Informational Open House

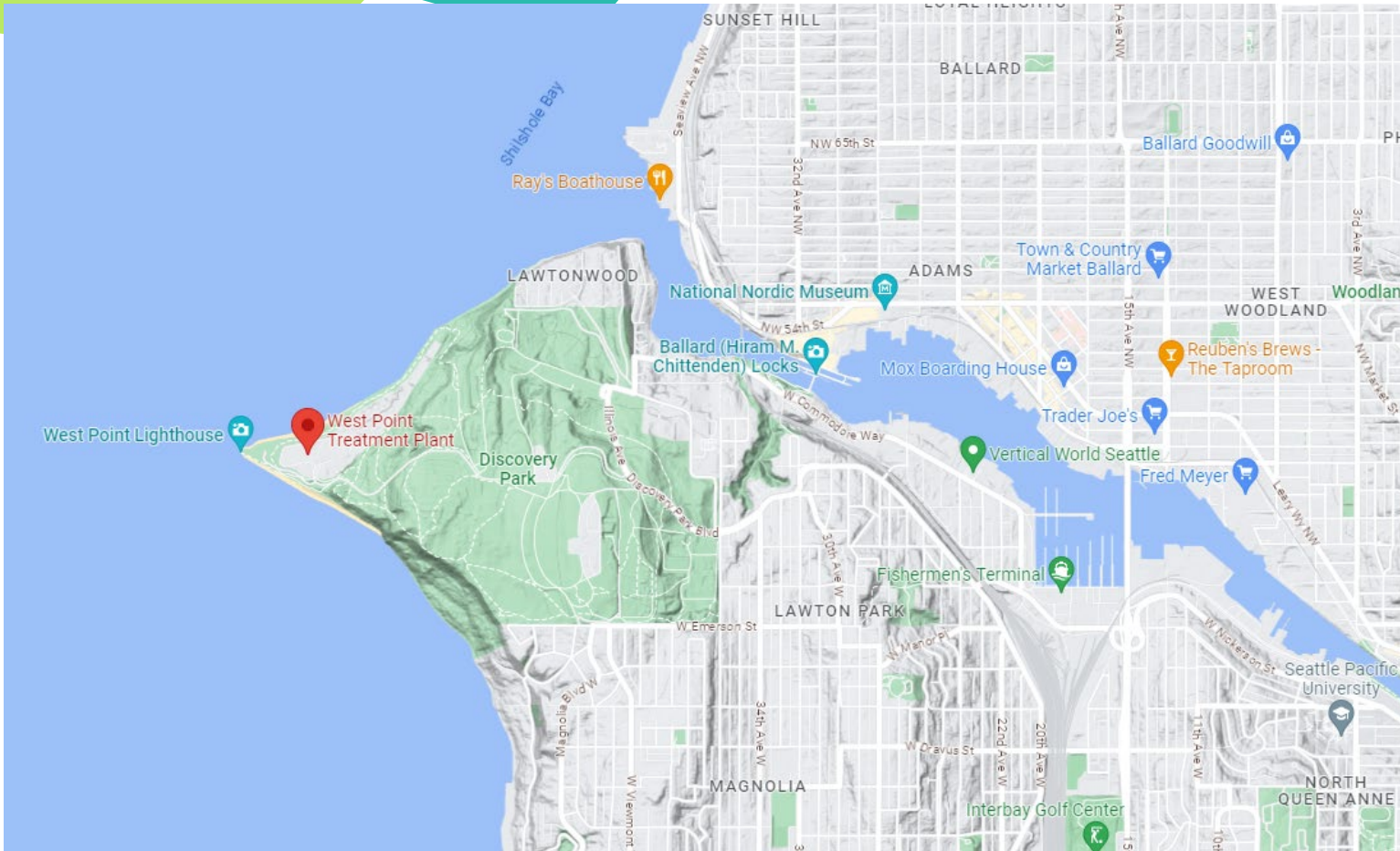
WEST POINT TREATMENT PLANT RSP/GRIT REPLACEMENT

King County
Department of Natural Resources and Parks
Wastewater Treatment Division

Agenda

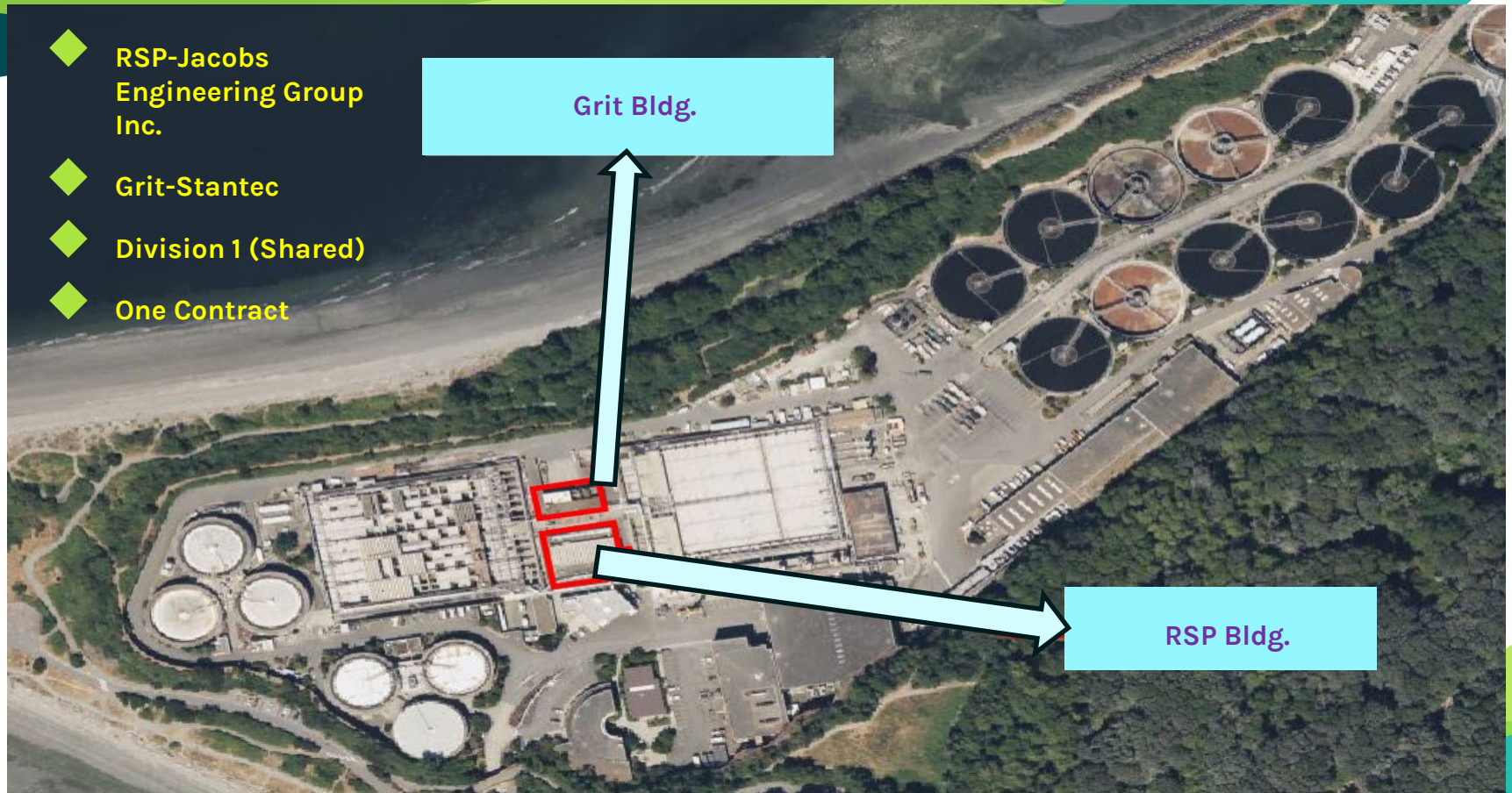
- Major Project Components
- Site Logistics
- Project Specific Requirements
- BDCC-Equity in Contracting
- Procurement Timeline
- RFI
- Q&A

