GEI Consultants

Consulting Engineers and Scientists

March 24, 2020

VIA EMAIL: Manjunath.Shivalingappa@LehighHanson.com

Mr. Manjunath Shivalingappa
Lehigh Southwest Cement Company–Permanente Plant
24001 Stevens Creek Boulevard
Cupertino, California 95014

Dear Mr. Shivalingappa:

Re: Observations from Inspection of Silt Fences at the Yeager Yard
Lehigh Southwest Cement Company–Permanente Plant
Cupertino, California

Introduction

On March 13, 2020, GEI Consultants (GEI) prepared an Erosion and Sediment Control Plan for a portion of the Permanente Quarry known as the Yeager Yard. The plan recommended the inspection, repair and/or removal of certain best management practices (BMPs) in the Yeager Yard. This letter documents the implementation of these recommendations.

Background

On March 3, 2020, GEI conducted a site walk to observe the condition of the existing silt fences throughout the Yeager Yard. GEI and Lehigh representatives identified silt fences to be repaired, removed, or replaced over the upper slopes of the Yeager Yard as well as along Permanente Creek at the toe of the Yeager Yard slopes. GEI noted that hydroseeded vegetation has established over the upper slopes of the Yeager Yard and this vegetation prevents erosion and reduces sedimentation by providing ground cover and reducing surface flow velocities over the slopes; see photos 1 and 2 of the Photo Log for reference. GEI also observed that the silt fence fabric had fallen off the wire backing on a few short segments of fencing on the upper slopes of the Yeager Yard, and that certain segments of silt fencing installed over the upper slopes of the Yeager Yard were downed or otherwise not performing as initially intended; see photos 3 and 4 of the Photo Log for reference.

On March 13, 2020, GEI prepared an *Erosion and Sediment Control Plan for the Yeager Yard*. It described the conditions observed on March 3, 2020 and included the following recommendations to repair or remove silt fences throughout the Yeager Yard:

1. Where silt fence fabric has fallen off of the wire mesh backing, the operator should re-tie the silt fencing to the support wire and make any needed repairs to prevent runoff from breaching these sediment control structures.

2. The silt fencing BMPs that are no longer performing as intended should be removed because the wire fencing and poles could become a hazard, but care must be taken to not

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allow the sediment and debris collected behind these structures to move downslope. This material may need to be removed from the slope.

Implementation

GEI's recommendations from the *Erosion and Sediment Control Plan* have been implemented.

GEI returned on March 20, 2020 to observe and document the status of BMPs in the Yeager Yard. GEI specifically observed the following:

1. A couple lines of silt fencing and T-posts that were no longer performing as intended were removed from the vegetated upper slopes of the Yeager Yard. See photo 6 in the photo log.

2. All lines of silt fencing that remained over the upper benches of the Yeager Yard were maintained, re-tied to the wire backing and replaced where necessary. See photos 5 and 6 in the photo log.

3. GEI and Lehigh identified the segments of silt fencing along and above Permanente Creek to be replaced and repaired. See photos 7 and 8 in the photo log.

After March 20, 2020, Lehigh also performed and documented the following additional work:

1. Additional lines of silt fencing and T-posts were installed adjacent to existing silt fencing as a second line of defense in the lower slopes of the Yeager Yard above Permanente Creek to the west of the sediment capture basin in case of future toppling or failure of the existing silt fencing. See photos 9 through 11 on the photo log.

The improvements to the silt fences implemented by Lehigh add robustness to the existing erosion and sediment controls even though no deficiencies in the existing controls were identified. These improvements to the silt fences have addressed the recommendations made in the March 13 plan. It is our understanding that Lehigh will continue to monitor, repair, and/or replace the silt fences throughout the Yeager Yard as necessary due to the adaptive nature of BMPs and their implementation.

If you have any questions, please feel free to contact Hugo Velasquez or Len Sansone at (510) 350-2900.

Sincerely,

Hugo Velasquez, P.E., QSD
Project Engineer

Len Sansone, P.E., G.E.
Principal, Quality Control Engineer

GEI CONSULTANTS, INC

Photo Log

Photos taken by GEI during March 3, 2020 inspection

Photo 1. Silt fence above Permanente Creek on the lower slopes west of sediment capture basin.

Photo 2. Detail of silt fence above Permanente Creek on the lower slopes west of sediment capture basin.

Photo 3. Silt fence on upper slopes of the Yeager Yard. Short segment of silt fence fabric is down below hydroseeded slopes with established vegetation.

Photo 4. Silt fence on upper slopes of the Yeager Yard. Short segment of silt fence is down below hydroseeded slopes with established vegetation.

Photos taken by GEI during March 20, 2020 inspection

Photo 5. Silt fence on upper slopes of the Yeager Yard. Short segment of silt fence fabric is down below hydroseeded slopes with established vegetation.

Photo 6. Silt fences on upper slopes of the Yeager Yard. All silt fences on the upper slopes of the Yeager Yard were repaired, or removed where no longer functional.

Photo 7. Detail of silt fence above Permanente Creek on the lower slopes west of sediment capture basin.

Photo 8. Silt fence above Permanente Creek on the lower slopes west of sediment capture basin.

Photos taken by Lehigh after March 20, 2020 Inspection

Photo 9. Additional line of silt fencing installed downslope from the existing silt fence above Permanente Creek on the lower slopes west of sediment capture basin.

Photo 10. Detail of additional line of silt fencing installed downslope from the existing silt fence above Permanente Creek on the lower slopes west of sediment capture basin.

Photo 11. Detail of additional line of silt fencing installed upslope from the existing silt fence above Permanente Creek on the lower slopes west of sediment capture basin.