



March 27, 2018

VIA E-MAIL

Tracie Lutchmansingh, P.E., LEED Green Assoc.
Engineer III
City of Delray Beach
Swinton Operations Complex (SOC, formerly Environmental Services Department)
434 South Swinton Ave.
Delray Beach, FL 33444

SUBJECT: Phase 1 of Seacrest Beautification
NE 2nd Ave - phase 1 - CPR #1 - bike lane material

Dear Ms. Lutchmansingh,

Pursuant to the Contract, dated November 21, 2017, between WEST CONSTRUCTION INC. and THE CITY OF DELRAY BEACH, regarding the above referenced project; West Construction is to supply a Green Colored bike lane coating that is on the FDOT qualified products list and have FHWA approval.

Page 8 of 8 of Addendum #3, dated August 31, 2017 of the ITB No.2017-065-2
Phase 1 of Seacrest Beautification:

- Q21. Will the City please provide the contact information for the subcontractor who painted the Green bike lanes in Phase O?
- R21. The subcontractor who painted the bike lanes in Phase O was Traffic Calming USA. Traffic Calming USA's phone number is (770) 505-4044.

TrafficPrint EX, a product by Traffic Calming, is on the FDOT qualified products list and has FHWA approval. WEST's base bid amount for the Green Colored Bike Lane Coating was determined using the quote provide by Traffic Calming. Please find the FDOT product approval list, listing TrafficPrint EX; and the FHWA memo defining the official ruling for Chromaticity Requirement's for Green-Colored pavement, of which TrafficPrint EX qualifies.

The City will say that Traffic Calming is disbarred from working in the City of Delray Beach; however this was unknown to West at time of bid, as there was a cone of silence, and further did not go into effect until 1/29/18.

Pursuant to the City's request WEST acquired a quote from Atlantic Paving for Streetbrick-XL, WEST was assured that this work had been approved, per attached email.

West Construction Inc.

820 North 4th Street, Lantana Florida 33462 / Phone: 561-588-2027 / Fax: 561-582-9419
License No. CGC1516626 / www.westconstructioninc.net



WEST has performed per our contractual obligations and will not accept responsibility for this delay nor the additional cost.

We remain available to discuss.

Please find the following documents attached for your reference:

1. Page 8 of 8 of Addendum #3, dated August 31, 2017 of the ITB No.2017-065-2
Phase 1 of Seacrest Beautification
2. Letter from FHWA
3. FDOT approved product list
4. Correspondence dated March 9, 2018
5. Traffic Calming's product information and data
6. CPR #1 Bike Lane 3.19 Colored Asphalt Coating – Bid item No. 19

Thank you for your time.

Respectfully,

Jessica Germony
Project Manager
West Construction Inc.



Q21. Will the City please provide the contact information for the subcontractor who painted the Green bike lanes in Phase 0?

R21. The subcontractor who painted the bike lanes in Phase 0 was Traffic Calming USA. Traffic Calming USA's phone number is (770) 505-4044.

NOTE: Unless otherwise noted, items that are ~~struck through~~ are deleted. Items that are underlined have been added. All other terms and conditions remain as stated in the ITBC.

End of Addendum

INSTRUCTIONS:

Receipt of this addendum must be acknowledged as instructed in the solicitation document. Failure to acknowledge receipt of this Addendum may result in the disqualification of Respondent's response.



U.S. Department
of Transportation
Federal Highway
Administration

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

JUN 17 2015

In Reply Refer To:
HOTO-1

Mr. Roger A. Wentz
President & CEO
American Traffic Safety Services Association
15 Riverside Parkway, Suite 100
Fredericksburg, VA 22406-1022

Dear Mr. Wentz:

The Federal Highway Administration (FHWA) has reviewed your request for a modification to Interim Approval 14, which allows for the use of green-colored pavement in bicycle lanes and bicycle lane extensions. Specifically, modifications were requested to the color box defining the allowable color range of green-colored pavement under the Interim Approval and to the nighttime chromaticity requirement.

The color box defined for green-colored pavement was developed based on a sample of green colors in use internationally. The intent was to confine the color range available to limit confusion for road users and provide manufacturers and agencies with a clear specification. Initial consultations with industry groups had indicated that manufacturers would be able to meet the requirements of the resulting color box. However, without any data available on in-service, weathered materials, determining definitive limits for the color box was problematic.

In coordination with the American Traffic Safety Services Association, the FHWA learned that almost all products on the market, when newly applied, fall within a small area of the published color box. Manufacturers reported that it was too difficult to achieve uniformity between batches of product that was colored toward the upper end of the published color box. Therefore, most products start out in the lower end of the box when first applied.

The FHWA has received data from industry tests of several provided green pavement coloring materials, all of which, when first applied, produce a color within the current published color box. Accelerated ultraviolet (UV) exposure testing shows that as these materials were exposed to UV light simulating in-service conditions, their color gradually fell below the lower end of the published color box. This effect was consistent across many of the tested products.

In order to ensure that field installations of green-colored pavement are uniform throughout their service life, the FHWA is extending the limits of the approved color box for green-colored pavement to account for in-service wear based on UV exposure. The limits of the published color box will expand at this time rather than exclude any color range that was previously allowed.

The FHWA was also asked to evaluate the need for a nighttime chromaticity requirement. While daytime chromaticity requirements are measured with a very specific test using a single illumination source, nighttime chromaticity can be influenced heavily by the type of light source used. The FHWA's testing uses a single source, an incandescent lamp, which cannot mimic all possible sources of illumination. Because the variability in nighttime conditions and light sources precludes using the daytime color range,

West Construction Inc.

820 North 4th Street, Lantana Florida 33462 / Phone: 561-588-2027 / Fax: 561-582-9419
License No. CGC1516626 / www.westconstructioninc.net



and because retroreflectivity is not required when installing green-colored pavement, the FHWA is rescinding the requirement for nighttime chromaticity.

With this Official Ruling, the FHWA makes the following revisions to Interim Approval 14:

1. The daytime chromaticity coordinates for the color used for green-colored pavement shall be as follows:

1		2		3		4	
X	Y	X	Y	X	Y	X	Y
0.230	0.754	0.266	0.460	0.367	0.480	0.444	0.583

These coordinates include the original published color box plus the additional area in the revised color box.

2. The nighttime chromaticity requirements provided in Interim Approval 14 are rescinded. There will be no nighttime chromaticity requirement for green-colored pavement. All installations must still meet the daytime requirement.

While this revision allows for the published color box to remain while adding new range to accommodate in-service wear, it is likely that future editions of the MUTCD will restrict the color box to better reflect the range of products available. At this time, the future daytime chromaticity requirements are expected to be as suggested in the revised color box:

1		2		3		4	
X	Y	X	Y	X	Y	X	Y
0.230	0.714	0.266	0.460	0.367	0.480	0.367	0.583

Since these results and this interpretation are based upon simulated in-service wear, before making a final update for future editions for the MUTCD, the FHWA will request in-service field data on installations of green-colored pavement to ensure that in-service wear is corresponding to the test results.

For recordkeeping purposes, we have assigned the following official ruling number and title: "9(09)-86(1) – Chromaticity Requirements for Green-Colored Pavement." Please refer to this number and title in any future correspondence regarding this topic.

Sincerely yours,

Mark R. Kehrli
Director, Office of Transportation
Operations



12/15/2017

ProductList



Product Type - Patterned Pavement

Specifications / 523: Patterned Pavement / 000: Patterned Pavement

Sort: Product Name Ascending ▼

12 Product Results



CityBrick

Supplier: Atlantic Paving Co., Inc.

- **Model Number:**
- **APL Certification Number:** 523-000-017
- **Comment:** Approved for Non-Vehicular use only

Duratherm

Supplier: Flint Trading Inc

- **Model Number:**
- **APL Certification Number:** 523-000-007
- **Comment:** Approved for Vehicular and Non-Vehicular applications

FrictionPave Decorative Surfacing

Supplier: Pattern Paving Products

- **Model Number:**
- **APL Certification Number:** 523-000-005
- **Comment:** Approved for Vehicular and Non-Vehicular applications

Liquid Brick ECO

Supplier: Atlantic Paving Co., Inc.

- **Model Number:**
- **APL Certification Number:** 523-000-019
- **Comment:** Approved for Vehicular and Non-Vehicular applications. Approved for bike lane use.

LiquidBrick-HF

Supplier: Atlantic Paving Co., Inc.

<https://dotwp1.dot.state.fl.us/ApprovedProductList/ProductTypes/Index/125>

1/3

West Construction Inc.

820 North 4th Street, Lantana Florida 33462 / Phone: 561-588-2027 / Fax: 561-582-9419
License No. CGC1516626 / www.westconstructioninc.net



12/15/2017

ProductList

- **Model Number:**
- **APL Certification Number:** 523-000-015
- **Comment:** Approved for Vehicular and Non-Vehicular applications, requires sealer

TrafficPrint EX

Supplier: Traffic Calming USA

- **Model Number:**
- **APL Certification Number:** 523-000-016
- **Comment:** Approved for bike lane use. || Approved for Vehicular and Non-Vehicular applications,



FUTURE LABS, LLC

Highway Safety Product Testing

www.FutureLabsLLC.com

124 Lone Wolf Drive • Madison, MS 39110

601.855.7407

DATE: February 7, 2017

SCOPE: The following report covers testing, of the sample received, for Daytime Color (D65/2) in accordance with FHWA Interim Approval 14 and Interpretation Letter 9(09)-86(I) – Chromaticity Requirements for Green-Colored Pavement.

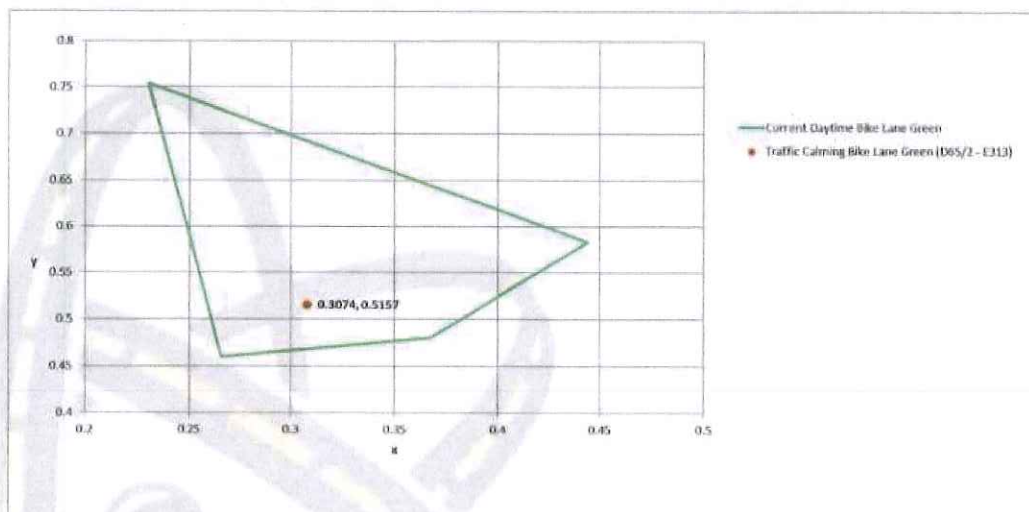
PRODUCT: Traffic Calming Bike Lane Green Sample

SAMPLE: The color sample was received from Mr. Glyn Owen of Traffic Calming, USA, on February 6, 2017.

