

THE NORTHWEST SEAPORT ALLIANCE
MEMORANDUM

MANAGING MEMBERS
STAFF BRIEFING

Item No.	8A and 9A
Date of Meeting	February 1, 2022

DATE: January 20, 2022

TO: Managing Members

FROM: John Wolfe, CEO

Sponsor: Tong Zhu, Chief Commercial & Strategy Officer

Project Manager: Emma Del Vento, Capital Program Leader, Port of Seattle

SUBJECT: **Terminal 5 Modernization Program Quarterly Update Q4 2021; and Authorization to Accept Department of Commerce Grant for Terminal 5 Reefer Project**

A. SYNOPSIS

This is a 2-part request:

1. Regular Q4 2021 Terminal 5 Modernization Program Update, and
2. Authorization to Accept Department of Commerce Clean Energy Fund Grant for Terminal 5 Reefer Plug Infrastructure Project.

B. BACKGROUND

In April 2019, The Northwest Seaport Alliance (NWSA) entered a long-term lease for the redevelopment of Terminal 5 in the Seattle Harbor to create a modern international container terminal for ultra-large container ships. Once the Terminal 5 Modernization Program is completed, the facility will have the capability to handle the largest vessels currently calling the west coast, allowing the NWSA to compete for the super post-Panamax vessels, increasing current container volumes, supporting economic development and both creating and securing current jobs in the region for the next thirty years and likely beyond.

C. SYNOPSIS QUARTERLY PROGRAM UPDATE TERMINAL 5 MODERNIZATION

Scope and Recent Updates

Program wide updates: Phase 1 (North Berth) was completed and delivered to the Tenant on December 30, 2021. The first vessel arrived at T5 on January 07, 2022. Interface between the actively operating terminal and ongoing construction activity is well managed with both operations and construction activities proceeding at full capacity.

Labor availability has not yet impacted Terminal 5 execution to date. The ongoing concrete strike will put the South Berth schedule at risk if not resolved in early March.

Berth Modernization: There have been no scope changes to the Berth Modernization since the last briefing.

Permit Conditions: All of the pre-occupancy permit conditions have been met to start operations in January 2022. Construction of the final elements is planned for late 2022 and 2023.

Lease Obligations: NWSA's Lease Obligations are in progress per agreements with the Tenant. Work is ongoing to coordinate with the tenant to complete the North Reefer Infrastructure project as a Tenant Reimbursable project to better meet operations and schedule needs. Assessment of cost and schedule total impacts is underway.

Budget

Program Budget of \$340,000,000 was approved in April 2019. \$50,000,000 was added in July 2021 for a total Program budget of \$390,000,000. Per Managing Member action on December 21, 2021, \$2,500,000 was approved for the purchase and installation of 8 scales and for the south reefer restoration project as part the partial settlement agreement. This increased the total Program budget to \$392,500,000. Additionally, the Managing Members approved up to \$2,000,000 for shuttle services for traffic mitigation associated with the High West Seattle Bridge. This additional \$2,000,000 of expense will be managed by the NWSA and is not specifically part of the T-5 Modernization project.

Through December 31, 2021, the spent to date amounts of \$225,132,047 are on track with forecast estimate at completion and progress.

Risk

Recent Stochastic Analysis and Risk Register updates indicate the program has an 85% probability of being sufficient with a value of \$389.8M and a 100% probability of being sufficient with a value of \$410M.

The primary drivers leading to the \$4.1M increase in P-85 value over last quarter are as follows:

1. Increase – N Berth Toe Wall
2. Increase – Paving Bid items over runs
3. Increase – Phase 2 Pile Repair
4. Decrease – Paving scope adjustment overruns
5. Decrease – Berth Modernization Soft Costs
6. Decrease – Existing Gate Repair
7. Increase – Lease Obligation and Operational readiness Projects
8. Increase – N Reefer demarcation risk impact

Schedule

Phase 1 (North Berth) Substantial Completion was achieved on December 30, 2021, in accordance with the current lease agreement. Phase 1 dredging is planned to be completed ahead of schedule in late January 2022. Phase 1 Lease Obligations and Pre-Occupancy Permit Conditions were met in December 2021.

