Presentation on the Existing Condition of the Public Works Building

City Council Study Session
May 5, 2026

AB 6920

Agenda

- Purpose
- Project Introduction
- Public Works Building
  - Executive Findings
  - Building Assessment
  - Preliminary Renovation Cost Estimate for Public Works Building
- Next Steps

Project Introduction

1980 to Present

TODAY

1980

Public Works Building Built

2017

Public Works Building Space Expansion Study and Seismic Assessment

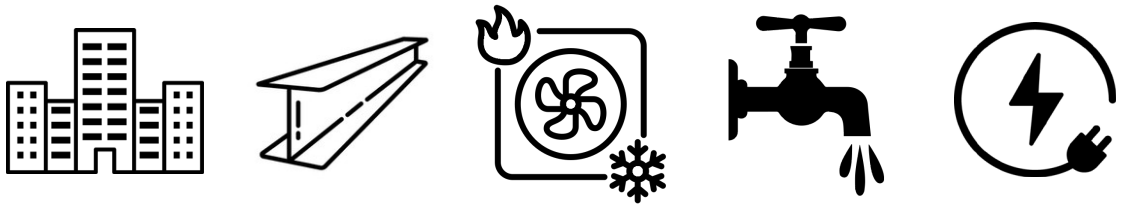
2023

Public Works Shop Roof Replacement and Seismic Upgrades

2026

Executive Findings

Summarizing the Public Works Building Assessment



Executive Findings

- The existing Public Works Building, constructed in 1980, is nearly 46 years old and does not meet current building standards, has multiple failing systems, and houses department teams the structure was not intended for.
- The building has seismic deficiencies and does not meet current seismic safety code.
- Additional investment in the Public Works Building is needed to extend the service life an additional 20 years.

Executive Findings

- The November 2025 PSM Bond measure sought to entirely replace the Public Works Facility. If approved, this would have funded full replacement of the main building, all other structures, and the maintenance yard.
- With that measure's failure, the City Council directed staff to revisit conditions of existing facilities to identify near and long-term alternatives to address operational needs.
- This direction included revisiting the potential to renovate existing facilities.
- This presentation addresses the improvements to extend the life of the **current Public Works Building only** and **does not** address needed investments in the other open-air facilities, other maintenance structures or the maintenance yard.

Key Deficiencies

Seismic deficiency of the existing building structure and inability to meet Risk Category III

Existing building **cannot support programmatic needs** of office occupancy as-is

Mechanical & electrical systems are at **end-of-service-life**

Building Assessment

Architectural

Analysis of the Existing Public Works Architectural Systems

Architectural

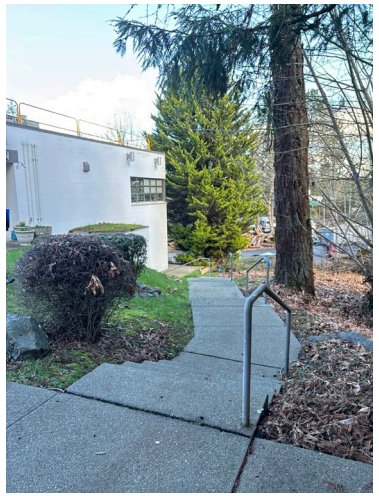
Existing conditions

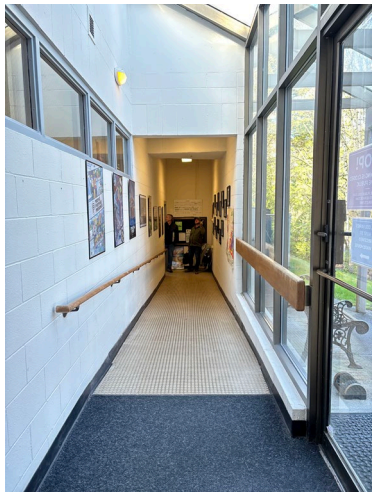
- The existing Public Works Building was **constructed in 1980**.
- The building is Construction Type V-1 hour (non-combustible).
- The building is **not equipped with an automatic sprinkler system**.
- The building is a two-story structure with a total building area of 15,347 square feet (SF).
- The original occupancy classification of the building is B-2 (business) and H-2, H-3, H-4 (hazard).

