



# RESIDENCE, ENERGIZED

**A small-city Polytechnic innovates  
and elevates the student residence  
building typology**

BY KENT MCKAY | PHOTOGRAPHY: COOPER & O'HARA





**P**ost-secondary campus life is a cherished experience for students. Many travel across the province or country to attend their institution of choice; some even come from abroad. All of them need a place to live. It is hoped that these students will leave their alma mater with an address book full of connections, lifelong friends and formative adventures.

Yet the student residence is not a particularly beloved building type. Institutional in feel, traditional residences provide small segregated rooms to students, along with a handful of sterile common areas to meet basic social and functional needs. When former students look back at life “in res” with fondness, it’s despite the gloomy buildings they called home for years – not because of these spaces. Until now.

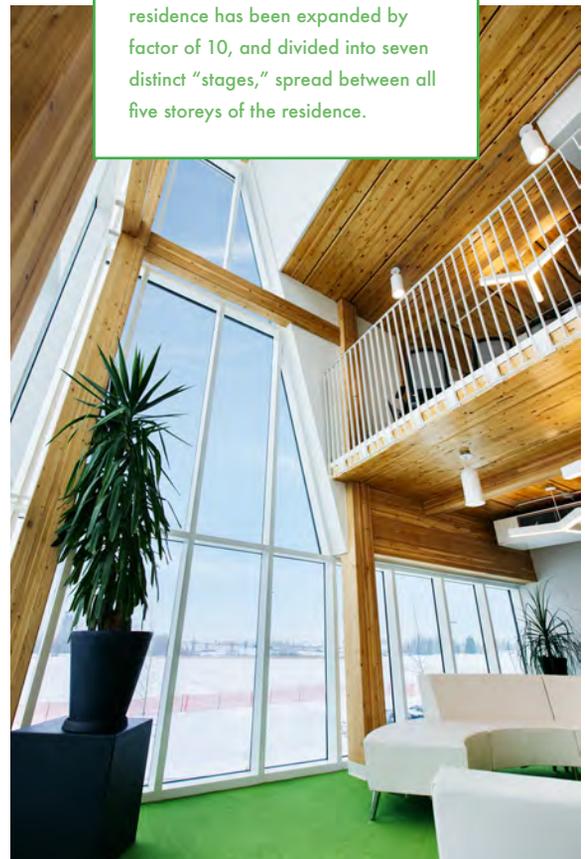
Vedran Škopac, lead designer and principal at Reimagine, saw a new possibility: that the student residence typology could be elevated. So when Red Deer Polytechnic (RDP) approached the design firm with a need for a new building, it provided the perfect opportunity to boldly reimagine the student residence: as a restful sanctuary, and a catalyst for social, emotional and mental well-being.

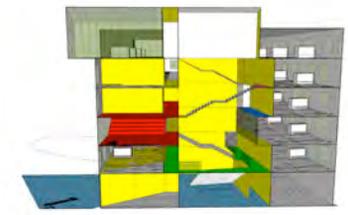
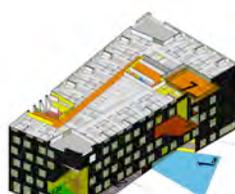
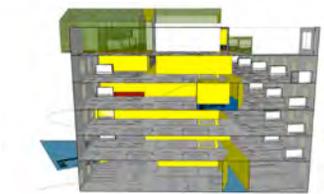
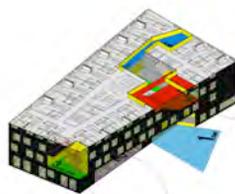
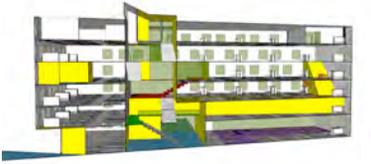
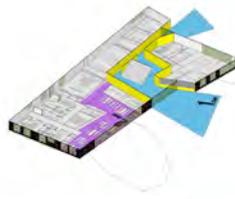
#### AN OPPORTUNITY EMERGES

Both Red Deer Polytechnic and Reimagine Architects were experiencing growth and change when they began collaborating. In fact, they went by different names at the time; Red Deer College and Manasc Isaac Architects, respectively. Both organizations were on

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The amount of social space in this residence has been expanded by factor of 10, and divided into seven distinct “stages,” spread between all five storeys of the residence.

