

Location:	Howard Terminal 1 Market Street (APN's: 018-0405-001-00; -002-00; & -004-00; -003-01; & -003-02 and 018-0410-001-04; -001-05; -003-00; -004-00; -005-00; -006-01; -006-02; -007-00 & -008-00)
Proposal:	Public Hearing on the Draft Environmental Impact Report to obtain comments on the environmental analysis for The Oakland Waterfront Ballpark District Project, which would construct: a new open-air waterfront multi-purpose Major League Baseball (MLB) ballpark with a capacity of up to 35,000-persons; mixed use development including up to 3,000 residential units, up to 1.5 million square feet of office, and up to approximately 270,000 square feet of retail uses; an approximately 50,000 square-foot indoor performance center with capacity of up to 3,500 individuals; an approximately 280,000 square-foot, 400-room hotel; and a network of approximately 18.3 acres of privately-owned, publicly-accessible open spaces. The proposed Project may also include one or more variants, which include: <ul style="list-style-type: none"> • <u>Peaker Plant Variant</u>: Implementation of the planned conversion of the existing Oakland Power Plant (referred to as the “Peaker Power Plant” in the Draft EIR) in the historic PG&E Station C facility from using jet fuel to battery storage, modifications to the wings of the building, and removal of the fuel tank and replacement with a new mixed-use building; • <u>Aerial Gondola Variant</u>: Construction of a new aerial gondola above and along Washington Street, extending from a station located at 10th and Washington Streets in downtown Oakland to a station located at Water and Washington Streets in Jack London Square.
Applicant:	Oakland Athletics Investment Group, LLC
Contact Person:	Noah Rosen – (510) 746-4406
General Plan:	General Industry EPP – Retail Dining & Entertainment - 1
Zoning:	IG M-40
Environmental Determination:	Draft Environmental Impact Report was published for a 45-day review period from February 26, 2021 to April 12, 2021.
Historic Status:	Designated Historic Property (DHP), survey rating A1+, PG&E Station C - Area of Primary Importance (API)
City Council District:	3
Staff Recommendation:	Receive public and Landmarks Board comments on the Draft Environmental Impact Report
Action to be Taken:	No action to be taken by the Landmarks Board on the DEIR other than to provide comments. Staff requests the Landmarks Board consider making a recommendation on Crane X-422 at the site with regard to its status as a historic resource under CEQA.
For further information:	Contact case planner Peterson Vollmann at 510 238-6167 or by e-mail at pvollmann@oaklandca.gov

SUMMARY

The purpose of this report and of the March 22, 2021 public hearing is to provide information and to solicit comments on the adequacy of specific environmentally related information, issues and analysis contained in the Draft Environmental Impact Report (Draft EIR) for the project as related to Cultural Resources. The hearing is not intended for receipt of comments on the merits of the Project and no decisions will be made on the Draft EIR or on the proposed project at the hearing. Specifically, comments on the Draft EIR should focus on the adequacy of the Draft EIR in discussing possible impacts on the physical environment, ways in which potential adverse effects might be minimized, and alternatives to the project in light of the Draft EIR's purpose to provide useful and accurate information about such factors.

The Draft EIR concludes that the project would have significant and unavoidable impacts on Aesthetics (wind), Air Quality, Cultural Resources (historic resources), Noise and Vibration, and Transportation and Circulation. The Draft EIR also recommends mitigation measures which may reduce the level of impacts but not to a level of less-than-significant.

BACKGROUND

In November 2018, Oakland Athletics Investment Group, LLC filed a request for environmental review application to begin review and consideration of a proposal for the Oakland Waterfront Ballpark District Project.

The City is the Lead Agency pursuant to the California Environmental Quality Act (CEQA) and has the responsibility to prepare the Environmental Impact Report (EIR) for the Project. Staff published a Notice of Preparation (NOP) of an EIR on November 30, 2018. A scoping session was held before the Landmarks Preservation Advisory Board on December 17, 2018, and the Oakland Planning Commission on December 19, 2018.

The Notice of Availability for the Draft EIR was prepared and released on February 26, 2021 beginning a 45-day public comment period. The public comment period ends on April 12, 2021.

The EIR for the Project is also being prepared under the California Assembly Bill 734 judicial streamlining legislation (California Environmental Quality Act: Oakland Sports and Mixed-Use Project) that added provisions to CEQA as Public Resources Code Section 21168.6.7 for the Project.

Consistent with the procedural requirements of Section 21168.6.7, the Draft EIR and all other documents submitted to or relied upon by the lead agency in the preparation of the Draft EIR can be accessed and downloaded from the following website:

<http://www.waterfrontballparkdistrict.com>. In addition, a document prepared by the lead agency or submitted by the applicant after the date of the release of the Draft EIR that is a part of the record of proceedings, and comments received on the Draft EIR, will be made available to the public on this same website in a readily accessible electronic format within the timeframes specified by Section 21168.6.7.

Also consistent with the procedural requirements of Section 21168.6.7, the City conducted an informational workshop on March 6, 2021 within 10 days after the release of the Draft EIR to inform the public of the key analyses and conclusions of the Draft EIR.

Comments on the Draft EIR may be made at the March 22, 2021 Landmarks Board meeting on Cultural Resources issues and also on all issues at the April 7, 2021 hearing before the Planning Commission or in writing to the Department of Planning & Building, Bureau of Planning, to the attention of Peterson Vollmann, Planner IV, City of Oakland, Department of Planning and Building, Bureau of Planning, 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, CA 94612 or by e-mail at pvollmann@oaklandca.gov.

The City encourages comments to be submitted electronically via the following link:

<https://comment-tracker.esassoc.com/oaklandsportseir/index.html>

Written comments must be received prior to the comment period deadline (4:00 p.m. on April 12, 2021). After all comments are received, a Final EIR/Response to Comments document will be prepared and the Planning Commission will consider a recommendation for certification of the Final EIR at a later meeting.

SITE DESCRIPTION

The Project site includes approximately 55 acres that comprises the Charles P. Howard Terminal (Howard Terminal) and certain adjacent properties located at the Port of Oakland along the Inner Harbor of the Oakland-Alameda Estuary (Estuary). Howard Terminal is owned by the City of Oakland, a municipal corporation, acting by and through its Board of Port Commissioners (Port of Oakland). The adjacent properties that the Athletics Investment Group, LLC (Project sponsor) seeks to secure are currently owned by Dynegy Oakland, LLC, a Delaware limited liability company. The site is bound generally by the Oakland Estuary Middle Harbor on the south; Jack London Square on the east; Union Pacific railroad tracks and Embarcadero West on the north; and the heavy metal recycling center, Schnitzer Steel, on the west.

Used as a container shipping terminal until January of 2014, the Howard Terminal portion of the Project site, approximately 50 acres of the Project site, is currently leased by the Port of Oakland to short-term tenants for maritime support uses. Howard Terminal is not open to the general public. Existing uses on Howard Terminal include, but are not limited to, truck parking, loaded and empty container storage and staging, longshoreperson training facilities, and berthing vessels for maintenance and storage. Howard Terminal is designated as Berths 67 through 69 within the Port of Oakland. Berths 67 and 68 were constructed in the early 1980's, and Berth 69 was constructed in the mid 1990's. Four container cranes are located on Howard Terminal and were used to load and unload ships when the terminal was in active use as a shipping facility.

The Project site also encompasses the Port-owned surface parking lot at Embarcadero West and Clay Street, and the existing Oakland Fire Station located approximately at Clay and Water Streets. Water Street is the east-west pedestrian corridor through Jack London Square.

The Project site also includes the approximately 2.5-acre historic Pacific Gas & Electric (PG&E) Station C facility located on the south side of Embarcadero West, referred to throughout the Draft EIR as the “Peaker Power Plant” given its function to supply power to the electric grid at times of peak demand.

Existing regional access to the Project Site exists via both Interstate 880 and Interstate 980, with on-ramps to each within one mile of the Project Site. The Project Site is located about one mile, a 20- to 25-minute walk, from three BART stations including West Oakland, 12th Street Downtown, and Lake Merritt. Railroad tracks are adjacent to the north boundary of the Project Site and there are several at-grade crossings of the railroad tracks nearby, including two directly into the Project Site. There is an Amtrak / Capital Corridor train station about one-half mile from the Project Site, transit bus service is within one-quarter mile, and the Jack London Ferry Terminal is immediately adjacent to the east of the Project Site.

Historic Resources

PG&E Station C

PG&E Station C facility (“Peaker Power Plant”), on the southern side of Embarcadero West, has an Oakland Cultural Heritage Survey (OCHS) rating of A1+, and is also located within the Area of Primary Importance (API) for the same facility that also includes structures on the north side of Embarcadero West.

Crane X-422

As mentioned earlier the Project Site includes four shipping cranes. The City received two studies with differing conclusions on the historic significance of Crane X-422, which is the crane located at the westernmost portion of the wharf; the Lead Agency will make the determination on whether or not Crane X-422 is a historical resource under CEQA. Out of an abundance of caution, the Draft EIR treats Crane X-422 as a historic resource for CEQA purposes.





The initial historic analysis on Crane X-422 was provided by ESA (Attachment C), the City's primary environmental consultant on the project, which the conclusion of the crane as a CEQA historic resource raised concerns by Port of Oakland staff as they felt that not all of the information on the crane was taken into consideration. As a result, the Port commissioned an additional study to confirm the ESA conclusions, which was prepared by Jacobs (Attachment D). The Jacobs study came to a different conclusion and found that Crane X-422 should not be considered a historic resource. The Jacobs study conclusion was, among other issues, based upon the fact that lower height profile has been modified and the structure has also been relocated from its original location at the 7th Street terminal, which was in the flight path of the Alameda Naval Air Station necessitating its low-profile design that varied from other cranes at the Port. Given that the Landmarks Board is the advisory body to the Planning Commission and City Council on historic resource matters, staff requests that the Board review the two studies that include analysis of Crane X-422 and make a recommendation on whether or not it should be considered a CEQA historic resource.

PROJECT DESCRIPTION

The proposed Project would construct: a new open-air waterfront multi-purpose Major League Baseball ("MLB") ballpark with a capacity of up to 35,000-persons; mixed use development including up to 3,000 residential units, up to 1.5 million square feet of office (which could include a range of commercial uses, including but not limited to, general administrative and professional offices and life sciences/research); up to approximately 270,000 square feet of retail uses; an approximately 50,000 square-foot indoor performance center with capacity of up to 3,500 individuals; an approximately 280,000 square-foot, 400-room hotel; a network of approximately 18.3 acres of privately-owned, publicly-accessible open spaces; and a maximum of approximately 8,900 total parking spaces at full buildout. Approximately 2,000 parking spaces would be shared by the ballpark and the performance center, and the remaining 6,900 parking spaces would serve residential and commercial uses on the site.

The proposed Project would demolish all existing buildings and structures on the Howard Terminal site except for the four existing shipping container cranes in order to develop the proposed multiple phased development of the Project. Existing structures on other parcels within the Project site would also be removed, with the exception of the Peaker Power Plant. Although the project does not propose to demolish the four existing shipping container cranes or Fire Station 2, the DEIR analyzes the potential effects in the event that they are to be demolished. The demolition of the shipping container cranes are analyzed for removal given that it may be infeasible to retain them, and the Fire Station #2 may potentially be demolished and relocated as a means of enhancing the pedestrian approach to the ballpark along Water Street.

The ballpark would be located on the eastern portion of the site and would be surrounded by pedestrianized streets (intended primarily for pedestrians, with vehicle access limited to emergency, service, delivery, and maintenance vehicles) which would connect to new public open space areas around and within the ballpark and along the waterfront.

A range of land uses would be developed in phases around and west of the ballpark on developable blocks that range in size from 0.2 to 2.75 acres, and block lengths ranging from approximately 200 to 450 feet. Maximum building heights for the proposed development blocks range from 50 to 600 feet tall.

The proposed Project would extend Market Street and Martin Luther King Jr, Way south onto the Project site, and also extend Water Street (a pedestrian street that is also accessible to and used by motor vehicles between Clay and Washington Streets) west from Jack London Square into the Project site. The site itself would have north-south streets that align with those in the Acorn Industrial area immediately north of the site, and east-west streets creating a grid pattern.

The proposed Project would be developed in multiple phases: Phase 1 followed by the remaining development of the site, which together is “Buildout”. Phase 1 would generally include the area east of Market Street and is expected to take a minimum of 2 years to construct. Phase 1 is expected to include the ballpark, up to 540 residential dwelling units, 250,000 square feet of commercial office space, 30,000 square feet of retail and restaurant uses, the 400-room hotel, approximately 12.7 acres of open space. Once the ballpark is constructed in Phase 1, the Project sponsor would relocate all Oakland A’s baseball operations from the existing Oakland-Alameda Coliseum to the new facility. No physical changes are proposed at the Oakland-Alameda Coliseum site as part of the Project.

During and after Phase 1, the pace of building out the remainder of the site Buildout would be dependent on market demand, absorption, financial feasibility, and construction practicalities. Construction of Buildout could overlap with occupancy and use of Phase 1 buildings, and construction of multiple development parcels/blocks could occur concurrently. The analysis in this Draft EIR conservatively captures this possibility by modeling Buildout in the eighth year after construction begins.

A “Maritime Reservation Scenario” is being considered for the Project, which involves an alternative site plan for the proposed Project. In accordance with the Exclusive Negotiation Term Sheet (“Term Sheet”) for Howard Terminal between the Project sponsor and the Port dated May

13, 2019, the Port would have the right within the next approximate 10 years to terminate the Project sponsor's development rights to an approximately 10-acre portion of the Project site located generally in the southwestern corner of the site if the Port deemed that area necessary to accommodate the expansion of the turning basin that is used to turn large vessels within Oakland's Inner Harbor. As a result, the Project site plan would be modified, and the proposed development would be denser, fitting the same development program (i.e. the ballpark and mix of other uses proposed) onto the smaller site, with less park/open space area.

The Project includes a transportation program that includes a Transportation Management Plan (TMP) for game days and large events and a Transportation and Parking Demand Management Program (TDM) that would allow the Project to achieve the 20 percent Vehicle Trip Reduction (VTR) requirement of AB 734. The proposed Project would also include transportation infrastructure improvements (onsite and offsite) to improve pedestrian and bicycle access and address onsite and offsite circulation prior to and after ball games or other peak events, as well as for the ancillary mixed-use development.

The proposed Project would achieve no net additional greenhouse gas emissions through a combination of measures and would be designed and constructed to receive Leadership in Energy and Environmental Design (LEED) Gold certification for the ballpark and nonresidential construction and achieve LEED Gold or GreenPoint equivalent rating for residential uses, as required by AB 734.

The proposed Project may also include one or more variants, which are optional Project elements that may or may not become part of the Project for particular reasons. Two variants are analyzed in a separate section of the Draft EIR:

- **Peaker Power Plant Variant:** Implementation of the planned conversion of the existing Oakland Power Plant (referred to as the "Peaker Power Plant" in this Draft EIR because of its role in supplying power to the electric grid to meet peak demands) in the historic PG&E Station C facility from using jet fuel to battery storage, modifications to the wings of the building, and removal of the fuel tank and replacement with a new mixed-use building.
- **Aerial Gondola Variant:** Construction of a new aerial gondola above and along Washington Street, extending from a station located at 10th and Washington Streets in downtown Oakland to a station located at Water and Washington Streets in Jack London Square.

While one of these variants would include new mixed-use buildings, it would re-allocate the proposed amount of building square footage and number of residential units, rather than increase the amount of development proposed under the Project.

GENERAL PLAN

The General Plan's Land Use and Transportation Element (LUTE) classifies the project site as being located in the "General Industrial and Transportation" land use classification area. The

“General Industrial and Transportation” land use classification is intended to recognize, preserve, and enhance areas of the City for a wide variety of businesses and related establishments that may have the potential to create off-site impacts such as noise, light/glare, truck traffic, and odor. These areas are characterized by sites with good freeway, rail, seaport, and/or airport access. The area east of Jefferson Street is located within the General Plan’s Estuary Policy Plan Area (EPP) and is designated as a “Retail, Dining and Entrainment 1” Area, which is an extension of Jack London Square. Approval of a General Plan Amendment would be necessary to allow for the mixed development currently being proposed as part of the Project. The applicant has requested a General Plan Amendment to the General Industrial and Transportation land use classification to the Regional Commercial classification and an amendment from the EPP Retail Dining and Entertainment -1 classification to the EPP Retail Dining and Entertainment – 2 classification.

ZONING DISTRICT

The Project Site is located within the IG, General Industrial Zone, and the portion east of Jefferson Street is located within the M-40, Heavy Industrial Zone. These zones allow heavy industrial and manufacturing uses, transportation facilities, warehousing and distribution, and similar and related supporting uses. It is anticipated that the Project approvals will include adoption of a new site-specific Zoning for the proposed mixed-use development of the site.

The Port’s land use regulations and the City’s General Plan both apply to the Project site. The Port and City, without waiving any of their respective authorities and jurisdiction over lands within the Port Area and consistent with Article VII of the Charter, are cooperating on a Memorandum of Understanding (“MOU”) to establish a shared regulatory framework for the Project.

ENVIRONMENTAL REVIEW PROCESS

Scope

As stated earlier in this report the City published the NOP November 30, 2018. A scoping session was held before the Landmarks Preservation Advisory Board on December 17, 2018, and the Oakland Planning Commission on December 19, 2018. The following environmental topics are addressed in detail in the Draft EIR:

- Aesthetics, Shadow and Wind
- Air Quality
- Biological Resources
- Cultural and Tribal Cultural Resources
- Energy
- Geology, Soils, and Paleontological Resources
- Greenhouse Gas Emissions
- Land Use, Plans and Policies
- Noise and Vibration
- Population and Housing
- Public Services
- Recreation
- Transportation and Circulation
- Utilities and Service Systems

- Hazards and Hazardous Materials
- Hydrology and Water Quality

Potentially Significant Impacts Identified in the Draft EIR

All impacts and Mitigation Measures identified in the Draft EIR are summarized in Table 2-1 (see Attachment A) at the end of Chapter 2 (Summary) of the Draft EIR. Table 2-1 also identifies the level of significance of the impact after recommended Mitigation Measures are implemented. Other than the impacts discussed below, all of the environmental effects of the Project can be reduced to less than significant levels through implementation of recommended Mitigation Measures.

