

2022 Institutional Master Plan

Campus Design and Facility Development

13 December 2021



2022 Master Plan Principles

DESIGN

Reinforce the Connection of Design and Values
Create an Enduring Framework of Campus Spaces
Develop Campus Buildings that are Timeless

EXPERIENCE

Create Memorable Campus Gateways
Encourage Collaboration Everywhere
Foster a Lively On-Campus Lifestyle

MOBILITY

Expand and Integrate Campus Connections
Pedestrians>Bikes>Transit>Shared>Single Vehicles

CONTEXT

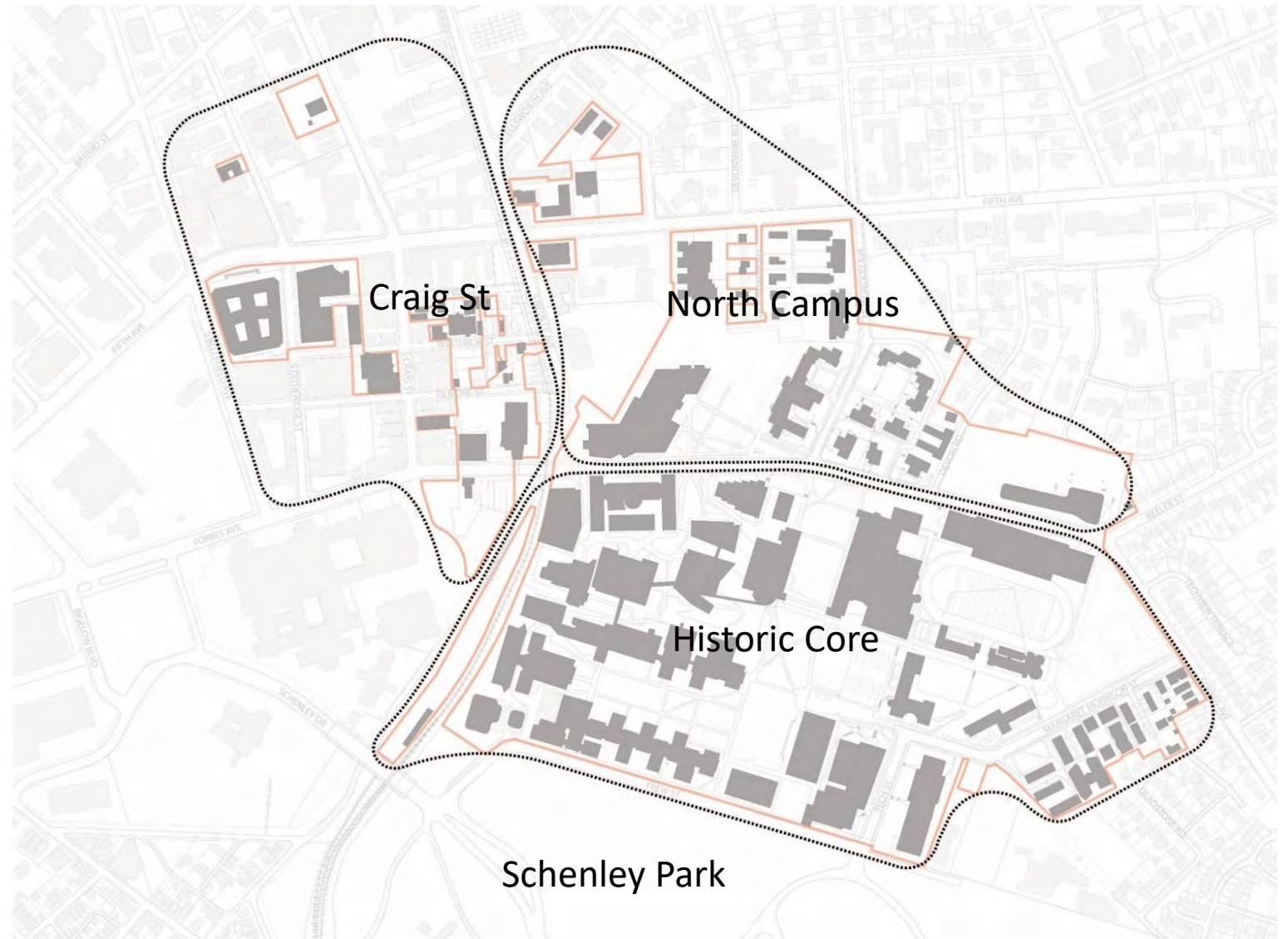
Nurture S Craig Street as a Great College Street
Enhance Connections to the City & Schenley Park

OPPORTUNITY

Utilize Assets for Campus Growth
A Campus that can Respond to a Dynamic Future

2022 Master Plan Themes

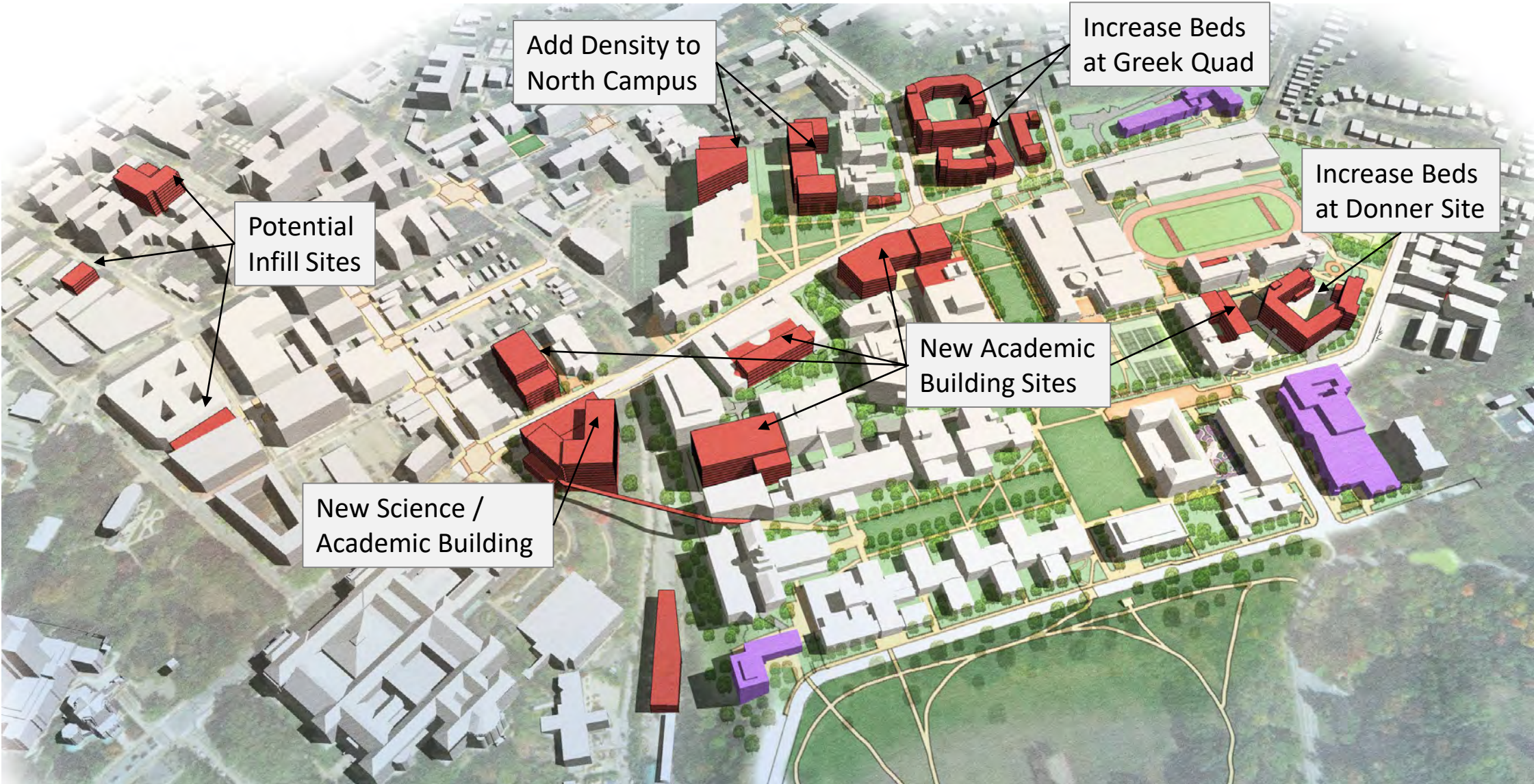
- Enhance the **campus experience** and develop addition **academic sites** in the Historic Core
- Build on the success of the Tepper Quad to **increase density** in the North Campus and **improve integration** with the Historic Core
- Support the **urban framework** of the Craig St area and connect it to campus
- Connect to **Schenley Park** and improve the Frew, Tech and M.Morrison Corridor



