

Contracting Issues in Pavement Preservation

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TOPICS COVERED

- **Significance and priority of topic**
- **Types of maintenance contracts**
- **Research needs**
- **Barriers to implementation**
- **Required scale of effort**

SIGNIFICANCE OF TOPIC

From NCHRP 20-07...

- **7 of 35 use warranty specs and 4 of 34 use performance-related specs**
- **26 of 35 interested in related research by others**
- **11 of 35 doing research and 5 more planning on it**

... but this was among the lowest rated areas of interest!

PRIORITY OF TOPIC

- **Improved treatment performance**
- **Encourage innovation**
- **“Better” measures of treatment performance**

TYPES OF MAINTENANCE CONTRACTS

- **Method-based**
- **Performance-related**
- **Performance-based**
- **Warranties**

METHOD-BASED CONTRACTS

- **Agency specifies how to complete work**
- **Successful contractor follows the specifications**

Method-Based Contract “Issues”

- **Owner agency fully understands and can specify what is needed for a quality product**
- **If the contractor follows the method(s), a quality product will result**
- **Agency must inspect to make sure methods followed**
- **Innovation is not encouraged**

PERFORMANCE-RELATED CONTRACTS

- **Agency specifies certain outcomes of the work**
- **Contractor targets the performance measures**
- **Payment might be less or more than 100%, depending on outcomes**

PRC Contract Issues

- **Greater responsibility for outcome in contractor's hands**
- **Greater ability to innovate**
- **Short-term measures must be linked to long-term performance**

PERFORMANCE-BASED CONTRACTS

- **Extend the performance-related contract concept**
- **Agency specifies outcomes and durations**
- **Contractor has even greater latitude to accomplish these**

PB Contract Issues

- **Almost all control of construction in contractor's hands**
- **Can specify desired performance and pay based on whether it's attained**
- **Costs of failure may not be adequately considered**

WARRANTIES

- **Greater emphasis placed on longer-term performance**
- **Greater focus on desired outcomes**
- **Greater risk to contractor**
- **Warranty period generally does not match performance period**

Warranty Contract Issues

- **Warranty period generally does not match performance period**
- **Need meaningful measures linked to long-term performance**
- **Project selection is important**
- **Project costs may increase**

RESEARCH NEEDS

- **When should different contracting methods be used**
- **For PRC, what measures should be used to identify long-term performance**
- **For warranties, what measures should be used for acceptance**
- **What is reasonable warranty length**

BARRIERS TO IMPLEMENTATION

- **For other than MBCs, need relationships between short-term measurements and long-term performance**
- **Some contracting methods may be more expensive than others**
- **One-sided risks**
- **Favor large contractors who can absorb more risk (and failure)**

REQUIRED EFFORT

- **Develop appropriate performance measures for all treatments**
- **Understand relationship between such measures and long-term performance**
- **Develop pay factors for exceeding or falling short of measures**
- **Needs to be “sold” to both agency and contractor**

QUESTIONS?

Thanks!

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