The Draft EIR identifies the following **Significant and Unavoidable** environmental impacts:

- **Impact AES-5:** The Project would create winds that exceed 36 mph for more than one hour during daylight hours during the year.
- **Impact AES-1.CU:** The Project, combined with cumulative development in the Project vicinity and citywide, would result in significant cumulative wind impacts.
- **Impact AIR-1:** Demolition and construction associated with the Project would result in average daily emissions that would exceed the City's construction significance thresholds of 54 pounds per day of ROG, NO_x, or PM_{2.5} or 82 pounds per day of PM₁₀.
- **Impact AIR-2:** Operation of the Project (and combined overlapping construction and operation) would result in operational average daily emissions of more than 54 pounds per day of ROG, NO_x, or PM_{2.5} or 82 pounds per day of PM₁₀; or result in maximum annual emissions of 10 tons per year of ROG, NO_x, or PM_{2.5} or 15 tons per year of PM₁₀.
- **Impact AIR-1.CU:** The Project, combined with cumulative development in the Project vicinity and citywide, would contribute to cumulative regional air quality impacts associated with criteria pollutants.
- **Impact AIR-2.CU:** The Project, combined with cumulative development would contribute to cumulative health risk impacts on sensitive receptors.
- **Impact CUL-5:** The proposed Project would result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. Related to potential removal of Crane X-422. *This Significant and Unavoidable Impact would be considered Less Than Significant if the Lead Agency ultimately determines that Crane X-422 is not a historical resource. As stated earlier in this report, the City has received two reports on the historic significance of Crane X-422 with differing conclusions. Out of an abundance of caution, the Draft EIR treats Crane X-422 as an historic resource for CEQA purposes.*

- **Impact CUL-1.CU:** The Project, combined with cumulative development in the Project vicinity as a result of the Downtown Oakland Specific Plan and citywide, would contribute to cumulative adverse impacts on historical resources.
- **Impact NOI-1:** Construction of the proposed Project would result in substantial temporary or periodic increases in ambient noise levels in the Area in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies.
- **Impact NOI-2:** Construction of the proposed Project would expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration (FTA).
- **Impact NOI-3:** Operation of the proposed Project would result in generation of noise resulting in a 5-dBA permanent increase in ambient noise levels in the Project vicinity above levels existing without the Project, or generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise.
- **Impact NOI-1.CU:** Construction activities of the proposed Project combined with cumulative construction noise in the project area would cause a substantial temporary or periodic increase in ambient noise levels in the project vicinity during construction.
- **Impact NOI-2.CU:** Operation of the proposed Project when considered with other cumulative development would cause a substantial permanent increase in ambient noise levels in the project vicinity.
- **Impact TRANS-3:** The Project would generate additional multimodal traffic traveling across the at-grade railroad crossings on Embarcadero that would expose roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) to a permanent or substantial transportation hazard.
- **Impact TRANS-6:** The Project traffic volumes would cause the significant degradation of two CMP or MTS segments in 2020:
 - Posey Tube in the eastbound direction between the City of Alameda and the City of Oakland.
 - Webster Tube in the westbound direction between the City of Oakland and the City of Alameda.
- **Impact TRANS-3.CU:** The Project would contribute to cumulative volumes of multimodal traffic traveling across the at-grade railroad crossings on Embarcadero that would cause or expose roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) to a permanent or substantial transportation hazard.
- **Impact TRANS-6.CU:** The Project would contribute to congestion on CMP Roadway Segments, including degradation from LOS E or better to LOS F or an increase the v/c

ratio by 0.03 or more for segments already projected to operate at LOS F on the following CMP or MTS segments in 2040:

- I-880 in the northbound direction between 23rd Avenue and Embarcadero.
- SR 24 in the eastbound direction between Broadway and State Route 13.
- Posey Tube in the eastbound direction between the City of Alameda and the City of Oakland.
- Webster Tube in the westbound direction between the City of Oakland and the City of Alameda.
- Market Street in the northbound direction between 12th Street and 14th Street
- Market Street in the southbound direction between Grand Avenue and 18th Street

Significant and Unavoidable Impacts Related to Project Variants

- **Impact CUL-8:** The proposed Project, with the Peaker Power Plant Variant, would directly impact a historical resource through removal of portions of the east and west wings of the building at 601 Embarcadero West.
- **Impact CUL-10:** The proposed Project, with the Aerial Gondola Variant, would result in indirect impacts to the Old Oakland API.
- **Impact CUL-3.CU:** The Project, in combination with the Peaker Power Plant Variant, would contribute to a citywide cumulative impact on cultural and historic resources identified in the Downtown Oakland Specific Plan EIR through the loss of the historic wings of the Peaker Power Plant.
- **Impact CUL-4.CU:** The proposed Project, in combination with the Aerial Gondola Variant, would contribute to a citywide significant cumulative impact on cultural and historic resources identified in the DOSP EIR through changes to the setting of the Old Oakland API.

Project Alternatives

Chapter 6 of the Draft EIR includes the analysis of four alternatives, including the “*No Project Alternative*”, to the Proposed Project that meet the requirements of CEQA, which include a reasonable range of alternatives to the Project that would feasibly attain most of the Project’s basic objectives, and avoid or substantially lessen many of the Project’s significant environmental effects. The CEQA alternatives analyzed in Chapter 6 include:

- **Alternative 1: The No Project Alternative.** Under the No Project Alternative, the proposed Project would not be approved, none of the Project variants would be implemented, and no physical changes would occur. Howard Terminal would remain in use by short-term tenants of the Port of Oakland for maritime support uses. The Oakland A’s would continue to use the Oakland Coliseum until the end of their current lease in 2024. In the longer term, it is a likely possibility that the A’s would have to build a new ballpark, either in Oakland or somewhere else.

- **Alternative 2: The Off-Site (Coliseum Area) Alternative.** Under this alternative, Howard Terminal would remain in its current use and the Oakland A's would construct a new ballpark and mixed-use development at the site of the Oakland Coliseum. No physical changes would occur at Howard Terminal, which would remain in use by short-term tenants of the Port of Oakland for maritime support uses. None of the Project variants analyzed in Chapter 5 would be implemented with the Off-Site (Coliseum Area) Alternative.
- **Alternative 3: The Proposed Project with Grade Separation Alternative.** Under this alternative, the proposed Project would be constructed at the Project site and would be revised to include construction of a grade-separated crossing of the railroad tracks for vehicles accessing the site as well as the pedestrian and bicycle bridge included as mitigation in Section 4.15, *Transportation and Circulation*. Alternative 3 may or may not include implementation of other Project variants.
- **Alternative 4: The Reduced Project Alternative.** Under this Alternative, site preparation and phased construction of a new ballpark and other uses would occur, however commercial and residential development would be at lower densities than with the proposed Project. The site plan for Alternative 4 would be the same as for the proposed Project, with commercial, residential, and mixed-use development. All building other than the ballpark and the hotel would be no taller than 60 or 70 feet and both the amount of construction and the intensity of use of the site would be less than with the proposed Project.

The DEIR concluded that the No Project Alternative is the environmentally superior alternative. In instances where the No Project Alternative is the environmentally superior alternative, CEQA requires that the second most environmentally superior alternative be identified. Comparison of the environmental impacts associated with each alternative, indicates that the Reduced Density Alternative would be the second most environmentally superior alternative because it would avoid most of the significant and unavoidable air quality impacts of the proposed Project, and all other build alternatives.

PUBLICATION AND DISTRIBUTION OF THE DRAFT EIR

The Draft EIR was made available for public review on February 26, 2021. The Notice of Availability for the Draft EIR was mailed to property owners within 300 feet of the Project site, Interested Parties, and State and Local Agencies. The City also published a Legal Ad in the Oakland Tribune edition of the Eastbay Times. The Notice of Availability is attached to this report (see Attachment B). Due to Alameda County's continuing Shelter-in-Place order to prevent the spread of COVID-19, the City of Oakland's administrative offices, including the Bureau of Planning, remains closed to the public. Therefore, hard copies of the document are not available for public review. Therefore, pursuant to the Governor's Executive Order N-80-20, the City of Oakland is following an alternative process for providing access to the Draft EIR. Consistent with the Executive Order, the Draft EIR was uploaded to the State Clearinghouse CEQAnet portal (<https://ceqanet.opr.ca.gov/>). The Draft EIR and its appendices may also be viewed or downloaded from the City of Oakland's website at:

<https://www.oaklandca.gov/documents/oakland-as-waterfront-ballpark-district-at-howard-terminal-environmental-impact-report-documents-case-file-number-er18-016>

Draft EIR Informational Workshop

As mentioned earlier in this report, pursuant to the procedural requirements of Section 21168.6.7, the City conducted an informational workshop on March 6, 2021 within 10 days after the release of the Draft EIR to inform the public of the key analyses and conclusions of the Draft EIR. This was held via Zoom and was recorded and has been uploaded onto the Waterfront Ballpark District Project page. You may refer to this video for more in depth information on the key analyses in the document, and it may be accessed on the city website at the link below: http://oakland.granicus.com/MediaPlayer.php?publish_id=2a80e641-7eb6-11eb-96cb-0050569183fa

CONCLUSION

All comments received on the Draft EIR will be considered by the City prior to finalizing the EIR and making a decision on the Project. Comments on the Draft EIR should focus on the adequacy of the EIR in discussing possible impacts on the physical environment, ways in which potential adverse effects might be minimized, and alternatives to the Project in light of the EIR's purpose to provide useful and accurate information about such factors. The public hearing on before the Landmarks Board on March 22, 2021 is not intended for public comments on the Project merits. Comments on the Draft EIR may be made at the March 22, 2021 Landmarks Board meeting or before the Planning Commission at the April 7, 2021 hearing or in writing to the Department of Planning & Building, Bureau of Planning, to the attention of Peterson Vollmann, Planner IV, City of Oakland, Department of Planning and Building, Bureau of Planning, 250 Frank H. Ogawa Plaza, Suite 2114, Oakland, CA 94612 or by e-mail at pvollmann@oaklandca.gov. **The City encourages comments to be submitted electronically via the following link:** <https://comment-tracker.esassoc.com/oaklandsportseir/index.html>

Written comments must be received prior to the comment period deadline (4:00 p.m. on April 12, 2021). After all comments are received, the City will prepare a Final EIR/Response to Comments document and the Planning Commission will consider recommendation for certification of the Final EIR at a future meeting date. Staff will also return to the full Planning Commission to consider a recommendation on the development entitlements.

RECOMMENDATION

- 1) Receive public and Landmarks Board comments on the Draft EIR.
- 2) Close the public hearing with respect to receipt of oral comments; written comments will be accepted until 4:00 pm on April 12, 2021.
- 3) Consider providing a recommendation on Crane X-422 at the site with regard to its status as a historic resource under CEQA.

Prepared by:



Peterson Z. Vollmann, Planner IV

Reviewed by:



Catherine Payne, Acting Development Planning Manager
Bureau of Planning

Attachments:

- A. Summary Table (Excerpts of DEIR Table 2-1 relevant to Cultural Resources)
- B. Notice of Availability (NOA)
- C. Excerpts from ESA historic resource analysis addressing Crane X-422
- D. Jacobs historic evaluation of Crane X-422

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT

Impacts, Criterion, and Significance	Mitigation Measures and Improvement Measures	Significance After Mitigation
4.3 Biological Resources (cont.)		
<p>Impact BIO-1.CU (cont.)</p>	<p>Mitigation Measure BIO-2: Pre-Construction Assessments and Protection Measures for Bats. (see Impact BIO-2)</p> <p>Mitigation Measure BIO-3: Management of Pile Driving in the Water Column for Protection of Fish and Marine Mammals. (see Impact BIO-3)</p> <p>Mitigation Measure BIO-4: Compensation for Fill of San Francisco Bay. (see Impact BIO-5)</p> <p>Mitigation Measure HYD-1a: Creek Protection Plan. (see Section 4.9, Hydrology and Water Quality)</p> <p>Mitigation Measure HYD-1b: NPDES Stormwater Requirements. (see Section 4.9, Hydrology and Water Quality)</p>	
4.4 Cultural and Tribal Cultural Resources		
<p>Impact CUL-1: The Project could result in significant impacts to maritime resources (USS <i>Potomac</i> and the Lightship <i>Relief</i>) within the Study Area. (Criterion 1) <i>(Less than Significant with Mitigation)</i></p>	<p>Mitigation Measure CUL-1: Maritime Resources Treatment Plan.</p> <p>Prior to any construction-related work within 100 feet of the Lightship <i>Relief</i> or the USS <i>Potomac</i>, the Project sponsor shall submit a Treatment Plan for the protection of and continued access to the USS <i>Potomac</i> and the Lightship <i>Relief</i> to the City. The Treatment Plan shall be prepared by a cultural resources professional with experience with historic ships, shall be provided for review by the Port and representatives for the USS <i>Potomac</i> and the Lightship <i>Relief</i>, and shall be approved by the City prior to the start of construction. At a minimum, the Treatment Plan shall include measures to address access to the resources during construction, measures to ensure a reasonable buffer zone regarding in-water construction-related traffic in close proximity to the resources, monitoring and notification protocols (if needed), and measures to allow for safe launch and return of the resources during construction. Implementation of protective measures included in the Treatment Plan shall be the responsibility of the Project sponsor.</p>	<p>Less Than Significant</p>
<p>Impact CUL-2: The Project would not result in significant impacts to the historical setting of the Southern Pacific Railroad Industrial Landscape District (SPRR) API. (Criterion 1) <i>(Less than Significant)</i></p>	<p>None required</p>	<p>Less Than Significant</p>
<p>Impact CUL-3: The Project could result in significant impacts to the Southern Pacific Railroad Industrial Landscape District API and the PG&E Station C API resulting from construction-related vibrations. (Criterion 1) <i>(Less than Significant with Mitigation)</i></p>	<p>Mitigation Measure CUL-2: Vibration Analysis for Historic Structures.</p> <p>As presented in Chapter 4.11 Noise and Vibration, building damage is generally experienced when vibration levels exceed 94 VdB. Table 4.11-17 lists a number of construction activities with their estimated VdB at various distances. At distances up to 150 feet, there is potential for vibration levels to exceed 94 VdB, therefore, prior to any vibratory construction within 150 feet of a historic resource the Project sponsor shall submit a Vibration Analysis prepared by an acoustical and/or structural engineer or other appropriate qualified professional for City review and approval that establishes pre-construction baseline conditions and threshold levels of vibration that could damage the structures and/or substantially interfere with activities located at 93 Linden Street, 110 Linden Street, 101 Myrtle Street, 737 Second Street, 601 Embarcadero West, and 101 Jefferson Street. The Vibration Analysis shall identify design means and methods of construction that shall be utilized in order to not exceed the thresholds. The Project sponsor shall implement the recommendations during construction.</p>	<p>Less Than Significant</p>

**TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance	Mitigation Measures and Improvement Measures	Significance After Mitigation
4.4 Cultural and Tribal Cultural Resources (cont.)		
<p>Impact CUL-4: The proposed Project would result in a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5. (Criterion 1) (<i>Significant and Unavoidable</i>)</p>	<p>Mitigation Measure CUL-3a: Crane Removal Documentation. Prior to issuance of a demolition permit, the City shall require HABS documentation of Crane X-422. This documentation shall be prepared by professionals meeting, or exceeding, the Secretary of the Interior’s Historic Preservation Professional Qualifications Standards and shall include recommendations regarding selection criteria for an appropriate receiver site that approximates the crane’s current relationship to the Estuary. HABS documentation of the crane shall include recordation in both written and photographic media of the current and historical physical context and conditions of Crane X-422.</p> <p>Mitigation Measure CUL-3b: Crane Relocation. Pursuant to Policy 3.7 of the Historic Preservation Element of the Oakland General Plan, following completion of Mitigation Measure CUL-3a and prior to issuance of a demolition permit, the project sponsor shall make a good faith effort to support prompt relocation of Crane X-422 to a site acceptable to the City and the Port, and meeting the parameters established under Mitigation Measure CUL-3a. The sponsor shall make available funds equal to the cost of demolition to interested parties that submit, in writing, a relocation plan meeting the requirements established in Mitigation Measure CUL-3a. If no such party is identified within 90 days after the sponsor’s offer, or the City determines that a submitted plan is not acceptable to the City, Crane X-422 may be removed by the sponsor.</p> <p>Mitigation Measure CUL-3c: Interpretive Displays. The Project sponsor shall, in consultation with a qualified architectural historian and landscape architect, develop one or more interpretive displays that present information regarding the early history of the Port of Oakland and its rise to prominence. Information should focus on the transformation of the port from 1962-1977, the role that early container cranes played in this transformation, the physical context, and the unique characteristics of the low-profile design of X-422 compared to its neighbors.</p>	<p>Significant and Unavoidable</p>
<p>Impact CUL-5: Activities undertaken during construction of the Project could cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5. (Criterion 2) (<i>Less than Significant with Mitigation</i>)</p>	<p>Mitigation Measure CUL-4a: Archaeological Resources and Tribal Cultural Resources – Discovery During Construction. During construction, pursuant to CEQA Guidelines section 15064.5(f), in the event that any historic or prehistoric subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the Project sponsor shall notify the City and consult with a qualified archaeologist, as applicable, to assess the significance of the find. If any find is determined to be significant, appropriate avoidance measures recommended by the consultant and approved by the City must be followed unless avoidance is determined unnecessary or infeasible by the City. Feasibility of avoidance shall be determined with consideration of factors such as the nature of the find, Project design, costs, and other considerations. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery, excavation) shall be instituted. Work may proceed on other parts of the Project site while measures for the cultural resources are implemented.</p> <p>In the event of data recovery of archaeological resources, the Project sponsor shall submit an Archaeological Research Design and Treatment Plan (ARDTP) prepared by a qualified</p>	<p>Less Than Significant</p>

**TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance	Mitigation Measures and Improvement Measures	Significance After Mitigation
4.4 Cultural and Tribal Cultural Resources (cont.)		
<p>Impact CUL-5 (cont.)</p>	<p>archaeologist for review and approval by the City. The ARDTP is required to identify how the proposed data recovery program would preserve the significant information the archaeological resource is expected to contain. The ARDTP shall identify the scientific/historic research questions applicable to the expected resource, the data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. The ARDTP shall include the analysis and specify the curation and storage methods. Data recovery, in general, shall be limited to the portions of the archaeological resource that could be impacted by the proposed Project. Destructive data recovery methods shall not be applied to portions of the archaeological resources if nondestructive methods are practicable. Because the intent of the ARDTP is to save as much of the archaeological resource as possible, including moving the resource, if feasible, preparation and implementation of the ARDTP would reduce the potential adverse impact to less than significant. The Project sponsor shall implement the ARDTP at his/her expense.</p> <p>Archaeological monitoring and/or data recovery programs required by this measure could suspend Project operations in the vicinity of the discovery for up to 4 weeks. At the direction of the City, the suspension of construction can extend beyond 4 weeks only if such suspension is the only feasible means to reduce potential effects on a significant archaeological resource, as defined in CEQA Guidelines Section 15064(a) and 15064.5(c) to less than significant with mitigation.</p> <p>Mitigation Measure CUL-4b: Archaeologically Sensitive Areas – Pre-Construction Measures.</p> <p>Provision A: Intensive Pre-Construction Study. The Project sponsor shall retain a qualified archaeologist to conduct a site-specific, intensive archaeological resources study for review and approval by the City prior to soil-disturbing activities occurring on the Project site. The purpose of the site-specific, intensive archaeological resources study is to identify early the potential presence of history-period archaeological resources on the Project site. At a minimum, the study shall include:</p> <ol style="list-style-type: none"> a. Subsurface presence/absence studies of the Project site. Field studies may include, but are not limited to, auguring and other common methods used to identify the presence of archaeological resources. b. A report disseminating the results of this research. c. Recommendations for any additional measures that could be necessary to mitigate any adverse impacts to recorded and/or inadvertently discovered cultural resources. <p>If the results of the study indicate a high potential presence of historic-period archaeological resources on the Project site, or a potential resource is discovered, the Project sponsor shall hire a qualified archaeologist to monitor any ground disturbing activities on the Project site during construction and prepare an ALERT sheet pursuant to Provision B below that details what could potentially be found at the Project site. Archaeological monitoring would include briefing construction personnel about the type of artifacts that may be present (as referenced in the ALERT sheet, required per Provision B below) and the procedures to follow if any artifacts are encountered, field recording and sampling in accordance with the Secretary of Interior’s Standards and Guidelines for Archaeological Documentation, notifying the appropriate officials if human remains or cultural resources are discovered, and preparing a report to document negative findings after construction is completed if no archaeological resources are discovered during construction.</p>	

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT

Impacts, Criterion, and Significance	Mitigation Measures and Improvement Measures	Significance After Mitigation
4.4 Cultural and Tribal Cultural Resources (cont.)		
Impact CUL-5 (cont.)	<p>Provision B: Construction ALERT Sheet. The Project sponsor shall prepare a construction "ALERT" sheet developed by a qualified archaeologist for review and approval by the City prior to soil-disturbing activities occurring on the Project site. The ALERT sheet shall contain, at a minimum, visuals that depict each type of artifact that could be encountered on the Project site. Training by the qualified archaeologist shall be provided to the Project's prime contractor, any Project subcontractor firms (including demolition, excavation, grading, foundation, and pile driving), and utility firms involved in soil-disturbing activities within the Project site.</p> <p>The ALERT sheet shall state, in addition to the basic archaeological resource protection measures contained in other standard conditions of approval, all work must stop within 50 feet of the discovery and the City's Environmental Review Officer contacted in the event of discovery of the following cultural materials: concentrations of shellfish remains; evidence of fire (ashes, charcoal, burnt earth, fire-cracked rocks); concentrations of bones; recognizable Native American artifacts (arrowheads, shell beads, stone mortars [bowls], humanly shaped rock); building foundation remains; trash pits, privies (outhouse holes); floor remains; wells; concentrations of bottles, broken dishes, shoes, buttons, cut animal bones, hardware, household items, barrels, etc.; thick layers of burned building debris (charcoal, nails, fused glass, burned plaster, burned dishes); wood structural remains (building, ship, wharf); clay roof/floor tiles; stone walls or footings; or gravestones. Prior to any soil-disturbing activities, each contractor shall be responsible for ensuring that the ALERT sheet is circulated to all field personnel, including machine operators, field crew, pile drivers, and supervisory personnel. The ALERT sheet shall also be posted in a visible location at the Project site.</p>	
Impact CUL-6: Activities undertaken during construction of the Project could disturb human remains, including those interred outside of formal cemeteries. (Criterion 3) (<i>Less than Significant with Mitigation</i>)	<p>Mitigation Measure CUL-5: Human Remains – Discovery During Construction.</p> <p>During construction, pursuant to CEQA Guidelines section 15064.5(e)(1), in the event that human skeletal remains are uncovered at the Project site during construction activities, all work shall immediately halt and the Project sponsor shall notify the City and the Alameda County Coroner. If the County Coroner determines that an investigation of the cause of death is required or that the remains are Native American, all work shall cease within 50 feet of the remains until appropriate arrangements are made. In the event that the remains are Native American, the City shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of section 7050.5 of the California Health and Safety Code. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance, and avoidance measures (if applicable) shall be completed expeditiously and at the expense of the Project sponsor.</p>	Less Than Significant
Impact CUL-7: The Project could cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code Section 21074. (Criterion 4) (<i>Less than Significant with Mitigation</i>)	<p>Mitigation Measure CUL-4a: Archaeological Resources and Tribal Cultural Resources – Discovery During Construction. (see Impact CUL-5)</p> <p>Mitigation Measure CUL-4b: Archaeologically Sensitive Areas – Pre-Construction Measures. (see Impact CUL-5)</p>	Less Than Significant

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT

Impacts, Criterion, and Significance	Mitigation Measures and Improvement Measures	Significance After Mitigation
4.4 Cultural and Tribal Cultural Resources (cont.)		
<p>Impact CUL-1.CU: The Project, combined with cumulative development in the Project vicinity as a result of the Downtown Oakland Specific Plan and citywide, would contribute to cumulative adverse impacts on historical resources. <i>(Significant and Unavoidable)</i></p>	<p>Mitigation Measure CUL-3a: Crane Removal Documentation. (see Impact CUL-4) Mitigation Measure CUL-3b: Crane Relocation. (see Impact CUL-4) Mitigation Measure CUL-3c: Interpretive Displays. (see Impact CUL-4)</p>	Significant and Unavoidable
<p>Impact CUL-2.CU: The Project, combined with cumulative development in the Project vicinity and citywide, could contribute to cumulative adverse impacts on archaeological resources, human remains, and tribal cultural resources. <i>(Less than Significant with Mitigation)</i></p>	<p>Mitigation Measure CUL-4a: Archaeological Resources and Tribal Cultural Resources – Discovery During Construction. (see Impact CUL-5) Mitigation Measure CUL-4b: Archaeologically Sensitive Areas – Pre-Construction Measures. (see Impact CUL-5) Mitigation Measure CUL-5: Human Remains – Discovery During Construction. (see Impact CUL-6)</p>	Less Than Significant
4.5 Energy		
<p>Impact ENE-1: Construction and operation of the Project could result in potentially significant environmental impact due to the wasteful, inefficient, and/ or unnecessary use of energy. (Criterion 1) <i>(Less than Significant with Mitigation)</i></p>	<p>Mitigation Measure AIR-1b: Criteria Air Pollutant Controls. (see Section 4.2, Air Quality) Mitigation Measure AIR-1c: Diesel Particulate Matter Controls. (see Section 4.2, Air Quality) Mitigation Measure AIR-2c: Diesel Backup Generator Specifications. (see Section 4.2, Air Quality) Mitigation Measure AIR-2d: Diesel Truck Emission Reduction. (see Section 4.2, Air Quality) Mitigation Measure AIR-2e: Criteria Pollutant Mitigation Plan. (see Section 4.2, Air Quality) Mitigation Measure GHG-1: Preparation and Implementation of a GHG Reduction Plan. (see Section 4.7, Greenhouse Gas Emissions) Mitigation Measure TRANS-1a: Transportation Demand Management (TDM) Plan. (see Section 4.15, Transportation and Circulation) Mitigation Measure TRANS-1b: Transportation Management Plan. (see Section 4.15, Transportation and Circulation) Mitigation Measure TRANS-1c: Implement a Transportation Hub on 2nd Street. (see Section 4.15, Transportation and Circulation) Mitigation Measure TRANS-1d: Implement Bus-Only Lanes on Broadway. (see Section 4.15, Transportation and Circulation) Mitigation Measure TRANS-1e: Implement Pedestrian Improvements. (See Section 4.15, Transportation and Circulation) Mitigation Measure TRANS-2a: Implement Buffered Bike Lanes Consistent with the Bike Plan on 7th Street from Mandela Parkway to Martin Luther King Jr. Way. (see Section 4.15, Transportation and Circulation) Mitigation Measure TRANS-2b: Implement Bike Lanes Consistent with the Bike Plan on Martin Luther King Jr. Way from Embarcadero West to 8th Street. (see Section 4.15, Transportation and Circulation)</p>	Less Than Significant

**TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance	Mitigation Measures and Improvement Measures	Significance After Mitigation
4.15 Transportation and Circulation (cont.)		
<p>Impact TRANS-3 (cont.)</p>	<p>Mitigation Measure TRANS-3b: Pedestrian and Bicycle Overcrossing.</p> <p>Prior to opening day of the ballpark, Project sponsor shall design and construct a grade-separated overcrossing for pedestrians and bicyclists seeking to access the Project site. The overcrossing, which would require review and approval by CPUC as well as the City and the Port, consultation with the Capital Corridor Joint Powers Authority, and potentially affected property owners such as the UPRR, shall be located at Jefferson Street (Error! Reference source not found.48) or Clay Street (Error! Reference source not found.49), or a comparable nearby location and shall create a safe and accessible route for pedestrians and bicyclists traveling to the Project site on both event and non-event days, connecting 2nd Street, which is north of the railroad tracks, to Athletics' Way to the south. Pedestrian facilities serving the bridge shall be upgraded on Jefferson and Clay Streets to correct tripping hazards and daylight intersections and driveways with red curb per City guidance. Along 3rd Street between Market Street and Broadway gaps in the pedestrian network would be closed by converting diagonal and perpendicular parking to parallel parking to provide a pedestrian path of travel between buildings and parking where no sidewalk exists today.</p> <p>The overcrossing could include some combination of stair and elevator system potentially with ADA-compliant ramping that could also be used by bicycle riders. The tallest point at the overcrossing would be about 40 feet above grade taking into consideration architecture features of the bridge such as railing and fencing. The overcrossing could include a viewing space, providing views of the rail corridor, the ballpark, the Inner Harbor of the Estuary, the Oakland Hills, and downtown Oakland, as well as interpretive information celebrating the history of the railroad in Oakland.</p> <p>If constructed along Jefferson Street, the overcrossing would border the PG&E Station C API, a historical resource, and be immediately adjacent to the National Register-eligible PG&E Station C contributor located at 601 Embarcadero West. Therefore, to avoid any adverse impacts on 601 Embarcadero West and the API, the design of the pedestrian and bicycle overcrossing along Jefferson Street shall incorporate transparent materials, small-dimension structural elements, and/or design features that maintain views from the street directly adjacent to the resource. Also, the structural design, including foundations, shall be subject to review by the Planning Director or the Director's designee, prior to the City Council's review and approval of a major encroachment permit.</p>	
<p>Impact TRANS-4: The Project would be constructed over several years and include on- and off-site construction activities as well as construction along the railroad corridor that could expose roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) to a substantial transportation hazard. (Criterion 2) (<i>Less than Significant with Mitigation</i>)</p>	<p>Mitigation Measure TRANS-4: Construction Management Plan.</p> <p>The Project sponsor and general contractor shall prepare a Construction Management Plan (CMP) and the plan shall be submitted to the City of Oakland for review and approval prior to the City issuing the first construction-related permit. The Plan shall be reviewed by the City's Planning and Building Department, Fire Department, Department of Transportation, Public Works Department, and others as needed. The CMP shall contain measures to minimize potential construction impacts including measures to comply with all construction-related Mitigation Measures (and additional conditions of approval if applicable) such as dust control, construction emissions, hazardous materials, construction days/hours, construction traffic control, waste reduction and recycling, stormwater pollution prevention, noise control, complaint management, and cultural resource management.</p>	<p align="center">Less Than Significant</p>

**TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance	Mitigation Measures and Improvement Measures	Significance After Mitigation
4.16 Utilities and Service Systems (cont.)		
Impact UTIL-3: The Project would not increase the demand for treated water and conveyance systems that could exceed existing entitlements or capacities. (Criterion 3) (<i>Less than Significant</i>)	None required	Less Than Significant
Impact UTIL-4: Development of the Project could violate applicable federal, State, and local statutes or regulations related to solid waste, but it would not generate solid waste that would exceed the permitted capacity of the landfills serving the area. (Criteria 5 and 6) (<i>Less than Significant with Mitigation</i>)	Mitigation Measure UTIL-3: Recycling Collection and Storage Space. Prior to the approval of a construction-related permit, the Project sponsor shall comply with the City of Oakland Recycling Space Allocation Ordinance (Chapter 17.118 of the Oakland Planning Code). The Project drawings submitted for construction-related permits shall contain recycling collection and storage areas in compliance with the Ordinance. For residential projects, at least two (2) cubic feet of storage and collection space per residential unit is required, with a minimum of ten (10) cubic feet. For nonresidential projects, at least two (2) cubic feet of storage and collection space per 1,000 square feet of building floor area is required, with a minimum of ten (10) cubic feet.	Less Than Significant
Impact UTIL-1.CU: The Project, combined with cumulative development in the Project vicinity and citywide, could result in a significant cumulative impact on water supplies; the capacity of EBMUD's wastewater systems or the City's stormwater conveyance capacity; or generation of solid waste. (<i>Less than Significant with Mitigation</i>)	Mitigation Measure UTIL-1: Preparation and Approval of Final Design Wastewater Conveyance System Plans and Analysis. (see Impact UTIL-1) Mitigation Measure UTIL-2: Preparation and Approval of Final Design Storm Drainage System Plans. (see Impact UTIL-2) Mitigation Measure UTIL-3: Recycling Collection and Storage Space. (see Impact UTIL-4) Mitigation Measure HYD-1a: Creek Protection Plan (See Section 4.9, <i>Hydrology and Water Quality</i>) Mitigation Measure HYD-1b: NPDES Stormwater Requirements (See Section 4.9, <i>Hydrology and Water Quality</i>)	Less Than Significant
5.0 Variants		
Impact CUL-8: The proposed Project, with the Peaker Power Plant Variant, would directly impact a historical resource through removal of portions of the east and west wings of the building at 601 Embarcadero West. (Criterion 1) (<i>Significant and Unavoidable with Mitigation</i>)	Mitigation Measure CUL-6a: Peaker Power Plant – HABS Documentation (Level II). Prior to demolition of portions of the building sections located at 601 Embarcadero West, the entire building shall be recorded to the standards required by the Historic American Buildings Survey – Level II. Copies of the documentation shall be deposited locally in the Oakland History Room at the Oakland Public Library and other locations as determined by the City of Oakland. Mitigation Measure CUL-6b: Peaker Power Plant – Secretary of the Interior's Standards Compliance Analysis. Prior to demolition, architectural plans for the new end walls on the shortened east and west wings and other modifications to the building shall be reviewed by a professional meeting the Secretary of the Interior's Professional Qualification for Architectural History and/or Historic Architecture to ensure compliance with the Secretary of the Interior's Standards for Rehabilitation. The professional's findings and recommendations shall be subject to review and approval by the City. The findings of this review shall be documented in a Standards Compliance Report.	Significant and Unavoidable

TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT

Impacts, Criterion, and Significance	Mitigation Measures and Improvement Measures	Significance After Mitigation
5.0 Variants (cont.)		
Impact CUL-9: The proposed Project, with the Peaker Power Plant Variant, would not impact a historical resource through introduction of new development that could obstruct views into the resource, a character-defining feature of the PG&E Station C API. (Criterion 1) (<i>Less than Significant</i>)	None required	Less Than Significant
Impact CUL-10: The proposed Project, with the Aerial Gondola Variant, would result in impacts to the Old Oakland API. (Criterion 1) (<i>Significant and Unavoidable with Mitigation</i>)	<p>Mitigation Measure CUL-7: Convention Center Station Contextual Design Review. The design of the Convention Center Station should minimize the horizontal and vertical extent of the new architectural structure to the greatest extent feasible within the final determined design constraints. It should occupy the minimal footprint possible and locate that footprint outside of the Old Oakland API to the greatest extent possible. In addition, the design of the platform should follow the minimal dimensions possible to limit visual intrusions and obstruction within the Old Oakland API. In addition, the stations should be composed of transparent materials, small-dimension structural elements, and/or design features that minimize the structure's bulk and mass within the intersection of 10th and Washington Streets.</p> <p>Mitigation Measure CUL-2: Vibration Analysis for Historic Structures. (see Section 4.4, Cultural and Tribal Cultural Resources)</p>	Significant and Unavoidable
Impact CUL-11: The proposed Project, with the Aerial Gondola Variant, would not result in indirect impacts to the former Alameda County Coroner's Office and Morgue at 480 4th Street, a potentially historic resource. (Criterion 1) (<i>Less than Significant</i>)	None required	Less Than Significant
Impact CUL-12: The proposed Project, with the Aerial Gondola Variant, could result in indirect impacts to the West Waterfront ASI. (Criterion 1) (<i>Less than Significant with Mitigation</i>)	Mitigation Measure CUL-2: Vibration Analysis for Historic Structures. (see Section 4.4, Cultural and Tribal Cultural Resources)	Less Than Significant
Impact CUL-13: The proposed Project, with the Aerial Gondola Variant, could introduce new structures that could impact the setting immediately adjacent to the Western Pacific Railroad Depot, a historic resource. (Criterion 1) (<i>Less than Significant with Mitigation</i>)	Mitigation Measure CUL-2: Vibration Analysis for Historic Structures. (see Section 4.4, Cultural and Tribal Cultural Resources)	Less Than Significant
Impact CUL-3.CU: The Project, in combination with the Peaker Power Plant Variant, would contribute to a citywide cumulative impact on cultural and historic resources identified in the Downtown Oakland Specific Plan EIR through the loss of the historic wings of the Peaker Power Plant. (<i>Significant and Unavoidable with Mitigation</i>)	<p>Mitigation Measure CUL-6a (Peaker Power Plant – HABS Documentation [Level II]). (see Impact CUL-8)</p> <p>Mitigation Measure CUL-6b (Peaker Power Plant – Secretary of the Interior's Standards Compliance Analysis). (see Impact CUL-8)</p>	Significant and Unavoidable

**TABLE 2-1 (CONTINUED)
SUMMARY OF IMPACTS AND MITIGATION MEASURES FOR THE PROJECT**

Impacts, Criterion, and Significance	Mitigation Measures and Improvement Measures	Significance After Mitigation
5.0 Variants (cont.)		
<p>Impact CUL-4.CU: The proposed Project, in combination with the Aerial Gondola Variant, would contribute to a citywide significant cumulative impact on cultural and historic resources identified in the DOSP EIR through changes to the setting of the Old Oakland API. (Criterion 1) (<i>Significant and Unavoidable with Mitigation</i>)</p>	<p>Mitigation Measure CUL-7: Convention Center Station Contextual Design Review. (see Impact CUL-10)</p> <p>Mitigation Measure CUL-2: Vibration Analysis for Historic Structures. (see Section 4.4, Cultural and Tribal Cultural Resources)</p>	<p>Significant and Unavoidable</p>
<p>Impact HAZ-4: The proposed Project, with the Peaker Power Plant Variant, would have the potential to encounter hazardous materials, which could create a significant hazard to the public or the environment. (Criterion 5) (<i>Less than Significant with Mitigation</i>)</p>	<p>Mitigation Measure HAZ-2: Peaker Power Plant Fuel Tank Decommissioning and Training/Oversight.</p> <p>Prior to demolition or removal of the fuel tank, the Project sponsor shall have the fuel tank parcel decommissioned, subject to the oversight and inspection of the Oakland Fire Department. The decommissioning activity shall be performed by qualified personnel trained and certified in environmental health and safety procedures pursuant to Occupational Safety and Health Administration training requirements in Code of Federal Regulations Title 29, Section 1910.120, Hazardous Waste Operations and Emergency Response, including appropriate training for enclosed space activities. The Project sponsor shall ensure that full-time observation under a site management plan occurs during actual removal of the tank to determine whether evidence of subsurface impact is present.</p> <p>Mitigation Measure HAZ-1a: Preparation and Approval of Consolidated RAW, LUCs and Associated Plans. (see Section 4.8, Hazards and Hazardous Materials)</p> <p>Mitigation Measure HAZ-1b: Compliance with Approved RAW, LUCs and Associated Plans. (see Section 4.8, Hazards and Hazardous Materials)</p> <p>Mitigation Measure HAZ-1c: Health and Safety Plan. (see Section 4.8, Hazards and Hazardous Materials)</p> <p>Mitigation Measure HAZ-1d: Hazardous Building Materials. (see Section 4.8, Hazards and Hazardous Materials)</p>	<p>Less Than Significant</p>
<p>Impact HAZ-5: The proposed Project, with the Aerial Gondola Variant, would have the potential to encounter hazardous materials which could create a significant hazard to the public or the environment. (Criterion 5) (<i>Less than Significant with Mitigation</i>)</p>	<p>Mitigation Measure HAZ-3: Aerial Gondola Soil and Groundwater Management Plan.</p> <p>Soil and Groundwater Management Plan</p> <p>Prior to issuance of a building permit for the Aerial Gondola Variant, the contractor shall develop a Soil and Groundwater Management Plan (SGMP) specifying how the construction contractor(s) will remove, handle, transport, and dispose of all excavated materials in a safe, appropriate, and lawful manner. The plan shall be implemented before the start of construction activities. The SGMP must identify protocols for soil testing and disposal. Contract specifications shall mandate full compliance with all applicable federal, State, and local regulations related to the identification, transportation, and disposal of hazardous materials, including those encountered in excavated soil.</p> <p>Hazardous Waste Management Procedures</p> <p>If soil classified as hazardous waste is encountered, the material shall be managed as hazardous waste pursuant to California Code of Regulations Title 22, Division 45, in accordance with the following procedures:</p>	<p>Less Than Significant</p>



CITY OF OAKLAND

Bureau of Planning

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**COMBINED NOTICE OF AVAILABILITY AND RELEASE OF A
DRAFT ENVIRONMENTAL IMPACT REPORT (EIR) AND
NOTICE OF PUBLIC HEARINGS FOR THE OAKLAND
WATERFRONT BALLPARK DISTRICT PROJECT**

- PROJECT TITLE:** Oakland Waterfront Ballpark District Project
- PROJECT LOCATION:** Approximately 55 acres that comprises the Charles P. Howard Terminal and adjacent parcels, located at the Port of Oakland along the Inner Harbor of the Oakland-Alameda Estuary (“Site”).
- PROJECT SPONSOR:** Oakland Athletics Investment Group, LLC
- LEAD AGENCY** City of Oakland
- CASE NO.:** ER18-016; State Clearinghouse No. 2018112070
- REVIEW PERIOD:** February 26, 2021 through April 12, 2021

DESCRIPTION OF PROJECT: The Oakland Waterfront Ballpark District Project (“Project or “proposed Project”) would construct: a new open-air waterfront multi-purpose Major League Baseball (MLB) ballpark with a capacity of up to 35,000-persons (“Ballpark”); mixed use development including up to 3,000 residential units, up to 1.5 million square feet of office (which could include a range of commercial uses, such as general administrative and professional office and life sciences/research), and up to approximately 270,000 square feet of retail uses; an approximately 50,000 square-foot indoor performance venue with capacity of up to 3,500 persons; up to approximately 280,000 square-feet of hotel space including up to 400 rooms in one or more buildings and supportive conference facilities; a network of approximately 18.3 acres of privately-owned, publicly-accessible open spaces; and a maximum of approximately 8,900 total parking spaces at full buildout. Approximately 2,000 parking spaces would be shared by the Ballpark and the performance venue, and the remaining 6,900 parking spaces would serve residential and commercial uses on the Site.