PROCEDURE: Color testing for the products was done using a BYK Gardner 45/0 Colorimeter in accordance with ASTM E313 and E1347. D65/2 was used for daytime color.

RESULTS:

Comment	Ill/Obs	L*	a*	b*
Traffic Calming Bike Lane Green Sample (E313 - Index)	D65/2°	39.92	-34.72	30.81
		Y	X	Y
		11.20	0.3074	0.5157



Respectfully Submitted,


James M Swickard, Coatings Lab Manager
Traffic Calming Bike Lane Green Color #1613

West Construction Inc.

820 North 4th Street, Lantana Florida 33462 / Phone: 561-588-2027 / Fax: 561-582-9419
License No. CGC1516626 / www.westconstructioninc.net



Product Data Sheet



TRAFFICPRINT EX

Description.

This work consists of installing a textured, high friction colored surface treatment known as "TRAFFICPRINT EX" in areas designated and detailed on the plans as supplied by Traffic Calming USA with the website: www.trafficcalmingusa.com. Address: 317A Northpoint Parkway, Acworth, GA. 30102. Phone: 770 505 4044

Materials.

The materials used for the high friction surface treatment shall consist of a two-part binder and a hard, durable colored aggregate type of choice appearance

Binder.

The binder shall be a two-part cold applied modified exothermic epoxy resin treatment. The binder shall consist of a thermosetting compound which holds the aggregate firmly in position.

Aggregate.

The aggregate shall be crushed colored gravel, sand, granite or bauxite. The aggregate will be delivered to the construction site in clearly labeled bags or sacks. The aggregate shall be clean, dry and free from foreign matter.

Construction Methods.

The two-part modified epoxy binder material shall not be applied on a wet surface or when the ground and surface temperature is below 40°F or above 110°F.

Existing surfaces shall be cleaned by use of mechanical sweepers or brooms if appropriate, high pressure air or other methods approved by the Engineer prior to the installation. Concrete surfaces shall be scarified or shot blasted to create a rough textured surface if smooth or less than 20 FNR 40 friction value. Receiving surfaces must be clean, dry and free of all dust, oil, debris and any other material that might interfere with the bond between the epoxy binder material and existing surfaces.

(770) 505 4044
Fax (770) 675 7257
317 Northpoint Pkwy Ste A
Acworth GA 30102

West Construction Inc.

820 North 4th Street, Lantana Florida 33462 / Phone: 561-588-2027 / Fax: 561-582-9419
License No. CGC1516626 / www.westconstructioninc.net



Product Data Sheet

Application of the Binder.

The epoxy (Part A) and the Amine Hardener (Part B) are proportioned one to one ratio. The two-part modified epoxy binder components shall be proportioned to the correct ratio, and mixed using a mixing container and mechanical drill. The two components are mixed for approx. 1-3 minutes until the mixture is a uniform color. Once mixed the material shall be applied onto the asphalt or concrete and uniformly spread by means serrated-edged squeegees. Alternatively, the epoxy is mixed by plural component mixing pumps that mix the part A and part B in line.

The in-place thickness of the mixed epoxy shall be no less than 60 mils above the pavement surface. For irregular surfaces, the application rate may be adjusted, as determined by the manufacturer's representative.

Application of the Aggregate.

The dry Green colored aggregate type shall be immediately applied onto the epoxy binder prior to the epoxy binder reaching its gel time coverage. Complete coverage of the "wet" epoxy binder with aggregate is necessary to achieve a uniform surface. No exposed wet spots shall be visible once the aggregate is placed. The aggregate is applied using shovels or by a rear spreader mounted to a truck depending upon access limitations. The aggregate is applied to excess and once the resin has cured hard the excess stone is swept off and removed.

Curing

The treatment shall be allowed to cure typically approximately 2 hours at an ambient temperature of 75°F and rising. Excess aggregate shall be removed by mechanical sweeping, or suction sweeping before opening to traffic. The treated surfaces shall be protected from traffic and environmental effects until the area has cured.

Method of Measurement.

Measured by the square feet, complete in place and accepted.

(770) 505 4044
Fax (770) 675 7257
317 Northpoint Pkwy Ste A
Acworth GA 30102

West Construction Inc.

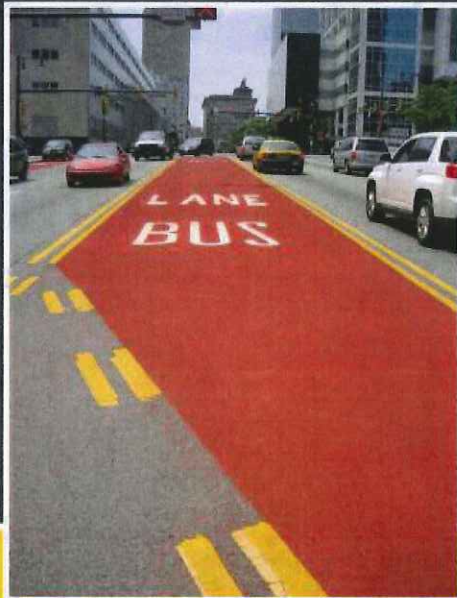
820 North 4th Street, Lantana Florida 33462 / Phone: 561-588-2027 / Fax: 561-582-9419
License No. CGC1516626 / www.westconstructioninc.net



TRAFFICPRINT EX

Slip Resistant Colored Coating

TRAFFICPRINT EX is an extremely durable surface coating specifically designed to provide a versatile colored surfacing system for use in light to heavy traffic areas requiring color demarcation in combination with effective



USES

Bike lanes, Bus Lanes; railway crossings, Pedestrian walkways; Safe Routes to Schools; Playgrounds; Airports; Ramps; Parking Lots; Medians; Factories; Parks; Footbridges

trafficalmingusa.com

CONCRETE • METAL AND WOOD • SURFACE PREPARATION • ASPHALT

West Construction Inc.

