



futurebuild[®]
residential design service

ecoply[®]

Architects & Developers

RDS **CASSETTE FLOORS**

**SOLUTIONS THAT DELIVER SPEED AND
OPTIMISATION TO THE BUILD SITE**

Futurebuild[®] LVL RDS Cassette Floors combine Futurebuild LVL and Ecoply[®] flooring to provide an optimised design solution for off-site manufacture (OSM), taking floor systems from concept to site with increased efficiency in delivery and installation. RDS Cassette Floors can provide working platforms in a fraction of the time required by conventional construction methods.

RDS CASSETTE FLOORS

FROM CONCEPT TO SITE - WITH CONFIDENCE

Designed using proprietary software solutions with proven Futurebuild LVL products and structural Ecoply flooring, Futurebuild LVL RDS Cassette Floors (RDS Cassette Floors) deliver reliable performance using engineered wood products. These solutions provide build efficiencies, reducing both onsite labour requirements and total project time lines while providing OH&S advantages. The RDS Cassette Floors design service removes the complexity associated with optimising floor modules to suit efficient manufacture and delivery, providing design solutions that fit on the back of a standard hiab ready for direct installation at the time of supply.

Our software solutions deliver designs using Futurebuild LVL and Ecoply® flooring products to client agreed performance levels combined with easy to install connection solutions. Conceptual drawings can be taken through to engineered design, ready for council submission including Producer Statements for residential projects up to and including three-storey buildings. All systems are designed to suit off-site fabrication, providing a predictable, high-quality outcome ready for rapid installation on site.

WHAT IS A FLOOR CASSETTE?

A floor cassette is a pre-fabricated series of floor joists with trimmers, bracketry and flooring manufactured off-site in a factory environment.

- The floor system arrives as a series of pre-fabricated “cassettes” (also referred to as modules) to be installed directly onto the supporting structure
- Futurebuild LVL RDS specified modules are typically designed and manufactured to support limited reprocessing of flooring sheets, removing the need for pilot vehicles, targeted for delivery on a hiab for immediate installation
- Designs include F11/F11 Ecoply® 19mm plywood flooring for increased floor rigidity
- Cassette connection systems typically supplied including flooring cantilever - preferred for both cost and ease of application

Figure 1. Flooring cantilever detail for cassettes



WHY RDS CASSETTE FLOORS?

Speed

Cassette systems provide a completed floor and working platform significantly faster than traditional construction methods.

Typical installation times are targeted around 15 minutes* per cassette, with modules delivered and lifted directly into position via hiab.

This reduces time on site and supports shorter, more predictable build programmes.

Quality

Prefabrication using proven Futurebuild LVL systems and materials ensures the required tolerances and performance are achieved when installed.

Off-site manufacture in a controlled environment can improve consistency and accuracy, reducing variability and rework during installation.

Note: Quality control of final cassettes sits with your merchant and/or fabrication partner.

Health & Safety

On-site activity is simplified, with reduced time working at height installing floor joists and sheet flooring.

No sawing, lifting and where gluing and fixings are required, timeframes are significantly reduced whilst supporting safer working conditions.

Reduced on-site labour and installation time

While on-site costs can vary over the different midfloor options available, cassette systems will typically reduce on-site labour requirements, installation time, waste handling, P & G and fall protection requirements.

THE CHH ADVANTAGE

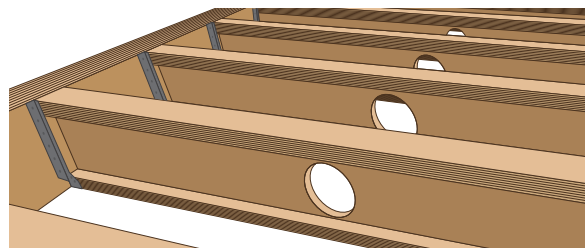
Optimised structural flooring layouts

- Adopting Futurebuild LVL's extensive range of products, RDS Cassette floors take advantage of 45mm, 63mm and 90mm hyJOIST flange options for more efficient joist layouts
- hyJOIST flange options can reduce the need for additional support beams and/or closing up joist spacing in heavily loaded floor areas
- There is a reduced risk of floor squeaks and no mid-span blocking required
- Limited packing and planing involved in the manufacture of cassettes, saving time and money in fabrication
- Specifically designed to suit Futurebuild LVL products, connection solutions are provided as part of the total kitset supply for ease of installation
- Designs include 19mm F11/F11 Ecoply® flooring to improve floor rigidity
- Designs completed to customer agreed performance levels

