

The PySimple1 Material

`uniaxialMaterial PySimple1 matTag? soilType? pult? y50? Cd? <c>`

The above command constructs a simple uniaxial p-y material for use with a zeroLength element. The argument matTag is used to uniquely identify this uniaxialMaterial object among uniaxialMaterial objects in the BasicBuilder object. The argument soilType currently can be:

soilType = 1 Backbone of p-y curve approximates Matlock (1970) soft clay relation. soilType = 1

Appendix: Equations and Example Results for the PySixamp1 Material

The nonlinear drag (p^d - y^g) spring is described by:

where C_d = ratio of the maximum drag force to the ultimate resistance of the p-y material, $p_o^d =$
 p^d at the start of the current loading cycle, and $y_o^g = y^g$ at the start of the current loading cycle.

The flexibility of the above equations can be used to approximate different p-y backbone
 4.3p

