



• "Most Livable City" U.S. Conference of Mayors •

May 7, 2003

Ms. Shelley Row
Federal Highway Administration
Office of Transportation Operations
400 Seventh Street SW, HOTO
Washington, DC 20590

RE: Request for Permission to Experiment

Dear Ms. Row;

Please find enclosed a request for permission to experiment from the City of Scottsdale. This request is to allow the City to use fluorescent yellow-green colored pavement marking tape to increase visibility and safety in our school zones.

- A. **Statement of Problem:** The City of Scottsdale is committed to promoting safety, especially in our school zones. In our effort to make all of our school zones as safe as possible, we are converting all of our school zone signs to the yellow-green fluorescent background, as allowed by Section 7B.07 of the MUTCD. This color conflicts with existing yellow school crosswalks located in our 15-MPH school zones. Section 7B.07 of the MUTCD that pertains to sign color for school warning signs gives the following Guidance: "When the fluorescent yellow-green background color is used, a systematic approach featuring one background color within a zone or area should be used. The mixing of standard yellow and fluorescent yellow-green background within a zone or area should be avoided." The installation of a yellow crosswalk with a fluorescent yellow-green warning sign does not follow the Guidance provided in Section 7B.07.
- B. **Description of Proposed Changes:** The FHWA allows the use of the fluorescent yellow-green color for warning signs to enhance safety in school areas. Manufacturers of pavement marking products have now developed thermoplastic marking products to complement the fluorescent yellow-green signage. In our effort to promote safety and comply with MUTCD guidance, fluorescent yellow-green pavement markings should be allowed. Matching the color of the pavement markings with the color of the warning signs will create a systematic approach with one color within a zone, and improve school zone visibility and safety.
- C. **Illustration:** Literature on the proposed experimental material and its usage is enclosed.
- D. **Supporting Data:** Currently, the City of Avondale, Arizona is conducting a test on the fluorescent yellow-green crosswalk marking tape. I have spoken with Gus Woodman with the City of Avondale who is conducting the test. Avondale is still

in the early stages of their test and they do not have any results to share yet. A few other cities in Arizona have also expressed interest in testing the fluorescent yellow-green crosswalk marking tape. The vendor is able to provide a list of other applicants upon request.

Although there are no conclusive tests in Arizona for the fluorescent yellow-green crosswalk marking tape, the use of fluorescent yellow-green signs has provided improved visibility and safety in school zones. Changing the color of the pavement markings in a similar fashion from yellow to fluorescent yellow-green has excellent merit and should result in similar improvements in visibility and safety.

- E. **Statement Certifying the Device is Not Patented or Copyrighted:** The manufacturer has provided a legally binding statement certifying that the device is not protected by a patent or copyright. A copy of this letter is enclosed as Attachment B.
- F. **Time Period and Location:** The proposed time period for this experiment will be for the school year beginning in August 2003 and commencing in May 2004. The fluorescent yellow-green crosswalk marking tape will be installed during the summer recess prior to the first day of school in August 2003. The school chosen for this study is: Yavapai Elementary School, located at 701 North Miller Road, Scottsdale, Arizona.
- G. **Evaluation Plan:** The City's evaluation plan is as follows:
- The Traffic Engineering Division will monitor and document the speeds and how the vehicles react to the existing crosswalk prior to the test installation and again immediately following the installation of the new crosswalk markings. Speed measurements and observations will be conducted during school arrival and dismissal times, 7:15-8:00 AM and 2:00-2:45 PM, when students are using the crosswalks.
 - During the first week of installation the school principal will monitor public reaction, and review this with the Traffic Engineering Division.
 - The school principal has offered to survey parents on how they react to the color of the crosswalk. The survey is anticipated to be conducted six months after installation, after parents have had time to evaluate its performance. Lafarge Road Markings has offered to work with the City in providing the survey forms.
 - The survey will be repeated at the end of the experiment to see if parents feel the same way.
 - The Traffic Engineering Division will keep in close contact with the school crossing guards. School crossing guards spend the most time at the school crosswalk and can provide valuable information about the effectiveness of the fluorescent yellow-green markings. They will be interviewed about how they feel the color is performing the first week, again in six months, and at the end of the experiment.

