



Stormtech™

Sustainability
Awards 

Sustainability eBook 2022

Stormtech

The 2022 Sustainability Awards Gala

It was in 2006, way back before smart phones or social media, when we launched what we now call the Sustainability Awards. Little did we realise that 16 years later, our 'little' awards would become the premier built environment sustainability awards program in Australia.

Not that it's a huge surprise really. With the growing awareness of carbon footprints, climate change and rising sea levels as well as the hard work we have put into promoting these awards, it's no great shock that the Sustainability Awards were always destined for greatness. And not only because of the moral imperative, but also due to the economic one.

Realistically speaking, sustainability is a business approach designed to create long-

term value by taking into consideration how organisations operate in the ecological, social, and economic environments.

Therefore, sustainability is built on the idea that developing such strategies fosters business longevity. Without this notion, neither the planet nor the businesses that thrive on it will have much longevity.

With that in mind, I'd like to thank you for your involvement in our Sustainability Awards programme, one that always has been, and always will be dedicated to promoting sustainability awareness in all its forms across Australia's diverse and vibrant built industry.

BRANKO MILETIC, EDITOR



The Awards Jury



JEREMY SPENCER
Director, Positive Footprints



OLIVER STEELE
Director, Positive Footprints



ARIANNA BRAMBILLA
Senior Lecturer, School of Architecture, Design & Planning



KATE NASON
Sustainability Advisor, Frasers Property



SANDRA FURTADO
Director, Furtado Sullivan



DAVID COATES
Founder, Sustainable Building & Design



MAHALATH HALPERIN
Architect & Director, Mahalath Halperin Architects



SIMONE SCHENKEL
Founder, Gruen Eco Design



DICK CLARKE
Princial, Envirotecture



MICHAEL FAINE
Architect, Faine Group Architects



SUSAN TOUMBOUROU
CEO, Australia Council of Recycling

Q&A with Troy Creighton from Stormtech

Sustainability has long been a core value for Stormtech, but with each passing year, it's one they entrench further within their business, and their ethos as an organisation. We sit down with Troy Crighton, Stormtech CEO, to talk all things sustainability.

A&D: Troy, what does sustainability mean to Stormtech?

TROY CREIGHTON: Stormtech has always had a strong focus on excellence, both in terms of our products and processes, and we're continually working to ensure that focus is a centralised company value. To us, it's pretty clear that sustainability is not just about the environment, it's something that makes great business sense too. Too often businesses take the low-cost, low-effort option which just results in something that is barely up to standard, with a pretty shocking lifespan to boot. But, while the set-up costs may be higher, sustainable is almost always cheaper overall.

A&D: You mentioned products that only just meet the standard, talk to us about Stormtech's approach to compliance, particularly where sustainability is concerned.

TC: To us, sustainability standards are the absolute bare minimum that need to be achieved in order for an action or product to have an impact. And following on from that, if we really want to push things forward, standards need to be exceeded every step of the way. We dedicate significant time and resources to having our products recognised and certified under the various sustainability frameworks to ensure builders and specifiers have full peace of mind when specifying Stormtech.

A&D: And what are some of those certifications?

TC: We have all the regular certifications that any specifier would expect to see, but of note recently was the achievement of GreenTag HealthRATE™ Platinum certification for three of our most popular products. This certification for the Slimline Composite uPVC Channel and Stainless Grate, Slimline Stainless Steel Drainage System Series and Slot Drain, uPVC products, puts them in the 'world-leading' category, and gives designers and specifiers a strong attestation as to the material toxicity of these products. This helps them to reliably consider how Stormtech drains will contribute to the overall sustainability profile of their project.

But more broadly, we continue to commit to voluntary sustainability initiatives and achieve stronger certifications wherever possible to ensure that you can be confident that when you use a Stormtech product, you're doing the right thing for the environment.

A&D: Troy, talk to us about how Stormtech approaches sustainability from a material perspective, and what your considerations are when manufacturing products.

