

EXPERIENCE – REFERENCE PROJECTS

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| State: | Kentucky |
| Agency / Client: | Owensboro Grain Company |
| Project and/or Route Name: | <u>Owensboro Grain Conveyor Supports – Owensboro, KY</u> |
| Dates: | 2002 |
| Type of Improvement: | Side-wall Tank Supports for New Conveyor |
| Firm's Project Manager: | Tony Huff, PE – THA Engineering Solutions |

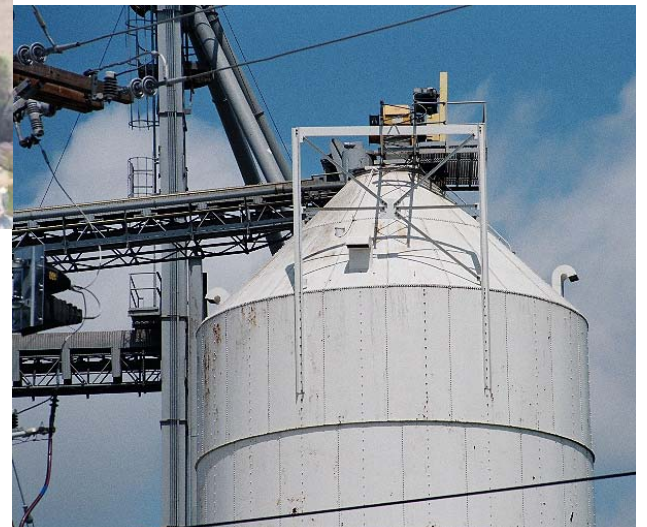
The Problem

Owensboro Grain Company had plans to replace an existing conveyor atop the 6-tanks at the east end of their facility on the Ohio River. The new conveyor would weigh approximately 2x the existing conveyor and would sport approximately 2x the load handling capacity. The existing conveyor was supported solely by a truss system bearing directly on the top of the tank cones and concern was expressed for the ability of the tank cones to support the additional loading. THA was asked to assess the load capacity of the cones and design and detail plans and specifications for any additional support structure, if needed.



Situation Assessment

After on-site inspection of the tank cones and careful review of construction plans and consultation with other tank experts, it was determined that the tank cones should not be expected to take the additional loading that would be imposed by the larger conveyor.



Engineering Solutions

THA designed steel side-wall tank supports to transfer a substantial portion of the loading of the new conveyor directly to the Z-bar staves inside the tank structure, thus avoiding a condition where the additional load of the new conveyor would be added to the tank cones.