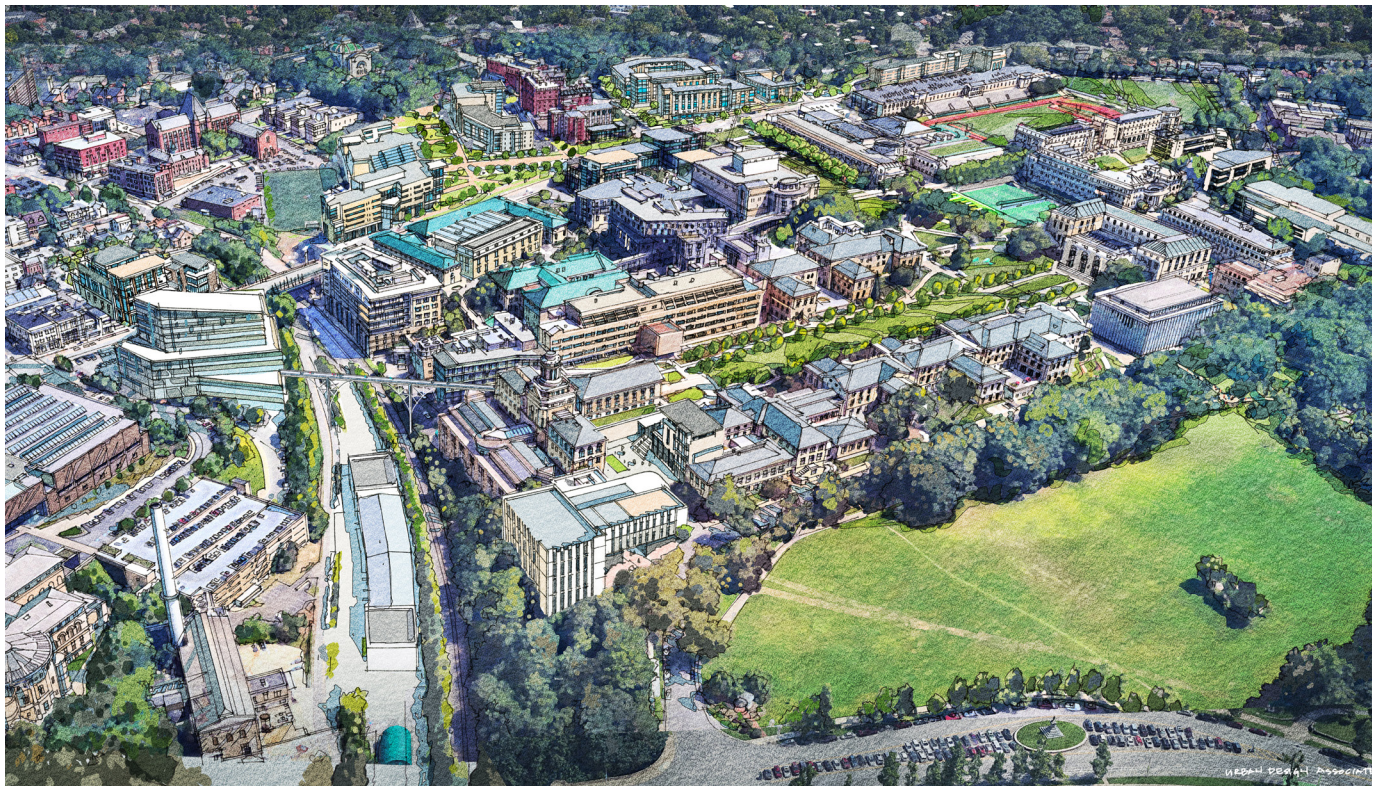


Carnegie Mellon University

INSTITUTIONAL MASTER PLAN 2022

Approved by City Council - November 23, 2022

APPENDIX ONLY





Copyright November 2022
Approved by City Council November 2022
Carnegie Mellon University | Campus Design and Facilities Development
5000 Forbes Ave Pittsburgh, PA 15213
<https://www.cmu.edu/cdfd/planning-and-design/master-plan/index.html>
cmp2022imp@andrew.cmu.edu

Unless otherwise noted all images are supplied by
Carnegie Mellon University, Urban Design Associates, evolveEA, and GAI Consultants.



City of Pittsburgh

510 City-County Building
414 Grant Street
Pittsburgh, PA 15219

Certified Copy

Ordinance: 25

File Number: 2022-0754

Enactment Number: 25

Ordinance amending the Pittsburgh Code, Title Nine, Zoning, Article I, Section 902.03 Zoning Map, by changing from RM-H, Multi-Unit Residential, High Density and R1D-L, Residential Single-Unit Detached Residential, Low Density to EMI, Education Medical Institution, 7 parcels in the Allegheny County Block and Lot System, 7th and 14th Wards.

(Public Hearing held 11/9/22)

The Council of the City of Pittsburgh hereby enacts as follows:

Section 1. Ordinance amending the Pittsburgh Code, Title Nine, Zoning, Article I, Section 902.03 Zoning Map, by changing from RM-H, Multi-Unit Residential, High Density to EMI, Education Medical Institution, properties at 4705 5th Avenue, identified as Block No. 52-J Lot 60 and 617 N Neville Street, identified as Block No. 52-J Lot 50 in the Allegheny County Block and Lot System.

Section 2. Ordinance amending the Pittsburgh Code, Title Nine, Zoning, Article I, Section 902.03 Zoning Map, by changing from R1D-L, Residential Single-Unit Detached Residential, Low Density to EMI, Education Medical Institution, properties at 4914 5th Avenue, identified as Block No. 52-K Lot 175; 1011 Devonshire Road, identified as Block No. 52-K Lot 182; 1019 Devonshire Road, identified as Block No. 52-K Lot 185; 1021 Devonshire Road, identified as Block No. 52-K Lot 188 and 1033 Devonshire Road, identified as Block No. 52-K Lot 191 in the Allegheny County Block and Lot System.

Any Resolution or Ordinance or part thereof conflicting with the provisions of this Ordinance is hereby repealed so far as the same affects this Ordinance.

I certify that this is a true copy of Ordinance No. 25, passed by Council on 11/21/2022, approved by the Mayor on 11/23/2022. Effective Date 11/23/2022.

Attest:

Kim Clark-Baskin, City Clerk

December 01, 2022

Date Certified



APPENDIX

- A. Master Plan Team and Schedule**
- B. Outreach and Letters of Support**
- C. Simonds Principles**
- D. Campus Population Trends**
- E. Building Inventory**
- F. Parking Inventory**
- G. Strategy for Tree Preservation and Replacement**
- H. Streetscape Program**
- I. Housing Master Plan**

IMP Advisory Team

Angela Blanton, Vice President for Finance and Chief Financial Officer
 Gina Casalegno, Vice President for Student Affairs and Dean of Students
 Don Coffelt, Associate Vice President for Facilities Management and Campus Services
 John Hannon, Associate Vice President for Community Life
 Ralph Horgan, Associate Vice President for Campus Design and Facility Development
 Michael McQuade, Special Advisor to the President
 Anne Molloy, Board of Trustees
 Allen Robinson, Department Head for Mechanical Engineering
 Rick Siger, Senior Advisor to the President of Economic Development and Community Engagement
 Daryl Weinert, Vice President for Operations

IMP CMU Staff

Jennifer Beck, Senior Project Manager - Campus Design and Facility Development
 Don Carter, Senior Advisor - Campus Design and Facility Development
 Christopher Conroy, Associate Director of MEP - Campus Design and Facility Development
 Thomas Cooley, Executive Director of Housing Services and Space Planning
 Jamison Fielding, Principal Project Manager - Campus Design and Facility Development
 Steve Guenther, Assistant VP Facilities Mgt and University Engineer - Facilities Management Services
 Ralph Horgan, Associate Vice President for Campus Design and Facility Development
 Megan Pierce, Project Associate - Campus Design and Facility Development
 Bob Reppe, Assistant Vice President and University Architect - Campus Design and Facility Development

IMP Consultants

David Csont, UDA	Rich Krajcovic, GAI Consultants	Elijah Hughes, evolveEA
Paul Ostergaard, UDA	Todd Wilson, GAI Consultants	Christine Mondor, evolveEA
Eric Osth, UDA		Marc Mondor, evolveEA
Ashleigh Walton, UDA		Claudia Saladin, evolveEA

Master Plan Schedule

Process Startup : May - July 2020

Background Documentation
 Board of Trustees Discussion - *May 2020*
 Engage Consultants (UDA and GAI)

Planning Process : August 2020 - May 2021

Develop Master Plan Principles
 Develop Development Concepts
 Board of Trustees Discussion - *Oct 2020*
 Develop Design and Mobility Concepts
 Begin Campus and Community Outreach
 Board of Trustees Discussion - *May 2021*

Develop Plan & Outreach : May - December 2021

Performance Targets Discussion with DCP
 Finalize Development and Mobility Goals
 Continued Campus and Community Outreach
 Format and Develop IMP Document
 Final Review with Board of Trustees - *Sep 2021*

Approval Process : December 2021 - November 2022

Finalize IMP Document
 Finalize Performance Targets
 File Application with City Planning - *Dec 2021*
 Additional Campus and Community Outreach
 Planning Commission - *July-Sept 2022*
 City Council Approval - *Nov 2022*

APPENDIX B

Campus Meetings	Date(s)
Academic Leadership Forum	14 Apr 2021, 12 Jan 2022
Academic Leadership Group	18 Nov 2021
Advisory Team	bi-monthly
Board of Trustees: Property & Facilities Committee	15 Feb 2021
Buggy Alumni Association	16 Feb 2022
Center for Business Engagement	19 Aug 2022
Center for Shared Prosperity Reading Group	9 Feb 2022
Carnegie Mellon University Police	29 Jun 2021, 1 Nov 2021
Counseling & Psychological Services	9 May 2021
Dean's Council	2 Mar 2021
Design Review Committee	27 Jan 2021, 25 Aug 2021
Division of Student Affairs Leadership	10 Mar 2021
Emergency Risk Management	26 Mar 2021, 16 Jul 2021
Facilities Management IT Group	9 Jun 2021
Facility Coordinators	13 May 2021
Faculty Senate	6 Apr 2021
Faculty Senate Executive Committee	16 Mar 2021, 20 Oct 2021
Global Goals Committee	2 Jun 2021
Graduate Student Assembly	1 Sep 2021
Greek Students Coalition	2 Dec 2020
Green Practices Committee	24 May 2021
Human Resources Institute	29 Mar 2022
ISR Faculty	08 Feb 2022
Office of International Education	15 Apr 2021
Parking & Transportation Committee	21 Apr 2021, 20 Oct 2021
President & Provost	8 Feb 2021, 23 Apr 2021
School of Architecture	20 Apr 2022
Staff Council	18 Mar 2021, 18 Nov 2021, 20 Jan 2022
Student Affairs Leadership Forum	10 Mar 2021, 10 Nov 2021
University Leadership Student Advisory Council	8 Mar 2021, 26 Oct 2021
Undergraduate Student Senate	8 Apr 2021
University Communications & Marketing	3 Mar 2022
University Town Hall	29 Apr 2021, 28 Apr 2022
University of Student Affairs Council	9 Mar 2021, 19 Oct 2021
Waste Management Team	15 Sep 2021

APPENDIX B

Community Meetings	Date(s)
Atrium Condominium Residents Association	8 Feb 2022
Bellefield Area Citizens Association	9 Mar 2021, 10 Aug 2021, 8 Mar 2022
Carnegie Museums	22 Mar 2021
Central Catholic High School	2 Nov 2022
Gladstone Neighbors	15 Aug 2022
Joint OPDC/SHUC DAM	26 Oct 2021
Joint OPDC/SHUC/OBID DAM	13 Dec 2021
Mobilify	16 Apr 2021, 13 May 2021
Neighbor Town Hall Phase 1	5 May 2021, 6 May 2021, 11 May 2021
Neighbor Town Hall Phase 2	9 Sep 2021, 9 Sep 2021, 13 Sep 2021
Oakland Task Force	9 Mar 2021, 14 Sep 2021, 8 Mar 2022
Oakland Planning and Development Corporation	30 Mar 2021, 31 Aug 2021
Park Mansions	14 Jan 2021
Pittsburgh Parks Conservancy	monthly
Shadyside Action Coalition	31 May 2021, 12 Aug 2021, 10 Mar 2022
Shadyside Complete Streets	7 Nov 2022
Schenley Farms	23 May 2021
Squirrel Hill Urban Coalition	2 Mar 2021, 3 Aug 2021, 1 Mar 2022
University of Pittsburgh - Community Engagement	20 Jul 2021
University of Pittsburgh - IMP Team	2 Feb 2021, 22 Apr 2021
City Meetings	Date(s)
City Council: Corey O'Connor	22 Feb 2021
City Council: Committee Action	15 Nov 2022, 21 Nov 2022
City Council: Erika Strassburger	21 Jan 2021, 30 Sept 2021
City of Pittsburgh: Forestry, Public Works	8 Jul 2021
City of Pittsburgh: Resilience	19 Aug 2021
DCP: Neighborhood Planners	14 Jul 2021
DCP: Stormwater, Tree Canopy, Open Space	29 Jul 2021
DCP: DOMI Performance Targets Introduction	10 Mar 2021
DOMI: TIS Scoping	11 Mar 2021, 16 Jul 2021, 27 Jan 2022
DOMI, Port Authority	28 Jun 2021, 7 Oct 2021
Green Building Alliance, DCP: Sustainability	6 Jul 2021, 21 Jul 2021
Performance Targets Meeting 1	30 May 2021
Performance Targets Meeting 2	30 Aug 2021
Performances Targets Meeting 3	17 Nov 2021
Pittsburgh Water and Sewer Authority	24 Aug 2021
Planning Commission Briefings	12 Jul 2022, 26 Jul 2022
Planning Commission for Action	6 Sept 2022
Public Hearing	9 Nov 2022

APPENDIX B

Letter of Support: Oakland Task Force

DocuSign Envelope ID: 3FE41667-FDCE-4716-97F8-095E73A011E4



April 15, 2022

Re: Carnegie Mellon University Institutional Master Plan

To City of Pittsburgh Boards and Commissions:

On behalf of the Oakland Task Force (OTF), I write in support of Carnegie Mellon University's Institutional Master Plan.

