

Contractor Outreach Event

Contract B-35450

DES 1006266

US 52 over Mud Creek Bridge Replacement
Str. No. 052-70-10277

Greenfield District
Rush County, Indiana

May 27, 2020



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Welcome

- Purpose of Meeting
- Project Website
<https://www.in.gov/dot/div/contracts/abc/accBridge.htm>
- Please utilize Chat Feature
 - Sign In and Questions
- Recording



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Project Location

- Located approx. 5.46 miles west of SR 44, Posey Township, Rush County, Indiana



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Project Scope

- Bridge Replacement
- Existing 3-span reinforced concrete slab bridge
- Proposed 3-span reinforced concrete slab bridge – **ABC with all precast reinforced concrete elements**
- Place Scour Countermeasures
- Associated pavement work to tie into existing
- Replace guardrail



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MOT, R/W, and Utilities

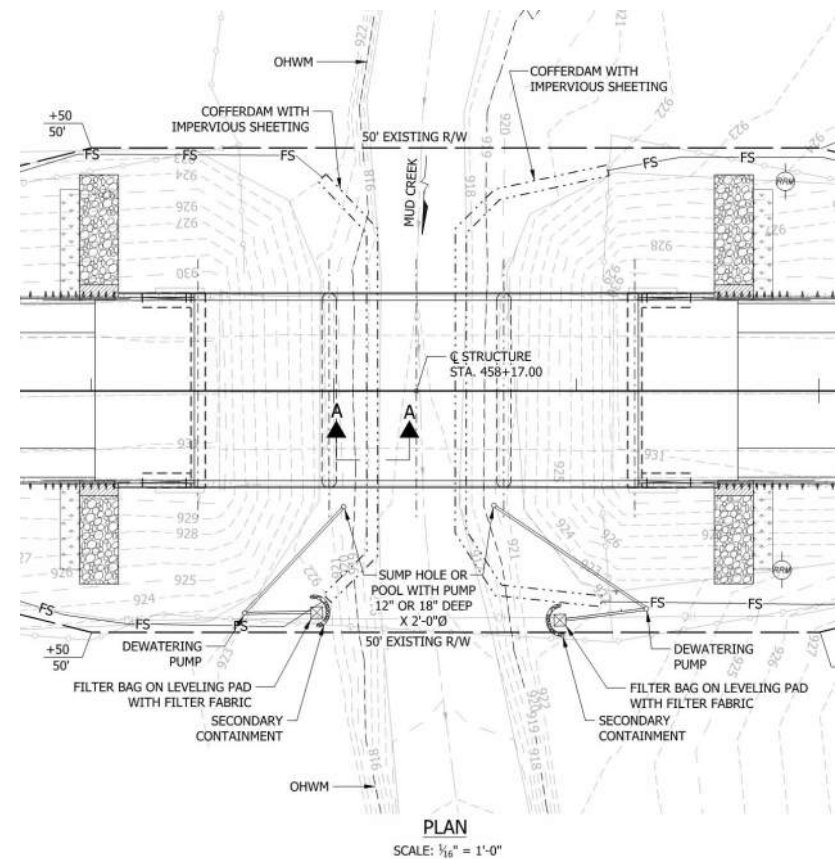
- MOT is closure of US 52 with detour
- Work within existing R/W
- Frontier to bury aerial line



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Environmental and Permitting

- 401/404 NWP
- Storm Water Quality Manager Level 1
- No tree removal



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Accelerated Bridge Construction

- PBES – Precast Bridge Elements and Systems
- Proposed bridge comprised of precast reinforced concrete pieces (modules) to be assembled on site

“Get in, get out, stay out”