The City will also survey the Scottsdale Police Department about any public comments on the new school crosswalk color.

- H. Agreement to Restore Site: If at any time during this experiment the FHWA, the City of Scottsdale, or the Scottsdale Unified School District feel that the crosswalk is unsafe, the City will immediately replace the crosswalk with the standard yellow markings and terminate the experiment. The City of Scottsdale also agrees to restore the crosswalk to meet MUTCD standards within three months of the end of the test. If the experiment is successful, the City may apply to the FHWA to change the MUTCD to allow the application to be permitted.

- I. Agreement to Provide Semiannual Reports: The City of Scottsdale agrees to provide the FHWA with semiannual progress reports for the duration of the experimentation. The City also agrees to provide a copy of the final report of the results of the test to the FHWA Office of Transportation Operations within three months following the completion of the test. The City understands that the FHWA has the right to terminate the approval of the test if reports are not provided in accordance with this schedule.

If you have any questions pertaining to this experiment, please call me at (480) 312-7696.

Sincerely,



Jennifer Kroening, P.E.
Traffic Engineering Analyst
City of Scottsdale

Enclosures

- C: Mike Manthey, State Traffic Engineer, Arizona Department of Transportation
Dave Pierson, Assistant Principal, Yavapai Elementary School
Becky Best, Jerry E. Fondaw & Associates, Inc.



July 3, 2002

To Whom It May Concern:

In regards to the FHWA "Request for Experimentation" for Lafarge Road Marking's *ColorLine(tm)*, *SchoolSafe™ yellow-green Preformed Thermoplastic*, please be advised that the SchoolSafe material is not patented or copyrighted nor has either been applied for.

If there are any questions or comments please contact me at 800-491-5663 ext. 24 or 570-971-2975. Thank you for your time and consideration.

Sincerely,
Lafarge Road Marking

A handwritten signature in cursive script that reads "Kevin Francis".

Kevin Francis
Business Manager
Preformed Tape & Bridge Joint Systems



May 28, 2002

To Whom It May Concern:

The FHWA requires a request for Interpretations, Experimentations and Manual Changes. This is found in Section 1A.10 in the 2000 MUTCD. To request any of these three, the information is to be forwarded to:

Ms. Shelly Row
Federal Highway Administration (FHWA)
Office of Transportation Operations,
400 Seventh Street SW, HOTO
Washington, DC 20590

There are 9 items which have to be completed to fulfill the FHWA request for experimentation. Below is some insight and answer which should be helpful in supplying information to this outline.

A. Statement: They wish for you to state the problem. In this instance, the wording should be the need to have a pavement marking similar in color to the new yellow-green fluorescent background for signage to continue to improve child safety in School Crossing areas. The signage statement is found in Section 7B.07. which is attached in this letter.

S. Description of the Proposed Change: We as the manufacturer have come to you with the concept to make the School Zone Markings standard with the yellow-green fluorescent signage. The FHWA allowed for the signage change as it was a positive move for child safety and we continued on this development path to provide a similar color for pavement markings.

Simply put, the proposed change is to allow for a yellow-green fluorescent pavement marking for School Zone Markings, which has been developed in mirroring what is provided in the new signage color. This color deviates from the standard white or yellow outlined in the 2000 MUTCD but this color change is expected to provide a color to identify School Zone areas.

C. Illustration: We have provided our SchoolSafe literature and can forward pictures upon request.

D. Supporting Data: It is difficult to provide data in regards to actual pavement data as we first need permission to apply to establish- However, seeing the yellow-green signage has provided improved visibility in School Zones, the concept of going from the standard color(s) to yellow-green as a pavement marking delineator has excellent merit. The SchoolSafe marking has been thoroughly lab tested for color fastness, night time color and other important criteria.

