RFQ-19-079
Information Session
Tunnel System Project (Design-Build)
June 27, 2019
Today’s Speakers

Liliana Maldonado
AlexRenew
Deputy
General Manager

Caitlin Feehan
RiverRenew
Program Manager

Justin Carl
RiverRenew
Owner’s Advisor
Presentation Outline

• Introduction to Alexandria Renew Enterprises
• AlexRenew CIP and RiverRenew Contracts Update
• Overview of RiverRenew Tunnel System Components
• Tunnel System Project Procurement Process
• Next Steps
• Questions and Answers
Introduction to Alexandria Renew Enterprises (AlexRenew)

Liliana Maldonado
Who We Are and Who We Serve

- Special-purpose entity
- Created in 1952 by Alexandria City Council
- Led by a 5-member citizen board
- Treats an average of 35 MGD of wastewater daily to near drinking water standards
- Serves more than 300,000 customers in Alexandria and Fairfax County
- Located in Alexandria’s southwest quadrant
2040 AlexRenew Vision

By 2040, we have effectively partnered with all watershed stakeholders to:

• Enable local citizens to **embrace the best use of water resources and establish a personal connection with local waterways**.

• Sustainably manage water as a single resource through the entire water cycle.

• **Create a healthy environment and improve our quality of life** through the exceptional reclamation of used water resources.

• Maximize use of multiple financial options to continue our fiscal stability.
# AlexRenew’s Strategic Outcomes

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Operational Excellence</strong></td>
<td>Continually enhance water resource and recovery procedures to provide cleaner water more efficiently.</td>
</tr>
<tr>
<td><strong>Public Engagement and Trust</strong></td>
<td>Engage our community to help them to become informed consumers and supporters of clean water.</td>
</tr>
<tr>
<td><strong>Watershed Stewardship</strong></td>
<td>Work collaboratively with the people we serve and other organizations in our watershed to manage and improve water resources for future generations.</td>
</tr>
<tr>
<td><strong>Adaptive Culture</strong></td>
<td>Establish an organization-wide enthusiasm for learning, adapting, and problem solving to achieve clean water.</td>
</tr>
<tr>
<td><strong>Effective Financial Stewardship</strong></td>
<td>Maintain a financially resilient organization that contributes to the long-term economic health of our local communities.</td>
</tr>
</tbody>
</table>
AlexRenew CIP and RiverRenew Contracts Update

Liliana Maldonado
# Major AlexRenew CIP and RiverRenew Contracts as of 6/27/19

<table>
<thead>
<tr>
<th>Contract</th>
<th>Description</th>
<th>Schedule</th>
<th>Contractor/Designer</th>
<th>Cost ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process Air Compressor Blower Upgrades</td>
<td>Construction to replace existing Biological Reactor Basin blowers with High Speed Turbos</td>
<td>June 2019 – December 2020</td>
<td>ACE</td>
<td>$14.4</td>
</tr>
<tr>
<td>Building J Facilities Relocation and Decommissioning (RiverRenew)</td>
<td>Construction to relocate building uses and building demolition</td>
<td>July 2019 – March 2021</td>
<td>Clark Construction</td>
<td>$19.5</td>
</tr>
<tr>
<td>108 to 116 MGD Expansion (RiverRenew)</td>
<td>Construction to upgrade the peak raw influent capacity of the WRRF</td>
<td>August 2019 – September 2020</td>
<td>Bids Opened 6/25/19 – ACE Apparent Low Bidder</td>
<td>$2.6</td>
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<tr>
<td>Wastewater Services Resident Engineering and Inspection</td>
<td>Professional services for wastewater resident engineering and inspection</td>
<td>June 2019 – June 2020</td>
<td>Hazen and Sawyer</td>
<td>$3</td>
</tr>
</tbody>
</table>

Other Anticipated Contracts:
- Professional Services:
  - SCADA System Integration Services
  - Basic Ordering Agreements
- Construction:
  - Fiber Optic Backbone Replacement
  - Preliminary Primary Treatment Improvements
  - Other projects as needs arise
Major Wastewater Projects at AlexRenew

