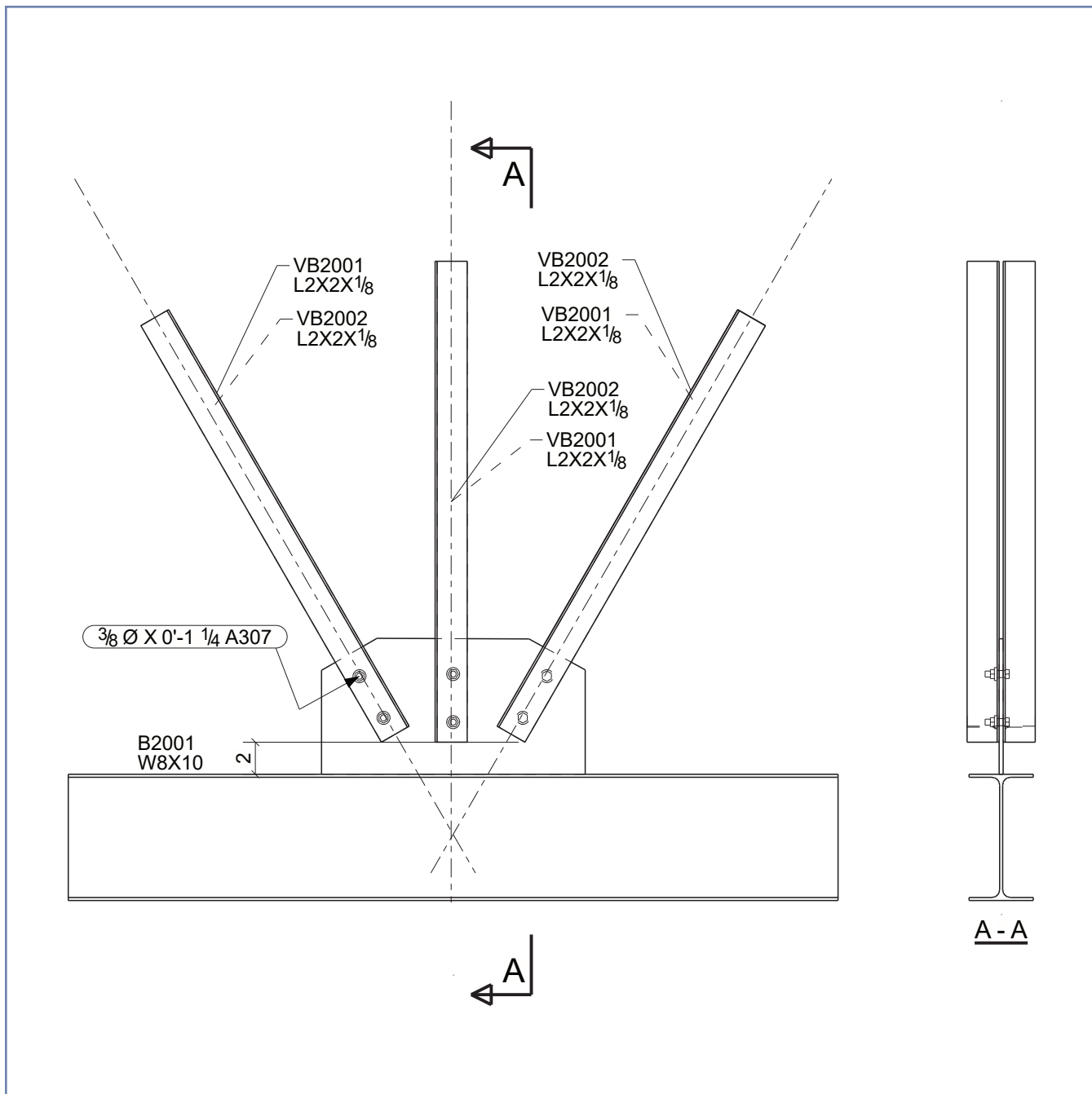


BRACE GUSSET ACTIVITY



WORKFORCE DEVELOPMENT
aisc.org/IBuiltThat



Smarter.
Stronger.
Steel.

