

# Proprietary Materials – Justification & Approval Process

**Shariq Husain, PE**  
**INDOT Rodway Review Team Leader**  
**Highway Design & Technical Support**  
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## **Requirement: State/Federal Design Memorandum No. 19-11**

To ensure competitive bidding, the designer should restrict the use of proprietary materials on a project. A proprietary material is defined through specifications that are so specific that only one product will satisfy the requirements, if a situation occurs where the use of a proprietary material will enhance safety, control costs, or will improve the project design, the use of a proprietary material may be justifiable.



# Proprietary Materials – Justification & Approval Process

## ■ **Justification:**

- Identify 3 or more
- Certification that no suitable equal exists
- Certification that product is essential for
- **Public-Interest Finding (PIF); suitable alternatives exist but they are not the most cost- effective or in the public's best interest**
- Certification for experimental purposes, Work Plan included
- Programmatic Approval for PIF / certification, Work Plan included
- Editable versions of the forms appear on the Department's website at [www.in.gov/dot/div/contracts/design/dmforms](http://www.in.gov/dot/div/contracts/design/dmforms)
- 



- **NO SUITABLE EQUAL EXISTS**

## **Figure 17-1C**

- **Describe Project's Unique Needs**
- **Product History**
- **Evaluate Pool of Products**
- **Evaluate Products Cost**



## ■ **Synchronization:**

### **Figure 17-1D**

- **Describe Project's Unique Needs**
- **Product History**
- **Evaluate Pool of Products**
- **Evaluate Products Cost**
- **Product Compatibility**
- **Product Maintenance**



## ■ **Public Interest Finding:**

### **Figure 17-1E**

- **Describe Project's Unique Needs**
- **Product History**
- **Evaluate Pool of Products**
- **Evaluate Products Cost**
- **Product Compatibility**
- **Product Maintenance**
- **Engineering Analysis**
- **Expanded Economic Analysis**
- **Performance Implication**
- **Supplemental Documentation**
- **Length Of time that approval is effective**



# Proprietary Materials – Justification & Approval Process

## ■ Programmatic Certification:

- Figure 17-1F
- Describe Project's Unique Needs
- Product History
- Evaluate Pool of Products
- Evaluate Products Cost
- Length Of time that approval is effective

The current Programmatic Proprietary Material Approvals list available on the Highway Design & Technical Support Division webpage, at <http://www.in.gov/indot/2684.htm>.



# Proprietary Materials – Justification & Approval Process

- **Experimental**
- **Figure 17-1 C**
- **Describe Project's Unique Needs**
- **Product History**
- **Evaluate Pool of Products**
- **Evaluate Products Cost**
- **Work plan**

Procedure described in the *INDOT Guidelines for Initiating and Reporting Experimental Features Studies* should be followed



## Approval Process:

**Submit At Or before Stage 2 Submittal through ERMS**

**Project Manager**

**Highway Design Director Road or Bridge**

**Manager of Traffic Administration, Traffic Engineering**



# Proprietary Materials – Justification & Approval Process

## Proprietary-Material Transmittal Memorandum

September 2, 2016

TO: John Wright *SW*  
Director of Highway Design & Technical Support

THRU: John Krueckeberg *JK*  
INDOT Project Manager - LPA

FROM: Adam Urschel *AU*  
American Structurepoint, Inc.

ROUTE: Boland Drive - Shared-Use Path *South Bend*

DES. NO.: 1382758

PROPRIETARY MATERIAL: Wabash Valley, Inc. Model No. PP413(D) Bench

The attached documentation is for your consideration in approving use of the proprietary material shown above. Pursuant to 23 CFR 635.411, the material satisfies the requirement checked below.

