April 13, 2018

Please find the following addendum to the below mentioned BID.

Addendum No.: 1

Bid#: 300-00-18-06-2

Project Name: Allen Rd Mill and Overlay

Bid Due Date: Wednesday, April 18, 2018

GENERAL INFORMATION:

1. Tencate/ Mirafi PGM4 is an approved equal for item# Alt-001 -Asphalt Reinforcement GeoGrid.

ATTACHMENTS:


<< End of Addendum #1 >>
Mirafi® MPG^4 Composite Paving Grid

OUR COMPANY
TenCate develops and produces materials that function to increase performance, reduce costs and deliver measurable results by working with our customers to provide advanced solutions.

OUR PRODUCT
Mirafi® MPG^4 is a composite paving interlayer comprised of a lightweight polypropylene paving fabric reinforced with continuous filament fiberglass, mechanically fastened in the machine, cross and bias angle directions. This unique, patent pending paving interlayer is designed for highly distressed pavement conditions and in addition, the material will provide a moisture barrier against further moisture intrusion. The lightweight polypropylene fabric requires less asphalt tack, saving on installation costs without compromising performance.

The Difference Mirafi® MPG^4 Paving Composite Makes:
- Reinforcement: Mirafi® MPG^4 adds pavement reinforcement by improving the fatigue resistance of the new overlay to traffic loads and delaying reflective cracking by utilizing the multi-directional design of the grid.
- Moisture Barrier: The lightweight polypropylene paving fabric and fiberglass reinforcement, when saturated with the asphalt tack coat, form a moisture barrier, providing protection from moisture intrusion through the pavement into the roadway base structure, which helps maintain the load bearing capacity and prolong the life of the roadway.
- Flexibility: Mirafi® MPG^4 is available in full width (12.5’) and half width roll sizes for design and application, offering flexibility in treating the affected pavement areas.
- Material Design: Mirafi® MPG^4 by its unique design is the first multi-directional composite paving grid offering reinforcement and moisture protection to distressed pavements in all directions.
- Recyclability: Mirafi® MPG^4 can be milled and recycled into hot mix asphalt and reused saving on disposal costs lessening construction costs.

OUR APPLICATIONS
Mirafi® MPG^4 is specifically designed to be used in hot mix asphalt overlays over existing asphalt or concrete pavements, or in new construction applications.

Mirafi® MPG^4 paving composite is ideal for:
- Highways
- Urban Streets
- Airports

Bridge Decks
Parking Lots and Shopping Centers

It is recommended to use TenCate Geosynthetics Installation Guidelines when installing Mirafi® MPG^4.

OUR PROCESS
TenCate Mirafi® MPG^4 composite paving grid is manufactured using ISO 9001:2008 manufacturing guidelines and manufactured with the highest quality control standards in the industry. Our patent pending material design is the first composite paving material that offers reinforcement in all directions while inhibiting water penetration into the pavement structure. The mechanically fastened continuous fiberglass reinforcement offers tensile and added flexural pavement reinforcement while the lightweight paving fabric keeps moisture penetration in check.

OUR SERVICE
TenCate offers complete application technical assistance. Our comprehensive service includes assistance during design, specification and throughout the process. TenCate makes the difference.
### Technical Data

#### Mechanical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Test Method</th>
<th>Unit</th>
<th>Average Roll Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tensile Strength @ 0°</td>
<td>ASTM D6637</td>
<td>lbs/in</td>
<td>459 (80)</td>
</tr>
<tr>
<td>Tensile Strength @ 90°</td>
<td>Method A</td>
<td>(kN/m)</td>
<td>459 (80)</td>
</tr>
<tr>
<td>Tensile Strength @ 45°</td>
<td>Modified</td>
<td>%</td>
<td>459 (80)</td>
</tr>
<tr>
<td>Tensile Strength @ -45°</td>
<td></td>
<td>%</td>
<td>&lt; 3</td>
</tr>
<tr>
<td>Tensile Elongation</td>
<td>ASTM D5261</td>
<td>oz/yd² (g/m²)</td>
<td>16.5 (563)</td>
</tr>
</tbody>
</table>

#### Minimum Test Value

- **Glass filaments are incombustible and temperature resistant up to 752° (400°)**
- **Asphalt Retention**: ASTM D6140 gal/yd² (l/m²) % 0.17 (0.8)
- **Glass by weight**: 85

#### Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Unit</th>
<th>Roll Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roll Dimensions (width x length)</td>
<td>ft (m)</td>
<td>6.25 x 300 (1.9 x 94.1) 12.5 x 150 (3.8 x 45.7)</td>
</tr>
<tr>
<td>Roll Area</td>
<td>yd² (m²)</td>
<td>208 (174)</td>
</tr>
<tr>
<td>Estimated Roll Weight</td>
<td>lbs (kg)</td>
<td>245 (111)</td>
</tr>
</tbody>
</table>