The T-5 Berth Modernization construction project is currently on schedule to complete Phase 2 of the project by the original schedule date of December 31, 2022. The major risk to this date is the ability to complete the in-water work this season. Dredging will be completed per contract before March 2023. Permit Conditions will be complete late 2023. Lease Obligation project schedule updates will be shared in Q2 2022.

Safety

Orion Marine Contractors (T-5 Berth Modernization General Contractor) meets POS requirements with Health and Safety Plan, Site Specific Safety plans; and have led the way forward through the 21 months of COVID-19 with continual adjustments and monitoring using additional supervision, access protocols, PPE to include face coverings, and hand washing. Orion has regularly had after action reviews with crews and has been responsive to all NWSA/POS direction. During this quarter there has been multiple positive case of COVID-19 on site. There have been two first aid and one recordable incident this quarter for almost 26,000 hours worked.

Western Ventures (T-5 North Marine Building General Contractor) completed the North Marine Building with no near misses and no recordable incidents.

D. PROJECT PROGRESS AND SCHEDULE

The Program achieved four major milestones this quarter:

- Completion of the North Berth (Phase 1)
- Completion of the Pre-Occupancy Permit Conditions.
- Completion of the Phase 1 Lease Obligations.
- Obtained Notice to Proceed for the \$10.7M PIDP Grant from the Maritime Administration.

Berth Modernization Project:

- North Berth: Dredging is planned to start the week of January 17.
- South Berth: Activities are on schedule; the in water work completion and ongoing concrete strike will impact the schedule if it continues past early March.
- Seattle City Light (SCL) on site work is mostly complete, pending final invoice in March/April.

Major milestones for Permit Conditions and Lease Obligations through Q1 2022 include:

- Permit Conditions Post-Occupancy Conditions – ongoing for life of project
- Quiet Zone – no action until Q2 2022

- Stormwater Treatment – Phase 1 construction completion Q2 2022; Phase 2 Bid advertisement January 2022
- S Marine Building – Bid Phase on hold until further direction
- RPM and CBP utilities – on track, will be completed February 2022
- North Reefer Infrastructure – Design stage may resume as Tenant Reimbursable
- New Gate (per Lease Amendment; Phase 2 deliverable) – 30% Design underway
- Other: PIDP Grant Agreement received Notice to Proceed

