

Project Profile: City of Oshkosh stormwater retention basin (long and short versions)

## **Precast Panels Save Time, Lower Budget for City of Oshkosh Stormwater Project**

### **Long version (295 words)**

When the City of Oshkosh needed to correct flooding issues in its downtown area, conventional stormwater detention systems were deemed unacceptable because of space limitations. Instead, the City opted for an innovative underground solution that helped improve parking facilities as well.

“For a conventional aboveground basin we would have needed an entire city block,” explains city engineer James Rabe. “We looked at the area and realized that we had over two acres of parking lot (at City Hall) and we could do something underneath it.”

The plan offered the added bonus of parking facility improvement. The site consisted of two adjacent parking lots formerly under separate ownership. A complete renovation would make the lot much more functional by allowing drivers to maneuver through the entire parking area without having to exit and reenter.

The site’s high water table precluded the use of pre-manufactured stormwater collection devices. Using them would have required redirecting groundwater, which would likely cause settling in surrounding structures. Instead, the City opted for a cast-in-place detention tank.

However, the roof of the 22,500 square foot structure was not cast in place. Instead, the design team chose to top the stormwater tank with 249 precast concrete panels from County Materials. “We estimate that using the precast roof panels cut three to four weeks off the construction window,” says Rabe. The decision to use precast minimized the inconvenience of disrupted parking at City Hall, while also helping to lower project costs significantly.

The project commenced on March 4<sup>th</sup> and is expected to be completed ahead of schedule in the fall of 2013. It promises to be an elegant solution to a common urban problem. Says Rabe, “We’re utilizing land we already had without having to go out and acquire more real estate for it.”

### **Short version (191 words)**

When the City of Oshkosh needed to correct flooding issues in its downtown area, conventional stormwater detention systems were deemed unacceptable because of space limitations. Instead, the City opted for an innovative underground solution that helped improve parking facilities as well.

“We looked at the area and realized that we had over two acres of parking lot (at City Hall) and we could do something underneath it,” explains city engineer James Rabe. That something was a 22,500 square foot cast-in-place detention tank. As an added bonus, the project allowed renovation of a dysfunctional parking lot at little to no additional cost to taxpayers.

Rather than casting the roof of the structure in place, the design team chose to top the stormwater tank with 249 precast concrete panels from County Materials. “We estimate that using the precast roof panels cut three to four weeks off the construction window,” says Rabe. The decision to use precast minimized the inconvenience of disrupted parking at City Hall, while also helping to lower project costs significantly.

The project commenced on March 4<sup>th</sup> and is expected to be completed ahead of schedule in the fall of 2013.