

CERV 2020

PARK CITY, UT

FEB 2020

Constructability Issues of Powered Pre-cast Concrete Pavement

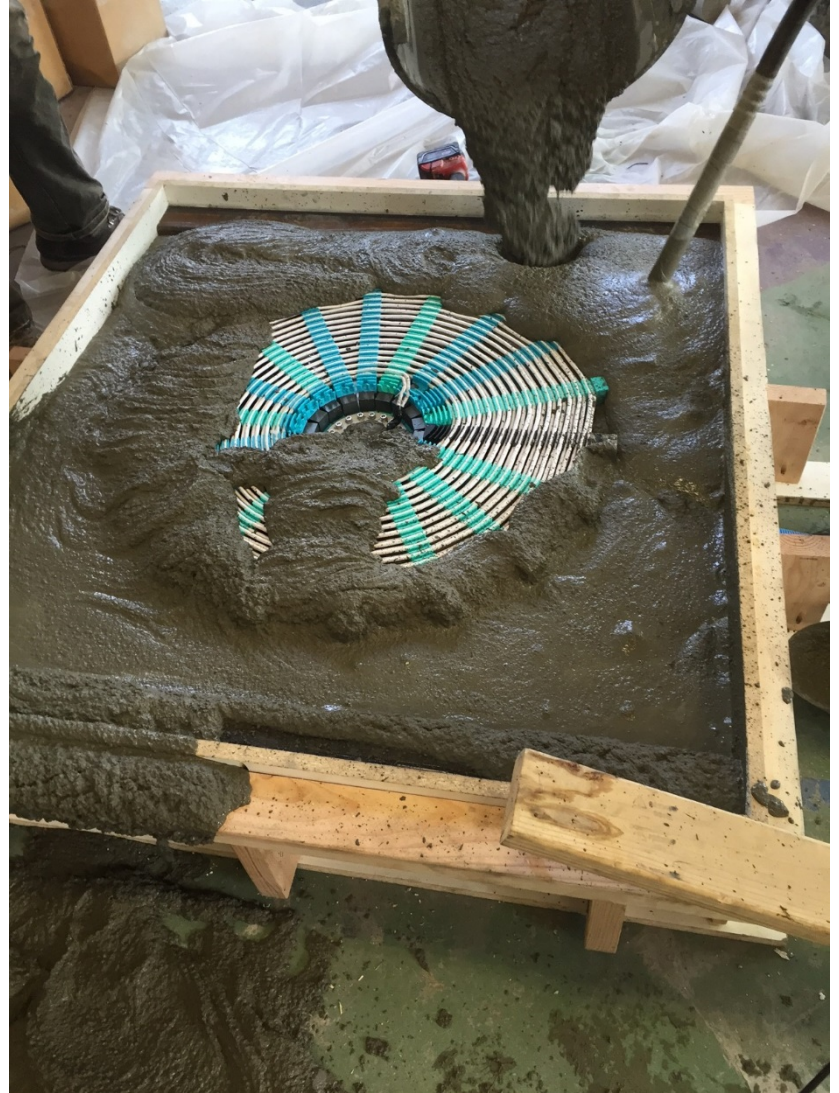
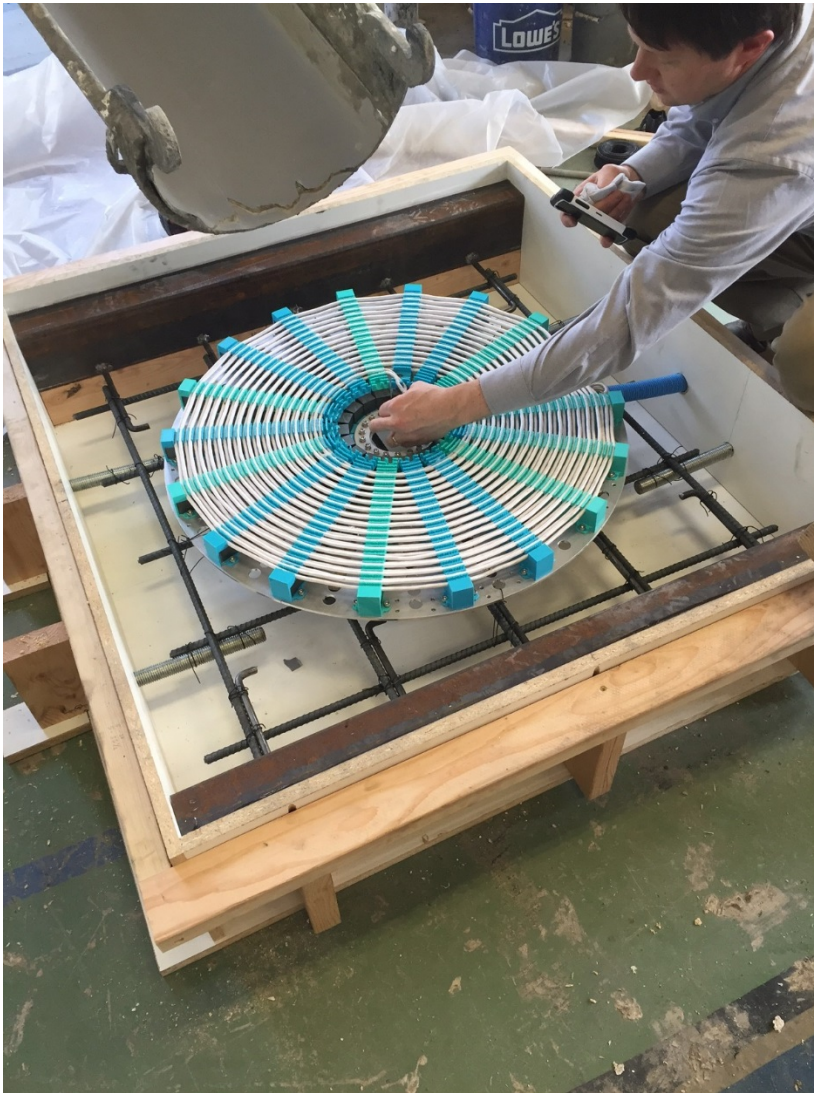
Marv Halling

