RDH BUILDING SCIENCE

Building Enclosure Condition Assessment Report Draft #3

Craneway Pavilion

City of Richmond
450 Civic Center Plaza
Richmond, CA, 94804
Date: April 14, 2026

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1. Introduction

RDH Building Science Inc. (RDH) was retained by City of Richmond to perform a building enclosure condition assessment of the Craneway Pavilion located at 1414 Harbour Way in Richmond, CA. This report documents our observations and findings pertaining to the current condition of the building enclosure, mechanical, electrical, and plumbing (MEP) systems, structural systems, accessibility, and environmental conditions. The purpose of this assessment was to evaluate the current condition of the building and systems, to identify conditions requiring repair or deferred maintenance, and to provide repair and rehabilitation options where warranted.

1.1. Building History

Constructed in the early 1930s as part of the Ford Motor Company Assembly Plant, the Craneway Pavilion is a prominent historic industrial structure situated along the Richmond waterfront. The building is defined by its large-scale steel structure, expansive interior volume, and extensive areas of glazing characteristic of early 20th-century industrial architecture. Since its adaptive reuse as a public assembly and event venue, the Pavilion has continued to serve a high-occupancy, high-intensity program, placing significant demands on both original and upgraded building systems.

1.2. Building Description and Project Background

The Craneway Pavilion building enclosure consists of a combination of glazed curtain wall systems, metal-framed windows, and opaque wall assemblies, providing extensive daylighting and visual connection to the surrounding waterfront and landscape. The roof system comprises steep and low-slope roofing supported by steel framing, with integrated skylights and clerestory glazing in select areas. Exterior materials and assemblies reflect a mix of original construction and subsequent modifications associated with previous seismic events and adaptive reuse. We also understand that a previous building retrofit was completed between 2005-2008, which included some localized façade and roof rehabilitation, as well as a seismic retrofit.

Given the age of the facility, this assessment identifies observed repair and upgrade needs and provides order-of-magnitude cost estimates to assist with planning and budgeting. Recommended actions are organized by priority and anticipated timeframe, including immediate needs, near-term items (0–1 years), short-term items (1–2 years), mid-term items (2–5 years), and long-term considerations (5–10 years). The intent of this report is to provide a practical, decision-oriented framework to help stakeholders prioritize investments, manage risk, and support the continued safe, functional, and sustainable operation of the Craneway Pavilion, given the City of Richmond is taking ownership of the building again after a prior leaser's rental term is complete. We also have identified areas where further investigation or study is recommended to plan for future repairs.

1.3. Documents Received

RDH received the following documents from the City of Richmond:

TABLE 1.1 DOCUMENTS

Document	Date	Author (as applicable)
Original Architectural Drawings, Sheets 108 and 10-12	October 20, 1930	Albert Kahn Inc. Architects
Original Structural Drawings, Sheets 1-S to 15-S	August 29, 1930	Albert Kahn Inc. Architects
Historic American Engineering Record Report for The Richmond Tank Depot prepared for the National Park Service Rosie the Riveter World War II Homefront National History Park	September 2, 2003	Fredric L. Quivik

TABLE 1.1 DOCUMENTS		
Orton Development Inc. Core & Shell Renovation Structural Drawings	November 15, 2007	Crosby Group
Orton Development Inc. Core & Shell Renovation Architectural Drawings	March 15, 2007	Marcy Wong & Donn Logan Architects
Orton Development Inc. Renovation drawing sheets A1, A1.3, A1.7, A2-4, and unnamed elevation sheet.	No dates indicated on plans	Marcy Wong & Donn Logan Architects
Richmond Assembly Plant Drawings	2002	VBN Architects
Permit B22-01718	June 10, 2022	
Permit 08-03719	October 31, 208	
Permit 12-00890	March 7, 2012	
Permit 13-02080	May 13, 2013	
Permit 13-02144	May 15, 2013	
Permit 11-04074	September 23, 2011	
Permit 13-02694	June 19, 2013	
Permit 09-05049	November 5, 2009	
Permit 22016873	March 30, 2007	
Permit B1802958	October 19, 2018	
Permit B22091648	2022	
Permit B22-02088	July 25, 2022	
Permit B22-02284	2022	
Permit B24-00161	October 22, 2024	
Permit B24-00543	June 3, 2024	
Permit B22-00977	April 18, 2023	

2. Building Enclosure & Roof

RDH performed site visit on January 8, 2026, to review the condition of the Craneway Pavillion building from the ground, the roof, from the interior. The restaurant and warehouse/office space north of the Pavillion building were not included in our review. We provide a summary of the building enclosure systems, condition of the system, and recommendations for repair in the sections below.

2.1. Exterior Façade

2.1.1. Brick Masonry

Description

The exterior wall system consists of multi-wythe brick masonry walls infilled between the steel-framed primary structure (Figure 1). The brick masonry is original to the building's original construction in 1931 and exists along the west elevation, along the south elevation below the roof line, along the east elevation below the window line, and at the southeast corner of the building.

The masonry assembly is configured as a mass wall system and does not incorporate a dedicated cavity drainage plane or concealed water-resistive barrier. Water resistance is provided primarily through the thickness of the masonry units, mortar joints, and exterior surface detailing. The steel primary structure provides vertical and lateral support for the masonry infill, with steel lintels spanning above window and door openings. The masonry interfaces with glazing and door infill systems at perimeter joints, and material transitions occur at roof and parapet conditions.

The wall assembly does not include thermal insulation, although there are limited areas of interior-applied acoustic insulation at select locations.

The brick masonry has undergone previous repair and rehabilitation following damage associated with the 1989 Loma Prieta earthquake. The damage to the brick primarily occurred above the roof line on the south elevation. At the south elevation the parapet has been reconstructed using a thin brick-faced glass fiber reinforced concrete (FRP) panel. We also understand that a comprehensive building rehabilitation was performed in 2008, and evidence of miscellaneous localized brick masonry repair/replacement and lintel repair is present across multiple elevations.

Condition

The brick masonry is generally in fair condition, with areas of localized distress. We made the following observations related to the condition of the brick masonry:

- → Missing brick units were identified at isolated locations across the west, south, and east elevations (Figure 2).
- → Mortar joints are pointed to be recessed from the face of the brick. Mortar is in generally good condition where reviewed, with some localized areas where it is excessively recessed (Figure 3).
- → Individual brick units and mortar joints are cracked at several locations, including near some penetrating steel elements (Figure 4) and along a vertical column approximately 8-10 feet in length above grade on the west elevation. The vertical cracking and out-of-plane displacement at this location appears to be likely a result of oxide jacking due to corrosion of steel behind the brick (Figure 5). We also observed vertical cracking at the corner interface between the masonry wall and the panelized FRP parapet system at the south elevation, suggesting movement-related stress at this transition (Figure 6 & Figure 7). See further discussion related to this condition in Section 2.1.2.
- → Sealant is failing at the vertical joint between the brick masonry and the adjacent building extension along the west elevation, including loss of adhesion and open joints (Figure 8).

- → Steel lintels above window openings exhibit varying degrees of corrosion and section loss, particularly along the south elevation. It is also evident that corrosion has been painted over in the past (Figure 9). Corrosion of lintels generally extends to the interior side of the window openings (Figure 10).
- → Sagging/deflection of lintels is occurring above the large, narrow window bays at the west and east elevations (Figure 11). There are localized cracks in the bricks above the window heads, and evidence that brick replacement may have occurred as part of the previous 2008 repair project.
- → Interior observations identified localized detachment and displacement of acoustic insulation, with sections of insulation observed to be falling away from the interior wall surfaces. We did not observe obvious signs of interior staining, active leakage, or moisture-related finish deterioration related to the brick masonry walls at the time of our site visit.
- → At the west elevation, the brick wall extends above the roof surface and is capped with a metal parapet cap. There are lateral braces that tie the parapet back to the roof structure and are detailed with roofing membrane where they penetrate through the metal roof, and a metal flashing at the base of the brick parapet wall interface with the metal roof (Figure 12). There were no obvious deficiencies related to the brick assembly at these locations.

Recommendations

	RECOMMENDATION
BE-1	→ (2-5 Year Repair Horizon) We recommend further detailed review and analysis of all steel lintels supporting brick above window heads is performed by a structural engineer to identify and recommend specific repair requirements by location, which may include the following depending on location and severity: A. Stiffen sagging/deflecting lintels with retrofit of additional steel reinforcing B. Remove surface corrosion from all exposed lintels, if applicable, splicing additional metal section at areas where sectional loss exists, and priming with a zinc-rich epoxy primer before painting to match existing.
BE-2	→ (2-5 Year Repair Horizon) A. We recommend removing and replacing all cracked, chipped, spalled, or missing bricks and mortar in kind to match existing. All replacement mortar and bricks shall be selected to match the strength, thermal and moisture management characteristics of the existing brick and mortar assembly. Localized repointing in areas may also be required. B. At the long vertical crack on the west elevation in line with a column where there is out-of-plane displacement, we recommend locally removing and retaining several wythes wide of brick to assess the concealed condition of the steel structure. Any corrosion and oxide jacking should be removed and steel repaired prior to re-building the area with the original bricks.
BE-3	→ (0-1 Year Repair Horizon) We recommend removing and replacing any failing vertical sealant joints at expansion joints where deteriorated, and to plan for replacement every 10 years if a polyurethane product, 20 years if a silicone product.

2.1.2. Thin-Brick over Fiberglass Reinforced Panel (FRP)

Description

The south elevation parapets consist of thin-brick cladding installed over a pre-fabricated fiberglass reinforced panel (FRP) to a steel frame system. The system appears to have been installed as part of a rehabilitation effort following the collapse of the original brick masonry parapet during the 1989 Loma Prieta earthquake. The FRP parapet panels are located above the roof

line along the south elevation and function as a non-load bearing, exterior architectural feature (Figure 13). We understand that the panelized assembly was installed as part of the 2008 retrofit project.

The assembly consists of FRP panels supported by a hollow structural section (HSS) steel framing system, with metal connections anchored to the building's primary steel structure (Figure 14 & Figure 15). Thin brick units are adhered to the exterior face of the FRP panels to provide the appearance of a traditional masonry parapet.

The system is configured as a barrier assembly with reveals at panel joints that overlap. The panel system and does not form part of the building's primary air or water barrier where extending above the roof deck (Figure 16). The panels are exterior of the roof membrane, which ties into the top of the brick masonry mass wall and steel below the parapet. There is a continuous gap between the bottom of the FRP panels and the top of the brick masonry, and windows on the south elevation, to allow for drainage and separation between the two systems (Figure 17).

Key transitions occur at the southeast and southwest corners where the panelized parapets interface with adjacent brick masonry mass wall parapets, as well as at roof-level penetrations and terminations. The performance of the system relies on sealant joints and detailing at these interfaces to manage water exposure and accommodate differential movement between the FRP panels and the adjacent masonry construction.

Condition

The thin-brick over FRP panelized frame system at the parapet is generally in fair condition with some localized repairs required:

- → Cracking was observed at the joints between the FRP parapet panels and the adjacent brick masonry parapets at both the southwest and southeast corners of the south elevation (Figure 6 & Figure 7). These cracks are likely the result of insufficient separation and differential movement between the two wall systems at the corner transitions.
- → Localized failure of adhered thin brick units is occurring at several locations along the south elevation, with multiple brick units missing from the face of the FRP panels (Figure 18). There is evidence of the remaining adhesive/mortar used to adhere the brick units on the exterior face of the panel where thin brick units are missing (Figure 19).
- → We observed minor limited areas surface corrosion on the panels' galvanized steel frame (Figure 20).
- → The gap between the bottom of the panels and the brick mass wall and window systems on the south elevation appears to provide a drainage and separation space between the parapet panels and the brick masonry below. We could not fully verify the continuity and watertightness of the roof membrane tie-in at this interface due to limited access and visibility however, we did not see signs of water intrusion on the interior of the building at this location.

Recommendations

	RECOMMENDATION
BE-4	→ (2-5 Year Repair Horizon) A. To reduce the risk of further cracking or thin brick delamination on the FRP panels, we recommend a structural engineer conduct an in-depth review and analysis of the interfaces between the mass masonry walls and the thin-brick clad FRP panels at the southwest and southeast corners of the building at the parapet height and comment on a suitable provision for movement between the two systems. This could include an wider expansion joint gap filled with sealant joint over backer rod or silicone sheet at the interface between the two systems to permit the expected movement. B. Reinstall replacement adhered veneer bricks to match existing at locations where missing, utilizing a suitable adhesive/mortar and/or appropriate mechanical anchorage.

2.1.3. Stone Elements

Description

Natural stone elements are incorporated into the exterior masonry wall system at window openings and at the base of wall on select elevations (Figure 21). Stone sills are installed at all punched brick window openings and extend from the exterior face of the wall to the interior side of the window assemblies. These elements are likely original to the building's construction in 1931.

A band of granite stone units are installed at the base of the masonry walls along the west elevation and at the west and east corners of the south elevation. The granite sits on a slab-on-grade ledge and forms the base transition between the vertical masonry wall system and adjacent grade-level paving.

The stone and granite elements function as part of a mass wall assembly and do not appear to incorporate a dedicated drainage plane, concealed flashing, or continuous water-resistive barrier. Weather resistance is provided through the density of the stone materials, mortar joints, and surface detailing. The stone elements interface with adjacent brick masonry, window assemblies, and grade-level paving, and rely on these transitions to manage water exposure and accommodate minor differential movement within the wall system.

Condition

The stone and granite elements are generally in fair to good condition for their age. We observed minor areas of cracking, localized chipping, and spalling at several stone sills and granite units, which could be due to long-term exposure and weathering or impact. At some locations, it is evident that a sealant or epoxy product has been previously used to fill cracks (Figure 22).

- → At some granite spall locations corrosion staining is evident, suggesting the presence of mechanical anchorage/reinforcement attaching the stone units to the primary structure (Figure 23). Continued corrosion of the steel anchorage may cause spalling and failure of the anchorage.
- → Mortar joints between adjacent stone units exhibit deterioration and localized deterioration and cracking, particularly at horizontal skyward facing joints, at interfaces with adjacent brick masonry, and where extending below window frames (Figure 24). These conditions may increase the potential for moisture entry at localized areas under wind-driven rain events.

Recommendations

RECOMMENDATION	
BE-5	→ (2-4 Year Repair Horizon) A. We recommend injecting cracks through the stone elements with a suitable cementitious grout injection to prevent further water ingress and associated future deterioration of the stone elements. B. At spalled areas, remove any loose material and patch with a compatible repair material, ensuring patch material is matched to the finish of the granite and stone sill elements appropriately.

2.1.4. Gunite Walls

Description

The east elevation incorporates painted gunite wall cladding above the steel window frames (Figure 25). Per the original 1931 architectural drawings provided, the gunite elements consist of approximately 2-inch-thick panels over 4" deep steel framing supported by the building's primary steel structural system, on both sides of the parapet on the east elevation.

The panels form a continuous exterior wall surface and are configured as a face-sealed, "perfect barrier" assembly intended to resist bulk water penetration at the exterior surface. Therefore, the wall assembly does not incorporate a dedicated cavity

drainage plane or concealed water-resistive barrier. Weather resistance and air control are provided by the continuity of the gunite surface and the applied exterior coating. We understand that acoustic insulation panels were added at interior locations as part of a previous rehabilitation effort, concealing the interior face of the gunite walls.

Key interface conditions occur at window perimeters, roof-to-wall transitions, and at the junctions between the gunite panels and adjacent brick masonry construction. These transitions rely on exterior surface-applied sealants and coatings to maintain continuity of the water and air barrier functions across dissimilar materials and structural elements.

Condition

The gunite wall system is generally in fair condition, with localized cracking observed at several locations along the east elevation (Figure 26). The cracks appear consistent with long-term material aging, environmental exposure, and differential movement between the gunite panels and the supporting steel structure or adjacent wall systems. We also observed locations on the roof side of the parapet where the sealant joint between the gunite wall and adjacent brick wall is deteriorated (Figure 27).

There were no interior indications of water intrusion, moisture-related damage, or finish deterioration at the time of the assessment. However, we note the presence of interior acoustic insulation panels limits visibility of the interior face of the gunite walls, and concealed conditions could not be verified. Cracking at the exterior surface increases the risk for localized water entry under sustained or wind-driven rain conditions.

Recommendations

RECOMMENDATION	
BE-6	→ (2-5 Year Repair Horizon) We recommend routing and sealing the cracks in the gunite wall with a compatible exterior paintable sealant or epoxy. Additionally, replace failing sealant joints between the gunite wall and adjacent mass masonry walls at interfaces.

2.1.5. Windows and Doors

Description

Window and door assemblies are installed across the south, east, and west elevations and are original to the building's construction in 1931, with localized modifications. The primary window system consists of steel-frames, with small single-pane tempered safety glass in some locations separated by a grid of muntins; which likely indicates localized glass replacement in the past (Figure 28 & Figure 29). These original window systems are non-thermally-broken and use monolithic glass, meaning they will experience significant heat loss/gain under various exterior conditions, and certainly are at risk of experiencing condensation when humid air contacts the cold frame/glass surfaces under certain conditions. We also understand that a comprehensive building rehabilitation was performed in 2008, and evidence of steel frame repair, rehabilitation, and painting is present across multiple elevations as well as localized glass replacement.

At select Level 1 locations along the south elevation, thicker vision glass has been installed as butt-glazed infill replacements at the ground level windowpanes, likely as part of the 2008 rehabilitation project. (Figure 30). There are also locations where original steel overhead doors exist and have been permanently fixed and painted in place. There are original wooden door frames/fixtures at some locations as well.

The window and door frames are attached directly to the building's primary metal structural system and are set within punched openings in the surrounding masonry wall assemblies. The systems are configured as face-sealed, "perfect barrier" assemblies, relying on the integrity of the framing members, glazing, and perimeter sealant and mortar joints to resist bulk water and air infiltration. The assemblies do not incorporate a dedicated internal drainage path or pressure-equalized cavity.

Key interface conditions occur at the perimeter of the window and door frames where they transition to adjacent brick masonry, cast stone sills, and grade-level conditions at Level 1. At-grade window openings interface with curbs raising the systems above the adjacent paving, particularly on the south elevation where newer vision glazing has been installed.

Condition

The window and door assemblies are generally in poor to fair condition for their age. Cracked or shattered glazing was observed at isolated window pane locations (Figure 31).

- → At Level 1 south elevation, window sill metal flashings are back-sloped above the concrete curbs, which likely contribute to water pooling at interior floor surfaces around these interfaces (Figure 32 & Figure 33). Steel door frame components and sealant at the low-point of the slope are showing signs of corrosion and cracking. There are also exposed cold joints between the new curb and the adjacent paving, as well as hairline cracking through the curb, which could also be contributing to the water intrusion observed (Figure 34). We noted significant water and signs of ponding on the interior at these locations.
- → Gaskets at many butt-glazed windows at Level 1 on the south elevation are displaced or deteriorated, reducing the effectiveness of the interior glazing seals (Figure 35). We did not observe any obvious signs of water intrusion or staining related to the displacement of the interior gaskets.
- → Corrosion and surface rust are present on existing steel window frames at various locations (Figure 36). Perimeter mortar joints and sealant at the interface between the steel frames and surrounding brick masonry exhibit cracking, loss of adhesion, and localized separation. Paint failure is present at many locations on windows and doors on various elevations, including original wood bucks around openings and wooden door frames (Figure 37 & Figure 38). Wood window and door frame condition is generally poor to fair and is experiencing localized frame deterioration due to infrequent repainting and maintenance.
- → Interior glazing putty failure at steel framed windows is widespread (Figure 39), and localized damage and sectional loss of one interior muntin element was observed at one location (Figure 40).
- → Air gaps are visible at select door locations, indicating compromised air and water barrier performance (Figure 41).

Recommendations

	RECOMMENDATION
BE-7	→ (1-2 Year Repair Horizon) We recommend removing and replacing broken glazing to match the characteristics of the existing, such as, but not limited to glazing thickness and vision characteristics. Any glazing putty, glazing points, and glazing stops used to reset new windowpanes shall match existing. We recommend hiring a window repair contractor with experience in historic window repair to complete this work.
BE-8	→ (2-5 Year Repair Horizon) We recommend removing and replacing all failing glazing putty and glazing points. We recommend hiring a window repair contractor with experience in historic window repair to complete this work.

RECOMMENDATION	
BE-9	→ (2-5 Year Repair Horizon) We recommend abrasively removing all surface corrosion from the steel window frames and muntins, priming with a zinc rich primer, and painting to match existing. If any significant sectional loss exists or there are gaps/joints between frame segments, steel frame repair may be required. We recommend hiring a window repair contractor with experience in historic window repair to complete this work. Additionally for any windows where head flashings are failing, we recommend removing and replacing the existing head flashing to match existing in kind, or repairing as required. Re-paint all window and door frames. Additionally, localized frame repair and repainting of wood window/door frames will also be required.
BE-10	→ (1-2 Year Repair Horizon) At existing doors on the south elevation, which have been permanently sealed closed, we recommend correcting the back-sloped sill flashings on top of the concrete curbs to properly slope to drain to the exterior. Additionally, we recommend providing a traffic coating or waterproofing membrane and flashing over the concrete curb that is kerfed into the surrounding pavement to prevent water from travelling beneath the curb to the exterior. At any doors where gaps are visible at operable joints, install additional gasketing and/or sweeps to reduce water intrusion and air leakage.
BE-11	→ (2-5 Year Repair Horizon) At the newer window frames on the south elevation at the ground floor, we recommend reinstalling the disengaged gaskets between glass and frame on the interior to reduce air leakage and water penetration risk.

2.1.6. Miscellaneous Steel Elements

Description

Miscellaneous exterior steel elements are present across multiple elevations and consist of architectural and functional components attached to the primary steel structure. These include a painted steel gantry crane rail located along the south elevation, which serves as a historic and architectural feature, and a fixed access ladder installed along the west elevation.

The crane rail penetrates through the exterior brick masonry wall assembly, with concealed connections anchored back to the building's primary structural frame (Figure 42). The access ladder is surface-mounted to the exterior brick (Figure 43). They both allow for incidental water to pass behind the element and drain along the exterior wall surface.

Interface conditions occur at penetrations and attachments through the brick masonry where the steel elements connect to the underlying structure. These transitions rely on localized sealant and paint to limit moisture entry at attachment points.

Condition

- → The gantry crane rail along the south elevation exhibits limited surface corrosion and paint coating deterioration consistent with long-term UV exposure to a marine environment (Figure 44).
- → The access ladder at the west elevation is severely corroded in areas with sectional loss and is no longer in serviceable condition (Figure 45). It appears that access to the ladder from the roof has been limited and is no longer intended for use.
- → The corrosion of steel elements is due to prolonged exposure to UV and environmental conditions including salt-laden air and exacerbated by lack of regular maintenance and deterioration of protective paint coatings.

Recommendations

RECOMMENDATION	
BE-12	→ (2-5 Year Repair Horizon) We recommend abrasively removing all surface corrosion from the miscellaneous steel components, priming with a zinc rich primer, and painting to match existing. If any significant sectional loss exists, steel repair/retrofit may be required including repair design with the assistance of a structural engineer.
BE-13	→ (0-1 Year Repair Horizon) Confirm that the existing ladder on the west elevation is abandoned and no longer in use due to the significant corrosion and sectional loss present. If planned to be used in the future, significant steel repair and replacement will be required. If no longer in use, remove the ladder to prevent detachment from the building.

2.2. Roofs and Drainage

2.2.1. Steep Sloped Roof

Description

The building incorporates two primary steep-sloped roof assemblies: an upper sawtooth roof and a main sloped roof. The roofs are separated by a sloped skylight on the north and south sides of the roof ridge. The upper sawtooth roof appears to be original to the 1931 construction, consisting of corrugated transite panels spanning over steel purlins and the primary steel structural frame (Figure 46). Note transite was widely used in construction materials from the 1920s to 1980s and typically contains asbestos. Multiple layers of surface-applied coatings appear to have been installed over the transite panels at various times to provide weather protection and extend service life of the system (Figure 47). The panels appear to have been most recently restored with a fiberglass/asphalt type emulsion and top coated with an acrylic or aluminum-based roof coating, which is likely at least 10-15 years old.

The main sloped roof appears to be a replacement metal panel system of undetermined age. The main sloped roof consists of corrugated metal roofing panels, also spanning over steel purlins and attached to the primary steel structure (Figure 48). This metal panel product also is installed vertically above the roof surface as a sloped wall-cladding that transitions to the skylight assembly. Construction documents associated with the 2008 rehabilitation identify the main roof structure as an existing corrugated metal deck, meaning it was likely replaced prior to the 2008 rehabilitation.

Both roof assemblies are configured as face-sealed systems and do not incorporate a dedicated underlayment or concealed drainage plane. Weather resistance is provided primarily by the continuity of the exterior roofing panels, applied coatings, and surface-applied sealants at laps, fasteners, and penetrations. Acoustic insulation panels are installed at the interior side of the roof assemblies.

Key transitions occur at roof-to-wall and roof-to-parapet conditions, skylight curbs, expansion joints, and multiple roof penetrations, including mechanical equipment and parapet bracing. The performance of the assemblies relies on the integrity of surface-applied flashing and sealant detailing at these interfaces and associated regular maintenance.

Condition

The steep-sloped roof assemblies are generally in fair condition for their ages, with systemic deficiencies associated primarily with interface detailing and aging surface treatments. The applied coatings at the upper sawtooth roof exhibit some signs of deterioration, including areas of thinning, cracking, and loss of adhesion, reducing their effectiveness as a continuous weathering surface (Figure 49). We observed that localized coating repairs have been applied at various locations, suggesting that leaks may have occurred in the past (Figure 50). Transite panels appear rigid where reviewed and do not show significant signs of deterioration or moisture damage.

- → No significant deterioration of the main roof's exposed metal roofing panels was observed; however, the system's reliance on face-sealed detailing and the absence of a secondary drainage plane increases vulnerability to water intrusion when sealants and flashing degrade over time. We observed that some fastener penetrations are corroded and/or have been cap-sealed with sealant or waterproofing products at select locations, likely to prevent water ingress (Figure 51). At interfaces with brick parapet assemblies on the east and west elevations, there is a sheet metal counter-flashing that laps over the metal roof and is terminated into a kerf cut in the brick parapet wall, also performing a barrier function (Figure 52).
- → Most penetrations are detailed with a liquid-flashing product that extends several inches up the penetration (Figure 53). However, at some mechanical penetration locations on the interior side, we observed water staining and potential signs of water intrusion below, indicating potentially compromised watertightness at these interfaces or associated mechanical leaks. In several areas on the roof, the interior of the building was visible through gaps around the perimeter of mechanical equipment penetrations, indicating discontinuities in the air and water barrier functions.
- → The acoustic roof insulation on the interior side of the roof is poorly secured and detached in many locations across the building (Figure 54).

The observed deficiencies are systemic across the roof areas are expected based on design limitations inherent to the face-sealed approach, aging of coatings and sealants, and limited robustness of penetration detailing under long-term environmental and UV exposure.

Recommendations

RECOMMENDATION	
BE-14	→ With regular maintenance and if there are limited reports of water intrusion through the steep-sloped roof assemblies, we expect these assemblies could continue to perform for 10+ years. A. (2-5 Year Repair Horizon) At the upper sawtooth roof, we recommend re-coating the transite panels with an additional fluid-applied roofing product to extend the service life of the panels in the next 2-5 years. It may be possible to continue to re-coat approximately every 10-15 years depending on the condition of the panel and the coating product used, however, longer term we recommend replacing the transite panels with a corrugated metal panel assembly similar to the main sloped roof assembly. B. (2-5 Year Repair Horizon) At the main sloped metal roof, we recommend resealing all fastener penetrations, metal laps/joints, and counterflashing interfaces with adjacent assemblies. C. (2-5 Year Repair Horizon) At all roofs, install additional liquid flashing at penetrations through roof such as pipes, parapet braces, mechanical curb penetrations, and vents where failing or deteriorated. If water intrusion has been observed, immediate repair is necessary. D. Re-attach poorly secured acoustic insulation with suitable stick pins or intermittent adhesive if still required for building usage and acoustic goals.

2.2.2. Low Sloped roof

Description

Low-slope roof areas are located within the central portions of the upper sawtooth roof assembly and along the north and south edges of the main roof. The installation date and original construction details of these roof areas are not confirmed; however, the assembly may have been installed as part of the 2008 rehabilitation project, and appear to be at least 15 years old.

The roof system consists of a multi-ply bituminous membrane assembly with granulated surfacing, installed over an unknown substrate (Figure 55). The roof areas are sloped to drain east and west to regularly spaced internal roof drains, with surface crickets and localized slope intended to direct water toward the drainage points. The roof is sloped approximately ¼" per foot

with localized areas of poor slope. There are no dedicated overflow drains, however the southern portion of the roof can overflow behind the FRP.

At transitions to the adjacent steep-sloped roofing, the low-slope membrane extends upward and terminates beneath the corrugated metal roof panels. At the south elevation, where the roof assembly interfaces with the thin-brick over FRP parapet system, the membrane transitions to a black, likely EPDM, membrane that laps down over the exterior masonry wall assembly below (Figure 56). At the base of this transition to the window head below, we observed there is a significantly corroded metal angle with severe sectional loss, however this steel appears to have been abandoned after the parapet collapse in the Loma Prieta earthquake and no longer a part of the support system for the FRP parapet frame (Figure 57).

The performance of the low-slope roof assembly relies on membrane continuity, proper slope toward drains, and effective termination and lap detailing at penetrations, parapet interfaces, and transitions to adjacent roofing systems.

Condition

The low-slope roof assembly is generally in fair condition, with systemic drainage-related concerns observed. Accumulation of organic material and localized ponding were observed in several areas in between drains, indicating limited slope and reduced drainage (Figure 58 - Figure 60). In multiple locations, particularly along the southern edge of the building, the roof surface appears to slope slightly back toward the adjacent steep-sloped roofing rather than consistently toward the internal drains.

No interior leakage associated with these roof areas was observed at the time of the assessment. However, the presence of standing water and organic debris suggests increased risk of accelerated membrane aging and localized deterioration.

Recommendations

	RECOMMENDATION
BE-15	→ (5-10 Year Repair Horizon) We recommend removing and replacing the existing low-sloped bituminous membrane assembly at minimum on the lower roofs on the north and south elevation, and correcting the existing slope with new crickets to promote drainage to area drains. We recommend providing a 2-ply Styrene-Butadiene-Styrene (SBS) roof assembly in this area that can tuck under the adjacent corrugated metal roofing, and lap down over the adjacent brick wall assembly. Below the FRP assembly, we recommend adding a band of reinforced PMMA liquid flashing that can tuck into the recess and onto the brick wall below the roof line, at the window head.

2.2.3. Skylights

Description

Skylights are installed within the main roof sawtooth assembly and are supported by the building's primary steel structural system. The skylights do not appear to be original and the exact installation date is not confirmed; however, 2008 renovation drawings reference existing glass, suggesting that the skylight assembly was not replaced in 2008. We estimate the system is in excess 20-30 years old.

The skylights consist of aluminum-framed window assemblies with single-pane, exterior-glazed glass lites (Figure 61). The framing system incorporates internal drainage pathways, including weep openings at the sill and drained vertical mullion assemblies, intended to collect and redirect incidental moisture and condensation to the exterior at horizontals (Figure 62). There is an integral interior condensation gutter at the sill of the frame (Figure 63).

The skylight frames interface directly with the adjacent steep-sloped roofing system, relying on surface-applied metal flashing, sealants, to maintain continuity of the water barrier functions across the transition to the corrugated metal panel below (Figure 64). We observed some localized corrosion at some metal flashing fasteners, likely due to galvanic action between the two materials.

Condition

The skylight assemblies are generally in fair condition. Minor pitting and aluminum oxide formation was observed on the framing mullions. No water staining or accumulation was observed within the interior condensation gutters during our review, and the weep openings appeared unobstructed at the locations reviewed.

No active interior leakage or moisture-related damage associated with the skylights was observed at the time of the assessment. Due to the presence of wept and drained components, some degree of air leakage is considered inherent to the system design.

Recommendations

RECOMMENDATION	
BE-16	→ (5-10 Year Repair Horizon) We recommend continuing to monitor the skylight frame for signs of water intrusion and/or frame sealant failure, and replace seals as required. Also plan to replace any significantly corroded fasteners and seal all penetrations approximately every 5-10 years.

2.2.4. Roof Expansion joint

Description

A roof expansion joint system is installed at both the main roof and upper sawtooth roof areas to accommodate differential movement between adjacent structures and roof assemblies. The system is not original to the 1931 construction and is believed to have been installed as part of a rehabilitation effort, potentially in 2008.

The expansion joint assembly consists of an EPDM bellows system integrated with surface-applied metal flashing components (Figure 65). The joint is configured as a face-sealed barrier system intended to maintain continuity of the roof's water and air barrier functions while allowing for thermal and structural movement, and relies on the integrity of the EPDM bellows, metal flashing, and sealant at terminations and lap conditions. The expansion joint interfaces with adjacent steep-sloped roofing panels and skylight assemblies.

Condition

The roof expansion joint system is generally in fair condition. We observed minor corrosion at metal flashing and fastener components, and localized sealant deterioration at select locations along the EPDM bellows at joints and seams. We also observed organic growth on the expansion joint material at some locations (Figure 66).

There was no evidence of active water intrusion, moisture migration, or interior leakage associated with the expansion joint at the time of the assessment. The system appears to be functioning as intended, although the observed sealant and coating deterioration indicates early stages of age and UV-related degradation and potential future water intrusion. While current risk is considered low, continued deterioration may increase the potential for leakage at terminations if not addressed through routine maintenance.

Recommendations

RECOMMENDATION	
BE-17	→ (5-10 Year Repair Horizon) We recommend monitoring and re-sealing failed joints/seams approximately every 5-10 years. Regularly clean debris and organic material off the expansion joint to monitor for signs of cracking or failure of the bellows membrane. Additionally, remove and replace any significantly corroded fasteners and cap seal over fastener heads.

3. Waterfront Edge

RDH performed site visits on January 12, 13, and 16, 2026, to review the condition of the Craneway Pavillion building from boat and by underwater inspection to review the submerged concrete piers and underslab conditions.

3.1. Concrete Piers

Description

The structure is a reinforced concrete waterfront pier situated along the San Francisco Bay shoreline. It comprises a cast-in-place concrete deck supported by a system of concrete beams, pile caps, and vertical piles (Figure 67). Portions of the pile system are located within the tidal zone, subjecting them to regular wet–dry cycling, chloride exposure, and intermittent wave impact. Tidal fluctuations in the area cause segments of the piles to remain partially or fully submerged during high tide and exposed during low tide (Figure 68). Above the tide line, the exposed concrete surfaces are coated with a black, elastomeric fluid-applied membrane. The underside of the suspended slab shows evidence of an asphaltic self-adhered membrane previously applied to the concrete. Additional ancillary components are affixed along the deck edges and beneath the deck throughout the site, including utility conduits, fender piles, and cleats or other mooring hardware.

Condition

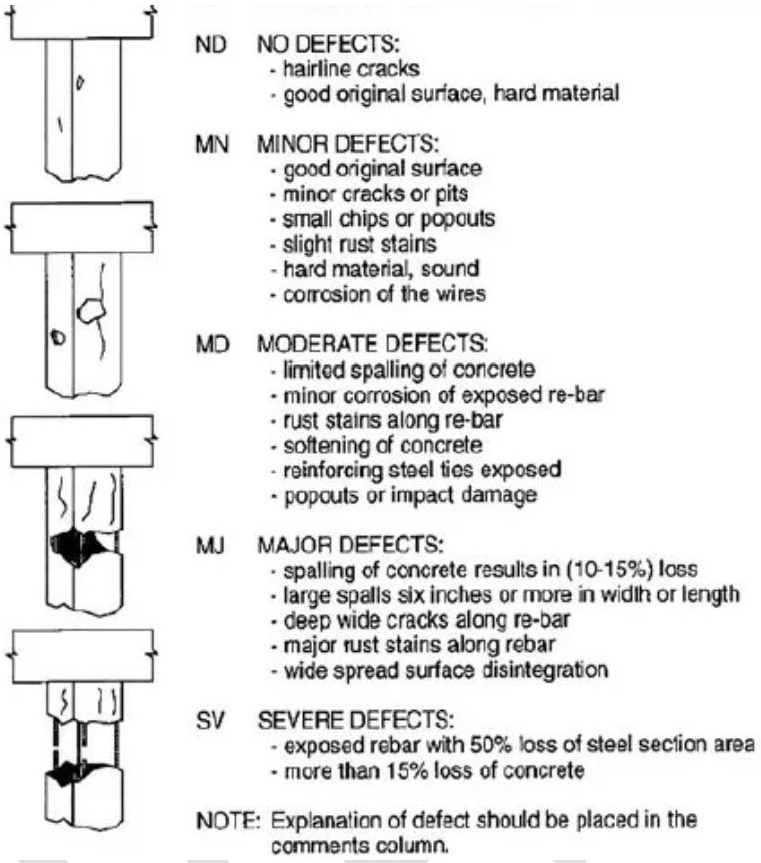
The pier is generally in fair to poor condition, with areas of deterioration consistent with a concrete marine structure of its age and environmental exposure. The primary deterioration mechanisms observed include chloride-induced reinforcement corrosion, spalling, cracking, and surface abrasion within the tidal zone.

Concrete pile and pier conditions vary significantly across the site. Deterioration typically occurs through three mechanisms:

- → Physical processes such as wetting–drying cycles, erosion, cavitation, and salt crystallization.
- → Chemical processes involving dissolved salts, oxygen, carbon dioxide, and sulfates present in seawater.
- → Biological activity, including attachment or intrusion by marine organisms such as mollusks, barnacles, and other organic growth.

In general, piles located near the perimeter of the suspended dock exhibit more advanced deterioration compared to those closer to the interior. This is likely due to increased exposure to moisture, sunlight, wave action, and localized turbulence near the breakwaters, all of which amplify erosion and corrosion risks. Much of the observed deterioration is concentrated in the tidal zone - the region that cycles between exposure and submergence with tidal changes - where the combination of chlorides, oxygen availability, mechanical wear, and frequent wet–dry cycling accelerates reinforcement corrosion.

Pier conditions were categorized into four condition groups (adapted from the U.S. Navy's Naval Facilities Engineering Systems Command - NAVFAC), as shown in Photo 1, based on observed characteristics such as spalling severity, crack patterns, and visible corrosion staining of embedded reinforcing steel.



/ Photo 1 – Concrete Pile Condition Rating Scale adapted from the U.S. Navy's Naval Facilities Engineering Systems Command - NAVFAC

Approximately 90% of the piers were reviewed at low tide over two days at locations accessible by boat, via visual inspection from a maximum of one column bay away. Following the visual assessment, we performed physical inspections on a subset of piers with the assistance of a diver. These inspections included close-range underwater visual review and hammer sounding, with emphasis on the first three rows of piers from the exterior (Figure 69).

A more detailed evaluation was also conducted at selected piers where 12-inch-wide bands of marine growth were removed at three elevations: near the tidal zone, midway down the pile toward the seabed, and near the bottom of the pile. Removal of marine growth allowed assessment of the underlying concrete surface and any deterioration concealed beneath biological deposits. In general, observed cracking, spalling, and related deterioration were most pronounced in the tidal zone or in the fully exposed zone, and in some instances propagated downward into the fully submerged zone, typically terminating a few feet below the tidal elevation.

Conditions in the continuously submerged portions of the piers were generally better than those in the tidal zone. This trend is common for marine concrete structures because, although submerged concrete is exposed to chlorides, deterioration progresses more slowly in the absence of oxygen, wet–dry cycling, temperature fluctuations, and significant mechanical abrasion. These factors greatly reduce reinforcement corrosion rates and slow overall deterioration.

A summary of observed pier conditions is provided in Table 3.1 below. Sample photos of Minor and Moderate Defect condition categories observed are shown in Figure 70 & Figure 71. Sample photos of Major and Severe Defect condition categories are shown in Figure 72 to Figure 75. One failed and detached pier on the south elevation is shown in Figure 76.

Additionally, there are various deteriorated wood and steel pilings along the south elevation likely previously used for docking boats, which are significantly deteriorated and appear to be no longer in use. The wooden pilings have significant sectional loss and, and the steel pilings are corroded (Figure 77 & Figure 78). There is also a dock along the south elevation that has failed and is partially submerged, and also no longer in use (Figure 79).

TABLE 3.1

Category of Condition Observed	Number of Occurrences Observed
Minor Defects (MN)	14
Moderate Defects (MD)	80
Major Defects (MJ)	60
Severe Defects (SV)	30

Recommendations

RECOMMENDATION	
WE-1	→ (5-10 Year Horizon Repair) For Minor Defect (MN) and Moderate Defect (MD) categories: We recommend performing epoxy injection of any non-moving cracks with a 100 percent solid, 100 percent reactive epoxy with low curing shrinkage, tested to cure underwater and bond to water filled saturated cracks in salt water. For any minor delamination or spalling, loose material should be removed down to sound concrete and behind any reinforcing steel a minimum of one-inch, corrosion abrasively removed from reinforcing steel, and any exposed steel coated with a suitable epoxy barrier coating to reduce the risk of corrosion. Consider the inclusion of a suitable anode system to reduce the rate of corrosion of steel reinforcing. For smaller repairs, hand-patches of Portland/hydraulic cement or epoxy marine-grade mortars should be used that are suitable for the exposure to saltwater. Given our survey was primarily visual in nature and of a sample of conditions, we recommend performing 100% physical inspection of all piers prior to implementing repairs to determine appropriate repair quantities, and/or carrying a contingency for any additional repair areas.
WE-2	→ (0-1 Year Horizon Repair) For Major Defects (MJ) and Severe Defect (SV) categories: We recommend performing similar repairs as for categories MN and MD above as applicable. After loose material and surface corrosion has been removed, and any required steel reinforcement replaced, we recommend wrapping piers with a suitable pile jacket system including a fiberglass, FRP, or PVC jacket and galvanic anode system to provide on-going galvanic current to mitigate active corrosion of steel reinforcing. Fill jacket with suitable grout/concrete repair material as needed. We recommend jackets extend from the sea floor up to the underside of slab, or at a minimum 4’ beyond any areas of deterioration and high tide line. Given our survey was primarily visual in nature and of a sample of conditions, we recommend performing 100% physical inspection of all piers prior to implementing repairs to determine appropriate repair quantities, and/or carrying a contingency for any additional repair areas.
WE-3	→ (1-2 Year Horizon Repair) We recommend removing the failed dock, deteriorated wooden pilings, and corroded steel pilings around the perimeter of the dock, if no longer in use. If still required for the building, removal and replacement in kind will be required.

3.2. Concrete Deck, Beams, and Pile Caps

Description

The reinforced-concrete waterfront pier consists of a cast-in-place concrete deck supported by a system of concrete beams, pile caps, and vertical piles. The concrete deck is a flat slab supported by longitudinal and transverse concrete beams that are supported by thickened pile caps over each pile.

Condition

The underside of the deck slab, beams, and pile caps exhibits widespread concrete deterioration and reinforcement corrosion. Observed conditions include:

- → Extensive delamination across large areas, with hollow-sounding zones identified during hammer sounding and several locations where material detached upon light contact.
- → Active spalling and significant underside slab deterioration, including multiple areas several feet in diameter (Figure 80 & Figure 81). Exposed reinforcing steel shows moderate to heavy corrosion, with localized sectional loss measuring up to 3–4 inches in depth. Where spalling has occurred, remaining concrete cover is minimal. Based on visual observations, we estimate that approximately 40% of the underside of the suspended slab will require some level of concrete spall repair.
- → Widespread cracking, including longitudinal cracking in areas with concentrated reinforcement, particularly near interfaces between the slab, pile caps, and beams.
- → Substantial deterioration of pile caps and beams, with the majority exhibiting delamination or spalling (Figure 82 & Figure 83). Damage is more pronounced near the perimeter of the structure, generally within three to four rows of piers from the exterior (Figure 84 & Figure 85). We estimate that at least 50% of the beams and pile caps will require concrete spall repair.

Overall, the extent and pattern of deterioration are indicative of active reinforcement corrosion, with a high likelihood of additional subsurface delamination beyond what is detectible through visual inspection alone.

Recommendations

RECOMMENDATION	
WE-4	→ (0-1 Year Horizon Repair) We recommend performing core sampling and petrographic analysis of the existing concrete to confirm chloride concentrations, carbonation depth, concrete quality and reinforcement section/cover at representative locations, as well as to confirm there is no Alkali-Silica Reaction (ASR) in the concrete prior to performing repairs. Also consider use of Ground Penetrating Radar (GPR) to assess the condition of the existing concrete slab from above in coordination with a structural engineer.
WE-5	→ (0-1 Year Horizon Repair) We recommend coordination with a structural engineer for review of more severely deteriorated beams and pile caps to provide specific repair details for areas with failed steel reinforcement, as well as to assess the pier foundations from a seismic upgrade ASCE 41 standpoint considering potential future use of the building.

RECOMMENDATION	
WE-6	→ (1-2 Year Horizon Repair) We recommend coordinating with a structural engineer for review of the suspended concrete slab from a structural perspective based on future use of the building. Repairs should include removal of all loose spalls and delaminated concrete, cleaning and treating exposed reinforcing steel, application of zinc-rich epoxy corrosion-inhibiting or protective coating, and replacement or repair of failed steel as needed. We also recommend inclusion of passive anodic protection to reduce the future risk of steel corrosion. Patch failed concrete sections using marine-grade repair mortars compatible with the surrounding concrete. A coating on the underside of the slab could also be considered to help reduce the rate of future deterioration, however we recommend confirming the recommendations in WE-4 & WE-5 prior to selection of any potential coating.

4. Summary

Distress and deterioration of the Craneway Pavilion is consistent with what would be expected for a building of this construction quality that has experienced prolonged periods of deferred maintenance. Our recommendations are based on a combination of factors including a limited review of available documentation, limited information collected at the building through visual observations, as well as experience and knowledge gained from investigations of many other buildings with similar assemblies and details. This condition assessment report presents conceptual level recommendations with respect to maintenance and repair activities. It is important to understand that these recommendations do not provide a basis for implementing remedial work. Further document review, exploratory openings, site visits and hygrothermal modeling investigations are recommended to better understand the potential retrofit options.

Thank you for the opportunity to review the Craneway Pavilion. RDH looks forward to continuing to support City of Richmond (CA) with repair design detailing and assemblies to meet the project needs. Should you have any questions or concerns with this report, please don't hesitate to contact the undersigned.

Sincerely,

Kurt Weninger | P.E. Associate, Senior Engineer kweninger@rdh.com RDH Building Science Inc.	**Reviewed by** **Tammy Siliznoff |** MS, P.E., LEED AP Principal, Specialist tsiliznoff@rdh.com RDH Building Science Inc.

