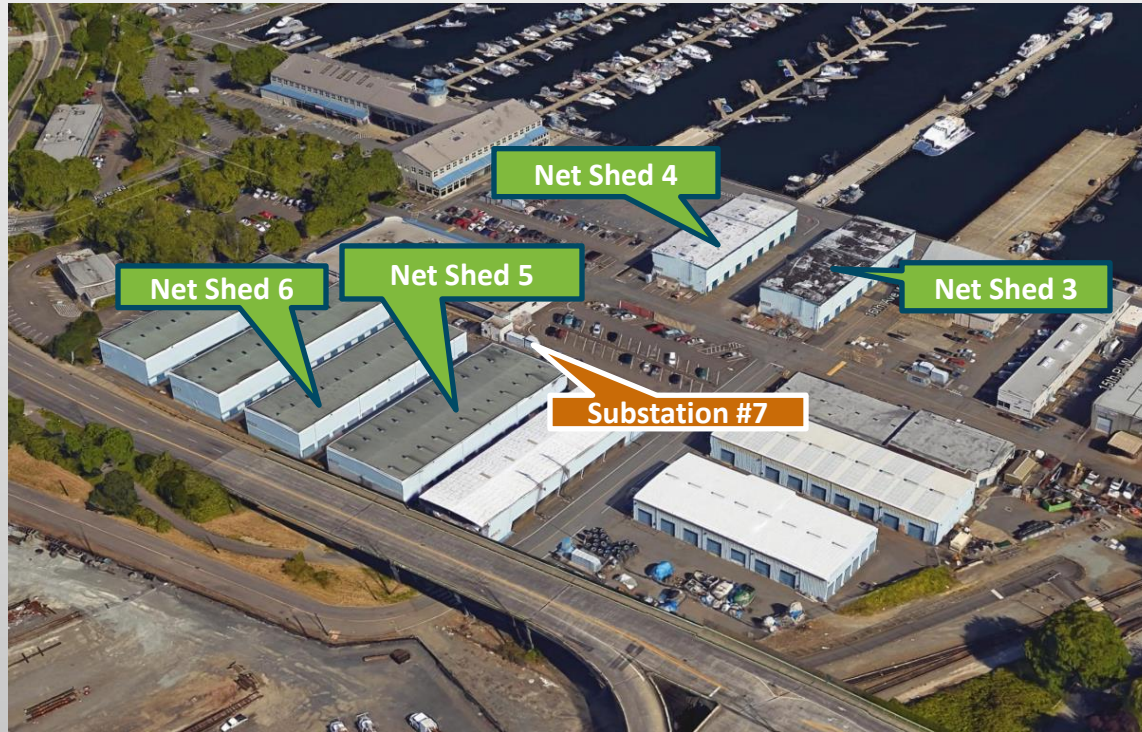


Net Sheds 3, 4, 5 and 6 Roof Replacements



Net Sheds 3, 4, 5 and 6 Roof Replacements



Fishermen's Terminal Net Shed Project Area

Existing Net Sheds 3 & 4



Existing Roof – Looking North

Existing Net Sheds 5 & 6



Existing Roof – Looking South

Existing Roof and Gutter System

(Net Sheds 3 & 4)



Existing Deteriorated Gutter Elements

Existing Roof Penetration

(Net Sheds 5 & 6)



Existing Deteriorated Rooftop Penetrations

Incorporate Sustainable Elements

- Increase Insulation Value
- Reduced Heat Island effect by Utilizing Reflective Cap sheets
- Recycling of Demolished Materials
- Durable Roof System that can last 30 years as specified

The project team will also evaluate:

- Bio filtration units at the downspouts
- Installation of Solar Panels as a demonstration project (Photovoltaic (PV) power production).

Sustainable Elements included in Design Effort

Timeline

2016 Planning

2017 Planning

CEM (*Research*)

Pier 69 (*Feasibility Q4 2016*)

P66 (*Planning*)



Maritime Site Feasibility Study

UW Solar/POS Engineers

CEM (*Preliminary Engineering Analysis TBD*)

Specific Facility Eval. (*2017*)

New Buildings

SBM restrooms (*Planning*)

Dukes Restaurant (*Planning*)

Evaluation with Roofing

C-173-Terminal 91

Net Sheds-Fishermen's Terminal

Century Agenda

"Meet all increased energy needs through conservation and renewable sources."

Meet all increased energy needs through conservation and renewable sources

Projects

Pier 69

- kWh Output : 320,000
- Savings: \$23,000
- CO2 deferred: 11,000 lbs.



FT Net Shed #5

- kWh Output: 11,000/Yr.
- Savings \$840 /Yr.
- CO2 deferred: 279lbs.



CEM

- kWh Output: 3-5 MW
- Savings \$ TBD
- CO2 deferred: 138,000 lbs.



The PV output estimations (conservative) on Net Sheds #5.

Net Shed 5 or 6 PV Demonstration Project



Net Shed Solar Demonstration project location

Next Steps

- Complete Design 4th Quarter 2016
- Request Construction Authorization 1st Quarter 2017
- Construction Starts 2nd Quarter 2017
- Construction Complete 4th Quarter 2017

Action Requested

Description

Request Commission authorization for the Chief Executive Officer to complete design documents for the Fishermen's Terminal Net Sheds 3, 4, 5, and 6 Roof Replacement Project including a solar panel demonstration study on one net shed for an estimated cost of \$195,000, bringing the current authorization to \$270,000 for an estimated total project cost of \$3,186,000.

Action requested

Any Questions?

Any Questions