FIELD BOLT LIST — A325 Type 1 GALV. BOLTS

LINE	NO REQ'D.	BOLT DIAM.	BOLT LEN.	BOLTS /CONN.	# OF CONN.	GRIP	THICKNESS OF PCS. CONNECTED						WASH CODE	PIECES CONNECTED AND REMARKS
216														**JOINT U4 & U6**
217														
218														TOP
219	64	7/8	2 1/2	4	16	1	1/2	1/2					L1	Top Guss ~ Top Guss Conn L
220	32	7/8	3 3/4	8	4	2 1/4	1/2	1 3/8	3/8				L1	Top Guss ~ Fill ~ Top Strut
221	32	7/8	4	4	8	2 9/16	1/2	1 3/8	11/16				L1	Top Guss ~ Fill ~ Lat Brac
222														
223														EXTERIOR
224	344	7/8	3 3/4	86	4	2 3/16	3/4	1 7/16					L1	Guss ~ Chord
225	40	7/8	4 1/4	5	8	2 11/16	3/4	1 7/16	1/2				L1	Guss ~ Chord ~ Top Guss Conn L
226	64	7/8	3 3/4	16	4	2 3/16	3/4	13/16	5/8				L1	Guss ~ Fill ~ Vertical
227	72	7/8	3 3/4	18	4	2 3/16	3/4	13/16	5/8				L1	Guss ~ Fill ~ Diagonal
228	32	7/8	2 3/4	8	4	1 1/8	3/4	3/8					L1	Guss ~ Angle Stiff
229														
230														INTERIOR
231	344	7/8	3 3/4	86	4	2 3/16	3/4	1 7/16					L1	Guss ~ Chord
232	40	7/8	4 1/4	5	8	2 11/16	3/4	1 7/16	1/2				L1	Guss ~ Chord ~ Top Guss Conn L
233	56	7/8	3 3/4	14	4	2 3/16	3/4	13/16	5/8				L1	Guss ~ Fill ~ Vertical
234	8	7/8	4 1/4	1	8	2 11/16	1/2	3/4	13/16	5/8			L1	Sway Conn L ~ Guss ~ Fill ~ Vert
235	72	7/8	3 3/4	18	4	2 3/16	3/4	13/16	5/8				L1	Guss ~ Fill ~ Diagonal
236	32	7/8	2 3/4	8	4	1 1/8	3/4	3/8					L1	Guss ~ Angle Stiff
237														
238														BOTTOM
239	32	7/8	2 1/2	4	8	1	1/2	1/2					L1	Btm Guss ~ Btm Guss Conn L
240	32	7/8	3 1/2	8	4	1 7/8	3/8	1/2	1/2	1/2			L1	Top Strut ~ Btm Guss ~ PL ~ PL
241	32	7/8	2 3/4	4	8	1 3/16	1/2	11/16					L1	Btm Guss ~ Lat Bracing
242														
243														**JOINT U5**
244														
245														TOP
246	32	7/8	2 1/2	4	8	1	1/2	1/2					L1	Top Guss ~ Top Guss Conn L
247	16	7/8	3 3/4	8	2	2 1/4	1/2	1 3/8	3/8				L1	Top Guss ~ Fill ~ Top Strut
248	16	7/8	4	4	4	2 9/16	1/2	1 3/8	11/16				L1	Top Guss ~ Fill ~ Lat Brac
249														
250														EXTERIOR
251	172	7/8	3 3/4	86	2	2 3/16	3/4	1 7/16					L1	Guss ~ Chord
252	20	7/8	4 1/4	5	4	2 11/16	3/4	1 7/16	1/2				L1	Guss ~ Chord ~ Top Guss Conn L
253	32	7/8	3 3/4	16	2	2 3/16	3/4	13/16	5/8				L1	Guss ~ Fill ~ Vertical
254	32	7/8	2 3/4	8	4	1 1/8	3/4	3/8					L1	Guss ~ Angle Stiff
255														
256														INTERIOR
257	172	7/8	3 3/4	86	2	2 3/16	3/4	1 7/16					L1	Guss ~ Chord
258	20	7/8	4 1/4	5	4	2 11/16	3/4	1 7/16	1/2				L1	Guss ~ Chord ~ Top Guss Conn L
259	28	7/8	3 3/4	14	2	2 3/16	3/4	13/16	5/8				L1	Guss ~ Fill ~ Vertical
260	4	7/8	4 1/4	1	4	2 11/16	1/2	3/4	13/16	5/8			L1	Sway Conn L ~ Guss ~ Fill ~ Vert
261	32	7/8	2 3/4	8	4	1 1/8	3/4	3/8					L1	Guss ~ Angle Stiff
262														
263														BOTTOM
264	16	7/8	2 1/2	4	4	1	1/2	1/2					L1	Btm Guss ~ Btm Guss Conn L
265	16	7/8	3 1/2	8	2	1 7/8	3/8	1/2	1/2	1/2			L1	Top Strut ~ Btm Guss ~ PL ~ PL
266	16	7/8	2 3/4	4	4	1 3/16	1/2	11/16					L1	Btm Guss ~ Lat Bracing
267														
268														
269														
270														
271														
272														
273														

