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Interoffice Memo

TO: CAPRA File for 10.6 – Research Investigation

FROM: Brian Sjothun, Parks & Recreation Director

SUBJECT: Experimental Project 2014 - Cement Treatment for Subbase

DATE: December 20, 2015

The Parks Maintenance Division was searching for a solution that would help lower costs while providing a solid subbase for a tennis court reconstruction project. The issue resulted from the massive amount of expansive clay soil that was beneath the existing courts and causing major cracking as a result of shifting.

One option was to excavate the clay soil from beneath the courts and add additional rock subbase. This extra cost was not feasible due to budget constraints. The second option was to utilize an experimental procedure called cement treatment. This treatment was in lieu of the additional excavation and aggregate subbase.

This process was used to reconstruct tennis courts at Fichtner-Mainwaring (2014) and Holmes Park (2015).

As a result of this experiment, MPRD has experienced a 20-30% reduction in the base bid costs for excavation and aggregate. The concrete treatment is projected to provide longer life cycle cost and to prevent the surface cracking as this procedure seals the expansive clays and prevents soil shifting.

BRIAN SJOTHUN
Parks & Recreation Director

APPROVED: