



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

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

June 17, 2014

In Reply Refer To:
HSST/WZ-334

Mr. Craig Schulz
Pexco, LLC Davidson Traffic Control Products
3110 70th Avenue East
Tacoma, Washington 98424

Dear Mr. Schulz:

This letter is in response to your request for the Federal Highway Administration (FHWA) to review a roadside safety system for eligibility for reimbursement under the Federal-aid highway program.

Name of system: Construction Grade IG Curb, with FG300 Channelizer Posts
Type of system: Longitudinal Channelizer
Test Level: NCHRP Report 350 Test Level 3
Testing conducted by: Texas Transportation Institute
Date of request: January 23, 2014
Date of completed package: May 23, 2014

Decision

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

- Construction Grade IG Curb, with or without FG300 Channelizer Posts

Based on a review of crash test results certifying the device described herein meets the crash test and evaluation criteria of the National Cooperative Highway Research Program (NCHRP) Report 350, the device is eligible for reimbursement under the Federal-aid highway program. Eligibility for reimbursement under the Federal-aid highway program does not establish approval or endorsement by the FHWA for any particular purpose or use.

The FHWA, the Department of Transportation, and the United States Government do not endorse products or services and the issuance of a reimbursement eligibility letter is not an endorsement of any product or service.

Requirements

To be found eligible for Federal-aid funding, roadside safety devices should meet the crash test and evaluation criteria contained in the NCHRP Report 350 or the American Association of State Highway and Transportation Officials' Manual for Assessing Safety Hardware (MASH).

FHWA:HSST:NArtimovich:sf:x61331:6/6/14

File: s://directory folder/HSST/WZ334_PexcoConstructionGradeCurb.docx

cc: HSST Nick Artimovich

Description

The device and supporting documentation are described in the attached form. The original FG300 Curb System was the subject of FHWA Letter WZ-193, dated November 2, 2004. An amendment dated December 6, 2005, recognized a redesign of FG300 as a one-piece unit. You also substituted a material with higher durability plastic. The current letter, WZ-334, covers the one piece IG curb units with the original plastic formulation.

Summary and Standard Provisions

Therefore, the system described and detailed in the attached form is eligible for reimbursement and may be installed under the range of conditions tested.

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

- This finding of eligibility does not cover other structural features of the systems, nor conformity with the Manual on Uniform Traffic Control Devices.
- Any changes that may influence system conformance with NCHRP Report 350 criteria will require a new reimbursement eligibility letter.
- Should the FHWA discover that the qualification testing was flawed, that in-service performance reveals safety problems, or that the system is significantly different from the version that was crash tested, we reserve the right to modify or revoke this letter.
- You are expected to supply potential users with sufficient information on design and installation 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 crash test and evaluation criteria of the NCHRP Report 350.
- To prevent misunderstanding by others, this letter of eligibility is designated as number WZ-334 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.
- 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. The FHWA does not 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

Enclosures



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Sincerely yours,



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

Enclosures

Request for Federal Aid Reimbursement Eligibility Of Highway Safety Hardware

Submitter	Date of Request:	January 21, 2014	<input checked="" type="radio"/> New <input type="radio"/> Resubmission
	Name:	Craig Schulz	Signature: Craig Schulz
	Company:	Pexco, LLC. - Davidson Traffic Control Products	
	Address:	3110 70th Ave East, Tacoma, WA 98424	
	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.

System Type	Submission Type	Device Name / Variant	Testing Criterion	Test Level
'WZ': Crash Worthy Work Zone Traffic Control Devices	<input checked="" type="radio"/> Physical Crash Testing <input type="radio"/> FEA & V&V Analysis	FG 300 Interstate Grade - Variation to be "Construction Interstate Grade"	NCHRP Report 350	

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 NCHRP Report 350 (Report 350) and that the evaluation results meet the appropriate evaluation criteria in the Report 350.

