



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

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

February 6, 2026

In Reply Refer To:  
HSST-1/B-395

Mathias Redlberger  
REBLOC GmbH  
Ziegelofen-Straße 736  
3571 Gars am Kamp  
Austria

Dear Mr. Redlberger:

We received your correspondence on September 24, 2024, requesting issuance of a Federal-aid reimbursement eligibility letter under the Federal-aid highway program for the roadside safety system, device, design, product, or hardware (collectively “device”) described below. We write to inform you that the device Transition TR REBLOC\_80SAH\_12-80F\_8 is eligible for Federal-aid reimbursement. This letter is assigned Federal Highway Administration (FHWA) control number B-395.

### **ELIGIBILITY LETTERS**

The FHWA issues Federal-aid reimbursement eligibility letters for new roadside safety devices that are crash tested in accordance with the industry standard of the American Association of State Highway and Transportation Officials (AASHTO) Manual for Assessing Safety Hardware (MASH).

FHWA, the Department of Transportation, and the United States (government) do not regulate roadside safety devices, crash test facilities, or the manufacturing industry. Issuance of eligibility letters is discretionary and provided only as a service to the states. FHWA may, at its discretion, decline to issue, revise, or rescind an eligibility letter. Eligibility letters are only issued by the FHWA Office of Safety.

Eligibility letters are issued only as notice to the states that a device is eligible for reimbursement under the Federal-aid highway program. They do not establish approval or certification for any other purpose. Issuance of an eligibility letter is not a prerequisite or requirement for state transportation agencies seeking to use Federal-aid funds for roadside safety devices. State agencies may use a device for which an eligibility letter has not been issued and seek Federal-aid reimbursement.

### **FEDERAL-AID REIMBURSEMENT**

The request for issuance of this letter certified the device was crash tested in accordance with the industry standard of AASHTO’s MASH. This eligibility letter is based on that certification and

the material offered in support of its issuance. The device described below is eligible for reimbursement under the Federal-aid highway program.

Name of system: Transition TR REBLOC\_80SAH\_12-80F\_8  
Type of system: Barrier  
Test Level: Test Level 3  
Testing conducted by: CTS  
Date of request: September 24, 2024

Information about the device, including material such as the eligibility request, crash test reports, drawings, or images are included in one or more attachment(s) to this letter.

Eligibility letter B-395 is inapplicable to devices, optional equipment, alternate materials, or other features that were not crash tested in accordance with AASHTO's MASH.

This letter is issued only for the subject device as crash tested under AASHTO's MASH. Later modification(s) of the device are not eligible for Federal-aid reimbursement under this letter. Notice of later modification(s) should be given to transportation agencies, facility owners, and operators (collectively "agencies").

Agencies should be provided appropriate information about the device's design, installation, maintenance, materials, and mechanical properties.

Issuance of this letter is discretionary, and it may be revised or rescinded at FHWA's discretion. This letter is not a determination of compliance with the Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) or ownership of any intellectual property rights.

This eligibility letter is not a determination by the government that a crash involving the subject device will result in any particular outcome. It is limited to only the device's eligibility for Federal-aid reimbursement.

### **INTELLECTUAL PROPERTY**

Issuance of this eligibility letter does not convey property rights of any sort nor any exclusive privilege. This letter is not authorization or consent by the government for the use, manufacture, or sale of any patented or proprietary system, device, design, product, or hardware for which the requester is not the patent owner. Eligibility letters are not an expression of any view, position, or determination by the government as to the validity, scope, or ownership of any intellectual property rights to a specific device. These letters do not grant, impute, suggest, or otherwise establish any ownership, distribution, or licensing rights to the requester. The government expresses no opinion about the intellectual property rights relating to any device for which this or any other eligibility letter is issued.