2012 – 2022 Campus Development



2022 IMP Development Targets



10-Year Development Sites

Historic Core

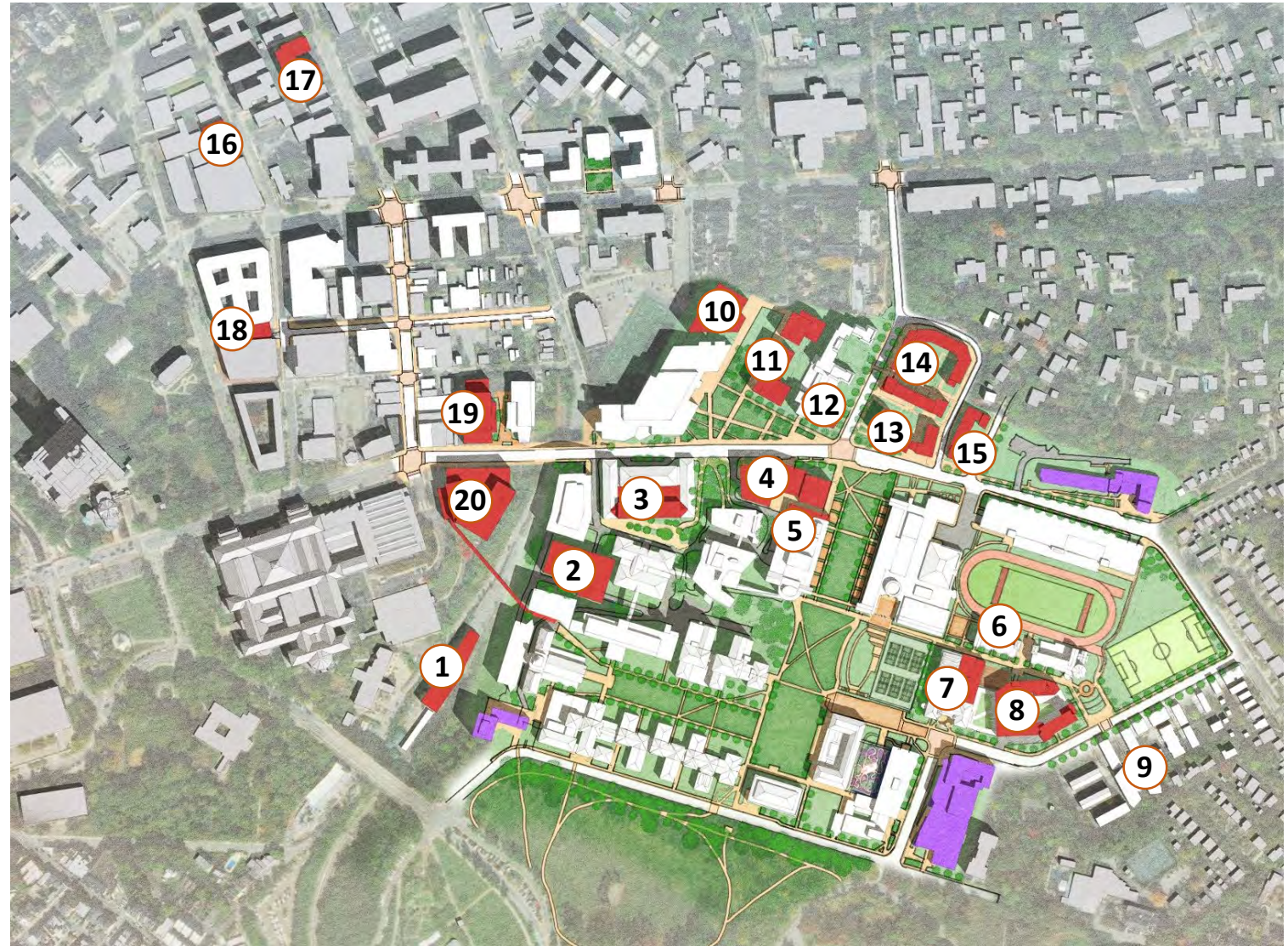
- 1 Facilities Operations
- 2 New Academic Bldg
- 3 Hamburg Hall Expansion
- 4 New Academic Bldg
- 5 Purnell Center Expansion
- 6 West Wing Addition
- 7 MMCH Expansion
- 8 New Academic/Student Housing Complex
- 9 Hamerschlag Commons

North Campus

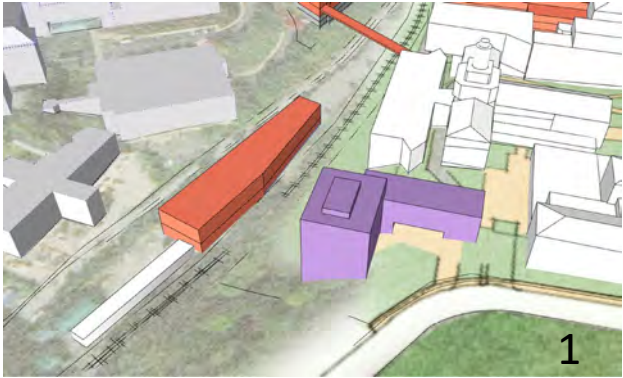
- 10 Tepper School Expansion
- 11 New Mixed Use Bldg
- 12 E Tower Commons
- 13 New Mixed Use Bldg
- 14 Expanded Student Housing Complex
- 15 Student Housing

Craig Street Area

- 16 Reuse Shirley Apts
- 17 New Student Apts
- 18 Mellon Inst Entrance
- 19 New Mixed Use Bldg
- 20 New Science/Academic Bldg



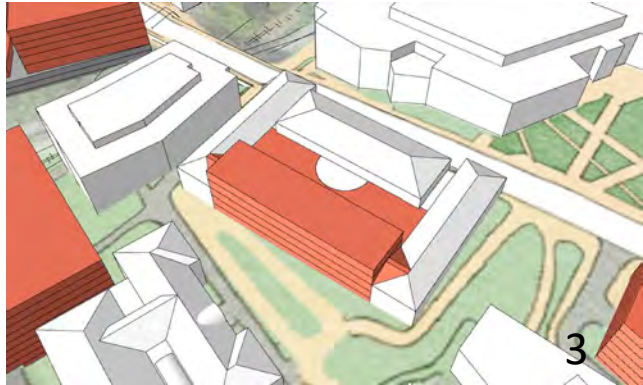
Historic Core Development Sites 1 – West of The Cut



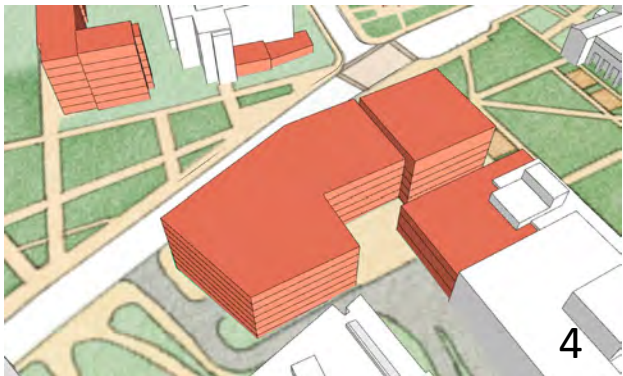
Facilities Operations Center
 Parking, Utility
 40,000 GSF
 2 stories/50'



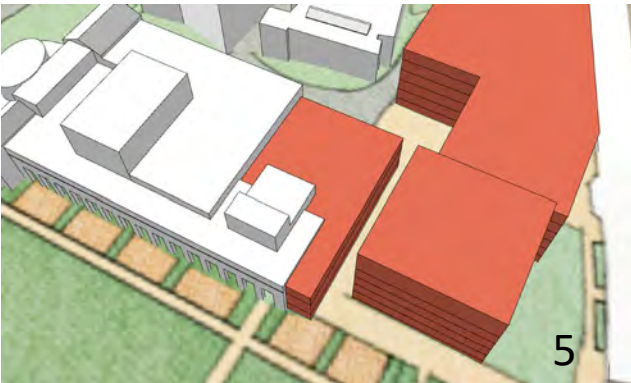
New Academic Building
 Classrooms, Research, Offices
 300,000 GSF
 10 stories/150'



Hamburg/Smith Expansion
 Classrooms, Research, Offices
 150,000 GSF
 5 stories/75'



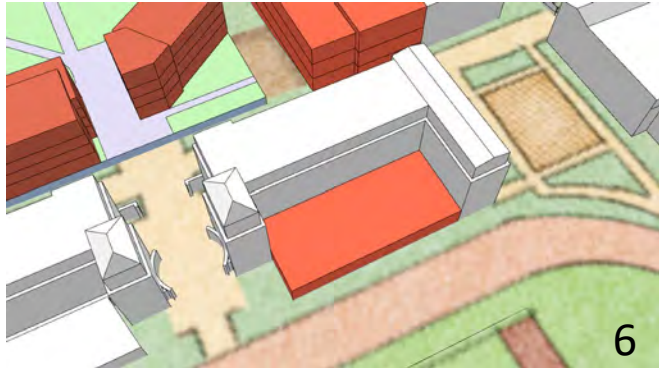
New Academic Building
 Classrooms, Research, Offices
 250,000 GSF
 7 stories/105'



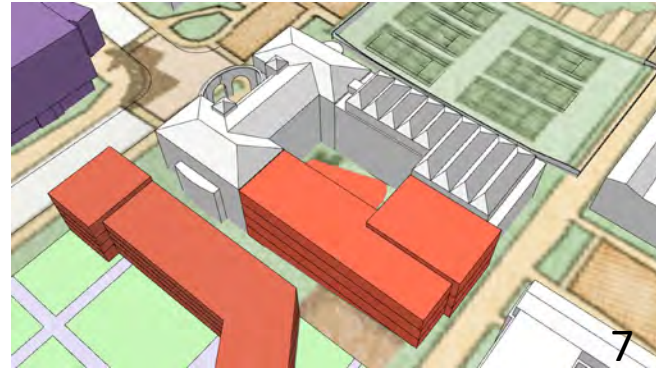
Purnell Ctr Expansion
 Classroom, Research, Assembly
 50,000 GSF
 3 stories/50'