Architectural
Deficiencies

Building life safety & egress not up to current building code standards:

- **No automatic sprinkler system**
- **No wheelchair accessible egress pathway** from the second floor to the street.
- **Fire separations** between occupancies un-identifiable or non-complaint.
- **Lack of signage** for wayfinding and emergency egress.

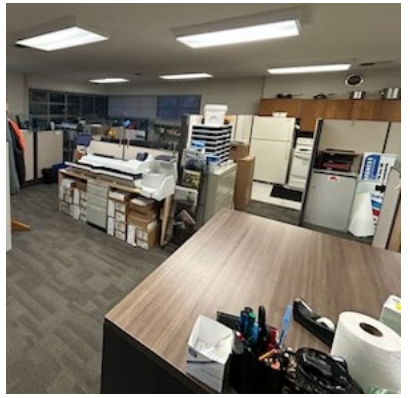


Architectural
Deficiencies

Building envelope deficiencies and non-compliance with current energy code:

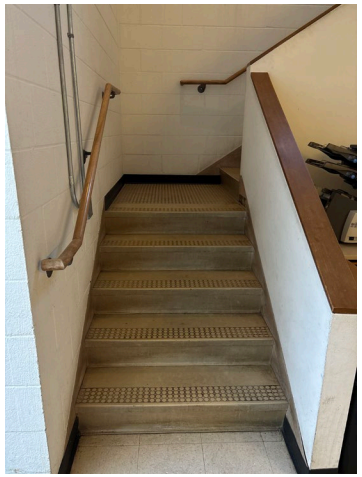
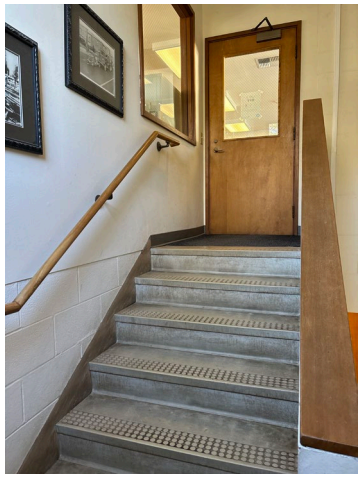
- **Moisture intrusion issues** at roof and wall joints.
- **Flashing/weatherproofing** of the window and door openings, wall joints, and roof edges **does not meet current standards.**
- **Under-insulated exterior wall and roof assemblies** which do not comply with current energy code standards.
- **Low thermal comfort for occupants;** heating and cooling systems not sufficient or operational.



Architectural
Deficiencies

Accessibility restrictions:

- **Guardrails and handrails do not comply** with current building code and accessibility standards.
- **No interior wheelchair accessible path** via elevator or wheelchair path from the first floor to the second floor.
- **ADA accessible toilets, showers, and lockers need modifications to comply** with current accessibility standards.
- **Door hardware, countertops, and Breakroom equipment and fixtures do not comply** with current accessibility standards.

Architectural

Renovation approach

Building life safety & egress updates:

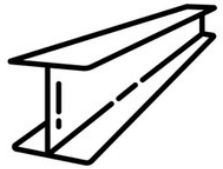
- New **automatic sprinkler system**
- Complete space reconfiguration for final occupancy

Accessibility updates:

- **Upgrade of existing stairs and ramp**
- Addition of **ADA compliant restrooms** and fixtures

Building envelope updates:

- Full exterior enclosure **insulation upgrades**:
  - Below-grade waterproofing and insulation
  - Insulation for exterior wall assemblies
  - New blown-in insulation at truss cavities
  - Insulated windows and exterior doors



Building Assessment

Structural

Analysis of the existing Public Works Structural Systems

Structural

Existing conditions

Gravity System:

- Perimeter **masonry and concrete walls**, masonry **columns**, and a precast **concrete plank lower roof**.
- The upper roofs are framed with **wood trusses and wood sheathing**.

Lateral System:

- **Reinforced masonry shear walls** and concrete plank roof.
- **Wood sheathing acting as the diaphragms** at the lower and upper roof levels.