820 North 4th Street, Lantana Florida 33462 / Phone: 561-588-2027 / Fax: 561-582-9419
License No. CGC1516626 / www.westconstructioninc.net



TRAFFICPRINT EX

BENEFITS

- » Brightly Colored Surfaces
- » High Level of Friction to Reduce Skid/Slip
- » High Opacity
- » Excellent Adhesion to Most Surfaces
- » Full Range of Vivid UV Stable Colors
- » Easy to Apply
- » Fast Drying
- » Spray, Roller, Squeegee or Brush Application
- » Resistant to Oil And Gasoline Spillage
- » Long Warranty

Color	BS 381 Ref.	RAL	PMS
Bold Red	564	3020	186
Venetian Red	445	3009	180
Orange	NA	NA	151
Lemon Yellow	355	1023	116
Yellow Green	NA	6018	361
Deep Chrome Green	267	6002	350
Emerald Green	NA	NA	NA
Strong Blue	107	5015	2945
Signal Blue	NA	5005	294
Sky Blue	NA	5012	299
Fawn	NA	NA	727
Dark Admiralty Gray	632		430
Graphite Black		9011	Black
Traffic White		9016	White

Color references are approximate. Please ask for actual color swatches before ordering. Special colors are available upon request, subject to a minimum order quantity and a formulation charge.

CONCRETE

TrafficPrint EX adheres well to concrete where it can be shown that the surface is absorbent and free from laitance. Sealed and or power floated concrete should be shot blasted and then primed with a primer prior to over coating.

METAL AND WOOD

TrafficPrint EX can be installed onto both wood and metal surfaces. Wooden surfaces require a pre-sealing primer coat prior to the installation of TrafficPrint EX. Metal surfaces require shot/sand blasting prior to the installation of TrafficPrint EX.



SURFACE PREPARATION

Surfaces must be clean and dry. The road surface temperature should be between 40° F and 90° F. Sweep or blow off all dust and deleterious material. If necessary for removal of moisture, traces of oil and other contamination, the careful use of an HCA lance is recommended. Traces of oil will affect drying time, adhesion and final appearance. Oil contamination should be washed using detergent before HCA lancing. De-icing salts will adversely affect adhesion and should be thoroughly washed away.

ASPHALT

TrafficPrint EX requires newly installed asphalt to have cured for a minimum of 30 days prior to TrafficPrint EX installation. Porous asphalt may require a sealing coat prior to TrafficPrint EX.



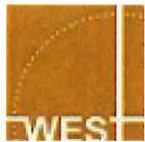
Traffic Calming USA®
Making Our Roads Safer!

317 NorthPoint Parkway- Suite A • Acworth, GA 30102
Phone: 770-505-4044 • Fax: 770-505-4081

www.trafficcalmingusa.com

West Construction Inc.

820 North 4th Street, Lantana Florida 33462 / Phone: 561-588-2027 / Fax: 561-582-9419
License No. CGC1516626 / www.westconstructioninc.net



Change Proposal Request (CPR)

Project Information	
Project #	WSP 17-1295 SEACREAST
Title	SEACREAST BEAUTIFICATION
Address	434 S. SWINTON AVENUE
City, State, Zip	DELRAY BEACH, FL 33444
Country	USA

Change Proposal Request	
CPR #	001
Issue Date	30-Jan-2018
Subject	3.19 Colored Asphalt Coating - Bid Item No. 19

Prime Contract Company	
Contact	Jessica Germony
Company	West Construction, Inc.
Address	820 North 4th St.
City, State, Zip	Lantana, FL 33462
Country	United States
Phone	561-588-2027
Fax	561-582-9419

Owner	
Contact	TRACIE Lutchmansingh
Company	CITY OF DELRAY BEACH
Address	434 S. SWINTON AVENUE
City, State, Zip	DELRAY BEACH, FL 33444
Country	USA
Phone	561-243-7300
Fax	561-243-7314

Description of the proposed change:

Pursuant to our contract dated November 21, 2017, we are to supply a Green Colored bike lane coating that is on the FDOT qualified products list and have FHWA approval. At the time of bid, West's per square yard estimate for line item #19 of the Schedule of Values was supplied by Traffic Calming, who has since been disbarred by the City of Delray Beach effective 1/29/18 for 3 years.

As of February 14, 2018 there are currently 4 FDOT approved suppliers for the bike lane material that can work in the City of Delray Beach.

1. Atlantic Paving = \$54 / SY
2. Ennis Flint = estimate is approx. \$125/SY
3. PaveWay Systems has 2 products= not currently supplying

The following documents are attached for your reference and consideration:

1. copy of the approved products list as of 2/14/18
2. Letter from Paveway Systems stating they are not manufacturing products at this time.
3. Letter from Ennis Flint regarding pricing
4. EOR approved submittal #321710.02.01 Atlantic Paving's Streetbrick XL
5. Quote from Atlantic Paving

Due to these unforeseen conditions, we are proposing to zero out the cost of line item #19 and create line item #34 @ \$54 per square yard. Please advise if this is acceptable.

Net Amount of this Proposed Change:

\$59,940.00

The Contract time due to this Change Proposal Request is to be determined at a later date.

This document, when fully executed as accepted, shall constitute authorization to proceed with the work described herein.

Submitted By

Response: ☐ Accept ☐ Do Not Accept

West Construction, Inc.
Company

CITY OF DELRAY BEACH
Company

By _____ Date _____

By _____ Date _____

Company Financial and Schedule Impact Details

Item No.	Item Description	Quantity	Unit	Unit Price	Total Price
1	Atlantic Paving price per square yard estimated quantity of 1110 SY	1110	sy	\$54.00	\$59,940.00

Subtotal = \$59,940.00

Total = \$59,940.00



Product Type - Patterned Pavement

Specifications / 523: Patterned Pavement / 000: Patterned Pavement

Sort: Product Name Ascending

12 Product Results



CityBrick

Supplier: Atlantic Paving Co., Inc.

