



Project Description

The project includes renovation of approximately 176,000 gross square feet and an addition of approximately 48,000 gross square feet. The renovation has addressed deferred maintenance, including exterior envelope repairs and life safety, electrical, mechanical and plumbing system improvements. The project has created a more welcoming, accessible facility with an improved patient entrance; modern teaching clinics with flexible furniture

and equipment that can be reconfigured as needs change. Open, flexible research space has been created to support the school's world class research along with space designed to foster collaboration among faculty and students. The new special needs/inter-professional care clinic will treat patients with complex medical conditions and disabilities.

Infill Space

Existing courtyard space is re purposed to provide additional building square footage without disturbing undeveloped land.

Accessible Outdoor Open Space

The courtyard includes comfortable outdoor space is provided for building occupants and the campus community to gather and connect.

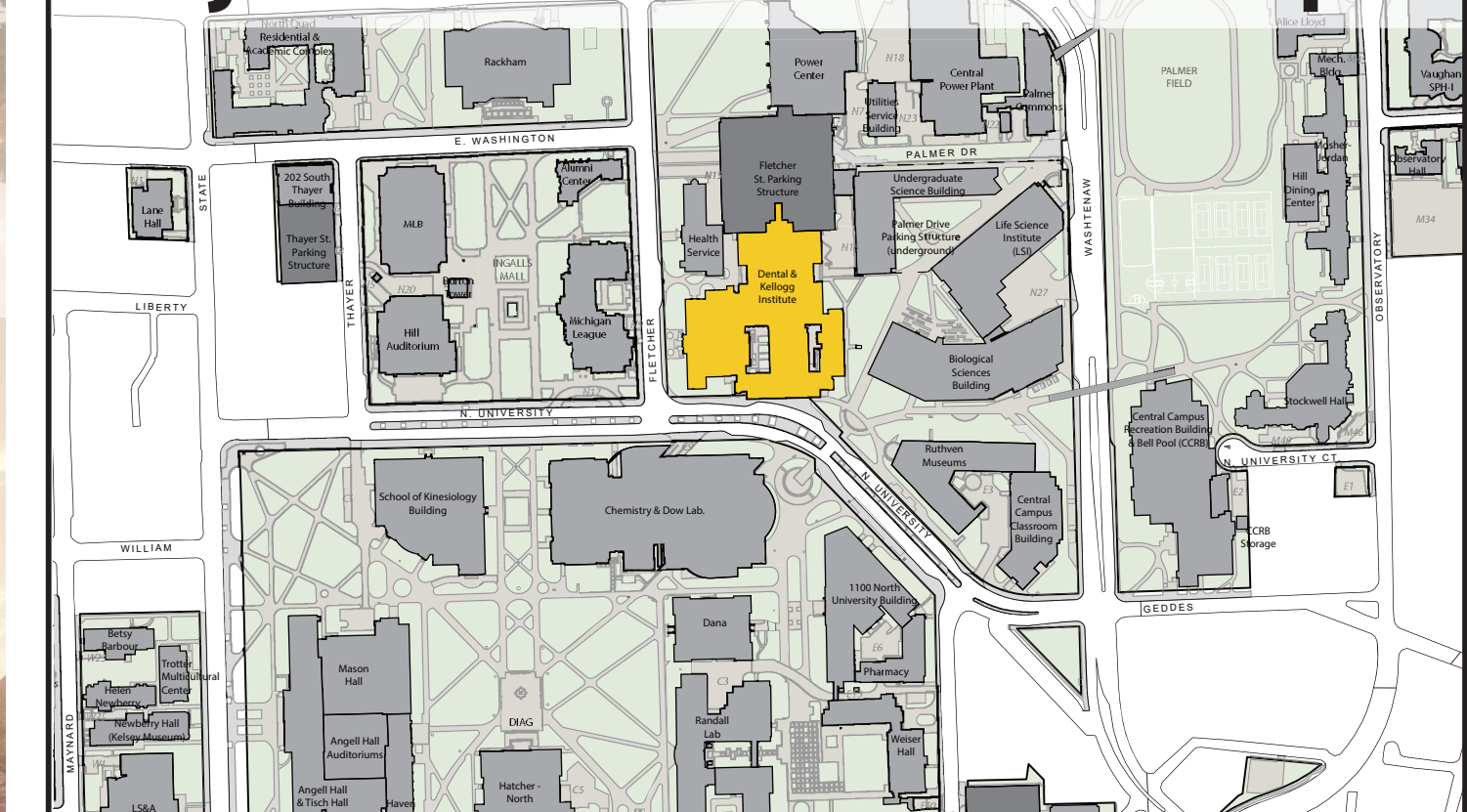


Visual Connection to the Community

Collaborative areas added to the ground floor of the existing commons area provide a more inviting visual connection to campus



Project Location: Central Campus



Sustainability Facts

Dental Bldg & Kellogg Institute (Addition Only)
 Building Use Laboratory/Office/Clinic
 Location Ann Arbor, Michigan
 Size 48,000 sf Addition