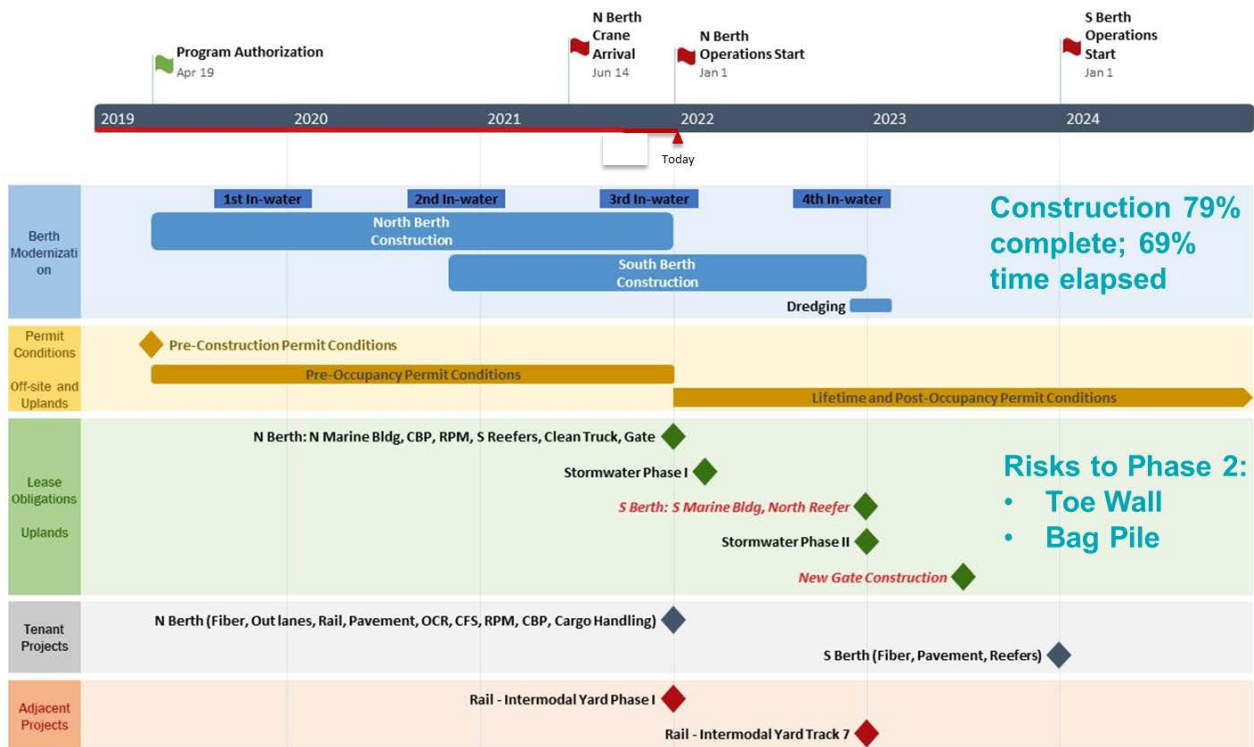
Schedule

The T-5 Berth Modernization construction project is currently on schedule to complete both phases of the project by the original schedule date of December 31, 2022.

The elements in red are planned dates, schedule will be established at 30% design and confirmed at authorization milestones.

The most significant element of risk to the Phase 2 delivery schedule is the Toe Wall driving in the south berth area.

The Program Master Schedule is illustrated below, projects in red are subject to schedule change for ongoing decision making and agreements.



E. BUDGET (to DECEMBER 31, 2021)

Budget numbers are updated through December 31, 2021. Numbers including overhead are posted the 10th of every month, except at year end when they are posted January 21.

- Program forecast currently exceeds the overall budget if all risks hit the Program at the high end.
- Construction is 82% spent and 79% complete (discrepancy is due to mobilization and early material purchase).

2021 Quarter 4 Program Budget	Authorized Budget	Quarter 3 Changes	Updated Budget	Spent to Date	Forecast at Completion	Remaining Authorized Budget
Design, Construction, Project Management	\$305.3	\$1.5	\$306.8	\$210.4	\$319.6	\$94.9
Permit Conditions	\$14.0	\$-	\$14.0	\$5.9	\$14.1	\$8.1
Stormwater Treatment	\$30.0	\$-	\$30.0	\$8.8	\$32.0	\$21.2
Management Reserve*	\$40.7	\$(1.5)*	\$39.2	\$-	\$24.3	\$40.7
Total	\$390.0	\$-	\$390.0	\$225.1	\$390.0	\$164.9

* \$1,458,000 moved out of Management Reserve this quarter and into construction for Sinkhole Repairs, Electrical Feeder testing, and Gate Scale Reimbursement.

Note: Per Managing Member action on December 21, 2021 \$2,500,000 was approved as part the partial settlement agreement. This increased the total Program budget to \$392,500,000 and included payment of 8 new truck scales and the restoration of the south reefers. The increase will be reflected in updated budget column of the chart in the next quarterly update. The \$2,000,000 that was approved on December 21, 2021, for traffic mitigation is not part of this Project and is being managed by the NWSA team.

F. BUDGET BY PROJECT

The budget table below shows the budget breakdown for each project, or grouping of similar scopes (reefers, gate, permit conditions).

Total project costs are currently aligned with the authorizations. The \$2M budget increase will be reflected in current authorized and total project cost columns of the chart in the next quarterly update.

