

Princeton University authorized a \$4M construction project to support a new office and research complex. The initial phase was to install box culvert across the floodplain for the future Nursery Road and other drainage-related activities.

Atlantic Concrete Products, Tullytown, PA was awarded the contract to build 18 sections of 8'tall x 16'wide x12" thick precast concrete box culverts along with 12 custom built sections of cantilever wing wall sections. The largest precast concrete cantilevered wing section weighed 37,000 pounds and each of the culvert sections weighed 49,000 pounds.

This culvert system was designed to provide a bridge over the existing Harry's Brook and throttle the floodplain through the structure. Outflow from five on-site stormwater basins were eventually conveyed through the culvert too.

Atlantic Concrete Products fabricated all the precast sections and worked with Pillari Brothers Construction Company on the schedule. It was agreed that the installation would take only 3 days for all the precast components. The crane started July 29, 2014 and completed the installation within 20 hours. This included post-tensioning the entire length of the culvert as well as the installation of the cantilevered wing walls.

After all the sections were installed the culvert structure was backfilled and the contractor used rip-rap gabion baskets inside to filter and control water flow.

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# PRECAST CASE STUDY

PROJECT:  
NURSERY ROAD IMPROVEMENTS

LOCATION:  
SOUTH BRUNSWICK TWP, NJ.

PRECAST MANUFACTURER  
ATLANTIC CONCRETE PRODUCTS  
[www.atlanticconcrete.com](http://www.atlanticconcrete.com)

