

## ***Performance Concrete, Optimized for Cost, Durability, Manufacturability, and Sustainability***

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### **Abstract**

Concrete is the backbone of transportation pavement and infrastructure, providing strength, durability, and safety. Meeting the performance targets outlined in specifications is crucial for ensuring the long-term success of construction projects. However, delays in obtaining approval for mix designs can hinder progress and escalate costs for regional concrete producers. This project aims to address this challenge by developing a performance-based generic concrete mix that can be easily adopted by regional concrete producers and meets the performance specifications set by the Vermont Agency of Transportation. This generic concrete mix will be optimized to be cost effective, more durable, manufacturable, and sustainable by employing the maximum packing density technique on locally sourced aggregates and partially replacing cement with supplementary cementitious materials like recycled ground glass pozzolan.



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## References

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