

Downtown Tunnel/Midtown Tunnel/MLK Extension PPTA Project

VDOT's Evaluation of the Elizabeth River Crossings Conceptual Proposal

April 21, 2009

VDOT Executive Leadership

Overview of VDOT's Evaluation

- **Evaluation Objective**
- **Key Disciplines**
- **Principle Findings and Conclusions**
- **Summary of Findings**

Objective of VDOT's Evaluation

Qualifications

- **Qualitative and Focused on:**
 - Capabilities and demonstrated experience
 - Financial standing
 - Key personnel
 - Approach
 - Project understanding

Advance to next phase?

Recommendations

- **Scope**
- **Tolling**
- **Other objectives**

What other items should be considered for a successful project ?

Key Disciplines

- **Engineering**
- **Planning and Environment**
- **Operations and Maintenance**
- **Finance**

Engineering Overview – Unique Features

- **Immersed Tube Tunnel Design and Construction**
- **Urban Design with Context Sensitive Solutions**
- **Interface Between Multiple Disciplines**

Priority 1 - Engineering Evaluation

Criteria:

- **Project Leaders in Oversight and Administration**
- **Tunnel Construction, Maintenance and Operations**

Findings:

- **Over 100 years combined experience**
- **Industry wide leadership and expertise in tunnel design and construction**
- **Construction Joint Venture consists of relevant and experienced team members**

Conclusion:

Comprehensive engineering and construction leadership experience

Priority 2 – Engineering Evaluation

Criteria:

- Work History
- Project Qualifications

Findings:

- Multiple projects of similar size and complexity completed on time, on budget, without liquidated damages/defaults
- Design and construction firms involved in original Midtown Tunnel project
- Contractor safety ratings are exemplary

Conclusion:

Strong experience in design and construction of Immersed Tube Tunnels on P3 projects

Priority 3 – Engineering Evaluation

Criteria:

- **Prior Working Relationships**
- **Performance Security & Insurance Coverage Approach**

Findings:

- **Extensive prior working relationships**
- **Sufficient surety capacity and approach**

Conclusion:

Prior working relationships among engineering team with other teams and a clear understanding of performance and insurance coverage requirements

Priority 4 – Engineering Evaluation

Criteria:

- Innovations & Ideas
- Risk Allocation
- Project Understanding & Approach
- Organizational Structure

Findings:

- Innovations align with project objectives
- Appropriate risk assessment and mitigation strategies
- Understanding of project complexities and requirements
- Organizational Structure facilitates project delivery

Conclusion:

Innovations, risk strategies, project understanding, and organizational structure convey ERC's engineering ability to deliver a successful project

Planning & Environment Overview – Unique Features

- **Multiple Permitting and Regulatory Agencies**
- **Multiple Approvals**

Priority 1 – Planning & Environment Evaluation

Criteria:

Project Leaders in Oversight and Administration

Findings:

- **Assets to obtain permits and complete other environmental requirements**
- **Experience in historical and environmentally sensitive areas**

Conclusion:

Leadership team has the experience to suggest that they will be able to manage the environmental aspects of the project

Priority 2 – Planning & Environment Evaluation

Criteria:

- **Work History**
- **Project Qualifications**

Findings:

- **Projects included design features to minimize environmental and community impacts**
- **Experience with redesign to minimize environmental impacts**

Conclusion:

Confidence from an environmental perspective that the team's strong track record can enable them to deliver a high quality project on time, on budget and with high levels of safety

Priority 4 – Planning & Environment Evaluation

Criteria:

- Innovations & Ideas
- Risk Allocation
- Project Understanding & Approach
- Organizational Structure

Findings:

- Innovative ideas for permitting
- Appropriate risk assessment and mitigation strategies
- Understanding of project complexities and requirements
- Organizational Structure facilitates project delivery

Conclusion:

Ideas offered have a neutral or positive impact on construction or operation, but potentially impact cost, schedule or regulatory compliance

Operations & Maintenance Overview – Unique Features

- **Traffic operations during construction**
- **Open road tolling and value pricing**
- **ITS integration to the existing local system**
- **Integration of fire safety components and compliance with NFPA 502**

Priority 1 – Operations & Maintenance Evaluation

Criteria:

- **Project Leaders in Oversight and Administration**
- Tunnel Construction, **Maintenance and Operations**
- **Toll Facility Operations**

Findings:

- **Macquarie has experienced project leaders in oversight and administration**
- **Macquarie has experience in the operations and maintenance of transportation tunnels**
- **Macquarie is one of the world's largest developers and operators of toll roads managing 32 toll highway concessions in 11 countries**

Conclusion:

Macquarie has substantial operations and maintenance experience

Priority 2 – Operations & Maintenance Evaluation

Criteria:

- **Work History**
- **Project Qualifications**

Findings:

- **Macquarie has demonstrated experience in operating and maintaining projects of similar scope and size**
- **Documentation in the conceptual proposal is limited in the demonstrated experience of reversible flow tunnels and handback**

Conclusion:

Macquarie's numerous projects and history would indicate a satisfactory capability in operations and maintenance

Priority 3 – Operations & Maintenance Evaluation

Criteria:

Prior Working Relationships

Findings:

ERC demonstrates extensive prior working relationships with its operations and maintenance team

Conclusion:

ERC has demonstrated successful prior working relationships with its operation and maintenance team

Priority 4 – Operations & Maintenance Evaluation

Criteria:

- Innovations & Ideas
- Risk Allocation
- Project Understanding & Approach
- Organizational Structure

Findings:

- The value of the proposed innovations require further assessment as the details of the proposal surface with the detailed proposal document
- ERC minimally discusses the risk allocation for operations and maintenance
- ERC demonstrates its understanding of maintenance of traffic and human resources
- ERC does not clearly demonstrate the appropriate functional structure between the operations and maintenance components and the overall management

Conclusion:

ERC demonstrates its capability in the above criteria

Overall Summary of Findings

Is ERC qualified?

Priority 1 ✓	Priority 2 ✓	Priority 3 ✓	Priority 4 ✓
<ul style="list-style-type: none">•Project Leaders in Oversight and Administration•Tunnel Construction, Maintenance and Operations•Tolling Operations	<ul style="list-style-type: none">•Work History•Project Qualifications	<ul style="list-style-type: none">•Prior Working Relationships•Performance Security & Insurance Coverage	<ul style="list-style-type: none">•Innovations & Ideas•Risk Allocations•Project Understanding & Approach•Organizational Structure

Questions



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