BRACE GUSSET ACTIVITY

ACTUAL BILL OF MATERIALS

- (1) B2001 beam + P2001 gusset assembly
- (3) VB2001 vertical braces
- (3) VB2002 vertical braces
- (6) $\frac{3}{8}$ " \varnothing \times $1\frac{1}{4}$ " long bolts, nuts, and washers
- (1) $\frac{3}{4}$ " \times $1'-4"$ long wood quarter-round – paint grey to simulate weld metal
- (1) $\frac{1}{16}$ " \times $\frac{1}{2}$ " \times $1'-4"$ long flexible magnetic tape

FABRICATION

- Fabricate all individual pieces
- Weld gusset on one side to beam as shown in the shop document—leave opposite side unwelded for demonstration
- Paint wood component grey, if you prefer
- Attach magnetic tape to corresponding quarter-round pieces

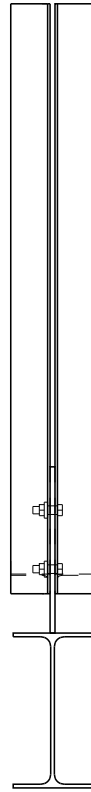
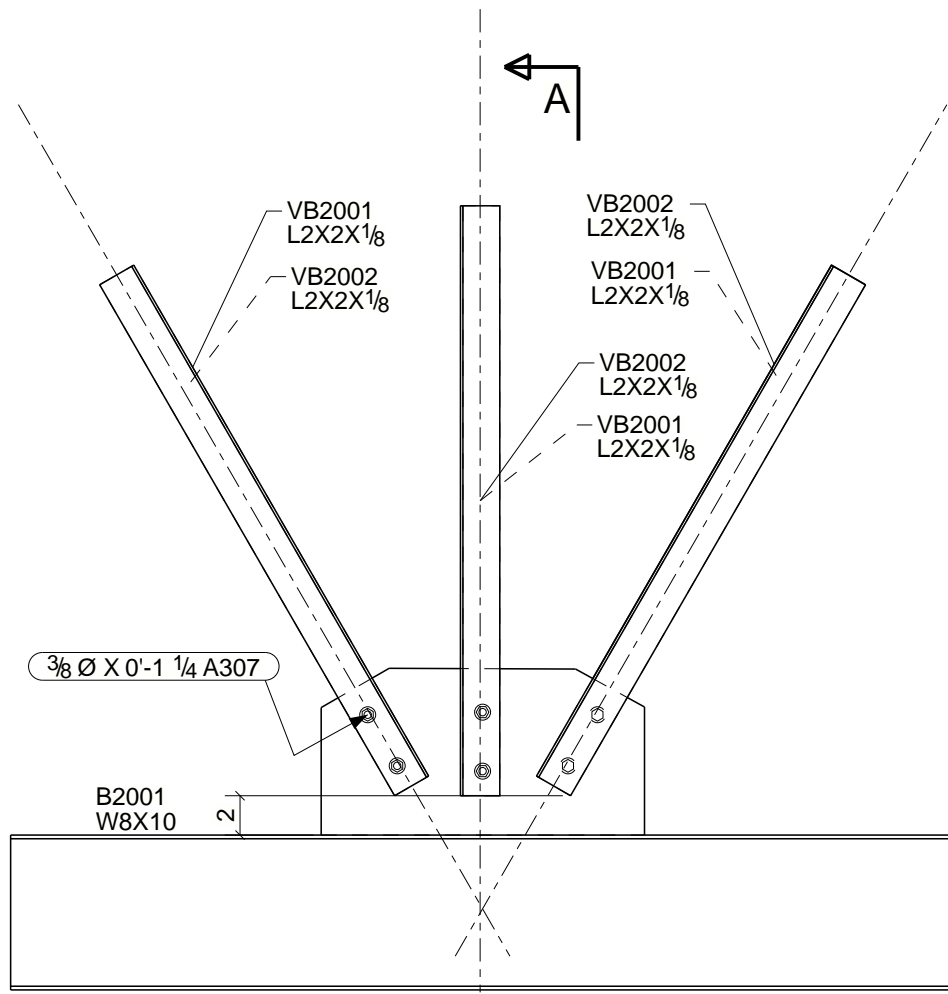
ACTIVITY


- Start – the WF member with the gusset facing up
- This activity may require two pairs of hands
- Place two of the angles on both sides of the gusset plate, align the bolt holes, add the two bolts, and finger-tighten the nuts
- Repeat the brace installation on the two other connection lines
- When the activity and the conversation are complete, undo the actions for the next participant


HIGHLIGHTS

- Note which actions occur in the shop and which occur on a job site
- Gusset plates would typically be installed in the shop
- Note that the gusset is already welded in this activity
- Most braced connections incorporated into a lateral frame would be shipped loose and assembled on-site
- Some braced connections incorporated into a truss may all be assembled in the shop and shipped to the site assembled or all shipped loose
- Trusses may be fabricated in sections and shipped to the site to be spliced on site—this can make site erection faster





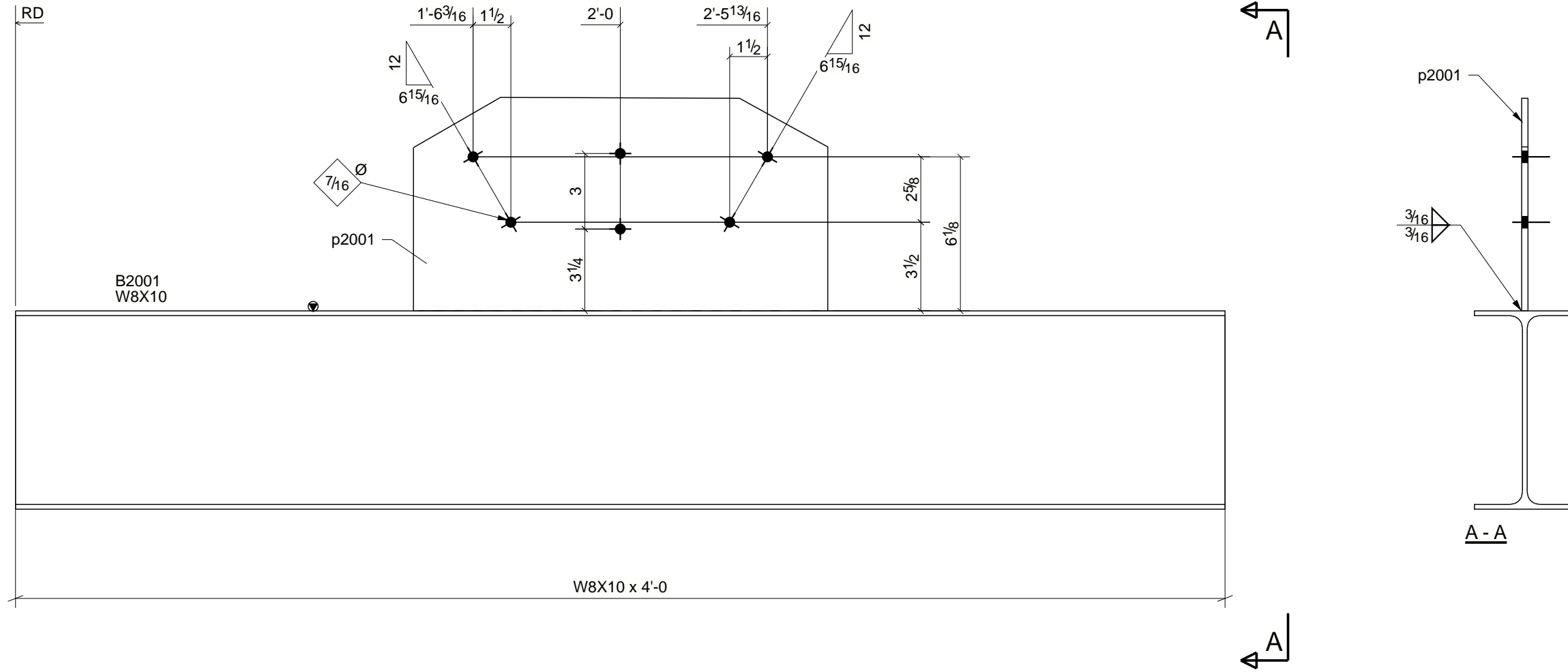

ELEVATION

DATE	NO.	DESCRIPTION	BY
