

NORTHERN TRACTION

IN SUSTAINABLE INDUSTRY & TOURISM

Wahnapiatae

CLT PLANT

A shared development between:
Ministry of Natural Resources and Forestry
Ontario's Forestry Growth Fund
Made-in-Ontario Environment Plan

SUDBURY WOLVES ARENA

HIKER CABIN

URBAN PARK

LAKE SKATING

LAURENTIAN UNIVERSITY

SCIENCE NORTH

HIKER CABIN

HIKER CABIN

Through a design build competition for off-grid cabins, a series of winning entries will be fabricated with youth groups within the area and be available for reservation along the Ramsey Lake Loop.

HIKER CABIN

HIKER CABIN

RAMSEY LAKE LOOP 28 KM

BIKE	14km/hr	2 HRS
HIKE	4km/hr	7 HRS
CROSS COUNTRY SKI	12km/hr	2.3 HRS

DYNAMIC LAKE LOOP 32 KM

BIKE	14km/hr	2.3 HRS
HIKE	4km/hr	8 HRS
CROSS COUNTRY SKI	12km/hr	2.6 HRS

PROJECT DESCRIPTION

City Making is a conversation. This is especially so in the case of Sudbury, which is at a critical moment in its development with a number of large cultural projects proposed, debated, and currently underway.

Our proposal is a collection of urban gestures to see Sudbury grow into a sustainable, green, culturally rich and diverse downtown core. To support this proposal, we envision an app based discussion board to guide these gestures toward reality. Ideas that gain traction across the app are 3D printed and placed on a physical model available for public view, both online and offline. Community based design iterations form important considerations in shaping the culture of Canada's premier northern town. Thus, the Sudbury of 2050 is conceived through a program of Active Planning and Community Engagement.

We begin the conversation by introducing some gestures, starting with the large and controversial Kingsway Entertainment District. The current downtown core cannot adequately accommodate a large program like that proposed at the Kingsway Entertainment District without expanding. Therefore we propose the relocation of the stadium across the tracks at the site of the Energy Court's Public Parking Lot. A new Hotel and Gaming and Convention Centre, along with an innovative stadium will act as a catalyst for further transformations and expansions of the downtown. Structurally optimized catenary forms, prefabricated CLT modules and Glulam construction in Sudbury's new stadium will galvanize Ontario's construction industry around developing a sustainable vision of Sudbury.

Sustainability is a crucial theme in Sudbury's history, at once a story of extraction and recovery. The city grew out of the environmental ills of early industry and has since become a case study for the possibility of re-greening and natural stewardship. As such it is uniquely poised to lead the way from environmental rehabilitation to environmental partnership and sustainable construction practices. Sudbury has for nearly half a century been a kind of Nature Factory, reconstructing green space through initiatives like the Technical Tree Planting Committee. However, the downtown core currently does not reflect this commitment. There is a noticeable absence of green space, only 3% of the downtown is comprised of parks, which are not highly visible nor easily accessible according to a Master Plan Report prepared in 2012. The re-imagining of the rail-yard presents an opportunity for Sudbury to continue its commitment to environmental sustainability, importing nature and culture to enrich the downtown. The rail lines diverge and the rail-yard transforms into Junction Park, replete with places for entertainment, culture and social gathering, serving the growing downtown population and neighbouring residential quarters.

Adaptive reuse is a sustainable strategy for re-imagining the rail-yards and its infrastructure as a node for cultural engagement. Wherever possible, architectural solutions that incorporate pre-existing structures offer a more sustainable way of growing the downtown. The large shed at the centre of the rail-yard becomes a multi level gallery for First Nations and contemporary artists and sculptors. Defunct rail cars are reused and become public furniture and infrastructure for the museum to display artistic works. The old railway turntable becomes an open air auditorium

and bandshell that hosts entertainment throughout the seasons. Open Air Entertainment Venues offer the city a way of charting a post pandemic world by building cultural resilience into public space.

Junction East continues Sudbury's commitment to the arts and culture with the construction of an art gallery and library at the site of the Sudbury Arena. Junction West is planned to host a convention centre, privately operated hotel and performing arts centre to replace the Sudbury Theatre Centre.

The performing arts centre offers an opportunity to animate Brady street. Generous auditorium stairs to support pop-up performances can make Brady Street more pedestrian and help activate neighbouring public spaces like Tom Davies Square and Memorial Park. The performing arts centre is double fronted, one end to Brady Street to an outdoor amphitheater at the current Shaughnessy Parking Lot. Thus the performing arts centre can support exterior open air performances as well as highly controlled interior performances. A small park surrounding the amphitheater completes the gesture, and supports Sudbury's commitment to sustainable greening of the urban core. The park is enjoyed as a generous outdoor breakout to the convention centre, and recreation space for the growing population residing in the downtown.

The gesture to produce diverse and active public spaces is one of many in the downtown core, which is filled with areas for strategic infill and development. We propose the systematic elimination of surface lots for mixed use programs wherever possible and the incorporation of parking space into few yet efficient parking structures to free up the downtown to develop robust, welcoming, and safe public space. These gestures are crucial to the commercial, cultural and civic resilience of Sudbury.

A phased pattern of residential densification through infill can support the growth and activity of the downtown population. Green Terracing and Ample Shared space characterize new CLT construction, supporting Sudbury's growing commitment to urban resilience and sustainability. New developments are sculpted to permit maximum winter solar gain, and host vegetation to protect against solar gains in the summer. The formal strategy itself is built upon modules and offers significant variation in form and direction to maintain view corridors, shield harsh winds and minimize shading on neighbouring property. Urban farming tied into residential densification offers further means toward a resilient downtown community.

