

July 3, 2025

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Subject: **Geotechnical Evaluation of Paver Roads – Supplemental No. 1**

Enclave at Lake Havasu (34.508809^o, -114.251130^o)

Lake Havasu City, Arizona 86406

CSET 81-142

Dear Mr. Holmgren,

Copper State – TEAM, Inc. (CSET) was asked to provide conceptual level recommendations. CSET's issued a geotechnical engineered evaluation report dated May 23, 2025, that did not include repair recommendations. Conceptual level recommendations are provided in this letter to the items identified in the "Discussions" section of the May 23 report.

Detail survey of the paver roadways should be conducted. The survey should include and confirm the defects, areas of the defects, preliminary area (quantity) of the affected areas, and the appropriate repair recommendations. The following recommendations are conceptual and do not include the locations or the areal coverage of the affected areas.

1. Compaction – The testing did not show widespread compaction issues of the aggregate base and the subgrade soils. Vertical and lateral displacement of the pavers around utilities were noted. After the survey of the roadways, the vertical and lateral displaced pavers around utilities should be removed and replaced. The AB should also be removed and replaced, and the subgrade soil compacted.
2. Chipped Pavers – The survey should mark pavers with chipped corners. If vertically displaced pavers exist in those areas, they should be documented. Vertically displaced pavers may indicate minor settlement of the sand or AB layer. In areas of vertically displaced and chipped pavers, the pavers, the sand and AB soils should be removed and replaced. If there is no vertical offset of the pavers, only the pavers and sand bedding need to be replaced. CSET recommends that the chipped pavers should be replaced after all construction activities in the subdivision are completed.
3. Interlocking Pavers – The survey should identify all areas where inadequate interlocking caused or contributed to the distress. The gap (joints) between adjoining pavers should be documented. Pavers that are not tightly locked have a higher tendency to move laterally and/or vertically. Areas where inadequate interlocking has already been damaged or has potential to cause future damage should be removed and replaced with properly interlocked pavers. The sand

bedding should be removed and replaced. The thickness of the sand bedding should be limited to no more than 1.5 inch.

4. Bedding sand thickness – Areas with more than 1.5 inches of bedding sand were encountered during our destructive testing. Minor settlement of the pavers may occur depending on the thickness of the sand bedding. The thicker the sand, the greater the chance of settlement. At this time, CSET does not have enough information to opine that the sand bedding thickness alone has caused distress. Several random pavers can be removed as part of the roadway survey to evaluate the rate of occurrence of thicker sand bedding. Based on the results of the survey, CSET may be contacted to provide recommendations.

It is critical that a detailed survey of the entire paver roadways be conducted. If the survey is done by a firm other than CSET, the results of the survey may be provided to CSET for review. This supplemental letter is not a standalone letter but should be used in conjunction with CSET's original report dated May 23, 2025. The analysis, opinions and recommendations provided in the original report remain valid. If inconsistencies are found between the original report and this letter, CSET should be contacted. We reserve the right to expand or amend the analysis and recommendations, as additional information becomes available. The recommendations are based on a reasonable degree of engineering certainty. Reliance on this letter is subject to the attached Terms and Conditions. Please contact CST with questions or comments.

Respectfully submitted,
Copper State Engineering, Inc.



Moges Gebregiorgis, P.E.
Senior Geotechnical Engineer

Attachment: Copper State -Team Terms and Conditions



COPPER STATE-TEAM dba COPPER STATE ENGINEERING
TERMS AND CONDITIONS

PAYMENT TERMS _ Payment is due upon receipt of our invoice. If payment is not received within thirty days from the invoice date, Client agrees to pay a finance charge on the principal amount of the past due account of one and one-half percent per month. If one and one-half percent per month exceeds the maximum allowed by law, the charge shall automatically be reduced to the maximum legally allowable. Client agrees to pay all costs associated with collection of overdue invoices, including reasonable attorney's fees.

TERMINATION OF SERVICES _ In the event Client requests termination of the services prior to completion, a termination charge in an amount not to exceed thirty per cent of all charges incurred through the date services are stopped plus any shutdown costs may, at the discretion of Copper- State-TEAM be made. If during the execution of the services, Copper-State-TEAM is required to stop operations as a result of changes in the scope of services such as requests by the Client or requirements of third parties, additional charges will be applicable.

INSURANCE _ Copper-State-TEAM maintains Workers' Compensation and Employer's Liability Insurance in conformance with applicable state law. In addition, we maintain Comprehensive General Liability Insurance and Automobile Liability Insurance with limits of \$1,000,000/\$1,000,000, Professional Liability Insurance in the amount of \$2,000,000 (per claim & aggregate), and Pollution Liability Insurance in the amount of \$1,000,000. A certificate of insurance can be supplied evidence of such coverage which contains a clause providing that ten days written notice be given prior to cancellation. Cost of the above coverage is included in our quoted fees. If additional coverage or increased limits of liability are required, Copper-State-TEAM will endeavor to obtain the requested insurance and charge separately for costs associated with additional coverage or increased limits.