Legend:
- **Blue**: Process Air Compressor Blower Upgrades
- **Green**: Building J Facilities Relocation and Decommissioning
- **Red**: 108 to 116 MGD Expansion
- **Building G**
  - Filter Backwash Upgrades
- **Building J**
  - PEPS Upgrades
  - Post Aeration Tanks
  - PAC Blowers and MCC
- **Building J and L**
  - PEPS Upgrades
- **Building J and N**
  - Post Aeration Tanks
- **Building J and C**
  - Secondary Settling Basins
- **Building J and F**
  - Secondary Settling Tanks
- **Building 20 and S**
  - Digestion Complex
- **Building 22**
  - Primary Settling Tanks

This map highlights major projects and facilities at AlexRenew, including blower upgrades, facility relocations, decommissioning, and expansion.
Overview of RiverRenew Tunnel System Components

Justin Carl
## Summary of Major Changes to Tunnel System Project Since November 2018 Industry Outreach Event

<table>
<thead>
<tr>
<th>Associated Outfalls</th>
<th>Waterfront Tunnel</th>
<th>Hooffs Run Interceptor</th>
<th>Tunnel Dewatering and Wet Weather Pumping Station</th>
</tr>
</thead>
<tbody>
<tr>
<td>• 001, 002</td>
<td>• 003, 004</td>
<td>• Relocated 004</td>
<td></td>
</tr>
</tbody>
</table>

### Industry Outreach Approach
Nov 2018

- 12-ft ID
- Vertical alignment shown completely in Potomac Formation
- Parallel relief sewer
- 5-ft and 6-ft diameter trenchless pipelines at AlexRenew WRRF
- Tunnel Dewatering. 40 MGD wet-pit submersible pumping station
- Wet Weather. 130 MGD pumping station installed within an existing wet well below AlexRenew’s Nutrient Management Facility

### Current Approach
June 2019

- 12-ft ID, 19-ft OD
- Vertical alignment anticipated to be in mixed-face conditions between Alluvium and Potomac Formation
- Interceptor replacement
- Trenchless portion removed
- Tunnel Dewatering and Wet Weather Pumping Station housed in a single shaft
- Additional shaft for screen, clamshell, and vortex drop
- (2) 20 MGD dry-pit submersible dewatering pumps – suction manifold
- (4) 44 MGD wet weather pumps – suction manifold

---

**Environmental Assessment Released on June 19, 2019**
Major RiverRenew Tunnel System Components (6/19)

<table>
<thead>
<tr>
<th>Component</th>
<th>Diameter (feet)</th>
<th>Length (feet)</th>
<th>Depth (feet)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waterfront Tunnel</td>
<td>12 ID/19 OD</td>
<td>11,500</td>
<td>115-160</td>
</tr>
<tr>
<td>001 Drop Shaft</td>
<td>40</td>
<td>–</td>
<td>115</td>
</tr>
<tr>
<td>002 Drop Shaft</td>
<td>40</td>
<td>–</td>
<td>125</td>
</tr>
<tr>
<td>Mining Shaft</td>
<td>75</td>
<td>–</td>
<td>135</td>
</tr>
<tr>
<td>Hooffs Run Interceptor</td>
<td></td>
<td>2,405</td>
<td>10-20</td>
</tr>
</tbody>
</table>

Other major components:
- Four diversion chambers
- Tunnel Dewatering (20 MGD) and Wet Weather (130 MGD) Pumping Station
- Connection into AlexRenew’s Centralized Odor Control System
- Two 3,000 cfm odor control systems (at shafts)
- Mechanical, electrical, plumbing, instrumentation, and HVAC equipment
- Superstructure at AlexRenew
Waterfront Tunnel
Construction Staging Areas at AlexRenew’s WRRF
Haul Routes to/from AlexRenew WRRF

Legend:
- Potential Haul Route
- Residential property
Reach 1: AlexRenew to Freedmen Cemetery (2,233-ft)

Reach 2: Freedmen Cemetery to Jones Point Park (2,333-ft)
Reach 3: Jones Point Park to Ford’s Landing (2,333-ft)

Reach 4: Ford’s Landing to Waterfront Park (2,333-ft)
Reach 5: Waterfront Park to Robinson Terminal North (2,281-ft)
Waterfront Tunnel Geologic Profile

