STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	472-84071	2005	B5.21	

NOTES:
Fabrication and workmanship shall conform to the AREMA Manual for Railway Engineering.

Welding shall conform to the AREMA Manual for Railway Engineering and the Bridge Welding Code, AWS D1.5M/D1.5.

All weld metal shall be equivalent to the base metal in strength, corrosion resistance and painted appearance.

All pipe welds shall be made with the MIG process.

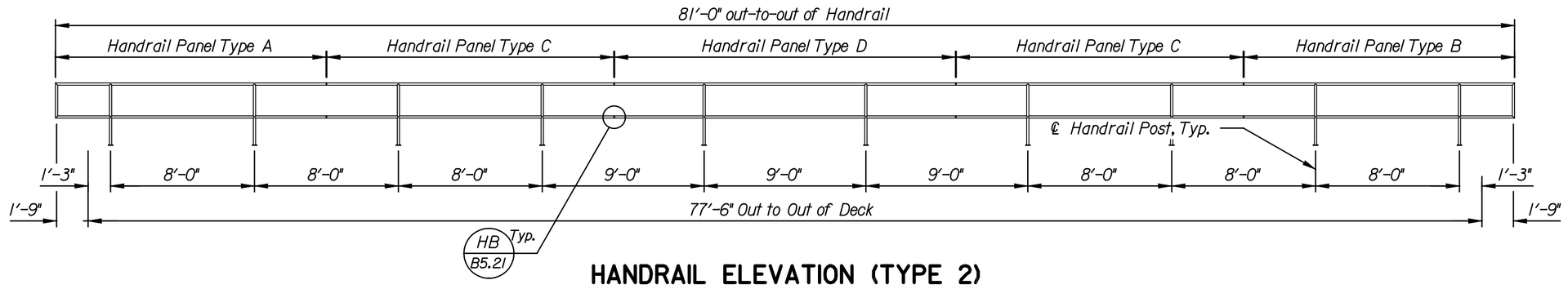
All steel pipes shall be uncoated and conform to ASTM A53.

All structural steel shall conform to ASTM A36 or A709, Gr 50.

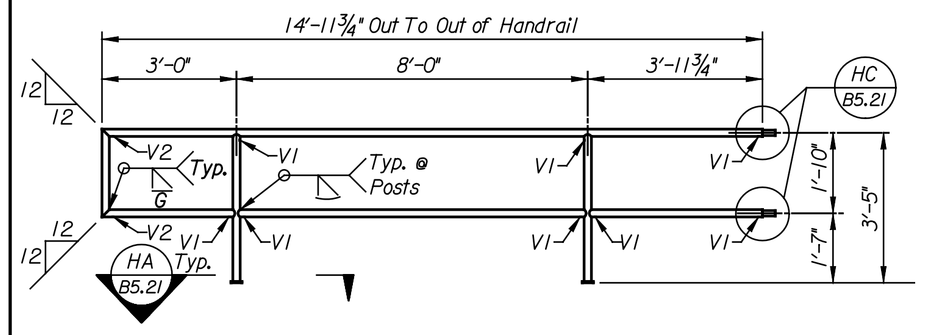
Concrete anchors for Handrail Type 2A shall be approved by the Engineer.

Handrails, hardware and appurtenances shall be galvanized in accordance with ASTM A123 or A153 after fabrication.

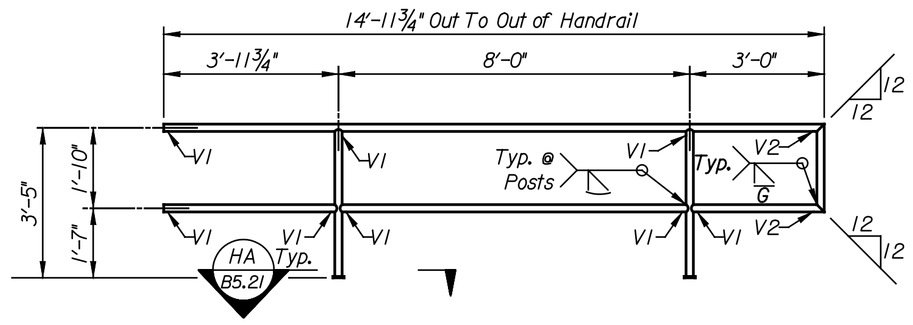
After galvanizing, all elements shall be free of fins, abrasions, rough or sharp edges and other surface defects.



