

Current Date: 10/24/2022 11:15 AM

Units system: English

File name: C:\Users\suryas\OneDrive - S&B Engineers and Constructors, Ltd\Desktop\Projects\C1720\02 Check OSBL Pipe Rack Bridge
 L\Pulsation Study\2.1 Connections\02 Modified Connections\05 112ft Bridge Connections\TO BENTLEY.rcnx

Steel connections

Data

Connection name : CBB_EP
 Connection ID : 1

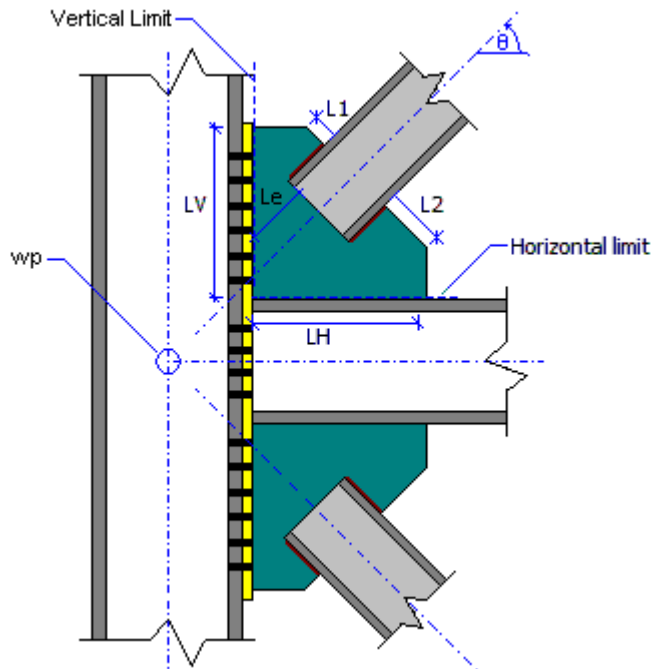
Family: Column - Beams - Braces (CBB)

Type: Gusset

Description: DET4_BottomConn_112ft Bridge

GENERAL INFORMATION

Connector



MEMBERS

Existing members

Right beam	:	Yes
Left beam	:	No
Upper right brace	:	Yes
Upper left brace	:	No
Lower left brace	:	No
Lower right brace	:	No
Align beams to top edge	:	No

Column

General

Column section	:	W 16X67
Column material	:	A992 Gr50
Column orientation	:	Longitudinal
Is column end	:	No

Right beam

General

Section	:	W 8X24
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Material	:	A992 Gr50
<u>Coped</u>		
dct: Top cope depth	:	0 in
ct: Top-flange cope length	:	0 in
dcb: Bottom cope depth	:	0 in
cb: Bottom-flange cope length	:	0 in

Upper right brace

<u>General</u>		
Section	:	T2L 5X5X1_2
Material	:	A572 Gr50
Brace slope angle (degrees)	:	40.601
Salient brace leg to the right	:	No
Brace long leg on gusset	:	Yes
<u>Additional geometric data</u>		
wpx: WP horizontal displacement	:	0 in
wpy: WP vertical displacement	:	0 in
Le: Minimum distance to other members	:	1 in
L1: Left distance	:	3.125 in
L2: Right distance	:	0.25 in

INTERFACES

Right beam

<u>Beam side</u>		
Bolted plate connection type	:	Extended external edge
Plate material	:	A572 Gr50
tp: Plate thickness	:	1.25 in
Flush extension length	:	1 in
Bottom flush extension length	:	1 in
<u>Beam and gusset side</u>		
Top beam flange weld type	:	Fillet
Top beam flange weld	:	E70XX
sft: Top beam flange weld size (1/16 in)	:	4
Beam bottom flange weld type	:	Fillet
Bottom beam flange weld	:	E70XX
Bottom beam flange weld size (1/16 in)	:	4
Welding electrode to beam web	:	E70XX
Beam web weld size (1/16 in)	:	4
<u>Support side</u>		
Bolts	:	3/4" A325 N
Hole type on support	:	Standard (STD)
Hole type on plate	:	Standard (STD)
Bolts gage	:	5.5 in
Vertical end distance	:	1.75 in
Horizontal edge distance	:	1.75 in
<u>Bolt group (upper brace extension)</u>		
not: Bolts rows	:	5
sot: Spacing between inner bolt rows	:	4 in
pfot: Distance from beam flange to outer bolt row	:	4 in
<u>Bolt group (beam)</u>		
nt: Bolts rows	:	2
pft: Distance from beam flange to inner bolt row	:	2.5 in
st: Spacing between inner bolt rows	:	3 in

Upper right brace

<u>Gusset</u>		
<u>General</u>		
tp: Thickness	:	0.625 in
Material	:	A572 Gr50
LV: Length on column	:	21.8 in
LH: Length on beam	:	15.8 in
<u>Gusset-to-Brace connection</u>		
<u>General</u>		
Connection type	:	Bolted
Bolts	:	3/4" A325 N
Hole type	:	Standard (STD)
Hole type on gusset	:	Standard (STD)
nc: Bolt columns	:	5
nr: Rows of Bolts	:	1
s: Pitch - longitudinal center-to-center spacing	:	3 in
Leh: Longitudinal distance to edge	:	1.5 in
Lev: Transverse distance to edge	:	1.5 in
<u>Gusset-to-Column connection</u>		

Directly welded

Column weld	:	E70XX
D: Weld size to column (1/16 in)	:	4

Gusset-to-Beam connection

General

Connection type to beam	:	Directly welded
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Directly welded

Welding electrode to beam	:	E70XX
D: Weld size to beam (1/16 in)	:	4