5. Figures

Figure 1. West elevation Craneway Pavilion

Figure 2. Missing brick

Figure 3. Recessed mortar joint

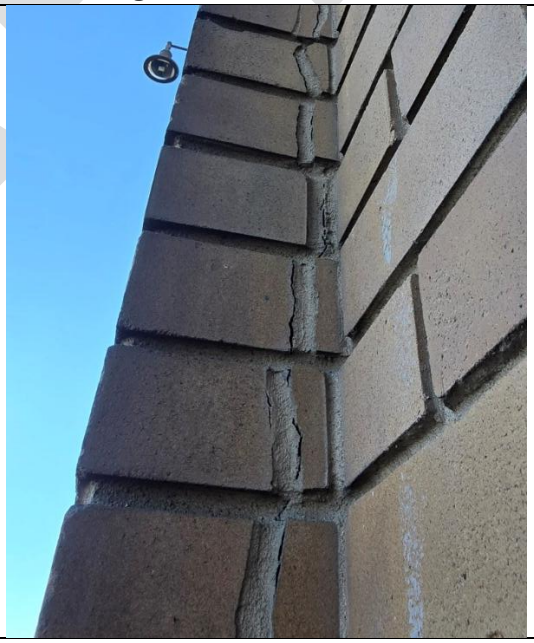


Figure 4. Vertical cracking near corner, previously filled with mortar

Figure 5. Vertical cracking and out-of-plane displacement at column on west elevation

Figure 6. Vertical cracking at interface between brick masonry wall and FRP/fiberglass brick-veneer clad parapet at corner

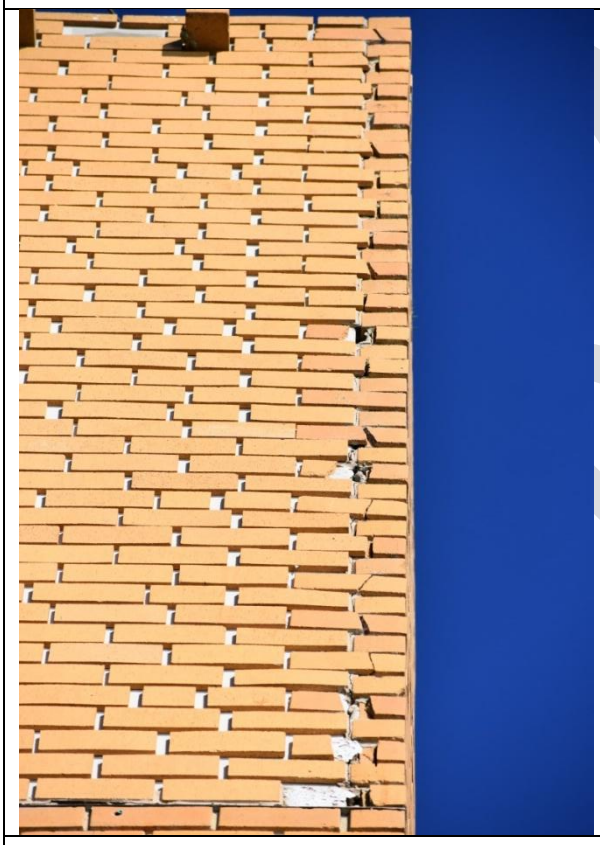


Figure 7. Vertical cracking at interface between brick masonry wall and FRP/fiberglass brick-veneer clad parapet at corner

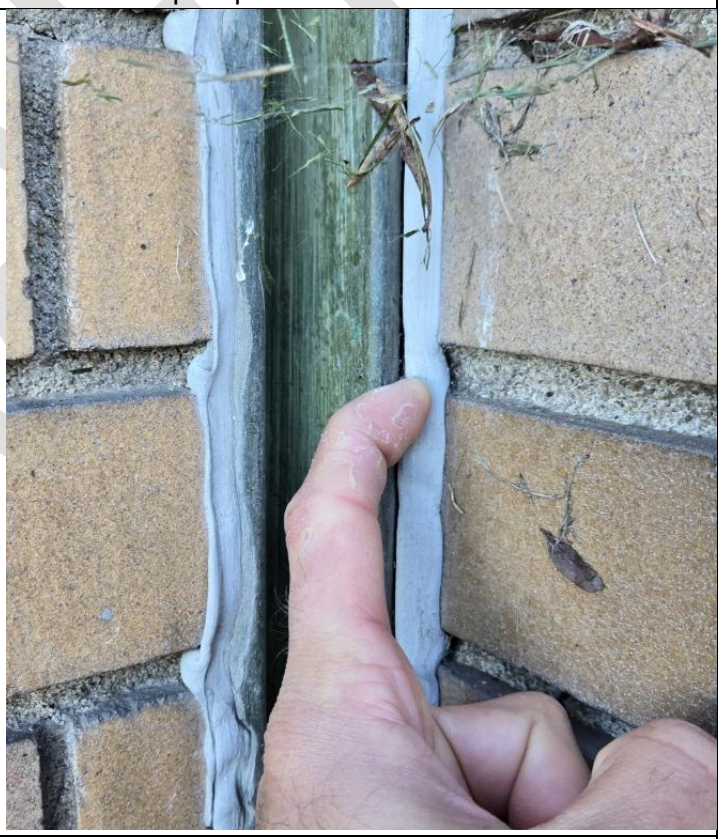


Figure 8. Sealant deterioration at vertical expansion joint on west elevation

Figure 9. Corrosion and sectional loss of lintel, previously painted over

Figure 10. Significant corrosion and sectional loss of lintel as viewed from interior

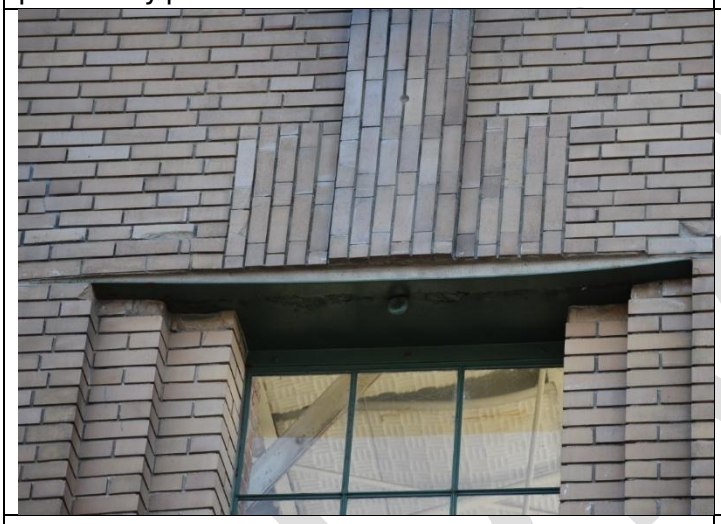


Figure 11. Deflection/sagging of brick lintel

Figure 12. Brick parapet braced back to roof deck

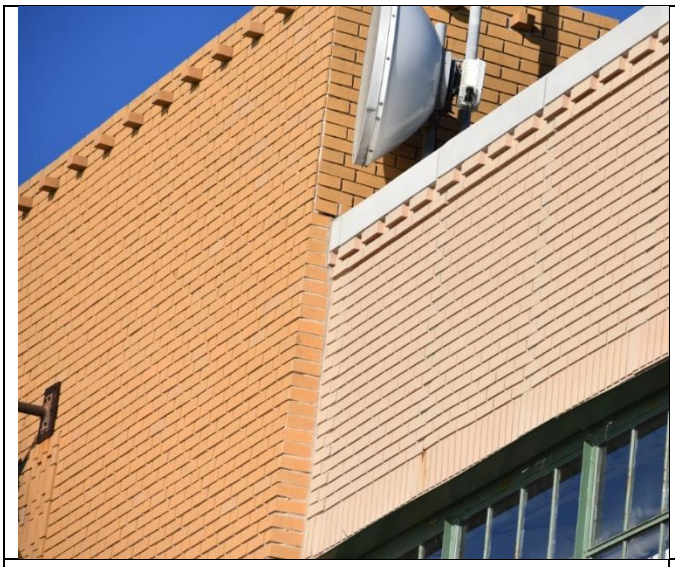


Figure 13. FRP/fiberglass panelized parapet assembly with adhered brick veneer; replacement for collapsed parapet in Loma Prieta earthquake

Figure 14. FRP/fiberglass panelized parapet assembly with adhered brick veneer; replacement for collapsed parapet in Loma Prieta earthquake

Figure 15. Thin brick veneer adhered to backing board

Figure 16. Overlapped joints of panelized parapet system

Figure 17. Interface between backside of parapet panelized wall system and SBS/EPDM roof membrane at ledge

Figure 18. Missing brick veneer units

Figure 19. Adhesive residue where veneer units have fallen from façade at panelized parapet system

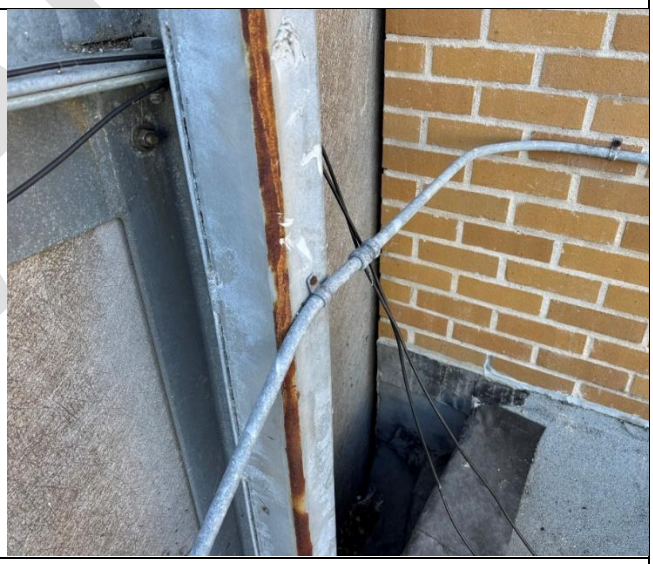


Figure 20. Minor surface corrosion of tube steel frame of FRP/fiberglass panelized parapet system

Figure 21. Granite at base of wall

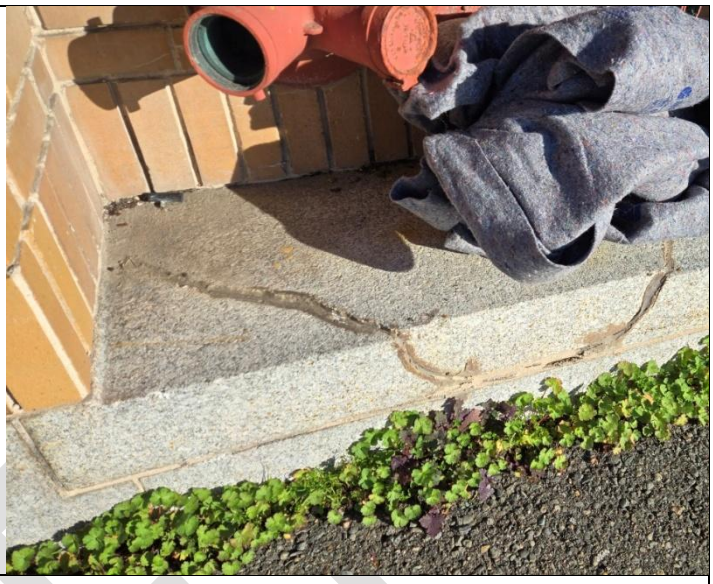


Figure 22. Cracking through granite at base of wall, previously sealed/epoxied

Figure 23. Spalling and corrosion staining at granite stone base

Figure 24. Failing mortar at window interface with stone sill

Figure 25. East elevation of Craneway Pavilion, gunite wall above window bay

Figure 26. Vertical cracking through gunite wall

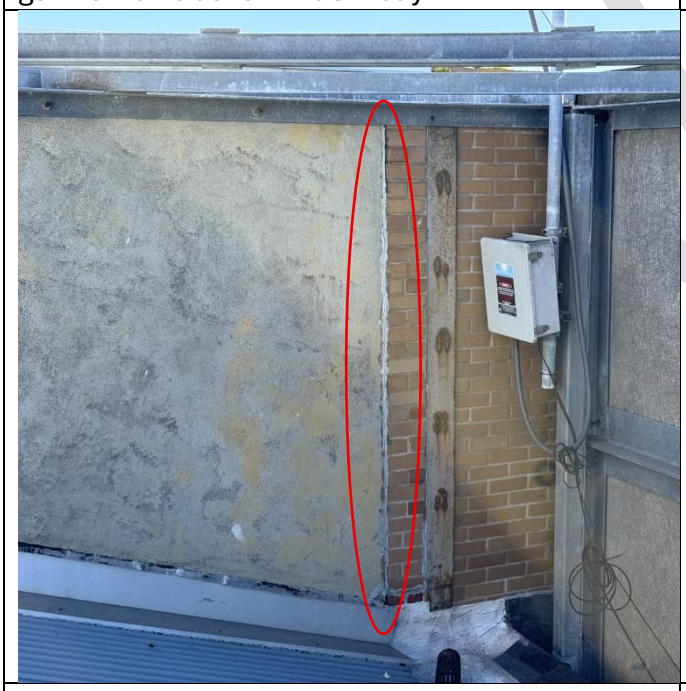


Figure 27. Failing sealant joint at interface with brick return wall near southeast corner

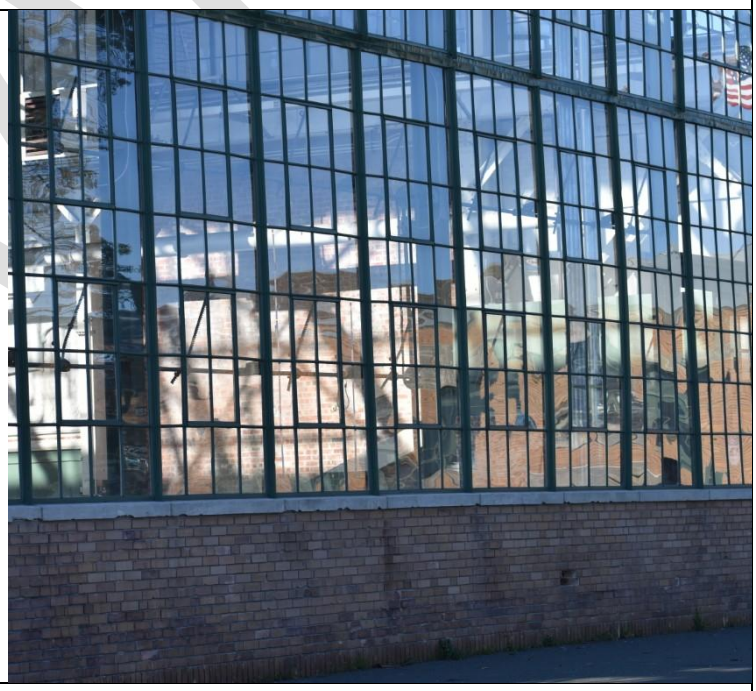


Figure 28. Existing steel-framed single-pane window system

Figure 29. Tempered glass lite stamp

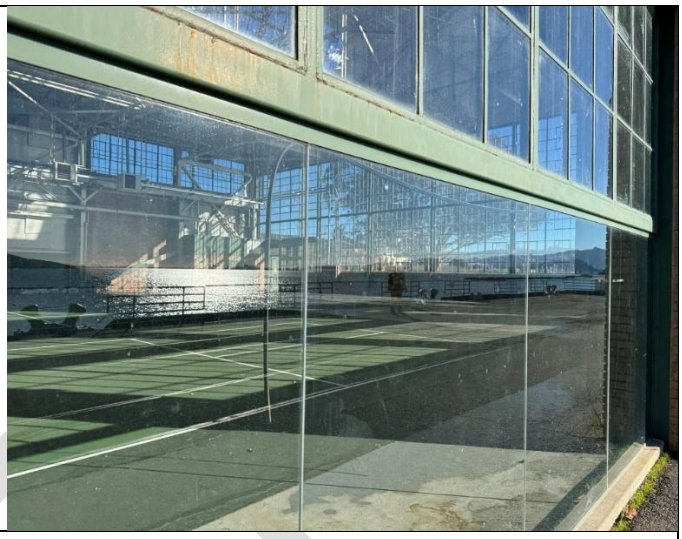


Figure 30. Newer butt-glazed window system on south elevation at ground floor

Figure 31. Shattered window pane

Figure 32. Signs of staining evident below new butt-glazed window system and concrete curb on south elevation

Figure 33. Ponding at base of painted overhead door on south elevation

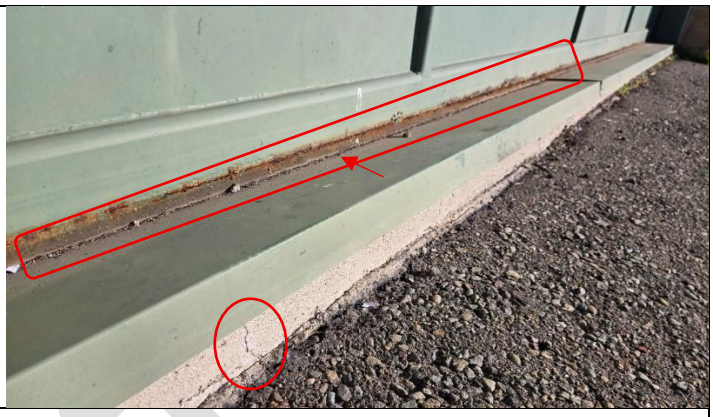


Figure 34. Back-sloped sill flashing, corrosion and sealant failure present. Hairline cracking through concrete curb

Figure 35. Disengaged gaskets at new butt-glazed window system on south elevation

Figure 36. Corrosion and paint failure on original steel window frames

Figure 37. Corrosion and paint failure on original steel door frames

Figure 38. Paint failure on wood door frame

Figure 39. Failed glazing putty, relatively widespread

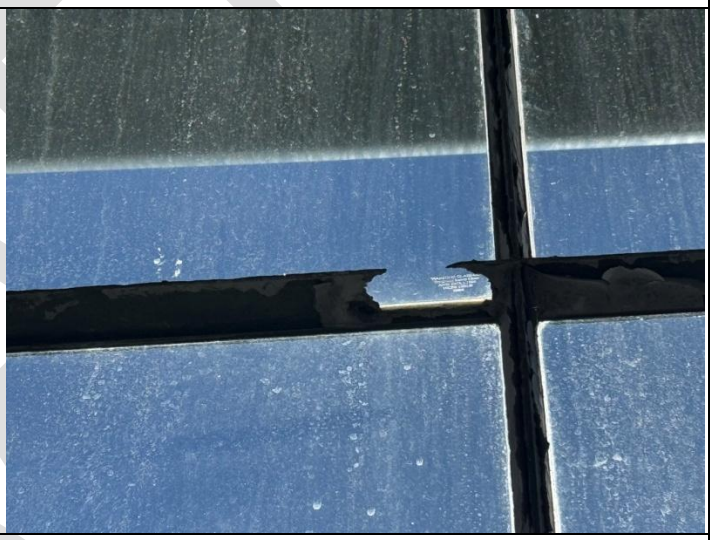


Figure 40. Sectional loss through frame muntin on interior

Figure 41. Gaps between adjacent door segments; not air and water tight

Figure 42. Surface corrosion and paint loss on steel gantry crane elements

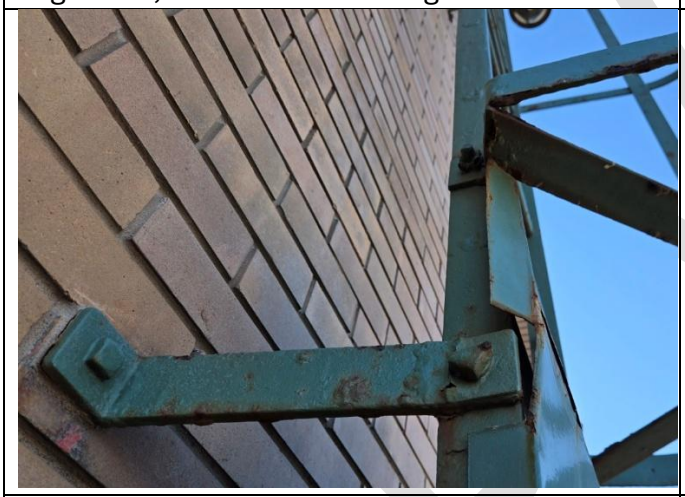


Figure 43. Surface corrosion and paint loss on ladder element

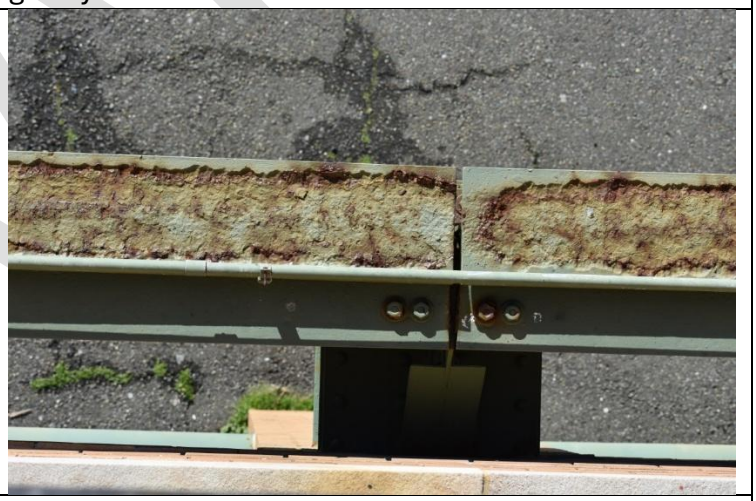


Figure 44. Surface corrosion and paint loss on steel gantry crane elements

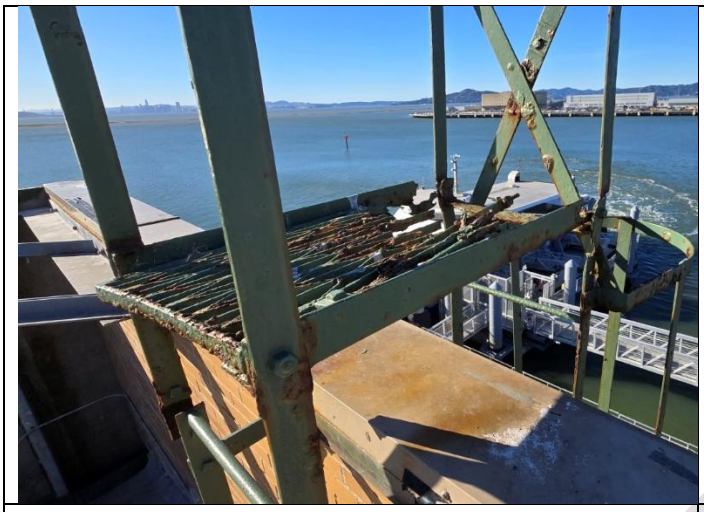


Figure 45. Significantly corroded ladder with sectional loss

Figure 46. Overview of steep-sloped coated transite roof panels at upper sawtooth roof

Figure 47. Steep-sloped coated transite roof panels at upper sawtooth roof

Figure 48. Overview of lower steep-sloped metal roof panels

Figure 49. Failing coating over transite panels

Figure 50. Targeted coating patches at transite roof panels

Figure 51. Localized liquid flashing/sealant over fastener penetrations; some corroded fasteners present

Figure 52. Surface mounted counter flashing between brick parapet and metal roof

Figure 53. Liquid flashing at parapet brace where penetrating through metal roof

Figure 54. Acoustic insulation board detached from underside of metal roof deck

Figure 55. Low-sloped bituminuous membrane at upper sawtooth roof

Figure 56. Transition from bituminuous membrane to EPDM membrane at roof edge condition adjacent to FRP/fiberglass parapet system

Figure 57. Significantly corroded steel angle behind base of newer parapet panelized cladding; likely abandoned

Figure 58. Ponding water near area drains

Figure 59. Organic material growth and ponding at low-spot near drains

Figure 60. Organic material growth and ponding at low-spot near drains

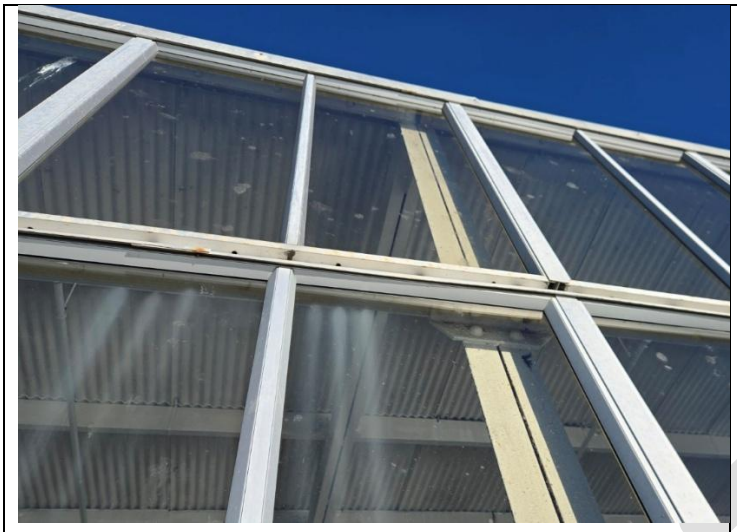


Figure 61. Overview of skylight assembly

Figure 62. Skylight drainage at vertical mullions

Figure 63. Condensation gutter at inside of skylight frame. Minor aluminum surface corrosion present on exterior surface

Figure 64. Drainage of vertical mullion. Corroded fasteners present at some locations

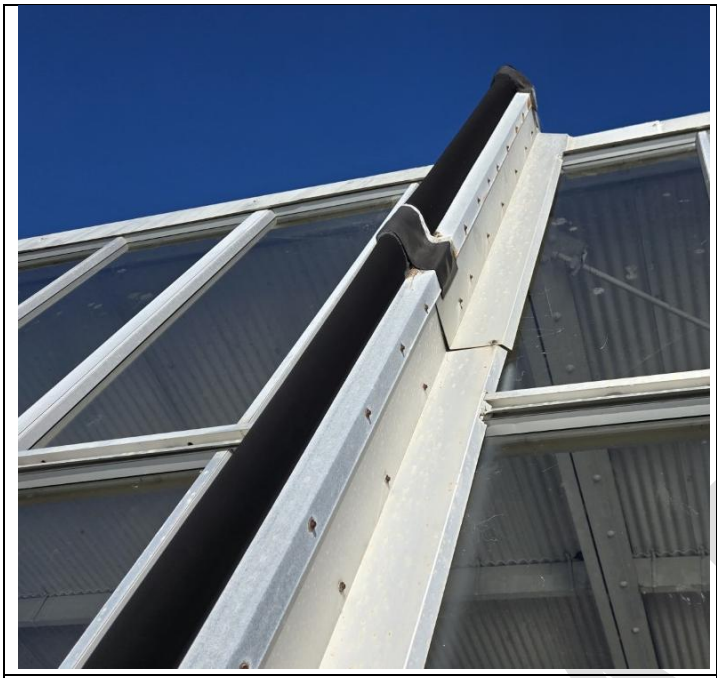


Figure 65. Expansion joint bellows transitioning across skylight assembly

Figure 66. Expansion joint bellows at roof edge with organic matter

Figure 67. Overview of concrete piers supporting slab

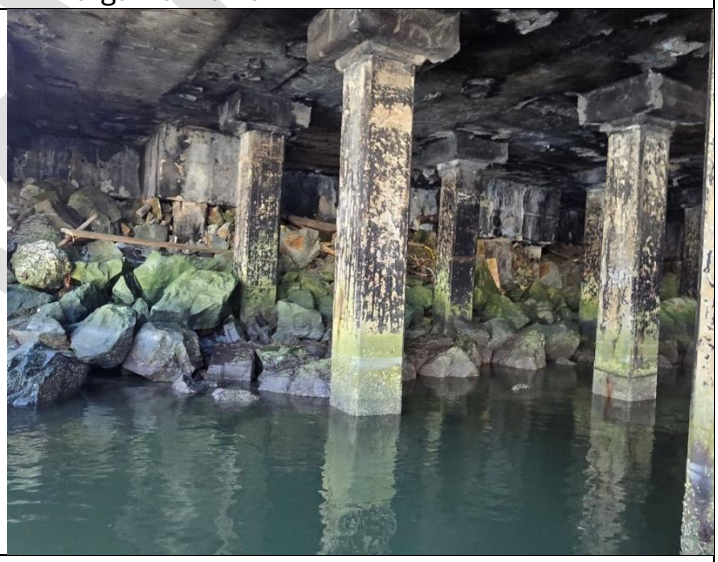


Figure 68. Tidal zone variation at piers, as viewed during low tide

Figure 69. View of cracking and rust staining extending several feet below waterline during low tide, as viewed by diver (*Photo provided by Power Engineering*)

Figure 70. Corrosion staining and minor cracking of pier – Moderate Defect Category

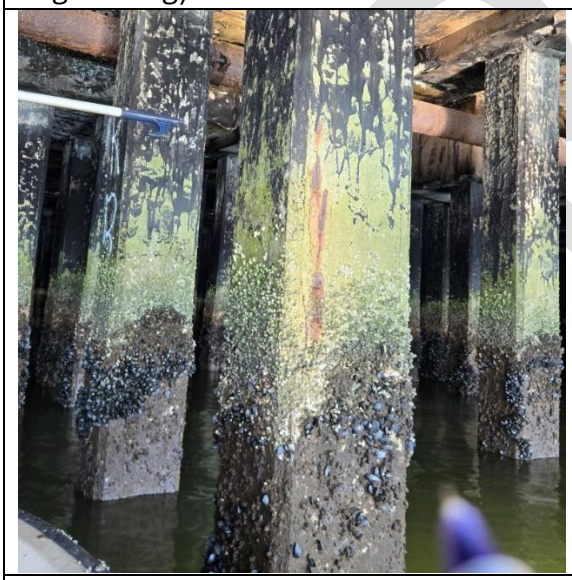


Figure 71. Corrosion staining and minor cracking of pier – Minor Defect Category

Figure 72. Significant spalling and sectional loss present – Severe Defect Category

Figure 73. Significant spalling and sectional loss present, corroded reinforcing visible – Severe Defect Category

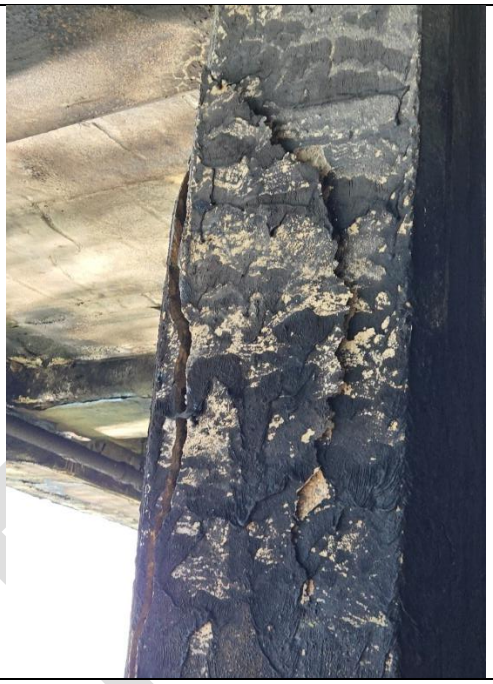


Figure 74. Significant spalling and sectional loss present – Severe Defect Category

Figure 75. Significant spalling and sectional loss present, corroded reinforcing visible – Severe Defect Category

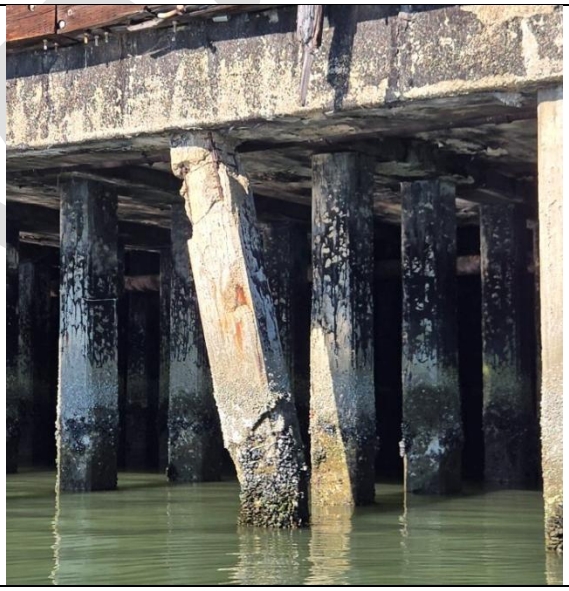


Figure 76. Significant spalling and sectional loss present, corroded reinforcing visible – Severe Defect Category

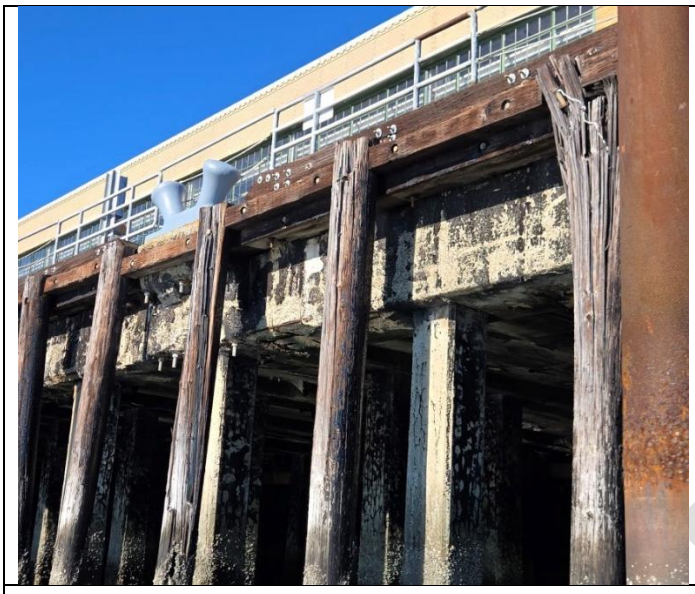


Figure 77. Deteriorated wooden pilings and corroded steel pilings

Figure 78. Deteriorated wooden pilings and corroded steel pilings

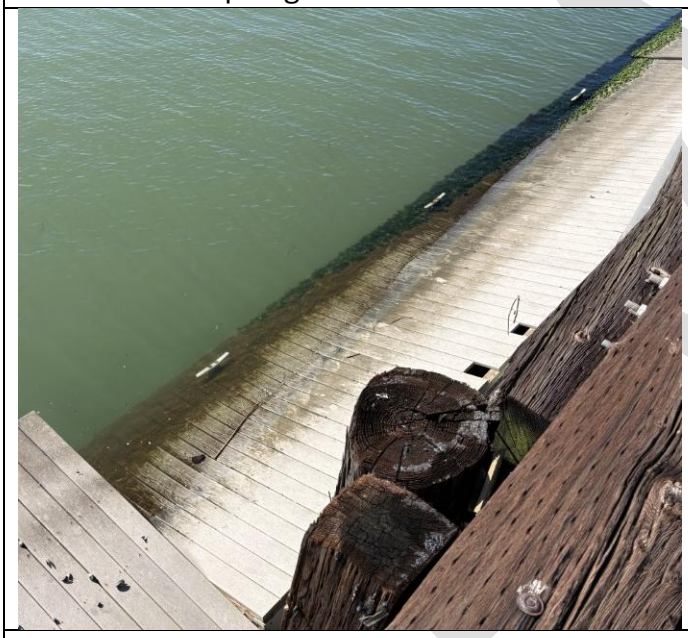


Figure 79. Partially submerged dock along southern elevation

Figure 80. Sectional loss at underside of slab and corrosion of reinforcing steel

Figure 81. Example of delamination and spalling at underside of slab

Figure 82. Spalling and sectional loss at underside of slab and beam, including corrosion of reinforcing steel

Figure 83. Spalling and sectional loss at underside of slab and beam, including corrosion of reinforcing steel

Figure 84. Spalling and sectional loss at perimeter beam, including corrosion of reinforcing steel

Figure 85. Spalling and sectional loss at perimeter beam, including corrosion of reinforcing steel

Appendix A

RDH Cost Estimates

RDH BUILDING SCIENCE

ROM Cost Estimates

Craneway Pavilion, Richmond CA

Issued Februry 6, 2026. Revised April 14, 2026.

TABLE 1 SUMMARY OF ROM COST ESTIMATES (ROUNDED)

Rec. No.	Description	Material, Labour, Access, & Mobilization	Contingencies & Soft Costs	Sub-Total	Assembly Total
	Brick				**$ 74,700**
BE-1A	Lintel stiffening retrofit	$ 12,000	$ 2,550	**$ 14,550**	
BE-1B	Lintel corrosion removal and steel splice repair	$ 22,000	$ 4,650	**$ 26,650**	
BE-2A	Brick and mortar replacement (in-kind repair)	$ 6,000	$ 1,300	**$ 7,300**	
BE-2B	Vertical crack/displacement brick rebuild	$ 20,000	$ 4,250	**$ 24,250**	
BE-3	Expansion joint sealant replacement	$ 1,600	$ 350	**$ 1,950**	
	FRP				**$ 18,800**
BE-4A	FRP–masonry movement accommodation review	$ 13,000	$ 2,750	**$ 15,750**	
BE-4B	Missing adhered veneer brick reinstatement	$ 2,500	$ 550	**$ 3,050**	
	Stone				**$ 9,650**
BE-5A	Stone crack grout injection	$ 3,150	$ 650	**$ 3,800**	
BE-5B	Stone spall patch repair	$ 4,800	$ 1,050	**$ 5,850**	
	Gunite				**$ 3,100**
BE-6	Gunite crack sealing and interface joint repair	$ 2,550	$ 550	**$ 3,100**	
	Windows & Doors				**$ 559,350**
BE-7	Broken glazing replacement	$ 10,000	$ 2,150	**$ 12,150**	
BE-8	Glazing putty and point replacement	$ 162,400	$ 34,600	**$ 197,000**	
BE-9	Steel window frame corrosion repair and repainting	$ 270,700	$ 57,600	**$ 328,300**	
BE-10	Door sill flashing correction and weather-sealing upgrades	$ 16,500	$ 3,500	**$ 20,000**	
BE-11	Window gasket reinstallation	$ 1,550	$ 350	**$ 1,900**	
	Miscellaneous Steel				**$ 125,450**
BE-12	Miscellaneous steel corrosion mitigation	$ 98,400	$ 20,950	**$ 119,350**	
BE-13	Corroded ladder removal or rehabilitation	$ 5,000	$ 1,100	**$ 6,100**	
	Sloped Roof				**$ 576,550**
BE-14A	Sawtooth transite roof recoating / future replacement	$ 344,700	$ 73,300	**$ 418,000**	
BE-14B	Metal roof fastener and joint resealing	$ 71,850	$ 15,300	**$ 87,150**	
BE-14C	Roof penetration liquid flashing repairs	$ 18,200	$ 3,850	**$ 22,050**	
BE-14D	Acoustic insulation reattachment	$ 40,700	$ 8,650	**$ 49,350**	
	Low-Slope Roof				**$ 631,250**
BE-15	Low-slope SBS roof replacement and drainage correction	$ 520,500	$ 110,750	**$ 631,250**	
	Skylight				**$ 46,450**
BE-16	Skylight seal, fastener, and penetration maintenance	$ 38,300	$ 8,150	**$ 46,450**	
	Expansion Joint				**$ 5,950**
BE-17	Expansion joint resealing and maintenance	$ 4,900	$ 1,050	**$ 5,950**	
	Piers				**$ 1,077,300**
WE-1	Minor/moderate pier concrete and reinforcement repair	$ 136,300	$ 29,000	**$ 165,300**	
WE-2	Major/severe pier repair with pile jackets and corrosion protection	$ 752,000	$ 160,000	**$ 912,000**	
	Pilings & Dock				**$ 121,300**
WE-3	Dock and deteriorated piling removal or replacement	$ 100,000	$ 21,300	**$ 121,300**	
	Deck, Beams, & Caps				**$ 4,579,850**
WE-4	Concrete testing and condition assessment	$ 10,000	$ 2,150	**$ 12,150**	
WE-5	Structural review of deteriorated beams and pile caps	$ 5,000	$ 1,100	**$ 6,100**	
WE-6	Suspended slab concrete repair and corrosion protection	$ 3,761,350	$ 800,250	**$ 4,561,600**	
	Total	**$ 6,455,950**	**$ 1,373,750**	**$ 7,829,700**	**$ 7,829,700**

RDH BUILDING SCIENCE

ROM Cost Estimates

Craneway Pavilion, Richmond CA

Issued Februry 6, 2026. Revised April 14, 2026.

Notes

- The cost estimates includes: material and labour costs, access and mobilization (general conditions), construction contingency (for unforeseen conditions that may arise during construction), soft costs (consulting fees, permit fees, and taxes), and project contingency (discretionary funds held by owner for potential cost increases).
- The cost estimates exclude hazardous materials testing and abatement.
- No allowances have been included for future cost escalation. All figures are in current dollars.
- The cost estimates are intended to provide an approximation of the likely cost of the project based on information available at the time it was prepared. It is not a guarantee of the final project cost.
- The cost estimates are considered Rough Order of Magnitude (ROM) and are subject to change. Factors affecting cost include: changing market conditions; changes to the project design and scope of work; changes to the project duration; unforeseen conditions arising during construction; the accuracy of the original construction drawings relative to the as-built condition of the building.
- The cost estimates are confidential and shouldn't be shared with outside parties without prior consent from RDH. Disclosing the cost estimate to contractors may impact pricing at the time of project tender.
- All figures rounded.

