

September 11, 2025

To:	Sound Transit System Expansion Committee
From:	Terri Mestas, Deputy CEO, Chief Capital Delivery Officer
Cc:	Sound Transit Board of Directors Dow Constantine, CEO
Subject:	Updated ST3 Capital Project Cost Estimates

Memo Purpose

This memo provides an overview of updated project cost estimates for eight (8) ST3 capital projects that, taken together, represent approximately \$14–20 billion in added costs (2025 dollars). There is an initial summary of Capital Program-wide cost growth and efforts associated to identify cost savings opportunities followed by project-specific pages that provide updated project cost estimates, key project-specific cost drivers, and representative cost savings opportunities for ST3 light rail investments in active project development.

Summary of Capital Program Cost Growth for ST3 Light Rail Projects

While further work is needed to refine and validate the scope of these challenges, we are projecting \$14–20 billion in added costs (2025 dollars), or \$22–30 billion in year-of-expenditure dollars, for ST3 light rail projects.

These increases are primarily driven by extraordinary COVID-era construction inflation, right-of-way cost escalation, and the added complexity of project design and delivery. The affected projects include:

- The West Seattle, Ballard, Tacoma Dome, Everett, Tacoma Community College, and South Kirkland–Issaquah Link extensions.
- Infill stations at Graham Street and Boeing Access Road.

It is important to note that these are conservative estimates based on the current project scope and before *any* of the opportunities being investigated by Sound Transit's Capital Delivery department under the Board-directed cost-savings workplan are applied.

Our updated cost estimates have increased due to the following factors:

- **Inflation:** Historic inflation during and after the COVID-19 pandemic ranges between 18%–25% since 2020 across our right of way, construction, and consumer price indices.
- **Updated estimating methods:** Based on our experience from the updated cost estimates on the West Seattle Link Extension, the other light rail project teams employed a modified bottom-up cost estimating approach (appropriate to each project's level of design) to better account for project-specific construction challenges and construction cost inflation.
- **Scope:** Design advancement and scope changes – and better knowledge of design for more complex project elements, in particular – also contributed to cost growth.

- **Soft costs:** Soft costs include things like administrative costs and professional services that are calculated as a percentage of the overall project cost and so increased proportionally as a result.
- **Contingency:** Increased construction cost estimates require increased construction contingency set-asides.

These cost drivers are not felt consistently across the capital program. Projects with more complexity in their scope are subject to higher potential cost growth. This complexity includes elements like water crossings and tunneled segments where additional design detail based on current market conditions give us an improved understanding of potential cost.

The following table shows projects with updated cost estimates – in both current and year-of-expenditure dollars – and includes current finance plan estimates (from the Fall 2024 Long-Range Financial Plan), updated cost estimate ranges, and their current level of design development.

Project name	Current Finance Plan value (2025\$ in millions)	Updated estimate (2025\$ in millions)	Current Finance Plan value (YOE\$ in millions)	Updated estimate (YOE\$ in millions)	Level of design development
West Seattle Link Extension	\$4,193	\$7,000 - \$7,900	\$4,791	\$8,700 - \$9,800	Preliminary engineering
Ballard Link Extension & Downtown Tunnel	\$11,907	\$20,100 - \$22,600	\$15,518	\$29,000 - \$32,700	Advanced conceptual engineering
Tacoma Dome Link Extension	\$4,626	\$5,400 - \$6,100	\$5,825	\$6,800 - \$7,600	Advanced conceptual engineering
Everett Link Extension	\$6,538	\$6,800 - \$7,700	\$9,169	\$9,900 - \$11,200	Conceptual engineering
Graham St Infill Station	\$124	\$175 - \$200	\$142	\$200 - \$225	Conceptual engineering
Boeing Access Rd Infill Station	\$279	\$425 - \$475	\$325	\$500 - \$550	Conceptual engineering
Tacoma Community College Link	\$1,029	\$1,400 - \$1,600	\$1,582	\$2,300 - \$2,600	Planning phase not started
South Kirkland Issaquah Link	\$4,115	\$5,600 - \$6,300	\$6,952	\$9,100 - \$10,300	Planning phase not started

Note: the estimates above are presented in both constant 2025 dollars, which is how the agency typically presents capital project cost estimates before a project is baselined, as well as year-of-expenditure (YOE) or inflated dollars, which reflects the format for the Long-Range Financial Plan. The YOE figures represent the forecasted cost to build a project in the future. In contrast, the agency tracks pre-baselined cost estimates in “constant dollars” to compare estimates received. Constant dollar costs display a project cost without inflation/currency devaluation.

