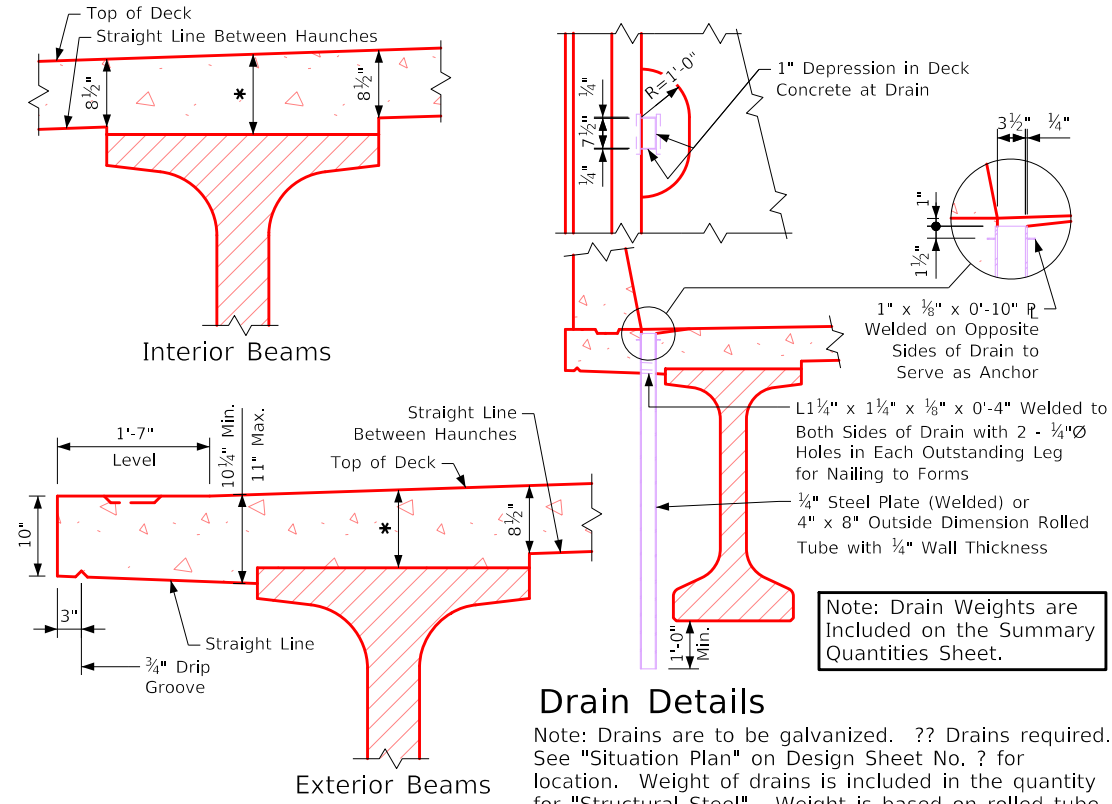
Longest Adjacent Span	BTC Beam Bar Size
30'-0"	** 4
35'-0"	** 4
40'-0"	** 4
45'-0"	** 4
50'-0"	** 4
55'-0"	** 4
60'-0"	** 6
65'-0"	** 7
70'-0"	** 7
75'-0"	** 8
80'-0"	** 9
85'-0"	** 9
90'-0"	7
95'-0"	7
100'-0"	8
105'-0"	8
110'-0"	8
115'-0"	8
120'-0"	8
125'-0"	----
130'-0"	----
135'-0"	----
140'-0"	----
145'-0"	----
150'-0"	----
155'-0"	----

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



The midpoint of the "b2" bar is to be placed at the centerline of pier.
 ** Indicates "b2" bar placed in top deck only.

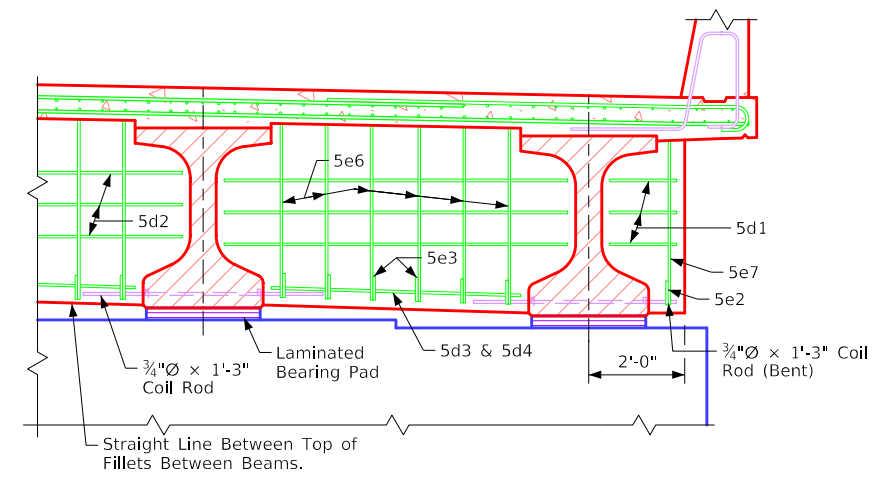
Note: For Details of Intermediate Diaphragms See Design Sheet No. 7.



Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck. Cost of all resilient 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 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" 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 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the 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 = 2'-10"). Bottom bars - Lap over beams (min. lap = 3'-7"). 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.



Part Section Near Expansion Pier

BTC 6 Beams - Stub Abut.

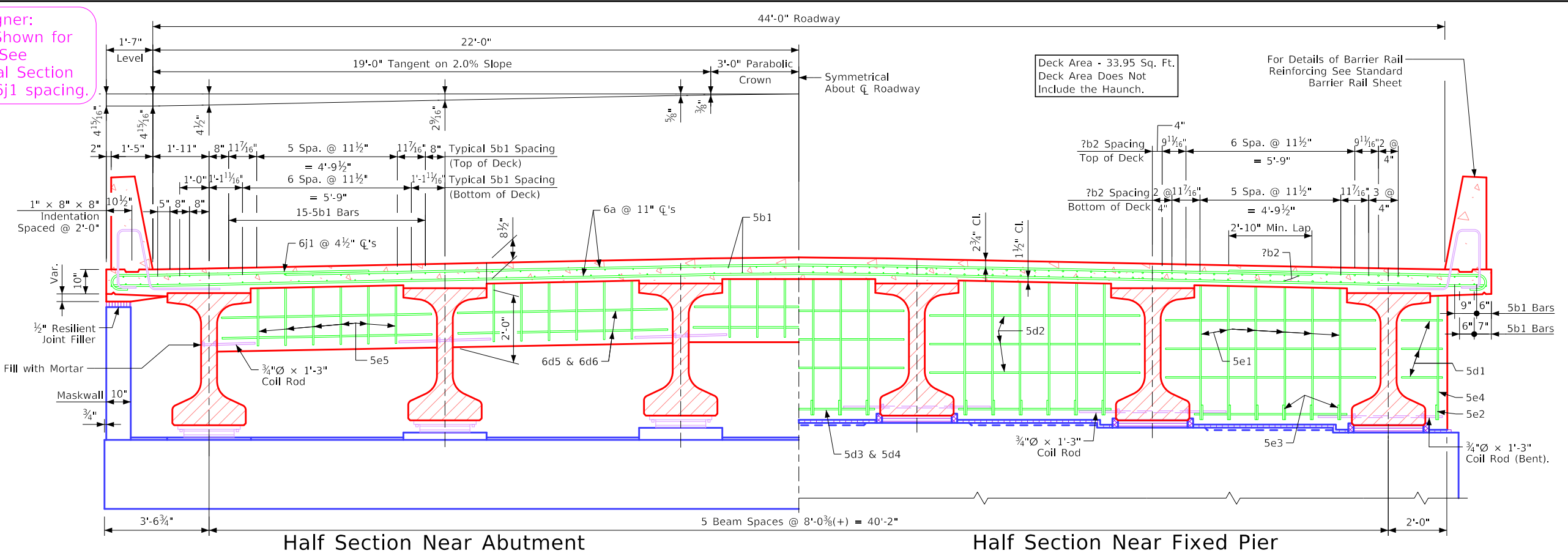
Data for One Drain	
Beam Size	BTC
Drain Weight (lbs.)	106
Drain Length (ft.)	5'-6 3/4"

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. Issued 07-2008. BTSubBridges.dgn - 4560-BTC-6 - This Sheet Re-Issued 11-2023. Sheet Format Update.

