

San Francisco Bay Conservation and Development Commission

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September 12, 2018

TO: Engineering Criteria Review Board (ECRB) Members

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SUBJECT: **Latitude Project (previously referred to as the Terminal One Project);
City of Richmond, Contra Costa County**
(For Board consideration on September 26, 2018)

Staff Summary

Project Name. The Latitude Project (previously referred to as the Terminal One Project), City of Richmond.

Applicants. Laconia Development LLC (Laconia) and the City of Richmond.

Project Representatives. Cleve Livingston (Laconia); Lina Velasco (City of Richmond); Sam Yao and Max Argo (SGH); Jeff Fippin, Pedro Espinosa, and Todd Bradford (ENGEO).

Project Site. The project consists of an approximately 13 acre-site located in the Point Richmond area of the City of Richmond. The site is bounded on the south and a portion of its western edge by San Francisco Bay; on the remainder of its western edge and the north by the Miller-Knox Regional Shoreline Park; and on the east by the Richmond Yacht Club.

Existing Conditions. Until late 1990s, the site was used for shipping and transport, warehouse functions, storage of liquid products ranging from petroleum to vegetable oil, and other port-related industrial activities. Most buildings and structures, including the liquid storage tanks, have been demolished and removed from the site, except for an approximately 94,000-square-foot former port operations warehouse building (the "Terminal One Warehouse") that is partially supported by a shoreline wharf (the "Terminal One Wharf") situated within the southwestern quadrant of the site. The wharf structure comprises a concrete deck supported by precast concrete piles.

Project Description. The Latitude/Terminal One Project ("Project") contemplates the redevelopment of a 13-acre shoreline site located in the Point Richmond area of the City of Richmond which previously served for over 80 years as a port terminal and tank farm. The proposal is to replace these heavy industrial port-related land uses with a mix of public park and private residential uses, the two principal components of which will consist of:

1. An approximately 5.5-acre public waterfront park that would run the length of the Project's approximately 1,100-foot shoreline frontage, including the entirety of the Commission's 100-foot shoreline band, and would feature the existing Terminal One Wharf repurposed for public use and a shoreline extension of the Bay Trail (the "Terminal One Waterfront Park"); and
2. An approximately 8.7-acre residential neighborhood with 316 residential dwelling units (consisting of 21 single-family homes, 295 stacked condominium flats in five multi-story buildings that would be constructed over two single-story parking podiums) that will be developed on the interior of the site, beyond the Commission's 100-foot shoreline band (the "Latitude Residential Neighborhood").

An important aspect of the project involves reusing the existing Richmond Municipal Wharf No. 1 as a public recreational amenity that is the centerpiece of the Project's Waterfront Park. This 1915 era wharf is approximately 555 feet in length and 90 feet in width, with coverage of almost 50,000 square feet.

Prior Reviews. The project has been before the ECRB four times. A briefing was held on June 7, 2016, followed by three engineering criteria review meetings in 2017 on May 24th, August 8th, and November 1st.

Meeting Purpose. On November 1, 2017, the Board unanimously approved "a motion that additional information on the seven items inclusive of the pile inspection monitoring program formerly discussed be provided to BCDC staff by applicant and that the ECRB approve the project to move it to the permitting stage." (Draft Minutes of November 1, 2017 ECRB Meeting.) Prior to adopting the motion to approve the project, the Board discussed whether the Board's approval of the engineering criteria was contingent upon a Board review of "the six or seven things that have been requested" by the Board. This discussion resulted in agreement that: (a) the Board's intent was to "approve the seismic criteria contingent upon receipt of" applicant's responses rather than the Board's "re-review of" those responses; (b) that the responses would be submitted to BCDC for inclusion "in the files," with a copy forwarded to the Board; (c) that the responses would be put on the next meeting's agenda so that if the submittal was insufficient, the Board could provide further comments on the information received in a public setting; and (d) the Board's further comments wouldn't change the approval of the criteria, which "would stand."

