



City of Seattle Business Opportunities Forum

Architectural and Engineering Consultants

February 25, 2015

Bertha Knight Landes Room, Seattle City Hall

City of Seattle

Welcome!

Participating Capital Departments

Department of Finance & Administration

Seattle Department of Transportation

Seattle Center

Seattle Public Utilities



Seattle Department of Transportation

Construction Management Services

**Fairview Avenue North Bridge
Yesler Way Over 4th Avenue South**



Fairview Avenue North Bridge Construction Management Services

The Fairview Avenue Bridge, 65 years old, needs to be entirely replaced.

Hemmed in by commercial buildings to the southeast and Lake Union to the northwest, the project will likely include:

- Work from barges
- Fish passage window restrictions
- Removal and replacement of trolley lines
- Removal and replacement of floating walkway
- FAA notifications (for float planes)



Project website:

<http://www.seattle.gov/transportation/fairviewbridge.htm>

Yesler Way Over 4th Avenue South Construction Management Services

The Yesler Way Bridge was built in 1910 and is one of the oldest permanent steel roadway bridges in the City of Seattle.

A single span will replace the 3 existing spans, and the west bridge abutments will be completely replaced, while preserving the historic character-defining elements such as the fascia girders and the pedestrian railings.

The project will require both intermittent full closures (nights & weekends) and longer term partial closures of 4th Ave S, as well as continuous closures on Yesler Way and Terrace St.



Project website:

<http://www.seattle.gov/transportation/yeslerbridge.htm>

Seattle Public Utilities

South Park Drainage Improvements

South Park Flood Control Pump Station

(already under contract)

South Park Water Quality Facility

South Park Drainage Conveyance Improvements



SDOT Project Contacts

Construction Management Services

- ◉ Yesler Way Over 4th Avenue South

Amanda Tse

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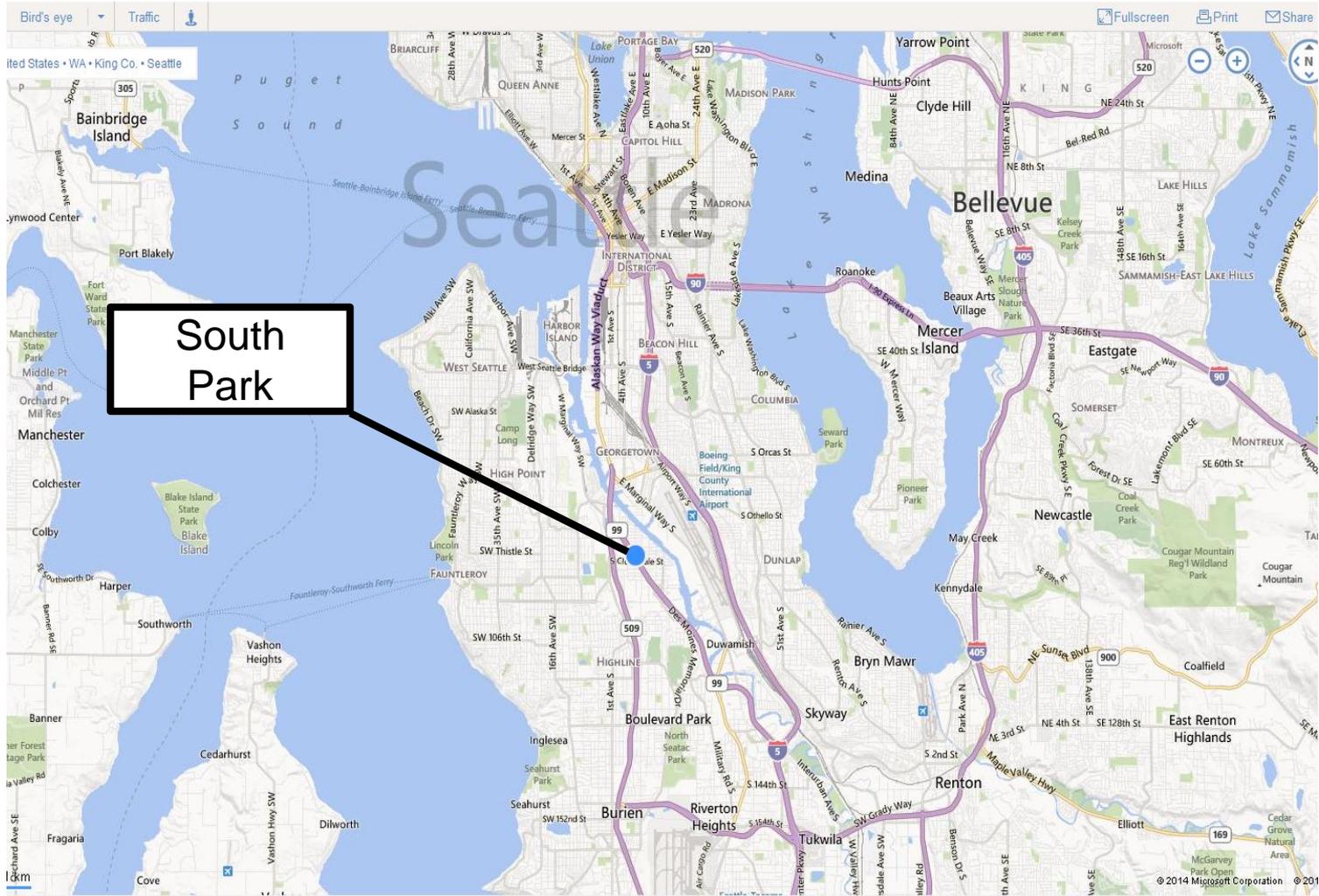
- ◉ Fairview Avenue North Bridge