TABLE 2 ROM COST ESTIMATES

Rec. No.	Assembly	Description	Scope of Work	Horizon (Years)	Quantity	Unit	Material, Labour, Access, Mobilization Unit Rate	Material, Labour, Access, Mobilization Cost	Construction Contingency 10%	Soft Costs 5%	Project Contingency 5%	Total
BE-1A	Brick	Lintel stiffening retrofit	Stiffen sagging/deflecting lintels with retrofit of additional steel reinforcing	2-5	8	lf	1,500.00	$ 12,000	$ 1,200	$ 660	$ 693	**$ 14,553**
BE-1B	Brick	Lintel corrosion removal and steel splice repair	Remove surface corrosion from all exposed lintels, if applicable, splicing additional metal section at areas where sectional loss exists	2-5	88	lf	250.00	$ 22,000	$ 2,200	$ 1,210	$ 1,271	**$ 26,681**
BE-2A	Brick	Brick and mortar replacement (in-kind repair)	We recommend removing and replacing all cracked, chipped, spalled, or missing bricks and mortar in kind to match existing. All replacement mortar and bricks shall be selected to match the strength, thermal and moisture management characteristics of the existing brick and mortar assembly.	2-5	12	ea	500.00	$ 6,000	$ 600	$ 330	$ 347	**$ 7,277**
BE-2B	Brick	Vertical crack/displacement brick rebuild	Rebuilding area with long vertical crack/displacement	2-5	2	ea	10,000.00	$ 20,000	$ 2,000	$ 1,100	$ 1,155	**$ 24,255**
BE-3	Brick	Expansion joint sealant replacement	We recommend removing and replacing any failing vertical sealant joints at expansion joints where deteriorated, and to plan for replacement every 10 years if a polyurethane product, 20 years if a silicone product.	0-1	80	lf	20.00	$ 1,600	$ 160	$ 88	$ 92	**$ 1,940**
BE-4A	FRP	FRP-masonry movement accommodation review	To reduce the risk of further cracking or thin brick delamination on the FRP panels, we recommend a structural engineer review the interfaces between the mass masonry walls and the thin-brick clad FRP panels at the southwest and southeast corners of the building at the parapet height and comment on a suitable provision for movement between the two systems. This could include an intentional expansion joint gap filled with sealant joint over backer rod or silicone sheet at the interface between the two systems to permit movement.	2-5	26	lf	500.00	$ 13,000	$ 1,300	$ 715	$ 751	**$ 15,766**
BE-4B	FRP	Missing adhered veneer brick reinstatement	Reinstall replacement adhered veneer bricks at locations where missing utilizing a suitable adhesive/mortar and/or appropriate mechanical anchorage.	2-5	25	sf	100.00	$ 2,500	$ 250	$ 138	$ 144	**$ 3,032**
BE-5A	Stone	Stone crack grout injection	We recommend injecting cracks through the stone elements with a suitable cementitious grout injection to prevent further water ingress and associated future deterioration of the stone elements.	5-10	9	lf	350.00	$ 3,150	$ 315	$ 173	$ 182	**$ 3,820**
BE-5B	Stone	Stone spall patch repair	At spalled areas, remove any loose material and patch with a compatible repair material, ensuring patch material is matched to the finish of the granite and stone sill elements appropriately.	2-4	4	ea	1,200.00	$ 4,800	$ 480	$ 264	$ 277	**$ 5,821**
BE-6	Gunite	Gunite crack sealing and interface joint repair	We recommend routing and sealing the cracks in the Gunite wall with a compatible exterior paintable sealant or epoxy and painting wall area to match existing. Additionally, replace failing sealant joints between the Gunite wall and adjacent mass masonry walls at interfaces.	2-5	51	lf	50.00	$ 2,550	$ 255	$ 140	$ 147	**$ 3,093**
BE-7	Windows/Doors	Broken glazing replacement	We recommend removing and replacing broken glazing to match the characteristics of the existing, such as, but not limited to glazing thickness and vision characteristics. Any glazing putty, glazing points, and glazing stops used to reset new window panes shall match existing. We recommend hiring a window repair contractor with experience in historic window repair to complete this work.	1-2	5	ea	2,000.00	$ 10,000	$ 1,000	$ 550	$ 578	**$ 12,128**
BE-8	Windows/Doors	Glazing putty and point replacement	We recommend removing and replacing all failing glazing putty and glazing points. We recommend hiring a window repair contractor with experience in historic window repair to complete this work.	2-5	10,827	sf	15.00	$ 162,405	$ 16,241	$ 8,932	$ 9,379	**$ 196,957**

TABLE 2 ROM COST ESTIMATES

Rec. No.	Assembly	Description	Scope of Work	Horizon (Years)	Quantity	Unit	Material, Labour, Access, Mobilization Unit Rate	Material, Labour, Access, Mobilization Cost	Construction Contingency 10%	Soft Costs 5%	Project Contingency 5%	Total
BE-9	Windows/Doors	Steel window frame corrosion repair and repainting	We recommend abrasively removing all surface corrosion from the steel window frames and muntins, priming with a zinc rich primer, and painting to match existing. If any significant sectional loss exists or there are gaps/joints between frame segments, steel frame repair may be required. We recommend hiring a window repair contractor with experience in historic window repair to complete this work. Additionally for any windows where head flashings are failing, we recommend removing and replacing the existing head flashing to match existing in kind, or repairing as required. Re-paint all window and door frames.	2-5	10,827	sf	25.00	$ 270,675	$ 27,068	$ 14,887	$ 15,631	**$ 328,261**
BE-10	Windows/Doors	Door sill flashing correction and weather-sealing upgrades	At existing doors on the south elevation which have been permanently sealed closed, we recommend correcting the back-sloped sill flashings on top of the concrete curbs to properly slope to drain to the exterior. Additionally, we recommend providing a traffic coating or waterproofing membrane and flashing over the concrete curb that is kerfed into the surrounding pavement, to prevent water from travelling beneath the curb to the exterior. At any doors where gaps are visible at operable joints, install additional gasketing and/or sweeps to reduce water intrusion and air leakage.	1-2	66	lf	250.00	$ 16,500	$ 1,650	$ 908	$ 953	**$ 20,010**
BE-11	Windows/Doors	Window gasket reinstallation	At the newer window frames on the south elevation at the ground floor, we recommend reinstalling the disengaged gaskets between glass and frame on the interior to reduce air leakage and water penetration risk.	2-5	77	lf	20.00	$ 1,540	$ 154	$ 85	$ 89	**$ 1,868**
BE-12	Misc Steel	Miscellaneous steel corrosion mitigation	We recommend abrasively removing all surface corrosion from the miscellaneous steel components, priming with a zinc rich primer, and painting to match existing. If any significant sectional loss exists, steel repair/retrofit may be required including repair design with the assistance of a structural engineer	2-5	492	lf	200.00	$ 98,400	$ 9,840	$ 5,412	$ 5,683	**$ 119,335**
BE-13	Misc Steel	Corroded ladder removal or rehabilitation	Confirm that the existing ladder on the west elevation is abandoned and no longer in use due to the significant corrosion and sectional loss present. If planned to be used in the future, significant steel repair and replacement will be required. If no longer in use, remove the ladder to prevent detachment from the building.	0-1	1	ls	5,000.00	$ 5,000	$ 500	$ 275	$ 289	**$ 6,064**
BE-14A	Steep Sloped Roof	Sawtooth transite roof recoating / future replacement	At the upper sawtooth roof, we recommend re-coating the transite panels with an additional fluid-applied roofing product to extend the service life of the panels in the next 2-5 years. It may be possible to continue to re-coat approximately every 10-15 years depending on the condition of the panel and the coating product used, however, longer term we recommend replacing the transite panels with a corrugated metal panel assembly similar to the main sloped roof assembly	2-5	11,490	sf	30.00	$ 344,700	$ 34,470	$ 18,959	$ 19,906	**$ 418,035**
BE-14B	Steep Sloped Roof	Metal roof fastener and joint resealing	At the main sloped metal roof, we recommend resealing all fastener penetrations, metal laps/joints, and counterflashing interfaces with adjacent assemblies.	2-5	23,951	sf	3.00	$ 71,853	$ 7,185	$ 3,952	$ 4,150	**$ 87,140**
BE-14C	Steep Sloped Roof	Roof penetration liquid flashing repairs	At all roofs, install additional liquid flashing at penetrations through roof such as pipes, parapet braces, vents where failing or deteriorated. If water intrusion has been observed, immediate repair is necessary.	2-5	52	ea	350.00	$ 18,200	$ 1,820	$ 1,001	$ 1,051	**$ 22,072**

TABLE 2 ROM COST ESTIMATES														
Rec. No.	Assembly	Description	Scope of Work	Horizon (Years)	Quantity	Unit	Material, Labour, Access, Mobilization Unit Rate	Cost	Construction Contingency 10%	Soft Costs 5%	Project Contingency 5%	Total
BE-14D	Steep Sloped Roof	Acoustic insulation reattachment	Re-attach poorly secured acoustic insulation with suitable stick pins or adhesive if still required for building usage and acoustic goals.	2-5	20,355	sf	2.00	$ 40,710	$ 4,071	$ 2,239	$ 2,351	**$ 49,371**
BE-15	Low-Sloped Roof	Low-slope SBS roof replacement and drainage correction	We recommend removing and replacing the existing low-sloped SBS at minimum on the lower roofs on the north and south elevation, and correcting the existing slope with new crickets to promote drainage to area drains. We recommend providing a 2-ply SBS roof assembly in this area that can tuck under the adjacent corrugated metal roofing, and lap down over the adjacent brick wall assembly. Below the FRP assembly, we recommend adding a band of reinforced PMMA liquid flashing that can tuck into the recess and onto the brick wall below the roof line, at the window head.	5-10	3,470	sf	150.00	$ 520,500	$ 52,050	$ 28,628	$ 30,059	**$ 631,236**
BE-16	Skylight	Skylight seal, fastener, and penetration maintenance	We recommend continuing to monitor the skylight frame for signs of water intrusion and/or frame sealant failure, and replace seals as required. Also plan to replace any significantly corroded fasteners and seal all penetrations approximately every 5-10 years	5-10	7,660	sf.	5.00	$ 38,300	$ 3,830	$ 2,107	$ 2,212	**$ 46,448**
BE-17	Expansion Joint	Expansion joint resealing and maintenance	We recommend monitoring and re-sealing failed joints/seams approximately every 5-10 years. Regularly clean debris and organic material off of expansion joint to monitor for signs of cracking or failure of the bellows membrane. Additionally, remove and replace any significantly corroded fasteners and cap seal over fastener heads.	5-10	244	lf	20.00	$ 4,880	$ 488	$ 268	$ 282	**$ 5,918**
WE-1	Piers	Minor/moderate pier concrete and reinforcement repair	For Minor Defect (MN) and Moderate Defect (MD) categories: We recommend performing epoxy injection of any non-moving cracks with a 100 percent solid, 100 percent reactive epoxy with low curing shrinkage, tested to cure underwater and bond to water filled saturated cracks in salt water. For any minor delamination or spalling, loose material should be removed down to sound concrete and behind any reinforcing steel a minimum of one-inch, corrosion abrasively removed from reinforcing steel, and any exposed steel coated with a suitable epoxy barrier coating to reduce the risk of corrosion. Consider the inclusion of a suitable anode system to reduce the rate of corrosion of steel reinforcing. For smaller repairs, hand-patches of Portland/hydraulic cement or epoxy marine-grade mortars should be used that are suitable for the exposure to saltwater. Given our survey was primarily visual in nature and of a sample of conditions, we recommend performing 100% physical inspection of all piers prior to implementing repairs to determine appropriate repair quantities, and/or carrying a contingency for any additional repair areas.	5-10	94	ea	1,450.00	$ 136,300	$ 13,630	$ 7,497	$ 7,871	**$ 165,298**

TABLE 2 ROM COST ESTIMATES

Rec. No.	Assembly	Description	Scope of Work	Horizon (Years)	Quantity	Unit	Material, Labour, Access, Mobilization Unit Rate	Material, Labour, Access, Mobilization Cost	Construction Contingency 10%	Soft Costs 5%	Project Contingency 5%	Total
WE-2	Piers	Major/severe pier repair with pile jackets and corrosion protection	For Major Defects (MJ) and Severe Defect (SV) categories: We recommend performing similar repairs as for categories MN and MD above as applicable. After loose material and surface corrosion has been removed, and any required steel reinforcement replaced, we recommend wrapping piers with a suitable pile jacket system including a fiberglass, FRP, or PVC jacket and galvanic anode system to provide on-going galvanic current to mitigate active corrosion of steel reinforcing. Fill jacket with suitable grout/concrete repair material as needed. We recommend jackets extend from the sea floor up to the underside of slab, or at a minimum 4′ beyond any areas of deterioration and high tide line. Given our survey was primarily visual in nature and of a sample of conditions, we recommend performing 100% physical inspection of all piers prior to implementing repairs to determine appropriate repair quantities, and/or carrying a contingency for any additional repair areas.	0-1	94	ea	8,000.00	$ 752,000	$ 75,200	$ 41,360	$ 43,428	**$ 911,988**
WE-3	Piling/Dock Removal	Dock and deteriorated piling removal or replacement	We recommend removing the failed dock, deteriorated wooden pilings, and corroded steel pilings around the perimeter of the dock, if no longer in use. If still required for the building, removal and replacement in kind will be required	1-2	1	ls	100,000.00	$ 100,000	$ 10,000	$ 5,500	$ 5,775	**$ 121,275**
WE-4	Deck, Beams, Caps	Concrete testing and condition assessment	We recommend performing core sampling and petrographic analysis of the existing concrete to confirm chloride concentrations, carbonation depth, concrete quality and reinforcement section/cover at representative locations, as well as to confirm there is no Alkali-Silica Reaction (ASR) in the concrete prior to performing repairs. Also consider use of Ground Penetrating Radar (GPR) to assess the condition of the existing concrete slab from above in coordination with a structural engineer.	0-1	1	ls	10,000.00	$ 10,000	$ 1,000	$ 550	$ 578	**$ 12,128**
WE-5	Deck, Beams, Caps	Structural review of deteriorated beams and pile caps	We recommend coordination with a structural engineer for review of more severely deteriorated beams and pile caps to provide specific repair details for areas with failed steel reinforcement, as well as to assess the pier foundations from a seismic upgrade ASCE 41 standpoint considering potential future use of the building.	0-1	1	ls	5,000.00	$ 5,000	$ 500	$ 275	$ 289	**$ 6,064**
WE-6	Deck, Beams, Caps	Suspended slab concrete repair and corrosion protection	We recommend coordinating with a structural engineer for review of the suspended concrete slab from a structural perspective based on future use of the building. Repairs should include removal of all loose spalls and delaminated concrete, cleaning and treating exposed reinforcing steel, application of zinc-rich epoxy corrosion inhibiting or protective coating, and replacement or repair of failed steel as needed. We also recommend inclusion of passive anodic protection to reduce the future risk of steel corrosion. Patch failed concrete sections using marine grade repair mortars compatible with the surrounding concrete.	1-2	30,091	sf	125.00	$ 3,761,350	$ 376,135	$ 206,874	$ 217,218	**$ 4,561,577**
				Total				**$ 6,455,913**	**$ 645,591**	**$ 355,075**	**$ 372,829**	**$ 7,829,408**

Appendix B

Marx Okubo MEP Report

MARX OKUBO

Architecture • Engineering • Construction • CONSULTANTS

FACILITY CONDITION ASSESSMENT

CRANEWAY PAVILION

1414 Harbour Way South
Richmond, California

Prepared for:
RDH BUILDING SCIENCE, INC.
1901 Harrison Street, Suite 1210
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Marx Okubo Job No. 25-5427

Second Draft
April 1, 2026

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1.0 EXECUTIVE SUMMARY

Property Summary

Name/Address	Craneway Pavilion 1414 Harbour Way South Richmond, California 94804-3694
Property Type	Industrial
No. of Buildings/ Stories	One single-story building. Although the property, now known as Ford Point, was originally constructed as one building, the Craneway Pavilion is the southernmost portion of the building. The portion of the building that is not considered the Craneway Pavilion, which is currently owned by a separate entity, is referred to herein as the Main Building.
Building Area/Unit Count	For the Craneway Pavilion portion of the property only, the building area is approximately 40,000 gross square feet, per sheet T2.1, titled *First Floor Code Analysis Plan*, produced by Marcy Wong & Donn Lunn Architects, last revision dated February 22, 2008.
Year Constructed	Originally constructed in 1930, with a major renovation completed in 2008. The entire property is listed on the National Register of Historic Places.
Site Area	For the Craneway Pavilion portion of the property only, the site area is approximately 1.5 acres (404.2' by 160.7') per sheet T3.1, titled *ALTA/ASCM Land Title Survey*, produced by Kister, Savio & REI, Inc., dated May 31, 2002.
Unique Features	The property is bordered by San Francisco Bay to the south. A major commuters' ferry terminal is immediately adjacent to the west of the site. The San Francisco Bay pedestrian trail is located on the southern edge of the property in between the building and the bay.
Legal Description	None provided.
Flood Plain	According to *FZDS Flood Plain Determination Report Map* Panel No. 06013C0236 G, dated September 30, 2015, the project is located in X, areas of minimal flooding. Areas determined to be outside the 500-year flood plain.

Primary Building Systems

Foundation System(s)	Not included in scope
Structural System(s)	Not included in scope
Roofing System(s)	Not included in scope
Exterior Wall Assembly(ies)	Not included in scope
Window Type(s)	Not included in scope
Elevated Decks/ Balconies	Not included in scope
Mechanical System(s)	Unit Heaters, Rooftop Exhaust Fans
Electrical Capacity	120/208 volts, five separate panels fed from one of the site's shared main switchboards, ranging in capacity from 125 to 400 amps each
Life Safety System(s)	Automatic fire alarm system with wet pipe fire sprinkler system
Vertical Transport System(s)	None Provided

Sustainability Rating	None

Property Condition Summary

Significant Observations and Conditions: Optional: install a separate fire alarm system serving only the Craneway Pavilion.		
Additional Investigation Recommended: None		
Component	**Condition**	**Observations**
Site Improvements	Fair	• Localized areas of deteriorated asphalt paving should be repaired and resealed.
Building Interiors	Good	• Concrete floor needs patching or replacement in select areas.
MEP Systems	Good	• Unit heaters will likely require replacement during the term due to age.
Fire Protection/Life Safety	Good	• Install a new, separate fire alarm system serving only the Craneway Pavilion.
Building Equipment	Good	• Have the security monitoring vendor assess the system to correct faults indicated on the security alarm stations.
Regulatory Review	NA	• Pending response from the city.
Accessibility	Fair	• Refer to the separate Accessibility report included as an exhibit to this report.
Assessment Limitations	• Unit heaters are mounted too high to safely obtain the nameplate information. • Areas under the pier had limited access.	

2.0 DEFICIENCIES AND RECOMMENDATIONS

Recommendations for remedial work addressing significant building deficiencies are included in this section. Recommendations are divided into *Immediate Work Items* and *Capital Work Items*. The contractual cost threshold for this project is $3,000. Items that do not meet this threshold are excluded from our recommendations, with the exception of material code and life/safety concerns, which are included regardless of cost.

Immediate Work Items: Include items that correct all safety and life threatening building and/or fire code violations; and items that, if left unrepaired over the next year, would result in serious damage to the building or its content. These items should be undertaken on a priority basis taking precedence over routine preventive maintenance work.

Capital Work Items: Include items that are customarily repaired or replaced over several years due to economic considerations (e.g. paving, roofs, appliances), items which are currently in acceptable condition but will reach or exceed their useful service life during the term, and items that are periodic in nature but not considered normal maintenance (e.g. pavement seal coating, painting). These estimates are generally based on industry-accepted life spans for these systems unless there are mitigating circumstances.

Qualifications: Per ASTM E2018-24, opinions of cost should only be construed as preliminary, order of magnitude budgets. Actual costs will likely vary to some degree from the opinions of costs provided herein depending on such matters as type and design of suggested remedy, quality of materials and installation, manufacturer and type of equipment or system selected, field conditions, whether a physical deficiency is repaired or replaced in whole, phasing of the work (if applicable), quality of contractor, quality of project management exercised, market conditions including tariffs, supply chain constraints related to natural disasters, pandemics, and conflicts, whether competitive pricing is solicited, and other factors. Opinions of cost are typically based upon limited quantity take-offs and a unit pricing method to arrive at line-item totals. Unit prices are based upon historical data compiled by Marx Okubo and in no way imply that bids were received from trade subcontractors. Where deemed appropriate, Marx Okubo includes design fees and costs for supporting activities that may be required to perform the work (e.g. erection and dismantling of scaffold, temporary shoring, etc.). No bid documents or corrective drawings were produced. In identifying issues and determining potential costs, it is not the intent of this firm to assume any part of the design responsibility for potential improvements, but rather to report our findings to the client to whom this report is addressed.

MARX OKUBO

CRANEWAY PAVILION
Richmond, California

IMMEDIATE REPAIR COST

Prepared By: Marx Okubo Associates, Inc.
Building(s) Gross Area (S.F.): 40,000
Property Age (Years): 22

Date Prepared: April 1, 2026

P Link to photo of this item.

#	Item	QTY	Unit	Unit Cost	Replacement Percent	Immediate Total	Comments
4.0 SITE							
1	No immediate issues were noted or reported.	0	EA	$0.00	0%	$0	
5.0 INTERIOR IMPROVEMENTS							
2	No immediate issues were noted or reported.	0	EA	$0.00	0%	$0	
6.0 MECHANICAL/ELECTRICAL/PLUMBING							
3	Remove or repair the door to the abandoned safety switch enclosure located on the west wall of the Craneway Pavilion. The unlocked door is only held on by one hinge and almost fell off when opened, presenting a safety hazard.	1	EA	$500.00	100%	$500	Cost represents a minimum trip charge. If a City of Richmond employee can perform the work, then there would be no cost. Removal is preferred, but if the enclosure is deemed historic and must remain, then the door should be repaired and locked.
7.0 FIRE PROTECTION/LIFE SAFETY							
4	Replace exit signs and emergency lights throughout the building.	30	EA	$100.00	100%	$3,000	The devices were observed to be at the end of their useful life and multiple signs were not properly functioning.
8.0 BUILDING EQUIPMENT							
5	Secure the loose foot of the ladder used to access the beam crane operator's station where the audio/visual controls are located.	1	LS	$500.00	100%	$500	The foot is missing a bolt, is unsecured, and a safety hazard. Assumes minimum trip charge for a contractor.
10.0 REGULATORY REVIEW							
6	No immediate issues were noted or reported.	0	EA	$0.00	0%	$0	
Total Repair Cost						$4,000	

MARX OKUBO

CRANEWAY PAVILION
Richmond, California

CAPITAL RESERVE SCHEDULE

Prepared By: Marx Okubo Associates, Inc.
Building(s) Gross Area (S.F.): 40,000
Property Age (Years): 22

Date Prepared: April 1, 2026
Term: 10
Inflation Rate: 3%

(P) Link to photo of this item.

Footnotes: [1] [2] [3]

#	Item	QTY	Unit	Unit Cost	EUL	EFF Age	RUL	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total Cost	Comments
4.0 SITE																			
1	(P) Apply a seal coat, fill potholes, and seal cracks on the asphalt pavement around the perimeters of the building. Replace damaged or rusted area drain plates along the south perimeter of the site.	30,000	SF	$1.75	8	7	1	$52,500							$52,500			$105,000	Localized potholes and significant localized cracking were observed on the asphalt pavement. Cost includes the application of a slurry seal coat, filling localized potholes, and sealing cracks; and the removal and replacement of the area drain plates along the south perimeter.
2	(P) Remove and replace rusted and damaged metal picket fencing, located underneath the pier at the northeast corner of the site.	50	LF	$90.00	0	0	0	$4,500										$4,500	Fencing should be removed and replaced. Installation of new metal picket fencing should include rust-inhibiting paint to extend EUL, as it is located underneath the pier.
5.0 INTERIOR IMPROVEMENTS																			
3	(P) Patch and replace localized damaged areas of the concrete flooring along the east elevation of the building.	125	SF	$25.00	0	0	0	$3,125										$3,125	Cost includes patching of minor damage and replacement of significant damage on the concrete flooring.
6.0 MECHANICAL/ELECTRICAL/PLUMBING																			
4	Replace unit heaters as they reach the end of their EULs. Limited use has likely allowed an extension of their life, but they are still anticipated to need replacement.	10	EA	$13,000.00	25	20	5					$130,000						$130,000	Includes rental of lift, includes additional cost factors for labor in high locations, and union labor.

1. Opinions of cost are based on limited observations of readily observable conditions and available documentation. Determination of actual costs require competitive bidding by qualified contractors on a scope of work that may require development of repair documents by a qualified engineer or architect.
2. Marx Okubo is not an environmental consultant or evaluator of pest infestation. Opinions of cost exclude abatement of hazardous materials or remediation of pest infestations unless otherwise noted.
3. This cost table is a supplementary document to the report and should be reviewed in conjunction with the full report and exhibits.

#	Item	QTY	Unit	Unit Cost	EUL	EFF Age	RUL	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total Cost	Comments
5	Replace four large general exhaust fans serving the Craneway Pavilion. Limited use has likely allowed an extension of their life, but they are still anticipated to need replacement.	4	EA	$35,000.00	25	20	5					$140,000						$140,000	Includes demo, crane, working conditions, and union labor.
6	Replace the centrifugal outside air supply fan and dishwasher exhaust fan serving the Craneway Pavilion service kitchen on the roof of the Main Building.	1	LS	$40,000.00	25	23	2		$40,000									$40,000	Includes demo, crane, material handling, constricted working conditions, and union labor.
7	Perform videoscoping and hydrojet cleaning of sanitary sewer lines serving the two sets of restrooms in the Craneway Pavilion.	1	LS	$3,000.00	25	24	1	$3,000										$3,000	Although no evidence of backups was noted during our site visit, it was reported that at least once occurence of a backup from one of the restrooms caused sewer flow into the kitchen.
8	Replace domestic water heaters as they reach the end of their EULs.	1	LS	$3,000.00	10	9	1	$3,000										$3,000	Includes the DWHs serving the restrooms and kitchen.
9	Perform infrared thermoscans on electrical distribution equipment. Infrared thermoscans should be performed annually.	1	LS	$3,000.00	1	1	0	$3,000										$3,000	Cost for subsequent thermoscans after Year 1 should be included in the operations and maintenance budget.
7.0 FIRE PROTECTION/LIFE SAFETY																			
10	Install an independent fire alarm system with emergency voice/ alarm communication for the Craneway Pavilion.	1	LS	$70,000.00	23	22	1	$70,000										$70,000	The existing shared fire alarm system is obsolete and is no longer supported by the manufacturer. Due to the different occupancy of the Craneway Pavilion compared to the Main Building and its separate ownership, it is recommended that the existing components be replaced with an independent fire alarm system. Due to the high occupancy limit for the space, emergency voice/alarm communication capabilities are anticipated to be required per the current fire code.
8.0 BUILDING EQUIPMENT																			
11	No significant issues were noted or reported.	0	EA	$0.00	0	0	0	$0										$0	
10.0 REGULATORY REVIEW																			
12	No significant issues were noted or reported.	0	EA	$0.00	0	0	0	$0										$0	

Total (Uninflated)	$139,125.00	$40,000.00	$0.00	$0.00	$270,000.00	$0.00	$0.00	$52,500.00	$0.00	$0.00	$501,625.00
Inflation Factor (3.0%)	1.0	1.03	1.061	1.093	1.126	1.159	1.194	1.23	1.267	1.305	

MARX OKUBO

CRANEWAY PAVILION
Richmond, California

#	Item	QTY	Unit	Unit Cost	EUL	EFF Age	RUL	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Total Cost	Comments
Total (inflated)								$139,125.00	$41,200.00	$0.00	$0.00	$303,887.38	$0.00	$0.00	$64,568.38	$0.00	$0.00	$548,780.76	

Evaluation Period:	10
# of sf:	40,000
Reserve per sf per year (Uninflated)	$1.25
Reserve per sf per year (Inflated)	$1.37

3.0 OBSERVATION INFORMATION

3.1 INTRODUCTION

Marx Okubo Associates, Inc. (Marx Okubo) has completed a Facility Condition Assessment of Craneway Pavilion, located in Richmond, California, for RDH Building Science, Inc. (Client). This survey consists of a review of the physical conditions and property components accessible or visible during the site visit; and the quality of construction. The assessment was completed for the purpose of Capital Planning.

Marx Okubo's assessment and this report generally conform with and/or exceed the technical requirements of ASTM E2018-24. The purpose of this review is to provide an overview for Client, and it is in no way implied that every aspect of the project has been reviewed. The purpose of this report is to observe the major aspects of the property, assess their condition, and evaluate the property for material accessibility and code concerns. A detailed compliance survey related to accessibility, building codes, and zoning issues was not performed. The use of this report is limited to the Client to whom it is addressed.

Limited construction drawings were made available electronically and were used as reference material and as a basis for take-offs. These drawings were not reviewed for accuracy, completeness, or conflicts.

3.2 SITE OBSERVATION INFORMATION

Site Observation Date
January 8, 2026

Marx Okubo Team Members
Brad Wolf, PE, CEM, Senior Associate
Kelly Medina, Project Coordinator
Bassamat Bahnasy, CASp, ADAC, ICC, LEED AP, Senior Associate
Steve Schneider, PE, Director, Fire Protection/Life Safety Engineering
Julie Acosta, LEED AP BD+C, Senior Project Administrator

Specialty Consultants Utilized
None

Property Contact Information

Firm:	Cushman Rexrode Capital Corporation / 510.410.5925
Name:	Stephen Rexrode

Areas Reviewed

Our assessment included a limited walk-through survey of accessible areas based upon the sample size(s) for property elements as specifically defined in our proposal, and/or as otherwise determined by Marx Okubo as a sufficient number of repetitive systems, components, or conditions, to reasonably perform our assessment. Marx Okubo's scope of work was limited to the Craneway Pavilion portion of the property.

Limitations

The following limitations were encountered during the property review:

Building envelope and structural assessments of the property are excluded from the scope of our review per the terms of our agreement with the Client.

A Property Management Interview was not conducted because the building is vacant and nobody with direct, recent experience with the property was available.

3.3 DOCUMENTS UTILIZED

Refer to the **Exhibits** section for a list of the documents that were provided or to which we were given access during the execution of the work.

4.0 SITE

4.1 UTILITY SERVICE PROVIDERS

Water:	East Bay Municipal Utility District (EBMUD)
Sanitary/Sewer:	EBMUD
Electric:	Pacific Gas & Electric (PG&E)
Gas:	PG&E
Telephone:	Tenant responsibility
Cable:	Tenant responsibility
Trash/Recycling:	Tenant responsibility

4.2 STORM DRAINAGE

Description:	Stormwater flows over the ground surfaces to catch basins located throughout the paved areas. These elements, depending on their location on the property, drain directly to San Francisco Bay or are connected to a storm drain system that discharges directly to San Francisco Bay.
Condition:	Trench drain along the east perimeter of the building is clogged with debris and weeds.
Recommendations:	Unclog the trench drain as a part of routine maintenance

4.3 TRAFFIC CONTROL

Description:	Vehicular access to the Craneway Pavilion portion of the site is not provided for the general public. Delivery vehicles appear to access the site via the east parking area next to the Main Building.
Signalization:	No signalization is provided in the immediate vicinity of the site.
Interior Access:	Access to the east parking area is provided via two-way internal drive lanes. Access is controlled with a security attendant booth and metal picket swinging gates at the north end of the Main Building.
Condition:	No significant issues were noted or reported.
Recommendations:	Not applicable.

4.4 PARKING

Description:	No parking is provided for the Pavilion Craneway's portion of the site. The previous tenants may have had an agreement with the Ferry Terminal Parking lot, but that is unknown at this time.
Lighting:	Lighting for the site and surface parking is provided by building-mounted fixtures with light-emitting diode (LED) lamps.
Adequacy:	Overall, parking provisions appear adequate for the current use of the property. A nighttime survey was not performed; however, the distribution of light fixtures appears to be sufficient for the current use of the property.

4.5 PAVING AND SIDEWALKS

Vehicular Paving/ Curbing:	Asphalt pavement over a concrete base on top of the pier is provided at the east, west, and south perimeters of the site. Abandoned railroad tracks are embedded in the asphalt pavement along the south end of the Craneway Pavilion.
Pedestrian Paving, Stairs, And Railings:	Precast concrete pavement with a conventional gray and red-colored finish is provided at the northwest corner of the site, at the pedestrian entrance to the building.
Condition:	Localized potholes and significant localized cracking was observed on the asphalt pavement. Cost includes the application of a slurry seal coat, filling localized potholes, and sealing cracks.

4.6 LANDSCAPE/IRRIGATION

Landscape:	None provided.
Irrigation:	None provided.
Condition:	Not applicable.
Recommendations:	Not applicable.

4.7 EARTHWORK/GRADING/EROSION CONTROL

Description:	The property is generally graded flat, with gradual sloping to facilitate drainage. Erosion control measures consist of the placement of riprap rock along the shoreline of the property.
Condition:	No significant issues were noted or reported.

4.8 RETAINING WALLS

Description: None provided.

Condition: Not applicable.

Recommendations: Not applicable.

4.9 FENCING

Description: Metal guardrails are provided along the south border of the building, along the edge of the pier. Painted metal picket fencing is located underneath the pier at the northeast corner of the site.

Condition: The metal picket fencing, located underneath the pier at the northeast corner of the site is rusted and damaged.

Recommendations: Remove and replace rusted and damaged metal picket fencing.

4.10 SIGNAGE

Description: The property utilizes monument signage to identify the building name provided at the east parking area. Additional informational signage detailing the history of the property is mounted in two locations along the south elevation of the Craneway Pavilion.

Condition: No significant issues were noted or reported.

Recommendations: Not applicable.

4.11 LOADING DOCKS AND RAMPS

Description: Loading/unloading areas are provided at multi-panel industrial craneway doors provided at the east and west elevations of the building for loading/unloading.

Condition: No significant issues were noted or reported.

Recommendations: Not applicable.

4.12 EXTERIOR AMENITIES

Description: The San Francisco Bay Trail runs along the south perimeter of the site. A bicycle station for public use is provided on the west side of the site.

Condition: No significant issues were noted or reported.

Recommendations: Not applicable.

4.13 TRASH SYSTEMS/ENCLOSURES

Description: Trash is reportedly the responsibility of the tenant. Trash dumpsters are provided at the east parking area, adjacent to the Main Building.

Condition: No significant issues were noted or reported.

Recommendations: Not applicable.

4.14 ALTA SURVEY

Marx Okubo was not provided with a current ALTA survey for our review.

5.0 INTERIOR IMPROVEMENTS

5.1 INTERIOR WALLS

Description:	Interior walls consist of a combination of exposed brick and mortar, and gypsum board sheathing over metal stud or wood stud framing.
Finishes:	Finishes include a combination of painted gypsum board and exposed historic brick and mortar.
Condition:	No significant issues were noted or reported.
Recommendations:	Not applicable.

5.2 INTERIOR DOORS/FRAMES

Description:	Doors are generally solid-core wood or hollow metal set in wood or metal frames with stainless steel lever-type hardware. A metal-framed glass door is provided at a select office/storage space.
Finishes:	Wood and metal doors are stained or painted and set in painted frames.
Condition:	No significant issues were noted or reported.
Recommendations:	Not applicable.

5.3 CEILINGS

Description:	Service area ceilings are painted gypsum board. The Craneway Pavilion space ceiling consists of exposed roof structure.
Condition:	No significant issues were noted or reported.
Recommendations:	Not applicable.

5.4 FLOORS

Description:	The Craneway Pavilion features polished concrete floors and acrylic-coated pickleball courts.
Condition:	Localized areas of damage were observed on the concrete flooring along the east elevation of the building.
Recommendations:	Localized damaged areas of the concrete flooring should be patched and replaced.

5.5 RESTROOMS

Description: Multi-user men's and women's restrooms serving the main Craneway Pavilion area are provided. The men's restrooms are provided with five urinals and five toilet stalls, including one accessible toilet stall. The women's restroom is provided with ten toilet stalls, including one accessible toilet stall. Interior finishes generally consist of painted gypsum board walls, exposed ceiling structure, and laminate tile floors. Wall-mounted porcelain lavatories, and floor- and wall-mounted plastic laminate toilet stall partitions are provided. Toilet stalls are provided with wall-mounted porcelain toilets.

Condition: No significant issues were noted or reported.

Recommendations: Not applicable.

5.6 KITCHENS

Description: A bar and kitchen space is provided for tenant use within the main space of the Craneway Pavilion. Finishes at the bar include a solid-surface bar countertop, stainless-steel service countertops and sink, vinyl wall-mounted shelves, and hanging decorative light fixtures.

The adjacent service kitchen is provided with vinyl composite tile (VCT) flooring, painted gypsum board walls, and exposed ceiling structure. Stainless-steel countertops and undermounted sinks are provided.

Condition: No significant issues were noted or reported.

Recommendations: Not applicable.

5.7 UTILITY ROOMS

Description: Utility rooms are generally provided with unpainted or painted gypsum board walls, concrete flooring, and exposed structure ceilings.

Condition: No significant issues were noted or reported.

Recommendations: Not applicable.

5.8 INTERIOR STAIRS

Description: None provided.

Condition: Not applicable.

Recommendations: Not applicable.

5.9 INTERIOR AMENITIES

Description: None provided.

Condition: Not applicable.

Recommendations: Not applicable.

5.10 WINDOW COVERINGS

Description: Large panel curtains are provided on a track system along the west elevation of the building.

Condition: No significant issues were noted or reported.

Recommendations: Not applicable.

6.0 MECHANICAL/ELECTRICAL/PLUMBING

6.1 HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)

Description: No mechanical cooling is provided to the building. Operable windows provide cooling. Heating is provided by ten ceiling-hung, natural gas-fired, indirect-fired unit heaters manufactured by Reznor. Due to their mounting height and the lack of an available personnel lift, Marx Okubo was unable to access these units to gather nameplate information. However, similar heaters from the same manufacturer were installed in another portion of the Main Building, and these units had rated heat inputs of 250,000 Btu/h. Marx Okubo has assumed that the heaters serving the Craneway Pavilion have the same capacity of 250,000 Btu/h. The heaters are mounted along the north wall of the building, and supply air is discharged towards the south wall.

Controls: The unit heaters are controlled by stand-alone analog thermostats.

Ventilation: Operable windows and doors provide natural ventilation. Four roof-mounted, constant-speed, belt-driven down-blast centrifugal fans manufactured by Greenheck provide general exhaust for the main open area. The actual airflow ratings of these fans are unknown because the design that installed this system was not available, and airflow is dependent on the speed of the fan and the pressure of the ductwork connected to the fan system, but the air flow ratings from the manufacturer range from a minimum of approximately 5,000 cubic feet per minute (CFM) to a maximum of approximately 18,000 CFM.

The service kitchen for the Craneway Pavilion is provided with an exhaust hood for the automatic dishwasher, which is connected to an upblast-type centrifugal ventilator mounted on the roof of a small tower that projects up from the roof over the Main Building. This fan was manufactured by Emerson. The actual airflow rating of this fan is unknown, but it has a maximum airflow rating of approximately 1,200 CFM.

Makeup air is ducted into the kitchen and restrooms, and is believed to be provided by a centrifugal outside air supply fan mounted on the same roof as the exhaust fan.

The restrooms are provided with exhaust fans that discharge through the roof.

Age: Except as noted, the HVAC equipment is generally original with some component replacement as needed and is believed to be approximately 22 years old.

Maintenance: The previous tenant was reportedly responsible for maintaining the HVAC systems; however, no information was provided regarding their practices, and the quality of their maintenance program is unknown.

Condition: The HVAC systems generally appear to be in good condition. The unit heaters in the Craneway Pavilion appear to be in good condition, but are believed to be approximately 20 years old and are expected to reach the end of their Expected Useful Life (EUL) during the term, and should be replaced at that time. Similarly, the four general exhaust fans appear to be in good condition, but they are expected to need replacement as they reach the end of their EULs.

The kitchen HVAC equipment is in fair condition. The cover of the kitchen exhaust ventilator has been partially removed and is partially held on by one clip and a piece of concrete, and should be properly reattached. This equipment is located on a small tower that rises above the main roof line of the Main Building. It is recommended to replace this equipment early in the term due to age and condition. The rooftop centrifugal supply fan has no air filtration, and a replacement of this fan is recommended to include air filters.

Recommendations: Replace ten unit heaters due to age.

Replace four rooftop general exhaust fans due to age.

Replace the kitchen HVAC on the roof. This should include the replacement of an unfiltered outside air fan with a filtered supply air system and exhaust ventilator.

6.2 PLUMBING

Water Service: The property is provided with a 6" domestic water service with a main utility meter located in a pit in the yard near the northwest area of the Main Building and an above-ground backflow preventer adjacent to Harbour Way South. A separate 2" above-ground backflow preventer was observed at the northeast corner of the adjacent commercial restaurant, adjacent to the Craneway Pavilion, and likely services the restaurant. No landscape irrigation water is provided nor required for the Craneway Pavilion portion of the site.

Two small, point-of-use water filtration systems are provided for the service kitchen.

Domestic Water Piping: Where observed, domestic water piping is generally copper tubing.

Water Heating: Domestic hot water for the restrooms is provided by an electric domestic water heater (DWH) with a 38-gallon integral storage tank and 3,500-watt heating elements. Hot water for the service kitchen is provided by an electric DWH with an integral storage tank of unknown capacity. Too much debris was stored in the room to safely access the unit's nameplate; however, it appears to have a tank capacity of approximately 50 to 80 gallons.

Plumbing Waste and Vent Lines:	Where observed, waste and vent lines are generally cast-iron pipes. At select locations, specifically at a ground cleanout on the west side of the Main Building just north of the Craneway Pavilion, pipes observed are polyvinyl chloride (PVC).
Natural Gas Service:	The property is provided with five separate natural gas services: one at the Main Building's west side, three at the Main Building's east side, and one at the Visitor's Center. Which service feeds the unit heaters in the Craneway Pavilion is not known with certainty, but Marx Okubo believes that the southeastern-most service feeds the restaurant and Craneway Pavilion. This gas service may also feed other HVAC equipment in the Main Building. An automatic seismic shut-off valve was noted.
Age:	The main supply and waste lines are believed to have been installed during the major building renovation completed in 2004. The water heater serving the restrooms is approximately 19 years old, and the other DWH is assumed to be about the same age.
Condition:	Plumbing systems generally appeared to be in good condition. Both domestic water heaters should be replaced early in the term. It was reported via complaint by a sublessee of the space to the City that at least one backup, apparently caused by one or more restrooms, was experienced in a kitchen. The complaint did not specify whether the space affected was the service kitchen for the Craneway Pavilion or the restaurant's kitchen. No evidence of this backup was noted during our initial site visit. At the request of the City of Richmond, Marx Okubo performed an additional investigation to determine which kitchen may have been affected and to assess the underlying cause. On March 20, 2026, Marx Okubo performed a second site visit with a subcontractor and video-scoped portions of the sewer lines accessible through cleanouts (only two sections were successfully videoed due to a lack of cleanouts). In summary, it appears that the restaurant's kitchen experienced a backup caused by a lack of maintenance on the grease trap serving the restaurant. It is believed that no incidents affected the Craneway Pavilion restrooms and service kitchen. Refer to the **Additional Sewer System Investigation Exhibit** for more details.
Recommendations:	Replace both domestic water heaters. Perform deferred maintenance, including emptying the restaurant's grease trap, and hydrojet clean all sewer and grease waste lines for the restaurant's kitchen. Hydrojet cleaning of the sewer lines serving the Craneway Pavilion restrooms and service kitchen should also be performed. Any hydrojet cleaning should be coordinated with the ownership of the Main Building due to the shared utilities. Additional consideration should be provided for the installation of additional cleanouts for the service kitchen and the east side of the Men's Restroom serving the Craneway Pavilion.

6.3 ELECTRICAL

Electrical Service:	Three-phase, four-wire electrical service is provided to the site from three pad-mounted, utility-owned transformers located on the east side of the Main Building. Each transformer feeds an exterior termination cabinet, which in turn serves multiple main switchboards within the Main Building. One 120/208-volt and two 277/480-volt services are provided. One of the 277/480-volt termination cabinets feeds an exterior, 2,500-amp main switchboard that feeds the Craneway Pavilion, the restaurant in the Main Building, and the Visitor's Center.
On-Site Renewable Electrical Systems:	No renewable energy-generating systems are located directly on the Craneway Pavilion roof. An extensive photovoltaic (PV) system is provided on the Main Building, which serves multiple services within the Main Building. It is believed that none of the energy produced by the PV systems offsets energy use by the Craneway Pavilion.
Electrical Distribution:	Electrical service is distributed to the Craneway Pavilion by four recessed wall-mounted, 120/208-volt distribution panels, all located in a utility room/office located on the north side of the Craneway Pavilion, with rated capacities of 125 to 225 amps, and main breakers of 100 and 200 amps, respectively. These primarily feed the lights, the kitchen, the HVAC systems, and general receptacles. Panels manufactured by Eaton and Siemens were noted. Two audio/video-specific, 400-amp distribution panels serve the theater lighting and sound systems. One panel is mounted on the west beam crane operator's station, along with A/V equipment, and the other is mounted on the south wall.
Electrical Vehicle (EV) Charging:	Since there is no parking on the site area apportioned to the Craneway Pavilion, EV charging is not available. EV chargers are provided in several locations in the east parking lot of the Main Building.
Emergency Power:	No emergency power is provided.
Lighting System:	Lighting in the main open area is provided by high-bay hanging pendant fixtures using LED lamps. Lighting in the restrooms and kitchen is provided by surface-mounted fixtures using linear T8 fluorescent lamps.
Maintenance:	Maintenance was reportedly provided by the previous tenant, whose program is unknown. There were no records or other indications that any infrared (IR) thermal scans have been performed.
Condition:	The electrical systems generally appear to be in good condition with no significant capital costs anticipated during the term. Marx Okubo recommends performing IR thermal scans of the electrical panels when under load as deferred maintenance. Once the initial service is performed, annual IR scans should be incorporated into the building's operations and maintenance budget.

An old electrical safety switch enclosure that has been abandoned was noted to have a broken cover. When opened, the door almost fell off, which is a safety hazard. If this electrical panel is not deemed to be historic, it should be removed as a potential safety hazard. If it is historical and needs to remain, the door should be repaired and locked to prevent it from being opened by guests attending events.

Recommendations: Perform infrared thermal scans of all electrical panels. They may need to be artificially loaded to obtain meaningful results.

Remove the abandoned electrical safety switch enclosure, or repair and lock the cover door.

7.0 FIRE PROTECTION/LIFE SAFETY

7.1 FIRE ALARM SYSTEM

Description:	The Craneway Pavilion is protected by the Main Building's fire alarm system, which is monitored by a Silent Knight 5820XL addressable fire alarm panel. The fire alarm system monitors the fire suppression system for waterflow and valve tamper, smoke and heat detection, and manual pull stations. Fire alarm notification coverage includes horn appliances and strobe visual appliances located throughout the building.
Maintenance and Inspections:	Updated maintenance and inspection records were unavailable to the City of Richmond since maintenance is the responsibility of the Main Building owner.
Condition:	The existing fire alarm panel serving the Main Building has reached the end of its useful life. Although it remains operable, the manufacturer no longer supports the equipment, and there is limited parts availability.
Recommendations:	Install a separate fire alarm system serving only the Craneway Pavilion. Request that the owner of the Main Building provide maintenance records of the fire alarm system, and provide copies of future maintenance service testing and inspection reports, since it is a shared system. A cost-sharing agreement with the Main Building owner may need to be pursued if one does not already exist.

7.2 FIRE SUPPRESSION SYSTEM

Description:	The Craneway Pavilion is fully equipped with an automatic sprinkler system served from two sprinkler risers: the west riser is located on the west side of the Craneway Pavilion, and the east riser is located in the restaurant to the northeast of the Craneway Pavilion. The east riser protects the restaurant in addition to protecting the east side of the Craneway Pavilion. The risers are supplied by a site water loop that supports the rest of the sprinkler systems and fire hydrants that protect the Main Building and the entire site. The portion of the loop extends above ground inside the Craneway Pavilion on the north side. Window sprinklers were observed on both the Craneway Pavilion side and the Main Building side of the windows on the second floor.
Maintenance and Inspections:	Updated maintenance records were unavailable to the City of Richmond since maintenance is the responsibility of the Main Building owner. Stickers observed on the fire sprinkler risers serving the Craneway Pavilion indicated that the system had its last annual inspection in March 2025, conducted by Bay Alarm, and its last five-year inspection in July 2025, conducted by Cen-Cal Fire Systems, Inc.

Condition: The fire suppression system generally appeared to be in good condition. It should be noted that the fire suppression water supply is supplied by the Main Building's private fire mains.

Recommendations: Request that the Main Building owner provide maintenance records of the fire alarm system, and provide copies of future maintenance service testing and inspection reports, since it is a shared system. A cost-sharing agreement with the Main Building owner may need to be pursued if one does not already exist.

7.3 MANUAL FIRE EXTINGUISHING EQUIPMENT

Description: Manual wall-mounted fire extinguishers were noted throughout the property. Inspection tags observed show last inspection occurred in March 2025.

Condition: No significant issues were noted or reported.

Recommendations: Not applicable.

7.4 FIRE HYDRANTS

Description: Approximately ten private fire hydrants are located on the entire site and are connected to the property's private fire protection water main loop. None of these fire hydrants is located within the portion of the site serving the Craneway Pavilion.

Condition: The private hydrants are understood to be the responsibility of the Main Building.

Recommendations: Not applicable.

7.5 MEANS OF EGRESS

Description: Egress for the Craneway Pavilion is via entry doors on the east, west, and south sides of the building that discharge to the pier.

Condition: No significant issues were noted or reported.

Recommendations: Not applicable.

7.6 EMERGENCY LIGHTING AND EXIT SIGNAGE

Description: Emergency lighting is provided by battery pack fixtures located along the south wall of the building. Exit signs were observed throughout the building and appear to be located at the required locations to direct occupants to the closest means of egress. Exit signs were observed to be illuminated by the standard building electricity with battery backup.

Maintenance and Inspections:	No maintenance inspection documentation on required annual testing was provided.
Condition:	Equipment generally appeared to be in poor condition. The devices were observed to be at the end of their useful life, and multiple signs were not properly illuminating.
Recommendations:	Replace exit signs and emergency lights throughout the Craneway Pavilion.

8.0 BUILDING EQUIPMENT

8.1 VERTICAL TRANSPORTATION

Although the Main Building is provided with elevators, none serve the Craneway Pavilion.

Two large beam cranes in the space, for which this portion of the building is named, no longer appear to be functional. These appear to have been partially dismantled to prevent accidental usage and appear to have been retained because of their historic nature.

8.2 SECURITY SYSTEMS

Description: Security systems serving the Craneway Pavilion appear to be limited to an automatic burglar alarm manufactured by Bosch with four separate alarm stations. No information on the alarm system monitoring company has been provided.

One video camera was noted in the Craneway Pavilion near the A/V equipment access to the west beam crane. It is unknown whether this is part of a video surveillance system or is an internet camera that is connected to the A/V system.

Condition: The alarm system generally appears to be in good condition, although trouble alarms were noted on the user interface at each station.

Recommendations: The City should contact the security alarm monitoring service to have the trouble alarms investigated. This is presumed to be part of the service of a security monitoring company.

8.3 COMMUNICATION SYSTEMS

Description: Telecommunications services for the Craneway Pavilion are provided from a Minimum Point of Entry (MPOE) located in the Main Building.

Condition: The system appears to be in good condition.

Recommendations: Not applicable.

9.0 SUSTAINABILITY

Description: Marx Okubo performed a Baseline sustainability review of the subject project. Through property management and maintenance interviews, as well as our observations through our site walk, we were able to complete our Baseline Sustainability Related Findings checklist, which we have included as an exhibit to this report.

Mechanical, electrical, and plumbing systems for the Craneway Pavilion are limited to gas-fired unit heaters and exhaust fans, lighting, plumbing fixtures, and two small, localized electric resistance domestic water heaters.

