





# **THE WAYNE FRAMEWORK 2019**



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PRESIDENT'S INTRODUCTION



Dear campus community,

This is a unique moment in the history of Wayne State University. After more than 150 years located in the heart of Detroit, and in the midst of unprecedented changes to both higher education and the city of Detroit, we have the opportunity to re-envision our physical environment.

Here, in this campus master plan called The Wayne Framework, you will find details of our long-term vision for the future of Wayne State's campus. This plan was crafted with great care and with input from a diverse group of students, researchers, faculty, staff, and members of the public.

Master plans traditionally describe expansion, but ours is focused on near-term consolidation in the interests of long-term growth—a sustainable plan for a bright future that directly serves our mission to create and advance knowledge, prepare a diverse student body to thrive, and positively impact local and global communities.

Wayne State's new campus master plan provides a framework to guide decision making around the university's campus. Along with a comprehensive space utilization analysis, the process has resulted in the development of a number of organizing ideas and strategic goals that will guide the university in the future, and help us evolve, connect and engage.

I am excited about Wayne State's potential, and I encourage all members of the campus community to read this ambitious long-term plan. Thank you for your support.

Sincerely,

A handwritten signature in black ink, appearing to read "M. Roy Wilson". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

M. Roy Wilson  
President  
Wayne State University



McGregor Memorial  
Conference Center

A teal-tinted photograph of a university campus walkway. In the foreground, a person with a backpack is walking away from the camera. The path is lined with large, leafy trees. In the background, a modern building with large windows and a sign that says "Education" is visible. The overall scene is bright and clear, with a consistent teal color overlay.

# EXECUTIVE SUMMARY

## PURPOSE

Wayne State University's new campus plan provides a framework to guide decision making around the university's physical environment. It consists of three primary components:

- Important data sets and resulting analytics, most importantly on the use of existing space and the current condition of university buildings, and web-based mapping tools that promote data visualization and communication;
- Physical strategies and principles that better organize the campus; prioritize and direct capital investment; suggest near-term demolitions, renovations, and site improvements; make the campus more welcoming and inclusive for students, faculty, staff, and the community; and maximize future flexibility by providing options for long-term on-campus development;
- Organizational structures that promote integrated decision making within the university and better connect the university with its external community so as to allow for meaningful and sustained engagement.

## KEY FINDINGS

In order to better inform future decision making, the master plan organized and analyzed a number of important data sets. The key findings from the analysis include:

- The space utilization analysis showed the significant softness in the university's use of existing space:
  - Classroom use for scheduled instruction has an evening peak, but even at this peak only approximately 60% of all classrooms are in use (this analysis predates the opening of the new Ilitch School of Business which contains a large number of additional classrooms which demonstrated soft usage in Fall 2019). The university's overall classroom metric (the ratio of classroom demand to classroom supply assuming a minimum target of 40 hours of weekly room use for scheduled instruction) is 0.259 (the state systems which have officially adopted this classroom metric typically target scores of 0.400 to 0.700). There is

therefore significant capacity to either increase the number of sections delivered, or to decrease available classroom space.

- Teaching laboratories show a somewhat soft utilization profile, except for core science courses in biology, chemistry, and physics.
- Research space use, as measured by sponsored expenditures, is currently dominated by the School of Medicine, although even for the School of Medicine utilization is not equally strong across all research-intensive buildings. In particular, Scott Hall is under-utilized from a sponsored expenditures perspective.
- Office space utilization is likely also soft. While the best available calculation of the vacancy rate is ~9.3% (i.e. reasonable), an investigation of office configurations suggests significant inequities and likely wasted space. The average size for private offices varies widely across colleges and administrative units, from approximately 85 square feet per person to almost 180 square feet per person, with 20 of the 36 units surveyed having an average above 120 square feet (typical targets are between 100 and 120 square feet). The available data for shared work spaces is even more stark. Unit averages vary from ~25 square feet per person to ~175 square feet, with 12 of 31 units surveyed averaging above 85 square feet per person (targets go from 60 to 85 square feet). Despite the fact that office space is the single largest category of university space, the university does not have a central database for tracking station counts or occupancies. Improved management of this space type represents a significant value proposition.
- The university has over 400,000 assignable square feet of library and study space which represents a significant percentage of its academic portfolio.
- As a result of opportunistic program moves, several colleges (Liberal Arts and Science, Engineering, Fine and Performing Arts, Medicine, etc.), and even individual departments within these colleges, are widely distributed across campus. This distribution limits opportunities for formal and informal collaboration and creates logistical issues for students and faculty, resulting in an inefficient distribution of resources.
- The condition of university buildings and the university's growing deferred maintenance liability represent a clear and present danger to its ability to deliver on its mission. Before the master plan began, the best available estimate of the university's 10-year capital renewal need was calculated by Sightlines at approximately \$1.1 billion. As part of the master plan, we undertook a more detailed examination of 24 buildings, analyzing the

condition of their plumbing, electrical, fire protection, and HVAC systems. 14 of the 24 buildings were rated “poor,” which means they have multiple individual systems that are unreliable and require a major renovation. 7 of the 24 buildings generated ratings of “unreliable,” which means the majority of their individual systems are unreliable and the replacement/renovation need is immediate. Moreover, a comparison of our more detailed building evaluations and the Sightlines scores strongly suggests the Sightlines \$1.1 billion estimate significantly undercounts the true liability.

- The campus does not present a clear, welcoming, and neighborly face to the city, abutting neighborhoods, and university visitors.
- Within the campus, open space is not optimally organized so as to provide connections between campus districts, promote a vibrant atmosphere by activating and engaging with building edges, or result in flexible usable open space for student and campus activities, both programmed and spontaneous.
- Accident data shows that Warren Avenue and Anthony Wayne Drive are significant safety concerns. Furthermore, these streets have more travel lanes than are needed given the amount of traffic they carry.
- The university is well supplied with parking. Approximately 2,000 spaces are currently empty at peak use times (although this parking supply is distributed across the university’s geography and some stakeholders may find the walk from available parking inconvenient).

## PHYSICAL STRATEGIES

In order to address the issues identified in the analysis, the master plan focuses on three key physical strategies:

- *Organize the core campus and make it more welcoming:*

### Category 1: Civic space

- Enhance Gullen Mall by moving circulation to the building edges and creating usable green space in the center of the mall. Extend Gullen Mall across Warren Avenue by closing an additional block of 2nd Avenue to vehicular traffic (to Hancock Street). Gullen Mall and 2nd Avenue should function as the internal



- pedestrian and student-oriented campus “main street.”
- Make Cass Avenue into a true civic corridor where the university and the city blend and merge. The primary methods for accomplishing this should be to further enhance the street’s multi-modal character, and to more uniformly promote active mixed-use ground floor uses with an emphasis on appropriate retail, campus/community common workspace, and arts-related venues.
  - Embrace the east-west cultural axis and extend the area now under investigation via the DIA Plaza and Midtown Cultural Connections design competition onto and through the campus, extending all the way to the new Anthony Wayne Drive Apartments. Reimagining Keast Commons, Fountain Court, and the west plaza between the Prentis Building and the Detroit Public Library as major open spaces along this axis should be priority investments.

#### Category 2: Street function and character enhancement

- Reconfigure Warren Avenue by reducing the current eight-lane configuration (110') to five lanes (73') with a pedestrian-only signal at the newly extended Gullen Mall crossing.
- Reconfigure Anthony Wayne Drive by reducing the current eight-lane configuration to four lanes, and growing the median so that it becomes a usable and programmable open space. Further improve traffic flows in this area by making the Lodge Service Drive and Palmer Avenue two way.
- Consider options to deck I-94 so as to bridge the divide between the core campus and iBio/Techtown. A full deck would generate the capacity to build approximately 650,000 square feet. If this is not possible, a reduced option that establishes street-wall presence on Second Avenue and Cass Avenue could still offer approximately 450,000 square feet of development potential.
- Better connect the core campus with the athletics district by creating a pedestrian path following the former Putnam Street, and explore options to relocate the existing pedestrian bridge crossing the Lodge at this alignment.

#### Category 3: Campus gateway districts

- Improve the campus gateways at Cass Avenue/Canfield Street and at Woodward

Avenue/I-94. These should become major active mixed-use nodes supporting university residential life (juniors and seniors would be well-suited to the southern gateway; graduate, professional students, and potentially faculty and market-rate options to the northern gateway) through appropriate partnerships. The crucial Woodward Avenue/Warren Avenue gateway parcel should also be improved as a major future university development site (likely with a community-oriented use) when an appropriate program can be identified. Meanwhile, the site should have an upgraded temporary landscape treatment.

- Create and implement a district lighting strategy that makes the core campus feel safe, welcoming, and inviting at all times of day.
- *Near-term, concentrate academic activity in an enhanced core*
  - Optimize program locations and consolidate dispersed colleges.
    - Focus instructional activity in a renovated State Hall that caters to a wide-range of pedagogies and provides excellent facilities for general-purpose teaching and learning.
    - Rethink the Purdy-Kresge library complex so as to better support student study and collaboration, and to consolidate university collections (potentially with an on- or off-site remote retrieval system), and library administration; and explore enhanced partnership opportunities with the Detroit Public Library.
    - Concentrate College of Fine and Performing Arts uses in Old Main and the Art Building, and consider the viability of a focused Arts district around Old Main and the Hillberry Theater (with other arts uses along Cass Avenue).
    - Repurpose the majority of the Undergraduate Library for academic uses, primarily centered on the College of Liberal Arts and Sciences (particularly language and humanities programs) and the Honors College.
    - Consider repurposing the Faculty Administration Building for academic departmental uses, relocating administrative functions, including the president's and provost's offices, to the Macabees Building (5057 Woodward).
    - Consider appropriate reuse strategies for the many smaller houses and facilities under university control, including for childcare, a faculty club, and other identified uses.

- Reduce the university's building portfolio. The successful execution of the various move sequences outlined in the master plan should allow the university to empty Manoogian Hall, General Lectures, the atrium portion of the Undergraduate Library, and Shapero Hall. With the possible exception of Shapero (the university will need to weigh the contribution of the building's architecture against the reinvestment need mandated by its poor systems), these buildings should be demolished. In addition, Life Sciences should be evaluated, and a cost comparison made of renovation vs. replacement (preliminary investigations suggest replacement will be more cost-effective). In total, the university could eliminate 320,000 to 420,000 gross square feet. This will allow annual funds to be reallocated to improve the level of service in the remaining buildings (current operations and maintenance budgets are significantly below industry standards). Demolitions will also have a significant impact on the university's capital renewal needs, enabling it to better focus its capital renewal dollars in the remaining core buildings. Note that these proposed demolitions are not a judgment of any of the important program uses currently in the targeted buildings. These programs will all need to be relocated (and provided with better space), with the exception of classroom space (of which the university has an over-supply) and some student study space (which can be improved qualitatively and potentially expanded through partnership with the Detroit Public Library).
  - When possible, the Prentis Building should be repurposed as a community-oriented building and important campus gateway.
- *Define key sites for future development, promote optionality for the Health Sciences, and focus the university's real estate strategy*
    - The master plan supports the health sciences by detailing multiple options. The plan describes how the health sciences could remain in place or relocate wholesale. It details how a relocation could be determined based on various strategies: reinforcing iBio, bridging the gap between the core campus and northern programs/connections, better leveraging collaborations with the College of Engineering, and working with future potential clinical partners.
    - The master plan does make a formal recommendation on Scott Hall. Because Scott Hall is an inefficient building (it yields only 264,000 assignable square feet

from its 500,000 gross square feet for an efficiency factor of 52% compared to a likely 60% efficiency achievable through new construction), averages only \$142 of sponsored expenditures per research square foot, and would likely cost in the region of \$300 million to renovate, the master plan recommends the building be replaced (and likely not on a one-for-one square-foot basis). Given that opening a replacement building will take time, some additional investment in Scott Hall may be necessary, but this investment should be reduced to a minimum.

- In addition to the sites identified as potential locations for the health sciences, the university has additional infill capacity on the core campus. While the near-term strategy for the master plan focuses on consolidation, the long-term idea is to secure the university's future by providing for growth when it becomes needed. The master plan therefore identifies a minimum of 2.3 million square feet of development capacity within the core (assuming very modest densities that could likely be further intensified). Whenever possible, future program growth should therefore not be distributed outside the core campus (unless the health sciences remain in their current location).
- As a corollary to this, the university should focus its real estate strategy between the Lodge and Woodward Avenue after maximizing the development opportunities on the identified parcels within the district, and consider deaccessioning properties outside of these bounds (with the exception of the athletics district and the health sciences if they remain in place).

## IMPLEMENTATION

The Capital Funding and Priorities Committee will be the long-term stewards of the master plan. They represent an integrated group which can assess and prioritize university needs holistically and analytically. Over time, the university should continue to monitor the membership of this group to ensure it broadly represents appropriate internal stakeholders. The committee should be staffed through Planning and Space Management, which should become the centralized home for all university place-making initiatives.

In order to support ongoing decision making, Planning and Space Management will need to carefully consider its data management practices, and will likely need to make technology investments to ensure the Capital Prioritization and Planning Committee is well-informed. These investments are high-value and should be prioritized. Similarly, Planning and Space Management should consider appropriate detailed follow-on studies to optimize the program relocations envisaged by the master plan (these might include college-based master plans for the most affected colleges like: Liberal Arts and Sciences, Fine and Performing Arts, Engineering, etc.).

The university should also create a forum for ongoing community engagement. This input has been a defining feature of the plan, and revealed strong community support for the university, a desire to better understand the university's activities, and a hope for increased participation in campus life. This process will be most productive if the university consolidates its community engagement functions in two offices: the Honors College (for academic activity) and the Office of Government and Community Affairs (for administrative activity).

Finally, the master plan provides planning-level cost estimates for implementation, and an assessment of the relative cost of its proposals vs. the minimum capital renewal investments described by Sightlines, a consultant hired by the university that works with institutional members to benchmark data, identify opportunities to optimize capital resources and quantify campus sustainability performance. The planning-level estimates suggest the capital cost of the consolidation components of the master plan (i.e. the 10-15 year strategy) likely has a net present value of approximately \$500,000,000 exclusive of a replacement for Scott Hall. The analysis further suggests this figure is likely similar to the 10-year capital renewal and modernization target established by Sightlines for the affected buildings; i.e.: assuming the monies are available, there likely is no significant difference between implementing the master plan vision and simply addressing deferred maintenance in the same buildings. Note that these figures do not include the sizable capital renewal needs of the university's other buildings.

### Strategy 1

Organize the core campus and make it more welcoming



### Strategy 2

Concentrate academic activity in an enhanced core



### Strategy 3

Define key sites for future development, promote optionality for the Health Sciences, and focus the university's real estate strategy



### THE WAYNE FRAMEWORK

- WSU building
- Repurposed building
- New building (likely long-term)





↑ To Henry Ford Hospital

Fisher

Woodward Ave

One Ford Pl

Bio

I-94

DPL

DIA

CCS

UM

MI Sci

Wright

Hillberry

Univ Tower

Macabees

Woodward Ave

Warren Ave

↓ To Scott Hall





A photograph of a speaker at a podium addressing an audience in a lecture hall, overlaid with a teal tint. The speaker is on the left, and the audience is seated in rows of chairs facing him. A large potted plant is visible on the right side of the stage area. The text "PROCESS OVERVIEW" is overlaid in white on the right side of the image.

## PROCESS OVERVIEW



Wayne State University engaged the DumontJanks team in the summer of 2018 to lead a 12-month planning process, including a comprehensive campus-wide space analysis and the development of a framework plan to guide decision-making around the physical future of the campus. This process was managed in close collaboration with the Department of Facilities Planning & Management and guided by the Capital Funding & Priorities Committee. Other members of the planning team included Deep Dive Detroit (community engagement), Gage Cartographics (mapping tools), Ghafari Associates (MEP), Gorove/Slade (mobility), and Lord Aeck Sargent (historic preservation and architecture review).

The process started with a significant engagement and analysis. The analysis focused on space utilization, building condition, mobility, history, land use, and physical and programmatic connections, both internally and externally. This provided a foundation from which to develop planning principles, and to develop a long-term framework plan. This framework plan was not conceived as a traditional, static master plan, but as a dynamic, flexible document to help the university structure ongoing decisions around evaluative principles that integrate strategic, academic, student life, community, financial, and physical considerations. In doing so, the overriding intent of the framework plan is to advance the strategic vision of the university as, “a pre-eminent, public, urban research university known for academic and research excellence, success across a diverse student body, and meaningful engagement in its urban community.”



# ENGAGEMENT

Embracing and amplifying the 150-year-old relationship between Wayne State University and the City of Detroit was central to the planning effort. This connection is forcefully articulated in the university's strategic plan both in terms of a shared history, and a shared future:

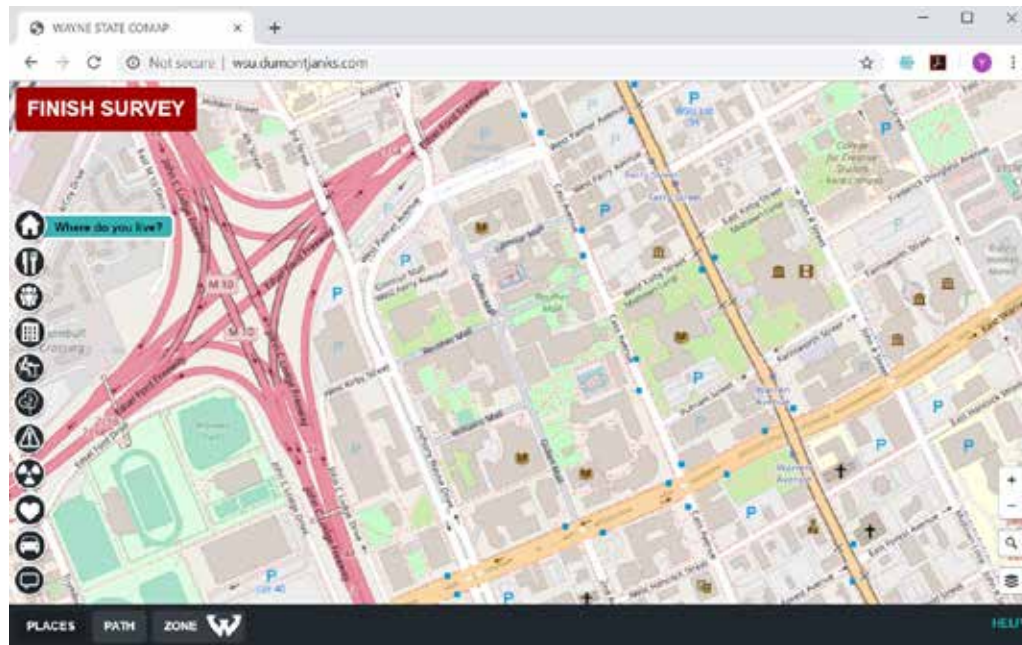
Since its founding, Wayne State has been inextricably linked to Detroit, a city that has been a symbol of the American Dream and a kaleidoscope of cultures, ambition, inspiration, contradictions, and challenges...Throughout Detroit's changing fortunes, Wayne State has remained a steadfast partner, playing a leading role in the city's recent resurgence while maintaining the university's historical commitment to diversity, opportunity, and excellence.

This notion of a city-university partnership was embedded in the process through consistent, multifaceted, internal and external stakeholder engagement. This stakeholder engagement involved dozens of conversations including:

- Regular meetings with university leadership
- One-on-one discussions with all of Wayne State's academic deans
- Multiple public, town hall-style conversations around our analysis, planning, and framework implementation
- Meetings with Detroit's Department of Planning and Development
- Meetings with Midtown Detroit Inc.
- Presentations to the Academic Senate and the Facilities, Support Services, and Technology Committee
- Focus groups for student and alumni
- Thematically-organized community focus groups which included neighborhood organizations, historical preservation organizations, other educational institutions, cultural institutions, and local business owners.



In addition to traditional stakeholder engagement, we developed a customized, interactive, online mapping survey which was distributed to the entire Wayne State community (students, staff, faculty, alumni, community members, etc.) via email and social media. This interactive map allowed us to reach a much broader number of stakeholders, and to solicit specific observations about the campus. We developed several targeted prompts to help understand how the campus is used, from instructional space, to social space, dining space, residential options, and open space, what the usage patterns look like, where favorite places are located, and where there might be opportunities for improvement. We also asked specific questions around mobility patterns and the perception of a campus boundary. In the end almost 800 individuals responded, with almost 10,000 unique comments provided.



*Interactive online survey - Comap*

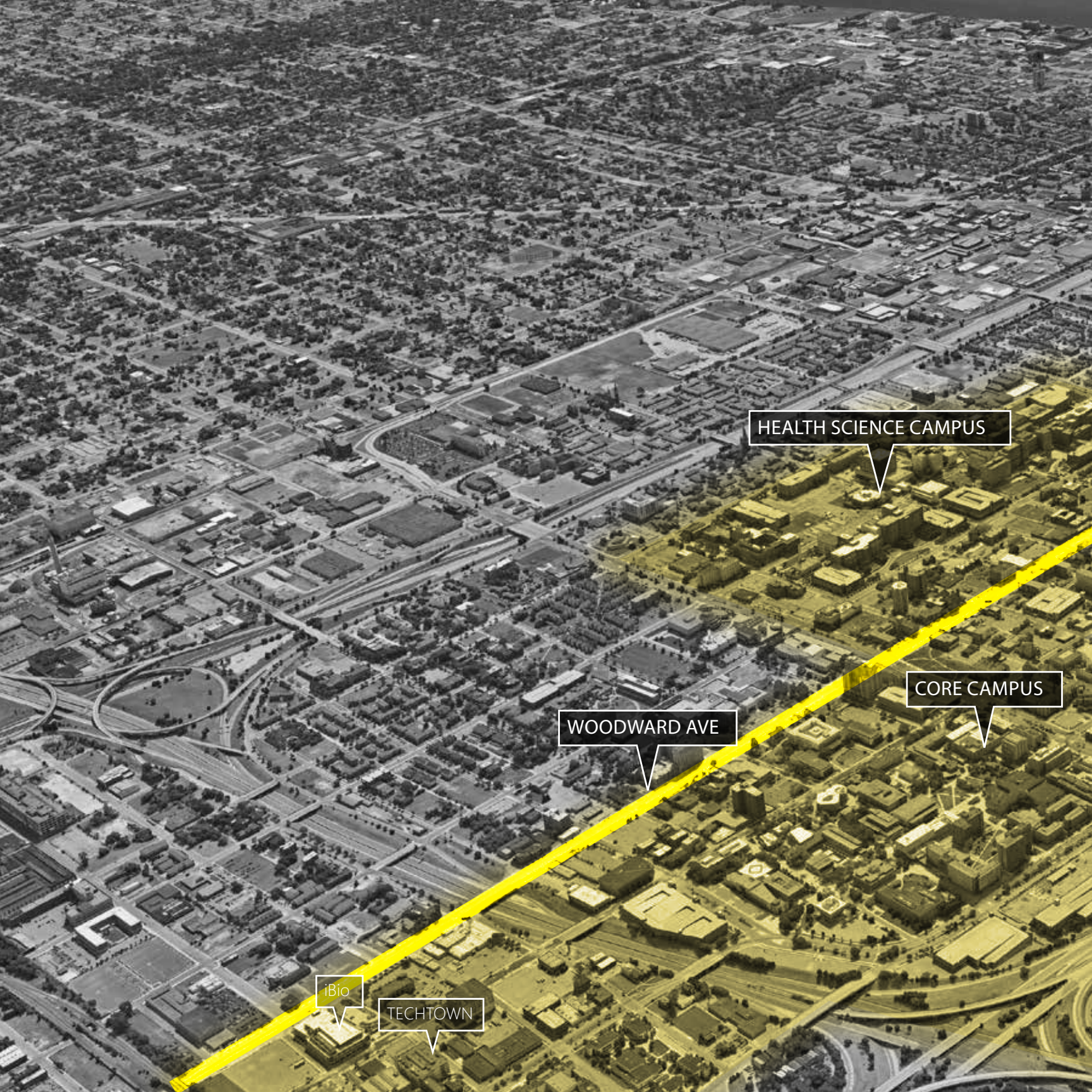






EXISTING CONDITIONS

A.P.T.



HEALTH SCIENCE CAMPUS

WOODWARD AVE

CORE CAMPUS

iBio

TECHTOWN



DOWNTOWN

BUSINESS SCHOOL

## 1940s

Campus before the construction of the highway system



## 1950s

The northward development of the campus



## CAMPUS HISTORY

Originally founded in 1868 (then as the Detroit Medical College), Wayne State has over 150 years of history in midtown Detroit, though the name “Wayne University” was not adopted until 1934 after the consolidation of several area colleges. For the first several decades of its existence, Wayne State University was, for the most part, housed in repurposed residential buildings and what is now Old Main. It has always been fully integrated into the neighborhood fabric.

The ascendancy of the Big Three (General Motors, Ford, and Chrysler), all of which were headquartered in Detroit, transformed the Motor City. The population grew from less than 300,000 at the turn of the century to one million by 1920, to almost two million by 1950. This rapid growth was felt at Wayne University, as enrollment surged.

Detroit’s explosive growth transformed the city, leaving a powerful legacy, which is evident in the city’s extraordinary historic architecture, but also in the many midcentury planning interventions in the city fabric. To accommodate the university’s growing population, several blocks were purchased north of Warren Avenue to accommodate the growing university population. This purchase occurred around the same time as the planning for highway I-94 and the John C. Lodge Freeway (M-10).

In 1942 the university hosted a master planning competition to help envision a bold new urban university campus. The competition was won by Suren Pilafian, a little-known Armenian architect. Pilafian’s plan organized campus buildings around open, pedestrian-only spaces (notably the Pilafian plan contemplated running Second Avenue under the campus rather than removing it altogether), and guided campus development for over a decade.

## 1960s

The closure of 2nd Ave and the development of the athletics campus



## TODAY

The health science campus extends to the southeast while other growth is generally dispersed



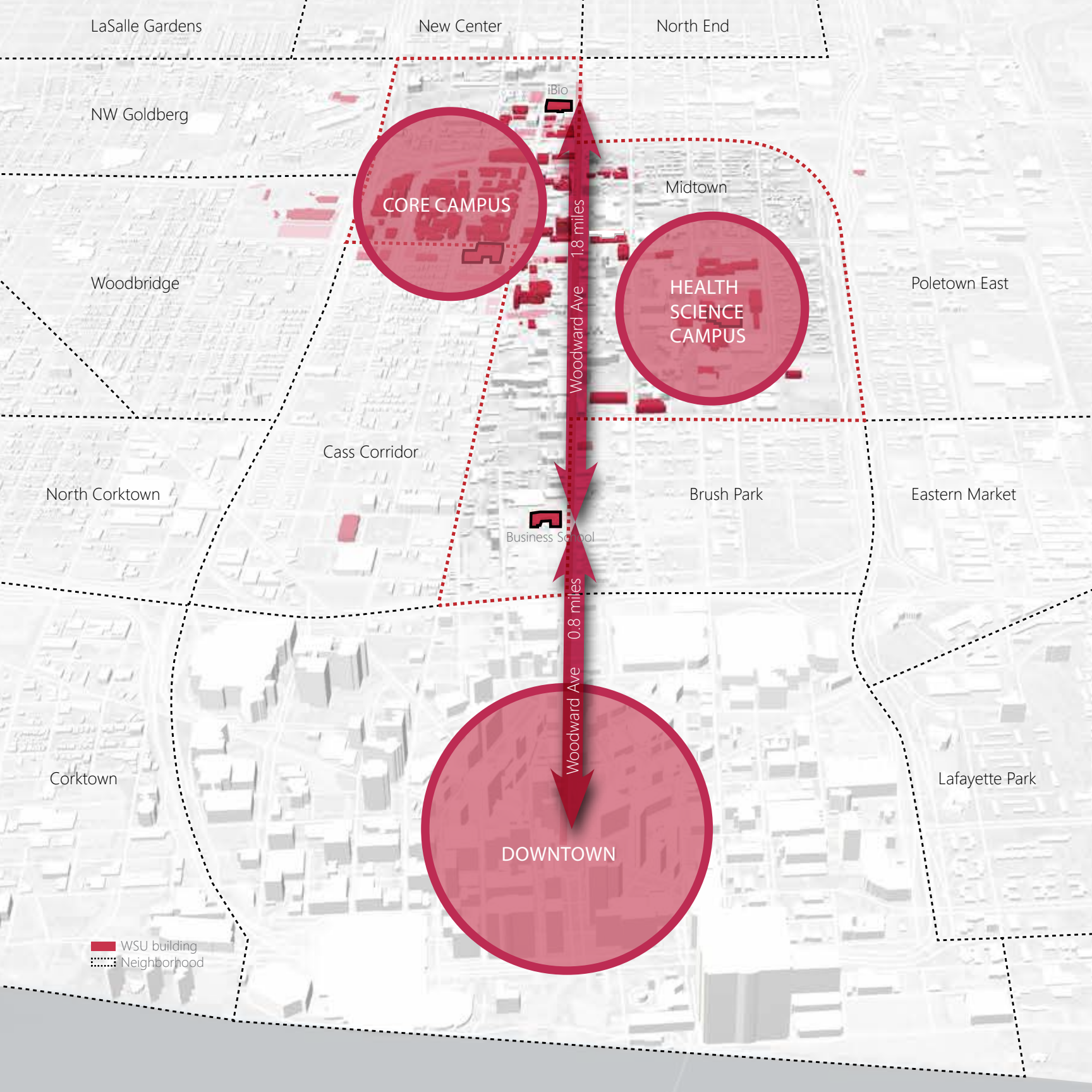
Pilafian's concept was further refined by Minoru Yamasaki in the late 1950s. His campus master plan, which closely resembles today's core campus, responded to a period of urban decline by focusing campus activity inward. (between 1950 and 1960, Detroit, like many American cities, lost almost 10% of its population due to the combination of suburbanization and "white flight").

These trends continued into the 1960s and beyond, leading to many destructive decisions made under the mantle of urban renewal. The "University City" plan of the 1960s contemplated the clearance of several residential blocks and over 300 acres for university expansion and related projects. Area residents were able to prevent much of the University City plan, however several blocks of the Woodbridge neighborhood were cleared for what would become the athletics district.

In the 50 years since the urban renewal era, Wayne State University has focused significant resources on developing the medical campus to the southeast. Otherwise, expansion has largely been driven by opportunistic land and building acquisitions north of I-94 (Tech Town, iBio) and closer to downtown (Mike Ilitch School of Business).



*A proposed structure over highway, Nov. 1971. It would have had five parking decks, top floor office or classroom space, and would have linked the core WSU campus to its athletic facilities.*



LaSalle Gardens

New Center

North End

NW Goldberg

CORE CAMPUS

Midtown

Woodbridge

HEALTH SCIENCE CAMPUS

Poletown East

Cass Corridor

Business School

Brush Park

Eastern Market

North Corktown

Woodward Ave 1.8 miles  
Woodward Ave 0.8 miles

Corktown

Lafayette Park

DOWNTOWN

■ WSU building  
⋯ Neighborhood



## URBAN CONTEXT

Wayne State University's story must always be contextualized in the broader story of Detroit. Unlike many urban campuses, Wayne State has never fenced itself off from its community, and this blurring of the city-campus distinction was cited by many as a source of pride. Wayne State is Detroit.

## NEIGHBORHOODS

Wayne State's campus is situated in the heart of Midtown, a neighborhood which has become an epicenter of Detroit's recent revitalization. This revitalization is apparent in the rapid increase in property values over the last few years, the volume of new restaurants and retail in the neighborhood, and in several hotel projects underway. This revitalization has transformed the broader perception of Detroit, and currently provided significant benefits including neighborhood amenities and employment opportunities, but unfortunately, these benefits have been accompanied by an increased cost of living which has made finding affordable housing a challenge for lifelong Detroiters, as well as Wayne State faculty, staff, and students.

The university's midtown campus core is bounded by I-94, the Lodge, and Warren and Woodward Avenues. In addition, Wayne State has significant neighborhood presences in the medical district to the southeast, around TechTown and iBio (adjacent to New Center north of I-94), and in the athletics district which abuts Woodbridge. Recently, the completion of the new business school has established a Wayne State presence adjacent to downtown.



■ WSU building

iBio

**I-94**

Anthony Wayne Dr

Core Campus

**Warren Ave**

Warren Ave

**John C Lodge Fwy**

3rd Ave

2nd Ave

Cass Ave

**Woodward Ave**

Health Science Campus

MISB

## “CHASMS”

Wayne State’s campus environs are defined by their urban context. But the contiguity of this environment is disrupted by several major roadways and other artificial barriers. These include I-75, I-94, the John C. Lodge Freeway, and the old rail line that runs north and west of the core campus. In addition, to these major barriers, the campus must also contend with several oversized surface streets, with Woodward and Warren Avenues being the prime examples. These obstacles hamper pedestrian and non-vehicular connections between various campus nodes, and serve as unwanted barriers between the university and the community. Bridging all of these barriers is likely not practicable, but our analysis suggests that north-south movements are particularly important for the campus, and so investments that mitigate the impacts of Warren Avenue and I-94 are likely of the highest value. The east-west barriers may prove harder to broach, and so, pending decisions on the university’s future clinical partnerships, these obstacles, particularly Woodward Avenue and the Lodge, could serve as helpful definitions of the campus’ edge.



*Highway as “chasm”.*

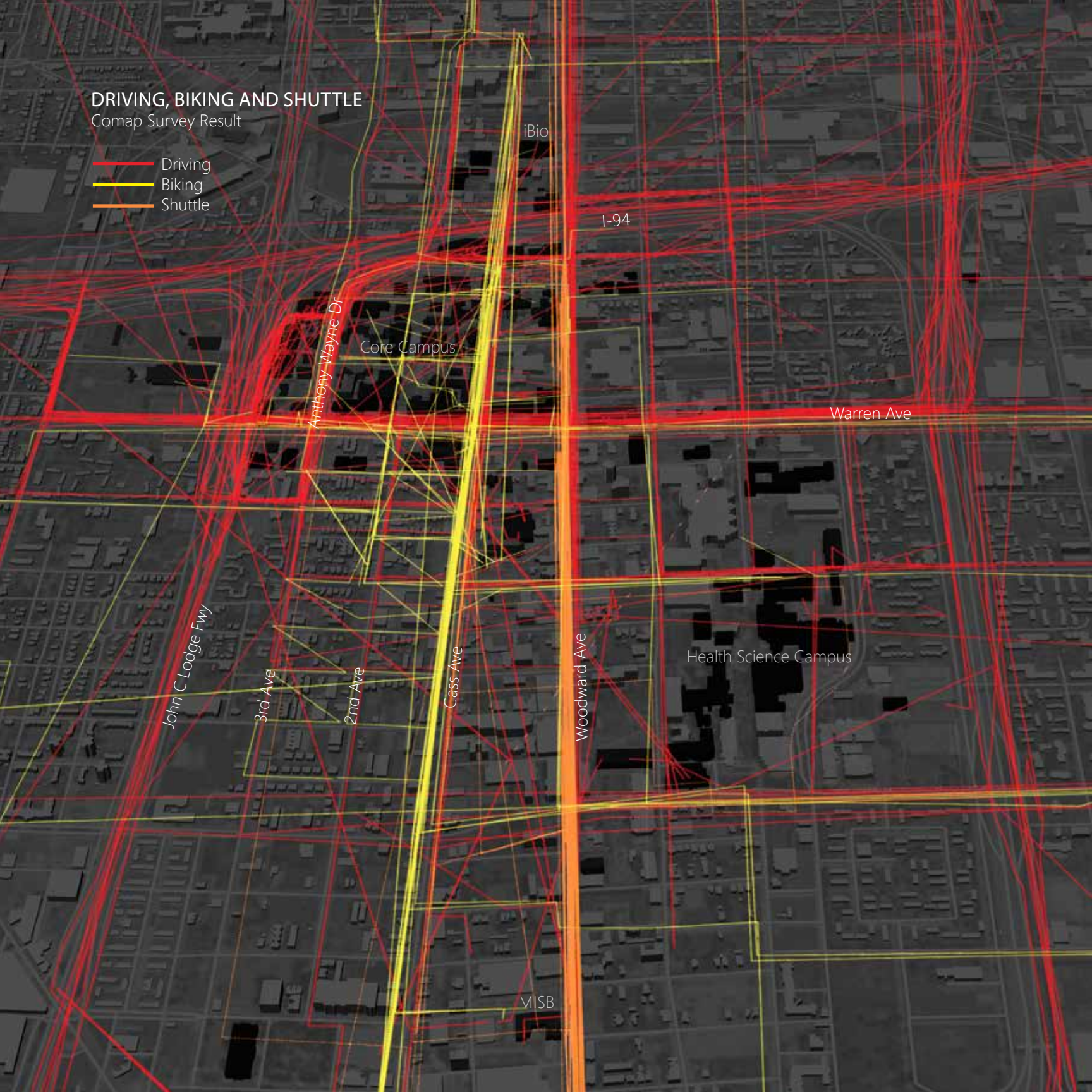


*Wide roadway as “chasm”.*

# DRIVING, BIKING AND SHUTTLE

Comap Survey Result

- Driving
- Biking
- Shuttle



## STREETS

As the Motor City, Detroit has long been monomodal; streets are generous and, with the exception of the People Mover and the QLine, public transportation has never received meaningful investment (disinvestment in rail was most dramatically represented by the closure and abandonment of Michigan Central Station). The primacy of car travel is particularly evident on and around Wayne State's campus. The campus is bounded by multiple highways, and surface streets like Woodward Avenue, Warren Avenue, and Anthony Wayne Drive are oversized—many of these streets were designed for a population almost three times larger than Detroit's current 675,000.

The city's planning team recognizes these issues and is attempting to address them, and to create complete streets (which provide for multiple transportation modes). One important example is Cass Avenue, which includes one travel lane in either direction and separated bike lanes buffered by parking. Historically a mixed-use corridor, the city's investment in Cass has helped its revitalization.

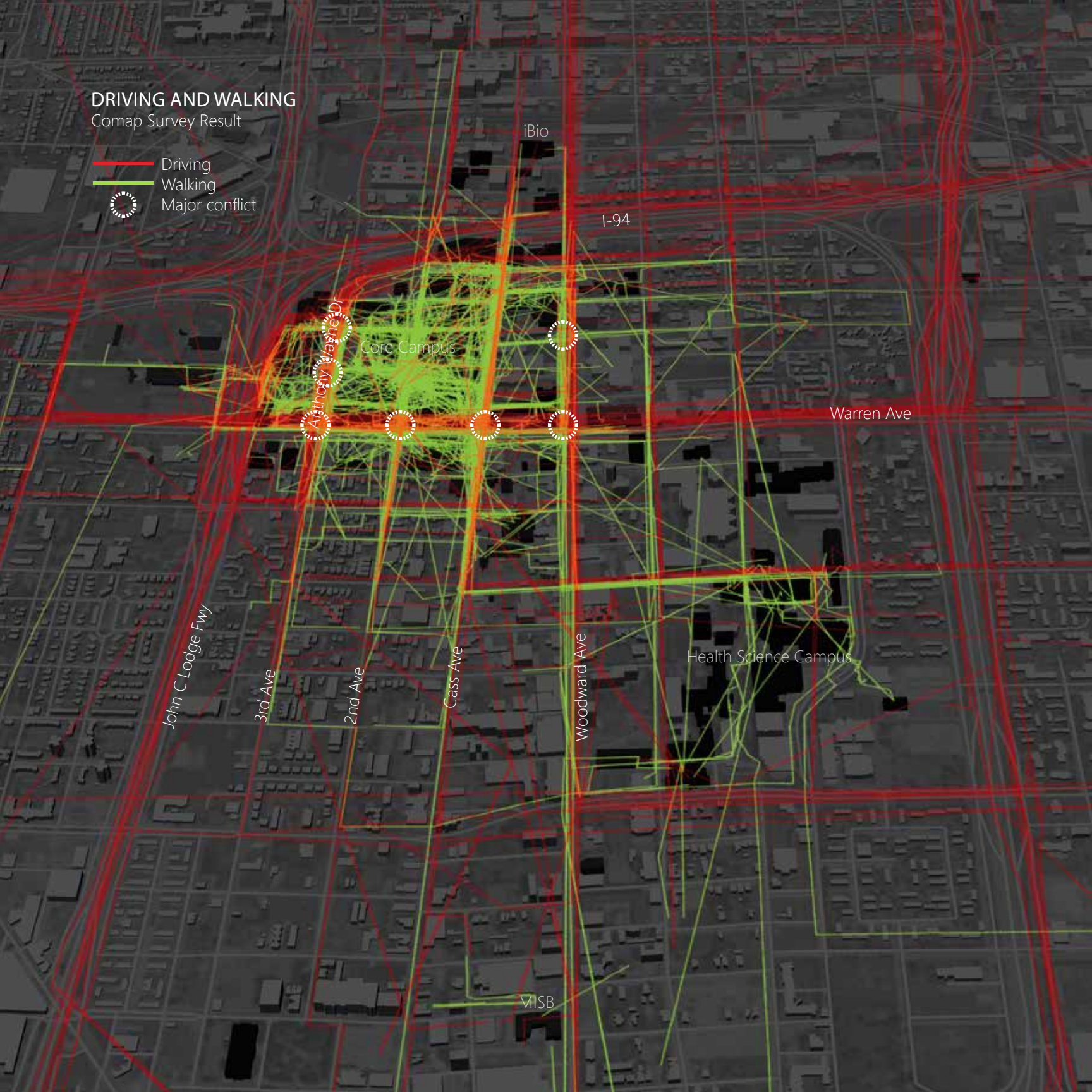


Cass Ave

# DRIVING AND WALKING

Comap Survey Result

- Driving
- Walking
- Major conflict



## PEDESTRIAN CIRCULATION

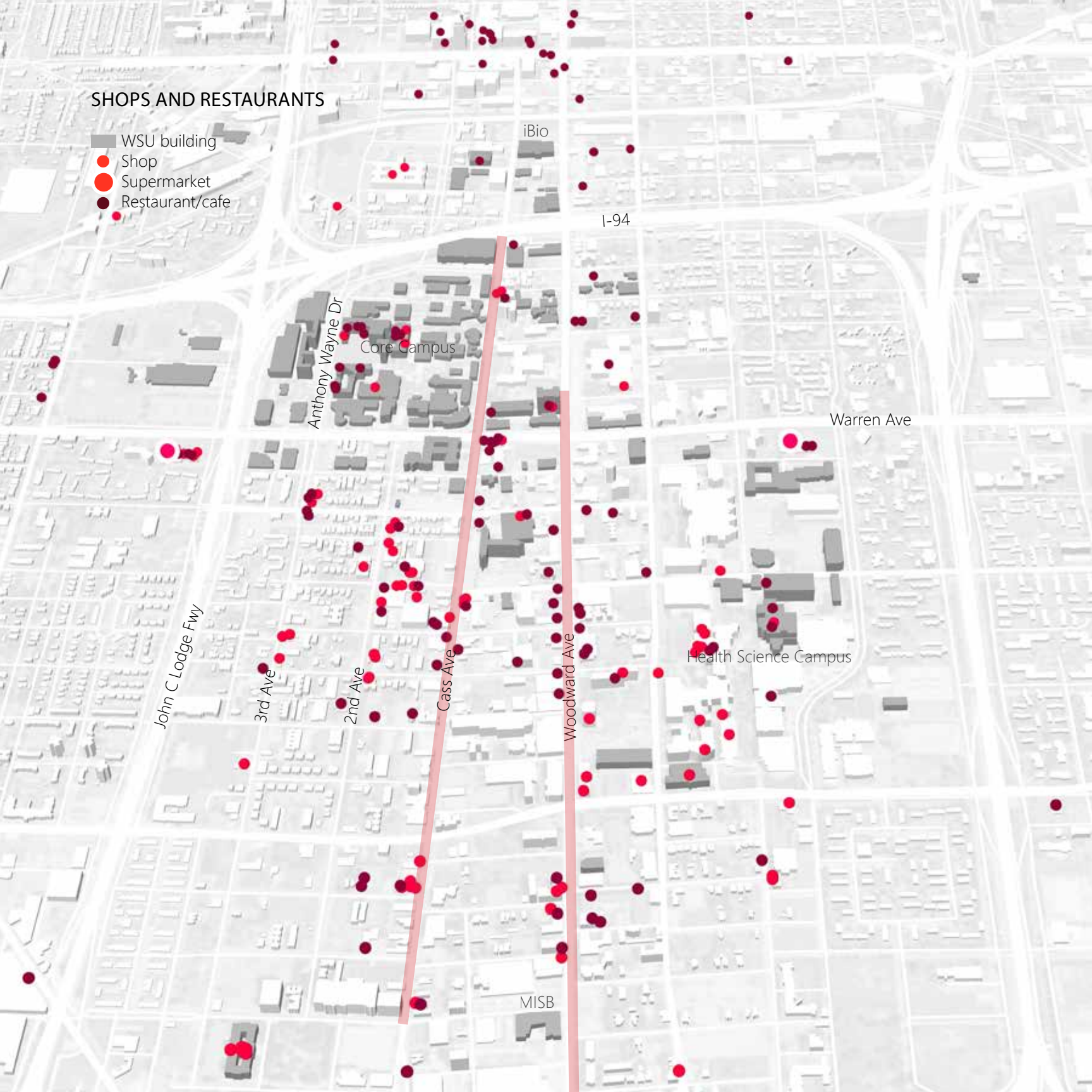
Detroit's embrace of the car has come at the expense of pedestrians as the wide, over-designed roads encourage high speeds. Pedestrian signal times are often too brief to allow for comfortable crossing of a street. This is particularly true for Warren Avenue, where many of the intersections reveal distressingly high crash rates. While Detroit has made great strides in expanding and improving the city's non-motorized transportation network, including protected bike lanes on Cass, the city still has a way to go and is currently not particularly friendly for cyclists.