Mark Sliger

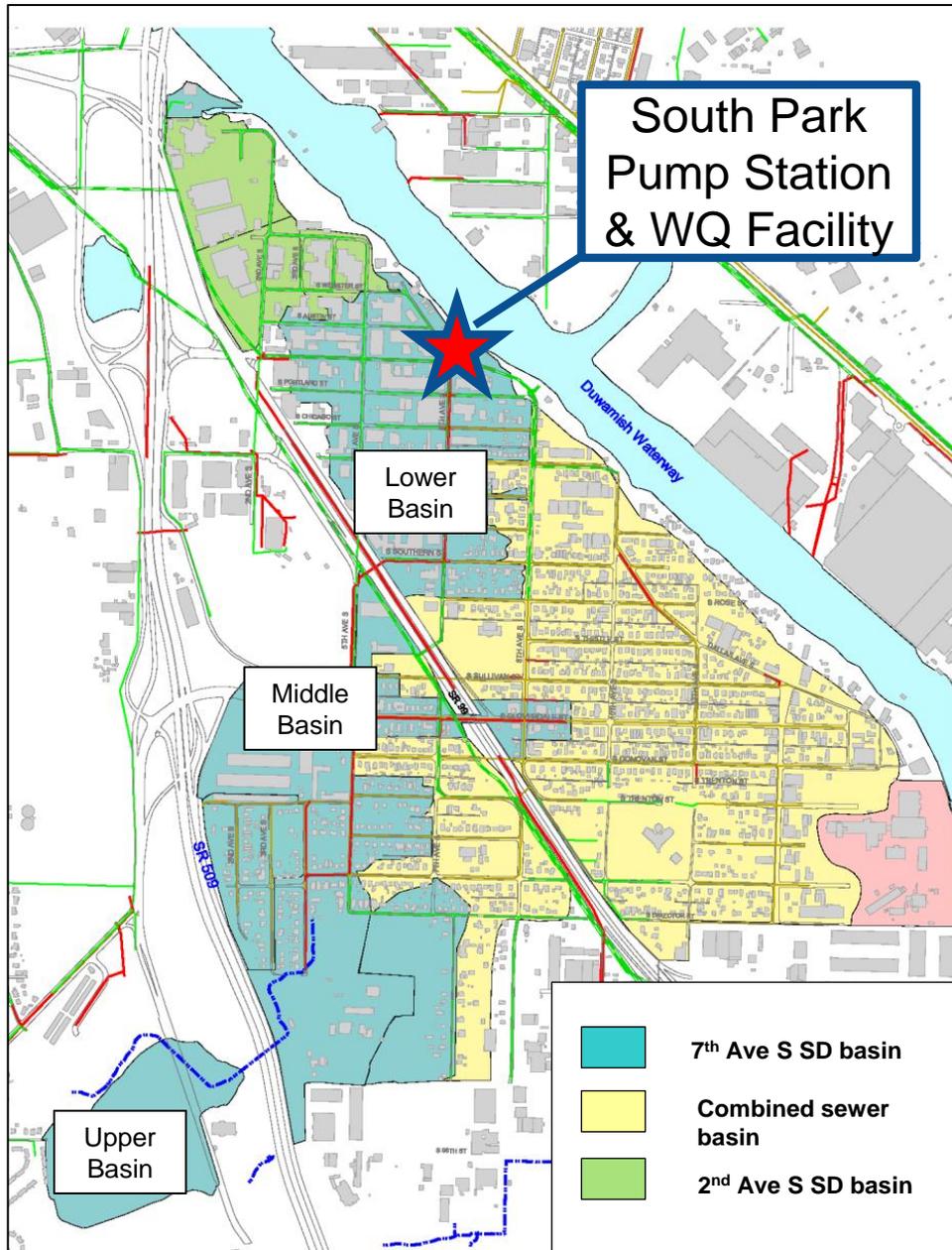
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South Park