At a regional level, urban gestures aim to reinforce connectivity. There are a variety of extant nature trails scattered and disconnected across the Greater Sudbury Region. Thus a double loop system is proposed to connect these trails together and lead toward the downtown. The Bridge, a connective tissue in Sudbury's urban fabric, is part of phase 4 of the proposal, with the aim to bring regional connectivity into the downtown.

The goal is to grow Sudbury's urban core into a reflection of its commitment to environmental partnership and rehabilitation, of culture and industrial ingenuity. With these gestures and many more from community discussion and partnership, we aim to create Northern Traction.

LEGEND

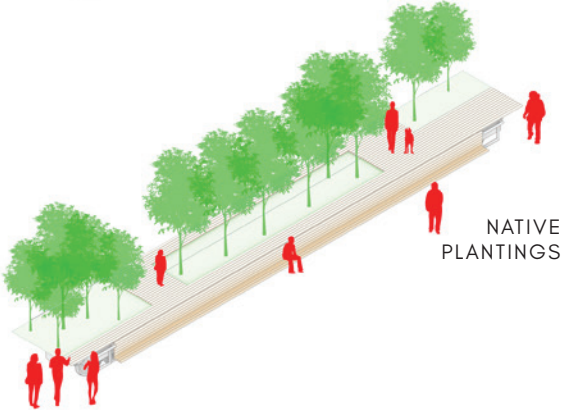
- Existing Hiking Trails
- Proposed Hiking Trails

NORTHERN TRACTION

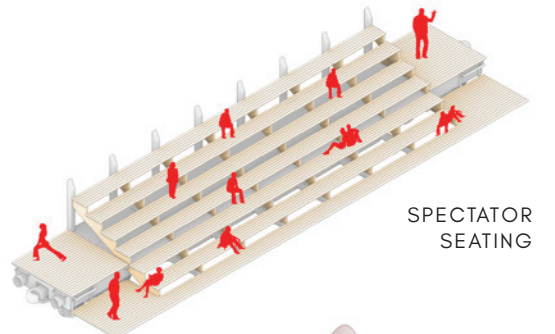
I N E C O L O G Y & P U B L I C S P A C E



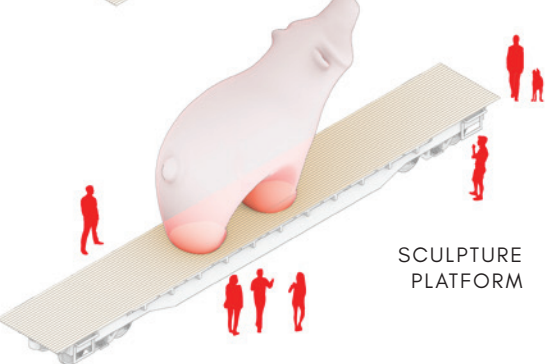
RAIL CAR



NATIVE PLANTINGS



SPECTATOR SEATING



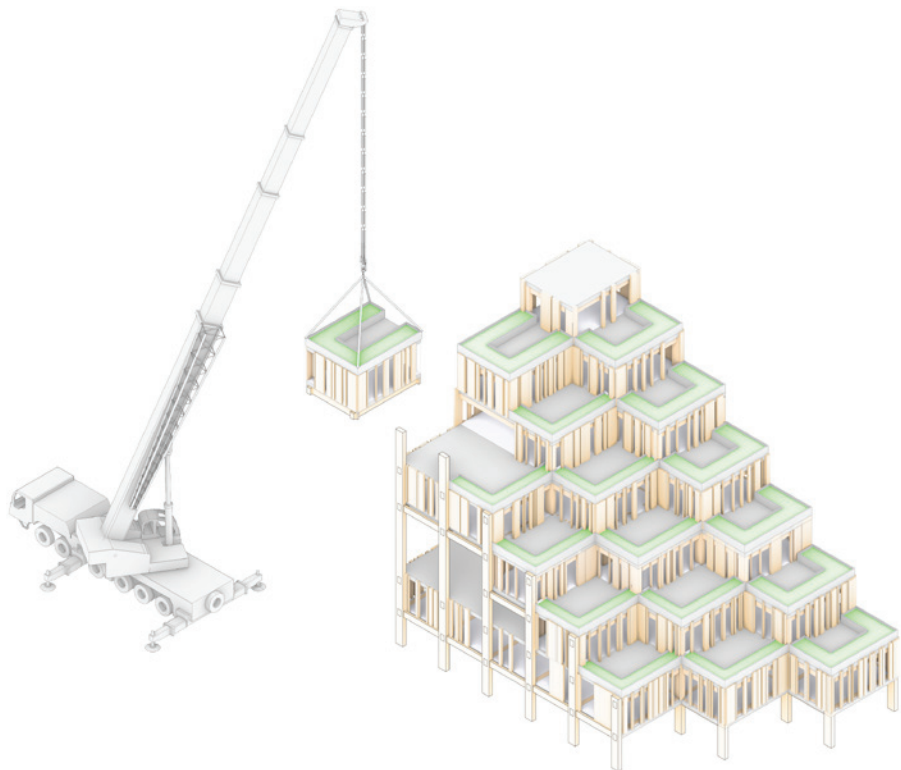
SCULPTURE PLATFORM

APPROPRIATION OF ONSITE RAIL CARS



The infrastructure of the rail yard are transformed to support various programs of both the park and museum. Re-use and upcycling are inherently sustainable strategies that Junction Park uses to support artistic expression.