*Crosswalk at Anthony Wayne Drive. Pedestrian signal times are often too brief to allow for comfortable crossing.*

# SHOPS AND RESTAURANTS

- WSU building
- Shop
- Supermarket
- Restaurant/cafe



iBio

I-94

Anthony Wayne Dr

Core Campus

Warren Ave

John C Lodge Fwy

3rd Ave

2nd Ave

Cass Ave

Woodward Ave

Health Science Campus

MISB



## BUSINESSES

As Detroit's fortunes have improved, Midtown has been inundated with a mix of new restaurants, retail, hospitality, and housing. The greatest density of activity is along Cass Avenue and Woodward Avenue, two major north-south connectors, with a significant cluster on Canfield Street as well. Much of this activity has been choreographed by Midtown Detroit Inc., a local, high capacity, highly effective economic development organization.

In a conversation with the planning team, Midtown business owners indicated that they value the Wayne State community and what they bring as customers. The business owners all hoped the university could better leverage the community of local businesses in a formal capacity. They expressed little awareness of what is going on at the university, and expressed a desire for the university to better advertise what's happening locally. They repeatedly asked: who are you and what are your ideas? There is also an interest in the university, as a major institutional player in the neighborhood, playing a more active role as a convener.

# CULTURAL INSTITUTIONS

- WSU building
- Context cultural institution



Children's Museum

iBio

I-94

Anthony Wayne Dr

Core Campus

Detroit Public Library

- Detroit Historical Museum
- Hellenic Museum of Michigan
- Detroit Institute of Arts
- Michigan Science Center
- Wright Museum

Warren Ave

Museum of Contemporary Art

Majestic Theatre

Health Science Campus

John C Lodge Fwy

3rd Ave

2nd Ave

Cass Ave

Fisher Music Center

Woodward Ave

MISB

## CULTURAL INSTITUTIONS

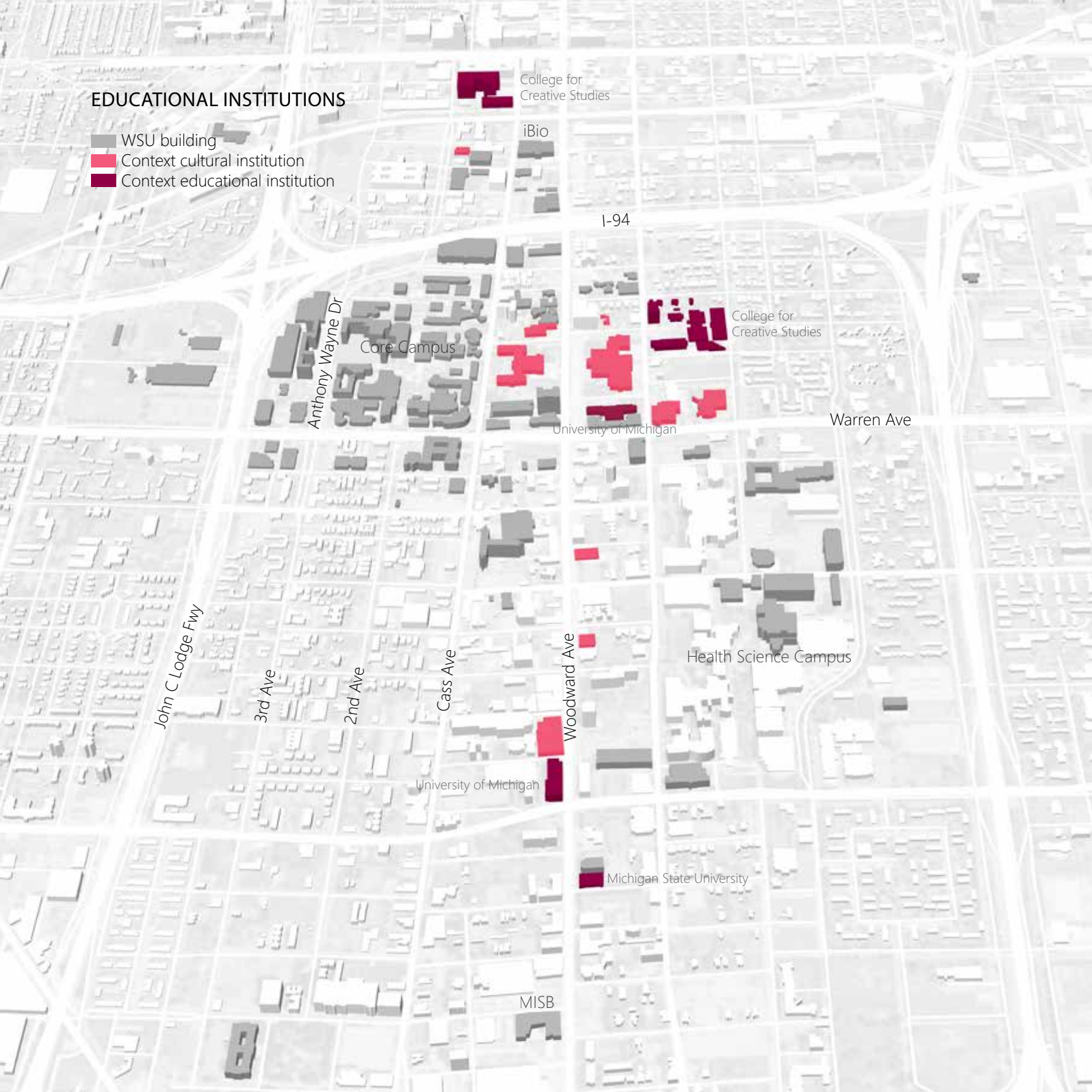
Midtown is home to several of Detroit's major cultural institutions; many within blocks of the WSU campus. These include the Detroit Public Library flagship, the Detroit Institute of Arts, the Charles H. Wright Museum of African American History, the Detroit Historical Museum, the Michigan Science Center, the Museum of Contemporary Art Detroit, the Max Fisher Music Center, the Hellenic Museum of Michigan, and others. In addition to these institutions, WSU is home to the Hilberry Theater, the Bonstelle, and multiple exhibition space. This cultural richness is an asset unique to Midtown, and a key factor in the neighborhood's success.

Representatives of many of these cultural institutions collaborated in the planning process. They generally described Wayne State's relationship with other area cultural institutions as episodic and incidental, due more to personal relationships than formal programming. In general, this was not seen as purely (or even primarily) a Wayne State issue, but rather a recognition that the various institutions don't collectively leverage their proximity or overlapping missions to the fullest extent. Everyone recognized the potential, however, in improved connections, and expressed a desire to continue the conversation.

One suggestion for a first step focused on the need for district signage and wayfinding. When visitors come to Midtown, they should know they are in a cultural district. This relates directly to an ongoing design competition sponsored by the Detroit Institute of Arts and Midtown Detroit, which has brought together a wide range of cultural and educational district stakeholders with the intent of developing a master plan for the cultural district (loosely bounded by Woodward, Warren, Brush and Ferry Street). As is addressed later in detail, this competition, and its connection with Wayne State's planning effort, suggest a once-in-a-generation opportunity to holistically transform the district.

# EDUCATIONAL INSTITUTIONS

- WSU building
- Context cultural institution
- Context educational institution



## EDUCATIONAL INSTITUTIONS

Wayne State University is the largest educational institution in Detroit by a wide margin. That said, several other schools and universities have a presence in the Midtown area. These include the College of Creative Studies, founded as the Detroit Society of Arts and Crafts in 1906, whose main campuses are east and north of WSU. Michigan State University and the University of Michigan, neither of which have an historic presence in Detroit, now both desire to increase their physical footprint in Midtown. While Wayne State collaborates with MSU and U of M in many initiatives, the universities generally have a somewhat competitive relationship, and it is therefore important that Wayne State be able to leverage its history in Detroit which no other institution can match. Wayne can and should tell its story, and broadcast information on the significant outreach and collaboration it conducts. Wayne State's relationship with many two-year colleges in the state, particularly Macomb Community College, are also critical, as WSU is a primary receiving institution for transfer and non-traditional students.



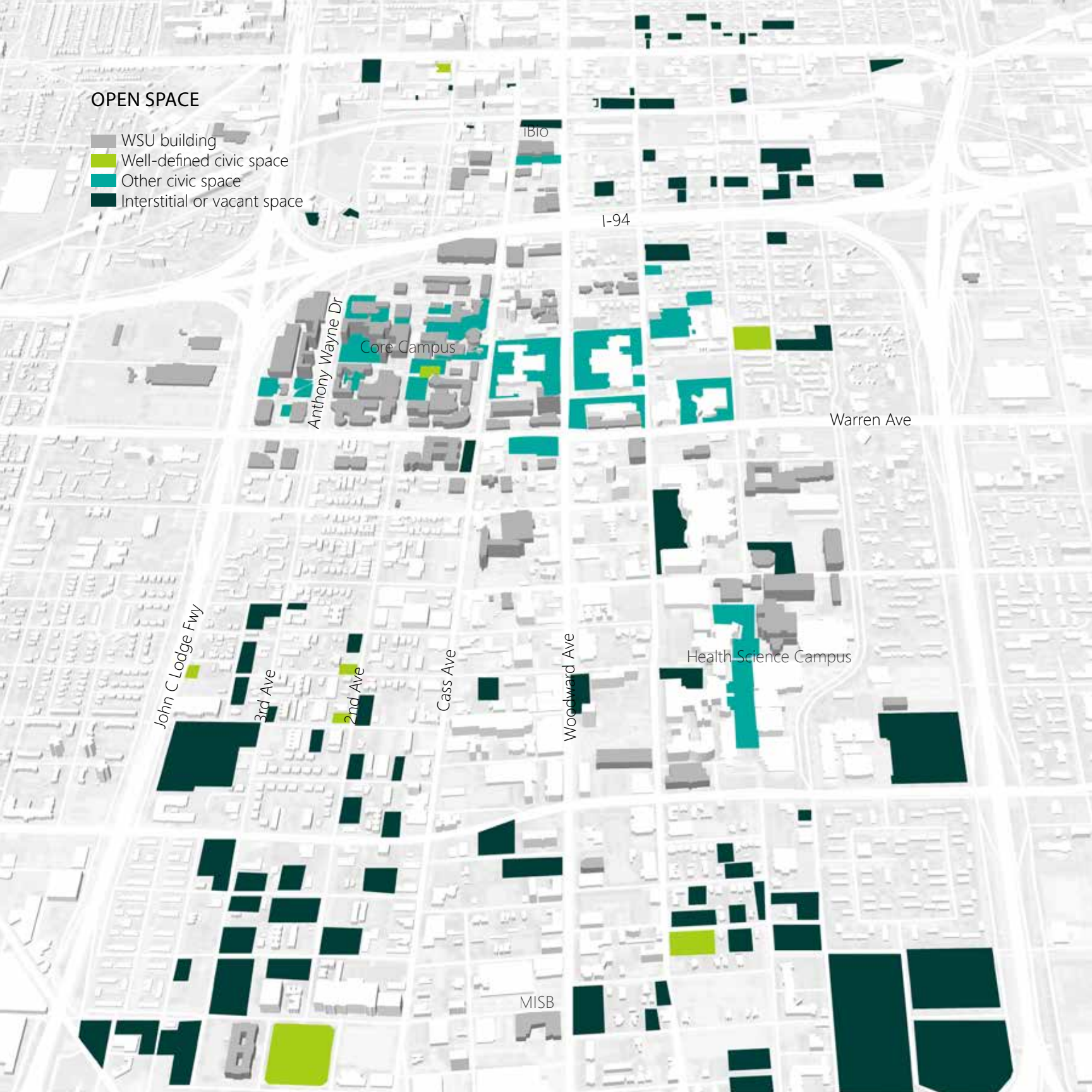
*University of Michigan Detroit Center*



*Michigan State University Detroit Center*

# OPEN SPACE

- WSU building
- Well-defined civic space
- Other civic space
- Interstitial or vacant space



## OPEN SPACE

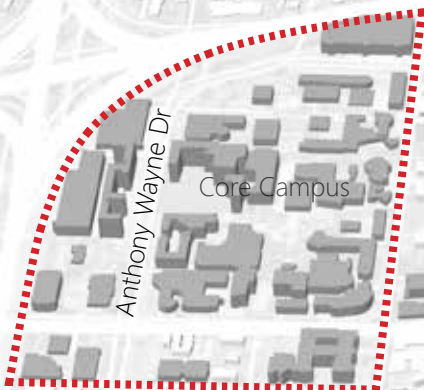
Detroit has very little civic open space (with Lafayette Park and Belle Isle being notable exceptions). This is particularly evident in Midtown, whose only well-defined public spaces are Peck Park to the east of Wayne State, CCS's Josephine Ford Sculpture Garden, and Wayne State's own Fountain Court. There are, in addition, several partially-defined public spaces in the area, including the large, university-owned lot at the corner of Warren and Woodward, Gullen Mall and Keast Commons, and the formal spaces framed by the Beaux-Arts Detroit Public Library and Detroit Institute of Arts. In addition, while the challenge with vacant and underperforming parcels has greatly improved in recent years, there are still several non-contributing parcels near the university.



*Gullen Mall*

**BUILDING**

■ WSU building



**FAR  $\approx$  1.25**

John C Lodge Fwy

3rd Ave

2nd Ave

Cass Ave

Woodward Ave

iBio

I-94

Warren Ave

Health Science Campus

MISB



## BUILDINGS

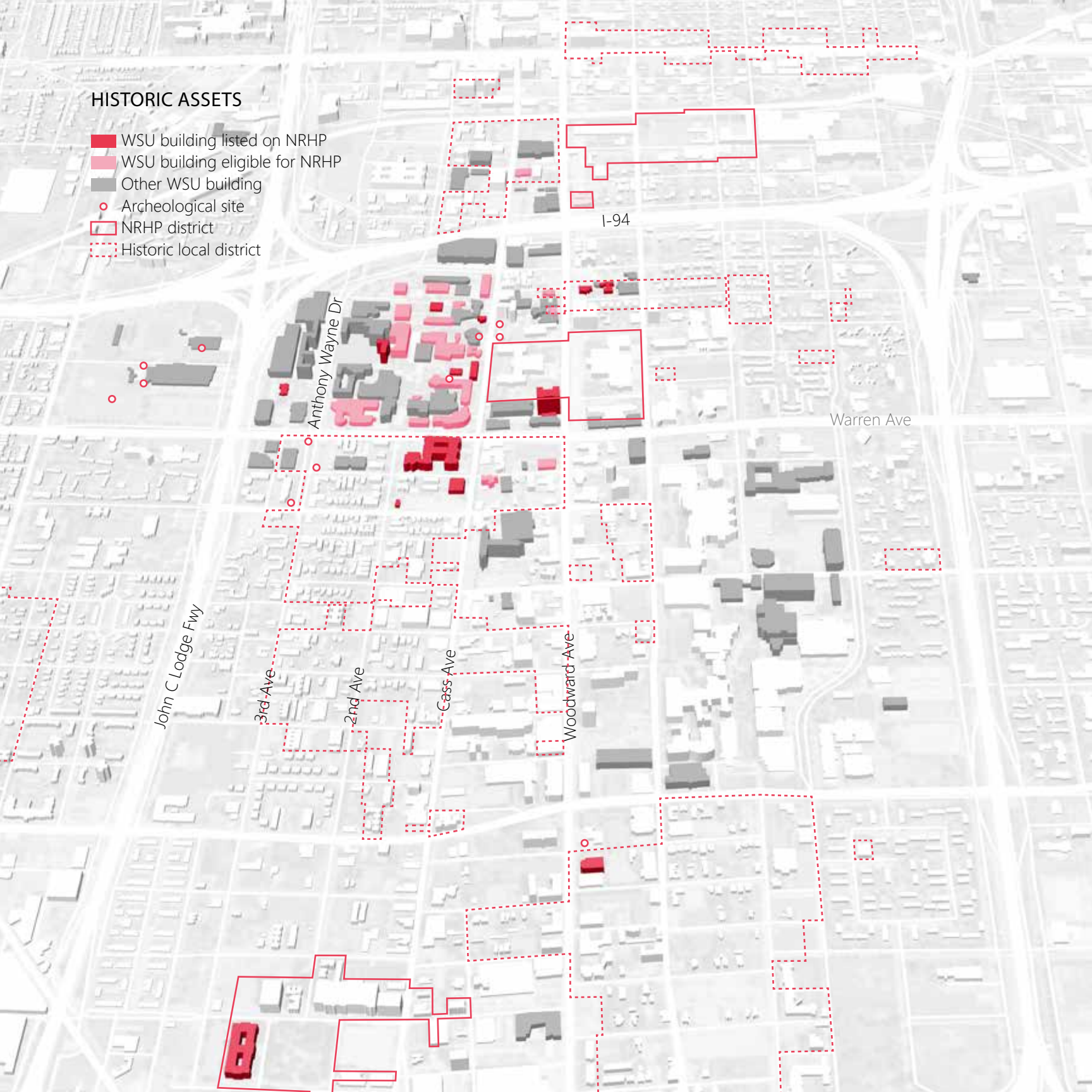
WSU has 125 buildings in its portfolio. These buildings range widely in age, condition, character, scale, and materiality. This range is evident in the campus' juxtaposition of repurposed, turn-of-the-century homes, a cluster of elegant, midcentury buildings by Minoru Yamasaki (Prentis Building (1964), Helen L. DeRoy Auditorium (1964), McGregor Memorial Conference Center (1957), and the Education Building (1960)), the more contemporary glass facades of the Student Center and Fitness Center, and the generically designed (and named) Faculty/ Administration Building. Rather than viewing this eclecticism as a negative, the Yamasaki plan encouraged the university to embrace and celebrate the diversity of its building portfolio. This is an attitude which this current plan endorses. The campus' architectural variety should be seen as something which differentiates the WSU campus, and which speaks to its long, storied history in Detroit.

## CAMPUS DENSITY

Campus density is best described in terms of floor area ratio (FAR). This ratio is calculated by dividing the total above-grade building area by the total land area (excluding roads). Most great American campuses typically have FARs between 1.0 and 1.5, with urban campuses usually leaning toward even higher values. WSU's core (bounded by the Lodge, I-94, Cass, and Hancock) FAR is approx. 1.25. Because of the university's urban nature, the Yamasaki Plan, the Long Range Plan of 1967, and the 2020 Growth Model, all of which were advocating for an appropriately dense, urban campus with wonderful open green space, recommended target FARs of 2.5, 2.0, and 1.75 respectively. We concur with the general direction of these assessments, and see appropriate density as a significant advantage. It provides opportunities to maximize interactions while taking best advantage of expensive real estate, and without sacrificing important open space. As described below, our analysis suggests there is significant room for additional infill construction within the campus core.

# HISTORIC ASSETS

- WSU building listed on NRHP
- WSU building eligible for NRHP
- Other WSU building
- Archeological site
- NRHP district
- Historic local district



## HISTORIC ASSETS

As a 150-year-old institution, Wayne State is fortunate to have several buildings on the National Register of Historic Places. The list of historic buildings on campus is comprised of three Yamasaki-designed buildings as well as other buildings acquired by the university over time:

- Mackenzie House (1895)
- Old Main (1896)
- Hilberry Theater (1917)
- St. Andrew's Hall (1902)
- Marie Donaldson (1889)
- 5057 Woodward (1927)
- Chatsworth Apartments (1928)
- Bonstelle Theater (1903)
- Music Annex (1915)
- Tierney Alumni House (1891)
- Freer House (1887)

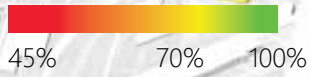
### Yamasaki Buildings

- Prentis Building (1964)
- Helen L. DeRoy Auditorium (1964)
- McGregor Memorial Conference Center (1957)

In addition, there are several Register-eligible buildings based on age. These include additional historic homes (Linsell House (1904), Beecher House (1894), Bowen House (1928), Max Jacob House (1914), Rands House(1913)), Pilafian's academic buildings (State Hall (1948), Science Hall(1949), Purdy and Kresge Libraries (1952)), and most notably, the Education Building designed by Minoru Yamasaki, and built in 1960.

# NET ASSET VALUE

Data source: Sightlines



John C Lodge Fwy

3rd Ave

2nd Ave

Cass Ave

Woodward Ave

I-94

Anthony Wayne Dr

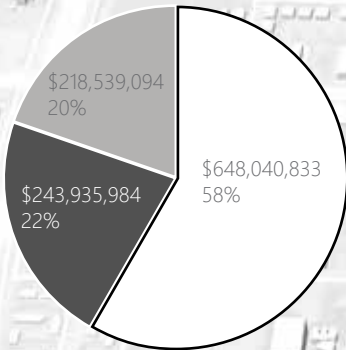
Core Campus

Warren Ave

Health Science Campus

MISB

iBio



- Current need
- Modernization
- Additional need (2018-2027)

**10-year-total:  
\$1.1 billion**

## BUILDING CONDITION

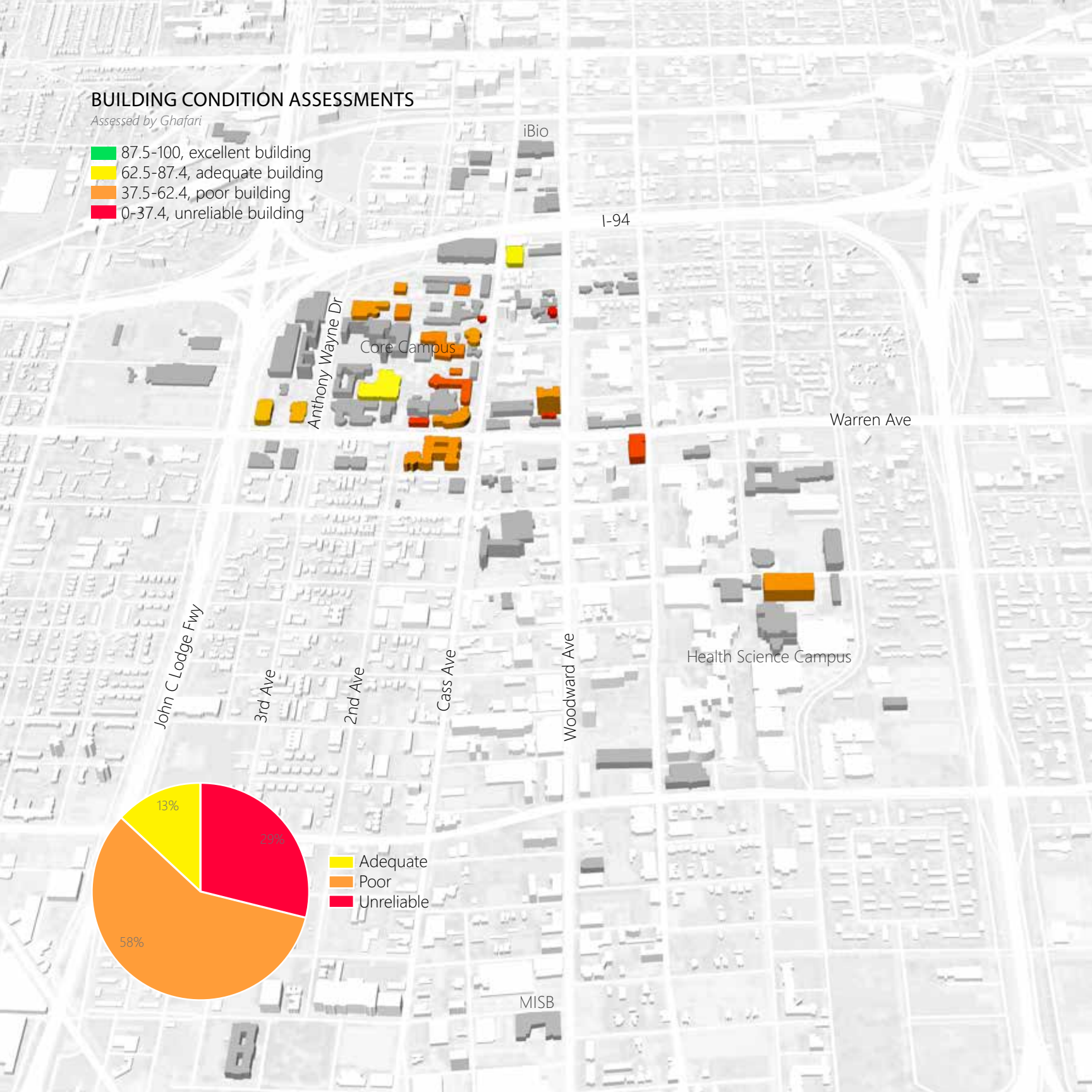
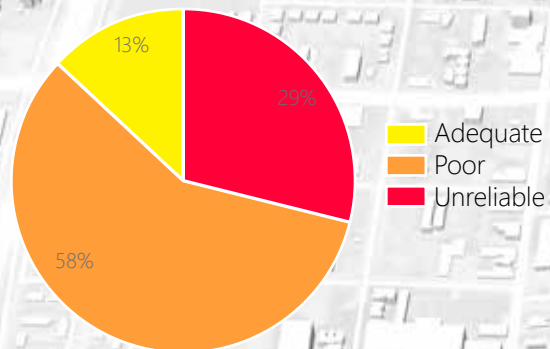
As is the case with many of Wayne State's peer public research institutions, a significant proportion of its building portfolio was constructed in the post-World War II, GI-Bill era. These 50-year-old buildings (not to mention the university's even older buildings) are reaching a critical moment in which significant investment is required to address deferred maintenance and modernization needs, and unfortunately, public financial support has steadily diminished.

A starting point for understanding the university's capital needs is the analysis provided by Sightlines, who calculated a 10-year capital renewal assessment based on net asset value across the portfolio. Sightlines methods use formulas that include building age, architectural character, and program. Their calculations showed \$650 million in immediate capital need across the portfolio, an additional \$240 million for "modernization," and \$220 million more over the next ten years, for a total ten-year need of \$1.1 billion.

# BUILDING CONDITION ASSESSMENTS

Assessed by Ghafari

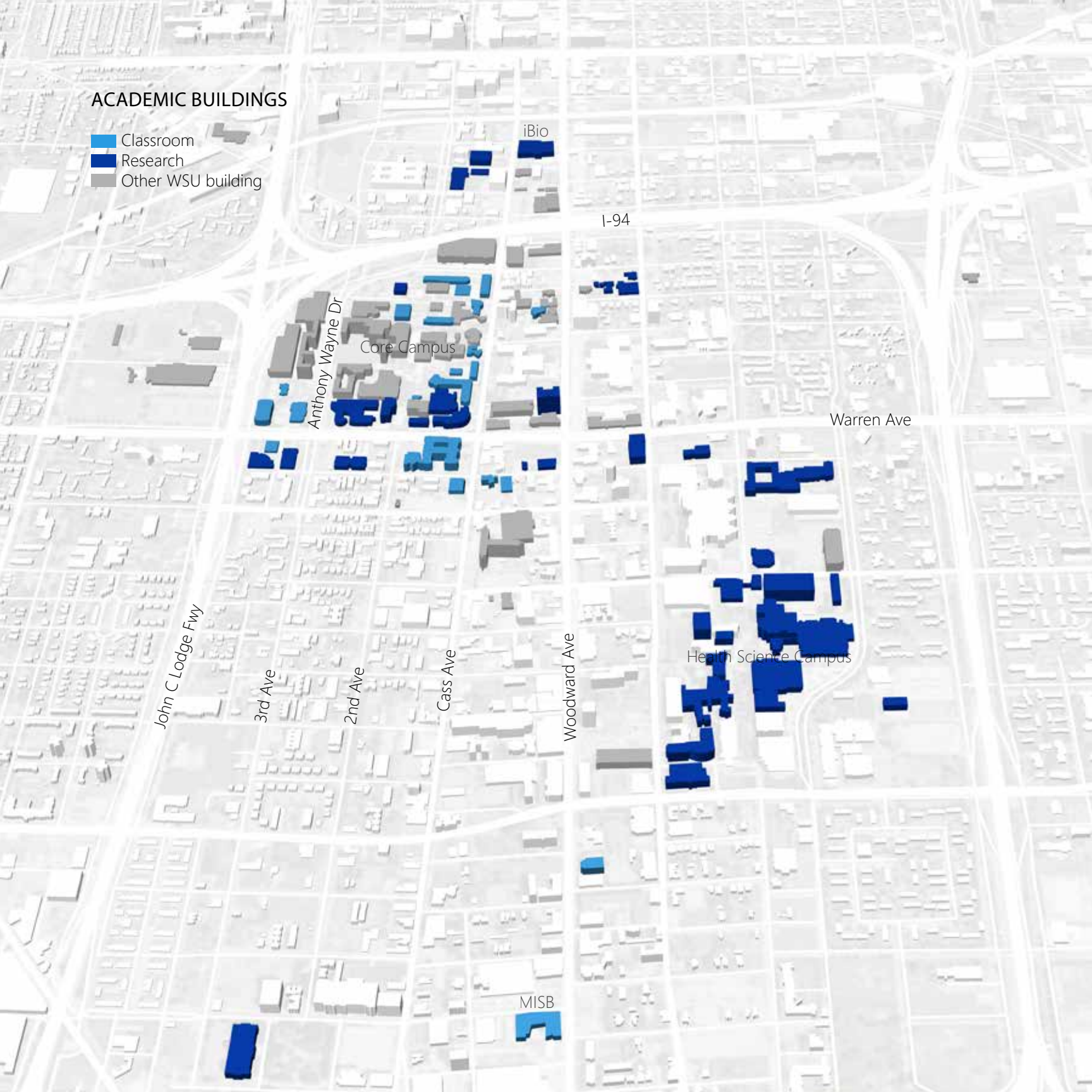
- 87.5-100, excellent building
- 62.5-87.4, adequate building
- 37.5-62.4, poor building
- 0-37.4, unreliable building



Dearborn-based engineering firm, Ghafari, joined our team to provide MEP-related building condition assessments on several key buildings. In partnership with the Office of Facilities Planning and Management, 25 high-priority buildings were identified for this more in-depth analysis. Over the course of three months, Ghafari conducted detailed walkthroughs of all 25 buildings and met with the building engineers in order to develop a comprehensive understanding of the relative states of the plumbing, electrical, HVAC, and fire protection systems in each. Their findings were summarized using a four-variable rating scale from "excellent" to "adequate" to "poor" ("building systems should be upgraded with next major renovation") and "unreliable" ("the need to replace is immediate"). According to their findings, of the 25 priority buildings identified, three were in adequate condition, 15 were poor, and the remaining seven were in unreliable condition. These findings suggest the Sightlines valuation is likely low, and that the true need could be as much as double that estimated by Sightlines. Our key takeaway from this analysis is that the university's deferred maintenance liability is unsustainable, and this suggests the need for consolidation strategies.

# ACADEMIC BUILDINGS

- Classroom
- Research
- Other WSU building



iBio

I-94

Anthony Wayne Dr

Core Campus

Warren Ave

John C Lodge Fwy

3rd Ave

2nd Ave

Cass Ave

Woodward Ave

Health Science Campus

MISB



# PROGRAM DISTRIBUTION

## ACADEMIC

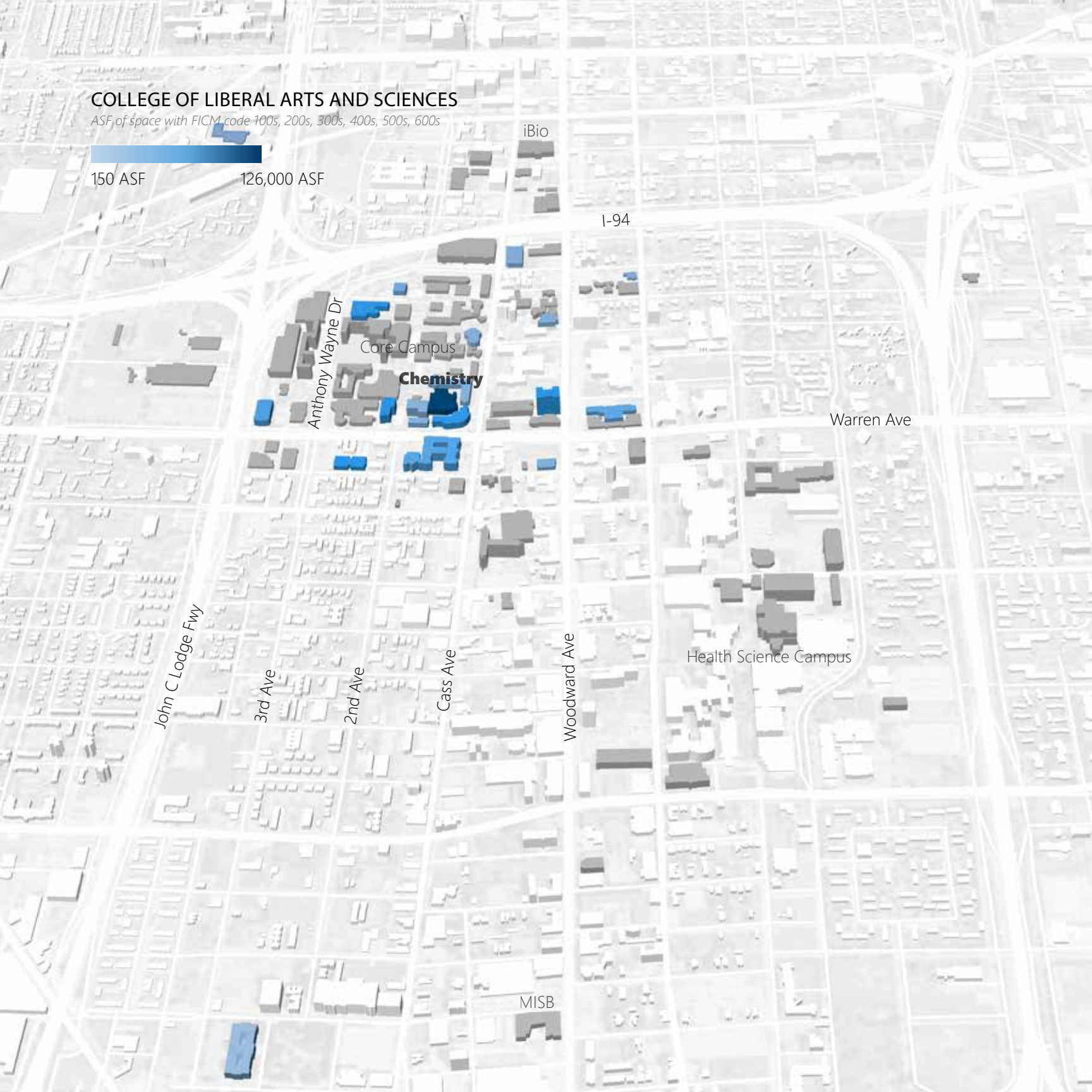
Interdepartmental collaboration is rightly an area of focus in the strategic plan. To promote this, the university hopes to pursue programs and faculty committed to collaboration, but it also requires strategic departmental adjacencies and the concentration of academic activity, maximizing opportunities for faculty-to-faculty and faculty-to-student interaction. Unfortunately, Wayne State's current program distribution has been primarily opportunistic and reactive, resulting in widely dispersed programs in buildings often ill-suited for 21st century teaching, learning, or research.

# COLLEGE OF LIBERAL ARTS AND SCIENCES

ASF of space with FICM code 100s, 200s, 300s, 400s, 500s, 600s

150 ASF

126,000 ASF



iBio

I-94

Anthony Wayne Dr

Core Campus

Chemistry

Warren Ave

John C Lodge Fwy

3rd Ave

2nd Ave

Cass Ave

Woodward Ave

Health Science Campus

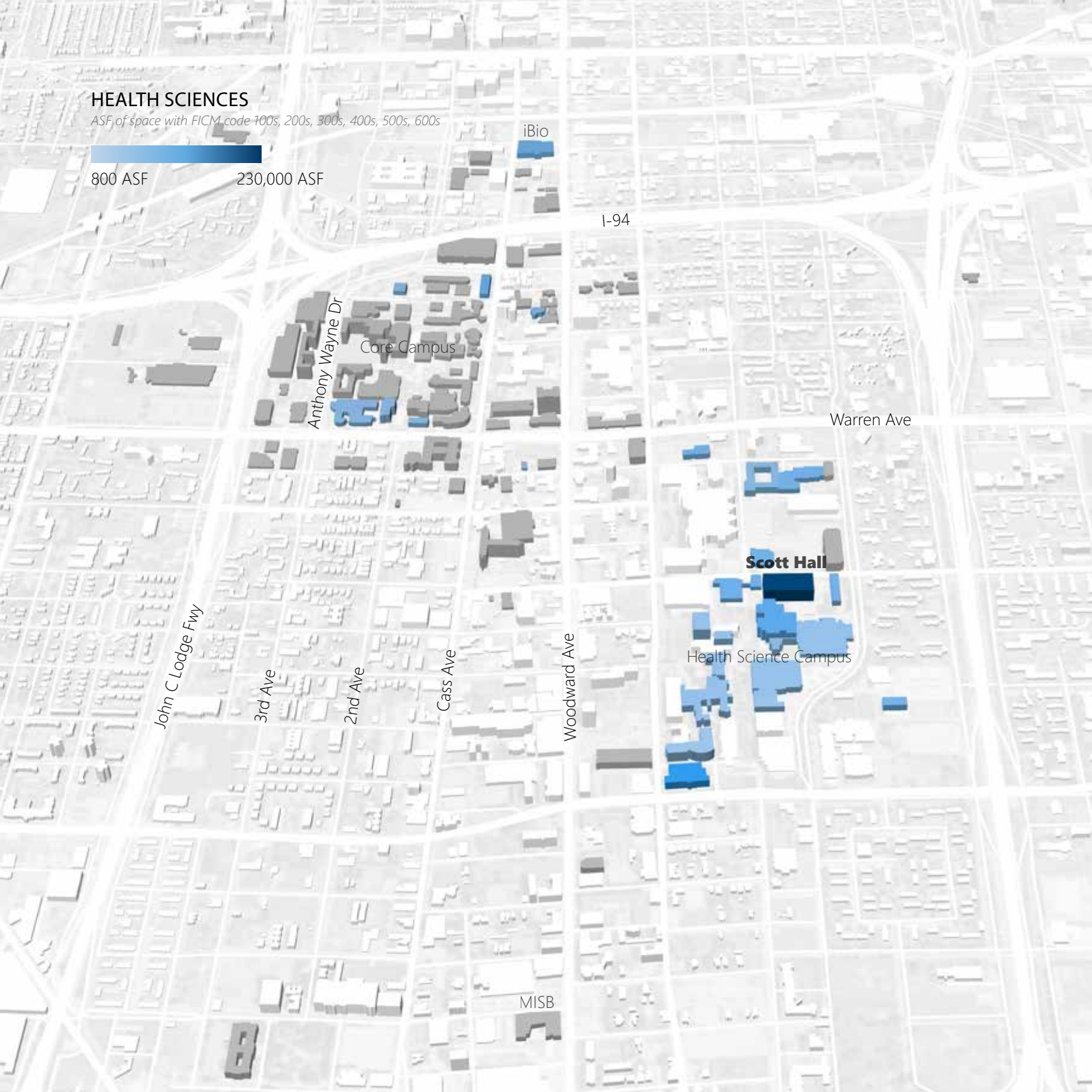
MISB

## COLLEGE OF LIBERAL ARTS AND SCIENCES

The College of Liberal Arts and Sciences, Wayne State's largest college, controls 575,000 ASF of space distributed across 14 buildings. While some dispersal is inevitable given CLAS's size, the college's current disaggregation creates inefficiencies and may hamper collaboration. This is evident even at the department level, as programs including Anthropology, Psychology, Biology, and Geology are spread across four or more buildings.

# HEALTH SCIENCES

ASF of space with FICM code 100s, 200s, 300s, 400s, 500s, 600s



## HEALTH SCIENCES

Comprised of the School of Medicine, the College of Nursing, the College of Pharmacy, and allied health professions (Mortuary Science, Physical Therapy, Occupational Therapy, etc.), the health sciences account for 875,000 ASF (including rented spaces). Most of this space is concentrated in Wayne State's health science campus southeast of the campus core and adjacent to the Detroit Medical Center (historically, the School of Medicine's clinical partner), Children's Hospital, and VA Medical Center. WSU buildings in this district include Scott Hall, the School of Medicine's main academic building, along with several research buildings (Lande, Elliman, Kresge Eye Institute, Mott, Mazurek). The Applebaum Building is at the southern edge of the medical campus, and is home to the College of Pharmacy and most of the allied health professions.

Despite the advantages of clustering related programs, WSU has a significant health science footprint outside of the health science campus. Most notably, this includes the College of Nursing in the Cohn Building on Cass, the Mortuary Science Building on Woodward, and the Integrative Biosciences Center (IBio), the newest research building located approximately 1.5 miles northeast of the health science campus. One result of this dispersal is the need for multiple research cores across campus. There are, for instance, animal quarters and service (FICM 570, 575) listed in 10 buildings across campus.