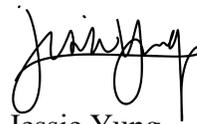
**PUBLIC DISCLOSURE**

To prevent any misunderstanding, and as discussed above, this Federal-aid eligibility letter is assigned FHWA control number B-395. It should only be reproduced in full with its attachment(s). This Federal-aid eligibility letter and the material offered by the requester supporting its issuance is public information. All eligibility letters and supporting material are subject to public disclosure under the Freedom of Information Act (FOIA). Eligibility letters are available to the public at

[https://safety.fhwa.dot.gov/roadway\\_dept/countermeasures/reduce\\_crash\\_severity/](https://safety.fhwa.dot.gov/roadway_dept/countermeasures/reduce_crash_severity/).

If you have any questions please contact Paul LaFleur at [Paul.LaFleur@dot.gov](mailto:Paul.LaFleur@dot.gov).

Sincerely,



Jessie Yung  
Director, Office of Safety Technologies  
Office of Safety

Enclosures

## Request for Federal Aid Reimbursement Eligibility of Highway Safety Hardware

<b>Submitter</b>	Date of Request:	September 24, 2024	<input checked="" type="radio"/> New <input type="radio"/> Resubmission
	Name:	Mathias Redlberger	
	Company:	REBLOC	
	Address:	1000 N West Street, Wilmington, DE 19801	
	Country:	USA	
	To:	Michael S. Griffith, Director FHWA, Office of Safety Technologies	

I request the following devices be considered eligible for reimbursement under the Federal-aid highway program.

**Device & Testing Criterion** - Enter from right to left starting with Test Level

! - ! - !

System Type	Submission Type	Device Name / Variant	Testing Criterion	Test Level
'B': Rigid/Semi-Rigid Barriers (Roadside, Median, Bridge Railings)	<input checked="" type="radio"/> Physical Crash Testing <input type="radio"/> Engineering Analysis	Transition REBLOC 80SAH_12_8B - 80F_8	AASHTO MASH	TL3

By submitting this request for review and evaluation by the Federal Highway Administration, I certify that the product(s) was (were) tested in conformity with the AASHTO Manual for Assessing Safety Hardware and that the evaluation results meet the appropriate evaluation criteria in the MASH.

**Individual or Organization responsible for the product:**

Contact Name:	Mathias Redlberger	Same as Submitter <input checked="" type="checkbox"/>
Company Name:	REBLOC	Same as Submitter <input checked="" type="checkbox"/>
Address:	1000 N West Street, Wilmington, DE 19801	Same as Submitter <input checked="" type="checkbox"/>
Country:	USA	Same as Submitter <input checked="" type="checkbox"/>

Enter below all disclosures of financial interests as required by the FHWA 'Federal-Aid Reimbursement Eligibility Process for Safety Hardware Devices' document.

Crashtest-service.com GmbH (CTS) was contracted by REBLOC GmbH to perform full-scale testing of the Transition REBLOC 80SAH\_12\_8B - 80F\_8. There are no shared financial interests in the Transition REBLOC 80SAH\_12\_8B - 80F\_8 by CTS, or between REBLOC GmbH and CTS, other than costs involved in the actual crash tests and reports for this submission to FHWA.

## PRODUCT DESCRIPTION

- New Hardware or Significant Modification
  Modification to Existing Hardware

This transition connects the free standing system REBLOC 80F\_8 (new jersey profile) with the anchored system REBLOC 80SAH\_12\_8B (section similar to an I-beam profile). Due to the symmetrical profile it can be used for single-sided and double-sided application.

The transition element is 236.2 inch long and 31.5 inch high. The element width changes from 11.8 inch to 19.7 inch. The weight of the element is 6702 lb. The element is anchored to the ground (asphalt or concrete). The anchoring consists of threaded anchors with a diameter of 20 mm (0.8 in) and a length of 300 mm [(11.8 in) (Excalibur Screwbolts HSB 20/300)]

The threaded anchors are inserted into the corresponding anchoring holes. 6 anchors are used for the transition element. The anchoring depth is 130 mm (5.1 in) respectively 160 mm (6.3 in).

