



SOLDIERS' & SAILORS' MONUMENT

SUBMISSION CATEGORY 25-Year Award

PROJECT TYPE Community

PROJECT ADDRESS 431 North Meridian Street, Indianapolis, IN 46204

DATE OF SUBSTANTIAL COMPLETION August 7, 2008

The Indiana Soldiers' & Sailors' Monument is a landmark of unmatched historic and civic importance—an enduring tribute to Hoosier veterans and one of the most recognizable structures in the state.

The Soldiers' & Sailors' Monument is the defining symbol of Indianapolis. It is a towering neoclassical tribute to Hoosiers who served in the American Revolution, War of 1812, Mexican-American War, Civil War, and Spanish-American War. Designed by German architect Bruno Schmitz and completed in 1902, the 284-foot-tall monument stands just 15 feet shorter than the Statue of Liberty. It anchors Alexander Ralston's original city plan, acting as the civic and geographic heart of the capital. Composed of Indiana limestone from the Romona quarries and adorned with sculpture by Rudolf Schwarz, including the Victory statue at its peak, the monument has come to represent Indiana's identity and its reverence for service. The Victory statue faces south, intentionally oriented toward the Civil War battlefields as a gesture of reconciliation and welcome to the returning Southern states.

Its enduring prominence—both as a public symbol and a preserved structure—demonstrates how thoughtful restoration can elevate cultural identity and civic memory.

DESIGN CONSIDERATIONS

The design team approached this restoration not as re-designers, but as stewards of a landmark woven into the daily life and memory of Indianapolis. The work had to protect the monument's powerful symbolism while addressing deep material and mechanical issues. Historic accuracy, subtlety, and endurance were paramount. All interventions were coordinated to preserve public access and the exterior's original appearance. Even modern infrastructure had

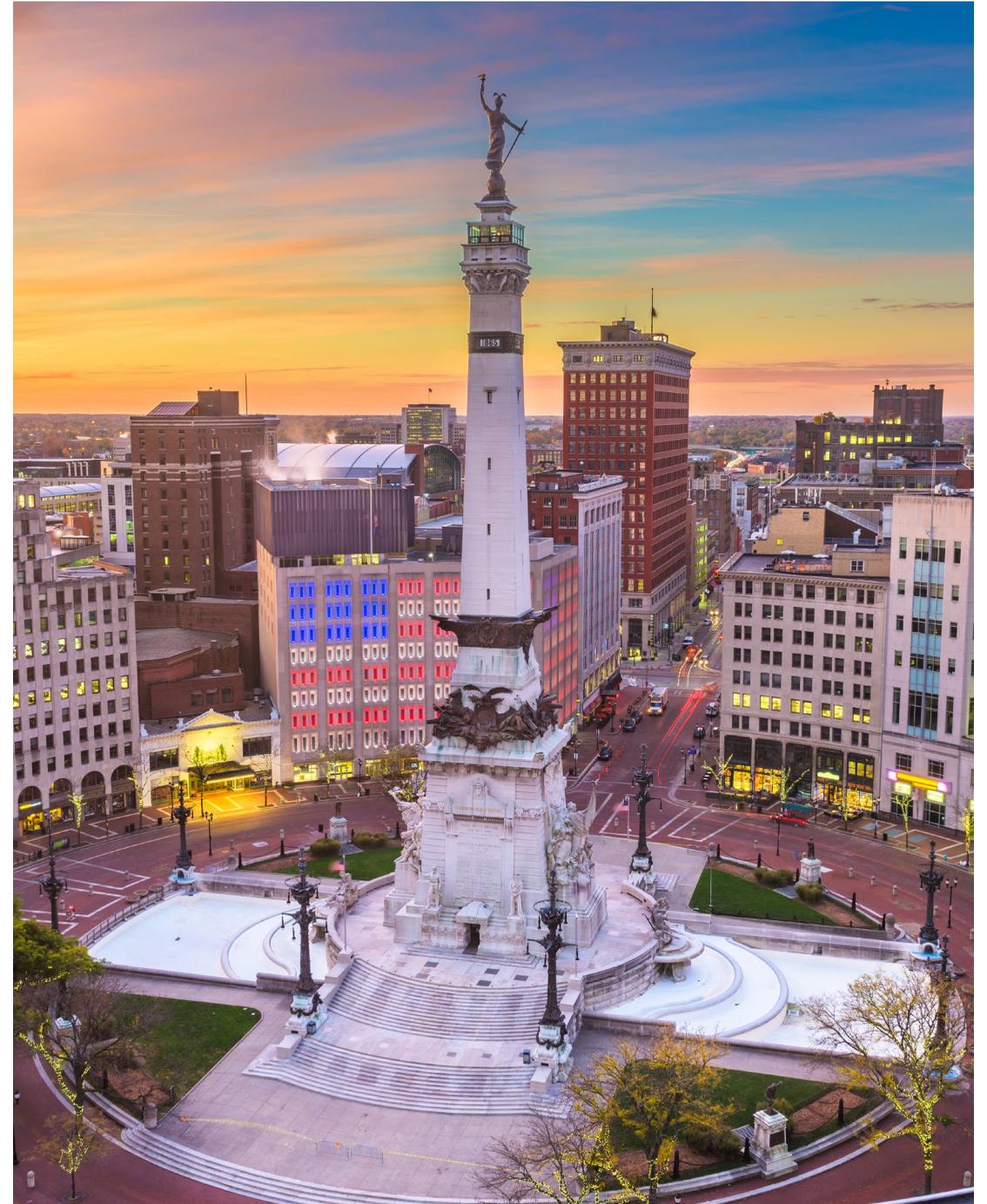
to be integrated discreetly within the existing structure.