# ENGINEERING

ASF of space with FICM code 100s, 200s, 300s, 400s, 500s, 600s

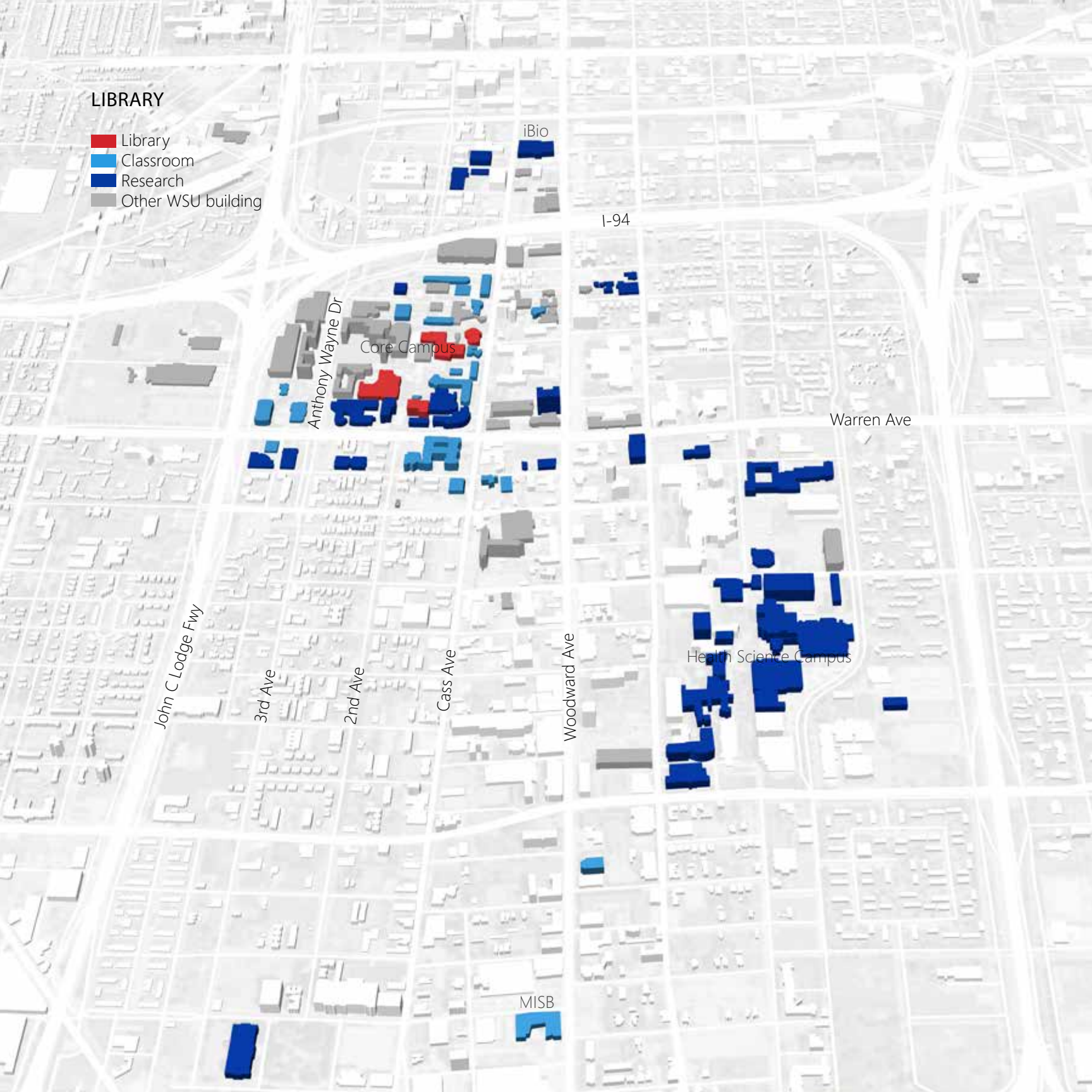


## ENGINEERING

As much as any academic discipline today, 21st century engineering is predicated on interdepartmental collaboration and innovation, and Wayne State's peer research institutions are investing in new engineering facilities that include high quality maker spaces and other "collision spaces" which bring together students and faculty. Wayne State's College of Engineering is distributed across several buildings on both sides of Warren Avenue, at iBio north of campus, and across three floors of 5057 Woodward, a historic office tower. This geographic dispersal hampers organic collaboration, and carries implications for student and faculty attraction and retention, research funding, etc.

**LIBRARY**

- Library
- Classroom
- Research
- Other WSU building



iBio

I-94

Anthony Wayne Dr

Core Campus

Warren Ave

John C Lodge Fwy

3rd Ave

2nd Ave

Cass Ave

Woodward Ave

Health Science Campus

MISB

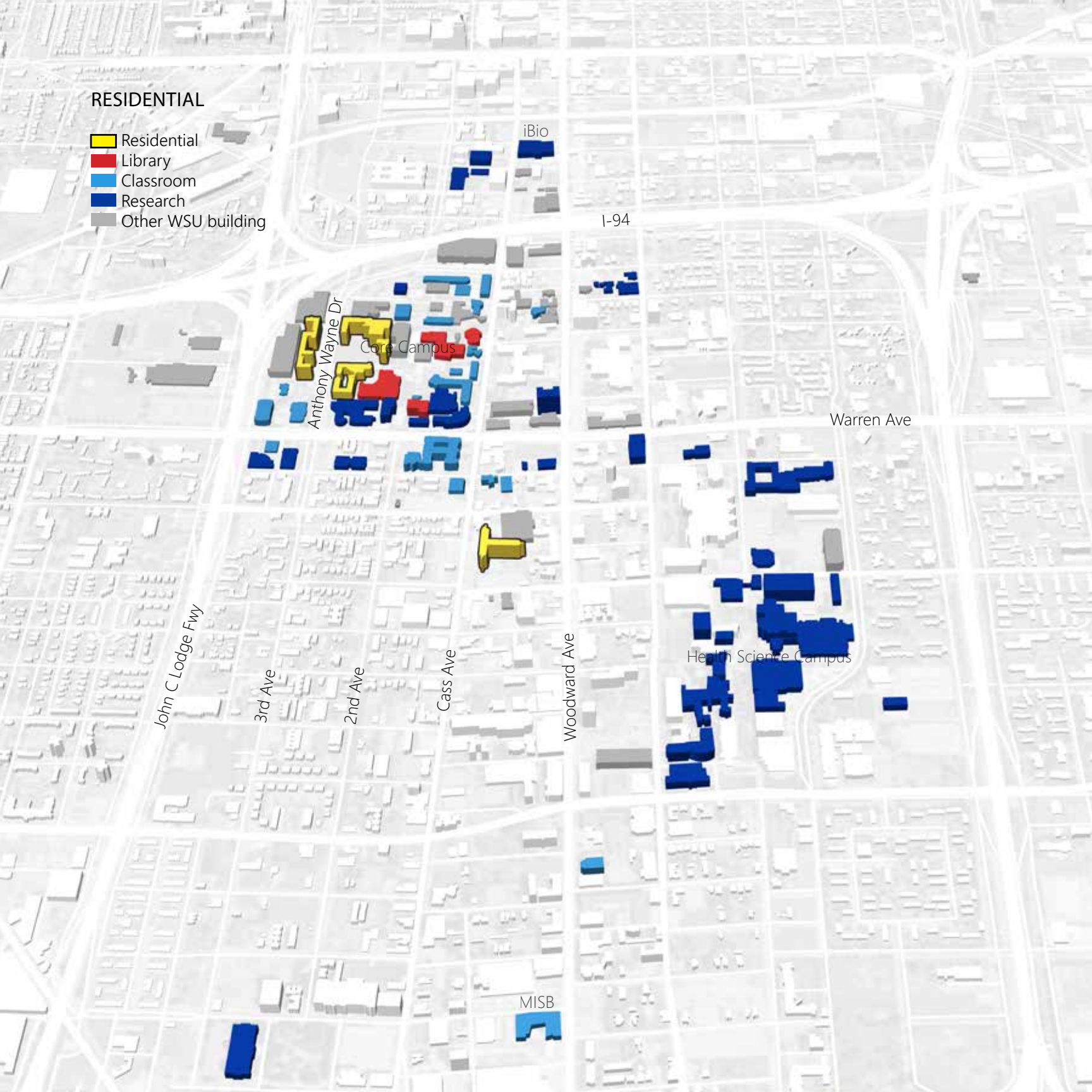


## LIBRARIES

While Wayne State's distribution of space by type is comparable to its peer institutions on most counts, it is relatively unique in term of the amount of library space on campus. Excluding the professional libraries (Arthur Neef Law Library and the Shiffman Medical Library), WSU has approximately 400,000 ASF of library space distributed across Purdy/Kresge Library, Reuther Library, and the Undergraduate Library (the Science and Engineering Library is currently undergoing a conversion to the STEM Innovation Learning Center).

**RESIDENTIAL**

- Residential
- Library
- Classroom
- Research
- Other WSU building



iBio

I-94

Anthony Wayne Dr

Core Campus

Warren Ave

John C Lodge Fwy

3rd Ave

2nd Ave

Cass Ave

Woodward Ave

Health Science Campus

MISB

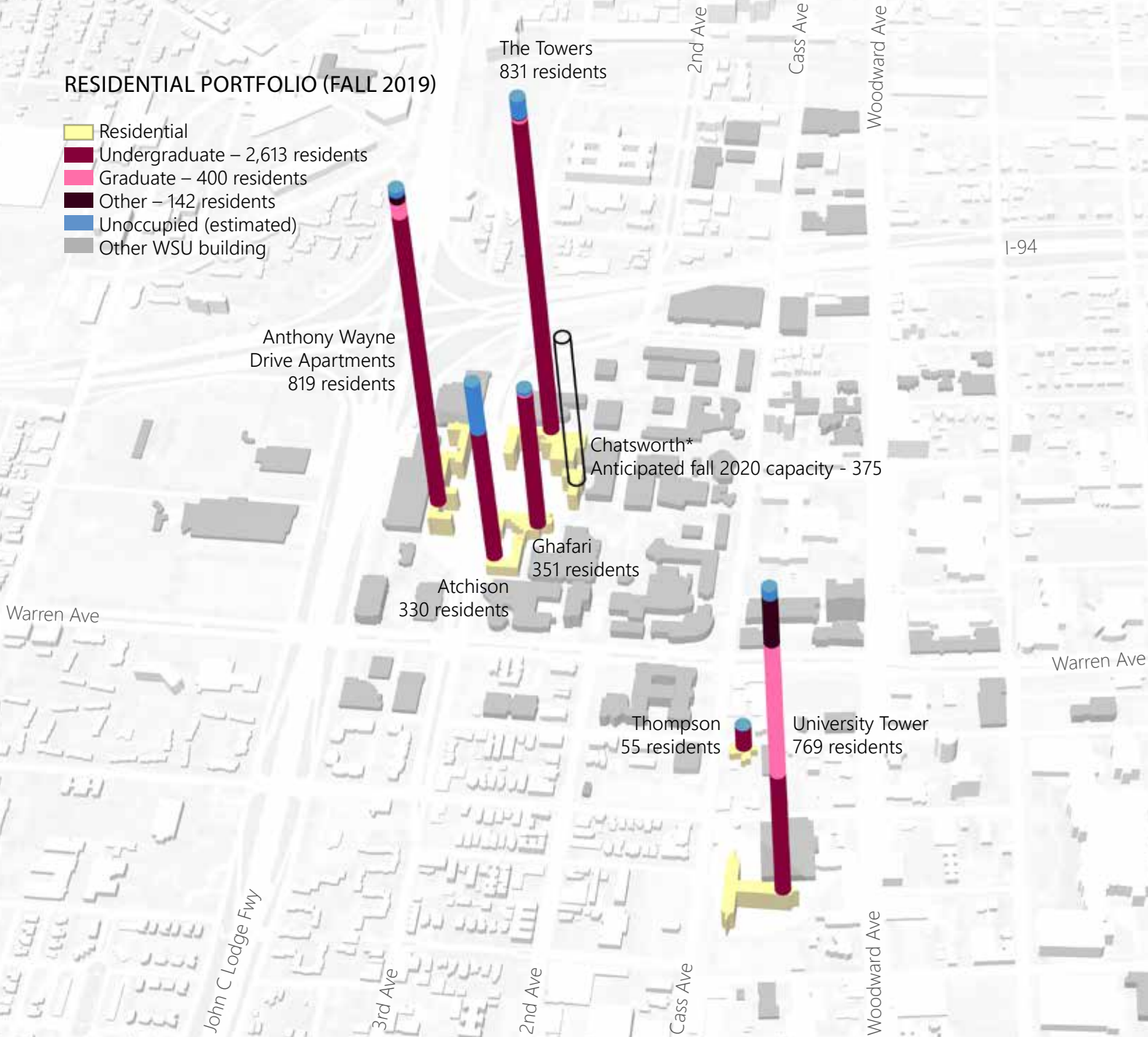
## RESIDENTIAL

Wayne State's reputation has long been – and is still to a large degree – that of a commuter campus, with a wide distribution of students (as well as staff and faculty) across Southern Michigan. Understanding the benefits of an on-campus student population to student success, campus culture, etc., the university has owned and operated student housing on campus ever since the acquisition of the Chatsworth apartment building in the 1950s. This was followed by additional acquisitions over time and eventually, purpose-built on-campus housing (DeRoy Apartments, Tower Apartments, Ghafari Hall) which served a population of approximately 3,100 graduates, undergraduates, and professional students.

In 2017 WSU entered into a 40-year partnership with Corvias, a private student housing developer and operator, to finance and build the 810-unit Anthony Wayne Drive Apartments, and oversee management and maintenance of all existing on-campus housing. Per WSU CFO Bill Decatur, "The university achieves numerous strategic goals through our partnership — enhancement of the on-campus student experience, new and renovated student housing, long-term financial support for maintaining student housing, and at the same time improving the university's financial position."

# RESIDENTIAL PORTFOLIO (FALL 2019)

- Residential
- Undergraduate – 2,613 residents
- Graduate – 400 residents
- Other – 142 residents
- Unoccupied (estimated)
- Other WSU building



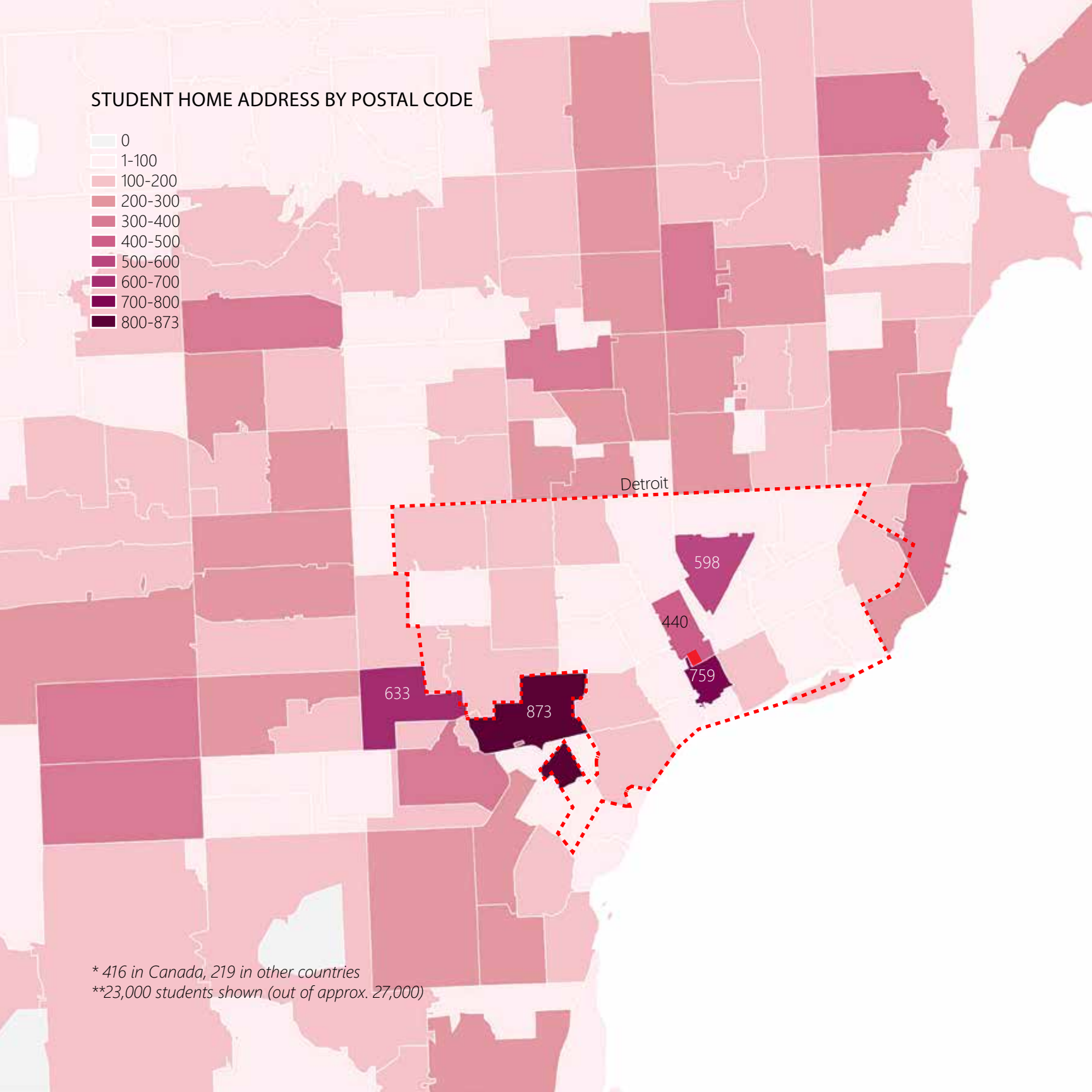
\* Chatsworth Tower under renovation. The anticipated capacity for fall 2020 will be 375.

The university's current housing portfolio (including the renovations to Chatsworth) will provide 3,500 units. This matches the conservative recommendation made in the Student Housing Master Plan, and is relatively consistent with the provision rates of other public urban research institutions. Interestingly, these provision rates fall far short of the 6,000-bed recommendation in the *2020 Campus Master Plan* (and the 5,000-bed recommendation from the *1967 Long Range Development Plan*), and of stated demand, particularly on the graduate side, where the lack of housing was cited as a major impediment to attracting top candidates.

The need for additional campus housing is exacerbated by the rapid escalation of housing and rental rates in and around Midtown, long a reliable supplement to Wayne State's on-campus portfolio. As the area has grown more desirable and prices have gone up, students, faculty, and staff are finding affordability an impediment to locating close to campus. Additional on-campus housing could also help support the university's student success goals, add further vitality to on-campus life, better support surrounding retail, and help change the university's parking demand profile.

# STUDENT HOME ADDRESS BY POSTAL CODE

- 0
- 1-100
- 100-200
- 200-300
- 300-400
- 400-500
- 500-600
- 600-700
- 700-800
- 800-873



Detroit

598

440

759

633

873

\* 416 in Canada, 219 in other countries  
\*\*23,000 students shown (out of approx. 27,000)

UNIVERSITY EMPLOYEE HOME ADDRESS



**ATHLETICS FIELDS**

- WSU building
- Athletics

**Athletics**

**Core Campus**

2nd Ave

Cass Ave

Woodward Ave

I-94

Warren Ave

Warren Ave

John C Lodge Fwy

3rd Ave

2nd Ave

Cass Ave

Woodward Ave





# ATHLETICS

Wayne State's athletics district is sited on the west side of the Lodge Freeway, with vehicular connections to campus via Warren Avenue and an aging pedestrian bridge. The district includes the Matthaei Physical Education Center, the Multipurpose Indoor Facility, Tom Adams Field and Stadium Auxiliary Building, the Softball Stadium and fields, Harwell Baseball Field, a football practice field, and intramural soccer fields. It also includes approximately 750 parking spaces spread across lots 30, 40, and 50. The university recently unveiled plans to site a 70,000 sf, 3,000-seat arena for Wayne State basketball and the Detroit Pistons' G-League affiliate adjacent to lot 50.



# LAWNS AND TREES

- WSU building
- Athletics
- Green
- 1** Gullen Mall
- 2** Fountain Court
- 3** Keast Commons



# LANDSCAPE

Wayne State's core campus landscape is defined by fragmented spaces with a variety of disconnected paths, plantings, and seating strategies. The core campus currently has three primary features:

Gullen Mall is a 60-90-foot-wide pedestrian path running down the center of the campus core. It was created by the closure of 2nd Avenue in the 1960s per the Pilafian and Yamasaki plans. The execution of this bold idea places leftover green space at the building edges, while concentrating pedestrian foot traffic in its center. As a result, energy and vitality is lost, and the paved Mall functions as a wide sidewalk without usable green space, and as a service drive for maintenance vehicles.

Fountain Court, at the intersection of Gullen Mall and the main east-west route across campus, lies at the heart of campus, and is bordered by the Undergraduate Library, the Mort Harris Recreation and Fitness Center, and the Student Center. The space, comparable in size to Harvard Yard, is carved up by paths and plantings, blunting its role as a civic space at the crossroads of campus.

The final space, Keast Commons, is west of Gullen Mall and is surrounded by the vast majority of Wayne State's student housing (Chatsworth Apartments, Towers Residential Suites, Ghafari Hall, and – until spring 2019 – the Helen DeRoy Apartments). The volume of students around Keast Commons suggests the space's significance as a shared front lawn, however much like Fountain Court, the planting and paving of Keast (not to mention the service drive which bisects the space, and the sand volleyball courts) limits its utility as a natural gathering place. The overall effect of these various spaces is a confusing, image-less campus core that does not reach its potential.

# LANDSCAPE STRUCTURE

- Athletics
- Green
- 1** Gullen Mall
- 2** Fountain Court
- 3** Keast Commons



# PERVIOUS VS IMPERVIOUS

- WSU building
- Athletics
- Greens



Warren Ave

John C Lodge Fwy

2nd Ave

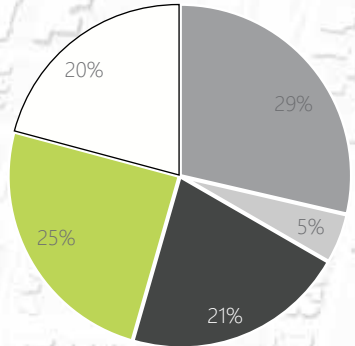
Cass Ave

Woodward Ave

I-94

Warren Ave

Woodward Ave



## Impervious (75%)

- WSU building
- WSU surface parking
- Street/driveway
- Other

## Pervious (25%)

- Green

3rd Ave

2nd Ave

Cass Ave

# PARKING INVENTORY



John C Lodge Fwy

3rd Ave

2nd Ave

Cass Ave

Woodward Ave

I-94

Warren Ave

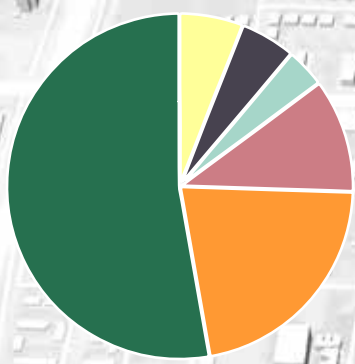
iBio

Core Campus

Anthony Wayne Dr

Health Science Campus

MISB



# PARKING

As part of the overall master planning process, transportation planning and engineering firm, Gorove/Slade analyzed Wayne State's 12,172 parking spaces distributed across 29 lots and eight structures. They examined parking rates among students (commuter, and on-campus), faculty, and staff, and looked at permit sales versus daily passes across all lots and structures.

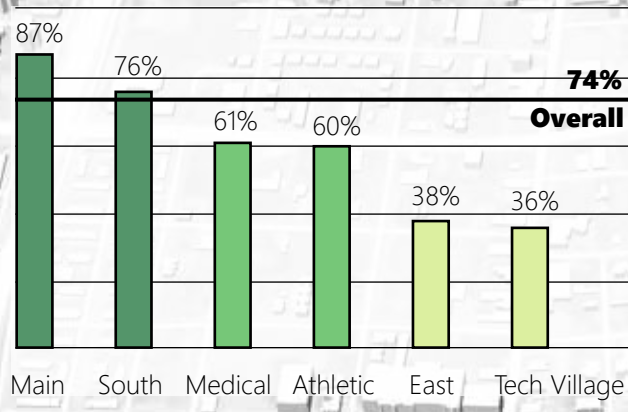
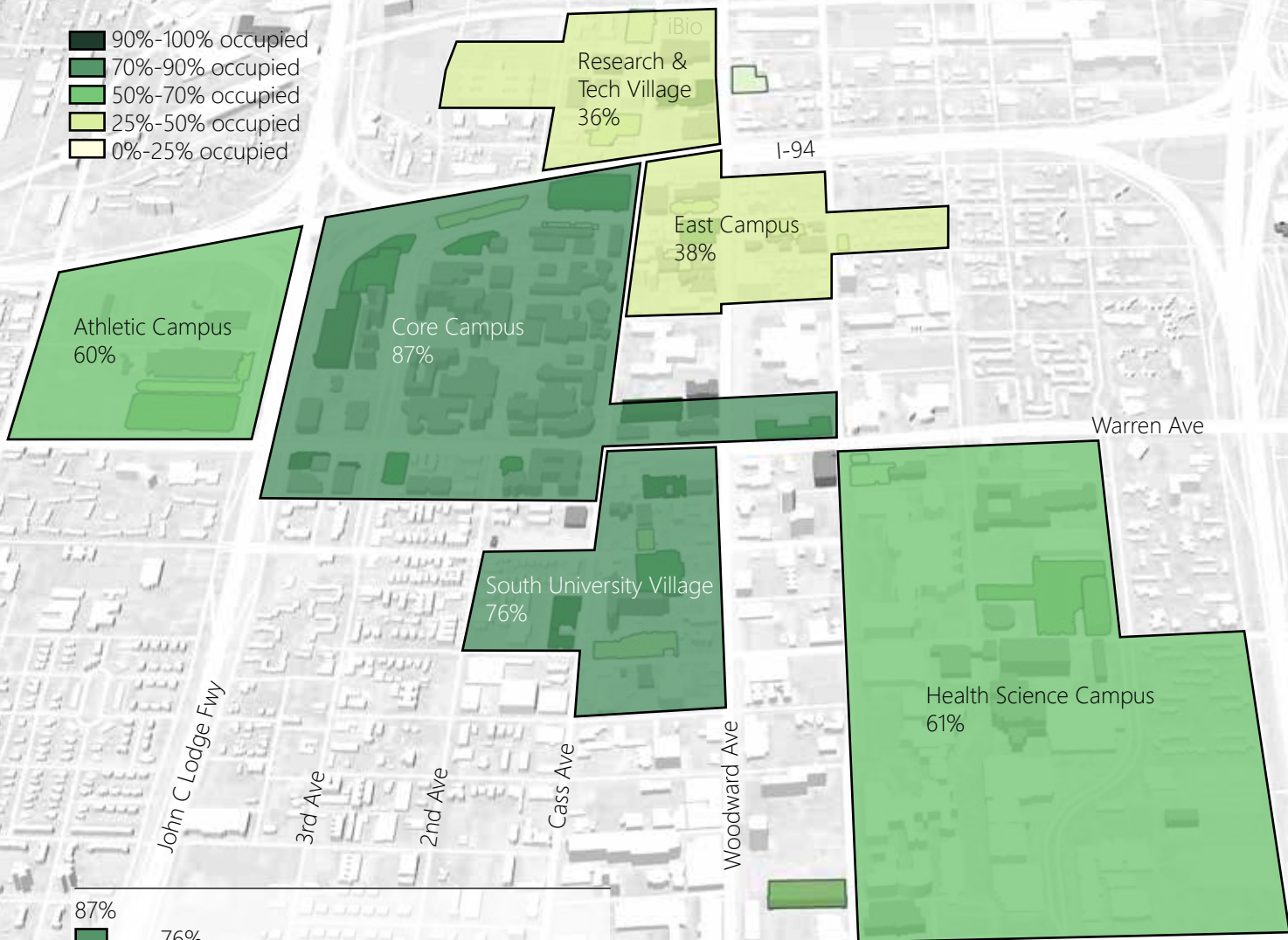
Among their key findings were:

- Demand peaks between 1 and 2pm, during which time 75% of all spaces are occupied. Notably all parking districts (as defined by the university) have 13%+ excess capacity at this time.
- The greatest demand for parking is in the Main Campus district
- Commuter student parking comprises 30% of peak parking demand (and 35% of Main Campus peak demand)
- Employees comprise 56% of peak parking demand (and 55% of Main Campus peak demand)
- Surprisingly, parking demand for on-campus students is .31 spaces/student, double the demand from off-campus students of .15 spaces/student
- There is sufficient existing capacity to accommodate slight decreases in supply or increases in demand
- The university could decrease demand through disincentives (no on-campus student parking on Main Campus, dynamic pricing models, etc.)
- If spaces are added in the future, they should be on the periphery of campus to limit congestion in and around the campus core

While metered and free on-street parking were not factored into Gorove/Slade's analysis, we did hear anecdotally that many students, staff, and faculty utilize this public parking on a regular basis rather than pay to park in a university lot or structure.

# PARKING OCCUPANCY

- 90%-100% occupied
- 70%-90% occupied
- 50%-70% occupied
- 25%-50% occupied
- 0%-25% occupied





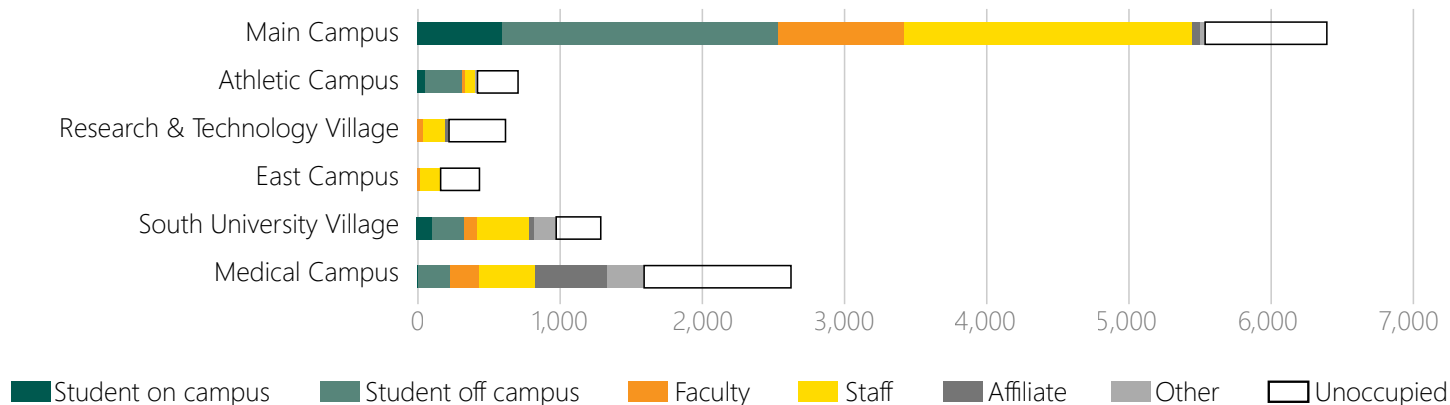
## CAMPUS-WIDE PEAK HOUR PARKING OCCUPANCY BY PERMIT TYPE

*Adjusted for population*



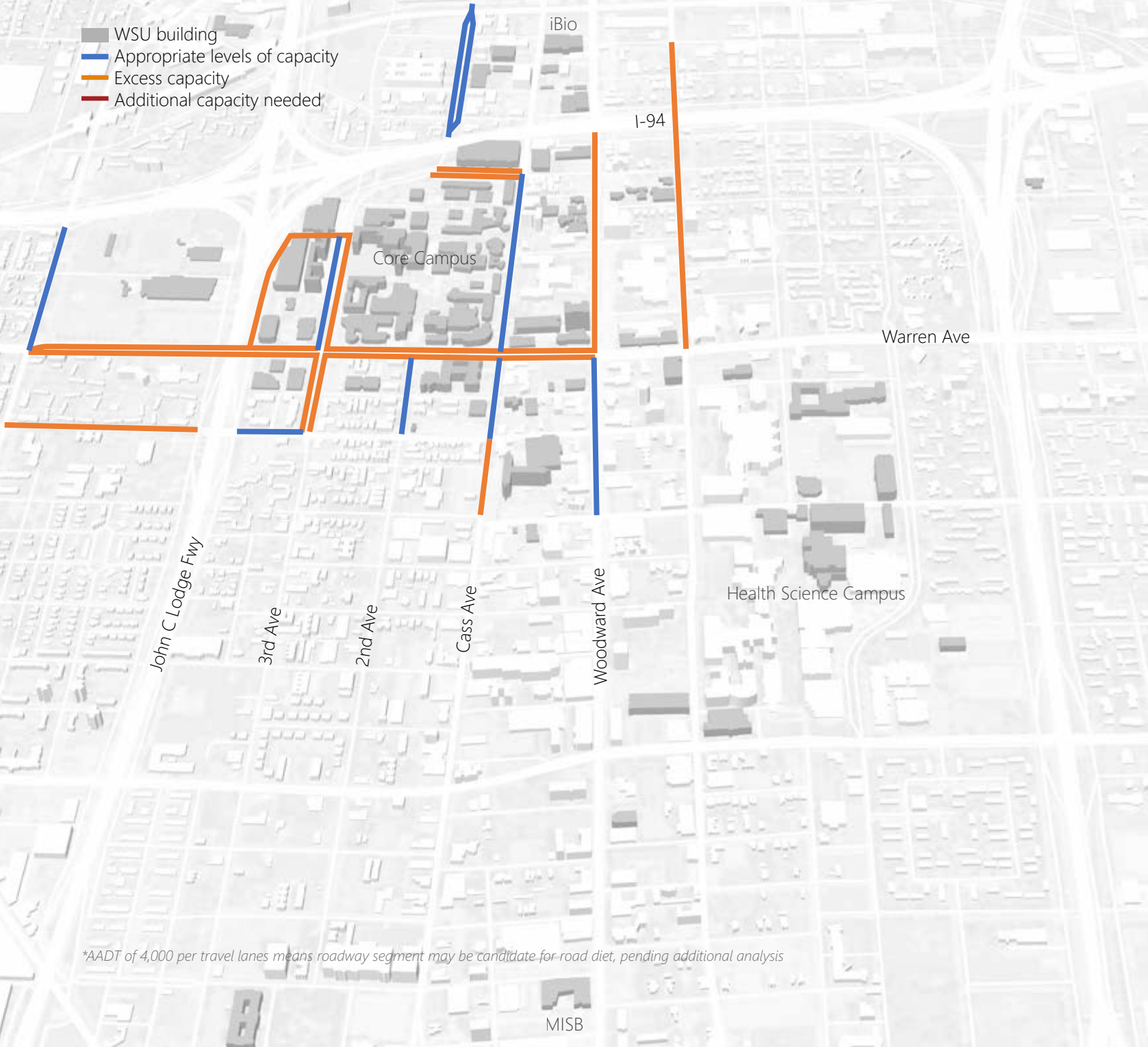
## PEAK HOUR PARKING OCCUPANCY BY PERMIT TYPE

*Adjusted for population*



# TRAFFIC VOLUME

- WSU building
- Appropriate levels of capacity
- Excess capacity
- Additional capacity needed



*\*AADT of 4,000 per travel lanes means roadway segment may be candidate for road diet, pending additional analysis*

# TRAFFIC

Gorove/Slade reviewed the overall existing traffic operations around WSU. To determine the AM and PM peak hours, turning movement counts were performed at 25 intersections within and near the WSU Campus. Further analysis was performed to compare the Average Annual Daily Traffic (AADT) on each roadway link to the number of lanes on each link, and Gorove/Slade developed a Synchro traffic model.

The key findings were:

- The morning and evening peak hours for the system were determined to be 7:45-8:45 AM and 4:45-5:45 PM respectively.
- All intersections in the morning and afternoon perform at LOS D or better, meaning no real concern was observed at any of the study area intersections for existing conditions.
- Many streets in the study area have more travel lanes than needed, meaning most roadways have excess capacity. The roadways with excess capacity (for existing volumes) on campus include northbound 3rd Avenue/Anthony Wayne Drive and Palmer Avenue.
- Overall traffic congestion and delay on and near campus is relatively light for an urban university setting.
- Roadways within and adjacent to campus can become more pedestrian friendly given excess capacity. This could include providing room for bike lanes, wider sidewalks, shorter crosswalks, and other features.
- Roadway changes are warranted because accident data reveals higher-than-normal incident rates, particularly on Warren Avenue and Anthony Wayne Drive. Street improvements should therefore be prioritized to help ensure student safety.

# PEDESTRIAN CRASH DENSITY (2015-2017)

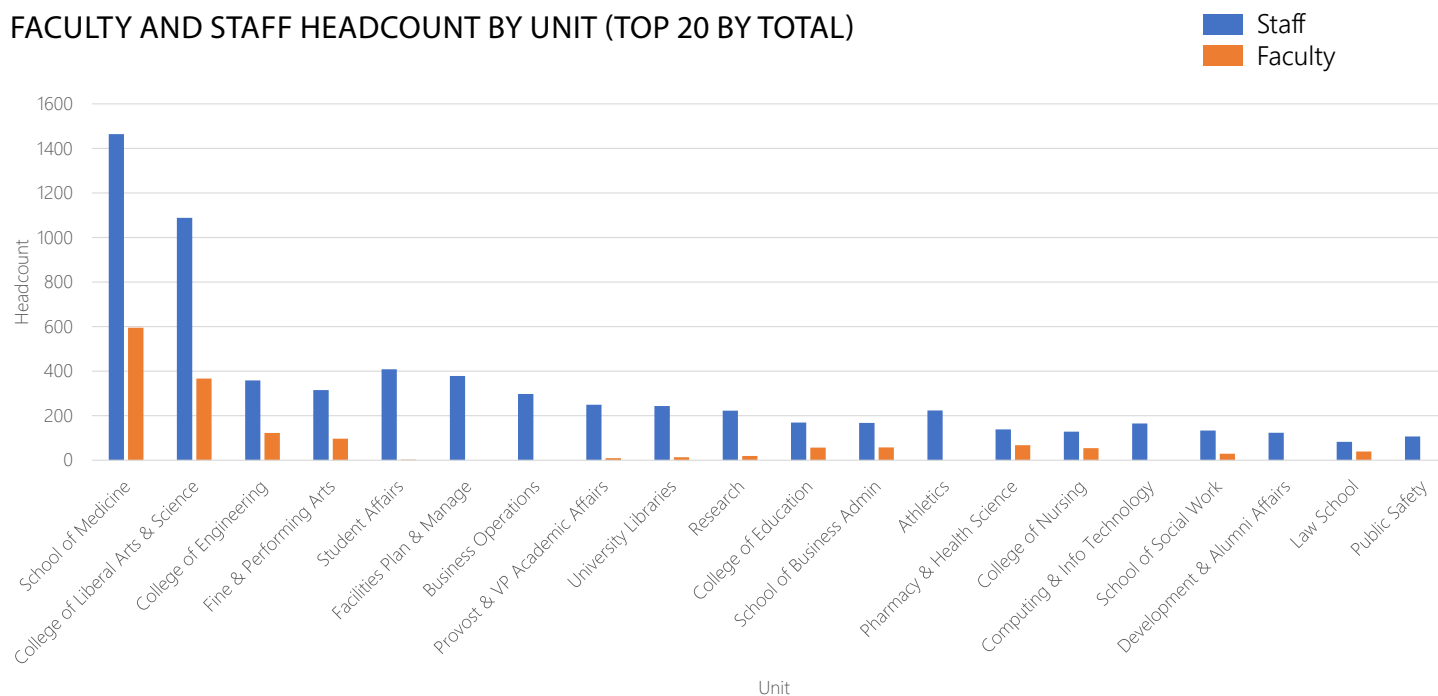


## CRASH RATE PER MILLION ENTERING VEHICLES

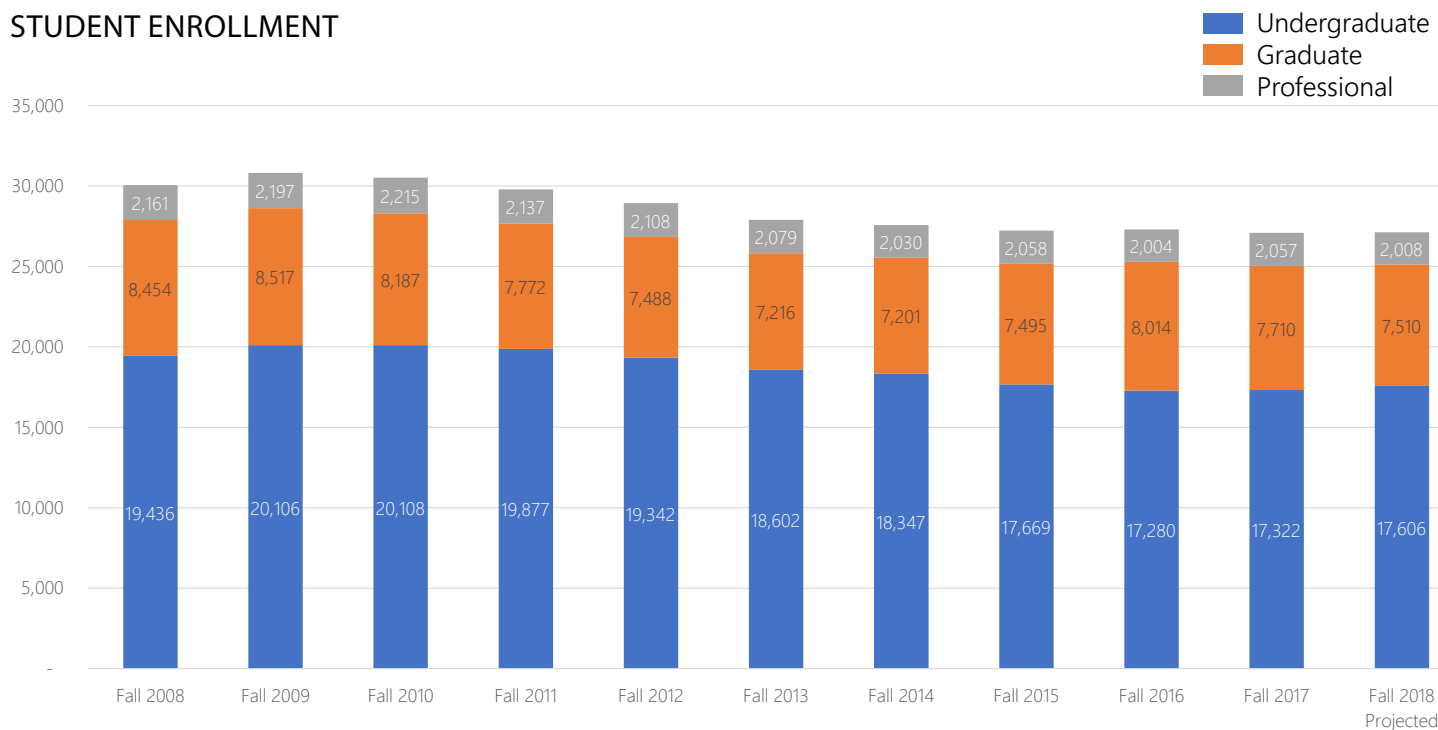
Intersection	Total Crashes	Ped Crashes	Bike Crashes	Rate per MEV*
2nd Avenue & Hancock Street	17	0	0	3.67
Warren Avenue & Anthony Wayne Drive	90	2	0	3.52
Anthony Wayne Drive & Kirby Street	28	2	0	3.46
2nd Avenue & Canfield Street	12	0	2	2.85
Cass Avenue & Canfield Street	21	0	1	2.80
Warren Avenue & John R Street	71	2	2	2.68
Warren Avenue & Cass Avenue	57	7	1	2.26
John R Street & Palmer Street	18	0	0	2.19
Trumbull Avenue & Warren Avenue	36	0	2	1.93
Forest Avenue & John C Lodge Service Drive	38	1	0	1.62
Warren Avenue & Woodward Avenue	65	1	1	1.61
Forest Avenue & John C Lodge Service Drive	25	0	1	1.60
2nd Avenue & Amsterdam Street	9	0	0	1.45
Cass Avenue & Palmer Street	16	0	0	1.43
Woodward Avenue & Canfield Street	27	0	2	1.06
Cass Avenue & Amsterdam Street	6	2	0	1.05
Warren Avenue & John C Lodge Service Drive	12	0	0	0.65
John R Street & EB I-94 Off Ramp	5	0	0	0.59
Warren Avenue & 2nd Avenue	11	1	0	0.58
Trumbull Avenue & Edsel Ford Service Drive	6	0	0	0.56
Woodward Avenue & Palmer Street	16	0	0	0.55
2nd Avenue & Amsterdam Street	1	0	0	0.53
2nd Avenue & Palmer Street	4	0	0	0.53
Warren Avenue & John C Lodge Service Drive	12	0	0	0.51
Trumbull Avenue & I-94 Entrance	4	0	0	0.51
John R Street & Edsel Ford Service Road	5	0	0	0.48

\* Million Entering Vehicles; Volumes estimated based on turning movement count data

## FACULTY AND STAFF HEADCOUNT BY UNIT (TOP 20 BY TOTAL)



## STUDENT ENROLLMENT



## PEOPLE

As of fall 2018, WSU's total staff/faculty population had a headcount total of 10,538 (with an FTE total of 6,397). This includes 1,633 full-time and 882 part-time faculty. Both numbers are down significantly from 2010, at which time there were 1,816 full-time and 1,142 part-time faculty.