Foundation:

- Shallow **strip footings** below the bearing walls and shallow isolated footings below columns.

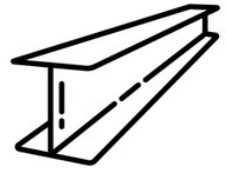
Structural

Existing conditions – Previous Renovation Work

Some seismic upgrades <u>completed during the 2023 voluntary renovation</u> work include:

- Installation of **additional foundation support** / grade beams in the vehicle maintenance Bays.
- Additional **lateral bracing** at the top of non-structural masonry walls.
- **Removal of green roof** on the lower roof.
- Additional **top of structural masonry wall anchorage** usings new ledgers, straps, and post-installed anchors.
- New **diaphragm nailing for the existing roof sheathing** around the edges of both upper roofs.

Structural
Deficiencies



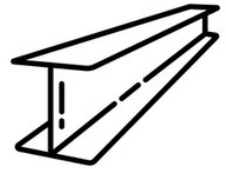
The <u>voluntary</u> renovation work completed did not constitute a full seismic upgrade, Risk Category II or minimum recommended retrofit.

The remaining seismic deficiencies include:

- Torsional effects from the shear wall layout resulting in **shear walls being overstressed.**
- **Foundation deficiencies below the shear walls** resulting from these torsional effects.
- **Inadequate connections** between the roof diaphragms and shear walls.

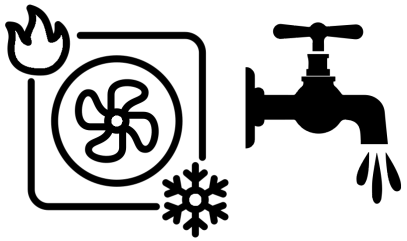
Structural

Renovation approach



Seismic remediations to meet Seismic Category III include:

- Providing **additional support to shear walls with shotcrete / concrete.**
- **Foundation upgrades** at the upgraded shear walls.
- **Increased diaphragm nailing** at the roof plywood sheathing.
- **Strengthening the connections** between the top of masonry wall and the roof joists.



Building Assessment

Mechanical & Plumbing

Analysis of the existing Public Works Mechanical & Plumbing Systems

Mechanical

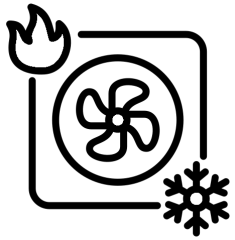
Existing conditions

General:

- The HVAC system is a mix of **gas fired unit heaters, one gas fired and one electric furnace, exhaust fans and a gas pack rooftop unit.**
- There is **cooling at the second floor**.
- There is a **vehicle exhaust extraction system and an exhaust fan** installed in the shop.
- **Limited Direct Digital Control** (DDC) is provided via central controller.

Mechanical

Deficiencies

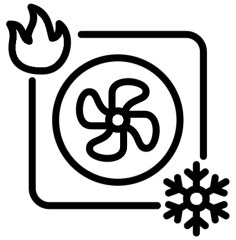


Generally, all the mechanical systems are at or nearing the end of their useful service life; additionally:

- HVAC systems appear original and would require **full replacement** to improve performance and meet industry standards.
- The **warehouse and shop space ventilation equipment** should be evaluated and updated to meet current standards.
- The Server room does not have necessary cooling.

Mechanical

Renovation approach



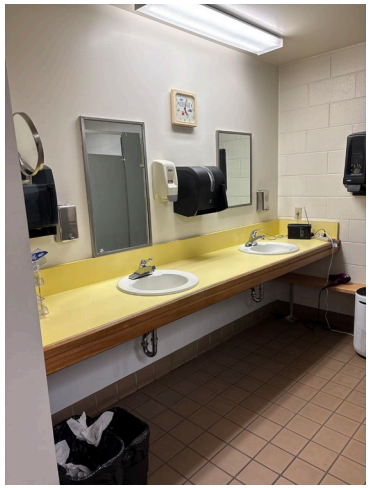
A full mechanical system replacement is recommended, including:

- **Replace existing systems** with newer/modern systems.
- A new **dedicated outside air system (DOAS)** should be provided for all the office type occupancies.
- Thermal control for offices should include a variable refrigerant flow (VRF) system, to **allow zone by zone control**.
- Shop and warehouse spaces should be provided with **ventilation and radiant heat**.
- The **shop area should include products of combustion sensors (CO/NOx)** which tie into the associated ventilation system and generate an alarm if levels exceed exposure limits.