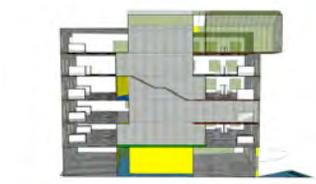
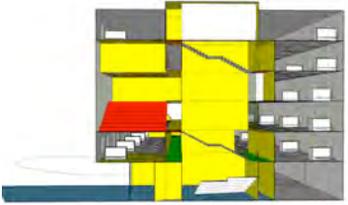




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Each "stage" represents a different portion of a student's journey through their education.

ILLUSTRATIONS: REIMAGINE ARCHITECTS



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Creating single-loaded corridors and boosting social space gives the building an airy sense of connectedness.



the verge of rebranding, new names representing bold futures; both parties were keen to make the new student residence emblematic of these ambitions.

RDP wanted their new residence to represent the innovative and leading-edge reputation they wished to cultivate. Reimagine wanted to break new ground that would elevate the student residence building type and showcase its sustainable design chops.

It was a match made in green building heaven.

**“My hope for anyone visiting is that they walk all the way up to the highest point. And just like Alice in Wonderland, wander around, discovering different things and being always engaged with the environment.”**

- Vedran Škopac

#### PROCESS AND PRACTICE

At the project's inception, the team agreed to use an Integrated Project Delivery (IPD) poly-party contract, one that required an unusually high level of collaboration in the design and construction of the residence.

The IPD method marries all members of the design and construction team, including the client, architects, engineers, contractors, framers, and suppliers. It requires, contractually speaking, all partners share the profits that result from savings from the budget – and they share the risk of overruns together, too.

The depth of the collaboration resonated with the client, who quickly understood that their role in an IPD process would be significant than in a more typical design-build arrangement.

“Collaboration is exactly how the project was meant to unfold and it did,” says Trent Rix, Director, Ancillary and Sport Services at Red Deer Polytechnic. “I think what impressed me about the design and construction process most was always feeling involved in the decision making. When I’ve been involved in design-builds in the past, it feels like you have a bit of input at the beginning and you turn the project over and you don’t have the type of influence that we had on the fly throughout the entire process.”

The design team sought input from faculty members, staff, and another critical stakeholder: students, who took a very hands-on role in shaping the design of the residence.

One exercise involved creating a life-size “show suite” of what a typical residence unit would look like, and encouraging students

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Units are designed with hidden second beds, allowing the rooms to be smaller - freeing up space for more common areas.



3D TYPICAL UNIT: REIMAGINE ARCHITECTS

to walk through the suite, adding their comments to the unit and addressing ways in which it could better meet their needs.

“My favorite story of this building is really the show suite that we did, and having students go through with sticky notes, putting where they would put an outlet, or where they would put a door or a handle, taking those suggestions back to the design team and actually bringing those to fruition” remembers Rix. “Those absolutely impacted each of the elements of our suite. And to this day, we haven’t heard any comments like, oh, if we only had a plug there!”

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- Trent Rix

#### MENTAL HEALTH

While students were helping to shape the design of their future units, the design team was reimagining the broader role that the residence could play in students’ lives. The boldest change proposed: to increase the conventional amount of social space in the building by a factor of 10.

This generous amount of social space is divided into seven distinct “stages,” spread between all five storeys of the residence. For Škopac, these common areas represent the soul of the project, designed to bolster the well-being and mental health of residents and facilitate community for the student body.

“The seven stages are scattered all around the building on the perimeter with different views, different ceiling heights, different shapes; and they symbolize seven stages in growth in a student’s life while they’re at Red Deer Polytechnic,” explains Škopac. “The first one is the introductory one that invites students into the building, and gently introduces them to its internal life. And then naturally going up, each one of the stages symbolizes different virtues, such as honesty or love or happiness. The last one on the top is the one with the tallest ceiling and looks the furthest into the distance. That one is dedicated to vision. And this is where the Polytechnic is letting go of students into real life.”

These beautiful community spaces didn’t increase the budget or the size of the project: instead, Škopac freed up space by eliminating traditional double-loaded corridors and negotiating standard unit sizes. Units are designed with hidden second beds, allowing the rooms to be smaller and the common space to be larger. This seemingly simple exchange radically shifts the feeling within the residence, adding natural light, views and a sense of connectedness. It feels as if all areas of the building open into an airy, friendly community, and this design encourages students to interact and engage with their neighbours, rather than silo students in isolated units.

