Executive Summary

SKW Tunnel Builders (SKW), is pleased to offer the Chesapeake Bay Bridge and Tunnel District (District) this Statement of Qualifications in the Immersed Tube Tunnel (ITT) delivery method for the design and construction of the Parallel Thimble Shoal Tunnel (PTST) project. SKW is a joint venture of Virginia Beach-based Skanska USA Civil Southeast Inc., Kiewit Infrastructure Co., and Weeks Marine, Inc.

When the Chesapeake Bay Bridge-Tunnel was first opened on April 15, 1964, it was recognized for being one of the “Seven Engineering Wonders of the Modern World,” with the civil engineering world admiring its 20-mile-long vehicular crossing of the lower Chesapeake Bay. Today, as needs require an expansion of the original facility, the District needs a qualified and reliable design-build partner who will deliver a robust engineering and construction solution so it can continue its legacy while improving service and safety for the traveling public. SKW Tunnel Builders is that partner.

Our Team

SKW is an integrated joint venture comprised of the following contractors:

SKANSKA

Skanska USA Civil Southeast, Inc.
(Skanska) is one of the largest, most financially-sound construction companies in the U.S. Incorporated in 1932, the firm has over 1,400 employees based in Virginia Beach and supports major civil infrastructure projects along the East Coast. Skanska was among the first U.S. construction firms to have all operations ISO 14001 certified for quality.
Kiewit Infrastructure Co. (Kiewit) is part of the Kiewit Corporation family of companies, an organization that traces its roots back to 1884. Over the past 10 years the organization has constructed more than 1,100 transportation projects—including highway tunnels and bridges—totaling more than $30 billion.

Founded in 1919, Weeks Marine, Inc. (Weeks) maintains one of the largest inventories of marine-focused construction equipment in the U.S., including crane barges with hoisting capacities of up to 700 tons, deck barges and tugboats up to 4,200 horsepower.

Supporting the SKW team, Parsons Brinckerhoff, Inc. (PB) will serve as the Lead Designer. Founded in 1885, PB is one of the oldest continually operating consulting engineering firms in the U.S. PB has designed six of the nine tunnels in the Hampton Roads area—all nine of which are immersed tube tunnels. The firm has also expertly supported VDOT in the maintenance of these tunnels since their construction.

PB will be supported by Parsons Transportation Group (PTG). Both PB and PTG will provide design services under this contract with staff from their Virginia Beach locations.

Combined, PB and PTG have completed more design-build projects in the U.S. than any engineering firm.

### ITT Qualifications

As illustrated in the ITT project chart below, the SKW team brings extensive ITT experience and tremendous local experience to the PTST project. The chart illustrates the team’s ITT experience.

<table>
<thead>
<tr>
<th>ITT Projects</th>
<th>Location</th>
<th>Year</th>
<th>PB</th>
<th>Skanska</th>
<th>Kiewit</th>
<th>Weeks</th>
</tr>
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<tbody>
<tr>
<td>Detroit Windsor</td>
<td>Detroit</td>
<td>1930</td>
<td>●</td>
<td></td>
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<tr>
<td>Downtown (WB)</td>
<td>Norfolk</td>
<td>1952</td>
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<tr>
<td>Baytown</td>
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<td>●</td>
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<tr>
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<td>1957</td>
<td>●</td>
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<tr>
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<td>Portsmouth</td>
<td>1962</td>
<td>●</td>
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<tr>
<td>CBBT</td>
<td>Virginia Beach</td>
<td>1964</td>
<td>●</td>
<td>●</td>
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</tr>
<tr>
<td>TransBay</td>
<td>San Francisco</td>
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</tr>
<tr>
<td>Cross Harbour</td>
<td>Hong Kong</td>
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<td>63rd Street</td>
<td>New York</td>
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<td>HRBT #2</td>
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<td>WMATA</td>
<td>Washington, DC</td>
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<td>●</td>
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</table>
Joint Venture Structure

SKW’s joint venture Executive Committee is chaired by Salvatore Taddeo, Executive Vice President of Skanska and member of the Board of Directors for Skanska USA Civil, Inc.; Wayne Thomas, Senior Vice President of Kiewit; and Richard MacDonald, Senior Vice President of Weeks.

With full access to the local and national resources of Skanska, Kiewit and Weeks, the Executive Committee has empowered SKW Project Manager, Wade Watson, to commit all the required personnel, equipment, materials and financial resources to successfully deliver this project for the District.

Salvatore, Wayne and Richard will participate with the District in the partnering process, and they will remain current and engaged on the project’s status and progress to ensure the District’s objectives and goals are met.

ITT Method Selection

The SKW team has evaluated both the ITT and bored tunnel options, and we have elected to submit on only the ITT method of installation due to the fact that it brings better value to the District; increases longevity and durability; and brings manageable risk to the successful delivery of the project.

Better Value.

We believe the ITT method will deliver the most economical solution in terms of: client risk; long-term operations and maintenance life cycle costs; structure longevity; durability; water tightness; impacts to existing operation; impacts to the navigation channel; impacts to the existing tube; impacts to the environment; and impacts associated with island construction.

Increased Longevity and Durability.

SKW’s current research, experience and lessons learned on previous projects, including the Second Midtown Tunnel, will ensure 100+ year longevity and durability in the concrete materials; will result in minimal joints and seals; and peace of mind through unmatched built-in redundancy in the tube joint system and tunnel waterproofing.

The SKW team is submitting qualifications for the ITT delivery method.
Manageable Risk. Our evaluation of both the ITT vs. bored options resulted in the evaluation of the following list of risks which were unacceptable for our companies due to the challenges in pricing:

- Specialized EPBM single resource dependency/equipment failure
- Interventions in the shipping channel
- Flooding
- Differing site conditions
- Unanticipated geotechnical conditions
- Soil stabilization
- Permeability of unconsolidated clays to accept ground treatment
- Compliance with leakage criteria
- Access challenges for launching and receiving pits

We Understand the Challenges
The SKW team knows how to overcome the design and construction challenges associated with this project. Having worked in the Hampton Roads region for over 83 years, the SKW team members understand: the challenges of working in extreme weather; the capabilities and capacities of the subcontractors in the region; and the needs to employ a strong base of skilled marine-related labor force. Additionally, we understand the risks associated with:

- Dredging of the tunnel trench
- Fabrication, shipping and installation of the tunnel elements
- Navigation
- Island expansion
- Leakage and durability of the tunnel

Management Approach
The same management, design and construction team from the Second Midtown Tunnel will be assigned to the PTST project. The District will benefit from the SKW Team. SKW and PB are currently serving as the design-build contractor and engineer for the Second Midtown Tunnel, the largest design-build project ever undertaken in the Commonwealth and the first deep-water concrete immersed tube in North America. For the PTST project, our team offers the District the same experienced staff along with the lessons learned in designing and constructing the Second Midtown Tunnel.
project management team, including Wade Watson, Project Manager; Peter Guthorn, Construction Manager; and Fred Parkinson, Design Manager. With a combined 105 years of experience, this core team will follow their proven management approach to effectively integrating design and construction. All other key personnel identified in this SOQ are coming directly from the Second Midtown Tunnel project.

To provide the most efficient delivery, the project will be divided into four operational segments:

- **Tube Fabrication work** including all operations to fabricate and safely launch all ITT elements
- **Marine work** including dredging, all marine aspects of island construction, and all operations to prepare the foundation, place and backfill the ITT elements
- **Trestle & Approach work** including all work required to construct the cut-and-cover and boat sections of the tunnel as well as all bridge work necessary to tie-in to the existing trestles
- **Tunnel Interior & Finishes work** including demolition of the temporary ITT element bulkheads, construction of all cast-in-place concrete work, and all finishes to the entire tunnel and trestle structures including the mechanical and electrical components, ITS and buildings

Each segment will have a manager responsible for all safety, quality, environmental compliance, budget and schedule aspects of their respective segments.

### SKW’s Commitment

For any major project to be a success, it must start with the right plan. Our plan for meeting the District’s objectives focuses on effective solutions that provide added project benefits. Our collective company philosophies deliver:

- **ONE TEAM** consisting of the client, contractor and designer committed to exceeding expectations
- An **OPEN-DOOR** and **TRANSPARENT POLICY** for the District and stakeholders at all levels
- An **UNCOMPROMISING COMMITMENT** to public and workforce safety, quality and environmental compliance

As a local contractor, we are committed to putting local people, local suppliers and local subcontractors to work in Hampton Roads. We will hire local people and create a mentoring program resulting in skilled laborers—helping the Eastern Shore and Hampton Roads’ employment.

The SKW Team will deliver added value and innovation throughout the subsequent technical proposal process. With skilled people, strong design-build credentials, proven solutions transferred from our experience on the Second Midtown Tunnel, and decades of work experience in Hampton Roads, SKW is committed to delivering this project to the District, on time and within budget with the highest attention to safety and quality.