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"	----

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



The midpoint of the "b2" bar is to be placed at the \bar{C} of pier.

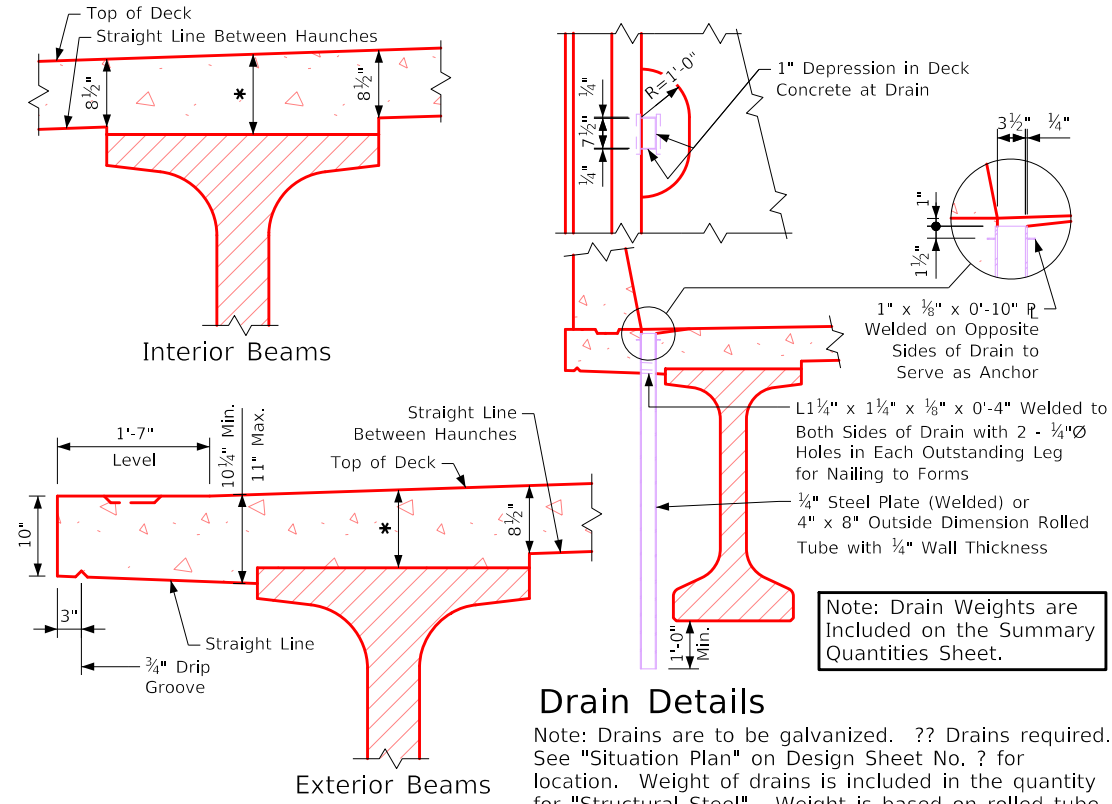
** Indicates "b2" bar placed in top deck only.

Note: For Details of Intermediate Diaphragms See Design Sheet No. 7.

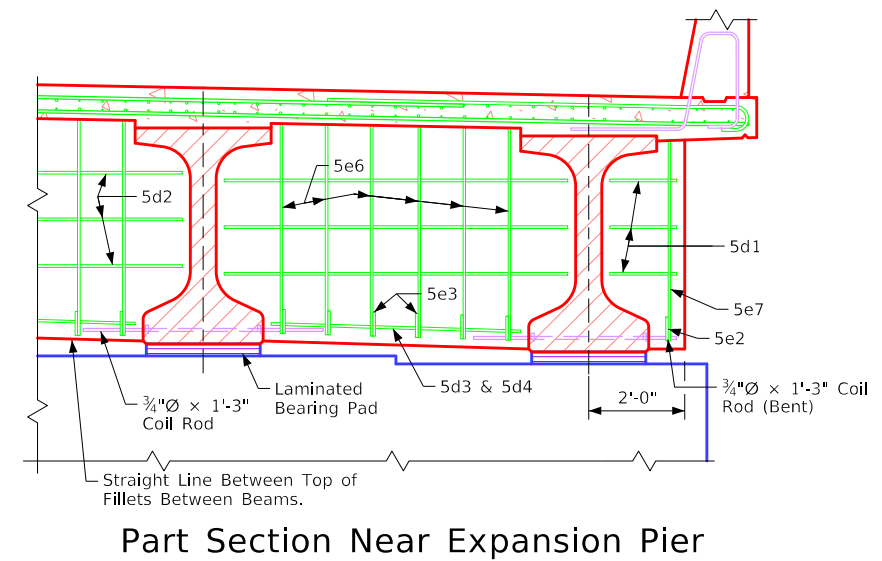
Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes $\frac{3}{4}$ " integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck. Cost of all resilient 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 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" 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 $2\frac{3}{4}$ " clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and $1\frac{1}{2}$ " clear above bottom of the 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 = 2'-10"). Bottom bars - Lap over beams (min. lap = 3'-7"). 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.



Beam Size	BTD
Drain Weight (lbs.)	120
Drain Length (ft.)	6'-3 $\frac{3}{4}$ "