The project's significance was elevated by its timing, which overlapped with the restoration of the Statue of Liberty. Members of the design team traveled to New York to observe preservation techniques being tested on Lady Liberty, gaining insight into national best practices. These experiences informed several technical decisions and reinforced the team's commitment to research-driven restoration. The work on the Soldiers' & Sailors' Monument drew added national attention—highlighting it not only as Indiana's civic icon, but as a significant example of preservation leadership on a national stage.

LIMITATIONS

The project faced a range of complex limitations involving both structure and material conditions:

- Freeze-thaw cycles had corroded embedded steel and fractured the original brick arches beneath the terrace.
- Water infiltration caused settlement and shifting of the limestone steps.
- Bronze ornamentation varied in thickness and finish, requiring carefully calibrated conservation techniques.
- Interior limestone walls and steel stairs had been coated in many layers of lead-based paint. On the porous limestone, the paint was deeply absorbed—making removal especially





difficult—while on the non-porous steel, it accumulated in thick surface layers

- The fountains were inoperable and often clogged, lacking filtration and drainage.
- Space for mechanical systems was limited and required discreet integration to preserve the monument's appearance.

REQUIREMENTS

Restoration goals included stabilizing the structure, reactivating water features, removing lead-based paint, conserving bronze ornamentation, installing durable MEP systems, and preparing space for a new Civil War museum. All work had to meet preservation standards, reinforce civic symbolism, and maintain public accessibility.

SOLUTIONS

Structural Reinforcement

The project unfolded in phases from 1987 to 1993, with enhancements continuing into the 2000s. Failing brick arches beneath the terrace were replaced with concrete vaults, and a waterproof membrane was installed to halt infiltration. The steps above were removed and reinstalled over the newly installed structure beneath. Limestone surfaces were gently cleaned with chemicals to remove staining and pollution buildup, and tuckpointing matched the original mortar joints in tone and texture.

Metal Conservation

With guidance from preservation experts—including specialists at Washington University in St. Louis and the Museum of Fine Arts in Boston—the team tested various cleaning methods on bronze components. Glass beads were used for high, delicate elements such as the Victory statue and date astragal; walnut shells were used on lower areas. The team also recast missing or degraded sculptural elements, including ears of corn, shafts of wheat, rifle barrels, and sabers. Despite initial pushback, the approach

was approved and delivered long-term protection without damaging original material.