- Certification that no suitable equal exists
- Certification that product is essential for synchronization
- Approval for experimental purposes, Work Plan included
- Public-Interest Finding (PIF); suitable alternatives exist but they are not the most cost-effective or in the public's best interest
- Programmatic Approval for PIF / certification, Work Plan included

Additional comments:



# Proprietary Materials – Justification & Approval Process

## CERTIFICATION FOR PROPRIETARY-MATERIAL USE, ESSENTIAL FOR SYNCHRONIZATION

ROUTE: King Street (formerly SR 44) Improvements in Franklin, IN      DES NO: 1400298  
PROJECT NO: R-37572      COUNTY: Johnson  
PROJECT DESCRIPTION: Road Rehabilitation & Trail on King Street from Eastview Drive to  
Fairway Lakes Drive  
FHWA OVERSIGHT:  YES  NO  
PROPRIETARY MATERIAL: Benches

**1. Description of Need:** Below is a description of justification for product selection of the requested bench product:

- ***Bench:*** The requested bench, represents the City of Franklin design standard for streetscape benches. The selected bench was first used on phase 1 of the courthouse square renovations and has since been used on all other streetscape projects which include benches. This specific product is also sourced from MiYu which is located in Franklin, IN. Below is a photo of the requested bench installed in downtown Franklin.



**2. Product History:** The requested benches have been successfully used within the City of Franklin on previous projects, including on previously bid and constructed INDOT projects. Most recently the requested benches were included in the adjacent King Street Phase 2 project which was bid in the spring of 2016 with construction concluding in the spring of 2017.

# Proprietary Materials – Justification & Approval Process

product is a current City of Franklin standard item and has unique appearance qualities which makes its use essential for synchronization with currently constructed and planned adjacent projects.

**4. Product Cost:** Due to a wide variety of commercially available bench products and a wide variability between stated retail pricing and contractor wholesale pricing a cost comparison was conducted using average recent bid pricing information, where available. Using average weighted unit prices as a comparison helps provide real world competitive pricing advantages and should provide a greater cross section of similar products from which to compare since the comparative unit prices are from the entire universe of similar products bid during an entire year. Below is a table showing the comparative pricing analysis conducted for the requested bench product.

	Average Unit Price	High bid	Low Bid
Mi-Yu Furniture (No catalog #) Custom City of Franklin Standard Bench with City logo Pricing (prices from 2016 King Street Phase 2 bid tabulations)	\$1,212 (4 responsive bidders)	\$2,000	\$853
INDOT CY2015 Unit Prices (Item # 618-03812)	\$3,170	\$7,000	\$1,488
INDOT CY2014 Unit Prices (Item # 618-03812)	\$2,000	\$3,464	\$185

If bids on this project are in line with the historical average Average Unit Price comparison above it appears as if the requested product would represent a potential cost savings to the project.

**5. Project Compatibility:** The requested benches are currently a City of Franklin standard product and have unique appearance qualities which makes their use essential for synchronization with currently constructed and planned adjacent projects. Installation methods and materials for the requested product are identical to most other commercially available bench products. In addition, the product is manufactured locally which provides added utility to the city should future replacement or repair of the benches be required.



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STG3 PropMatFrm Benches 1400298 for Roadway Services  
Page 3 of 3

**6. Maintenance:** The requested bench product is currently in use in other areas of the City of Franklin and provides a level of aesthetic, functional, and maintenance familiarity for city staff and residents. In addition, using synchronized products throughout the city on streetscape projects allows the city to maintain an inventory of spare parts and accessories which allows for faster repair and/or replacement by City of Franklin crews.

