

TUKWILA PUBLIC WORKS

Maintenance and Engineering Building

Test-to-Fit Phase March 6, 2023



Safe • Efficient • Functional • Forward-looking

1. Consolidate all Public Works functions to one location.
2. Provide a safe environment for employees and visitors. Support employee well-being.
3. Convey the Department's values to its customers and employees.
4. Provide a resilient facility that can function following a natural disaster event
5. Be stewards of the environment
6. Reduce ongoing maintenance of facilities and realize value in leasing or selling underutilized properties.



**Tukwila Public Works
M&E Building**

March 6, 2023

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Goal: Provide a safe environment for employees and visitors and improve employee well being

- Improve entrances and intersections for safe traffic flow
- New dedicated truck entrances separate from new visitor entrance
- Adequate turning radius for largest trucks
- Clearly identified pedestrian circulation
- Secure fencing with controlled entrances
- Site Lighting throughout (with particular attention to 24/7 operations)
- Security cameras and site lines for supervision

Goal: Provide a resilient facility that will last and can function following a natural disaster event

- Site is situated above the 500 year flood plane.
- Invest in structure designed to 'essential facility' standards
- Provide emergency power generation.
- Provide on-site solar power system or plan infrastructure to support future solar power.
- Evaluate potential for on-site energy storage capacity.

Goal: Convey the Department's values to its customers and employees.

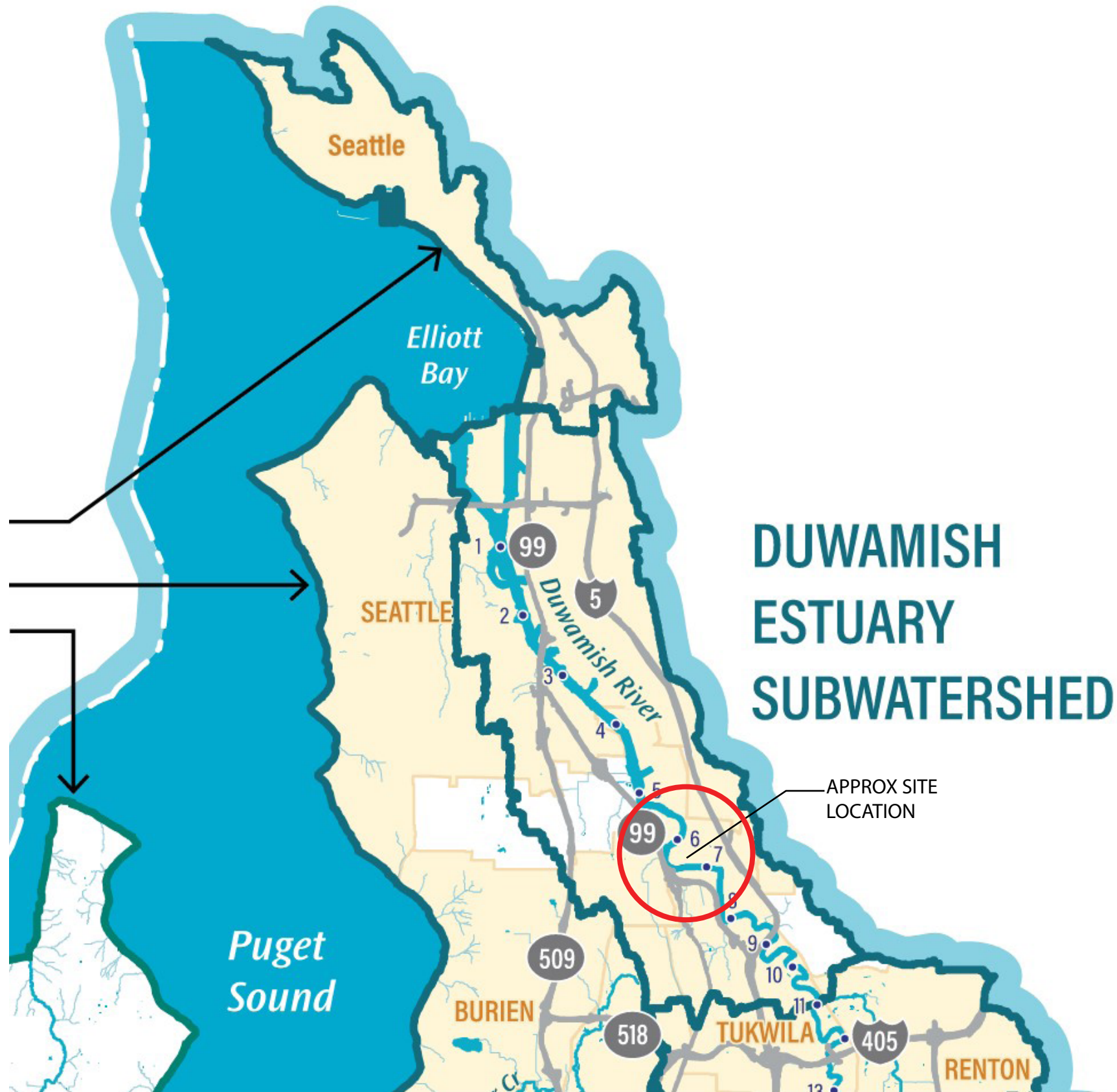
- Invest in technologically advanced, industry leading, forward- looking facilities
- Plan capacity to meet future program needs
- Display for Public Works achievements
- Building embodies the Public Works vision

Goal: Stewards of the environment

- Energy efficient systems
- Staff training on system operation
- High performance building envelope
- Consider geothermal energy and solar power
- Thoughtful material selection (from structural system to finishes)
- Reduce impervious surfaces
- Treat stormwater before discharging
- Restore habitat along Duwamish River

SALMON REARING HABITAT

The site has potential to provide shallow water rearing habitat for juvenile salmonids which is critical to increasing salmonid survival and restoring this key species to the river.