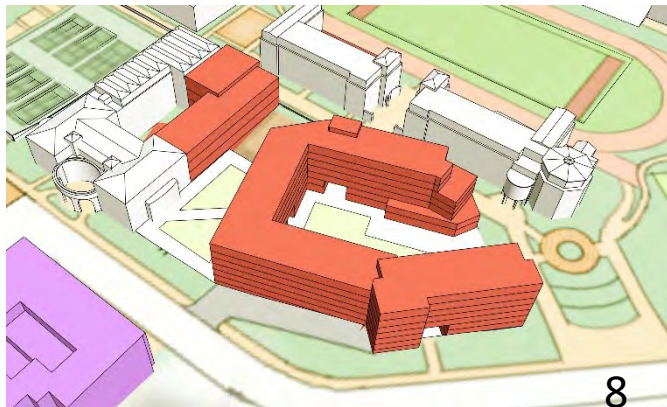
Historic Core Development Sites 2 – East of The Cut



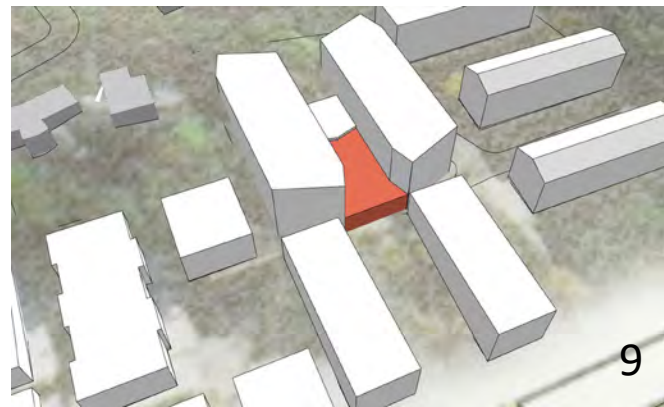
Student Support Services
Office, Restaurant
7,500 GSF
1 stories/15'



MMCH Expansion
Classrooms, Research, Offices
110,000 GSF
7 stories/105'



Mixed Use Building
Student Housing, Classroom,
Research, Office, Rest.
275,000 GSF
5 stories/75'



Student Commons
Office, Restaurant
6,000 GSF
2 stories/25'



North Campus Development Sites 1 – West of Morewood



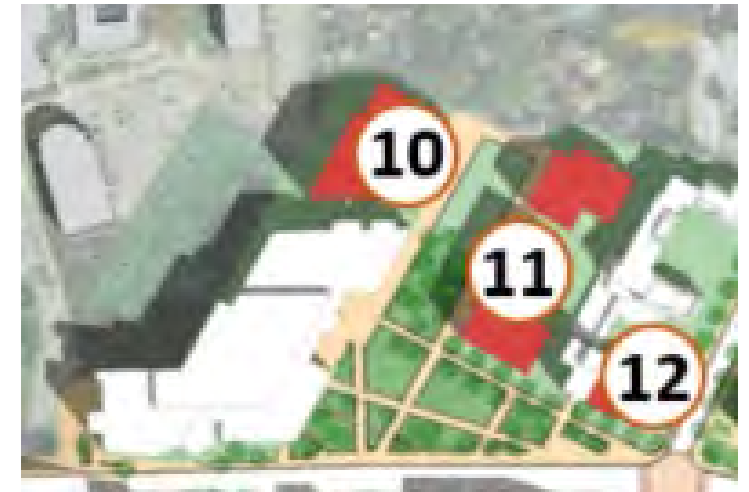
Tepper Quad Expansion
Classroom,
Office,
Assembly,
Restaurant
180,000 GSF
8 stories/120'



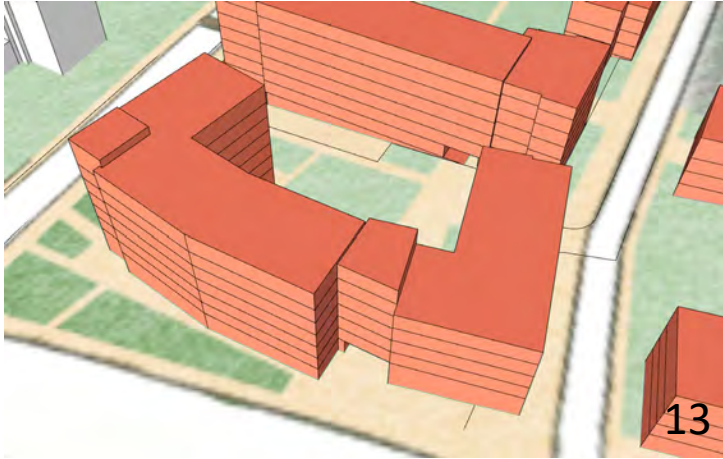
Mixed Use Building / Student Housing
Classroom,
Research,
Office,
Restaurant
220,000 GSF
5 stories/75'



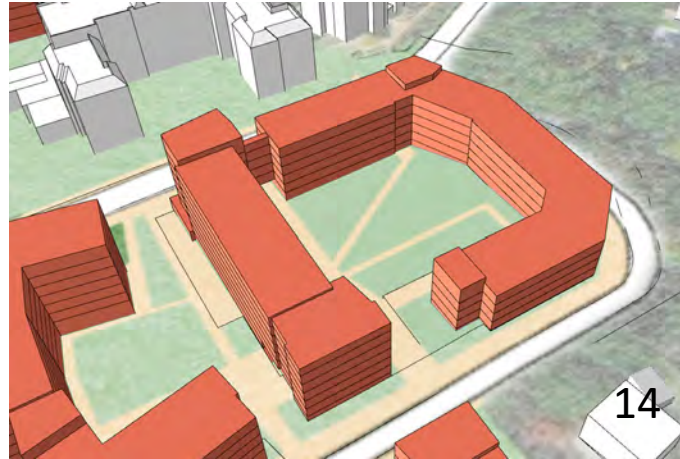
Student Support
Office,
Restaurant
10,000 GSF
3 stories/25'



North Campus Development Sites 2 – East of Morewood



Mixed Use Bldg
Student Housing,
Classroom, Office,
Assembly,
Restaurant
200,000 GSF
Up to 300 beds
8 stories/120'



New Residence Hall
Student Housing,
Offices
250,000 GSF
Up to 720 beds
8 stories/120'



New Residence Hall
Student Housing,
Office
40,000 GSF
180 beds
4 stories/50'



South Craig Area Development Sites



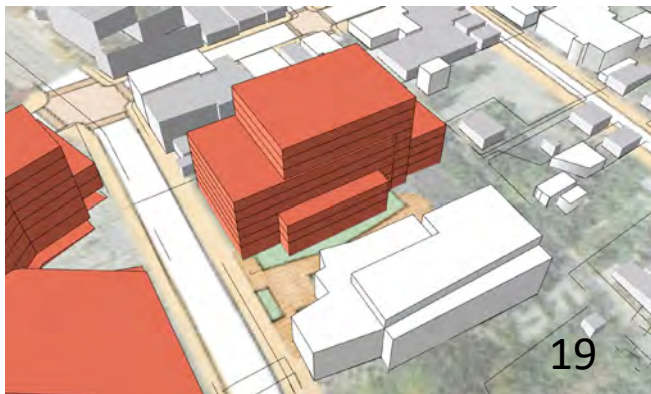
Shirley Apartments Renovation
 Offices, Student Housing
 20,000 GSF
 4 stories/50'



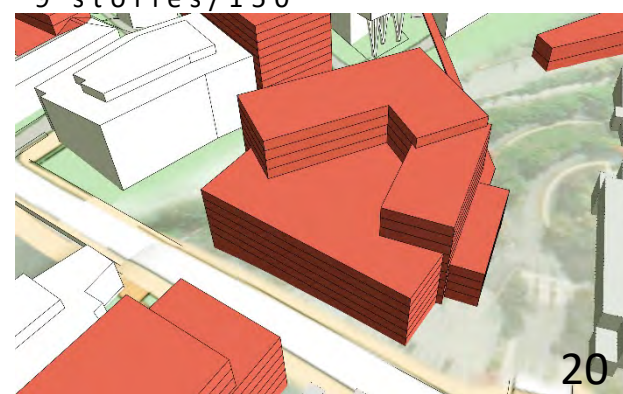
New Residence Apartments
 Student Housing, Offices,
 Restaurant/Retail
 160,000 GSF
 9 stories/150'



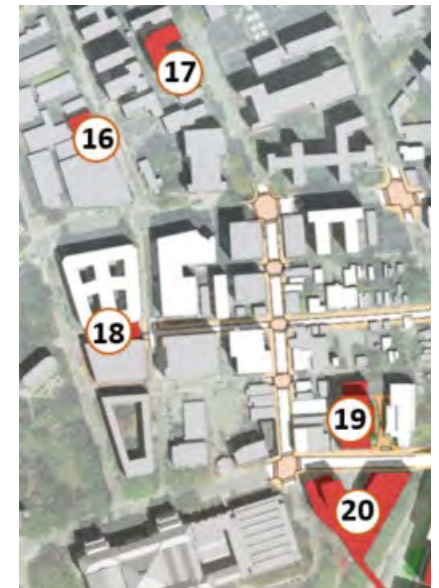
Mellon Institute Entry Sequence
 Classrooms, Research, Offices
 10,000 GSF
 2 stories/40'



New Academic Building
 Classrooms, Research, Offices,
 Restaurants/Retail
 200,000 GSF
 9 stories/140'