Project Area

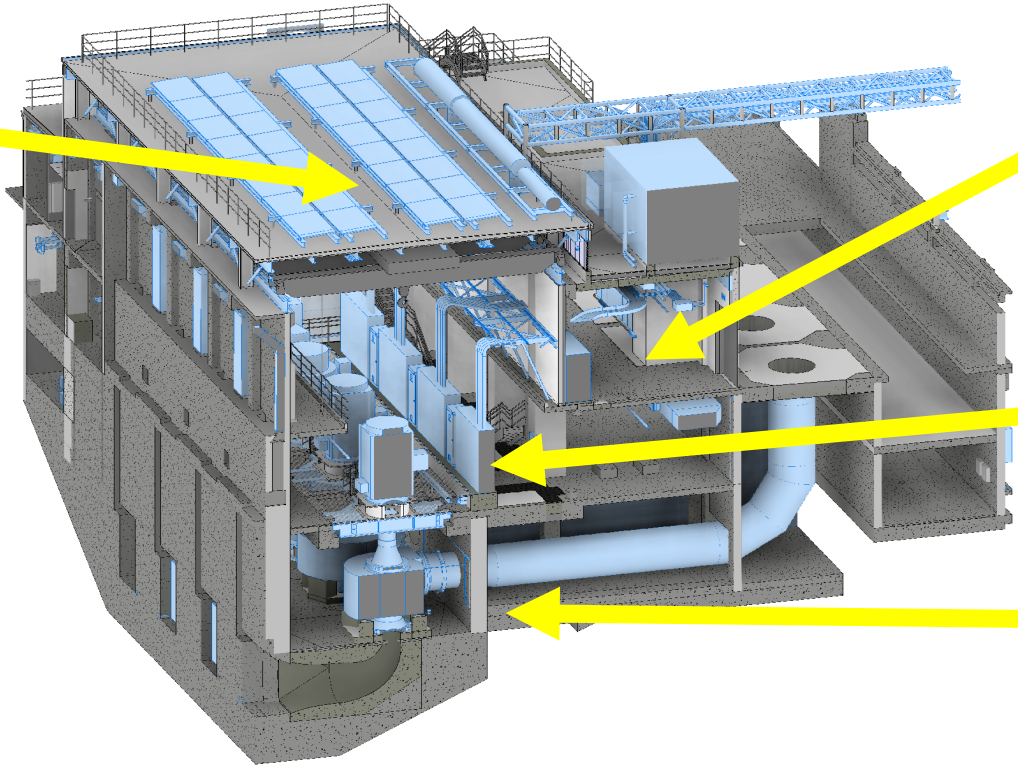


Design Documents

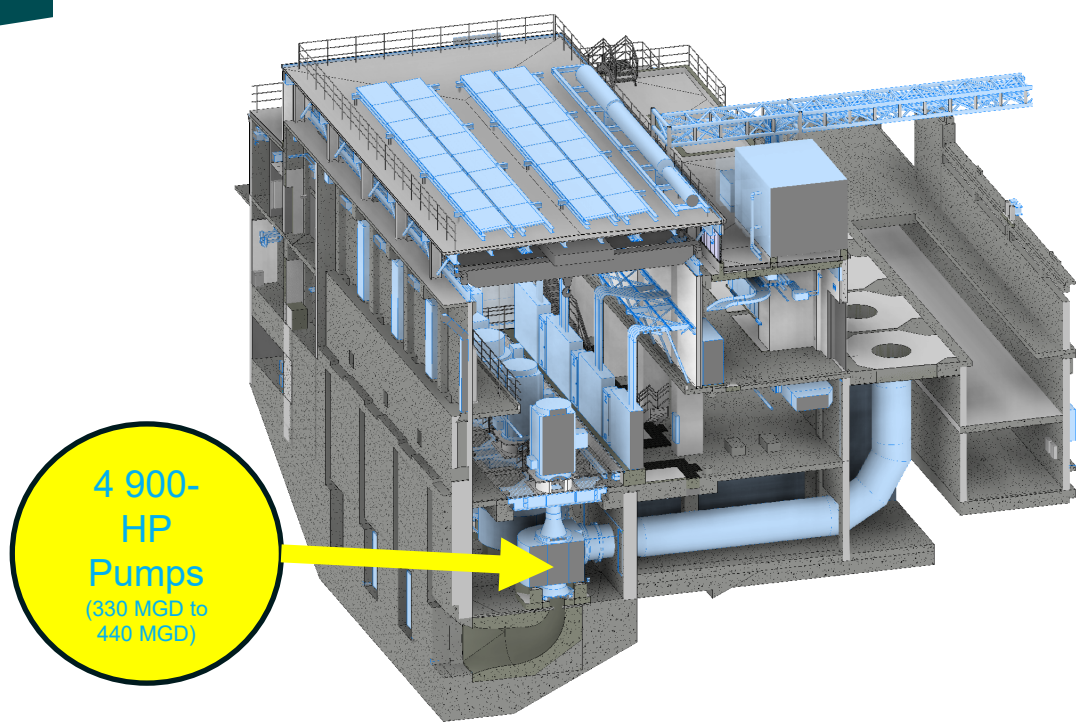
- RSP-Jacobs Engineering Group Inc.
- Grit-Stantec
- Division 1 (Shared)
- One Contract



Raw Sewage Pump (RSP) Bldg.-3 Levels



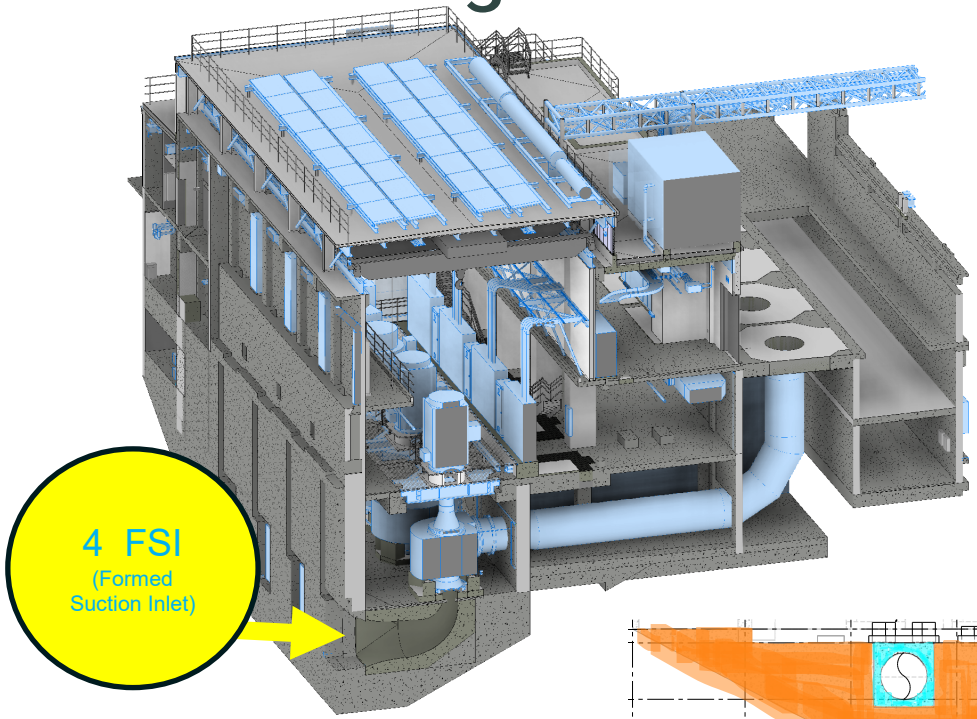
RSP First Floor-Pump Level 1

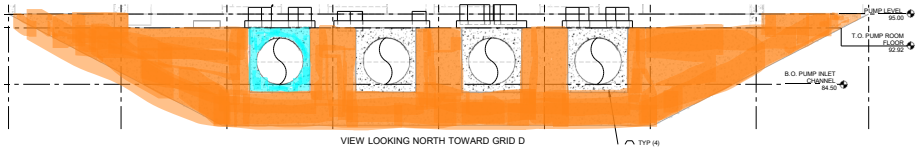


Pump Replacement

- Replace 4 engine driven pumps, 1-2 years to manufacture. Existing 10-Ton crane used by Operations, tight site. One massive concrete support.

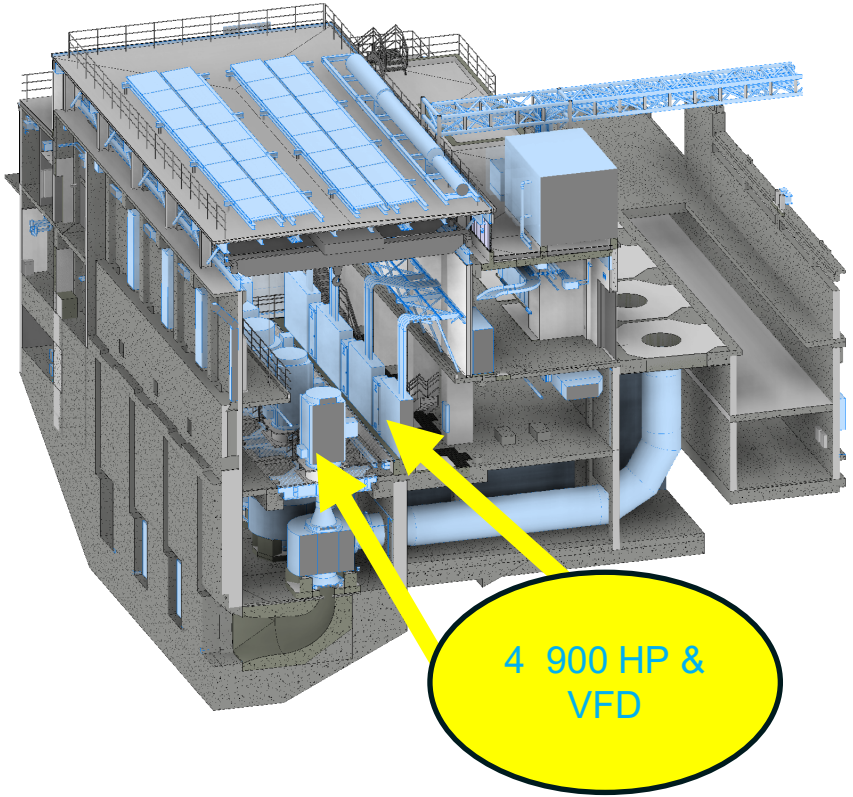
RSP-Underground- Level Cast-in-Concrete-FSI





Pump in Repair

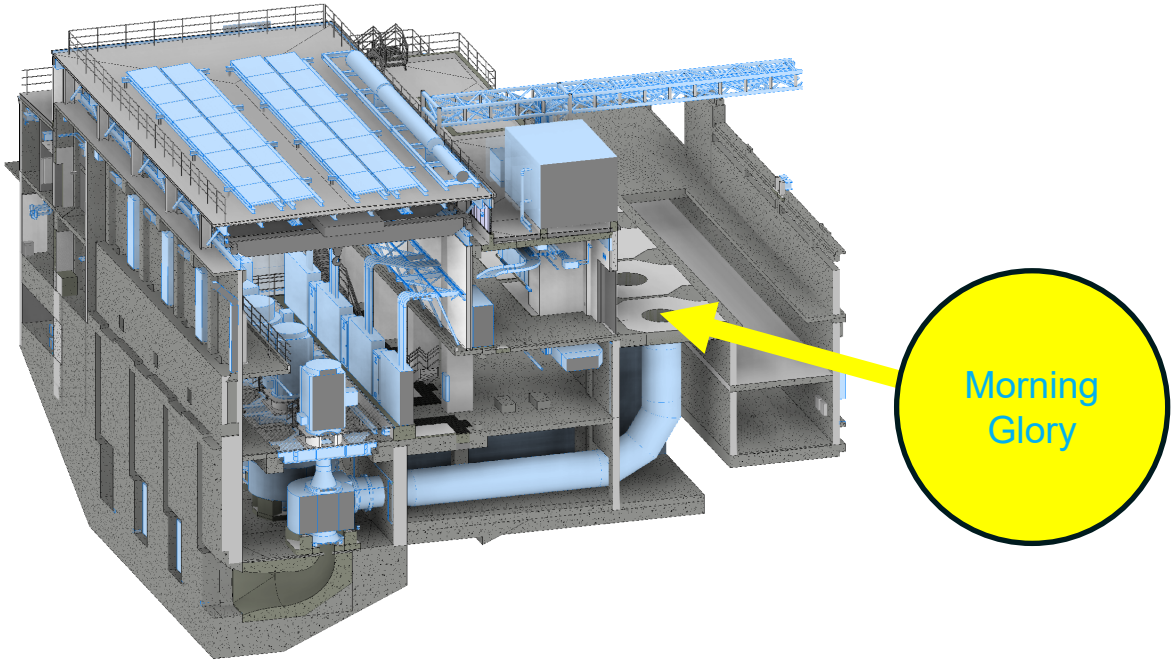
RSP Second Level-Motors and VFDs



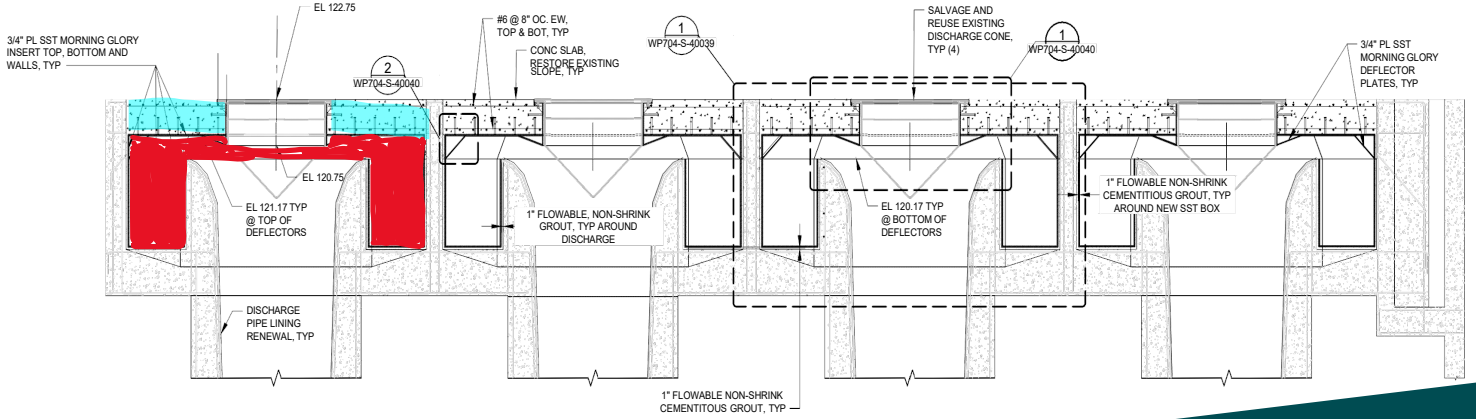
RSP Second Level-Engine/Motor Level

- 4-900 horsepower electrical motors including VFDs in 4 years.

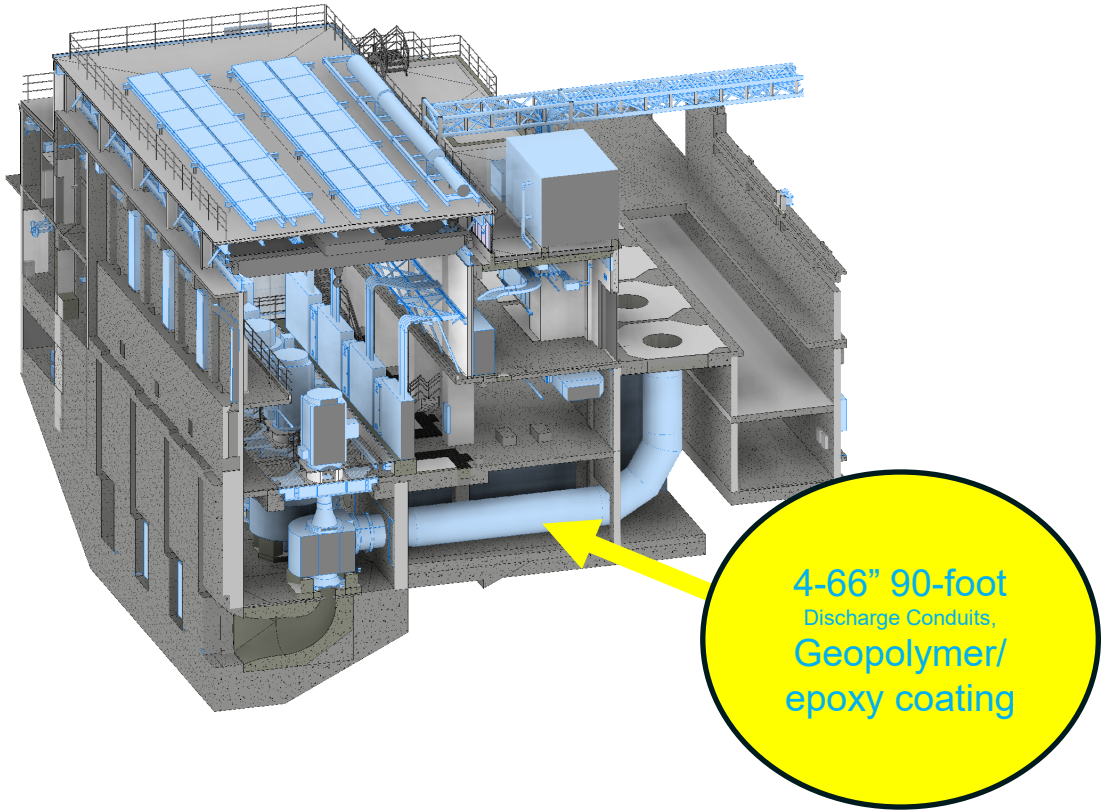
RSP Morning Glory-Connecting to Sedimentation Basins



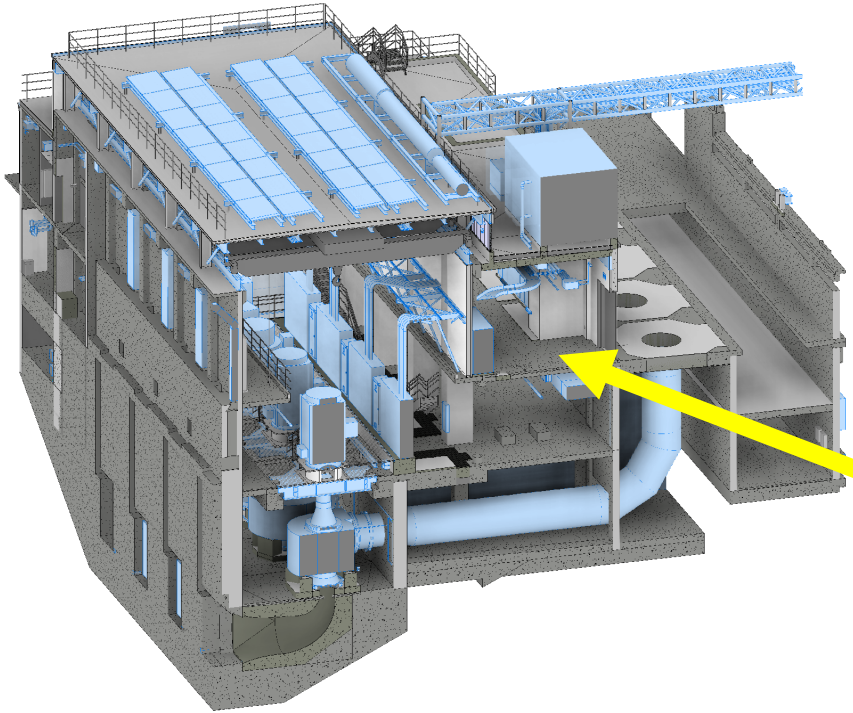
Morning Glory Reconstruction


3/4" PL SST MORNING GLORY INSERT TOP, BOTTOM AND WALLS, TYP
EL 122.75
2
WP704-S-40040
#6 @ 8" OC. EW, TOP & BOT, TYP
CONC SLAB, RESTORE EXISTING SLOPE, TYP
1
WP704-S-40039
SALVAGE AND REUSE EXISTING DISCHARGE CONE, TYP (4)
1
WP704-S-40040
3/4" PL SST MORNING GLORY DEFLECTOR PLATES, TYP
EL 120.75
EL 121.17 TYP @ TOP OF DEFLECTORS
1" FLOWABLE, NON-SHRINK GROUT, TYP AROUND DISCHARGE
EL 120.17 TYP @ BOTTOM OF DEFLECTORS
1" FLOWABLE NON-SHRINK CEMENTITIOUS GROUT, TYP AROUND NEW SST BOX
DISCHARGE PIPE LINING RENEWAL, TYP
1" FLOWABLE NON-SHRINK CEMENTITOUS GROUT, TYP

RSP Discharge Conduits



Raw Sewage Pump Bldg.



New electrical room (Switchgear and UPS's)

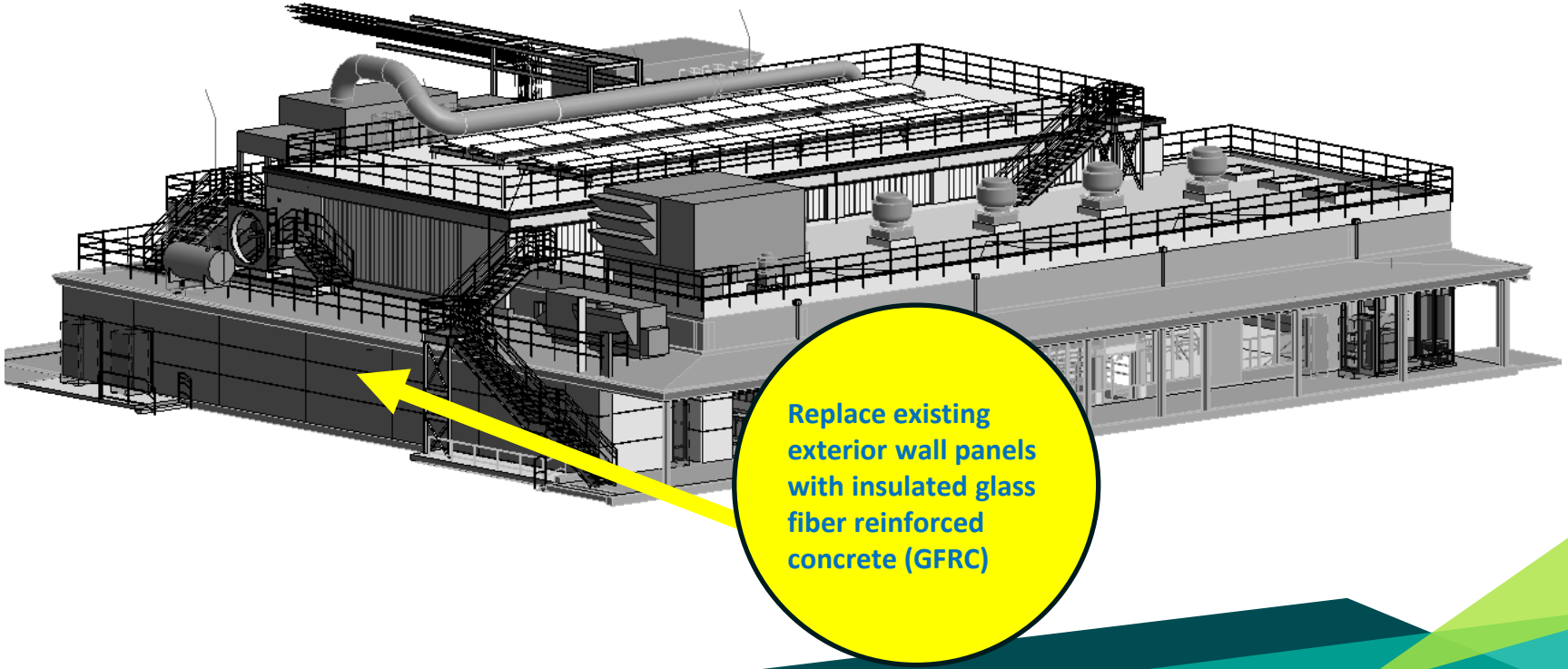
Third Floor-Electrical

- New electrical room(Switchgear and UPS’s)

Exterior Walls Replacement

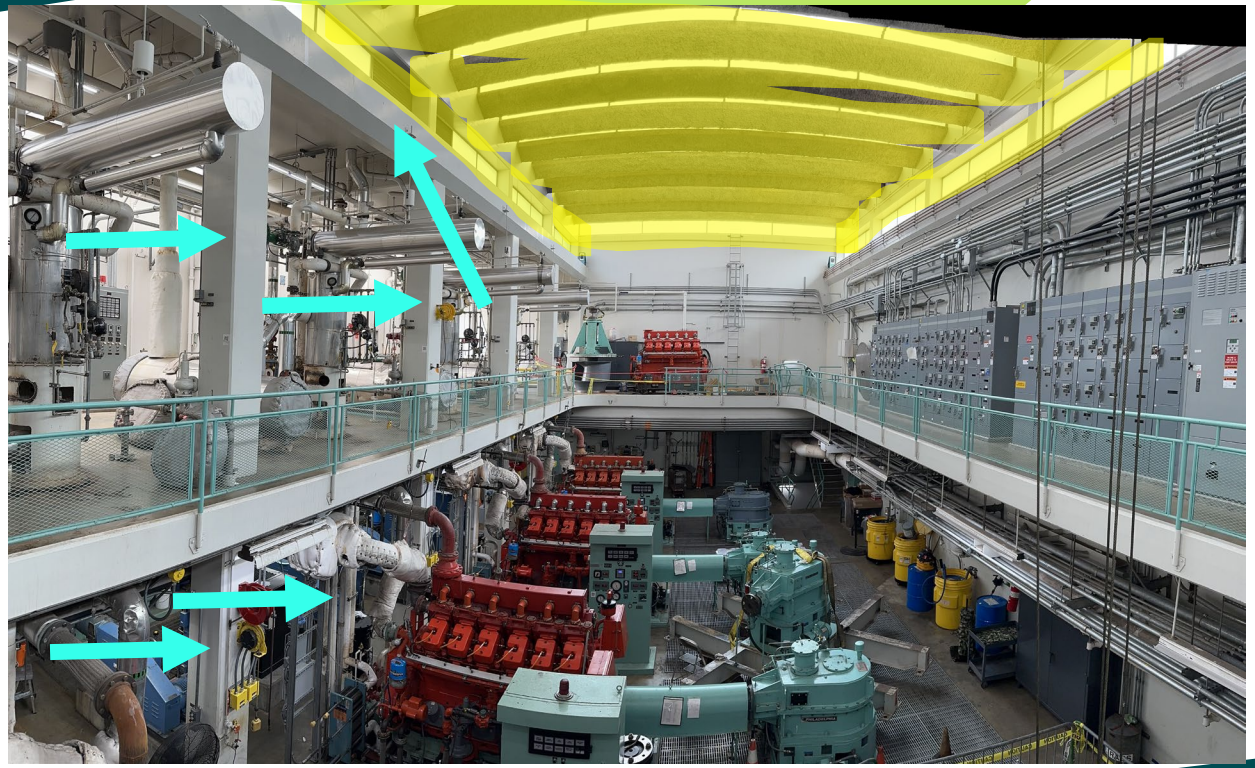
East and North- ~3-feet wide x 22 feet high precast building panels w/PCB caulking, east and north sides, replace with insulated glass fiber reinforced concrete (GFRC).

Exterior Walls Replacement

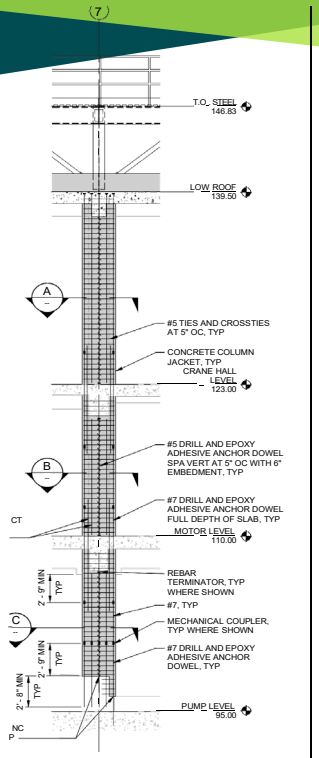


10 TON Crane to 25 TON

Structural Concrete Seismic Upgrade

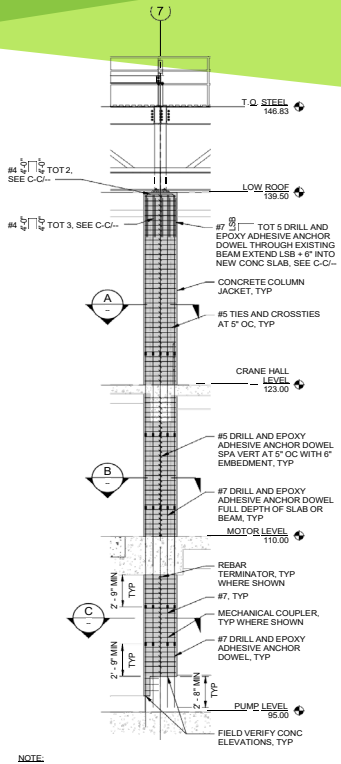


Structural Concrete Seismic Upgrade



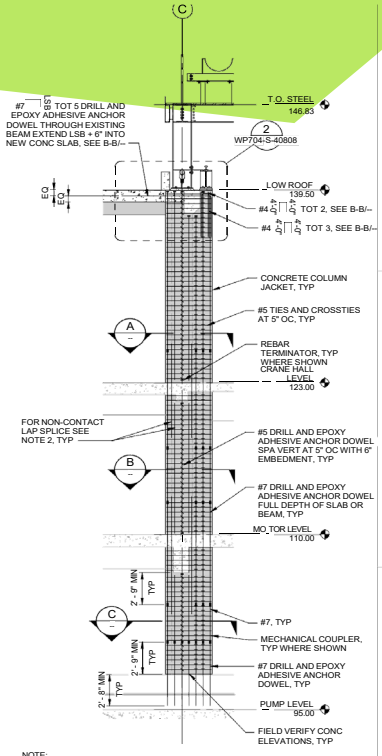
ELDED TIE OR CROSSTIE DETAIL SEE DETAIL 1/WP704--**S**-40808.
" NON-CONTACT LAP SPLICE TYP WHERE SHOWN.

NORTH ELEVATION
SCALE: 1/4" = 1'-0"



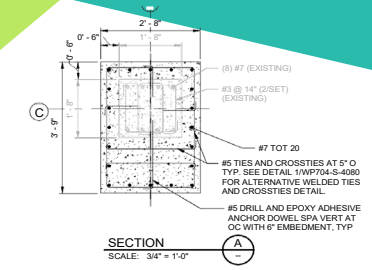
NOTE:
1. FOR WELDED TIE OR CROSSTIE DETAIL SEE DETAIL 1/WP704--**S**-40808.
2. LSB + 6" NON-CONTACT LAP SPLICE TYP WHERE SHOWN.

SOUTH ELEVATION
SCALE: 1/4" = 1'-0"

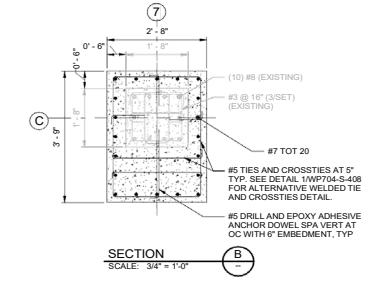


NOTE:
1. FOR WELDED TIE OR CROSSTIE DETAIL SEE DETAIL 1/WP704--**S**-40808.
2. LSB + 6" NON-CONTACT LAP SPLICE TYP WHERE SHOWN.
3. WEST ELEVATION SHOWN. EAST ELEVATION SIM.

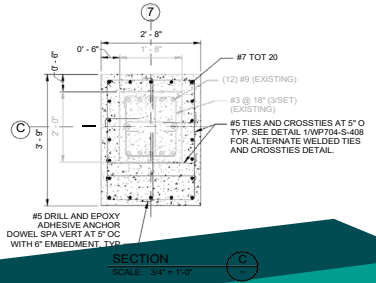
WEST ELEVATION
SCALE: 1/4" = 1'-0"



SECTION A
SCALE: 3/4" = 1'-0"

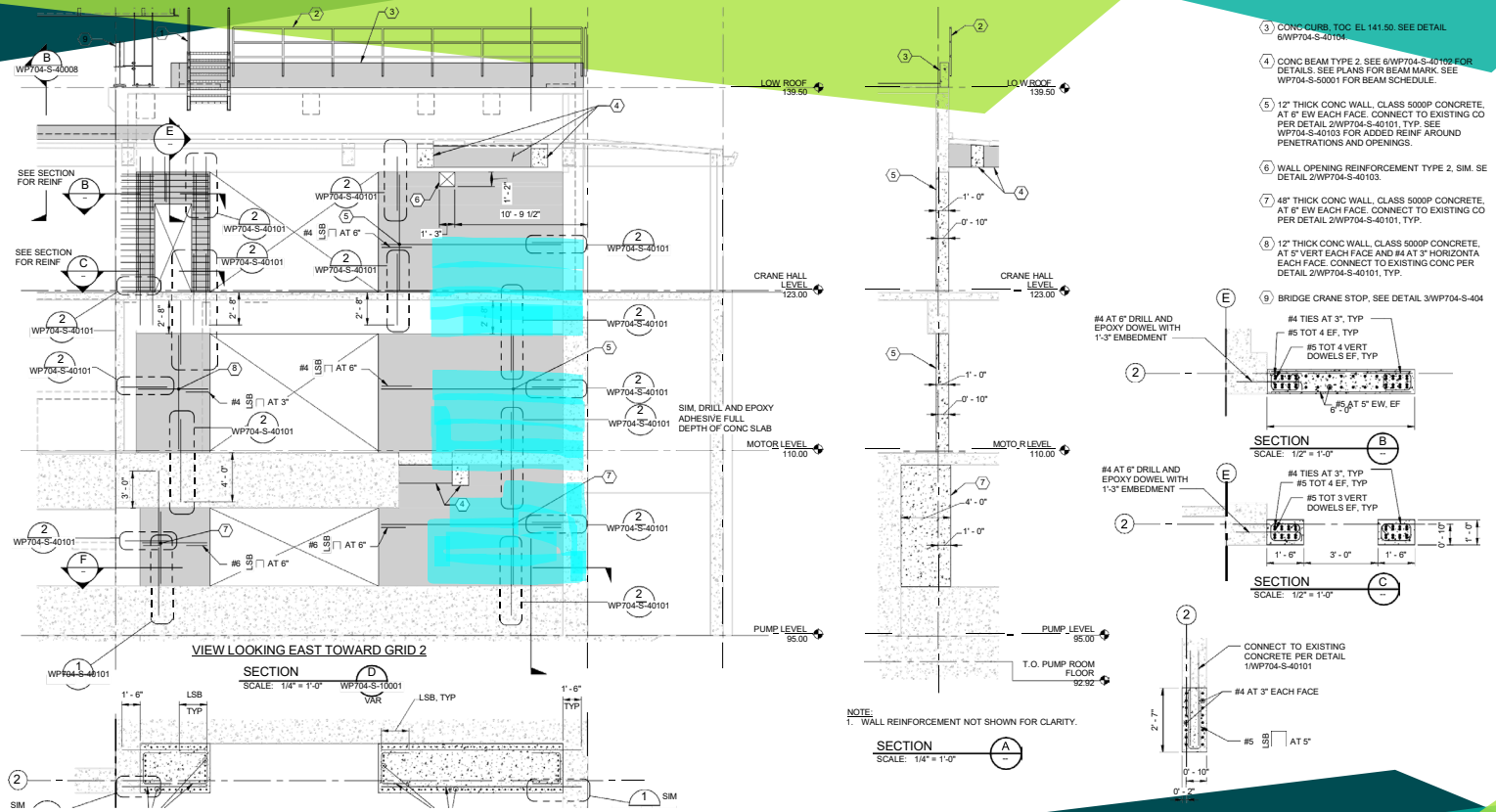


SECTION B
SCALE: 3/4" = 1'-0"



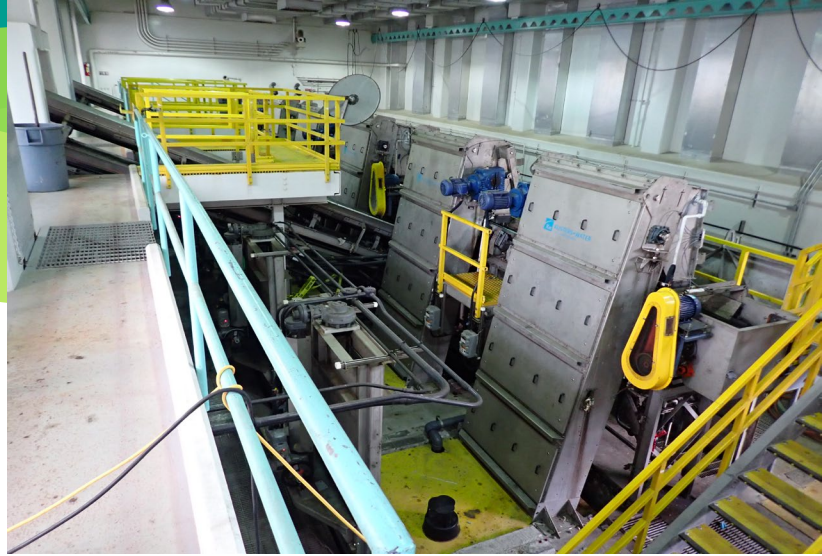
SECTION C
SCALE: 3/4" = 1'-0"

Structural Concrete Seismic Upgrade



- Replace 3 hot water boilers with 4 boilers;
  2 x 100 HP, 2 X 400 HP across the tunnel.

Grit Classifier Replacement

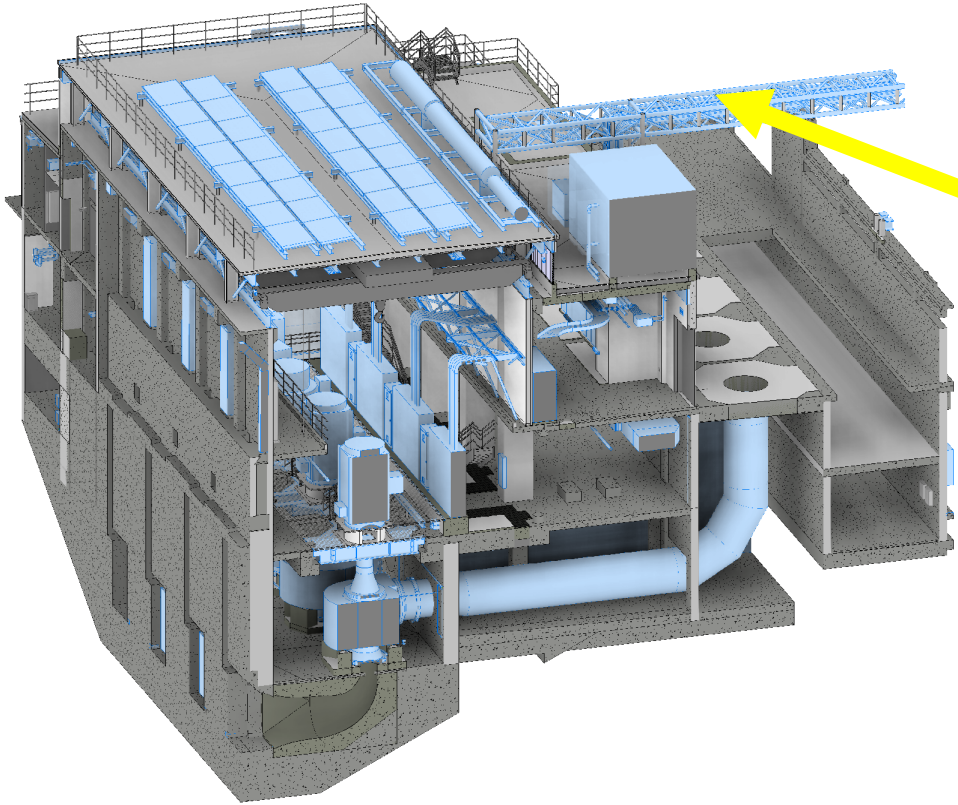


- Demolish existing washer/classifier/drain and feed piping/2 grit hopper gates
- Replace 4 washer/classifier
- Replace existing recycled water system.
- Replace 2 grit hopper gates
- Replace feed/overflow/drain piping/valve network

Presenter

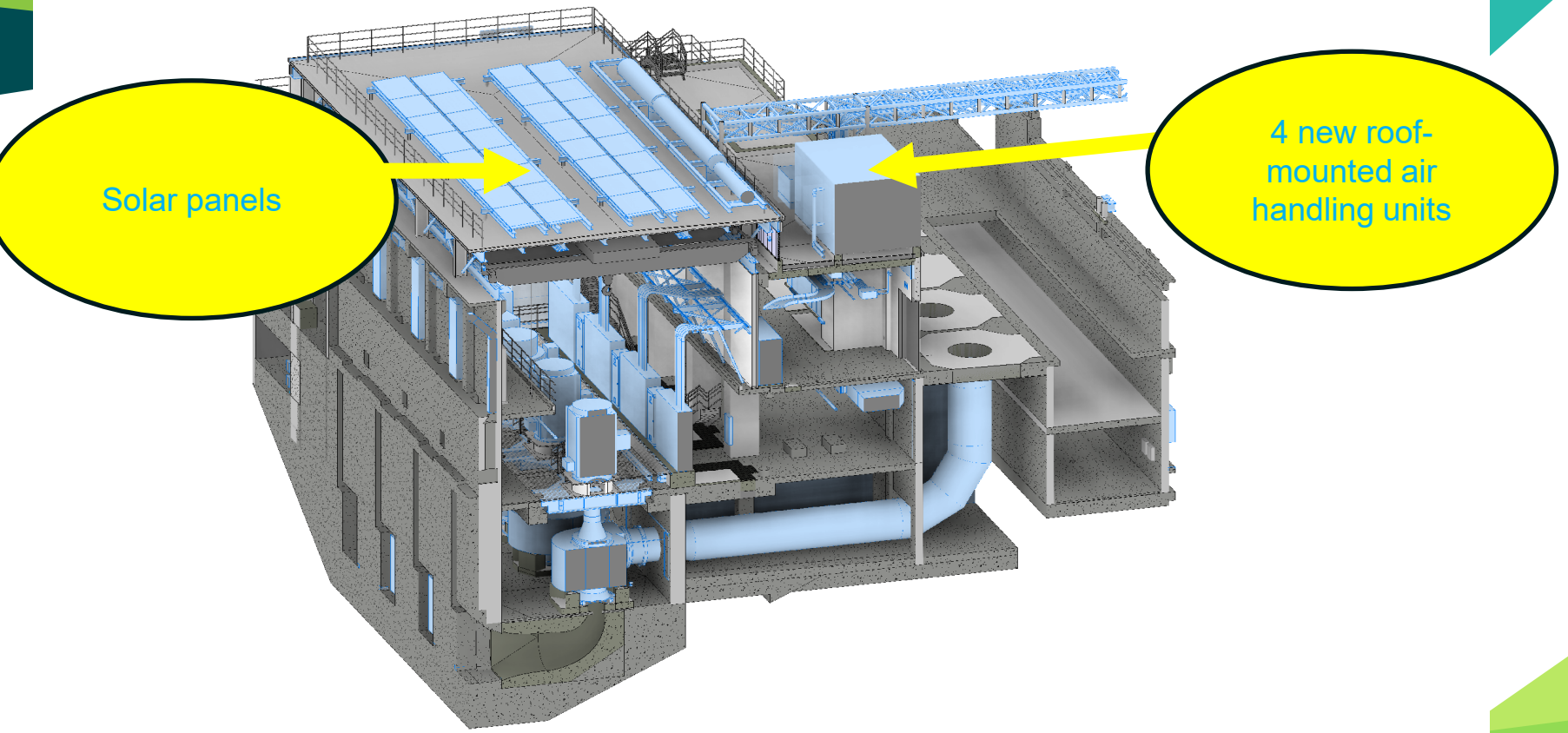
Title

Raw Sewage Pump Bldg.



Electrical conduit structure RSP-Grit Bldgs.

Raw Sewage Pump Bldg.



Environmental Mitigation

Removal and abatement of:

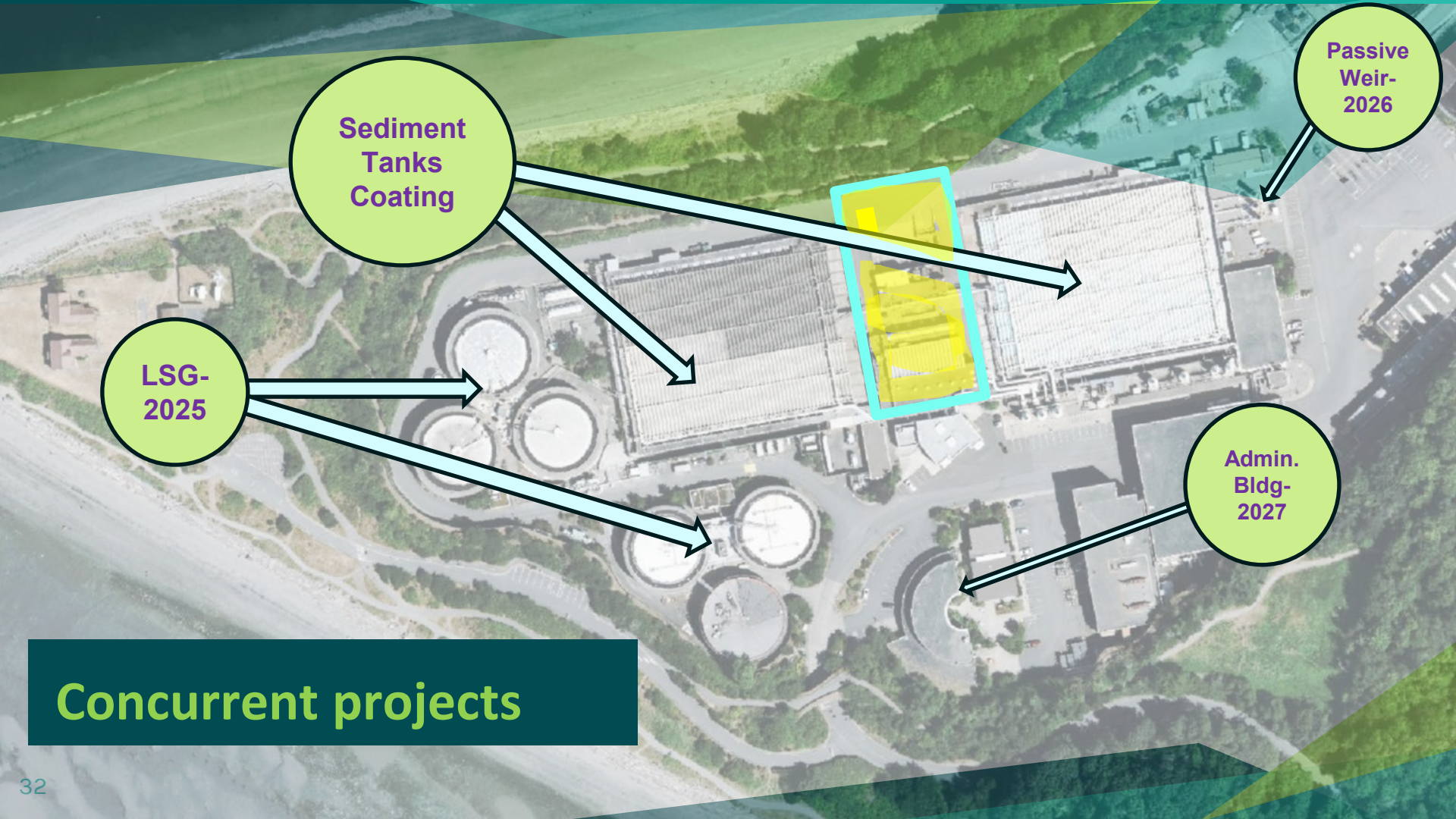
- Lead-based paint
  - Painted surfaces
  - Vent lines
  - Sewage pipes
  - Pipe collars
- PCB
  - Caulking
  - Painted surfaces
  - Skim coating
- Asbestos
  - Built up roof
  - Window caulking
  - Fire doors
  - Pipe insulation
  - Flange gaskets
- Unit price will be applied to any additional quantities vs. quantified in the report

Other Work

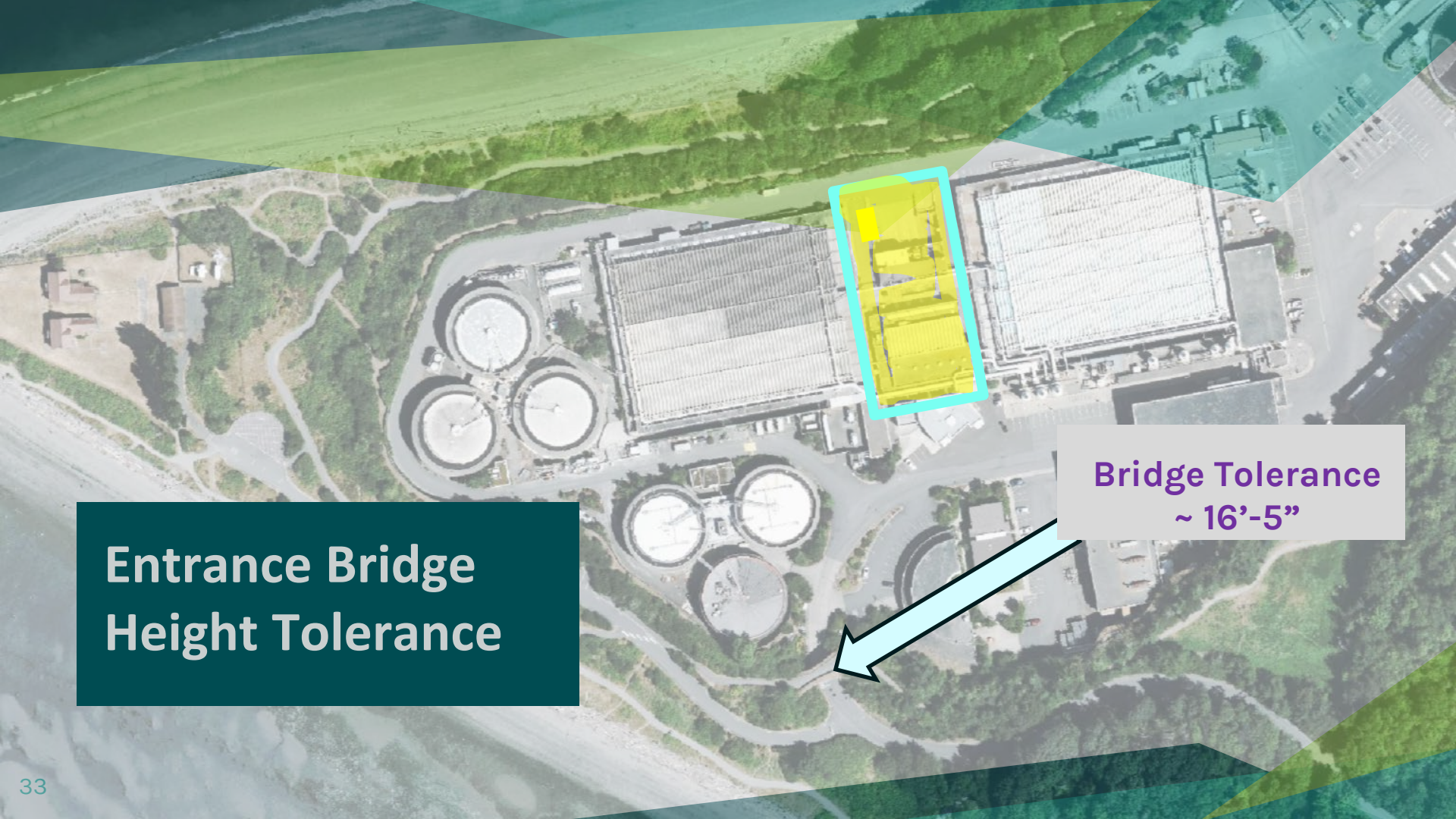
- Modifying the main plant switchgear.
- 13.8kV switchgear, dedicated to the RSP system.
- 13.8kV-480V step-down transformers designated for each pump motor.
- Replace 6 drainage slide gates.
- Heat Recovery Modifications.
- Digester and Gas system.
- AS/STA Venting system.
- Fire sprinkler system modifications and installation.
- Installation of conductors, breakers, and conduits, MCC buckets, etc. at Grit Bldg.
- HVAC power modifications.
- Modifying the Master Shutdown circuit to be fed from UPS power.

Key HVAC components

- Reconfigure, removing some existing systems, installing new systems, temporary HVAC systems serving the RSP building and the boiler rooms during and after construction:
- Screen room system
- Pump room system
- Control room system
- Boiler rooms
- East fan room
- Sampler room

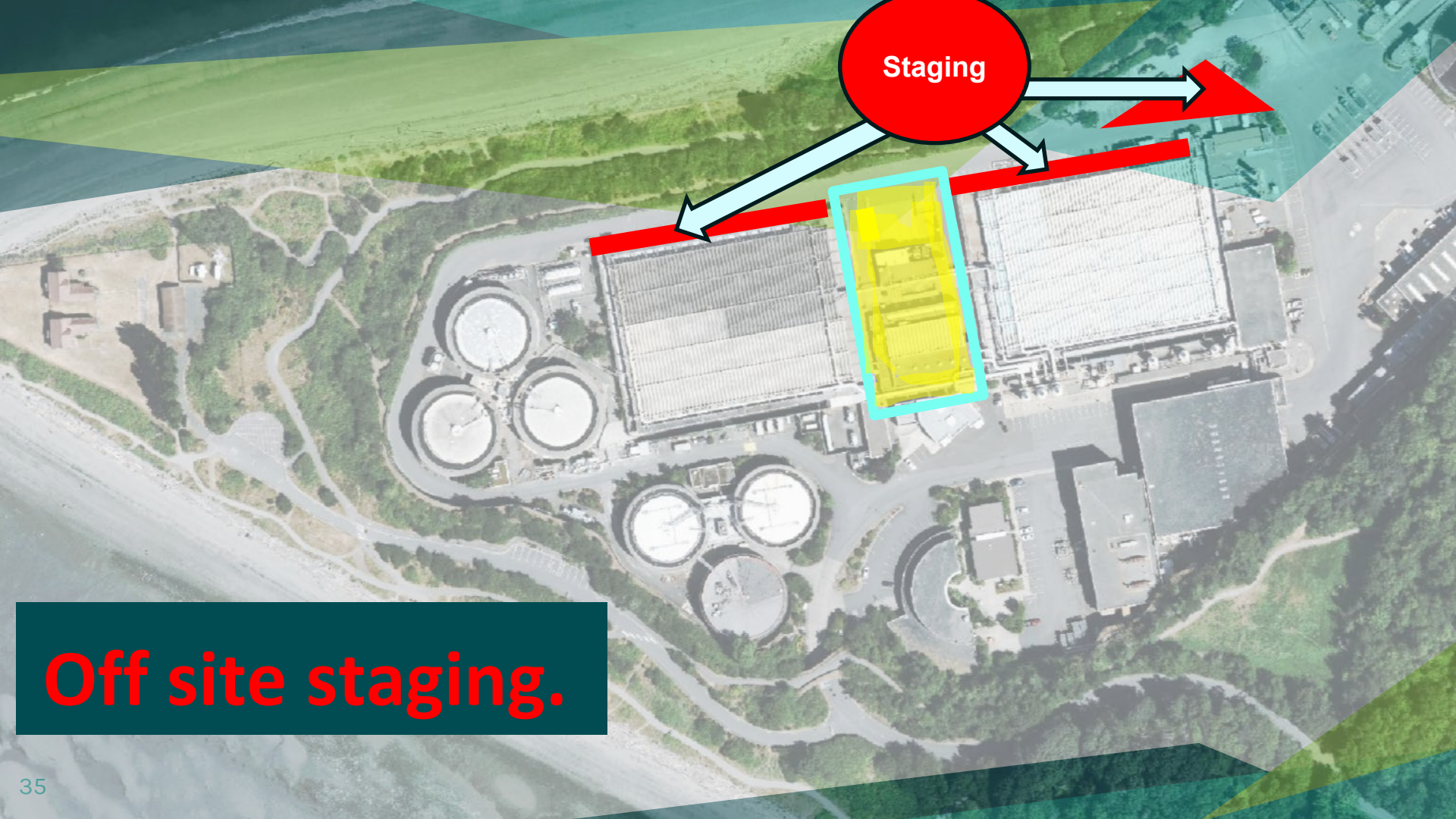


Concurrent projects

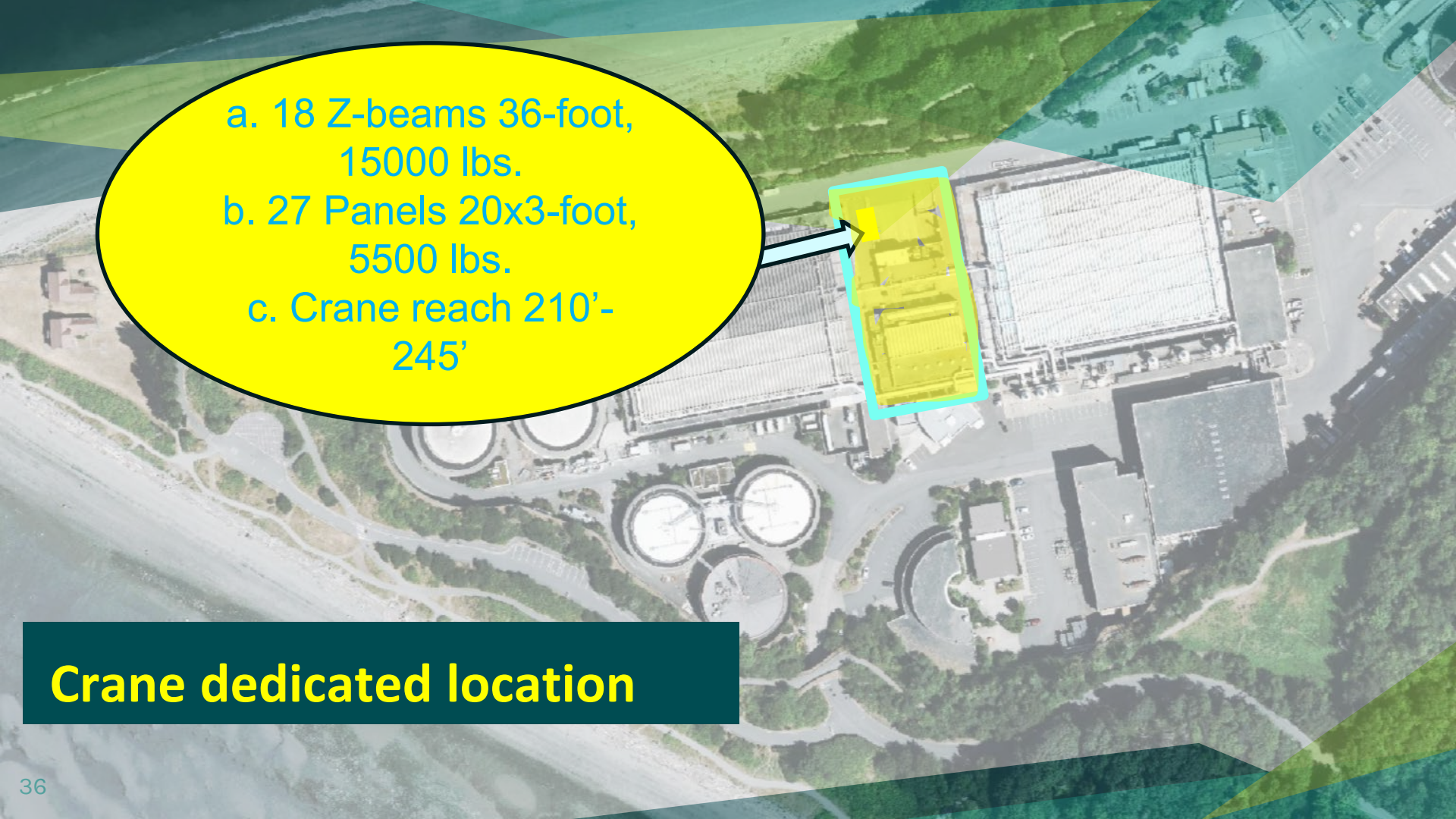


Entrance Bridge Height Tolerance


WESTPOINT TREATMENT PLANT
NO PUBLIC ACCESS
NO PARKING IN ENTRANCE
LIGHTHOUSE PARKING
BY PERMIT ONLY
VIOLATORS WILL BE TOWED



Off site staging.



Crane dedicated location


Crane Location

~ 16'-5"

Project Specific Requirements

Project Specifics

- Substantial completion: Nov 2029. Final Completion: 150 Calendar days following substantial (~April 2030).
- Multiple long lead items requires quick purchase process (Pumps, 900 HP motors, VFDs, Gas Insulated Switchgear, UPS with batteries.
- Equipment Warranty.
- Tight building footprint may require majority of construction materials to be moved by a crane. (multiple underground structures heavy construction traffic may not be allowed).

Project Specifics

- 24/7 operations outside and inside the buildings requires a solid and safe construction and safety measures approach. Requires managing operation's outages.

