

Design, Construction, and the Quality Assurance of Post Grouted Drilled Shafts

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The unit ultimate end bearing of drilled shafts tipped in cohesionless soil can be on the order of twenty times the unit ultimate side shear. However, this enormous capacity is rendered virtually unusable due to multiple mechanisms associated with construction techniques as well as soil mechanics. As a result, drilled shafts have seldom been cost effective in sandy soils due to the merits of driven piles in such conditions. Recently, a new design method has revitalized a construction method, termed post grouting, that significantly improves the end bearing capacity of shafts in virtually all scenarios. This presentation will summarize the design and construction of drilled shafts using this technique and highlight the associated quality assurance.