2022

Institutional Master Plan

Campus Design and Facility Development

26 October 2021
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
• 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

- Projects Completed since 2012 IMP
- Projects Under Construction
- Proposed 2022 IMP Development Sites
Increase Beds at Greek Quad
Add Density to North Campus
Increase Beds at Donner Site
New Academic Building Sites
Potential Infill Sites
New Science / Academic Building
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

1. Facilities Operations Center
   Parking, Utility
   40,000 GSF
   2 stories/50’

2. New Academic Building
   Classrooms, Research, Offices
   300,000 GSF
   10 stories/150’

3. Hamburg/Smith Expansion
   Classrooms, Research, Offices
   150,000 GSF
   5 stories/75’

4. New Academic Building
   Classrooms, Research, Offices
   250,000 GSF
   7 stories/105’

5. Purnell Ctr Expansion
   Classroom, Research, Assembly
   50,000 GSF
   3 stories/50’
Students Support Services
Office, Restaurant
7,500 GSF
1 story/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’

Historic Core Development Sites 2 – East of The Cut
North Campus Development Sites 1 – West of Morewood

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

10

Student Commons
Office, Restaurant
10,000 GSF
3 stories/25’

12

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

11

Carnegie Mellon University
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
40,000 GSF
180 beds
4 stories/50’

200,000 GSF
Up to 720 beds
8 stories/120’

13

14

15

Carnegie Mellon University
16. **Shirley Apartments Renovation**  
Offices, Student Housing  
20,000 GSF  
4 stories/50’

17. **New Residence Apartments**  
Student Housing, Offices, Restaurant/Retail  
160,000 GSF  
9 stories/150’

18. **Mellon Institute Entry Sequence**  
Classrooms, Research, Offices  
10,000 GSF  
2 stories/40’

19. **New Academic Building**  
Classrooms, Research, Offices, Restaurants/Retail  
200,000 GSF  
9 stories/140’

20. **New Science/Academic Building**  
Classroom, Research, Office, Restaurant/Retail, Assembly  
425,000 GSF  
12 stories/150’
• 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
### SECTION 6.3 PROPOSAL - TDM PLAN

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

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

#### Parking Management Plan

![Pie charts comparing mode split in 2017 and 2032](chart.png)

- **2017**:
  - Drove Alone: 41%
  - Car/Vanpool: 13%
  - Transit: 5%
  - Shuttle: 27%
  - Dropped off: 5%
  - Walk: 5%
  - Bike: 3%
  - Work from Home: 7%

- **2032**:
  - Drove Alone: 13%
  - Car/Vanpool: 30%
  - Transit: 11%
  - Shuttle: 13%
  - Dropped off: 3%
  - Walk: 2%
  - Bike: 29%
  - Work from Home: 2%
**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
Align Morewood at Fifth Ave and Bike Connection to Forbes

All Stop and Pedestrian Upgrades at Schenley Dr & Tech St
Improve Aesthetics of Fencing and Widen Sidewalk on Forbes Bridge

Improve Bike Crossing at Railroad on S Neville
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
Continue the University’s streetscape program, utilized at recent projects, as 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.
Provide equitable access across campus and in all new capital projects

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
• 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:
  o Bus Rapid Transit
  o East/Central Pittsburgh Connection ("Project G")
  o Mon-Oakland Mobility Project
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
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.


5. Continue to analyze results every year against peer group & 2005 base year.
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

<table>
<thead>
<tr>
<th>YEAR</th>
<th>2005</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>LEED Certified</td>
<td>0.2 M SQFT</td>
<td>1.4 M SQFT</td>
</tr>
<tr>
<td>Other</td>
<td>4.4 M SQFT</td>
<td>4.6 M SQFT</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4.6 M SQFT</td>
<td>6.0 M SQFT</td>
</tr>
</tbody>
</table>
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**
Improve Open Space - Connect to Schenley Park
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”
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
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

- **$3.26 billion** in economic impact across Pennsylvania
- **19,620 jobs** supported statewide (96% located in Southwestern PA, 50% located in Pittsburgh)
- **340+ startups** created by students and faculty since 2010
- **575 corporate partnerships**
- **$72.1 million** in tax revenue generated (Commonwealth of PA)
- **$14.2 million** in tax revenue generated (City of Pittsburgh)
- **$293 million** impact of capital investment across Pennsylvania
- **$430 million** impact of the alumni wage premium
- **$192 million** impact from student and visitor spending

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)
<table>
<thead>
<tr>
<th>COMMUNITY MEETINGS</th>
<th>CAMPUS OUTREACH</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Bellefield Area Citizens Assoc</td>
<td>• Academic Leadership Forum</td>
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<tr>
<td>• Carnegie Libraries of Pittsburgh</td>
<td>• Design Review Committee</td>
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<tr>
<td>• Carnegie Museums of Pittsburgh</td>
<td>• Division of Student Affairs Leadership</td>
</tr>
<tr>
<td>• Community Town Halls <em>(3 sessions)</em></td>
<td>• Enterprise Risk Management</td>
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<tr>
<td>• Councilperson Erika Strassberger</td>
<td>• Faculty Senate</td>
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<tr>
<td>• Councilperson Corey O’Connor</td>
<td>• Facility Managers</td>
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<tr>
<td>• Mobilify</td>
<td>• Graduate Student Assembly</td>
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<tr>
<td>• Oakland Business Improvement Dist</td>
<td>• Greek Council</td>
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<tr>
<td>• OPDC</td>
<td>• Green Practices Committee</td>
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<tr>
<td>• Oakland Task Force</td>
<td>• Parking &amp; Transportation Committee</td>
</tr>
<tr>
<td>• Park Mansions</td>
<td>• President &amp; Provost</td>
</tr>
<tr>
<td>• Pgh Parks Conservancy <em>(monthly)</em></td>
<td>• Property &amp; Facilities Committee</td>
</tr>
<tr>
<td>• Schenley Farms</td>
<td>• Staff Council</td>
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<tr>
<td>• Shadyside Action Coalition</td>
<td>• Sustainability Initiatives Group</td>
</tr>
<tr>
<td>• Squirrel Hill Urban Coalition</td>
<td>• Undergraduate Student Senate</td>
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<tr>
<td>• University of Pittsburgh</td>
<td>• University Leadership Council</td>
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<tr>
<td><strong>CITY</strong></td>
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<tr>
<td>City Council</td>
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<td>City Planning</td>
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<tr>
<td><strong>COMMUNITY</strong></td>
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<td>Public Meeting</td>
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<td>Immediate Neighbors</td>
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<td>Partner Institutions</td>
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<td>Neighborhood Groups</td>
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<td><strong>CAMPUS</strong></td>
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<td>Town Hall</td>
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<td>Campus Groups</td>
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<td>Design Review Com</td>
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<tr>
<td>Property &amp; Facilities</td>
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</tr>
</tbody>
</table>

**2021**

**2022**

**We Are Here**

**2022 IMP Schedule**

- **outreach**
- **updates**
- **town hall**
- **application**
- **approval process**
WEBSITE  https://www.cmu.edu/cdfd/planning-and-design/master-plan/index.html
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