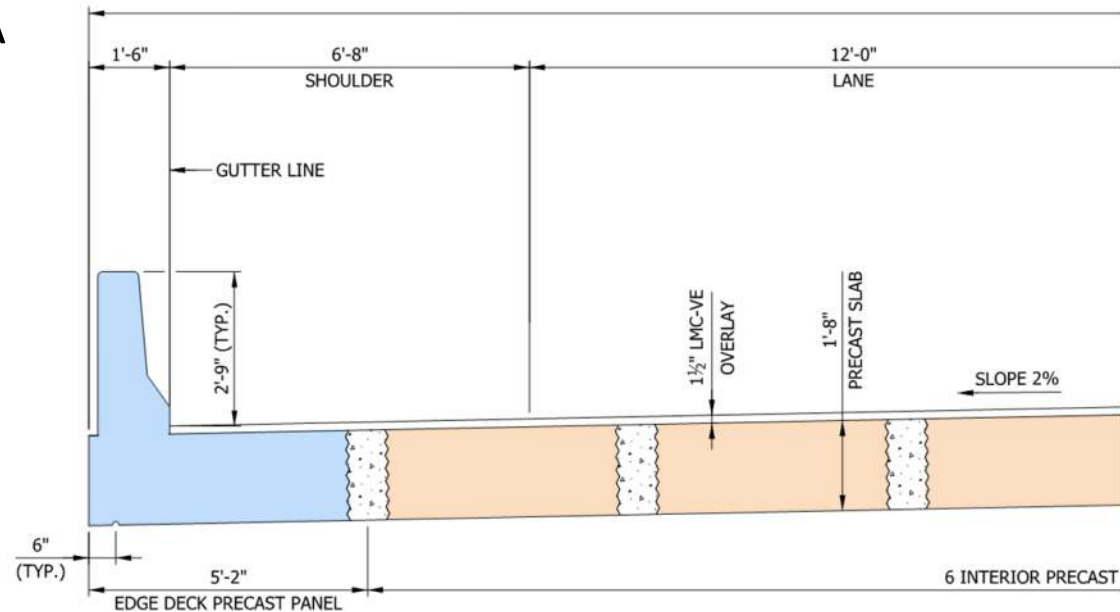
-FHWA



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Accelerated Bridge Construction, Cont.

- Modules
 - End Bents, Piers, Slab, and RCBA
 - FC Rail is integral with the exterior modules
 - All modules sized to a 40 ton max.
 - Contractor has option to submit shop drawings
(see *Special Provisions*)



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Accelerated Bridge Construction, Cont.

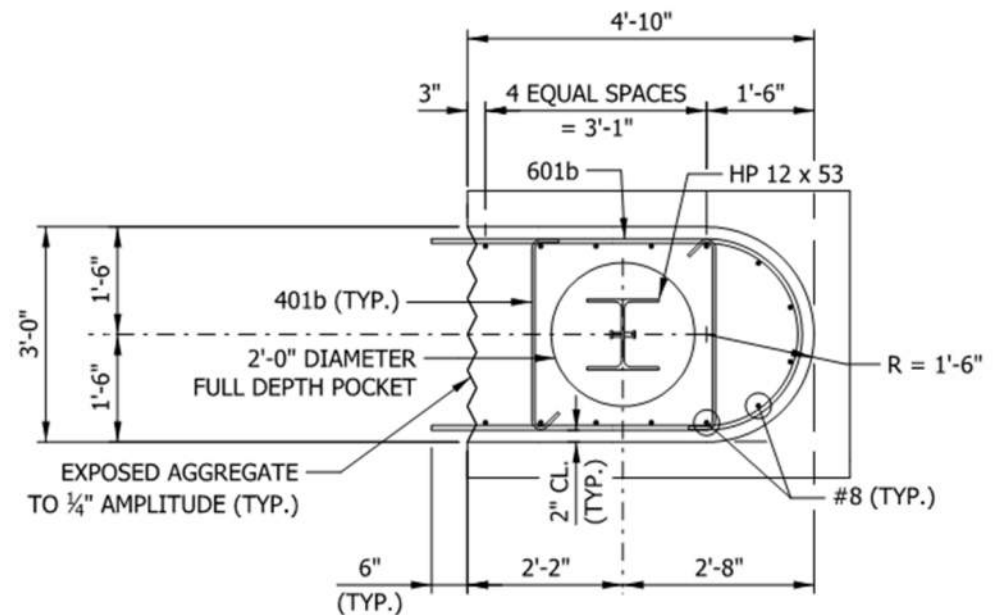
- Piles
 - HP 12x53
 - Need to be driven within 3.0" in any direction from design location
 - Pile Driving Template for accuracy (*see Special Provisions*)
 - Shear studs on web



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Accelerated Bridge Construction, Cont.

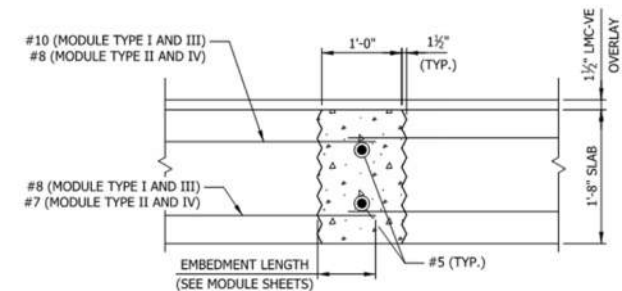
- Joints
 - Substructure Modules cast with pockets for piles
 - Pockets to be filled with SCC, Self Consolidating Concrete (*see Special Provisions*)



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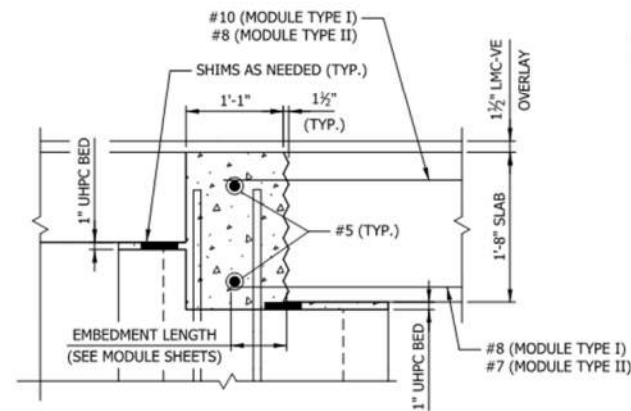
Accelerated Bridge Construction, Cont.