Plumbing

Existing conditions

- The facility is served by an **electric water heater.**
- **All restrooms are located on the first floor.**
- Plumbing fixture count:
  - Women's – 2 toilets, 2 sinks, 1 shower
  - Men's – 5 toilets/urinals, 3 sinks, 3 showers
- Piping materials - **domestic water piping is copper; drainage, waste, and vent piping is cast iron.**
- The existing **1988 air compressor is abandoned-in-place; a new air compressor was installed around 2023.**



Plumbing

Deficiencies

- **The electric water heater is at or nearing the end of its useful service life.**
- There is an **inadequate number of plumbing fixtures (women's)** for occupancy of building.
- **Trap primers are not present** in the existing plumbing systems.

Plumbing

Renovation approach

- **Replacement of the electric water heater** with heat pump technology.
- Provide **additional and modern of restroom plumbing fixtures** with low flow products to meet energy code.
- **Reuse the existing domestic and drainage piping and provide additional piping** for new restroom plumbing fixtures.
- **Remove the abandoned-in-place air compressor** should be removed to free up space.
- **Retain and provide additional air compressor connect drops** and reels for the building as needed.

Building Assessment

Electrical & Low Voltage

Analysis of the existing Public Works Electrical & Low Voltage Systems

Electrical

Existing conditions

Main Electrical Service:

- The facility is served by a 1000 Amp, 208/120V, 3-phase **main panelboard, original to construction.**

Distribution Panels and Feeders:

- There are **branch circuit panelboards** throughout the building, **original to construction.**

Emergency Power System:

- Emergency power is provided by a **diesel standby generator, emergency panel, and Automatic Transfer Switch (ATS).**

Lighting System & Controls:

- Interior light fixtures are a mix of **fluorescent lighting and retrofitted HID fixtures** with LED kits.
- **Exterior lighting is minimal** and original surface-mounted fixtures.
- **Controls are manual** on/off switching only.

Electrical

Deficiencies

Generally, the main electrical systems are at or nearing the end of their useful service life;

- The **main electrical service and branch panel equipment is in poor condition** and is at or beyond its typical service life.

Other equipment is in fair condition, but may not support expanded operational needs:

- Automatic Transfer Switch (ATS)
- Generator
- The **emergency distribution configuration is relatively limited in capacity** and may not support expanded operational needs.

Electrical

Deficiencies

Lighting system deficiencies:

- Lighting systems are generally in **poor condition.**
- Office areas contain **outdated fluorescent fixtures** with aging ballasts and reduced efficiency.
- The truck bay has received partial modernization through LED retrofit kits; however, the base fixtures remain **older housings.**
- Lighting controls **lack occupancy sensors or automatic shutoff capability** and do not comply with current energy code.
- Exterior lighting is limited and appears original, providing **minimal site illumination.**

Low Voltage

Existing conditions

Low Voltage Systems:

- **Low voltage systems have been upgraded** or reconfigured within the past 10 years.
- The main telecommunications equipment is located in a designated **data room.**

Access Control and Surveillance Systems:

- There are various **access-controlled doors.**

Fire Alarm system:

- The facility contains an **existing fire alarm system, original to the building.**

Low Voltage

Deficiencies

Generally, the low voltage and access control systems are <u>in fair condition</u>, but some concerns include:

- Low voltage system are aging and require **maintenance and periodic technology upgrades.**
- The overall **security of the building is limited.**
- **The fire alarm system is outdated and non-compliant:** visual and audible notifications devices are not compliant with current code standards.

