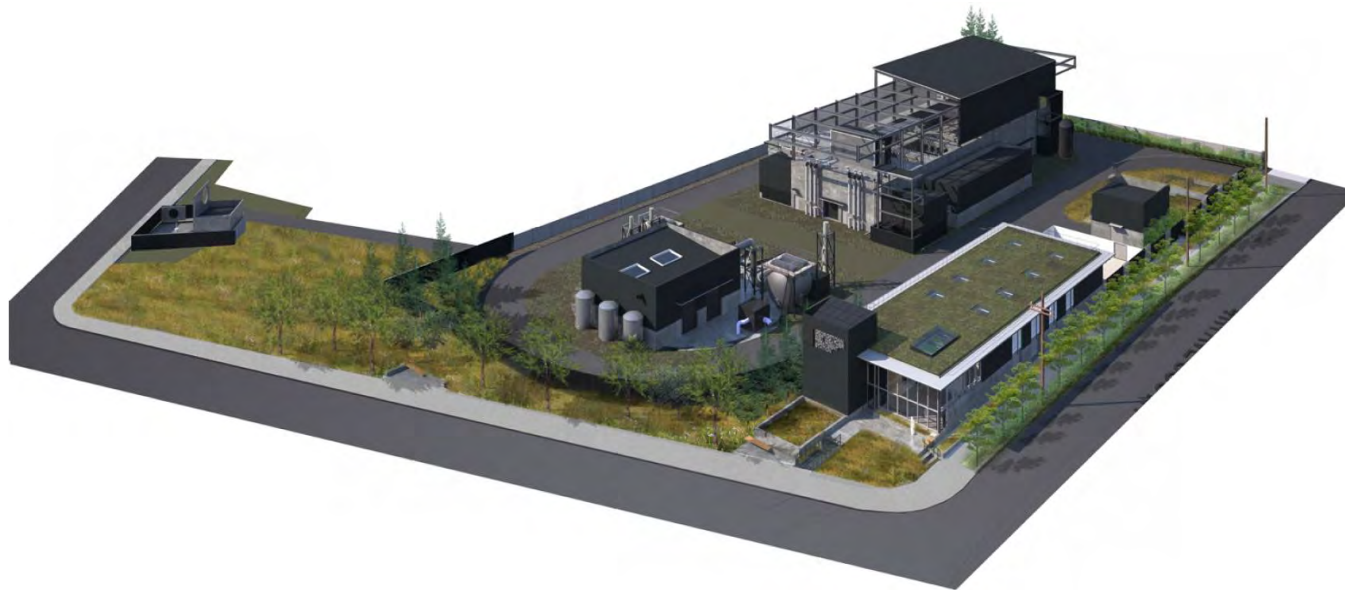


Georgetown Wet Weather Treatment Station Contractor Open House



October 26, 2016

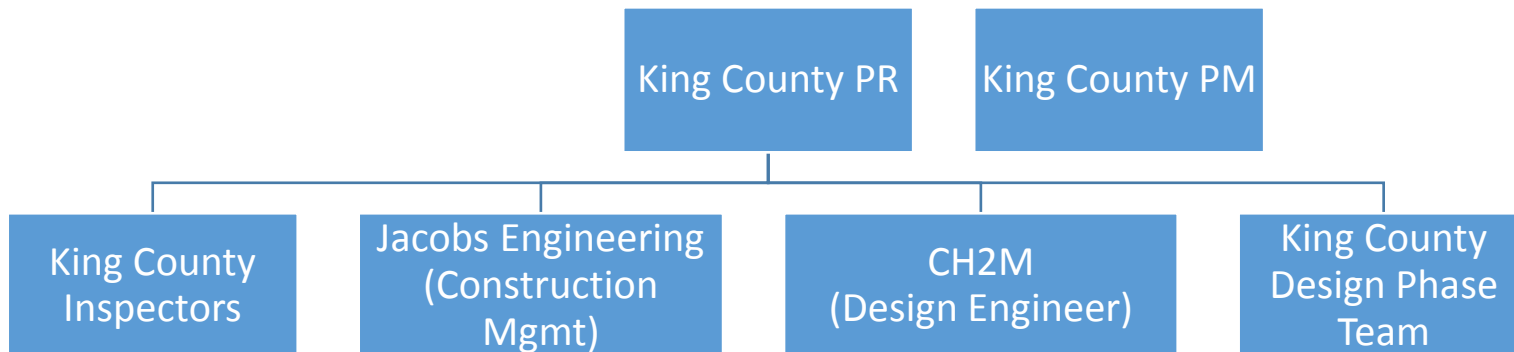
Purpose of Project

- “Control of Brandon and South Michigan Street CSO Outfalls in accordance with WAC 173-245-020(22)”
- WAC defines control as “no more than one event per year over a twenty year average” or treatment that is at least equal to primary treatment standards.
- Achieve all consent decree requirements

