

THE NORTHWEST SEAPORT ALLIANCE
MEMORANDUM

MANAGING MEMBERS
STAFF BRIEFING

Item No.	10A
Date of Meeting	May 2, 2023

DATE: April 21, 2023

TO: Managing Members

FROM: John Wolfe, CEO

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

SUBJECT: Terminal 5 Modernization Program Quarterly Update Q1 2023

A. SYNOPSIS

Regular Q1 2023 Terminal 5 Modernization Program Update.

B. BACKGROUND

In April 2019, The Northwest Seaport Alliance (NWSA) entered a long-term lease for the redevelopment of Terminal 5 in the North 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

Berth Modernization: There have been no scope changes to the Berth Modernization since the last briefing. A pending dispute with the contractor, the volatile supply chain and escalation environment have increased the risk profile of the project.

Phase 1 (North Berth): Ongoing conversations with pilots and operators on least depth continue. The first shore power plug was successfully completed on April 10, 2023.

Phase 2 (South Berth): Work is progressing on time to meet scheduled crane arrival in October 2023.

Permit Conditions: Construction of the final elements has started.

Lease Obligations: NWSA's committed Lease Obligations are in progress per agreements with the Tenant. The projects addressed in the proposed third lease amendment: South Berth paving, Transtainer Runs, Container Yard Expansion, and New Gate, are currently on hold, with the exception of some preliminary work, pending execution of the Third Amendment to the Lease.

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 of a partial settlement agreement of a then-pending dispute with the tenant. This increased the total Program budget to \$392,500,000. In August 2022, \$61,500,000 was added to the Program for the additional work addressed by the proposed Third Lease Amendment, bringing the Program to a total of \$454,000,000.

Through March 31, 2023, the spent to date amounts of \$285,332,234 are on track with forecast estimate at completion and progress.

The current total program authorization of \$454M is currently sufficient to cover all project costs, noting that the P-85 is slightly over the amount this quarter, mostly due to a change in methodology to calculate risk.

Risk

Recent Stochastic Analysis and Risk Register updates indicate the program has an 85% probability of being sufficient with a value of \$456.8M and a 100% probability of being sufficient with a value of \$472.2M.

Schedule

Phase 2 (South Berth) construction project is currently behind the contract schedule date of December 31, 2022. Likely completion is September/October 2023, in time for the delivery of the South Berth cranes.

Stormwater Phase 1 will be operational in early Q2 2023. Stormwater Phase 2 is forecast to be operational in Q1 2024.

Permit Conditions will be complete in early 2024.

Phase II Lease Obligation project schedules are at high schedule risk with the exception of the South Marine Building which is on track for December 2023 substantial completion. Delayed projects include: North Reefer Infrastructure, South Berth Paving, Container Yard Expansion, and adjacent projects (Intermodal Yard Rail Improvements). These have a low probability of completion before the start of South Berth Operations and/or per the Lease agreements.

Safety

Orion Marine Contractors (T5 Berth Modernization General Contractor) meets POS requirements with Health and Safety Plan and Site-Specific Safety plans. There have been no recordable incidents this quarter for almost 18,000 hours worked.

D. PROJECT PROGRESS AND SCHEDULE

Berth Modernization Project:

- South Berth: Activities are behind schedule due to concrete strike and the additional scope of the pile repair. However, the current schedule is on time for the crane delivery planned for October 2023.
- Seattle City Light (SCL) on site work is complete, received pre-final invoice in Q4 2022 and anticipate final invoice in Q3 2023.