For the crash test, the transition element was situated between two safety barrier standard sections, REBLOC 80SAH\_12\_8B (2 elements, anchored) and REBLOC 80F\_8 (2 elements, free standing). Adjacent to the free standing 80F\_8 section, an additional element, REBLOC 80F\_80FA\_8, was installed. This element was equipped with anchor holes at one end and anchored to the ground to provide end-anchorage for the barrier setup.

### CRASH TESTING

By signature below, the Engineer affiliated with the testing laboratory, agrees in support of this submission that all of the critical and relevant crash tests for this device listed above were conducted to meet the MASH test criteria. The Engineer has determined that no other crash tests are necessary to determine the device meets the MASH criteria.

Engineer Name:	Dipl.-Ing. Ralf Bührmann	
Engineer Signature:	<b>Dipl.-Ing. Ralf Bührmann</b>	Digital unterschrieben von Dipl.-Ing. Ralf Bührmann Datum: 2025.01.09 15:07:29 +01'00'
Address:	Amelunxenstraße 30, 48167 Münster	Same as Submitter <input type="checkbox"/>
Country:	Germany	Same as Submitter <input type="checkbox"/>

A brief description of each crash test and its result:

Required Test Number	Narrative Description	Evaluation Results
3-10 (1100C)		Non-Relevant Test, not conducted
3-11 (2270P)		Non-Relevant Test, not conducted
3-20 (1100C)	<p>Test 20 for a transition section is an optional test to evaluate the occupant risk and post-impact trajectory criteria for all test levels. It should be conducted if there is reasonable uncertainty regarding the impact performance of the system for impacts with smaller passenger vehicles. (see MASH 2016, 2.2.1.2)</p> <p>Since there is no reasonable uncertainty regarding the impact performance of the transition for impacts with small passenger vehicles, this test (3-20) was omitted.</p>	Non-Relevant Test, not conducted

Required Test Number	Narrative Description	Evaluation Results
3-21 (2270P)	<p>Test level: TL3-21  CTS test no.: 20064  Test report no.: 12184-4529-20064-EN  performed 04-APR-2024 by  crashtest-service.com GmbH (Germany)</p> <p>The safety barrier (transition section) contained and redirected the 2270P vehicle. The vehicle did not penetrate, underide or override the installation. Maximum dynamic deflection during the test was 0.28 m (11.0 in). One concrete fragment of 2.3 kg (5.1 lb) has detached from the middle foot of element 3. At the location of the detached concrete fragment, there was a previous damage before testing. The occupant compartment deformation did not exceed limits. No penetration occurred. The vehicle remained upright during and after the impact.</p>	PASS

Full Scale Crash Testing was done in compliance with MASH by the following accredited crash test laboratory (cite the laboratory's accreditation status as noted in the crash test reports.):

Laboratory Name:	crashtest-service.com GmbH	
Laboratory Signature:	<b>Dipl.-Ing. Ralf Bührmann</b> Digital unterschrieben von Dipl.-Ing. Ralf Bührmann Datum: 2025.01.09 15:08:19 +01'00'	
Address:	Amelunxenstraße 30, 48167 Münster	Same as Submitter <input type="checkbox"/>
Country:	Germany	Same as Submitter <input type="checkbox"/>
Accreditation Certificate Number and Dates of current Accreditation period :	D-PL-17359-01-00, 24-APR-2023	

Submitter Signature\*:

**Submit Form**

ATTACHMENTS

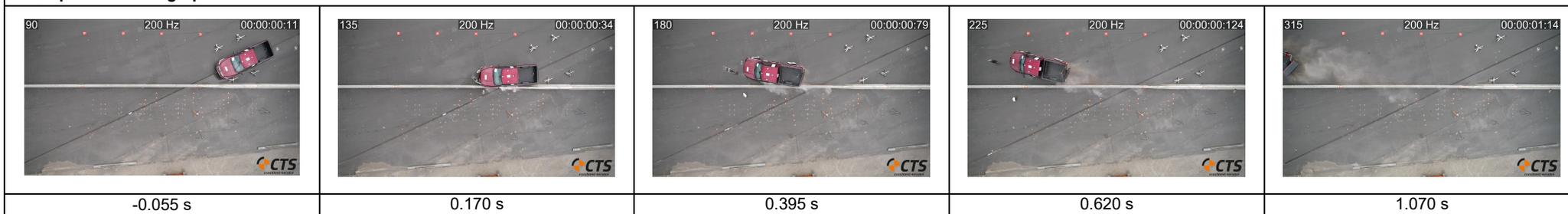
Attach to this form:

- 1) Additional disclosures of related financial interest as indicated above.
- 2) A copy of the full test report, video, and a Test Data Summary Sheet for each test conducted in support of this request.
- 3) A drawing or drawings of the device(s) that conform to the Task Force-13 Drawing Specifications [[Hardware Guide Drawing Standards](#)]. For proprietary products, a single isometric line drawing is usually acceptable to illustrate the product, with detailed specifications, intended use, and contact information provided on the reverse. Additional drawings (not in TF-13 format) showing details that are relevant to understanding the dimensions and performance of the device should also be submitted to facilitate our review.

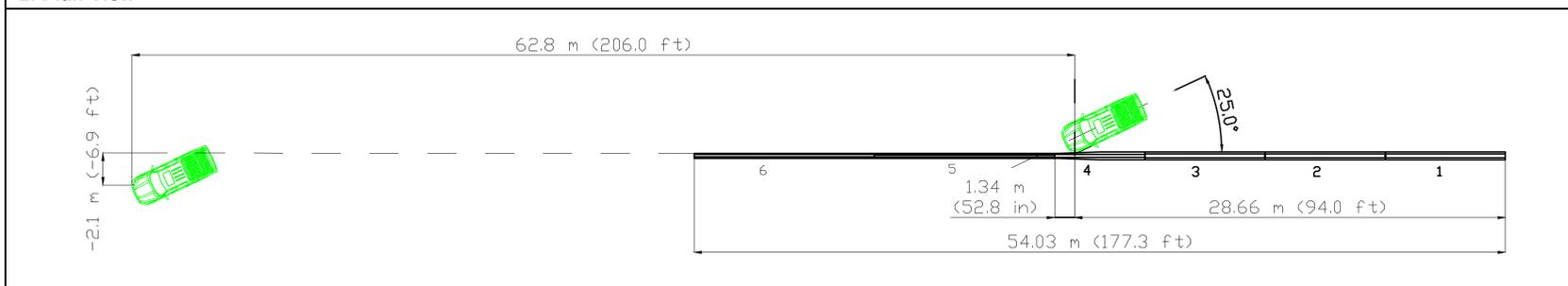
**FHWA Official Business Only:**

Eligibility Letter		
Number	Date	Key Words

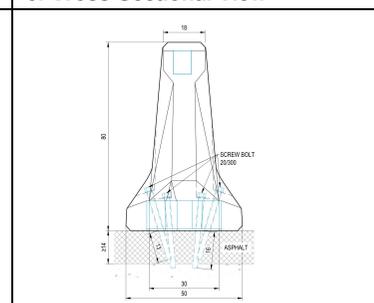
**1. Sequential Photographs**



**2. Plan View**



**3. Cross-Sectional View**



**4. General Information**

Test Agency	crashtest-service.com GmbH (CTS)
Test Standard	MASH Test TL 3-21
CTS-Test No	20064
Date	04-APR-2024

**5. Test Article**

Type	Precast Concrete Barrier – Transition Section
Name	“TR REBLOC 80SAH_12_8B - 80F_8”
Installation Length	54.04 m (177.3 ft)
Key Elements – Transition Section	Length: 6.0 m (19.7 ft) Height: 0.8 m (31.5 in) Base Width: 0.3 m (11.8 in) - 0.5 m (19.7 in)

**6. Soil Type and Condition**

Type of Soil	Asphalt
Soil Strength	---
Condition	cloudy, light drizzle, 13.9 °C (57.0 °F)