#outdoorsculpturepark#performance#landscape

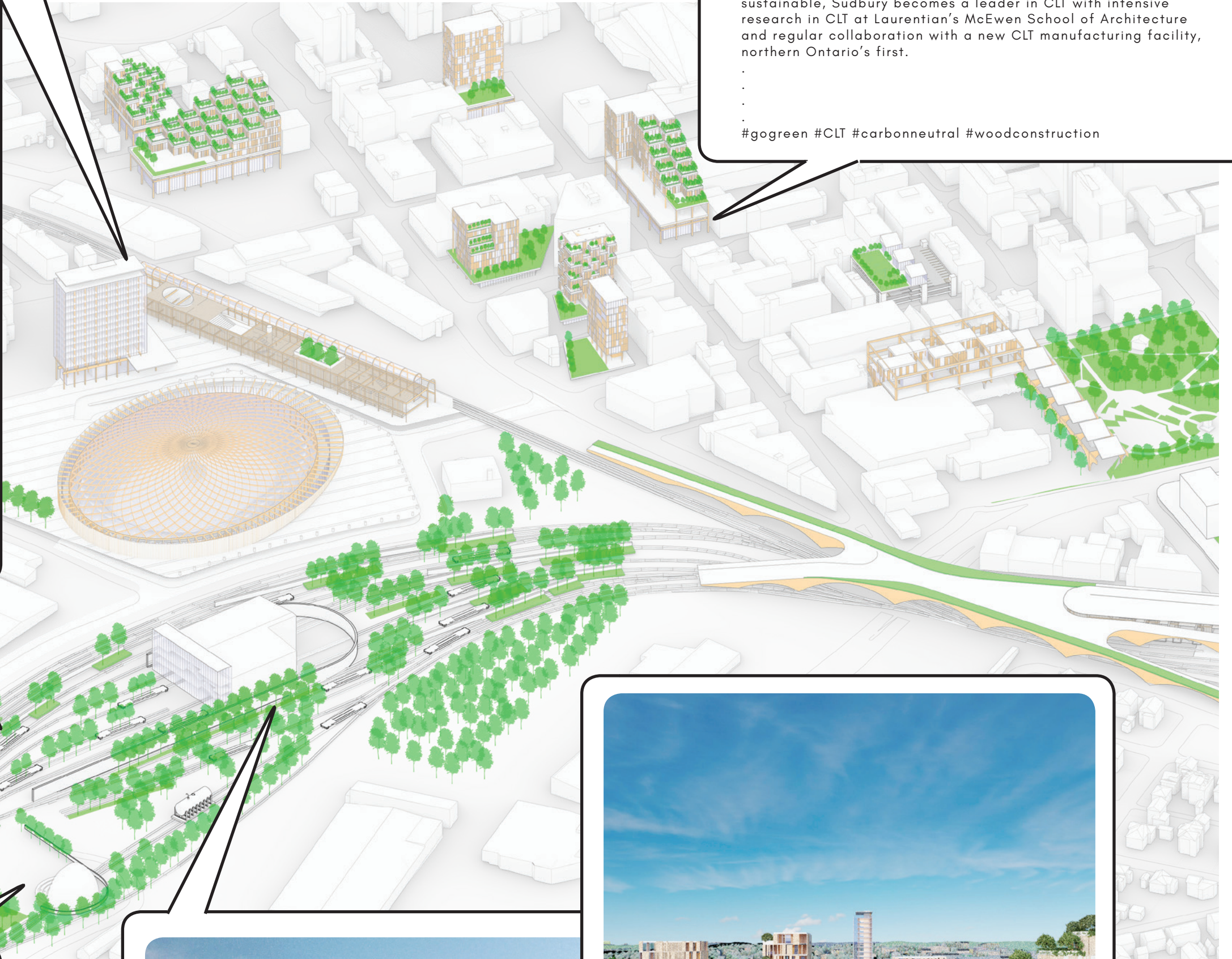


MODULAR, SUSTAINABLE, CLT CONSTRUCTION



Sudbury goes Modular, Prefab and sustainable with CLT construction of new residential construction. Efficient and sustainable, Sudbury becomes a leader in CLT with intensive research in CLT at Laurentian's McEwen School of Architecture and regular collaboration with a new CLT manufacturing facility, northern Ontario's first.

#gogreen #CLT #carbonneutral #woodconstruction

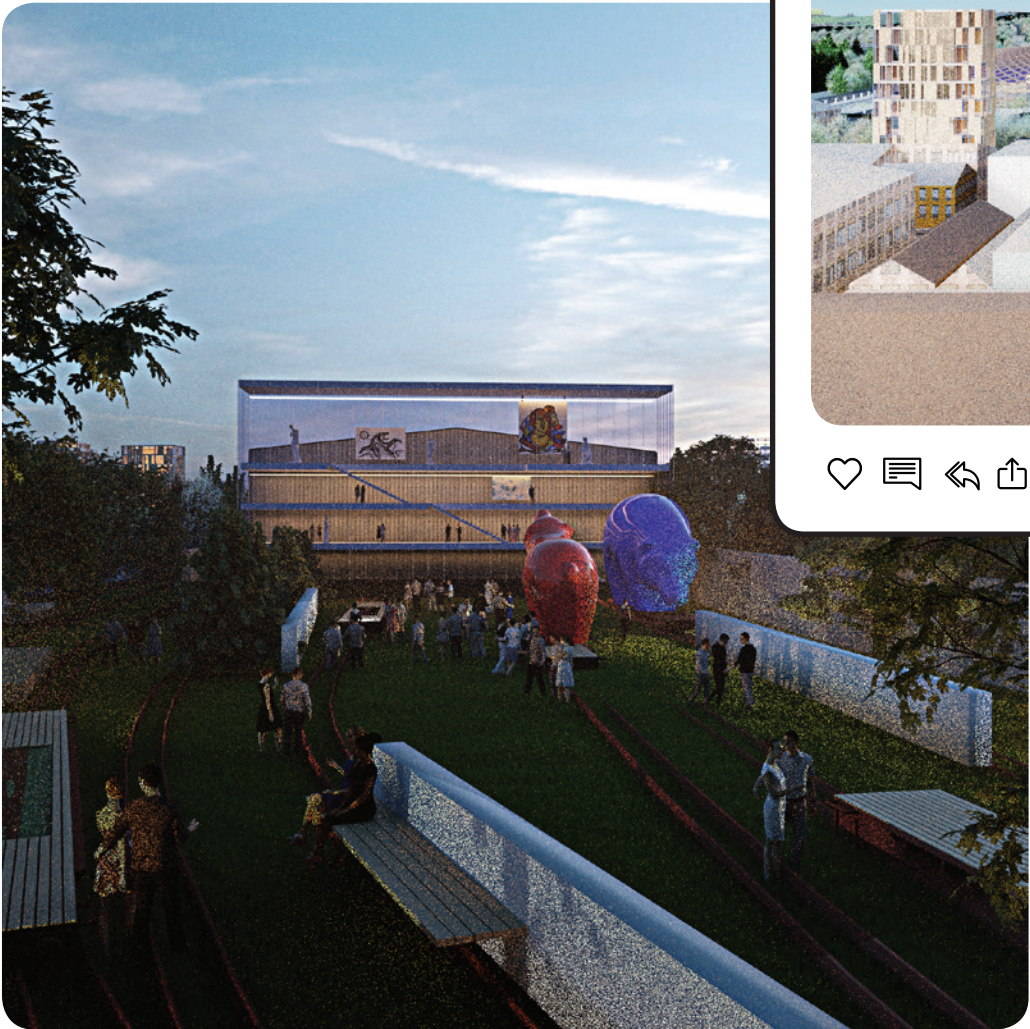


TURNTABLE BAND SHELL



The repurposing of the railyards turntable into Sudbury's musical turntable has the possibility to attract performers and audiences for planned and impromptu performances. The orientation and integration of landscaped walls will create a micro-climate inclusive to human comfort and thus extend the operational usage of the venue.

#performance#music#outdoorvenue#bandshell



RAILYARD SHED



The shed hosts a new exhibition highlighting the work of contemporary First Nations artists. Large spans particularly suited to display large sculptural works. Addition of multi storey lobby space acts as living signage for the museum's new and upcoming works.

#Museum#culture #JunctionPark #artpark #canadianheritage



NORTHERN TRACTION

I N C U L T U R E & U R B A N L I V I N G

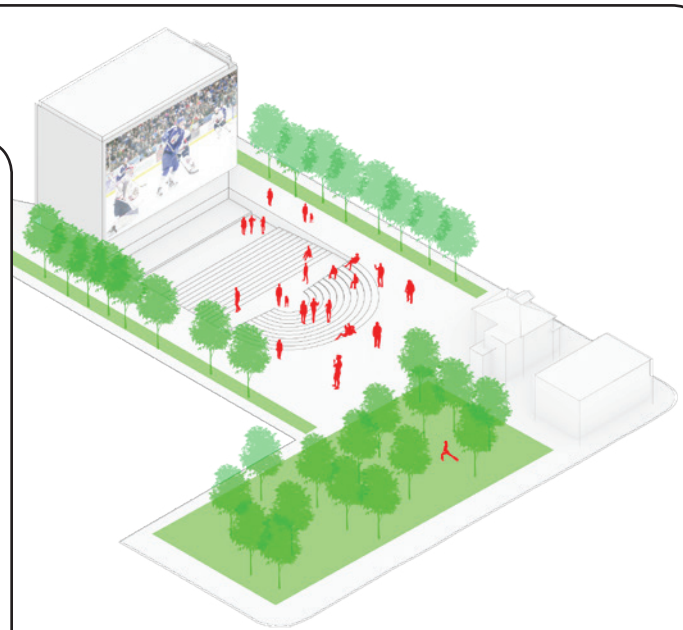


Public Market



A grand CLT arcade for Memorial Park to host regular farmers markets. Safe commercial spaces offer a resilient way to chart a post Pandemic world.

#publicspace #farmersmarket #outdoorvenue #CLT



THE BOWL



Playing Now! Watch the Sudbury Wolves on the big screen. The Sudbury Theater Center will host an outdoor performance at Shaughnessy Park next week! #publicspace #cultureSudbury #Wolves