Electrical & Low Voltage

Renovation approach

The electrical systems are in fair to poor condition overall, with major infrastructure components at or beyond their service life; renovation approach:

- Complete **electrical system replacement**.
- Replacement of the **emergency panel**.
- Full **LED light fixture** replacement and **exterior lighting upgrade** for improved safety and security.
- Installation of **occupancy sensors and automatic lighting controls**.
- **Additional surveillance cameras** and integration with municipal systems.
- Full **replacement of the fire alarm system** to meet current NFPA 72 and IBC requirements.

Electrical & Low Voltage

Renovation approach

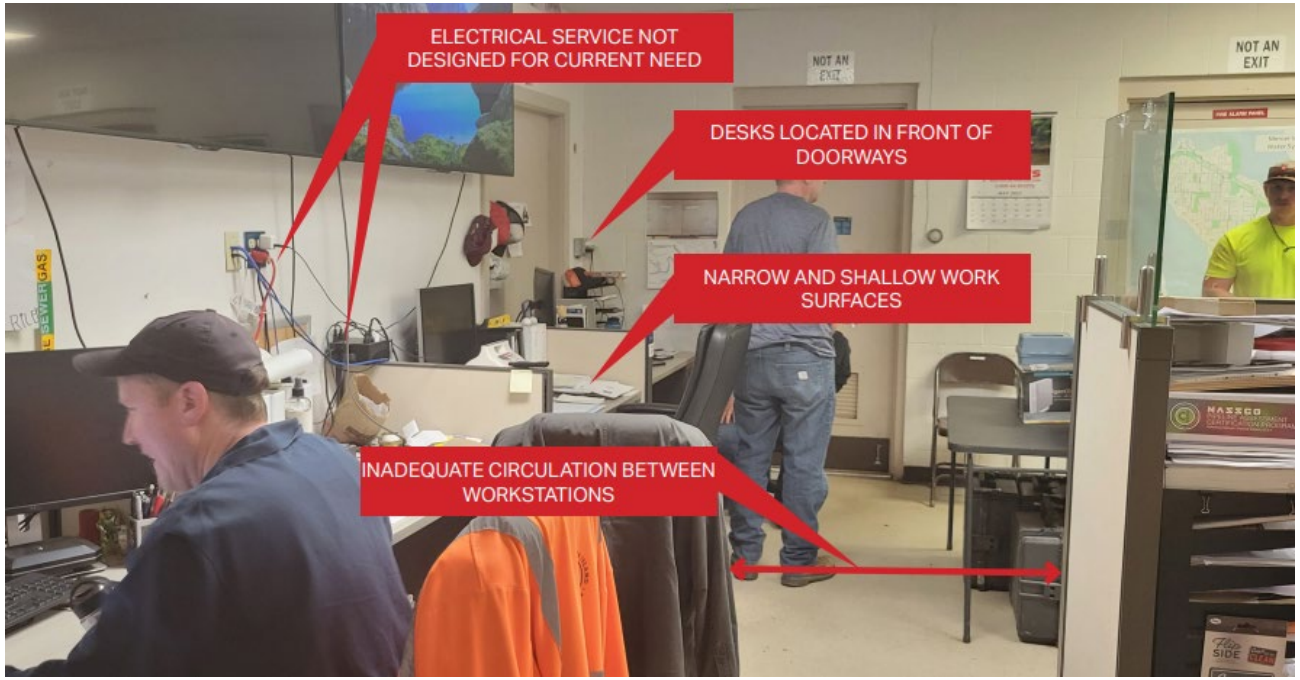
Some additional items to consider:

- The **Automatic Transfer Switch (ATS) may remain in service** if compatible with future upgrades.
- **Generator replacement may not be immediately required** but should be evaluated in conjunction with long-term facility plans.

Public Works Building Considerations

Relocate Capital & Engineering Staff

- The existing Public Works building cannot accommodate the current staffing levels, and the Capital & Engineering staff must be moved to a different facility.
- Staff are actively planning to relocate these staff teams to the 9655 Building, which was acquired by the City in Summer 2025.



Renovation Work Priorities

High Priority Needs:

- Replace office space systems:
  - New dedicated outdoor air system (DOAS) for ventilation.
  - New multizone mechanical system (variable refrigerant flow system).
- Provide source control ventilation for the shop area.
  - Minimum new general exhaust fan and makeup air.
  - CO/NO2 monitoring and interlock with ventilation.
  - If vehicles are allowed to operate for extended periods within the shop, an extraction system would be recommended.
- Lighting & controls replacement.
- Main electrical service replacement.
- Branch panel/Feeder Replacement as needed for new HVAC/Plumbing.
- Replace water heater.

