IT’S NEVER TOO LATE TO IMPROVE A PROJECT

KEITH CHADWICK, PE
AARON KETZNER, EI

LOCHMUELLER GROUP
DESIGN CHALLENGES

- Historic Bridge
- Multiple utilities
  - Two high pressure petroleum Lines
  - High voltage power lines 138Kv
  - 42” Sanitary sewer line
- Railroad
PRE-CONSTRUCTION CONFERENCE

- Contractor presented a 2-span option
- Lower in cost than 3-span
- Issues with option expressed at pre-con
PRIOR TO CONSTRUCTION

• Numerous meeting & design review
• Contractor was persistent
DOCUMENTS REVISED

- Section 106 document
- Public hearing
- Environmental document
COST REDUCTION INCENTIVE
STANDARD SPEC 109.04

- Initial requirements
- Formal proposal requirement
- Approval
CHANGE ORDER

- Adjustments to existing items
- 31 new items added
- Extensive review of existing items
IMPORTANCE OF COMMUNICATION

• Many parties involved

• Potentially avoided costly delays
CONSTRUCTION – BEAM SETTING
BENEFITS OF THE REDESIGN

• Costs
• New life span of the substructure
• Additional clearance
• Reduced road closures
BENEFITS OF THE REDESIGN

- **Eliminated use of lightweight concrete**
- **Eliminated repair work**
- **Increased safety**
- **Minimized future maintenance**
FINAL
THOUGHTS