Additional information is presented on the following pages that summarize project-specific cost drivers and potential cost savings opportunities. We are not summarizing information for the two projects – Tacoma Community College and South Kirkland-Issaquah Link Extensions – that have not yet begun their project development processes. The basis of this updated parametric cost

estimate was a comparative study against comparable ST2 projects and identifying the cost growth in those project estimates from conceptual to actual. This is the only viable means of identifying any sort of escalation to the project budgets given that there is no design or even additional planning performed since the original ST3 system plan.

Capital Program Cost Savings Workplan & Opportunity Registers

We have been aware of cost pressures since the publication of the West Seattle Link Extension Final Environmental Impact Statement in 2024, and the Board directed staff via Motion No. M2024-59 to develop a workplan on the programmatic, financial, and project level measures and opportunities the agency should pursue to improve the agency's financial situation.

Since that time, Sound Transit's Capital Delivery department has implemented this approach to the four major light rail extension projects and two infill station projects currently in active development. All projects are undergoing a process to identify cost savings levers, which comprise a combination of opportunities. These opportunities include those that can be implemented at the project level, those that require coordination across the agency to ensure operational and design deviation trade-offs are accounted for, and more impactful opportunities that require Board and partner input like scope reductions or project phasing.

Next Steps

Capital Delivery staff will engage the System Expansion Committee throughout fall 2025 on each active ST3 light rail project, beginning with the Everett Link and West Seattle Link Extensions on Thursday, September 11. In addition, all this work will be closely coordinated with the broader Enterprise Initiative to support delivery of an updated ST3 System Plan and balanced, affordable Long-Range Financial Plan consistent with the Board's direction in Motion No. M2025-36.

Project teams continue to identify and assess potential opportunities and are developing estimates for cost savings with those opportunities that are moving forward. The pages that follow provide more information on the ST3 light rail projects in active project development. The Capital Delivery team will continue to advance the cost savings workplan and to incorporate cost savings opportunities through the Enterprise Initiative, and so the information presented will be refined and updated as more information is developed.

WEST SEATTLE LINK EXTENSION

The West Seattle Link Extension (**WSLE**) project includes 4.1 miles of aerial, at-grade and tunnel guideway and 1 at-grade, 1 elevated, and 2 tunnel stations between Alaska Junction and SODO.

In 2042, total daily trips on the project itself would range between 24,000 and 27,000 for all Build Alternatives depending on land use, economic, and bus service level assumptions.

WSLE cost estimates were updated in 2024 using a bottom-up method typical of the ~30% design milestone of the project. Previous estimates completed for the ~10% design milestone used a Unit Cost Library (UCL) based method. The 2024 update showed substantial cost growth from the previous estimate due to the inflation factors noted in the intro as well as two key areas:

(1) Greater estimating accuracy from bottom-up method better reflect unique corridor challenges and cost drivers.

(2) Specific project scopes elements, particularly the high-level fixed bridge over the Duwamish and the addition of a tunnel in West Seattle Junction segment.

Unique Project Cost Drivers

- One Link transfer Station (SODO)
- High-level fixed bridge over the Duwamish
- Connection to OMF-C
- Tunnel stations in West Seattle Junction
- ROW costs reflect location in high-density urban corridor

