SAN FRANCISCO BAY CONSERVATION AND DEVELOPMENT COMMISSION
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TO: All Design Review Board Members

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SUBJECT: Downtown San Francisco Ferry Terminal Expansion Project; Second Review
(For Board consideration on May 11, 2015)

Project Summary

Project Sponsors. The Water Emergency Transportation Authority (WETA) and the Port of San Francisco.

Project Representatives. Kevin Connolly and Michael Gougherty (WETA); Boris Dramov and Bonnie Fisher (ROMA Design Group); Dan Hodapp and James Hurley (Port of San Francisco).

Project Site. The proposed project would be located within the San Francisco Ferry Building area, between Pier 1 to the north and Pier 14 to the south, in the City and County of San Francisco. The larger Downtown Ferry Terminal site includes all areas stretching from the Embarcadero promenade to the Bay, including Pier ½, the Ferry Building, the Ferry Plaza, Pier 2, the Agriculture Building, and an open water area between the Ferry Building and the Agriculture building known as the "lagoon". Within the Bay, the ferry basin is distinguished between the North and South Basins (reflecting the water areas north and south of the Ferry Plaza). The proposed South Basin ferry terminal improvements are the subject of this review. (See Exhibits, p. 1-4).

Prior Board Review. On June 6, 2011, the project sponsors presented an update to the Master Plan for the Downtown San Francisco Ferry Terminal Expansion project to the DRB, and at that meeting presented some overall public space improvement concepts for the greater area, which included improvements to the Ferry Plaza (Exhibits, p. 2). The project at that time involved:

North Basin

1. Demolition and removal of Pier ½ (as required in BCDC's San Francisco Waterfront Special Area Plan (SAP);
2. Construction of Gate A; and
3. Construction of a 20-foot by 205-foot canopy structure at Gate A and a similar 20-foot by 180-foot canopy structure at Gate B for weather protection, queuing and waiting.

South Basin

1. Demolition and removal of Pier 2 (including Sinbad's Restaurant, as required in BCDC's SAP) and the apron area north of the Agriculture Building that is a part of Pier 2;
2. Filling in the lagoon between the Ferry Building and the Agriculture Building (approximately 12,000 square feet) with new pier deck for emergency assembly and improved access;
3. Reconstruction of Gate E and construction of Gates F and G;
4. Construction of a 30-foot-wide promenade area to connect Gates E, F and G with the Ferry Plaza and Ferry Building; and
5. Construction of a 24-foot by 458-foot canopy structure along the length of the new promenade to interconnect the three new terminals.

Proposed Project and Updates. Since the June 6, 2011 DRB meeting, the Port and WETA have refined their public space improvement concept to address those areas to be provided with the Ferry Terminal expansion project only, to address sea level rise and to respond to the comments made by the public, the DRB, and the Waterfront Advisory Board in its prior review. WETA has also decided to split the project into two phases, with the South Basin (Gates E, F, and G) improvements in the first phase and the North Basin (Gate A) improvements in the future.

The proposed project has been updated to address the following:

1. **South Basin Expansion.** The South Basin includes the construction of two new terminals, Gate F and G, and the reconstruction of the existing terminal at Gate E. The project would also include the extension and expansion of the East Bayside Promenade for public access and the construction of a new plaza located generally in the lagoon area between the Ferry Building and Agriculture Building. The proposed improvements would involve the demolition of Pier 2 as required by the SAP, which would be undertaken by the Port. Renovation of the Agriculture Building is not proposed as part of the project but consideration has been given to ensure that the opportunity to preserve and adaptively reuse this building in the future is maintained. The project sponsors have illustrated a South Bayside Promenade on their exhibits to indicate how this might be implemented by the Port, but are not currently proposing this improvement as a part of their project. (Exhibits, pp. 5-6).
2. **Sea Level Rise – Ferry Terminal.** The project sponsors have designed the proposed project to accommodate a 2070 sea level rise projection, for the expected 50-year design life of the facility, which has been determined to be 14.5 feet NAVD88, or approximately 3 feet above the estimated total water level this area of 11.5 feet. A 44-foot-long entry extension from the East Bayside Promenade to the ferry gates has been included to create a transition for boarding and arriving passengers and to create an adequate length at an acceptable slope to adapt the ferry terminals for future sea level rise. According to the project sponsors, the 14.5 elevation is a reasonable basis for designing for sea level rise because it would enable the project to be capable of meeting both the requirements for sea level rise today and over the next 50 years. The project sponsors propose that the curb at the railing be built at a 15.5 foot elevation around the perimeter to provide protection to the area with projected sea level rise to the year 2100 and at the same time help meet other objectives, including preventing windblown trash from entering the Bay. (Exhibits, pp. 6-7, 9-11).

