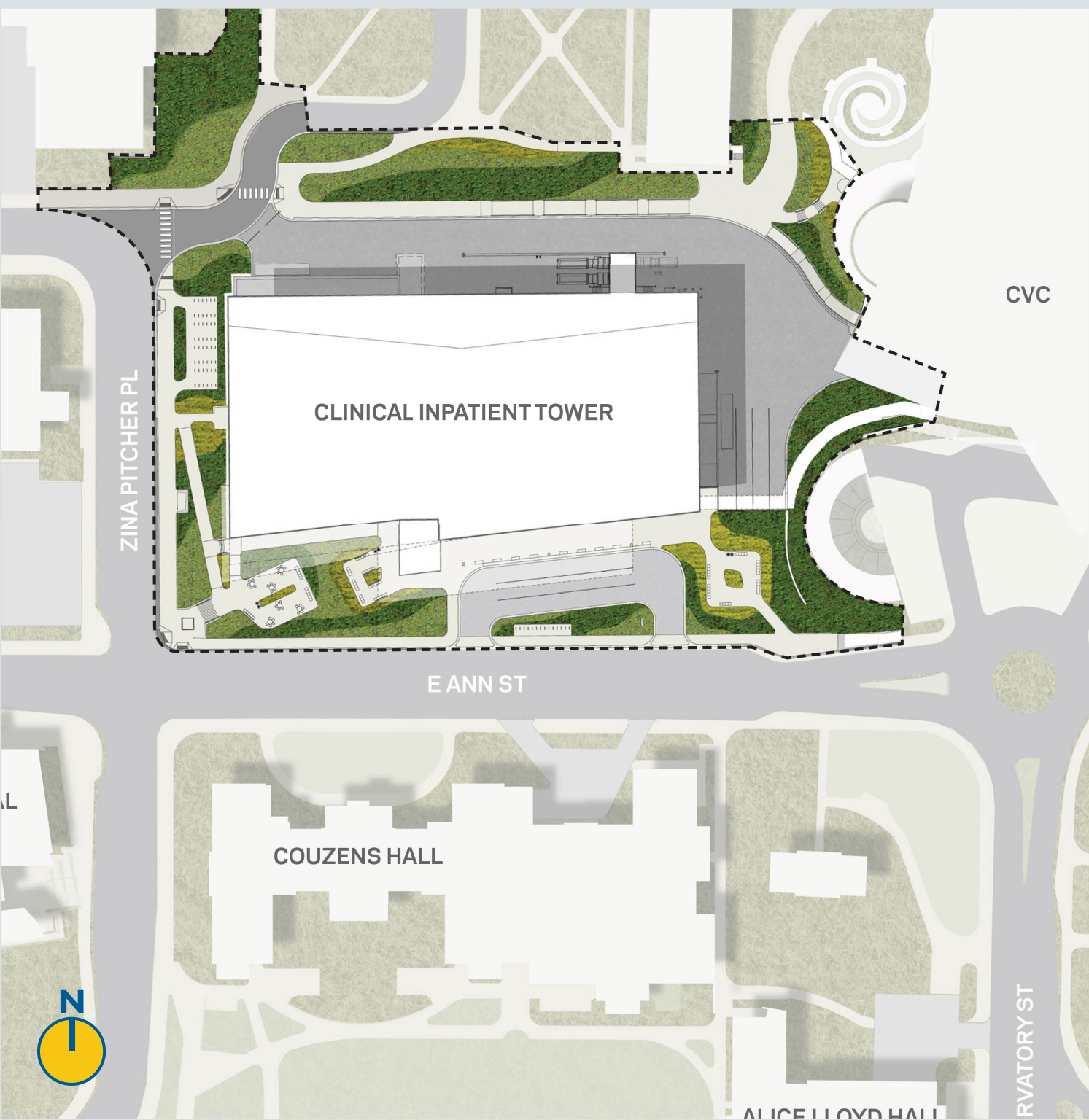


PROJECT DESCRIPTION

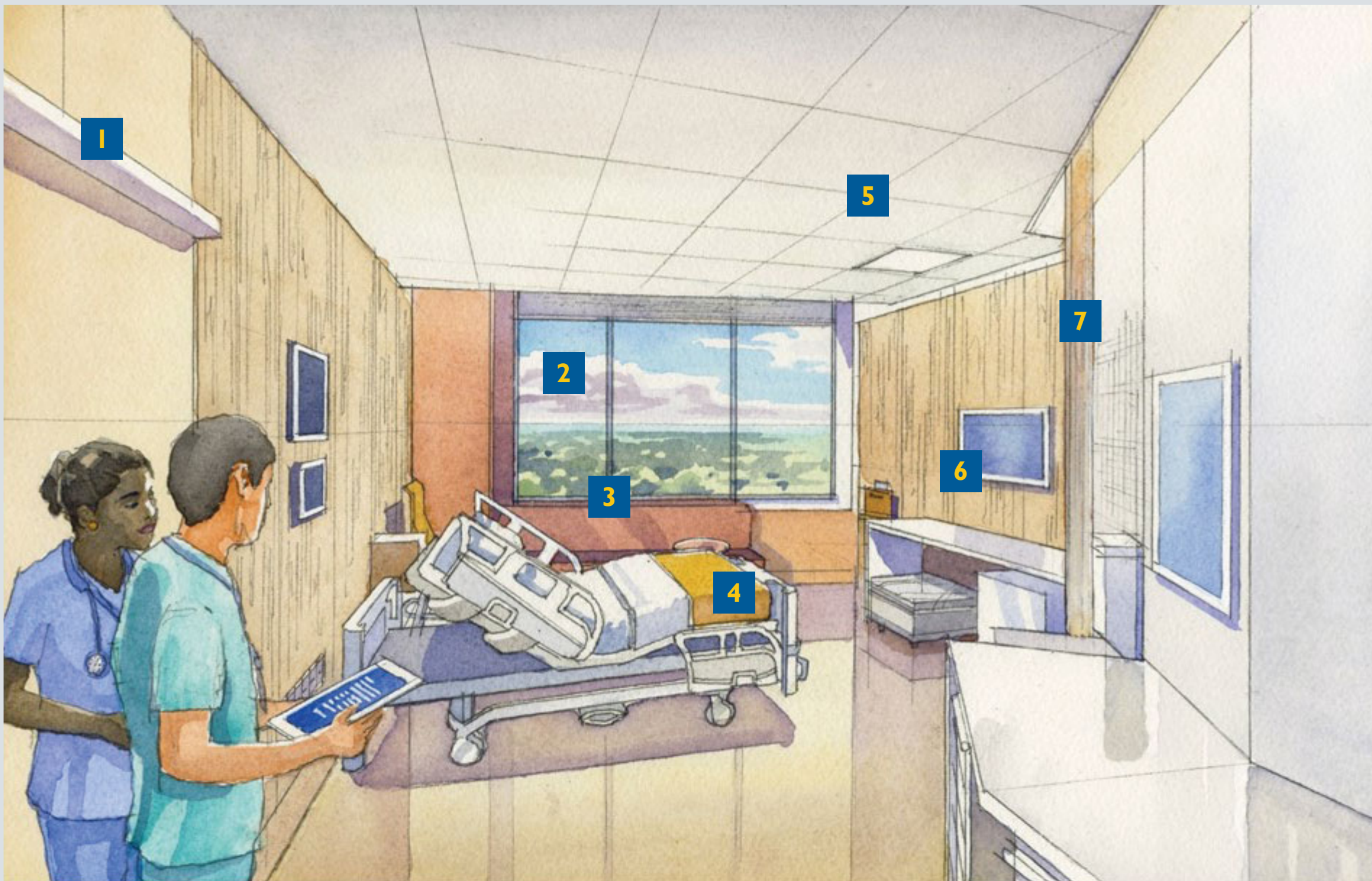
The Clinical Inpatient Tower (CIT) will be a state-of the art healthcare facility that provides inpatient beds, operating rooms and diagnostic capacity. The CIT will support the growth and visibility of Michigan Medicine's Neuroscience service while maintaining a functional connection to the existing Frankel Cardiovascular Center building (CVC). The buildings will be connected and will share some clinical services. It will operate 24 hours, 7 days per week, with some services operating at a reduced capacity during overnight hours.