- **ELEVATION (FT)**
  - 20
  - 60
  - 80
  - 100
  - 120

- **STATION**
  - 10+00
  - 20+00
  - 30+00
  - 40+00
  - 50+00
  - 60+00
  - 70+00
  - 80+00
  - 90+00
  - 100+00
  - 110+00
  - 120+00

- **Geologic Units**
  - **ALLUVIUM**
  - **POTOMAC FORMATION**
  - **FILL**
  - **TERRACE**
  - **WATERFRONT TUNNEL**

- **Features**
  - TDPS Shaft
  - 001 Drop Shaft
  - 002 Drop Shaft
Outfall 001 Existing Conditions

Flow to AlexRenew

Legend
- Dry Weather Flow
- Wet Weather Flow
- Dry Weather Regulator
- Existing Outfall

- 36" Potomac Interceptor
- 84" x 72" Combined Sewer
- Outfall 001 and Regulator
- Founders Park
- Oronoco Bay Park
- Oronoco Bay
Outfall 001 Diversion Facility Street View
Outfall 001 Diversion Facility
Proposed in Environmental Assessment and City Permit Submittals
Outfall 001 Diversion Facility Restoration

Illustrative Landscaping Plan

Rendering, looking west at Robinson Terminal North

Rendering, looking east at Robinson Terminal North
Outfall 002 Existing Conditions

Legend:
- Green: Dry Weather Flow
- Blue: Wet Weather Flow
- Green Node: Dry Weather Regulator
- Yellow Circle: Existing Outfall

Flow from Outfall 001 Regulator

Outfall 002 Regulator

St Mary's Cemetery

Flow to AlexRenew

42" Potomac Interceptor

Jones Point Park

Woodrow Wilson Bridge

Mt Vernon Trail

Hunting Creek

Google

Outfall 002 Existing Conditions

Flow from Outfall 001 Regulator

Outfall 002 Regulator

St Mary's Cemetery

Flow to AlexRenew

42" Potomac Interceptor

Jones Point Park

Woodrow Wilson Bridge

Mt Vernon Trail

Hunting Creek

Google

Legend:
- Green: Dry Weather Flow
- Blue: Wet Weather Flow
- Green Node: Dry Weather Regulator
- Yellow Circle: Existing Outfall
Outfall 002 Diversion Facility
Proposed in Environmental Assessment and City Permit Submittals
Outfall 002 Diversion Facility Restoration

Rendering, looking southeast on South Royal Street

Illustrative Landscaping Plan
Hooffs Run Interceptor
Outfalls 003 and 004 Existing Conditions
Existing Commonwealth Interceptor: Duke Street to AlexRenew WRFF
Proposed Hooffs Run Interceptor Alignment
Hooffs Run Interceptor Geologic Profile

ELEVATION (FT)

STATION

FILL
HOOFFS RUN
INTERCEPTOR
ALLUVIUM
TERRACE
POTOMAC FORMATION
Existing Sewer Facilities Near Duke St and Daingerfield Rd

- Outfall 003
- Outfall 004
- Retaining Wall
- 20' Easement
- 10' Access Easement
- Hooffs Run
- Hooffs Run Culverts
- 30' Commonwealth Interceptor
- 36' Commonwealth Interceptor
- Fire Hydrant
- 27" Outfall 003 Pipe
- 52" x 64" Outfall 003
- City of Alexandria
- Duke Street Siphons
- Hotel Access
- Access to 2nd Floor Parking
- Access to 2nd Floor Parking
- Fire Department Building Connection
- Fire Hydrant
- Hotel Access
- Existing Bike Share Location
- RESIDENCE INN BY MARRIOTT ALEXANDRIA OLD TOWN DUKE STREET
Proposed Sewer Facilities Near Duke St and Daingerfield Rd
Record Drawings of Commonwealth Interceptor Crossing of Jamieson Avenue

Commonwealth Interceptor Record Drawings - 1954

previous alignment (1954)

jamieson avenue bridge replacement - 1994

Marriot Hotel Drawings - 2000

relocated alignment

Hooffs Run Interceptor Crossing of Jamieson Avenue
Hooffs Run Interceptor between Jamieson Ave and AlexRenew

Legend
- PROPOSED STRUCTURES
- TUNNEL SEWER ALIGNMENT

Elevation (feet)

72" Hooffs Run Interceptor Inv. El. -7.6
Hooffs Run Interceptor Crossing of AlexRenew North Bridge