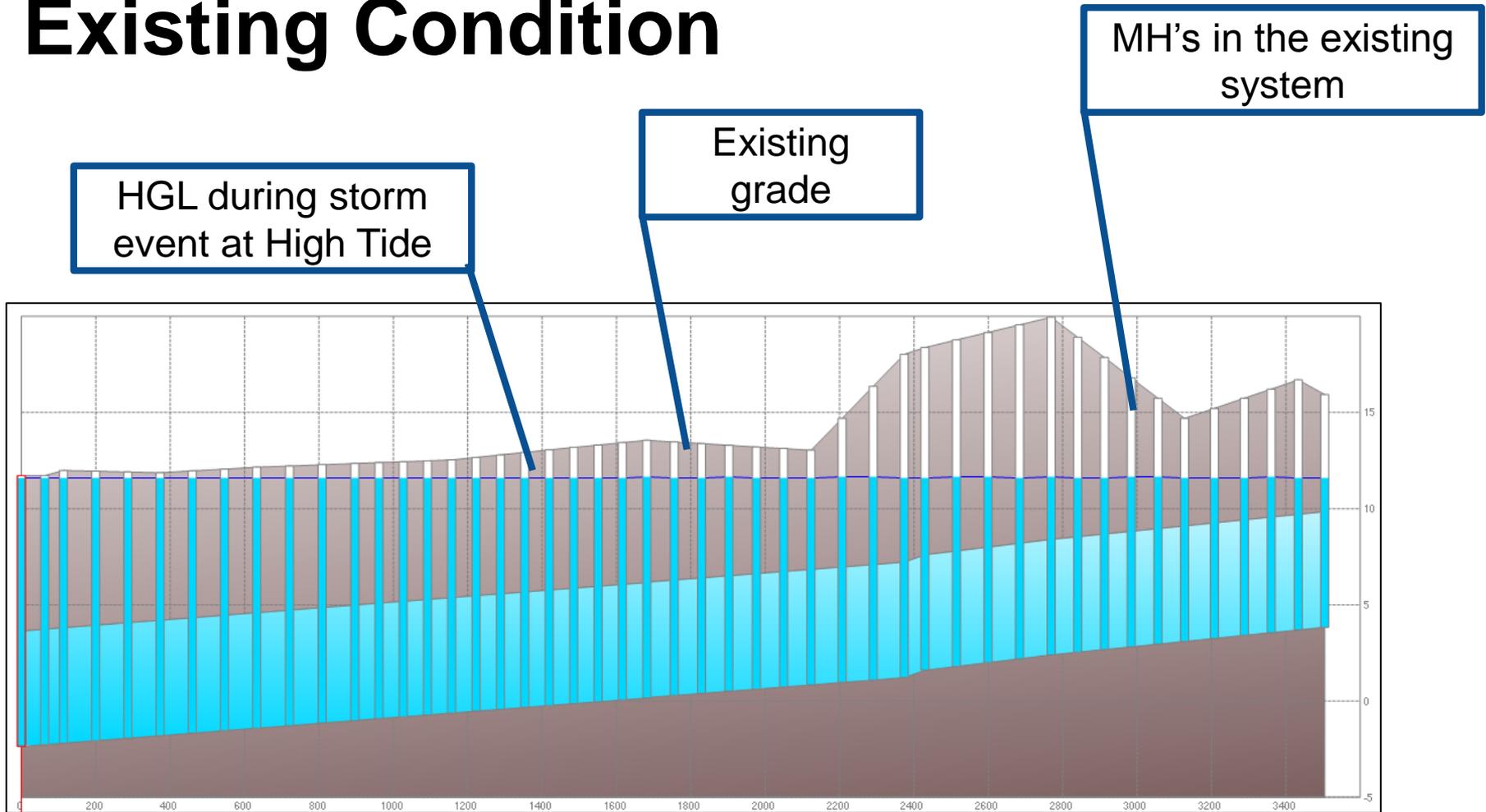


7th Ave S Storm Drain Basin Characteristics



- 238-acre basin
- 3 distinct areas
 - Upper basin industrial/undeveloped
 - Middle largely residential
 - Lower – largely industrial
- Significant, frequent flooding in lower basin
- Tidal influence and sea level rise impacts in lower basin
- No stormwater treatment, discharges directly to Duwamish Waterway

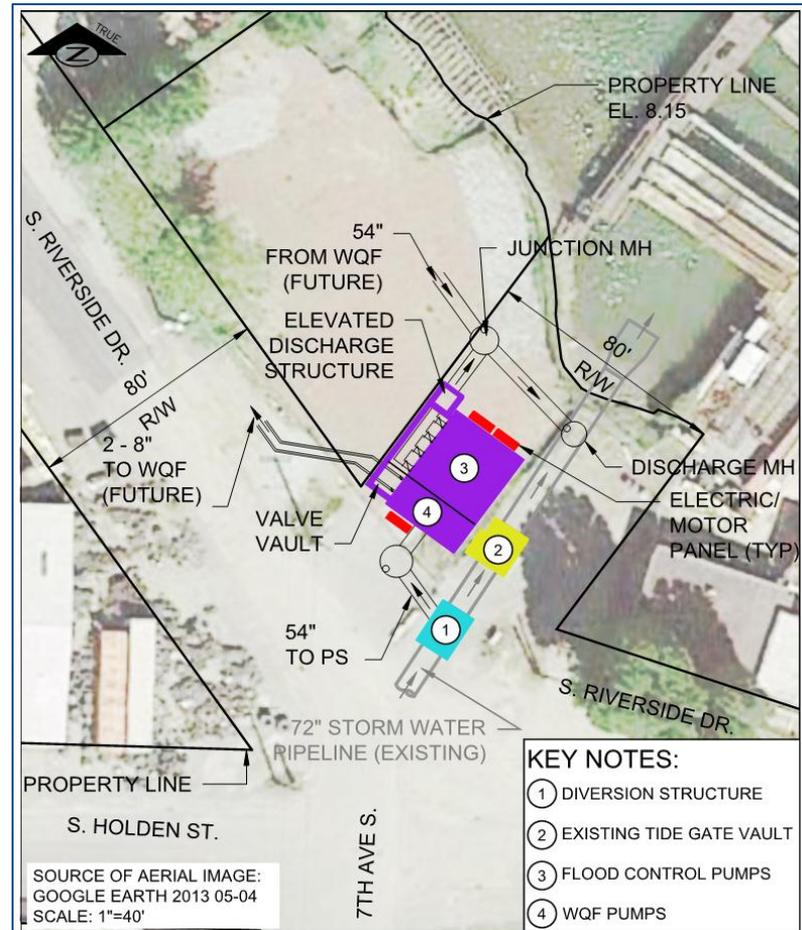
Existing Condition



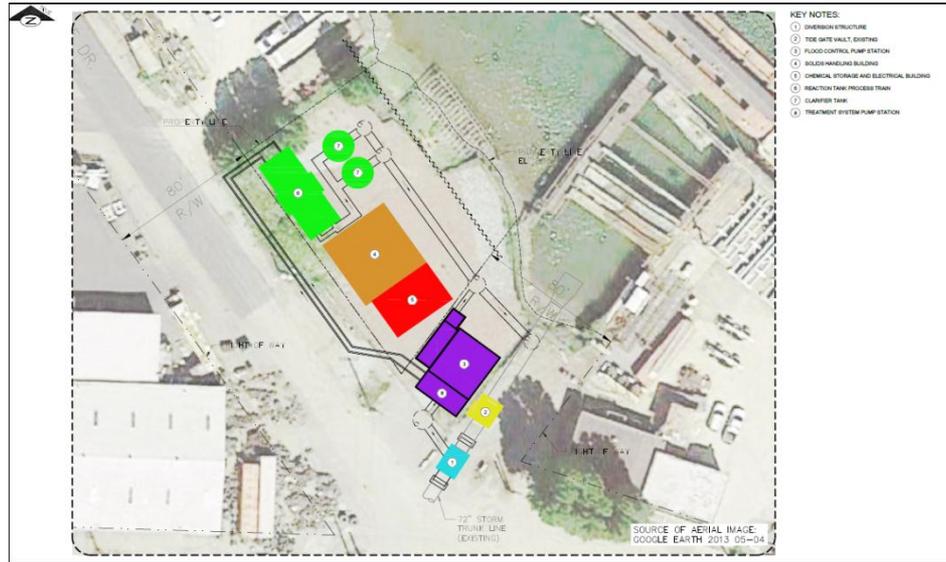
Flat HGL during storms at high tides

South Park Flood Control Pump Station

- Project is in design
- Overcomes tidal influence at the outfall & trunk
- Pump station will have 2 bays available for future installation of Water Quality Facility pumps.



