

Decatur ES Anx Preliminary Geotech Summary.

Subject: RE: PBC Geotechnical - Decatur Preliminary

Molly,

I have spoke with Milind a couple of times today and I have looked at these soils closely today. I understand that column loads will be in the range of about 200 kips and slab loading in the range of 100 to 150 psf.

We have about 15 to 18 feet of debris fill across this site. Then soft clays to about 40 to 45 feet. Preliminary, I recommend that drilled shafts are considered to support the loading at a depth of about 50 feet below grade. Temporary casing will be needed to at least 20 feet below grade and some potholing at drilled shaft locations likely appropriate. Preliminary estimate allowable bearing pressure of 12 ksf. We could likely increase allowable bearing pressure recommendation with the use of pressuremeter testing and deeper borings. If drilled shafts are utilized, this project will be reviewed by the OUC and we will need to remobilize for at least 2 to 3 deep borings to a 70 feet below grade and in-situ vane shears will be needed for the OUC squeeze review. There should be options to support the slab on grade with manipulation of the upper 2 to 3 feet existing debris fill (i.e., some undercutting, densification, lightweight backfill and possible geogrid).

Based on further discussion with Milind, it turns out the existing building is supported on caissons at about 45 feet below grade using allowable pressure of 12 ksf.

Thanks all.