Item No.: 10c_supp
Meeting Date: November 17, 2026



Terminal 91/Pier 66 Cruise Shore Power Extension
Milestone 2 Post-Validation Authorization

Shore Power Project Purpose

- **In July 2024, Commission Order No. 2024-08 was passed mandating that all homeport cruise ships connect to shore power by 2027.**
- To meet the mandate, the existing shore power systems need to be extended at Pier 91 and Pier 66.
  - Currently, the shore power cables cannot reach from the berth connection point to plug-in locations on all shore power capable ships.
- This project will provide maximum flexibility in how ships with different shore power configurations berth at the pier so they can connect to shore power.



Action Requested

- Request Commission authorization for the Executive Director to approve funding to **execute a Post-Validation Amendment** to the alternative public works Progressive Design Build contract, for the T91/P66 Cruise Shore Power Extension project **to further advance design and complete the development and negotiation of a Guaranteed Maximum Price for Milestone 2** to rehabilitate DU #9202 and complete the Pier 91 (P91) west berth shore power extension.
- **Total requested for this action is $2,750,000** for a total current project authorization of $72,880,000, and an estimated total project cost of $116,480,000.

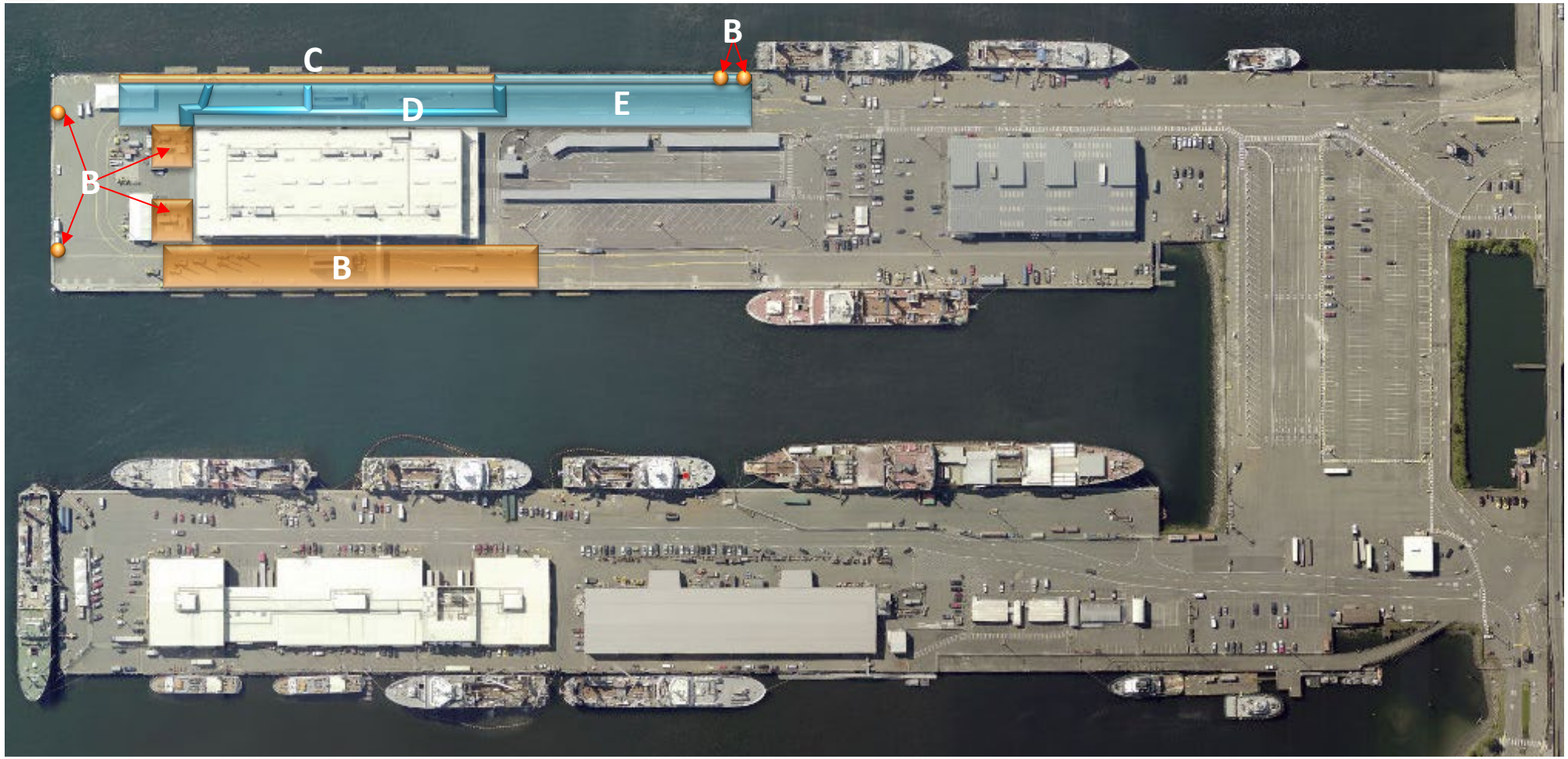
Details of Request

- The contract will now proceed with two (2) separate milestone scopes for which separate GMPs will be negotiated:
  - **Milestone 1 (2027)** - Currently in Construction
    - Completion of Pier 66 shore power extension
    - Completion of Pier 91 east berth shore power extension
    - Limited deck panel replacements
  - **Milestone 2 (2028) – Post validation design in today's request**
    - Completion of the Pier 91 west berth shore power extension
    - Full rehabilitation of Pier 91 west dock

    *Construction funding in future request

Pier 91 Milestone Scopes

Milestone 1 (2027)
Milestone 2 (2028)



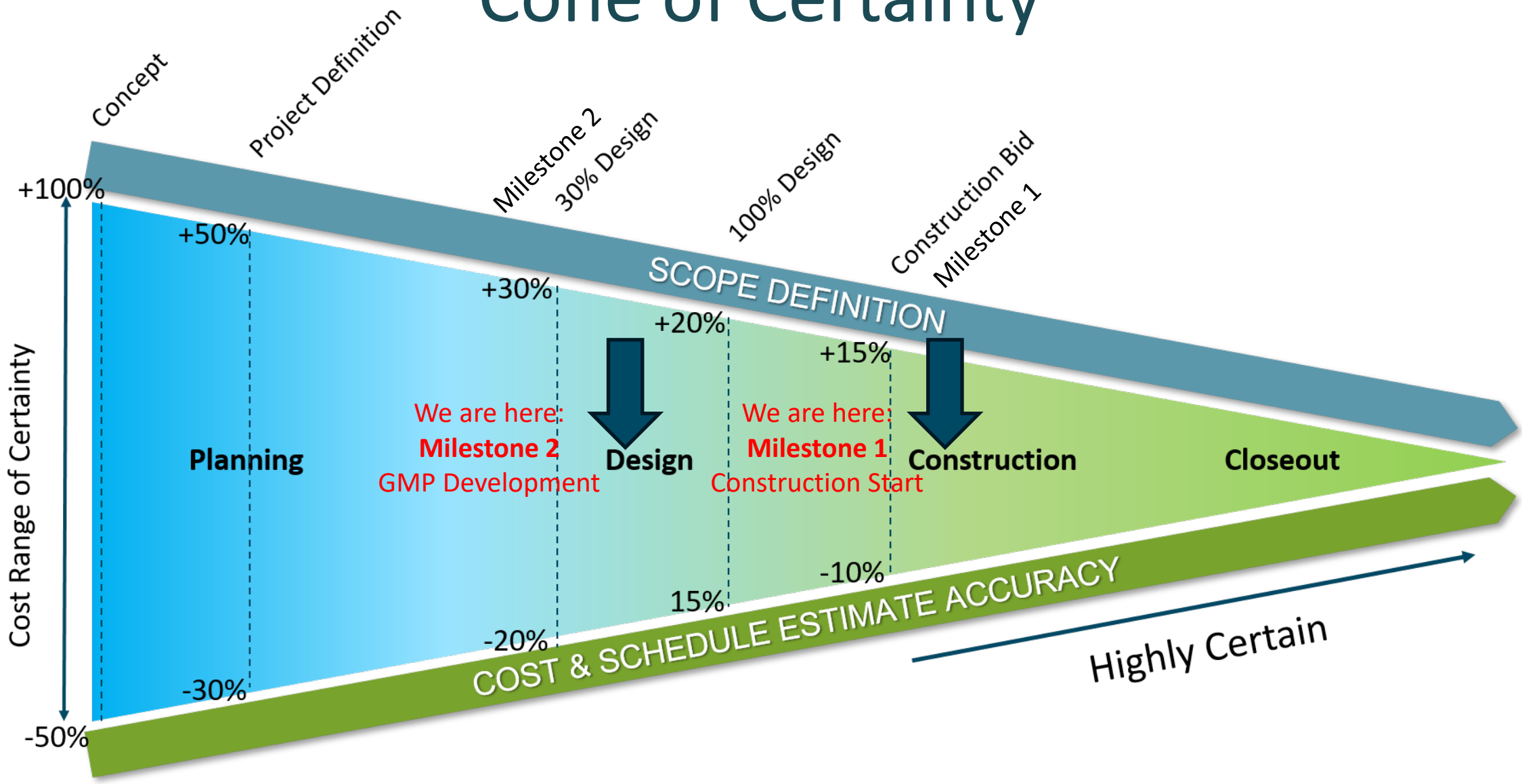
Estimated Cost Breakdown

	P66	T91 (Shore Power)	T91 (Dock Rehab)	Total	This Request
Milestone 1					
Planning through Validation	$ 830,000	$ 1,770,000		$ 2,600,000	
GMP Development	$ 1,200,000	$ 2,850,000	$ 950,000	$ 5,000,000	
Early Work Amendments	$ 700,000	$ 2,800,000	$ 1,700,000	$ 5,200,000	
Construction Final GMP	$ 13,074,000	$ 17,220,000	$ 17,870,000	$ 48,164,000	
Milestone 2 (Incl DU9202 rehab)					
Planning through Validation		$ 466,400	$ 1,166,000	$ 1,166,000	
GMP Development		**$ 1,100,000**	**$ 1,650,000**	**$ 2,750,000**	**$ 2,750,000**
Construction Final GMP (future)		$ 17,876,000	$ 25,724,000	$ 43,600,000	
Material Pre Procurements					
Watts (both sites, both milestones)	$ 1,000,000	$ 7,000,000		$ 8,000,000	
TOTAL	**$ 16,804,000**	**$ 51,082,400**	**$ 48,593,600**	**$ 116,480,000**	**$ 2,750,000**

Project Risks

RISKS	DESCRIPTION	PROBABILITY	IMPACT	MITIGATION
Constrained Schedule	Project schedule is highly constrained by regulated work windows	High	High	Utilize Progressive Design Build project delivery to accelerate timeline. Pre-purchase of long-lead items.
Seattle City Light Terminal 91 Operations Agreement	Existing operations agreement between cruise lines and SCL does not account for increased connections during peak power usage times during the week.	Med	High	Early engagement with SCL to do system impact study and begin negotiation of agreement terms for power delivery.
Supply chain uncertainty	Supply chain logistics could delay project delivery. Tariffs could impact ability to procure long-lead electrical equipment by 2027 and create uncertainty in pricing.	Med	High	Early execution of Watts contract to begin procurement of long-lead shore power equipment in advance.
Coordination with other projects at Terminal 91	There are many other projects scheduled on Pier 91 with similar timelines to the cruise shore power project: gangways, water line replacement, dock rehabilitation, west berth dredging.	High	Med	Identification of all on-going and upcoming construction work at Terminal 91. Requirement of logistics plan by PDB to account for constraints of other projects.
Tribal Concurrence	Constrained schedule requires some work during tribal fishing season. Concurrence received at T91 for current construction approach.	Low	High	Tribal consultation and negotiation. Adjustment to means and methods.

Cone of Certainty



Next Steps

- **Milestone 1 Construction Q4 2026 – Q2 2027**
- **Milestone 2 Validation and GMP development Q4 2026 – Q3 2027**
- Milestone 2 Commission Authorization Final design/Construction Q3 2027
- Milestone 2 Construction Q4 2027 – Q2 2028