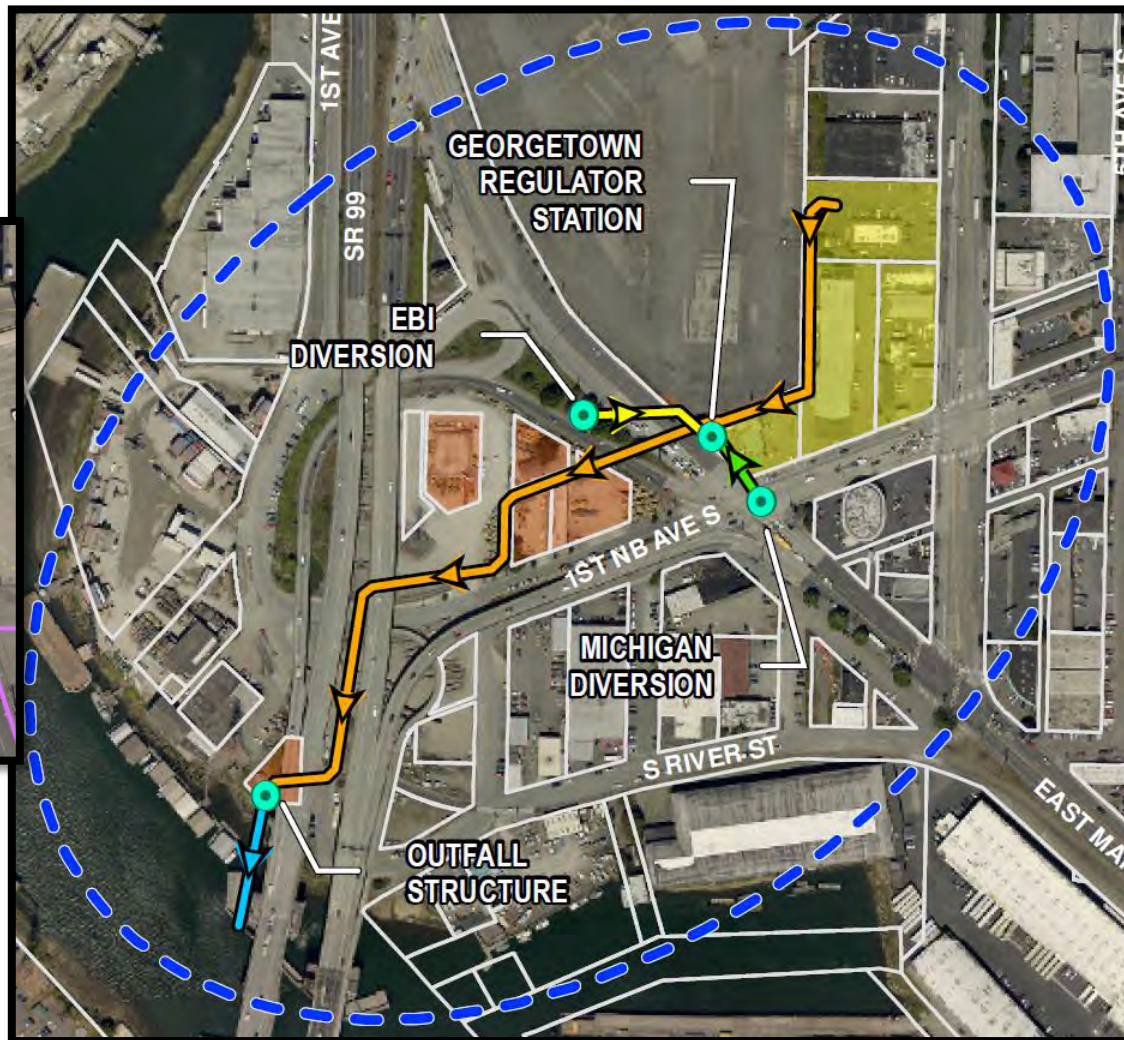
Consent Decree Schedule

Milestone	Consent Decree Date	Date
Submit Facility Plan	12/31/2015	11/2/2015 (Actual)
Complete Bidding	12/31/2017	11/3/2017
Complete Construction	12/31/2022	February 2022

