Sport & Wellbeing Centre

Roseville COLLEGE

Community Bulletin – Spring 2023

As construction of Roseville College's Sport and Wellbeing Centre, SSD - 9912, continues to take shape, November 2023 marks a major milestone: more than 90 percent of (low carbon) concrete has been poured! We are now approaching completion of major structural work. Consistently, we are undertaking the necessary work in a manner which is as considerate, respectful and accommodating as possible.

This Bulletin provides details about upcoming work and highlights the project's emphasis on sustainability.

Construction Contacts

Phone |
02 9884 1100 (Main Reception)

Email |
Construction@roseville.nsw.edu.au

Website |
www.rosevillecollege.com
or use this quick-link:
bit.ly/RC_SWELLCentre

Site Manager |
Ben Langshaw, Taylor Group
24-hour mobile **0423 325 254**

Construction Works Notice | SSD-9912

1 November 2023

Upcoming Works

- Beam connection to the pool hall columns with bearing pads
- Pool hall beam formwork, reinforcement and concrete pour
- Demolition of the Isobel Davies extension
- Mechanical equipment to be installed within the plant rooms
- Blockwork to the carpark plant rooms
- Ductwork within the carpark
- Structural steel to be installed to level 3
- Face brickwork to commence on the Southern elevation.

Completed Works

- Concrete pours for level 2, pours 2 – 3; level 3, pours 2 – 3; columns up to level 3
- Power pole changeover/substation cutover.

Majority of concrete is now poured

By mid-month, the project will pass a major milestone: more than 90 percent of total, low carbon (CO^2) concrete will be poured.

On 16 October, a third major pour saw us fly past the halfway mark of the volume of concrete required for the structure. It was a tightly orchestrated day, with more than 230m^3 of low-CO^2 mix delivered to a ready-and-waiting site. It is remarkable to observe the progress in a day: before (right), then completed (below)!

Before Christmas, the structure will evolve quickly as the main floors are completed and the impressive pool hall beams are formed. Alone, the beams will weigh an estimated 205,920kg (205 tonnes) with a load-bearing capacity of five tonnes per square meter. Finished, they will frame the vast pool roof cavity and be a striking feature of the completed building.

We look forward to showcasing the finished structure in 2024.

To discover why low carbon concrete mix was chosen for the Sport & Wellbeing Centre, see the opposite article. W

Diary invitations

7 November 2023

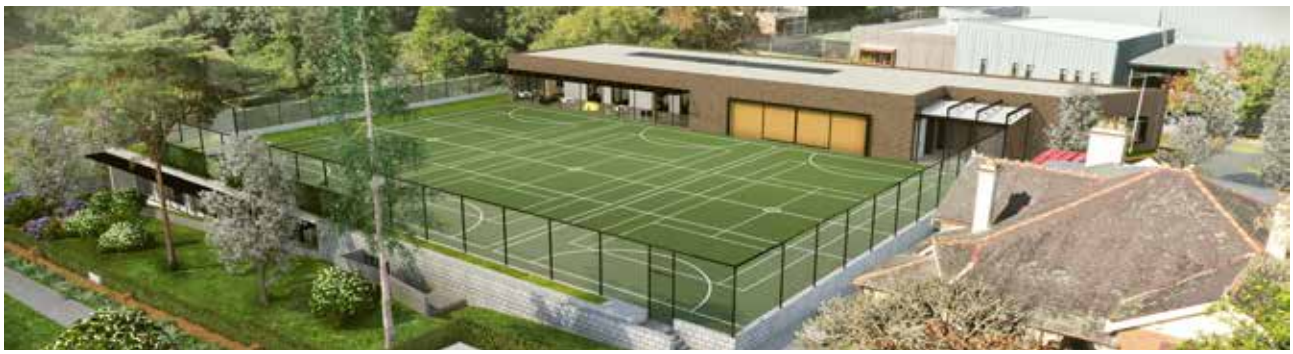
Community Drop-in
27 Bancroft Avenue, 5.00 - 6.00pm

Meet representatives of the project team and raise any questions or concerns as the project progresses.

Friday 1 December 2023

Roseville College Christmas Markets
27 Bancroft Avenue, 3.00 - 6.00pm

Scan this QR code to view Community Updates such as construction work notices (PDF), bulletins and special notices.



What is a 'Green building' and what difference does it make?