TC: The use of sustainable materials is key for us, so we invest a lot into R&D to ensure we evolve where we can and continually update our processes to get more from our materials, and adopt an approach of whole-of-lifecycle custodianship.

Our drain grates are mostly made with marine-grade stainless steel, which means they're not only 100% recyclable, but they don't

decay, and stay serviceable and reusable for thousands of years. We also recycle and reuse all our offcuts to achieve a zero-waste outcome.

The other common material we use is PVC, which - as a plastic - obviously has some inherent sustainability concerns around it. But PVC is an incredibly long-lasting and durable material, which makes it ideal for drains. We're also a signatory to the Australian PVC industry's voluntary Product Stewardship Program, and by embracing the voluntary commitments made under Product Stewardship Program, which means we're committed to addressing the environmental issues associated with the manufacture, use and disposal of PVC products in Australia.

A&D: So, where to next for Stormtech?

TC: Well, when it comes to sustainability, our approach is that our job is never done. As new technologies and processes emerge, there will only be more opportunities to increase the sustainability profile of our products, and our business. And it's our ethical duty to stay up to date with the latest developments and integrate them into our business. And as I said before, by doing that, we're not only helping the environment, we're securing the long-term future of Stormtech as a business. So by making these choices, we're building a business that's simultaneously successful and makes us proud. We're showing that profit and sustainability aren't mutually exclusive, and our journey is just getting better and better.



Single Dwelling (New) Award Shortlist

 proudly partnered by Stormtech

The design and construction of a single-residential building to which a Class 1a Building category.



BALLINA HOUSE 6848
BLUKUBE ARCHITECTURE



BALMY PALMY HOUSE
CPLUSC ARCHITECTURAL WORKSHOP



CASCADE HOUSE
CORE COLLECTIVE ARCHITECTS



THE HÜTT 01 PASSIVHAUS
MELBOURNE DESIGN STUDIOS (MDS)



THISTLE HILL
LIGHT HOUSE ARCHITECTURE & SCIENCE

WINNER

THE HÜTT 01 PASSIVHAUS
MELBOURNE DESIGN STUDIOS (MDS)

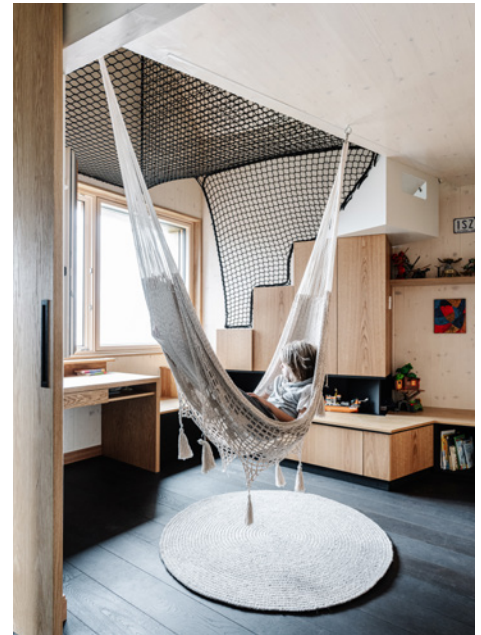
The Hütt 01 Passivhaus is inspiring contemporary architecture that sets a positive example for regenerative urban densification, reconnecting a forgotten piece of land with its environment. Regenerative design, Passivhaus & biophilic design are core values of this project, together with being energy-efficient, carbon-neutral/negative and an easily maintainable near-net-zero-energy approach.

The house combines functional playfulness & attention to detail with highly sustainable construction techniques and materials. The resulting home showcases new technologies like CLT with low VOC finishes, natural wood-fibre insulation, thermal-bridge-free high-performance windows, heat-recovery ventilation, a super-airtight building envelope, green walls and planters, and aquaponics. It obtains “Passivhaus Premium” certification (the highest possible category), utilising high-efficiency appliances with heat pump technology, solar photovoltaic and battery, integrated active shading, and recycled and/or natural materials throughout. A green roof and a raingarden assist with stormwater retention as part of the WSUD concept, that calculates to keep and use over 90% of stormwater on site. Showcasing prefabricated structural CLT panels with finished interior surfaces not only provides carbon footprint reduction and time & cost savings, but also a reduction/removal of additional finishing trades and materials like plastering.