Paint Removal

Limestone walls and stairs had been coated in lead-based paint. After observing liquid nitrogen methods used on the Statue of Liberty, the team determined it was unsuitable for limestone. Instead, they applied a chemical peel: gel remover and absorbent paper lifted embedded paint safely and without damaging the stone.

Fountain Rehabilitation

Basins were rebuilt and a new drainage and filtration system was installed—an approach later adopted by the Indianapolis Zoo for its elephant habitats. The fountains, including the bronze bison heads, bears, eagles, and snakes were restored to working order for the first time in decades.

Mechanical Integration

A previously unused 8-foot-wide by 40-foot-tall void near the elevator lobby was adapted to house HVAC equipment and fountain pumps. This inventive solution, led by the project's engineering team, showcased remarkable spatial ingenuity. By recognizing and creatively utilizing this hidden structural void, the team was able to implement modern mechanical systems without disrupting the historic integrity of the space. It required not only technical coordination, but a forward-thinking mindset that prioritized minimal intervention and maximum impact.

Lighting and Museum Buildout

The project also restored several missing exterior elements, including historically accurate lighting and ornamental poles. In the lower level, five feet of soil was excavated to create conditioned space for the Colonel Eli Lilly Civil War Museum. While a separate team led exhibition design, the restoration team prepared the shell and supporting systems.

SUSTAINABLE AND ENVIRONMENTAL DESIGN

The restoration embodies sustainable preservation. By repairing rather than replacing, the team avoided the carbon footprint of new construction and extended the life of a major civic asset. All replacement stone was sourced locally to match the original limestone. Fountain upgrades minimized water waste and scaling, reducing ongoing maintenance. Mechanical and electrical systems were selected for energy efficiency and long-term serviceability. Conservation-focused methods reduced chemical use and material waste. Above all, the monument's continued use with minimal ongoing intervention demonstrates that sustainability can be achieved through thoughtful, enduring design.

AIA FRAMEWORK TIE-BACKS

This restoration aligns with several principles of the AIA Framework for Design Excellence:

- **Design for Integration** – Systems were invisibly woven into the structure to support function without altering form.
- **Design for Change** – Creative use of existing voids allowed the monument to meet evolving needs.
- **Design for Resources** – Local materials and durable strategies reduced waste and extended lifespan.
- **Design for Discovery** – Revitalized artwork and museum space enhanced public engagement with history.

TECHNICAL DATA

Restoration decisions were driven by longevity, cultural significance, and environmental

performance. The following figures illustrate the monument's scale, material palette, and key interventions.