The Oakland Task Force (OTF) is an information organization of Oakland area institutions and organizations that meets monthly to exchange information and review projects proposed for the Oakland neighborhood. OTF represents a partnership among Oakland institutions, businesses, community groups, and public agencies.

Our focus is to work through collaboration and coordination to address Oakland-area issues. The OTF has consistently played a leading role in the implementation of projects that have enhanced Oakland and the role it plays as the region's economic driver.

Carnegie Mellon University has kept the Oakland Task Force engaged throughout the entire planning and public engagement process and the new IMP will be an asset to the Oakland community while providing many new services and spaces to the CMU community.

Therefore, we support the Carnegie Mellon University Institutional Master Plan and all that it will bring to encourage the growth of our Oakland community for the wide range of educational, medical, and cultural amenities the area has to offer.

Sincerely,

Jamilah Ducar

DocuSigned by:

BC9CD43C66534C0...

On Behalf of the Oakland Task Force

Oakland Task Force, c/o 4227 Fifth Avenue, 710 Alumni Hall, Pittsburgh, PA 15260

APPENDIX B

Letter of Support: Bellefield Area Citizens Association

To: planningcommission@pittsburghpa.gov
Cc:

Re: DCP-MPZC-2021-01727
Carnegie Mellon University IMP

The Bellefield Area Citizens Association voted unanimously to support the Institutional Master Plan of Carnegie Mellon University, as presented to our organization April 12, 2022.

We have met with representatives from Carnegie Mellon on numerous occasions during the development of the Master Plan. We have been updated and given an opportunity to respond from the beginning of the process until it's completion.

As residents, we are directly impacted by both the institution and the students attending Carnegie Mellon. We welcome the University's community outreach.

As permanent residents of the community, we look forward to continued transparency and engagement during the implementation of the IMP. We congratulate Carnegie Mellon University on a job well done in completing this plan and applaud their inclusion of the neighbors in so doing.

Kathleen D. Gallagher
President
Bellefield Area Citizens Association.

Kathy Gallagher
kdjg234@comcast.net

APPENDIX B

Letter of Support: Oakland Planning and Development Corporation



July 18, 2022

Christine Mondor, Chair
City of Pittsburgh Planning Commission
Via Electronic communication

Re: DCP-MPZC-2021-01727, Carnegie Mellon Institutional Master Plan

Dear Chair Mondor and Members of the Planning Commission:

I submit testimony on behalf of Oakland Planning and Development Corporation (OPDC), a community-based organization whose mission is to build a better Oakland and help neighbors thrive. Fundamental to our work is communication to the public about development proposals and hosting meetings to discuss plans and proposals. We are a Registered Community Organization for the four Oakland neighborhoods and maintain detailed information about projects on our website.

OPDC has had four engagements with the Carnegie Mellon Institutional Master Plan to date:

- March 30, 2021: Carnegie Mellon presented early ideas and aspirations at an Oakland-wide meeting. They explained their goals for three campus divisions and introduced planners involved in the development.
- August 31, 2021: Carnegie Mellon delivered a midpoint update at an OPDC meeting.
- October 26, 2021: Carnegie Mellon returned to present updates related to IMP themes to a group of 28 attendees at a Development Activities Meeting.
- December 13, 2021: Carnegie Mellon presented their endpoint update at a Development Activities Meeting hosted by City Planning, where community members were informed that key takeaways on mobility, sustainability, and neighborhood strategy remained constant.

At these engagements, community members provided feedback about spillover parking impacts to neighboring streets, desire to encourage multi-modal transportation to campus, street safety/vehicle speeds, desire for connecting the city's bicycle network, and redesign of crosswalk on Schenley Drive at Westinghouse Memorial. Tree care was also a common topic, with audience questions on tree preservation and the use of wood from felled trees. Community members asked about a shuttle system to Hazelwood. Points of emphasis with regard to community benefits include public use of recreational facilities and the university's plans for cultivating a variety of businesses on Craig St.

OPDC appreciates Carnegie Mellon's attention to public process; we support approval of the IMP.

Sincerely,


Wanda E. Wilson
Executive Director

We build a better Oakland and help neighbors thrive.
294 Sempie Street, Pittsburgh, PA 15213 tel: 412.621.7863 fax: 412.621.5920 www.opdc.org

APPENDIX B

Letter of Support: Pittsburgh Parks Conservancy



Pittsburghparks.org

317 East Carson Street
West Tower, Suite #230
Pittsburgh, PA 15219

P: 412.682.7276 • F: 412.622.0160

May 26, 2022

City of Pittsburgh Boards and Commissions
City Council
200 Ross Street, Fourth Floor
Pittsburgh, PA 15219

Re: Letter of Support for Carnegie Mellon University Institutional Master Plan

Dear Commissioners,

I am writing to express the Pittsburgh Parks Conservancy's support for Carnegie Mellon University's proposed Institutional Master Plan.

For over a year, the Parks Conservancy has been collaborating with the university's Campus and Facilities Design staff to plan and coordinate around how the campus and Schenley Park can be better integrated. These conversations have generated exciting ideas about how both the park and campus can help advance key priorities for Pittsburgh residents, such as pedestrian safety, sustainability, mobility, and access to public open spaces. This ongoing coordination effort will undoubtedly result in a stronger, better park system.

We are pleased that Carnegie Mellon University has continued this spirit of collaboration with the greater Pittsburgh community during the development of their Institutional Master Plan. We applaud the University's efforts to listen and engage with community members and other partners, as well their recognition that the Institutional Master Plan should not only provide benefit to the University's students and employees, but also to the communities in which the University is a part of.

The Pittsburgh Parks Conservancy is pleased to support Carnegie Mellon University's Institutional Master Plan.

Sincerely,



Ross Chapman
Director of Park Operations and Civic Engagement

Cc Catherine Gureshi, President and CEO, Pittsburgh Parks Conservancy

Letter of Support: Squirrel Hill Urban Coalition



5604 SOLWAY STREET
PITTSBURGH, PA 15217
PHONE: 412-422-7666
WWW.SHUC.ORG

Board of Directors

July 7, 2022

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President

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Barb Grover
Joseph Ott
Mary Shaw
Erik Wagner

Maria H. Cohen,
Executive Director

The Squirrel Hill Urban Coalition is a 501(c)(3) non-profit organization of Public Charity status and eligible to receive charitable donations to the fullest extent of the law.

EIN: 25-1243029

Members of the City Planning Commission
c/o Ms. Christine Mondor, Chair
City of Pittsburgh
200 Ross Street
Pittsburgh PA 15219
c/o Kate Rakus, emailed to: planningcommission@pittsburghpa.gov

Re: DCP-MPZC-2021-01727 – Carnegie Mellon University Institutional Master Plan Update

Dear Planning Commission Members

I write to you on behalf of the Squirrel Hill Urban Coalition (SHUC) to offer our organization's support of the approval of the proposed Institutional Master Plan Update for Carnegie Mellon University (CMU).

This support is offered based on information presented by Carnegie Mellon University Campus Design and Facility Development (CDFD) Staff representatives during meetings held throughout 2021 and 2022. Informal, informational presentations were made to SHUC in March and August 2021. Formal, public Development Activities Meetings were hosted by SHUC on October 26, 2021, December 13, 2021 and March 1, 2022. Our support is based on Master Plan information as reflected in the most current version, the April 19, 2022 draft, as published on the Carnegie Mellon University website (<https://www.cmu.edu/cdfd/planning-and-design/master-plan/pdf/2022-04-19-2022-imp-draft.pdf>)

We offer this support based on the following understandings and conclusions:

- Carnegie Mellon University strives to be a "good neighbor" within its own neighborhood and those to which it is adjacent. Much of the proposed impact of the Master Plan update falls geographically outside of Squirrel Hill, but we at SHUC certainly appreciate the ripple effect that development can have from one neighborhood to another. As such, we appreciate the extensive communication from CMU regarding proposed developments, and the considerations for impact of those.
- Many of the proposed improvements are within the "historic core" or areas of campus with minimal significant direct impact on Squirrel Hill.
- CMU has a comprehensive Mobility Plan for consideration of safety for transit, vehicular, pedestrian, bicycle and other modes of transportation. This plan incorporates understanding of the proposed Bus Rapid Transit (BRT) proposal, and places special focus on safety along Forbes Avenue, a primary connector into Squirrel Hill.

- CMU proposed an overall strategy of no net new parking, based on parking numbers from 2018/2019 academic year, with a goal of reducing/eliminating surface parking lots.
- SHUC does want CMU to manage parking and mobility strategies carefully, so as to avoid having nearby residential streets in Squirrel Hill become de facto "park and ride" locations for vehicular parking. This does occur in some isolated locations, and can be detrimental to the neighborhood.
- SHUC encourages continued improvement of stormwater management strategies.
- SHUC encourages the Master Plan strategies for increasing on-campus undergraduate housing, so as to relieve pressure for this type of housing from the neighborhoods.
- CMU will strive to improve connections to Schenley Park, and will work with the Pittsburgh Parks Conservancy and other stakeholders to ensure those connections are historically and aesthetically appropriate.

We believe the acceptance of the Carnegie Mellon University Institutional Master Plan update will be beneficial for the University, Squirrel Hill and for the adjacent communities, and we ask the Planning Commission to consider it favorably.

Sincerely

Lori Fitzgerald, RA
WELL AP | LEED AP BD+C

SHUC Built Environment Committee Chair

cc: Ms. Mardi Isler, President, Squirrel Hill Urban Coalition
Ms. Maria Cohen, Squirrel Hill Urban Coalition, Executive Director
Mr. Corey O'Connor, City of Pittsburgh Councilman, District 5
Ms. Ose Akinlotan, Community Planner, City of Pittsburgh

APPENDIX B

Letter of Support: Oakland Business Improvement District



July 22, 2022

Christine Mondor, Chair
City of Pittsburgh Planning Commission
% The Department of City Planning
200 Ross Street, Fourth Floor
Pittsburgh, PA 15219

RE: Carnegie Mellon University Institutional Master Plan

Dear Chairwoman Mondor and Commission Members,

I am writing on behalf of the Oakland Business Improvement District (OBID) in support of our community partner, Carnegie Mellon University (CMU), on their Institutional Master Plan (IMP). As CMU is a global research university known for its world-class arts and technology programs, we admire their partnership and shared mission in recognizing Oakland as a global center. Further, CMU's value of making their campus a destination of choice for innovation and entrepreneurship aligns directly with our vision. CMU has been engaged and responsive to OBID as a Registered Community Organization (RCO) throughout the IMP planning process.

We are pleased to offer our support to Carnegie Mellon University for their Institutional Master Plan.

Sincerely,

Georgia Petropoulos

Georgia Petropoulos
Chief Executive Officer
Oakland Business Improvement District

218 Oakland Avenue Pittsburgh PA 15213 412.683.OBID www.oaklandpittsburgh.com

APPENDIX B

Letter of Support: Carnegie Museums of Pittsburgh



Steven Knapp
President & CEO
4400 Forbes Avenue
Pittsburgh, PA 15213-4080
Phone 412.622.5335
Fax 412.622.6258
knappa@carnegiemuseums.org
www.carnegiemuseums.org

July 29, 2022

Christine Mondor, Chair
City of Pittsburgh Planning Commission
c/o Department of City Planning
200 Ross Street, Fourth Floor
Pittsburgh, PA 15219

Dear Chair Mondor and Commission Members,

On behalf of Carnegie Museums of Pittsburgh, I write to express our strong support for Carnegie Mellon University's proposed Institutional Master Plan.

Carnegie Mellon is a valued neighbor of our Oakland campus, which houses two of the four Carnegie Museums (Art and Natural History). We have found the University to be a very helpful and collaborative partner on numerous initiatives that further our respective missions and the broader interests of the communities we serve.

The thoughtfulness, comprehensiveness, and quality of the plan speak for themselves, but we have also been pleased to witness the degree to which the University has engaged its neighbors and partners in the planning process. We are confident that the plan's design will preserve the cherished character of the Oakland neighborhood while marking out a path for innovative development in the future.

Again, we have no hesitation in offering support for this important new plan.

With best regards,

A handwritten signature in blue ink that reads 'Steve Knapp'.

CARNEGIE
MUSEUM
OF ART

CARNEGIE
MUSEUM
OF NATURAL
HISTORY

CARNEGIE
SCIENCE
CENTER

THE ANDY
WARHOL
MUSEUM

Simonds Principles

Purpose & Scope

The Simonds Commission will serve from April 2012 to October 2012¹, working to further elaborate on the high-level planning and design issues for future development north and west of the main campus. The Commission will have as its foundation the 2012 Master Plan, and will work in tandem with the Campus Design Working Group. The product of the Commission's work will serve as the guidelines for future development in this critical area of expansion for the university.

