



U.S. Department
of Transportation
**Federal Highway
Administration**
0

1200 New Jersey Ave., SE
Washington, D.C. 20590

April 7, 2011

In Reply Refer To:
HSST/CC-95B

Mr. Geoff Maus
Chief Design Engineer
TrafFix Devices, Inc.
160 Avenida La Pata
San Clemente, CA 92673

Dear Mr. Maus:

This letter is in response to your request for the Federal Highway Administration (FHWA) acceptance of a roadside safety system for use on the National Highway System (NHS).

Name of system:	Compressor Transition
Type of system:	Transition from Attenuator to barrier or hazard
Test Level:	National Cooperative Highway Research Program (NCHRP) Report Test Level 3
Testing conducted by:	N/A
Date of request:	August 31, 2010
Date initially acknowledged:	August 31, 2010

You requested that we find this system acceptable for use on the NHS under the provisions of the NCHRP Report 350.

Requirements

Roadside safety devices should meet the guidelines contained in the Report 350. The FHWA memorandum, "**ACTION**: Identifying Acceptable Highway Safety Features" of July 24, 1997, provides further guidance on crash testing requirements of longitudinal barriers.

Decision

The following device was found acceptable, with details provided below:

- Transition from Compressor Crash Cushion to wide object



Description

The enclosed drawings show the Diverging Compressor Transition. This stiffened three-beam rail has a maximum flare of ten (10) degrees with respect to the sides of the compressor. It is designed to maintain the same relatively stiff structure of the end of the compressor for the distance needed to connect to a rigid object that is wider than the attenuator.

Crash Testing

No additional crash testing was conducted on this transition as it uses a structure similar to the side of the compressor attenuator.

Findings

We concur that the Diverging Compressor Transition may be used at a ten degree flare rate to connect to fixed objects that are wider than the rear of the compressor attenuator.

Therefore, the system described in the requests above and detailed in the enclosed drawings is acceptable for use on the NHS under the range of conditions the compressor attenuator was tested, when such use is acceptable to a highway agency.

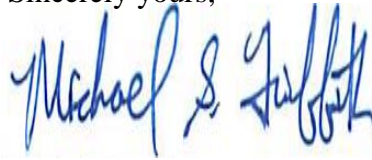
Please note the following standard provisions that apply to the FHWA letters of acceptance:

- This acceptance is limited to the crashworthiness characteristics of the systems and does not cover their structural features, nor conformity with the Manual on Uniform Traffic Control Devices.
- Any changes that may adversely influence the crashworthiness of the system will require a new acceptance letter.
- Should the FHWA discover that the qualification testing was flawed, that in-service performance reveals unacceptable safety problems, or that the system being marketed is significantly different from the version that was crash tested, we reserve the right to modify or revoke our acceptance.
- You will be expected to supply potential users with sufficient information on design and installation requirements to ensure proper performance.
- You will be expected to certify to potential users that the hardware furnished has essentially the same chemistry, mechanical properties, and geometry as that submitted for acceptance, and that it will meet the crashworthiness requirements of the FHWA and NCHRP Report 350.
- To prevent misunderstanding by others, this letter of acceptance is designated as number CC-95B and shall not be reproduced except in full. This letter and the test documentation upon which it is based are public information. All such letters and documentation may be reviewed at our office upon request.
- The compressor is a patented product and considered proprietary. If proprietary devices are specified by a highway agency for use on Federal-aid projects, except exempt, non-NHS projects, (a) they must be supplied through competitive bidding with equally suitable unpatented items; (b) the highway agency must certify that they are essential for synchronization with the existing highway facilities or that no equally suitable alternative

exists; or (c) they must be used for research or for a distinctive type of construction on relatively short sections of road for experimental purposes. Our regulations concerning proprietary products are contained in Title 23, Code of Federal Regulations, Section 635.411.