Professor, Civil and Environmental Engineering
Utah State University

Collaborators: Faculty: Abhilash Khamineni, Nick Roberts

Students: Pilaiwan Vaikasi, Arden Barnes, John Mermigas, Benny Varghese

Early Concrete Pads





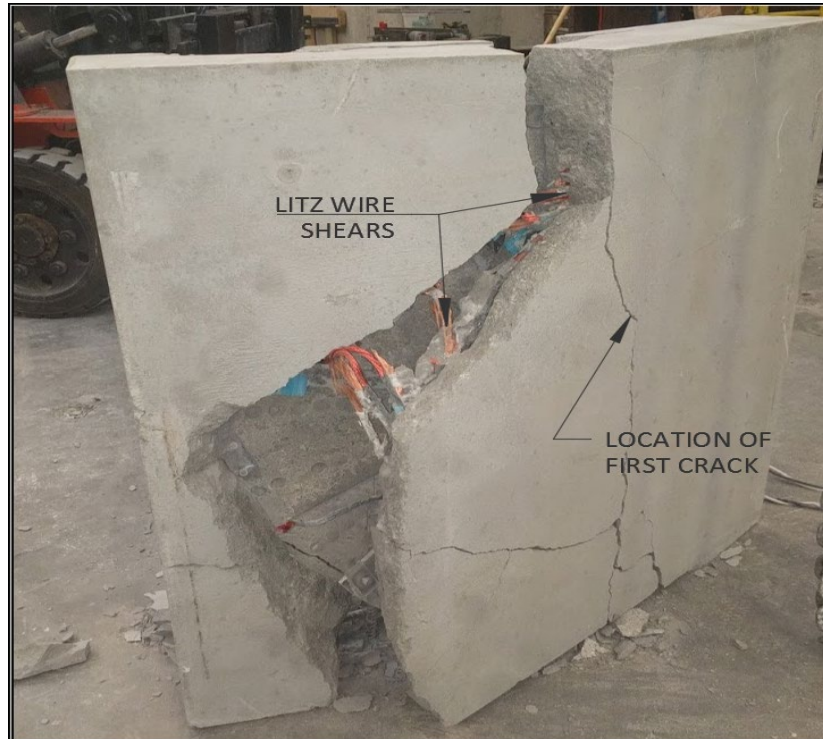
Four-point bending test set up (SMASH Lab)