Simplified services integration

- Services can typically be contained within the floor cavity within hyJOIST floor solutions
- Service penetrations can be detailed at the design stage with hyJOIST provided to the fabricator cut to length with holes
- hyJOIST floors can remove the need for dropped ceilings, bulkheads or proprietary reinforcement

Figure 2. 3D extract showing service penetrations in hyJOIST



THE SOFTWARE ADVANTAGE THAT MAKES THE RDS CASSETTE FLOORS SERVICE UNIQUE

cassetteTout Software

RDS Cassette Floors are designed through proprietary software cassetteTout, specifically developed to cater for modularisation and the use of Futurebuild LVL floor and roof solutions, enabling the provision of:

- A clear compliance path for cassette systems
- Site specific cassette module layouts including weights for consideration of lifting
- Designs completed through the Futurebuild LVL RDS team of design specialists
- Designs fully supported by site specific PSI and Design Certificates for building consent
- Development of cassette zones at the time of design
- Quantification, component pricing (to the merchant/fabricator of choice) and certification of components
- Optimisation of floor joist and flooring products, limiting waste
- Catering for alternate connection details to suit cassette construction

Figure 3. Exemplar floor with cassette zones detailed



Exemplar plan based on architectural design by tba – design

cassetteTout Documentation

All RDS Cassette solutions are supported by quantification and compliance documents including:

- Cassette layout, including weights
- Floor joist, beam and flooring layouts
- Project Assumptions and Limitations Report
- Environmental Impact Statement, EIS
- Design Certificate, including floor joists designed to agreed performance levels
- Producer Statement, PSI

TECHNICAL RESOURCES & SUPPORT

With the RDS Cassette Floors service, specifiers are also backed up with additional resources and support:

- Comprehensive technical guide for cassette design and detailing
- Specification representatives supporting specifiers
- Dedicated technical team support via 0800 808 131

HOW TO ACCESS THE RDS CASSETTE FLOORS SERVICE

What we need & what you get in four simple steps

Four easy steps for design, quantification and supply.

Step 1

- Contact your Specification Representative
- Or Email specification@futurebuild.co.nz
- Send in your concept plans. The Futurebuild LVL RDS team will propose an optimised design solution to agreed performance levels
- If you already have a proposed floor joist layout send in your Architectural and Engineering drawings and the RDS team will convert your design to suit modular delivery

Step 2

- Review the proposed cassette layouts including suitability for diaphragm and site delivery/access requirements
- Confirm queries from Project Assumptions and Limitations Report and request updated Plans, Design Certificate and PSI as appropriate

Step 3

- Confirm project with your Merchant of choice and use the "FS" number for quoting and supply options.
- Cassette detailing to be completed by the merchant of choice

Step 4

Once ordered Futurebuild LVL will deliver into frame and truss manufacturer:

- LVL components – cut to length as per detailing supplied by merchant, individually labelled
- Proprietary bracketry for floor systems, including fasteners
- Ecoply Flooring - ordered and delivered for cassette manufacture use
- Items delivered unwrapped to manufacturer

Cassettes are delivered via Merchant

Cassettes are transported without pilot vehicles needed and lifted into position by hiab providing a completed floor and working platform in approximately 15 minutes* per cassette.

* Installation times can vary and are dependent on appropriate preparation of the site and supporting structure.



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ENQUIRE TODAY

Contact: Your Regional Specification Representative

Email: specification@futurebuild.co.nz

Call: 0800 808 131

www.futurebuild.co.nz

 **CarterHoltHarvey**

The information contained in this document is current as of October 2026 and is based on data available to Carter Holt Harvey LVL Ltd (CHH LVL Ltd) at the time of going to print. CHH LVL has used all reasonable endeavours to ensure the accuracy and reliability of the information contained in this document and, to the extent permitted by law, CHH LVL will not be liable for any inaccuracies, omissions or errors in this information nor for any actions taken in reliance on this information.

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Note: This service is currently for residential projects only