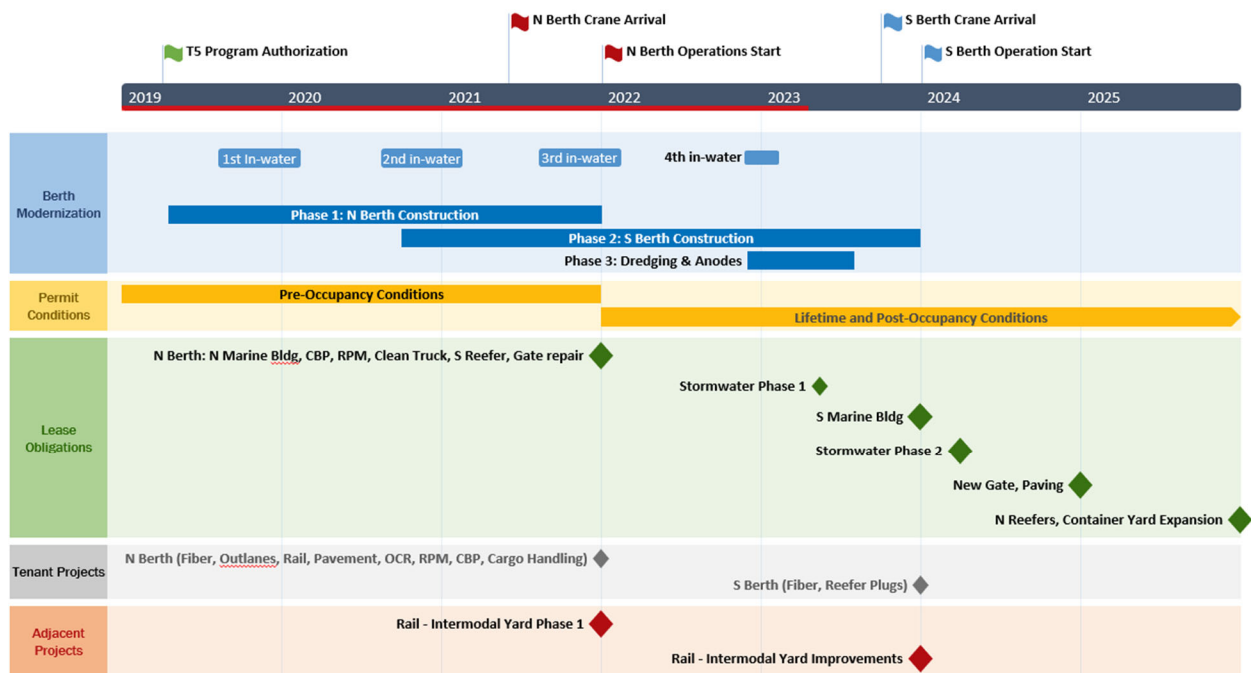
Major milestones for Permit Conditions and Lease Obligations through Q1 2023 include:

- Quiet Zone – Award of construction contract
- Stormwater Treatment – Phase 1 construction ongoing in Q1 2023; Phase 2 in construction.
- S Marine Building – Working to obtain Notice to Proceed and start construction.
- North Reefer Infrastructure – Tenant design submitted 60% deliverable.
- New Gate – 90% Design received permitting review comments. A lengthy permitting enquiry regarding an adjacent body of water, known as the Longfellow Creek, was resolved this quarter. The resolution allows the portion of the creek to be flow control exempt. This has a positive impact on the schedule of the New Gate project and well as the Container Yard Expansion project.
- South Paving - Visual inspection was completed and start of design is pending lease agreement.
- Transtainer Runs - Permit received, construction bids received, reimbursement to tenant for work is pending lease agreement.
- Container Yard Expansion – Currently in planning stage, next steps are pending lease agreement.

Schedule

The T5 Berth Modernization construction project is currently behind schedule to complete South Berth by the original schedule date of December 31, 2022. The current likely date of South Berth completion has not been negotiated and is estimated to be in September/October 2023.

The most significant element of risk to the Phase 2 delivery schedule is execution of the Third Amendment to the Lease and its requirements for upland projects.



E. BUDGET (to March 31, 2023)

Budget numbers are updated through March 31, 2023. 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. Several factors including supply chain issues, overall escalation, and a pending dispute with the contractor have increased the risk profile of the program; however, the current program budget remains sufficient at this time.
- Construction is 90% spent and 90% complete.
- Management Reserve
 - -\$100,000 Interim Gate Complex Amendment.