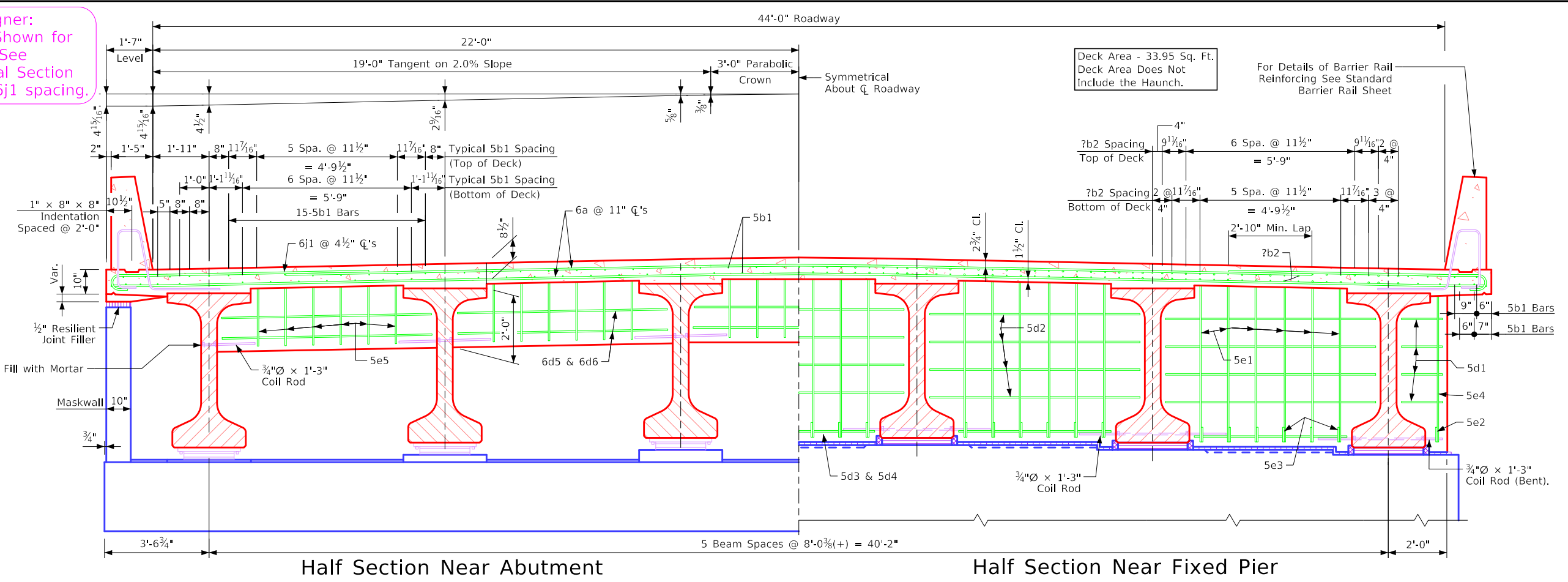


BTD 6 Beams - Stub Abut.

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. Issued 07-2008. BTSubBridges.dgn - 4560-BTD-6 - This Sheet Re-Issued 11-2023. Sheet Format Update.

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

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

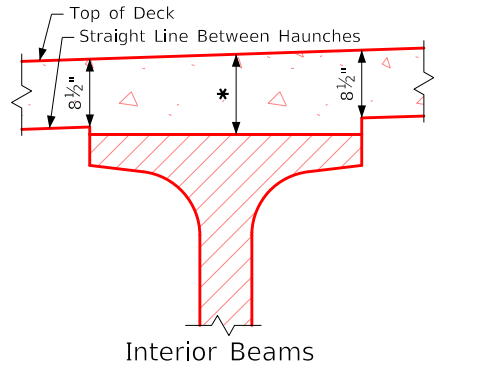
Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ?.

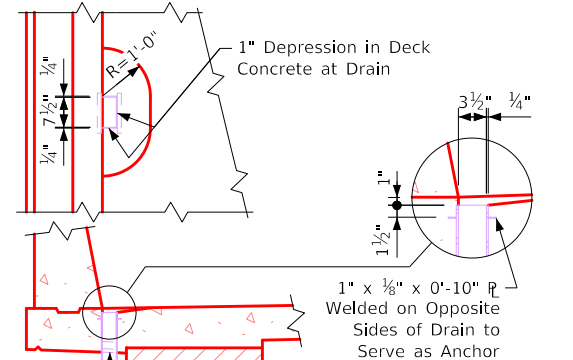
Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck. Cost of all resilient 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 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" 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 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the 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 = 2'-10"). Bottom bars - Lap over beams (min. lap = 3'-7"). 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.



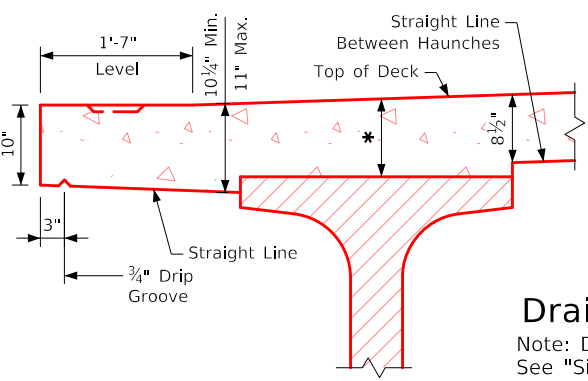
Interior Beams



Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

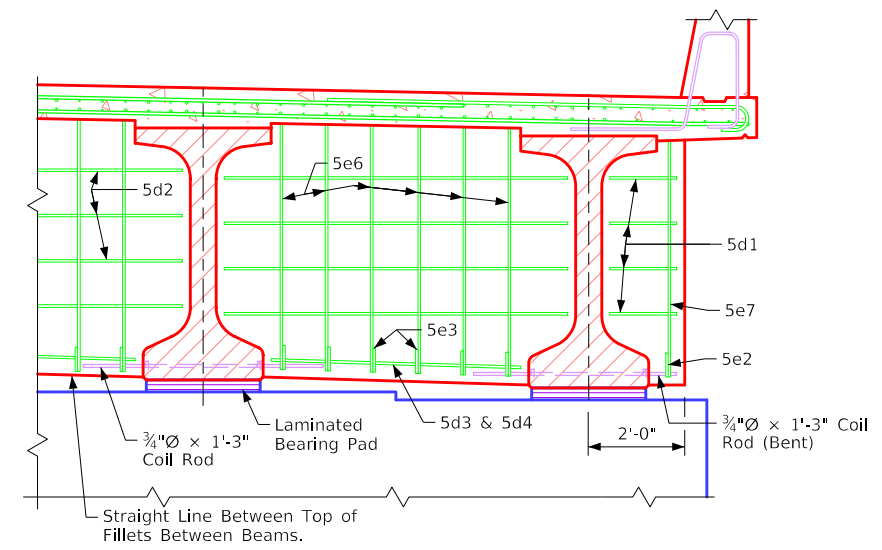
Data for One Drain	
Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 3/4"



Exterior Beams

Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ?.