South Park Water Quality Facility



- SPU property next to flood control pump station
- Layout is for planning purposes only and does not indicate a preference for any one technology
- Performance criteria set by Integrated Plan commitments



South Park Drainage Conveyance



- No conveyance system in many streets
- Planning document:
 - Layout
 - Sizing
 - Sequencing
 - Climate Change
 - Partnering options
 - Possible separation in adjacent areas
- Phased contract may include design



Existing Condition



Seattle Public Utilities

Seismic Mitigation Program

Water System Seismic Vulnerability Study



SPU Seismic Mitigation Program History

- Seismic Reliability Study of the Seattle Water Departments Water Supply System (Cygn Energy Services, 1990)
- Earthquake Loss Modeling of the Seattle Water System (Kennedy Jenks Chilton/USGS, 1990)
- SPU Seismic Upgrade Program (e.g., OCC, Myrtle Elevated Tanks, Barton Standpipe, etc.)
- Performance of Water Supply Systems in the February 28, 2001 Nisqually Earthquake (system post-earthquake hydraulic modeling, Water Research Foundation, 2008)



Seismic Vulnerability Assessment - Project Tasks

- Define earthquake hazards associated with two deterministic scenario events:
 - M9.0 Cascadia Subduction Earthquake
 - M6.5 to M7.0 Seattle Fault Earthquake
- Seismic vulnerability assessments for all water transmission and distribution system facilities.
 - Deterministic earthquake scenarios
 - ASCE/SEI 7-10 (Building Code) Establish post-earthquake water transmission and distribution system performance goals
- Estimate overall system response for deterministic earthquake scenarios (hydraulic modeling of post-earthquake water system performance to be done by SPU)



Seismic Vulnerability Assessment - Project Tasks (continued)

- Develop planning level mitigation measures, cost estimates and timeframe to meet service level goals
 - Mitigation measures to include physical upgrade and emergency preparedness and response planning
 - Service level goals to be established by SPU with some consultant review
 - Mitigations elements will be prioritized by risk/criticality and will consider SPU budget constraints.
- Define seismic design standards for water transmission and distribution pipelines



Summary List of Facilities

- 1700 plus miles of transmission and distribution pipeline
- Facilities
 - Approximately 25 pump stations
 - Approximately 10 elevated tanks and standpipes
 - Two treatment plants
 - Dams
 - Numerous administration and support facilities
 - Numerous gatehouses and chlorination facilities
 - Control works
 - Two well fields



Seismic Project Milestone Targets

- ⦿ RFQPA Advertisement – March 2015
- ⦿ Consultant NTP – 2nd Qtr 2015
- ⦿ Performance Goals – 1st Qtr 2016
- ⦿ Preliminary findings – 1st Qtr 2016
- ⦿ Final report – 2nd Qtr 2016

Direct Questions to
Bill Heubach

Bill.Heubach@Seattle.Gov

City of Seattle Water System Seismic Vulnerability Study

CITY OF SEATTLE
PUBLIC UTILITIES
NOTICE OF INTENT
Project: Seattle Public
Utilities Water System
Seismic Vulnerability Study
To Potentially Interested
Party

The City of Seattle Public Utilities (SPU) is anticipating issuing a Request for Qualifications and Project Approach (RFQPA) in March 2015 for water systems life-line earthquake engineering services. These Consulting engineering services will be needed to perform a seismic vulnerability study for the SPU drinking water system and system facilities, develop mitigation options and design standards for the installation of new SPU water main/pipes.

The selected consultant team will be expected to assist SPU with the following activities listed below.

- Use existing seismological and geotechnical information to develop earthquake hazards to SPU water system facilities for two deterministic earthquake scenarios

- Work with SPU staff to identify seismic hazard failure/damage effects and modes for SPU water transmission and distribution system facilities

- Use available previous SPU facility seismic vulnerability assessments, available design deterministic earthquake scenarios and the design ground motions defined by the Seattle Building Code/ASCE 7. Special emphasis will be placed on the transmission, backbone and distribution pipelines/pipeline systems.

- Work with SPU hydraulic modeling staff to estimate overall system hydraulic response to the two deterministic earthquake scenarios.

- Review preliminary post-earthquake water system performance goals to be developed by SPU and assist in finalizing these goals.

- Develop mitigation measures and planning level cost estimates needed to achieve the post-earthquake performance goals and provide a recommended plan and timeframe for a seismic capital improvement program prioritized

by risk/critically and consistent with a budget constraints.

- Develop seismic design standards for new SPU water system facilities with an emphasis on new pipelines since most other types of facilities are already covered by existing codes and standards.

Upon the SPU advertisement in the Daily Journal of Commerce (DJC), interested consultants are encouraged to review the RFQPA, background documents, and any RFQPA addenda online at <https://www.ebidexchange.com/seattle>.

Note that you are required to complete a free registration to view, print or save documents posted on this website and to view contact information for other consultants who have downloaded documents from this website. SPU will also conduct an SPU Pre-submittal Meeting, immediately following the DJC Advertisement, for all prospective candidates, prime & subconsultants, to ask questions about the project, along with an opportunity for networking and Prime & Subconsultant teaming for this proposed project. Private meetings and/or communications between SPU and prospective consultants will not be held.

And for your information, this specific SPU project along with other prospective SPU Architectural/Engineering consulting projects will be generally discussed at the SPU Architectural/Engineering Opportunity Event, scheduled to be held on Wednesday, February 25, 2015 from 9:00 AM to 12:30 PM at the Bertha Knight Landes Conference Room, Main floor of the Seattle City hall bldg., at 600 Fourth Avenue, Seattle, WA 98104. Online pre-registration is encouraged to ensure seating:

<http://city-consultant-forum.eventbrite.com>

The City of Seattle is an Equal Opportunity Employer and selection of the Consultant is subject to applicable laws and ordinances regarding equal opportunity employment.

Date of publication in the Seattle Daily Journal of Commerce, February 12, 2015.