Construction Management Team – Functional Organization

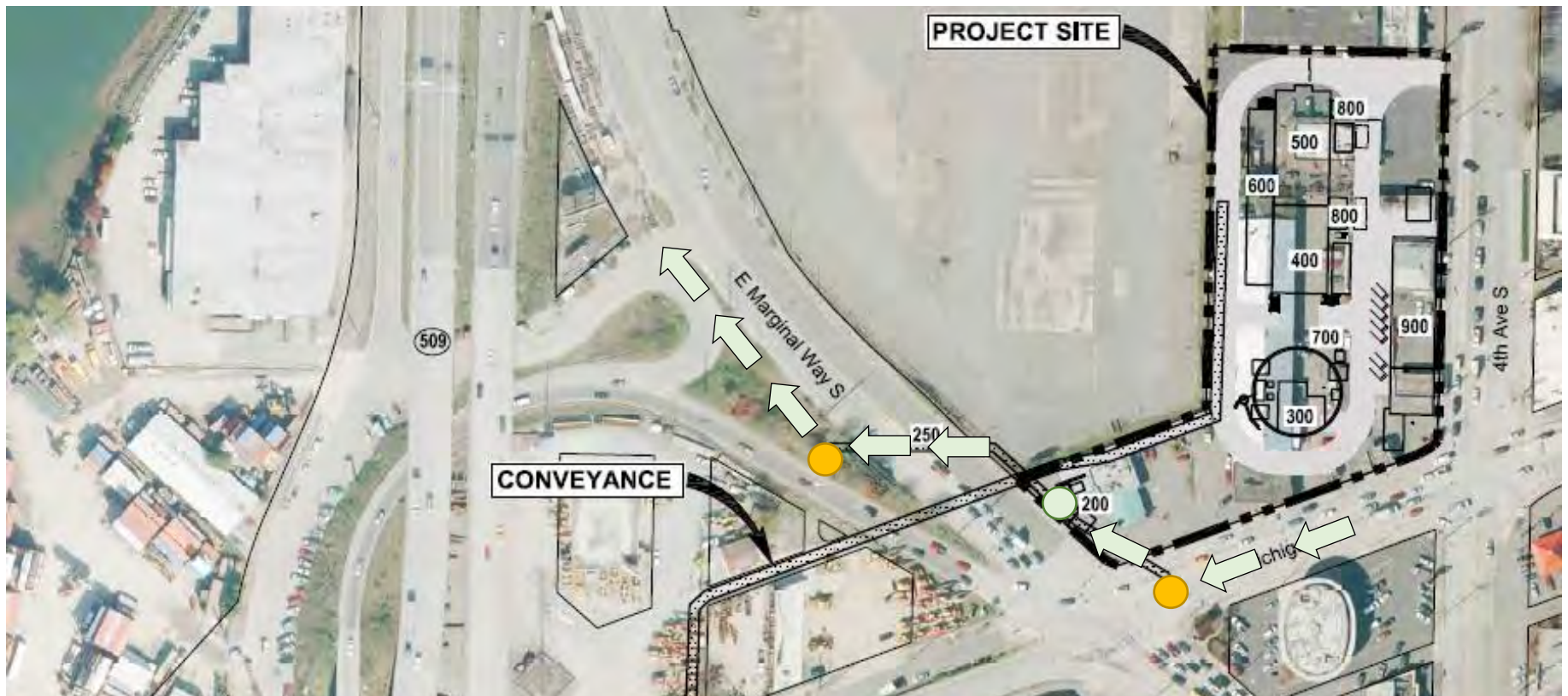


System Overview



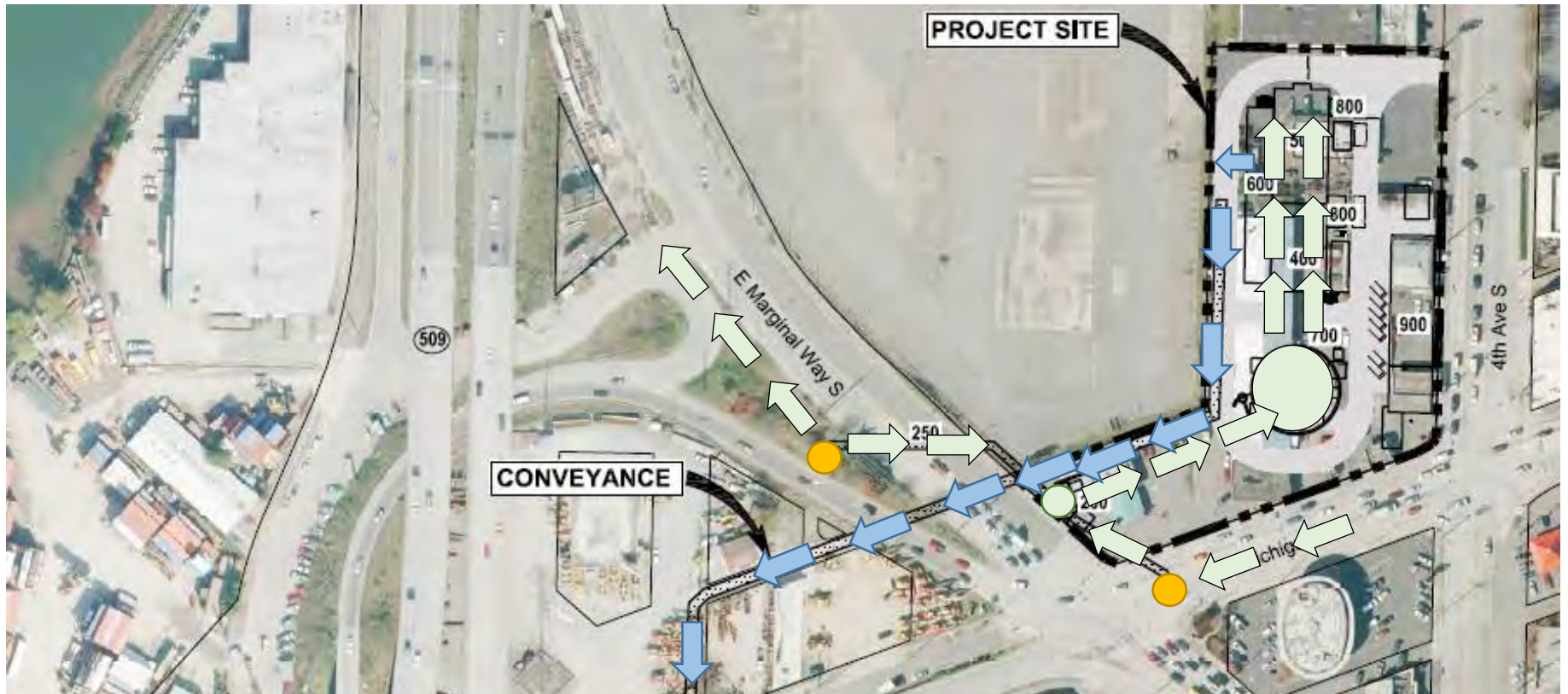
System Operation

- Dry Weather Flow



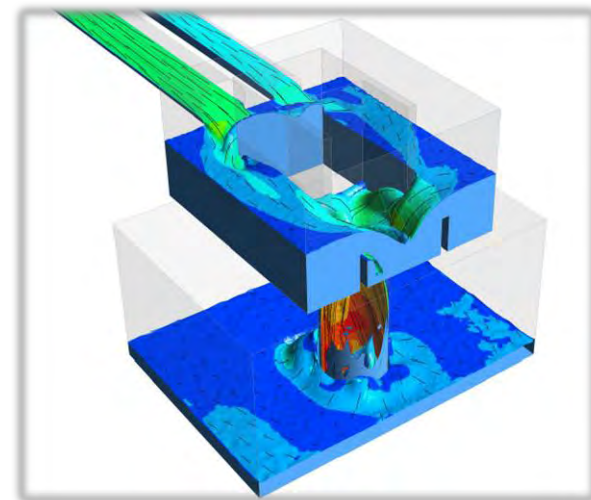
System Operation

- Wet Weather Flow (Treatment)



Project Elements

- Influent conveyance piping and connections to the County's and City's existing pipelines in S. Michigan and E. Marginal Way
- Modifications to WTD's existing Brandon St. and Michigan St. regulator stations
- Flow regulator structure
- Screening removal process
- Below grade, secant pile constructed, 1.1 million gallon flow equalization tank



Project Elements

- 70 million gallon per day vertical turbine solids handling pump station.
- Grouted inclusion-supported process facilities:
 - Ballasted sedimentation clarification system (Kruger Actiflo) and temporary solids storage
 - Ultra-violet disinfection (Suez Aquaray 3x)
 - Ancillary facilities including, odor control, essential services, generators, operations/maintenance support building, green stormwater infrastructure, landscaping and chemical storage
 - Effluent conveyance and an outfall structure in the Duwamish River adjacent to the WSDOT 1st Ave S. bridge

Contracting

- Minority Women Business Enterprise (M/WBE) goals- the County will apply for a State Revolving Fund loan through Washington Department of Ecology
- Small Contractor/Supplier Participation (SCS)
- Community Workforce Agreement

WWTS Birds Eye View



Contract Packages

The project is currently in final design by CH2M. It is currently anticipated that the project will be completed via four (4) construction contracts:

Contract	Estimated Duration (months)	Estimated Advertisement	Preliminary Cost Estimate Range (millions)
Demolition, Remediation, and Site Preparation	6-12	Early 2017	\$3-5
Georgetown Wet Weather Treatment Station	48-52	Mid-2017	\$90-100
Conveyance (bid date may change)	12-18	Mid to late 2017	\$12-16
Outfall	12-18	TBD	\$3-5

Existing Conditions

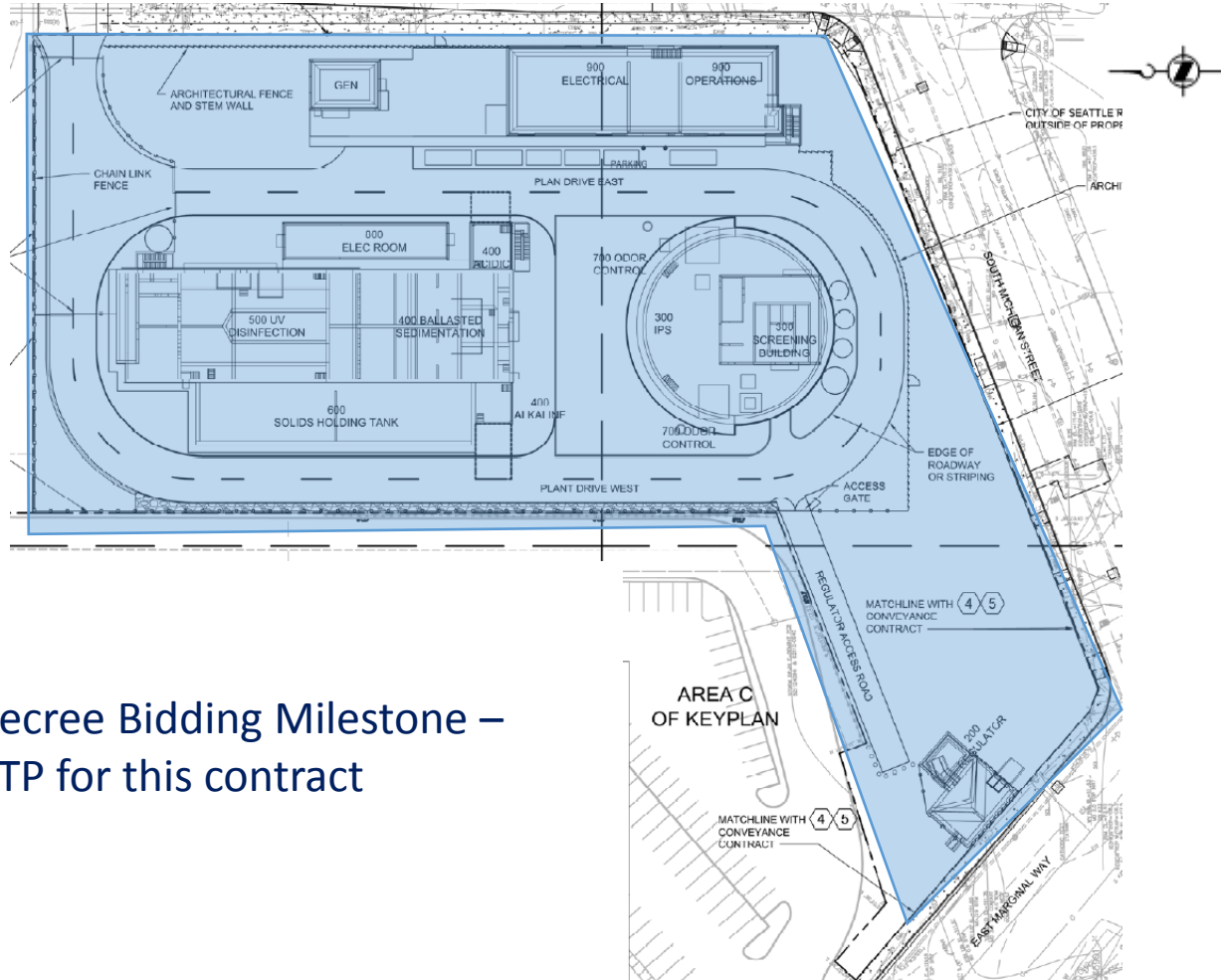


Demolition, Remediation & Site Preparation Scope – Early 2017

- Estimated Duration – 6-12 months
- Preliminary Cost Estimate - \$3M-\$5M
- Site security provisions (leave in place for GWWTS contractor)
- Underground storage tank and contaminated soil removal
- Dewatering incidental to site preparation work
- Exploratory trenches (cultural resources)
- Existing building and footing removal
- Stormwater treatment
- Utility removal