E. Legal Statement Showing No Patent or Copyright: The SchoolSafe is not patented or copyrighted. The SchoolSafe is just a trademark for the yellow-green color. A letter attesting to this is enclosed.

F. Time / Location of Experimentation: Location will be your decision. The time to **properly test** this material should be a minimum of 1 school year_

G. Detailed Evaluation Plan: What we Looking for here is how the driving and pedestrian traffic respond to the new color. We are willing to work with you in providing surveys to both the student population and any ideas in reaching the driving public.

We have found that Police Depts. are very interested in the SchoolSafe color and there assistance would be beneficial in doing checkpoints, on site observations and pedestrian surveys.

These surveys should include if the new color has made the public more aware of the school zone, slowed their driving speed, are using the proper crossing areas, etc.

Finally, we would be willing to participate in a block mailer to residents in the immediate school area, requesting data on the new color.

H. Site Restoration: Lafarge Road Marking will comply in assisting with-materials and labor in restoring the site upon completion of the experiment or site restoration if the FHWA or your agency find need to terminate the evaluation because of safety concerns attributed to the experimentation.

I. Semiannual Progress: it is the best interest of Lafarge Road Marking to assist with these progress reports_ As stated in Section G, we will assist in developing any means to provide pertinent data to the FHWA.

Please feel free to contact me with any further questions or comments at 800-491-5663 or 570-971-2975. Thanks so much for your time and consideration.

Sincerely,
Lafarge Road Marking



Kevin Francis

Business Manager
Preformed Tape and Bridge Joint Systems

Marking Materials

The Pavement Marking Industry is always working to make our roadways safer. One area which is always crucial is the safety of children who travel to school as pedestrians.



SchoolSafe™ Markings

Crossing busy intersections is a major concern of both parents and motorists alike. To improve on safety in this area, Lafarge Road Marking is introducing its SchoolSafe™ Preformed Thermoplastic as part of its continuing commitment to safer highways.

The SchoolSafe color coordinates with road signage to give motorist a key indicator that children are in the area and also lets children know where their crossing area is located.

SchoolSafe is available for Crosswalks, Stop Bar and Legends, and provides a complete line of markings relevant to marking school intersections and crossings. SchoolSafe is available in thicknesses of 60, 90 and 125 mil.

Characteristics:

OUTSTANDING AESTHETICS

EXCELLENT FRICTIONAL RESISTANCE

LONG LIFE DURABILITY

COST EFFECTIVE

CUSTOMIZATION CAPABILITIES

EASE OF APPLICATION

DEFINITIVE COLOR FOR MOTORIST AWARENESS



New Horizons in Marking Materials, **continued**

MARKINGS AVAILABLE

6" Crosswalk Material	449001106	6" x 3' Flats, 96' per carton
12" Crosswalk Material	449001112	12" x 3' Flats, 48' per carton
24" Stop Bar Material	441251124	24" x 3' Flats, 15' per carton
8' Legend "SCHOOL"	449001618	16" x 96" legend, 1 per package
10' Legend "SCHOOL"	441251619	32" x 120" legend, 1 per package
6' "LOOK" legend	446001968	SchoolSafe™ Background, Black Letters
3' "LOOK" legend	449001970	SchoolSafe™ Background, Black Letters
"Little Feet" 5" x 12"	446001971	Footprints used to lead children to crosswalk

Keys For A Successful Application

We suggest a 90 mil (2.3 mm) thickness or 125 mil (3.1 mm) for Crosswalk, Stop Bar, Legends and Arrows. These thicknesses will provide longer life during traffic wear.

60 mil is suggested for special symbols like "Little Feet" to give a lower profile for foot traffic.

Make sure your markings come with surface dressings of both glass beads and frictional resistant material to insure both reflectivity and skid resistance.

Follow provided installation instructions to insure markings are well adhered.



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Parsippany, NJ 07054

800-491-5663

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