Part Section Near Expansion Pier

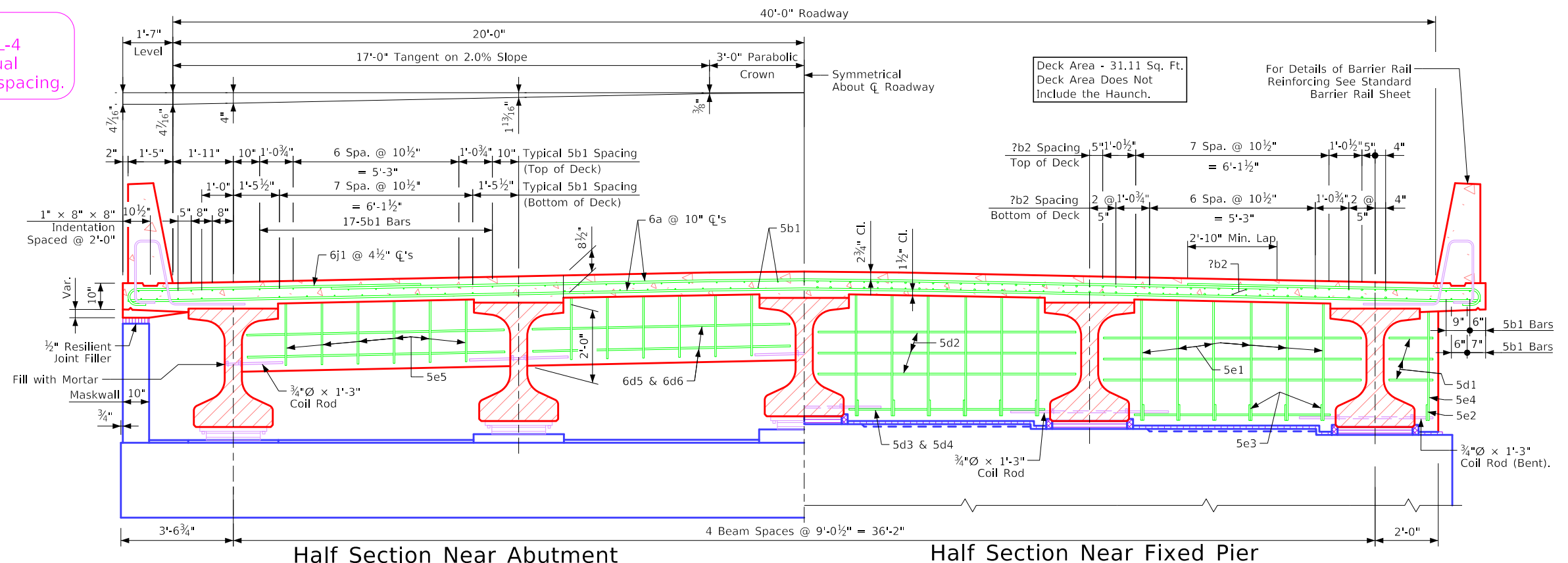
BTE 6 Beams - Stub Abut.

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. Issued 07-2008. BTSubBridges.dgn - 4560-BTE-6 - This Sheet Re-Issued 11-2023. Sheet Format Update.

Table of Size of "b2" Bar

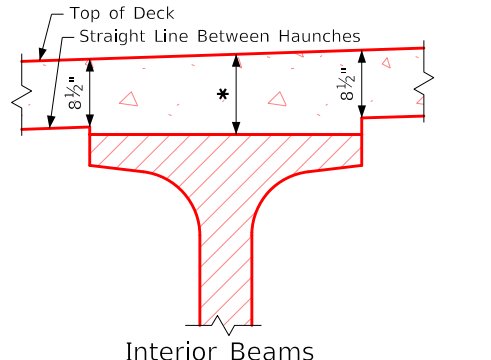
Longest Adjacent Span	BTC Beam Bar Size
30'-0"	** 4
35'-0"	** 4
40'-0"	** 4
45'-0"	** 4
50'-0"	** 4
55'-0"	** 4
60'-0"	** 6
65'-0"	** 7
70'-0"	** 7
75'-0"	** 8
80'-0"	** 9
85'-0"	** 9
90'-0"	7
95'-0"	7
100'-0"	8
105'-0"	8
110'-0"	8
115'-0"	8
120'-0"	8
125'-0"	----
130'-0"	----
135'-0"	----
140'-0"	----
145'-0"	----
150'-0"	----
155'-0"	----

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.

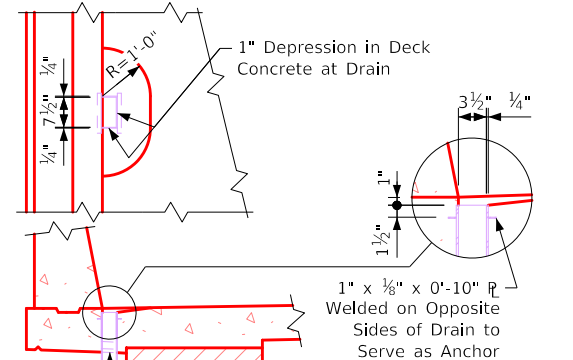


The midpoint of the "b2" bar is to be placed at the centerline of pier.

** Indicates "b2" bar placed in top deck only.



Interior Beams



Drain Details

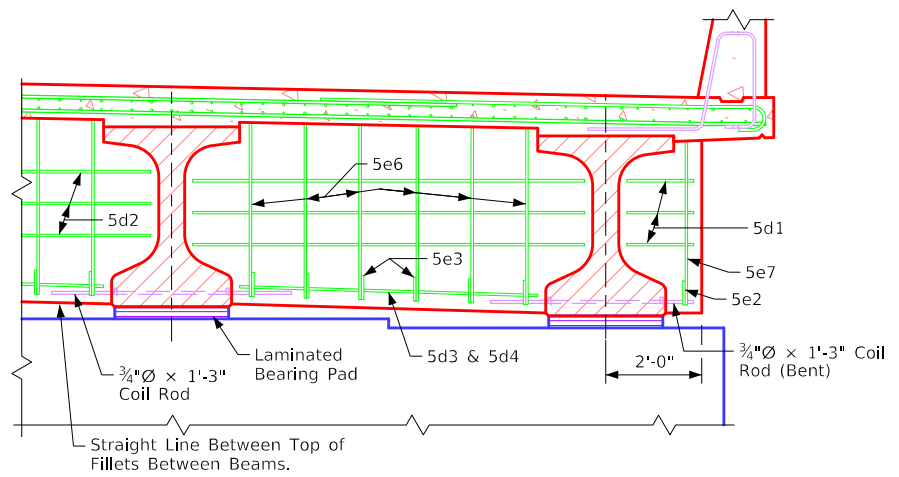
Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain	
Beam Size	BTC
Drain Weight (lbs.)	106
Drain Length (ft.)	5'-6 3/4"

Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck. Cost of all resilient 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 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" 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 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the 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 = 2'-10"). Bottom bars - Lap over beams (min. lap = 3'-7"). 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.



Part Section Near Expansion Pier

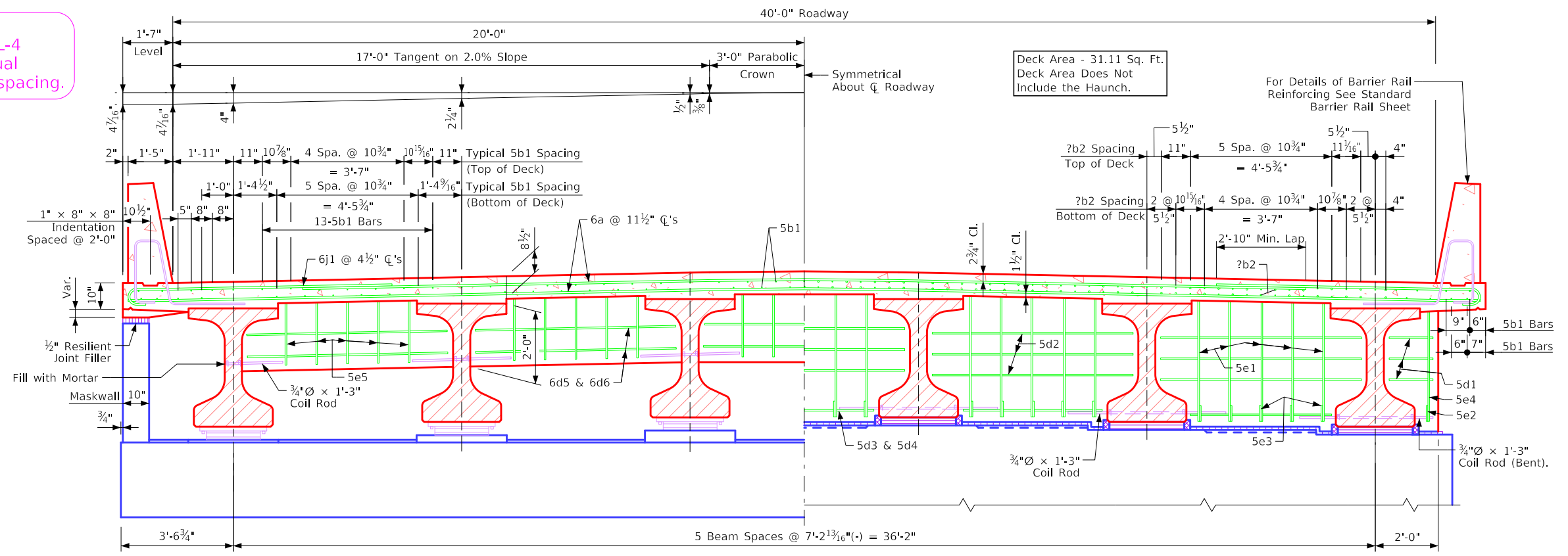
BTC 5 Beams - Stub Abut.