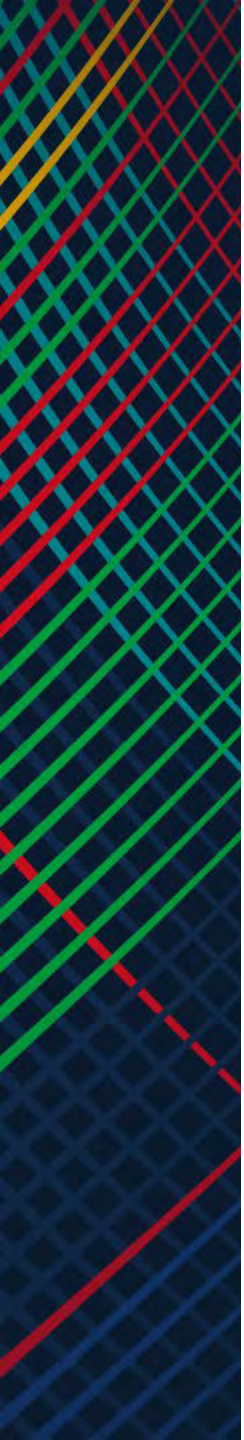
New Science/Academic Building
 Classroom, Research, Office,
 Restaurant/Retail, Assembly
 425,000 GSF
 12 stories/150'





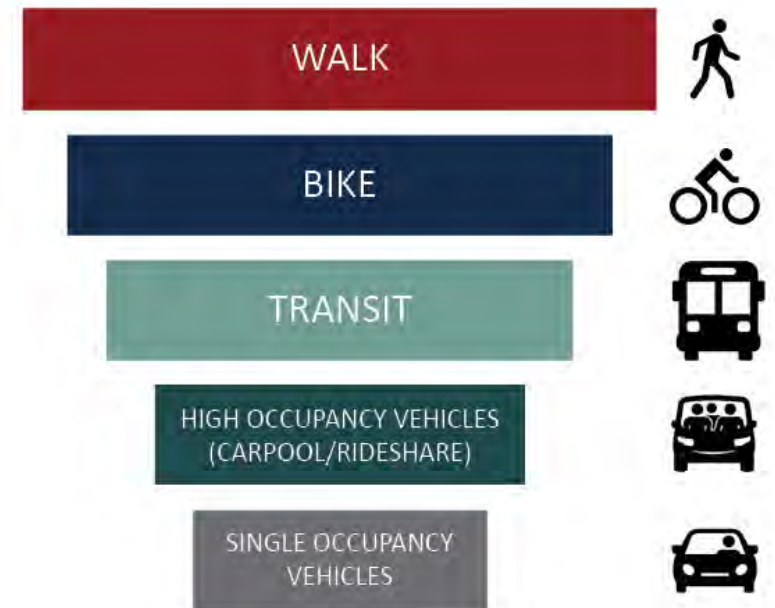
Forbes/Craig Area





- Create new & improved pedestrian pathways with strengthened walkable neighborhood connections
- Increase pedestrian safety and comfort utilizing with upgraded signaling, signage, lighting, and crosswalks
- Add bicycle amenities & build additional cycling infrastructure
- Increase connectivity of overall cycling network and support options for all wheeled mobility users
- Engage partner institutions to develop shared shuttle services (“microtransit”)
- Institute Transportation Demand Management (TDM) to reduce SOV mode share and greenhouse gas emissions
- Use improvements to achieve goal of **no net new parking**

Mobility Plan Goals

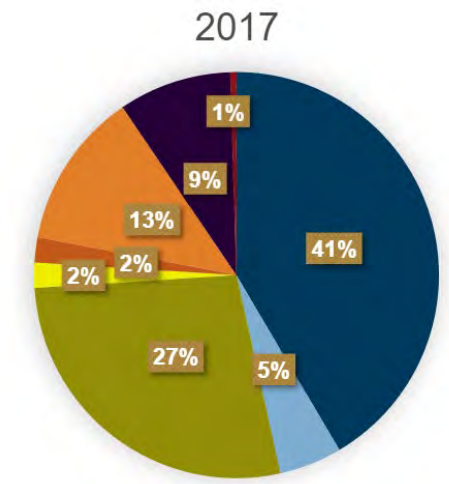


Parking Management Plan

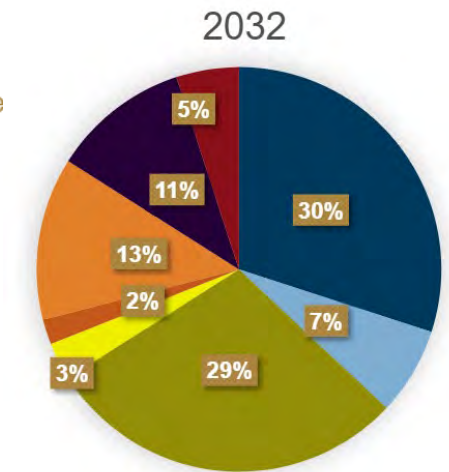
SECTION 6.3 PROPOSAL - TDM PLAN

Existing Mode Split (Make My Trip Count Data) and Future Goals

Mode	2017	2032	Change	Comments
Drove Alone	41	30	-25%	Flexible work schedules and availability of EVs and other options will diminish demand
Carpool/EV/ Vanpool	5	7	+40%	A carpool program, EV proliferation, and future technology will increase mode share
Transit	27	29	+10%	The BRT should increase mode share, but flexible work schedules may limit increase
Shuttle	2	3	+50%	New shuttle routes and sharing shuttles with area partners will increase use
Dropped off	2	2	No change	Growth from rideshares assumed to offset or supplement increased working from home
Walk	13	13	No change	No change assumed, since new pedestrian generators within walkshed are assumed to be in proportion to overall growth
Bike	9	11	+20%	Better north/south connections and city investments will increase demand, but flexible schedules may limit demand
Work from Home	1	5	+500%	Staff assumed to work from home two to three days per week on average. No change assumed for students and faculty



- Drove Alone
- Car/Vanpool
- Transit
- Shuttle
- Dropped off
- Walk
- Bike
- Work from Home



Public Realm Improvements

Historic Core

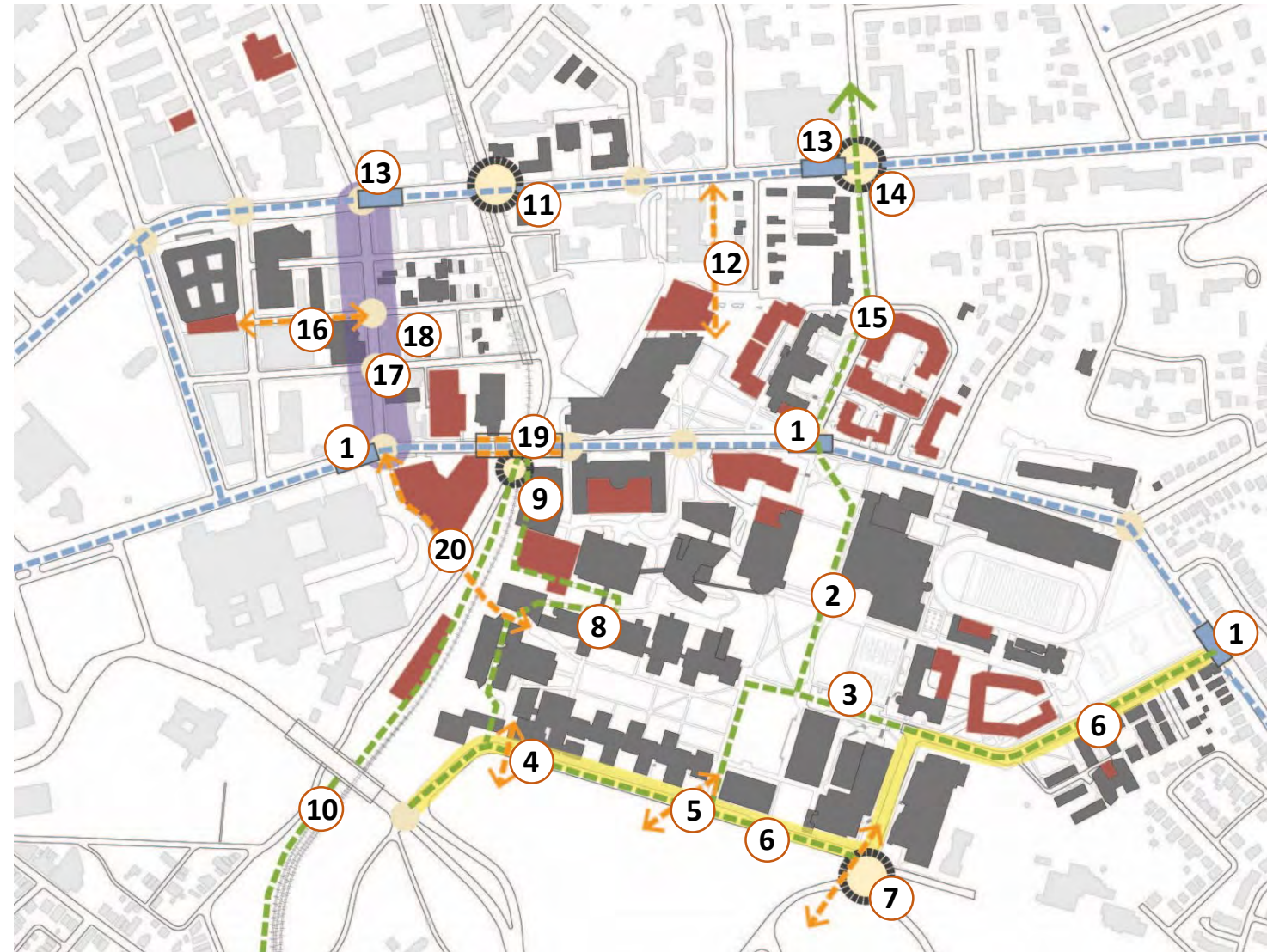
- 1 BRT Stations on Forbes
- 2 Cross Campus Bike Track
- 3 The Beach & CFA Plaza
- 4 Upgraded Park Access
- 5 New Park Entrance
- 6 Frew/Tech/M. Morrison Neighborway
- 7 Tech & Schenley Intersection Improvements
- 8 Hamerschlag Bike Connection
- 9 Improve Railroad Crossing
- 10 Trail Connection to River

