



**FISHBECK, THOMPSON, CARR & HUBER**  
engineers | scientists | architects | constructors

# **CLASSROOM TO CAMPUS**

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EDUCATION SERVICES

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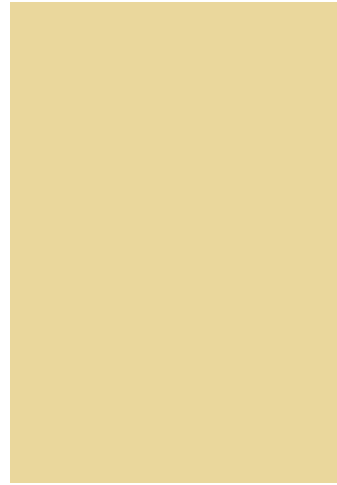
## FROM CAMPUS TO **CLASSROOM**

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Your campus is unique. While it is true that every institution of higher education strives to attract students, we know that the attraction is different for each. Some campuses are rich in heritage and with a lasting architecture, while others are modern and showcase the latest in learning environments. FTCH understands these differences and partners with our higher education clients to create spaces that are in harmony with the campus and the culture that makes them unique.

Engineering, architecture, environmental sciences, and construction management are the cornerstones of FTCH's services and integrated project approach. With the technical capabilities and understanding to take even the largest projects from initial concept to completion, we are a hands-on, design-oriented practice at heart. Our team of experts takes pride in our commitment to reliability in design, connection to our clients, and creativity at our core.

Like you, we are the innovators, visionaries, scientists, and designers of the next generation. We are dedicated to helping you develop future leaders through the best in classrooms, athletic fields, housing, high-tech laboratories, and student centers. FTCH believes in harmony between your existing campus, your goals for the project, the students' needs and desires for the space, and the natural environment, and we approach every project with this balance in mind.



CLASSROOM TO CAMPUS

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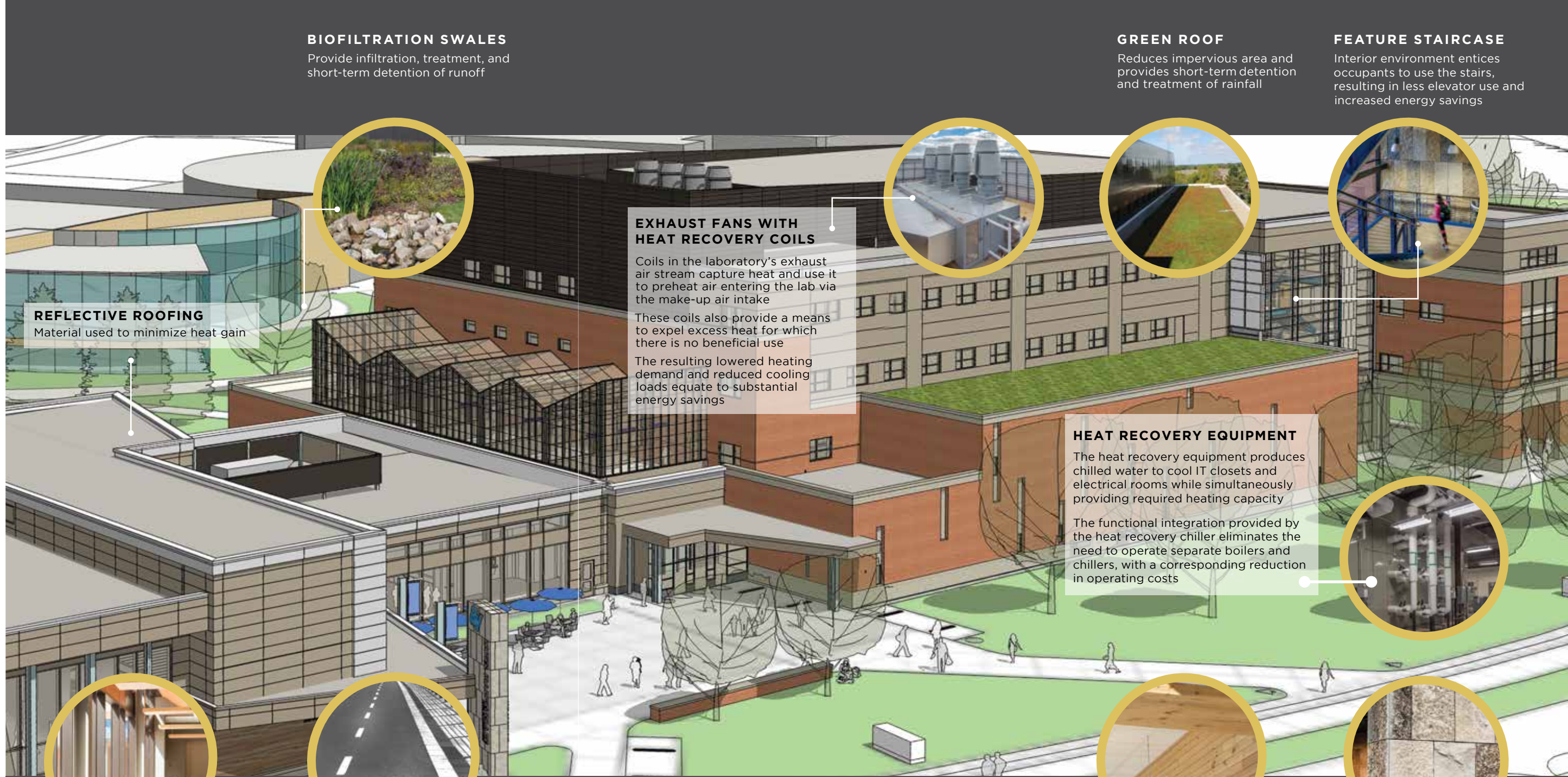
CASE STUDY