As proposed by the Project Sponsor, the proposed Project would be developed in multiple phases: Phase 1 and followed by development of the remainder of the site, which together is total “Buildout”. Phase 1 would generally include the area east of Market Street and is expected to take a minimum of 2 years to construct. Phase 1 is expected to include the Ballpark, up to 540 residential dwelling units, 250,000 square feet of commercial office space, 30,000 square feet of retail/restaurant uses, the one or more hotels with a total of up to 400 rooms, approximately 12.3 acres of open space, and 4,818 parking spaces. Once the Ballpark is constructed in Phase 1, the Project Sponsor would relocate all its operations from the existing Oakland-Alameda Coliseum to the new facility. No physical changes are proposed at the Oakland-Alameda Coliseum site as part of the Project. Future phases would include the balance of development and occur generally west of Market Street.

A “Maritime Reservation Scenario” is being considered for the proposed Project, which involves an alternative site plan should the Port of Oakland elect, at any point within approximately 10 years from May 13, 2019, to terminate the Project sponsor’s development rights to some or all of approximately 10-acres located generally in the southwestern corner of the Site, if the Port deems that area necessary to accommodate the expansion of the turning basin that is used to turn large vessels within Oakland’s Inner Harbor. Such an election by the Port of Oakland

would be made in accordance with the Exclusive Negotiation Term Sheet for Howard Terminal approved by the Board of Port Commissioners on May 13, 2019, as such agreement may be superseded by any future agreements between the parties. As a result of such election, the Project Site plan would be modified, and the proposed development would be more dense as a result of fitting the same development program (i.e. the Ballpark and mix of other uses proposed) onto the smaller Site with less open space area.

The proposed Project may also include one or more variants, which are potential project features that may or may not be included by the Project Sponsor as part of the Project because the implementation of each is beyond the control of the Project Sponsor at this time. Two variants are analyzed in a separate section of this Draft EIR and include:

- **Peaker Plant Variant:** conversion of the existing Oakland Power Plant (referred to as the “Peaker Power Plant” in this Draft EIR because of its role in supplying power to the electric grid at times of peak demand) in the historic PG&E Station C facility and adjacent fuel storage tank east of Jefferson Street to a battery energy storage system, as well as physical changes to the existing buildings, removal of the jet fuel tank, and construction of mixed-use buildings on the jet fuel tank site;
- **Aerial Gondola Variant:** construction of a new aerial gondola above and along Washington Street, extending from a station located at 10th and Washington Streets in downtown Oakland to a station located at Water and Washington Streets in Jack London Square.

The Project Site is included in the list of Hazardous Waste and Substances sites in the Department of Toxic Substances Control (DTSC) EnviroStor database, one of the lists meeting the “Cortese List” requirements (<http://www.calepa.ca.gov/sitecleanup/corteselist/>, accessed February 2021).

DRAFT EIR OVERVIEW: This Draft EIR is a public information document that assesses the potential physical environmental impacts that could result from construction and use of the Project, recommends mitigation measures to lessen or eliminate adverse impacts, examines feasible alternatives to the Project, and is intended to inform City of Oakland decision makers, other responsible agencies, and the general public. The Draft EIR evaluates potential physical environmental impacts that could result from the Project and identifies that the Project may have significant and unavoidable impacts in the following areas:

- Aesthetics (wind)
- Air Quality
- Cultural Resources (historic resources)
- Noise and Vibration
- Transportation and Circulation

COMPLETION AND AVAILABILITY OF THE DRAFT EIR: The City of Oakland’s Bureau of Planning issued a Notice of Preparation (NOP) for a Draft EIR on November 30, 2018. The City has prepared a Draft EIR for the Project in compliance with the California Environmental Quality Act (CEQA) (California Public Resources Code §§21000 et. seq.) and the State CEQA Guidelines (Guidelines) (California Code of Regulations, Title 14, Division 6, Chapter 3, §§15000 et. seq.). The EIR for the Project is also being prepared under the California Assembly Bill 734 judicial streamlining legislation (California Environmental Quality Act: Oakland Sports and Mixed-Use Project) that added provisions to CEQA as Public Resources Code Section 21168.6.7 for the Project.

This notice is being sent to Responsible Agencies and other interested parties, including persons who responded to the NOP.

Due to Alameda County's continuing Shelter-in-Place order to prevent the spread of COVID-19, the City of Oakland's administrative offices, including the Bureau of Planning, remains closed to the public. Therefore, hard copies of the document are not available for public review. Therefore, pursuant to the Governor's Executive Order N-80-20, the City of Oakland is following an alternative process for providing access to the Draft EIR. Consistent with the Executive Order, the Draft EIR will be uploaded to the State Clearinghouse CEQAnet portal (<https://ceqanet.opr.ca.gov/>). And, starting on February 26, 2021, the Draft EIR and its appendices may be viewed or downloaded from the City of Oakland's website: <https://www.oaklandca.gov/documents/oakland-as-waterfront-ballpark-district-at-howard-terminal-environmental-impact-report-documents-case-file-number-er18-016>.

In addition to the above and consistent with the procedural requirements of Section 21168.6.7, the Draft EIR and all other documents submitted to or relied upon by the lead agency in the preparation of the Draft EIR also can be accessed and downloaded from the following website: <https://waterfrontballparkdistrict.com/>. In addition, a document prepared by the lead agency or submitted by the applicant after the date of the release of the Draft EIR that is a part of the record of proceedings, and comments received on the Draft EIR, will be made available to the public on this same website in a readily accessible electronic format within the timeframes specified by Section 21168.6.7.

Also consistent with the procedural requirements of Section 21168.6.7, the City will conduct an informational workshop within 10 days after the release of the Draft EIR to inform the public of the key analyses and conclusions of the Draft EIR, and will hold a public hearing to receive testimony on the Draft EIR within 10 days before the close of the public comment period.

INFORMATIONAL WORKSHOP AND PUBLIC HEARINGS ON THE DRAFT EIR:

The City of Oakland will conduct an informational workshop to inform the public of the key analyses and conclusions of the Draft EIR on **March 6, 2021 at 10:00 a.m.** The workshop will be held on-line via Zoom and you may access the meeting information at the following website: <https://www.oaklandca.gov/events/march-6-2021-oakland-waterfront-ballpark-district-project-deir-information-workshop>

The **City of Oakland Landmarks Preservation Advisory Board** will conduct a public meeting on the historic and cultural resource aspects of the Project on **March 22, 2021 at 5:00 p.m.** The meeting will be held on-line via Zoom and you may access the meeting information one week prior to the meeting at the following website: <https://www.oaklandca.gov/boards-commissions/landmarks-preservation-advisory-board>

The **City of Oakland Planning Commission** will conduct a public hearing on the DEIR for the Oakland Waterfront Ballpark District Project on **April 7, 2021 at 3:00 p.m.** The hearing will be held on-line via Zoom and you may access the meeting information one week prior to the meeting at the following website: <https://www.oaklandca.gov/boards-commissions/planning-commission>

The City of Oakland is hereby releasing this Draft EIR, finding it to be accurate and complete and ready for public review. Members of the public are invited to comment on the Draft EIR and the Project. There is no fee for commenting, and all comments received will be considered by the City prior to finalizing the EIR and making a decision on the Project. Comments on the Draft EIR should focus on the sufficiency of the EIR in discussing possible impacts on the physical environment, ways in which potential adverse effects might be minimized, and alternatives to the Project in light of the EIR's purpose to provide useful and accurate information about such factors.

SUBMITTING COMMENTS ON THE DRAFT EIR: Comments may be made at the public hearings described above or in writing. **The City encourages comments to be submitted electronically via the following link:** <https://comment-tracker.esassoc.com/oaklandsportseir/index.html>. Comments may also be directed in writing to: Peterson Vollmann, Planner IV, City of Oakland Bureau of Planning, 250 Frank H. Ogawa Plaza, Suite 2214, Oakland, CA 94612, by mail. Comments should be received via the above web address or mailing address by 4:00 p.m. on **April 12, 2021**. Please reference Case File Number **ER18-016** in all correspondence.

If you challenge the EIR or Project in court, you may be limited to raising only those issues raised at the public hearings described above, or in written correspondence received by the Bureau of Planning on or prior to 4:00 p.m. on **April 12, 2021**.

After all comments are received, a Response to Comments/Final EIR will be prepared and the Planning Commission will consider a recommendation on certification of the Final EIR and the Project at a meeting date to be scheduled. For further information, please contact Peterson Vollmann at (510) 238-6167 or pvollmann@oaklandca.gov.

February 26, 2021
Case File Number: **ER18-016**



Ed Manasse, Bureau of Planning
Environmental Review Officer

strong enough connection to warrant individual listing for its connection to the manufacture of gas in Oakland, nor to the larger history of the PG&E Company.

Criterion 2 (People)

The architect for 50 Market Street is unknown. No persons of historical significance are known to be associated with the building or with the operation of the MGP during its years of operation. Therefore, 50 Market Street is not associated with any people known to be historically significant.

Criterion 3 (Architecture)

Historically, 50 Market Street was part of a complex of buildings and structures that were collectively known as the Oakland MGP. The majority of these buildings and structures have been removed, leaving only a small storage shed and a switch building. Today, the switch building operates as an electrical monitoring station for subterranean gas lines passing between the building and the Embarcadero roadway. It lacks sufficient architectural detail to communicate its association with the former, larger facility. Individually, it is utilitarian in design and is not associated with a prominent architect or engineer. Because of the lack of physical context, it no longer conveys a sense of its original purpose. 50 Market Street is not historically significant under Criterion 3.

Criterion 4 (Information Potential)

50 Market Street does not appear to have the potential to yield more information, and it therefore does not appear eligible under Criterion 4.

Container Cranes

Historical Context

Port Development on San Francisco Bay

San Francisco Bay has long been an important shipping center on the West Coast. The advantages of the natural harbor and extensive river delta system were discovered by early European explorers in their first expeditions in the 17th century. With natural protection plentiful in the shallow bay, connections to major rivers such as the Sacramento and San Joaquin and minor rivers such as the Napa, and numerous shallow, protected berths, it has served commercial interests since this early time.

When gold was discovered near Sutter's Mill on the South Fork of the American River in Coloma, California in 1848, San Francisco was already a regular stop for ships coming from South and Central America. The region's subsequent explosion in population only solidified the San Francisco Bay's importance as a transportation and shipping destination. Improvements in technology and expansion of transportation options, such as completion of the Transcontinental Railroad in 1869 and the opening of the Panama Canal in 1914, brought dramatic increases in population and shipping traffic to the entire San Francisco Bay Area.

Initially, this growth was primarily seen along the San Francisco waterfront, although when the Transcontinental Railroad established its western terminus in Oakland, the Port of Oakland was developed to provide a final leg in the shipment of goods from the east coast to points west and south. It served to shuttle goods from the railyards in Oakland to the shipping wharves in San Francisco. This development occurred south and east of the area now occupied by the eastern span of the San Francisco-Oakland Bay Bridge, between the rail yards and the bay waters.

Maritime Industry in Oakland: 1900-62¹⁷

In order to entice the Central Pacific Railroad to locate the terminus of its transcontinental line in Oakland, Horace Carpentier, a prominent figure in the early history and development of Oakland, struck a deal with the railroad that essentially guaranteed control of Oakland's prime waterfront lands to the railroad. As a result, development of the waterfront for commercial and shipping purposes remained slow and mired in legal battles while San Francisco's shipping industry boomed. Indeed, by 1909 only "two wharves and several small freight sheds adjoining the Webster Street Bridge comprised the municipality's total port development."

This began to change as Oakland's population rapidly expanded following the earthquake in 1906, the end of World War I in 1919, and the boom years of the 1920s. During this time, legal victories by the City freed them from the legacy of Carpentier's earlier dealings with the railroads, two more transcontinental rail lines brought goods in and out of the city, and a number of processed food companies located canneries along the East Bay waterfronts. Also during this time, the City invested heavily in the waterfront to develop it into a real competitor with its neighbor to the west.

One of the first and costliest improvements was construction of a quay wall from Myrtle Street to Broadway. Constructed in two phases in 1910-11 and 1912-14, it cost over \$1.4 million and included massive dredging of a deep water shipping channel with the resulting fill used behind the quay wall to extend the city-owned land 150 feet farther into the estuary. Wharves and warehouses followed over the next 20 years, transforming marshland into a modern port.

After the opening of the Panama Canal (1914) and the end of World War I (1919), global shipping became more common. At the time, this consisted primarily of European and transpacific international trade, combined with intercoastal and regional river commercial trade. California was quickly becoming an agricultural powerhouse, shipping fresh and processed foods across the country and around the globe and Oakland was primed to expand with the increased demand.

The Port of Oakland: 1927-62

The Port of Oakland was established on February 27, 1927, with the passing of the Port of Oakland charter amendment. At that time, shipping industries along the Oakland waterfront began transforming from operator-owned, privately held enterprises to a comprehensively managed set of facilities operated by a "self-supporting, autonomous branch" of the City of Oakland.¹⁸ In 1929, the U.S. Treasury Department designated Oakland as a full port of entry with customs service. By the mid-1930s, Oakland was a regular port of call for nearly 30 steamship lines. Between 1928 and 1937, despite the worldwide depression, tonnage handled by Port more than tripled, from 316,377 tons in 1928 to 1,166,664 tons in 1937."¹⁹

In the boom years following World War II, changes in shipping technology necessitated changes in ports around the globe. Technological advances in ship building and goods transportation developed for wartime usage were quickly modified and expanded for use in the private sector. Ships got larger and faster. Ports also had to grow to

¹⁷ The following section is summarized from material presented in the 1994 HABS documentation for the Grove Street Pier as well as *Pacific Gateway: An Illustrated History of the Port of Oakland*, both prepared by Woodruff Minor in cooperation with the Port of Oakland.

¹⁸ Minor, 2000.

¹⁹ Minor, 1994.

accommodate the new ships – deeper channels, more warehouses, more manpower to load and unload the expanding tonnage of cargo.

At this time, Oakland was a typical break-bulk cargo port. All goods came in on ships and were unloaded and stored in warehouses until they could be loaded onto trucks or trains. Goods that arrived in crates were opened and distributed to warehouses, then reloaded for delivery to their final destinations. The work was labor and time intensive. With increasing numbers of ships and amounts of goods being shipped around the globe, the port moved to the more efficient system of containerized shipping.

Containerized shipping was pioneered by the Sea-Land Company in New Jersey in 1956. In this method, goods were placed in large, sealed containers that were carried, unopened from ship to rail to truck. Only upon arrival at their final destination would they be opened up for distribution. As a result, shippers needed to move containers only, rather than individual goods. The containers were heavy and necessitated development of a new type of dockside crane to enable easy transport onto and off from the ships. The first such container crane in the world was developed by the Pacific Coast Engineering Company (PACECO) and first used at the Encinal Terminal in nearby Alameda in 1959.

Era of Transformation: 1962-77

With the advent of containerized shipping, Oakland grew to a world-class shipping center through innovative business relationships, strategic growth and adaptation of new technologies. This came about through a combination of landside development including large-scale reclamation efforts, water-side improvements (dredging), and installation of shore-side cranes to quickly handle the large, standardized shipping containers. The work began in earnest in 1962 with the opening of the Sealand Terminal on the Outer Harbor and accelerated in 1966 with installation of the Port's first landside container shipping cranes: two PACECO A-frame cranes. This area was eventually expanded to 59-acres, three berths, and four cranes.²⁰

The success of the Sealand Terminal was followed by the simultaneous development of the Seventh Street Terminal and the American President Lines Terminals. Between 1965 and 1974, the completion of these terminals added 221 acres, at least seven berths, and at least seven more container cranes.²¹ It was during the expansion of the Seventh Street Terminal out into San Francisco Bay that the Port was required to utilize low-profile cranes to limit interference with air traffic at Naval Air Station (NAS) Alameda. Crane X-422 was part of this terminal development.

The final transformation of the Outer Harbor area from break bulk to containerized shipping occurred with completion of the TransBay and Maersk Terminals in 1977. This expansion replaced the Seventh Street Unit, the Oil Pier, and the Fourteenth Street Unit with the two-berth, two-crane, 29-acre Outer Harbor Container Terminal (renamed the TransBay Container Terminal in 1986) and the one-berth, three-crane, 36-acre Maersk Terminal. Both began operation in 1977.²²

This expansion was overseen by Port of Oakland Executive Director, Ben E. Nutter (1962-77). Under his direction, the port assumed nearly the entire expanse of its current geographic size (with the exception of the

²⁰ Minor, 2000

²¹ Ibid.

²² Ibid.

Howard Terminal expansion in 1982 and 1994). It was during this period that Oakland rose to become the second largest container port in the world (by volume).²³ It was through his skill as a negotiator and businessman that many of the important shipping contracts and relationships between the Port of Oakland and its overseas partners were forged. This enabled expansion of facilities and regional dominance by the Port of Oakland.²⁴

Development of the Container Crane

The first modern container crane was developed by PACECO for the Matson Corporation and was installed in 1959 at Encinal Terminal in Alameda, directly across the estuary from the Port of Oakland.²⁵ As early as 1960, the Port of Oakland Board of Commissioners recommended installation of two such cranes, but it took several years before they followed through.²⁶ However, by the close of the decade, the Port of Oakland had installed eight container cranes, most manufactured by PACECO of nearby Hayward.²⁷

This first generation of container cranes at the Port of Oakland are known as Panamax cranes. Panamax is a class of size limits for ships traveling through the Panama Canal. These specifications have been in place since the opening of the waterway in 1914 and are in direct response to the size of the locks within the canal system. Ships larger than these standards are known as Post-Panamax vessels. When a third, much larger set of locks opened in 2016, many of the Post-Panamax class of ships gained access to the canal. Presently, those ships still too large to access the Panama Canal are known as Super Post-Panamax or Super-Panamax ships.

Since installation of the first generation of cranes at the Port of Oakland, continual changes to the port have been necessary to accommodate the growing size of containerized cargo ships. This has included dredging in the estuary and along the wharfs to allow for the increase draft of the larger ships as well as installation of cranes that can handle a higher reach and across a wider vessel beam. Oakland currently has 33 cranes: three Panamax cranes (X-415, X-416, and X-422, located on the project site), 15 Post-Panamax cranes, and 15 Super-Panamax cranes. In addition, three inoperable Panamax cranes (X-402, X-403, and X-404) are slated for demolition.

Howard Company & Howard Terminal

The Howard Company operated on a 17-acre site on the Estuary waterfront at the foot of Filbert Street. The company began in 1900 as a coaling station and depot for building materials and diversified as local demands changed with the growing population. It continued to expand through the 1920s and 1930s as a privately owned terminal on privately owned land.²⁸

Immediately adjacent to the Howard Company Terminal was the municipally owned Grove Street Terminal. It consisted of the Grove Street Pier, Market Street Pier, Clay Street Pier, and the quay wall. During World War II, nearly all of the Port, *except* the Grove Street Terminal, came under Navy control. Following the war, in 1956, the Port leased the Grove Street Terminal to the Howard Company. At that time, operations at the Grove Street Terminal were combined with Howard Terminal, and the entire complex was operated as Howard Terminal. The

²³ Port of Oakland, 1969.

²⁴ Expansion during this period was so rapid, the Board of Commissioners adopted special emergency provisions to enable streamlined processing for the acquisition of container cranes. Under these provisions, all cranes were ordered from the Pacific Coast Engineering Company (Port Board of Commissioners Meeting minutes-7/17/1967, 4/7/1969, 9/17/1969, 10/15/1969, Pacesco, Inc, 12/2/1969)

²⁵ AMSE, 1983.

²⁶ Details regarding discussions concerning, and contracts awarded for the cranes are from the Port of Oakland Commissioners Meeting Minutes, October 17, 1960.

²⁷ Port of Oakland, 1969.

²⁸ Minor, 1994.

