

June 19, 2020



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

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

In Reply Refer To:
HSST-1/B-88G

Mr. Jesper Sorensen
Safence, Inc.
14570 Interurban Ave S, #C100
Tukwila, WA 98168

Dear Mr. Sorensen:

On December 23, 2008, the Federal Highway Administration's Office of Safety issued eligibility letter B-88F for the Safence in 1:4 Sloped Medians. The Office of Safety has recently made updates to its eligibility letter website to be more consistent with the 2nd Edition of American Association of State Highway and Transportation Officials' (AASHTO) Manual for Assessing Safety Hardware (MASH) and the additional test matrices for cable barriers therein. These updates have necessitated the modification of certain eligibility letters including B-88F. The modification for B-88F consists of adding the phrase "26 foot-wide median on front slope with 4-foot offset from slope break point" after the original description of the device to indicate the as-tested conditions for the device. Additionally, the language of this letter has been updated to be consistent with current Office of Safety policy for eligibility letters.

Please note that this modification to letter B-88F will in no way affect the eligibility for the associated device as was determined on December 23, 2008. This FHWA letter of eligibility is assigned FHWA control number B-88G and is valid until a subsequent letter is issued by FHWA that expressly references this device. This letter will supersede the original B-88F letter in full.

Decision

The following device is eligible within the length-of-need, with details provided in the form which is attached as an integral part of this letter:

- SafeFence in 1:4 Sloped Medians, 26 foot-wide median on front slope with 4-foot offset from slope break point

Scope of this Letter

To be found eligible for Federal-aid funding, new roadside safety devices should meet the crash test and evaluation criteria contained in the American Association of State Highway and Transportation Officials' (AASHTO) Manual for Assessing Safety Hardware (MASH). However, the FHWA, the Department of Transportation, and the United States Government do not regulate the manufacture of roadside safety devices. Eligibility for reimbursement under the Federal-aid highway program does not establish approval, certification or endorsement of the device for any particular purpose or use.

This letter is not a determination by the FHWA, the Department of Transportation, or the United States Government that a vehicle crash involving the device will result in any particular outcome, nor is it a guarantee of the in-service performance of this device. Proper manufacturing, installation, and maintenance are required in order for this device to function as tested.

This finding of eligibility is limited to the crashworthiness of the system and does not cover other structural features, nor conformity with the Manual on Uniform Traffic Control Devices.

Eligibility for Reimbursement

Based solely on a review of crash test results and certifications submitted by the manufacturer, and the crash test laboratory, FHWA agrees that the device described herein meets the crash test and evaluation criteria of the AASHTO's MASH. Therefore, the device is eligible for reimbursement under the Federal-aid highway program if installed under the range of tested conditions.

Name of system: Safence in 1:4 Sloped Medians, 26 foot-wide median on front slope with 4-foot offset from slope break point
Type of system: Longitudinal Barrier
Test Level: MASH Test Level 3 (TL3)
Testing conducted by: Swedish Road and Transport Research Institute (VTI)
Date of request: October 21, 2008

FHWA concurs with the recommendation of the accredited crash testing laboratory on the attached form

Full Description of the Eligible Device

The device and supporting documentation, including reports of the crash tests or other testing done, videos of any crash testing, and/or drawings of the device, are described in the attached form.

Notice

This eligibility letter is issued for the subject device as tested. Modifications made to the device are not covered by this letter. Any modifications to this device should be submitted to the user (i.e., state DOT) as per their requirements.

You are expected to supply potential users with sufficient information on design, installation and maintenance requirements to ensure proper performance.

You are expected to certify to potential users that the hardware furnished has the same chemistry, mechanical properties, and geometry as that submitted for review, and that it will meet the test and evaluation criteria of AASHTO's MASH.

Issuance of this letter does not convey property rights of any sort or any exclusive privilege. This letter is based on the premise that information and reports submitted by you are accurate and correct. We reserve the right to modify or revoke this letter if: (1) there are any inaccuracies in the information submitted in support of your request for this letter, (2) the qualification testing was flawed, (3) in-service performance or other information reveals safety problems, (4) the system is significantly different from the version that was crash tested, or (5) any other information indicates that the letter was issued in error or otherwise does not reflect full and complete information about the crashworthiness of the system.

