Design-Build and other Innovative Contracting Methods

Daniel Leonard, PE
Grade Crossing Engineer
Pennsylvania Department of Transportation
・65 Railroads

・Class 1 Railroads
  • Norfolk Southern
  • CSX
  • Canadian National

・Amtrak and SEPTA

・GWI Railroads (5 in PA)

・Short Lines
  • Conrail, RBMN, RJC, WNYP

・Public Ownership
  • SEDA COG JRA, PNERRA, LCRA, etc.
Challenges with Railroads

• **Amtrak**
  - Federal/Not Federal
  - Different agreement structure
  - Very long lead times

• **Railroads are reorganizing, experiencing staff turnover or moving operations**
  - NS ROW –new staff, downsizing
  - G&W - staff to Jacksonville
  - CSX - downsizing staff
Challenges within Pennsylvania

- **Public Utility Commission**
  - Per PA Code, exclusive jurisdiction at all Grade Crossings
  - Application process
  - Hearing process when there’s no agreement on project
- **Commonwealth of PA cannot indemnify**
  - Effect on Master Agreements
Pennsylvania Initiatives

• Design-Build

• Public Private Partnership (P3)
Design Build

• **Design-Build**
  • PA PUC process
  • Slightly different process with plan review

• **SR 718 Project, Sharon, PA**
  • Roundabout installation
  • At-grade crossing on one leg
  • RR ROW acquisition beyond the crossing
  • PA PUC process
Innovative Contracting Methods

• Public Private Partnership (P3)
  • Rapid Bridge Replacement project
  • Design, Build, Operate, Maintain
  • 3 year construction, 25 years maintenance
  • 558 bridges
  • 20 projects with railroad involvement
Observations

- All procedures remain the same – they cannot be eliminated
  - ROW
  - Utility relocation
  - Railroad coordination
  - PUC process
- Some tasks must remain within the DOT
- Must still follow Federal procedures even when using State funds
Observations

• Give the railroads plenty of lead time – coordinate early
• Ask railroads to prioritize projects (P3)
• Your schedule is not necessarily the railroad’s schedule
• Designers with railroad experience are a real plus
• Ensure P3 contractor knows there are substantial costs to railroad work – don’t just focus on highways or bridges
• Regular coordination meetings are helpful
Observations

- Railroads involved have been very cooperative
  - Class 1s and Shortlines
  - Includes Engineering and Real Estate groups
- Design changes for driver and railroad safety have been incorporated into the projects
Innovative Contracting Methods

- **Effect on Timelines**
  - Accelerated schedule
  - Constant communication with railroads

- **Effect on Existing Relationships**
  - Good existing relationships w/RRs a plus
  - Railroads have been very cooperative
Questions?