Built structures directly emit 18 percent of carbon (CO_2) emissions and consume 19 percent of all energy used in Australia[1]. Globally, building-emissions constitute more than a third of total CO_2 emissions – and *half* come from embodied CO_2 in cement, iron, steel and aluminium[2].

Such sorry statistics informed the design and construction of our Sport & Wellbeing Centre, which ambitiously targets a Green Star rating from the Green Building Council of Australia (GBCA). In response to cries for better climate management and sustainability, GBCA aims to transform built environments into places that are healthy, livable, productive, resilient and sustainable – this includes reducing CO_2 emissions during construction and operation, and improving efficiencies in energy, resource and waste management.

The Green Star framework rewards sustainable decision-making, like choosing ECOpact concrete (containing a lower embodied CO_2 component than regular concrete). Low-carbon concrete reduces CO_2 intensity in our Sport & Wellbeing Centre building by 30 – 60 percent, equating to more than 70 percent *fewer* CO_2 emissions (without offsets) in the building's lifetime.

Another example is installing more than 100 solar roof-panels in a 50 kilowatt (Kw) system. This will generate (on average) 200 Kw-per-hour in renewable electricity to power the Centre each day and, when demand is higher, greatly reduce consumption on the grid.

Other design efficiencies include air tightness, aiming to retain 15 – 25 percent of internal temperatures (typically wasted due to drafts and leakages), and balancing natural lighting with LED solutions that last longer, produce a higher level of luminescence at a lower operating temperature, and emit zero toxic elements.

We must also build hope for our future.

Overall, compared with standard buildings, Green Star buildings report an average 70 percent reduction in operational energy usage (electricity) and 35 percent reduction in potable water consumption. This is good news for our environment *and* for people.

Research shows that well designed buildings – 'green' workplaces – have direct, positive ramifications on employee engagement and productivity. In learning environments, they play a significant role in a child's academic progress, wellbeing, engagement and satisfaction.

Studies (sourced by GBCA) demonstrate that 'green' buildings in schools have a significant and positive impact on attendance, engagement and learning. Results include halving health-related ailments and absences; improving student learning and productivity by 15 - 25 percent; and enhancing academic outcomes, such as faster progression and better performance in key learning areas like numeracy and literacy. Comparable benefits are reported for teachers and school staff, who spend up to 90 percent of the working day indoors. Studies show improved recruitment, retention, wellbeing and productivity alongside decreased absenteeism and work-condition dissatisfaction. For example:

- Daylight and outside views support melatonin cycles, enhance daytime alertness and performance, and improve sleep quality at night
- High indoor air quality (and efficient ventilation and circulation) benefit health and concentration
- Acoustic management boosts attention and learning potential
- Regulated indoor temperatures increase health, and enhance satisfaction.

Environments characterised by natural light, 'clean' materials, fresh air, and regulated temperatures enhance health, learning and productivity. Therefore, it makes sense to incorporate 'green' building practices into environments where people live, work and learn – such as our Sport & Wellbeing Centre.

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[1] Australian Federal Department of Climate Change, Energy, the Environment and Water.
[2] Visit www.architecture2030.org.

Hours of operation

What to expect

Ordinary work, including delivery of materials: 7am – 6pm, Monday to Friday (inclusive), and 8am – 1pm on Saturday.

Restricted hours for rock-breaking and similar work: 9am – 12pm and 2 – 5pm, Monday to Friday, and 9am – 12pm on Saturday.

No work on Sundays or public holidays.

Parking guidelines

Site workers are required to comply with guidelines in the current Construction Transport Management Plan, available online. Visitors to the site are encouraged to comply voluntarily, if their visit will exceed 2 hours.

Managing the impact

Use the Construction Contact details on the cover if you have any questions.

Gentle reminder

What to expect from us

- Courtesy and respect, timely updates/ responses, and accessible information

What to find online

- A dedicated section at our website for SSD - 9912. Visit **bit.ly/RC_SWELLCentre**
- **Project introduction**
- **Project details** includes a link to NSW Planning Portal for State Significant Developments
- **Community updates** – or scan the QR code – provides information for our neighbours and local businesses:
  - *Construction Work Notices* (monthly)
  - *Project Bulletins* for news and updates
  - Invitations to *Community Drop-Ins* and public events at the College
- **Construction contacts** includes an option to opt-in to receive alerts about the project.