Društvo za geotehniku u Bosni i Hercegovini
Друштво за геотехнику у Босни и Херцеговини
Geotechnical Society of Bosnia and Herzegovina
GEO-EXPO 2019
Sarajevo, 23.-25.10.2019.

Željko Lebo[1]
Ivana Pavlić[2]

doi.org/ 10.35123/GEO-EXPO_2019_6

PROJEKTIRANJE I GEOTEHNIČKI NADZOR SIDRENE ARMIRANOBETONSKE DIJAFRAGME „MOJ DVOR“ U ZAGREBU

Sažetak:

U radu je opisan postupak projektiranja i provedbe stručnog geotehničkog nadzora nad izvedbom armiranobetonske dijafragme „Moj Dvor“ u Zagrebu. Armirano betonska dijafragma je projektirana i izvedena kao privremena potporna konstrukcija usidrena sa dva reda geotehničkih sidara. U radu je prikazana kronologija njezine izvedbe s naglaskom na ulogu projektanta i stručnog geotehničkog nadzora zbog specifičnosti izvedbe i poteškoća koje su je pratile. Specifičnost projektiranja, a kasnije izvedbe ogleda se u činjenici da se dijafragma izvodi kao tlocrtno zakrivljena konstrukcija kojoj se geotehnička sidra na pojedinim mjestima sudaraju. Još jedna specifičnost je ta što se dijafragma izvodila u više etapa sa višegodišnjim zastojima u radu. Prva obustava je trajala je oko 30 mjeseci, nakon čega je provedena korekcija projektnog rješenja radi mogućeg nastavka radova. Osnovni prijepori bili su potvrđeni kroz činjenicu o nemogućnosti davanja pouzdanog zaključka u svezi procjene ponašanja privremenih geotehničkih sidara na okolnost premašivanja planiranog vremenskog roka njihovog statičkog djelovanja. Dijafragma je uspješno dovršena u drugoj etapi 2010. godine, ali ostali građevinski radovi su obustavljeni već dulji period. Građevinska jama je djelomično zatrpana u srpnju 2018. godine radi sigurnosti od urušavanja.

Ključne riječi:

projektiranje, geotehnika, nadzor, dijafragma, sidro, zaštita, građevinska jama, iskop

DESIGN AND GEOTECHNICAL SUPERVISION OF ANCHORED REINFORCED CONCRETE DIAPHRAGM WALL „MOJ DVOR“ IN ZAGREB

Summary:

The paper describes the procedure of designing and implementing expert geotechnical supervision over the performance of reinforced concrete diaphragm wall "Moj Dvor" in Zagreb. The reinforced concrete diaphragm wall is designed and constructed as a temporary supporting construction with two rows of geotechnical anchors. This paper presents the chronology of its performance with an emphasis on the role of designer and expert geotechnical supervision due to the specificity of the performance and the difficulties that followed. The specificity of designing and later construction is manifested in the fact that the diaphragm is performed as a planar curved structure to which the geotechnical anchors collide in some places. Another specific feature is that the diaphragm is built in multiple stages with many years of work stoppages. The first work break took about 30 months, after which a correction of the project solution was carried out for the possible continuation of the works. The basic controversies were confirmed by the fact that it was impossible to give a reliable conclusion regarding the assessment of the behavior of temporary geotechnical anchors, and to the circumstance of exceeding of the planned timing of their static activity. The diaphragm wall was successfully completed in the second phase of 2010, but other construction works have been stopped for a longer period of time. The construction pit is partially off crumpled in July 2018. because of the safety of collapsing.

Key words:

designing, geotechnical, supervision, diaphragm wall, anchors, protection pit, excavation

---

[1] Mr. sc. Željko Lebo, MScCEng, Zagreb University of Applied Science, Department of Civil Engineering, Av.V. Holjevca 15, Zagreb, Croatia, zlebo@tvz.hr

[2] Ivana Pavlić, MCEng, Zagreb University of Applied Science, Department of Civil Engineering, Av.V. Holjevca 15, Zagreb, Croatia, ipavlic1@tvz.hr