

An In-Depth Look at an APA Award Winning Project

THE TEMPIETTO AT LARZ ANDERSON PARK

NORTHERN DESIGN PRECAST

APA 2023 CRAFTSMANSHIP AWARD WINNER

APA 2023 DESIGN AND MANUFACTURING AWARD WINNER

Klopfert Martin Design Group (Architect)

SumCo Eco Contracting (General Contractor)

Overview

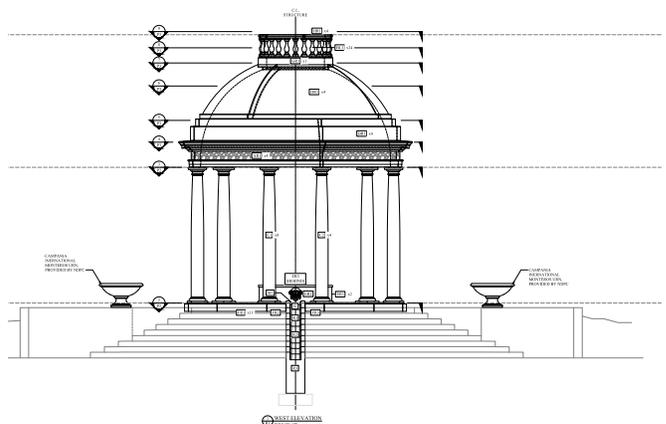
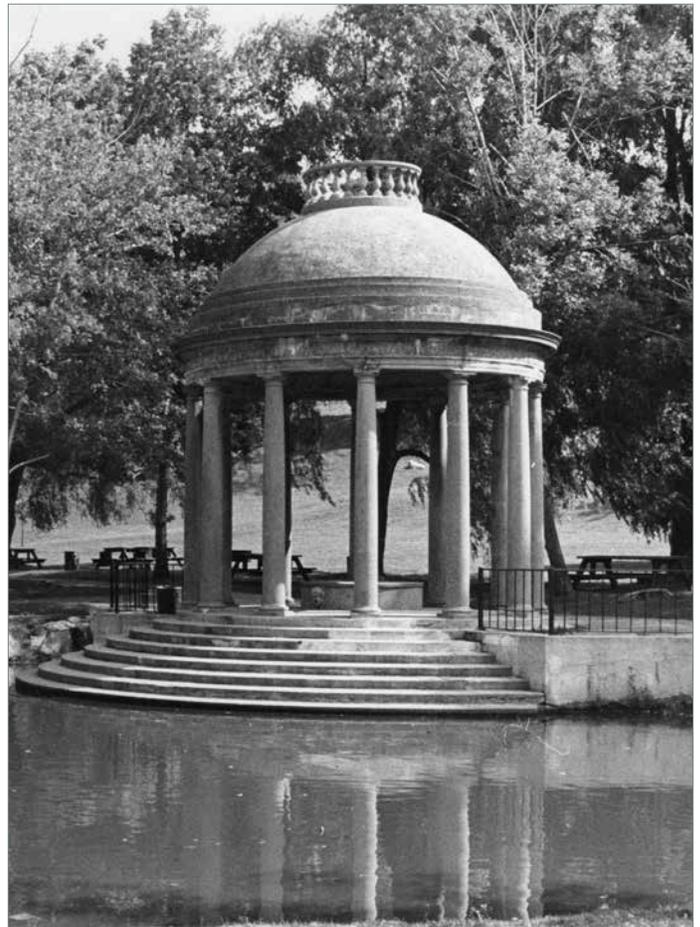
This project involved the complete restoration of a historic, 100+ year old tempietto, which offers solace at the far end of a pond in this beautiful park. The “Temple of Love” was originally built in 1910. The town’s primary objective in this project was to retain the historic character and detail of the structure, replacing it in kind and allowing the park to stay true to itself for the next century and beyond.

Design

With the exception of the granite veneer, terrazzo paving and the cast in place wing walls, stairs and outside ring, the remainder of the project is precast: the fountain basin with integral Saytr’s mask and runnel stones that channel down to the water; the ring of stylobate base stones and the baluster assembly at the peak; the two flower urns and the egg shelled dome panels; the twelve (12 foot tall) columns and the brow band above with granite veneer inlay; it is all precast.

