

Alaskan Way Viaduct **REPLACEMENT** PROGRAM



Seattle City Council
September 9, 2013

Utility Coordination Overview

- Responsibilities and priorities.
- How WSDOT and the City are working together.
- What is working well.
- Addressing challenges.
- Upcoming work.



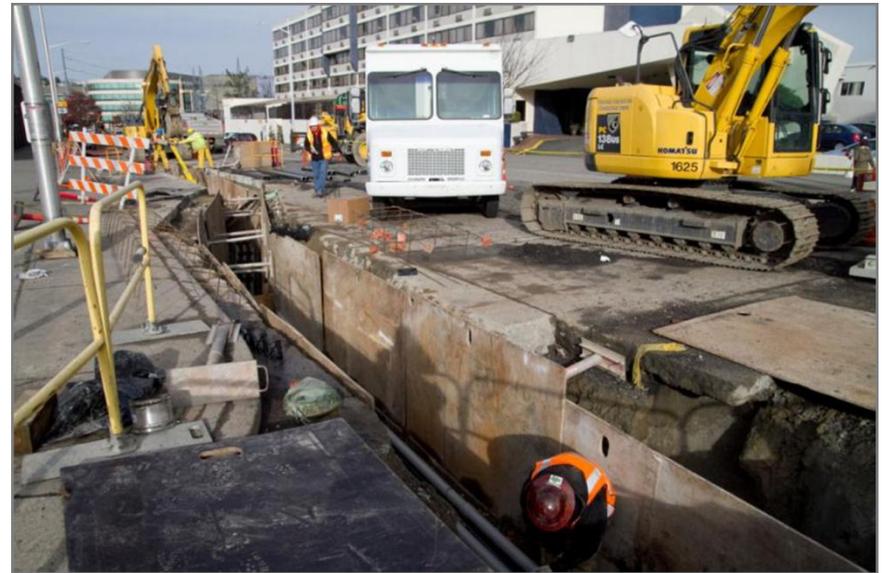
Responsibilities and Priorities

- Ensuring public safety.
- Protecting infrastructure.
- Communicating between agencies.



Framework for Working Together

- Memorandums of agreement.
- SR 99 Tunnel Project Design-build Contract.
- Street use permits.
- Task force and policy meetings.



SR 99 Tunnel Utility Relocations

- Utilities attached to and under the viaduct (115 kV).
- 13.8 kV at the north portal.
- Water and sewer lines at both south and north portals.
- Puget Sound Energy's waterfront gas line relocation.



Challenging Work Environment

- Major network of utilities near the project area – both public and private.
- Working in and around existing viaduct structure.
- Working in an urban environment.
- Limited horizontal and vertical space.
- Maps don't always reflect underground conditions.
- Evolving waterfront design configuration.



What is Working Well

- Establishing memorandums of agreement prior to design.
- Resolving issues at weekly task force meetings.
- Quick elevation of issues to be addressed at utility policy meetings.
- Open channels of communication between agencies.



Finding Solutions

WSDOT and the City have been working together to address the following issues:

Issue	Resolution
Disagreement on cost allocation	<ul style="list-style-type: none"> • Negotiations at task force and policy meetings.
Risks to utilities	<ul style="list-style-type: none"> • Proactive relocation of some utilities. • Agreements for monitoring and mitigation plans. • Development of specific emergency response plans. (ex: Alaskan Way 21" sewer line)
Problems with notification and response to field incidents	<ul style="list-style-type: none"> • Enforcement actions. • Refinements to incident response protocol. • Improvements to monitoring. • WSDOT enforcing contract provisions more vigorously on behalf of Utilities.
Unanticipated impacts to utilities	<ul style="list-style-type: none"> • Improved coordination between Seattle Tunnel Partners and Utilities. • Early identification of utilities through potholing.

Emergency Response Planning

The following areas are being taken into consideration as part of emergency response planning:

- Excessive settlement or breaks of water mains.
- Proactive water main zone isolation.
- Sewer system damage response.
- Communication protocols.
- Settlement monitoring program.
- Alaskan Way 21" sewer plan.

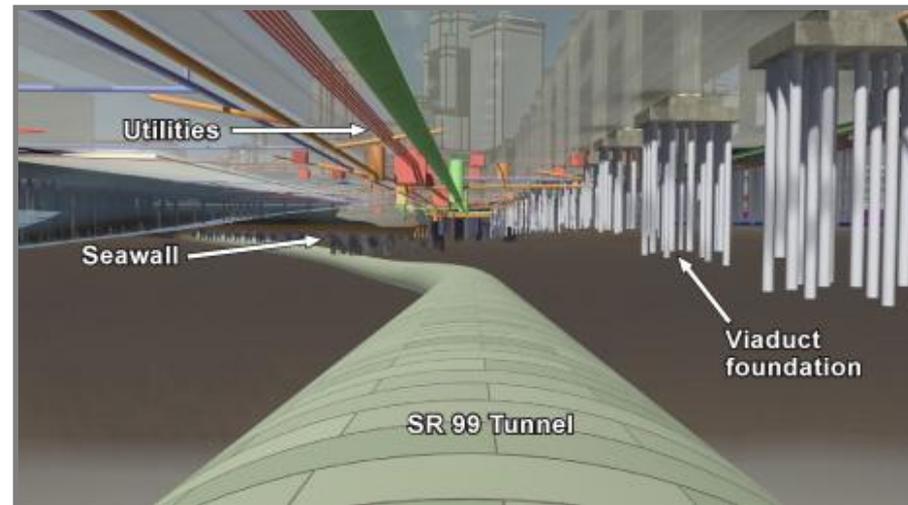


Image taken from underground simulation near South King Street.