HANDRAIL ELEVATION (TYPE 2)
Scale: 3/16" = 1'-0"



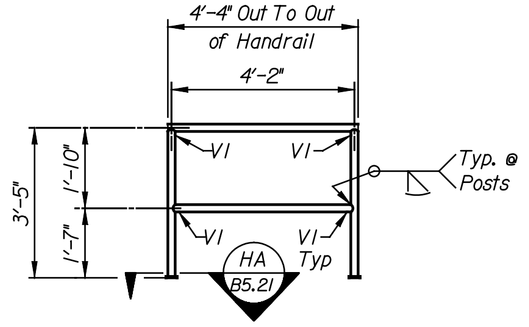
HANDRAIL PANEL TYPE A
No. Required = 1
Weight = 105 Lbs. Each
Handrail Panels are to be fabricated using 1½" Dia. std. Black Pipe.
(Galvanize after fabrication)
Scale: ⅜" = 1'-0"



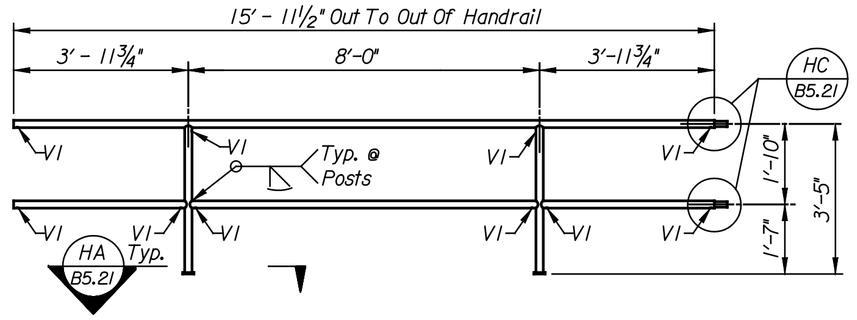
HANDRAIL PANEL TYPE B
No. Required = 1
Weight = 105 Lbs. Each
Handrail Panels are to be fabricated using 1½" Dia. std. Black Pipe.
(Galvanize after fabrication)
Scale: ⅜" = 1'-0"

V1 = ⅜" Dia. Drilled Vent Hole 1" from Joint Unless Noted Otherwise

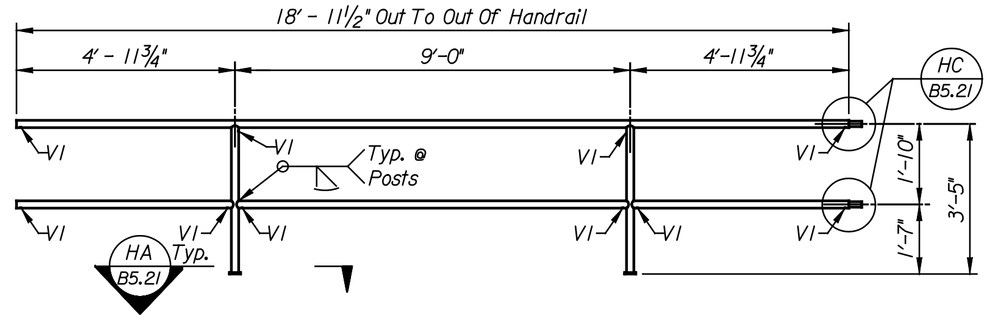
V2 = ½" Dia. Drilled Vent Hole 1" form Joint