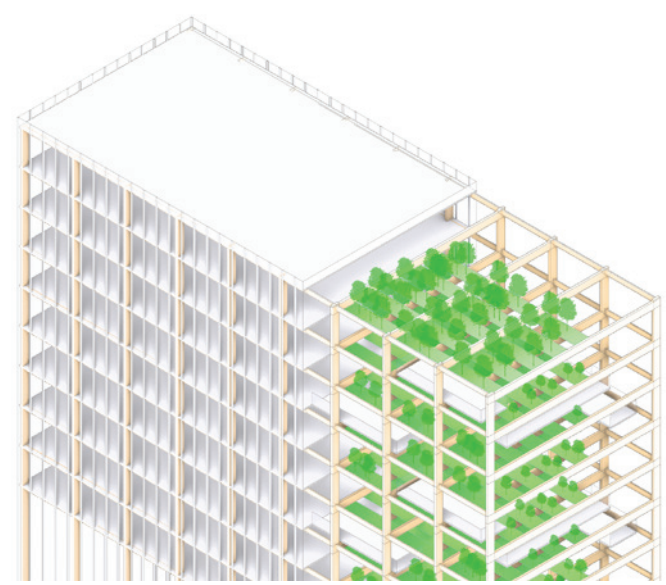
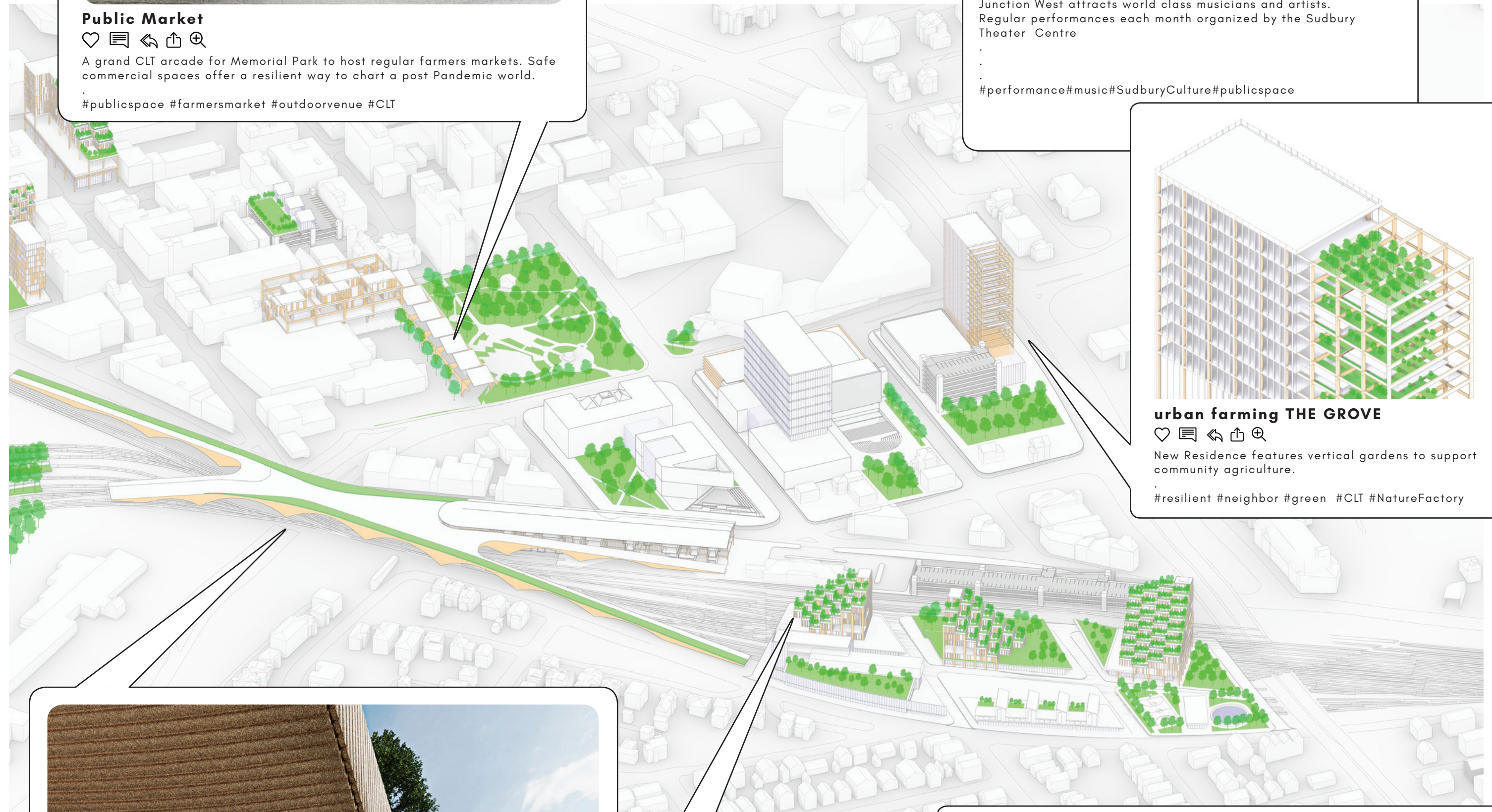


performing arts centre JUNCTION WEST



Junction West attracts world class musicians and artists. Regular performances each month organized by the Sudbury Theater Centre