- Joints
 - Joints between modules to be UHPC, Ultra High Performance Concrete
 - Module joint face to have aggregate to $\frac{1}{4}$ " amplitude (*see Special Provisions*)
- Overlay
 - Place VE-LMC overlay across Slab and RCBA



TRANSVERSE CLOSURE POUR DETAIL

SCALE: 1" = 1'-0"



END BENT CLOSURE POUR DETAIL

SCALE: 1" = 1'-0"



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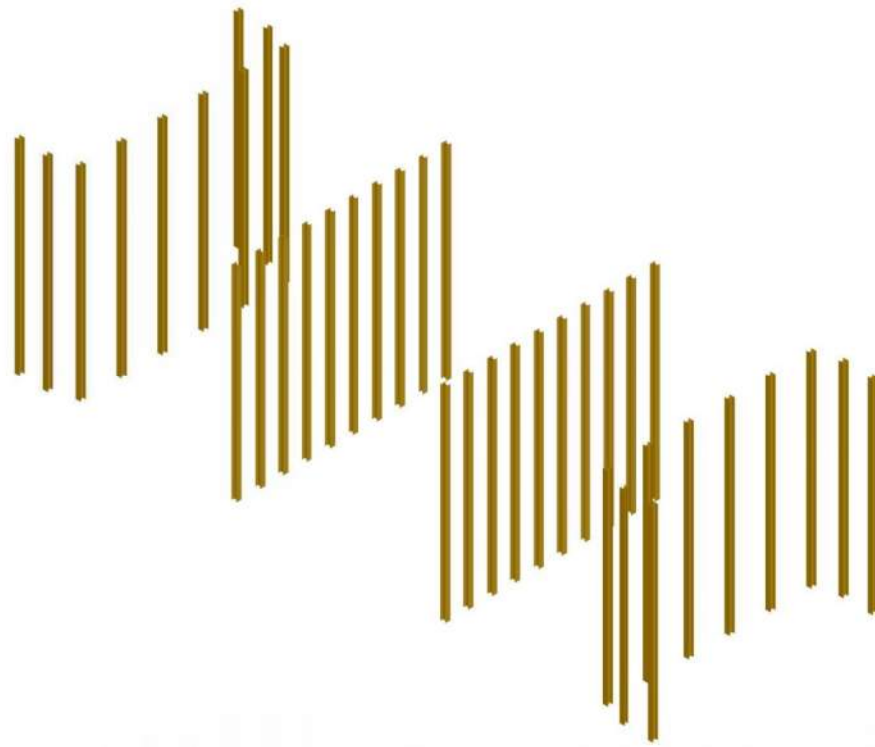
Accelerated Bridge Construction, Cont.

- Pre-Closure
 - Mobilization
 - Set up MOT
 - Site Grading
 - Drive Test Piles (optional)
 - Set up Erosion Control
 - What else...?
- Post-Closure
 - Final Site Grading
 - Clean Site
 - Remove Erosion Control
 - Demobilization
 - What else...?



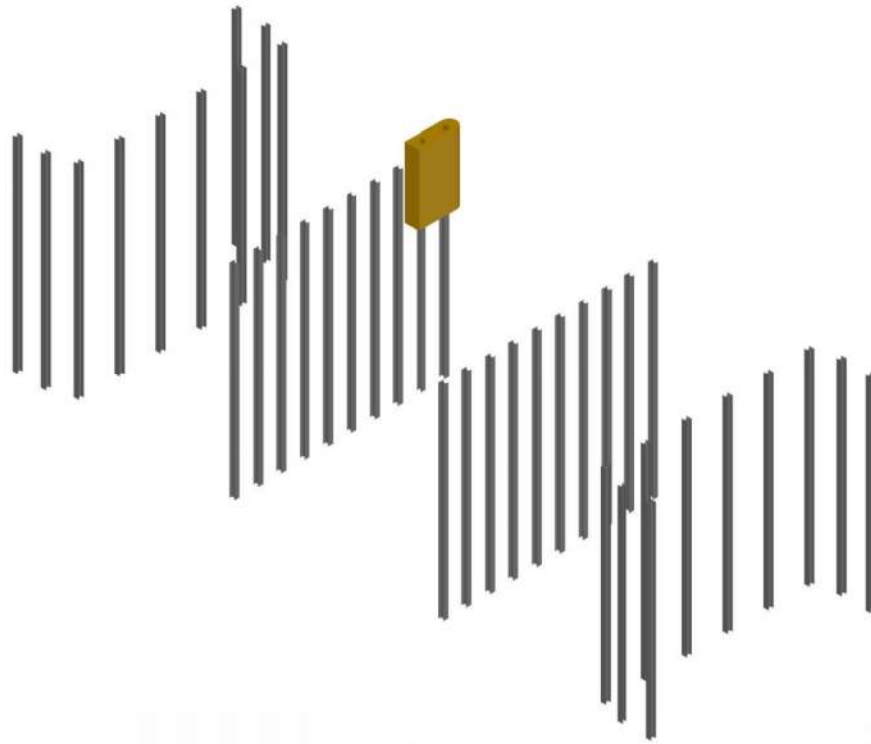
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Accelerated Bridge Construction, Cont.



