

**PREFABRICATED WOOD I-JOIST FROM LAMINATED VENEER
LUMBER (LVL) FLANGE AND PLYWOOD PARALLEL WEB**

By

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**Final Project Submitted in Partial Fulfillment for the
Diploma in Wood Industries, Faculty of Applied Science,
Universiti Teknologi MARA**

September 2002

ACKNOWLEDGEMENTS

First and foremost my prayer and glory be through Allah SWT. The most merciful, for giben me the strength and ability towards the completion of my project paper entitle.

I would like to appreciate my special thank you for my advisor En. Wan Mohd Nazri for his help and guide.

Also to for those who are involved either directly or indirectly in completing this project.

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I-joist component is using the system that involves the using of LVL rubberwood flanges and plywood parallel as web. Both component are combined and must work and act together. The strength will be same with solid wood. The purpose of this testing is to test the strength of I-joist that made from the combination between LVL as flanges and plywood parallel as web by using rubberwood. The sample of I-joist that has the highest modulus of rupture, MOR value was sample LP-3 (27.03 MPa) and the lowest was sample LP-7 (15.91 MPa). Furthermore, the testing was to test the modulus of elasticity true. Test shows the highest value was sample LP-3 (8025.56 MPa) and the lowest was sample LP-1 (6628.81 MPa). As a conclusion to this study, flange and web components act together and perform as a system of I-joist.