2/12(320418)



Seattle Public Utilities

Combined Sewer Overflow (CSO) Program

West Ship Canal CSO Reduction Project



WSC CSO Project

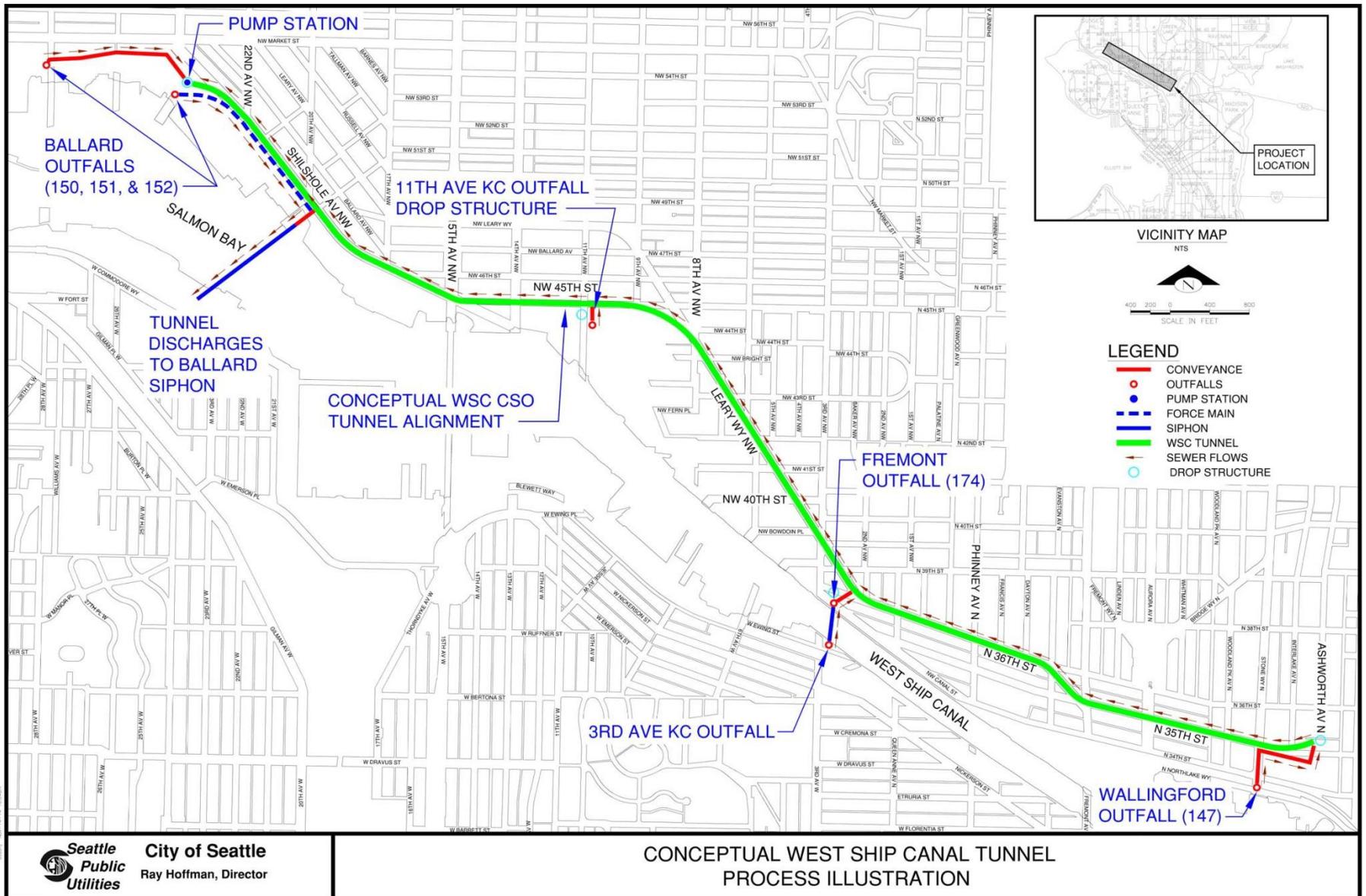
- ◉ Joint project with King County WTD.
- ◉ The West Ship Canal CSO project is being enacted to meet the Consent Decree's (CD) for both the City of Seattle & King County (solution in place by 2025).
- ◉ Name Change



WSC CSO vicinity



WSC CSO Project Overview



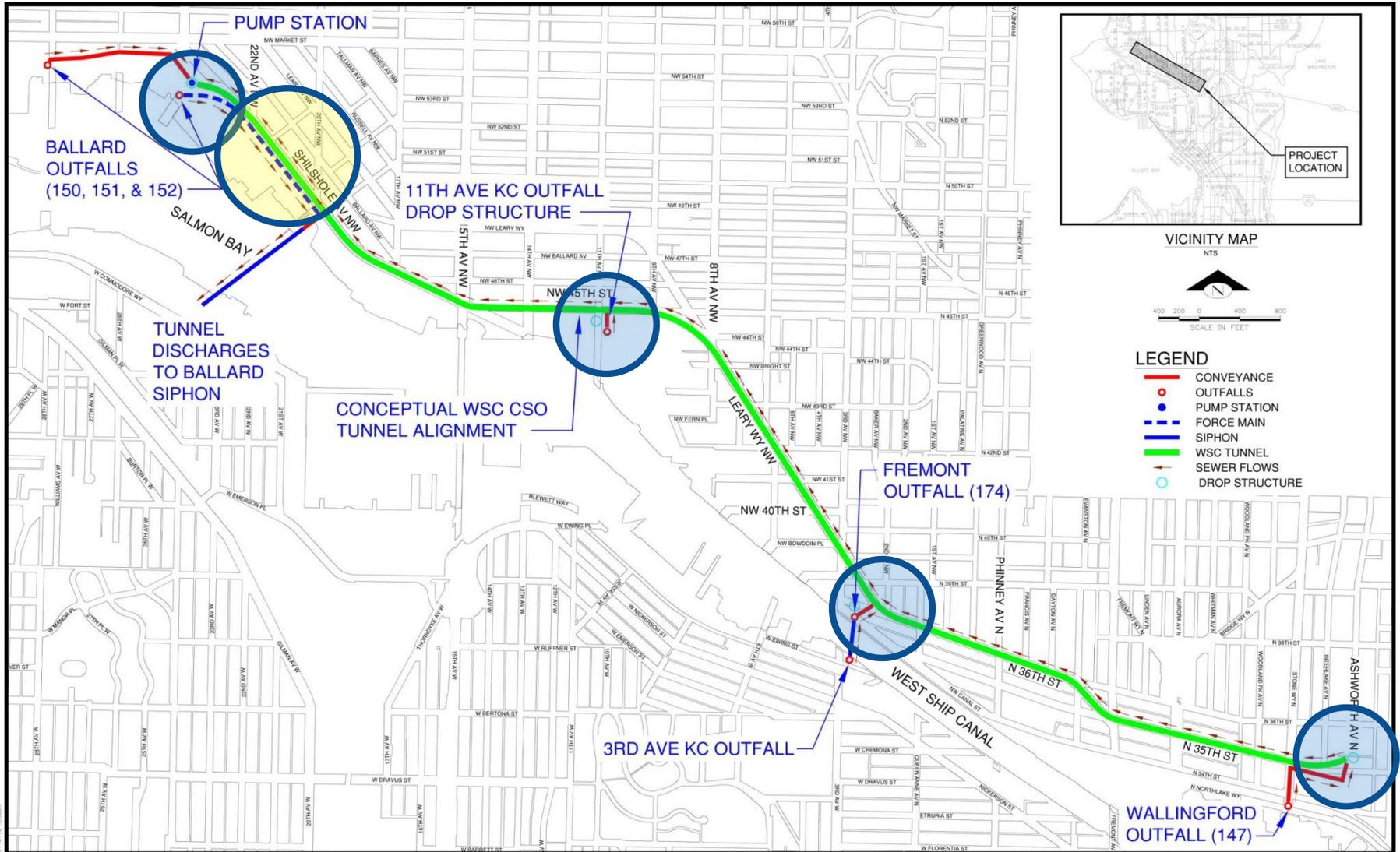
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Storage:

- A bored **15.24-MG** offline storage tunnel with an effective 14 feet inside diameter and nominally 14,000 feet long;
- Six diversion structures for diverting influent CSO flow away from existing CSO outfalls to the Tunnel;
- Four drop structures to convey influent CSO flow into the storage tunnel; including odor control
- An East Tunnel Portal with an approximate tunnel invert elevation of 90-feet (Seattle datum) housing odor control equipment; and,
- A West Tunnel Portal with an approximate tunnel invert elevation of 100-feet housing an effluent pump station with a peak capacity of **32 MGD** to empty the storage tunnel in approximately 12 hours.



WSC CSO drop structures; PS/FM



City of Seattle
Ray Hoffman, Director

**CONCEPTUAL WEST SHIP CANAL TUNNEL
PROCESS ILLUSTRATION**

Conveyance:

- Approximately 2,200 lineal feet (lf) of 36 to 72-inch diameter gravity sewer line to convey flows from **SPU's Ballard and Fremont/Wallingford CSO** areas (NPDES 150/151, NPDES 152, NPDES 147, and NPDES 174 respectively),
- Approximately 900 lf of 48 to 60-inch diameter gravity sewer line to convey flows from **KC WTD's 3rd Ave. W. and 11th Ave. NW** CSO to tunnel drop structures.
- Approximately 800 lf of the gravity sewer line will be **under the Ship Canal** to connect the 3rd Ave. W. diversion structure to the Tunnel.



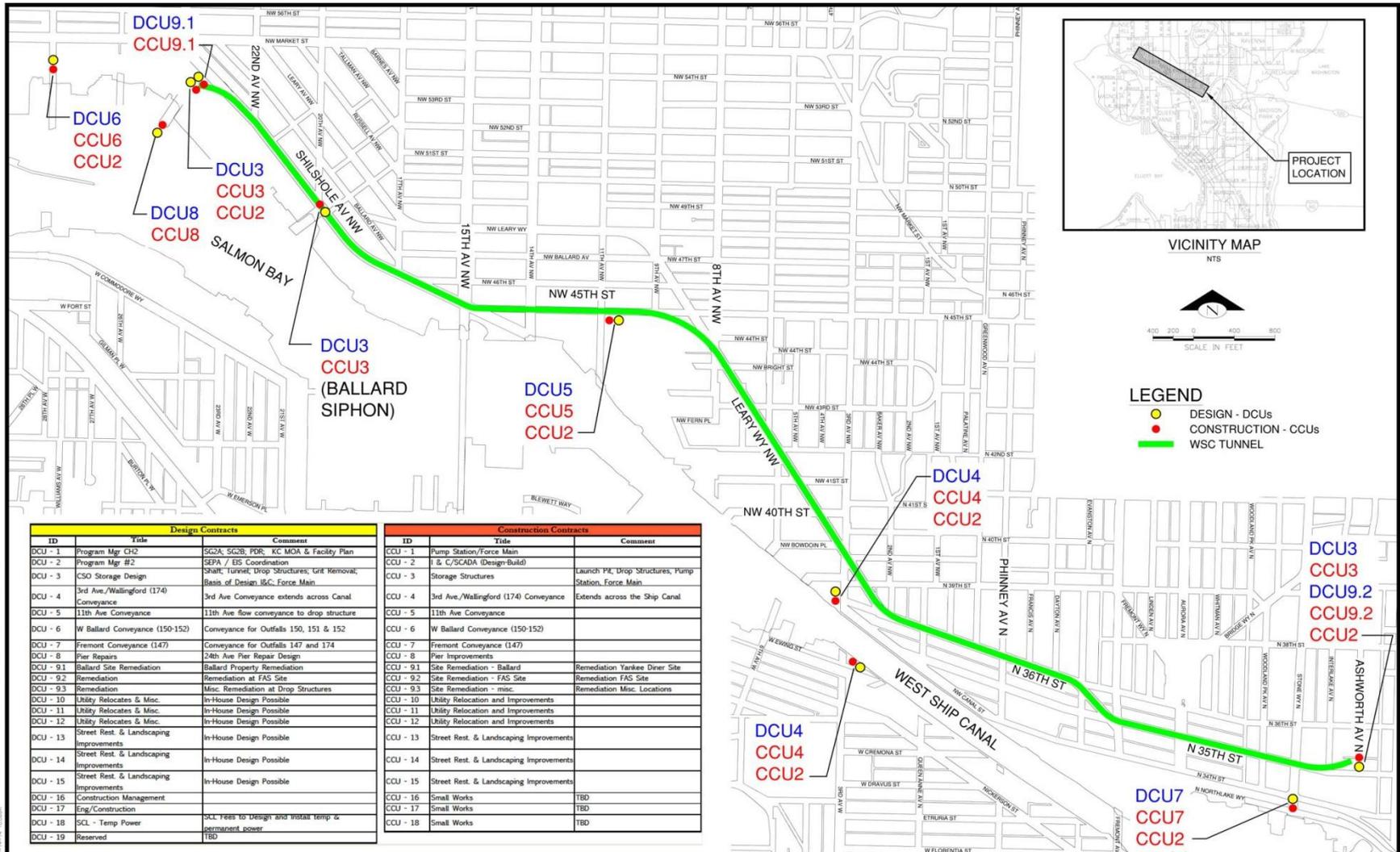
WSC CSO Project:

Contracting strategy

Design Contracts		
ID	Title	Comment
DCU - 1	Program Mgr CH2	SG2A; SG2B; PDR; KC MOA & Facility Plan
DCU - 2	Program Mgr #2	SEPA / EIS Coordination
DCU - 3	CSO Storage Design	Shaft; Tunnel; Drop Structures; Grit Removal; Basis of Design I&C; Force Main
DCU - 4	3rd Ave./Wallingford (174) Conveyance	3rd Ave Conveyance extends across Canal
DCU - 5	11th Ave Conveyance	11th Ave flow conveyance to drop structure
DCU - 6	W Ballard Conveyance (150-152)	Conveyance for Outfalls 150, 151 & 152
DCU - 7	Fremont Conveyance (147)	Conveyance for Outfalls 147 and 174
DCU - 8	Pier Repairs	24th Ave Pier Repair Design
DCU - 9.1	Ballard Site Remediation	Ballard Property Remediation
DCU - 9.2	Remediation	Remediation at FAS Site
DCU - 9.3	Remediation	Misc. Remediation at Drop Structures
DCU - 10	Utility Relocates & Misc.	In-House Design Possible
DCU - 11	Utility Relocates & Misc.	In-House Design Possible
DCU - 12	Utility Relocates & Misc.	In-House Design Possible
DCU - 13	Street Rest. & Landscaping Improvements	In-House Design Possible
DCU - 14	Street Rest. & Landscaping Improvements	In-House Design Possible
DCU - 15	Street Rest. & Landscaping Improvements	In-House Design Possible
DCU - 16	Construction Management	
DCU - 17	Eng/Construction	
DCU - 18	SCL - Temp Power	SCL Fees to Design and Install temp & permanent power
DCU - 19	Reserved	TBD

Construction Contracts		
ID	Title	Comment
CCU - 1	Pump Station/Force Main	
CCU - 2	I & C/SCADA (Design-Build)	
CCU - 3	Storage Structures	Launch Pit, Drop Structures, Pump Station, Force Main
CCU - 4	3rd Ave./Wallingford (174) Conveyance	Extends across the Ship Canal
CCU - 5	11th Ave Conveyance	
CCU - 6	W Ballard Conveyance (150-152)	
CCU - 7	Fremont Conveyance (147)	
CCU - 8	Pier Improvements	
CCU - 9.1	Site Remediation - Ballard	Remediation Yankee Diner Site
CCU - 9.2	Site Remediation - FAS Site	Remediation FAS Site
CCU - 9.3	Site Remediation - misc.	Remediation Misc. Locations
CCU - 10	Utility Relocation and Improvements	
CCU - 11	Utility Relocation and Improvements	
CCU - 12	Utility Relocation and Improvements	
CCU - 13	Street Rest. & Landscaping Improvements	
CCU - 14	Street Rest. & Landscaping Improvements	
CCU - 15	Street Rest. & Landscaping Improvements	
CCU - 16	Small Works	TBD
CCU - 17	Small Works	TBD
CCU - 18	Small Works	TBD

WSC CSO Contracting strategy

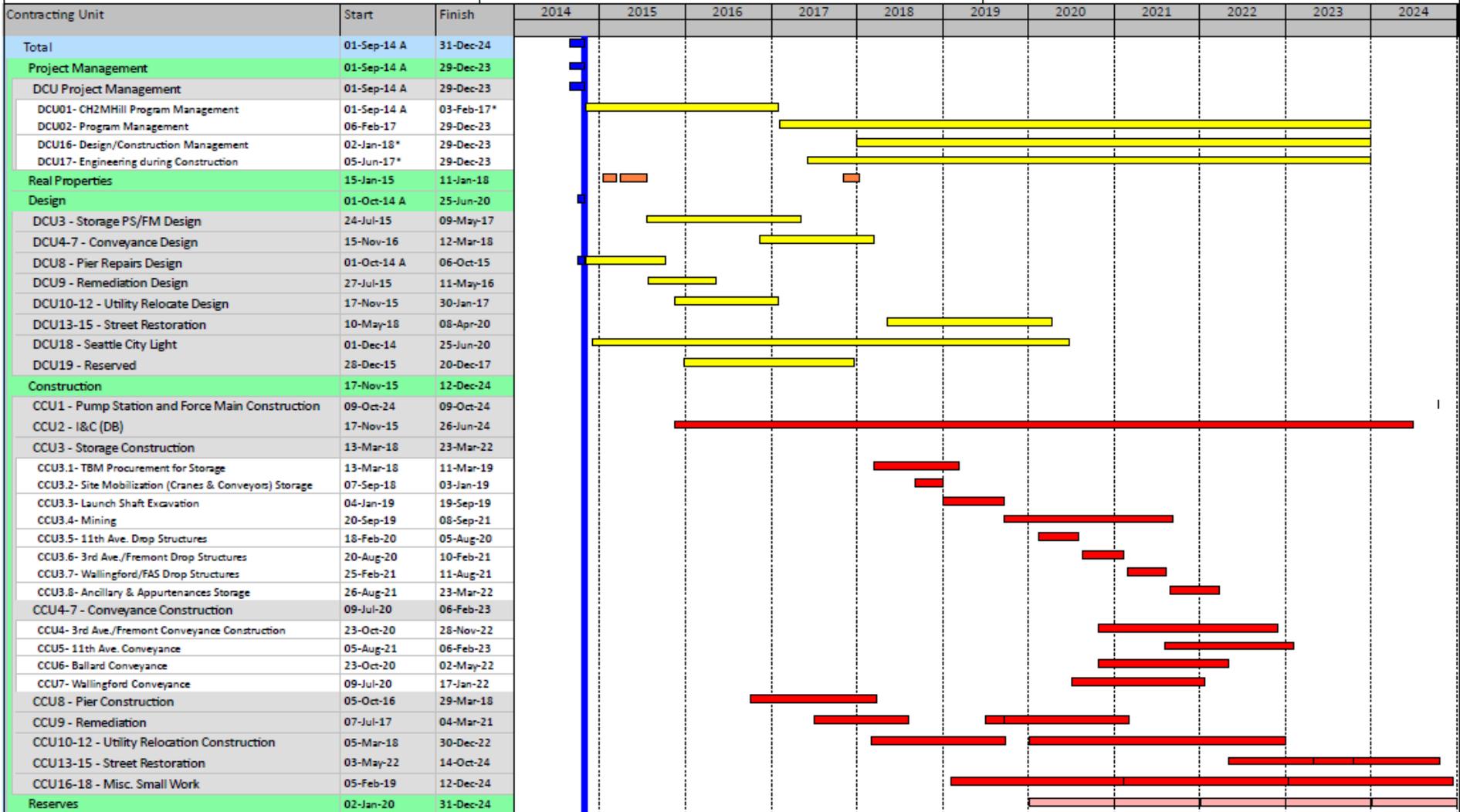


CONCEPTUAL WEST SHIP CANAL TUNNEL
CONTRACTING UNIT LOCATIONS

Data Date: 01-Nov-14
Run Date: 05-Dec-14

Draft West Ship Canal CSO Project

Project Schedule



■ Actual Work
 ■ Construction Contracting Unit
 ■ Reserves
■ Design Contracting Unit
 ■ Real Properties
 ■ SPU/KC PM

WSC CSO Project:

Next steps - 2015

- ⦿ Draft Facility Plan by Q3 2015
- ⦿ SEPA Strategy by Q3 2015
- ⦿ Storage, PS and FM Designer (Ad Q2 2015; NTP Q3 2015)
- ⦿ Initiate community outreach (in process)



WSC CSO Project:

Consultant – tentative schedule

- ◉ Storage/Dropstructures/PS.FM Designer Advertisement 4/6/2015 – NTP Q3 2015
- ◉ Conveyance Design Packages Advertisement Q1 2016 – Q3 2016
- ◉ Utility Relocate Design Packages Q1 2016 – Q4 2016
- ◉ Misc ROW Improvement Packages Q1 2017 – Q4 2018
- ◉ **SPU to perform some percentage of design**



WSC CSO Project:

Questions?



SPU Project Contacts

- ◉ South Park Water Quality Facility
- ◉ South Park Drainage Conveyence Improvements

Alan Lord

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- ◉ Water System Seismic Vulnerability Study

Bill Heubach

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SPU Project Contacts

- ◉ West Ship Canal CSO Reduction

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- ◉ Project Controls Services

Hanif Khan

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City of Seattle

Consultant Roster

Available to all City Departments



Consultant Roster

- **Consultant Roster (under \$285K)** selections are based on Consultant Roster Category registration available on the City of Seattle Online Business Directory.
- The Consultant Roster provides Contract Managers & Project Managers with a list of consultants that specialize in consultant categories.
- Specific rules apply for consultant selection using this contract method.

Link to Consultant Roster:

<http://www.seattle.gov/city-purchasing-and->



SDOT Frequently Used Consultant Roster Categories

Design

Architectural Services (Urban)
Bridge/Retaining Wall Design
Civil Engineering
Geotechnical Engineering
Hydraulic Engineering
Intelligent Transportation Systems
Pavement and Material Engineering
Roadway Design
Structural Engineering

Survey/Testing

Field Sampling and Material Testing/Analysis
Land Survey
Survey 3D Laser Scanning, Bathymetry

Communications

Commercial Art and Graphic Design
Services
Communications
Public Information, Promotion, and Public
Involvement

Management

Construction Management
Project Management

Environmental

Environmental Management
Forestry Services
Historic Resource Inventories/ Assessments
Landscape Services
Hazardous materials/ Waste operations and
Management

Miscellaneous

Bicycle and Pedestrian Services
Customer Service Development
Human Resources
Information Technology
Real Estate Consulting
Transportation Services

Please note that this is a snapshot and not an all-inclusive list of SDOT Roster Categories.

SPU's

Frequently used Roster Categories

Category #	Category Name	Existing Contracts	Contract Total
3	Archaeology, Anthropology and Tribal Issues	2	\$ -
5	Architectural Services - Space Planning	1	\$ -
6	Architectural Services - Structures	1	\$ 29,000
12	Communications	5	\$ 390,477
13	Computer Systems and Internet Analysis and Program	9	\$ 666,258
15	Construction Management	1	\$ 279,949
18	Customer Service Development	1	\$ 160,570
22	Diving	1	\$ 44,980
32	Environmental Engineering	1	\$ -
34	Environmental Services - Natural Resources	2	\$ 295,354
35	Field Sampling and Material Testing / Analysis	1	\$ -
39	Geotechnical Services	1	\$ 60,745
45	Information Technology	2	\$ 286,675
47	Landscape Services	1	\$ 2,560
49	Management Services	5	\$ 322,553
57	Project Management	1	\$ 79,656
58	Public Information and Public Relations	1	\$ 25,160
62	Recycling and Sustainability	1	\$ 40,000
63	Roadway Design	3	\$ 300,000
68	Structural Engineering	1	\$ 40,000
73	Training and Counseling Services	5	\$ 254,358
79	Water Quality Protection	3	\$ 270,307
80	Water Systems Engineering	2	\$ 69,610
82	Information Technology-Project Oversight Services	2	\$ 17,690
		53	\$ 3,635,902





**Thanks for your
interest in doing
business with
the City.**