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. Issued 07-2008. BTSubBridges.dgn - 4561-BTC-5 - This Sheet Re-Issued 11-2023. Sheet Format Update.

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"	-----

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



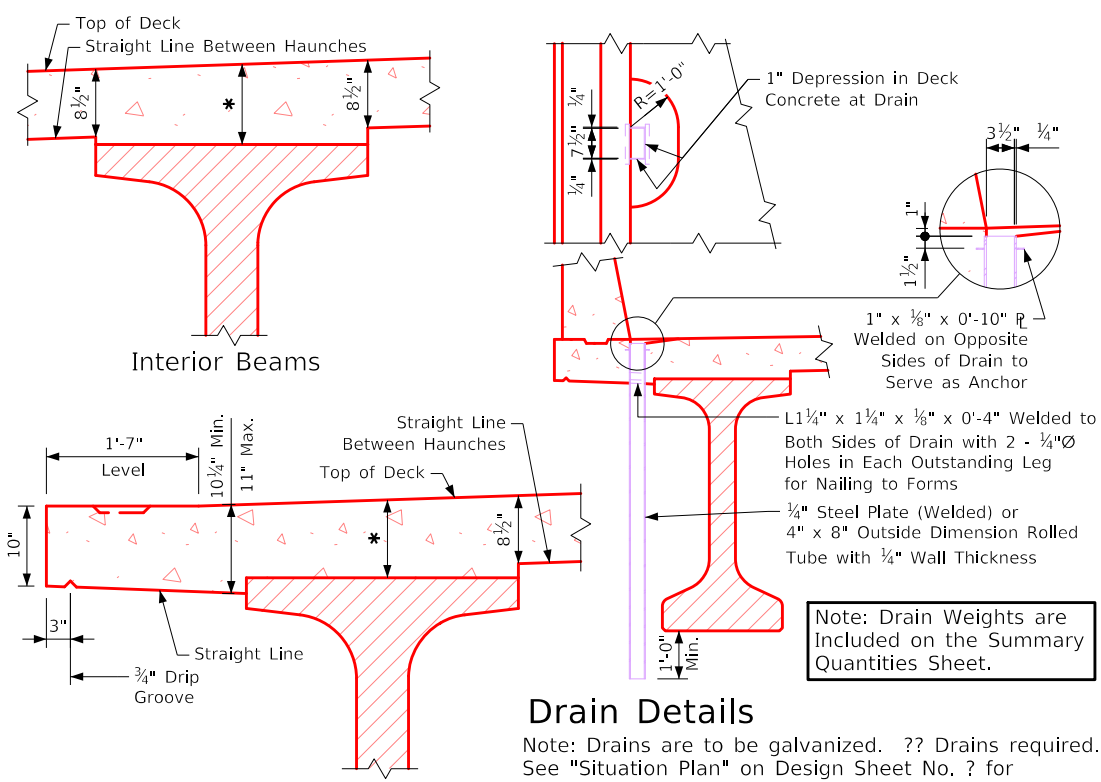
Half Section Near Abutment

Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ?

The midpoint of the "b2" bar is to be placed at the centerline of pier.

** Indicates "b2" bar placed in top deck only.



Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ?.

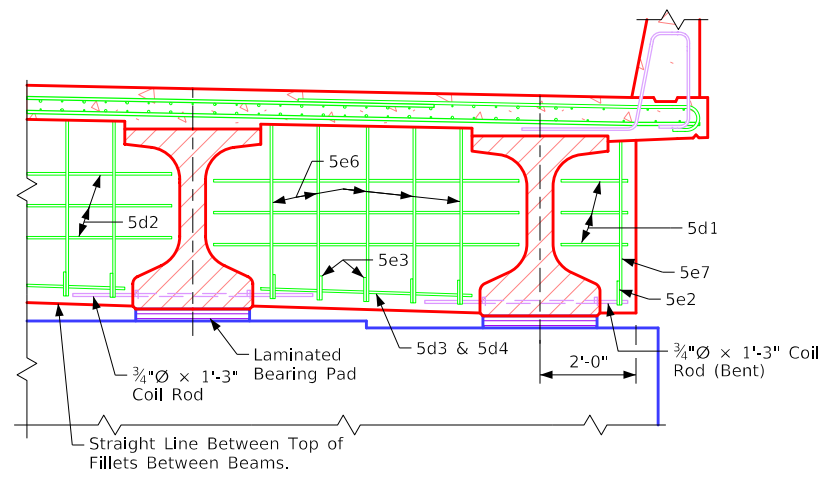
Data for One Drain

Beam Size	BTC
Drain Weight (lbs.)	106
Drain Length (ft.)	5'-6 3/4"

Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck. Cost of all resilient 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 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" 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 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the 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 = 2'-10"). Bottom bars - Lap over beams (min. lap = 3'-7"). 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.



Part Section Near Expansion Pier

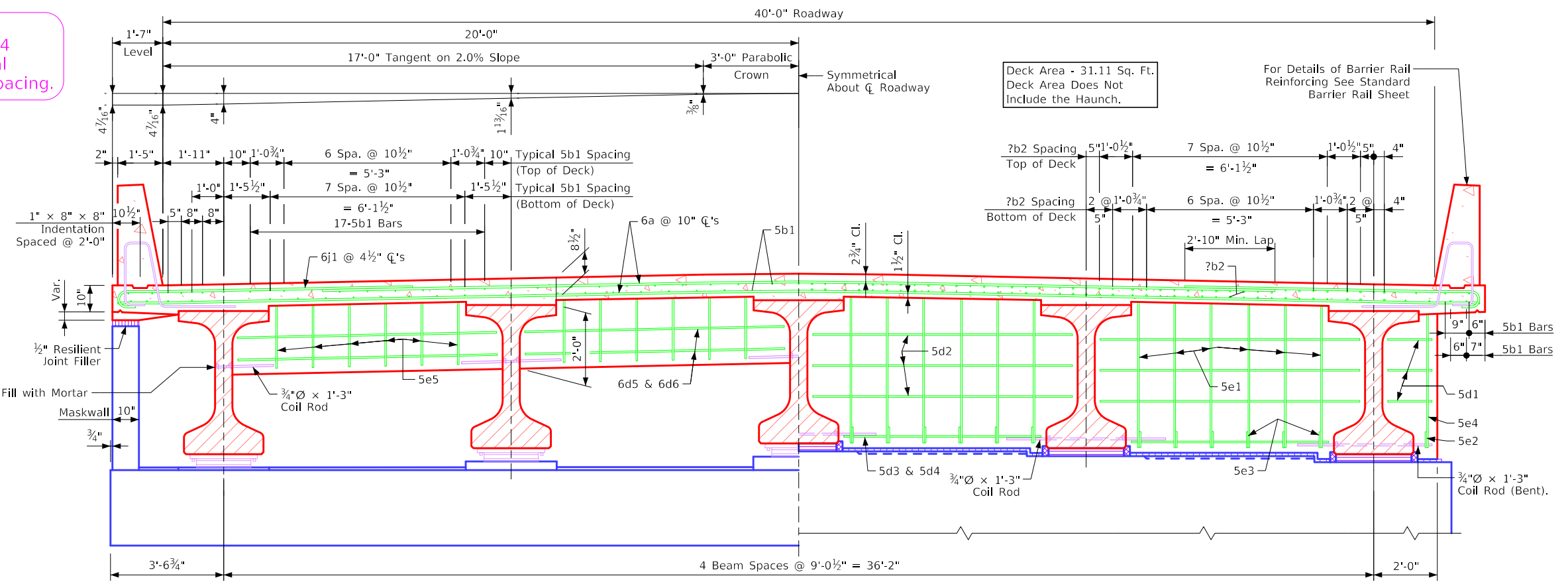
BTC 6 Beams - Stub Abut.