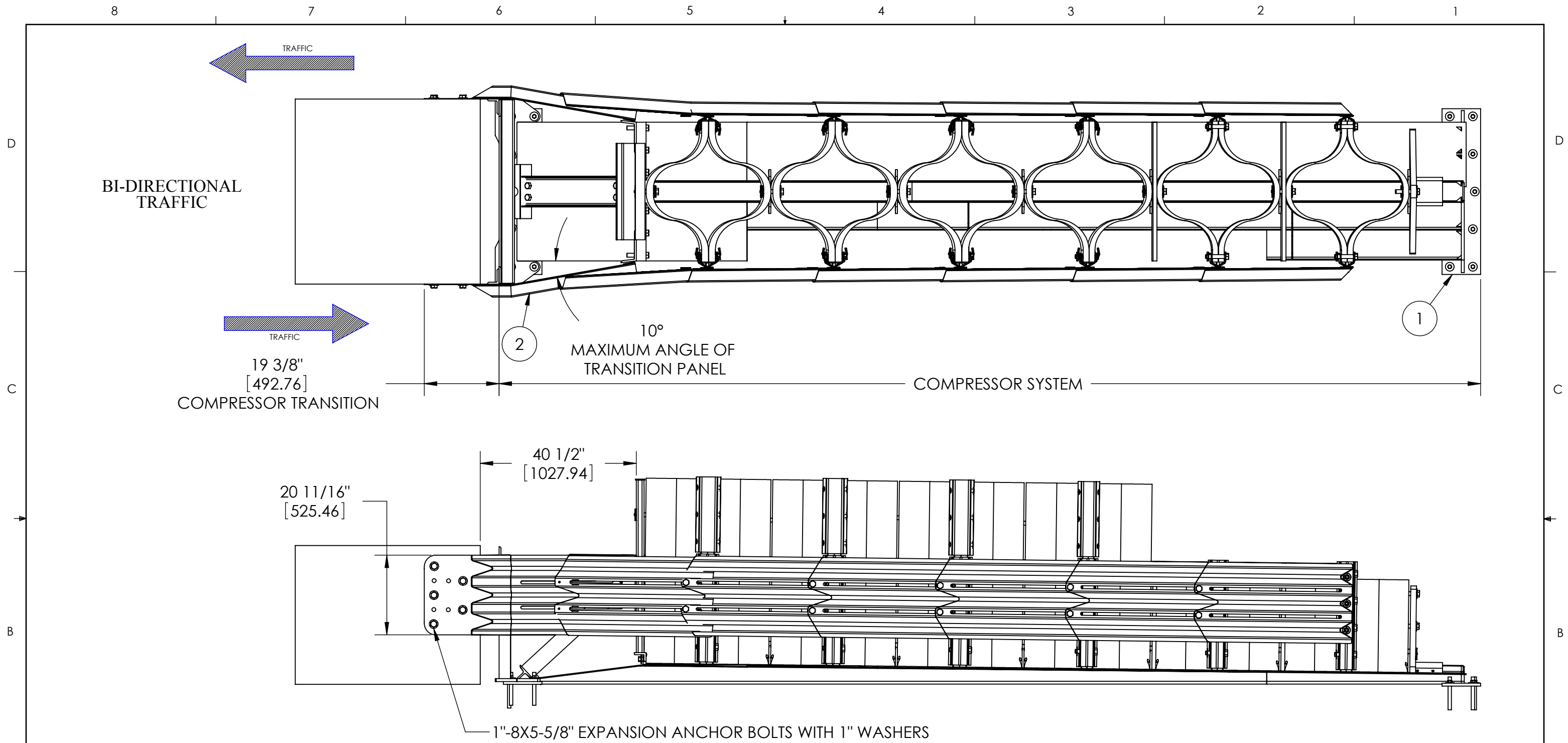
- This acceptance letter shall not be construed as authorization or consent by the FHWA to use, manufacture, or sell any patented system for which the applicant is not the patent holder. The acceptance letter is limited to the crashworthiness characteristics of the candidate system, and the FHWA is neither prepared nor required to become involved in issues concerning patent law. Patent issues, if any, are to be resolved by the applicant.

Sincerely yours,



Michael S. Griffith,
Director, Office of Safety Technologies
Office of Safety

Enclosure




ITEM NO.	DESCRIPTION
1	COMPRESSOR SYSTEM
2	COMPRESSOR TRANSITION

UNLESS OTHERWISE SPECIFIED:
 ALL DIMENSIONS ARE IN INCHES[mm].
 TOLERANCES:
 FRACTIONAL: X/X ± 1/16" [1.6mm]
 DECIMAL: .000 ± .0625
 DEGREES: ± 0.5°

DRAWN BY: JEREMY SMITH
 CHECKED BY: FA
 APPROVED BY: FA

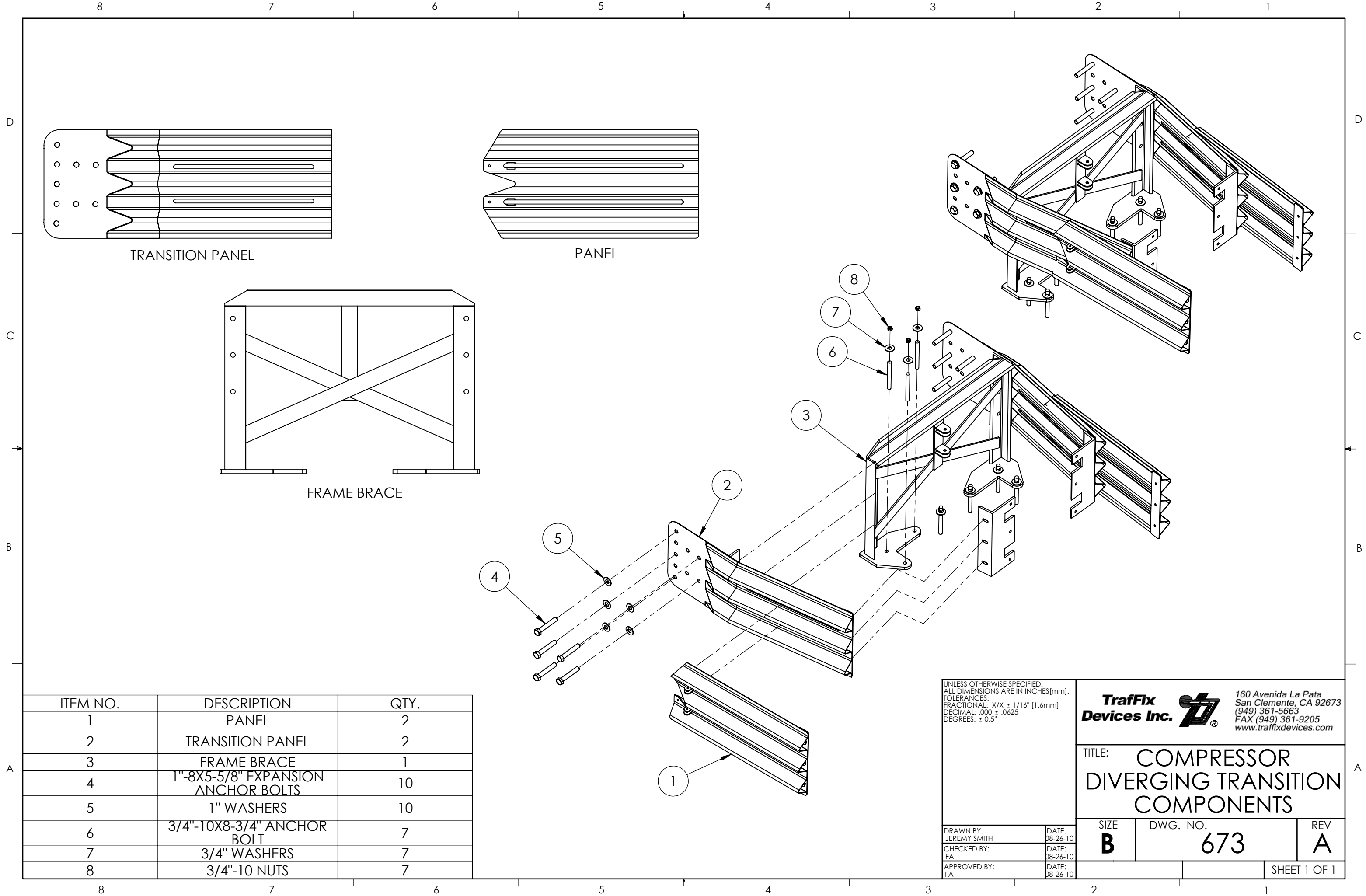
DATE: 08-26-10
 DATE: 08-26-10
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Traffix Devices Inc.  160 Avenida La Pata
 San Clemente, CA 92673
 (949) 361-5663
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TITLE: **COMPRESSOR DIVERGING TRANSITION LAYOUT**

SIZE B	DWG. NO. 674	REV A
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SHEET 1 OF 1



TRANSITION PANEL

PANEL

FRAME BRACE

ITEM NO.	DESCRIPTION	QTY.
1	PANEL	2
2	TRANSITION PANEL	2
3	FRAME BRACE	1
4	1"-8X5-5/8" EXPANSION ANCHOR BOLTS	10
5	1" WASHERS	10
6	3/4"-10X8-3/4" ANCHOR BOLT	7
7	3/4" WASHERS	7
8	3/4"-10 NUTS	7

UNLESS OTHERWISE SPECIFIED:
 ALL DIMENSIONS ARE IN INCHES[mm].
 TOLERANCES:
 FRACTIONAL: X/X ± 1/16" [1.6mm]
 DECIMAL: .000 ± .0625
 DEGREES: ± 0.5°

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TITLE: **COMPRESSOR DIVERGING TRANSITION COMPONENTS**

DRAWN BY: JEREMY SMITH DATE: 08-26-10
 CHECKED BY: FA DATE: 08-26-10
 APPROVED BY: FA DATE: 08-26-10

SIZE B	DWG. NO. 673	REV A
		SHEET 1 OF 1