North Campus

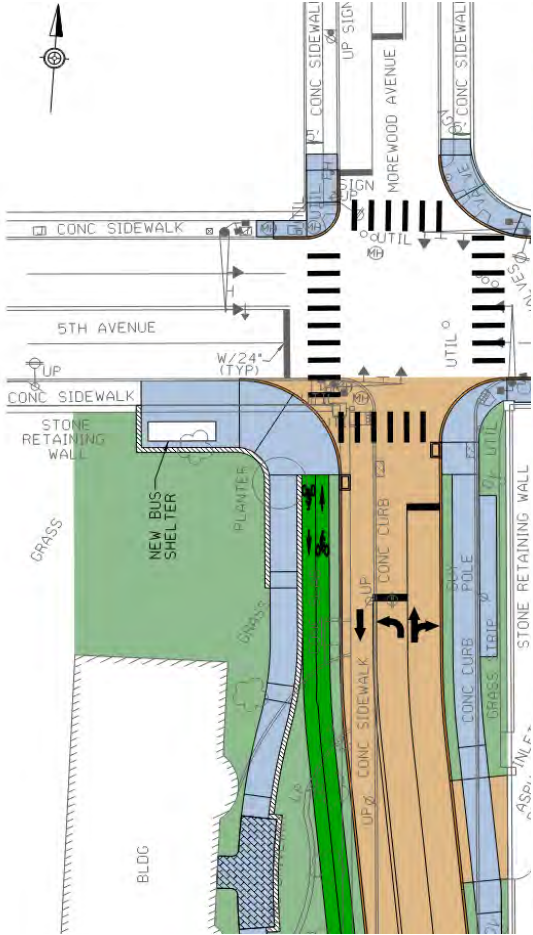
- 11 Fifth Ave Ped Safety
- 12 Connection thru WQED
- 13 BRT Stations on Fifth Ave
- 14 Fifth/Morewood intersection
- 15 Morewood Bike Track

S Craig Street Area

- 16 Connections to Mellon
- 17 Craig St Improvements
- 18 CMU parking for businesses
- 19 Improve Forbes Ave bridge
- 20 New Bridge to campus



Mobility Improvements



Align Morewood at Fifth Ave and Bike Connection to Forbes



All Stop and Pedestrian Upgrades at Schenley Dr & Tech St

Mobility Improvements



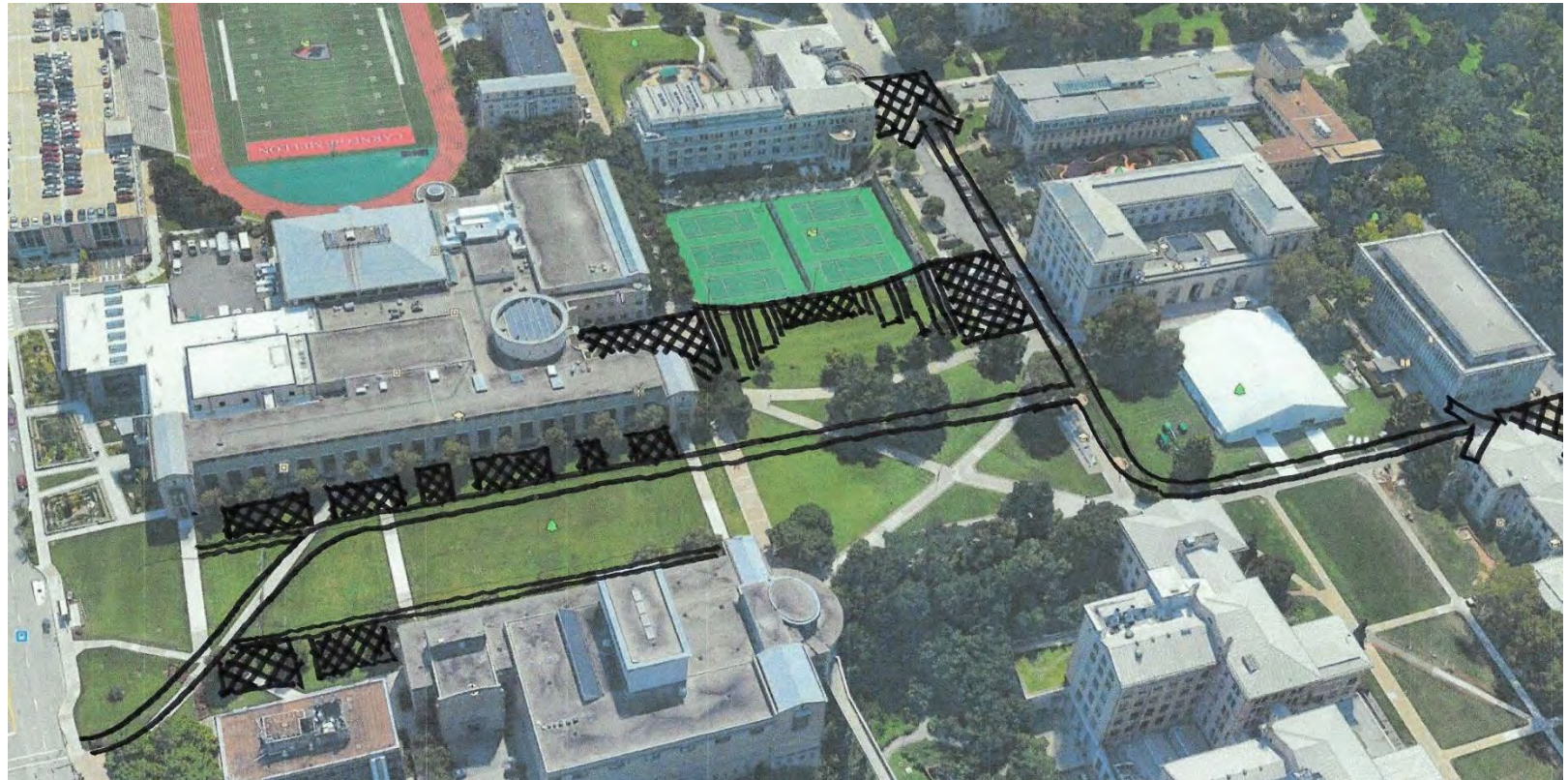
Improve Aesthetics of Fencing and Widen Sidewalk on Forbes Bridge



Improve Bike Crossing at Railroad on S Neville

Improving the Campus Experience

1. Improve access to Beach from Merson Courtyard
2. Provide additional outdoor seating amenities
3. Reimagine CFA parking lot as pedestrian plaza
4. Cross-Campus bike track to connect to Schenley Park
5. Streetscapes upgrades to Forbes, Fifth and Morewood Avenues



Campus Open Space Improvements



Improving Frew Street



Improve Open Space - Connect to Schenley Park



Connecting to Schenley Park



Pedestrian Network Improvements

Continue the University's streetscape program, utilized at recent projects, is a core component of the pedestrian safety strategy

Explore ways to improve wayfinding to the building entrances, as well as create a sense of place on a walkway that is adjacent to the building's sole loading area.



Making Connections to the Bike Network

Equitable bicycle access

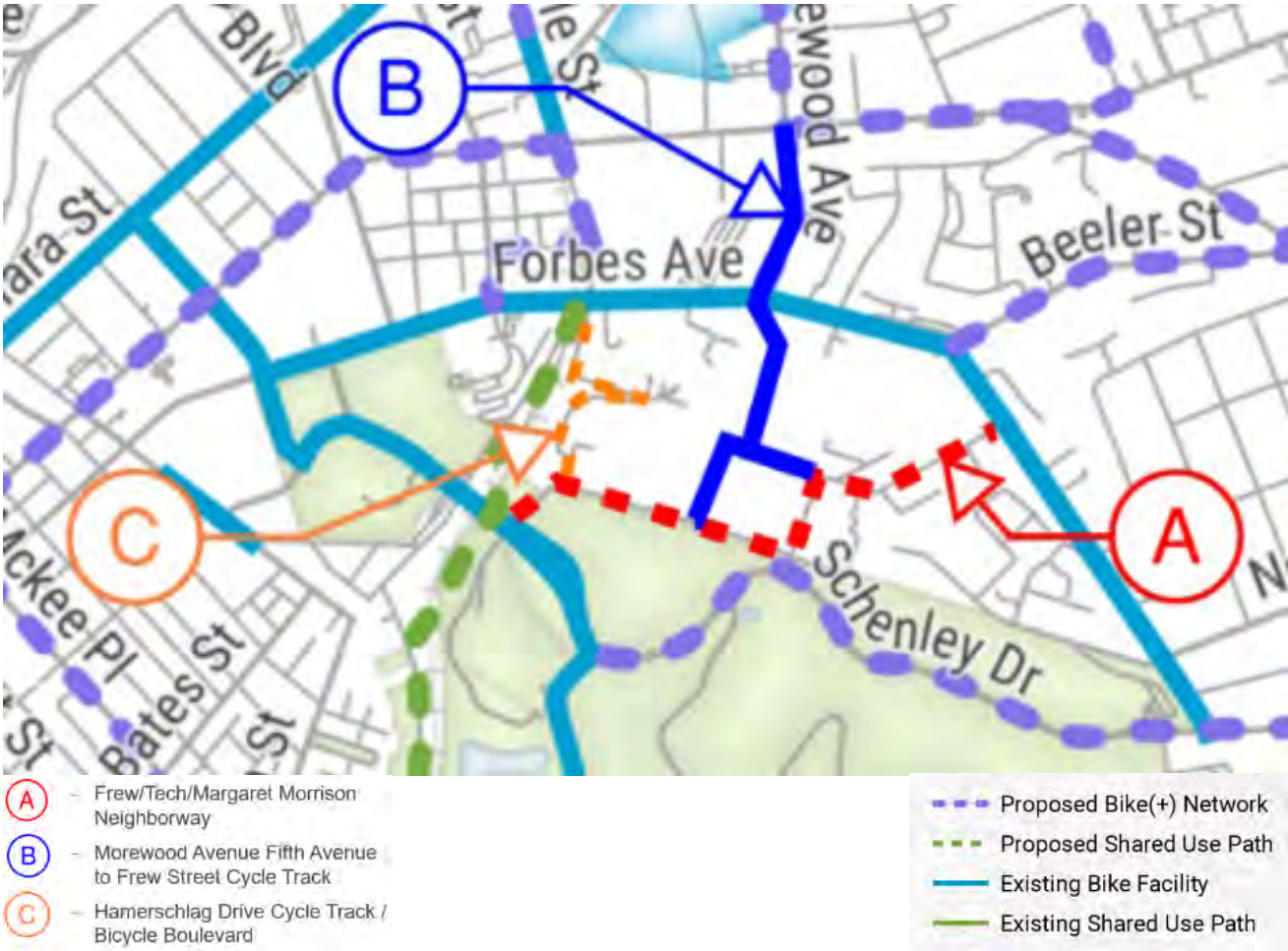
Provide equitable access across campus and in all new capital project