Standard Provisions

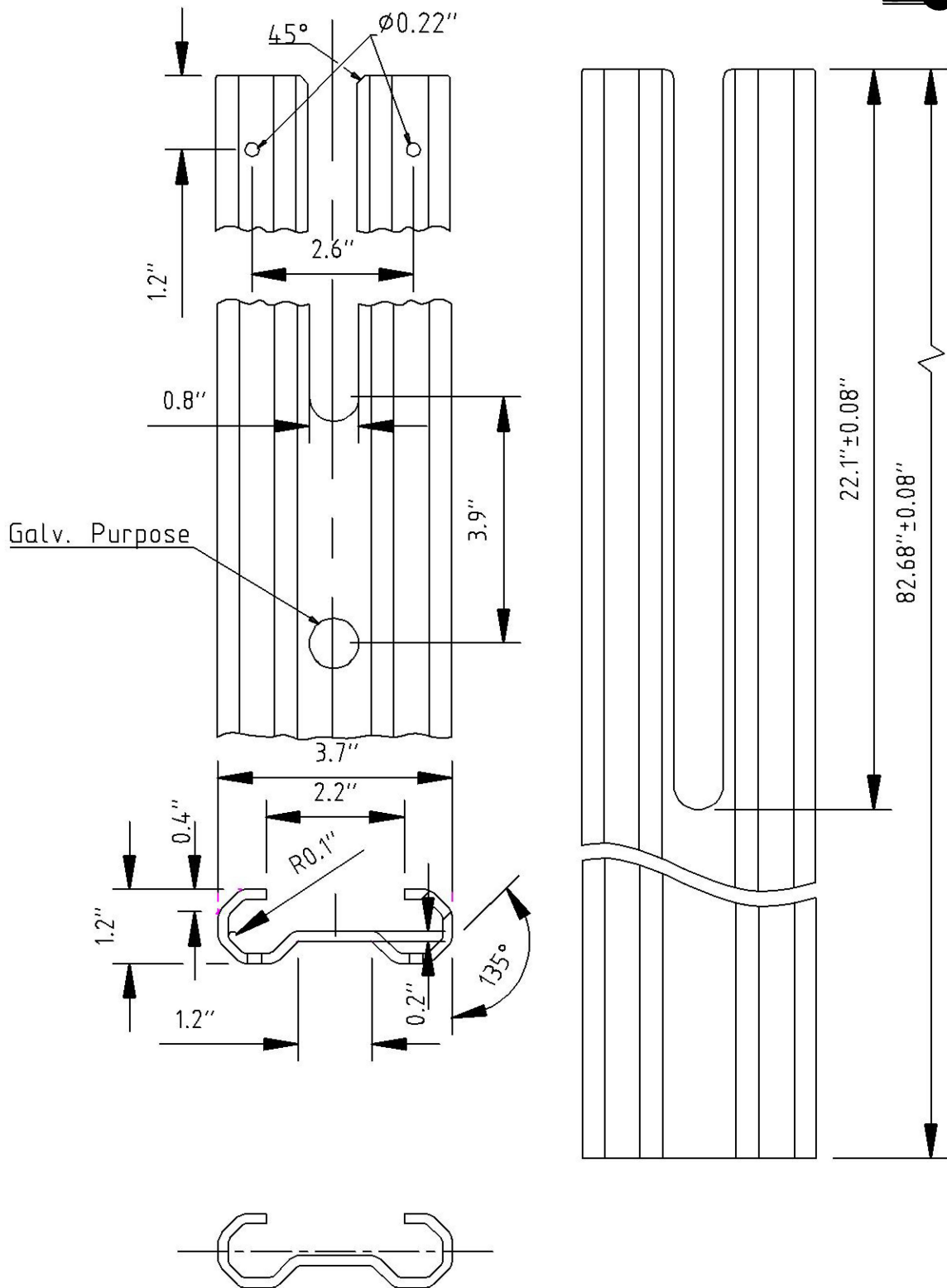
- To prevent misunderstanding by others, this letter of eligibility designated as FHWA control number B-88G shall not be reproduced except in full. This letter and the test documentation upon which it is based are public information. All such letters and documentation may be reviewed upon request.
- This 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.
- This FHWA eligibility letter is not an expression of any Agency view, position, or determination of validity, scope, or ownership of any intellectual property rights to a specific device or design. Further, this letter does not impute any distribution or licensing rights to the requester. This FHWA eligibility letter determination is made based solely on the crash-testing information submitted by the requester. The FHWA reserves the right to review and revoke an earlier eligibility determination after receipt of subsequent information related to crash testing.

