

## **Andrew Rhodes**

The Pennsylvania State University  
Architectural Engineering – Mechanical

# **The Hilton Baltimore Convention Center Hotel**



## **7.0 Construction Management Breadth**

## **Purpose**

The purpose of the Construction Management Breadth is to shorten the construction time of the guest room towers of the HBCCH. Currently, the guest room towers are scheduled to take 51 weeks for completion once all structural elements are completed. The construction time will be completed through the use of a Short Interval Production Schedule (SIPS).

## **Justification**

Short Interval Production Schedules thrive on efficiency and organization of work rather than speed. As a result, they are perfectly suited for construction jobs with repetitive work. Repetition reduces the learning curve of construction work, so workers become more efficient and skilled as they repeat tasks over and over during the completion of a project. Floors 4-19 of the HBCCH, the guest room towers, are essentially the same floor plan stacked on top of each other, making them a perfect candidate for a SIPS. SIPS also eliminate trade stacking, improve predictability and job-tracking, and help to better job site communication.

## **Method of Analysis**

In order to complete the SIPS, the construction activities carried out on each floor of the guest room towers had to be determined. Once the activities were determined, each one had to be assigned a production rate. Production rates were assigned with the help of industry professionals. Next, related trades that logically work together were combined and overlapped, breaking the construction of each floor of the guest room tower into a list of finalized tasks. These tasks were then arranged into a resource-loaded, time-scaled bar graph, the SIPS. The finalized SIPS can be seen in Figure-17 below. Overall, the SIPS created for this report decreases the construction time of the guest room towers to 47 weeks. This means that four full weeks of construction time are saved.