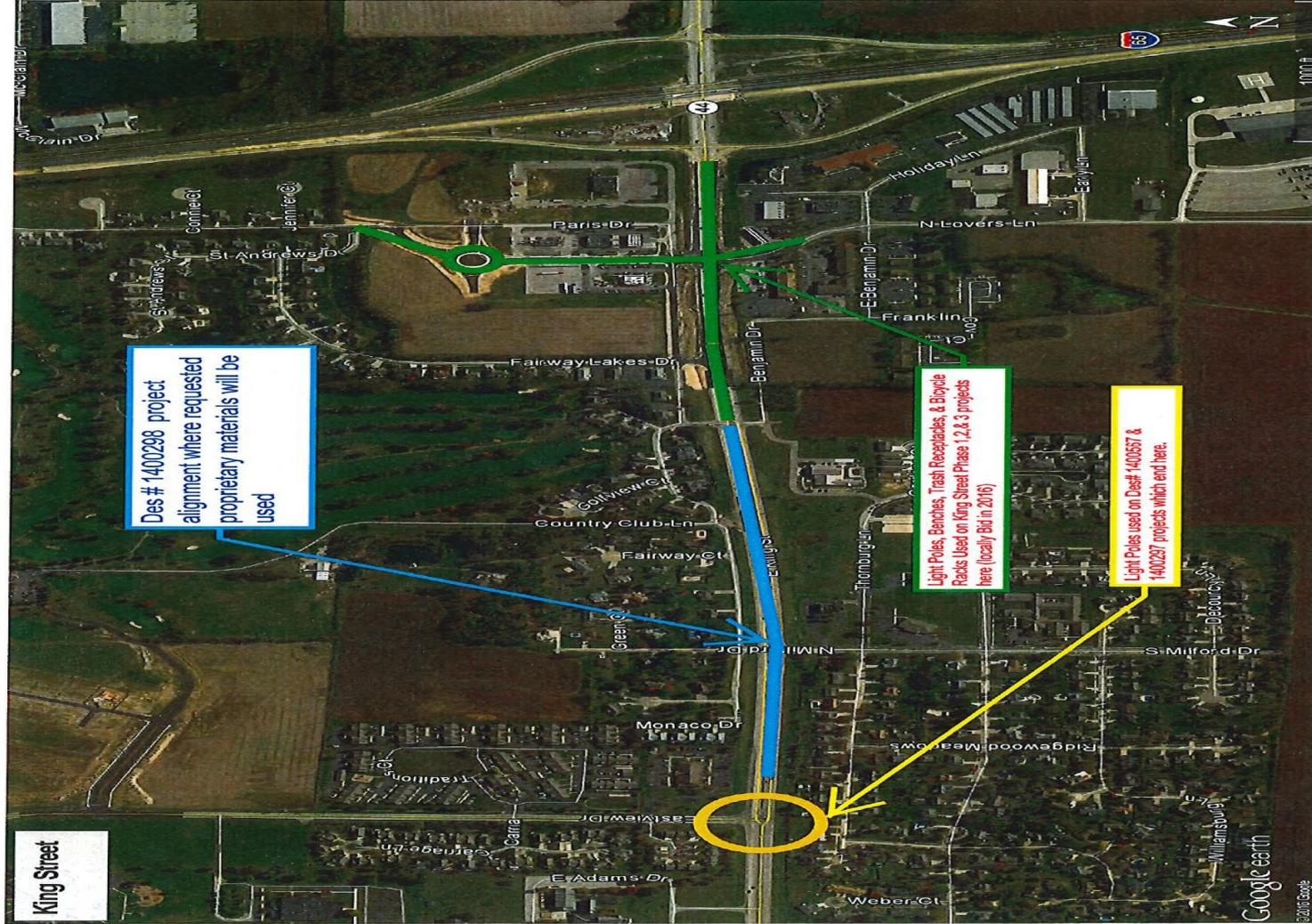
Prepared By: Cory J Daly, RLA. Date: January 22, 2017

APPROVED: John E. Wiest Date: 2/6/17  
 INDOT Director of Highway Design  
 INDOT Director of Bridges  
Engineering Services and Design Support

CONCURRED: N/A Date: -  
Federal Highway Administration



# Proprietary Materials – Justification & Approval Process



# Proprietary Materials – Justification & Approval Process

## Proprietary-Material Transmittal Memorandum

September 28, 2018

TO: John Wright *JW*  
Highway Design & Technical Support

THRU: John Langmaid *JDL* 09/28/2018  
INDOT Fort Wayne District Project Manager - LPA

FROM: Adam Urschel *AU*  
American Structurepoint, Inc.