The CIT is targeting LEED for Healthcare v4 Platinum certification, with 20% energy cost savings below Michigan Energy Code, ASHRAE 90.1-2013, at the building scale. When the efficiencies of the central power plant are accounted for, the project achieves about 50% energy cost savings from the Michigan Energy Code.

SITE LOCATION

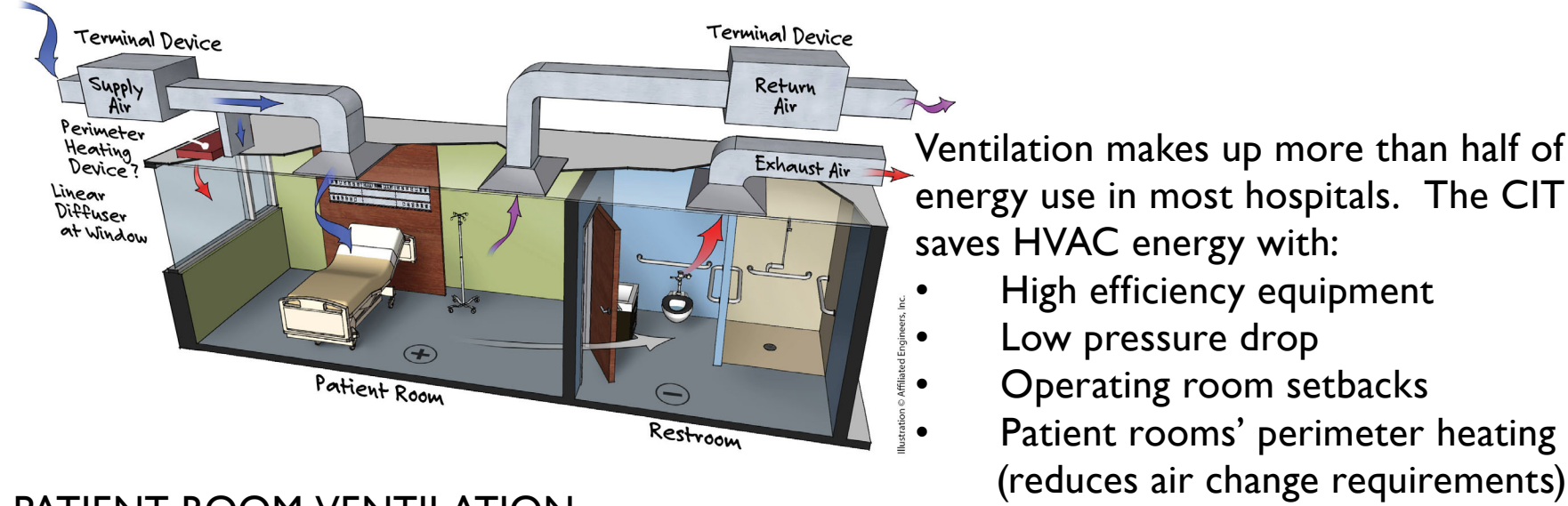


- 1. Half of the site area is restored with native or adapted plant species.
- 2. Covered bike parking is provided adjacent to the staff entry.
- 3. A high performance façade supports energy efficiency and occupant comfort.
- 4. The structure and building envelope are designed to use significantly less carbon than typical building construction.
- 5. The building offers expansive views to the campus and beyond.
- 6. Places of respite offer relaxing outdoor spaces for visitors and patients.
- 7. Drought resistant vegetation will be planted throughout the site.
- 8. A place of respite dedicated to staff offers a break area for rest and rejuvenation.
- 9. Multiple University and city bus routes provide a convenient option for transportation to the site.