Develop integrated on and off-street network

Education: present bicycle safety classes and promote cycling via strong internal messaging

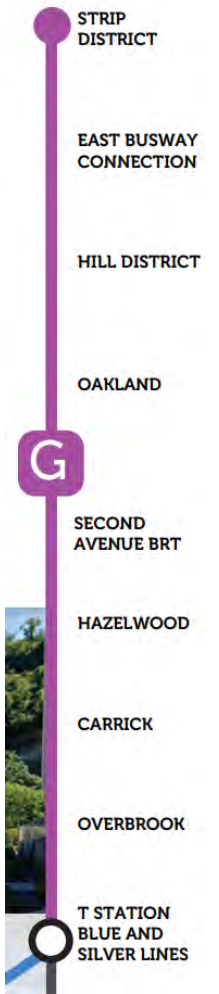
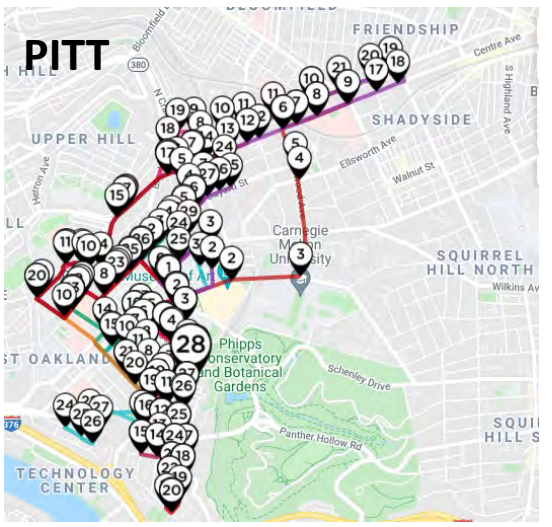
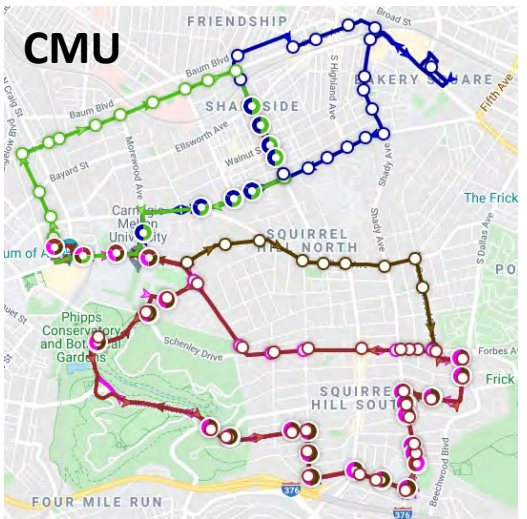
Encouragement: events promoting bicycling

Evaluation: Include cycling and wheeled mobility devices as part of transportation plan



Enhancing Transit Strategy

- Partner with other Oakland-area shuttle operators in sharing services to improve network efficiency and operations
- Expand shuttle use to all University ID holders
- Maintain free access to Port Authority services for CMU community
- Support/participate in planned transit projects:
 - Bus Rapid Transit
 - East/Central Pittsburgh Connection (“Project G”)
 - Mon-Oakland Mobility Project



Environmental & Sustainability Goals



- 1 Continue to implement & track fulfillment of UNSDG
- 2 Maintain commitment to Pittsburgh 2030 district
- 3 LEED Gold v4 for all development projects \$5M+
- 4 Create platform to track how new development projects contribute to university sustainability goals

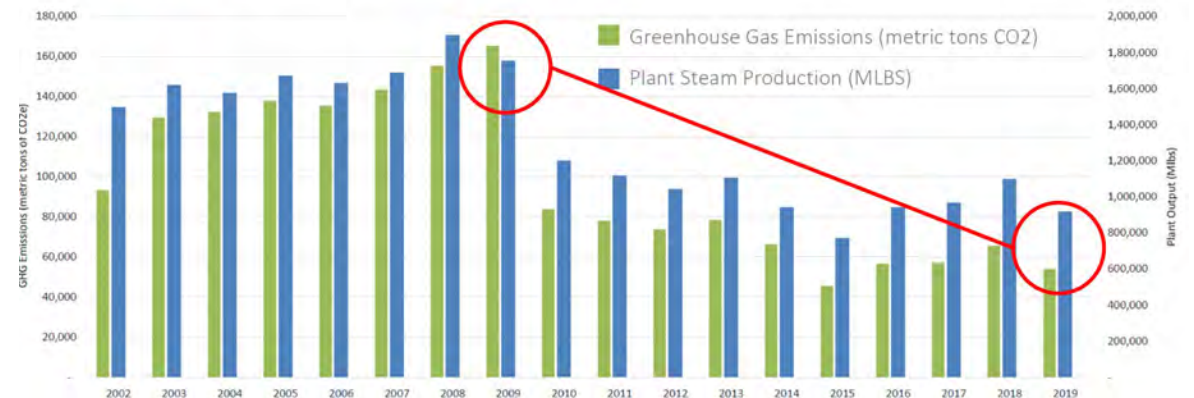


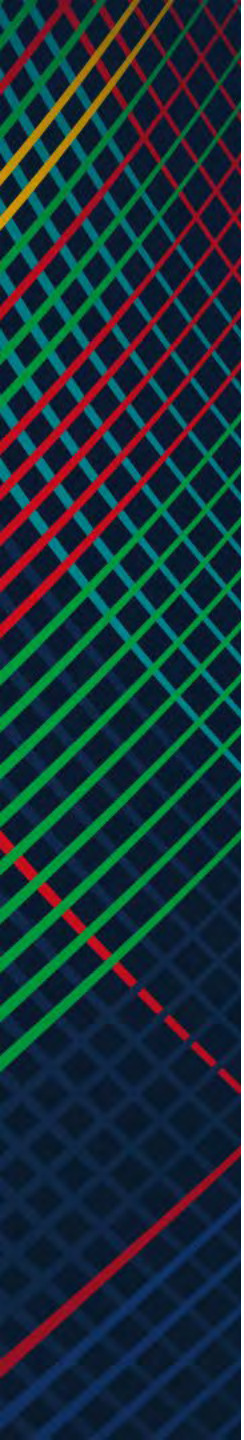
Campus Energy Planning Goals

- 1 Continue to reduce/minimize consumption with ever-increasing higher efficiency in buildings, use patterns, and behavior
- 2 Continue to invest in cleaner fuel generation & fuel sources
- 3 Continue to create redundancy & systems that can address climate change challenges
- 4 Continue pattern of GHG reductions
- 5 Continue to analyze results every year against peer group & 2005 base year