Sustainability measures for the Craneway Pavilion include the installation of light fixtures in the main open area using LED lamps and dual-flush toilets.

Condition: There do not appear to be any electricity, natural gas, or water utility meters for the Craneway Pavilion, and no sub-meters were observed. Usage of the Craneway Pavilion appears to be limited to special events, and many standard sustainability measures likely have longer financial paybacks than would be expected for a building with regular usage.

Recommendations: The following list of potential sustainability measures should be considered for implementation for this building. Further analyses of these items are recommended to be performed through an Energy Audit to determine the economic benefits of these enhancements. The Energy Audit would be essential in determining whether to upgrade the roof insulation when the roof is replaced.

Install submeters to measure the usage of electricity, natural gas, and domestic water of the Craneway Pavilion.

Improve the building insulation levels on the roofs.

Add insulation to the walls.

Implement a "Green" cleaning policy for maintenance and housekeeping.

10.0 REGULATORY REVIEW

10.1 CODE CLASSIFICATION

Occupancy Use: Per the construction documents provided, the property is likely Type-F.

Construction Type: Per the construction documents provided, the property is Type I construction.

10.2 CERTIFICATES OF OCCUPANCY/BUILDING PERMITS

Marx Okubo filed a Public Records Request with the City of Richmond Community Development Department (https://cityofrichmondca.nextrequest.com/) on January 8, 2026 for the Certificate of Occupancy; however, a copy was not received at the time of the issuance of this report.

10.3 GOVERNMENT AGENCY REVIEW

Building Department: Marx Okubo filed a Public Records Request with the City of Richmond Community Development Department (https://cityofrichmondca.nextrequest.com/) on January 8, 2026 for information regarding potential outstanding building code violations. Per Jamie Jenkins, Senior Permit Tech, there are no outstanding violations on record.

Fire Department: Marx Okubo filed a Public Records Request with the City of Richmond Fire Department (https://cityofrichmondca.nextrequest.com/) on January 8, 2026 for information regarding potential outstanding fire code violations and recent inspections. Per Jamie Jenkins, Senior Permit Tech, there are no outstanding violations on record.

Planning Department: Marx Okubo filed a Public Records Request with the City of Richmond Community Development Department (https://cityofrichmondca.nextrequest.com/) on January 8, 2026 for information regarding potential outstanding zoning code violations and current zoning information. Per Jamie Jenkins, Senior Permit Tech, there are no outstanding violations on record. The property is zoned Light Industrial (IL).

10.4 ZONING

Per the City of Richmond Community Development Department, the property is zoned Light Industrial (IL).

10.5 FLOOD ZONE

According to *FZDS Flood Plain Determination Report Map* Panel No. 06013C0236 G, dated September 30, 2015, the project is located in X, areas of minimal flooding. Areas determined to be outside the 500-year flood plain.

11.0 ACCESSIBILITY

11.1 AMERICANS WITH DISABILITIES ACT (ADA), TITLE II

Since the subject project was last renovated and reoccupied in 2008, which occurred after January 26, 1993, it is required to comply with the 1991 ADA Standards. Marx Okubo conducted a general review of the property for compliance with the criteria in the 2010 ADA Standards for Accessible Design. Our review exceeds the visual-only review scope in the ASTM E2018-24. It should be noted that this is a limited review based on a sampling of conditions, and there may be non-compliance items that have not been identified.

Refer to the separate Accessibility report prepared by Marx Okubo, included as an exhibit to this report.

12.0 EXHIBITS

VICINITY MAP

N
W E
S

VICINITY MAP

Craneway Pavilion
Richmond, California

MARX OKUBO

FLOOD PLAIN DETERMINATION REPORT

MARX OKUBO & ASSOCIATES - IRVINE : Insurance Report

DataVerify Flood Services

Determination Report

DATE: 01/15/26

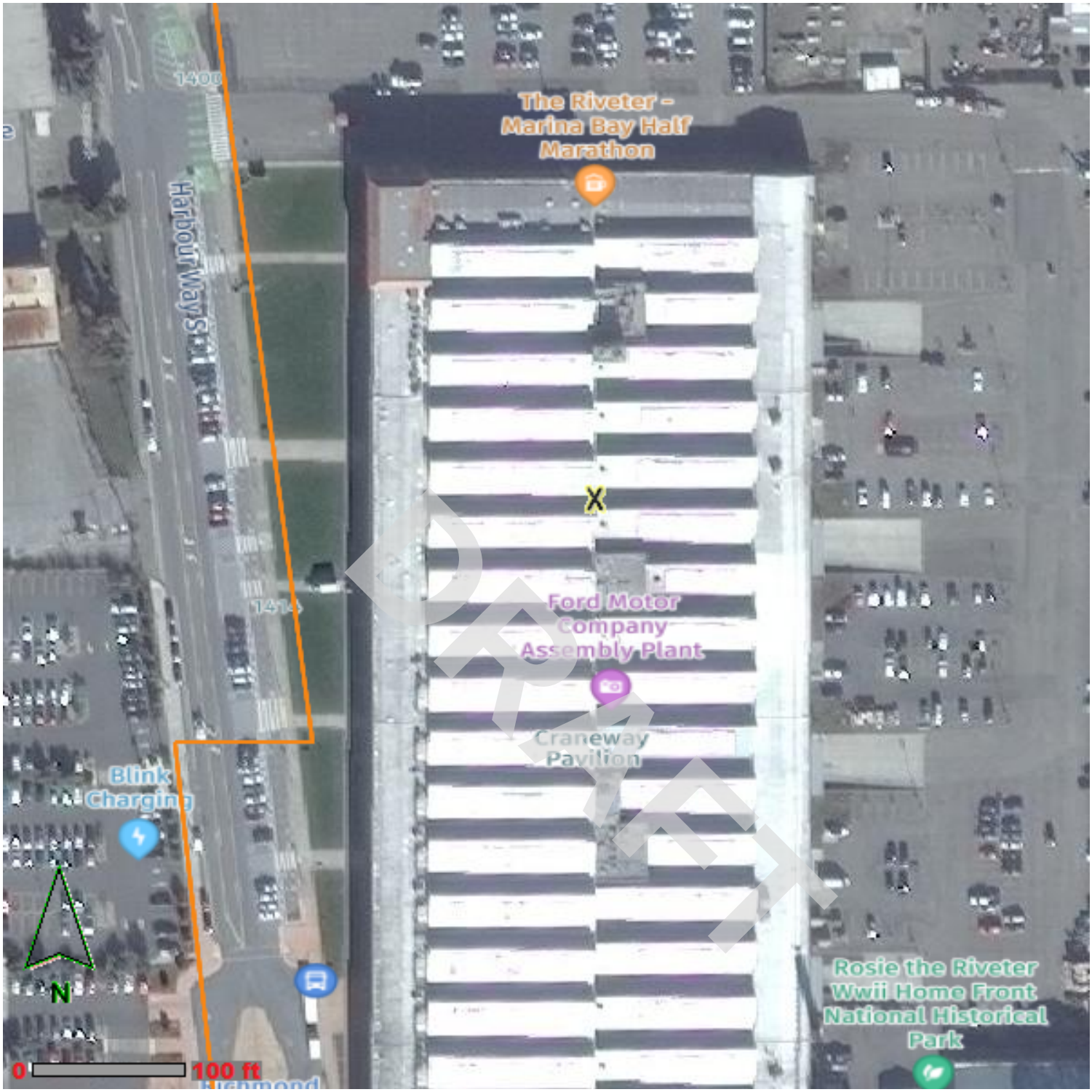
Account Number: INS 97156131

MARX OKUBO & ASSOCIATES - IRVINE

Owner Name: RDH BUILDING SCIENCE INC
Certified Street Address: 1414 HARBOUR WY S, RICHMOND, CA 94804
Requester: Phone#: Fax#:
Policy Number: 260107113357666
Community Name: RICHMOND, CITY OF
Community Status: Regular Program Type: Participating
Det ID: 357983418 Map Panel #: 06013C0236 G Community #: 060035 Panel Date: 09/30/15 Entry Date: 03/01/79
Det Date: 01/07/26 Flood Zone: X BFE: (Vertical Datum:) LOMA/LOMR❑ DATE:

Areas of minimal flooding. Areas determined to be outside 500 year flood plain.

This flood determination is provided to the lender pursuant to the flood disaster protection act and for no other purpose. It does not create any private cause of action on behalf of the Policy Holder against DataVerify Flood Services.



Flood Zones Legend

A Values | X500 /SHX / B | X / C

D / NMA | V Values | Street

Determination Id :	357983418
Certified Address :	1414 HARBOUR WY S, RICHMOND, CA 94804
Flood Zone :	X
Base Flood Elevat :	N/A
FEMA Map Panel Number :	06013C0236 G
FEMA Map Panel Eff. Date :	09/30/15
Coast CBRA Date :	
LOMA LOMR Date :	
Distance To 100/500 Flood Zone :	626.0 ft to VE

DISCLAIMER: THIS MAP IMAGE IS PROVIDED AS A VISUAL AID WITHOUT ANY WARRANTIES OR GUARANTEES; IT DOES NOT CREATE ANY PRIVATE CAUSE OF ACTION ON BEHALF OF THE BORROWERS OR INSURED PROPERTY OWNERS AGAINST THE FLOOD DETERMINATION PROVIDER. DISTANCE TO 100/500 YEAR FLOOD AREA IS AN APPROXIMATION CALCULATED FROM GEOCODING TECHNOLOGY AND IS NON-GUARANTEED.


Zone AE
(EL 10)
Zone AE
(EL 10)
A
Zone AE
Zone AE
Zone VE
Structure A is clear of the SFHA in Zone X
DRAFT


Zone VE
(EL 13)

DOCUMENTS UTILIZED

DOCUMENTS UTILIZED

- Ford Point Leasing Brochure, prepared by Madison Capital and Cushman & Wakefield, date unknown.
- Electrical construction drawings, titled Ford Assembly Building, revision "Permit," prepared by Morrow-Meadows Corp., dated October 1, 2008.
- Electrical construction drawings, titled Ford Assembly Building, revision "Record Drawings," prepared by Morrow-Meadows Corp., dated November 7, 2008.
- Architectural construction drawings, titled Ford Assembly Building, revision "N. Parking & SP Area Revised," dated March 12, 2008.
- Architectural construction drawings, titled Ford Assembly Building, "Building Department Building Shell Revisions," dated March 15, 2007.

ACCESSIBILITY REPORT

MARX OKUBO

Architecture • Engineering • Construction • CONSULTANTS

ACCESSIBILITY REVIEW

CRANEWAY PAVILION

1414 Harbour Way South
Richmond, CA 94804

Prepared for:

RDH BUILDING SCIENCE, INC.
1901 Harrison Street, Suite 1210
Oakland, CA 94612
Attention: Tammy Siliznoff, MS, P.E., LEED AP
tsiliznoff@rdh.com

Marx Okubo Job No. 25-5427

Inspected by a CASp
Bassamat Bahnasy, CASp #1190

February 3, 2026

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SECTION **PAGE**

DISTRIBUTION

Tammy Siliznoff, RDH Building Science, Inc. (Electronic copy)
Kurt Weninger, RDH Building Science, Inc. (Electronic copy)
Kiren Leeds, RDH Building Science, Inc. (Electronic copy)
Matthew Bowman, RDH Building Science, Inc. (Electronic copy)

1. DETAILED ACCESSIBILITY REVIEW

A. PROJECT INFORMATION

The subject area under review comprises a portion of a 518,000-square-foot building, featuring a single-story main hall with associated restrooms, kitchen, dining bar, and storage rooms. Based on the information provided, this area does not have a dedicated parking facility and relies on public on-street parking.

Marx Okubo was provided with limited improvement drawings and a list of permit applications for the property. Based on the information provided, the property is a registered historic site, originally constructed in the 1930s as an industrial building and fully renovated in 2008. The assessed area is owned by the City of Richmond and has historically functioned as a public event hall. Most recently, the property was leased for use as a pickleball sports venue and has since been returned to municipal control. The future use of the property has not yet been determined.

B. SITE OBSERVATION

The site visit took place on January 8, 2026, during which time the project site, main hall, restrooms, kitchen, signage, and entry doors were reviewed for the purposes of determining compliance with accessibility requirements. The project observation team was led by Bassamat Bahnasy, CASp, ADAC, LEED AP, Senior Associate of Marx Okubo. Marx Okubo's staff was accompanied by Michelle Heredia of Orton Development during this review.

C. APPLICABLE CODES AND REGULATIONS

This review is limited to the following codes and standards:

- Title II of the Americans with Disabilities Act (ADA) - 1991 and 2010 ADA Standards for Accessible Design.
- Chapter 11 of the 2007 Edition of the California Building Code (CBC).
- Chapter 11B of the 2025 Edition of the CBC for future renovation.

Marx Okubo understands that the property was constructed for first occupancy prior to January 26, 1993, and is owned and operated by the City of Richmond; therefore, it falls under Title II of the ADA. Based on the permits provided, the building underwent renovations in 2008. Therefore, the 1991 ADA Standards for Accessible Design were applicable to the renovated area, along with the 2007 CBC, which was in effect at the time of the renovation.

The project was reviewed against the current building code and the 2010 ADA Standards. The building code would become applicable only in the event of future alterations, while the 2010 ADA Standards would apply only in the event of future alterations or to elements not compliant with, or not addressed by, the 1991 ADA Standards.

2. METHODOLOGY

Under Title II of the ADA, state and local governments must ensure that people with disabilities can access their programs, services, and activities. Therefore, this review was limited to areas where current programs, services, and activities are provided. The review included the main hall and its associated spaces, including restrooms, the dining bar, and exterior access routes serving the reviewed area.

Facilities or buildings located outside the boundaries shown on the attached site plan were outside our scope of review. Refer to the attached site plan for the project boundary and the limits of the reviewed area. In addition, exterior parking and associated routes, maintenance areas, spaces subject to Title I of the ADA, and the commercial kitchen were excluded from this review.

Areas subject to Title I (Employment) of the ADA, including employee work areas such as the commercial kitchen, as well as storage, maintenance, and other property management spaces, are excluded from the scope of this review.

Marx Okubo physically measured a representative sample of floor and ground surfaces, changes in level, turning spaces, clear floor and ground spaces, knee and toe clearances, protruding objects, reach ranges, and operable parts as a part of accessible routes. Standard 2' digital levels, digital measuring devices, and standard tape measures were utilized, and Marx Okubo's accuracy is governed by the limitations of these devices.

Marx Okubo documents non-compliant issues, only, which are typically noted in one location. Documentation of elements within compliance is outside of the scope of this review. Our findings are attached as an exhibit to this report. The numbering system used to identify non-compliant conditions is determined by the software used to generate this report. Missing or non-sequential numbers do not represent closed or missing issues.

Reviews are limited to spatial configurations and will not include an evaluation of the function of components. The following items are outside the scope of these services: alarms, strobes, lighting levels, telephone TTY operations and magnetic levels, audio decibel levels, accuracy of Braille wording, blocking within walls, slip resistance, and other items that cannot be determined visually. For example, the existence and mounting height of audio/visual alarms was reviewed, but not the features, functionality or characteristics of the strobe or horn.

Where conflicts or discrepancies occur between the requirements of the ADA and code, Marx Okubo based recommendations on the more stringent requirement in order to ensure a wider range of accessible accommodation.

3. EXHIBITS

A. DETAILED ACCESSIBILITY REVIEW - ISSUES LIST

B. SPREADSHEET OF FINDINGS AND ASSOCIATED COST

C. SITE PLAN

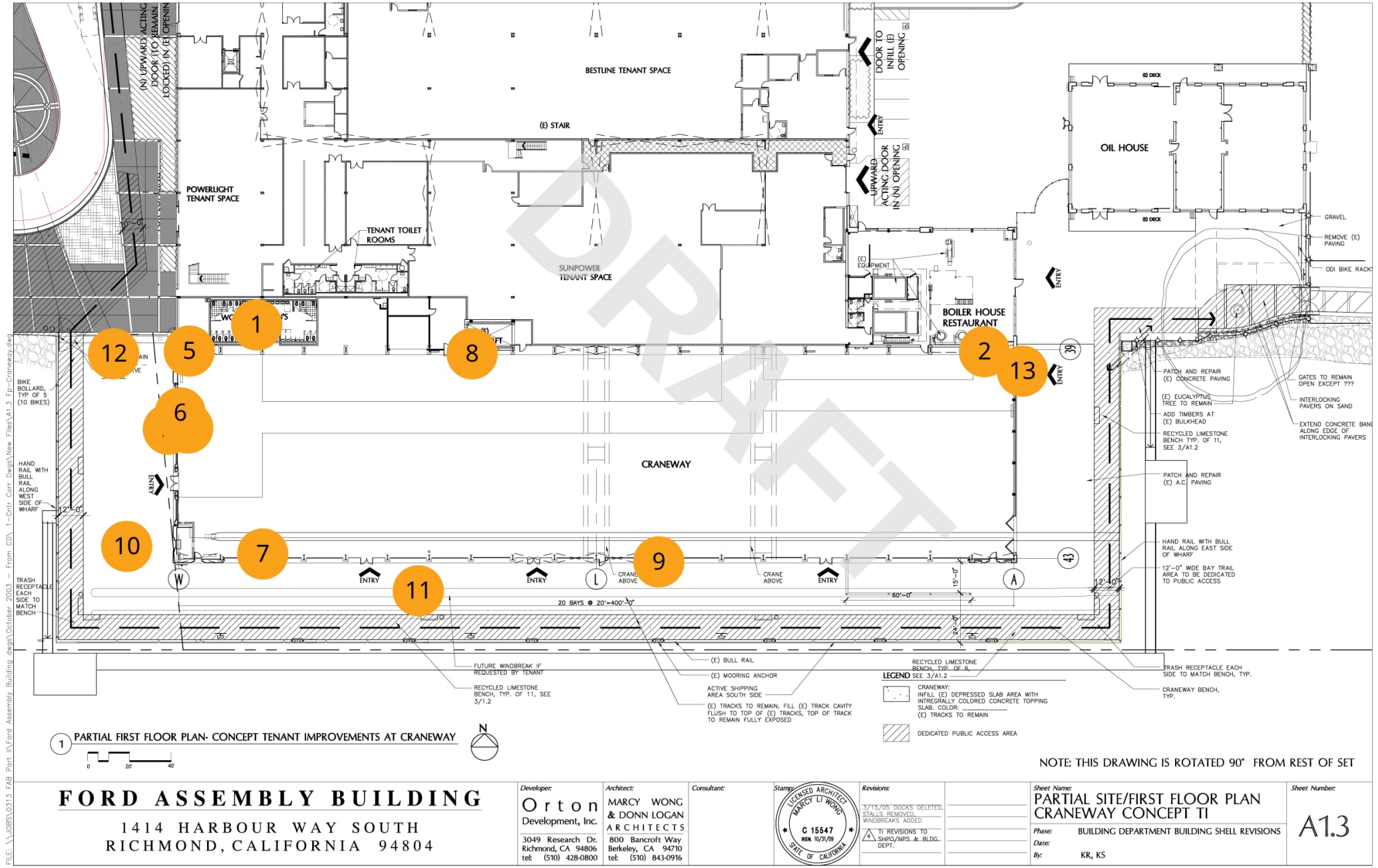
EXHIBIT A

Issue detail

Site Observation - 01/08/2026

Contents

A1.3 (13 issues)



FORD ASSEMBLY BUILDING

1414 HARBOUR WAY SOUTH
RICHMOND, CALIFORNIA 94804

Developer: Orton Development, Inc. 3049 Research Dr. Richmond, CA 94806 tel: (510) 428-0800

Architect: MARCY WONG & DONN LOGAN ARCHITECTS 800 Bancroft Way Berkeley, CA 94710 tel: (510) 843-0916

Consultant:

Stamp: LICENSED ARCHITECT MARCY LT WONG C 15547 REN 10/31/09 STATE OF CALIFORNIA

Revisions:
3/15/05 DOCKS DELETED, STALLS REMOVED, WINDBREAKS ADDED
4 TI REVISIONS TO SHPO/NPS & BLDG. DEPT.

Sheet Name: PARTIAL SITE/FIRST FLOOR PLAN CRANEWAY CONCEPT TI

Phase: BUILDING DEPARTMENT BUILDING SHELL REVISIONS
Date:
By: KR, KS

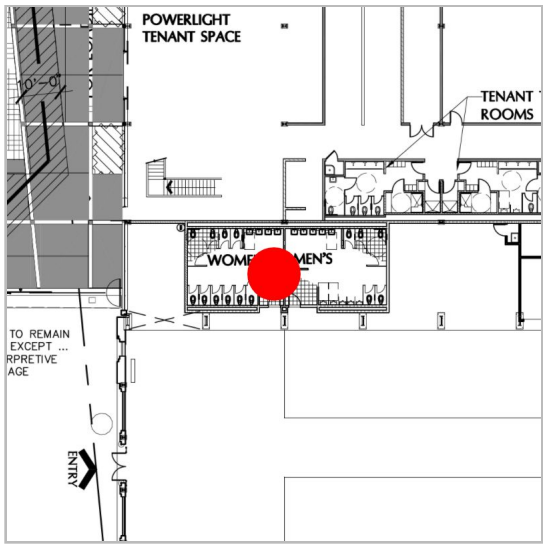
Sheet Number: A1.3

Issue detail

#16: Lockers - Reach Range

MARX OKUBO

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#16
Pin	1
Location	General
Location details	Main Hall and Restrooms
Placement	A1.3 (PARTIAL SITE/FIRST FLOOR PLAN FWAY CONCEPT TI)
Description	An accessible locker is not provided as the bottom shelf measured 7" above the floor.
Codes and Regulations	At least 5%, but no fewer than one of the lockers must be within reach range at each location. CBC 11B-225 Unobstructed reach range must be 15" minimum above the floor. CBC 11B-308.2.1
Recommendation	Provide one shelf within accessible reach in the lower section of one locker at each location.
Priority	Priority 4 - Other



References and Attachments

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Added by Bassamat Bahnasy

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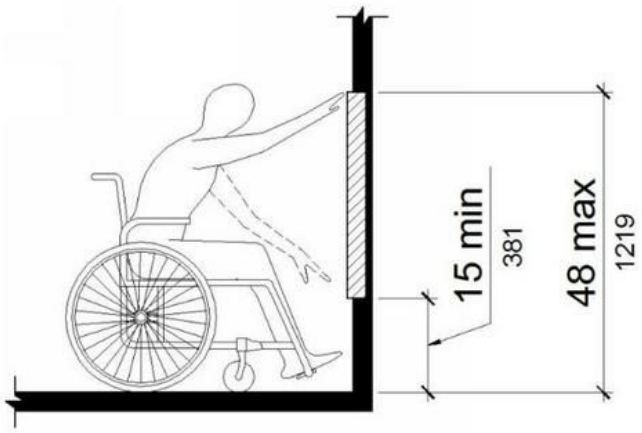


Figure *11B*-308.2.1
Unobstructed Forward Reach

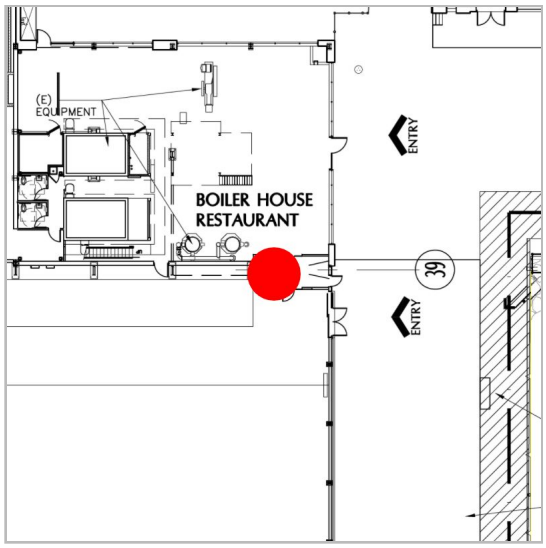
Figure 11B-308.2.1 Unobstructed Forward Reach
Added as Reference
Taken on Apr 24, 2020, 10:30 AM PDT
Added on Jan 26, 2026, 8:52 PM PST
Added by Bassamat Bahnasy

Issue detail

#2: Restroom - Directional Signage

MARX OKUBO

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#2
Pin	2
Location	Main Hall
Location details	East of Building
Placement	A1.3 (PARTIAL SITE/FIRST FLOOR PLAN FWAY CONCEPT TI)
Description	The east-side restroom is inaccessible, and no directional signage to accessible restrooms is provided.
Codes and Regulations	Directional signs indicating the location of the nearest accessible restroom must be provided at inaccessible restrooms. Signs shall include the International Symbol of Accessibility. CBC 11B-216.8
Recommendation	Provide directional signage.
Priority	Priority 2 - Goods and Services



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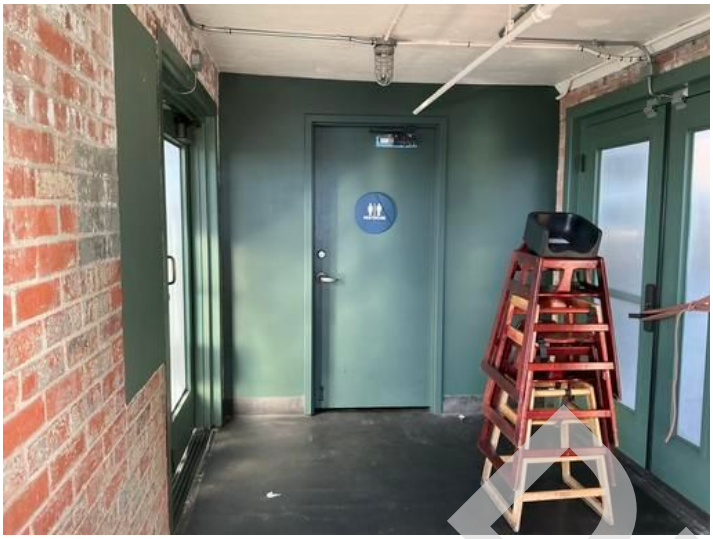

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Added on Jan 26, 2026, 7:54 PM PST
Added by Bassamat Bahnasy

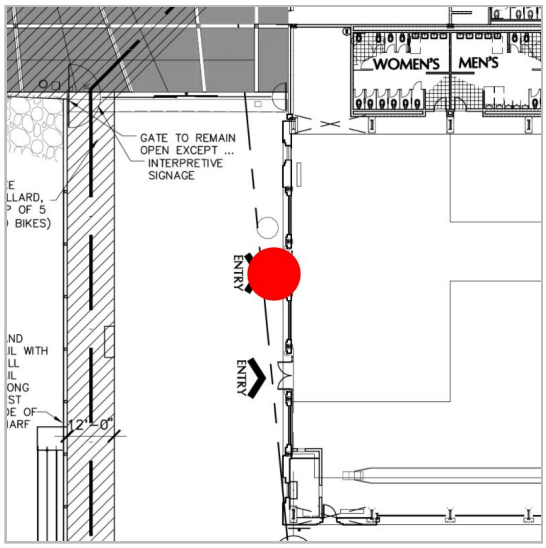
Directional Signage
Added as Reference
Added on Jan 26, 2026, 8:00 PM PST
Added by Bassamat Bahnasy

Issue detail

#7: Main Entrance - Door

MARX OKUBO

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#7
Pin	3
Location	Main Hall
Location details	West Entrance
Placement	A1.3 (PARTIAL SITE/FIRST FLOOR PLAN FWAY CONCEPT TI)
Description	The imbedded metal plate at the main entry is obstructing an accessible route through the door. Element along the plate exceed 1/2". In addition, the slope is greater than 2% within the door maneuvering clearance.
Codes and Regulations	At least one accessible entrance must be provided. CBC 11B-202.4
Recommendation	Modify door threshold and door maneuvering clearance.
Priority	Priority 1 - Entrances



References and Attachments

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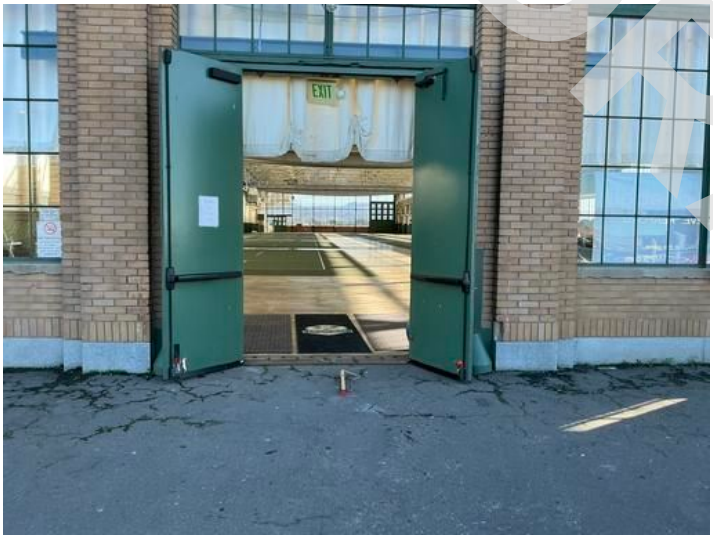

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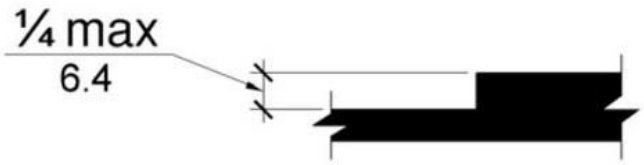

Figure *11B*-303.2
Vertical Change in Level

Figure 11B-303.2 Vertical Change in Level
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Added by Bassamat Bahnasy

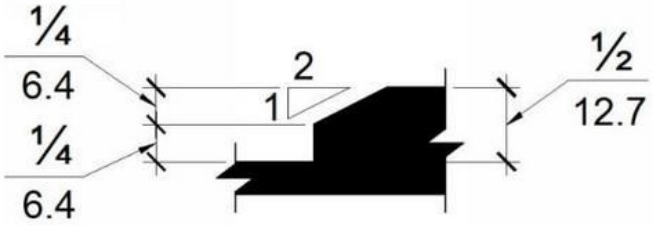


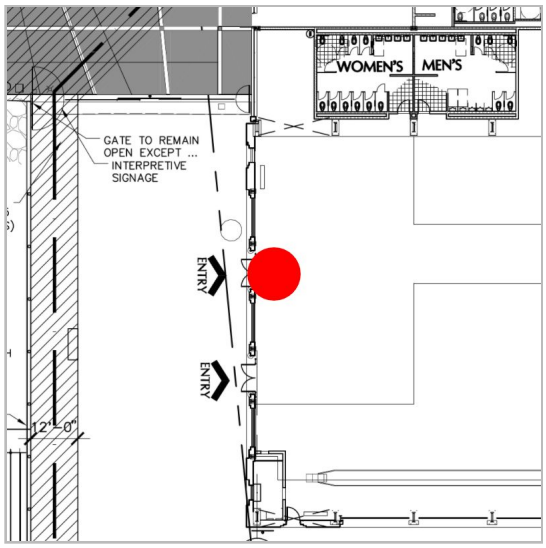
Figure *11B*-303.3
Beveled Change in Level

Figure 11B-303.3 Beveled Change in Level (1)
Added as Reference
Taken on Apr 24, 2020, 10:22 AM PDT
Added on Feb 3, 2026, 8:36 AM PST
Added by Bassamat Bahnasy

Issue detail

#9: Floor Mats - Secure Attachment

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#9
Pin	4
Location	Main Hall
Location details	Main Entrance - West Side
Placement	A1.3 (PARTIAL SITE/FIRST FLOOR PLAN FWAY CONCEPT TI)
Description	Floor mats are not adhered to the ground surface.
Codes and Regulations	All carpets must be securely attached. CBC 11B- 302.2
Recommendation	Securely attach the floor mats to the floor surface.
Priority	Priority 1 - Entrances



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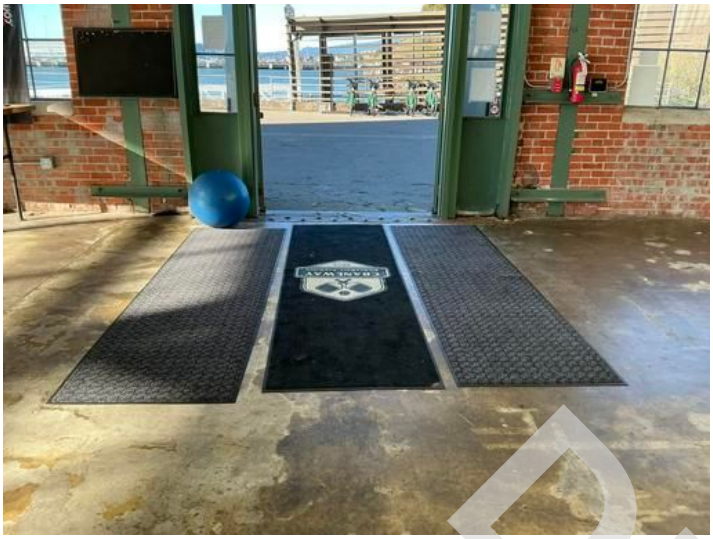

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Added by Bassamat Bahnasy

20260108_102428_2_photo
Added as Reference
Added on Jan 19, 2026, 1:40 PM PST
Added by Bassamat Bahnasy

Carpeting must be securely attached so that it does not shift or buckle against wheeled traffic. Cushions or pads, if used, also must be properly secured to resist movement. Rolling or buckling occurs when carpet is not properly secured and makes wheelchair maneuvering very difficult.

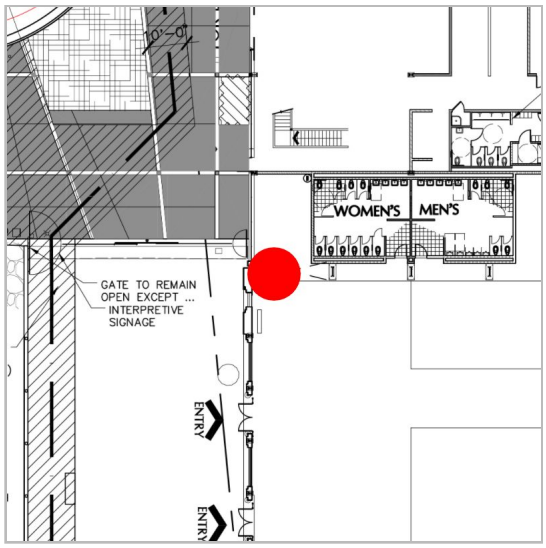
Carpet
Added as Reference
Taken on May 16, 2024, 4:35 PM PDT
Added on Jan 19, 2026, 1:43 PM PST
Added by Bassamat Bahnasy

Issue detail

#14: Circulation Path - Vertical Clearance

MARX OKUBO

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#14
Pin	5
Location	Main Hall
Location details	West to Women's Restroom
Placement	A1.3 (PARTIAL SITE/FIRST FLOOR PLAN FWAY CONCEPT TI)
Description	Vertical clearance to the area adjacent to the restrooms measured less than 80" due to the location of the structural beam and mechanical elements.
Codes and Regulations	Circulation spaces shall have 80" minimum clear head room. Guardrails or other barriers shall be provided where the vertical clearance is less than 80" high. The leading edge of such guardrail or barrier shall be located 27" maximum above the finish floor or ground. ADA 4.4.2
Recommendation	Provide cane detection below the protrusion.
Priority	Priority 2 - Goods and Services



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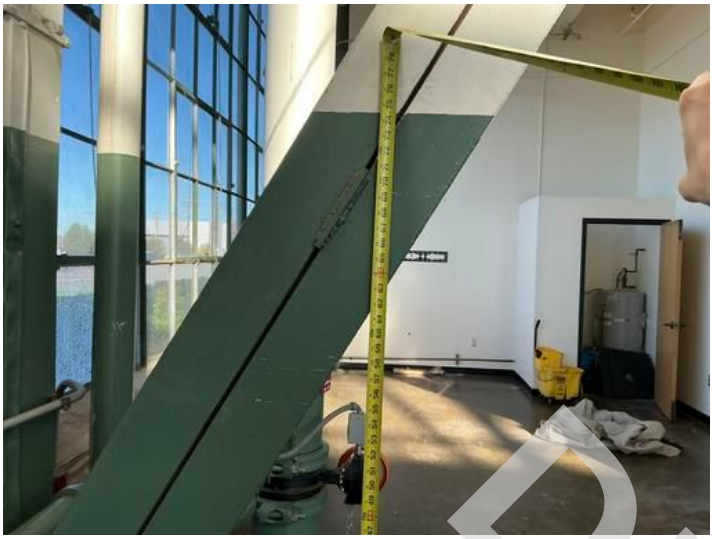

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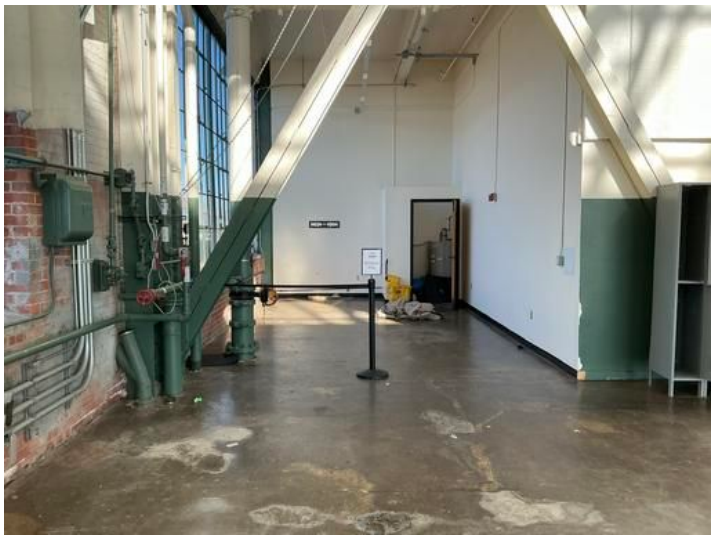

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Added by Bassamat Bahnasy

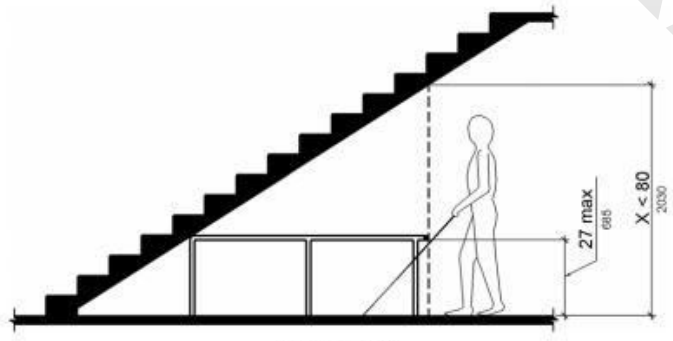


Figure 307.4
Vertical Clearance

307.4 Vertical Clearance
Added as Reference
Taken on Apr 16, 2020, 5:06 PM PDT
Added on Jan 19, 2026, 1:53 PM PST
Added by Bassamat Bahnasy

20260108_105149_3_photo
Added as Reference
Added on Jan 28, 2026, 1:30 PM PST
Added by Bassamat Bahnasy

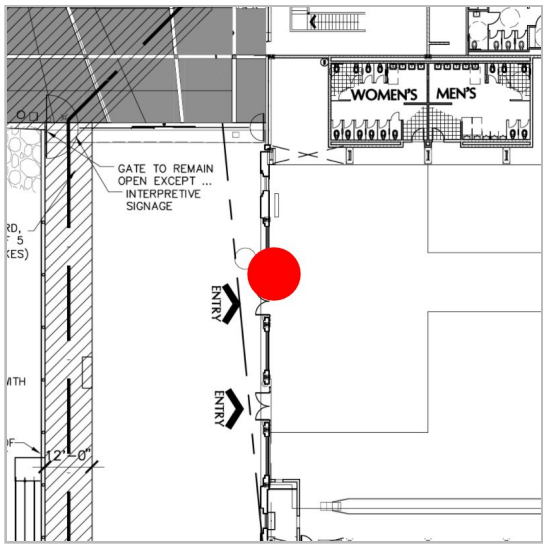
20260108_105124_2_photo
Added as Reference
Added on Jan 28, 2026, 1:30 PM PST
Added by Bassamat Bahnasy

20260108_105306_1_photo
Added as Reference
Added on Jan 28, 2026, 1:32 PM PST
Added by Bassamat Bahnasy

Issue detail

#17: Exit Signage

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#17
Pin	6
Location	Main Hall
Location details	All Exits
Placement	A1.3 (PARTIAL SITE/FIRST FLOOR PLAN FWAY CONCEPT TI)
Description	Exit signage is not provided at the building exits.
Codes and Regulations	Tactile exit signage must be provided at exit discharge. CBC 11B-216.4.1
Recommendation	Provide tactile signage at exit doors.
Priority	Priority 4 - Other



References and Attachments

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20260108_105718_3_photo
Added as Reference
Added on Jan 19, 2026, 2:27 PM PST
Added by Bassamat Bahnasy

20260108_105623_1_photo
Added as Reference
Added on Jan 19, 2026, 2:27 PM PST
Added by Bassamat Bahnasy

20260108_105652_2_photo
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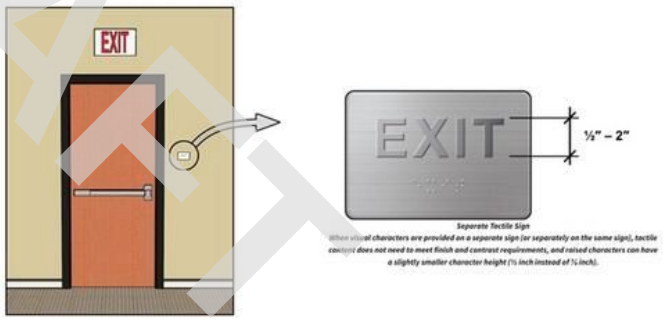
Added by Bassamat Bahnasy

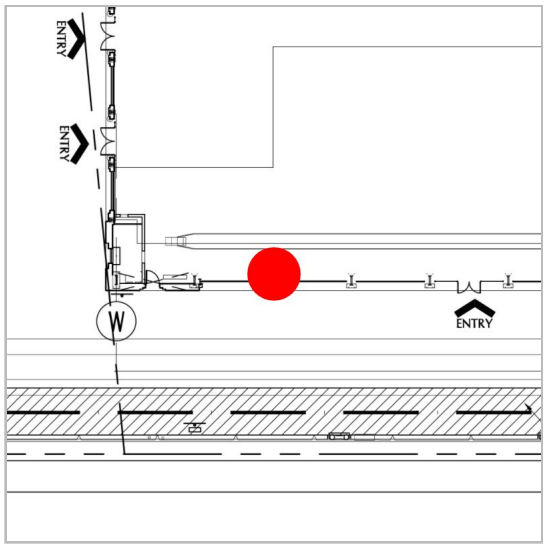


Tactile Exit Sign
Added as Reference
Added on Feb 3, 2026, 8:53 AM PST
Added by Bassamat Bahnasy

Issue detail

#22: Fire Extinguisher - Reach Range and Protruding Object

Status	Open
Type	AX Accessibility > Accessibility
ID	#22
Pin	7
Location	Main Hall
Location details	General
Placement	A1.3 (PARTIAL SITE/FIRST FLOOR PLAN FWAY CONCEPT TI)
Description	The fire extinguisher is located approximately 58" above the finish floor surface and is protruding up to 6" into the accessible route.
Codes and Regulations	Operable parts on elements required to be accessible must be located within reach ranges between 15" and 48" above the finish floor surface. Objects with leading edges more than 27" and not more than 80" above the finish floor or ground cannot protrude more than 4" maximum horizontally into the circulation path. CBC 11B-307.2
Recommendation	Relocate the fire extinguisher
Priority	Priority 4 - Other



References and Attachments

Photos (8)

20260108_111633_6_photo
Added as Reference
Added on Jan 19, 2026, 3:57 PM PST
Added by Bassamat Bahnasy

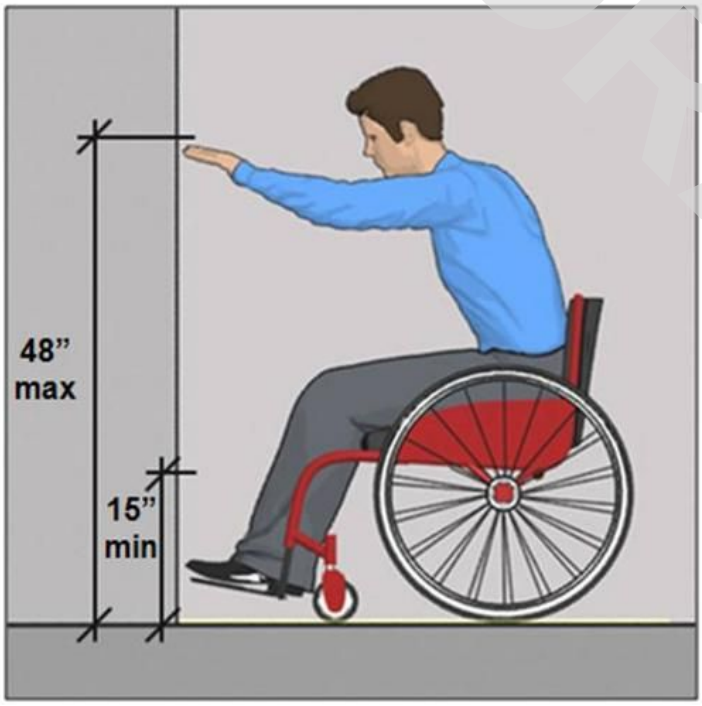
20260108_111626_5_photo
Added as Reference
Added on Jan 19, 2026, 3:57 PM PST
Added by Bassamat Bahnasy

20260108_111515_2_photo
Added as Reference
Added on Jan 19, 2026, 3:57 PM PST
Added by Bassamat Bahnasy

20260108_111521_3_photo
Added as Reference
Added on Jan 19, 2026, 3:57 PM PST
Added by Bassamat Bahnasy

20260108_111541_4_photo
Added as Reference
Added on Jan 19, 2026, 3:57 PM PST
Added by Bassamat Bahnasy

20260108_111500_1_photo
Added as Reference
Added on Jan 19, 2026, 3:57 PM PST
Added by Bassamat Bahnasy



Forward Reach
Added as Reference
Added on Jan 19, 2026, 4:02 PM PST
Added by Bassamat Bahnasy