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

Total project cost projections show some variance in relation to the authorizations.

The T5 Berth project will very likely overrun the project budget and the remaining Phase 1 Management Reserve. The wide estimate accuracy range on the large lease obligation projects still in early phases of design/estimating (Reefers, Gate, Paving, Container Yard Expansion) drives continued uncertainty on project costs.

However, the current total program authorization of \$454M is almost equal to the P-85, and likely sufficient to cover all project costs.

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P-85: \$400.5M P-100: \$408.1M	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	\$ -	\$ 281,984,000	\$ 240,983,162	\$ 41,000,838
T5 Permit + Tribes	\$ 14,000,000	\$ 14,000,000	\$ -	\$ 14,000,000	\$ 6,680,209	\$ 7,319,791
T5 Stormwater Treatment	\$ 30,000,000	\$ 32,000,000	\$ -	\$ 32,000,000	\$ 26,834,243	\$ 5,165,757
T5 Management Reserve/Risk	\$ 20,000,000	\$ 25,804,000	\$ -	\$ -	\$ -	\$ -
T5 Clean Truck (CLOSED)	\$ -	\$ 55,000	\$ -	\$ 55,000	\$ 55,000	\$ -
T5 Marine Buildings	\$ -	\$ 11,200,000	\$ -	\$ 11,200,000	\$ 5,231,740	\$ 5,968,260
T5 RPM + CBP (CLOSED)	\$ -	\$ 396,000	\$ -	\$ 396,000	\$ 396,000	\$ -
T5 Reefers	\$ -	\$ 19,180,000	\$ -	\$ 24,300,000	\$ 1,640,959	\$ 22,659,041
T5 Gate Complex	\$ -	\$ 13,000,000	\$ -	\$ 26,500,000	\$ 2,333,121	\$ 24,166,879
T5 Operational	\$ -	\$ 1,360,000	\$ -	\$ 1,360,000	\$ 984,597	\$ 375,403
T5 MARAD Grant Admin	\$ -	\$ 705,000	\$ -	\$ 705,000	\$ 149,401	\$ 555,599
Total	\$ 340,000,000	\$ 392,500,000	\$ -	\$ 392,500,000	\$ 285,288,432	\$ 107,211,568
LEASE AMENDMENT P-85: \$56.8M; P-100: \$64.1M						
N Reefer Expansion - Demarc	\$ 15,200,000	\$ 15,200,000	\$ -	\$ 15,200,000	\$ -	\$ 15,200,000
Phase II South Paving	\$ 15,000,000	\$ 15,000,000	\$ -	\$ 15,000,000	\$ 22,473	\$ 14,977,527
Phase II Container Yard	\$ 11,800,000	\$ 11,800,000	\$ -	\$ 11,800,000	\$ 9,955	\$ 11,790,045
Phase II Transtainer runs	\$ 6,000,000	\$ 6,000,000	\$ -	\$ 6,000,000	\$ 11,967	\$ 5,988,033
Phase II Mgmt Reserve	\$ 13,500,000	\$ 13,500,000	\$ -	\$ 13,500,000	\$ -	\$ 13,500,000
Total	\$ 61,500,000	\$ 61,500,000	\$ -	\$ 61,500,000	\$ 44,395	\$ 61,455,605
Previously Authorized			\$ -			
Revised Total Authorization			\$ 454,000,000			
MARAD 2020 PIDP Grant - NWSA			\$ 7,481,133			
WA Ecology - Stormwater			\$ 5,000,000			
WA Commerce - Shorepower			\$ 4,268,000			
WA Commerce - Reefers			\$ 4,316,500			
MARAD 2022 PIDP Grant			\$ 17,035,900			
National Highway Freight Prog			\$ 1,513,750			
Authorization - Grants			\$ 414,384,717			
T5 ERL (POS Only)	\$ -	\$ -	\$ 1,100,000	\$ 1,100,000	\$ -	\$ 1,100,000