Legend
- Yellow: Proposed Structures
- Blue: Tunnel/Sewer Alignment

City of Alexandria
Dominion Substation
Hooffs Run Interceptor Crossing
North Bridge
72" Hooffs Run Interceptor
36" Commonwealth Interceptor
Bridge Piers
30'
~10' Vertical Clearance
Dominion Substation
Alexandria Renew Enterprises
Presbyterian Cemetery
Bethel Cemetery
HV Duct Bank
Elevation (feet)
-10 -10
-20 -20
0 0
10 10
20 20
30 30
30'
72" Hooffs Run Interceptor
Inv. El. -8.5
Hooff's Run Stream Restoration
Duke Street to Jamieson Avenue
Hooffs Run Stream Restoration
Jamieson Avenue to Eisenhower Avenue

Plan View, Jamieson Ave to Eisenhower Circle

Rendering, Looking South from Jamieson Avenue
Hooffs Run Stream Restoration
Eisenhower Avenue to AlexRenew

Plan View, Eisenhower Circle to AlexRenew
Tunnel Dewatering and Wet Weather Pumping Station (TD/WWPS)
Tunnel Dewatering and Wet Weather Pumping Station
Tunnel Dewatering and Wet Weather Pumping Station – 3D View

- **Tunnel Dewatering Pump Room**
  - Suction Manifold
  - Two 20 MGD dewatering pumps
  - Three 5 MGD solids pumps

- **Wet Weather Pump Room**
  - Suction Manifold
  - Four 45 MGD pumps

- **Wet Weather Force Main and Valving Room**

- **Tunnel Dewatering Force Main Room**

- **Crane Room**

- **Screening Shaft**

- **Waterfront Tunnel**
Tunnel Dewatering and Wet Weather Pumping Station - Top View

- Crane Room
- Wet Weather Pump Room
- Stairs and Elevator
- Pumping Shaft
- Rake and Clamshell Guides
- Screening Shaft
- Drop Pipe
- 45 MGD Wet Weather Pump (Typ)
Other Major Process Components Associated with the TD/WWPS

- Tunnel Debris Removal System
  - Bar screen with rake
  - Clamshell
  - Dumpster
- Reclaimed Water Flushing System
- Odor Control Blowers
  - Tie into AlexRenew’s centralized scrubber system
- Pumping Station HVAC System
- Electrical System
- Bridge cranes for pump and equipment removal
- Flow Meters
TD/WWPS Superstructure 3D Views

Rendering Looking Northeast

Rendering Looking Northwest
Tunnel System Operational Conditions
Plan View of Hydraulic Grade Line (HGL) Control Structure (CS)

Upper Level Plan (-9.0 ft)
- Hooffs Run Interceptor
- Flap Gates
- Stop Logs
- Baffle Wall
- Bar Rack
- Weir Crest Elev at -3.0 ft (Length 36 ft)

Lower Level Plan (-20.0 ft)
- Wet Weather Junction Chamber
- To Relocated Outfall 004
- Fill
- To WWPS
- To Drop Structure
Dry Weather Flow

Plan View

- Hooffs Run Interceptor
- Filter Effluent Conduits
- Wet Weather Treatment Conduit
- Adjustable Weir Gate (Crest Elev b/w +18 ft to +20 ft)
- Wet Weather Junction Chamber
- Adjustable Weir Gate at +20 ft
- Wet Weather Junction Chamber

Sectional View

- Tunnel Dewatering Pumping Station
- Bar Rack
- Screen & Clamshell
- HGL Control Structure
- Drop Structure
- HGL Control Structure Approach Channel
- Relocated Outfall 004
- To WRRF Headworks via HGL Control Structure

Notes:
- All flow contained in the sanitary interceptor system

Dry Weather Flow in Sewer

Elevation in feet (NAVD 88)

Notes:
- Elevation in feet (NAVD 88)
- 1-100
- 1-150
- 0-50
- -50-0
- -100-150

Headbox

TD/WWPS

To WRRF Headworks

Screen & Drop Structure

To Wet Weather Treatment

Relocated Outfall 004
Typical Wet Weather Flow: 40-50 storms/year

1. All 003/4 flows conveyed directly to WRRF Headworks
2. TD/WWPS pumps 001/2 flows to HGL CS to maximize flow to plant (i.e. pumps up to 20 mgd or until WRRF reaches 116 mgd)
Larger Wet Weather Flows: 6-8 storms/year