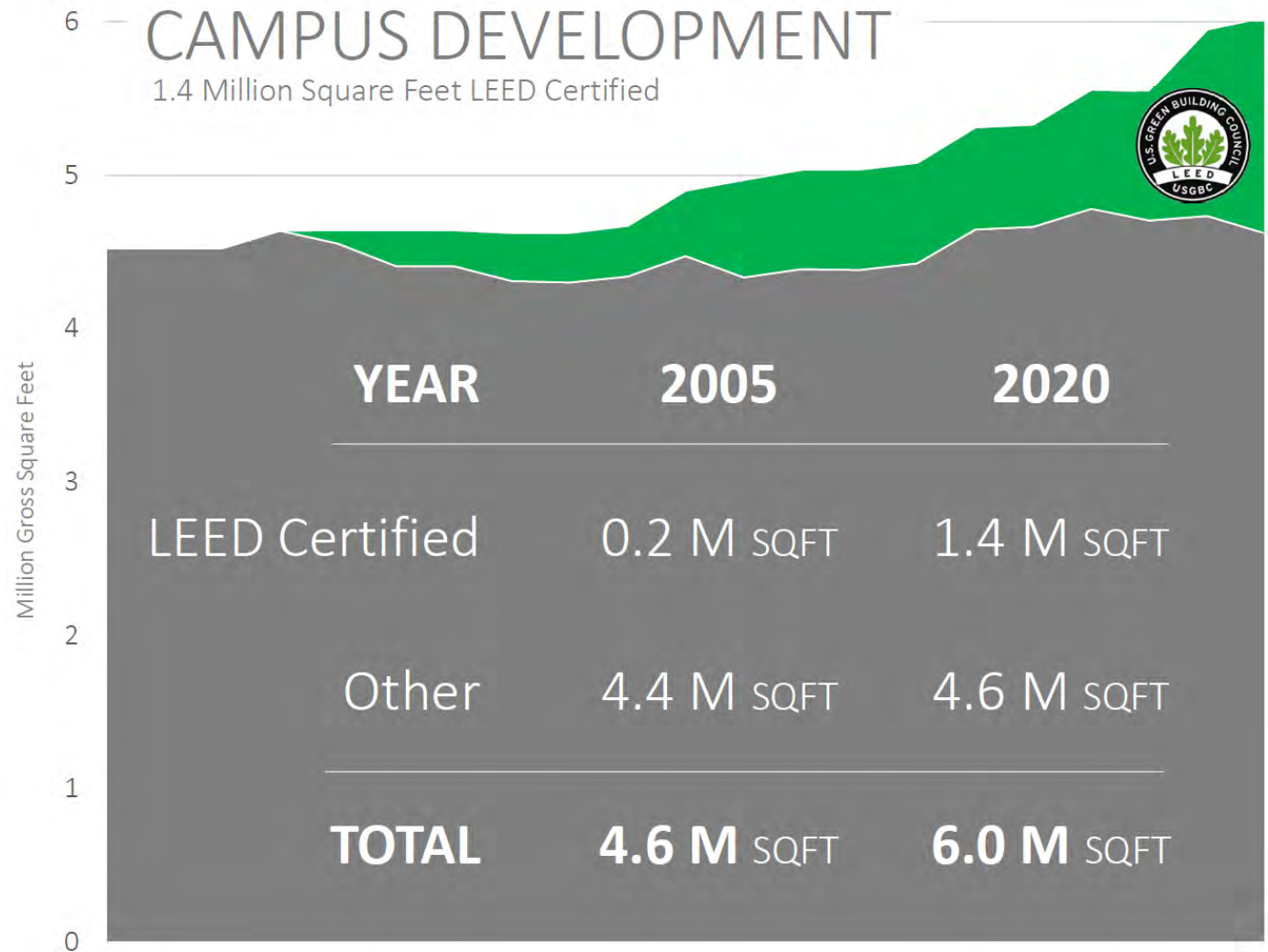
In 2009, Bellefield Boiler Plant Supervisors Voted to 'QUIT COAL'
Current Plant Emissions 60% Lower





- 1 Continue to integrate energy, water, IAQ, site design, and sustainable material use into every campus building project
- 2 Maintain commitment to LEED Gold v4 for all projects \$5M+
- 3 Collect and improve access to information and statistics for current LEED certified buildings
- 4 Study how to increase LEED certifications for existing buildings and projects <\$5M

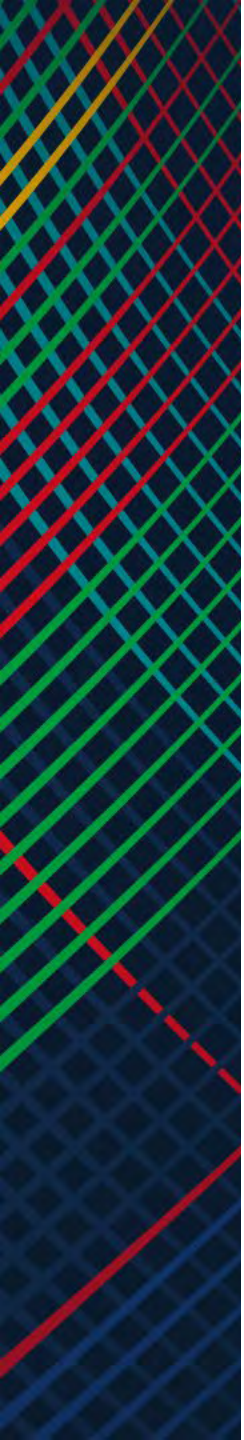
Campus Green Buildings



Stormwater Management

- 1 Minimize flow into the combined sewer system by managing water from our properties as well as that which occurs at the source
- 2 Continue to seek new ways to divert stormwater to reuse, detention, or landscaping
- 3 Increase incorporation of stormwater infrastructure into open space and landscape planning
- 4 Continue diversity of approaches, including rain gardens, green roofs, internal and external retention, and increased tree canopy





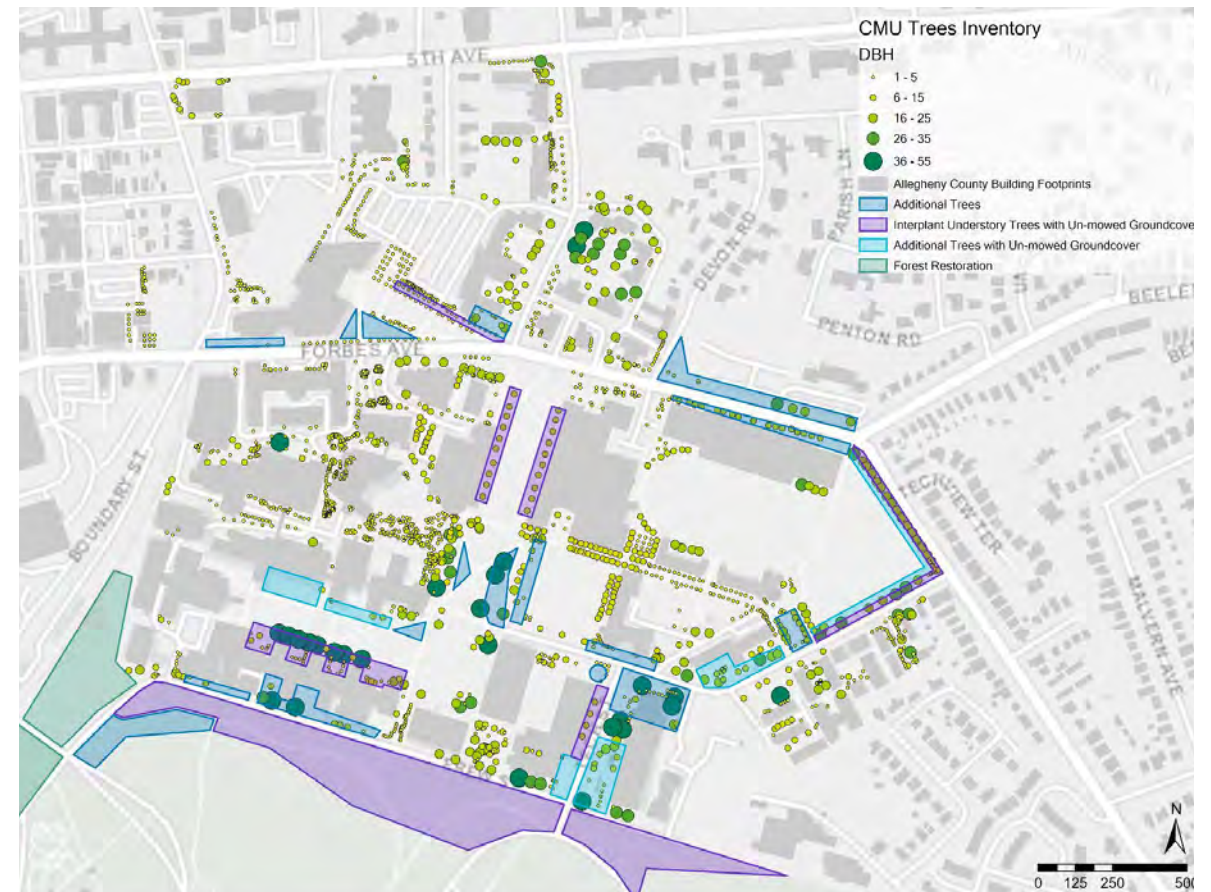
CMU is committed to a healthy and growing tree canopy across all properties from Mellon Institute to the Margaret Morrison Street corridor, and establishes the following proposed goals:

Replace 110% of removed trees

1. Fill in missing gaps where trees have been previously removed
2. On-site replacement
3. Formal/intention planting on University property, including completion of Mall Master Plan
4. Maintain stewardship of trees on wooded hillsides



