King Street Station History

Designed by Reed and Stem

Inspired by Campanile at San Marco Piazza, Venice, Italy

Opened to public
May 1906

Construction cost $450,000

Significant Historic Building
Station Acquisition by City of Seattle

One of three major hubs to move people in and out of downtown

Opportunity to restore a landmark

Revitalize historic Pioneer Square neighborhood

Support future development around station
Project Challenges

Building Preservation
Sustainable Elements
Introduction
Transportation Hub
Reconfiguration
Funding Acquisition
Existing Conditions

Ceramic Tile Roof
ca. 1908

Asphalt Shingles
ca. 2008
Existing Conditions

Public Plaza
ca. 1908

Plaza Parking Lot
ca. 2008
Existing Conditions

Public Thoroughfare
ca. 1908

Interrupted Connection/Enclosure
ca. 2008
Existing Conditions

Grand Public Interior
ca. 1908

Modernized Interior
ca. 2008
Funding

Secured Funding
“Bridging the Gap” Levy $10 million
Federal, State, Private $16.5 million total

Total Secured Funding = $26.5 million
Estimated Project Budget $45-50 million
Funding Gap $20 million

Potential Funding
Federal, State and Local grants
Sustainability related incentives
Tax credits

When to start construction?
Roof Repair
Clock Face Restoration

Clock face restoration
- glass face
- clock hands
- iron frame
Microwave Tower Removal and Finial Restoration

- Clock face restoration
- Glass face
- Clock hands
- Iron frame
Project Phasing

Pros
- Maintains momentum
- Buys time for more funding

Cons
- Phasing premium
- Scope cohesion

Risk
- Dollars don’t arrive
- Mothball project
City of Seattle’s Sustainable Building Mandate

Implemented since 2000

First in Nation

5,000 SF occupied space

LEED Silver minimum

Project anticipate to achieve LEED Platinum
Sustainable Features

Transportation/Commuting Connections
- Amtrak (Heavy Rail)
- Commuter Rail
- Light Rail
- Streetcar
- Bus
- Bike
- Pedestrian
- Ferry

Historical Lavender Glass Tiles Salvaged for Re-Use on Clocktower

Original Structure and Materials Restored/Maintained
Performance-based Seismic Upgrade for 500 and 2500 year Events

Original Clay Ceramic Roof Tiles Restored Providing Extended Roof Life of 75 Years

Roof Insulation with R-30 Value
Wall Insulation with R-25.6 Value
Photovoltaics on Restored Canopy

New Public Open Space
Future Canopy with Photovoltaics
Glass Canopy to Improve Daylighting
Original Windows Preserved and Repaired
Operable Windows Restored Throughout

Ground-source Heat Pumps for Heating and Cooling
Geothermal Well Field

High-efficiency Unit Ventilators
Natural Ventilation in Main Waiting Area

Water Harvesting for Toilet Flushing
Electrical Transformers for Streetcar
Introduction of Sustainable Elements into Historic Rehabilitation

No alterations to primary façade
- clock tower
- station exterior
- waiting room
- compass room
Ground Source Heat Pump

INITIAL WELL FIELD

EXPANDED WELL FIELD
Salvage and Reuse Materials
Renewable Energy Generation

Photovoltaic Panels
Systems Approach

King Street Station: Energy performance against various benchmarks

existing building

113 Kbtu/sf/yr

LEED baseline (ASHRAE 2007)

83.1 Kbtu/sf/yr

2030 Challenge target (60% reduction from similar existing bldgs, or 40% reduction from ASHRAE 2007)

49.9 Kbtu/sf/yr

modeled design

36.2 Kbtu/sf/yr

- 68% energy use reduction
- Saving 206 metric tons of CO2/year

"Preserving the Past While Embracing a Sustainable Future: Rehabilitation of the Historic King Street Station", June 2011 APTA Boston conference
Jackson Plaza
Project Funding

Federal ($33 million)
  - Federal Railroad Administration
  - Federal Transit Administration
  - Federal Highway Administration

State ($8.8 million)
  - Washington State DOT
  - Washington State Historic Society

City ($12 million)

Private ($0.2 million)
  - South Downtown Foundation
  - 4Culture
  - National Trust
MWDBE Participation

Project Voluntary Goal
10% MWBE
6% DBE
16% Total

Actual - All Phases Combined
18.9% MWBE
4.3% DBE
23.2% Total
Restoring the Character of the Station