02/05/2024	A	ISSUED FOR APPROVAL (IFA02)	CH
CONTACT US IF YOU HAVE ANY OF THESE PROBLEMS: • DAMAGED STEEL CONNECTIONS • IMPROPER FIT • FIELD MODIFICATIONS • QUESTIONS ABOUT THESE DWGS		 LENEX STEEL CO. 450 E. 96TH STREET, SUITE 100 INDIANAPOLIS, INDIANA 317.818.1622 317.818.1255 (Fax)	
CALL OUR PROJECT MANAGER: LENEX OFFICE PHONE: (317) 818-1622 CELL PHONE: 317.818.1622		PROJECT NAME WORKFORCE ZONE ACTIVITIES	
ELECTRODES E70XX UNO		LOCATION SAN ANTONIO, TX	
WELDS 1/4" FILLET UNO		CONTRACTOR AISC W/ LENEX STEEL COMPANY	
OPEN HOLES 13/16" Ø UNO		ARCHITECT	
BOLTS A325N_TC UNO		ARCHITECT	
		DESCRIPTION ACTIVITY #2	DRAWN BY CH 01/29/2024 CHECK BY KE 01/29/2024
			JOB No. NASCC 2024 DRG No. E2
			REV A

Tekla Structures

QTY.	SITE BOLTS	LENGTH
------	------------	--------

SEQ	QTY
2	1



ONE - BEAM - B2001

W	7 7/8" x 3/16"
F	4" x 3/16"

02/05/2024	ISSUED FOR APPROVAL (IFA02)	CH
DATE	DESCRIPTION	BY

BILL OF MATERIAL

Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
1	1	B2001	BEAM		49			
1	1		W8X10	4'-0"	40			A992
1	1	p2001	PL 1/4" X 8 1/2"	1'-4 7/16"	9			A36

