



Construction GRS – IBS Bridge



Oldcastle[®]
Materials

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8/28/14



Bid Considerations

- 2 different types of superstructures
- Solid CMU blocks – about 4000 at 90 lbs / each
- Cutting the CMU blocks
- Meeting the saline freeze / thaw specification
- Early NTP vs. award date vs. utility relocation dates
- Overtime schedule needed to meet the schedule
- Equipment needs





Location

- Very tight Right of Way constraints
- Utilities
- Pedestrian and Railroad access
- Traffic
- Material Storage
- Equipment parking
- Height and safety concerns





Selected Image

07/18/14

One Day Prior

07/17/14



Two Days Prior

07/16/14

Three Days Prior

07/15/14



Selected Image

07/25/14



One Day Prior

07/24/14



Two Days Prior

07/23/14



Three Days Prior

07/22/14

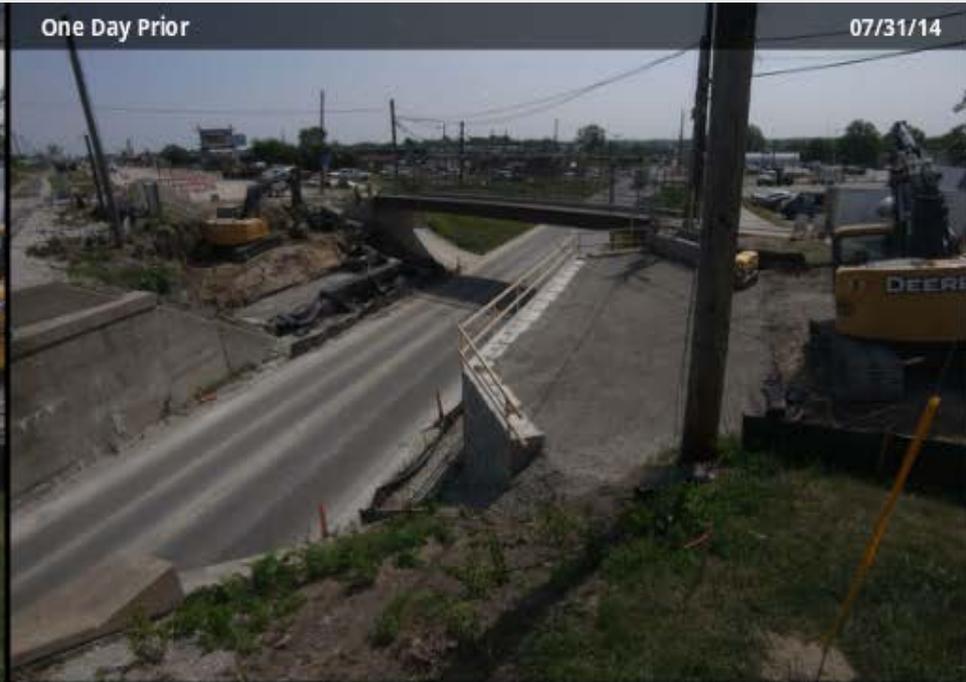


Selected Image