Identification of the individual or organization responsible for the product:

Contact Name:	Craig Schulz	Same as Submitter <input checked="" type="checkbox"/>
Company Name:	Pexco, LLC. - Davidson Traffic Control Products	Same as Submitter <input checked="" type="checkbox"/>
Address:	3110 70th Ave East, Tacoma, WA 98424	Same as Submitter <input checked="" type="checkbox"/>
Country:	USA	Same as Submitter <input checked="" type="checkbox"/>

PRODUCT DESCRIPTION

Modification to Existing Hardware null
<p>"Construction Grade" - IG Curb is simply a resin change from the current ASA which will remain in the "Interstate Grade" curb, this offering will remain for long term projects/permanent applications. The reason for the development/reintroduction of ABS in the "Construction Grade" IG curb is due to some of the market place wants a 1 - 2 year product (non warrantied), as the benefits of Longitudinal Channelization are recognized and being deployed on several short term projects (less than 2 years). This offers a highly durable product at a lower price point allowing project budgets to be maximized rather than restricted.</p> <p>The ABS has been tested and proven as it was originally the material in the "Standard Curb" WZ-193 was originated on. The physical properties of the two resin are very similar initially. The ASA has better long term beyond 2 year performance which was originally called for by the market.</p> <p>ABS has been the material of choice in our road bases for years, the 495 Beltway project outside of DC uses our ABS bases and posts.</p>

CRASH TESTING

A brief description of each crash test and its result:

Required Test Number	Narrative Description	Evaluation Results
TTI 2004 Bunzl	<p>This was the originating test that all other longitudinal channelizing devices have been based on. It was a live driver test at Texas Transportation Institute in 2004. It was a four part test:</p> <ol style="list-style-type: none"> 1. Traversal of Curb at 20 degrees - 64.8 mph impact speed, drivers path was maintained in a straight-ahead position, slight dimpling of the hood. 2. Traversal of Curb at 0 degrees - 61.4 mph impact speed, drivers path was maintained in a straight-ahead position. No damage or vaulting. 3. Lane Change Maneuver - 60.8 mph impact speed, driver influence was only the change of direction to make the lane change. No damage or vaulting. 4. Traversal of V at 0 degrees - 63.3 mph impact speed, drivers path was maintained in straight ahead position with minimum effort. <p>Conclusion: The results of the tests on the Davidson Traffic Control Products FG300 Curb System showed no tendency for the curb to cause the driver to lose control of the vehicle. In addition, no movement of the curb, which could lead to separation from the road surface, was noted.</p>	PASS

Full Scale Crash Testing was done in compliance with Report 350 by the following accredited crash test laboratory (cite the laboratory's accreditation status as noted in the crash test reports.):

Laboratory Name:	Texas Transportation Institute	
Laboratory Contact:	Dean Albertsen	Same as Submitter <input type="checkbox"/>
Address:	Bryan, TX	Same as Submitter <input type="checkbox"/>
Country:	USA	Same as Submitter <input type="checkbox"/>
Accreditation Certificate Number and Date:		

ATTACHMENTS

Attach to this form:

- 1) A copy of the full test report, video, and a Test Data Summary Sheet for each test conducted in support of this request.
- 2) 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 key to understanding the performance of the device should also be submitted to facilitate our

review.

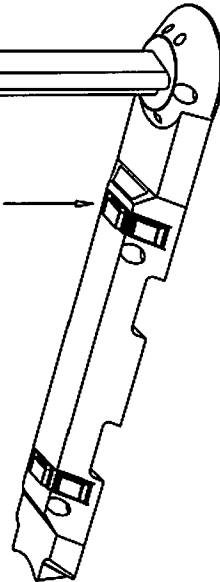
FHWA Official Business Only:

Eligibility Letter		AASHTO TF13	
Number	Date	Designator	Key Words
WZ-334	June 10, 2014	N/A	Longitudinal Channelizer Curb Unit