The centerpiece of the assembly is the water basin, which pulls water from the pond and flushes it back out through the Saytr’s mask mouth and down the precast runnel stones. The Saytr’s mask was recreated from the existing stone. Retained during demolition, the Northern Design team repaired the face to its original shape and detail, then made a rubber mold to incorporate it into the face of the basin / bathtub wall mold.

Northern Design was tasked with replicating that feature, so the mask was poured with a white color, which can be seen in the pictures. They poured that part of the piece first, wet setting pins and pouring the rest of the piece (with the primary mix) a few hours later. The design team



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also created confidence in the build by incorporating notches in the middle ring and dome roof stones so they could “Lego-connect” and work upwards towards a self-supporting system. Lastly, the granite inlay was a huge part of the design, not only to replicate the size and shape of the granite itself, but the overall texture of the veneer (more jagged and uneven than modern veneer) and the color and depth of the grout (which has a slightly different tone than the precast).

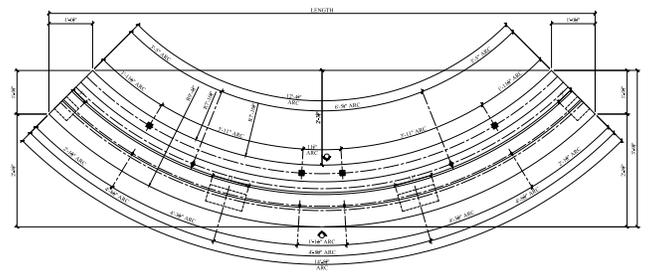
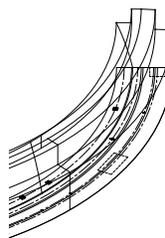
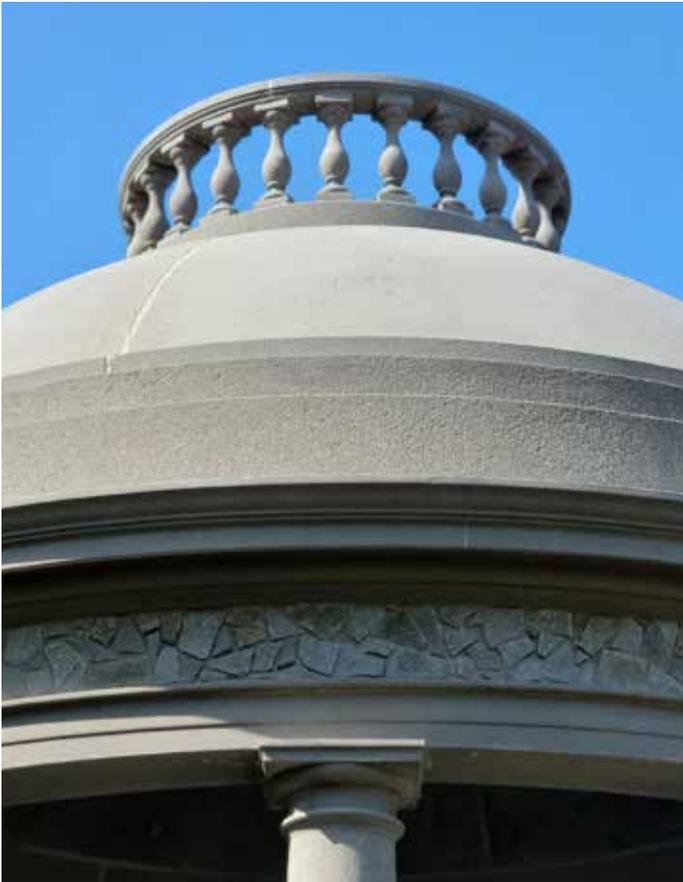
Compatibility With Natural Surroundings

Many who visit the park make it a habit to circle the pond and this unique structure is the highlight of that walk. The original was very impressive, and the Northern Design team often contemplated the difficulty of building a structure of that nature over 112 years earlier. The tempietto offers a sense of peace, quiet and solitude in a township that rests just outside a major city. A true escape from the chaos and busyness of life. On the other hand, the concrete nature of this structure offers a sense of safety and fortitude. The earthy color and tone of the

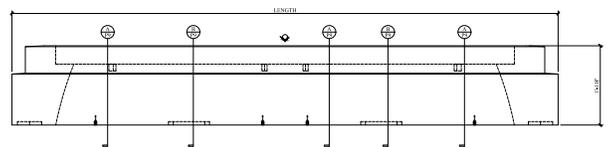
assembly ties it into the nature that surrounds it, and it is no wonder why people are drawn to sit and stay a while. The tempietto is truly a relic that deserves to be honored and it is fitting that this architectural centerpiece is forever preserved.