- **Model Number:**
- **APL Certification Number:** 523-000-017
- **Comment:** Approved for Non-Vehicular use only

Duratherm

Supplier: Ennis-Flint, Inc (formaly Flint Trading Inc)

- **Model Number:**
- **APL Certification Number:** 523-000-007
- **Comment:** Approved for Vehicular and Non-Vehicular applications

FrictionPave Decorative Surfacing

Supplier: Pattern Paving Products

- **Model Number:**
- **APL Certification Number:** 523-000-005
- **Comment:** Approved for Vehicular and Non-Vehicular applications

Liquid Brick ECO

Supplier: Atlantic Paving Co., Inc.

- **Model Number:**
- **APL Certification Number:** 523-000-019
- **Comment:** Approved for Vehicular and Non-Vehicular applications. Approved for bike lane use.

LiquidBrick-HF

Supplier: Atlantic Paving Co., Inc.

- **Model Number:**
- **APL Certification Number:** 523-000-021
- **Comment:** Approved for Vehicular and Non-Vehicular applications

Paveway STS

Supplier: Paveway Systems Inc

- **Model Number:**
- **APL Certification Number:** 523-000-003
- **Comment:** Approved for Vehicular and Non-Vehicular applications. Approved for Bike Lane Use

Ride-Away

Supplier: Ennis-Flint, Inc (formaly Flint Trading Inc)

- **Model Number:** Ride-Away (S523-0022)
- **APL Certification Number:** 523-000-022
- **Limitation:** Approved for Non-Vehicular use only.

StreetBond SB150 Pavement Coating

Supplier: GAF

- **Model Number:** StreetBond SB150 Pavement Coating
- **APL Certification Number:** 523-000-023
- **Comment:** Non-vehicular applications only

StreetBrick XL

Supplier: Atlantic Paving Co., Inc.

- **Model Number:**
- **APL Certification Number:** 523-000-020
- **Comment:** Approved for Vehicular and Non-Vehicular applications, Approved for Bike Lane Use

TrafficPatterns

Supplier: Ennis-Flint, Inc (formaly Flint Trading Inc)

- **Model Number:**
- **APL Certification Number:** 523-000-009
- **Comment:** Approved for Vehicular and Non-Vehicular applications, requires sealer, Approved for Bike Lane Use

TrafficPatterns XD

Supplier: Ennis-Flint, Inc (formaly Flint Trading Inc)

- **Model Number:**
- **APL Certification Number:** 523-000-015
- **Comment:** Approved for Vehicular and Non-Vehicular applications, requires sealer

TrafficPrint EX

Supplier: Traffic Calming USA

NOT APPROVABLE

- **Model Number:**
- **APL Certification Number:** 523-000-016
- **Comment:** Approved for bike lane use. || Approved for Vehicular and Non-Vehicular applications,

Jessica Schiavi Germany

Subject: FW: Technical Spec

From: Scott Hope [<mailto:s.hope@pavewaysystems.com>]
Sent: Monday, February 19, 2018 10:07 AM
To: Jessica Schiavi Germany
Cc: 'Tiffany Albright Paveway Systems'; c.albright@pavewaysystems.com
Subject: RE: Technical Spec

① pave ways

Thank you Jessica. We are not currently manufacturing our FDOT 523 product because it is cost prohibitive. If you would like, we carry a near identical product that is not recognized by FDOT currently that will meet the MUTCD standards nationally. My only reservation would be I don't think it will match exactly the previous project referenced in the spec.

Please let me know if there is any way I can help. Thank you.

Scott J. Hope
VP of Sales & Marketing



Certified MBE by the Office of Supplier Diversity

114 Indian Lakes Ln.
Florahome FL 32140

(727) 372-5800 Office
(813) 235-8646 Cell

Jessica Schiavi Germany

Subject: FW: quote for West for city of delray beach project SEACREST
Attachments: Brochure_Green Bike Markings_Trio.pdf; Specification TP SK LTGR 125M_wSA_spec 081512.pdf

From: Troy Carroll [<mailto:tcarroll@ennisflint.com>]
Sent: Wednesday, February 21, 2018 6:50 PM
To: Jessica Schiavi Germany
Subject: RE: quote for West for city of delray beach project SEACREST

② Ennrs Flint

Jessica,

Our material price is \$66.00/sy. That does not include installation. We are a manufacturer, so you would need to contact a local striping contractor for a furnished and installed price.

The attached brochure shows 3 products, however, the Premark Preformed thermoplastic is the only one that is approved for vehicular traffic.

Have a great evening.

Troy Carroll
Regional Sales Manager
Regulatory
Phone: 205.410.7199

**TRANSMITTAL LETTER****VIA:****TRANSMITTING:** Shop Drawings

TO: Ms. Tracie Lutchmansingh, PE
City of Delray Beach, ESD
434 S Swinton Ave
Delray Beach, FL 33444
5612437000

DATE: January 18, 2018**PH:**

(cannot be sent without phone number)

PROJECT NAME: NE 2nd Ave Seacrest / Phase I**PROJECT NO:** 435080-1-58-01**WGI NO:** 1004.11**SUBJECT:** Green Bike Lane Material Shop Drawing Review**THESE ARE TRANSMITTED:** For review and comment

COPIES	DATE	DESCRIPTION
1	1/18/18	WGI's review of the Shop Drawing Submittal

COMMENTS:

Tracie,

Please see the attached green bike lane shop drawing. The material submitted conforms to FDOT and FHWA requirements. WGI defers the color option to the City, but we can assist if you no longer have the Atlantic Paving Color chips. I can deliver them to you tomorrow.