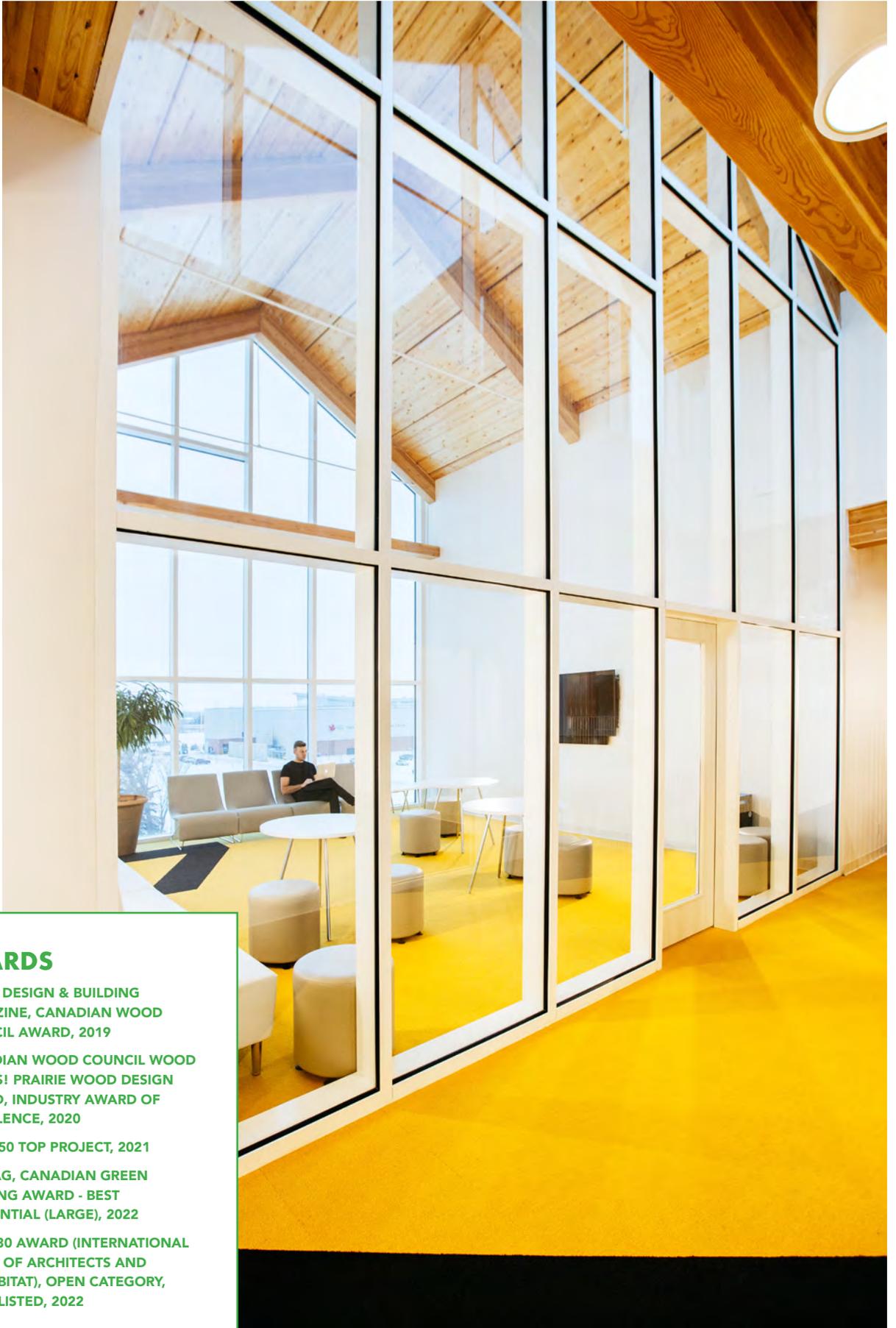
“My hope for anyone visiting is that they walk all the way up to the highest point. And just like Alice in Wonderland, wander around, discovering different things and being always engaged with the environment,” says Škopac.

Students who had lived in the building validate the project team’s vision for a space that would improve student well-being.

