



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

Louisiana Division Office

April 30, 2015

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Baton Rouge, LA 70808
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Sherri H. LeBas, P.E.
Secretary
Louisiana Department of Transportation
and Development
Baton Rouge, LA

Subject: Experimental Product Work Plan for Audible Thermoplastic Pavement Markings
New Product Evaluation Committee

Attention: Mr. Jody Colvin, P.E.

Dear Ms. LeBas:

This is in reply to your letter from April 20, 2015 requesting our approval for the evaluation of proprietary products on a construction project. In accordance with the latest FHWA and LADOTD's Stewardship and Oversight Agreement dated March 2015, the approval of the Public Interest Finding required for the evaluation of these proprietary products has been delegated to LADOTD. However, our office has reviewed the proposed work plan since we have provided you with comments and clarifications during the development of this request. We have found that the proposed work plan satisfies the requirements needed for the approval of a Public Interest Finding.

We request that LADOTD keep our office informed of the routes selected to test the proprietary products in accordance with the work plan.

If you have any questions, please contact Hector Santiago at 225-757-7620.

Sincerely Yours,

Digitally signed by Charles Bolinger
DN: cn=Charles Bolinger, o, ou,
email=charles.bolinger@dot.gov, c=US
Date: 2015.04.30 12:47:31 -05'00'

Charles W. Bolinger
Division Administrator

cc: Ms. Janice P. Williams, P.E., LADOTD
Mr. Ed Wedge, P.E., LADOTD

**LADOTD TRAFFIC ENGINEERING MANAGEMENT
NEW PRODUCT EVALUATION COMMITTEE
EXPERIMENTAL PRODUCT WORK PLAN FOR
AUDIBLE THERMOPLASTIC MARKINGS**

OBJECTIVE:

To find an alternative to ground-in rumble strip on asphalt high risk rural roadway with little or no shoulders and cast-in rumble on portland cement concrete bridge decks.

PRODUCTS FOR TESTING AND REVIEW SUBMITTED TO NPEC Nov. 2013, May 2014.

Swarcotherm Profile Thermoplastic Marking Compound (white and yellow)

Ennis-Flint Vibraline Profile Thermoplastic (white and yellow)

Crown Audible All Weather Thermoplastic System (white and yellow)

Crown All Weather UFO System (white and yellow)

PROGRAM OF ACTION:

1. A description of the experimental features:

Retroreflective thermoplastic pavement marking with a profile raised or inverted that gives an audible delineation and vibratory “rumble” to alert motorist of lane departure.

2. Cost estimate:

\$4500.00 estimated cost, per mile. We estimate 44 miles of project with a total cost of \$800,000. The cost of thermoplastic is estimated at \$2100 per mile. The cost of ground in rumble is \$800 per mile.

3. Characteristics and measurements to be evaluated:

Each submittal’s product seems to be similar in characteristics and performance. Notable differences will be in the profiled area which is proprietary among each product. Retroreflectivity and the audible noise inside of the test vehicle will be measured. Recommend a profiled spacing of 30” to allow for retroreflectivity readings.

4. Reporting requirements and objectives:

Desired results are an audible noise level of +6db over the ambient sound level of the test vehicle (NCHRP Report 641) and retroreflectivity levels that adhere to DOTD policy.

5. Test Location: Interstate, NHS and non NHS routes

The routes have not been selected. FHWA will approve the routes to test the above product on.

The criteria for test location: concrete bridge decks, concrete roadways and oxidized asphalt pavement. Locations that cannot feasibly have ground in rumble strips installed. Each test section will be 4 miles long. This provides at least 3 miles of test product (two edge lines and a center line for 2 lane roads.) For concrete bridges this will be limited to the length of the bridge.