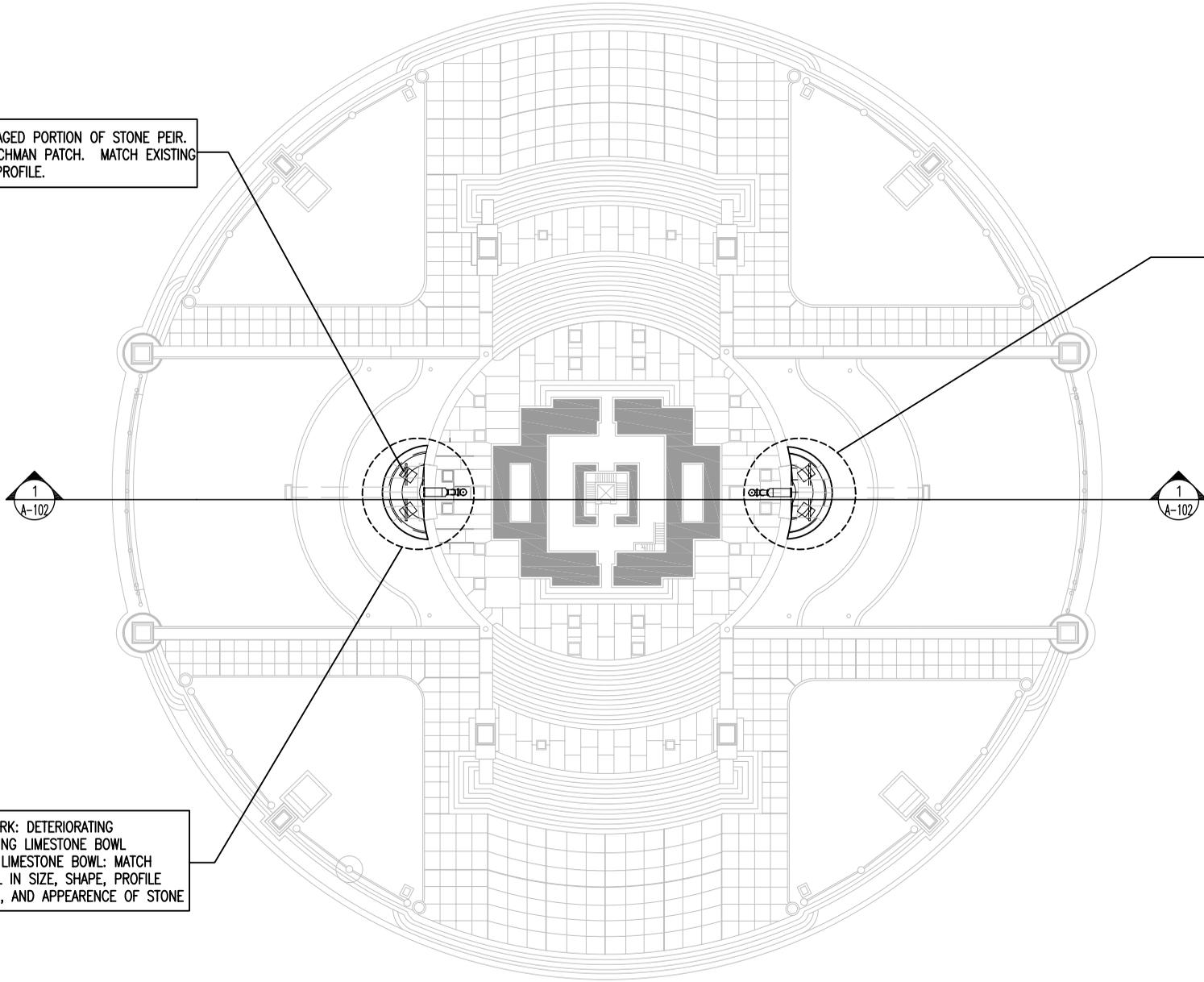
- **Original Completion:** 1902
- **Height:** 284 ft, 6 in
- **Primary Material:** Indiana limestone and bronze material
- **Restoration Phases:** 1987–1993 (major work), ongoing through 2000s
- **Features:** Sculptures by Rudolf Schwarz, 38-ft Victory statue, bronze detailing
- **Visitors:** 1.5+ million annually
- **Civil War Museum:** 5-ft excavation under base, new conditioned space
- **Fountain:** Rebuilt basins, concealed filtration, chlorination, drainage
- **Metals:** Glass bead and walnut shell cleaning; sculptural components recast
- **Paint:** Chemical peel method for lead-based coatings on limestone
- **HVAC:** Installed in 8' x 40' concealed vertical void
- **Lighting:** Historically accurate fixtures and ornamental poles reconstructed
- **Traditions:** Permanent lighting anchors for Circle of Lights



REMOVE DAMAGED PORTION OF STONE PEIR.
PROVIDE DUTCHMAN PATCH. MATCH EXISTING
SHAPE AND PROFILE.

