RSPile

Driven Pile Verification Manual

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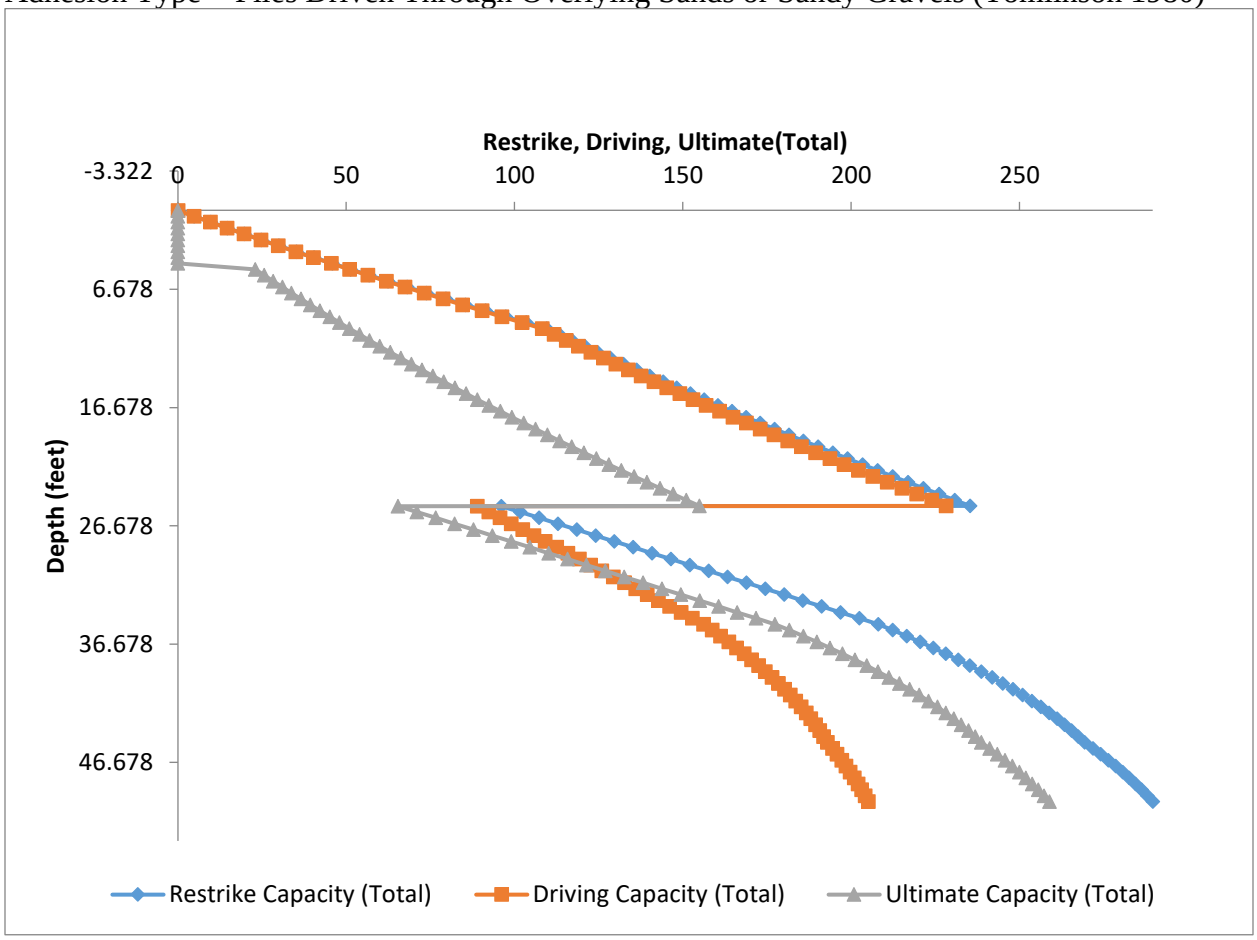
1 Example 1

	Cohesionless		Cohesive	General Properties	
Depth (ft)	**Friction Angle (Skin Friction, deg)**	**Friction Angle (End Bearing, deg)**	**Cu (psf)**	**Unit Weight (pcf)**	**Driving Loss (%)**
0-25	33	38		120	10
25-50			2800	110	40

Water Table Levels	Pile Type	Other Design Considerations
Drilling = 10ft Restrike / Driving = 10ft Ultimate = 0ft	Precast Concrete Side = 12in	5ft local scour