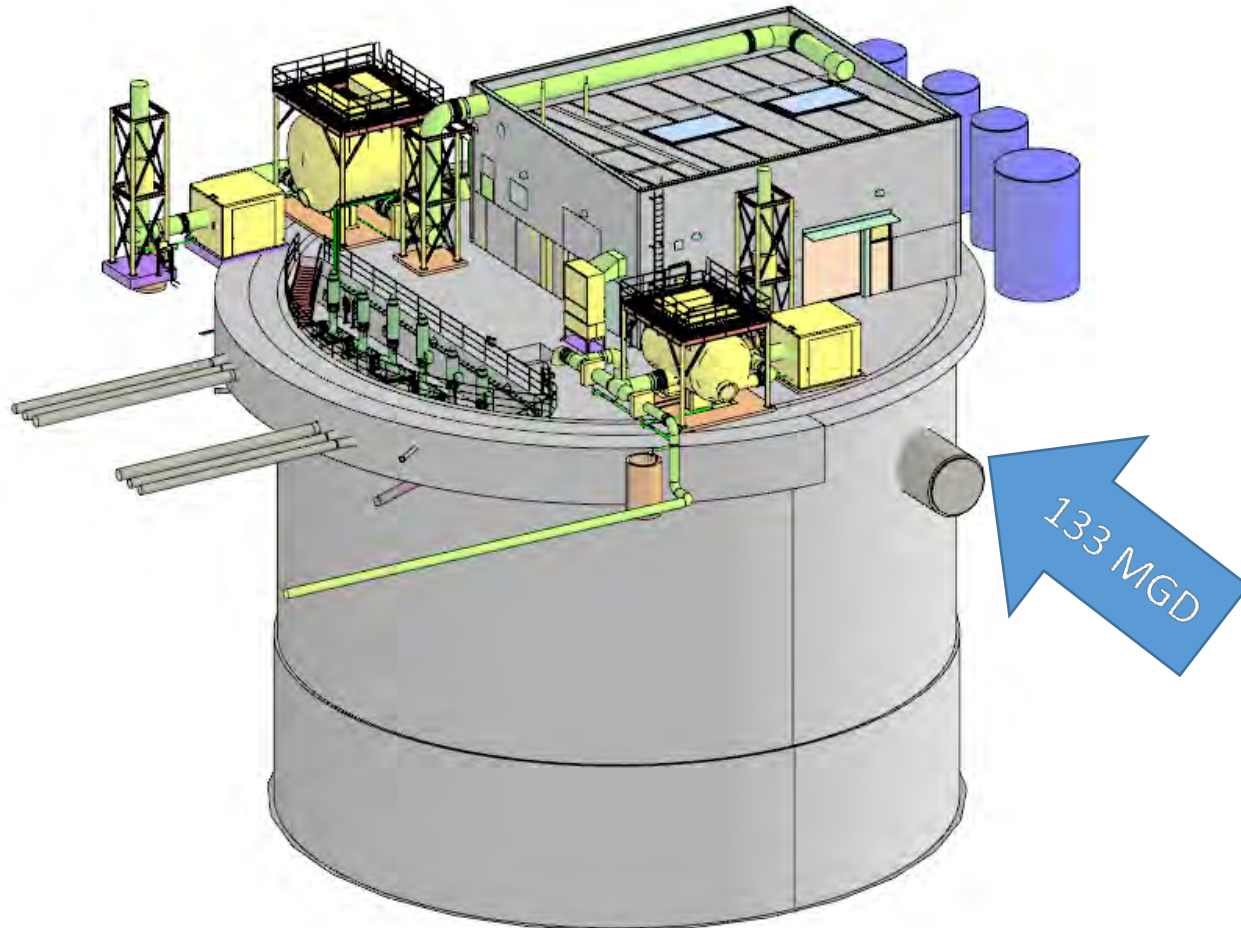


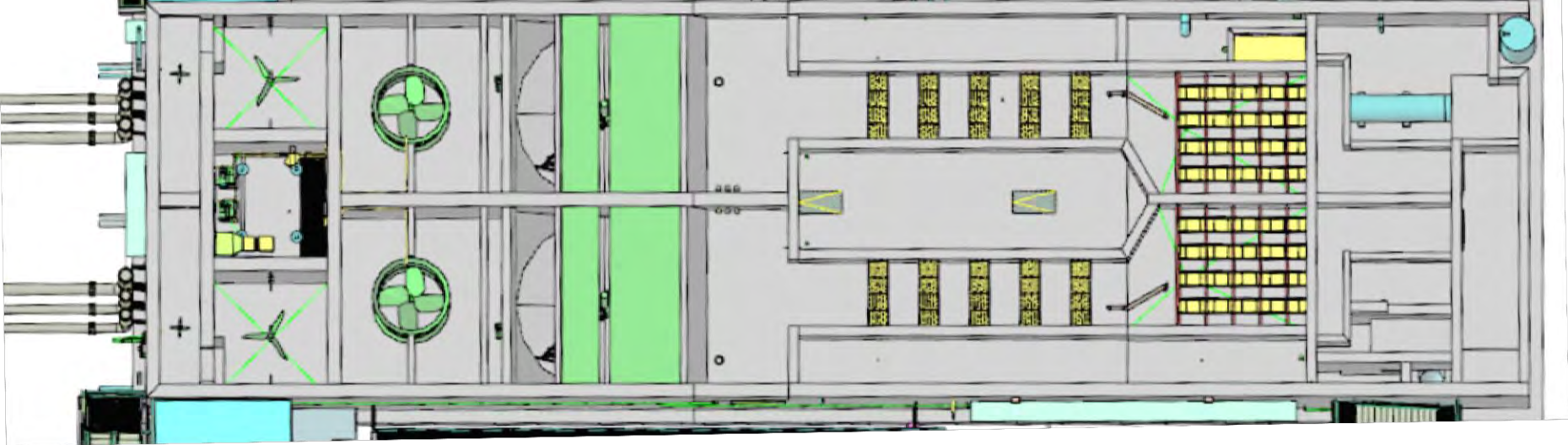
GWWTS



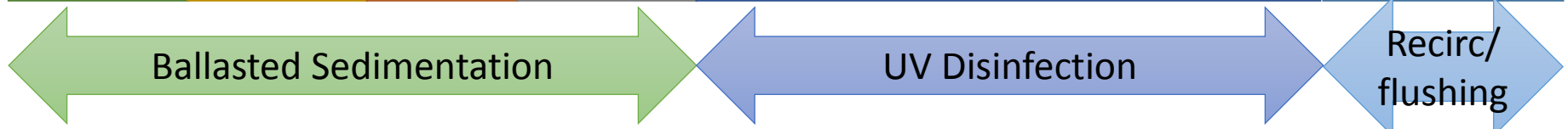
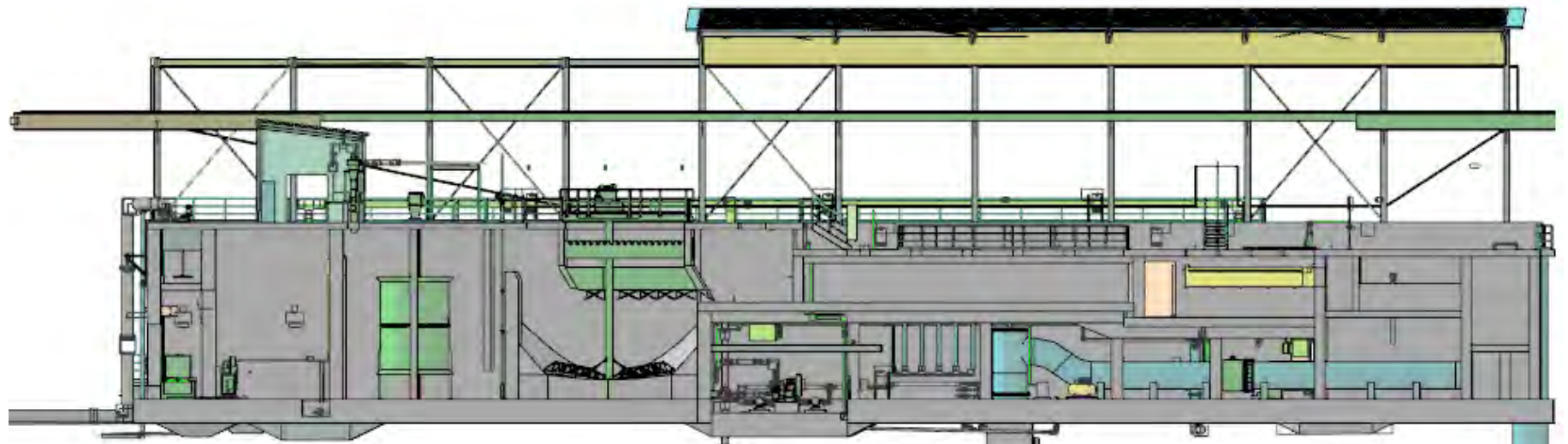
*Consent Decree Bidding Milestone –
NTP for this contract

Screens/Equalization Basin IPS/Odor Control

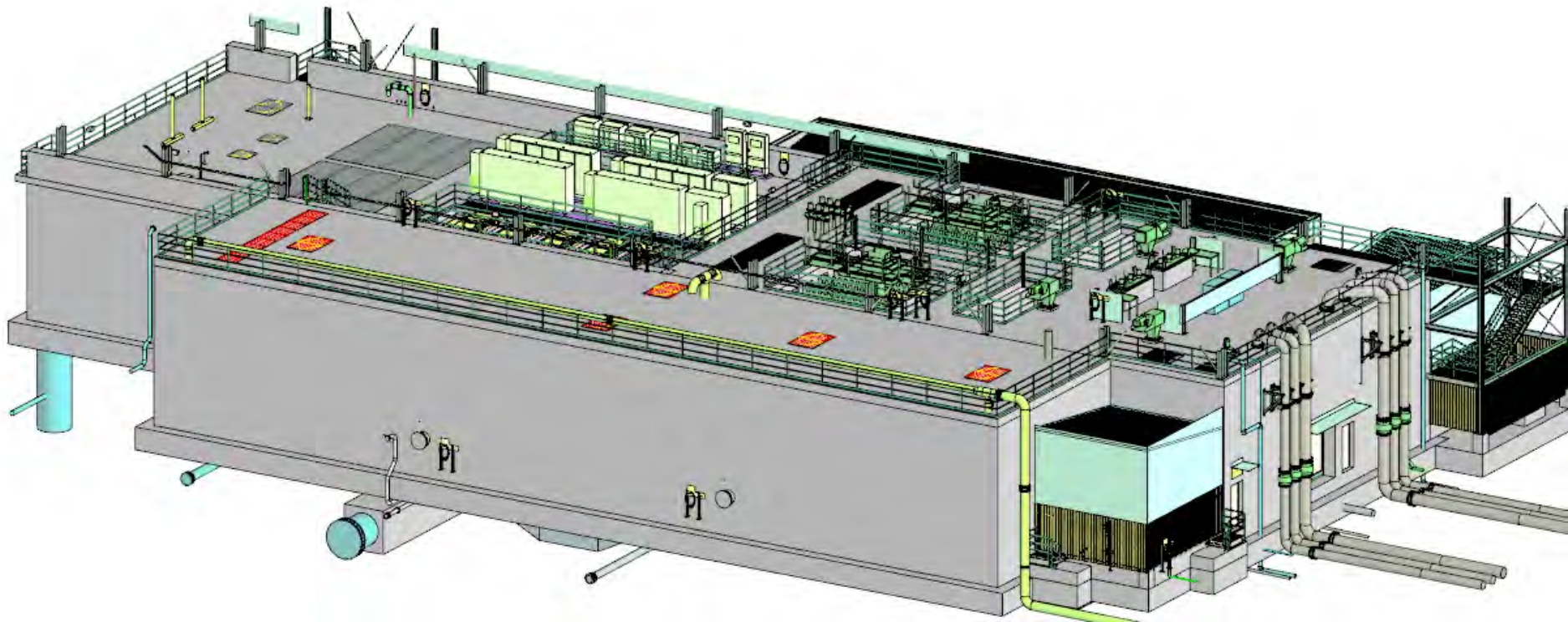




Treatment Process Train



Treatment Process





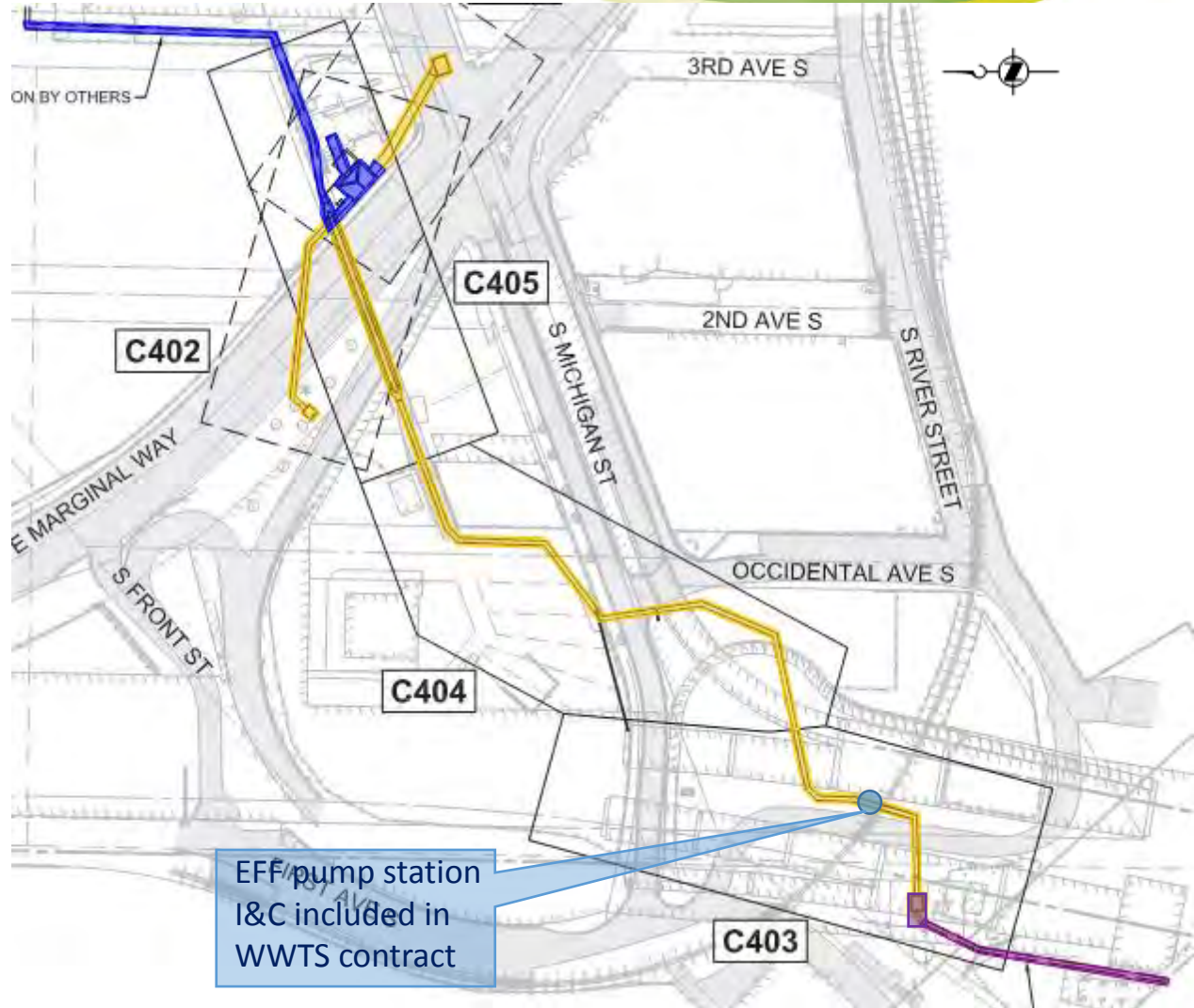
GWWTS Scope- Mid 2017

- Estimated Duration – 48-52 months
- Preliminary Cost Estimate - \$90-100M
- Ground improvements and secant piles
- Treatment station civil, structural, mechanical, and electrical
- All I&C integration work project wide
- Seattle City Light (SCL) Substation
- Right-of-way improvements along the 4 parcels

Conveyance

1. WWTS
2. Conveyance
3. Outfall

Brandon work
by Conveyance,
I&C by WWTS



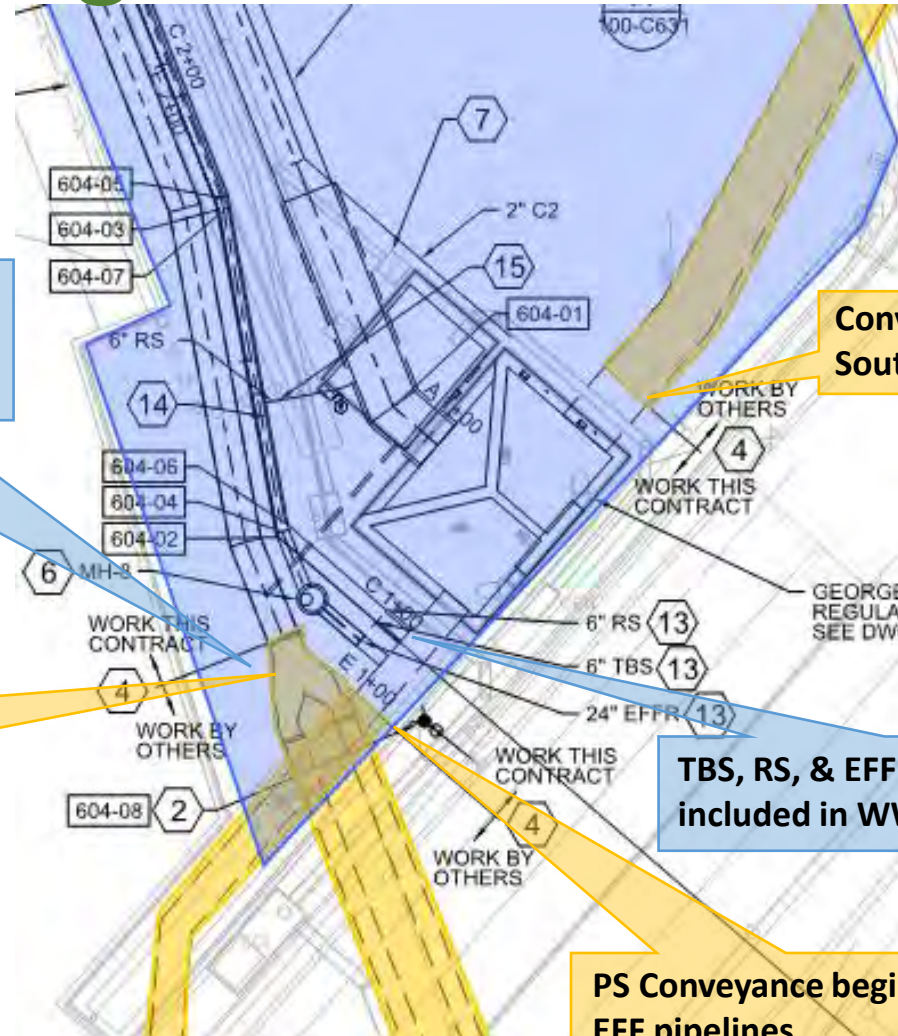
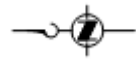
EFF pump station
I&C included in
WWTS contract