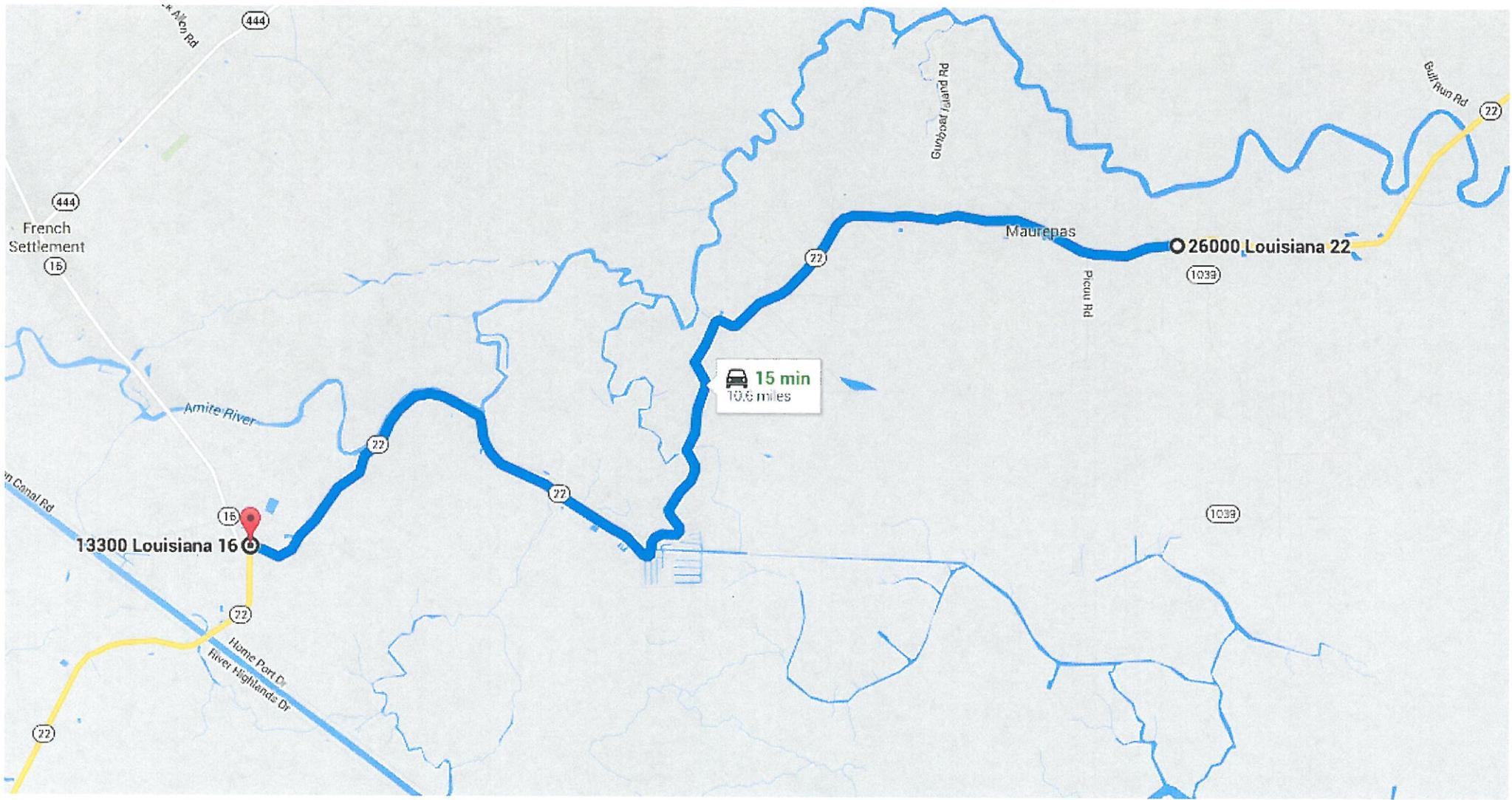
It is LADOTD's intention to do a construction project to install the test products.