Upcoming Work



Protecting Structures Along the Tunnel Route



*Monitoring equipment installed on a rooftop.
Photo by Soldata.*

- Install monitoring equipment on nearly 200 buildings.
- Install 700 instruments under streets and sidewalks to measure any ground changes.
- Track measurements of excavated material as tunnel boring machine progresses.
- Use satellite images to assess any changes in ground condition.

Protecting Utilities Along the Tunnel Route



State and City Coordination During Tunneling

- Participate in ongoing task force and policy meetings.
- Develop and distribute daily tunnel progress reports.
- Shared access to database containing real-time monitoring data.
- Maintain coordinated incident response protocol.

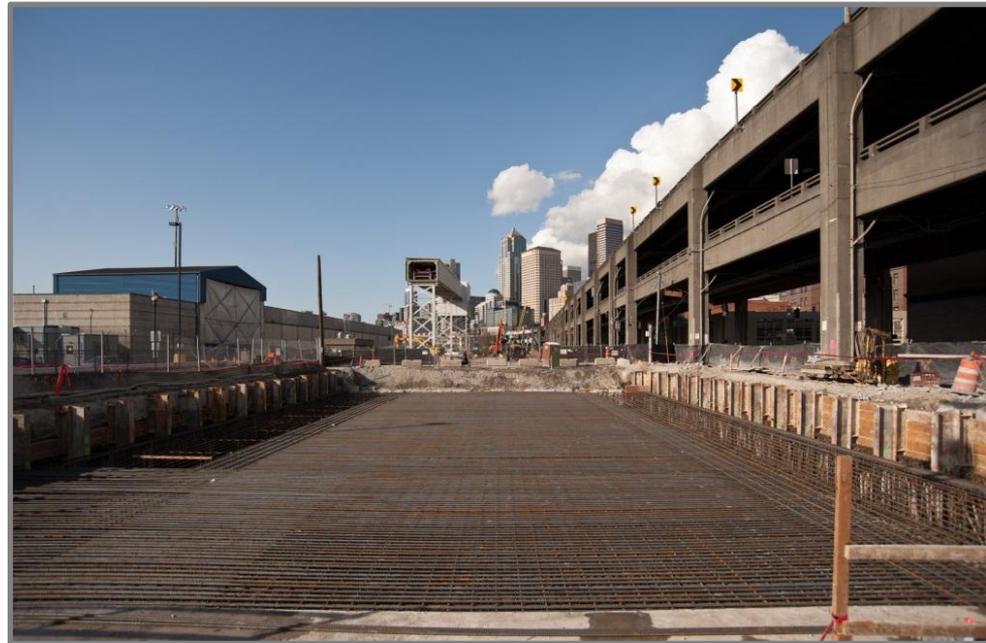
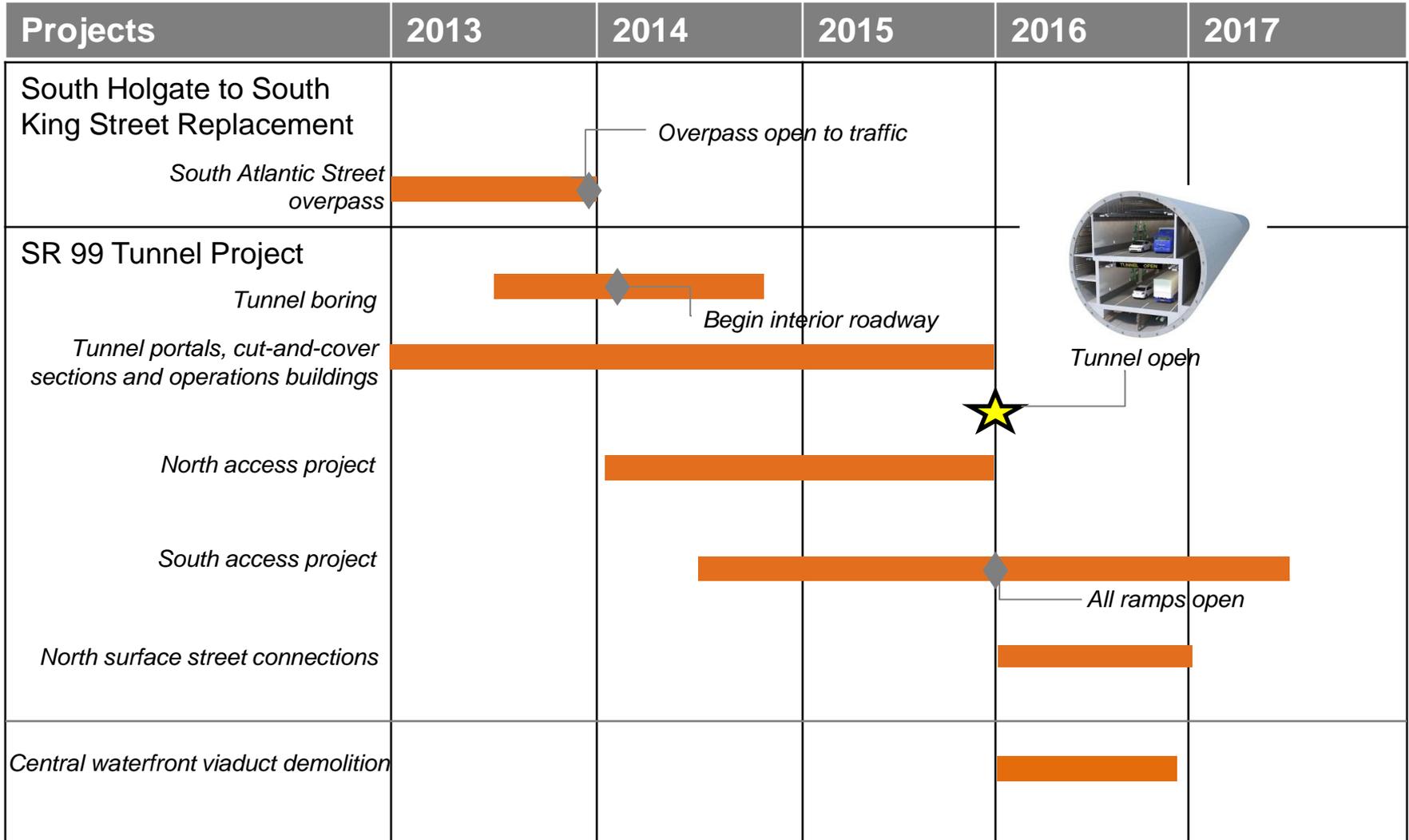