- Each pump, FSI system lining, and Grit Equipment need to be demolished and replaced within dry season (May-Sept.) of four consecutive years. All other work can be constructed all year around, providing flexibility to the contractor's schedule.

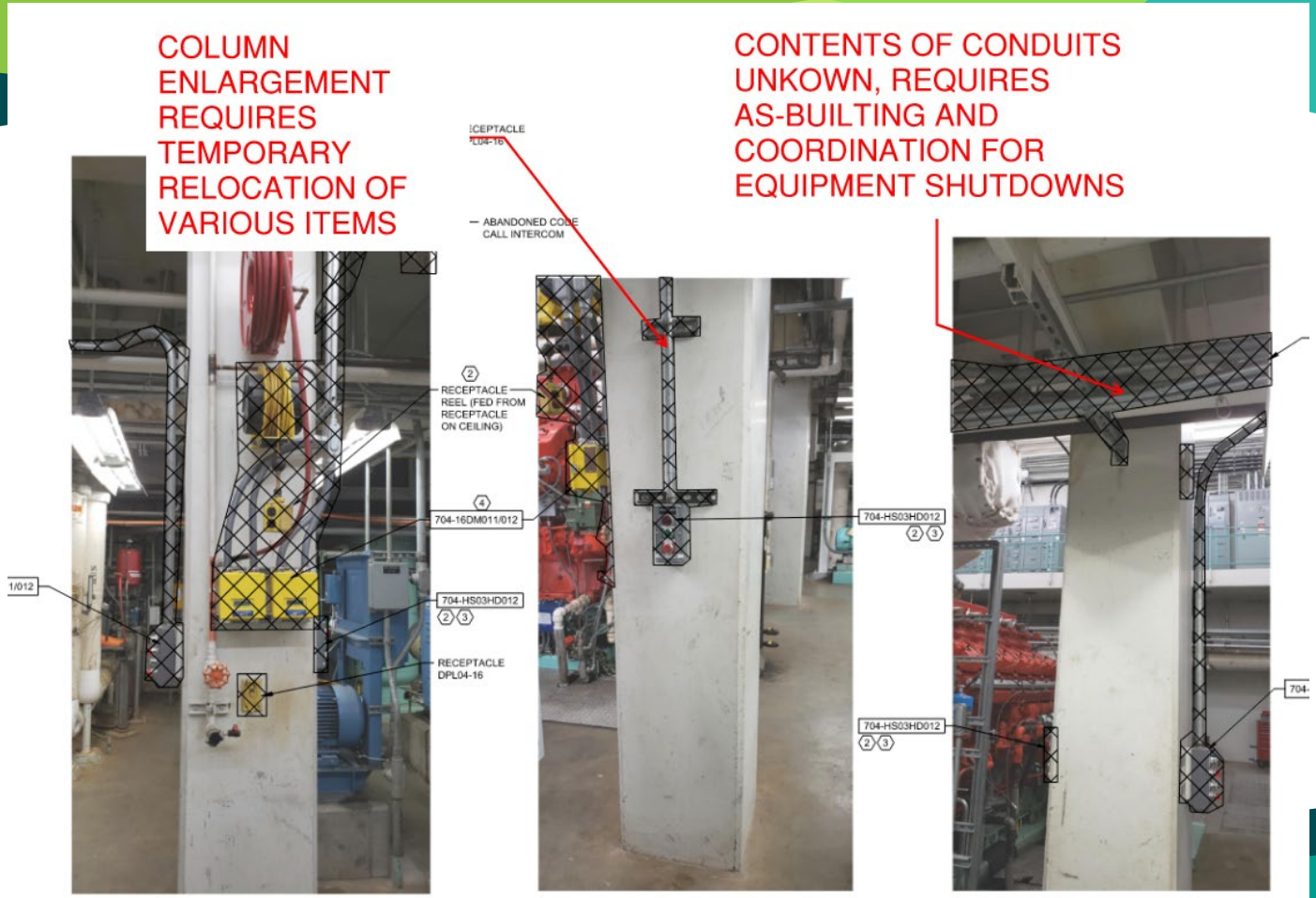
Understanding Critical Work Milestones

- 2024: Notice to Proceed
- 2025
  - Install grit washer/classifiers
  - Install hot water boilers 1 and 3
- 2026
  - Hot water boilers 2 and 4
  - Install and test first RSP system
- 2027 – Install and test second RSP system
- 2028 – Install and test third RSP system
- 2029 – Install and test fourth RSP system

Detailed Sequencing/Relocation Work

- Multiple aspects of the work require shutting down and/or relocating existing equipment, instruments, etc.
- Contents of many conduits are unknown but require relocation.
- Written suggested sequence for big picture approach provided in the design (Detailed sequencing per the Contractor's means and methods).

Detailed Sequencing/Relocation Example



BDCC – Equity in Contracting

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EQUITY & SOCIAL JUSTICE (ESJ) GOALS

Diverse Business Goals

- Voluntary MBE: 10%
- Voluntary WBE: 6%
- Certified by OMWBE
- Good Faith Efforts required.

Workforce Requirements

- Apprenticeship: 18% of all labor hours
- Priority Hire Journey worker: 18% of all journey worker labor hours
- Priority Hire Apprentice: 27% of all apprentice labor hours
- Preferred Entry: 20% of all apprentice labor hours

For more information visit kingcounty.gov/bdcc

BDCC – Equity in Contracting

Priority Hire Program (Ordinance No. 18672)

- Workforce and economic development strategy
- Applies to King County public works construction projects estimated at $5 million or more
- Prioritizes economically disadvantaged local workers for inclusion in King County capital construction projects
- Supports the hiring of residents who live in King County Priority Hire Zip Codes
- Has Preferred Entry requirements that prioritizes apprentices graduating from a Washington State Apprenticeship and Training Council (WSATC) recognized pre-apprenticeship program and veteran programs
- Training and job opportunities in the construction industry for local residents needing family-wage jobs
- Assists in addressing a widening gap between the demand for construction labor and the supply of skilled trade workers in our regional labor market

For more information visit: kingcounty.gov/priorityhire

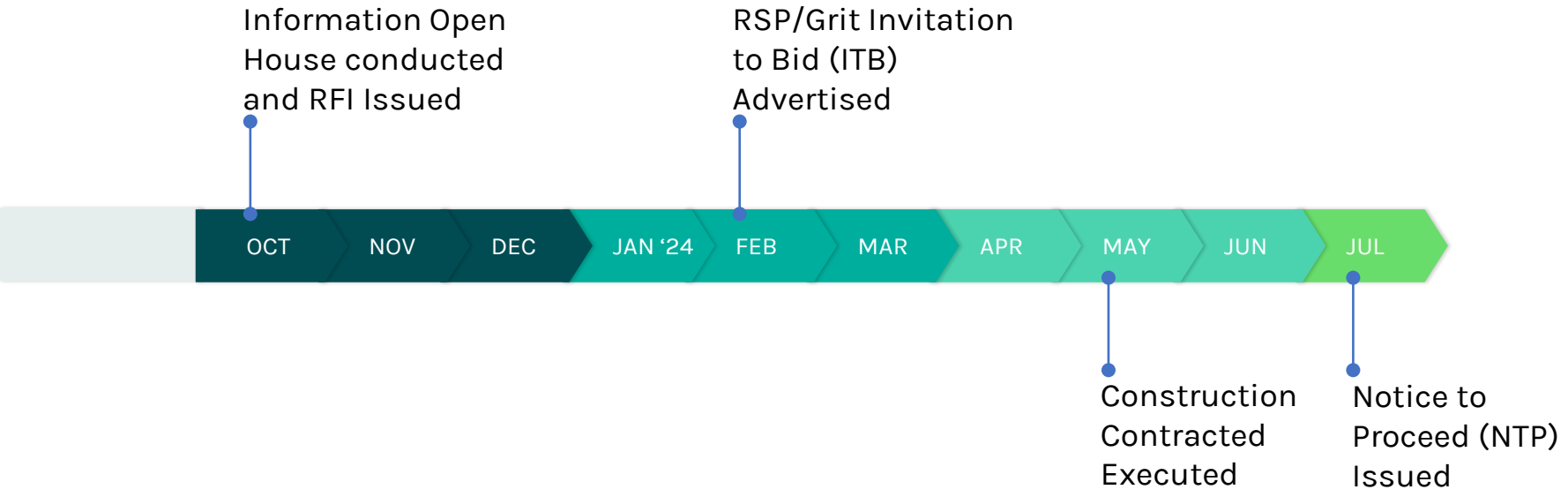
BDCC – Equity in Contracting

Master Community Workforce Agreement (MCWA)

- Pre-Hire Collective Bargaining Agreement between King County and construction Labor Unions
- Project Labor Agreement with Priority Hire requirements
- Sets basic terms and conditions of employment on covered public works construction projects
- Directs union halls to dispatch targeted workers out of order while maintaining non-discriminatory standards & procedures
- Has Respectful Worksite language in the contract
- No strike, no lockout language

Procurement Timeline and RFI Questions

Procurement Timeline



Next Steps

RFI Publication: October 18, 2023

Link will be provided through the WTD Contract Opportunities website:
https://tinyurl.com/WTDContractingOpportunities

RFI responses can be submitted via eProcurement:

https://kingcounty.gov/en/legacy/depts/finance-business-operations/procurement/for-business/register.aspx

King County

Department of Natural Resources and Parks
Wastewater Treatment Division

Contact Information

For all project inquiries, including a 1:1 Meeting about the Project:

Diane Navarro Project/Program Manager IV-Procurement Support Email: dinavarro@kingcounty.gov
Mizanur Rahman Capital Project Manager IV, WTD
Email: Mizanur.Rahman@kingcounty.gov

Upcoming contractor opportunities with WTD
Visit: https://tinyurl.com/WTDContractingOpportunities

King County

Department of Natural Resources and Parks
Wastewater Treatment Division

QUESTIONS?

Request for Information (RFI) Questions

Question Topics:

1. *Risks*
2. *Schedule, Milestones and Sequencing*
3. *Specifications*
4. *Constructability*
5. *Construction on Active Site*
6. *Mitigation/Abatement*