WASHER CODES
L1: 1 Flat, 1 Load Ind.
LIW @ head,hard wa. @ nut

FIELD BOLT LIST — A325 Type 1 GALV. BOLTS

LINE	NO REQ'D.	BOLT DIAM.	BOLT LEN.	BOLTS /CONN.	# OF CONN.	GRIP	THICKNESS OF PCS. CONNECTED						WASH CODE	PIECES CONNECTED AND REMARKS
274														**JOINT M1 & M9**
275	32	7/8	2 3/4	4	8	1 1/8	1/2	5/8					L1	Conn Plate ~ Diagonal
276	32	7/8	2 1/2	4	8	7/8	1/2	3/8					L1	Conn Plate ~ Mid Chord
277														
278														**JOINT M2 & M8**
279	64	7/8	2 1/2	4	16	7/8	1/2	3/8					L1	Conn Plate ~ Mid Chord
280	16	7/8	3	4	4	1 1/2	1/2	1/2	1/2				L1	Conn PL ~ Mid Chrd Guss ~ Conn L
281	32	7/8	2 1/2	8	4	1	1/2	1/2					L1	Mid Chord Guss ~ Conn L
282	48	7/8	2 1/2	12	4	1	1/2	1/2					L1	Mid Chord Guss ~ Conn L
283	16	7/8	4	4	4	2 7/16	1/2	1 9/16	3/8				L1	Mid Chrd Guss ~ Fill ~ Mid Strut
284	16	7/8	4 1/2	4	4	2 15/16	1/2	1/2	1 9/16	3/8			L1	Conn PL~Mid Chord Guss~Fill~Mid Strut
285														
286														**JOINT M3, M4, M5, M6 & M7**
287	160	7/8	2 1/2	4	40	7/8	1/2	3/8					L1	Conn Plate ~ Mid Chord
288	240	7/8	2 1/2	12	20	1	1/2	1/2					L1	Mid Chrd Guss ~ Conn L
289	80	7/8	4 1/2	4	20	2 15/16	1/2	1/2	1 9/16	3/8			L1	Conn PL~Mid Chord Guss~Fill~Mid Chord
290														
291														**INT. MID CHORD JOINTS**
292														(M23, M34, M45, M56, M67 & M78)
293	96	7/8	2 3/4	4	24	1 1/8	1/2	5/8					L1	Conn Plate ~ Diagonal
294	192	7/8	2 1/2	8	24	7/8	1/2	3/8					L1	Conn Plate ~ Mid Chord
295														
296														**FLOORBEAMS**
297														
298														L0 & L10
299	72	1	5	18	4	3 3/8	1 1/8	1 1/8	1 1/8				L1	Conn L ~ Floorbeam ~ Conn L
300	40	7/8	4 1/4	10	4	2 11/16	1 1/2	9/16	5/8				L1	Flbm ~ Fill ~ Lat Brac Guss
301	60	7/8	3 1/4	6	10	1 3/4	1 1/8	5/8					L1	Floorbeam ~ Stringer Conn L
302														
303														L1 THRU L9
304	225	7/8	3 1/2	5	45	2 1/16	5/8	13/16	5/8				L1	Conn L ~ Stringer ~ Conn L
305														
306														**STRINGERS**
307														
308														CONN. TO FLBM @ L0 & L10
309														(LINES 1 THRU 5)
310	60	7/8	3 3/4	6	10	2 1/4	5/8	5/16	3/8	5/16	5/8		L1	L~Conn PL~Stringer~Conn PL~L
311	20	7/8	2 3/4	2	10	1 1/8	5/8	1/2					L1	Seat L ~ Stringer
312														
313														CONN. TO FLBM @ L1 THRU L9
314														(LINES 1 & 5)
315	180	7/8	3 1/4	5	36	1 5/8	5/8	3/8	5/8				L1	Conn L ~ Stringer ~ Conn L
316	32	7/8	2 3/4	2	16	1 1/8	5/8	1/2					L1	Seat L ~ Stringer
317	40	7/8	3	2	20	1 7/16	5/16	5/8	1/2				L1	PL Wash ~ Seat L ~ Stringer
318														(SEE DETAILS 1, 2 & 3 ON SHT E7)
319														
320														CONN. TO FLBM @ L1 THRU L9
321														(LINES 2 THRU 4)
322	270	7/8	3 3/4	5	54	2 1/4	5/8	5/16	3/8	5/16	5/8		L1	L~Conn PL~Stringer~Conn PL~L
323	48	7/8	2 3/4	2	24	1 1/8	5/8	1/2					L1	Seat L ~ Stringer
324	60	7/8	3	2	30	1 7/16	5/16	5/8	1/2				L1	PL Wash ~ Seat L ~ Stringer
325														(SEE DETAILS 1, 2 & 3 ON SHT E7)
326														
327														
328														
329														
330														
331														