COPIES TO:**Wantman Group, Inc.**

2035 Vista Parkway

West Palm Beach, FL 33411

Phone: 561.687.2220 Fax: 561.687.1110

www.WGInc.com**BY:**

Stephen Cherry, PE

Project Engineer



Submittal Response Request

Project Information	
Project #	17-1295 SECREAST
Title	SEACREAST BEAUTIFICATION
Address	434 S. SWINTON AVENUE
City, State, Zip	DELRAY BEACH, FL 33444
Country	USA

Submittal Information	
Submittal #	321710.02.01
Type	
Subject	Paving specialties StreetBrick XL additional info
Description	product data and information
Response Due	20-Jan-2018

From	
Contact	Jessica Schiavi-Germory
Company	West Construction, Inc.
Address	820 North 4th St. Suite 4 - 5
City, State, Zip	Lantana, FL 33462
Country	United States
Phone	561-588-2027
Fax	561-582-9419

To	
Contact	BOB DIAZ
Company	CITY OF DELRAY BEACH
Address	434 S. Swinton Avenue
City, State, Zip	DELRAY BEACH, FL 33444
Country	USA
Phone	561-243-7300
Fax	561-243-7314

Please respond to the following items.

Submittal Items

Item No. 1
Description product data and information
Qty./Unit 1

Manufacturer Information:

Manufacturer
Catalog #
UPC

References:

Drawing
Location
Spec Section
Other

Response:


☐ Approved ☐ Approved As Noted
☐ Rejected ☐ Revise and Resubmit

Comments

Company

By

Date

WANTMAN GROUP, INC.	
<input type="checkbox"/> APPROVED	<input type="checkbox"/> NOT APPROVED
<input type="checkbox"/> APPROVED AS NOTED	<input checked="" type="checkbox"/> RETURNED WITHOUT ACTION
<input type="checkbox"/> RESUBMIT WITH CORRECTIONS	<input type="checkbox"/> SEE TRANSMITTAL LETTER COMMENTS
<small>Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication process or to techniques of construction; and for coordination of the work of all trades.</small>	
By: 	Date: 1/18/18

SAMPLE SPECIFICATION (High Friction Asphalt Coating)

FDOT Spec # 523-000-020 Vehicular & Non Vehicular areas

STREETBRICK-XL "BICYCLEWAY" Epoxy Modified Coating System

1.0 GENERAL

1.1 Summary

A. STREETBRICK-XL "Epoxy Modified Traffic Coating" is a high quality water-borne acrylic finish incorporating a specialized abrasive to increase the abrasion resistance properties of the film. The product can be applied to new or existing asphalt surfaces such as bike lanes and or bus lanes under product label "BICYCLEWAY."

BICYCLEWAY.

B. STREETBRICK-XL can be applied to new or existing asphalt and or concrete surfaces. New concrete surfaces require 28 days cure. Existing concrete surfaces will require a field evaluation to determine if additional surface preparation is required such as pressure washing and/or etching.

C. STREETBRICK-XL shall provide a minimum skid resistance value of 35 FN 40 R when tested with a locked wheel friction tester according to ASTM: E274 "Standard Test Method for Skid Resistance of Paved Surfaces Using a full-scale Tire". Or a minimum of 40 when tested with the DFT method as approved by FDOT.

D. STREETBRICK-XL shall only be applied by ATLANTIC PAVING or an applicator who has been trained, qualified and approved by ATLANTIC PAVING to install STREETBRICK-XL high friction asphalt coating and can provide a valid certification upon request.

1.2 Advantages

- 100 % integral colored coating system
- Twin package, water-based system for ease of application and clean-up.
- Bonds tenaciously to concrete, masonry and asphalt surfaces.
- Resists ultraviolet degradation for long-term protection and color stability.
- Provides durable, non-skid texture on interior or exterior surfaces.
- Resists wear and abrasion through the incorporation of an epoxy additive in addition to an added abrasive to ensure a high friction coefficient for the life of the coating.
- Protects against asphalt degradation by sealing in the vital oils of the Asphalt mix.
- Helps prevent dusting and spalling of concrete surfaces.
- Surfaces resist penetration from general soils, motor oils and gasoline for ease in cleaning.
- No toxic fumes or objectionable odor. Meets all VOC requirements.

1.3 Related Sections

Section 1.0 General

Section 2.0 Materials and Performance

Section 3.0 Delivery Storage and Handling

Section 4.0 Surface Preparation

Section 5.0 Application

Section 6.0 Coating Thickness

WANTMAN GROUP, INC.

- | | |
|--|---|
| <input checked="" type="checkbox"/> APPROVED | <input type="checkbox"/> NOT APPROVED |
| <input checked="" type="checkbox"/> APPROVED AS NOTED | <input type="checkbox"/> RETURNED WITHOUT ACTION |
| <input type="checkbox"/> RESUBMIT WITH CORRECTIONS | <input type="checkbox"/> SEE TRANSMITTAL LETTER COMMENTS |

Approval is only for conformance with the design concept of the project and given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication process or to techniques of construction; and for coordination of the work of all trades.

By:

Date:

1/18/18

Section 7.0 Measurement & Payment

2

2.0 Materials and Performance

2.1 Composition, Handling and Performance Characteristics

This section covers the composition, handling and application characteristics for the **STREETBRICK- XL** Surfacing System. Coatings used with this surfacing system must meet the minimum characteristic and performance properties described in the following characteristics and performance specifications.