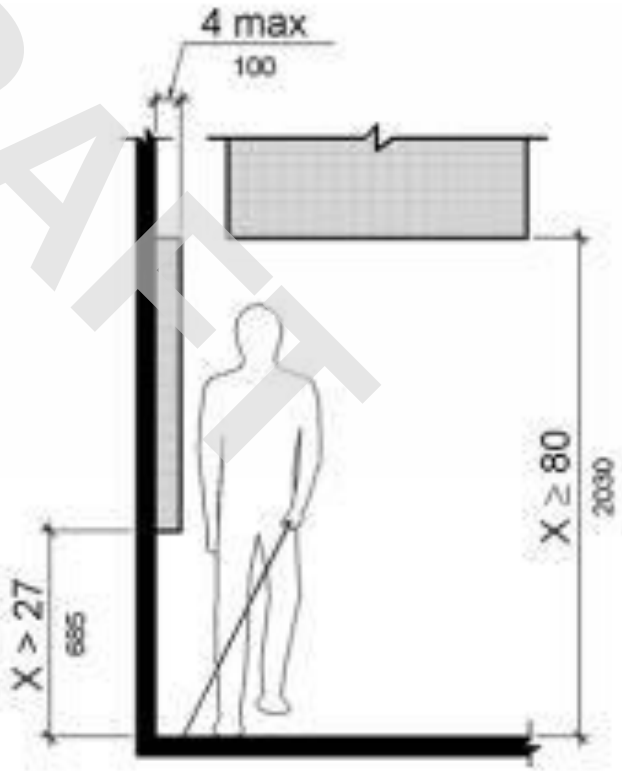


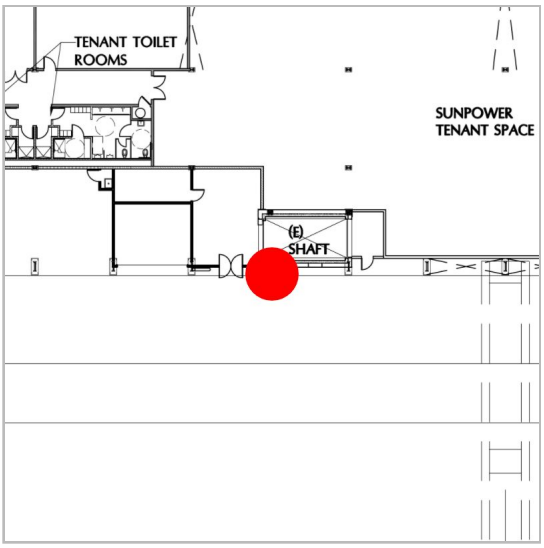
Figure 307.2
Limits of Protruding Objects

307.2 Limits of Protruding Objects
Added as Reference
Taken on Apr 16, 2020, 5:05 PM PDT
Added on Jan 19, 2026, 3:59 PM PST
Added by Bassamat Bahnasy

Issue detail

#50: AED - Protruding Object

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#50
Pin	8
Location	Main Hall
Location details	Adjacent to Kitchen
Placement	A1.3 (PARTIAL SITE/FIRST FLOOR PLAN FWAY CONCEPT TI)
Description	The AED protrudes greater than 4" into the circulation path and the height of the handle exceed 48".
Codes and Regulations	Objects with leading edges more than 27" above the finish floor or ground cannot protrude more than 4" maximum horizontally into the circulation path. The handle shall be located 48" maximum from the finished floor. CBC 11B-307.2
Recommendation	Relocate the AED.
Priority	Priority 3 - Restrooms



References and Attachments

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Added on Jan 19, 2026, 9:26 PM PST
Added by Bassamat Bahnasy

20260108_122903_1_photo
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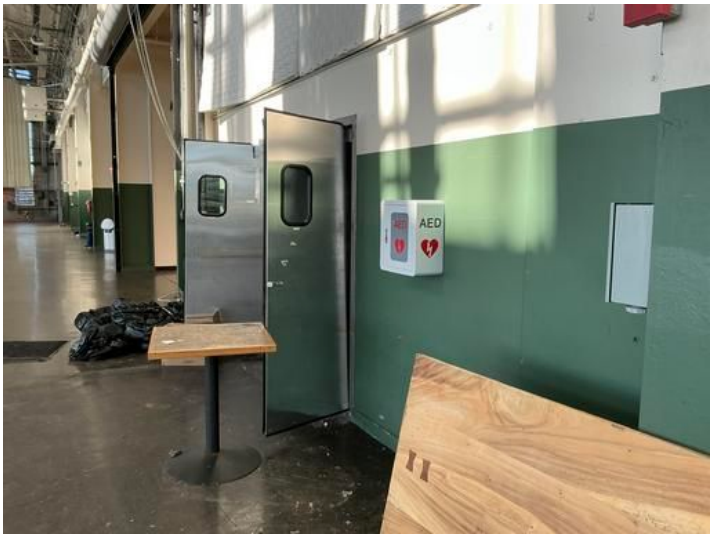
Added on Jan 19, 2026, 9:26 PM PST
Added by Bassamat Bahnasy



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Added by Bassamat Bahnasy

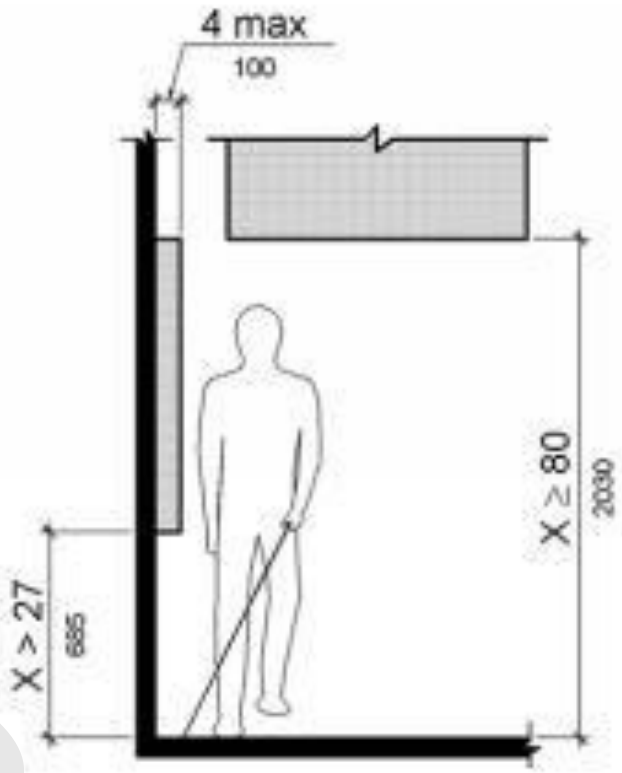


Figure 307.2
Limits of Protruding Objects

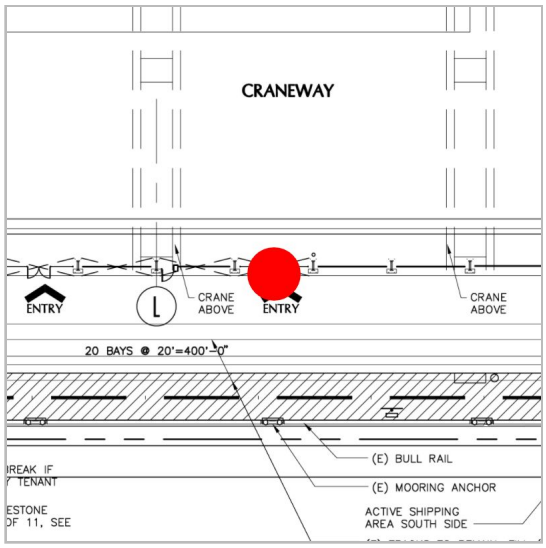
307.2 Limits of Protruding Objects
Added as Reference
Taken on Apr 16, 2020, 5:05 PM PDT
Added on Jan 19, 2026, 3:59 PM PST
Added by Bassamat Bahnasy

Issue detail

#4: South Deck - Interior Accessible Route

MARX OKUBO

Status	Open
Type	AX Accessibility > Accessibility
ID	#4
Pin	9
Location	Site
Location details	South Deck
Placement	A1.3 (PARTIAL SITE/FIRST FLOOR PLAN FWAY CONCEPT TI)
Description	All exterior doors to the rear deck are inaccessible due to changes in level exceeding 1/4", force exceeding 5 pounds, maneuvering clearance slope exceeding 2%, and elements within the bottom 10" of the door. The deck is required to be accessible if it is open to the public.



Codes and Regulations	At least one accessible route shall connect accessible building or facility entrances with all accessible spaces and elements within the building or facility. CBC 11B-206.2.2
Recommendation	Provide either an accessible door or an accessible route to the rear deck if the deck is open to the public. Refer to issue No. 5.
Priority	Priority 2 - Goods and Services

References and Attachments

Photos (8)

20260108_095934_6_photo
Added as Reference
Added on Jan 19, 2026, 10:36 PM PST
Added by Bassamat Bahnasy

20260108_095549_4_photo
Added as Reference
Added on Jan 19, 2026, 10:36 PM PST
Added by Bassamat Bahnasy

20260108_095454_2_photo
Added as Reference
Added on Jan 19, 2026, 10:37 PM PST
Added by Bassamat Bahnasy

20260108_095424_1_photo
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Added by Bassamat Bahnasy

20260108_100246_9_photo
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Added by Bassamat Bahnasy

20260108_100413_11_photo
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Added on Jan 19, 2026, 10:38 PM PST
Added by Bassamat Bahnasy

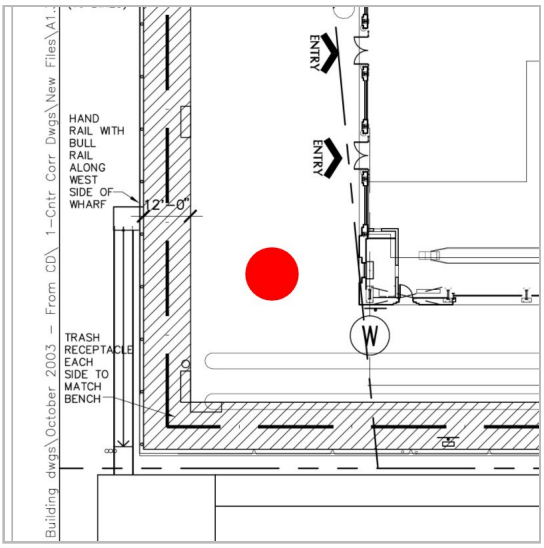
20260108_100539_13_photo (1)
Added as Reference
Added on Jan 19, 2026, 10:39 PM PST
Added by Bassamat Bahnasy

20260108_100113_8_photo
Added as Reference
Added on Jan 19, 2026, 10:39 PM PST
Added by Bassamat Bahnasy

Issue detail

#5: South Deck - Exterior Accessible Route

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#5
Pin	10
Location	Site
Location details	West of Building
Placement	A1.3 (PARTIAL SITE/FIRST FLOOR PLAN FWAY CONCEPT TI)
Description	An accessible route to the south deck is not provided due to level changes exceeding 1/4" along the west side of the site, and inaccessible doors serving the rear deck. Refer to Issue No. 4. The deck is required to be accessible if open to the public.
Codes and Regulations	At least one accessible route shall connect accessible building or facility entrances with all accessible spaces and elements within the building or facility. CBC 11B-206.2.2
Recommendation	To be determined based on future use of the space.
Priority	Priority 2 - Goods and Services



References and Attachments

Photos (5)

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Added as Reference
Added on Jan 19, 2026, 8:31 PM PST
Added by Bassamat Bahnasy

20260108_101020_3_photo
Added as Reference
Added on Jan 19, 2026, 8:31 PM PST
Added by Bassamat Bahnasy

20260108_101027_4_photo
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Added on Jan 19, 2026, 8:31 PM PST
Added by Bassamat Bahnasy

20260108_100942_2_photo
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Added by Bassamat Bahnasy

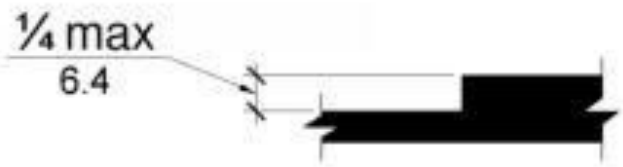


Figure 303.2
Vertical Change in Level

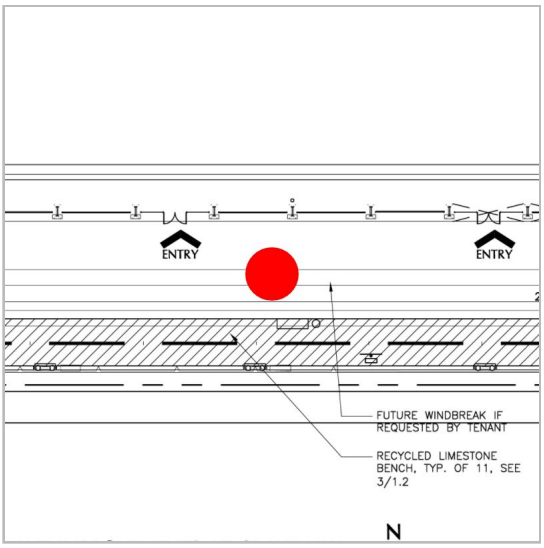
303.2 Vertical Change in Level
Added as Reference
Taken on Apr 16, 2020, 3:07 PM PDT
Added on Jan 19, 2026, 1:31 PM PST
Added by Bassamat Bahnasy

Issue detail

#6: South Deck - Slope and Change of Level

MARX OKUBO

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#6
Pin	11
Location	Site
Location details	South Deck
Placement	A1.3 (PARTIAL SITE/FIRST FLOOR PLAN FWAY CONCEPT TI)
Description	The South Deck is inaccessible due to level changes exceeding 1/4", a cross slope of 5.5%, and tracks that create abrupt changes in level. The deck is required to be accessible if it is open to the public.
Codes and Regulations	At least one accessible route shall connect accessible building or facility entrances with all accessible spaces and elements within the building or facility. CBC 11B-206.2.2
Recommendation	Provide an accessible route from an existing rear door if rear deck is open to the public. Refer to issue No. 4
Priority	Priority 2 - Goods and Services



References and Attachments

Photos (4)

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Added as Attachment
Added on Jan 8, 2026, 10:35 AM PST
Added by Bassamat Bahnasy

20260108_101600_3_photo.jpg
Added as Attachment
Added on Jan 8, 2026, 10:35 AM PST
Added by Bassamat Bahnasy

20260108_101423_1_photo.jpg
Added as Attachment
Added on Jan 8, 2026, 10:35 AM PST
Added by Bassamat Bahnasy

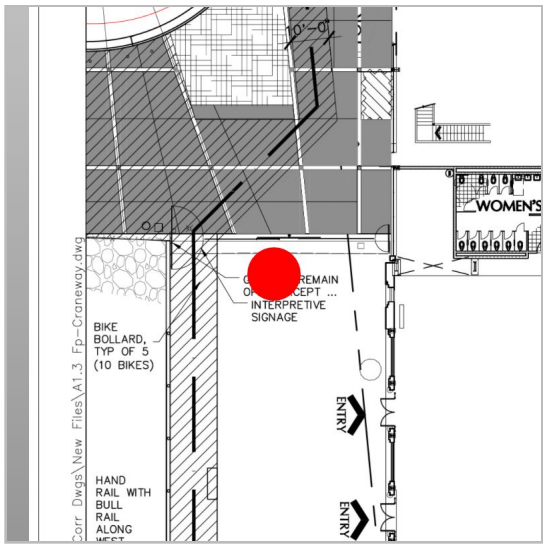
20260108_101442_2_photo.jpg
Added as Attachment
Added on Jan 8, 2026, 10:14 AM PST
Added by Bassamat Bahnasy

Issue detail

#12: Site Arrival Point - Accessible Route

MARX OKUBO

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#12
Pin	12
Location	Site
Location details	West of Building
Placement	A1.3 (PARTIAL SITE/FIRST FLOOR PLAN FWAY CONCEPT TI)
Description	The walkway from the accessible parking and public transit to the main entrance has changes in level exceeding 1/4" vertical.
Codes and Regulations	At least one accessible route from the site access point to an accessible entrance must be provided. ADA 4.1.7 (3)(a). Changes in level at the accessible route must not exceed 1/4" vertical. ADA 4.5.2
Recommendation	Resurface the asphalt.
Priority	Priority 1 - Entrances



References and Attachments

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Added as Reference
Added on Jan 19, 2026, 1:29 PM PST
Added by Bassamat Bahnasy

20260108_103945_4_photo
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Added on Jan 19, 2026, 1:29 PM PST
Added by Bassamat Bahnasy

20260108_103937_3_photo
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Added by Bassamat Bahnasy

20260108_103926_2_photo
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Added by Bassamat Bahnasy

20260108_104031_5_photo
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Added on Jan 19, 2026, 1:29 PM PST
Added by Bassamat Bahnasy

20260108_104306_1_photo
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Added on Jan 19, 2026, 1:29 PM PST
Added by Bassamat Bahnasy

20260108_104208_6_photo
Added as Reference
Added on Jan 19, 2026, 1:29 PM PST
Added by Bassamat Bahnasy

20260108_104217_7_photo
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Added on Jan 19, 2026, 1:29 PM PST
Added by Bassamat Bahnasy

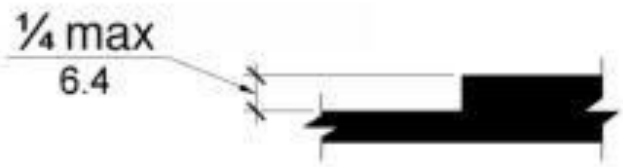


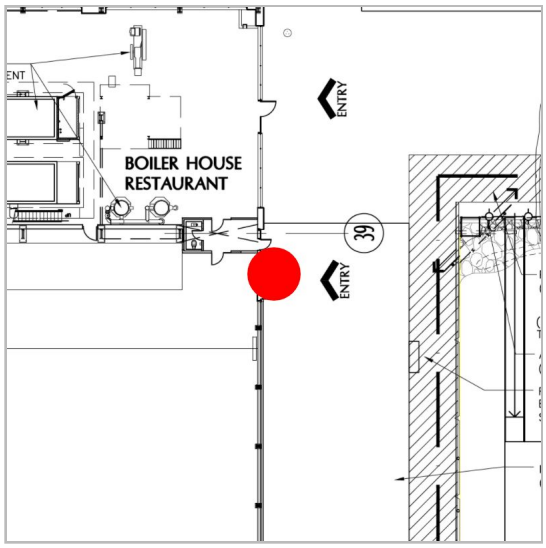
Figure 303.2
Vertical Change in Level

303.2 Vertical Change in Level
Added as Reference
Taken on Apr 16, 2020, 3:07 PM PDT
Added on Jan 19, 2026, 1:31 PM PST
Added by Bassamat Bahnasy

Issue detail

#56: Accessible Entrance

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#56
Pin	13
Location	Site
Location details	Exterior Doors
Placement	A1.3 (PARTIAL SITE/FIRST FLOOR PLAN FWAY CONCEPT TI)
Description	No accessible entrance is provided.
Codes and Regulations	At least one accessible entrance must be provided. Directional signs indicating the location of the nearest accessible entrance must be provided at inaccessible entrances. CBC 11B-216.6
Recommendation	Provide directional signage.
Priority	Priority 1 - Entrances



References and Attachments

Photos (6)

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Added by Bassamat Bahnasy

20260108_095836_3_photo
Added as Reference
Added on Jan 19, 2026, 6:50 PM PST
Added by Bassamat Bahnasy

20260108_104837_2_photo
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Added on Jan 19, 2026, 8:05 PM PST
Added by Bassamat Bahnasy

20260108_104829_1_photo
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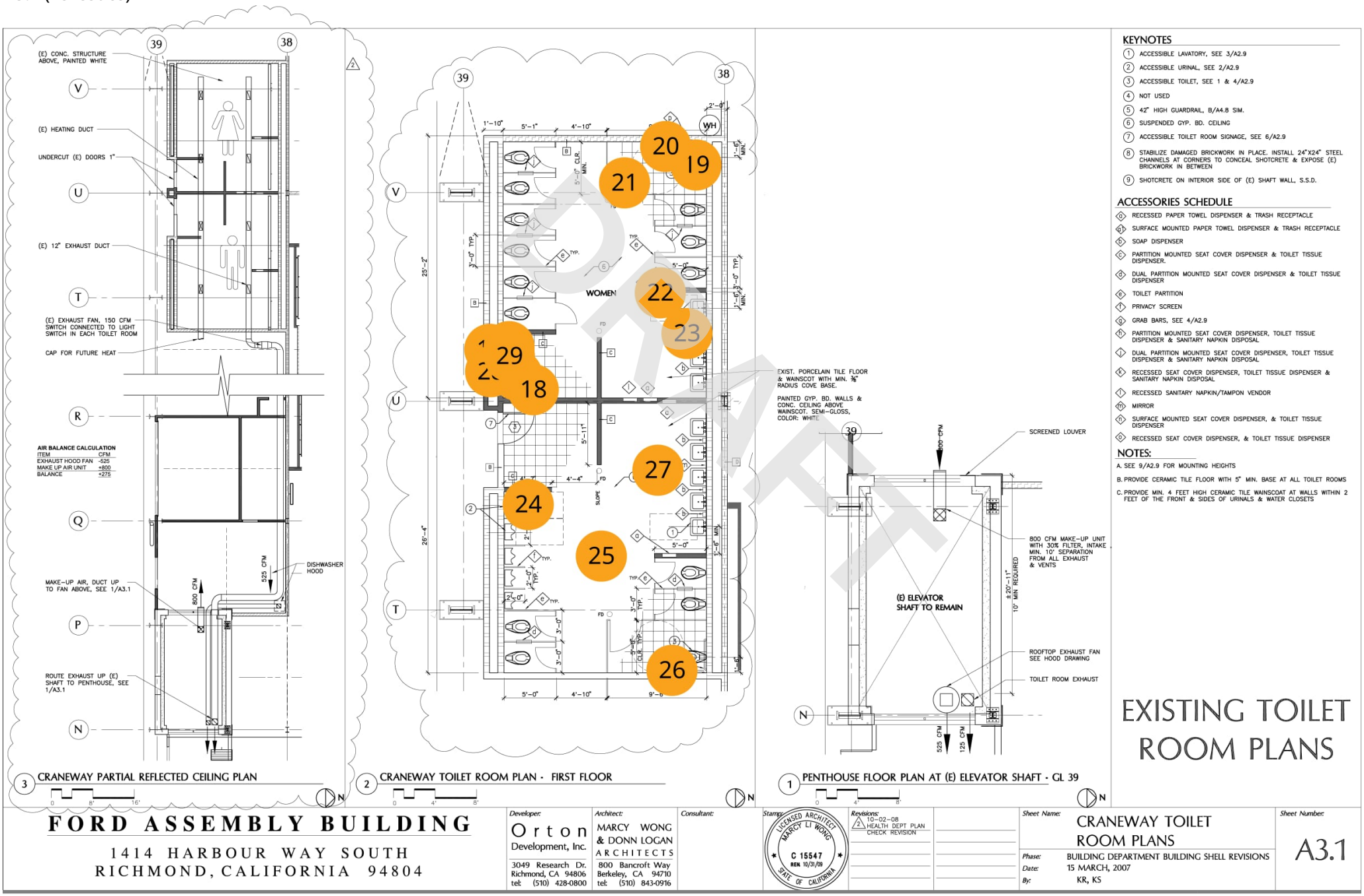
Added on Jan 19, 2026, 8:05 PM PST
Added by Bassamat Bahnasy

20260108_094819_5_photo
Added as Reference
Added on Jan 19, 2026, 8:06 PM PST
Added by Bassamat Bahnasy

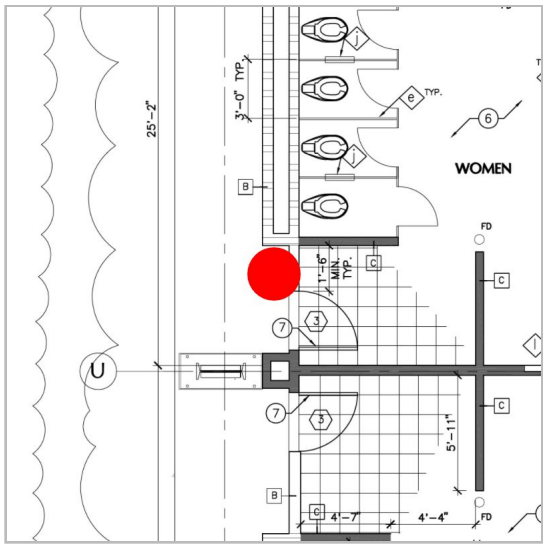
Directional Signage
Added as Reference
Added on Jan 26, 2026, 8:00 PM PST
Added by Bassamat Bahnasy

A3.1 (15 issues)



Issue detail

#28: Identification Sign - Location



Status	**Open**
Type	AX Accessibility > Accessibility
ID	#28
Pin	15
Location	Restrooms
Location details	Men's and Women's Multi-User Restrooms
Placement	A3.1 (CRANEWAY TOILET ROOM Pl ANS)
Description	The restroom identification sign is mounted at the door.
Codes and Regulations	Where permanent identification is provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door. Where there is no wall space to the latch side of the door, signs shall be placed on the nearest adjacent wall. CBC 11B-703.2
Recommendation	Relocate the identification sign to the adjacent wall.
Priority	Priority 4 - Other

References and Attachments

Photos (4)

20260108_113443_1_photo
Added as Reference
Added on Jan 16, 2026, 12:33 PM PST
Added by Bassamat Bahnasy

20260108_113451_2_photo
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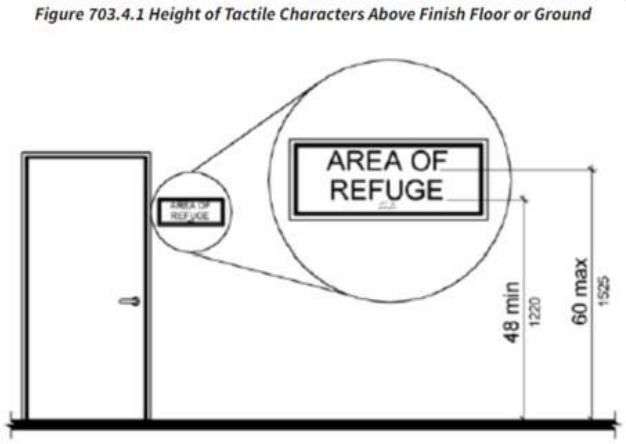
Added on Jan 16, 2026, 12:33 PM PST
Added by Bassamat Bahnasy



703.4.1 Height of Tactile Characters
Added as Reference
Added on Jan 16, 2026, 12:44 PM PST
Added by Bassamat Bahnasy

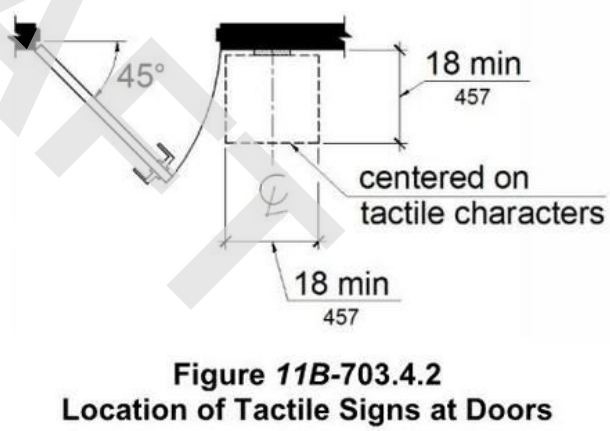


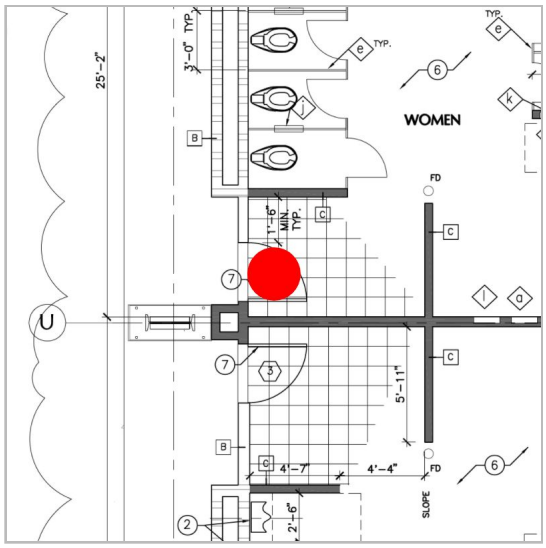
Figure *11B*-703.4.2
Location of Tactile Signs at Doors

Figure 11B-703.4.2 Figure 11B-703.4.2
Added as Reference
Taken on Apr 24, 2020, 12:09 PM PDT
Added on Jan 28, 2026, 1:24 PM PST
Added by Bassamat Bahnasy

Issue detail

#29: Door - Opening Force

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#29
Pin	16
Location	Restrooms
Location details	Women's Restrooms
Placement	A3.1 (CRANEWAY TOILET ROOM Pl ANS)
Description	The door opening force measured 18 pounds. The high opening force appear to be a result of historic swelling of the door or misalugnment.
Codes and Regulations	Interior doors must have an opening force not exceeding 5 pounds. CBC 11B-404.2.9
Recommendation	Adjust door.
Priority	Priority 2 - Goods and Services



References and Attachments

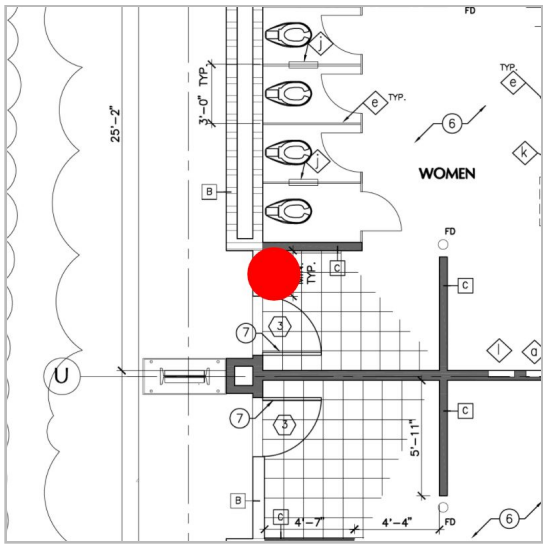
Photos (1)

20260108_113603_1_photo.jpg
Added as Attachment
Added on Jan 8, 2026, 11:36 AM PST
Added by Bassamat Bahnasy

Issue detail

#30: Door - Pull Side Maneuvering Clearance

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#30
Pin	17
Location	Restrooms
Location details	Women's Restroom
Placement	A3.1 (CRANEWAY TOILET ROOM PLANS)
Description	The trash is located within the door maneuvering clearance on the pull side of the door.
Codes and Regulations	A clearance extending 18" minimum beyond the latch side of the door. ADA 4.13.6
Recommendation	Relocate the trash can.
Priority	Priority 3 - Restrooms



References and Attachments

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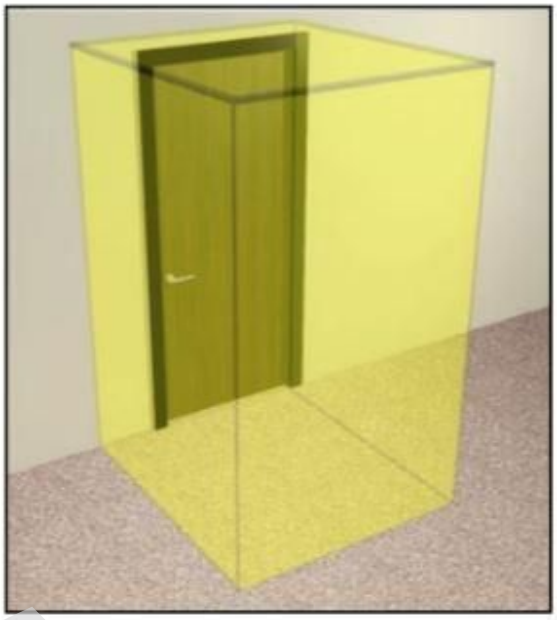
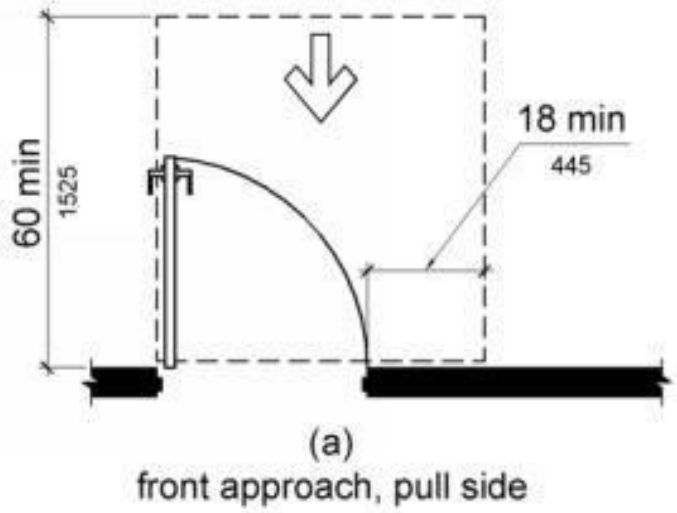
Added as Reference
Added on Jan 20, 2026, 12:07 AM PST
Added by Bassamat Bahnasy



Door Maneuvering Clearance
Added as Reference
Taken on May 26, 2025, 9:09 PM PDT
Added on Jan 20, 2026, 12:08 AM PST
Added by Bassamat Bahnasy

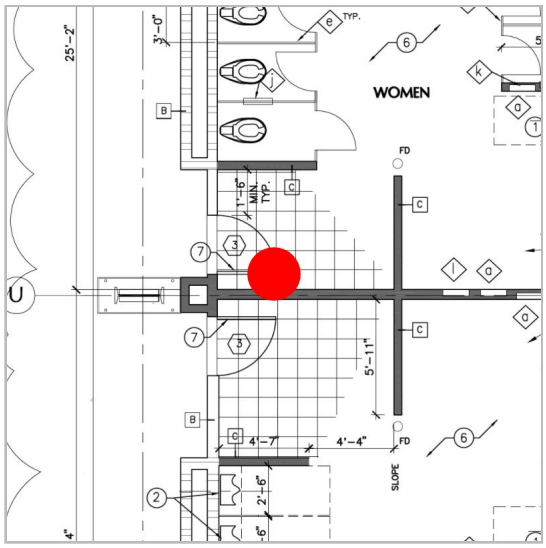


404.2.4.1 (a) Maneuvering Clearances at Manual Swinging Doors and Gates
Added as Reference
Taken on Apr 20, 2020, 8:36 AM PDT
Added on Jan 20, 2026, 12:09 AM PST
Added by Bassamat Bahnasy

Issue detail

#31: Door Lock - Reach Range

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#31
Pin	18
Location	Restrooms
Location details	Men's and Women's Restrooms
Placement	A3.1 (CRANEWAY TOILET ROOM PLANS)
Description	The door lock is located at 57" above the finish floor.
Codes and Regulations	Operable parts of door locks shall be 34" minimum and 44" maximum above the finish floor or ground. CBC 11B-404.2.7
Recommendation	Relocate the door lock.
Priority	Priority 3 - Restrooms

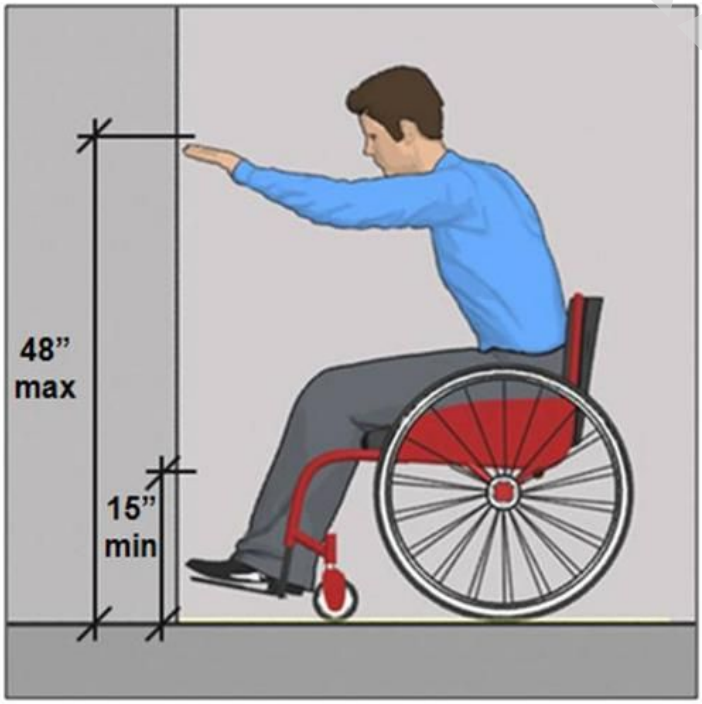


References and Attachments

Photos (3)

20260108_114015_3_photo
Added as Reference
Added on Jan 20, 2026, 12:03 AM PST
Added by Bassamat Bahnasy

20260108_114003_1_photo
Added as Reference
Added on Jan 20, 2026, 12:03 AM PST
Added by Bassamat Bahnasy

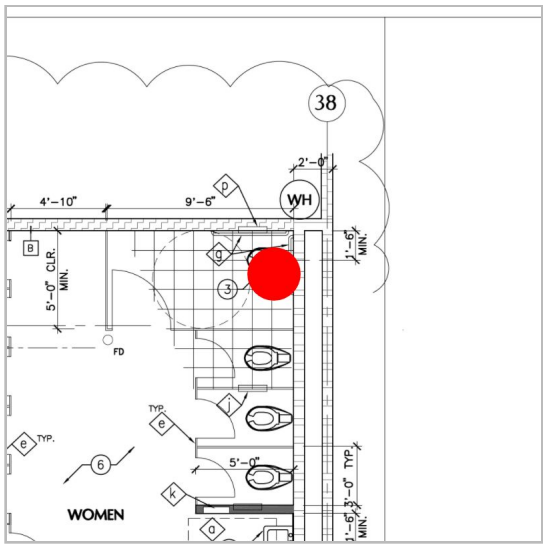


Forward Reach
Added as Reference
Added on Jan 20, 2026, 12:04 AM PST
Added by Bassamat Bahnasy

Issue detail

#33: Water Closet - Location

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#33
Pin	19
Location	Restrooms
Location details	Men's and Women's Restroom
Placement	A3.1 (CRANEWAY TOILET ROOM PLANS)
Description	The centerline of the water closet at the accessible stall measured 18-1/2" from the side wall.
Codes and Regulations	The centerline of the water closet must be located 17" minimum and 18" maximum from the side wall. CBC 11B-604.2
Recommendation	Relocate the water closet.
Priority	Priority 3 - Restrooms



References and Attachments

Photos (5)

20260108_114338_3_photo
Added as Reference
Added on Jan 19, 2026, 11:23 PM PST
Added by Bassamat Bahnasy

20260108_114316_1_photo
Added as Reference
Added on Jan 19, 2026, 11:23 PM PST
Added by Bassamat Bahnasy

20260108_115924_1_photo
Added as Reference
Added on Jan 19, 2026, 11:31 PM PST
Added by Bassamat Bahnasy

20260108_115931_2_photo
Added as Reference
Added on Jan 19, 2026, 11:31 PM PST
Added by Bassamat Bahnasy

(a)
wheelchair
accessible
water closets

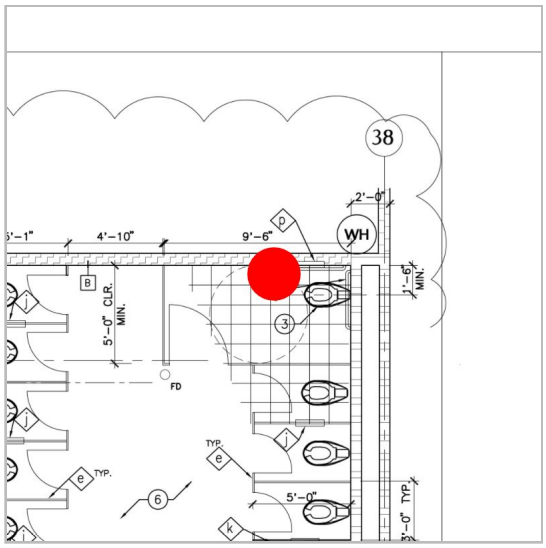
Water Closet Center Line
Added as Reference
Taken on May 9, 2025, 12:09 PM PDT
Added on Jan 26, 2026, 11:31 PM PST
Added by Bassamat Bahnasy

Issue detail

#34: Sanitary Napkin Disposal - Location

MARX OKUBO

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#34
Pin	20
Location	Restrooms
Location details	Men's and Women's Accessible Compartments
Placement	A3.1 (CRANEWAY TOILET ROOM Pl ANS)
Description	The sanitary napkin disposal unit is located between the rear wall and the toilet paper dispenser.
Codes and Regulations	Sanitary napkin disposal units shall be wall mounted and located on the sidewall between the rear wall of the toilet and the toilet paper dispenser, adjacent to the toilet paper dispenser. The disposal unit shall be located below the grab bar with the opening of the disposal unit 19" above the finish floor. CBC 11B-604.7.2
Recommendation	Relocate the disposal.
Priority	Future Alteration



References and Attachments

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20260108_114551_1_photo
Added as Reference
Added on Jan 26, 2026, 11:51 PM PST
Added by Bassamat Bahnasy

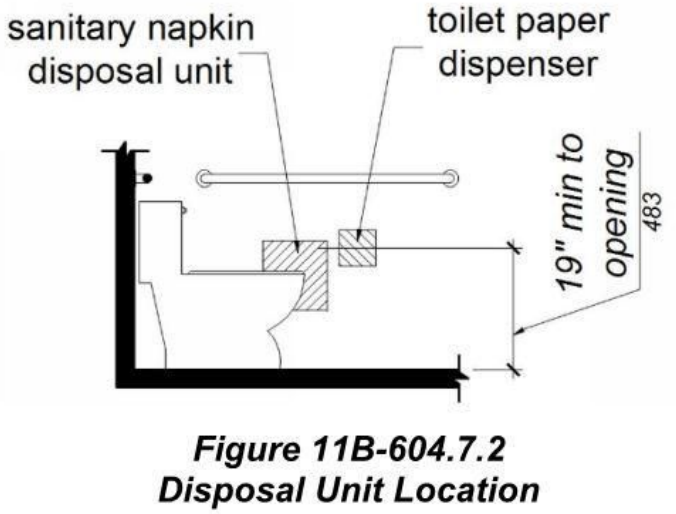


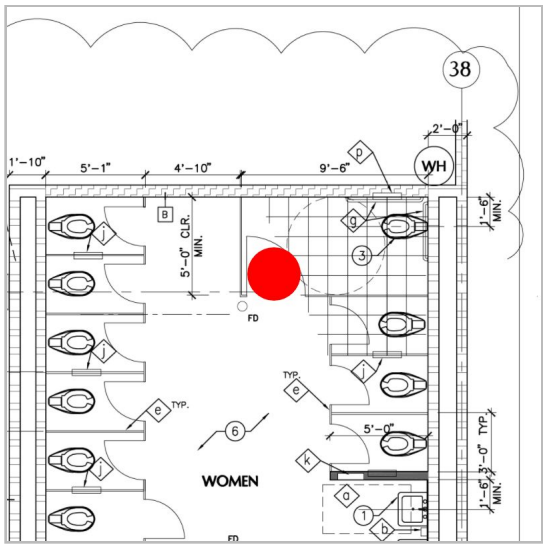
Figure 11B-604.7.2
Disposal Unit Location

Figure 11B-604.7.2 Disposal Unit Location
Added as Reference
Taken on Apr 24, 2020, 11:34 AM PDT
Added on Jan 26, 2026, 11:57 PM PST
Added by Bassamat Bahnasy

Issue detail

#35: Toilet Compartment Door - Self Closing

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#35
Pin	21
Location	Restrooms
Location details	Men's and Women's Restrooms
Placement	A3.1 (CRANEWAY TOILET ROOM PLANS)
Description	The doors to the accessible compartments are not self-closing.
Codes and Regulations	Doors to the accessible compartment must be self-closing. CBC 11B-604.8.1.2
Recommendation	Adjust doors so that the gravity hinges closes properly.
Priority	Priority 3 - Restrooms



References and Attachments

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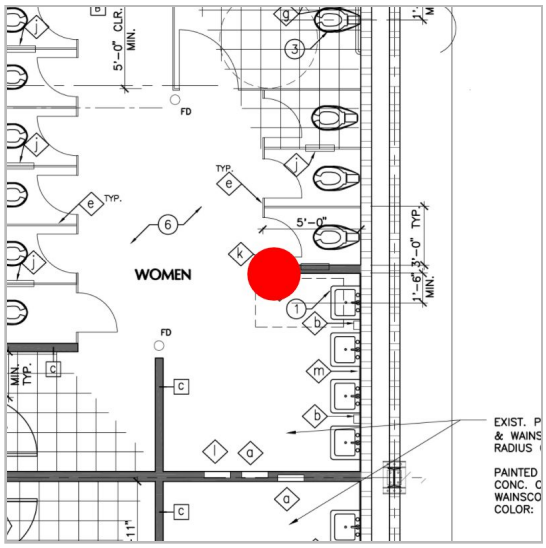
20260108_114819_1_photo
Added as Reference
Added on Jan 19, 2026, 11:43 PM PST
Added by Bassamat Bahnasy

20260108_114848_2_photo
Added as Reference
Added on Jan 19, 2026, 11:43 PM PST
Added by Bassamat Bahnasy

Issue detail

#36: Paper Towel Dispenser - Height

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#36
Pin	22
Location	Restrooms
Location details	Men's and Women's Restrooms
Placement	A3.1 (CRANEWAY TOILET ROOM PLANS)
Description	The operable part of the paper towel dispenser measured up to 55" above the floor.
Codes and Regulations	At least one type of each accessory must have the operable part located 40" maximum above the floor. CBC 11B-603.5
Recommendation	Relocate the dispenser.
Priority	Priority 3 - Restrooms



References and Attachments

Photos (3)

20260108_115003_2_photo
Added as Reference
Added on Jan 27, 2026, 12:33 AM PST
Added by Bassamat Bahnasy

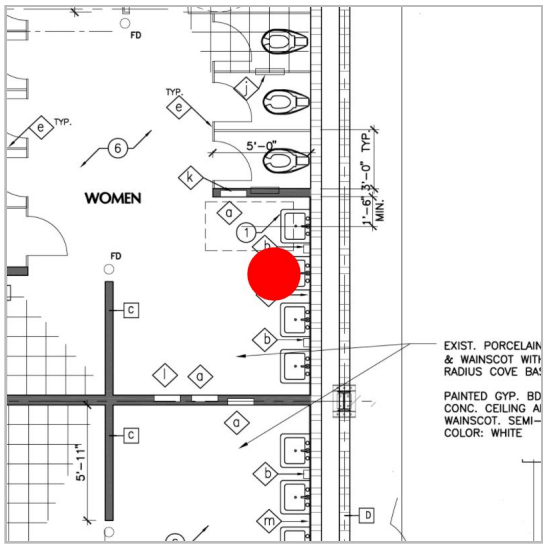
20260108_114957_1_photo
Added as Reference
Added on Jan 27, 2026, 12:33 AM PST
Added by Bassamat Bahnasy