**Plan View**
- Hooffs Run Interceptor
- Filter Effluent Conduits
- Wet Weather Treatment Conduit
- Adjustable Weir Gate (Crest Elev b/w +18 ft to +20 ft)
- Wet Weather Junction Chamber
- Fixed Weir Crest Elev at +20 ft
- Wet Weather Pumping Station
- Tunnel Dewatering Pumping Station
- Screen & Clamshell
- HGL Control Structure

**Sectional View**
- Relocated Outfall 004
- To Wet Weather Treatment
- TD/WWPS
- Headbox
- Screen & Drop Structure
- To WRRF Headworks via HGL Control Structure

**Notes:**
1. Maximize flow to WRRF up to 116 mgd
2. 003/4 flows stay in sanitary sewer until WRRF at 116 mgd, then 003/4 flows discharge over HGL CS weir
3. Gravity flow from 003/4 through flap gate to TDPS
4. Flows from 003/4 combine with flows from 001/2
Wet Weather Treatment Activation: 1-4 storms/year

**Plan View**
- Hooffs Run Interceptor
- Filter Effluent Conduits
- Wet Weather Treatment Conduit
- Adjustable Weir Gate (Crest Elev b/w +18 ft to +20 ft)
- Wet Weather Junction Chamber
- Fixed Weir Crest Elev at +20 ft
- Wet Weather Pumping Station
- Tunnel Dewatering Pumping Station
- Screen & Clamshell
- Bar Rack
- Hydraulics Grade Line Control Structure
- Junction Chamber “A”
- Jones Point Trunk Sewer
- To WRFF Headworks

**Sectional View**
- Relocated Outfall 004
- TD/WWPS
- Headbox
- Screen & Drop Structure
- HGL Control Structure
- To Wet Weather Treatment

**Notes:**
1. WWPS is operating and pumping flows at 40 mgd
2. 40 mgd of flow is sent to Wet Weather Treatment (WWT)
Transfer Flow to Outfall 001: 1-2 storms/year

1. WWPS is operating and pumping flows at 80 mgd
2. 40 mgd of flow is sent to WWT
3. 40 mgd of flow sent to Outfall 001
Discharge from Outfall 004: Less than 1 storm/year

1. WWPS is operating and pumping flows at 130 mgd
2. 40 mgd of flow is sent to WWT
3. 40 mgd of flow sent to Outfall 001
4. Remaining flow (50 mgd) sent to Relocated Outfall 004

Notes:
- Elevation in feet (NAVD 88)
- 100 - 50 - 0 - 50 - 150

Plan View
- Hooffs Run Interceptor
- Filter Effluent Conduits
- Wet Weather Treatment Conduit
- Adjustable Weir Gate (Crest Elev b/w +18 ft to +20 ft)
- Wet Weather Junction Chamber
- Fixed Weir Crest Elev at +20 ft
- Wet Weather Station
- Tunnel Dewatering Station
- Screen & Clamshell
- HGL Control Structure
- Approach Channel
- Bar Rack
- Relocated Outfall 004

Sectional View
- To Wet Weather Treatment
- To WRRF Headworks via HGL Control Structure
- Headbox
- Screen & Drop Structure
- To Wet Weather Junction Chamber
- To Outfall 001
- To WRRF Headworks

Hydraulic Grade Line Control Structure
- HRJC
- HGL CS Weir Elev at +3 ft (Length 36 ft)
- Weir Elev at +5.5 ft (Length 10 ft)
- Jones Point Trunk Sewer
- Junction Chamber “A”
- To WRRF Headworks
Design-Build Process for the Tunnel System Project

**Request For Qualifications**

- **A** Industry Outreach
  - Nov 2018

- **B** Request for Qualifications
  - RFQ Issued June 7, 2019
  - SOQs Due Aug 20, 2019

- **C** Shortlist
  - Notification of Shortlisted Teams Oct 15, 2019

**Request For Proposals**

- **D** Issue Request for Proposal Documents
  - Feb 11, 2020

- **E** Proposal Period
  - Confidential Meetings Mar–Jun 2020
  - Interviews with Shortlisted Teams Sept 2020

