

1731-A Walter Street Ventura, CA 93003 (805) 642-6727 Fax (805) 642-1325 www.earthsystems.com

April 3, 2015 (Revised April 7, 2015)

Project No.: VT-24086-03 Report No.: 15-4-16

Mike Hollebrands Meiners Oaks County Water District 202 W. El Roblar Drive Meiners Oaks, California 93023

Project: Proposed Replacement Water Tank

Meiners Oaks County Water District

Ventura County, California

Subject: Summary of Project Modifications During Grading

Reference: Bengal Engineering, Inc, 2014, Geotechnical Design Recommendation Report,

Proposed 0.75 MG Steel Water Tank, September 10

Earth Systems Southern California (ESSC) has prepared the following summary of modifications to the proposed scope of work and recommendations in the referenced Geotechnical Design Recommendations Report.

- Perched groundwater was encountered at about 12 feet below the existing grade (along the northwest side of the excavation footprint) during overexcavation of existing soils. Trenching was performed to drain water by gravity to the southwest at the existing slope. The trench was excavated to about 18 feet below existing grade.
- As the excavation continued, additional perched groundwater was encountered at the bottom of the removal for the tank (about 16 feet below existing grade) along the northwest side of the footprint. The water was pumped out by the Client for onsite dust control and the remaining portion of the uncertified fill was excavated down to dense Sespe Formation bedrock units. At this time ESSC recommended placing 4"-minus rock in the excavation where the water and uncertified fill were removed to an approximate thickness of 4 to 7 feet. This area of rock repair was then covered by two layers of Tensar BX1200 geogrid (one at about 18 feet below existing grade and one at 16 feet below existing grade). A layer of non-woven geotextile fabric (Mirifi 140N) was then placed over the area of rock repair and the remaining tank bottom. The remaining tank bottom outside the area of rock repair exposed dense Sespe Formation bedrock units.
- ESSC recommend two permanent French drains within the tank excavation to mitigate the buildup of groundwater within the granular engineered fill. One drain was constructed at the bottom of the unreinforced zone and one drain was constructed between the reinforced and unreinforced zones.

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Please call if you have any questions, or if we can be of further service. Respectfully submitted,

EARTH SYSTEMS SOUTHERN CALIFORNIA

Todd J. Tranby **Engineering Geologist**

NO. 2078
NO. 2078
CERTIFIED
ENGINEERING
GEOLOGIST
EXPIRES 11-15 OF CALL

Reviewed and Approved

Anthony P. Mazzei **Geotechnical Engineer**

1 - Client (mail and email)

1 - Office File