



# CAPABILITY STATEMENT – STRUCTURES

## KEY STAFF

**Vice President – Civil Engineering Services**  
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**Senior Project Manager**  
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## CORE COMPETENCIES & SERVICES

THE MARKOSKY ENGINEERING GROUP, INC. provides bridge rehabilitation, bridge replacements, culvert designs, sign structures, and retaining wall designs on large-scale highway projects to local municipal stream crossings. We understand that each project or client may require a different approach and we are agile and experienced enough to provide the appropriate level of detail required for each bridge.

Markosky’s engineering professionals have the expertise to provide innovative, cost-effective, sustainable engineering solutions specifically tailored to meet the needs of our clients. Early identification of the optimum structure arrangement and type make the design process more efficient. We have completed projects using conventional design methods, ABC techniques, design-bid-build, and design-build methods.

### Our core Structures services include the following:

- ❖ Conventional & Accelerated Designs
- ❖ Composite Steel Rolled Beam & Plate Girder Bridges
- ❖ Prestressed Concrete Bridges
- ❖ Integral Abutment Designs
- ❖ Shallow & Deep Foundation Systems
- ❖ Reinforced Concrete Retaining Walls
- ❖ Hydraulic Analysis of Structures
- ❖ MSE Retaining Walls & Abutments
- ❖ Soldier Pile & Lagging Walls
- ❖ Precast & Cast-in-Place Concrete Culverts
- ❖ Pedestrian & Timber Bridges
- ❖ Load Rating & Structural Analysis Including APRAS Loading & 3D Modeling

Markosky’s Structural designs range from simple to complex structures requiring 2D grid analysis and 3D finite element analysis.



WVUCP DBE (WBE)  
C04725-00

NAICS Codes:  
541620, 541330, 541990, 237110, 541720

UEI:  
EEMAGUCMLYG1

CAGE:  
50GY5

# PAST PERFORMANCE

## **Ralston Branch Bridge No. 2 S355-85-4.09**

### **Single Span Bridge Replacement**

Client: WV Division of Highways

#### **Services**

- ❖ Single span bridge replacement, steel girder bridge on semi-integral abutments.
- ❖ Roadway approaches
- ❖ Structure and retaining wall design
- ❖ Traffic control and utility coordination
- ❖ Environmental permitting

## **East Busway over North Braddock Avenue**

### **Superstructure Replacement & Substructure Rehabilitation using ABC**

Client: Port Authority of Allegheny County

#### **Services**

- ❖ Developed Accelerated Bridge Construction Cost Study
- ❖ Reviewed Constructability Issues & Developed Preliminary Design
- ❖ Structure Design for ABC Construction
- ❖ Technical Provisions / Reviewed RFI's

## **New Kensington Bridge Preservation**

### **14 Span Bridge over Allegheny River & Norfolk Southern**

Client: PennDOT District 11-0

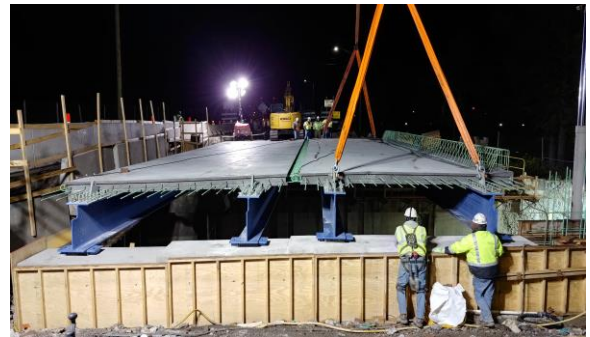
#### **Services**

- ❖ Inspection Services
- ❖ Traffic Control, Utility Coordination
- ❖ Public & Railroad Coordination
- ❖ Final Plans & Specifications
- ❖ Load Rating Updates / 3D Analysis
- ❖ Final Bid-Package Submission



**Ralston Branch Bridge**

Wyoming County, WV



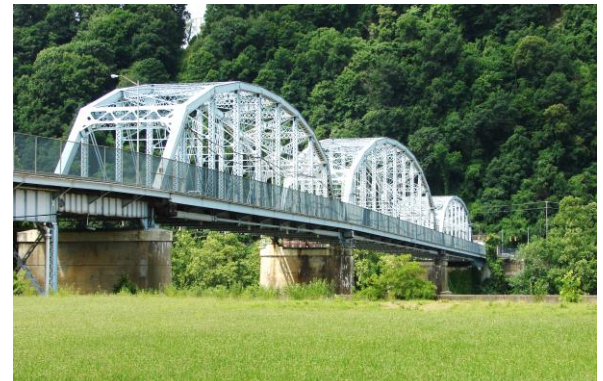
**East Busway over North Braddock**

Allegheny County, PA



**New Kensington Bridge**

Allegheny County, PA



**New Kensington Bridge**

Allegheny County, PA