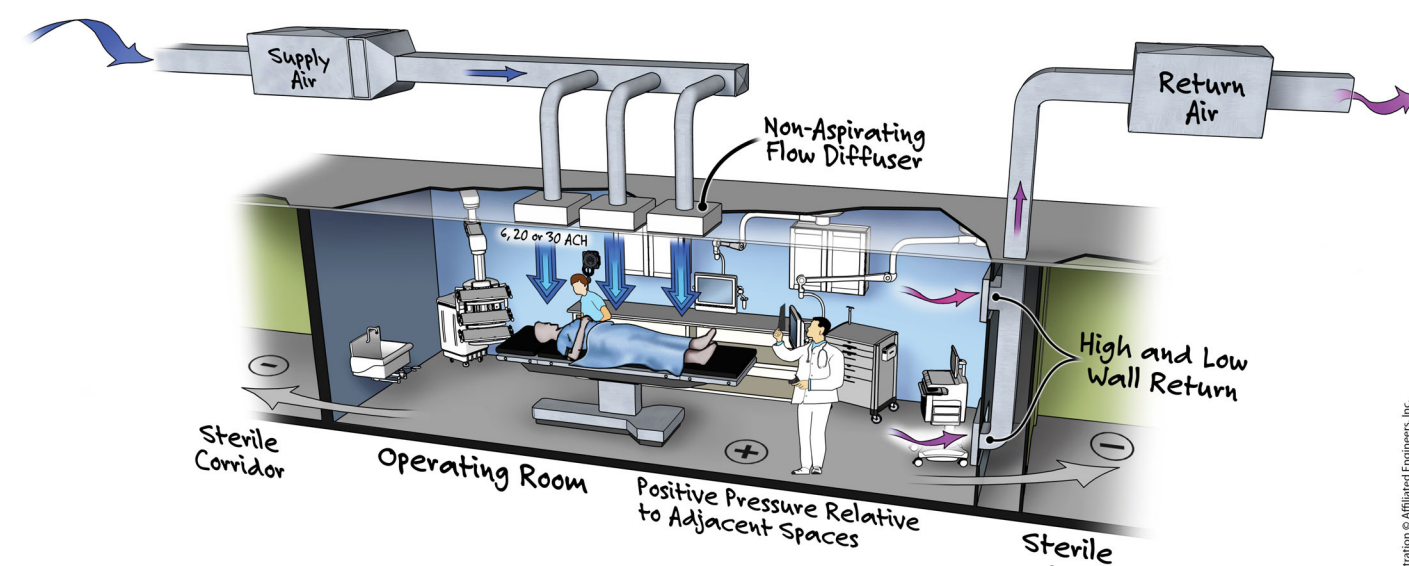


- 1. Energy efficient LED lighting is provided throughout the building.
- 2. Patients have expansive views of the campus and beyond. Daylight and views from patient beds are essential for healing.
- 3. Furnishings are made from healthy and sustainable materials with low VOC products and recycled content.
- 4. Patient rooms are flexible and can be updated to accommodate different patient types without the major renovation.
- 5. Key products installed on the inside of the building including ceiling tiles, carpeting, resilient flooring, paints, and acoustical insulation are made of low-emitting materials improving air quality.
- 6. Patients are offered cutting edge technology from the bed to access lighting controls, nurse call, and other services.
- 7. Patient toilet rooms and other restrooms include water efficient plumbing fixtures.