	Original Authorized Project Cost	Current Authorized Project Cost	This Request	Total Project Cost	Cost to Date	Remaining Cost
T5 Berth + Design + SCL	\$ 276,000,000	\$ 274,800,000	\$ -	\$ 274,800,000	\$ 203,136,267	\$ 71,663,733
T5 Permit + Tribes	\$ 14,000,000	\$ 14,000,000	\$ -	\$ 14,000,000	\$ 5,917,426	\$ 8,082,574
T5 Stormwater Treatment	\$ 30,000,000	\$ 32,000,000	\$ -	\$ 32,000,000	\$ 8,830,742	\$ 23,169,258
T5 Management Reserve/Risk	\$ 20,000,000	\$ 22,620,000	\$ -	\$ 19,620,000	\$ -	\$ 19,620,000
T5 Clean Truck	\$ -	\$ 100,000	\$ -	\$ 100,000	\$ 37,592	\$ 62,408
T5 Marine Buildings	\$ -	\$ 10,100,000	\$ -	\$ 10,100,000	\$ 4,733,991	\$ 5,366,009
T5 RPM + CBP	\$ -	\$ 3,000,000	\$ -	\$ 3,000,000	\$ 272,578	\$ 2,727,422
T5 Reefers	\$ -	\$ 19,180,000	\$ -	\$ 19,180,000	\$ 1,375,433	\$ 17,804,567
T5 Gate Complex	\$ -	\$ 13,000,000	\$ -	\$ 16,000,000	\$ 303,402	\$ 15,696,598
T5 Operational	\$ -	\$ 1,200,000	\$ -	\$ 1,200,000	\$ 524,616	\$ 675,384
Total	\$ 340,000,000	\$ 390,000,000	\$ -	\$ 390,000,000	\$ 225,132,047	\$ 164,867,953
Previously Authorized			\$ 50,000,000			
Revised Total Authorization			\$ 390,000,000			
MARAD PIDP Grant			\$ 10,700,000			
WA Ecology - Stormwater			\$ 5,000,000			
WA Commerce - Shorepower			\$ 4,268,000			
WA Commerce - Reefers			\$ 4,316,500			
Authorization - Grants			\$ 365,715,500			
T5 ERL (POS Only)	\$ -	\$ -	\$ 700,000	\$ 700,000	\$ -	\$ 700,000

G. CONTINGENCY AND RISK

The contingency and risk section provide the Managing Members early visibility to emerging issues and associated costs in T5 Modernization Program implementation.

Contingency Funding – the program has three distinct forms of contingency funding to cover risk:

1. Typical construction contingency of 15%.
2. A unique management reserve of \$20M was established in April 2019 to cover both program unknowns, and knowns (but not budgeted for the initial management reserve calculation), like lease obligations and permit requirements. In July 2021 additional \$50M was approved to be added to the management reserve. In December 2021 additional \$2.5M was approved to be added to the management reserve.
3. A fortunate bid variance of \$24M from original engineer’s estimate of the primary \$160M construction contract.

While these forecasted costs are designed to be comprehensive, conservative, and cover all project phases, final program completion is 2 years out and inherent unknown risks may still emerge, and other risks may not occur.

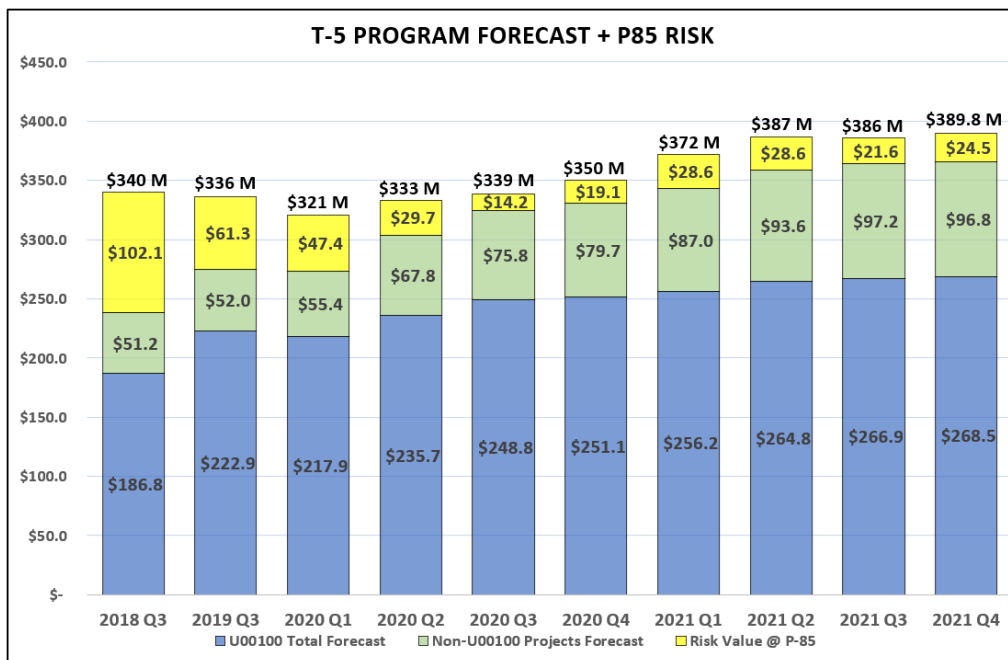
Stochastic Analysis and Risk Register (is being updated quarterly in 2022)