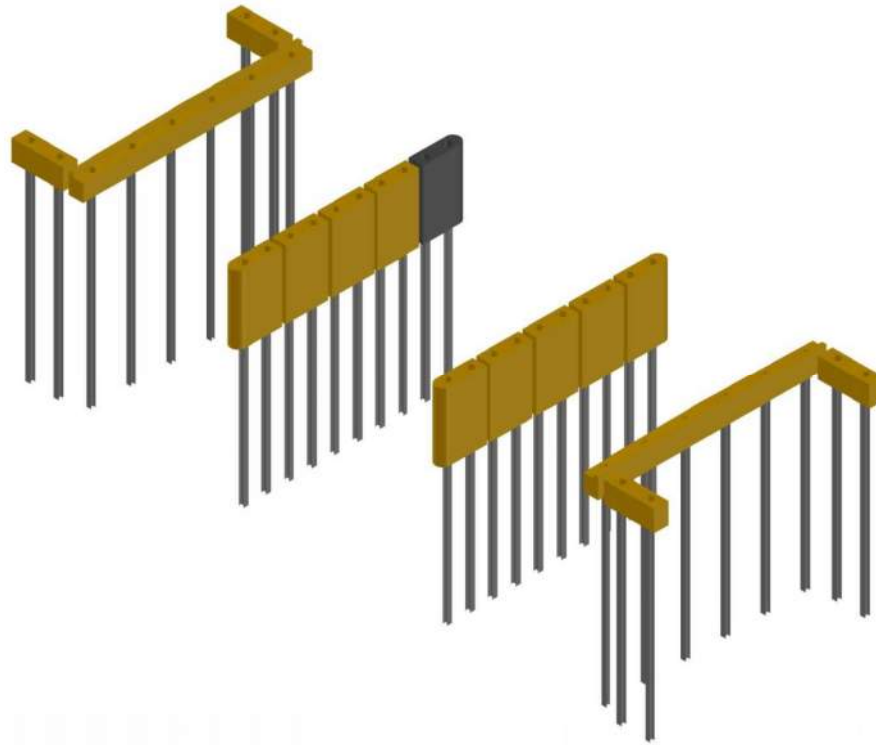
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Accelerated Bridge Construction, Cont.