WSU's student population, including full- and part-time students, which reached a peak of 35,000 in 1992, and exceeded 30,000 students as recently as 2010, is now approximately 27,500. The main driver of the drop has been undergraduate enrollment, as the number of graduate students has fluctuated from year to year, and the number of professional students has been relatively steady at 2,000 to 2,100. While the 2020 Campus Master Plan planned for enrollments of 36,000, the target established in the Distinctively Wayne State University strategic plan is 30,000.



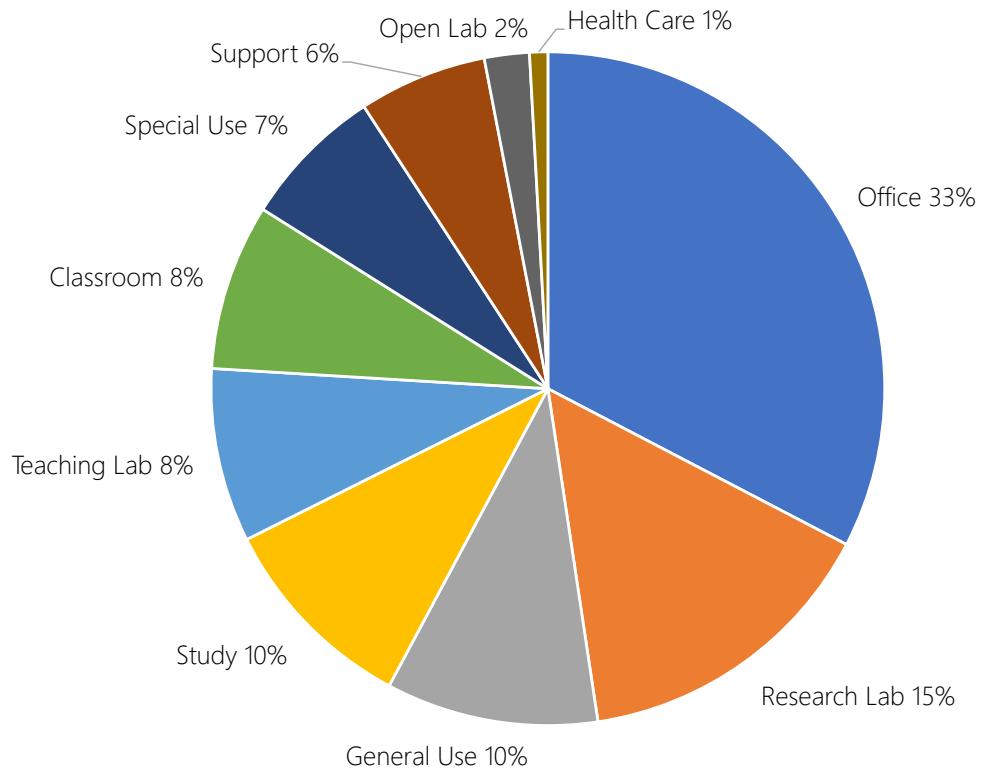


A teal-tinted photograph of a modern building facade. The building features large windows and a balcony with a metal railing. In the foreground, there is a paved area with a ramp and a large planter with a bush. A pool of water is visible at the bottom, reflecting the building and the sky. The text "SPACE ANALYSIS" is overlaid in white on the right side of the image.

# SPACE ANALYSIS

## ASSIGNABLE SQUARE FEET

By space type (4.1 million ASF)



*\*Excludes residential (FICM 900 – 1,017,000 ASF), parking (FICM 700 – 2,640,000 ASF), and unclassified space*

*Special use facilities consist of animal quarters, athletics, demonstration space, greenhouse, media production*

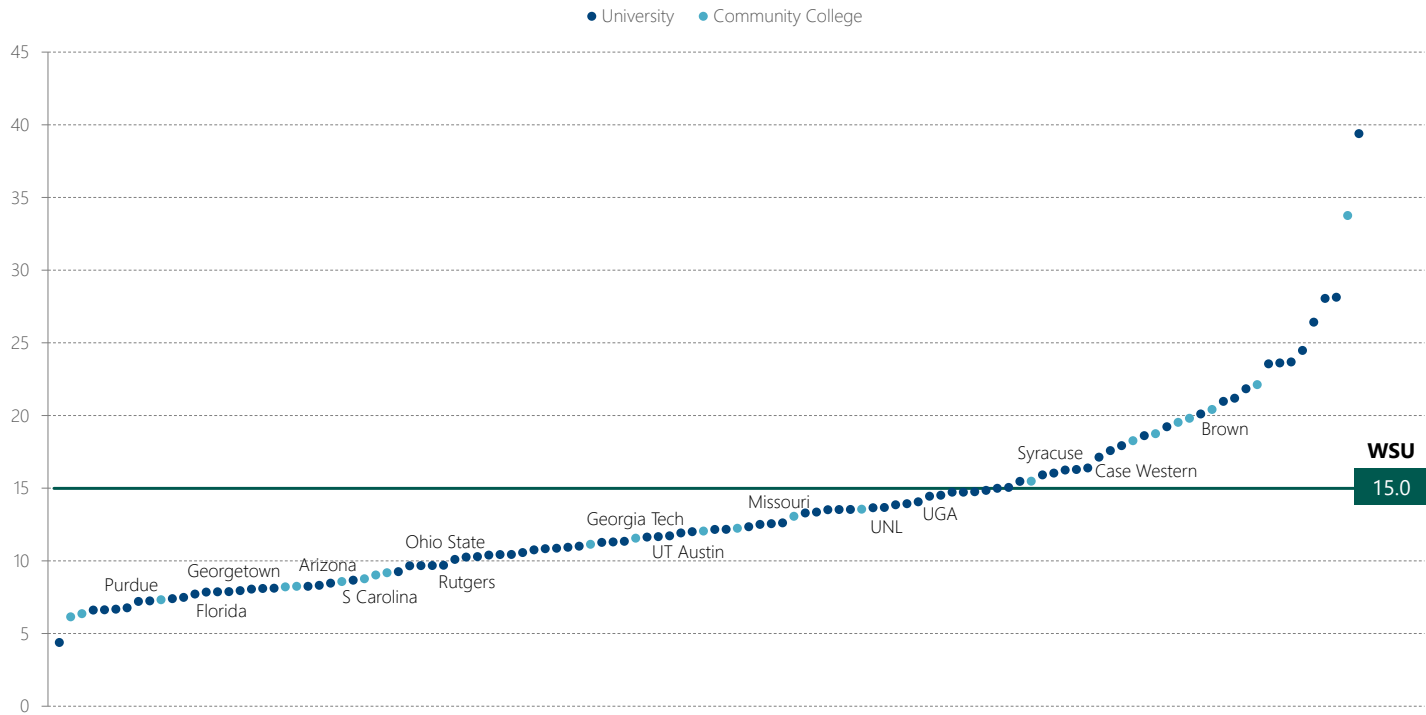
*General use facilities consist of assembly, day care, exhibition, food service, lounge, meeting room, merchandising, recreation*

## SPACE OVERVIEW/BREAKDOWN

We analyzed the use of existing university space to explore potential opportunities for improved space management, identify potential areas of need or excess, and inform future capital investment priorities. The university maintains over four million assignable square feet of non-residential space for its use, with the space distributed across several categories, including classrooms, laboratories, offices, study, special use, general use, support, and health care facilities. The university's distribution pattern, as shown in the chart to the left, is appropriate for a large public research university. Note the significant percentage of spaces dedicated to office uses, which underlines the importance of efficiency gains in this space category.

# BENCHMARKING

Classroom ASF/student FTE



# CLASSROOM UTILIZATION

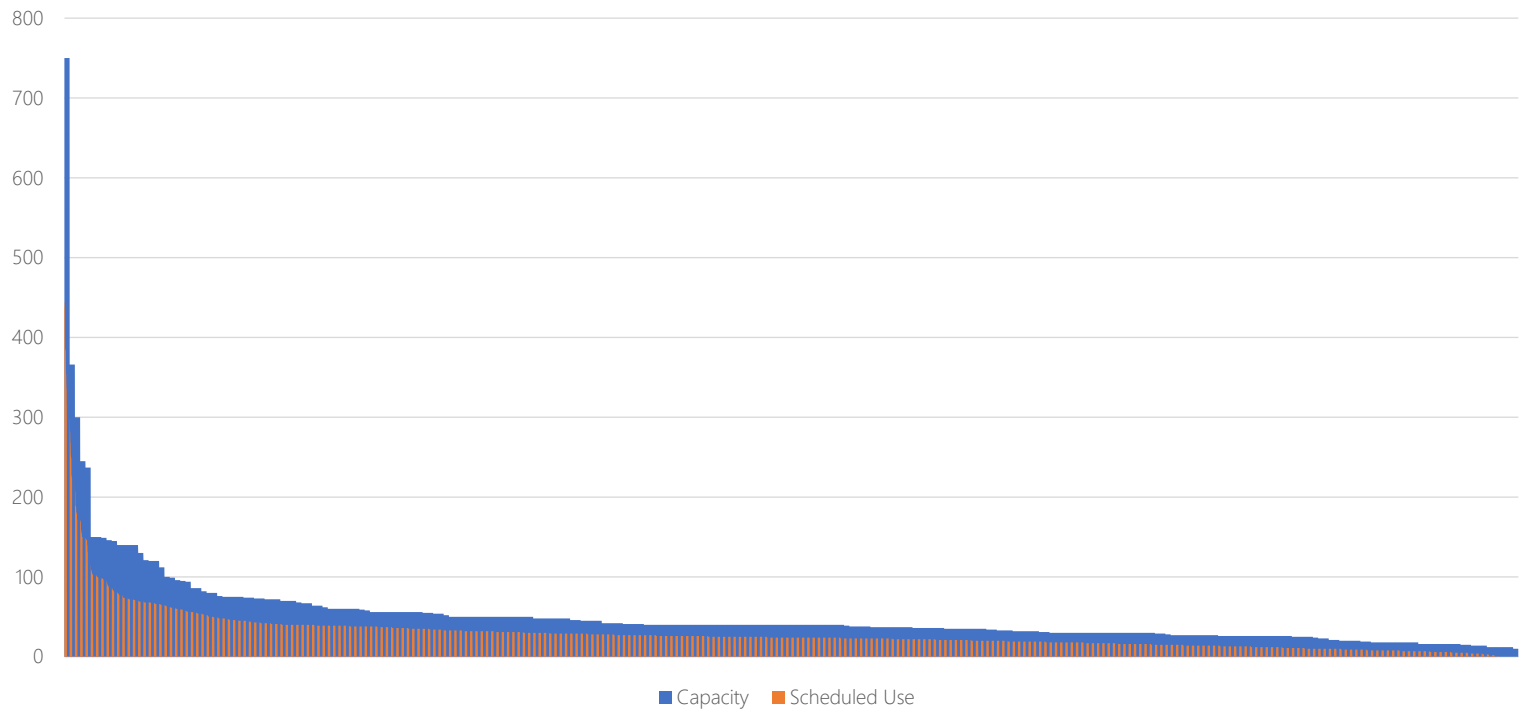
## CLASSROOM BENCHMARKING

We generally find benchmarking to be of limited utility, because no two universities are exactly alike, and hence, cannot be compared apples-to-apples. That said, high-level benchmarking can help identify potential areas of future study or highlight particularly unlikely space distributions. The chart to the left shows the assignable square feet of classroom space per student full time equivalent (on the y-axis) of various universities and community colleges, with several relevant institutions labeled. The chart shows that WSU lies in the upper half of the distribution. It is important to note that if there were a formulaic, "one size fits all" approach to determining an "ideal" amount of classroom space at given enrollment levels, we would likely see clustering around a specific y-value. The data instead follows a nearly linear distribution, which highlights the fact that there is no right answer and what works at one institution, may not work at another. Space management is therefore key.

## CLASSROOM METRIC

Metric score: 0.281

Fall 2018



*\*Includes rooms coded FICM 110 and General Lectures 100. Excludes teaching lab activity, School of Medicine, and College of Pharmacy and Health Sciences.*

## CLASSROOM METRIC

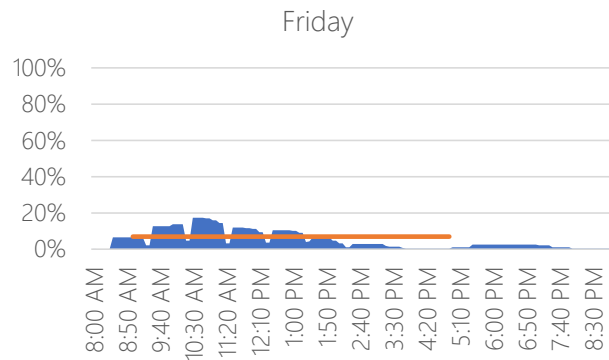
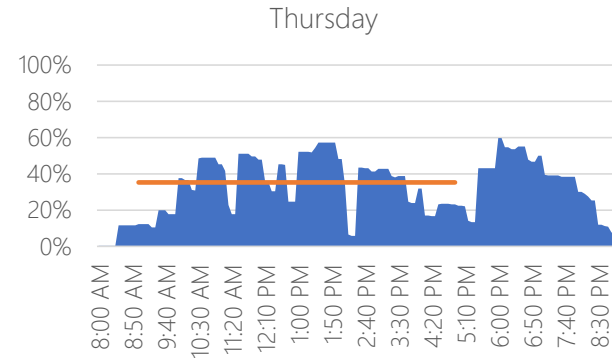
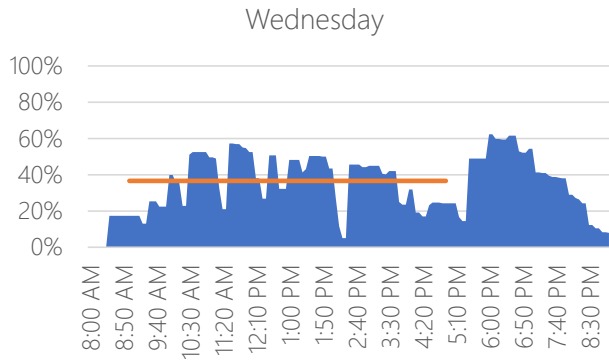
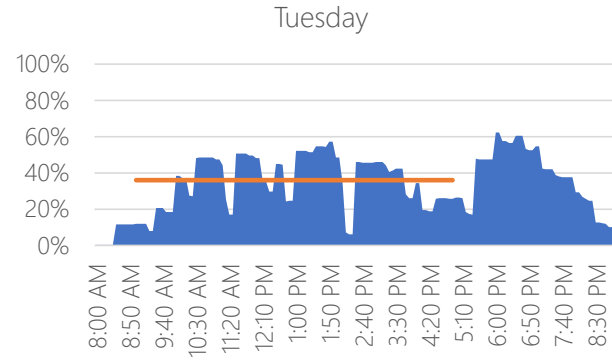
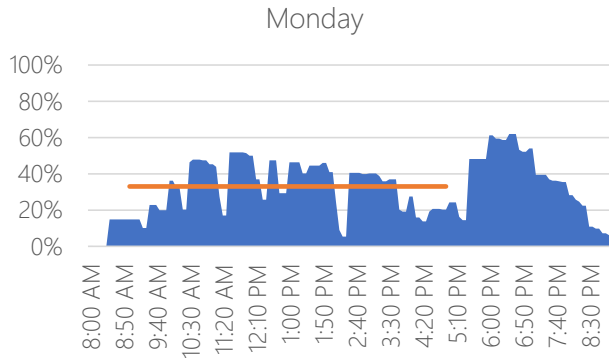
To best understand classroom utilization, we use a technique developed for the University System of Georgia (and hence adopted in several other states). The goal is to represent the two most important aspects of classroom utilization—how often in a week a room is used and a sense of the overall fit between the range of classroom sizes and section enrollments—in a single diagram.

In the picture to the left, the blue area shows classroom supply—each classroom is represented by a blue rectangle, the height of which is determined by the number of seats in the room and the width by the number of weekly hours a room can be scheduled for instruction (for these purposes we set a target of 40 hours of scheduled instruction; this represents the target that more forward-looking states are moving toward on a national basis,). Note that we typically use the designation “WRH” or weekly room hours to mean hours of use for scheduled instruction during a one-week period.

The orange area represents all scheduled classroom instruction for Fall 2018. The number of students enrolled determines the orange bar’s height while the number of weekly hours a course is scheduled determines its width. Courses are not necessarily placed in their actual classrooms, but are distributed evenly across the x-axis, arranged from largest to smallest enrollment. The graph gives a sense of how many empty seats are in a room while a class is in session (any blue area that lies above an orange block) and how often rooms are vacant and available for use (any blue area that lies between orange blocks). This diagram can be concisely summarized using the classroom metric score, which is the proportion of the orange area (demand) to the blue area (supply). For Fall 2018, WSU’s classroom metric was 0.281. For context, those systems which have adopted this methodology typically recommend attainment of a score in the range of 0.500 to 0.700. This analysis suggests that the university has a surplus of classroom space and should better promote classroom use throughout the day and throughout the week, or repurpose some classroom space for other uses.

## CLASSROOM UTILIZATION

WSU's average classroom utilization is less than 40% on Monday through Thursday. Even at peak times, classroom utilization is approx. 60%, indicating an oversupply of classroom space.



\*Includes rooms coded FICM 110 and General Lectures 100. Count excludes teaching lab activity, School of Medicine, and College of Pharmacy and Health Sciences.



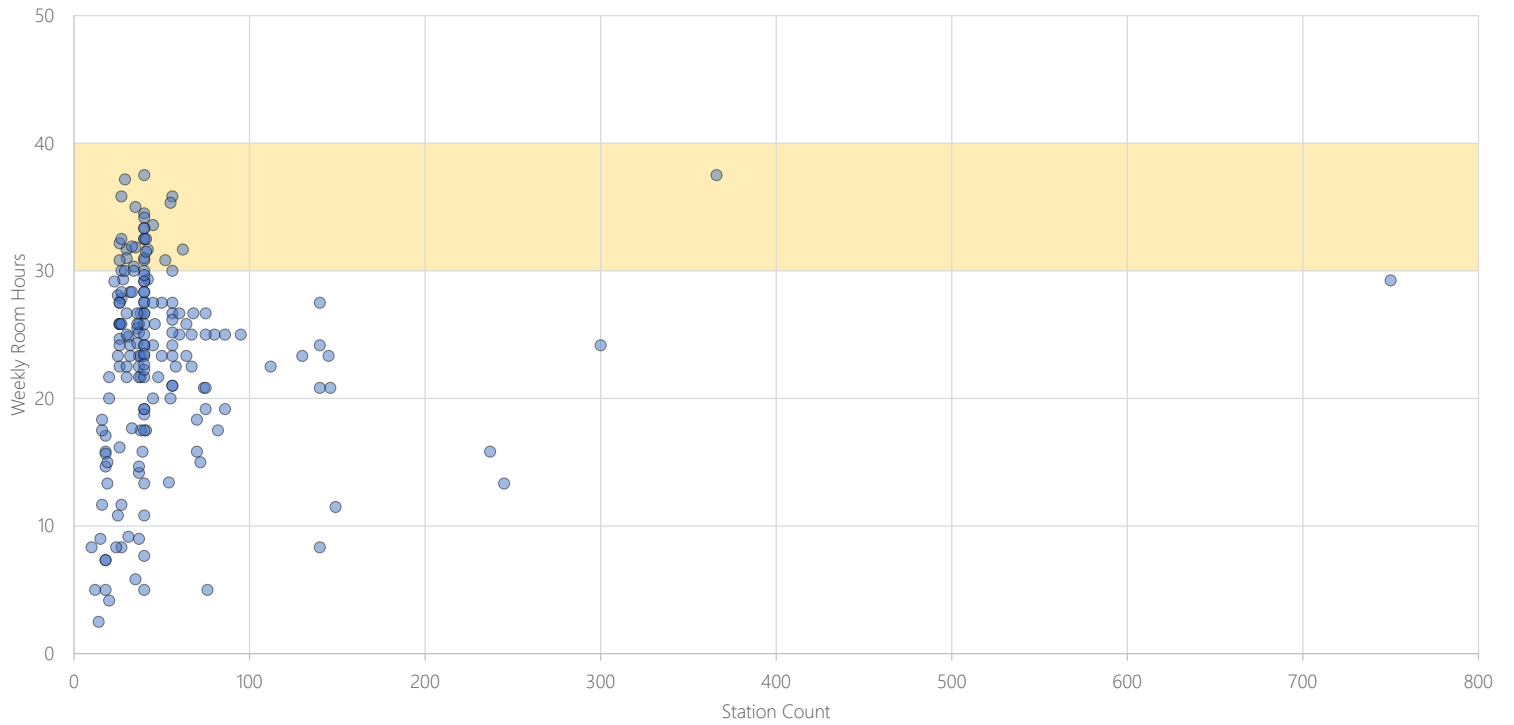
## DAILY HISTOGRAMS

In these charts, the blue area represents the percentage of classrooms in the inventory that have instruction taking place in them, with this use shown throughout the day. The orange line is the average percentage of classrooms being utilized on that day from 9 am to 5 pm. At peak times, utilization barely reaches 60% of the classroom space portfolio. The analysis shows there is significant opportunity for increased utilization throughout the day and on Fridays. For context, many urban research universities would typically have 90% to 100% of their classrooms in use at peak times (note that WSU's peak actually occurs in the evening). As in the classroom metric, the School of Medicine, and College of Pharmacy and Health Sciences are excluded from this analysis.

# STATION COUNT TO WEEKLY ROOM HOUR SCATTERPLOT

General-purpose classroom utilization (registrar-controlled)

Fall 2018



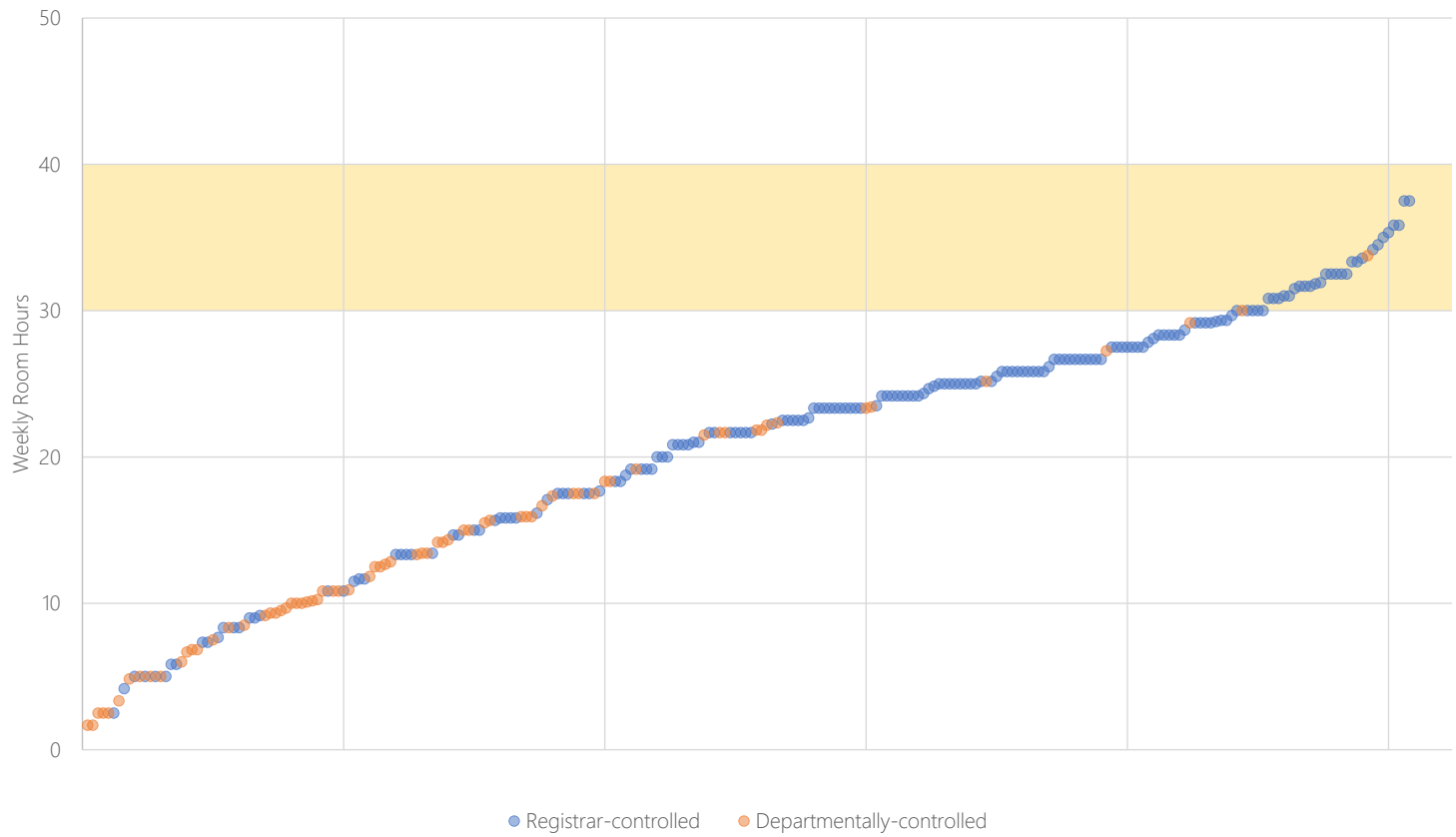
## STATION COUNT TO WRH SCATTERPLOT

In the chart to the left, each dot represents a classroom. The y-axis shows how many hours in the week rooms are used for scheduled instruction (WRH). The x-axis shows the number of seats in the classroom (i.e. larger rooms are toward the right-hand side of the diagram). The yellow band represents typical targets for classroom use. Historically, this standard has been about 30 WRH, but as the national emphasis has shifted toward improved space management, many states and institutions are now targeting 40 hours per week. The vast majority of WSU's classrooms lie below this target range.

# REGISTRAR- AND DEPARTMENTALLY-CONTROLLED CLASSROOM SCATTER

Classroom use by controlling unit

Fall 2018



## REGISTRAR- AND DEPARTMENTALLY-CONTROLLED CLASSROOM SCATTERPLOT

Each dot on the scatter plot to the left represents a classroom with the number of weekly room hours they are used for scheduled instruction on the y-axis arranged from least to greatest along the x-axis. Each classroom is colored based on whether it is controlled and scheduled centrally by the registrar or by an individual department. The pattern is clear. Departmentally-controlled classrooms see much lighter utilization than those controlled by the registrar.

## ACTIVE LEARNING MODELS IN STATE HALL

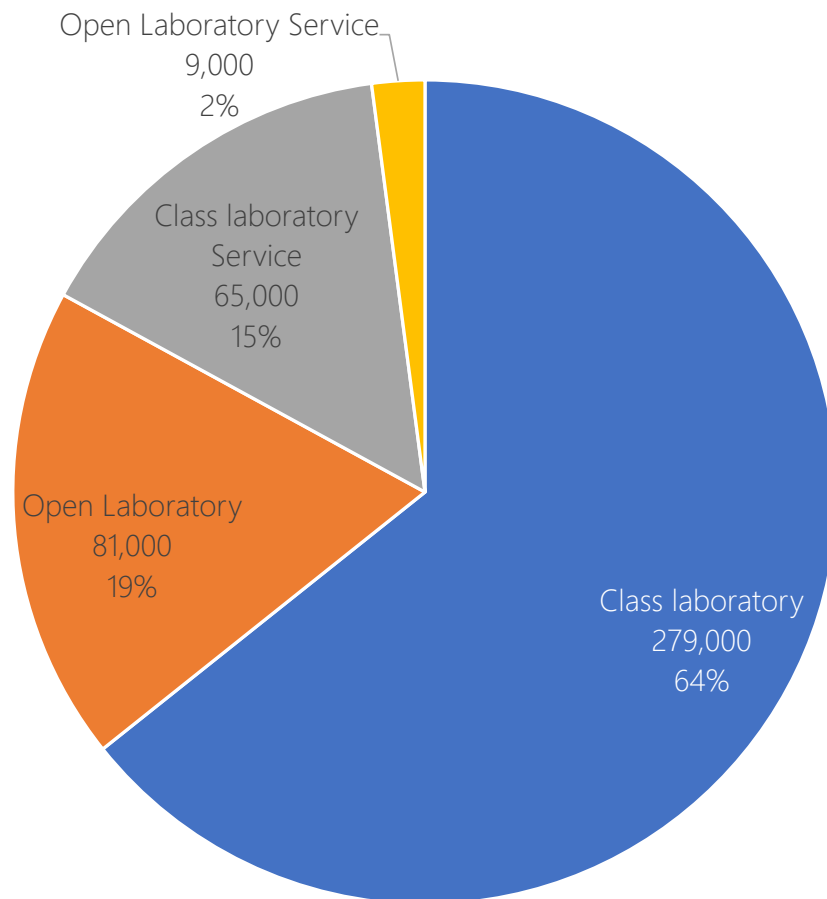


## ACTIVE LEARNING

Active and team-based learning pedagogies are increasingly being adopted by universities nationwide, and Wayne State is no different. The university's first big investment in active learning models can be seen on the fourth floor of State Hall, where classrooms were recently renovated and outfitted with new technology and flexible furniture to facilitate the collaborative nature of these modalities. An example is pictured to the left. The university will likely increase its offerings of active, project-based, experiential, and team-based learning courses. Accomplishing this will require the university to identify existing, conventional classrooms to find candidates for conversion. It will be important to take into account that classrooms outfitted to accommodate active learning models typically need more square footage per student (usually at least 30 ASF per station for active learning) so as to have a room that is less cramped and easier to move around in in order to encourage, and not impede, collaboration.

## TEACHING LAB ASF

By type (434,000 ASF of teaching lab space)





# TEACHING LAB UTILIZATION

## TEACHING LAB BY TYPE CHART

Teaching labs make up approximately 10% of all space at WSU and there are two different types – class labs and open labs. The primary distinction is that class labs have scheduled instruction taking place in them while open labs do not. As shown by the chart on the left, of the 434,000 ASF of teaching lab space, the vast majority (nearly 80%) is made up of class lab and class lab service space. The remaining 20% is made up open lab and open lab service space.

## SCIENCE & ENGINEERING TEACHING LAB WRH

59 labs total – Fall 2018

### College of Education

Kinesiology	6	5
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### College of Engineering

Biomedical Engineering	9		
Chemical Engineering & Materials Science	7		
Computer Science	13		
Electrical & Computer Engineering	23	16	6
Engineering Design	18		
Engineering Technology	10	3	3
Industrial & Systems Engineering	3		
Mechanical Engineering	3		

### College of Nursing

Nursing	9	9
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### Liberal Arts & Sciences

Biological Sciences	43	37	37	31	26	23	23	22	20	11	9
Chemistry	31	30	28	28	26	23	23	23	17	9	
Geology	25										
Nutrition and Food Science	17	9									
Physics & Astronomy	28	11	9	9	7	7	6	4			

### Pharmacy and Health Sciences

Clinical Laboratory Science	11	7	6
Fundamental & Applied Sciences	2		
Mortuary Science	6	2	
Occupational Therapy	4	4	
Pharmacy Practice	20		
Physician Assistant Studies	2		

### School of Medicine

Internal Medicine	3
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WRH



20

## NON-SCIENCE TEACHING LAB WRH

71 labs total – Fall 2018

### College of Education

Administrative & Organizational Studies	14	13				
Teacher Education	13	13	5	3	3	3
Theoretical/Behavioral Foundations	9					

### Fine, Performing & Comm. Arts

Art	40	35	33	25	25	21	21	20	18	15	15	15	15	15	15	11	10	10	8	8
Communication	15	13	8	8	8															
Music	17	14	13	13	13	13	12	12	10	8	7	6	4	3						
Theatre & Dance	35	34	21	12	11	10	9	7	6	3	3									

### Law School

Law	18	6
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### Liberal Arts & Sciences

English	23	20	20
Psychology	12		

### School of Social Work

Social Work	29
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WRH



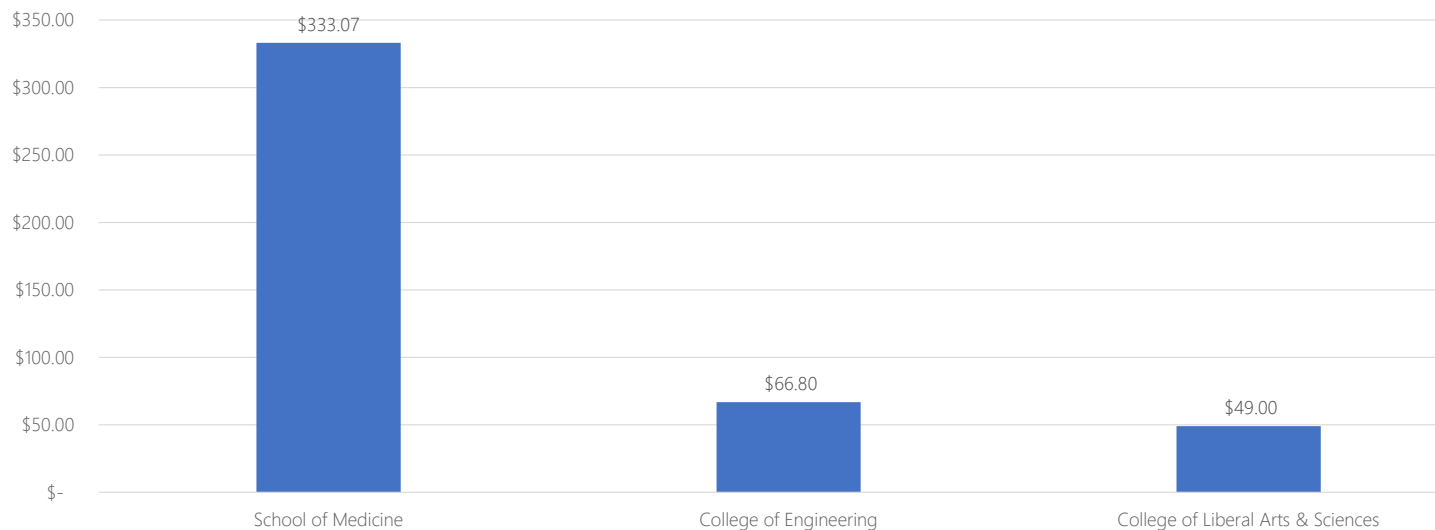
30

## CLASS LAB UTILIZATION CHART

To understand the utilization of the university's class laboratories, we explored the weekly use of each class lab on a discipline basis. The picture on the left records our findings. Each rectangle represents an individual room, the number in the rectangle is the number of hours in the week the room was used for scheduled instruction, and the rectangle is colored using a heatmap (red indicates high utilization, green indicates lower utilization) based on identified targets for weekly room use. Science-intensive labs typically have a target of 20 hours of weekly use for scheduled instruction (this is lower than the target utilization of classrooms to allow for project work and setup time); other labs typically have a target of around 30 weekly room hours of scheduled instruction. Usually, the most pressure is seen in the intensive introductory science labs, primarily biology, chemistry, and to an extent, physics/astronomy. At WSU, this is generally true.

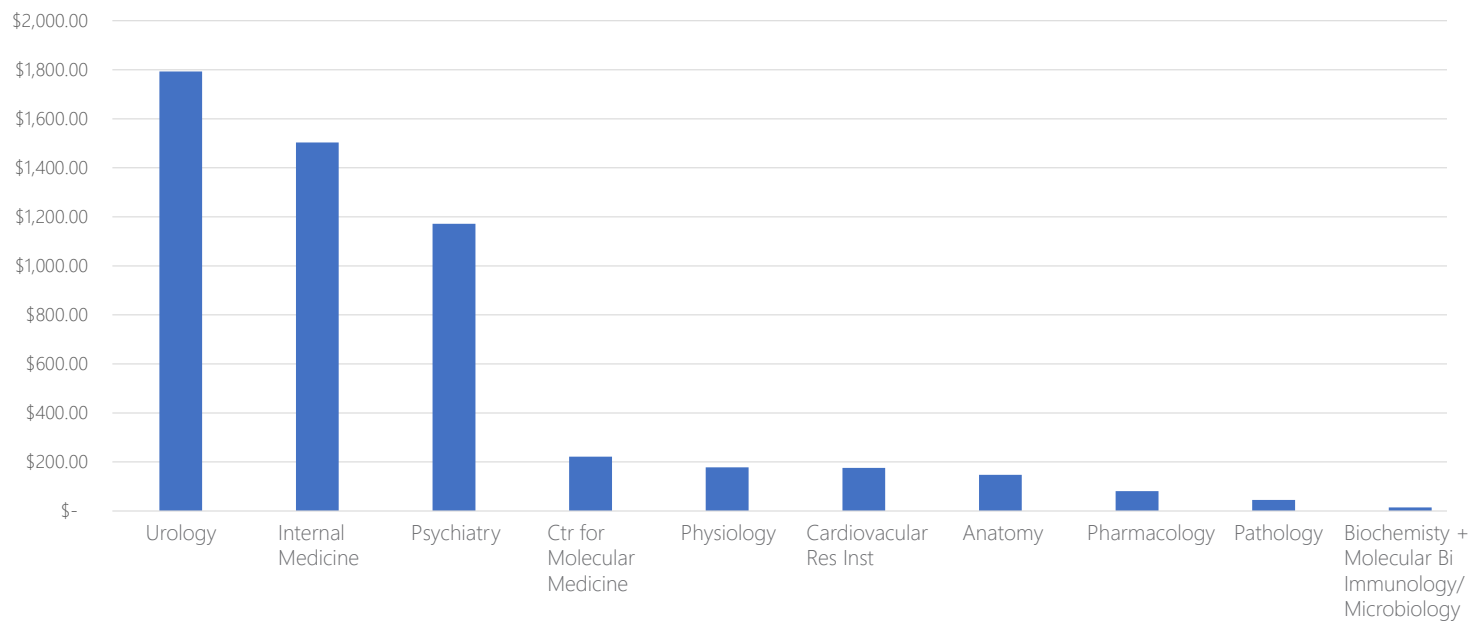
## RESEARCH & DEVELOPMENT

Federal funding/research ASF



## SCOTT HALL

Research expenditure/research ASF



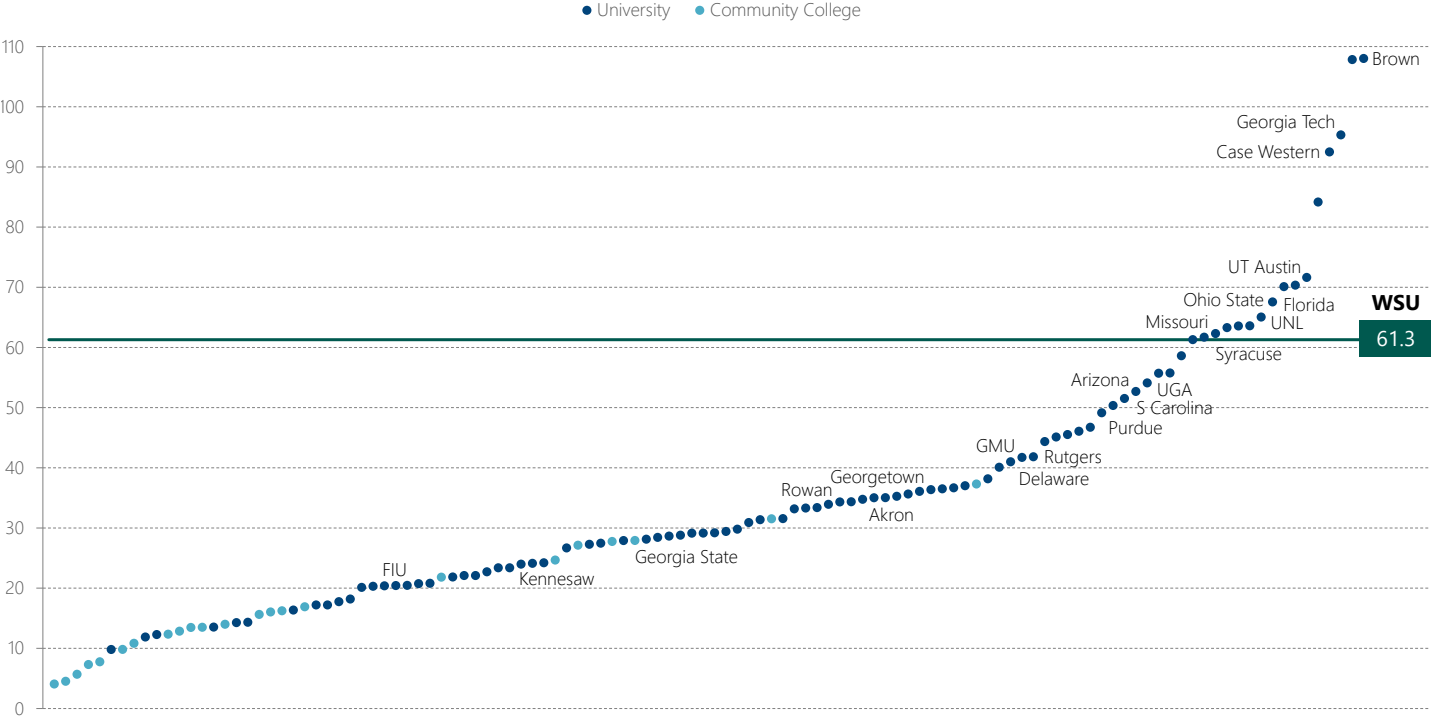
## RESEARCH LABS

### FEDERAL FUNDING/RESEARCH ASF AND SCOTT HALL BREAKDOWN

To better understand research space utilization on campus, we undertook an analysis of sponsored research expenditures in science and engineering disciplines on a per assignable square foot basis. As indicated in the chart to the left, the School of Medicine has the highest sponsored expenditure per research ASF with \$333.07. Expenditures in the College of Engineering are low compared to other institutions. Because of the need to make an investment decision for Scott Hall, we examined sponsored research expenditures per assignable square foot of research space for the departments housed in Scott Hall (the primary location of the School of Medicine). While overall research expenditures for the School of Medicine are very respectable, Scott Hall is generally underperforming in this regard, with Urology, Internal Medicine, and Psychiatry having the highest research expenditures per square foot. Note that some programs will require specialized lab space that may not be frequently used, but are needed if the program is to exist. This may account for some of the long "tails" seen in the diagram (i.e. the underutilized or green rooms).

# BENCHMARKING

Office ASF/student FTE



## OFFICE UTILIZATION

## OFFICE BENCHMARKING

The chart to the left shows the assignable square feet of office space per student full time equivalent (on the y-axis) of various universities and community colleges. The chart shows that WSU lies on the higher end of the distribution.

## OFFICE STATISTICS

Office Count	5,464
Employee Headcount	9,875
Employee FTE	6,266
Offices per FTE	0.87
Square Footage (FICM 310)	946,724
Average ASF / office	173
Average ASF / employee FTE	151



## OFFICE STATISTICS

Data on office station counts and occupancies are not kept in the university's central Archibus database. We were therefore initially only able to run very high-level diagnostics on university office space. This included a very basic analysis on how many rooms in the space inventory are coded as offices, how many assignable square feet they represent, and how this relates to the employee FTE figure (seen in the table to the left). General conclusions at this level are challenging, but as a heuristic, when a total station count is available, we typically look for a ratio of 0.5 to 0.75 between stations and all employee FTE. Because the station count is always higher than the actual office count (the only information initially available at Wayne), our initial explorations suggested Wayne was likely not efficient in its use of office space. Because office space represents such a significant percentage of the university's overall portfolio, we therefore followed up with a detailed questionnaire which we distributed on a unit-basis.

## OFFICE STATISTICS BY SCHOOL/COLLEGE/DIVISION

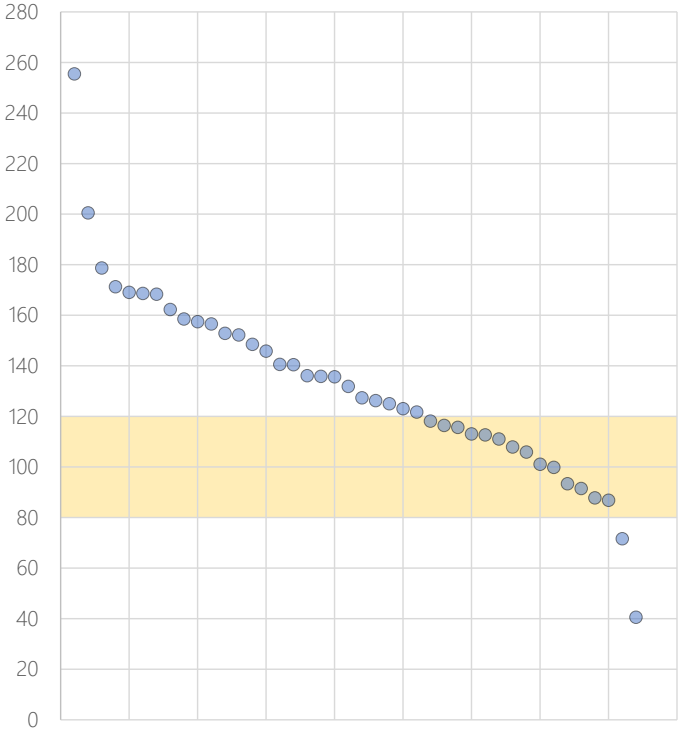
S/C/D	Office Count	Total Stations	Occupants	% Stations Occupied	Single-Occupancy Office Avg Station Size	Multi-Occupancy Office Avg Station Size
School of Medicine	1282		541			
Kinesiology Health & Spor	26	68	68	100%	71.6	49.3
Provost+Sr VP for Acad Af	315	339	309	91%	135.7	173.5
College of Engineering	301	444	426	96%	131.9	78.7
College of Liberal Arts &	950	1529	1470	96%	157.5	48.9
College of Education	150	248	237	96%	126.2	144.3
Assoc VP Stud Svc & Unde	203	294	242	82%	125.0	75.1
Office VP for Research	190	223	207	93%	136.1	86.9
College of Nursing	109	129	123	95%	140.6	126.9
Libraries+School of Lib+I	144	177	154	87%	91.5	158.0
Law School	115	136	129	95%	158.5	169.5
School of Business Admini	269	157	129	82%	107.9	45.5
College Pharmacy	101	148	117	79%	127.3	89.8
Facilities Planning+Manag	66	92	111	121%	152.8	129.6
VP Development & Alumni A	88	143	144.5	101%	171.3	84.6
College Fine, Performing+	231	309	243	79%	162.3	60.0
Health Sciences	65	98	95	97%	123.1	61.2
Educational Outreach	63	61	56	92%	140.4	136.1
Fiscal Operations	58	12	11	92%	152.2	64.4
Athletics	56	81	79	98%	112.7	72.8
Vice President for C+IT	55	188	160	85%	135.8	87.2
VP Mrktng/Cmmctns/Chief	53	84	84	100%	178.7	11.8
Human Resources	43	43	37	86%	105.9	0.0
Procurement & Strategic S	32	33	27	82%	118.1	0.0
Research Support	29	32	27	84%	121.7	110.7
School of Social Work	73	115	85	74%	99.8	27.6
WDET-FM-Radio	25	54	31	57%	115.7	47.0
Office of the President	23	25	17	68%	168.6	105.5
Public Safety	20	31	28	90%	156.6	151.8
VP Finance & Business Ope	19	18	14	78%	87.8	56.3
Investment, Debt & Risk M	18	15	15	100%	116.4	39.5
Internal Audit	14	15	12	80%	113.1	35.4
Irvin D. Reid Honors Coll	14	26	22	85%	101.1	94.8
VP+General Counsel	11	16	12	75%	148.5	48.0
Univ Special Events & Ser	9	11	10	91%	86.8	0.0
Office of the VP Comm Aff	6	1	1	100%	255.5	0.0
Equal Opportunity Policy	4	5	4	80%	200.5	74.0
VP Government Affairs Adm	4	8	8	100%	40.6	108.3
Labor Relations	3	3	3	100%	145.8	0.0
Business Services (formerly Business Operations)	17	25	24	96%	93.4	0.0
University Press	17	22	15	68%	169.0	121.0
Developmental Disabilities Institute	15	18	17	94%	111.0	283.1
Parking	14	16	5	31%	168.3	103.2

## OFFICE BY SCHOOL/COLLEGE/DIVISION

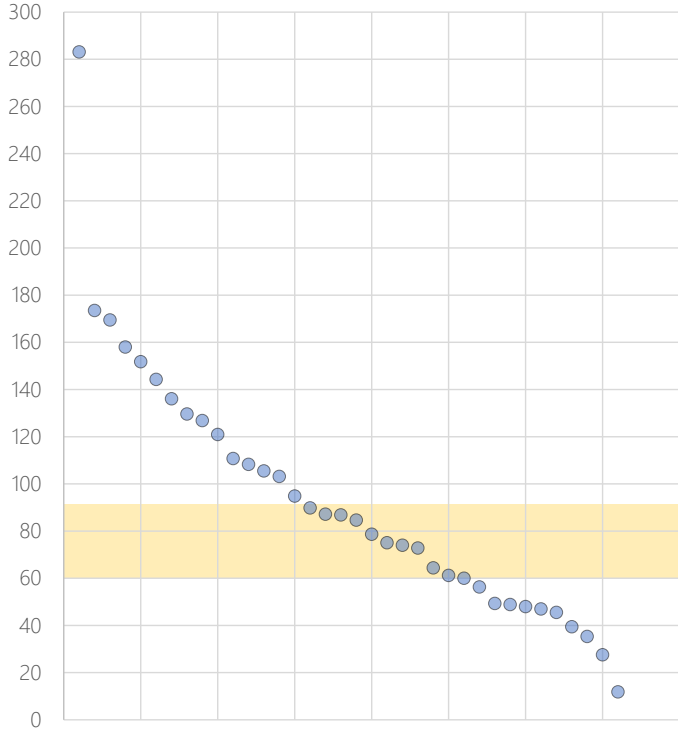
As was previously mentioned, office station count and occupancy information are not centrally tracked, making it impossible, given existing datasets, to give an accurate representation of office space utilization. In order to get a better picture, we sent surveys to each school, college, and division across the university with a listing of all spaces coded as offices that the space inventory showed as belonging to the unit. We asked the units to fill in the capacity, occupancy, and names of the occupants for each office. We also included a notes field to allow for description of special cases, as well as a section to list office spaces that did not appear in the centralized data for the unit. The exercise provided us with valuable insights. There were several spaces that respondents indicated were not offices or were not being used as offices, did not exist, or were not “owned” by them. This demonstrated the importance of having a centralized system to track office capacities and occupancies, as well as frequent audits to make sure space is being used for its intended purpose. The results, by school, college, or division are shown in the table to the left.

**OFFICE ASF/STATION**

5,009 occupants in 5,492 stations (8.8% vacancy)  
 Excludes Medicine (9,875 total employee headcount, 6,266 FTE)



ASF per Station for Single-Occupant Offices by Unit



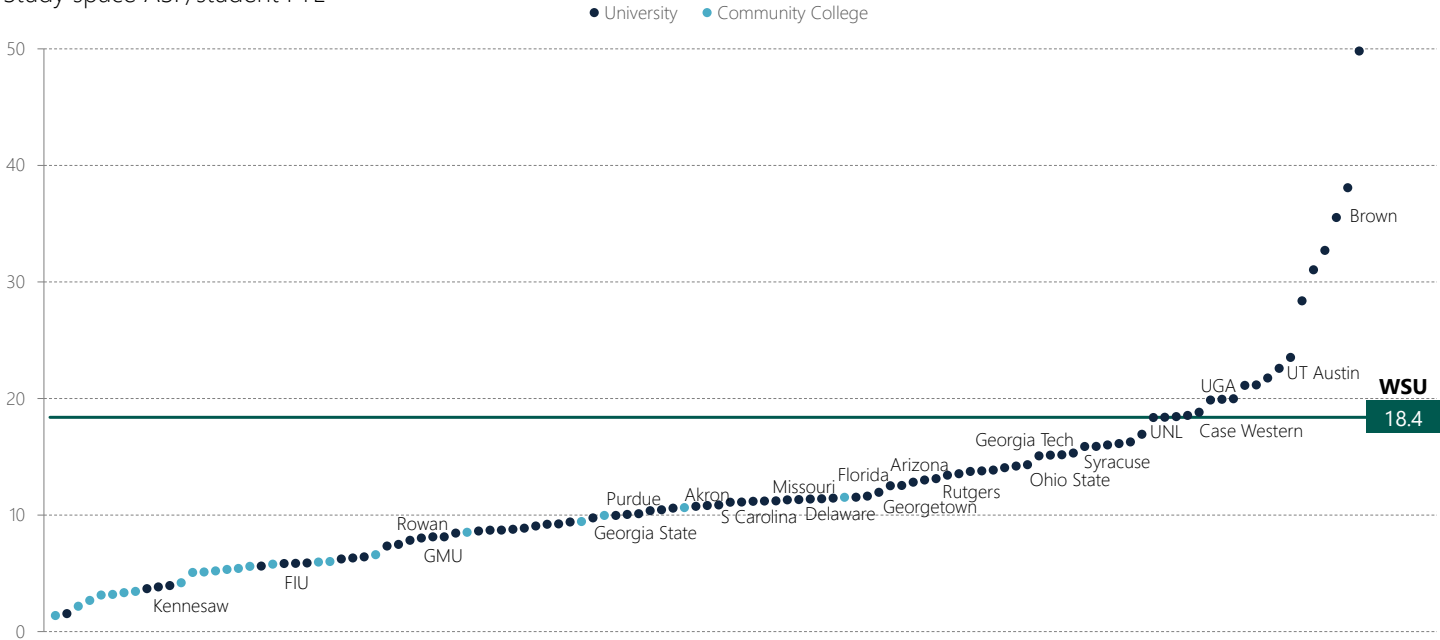
ASF per Station for Shared Offices by Unit

## OFFICE ASF PER STATION SCATTERPLOT

The average size for private offices varies widely across colleges and administrative units, from approximately 85 square feet per person to almost 180 square feet per person, with 20 of the 36 units surveyed having an average above 120 square feet (typical targets are between 100 and 120 square feet). The available data for shared work spaces is even more stark. Unit averages vary from ~25 square feet per person to ~175 square feet, with 12 of 31 units surveyed averaging above 85 square feet per person (targets go from 60 to 85 square feet). Despite the fact that office space is the single largest category of university space, the university does not have a central database for tracking station counts or occupancies. Improved management of this space type represents a significant value proposition.

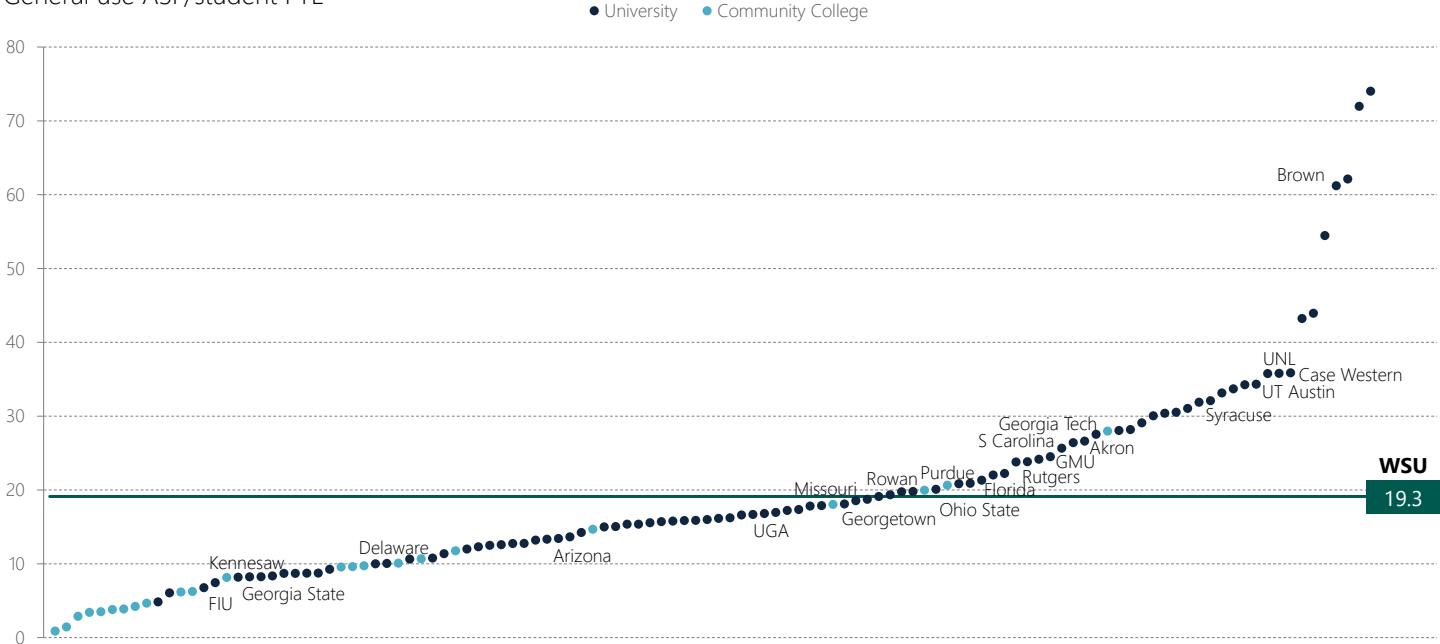
# BENCHMARKING

Study space ASF/student FTE



# BENCHMARKING

General use ASF/student FTE

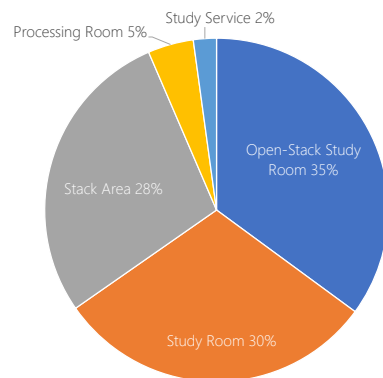


# STUDY AND GENERAL USE SPACE

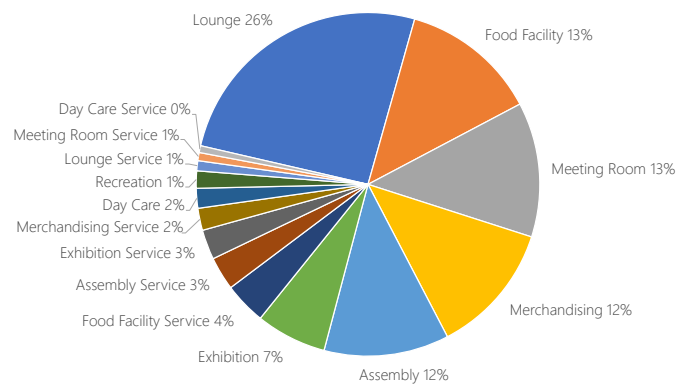
## STUDENT LIFE/GENERAL USE SPACE BREAKDOWN AND BENCHMARKING

The university has approximately 820,000 assignable square feet in the study and general use space categories, with a breakdown provided in the pie charts on the left. Benchmarking data is provided on the left. For study (and library) space, WSU is on the higher end of the distribution, while it lies roughly in the upper half for general use space.

**STUDY SPACE**  
404,000 ASF



**GENERAL USE SPACE**  
420,000 ASF



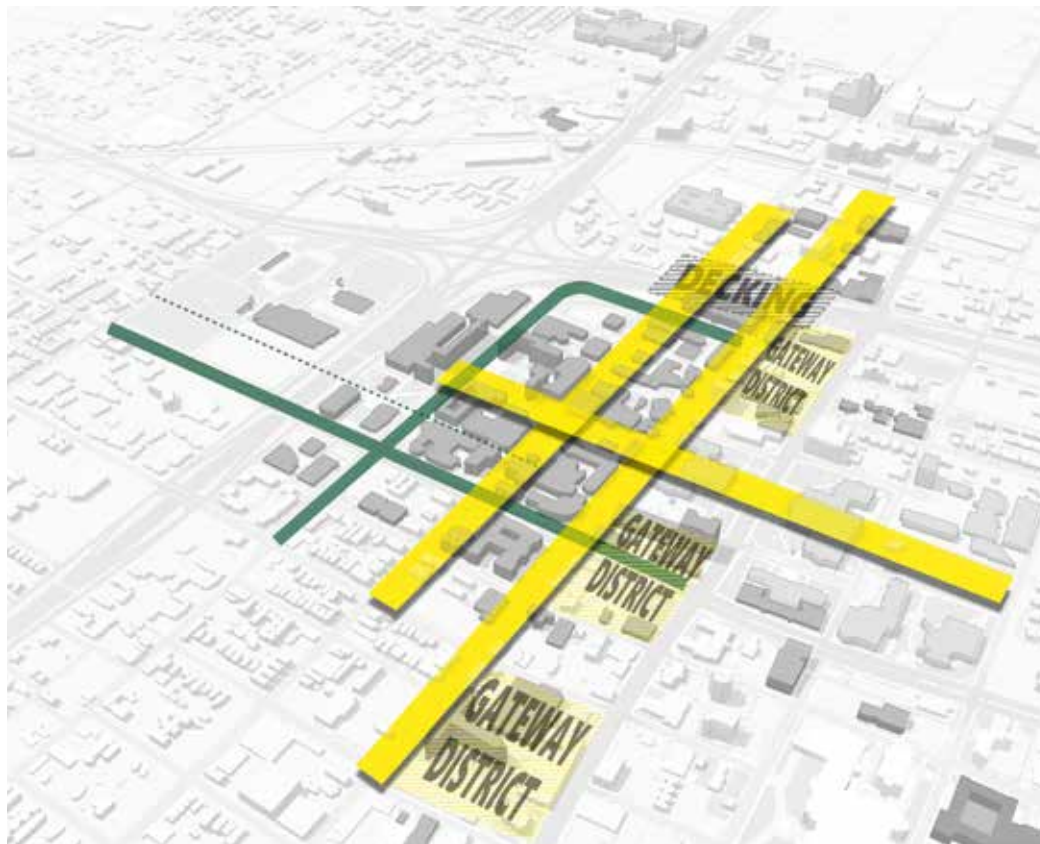




A photograph of a university campus, overlaid with a semi-transparent teal filter. The scene shows a wide, paved walkway lined with large, mature trees. In the background, a multi-story building with arched windows is visible. A sign in the foreground on the right reads "Art Building" and includes a wheelchair accessibility icon. The word "IDEAS" is written in white, uppercase letters on the right side of the image.

IDEAS

# STRATEGIES



## STRATEGY 1

Organize the core campus and make it more welcoming



## STRATEGY 2

Concentrate academic activity in an enhanced core



### STRATEGY 3

Define key sites for future development, promote optionality for the Health Sciences, and focus the university's real estate strategy





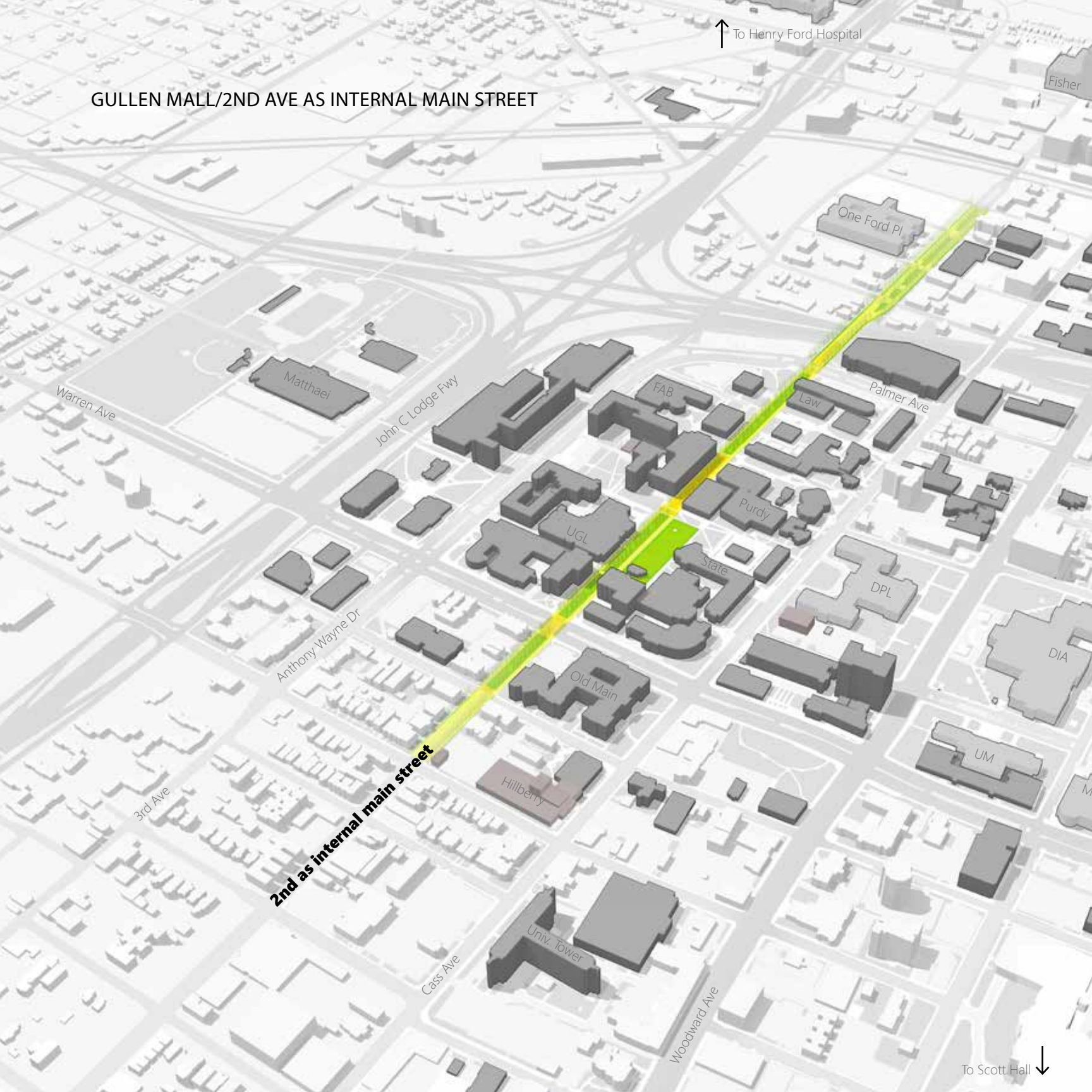
## ORGANIZE THE CORE CAMPUS AND MAKE IT MORE WELCOMING

The first strategy focuses on organizing the core campus making it more legible, more connected, and more welcoming, both for internal and external stakeholders. The focus is on big landscape ideas and street improvements:

- Make Gullen Mall and 2nd Ave (south to Hancock St) as the internal pedestrian main street
- Make Cass Ave a true civic corridor
- Embrace the east-west cultural axis
- Reconfigure Warren Ave
- Reconfigure Anthony Wayne Drive
- Create better connection with the athletics district
- Consider decking I-94 to bridge the core campus and iBio/ Techtown
- Improve the major campus gateways

↑ To Henry Ford Hospital

# GULLEN MALL/2ND AVE AS INTERNAL MAIN STREET



**2nd as internal main street**

To Scott Hall ↓



## GULLEN MALL

Enhance Gullen Mall by moving circulation to the building edges and creating usable green space in the center of the mall. Extend Gullen Mall across Warren Avenue by closing an additional block of 2nd Avenue to vehicular traffic (to Hancock Street). Gullen Mall and 2nd Avenue should function as the internal pedestrian and student-oriented campus "main street."

GULLEN MALL TODAY





GULLEN MALL PROPOSED





**GULLEN MALL**  
Looking north



Today



**Fountain Court**

**GULLEN MALL**  
Looking south



**Repurposed Undergraduate Library**



Today

# CASS AVE AS CIVIC CORRIDOR

↑ To Henry Ford Hospital

↓ To Scott Hall



**2nd as internal main street**

**Cass as civic corridor**



## CASS AVE

Make Cass Avenue into a true civic corridor where the university and the city blend and merge. The primary methods for accomplishing this should be to further enhance the street's multi-modal character, and to more uniformly promote active mixed-use ground floor uses with an emphasis on appropriate retail, campus/community common workspace, and arts-related venues.

CASS AVE TODAY





# CASS AVE PROPOSED

- New building
- Potential street frontage for retail and student life





**Prentis**

**Cass Ave**



**CASS AVE**  
Intersection with DPL



Today

**University Tower**



**Cass Ave**

CASS AVE  
North gateway



Today

# EAST-WEST CULTURAL AXIS

↑ To Henry Ford Hospital

↓ To Scott Hall



Warren Ave

Matthaei

John C Lodge Fwy

FAB

Law

Palmer Ave

One Ford Pl

Anthony Wayne Dr

UGL

Purdy

State

DPL

DIA

Old Main

UM

3rd Ave

2nd as internal main street

Cass as civic corridor

Hillberry

Univ. Tower

Woodward Ave

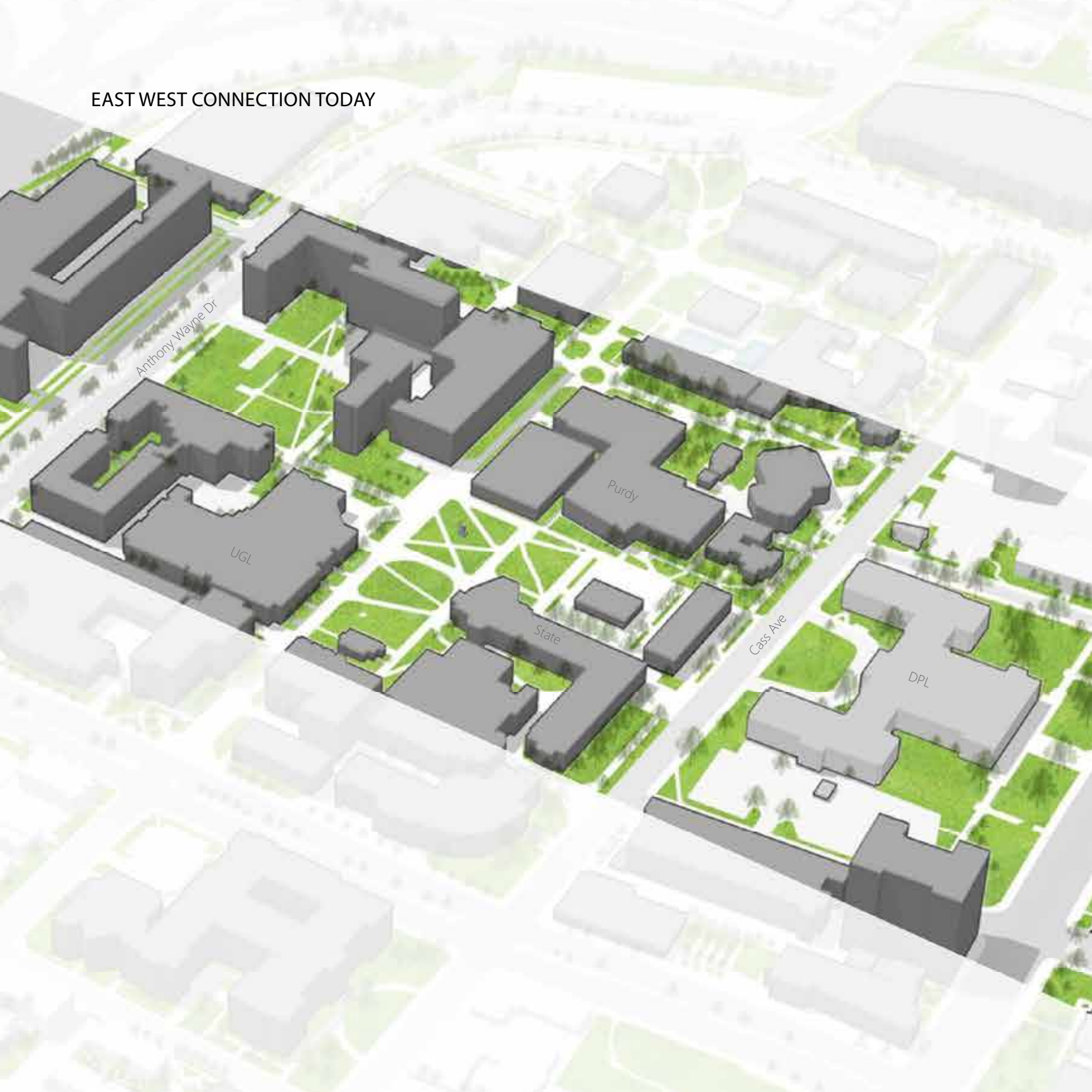
Fisher



## CULTURAL AXIS

Embrace the east-west cultural axis and extend the area now under investigation via the DIA Plaza and Midtown Cultural Connections design competition onto and through the campus, extending all the way to the new Anthony Wayne Drive Apartments. Reimagining Keast Commons, Fountain Court, and the west plaza between the Prentiss Building and the Detroit Public Library as major open spaces along this axis should be priority investments.

EAST WEST CONNECTION TODAY





EAST WEST CONNECTION PROPOSED





**Towers Residential Suites**

**New dining additi**



**Chatsworth Tower**

**KEAST COMMONS**  
Gathering at the circle



Today



Chatswo



**KEAST COMMONS**  
Looking at Chatsworth  
With new permanent stage



Today

**Detroit Public Library**



PLAZA AT DPL  
Looking south



Today

↑ To Henry Ford Hospital

NARROW WARREN AVE

Fisher

One Ford Pl

Matthaei

John C Lodge Fwy

FAB

Law

Palmer Ave

Warren Ave

UGL

Purdy

State

DPL

Anthony Wayne Dr

Old Main

DIA

3rd Ave

Hillberry

UM

2nd Ave

Univ. Tower

Cass Ave

Woodward Ave

↓ To Scott Hall



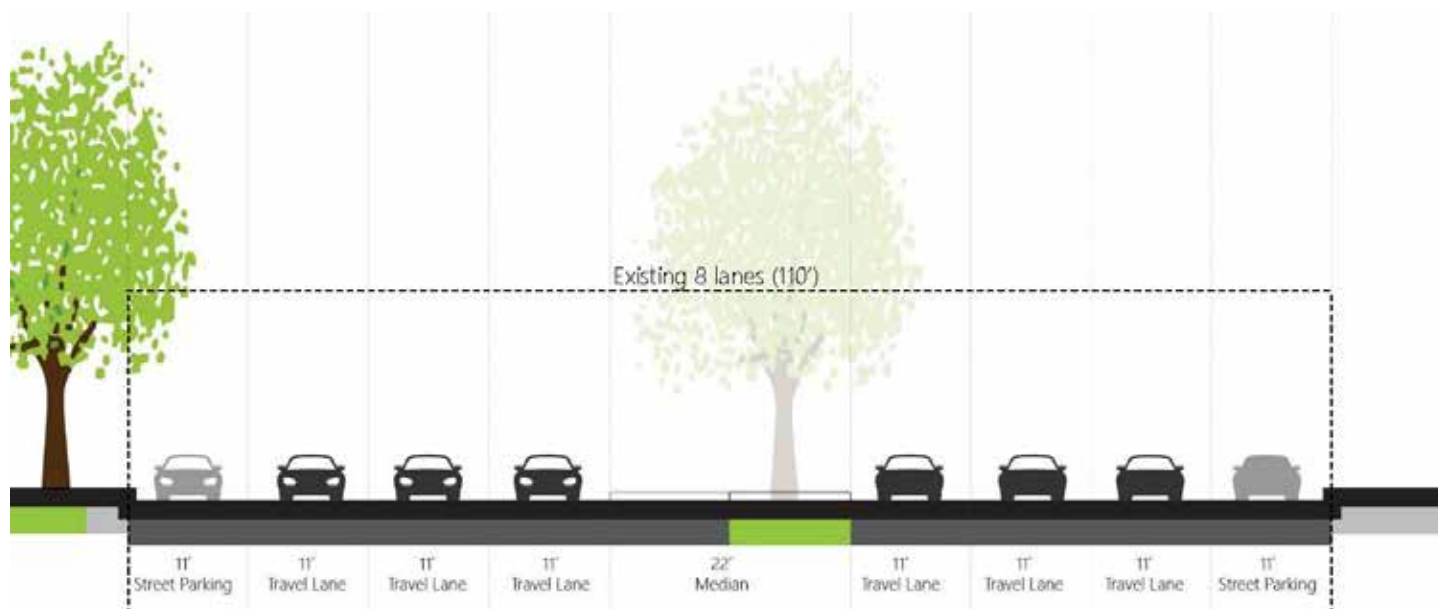




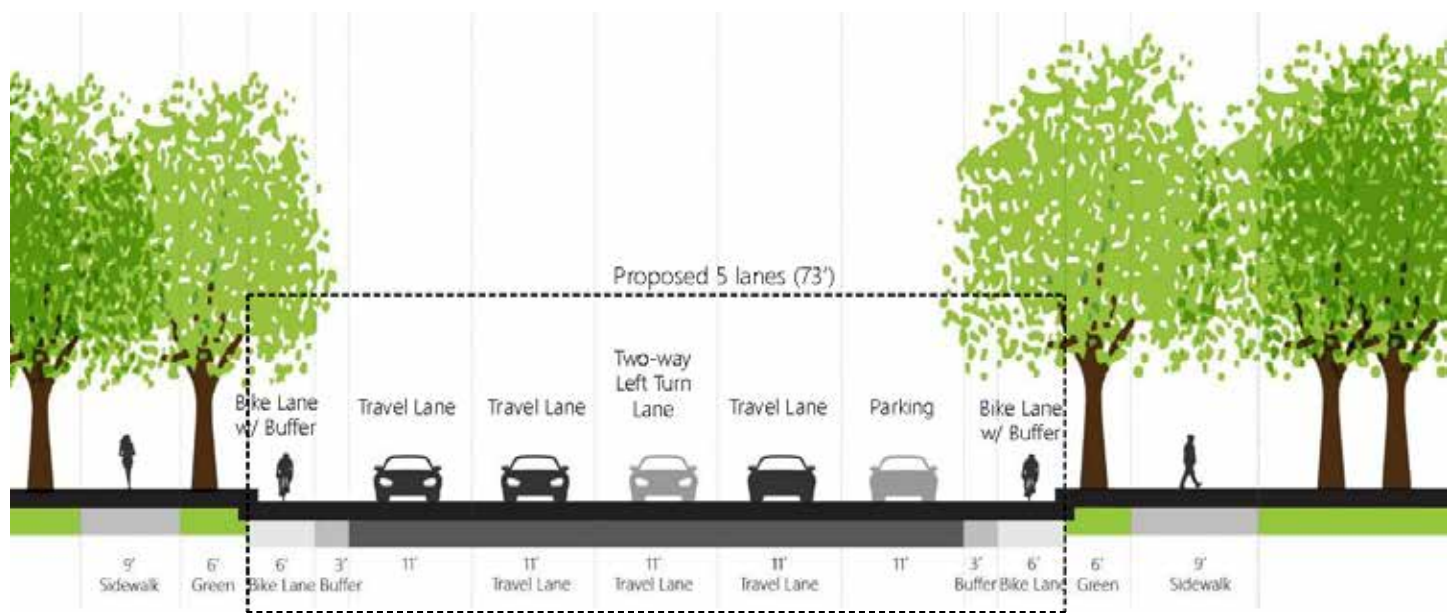
## WARREN AVE

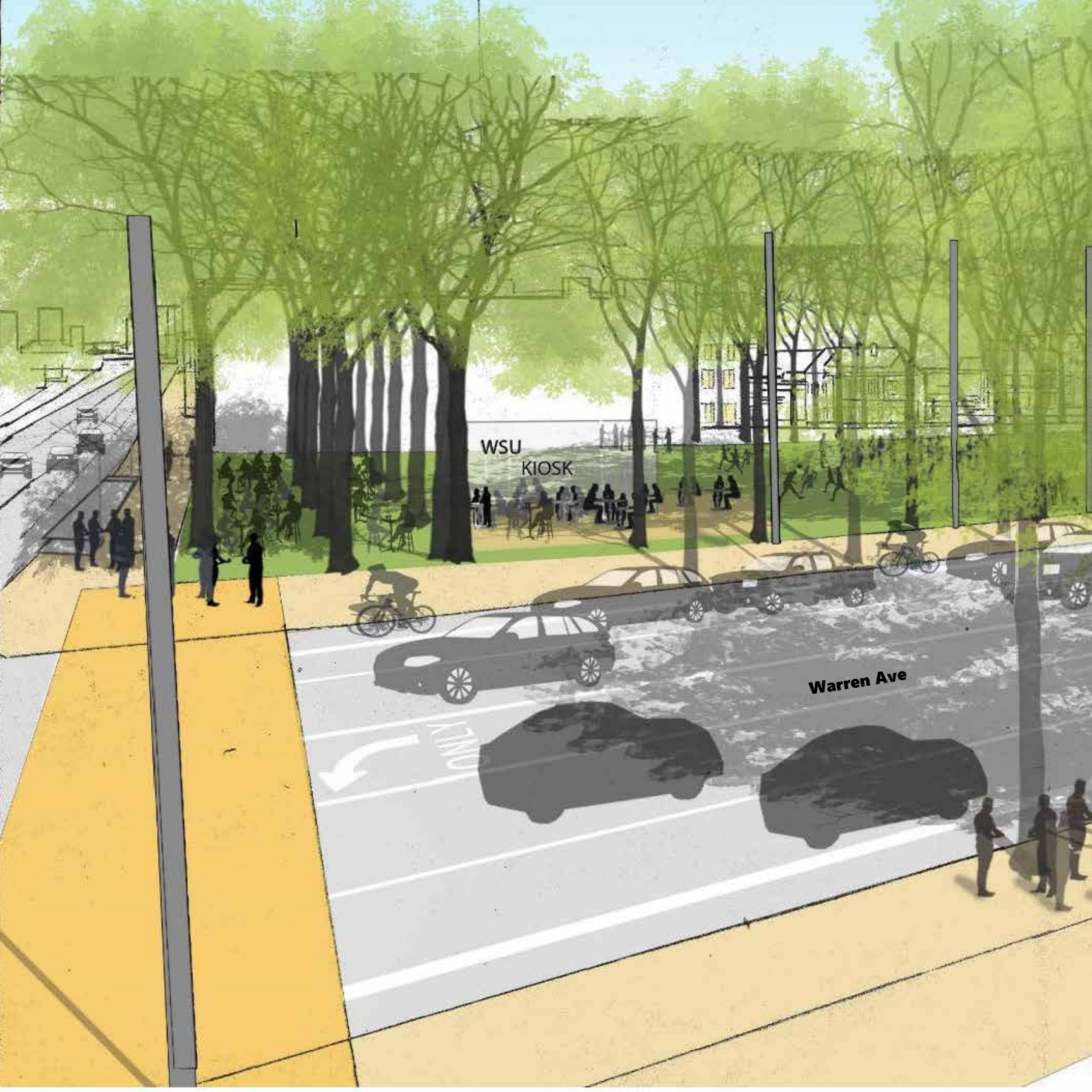
Reconfigure Warren Avenue by reducing the current eight-lane configuration (110') to five lanes (73') with a pedestrian-only signal at the newly extended Gullen Mall crossing. This crossing should have a specific pavement marking to indicate its importance for pedestrians.

# EXISTING TYPICAL SECTION FOR WARREN AVE



# PROPOSED TYPICAL SECTION FOR WARREN AVE





WSU  
KIOSK

Warren Ave

LANE

**WARREN AVE**  
Intersection with Woodward Ave



Today

↑ To Henry Ford Hospital

# NARROW ANTHONY WAYNE DRIVE, REDIRECT LODGE SERVICE DR, REALIGN PALMER



Warren Ave

Matthaei

John C Lodge Fwy

One Ford Pl

New parcel

Palmer Ave

FAB

Law

Purdy

UGL

State

DPL

DIA

Old Main

UM

3rd Ave

Hillberry

2nd Ave

Univ. Tower

Cass Ave

Woodward Ave

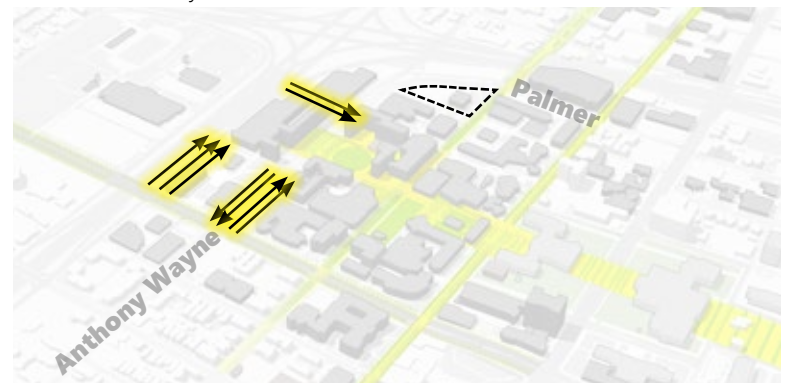
↓ To Scott Hall



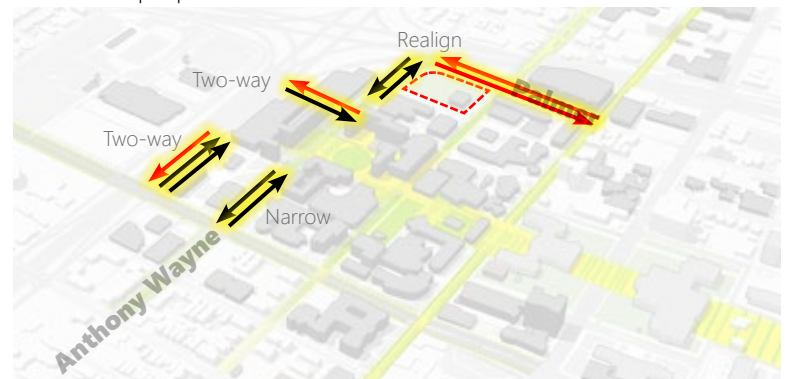
## ANTHONY WAYNE DR AND PALMER AVE

Reconfigure Anthony Wayne Drive by reducing the current eight-lane configuration to four lanes, and growing the median so that it becomes a usable and programmable open space. Further improve traffic flows in this area by making the Lodge Service Drive and Palmer Avenue two way.

