



Goran Mijajlović¹

Denis Velju²

ODREĐIVANJE GRANIČNE NOSIVOSTI PGR USLOJENOG TEMELJNOG TLA PRIMJENOM NUMERIČKIH I ANALITIČKIH METODA

Sažetak:

U radu je analizirana granična nosivost Pgr temeljnog tla. Za numeričke metode korišćen je Mohr – Coulombovog model tla. Proračuni su urađeni primjenom programski paket Phase2 (Rocscience) u kojem je implementirana metoda konačnih elemenata. Sračunato je granično opterećenje tla pri lomu primjenom elasto-plastične analize i postupkom redukcije smičuće otpornosti (Shear Strength Reduction-SSR analiza). Za analitički proračun granične nosivosti dvoslojnog tla korišćen je postupak koji je definisao Myslivec (1978). Ukazano je na problem uslojenog tla i nosivost dvoslojnog tla u slučaju zamjene tla tamponskim slojem.

Cljučne riječi:

Granična nosivost tla. Dvoslojno temeljno tlo. Lom tla. Dopuštena slijeganja. Phase2 (Rocscience). Metoda Myslivec-a. Elasto-plastična analiza. Redukcija smičuće otpornosti.

DETERMINATION OF ULTIMATE BEARING CAPACITY PGR OF LAYERED FOUNDATION SOIL BY APPLYING NUMERICAL AND ANALYTICAL METHODS

Summary:

Ultimate bearing capacity Pgr of foundation soil has been analyzed in research paper. Mohr-Coulomb Model has been used for numerical methods and calculations have been performed by usage of Phase 2 software, in which final elements method has been implemented. Ultimate failure load has been calculated by applying of elasto-plastic analysis and Shear Strength Reduction-SSR analysis. Method defined by Myslivec (1978) has been used for analytic calculation of ultimate bearing capacity of two-layered foundation soil. It was pointed out on problem with layered foundation soil and bearing capacity of two-layered foundation soil in case of soil replacement with base course layer.

Key words:

Soil ultimate bearing capacity, Two-layered foundation soil, Soil sheer failure, Allowable total settlement, Phase2 (Rocscience), Myslivec method, Elasto-plastic analysis, Shear Strength Reduction.

¹ Goran Mijajlović, dipl. inž. građ., DeCoM Montenegro doo, Podgorica, Crna Gora, goran.mijajlovic@decom.me

² Denis Velju, dipl. inž. građ., DeCoM Montenegro doo, Podgorica, Crna Gora, denis.velju@decom.me