

Recycled Concrete Aggregates

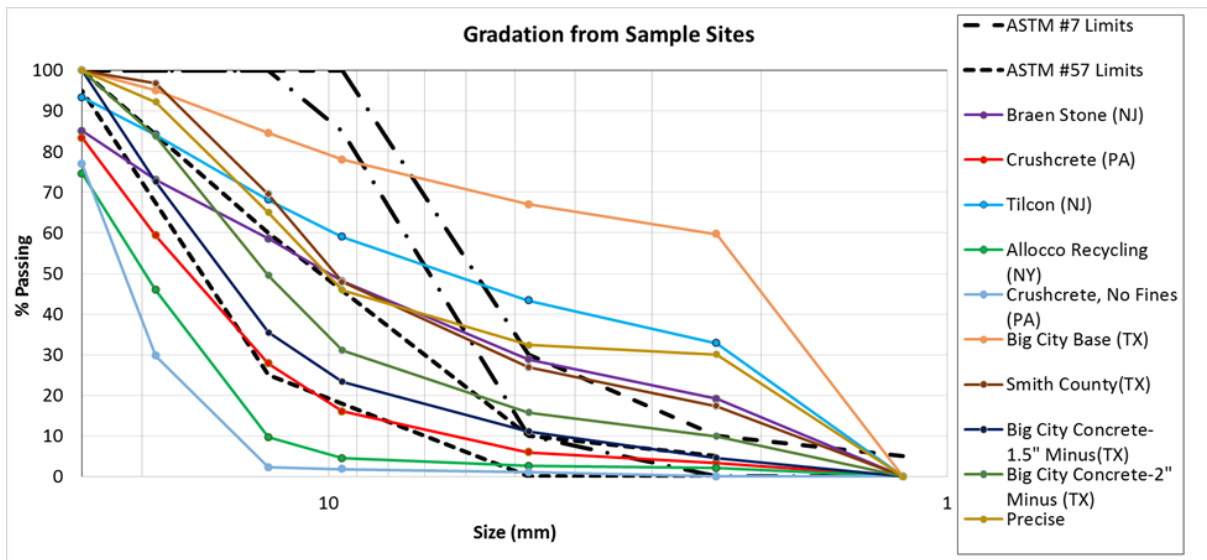
Despite potential economic, environmental and sustainability benefits, the use of recycled concrete aggregates (RCA) in structural concrete has been limited. Thus, the broad objective of the project is to conduct a comprehensive, fundamental experimental and analytical research effort on reinforced concrete structures with significant amounts of RCA (goal is 100% replacement), resulting in validated design methods/criteria, validated analytical models, validated construction procedures, and experimental evidence demonstrating the behavior of these structures in comparison with conventional systems. The project is motivated by the potential for RCA to reduce the environmental impacts of concrete structures, while also achieving economic benefits.

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1. Big City Concrete: 2" Minus (TX)
2. Big City (Main Location): 1.5" Minus (TX)
3. Big City (Main Location): Base (TX)
4. Smith County: 3" Minus (TX)
5. Precise Excavation: 2" Minus (TX)
6. Big City Lewisville: 3" (TX)
7. Martins Marietta: Rip-Rap (TX)
8. Braen Stone: 1.5" Minus (NJ)
9. Tilcon: 1.5" Minus (NJ)
10. Crushcrete- 1.5" Minus (PA)
11. Crushcrete (No Fines)- 1.5" to 0.375"(PA)
12. Allocco Recycling: 1.5" Minus (NY)
13. Nix Landscaping: Base (TX)
14. R&R Excavating (IN)
15. Reliable Asphalt (IL)
16. Walsh Construction (IN)
17. Vulcan Materials (IL)
18. Green Tech. Transfer & Recycling (IN)
19. Lindahl Brothers, Inc (IL)
20. ACT Recycling, Inc. (OH)
21. Evans Landscaping (OH)
22. Vulcan Materials (IL)
23. Great Lakes Aggregates (MI)
24. University of Notre Dame (IN)
25. Concrete Recycling Center (IN)
26. Great Lakes Aggregates (MI)
27. Concrete Recycling Center (IN)
28. Aggregate Industries (IN)
29. Aggregate Industries (IN)

Map showing all of the locations with collected RCA samples



Gradation Curves for RCA samples