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. Issued 07-2008. BTSubBridges.dgn - 4561-BTC-6 - This Sheet Re-Issued 11-2023. Sheet Format Update.

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"	.....

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

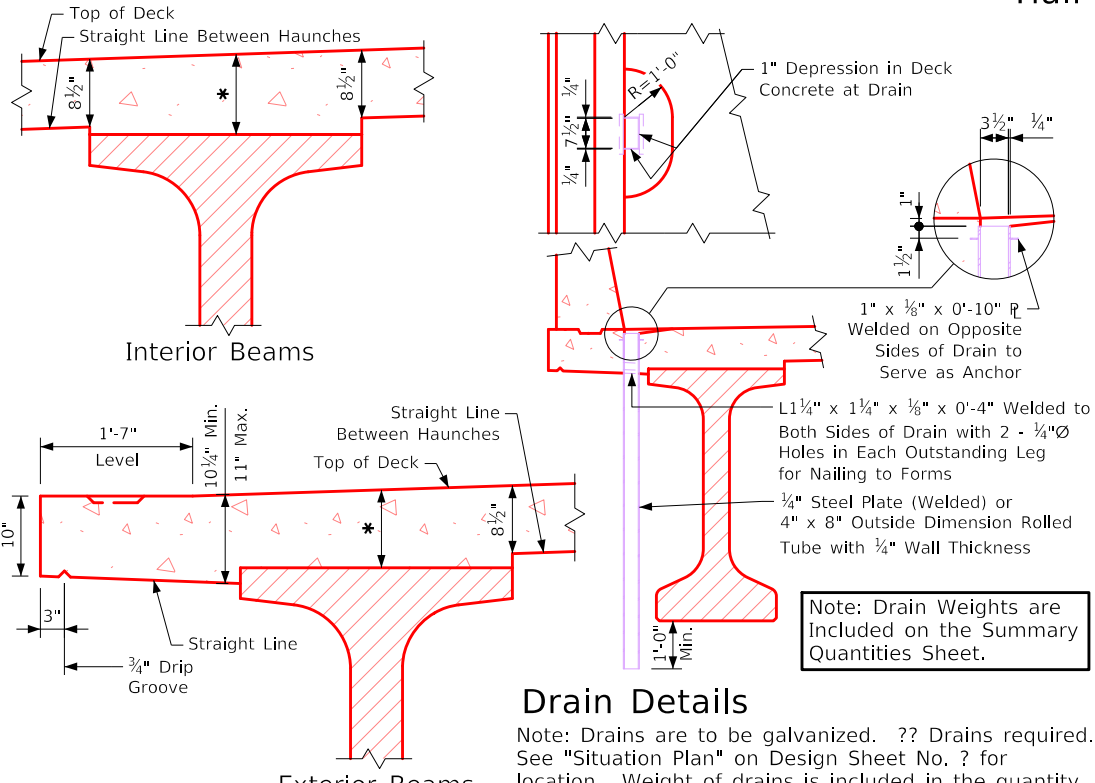
Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ?.

Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck. Cost of all resilient 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 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" 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 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the 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 = 2'-10"). Bottom bars - Lap over beams (min. lap = 3'-7"). 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.



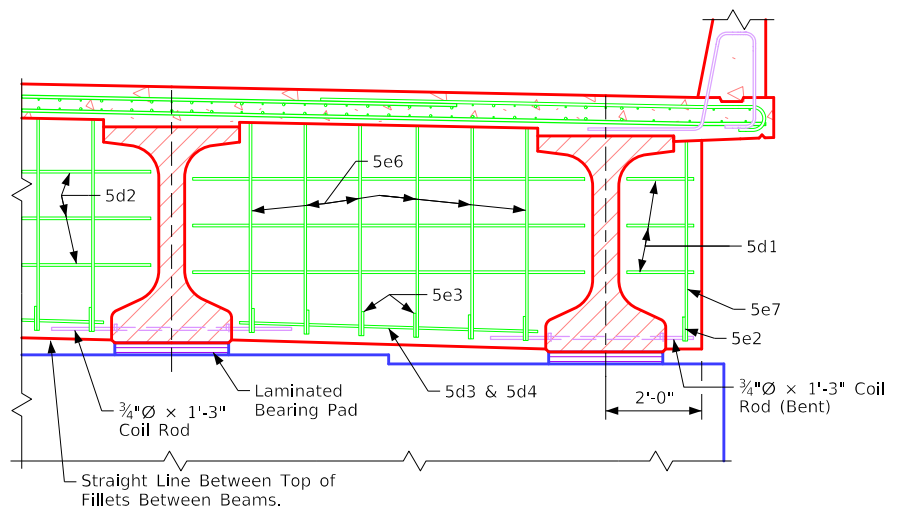
Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ?.

Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain	
Beam Size	BTD
Drain Weight (lbs.)	120
Drain Length (ft.)	6'-3 3/4"



Part Section Near Expansion Pier

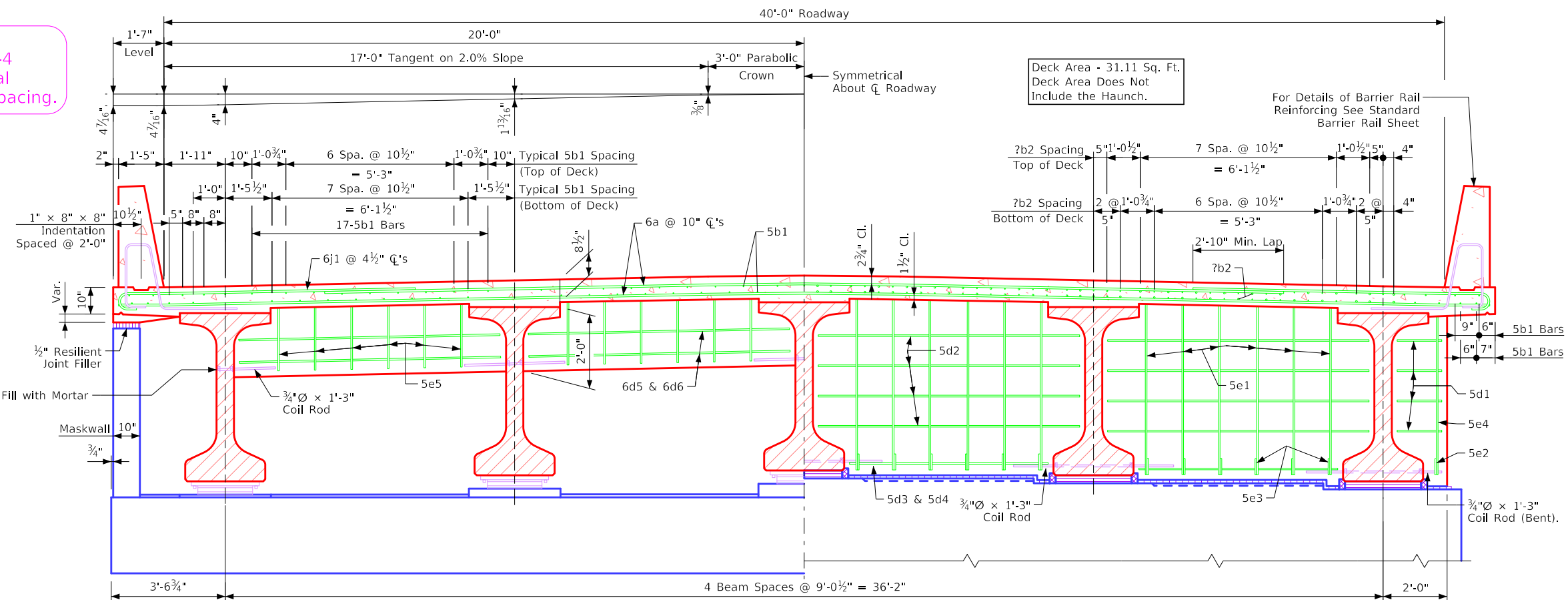
BTD 5 Beams - Stub Abut.

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. Issued 07-2008. BTSubBridges.dgn - 4561-BTD-5 - This Sheet Re-Issued 11-2023. Sheet Format Update.

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

Note to Designer:
6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

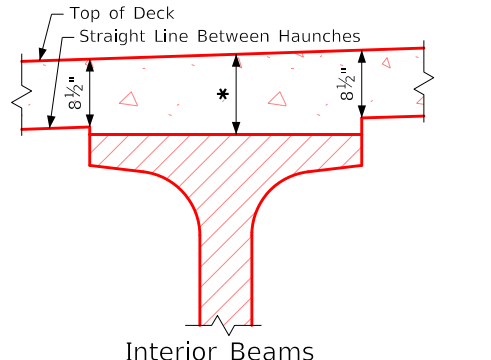
Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ?.

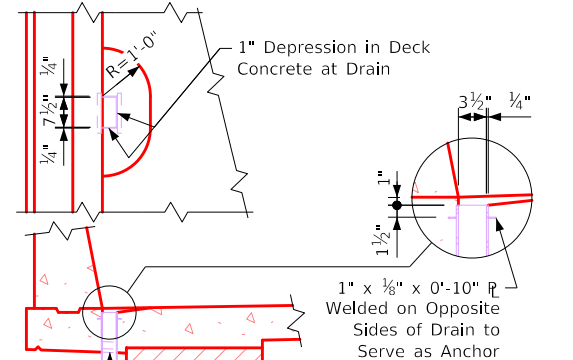
Note to Detailer:
"PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface. The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck. Cost of all resilient 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 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" 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 3/4" clear below top of deck. Bottom transverse reinforcing steel is to be parallel to and 1 1/2" clear above bottom of the 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 = 2'-10").
Bottom bars - Lap over beams (min. lap = 3'-7").
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.



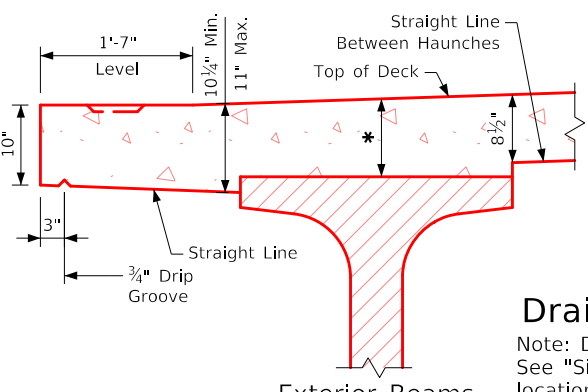
Interior Beams



Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

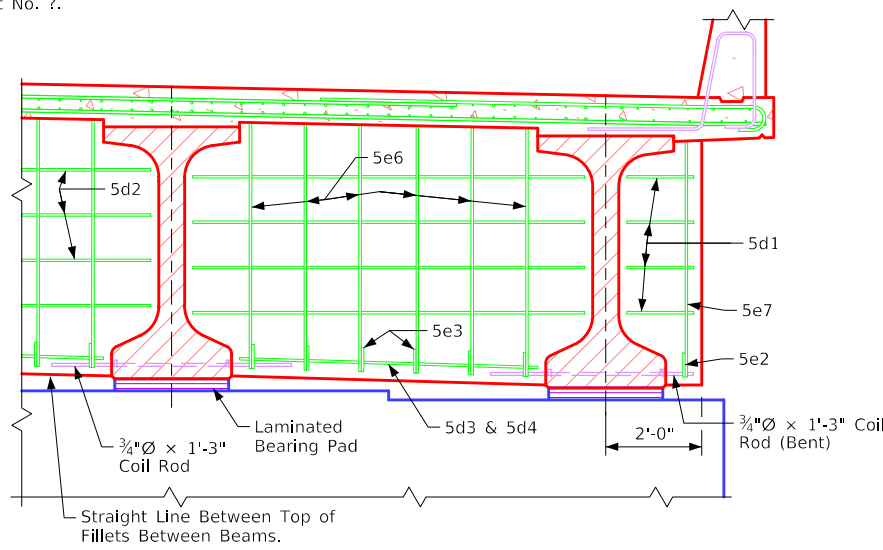
Data for One Drain	
Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 3/4"



Exterior Beams

Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ?.