Key Cost Saving Opportunities

More than 150 cost saving opportunities

Lever 1 \$100M-\$800M savings

- SODO West Shoofly: \$115M-\$140M
- SODO Station Optimization: \$125M-\$160M

Lever 2 \$200M-\$1B savings

- Alaska Junction Optimization: \$190M-\$235M savings

West Seattle Link Extension

Guideway: 4.1 miles aerial, at-grade, and tunnel

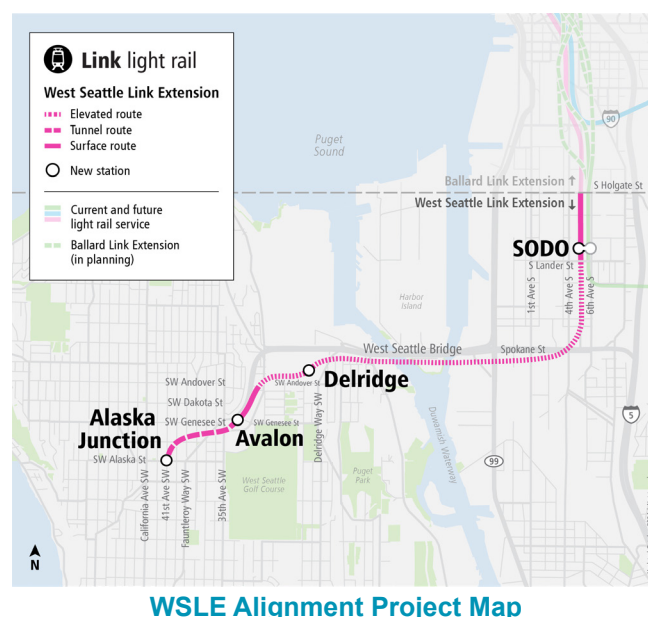
Stations: 1 at-grade, 1 elevated, and 2 tunnel

Project Cost (2025\$)	\$7.0B - \$7.9B
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Design Status (% Completion)	30% Preliminary Engineering
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Milestones

- **ROD:** April 2025
- **Civil Design Contract Phase 2:** Q1 2026
- **Re-baselined PE complete:** Q1 2026
- **Duwamish Bridge GCCM pre-con procurement start:** Q1 2026
- **FTA Expedited Project Delivery Grant Application:** Q1 2026



Lever 3 \$600M-\$1.7B savings

- Remove Avalon Station: \$375-470M savings

BALLARD LINK EXTENSION

The Ballard Link Extension project (**BLE**) includes 7.7 miles of tunnel, at-grade and elevated alignment including 7 tunnel, 1 retained cut and 1 elevated station.

Cost estimates for the project were last updated for 2022 Draft EIS using the Unit Cost Library approach before the 2025 estimate which used a bottom-up estimating approach.

The 2025 estimate showed substantial cost growth from the previous estimate predominantly due to the inflation factors discussed in the introduction and two other key factors:

- (1) the bottom-up estimating approach more accurately captured quantities (particularly for the tunnel alignment and stations) and unique construction challenges in the project corridor; and
- (2) project scope changes between 2022 and 2025 including additional property costs and a new tunnel segment and station.

Unique Project Cost Drivers

- Real Property costs in downtown Seattle
- Cut and cover and mined crossovers in a dense urban core
- 3.9 miles of twin bore tunnel (guideway) through downtown Seattle and Ballard and 7 tunnel stations
- Tunnel station costs
- Challenging geotechnical conditions

Key Cost Saving Opportunities

More than 115 cost saving opportunities

Lever 1 \$800M-\$900M savings

- Westlake Station Optimization: \$110M-\$130M
- Seattle Center Optimization: \$420M-\$470M

Lever 2 \$1B-\$1.2B savings

- Denny Station Crossover and Optimization \$330M-\$370M

Lever 3 \$1.9B-\$3.0B savings

- Consolidate Denny and SLU Stations: \$1.5B-1.7B

Ballard Link Extension

Guideway: 7.7 miles tunnel, at-grade, and elevated

Stations: 1 retained cut, 1 elevated, and 7 tunnel

Project Cost (2025\$)	\$20.1B - \$22.6B
Design Status (% Completion)	10-15% Advanced Conceptual Engineering

Milestones

- **DEIS publication:** Q4 2025
- **Modify/confirm PA:** Q1 2026
- **FEIS publication:** Q4 2026
- **ROD / Select project to be built:** Q1 2027



BLE Alignment Project Map

EVERETT LINK EXTENSION

The Everett Link Extension (**EVLE**) project includes a target schedule that aims to begin service to Everett Station in 2037. Under the affordable schedule, service is planned to open to Southwest Everett Industrial Center Station by 2037 and to Everett Station by 2041.

The project is currently in the Draft EIS (DEIS) phase. EVLE cost estimates were updated in 2024 for the 10% design milestone using a bottom-up method. Previous estimates completed for the Alternatives Development phase used a Unit Cost Library (UCL) based method.

