I-64 Southside Widening and High Rise Bridge Phase I

Mike Prezioso, PE, CCM
VDOT Project Director

Glenn Olechnowich, PE
GPC, Inc. Joint Venture, Project Manager

Hampton Roads District Dialogue

November 27, 2018
Agenda

Project Overview
• Key Features
• Contract/Budget/Schedule
• Flash Track

Construction
• Schedule
• Strategies
• Current Progress
• Early Accomplishments
Key Features

From the original construction plans – Built in 1966
Key Features

Scope: I-64/High Rise Bridge Phase I
Key Features

Project Goals

• Increase capacity
• Improve safety
• Enhanced emergency evacuation route
Key Features

Express Lanes Infrastructure for electronic toll collection (ETC)
- One toll gantry for each direction of travel
- Toll equipment, infrastructure and integration by Others

Traffic Management System (TMS)
- Dynamic Message Signs (DMS)
- Microwave Vehicle Detection Sensors (MVDS)
- LCS for the Hard Shoulder Running lanes
Contract/Budget/Schedule

Design-Build contract (GPC)

Design
Permits
Utilities
Right-of-Way

Construction
Contract/Budget/Schedule

Original Project Budget: $597,576,863
  • PE, ROW, Utilities, Construction

GPC, Inc. (Low Bid): $409.6 million

Revised Project Budget: $524,613,765
  • PE $12,200,000
  • RW $18,726,000
  • CN $493,687,765

$524,613,765 (20% complete)
Flash Tracking – for accelerated project delivery

Flash Tracking – “Faster fast Track”

Construction Industry Institute (CII)

• Funding to Georgia Tech and Virginia Tech
  • Develop best practices to implement Flash Tracking
  • Time-driven projects require:

• Heightened degree of concurrency between engineering, procurement, and construction
  • Management practices to achieve accelerated construction projects
  • Minimizing construction durations
  • Reduced traffic disruptions
Flash Tracking – for accelerated project delivery

VDOT Implementation

- Study conducted for VDOT in 2016
- VDOT began implementing Flash Tracking best practices in 2017

I-64/High Rise Bridge

- Not contractual, but being applied (45 of 66 items)
- Contract, Delivery, Organization, Cultural, Planning, and Execution
  - Performance based specifications
  - Involving contractors/vendors in design
  - Integrated project team with engaged owner
  - Open communications/transparency
  - Expedite fabrication with design alternatives
  - Expedited submittal reviews by VDOT review team
Schedule

ESTIMATED CONSTRUCTION SCHEDULING

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<th>PHASE</th>
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<th>2019</th>
<th>2020</th>
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<td>Q4</td>
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<td>G&amp;B Bridge Replacement</td>
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*Actual start and end dates will fall within the above timelines
I-64 Southside Widening/High Rise Bridge Phase I
THE PROJECT TEAM

- Granite Construction
- Parsons Construction Company
- Corman Kokosing Construction Company
- Designer – Parsons Transportation Group
MAJOR SUBCONTRACTORS

- Paving - Alan Meyers
- Earthwork/Drainage - Branch Civil
- F&I Rebar/SIP – DT Reade
- F & I MSE Walls – Hardscapes
- Jack & Bore – Webb
- Electrical/ITS – Portico
- Overhead Signage/ITS – Bryant - Ritter
- Quality Assurance - Volkert
- Quality Control – DMY
- MOT/Pavement Markings – Spivey Pavement Markings
- Clear & Grub – West
- Temp Barrier – Curtin
- Public Communications – Seventh Point
MAJOR SUPPLIERS

• Precast Concrete Piles, Beams & Tubs – Coastal Precast
• Noise Walls - TBD
• Structural Steel – W&W AFCO Steels (formerly Hirshcfield)
• Concrete – CRMP
• Aggregates – Luck Stone & Vulcan
• Formwork – DOKA
PROJECT SCOPE

- Widen 8.5 miles of I-64
- 4 lanes to 6 lanes
- Add one HOT Lane, EB/WB
- Shoulder lanes (4th lane), EB/WB
- New High-Rise Bridge
- Replace GBB Bridge
- 6 bridge widenings
Typical Section - High Rise Bridge
I-64 Southside Widening & High Rise Bridge, Phase I

Existing High Rise Bridge
(I-64 EB Lanes)

Proposed High Rise Bridge
(I-64 WB Lanes)
THE NEW HIGH RISE BRIDGE

Quantities

- 216 Ea – 36” Sq Concrete Pile
- 66 Ea - 66” Concrete Cylinder Pile
- 32 Ea - 24” Conc Pile (abutments)
- Concrete – 70k CY
- Rebar – 13M LB
- Concrete Beams (140’-196’ long) – 272 EA
- Structural Steel (3 spans, over and adjacent to navig. channel)
- New Composite Fender System
- Temporary Trestle on East and West Shore

Driving 36” Concrete Pile on Land Piers
THE NEW HIGH RISE BRIDGE
GREAT BRIDGE BLVD BRIDGE

SOE Installed at the North Abutment of GB3
Widening of Six Bridges:

- I-64 EB & I-64 WB over Military Highway (Rte. 13 & Rte. 460)
- I-64 EB & I-64 WB over Yadkin Road & Norfolk Southern Railroad
- I-64 EB & I-64 WB over Shell Road (Rte. 648)
ROADWAY WORK

Quantities

- Asphalt - 266,500 Tons
- CTA - 68,000 Tons
- Flexible Pavement Planing - 301,000 SY
- Excavation - 230,000 CY
- Embankment – 129,000 CY
- Select Backfill – 39,000 CY
- Drainage Pipe – 48,000 LF
- Drainage Structures – 475 EA
ROADWAY WORK (CONT.)

Quantities

• Noise Wall - 735,000 SF
• Major Sign Structures - 42 EA
• Sign Panels – 14,000 SF
• Guard Rail – 92,000 LF
• Barrier - 49,000 LF
Questions?