Manufacturing Excellence

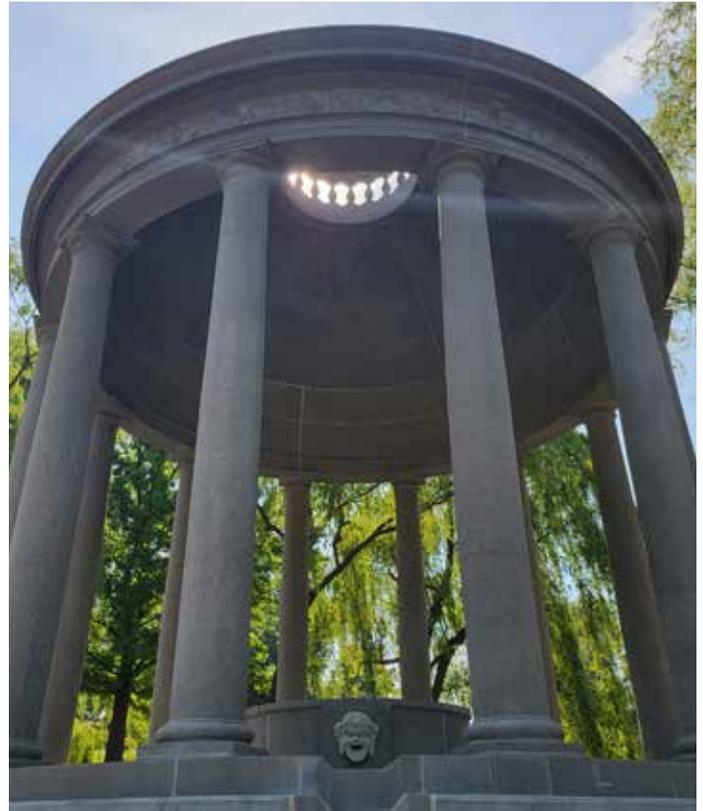
Matching the existing concrete was a challenge. The old mix contained a tiny white aggregate and the different parts of the structure had weathered differently and were obviously failing. The Northern Design team worked closely with the design team and historical consultant to find a happy medium, where the new Tempietto would dawn the same tone, look and feel as the original, all while providing a mix design that would be consistent and durable. Using a slightly larger stone was critical for the latter, so a crushed granite that yielded great strength and was a very close color match was used. Northern Design added black sand to the mix to give the stone an aged appeal. The mix also contained a combination of dry pigments to create an earth tone that simulated the existing components.