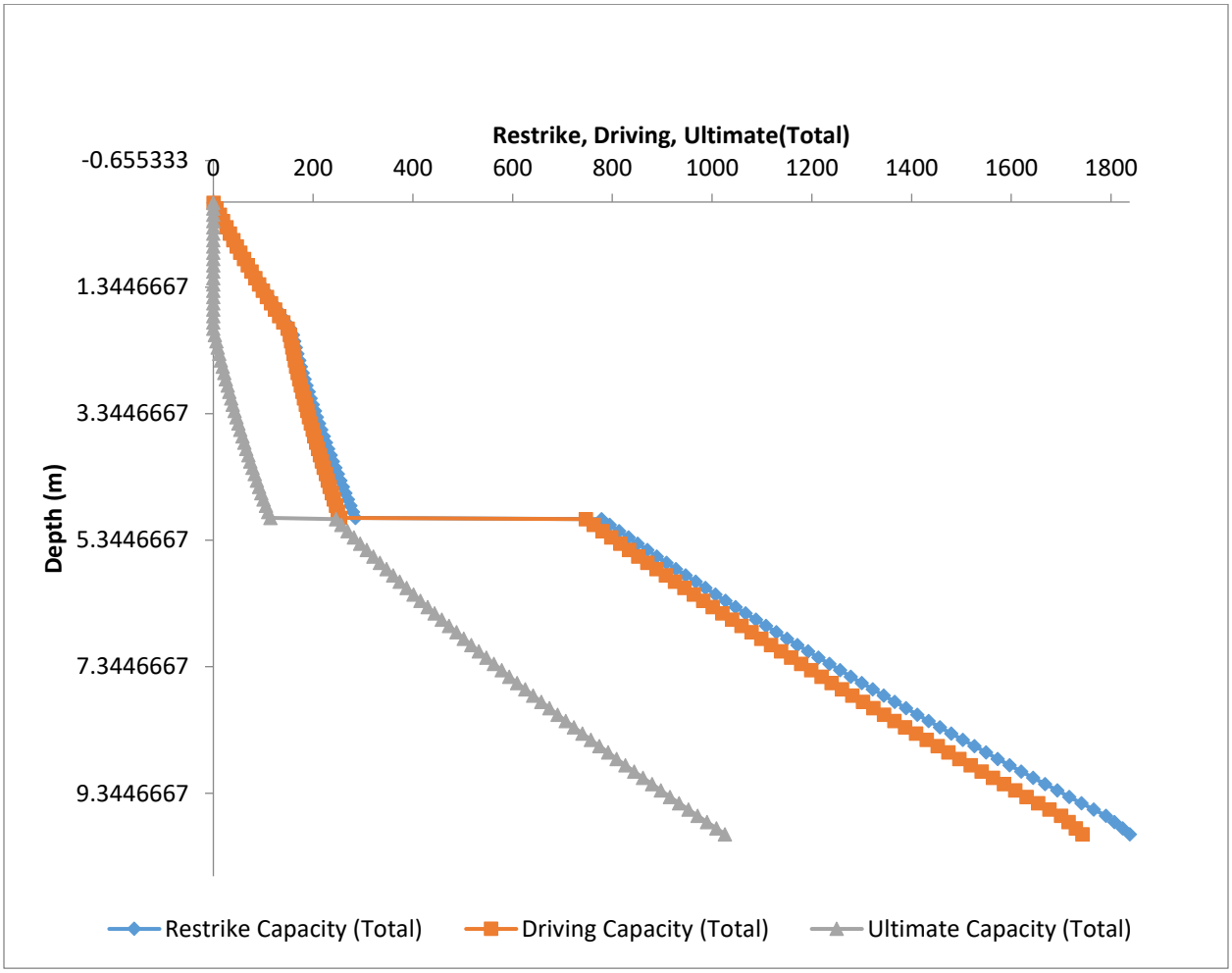
Adhesion Type = Piles Driven Through Overlying Sands or Sandy Gravels (Tomlinson 1980)



2 Example 2

	Cohesionless		General Properties	
Depth (m)	**Friction Angle (Skin Friction, deg)**	**Friction Angle (End Bearing, deg)**	**Unit Weight (kN/m^3)**	**Driving Loss (%)**
0-5	30	30	18	20
5-10	35	35	20	10

