

THE NORTHWEST SEAPORT ALLIANCE
MEMORANDUM

MANAGING MEMBERS
ACTION ITEM

Item No.	9D
Date of Meeting	March 7, 2023

DATE: March 7, 2023

TO: Managing Members

FROM: John Wolfe, CEO

Sponsor: Tong Zhu, Chief Commercial & Strategy Officer

Project Manager: Brett Ozolin, Engineering Project Manager II

SUBJECT: Wooden Light Pole Replacement Program Authorization

A. ACTION REQUESTED

As referenced in NWSA Resolution No. 2020-02, Exhibit A, Delegation of Authority Master Policy, Paragraph 8.c.iii., states project costs exceeding \$300,000 require approval from Managing Members.

Request project authorization in the amount \$420,000, for a total authorized amount of \$630,000, for design work associated with the Wooden Light Pole Replacement Program, Master Identification No. 201148.01.

B. SYNOPSIS

Multiple NWSA licensed properties throughout the South Harbor are illuminated by sodium lamp fixtures mounted on wooden high mast utility poles. Forty-seven (47) poles spread between seven (7) locations need to be replaced due to an average loss of 50% of structural capacity. If the poles are not replaced, the risk is that they will fail and fall over.

C. BACKGROUND

A timber high mast pole fell in the South Harbor after a windstorm in February of 2019. On behalf of the NWSA, in August 2021, the Port of Tacoma (Port) hired an inspection company to investigate all the known wooden pole assets within the NWSA licensed properties. The assessment found that 47 timber poles at various locations needed to be replaced. The maintenance and replacement of these poles are an NWSA obligation per the leases. The pole inspector recommended a majority of the 47 poles be replaced within the year due to advanced section loss.

The pole survey included all known wooden poles within NWSA licensed properties. A total of 223 wooden poles were inspected. The poles identified for replacement are typically about 40 years old and installed circa 1980. Poles at an individual facility are of generally the same age. During inspection, the poles were drilled to identify section loss. Deterioration starts in the core of the poles where wood treatment does not penetrate. The outward deterioration from the pole core leaves a shell of sound wood that is measured to calculate remaining structural capacity. The 47 identified poles had shell thicknesses that varied from 2 to 3 inches, with the majority closer to 2 inches. Sound and intact poles do not have a shell. These poles need to be replaced due to an average loss of 50% structural capacity.

The poles host a variety of fiber and security attachments in addition to light fixtures. The following table identifies the location and quantify of poles to be replaced. Location maps and representative photos are shown in Attachments 2 and 3, respectively.

Parcel No.	Tenant or Area	# Of Poles (Each)
27	Terminal 7	13
27	NIM	11
69	UP Yard	4
69A	SIM	2
1A	TOTE	9
17	EB1 Access Rd.	5
105	W. Hylebos	3

This round of replacements should be considered the first phase of a two to three phase project to replace wooden poles that are 40 years or older.

D. PROJECT DESCRIPTION AND DETAILS

The project consists of removing old timber poles and installing new poles. This request is to continue to fund design work to support pole replacement. Preliminary design and alternatives analysis is ongoing and nearly complete. For both design and construction, a pole replacement divides into five primary components: pole foundations, lighting fixtures and hardware, miscellaneous attachments, pole location and pole protection. Currently new foundations are anticipated to be installed adjacent to existing foundations to facilitate continuous hardware support and attachment. The wood poles exist to create attachment points for lighting as well as other hardware. The project team currently plans to solicit a base bid for re-using and re-installing the existing HID light. The bid alternate will be replacing with new

LED lights. Pole location, access and operational environment are highly variable. Pole replacement will require planning with logistical, operational, estimating and constructability considerations given constrained laydown access. Poles are also protected by curbs, bollards, and fencing. The pole replacement program will replace poles in the existing locations to match existing condition, including protection.

Project Objectives

The primary project objective is to replace structurally compromised poles with new structurally safe poles while minimizing the impacts to tenants. Secondary objectives include the following:

- Reuse existing hardware
- Upgrade to LED fixtures as required
- Maintain or improve existing levels of lighting
- Alternatives analysis to identify costs and impacts associated with different pole types (steel/wood), pole foundations (sleeved shaft/drilled shaft/spread footing)

Scope of Work

The scope of work for this authorization request is to complete construction bid drawings and specifications for light pole replacements. This includes developing location specific estimates and schedules to account for the high variability in pole location, hardware, operational use and traffic protection. Specific scope of work components by project phase are listed as follows:

- Preliminary Design (75% Complete)
- Final Design
- Port Staff Time

Construction (Future Request)

- Construction
- Consultant construction support
- Port staff construction support

Schedule

Preliminary Design	February 24, 2023
Final Design	July 2023
Advertise for Bid	August 2023
Open Bids	September 2023
Notice of Award	September 2023
Substantial Completion	April 2024
Final Completion	May 2024

E. FINANCIAL IMPLICATIONS

Consulting costs for preliminary design, design and construction support are based on a comprehensive proposal submitted at the start of the preliminary design phase. While the consulting proposal is based on multiple assumptions and an early project understanding, no notable changes are currently anticipated.

The construction costs shown below are based on internal cost estimates developed by staff for the Opportunity Assessment (OA) process. The costs are based on engineering judgement, available reference projects and coordination with staff. The costs are representative of anticipated construction costs based on project understanding at the time of OA submission. Construction costs will be refined during the design process. A separate authorization will be requested for construction once the design and approach are refined, and costs are better understood.

Project Cost Details

	This Request	Total Project Cost	Cost to Date	Remaining Cost
Procurement				\$ -
Pre-Design		\$ 210,000.00	\$ 101,000.00	\$ 109,000
Design	\$ 420,000.00	\$ 420,000.00	\$ -	\$ 420,000
Construction		\$ 2,590,000.00		\$ 2,590,000
Total	\$ 420,000	\$ 3,220,000	\$ 101,000	\$ 3,119,000

Source of Funds

The current Capital Improvement Plan (CIP) Budget allocates \$3,220,000 for this project.

Financial Impact

The cost to replace the poles will be capitalized and depreciated over the estimated 20-year life of the poles. Depreciation is expected to start in January of 2025 and the annual depreciation expense will be approximately \$161,000 per year.

F. ENVIRONMENTAL IMPACTS/REVIEW

Permitting:

Work within 200' of the water is covered under the Port of Tacoma's existing Shoreline Substantial Development Permit Exemption.

Remediation:

Consult with the Port of Tacoma's Remediation team about requirements around potential contamination at individual pole locations. Export soil must be sampled and tested, and a suitable disposal site approved by the Port prior to leaving Port property.

Stormwater:

Obtain stormwater construction permits, if required.

Air Quality:

Upgrade existing lighting with LED lighting at suitable locations.

G. ATTACHMENTS TO THIS REQUEST

- Computer slide presentation.
- Attachment 2 - Light pole location and numbering maps

H. PREVIOUS ACTIONS OR BRIEFINGS

<u>Date</u>	<u>Action</u>	<u>Amount</u>
April 22, 2022	Executive Authorization	\$25,000
October 5, 2022	Executive Authorization	\$185,000
TOTAL		\$210,000