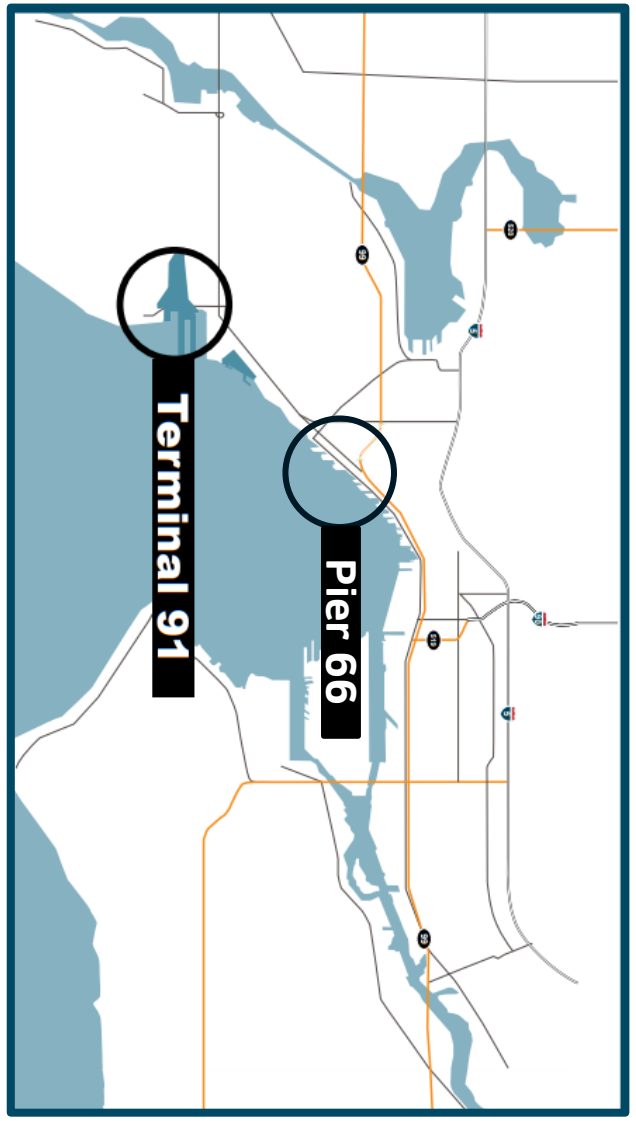


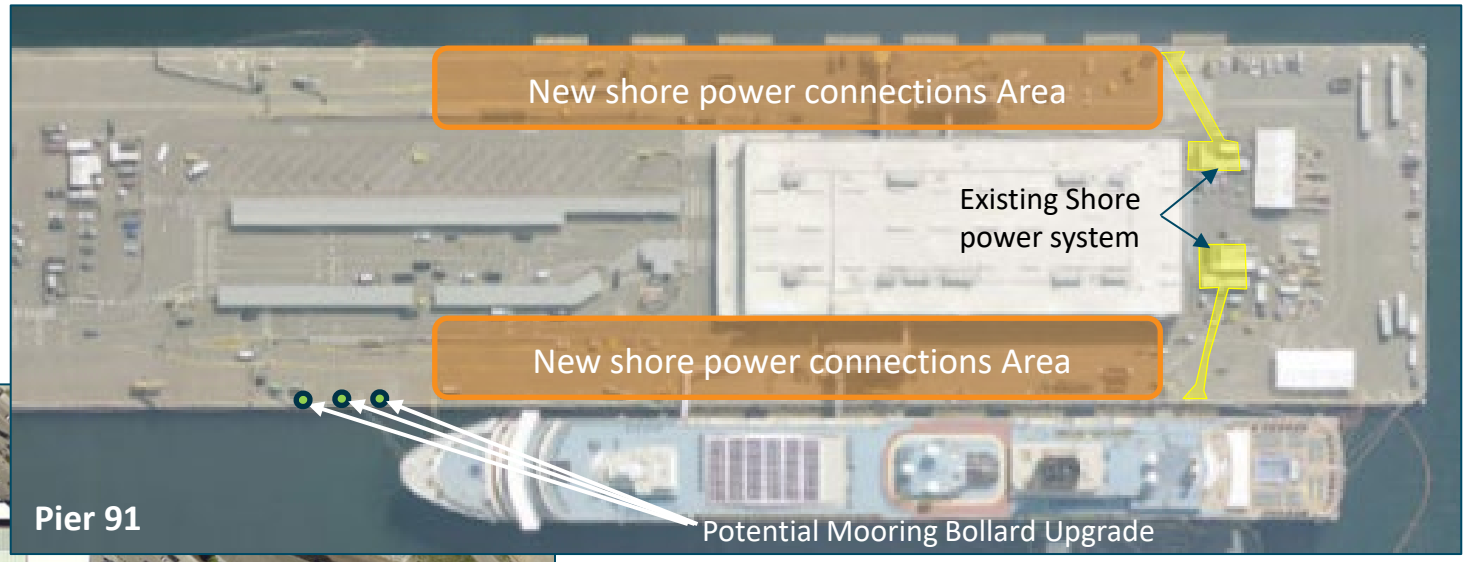