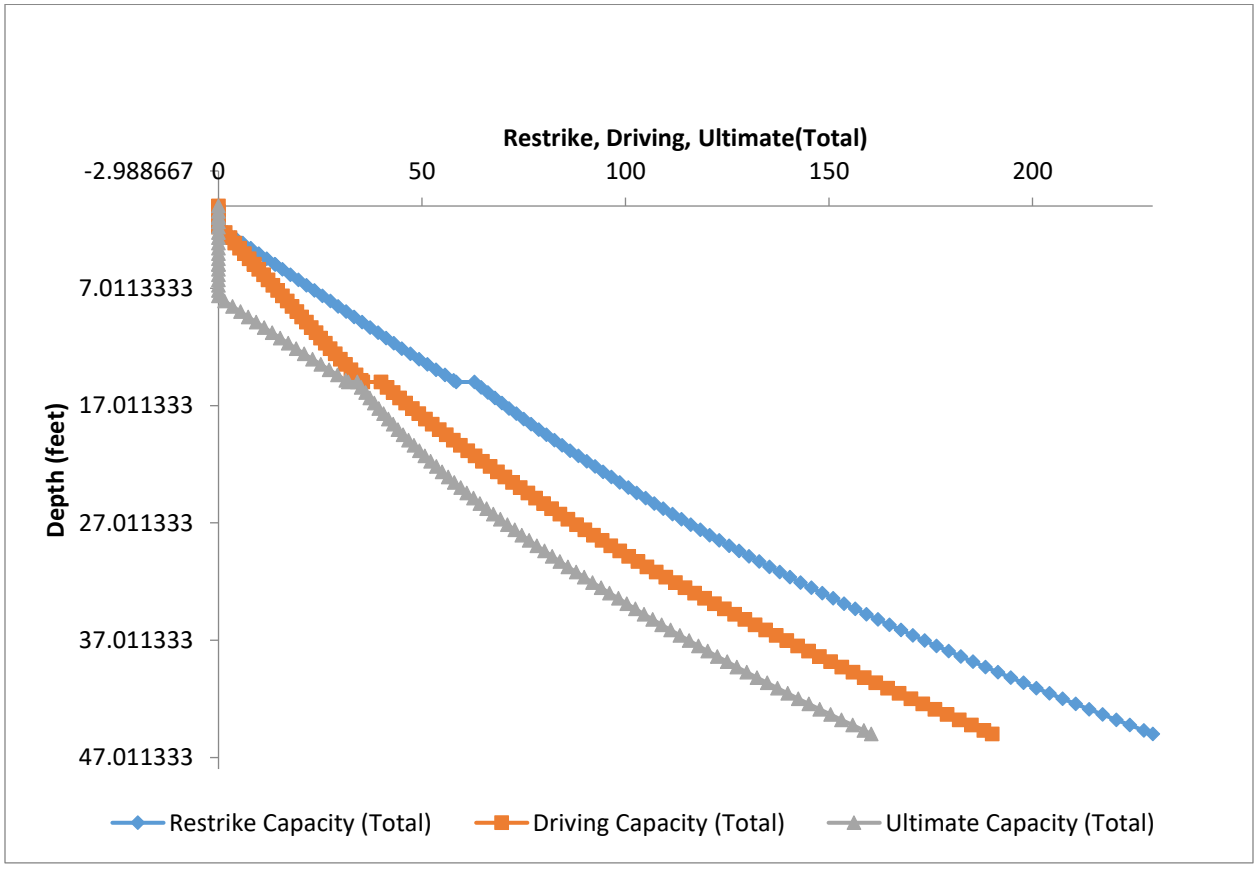
Water Table Levels	**Pile Type**	**Other Design Considerations**
Drilling = 0m Restrike / Driving = 3m Ultimate = 1m	Closed end pipe Diameter = 508mm	2m long term scour



3 Example 3

	Cohesionless		Cohesive	General Properties	
Depth (ft)	**Depth (ft)**	**N Value**	**Cu (psf)**	**Unit Weight (pcf)**	**Driving Loss (%)**
2-15			900	110	40
15-45	20	22		118	10
	25	14			
	30	18			
	35	23			
	45	26			

Water Table Levels	Pile Type	Other Design Considerations
Drilling = 5ft Restrike / Driving = 10ft Ultimate = 1ft	H Pile HP 12x63 Top of pile = 2ft	8ft soft soil – downdrag condition Soil Layer 2: N values corrected for effective overburden pressure