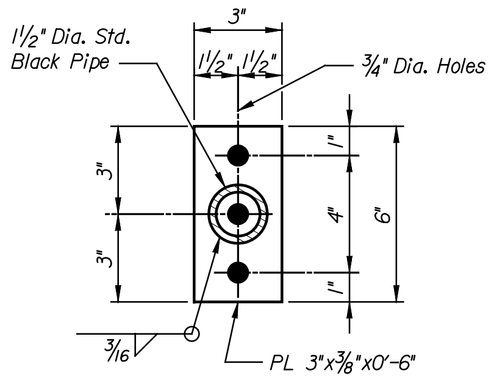
HANDRAIL PANEL (Type 2A)
No. Required = 4
Weight = 41 Lbs. Each
Handrail Panels are to be fabricated using 1½" Dia. std. Black Pipe.
(Galvanize after fabrication)
Scale: ⅜" = 1'-0"



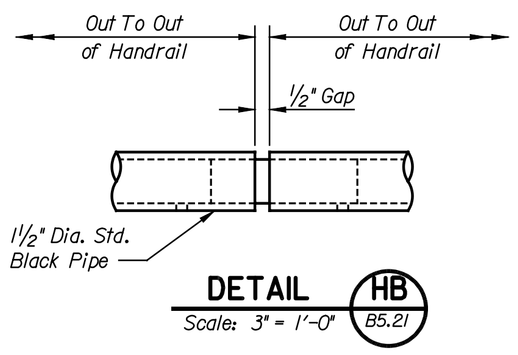
HANDRAIL PANEL TYPE C
No. Required = 2
Weight = 106 Lbs. Each
Handrail Panels are to be fabricated using 1½" Dia. std. Black Pipe.
(Galvanize after fabrication)
Scale: ⅜" = 1'-0"



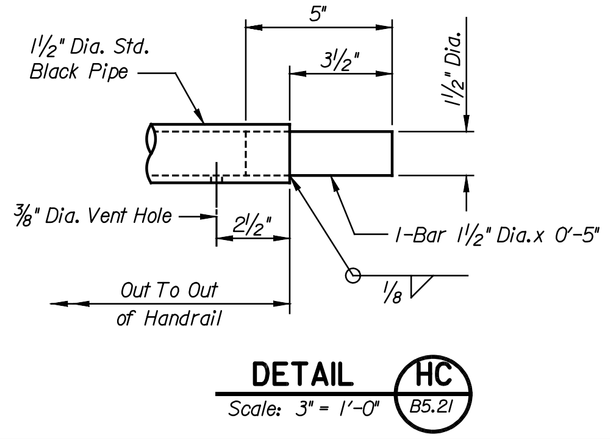
HANDRAIL PANEL TYPE D
No. Required = 1
Weight = 122 Lbs. Each
Handrail Panels are to be fabricated using 1½" Dia. std. Black Pipe.
(Galvanize after fabrication)
Scale: ⅜" = 1'-0"



SECTION HA B5.21
Scale: 3" = 1'-0"



DETAIL HB B5.21
Scale: 3" = 1'-0"



DETAIL HC B5.21
Scale: 3" = 1'-0"

This sheet designed by:

HNTB
ARCHITECTS ENGINEERS PLANNERS

NO.	DATE	REVISIONS	BY	APP'D
3				
2				
1				

CITY OF WICHITA
WICHITA CENTRAL CORRIDOR
2ND STREET
BRIDGE HANDRAIL (TYPE 2, 2A)

SHEET NO.	OF	SCALE AS NOTED	APP'D				
DESIGNED	FKD	DETAILED	DJJ	QUANTITIES	DJJ	TRACED	DJJ
DESIGN CK.	CMS	DETAIL CK.	JWH	QUAN.CK.	DMH	TRACE CK.	DMH

LOCATION:
BNSF BR. 212.0 LINE SEGMENT 7400
WICHITA, KS

DATE
BY

Plotted on: 06-JAN-2005 15:03 $time$
scindrell Plot Queue: $queue$
Plot Scale: $scale$ Pen Table: $pentable$
Design Filename: k:\n2804\Bridges\Dec2004\Base Bid\02nd St reet\drawings\s20.dgn