The 2024 update showed cost growth from the previous estimate due to the inflation factors as well as two key areas:

- (1) Greater estimating accuracy from bottom-up method better reflects unique corridor designs and cost drivers.
- (2) Specific project scope elements, particularly the Mariner Station (2 Line terminus) and multiple long-span bridge crossings of I-5 and SR 526.

Unique Project Cost Drivers

- 2 Line terminus station at Mariner Station requires two platforms and three elevated tracks
- Two long-span bridge crossings of I-5, three long-span crossings of SR 526
- More aerial guideway than assumed in earlier phases, which is more expensive
- Additional property acquisitions needed to maintain compatibility with potential WSDOT expansion
- Special track and track access points located on aerial guideways are more expensive than if they were located on at-grade guideway

Key Cost Saving Opportunities

More than 80 cost saving opportunities

Lever 1 \$300M-\$350M savings

- Ash Way Station Optimization: \$25M-\$30M
- Avoid Large Retail \$55M-\$70M

Lever 2 \$500M-\$600M savings

- West Alderwood Pocket Track: \$70M-\$85M savings

Everett Link Extension

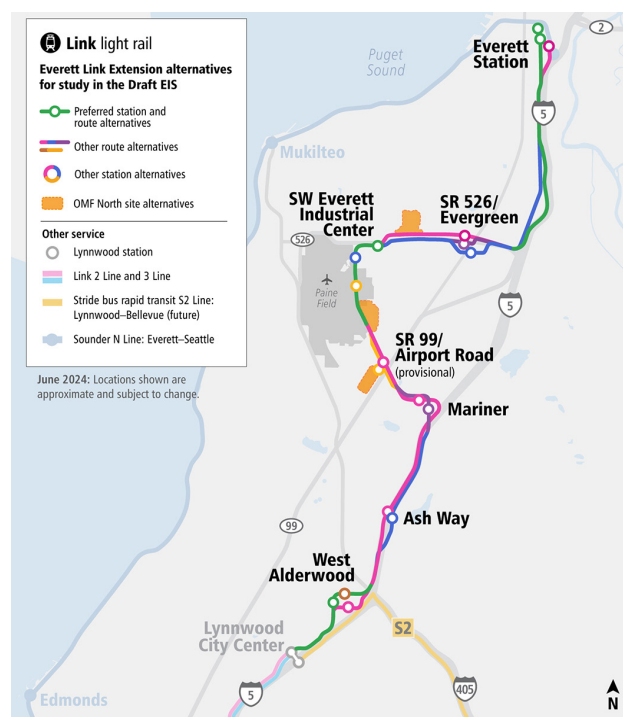
Guideway: 16 miles; 11.5 miles aerial, 4.5 miles at-grade

Stations: 6 aerial and 1 provisional (unfunded)

Project Cost (2025\$)	\$6.8B - \$7.7B
Design Status (% Completion)	10% Conceptual Engineering

Milestones

- **DEIS submitted:** January 2026
- **Board selects preferred alternative:** Q2-3 2026
- **Board selects project to be built:** Q2-3 2027



EVLE Alignment Project Map

Lever 3A \$850M-\$1.1B savings

- SW Everett Industrial Center Guideway Optimization: \$65M-\$80M savings

Lever 3B \$1B-\$1.3B savings

- Defer a station: \$150-300M savings

TACOMA DOME LINK EXTENSION

The Tacoma Dome Link Extension Project (**TDLE**) will extend light rail 8.5 miles from South Federal Way to the Tacoma Dome area in the City of Tacoma with four elevated stations at South Federal Way, Fife, Portland Ave, and the Tacoma Dome area. The project connects the region to employment, services, and educational opportunities in Pierce County and vice versa; and will be the first light rail line to serve a Tribal Reservation in the U.S. The project is currently planned to open in 2035 and is forecasted to carry up to 36,000 daily riders. The Draft EIS was published in December 2024, and the Board identified the preferred alternative in June 2025. The team is advancing the preferred alternative through preliminary engineering and will publish the Final EIS in Q2 2027.

TDLE cost estimates were updated in 2024 for the 10% design milestone using a bottom-up method. Previous estimates completed for the Alternatives Development phase used a Unit Cost Library (UCL) based method. The 2024 update showed cost growth from the previous estimate due to the inflation factors as well as greater estimating accuracy from bottom-up method better reflect unique corridor designs and cost drivers.