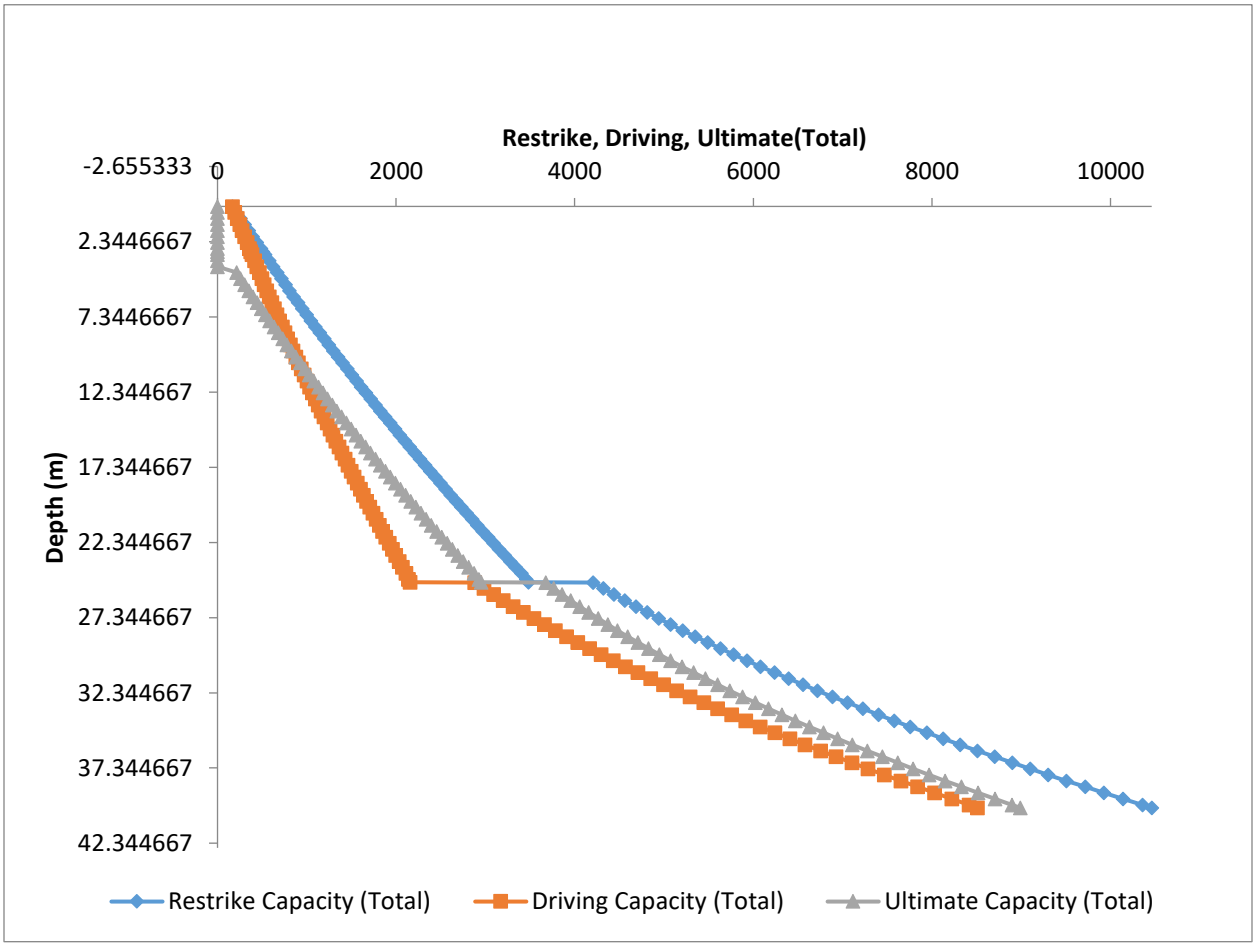


4 Example 4

	Cohesionless		Cohesive	General Properties	
Depth (m)	**Friction Angle (Skin Friction, deg)**	**Friction Angle (End Bearing, deg)**	**Cu (kPa)**	**Unit Weight (kN/m^3)**	**Driving Loss (%)**
0-25			50	14	40
25-40	33	33		18	10

Water Table Levels	Pile Type	Other Design Considerations
Drilling = 0m Restrike / Driving = 3m Ultimate = 0m	Square concrete Side = 610mm	4m soft soil 4m negative skin friction