(25,000 cycles)

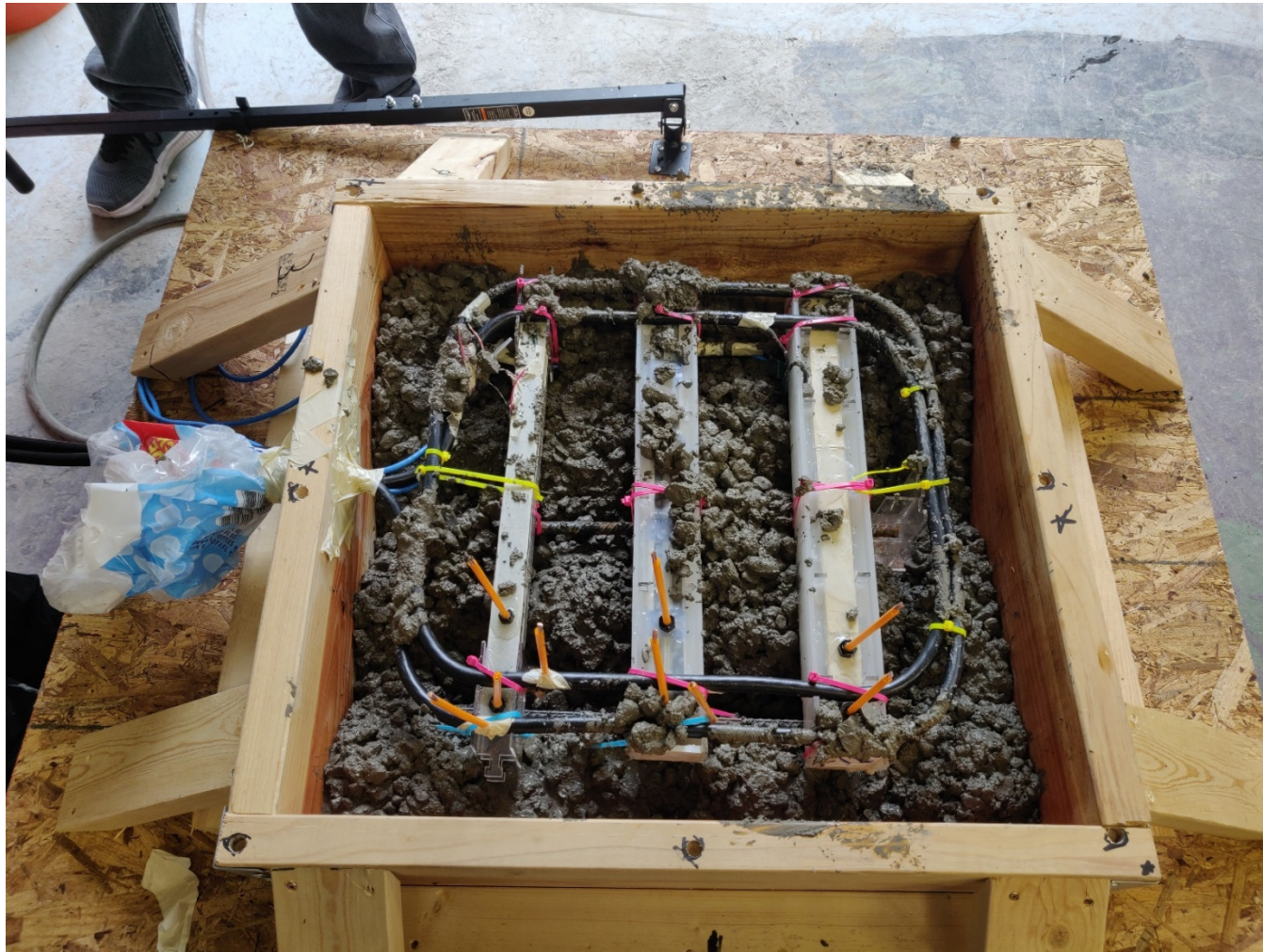


(27,000 cycles)



High cycle fatigue produced minimal effect on the electrical properties that were measured (inductance and resistance).

2 ft x 2 ft x 12 inch specimen



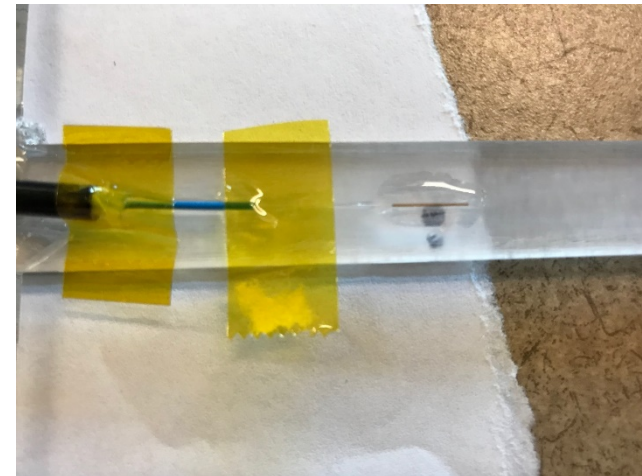
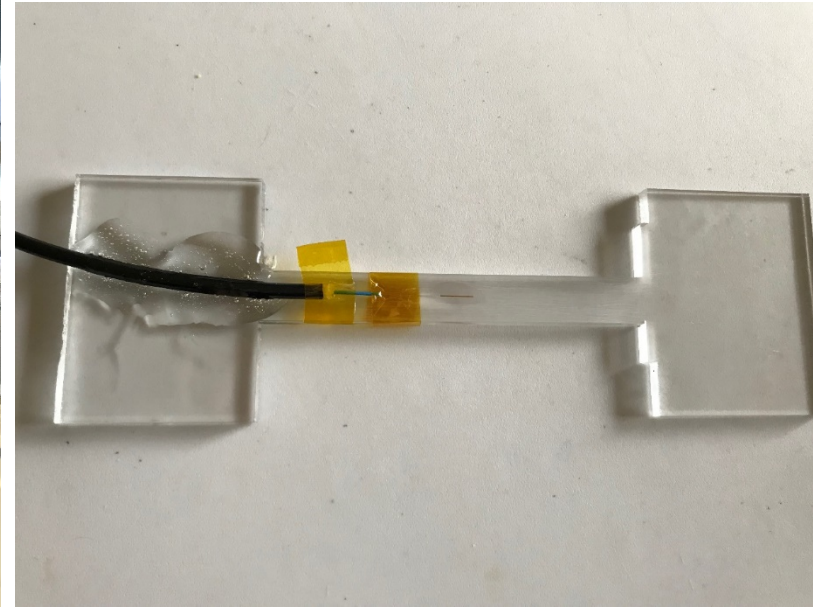
4 ft by 8 ft by 12 inch specimen, glass re-bar



Three 4 ft x 8 ft x 12 inch specimens



Thermal Testing (Powered), fiber optic temperature sensors (inserted) and strain gauges (embedded)



Thermal Testing (Powered), fiber optic temperature sensors (inserted) and strain gauges (embedded)



Thank You

- Discussion