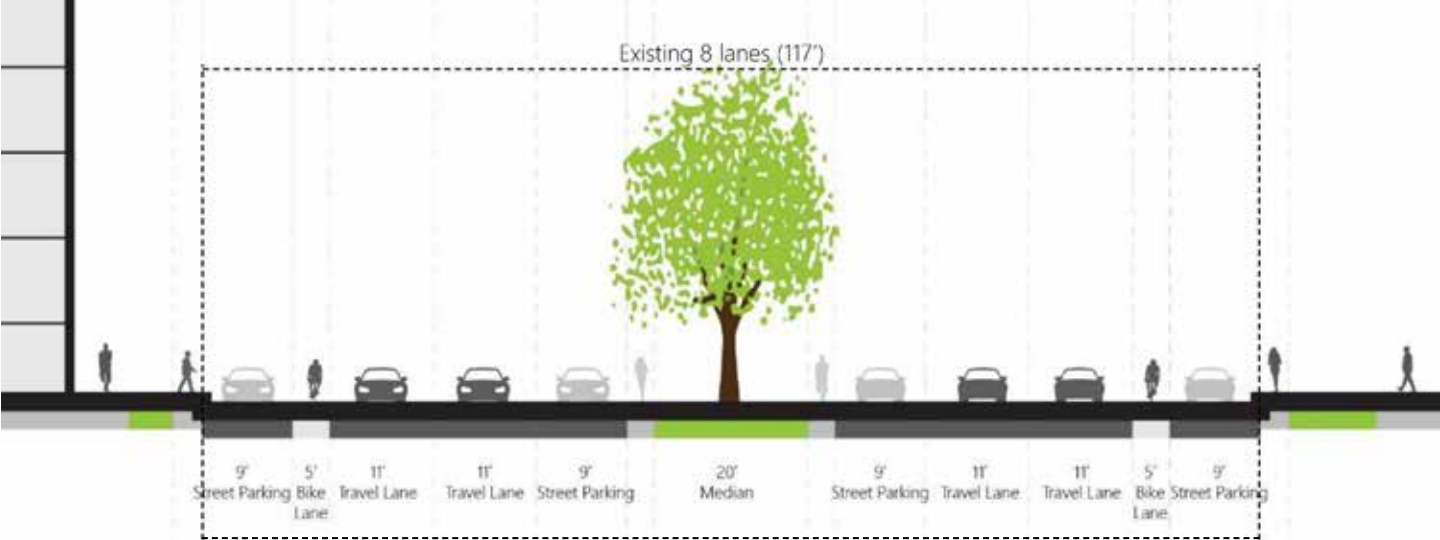
Circulation today



Circulation proposed

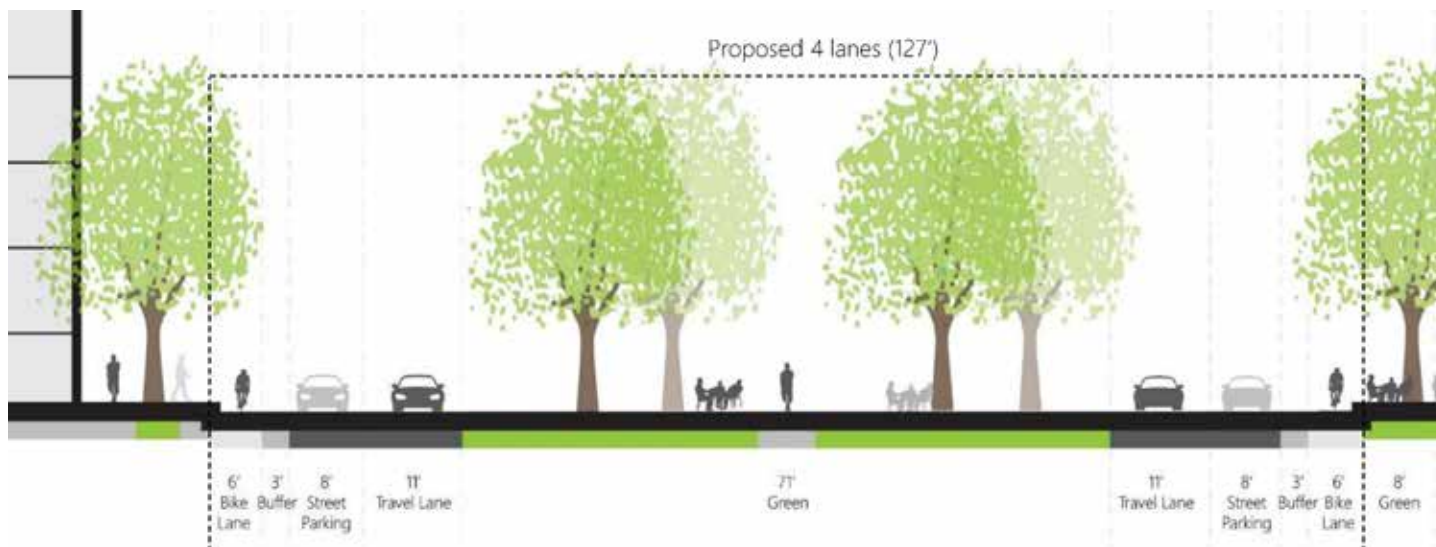


EXISTING TYPICAL SECTION FOR ANTHONY WAYNE DRIVE





# PROPOSED TYPICAL SECTION FOR ANTHONY WAYNE DRIVE





**Anthony Wayne Drive Apartment**



ANTHONY WAYNE DR  
Looking north



Today



**LAW  
SCHOOL**

**Palmer Ave**

**PALMER AVE**  
Looking west



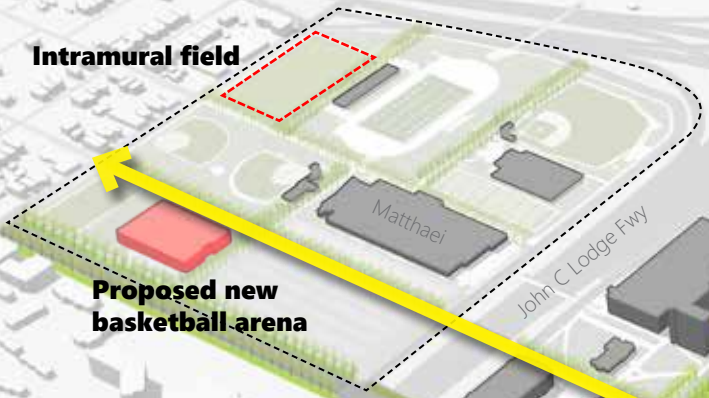
Today

↑ To Henry Ford Hospital

# CONNECT WITH ATHLETICS DISTRICT

**Intramural field**

**Proposed new basketball arena**



↓ To Scott Hall



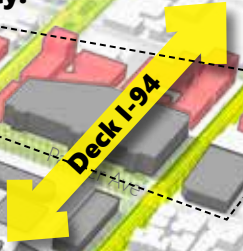
## CONNECT WITH ATHLETICS DISTRICT

Better connect the core campus with the athletics district by creating a pedestrian path following the former Putnam Street, and explore options to relocate the existing pedestrian bridge crossing the Lodge at this alignment.

↑ To Henry Ford Hospital

# DECK I-94

**Full deck capacity:  
655,000 GSF**



Warren Ave

Matthaei

John C Lodge Fwy

One Ford Pl

FAB

Law

Deck I-94

Purdy

UGL

State

DPL

Anthony Wayne Dr

Old Main

DIA

3rd Ave

Hillbery

UM

2nd Ave

Univ. Tower

Cass Ave

Woodward Ave

↓ To Scott Hall





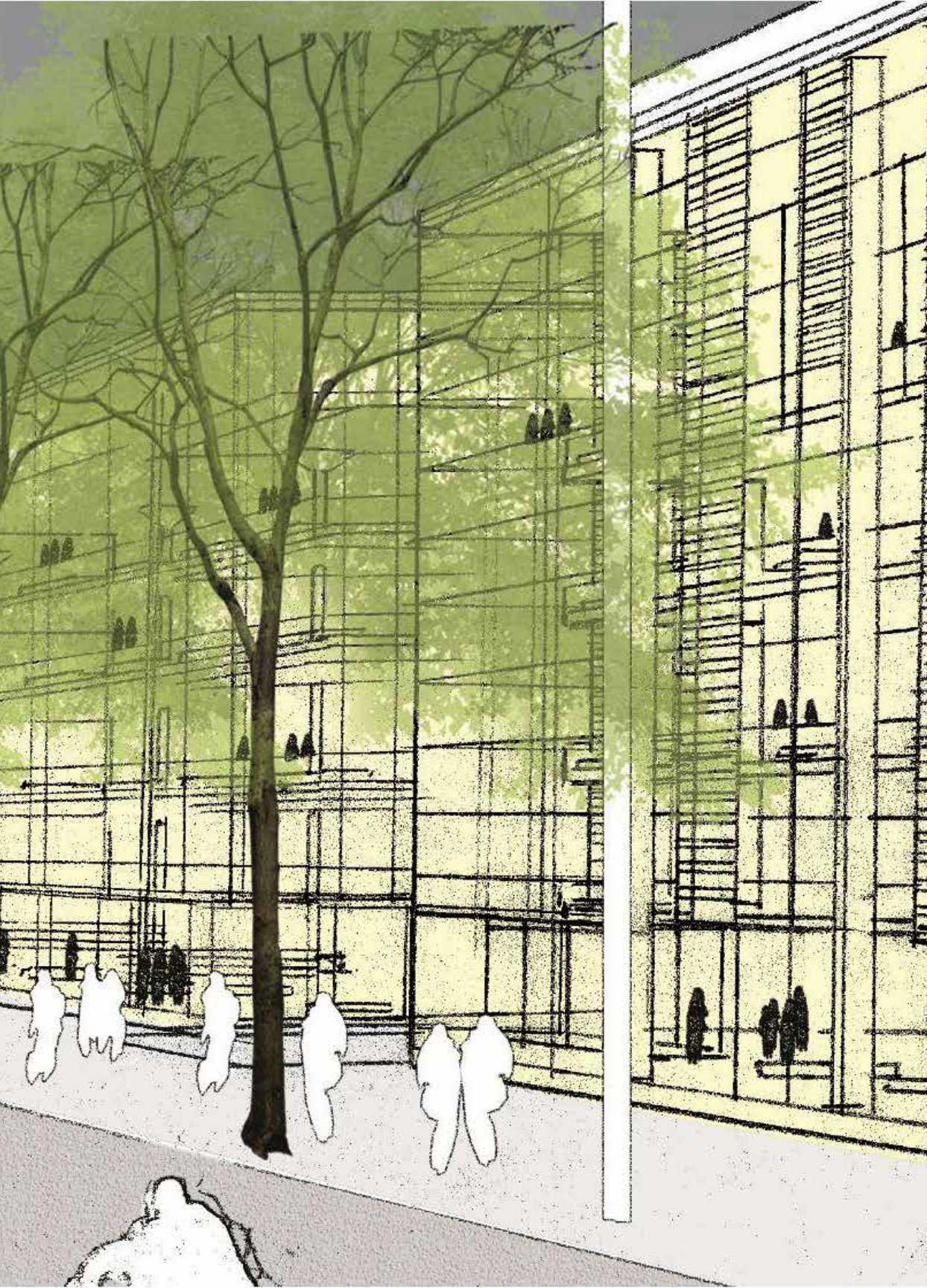
## DECK I-94

While this idea may be somewhat more in the future, land values in midtown are approaching the point where it may be feasible to consider options to deck I-94 so as to bridge the divide between the core campus and iBio/Techtown. A full deck would generate the capacity to build approximately 650,000 square feet. If this is not possible, a reduced option that establishes street presence on Second Avenue and Cass Avenue could still offer approximately 450,000 square feet of development potential. The important idea here is to create street presence so that pedestrians have a pleasant experience crossing the highway and moving between the core campus and iBio/Tech Town.





**Cass Ave**



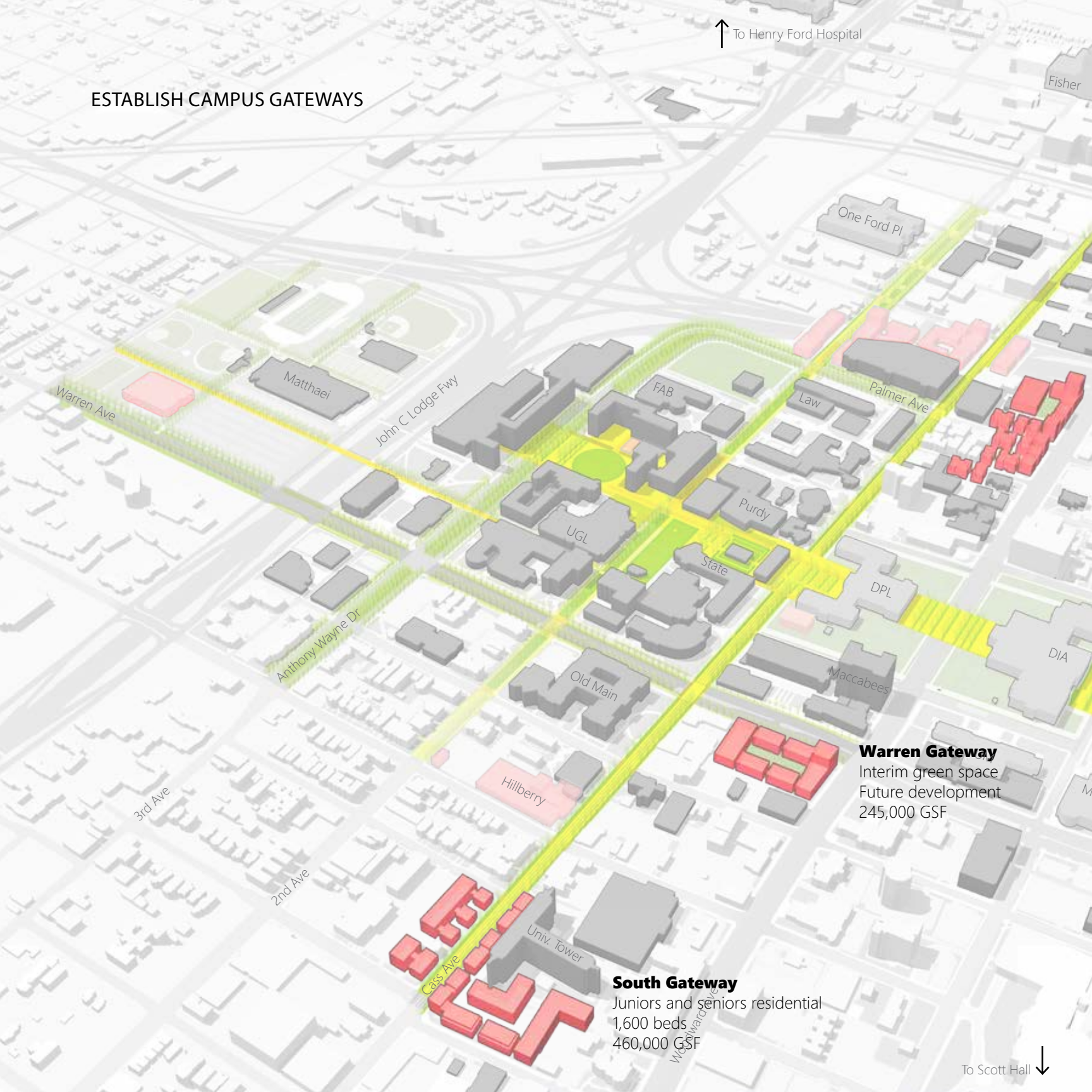
DECK I-94  
Looking south



Today

↑ To Henry Ford Hospital

# ESTABLISH CAMPUS GATEWAYS



Warren Ave

Matthaei

John C Lodge Fwy

FAB

Law

Palmer Ave

Anthony Wayne Dr

UGL

Purdy

State

DPL

Old Main

Maccabees

3rd Ave

Hillbery

2nd Ave

Cass Ave

Univ. Tower

**Warren Gateway**  
Interim green space  
Future development  
245,000 GSF

**South Gateway**  
Juniors and seniors residential  
1,600 beds  
460,000 GSF

↓ To Scott Hall



### **North Gateway**

Graduate and professional residential  
800 beds  
540,000 GSF

## CAMPUS GATEWAY DISTRICTS

Improve the major campus gateways at Cass Avenue/Canfield Street and at Woodward Avenue/I-94. These should become major active mixed-use nodes supporting university residential life (juniors and seniors would be well-suited to the southern gateway; graduate, professional students, and potentially faculty and market-rate options to the northern gateway) through appropriate partnerships. The crucial Woodward Avenue/Warren Avenue parcel should also be improved as a major future university development site (likely with a community-oriented use) when an appropriate program can be identified. Meanwhile, the site should have an upgraded temporary landscape treatment.



Woodward Ave

**NORTH GATEWAY**  
Looking south



Today



**Cass Ave**



**SOUTH GATEWAY**  
Looking north

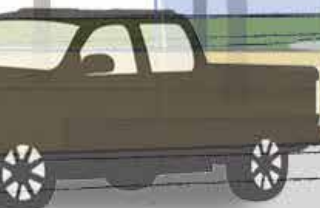


**Canfield St**

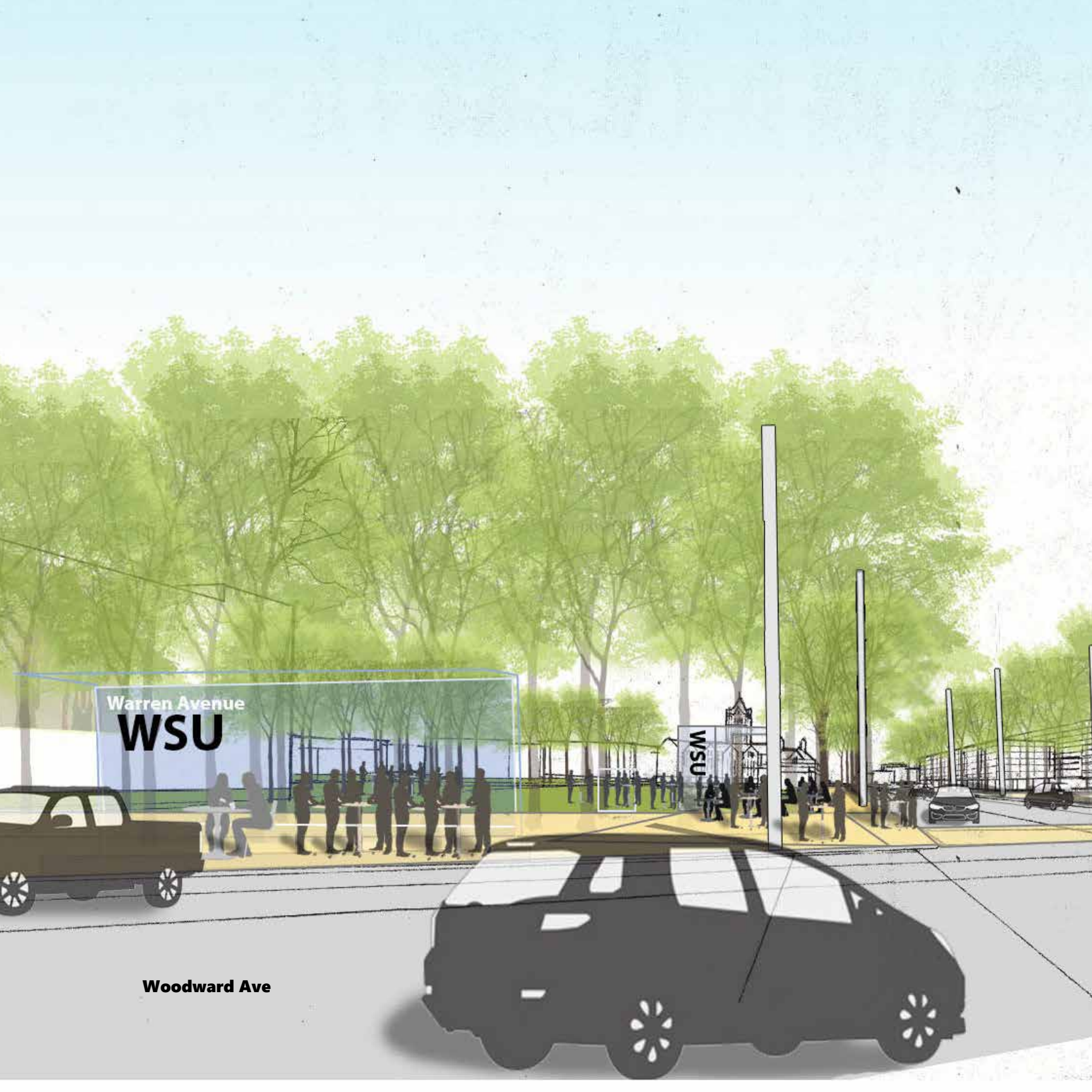


Today

Warren Avenue  
**WSU**



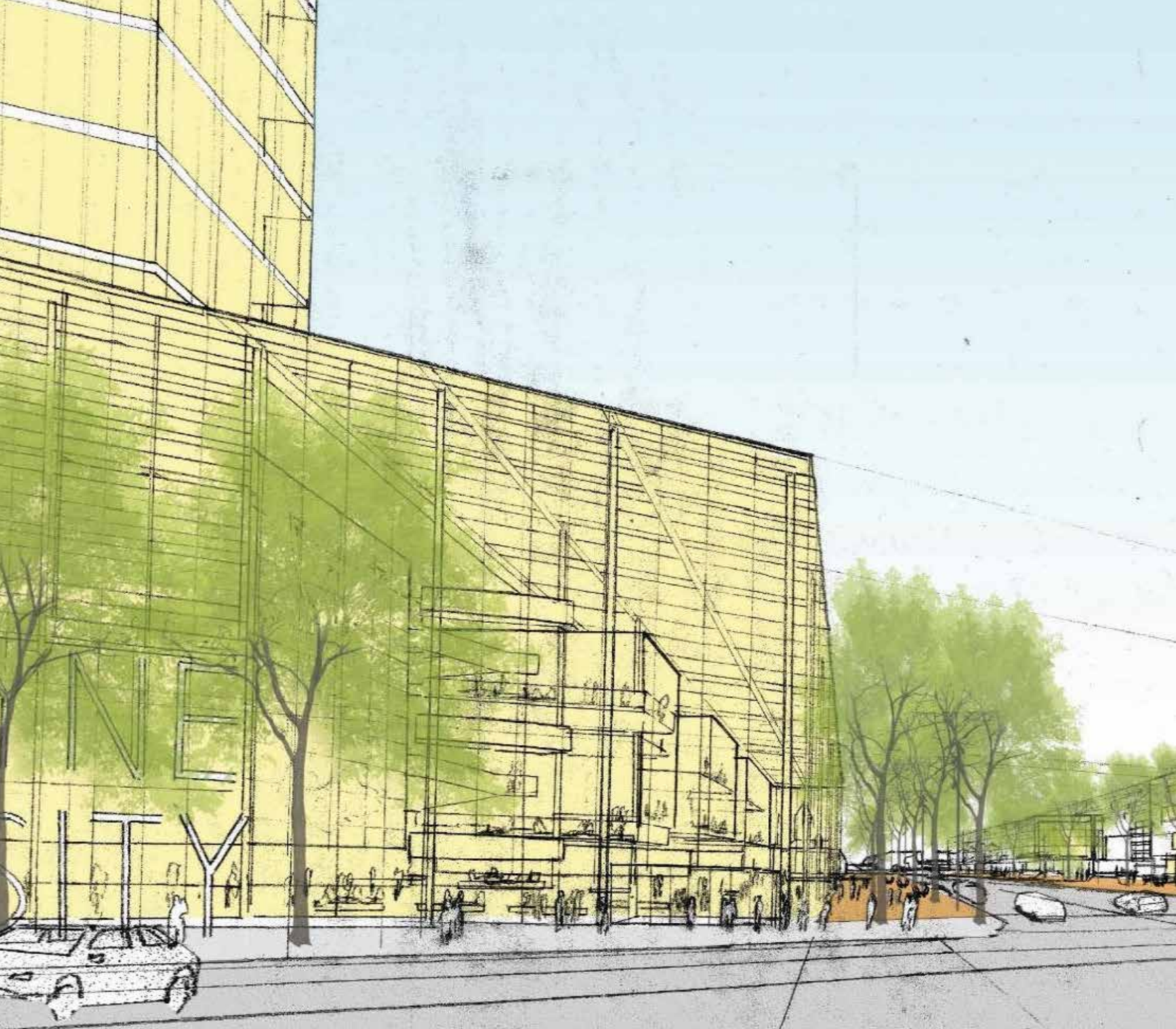
**Woodward Ave**



**WARREN GATEWAY**  
Looking west (near-term)



Today



**Woodward Ave**



**WARREN GATEWAY**  
Looking west (long-term)



Today



An aerial photograph of a university campus, showing a grid of streets and various buildings. Some buildings are highlighted in yellow, indicating specific areas of interest or focus. The overall scene is a top-down view of an urban environment.

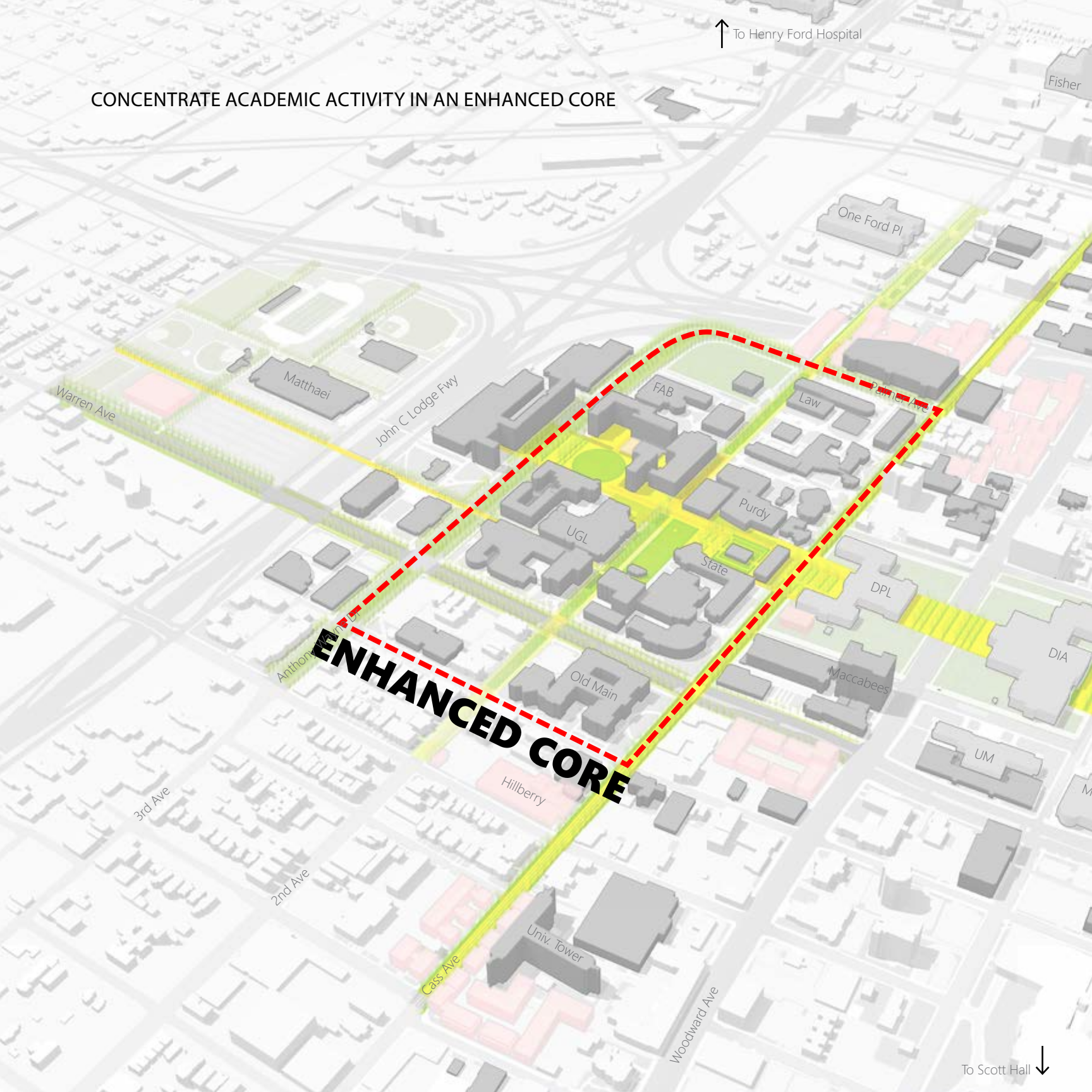
## CONCENTRATE ACADEMIC ACTIVITY IN AN ENHANCED CORE

The analysis suggests that the only way for the university to both achieve its academic goals and successfully negotiate its deferred maintenance backlog is through a careful sequence of moves that create better academic adjacencies, concentrate investment in a selected subset of buildings, allowing these buildings to become world-class examples of active and engaged learning methods and interdisciplinary research, and through these moves and consolidations, empty out a different subset of buildings which can be demolished. The two key ideas are therefore to:

- Optimize program locations and consolidate dispersed colleges
- Strategically eliminate underperforming square footage

↑ To Henry Ford Hospital

# CONCENTRATE ACADEMIC ACTIVITY IN AN ENHANCED CORE



## ENHANCED CORE

↓ To Scott Hall



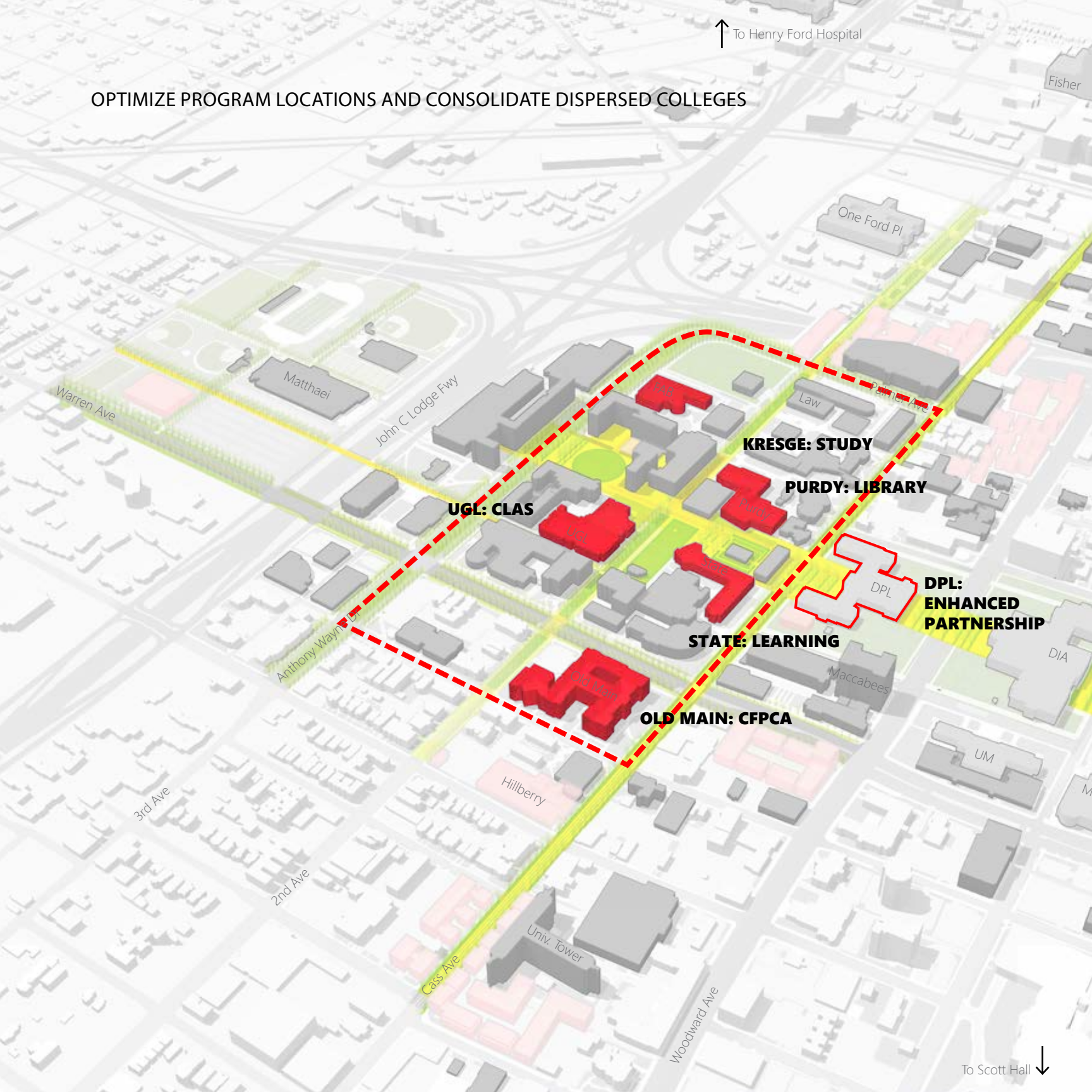


## ENHANCED CORE

Adjacencies are key to academic collaboration. They promote interaction, communication, and connection. From a physical perspective, they are also more sustainable, shortening line lengths and limiting initial and ongoing infrastructure costs. A key idea of the plan is therefore to focus as much energy and activity as possible in an enhanced academic core, and to reverse the university's recent trend to dispersal.

↑ To Henry Ford Hospital

# OPTIMIZE PROGRAM LOCATIONS AND CONSOLIDATE DISPERSED COLLEGES



Warren Ave

Matthaei

John C Lodge Fwy

One Ford Pl

Law

**KRESGE: STUDY**

**PURDY: LIBRARY**

**UGL: CLAS**

**DPL: ENHANCED PARTNERSHIP**

**STATE: LEARNING**

**OLD MAIN: CFPCA**

Anthony Wayne

Maccabees

3rd Ave

2nd Ave

Hillberry

Univ. Tower

Cass Ave

Woodward Ave

↓ To Scott Hall



## OPTIMIZE PROGRAM LOCATIONS AND CONSOLIDATE DISPERSED COLLEGES

Focus instructional activity in a renovated State Hall that caters to a wide-range of pedagogies and provides excellent facilities for general-purpose teaching and learning. Rethink the Purdy-Kresge library complex so as to better support student study and collaboration, and to consolidate university collections (potentially with an on- or off-site remote retrieval system), and library administration; and explore enhanced partnership opportunities with the Detroit Public Library. Concentrate College of Fine and Performing Arts uses in Old Main and the Art Building, and consider the viability of a focused Arts district around Old Main and the Hillberry Theater (with other arts uses along Cass Avenue). Repurpose the majority of the Undergraduate Library for academic uses, primarily centered on the College of Liberal Arts and Sciences (particularly language and humanities programs) and the Honors College. Consider repurposing the Faculty Administration Building for academic departmental uses, relocating administrative functions, including the president's and provost's offices, to the Macabees Building (5057 Woodward). Consider appropriate reuse strategies for the many smaller houses and facilities under university control, including for childcare, a faculty club, and other identified uses.

↑ To Henry Ford Hospital

# OPTIMIZE PROGRAM LOCATIONS AND CONSOLIDATE DISPERSED COLLEGES

## FAB: REMAINING

CLAS: 65,000 ASF office  
Office of the President: 7,900 ASF office  
Provost: 27,000 ASF office, study  
College of Ed: 3,000 ASF office

## KRESGE: STUDY

35,000 ASF student study space

## PURDY: LIBRARY

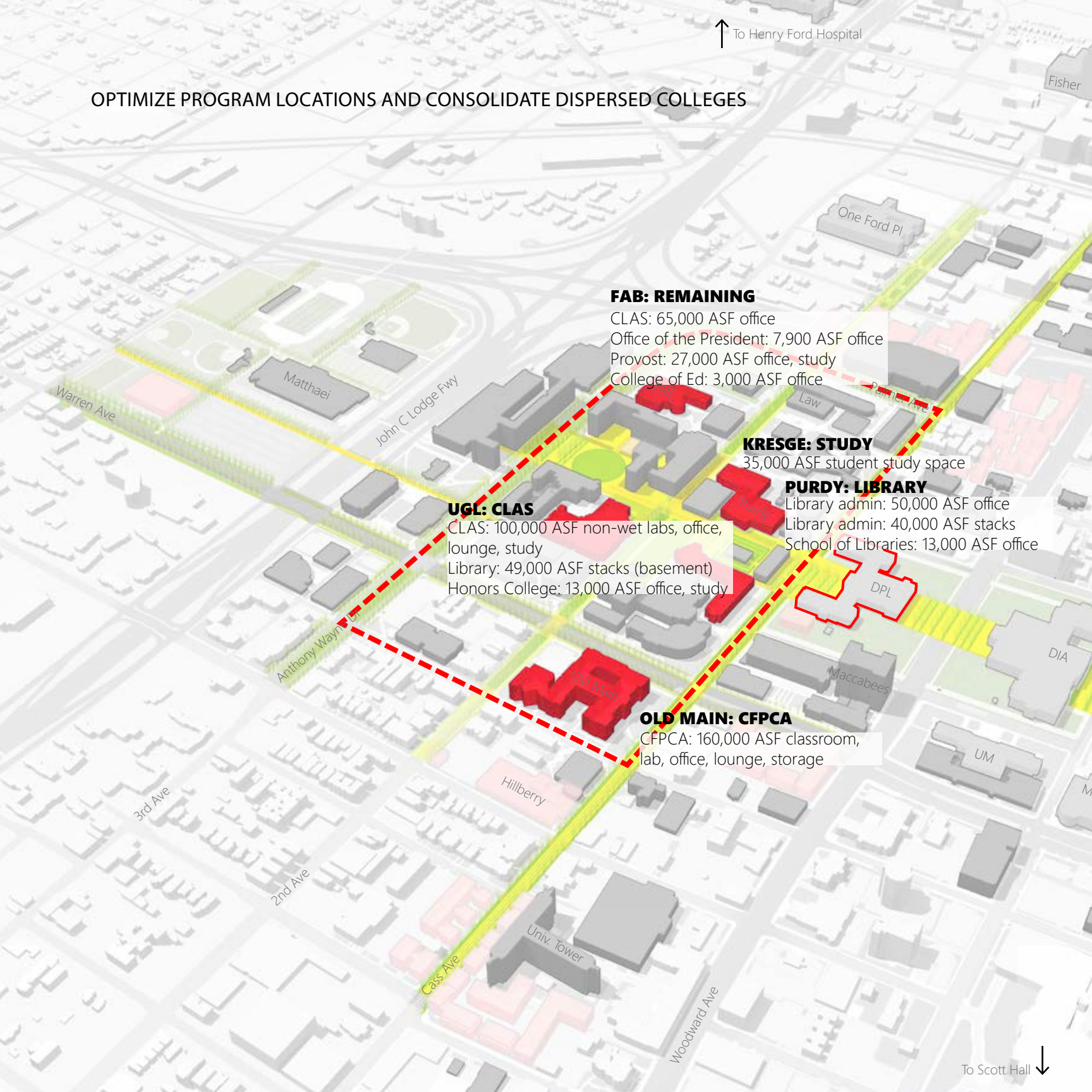
Library admin: 50,000 ASF office  
Library admin: 40,000 ASF stacks  
School of Libraries: 13,000 ASF office

## UGL: CLAS

CLAS: 100,000 ASF non-wet labs, office, lounge, study  
Library: 49,000 ASF stacks (basement)  
Honors College: 13,000 ASF office, study

## OLD MAIN: CFPCA

CFPCA: 160,000 ASF classroom, lab, office, lounge, storage



↓ To Scott Hall

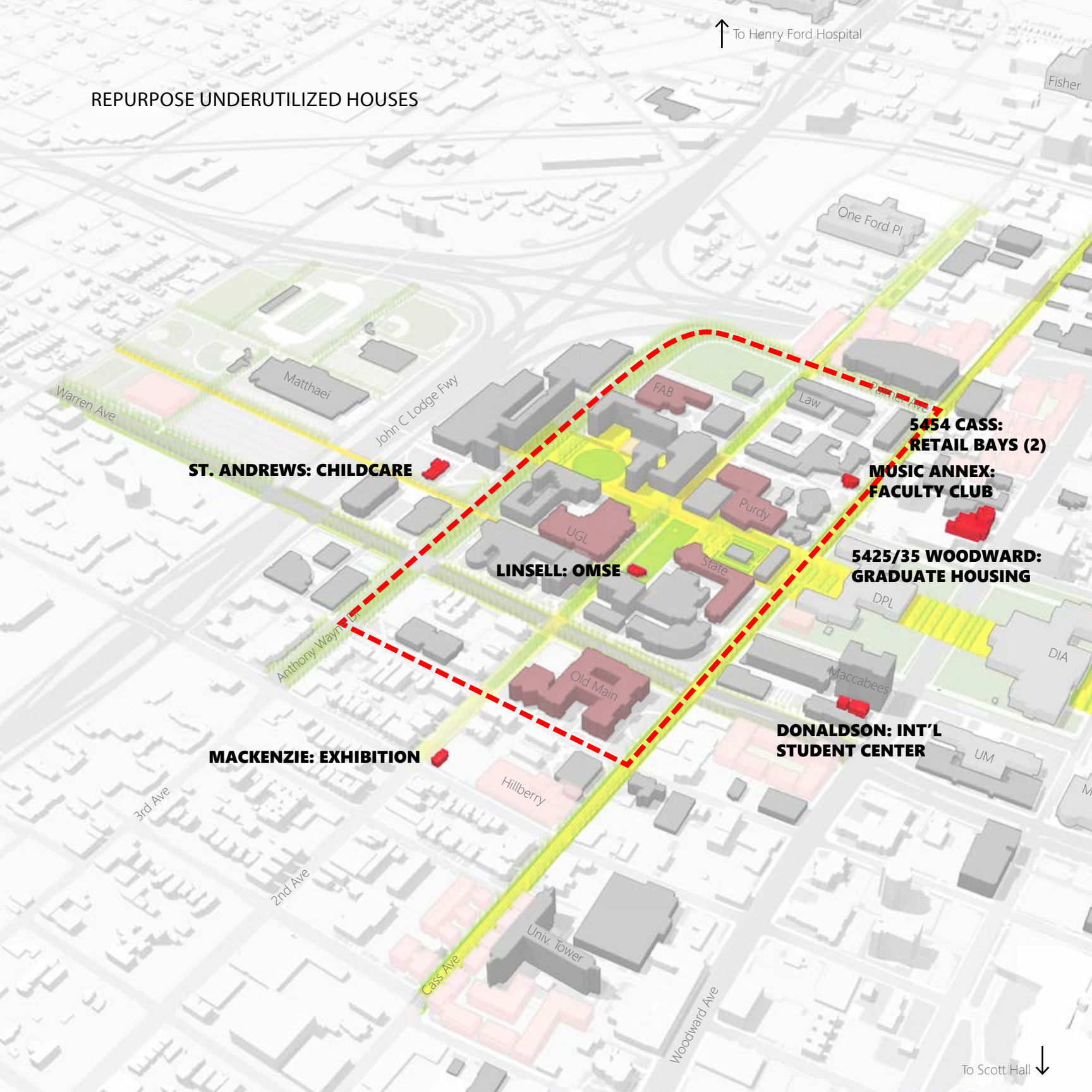


The program movement will be as follows. The diagram to the left shows the square footage of different programs after consolidation.