Timber is featured in raw and finished forms, as well as natural stone and clay render. In addition to Eo boards and low VOC finishes, the built-in planters and green wall further cleanse the internal air from remaining (low-level) emissions. Product selections are based on sustainability, longevity and embodied energy, e.g. recycled bricks (carbon-zero), natural wood fibre and mass-timber structure (carbon-negative), recyclable timber floors with natural oil finishes and cradle to grave/cradle certification.

Passive House design just works. Once you’ve done it, and once you’ve lived in one, you can’t go back and tell people to not build a passive house. It makes a huge difference, it is easy to manage and maintain if designed correctly, and it is just comfortable and healthy all year around. This is how we can achieve carbon zero and zero energy homes on a large scale easily.

Award Winner



Taking the headache out of waterproofing

In July 2021, the Design and Building Practitioners Regulation 2021 (NSW) came into effect, and with it, a spate of new legal requirements for construction professionals.

The Regulation clarifies practical applications of the Design and Building Practitioners Act 2020 (NSW) and dovetails with the compliance requirements of the National Construction Code.

You'd be hard pressed to find a construction professional who says that effective waterproofing of wet areas is not an essential element to get right. However, despite being listed as a priority building element in the Act, the Regulation has left some aspects open to interpretation where waterproofing is concerned.

The NSW Government pushes for a 'design, then construct' approach which, as the name might suggest, means the onus is on the architect or engineer to design a building compliant with the NCC and relevant standards, and then falls onto the builder to ensure the construction meets those standards in practice. However, as happens from time-to-time, with dovetailing legislation, ambiguous language has raised questions as to where certain waterproofing requirements fit, and who is responsible for them.

At the core of the issue is confusion around situations where a design does not adhere to the deemed-to-satisfy provisions of the NCC, and the corresponding need for a report detailing the performance solution to be prepared in order to verify compliance with performance requirements. There are numerous common practices that fall into this basket where

waterproofing is concerned; pavers on pedestals and flush transitions on balconies being two of the most prevalent.

But despite this being the case, among the 18 design practitioner registration classes listed by the NSW Government, waterproofing practitioners are not noted. This has led to a situation where waterproofing designs are commonly being developed by architects, builders, and specialist waterproofing consultants together, in order to ensure all solutions achieve the requisite performance and compliance requirements.

While this situation has arisen from a place of ambiguity, it has had a net positive effect as waterproofing experts are able to provide the site-specific information needed to inform designs, and overcome challenges during construction. While tempting, it's not advisable for practitioners to rely on generic manufacturer-supplied information as this just doesn't have the level of nuance and consideration required to make sure the process is a smooth one.

Where architects or builders are unsure of waterproofing requirements or how to meet them, the best course of action is usually to speak to a drainage expert who can assist with the project-specific information required. With over 30 years of experience, Stormtech have a range of experienced consultants available to provide input on any project.



Sustainable thinking leads to suitable new dwellings

There's plenty to think about when starting from scratch. Briefings, consultations, dreams and ideas eventually evolve to become four walls with a number of dynamic spaces elevated by materials and choices made by an architect.

The evolution of a project from a mere idea through renderings and concepts into something tangible is a feeling unmatched in the built environment. The sense of wonder and completion felt by an architect and their client, especially in the residential space, is unique to every project.

With carbon reductions becoming a part of legislation and worldwide commitments in recent past, these feelings of completion are accompanied by an understanding that a project will complement its local environment. Energy systems, such as solar, are becoming commonplace. As are concrete floors and floorplates composed in such a way to maximise natural light and cross ventilation. Even with new developments, certain recycled elements that have been placed back into the resource pool that drive down carbon emissions and assist in the race to reaching net zero, whenever that may be.