¹Revised to February 6, 2013

Carnegie Mellon University
Board of Trustees

Report Preamble

Carnegie Mellon University has emerged as one of the great success stories in American higher education over the last fifty years. The evolution of the university from a strong, regional institution to a pre-eminent global university is without parallel. Founded by Andrew Carnegie for the sons and daughters of steel workers, the university now educates great minds throughout the world in an array of disciplines, led by our exceptional faculty. Throughout, we have maintained a lean and pragmatic ethos, solving real-world problems through hard work, collaboration, interdisciplinary engagement, and an entrepreneurial spirit that is the envy of even our most elite peer institutions. The built environment at the institution reflects these very core values, intended to create spaces that allow for our greatest engagement in research, learning, service, and community. In addition, our aesthetic ethos is critical to the look and feel of the campus. As we continue to grow, and notably as we move beyond the footprint of the main campus into adjacent communities, the breadth and depth of considerations in any new built or open space is especially critical. **The Simonds Commission was empaneled in 2012 to develop guiding principles that will ensure that new projects, while remaining true to their immediate purpose, are a constructive and contributive part to the larger whole that is the Carnegie Mellon University footprint and influence.** These principles each have their own discrete and pragmatic objectives. As a collective, they help to translate our deeply held core values into the entirety of our built environment and adjacent spaces.

Carnegie Mellon University
Board of Trustees

Architecture Principle

Building and landscape design should be innovative and reflect the culture, history, and sensibilities of the university and the distinct place it holds in the city, region, nation, and world. Interior and exterior space design must facilitate student, faculty, and staff activities and interactions; increase connectivity with internal and external communities; and enhance the life of the campus. To this end, consistent urban and campus design leadership should be provided across architectural projects. **Design teams should respond to the existing and emerging needs of academic and research programs; respecting and interpreting the historic Carnegie Mellon architecture in massing, materials, and design in a contemporary manner.** All projects should be firmly rooted in the Sustainability principle and in an understanding of technological advancements that will influence academic and interpersonal engagement.

Designs of individual buildings within a campus district (e.g., North Quad, Historic Core, East Campus) should complement one another, creating a cohesive and consistent campus neighborhood. Projects within the university's surrounding neighborhoods (e.g., Forbes-Craig) should respond to their urban contexts, as described in the Neighborhood Compatibility principle. Landscape design should be integral to all projects, consistent with the Open Space principle.

Process Note: The Board of Trustees Property and Facilities Committee, the Design Review Committee, and professionals in Campus Design and Facility Development (CDFD) will assure that planning and design processes significantly engage campus stakeholders and building "owners" from start to finish. Additionally, the committees and CDFD will steward this principle and the application of it within the context of new construction and major renovation projects.

✓ Approved by the Commission on February 6, 2013

Carnegie Mellon University
Board of Trustees

Safety and Security Principle

Design standards and guidelines should embrace the university's overarching values of openness, engagement, collaboration, and community while promoting the safety and security of building occupants and campus and non-campus community members using or visiting buildings. Beyond the standard attention paid to safety and security systems in buildings, thoughtful consideration of a building's purpose, use, and internal and external environments, and consideration of all potential users should inform choices regarding access control; layout and interior design; landscape and external lighting design; and pedestrian, vehicular, and emergency access and circulation.

✓ Approved by the Commission on September 22, 2012

Carnegie Mellon University
Board of Trustees

Simonds Principles

Sustainability Principle

Highest-level environmental sensibilities should be integral to the design, construction, and management of all built and open spaces, consistent with the university's international standing in sustainable and green practices and cutting-edge systems and technologies, with particular emphasis on energy and water efficiency, the life cycle of materials, biodiversity, storm water management, and transportation management.

✓ Approved by the Commission on August 25, 2012

Carnegie Mellon University
Board of Trustees

Mixed-Use Principle

The university's broad vision for our community is enhanced by the depth of educational, cultural, social and recreational, and economic connections with adjacent communities. In high public access areas—"streetfronts," sidewalks, major internal and external pedestrian arteries—visibility and easy access to commercial, institutional, and cultural activity should be most prominent, with residential, administrative, academic, and research uses "above and behind." An energized mixed-use environment encourages an appreciation for divergent activities, through visual and aural stimuli, while managing the inherent conflict of potentially contradictory uses. For locations internal to campus, applications of the mixed-use paradigm should be used in context where appropriate.

✓ Approved by the Commission on November 16, 2012

Carnegie Mellon University
Board of Trustees

Neighborhood Compatibility Principle

Carnegie Mellon University is an asset to the region, with its internationally renowned educational programs, leading-edge research and technology transfer, cultural programs, and community service; and the vitality of the region is an essential component of our institutional vision. We recognize that our success is interconnected with that of our neighbors—local non-profit institutions, business owners, government, and residential communities—and is supported by convivial and collaborative relationships with them. **To further our collective vitality, urban design principles must be embraced to ensure complementarity of the neighborhoods and the campus in both the built environment and open spaces.** Sustained collaboration will contribute to maintaining a viable blend of functions, leveraging our shared highest-order vision, while strengthening the core focus of each community partner.

Process Note: Consistent with the principles of Mixed Use and Neighborhood Compatibility, the university must continue to maintain strong ongoing relationships with all adjacent neighborhood groups in order to ensure that potential concerns (e.g., lighting, noise, activity, or operations) are addressed in the design process and in ongoing use in a transparent, timely, and sustained manner.

✓ Approved by the Commission on September 22, 2012

Carnegie Mellon University
Board of Trustees

Edges, Entrances, and Their Connections Principle

Carnegie Mellon's edges and entrances should be perceptible and facilitate a sense of arrival and place. **Architecture and landscape, rather than signage alone, should allow for subtle yet iconic demarcations to define campus boundaries.** Edges and entrances should be porous, facilitating visual and pedestrian connectivity and emphasizing the university's relationship to its neighborhoods.

Process Note: The quality of material selection, construction, and site maintenance are critical to the university's ability to demarcate these areas.

✓ Approved by the Commission on November 16, 2013

Carnegie Mellon University
Board of Trustees

Simonds Principles

Open Space Principle

Open spaces should communicate the university's values, increase its connectivity within the campus and to adjacent areas, and enhance its cultural life—including offering opportunities for individual reflection, casual conversation, recreation, and academic and student life activities. As such, landscape projects should be designed in concert with building projects; designated as specific program elements (including wayfinding, gateway, and connections needs of the campus); and carefully designed, constructed, and maintained.

Process Note: Particular priority should be given to the landscape along Forbes Avenue as the centerpiece of the campus and critical component of greeting the university's visitors.

✓ Approved by the Commission on November 16, 2012

Carnegie Mellon University
Board of Trustees

Public Art Principle

Art in public spaces has been integral to the design of interior and exterior spaces on the Carnegie Mellon campus—from the frescoes and niches of the College of Fine Arts, to the mural and high-relief and hand-crafted tiles of the University Center, to the Pausch Bridge connecting the Gates and Hillman Centers with the Purnell Center. Public art, whether situated inside or outside a building, should be incorporated into all new building projects and major renovations. **It should serve to engage community members and enhance the use of public spaces, invigorate otherwise unremarkable areas, provide opportunities for temporary display of student art, and reflect the innovative and diverse cultures of the university and the region.**

Process Note 1: A public art plan must be included in all new building designs and implementations, ideally with a specific articulated project cost and intentional collaboration between the selected architect and relevant artist(s). By existing policy, public art must be approved via the Public Art Process and Committee, and building owners must assure that the design plan includes resources for maintaining the collection.

Process Note 2: The Simonds Commission recommends the creation of a university committee composed of members of the Board of Trustees Property and Facilities Committee, the Public Art Committee, and Campus Design and Facility Development staff to establish and promote the importance of and interest in public art across the campus.

✓ Approved by the Commission on February 6, 2013

Carnegie Mellon University
Board of Trustees

Multi-Modal Transportation Principle

Buildings, site plans, and open spaces must be designed with appropriate consideration for all vehicular (e.g., bicycle, bus, car, delivery truck, motorcycle, shuttle) and pedestrian (including personal mobility vehicles) flows, promoting a safe, accessible, and communal transportation infrastructure. **Consistent with a well-designed and well-managed university transportation management plan, new building projects should promote campus and community circulation and engagement, connect campus and non-campus entities, and promote and develop innovative transportation modalities.** Where possible, pedestrian, bicycle, and public transit pathways should take precedence, while accommodating transportation, parking, and wayfinding needs of visitors and guests.

✓ Approved by the Commission on November 16, 2012

Carnegie Mellon University
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Universal Design Principle