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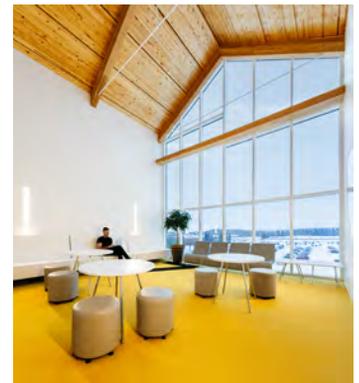
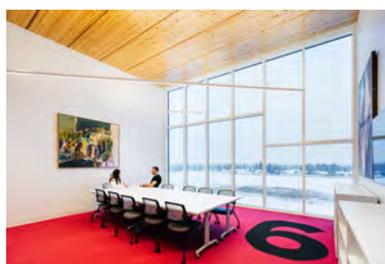
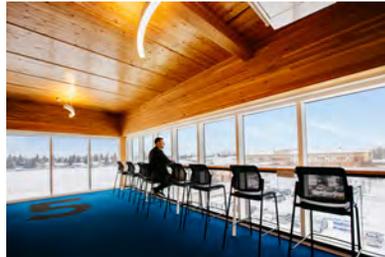
The exterior is clad in PV panels on the east, south and west faces. This generates about 45% of the building's energy requirements.





## AWARDS

- WOOD DESIGN & BUILDING MAGAZINE, CANADIAN WOOD COUNCIL AWARD, 2019
- CANADIAN WOOD COUNCIL WOOD WORKS! PRAIRIE WOOD DESIGN AWARD, INDUSTRY AWARD OF EXCELLENCE, 2020
- CLEAN50 TOP PROJECT, 2021
- SABMAG, CANADIAN GREEN BUILDING AWARD - BEST RESIDENTIAL (LARGE), 2022
- UIA 2030 AWARD (INTERNATIONAL UNION OF ARCHITECTS AND UN-HABITAT), OPEN CATEGORY, SHORTLISTED, 2022



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The stages feature different views, different ceiling heights, different shapes; and they symbolize seven stages in growth in a student's life while they're at Red Deer Polytechnic.

"When I'm in the residence, I feel super positive and since everything is open and bright, if you're having a bad day, you can just go into one of rooms that has so many windows and admire the nature and just, be good," said former resident Abby, noting that the residence helped her navigate a challenging time in her life. "I just hope that a lot more people can enjoy this residence because it's brought a lot of happiness into my life, personally. I've had some pretty dark things happen this year and living here has been a breath of fresh air."

### SUSTAINABILITY

The new residence isn't only healthy for students; it's healthy for the planet, too. Reimagine drew upon its nearly 25 years of sustainable design experience to deliver a project that aligned with Red Deer Polytechnic's vision to become a net-zero campus by 2040. The design team chose a wood structure with a high-performance building envelope, to maximize comfort and thermal performance. According to Škopac, wood was far and away the most sustainable choice.

"Wood is the only really renewable material," he explains. "This wood is all locally harvested and milled. So the transportation cost was reduced, local economies were supported and the embodied carbon of wood is much lesser than in steel or concrete."

The façade of the residence is clad in photovoltaic panels on the east, south and west faces – this generates about 45% of the building's energy requirements. This visible commitment to reducing the footprint of the building is noticed by passers-by and resonated with the students who call the residence home.

"I do really like the solar panels," says Hailie, a former student resident. "I think that's one of the biggest things, as soon as [I'm] even ordering food here, I'm always like, it's the building with all the solar panels on it."

**All of the innovation, hard work and tightly integrated planning has paid off for the entire stakeholder team: not only has the residence gotten rave reviews from former students, but there is greater demand than supply.**

**"It's been that way since day one," says Tim Siemens, Manager, Conference and Accommodation Service, Ancillary and Sport Services at Red Deer Polytechnic. "We have a wait list."**

**The bold new residence has won accolades from across the country, and even the globe: it was the only North American project to be shortlisted for the prestigious UIA-2030 award, coordinated by the International Union of Architects and UN-HABITAT.**

**Awards aside, for the project team, the real satisfaction is seeing the residence bring joy to those who use it. Siemens still loves touring guests through the residence.**

**"It has a sense of wonder that I think people aren't ready for when they get here," he explains. "And when they walk in, they're here for hours just looking around and then asking more questions and then coming back. It's built a lot of buzz and people are experiencing the magic just the way we wanted them to."**

