ABC Center at Florida International University

Construction Contractor Series #1: Experiences with ABC Projects in Texas

William G. Duguay, P.E.

Lloyd Wolf, P.E. Michael Hyzack, P.E.

Precast Abutments

Various Caps/Bents

Producer or Job cast caps

Precast Overhangs

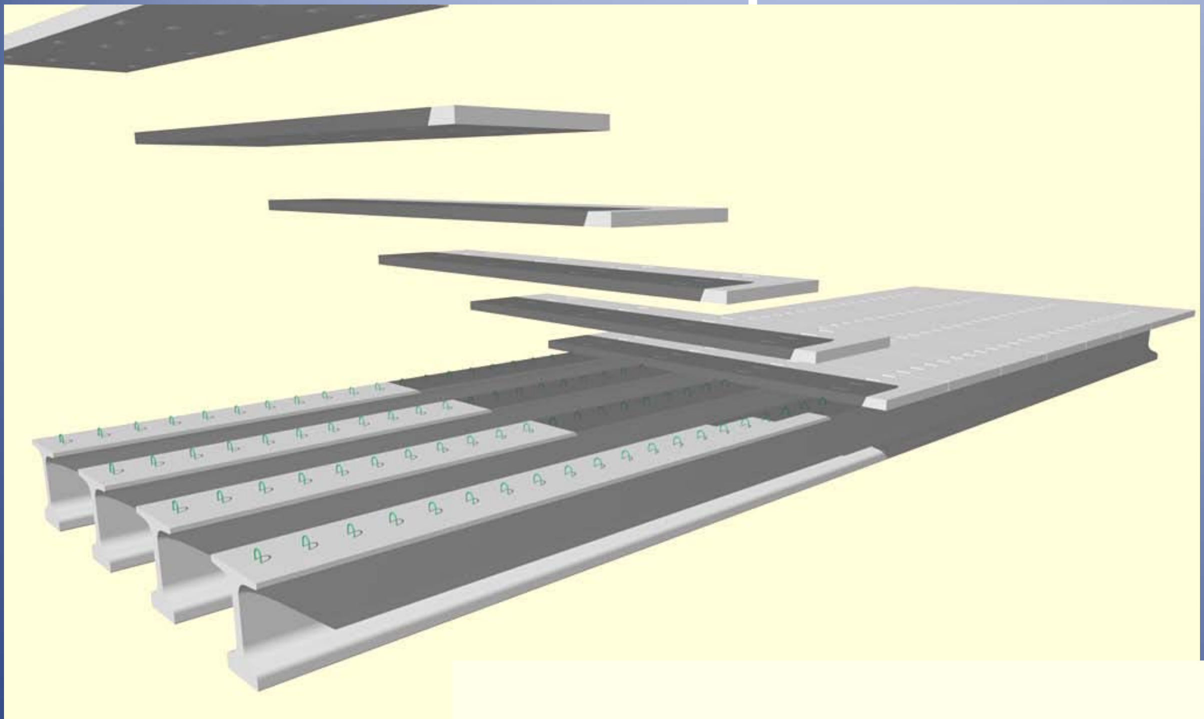
Precast Overhangs

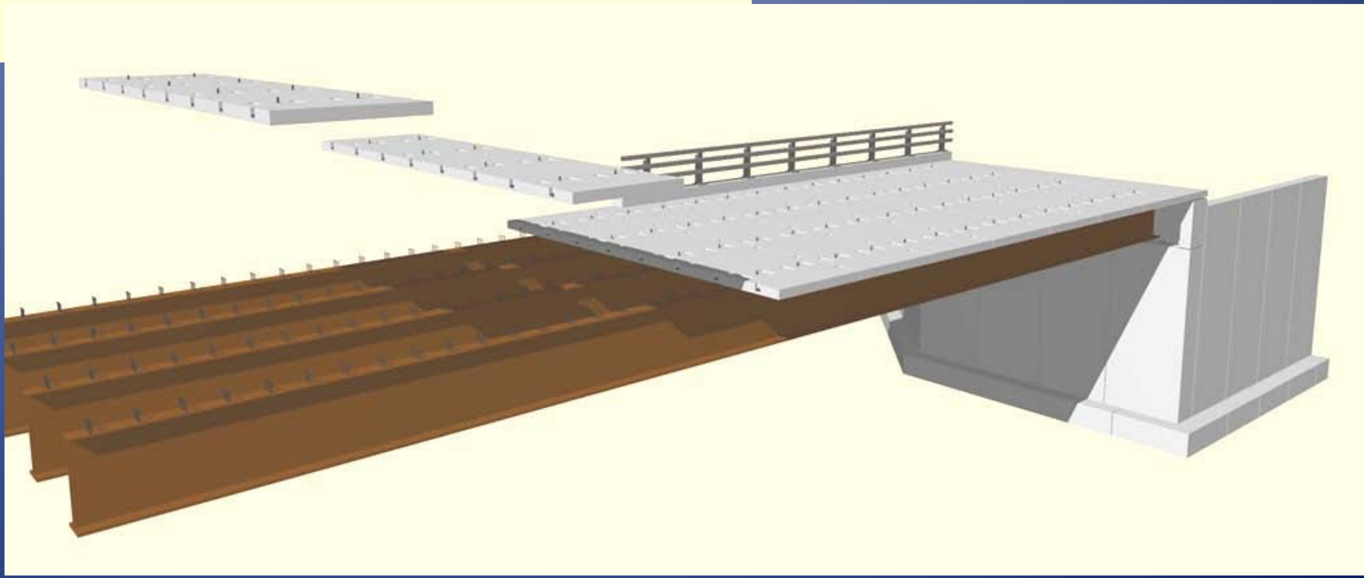
Pre-topped Ubeams

TXDOT’s Decked Slab Beams

PCP's to the beam end

Full width precast decking





The FHWA's Every Day Counts (EDC) Pillars

- Accelerating Technology and Innovation
  - PBES
- Shortening Project Delivery

How do we squeeze time of delivery?

- Mind our P's and Q's better
  - Minimize under utilized contract time
  - May have some, probably minor costs
- Some type of change in delivery
  - Manpower or equipment bump
  - May have some, potentially higher costs
- Method change
  - ABC/PBES
  - Until widely used, probable cost impacts

How does ABC get considered?

- Context sensitive
  - Tried on low volume roads first
- Reaction to policy
- Does the FHWA’s decision matrix reflect what we know today about different levels of ABC benefit?
  - Economic modeling being done at Oregon State

Look at other reasons to consider ABC Is ABC about speedy construction or minimizing risk?

- Can the decision to use ABC help with:
  – Minimize estimated manhours expended while exposed
  – minimize traffic incidents modeled from TCP's
  – Reduce surety/insurance losses
- Is there a Value Engineering mechanism?
  – Intangible costs included?

What does the Surety Industry think?

- Many contractors have to talk with their sureties before bidding work outside of their traditional market or method of delivery
- They have history with their clients for past work
  - rates are retrospective
- Individual cost per loss event potentially higher
  - Coverage's may have to be stacked
- New types of risk: transit, what's “on site”
- Project penalties associated with these types of loss
- Shifting of risk inside the project

Could ABC affect set aside goals?

- Shifting of work, project to plant
- Self perform/traditional sub to specialty vendor
- Does ABC open new doors for these programs?