**7. Test Vehicle**

Type/Designation	Dodge Ram
Make and Model	1500 PICKUP, MY2019
Curb	2452 kg (5406 lb)
Test Inertial	2306 kg (5084 lb)
Dummy	---
Gross Static	2306 kg (5084 lb)

**8. Impact Conditions**

Speed	97.3 km/h (60.5 mph)
Angle	25.0°
Location/Orientation	1.34 m (52.8 in) Before transition of elements 4/5

**9. Exit Conditions**

Speed	74.8 km/h (46.5 mph)
Angle	10.5°

**10. Post-Impact Trajectory**

Vehicle Stability	Satisfactory
Stopping Distance	62.8 m (206.0 ft) downstream of the impact point -2.1 m (-6.9 ft) laterally behind the test article

Vehicle Snagging	No
Vehicle Pocketing	No
Maximum roll angle	-20.39°
Maximum pitch angle	-16.06°

**11. Occupant Risk**

OIV - Impact Velocity	
Longitudinal	5.13 m/s (16.8 ft/s)
Lateral	7.59 m/s (24.9 ft/s)

**ORA - Ridedown Accelerations (10 msec avg.)**

Longitudinal	5.78 g
Lateral	8.33 g
THIV	32.7 km/h (29.8 ft/s)
PHD	19.74 g
ASI	1.61