Note: Any amount of alteration/renovation work to the building would require 20% of construction costs be directed to ADA upgrades.

Renovation Work Priorities

Medium Priority Needs:

- Replace mechanical rooftop unit that serves the second floor.
- Branch panels and circuiting in areas being remodeled.
- Fire Alarm system replacement.
- Emergency panel replacement.
- Emergency generator replacement.
- Replace plumbing fixtures with models which meet current code flow rates.
    - Recommend an analysis based upon current occupancy/use of the space to confirm whether additional plumbing fixtures should be added.

Note: Any amount of alteration/renovation work to the building would require 20% of construction costs be directed to ADA upgrades.

Renovation Work Priorities

Low Priority Needs:

- Replace Storage space heaters.
- Replace central control (DDC).
- Access Control/Surveillance system replacement.
- Data systems replacement.

Note: Any amount of alteration/renovation work to the building would require 20% of construction costs be directed to ADA upgrades.

Summary of Potential Costs to Renovate

- Additional investment in the Public Works Building is needed to extend the service life an additional 20 years.
- Moving capital & engineering staff to another facility allows the City to reorganize the building into a more optimal layout for maintenance functions and space needs.
- **This cost analysis only addresses the improvementsneeded to the main Public Works Building**. Site improvements and replacement and renovation of the anicllary facilites, open-air structures, and the yard will be an additional cost.

	Estimated Total Project Cost Range (includes **Construction Costs** & anticipated **Owner Soft Costs**) Note: All figures are escalated to a ***Construction Midpoint of Q4, 2028***
Public Works Building Renovation	$13,456,000 to $13,936,000

Estimated Total Project Cost

Estimated cost for renovation of main building + seismic upgrades

An additional investment is needed to bring the Public Works Building up to Risk Category III, which is the appropriate seismic resilience level for a Public Works Maintenance Building

	Estimated Total Project Cost Range (includes **Construction Costs** & anticipated **Owner Soft Costs**) Note: All figures are escalated to a ***Construction Midpoint of Q4, 2028***
Public Works Building Renovation	$13,456,000 to $13,936,000
Additional Renovation Option #1 Increase Seismic Resilience to Category III	$2,249,000 to $2,329,000
	$15,705,000 to $16,265,000

Estimated Total Project Cost

Estimated cost for main building + seismic upgrades + conditioned building

Given the condition and limitations of the ancillary facilities, the project team has very preliminarily explored adding a fully conditioned storage space for some Public Works Maintenance vehicles such as the vactor trucks.

	Estimated Total Project Cost Range (includes **Construction Costs** & anticipated **Owner Soft Costs**) Note: All figures are escalated to a ***Construction Midpoint of Q4, 2028***
Public Works Building Renovation	$13,456,000 to $13,936,000
Additional Renovation Option #1 Increase Seismic Resilience to Category III	$2,249,000 to $2,329,000
Additional Renovation Option #2 Standalone fully-conditioned PEMB Maintenance Building	$4,294,000 to $4,448,000
	$19,999,000 to $20,713,000

New Build Total Project Cost Comparison

Estimated project costs for a new building of equal site and building size

- The architect prepared a like-for-like cost estimate to replace the existing Public Works Building at the same exact size at seismic category III. The preliminary cost estimate to replace the building only is $16 to $22 million.
- This cost estimate does not include replacement of the other buildings and structures or address improvements needed in the yard.

Estimated Total Project Cost Range
(includes **Construction Costs** & anticipated **Owner Soft Costs**)
Note: All figures are escalated to a ***Construction Midpoint of Q4, 2028***

New Building Construction Estimate	$16,000,000 - $22,000,000

Next Steps

- This presentation is intended to support City Council discussions and inform direction on how to approach renovation oof the existing Public Works Building to maintain operational needs, as well as guide future facility planning strategies.

Questions?