Howard Company operated the terminal until 1974, when it ended its lease on the Grove Street Terminal and sold its original site to the Port of Oakland.

After gaining control of the entire site in the mid-1970s, the Port of Oakland undertook redevelopment of the site. This included removal of many of the breakbulk sheds, expansion of the wharf further into the estuary with replacement of most of the 1912 quay wall, and installation of two new Panamax Hitachi shipping cranes along the waterfront (cranes X-415 and X-416). The new terminal was named the Charles P. Howard Terminal in honor of the owner of its longest occupant. The terminal was expanded further in 1995 with the removal of the Grove Street Pier, development of the wharf, and replacement of the final section of the original 1912 quay wall.

Crane X-417 was installed in 1987, and Crane X-422 was relocated to Howard Terminal from Berth 39 in 1994.

The facility continued operations as a container terminal until 2013. In early 2014, it was closed for vessel loading/unloading as part of a strategic plan by the Port of Oakland to consolidate marine terminals. This was undertaken in response to changing economic demands on ocean carriers and their marine terminal affiliates serving the West Coast. While Howard Terminal remains a viable terminal facility, it is not desirable for loading/unloading due to its relatively small size (50 acres), older cranes (X-415, X-416, X-417, and X-422), and the physical constraints of its surrounding neighborhood.

Eligibility Analysis – Cranes X-415 and X-416

Cranes X-415 and X-416 were installed in 1981 as part of the development of the present-day Howard Terminal complex. They were the first two cranes at the facility, and both are Panamax rated structures (**Figure 5**.) Because they are presently 38 years of age, they must be evaluated with special consideration for historical resources achieving significance within the past 50 years. This is similar to the provisions outlined for the National Register under Criterion G: Properties that Have Achieved Significance Within the Past 50 years. In addition to the regular criteria for listing, resources subject to special consideration because of age can be considered eligible only “if it can be demonstrated that sufficient time has passed to understand its historical importance.”²⁹

Criterion 1 (Events)

These two cranes are associated with the second period of expansion at the Port of Oakland (1978-99). This period spans the years between initial development of the containerized cargo operations beginning in 1978 under Port Executive Director, Ben Nutter, and 1999, when an order for 12 Post-Panamax cranes began the present-day modernization to accommodate new, larger classes of container cargo vessels.³⁰ This period of steady growth built upon earlier investments and led to later modernization efforts. Part of this steady growth was expansion of container cargo handling operations onto the newly redeveloped Howard Terminal in the early 1980s. At that time, one of the last break-bulk areas of the port was expanded and redeveloped into the present-day Howard Terminal, including installation of two new, Panamax container cranes, X-415 and X-416.

²⁹ OHP Technical Assistance Bulletin 7, 2001.

³⁰ “Port of Oakland to Welcome 379-Foot-Tall Cranes,” 2005.



SOURCE: ESA, 2019.

Figure 5
Cranes X-422 (prone) and X-416 (articulated), looking west at the Project site.

While the opening of Howard Terminal in 1982 was met with great enthusiasm, cranes X-415 and X-416 are associated with a more recent period of development for the Port of Oakland. While the Port continued to expand during this time, the cranes and the Howard Terminal site were not instrumental in that expansion or in the technological advancements required to transition to a modern container port facility. Consequently, cranes X-415 and X-416 do not qualify for listing under Criterion 1.

Criterion 2 (People)

Cranes X-415 and X-416 are not known to be associated with any persons of historical significance. Therefore, they are not eligible for listing under Criterion 2.

Criterion 3 (Architecture)

These two cranes are Hitachi Panamax cranes, similar in dimensions and capabilities to the first-generation container cranes and smaller than the Post-Panamax that came to dominate the Port in the early 2000s. Cranes X-415 and X-416 are two of six remaining Panamax container cranes currently at the port. Three are slated for

demolition in late 2019. The remaining three Panamax cranes are found at Howard Terminal, within the project site. The Hitachi cranes are articulated cranes, similar to the later cranes that now dominate the port waterline. At 38-years of age, they are the oldest articulated cranes at the port.

These cranes are of a common type, if not of a common size, found at the Port of Oakland. They are also a common type and size of crane found at many smaller ports throughout California and the United States. Their current age (38 years) and common design render cranes X-415 and X-416 ineligible for listing under Criterion 3.

Criterion 4 (Information Potential)

Cranes X-415 and X-416 do not appear to have the potential to yield more information and, therefore, do not appear eligible under Criterion 4.

Eligibility Analysis - Crane X-417

Crane X-417 was installed at Howard Terminal in 1987. It is a Kumming Shipbuilding Equipment Company, Ltd. (KSEC) Post-Panamax articulated crane. It is one of 15 such cranes at the Port of Oakland. Its age and relatively abundant type do not qualify it for further evaluation as a historic resource.

Eligibility Analysis - Crane X-422

The Port of Oakland today is a reflection of strategic business partnerships, physical expansion, and technological advancements initiated by Ben Nutter during his time as Executive Director (1962-77). It is during this period that the Port assumed much of its current geographic extent and rose to become the regional economic generator that continues to shape the Bay Area. Crane X-422 was originally installed in 1970 at Berth 39 along the Outer Harbor terminal as part of this initial period of development and expansion. (Berth 39 no longer exists.) It is a PACECO, low-profile 40 long-ton, Panamax Portainer crane and will soon be the only crane remaining from this era of transformation.

Criterion 1 (Events)

Crane X-422 is associated with the early development of containerized shipping at the Port of Oakland and Ben Nutter's term as Executive Director (1962-1977.) By the end of 2019, it will be the last remaining first-generation crane from this period. At the time of its installation in 1970, the Port of Oakland was expanding greatly and had become the second largest container port in the world. This was primarily due to the early and prolific adoption of landside container cranes to accommodate the increasing containerized cargo ship traffic along the West Coast of the United States. The port's capacity to handle the largest ocean-going ships and its early and strategic international business relationships helped to establish the Port of Oakland as a major shipping center.

While these types of cranes were a typical feature in the Port of Oakland and at many ports throughout the Bay Area and around the world, very few currently remain. As ships grew larger, newer and larger cranes were developed and installed accordingly. Most examples of these early cranes have been removed and replaced with more modern equivalents. At the Port of Oakland, only four first-generation container shipping cranes of this era remain: X-402, X-403, X-404, and X-422. However, cranes X-402, X-403, and X-404 are slated for demolition in late 2019,³¹ which will leave X-422 on the project site as the last remaining crane associated with the 1962-77

³¹ These three cranes were evaluated by CH2M Hill in 2016. At that time, they were found to not qualify as historical resources for the purposes of CEQA, and demolition procedures were initiated.

era. As such, it will be the lone representative of this important period in the growth of the Port of Oakland, a major economic force for the entire San Francisco Bay Area.

For these reasons, crane X-422 qualifies as a historic resource under Criterion 1 for its contribution to broad patterns of history that have shaped the City of Oakland and the larger San Francisco Bay Area.

Criterion 2 (People)

Crane X-422 is not known to be directly associated with any persons of historical significance. Therefore, it is not eligible for listing under Criterion 2.

Criterion 3 (Architecture)

Crane X-422 is a low-profile, first-generation PACECO Portainer crane. It will soon be the only crane of its type remaining in the Port of Oakland. Low-profile cranes were required by the Navy to limit intrusions into the flight takeoff and landing zone associated with Naval Air Station Alameda (NAS Alameda). This restriction remained in place until 1997 when NAS Alameda closed. The Portainer type, now widely used, was a design that appeared approximately 10 years after the first PACECO container crane was installed at Encinal Terminal in Alameda in 1959. Cranes X-402, X-403, and the slightly later X-404 are similar to the original PACECO design while Crane X-422 represents the evolution of crane design over the first decade of containerized shipping.

When crane X-422 was relocated to Howard Terminal in March 1994, its lifting deck was raised 26 feet. Other modifications made to the crane include:

- Rail gauge increased from 96 feet to 100 feet (1993-1994)
- Mechanical and safety systems modified (1993-1994)
 - Power supply changed from cable and reel to underground collector
 - Operator's cab replaced
 - Personnel elevator installed
 - Upper chord pressure differential safety system was installed
 - Trolley rope tensioning system installed
 - Snag load safety system installed³²

As one of the few remaining cranes of its type, crane X-422 is an example of the early evolution of container crane design. However, the modifications noted above have impacted the design integrity of crane X-422 to a degree that it does not appear eligible for listing on the California Register under Criterion 3.

Criterion 4 (Information Potential)

Crane X-422 does not appear to have the potential to yield more information and therefore, does not appear eligible under Criterion 4.

³² Information provided by Port of Oakland staff.

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Subject Historical Evaluation of Crane X-422, Port of Oakland, Alameda County, California
Attention Diane Heinze, PE, Port of Oakland
From Jeremy Hollins, MA and Mark Bowen, MA, Jacobs Engineering Group Inc. (Jacobs)
Date June 25, 2019

1. Introduction

At the request of the Port of Oakland (Port), Jacobs Engineering Group, Inc. (Jacobs) prepared this historical evaluation of Crane X-422 memorandum in accordance with the significance criteria for the California Register of Historical Resources (CRHR) and the definition of a historical resource for purposes of the California Environmental Quality Act (CEQA). The City of Oakland is completing historical resources studies as part of the CEQA technical studies for the Oakland Waterfront Ballpark District Project (project) Environmental Impact Report. The project is considering the construction of a new stadium and associated mixed-use development at the Charles P. Howard Terminal within the Port in Alameda County. This memorandum has been completed in accordance with Section 15064.5(a)(2)-(3) of the CEQA Guidelines using the criteria outlined in Section 5024.1 of the California Public Resources Code.

This memorandum includes a summary of the field and research methodologies completed in May and June 2019, an evaluative historic context for Crane X-422, and an historical evaluation of the structure. Based on background research and field surveys, this memorandum concludes Crane X-422 does not appear to be meet the criteria for listing in the CRHR or meet the definition of a historical resource for purposes of CEQA.

2. Field and Research Methodologies

All fieldwork and research were completed by investigators who meet the Secretary of the Interior's professional qualification standards in history and architectural history. See attached resumes.

On June 13, 2019, Mark Bowen completed a reconnaissance field survey of Crane X-422, as well as its current setting within the Howard Terminal at the Port. As part of the survey, alterations and modifications to the structure were identified to assess changes to its physical and historic integrity, based on a review of historic plans, photographs, and images. Field notes and photographs documenting the structure and setting were completed.

Between May and June 2019, Mark Bowen and Jeremy Hollins completed primary and secondary source research on Crane X-422 and the overall history of the Port. Research was completed at/with the following repositories and sources:

- Port Archives
- Port Crane Department records
- Site visit with Port Crane department staff

- Historic newspaper databases
- City of Oakland library
- Journals and professional publications and databases
- Sanborn Fire Insurance Maps
- Historic maps and aerial photograph websites
- Discussions and research requests with Port staff and knowledgeable individuals

Information that was reviewed included (but is not limited to) various reports and studies, trade literature and publications, government publications, historic plans and specifications, Port Commissioner meeting minutes, Port newsletters, and newspaper articles.

3. Evaluative Historic Context

To properly assess the potential historical significance of Crane X-422, the following provides an evaluative historic context for the structure, which was erected in 1970 at Berth 35 at the 7th Street Terminal (now known as Ben E. Nutter Terminal), relocated to Berth 38 in 1991, and relocated again in 1994 to the Howard Terminal. The major historic themes discussed in this historic context include:

- Organization and initial growth of the Port's seaport
- Post-World War (WW) II transformation of the Port
- Containerization in the U.S. and Oakland
- Utilization of gantry (ship to shore) cranes
- The 7th Street Terminal

Organization and Initial Growth of the Port's Seaport

Initial development of the Oakland waterfront was spurred by the Central Pacific Railroad, which ultimately established the city as the western terminus of its transcontinental railroad line in 1868. Through the beginning of the 20th century, the railroad held a monopoly of waterfront land through a partnership with Horace Carpentier, who created the Oakland Waterfront Company. However, while the railroad had substantial right-of-way and acreage for yards and terminals within the waterfront, San Francisco remained the leading port in California during this period through construction of numerous piers, seawalls, rail terminals, beltlines, and a ferry terminal (Minor, 2000).

To challenge San Francisco's primacy as the Bay Area's main port, Oakland lobbied for harbor improvements throughout the 1860s to 1900s that included dredging projects, jetty and seawall construction, and tidal canals. Funding for this work remained sporadic, relying on appropriations from the U.S. Congress, state lawmakers, and the U.S. Army Corps of Engineers (Minor, 2000). As navigation within the harbor improved and the eastern part of the San Francisco Bay developed a reputation for shipbuilding, increases in freight and shipping helped Oakland grow as a seaport, with increased shipments of lumber, sugar, coal, iron, and perishable goods (Minor, 2000).

Between 1900 and the 1920s, a shipping boom occurred in the Bay Area sparked by the completion of the Panama Canal that significantly increased shipping speeds and led to the development of larger ships. San Francisco remained the primary port in the area; however, the Port of San Francisco could not keep up with tonnage entering its harbor, leading to vessels being diverted into the East Bay (Minor, 2000). During this period, Oakland developed a municipal port administration which was eventually formally organized in 1925 as the Port. To foster the Port's growth during this shipping boom, city leaders coordinated with the railroads to free up waterfront access along the western shoreline, annex and reclaim tidelands for port expansion, and established municipal docks and wharfs (Minor, 2000).

These improvements led to the Port administrators leasing land to a mixture of tenants and the establishment of privately-owned cargo facilities, transit sheds, warehouses, packing sheds, and rail spurs within the Port that focused on shipping and importing bulk commodities (Minor, 2000). As development continued, the Port organized its landscape into districts for more efficient management. The east part and estuary areas became known as the Inner Harbor, and the western part of the Port

included the Outer, Middle, and Northern harbors. The Port focused development at the Outer and Middle harbors, with the Outer Harbor serving as the shipping center. By the 1930s, the Port managed over one million square feet of warehouse and storage spaces in the Outer Harbor (Minor, 2000).

Growth remained steady within the Port through the Great Depression during the 1930s with total tonnage increasing nearly five times from 316,377 tons in 1928 to over a million tons by 1940 (Minor, 2000). The U.S.'s entry into WW II transformed the Port from commercial and freight uses to largely supporting the war effort. The Port became a major military port with Army and Naval bases occupying the waterfront (and the Oakland Airport), the military taking over most existing maritime facilities, and sprawling shipyards that produced new cargo ships, troop transports, minesweepers, and tugs (Minor, 2000). In Alameda, located immediately south-southeast of the Outer Harbor, the military had occupied the former airport since 1936 and expanded its naval air station considerably during the war. Naval Air Station Alameda remained in use by the Navy until 1997 serving as the home of numerous aircrafts and carriers throughout the mid to late 20th century (Alameda Naval Air Museum, 2019).

Post-WW II Transformation of Port

Following WW II, the waterfront reverted back to control of the Port administration, and its leaders started chartering aggressive long-range development plans that would expand the Outer Harbor, develop the North Harbor, and add piers and sheds along the Inner Harbor (Minor, 2000). The Port remained smaller to San Francisco's seaport both in size and tonnage during the initial postwar years, but Port leaders remained forward-thinking on how to transform and expand the waterfront's uses and industries.

Freight transportation and shipping remained a critical activity at the Port following WW II, which ultimately created a bustling waterfront filled with workers completing the litany of jobs needed to load and unload vessels at berths and piers. Prior to the rise of containerization, break-bulk terminals handled ship cargos. This method had been used since the initiation of shipping activities at the Port, and required crews of workers to physically remove cargo from ships, whether by hand or using equipment like lifts, conveyors, and rail belts, and then storing them in transit sheds and large warehouses that lined the waterfront (American Society of Mechanical Engineers (ASME), 1983). As ships increased in size and loads, this proved to be labor intensive as it could take between one to three weeks to fully unload a vessel (Sorenson, 1975; Rosenstein, 2000; ASME, 1983). All cargo required readying before being unloaded, attaching rigging to the cargo, and then transporting the cargo into transit sheds and warehouse spaces. Accidents frequently occurred, and longshoremen injuries were typical, which was one impetus for unionization of the trade (Rosenstein, 2000).

Through the post-WW II period, the industry lacked standardization in methods, equipment, and piers, which affected the speed and efficiency of unloading cargo. It became challenging for shipping companies to estimate the turnaround time for ships, with companies realizing the majority of their cost was "spent on the pier" from laborers and increasing the likelihood of damage to freight (Rosenstein, 2000). Over time, new practices, including "roll-on/roll-off" transport, were developed that used wheeled carts to move freight into trucks or flatcar railroads (Rosenstein, 2000).

By 1949, the Port had developed substantial truck and railroad infrastructure for moving freight in and out of the Port. Additionally, California's post-WW II improvements to its highway system, such as the development of the Eastshore Freeway and Interstates 80, 580, and 880, sped the movement of trucks entering and exiting the Port and facilitated greater access to the waterfront (Rosenstein, 2000). This allowed the Port to embrace an intermodal system that would drive development over the next coming decades. Meanwhile, at the end of the 7th Street mole, the Southern Pacific railroad continued to operate ferry service to San Francisco until 1958.

As freight improvements continued with better loading/unloading methods and greater transit access, a major technological innovation in the late 1950s helped Oakland firmly establish itself as the preeminent port in the Bay Area: containerization.

Containerization in the U.S and Oakland

The wide-scale use of container ships not only improved the efficiency of transporting freight, but also transformed the actual landscape and appearance of ports throughout the U.S. Containerization brought a new mechanized speed to cargo handling. Earlier mechanization of the industry relied on conveyor belts and lifts to move freight on/off ships; however, shipping still relied heavily on large numbers of longshoremen to load or break down a vessel over a several week period (Minor, 2000; Brooks et al., 2018). Containerization is premised on a simple practice: packaging freight and goods into standardized containers that can be easily transferred from ship to truck or rail (Brooks et al., 2018). This greatly simplified and accelerated packing, transit, pricing, transfers, as well as reduced losses and damage to cargo and caused massive increases in global trade (Brooks et al., 2018).

While earlier attempts to move goods in containers existed prior to the 1950s (primarily by the military and the railroads), successful containerization is largely attributed to Malcom McClean in 1956. McClean was originally a trucker by trade who grew his company into the second largest trucking firm in the U.S. by the 1950s. After getting frustrated with financial losses from long unloading times incurred at ports, he decided to purchase a steamship company to experiment with moving full containers from ship to shore. He accomplished this in April 1956 when his new enterprise, Pan-Atlantic Steamship Corporation (renamed three years later as Sea-Land Services, Inc.(Sea-Land)) moved 58 trailers from Newark, New Jersey to Houston, Texas (Bonney, 2001).

McClean's new service was an immediate success. Shipping costs dropped from \$4-5 dollars/ton to \$0.20 cents/ton (Rosenstein, 2000). Additionally, the time required to unload/load a ship dropped from weeks to hours and with fewer laborers needed and less opportunity for theft (ASME, 1983).

The shipping industry took notice of McClean's newfound efficiencies and adapted his intermodal model (Rosenstein, 2000). On the west coast, Matson Corporation initiated container shipping activities in 1958. The Port of San Francisco's aging infrastructure and small finger piers were not conducive to the large-scale ships and space needed for containerized shipping, so Matson started container operations in Alameda. In January 1959, Matson constructed the world's first high-speed dockside container crane in the Bay Area at the Encinal Terminal in Alameda (Minor, 2000).

Containerization first occurred at the Port in June 1962. Sea-Land started operations at the 14th Street Terminal, converting a former break-bulk terminal to now serve larger ships and utilize cranes and loaders (Sorensen, 1975).