#performance#music#SudburyCulture#publicspace

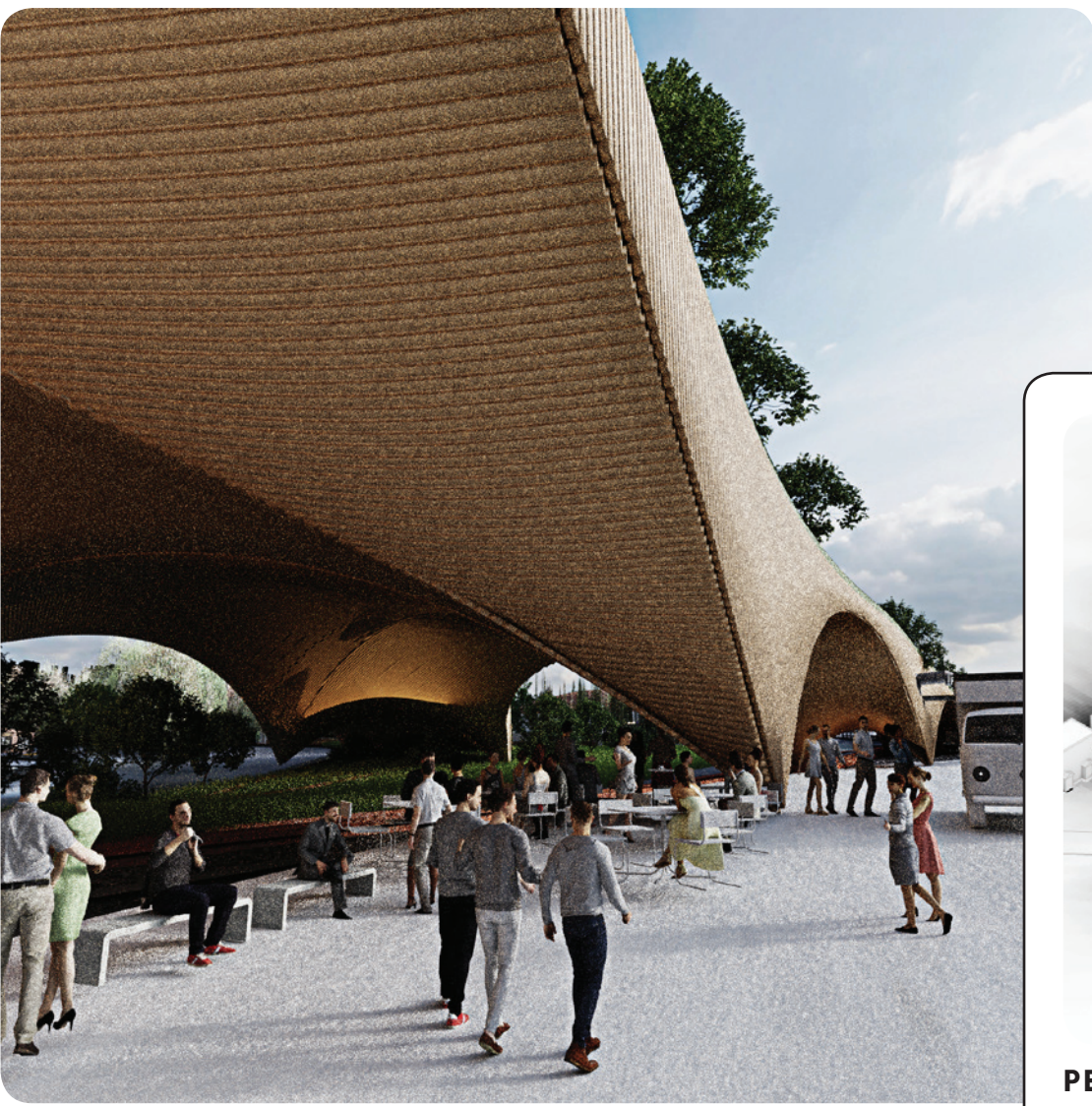


urban farming THE GROVE



New Residence features vertical gardens to support community agriculture.

#resilient #neighbor #green #CLT #NatureFactory

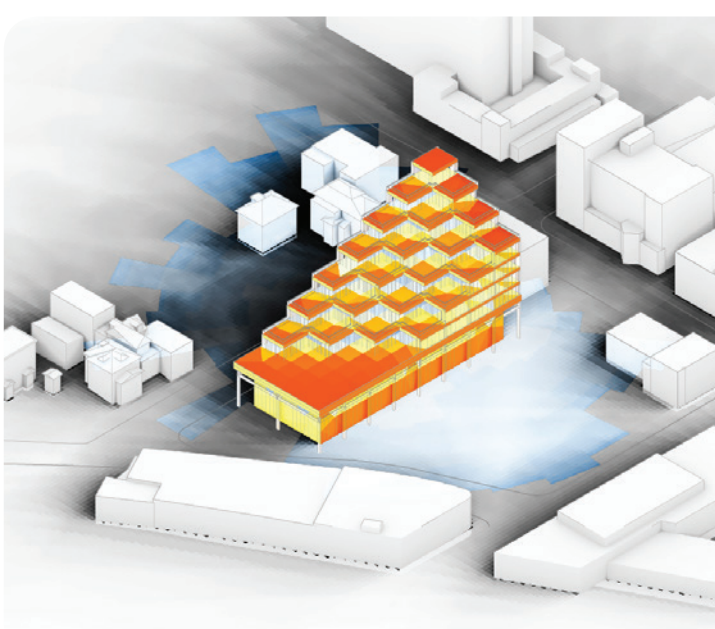


connecting downtown THE BRIDGE



A dynamic CLT catenary structure touches down lightly at strategic points and connects developments happening on both sides of the rail lines. Follow the path to get on Ramsey Lake Loop to start your hiking adventure! Or hop on a bike and cycle down Dynamic Loop!

