CONSTRUCTION REQUIREMENTS FOR TENSAR SPECTRA ROADWAY IMPROVEMENT SYSTEM

3.0 PROJECT INTRODUCTION

1.1 THE SPECIFICATIONS AND REQUIREMENTS FOR THE TENSAR SPECTRA ROADWAY IMPROVEMENT SYSTEM ARE DEVELOPED, RELAXED AND APPLIED TO MATCH THE SUBJECT ROADWAY IMPROVEMENT SYSTEM.

2.0 MATERIALS

2.1 PAVEMENT MATERIALS

2.1.1 GRANULAR MATERIALS AND COMMON FILL SHALL BE FREE OF INFILTRATION, MOISTLE, ROCKY MUD, SOD, SAWDUST; PROPERLY EMULSIONED OR OTHER COLLECTIVE MATERIALS. SELF-LOCKING DEVEYCE WHICH DOES NOT MEET THESE REQUIREMENTS SHALL BE CONSIDERED SELF-LOCKING AND SHALL BE REMOVED.

2.1.2 GRANULAR MATERIALS AND COMMON FILL SHALL MEET THE REQUIREMENTS OF THE PROJECT SPECIFICATION.

2.1.3 AT LEAST 15% BY MASS OF MATERIAL RETAINED IN THE 4.75 MM SOIL MUST MEET THE CRESCENT ROCKY MUD-FACED MATERIAL TO BE APPROVED PRIOR TO CONSTRUCTION.

2.1.4 GRANULAR MATERIALS MAY BE BUILT UNDER WATER CONDITIONS SUBJECT TO APPROVAL PRIOR TO CONSTRUCTION.

2.2 SOIL REINFORCEMENT

2.2.1 SELF-LOCKING SPECTRA ROADWAY IMPROVEMENT SYSTEM SHALL BE TENSAR T-SPEC SPECTRA, MANUFACTURED BY THE TENSAR CORPORATION, MIDDLETOWN, INDIANA, USA.

2.3 DESIGN RESPONSIBILITY

2.3.1 TC'S RESPONSIBILITY

T.C. DESIGNED THE SPEKTRA ROADWAY IMPROVEMENT SYSTEM TO MEET APPLICABLE STANDARDS FOR USE. ALL CONSTRUCTION APPLICATIONS, PARAMETERS, AND SPECIFICATIONS REFERRED TO THE DESIGN ARE BEINNG PROVIDED BY OTHERS AND ARE LITHOTYPED IN SECTION 4.1. TC AND EXERCISED THE RIGHT TO REPLY ON THE INFORMATION PROVIDED BY OTHERS IN COMPLIANCE OF THE DESIGN.

2.3.2 RESPONSIBILITY OF OTHERS

THE SITE CONDITIONS AND SPECIFICATIONS PROVIDED BELOW IN SECTION 4.1 AFFECTS THE PERFORMANCE OF THE SPEKTRA ROADWAY IMPROVEMENT SYSTEM. TC IS NOT RESPONSIBLE FOR EVALUATION OF SITE SPECIFICATIONS. THEREFORE, TC ASSUMES NO LIABILITY FOR THE PERFORMANCE OF THE ROADWAY IMPROVEMENT SYSTEM.

2.3.3 TC'S RESPONSIBILITY FOR ENSURING THAT THE FOLLOWING TC CONDITIONS AND SPECIFICATIONS ARE PROPERLY ADDED TO A QUALIFIED ENGINEER.

3.1 TC REPORTS PHYSICAL AND STRENGTH REQUIREMENTS OF THE SPECIFICATIONS FOR THE ROADWAY IMPROVEMENT SYSTEM TO BE CONSISTENT WITH THE SPECIFICATIONS AND APPROPRIATE MATERIALS FOR TESTING FREQUENCIES.

3.2 HYDRAULIC CONDITIONS

THE CLIENT IS RESPONSIBLE FOR ENSURING THAT THE DESIGN, ANALYSIS, DESIGNER'S INPUT, AND DESIGN OF THE ROADWAY IMPROVEMENT SYSTEM TO BE CONSISTENT WITH THE REQUIREMENTS BASED ON A QUALIFIED ENGINEER.

3.3 DESIGN CHECKS

4.1 DESIGN OF THE SPEKTRA ROADWAY IMPROVEMENT SYSTEM IS BASED ON SOPHISTICATED METHODS FOR MANUFACTURING AND TEST RESULTS OF THE ROADWAY IMPROVEMENT SYSTEM.

4.2 SUBGRADE UNDRAINED SHEAR STRENGTH = 5kPa

4.3 SELF-LOCKING SPECTRA ROADWAY IMPROVEMENT SYSTEMS ARE REPORTED IN THE MATERIAL PROPERTY DATA SHEETS.

4.4 LOADING

4.4.1 LOAD RESULT FROM LOADS

4.5 HYDRAULIC PARAMETERS

4.5.1 GROUNDWATER ASSUMED TO BE AT SURFACE.

5.0 CONSTRUCTION

5.1 A COMPLETE SET OF CONSTRUCTION DRAWINGS AND CONTRACT SPECIFICATIONS SHALL BE ON SITE AT ALL TIMES DURING CONSTRUCTION OF THE SPEKTRA ROADWAY IMPROVEMENT SYSTEM. THE CONTRACTOR IS RESPONSIBLE TO FOLLOW THE DRAWINGS AND THE INSTRUCTIONS PROVIDED IN THE SPEKTRA INSTALLATION GUIDE PROVIDED BY TC.