In Oakland, several factors were the catalysts for this shift in technology:

- Decision by the International Longshoremen's and Warehousemen's Union (ILWU) to accept the Mechanization and Modernization Agreement
- Support of port leadership embracing containerization and government support
- Selection of Oakland by Sea-Land
- Economic assistance and infrastructure incentives provided by the Bay Area Rapid Transit District (BART) and Economic Development Agency (EDA) (Rosenstein, 2000)

Containerization was seen as a threat by the longshoremen not only at the Port, but worldwide. Various sources report ILWU members refusing to assist unloading containers in 1959 and 1960 at several ports, hoping to disrupt the operational success of the new practice (Rosenstein, 2000). The Port needed "consent of labor" to ensure containerization's permanence on the waterfront (Rosenstein, 2000). For years, ILWU members resisted nearly all new methods of cargo handling for fear of losing jobs. Potentially sensing the force of change was inevitable, the ILWU in 1959 brokered an understanding with the Pacific Maritime Association and the Port which established a Mechanization and Modernization Fund that provided lifetime and improved benefits to union workers (Rosenstein, 2000). This agreement allowed the freight companies to achieve "consent of labor" and containerization's benefits of reduced labor, while union workers were satisfied with the financial security they gained.

The rise of containerization in Oakland coincided with the career of Ben E. Nutter, who was first hired as an engineer in 1957 and then served as executive director of the Port from 1962 to 1977. Nutter provided the engineering and management leadership that effectively implemented containerization, based on his understanding of shoreside container handling. Prior to his appointment as executive director, Nutter oversaw terminal construction in Honolulu for Matson. (Minor, 2000).

Nutter drove Oakland's path to containerization through coordination and planning with Port commissioners, Asian investors and maritime officials, and securement of revenue bonds. His efforts proved fruitful as Nutter, along with the Port's representative for Japan, persuaded six Japanese steamship companies to base their operations in Oakland instead of in San Francisco in 1968 (Rosenstein, 2000; Minor, 2000). Perceiving the importance of Japan and Asia in the future of shipping, Nutter had a Port office and representative stationed in Japan during the 1960s and 1970s. Under Nutter, total tonnage of the Port increased from 2.5 million tons in 1962 to over 10 million tons by 1977, and Oakland became the second largest port in the world based on total tonnage, behind New York (and finally overtaking San Francisco) (Minor, 2000; Brooks et al., 2018; Port of Oakland, 1988).

The new Port administration, led by Nutter, worked with the Federal Marine Commission (FMC), to expand the capabilities of the Port using both private and public funding. In 1962, Sea-Land signed a preferential lease with the Port for a 650-foot section of an Outer Harbor berth and exclusive use of six acres for staging. To support this, the Port received federal funding for a new truck terminal. In 1966, the FMC approved a lease agreement between the Port and Sea-Land to develop 24 acres and construct two deepwater berths, partially funded by a \$3.2 million improvements revenue bond. Once this project was complete, Sea-land and the Port immediately negotiated development of another 14 acres (Rosenstein, 2000; Port of Oakland, 1967).

These developments with Sea-Land invoked civic pride in Oakland and led to major celebrations. Large public events celebrating the freight and shipping industry were held at the Port beginning in 1962 and every year following a major new development or improvement until the late 1960s. The new facilities were also frequently touted in the local newspapers and Port newsletters, boasting of the Port's new technologies and ability to load and unload containers in record-breaking speed (Port of Oakland, 1967, 1969, 1970, 1971).

Containerization remarkably changed the landscape and historic appearance of the Port beginning in 1962. As part of this, gantry (ship to shore) cranes also became part of the landscape which provided the necessary mechanism to transport containers between ships and the shore.

Utilization of Gantry (Ship to Shore) Cranes

Since the nascent period of containerization, cranes have been used to facilitate the transport and unloading of containers. During the initial period of container shipping, ship-based cranes were first used by McLean and Sea-Land. Land-based (or dockside) cranes were not initially used, since the industry lacked standardization and most existing wharfs could not handle the larger heavier loads from containers. Additionally, the ship-based cranes could be used at ports without shoreside facilities (Sorensen, 1975; Rosenstein, 2000; ASME, 1985). The challenges were that original containerships were modified tankers (not initially constructed for container use), and the ship-based cranes took up valuable deck space. To unload these early vessels, the ship-based crane would hoist up a crane and lower it on an empty trailer that would be rolled up alongside the ship and then driven to a yard (Sorensen, 1975; Rosenstein, 2000; ASME, 1985). While a definite improvement over the break-bulk methods of pre-WW II shipping, peak efficiency had not been reached and there was still risk in damaging cargo, since containers and trailer sizes were not frequently consistent. Companies like Matson realized that if they could operate in just a few ports, they could develop land-based cranes that would be compatible with the ships and containers they used (Rosenstein, 2000).

In 1958, the Pacific Engineering Company (PACECO) was awarded the contract by Matson to develop and construct the first land-based (or dockside) container crane. (PACECO remains the largest supplier of cranes world-wide .) The project was led by company president Dean Ramsden, chief engineer Chuck

Zweifel, and assistant chief engineer Murray Montgomery (ASME, 1985). The crane included an A-shaped frame, operator's cab, and all-welded box girders (avoiding use of trusses) (ASME, 1985). Able to handle a container weight of 20 tons and 400 tons per hour, PACECO's design became the standard for the structure with constant improvements and design modifications made to each one. The first crane was delivered to the Encinal Terminal in Alameda and was in use through the 1980s, following several modifications (ASME, 1985). In 1983, it was recognized as an ASME landmark which included a plaque dedication in May. In 1987, it was relocated to the Port of Nanjing, China (ASME, 1985).

Oakland did not receive its first land-based cranes until 1961, and they were not PACECO cranes. Instead, in October 1961, Washington revolving (or "whirling") gantry cranes were added to the former Howard Terminal. The cranes cost \$300,000 and were for both handling scrap metal and for moving 20-ton containers (Rosenstein, 2000). They differ from the PACECO cranes since they did not have an A-Frame or operate on a track, and were considered "whirling" because the cab and lift could complete full revolutions. The Port recognized the value of land-based cranes early on. Since they handled heavier loads, accurately placed containers on the holds of trailers, and minimized the risk of injury to laborers.

The first two PACECO cranes were added to the Port in 1966 at Sea-Land in the Outer Harbor. Improvements were constantly made to the PACECO cranes over those initial five years, increasing their height to 22 stories (with the boom fully raised) with an ability to lift 50 tons (*San Francisco Examiner*, 1967). By the end of the 1980s, at least 737 PACECO cranes operated in 200 ports making them common sights along industrial waterfronts.

Crane X-422 was the second of three low-profile cranes that were initially added to the Port due to the height restrictions from the Alameda naval base. Crane X-421 was first and added in 1968 and X-423 was added in 1971 (Port of Oakland, 2019). PACECO had built other low-profile cranes before this in Elizabeth, New Jersey and Boston, Massachusetts. (PACECO, 1966)

The 7th Street Terminal

Containerization in Oakland progressed with the re-development of the 7th Street Terminal beginning in 1967 (completed in 1971). Nutter and the Port commissioners had a vision for transforming the former Southern Pacific mole into a preeminent container facility. To accomplish this, they saw opportunity in coordination with BART and EDA (Rosenstein, 2000). The 7th Street Terminal would require significant fill materials and labor to expand out on the tidelands, while at the same time construction of BART required an easement for a transbay rail station and a place to dispose of dredged material from tunneling under San Francisco Bay and other construction (Rosenstein, 2000). In return for an easement and access along 7th Street as well as the removal of structures in the way of the transportation system, the Port received 5.3 million cubic yards of material that could be used to dike and fill 140 acres of tidelands. To construct this, the Port utilized funding and incentives from the EDA, which was established to increase labor opportunities in the Bay Area (Rosenstein, 2000).

The 7th Street Terminal was selected as the location for the Port expansion due to a 60-foot water depth in the bay at this location, with enough space to dredge further if needed. All ships were expected to be able to enter the terminal, unload, and depart within 36 hours. Seven privately-operated berths were initially added to the terminal, along with four public berths. Large tenants included Sea-Land and Matson and the terminal was critical to capture the Asian shipping market that Nutter saw as the backbone of the Port's revenue (Port of Oakland, 1971).

Nutter and the Port expected the construction and operation of the 7th Street Terminal to add 15,000 new jobs that would create \$116 million annually in wages (Port of Oakland, 1967). The \$33 million project would increase shipping capacity by over 1.5 million tons in the first couple of years alone when portions of the facility come online between 1968 and 1969, eventually reaching 3 million more tons by 1980. The project was designed and constructed by Kaiser Engineers (Port of Oakland, 1967).

The rise of containerization not only changed the economics of Oakland's port, but also caused major changes in the landscape. As seen in large projects like the 7th Street Terminal, containerization

operations required ports to modify their design, construction, and appearance. On the ship-side, larger vessels (now nearly 600-700 feet in length) required docks, piers, and wharfs to be stronger, constructed of reinforced concrete, and more monumental in scale (Sorensen, 1975; Rosenstein, 2000). On the shore side, large flat and open yard areas were needed for container storage, necessitating removal of transit sheds and warehouses (Sorensen, 1975; Rosenstein, 2000). Since containers were typically stacked no fewer than three or four containers high, these areas required reinforced aprons with large footings to sustain heavier loads (Sorensen, 1975; Rosenstein, 2000). The complex and antiquated network of railroads lines and spurs were removed and replaced with more streamlined belt lines and drive-in/drive-out routes for trucks (Rosenstein, 2000). Fencing and lighting were added to secure cargo that were no longer stored in warehouses. (Sorensen, 1975).

Crane X-422 was erected in 1970 at Berth 35 within the 7th Street Terminal (Port of Oakland, 1992). It was added after the initial opening of the 7th Street Terminal and a year before construction ended. It was the fourth crane added to this terminal and the ninth land-based crane added to the Port. It was a “low-profile crane” and differed significantly from the typical A-frame gantry cranes located throughout the Port. Its location near the runway of the Naval Air Station Alameda required the crane to have a low-profile. The height of the crane was limited to 96 feet tall, since a mandatory 132-foot height limit existed for anything within the runway’s flight path (Port of Oakland, 2019). The restricted height, compared to other PACECO cranes in the Port that were taller than 200 feet, gave the structure a squat boxy form and a very different visual appearance than the taller A-frame cranes. The lift height for the crane was only 74 feet compared to the 100-foot lift height of the other cranes at the waterfront, which restricted its ability to work with vessels stacked with more than three or four containers. The crane extended 115 ½ feet outward towards the harbor and extended 182 feet back into the wharf. Additionally, the crane had a holding capacity of 40-ton, which was less than the typical 50-ton capacity of the other A-frame cranes (PACECO, 1967).

Based on Port newsletters, the fanfare associated with other cranes added between 1965 and 1970, especially at the 7th Street Terminal, diminished notably by the time of the commissioning of Crane X-422 on August 4, 1970 (Port of Oakland, 1970). The crane largely supported an established consortium of Japanese container lines, Marine Terminal Corporation, Johnson Lines, and United States Lines. Discussions with Port personnel as part of this study revealed that because of its inferior design, Crane X-422 was not as heavily used as other cranes and largely acted as a back-up crane through most of its history (Dingle, personal communication, 2019).

Following damages suffered during the Loma Prieta earthquake in 1989, Crane X-422 went out of service and was relocated to Berth 38. It briefly returned to service, although it was seldom used. By 1992, Crane X-422 was determined to be surplus property by the Port due to its limited functionality. Additionally, its 96-foot gauge crane rails were not used anywhere else within the 7th Street Terminal (standard was 100-foot), requiring extensive structural retrofitting to be completed if it were to be brought back into service (Port of Oakland, 1992, 1993, 1994). The crane was put up for sale; however, no firm proposals were received immediately. Marine Terminals requested permission to use the crane at another berth, but would need to modify the gauge from 96 feet to 100 feet, raise the lift height to 100 feet, replace the cab, increase hoisting speed, and change the power pick-up system (Port of Oakland, 1994; PACECO, 1993). These changes significantly modified its low-profile design. In 1993, the modifications were completed, along with replacing the headlock, raising it an additional four feet, and adding a snag line. It was barged to its current location at Howard Terminal in 1994. The Port continues to improve its operations, facilities, and infrastructure. Currently, the Port has 36 cranes.

4. Evaluation

The significance of Crane X-422 was determined by applying the procedures and criteria for CRHR eligibility and the definition of a historical resource for purposes of CEQA. A resource is considered to be historically significant if it meets any of the following criteria for listing in the CRHR (defined in Public Resources Code Section 5024.1, Title 14 California Code of Regulations, Section 4852):

- **Criterion 1:** It is associated with events that have made a significant contribution to the broad patterns of local or regional history or the cultural heritage of California or the U.S.
- **Criterion 2:** It is associated with the lives of persons important to local, California, or national history.
- **Criterion 3:** It embodies the distinctive characteristics of a type, period, region, or method of construction; or represents the work of an important creative individual; or possesses high artistic values.
- **Criterion 4:** Has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California, or the nation.

In addition to these criteria, a resource must retain sufficient historic integrity to be considered historically significant. Integrity is the authenticity of the physical identity that is evidenced by the survival of characteristics that existed during the resource's period of significance. Historical resources must retain enough of their historic character or appearance to be recognizable as historical resources and to convey the reasons for their significance. Integrity must be evaluated with regard to the retention of location, design, setting, materials, workmanship, feeling, and association. A resource that has lost its historic character or appearance may still have sufficient integrity for the CRHR if it maintains the potential to yield significant scientific or historical information or specific data.

As a property that was recently moved from its original location and less than 50 years old, Crane X-422 needs to be evaluated using the Special Considerations included in Section 4852 of the California Code of Regulations for these property types. The considerations for these property types include:

- **Moved buildings, structures, or objects:** The retention of historical resources on site is encouraged and the non-historic grouping of historic buildings into parks or districts is discouraged. However, it is recognized that moving an historic building, structure, or object is sometimes necessary to prevent its destruction. Therefore, a moved building, structure, or object that is otherwise eligible may be listed in the CRHR if it was moved to prevent its demolition at its former location and if the new location is compatible with the original character and use of the historical resource. An historical resource should retain its historic features and compatibility in orientation, setting, and general environment.
- **Historical resources achieving significance within the past 50 years.** In order to understand the historic importance of a resource, sufficient time must have passed to obtain a scholarly perspective on the events or individuals associated with the resource. A resource less than 50 years old may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance.

Based on Section 15064.5 of the CEQA Guidelines, historical resources included in a local register of historical resources, or identified as significant in an historical resource survey meeting the criteria set forth in subdivision (g) of Public Resources Code Section 5024.1, are presumed to be historically or culturally significant, unless the preponderance of the evidence demonstrates that the resource is not historically or culturally significant. Other structures which a lead agency determines to be historically significant may be considered to be an historical resource, provided the lead agency's determination is supported by substantial evidence in light of the whole record. Generally, a resource shall be considered significant if it meets the criteria for listing on the CRHR. The fact that a resource is not listed in, or determined to be eligible for listing in, the CRHR, not included in a local register, or not deemed significant pursuant to criteria set forth in subdivision (g) of Section 5024.1, does not preclude a lead agency from determining that the resource may be a historical resource as defined in Public Resources Code sections 5020.1(j) (historically significant or significant in, among other categories, the engineering, economic, social, political, or cultural annals of California) or 5024.1 (eligible for the CRHR or identified in a local survey).

Based on site investigations and historic research, Crane X-422 is ineligible for listing in the CRHR as a historical resource for purposes of CEQA.

Criterion 1

Crane X-422 is not directly associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage. The crane was first erected in 1970 at Berth 35 at the 7th Street Terminal, which was constructed between 1967 and 1971. The 7th Street Terminal did reflect the significance of containerization not only on a global scale, fostering trade between Asia and the U.S., but also for the Oakland economy. The 7th Street Terminal helped the Port overtake San Francisco as the main and largest port in California, sparked a major increase in both jobs and revenue, and is associated with major infrastructure projects like the establishment of BART. However, when considering the individual role of Crane X-422 with these important events and trends, the crane itself does not individually reflect or convey a direct linkage or association with these events or with the 7th Street Terminal. The 7th Street Terminal required port visionaries, like Nutter, to build a new marine terminal at the former Southern Pacific ferry terminal, expanding the area by importing millions of cubic yards of fill, building new wharves and yards, and helping to create a new waterfront intermodal transportation network. One single crane that was added to the terminal towards the end of this development does not embody or signify the monumental planning, design efforts, and coordination that were needed for the project's success. Instead, it was a small, late component of a much larger event and creates no sense of association with the construction of the 7th Street Terminal.

Additionally, as a low-profile crane, Crane X-422 was an aberration from the typical or standard A-frame gantry cranes that lined Oakland's waterfront during this period. Due to height restrictions imposed from the former Naval Air Station Alameda, Crane X-422 was significantly shorter than other cranes and had less lift height. Additionally, it had a lower holding capacity, and narrower gauge than other cranes. As a result, visually it looked different and had much limited functionality from the cranes lining the Port outside the flight path. It could only work on ships that had containers stacked three or four high, which prevented the crane from being heavily used and distinctively associated with the rise of globalization and containerization that defined the Port beginning in the 1960s.

Furthermore, Crane X-422 was not unique or exceptional within the history of PACECO cranes or even low-profile cranes. It was the ninth crane added to the Port and designed and constructed nearly a decade after PACECO put into service its first-ever dockside crane in 1958. It was the second low-profile crane added to the Port, and PACECO already had a reputation and established designs for completing low-profile cranes that met site needs related to height restrictions in New Jersey and Massachusetts.

When considering its present form and appearance, Crane X-422 was significantly modified in 1994 to no longer resemble a low-profile crane or possess the major characteristics from its original design. It was also relocated from its original location at the 7th Street Terminal to Howard Terminal. Major physical changes were made to make the structure more consistent with other higher profile cranes (e.g., raising its height, modifying its rail gauge, replacing its cab, etc.), after the Port declared it as surplus property. While the property has been relocated to a setting within a working industrial port, it has lost its historic connection and association with the 7th Street Terminal. The Howard Terminal is much smaller in size (50 acres) than the 7th Street Terminal (140 acres). It is also not currently operating as a container terminal.

Therefore, Crane X-422 lacks a lengthy or important association with significant events that characterized the Port during the containerization era, does not convey any association with the important construction of the 7th Street Terminal, and is not eligible for listing in the CRHR under Criterion 1 or as a historical resource for purposes of CEQA.

Criterion 2

Crane X-422 is not directly associated with the lives of persons important in our past. The crane was constructed at a time when Ben E. Nutter was serving as the executive director of the Port; however, there is no direct association or linkage with Nutter and the structure. The crane does not illustrate Nutter's important achievements and does not possess a lengthy association with him. Clearly other properties would better illustrate the importance of Nutter within the context of his contributions to the Port, such as the entirety of the 7th Street Terminal (which has been renamed the Nutter Terminal after him) or the Port administration buildings where he worked. A single crane constructed in 1970, eight years after he became the executive director of the Port, does not reflect his achievements. Therefore,

the structure is not eligible for listing in the CRHR under Criterion 2 or as a historical resource for purposes of CEQA.

Criterion 3

Crane X-422 does not embody the distinctive characteristics of a type, period, region, or method of construction, or represent the work of an important creative individual, or possesses high artistic values. As a noted earlier, Crane X-422's original design, appearance, and major characteristics from its initial design have been heavily modified. It was constructed as a low-profile crane, but has been altered as part of its relocation to the Howard Terminal in 1994. Its lift height, rail gauge, and cab were all modified, new K-bracing was added, and its overall form and visual appearance and narrative were altered. As a result, it no longer embodies the distinctive characteristics of a low-profile gantry crane and lost many of its original features common to the property type that would make it important.

Since it was constructed over a decade after dockside cranes became common at ports and was not even the first low-profile crane at the Port, Crane X-422 did not represent any major engineering achievement. Throughout its history, it had limited functionality and was not used as much as other cranes due to its restrictive design (Dingle, personal communication, 2019). The crane was designed by PACECO, which designed the first dockside container crane in 1958. The initial cranes were significant for creatively solving the problems impeding containerization's global success, and PACECO approached the solution with a "philosophy that the best design has the fewest number of pieces" (ASME, 1985). For PACECO, this was common practice by the time they designed Crane X-422, which was the ninth crane added to the Port, and derivative of other designs they completed in the Bay Area and at other U.S ports. The crane does not demonstrate a particular phase in the development of the property type, Also, since it was not the first or last low-profile crane, it does not demonstrate the evolution of the property type or any type of important design transition. Therefore, the structure is not eligible for listing in the CRHR under Criterion 3 or as a historical resource for purposes of CEQA

Criterion 4

Crane X-422 does not appear to have the potential to yield more information and therefore, does not appear eligible under Criterion 4 or as a historical resource for purposes of CEQA. Crane X-422 is similar to other low-profile cranes designed by PACECO. As-builts and historic plans, as well as original specification information, are available for the property; therefore, there is no potential to yield more information on its design, construction, and assembly that is not already known.