- Following an extensive renovation, State Hall will not only continue to house its existing load of scheduled instruction, but also take on that which currently takes place in General Lectures and Manoogian.
- Old Main will accommodate College of Fine, Performing, and Communication Arts space that will be displaced from the elimination of Manoogian and repurposing of Linsell House, further consolidating college functions within this building. It will bring CFPCA's total assignable square footage in Old Main up to 160,000 ASF.
- The Undergraduate Library will accommodate College of Liberal Arts and Sciences space currently in Maccabees, Old Main, Manoogian, and Life Sciences. After these moves, CLAS' assignable square footage in UGL will be 100,000 ASF. The building will retain 49,000 ASF of stack space in the basement and 13,000 ASF of honors college space.
- Purdy Library will accommodate an additional 40,000 ASF of stack space and 63,000 ASF of library administration and School of Information Sciences office space eliminated from the Undergraduate and Kresge Libraries. Kresge Library will accommodate additional student study space, bringing the total assignable square footage up to 35,000 ASF. Additionally, the university should prioritize potential partnerships that will facilitate the building of an off-campus high-density storage facility, and should seek to intensify its relationship with the Detroit Public Library so as to provide students with additional study space.
- Existing academic programs should remain in FAB. Administrative uses should move to the Maccabees building. Note that the president's and provost's offices occupy about 35,000 ASF in FAB.

↑ To Henry Ford Hospital

REPURPOSE UNDERUTILIZED HOUSES



**ST. ANDREWS: CHILDCARE**

**LINSELL: OMSE**

**MACKENZIE: EXHIBITION**

**5454 CASS:  
RETAIL BAYS (2)**

**MUSIC ANNEX:  
FACULTY CLUB**

**5425/35 WOODWARD:  
GRADUATE HOUSING**

**DONALDSON: INT'L  
STUDENT CENTER**

↓ To Scott Hall



## REPURPOSE SMALL HOUSES

Several small houses scattered across campus currently sit vacant or underutilized. The plan seeks to reimagine and repurpose these buildings in order to support the concentration of academic activity in an enhanced core.

- Convert St. Andrew's Hall, which was originally a church and is now used as an events space, into a childcare facility that will serve students, faculty, and staff.
- Repurpose Linsell House to house the Office of Multicultural Student Engagement, which will include office space as well as study and lounge spaces for students. OMSE is an important program that will greatly benefit from increased visibility.
- Use the newly relocated Mackenzie House as exhibition space in order to, along with the Hillberry Gateway Performance Complex expansion and concentration of CFPCA functions in Old Main, solidify this area as a true arts district.
- Remodel Donaldson House as an international student center, conveniently located next to a proposed administrative hub in Maccabees and the adjacent welcome center.
- Make 5425 and 5435 Woodward Avenue into graduate student housing due to their proximity to the campus core and to address increased demand for such facilities.
- The music annex could be repurposed as a faculty club. The renovation should ensure permeability in the building, making its activity highly visible.
- Utilize two bays in the street-facing portion of the Facilities Planning and Management building (5454 Cass) as retail space to further enhance this important civic corridor.

↑ To Henry Ford Hospital

NEED FOR ~32K ASF WET LAB SPACE

**SHAPERO: VACATE**

Biology teaching labs: 17,000 ASF

**LIFE SCIENCE: RENOVATE/REPLACE**

CLAS: 4,100 ASF research labs  
Engineering: 1,500 ASF teaching lab  
Research: 3,300 ASF animal support  
Nursing: 4,000 ASF teaching lab



↓ To Scott Hall





## NEED FOR ~32K ASF WET LAB SPACE

The university likely has a need for approximately 32,000 ASF of wet lab space. This accommodates uses currently in the partially vacant Life Sciences building and in Shapero. These uses could all be concentrated in Life Sciences, but the building requires an extensive renovation. The university should therefore study the relative costs of rehabilitating Life Sciences versus demolishing Life Sciences and building a new wet lab building. Preliminary indications suggest that new construction is likely more cost effective.

↑ To Henry Ford Hospital

# UNACCOMMODATED PROGRAM ELEMENTS

Warren Ave

Matthaei

John C Lodge Fwy

One Ford Pl

Fisher

## PRENTIS (approx. 34,000 ASF)

School of Social Work: Office TBD  
Communication Science & Disorders: Office TBD  
Math & Computer Science: Labs TBD  
Registrar: 6,000 ASF classroom

## UGL

Student Success 40,000 ASF

## STATE HALL

Engineering (computer science): 3,000 ASF

DPL

DIA

Anthony Wayne

Old Main

Maccabees

## MACCABEES: ADMIN\*

Engineering (computer science): 22,000 ASF  
Vacant and vacated: 70,000 ASF

3rd Ave

Hillbery

2nd Ave

Univ. Tower

Cass Ave

Woodward Ave

↓ To Scott Hall



## UNACCOMMODATED PROGRAM ELEMENTS

The moves proposed above largely allow the university to accommodate all non-health science programs in the campus core. Computer science is the largest remaining orphan program (in Maccabees), and long-term, the campus would also like to reposition the use currently moving into Prentis.

↑ To Henry Ford Hospital

# CONVERTING FAB WOULD ALLOW FOR COMPLETE ACADEMIC CONSOLIDATION

## FAB REMAINING ADMIN SPACE

(~35,000 ASF)

President: 7,900 ASF

Provost: 27,000 ASF



Warren Ave

Matthaei

John C Lodge Fwy

FAS

UGL

Purdy

State

DPL

Old Main

Maccabees

DIA

UM

Hillberry

3rd Ave

2nd Ave

Univ. Tower

Cass Ave

Woodward Ave

Fisher

One Ford Pl

To Scott Hall ↓



## CONVERTING FAB WOULD ALLOW FOR COMPLETE ACADEMIC CONSOLIDATION

In order to fully realize the vision of integrating all major non-health science programs into the core, the university should consider repurposing the Faculty Administration Building for academic departmental uses, relocating administrative functions, including the president's and provost's offices, to the Macabees Building (5057 Woodward). This, along with other investigations of smaller facilities in the Purdy/Kresge neighborhood and a partnership with DPL, would allow for the full realization of the master plan vision.

↑ To Henry Ford Hospital

# REPURPOSE PRENTIS AS COMMUNITY-ORIENTED BUILDING



Fisher

One Ford Pl

Matthaei

John C Lodge Fwy

Warren Ave

FAB

Law

Purdie Ave

**PRENTIS:  
COMMUNITY-ORIENTED,  
GATEWAY**

UGL

State

DPL

Anthony Wayne

Old Main

Maccabees

DIA

3rd Ave

Hillbery

UM

2nd Ave

Univ. Tower

Cass Ave

Woodward Ave

↓ To Scott Hall



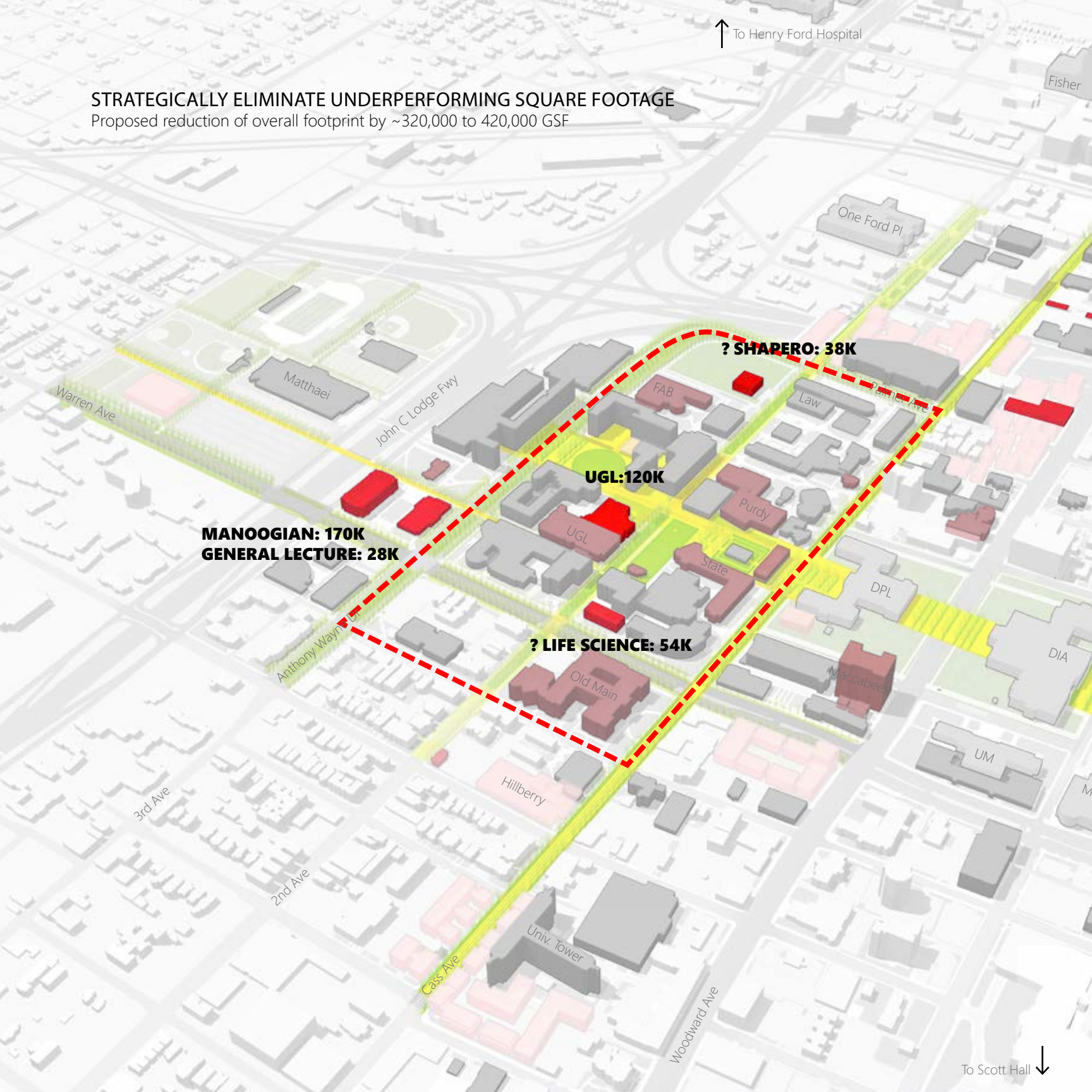
## REPURPOSE PRENTIS AS COMMUNITY-ORIENTED BUILDING

When possible, the Prentis Building should be repurposed as a community-oriented building and important campus gateway. When this happens, space within the building should be dedicated for community use, and the university's community engagement offices should be located here.

↑ To Henry Ford Hospital

# STRATEGICALLY ELIMINATE UNDERPERFORMING SQUARE FOOTAGE

Proposed reduction of overall footprint by ~320,000 to 420,000 GSF



**? SHAPERO: 38K**

**UGL: 120K**

**MANOOGIAN: 170K**  
**GENERAL LECTURE: 28K**

**? LIFE SCIENCE: 54K**

Fisher

One Ford Pl

Matthaei

John C Lodge Fwy

Warren Ave

Law

Parmer Ave

FAB

Purdy

State

DPL

DIA

Anthony Wayne

Old Main

Maccabee

UM

3rd Ave

Hillbery

2nd Ave

Univ. Tower

Cass Ave

Woodward Ave

To Scott Hall ↓






## STRATEGICALLY ELIMINATE UNDERPERFORMING SQUARE FOOTAGE

Reduce the university's building portfolio. The successful execution of the various move sequences outlined in the master plan should allow the university to empty Manoogian Hall, General Lectures, the atrium portion of the Undergraduate Library, and Shapero Hall. With the possible exception of Shapero (the university will need to weigh the contribution of the building's architecture against the reinvestment need mandated by its poor systems), these buildings should be demolished. In addition, Life Sciences should be evaluated, and a cost comparison made of renovation vs. replacement (preliminary investigations suggest replacement will be more cost-effective). In total, the university could eliminate 320,000 to 420,000 gross square feet. This will allow annual funds to be reallocated to improve the level of service in the remaining buildings (current operations and maintenance budgets are significantly below industry standards). Demolitions will also have a significant impact on the university's capital renewal needs, enabling it to better focus its capital renewal dollars in the remaining core buildings. Note that these proposed demolitions are not a judgment of any of the important program uses currently in the targeted buildings. These programs will all need to be relocated (and provided with better space), with the exception of classroom space (of which the university has an over-supply) and some student study space (which can be improved qualitatively and potentially expanded through partnership with the Detroit Public Library).





## DEFINE KEY SITES FOR FUTURE DEVELOPMENT, PROMOTE OPTIONALITY FOR THE HEALTH SCIENCES, AND FOCUS THE UNIVERSITY'S REAL ESTATE STRATEGY

While the near-term emphasis is on consolidation, the master plan also takes a longer-term exploration to ensure the near-term moves do not compromise the university's future. For this reason, we examined the capacity of the core campus to support growth when and if it is needed, particularly in the context of providing options for the health sciences that could support multiple strategic directions. The key ideas are to:

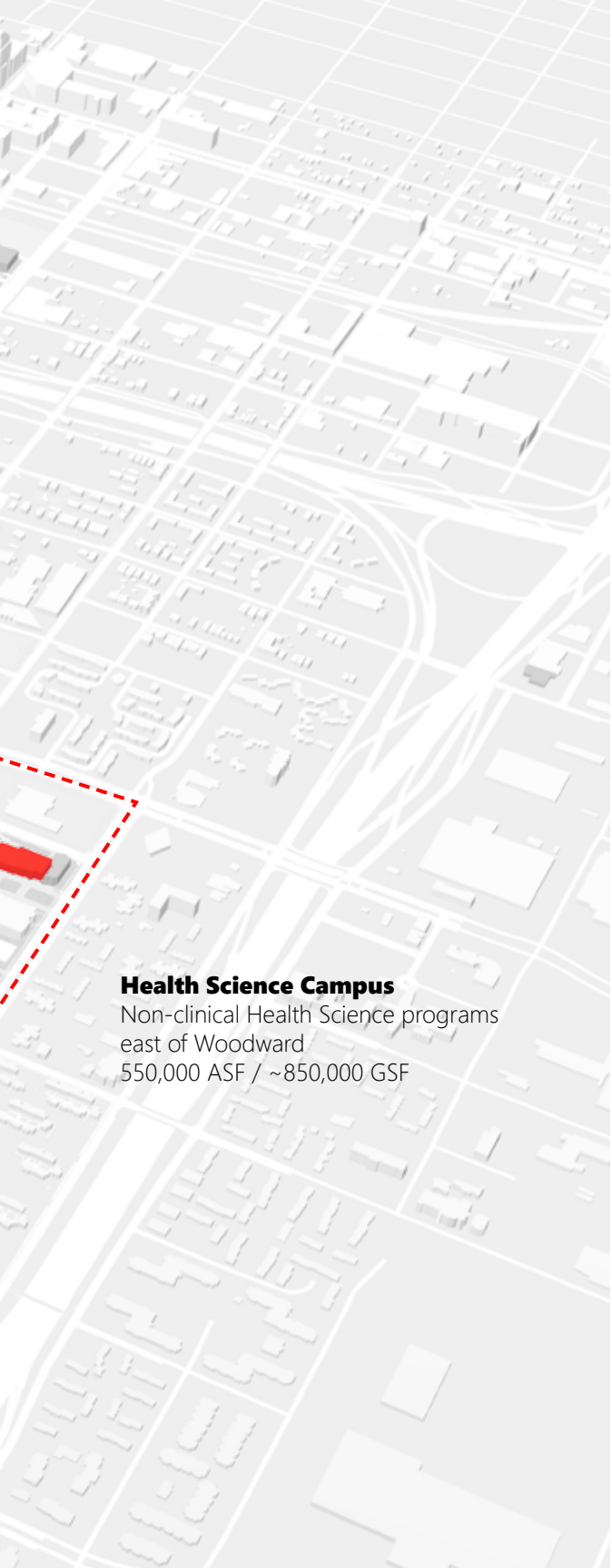
- Replace Scott Hall and minimize interim investment
- Promote future optionality for Health Sciences
- Define other key sites for long-term development when needed
- Focus real estate strategy between the Lodge and Woodward Ave

MEDICAL CAMPUS AND SCOTT HALL TODAY



**Main Campus**

**Scott Hall**

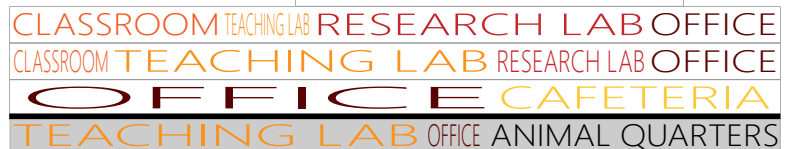


**Health Science Campus**

Non-clinical Health Science programs  
east of Woodward  
550,000 ASF / ~850,000 GSF

## REPLACE SCOTT HALL AND MINIMIZE INTERIM INVESTMENT

The master plan does make a formal recommendation on Scott Hall. Because Scott Hall is an inefficient building (it yields only 264,000 assignable square feet from its 500,000 gross square feet for an efficiency factor of 52% compared to a likely 60% efficiency achievable through new construction), averages only \$142 of sponsored expenditures per research square foot, and would likely cost in the region of \$300 million to renovate, the master plan recommends the building be replaced (and likely not on a one-for-one square-foot basis). Given that opening a replacement building will take time, some additional investment in Scott Hall may be necessary, but this investment should be reduced to a minimum.



**Scott Hall**

**264K ASF / 500K GSF (52%)**

Research expenditures	~\$11.6M @\$142/ASF
Renovation cost	\$250M-\$350M @\$500-700/SF? (STEM is \$450/SF)

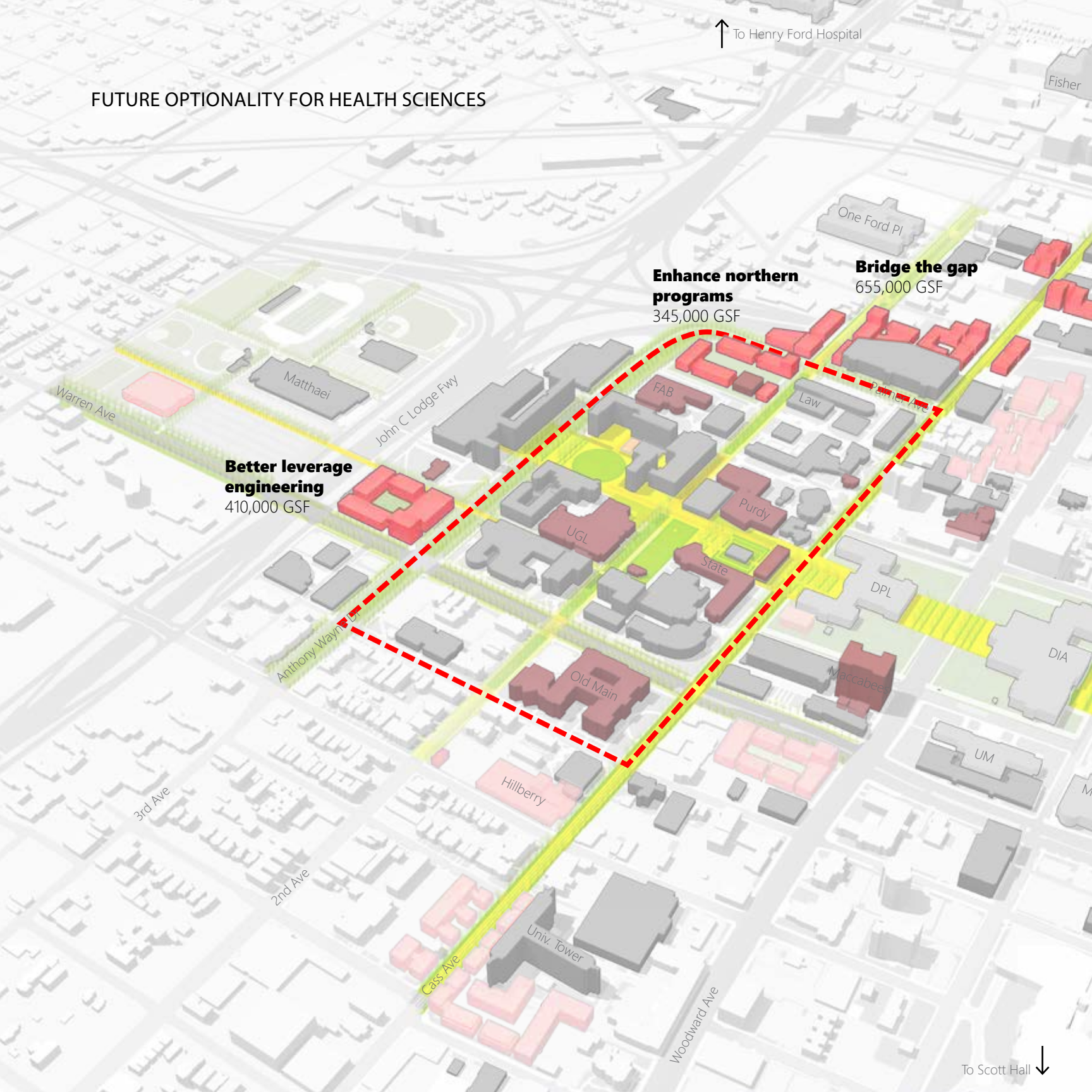
↑ To Henry Ford Hospital

# FUTURE OPTIONALITY FOR HEALTH SCIENCES

**Better leverage engineering**  
410,000 GSF

**Enhance northern programs**  
345,000 GSF

**Bridge the gap**  
655,000 GSF



↓ To Scott Hall



## PROMOTE FUTURE OPTIONALITY FOR HEALTH SCIENCES

The master plan supports the health sciences by detailing multiple options. The plan describes how the health sciences could remain in place or relocate wholesale. It details how a relocation could be determined based on various strategies: reinforcing iBio, bridging the gap between the core campus and northern programs/connections, better leveraging collaborations with the College of Engineering, and working with future potential clinical partners.

↑ To Henry Ford Hospital

# 2.32 MILLION GSF FOR LONG-TERM DEVELOPMENT



410,000 GSF

345,000 GSF

655,000 GSF

**Repurpose UGL**  
180,000 GSF

**Frame the Mall**  
200,000 GSF

↓ To Scott Hall



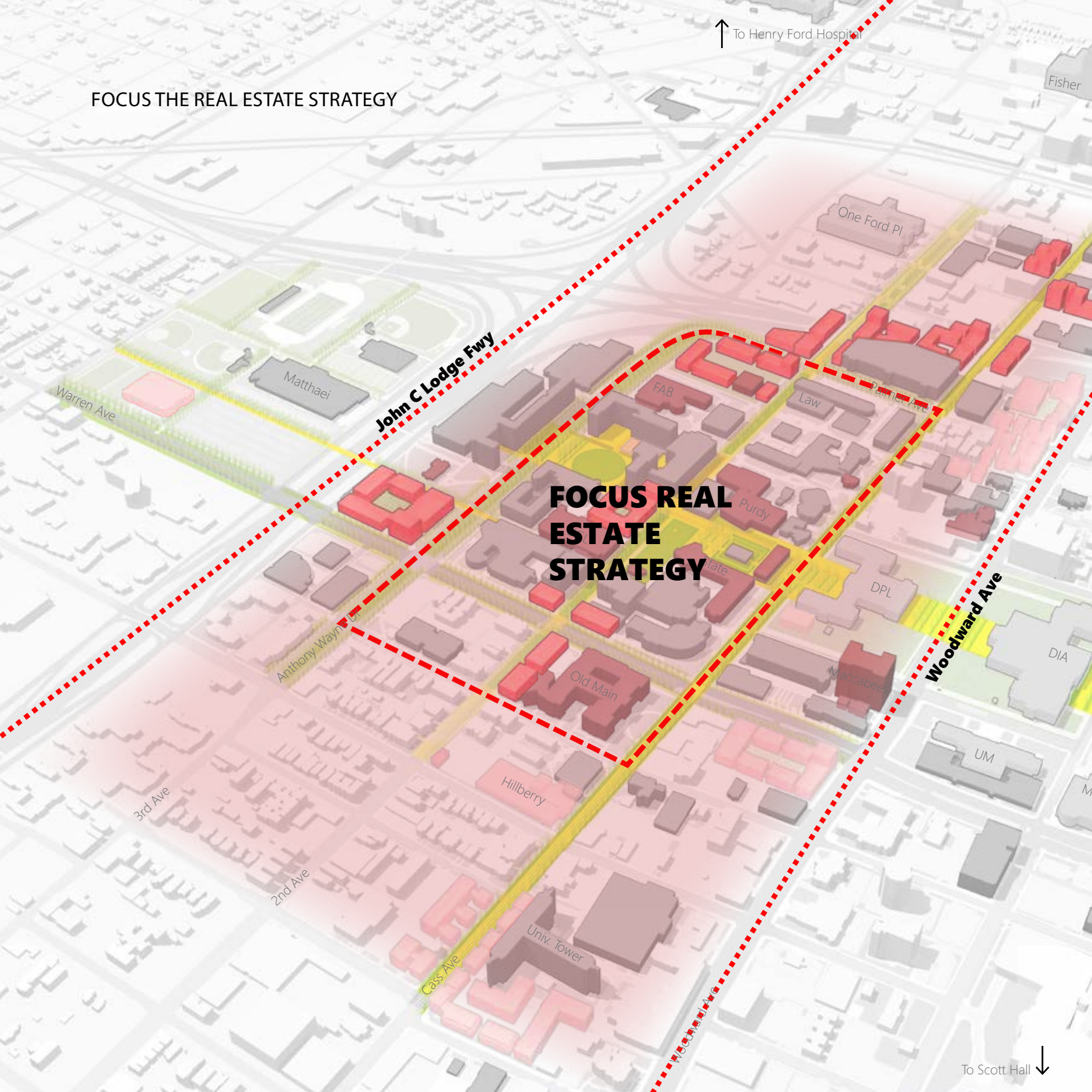


## DEFINE KEY SITES FOR LONG-TERM DEVELOPMENT

In addition to the sites identified as potential locations for the health sciences, the university has additional infill capacity on the core campus. While the near-term strategy for the master plan focuses on consolidation, the long-term idea is to secure the university's future by providing for growth when it becomes needed. The master plan therefore identifies a minimum of 2.3 million square feet of development capacity within the core (assuming very modest densities that could likely be further intensified). Whenever possible, future program growth should therefore not be distributed outside the core campus (unless the health sciences remain in their current location).

↑ To Henry Ford Hospital

FOCUS THE REAL ESTATE STRATEGY



**John C Lodge Fwy**

**FOCUS REAL ESTATE STRATEGY**

**Woodward Ave**

↓ To Scott Hall

Warren Ave

Matthaei

One Ford Pl

FAB

Law

Parmer Ave

Purdy

DPL

Anthony Wayne

Old Main

Maccabee

DIA

UM

3rd Ave

Hillberry

2nd Ave

Univ. Tower

Cass Ave

McChesney Ave

Fisher



## FOCUS REAL ESTATE STRATEGY BETWEEN THE LODGE AND WOODWARD AVE

As a corollary to this, the university should focus its real estate strategy between the Lodge and Woodward Avenue after maximizing the development opportunities on the identified parcels within the district, and consider deaccessioning properties outside of these bounds (with the exception of the athletics district and the health sciences if they remain in place).









IMPLEMENTATION

# ENGAGEMENT

## INTERNAL

The Capital Prioritization and Planning Committee will be the long-term stewards of the master plan. They represent an integrated group which can assess and prioritize university needs holistically and analytically. Over time, the university should continue to monitor the membership of this group to ensure it broadly represents appropriate internal stakeholders. The committee should be staffed through Planning and Space Management, which should become the centralized home for all university place-making initiatives.

In order to support ongoing decision making, Planning and Space Management will need to carefully consider its data management practices, and will likely need to make technology investments to ensure the Capital Prioritization and Planning Committee is well-informed. These investments are high-value and should be prioritized. Similarly, Planning and Space Management should consider appropriate detailed follow-on studies to optimize the program relocations envisaged by the master plan (these might include college-based master plans for the most affected colleges like: Liberal Arts and Sciences, Fine and Performing Arts, Engineering, etc.).

Finally, our discussion of space management below includes a consideration of other space-related committee structures.



## EXTERNAL

As part of the master plan, the university formed several topic groups which touched on areas of local interest. The engagement with these groups was robust and highly productive. The university should therefore consider forming a long-lived committee, whose membership would likely consist of selected members of the various topic teams, who could continue to participate in conversations around future decision making about the university's physical environment. This would provide an ongoing forum for the expression of neighborhood concerns, further solidify partnerships with other cultural organizations, support local retail, provide feedback on historic preservation issues, etc.

# SPACE MANAGEMENT

Wayne State University recognizes that implementation of the master plan will require improvements to its space management function. These improvements represent a high-value proposition. High priority recommendations include:

1. Improved data management. The university needs better systems and processes to understand how its space is used. This will likely require investments in both technology and process improvements. Ideally, any new technology package will easily allow university leadership to visualize and understand space assignments and relevant space-use metrics at the building and room level. Of course, these graphics can only be as good as the underlying data they represent. The university should therefore develop a process to audit and review its space database. A new process should likely include: an annual survey of space assignments to be completed by every department and unit, a process for updating as-built plans and the database on completion of any renovation or new construction project (and by corollary the need to centralize the flow of renovation projects), and the identification and maintenance of appropriate metrics to associate with space-assignment data.
2. Classroom committee. Control of all general-purpose classrooms should rest with the registrar. The university should form a representative classroom committee whose membership could include stakeholders from the academic senate, the faculty at large, the provost's office, computing and information technology, technology support services currently organized within Wayne's library services (it may ultimately make more sense to organize this unit directly under the provost's office), and facilities planning and management. The committee should be charged with the ongoing responsibility of determining the appropriate mix of classroom spaces for WSU (large lecture, traditional, seminar, case, active learning, etc.), and with developing a rotation schedule for classroom renovations and upgrades.
3. Specialized instructional space. The university should closely monitor the use and purpose of teaching laboratories, both scheduled and unscheduled, to ensure that, on an on-going

basis, these space assignments remain relevant, that programs have the specialized spaces they need, and that these spaces are appropriately used.

4. Research space. The university should maintain a dataset describing research productivity. Potential metrics include sponsored expenditures per square foot, PI team size, and square feet per investigator. This data should be available to academic leadership (including all deans) and facilities planning and management. Wherever practicable, the university should seek to establish research cores.

5. Office space. The university should establish clear guidelines for office sizes. We recommend that private offices should be 100 to 120 assignable square feet (with the lower bound being highly desirable) and that shared workspaces should have 60 to 85 square feet per station. The university should clearly describe what roles require private offices, and wherever possible, should consider implementing incentive methods to encourage shared office space. The university should centrally monitor and record office assignments.

6. RCM. As the university implements its RCM model, it should closely monitor the effects of its space pricing scheme to determine liquidity in the space market, opportunities to further incentivize improved space and energy efficiency, and impacts on unit commitments to renovations and space upkeep.

7. Capital prioritization. As the university's space-use data and methodologies mature, this information should become a critical component in internal deliberations of capital prioritization, both for renovation and new construction.

# HISTORIC PRESERVATION

The Wayne State University campus is rich in history.

The university should therefore commit to identifying all potential historic resources, defined as all resources 40 years of age or older (while the national register typically uses 50 years for its benchmark, the plan wanted to include all buildings that might become eligible during its initial 10 years, hence the 40-year threshold), or which exhibit significant architectural or cultural merit. These resources should be evaluated for significance using the National Register of Historic Places Criteria for Evaluation. At a minimum, all the campus' Yamasaki buildings should be placed on the national register. In addition to identifying and evaluating potentially eligible historic resources, there are several existing National Register-listed properties, National Historic Landmark properties, National Register-listed historic districts, and locally designated historic properties and districts within and adjacent to the campus. Using available information from the state preservation authority, local preservation authority, and Wayne State, Lord Aeck Sargent identified historic resources located within and adjacent to the campus. Information was collected in late-2018 using campus boundaries provided by WSU and adapted to GIS format by LAS. Historic background research was conducted prior to completing the fieldwork in order to establish an understanding of the history and evolution of the campus and inform observations made in the field. No prior comprehensive study of historic resources within the WSU campus has been identified and while the 2001 Campus Master Plan acknowledges the importance the campus's historic resources and adjacent historic districts and incorporates the recognition of these historic resources throughout the planning process, it did not systematically identify and evaluate historic and potentially historic resources, nor did it explicitly recommend planning and treatment strategies for these resources. These resources are identified on the map on page 58 above.

Moving forward, Wayne will face difficult decisions about its resources that may have historical implications. The university should commit to open and transparent process in making these decisions. Specific steps for considering proposed significant alterations and capital

improvements to historic campus features, buildings, or landscapes could include:

- Assembling an Environmental Effects Report (EER) which could be provided to appropriate representatives of the historic preservation community and other interested stakeholders.
- Develop a Historic Structure Report (HER) for significant historic buildings
- Hold an informal briefing to discuss project goals and approach, and incorporate feedback into proposed action plan
- Upon consideration of the EER and informal feedback, publishing a 30-day legal notice of proposed action
- Hold a public hearing if more than XX [[Georgia uses 25]] number of requests are made
- The EER and any public comment can be sent to the state historic preservation office for its files
- Based on all feedback received, campus official make their final decision
- Develop mitigation agreement if adverse effect is determined
- Hold a final public meeting to present final decision, mitigation plan (if needed), etc.



Use existing parking more efficiently by redistributing demand through pricing and restrictions

# PARKING

The program consolidation moves will not greatly impact the university's parking supply. The longer-term growth moves will lead to the loss of some surface parking lots, and so the long-term build-outs are shown with some amount of structured parking should that be necessary at the time. In general, the university should focus on transportation demand management where possible to lower parking demand, and should continue to carefully monitor the balance of available parking across various campus zones. The key goals are therefore to:

- Avoid building more parking in core areas or periphery
- Use existing parking more efficiently by redistributing demand through pricing and restrictions
- Reduce parking demand by incentivizing non-auto modes

Elimination of surface lots for development increases peak hour parking occupancy campus-wide, assuming no changes in parking demand.

	Existing conditions	Proposed conditions
Total spaces	12,105	11,121
Total unoccupied spaces at peak hour	3,085	2,101

## CAMPUS TODAY

Main campus: 115 acres

Tree

Open space

Green at main campus:  
23 acres (20%)

Building

GSF at main campus:  
4,450,000 SF  
FAR: 1.2\*

Street



## CAMPUS PROPOSED

Main campus: 115 acres

Tree

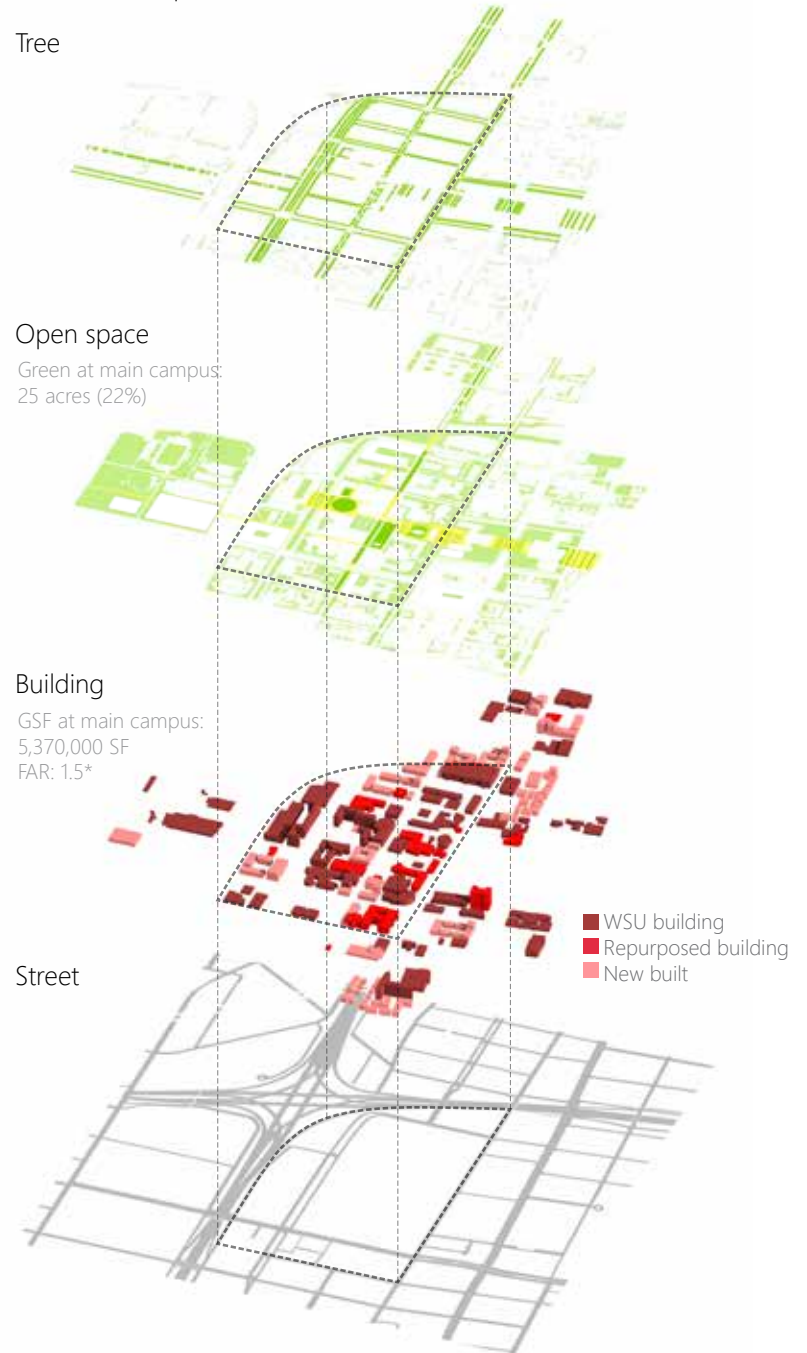
Open space

Green at main campus:  
25 acres (22%)

Building

GSF at main campus:  
5,370,000 SF  
FAR: 1.5\*

Street



\* Calculated as GSF divided by the area of main campus excluding roads



# ENVIRONMENTAL AND SOCIAL STEWARDSHIP

## TOWARD DETROIT'S RENAISSANCE

- Promoting stronger, affordable neighborhoods for faculty, staff, and non-university neighbors
- Increasing density to promote a better on-campus experience

The stewardship of great universities in an urban setting is paramount for university and city success. First, as one of the most important and largest constituents in Detroit, the university's role in the revitalization of the city is crucial. The plan promotes better neighborhoods on the university's perimeter to reinforce stronger and safer communities that work for all faculty, staff, students, and non-university neighbors. This has had, and will continue to have, a major effect on perceptions of the university as a community, the reinvestment in district residential opportunities, home ownership, and the city's tax base. The more Wayne can enable and encourage stronger, affordable neighborhoods near the university, the more it can increase the likelihood of faculty and staff becoming residents and lessening their daily commutes, now one of the largest contributors to poor air quality in the Detroit metro area. The social and environmental effects of better neighborhoods, better schools, and better services all support the city's renaissance.

## BUILDINGS

- Maintain and emphasize a compact core with associated utility system
- Regenerate existing buildings rather than building new
- Density and create building clusters to self-protect in harsh weather

The university should maintain and reinvest in its academic core, and avoid more speculative investment in property acquisition outside the core (unless needed to support a future health science clinical partnership). This idea reinforces several environmental aspirations. First, it promotes a more walkable university community, which has the added benefit of encouraging a more collaborative community. A more compact core is more efficient from a utility and energy perspective, with lower upfront distribution costs and long-term operational savings. Closer building configurations can be more energy efficient as building clusters can act as self-protective units in harsh winter weather. The plan also advocates strongly for the reuse and regeneration of several core building in lieu of new buildings. This is a core environmental strength of the plan.

## SITE

- Larger, simpler open spaces can act as stormwater reservoirs to capture, store, and/or infiltrate stormwater before releasing into the city system
- Reconfigure streets
- Better use of trees

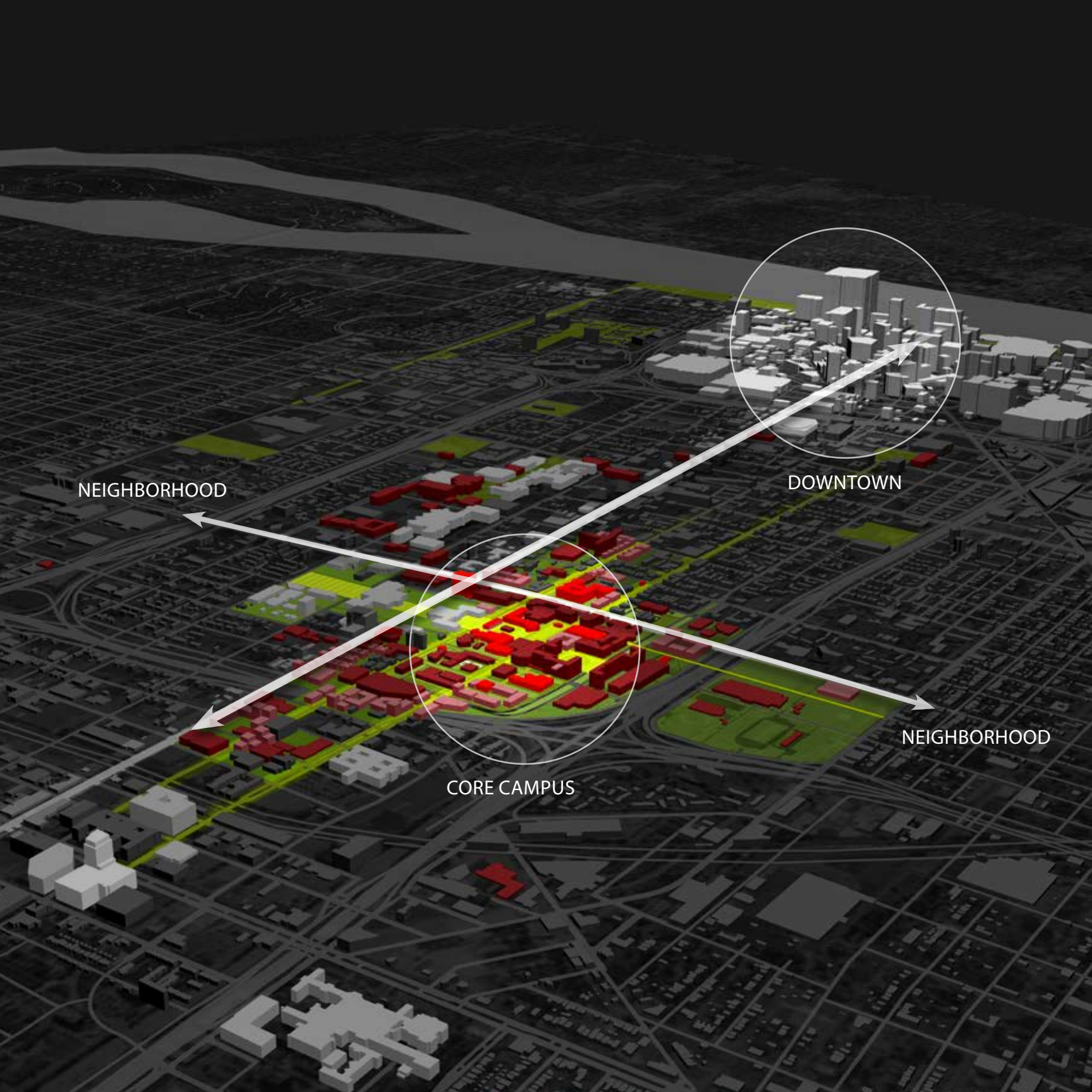
The campus site plan advocates for simpler, larger lawn areas, where possible with additional support systems for storm-water storage. This allows rainwater infiltration where soil conditions permit, or water storage during storm events, lessening storm and sewer impacts on the city system. The plan also reduces the Warren Avenue and Anthony Wayne Drive street sections, adding pervious areas to the overall campus while promoting safer streets via narrower cross sections and a more pedestrian friendly walking environment within, and at the edges, of the university. Lastly, the plan advocates for the bold use of regional trees on streets and on university courts and quadrangles for several reasons: increasing tree canopy near buildings can greatly decrease summer peak energy costs; an increase in the tree canopy helps storm-water absorption and lessens the impact from high rainfall storm events; a strong tree canopy in large paved areas like parking lots lessens the heat island effect and increases comfort in the campus environment.