Unique Project Cost Drivers

- 8.5 miles of aerial guideway: limited ability for at-grade construction increases structural and foundation requirements.
- Complex bridge structure over the Puyallup River
- 4 aerial stations require significant structural and vertical access elements.
- ROW lower than other projects due to less expensive real estate

Key Cost Saving Opportunities

More than 65 cost saving opportunities

Lever 1 \$100M-\$150M savings

- Optimize I-5 alignment in Fife: \$50-70M
- Reduce number of escalators: \$20-25M

Lever 2 \$160M-\$200M savings

- Eliminate tail tracks \$60M-\$80M
- Underground piping/tank system in lieu of vaults: \$30-50M

Tacoma Dome Link Extension

Guideway: 8.5 miles

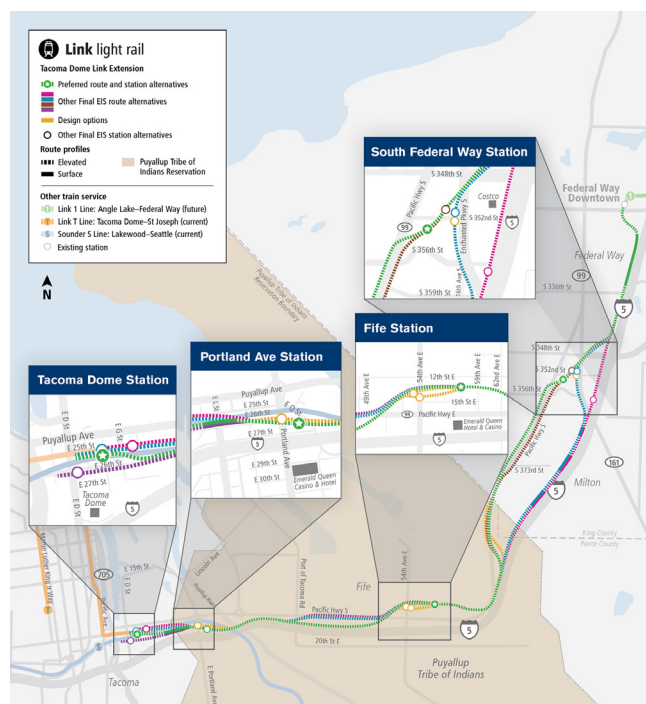
Stations: 4 elevated

Project Cost (2025\$) \$5.4B - \$6.1B

Design Status (% Completion) 10% Advanced Conceptual Engineering

Milestones

- **Publish FEIS:** Q2 2027
- **Record of Decision:** Q2 2027
- **Final Design:** 2027-2029
- **Start of Construction:** 2029/2030



TDLE Alignment Project Map

Lever 3 \$430M-\$530M savings

- Defer stations: \$230M-\$280M

INFILL STATIONS

The Graham St and Boeing Access Rd (BAR) station projects (**Infill Stations**) include two new light rail stations on the existing 1 Line.

Graham St Station is a new at-grade station on Martin Luther King Jr Way at S Graham St in Seattle’s Rainier Valley, and Boeing Access Rd Station is a new elevated station on the west side of E Marginal Way just north of S 112th St in Tukwila. The Infill Stations will complete Conceptual Engineering (<10% design) in Fall 2025.

Ridership in 2046 with the full buildout of ST3 at Graham St Station is estimated to be 2,700-4,100 daily boardings (net 1,200-2,000 boardings) and at Boeing Access Rd is estimated to be 1,600-2,100 daily boardings.

Infill Stations cost estimates were completed in Oct 2024 using a method typical of the <5% design milestone of the project. No previous estimates were completed for the projects. The 2024 estimate showed substantial cost growth from the previous Financial Plan estimate due to the inflation factors noted in the intro as well as specific project scope elements, particularly the crossovers needed for each station, operations/construction costs from constructing each station on an existing line, and ROW requirements.

Conceptual Engineering-level estimates (<10% design) will be available for Graham in late October 2025 and for Boeing Access Rd station in December 2025. The project team is also actively developing cost estimates for the opportunities identified on the following page.