SCOPE OF WORK: DETERIORATING
REMOVE EXISTING LIMESTONE BOWL
PROVIDE NEW LIMESTONE BOWL: MATCH
EXISTING BOWL IN SIZE, SHAPE, PROFILE
CONSTRUCTION, AND APPEARANCE OF STONE

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1

SITE PLAN
1/32" = 1'-0"



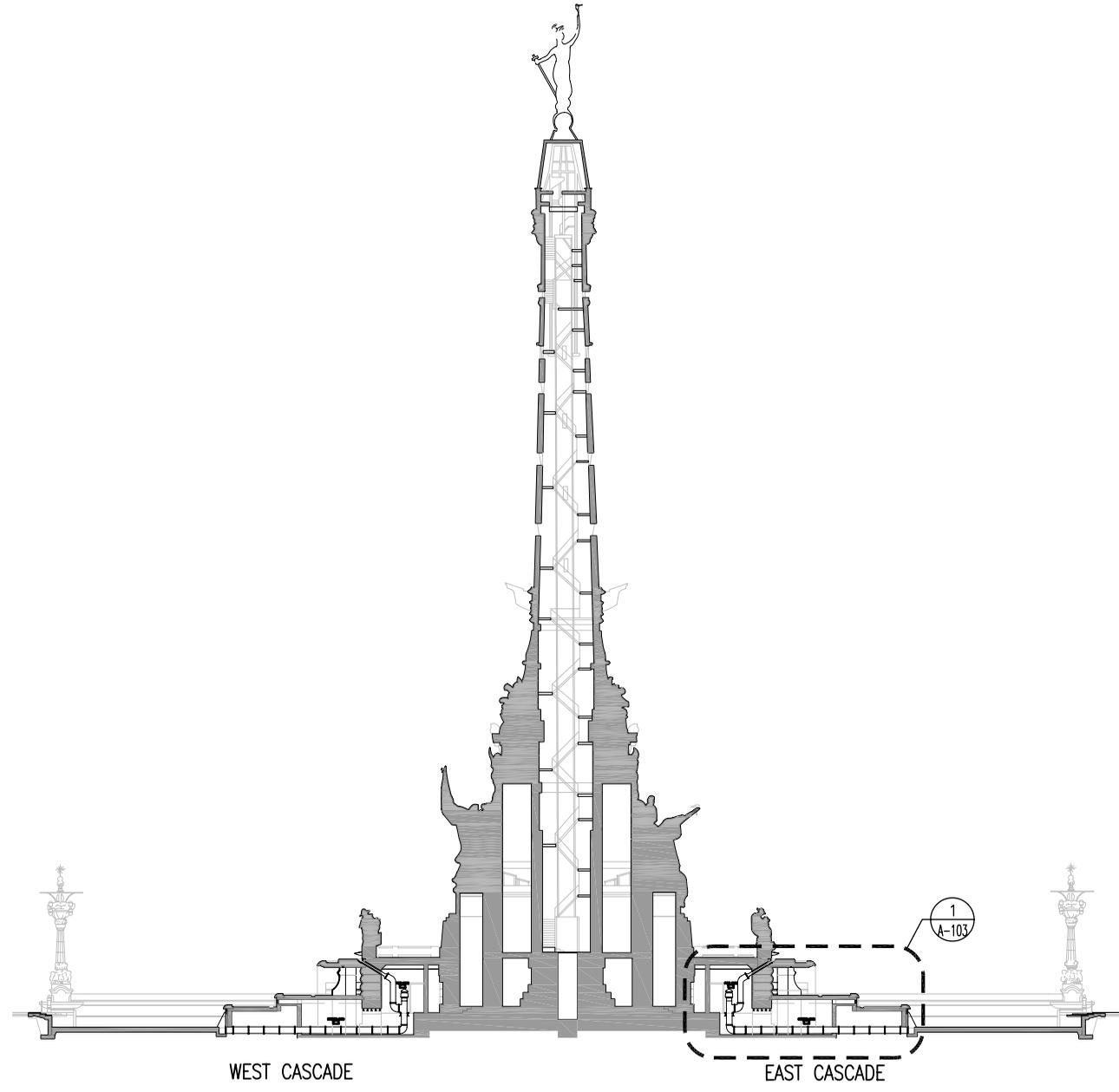
210'-0"
Observation Level

197'-9 5/8"
Intermediate Landing

±0"
Entry Level

-1'-5"