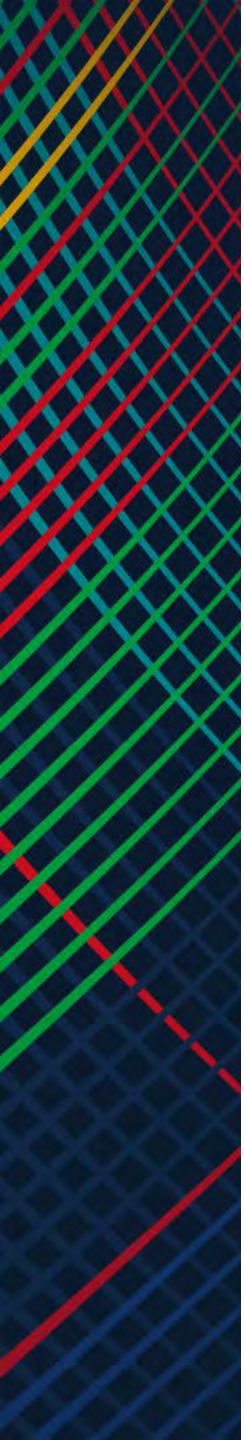
Tree Canopy Replacement



Neighborhood Enhancement Strategy

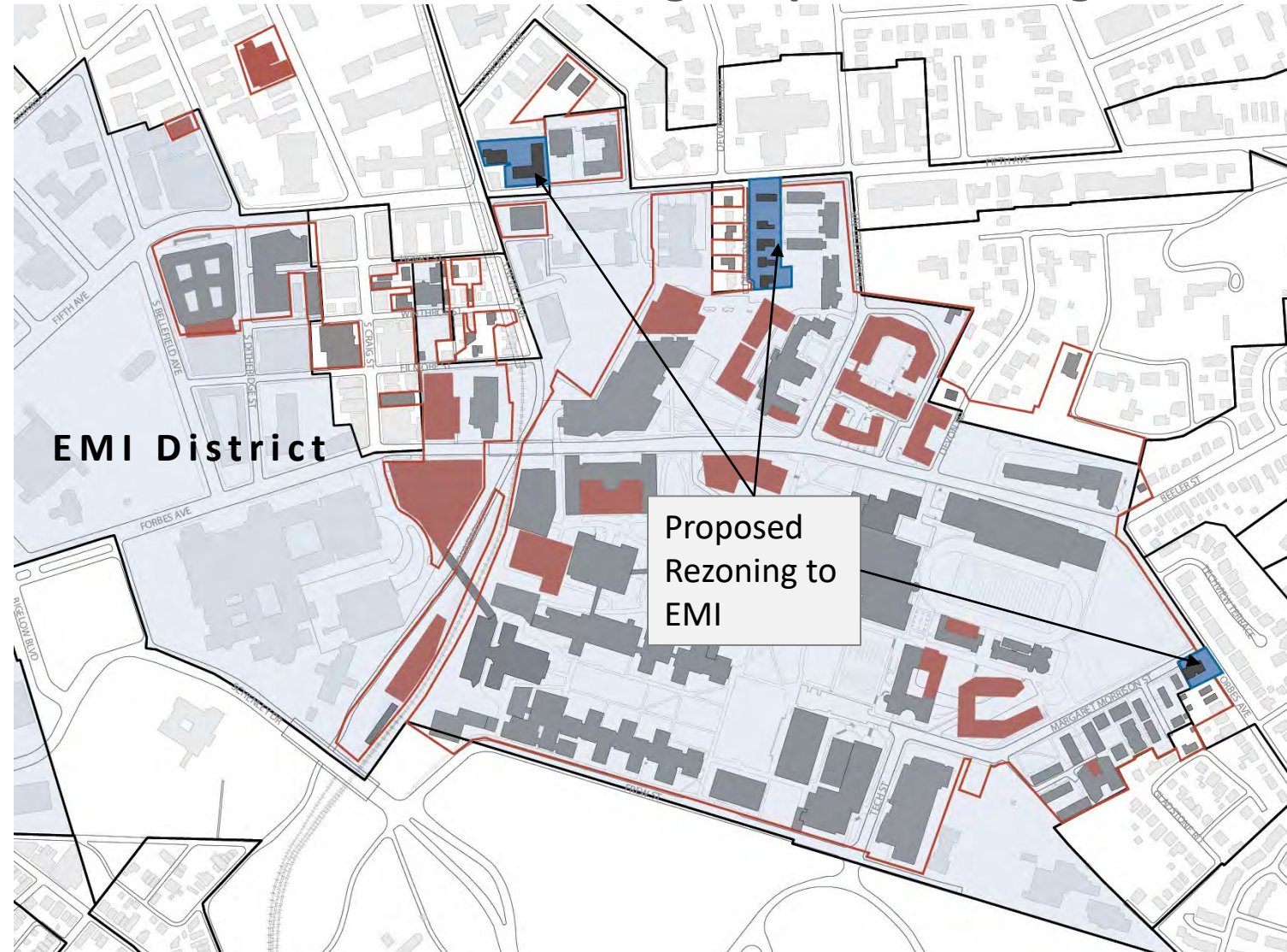
1. Manage Impacts on Neighbors
2. Make Connections with the Community
3. Make Craig Street a Great Street
4. Provide Amenities that are open & available to All
5. Have a Positive Economic Impact on the Region





- Increase availability of on-campus housing for undergraduate students
- Improve processes for educating students regarding expected standards of behavior for off-campus living
- Commit to engagement strategy with neighborhood groups via updates, campus news, and university events
- Create CDFD dashboard for sustainability
- Create online guide to CMU public art
- “Zone What we Own”

Manage Impacts on Neighbors



Make Connections with the Community

Service

Providing service to communities where our neighbors live, work, and play is an essential part of every student's education. There are more than 40 student-run organizations with a primary purpose of community service.

cmu.edu/student-affairs/slice



Education

Education at all stages of life:

- Preschool & Kindergarten
- K-12 Direct Instruction
- Pre-College
- OSHER Lifelong Learning Institute

More than 2 dozen service learning courses across all 7 colleges



Arts & Culture

Building on the rich history of free expression and the world-changing capacity of creativity to transform and advance culture and society is a university priority



Provide Amenities that are Open & Available to ALL

Arts: Theatres, concert venues, galleries

Humanities: Libraries

Recreation: Gesling stadium, Cut, Mall, paved pathways across campus

Community events:

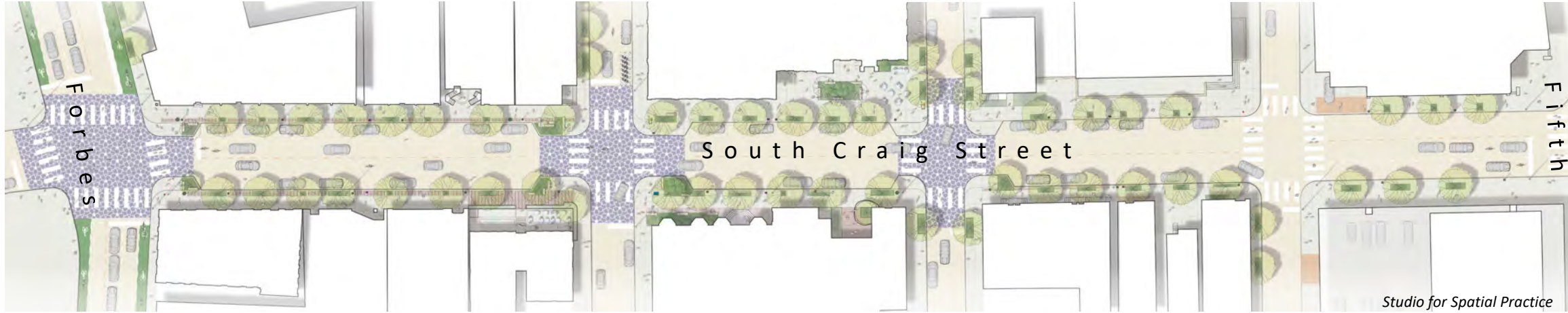
- Spring Carnival
- Homecoming
- 4th of July Fireworks
- Division III sporting events

Public art: maps & online guide

Develop improved connections to Schenley Park



Make Craig Street a Great Street



Pavement Treatments



Outdoor Seating Areas



Pop-Up Retail



Recapture Parking Spaces For Outdoor Seating



Stormwater Management in Landscaping

Have a Positive Economic Impact on the Region

Annual Local, Regional and State Economic Impact



Carnegie Mellon University is committed to partnering with nonprofit, foundation, government, higher education, community and business leaders to catalyze even greater economic impact in 2020 and beyond.



\$447 million in sponsored research in FY 2020 (most ever in CMU history)

Community and Campus Outreach

COMMUNITY MEETINGS

- Bellefield Area Citizens Assoc
- Carnegie Libraries of Pittsburgh
- Carnegie Museums of Pittsburgh
- Community Town Halls (**6 sessions**)
- Councilperson Erika Strassberger
- Councilperson Corey O'Connor
- Mobilify
- Oakland Business Improvement Dist
- Oakland Planning & Devel Corp
- Oakland Task Force
- Park Mansions
- Pgh Parks Conservancy (monthly)
- Schenley Farms
- Shadyside Action Coalition
- Squirrel Hill Urban Coalition
- University of Pittsburgh

CAMPUS OUTREACH

- Academic Leadership Forum
- Design Review Committee
- Division of Student Affairs Leadership
- Enterprise Risk Management
- Faculty Senate
- Facility Managers
- Graduate Student Assembly
- Greek Council
- Green Practices Committee
- Parking & Transportation Committee
- President & Provost
- Property & Facilities Committee
- Staff Council
- Sustainability Initiatives Group
- Undergraduate Student Senate
- University Leadership Council

2022 IMP Schedule

		Introduction Phase			Draft Concepts			Final Document			DCP		Plan. Comm			City Council			
		2021												2022					
		Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
CITY	City Council												↓	We Are Here					
	City Planning			Application			Updates	Application				Application	Updates	Approval Process					
COMMUNITY	Public Meeting								Town Hall	Town Hall									
	Immediate Neighbors					Outreach			Outreach	Outreach		Outreach							
	Partner Institutions				Outreach				Outreach	Outreach		Outreach							
	Neighborhood Groups			Outreach	Outreach				Outreach	Outreach	Outreach	Updates				Updates			
CAMPUS	Town Hall				Town Hall				Town Hall										
	Campus Groups			Outreach	Outreach	Outreach			Outreach	Outreach	Outreach					Updates			
	Design Review Com	Updates				Updates			Updates					Updates					
	Property & Facilities		Updates			Updates					Updates								
		Outreach				Updates			Town Hall			Application							Approval Process



WEBPAGE

<https://www.cmu.edu/cdfd/planning-and-design/master-plan/index.html>

EMAIL US!

cmu2022imp@andrew.cmu.edu

Carnegie Mellon University