Graham St Station

Guideway: existing 1 Line; Station: 1 at-grade

Project Cost (2025\$)	\$175M-\$200M
Design Status (% Completion)	<10% Conceptual Engineering

Boeing Access Road Station (BAR)

Guideway: existing 1 Line; Station: 1 elevated

Project Cost (2025\$)	\$425M-\$475M
Design Status (% Completion)	<10% Conceptual Engineering

Milestones	Graham St	BAR
DCE Approval	Q3 2026	Q1 2027
Board Action to Advance Project	Q4 2026	Q2 2027
Advancing Workplan Opportunities for cost reductions	Q1 2026	Q1 2026

Unique Project Cost Drivers

- One new crossover is needed for each station in order to meet ST headway standards, with potential long-term value for operational flexibility (both stations)
- Operations and construction costs of constructing new stations on the existing 1 Line during active operation, resulting from work restrictions needed to maintain an acceptable level of service along the 1 Line (both stations)
- Property for stations was not acquired during Central Link construction, and utilities were not relocated to create buildable station footprints (both stations)
- ROW costs reflect locations in developed urban areas (both stations)
- Traction power substation potentially needs to be replaced (Boeing Access Rd)
- ROW costs for adding automatic pedestrian gates and refuge islands (Graham St)

INFILL STATIONS (CONT.)

Key Cost Saving Opportunities

Graham St Station: 8 opportunities

Lever 1

\$ to \$\$

- Replace embedded rail with ballasted track: TBD savings
- Minimize canopy cover on the platform: TBD savings

Boeing Access Road Station: 7 opportunities

- Minimize canopy cover on the platform: TBD savings
- Keep Traction Power Substation in the existing location: TBD savings

Lever 2

\$ to \$\$

- Only provide pedestrian access from one side of the platform: TBD Savings
- Do not install a new crossover: TBD savings
- Do not realign southbound track to create tangent at station: TBD savings

- Do not provide escalators for vertical circulation (only stairs/elevator): TBD savings
- Do not install a new crossover: TBD savings

Lever 3

\$\$ to \$\$\$

- Close MLK and 1 Line to expedite construction: TBD Savings
- Remove pedestrian gates: TBD Savings
- Replace sidewalks in kind and do not acquire additional property to meet current City of Seattle standards: TBD savings

- Close 1 Line to expedite construction: TBD savings
- Do not provide park and ride: TBD savings
- Do not provide off-street transit or pick-up/drop-off facilities: TBD savings



Graham St Station Project Map



Boeing Access Rd Station Project Map

OMF NORTH AND SOUTH

The Link Operations and Maintenance Facility South and North (**OMF Program**) is part of Sound Transit's efforts to expand its light rail network to 116 miles and more than 80 stations across central Puget Sound as laid out in the Sound Transit 3 (ST3) expansion plan. This expansion includes the Operations and Maintenance Facility South (OMF South), which is located in Federal Way, Washington, and the Operations and Maintenance Facility North (OMF North), which is anticipated to be located in Everett, Washington. These facilities will provide essential maintenance, storage, and operations support for Sound Transit's growing fleet of light rail vehicles (LRVs).

OMF South will be located on an approximately 70-acre site and will serve LRVs running on the Tacoma Dome and West Seattle Link Extension projects as well as support the entire system. It will provide space to store, test, commission, and maintain at least 144, 95-foot-long LRVs (or 72, 190-foot-long LRVs), and will include a Maintenance-of-Way Building and other support facilities. It will also provide mainline access to the building and yard.

OMF North will serve LRVs operating on the Everett Link Extension project as well as support the entire system. The facility will store, maintain, and deploy at least 152, 95-foot-long LRVs (or 76, 190-foot-long LRVs). OMF North is subject to environmental review under the National Environmental Policy Act and State Environmental Policy Act and is subject to final site selection and approval by the Sound Transit Board of Directors.

Unique Project Cost Drivers

- OMF South Project is currently within the Financial Plan (FP) – design to budget approach is being used to control budget to FP target
- 2023 Cost Savings Exercise resulted in seven opportunities, all completed to date.

Cost Saving Opportunities

- Cost opportunities for OMF North being assessed through network approach and optimization of specialized equipment between the sites
- Programmatic opportunities to be assessed

OMF South

Project Cost (2025\$)	\$2.3B
Design Status (% Completion)	30% Preliminary Engineering

OMF North

Project Cost (2025\$)	\$2.1B
Design Status (% Completion)	5% Conceptual Engineering

Milestones

- **Expected completion: 2031**



Maintenance Program Project Map