08/01/14

One Day Prior



07/31/14

Two Days Prior



07/30/14

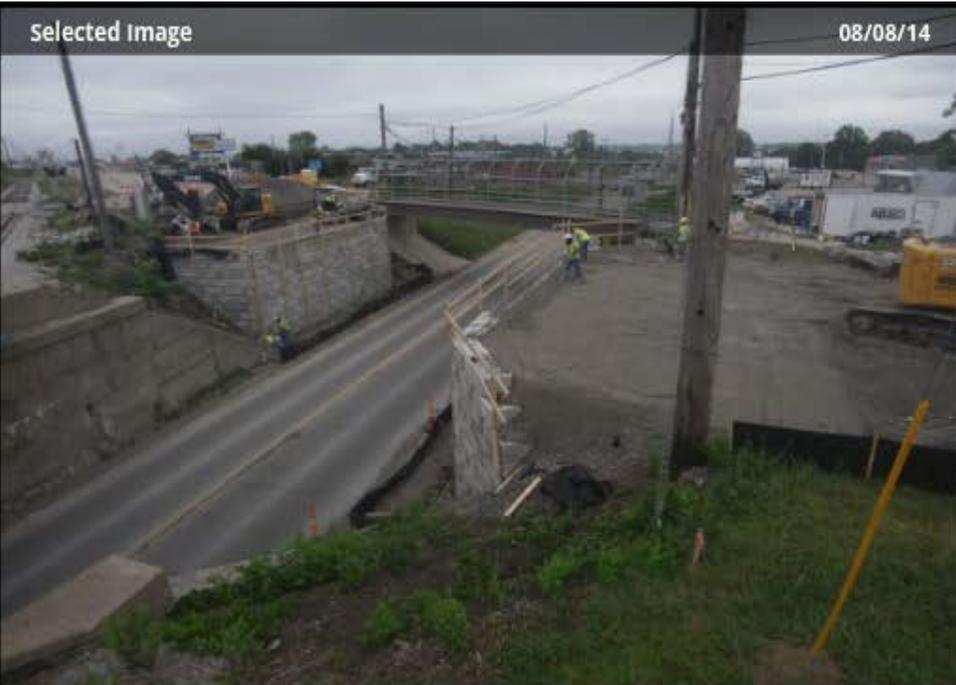
Three Days Prior



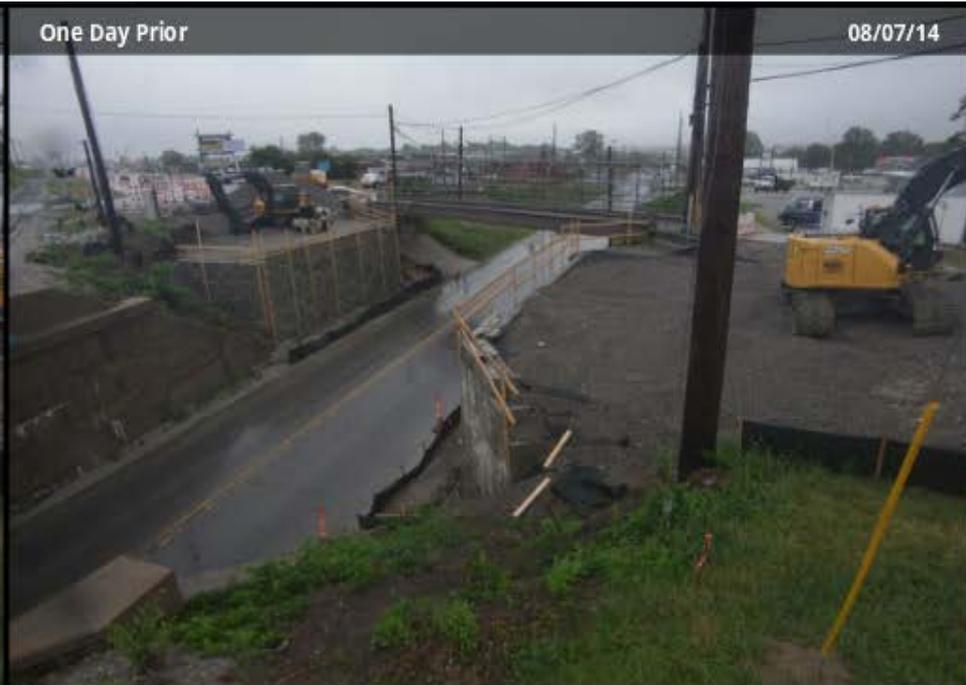
07/29/14



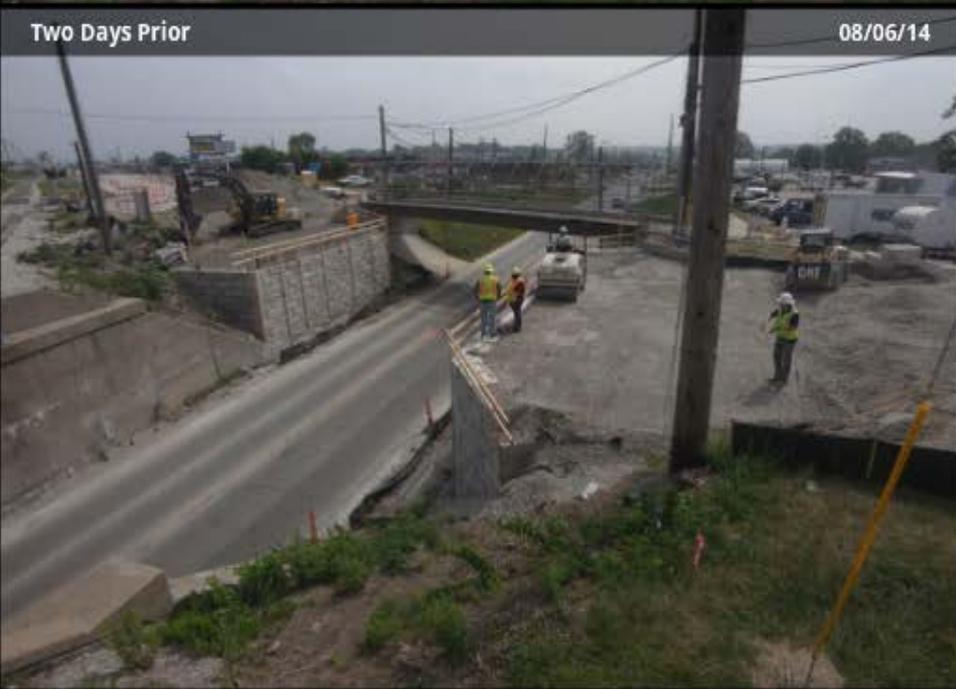
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One Day Prior



Two Days Prior



Three Days Prior





Selected Image

08/15/14

One Day Prior

08/14/14



Two Days Prior

08/13/14

Three Days Prior

08/12/14



Selected Image

08/22/14

One Day Prior

08/21/14



Two Days Prior

08/20/14

Three Days Prior

08/19/14





Time Line



- Removal of Bridge – 2 days
- Excavation for Reinforced Soil Foundation – 2 days
 - Access to the hole and to the trucks
- Placing RSF and first row of block – 1 day
- Best average placing rate
 - 2 rows of block (32”) and 4 rows of GRS (32”) per day
 - 17’ wall (204”) – about 6 days per wall