The implementation of these elements and creation of new dwellings is showcased each year with the Single Dwelling (New) category up for grabs at the Sustainability Awards. Eligible projects are brand new Class 1a Buildings that have been erected in the past 12 months.

Dwellings nominated and shortlisted demonstrate a balance between dual considerations of usability (as outlined in the client brief) and ongoing sustainability outcomes.

The design will be original both in its response to the client brief and in the way it tackles issues of sustainability as related to single dwelling homes, and represent a holistic and innovative approach to achieving best practice sustainability outcomes: from material sourcing to implementation and the building's ongoing maintenance.

The key considerations of the category include response to client brief, originality and creativity in tackling challenges, high levels of liveability,

long-lived and easily maintainable solutions, relevance to context and high levels of research.

Long-time Sustainability Awards partners Stormtech sponsored the Single Dwelling (New) category in 2022. High-end drainage solutions created by Stormtech have been a cornerstone of both new and existing projects for some time. The rigorous quality control tests conducted by Stormtech on their products ensures durability, which is an inherent quality of sustainability.

Building from the blank canvas is a challenge accepted by all architects at some point during their careers, with the Single Dwelling (New) category at the Sustainability Awards the ideal way to be rewarded for the efforts in creating a sustainable dwelling from the ground up.

PAGE 11 2022 Sustainability Awards winner Single Dwelling (New), The Hütt 01 Passivhaus, Melbourne Design Studios (MDS).



STORMTECH / SUSTAINABILITY EBOOK 2020

Stormtech's GreenTag HealthRATE™ Platinum Certifications

With the results of the recent election pointing firmly towards the likelihood of stronger governmental climate action in Australia, it's fair to say that things are looking up for the environment.

But the wheels of government turn slowly, and - as has been the case for many years now - the responsibility for positive climate action still sits firmly within our business community. While many businesses are content to comply with relevant standards, tick the sustainability boxes and move on, some - like Stormtech - see sustainability as an ethical imperative, but also something that makes good business sense.

The architecture and design industries are among the most environmentally conscious in the country. It's fair to say that architects and designers are acutely aware of their role in - literally and figuratively - building the future. And this deep sense of legacy, coupled with the push for more sustainable solutions from clients, is an additional driver for product manufacturers to really push the envelope where sustainability is concerned.

Of course, some businesses take this responsibility more seriously than others. Stormtech is a prime example of a business who is continually pushing their products to be more sustainable across the full manufacturing process, and ensures they're achieving the highest levels of voluntary certifications to

showcase these achievements, and put the minds of environmentally conscious architects and end-users at ease. One of Stormtech's many notable achievements in this regard, is the recent award of GreenTag HealthRate Platinum certification for three of their products.

The name Global GreenTag will be well known to anyone in the industry with even a slight interest in sustainability. The mark is made up of a number of certifications that take a holistic approach to certified sustainability. Stormtech's two flagship linear drain solutions, the Slimline Composite uPVC Channel and Stainless Grate and Slimline Stainless Steel Drainage System Series have already achieved a number of GreenTag's top certifications: GreenTag GreenRate Level A, GreenTag LCARate Gold and GreenTag EPD ISO 14025. These put them in the 'world-leading' category for these certifications.

The Global GreenTag Product Health Declaration (PHD) is the first of its kind in the world, a certification tool that recognises manufacturers who fully disclose the toxicity information of their products with 100 percent transparency. The GreenTag PHD then provides

a GreenTag HealthRATE™ mark, which clearly communicates for manufacturers, industry and consumers a measurement of the varying levels of healthiness of their products as well.

Stormtech has now achieved GreenTag HealthRate Platinum certification for the Slimline Composite uPVC Channel and Stainless Grate, Slimline Stainless Steel Drainage System Series and Slot Drain, uPVC products, putting each in the 'world-leading' category. This allows designers and specifiers to make the most informed choices regarding the material toxicity of Stormtech drains, and to rest assured that Stormtech has considered how toxicity can be reduced at every stage of the production process.