Terrace Level

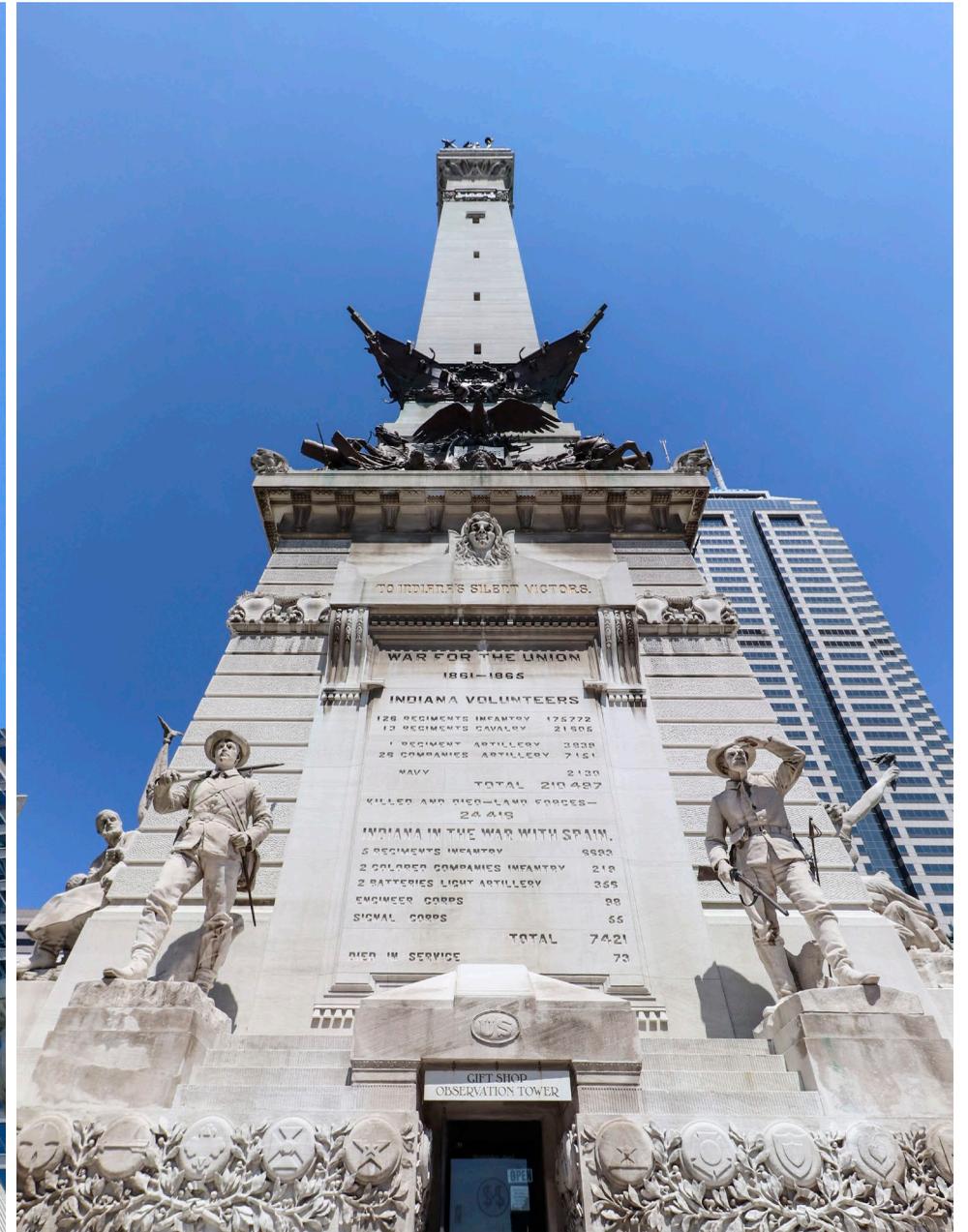
-16'-11"
Lower Level



1 SECTION LOOKING NORTH
1/32" = 1'-0"



Soldiers' & Sailors' Monument, Indianapolis—restored limestone, bronze detailing, original sculptural elements, including bronze bison heads and bears.



Close-up views of restored sculptural reliefs and commemorative engravings on the Soldiers' & Sailors' Monument.