ALL WELDING TO BE DONE IN ACCORDANCE WITH ANSI/AWS D1.1 STRUCTURAL WELDING CODE - STEEL, OF LATEST ISSUE

PROJECT NAME
WORKFORCE ZONE ACTIVITIES

LOCATION
SAN ANTONIO, TX

CONTRACTOR
AISC W/ LENEX STEEL COMPANY

ARCHITECT

Holes	13/16" Ø	BOLTS	A325N_TC	UNO
COPIES	1/2" RADIUS			UNO
AESS CAT.				UNO
PAINT	UNP			UNO



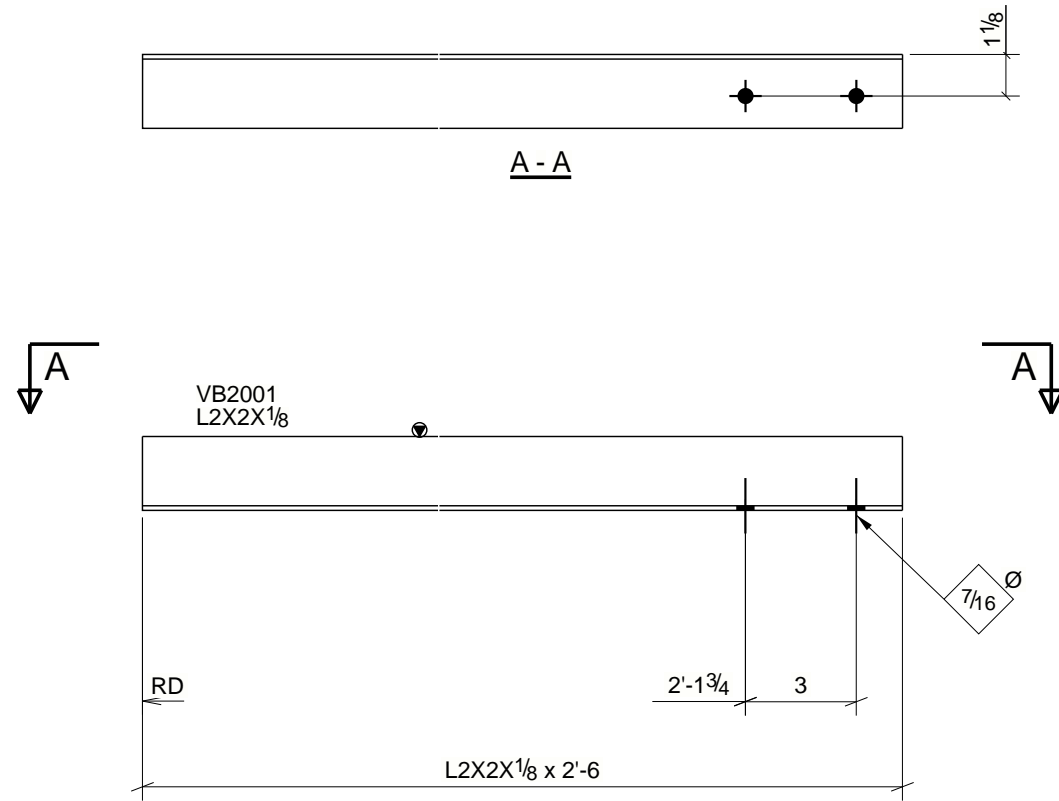
LENEX STEEL CO.
450 E. 96TH STREET, SUITE 100
INDIANAPOLIS, INDIANA
317.818.1622 | 317.818.1255 (Fax)

DESCRIPTION	DRN BY CH 02/02/2024	JOB No. NASCC 2024
BEAM	CHKD BY KE 02/02/2024	DRG No. B2001

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QTY.	SITE BOLTS	LENGTH
2	3/8"Ø A307 BOLT	1 1/4"

SEQ	QTY
2	3



3 - VERTICAL BRACES - VB2001

02/05/2024	ISSUED FOR APPROVAL (IFA02)	CH
DATE	DESCRIPTION	BY
LENEX STEEL CO. 450 E. 96TH STREET, SUITE 100 INDIANAPOLIS, INDIANA 317.818.1622 317.818.1255 (Fax)		
DESCRIPTION		JOB No.
V_BRACE		NASCC 2024
DRN BY	CHKD BY	DRG No.
CH 02/02/2024	KE 02/02/2024	VB2001