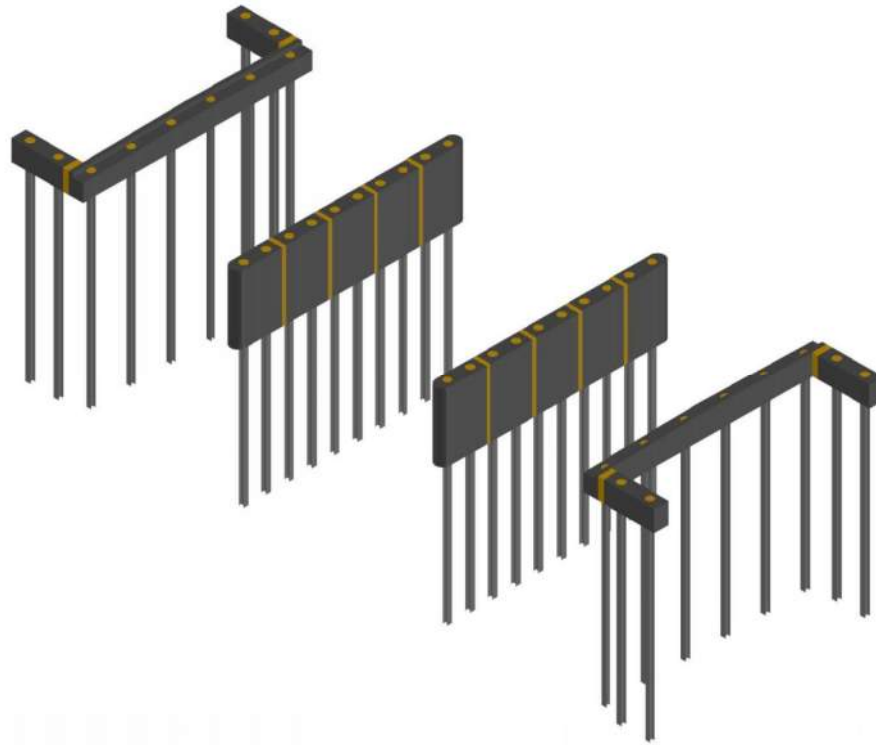
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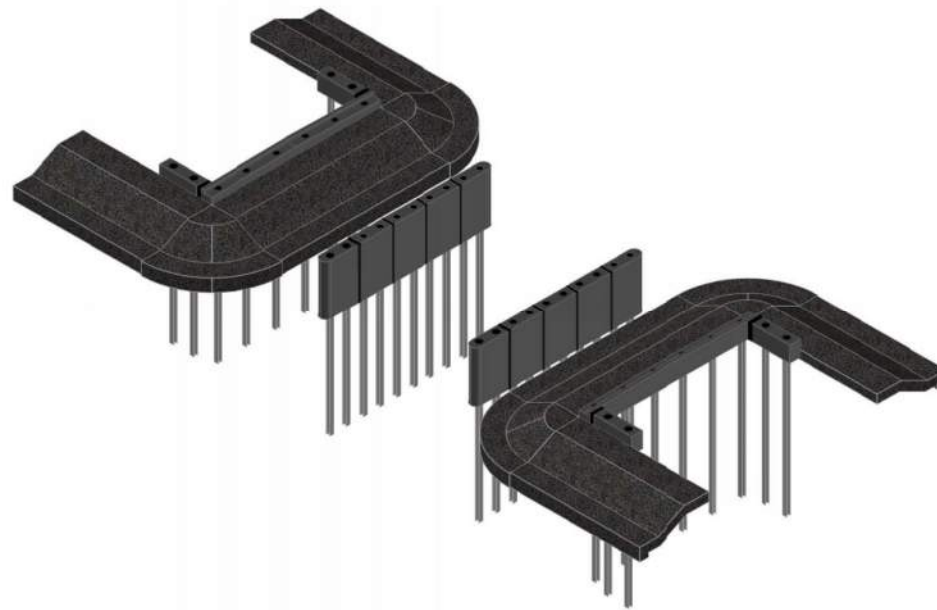
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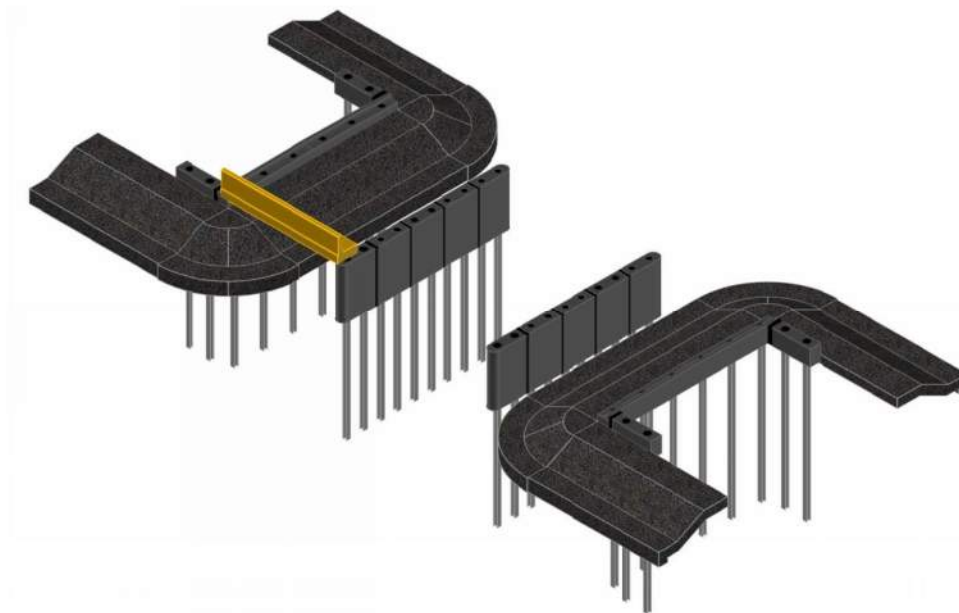
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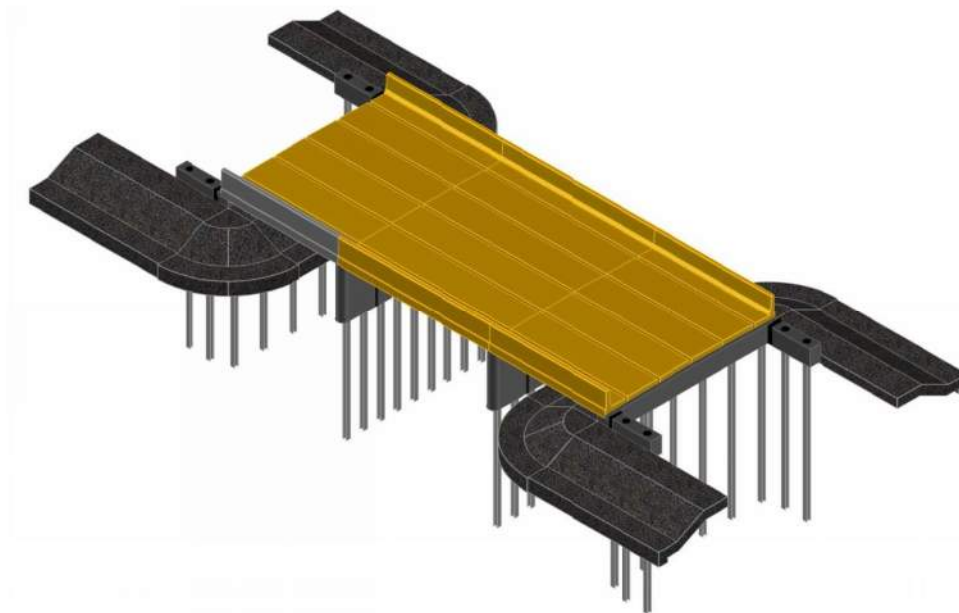
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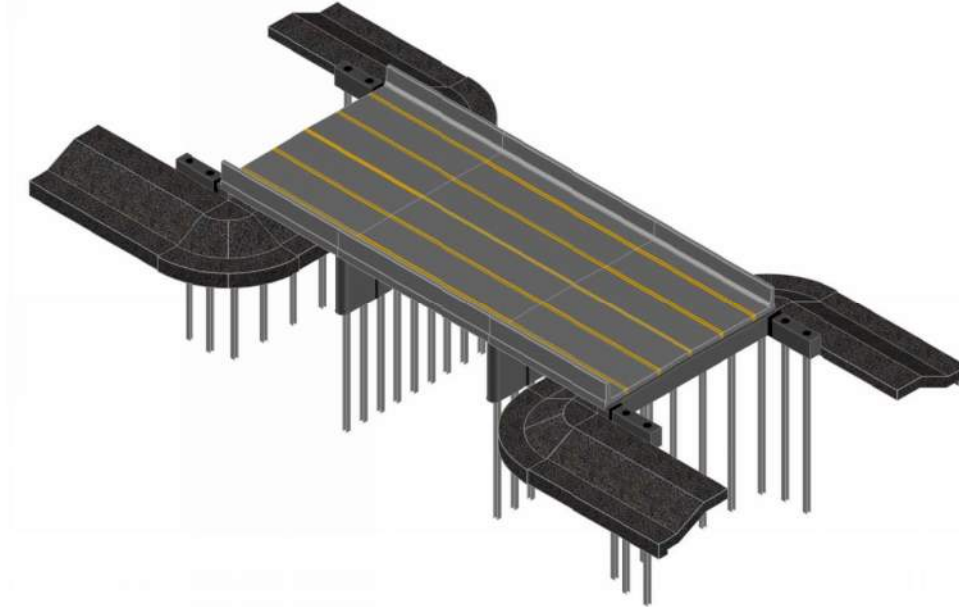
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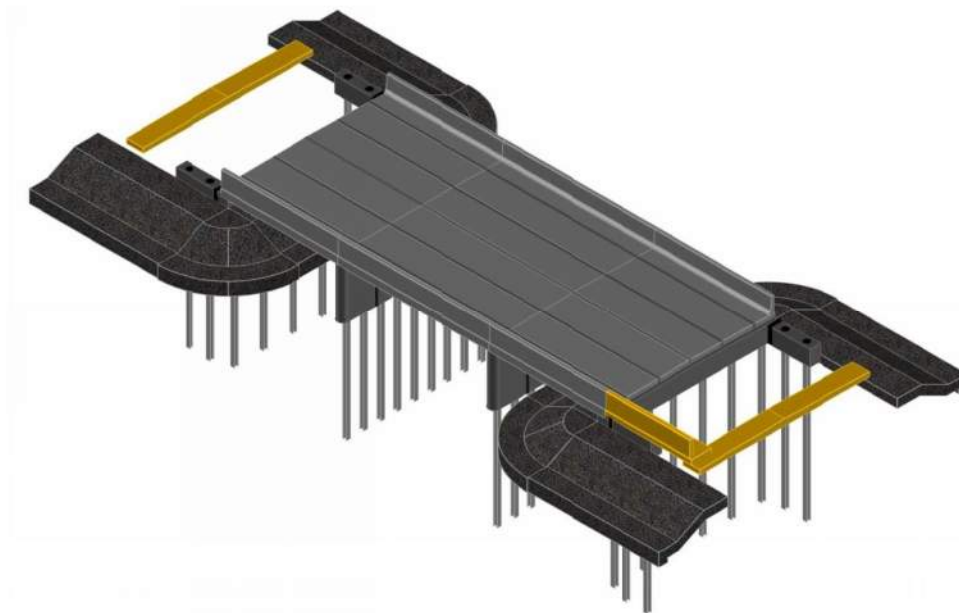
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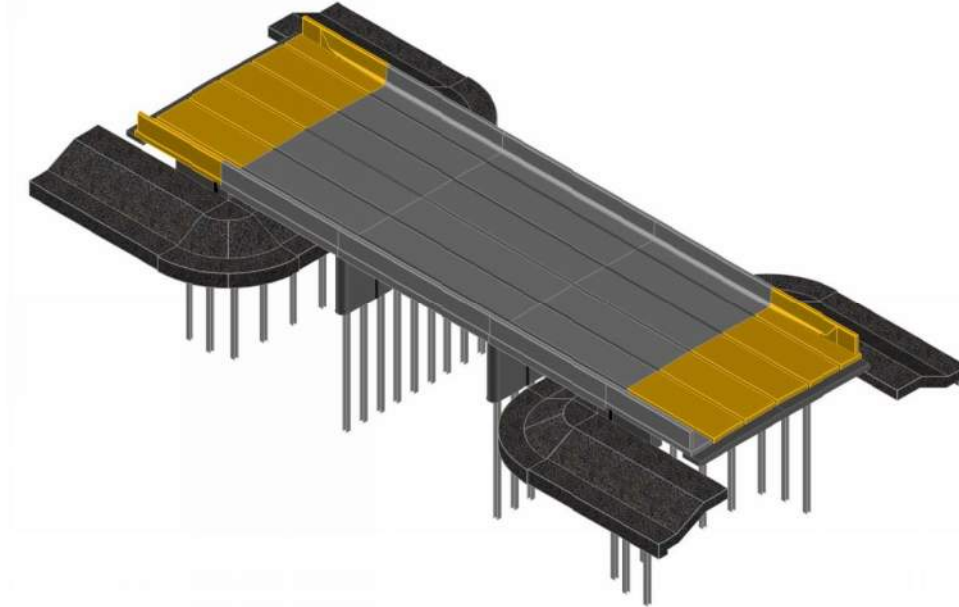
