

**ESTACADA SCHOOL DISTRICT
BOARD AGENDA
SUPPORTING DOCUMENT FOR ACTION ITEM**

Regular Meeting of April 14, 2022

ITEM : Concrete Treatment; Buzz Randall Stadium Improvement Project

PREPARED BY: Mike Waer

TYPE OF ITEM: ACTION ITEM

BACKGROUND INFORMATION: The Estacada School Districts Buzz Randall Stadium is currently going through an improvement project, which includes:

- Artificial Turf Installation;
- Updated Seating;
- Security and Safety Improvements;
- ADA Compliance Improvements; and
- Additional Building Improvements, such as painting and pest control

The District completed a geotechnical evaluation of field space at Buzz Randall Stadium, as part of the preliminary preparation for the artificial turf project. Based on the Geotechnical Engineering Report, contractors must apply a concrete treatment and ground stabilization, in order protect the subgrade from damage. See the information below from the report:

General

In order to stabilize subgrade and protect it from damage during construction, an experienced contractor should be able to amend the on-site clay soil with portland cement to obtain suitable support properties. Successful use of soil amendment depends on the use of correct mixing techniques, soil moisture content, and amendment quantities. Soil amendment should be conducted in accordance with the specifications provided in OSSC 00344 (Treated Subgrade). The amount of cement used during amendment should be based on an assumed soil dry unit weight of 100 pcf. Cement amendment can also be used condition native soil for use as structural fill instead of processing and air drying.

Subgrade Stabilization

Specific recommendations should be based on exposed site conditions at the time of amendment. However, for preliminary design purposes, we recommend a target strength for cement-amended subgrade (below drainage aggregate) soil of 100 psi. The amount of cement used to achieve this target generally varies with moisture content and soil type. It is difficult to predict field performance of soil to cement amendment due to variability in soil response, and we recommend laboratory testing to confirm expectations. Typically, 7 to 9 percent cement (by weight of dry soil) is recommended if the soil moisture content of clay soil is in the range of 25 to 35 percent. The amount of cement added to the soil should be adjusted based on field observations and performance at the time of construction. If amendment will be completed in the wet winter to spring months, more than 9 percent cement may be required.

**ESTACADA SCHOOL DISTRICT
BOARD AGENDA
SUPPORTING DOCUMENT FOR ACTION ITEM**

Regular Meeting of April 14, 2022

RECOMMENDATION: To authorize the Estacada School District to spend \$97,726.34 with Leahy Construction Inc. towards the application of a cement treatment/subgrade stabilization at Buzz Randall Stadium.