

# NEV Building & Landscape Standards - Stage 2 Review - Recommendations

**Vision:** Support a contemporary Ecovillage community at Narara that demonstrates economic, social and environmental regenerative capacity through Building Standards that encourage the building of sustainable housing.

**Mission:** Update the NEV Building Standards in accordance the requirements of new legislation (BASIX, NatHERS, council LEPs), the Stage 2 sub division as it affects the Hill Thalys guidelines and other experience gained during Stage 1.

## Aims:

- To review existing feedback from the BRP and to research, reflect and consult with specialist individuals, working groups and circles
- To review external standards and the experience of architects, engineers, designers, assessors and builders who have worked with the village during Stage 1.
- To maintain regular communication with the broader membership
- To prepare and present a set of proposed changes to the existing building standards by 30 June 2021 or ASAP

## Domain:

- As a sub-circle of the Steering Circle, the Stage 2 Building Standards review circle is set up to research, consult and develop proposed changes to the existing Building Standards.
- The Stage 2 Building Standards review circle holds no decision-making authority but is required to advise its recommendations to the Steering Circle, the Board, the cooperative members and the members of the Community Association who will approve these standards as part of the Community Management Statement (CMS).



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## NEV Building Standards Stage 2 v1.9

[Word document](#)

[Scoresheet](#)

[Presentation](#)

## References

[National Construction Code](#)

[BASIX changes](#)

[Central Coast Council](#)

[Stage 2 Water System - OSD requirements](#)

## NEV Building Standards Stage 2 v1.9

In interim form until "...after having worked through a couple of DA submissions to Council..." from [consent mtg](#)

## Pdf of Word document

- [01 Stage 2 Building\\_Standards \(Aug 2023\)](#)

## Scoresheet

Update for more water points - [BRP NEV\\_Building\\_Standards-Assessment\\_Scoresheet- V19.03.xlsx](#)

Former file (for archiving) - [BRP NEV\\_Building\\_Standards-Assessment\\_Scoresheet- V19.0.xlsx](#)

## Presentation

- (TBD)

## References

### National Construction Code

**NatHERS increased to 7 stars with transition period to 1/10/23 - adopted 1/5/23**

- <https://ncc.abcb.gov.au/news/2022/whats-new-about-ncc-2022>

- <https://www.energy.gov.au/news-media/news/national-construction-code-ncc-updates-mean-energy-efficiency-ratings-expansion-new-residences>

**BASIX changes to be adopted on 1/10/23 e.g. 7 stars**

- <https://www.planningportal.nsw.gov.au/BASIX-standards>

### Central Coast Council - changes to LEP & DCP

- <https://cdn.centralcoast.nsw.gov.au/sites/default/files/documents/general-information/local-environmental-plan-lep/factsheetcclepanddcp24june2022final.pdf>

- LEP <https://legislation.nsw.gov.au/view/html/inforce/current/epi-2022-0308>

- DCP <https://www.centralcoast.nsw.gov.au/plan-and-build/planning-controls/central-coast-development-control-plan-2022>

### Stage 2 Water System - On-site detention

Henry & Hymas Stage 2 - Lot On-site Detention requirements

- <https://files.nararaecovillage.com/index.php/s/N52ToCaaWoWNYQC>

## Design Reports

[Hill Thalys Design Report](#)

[Principles](#)

## SDA Training Pt 3

Video - sound was not turned on. See slides

[Pt 3 Slides](#)

### Q&A

| Question   | Answer   |
|--|--|
| Do homes need to be stylish as part of sustainable?      | You just need to meet high performance, although there are neighbour consults, and council |
| Can we use grey water recycling?                         | Yes  |
| What is the NatHERS ventilation system in IEQ?           | Heat recovery system to minimise mould for well-sealed homes                               |
| Can your builder put photos of progress on Social Media? | Ask your builder or put it in your contract  |

|   |  |
|---|--|
| Will the NEV Approval Design Checklist be updated for Stage 2?    | Yes  |
| Can we transition to Stage 2 standards once 1 /10/23 comes along? | We will put it to members, since SDA and BRP jobs will be too hard   |
| How long does council take to approve?                            | 6-8 months for approval  |
| Do we need to get 2 DAs thru BRP or through council?              | Possibly - JS to clarify wording and see if this can happen - Draft consent was at <a href="https://wiki.nararaecovillage.com/display/MC/2022-10-09+Hybrid+Members%27+Meeting">https://wiki.nararaecovillage.com/display/MC/2022-10-09+Hybrid+Members%27+Meeting</a> where the standards will stay in Interim form until "...after having worked through a couple of DA submissions to Council..." |

## SDA Training Pt 2

Video link (stream to any device) - [SDA Training Session 2](#)

Slides - [Pt 2 slides](#)

### Q&A

| Questions  | Answer   |
|--|--|
| This could be a lot of work. How many houses will we each get? And will most of this info need to be provided by the owner /builder etc? | 4-5 homes per SDA, but say 2 each year. Owner to supply most info, but SDA to assist. As-Built is not mandatory, but a little harder to pass the scoresheet if you dont. SDAs helping Owners could really help in Stage 2, as several Members in Stage 1 had builder issues that slowed them down. |
| I would imagine that you will guide us on the documentation required eg where do we get legal advice from?                               | Yes, on Sat we will show where the info is on each document. Legal advice is for the Owners - buyer beware   |
| Do we have any building contract templates including these points?   | Yes, HIA, MBA & Fair Trading (latter is best for Owners, and there is a special NEV schedule which you can use)  |
| What is the bond? How much? Paid to/held by NEV?   | The bond is in case there is damage to CA property. It is \$1500, redunded at the end if no damage. Held by NEV  |
| Can the owners/builders fill in some of this documentation which SDAs can then double check?   | Yes. The Co-op also provided the SEE template, Geotech reports and bushfire reports for each lot in stage 1.   |
| WOW! What a lot of foundational work has been done; congrats and thanks to all.  |  |

|  |  |
|--|--|
| Where does the Concrete tank specification come from? What about Water Sensitive Urban Design (WSUD) options?  | JS to ask Grant - what does pre cast tank mean? TBA<br>The excerpt from Henry & Hyman Feb 2021 DA submission is "Each lot will be required to provide OSD in the form of a modified pre-cast rainwater tank fit with an orifice plate, which will collect flows from the roof catchment. In order to ensure that sufficient capacity within the downstream stormwater system is maintained and that council's OSD policy is adhered to, the future lots will be required to provide OSD as per the following conditions:<br>The proposed roof areas will require the following orifices and tank sizes. It is assumed that each tank will have between 0.75 and 1.5m of head from the top of the tank to the centre of the orifice. Linear interpolation should be used to ensure the correct tank size and orifice diameter is achieved for each future development within the lots. (Table 4 shows that a 150m <sup>2</sup> roof area requires a 58mm diameter orifice plate; a 3,000L tank size and 0.75m head from TWL (top water level) to orifice.). |
| Deferred commencement provisions of NSW's Local Government Act to lodge their Development Application with Central Coast Council prior to land titles being issued for Stage 1 Works.' | Deferred commencement - tried in Stage 1, approved, but could not start till Lot number was allocated  |
| Michael can I just clarify the water diagram requirements Jon  | The WICA licence requires non-potable water to be connected to toilet  |
| Can we still use water tank and non-potable as well for toilet?  | Probably with careful design   |

## SDA Training Pt 1 - Intro

Video link (stream to any device) - [SDA1 video \(1.5 hours\)](#)

Slides - [Pt 1 slides with links](#)

### Q&A

| Questions  | Answer   |
|--|--|
| Is there a final map of walkways now completed, and<br><br>Do normal setbacks need to be added to the walkway width, or does a specified setback (e.g. 4.5 m) include the walkway? | Not yet - As-Built drawings still to be completed once the Stage 2 is finished.<br><br>Setbacks from boundaries  |
| Is Passive House the same as Passiv Haus?  | Yes  |
| It sounds a bit difficult to be an owner builder?  | Need lots of time, need experience & good contacts   |
| Building heights - 8m vs 10m. When would 10m be applicable?  | 10m only for certain circumstances e.g. steep site, chimneys   |
| Does that mean solar panels facing west will help with peak load?  | Yes, in the evening  |
| Could you elaborate on the 'plus 50% max cooling load'?  | This helps towards heatwaves into the future. We will show more of this next week  |
| Has NEV Power looked at more West facing panels in Stage 2   | Yes, we reward that. But not all homes can do this, with shading   |
| Will the Slides be posted, & will links work?  | Yes on Wiki at <a href="https://wiki.nararaecovillage.com/pages/viewpage.action?pageId=58460651">https://wiki.nararaecovillage.com/pages/viewpage.action?pageId=58460651</a> (this page 😊) |

|                                    |   |
|------------------------------------|---|
| Can we copy designs?               | See our Member Building Workshops <a href="#">NEV Member Building Meetings - Help with your home design</a> ;<br><br>Your Home - home designs, climates, star ratings - <a href="https://www.yourhome.gov.au/house-designs">https://www.yourhome.gov.au/house-designs</a> |
| What about containers, tiny homes? | Newcastle org that fits out containers - JS has contact; they can be small, hot and need a lot of retrofitting<br>Re Tiny homes, info is in the standards on Wiki - see above link  |

## Draft Recommendations for the CA meeting on 2/4/22 v1.8

**(uploaded 28/3/22)**

Presentation with recent updates in colours



NEV ProposedB...o\_CA pptx.pdf

Word document with recent updates in colours



NEV\_Building\_S...\_CA\_MbrMtg.pdf

# Draft Recommendations v1.3

## Final Draft Presentation to all Members - 12/3/22

**12:50 for 1-4pm Sat 12/3/22 - Stage 2 Building Standards Zoom Workshop - Final Draft**  
Graham Hunt, Andy Marlow and the Stage 2 Building Standards Working Group will present the final draft of the standards for members comment before consent at a Members Mtg so that members can work on the design of their houses.

A short presentation will be followed by breakout rooms to answer questions and then a Q&A.

<https://us02web.zoom.us/j/89669705538?pwd=NkFoTmhhQ2xETGFteUFWS2czcE00dz09>  
Meeting ID: 896 6970 5538  
Passcode: 643950

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# Draft Recommendations v1.3

## Information Presentation to Stage 2 Members - 5/2/22

Here is the presentation made to the Stage 2 Members via Zoom on **Sat 5/2/22** of the recommendations from this committee, with the assistance of Grant Rickey, Stage 2 Development Manager; Jon Ellis, Secretary BRP; Graham Hunt, Architect from DHW; and Andy Marlow, Architect from Envirotecure.

## Video link

NB: This is a very large file (320MB) for computer download - we are looking at a subscription service to able to stream it to all devices in a privacy-secure manner so the material is not edited.

[Link](#)

## Workshop & Chat Questions

These have been uploaded to the end of our [NEV Building & Landscape Standards - Stage 2 Recommendations - FAQs](#).

## Workshop Slides



NEV ProposedBl... v.1.32\_gd.pdf

## Graham Hunt

Graham's presentation on how to achieve a low cooling energy for NatHERS in "Cooling Strategies"



2022\_02\_05 Hun...Strategies.pdf

## Andy Marlow

Links from Andy

- Passive House in Australia book <https://www.envirotecture.com.au/wp-content/uploads/2020/10/passive-houses-Australia-low-res.pdf>
- 90 second Passive House video: [https://vimeo.com/74294955?embedded=true&source=vimeo\\_logo&owner=3212423](https://vimeo.com/74294955?embedded=true&source=vimeo_logo&owner=3212423)

## Other References:

John Shiel's BZE book (peer reviewed including by Graham Hunt) and free on the web as a pdf - "Cooling Your Home - Home Retrofits, Appliances and Adaptions for a Hotter Future".

This averages 3 houses with simulation energy from NatHERS for cooling, and ranks the best strategies - retrofits, appliances and behaviour. It has a table of the most effective cooling features, and another table ranking them by least cost.

<https://bze.org.au/wp-content/uploads/2021/11/Cooling-your-home-24-Nov-compressed.pdf>

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## Text version (v1.3) of the Building Standards Review

The text version of the Stage 2 review is available here for members. A document with major differences to Stage 1 standards will be created too.



NEV\_Building\_St...\_Draft v1.3.pdf

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## Draft Recommendations v1.0 - Presentation

Here is the presentation made to the Community Association on **2/10/21** of the recommendations from this committee.

The text is **blue** where there are changes to the initial recommendations made to the Steering Committee on 5/6/21.



NEV ProposedBld... v.1.0\_diff.pdf

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## Regular Monthly Meetings on NEV Building Design

One of the popular changes to the building standards was that the current level of support in helping members should be increased, with **regular meetings**, and communication in various media including in SLACK, in the NELN newsletter and in Despatch emails.

Members are keen to share their designs and are rewarded in our scoresheet for doing this, so these will present opportunities for this, as well as benefits to newer members designing their homes.

### Members Building Meetings

#### First Mtg - Sat 26/2/22 - 12:50pm - Dan & Deb Mohr's home design

How to design a sustainable heatwave proof house (80% reduction in NatHERS cooling energy). Includes a video clip of Graham Hunt explaining the main features to keep the house cool.

Overview of houses in Stage 1 (materials, design features)

Plus breakout rooms and Q&A.

### Assets are at NEV Member Building Meetings - Help with your home design

Next Mtg - Sat 26/3/22 - TBD

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## Circles and teams

- **Sustainable Design Appraisers (SDAs)** – help with your design and scorecard
  - **Building Review Panel (BRP)** – if your design meets the standard, BRP stamps your drawings before they go the State planning portal
  - **Member building meetings** - monthly forum for members to design home, learn, include experts and arrange speakers
    1. **Member Building Group** – members, SDAs, and experts (Architects, engineers, builders, assessors, designers) to help members with designs
    2. Members and non-members are welcome
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## Frequently Asked Questions



A set of questions and answers from our presentations can be found here [NEV Building & Landscape Standards - Stage 2 Recommendations - FAQs](#)

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## Questions from members and those in Stage 2

In the area below, please leave any questions for our Building Standards working group.