GVSU

Grand Valley State University's P. Douglas Kindschi Hall of Science stands as a testament to the power of partnership. The research and laboratory building opened in 2015 as a direct result of the dedication of the GVSU team, FTCH and its construction partner Pioneer Construction, the State of Michigan for public funding, and hundreds of private donors.

The 151,000-sf building features 9 classrooms, 15 teaching and 14 student research laboratories, a computational research lab, study spaces, and offices.

A science building, focused on molecular biology and cellular biology, must certainly reflect a commitment to the natural environment, and our project team took this green initiative to heart. From the second floor greenhouse to the LEED elements, FTCH designed a facility that will inspire a new generation of scientists.



BIOFILTRATION SWALES

Provide infiltration, treatment, and short-term detention of runoff



REFLECTIVE ROOFING  
Material used to minimize heat gain

EXHAUST FANS WITH HEAT RECOVERY COILS

Coils in the laboratory's exhaust air stream capture heat and use it to preheat air entering the lab via the make-up air intake  
These coils also provide a means to expel excess heat for which there is no beneficial use  
The resulting lowered heating demand and reduced cooling loads equate to substantial energy savings



GREEN ROOF

Reduces impervious area and provides short-term detention and treatment of rainfall



FEATURE STAIRCASE

Interior environment entices occupants to use the stairs, resulting in less elevator use and increased energy savings



HEAT RECOVERY EQUIPMENT

The heat recovery equipment produces chilled water to cool IT closets and electrical rooms while simultaneously providing required heating capacity  
The functional integration provided by the heat recovery chiller eliminates the need to operate separate boilers and chillers, with a corresponding reduction in operating costs



Building occupants connected to outdoors through daylight and views  
High-performance glazing and curtain wall

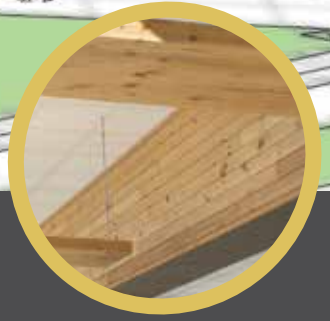


Dedicated bike lanes incorporated into the main pedestrian walks to further promote bike usage by students and faculty  
Alternate transportation options - major bus stop located within 250 feet of the main building entry

SUSTAINABLE ELEMENTS THROUGHOUT

Building products incorporate recycled content  
Building materials manufactured within 500-mile radius  
Wood-based materials sourced from sustainable forests  
Continuous spray-applied foam insulation

Recycling collection containers placed conveniently throughout the building  
Lighting system control to suit individual task needs/preferences



Reclaimed wood used throughout the building



Dolomitic limestone - local to the Great Lakes and exhibiting inland seabed geologic formations





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**IMAGINE THE POSSIBILITIES**  
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With every project, we bring creativity and a deeper understanding of what makes your campus unique. FTCH has worked with 20 of the Midwest's largest universities, on projects involving design and architecture, water, civil engineering, transportation, environmental services, site design, master planning, and more. Each project impacts the feel of your campus. The flow of traffic, the comfort in classrooms, the turf under the feet, the ease of parking, and the spaces for continued learning all define the impression of a campus. FTCH's ability to connect across our numerous in-house disciplines allows us to see the big picture and, because we approach each project from many different perspectives, gives us an unparalleled ability to innovate. Just imagine the student experience we can create, together.