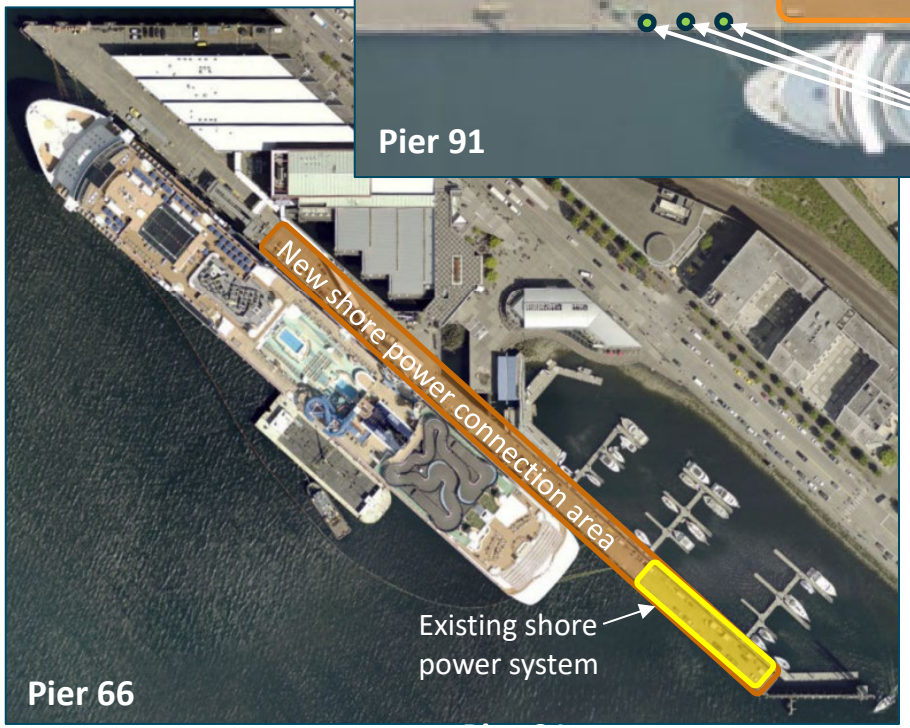

Questions?

