

**GEOTECHNICAL REPORT FOR ROADWAYS CHECKLIST**

Project Name: \_\_\_\_\_

Geotechnical Engineer/Firm: \_\_\_\_\_

Report Date: \_\_\_\_\_

Date Received: \_\_\_\_\_

*Note: Any N/A response shall include a written explanation with adequate justification, as deemed necessary by the Director of Engineering Services.*

<b>COMPLETE</b>	<b>N/A</b>	<b>1. SECTION 5.1 GENERAL</b>
<input type="checkbox"/>	<input type="checkbox"/>	A. Include the <i>Summary of Geotechnical Recommendations Form</i>
<input type="checkbox"/>	<input type="checkbox"/>	B. Description of Project
<input type="checkbox"/>	<input type="checkbox"/>	C. Location of Project
<input type="checkbox"/>	<input type="checkbox"/>	D. Roadway type and classification
<input type="checkbox"/>	<input type="checkbox"/>	E. Grading plan and summary
<input type="checkbox"/>	<input type="checkbox"/>	F. Discussion of underground utilities within the Project limits
<b>COMPLETE</b>	<b>N/A</b>	<b>2. SECTION 5.2 EXISTING SURFACE/SUBSURFACE</b>
<b>INVESTIGATION</b>		
<input type="checkbox"/>	<input type="checkbox"/>	A. Discussion of existing surface/subsurface conditions that may affect subgrade and pavement design or performance (i.e. vegetation, terrain, existing structures, existing pavement, etc.)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>B. Discussion of geological conditions that may impact subgrade and pavement design or performance. Specify formation.</i>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>C. Surface/subsurface conditions with logs</i> <ul style="list-style-type: none"> <li>- <i>Sampling techniques</i></li> <li>- <i>Description of soil and rock encountered, including lab test details</i></li> <li>- <i>Discussion of water and groundwater conditions</i></li> <li>- <i>Discussion of seasonal variations in moisture content</i></li> <li>- <i>Atterberg limits (ASTM D 4318)</i></li> <li>- <i>Percent Passing the No. 200 sieve (ASTM D 1140)</i></li> </ul>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>D. All standards used in field and laboratory testing shall be identified.</i>  <i>Any deviations to standard procedures shall be discussed.</i>
<b>COMPLETE</b>	<b>N/A</b>	<b>3. SECTION 5.3 SUBSURFACE DESIGN</b>
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<i>A. Expansive Soils Evaluation</i> <ul style="list-style-type: none"> <li>- <i>Percent swell calculation and test results</i></li> <li>- <i>Effect of cut/fills (i.e. long-term soil uplift in cut areas; settlement overburden pressure effects in fill areas)</i></li> <li>- <i>Identify soil movement estimates at each boring location</i></li> </ul>

		<ul style="list-style-type: none"> <li>- <i>Explanation of anomalous variations within the soil profile and between borings (i.e., Atterberg limits, PI, sulfates, clay to rock, etc.)</i></li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<p><b>B. Soil Moisture Conditioning</b></p> <ul style="list-style-type: none"> <li>- <i>Discussion of swell test results summary</i></li> <li>- <i>Recommended depth of moisture conditioning</i></li> <li>- <i>Address transition between zones of varying depth</i></li> <li>- <i>Discussion of possible variations during construction and mitigation thereof</i></li> <li>- <i>Discussion of techniques to maintain moisture in soil</i></li> <li>- <i>Discussion of methods to test soil moisture conditioning during construction (i.e. a second geotechnical investigation/re-evaluation may be required to specifically address soil moisture prior to lime operations)</i></li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<p><b>C. Address Street Trees</b></p> <ul style="list-style-type: none"> <li>- <i>Recommendation(s) when subgrade and/or moisture conditioning limits conflict with tree locations</i></li> <li>- <i>Provide construction details</i></li> </ul>
<b>COMPLETE</b>	<b>N/A</b>	<b>4. SECTION 5.4 SUBGRADE DESIGN</b>
<input type="checkbox"/>	<input type="checkbox"/>	<p><b>A. Subgrade Stabilization</b></p> <ul style="list-style-type: none"> <li>- <i>Typical subgrade type</i></li> <li>- <i>Explanation of anomalous soil conditions anticipated and discussion of potential variations to consider</i></li> <li>- <i>Construction techniques to implement</i></li> <li>- <i>Effects of rock/rock fragments encountered during construction and recommendations to abate</i></li> </ul>
<input type="checkbox"/>	<input type="checkbox"/>	<p><b>B. Soluble Sulfates</b></p> <ul style="list-style-type: none"> <li>- <i>Identify soluble sulfate test results; summarize results and discuss variations</i></li> <li>- <i>Discussion of techniques during construction to mitigate sulfate-induced heaving</i></li> <li>- <i>Sulfate retesting during construction</i></li> </ul>
<b>COMPLETE</b>	<b>N/A</b>	<b>5. SECTION 5.5 PAVEMENT DESIGN</b>
<input type="checkbox"/>	<input type="checkbox"/>	A. Identify roadway type(s) and classifications(s)
<input type="checkbox"/>	<input type="checkbox"/>	B. Identify deviations from Pavement Design Input Values (Re: Table 5.2)
<input type="checkbox"/>	<input type="checkbox"/>	C. Identify recommended pavement section
<b>COMPLETE</b>	<b>N/A</b>	<b>6. APPENDIX</b>
<input type="checkbox"/>	<input type="checkbox"/>	A. Geological Map
<input type="checkbox"/>	<input type="checkbox"/>	B. Boring Locations
<input type="checkbox"/>	<input type="checkbox"/>	C. Boring Logs
<input type="checkbox"/>	<input type="checkbox"/>	D. Grading Plan (for non-linear projects)
<input type="checkbox"/>	<input type="checkbox"/>	E. Cut vs. fill by station number (for linear projects)

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- |                          |                          |   |
|--------------------------|--------------------------|---|
| <input type="checkbox"/> | <input type="checkbox"/> | F. Printout from WinPAS pavement design software program  |
| <input type="checkbox"/> | <input type="checkbox"/> | G. Proposed typical section with dimensions showing pavement thickness, subgrade type and thickness, moisture conditioning depth, and location of moisture barrier. If applicable, location of proposed trees and root barriers shall be shown. |

**Geotechnical Engineer Signature:** \_\_\_\_\_

**Date:** \_\_\_\_\_