2.1.1 STREETBRICK- XL Concrete and Asphalt Coating (Tint Base)

Material Composition, Handling and Application Characteristics

Table:1

Characteristics Requirement

ASTM D2369 % Solids by weight > 76% ASTM D26297 % Solids by volume > 55.5%

Weight per gallon 13.9 lbs/gal

% non-reactive fillers < 40%

Boiling Range 147° - 477°F

Vapor Density..... Heavier than air

Flashpoint ASTM D 3278 >201°F

Flashpoint ASTM D 3278 >201°F

Hazardous Ingredients none

Mix Ratio (Coating: LiquidTint) gal/pints 5gal: 1pint

Performance Requirements

Table:2 Test Requirement

Dry Time (to re-coat) @ 120°F 10 min

Dry Time (to re-coat) @ 95°F 20 min

Dry Time (to re-coat) @ 70°F 30 min

Gloss: ASTM D523 (60° Gardner)..... 2.5

Hardness: ASTM D3363 3H pencil

ASTM 2486 Gasoline Scrub Resistance.....

To 50% of coating thickness (30 mils).....

>5000 cycles to

max loss of 50%

coating thickness

ASTM 2486 Motor Oil Scrub Resistance.....

To 50% of coating thickness (30 mils).....

>5000 cycles to

max loss of 50%

coating thickness

Temp. limits for service (of cured material) -35°F to 145°F

ASTM G-155 Color Stability.....

QUV 2,000 hrs (CIE units).....

Old Brick Color

$\Delta E < .5$

Water Absorption ASTM D570 7day..... <9%

VOC Content ASTM D3960..... <19 grams/liter

Taber Abrasion Dry H-10 ASTM D4060 1day cure..... .17g/1000 cycles

Taber Abrasion Wet H-10 ASTM D4060 7day cure..... .43g/1000 cycles

Adhesion to Asphalt ASTM D4541 >245 lb./sq.in..... Asphalt Cohesive

WANTMAN GROUP, INC.

☒ APPROVED

☐ APPROVED AS NOTED

☐ RESUBMIT WITH
CORRECTIONS

☐ NOT APPROVED

☐ RETURNED WITHOUT
ACTION

☐ SEE TRANSMITTAL
LETTER COMMENTS

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication process or to techniques of construction; and for coordination of the work of all trades.

By: 

Date: 1/18/16

Failure

2.1.2 STREETBRICK- XL (coloring system)

The coloring system "Brick Tint" shall consist of no less than 95% pure inorganic iron oxide pigments in a water base liquid carrier. Pigment particle size (fineness) must pass 95% minus 325 mesh. Brick Tint must be alkali resistant, water insoluble, inert, light resistant, inorganic, and lime-proof.

3.0 Delivery, Storage and Handling**3.1 Packaging and Labeling**

STREETBRICK- XL surfacing products shall be packed in standard closed containers. Each container of separately packaged component shall be clearly and durably labeled to indicate the date of manufacture, manufacturer's batch number, quantity, color, component identification and designated name or formula specification number together with special instructions.

3.2 Delivery, Storage and Handling

STREETBRICK- XL surfacing products shall be delivered to the site in sealed containers that plainly show the designated name, batch number, color, date of manufacturer, and name of the manufacturer. Store the material on site in enclosures, out of direct sunlight in a warm, ventilated and dry area at room temperature; do not allow coating to freeze. Care shall be taken in handling of coating containers to prevent puncture, inappropriate opening or other action, which may lead to product contamination. No materials that are past the coating manufacturer's recommended shelf life shall be used without the approval of the coating manufacturer.

4.0 HMA Surface Preparation**4.1 Cleaning**

Power blower and/ or stiff bristle hand broom.

Scrape and blow fine sand and debris off of surface. Pressure washing may be necessary to remove bonded debris. Use a non-solvent based degreaser to remove stains. Spray degreaser on stained area and let stand for 15 minutes. Using a stiff broom or brush, agitate the stained area to remove stain and rinse with water. Repeat this procedure on severe stains.

Thoroughly rinse the area and let dry for 24 hours.

4.2 Application on New Asphalt

New asphalt surfaces shall be allowed to cure for a minimum of 2- weeks after final lift is installed.

Asphalt mix design shall be specified by a qualified Pavement Engineer and shall be designed for the purpose of the application.

4.3 Concrete surface preparation

A. New concrete should be water cured for at least 28 days, well compacted and finished, preferably to a medium to light broom finish.

B. Old concrete must be structurally sound, all loose and deteriorated areas shall be replaced, spalled areas repaired and any existing coatings must be removed (by others).

C. The concrete substrate must not have any visible moisture and the surface must be clean, free from dust, oil, grease or other contaminants that may impair the adhesion of the system.

WANTMAN GROUP, INC.	
<input checked="" type="checkbox"/> APPROVED	<input type="checkbox"/> NOT APPROVED
<input checked="" type="checkbox"/> APPROVED AS NOTED	<input type="checkbox"/> RETURNED WITHOUT ACTION
<input type="checkbox"/> RESUBMIT WITH CORRECTIONS	<input type="checkbox"/> SEE TRANSMITTAL LETTER COMMENTS
<p>Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for the design to be confirmed and correlated at the job site; for information that pertains solely to the fabrication process or to techniques of construction; and for coordination of the work of all trades.</p>	
By: 	Date: 11/2/19

- D. All surface laitance must be removed by captive shot blasting, diamond grinding, hydro blasting or other approved methods.
E. Concrete surfaces shall be suitably pressure washed & primed in accordance with manufacturer's instructions.

5.0 Coating Application

5.1 Environmental Conditions

Surfaces should be dry for at least 24 hours prior to applying **STREETBRICK-XL** coatings. 50°F is the recommended minimum air and surface temperature. The temperature of the concrete or asphalt surface must be at least 5°F above the dew point temperature during and after applying coating. Coating application must be complete at least two hours before opening to traffic.

5.2 Masking

Mask all adjacent areas using paint-grade masking tape a minimum of 3" inches beyond the edge of coated area is required to prevent over-spray of coatings onto adjacent areas.