ROUTE: State Blvd. Part 2 - Cass St. to Clinton St. - Fort Wayne, IN

DES. NO.: 1005154

**PROPRIETARY MATERIAL:** Sternberg 1200 Fort Wayne Series Pole with Sternberg D650SRLED Acorn Luminaires; Shakespeare S-Series Direct Burial Pole with American Electric Series 247L LED Luminaires

The attached documentation is for your consideration in approving use of the proprietary material shown above. Pursuant to 23 CFR 635.411, the material satisfies the requirement checked below.

- Certification that no suitable equal exists
- Certification that product is essential for synchronization
- Approval for experimental purposes, Work Plan included
- Public-Interest Finding (PIF); suitable alternatives exist but they are not the most cost-effective or in the public's best interest
- Programmatic Approval for PIF / certification, Work Plan included

Additional comments:



# Proprietary Materials – Justification & Approval Process

## CERTIFICATION FOR PROPRIETARY-MATERIAL USE, ESSENTIAL FOR SYNCHRONIZATION

ROUTE: State Blvd DES NO: 1005154  
PROJECT NO: 1005154 COUNTY: Allen  
PROJECT DESCRIPTION: Road Reconstruction  
FHWA OVERSIGHT:  YES  NO  
PROPRIETARY MATERIAL: Sternberg 1200 Fort Wayne Series Light Pole with D650SRLED  
Acorn Luminaires; Shakespeare S-Series Direct Burial Pole with American Electric Series 247L  
LED Luminaires

**1. Description of Need:** The Sternberg 1200 Fort Wayne Series Light Pole with the Sternberg D650SRLED luminaire and the Shakespeare S-Series Direct Burial Pole with American Electric Series 247L LED Luminaires were selected by the Consulting Parties, as required by the Memorandum of Agreement signed 12/29/2014, of the State Blvd. project Environmental process. With thousands of street lights in service within the City of Fort Wayne and more being added every year, the cost of operating and maintaining street lights has soared. In an effort to reduce the cost of maintaining and operating street lights, the City now requires the installation of Sternberg D650SRLED luminaires for roadway lighting along major thoroughfares and American Electric 247L LED luminaires for low volume residential streets. The use of Sternberg D650SRLED and American Electric 247L LED luminaires will allow the City to maintain consistency as they standardize using LED lights. The use of LED lights reduces operating costs, which when applied across the City adds up to a significant cost savings to the citizens living and working in Fort Wayne.

**2. Product History:** This product has been used for other roadway lighting applications throughout the City of Fort Wayne, and presumably in other areas of the state. The Sternberg D650SRLED luminaires are currently being installed in Phase 1 of the State Blvd Reconstruction (Des 1005151), were recently installed on Clinton Street, just south of State Blvd, and on East State Blvd, from Kentucky Ave. to Alabama Ave, to illuminate the roadway. The proposed American Electric 247L LED luminaires are replacing existing lights in-kind along the low volume residential side streets.

**3. Product Availability:** Other products do exist that are comparable to the proposed Sternberg 1200 Fort Wayne Series Light Pole and D650SRLED luminaires. However, these are not being pursued for maintenance and inventory reasons since the City of Fort Wayne implemented the aforementioned products as the City Standard.

**4. Product Cost:** Product and installation costs are expected to be similar for all similar products. A maintenance cost savings can be expected for the City for using the same luminaire and pole throughout.



# Proprietary Materials – Justification & Approval Process

5. **Project Compatibility:** Other products are compatible.

6. **Maintenance:** Using a standard light fixture reduces the costs of and area required to purchase and stock replacement parts and poles. Having these parts on the shelf will expedite repairs when poles and luminaires are damaged.