Part Section Near Expansion Pier

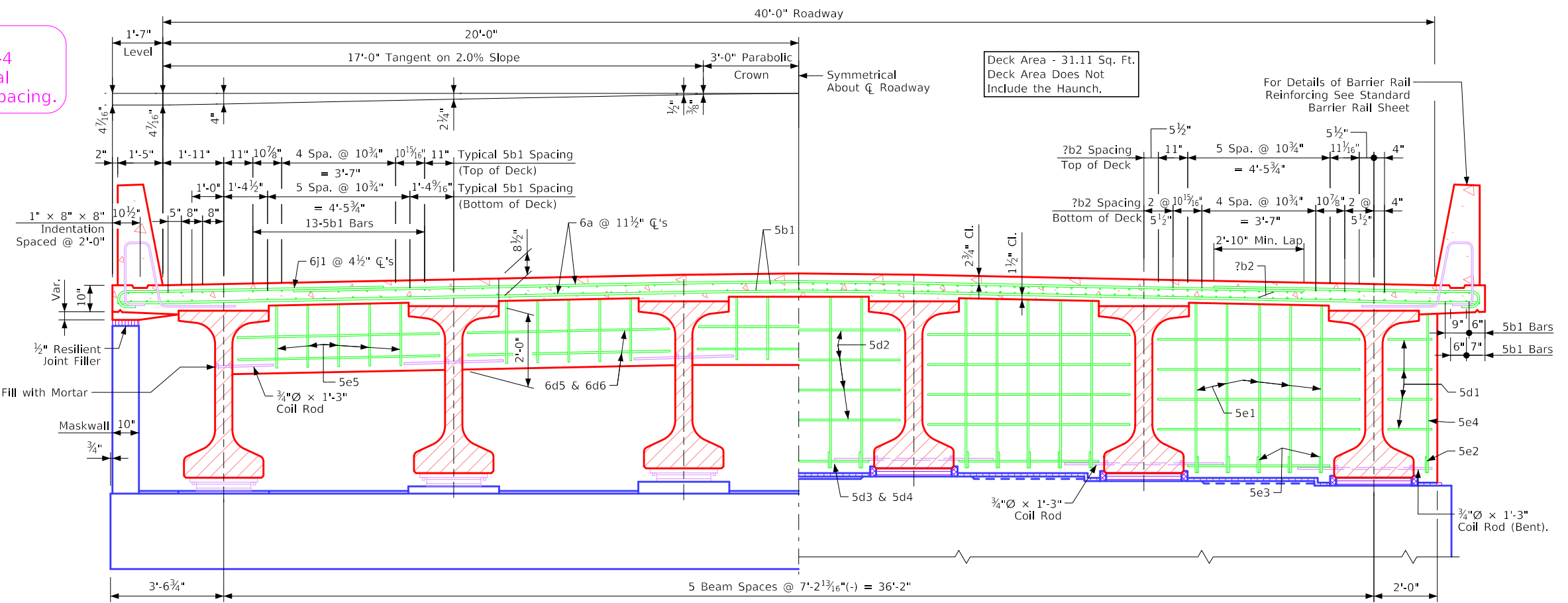
BTE 5 Beams - Stub Abut.

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. Issued 07-2008. BTSubBridges.dgn - 4561-BTE-5 - This Sheet Re-Issued 11-2023. Sheet Format Update.

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

Note to Designer: 6j1 Spacing Shown for TL-4 Barrier. See Design Manual Section 5.2 for TL-5 6j1 spacing.



Half Section Near Abutment

Half Section Near Fixed Pier

Note: For Details of Intermediate Diaphragms See Design Sheet No. ?.

Note to Detailer: "PC_REBAR_BARRIER" Level or "PC_REBAR_STAINLESS" Level Should be On or Off Depending on Barrier Rail Steel Embedded in the Bridge Deck

Superstructure Notes:

The bridge deck as shown includes 3/4" integral wearing surface.

The pier and abutment diaphragm concrete is to be placed monolithically with the bridge deck.

Cost of all resilient 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 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" unless otherwise noted or shown.

All deck and diaphragm reinforcing is to be wired in place and adequately supported before concrete is placed.

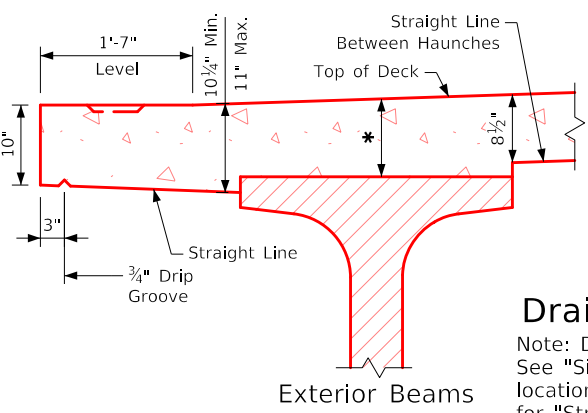
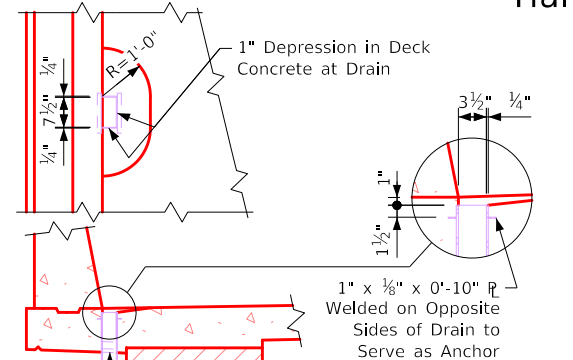
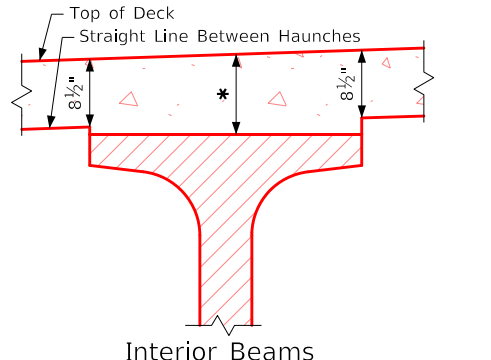
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Transverse deck reinforcing may be spliced with one lap located as follows:

Top bar - Lap midway between beams (min. lap = 2'-10").

Bottom bars - Lap over beams (min. lap = 3'-7").

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.



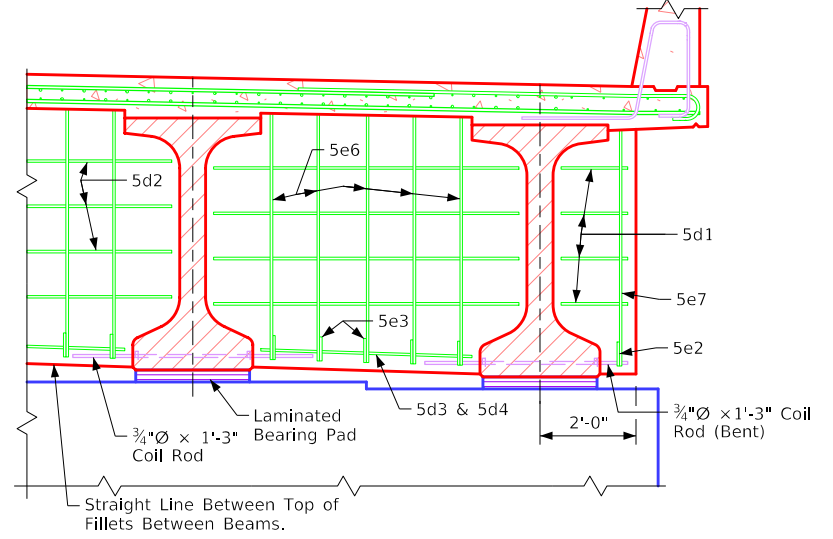
Typical Deck and Haunch Detail

* For Deck Thickness Over Beams See "Haunch And Camber Details" on Design Sheet No. ?.

Drain Details

Note: Drains are to be galvanized. ?? Drains required. See "Situation Plan" on Design Sheet No. ? for location. Weight of drains is included in the quantity for "Structural Steel". Weight is based on rolled tube.

Data for One Drain	
Beam Size	BTE
Drain Weight (lbs.)	136
Drain Length (ft.)	7'-0 3/4"



Part Section Near Expansion Pier

BTE 6 Beams - Stub Abut.

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. Issued 07-2008. BTSubBridges.dgn - 4561-BTE-6 - This Sheet Re-Issued 11-2023. Sheet Format Update.