LEED version	v2009
LEED certification level	Silver
ASHRAE 90.1 version	2007
Energy cost savings compared to ASHRAE baseline	22%
Total energy savings	\$32,458 year
Total electrical savings	895,500 KWh / year
Total gas savings	30,550 Therms / year
CO2 emissions avoided	876 tons
Water fixture baseline	2012 Michigan Plumbing Code
Total water savings	28%
Construction/Demolition waste diverted from landfill (addition)	TBD
Insulation (R-Value)*	Code Project
Wall assembly - above grade steel frame	18 20
Wall assembly - below grade	7.5 7.5
Roof assembly	30 30
Glazing - Curtain wall system	
U-value**	0.55 0.30
Solar Heat Gain Coefficient (SHGC)**	0.4 0.27
Glazing - Visible Light Transmittance (VT)***	1.10 0.64

Project Team	
Owner	University of Michigan - School of Dentistry
Architect	SmithGroup JJR
Engineer	SmithGroup JJR
Contractor	Granger Construction Company
Commissioning Authority	Horizon Engineering Associates LLP
Project Management	U-M AEC

Design Period: 09/2016- 03/2019
 Construction Period: 12/2018 - 06/2022
 *The higher the R-value the better the insulating quality
 **The lower the U-value and SHGC the more energy efficient the window
 ***The higher the VT value the more daylight in the space. VT is measured between 0 and 1



Enhanced Accessibility

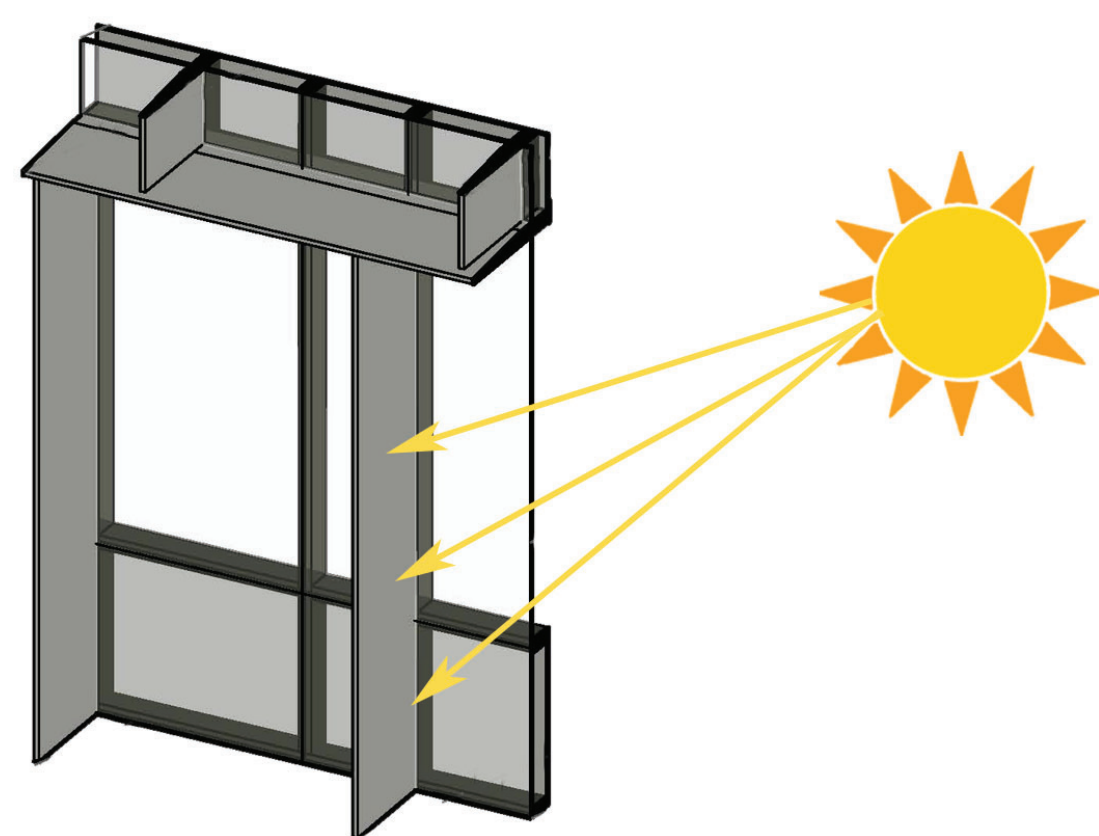
The new north addition includes a covered patient drop off and accessible entrance.

Sun Shading

Vertical sun shading provides glare control and shading from low sun angles on the west side of the courtyard addition.

Natural Daylight

Natural daylight reduces lighting load and electrical consumption. Daylight from the courtyard research addition is brought further into the building spaces through use of interior windows.



Flexible Laboratory Space

- Open laboratory spaces, mobile lab stations and flexible furniture systems allow future requirements.
- Overhead service distribution provides power, data and other services to laboratory stations further enhance flexibility.