Prepared By: Adam Urschel. Date: 5/15/2018

APPROVED: *John L. Wood* Date: 12/2/18  
 INDOT Director of Highway Design  
 INDOT Director of Bridges  
Engineering Services and Design Support

CONCURRED: N/A Date: —  
Federal Highway Administration



# Proprietary Materials – Justification & Approval Process



## 1200 FORT WAYNE SERIES

ORNAMENTAL POLE

CLICK FOR FAQ'S

CAST ALUMINUM BASE

18-5/8" DIAMETER BASE  
44" HIGH

5 YEAR WARRANTY

UL LISTED

JOB NAME \_\_\_\_\_

FIXTURE TYPE \_\_\_\_\_

MEMO \_\_\_\_\_

### BUILD A PART NUMBER

ORDERING EXAMPLE: 1214FP5-.188-BCC-GFILPIUC-SH/BKT

Base Model	Height	Shaft	Wall Thickness	Post Center Cap	Option Burial	Option Ground Fault Breaker	Option Flag Pole Holder	Option Banner Arms	Option Planter Arms	Option Sign Arms	Option Speaker Hub	Option Sign Bracket	Option Steel Wreath Hook	Finish
12	12	OCT6	.250											BKT

#### Base Model

- 12

#### Height

- 10 - 12 - 14 - 16 - 18

#### Shaft

- T5 - T64 - P5 - FP5<sup>2</sup> - OCT6<sup>1</sup>  
- T6 - T54 - P6 - FP6<sup>1</sup>

<sup>1</sup>Only available in .250 wall.  
<sup>2</sup>Not available in .125 wall.

#### Wall Thickness

- .125: 1/8" Wall Thickness  
- .188: 3/16" Wall Thickness  
- .250: 1/4" Wall Thickness

#### Post Center Cap (if required)

(Click here to view post cap sheet)

- BCC - FCC - SCC - TFCC  
- SSCC - RCC - PCC

#### Options

- DB4 Direct Burial mounting style pole, with 4' direct burial section (or advise other length)
- HXB Helix Base mounting style pole
- GFI IUC 15 Amp duplex GFCI receptacles with a standard in-use cover
- GFI LPIUC 15 Amp duplex GFCI receptacles with a low-profile in-use cover
- GFI IB 15 Amp duplex GFCI receptacle installed in pole base, includes mouse hole on access door for wire access
- DCO IUC Duplex receptacles with a standard in-use cover (NO GFCI PROTECTION)

- DCO LPIUC Duplex receptacles with a low-profile in-use cover (NO GFCI PROTECTION)
- DCO IB Duplex receptacles installed in pole base, includes mouse hole on access door for wire access (NO GFCI PROTECTION)
- GFB Remote Ground Fault Breaker installed in pole base (for use with NON-GFCI receptacles)
- FH Cast Aluminum flag pole holder, for use with 1" diameter flag pole
- SBA Single Banner Arm, "PM" style mount
- DBA Double Banner Arms, "PM" style mount
- SBAR Single Banner Arm and Ring, for triangle banners, "PM" style mount
- HSBA Single Banner Arm, HUB mount style mount
- HDBA Double Banner Arms, HUB mount style mount
- BDBA6 Double Banner Arms, Break-Away style, to break with 60MPH wind gust
- BDBA9 Double Banner Arms, Break-Away style, to break with 90MPH wind gust
- C4SBA Single Banner Arm, Clamp-Style mount, for 4" diameter poles
- C5SBA Single Banner Arm, Clamp-Style mount, for 5" diameter poles
- C4DBA Double Banner Arms at 180°, Clamp-Style mount, for 4" diameter poles
- C5DBA Double Banner Arms at 180°, Clamp-Style mount, for 5" diameter poles
- DHPA Double Hooked Planter Arm
- SHPA Single Hooked Planter Arm
- DSPA Double Stepped Planter Arm
- SSPA Single Stepped Planter Arm
- PA478 Cast aluminum decorative planter arm

