

2251 Douglas Boulevard Suite 200 Roseville, CA 95661 **P** 916.677.4800

gannettfleming.com

September 18, 2023 Gannett Fleming Project No. 075063

Ms. Jennifer Blackman Bolinas Community Public Utility District 270 Elm Road Bolinas, CA 94924

#### Re: Surfer's Overlook at Terrace Avenue - Bluff Evaluation Update Change Order Request No. 1 Bolinas, California

References:

- 1. Updated Coastal Bluff Evaluation and Alternative Analysis Surfer's Overlook (DRAFT), prepared by Gannett Fleming, Inc., dated August 15, 2023.
- 2. Agreement for Engineering Services, Bolinas Community Public Utility District & Gannett Fleming, Surfer's Overlook – Bluff Evaluation Update, dated April 6, 2023.

Dear Ms. Blackman:

As requested by Bolinas Community Public Utility District (BCPUD), we have prepared this request for a change order to authorize the supplemental inspection of select foundation piles supporting the existing timber bluff protection wall (sea wall) protecting the western toe of the bluff at the Surfer's Overlook site below Terrace Avenue in Bolinas, California.

#### PURPOSE OF INSPECTION

In the draft updated bluff evaluation report (Ref. 1) submitted to BCPUD under our engineering services agreement (Ref. 2), Gannett Fleming noted that an as-needed/repair-in-kind approach could be a "smaller-footprint" means of maintaining the existing, timber, pile-and-lagging sea wall on a short- or medium-term basis. This repair option would involve temporarily bracing the existing sea wall while the exposed portions of deteriorated piles were removed and replaced with new timber piles via structural splicing (e.g., a steel sleeve); the report noted, however, that determining the feasibility of this repair option would require an inspection of the deteriorated piles in order to determine whether they were structurally viable within a reasonable distance below grade, in which the upper few feet of the piles would be exhumed and examined for structural integrity.

On September 7, we received an email from BCPUD requesting that the scope of work under the abovereferenced agreement be amended to include such a pile inspection, and that the findings be included in the final version of the updated bluff evaluation report (Ref. 1). In subsequent conversations, BCPUD requested that Gannett Fleming provide two alternative supplemental scopes, comprising: 1.) a one-day Ms. Jennifer Blackman Change Order No. 1 Surfer's Overlook - Bluff Evaluation Update Page 2 of 3

inspection, limited to those piles that appear in need of repair as soon as practicable; and, 2.) a multi-day inspection of all accessible sea wall piles.

Based on historical drawings and site photographs, we understand that the seawall piles are fronted by lagging below beach level, with rip rap impinging on that lagging to an unknown depth below grade. We further understand that BCPUD does not wish to remove lagging or operate mechanical equipment on the beach to move rip rap at this time. Accordingly, excavation for the pile inspections will be limited to lateral "slots" behind the front lagging adjacent to the piles, to the extent allowed by field conditions. It is important to note that the nature of the backfill material behind the front lagging is unknown and may be difficult to excavate with hand tools. As a result, the observations of the piles may be limited.

#### **SCOPE OF WORK**

In response to the foregoing requests, we present our proposed supplemental scope of work below:

## **Option 1: One-Day Pile Inspection**

- Perform a one-day site visit to observe and document the conditions of the existing sea wall piles most in need of repair, as determined by Gannett Fleming (assume 6 piles). The inspection will comprise exhuming 2 to 3 feet of the affected piles via hand tools, and performing a visual assessment of the pile's apparent integrity. The inspection may additionally include probing some or all of the piles with a metal rod, and/or drilling the piles with a small-diameter bit in order to observe cuttings from the pile interior.
- Revise the updated bluff evaluation report (Ref. 1) to include: a.) the results of the pile inspection, including a diagram indicating which piles were inspected and photographs representative of the observed conditions; and, b.) updates to the repair concept, as feasible/appropriate based on the inspection findings.

#### Assumptions:

BCPUD can provide up to 4 laborers and furnish hand tools (e.g., shovels/spades, pickaxes, digging bars, etc.) and a shop vacuum for up to 6 hours to perform hand excavation 2 to 3 feet below grade around buried portions of the selected piles.

#### **Option 2: Multi-Day Pile Inspection**

- Perform a 3-day site visit to observe and document the conditions of the accessible sea wall piles, as determined by Gannett Fleming. (The sea wall includes 23 piles; however, some piles are encased in, or obstructed by, cast-in-place concrete or other structures. Assume 18 piles are accessible for the purposes of this proposal.) The inspection will comprise exhuming 2 to 3 feet of the selected piles via hand tools, and performing a visual assessment of the piles' apparent integrity. The inspection may additionally include probing some or all of the piles with a metal rod, and/or drilling the pile with a small-diameter bit in order to observe cuttings from the pile interior. Assume 2 nights local lodging expenses.
- Revise the updated bluff evaluation report (Ref. 1) to include: a.) the results of the pile inspection, including a diagram indicating which piles were inspected and photographs representative of the observed conditions; and, b.) updates to the repair concept, as feasible/appropriate based on the inspection findings.



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#### Assumptions:

BCPUD can provide up to 4 laborers and furnish hand tools (e.g., shovels/spades, pickaxes, digging bars, etc.) and a shop vacuum for up to 6 hours for 3 consecutive days to perform hand excavation 2 to 3 feet below grade around buried portions of the selected piles.

<u>Deliverables</u>: None. Findings and updated recommendations will be included in revised, updated bluff evaluation report (Ref. 1).

#### ESTIMATED SCHEDULE

The schedule of work will be determined through coordination with BCPUD, based upon which task is authorized.

## **ESTIMATED FEES**

Our estimated fee for Option 1: One-Day Pile Inspection is **\$15,624.00**, including travel, to be billed on a time-and-expenses basis.

Our estimated fee for Option 2: Multi-Day Pile Inspection is **\$24,394.00**, including travel and lodging, to be billed on a time-and-expenses basis.

## CONDITIONS

Our services will be performed on a 'time and expenses' basis and will be billed in accordance with our existing agreement (Ref. 2). We will not exceed the budget presented above to perform the proposed Scope of Work. Should additional work, site visits, or meetings be required in addition to the Scope of Work above, or should significant changes be required due to reasons beyond the control of Gannett Fleming, the time required for these items will be billed on a 'time and expenses' basis in accordance with the existing agreement, as authorized by BCPUD.

If this change order request is acceptable, please provide a purchase order referencing this document and the existing agreement, specifying which pile inspection option is authorized for Gannett Fleming's signature.

Sincerely, Gannett Fleming, Inc.

Syed Ul Haque, PE (#77661) Senior Engineer

Attachments: Budget Backup

Willam Millhone, PE (#62051) Principal Engineer



# **Project Budget Backup**

Drew G. Kennedy

William L. Millhone

Syed M. Ul Haque

Syed M. Ul Haque

ΡM

#### **BCPUD - Surfer's Overlook - Supplemental Investigation** Planned **Planned Hours Planned Bill** Quantity **Billing Rate One-Day Pile Inspection** \$15,623.75 Field Reconnaissance William L. Millhone 8 \$275.00 Expenses Travel: Mileage 250 \$0.655 Travel: Meals 1 \$60.00 Report Update Drew G. Kennedy 16 \$300.00 William L. Millhone 24 \$275.00 Syed M. Ul Haque 4 \$225.00 ΡM Syed M. Ul Haque 4 \$225.00 **Multi-Day Pile Inspection** \$24,393.75 Field Reconnaissance William L. Millhone 24 \$275.00 Expenses 250 Travel: Mileage \$0.655 Travel: Lodging 2 \$300.00 Travel: Meals 3 \$60.00 Report Update

20

28

6

8

\$2,200.00

\$163.75

\$60.00

\$4,800.00

\$6,600.00

\$900.00

\$900.00

\$6,600.00

\$163.75

\$600.00

\$180.00

\$6,000.00

\$7,700.00

\$1,350.00

\$1,800.00

\$300.00

\$275.00

\$225.00

\$225.00