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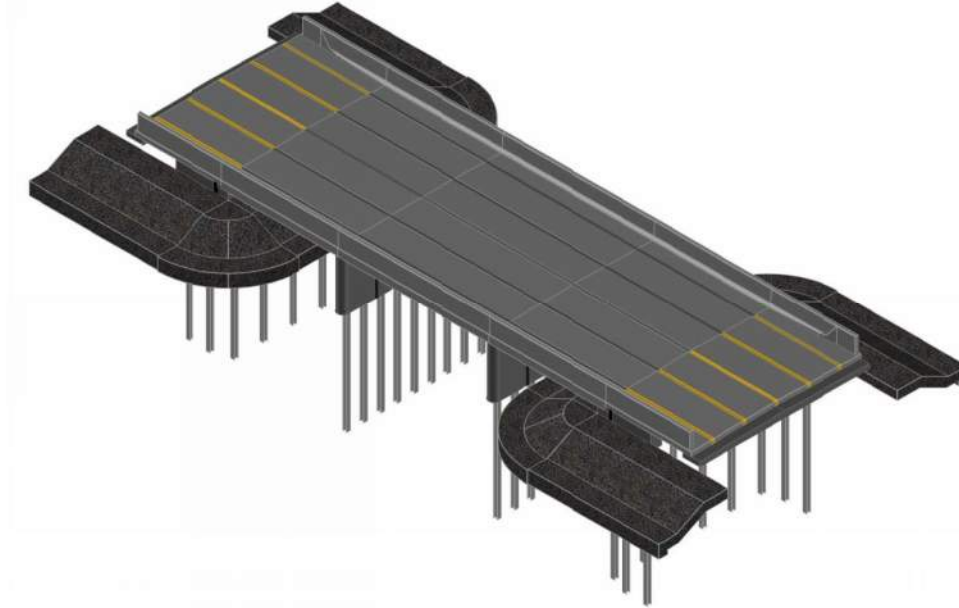
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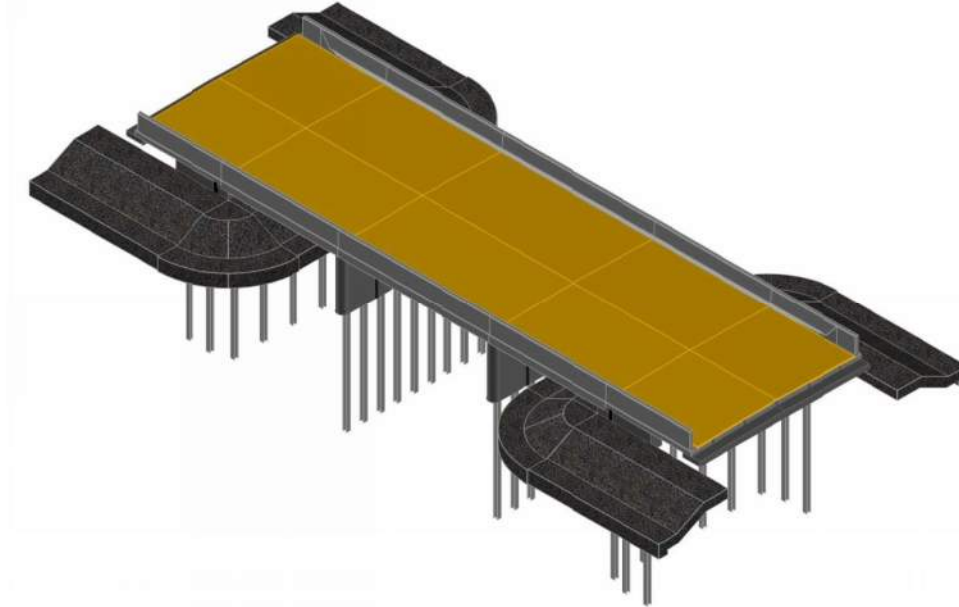
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Accelerated Bridge Construction, Cont.