Tekla Structures

BILL OF MATERIAL

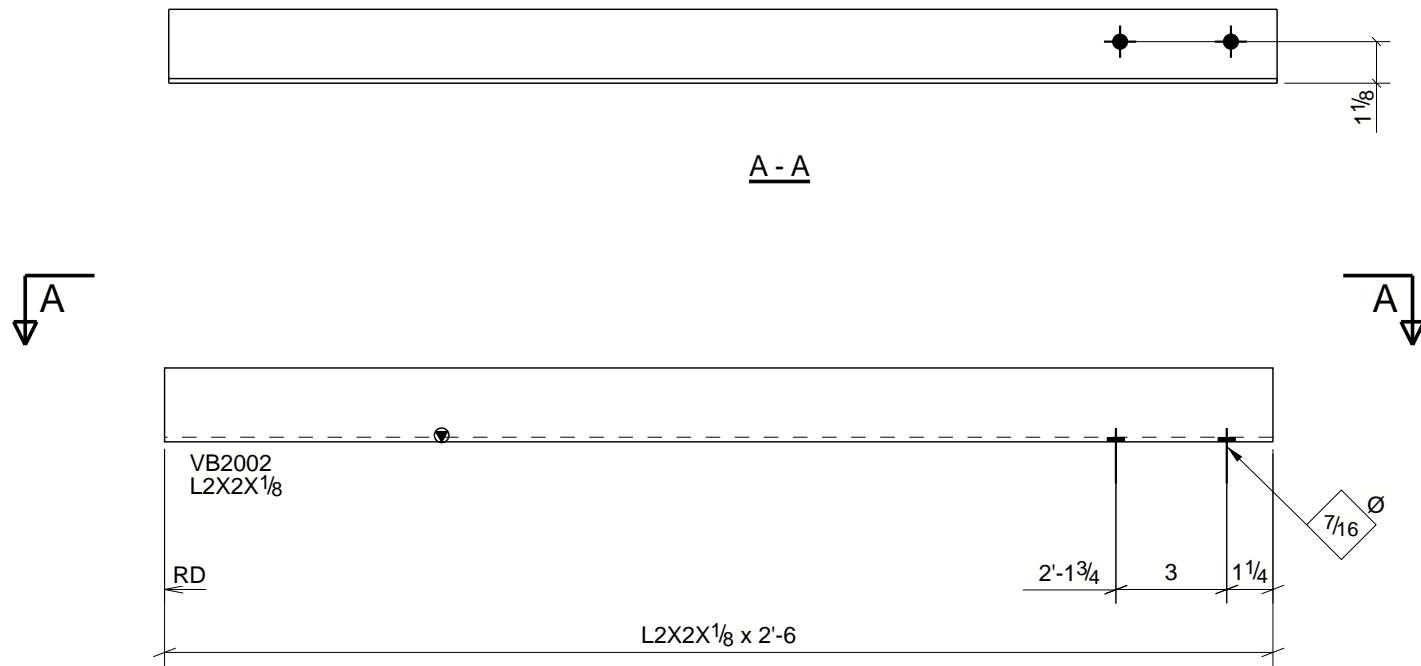
Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
	3	VB2001	VERTICAL BRACES		4			
1	3		L2X2X1/8	2'-6"	12			A36

ALL WELDING TO BE DONE IN ACCORDANCE WITH ANSI/AWS D1.1 STRUCTURAL WELDING CODE - STEEL, OF LATEST ISSUE		
HOLES 13/16"Ø	BOLTS A325N_TC	UNO
COPEs	1/2" RADIUS	UNO
AESS CAT.		UNO
PAINT	UNP	UNO

PROJECT NAME	WORKFORCE ZONE ACTIVITIES
LOCATION	SAN ANTONIO, TX
CONTRACTOR	AISC W/ LENEX STEEL COMPANY
ARCHITECT	

QTY.	SITE BOLTS	LENGTH
4	3/8"Ø A307 BOLT	1 1/4"

SEQ	QTY
2	3



3 - VERTICAL BRACES - VB2002

02/05/2024	ISSUED FOR APPROVAL (IFA02)	CH
DATE	DESCRIPTION	BY

ALL WELDING TO BE DONE IN ACCORDANCE WITH ANSI/AWS D1.1 STRUCTURAL WELDING CODE - STEEL, OF LATEST ISSUE		PROJECT NAME WORKFORCE ZONE ACTIVITIES
		LOCATION SAN ANTONIO, TX
HOLES 13/16"Ø BOLTS A325N_TC UNO		CONTRACTOR AISC W/ LENEX STEEL COMPANY
COPIES 1/2" RADIUS UNO		ARCHITECT
AESS CAT. UNO		
PAINT UNP UNO		

LENEX STEEL CO. 450 E. 96TH STREET, SUITE 100 INDIANAPOLIS, INDIANA 317.818.1622 317.818.1255 (Fax)		JOB No.	NASCC 2024
		DRN BY CH 02/02/2024	DRG No.
DESCRIPTION V_BRACE		CHKD BY KE 02/02/2024	

BILL OF MATERIAL

Qty Ea.	Qty Tot	Piece Mark	Description	Length	Weight Total	Remarks	Adv Mill #	Steel Grade
	3	VB2002	VERTICAL BRACES		4			
1	3		L2X2X1/8	2'-6"	12			A36

Tekla Structures