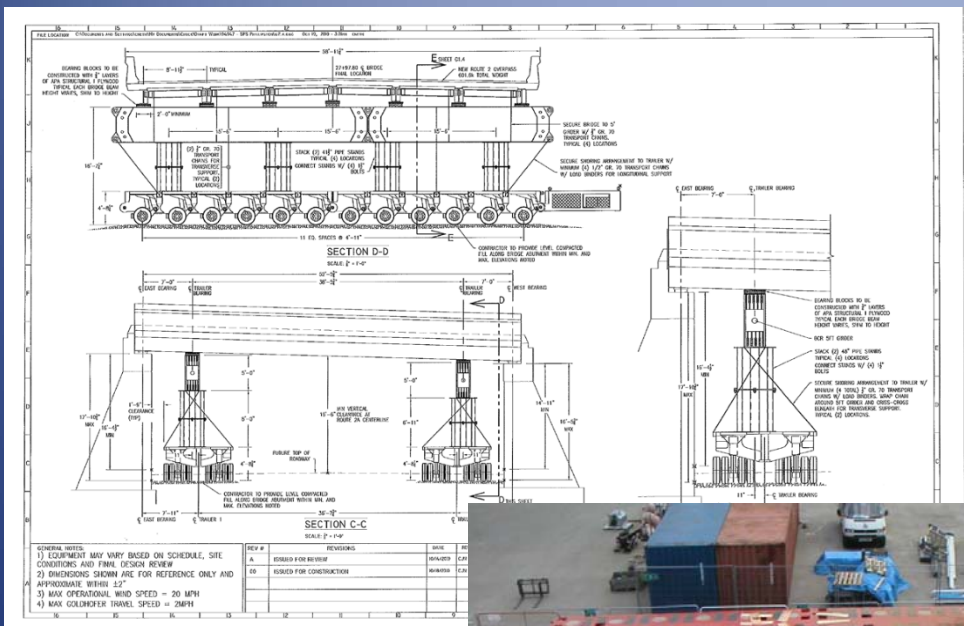
Watching $$$ in a down market

- Back log averaging and the Burn Rate
  - Contractors and agencies are working with a reduced workforce
  - Resistance to short term spikes
- Equipment utilization
  - Owned vs. rented vs. subcontracted

Texas has been at it a while

US 290 Ramp E-3 in Austin, Texas
Precast Bent Cap, 1996

Easy access to specialty equipment




CIANBRO
BNSF
MARMAC 301

Agency Support

- ABC in Texas has been a positive evolution
  - Best practices are continuously reviewed/updated
  - ABC details are becoming more systemic
    - Precast caps in most plan sets as an option
    - PCP's to beam ends in plan sets as an option
- An owner willing to spend research moneys and brain power to improve constructability/reliability/cost effectiveness and longevity
- Willingness to work with industry to solve particular issues

Contractor and Industry Support

- Minding our P's and Q's is limited
  - Certain types of work durations based on history
  - Flip flops in interstate overpasses
- Change of delivery
  - Some aspects may need legislation
- Method Change
  - PBES/ABC in use in Texas for more than 18 years
    - Lavaca bay precast Superstructure was in 1961

Why not more ABC?

- The outcome of a well designed business process is increased effectiveness (value for the customer/traveling public) and increased efficiency (less costs for the company/organization).
- Understand and resolve current barriers to ABC
  - Owners, Designers, and Contractors all have barriers

Working Together

- By using ABC in appropriate situations, we can effectively demonstrate how adaptable the Transportation Industry is, to:
  - Maintain the value of our nations transportation investment
  - Continue to improve the effectiveness of our system to provide safe and reliable transportation at the local and national level

So what do construction contractors really think about ABC?

- Brings new opportunities to the market
  - Will need to understand the tradeoffs on risk
- When used in the right context:
  - May reduce exposure to injury or accident
- Is really an example of what we are here to do:
  - Meet the needs of our Owner Agencies and the traveling public with appropriate solutions in a safe and efficient manner

Texas Department of Transportation

THE ASSOCIATED GENERAL CONTRACTORS OF TEXAS

SAFELY BUILDING THE FUTURE TOGETHER

ABRAMS

100% EMPLOYEE OWNED

ONE TEAM, ONE COMPANY

Thank You

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Questions

Technical Answers with help by:

Lloyd Wolf, P.E. TXDOT

Michael Hyzack, P.E. TXDOT