STANDARD OF CARE _ The only warranty or guarantee made by Copper-State-TEAM in connection with the services performed hereunder, is that we will use that degree of care and skill ordinarily exercised under similar conditions by reputable members of our profession practicing in the same or similar locality. No other warranty, expressed or implied, is made or intended by our proposal for consulting services or by our furnishing oral or written reports. Unless specified by the client in writing, the client agrees to a "Simple Acceptance" as a decision rule, i.e. the tolerance and/or results will not be evaluated by any measurement uncertainty when deciding in/out of tolerance, complies (yes/no) or meets/does not meet project specifications noted on any test report.

LIMITATION OF LIABILITY _ Client agrees that Copper State-TEAM's liability of any damage on account of any error, omission or other professional negligence will be limited to a sum not to exceed \$50,000 or Copper-State-TEAM fee, whichever is greater. If client prefers to have higher limits on professional liability Copper-State-TEAM agrees to increase the limits up to a maximum of \$1,000,000 upon Client's written request at the time of accepting our proposal provided that Client agrees to pay an additional consideration of two percent of our total fee, or \$200, whichever is greater. The additional charge for higher liability limits is because of the greater risk assumed and is not strictly a charge for additional professional liability insurance.

SAMPLING OR TESTING LOCATION _ The fees included in this proposal do not include costs associated with surveying of the site or the accurate horizontal and vertical locations of tests. Field tests or boring locations described in Copper State-TEAM's report or shown on sketches are based on specific information furnished by others or estimates made in the field by our technicians. Such dimensions, depths or elevations should be considered as approximations unless otherwise stated in the report.

RIGHT OF ENTRY _ Unless otherwise agreed, Client will furnish right of entry on the property for us to make the planned borings, surveys, tests, and/or explorations. We will take reasonable precautions to minimize damage to the property caused by our operations, but we have not included in our fee the cost of restoration of damage which may result. If Client desires us to restore the property to its former condition, we will accomplish this and add the cost to our fee.

DAMAGE TO EXISTING MANMADE OBJECTS _ It shall be the responsibility of the Client or his duly authorized representative to disclose the presence and accurate location of all hidden or obscure man-made objects relative to field tests or boring locations. Copper State-TEAM's field personnel are trained to recognize clearly identifiable stakes or markings in the field and without special written instructions to initiate field testing drilling and/or sampling within a reasonable distance of each designated location. If Copper-State-TEAM is cautioned, advised or given data in writing that reveal the presence or potential presence of underground or overground obstructions, such as utilities, Copper-State-TEAM will give special instructions to its field personnel. As evidenced by Client's acceptance of this proposal, Client agrees to indemnify and save harmless from all claims, suits, losses, personal injuries, death and property liability resulting from unusual subsurface conditions or damages to subsurface structures, owned by Client or third parties, occurring in the performance of the proposed services, whose presence and exact locations were not revealed to Copper-State-TEAM in writing, and to reimburse Copper-State-TEAM for expenses in connection with any such claims or suits, including reasonable attorney's fees.

SAMPLE DISPOSAL AGREEMENT _ Unless otherwise requested, test specimens or samples will be disposed of immediately upon completion of tests and drilling samples or other specimens will be disposed of 60 days after submission of our report. Upon written request, Copper-State-TEAM will retain test specimens or drilling samples for a mutually acceptable storage charge and period of time.



OWNERSHIP OF DOCUMENTS _ All documents, including, but not limited to, drawings, specifications, reports, boring logs, field notes, laboratory test data, calculations and estimates, prepared by Copper-State-TEAM are instruments of service pursuant to this Agreement, shall be the sole property of Copper State-TEAM. Client agrees that all documents of any nature furnished to Client or Client's agents or designees, if not paid for, will be returned upon demand and will not be used by Client for any purpose whatsoever. Client further agrees that under no circumstances shall any documents produced by, pursuant to this Agreement, be used at any location or for any project not expressly provided for in this Agreement without the written permission of Copper State-TEAM. At the request and expense of Client, Copper State-TEAM will provide Client with copies of documents created in the performance of the work for a period not exceeding five years following submission of the report contemplated by this Agreement.

SAFETY _ Should Copper-State-TEAM provide periodic observations or monitoring services at the job site during construction, Client agrees that in accordance with generally accepted construction practices, the contractor will be solely and completely responsible for working conditions on the job site, including safety of all persons and property during the performance of the work and compliance with OSHA regulations, and that these requirements will apply continuously and not be limited to normal working hours. Any monitoring of the contractor's procedures conducted by Copper-State-TEAM is not intended to include review of the adequacy of contractor's safety measures in, on, adjacent to, or near the construction site.

SITE VISITS _ Client agrees that Copper-State-TEAM will not be expected to make exhaustive or continuous on-site inspections but that periodic observations appropriate to the construction stage shall be performed. It is further agreed that Copper-State-TEAM will not assume responsibility for the contractor's means, methods, techniques, sequences or procedures of construction, and it is understood that field services provided by Copper-State-TEAM will not relieve the contractor of his responsibilities for performing the work in accordance with the plans and specifications. The words "supervision," "inspection," or "control" are used to mean periodic observation of the work and the conducting of tests by Copper-State-TEAM to verify substantial compliance with the plans, specifications and design concepts. Continuous inspections by our employees does not mean that Copper-State-TEAM is observing placement of all materials. Full-time inspections mean that an employee of Copper-State-TEAM has been assigned for eight-hour days during regular business hours.

GOVERNING LAW _ This agreement shall be governed in all respects by the laws of the State of Arizona.