Precast Box Beams and Sheet Pile Abutments Lessons Learned

- Resulted in excessive sheet pile lengths, had some difficulty establishing the bearing capacity in the field, and required extensive cutting and grinding the top of the sheeting to provide a level bearing surface.

- At subsequent bridge locations, the precast box beam superstructure was supported on a steel wide flange welded to the top of a single row of steel pipe piles and the sheeting was installed behind the pipe piles to retain the approach embankment. In addition to the reduced sheet pile quantity, this detailing was significantly easier to construct.