Appendix

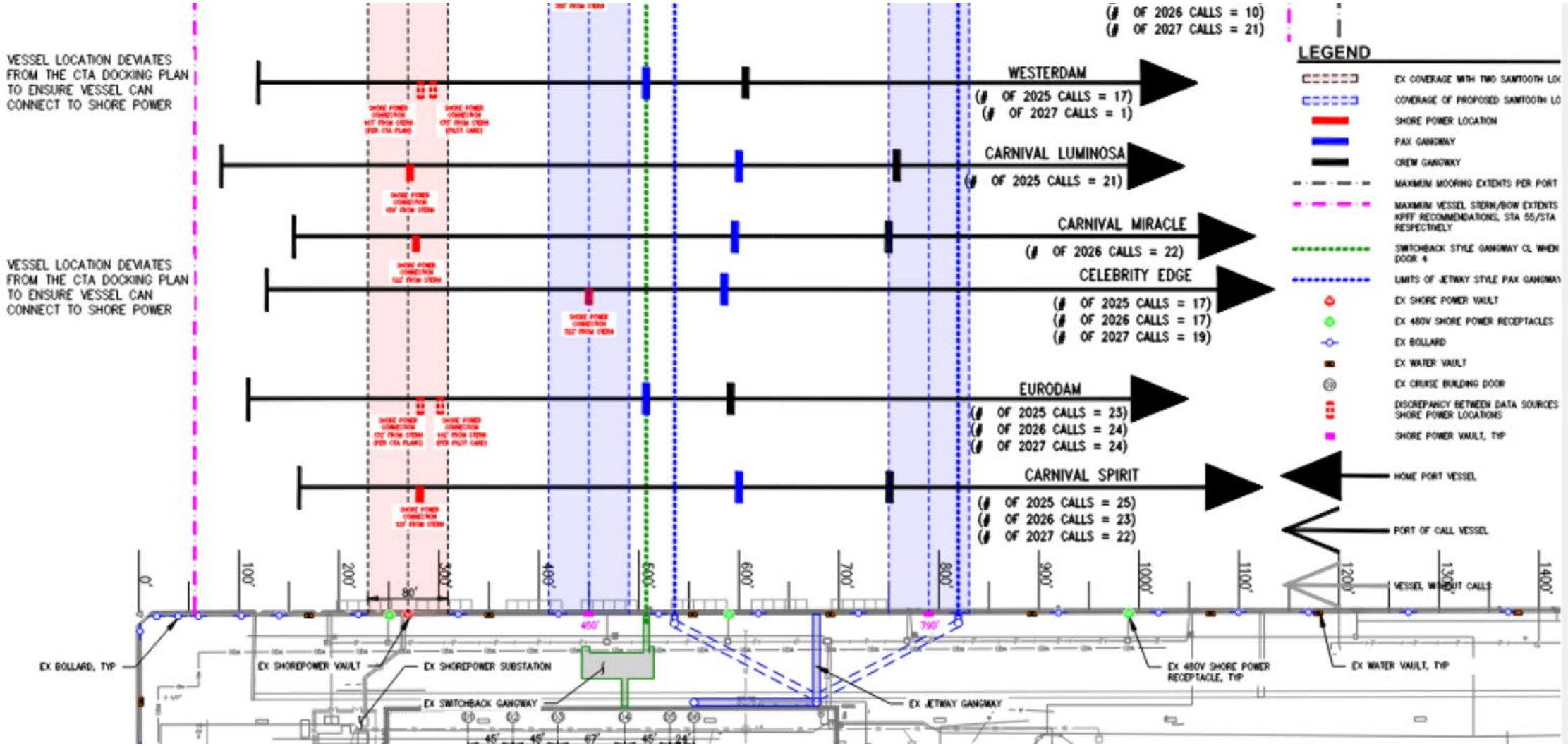
Project Areas – Pier 91/Pier 66







Example Terminal 91 Berthing Analysis



Example Terminal 91 Mooring Analysis

T91W - Quantum - 40% Pretension



8 lines bow, 8 lines stern

ARRANGEMENT PLAN

35 knot Wind at All° True | 0.0 ft Sig Wave Height | 0.0 ft Sig Swell Height | Ref: 1700263 T91 Mooring
35 knot Current 270° True | Period 6.0 secs at 90° | Period 2.0 secs at 160° | Analysis for Time: 0700 Mar 01 2007
Movement of Vessel 2.10 (fwd) 0.70 (low) 0.1° (port) 0.00 (up) | Water Level 11.36 ft steady | Draft 27.9 ft 0.1 Disequilibrium
at its Stbd Target 0.78 (fwd) 1.70 (low) -0.1° (stbd) 0.00 (up) | Bottom Clearance 18.5 ft | Trim 0.0 ft after 75 iterations

Line	1	2	3	4	5	6	13	14	15	16	18	20	22	24	28	30
to Bollard/Hook	C	C	B	B	D	D	F	F	'G	'G	'F	'F	Q	Q	O	N
Pull-In (ft)	2.95	2.91	3.10	3.13	2.82	2.76	3.67	3.64	3.50	3.37	3.16	3.16	2.96	3.01	2.31	2.58
Total Line Length	111.2	107.5	138.6	141.5	80.3	75.4	149.7	145.9	129.2	119.0	104.7	108.2	96.7	95.0	142.1	231.6
Inline Motion (±)																
Winch Slippage																
Wave Direction	130°	130°	130°	130°	130°	130°	330°	330°	50°	50°	50°	50°	50°	50°	50°	55°
Tension (kips)	133S	135S	132S	132S	123S	125S	100S	99.5S	131S	125S	116S	113S	136S	124S	181S	146S
% of Strength	41%	42%	41%	41%	38%	39%	31%	31%	41%	39%	36%	35%	42%	38%	56%	45%

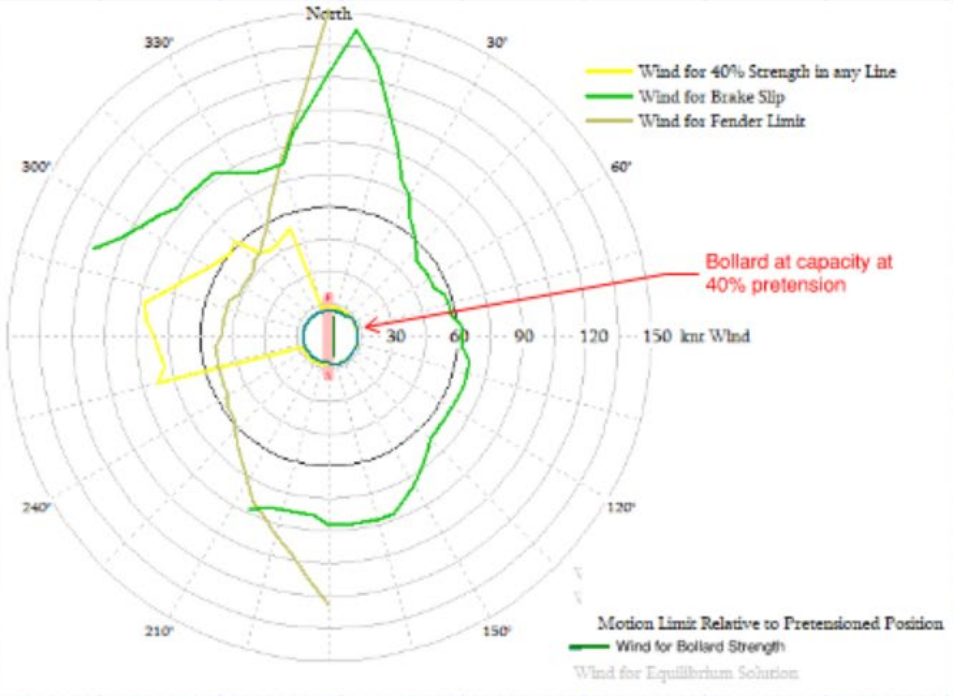
Auto-Calculation

Fender	aa	bb	cc	dd	ee	ff	gg
Tbrust (kips)	51	259	260	262	271	279	287
Compression (ft)	0.30	1.70	1.70	1.73	1.81	1.89	1.96
Pressure (kips/ft²)	0.3	1.0	1.0	1.0	1.1	1.1	1.1

Bollard/Hook	B	C	D	F	N	O	Q	'F	'G
X-Force (kips)	-102.6	-78.5	-12.4	167.5	-139.7	-147.0	105.4	133.4	133.8
Y-Force (kips)	242.2	253.9	244.3	94.2	29.2	78.0	195.9	159.3	204.6
Other X-Load									
Other Y-Load									
Total Force	264.0	267.7	248.7	199.9	145.7	181.5	258.5	229.4	256.4
% Bollard Strength	120%	121%	113%	181%	66%	82%	117%	104%	117%
Direction in Plan	-23°	-17°	-3°	61°	-78°	-62°	28°	40°	33°
Bollard Uplift	23.3	32.1	45.0	54.8	29.2	72.3	131.7	97.1	77.1

MOORING RESULTS TABLES

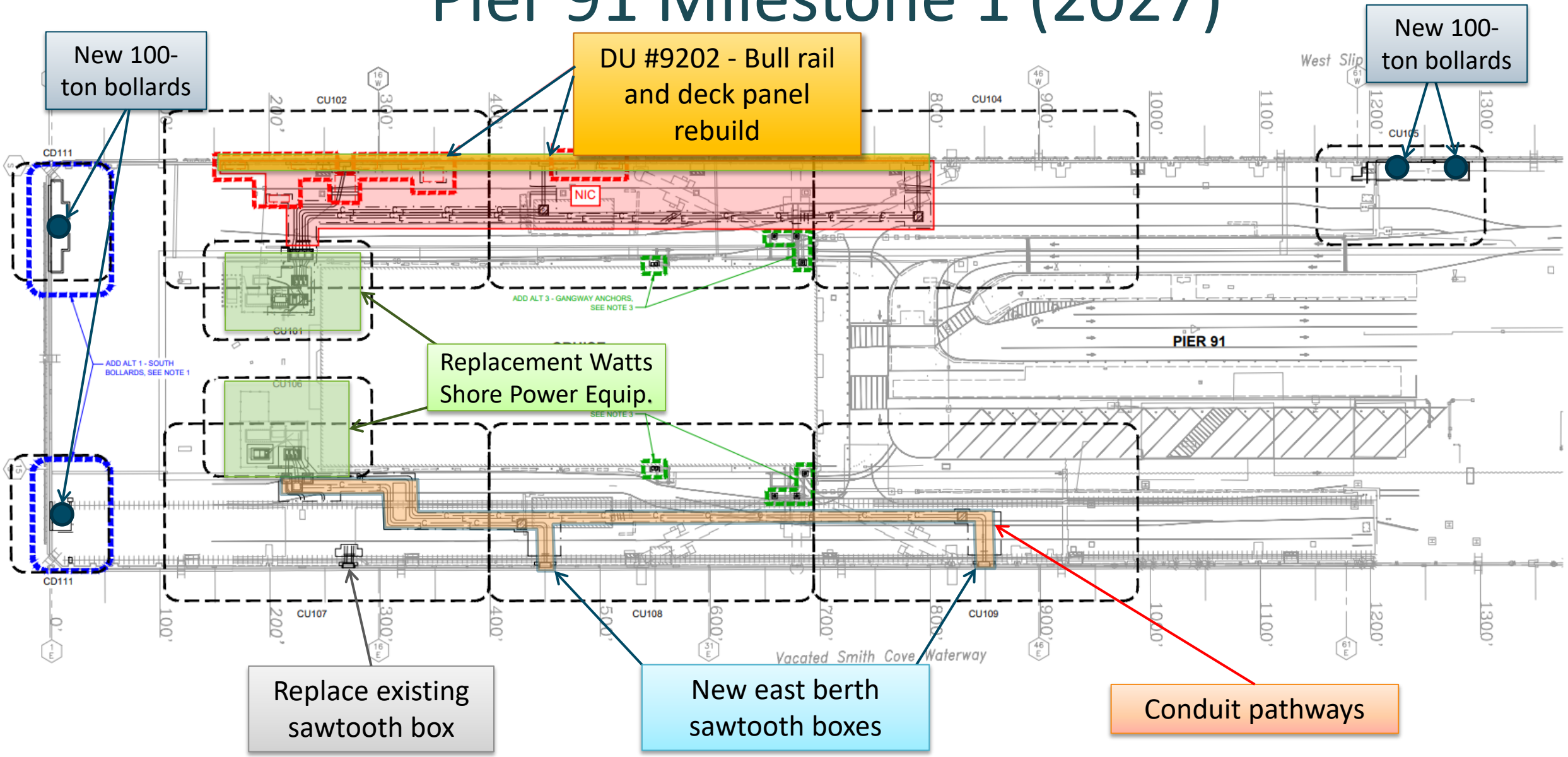
Analysis for Time: 0700 Mar 01 2007 (initialised at 0700 Mar 01 2007)
Ref: 1700263 T91 Mooring
Remarks: Remarks:
Water Level: 11.36 above datum
Draft: 27.9
Trim: 0.0