T-5 key staff meet quarterly with the T-5 Program risk consultant to model variables around future T-5 risk and update the risk register. Risks are identified by likelihood and impact to generate a score and are modelled into the forecast budget along with the actuals to date.

Recent Stochastic Analysis and Risk Register updates from December 2021 indicate:

- The program currently has a P-85 value (85% probability of being sufficient) of \$389.8M

The current expected cost of the program is \$368.2M (P-85 value \$389.8M minus grant funding \$24.28M + \$2.5M for recent budget increase). Note: the \$2.5M recent increase was not included in this quarter risk model.



Continuing risks:

- Phase 2 pinch piles (reduced)
- Paving over runs (reduced)
- N Reefer infrastructure cost uncertainty
- N Reefer expansion cost responsibility
- New gate complex cost uncertainty
- Stormwater treatment project cost uncertainty
- Phase 1+ reefer plug reimbursement
- Rail quiet zone project cost uncertainty

- Rail quiet zone land acquisition
- Added tenant operational requirements
- Rail quiet zone impacts from West Seattle Bridge construction phasing
- Equipment procurement delays (supply chain issues)
- S Marine building cost uncertainty
- Seattle city light project cost uncertainty

H. OPPORTUNITIES

The opportunities section provides a status update on the T-5 grant agreements and reimbursements to date.

Reimbursements for the Stormwater grant are on track for Phase 1 stormwater milestones.

Grant Name	Agency	Grant Amount	Agreement Date	Costs Submitted	Reimbursements Received	Notes
PIDP	MARAD	10.7	12/20/21	0	0	
Shore power	WA DoC	4.27	Negotiation	0	0	
Stormwater	WA DoE	5	07/01/20	0.0042	0.0042	
Reefers	WA DoC	4.31	Negotiation	0	0	
TOTAL		24.28		0.0042	0.0042	

Costs are in \$M

DoE Stormwater approving \$250K in Change Orders

I. COMMUNITY OUTREACH

Various media events are planned in Q1 2022 for the start of operations in the North Berth.

J. Q1 2022 LOOK AHEAD

- Berth Modernization North Berth Dredging
- Completion of Seattle City Light (SCL) work
- Stormwater Phase 2 Bid Package advertisement
- RPM and CBP Utilities Completion
- S Marine Building Construction Authorization request - tentative
- New Gate 60% Design
- T5 North Reefer Infrastructure 60% Design

K. ACCEPTANCE OF DEPARTMENT OF COMMERCE GRANT FOR T-5 REEFER PROJECT

ACTION REQUESTED

The Managing Member's authorization is required for Interlocal Agreements with other public agencies.

Request authorization to approve an Interagency Agreement grant in the amount of \$4,316,500 per the requirements of Washington State Department of Commerce Energy Division, Energy Programs in Communities Unit, Terminal Five Reefer Plug Infrastructure Contract Number: 21-92201-044, to support installation of reefer system components of the Terminal 5 Berth Modernization Program, Master Identification Nos. C800132, C800726, C800988.

SYNOPSIS

The NWSA is installing electrical power infrastructure to increase the number of reefer plugs as part of the T-5 Berth Modernization Program. The reefer system is part of satisfying the project's lease obligation.