Sincerely,

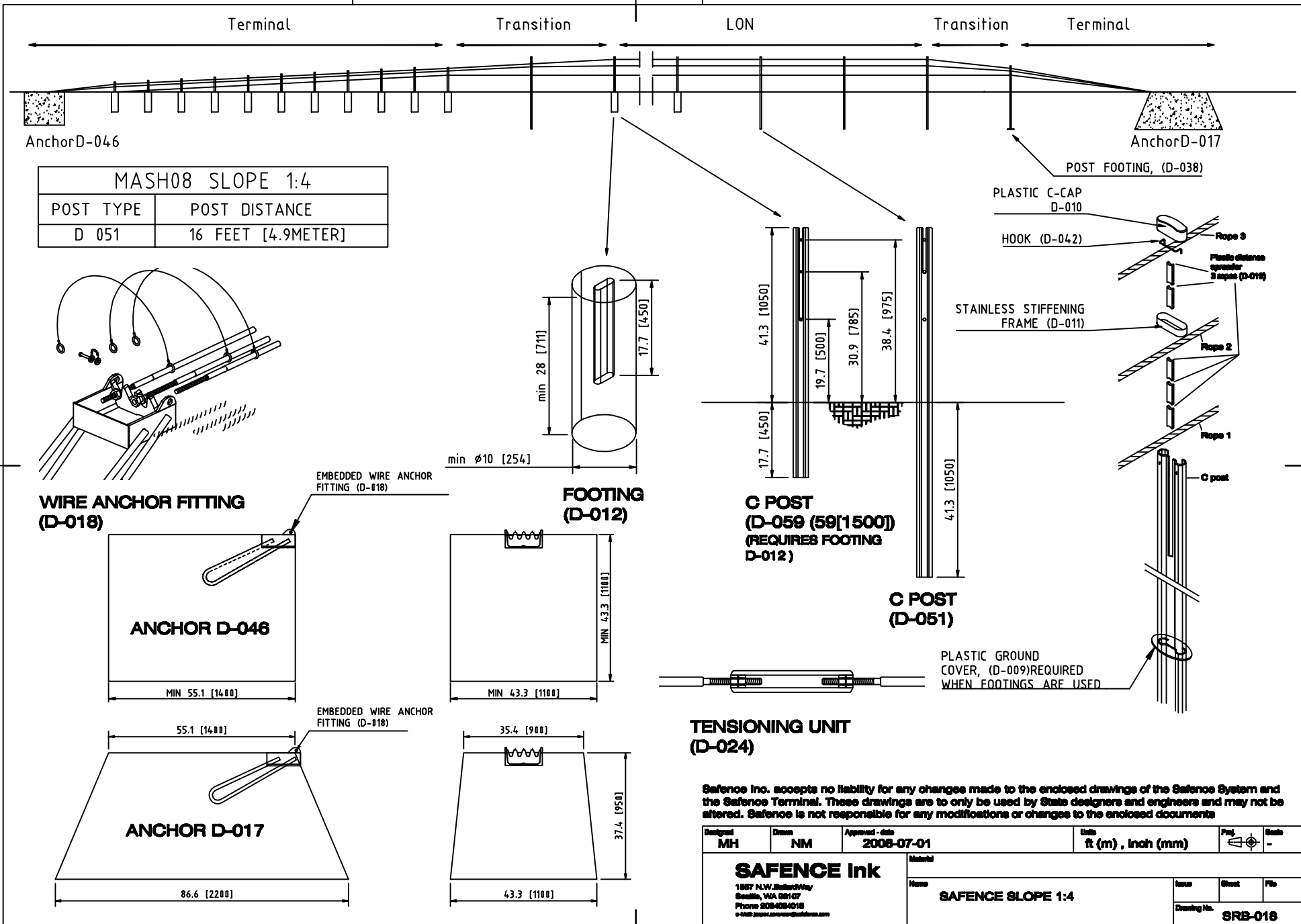


Michael S. Griffith
Director, Office of Safety Technologies
Office of Safety

Enclosures



Designed MH	Drawn NM	Approved - date 2008-07-14	Tolerance requirements	Units inch	Proj. 	Scale 10:1
BLUE SYSTEMS AB Hällefundregatan 24 S-426 58 Västra Frölunda SWEDEN Tel: +4681 297216 Fax: +4681 298035 E-post: info@bluesystems.se	Material DOMEX 350, ASTM A1011-04a HSLAS grde 50	Name C-POST 1:4 slope	Issue	Sheet	File	Drawing No. D-051imp





Crash Safety

Test report 56746

Date:

2008-10-03

Annex 9;
Acceleration graphs

Test Summary Report (Using SAE Class 180 Filter on Acceleration Data and Angular Velocity/Dis

General Information

Test Agency: VTI
Test Number: RB0626_1
Test Date: 2008-06-26
Test Article: Slant racke Blue Systems

Test Vehicle

Description: KIA Rio UDE 716
Test Inertial Mass: 1125 kg
Gross Static Mass: 1200 kg

Impact Conditions

Speed: 103.0 km/hr
Angle: 25.0 degrees

Occupant Risk Factors

Impact Velocity (m/s) at 0.5096 seconds on left side of interior
x-direction 6.3
y-direction -1.3

THIV (km/hr): 26.1 at 0.5331 seconds on front of interior
THIV (m/s): 7.3

Ridedown Accelerations (g's)

x-direction -4.2 (0.5308 - 0.5408 seconds)
y-direction -2.8 (1.3358 - 1.3458 seconds)

PHD (g's): 4.3 (0.5331 - 0.5431 seconds)

ASI: 0.90 (0.4017 - 0.4517 seconds)

Max. 50msec Moving Avg. Accelerations (g's)