- SA78 Small cast aluminum decorative sign arm, with 24" long channel for blade sign by others
- SA478 Large cast aluminum decorative sign arm, with 24" long channel for blade sign by others
- SABA Banner arm style sign arm, with 24" long channel for blade sign by others
- SH Female threaded speaker hub, advise thread size
- SB Sign Bracket, vertically mounted on pole shaft
- WHK Steel wreath hook

#### Finish (Click here to view paint finish sheet)

##### Standard Finishes<sup>3</sup>

- BKT Black Textured
- WHT White Textured
- PGT Park Green Textured
- ABZT Architectural Medium Bronze Textured
- DBT Dark Bronze Textured

<sup>3</sup>Smooth finishes are available upon request.

##### Custom Finishes<sup>4</sup>

- CM Custom Match
- OI Old Iron
- RT Rust
- WBR Weathered Brown
- CD Cedar
- WBK Weathered Black
- TT Two Tone

<sup>4</sup>Custom colors require upcharge.

##### Sternberg Select Finishes

- VG Verde Green
- SI Swedish Iron
- OWGT Old World Gray Textured

See next page



**SternbergLighting**  
ESTABLISHED 1923 / EMPLOYEE OWNED

800-621-3376  
555 Lawrence Ave., Roselle, IL 60172  
info@sternberglighting.com  
www.sternberglighting.com

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# Proprietary Materials – Justification & Approval Process

## American Revolution Series 247L LED

### PRODUCT OVERVIEW

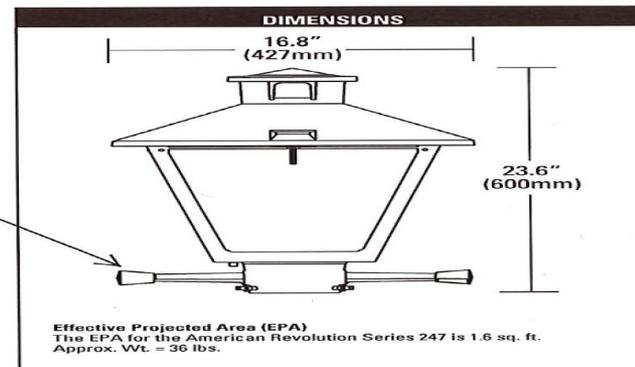


#### Features:

- Die-cast aluminum housing and hood for long-life performance
- Die-cast trigger latch (TL) and captive thumb screws option available for easy access to internal components
- Optical assembly designed for maximum performance, available in Type II, Type III and Type V
- Hinged hood and captive thumb screws provision afford quick, easy access to electrical and optical area for servicing
- Slipfitter with three set screws allows secure installation to pole sizes 2-3/8" or 3" O.D.
- Complies with ANSI: C136.2, C136.10, C136.15
- CSA listed and suitable for up to 30°C ambient
- Rated L70, LED life greater than 100,000 hours at 25°C
- Replaces up to 150W HPS light source incumbent models

#### Applications:

- Streetscapes
- Walkways
- Pathways
- Parks



DELETE "LADDER BARS"

American Revolution Series 247L LED

**AEL** American Electric Lighting



# Proprietary Materials – Justification & Approval Process



# Proprietary Materials – Approval Process



# Proprietary Materials – Justification & Approval Process



# Proprietary Materials – Justification & Approval Process

## PROPRIETARY-MATERIAL-USE PUBLIC-INTEREST FINDING

### PROGRAMMATIC APPROVAL

PROGRAMMATIC APPROVAL PERIOD: May 1, 2019 – April 30, 2022

FIHWA OVERSIGHT: YES  NO

PROPRIETARY MATERIAL:  
Lindsay Transportation Solutions Sales & Service, LLC  
Lindsay Road Zipper System®

#### Product Selection

The Indiana Department of Transportation is seeking approval to use the Lindsay Road Zipper System® as a means of maintaining traffic in two scenarios: [1] on high AADT roadways with unbalanced peak period vehicular traffic, and [2] on freeway pavement patching projects. The product may also be used to provide an additional lane for unbalanced traffic flow on a permanent basis.