- **F** Evaluation and Interviews
  - Technical/Management and Sealed Price Proposals Due Aug 2020

- **G** Best Value Selection
  - Design-Build Contract Notice to Proceed Dec 2020
Anticipated Responsibilities for Tunnel System Design-Build Project (not a complete scope of work)

<table>
<thead>
<tr>
<th>Project Element</th>
<th>AlexRenew</th>
<th>Design-Builder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Open Channel Hydraulics</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Tunnel Dewatering and Wet Weather Pumping Station</td>
<td>Performing physical modeling</td>
<td>✔</td>
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<tr>
<td>Permanent Structures</td>
<td>✔</td>
<td></td>
</tr>
<tr>
<td>Mechanical, Electrical, and Instrumentation</td>
<td>✔</td>
<td></td>
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<tr>
<td>Support of Excavation</td>
<td>✔</td>
<td></td>
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<tr>
<td>Tunnel Excavation</td>
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<tr>
<td>Ground Improvement</td>
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<td>Geotechnical Instrumentation</td>
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<td>Protection of Structures</td>
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<td>Utility Relocations</td>
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<td>Maintenance of Traffic</td>
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<td>Civil Design and Landscaping</td>
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<td>Stakeholder and Community Engagement</td>
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<td>Major Federal and State Permits</td>
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<td>Property Easements and Agreements</td>
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<tr>
<td>City of Alexandria Development Special Use Permit</td>
<td>✔</td>
<td>D-B will submit Final Site Plan</td>
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<tr>
<td>City of Alexandria Construction Permits</td>
<td>✔</td>
<td></td>
</tr>
</tbody>
</table>
Anticipated Technical/Management and Price Weighting for Second Step of Procurement Process

Proposition Payment provided to unsuccessful Shortlisted Teams that submit responsive proposals ($300 – $500k)
## Anticipated Design-Build Contract Provisions for the Tunnel System Project

<table>
<thead>
<tr>
<th>Provision</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schedule Milestones and Liquidated Damages</td>
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<tr>
<td>Mutual Waivers of Consequential Damages</td>
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<tr>
<td>Dispute Resolution Board</td>
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<tr>
<td>Differing Site Conditions and the use of Geotechnical and Environmental Baseline Reports</td>
<td></td>
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<tr>
<td>Escrow Bid Documents</td>
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<tr>
<td>Design-Builder Provided Insurance</td>
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<tr>
<td>Allowance Payment Items</td>
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<tr>
<td>Mobilization Payment Items</td>
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<tr>
<td>Facilitated Partnering</td>
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<tr>
<td>Retainage at 5 percent</td>
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<tr>
<td>VCWRLF and WIFIA requirements for M/WBE, Davis-Bacon, and American Iron and Steel</td>
<td></td>
</tr>
<tr>
<td>Alternative Technical Concept Process</td>
<td></td>
</tr>
</tbody>
</table>
Experience with the Following is Important to AlexRenew:

- Team members working together.
- Design-Build.
- Tunnel and shaft construction of similar diameter and depth in similar ground conditions.
- Pumping stations and wet weather facilities of similar function, capacity, and depth.
- Pipelines installed by open-cut methods with connections to live sewers.
- Constructing similar facilities and mitigating community impacts in congested residential and commercial urban environments.
### Tunnel System Project Key Personnel

<table>
<thead>
<tr>
<th>Key Personnel</th>
<th>Description</th>
<th>Certifications</th>
<th>Key Personnel Identified by Design-Builder</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager</td>
<td>Responsible for managing all aspects of the Project.</td>
<td>Virginia Licensed PE</td>
<td>1</td>
</tr>
<tr>
<td>Construction Manager</td>
<td>Responsible for the implementation of designs associated with all project components.</td>
<td></td>
<td>2</td>
</tr>
<tr>
<td>Design Manager</td>
<td>Responsible for managing design activities and ensuring coordination across all design disciplines.</td>
<td></td>
<td>3</td>
</tr>
<tr>
<td>Design Coordinator</td>
<td>Responsible for coordinating design and construction activities to ensure approaches are compatible and schedule is maintained.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

AlexRenew does not view a Permit Coordinator or a Community Outreach Specialist as Key Personnel.
# Related Project Experience

