



EXPERIMENTAL AND NUMERICAL EVALUATION OF CROSS CORRUGATED COLD FORM SHEET BASED PRE-FABRICATED PANEL

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ABSTRACT

The public and construction industry professionals are becoming increasingly aware of the environmental damage buildings can cause. As a result the use of more sustainable and environmentally friendly building materials and techniques is increasing. CFS panels (Cold form sheet based composite panels) are an innovative way of using Decking sheets in a prefabricated wall & slab system. As CFS panels are prefabricated at factory and erected at site. The panels consist of a Decking panel, Bottom liner panel, Foam & Foam concrete. To date decking panels are used as permanent formwork for mezzanine flooring. However, they are now being developed for low rise domestic load-bearing applications.

Key words: pre engineered buildings, cold form, FEM, decking slab, stiffness.

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1. INTRODUCTION

Two ways bending behavior of profiled steel sheet dry board composite panel system, a paper published on May 2002 highlights the use of corrugated sheet (in one way direction) as a structural member of composite panel system. Slip occurring at the interface between