3. **Sea Level Rise – Plaza and Future Rehabilitation of Agriculture Building.** The concept of the plaza has been refined from the previous design in 2011 to address BCDC's new climate change policies and sea level rise. The plaza has been raised to sit at an approximately 14.5 foot elevation to conform with the East Bayside Promenade and would provide amphitheater seating along the western edge to conform with the existing sidewalk grade of the Embarcadero Promenade at approximately 11 – 11.5 feet. On the northern edge, it would also transition in a similar manner to the Ferry Plaza and its existing 11.5 foot NAVD88 elevation. On the south side of the plaza, a ramp would be constructed to provide accessible access and an appropriate grade transition to the Agriculture Building. This ramp would be eliminated when the Agriculture Building is rehabilitated and raised, so that it would directly connect with the new plaza. According to the project sponsors, the elevation of the plaza and the Agriculture Building would be compatible with the potential future seawall elevation between the Agriculture Building and the Pier 14 breakwater, which, at an approximate elevation of 15 feet NAVD88, would connect via a gentle slope to the Pier 14 access pier. (Exhibits, pp. 6-10).

4. **Canopies.** The proposed canopy in the South Basin has been further refined and developed. Rather than one continuous length, the canopy has now been subdivided into two structures– one between Gates E and F and the other between Gates F and G. This approach allows the canopy to still integrate the three ferry terminals and give a better identity to them while highlighting the gate entrances. Each canopy is approximately 20 feet wide by 125 feet long or 2,500 square feet in size and provides a 12-foot-high clear space below with columns at 35 feet on center. According to the project sponsors, the canopy design has been made very slender with all components made out of powder coated metal and/or stainless steel. The roof of the canopy is semi-transparent with photovoltaic cells laminated in glass, similar to the approach used at the Academy of Sciences. The canopy will create dappled shade minimizing the high contrast effect of a shadow. It is intended to provide rain protection, to help organize queuing, and to create a unity to the three terminals while maintaining an inviting place for public access and general use of the area. The canopies would also help organize and accommodate other necessary functional elements, such as lighting, signage and a public address system. (Exhibits, pp. 6, 7, 9, 10, 11-15).

5. **Stormwater Management.** The previous plan contemplated using bio-retention flow through planters, located on the bayside of the promenade deck. However, concerns were raised regarding Bay fill and the need to identify alternative upland locations, and there were also concerns that trash may collect in these areas and that their effectiveness may be precluded with sea level rise. Therefore, the project sponsors have proposed a multi-pronged approach to stormwater management. They are proposing an elevated curb wall along the edge that would preclude wind-blown trash from entering the Bay. The elevated edge would also address the adaptive need for additional elevation for future sea level rise, beyond the 2070 design year. The strategy also includes other measures including the elimination of vehicular traffic, the prohibition of smoking in public spaces, the use of high volume trash containers, such as the "Big Belly" solar compacters being used in Fisherman's Wharf, and regular maintenance and cleaning of the public spaces with vacuum sweepers and shallow depth media filters. (Exhibits, p. 13).

San Francisco Waterfront Special Area Plan Policies. The *San Francisco Waterfront Special Area Plan* (SAP) states that vehicle circulation in public access areas must "be limited to service and maintenance vehicles necessary to serve the facility and should be concentrated during late night and early morning hours." The SAP requires that public access be provided free of charge to the public, be generally accessible at any time, and emphasize passive recreation and focus on its proximity to the Bay and on the views and unique experiences that nearness to the Bay affords. The SAP also requires that "on-pier public access areas…incorporate unique and special amenities that draw the public to them, including cultural expression, (e.g., public art, event programming or unique views)."

San Francisco Bay Plan Policies. The *San Francisco Bay Plan* (Bay Plan) **Public Access** policies state that access should "be provided in and through every new development in the Bay or on the shoreline," be designed—using the Commission's *Public Access Design Guidelines*—"to encourage diverse Bay-related activities and movement to and along the shoreline," be conveniently located near parking and public transit, "permit barrier free access for persons with disabilities to the maximum feasible extent…and include an ongoing maintenance program." These policies state in part that "public access should be sited, designed and managed to prevent significant adverse effects on wildlife," and that, "whenever public access to the Bay is provided as a condition of development, on fill or in the shoreline, the access should be permanently guaranteed." These policies further state that, "Any public access provided as a condition of development should either be required to remain viable in the event of future sea level rise or flooding, or equivalent access consistent with the project should be provided nearby."

The Bay Plan **Appearance, Design and Scenic Views** policies state, in part, that, "all bayfront development should be designed to enhance the pleasure of the user or viewer of the Bay" and that "maximum efforts should be made to provide, enhance, or preserve views of the Bay and shoreline, especially from public areas, from the Bay itself, and from the opposite shore." These policies also state, in part, that "[s]horeline developments should be built in clusters, leaving open area around them to permit more frequent views of the Bay."