- Coping and Beam seat – 1 day (skewed, super-elevated, etc)
- Set beams – 1 night
- Prep for deck pour – 4 days (grout, post-tension, tie steel, etc)
- Cure deck – 7 days
- Form curb – 1 day
- Best Case about w/o roadway work – 35 working days

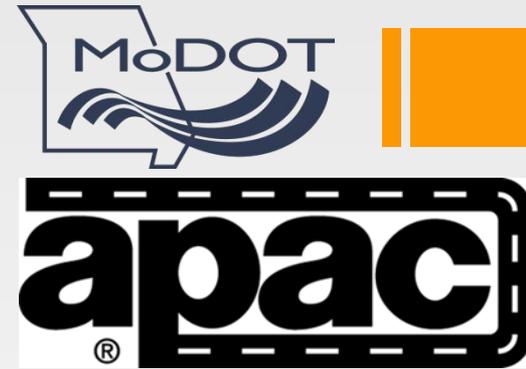
Positives to GRS – IBS

- Shorter bridge – Cost
- Speed of construction – Closure time
- Size of Equipment – Cost
- Long Term Approach Maintenance – Cost??



Negatives to GRS – IBS

- Footprint of the bridge – Right of Way Issues
- Amount of aggregate – Access and Storage
- Number of pieces of equipment – Cost and Storage
- Fall protection – Safety
- Compaction testing – Quality
- Material testing – Quality
- Build to fit – Clearance and Quality
- Vague plans and specifications – Quality
- Durability – Long Term Maintenance??



Questions for Any of Us??



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