<table>
<thead>
<tr>
<th>Construction Reference Projects</th>
<th>Design Reference Projects</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1 – Tunnel</strong></td>
<td><strong>1</strong></td>
</tr>
<tr>
<td>Tunnel and shaft construction of similar diameter and depth in similar ground conditions</td>
<td>Tunnel, Pumping Station, or Open-cut</td>
</tr>
<tr>
<td><strong>2 – Tunnel</strong></td>
<td><strong>2</strong></td>
</tr>
<tr>
<td>Tunnel and shaft construction of similar diameter and depth in similar ground conditions</td>
<td>Tunnel, Pumping Station, or Open-cut</td>
</tr>
<tr>
<td><strong>3 – Pumping Station</strong></td>
<td><strong>3</strong></td>
</tr>
<tr>
<td>Pumping stations and wet weather facilities of similar function, capacity, and depth</td>
<td>Tunnel, Pumping Station, or Open-cut</td>
</tr>
<tr>
<td><strong>4 – Pumping Station</strong></td>
<td></td>
</tr>
<tr>
<td>Pumping stations and wet weather facilities of similar function, capacity, and depth</td>
<td></td>
</tr>
<tr>
<td><strong>5 – Open-cut</strong></td>
<td></td>
</tr>
<tr>
<td>Pipelines installed by open-cut methods with connections to live sewers</td>
<td></td>
</tr>
</tbody>
</table>

Lead Contractor(s) and Lead Designer(s)
Project Risks and Mitigation

3 Unique Risks

- Narrative
- Impact
- Mitigation
- Role
- Responsible Party
Safety Program and Record

CORPORATE SAFETY PROGRAM

APPLICABLE SAFETY PROCEDURES

CURRENT EMR OR EMF

OSHA FORM 300A OR EQUIVALENT
Other Forms and Required Documents

**Virginia SCC Registration Form**

**Surety Letter**
- Performance and Payment Bond value of $300 million
- Rating categorization

**Audited Financial Reports and Net Worth**
- 3 most recent fiscal years
- Prepared in accordance with U.S. GAAP
- Identification of contract default, criminal conviction, debarment for Lead Contractor(s) and Lead Designer(s)
- Demonstrated net worth of at least $30 million
AlexRenew will use the Virginia Clean Water Revolving Loan Fund (VCWRLF) and Water Infrastructure Finance and Innovation Act (WIFIA) to Assist with Funding for RiverRenew

• Equal Employment Opportunity Compliance
• Minority Business Enterprise (MBE)/Women Business Enterprise (WBE) Fair Share Goals
• Davis-Bacon Compliance
• American Iron and Steel

### VCWRLF M/WBE Goals in current AlexRenew construction contracts (may change by bid time)

<table>
<thead>
<tr>
<th></th>
<th>MBE%</th>
<th>WBE%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>7.4</td>
<td>4.8</td>
</tr>
<tr>
<td>Equipment</td>
<td>5.0</td>
<td>3.2</td>
</tr>
<tr>
<td>Services</td>
<td>7.7</td>
<td>3.6</td>
</tr>
<tr>
<td>Supplies</td>
<td>1.6</td>
<td>2.5</td>
</tr>
</tbody>
</table>

Contractors must demonstrate a "good faith effort" in the solicitation and utilization of MBEs/WBEs during the bid process:

• Public notice and/or direct solicitations must be undertaken
• Evidence of these efforts and anticipated MBE/WBE utilization must be presented and must demonstrate a "good faith effort"
Next Steps and Questions and Answers
Liliana Maldonado
Next Steps

Download the RFQ Information Session Presentation: alexrenew.com/riverrenew-tunnel-system-project-design-build

➡️ Only email tunnelsystem@alexrenew.com for questions related to this RFQ

**RFQ-19-079: Tunnel System Project (Design-Build)**

- **August 1.** Last Day for Questions
- **August 13.** Last Date for Addenda
- **August 20.** SOQs Due
- **October 15.** Notify Shortlisted Teams

**Tunnel System Resident Engineering and Inspection (RE&I) Contract**

- **November 2019.** Issue Tunnel System RE&I Request for Proposals
AlexRenew Water Resource Recovery Facility Site Tour

Justin Carl
Questions and Answers