Integrity Analysis

Aside from meeting one of the CRHR criteria, a historical resource must also retain a significant amount of its historic integrity to be eligible for listing in the CRHR. Integrity is the authenticity of an historical resource's physical identity *evidenced by the survival of characteristics that existed during the resource's period of significance*. To be eligible for listing, a resource must retain enough of its historic character of appearance to be recognizable as an historical resource and to convey the reasons for its significance. Historic integrity is comprised of seven aspects: location, design, setting, materials, workmanship, feeling, and association.

Location: Crane X-422 was relocated from its historic location within the 7th Street Terminal to Howard Terminal in 1994. Moving the property to a different terminal away from its historic location diminishes its historic relationship and origin with its original setting and period of development associated with the 7th Street Terminal. While Howard Terminal is a working industrial waterfront area, it is much different from the 7th Street Terminal. It is approximately one-third the size of the 7th Street Terminal, and faces a different portion of the bay (the Inner Harbor versus the Outer Harbor),

Design: Alterations that were completed to Crane X-422 in 1994 in order to sustain its use and functionality to the Port have diminished the combination of elements that create the form, plan, space, structure, and style of the property. Alterations to the property included modifying the gauge from 96 feet to 100 feet, raising the lift height to 100 feet, replacing the cab, and changing the power pick-up system (Port of Oakland, 1994; PACECO, 1993). These changes significantly modified its original low-profile

design and function. As a result, the property's proportion, space, materials, and scale were altered, diminishing its historic integrity of design.

Setting: The setting of Crane X-422 was diminished and modified through its relocation from the 7th Street Terminal to the Howard Terminal. The property was constructed in its original location within the flight path of the Alameda naval base, and consequently required a low-profile form. The physical environment and conditions of the property were diminished when it was moved, since it no longer required a low-profile form and aesthetic in its new location. The property no longer retains an association with its original surroundings since it was removed from the 7th Street Terminal and away from the runway and flight path of the naval base, which have affected its historical role and narrative.

Materials: As described above, key historic materials and fabric from the property's original construction and location at the 7th Street Terminal have been removed. Changes in materials include modifying the gauge from 96 feet to 100 feet, raising the lift height to 100 feet, replacing the cab, and changing the power pick-up system (Port of Oakland, 1994; PACECO, 1993). This has impacted the physical elements and their arrangement from the initial period of construction for the crane. The property is no longer a low-profile crane and no longer conveys a particular time and place associated with its initial location within the flight path at the 7th Street Terminal.

Workmanship: The workmanship has been diminished through modifications to the property's original construction methods and configuration. As a result, it no longer furnishes evidence of the technology of a craft or illustrate the aesthetic principles associated with a low-profile crane from 1970. Instead, it has the workmanship of a crane highly modified in 1994. When considering the other similar property types that already existed when it was built, the property also lacks innovative period techniques.

Feeling: The diminishment of the property's design, materials, and workmanship have impacted the crane's physical features that convey its historic character. The engineering team's original design, techniques, and practices are no longer visible, and it has a disrupted sense of time and place from its original construction in 1970.

Association: The relocation of the crane from its original location within the flight path at the 7th Street Terminal has diminished the property's direct link to the planning, design, and development of the 7th Street Terminal in the 1960s and 1970s. As a result, while the crane still retains an association to the Port as a whole it is no longer associated with the important events that created the 7th Street Terminal and led to the Port's explosive growth.

Overall, due to its relocation and modifications, Crane X-422 has diminished historic integrity from its initial period of construction and operation at the 7th Street Terminal. While the property is still recognizable as a crane, it does lack key and essential physical features that define it as a low-profile crane from 1970, and possesses a weakened historic relationship to its original setting, narrative, and sense of time and place.

Special Considerations

Crane X-422 was constructed less than 50 years ago and was also relocated from its original location. As a result, the property needs to be evaluated using the Special Considerations included in Section 4852 of the California Code of Regulations for these property types. Properties that have been relocated and determined to be otherwise eligible for listing in the CRHR may be considered significant if it was moved to prevent its demolition and if the new location is compatible with the original character and use of the resource. Generally, it still retains the general character of its previous setting (though as noted above, its current setting is still different from its original location). However, the property does not meet any of the other CRHR criteria. It was relocated recently and therefore no longer has a historic association with its immediate surroundings. Its design value was diminished by the modifications needed to support its move to a new location (to keep the property functional and in use) and it no longer has enough historic features to convey key aspects of its historic integrity.

As a property constructed less than 50 years ago, it may be considered for listing in the CRHR if it can be demonstrated that sufficient time has passed to understand its historical importance. Overall, recent

scholarship completed on the significance of containerization in Oakland and globally, significant historic context information exists to consider the historical importance of this property type. Within this framework, it becomes apparent that a crane constructed over a decade after cranes were first developed would not be considered exceptionally important as an individual resource in understanding and illustrating the importance of containerization.

CEQA Analysis

In accordance with CEQA Guidelines, this analysis has concluded that Crane X-422 does not meet the definition of a historical resource. As described above, the structure does not meet the criteria for listing in the CRHR and is also not listed in a local register of historical resources. Based on information provided by the Port and a review of information available through the City of Oakland, Crane X-422 has not been previously included in a historical resources survey. The analysis completed in this memorandum demonstrates the property is not significant within the engineering, economic, social, political, or cultural annals of California. It is a modified crane from 1970 that is no longer within its original location and lacks distinction as an engineering structure important to the state, region, or area.

5. Results

Based on background research and field surveys, this memorandum concludes Crane X-422 does not appear to be eligible for listing in the CRHR or meet the definition of a historical resource for purposes of CEQA.

6. References

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Sorensen, Paul. 1975. "Development of Containerization at the Port of Oakland, 1962-1974."

7. Attachments

Resume of Jeremy Hollins, Senior Architectural Historian, Jacobs/CH2M.

Resume of Mark Bowen, Senior Architectural Historian/Cultural Resources Specialist, Jacobs.

Jeremy Hollins

Senior Architectural Historian, Talent Supervisor

Education

MA, University of San Diego, Public History, 2005

BA, University of Rhode Island, History [Environmental], 2003

Distinguishing Qualifications

Secretary of Interior Professional Qualification Standards Architectural History and History (36 CFR Part 61)

Relevant Experience

Jeremy Hollins is a Secretary of Interior-qualified Architectural Historian and Historian for Jacobs Engineering Group. He is also a certified Project Manager. Mr. Hollins has performed numerous historic evaluations, context studies, and determinations of eligibility and effect for a range of resources based on local, state, and National Register criteria and through technical reports, DPR 523 series forms, HABS reports, cultural landscape reports, historic structures reports, and resolution documents. He has a detailed knowledge of the laws and ordinances which affect historic properties, such as Section 106 of the NHPA, CEQA, NEPA, Section 4(f), California Public Resources Code, State Historic Building Code, and the Secretary of Interior Standards for the Treatment of Historic Properties. Additionally, two academic journals have published Mr. Hollins' work, and he was an adjunct instructor in 'World Architectural History' at the New School of Architecture early in his career.

Representative Projects

Reno Spaghetti Bowl Interstate 80/Highway 395 Reconstruction, Washoe County, NV.

Cultural Resources Lead for Section 106 and NEPA studies for large-scale freeway reconstruction project. Oversaw the identification and evaluation of 600+ cultural resources, including 33 newly and previously identified historic properties. Authored MOA and extensive Assessment of Effects report for FHWA and SHPO, which included a detailed assessment of two different NRHP-listed Lincoln/Victory Highway historic districts in the county. Historic district assessment included identification of character-defining features, contributing and non-contributing roadside architecture, and district boundaries. Historic maintenance plan, consistent with the Secretary of Interior Standards, was developed to retain historic character-defining features of the roadway and ensuring new project changes are compatible to existing conditions. Utilized state-wide Multiple Property Documentation form to inform identification, evaluation, and treatment decisions.

March Air Reserve Base Integrated Cultural Resources Management Report (ICRMP), Riverside County, CA

Lead author and cultural resources lead for the development of the March Air Reserve Base ICRMP for the US Air Force. As part of the ICRMP, completed a base-wide survey of the entire base and drafting an updated NRHP nomination to address changes to the base since it was last recorded, including addition/removal of contributing resources, changes to character-defining features, and changes in historic district boundary following the base's 1996 realignment. Also completing overall historic district maintenance plan for the historic district that includes specific treatments for each building to preserve

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its character-defining features and acceptable changes to the building consistent to the Secretary of Interior's Standards.

SCE West of Devers Transmission Line Upgrade Project, Riverside and San Bernardino Counties, CA

Cultural Resources Lead for project construction activities for a large-scale transmission line upgrade in Riverside and San Bernardino Counties. Responsible for monitor coordination, interfacing with SCE and lead federal and state agencies, implementation of project Cultural Resources Management Plan, Section 106 consultation following discoveries, oversight of ARPA and BLM permit, and cultural resources assessments for minor project realignments,

Contra Costa Power Plant CEQA Assessment, Contra Costa County, CA

Oversaw completion of the cultural resource and paleontology surveys for the remediation of the Contra Costa Power Plant. Participated in kick-off meetings; performed extensive background research; developed an evaluative historic context; completed architectural history surveys and oversaw archaeology and paleontology surveys; prepared DPR 523 series forms and a findings memorandum; and lead author for CEQA reports. Completed project per PG&E and DTSC guidelines.

Completed At Another Firm

NRG Renewables, Puente Power Plant, Ventura, CA.

Oversaw architectural history field survey and archival research as architectural history task manager for a new power plant and transmission line corridor in Ventura County, in accordance with CEC regulations. Oversaw historic research and community consultation, and the recordation and evaluation of 6 cultural resources, associated with power transmission, rural properties, and historic roads. Assessment was determined data adequate after first submission and did not receive any data requests.

BrightSource Energy, Rio Mesa Solar Plant, Blythe, CA.

Oversaw architectural history field survey and archival research as architectural history task manager for a large solar project in the Colorado Desert (partially within BLM land) in accordance with Section 106 of the NHPA, NEPA and, CEQA. Oversaw architectural history field survey of project footprint, transmission line and substation locations, and half-mile study area. Oversaw historic research and community consultation, and the recordation and evaluation of approximately 30 cultural resources, including historic-age transmission lines, canals and irrigation ditches, historic roads, mines, and borrow pits.

Merced Irrigation District LeGrand Canal Bifurcation Project , Merced, CA

Completion of senior review of cultural resources report and completion of historic evaluations to two canals located within the boundaries of the Merced Irrigation District Historic District. Analysis completed for CEQA included development of APE, DPR 523 series forms, correspondence records, Native American coordination, and historic research.

Process Water Recycling Project CEQA-Plus, Magalia, CA

Cultural Resources Task manager for a CEQA-Plus assessment for Paradise Irrigation District that requires compliance with Section 106 of the NHPA. Responsible for implementation of the State Revolving Fund Programmatic Agreement, delineation of the APE, overseeing Native American consultation, coordination with EPA, SWRB, and local water district. Managed archival research, wrote historic context, evaluated the APE for resource eligibility for listing in the NRHP and the CRHR (or as

historical resources for purposes of CEQA), recorded 2 resources (canal and a bridge). Authored report and SHPO Letter.

Franklin Reservoir Improvement Section 106 Compliance Project, Los Angeles County, CA

Performed Section 106 Compliance Study for Los Angeles Department of Water and Power for the replacement of five catch basins for a 1940s dam within the City of Beverly Hills. Prepared DPR 523 series forms and technical report for SHPO. Developed historic context, recordation and evaluation of historic-period properties through DPR 523 series forms, analysis of effects, and development of mitigation measures. (2008-2009)

Alamo Creek Detention Basin, Vacaville, Solano County, CA

Completed cultural resources surveys for the construction of a new detention basin along Alamo Creek. Participated in kick-off meetings; performed extensive background research; developed an evaluative historic context; completed architectural history surveys; applied the programmatic and, prepared DPR 523 series forms and a findings memorandum for CEQA and Section 106 compliance.

Almaden Dam Improvement Project, Santa Clara County, CA

Architectural Historian for the identification and evaluation of the Almaden Dam for CEQA and Section 106 compliance. Identified character-defining features, conducted and oversaw archival research, evaluated the projects' APE for eligibility for listing in the NRHP and California Register of Historic Resources (CRHR), identified effects, completed appropriate DPR 523 forms. Assessment was included in a technical report for Santa Clara Valley Water District.

Marcucci Culvert Repairs, Marcucci, CA

Completion of Section 106 studies per the FEMA Programmatic Agreement for flood damage control (culvert replacement). Prepared Section 106 compliance materials, including findings memorandum, APE maps, DPR 523 series forms, correspondence records, Native American coordination, and historic research. Assessment was completed for 19th century culvert.

FEMA, Sutter Creek Broad Storm Drain Diversion, Sutter Creek, CA

Completion of Section 106 studies per the FEMA Programmatic Agreement for flood damage control (culvert replacement). Prepared Section 106 compliance materials, including findings memorandum, APE maps, DPR 523 series forms, correspondence records, Native American coordination, and historic research. Assessment completed for wall associated with Chinese laborers and townsite.

San Francisco Public Utilities Commission, Calaveras Dam Staff Housing Replacement Project, Sunol, Alameda County, CA

Architectural history task manager for the CEQA evaluation of a historic-period rural property that would be demolished to accommodate new staff housing for the project. CEQA evaluation included preparation of a technical archaeology and architectural history memorandum, recordation of the property through DPR 523 series forms, and preparation of project area maps. He developed evaluative historic context for the Spring Valley Water Company, Sunol, and Alameda County historic-period rural properties.

Owens Gorge Flow Restoration Project: Adams Auxiliary and Adams Main Powerhouses, Owens Valley, CA

Cultural resources task manager for the CEQA evaluation of two historic powerhouses located near the improvements planned within Owens Gorge. CEQA evaluation included preparation of a technical

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archaeology and architectural history memorandum, recordation of the properties through DPR 523 series forms, and preparation of project area maps. Developed evaluative historic context for the resources and similar property types controlled by LADWP.

Napa Earthquake Task Order, FEMA, Napa and Solano Counties, CA.

Lead architectural historian for the Section 106 compliance activities undertaken as part of the disaster-relief efforts from the Napa Earthquake. Worked closely with FEMA staff to review over 50 Project Worksheets. Developed time- and cost-saving measures to expedite the process in accordance with the Programmatic Agreement, assist with coordination with the SHPO, and prepare cultural resources consultation letters and cultural resources findings reports (which may include DPR forms) for submittal to the SHPO.

Hillsdale Boulevard Interchange Project, San Mateo, CA

Architectural History Lead for an intensive architectural history field survey of the APE in accordance with the Caltrans PA. Managed archival research, directed completion of the historic context, evaluated the APE for eligibility for listing in the NRHP and the CRHR (or as historical resources for purposes of CEQA), recorded several resources (consisting of several motels, residences, and commercial buildings). Co-authored HPSR and HRER for Caltrans approval.

Hearn Avenue Interchange Project, Santa Rosa, CA

Architectural History Task manager for an intensive architectural history field survey of the APE in accordance with the Programmatic Agreement between the FHWA, the Advisory Council on Historic Preservation, the California OHP, and Caltrans (Caltrans PA). Managed archival research, directed completion of the historic context, evaluated the APE for eligibility for listing in the NRHP and the CRHR (or as historical resources for purposes of CEQA), recorded several resources (consisting of a Julie Morgan designed cemetery, a mobile home park, and car dealership). Co-authored HPSR and HRER for Caltrans approval.

US 101 Express Lane Cultural Resource Assessment

Santa Clara County, CA

Architectural History Task manager for an intensive architectural history field survey of the direct APE and a reconnaissance survey of the indirect APE in accordance with the Programmatic Agreement between the FHWA, the Advisory Council on Historic Preservation, the California OHP, and Caltrans (Caltrans PA). Managed archival research, wrote historic context, evaluated the APE for eligibility for listing in the NRHP and the CRHR (or as historical resources for purposes of CEQA), recorded 4 resources (consisting of historic ranches to Minimal Traditional residences). Authored HPSR and HRER for Caltrans approval.

Bailey Ranch Historic Resource Assessment

Santa Clara County, CA

Completed historic resource assessment for Bailey Ranch including overseeing architectural history survey, integrity assessment, and assessment of effects for compliance with Section 106 of the NRHP and CEQA. Projects considering effects from demolition or relocation of locally historical resource. Required extensive regulatory knowledge of local, state, and federal laws, and strategic planning with Santa Clara Valley Water District to identify best path forward, considering regulatory approvals,

City of Los Angeles Department of Transportation Associated Transportation Projects, Caltrans District

7

City of Los Angeles, CA

Led Caltrans HPSR, ASR, and HRER studies for three different transportation projects for Los Angeles Department of Transportation and Bureau of Engineering to complete Local Assistance projects. Projects included Safe Routes to Schools consisting of curb extensions, crosswalks, new signals, road widening and narrowing, and addition of roundabouts. Prepared studies in conformance with Caltrans PA. Successfully negotiated smaller APE and streamlined studies on behalf of client with Caltrans District 7.

Santa Ana Fixed Guideway, Santa Ana, CA

Cultural Resources Task Manager. Oversaw determination of eligibility, analysis of integrity, and application of criteria for adverse effect for approximately 100 cultural resources in accordance with the NHPA, NEPA, CEQA, and FTA guidelines. Led consultation efforts with SHPO and authored the project MOA. Also, oversaw APE map delineation, stakeholder consultation, historic context development, primary and secondary source research, field map and field form creation, and impact analysis. (Cost: \$60,000)

Caltrans and Alameda Corridor Transportation Authority, HAER, Level II, for the Commodore Schuyler F. Heim Bridge, Schuyler Heim Bridge Replacement and SR-47 Expansion Project – Long Beach, CA.:

Managed HAER for Commodore Schuyler F. Heim Bridge, a 1948 steel vertical lift bridge eligible for listing in the NRHP, to fulfill NHRA Section 106 mitigation requirements. The study was completed consistent to the specific guidelines and requirements of the United States Department of Interior and Library of Congress for a Level II HAER and included written historical and descriptive data, 5-by-7" large-format photographs and negatives, and 4-by-5" large-format photographic copies of as-built drawings and negatives. Oversaw project planning (client meetings, site visits, access permits, contract and engagement with photographer), facilitated field work, archival research, report drafting and editing and archival processing. Project required extensive FHWA, Caltrans, and Port of Los Angeles-Port of Long Beach coordination and consultation. Project was nominated for a URS Pyramid Award for Technical Excellence. (2010-2011)

Caltrans and City of Santa Ana, Bristol Street HPSR and HRER, Phase 3 and Phase 4 – Santa Ana, CA. Task manager for an intensive architectural history field survey of the direct APE and a reconnaissance survey of the indirect APE in accordance with the Programmatic Agreement between the FHA, the Advisory Council on Historic Preservation, the California OHP, and Caltrans. Managed archival research, wrote a historic context, evaluated the APE for eligibility for listing in the NRHP and the CRHR (or as historical resources for purposes of CEQA), recorded 66 resources (primarily early to mid-century residences in planned subdivisions) on the appropriate DPR 523 forms, and authored the HPSR and HRER. Adapted unique approach for recordation based on historic subdivisions and property types to facilitate and streamline compliance. (2010-2011)

Caltrans and SANBAG, Lenwood Road HPSR, ASR, and HRER – Barstow, CA.

Task manager for cultural resources studies, and preparation of HPSR, ASR, and HRER. Oversaw archival research, historic context, evaluated the project APE for eligibility for listing in the NRHP and the CRHR (or as historical resources for purposes of CEQA), recorded forty-one resources (Historic Route 66-related commercial buildings and single-family residences) on the appropriate DPR 523 forms, and drafted the Historic Resources Evaluation Reports and Historic Properties Survey Reports. (2009-2011)

Caltrans District 7, Los Angeles River Bike Path Improvement Project, San Fernando Valley, CA.