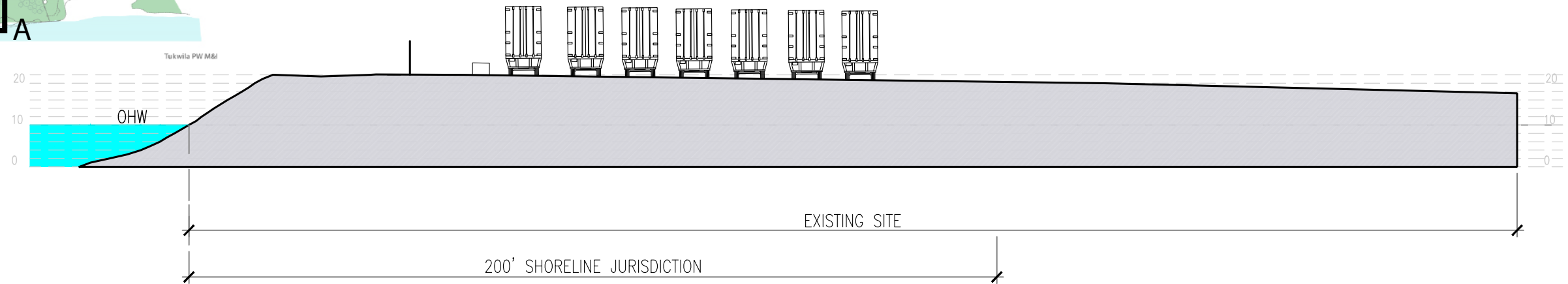
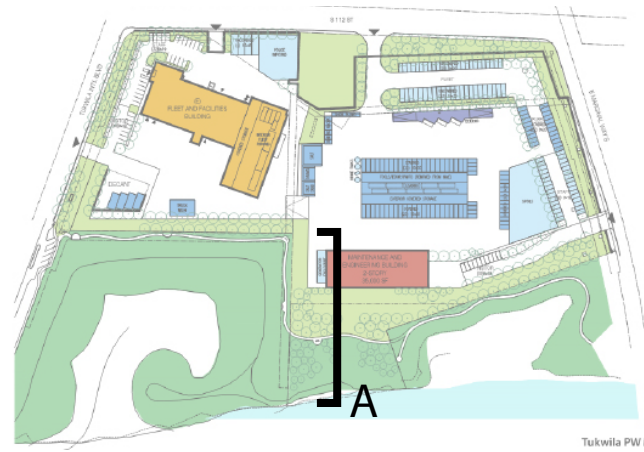


Excerpt from Green/Duwamish River Watershed; Salmon Habitat Plan 2021

Tukwila Public Works
M&E Building

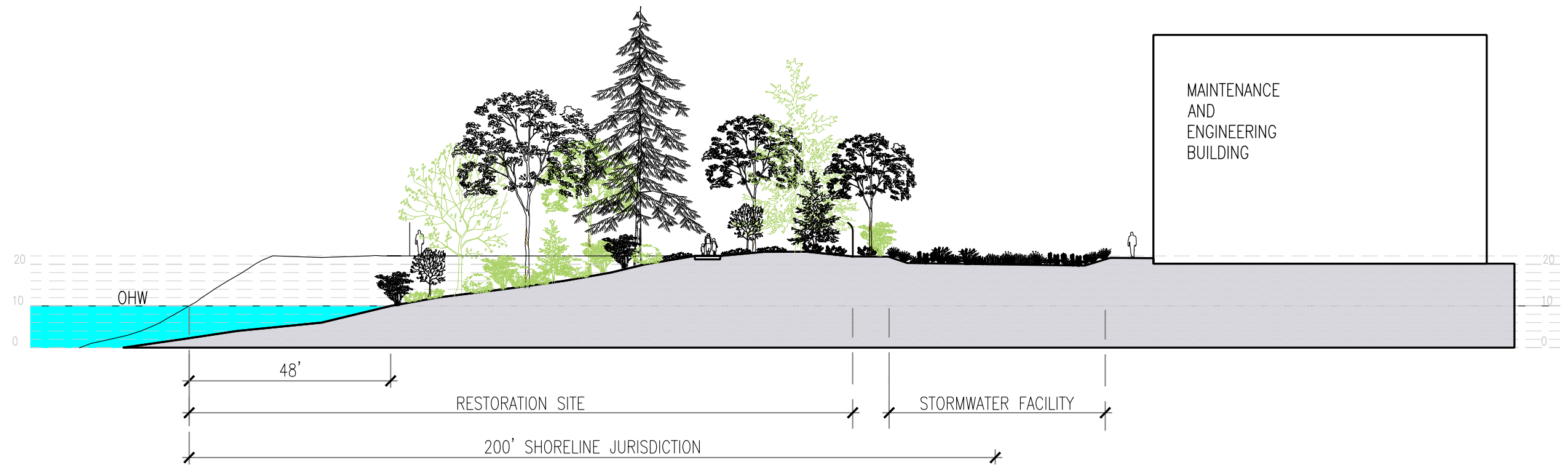
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SECTION A: EXISTING SITE SECTION THROUGH RESTORATION PARCEL

SCALE: 1:30



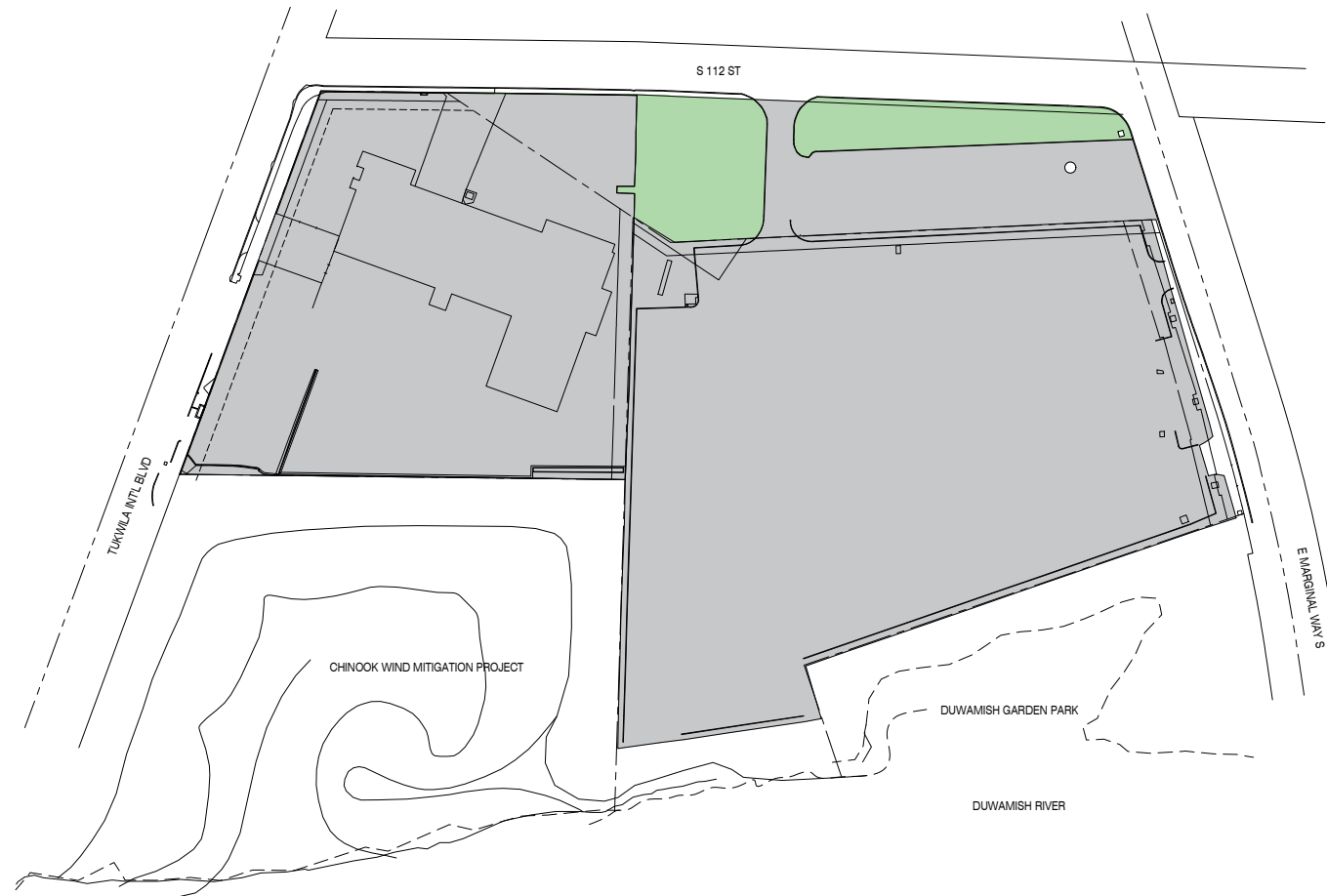
SECTION A': VIEW WEST FROM RESTORATION SITE

SCALE 1:30

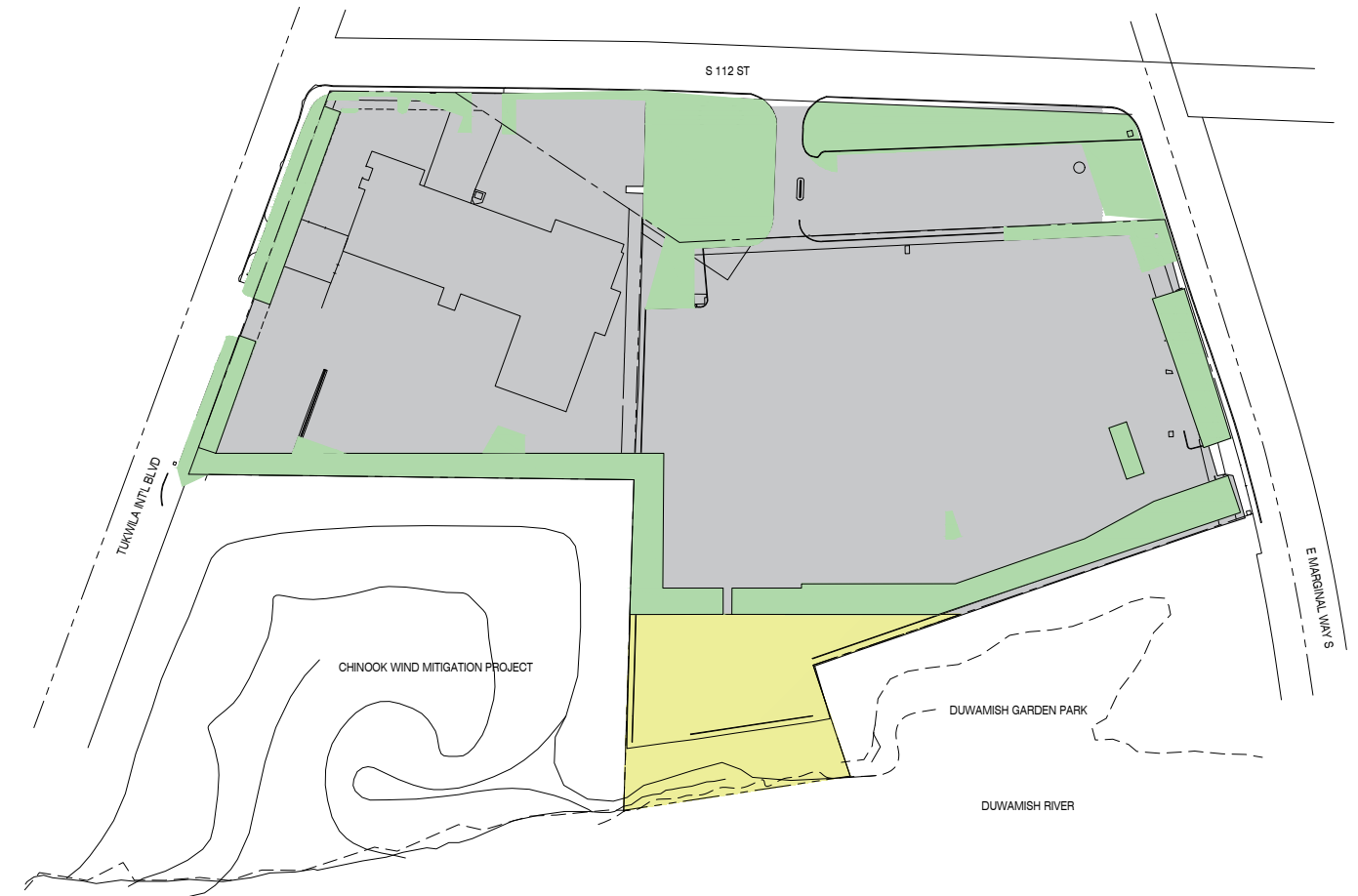
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M&E Building**

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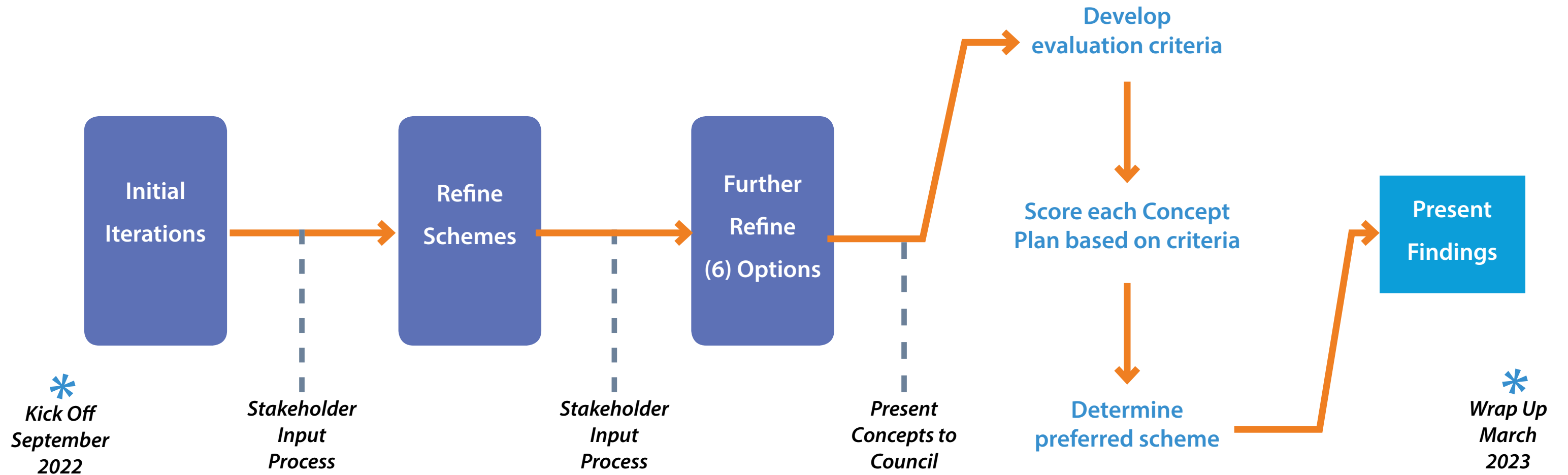
93% Impervious Surface
EXISTING

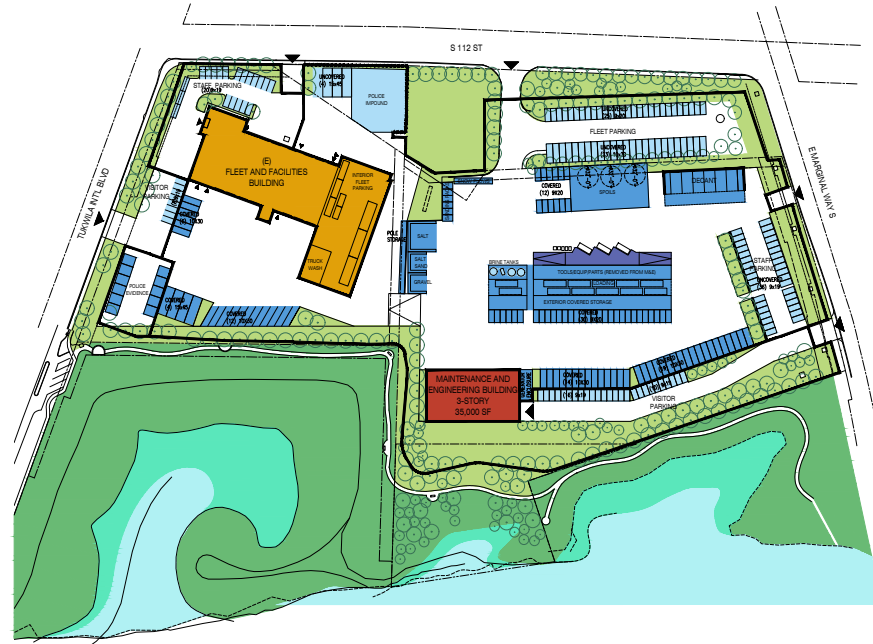


70% Impervious Surface
TEST-FIT CONCEPT

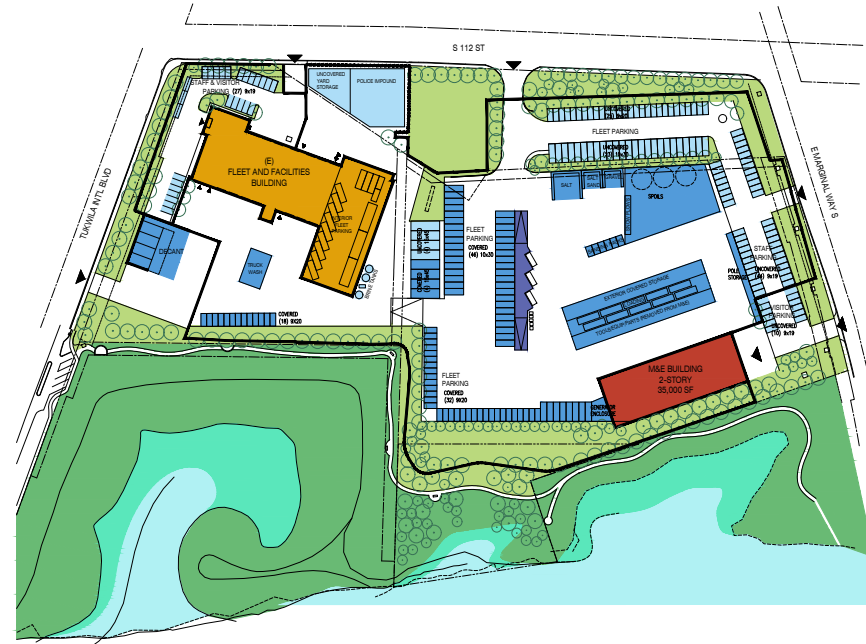
Goal: Reduce cost related to ongoing maintenance of facilities and realize value in leasing or selling under utilized properties.

- **Durable finishes (easy to clean, water resistant and slip resistant)**
- **Infrastructure for future expansion**
- **Flexible, adaptable spaces**
- **Durable paving surfaces to reduce future maintenance**
- **Life cycle cost analysis for systems selection**

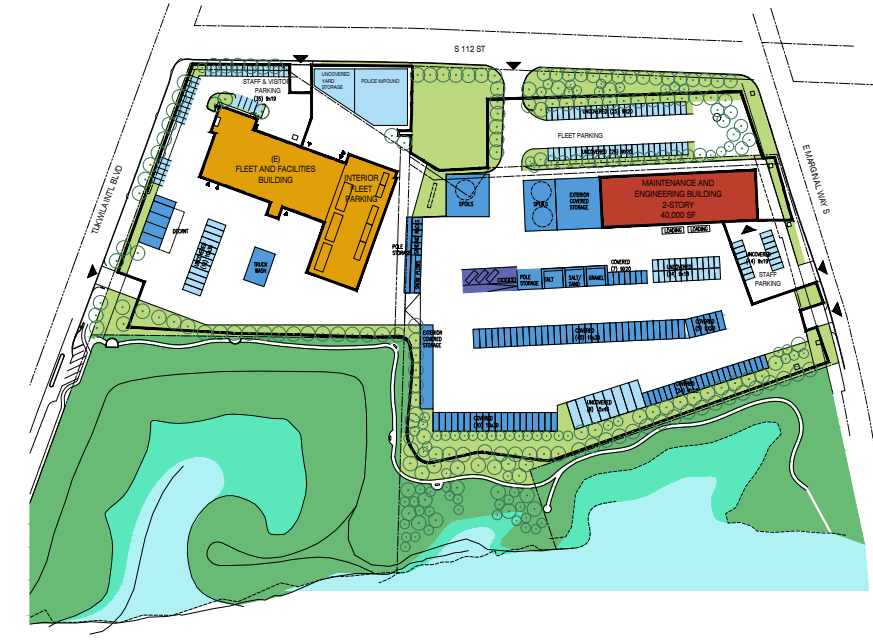




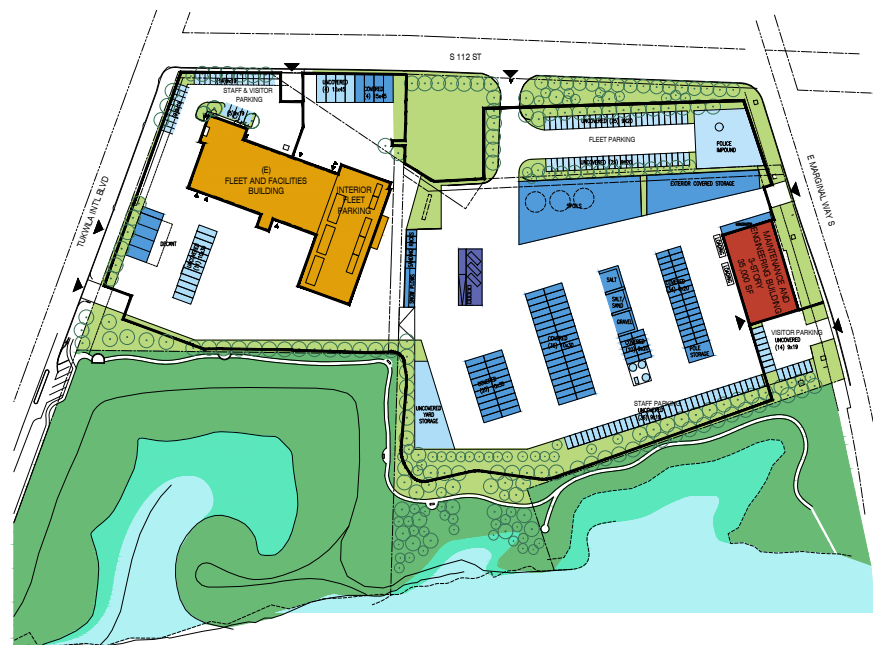
SCHEME A



SCHEME B



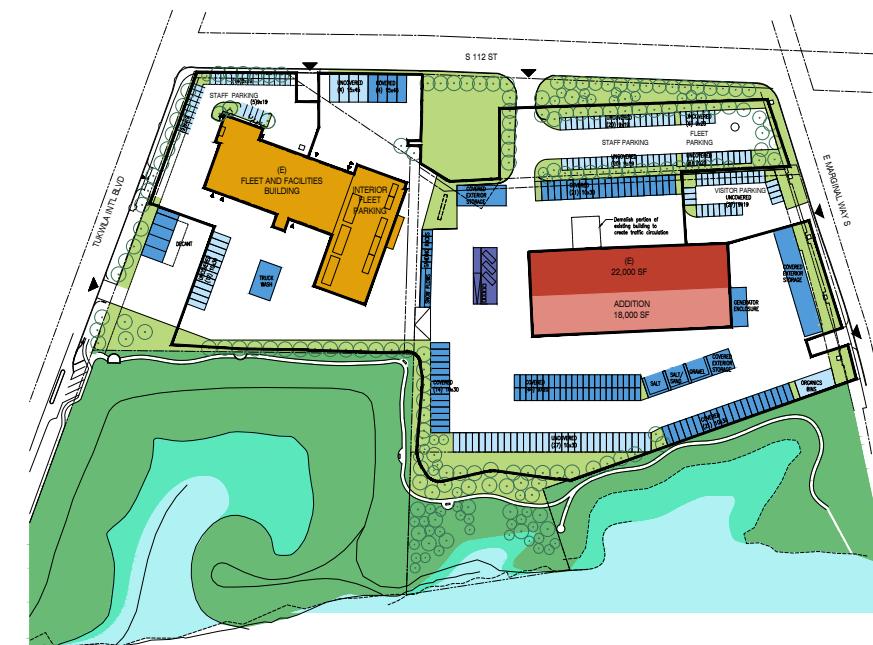
SCHEME C



SCHEME D



SCHEME E



SCHEME F

ID #	Criteria Description
"Big Picture" Criteria (pass/fail)	
1.1	Provides for Department of Ecology waiver requirements
1.2	Provides for code required stormwater facilities
1.3	Located above 500 year flood plane
1.4	Provides for future capacity
Public Works Staff Input	
2.0	Public Works Staff Preferences & Recommendations
Program Elements and Flow	
2.1	Public Works site program elements provided
2.2	Public Works covered parking provided
2.3	Public Works uncovered parking provided
2.4	Decant facility located adjacent to Spoils
2.5	Accommodates Drive Through Tool Storage
2.6	Accommodates Drive Through Dumpster Platform
2.7	Police Evidence Provided
2.8	Police Impound Provided
Campus, Access, Security, and Identity	
Building location allows for M&E visitor parking to be separated from staff parking	
3.1	Building location allows for M&E visitor parking to be separated from staff parking
3.2	F&F visitor parking separated from staff parking
3.3	Improves entrance from Tukwila Int'l Blvd
3.4	Provides for new security fence
3.5	Provides for new site lighting and security cameras
3.6	Efficient walking route between F&F and M&E buildings
3.7	Efficient walking distance from M&E to site program
3.8	Building location high-vis to the public
3.9	Building location takes advantage of amenity view to river
3.10	Utilizes existing driveway locations at E Marginal Way S
Environment and Sustainability	
4.1	Building orientation optimized for passive solar access
4.2	Opportunity for solar panels over covered parking or roof
4.3	Opportunity for EV charging infrastructure
4.4	Reduces impervious surfaces
4.5	Habitat and trail connection to adjacent restoration areas

EVALUATION CRITERIA

ID #	Criteria Description	Importance
"Big Picture" Criteria (pass/fail)		
1.1	Provides for Department of Ecology waiver requirements	Essential
1.2	Provides for code required stormwater facilities	Essential
1.3	Located above 500 year flood plane	Essential
1.4	Provides for future capacity	Essential
Public Works Staff Input		
2.0	Public Works Staff Preferences & Recommendations	1.00
Program Elements and Flow		
2.1	Public Works site program elements provided	1.00
2.2	Public Works covered parking provided	1.00
2.3	Public Works uncovered parking provided	1.00
2.4	Decant facility located adjacent to Spoils	1.00
2.5	Accommodates Drive Through Tool Storage	0.75
2.6	Accommodates Drive Through Dumpster Platform	0.75
2.7	Police Evidence Provided	0.50
2.8	Police Impound Provided	0.50
Campus, Access, Security, and Identity		
Building location allows for M&E visitor parking to be separated from		
3.1	staff parking	1.00
3.2	F&F visitor parking separated from staff parking	1.00
3.3	Improves entrance from Tukwila Int'l Blvd	1.00
3.4	Provides for new security fence	1.00
3.5	Provides for new site lighting and security cameras	1.00
3.6	Efficient walking route between F&F and M&E buildings	0.75
3.7	Efficient walking distance from M&E to site program	0.75
3.8	Building location high-vis to the public	0.50
3.9	Building location takes advantage of amenity view to river	0.50
3.10	Utilizes existing driveway locations at E Marginal Way S	0.50
Environment and Sustainability		
4.1	Building orientation optimized for passive solar access	1.00
4.2	Opportunity for solar panels over covered parking or roof	1.00
4.3	Opportunity for EV charging infrastructure	1.00
4.4	Reduces impervious surfaces	0.75
4.5	Habitat and trail connection to adjacent restoration areas	0.50

Criteria Weighted by Importance

- "Most Important" x1.00**
- "Very Important" x0.75**
- "Somewhat Important" x0.50**

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M&E Building**

March 6, 2023

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Example

	Scheme A	Scheme B	
Criteria 1	2	3	Initial Score
Criteria 2	3	2	
Initial Scores	5	5	← Tie
Criteria 1 (x 1.0)	2 x 1.0 = 2	3 x 1.0 = 3	Weighted Score
Criteria 2 (x 0.5)	3 x 0.5 = 1.5	2 x 0.5 = 1	
Weighted Score	3.5	4	

Criteria Weighted by Importance

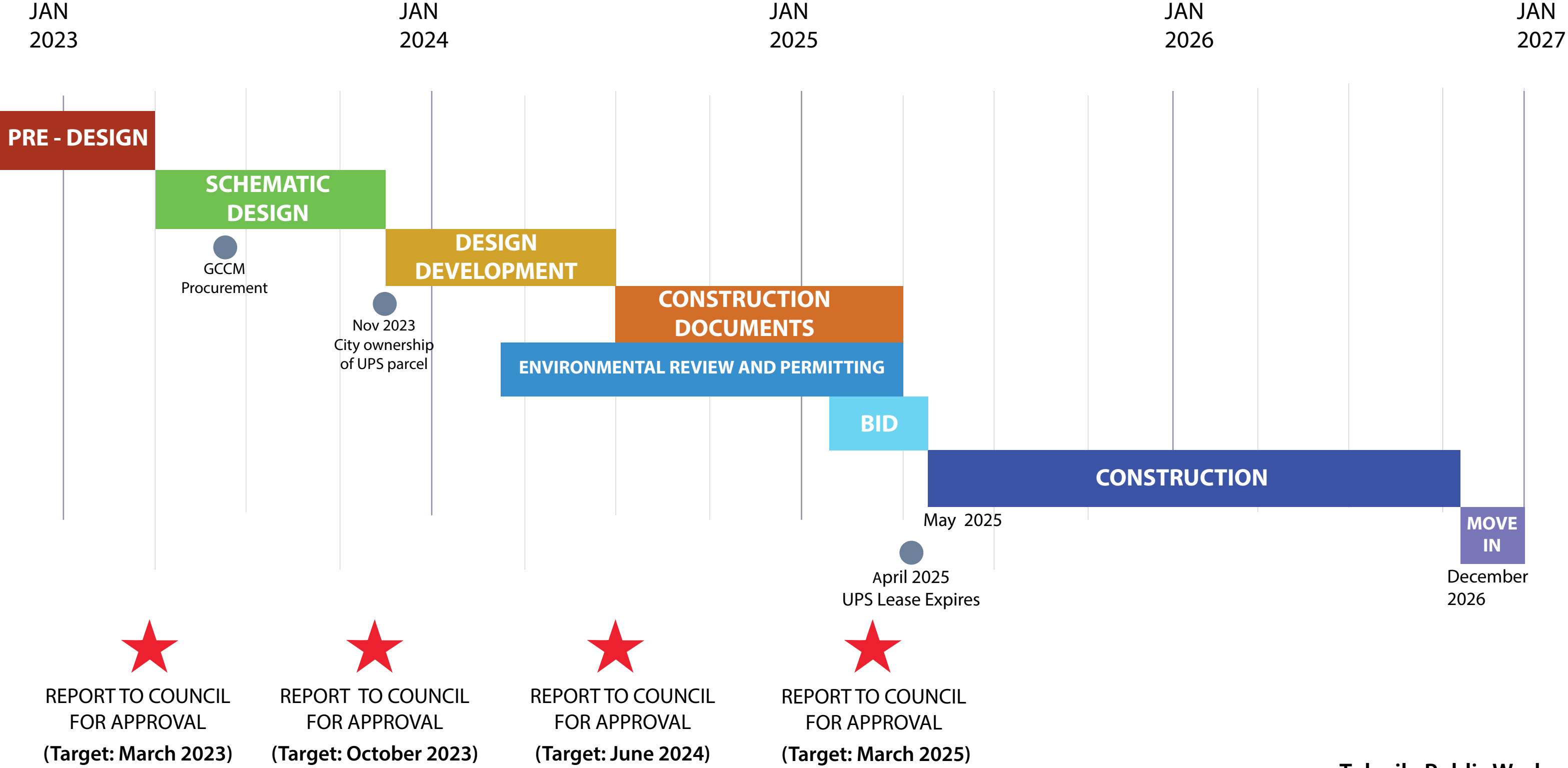
- “Most Important” x1.00
- “Very Important” x0.75
- “Somewhat Important” x0.50