During the 2019 legislative session, NWSA staff worked with legislators to include an appropriation in the state's capital budget in the amount of \$4.45 million to support installation of the reefer system at T-5. The \$4.45 million is being directed to the NWSA as a grant from the state's Clean Energy Fund, administered by the Department of Commerce. This grant has been anticipated since summer of 2019 and has been included in the project financials presented to Managing Members in previous briefings. The net award to the NWSA is \$4.317 million, which is the \$4.45 million appropriation minus a 3% administrative charge levied by the Department of Commerce.

The grant agreement is still a draft but nearly final. Staff do not expect major changes to the language between the attached version and the final. Staff are working with Department of Commerce staff to ensure the appropriate backdated start date is incorporated.

Construction of the reefer system will be completed as part of the broader berth modernization projects and will be delivered after completion of the south berth. A timeline is being developed in conjunction with the Tenant.

FINANCIAL IMPACT

Grant funds will be recognized as non-operating income when received. The 2022 NWSA operating budget included \$1.2 million in non-operating income from this grant in 2022. The 2023-2026 NWSA operating forecast included \$3.15 million in non-operating income from this grant in 2023.

Attachment to this memorandum:

Department of Commerce Draft Grant Agreement for Terminal Five Reefer Plug Infrastructure Contract Number: 21-92201-044.

L. PREVIOUS ACTIONS OR BRIEFINGS

Date	Action	Amount
December 21, 2021	Terminal 5 Partial Settlement Agreement with SSAT	\$2,500,000
November 2, 2021	T-5 Modernization – Program Update; Acceptance of T5 MARAD 2020 PIDP Grant Agreement; and POS only vote for ERL funding for T5 uplands soil disposal (\$700,000)	\$0
September 8, 2021	Terminal 5 ILA for Shore Power Grant with Department of Commerce	\$0
July 7, 2021	T-5 Program Update, Increased Auth and N Reefer Construction Auth	\$50,000,000
June 1, 2021	First Amendment to T-5 Lease authorization by MMs	\$0
April 6, 2021	Quiet Zone MOU	\$0
March 2, 2021	T-5 Modernization - Program Update	\$0
February 2, 2021	Approval for Construction of RPM, S Reefers, Clean Truck	\$0
October 6, 2020	T-5 Modernization - Program Update	\$0
September 1, 2020	T-5 Modernization - Tribal Agreement Update	\$0
August 4, 2020	T-5 Marine Building - Approval to advertise for N Building construction only	\$0
July 2, 2020	T-5 Marine Buildings - Auth to advertise for N and S Bldgs construction	\$0
July 2, 2020	T-5 Modernization - Program Update	\$0
April 7, 2020	T-5 Modernization - Program Update	\$0
January 14, 2020	T-5 Modernization - Program Update	\$0
October 1, 2019	T-5 Modernization - Program Update	\$0
August 6, 2019	T-5 Modernization - Program Update	\$0
June 4, 2019	T-5 Program Update	\$0
May 20, 2019	Authorization for Construction of Berth Modernization Program	\$0
April 2, 2019	Additional Program Funding and Auth to Fund T-5 Modernization Program	\$314,150,000
February 26, 2019	Authorization to advertise for construction	\$0
February 5, 2019	Pre-authorization Program Briefing	\$0
November 13, 2018	Motion to prepare construction docs for authorization to advertise	\$0
August 1, 2017	Railroad quiet zone funding, tribal payments, and Agreements	\$5,650,000
October 4, 2016	Additional Funding, Seattle City Light, and Proj Labor Agreement	\$8,200,000
June 7, 2016	DEIS Briefing	\$0
November 4, 2015	Additional SEPA and Design Funding	\$2,000,000
October 13, 2015	Test Pile Bids Exceeded Engineer's Estimate	\$0
July 14, 2015	Additional Design Authorization	\$5,000,000
June 3, 2014	Initial Design Authorization	\$4,700,000
May 13, 2014	T-5 Berth Modernization Briefing	\$0
March 12, 2014	Additional Pre-Design Authorization	\$150,000
October 27, 2013	Initial Pre-Design Authorization	\$150,000
TOTAL		\$392,500,000