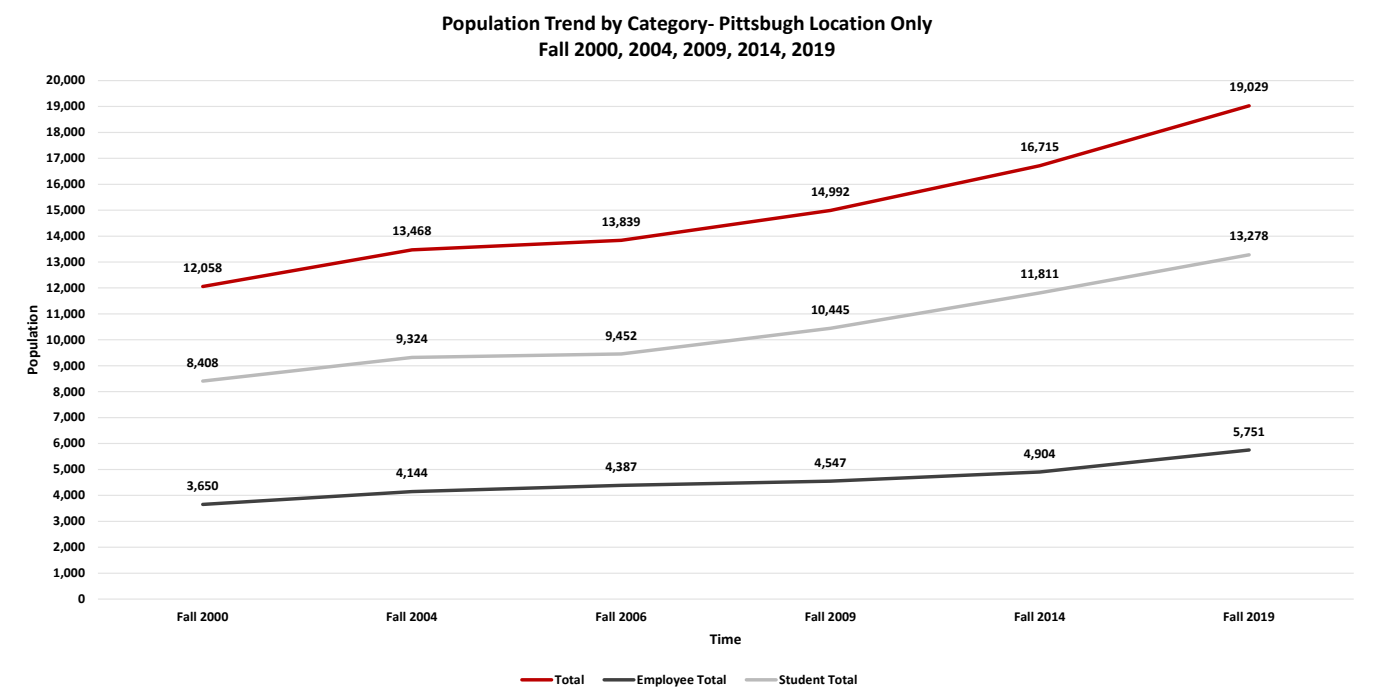
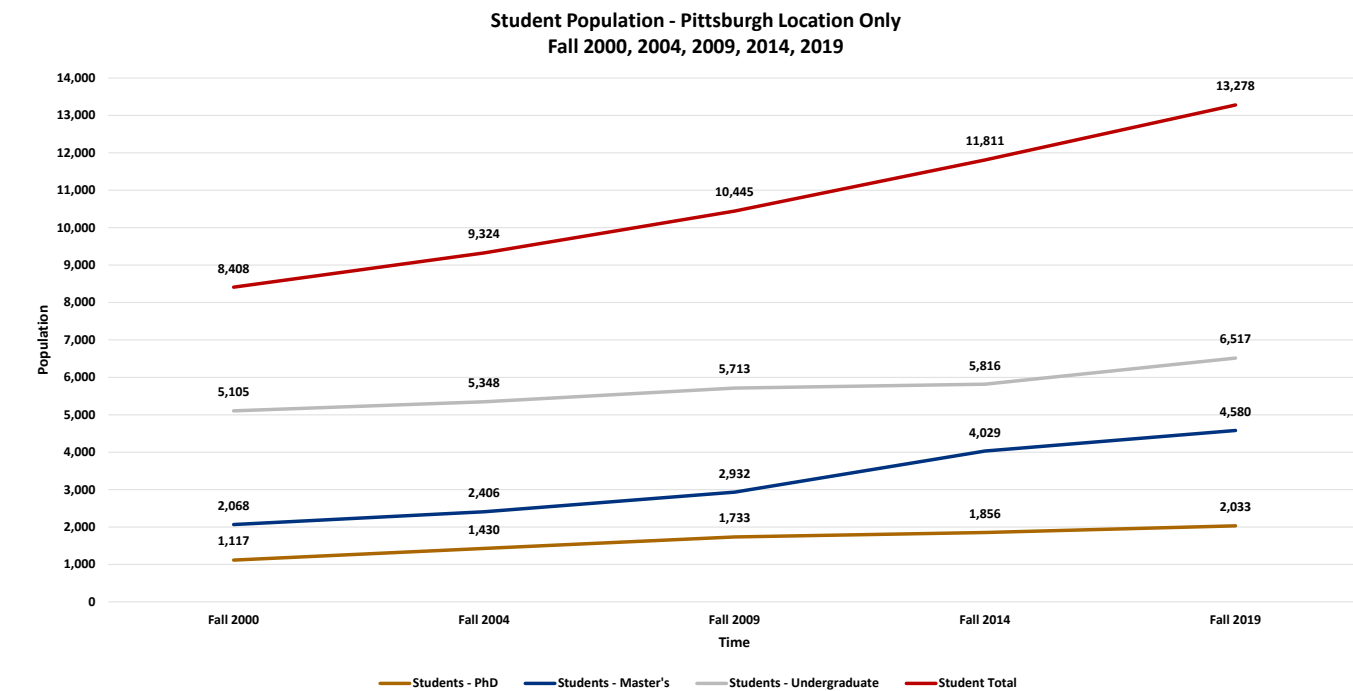
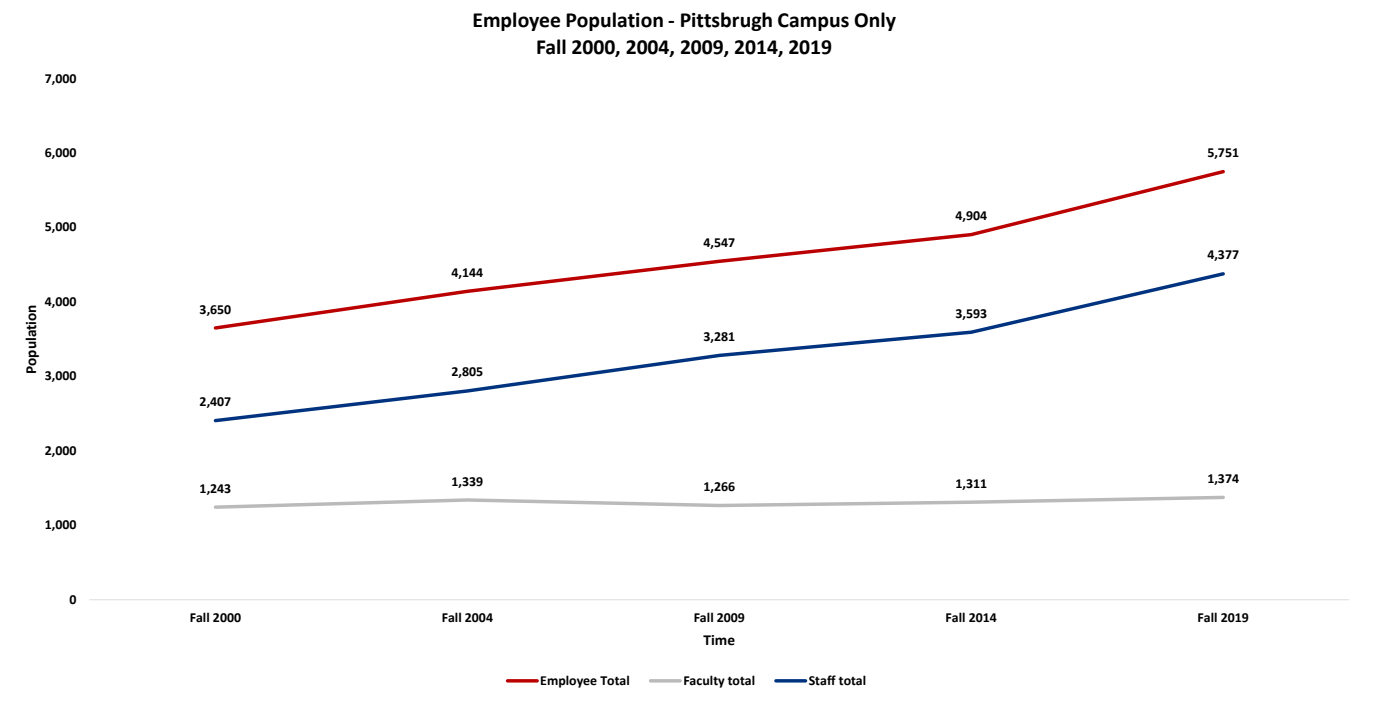
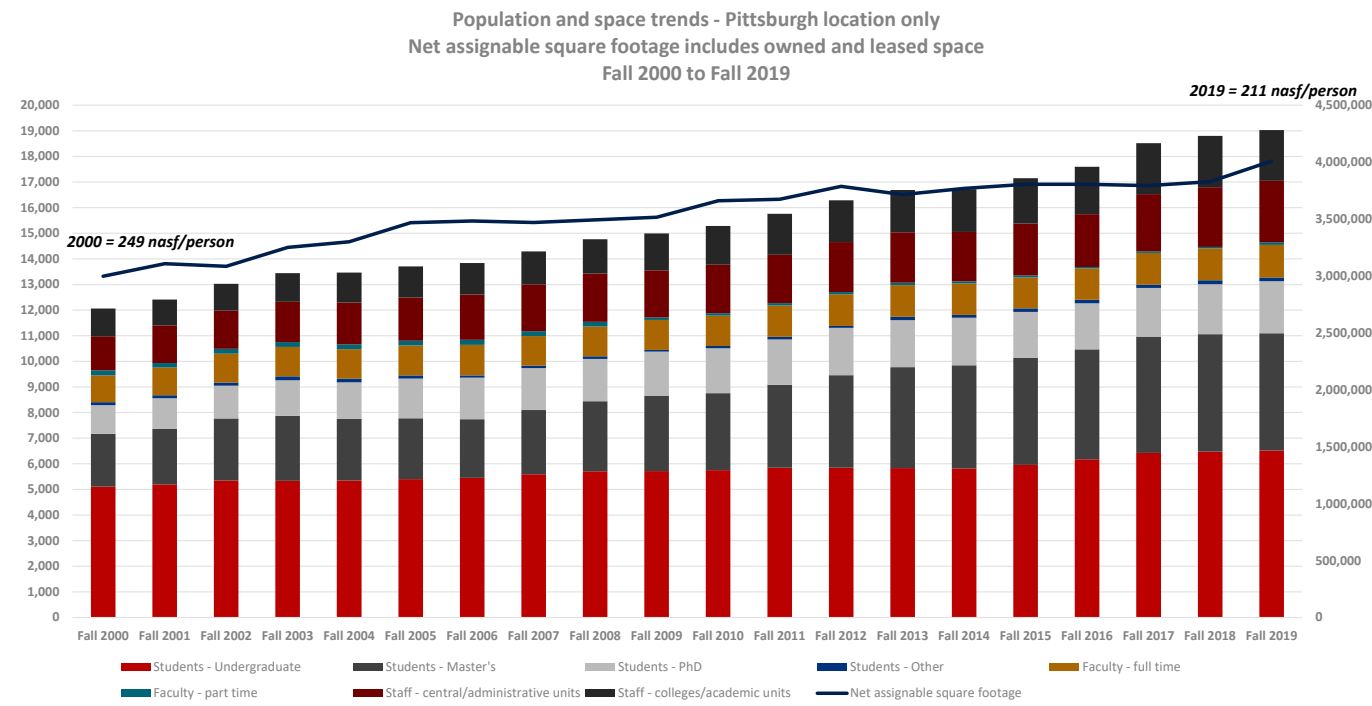
Access to and use of all facilities and open spaces should be maintained for all potential users, consistent with universal design principles, relevant law (e.g., 2010 ADA Code), and the university's commitment to an open and inclusive community.

✓ Approved by the Commission on August 25, 2012

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For more information, visit <https://www.cmu.edu/cdfd/planning-and-design/simonds-principles/index.html>

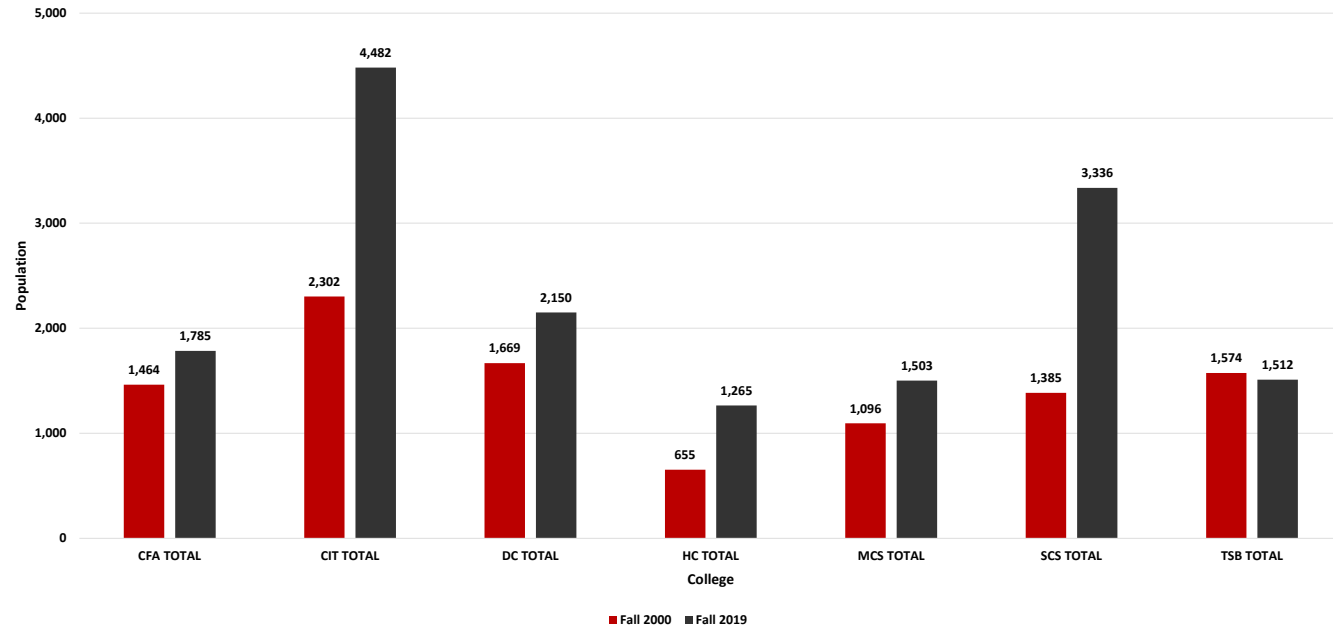
Population Trends



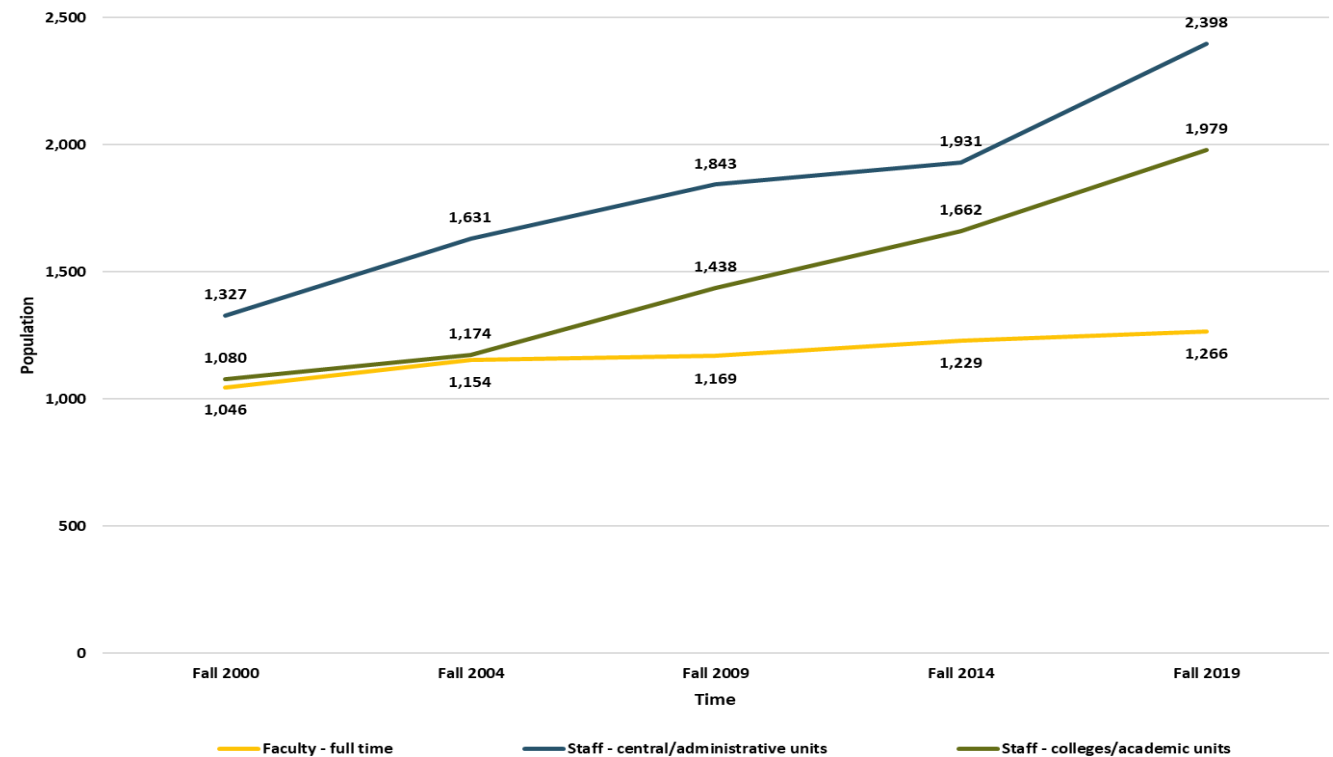
APPENDIX D

Population Trends

Total Population By College - Pittsburgh Location Only
Fall 2000 - 2019



Employee population trend - Pittsburgh location only
Fall 2000, 2004, 2009, 2014, 2019