Designers will have to submit a completed Moveable Barrier Justification Form, when specifying moveable barrier walls on a particular project. A copy of this Form is attached as Appendix A.

#### Product Components

The Lindsay Road Zipper System® includes all of the components necessary for a complete installation, including:

- QuickChange® Moveable Barrier Concrete Reactive Tension System, QMB-CRTS or QMB-CRTS-F (Fiber Series)
- QuickChange® Moveable Barrier Concrete Reactive Tension System, QMB-CRTS Transition
- Lindsay Road Zipper Machine
- RTS Guard (optional)

#### Product History

The Lindsay Road Zipper System® is a moveable barrier wall that provides positive protection and mitigates congesting during road or bridge work. The product was developed in the 1980's and INDOT's interest in this product has increased significantly in recent years.

#### Project Compatibility

The desired product would be suitable for maintaining traffic on freeway and high AADT roadway projects in urban and suburban areas where there is unbalanced flow during the AM and PM peak periods and in rural areas to protect workers during pavement patching while they work adjacent to the open lane of travel. The moveable barrier significantly increases worker safety when compared to the use of channelizing devices. Potential project applications include added travel lanes, concrete pavement restoration, and bridge replacement. The product may also be used to provide an additional lane for unbalanced traffic flow on a permanent basis.



# Proprietary Materials – Justification & Approval Process

## Product Availability

The desired product is the only unanchored moveable barrier wall compliant with MASH TL-3 crash testing standards. An FHWA approval letter is attached as Appendix B.

## Product Cost

The most recent unit price summaries show an average unit price of \$65 per foot for a type 4 temporary traffic barrier (pay item 801-08403) and a total quantity statewide of 21,570 ft. The Lindsay Road Zipper System® may be more or less than this depending on the quantity and the timeframe the moveable barrier wall will be needed.

## Maintenance

As a temporary traffic control device, maintenance for the Road Zipper Machine is the responsibility of the contractor and is included in the cost of the pay item.

## Product Alternatives – Summary Table

	Road Zipper System®	Steel Barrier Wall	Tubular Markers	Drums
Moveable	Yes	No	Yes	Yes
Positive Protection	Yes	Yes	No	No
MASH TL-3 Compliant	Yes	Yes	Yes	Yes
Proprietary Item	Yes	Yes, Zoneguard® by Hill & Smith Highway Products	No	No

PREPARED BY:

Date: 3/27/2019

David H. Boruff  
Manager, Office of Traffic Administration  
(317) 234-7975

Based upon the above finding, the use of the proprietary material listed is in the public interest and is hereby approved.

APPROVED:

  
Managing Director of Engineering,  
INDOT

  
Pavement & Materials Engineer,  
FHWA

Date: 4/2/19

Date: 4/05/2019



# Proprietary Materials – Justification & Approval Process

## ■ THE ROAD ZIPPER SYSTEM®

*Moving People. Safer. Faster. Smarter . . . Better*



# Proprietary Materials – Justification & Approval Process

- **THE ROAD ZIPPER SYSTEM®**

*Moving People. Safer. Faster. Smarter . . . Better*



# Proprietary Materials – Justification & Approval Process

## Proprietary-Material Transmittal Memorandum

June 18, 2019

TO: John E. Wright, P.E. *E.V. (for J.W.)*  
Director of Highway Design, INDOT

THRU: Shariq Husain, P.E. *SH 6/18/19*  
Senior Roadway Reviewer

FROM: Kym Caird, P.E. *KC*  
HNTB

ROUTE: I-69

DES. NO.: 0500430

PROPRIETARY MATERIAL: Flexamat

The attached documentation is for your consideration in approving use of the proprietary material shown above. Pursuant to 23 CFR 635.411, the material satisfies the requirement checked below.