#CLT#structural#optimization#regional#connectivity#hiking#urban#adventures



PERFORMANCE



New Residential Project tested with environmental analysis. Site specificity is key, Solar orientation, Shading, Wind Shedding all play important roles in ensuring thermal comfort

#environment #newneighbor #wind #solargain #shadowstudy



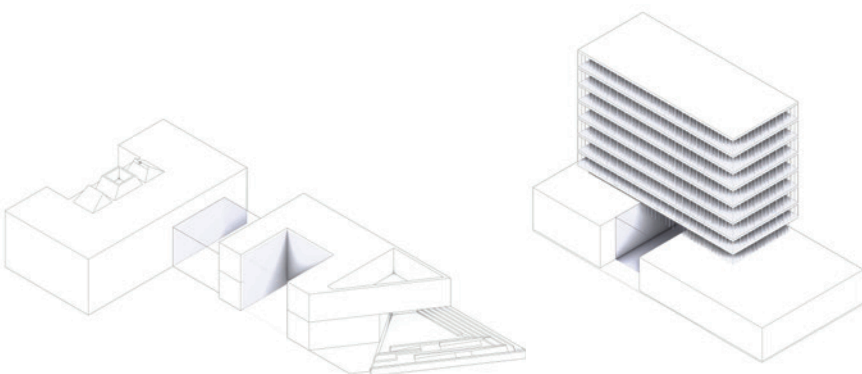
SUDBURY 2050

NORTHERN TRACTION

I N E C O N O M I C R E S I L I E N C Y

PHASE 00

This phase is about sharing a collection of urban gestures and inviting the public to respond through a collaborative digital platform: an app. We envision an active community discussion board to gather asynchronous feedback from the public, and for the community itself to propose their own gestures. Online or Offline, city making is a conversation that occurs through urban gestures. Those gestures that gain traction are 3D printed and exhibited on a physical model for public view digitally and in person. The aim of phase 00 is to begin to understand Northern Traction and define the culture of Sudbury.



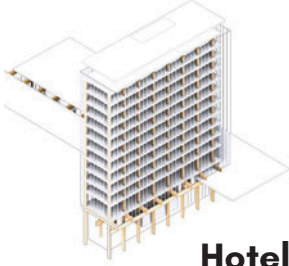
2020

PHASE 01

The entertainment district is proposed at the site of the current Energy Court Parking Lot, an under performing light industrial area. Bringing the development to the downtown core will serve as a catalyst for further development, increase tourism, and support local business. The innovative use of CLT in the construction of the stadium galvanize the construction industry to pursue more sustainable techniques.

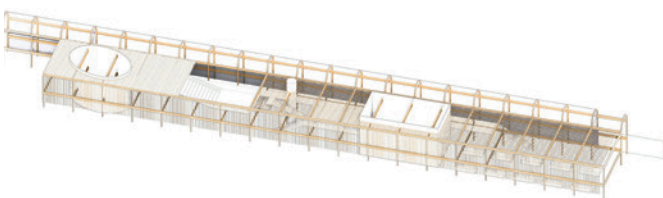


Sudbury Wolves Arena

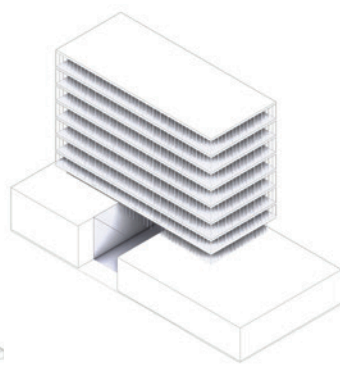


Hotel

Planned Developments Underway

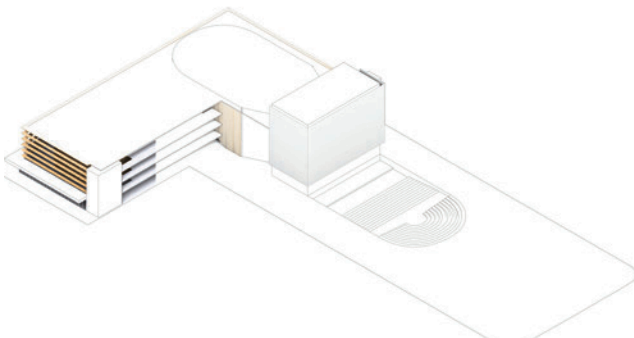


Casino



Conference Centre

Research conducted at MSoA, the Centre for Research and Innovation in the Bio Economy and CLT manufacturing facilities attract international attention with conferences held at Junction West.