To assist the applicants in responding to the Board's November 1, 2017 comments and in an effort to close all remaining technical inquiries on the project, staff prepared the following list of items to which the Board seeks further clarification. This list includes the "seven items" referenced in the Board's November 1, 2017 motion (see Items 1, 3, 4, 6, 7, 8, and 9). The list also includes a request for further clarification with respect to three additional inquiries raised by the Board at its November 1, 2017 meeting (see Items 2, 5, and 10). Staff included these three additional items in order to confirm the Board has received the clarification it sought and to make certain the project file is complete.

1. Provide the longitudinal-dimension sections of the wharf front site and define the limits of the deep soil mixing (DSM) component.
2. Certification and assurance that the stability analysis had been comprehensive and inclusive of the wharf's most critical sections.

3. Seismic hazard de-aggregation (De-agg) and time histories records and the contributions each seismic fault had on the site.
4. Impact analysis from soil classification E to F. A request for the effects of such change, the shear wave velocities and, if there are changes in the velocity profile, changes to the response analysis.
5. A request for the search constraints on the soil stability.
6. A request to include some time histories from the San Andrea's Fault from the maximum credible earthquake (MCE) with longer period motions.
7. Provide the DSM criteria established for contractors. A request for details of the configuration of the DSM cells on the cross-sections. Evidence of DSM cases where the soils technique has worked in the past.
8. A request for the establishment of a pile monitoring program to be provided to BCDC for review. The program would track the rate of pile deterioration and provide for the replacement of each unit over time.
9. A recommendation to repair some of the piles in the "major" damage category: The design/built team should address this repair as part of the completion of the design.
10. A narrative on how the applicant came up with the parameter for the seismic stability evaluation.

Project Sponsor's Response to Board's Comments. In response to the Board's comments, the project sponsor provided the following documents found in the enclosures for the Board's consideration:

1. "Response to BCDC Comments (November 1, 2017)" prepared by ENGEO, January 12, 2018, as revised September 5, 2018 (includes responses to Items 1, 3, 4, 6, 7, 8, and 9 as listed above);
2. "Terminal One/Point Richmond, California/Deep Soil Mixing/Design Criteria," prepared by ENGEO, January 17, 2017, as revised February 24, 2017 (includes responses to Item 7 as listed above);
3. "Design of DSM Grids for Liquefaction Remediation," prepared by T.V. Nguyen, et al., March 4, 2013 (includes responses to Item 7 as listed above);
4. Post-Earthquake Reconstruction Strategies: NCEER-INCEDE Center-to-Center Project, "Reduction of Liquefaction Hazards by Deep Soil Mixing," Thomas D. O'Rourke and Siang H. Goh, August 29, 1997 (includes responses to Item 7 as listed above);
5. "Response to BCDC Staff Comments (November 1, 2017)" prepared by ENGEO, September 5, 2018 (includes responses to Items 2, 5, and 10 as listed above);
6. "Shoreline Structure Instrumentation Program" prepared by ENGEO, April 27, 2017, as revised September 5, 2018;
7. "Executive Summary – Pile Repair Status Report";

8. "Engineering Report – Findings and Recommendations Regarding a Pile Repair Needs Assessment and Strategic Planning Framework for the Terminal One Wharf" prepared by Simpson Gumphertz & Heger (SGH), July 20, 2018, as revised September 7, 2018 (the "Pile Repair Status Report") (includes responses to Items 8 and 9 as listed above);
9. "Executive Summary – Long-Term Pile Repair Report"; and
10. "Engineering Report – Findings and Recommendations Regarding Design of a Long-Term Pile Repair Strategy and Targeted Pile Repair Plans for the Terminal One Wharf" prepared by SGH, August 15, 2018, as revised September 7, 2018 (the "Long-Term Pile Repair Report") (includes responses to Items 8 and 9 as listed above).

A copy of the draft minutes of the November 1st, 2017 ECRB meeting is provided for reference.

Board Review

The enclosed materials are being provided for the Board's review and have been agendized in order to provide Board members with an opportunity to comment in a public forum setting on the project sponsor's responses to Board comments from the November 1, 2017 ECRB Meeting.

Material Enclosed with this Staff Report for November 1, 2017 ECRB Meeting

1. "Response to BCDC Comments (November 1, 2017)," prepared by ENGEO, January 12, 2018, as revised September 5, 2018;
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7. "Executive Summary -- Pile Repair Status Report";
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