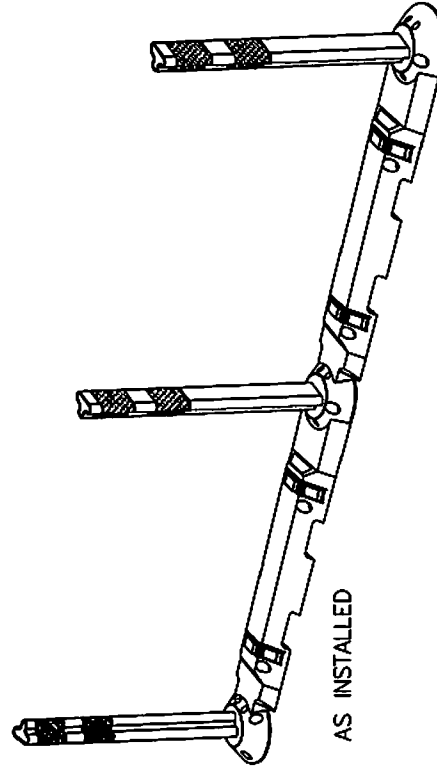
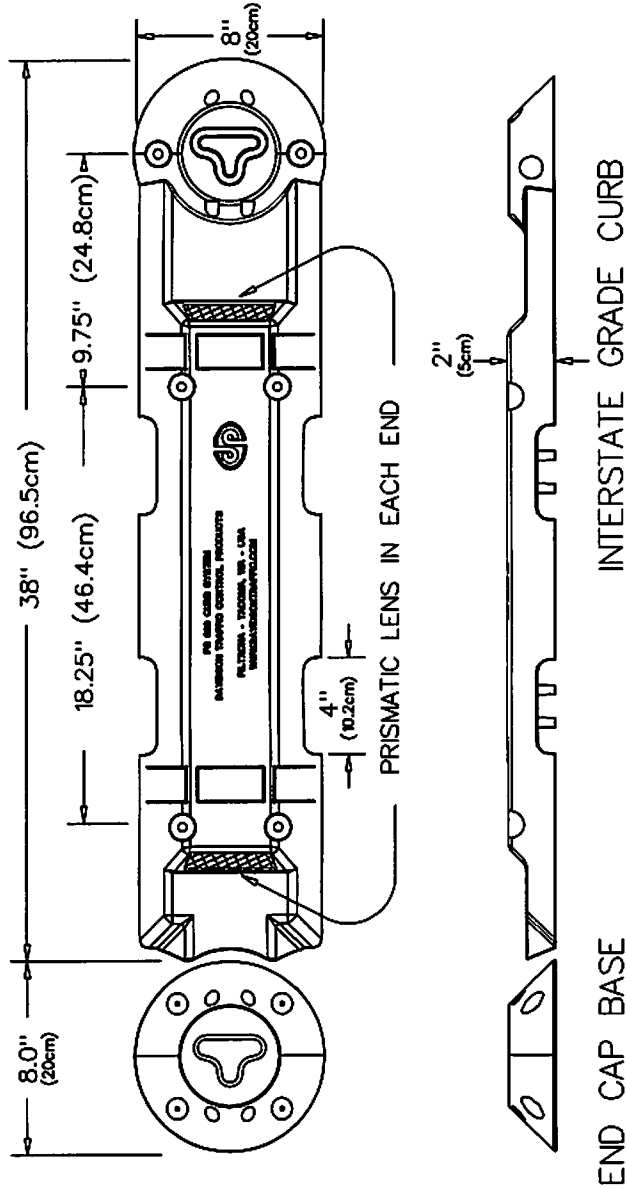
NOTES:

SINGLE CURB SECTION SHOWN
WITH FG336 MODEL EFX POST
AND 2 3"x9" AR1000 WRAPS

OPTIONAL REFLECTIVE ROAD STUDS
APPLIED IN 6 PLACES



- 4 ANCHOR BOLTS PER INTERSTATE GRADE CURB SECTION
- 2 ANCHOR BOLTS PER INTERSTATE GRADE END CAP BASE



PART NAME
FG300 CURB - INTERSTATE GRADE

DEPT. HEAD ENGINEERING MANAGER DATE

Davidson Traffic Control Products
"Creating Products to Save Lives"



www.davidsontraffic.com
hwysales@filtrona.com



WHAT WILL YOU
MAKE TODAY?
www.pexco.com

Pexco Tacoma
3110 78th. Ave. East
Tacoma, Washington 98424
Phone: (253)294-8001
Fax: (253)294-8004

DATE 09/23/05 PART NUMBER 7194 LAST REV. C 09/29/06

AutoCAD CD Available

This drawing and other Davidson products are available in AutoCAD format with simple drag and drop features to transfer product information directly into design drawings. Davidson's product CD works with all software packages, and the CAD library allows for fluid transfer of files across all OS platforms. To register for your free copy, please contact your Davidson Sales Representative or email hwysales@filtrona.com.