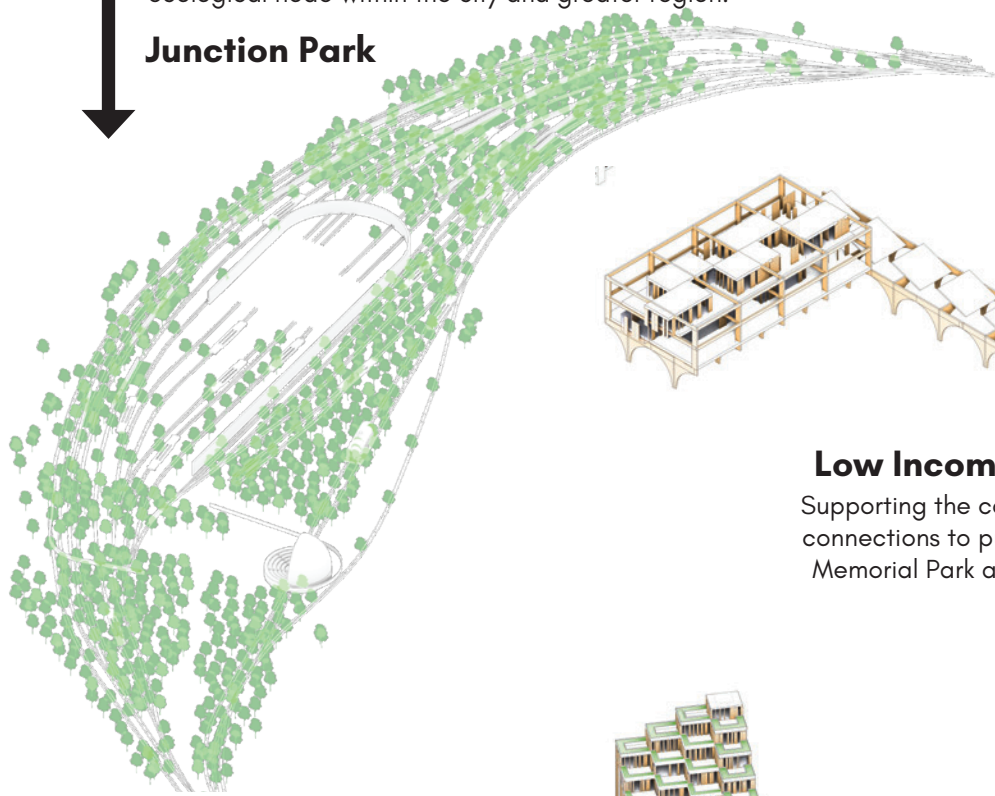


Performing Arts Centre

The Sudbury Theater Centre moves to newly expanded facilities that can support interior and open air performances attracting world class performers and supporting local artists. Resilient spaces make for a diverse cultural scene.

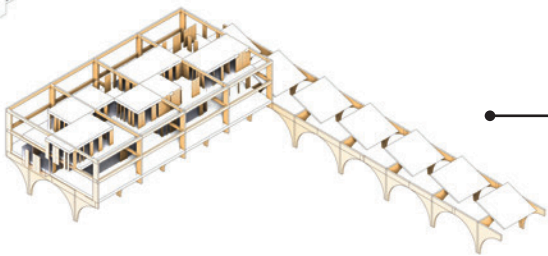
PHASE 02

The economic and cultural success of Phase 01 will support the developments of phase 02. This includes the redevelopment of the west side of the Sudbury Railyards which are planned for relocation outside of the city. In addition, ecological and cultural development occurs across the city's underutilized lots responding to a range of markets from low income to luxury living.



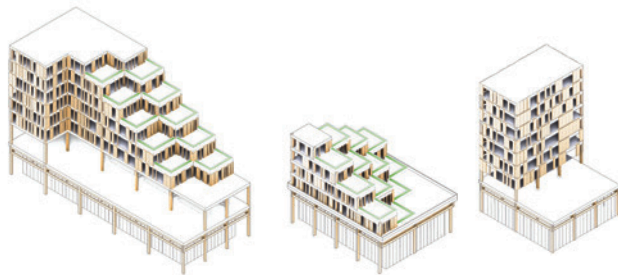
Junction Park

Revenue generated by the developments will aide in the funding of the redevelopment of the Sudbury railyards into a cultural and ecological node within the city and greater region.



Low Income Housing

Supporting the community with connections to public space at Memorial Park and the YMCA.

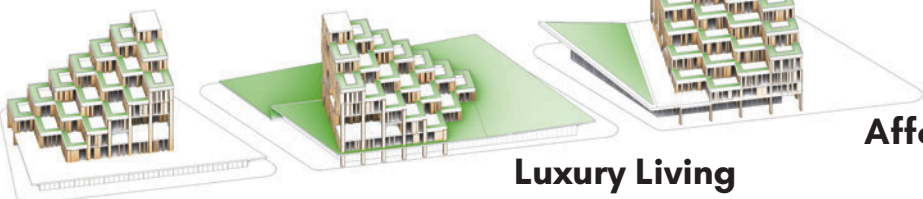


Residential infill

Systematic Transition of open lots to more efficient multi storey parking structures frees up the downtown for residential density.

PHASE 03

The newly developed east side of Junction Park is zoned for a mixed use development. In addition to retail and recreation, a range of income corresponding residential low and midrises are proposed in an effort to ensure equality and equity within the downtown core.

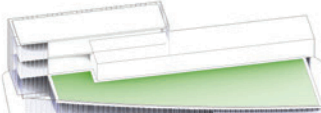


Luxury Living

New Neighborhood includes a mix of programs and prospective residents, with an emphasis on senior living and long term care.

Luxury Living

Affordable Housing



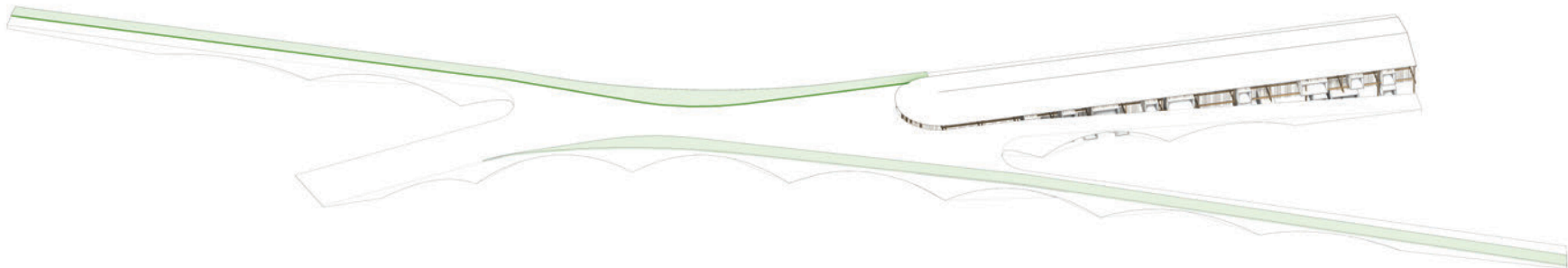
Long Term Care

Assisted Senior Living

Recreation fields

PHASE 04

The Cultural, Institutional and Ecological developments of previous phases continue to generate capital to support the construction of a connective tissue to link East and West downtown together with the broader Sudbury Region.



Connective Tissue and Integrated Market

2050

