

Project Title:	Spot Repairs to Permanent Concrete Barrier(2023-03-LCB)
Project Synopsis:	 <p>There are miles of existing barrier that has degraded due to environmental or impacts. Although it is possible to fully replace segments of concrete barrier, are there other less expensive repairs?</p> <p>Are there methods or materials that could be used in initial barrier construction to prolong barrier life?</p>
Project Goal(s):	<ol style="list-style-type: none"> 1.) Review possible concrete repair techniques. 2.) Review how repair techniques influence barrier performance. 3.) Review cost effectiveness of various repair techniques. 4.) Would sealants, other material, or construction techniques improve long term concrete barrier performance.
Project Background:	<p>States have many miles of existing concrete barrier that has been degraded due to environmental or impacts. Although fully replacing concrete barrier is possible, are there other cost-effective repair methods that would allow the barrier to still function.</p>
Proposed Work Plan:	<ol style="list-style-type: none"> 1.) Task 1 – Review possible concrete repair techniques 2.) Task 2 – Review if repair techniques influence barrier performance 3.) Task 3 – Review cost effectiveness of the repairs techniques 4.) Task 4 - Review if other materials or construction techniques could improve long term performance.
Deliverables:	<p>Report</p>
Urgency and Expected Benefit:	<p>There are various repair techniques that could be used to perform spot repairs. However, many of these repair techniques have not been used on concrete barriers. It is not known how well some of these repair techniques will perform during an impact.</p> <p>Some examples could be:</p> <ol style="list-style-type: none"> 1. an epoxy could be used to seal cracks, but during impact parts of the concrete will break lose. 2. A sealant could be applied to small cracks to reduce degradation. However, how the sealant changes the friction of the concrete barrier may cause issue. <p>Some of these techniques may not be cost effective compared to removal of concrete barrier.</p>
Problem Funding and Research Period:	<p>Total Estimated Cost = \$XX,XXX</p>

**Developer(s) of
the Problem
Statement:**

Name: Erik Emerson

Email:

Phone: