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April 9, 2026

Ms. Deanna Stockton, PE, CME
Municipal Engineer / Deputy Administrator
Department of Infrastructure & Operations
MUNICIPALITY OF PRINCETON
400 Witherspoon Street
Princeton, New Jersey 08540

Attn: Mr. James J. Purcell, PE

RE: Certification of Change Order to replace footings and modify arch relief slab
REHABILITATION / REPLACEMENT OF TWO PEDESTRIAN FOOTBRIDGES
(Historic Stone Arch (Red Trail) & Stone/Conc. Footbridge (Green Trail))
Mountain Lakes Preserve
Princeton, Mercer County, New Jersey
FPA No. 17045.009

Dear Mr. Purcell,

As requested, this letter is to certify that there are changed conditions due to unforeseen circumstances that require issuance of a Change Order for the replacement of the footings and a modification to the arch relief slab for the Historic Stone Arch Footbridge on the Red Trail Bridge in the referenced project. The proposed Change Order is necessary due to unforeseen conditions encountered during construction for the rehabilitation of the historic footbridge.

At the time of design, the existing condition of the bridge footings could not be accurately assessed due to the absence of as-built plans and since the footings were fully buried and inaccessible for inspection.

Following the removal of the fill above the stone arch and between the stone masonry spandrel walls exposing the existing footings during construction, it was determined that the footings were inadequate to support the rehabilitated structure. Once the construction activities exposed the footings and the arch, FPA inspected the bridge on October 2, 2025, and found that the existing footing widths varied between 21” and 24” wide, which were not adequate for the spandrel walls. This explained why the existing footings cracked at the junction with the arch footings resulting in the original spandrel walls shifting outward (sliding) and the walls rotating. The stone arch was also composed of vertically placed stones with the extrados of varying height. It is noted that the footings for the spandrel walls and the stone arch were buried and in an unknown condition. New wider reinforced concrete footings with adequate depth below the frost line for the four (4) spandrel walls were subsequently recommended in our October 3, 2025 email. In addition, the geometry for the top of the concrete arch relief slab needed to be redesigned to enable the reinforcement steel placement.

These conditions could not reasonably have been foreseen during the design phase because the footings were not visible and no reliable record drawings existed documenting their dimensions or condition.

Therefore, Issuance of this change order is necessary to replace the existing footings and provide properly sized and stable foundations. This work will also allow the arch structure to be rehabilitated safely and in accordance with the structural and quality standards expected by the Municipality of Princeton and New Jersey Historic Trust. The proposed Change Order is in the best interest of the Municipality of Princeton and does not abuse the Change Order rules. This work will ensure long-term stability and proper rehabilitation of the bridge, while addressing conditions that were not reasonably identifiable prior to construction.

If you should have any questions or comments, please contact me at (732) 539-3022 or by email.

Respectfully submitted,
FRENCH & PARRELLO ASSOCIATES

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