**12. Test Article Damage**

Classification	Moderate
Particularities	None

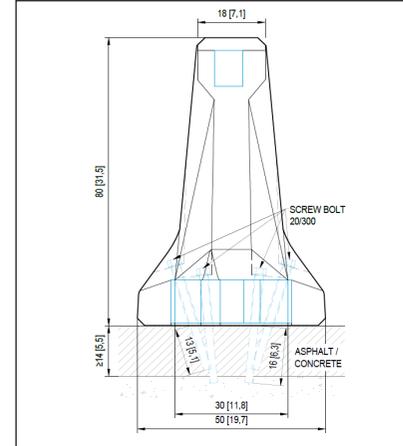
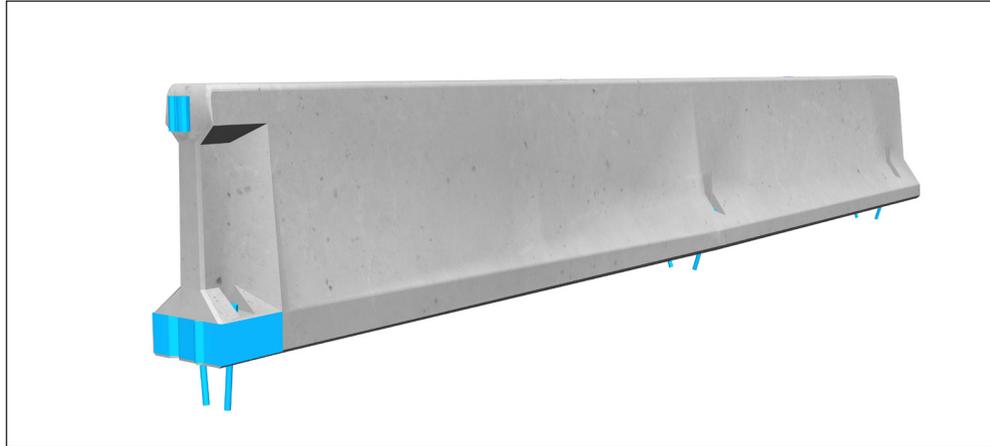
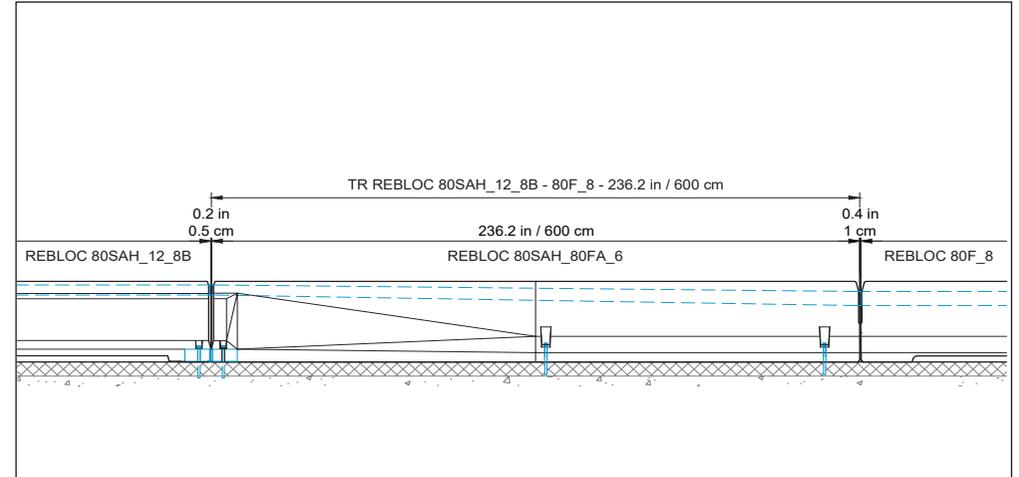
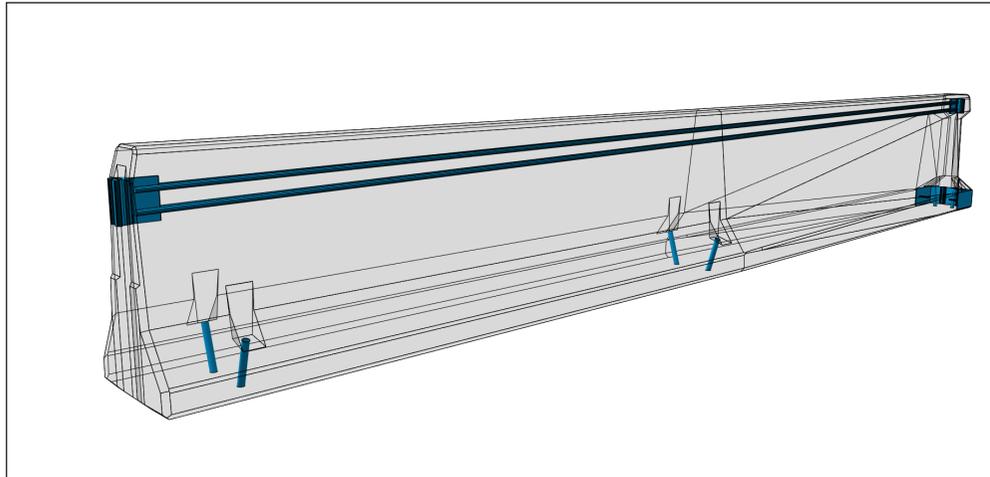
**13. Test Article Deflections**

Dynamic Deflection	0.28 m (11.0 in)
Permanent Deflection	0.03 m (1.2 in)
Dynamic Working Width (vehicle)	0.60 m (23.6 in)
Height of Working Width (vehicle)	1.00 m (39.4 in)

**14. Vehicle Damage**

Classification	Moderate
VDS	11-LFQ-5
CDC	11FDEW4
Max. Exterior Deformation	280 mm (11.0 in)
Location of max. exterior Deformation	Front left side fender
Max. Interior Deformation	57 mm (2.2 in)
Location of max. interior Deformation	Front left foot well
OCDI	ND0000000

# TR REBLOC 80SAH\_12\_8B ↔ 80F\_8



<b>Element</b>	TR REBLOC 80SAH_12_8B ↔ 80F_8
<b>Dimensions</b>	236.2 x 11.8-19.7 x 31.5 in (600 x 30-50 x 80 cm)
<b>Weight/element</b>	6702 lb (3040 kg)
<b>Material</b>	Concrete 5000 psi
<b>Date</b>	2024-10-04

The element is connected by the integrated coupling, located at the face of the element.

**REBLOC GmbH**

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Fax: +43 (0) 2985 30528 2901