F. CONTINGENCY AND RISK

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

Stochastic Analysis and Risk Register (is being updated quarterly in 2023)

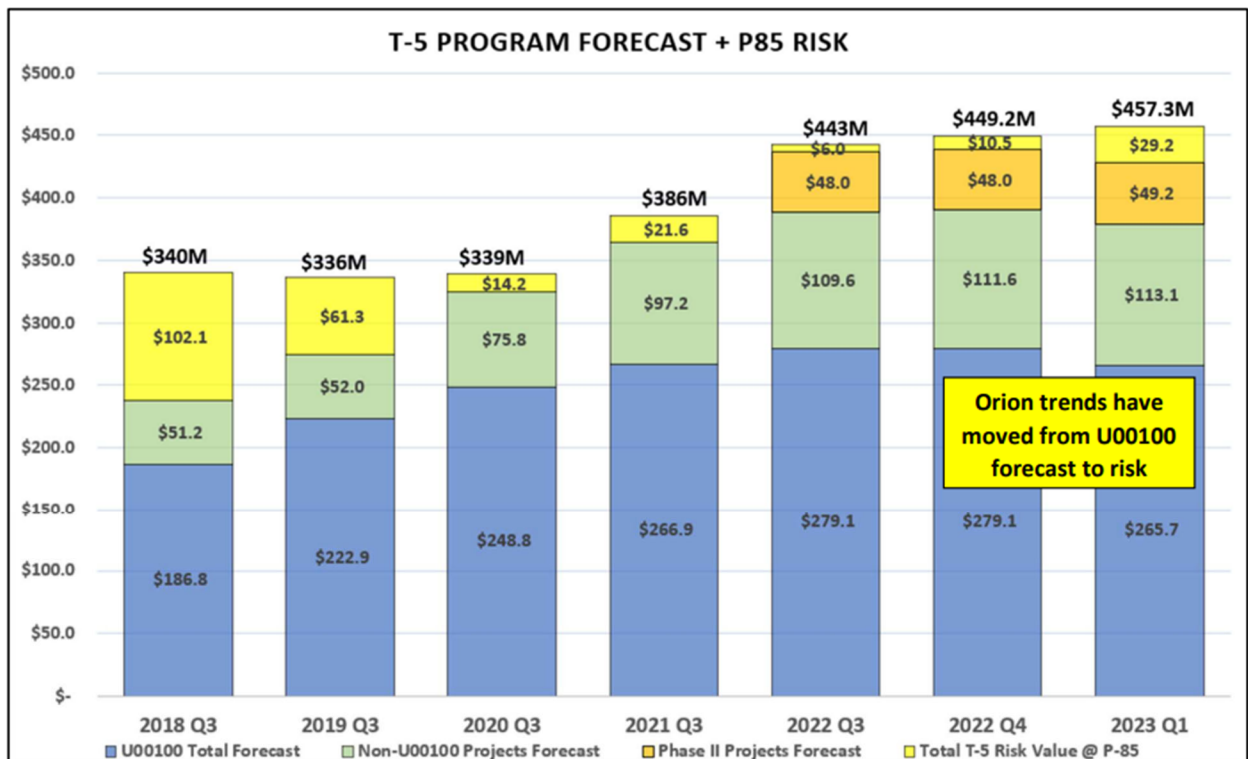
T5 key staff meet quarterly with the T5 Program risk consultant to model variables around future T5 risk and update the risk register. Risks are identified by likelihood and impact to generate a score and are modelled into the forecast budget along with the actuals to date.

The largest risks to the program are the: reefer infrastructure, new gate complex, and a dispute with the contractor regarding the toe wall and project delays.

Recent Stochastic Analysis and Risk Register updates from March 2023 indicate:

- The program currently has a P-85 value (85% probability of being sufficient) of \$456.8M

The current expected cost of the program is \$414.4M (Authorization value \$454M minus grant funding \$39.6M).