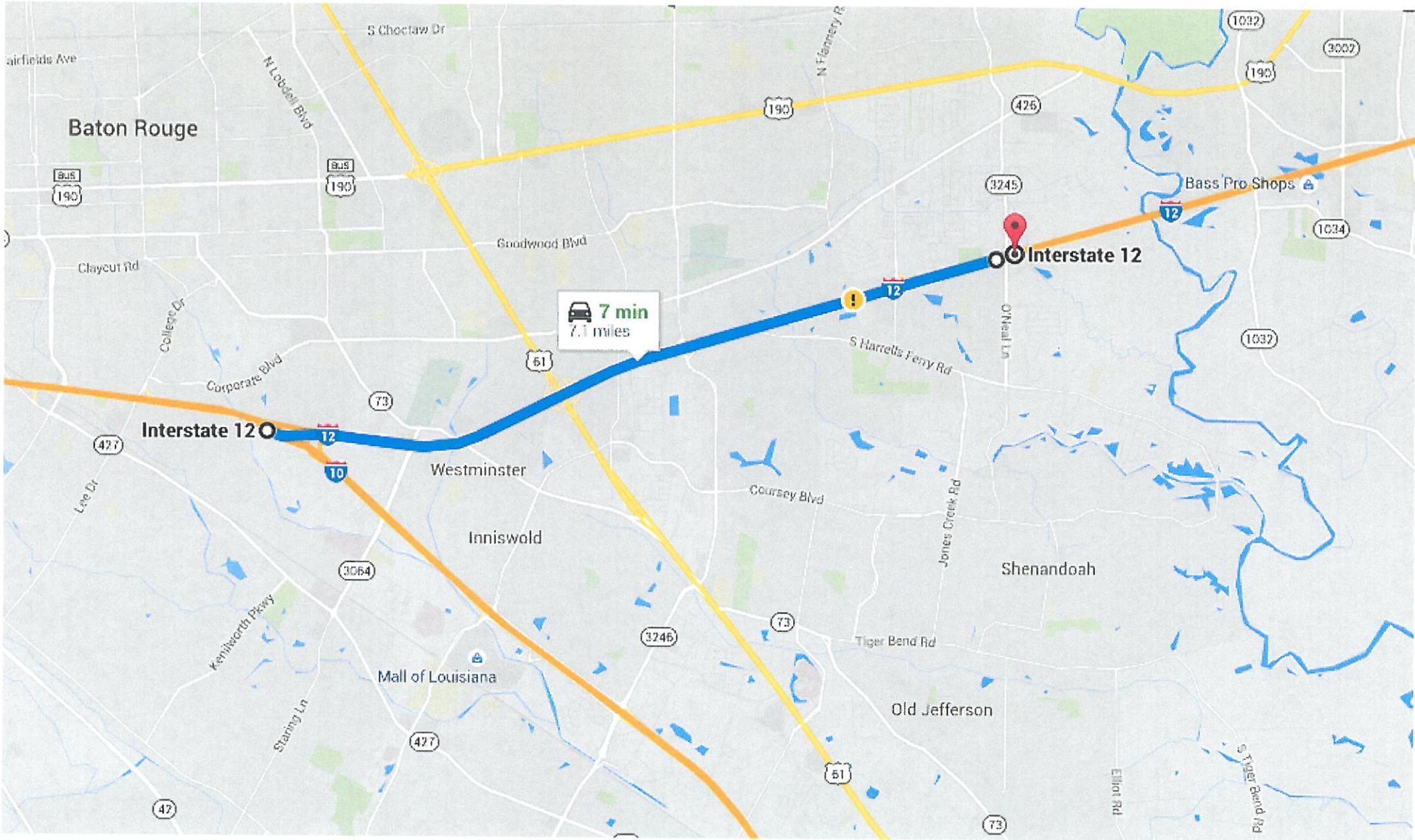
6. Construction and Post-Construction Evaluations to be conducted:

LADOTD Section 22 - Material Lab, Section 45 - Traffic Operations, and Section 77 - Traffic Engineering Management will observe the initial placement to ensure conformity to current pavement markings specifications.

Section 45 - Traffic Services will then take the initial and quarterly retroreflectivity readings for the first year. Then yearly readings until product(s) fail physically or from not meeting minimum retroreflectivity reading as stated in our current pavement marking specifications.

Section 77 and Section 22 will perform decibel readings in test vehicles. The readings will measure the audible noise in the vehicle from the travel lane and from traveling over the audible thermoplastic markings. These readings will occur within the first month of installation and then quarterly for a period of two years.





Baton Rouge

Interstate 12

Westminster

Inniswold

Mall of Louisiana

Old Jefferson

Shenandoah

Interstate 12

Bass Pro Shops

7 min
7.1 miles