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Cultural Resources Task manager for an intensive archaeological and architectural history field survey of the APE in accordance with the Programmatic Agreement between the FHWA, the Advisory Council on Historic Preservation, the California OHP, and Caltrans (Caltrans PA). Managed archival research, directed completion of the HPSR, ASR, and HRER, authored Finding of Effect, and completed evaluation of resources in the APE for listing in the NRHP and the CRHR (or as historical resources for purposes of CEQA).

Caltrans District 12, Santiago Canyon and Live Oak Canyon Road Projects, Orange County, CA.

Cultural Resources Task manager for an intensive archaeological and architectural history field survey of the APE in accordance with the Programmatic Agreement between the FHWA, the Advisory Council on Historic Preservation, the California OHP, and Caltrans (Caltrans PA). Managed archival research, directed completion of the HPSR, ASR, and HRER, authored Finding of Effect, and completed evaluation of resources in the APE for listing in the NRHP and the CRHR (or as historical resources for purposes of CEQA).

Caltrans District 8, Frank Sinatra Drive Bridge at Whitewater River Project, Rancho Mirage, Riverside County, CA. 2014:

Oversaw preparation of the HPSR and ASR, including evaluation of a significant multi-component site in the APE. Completed per Caltrans guidelines.

Caltrans District 7, Alostia Avenue Bridge Section 106 Compliance, LADPW, Los Angeles County, CA Architectural Historian

Performed Section 106 Compliance Study for LADPW for the seismic retrofit of a 1929 Plate-Girder bridge and the California Central Railroad. Prepared HPSR and DPR 523 series forms for project per Caltrans/FHWA guidelines. Developed historic context and performed determination of eligibility, analysis of integrity, and identification of effect for historic grade separation over Historic Route 66 in Los Angeles County. (2008)

Caltrans District 7, Long Beach Blvd. Bridge Section 106 Compliance, LADPW, Los Angeles County, CA Architectural Historian

Performed Section 106 Compliance Study for LADPW for the seismic retrofit of a 1932 Warren truss Bridge and the Union Pacific Railroad. Prepared HPSR and DPR 523 series forms for project per Caltrans/FHWA guidelines. Developed historic context and performed determination of eligibility, analysis of integrity, and identification of effect for Union Pacific Railroad Cut-Off Line linking Port of Los Angeles to Union Pacific mainline. (2008)

Caltrans District 7, Willow Street Bridge Section 106 Compliance, LADPW, Los Angeles County, CA.: Architectural Historian

Performed Section 106 Compliance Study for LADPW for the seismic retrofit of a 1932 Warren truss Bridge and the Union Pacific Railroad. Prepared HPSR and DPR 523 series forms for project per Caltrans guidelines. Developed historic context and performed determination of eligibility, analysis of integrity, and identification of effect. (2007)

Caltrans District 8, Interstate 15/Murrietta Hot Springs Road Operational Improvement Project, Riverside County, CA. 2013:

Oversaw preparation of Archaeological Survey Report (ASR) and Historic Property Survey Report (HPSR) in accordance with Caltrans guidelines. Directed archival research, archaeological analysis and evaluation of resources and impacts in compliance with Section 106 of the NHPA and CEQA.

Caltrans District 8, Clay Street Grade Separation, Riverside County Transportation Department, Riverside County, CA. 2013:

Supported Section 106 Compliance Study for Riverside County Transportation Department for the at-grade crossing of Clay Street with the Union Pacific Railroad. Oversaw preparation of HPSR, ASR, HRER

Caltrans District 11 and SDGE, Lilac Ranch Pole Replacement, San Diego County, CA. Oversaw Caltrans studies completed for SDG&E on a historic ranch owned and operated by Caltrans. Led compliance for state-owned resources and oversaw preparation of an HPSR, HRCR, ASR, ESA Action Plan, and SOI Treatment Plan for NRHP-listed historic property and archaeologically sensitive areas.

Supplemental Information

Years Experience Prior to Jacobs: 14

Jacobs Hire Date: 2

Mark Bowen

EDUCATION/QUALIFICATIONS

MA, Public History, California State University, Sacramento

BA, History, California State University, Chico

Certificate in Public History and Archaeological Field School, California State University, Chico

REGISTRATIONS/ CERTIFICATIONS

Registered Historian, California (#576)

PROFESSIONAL ORGANIZATIONS

California Preservation Foundation

AREAS OF EXPERTISE

- NEPA and CEQA compliance
- Section 106 compliance
- Section 4(f) compliance
- Built-environment historic evaluations
- Primary/Secondary document historic research
- Project effects analysis

OTHER

- Entered the profession: 1996
 - Total Years: 22
 - With Jacobs: <1 year
- Office location: Sacramento, CA

SENIOR ARCHITECTURAL HISTORIAN / CULTURAL RESOURCES SPECIALIST

Mark has served as senior historian, architectural historian, project manager, and team leader with 22 years of experience conducting cultural resources inventories and evaluations in California for federal, state, and local agencies. He authors or coauthors cultural resources technical reports including historic resources and historic architectural inventories and evaluations and archives and collections management documents. He specializes in historic building and structure documentation, research for thematic contexts, and design and implementation of project-specific computer databases. He is also experienced in archaeological field survey and excavation methods. He conducted research of primary and secondary documentation at various repositories throughout California as well as in Washington, Oregon, Nevada, Utah, Colorado, and Ohio for the purposes of environmental compliance, land use histories, water rights research, and other litigation support.

Mark serves as project manager on a wide variety of infrastructure, government facilities, and development projects. He has experience preparing cultural resources technical studies in compliance with light/heavy/high-speed rail, Caltrans/FHWA requirements for bridge replacement, road widening, and highway projects and has prepared studies for review by Caltrans staff in Districts 1, 2, 3, 4, 5, 6, 8, 9, 10, and 11.

Relevant Project Experience

Transportation

Alameda County Transportation Commission, 7th Street, Port of Oakland, CA. *Architectural Historian.* Mark assisted the Alameda County Transportation Commission and Caltrans District 4 with cultural resources studies for multiple infrastructure improvement project components within the Port of Oakland. Oversaw completion of Caltrans technical studies consideration of Section 4(f) analysis. Participated in Caltrans/client coordinating meetings wherein Mark helped negotiate the substantial reduction of analysis effort for efficient Section 106 compliance.

City of Sparks, Oddie Pedestrian Overcrossing, Reno/Sparks, NV. *Historian.* Mark researched construction records for assessment of construction history and use. Conducted primary and secondary document research at various local and state repositories to complete updated and refined property history and activities at site.

Caltrans, Two Rivers Bike Trail Project Phase II, Sacramento, CA. *Architectural Historian.* Two Rivers Trail is a planned Class 1 bicycle and pedestrian trail along the south bank of the American River that extends from Tiscornia Park at Jibboom Street to the H Street Bridge in Sacramento, California. The proposed project would construct the remainder of the project's Phase II by extending the Class 1 trail west from Sutter's Landing Regional Park to the Sacramento Northern Bikeway Trail at North 18th Street, and east from the eastern terminus of Sutter's Landing Regional Park to the H Street Bridge. Part of the cultural

Mark Bowen

SENIOR ARCHITECTURAL HISTORIAN /
CULTURAL RESOURCES SPECIALIST

resources team preparing Caltrans' technical documents (HPSR and HRER) and evaluated resources within the APE.

Caltrans and City of Rancho Cordova, White Rock Road Widening, Rancho Cordova, CA. Architectural Historian. City of Rancho Cordova and Caltrans planned to widen the existing two-lane road between Luyung Drive and Grant Line Road in Rancho Cordova. As Senior Architectural Historian, directed cultural resources studies in compliance with Section 106 and the First Amended Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, SHPO, and Caltrans Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California. Conducted archival research and evaluated a segment of the Old White Rock Road and mining-related resources. The SHPO concurred with the findings.

California High Speed Rail Authority, HABS for the Pacific Coast Seeded Raisin Building, HST Merced to Fresno Section, Fresno, CA. Architectural Historian. The Pacific Coast Seeded Raisin Building was determined eligible for the CRHR. The building was slated for demolition as part of the HST project. The mitigation required a HABS be written. Part of the team that prepared the HABS documentation for the property and conducted extensive archival research that resulted in a comprehensive historic context concerning the raisin industry in California.

California High Speed Rail Authority, HAERs for the Belmont Subway and Traffic Circle and Weber Avenue Overcrossing (Bridge #42C0071), HST Merced to Fresno Section, Fresno, CA. Architectural Historian. As part of the Section 106 process for the California HST project, the three structures were determined eligible for the NRHP by the SHPO. As part of the mitigation, SHPO required that HAERs be prepared for each structure. Mark assisted with preparing the HAERs. The National Park Service accepted the documentation in 2017.

Georgia Department of Transportation, State Route 20 Corridor Improvements Project, Various Counties, GA. Architectural Historian. Part of a team of architectural historians providing peer review of Property Information Forms for this Section 106 transportation project. Peer reviews used pre-defined standards adopted by the Georgia Department of Transportation and the Georgia Historic Preservation Division.

Transbay Joint Powers Authority (TJPA), Transbay Transit Center (TTC) NHPA–Section 106 Supplemental Consultation, San Francisco, CA. Architectural Historian. The TJPA, in cooperation with the FTA and the FRA, proposes changes to the approved 2004 Transbay Terminal/Caltrain Downtown Extension/Redevelopment Project (Transbay Program). Further engineering for the Caltrain Downtown Extension has occurred since its approval in 2004 and includes track curvature entering the train box, extension of below-grade rail levels of the TTC to accommodate high-speed rail requirements, and other refinements necessary for implementing the Transbay Program. Prepared the supplemental consultation report and analyzed the potential for additional adverse effects to historic resources, including

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four historic districts. The recommendation is that there were no additional adverse effects because of the undertaking.

Santa Clara Valley Transportation Authority (VTA), Mission Boulevard (SR 62) Widening Near Brown Road Project, Alameda County, CA. *Project Manager and Architectural Historian.* Mark assisted with document preparation for the project. Provided cultural resources compliance services for this highway interchange in Alameda County. Produced Historic Resources Compliance Report (HRCR) for the proposed project. Coordinated with the Valley Transportation Authority (VTA) and Caltrans D-4 Local Assistance staff to complete cultural resources technical documentation.

Sonoma-Marin Area Rail Transit, Multiuse Bicycle and Pedestrian Pathway, Sonoma and Marin Counties, CA. *Architectural Historian.* Mark served as architectural historian for the survey work and assisted with document preparation for the project. Provided NEPA compliance services for this 70-mile long multiuse pathway through Sonoma and Marin counties. Contributed to Preliminary Environmental Study (PES) forms for all three segments of the pathway. Coordinated with SMART and Caltrans D-4 Local Assistance staff to complete NEPA environmental documentation.

San Joaquin County Department of Public Works, Wilson Way and McAllen Road – Newton Road Traffic Signal and Intersection Improvement Project HPSR, San Joaquin County, CA. *Senior Architectural Historian/Project Manager.* Prepared a cultural resources analysis and Section 106/CEQA documentation for an intersection improvement project near the City of Stockton. The San Joaquin County Department of Public Works proposed to improve safety by upgrading the signal phasing and providing additional turn lanes at the intersection of Wilson Way and McAllen Road-Newton Road. The Caltrans Historic Property Survey Report (HPSR) package evaluated the full range of cultural resources issues for compliance needs of staff at Caltrans District 10. Major challenges included tailoring the required reports to comply with Section 106 and CEQA while allowing for the justifiable exemption of difficult resources such as the Central California Traction Company tracks and alignment. Early and continuous collaboration with the San Joaquin County Department of Public Works, and Caltrans District 10 cultural staff resulted in an expedited conclusion to the required HPSR documentation as well as the Section 106 process.

California High Speed Rail Authority, California High Speed Train Merced to Fresno Segment, Merced, Madera, and Fresno Counties, CA. *Architectural Historian.* Mark was an integral member of the multi-company team inventorying and evaluating more than 400 properties in Merced, Madera, and Fresno Counties for eligibility for the National Register of Historic Places and California Register of Historical Resources in compliance with Section 106 of the National Historic Preservation Act and CEQA. Also coordinating with Caltrans District 6 for Section 106 compliance. Following completion of this Identification/Evaluation documentation, cultural resources team completed appropriate section of combined EIR/EIS, Finding of Effect Addendum, and Built Environment Treatment Plan Addendum. Worked with the Authority to revise and create compliance documentation

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approaches necessary for Section 106 compliance. This work was completed at an accelerated schedule driven by Federal ARRA funding needs.

Tahoe Transportation District, SR 89 Fanny Bridge, Placer County, CA. *Architectural Historian.* Mark assisted TTD with cultural resources studies for intersection improvement, possible bridge replacement, and possible additional new bridge in Tahoe City. Also coordinated with Caltrans District 3 and prepared reports for their review.

California Department of Water Resources, 17 Bridge Evaluations, Merced, Fresno, Kings County, CA. *Architectural Historian.* Mark assisted DWR and Caltrans District 6 with cultural resources studies for bridge upgrades along the California State Water Project. Also coordinating with Caltrans District 6.

Port of Los Angeles, Historic Resources Survey of Built Environment Resources, San Pedro, CA. *Senior Architectural Historian.* Mark peer reviewed documentation produced for 13 facility sites at the Port. Resources included recently constructed buildings and were evaluated for NRHP/CRHR eligibility as well as for listing as a Los Angeles City Cultural-Historic Monument. The Port had the documentation prepared as part of their long-term mitigation efforts.

Caltrans District 11, Mitigation Analysis—Black Canyon Road Bridge, San Diego County, CA. *Architectural Historian.* Mark conducted analysis of modification designs applied to bridge for the purposes of mitigating adverse effects. Also coordinated with Caltrans District 11 and prepared reports for their review.

City of Winters, Streetscape Improvement Project Phase II, Yolo County, CA. *Architectural Historian.* Mark assisted the City of Winters and Caltrans District 3 with cultural resources studies for a streetscape improvement project. The schedule for compliance was critical and truncated. The City's compliance needs with Caltrans/FHWA were met within deadline.

City and County of San Francisco, Yerba Buena Ramps Improvement Project, San Francisco County, CA. *Architectural Historian.* Mark assisted the City of San Francisco and Caltrans District 4 with cultural resources studies for a ramps improvement project, conducted in conjunction with the East Bay Bridge Replacement Project. Oversaw completion of Caltrans technical studies and an EIS section. Participated in SHPO consultation meetings.

City of Martinez, Martinez Marina Vista Streetscape Improvement Project, Contra Costa County, CA. *Architectural Historian.* Mark assisted the City of Martinez and Caltrans District 4 with cultural resources studies for a streetscape improvement project in downtown Martinez. The schedule for compliance was critical and truncated. The City's compliance needs with Caltrans/FHWA were met within deadline.

MGE Engineering, Historic Winters Bridge Replacement Project, Yolo County, CA. *Architectural Historian.* Mark conducted Caltrans District 4 cultural resources studies for a historic bridge replacement project. Completed identification HPSR, FOE, memorandum of

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agreement, and draft Section 4(f) study report for replacement of a bridge that was eligible for listing on the NRHP.

Transystems, SP Railyards, Sacramento County, CA. Architectural Historian. Mark conducted cultural resources studies for a redevelopment project in Sacramento. Also assisted with consultation between agencies, conducted research, and drafted a report regarding historic properties. Also coordinated with Caltrans District 3 and prepared reports for their review.

URS, Colorado US 36, Denver and Boulder Counties, CO. Architectural Historian. Mark surveyed and evaluated irrigation features along BNSF railroad and highway alignments between Denver and Boulder, Colorado. Also conducted primary and secondary document research at various federal and state repositories.

City of West Sacramento, West Sacramento Clarksburg Branch Compliance, Yolo County, CA. Architectural Historian. Mark assisted the City with cultural resources studies for a railroad acquisition project. Coordinated with SHPO to complete cultural resources studies pertaining to the railroad alignment.

Sacramento Regional Transit District, Survey of Historic Properties, Amtrak-Folsom Corridor Light Rail Project, Sacramento County, CA. Architectural Historian. Mark assisted with research of properties within the district and prepared maps and graphics for the final report.

Caltrans District 3, Evaluation of Glenshire Bridge Historic, Nevada County, CA. Architectural Historian. Mark assisted in mapping and draft report production in the evaluation of a Truckee bridge's historical significance under CEQA and Section 106. Also coordinated with Caltrans District 3 and prepared reports for their review.

Marin County, Larkspur Bridges, Marin County, CA. Architectural Historian. Mark managed a multidisciplinary team to conduct NEPA and CEQA compliance for three bridges in Larkspur, California.

Sonoma County/Imbsen and Associates, Sonoma Bridges Evaluation and Finding of Effect, Sonoma County, CA. Architectural Historian. Mark assisted with cultural resources studies for seismic retrofit projects on the Bohemian Highway, Wohler, and Moscow Road bridges in Sonoma County. Wrote evaluation reports and presented his findings at a Sonoma County Landmarks Commission meeting. Also coordinated with Caltrans District 4 and prepared reports for their review.

California Department of Transportation, Caltrans Environmental Improvement Program, El Dorado County, CA. Architectural Historian. Mark prepared Caltrans cultural resources technical studies for two segments of the Caltrans Environmental Improvement Program in the Lake Tahoe Basin. Assessed impacts on built-environment resources.

Santa Clara Valley Transportation Agency, I-880 HOV Lanes Widening Project, Santa Clara County, CA. Architectural Historian. Mark prepared a Caltrans District 4 historic property survey report to support CEQA IS/MND and NEPA EA/FONSI for a Corridor Mobility

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Improvement Account project to construct HOV lanes in both directions on Interstate 880 in San Jose and Milpitas.

Tulare County Resource Management Agency, Caldwell Road (Avenue 280) Road Widening, Tulare County, CA. *Architectural Historian.* Mark authored a Caltrans historic property survey report for a road-widening project in Tulare County.

Sacramento County, I-80 Pedestrian Overcrossing, Sacramento County, CA. *Architectural Historian.* Mark conducted cultural resources studies of impacts of a pedestrian crossing over components of a historic district. Also coordinated with Caltrans District 3 and prepared reports for their review.

HPSR and Bridge Evaluation—Bohemian Highway Bridge at Monte Rio, Sonoma County, CA. *Architectural Historian.* Mark conducted a field survey, research, and authored reports, including an HPSR. Also coordinated with Caltrans District 4 and prepared reports for their review.

Williams Communications, American River Bridge Evaluation, Sacramento County, CA. *Architectural Historian.* Mark conducted an evaluation and FOE of the American River Bridge for a fiber optics alignment. Evaluated the bridge for eligibility for listing on the NRHP and CRHR.

U.S. Army Corps of Engineers (USACE), First Street Bridge Over the Napa River, Napa County, CA. *Architectural Historian.* Mark conducted Section 4(f) and cultural resources studies of buildings near the Napa First Street Bridge. Also coordinated with Caltrans District 4 and prepared reports for their review.

City of Sacramento and Parsons Brinckerhoff, Tower Bridge HAER, Sacramento County, CA. *Architectural Historian.* Mark completed a HAER and Interpretive Kiosk mitigation for a bicycle/pedestrian walkway improvement project on a historic bridge in Sacramento. Also coordinated with Caltrans District 3 and prepared reports for their review.

Yuba County, Honcut Bridge Historic American Engineering Record, Butte and Yuba Counties, CA. *Architectural Historian.* Mark authored HAER documentation for the Honcut Bridge replacement project between Butte and Yuba Counties. Conducted research, authored a report, and assisted with photo documentation of the bridge. Also coordinated with Caltrans District 3 and prepared reports for their review.

Port of Los Angeles, HRER on Port of Los Angeles Berths, Los Angeles County, CA. *Architectural Historian.* Mark coauthored evaluation reports of various berths and assisted with the compliance process. Conducted historic resource research and documentation of Port of Los Angeles Berths 147 and 171–173. Coauthored evaluation reports of berths and assisted with evaluation under the NRHP and CRHR. Also inventoried and evaluated port buildings for listing in the CRHR and provided content for a mitigation Web site, including text for the removal of the historic Badger Avenue Bridge.