Conveyance Scope- Mid to Late 2017

- Estimated Duration – 12-18 months
- Preliminary Cost Estimate - \$12M-16M
- SCL vaults within physical limits of scope
- Effluent (EFF) pipeline, drainage sump pump
- ROW improvements along conveyance alignment
- Connect to Outfall vent structure

Georgetown Regulator Plan

1. **WWTS**
2. **Conveyance**



WWTS includes surface restoration above conveyance within the property boundaries

Conveyance begins South of Regulator

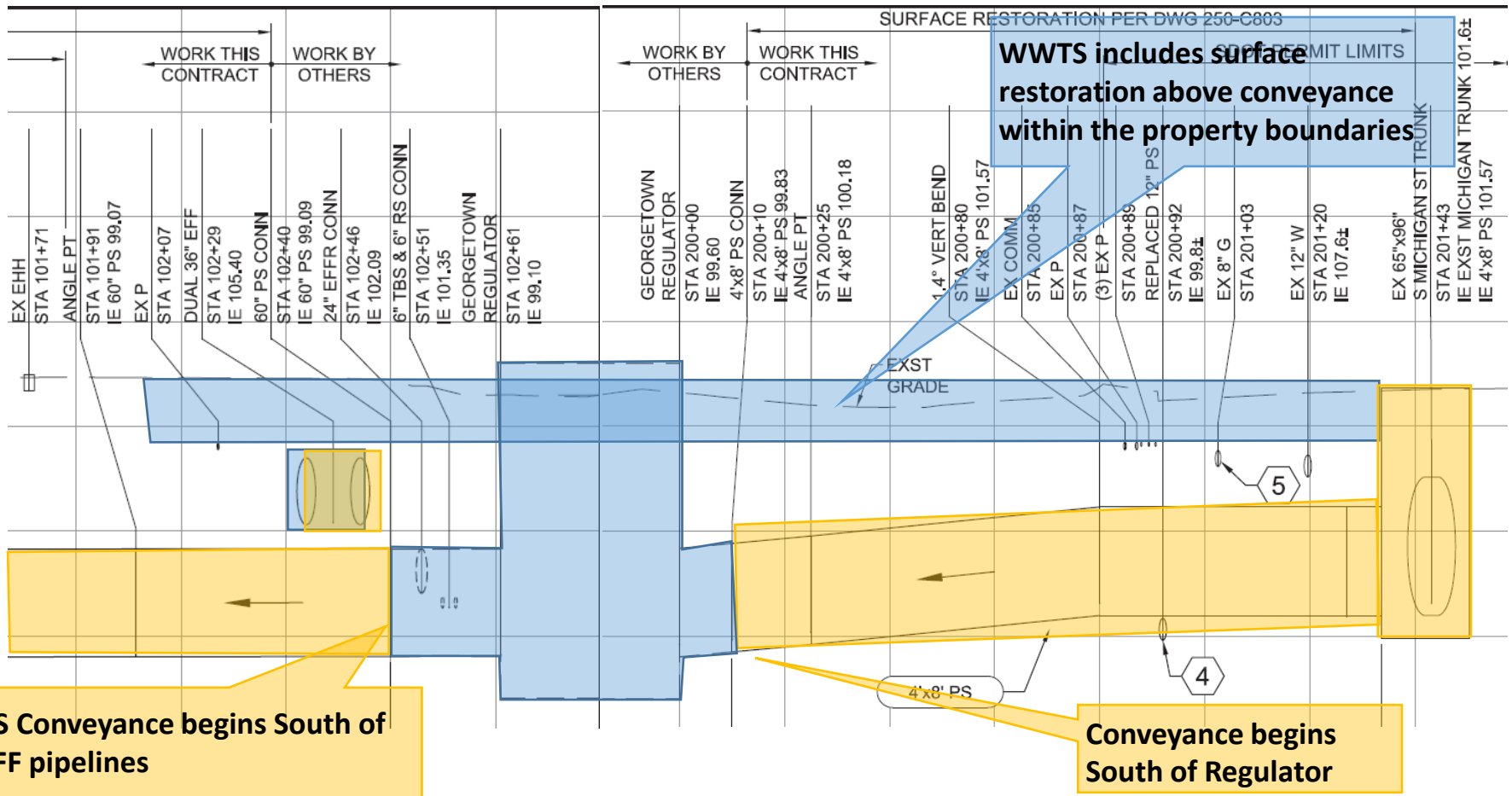
EFF Conveyance begins at dual EFF pipe

TBS, RS, & EFFR connections are included in WWTS contract

PS Conveyance begins South of EFF pipelines

1. **WWTS**
2. **Conveyance**