5.2 FOUNDATION PREPARATION

RECOMMENDATIONS FOR SUBGRADE PREPARATION AND TESTING SHOULD BE PROVIDED BY THE QUALIFIED ENGINEER.

5.3 GEOGRID PLACEMENT

5.3.1 THE CLIENT OR CONTRACTOR IS RESPONSIBLE TO PROVIDE SURVEY CONTROLS AND DETERMINE THE EXTENTS OF THE ROADWAY IMPROVEMENT SYSTEM. THE ROADWAY IMPROVEMENT SYSTEM SHALL BE ENGINEERED A MINIMUM OF 2 METERS BEYOND THE TRAFFIC-ASSIGNED AREA.

5.3.2 GEOGRIDS SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THE DRAWINGS. ALTERNATE LOCATION CHANGES TO GEOGRID LAYOUT ARE NOT PERMISSIBLE WITHOUT THE EXPRESS WRITTEN CONSENT OF TC.

5.3.3 UPPER GEOGRID REINFORCEMENT SHALL BE OVERLAPPED A MINIMUM OF 300 mm ON ALL SIDES AND AT THE ENDS OF EACH ROLL. GEOGRIDS SHALL BE FASTENED WITH 2500-3000-3000-3000 ENSURES TO ALLOW FREE EXPANSION AS INDICATED IN THE INSTALLATION GUIDE.

5.3.4 TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY ON THE GEOGRID REINFORCEMENT. A MINIMUM BUCKLE-THICKNESS OF 500 mm IS REQUIRED. OPERATIONS OF TRACKSどれも数をオフセットするとき それらはそうでなければありません。この条件を満たすために、次の条件があります。

5.4 BAGGED PLACEMENT

5.4.1 GRAVULAR MATERIALS SHALL BE PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 30 mm IN THICKNESS. THE FIRST LAYER OF COMMON FILL OVER MINIMUM SHALL BE 300 mm IN LAYERS.

5.4.2 GRAVULAR MATERIALS SHALL BE PLACED AND COMPACTED TO A MINIMUM OF 80% OF MAXIMUM PROCTOR DENSITY AS DETERMINED IN ACCORDANCE WITH ASHTORE "SR-08" OR AS DIRECTED BY THE QUALIFIED ENGINEER.

6.0 SPECIAL PROVISIONS

6.1 THE DESIGN SPECIFICATIONS ARE ONLY VALID FOR THE SPECIFICAL ROADWAY IMPROVEMENT SYSTEM. THE ROADWAY IMPROVEMENT SYSTEM IS ONLY BASED ON SOLID ORIGIN CONDITION, FOUNDATION CONDITIONS, GROUNDWATER CONDITIONS, AND OTHER CONDITIONS. THE ROADWAY IMPROVEMENT SYSTEM IS BASED ON THE DECISION BY THE QUALIFIED ENGINEER.

6.2 THE OWNER IS RESPONSIBLE FOR PROVIDING QUALITY ASSURANCE AND QUALITY CONTROL. THE ROADWAY IMPROVEMENT SYSTEM IS DESIGNED TO ENSURE THE ROADWAY IMPROVEMENT SYSTEM MEETS THE CONTRACT SPECIFICATIONS AND GENERAL CONDITIONS.

6.3 THE CONTRACTOR SHALL IMMEDIATELY REPORT ANY CHANGES TO T.C. (430-343-3434) PRIOR TO CONSTRUCTION.

6.4 TC IS NOT RESPONSIBLE FOR ANY WARRANTIONS, GUARANTEES, OR ANY OTHER SPECIFICATIONS, PROVIDED IN A WRITTEN CONTRACT. THE CONTRACTOR IS RESPONSIBLE TO COMPLY WITH THE CONTRACT SPECIFICATIONS AND GENERAL CONDITIONS.

7.0 REFERENCES/DOCUMENTS

7.1 THE CONSTRUCTION DRAWINGS FILED BY TC ARE BASED UPON THE PERSONAL COMMUNICATIONS WITH THE CONTRACTOR.
UNREINFORCED ROAD SECTION

REINFORCED ROAD SECTION

DESIGN REQUIREMENTS

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
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<tbody>
<tr>
<td>AXLE LOAD (Mps)</td>
<td></td>
</tr>
<tr>
<td>TIRE PRESSURE (psi)</td>
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<tr>
<td>AXLE PASSES (EACH)</td>
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<tr>
<td>MAXIMUM RUT DEPTH (in)</td>
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PAVEMENT SOIL PROPERTIES

<table>
<thead>
<tr>
<th>PROPERTY</th>
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<tbody>
<tr>
<td>AGGREGATE FILL CBR (%)</td>
<td></td>
</tr>
<tr>
<td>DESIGN SUBGRADE CBR (%)</td>
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</tbody>
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NILEX 4591 - 6 OUNCE OR 4553 - 8 OUNCE NEEDLE PUNCHED NON-WOVEN GEOTEXTILE AS REQUIRED.