WASHER CODES
L1: 1 Flat, 1 Load Ind.
LIW @ head,hard wa. @ nut

FIELD BOLT LIST — A325 Type 1 GALV. BOLTS

LINE	NO REQ'D.	BOLT DIAM.	BOLT LEN.	BOLTS /CONN.	# OF CONN.	GRIP	THICKNESS OF PCS. CONNECTED						WASH CODE	PIECES CONNECTED AND REMARKS
332														**DIAPHRAGMS**
333	1280	7/8	2 1/2	4	320	7/8	1/2	3/8					L1	Conn L ~ Diaphragm
334														
335														**BOTTOM LAT. BRACING**
336	180	7/8	3	18	10	1 1/2	3/4	3/4					L1	Ctr Guss ~ Long Lateral
337	360	7/8	3	18	20	1 1/2	3/4	3/4					L1	Ctr Guss ~ Short Laterals
338														
339														**TOP STRUTS**
340														
341														U1 & U9
342	56	7/8	4	14	4	2 7/16	1/2	1 7/16	1/2				L1	Portal Guss ~ Fill ~ Strut
343														
344														U2 & U8
345	16	7/8	2 1/2	8	2	1	1/2	1/8	3/8				L1	Ctr Strut Guss ~ Fill ~Strut
346	16	7/8	4	8	2	2 3/8	3/8	1/2	1/2	1/2	1/2		L1	Strut~Ctr Strut Guss~PL~Fill~PL
347	24	7/8	4	6	4	2 3/8	3/8	1/2	1/2	1/2	1/2		L1	Strut ~ Fill ~ PL ~ Fill ~PL
348	16	7/8	2 1/2	4	4	7/8	1/2	3/8					L1	Ctr Strut Guss ~ Ctr Strut
349														
350														U3 & U7
351	16	7/8	2 1/2	8	2	7/8	1/2	3/8					L1	Ctr Strut Guss ~ Strut
352	16	7/8	3 1/2	8	2	1 7/8	3/8	1/2	1/2	1/2			L1	Strut ~ Ctr Strut Guss ~ PL~ PL
353	24	7/8	3 1/2	6	4	1 7/8	3/8	1/2	1/2	1/2			L1	Strut ~ Fill ~ PL ~ PL
354	16	7/8	2 1/2	4	4	7/8	1/2	3/8					L1	Ctr Strut Guss ~ Ctr Strut
355														
356														U4 & U6
357	16	7/8	2 1/2	8	2	7/8	1/2	3/8					L1	Ctr Strut Guss ~ Strut
358	16	7/8	3 1/2	8	2	1 7/8	3/8	1/2	1/2	1/2			L1	Strut ~ Ctr Strut Guss ~ PL~ PL
359	24	7/8	3 1/2	6	4	1 7/8	3/8	1/2	1/2	1/2			L1	Strut ~ Fill ~ PL ~ PL
