



Executive Summary

The following report is intended to provide a detailed overview of the analysis performed for Towson Tiger Arena. These analysis topics include a fabric duct system, pre-fabricated terra cotta panels, Production planning of the truss MEPF, and the integration of Cisco StadiumVision.

Analysis one includes a mechanical breadth and the implementation of a fabric duct system within the arena trusses. This is a very common system for sporting arena and large recreational centers due to its high level of efficiency and flexibility. Applying this system at Tiger Arena could greatly help improve the safety and quality of site logistics, as well as provide potential cost and schedule savings.

Analysis two looks at the potential benefits of prefabricating Terra Cotta wall panels. Utilizing prefabrication for a large part of the exterior of Tiger Arena will help greatly to increase site logistics and safety. The current system requires a lot of staging and storage room onsite for the terra cotta panels. With all the terra cotta being prefabricated offsite in a controlled environment, it will relieve this demand for space and help to increase flow and productivity around the site as well as increase the time it takes to close in the arena for interior work to begin.

Analysis three explores LEAN construction and the how production planning can improve or increase quality, schedule, and value to the customer. Production planning has many functions such as utilization of resources, steady flow of production, provide better work environment, ensure optimum inventory, and reduction in production costs. In particular, the Last Planner System will be analyzed to help improve the overall production of the MEPF systems within the trusses.

The final analysis includes an electrical breadth and involves the research of Cisco's new StadiumVision; an innovative application for sporting venues that helps promote fan engagement and growth. Cisco has been an industry leader with technology and innovative designs geared to provide a higher level of customer service and create a better business model. The integration of a system like this to the already advanced and cutting edge arena would set Towson University apart from the rest and continue to aid in the growth of the university and basketball program.