PERVIOUS SURFACE AND TREES  
TODAY



PERVIOUS SURFACE AND TREES  
PROPOSED





NEIGHBORHOOD

DOWNTOWN

CORE CAMPUS

NEIGHBORHOOD

# DESIGN PRINCIPLES

## CAMPUS AS INTEGRATED CITY: AN APPROACH TO CAMPUS DESIGN GUIDELINES

We think it hard to distinguish sometimes our great American campuses and our great cities, large or small. Unique identity, a vibrant, varied economy, a healthy place to live and work. These are qualities sought by both institution and city alike.

It is important that every move the campus makes must manifest and support the uniqueness of its place and mission. In today's financially challenged world, we should harvest the value of every dollar spent; and ask how we can maximize learning (academic and civic) per square foot given minimum inputs.

The university must think about design decisions through two intermingled lenses; one physical, with a biological imperative and climatic reality that require a specific response; and the other a unique cultural history that is constantly enriched as campus constituencies are renewed and the university's surrounding host district enjoys its own regeneration and renewal. The campus today reflects these changing eras in its architecture, its academic response to world problems, and its civic environment, moving from an internally focused environment to an inclusive and connected one. In short, campus, environment, and city must become one.

Given this context, we discuss design standards for each of the following interrelated topics: district, infrastructure, landscape, architecture, and identity (wayfinding) as elements of an integrated whole. These elements must reinforce each other.



ANTHONY WAYNE DR



INFRASTRUCTURE  
LANDSCAPE  
ARCHITECTURE

GULLEN MALL



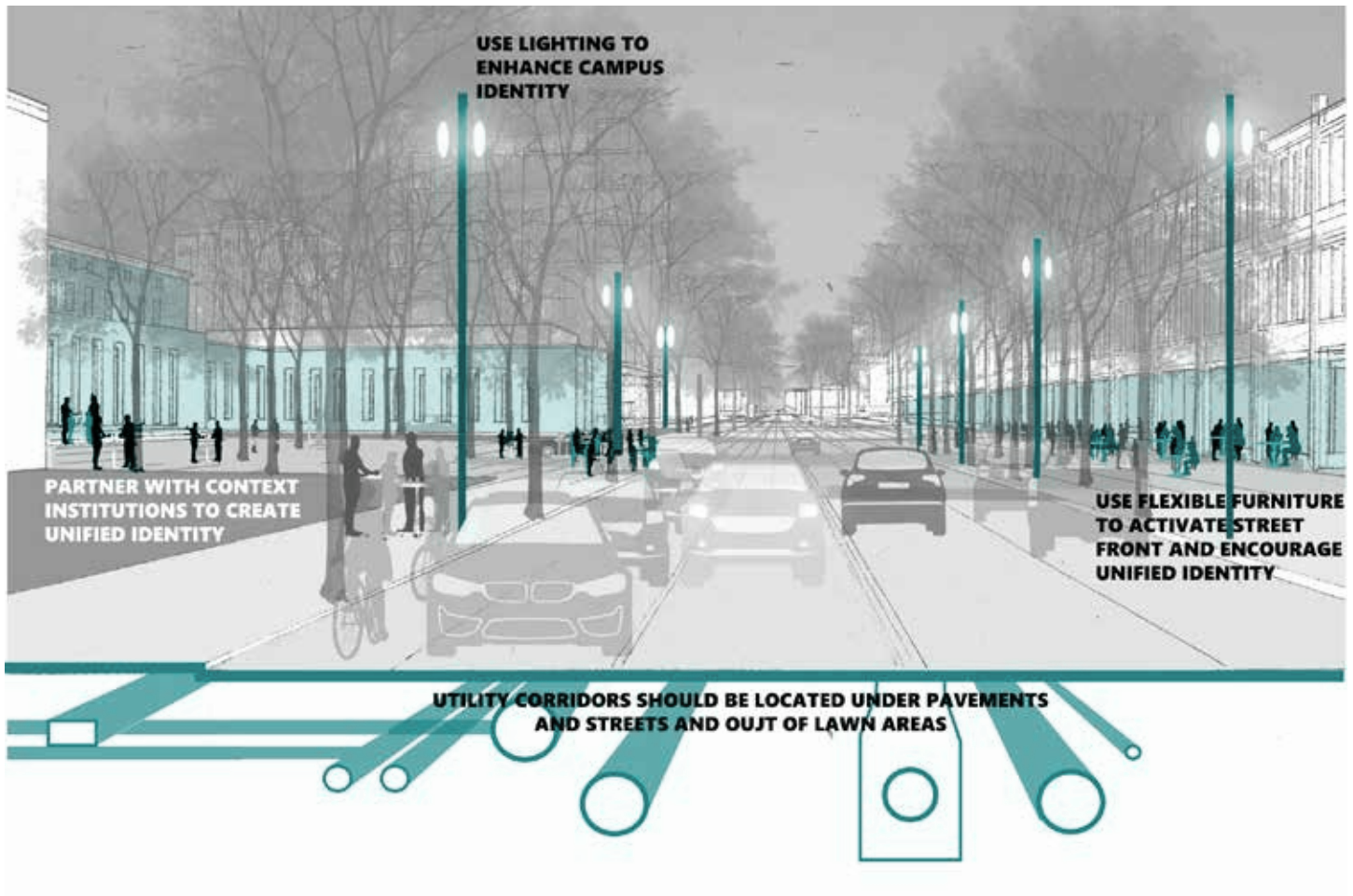
CASS AVE

WAYNE STATE UNIVERSITY AS A UNIFIED DISTRICT



## WAYNE STATE UNIVERSITY AS A UNIFIED DISTRICT

The overall goal is to think of the university as a cohesive, compact academic, research, and mixed-use district that is active much of the day and evening. It should enable walking and biking via proximate locations of programs and strategic placement of clear, civic places: simple lawns, courtyards, and walks. Parking should be peripheral and internal to blocks. To accomplish this, university systems of *infrastructure, landscape, and architecture* need to be integrated.



Existing streets and pedestrian walkways should be clear corridors for efficient utility placement, lighting, and enhanced campus identity.

## INFRASTRUCTURE PRINCIPLES

The goal of the university is to be environmentally conscious, and efficient to operate and maintain. To enable this, we suggest the following principles:

- Make a compact district. This limits initial cost, utility line lengths, and operating line loss, and can create a favorable micro-climate between buildings.
- Locate utility corridors under pavements and streets, and out of lawn areas
- Institute a thoughtful, durable system of campus elements including mechanical equipment, pavements, curbing, lighting, etc.. A common palette enhances purchasing power, unifies the campus and design process, and simplifies operational maintenance.



Gullen Mall today



Gullen Mall proposed

## LANDSCAPE PRINCIPLES

The governing reason for landscape design guidelines is to express the unique historic, cultural, and environmental character of the campus and region and drives future campus development. To do this we recommend the following campus landscape principles for Wayne State University:

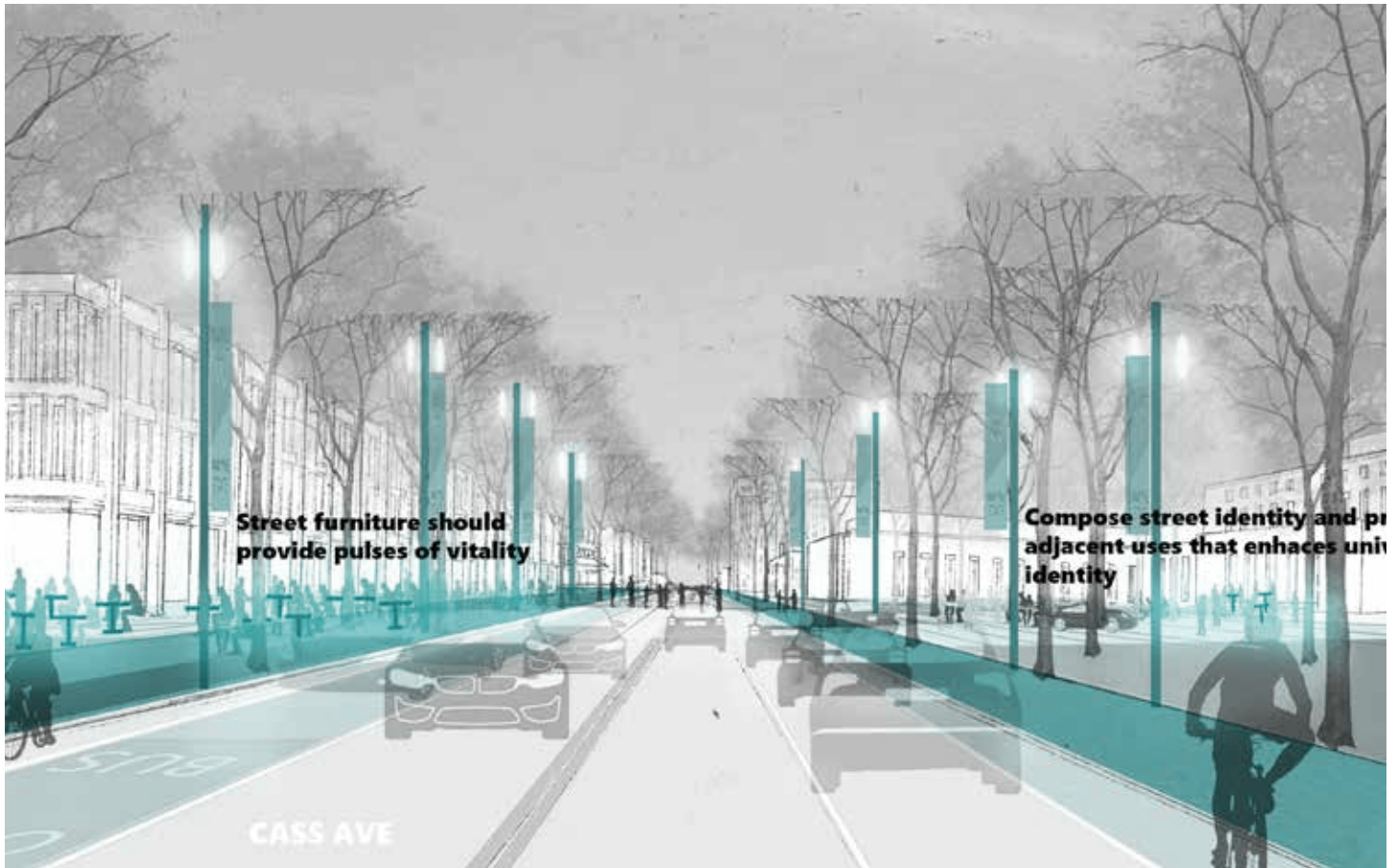
- Institute a landscape system that is derivative of, and represents, the larger regional ecology of Michigan while enhancing the university's specific location in a distinct, regenerating urban district.
- Conceive of the WSU campus as an integrated settlement where, given the size of the campus, we establish unity, efficiency, and clarity through a thoughtful integrated palette of space types, distinct street types, and simple, repetitive, durable materials.
- Introduce where possible larger more flexible (less programmed) open landscapes and quadrangles to enable student use and serve as infiltration and stormwater storage areas that lesson the university's post-storm impact on the city stormwater system.
- Utilize a simple, elegant palette of materials (plant materials, pavements, curbs, walls, lighting, signage) representing local climate, functional need, maintenance, and cost effectiveness over the long term and for the whole campus. These materials should be enduring and unifying.



Introduce where possible larger more flexible (less programmed) open landscapes and quadrangles to enable student use



Use larger more flexible open landscapes as infiltration and stormwater storage areas that lessen the university's post-storm impact on the city stormwater system.



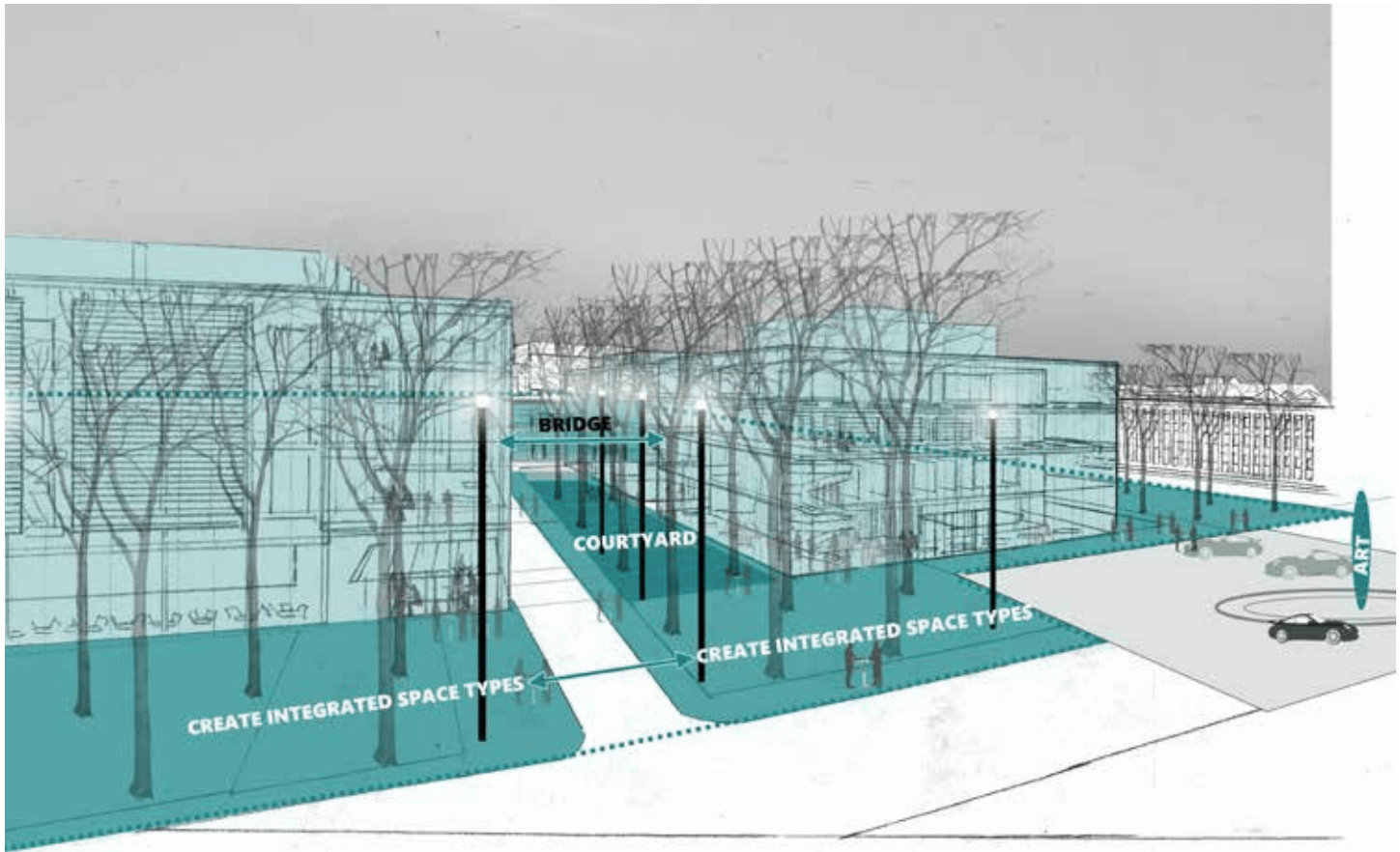
**Street furniture should provide pulses of vitality**

**Compose street identity and program adjacent uses that enhances university identity**

CASS AVE

Compose distinctive street identity and program uses that enhance university identity, provide pulses of vitality, and embrace the larger Midtown District





New research and academic districts should utilize a simple, elegant palette of materials (plant materials, pavements, curbs, walls, lighting, signage)



Large flexible open landscapes



Repetition of unified, simple, elegant palette of materials (plant materials, pavements, curbs, walls, lighting, signage)



McGregor Memorial Center



Reflecting Pool

## ARCHITECTURAL PRINCIPLES

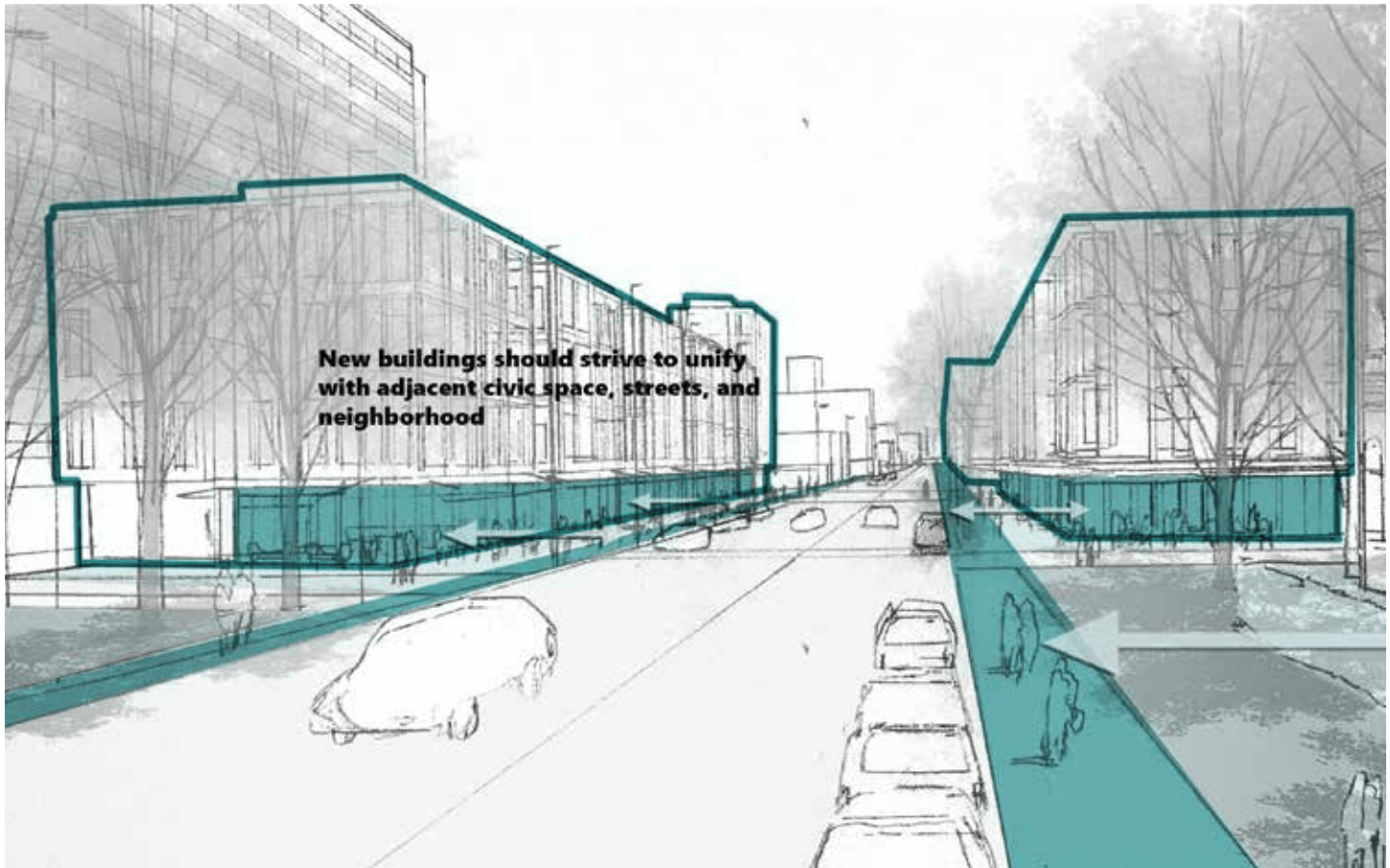
- Given the campus' evolution within the historic Midtown District, it has a unique architectural legacy. The campus was created gradually as blocks were assembled; this means there was never an original organizing idea, rather beginning near Old Main, the campus resulted from the gradual absorption of the surrounding residential neighborhood. This epoch continued until the Yamasaki plan and the subsequent iconic buildings of that firm. Wayne's campus is, and will always be, a campus in dynamic transition without one clear architectural style, but instead a portfolio of great, sometimes iconic, and sometimes functional buildings. This eclectic portfolio and the bold academic re-organization ideas, building regeneration, and removals here proposed, provide clues as to how the university should consider future buildings and architectural principles.
- Establish a clear sense of the current contributing architectural legacy of the campus. Through a thorough and consistent evaluative methodology, establish a clear rationale of reinvestment and demolition, where warranted, that will achieve the bold planned academic re- organization the plan envisions.
- Regenerate buildings identified for this purpose by stripping them down to their basic structure, establishing new MEP systems, and repairing building envelopes, with a clear goal to achievable energy and air quality standards, and an enhanced, flexible teaching and research space portfolio.
- Respect the context. New buildings should strive to unify and collaborate with their context (unless the site requires a more iconic idea such as at the corner of Warren and Woodward). On Cass Ave, buildings should adhere to the district's regulating lines and setbacks. Given the importance of the Case Avenue corridor to the campus framework idea, we advocate for a more in depth and collaborative review of the corridor with the Midtown Detroit planning agency. Buildings should maintain consistent heights. Building materials should relate to their neighbors and be chosen for long term durability.
- Define usable exterior campus spaces. The existing campus and the proposed plan define new building locations, streets, quadrangles, courts, and linear walks. New building placement must reinforce and engage these civic elements through thoughtful program



Regenerate buildings identified for this purpose by stripping them down to their basic structure, establishing new MEP systems, and repairing building envelopes, with a clear goal to achievable energy and air quality standards.

placement, transparency, and entries that enhance interior/exterior vitality. Where appropriate, plan building-to-building connections to enhance flexibility for program growth, program adjacencies, and winter weather connections.

- Climatic orientation and conditions. Access to sun and fresh air enables better learning outcomes. Regenerated and new buildings should therefore respond to specific façade orientations and their wall proportion of solid to glazing (windows) should enhance MEP performance and utilization of daylight. Windows should be operable whenever possible. The university should set achievable performance guidelines to lessen energy use, enhance operational maintenance, and set clear goals for renovated and new building design processes.



New buildings should strive to unify and collaborate with adjacent civic space, streets, and neighborhood as illustrated in the potential Cass Avenue Art District above.





Gateways to campus should elegantly announce and invite visitors to the campus district and collaborate with their neighborhood such as the Cass and Canfield example shown here.

## COST MODELING AND PHASING STRATEGY

Accurately predicting likely capital costs on a 10-year basis is challenging. The master plan therefore undertakes this task with great seriousness, but also with humility, noting that precision is likely not possible. For all of the major renovation, new construction, and site projects, we worked closely with facilities planning and management to estimate a likely per square foot project cost (in 2019 dollars). We then developed a potential phasing strategy based on university priorities. The clear first priority is the comprehensive renovation of State Hall to ensure the future of the university's learning environment. The second priority is the reimaging of the Undergraduate Library as a departmental home—although this requires several enabling projects, and in particular, reinvestment in Purdy and Kresge. Renovations to the smaller houses are pushed to the model's out years. The full details of the phasing assumed for cost modeling is described in the diagram below and in the appendix. The model assumes that spending on any given renovation or new construction project will take place over three years (with a 20-50-30 split), and that spending on demolitions requires only one year. We then escalated 2019 costs based on potential phasing and calculated the net present value of all likely renovation, new construction, and site costs. Excluding a replacement for Scott Hall, the aggregate net present value for core campus plan investments is approximately \$500,000,000. Note that this figure does not include other needed renovation dollars for capital renewal in buildings other than those focused on as part of the plan's academic consolidation strategy. While the 10-year capital renewal dollars associated with the buildings in the academic consolidation strategy by Sightlines are at first glance less than the half billion figure calculated for plan investments, our more detailed building studies show that the Sightlines figures are likely low. While we lack sufficient data to determine the exact multiplier needed to adjust the Sightlines numbers, we can determine what this multiplier would need to be in order for the investments described in the plan to be roughly equivalent to the investments needed anyway (i.e. the Sightlines investments). Undertaking this exercise shows that the Sightlines numbers would need to be increased by approximately 68%. We believe this inflation factor to be reasonable, and therefore conclude that, because of the proposed demolitions, the cost of implementing the master plan in the core campus, is likely equivalent

to the cost of the needed basic (non-programmatic!) capital renewal program.

Finally, we consider the cost of a Scott Hall replacement. Again, this is not an easy question to answer, because without further study, it is difficult to determine what size facility is needed to replace Scott Hall. All available data (both hard and soft) strongly suggests that a one-for-one replacement is not required. We therefore tested four scenarios: replacement of 50% and 75% of Scott's total square footage using project costs of \$600 and \$700 per square foot. This exercise suggests replacing Scott Hall will likely cost between \$130,000,000 and \$230,000,000 (to be crystal clear, this figure is not included in the half billion total above).

## PROPOSED SPEND TIMELINE

#	BUILDING	GSF	2019	2020	2021	2022	2023	
1	Maccabees Building	288,419	\$ -	\$ -	\$ -	\$ -	\$ -	
2	State Hall	163,530	\$ -	\$ 11,962,245	\$ 31,251,365	\$ 19,594,606	\$ -	
3	Old Main	436,295	\$ -	\$ -	\$ -	\$ -	\$ 31,217,359	
4	Undergraduate Library	210,000	\$ -	\$ -	\$ -	\$ -	\$ -	
5	Faculty/Administration Building	158,065	\$ -	\$ -	\$ -	\$ -	\$ -	
6	Purdy Library	162,770	\$ -	\$ -	\$ 8,887,457	\$ 23,218,481	\$ 14,557,988	
7	Kresge Library	68,272	\$ -	\$ -	\$ 3,727,746	\$ 9,738,736	\$ 6,106,187	
8	Donaldson House	17,763	\$ -	\$ -	\$ -	\$ -	\$ -	
9	Music Annex	10,202	\$ -	\$ -	\$ -	\$ -	\$ -	
10	Linsell House	6,581	\$ -	\$ -	\$ -	\$ -	\$ -	
11	Prentis Building	68,404	\$ -	\$ -	\$ -	\$ -	\$ -	
12	St. Andrew's	17,840	\$ -	\$ -	\$ -	\$ -	\$ -	
13	Manoogian Hall	189,150	\$ -	\$ -	\$ -	\$ -	\$ -	
14	General Lectures	30,073	\$ -	\$ -	\$ -	\$ -	\$ -	
15	Life Science	59,904	\$ -	\$ -	\$ -	\$ -	\$ -	
16	Shapero Hall	41,181	\$ -	\$ -	\$ -	\$ -	\$ -	
17	Undergraduate Library (demo)	100,965	\$ -	\$ -	\$ -	\$ -	\$ -	
18	Wet Labs	53,333	\$ -	\$ -	\$ -	\$ -	\$ -	
			\$ -	\$ 11,962,245	\$ 43,866,568	\$ 52,551,823	\$ 51,881,534	

	2024	2025	2026	2027	2028	2029	NPV
	\$ -	\$ -	\$ 23,549,904	\$ 61,524,125	\$ 38,575,627	\$ -	\$ 79,280,591
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 53,966,744
	\$ 81,555,351	\$ 51,135,205	\$ -	\$ -	\$ -	\$ -	\$ 121,658,311
	\$ 18,318,874	\$ 47,858,060	\$ 30,007,003	\$ -	\$ -	\$ -	\$ 67,991,577
	\$ -	\$ 10,292,118	\$ 26,888,158	\$ 16,858,875	\$ -	\$ -	\$ 36,380,761
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,185,786
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,016,607
	\$ -	\$ -	\$ -	\$ 3,031,361	\$ 7,919,431	\$ 4,965,483	\$ 9,719,101
	\$ -	\$ -	\$ -	\$ 1,740,972	\$ 4,548,289	\$ 2,851,777	\$ 5,581,876
	\$ -	\$ -	\$ -	\$ 280,781	\$ 733,541	\$ 459,930	\$ 900,236
	\$ -	\$ -	\$ -	\$ 1,945,547	\$ 5,082,743	\$ 3,186,880	\$ 6,237,783
	\$ -	\$ -	\$ -	\$ 1,775,919	\$ 4,639,589	\$ 2,909,022	\$ 5,693,924
	\$ -	\$ -	\$ -	\$ 4,034,848	\$ -	\$ -	\$ 2,600,899
	\$ -	\$ -	\$ -	\$ 641,507	\$ -	\$ -	\$ 413,521
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,790,892	\$ 1,631,777
	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 959,303	\$ 560,885
	\$ -	\$ 1,972,231	\$ -	\$ -	\$ -	\$ -	
	\$ -	\$ -	\$ -	\$ 7,584,537	\$ 19,814,602	\$ 12,423,755	\$ 24,317,419
	\$ 99,874,225	\$ 111,257,613	\$ 80,445,066	\$ 99,418,473	\$ 81,313,821	\$ 30,547,043	\$ 471,137,797



## BUILDING FINANCIAL MODEL SUMMARY

NPV value	5%
Sitelines multiplier	1.68

Construction escalation: 4.5%  
 Year one cost share: 20%  
 Year two cost share: 50%  
 Year three cost share: 30%

CAPITAL	BASIC RENEWAL	MASTER PLAN	Δ
Total 10-year capital expenditures	\$ 520,831,441	\$ 510,161,744	\$ (10,669,697)
10-year capital expenditure NPV	\$ 463,656,929	\$ 471,137,797	\$ 7,480,868

OPERATING	BASIC RENEWAL	MASTER PLAN	Δ
10-year operating	\$ 232,649,760	\$ 220,863,608	\$ (11,786,152)
10-year operating NPV	\$ 177,525,084	\$ 170,044,216	\$ (7,480,868)

COMBINED (NPV)	BASIC RENEWAL	MASTER PLAN	Δ
	\$ 641,182,013	\$ 641,182,013	\$ (0)

*Note: Excludes Scott Hall / Health Sciences*

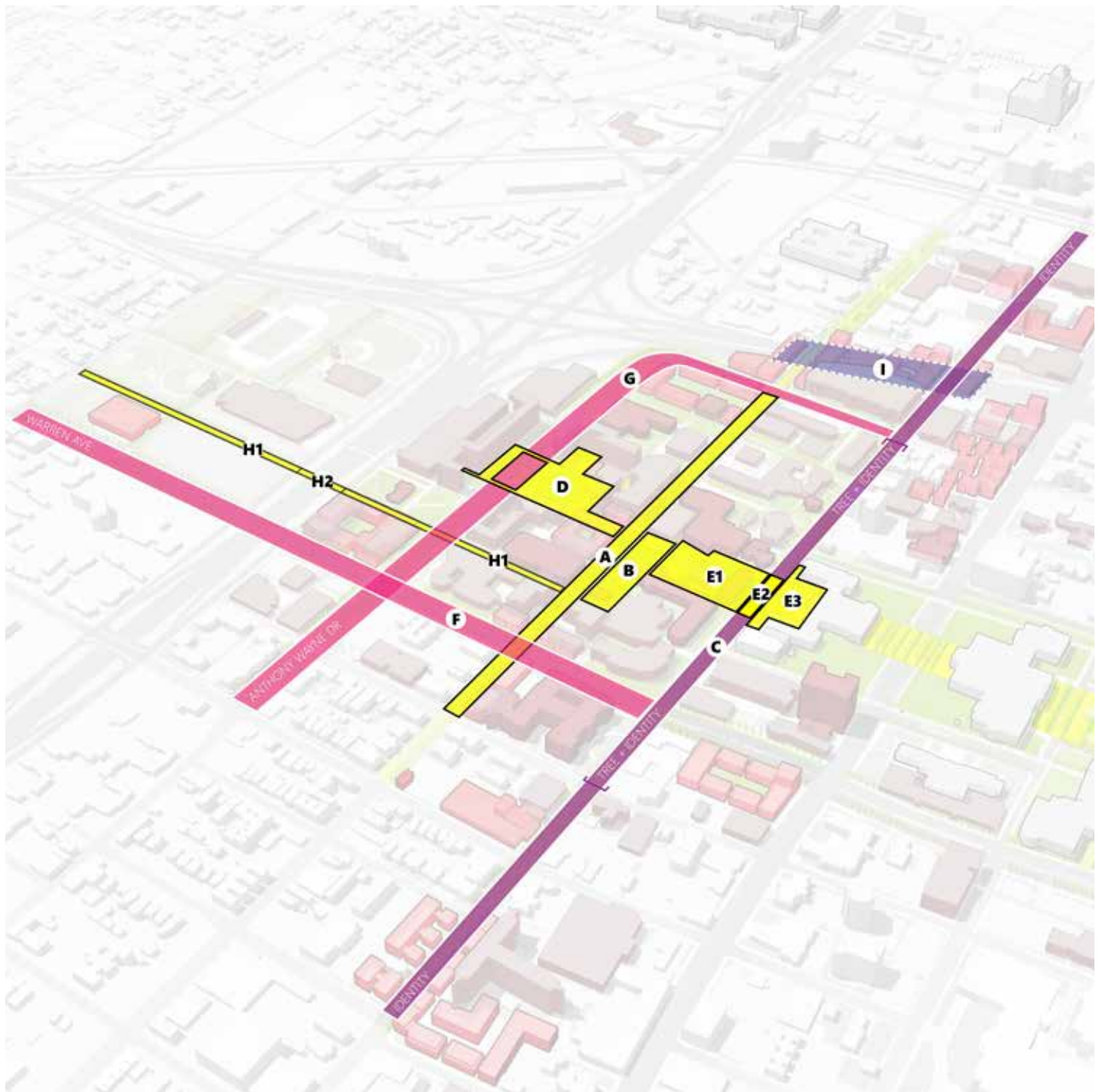
*Any operational savings should be repurposed to increase the level of service in remaining buildings.*

### PER SF COMPARISON

BUILDING	SIGHTLINES	MASTER PLAN
Maccabees Building	\$ 287.90	\$ 300.00
State Hall	\$ 286.48	\$ 350.00
Old Main	\$ 272.10	\$ 300.00
Undergraduate Library	\$ 206.95	\$ 350.00
Faculty/Administration Building	\$ 234.20	\$ 250.00
Purdy Library	\$ 282.32	\$ 250.00
Kresge Library	\$ 282.32	\$ 250.00
Donaldson House	\$ 184.73	\$ 600.00
Music Annex	\$ 157.66	\$ 600.00
Linsell House	\$ 234.70	\$ 150.00
Prentis Building	\$ 261.27	\$ 100.00
St. Andrew's	\$ 305.87	\$ 350.00

*Note:*

*Sightlines estimate does not account for current renovation  
 Sightlines figure includes current + 10-year need + modernization; no  
 escalations in either column*





# LANDSCAPE FINANCIAL MODEL SUMMARY







NPV estimate: \$13,044,132.42

## WSU-funded projects

No.	Item	Quantity	Unit	Unit Cost	Total	Remarks
A	2nd Ave/Gullen Mall improvement	220,000	SF	\$ 12	\$ 2,702,000	Approx. 2,600 LF, 40% green, 10% asphalt pavement, 50% cast-in-place concrete, including rows of deciduous trees along the Mall and pedestrian lighting (60' o.c.)
B	Fountain Court	88,000	SF	\$ 12	\$ 1,016,000	67% lawn, 14% asphalt pavement, 19% cast-in-place concrete, including rows of deciduous trees and pedestrian lighting (60' o.c.)
C	Cass Ave improvement	5,600	LF	\$ 196	\$ 1,096,000	Street tree improvement and university identity promotion
D	Keast Commons	168,800	SF	\$ 13	\$ 2,125,700	39% lawn, 27% asphalt pavement, 40% cast-in-place concrete, including one row of deciduous trees on each grass strip and pedestrian lighting along major path
E1	Cultural Axis (WSU side)	123,000	SF	\$ 13	\$ 1,600,300	40% lawn, 20% asphalt pavement, 40% concrete, including one row of deciduous trees on each grass strip and pedestrian lighting along major path
E2	Cultural Axis (Cass Ave)	14,800	SF	\$ 13	\$ 188,000	Intersection of Cultural Axis and Cass Ave
H1	Connection to athletics district (bridge excluded)	70,000	SF	\$ 17	\$ 1,216,000	Paved pedestrian corridor with rows of deciduous trees and pedestrian lighting, with one bridge at length of 300'
				<b>CONSTRUCTION COST</b>	<b>\$ 9,944,000</b>	
				<b>40% CONTINGENCY AND SOFT COST</b>	<b>\$ 3,977,600</b>	
				<b>TOTAL PROJECT COST</b>	<b>\$ 13,921,600</b>	

## Partner-funded projects

No.	Item	Quantity	Unit	Unit Cost	Total	Remarks
E3	Cultural Axis (DPL side)	64,000	SF	\$ 15	\$ 981,600	33% lawn, 38% asphalt pavement, 29% concrete, including one row of deciduous trees on each grass strip and pedestrian lighting along major path
F	Warren Ave improvement	3,200	LF	\$ 1,125	\$ 3,599,600	3,200 LF, reduced 8 lanes to 5 lanes with 2 bike lanes, 73' wide roadway with asphalt pavement, concrete curb, deciduous trees, street lights on both sides
G	Anthony Wayne Dr and Palmer Ave Improvement	4,100	LF	\$ 1,314	\$ 5,386,000	4,100 LF, reduced to 4 lanes with 2 bike lanes, with asphalt pavement, concrete curb, deciduous trees, street lights on both sides, including 175,000 SF green at Anthony Wayne Dr
H2	Connection to athletics district (bridge)	300	SF	\$ 5,000	\$ 1,500,000	Bridge at length of 300'
				<b>CONSTRUCTION COST</b>	<b>\$ 11,467,200</b>	
				<b>40% CONTINGENCY AND SOFT COST</b>	<b>\$ 4,586,880</b>	
				<b>TOTAL PROJECT COST</b>	<b>\$ 16,054,080</b>	
I	Decking over I-94	237,000	SF			

-  Institutional
-  Transportation
-  Arts & Entertainment
-  Commerce
-  Accessibility
-  Other

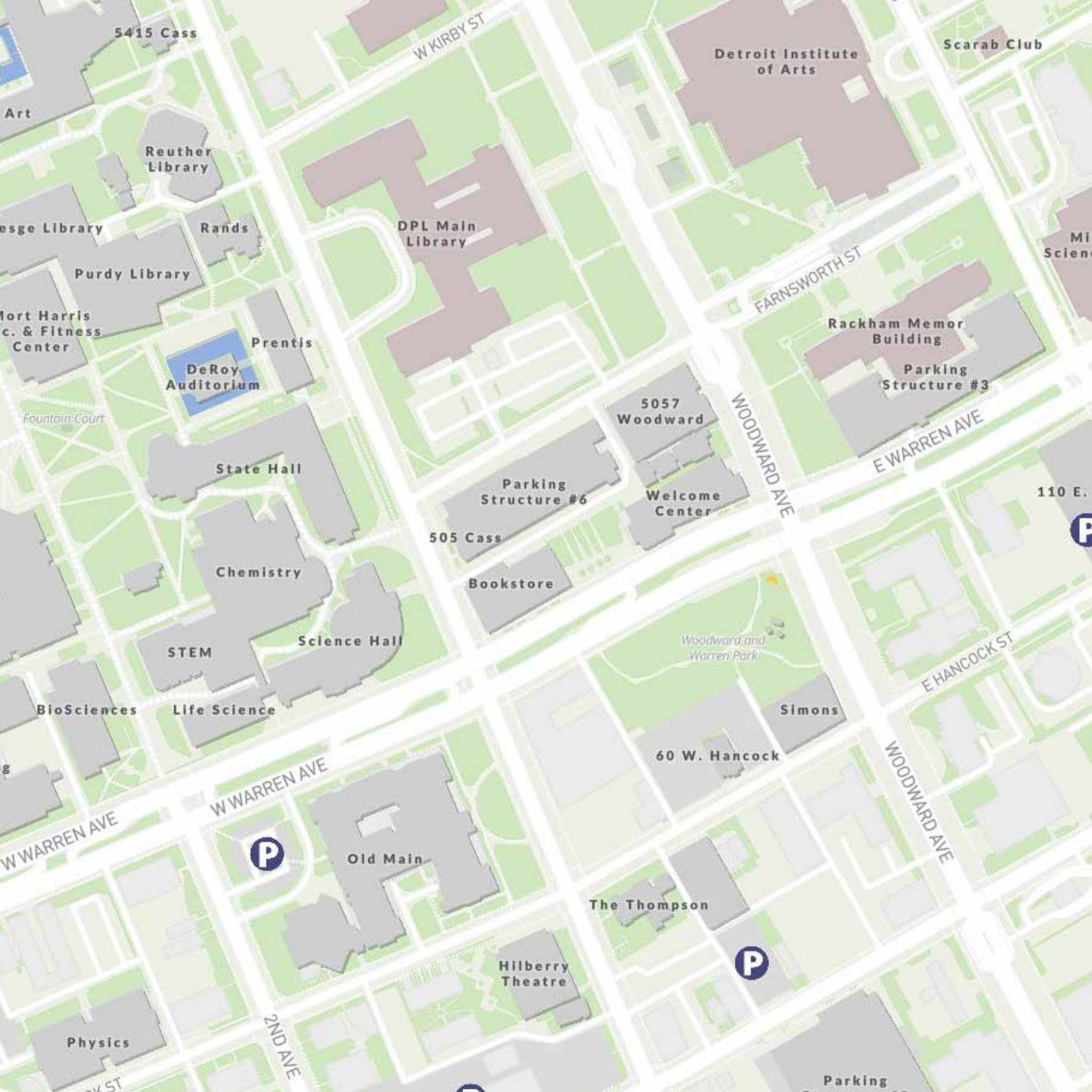
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### WEB-BASED MAPPING TOOLS

The framework includes web-based mapping tools that promote data visualization and communication. The platform allows the university to publish any of its GIS data as an interactive map which can be accessed either publicly or via password. Maps can be styled as needed, with a highly functional workflow that promotes a single common data source.



5415 Cass

W KIRBY ST

Detroit Institute of Arts

Scarab Club

Reuther Library

DPL Main Library

FARNSWORTH ST

Rackham Memorial Building

Parking Structure #3

Purdy Library

Rands

Prentiss

DeRoy Auditorium

5057 Woodward

WOODWARD AVE

E WARREN AVE

State Hall

Parking Structure #6

Welcome Center

110 E.

505 Cass

Bookstore

Chemistry

Woodward and Warren Park

E HANCOCK ST

STEM

Science Hall

Simons

BioSciences

Life Science

60 W. Hancock

W WARREN AVE

WOODWARD AVE

P

Old Main

W WARREN AVE

The Thompson

P

Hilberry Theatre

Physics

2ND AVE

Parking





# **THE WAYNE FRAMEWORK 2019**

## **DUMONTJANKS**

Deep Dive Detroit  
Gage Cartographics  
Ghafari Associates  
Gorove/Slade  
Lord Aeck Sargent