360	16	7/8	2 1/2	4	4	7/8	1/2	3/8					L1	Ctr Strut Guss ~ Ctr Strut
361														
362														U5
363	8	7/8	2 1/2	8	1	7/8	1/2	3/8					L1	Ctr Strut Guss ~ Strut
364	8	7/8	3 1/2	8	1	1 7/8	3/8	1/2	1/2	1/2			L1	Strut ~ Ctr Strut Guss ~ PL~ PL
365	12	7/8	3 1/2	6	2	1 7/8	3/8	1/2	1/2	1/2			L1	Strut ~ Fill ~ PL ~ PL
366	16	7/8	2 1/2	4	4	7/8	1/2	3/8					L1	Ctr Strut Guss ~ Ctr Strut
367														
368														**TOP LAT. BRACING**
369	160	7/8	2 3/4	10	16	1 3/16	1/2	11/16					L1	Ctr Guss ~ Long Lateral
370	128	7/8	2 3/4	4	32	1 3/16	1/2	11/16					L1	Ctr Guss ~ Short Laterals
371	64	7/8	2 1/2	4	16	7/8	1/2	3/8					L1	Ctr Guss ~ Top C r Strut
372														
373														**MID STRUTS**
374	84	7/8	2 1/2	6	14	7/8	1/2	3/8					L1	Sway Frame Guss ~ Strut
375														
														SWAY FRAMES
378														
378														U2 & U8
379	24	7/8	2 1/2	3	8	1	1/2	1/2					L1	Top Corner Guss ~ Conn L
380	16	7/8	2 1/2	4	4	7/8	1/2	3/8					L1	Top Corner Guss ~ Sway Diag
381	16	7/8	5 1/2	4	4	3 11/16	1/2	2 13/16	3/8				L2	Top Corner Guss ~ Fill ~ Sway Diag
382	16	7/8	2 1/2	4	4	7/8	1/2	3/8					L1	Top Ctr Guss ~ Sway Diag
383	16	7/8	5 1/2	4	4	3 11/16	1/2	2 13/16	3/8				L2	Top Ctr Guss ~ Fill ~ Sway Diag
384	32	7/8	2 1/2	4	8	7/8	1/2	3/8					L1	Ctr Guss ~ Long Sway Diag
385	64	7/8	2 1/2	4	16	7/8	1/2	3/8					L1	Ctr Guss ~ Short Sway Diag's
386	32	7/8	4	4	8	2 7/16	1/2	1 9/16	3/8				L1	Btm Corner Guss ~ Fill ~ Sway Diag
387	32	7/8	2 1/2	4	8	7/8	1/2	3/8					L1	Btm Ctr Guss ~ Sway Diag
388														
389														

WASHER CODES
L1: 1 Flat, 1 Load Ind. L2: 2 Flat, 1 Load Ind.
LIW @ head,hard wa. @ nut