APPENDIX D

Global Presence



CMU Campuses

- A Pittsburgh, USA
- B Adelaide, Australia
- C Doha, Qatar
- D Kigali, Rwanda
- E Los Angeles, USA
- F New York, USA
- G Silicon Valley, USA

CMU Partner Programs

- | | | | |
|---|-------------------|----|----------------|
| 1 | Washington, USA | 9 | Singapore |
| 2 | Monterrey, Mexico | 10 | Jiangsu, China |
| 3 | Porto, Portugal | 11 | Kobe, Japan |
| 4 | Lisbon, Portugal | | |
| 5 | Plymouth, UK | | |
| 6 | Bologna, Italy | | |
| 7 | Ankara, Turkey | | |
| 8 | Thailand | | |

2022 Building Inventory

Building Name	Building Abbrev	Building Address	Major Use	Year Opened	Year Acquired	Architect/Planner	Sq Feet	Levels	page break	Architectural Style	Building Materials & Color	Major Entrances	LEED Certification	Systems	Other Notes
Porter Hall	PH	4815 Frew St.	Academic	1905	-	Hornbostel & Palmer	135,000	3+4		Industrial Beaux Arts	Light tan brick, terracotta details, copper windows, metal hipped roof	Frew St, The Mall	Silver CI 2.0 2009 (Classrooms)	Central steam & chilled water	1950 addition (10,000sf), first campus building
Doherty Hall	DH	281 Hamerschlag Dr	Academic	1908	-	Hornbostel & Palmer	290,000	6+4		Industrial Beaux Arts	Yellow-sand brick, terracotta details, copper windows, metal gable & hipped roof	The Cut	Silver CI 2.0 & NC 3.0 2010, 2015	Central steam & chilled water	1959 addition (50,000sf), 2000 addition (45,000sf)
Hamerschlag Hall	HH	425 Hamerschlag Dr	Academic	1912	-	Hornbostel & Palmer	117,000	6+4		Industrial Beaux Arts	Light tan brick, terracotta details, copper windows, metal gable, hipped & flat roof	Frew St, The Mall	Gold CI 3.0 2019 (Maker Wing)	Central steam & chilled water	
Baker Hall	BH	4825 Frew St	Academic	1912	-	Hornbostel & Palmer	144,000	4+1		Industrial Beaux Arts	Light tan brick, terracotta details, copper windows, metal gable & hipped roof	The Mall	-	Central steam & chilled water	2000 addition (24,000sf), Guastavino stair, sloping floor
College of Fine Arts	CFA	4919 Frew St	Academic	1912	-	Hornbostel & Palmer	125,000	5+1		Classical Beaux Arts	Light tan brick, terracotta details, copper windows, metal cross-hipped roof	The Mall	-	Central steam & chilled water	1916 addition, Great Hall of CFA, Niches, Kresge Theatre
Margaret Morrison Carnegie Hall	MM	5001 Margaret Morrison St	Academic	1913	-	Hornbostel & Palmer	117,000	3+4		Industrial Beaux Arts	White/ivory brick, terracotta details, copper windows, metal cross-hipped roof	Margaret Morrison St, EW Walkway	-	Central steam & chilled water	1997 addition (7,000sf), rotunda, Intelligent Workplace
Hamburg Hall	HBH	4800 Forbes Ave	Academic	1915	1984	Hornbostel & Palmer	108,000	3+1		Industrial Beaux Arts	Light tan brick, terracotta details, copper windows, metal hipped roof	Forbes Ave	Gold NC 3.0 2017 (Auditorium)	Central steam & chilled water	2016 addition(6,000sf), adaptive reuse of US Bureau of Mines
McGill House	MCG	5128 Margaret Morrison St	Housing	1915	-	Hornbostel & Palmer	14,000	3+1		Industrial Beaux Arts	Red brick with brick details, stone foundation, gable roof	Margaret Morrison St	-	Central steam	
Boss House	BOS	5126 Margaret Morrison St	Housing	1915	-	Hornbostel & Palmer	14,000	3+1		Industrial Beaux Arts	Red brick with brick details, stone foundation, gable roof	Margaret Morrison St	-	Central steam	
Henderson House	HEN	5118 Skibo Dr	Housing	1918	-	Hornbostel & Palmer	13,000	3+1		Industrial Beaux Arts	Red brick with brick details, 2 story stone foundation, hipped roof with dormers	Skibo Dr	Silver NC 2.0 2004	Central steam & shared chiller	2006 full renovation
Welch House	WEL	5110 Skibo Dr	Housing	1918	-	Hornbostel & Palmer	12,650	3+1		Industrial Beaux Arts	Light tan brick, stone foundation, gable roof	Skibo Dr	-	Central steam & shared chiller	
Scobell House	SCO	5120 Margaret Morrison St	Housing	1918	-	Hornbostel & Palmer	12,750	3+1		Industrial Beaux Arts	Cream/ivory brick, stone foundation, hipped roof	Margaret Morrison St	-	Central steam	2022 renovation
4721 Fifth Ave	4721FIFTH	4721 Fifth Ave	Housing	1918	2012	Unknown	22,000	3+1		Neoclassical	Light tan brick, stone base and columns, hipped roof	Fifth Ave	Gold NC 3.0 2019	Gas & air cooled	2017 full renovation, formerly Winchester Thurston School
Mudge House	MUDG	1000 Morewood Ave	Housing	1922	1957	Henry D Gilcrist	67,000	3+1		Modern Classical	White/ivory stone, brick additions, hipped roof	Morewood Ave	-	Central steam & split cooled	1958 B Wing addition, 1965 C Wing addition
Skibo Gym	GYM	100 Tech St	Athletic	1924	-	Hornbostel & Palmer	63,350	3+1		Industrial Beaux Arts	Light tan brick, terracotta details, copper windows, metal flat roof	Tech St	-	Central steam	2021-24 major renovation & addition, south gym to remain
Neville Apartments	NVL	617 N Neville St	Housing	1925	2019	Unknown	8,850	2+1		Commercial Craftsman	Red brick, metal pitched flat roof hybrid	Neville St	-	Gas	2020 full renovation
Roselawn Terrace 1-3-5-7	1-7 RT	11 Roselawn Terrace	Housing	1930	1967-1988	Unknown	6,400	2+1		Craftsman	Red brick, stucco, mansard and flat roof hybrid	Roselawn Dr	-	Gas & forced air	2010 renovation
Roselawn Terrace 2-4-6-8	2-8 RT	10 Roselawn Terrace	Housing	1930	1967-1988	Unknown	6,500	2+1		Craftsman	White brick, stucco, mansard and flat roof hybrid	Roselawn Dr	-	Gas & forced air	2010 renovation
Roselawn Terrace 10-12-14-16	10-16 RT	28 Roselawn Terrace	Housing	1930	1967-1988	Unknown	6,400	2+1		Craftsman	White brick, stucco, mansard and flat roof hybrid	Roselawn Dr	-	Gas & forced air	2010 renovation
Roselawn Terrace 15	15 RT	31 Roselawn Terrace	Housing	1930	1967-1988	Unknown	5,300	2		Pittsburgh Four Square	White vinyl sliding, shingle roof	Roselawn Dr	-	Gas	2008 renovation
Morewood Gardens A-D	MG	1060 Morewood Ave	Housing	1927	1946	Farrar, Marks & Kann	135,200	7+2		Modernist Craftsman	Red brick, stone base, stone details, flat roof	Morewood Ave	-	Central steam & chilled water	2018-21 full building system upgrades
Morewood Gardens E	MGE	4921 Forbes Ave	Housing	1960	-	Alfred Reid & Associates	59,400	7+1		Modernist Craftsman	Red warm brick, concrete bays, flat roof	Forbes Ave	-	Central steam	
300 S Craig St	300SCRG	300 S Craig St	Academic/Research	1935	2005	Unknown	85,400	5+1		Neoclassical	Red brick, concrete details, metal mansard and flat roof hybrid	S Craig St	Silver NC 3.0 2007	Gas & air cooled	House campus police, ground floor retail
Mellon Institute	MI	4400 Fifth Ave	Academic	1937	1967	Jannsen & Cocken	357,000	6+2		Neoclassical	Grey indiana limestone, flat roof	Fifth Ave, Bellfield Ave	Silver CI 2.0 & CI v4.0 2012, 2021	Central steam & chilled water	Monolithic doric columns, library, lightwells
Smith Hall (US Bureau of Mines)	EDSH	4802 Forbes Ave	Academic	1939	1984	Lawrence & Anthony Wolfe	22,000	2		Industrial Beaux Arts	Light tan brick, standing seam roof	West Quad	-	Central steam & chilled water	
Hall of Arts	HOA	121 Tech St	Academic	1952	-	Marlier & Johnstone	53,000	1+3		Post Modernism	Tan brick, cream stone, flat roof	Tech St, Peace Garden	-	Central steam & chilled water	2009 addition (8,000sf), 2020 full renovation
Donner House	D	5115 Margaret Morrison St	Housing	1954	-	Mitchell & Richey	53,500	2+3		Modernism	White/pale green-turquoise metal and glass, flat roof	Margaret Morrison St	-	Central steam	
Lower Greek Quad (4 structures)	GQ	5033 Forbes Ave	Housing	1956	-	Lawrence & Anthony Wolfe	80,000	3		Modernism	Red and white brick, flat roof	Forbes Ave, Morewood Ave	-	Central steam & forced air	