Photo taken near South King Street where Bertha will tunnel in a controlled environment.

Construction Timeline



 Construction

Website:

www.AlaskanWayViaduct.org

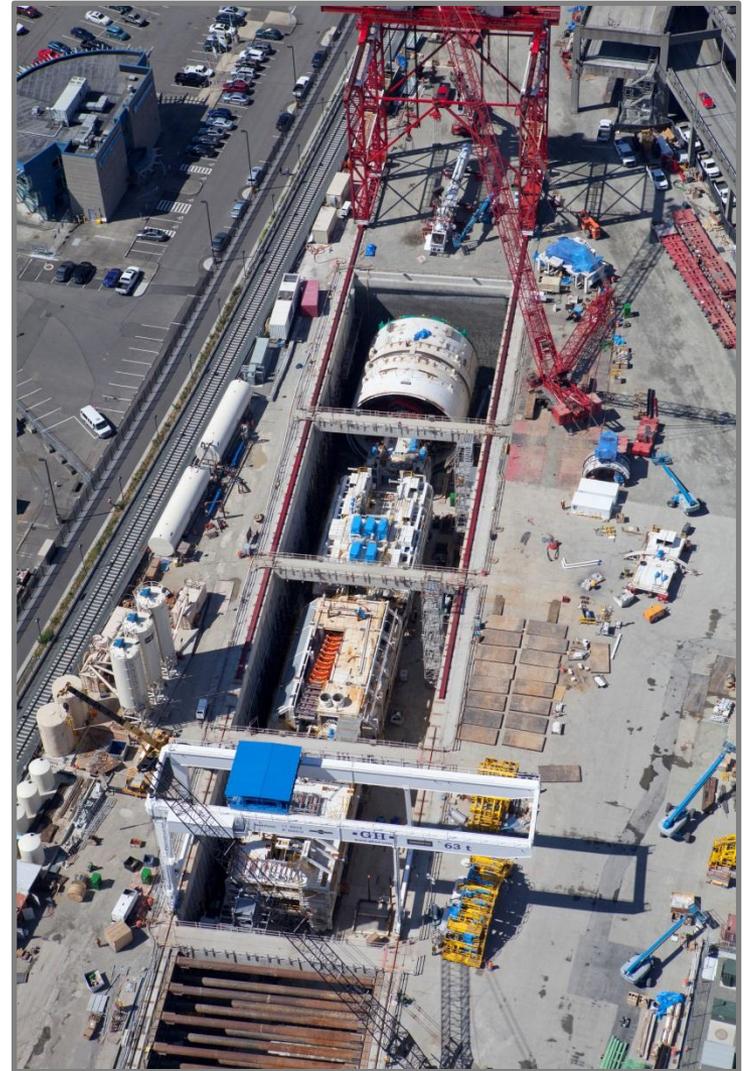
Twitter: @BerthaDigsSR99

Email:

viaduct@wsdot.wa.gov

Hotline:

1-888-AWV-LINE



A view of Bertha from above.