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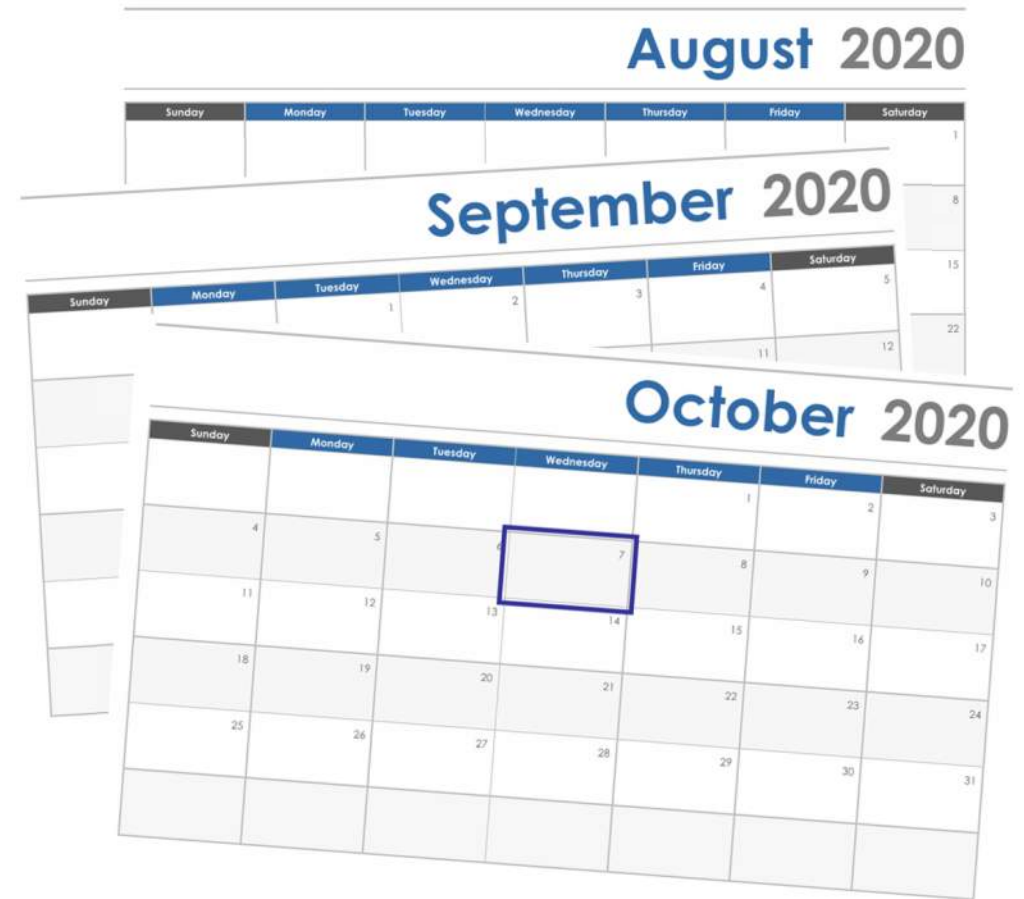
Accelerated Bridge Construction, Cont.



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Tentative Schedule

- 6 week advertisement
- Sept. 9, 2020 Pre-Bid Meeting
- October 7, 2020 Letting
- Spring/early summer Closure



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Questions?



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