2022 Building Inventory

Building Name	Building Abbrev	Building Address	Major Use	Year Opened	Year Acquired	Architect/Planner	Sq Feet	Levels	page break	Architectural Style	Building Materials & Color	Major Entrances	LEED Certification	Systems	Other Notes
Spirit House	5170MM	5170 Margaret Morrison St	Housing	1959	1967	Unknown	2,950	2.5		Craftsman	Light tan brick, hipped roof	Margaret Morrison St	-	Steam & window units	2016 partial building renovation
Woodlawn Apartments	WOO	5176 Margaret Morrison At	Housing	1959	1967	Unknown	11,300	3+1		Commercial Craftsman	Light tan brick, flat roof	Margaret Morrison St	-	Steam & window units	2018 partial building renovation
Hamerschlag House	HAS	5122 Skibo Dr	Housing	1960	-	Celli-Flynn	31,200	3+1		International Modernism	Light tan brick, exposed concrete, flat roof	Margaret Morrison St	Gold CI 3.0 2019 (Maker Wing)	Central steam & split system	
Hunt Library	HL	4909 Frew St	Academic	1961	-	Lawrie & Green	101,530	6+2		International Modernism	Light grey aluminum and glass, flat and hipped roof	The Cut	-	Central steam & chilled water	
Warner Hall	WH	5000 Forbes Ave	Admin	1966	-	Charles Luckman Associates	44,600	6+2		Modernism	White and dark grey glass, travertine columns, flat roof	The Cut	-	Central steam & chilled water	2019 partial renovation
4615 Forbes Ave	4615FRBS	4615 Forbes Ave	Admin	1966	2009	WTW Architects	40,950	4		Brutalism	White cast in place concrete, flat roof	Forbes Ave	-	Gas & split system	
Upper Greek Quad (2 structures)	GQ	1057-67 Morewood Ave	Housing	1969	-	Curry & Martin	45,000	3		International Modernism	Red brick, pitched flat roof	Morewood Ave	-	Central steam & forced air	
Wean Hall	WEH	311 Hamerschlag Dr	Academic	1971	-	Deeter Richey Sipple	295,000	4+5		Brutalism	Tan cast in place concrete, flat roof	The Mall	-	Central steam & chilled water	
Shirley Apartments	SHIR	133 N Dithridge St	Housing	1930s	1984	Unknown	16,200	3+1		Art Deco	Red brick, flat roof	North Dithridge St	-	Gas	1985 renovation, not in EMI
Cyert Hall	CYH	4910 Forbes Ave	Admin	1983	-	Deeter Richey Sipple	64,000	3		Post Modernism	Drak grey glass and metal, brick base, flat roof	Forbes Ave	-	Central steam & chilled water	
Margaret Morrison Apartments (A)	MMA	5148 Skibo Dr	Housing	1984	-	Damianos & Pedone	16,000	2+1		Post Modernism	Red brick, flat roof	Margaret Morrison St	-	Central steam	
Margaret Morrison Apartments (B)	MMB	5142 Skibo Dr	Housing	1984	-	Damianos & Pedone	6,500	2		Post Modernism	Red brick, flat roof	Margaret Morrison St	-	Gas-fired HW	
Margaret Morrison Apartments (C/Plaza)	MMC/MMP	5147 Skibo Dr	Housing	1984	-	Damianos & Pedone	23,000	3		Post Modernism	Red brick, flat roof	Margaret Morrison St	-	Gas-fired HW	
4616 Henry St	4616HNRV	4616 Henry St	Academic	1985	2006	Damianos & Pedone	25,250	2+1		Post Modernism	White stucco on cast in place concrete, flat roof	Henry St	-	Forced air	2014 full renovation
Residence on Fifth	4700FIFTH	4700 Fifth Ave	Housing	1986	2010	Tasso Katselas Associates	65,000	6+1		Post Modernism	Red brick, concrete, flat roof	Fifth Ave	-	Gas & air cooled	2010 full renovation
Software Engineering Institute	SEI	4500 Fifth Ave	Research	1987	2006	Bohlin Powell Larkin Cywinski	129,000 + 370 spaces	6+1		Post Modernism	Light tan precast concrete base, blue/grey metal and glass, flat roof	Fifth Ave	-	Central steam & chilled water	
FMS Building	FMSB	233 Hamerschlag Dr	Admin	1988	-	IKM Associates	54,550	4		Post Modernism	Tan stucco, hipped roof	Hamerschlag Dr	-	Central steam & chilled water	
East Campus Garage	ECG	5040 Forbes Ave	Admin	1990	-	Dennis, Clark & Associates	6,400 + 794 spaces	4		Post Modernism	Light tan brick with precast concrete and metal, flat roof	Forbes Ave	-	Electric/gas & air cooled	2005 1 level addition
Resnik and West Wing	RH/WW	5125 Margaret Morrison St	Housing	1990	-	Dennis, Clark & Associates	70,000	4+1		Post Modernism	Light tan brick with white precast concrete and metal, flat and gable roof hybrid	Margaret Morrison St, EW Walkway	-	Central steam & chilled water	2007 addition (6,000sf)
Posner Hall	POS	4980 Margaret Morrison St	Academic	1993	-	Kallman McKinnell Wood	90,000	4		Post Modernism	Light tan 3-story brick, 1-story metal with metal brise soleil, flat roof	Margaret Morrison St	-	Central steam & chilled water	2000 addition (20,000sf)
Cohon University Center	CUC	5034 Forbes Ave	Academic	1996	-	Dennis & Associates / UDA	270,000	3		Post Modernism	Grey 3-story brick with light tan precast details, flat and low-sloped mansard roof	Forbes Ave	Silver NC 3.0 2018	Central steam & chilled water	2016 addition (68,000sf)
Roberts Engineering Hall	REH	364 Hamerschlag Dr	Academic	1997	-	Payette Associates	65,000	5+1		Post Modernism	White cast in place concrete, flat roof	Hamerschlag Dr	-	Central steam & chilled water	Replica of the Plow of the USS Pittsburgh
Newell Simon Hall	NSH	4804 Forbes Ave	Academic	1999	-	WTW Architects	155,000	2+4		Post Modernism	Cream brick, cross-hipped roof	West Quad	-	Central steam & chilled water	
Purnell Center for the Arts	PCA	5004 Forbes Ave	Academic	2000	-	DDF Associates / Dennis & Assoc.	105,000	3+1		Post Modernism	Light tan brick with precast concrete, zinc fly space, flat and gable roof hybrid	The Cut	-	Central steam & chilled water	
Stever House	1030MWD	1030 Morewood Ave	Housing	2002	-	Bohlin Cywinski Jackson	63,000	5		Post Modernism	Upper floors: red brick with precast accents, first floor: precast, flat roof	Morewood Ave	Silver NC 2.0 2003	Central steam & chilled water	
R Mehrabian Collaborative Innovation Center	CIC	4720 Forbes Ave	Research	2003	2015	Davis Gannon Gardner Pope	135,000 + 226 spaces	5		Contemporary	Beige 3-story tile facade on concrete garage podium with glass curtain wall, flat roof	Forbes Ave	Gold CS 1.0 2005	Electric & air cooled	
Posner Center	POSCTR	4964 Margaret Morrison St	Admin	2004	-	WTW Architects	8,000	1		Contemporary	Grey stone, flat green roof	Margaret Morrison St	-	Central steam & chilled water	Houses the University's rare book collection
Gates and Hillman Centers	GHC	4902 Forbes Ave	Academic	2009	-	Mack Scogin Merrill Elam	216,000 + 150 spaces	9+2		Contemporary	Dark grey zinc rainscreen, flat roof	Forbes Ave, West Quad	Gold NC 2.1 2011	Central steam & chilled water	Paush Bridge connection to Purnell Center
Scott Hall	SCOT	346 Hamerschlag Dr	Academic	2015	-	Office 52 / Stantec	105,000	4		Contemporary	Grey glass curtain wall on structural legs, flat roof	Hamerschlag Dr, The Mall	Gold NC 3.0 2017	Central steam & chilled water	

2022 Building Inventory

Building Name	Building Abbrev	Building Address	Major Use	Year Opened	Year Acquired	Architect/Planner	Sq Feet	Levels	page break	Architectural Style	Building Materials & Color	Major Entrances	LEED Certification	Systems	Other Notes
S Neville Facilities Building	535SNEVPB	535 S Neville St	Admin	2015	-	Baker / Klavon Design	8,000 + 135 spaces	1		Industrial	Grey metal panel support building, pitched roof	South Neville St	-	None	
Tepper Building	TEP	4765 Forbes Ave	Academic	2018	-	Moore Ruble Yudell	315,000 + 125 spaces	4+1		Contemporary	Grey/tan/beige brick, glass bays and atrium, flat roof	Forbes Ave	Gold NC 3.0 2019	Central steam & chilled water	
Ansys Hall	ANSYS	431 Hamerschlag Dr	Academic	2019	-	Bohlin Cywinski Jackson	36,000	4		Contemporary	Grey/light tan brick structure on top of glass and steel podium, flat roof	Hamerschlag Dr, Engineering Quad	Gold NC 3.0 2021	Central steam & chilled water	
TCS Hall	TCSH	4665 Forbes Ave	Academic	2020	-	Bohlin Cywinski Jackson	75,000 + 35 spaces	5		Contemporary	Grey brick, steel and glass accents, flat roof	Forbes Ave	Gold NC 3.0 2021	Gas & chilled water	
Fifth and Clyde Residence	4735FIFTH	4735 Fifth Ave	Housing	2021	-	LTL Architects	98,000 + 25 spaces	6+1		Contemporary	Grey brick on public facade, metal panels on courtyard, flat roof	Fifth Ave	Gold BD+C 4.0 2022	Gas & chilled water	5,000sf of commons
Forbes Beeler Residence	5087FRBS	5087 Forbes Ave	Housing	2023*	-	Goody Clancy	118,000 + 20 spaces	4		Contemporary	Grey/light tan brick with glass entry lobby, hipped roof	Forbes Ave	pending	Gas & chilled water	7,500sf of market on ground floor
Scaife Hall	SH	4807 Frew St	Academic	2023*	-	Kieran Timberlake	85,000	4+2		Contemporary	Metal and glass on grey brick base, flat roof	Frew St	pending	Central steam & chilled water	
Highmark Center for Health, Wellness and Athletics	HWAC	100 Tech St	Athletic/ Admin	2024*	-	Bohlin Cywinski Jackson	165,000	4		Contemporary	Light tan brick with terracotta and glass components, flat roof	Tech St	pending	Central steam & chilled water	Includes 1,000 seat performance gymnasium
RK Mellon Science Building	-	-	Academic	2026*	-	-	-	-		-	-	-	-	-	-
407 S Craig St	407SCRG	407 S Craig St	Admin	-	2005	Unknown	12,000	2		Post Modernism	White stucco facade, flat roof with solar panels	South Craig St	Silver NC 2.1 2007	H2O heat pump & air cooled	
Alumni House	AH	5017 Forbes Ave	Admin	-	1981	Unknown	8,400	3		Colonial Revival	Red brick, gambrel roof	Forbes Ave	-	Central steam & chilled water	
Bramer House	BRH	1045 Morewood Ave	Admin	-	1972	Unknown	4,500	2		Rustic	Dark tan stone, hipped roof	Morewood Pl	-	Gas & split DX	
Whitfield Hall	WHIT	142 N Craig St	Admin	-	1991	Unknown	12,400	2+1		Colonial Revival	Red brick with stone base, double hipped roof	North Craig St	-	Gas-fired stram boiler & split DX	
4609 Winthrop Ave	4609WINT	4609 Winthrop St	Research	-	2017	Joel Kranich	1,750	2		Contemporary Renovation	Grey brick, white cement panels, flat roof	Winthrop St	-	Unknown & PTACs	
4620 Henry St	4620HNRV	4620 Henry St	Research	-	2017	Joel Kranich	1,150	2		Contemporary Renovation	Tan brick, flat roof	Henry St	-	Gas & packaged DX	
Clyde House	624CLYDE	624 Clyde St	Housing	-	2012	Ayers Saint Gross	8,850	3		Contemporary Renovation	Red brick, hipped roof	Clyde St	-	Gas & none	2015 full renovation
Highlands Apartments	618CLYDE	618 Clyde St	Housing	-	2015	PWWG	14,200	3		Contemporary Renovation	Red warm brick, flat roof	Clyde St	-	Gas & none	2017 full renovation
Fifth Neville Apartments	4705FIFTJ	4705 Fifth Ave	Housing	-	2019	Desmone Architects	54,850	6+1		Contemporary Renovation	Red brick, flat roof	Fifth Ave	-	Gas & chilled water	2020 full renovation
Pittsburgh Technology Center	PTC	700 Technology Dr	Research	1997	-	Bohlin Cywinski Jackson	80,600	5		Post Modernism	Grey metal and glass, flat roof	Technology Dr	-	Gas & chilled water	Off site
Mill 19	4501LYTLE	4501 Lytle St	Research	2019	-	R3A (Fitout only)	59,100	3		Post Modernism	Dark grey metal and glass, flat roof	Lytle St	Gold CI 4.0 2021	H2O heat pump & air cooled	Off site
National Robotics Engineering Center	NREC	10 40th St	Research	1994	-	Unknown	101,900	3		Post Modernism	White brick with grey metal and glass, hipped roof	40th St		Gas/electric & packaged DX units	Off site
6555 Penn Ave	6555PENN	6555 Penn Ave	Admin/ Support	-	1993	Unknown	119,650	3		Industrial	Red brick, flat roof	Penn Ave	-	Gas/electric & packaged DX units	Off site
477 Melwood Ave	477 MELWOOD	477 Melwood Ave	Admin	-	2019	Unknown	36,200	4+1		Industrial	Red brick, hipped with monitor roof	Melwood Ave	-	Gas & air cooled	Off site

APPENDIX F

2022 Parking Inventory

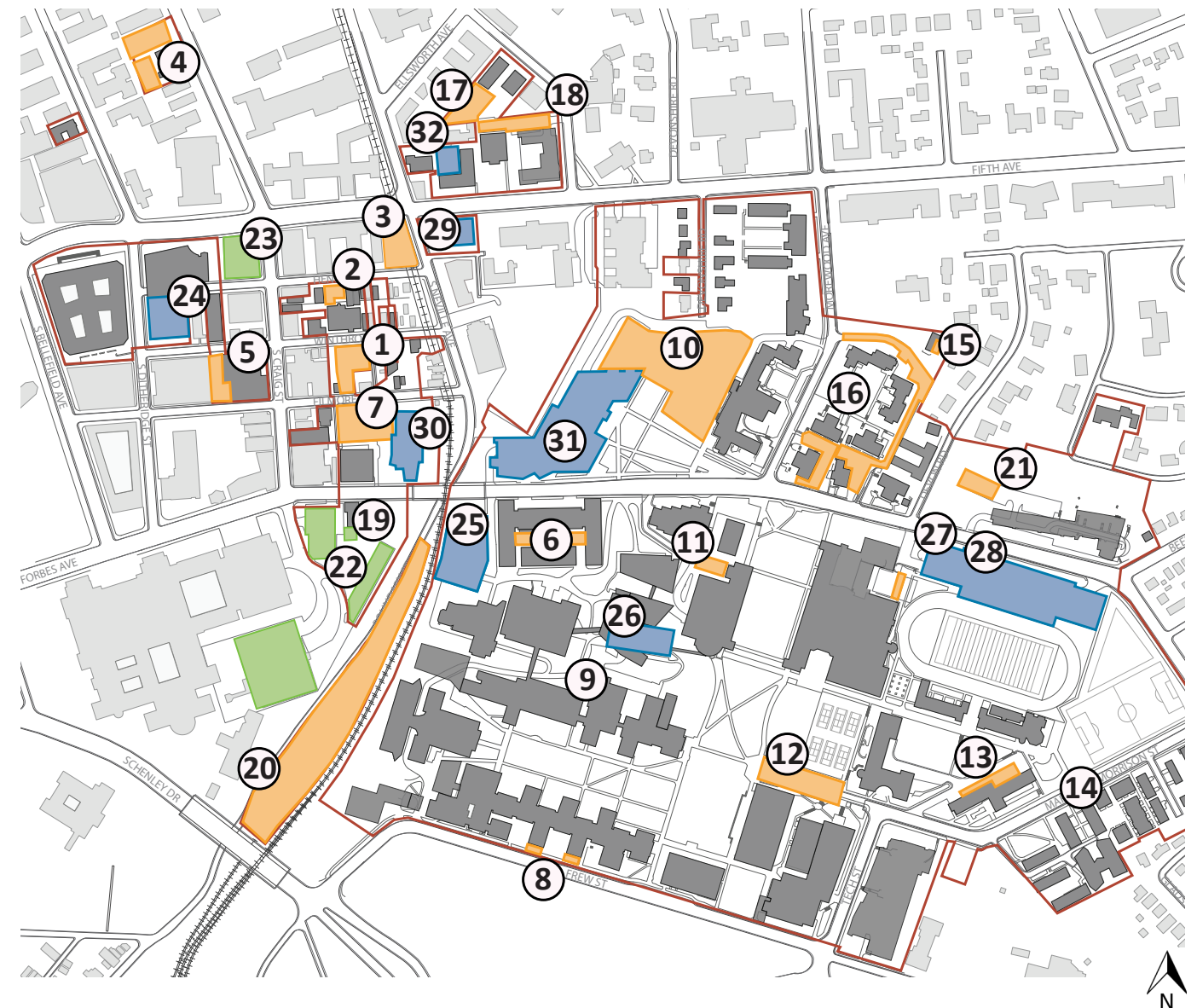
Map	CMU Surface Lots	Spaces	Total Permits Issued	% Available
1	Zebina Way Lot	32	32	0%
2	Henry Street Lot	13	12	8%
3	Fairfax Lot	55	0	100%
4	Whitfield Hall Lot	61	59	3%
5	300 South Craig Lot	22	22	0%
6	Hamburg Hall Lot	12	10	17%
7	GATF Lot	72	72	0%
8	Frew Street	10	10	0%
9	West Campus Lot	14	9	36%
10	Morewood Lot	285	288	-1%
11	Warner Hall Lot	16	16	0%
12	Fine Arts Lot	61	54	12%
13	Donner House Lot	23	23	0%
14	Margaret Morrison St	14	7	50%
15	Bramer House Lot	5	5	0%
16	Fraternities Lot	69	71	-3%
17	Fifth and Neville Lot	16	15	6%
18	Clyde Street Lot	90	81	10%
19	III Lot	17	16	6%
20	South Neville	96	95	1%
21	Forbes Beeler Lot	20	n/a	available in 2023
22	Carnegie Museum Lots	110	110	0%