3B11 TOP VIEW PLAN

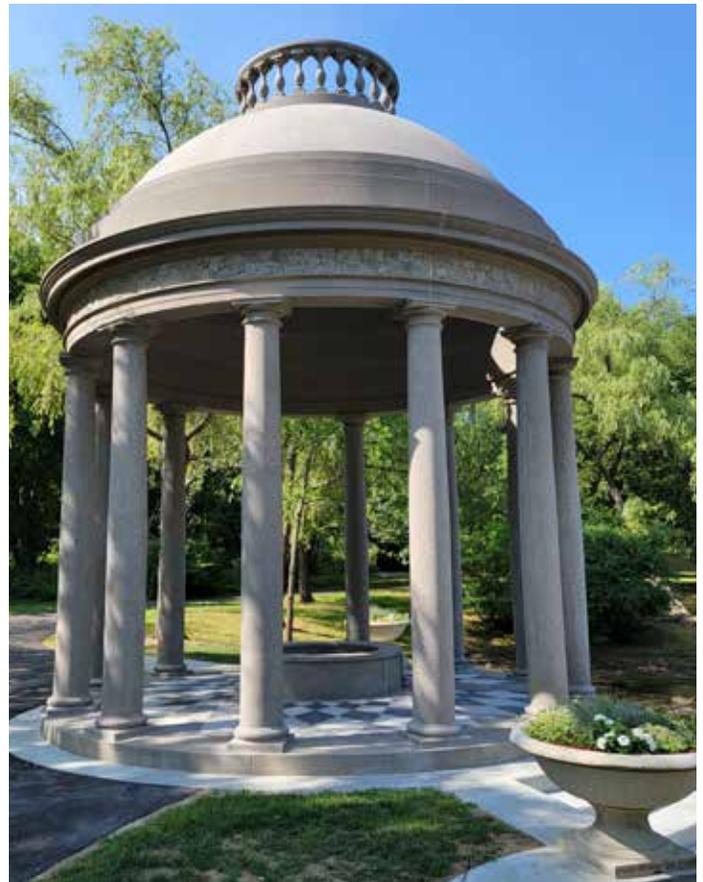


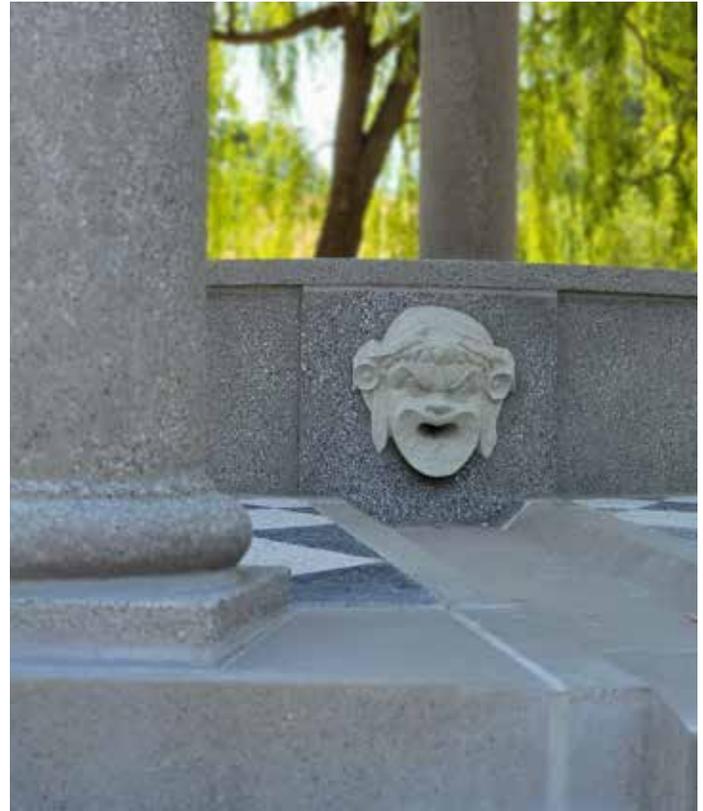
3B11 FRONT VIEW



Additional consistency was achieved with both careful pouring techniques and extensive finishing. With pieces of this nature the ND team had little control on pour direction, which is a key factor when trying to control air voids, aggregate distribution and overall quality of finish, face to face. The runnels were almost five feet tall, so they were poured on their sides.

The columns were poured vertically as well, at over twelve feet tall, they required meticulous patching and stoning to control the quality, aggregate exposure and overall consistency. The dome panels are exposed both inside and out, so they were poured like a skateboard ramp -- the mold sitting like an amphitheater with a separate cover mold to hold the 6" thickness. The ND team had to remove the cover about four hours after the pour and steel trowel that inside face in order to achieve a smooth, consistent finish. All the different precast elements on this project posed their own challenges when it came to finishing, not to mention that certain portions of the design required a light finish, to accent the more dominant medium aggregate exposure.





Challenges

The design and production of the 81 pieces in this project was a tumultuous journey for the ND team. They were able to navigate the challenges with detailed survey work, precise modeling, creative mold preparation and strategic production and finishing. The scanning, modeling, drafting, engineering, detailing (and lots of doubling-checking) took roughly 6 months. Building the sixteen molds and overall production ran another 6 months.

Modeling, mold making and finishing were all equally challenging and important for this project. The model had to be perfect, and the molds had to reflect the model. The finishing was difficult because of varying pour directions and all the precast coming together as one solid unit. Jesse Thompson, Northern Design's President said, "There was little room for error when it came to finish, so the experience and hard work that our employees put into that aspect of the project was a big reason why it was such a success."

Awards

The Tempietto project received two APA Awards in both Craftsmanship, and Design and Manufacturing. Northern Design's Thompson said, "Due to the unique and difficult nature of this decorative historical restoration, there are few precasters who would be willing to tackle and that could successfully execute a project like this. I am proud of the effort and skill that the Northern Design team applied to this job and them doing so in an award-winning fashion."

BY THE NUMBERS:

Pieces: 81 Pieces
 Production Duration: 12 Months Total
 Molds: 16
 Total Cubic Feet of Material: 1500