20260108_120803_3_photo
Added as Reference
Added on Jan 27, 2026, 12:48 AM PST
Added by Bassamat Bahnasy

Issue detail

#37: Lavatory - Pipe Insulation

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#37
Pin	23
Location	Restrooms
Location details	Men's and Women's Restrooms
Placement	A3.1 (CRANEWAY TOILET ROOM PLANS)
Description	The lavatory connectors, supply, and drain lines under the lavatory are not insulated or otherwise covered to protect against scrapes and burns.
Codes and Regulations	A minimum of 10% of the sinks in each restroom shall be accessible. Water supply and drain pipes serving the accessible sinks must be insulated or otherwise covered to protect users from contact. There may be no sharp or abrasive surfaces under sinks. CBC 11B-606.5
Recommendation	Provide insulation at lavatory pipes.
Priority	Priority 3 - Restrooms



References and Attachments

Photos (2)

20260108_120650_1_photo
Added as Reference
Added on Jan 19, 2026, 11:50 PM PST
Added by Bassamat Bahnasy

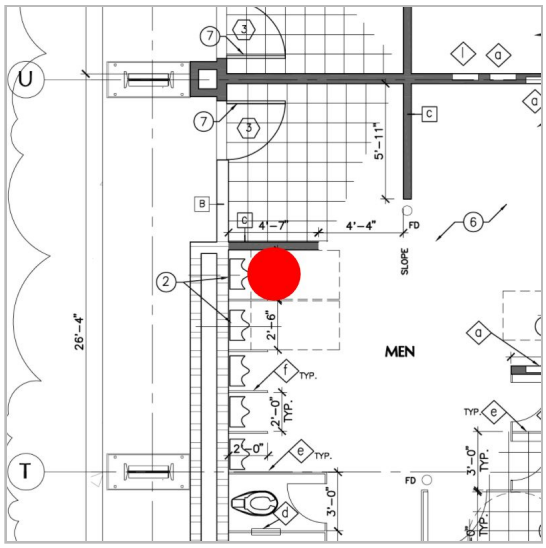
20260108_115144_1_photo
Added as Reference
Added on Jan 19, 2026, 11:50 PM PST
Added by Bassamat Bahnasy

Issue detail

#38: Urinal - Clear Floor Space

MARX OKUBO

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#38
Pin	24
Location	Restrooms
Location details	Men's Restroom
Placement	A3.1 (CRANEWAY TOILET ROOM PLANS)
Description	The distance between the accessible urinal partitions measured 29-1/2".
Codes and Regulations	A clear floor space 30" x 48" must be provided in front of the accessible urinal. CBC 11B-605.3
Recommendation	Relocate the partition at one urinal.
Priority	Priority 3 - Restrooms



References and Attachments

Photos (4)

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Added as Reference
Added on Jan 12, 2026, 5:42 PM PST
Added by Bassamat Bahnasy

20260108_115552_4_photo
Added as Reference
Added on Jan 12, 2026, 5:42 PM PST
Added by Bassamat Bahnasy

20260108_115432_1_photo
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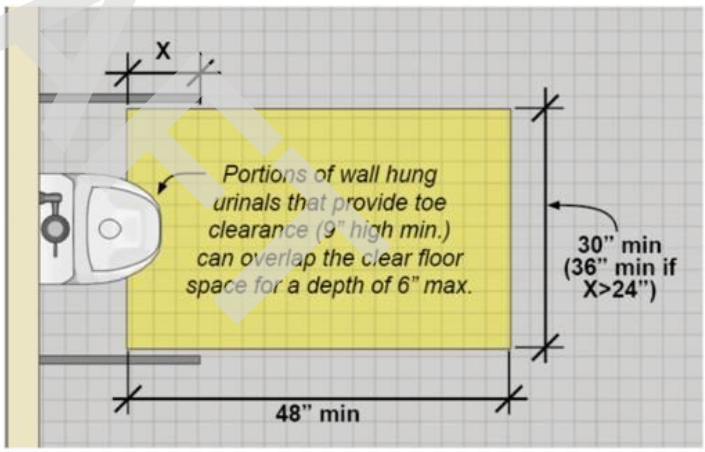
Added on Jan 12, 2026, 5:42 PM PST
Added by Bassamat Bahnasy

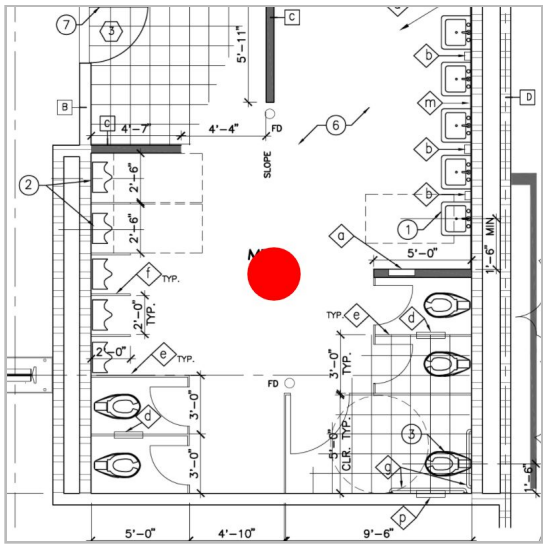


UrinalClearFloorSpace
Added as Reference
Added on Jan 28, 2026, 1:03 PM PST
Added by Sarah Strauch

Issue detail

#39: Ambulatory Compartment

Status	Open
Type	AX Accessibility > Accessibility
ID	#39
Pin	25
Location	Restrooms
Location details	Men's Restroom
Placement	A3.1 (CRANEWAY TOILET ROOM PLANS)
Description	An ambulatory stall is not provided.
Codes and Regulations	In a multi-accommodation toilet facility where the combination of urinals and water closets totals six or more fixtures, 5% of the combination of toilet compartments and urinals, but no fewer than one ambulatory toilet compartment must be provided. CBC 11B-213.3.1
Recommendation	Convert an existing stall to be an ambulatory compartment.
Priority	State/Local Code Requirement



References and Attachments

Photos (5)

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Added as Reference
Added on Jan 20, 2026, 10:11 AM PST
Added by Bassamat Bahnasy

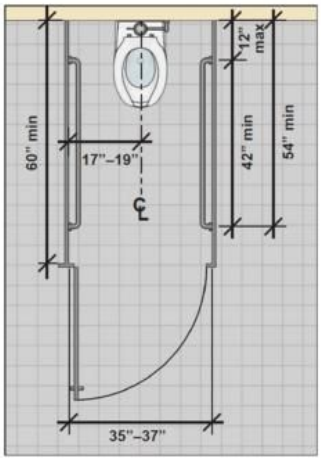
20260108_115712_4_photo
Added as Reference
Added on Jan 20, 2026, 10:11 AM PST
Added by Bassamat Bahnasy

20260108_115705_2_photo
Added as Reference
Added on Jan 20, 2026, 10:11 AM PST
Added by Bassamat Bahnasy

20260108_115705_3_photo
Added as Reference
Added on Jan 20, 2026, 10:11 AM PST
Added by Bassamat Bahnasy

The compartment width is specified so that both grab bars are simultaneously within reach.

Like wheelchair accessible compartments, doors must fully comply and be self-closing, have a pull on both sides near the latch, and cannot swing into the required compartment area. All other applicable door criteria, including maneuvering clearances, must be met.



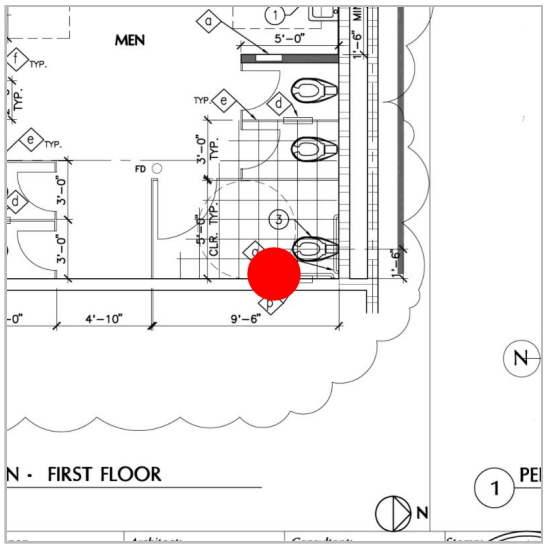
Toilet Room - Ambulatory Stall

Added as Reference
Added on Feb 3, 2026, 8:21 AM PST
Added by Bassamat Bahnasy

Issue detail

#41: Toilet Paper Dispenser - Location

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#41
Pin	26
Location	Restrooms
Location details	Men's Restroom
Placement	A3.1 (CRANEWAY TOILET ROOM PLANS)
Description	The toilet paper dispenser centerline measures 5" from the front edge of the water closet.
Codes and Regulations	Toilet paper dispensers must be 7" minimum to 9" maximum in front of the water closet measured to the centerline of the dispenser. CBC 11B- 604.7
Recommendation	Relocate the toilet paper dispenser.
Priority	Future Alteration



References and Attachments

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Added as Reference
Added on Jan 19, 2026, 11:33 PM PST
Added by Bassamat Bahnasy

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Added as Reference
Added on Jan 19, 2026, 11:33 PM PST
Added by Bassamat Bahnasy

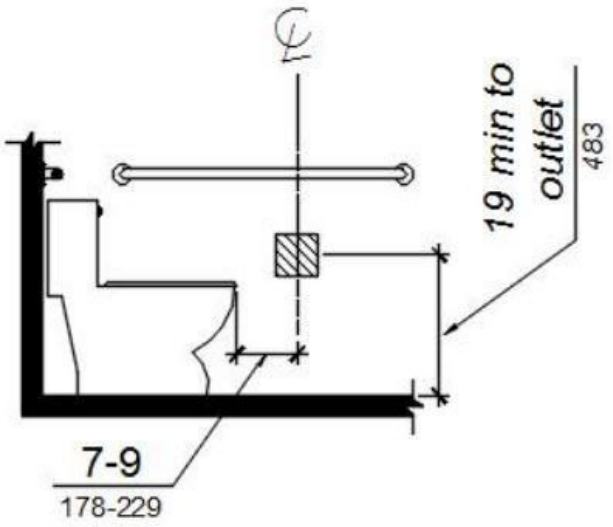
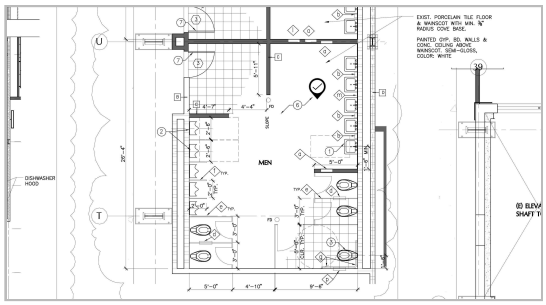


Figure *11B*-604.7.1
Dispenser Outlet Location

Figure 11B-604.7.1 Dispenser Outlet Location
Added as Reference
Taken on Apr 24, 2020, 11:34 AM PDT
Added on Jan 26, 2026, 11:47 PM PST
Added by Bassamat Bahnasy

Issue detail

#42: Ground Surface - Slip Resistance

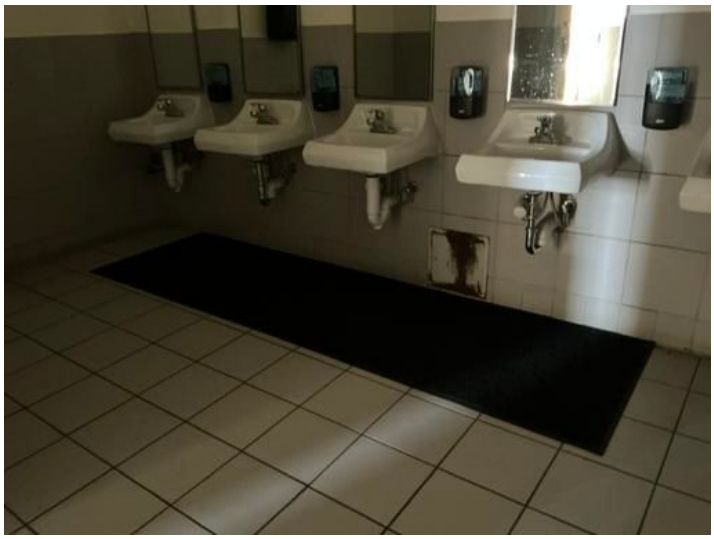


Status	**Open**
Type	AX Accessibility > Accessibility
ID	#42
Pin	27
Location	Restrooms
Location details	Men's and Women's Restrooms
Placement	A3.1 (CRANEWAY TOILET ROOM Pl ANS)
Description	Floor is not slip resistant.
Codes and Regulations	Ground and floor surfaces along accessible routes and in accessible rooms and spaces including floors, shall be stable, firm, and slip-resistant. CBC 11B-302
Recommendation	Install a slip-resistant coating over existing flooring.
Priority	Priority 3 - Restrooms

References and Attachments

Photos (3)

20260108_115712_4_photo
Added as Reference
Added on Jan 28, 2026, 1:18 PM PST
Added by Bassamat Bahnasy



20260108_120650_1_photo (2)
Added as Reference
Added on Jan 28, 2026, 1:18 PM PST
Added by Bassamat Bahnasy

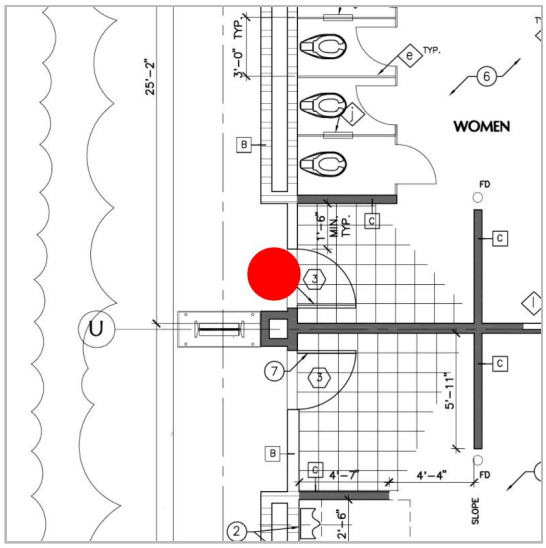
20260108_115700_1_photo (1)
Added as Reference
Added on Jan 28, 2026, 1:18 PM PST
Added by Bassamat Bahnasy

Issue detail

#58: Bathroom Signage - Geometric Sign

MARX OKUBO

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#58
Pin	28
Location	Restrooms
Location details	Men's and Women's Restrooms
Placement	A3.1 (CRANEWAY TOILET ROOM PLANS)
Description	A geometric sign is not provided at the restroom door.
Codes and Regulations	Geometric symbols must be provided at entrances to toilet and bathing rooms. CBC 11B-216.8.1. Geometric symbols shall be mounted at 58" minimum and 60" maximum above the finish floor measured from the centerline of the symbol. CBC 11B-703.2.6
Recommendation	Provide a geometric sign at the restroom door.
Priority	State/Local Code Requirement



References and Attachments

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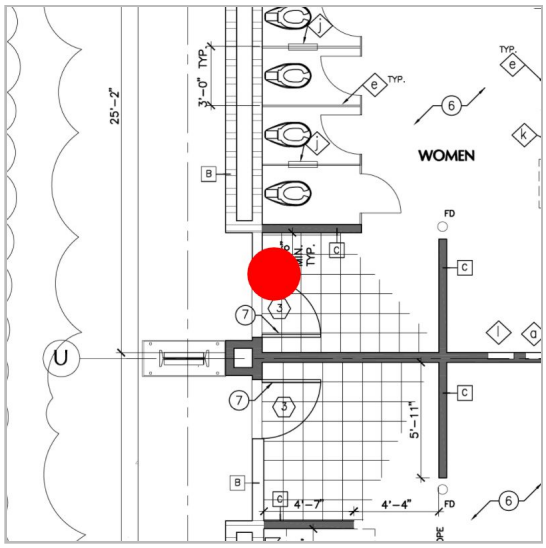
Added as Reference
Added on Jan 26, 2026, 7:10 PM PST
Added by Bassamat Bahnasy

20260108_113451_2_photo
Added as Reference
Added on Jan 26, 2026, 7:10 PM PST
Added by Bassamat Bahnasy

Issue detail

#60: Light Switch - Height

Status	**Open**
Type	AX Accessibility > Accessibility
ID	#60
Pin	29
Location	Restrooms
Location details	Men's and Women's Restrooms
Placement	A3.1 (CRANEWAY TOILET ROOM Pl ANS)
Description	The height of the light switch measured 52" above the floor.
Codes and Regulations	The high reach for operable parts on accessible elements must not exceed 48" above the floor. CBC 11B-205
Recommendation	Install an automatic light sensor at existing switch.
Priority	Future Alteration



References and Attachments

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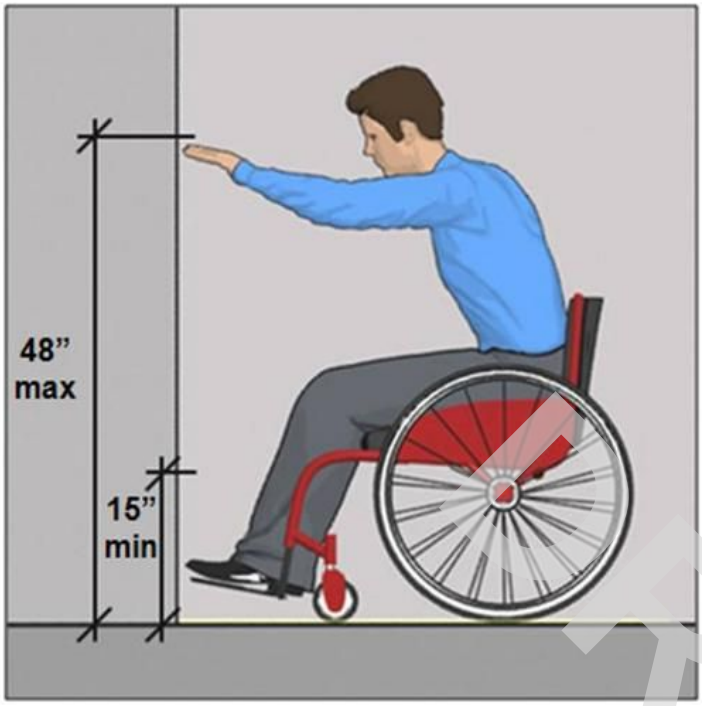
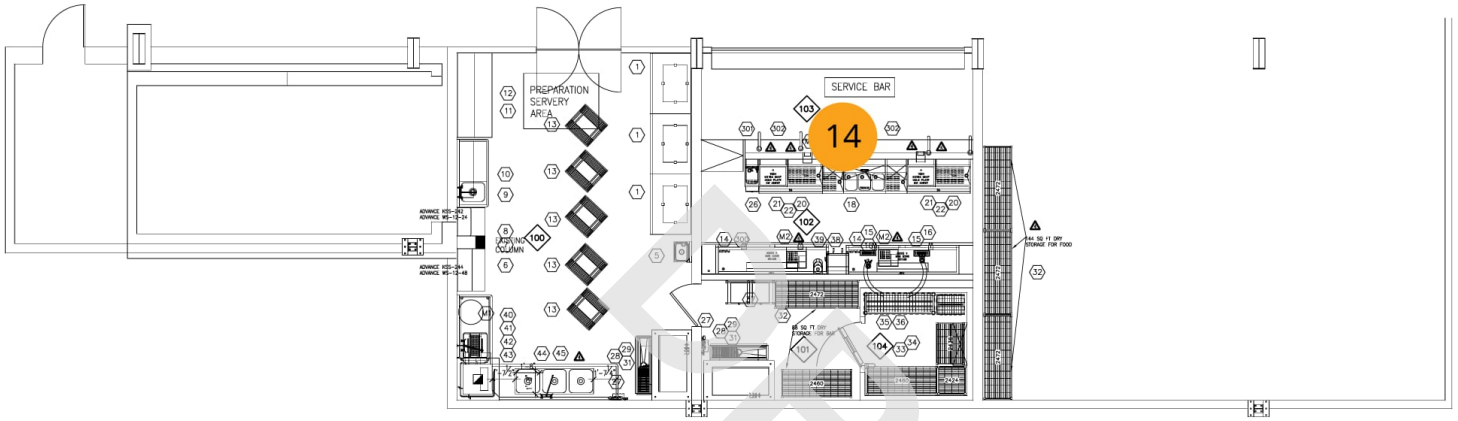


Forward Reach
Added as Reference
Added on Jan 27, 2026, 2:26 PM PST
Added by Bassamat Bahnasy

20260108_113719_1_photo (1)
Added as Reference
Added on Jan 27, 2026, 2:26 PM PST
Added by Bassamat Bahnasy

FS-1 & 2 (1 issue)



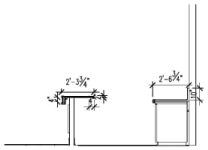
EQUIPMENT SCHEDULE

FSC = FOOD SERVICE CONTRACTOR, PLUMB. = PLUMBER, ELEC. = ELECTRICIAN, VEND. = VENDOR, G.C. = GENERAL CONTRACTOR, S/S = STAINLESS STEEL, S/C = SELF CONTAINED

ITEM NO.	SUPP. BY	INSTALL. BY	QTY.	DESCRIPTION	MANUFACTURER	MODEL NO.
1	FSC	FSC	3	2-DOOR REACH-IN REFRIGERATOR WITH UNIVERSAL TRAY SLIDES	TRUE MFG	TG2R-2S
2	–	–	–	SPARE NUMBER	–	–
3	–	–	–	SPARE NUMBER	–	–
4	–	–	–	SPARE NUMBER	–	–
5	FSC	FSC	1	S/S WALL MOUNTED HAND SINK WITH SOAP & TOWEL DISPENSER	ADVANCE TABCO	7-PS-80
6	FSC	FSC	1	SPLASH MOUNTED FAUCET	T & S	B-1128
7	FSC	FSC	1	S/S 1 COMPARTMENT PREPARATION SINK	ADVANCE TABCO	9-1-24-36R
8	FSC	FSC	2	S/S WALL MOUNTED SHELF SIZE: 12" X 48"	ADVANCE TABCO	WS-1248
9	FSC	FSC	1	S/S WORK TABLE WITH LOWER SHELF SIZE: 30" X 72"	ADVANCE TABCO	KSS-306
10	FSC	FSC	2	S/S WALL MOUNTED SHELF SIZE 15" X 72"	ADVANCE TABCO	WS-1572
11	FSC	FSC	1	S/S WORK TABLE WITH LOWER SHELF SIZE: 30" X 72"	ADVANCE TABCO	KSS-306
12	FSC	FSC	2	S/S WALL MOUNTED SHELF SIZE: 15" X 72"	ADVANCE TABCO	WS-15-72
13	FSC	FSC	6	MOBILE ANGLE UNIVERSAL PAN STORAGE RACKS	ADVANCE TABCO	UR-12
14	FSC	FSC	2	BACK BAR REACH-IN LEFT W/ S/S DOORS – RIGHT W/ GLASS DOORS	PERLICK	BS10BL BS10BR
15	FSC	FSC	2	DRAFT BEER TOWER & FAUCET ASSEMBLY	PERLICK	4026
16	FSC	FSC	2	DROP-IN BEER DRAIN PAN WITH REMOVABLE GRATE	PERLICK	5020
17	–	–	–	SPARE NUMBER	–	–
18	FSC	FSC	1	THREE COMMPARTMENT SINK WITH 2EA 18" DRAINBOARDS	PERLICK	TSD63C
19	–	–	–	SPARE NUMBER	–	–
20	FSC	FSC	2	S/S UNDERBAR DRAINBOARD SIZE 30"	PERLICK	TS-30
21	FSC	FSC	2	24" DEEP ICE CHEST WITH 8CIRCUIT COLD PLATE	PERLICK	7055A64-8
22	FSC	FSC	2	S/S SINGLE SPEED RAIL SIZE: 54"	PERLICK	SR-S54
23	–	–	–	SPARE NUMBER	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–
–	–	–	–	–	–	–

FSC = FOOD SERVICE CONTRACTOR, PLUMB. = PLUMBER, ELEC. = ELECTRICIAN, VEND. = VENDOR, G.C. = GENERAL CONTRACTOR, S/S = STAINLESS STEEL, S/C = SELF CONTAINED

ITEM NO.	SUPP. BY	INSTALL. BY	QTY.	DESCRIPTION	MANUFACTURER	MODEL NO.
24	–	–	–	SPARE NUMBER	–	–
25	–	–	–	SPARE NUMBER	–	–
26	FSC	FSC	1	S/S UNDER BAR HAND SINK	PERLICK	TS12-HSN
27	FSC	FSC	2	WALL MOUNTED TRIPLE WATER FILTER	SCOTSMAN	ADS-AP3
28	FSC	FSC	2	S/S FLOOR MOUNTED DRAIN TROUGH SIZE" 12" X 48"	ADVANCE TABCO	FTTG-1248
29	FSC	FSC	2	ICE MAKER 1800 LBS	SCOTSMAN	C1848MA-32
30	FSC	FSC	1	4" STAINLESS STEEL MIXING TROUGH – 16'-0" +/-	COMCO	CUSTOM
31	FSC	FSC	2	S/S ICE STORAGE BIN 1300 LB – MEDIUM CUBELET SIZE	SCOTSMAN	B1300
32	FSC	FSC	LOT	BRITE PLATED DRY STORAGE SHELVING PER PLAN 4 TIER 74" HIGH	ISSA	VARIES
33	FSC	FSC	LOT	EPOXY COATED WALK-IN SHELVING PER PLAN 4 TIER 74" HIGH	ISSA	VARIES
34	FSC	FSC	1	WALK-IN REFRIGERATOR SIZE 8'-0" X 8'-0" X 8'-0" HIGH	DURACOLD	CUSTOM
35	FSC	FSC	1	REMOTE REFRIG. SYSTEM FOR #34, 1 BLOWER COIL IN BOX AND COMPRESSOR ON ROOF	DURACOLD	CUSTOM
36	VENDOR	VENDOR	LOT	BEER TAPPING EQUIPMENT	VENDOR	CUSTOM
37	VENDOR	VENDOR	1	BAG IN THE BOX RACK & CO2 TANKS	VENDOR	CUSTOM
38	VENDOR	VENDOR	1	ESPRESSO MACHINE– 2 GROUP AUTOMATIC – FUTURE	VENDOR	T.B.S.
39	VENDOR	VENDOR	1	ESPRESSO GRINDER – FUTURE	VENDOR	T.B.S.
40	FSC	FSC	1	SOILED DISHTABLE WITH PRE-RINSE BASKET-54" LOWER SHELF	ADVANCE	DTS-S30-60R
41	FSC	FSC	1	WALL MOUNTED PRE RINSE FAUCET WITH BRACKET	VENDOR	T.B.S.
42	FSC	FSC	1	CLEAN DISHTABLE	ADVANCE	DTC-3-2020-10BL
43	FSC	FSC	1	DISHWASHER – CORNER MODEL	T.B.S.	T.B.S.
44	FSC	FSC	1	CONDENSATE EXHAUST HOOD	CAPTIVE AIR	T.B.S.
44	FSC	FSC	1	SPLASH MOUNTED FAUCET – 8" CENTERS	T & S	B-0230
300	FSC	FSC	1	LOWER & UPPER BACK BAR CABINET	T & S	B-0133B
301	FSC	FSC	1	FRONT BAR CABINET	T.B.S.	CUSTOM
302	FSC	FSC	LOT	WAIT STATION RAILS	T.B.S.	CUSTOM
M1	OWNER	OWNER	1	ELECTRIC HOT WATER HEATER	A. O. SMITH	DVE-52-45
M2	OWNER	OWNER	2	POINT OF SALE STATION & PRINTER	T.B.S.	T.B.S.



REVISION
1 JUNE 30, 2008
2 JUL 10, 2008
3 AUG 19, 2008
4 AUG 22, 2008

CATERING/BAR AREA
1414 HARBOR WAY SOUTH
RICHMOND, CA 94804

CATERING AREA
COCKTAIL BAR
FLOOR PLAN &
SCHEDULE

ROSSI
RESTAURANT
INTERIORS

1 SIERRA AVENUE
PIEDMONT, CA
PHONE (510) 658-6869
FAX (510) 597-1120

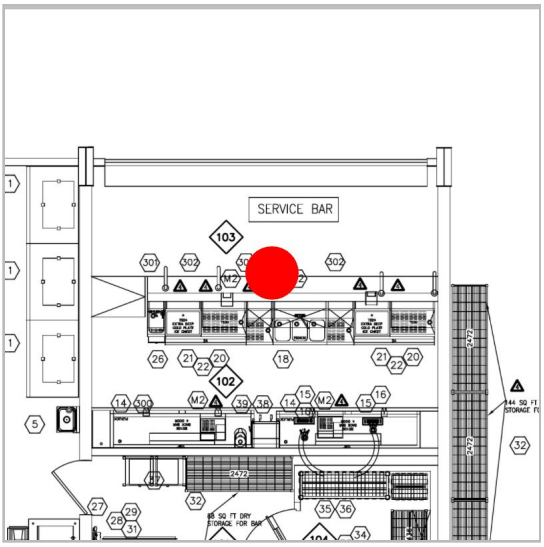
SHEET TITLE: CATERING & BAR AREA
JOB NUMBER: ORTON FORD POINT
DRAWN BY: ROD ROSSI
DATE: MAY 30, 2008
SCALE: 1/4" = 1'-0"
DRAWING NO: JAMES MADSEN / TROY PETERSON
SHEET #: FS-1 & 2

Issue detail

#24: Dining Surface - Height & Depth

MARX OKUBO

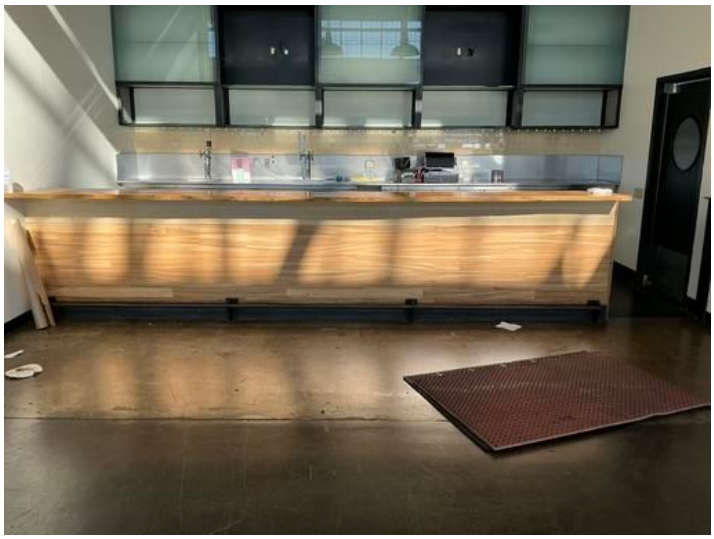
Status	**Open**
Type	AX Accessibility > Accessibility
ID	#24
Pin	14
Location	Main Hall
Location details	Service Bar
Placement	FS-1 & 2 (CATERING AND BAR AREA)
Description	An accessible dining surface is not provided at the bar.
Codes and Regulations	Where food or drink is served at counters over 34" high, a minimum 60" long portion of the counter must be 34" high maximum and provided with knee and toe clearance with a minimum height of 27" and 19" deep minimum. CBC 11B-902.2
Recommendation	Lower a portion of the service bar and extend the counter to 19” deep.
Priority	Priority 2 - Goods and Services



References and Attachments

Photos (5)

20260108_112348_3_photo
Added as Reference
Added on Jan 26, 2026, 10:47 PM PST
Added by Bassamat Bahnasy



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Added on Jan 26, 2026, 10:47 PM PST
Added by Bassamat Bahnasy

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Added as Reference
Added on Jan 26, 2026, 10:47 PM PST
Added by Bassamat Bahnasy

20260108_112216_3_photo
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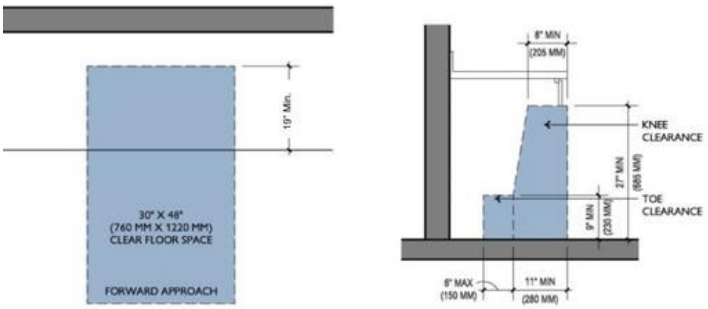
Added on Feb 3, 2026, 9:05 AM PST
Added by Bassamat Bahnasy



Clear Floor Space at Dining Surface

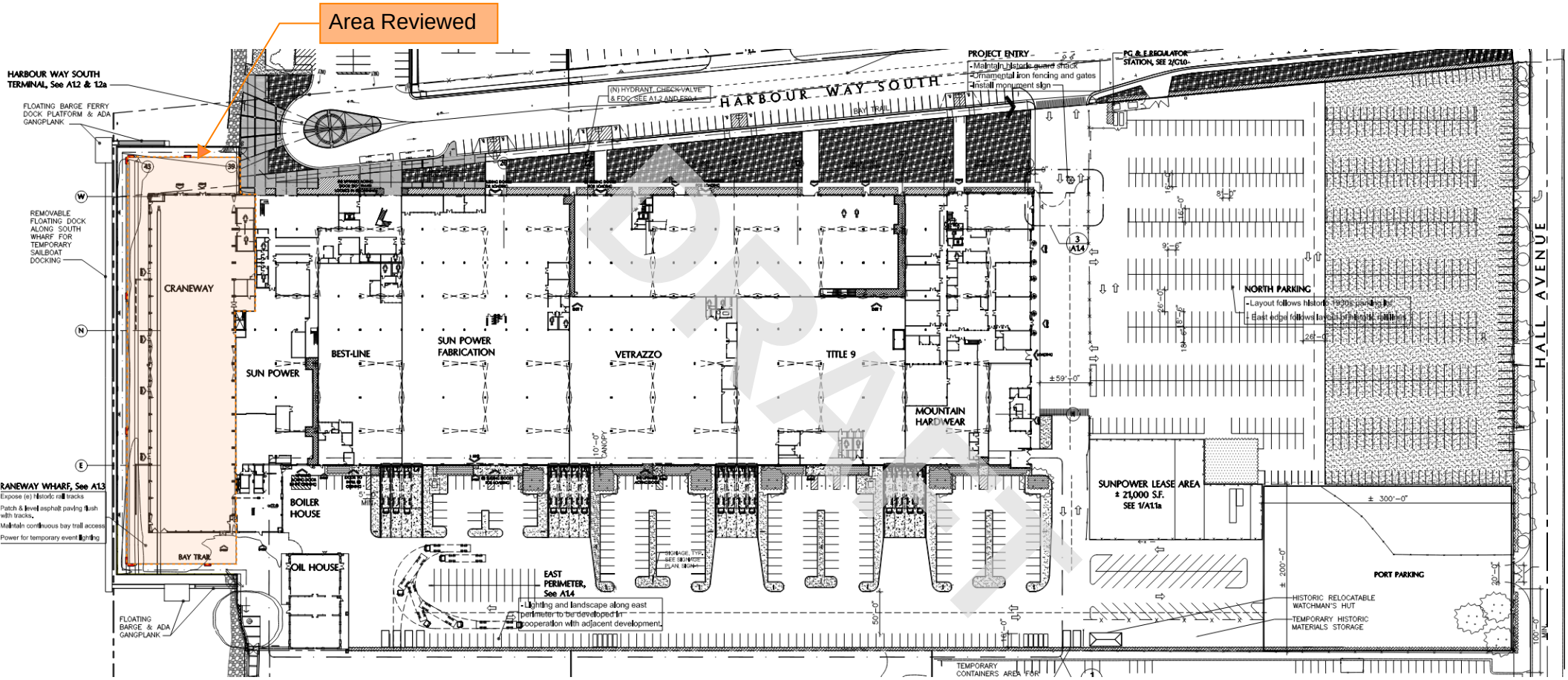
Added as Reference
Added on Jan 26, 2026, 10:53 PM PST
Added by Bassamat Bahnasy

EXHIBIT B

ID	Title	Location	Location Details	Description	Codes and Regulations	Recommendation	Priority	QTY	Unit	Unit Cost	Opinion of Cost	Cost Notes
#2	Restroom - Directional Signage	Main Hall	East of Building	The east-side restroom is inaccessible, and no directional signage to accessible restrooms is provided.	Directional signs indicating the location of the nearest accessible restroom must be provided at inaccessible restrooms. Signs shall include the International Symbol of Accessibility. CBC 11B-216.8	Provide directional signage.	Priority 2 - Goods and Services	1	Each	$350	$350	
#4	South Deck - Interior Accessible Route	Site	South Deck	All exterior doors to the rear deck are inaccessible due to changes in level exceeding 1/4", force exceeding 5 pounds, maneuvering clearance slope exceeding 2%, and elements within the bottom 10" of the door. The deck is required to be accessible if it is open to the public.	At least one accessible route shall connect accessible building or facility entrances with all accessible spaces and elements within the building or facility. CBC 11B-206.2.2	Provide either an accessible door or an accessible route to the rear deck if the deck is open to the public. Refer to Issue No. 5.	Priority 2 - Goods and Services	1	Each	TBD	TBD	Cost to be determined based on the future use of this space.
#5	South Deck - Exterior Accessible Route	Site	West of Building	An accessible route to the south deck is not provided due to level changes exceeding 1/4" along the west side of the site, and inaccessible doors serving the rear deck. Refer to Issue No. 4. The deck is required to be accessible if open to the public.	At least one accessible route shall connect accessible building or facility entrances with all accessible spaces and elements within the building or facility. CBC 11B-206.2.2	To be determined based on future use of the space.	Priority 2 - Goods and Services	1	Allow	TBD	TBD	Cost to be determined based on the future use of this space.
#6	South Deck - Slope and Change of Level	Site	South Deck	The South Deck is inaccessible due to level changes exceeding 1/4", a cross slope of 5.5%, and tracks that create abrupt changes in level. The deck is required to be accessible if it is open to the public.	At least one accessible route shall connect accessible building or facility entrances with all accessible spaces and elements within the building or facility. CBC 11B-206.2.2	Provide an accessible route from an existing rear door if rear deck is open to the public. Refer to Issue No. 4.	Priority 2 - Goods and Services	1	Each	$2,000	$2,000	Cost assumes making one of the rear doors accessible.
#7	Main Entrance - Door	Main Hall	West Entrance	The imbedded metal plate at the main entry is obstructing an accessible route through the door. Element along the plate exceed 1/2". In addition, there are slope greater than 2% in the door maneuvering clearance.	At least one accessible entrance must be provided. CBC 11B-202.4	Modify door threshold and asphalt pavement within the door maneuvering clearance.	Priority 1 - Entrances	1	Allow	$35,000	$35,000	
#9	Floor Mats - Secure Attachment	Main Hall	Main Entrance - West Side	Floor mats are not adhered to the ground surface.	All carpets must be securely attached. CBC 11B- 302.2	Securely attach the floor mats to the floor surface.	Priority 1 - Entrances	1	Allow	Maint.	Maint.	Cost assumes high-strength double-sided tape installed by property maintenance staff.
#12	Site Arrival Point - Accessible Route	Site	West of Building	The walkway from the accessible parking and public transit to the main entrance has changes in level exceeding 1/4" vertical.	At least one accessible route from the site access point to an accessible entrance must be provided. ADA 4.1.7 (3)(a). Changes in level at the accessible route must not exceed 1/4" vertical. ADA 4.5.2	Resurface the asphalt.	Priority 1 - Entrances	1	Allow	$15,000	$15,000	Cost assumes resurfacing a 48" wide walkway to the exiting main entrance.
#14	Circulation Path - Vertical Clearance	Main Hall	West to Women's Restroom	Vertical clearance to the area adjacent to the restrooms measured less than 80" due to the location of the structural beam and MEP elements.	Circulation spaces shall have 80" minimum clear head room. Guardrails or other barriers shall be provided where the vertical clearance is less than 80" high. The leading edge of such guardrail or barrier shall be located 27" maximum above the finish floor or ground. ADA 4.4.2	Provide cane detection below the protrusion.	Priority 2 - Goods and Services	1	Allow	$3,500	$3,500	
#16	Lockers - Reach Range	General	Main Hall and Restrooms	An accessible locker is not provided as the bottom shelf measured 7" above the floor.	At least 5%, but no fewer than one of the lockers must be within reach range at each location. CBC 11B-225 Unobstructed reach range must be 15" minimum above the floor. CBC 11B-308.2.1	Provide one shelf within accessible reach in one locker at each location of the lower lockers.	Priority 4 - Other	3	Each	Maint.	Maint.	
#17	Exit Signage	Main Hall	All Exits	Exit signage is not provided at the building exits.	Exit signage must be provided at exit discharge. CBC 11B-216.4.1	Provide signage at exit doors.	Priority 4 - Other	6	Each	$350	$2,100	
#22	Fire Extinguisher - Reach Range and Protruding Object	Main Hall	General	The fire extinguisher is located approximately 58" above the finish floor surface and is protruding up to 6" into the accessible route.	Operable parts on elements required to be accessible must be located within reach ranges between 15" and 48" above the finish floor surface. Objects with leading edges more than 27" and not more than 80" above the finish floor or ground cannot protrude more than 4" maximum horizontally into the circulation path. CBC 11B-307.2	Relocate the fire extinguisher.	Priority 4 - Other	6	Each	Maint.	Maint.	
#24	Dining Surface - Height & Depth	Main Hall	Service Bar	An accessible dining surface is not provided at the bar.	Where food or drink is served at counters over 34" high, a minimum 60" long portion of the counter must be 34" high maximum and provided with knee and toe clearance having a minimum height of 27" and 19" deep minimum. CBC 11B-902.2	Lower a portion of the service bar and extend the counter to 19" deep.	Priority 2 - Goods and Services	1	Allow	$10,000	$10,000	
#28	Identification Sign - Location	Restrooms	Men's and Women's Multi-User Restrooms	The restroom identification sign is mounted at the door.	Where permanent identification is provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door. Where there is no wall space to the latch side of the door, signs shall be placed on the nearest adjacent wall. CBC 11B-703.2	Relocate the identification sign to the adjacent wall.	Priority 4 - Other	2	Each	$350	$700	
#29	Door - Opening Force	Restrooms	Women's Restrooms	The door opening force measured 18 pounds. The high opening force appears to be a result of historic swelling of the door or misalignment.	Interior doors must have an opening force not exceeding 5 pounds. CBC 11B-404.2.9	Adjust door.	Priority 2 - Goods and Services	1	Each	Maint.	Maint.	

ID	Title	Location	Location Details	Description	Codes and Regulations	Recommendation	Priority	QTY	Unit	Unit Cost	Opinion of Cost	Cost Notes
#30	Door - Pull Side Maneuvering Clearance	Restrooms	Women's Restroom	The trash is located within the door maneuvering clearance on the pull side of the door.	A clearance extending 18" minimum beyond the latch side of the door. ADA 4.13.6	Relocate the trash can.	Priority 3 - Restrooms	1	Each	Maint.	Maint.	
#31	Door Lock - Reach Range	Restrooms	Men's and Women's Restrooms	The door lock is located at 57" above the finish floor.	Operable parts of door locks shall be 34" minimum and 44" maximum above the finish floor or ground. CBC 11B-404.2.7	Relocate the door lock.	Priority 3 - Restrooms	2	Each	Maint.	Maint.	
#33	Water Closet - Location	Restrooms	Men's and Women's Restroom	The centerline of the water closet at the accessible stall measured 18-1/2" from the side wall.	The centerline of the water closet must be located 17" minimum and 18" maximum from the side wall. CBC 11B-604.2	Relocate the water closet.	Priority 3 - Restrooms	2	Each	$1,800	$3,600	
#34	Sanitary Napkin Disposal - Location	Restrooms	Men's and Women's Accessible Compartments	The sanitary napkin disposal is located between the rear wall and the toilet paper dispenser.	Sanitary napkin disposal units shall be wall mounted and located on the sidewall between the rear wall of the toilet and the toilet paper dispenser, adjacent to the toilet paper dispenser. The disposal unit shall be located below the grab bar with the opening of the disposal unit 19" above the finish floor. CBC 11B-604.7.2	Relocate the disposal.	Future Alteration	2	Each	Maint.	Maint.	
#35	Toilet Compartment Door - Self Closing	Restrooms	Men's and Women's Restrooms	The doors to the accessible compartments are not self-closing.	Doors to the accessible compartment must be self-closing. CBC 11B-604.8.1.2	Adjust doors so that the gravity hinge closes properly.	Priority 3 - Restrooms	2	Each	Maint.	Maint.	
#36	Paper Towel Dispenser - Height	Restrooms	Men's and Women's Restrooms	The operable part of the paper towel dispenser measured up to 56" above the floor.	At least one type of each accessory must have the operable part located 40" maximum above the floor. CBC 11B-603.5	Relocate the dispenser.	Priority 3 - Restrooms	2	Each	Maint.	Maint.	
#37	Lavatory - Pipe Insulation	Restrooms	Men's and Women's Restrooms	The lavatory connectors, supply, and drain lines under the lavatory are not insulated or otherwise covered to protect against scrapes and burns.	Water supply and drain pipes under at least one sink per restroom must be insulated or otherwise covered to protect against contact. There may be no sharp or abrasive surfaces under sinks. CBC 11B-606.5	Provide insulation at lavatory pipes.	Priority 3 - Restrooms	2	Each	$500	$1,000	Cost assumes new ADA pipe wrap kits and flex foam tape.
#38	Urinal - Clear Floor Space	Restrooms	Men's Restroom	The distance between the accessible urinal partitions measured 29-1/2".	A clear floor space 30" x 48" must be provided in front of the accessible urinal. CBC 11B-605.3	Relocate the partition at one urinal.	Priority 3 - Restrooms	1	Each	Maint.	Maint.	
#39	Ambulatory Compartment	Restrooms	Men's Restroom	An ambulatory stall is not provided.	In a multi-accommodation toilet facility where the combination of urinals and water closets totals six or more fixtures, 5% of the combination of toilet compartments and urinals, but no fewer than one ambulatory toilet compartment must be provided. CBC 11B-213.3.1	Convert an existing stall to be an ambulatory compartment.	State/Local Code Requirement	1	Allow	$8,500	$8,500	
#41	Toilet Paper Dispenser - Location	Restrooms	Men's Restroom	The toilet paper dispenser centerline measures 5" from the front edge of the water closet.	Toilet paper dispensers must be 7" minimum to 9" maximum in front of the water closet measured to the centerline of the dispenser. CBC 11B- 604.7	Relocate the toilet paper dispenser.	Future Alteration	1	Each	Maint.	Maint.	
#42	Ground Surface - Slip Resistance	Restrooms	Men's and Women's Restrooms	Floor is not slip-resistant.	Ground and floor surfaces along accessible routes and in accessible rooms and spaces including floors, shall be stable, firm, and slip-resistant. CBC 11B-302	Install a slip-resistant coating over existing flooring.	Priority 3 - Restrooms	1	Allow	$16,000	$16,000	
#50	AED - Protruding Object	Main Hall	Adjacent to Kitchen	The AED protrudes greater than 4" into the circulation path, and the height of the handle exceeds 48".	Objects with leading edges more than 27" above the finish floor or ground cannot protrude more than 4" maximum horizontally into the circulation path. The handle shall be located 48" maximum from the finished floor. CBC 11B-307.2	Relocate the AED.	Priority 3 - Restrooms	1	Each	Maint.	Maint.	Cost assumes lowering the existing AED so that the base of the box is at 27" maximum above the finished floor.
#56	Accessible Entrance	Site	Exterior Doors	No accessible entrance is provided.	At least one accessible entrance must be provided. Directional signs indicating the location of the nearest accessible entrance must be provided at inaccessible entrances. CBC 11B-216.6	Provide directional signage.	Priority 1 - Entrances	7	Each	$350	$2,450	Cost assumes all exterior double and sliding doors are counted as entrances.
#58	Bathroom Signage - Geometric Sign	Restrooms	Men's and Women's Restrooms	A geometric sign is not provided at the restroom door.	Geometric symbols must be provided at entrances to toilet and bathing rooms. CBC 11B-216.8.1. Geometric symbols shall be mounted at 58" minimum and 60" maximum above the finish floor measured from the centerline of the symbol. CBC 11B-703.2.6	Provide a geometric sign at the restroom door.	State/Local Code Requirement	2	Each	$350	$700	
#60	Light Switch - Height	Restrooms	Men's and Women's Restrooms	The height of the light switches measured 52" above the floor.	The high reach for operable parts on accessible elements must not exceed 48" above the floor. CBC 11B-205	Install an automatic light sensor at existing switch.	Future Alteration	2	Each	Maint.	Maint.	