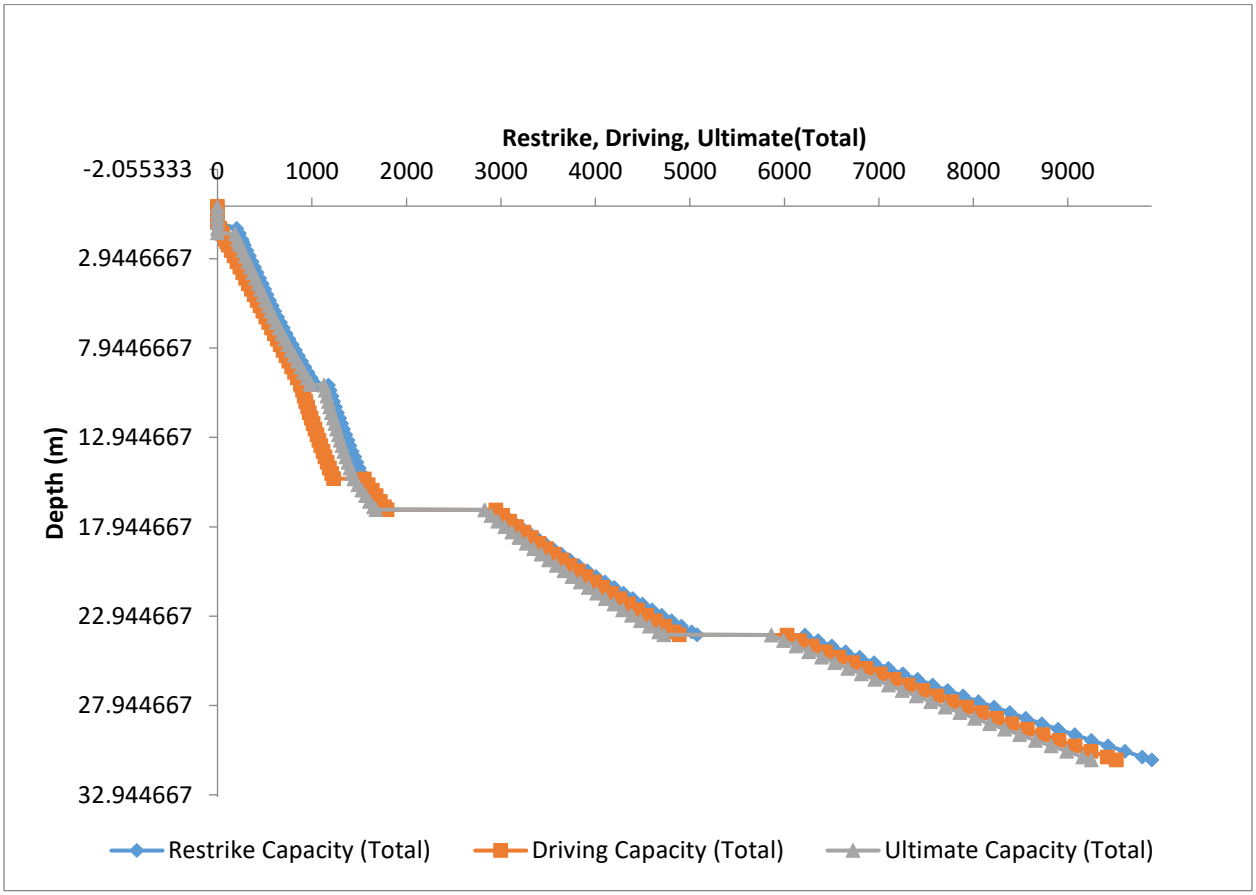
* slight difference in results due to different calculation method of Ca in DRIVEN



5 Example 5

	Cohesionless		Cohesive	General Properties	
Depth (m)	**Friction Angle (Skin Friction, deg)**	**Friction Angle (End Bearing, deg)**	**Cu (kPa)**	**Unit Weight (kN/m^3)**	**Driving Loss (%)**
1-10			100	18	17
10-17	32	32		18.5	8
17-24	36	36		18.5	8
24-31	38	38		19	5

Water Table Levels	Pile Type	Other Design Considerations
Drilling = 2m Restrike / Driving = 2m Ultimate = 0m	Opened end pipe Diameter = 508mm Shell thickness = 6.35mm	1.5m soft soil



6 Example 6

	Cohesionless		Cohesive	General Properties	
Depth (ft)	**Depth (ft)**	**N Value**	**Cu (psf)**	**Unit Weight (pcf)**	**Driving Loss (%)**
0-15	5	12		120	15
	10	17			
15-35	15	14		120	10
	20	21			
	25	27			
	30	28			
	35	31			
35-70			2500	120	40

Water Table Levels	Pile Type	Other Design Considerations
Drilling = 6ft Restrike / Driving = 3ft Ultimate = 1ft	Open ended pipe Diameter = 36in Wall thickness = 0.5in	1ft local scour 3ft long term scour