x-direction -8.0 (0.4020 - 0.4520 seconds)
y-direction -2.1 (2.1374 - 2.1874 seconds)
z-direction -6.1 (0.4007 - 0.4507 seconds)

Max Roll, Pitch, and Yaw Angles (degrees)

Roll 40.7 (0.7745 seconds)
Pitch 15.2 (0.7568 seconds)
Yaw 36.3 (1.2613 seconds)

Test report 56745

Date:
2008-10-03

Annex 9;
Acceleration graphs

Test Summary Report (Using SAE Class 180 Filter on Acceleration Data and Angular Velocity/Dis

General Information

Test Agency: VTI
Test Number: R860624 1
Test Date: 2008-06-24
Test Article: Blue Systems Vajer

Test Vehicle

Description: Ford Transit TFL 563
Test Inertial Mass: 2147 kg
Gross Static Mass: 2222 kg

Impact Conditions

Speed: 101.5 km/hr
Angle: 25.0 degrees

Occupant Risk Factors

Impact Velocity (m/s) at 0.3663 seconds on left side of interior
x-direction -0.4
y-direction -2.6

THIV (km/hr): 11.4 at 0.3788 seconds on left side of interior
THIV (m/s): 3.2

Ridedown Accelerations (g's)

x-direction 2.5 (5.0649 - 5.0749 seconds)
y-direction 7.4 (0.6343 - 0.6443 seconds)

PHD (g's): 7.5 (0.6343 - 0.6443 seconds)

ASI: 0.70 (0.2077 - 0.2577 seconds)

Max. 50mssec Moving Avg. Accelerations (g's)

x-direction 2.1 (5.1482 - 5.1982 seconds)
y-direction 4.5 (0.6343 - 0.6843 seconds)
z-direction 6.5 (0.2149 - 0.2649 seconds)

Max Roll, Pitch, and Yaw Angles (degrees)

Roll -17.0 (0.5587 seconds)
Pitch 6.9 (3.3846 seconds)
Yaw 27.0 (0.7373 seconds)