$1.5 BILLION

$275 MILLION

62 MONTHS
Design-Build and NEPA

July 17, 2017
Presentation Overview

• A little bit about...
  – MoDOT
  – Design-Build at MoDOT

• How do we do NEPA on Design-Build Projects?
  – First!
  – Flexibly!
MoDOT by the Numbers

7th Largest System (33,873 miles)

47th Revenue per mile (17¢ per gal)

$808m Construction Budget (2016)

Source: A Citizen’s Guide to Transportation Funding in Missouri
MoDOT’s Design-Build Projects
MoDOT Design-Build Values

- Be Goal-Oriented
- Be Flexible
- Be Confidential
- Be an Empowered Team
Design-Build at MoDOT

• Most states:
  – Base design to 60%-90% plans
  – Alternate Technical Concepts (ATC)

• MoDOT:
  – Base design to 30% plans
  – High-level, performance criteria define project
  – NEPA commitments must still be considered
Value of Flexibility
NEPA FIRST!
Why do NEPA first?

- Reduces uncertainty
- Minimizes impacts
- Identifies major risks
- Creates criteria for Request for Proposals (RFP)
Can we clear the risk?

- Section 106 Survey
  - No cultural resource concerns
  - State Historic Preservation Office Concurrence
  - Contractor to acquire clearance for outside cleared footprint
Can we mitigate the risk?

- Migratory Birds
  - No work on bridge: April 1 to July 31
  - Remove nests by mid-March
Allocate Remaining Risks

USACE Section 401 & 404
MoDOT acquires

MDNR Section 402
Contractor acquires
NEPA FLEXIBLY!
Flexibility and NEPA

1. Approved Environmental Document
2. Flexible Request for Proposals
3. Innovative Proposal
4. Re-evaluate Environmental Document
NEPA Re-Evaluations

- Impacts
- Uncertainty
- Burden of Proof
- FHWA
Route 364/Page Avenue Extension

- 9 miles of new highway
- 5 new interchanges
Route 364/Page Avenue Extension

1990 Population of St. Charles County: 212,907
Route 364/Page Avenue Extension

2013

2010 Population of St. Charles County: 360,485
Route 364/Page Avenue Extension

1992 Environmental Impact Statement:
PARTIAL CLOVERLEAF INTERCHANGE
I-270 North Corridor Study
Performance Measures

• Quantifiable indicators
• Examples:
  – Mobility
  – Accessibility
  – Public Safety
  – Infrastructure
Crafting Flexible NEPA Documents

Alternatives Development

Impact Analysis

Alternative Selection

Final Documentation
Crafting Flexible NEPA Documents: Alternatives Development

- Flexible narrative and disclaimers
- Performance measures
Crafting Flexible NEPA Documents: Impact Analysis

- Equal analysis of ALL Reasonable Alternatives
- Detailed documentation of all analyses
• Preferred Alternative is **not final solution**

• Preferred Alternative is **ONE feasible method**
Crafting Flexible NEPA Documents: Final Documentation

- High-Level Description
- Footprint Focused
- Performance Measures
- Appendices
- Flexible language!
Challenges

- Conceptual AJR and Signing Plan
- Modeling study area
- Engineering effort required to prove feasibility
Lessons Learned

• Challenge conventional thinking
• Coordinate with FHWA
• Take the time
• Select performance measures carefully
• Form partnerships!
$275 Million SAVED
$275 Million SAVED