Emerging and Continuing risks:

- North Berth toe wall and entitlement claims
- Time impact for change order work cost uncertainty claim
- Paving Bid item overruns
- South Berth time impact analysis (TIA) claim and legal costs
- High Voltage Distribution (N Reefer Power infrastructure cost uncertainty)
- New Gate cost uncertainty

G. OPPORTUNITIES

The opportunities section provides a status update on the T5 grant agreements.

Net grant funding to date for the T5 program totals: \$39,615,283.

Reimbursements are on track with forecast milestones. Below are the current grants and the awarded amounts.

MARAD PIDP Grant 2020- NWSA	\$7,481,133
WA Ecology - Stormwater	\$5,000,000
WA Commerce - Shorepower	\$4,268,000
WA Commerce - Reefers	\$4,316,500
MARAD PIDP Grant 2022	\$17,035,900

National Highway Freight Program \$1,513,750

H. COMMUNITY OUTREACH

In Q1 2023, external relations and the T5 project team met with:
Pigeon Pont Community Council
Georgetown Community Council

I. Q2 2023 LOOK AHEAD

- North and South Berth: Pile Cutting and Anode Installation Completion
- Phase 1 Stormwater: Start of Operations
- South Marine Building: Construction Start
- North Reefers: 90% Design
- Transtainer Runs: Tenant reimbursement on hold until lease execution
- Container Yard Expansion: On hold until lease execution
- South Berth Paving: On hold until lease execution

J. PREVIOUS ACTIONS OR BRIEFINGS

Date	Action	Amount
February 07, 2023	T5 Modernization – Program Update	\$0
November 01, 2022	T5 Modernization – Program Update	\$0
August 2, 2022	T5 Modernization – Program Update; Third Lease Amendment	\$61,500,000
May 2, 2022	T5 Modernization – Program Update	\$0
February 1, 2022	T5 Modernization – Program Update	\$0
December 21, 2021	Terminal 5 Partial Settlement Agreement with SSAT	\$2,500,000
November 2, 2021	T5 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	T5 Program Update, Increased Authorization and N Reefer Construction Authorization	\$50,000,000
June 1, 2021	First Amendment to T5 Lease authorization by MMs	\$0
April 6, 2021	Quiet Zone MOU	\$0
March 2, 2021	T5 Modernization - Program Update	\$0
February 2, 2021	Approval for Construction of RPM, S Reefers, Clean Truck	\$0
October 6, 2020	T5 Modernization - Program Update	\$0
September 1, 2020	T5 Modernization - Tribal Agreement Update	\$0
August 4, 2020	T5 Marine Building - Approval to advertise for North Building construction only	\$0
July 2, 2020	T5 Marine Building - Authorization to advertise for North and South Buildings construction request	\$0
July 2, 2020	T5 Modernization - Program Update	\$0

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April 7, 2020	T5 Modernization - Program Update	\$0
January 14, 2020	T5 Modernization - Program Update	\$0
October 1, 2019	T5 Modernization - Program Update	\$0
August 6, 2019	T5 Modernization - Program Update	\$0
June 4, 2019	T5 Program Update	\$0
May 20, 2019	Program Authorization for Construction of Berth Modernization Prog	\$0
April 2, 2019	Additional Program Funding and Authorization to Fund T5 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 documents 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 Agreement, and Project 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	T5 Berth Modernization Briefing	\$0
March 12, 2014	Additional Pre-Design Authorization	\$150,000
October 27, 2013	Initial Pre-Design Authorization	\$150,000
TOTAL		\$454,000,000