The Bay Plan **Transportation** policies state in part that, "ferry terminals should be sited at locations that are near navigable channels…" and, wherever possible, "near higher density, mixed-use development served by public transit." In addition, these policies state that shoreline projects and bridges over the Bay "should include pedestrian and bicycle paths that will either be a part of the Bay Trail or connect the Bay Trail with other regional and community trails." The Bay Plan **Recreation** policies state, in part, that, "ferry terminal configuration and operation should not disrupt continuous shoreline access."

The Bay Plan **Climate Change** policies state, in part, that, "[t]o protect public safety and ecosystem services, within areas that a risk assessment determines are vulnerable to future shoreline flooding that threatens public safety, all projects—other than repairs of existing facilities, small projects that do not increase risks to public safety, interim projects and infill projects within existing urbanized areas—should be designed to be resilient to a mid-century sea level rise projection. If it is likely the project will remain in place longer than mid-century, an adaptive management plan should be developed to address the long-term impacts that will arise based on a risk assessment using the best available science-based projection for sea level rise at the end of the century." These policies also

state, in part, that, "to address the regional adverse impacts of climate change, undeveloped areas that are both vulnerable to future flooding and currently sustain significant habitats or species, or possess conditions that make the areas especially suitable for ecosystem enhancement, should be given special consideration for preservation and habitat enhancement and should be encouraged to be used for those purposes" and furthermore that "wherever feasible and appropriate, effective, innovative sea level rise adaptation approaches should be encouraged."

The Bay Plan **Safety of Fills** policies state in part that, "[a]dequate measures should be provided to prevent damage from sea level rise and storm activity that may occur on fill or near the shoreline over the expected life of a project. The Commission may approve fill that is needed to provide flood protection for existing projects and uses. New projects on fill or near the shoreline should either be set back from the edge of the shore so that the project will not be subject to dynamic wave energy, be built so the bottom floor level of structures will be above a 100-year flood elevation that takes future sea level rise into account for the expected life of the project, be specifically designed to tolerate periodic flooding, or employ other effective means of addressing the impacts of future sea level rise and storm activity. Rights-of-way for levees or other structures protecting inland areas from tidal flooding should be sufficiently wide on the upland side to allow for future levee widening to support additional levee height so that no fill for levee widening is placed in the Bay."

The *Public Access Design Guidelines* state that public access should feel public, be designed so that the user is not intimidated nor is the user's appreciation diminished by structures, or incompatible uses and that there should be visual cues that public access is available for the public's use by using site furnishings, such as benches, trash containers and lighting. The *Public Access Design Guidelines* further state that public access areas should be designed for a wide range of users, should maximize user comfort by designing for weather and day and night use and that each site's historical, cultural and natural attributes provide opportunities for creating projects with a "sense of place" and a unique identity.

Public Access Issues. The project sponsors and staff are seeking the Board's feedback on the updated portion of the project in the South Basin and the associated public access areas. The Board should focus on whether the proposed ferry terminal expansion and the proposed public spaces would create attractive new public access areas, improve existing public access use of the Ferry Building area, and whether the proposed uses would impact physical and visual access to the Bay.

The staff requests that the Board consider the following questions during its review of the project:

1. Does the proposed project provide attractive new public access areas to accommodate the users at the site? While the South Bayside Promenade is not included in WETA's current proposal for expansion, are the improvements proposed with this project designed appropriately to create an adequate transition between the newly constructed plaza, the existing Ferry Plaza, and potential public access improvements at Ferry Plaza?
2. Does the site layout provide usable and inviting public spaces that are oriented to the Bay, incorporate unique and special amenities that draw the public to them, create a "sense of place", are safe, and feel public?
3. Are there adequate connections to and through the public access spaces? Are there adequate amenities, such as seating, bicycle parking, and trash receptacles, to accommodate the level of users?

4. Do the proposed canopy structures benefit users by providing weather protection, assisting to organize queuing of ferry patrons, and providing an attractive element in their proposed locations? Or do they create a negative effect on views to the Bay? Are there ideas to ensure that queuing passengers do not interfere with other public access users? (The SF Special Area Plan includes a policy that states "Public access should be located at ground or platform level, but minor variations in elevation intended to enhance design of open space may be permitted. Public access should also be open to the sky, although some covering may be allowed if it serves the public access and does not support structures.")
5. Are the proposed approaches to address sea level rise – the raised plaza, entry extensions to ferry gates, curbs at railing edges, and steps, ramps and other measures to connect the plaza to existing grades and to the Agriculture Building – appropriate and designed to function well both now and in the future? Are the connections to existing grades sufficient to address possible adaptation in the future? Are there other ways to minimize grade transition obstacles?
6. Within the new plaza area, are there design treatments to prevent cars and service vehicles from entering this area and ideas for programming this area so that it is animated as a public access destination but still maintained and managed as an open area for use as an emergency assembly area, as required by WETA? Does the new plaza area adequately preserve views to the Bay and maximize the public's enjoyment of the plaza and the waterfront? Is the plaza appropriately designed for the site and for all users? Is it well-designed to serve as a public access destination?