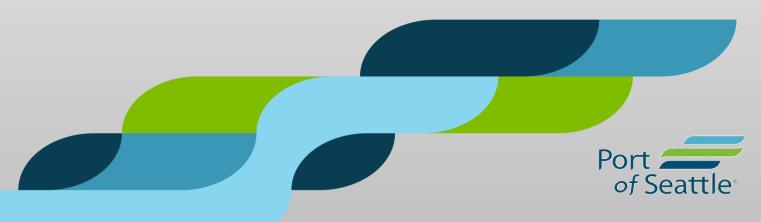
Item No.: 4b

Date: January 24, 2017

Terminal 91 Building C-173 Roof Overlay- Construction Funds Request



Building C-173 Roof Overlay



Existing C-173 Roof Approximately 29 Years Old

Existing Deteriorated Roof Elements





Rusted underside of roof panel



Hole previously repaired with coating



Previous repair of metal roof at rusted location



Hole previously repaired with coating



Mechanical room penetrations

Incorporate Sustainable Elements

- Increase Insulation Value
- Utilize Reflective Overlay Material
- Recycling of Demolished Materials
- Durable Roof System that can last 30 years as specified
- Selecting materials with limited toxicity and GHG emissions.

Project Alternatives Considered

Alternatives	Description	Cost Implications <mark>Solar</mark>
Alternative 1	 Maintain Status Quo. Continue to pay maintenance cost. (Approximately \$9.8K/yr) 	\$9.8K
Alternative 2	 Coat Roof with roll-on Coating System (10 year life) Add Fall protection and Security ladders Repeat roll-on coating again in 10 years 	\$2.14M
Alternative 3	 Replace Roof with PVC membrane (30 year life) Add Fall protection and Security ladders Install Thin Film solar panels and structurally upgrade the building 	\$1.56M \$5.53M
Alternative 4	 Replace Roof with PVC membrane (30 year life) Add Fall protection and Security ladders This is the recommended alternative 	\$1.56M

Project Alternatives

Next Steps

- Complete Design
- Request Construction Authorization
- Construction Starts
- Construction Complete

- 4th Quarter 2016
- 1st Quarter 2017
- 2nd Quarter 2017
- 4th Quarter 2017

Any Questions?