



September 18, 2024

Gorman & Company
Nathaniel Stark, AIA
1060 Bannock Street, Suite 305 Steamboat
Springs, Denver, CO 80204
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Job Number: 23-12980

Subject: Soil Nail Wall Removal
Recommendations, Lot B, Downtown
Riverview Subdivision, Steamboat
Springs, Colorado.

Nathaniel,

As requested NWCC, Inc. (NWCC) has prepared this report to discuss our recommendations for removing the temporary wall and soil nails that were advanced into the alley located to the northeast of the subject property earlier this year. The alley is located between 3rd Street and 4th Street in Steamboat Springs, Colorado.

Based on our review of the construction plans, as-built details for the temporary soil nail wall, the Soil Nail Wall Demolition Exhibit prepared by Landmark Consultants, and our recent site observations, it appears that the contractor (Deneuve), building the building structure on Lot B, constructed a temporary soil nail wall along the property line running between the subject property and alley to the northeast of the property.

It appears the soil nails installed for the wall have encroached into the alley and 20' ROW approximately 9 to 14 feet horizontally and to depths ranging from 9 to 15 feet below the ground surface in the alley. It also appears that the nails were placed above and below several utility lines that run down the alley.

NWCC believes that there are two options for restoring the alleyway and they are to remove the wall and nails in entirety or cut the soil nails off at the wall and leave the nails in place after the temporary wall is removed.

It should be noted that leaving the soil nails in place will eliminate the risk of damage to the existing utility lines located in the alley and ROW, as well as reduce the disturbance to the alley. The downside for leaving the nails in place is that they will have to be cut and removed from any

future excavations in the alley. Future excavations in the alley will likely be some type of utility line repair or replacement.

After the temporary wall is removed, the attached soil-nails will have to be either removed by excavating to the base/end of the nails or cutting the nails off at the wall and leaving them in place.

If the nails are removed, NWCC recommends that the excavations be backfilled to the original grade with the on-site granular soils or imported, granular fill materials. The fill materials should be placed in 6 to 8 inch loose lifts and be compacted to at least 95% of the maximum modified Proctor density and within 2% of the optimum moisture content determined in accordance with ASTM D-1557.

The new fill materials should be properly benched/keyed into the natural soils/existing fill materials exposed at the northeast end of the nails and excavation. The on-site sands and gravels may be used for fill materials after all of the larger cobbles and boulders are removed, and they are properly moisture conditioned. Any imported structural fill materials should meet the Colorado Department of Transportation (CDOT) specifications for Class 1, 5 or 6 aggregate base course or Class I Structure Backfill material.

NWCC should be retained to observe the excavations after the nails have been removed or cut off the wall to confirm the recommendations in this report, as well as test the fill materials placed back within the excavations for compaction.

If you have any questions regarding these recommendations or if NWCC may be of further service, please do not hesitate to contact us.

Sincerely,
NWCC, INC.

Brian D. Len, P.E.
Principal Engineer

