Notes From The Director

ASTM Committee C27.30, Water and Wastewater Containers, met in Indianapolis on June 26th. I was unable to attend in person due to flight delays but the committee was able to accommodate me and others via a call-in number.

A portion of the meeting was devoted to the need for greater participation from precast concrete producers. The committee is working on a number of important initiatives relative to precast products and it is critical for producers to be engaged in this effort. Membership is easy and inexpensive. You can apply on-line at [https://www.astm.org/](https://www.astm.org/)

Warmest Regards,

Ronald E. Thornton, P.E.
The SoNo Collection Garage Spandrels—Norwalk, CT

Submitted by David Wan, P.E. of Oldcastle Infrastructure

This new high end mall in Norwalk CT has a Filigree-CIP parking garage with precast spandrels. Oldcastle provided the precast spandrels and filler walls to wrap the exterior sides of the parking garage and interface structurally with the Filigree-CIP structure.

Precast spandrels were designed for a 6.0 kip crash load at any location and all connections were welded to galvanized embeds for durability. Access was very tight, but the Oldcastle field team was able to install in 12 weeks (Mar 2019 to Jun 2019).

Precast elements included (141) 8" thk x 6'-0"+ x 37'-0" max. wide precast spandrels with magnetic reveals and (53) 8" thk precast filler walls to create a picture frame look to the elevations. Maximum spandrel weight = 34,000 lbs.

Project Credits:
Owner: General Growth Properties
Engineer-of-Record: Thornton Tomasetti
Architect: RTKL Connecticut A & E, PC
Specialty Precast Engineer: Devita & Associates
Precast Manufacturer: Oldcastle Precast—Selkirk, NY
A Bridge Moment

By: Ralph Verrastro, P.E, of Bridging Solutions, LLC—Reprinted with permission

Everything You Always Wanted to Know About Concrete Box Culvert Bridges* (*But Were Afraid to Ask)

When is a box culvert a bridge?

Concrete box culvert bridges are one of the most common bridge types used by bridge engineers for water crossings, pedestrian tunnels, and wildlife crossings. The National Bridge Inspection Standards (NBIS) and most states define a bridge to be a structure that is longer than 20 feet measured along the centerline of the roadway. Therefore, a 3-cell box culvert structure consisting of 3 – 7 foot spans is a bridge.

What are the common types of concrete box culverts?

The majority of reinforced concrete box culverts are 4 sided rigid frames where the top and bottom slabs are cast monolithically with the side walls. Box culverts are constructed using cast-in-place concrete on site or cast in molds at the precast plant. The maximum span recommended by FDOT is 24 feet for 4 sided box culverts, but the author has designed several precast box culverts with spans up to 30 feet.

FDOT requires precast box culverts to be constructed monolithically in one piece or segmented in 2 pieces with a U shaped bottom section and a separate simple span top slab. In other states and on private sector projects in Florida, precast 4 sided boxes are also supplied as 2 identical U shaped sections with a keyed joint in the center of the walls. ASTM C1786 – 18 provides standard specifications for segmental precast box culvert elements.

Bridging Solutions of Naples, FL is a Professional Member of PCANY. All of our members and contact information may be found in the PCANY Buyer’s Guide located on our website at www.pcany.org.
Statewide Conference on Local Bridges...

NPCA 54th Annual Convention
The NPCA Convention will be held October 3-5, 2019 at the Washington State Convention Center in Seattle. Registration is currently open at [www.precast.org/convention](http://www.precast.org/convention)