TERMINAL 5 Q1 2023 BRIEFING

Item No.: 10A_Supp
Date of Meeting: May 2, 2023



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SEAPORT ALLIANCE

SEATTLE + TACOMA

Presenter Name: Emma Del Vento
Presenter Title: Capital Program Leader, POS

Terminal 5 – Program Overview

Primary Elements of Scope

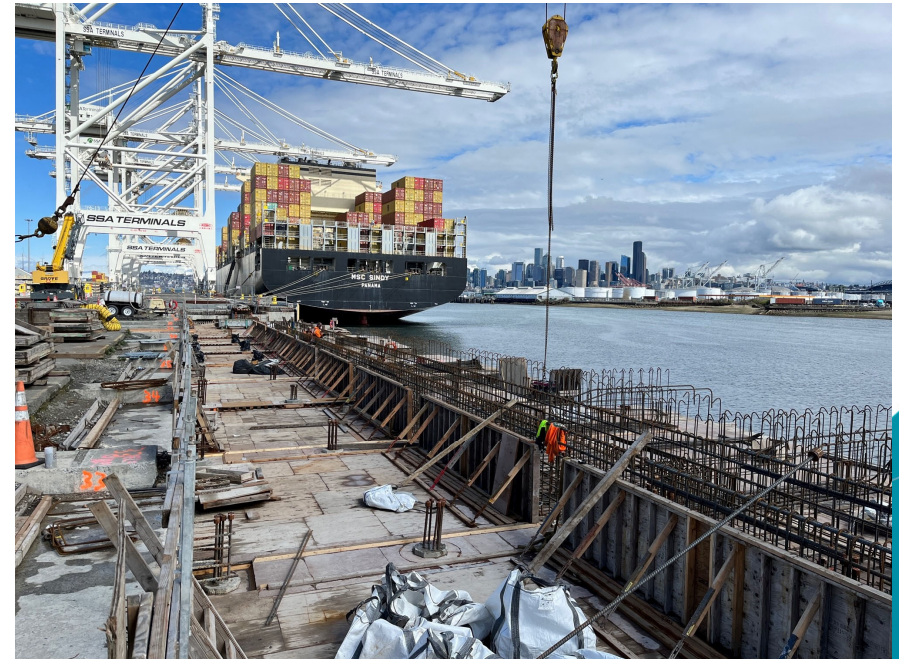


- **Berth Modernization**
 - Crane Rails
 - Dock Rehabilitation
 - Slope Stabilization
 - Berth Deepening
 - Power Supply/ Distribution
- **Uplands Improvements**
 - Permit Conditions
 - Lease Obligations
 - Stormwater
 - Marine Buildings
 - Reefers
 - Gate
 - Paving
 - Container Yard Expansion



Terminal 5 – Q1 2023 Progress

- **Berth Modernization Project**
 - First Shore power connection
 - Dredging complete. Pile cutting and cathodic protection underway.
 - South Berth: Concrete pours continue on schedule.
- **Uplands Improvements Projects**
 - Permit Conditions
 - Quiet Zone – Award of construction contract
 - Lease Obligations
 - Gate: 90% Design completed and permitting issue around Longfellow Creek resolved.
 - Phase 2 lease obligations per proposed Third Amendment to Lease are on hold.



April 2023 – North and South Berth Rebar Connection



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Budget by Project (March 31, 2023)



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Terminal 5 – Opportunities

Reimbursements are on track with forecast milestones.

