Environmental Engineering and Management Journal



"Gheorghe Asachi" Technical University of Iasi, Romania



THE PRO-ENVIRONMENTAL CONTEXT OF DEVELOPER-DESIGNED MULTI-FAMILY BUILDINGS IN POLAND – ARCHITECTURAL PERSPECTIVE

Mikołaj Donderewicz¹, Kinga Rybak-Niedziółka¹, Janusz Marchwiński², Karol Zawada¹, Agnieszka Starzyk¹, Vuk Milošević^{3*}

¹ Institute of Civil Engineering, Warsaw University of Life Sciences – SGGW, Warsaw, Poland ² Faculty of Architecture, University of Technology and Arts in Warsaw, Warsaw, Poland ³ Faculty of Civil Engineering and Architecture, University of Niš, Niš, Serbia

Abstract

Contemporary multi-family architecture is shaped by formal and legal regulations, evolving demographics, and the imperative to adapt to climate change. Developers are increasingly challenged to meet these diverse requirements while addressing the needs of various social groups. This paper discusses the factors that influence modern residential architecture. The main objective of the research is to determine the impact of developer-driven architecture on environmentally friendly solutions in multi-family buildings. This study aims to bridge a research gap by exploring the interplay between multi-family housing, environmentally friendly solutions, and the influence of developers on architectural design. A comparative and critical analysis method is employed, informed by the authors' observations, professional design experience, and a review of relevant literature. Four examples of different buildings were used. The specific scope of the subject allowed for a diverse selection of solutions and the ability to assess the range of possibilities and design constraints. The study focuses on selected, significant issues related to multi-family housing in Poland, and contemporary challenges require developers to adopt flexible and innovative design approaches. The results may provide an opportunity for further discussion to deepen the knowledge of architects, urban planners, developers, or lawmakers, and to contribute to the development of more sustainable and user-friendly multi-family architecture.

Key words: BIM, development, multi-family architecture, Poland, pro-environmental

Received: October, 2024; Revised final: February, 2025; Accepted: March, 2025

^{*} Author to whom all correspondence should be addressed: e-mail: vukamer@gmail.com