

To: Prestressed/Precast Concrete Institute (PCI)

From: Beamline Structural

Date: May 5th, 2026

Subject: Transmittal of Final Project Submittal - PCI Big Beam Competition 2025–2026

Dear PCI,

Beamline Structural is pleased to transmit the Final Report for the 2025–2026 PCI Big Beam Competition. This report documents the complete design, fabrication, testing, and evaluation process of our precast/prestressed concrete beam completed in collaboration with Tpac and Northern Arizona University.

Materials Transmitted:

- *Final Report – PCI Big Beam Competition 2025–2026*
 - Judging Form & Midspan Deflection Graph
 - Certification of Calculations
 - Shop Drawings
 - Concrete Mix Design
 - Structural Design and Analysis
 - Fabrication & Testing Results
 - Lessons Learned
 - Final Design Recommendation
 - Project Impacts
 - Work Hours & Cost Summary
 - Conclusion and References
 - Appendices: MathCAD Calculations, Mix Designs, and Deflection Software Documentation

The project began on October 21, 2025, and concluded on May 8, 2026, totaling 199 days. Throughout the project, Beamline Structural worked with Tpac to design and fabricate the beam. The final project cost totaled \$83,061, which included personnel, travel, laboratory supplies, software usage, and subcontracted fabrication and delivery. This letter formally documents the transmittal of the completed Final Report. If any additional information or clarification is required, please contact the team's point of contact, Lander Porter, at lap433@nau.edu

Sincerely,

The Beamline Structural Team: Lander Porter, Kaylynn Calvin, Jonah Simminger, David Lucas Macaraeg