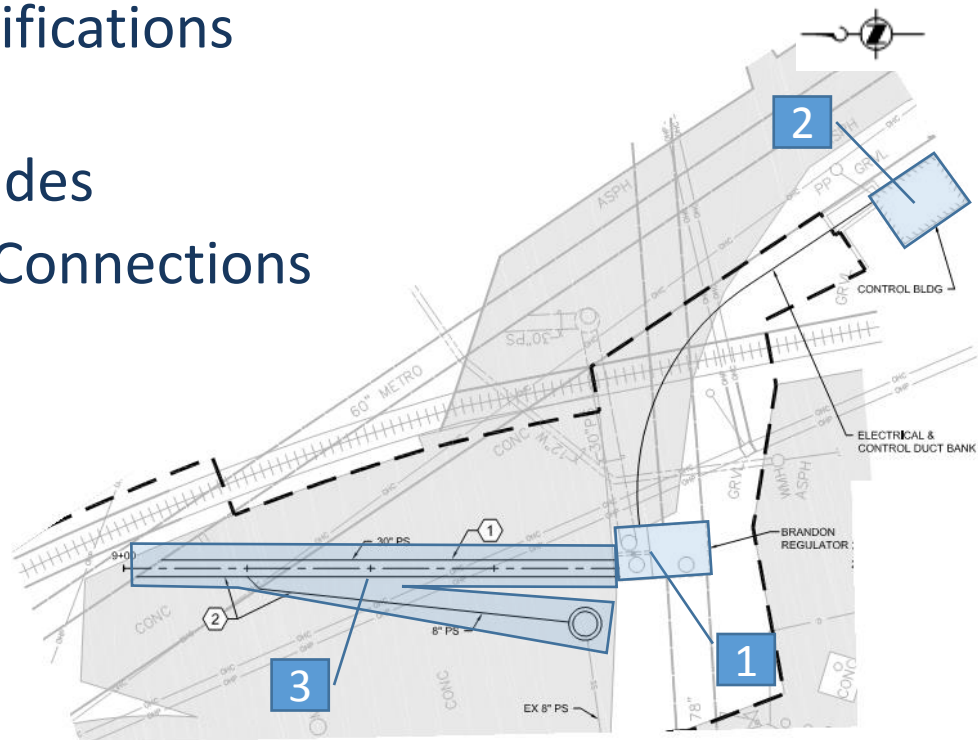
Georgetown Regulator



Existing Brandon Regulator

■ WWTS Contract

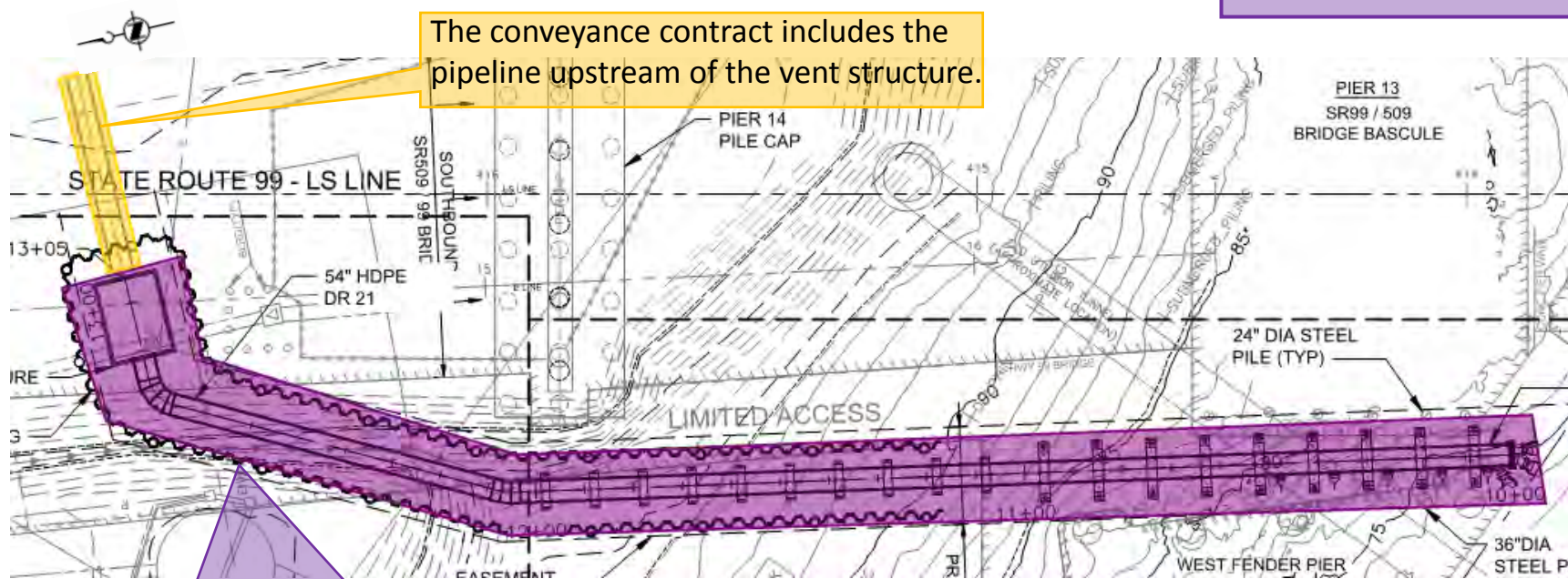
1. Brandon Regulator Modifications
 - Two Slide Gates
2. Electrical and I&C Upgrades
3. Conveyance Piping and Connections
 - 30" PS and 8" PS



Outfall- TBD

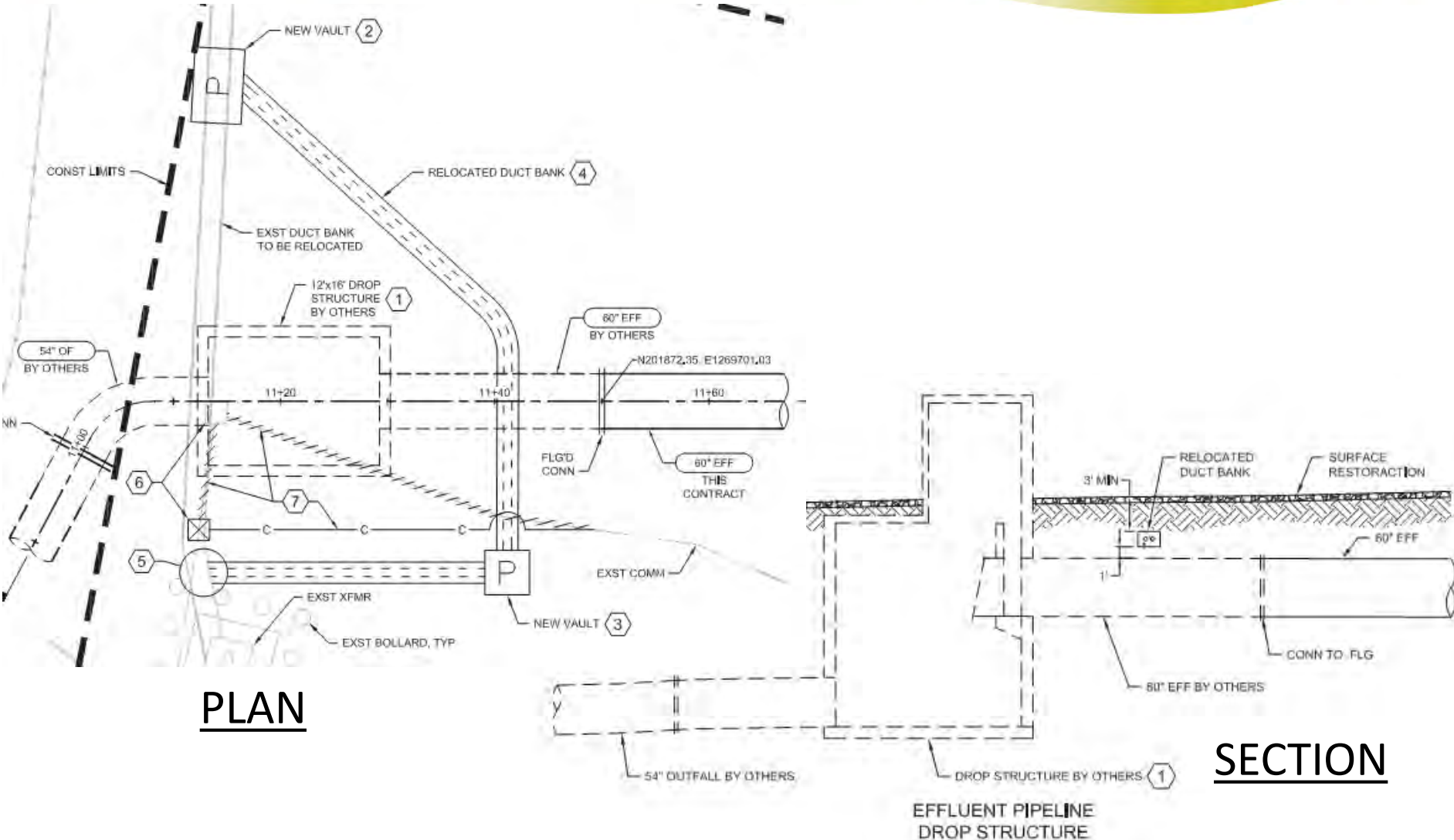
- Estimated Duration – 12-18 months
- Preliminary Cost Estimate - \$3M-\$5M
- EFF Pipeline Drop Structure
- Final surface restoration of outfall area

1. Conveyance
2. Outfall



The outfall contract includes the drop structure, pipeline, and diffuser downstream of the drop structure.

Outfall – Drop Structure



Questions?

Untreated CSO Volume Reduction

