

WSDOT DPS Activity Update

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Dielectric Profiling Systems (DPS) – User Group Peer Exchange
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Limited Experience

- (2008) Research – Detection of voids in prestressed concrete bridges
- (2014) SR 539 – Lynden Intelligent Compaction Demonstration Project
- (Present) Locating reinforcing steel in structural concrete
- (Future) HMA Compaction Acceptance...?



2017 – Applied and obtains a State Transportation Innovation Council (STIC) Grant

- \$100,000 Grant
- \$65,000 Purchased equipment
- \$35,000 Limited Research over 2017 and 2018

2017 – Initial trial projects

- 2 Projects in South Central Region
- 2 Projects in Eastern Region

2018 – Continued Collection

- 3 Projects in Olympic Region
- 1 Project in Eastern Region
- 1 Project in South Central Region
- 2 Projects in South West Region

What we learned

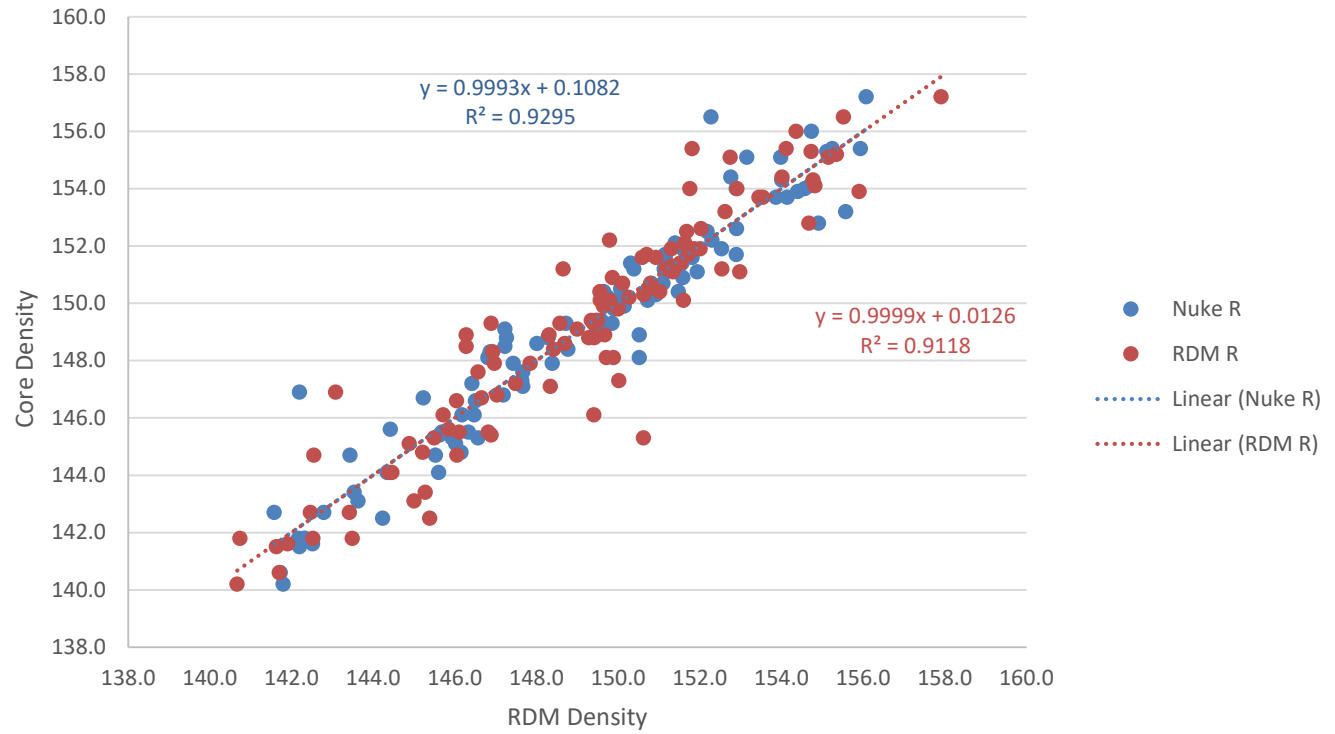


- Correlates well to core density
- Comparable correlation to nuclear gauge
- Can measure uniformity
- Can locate low density areas for testing
- Can be used to enhance construction quality

Data Results



2017-18 RDM vs. Nuclear Gage Core Density Correlation



What's Next for WSDOT



- Remain active with National Activities – FHWA TPF 5(443)
Continuous Asphalt Mixture Compaction Assessment using Density Profiling System (DPS)
- Keep Washington Asphalt Paving Association apprised of WSDOT activity
- Demonstrate DPS technology on paving projects as requested by Regions
- Specify trial specifications/shadow specifications as they become available
- Timeframe for implementation is uncertain

Contact Information



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