- Certification that no suitable equal exists
- Certification that product is essential for synchronization
- Approval for experimental purposes, Work Plan included
- Public-Interest Finding (PIF); suitable alternatives exist but they are not the most cost-effective or in the public's best interest
- Programmatic Approval for PIF / certification, Work Plan included

Additional comments:



# Proprietary Materials – Justification & Approval Process

## CERTIFICATION FOR PROPRIETARY-MATERIAL USE, NO SUITABLE EQUAL EXISTS

ROUTE: I-69 DES. NO: 0500430  
PROJECT NO.: 0500430 COUNTY: Morgan County  
PROJECT DESCRIPTION: I-69 Mainline and Interchanges from Indian Creek via SR 37 to 1  
mile N of SR 44  
FHWA OVERSIGHT:  YES  NO  
PROPRIETARY MATERIAL: Flexamat

**1. Description of Need:** Flexamat is needed as an alternative to riprap in order to provide a more durable erosion protection due to steep roadside swales with grades ranging from 10% to 30%. Flexamat is extremely durable, consisting on 5000 PSE concrete blocks which are reinforced with a high strength geogrid.

Flexamat allows vegetation to grow within the voids between the concrete blocks, providing a more environmentally friendly erosion control option than riprap. Readily available equipment can be used to install the mat and installation can be completed in submerged applications.

Flexamat provides greater hydraulic capacity than riprap with its lower roughness coefficient and lower profile. This allows flexamat to be used as stream bank protection with only a minor increase in water surface elevation from a grass lined stream bank.

**2. Product History:** Flexamat offers a permanent solution to roadside erosion. Flexamat was successfully installed within the median area in the I-69 project near Bloomington and for an Indiana Department of Natural Resources / Division of Water project along the Ohio River near Mt. Vernon, among other projects.

**3. Product Availability:** Riprap was the only other alternative to Flexamat considered for this application and was deemed unsuitable for steep ditch slopes. No other manufacturers exist that produce a similar product to Flexamat.

Vendors can be found through the manufacturer:

Motz Enterprises, Inc.  
3153 Madison Road  
Cincinnati, OH 45209

No other similar products were found to be suitable for this application.

**4. Product Cost:** The price per square foot is \$4.50 - \$5.50 depending on the amount purchased. Since a large quantity will be purchased, the lower price will be used in the final estimate.



# Proprietary Materials – Justification & Approval Process

This certification is for an experimental or research item. The Work Plan is attached.

Prepared By: Kym Caird, P.E. Date: 6/18/2019

INDOT APPROVAL: *Elena Vekaler (J.W.)* Date: 6/18/2019  
 Director, Highway Design and Technical Support Division  
 Director, Bridges Division

CONCURRED: *Thomas L Duncan* Date: 6/18/2019  
Federal Highway Administration



# Proprietary Materials – Justification & Approval Process

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## Flexamat



# Proprietary Materials – Justification & Approval Process

## Product Information

### Flexamat is a "Tied Concrete Block Mat".

*(Tied Concrete Block Mat is a generic term for Flexamat.)*

Flexamat consists of concrete shapes, locked together with a high strength, polypropylene geogrid. There are openings around each concrete block that give Flexamat the flexibility and enable it to be packaged in rolls. The openings also allow vegetation to grow through the mat. Eventually, vegetation will completely cover Flexamat. It can be manufactured with various backings such as non-woven fabric to stop vegetation growth or a TRM (turf re-enforcement mat) depending on the soil conditions and other factors.

There's a wide range of applications where Flexamat is utilized, but it is most commonly used for erosion control. Flexamat is used to control erosion in channels, outlet protection, on slopes, for shoreline protection and many other applications.

Flexamat offers permanent, hard armor protection, with a natural vegetated appearance. Flexamat may be mowed over with commercial mowing equipment or left to grow wild. Besides grass, there are many other types of native plant species that can be planted to grow within the mat. For example, Willow Saplings were planted through Flexamat for a streambank re-vegetation project.

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