# inspire

MAKING A DIFFERENCE IS ENERGIZING.  
YOUR CAMPUS NEEDS TO ATTRACT, ENCOURAGE,  
AND ENGAGE STUDENTS AND FACULTY ALIKE.



# CAMPUS SERVICES

## 01 | STEAM DISTRIBUTION

Many universities rely on FTCH to improve, repair, plan, or model steam tunnel systems and thermal pipe design.

## 02 | SITE DEVELOPMENT

We create adaptive, harmonious site solutions through master plans, civil engineering, surveying, and environmental site assessments.

## 03 | TRANSPORTATION

A busy campus requires transportation planning, everything from parking lots and lighting plans to road engineering, wayfinding, and rights-of-way.

## 04 | LABORATORY

High-tech, well-equipped laboratories are key to attracting and retaining STEM students, whether life science or research spaces. Labs also require our air quality and industrial hygiene services.

## 05 | ATHLETIC FIELD

Whether intramural or varsity athletics, fields are an important element of your campus and we know both natural grass surfaces and synthetic fields.

## 06 | CONTEMPORARY HOUSING

Housing is one of the biggest attractors of new students. We are thought leaders in programming student use of space in each living center.

## 07 | STUDENT CENTER

Your student center is the central hub of campus, and we help create spaces that foster camaraderie, collaboration, and peer learning.

## 08 | CLASSROOMS

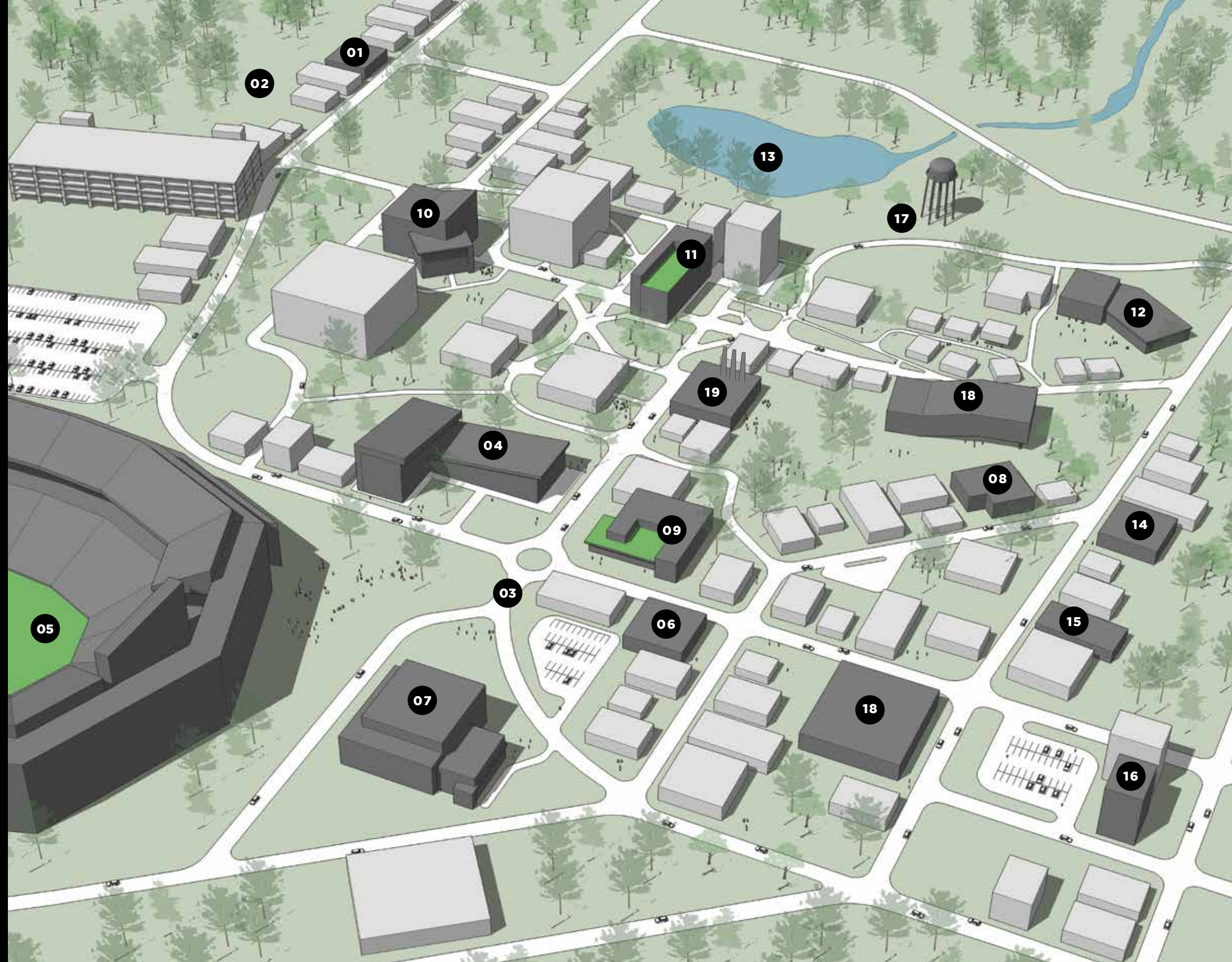
Each room needs to be thoughtfully designed to accommodate the latest in learning methods, pedagogies, and technology.