The HealthRate Platinum certification is a shorthand way for specifiers to understand how Stormtech products will contribute to the overall sustainability profile of their projects - which is incredibly valuable when going for higher Green Star ratings, and even passivhaus designs. But moreover, it's an example of how Stormtech as a business is fulfilling their social responsibilities, and putting the minds of environmentally conscious architects and end-users at ease.

See website for more information and disclaimers.

GLOBAL GREEN TAG CERTIFIED



GOLD STREAMLINED CERT™

GreenRate | Level A

Sustainability Assessment Category – AVERAGE SCORES	
Product Synergy	1.00
Health & Ecotoxicity	0.00
Biodiversity	0.50
LCA Score	0.39
GHG = 23kgCO ₂ e/m ²	0.42
Social Responsibility	0.25

Low Score = Better Performance (Score Range -1 to +1)

Company	Stormtech Pty Ltd
Product	Slimline Stainless Steel Drainage System Series
Licence No.	ST0:SL01:2020:GT
Product Category	Drainage system

GHG figure based on cradle to grave LCA, calculated in accordance with ISO 14067. The LCA study was conducted in accordance with ISO 14040/44 standard.

www.globalgreentag.com

Green Tag EcoPOINT | 0.38

See website for more information and disclaimers.

GLOBAL GREEN TAG CERTIFIED



GOLD STREAMLINED CERT™

GreenRate | Level A

Sustainability Assessment Category – AVERAGE SCORES	
Product Synergy	1.00
Health & Ecotoxicity	0.00
Biodiversity	0.55
LCA Score	0.22
GHG = 13kgCO ₂ e/m ²	0.32
Social Responsibility	0.25

Low Score = Better Performance (Score Range -1 to +1)

Company	Stormtech Pty Ltd
Product	Slimline Composite uPVC Channel and Stainless Gate
Licence No.	ST0:SL02:2020:GT
Product Category	Drainage system

GHG figure based on cradle to grave LCA, calculated in accordance with ISO 14067. The LCA study was conducted in accordance with ISO 14040/44 standard.

www.globalgreentag.com

Green Tag EcoPOINT | 0.34

Building a revolution

Australia has a housing shortage. There is a complete lack of affordable and/or social housing throughout the country and with a growing population, this is fast becoming an issue.

While the shortage of housing is certainly dire, what could exacerbate this is that we irresponsibly build additional housing without being conscious of the environment. It's imperative that we build new dwellings sustainably and look to minimise carbon emissions concurrently creating living spaces for future generations.

Those who are recognised as finalists and winners for the Single Dwelling (New) category at the Sustainability Awards are leading the way forward for new builds that do not bring harm to the wider world. Designers are urged to submit a design of a single-residential building that has been designed and constructed during the last 12 months. As this is the Sustainability Awards, we don't need to tell you that submissions for the category must be environmentally aware.

Sustainable Building & Design's Urban Green Home Build was the 2021 champion of the Single Dwelling (New) category. Urban

Green Home Build is a project that sits within a community of homes with a mandate to be light-filled, comfortable and with a small carbon footprint. At the core of the project was innovation that would showcase a revolution in sustainable building practices.

The home was constructed using recycled materials, with structural timber, floorboards and roofing from the original home put to use in the new build. Locally fabricated timbercrete blocks replaced brick and envirocrete took the place of traditional concrete.

Stormtech is the proud sponsor of the Single Dwelling (New) category for 2022. Renowned for supplying premium drainage products and solutions for Australian projects, Stormtech is a believer in high-quality products that ultimately ensure sustainability. Constructed with top end materials and composed to the highest possible standards, Stormtech is a proud advocate of sustainability.

PAGE 15 2021 Sustainability Awards winner Single Dwelling (New), Urban Green Home Build by Sustainable Building & Design Pty Ltd.