Map	CMU Garages	Spaces	Total Permits Issued	% Available
23	5th and Craig Street Garage	40	5	13%
24	Dithridge Garage	370	388	-5%
25	CIC Garage	226	196	13%
26	Gates Garage	138	142	-3%
27	East Campus Garage	780	633	19%
28	East Campus Garage Motorcycle	14	14	0%
29	Residence at Fifth Garage	37	36	3%
30	TCS Garage	35	0	100%
31	Tepper Quad	126	95	25%
32	Fifth Neville Garage	29	0	100%

Total Spaces 2,908

APPENDIX F

2022 Parking Inventory Map



Parking Options around Carnegie Mellon University

- CMU Garage
- CMU Surface Lot
- CMU Leased Parking

Strategy for Tree Preservation and Replacement

The expansion of the campus tree canopy is a long-term mission of Carnegie Mellon University and is a goal of the 2022 Institutional Master Plan. To support that mission, the university has developed the Tree Replacement Plan to guide the maintenance, replacement and new planting of trees on campus. Components of the plan include dense planting of hillsides, introduction of under-growth areas, infill planting to reinforce shade areas and strategic elimination of invasive

species. As many of the campus edges are steep hillsides, establishing dense upper- and lower-growth systems will create both stable hillsides as well as natural buffers to adjoining residential neighborhoods. At more formal campus spaces, such as the Mall and the Cut, new plantings will reinforce the designs of the spaces as well as increase the campus canopy. Finally, the plan will provide a long-term framework for the campus to not only meet, but exceed, the requirements of the City’s Tree Ordinance.

UN Sustainable Development Goals & Tree Replacement

Goal 6: Clean Water and Sanitation

- Improve water quality by reducing pollution and release of untreated wastewater
- Protect and restore water-related ecosystems, including mountains, forests, wetlands, rivers, aquifers and lakes

Goal 11: Sustainable Cities and Communities

- Safe, inclusive and accessible, green and public spaces

Goal 15: Life on Land

- Reduce impacts of invasive species
- Control and eradicate invasive species
- Reduce degradation of natural habitats and biodiversity loss
- Substantially increase afforestation and reforestation



Tree Canopy Cover

18%

City of Pittsburgh Tree Canopy cover is 40%, Tree Pgh has goal of 60%. What is CMU's Goal?



Strategy for Tree Preservation and Replacement

City of Pittsburgh Zoning Code

915.02.D Tree Protection and Replacement

The Zoning Administrator shall require the protection and preservation of **trees with a diameter of twelve (12) inches or more**, measured at a point four (4) feet above grade. If said trees are removed during site preparation or development, they **shall be replaced, at a minimum, equal to the combined total diameter of removed trees**. Diameter measurements shall be taken at a point four (4) feet above grade.

(emphasis added)



Tree Baseline: Existing Tree Inventory

Total DBH Inches: 11,731
 Total DBH Inches of trees ≥ 12 inches: 6,076 dbh inches (291 trees)



City of Pittsburgh Zoning Code

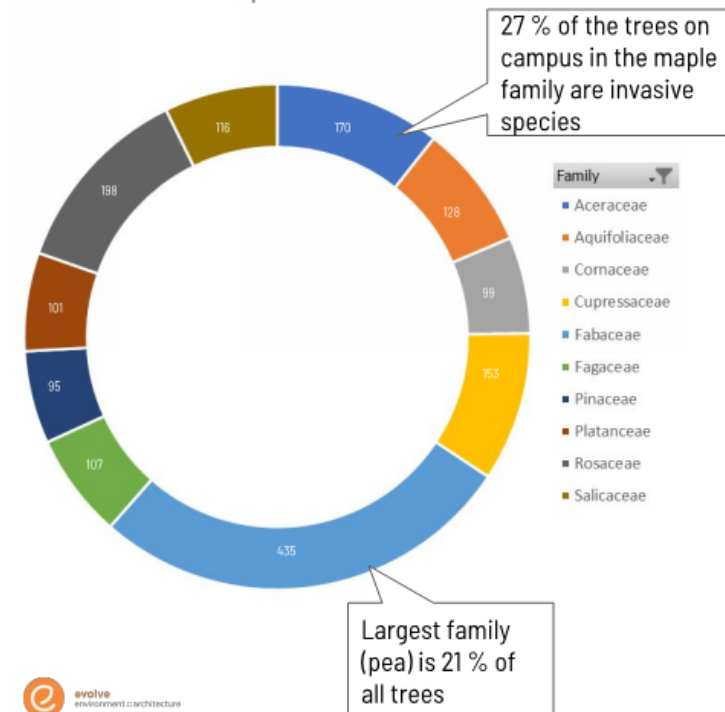
918.02.C Street trees

At least one (1) street tree shall be provided for each thirty (30) linear feet of property adjoining a public street. Street trees shall be planted between the sidewalk and street curb. If planting in that area is not possible, street trees shall be installed within twenty (20) feet of street curb. Trees planted between a sidewalk and street curb must have a minimum nonpaved planting area of eighteen (18) square feet, with a minimum depth of three (3) feet. In cases where there is an existing pattern of street trees, compatible new trees shall be planted according to the existing tree spacing and pattern to the greatest extent possible. In cases where street trees are to be provided by the Department of Public Works, applicant shall provide proof of application through the Street Tree Program to the Zoning Administrator.

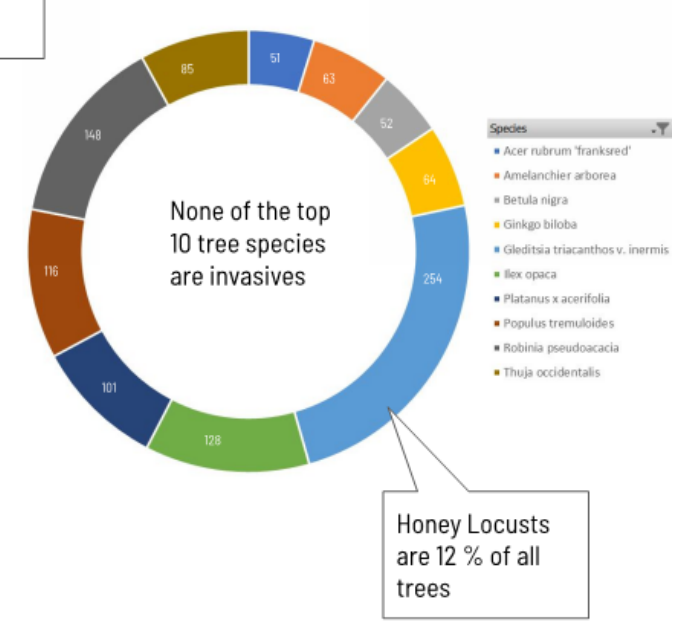
(emphasis added)



Top 10 Families - Trees



Top 10 Trees Species

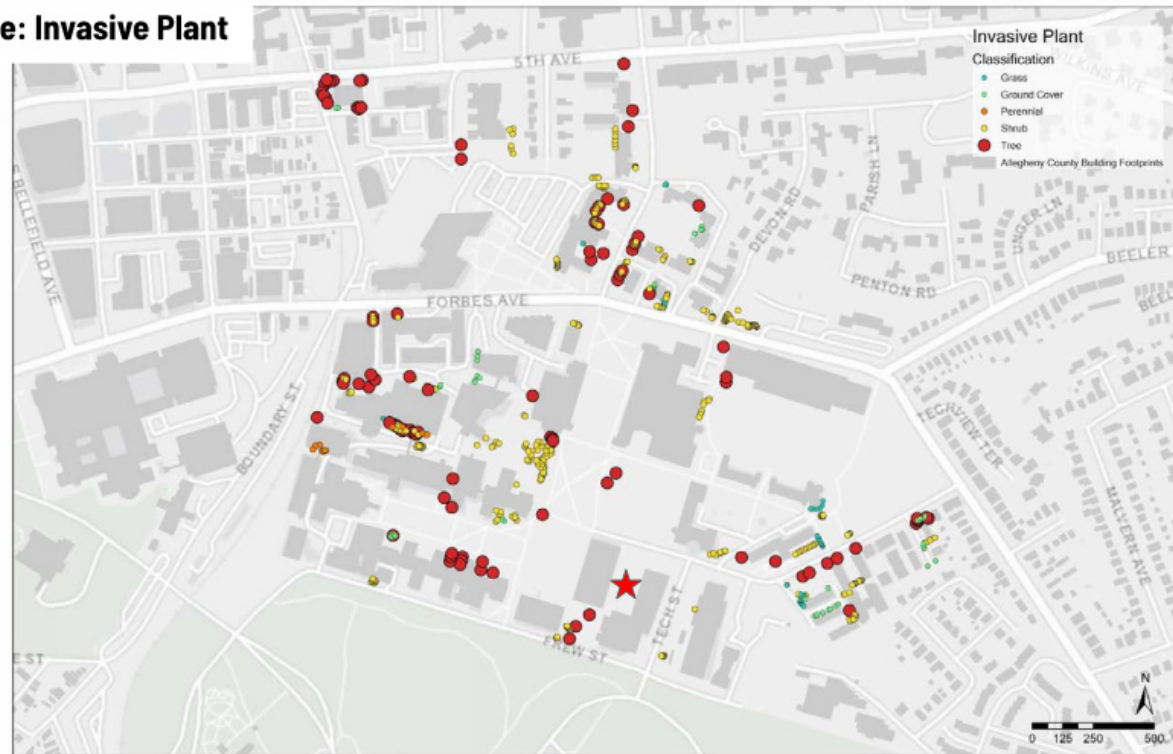


Strategy for Tree Preservation and Replacement

Tree Baseline: Invasive Plant

DBH of Invasive Trees:
686
(105 trees)

Source of Invasive List: PA DCNR Invasive Plant List, which includes species that are not native to the state, grow aggressively, and spread and displace native vegetation.



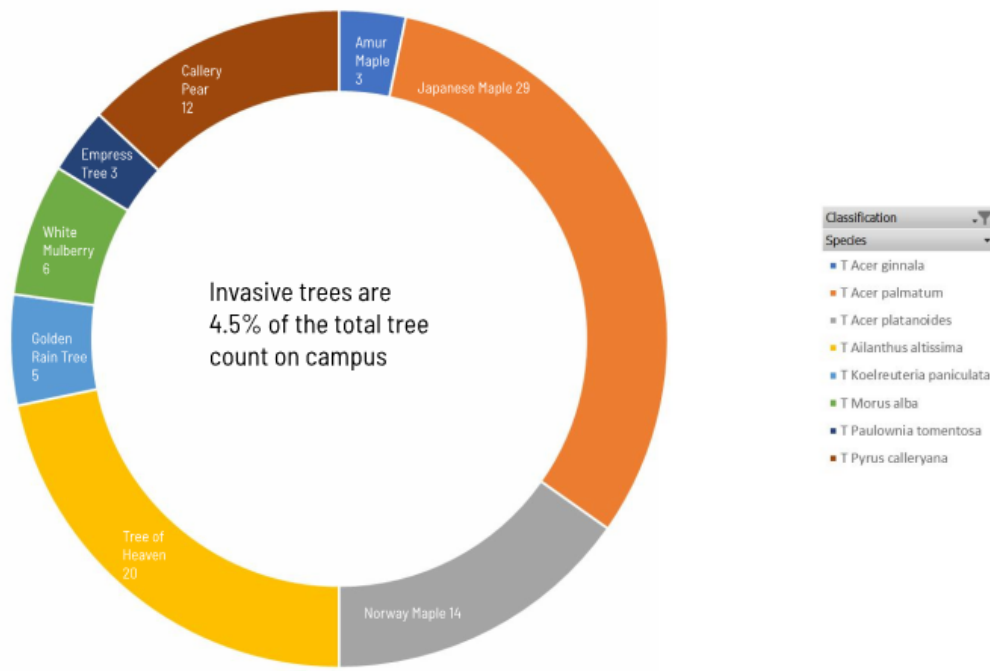
Anticipated Loss: ongoing and future development

Total DBH Inches to be Removed:
2415

DBH >= 12" to be Removed:
1650
(74 trees)



INVASIVE TREE SPECIES COUNT



Invasive trees are 4.5% of the total tree count on campus

Invasive Tree Species

- Amur Maple
- Japanese Maple
- Norway Maple
- Tree of Heaven
- Golden Rain Tree
- White Mulberry
- Empress Tree
- Callery Pear

Other Invasive Species

- Miscanthus
- Euonymus fortunei - wintercreeper
- English Ivy
- Pachysandra
- Japanese Knotweed
- Japanese Barberry
- Butterfly Bush
- Amur Honeysuckle
- Jet bead
- Japanese Spiraea
- Linden Viburnum
- Doublefile Viburnum
- Gelder Rose (viburnum)



Planting Opportunity

- formal planting of canopy trees allows room to create a native understory
- mowing under trees between sidewalk and building is unnecessary



Strategy for Tree Preservation and Replacement

Planting strategies

- interplant understory trees, unmowed ground cover strip between sidewalk and building
- maintain formal spatial strategy while providing greater habitat value, stormwater infiltration, and reduced mowing.