EXHIBIT C


Area Reviewed
HARBOUR WAY SOUTH TERMINAL, See A1.2 & 1.2a
FLOATING BARGE FERRY DOCK PLATFORM & ADA GANGPLANK
REMOVABLE FLOATING DOCK ALONG SOUTH WHARF FOR TEMPORARY SAILBOAT DOCKING
CRANEWAY
RANEWAY WHARF, See A1.3
Expose (e) historic rail tracks
Patch & level asphalt paving flush with tracks.
Maintain continuous bay trail access
Power for temporary event lighting
BAY TRAIL
FLOATING BARGE & ADA GANGPLANK
HARBOUR WAY SOUTH
BAY TRAIL
(N) HYDRANT, CHECK VALVE & FDC, SEE A1.2 AND E8.1
PROJECT ENTRY
- Maintain historic guard shack
- Ornamental iron fencing and gates
- Install monument sign
PG & E REGULATOR STATION, SEE 2/C1.0
SUN POWER
BEST-LINE
SUN POWER FABRICATION
VETRAZZO
TITLE 9
MOUNTAIN HARDWEAR
BOILER HOUSE
OIL HOUSE
EAST PERIMETER, See A1.4
- Lighting and landscape along east perimeter to be developed in cooperation with adjacent development.
NORTH PARKING
- Layout follows historic 1920s parking lot
- East edge follows layout of historic railroad
SUNPOWER LEASE AREA
± 21,000 S.F.
SEE 1/A1.1a
PORT PARKING
HISTORIC RELOCATABLE WATCHMAN'S HUT
TEMPORARY HISTORIC MATERIALS STORAGE
TEMPORARY CONTAINERS AREA FOR
HALL AVENUE

ADDITIONAL SEWER SYSTEM INVESTIGATION

April 1, 2026

Tammy Siliznoff, MS, P.E., LEED AP
Principal, Specialist
RDH Building Sciences Inc.
1901 Harrison Street, Suite 1210
Oakland, California 94612
tsiliznoff@rdh.com

RE: Craneway Pavilion – Addendum 1
Additional Sewer System Investigation - DRAFT
Marx Okubo Job No. 25-5427 (internal project number 00001176)

Dear Tammy Siliznoff:

Background Information:

On February 3, 2026, Marx Okubo conducted a Facility Condition Assessment (FCA) of the Craneway Pavilion at 1414 Harbour Way South, in Richmond, California. The Craneway Pavilion is the southernmost portion of a much larger building, called Ford Point, herein referred to as the Main Building. Marx Okubo's original scope of work for the FCA included an assessment of building interiors, site improvements (excluding the pier), mechanical, electrical and plumbing (MEP) systems, and fire protection and life safety (FP/LS) systems.

After the FCA report was presented to the City of Richmond (City), the City forwarded a pervious complaint regarding a reported sewer backup affecting one of the kitchens. No visible signs of water damage from backups were noted in the service kitchen area. Neither the affected kitchen nor the date of the incident was identified, and no additional clarifying details were provided to Marx Okubo. The documentation available to Marx Okubo as part of the original FCA did not include any information on the plumbing systems serving the restrooms and service kitchen for the Craneway Pavilion. The City requested additional services to try to determine the physical condition of sewer lines serving the Craneway Pavilion and to gather information on as-built conditions.

Marx Okubo was informed on the date of the first site visit for the FCA that the restaurant adjacent to the Craneway Pavilion was not included in the scope of work. Marx Okubo did not include the restaurant in the scope of work for this additional investigation either; however, after discussing the issue with the Main Building's on-site engineer, who happened to be present during this additional investigation, and who has a long history with this overall property, we expanded our scope to include an examination of some of the sewer and grease waste lines, and the grease trap serving the restaurant.

Site work for this additional investigation occurred March 20, 2026. Marx Okubo's scope excluded videoing any lines less than 3" in diameter (because the video camera will not fit in smaller pipes) and the removal of any plumbing fixtures. We were only able to access the sewer lines through two cleanouts serving plumbing systems for the Craneway Pavilion: one in the Women's Restroom and one exterior cleanout immediately west of the building by the Main Building's southernmost exterior access door. Due to a lack of available cleanouts, as-built information is somewhat limited; however, enough of the system was able to be viewed through the two cleanout locations to allow Marx Okubo to gain an overall understanding of the systems.

The information in this report must be referenced in conjunction with the updated FCA report to gain a complete understanding of the systems.

General System Description:

There are two separate plumbing systems that serve the Craneway Pavilion or are adjacent to it. Two multi-user restrooms, a wet bar area and a small service kitchen serve the Craneway Pavilion space. Along the north wall of the Craneway Pavilion restrooms, two multi-user restrooms serve the adjacent tenant space in the Main Building. Refer to the attached plans for details on the location of these various rooms and the location of the cleanouts that were used to access the systems. The sewer lines from the Craneway Pavilion restrooms drain to the west side of the building, where they connect to the municipal sewer system underneath Harbour Way South. Piping at the restrooms is either cast iron, but the laterals as they connect to the municipal sewer system are PVC.

The restaurant's kitchen is provided with separate grease waste and regular sanitary sewer lines. The grease waste exits the restaurant's kitchen below the north wall (about midway along that elevation), turns to the west just outside of the building footprint, and then turns north to the inlet of a below-ground grease trap of unknown capacity. The discharge from the grease trap travels roughly 300' north into the Main Building's sewage ejector sump pump system along the east elevation of the Main Building. This sump pump reportedly discharges into a main sewer lateral immediately north of the Main Building.

Conditions:

The engineer for the Main Building happened to be present on March 20, 2026, and reported that whenever the restaurant's grease trap overflowed, the sewage ejector station would fill with grease, which would then have to be cleaned out from the sump. He further stated that he was aware of at least one instance when the restaurant's kitchen experienced a sewer backup, likely caused by an overflowing grease trap. During our site visit, the grease trap was nearly full, and only an inch or two below the rims of the PVC pipes. Significant buildup of debris inside the grease waste pipes inside the kitchen was noted from the video.

In the Craneway Pavilion's service kitchen, no cleanouts were available in the service kitchen to video sewer piping. A plumbing access panel on the north wall of the service kitchen is blocked by the kitchen's service sink. It is unclear if this access panel serves domestic water lines or waste lines. We were able to access a portion of the Craneway Pavilion's restroom sewer lines via a wall cleanout in the Women's room. This provided us with a view of a portion of the sewer lines, which did not appear to have any major blockages or pipe dips, and water drained adequately when toilets were flushed and lavatories flowing. A ground cleanout, located immediately west of the Main Building at the southernmost exterior door, provided us with a second point of access to the sewer laterals serving that area. A main east/west lateral flows out of the building past this cleanout into the municipal sewer system, which turns to the north under Harbour Avenue South. The drainage from the Craneway Pavilion restrooms discharges to this line. This was confirmed by flushing toilets in those restrooms and by running the sink in the service kitchen. Through the video camera, we could see water flowing through the cleanout; we were able to confirm that the service kitchen waste is tied into the same sewer lines as the restrooms.

Conclusions:

We believe that the main complaint that prompted this additional investigation affected the restaurant's kitchen and was likely caused by the grease trap not being emptied promptly, which caused a backup into the kitchen and caused grease to travel to the Main Building's sewage ejector. We do not believe that the service kitchen for the Craneway Pavilion was affected by any backups based on the response, when queried, of the Main Building's engineer.

Marx Okubo recommends the following actions, all of which should be coordinated with the Main Building.

Restaurant kitchen:

- Clean out the grease trap
- Hydrojet all sanitary sewer and grease waste lines

Craneway Pavilion Restrooms and kitchen:

- Hydrojet all sanitary sewer lines

Additional improvements to the plumbing system to increase access and cleanability should be considered. These include:

- Add a wall cleanout in the service kitchen connected to the service kitchen's floor drains
- Add a wall cleanout connected to the Craneway Pavilion's Men's room along the restroom's north wall to provide good access to the main sewer lines

Photographs:

Screen capture of video taken from ground cleanout west of Main Building showing restroom sinks flowing out of building (from fitting to the right).

Screen capture of video taken from wall cleanout in Craneway Pavilion's Women's Restroom.

Grease trap north of the restaurant.

Discharge portion of the grease trap showing levels immediately below the rim of the pipe outlet (meant to flow only clear water).

Please do not hesitate to contact me with any questions or concerns.

Sincerely,

MARX OKUBO ASSOCIATES, INC.

Brad Wolf, P.E.
Senior Associate
Brad_Wolf@marxokubo.com

By email
cc: Tammy Siliznoff, RDH Building Science (tsiliznoff@rdh.com)
Kurt Wenninger, RDH Building Science (kwenninger@rdh.com)

BESTLINE TENANT SPACE

RESTROOMS SEPARATE TENANT SPACE

CRANEWAY RESTROOMS

BCDC 100' SHORELINE BAND

SERVICE KITCHEN

SUNPOWER TENANT SPACE

(E) EQUIPMENT

BOILER HOUSE

OIL HOUSE

GRAVEL

REMOVE (E) PAVING

ACCESSIBLE RAMP

1 A1.7

ODI BIKE RACKS

42" CUBE MOVABLE DIVIDERS, TYP.

PAINTED GRID ON ASPHALT

VINYL COATED CHAIN LINK FENCE

(N) GUARD SHACK

GATE

INTERPRETIVE SIGNAGE

5 A1.7

8

PATCH AND REPAIR (E) CONCRETE PAVING

GATES

VINYL COATED CHAIN LINK FENCE

(N) CONCRETE PATH W/ ACCENT BANDS. MATCH & CONTINUE EXISTING PATTERN FROM ADJACENT PROPERTY.

CANOPY, SEE A1.5

8

ADD TIMBERS AT (E) BULKHEAD

ADA GANG PLANK WITH GUARDRAILS BOTH SIDES 1:12 MAX. SLOPE

8

PATCH AND REPAIR (E) A.C. PAVING

ENLARGED SEWER PLAN AREA

RESTAURANT

CRANEWAY

REMOVABLE RAILING SECTIONS AT ACTIVE SHIPPING AREAS

12'-0"

ADA GANG PLANK WITH GUARDRAILS BOTH SIDES 1:12 MAX. SLOPE

8

12'-0"

20'X30' FLOATING BARGE

8

CONNECTOR DOCK

REMOVABLE RAILING SECTIONS AT ACTIVE SHIPPING AREAS

12'-0" WIDE BAY TRAIL AREA TO BE DEDICATED TO PUBLIC ACCESS

TRASH RECEPTACLE, TYP.

8

W S N J E A

FUTURE WINDBREAK IF REQUESTED BY TENANT

CRANE ABOVE

12'-0"

P P P

(E) BULL RAIL

REMOVABLE RAILING SECTIONS AT ACTIVE SHIPPING AREAS

(E) TRACKS TO REMAIN, FILL (E) TRACK CAVITY FLUSH TO TOP OF (E) TRACKS, TOP OF TRACK TO REMAIN FULLY EXPOSED

FUTURE WINDBREAK IF REQUESTED BY TENANT

WHARF MARITIME POWER SUPPLY, TYP. OF 4

20'X30' FLOATING BARGE FERRY DOCK

8

8 LIMESTONE BENCH LOCATIONS, TYP. OF 8 ALONG WHARF, SEE 3/A1.2

REFURBISHED CONCRETE TRASH RECEPTACLE, TYP. OF 4 ALONG WHARF

REMOVABLE FLOATING DOCK ALONG SOUTH WHARF FOR TEMPORARY SAILBOAT DOCKING

8

LEGEND

CRANEWAY: INFILL (E) DEPRESSED SLAB AREA WITH SEALED CONCRETE TOPPING SLAB WITH CLEAR EPOXY COATING

(E) TRACKS TO REMAIN

DEDICATED PUBLIC ACCESS AREA

1 PARTIAL FIRST FLOOR PLAN- CONCEPT TENANT IMPROVEMENTS AT CRANEWAY

0 20' 40'

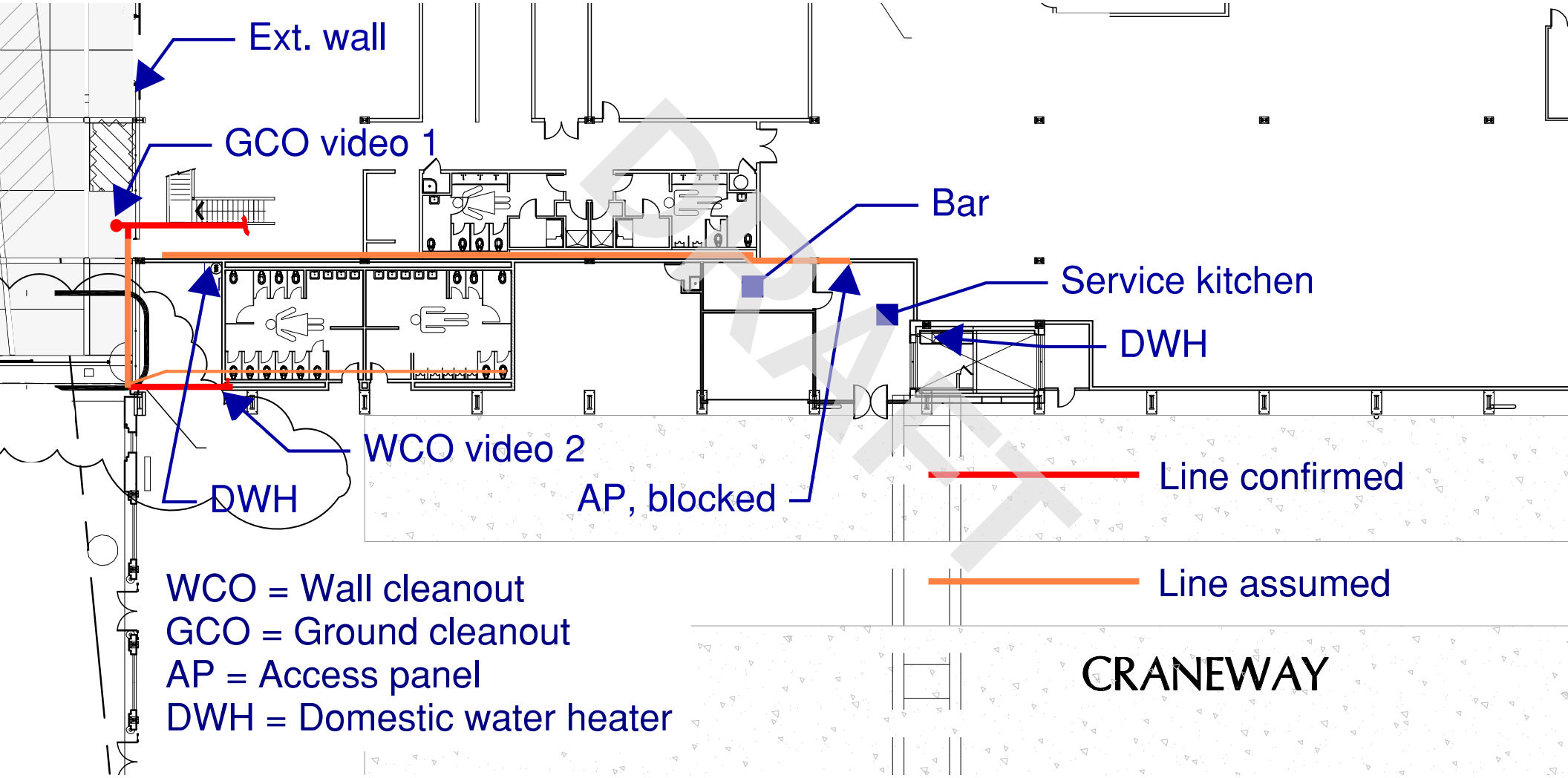
N

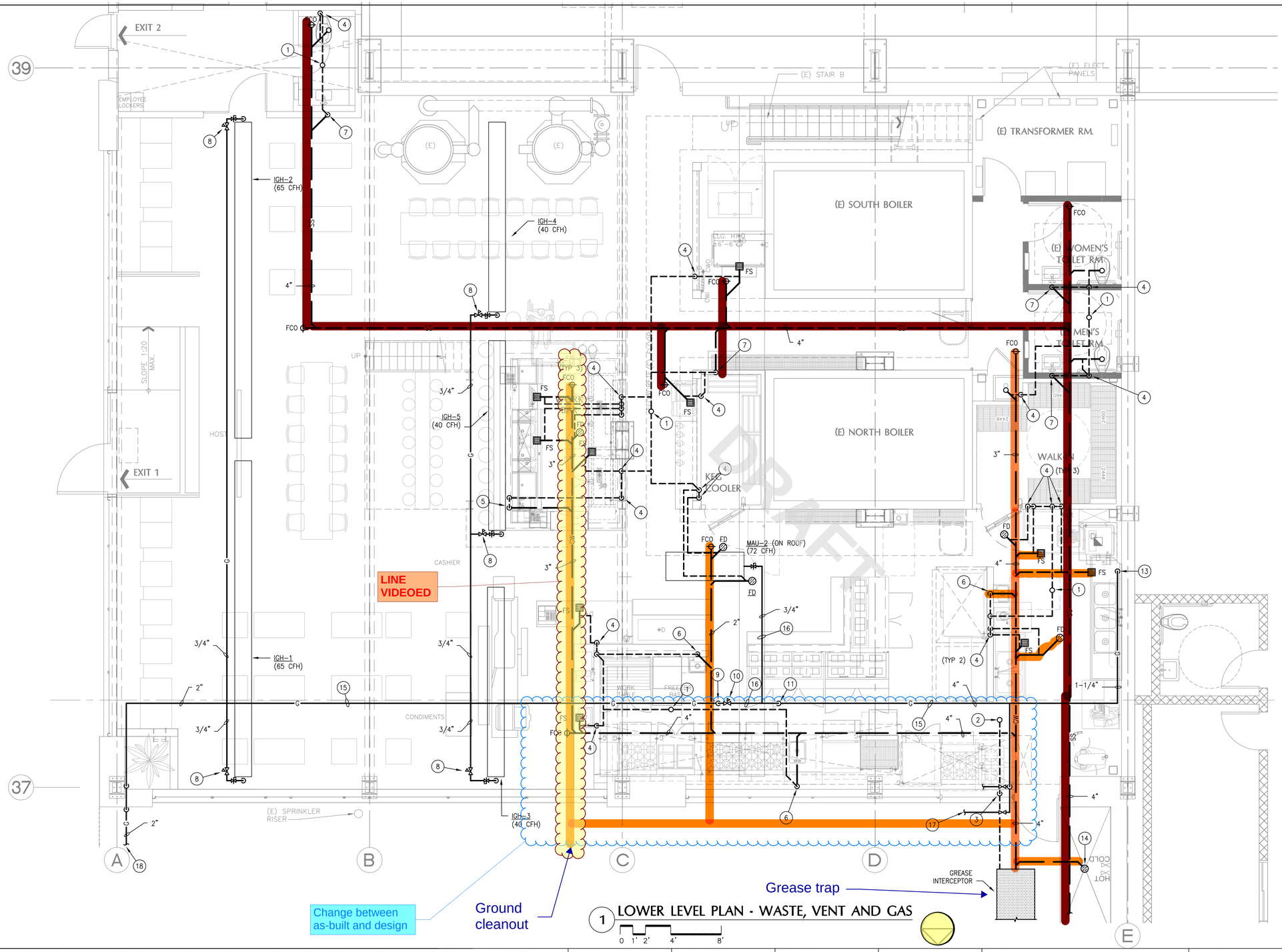
NOTE: THIS DRAWING IS ROTATED 90° FROM REST OF SET

FORD ASSEMBLY BUILDING

1414 HARBOUR WAY SOUTH
RICHMOND, CALIFORNIA 94804

Developer:	Architect:	Consultant:	Stamp:	Revisions:	Sheet Name:	Sheet Number:
Orton Development, Inc. 3049 Research Dr. Richmond, CA 94806 tel: (510) 428-0800	MARCY WONG & DONN LOGAN ARCHITECTS 800 Bancroft Way Berkeley, CA 94710 tel: (510) 843-0916			3/15/05 DOCKS DELETED, STALLS REMOVED, WINDBREAKS ADDED 3 BCDC RESUBMITTAL 11/27/06 BENCH LOCATIONS REVISED	PARTIAL SITE/FIRST FLOOR PLAN CRANEWAY CONCEPT TI Phase: BCDC FINAL SUBMITTAL Date: 11 MAY 2009 By: KR, KS	A1.3


Ext. wall
GCO video 1
Bar
Service kitchen
DWH
WCO video 2
DWH
AP, blocked
Line confirmed
Line assumed
WCO = Wall cleanout
GCO = Ground cleanout
AP = Access panel
DWH = Domestic water heater
CRANEWAY
DRAFT



1 LOWER LEVEL PLAN - WASTE, VENT AND GAS

0 1' 2' 4' 8'

SHEET NOTES

1. 2" VTR.
2. 3" VTR
3. 3" GREASE INTERCEPTOR VENT – DN.
4. 2" V – DN.
5. ISLAND TYPE WASTE AND VENT PIPING, 2" SS AND 2" V – DN.
6. 2" GW – DN.
7. 2" SS – DN.
8. PROVIDE PRESSURE REGULATOR, INLET PRESSURE IS 5 PSI, OUTLET PRESSURE IS 0.25 PSI. PROVIDE REGULATOR VENT PIPE THRU ROOF.
9. 2" G – UP.
10. PROVIDE GAS PRESSURE REGULATOR ON ROOF. INLET PRESSURE IS 5 PSI, OUTLET PRESSURE IS 0.25 PSI.
11. 4" G – DN.
12. NATURAL GAS SHUT-OFF VALVE. COORDINATE LOCATION OF SOLENOID GAS SHUT-OFF WITH THE ANSUL FIRE SUPPRESSION SYSTEM.
13. 1-1/4" G – DN TO MEZZANINE LEVEL.
14. WASHING AREA DRAIN.
15. PIPING BELOW ROOF.
16. PIPING ON ROOF.
17. 2" G TO OUTDOOR BBQ EQUIPMENT.
18. TO NATURAL GAS METER AND REGULATOR AT OIL HOUSE.

BOILER HOUSE RESTAURANT
FORD ASSEMBLY BUILDING
1414 HARBOUR WAY SOUTH
RICHMOND, CALIFORNIA 94804

Developer:
Orton Development, Inc.
3049 Research Dr.
Richmond, CA 94806
tel: (510) 428-0800

Architect:
MARCY WONG & DONN LOGAN ARCHITECTS
800 Bancroft Way
Berkeley, CA 94710
tel: (510) 843-0916

Consultant:
MECHANICAL DESIGN STUDIO INC.
1777 Oakland Blvd.
Walnut Creek, CA 94596
tel: (925) 210-0100

Stamp: North is down on this sheet.

Revisions:

Sheet Name: FLOOR PLAN - WASTE, VENT AND GAS PIPING

Phase: CONSTRUCTION DOCUMENTS
Date: FEBRUARY 23, 2009
By: TB,JLW

Sheet Number: P2

F:\C_29000\29001.00 BOILER ROOM RESTAURANT\DRAWINGS\29001P2.DWG Jeff
02/24/09 4:02:35 PM

PHOTOGRAPHS

1 - West elevation.

2 - South elevation.

3 - East elevation.

4 - Clogged trench drain along the east perimeter of the building.

5 - Rusted area drain located along the south perimeter of the site.

6 - Typical wall-mounted, exterior light fixture on the south elevation of the Craneway Pavilion.

7 - Significant cracking and damage on the asphalt pavement along the south perimeter of the site.

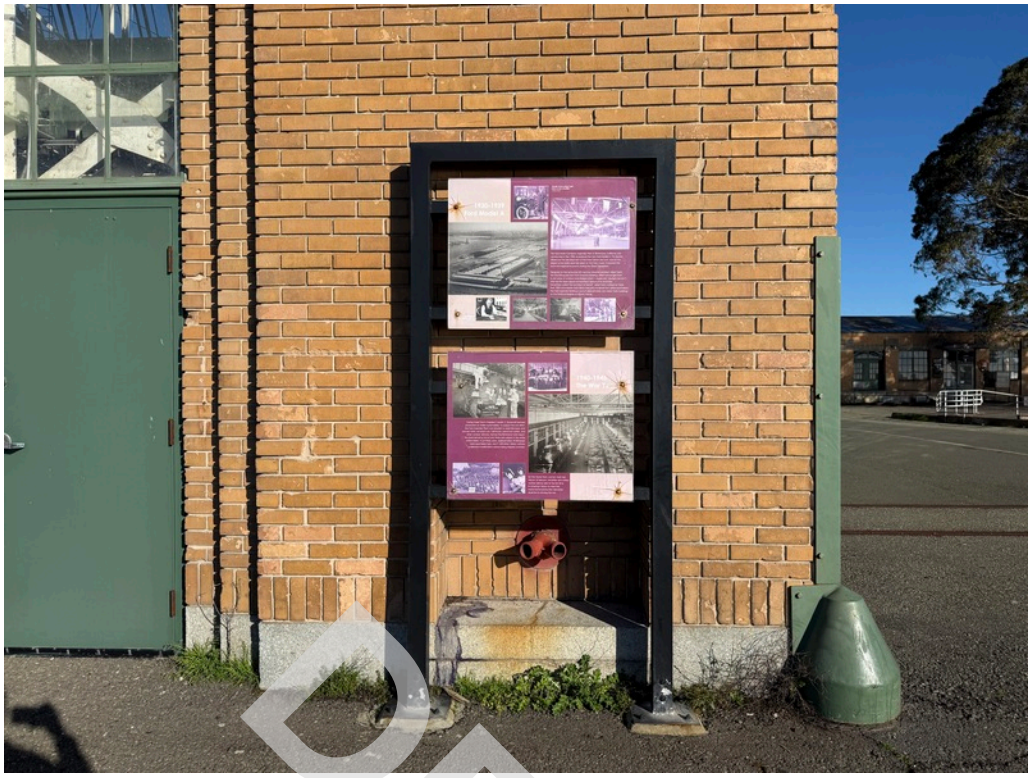
8 - Precast concrete paving is provided at the northwest corner of the site.

9 - Corroded steel piles at the main pier along the south perimeter of the site.

10 - Metal guardrails provided along the south boarder of the site.

11 - Rusted and damaged metal picket fencing, located underneath the pier at the northeast corner of the site.

12 - Monument signage identifying the building name provided at the east parking area.

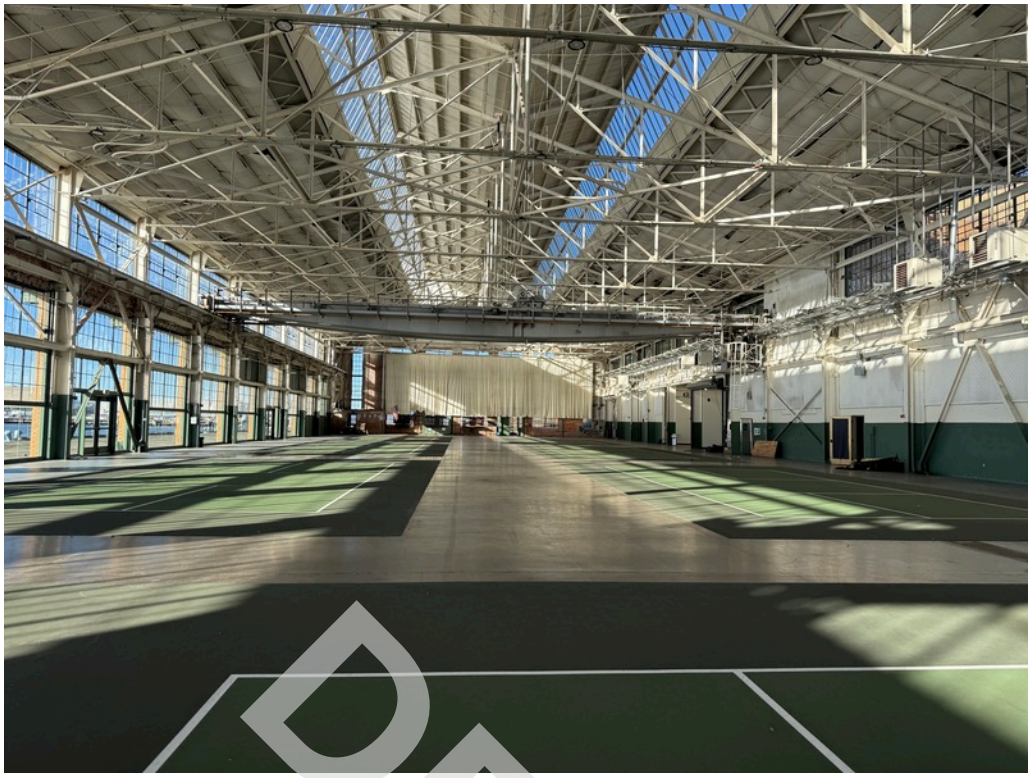


13 - Historical informational signage mounted on metal post is provided along the south elevation of the building.

14 - Multi-panel industrial craneway door provided at the east elevation of the building.

15 - A bicycle station for public use is provided on the west side of the site.

16 - Trash dumpsters are provided within the east parking area, adjacent to the Main Building.



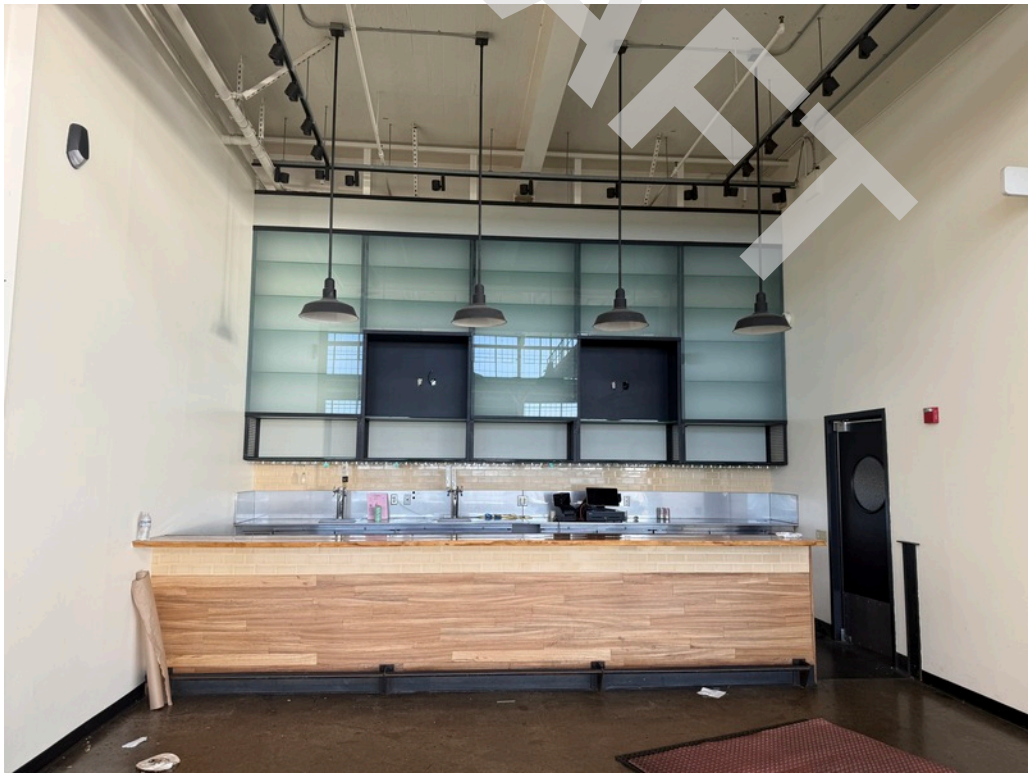
17 - Exposed ceiling structure and polished concrete flooring within the tenant space.

18 - Interior historic brick and mortar walls.

19 - Metal-framed glass entryway door provided at the office/storage space.

20 - Restroom finishes.

21 - Typical utility room finishes.



22 - Bar area.

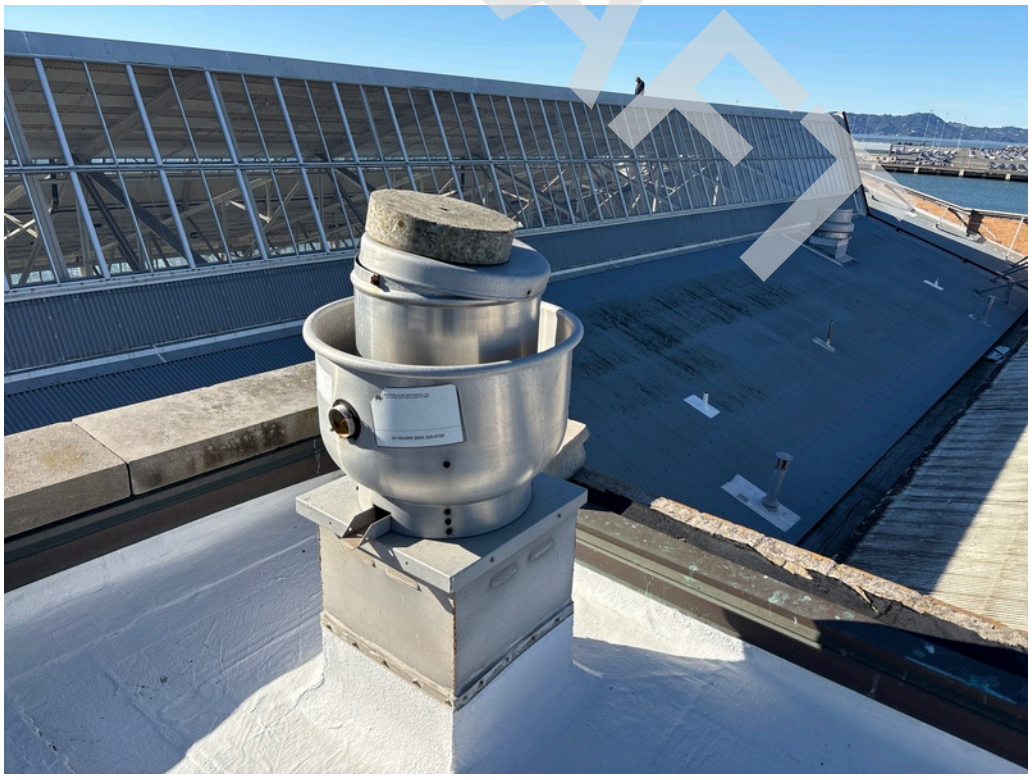
23 - Kitchen finishes.

24 - Minor damage to the concrete flooring along the east elevation.

25 - Significant damage to the concrete flooring along the east elevation.

26 - Typical ceiling-hung unit heaters in the Craneway Pavilion.

27 - Dishwasher exhaust hood in the service kitchen.



28 - Dishwasher exhaust fan on the roof of the small Main Building tower projecting above the main roof.

29 - Small Main Building tower projecting above the main roof with HVAC equipment for the service kitchen in the Craneway Pavilion.

30 - Typical outside air supply ductwork and diffusers in the restroom.

31 - Typical outside air supply ductwork and diffusers in the service kitchen.

32 - Outside air supply fan for the service kitchen on the roof of the small Main Building tower projecting above the main roof.

33 - Backflow preventer adjacent to the restaurant.

34 - Typical urinals in the men's restroom.

35 - Domestic water heater serving the restrooms.

36 - Closeup view of the restroom DWH showing signs of leakage and corrosion in drain pan.

37 - Domestic water heater for the service kitchen in the adjacent utility room.

38 - One of two water filtration systems for the service kitchen.

39 - Electrical yard on the southeast portion of the Main Building. One of these two transformers and termination cabinets serves the Craneway Pavilion.

40 - Termination cabinet that serves the Craneway Pavilion, along with the Visitor Center, restaurant, and other portions of the Main Building.

41 - Distribution panels in the Craneway Pavilion office/utility room.

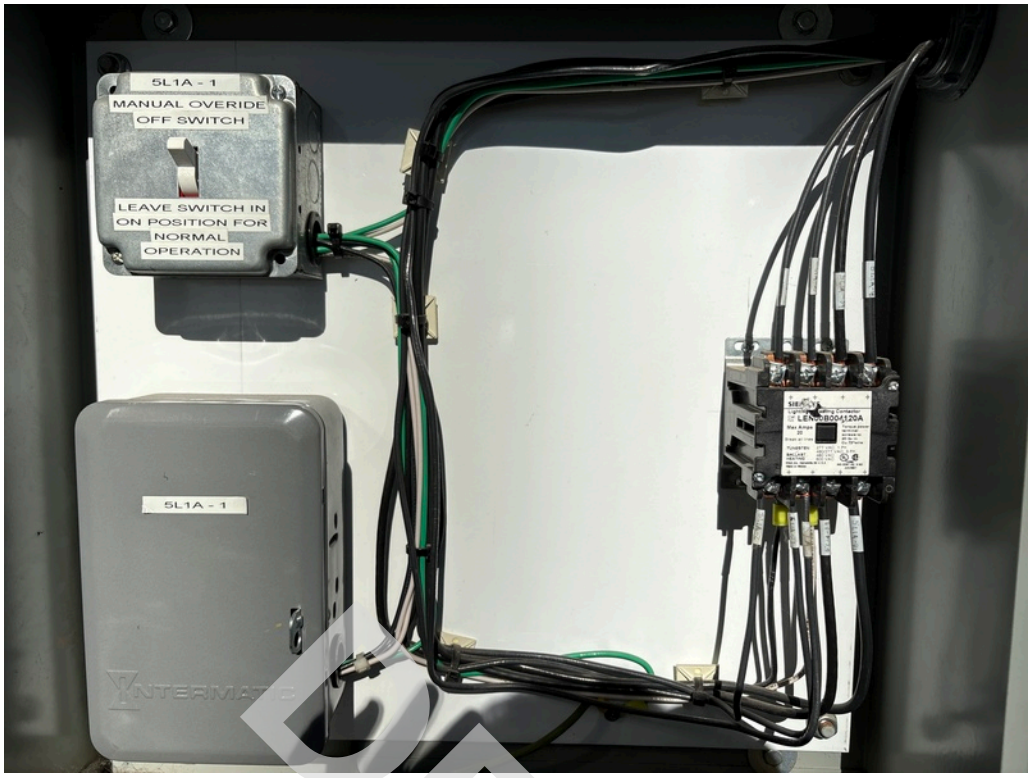
42 - One of two A/V special electrical panels. This is located on the west beam crane's operator's station.

43 - The second of two A/V special electrical panels. This is located on the east wall of the Craneway Pavilion.

44 - Typical high-bay LED light fixture in the Craneway Pavilion.

45 - Close-up view of typical high-bay LED light fixture.

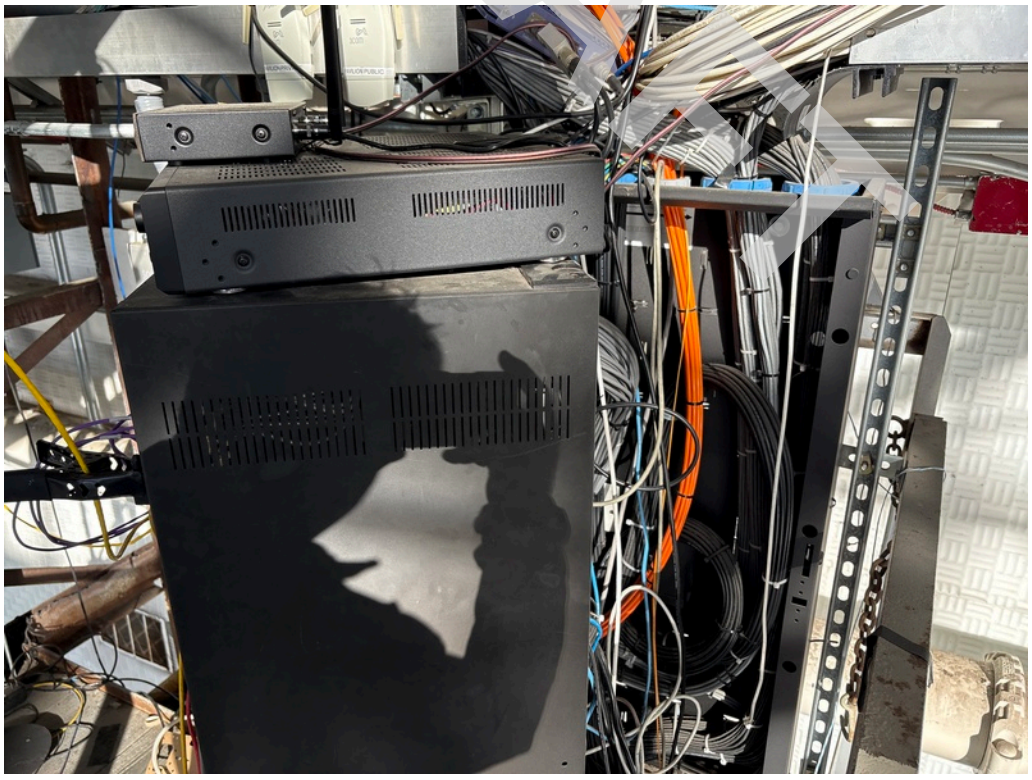
46 - Typical restroom light fixtures.



47 - Lighting control panel.

48 - Timeclock for lighting controls.

49 - Abandoned safety switch with damaged front cover on the west wall of the Craneway Pavilion.



50 - A/V system equipment rack in the crane operator's station on the west beam crane.

51 - Typical A/V connection panel.

52 - Typical A/V system connection panel.

53 - Main fire alarm control panel located in the Main Building.

54 - Satellite fire alarm notification panel in the office/utility room of the Craneway Pavilion.

55 - West site water loop connection.

56 - East sprinkler riser.

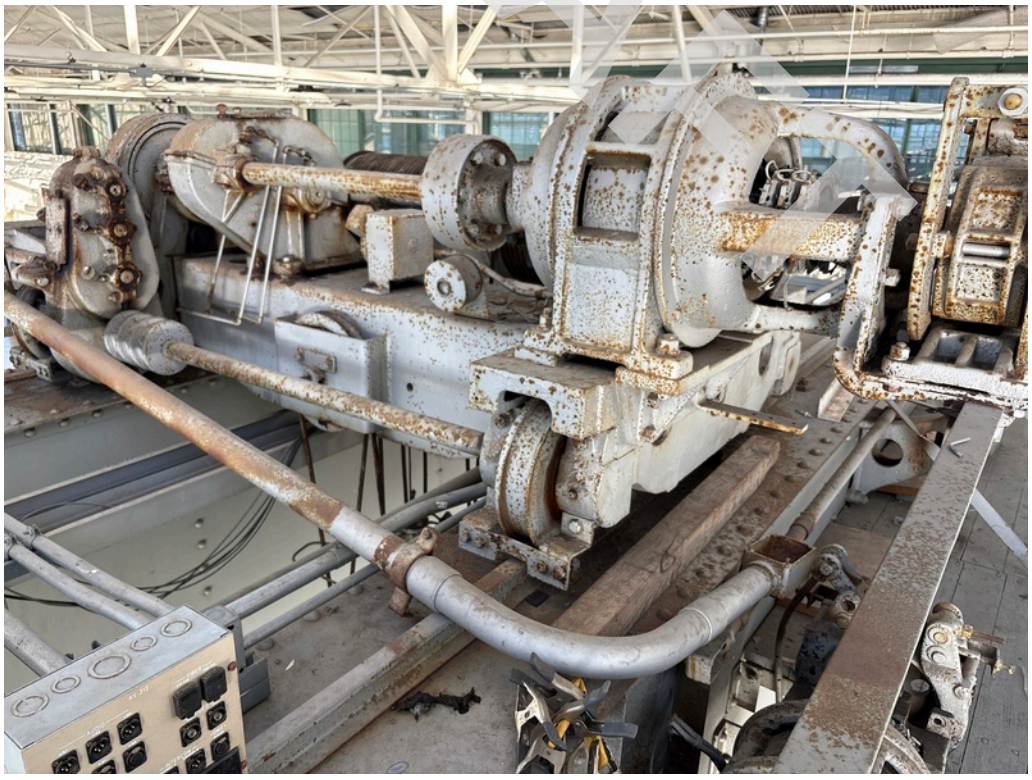
57 - West sprinkler riser.

58 - Window sprinklers enhance fire separation between the areas.

59 - Typical fire extinguisher.

60 - Non-illuminated exit sign.

61 - Emergency lights are spaced along the south wall.



62 - Partially disassembled beam crane hoist.

63 - Beam crane operator's station access ladder with missing bolt.

64 - Typical security alarm station in the Craneway Pavilion.

65 - Video camera mounted from the west beam crane support.

