

## City of Houston Amends Stormwater Drainage Requirements

In October, the City of Houston amended its stormwater drainage criteria as a result of a U.S. National Oceanic Atmospheric Administration (NOAA) analysis. The NOAA study found significantly higher Texas region rainfall frequency values, redefining the amount of rainfall it takes to qualify as a 100-year or 1,000-year event. Projects seeking construction permits from the City of Houston must now comply with stricter stormwater runoff requirements. If you are planning any new buildings or development, consult your design team and contractor about how these new requirements could affect your project before developing site plans.



*Pond retention wall at the University of Houston, Garage Number 6*

## Managing Expectations for Architectural Concrete



*A concrete mock-up constructed to finalize joint and reveal details at the Texas A&M University, 21st Century Classroom Building*

The key to successfully using architectural concrete on a project is to manage the team's expectations regarding the finished product. Here are four takeaways from some of our most recent architectural concrete experiences:

1. Create a mock-up similar in size to the actual architectural pour so everyone can see the details.
2. Evaluate the tie spacing, panel sizes, and jumping hardware. The finish is only as good as the surface being formed.
3. Ask formliner vendors to recommend optimal concrete mix design options and form release agents.
4. Use BIM to detail the dimensions of each pour, which helps teams visualize the final finish.

By implementing these recommendations, your project teams will be more satisfied with the result of architectural concrete because it aligns with their expectations.

## 3D Laser Scanning Benefits Renovations

The success of Building Information Modeling (BIM) for renovation projects hinges on accurately reflecting the projects' existing conditions in the design documents. 3D laser scanning can be used to incorporate exact as-built dimensions of existing conditions into a BIM model quickly and accurately. We can laser scan an area and incorporate it into a model within a week instead of the multiple weeks or months to painstakingly measure and draw each item by hand. A more accurate 3D model of existing conditions reduces conflicts with existing mission-critical items, like MEP equipment, building structure and architectural features. The cost of this service is easily offset by the time saved and dollars not spent on rework from conflicts with existing conditions.



*3D laser scan model displaying planned MEP for Houston Methodist Sugar Land Hospital, Sweetwater South Expansion and Renovation*