Grants TOTAL

Awarded Amounts \$39,615,283

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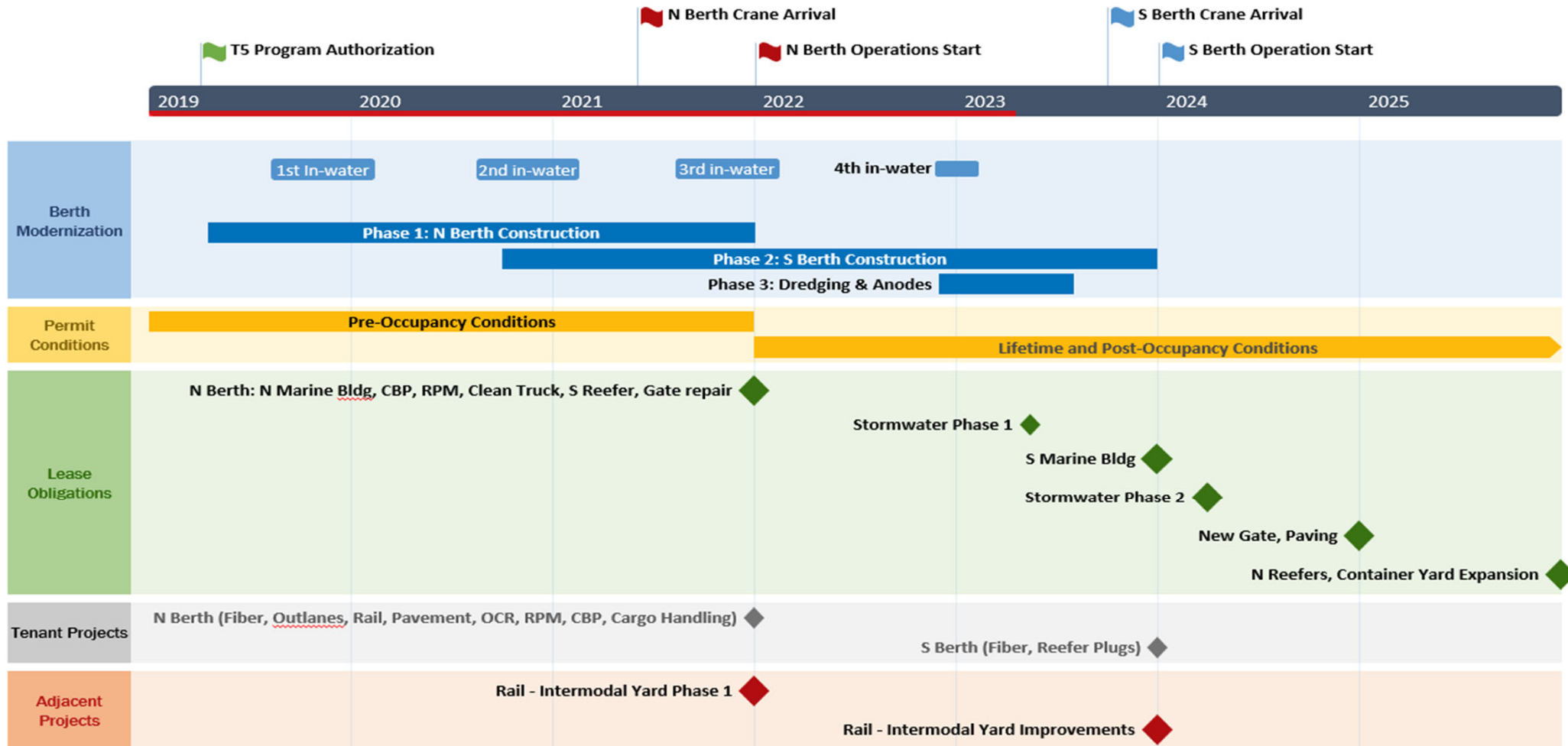
Terminal 5 – Berth Modernization Trends

Recent Stochastic Analysis and Risk Register updates from September 2022 indicate:

- Program currently has a P-85 value (85% probability of being sufficient) of **\$456.8M**
- Current expected cost of the program is **\$414.4M**



Terminal 5 Programmatic Schedule



Terminal 5 – Look Ahead

Q2 2023

- North and South Berth: Pile Cutting and Anode Installation Completion
- Phase 1 Stormwater: Start of Operations
- South Marine Building: Construction Start
- North Reefers: 90% Design
- Transtainer Runs: Tenant reimbursement on hold until lease execution
- Container Yard Expansion: On hold until lease execution
- South Berth Paving: On hold until lease execution



Site Map



#	Project
1	North Berth
2	South Berth
3	Primary Substation
4	Permit Conditions
5	Clean Truck Program
6	Existing Gate Repairs
7	RPM + CBP Utilities
8	S Reefer Repairs
9	Stormwater Phase 1
10	Stormwater Phase 2
11	N Marine Building
12	S Marine Building
13	Intermodal Yard (Rail)
14	N Reefers
15	Container Yard Expansion
16	New Gate Complex
17	South Berth Paving