FIELD BOLT LIST — A325 Type 1 GALV. BOLTS

LINE	NO REQ'D.	BOLT DIAM.	BOLT LEN.	BOLTS /CONN.	# OF CONN.	GRIP	THICKNESS OF PCS. CONNECTED						WASH CODE	PIECES CONNECTED AND REMARKS
390														U3 & U7
391	16	7/8	2 1/2	4	4	1	1/2	1/2					L1	Top Corner Guss ~ Conn L
392	12	7/8	2 1/2	3	4	1	1/2	1/2					L1	Top Corner Guss ~ Conn L
393	16	7/8	2 1/2	4	4	7/8	1/2	3/8					L1	Top Corner Guss ~ Sway Diag
394	16	7/8	4	4	4	2 7/16	1/2	1 9/16	3/8				L1	Top Corner Guss ~ Fill ~ Sway Diag
395	16	7/8	2 1/2	4	4	7/8	1/2	3/8					L1	Top Ctr Guss ~ Sway Diag
396	16	7/8	4	4	4	2 7/16	1/2	1 9/16	3/8				L1	Top Ctr Guss ~ Fill ~ Sway Diag
397	32	7/8	2 1/2	4	8	7/8	1/2	3/8					L1	Ctr Guss ~ Long Sway Diag
398	64	7/8	2 1/2	4	16	7/8	1/2	3/8					L1	Ctr Guss ~ Short Sway Diag's
399	32	7/8	4	4	8	2 7/16	1/2	1 9/16	3/8				L1	Btm Corner Guss ~ Fill ~ Sway Diag
400	32	7/8	2 1/2	4	8	7/8	1/2	3/8					L1	Btm Ctr Guss ~ Sway Diag
401														
402														U4 & U6
403	24	7/8	2 1/2	3	8	1	1/2	1/2					L1	Top Corner Guss ~ Conn L
404	32	7/8	2 1/2	4	8	1 1/16	1/2	3/16	3/8				L1	Top Corner Guss ~ Fill ~ Sway Diag
405	32	7/8	2 1/2	4	8	1 1/16	1/2	3/16	3/8				L1	Top Ctr Guss ~ Fill ~ Sway Diag
406	32	7/8	2 1/2	4	8	7/8	1/2	3/8					L1	Ctr Guss ~ Long Sway Diag
407	64	7/8	2 1/2	4	16	7/8	1/2	3/8					L1	Ctr Guss ~ Short Sway Diag's
408	32	7/8	4	4	8	2 7/16	1/2	1 9/16	3/8				L1	Btm Corner Guss ~ Fill ~ Sway Diag
409	32	7/8	2 1/2	4	8	7/8	1/2	3/8					L1	Btm Ctr Guss ~ Sway Diag
410														
411														U5
412	12	7/8	2 1/2	3	4	1	1/2	1/2					L1	Top Corner Guss ~ Conn L
413	16	7/8	2 1/2	4	4	1 1/16	1/2	3/16	3/8				L1	Top Corner Guss ~ Fill ~ Sway Diag
414	16	7/8	2 1/2	4	4	1 1/16	1/2	3/16	3/8				L1	Top Ctr Guss ~ Fill ~ Sway Diag
415	16	7/8	2 1/2	4	4	7/8	1/2	3/8					L1	Ctr Guss ~ Long Sway Diag
416	32	7/8	2 1/2	4	8	7/8	1/2	3/8					L1	Ctr Guss ~ Short Sway Diag's
417	16	7/8	4	4	4	2 7/16	1/2	1 9/16	3/8				L1	Btm Corner Guss ~ Fill ~ Sway Diag
418	16	7/8	2 1/2	4	4	7/8	1/2	3/8					L1	Btm Ctr Guss ~ Sway Diag

WASHER CODES
L1: 1 Flat, 1 Load Ind.
LIW @ head,hard wa. @ nut

NOTES:
1. REFER TO SHEET GN1 FOR GENERAL NOTES.
2. WORK THIS SHEET WITH SHEETS E5 & E7.

Approved 1/10/12

REV.	DATE	REMARKS	DWN	CHK	APVL	SHOP
0		~			2/29/12	APR 13 2012

MATERIAL: | SURFACE PREP. & PAINT: | HOLES: | SHOP BOLTS:

DESCRIPTION: FIELD BOLTS

CASCO BAY STEEL STRUCTURES, INC.
1 WALLACE AVE. PHONE (207) 780-6722
SOUTH PORTLAND, ME 04106 FAX. (207) 780-6726

TENSOR 3073

STRUCTURE: VT RTE 107 OVER WHITE RIVER	DRAWN: EEO	DATE: 02/13
	CHKD: TJB	DATE: 02/20
LOCATION: BETHEL, VT.	JOB NO.	DWG NO.
PROJ NO. BRF 022-1(14)	498	E6
CUSTOMER: BECK & BELLUCCI		REV. △

TJB Mon, Feb 27, 2012 03:23:18 PM /users/jobs/3073/E6 : Rev0

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