Appendix C

SLR Environmental Report

SLR International Corporation
2175 N California Blvd, Suite 205, Walnut Creek, California, 94596

February 2, 2026

Tammy Siliznoff | MS, P.E., LEED AP
Principal, Specialist - Building Enclosure
RDH Building Science Inc.
1901 Harrison Street #1210, Oakland, CA 94612

RE: DRAFT Conditional Assessment Report, Environmental – Craneway Pavilion Historic Ford Assembly Plant, 1414 Harbour Way South Richmond CA

Dear Ms. Siliznoff,

In accordance with your request, SLR is pleased to submit our Inspection report for conducting our inspection services for the Craneway Pavilion portion of Historic Ford Assembly Plant at 1414 Harbour Way South in Richmond CA (Site). The Site consists of the Craneway portion of the historical building built in 1931 that underwent significant renovation in 2007.

SCOPE OF WORK

The following was completed as part of the Scope of Work:

SLR conducted a site reconnaissance on January 8th to look for conditions that could indicate current or past releases of hazardous substances or petroleum products at the Subject Property. During the site reconnaissance SLR looked for the following conditions, additional documentation and findings are provided in Attachments 1-4.

1. **Asbestos/lead/: survey status, remaining Asbestos Containing Materials (ACM) / Lead Based Paint (LBP)**

Description

ACM is typically observed various locations in building materials including insulation, roofing materials, various tarry glues and substances used to glue, and in window putty, sealants or insulating boards beneath the sills. Historical design documents for the building show presence of corrugated roofing materials containing asbestos. LPB is likely present in the building. The interior and exterior of the building appeared to have been coated with new paint in the last 10-15 years. However the condition of the original paint was not documented in the original documents that were made available to SLR. It is likely that the paint flakes generated during demolition were removed and disposed along with other debris material when the renovation took place. It is also likely that underlying pain contains lead. Due to the size of the structure and variety and extent of the painted area, limited sampling of the LBP would not provide a likely confident assessment.

Condition

SLR inspected the condition of the above materials within the building. The roof is comprised of two sloped panels rising towards the middle on either side. These panels are constructed of Corrugated metal roofing. Under these is a 2-3 inch layer of insulation which acts as acoustic absorption. In the middle is a M shaped structure consisting of glass walls and corrugated transite panels. The panels present on the roof of the building appeared to be in good condition. In some areas with water leakage, sealants appeared to have been applied. The facility drawings label these panels as corrugated asbestos. Suspect ACM may also be present in the window insulation materials. The window putty appeared to have been dry and, in some cases, may have been ready to become friable. The LBP associated with structural steel and associated with other building materials is likely present. However since the building has been painted in the last 10-15 years, the LBP is likely sealed under the new roll of paint. SLR was not provided any reports related to assessment or management of LBP at the site.

Recommendations

Corrugated roofing material appear to be in good condition. A management plan can be developed to address the need for management of ACM materials in the event the roofing materials need to be repaired or replaced to ensure that all of the BAAQMD, and OSHA requirements are followed. In either case, the building needs to post Prop 65 warnings.

The window putty is in friable condition. They could either be sealed in place or replaced. If they are to be sealed in place, sampling is needed to confirm the presence of ACM in the window sills and putty.

The building should be tested for LBP. It could be performed by a certified inspector with a XRF monitor. In the event the presence of LPB is confirmed, a management plan should be developed.

2. PCB (sash windows/caulks), ballast/transformer

Description

PCBs are generally found in building materials ranging from Caulk, grout, and expansion joints which are frequently manufactured with PCBs for flexibility and adhesion. Putty, silicone, and bitumen-based joint materials are often used around windows, doors, and masonry.

Coatings & Surface Materials. PCBs are also found in glues and plastics as they were added to improve durability.

Related to Electrical & Lighting Components PCBs are found in older fluorescent light ballasts. Many pre-1980 ballasts contain PCB oil, which can leak as they age.

PCBs are also found in common older transformers and capacitors.

In addition to the above, PCBs may also be found in flooring adhesives and mastic. There is flooring glued to the concrete floor as the site is used for pickleball. The flooring appears to have been installed in the last 10 -15 years.

Condition

SLR inspected the condition of the above materials within the building. For this building electricity is provided through transformers that are related to the overall complex. Transformers related to the building appear to have been upgraded during the facility renovation.

Window calking is typically observed various locations in building materials The window putty appeared to have been dry and, in some cases, may have become friable. The caulking may be impacted with PCBs. The flooring material that is glued to the concrete surface is rather new and likely does not contain PCBs. SLR was not provided any reports related to assessment or management of PCBs at the Site.

Recommendations

The potential for presence of PCB containing oil in electrical equipment is low. The window putty is in friable condition. The putty could either be sealed in place or replaced. Sampling is needed to confirm the presence of PCBs in the window sills and putty. If present, Prop 65 notifications should be placed on the building.

3. Mold/moisture: roof/wall leaks, HVAC condensate issues; spore sampling if warranted.

Description

The building is open space and there are four high capacity natural gas air heaters hung from the ceiling. The exhaust is vented to the roof through metal piping. A water heater was observed near the kitchen area to supply hot water for bathrooms and kitchen operations.

Roof and wall leaks were not readily observed. No evidence of statining from leaks was readily observed.

Condition

The equipment mentioned above appeared to be installed post renovation. No condensate issues or mold was observed. Spore sampling does not appear to be warranted.

Recommendation

None.

4. Indoor air quality: CO_2, CO, particulate, VOCs (screening), odors.

Description

Indoor air quality is associated with heaters and air conditioning systems for a building. Additional factors include presence of solvents in the building, or presence of soil impacts or groundwater plumes that may impact the indoor environment through vapor intrusion. The indoor air is heated through forced air heaters powered by natural gas. The heaters are exhausted through the ceiling. There is potential for CO2 and CO escape into the room.

Condition

The heaters have been installed post facility renovation and are not likely to cause inefficient burn or cracks. The building floor is constructed on piles on top of the bay waters. There are no observed sources of soil impacts that would lead to soil vapor migration to the indoor air.

Recommendation

The heaters should be maintained based on the maintenance schedule and the exhaust piping should be inspected regularly to ensure there are no openings that would lead to escape of CO2 and CO into the building.

5. **Universal wastes: lamps, batteries, e-waste storage**.

Description

The new ceiling lights have been installed throughout the site. Not batteries or storage areas for battery usage was observed.

Condition

The lights appeared to be in good condition. The facility should designate areas for waste and e waste storage, however at the time of the site visit, it appeared that those storage areas are handled by management company that manages the entire complex.

Recommendation

The facility should designate e-waste and waste storage areas.

6. **Fuel systems: generator/day tanks, secondary containment, odor/leak checks**.

Description

As indicated previously, natural gas fuels the heater and the water heater onsite. No tanks marked as fuel tanks were observed. A large white 5,000 to 10,000 gallon cylindrical tank was observed below the ceiling at the center of the building. Due to the size of the piping, it was assumed to be a water tank used to feed the water sprinklers in case of fire. No other above or underground storage tanks, or vents or piping showing evidence of underground storage tanks were observed.

Condition

The condition of the tank could not be assessed as the tank could not be reached.

Recommendation

The tank below the ceiling should be assessed.

7. Stormwater compliance: BMPs, grease management for concessions.

Description

The roof stormwater is captured and drains to the San Francisco Bay. The stormwater on the drive ways and walking areas on the side of the building also drain to the Bay. No BMPs were observed, or deemed necessary.

Condition

The stormwater collection facilities appeared to be in good condition.

Recommendation

None.

8. Wildlife/birds: nesting in trusses/ledges; guano cleanup protocols.

Description

As this is a building in the coastal area, wildlife birds may nest on the roof of the building or in trusses or ledges. State and Federal regulation dictate management of these nests, in the event the building is going to go through renovation. Special consideration should be given and a biological monitor should be used to assess presence of birds and develop a mitigation plan in case there is going to be activities that disturb the birds.

Condition

At the time of the site visit, no migratory bird nests were observed.

Recommendation

The inspection and management of wildlife birds should be incorporated into any schedule associated with site development.

9. Environmental: staining, UST/AST presence, hazardous storage, waste enclosures.

Description

Industrial buildings contain underground and or aboveground storage tanks that contain fuels or hazardous liquids for use in the industrial production. These facilities also have waste enclosures that must meet state and federal regulations for waste storage, accumulation and disposal. Staining is also observed at facilities where such materials are used and it is associated with spills of fuels and hazardous materials.

Condition

During the site visit, no evidence of USTs or ASTs were observed. USTs are often identified by either signs of indentation in the floor, or raised pipes associated with vents or staining at the dispenser area. ASTs are often identified by signs of secondary containment and surface staining. None of these was observed. No evidence of waste enclosures was observed.

Two rail lines were observed in the dock area between the building and the bay. The ground surrounding the rail spurs were paved and no evidence of staining was visible. However rail lines are often installed on top of creosote posts, and surrounded on slag ballast to allow for a stable surface.

Recommendation

In the event the rail lines are to be disturbed there is potential for presence of impacts associated with either slag ballast or creosote laden poles underneath the tracks. Those impacts should be evaluated prior to start of the project.

. The assessments above are documented by the inspection list outlined in attachment 1, Photo log in Attachment 2. A deficiency list is outlined below. It is mostly related to testing related to presence and quantification of ACM, LBP and PCBs in building materials.

Deficiency List:

1. Lead, ACM and PCB assessment and Report – $45-65K. The sampling will be performed based on ASTM and CA standards and provide a document suitable for developing a bid document.
2. Site Assessment for soils adjacent to railroad Tracks - $30-40K.

Since the magnitude of the impacts from ACM and LBP impacts are not known and the desired site renovation that may address these areas are not fully identified, it is difficult to develop a Rough order of magnitude for abatement or management of these issues.

Please call if you have any questions.

Regards,

SLR International Corporation

Mohammad Bazargani, P.E.
Senior Principal
mbazargani@slrconsulting.com

Attachments

1. **Completed Inspection Checklists** with notes.
2. **Annotated Photographic Log** organized by system/location.

Craneway Pavilion

Photo 1: Brick interior wall and windows (1/8/ 2026)

Photo 2: Interior window putty and sils (1/8/2026)

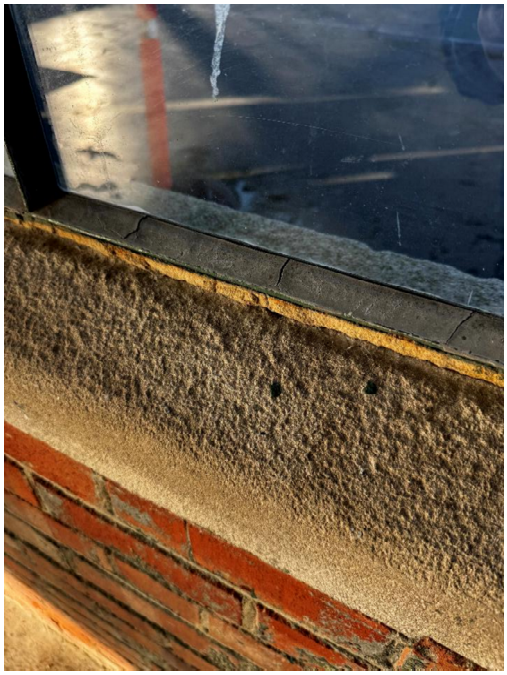


Photo 3: Electrical panels and piping, painted surfaces (1/8/2026)

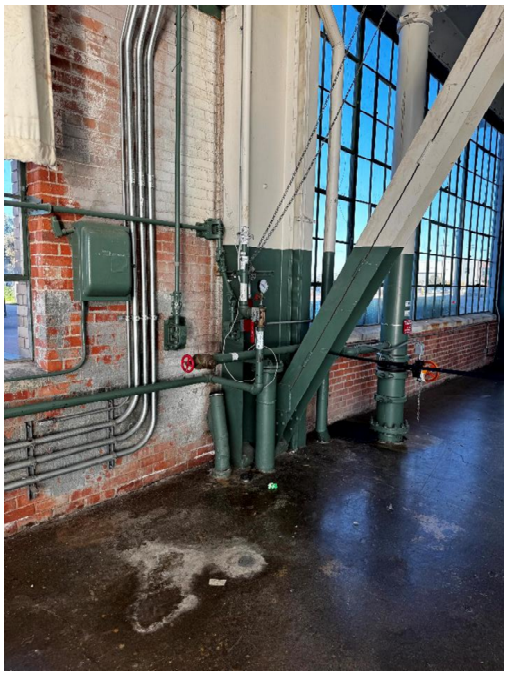


Photo 4: Ceiling water conveyance pipes (1/8/2026)

Photo 5: Floor covering (1/8/2026)

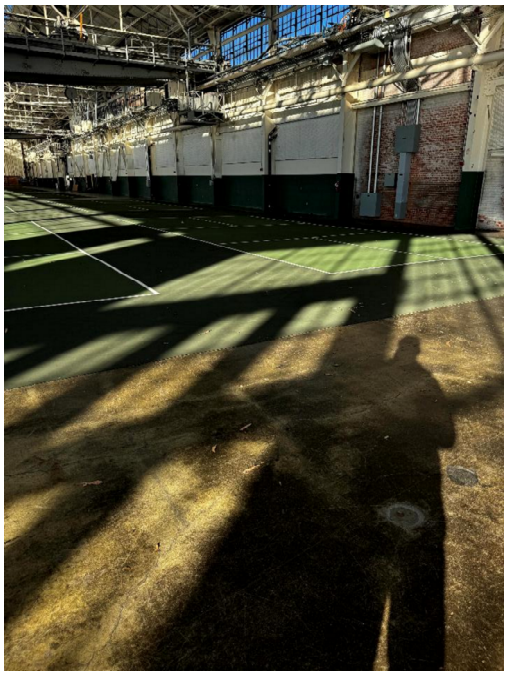


Photo 6: Window Panels aged sills (1/8/2026)

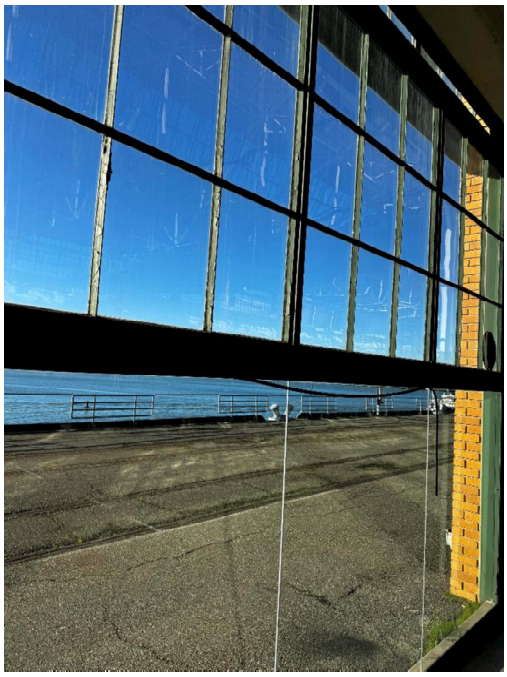


Photo 7: Painted interior wall, Structural frame (1/8/2026)

Photo 8: Sound Insulation on walls (1/8/2026)

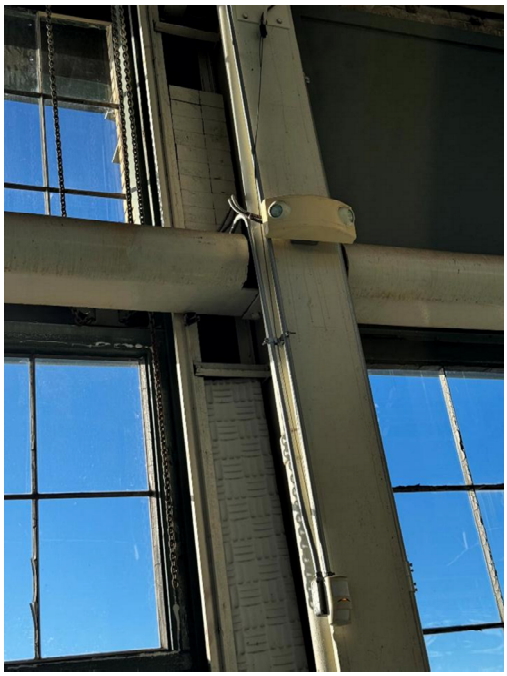


Photo 9: Building exterior from south west visible railroad tracks (1/8/2026)

Photo 10: Railroad tracks (1/8/2026)

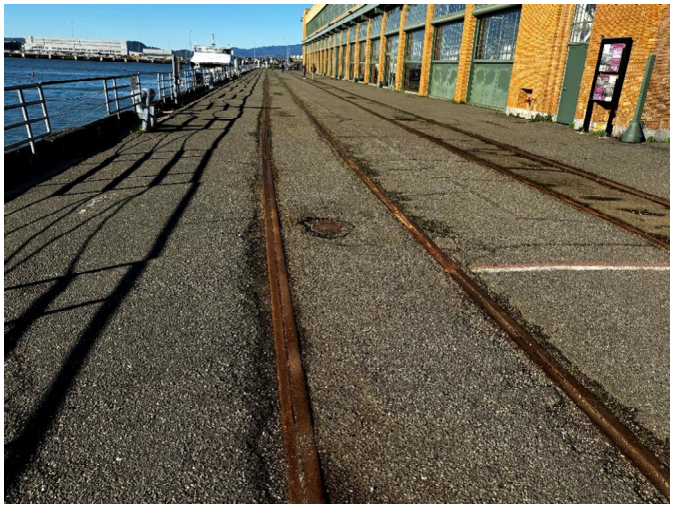


Photo 11: Corrugated Metal Roof (1/8/2026)

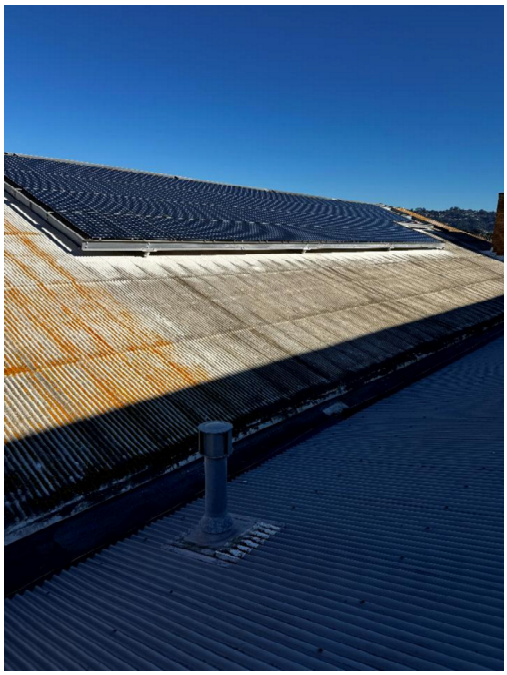


Photo 12: View of Building from South east over Piles (1/8/2026)

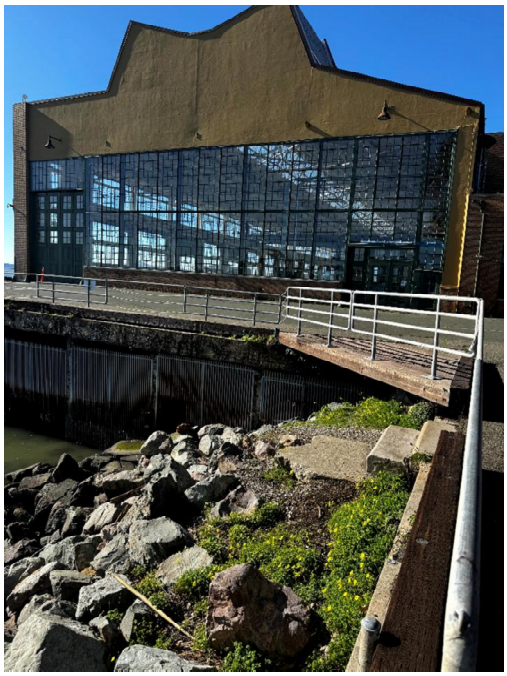


Photo 13: Corrugated Transit Roof (1/8/2026)

Photo 14: Interior piping tray and heater (1/8/2026)

SLR SITE VISIT CHECKLIST AND DOCUMENTATION

Task	Completed
Identify Property and Building size(s) to be assessed.	Limited to Craneway Pavilion
Obtain and review copies of any previous Phase I or Phase II Reports.	None provided. Plan set was provided and historical drawings
Identify who provides access to the Site and their association to the Site.	Done
Identify the weather conditions during the assessment.	Sunny 60 degress
Identify weather-related restrictions.	None
Identify facility access restrictions.	None. Except tank under the ceiling.
Identify client-related restrictions.	None
Note topography of the Site.	Sea Level
Traverse the outer Site boundary.	Exterior is asphalt Bay is to the west.
Traverse transects across the Site.	Done
Traverse the periphery of all structures on the Site.	Went to the roof
Visually observe accessible interior areas expected to be used by occupants or the public, maintenance and repair areas, utility areas, and a representative sample of occupied spaces.	
Take photographs of the Site (inside and out) and surrounding areas. (Please take at least 20 photos.)	See Photo log
Complete additional forms and fields on following pages.	Done

1. SITE AND SURROUNDING AREA OBSERVATIONS

Access to the Site was provided by ___HDR and City of Richmond _____
SLR conducted the Site visit on _____January 8, 2026_____
The weather-related conditions at the time of the Site visit were _____sunny_____ and approximately __60____ degrees Fahrenheit.

1.1 RESTRICTIONS

Restriction Type	Comments
Weather-related restrictions:	None
Facility access restrictions:	Could not access the tank hanging from ceiling
Client-related restrictions:	None

2. GENERAL DESCRIPTIONS

2.1 SITE AND SURROUNDING AREA DESCRIPTION

Open building, used for pickel ball. Tall ceilings with large windows. In an industrial/harbor part of Richmond.

2.2 SITE BACKGROUND / OPERATING HISTORY

Historical usage(s) of the Site and approximate dates of usage:	Ford Motor plan, then machinery for WWII, then Ford plan

Observed evidence of past Site use(s):	The boiler/restaurant next door. Rail outside for moving cargo onto ships.

2.3 SITE OPERATIONS

Sewage Disposal Method:	City
Electric Utility:	PG&E
Water Supply/Provider:	EBMUD

3. EXTERIOR OBSERVATIONS

Observation	Description
Potential for wetlands, endangered species, historic landmarks / structures, and/or archaeological features to be present at the Site:	The site is likely a historical site.
Roads or paths with no apparent outlet observed on the Site or adjacent roadways, alleyways, or easements:	None
Onsite railroad tracks or spurs:	Two spurs parallel with the site and Bay on the docks
Farm waste, feed lot spoils, or manure stockpiles:	None
Evidence of groundwater or surface water discharge:	None
Known or potential groundwater or surface water contamination:	None identified- Still searching RWQCB and DTSC web pages
Standing water (sheen?):	None observed
On-site pits, ponds, or lagoons sheen?):	None
Stained soil or pavement sheen?):	None
Stressed vegetation:	None

Observation	Description
Polychlorinated Biphenyl (PCB)-containing equipment including hydraulic lifts, elevators, and transformers (labeled?):	The facility has wall to wall windows that appear to be historical. PCB maybe present in caulking in window sills.
Cuts or markings in pavement areas or parking areas that could indicate the former or current presence of USTs or other buried structures:	None observed
Concrete structures that could indicate the location of former UST dispensers:	None observed
On-site solid waste disposal including land filling, dumping, disturbed soils, or direct burial activities:	None observed, City of Richmond. The site maybe built on fill.
Wastewater:	None
Stormwater (condition of drains, conveyances, preferential pathways, sheet flow, dry wells):	Discharges to bay
Roof drains (discharge areas):	Discharge to bay
Water wells including monitoring wells:	None observed
Septic systems (current/historic):	None observed
Drum rings, i.e. circular depressions in asphalt or soil that indicated the former storage or presence of drums:	None observed
Evidence of onsite fueling operations:	None observed
Emergency generators:	None observed
Recent improvements, maintenance, or remodeling:	2007-2012 remodling post Loma Prieta Quake.
Routine painting program: Contracted? Materials kept onsite?	Not known.
Landscaping of grounds: Contracted? Materials kept onsite?	Not known

Observation	Description
Loading Docks (water collection sumps/drains; handling spills/releases):	None

4. INTERIOR OBSERVATIONS

Observation	Description
Heating/cooling method (HVAC, boilers, fuel storage, etc.):	4 gas fired heaters hanging from ceiling
Stains or corrosion:	None observed interior is painted.
Floor drains and sumps:	None observed
Belowground structures, basements, and/or subsurface vaults:	None observed
Oil/water separators:	None observed
Evidence of lead-based paint (pre-1978) (and condition):	Yes not sure if the paint was over old LBP paint.
Evidence of asbestos-containing material (and condition):	Yes, roof and window sills
Water damage or any evidence of roof leakage:	None evident. May have been painted over.
Any damp odors or standing water inside the building or basement:	None, no basement.
Evidence of mold:	None observed, no smell.
Old fluorescent lighting (pre-1980):	Lights are new, post 2000
Mercury vapor lamps:	None
Paint booths or spray rigs:	None

5. HAZARDOUS SUBSTANCES, PETROLEUM PRODUCTS & OTHER WASTE MATERIALS

Observation	Description
Industrial or manufacturing operations:	Historical car assembly and manufacturing. Not sure about this specific pavilion area. Overhead cranes were likely used to move parts.
Hazardous substances and petroleum products:	None observed

Observation	Description
Other chemical usage:	Not known.
Drums (≥5 gallons):	None observed
Strong, pungent, or noxious odors:	None
Pools of liquid:	None
Unidentified substance containers:	None
Garbage and debris:	Managed by facility
Polychlorinated Biphenyl (PCB)-containing equipment including hydraulic lifts, elevators, and transformers:	No lifts, maybe present in window sills or paints
Air emission sources:	None currently.
Radiological equipment:	None
Oil or gas well exploration or refinery activities:	None
Known or potential prolonged use, misapplication or storage/disposal of pesticides/herbicides:	Not known
Discharges, migration or run-off of potential contaminants to the Site from an off-site source:	None

6. UNDERGROUND STORAGE TANKS (USTS)

UST/Structure	Observations
Existing USTs:	None observed or documented

Former USTs:	None
Other Underground Structures:	Site is on top of piles on the bay

7. ABOVEGROUND STORAGE TANKS (ASTS)

AST	Observations
Existing ASTs:	None
Former ASTs:	None

8. ADJOINING PROPERTIES

Check for (at a minimum) evidence of onsite fueling operations, dry cleaners, automotive repair, oil change/lube operations, etc.

8.1 CURRENT USES OF ADJOINING PROPERTIES

North:	Passenger ferry loading
South:	Museum
East:	Additional office building and restaurant
West:	SF Bay

8.2 OBSERVED EVIDENCE OF PAST USES OF ADJOINING PROPERTIES

North:	None
South:	None
East:	Ford Plant
West:	Port for loading supplies for War

8.3 PITS, PONDS, OR LAGOONS ON ADJOINING PROPERTIES

North:	Bay
South:	BAy
East:	None
West:	SF Bay

WASTE AND HAZARDOUS SUBSTANCE STORAGE

For sites with heavy chemical use and disposal, please request associated SDS Sheets, as well as hazardous waste disposal records.

Type of Waste or Substance and Size and Type of Container	Observations: Condition of containers / Evidence of spillage / Secondary containment present / Who handles disposal / How often is disposal performed / etc.
Paint cans (insert size) Is this a solvent-based paint?	
Paint thinner (insert size)	
Gasoline or fuels	
New oil (insert size and type of container and type of oil)	
Used oil (insert size and type of container and type of oil)	
Solvents (insert size and type of container and type of solvent)	
Safety-Kleen type parts washers	
Ammonia for refrigeration	
Tires (identify types and quantities)	
Rubbish (provide a brief description of contents and an estimate of quantity)	
Construction debris (provide a brief description of contents and an estimate of quantity)	
Other chemicals	

Appendix D

Tipping Structural Report

TIPPING

Structural Condition Assessment Report

RICHMOND CRANEWAY PAVILION ASSESSMENT
1414 Harbour Way S
Richmond, CA 94804

February 19, 2026
Tipping Job: 2025.263.00

GENERAL OVERVIEW

The Craneway Pavilion is a roughly 40,000 square foot steel structure with brick facade and infill walls, originally constructed in the 1930s as an assembly plant for the Ford Motor Company. The Craneway Pavilion makes up the south portion of the larger assembly plant building, which extends an additional 950 feet to the north. The remainder of this report will focus on the craneway portion of the structure.

We understand that the building has been leased since 2004 and that it is being returned to the City of Richmond by the current leaseholder. The purpose of this report is to document the structural condition of the building, provide a code evaluation to describe seismic retrofit requirements triggered by certain renovation options, identify key seismic deficiencies, and provide conceptual structural upgrade recommendations to address the identified seismic deficiencies.

As part of our assessment of the existing building, we have performed a Tier 1 seismic evaluation in accordance with ASCE 41-23. The Tier 1 evaluation suggests that there are a number of potentially critical seismic deficiencies at the Craneway Pavilion. A more detailed evaluation could be used to better inform an appropriate scope of voluntary seismic retrofit measures to provide better safety and assurance of asset preservation under a large seismic event. Given the complexity of the structural system, the potential interaction with the remaining assembly plant, and the limitations of a Tier 1 evaluation, we recommend that a more detailed (Tier 3 non-linear response history analysis) evaluation be performed.

INFORMATION REVIEWED

In preparation for this assessment we reviewed the following documents:

1. Original structural and architectural drawings, originally dated May 22, 1930 and prepared by Albert Kahn, Inc. Architects & Engineers.
2. Historical American Engineering Record historical report, dated September 2, 2003 by Fredric L. Quivik.
3. Voluntary structural retrofit drawings prepared by Forell/Elsesser Engineers, Inc., dated July 26, 2002 for permit.
4. Architectural renovation drawings prepared by Marcy Wong & Donn Logan Architects, dated March 15, 2007.
5. Voluntary structural retrofit drawings prepared by Crosby Group, dated November 15, 2007.

We also performed a site walk of the structure on January 6, 2026. During our site visit, we made observations from the ground, but did not remove any finishes. We did not have access to a lift to observe conditions closely at the roof line or truss level.

STRUCTURAL SYSTEM

The structural gravity system consists of steel angle framed monitor trusses at twenty feet on center that are supported by steel wide flange columns and steel beams. The interior clear height is 29ft 4 inches, with the primary truss extending additional 20 feet. The craneway portion of the building is founded on an elevated dock over the water, while the remainder of the assembly plant to the north is founded on spread footings with a conventional slab on grade floor. The dock slab below the Craneway Pavilion is a 9" thick cast in place concrete slab spanning two-way between pile 36" square caps, supported on 18 inch square concrete piles. The pile caps are spaced at approximately ten feet on center with four pile clusters below columns. The exterior portion of the dock to the south of the pavilion is an 18" thick slab, which spans between concrete beams. The concrete beams span between a perimeter row of piles and the south edge of the craneway, along Grid 43.. Per the original drawings, the dock structure was designed to support a live load of 500 pounds per square foot and the upper structure was designed to support two 10 ton cranes along the length of the craneway. These original design loads reflect the original industrial use of the building; for reference, modern design codes for assembly occupancies specify a live load of 100 pounds per square foot (1/5 the capacity of the existing dock slab).

The lateral system of the building consists of steel braced frames in the longitudinal direction and moment frames made up of the steel roof trusses and supporting columns in the transverse direction. The roof truss top and bottom chord are braced with a combination of rods and angles and monitor framing is braced with steel rods. Expansion joints are called out at transverse bays along Gridlines B and V, as well as between the craneway and the main building to the north along Gridline 39, between gridlines U and W.

A voluntary seismic retrofit was designed in 2002 to be in compliance with the 1998 California Historic Building Code. This retrofit was designed to resist 75% of the 1997 Uniform Building Code seismic load. Key elements of the retrofit included strengthening of existing braces, adding new steel braces on the longitudinal lines of the building, replacing the unreinforced masonry walls with reinforced or anchored masonry and bracing of the masonry parapet. The previous comprehensive retrofit has greatly enhanced the building's resilience and ability to resist low to moderate seismic shaking; however, the building's expected performance under a major seismic event is not likely to be adequate to prevent significant damage or risk to occupants.

SEISMIC RETROFIT CONSIDERATIONS

We understand that the building is currently classified as an Assembly occupancy with an attendant Seismic Occupancy Risk Category of III per current code categorizations. Modifications that would trigger a mandatory retrofit of the structure would include:

1. Renovations that increase the building weight by more than 10%
2. Renovations that reduce the lateral force resisting capacity by more than 10%
3. Vertical addition
4. Change in occupancy such that it is re-categorized as Risk Category IV, such as designating it as an essential facility.

If future planned uses do not trigger any of these modifications, then mandatory seismic upgrades are not required by Code, and any seismic improvements undertaken could be voluntary at the Owner's discretion.

SEISMIC EVALUATION

We have evaluated the existing structure in accordance with a Tier 1 screening as defined in ASCE 41-23 "Seismic Evaluation and Retrofit of Existing Buildings". The Tier 1 screening is a checklist evaluation that identifies potential deficiencies based on performance of similar buildings in past earthquakes. For this building we have reviewed checklist S1a: Steel moment frames with flexible diaphragms in the North-South direction, and checklist S2a: Steel brace frames with flexible diaphragms in the East-West direction. For the purpose of this evaluation we are reviewing the Collapse Prevention checklists using the average M factors for Life Safety and Collapse Prevention and using the Basic Safety Earthquake-2E. This reviews the structure against an earthquake hazard with 5% probability of exceedance in 50 years. See attached checklists for more information.

TIER 1 FINDINGS

The following summarizes the deficiencies identified through the Tier 1 checklists and provides commentary and recommendations on the noted deficiencies. For the purpose of this evaluation, we have evaluated the Craneway Pavilion as a stand alone structure; however, this assumption requires further consideration and verification of actual conditions at the site. If the Craneway is structurally connected to the larger assembly building to the north, the full building would need to be evaluated as a combined structure to gain an accurate understanding of load sharing between the buildings.

In the North-South (moment frame), the primary deficiencies identified in the Tier 1 analysis are as follows:

- The expected seismic movement at the top of the frames is greater than the prescribed drift limit. Excessive movement could result in significant damage of finishes and pounding between the two adjacent buildings. While the Tier 1 evaluation procedure relies on simplifications that may not adequately capture the expected building behavior, the deficiency identified is not unexpected given that these frames were not included in the 2002 retrofit. This check also assumes that the column base can be considered fixed and not pinned. This would need to be verified in the field.
- The member connections are weaker than the checklist limit and are vulnerable to failure in a seismic event. This requires further study and information to better characterize the structural capacity of the existing connections. If deficient, we would recommend strengthening the connections between the truss ends and the columns.

- The columns do not meet the AISC ductility requirements, however they are not significantly over the limit. Based on our judgment, we do not see this as a significant issue.

Note that there are a few evaluation requirements that were not completed due to a lack of information or because the requirements do not apply to a truss-beam moment frames. If further evaluation were to be performed, a more detailed site investigation would be required to characterize the undefined structural elements.

In the brace frame direction, East-West, the primary deficiencies are as follows:

- The braces do not have sufficient strength for the anticipated loading. In a significant earthquake, these members would likely buckle, leaving the pavilion unstable during continued seismic loading.
- We do not have sufficient information to check the brace connections, but it does not appear that the brace connections have sufficient strength to resist anticipated seismic loading.
- The beam in the chevron brace along Grid 39 between Grids V and W does not have sufficient capacity to support the unbalanced moment due to brace buckling and tension yielding. This is not a load carrying beam, therefore failure of this beam is not critical to the support of the building; however, we recommend further study and potential retrofit of this beam.

Based on our evaluation of the Tier 1 checklist results, potential retrofit items could include strengthening brace and truss connections, adding new braced frames or strengthening existing braces, and strengthening the chevron beam noted above. If a more detailed understanding of the building's seismic behavior and expected performance is desired, we recommend further investigations to determine if the Craneway Pavilion is seismically connected to assembly plant to the north as well a Non-Linear Response History (Tier 3) analysis to more accurately evaluate the seismic capacity of the structure.

ADDITIONAL OBSERVATIONS AND RECOMMENDATIONS

We observed significant corrosion and loss of material at a number of the lintels above window openings. At these locations, we recommend removing the compromised steel and stiffening the existing members with new steel.

Corrosion and spalling has been observed at the underside of the concrete dock supporting the craneway structure. The concrete slab and piles were initially designed for 500 pounds per square foot, a significantly higher load than the 100 pounds per square foot that would required for assembly

spaces per current code. Given the excess capacity, we do not judge the underslab deterioration as a structural concern. At these locations, we recommend that any loose concrete be chipped away back to hard, sound concrete, while corroded rebar be removed with a wire brush back to sound metal. We recommend these prepared areas be patched back using steel wire and screws as necessary to secure repair mortar, providing adequate rebar cover.

LIMITATIONS

The recommendations provided herein are general and qualitative in nature. We emphasize that this is a cursory review intended to guide preliminary planning. The conclusions and recommendations outlined herein may be subject to revision on the basis on new information as it becomes available.

Our professional services have been performed exercising the degree of care and skill ordinarily used in like cases by reputable members of the same profession practicing in the same or similar locality under similar circumstances, and using reasonable diligence and judgment in the exercise of professional skill and care. No other warranties, expressed or implied, are made as to the professional advice included in this report. This report has been prepared for The City of Richmond to be used solely for the referenced project. This report has not been prepared for use by other parties and may contain insufficient information for the purposes of other parties or other uses.

Table 17-8. Collapse Prevention Structural Checklist for Building Types S1 and S1a

Status	Evaluation Statement	Tier 2 Reference	Commentary Reference
Low Seismicity			
Seismic-Force-Resisting System			
[C] NC N/A U	REDUNDANCY: The number of lines of moment frames in each principal direction is greater than or equal to 2.	5.5.1.1	A.3.1.1.1
C [NC] N/A U	DRIFT CHECK: The drift ratio of the steel moment frames, calculated using the Quick Check procedure of Section 4.4.3.1, is less than 0.030.	5.5.2.1.2	A.3.1.3.1
[C] NC N/A U	COLUMN AXIAL STRESS CHECK: The axial stress caused by gravity loads in columns subjected to overturning forces is less than $0.10F_y$. Alternatively, the axial stress caused by overturning forces alone, calculated using the Quick Check procedure of Section 4.4.3.6, is less than $0.30F_y$.	5.5.2.1.3	A.3.1.3.2
[C] NC N/A U	FLEXURAL STRESS CHECK: The average flexural stress in the moment frame columns and beams, calculated using the Quick Check procedure of Section 4.4.3.9, is less than F_y. Columns need not be checked if the strong column–weak beam checklist item is compliant.	5.5.2.1.2	A.3.1.3.3
Connections			
[C] NC N/A U	TRANSFER TO STEEL FRAMES: Diaphragms are connected for transfer of seismic forces to the steel frames.	5.7.2	A.5.2.2
[C] NC N/A U	STEEL COLUMNS: The columns in seismic-force-resisting frames are anchored to the building foundation.	5.7.3.1	A.5.3.1
Moderate Seismicity (Complete the Following Items in Addition to the Items for Low Seismicity)			
Seismic-Force-Resisting System			
C [NC] N/A U	REDUNDANCY: The number of bays of moment frames in each line is greater than or equal to 2. Only 1 bay	5.5.1.1	A.3.1.1.1
C NC [N/A] U	INTERFERING WALLS: All concrete and masonry infill walls placed in moment frames are isolated from structural elements.	5.5.2.1.1	A.3.1.2.1
C [NC] N/A [U]	MOMENT-RESISTING CONNECTIONS: All moment connections can develop the strength of the adjoining members based on the specified minimum yield stress of steel. Connections are not fully documented, however, from the information available this is not met.	5.5.2.2.1	A.3.1.3.4
High Seismicity (Complete the Following Items in Addition to the Items for Low and Moderate Seismicity)			
Seismic-Force-Resisting System			
C [NC] N/A [U]	MOMENT-RESISTING CONNECTIONS: All moment connections are able to develop the strength of the adjoining members or panel zones based on 110% of the expected yield stress of the steel in accordance with AISC 341, Section A3.2. Connections are not fully documented, however, from the information available this is not met.	5.5.2.2.1	A.3.1.3.4
C NC [N/A] U	PANEL ZONES: All panel zones have the shear capacity to resist the shear demand required to develop 0.8 times the sum of the flexural strengths of the girders framing in at the face of the column.	5.5.2.2.2	A.3.1.3.5
[C] NC N/A U	COLUMN SPLICES: All column splice details located in moment-resisting frames include connection of both flanges and the web.	5.5.2.2.3	A.3.1.3.6
C NC [N/A] U	STRONG COLUMN—WEAK BEAM: The percentage of strong column–weak beam joints in each story of each line of moment frames is greater than 50%.	5.5.2.1.5	A.3.1.3.7
C [NC] N/A U	COMPACT MEMBERS: All frame elements meet section requirements in accordance with AISC 341, Table D1.1, for moderately ductile members.	5.5.2.2.4	A.3.1.3.8
Diaphragms (Stiff or Flexible)		Column flanges do not meet the requirements. Check not applicable for the truss beams.	
[C] NC N/A U	OPENINGS AT FRAMES: Diaphragm openings immediately adjacent to the moment frames extend less than 25% of the total frame length.	5.6.1.3	A.4.1.5
Flexible Diaphragms			
[C] NC N/A U	CROSS TIES: There are continuous cross ties between diaphragm chords.	5.6.1.2	A.4.1.2
C NC [N/A] U	STRAIGHT SHEATHING: All straight-sheathed diaphragms have aspect ratios less than 2-to-1 in the direction being considered.	5.6.2	A.4.2.1
C NC [N/A] U	SPANS: All wood diaphragms with spans greater than 24 ft (7.3 m) consist of wood structural panels or diagonal sheathing.	5.6.2	A.4.2.2

continues

Table 17-8 *(Continued)*. Collapse Prevention Structural Checklist for Building Types S1 and S1a

Status	Evaluation Statement	Tier 2 Reference	Commentary Reference
C NC **N/A** U	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS: All diagonally sheathed or unblocked wood structural panel diaphragms have horizontal spans less than 40 ft (12.2 m) and aspect ratios less than or equal to 4-to-1.	5.6.2	A.4.2.3
C NC N/A U	OTHER DIAPHRAGMS: Diaphragms do not consist of a system other than wood, metal deck, concrete, or horizontal bracing.	5.6.5	A.4.7.1

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.

Table 17-10. Collapse Prevention Structural Checklist for Building Types S2 and S2a

Status	Evaluation Statement	Tier 2 Reference	Commentary Reference
Low Seismicity			
Seismic-Force-Resisting System			
C NC N/A U	REDUNDANCY: The number of lines of braced frames in each principal direction is greater than or equal to 2.	5.5.1.1	A.3.3.1.1
C NC N/A U	COLUMN AXIAL STRESS CHECK: The axial stress caused by gravity loads in columns subjected to overturning forces is less than $0.10F_y$. Alternatively, the axial stress caused by overturning forces alone, calculated using the Quick Check procedure of Section 4.4.3.6, is less than $0.30F_y$.	5.5.2.1.3	A.3.1.3.2
C **NC** N/A U	BRACE AXIAL STRESS CHECK: The axial stress in the diagonals, calculated using the Quick Check procedure of Section 4.4.3.4, is less than $0.50F_y$.	5.5.4.1	A.3.3.1.2
Connections			
C NC N/A U	TRANSFER TO STEEL FRAMES: Diaphragms are connected for transfer of seismic forces to the steel frames.	5.7.2	A.5.2.2
C NC N/A U	STEEL COLUMNS: The columns in seismic-force-resisting frames are anchored to the building foundation.	5.7.3.1	A.5.3.1
Moderate Seismicity (Complete the Following Items in Addition to the Items for Low Seismicity)			
Seismic-Force-Resisting System			
C NC N/A U	REDUNDANCY: The number of braced bays in each line is greater than 2.	5.5.1.1	A.3.3.1.1
C NC N/A **U**	CONNECTION STRENGTH: All the brace connections develop the buckling capacity of the diagonals.	5.5.4.4	A.3.3.1.5
C NC N/A U	COMPACT MEMBERS: All brace elements meet compact section requirements in accordance with AISC 360, Table B4.1.	5.5.4	A.3.3.1.7
C NC N/A U	K-BRACING: The bracing system does not include K-braced bays.	5.5.4.6	A.3.3.2.1
High Seismicity (Complete the Following Items in Addition to the Items for Low and Moderate Seismicity)			
Seismic-Force-Resisting System			
C NC N/A U	COLUMN SPLICES: All column splice details located in braced frames develop 50% of the tensile strength of the column.	5.5.4.2	A.3.3.1.3
C NC N/A U	SLENDERNESS OF DIAGONALS: All diagonal elements required to carry compression have Kl/r ratios less than 200.	5.5.4.3	A.3.3.1.4
C NC N/A **U**	CONNECTION STRENGTH: All the brace connections develop the yield capacity of the diagonals.	5.5.4.4	A.3.3.1.5
C NC N/A U	COMPACT MEMBERS: All brace elements meet section requirements in accordance with AISC 341, Table D1.1, for moderately ductile members.	5.5.4 All but S8 brace	A.3.3.1.7
C **NC** N/A U	CHEVRON BRACING: Beams in chevron, or V-braced, bays are capable of resisting the vertical load resulting from the simultaneous yielding and buckling of the brace pairs.	5.5.4.6	A.3.3.2.3
C NC N/A U	CONCENTRICALLY BRACED FRAME JOINTS: All the diagonal braces frame into the beam–column joints concentrically.	5.5.4.8	A.3.3.2.4
Diaphragms (Stiff or Flexible)			
C NC **N/A** U	OPENINGS AT FRAMES: Diaphragm openings immediately adjacent to the braced frames extend less than 25% of the frame length.	5.6.1.3	A.4.1.5
Flexible Diaphragms			
C NC N/A U	CROSS TIES: There are continuous cross ties between diaphragm chords.	5.6.1.2	A.4.1.2
C NC **N/A** U	STRAIGHT SHEATHING: All straight-sheathed diaphragms have aspect ratios less than 2-to-1 in the direction being considered.	5.6.2	A.4.2.1
C NC **N/A** U	SPANS: All wood diaphragms with spans greater than 24 ft (7.3 m) consist of wood structural panels or diagonal sheathing.	5.6.2	A.4.2.2
C NC **N/A** U	DIAGONALLY SHEATHED AND UNBLOCKED DIAPHRAGMS: All diagonally sheathed or unblocked wood structural panel diaphragms have horizontal spans less than 40 ft (12.2 m) and aspect ratios less than or equal to 4-to-1.	5.6.2	A.4.2.3
C NC N/A U	OTHER DIAPHRAGMS: Diaphragms do not consist of a system other than wood, metal deck, concrete, or horizontal bracing.	5.6.5	A.4.7.1

Note: C = Compliant, NC = Noncompliant, N/A = Not Applicable, and U = Unknown.