Possible scores applied to criteria

- 3 = Excellent
- 2 = Good
- 1 = Fair
- 0 = Poor / Not Provided

Criteria ID #	Criteria Description	Criteria Importance	Concept A		Concept B		Concept C		Concept D		Concept E		Concept F	
			Initial Score	Weighted Total	Initial Score	Weighted Total	Initial Score	Weighted Total	Initial Score	Weighted Total	Initial Score	Weighted Total	Initial Score	Weighted Total
"Big Picture" Criteria (pass/fail)														
1.1	Provides for Department of Ecology waiver requirements	Essential	✓		✓		✓		✓		✓		✓	
1.2	Provides for code required stormwater facilities	Essential	✓		✓		✓		✓		✓		✗	
1.3	Located above 500 year flood plane	Essential	✓		✓		✓		✓		✓		✓	
1.4	Provides for future capacity	Essential	✓		✓		✓		✓		✓		✗	
Public Works Staff Input														
2.0	Public Works Staff Preferences & Recommendations	1.00	3	3	2	2	0	0	0	0	1	1	0	0
Program Elements and Flow														
2.1	Public Works site program elements provided	1.00	3	3	3	3	3	3	3	3	3	3	1	1
2.2	Public Works covered parking provided	1.00	3	3	3	3	3	3	3	3	3	3	3	3
2.3	Public Works uncovered parking provided	1.00	3	3	3	3	3	3	3	3	3	3	3	3
2.4	Decant facility located adjacent to Spoils	1.00	3	3	0	0	0	0	0	0	2	2	0	0
2.5	Accommodates Drive Through Tool Storage	0.75	3	2.25	2	1.5	0	0	0	0	3	2.25	0	0
2.6	Accommodates Drive Through Dumpster Platform	0.75	3	2.25	2	1.5	0	0	0	0	3	2.25	0	0
2.7	Police Evidence Provided	0.50	2	1	0	0	0	0	0	0	0	0	0	0
2.8	Police Impound Provided	0.50	2	1	2	1	2	1	1	0.5	2	1	0	0
Campus, Access, Security, and Identity														
3.1	Building location allows for M&E visitor parking to be separated from staff parking	1.00	3	3	3	3	1	1	3	3	3	3	2	2
3.2	F&F visitor parking separated from staff parking	1.00	3	3	1	1	0	0	0	0	3	3	0	0
3.3	Improves entrance from Tukwila Int'l Blvd	1.00	3	3	3	3	3	3	3	3	3	3	3	3
3.4	Provides for new security fence	1.00	3	3	3	3	3	3	3	3	3	3	3	3
3.5	Provides for new site lighting and security cameras	1.00	3	3	3	3	3	3	3	3	3	3	3	3
3.6	Efficient walking route between F&F and M&E buildings	0.75	2	1.5	1	0.75	1	0.75	0	0	3	2.25	1	0.75
3.7	Efficient walking distance from M&E to site program	0.75	3	2.25	3	2.25	3	2.25	2	1.5	0	0	1	0.75
3.8	Building location high-vis to the public	0.50	2	1	2	1	1	0.5	1	0.5	3	1.5	0	0
3.9	Building location takes advantage of amenity view to river	0.50	3	1.5	3	1.5	0	0	0	0	3	1.5	0	0
3.10	Utilizes existing driveway locations at E Marginal Way S	0.50	3	1.5	3	1.5	0	0	0	0	3	1.5	3	1.5
Environment and Sustainability														
4.1	Building orientation optimized for passive solar access	1.00	3	3	2	2	2	2	0	0	1	1	3	3
4.2	Opportunity for solar panels over covered parking or roof	1.00	3	3	3	3	3	3	3	3	3	3	3	3
4.3	Opportunity for EV charging infrastructure	1.00	3	3	3	3	3	3	3	3	3	3	3	3
4.4	Reduces impervious surfaces	0.75	3	2.25	3	2.25	2	1.5	2	1.5	3	2.25	1	0.75
4.5	Habitat and trail connection to adjacent restoration areas	0.50	3	1.5	3	1.5	3	1.5	3	1.5	3	1.5	3	1.5
Subtotal Weighted Score			57		46.75		34.5		32.5		50		32.25	
Weighted Ranking			1st		3rd		4th		5th		2nd		6th	

COUNCIL APPROVAL PROCESS



Tukwila Public Works M&E Building

March 6, 2023
Miller Hayashi Architects

CONCEPTUAL “ALL IN” MASTER PLAN COST

West Site Preparation, Demolition, Grading, Paving, Utilities (3.95 acres)	\$ 3,949,000
West Site Structures (covered parking, police evidence, truck wash)	\$ 2,700,000
East Site Preparation, Demolition, Grading, Paving, Utilities (6.90 acres)	\$15,271,000
East Site Structures (covered parking, spoils, salt/sand/gravel)	\$ 4,924,000
Maintenance & Engineering Building	\$16,445,000
Tool Storage Building	\$ 1,248,000
Shoreline Restoration	\$ 1,528,000
Decant Facility	\$ 770,000
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Sub-Total Construction Cost	\$46,835,000
Escalation to Jan 2026 <i>(at 7% for the first year and compounded at 4.5% per year thereafter)</i>	\$ 7,678,000
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Construction Cost including escalation	\$54,513,000
Project Related Costs	\$29,352,000
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Master Plan Conceptual Project Cost	\$83,865,000

**Tukwila Public Works
M&E Building**

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Tukwila Public Works Operations Campus, Phase 2

MARCH 6, 2023

TRANSPORTATION AND INFRASTRUCTURE SERVICES

Next Steps

- **March 13, Committee of the Whole: Briefing to Full Committee**
- **TBD, TIS: Contract for Design**
- **TBD, COW: Contract for Design**
- **TBD, Regular Council: Authorize Design Contract**
- **TBD, City Council: Schematic Design Check In, Updated Costs**
- **November 1, 2023, City Takes ownership of east parcel.**
- **TBD, City Council: Design Development, Updated Costs**
- **March 2025, City Council: Design Development, Construction Documents, Final Cost Estimates, Go to Bid.**