WIND CAPACITY ROSE

kpff 1601 Fifth Avenue, Seattle, WA 98101 kpff.com	POS T91 CRUISE SHORE POWER	PROJECT NO. 250049	REFERENCE SHEET
	40% PRETENSION OPTIMOOR RESULTS SUMMARY AT T91W - QUANTUM	DATE 10/29/2025	SHEET NO. 1
		BY CH	

Pier 91 Milestone 1 (2027)

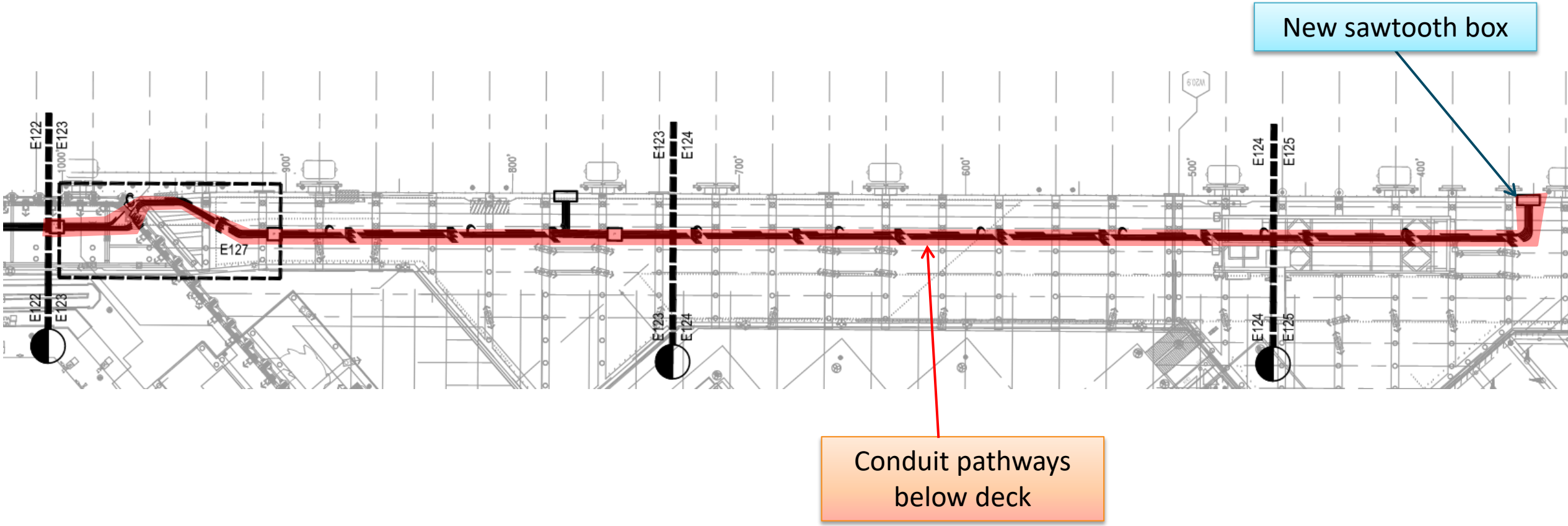


Pier 66 Milestone Scope

Milestone 1 (2027)



Pier 66 Milestone 1 (2027)



Pier 91 Milestone 2 (2028)