## 09 | DINING HALL

Traditional dining or marketplace-style eateries both serve as more than just restaurants - they are places to gather for fellowship and continued learning.

## 10 | FINE ARTS CENTER

From acoustics to aesthetics, FTCH knows what it takes to make your campus' fine arts center a true showcase.



## 11 | ENVIRONMENTAL SERVICES

There is an increased need for environmental stewardship throughout today's campus. FTCH links environmental and business skills to help universities develop policies, strategies, and systems to meet their environmental responsibilities.

## 12 | ENERGY MODELING

Efficient buildings require balance of envelopes, heating, cooling, and lighting systems. We produce measurably better building designs through a virtual simulation of energy use.

## 13 | STORMWATER MANAGEMENT

FTCH provides diversified water resource management services to reduce the effects of runoff, provide drainage, control flooding, and retain stormwater onsite.

## 14 | MEP SYSTEMS

FTCH's engineers design new facilities and provide direct engineering services, such as systems performance testing, troubleshooting, and retrofit for existing facilities.

## 15 | BIM

FTCH's BIM services provide the platform for a well-coordinated project, through clash detection, cost estimating accuracy, and a shared knowledge resource.

## 16 | COMMISSIONING

For new or existing buildings, FTCH provides assurance that systems operate as intended through expert testing and documentation.

## 17 | WATER/WASTEWATER MANAGEMENT

Familiar with all aspects of water and wastewater processes and regulations, we help with master planning, exploration, design, and construction of your systems.

## 18 | HEALTH CENTER

FTCH's healthcare experts understand the need for comfort balanced with efficient patient care, privacy, and healthcare regulations.

## 19 | FACILITIES/MAINTENANCE

Our environmental management services include air quality permitting and recording, aboveground storage tank registration, pollution prevention planning, and secondary containments for polluting materials. Existing buildings and tunnels may contain asbestos and lead, requiring our survey, remediation, or abatement services.





PLACES WE HAVE BEEN

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## EDUCATION CLIENTS

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ALBION COLLEGE | ALBION, MI  
ALMA COLLEGE | ALMA, MI  
AQUINAS COLLEGE | GRAND RAPIDS, MI  
CENTRAL MICHIGAN UNIVERSITY | MT. PLEASANT, MI  
EASTERN MICHIGAN UNIVERSITY | YPSILANTI, MI  
FERRIS STATE UNIVERSITY | BIG RAPIDS, MI  
GEORGIA INSTITUTE OF TECHNOLOGY | ATLANTA, GA  
GRAND VALLEY STATE UNIVERSITY | ALLENDALE, MI  
HOPE COLLEGE | HOLLAND, MI  
KALAMAZOO COLLEGE | KALAMAZOO, MI  
LANSING COMMUNITY COLLEGE | LANSING, MI  
MIAMI UNIVERSITY | OXFORD, OH  
MICHIGAN STATE UNIVERSITY | LANSING, MI  
MICHIGAN TECHNOLOGICAL UNIVERSITY | HOUGHTON, MI  
NORTHERN MICHIGAN UNIVERSITY | MARQUETTE, MI  
OAKLAND UNIVERSITY | ROCHESTER HILLS, MI  
OHIO UNIVERSITY | ATHENS, OH  
OLIVET COLLEGE | OLIVET, MI  
PURDUE UNIVERSITY | WEST LAYFAYETTE, IN  
SCHOOLCRAFT COLLEGE | GARDEN CITY, MI  
THE OHIO STATE UNIVERSITY | COLUMBUS, OH  
UNIVERSITY OF CINCINNATI | CINCINNATI, OH  
UNIVERSITY OF LOUISVILLE | LOUISVILLE, KY  
UNIVERSITY OF MICHIGAN | ANN ARBOR, MI  
UNIVERSITY OF NOTRE DAME | SOUTH BEND, IN  
WAYNE STATE UNIVERSITY | DETROIT, MI  
WESTERN MICHIGAN UNIVERSITY | KALAMAZOO, MI



**INSPIRING RESULTS**