HVAC ENERGY STRATEGY

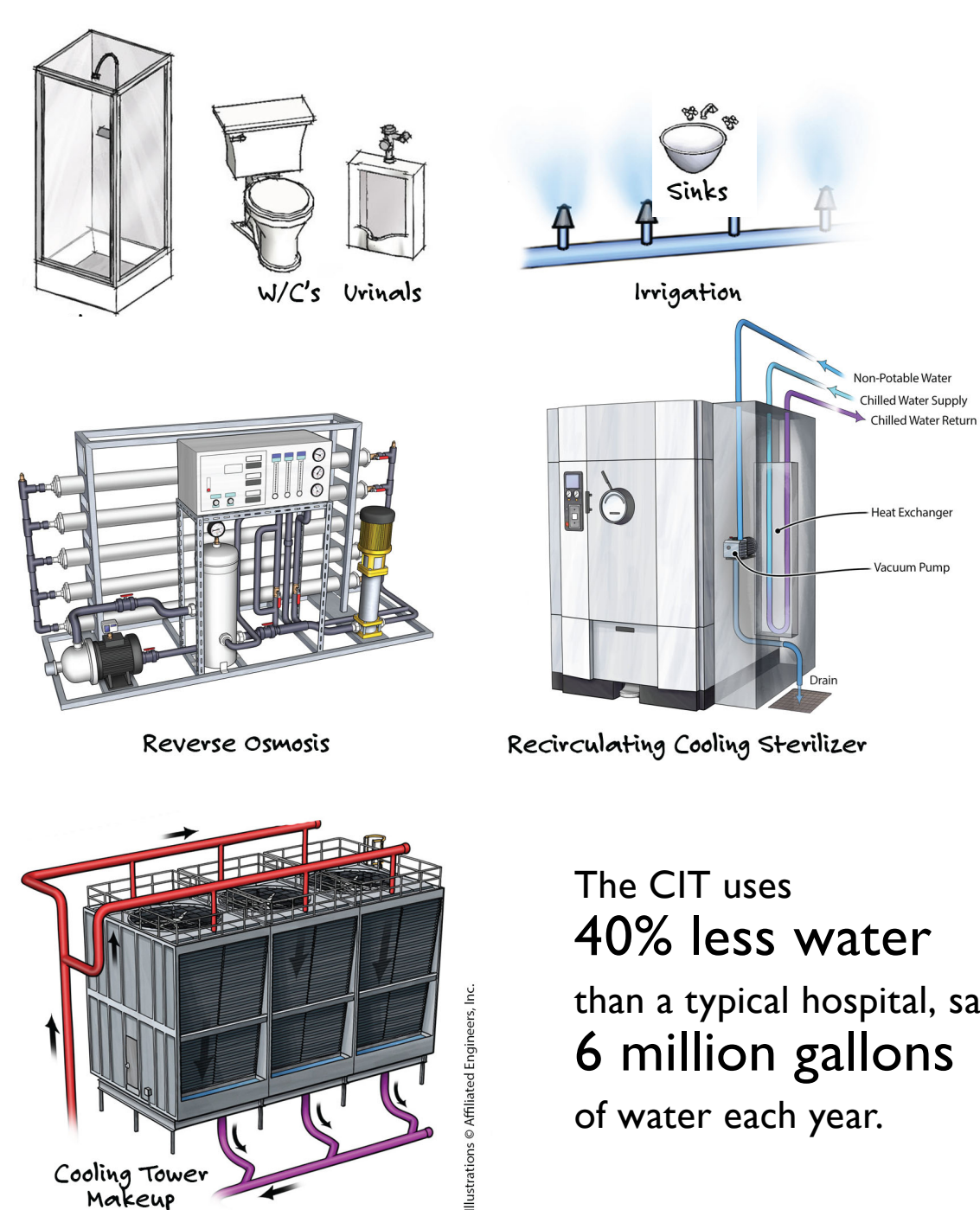


PATIENT ROOM VENTILATION

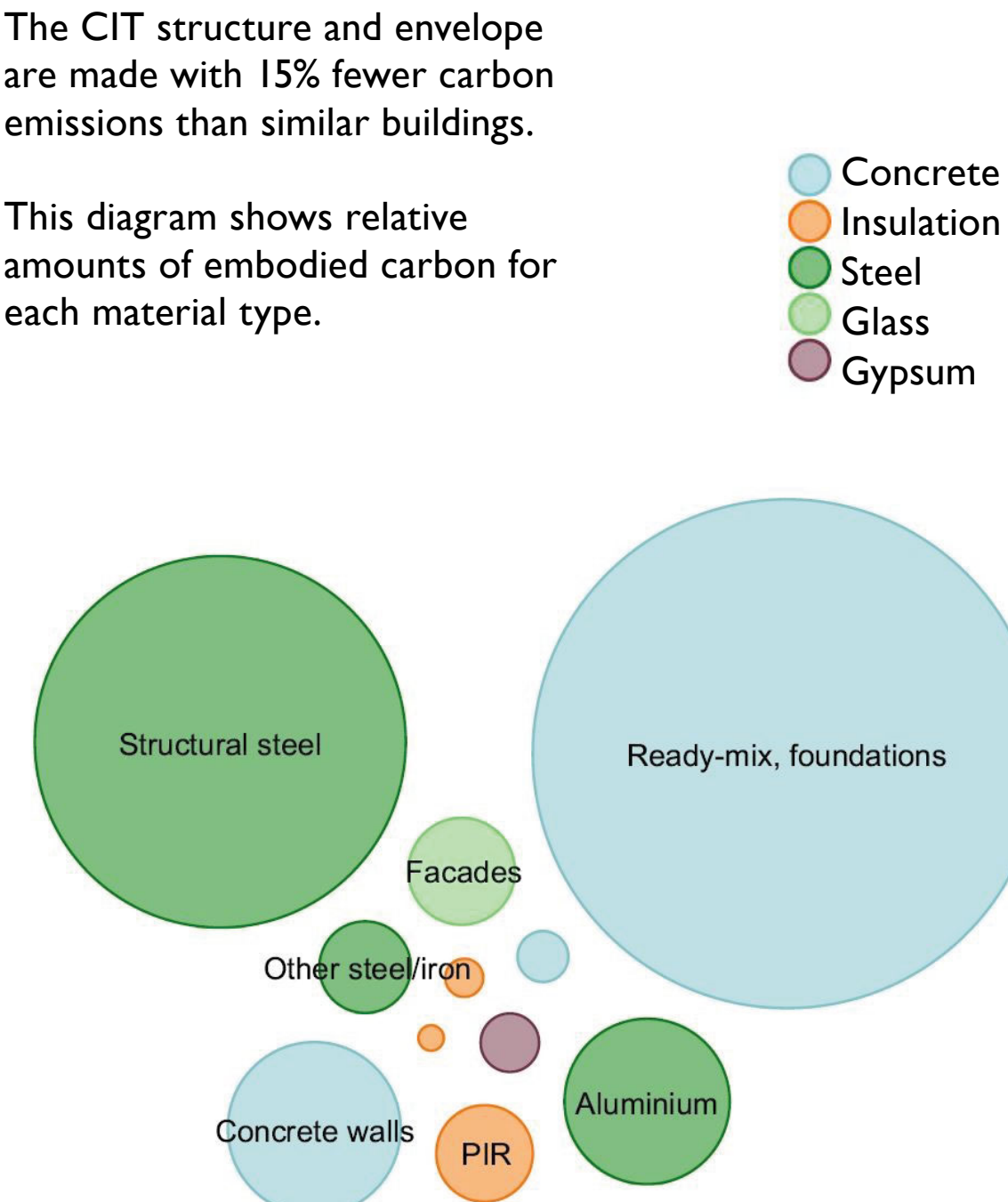


OPERATING ROOM VENTILATION

WATER EFFICIENCY



EMBODIED CARBON



Sustainability Facts

Clinical Inpatient Tower	
Building Use	Healthcare
Location	Ann Arbor, Michigan
Size	634,000 Gross Square Feet
Number of Beds	264
LEED Version	v4 Health Care - Platinum Target
ASHRAE 90.1 Version	2013
Energy Cost Savings to ASHRAE Baseline	20%
Total Energy Savings	\$1,025,734 / yr
Total Electrical Savings	12.1 Million kWh
CO2 Emissions Avoided	6,203 MT
Water Fixture Baseline	Energy Policy Act of 1992
Total Water Savings	38%
Construction Waste Diverted From Landfill	TBD
Insulation (R-Value)	
Wall Assembly - Above Grade	R-21
Wall Assembly - Below Grade	R-12
Roof Assembly	R-30
Glazing - Curtain Wall System	
U-Value	U-0.32
Solar Heat Gain Coefficient (SHGC)	0.36
Visible Light Transmittance (VT)	0.68
Project Team	
Owner	University Of Michigan Medicine
Architect	HOK
Engineer	Affiliated Engineering Inc
Contractor	Barton Malow Construction
Cx Authority	Horizon Engineering Associates
Project Management	U-M AEC
Design Period:	07/14/2016 - 08/00/2020
Construction Period:	12/01/2019 - 04/17/2024