5.3 Application methods

Spray texture gun (Marshalltown[®] Sharpshooter I[™] Hopper Gun).
Graco "TexSpray" and Benron "EZ-TEX DX" sprayers.

5.4 Squeegee spray bar (proprietary)

5.4 Roller Application

6.0 Coating Thickness

6.1 Standard Thickness. The applied thickness of the coating shall be determined according to the traffic rating of the specific application.

Required Film Thickness

Application Film Thickness will vary in accordance with surface texture of asphalt or concrete.

Bike Lanes along shoulders - (25- 30 dry mills)

Bike Lanes @ roadway crossings - (35- 40 dry mills)

Non-vehicular applications (15- 20 dry mills)

7 – MEASUREMENT AND PAYMENT

7.1 MEASUREMENT

The measured area is the actual area that has received the **STREETBRICK-XL** coating. No deduction will be made for the area(s) occupied by manholes, inlets, drainage structures, bollards or by any public utility appurtenances within the area.

7.2 PAYMENT

Payment will be full compensation for all work completed as per conditions set out in the contract. For unit price contracts, the payment shall be calculated using the measured area as determined above.

WANTMAN GROUP, INC.

- | | |
|--|--|
| <input checked="" type="checkbox"/> APPROVED | <input type="checkbox"/> NOT APPROVED |
| <input type="checkbox"/> APPROVED AS NOTED | <input type="checkbox"/> RETURNED WITHOUT ACTION |
| <input type="checkbox"/> RESUBMIT WITH CORRECTIONS | <input type="checkbox"/> SEE TRANSMITTAL LETTER COMMENTS |

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor shall be confirmed and correlated at the job site; for information that pertains solely to the fabrication process or to techniques of construction; and for coordination of the work of all trades.

By: 

Date: 1/18/18



STREETBRICK- XL "BICYCLEWAY" FHWA Color # 1

5

Ph: 305 513- 8632 / info@atlanticpaving.com / www.atlanticpaving.com

WANTMAN GROUP, INC.

- | | |
|---|---|
| <input type="checkbox"/> APPROVED | <input type="checkbox"/> NOT APPROVED |
| <input type="checkbox"/> APPROVED AS NOTED | <input type="checkbox"/> RETURNED WITHOUT ACTION |
| <input checked="" type="checkbox"/> CORRECTIONS | <input checked="" type="checkbox"/> SEE TRANSMITTAL LETTER COMMENTS |

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication process or to techniques of construction; and for coordination of the work of all trades.

By:

Stacy

Date:

1/16/18



STREETBRICK- XL "BICYCLEWAY" FHWA Color # 1

<input type="checkbox"/> APPROVED	<input type="checkbox"/> NOT APPROVED
<input type="checkbox"/> APPROVED AS NOTED	<input type="checkbox"/> RETURNED WITHOUT ACTION
<input type="checkbox"/> RESUBMIT WITH	<input checked="" type="checkbox"/> SEE TRANSMITTAL LETTER COMMENTS

Approval is only for conformance with the design concept of the project and compliance with the information given in the Contract Documents. Contractor is responsible for dimensions to be confirmed and correlated at the job site; for information that pertains solely to the fabrication process or to techniques of construction; and for coordination of the work of all trades.

By: *[Signature]*

Date: 1/18/18



Estimate

NAME / ADDRESS		PROJECT		DATE
WEST CONSTRUCTION INC		ITB 2017-065-2 Phase 1		1/9/2018
DESCRIPTION	QTY	COST	TOTAL	
(SQ YD) STREETBRICK- XL (BICYCLEWAY) FDOT QPL # 523-0020 GREEN COLORED BIKE LANE COATING AS PER FHWA GREEN COLOR BOX REQUIREMENTS ON NEW ASPHALT ONLY AS PER PLANS SUBMITTED & ON FILE SOLID AREAS & SKIPS EXCLUSIONS : -- PERMITS -- BONDING -- LIGHT TOWERS IF NEEDED -- M.O.T. / TRAFFIC CONTROL DEVICES -- TRAFFIC POLICE -- THERMOPLASTIC REMOVAL OR INSTALLATION -- HEAVY DUTY CLEANING OF ASPHALT SURFACE DUE TO INSTALLATION OF TRAFFIC LOOPS. -- PREPARING OF CONCRETE ROADWAY/ SURFACES NOTES : -- ONSITE TRASH DUMPSTER TO BE PROVIDED AT NO COST -- APPLICATION AREAS TO BE PROVIDED BY PRIME CONTRACTOR - NOT RESPONSIBLE FOR INCORRECT LAYOUT AREAS - FULL PAYMENT BASED ON ALL APPLICATION AREAS. -- ONE MOBILIZATION IF EXTRA NEEDED ADD (\$ 900.00) EACH -- PRICE IS BASED ON REGULAR DAY TIME HOURS OF OPERATION. -- THIS ESTIMATE MUST BE SIGNED & REFERED TO AS EXHIBIT "A " IN ANY SUBCONTRACT AGREEMENTS FORTHCOMING FROM THE PRIME CONTRACTORS. -- DEPOSIT NEEDED TO SCHEDULE	1,110	50.00	55,500.00	
PRICE VALID FOR 30 DAYS / ALL WORK IS GUARANTEED FOR 3- YEARS			TOTAL	\$55,500.00

Customer agrees to pay all costs & attorney's fees for collection of any unpaid balance .
Any invoice not paid within 30 days will be subject to a late charge of 18 % per annum .

SIGNATURE _____

10640 NW 123 ST RD UNIT 103 MEDLEY, FL 33178
Ph: (305) 513- 8632/ Fax: (305) 513- 8633
www.atlanticpaving.com / e-mail: info@atlanticpaving.com