Precedent at Tepper Quad



Planting Opportunity

- Even in more natural settings, there is an opportunity to interplant canopy species with native understory plants, including understory trees and herbaceous ground cover.



Planting strategies

- This strategy can be used on both sides of a sidewalk



Planting Opportunity

- High maintenance, non native hedges
- Mown lawn with no functional value



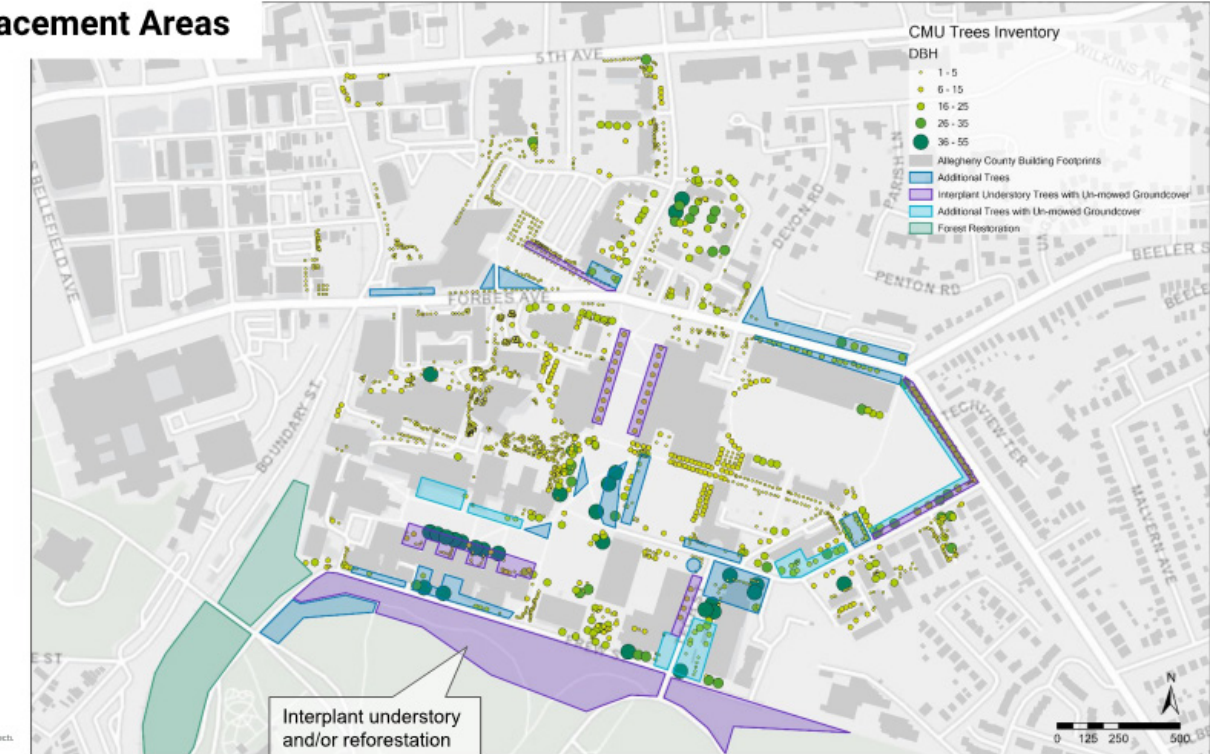
Strategy for Tree Preservation and Replacement

Planting strategies

- replace high maintenance hedges with flowering understory trees
- where possible, provide canopy trees at the street edge.

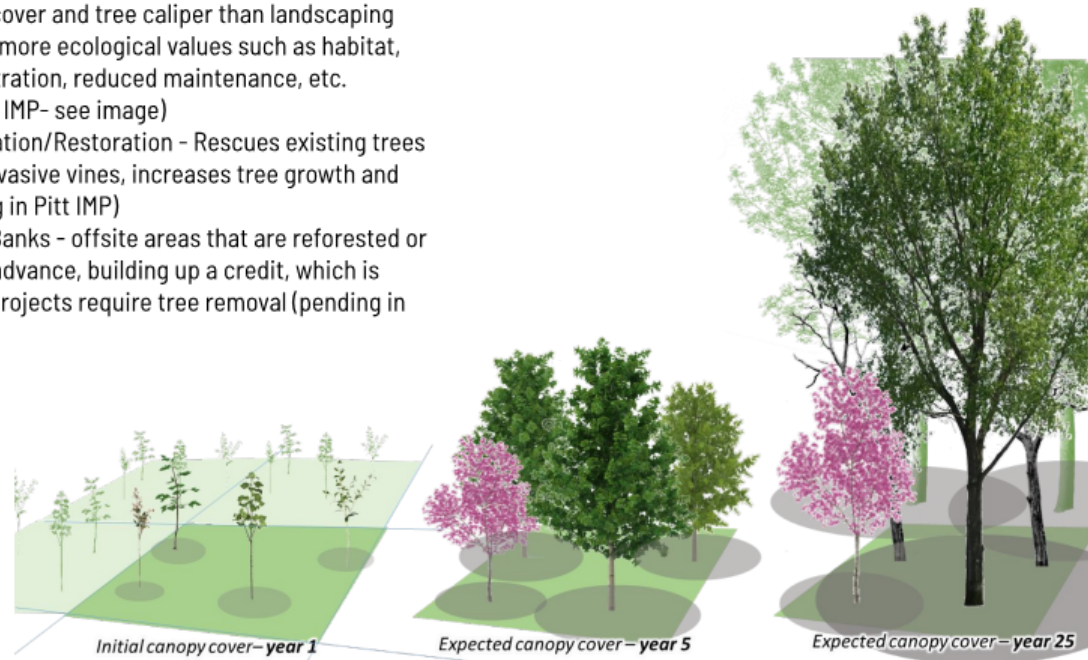


Tree Replacement Areas

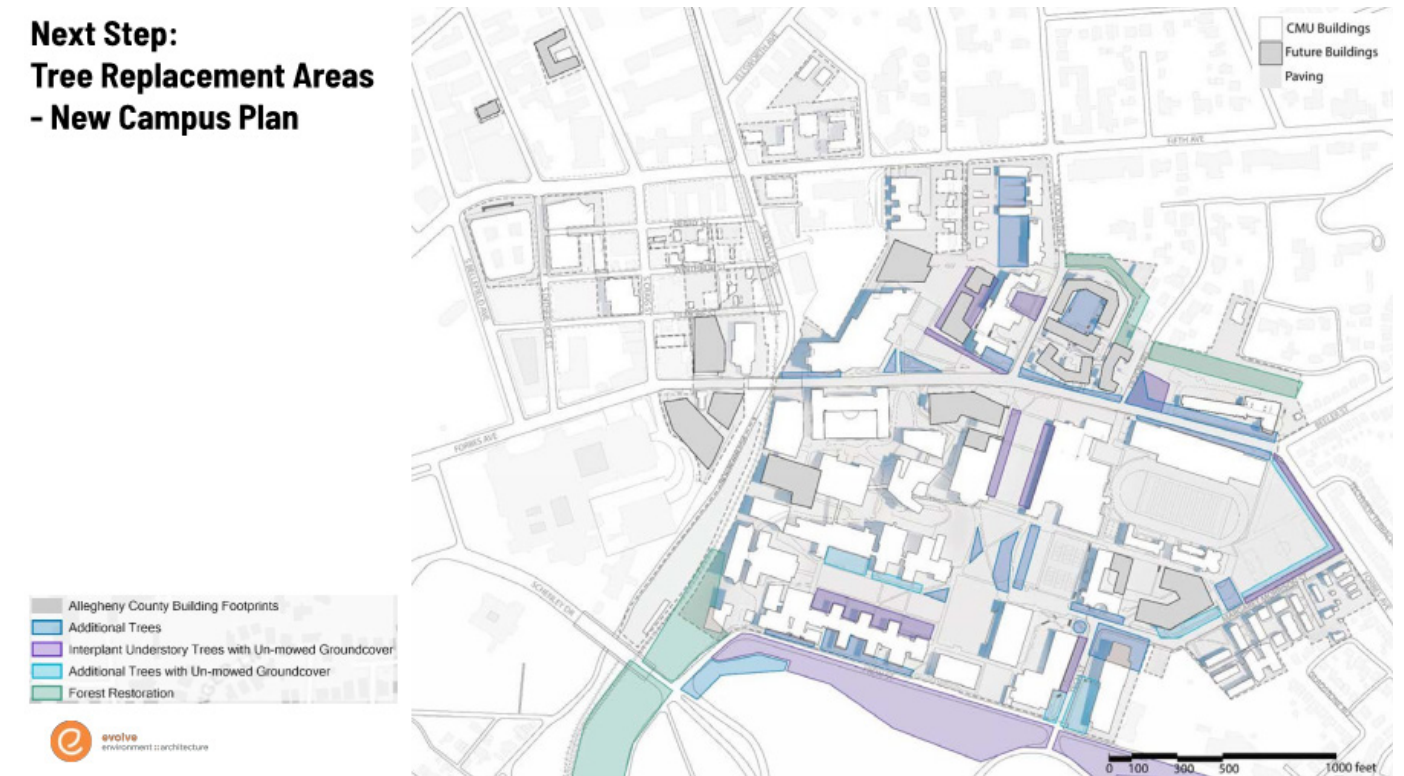


Alternative Compliance Strategies

- Reforestation - over time, reforestation provides far greater canopy cover and tree caliper than landscaping trees, and many more ecological values such as habitat, stormwater infiltration, reduced maintenance, etc. (approved in Pitt IMP- see image)
- Forest Rehabilitation/Restoration - Rescues existing trees from death by invasive vines, increases tree growth and survival (pending in Pitt IMP)
- Tree Mitigation Banks - offsite areas that are reforested or rehabilitated in advance, building up a credit, which is drawn down as projects require tree removal (pending in Pitt IMP)



Next Step:
Tree Replacement Areas
- New Campus Plan



APPENDIX H

CMU Streetscape Program Approved by Pittsburgh Art Commission (February 7, 2020)

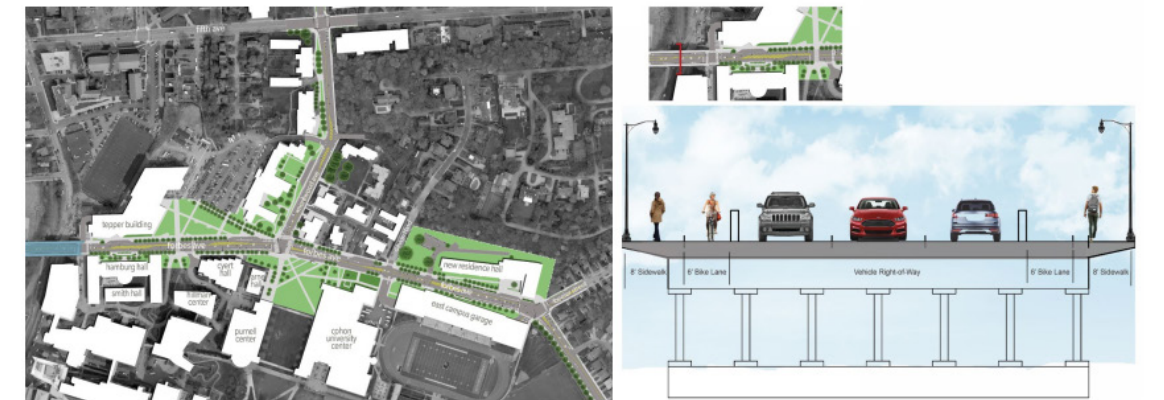
The public realm is an important part of the Carnegie Mellon University campus and to improve pedestrian safety the university has initiated a streetscape improvement plan for the public streets in and around the campus. To facilitate the initiative, the university developed the Streetscape Plan for Forbes Ave, Fifth Ave, Morewood Ave and S Craig St. Included in the plan are the widening and relocation away from the curb of sidewalks on Forbes and Fifth, creation of raised planting /tree beds along the curbs, relocating the sidewalk away

from the curb and adding a two-way bike track along Morewood Ave and improved pedestrian crossings with curb extensions throughout the S Craig St business district. Furthermore, the plan includes replacing streetlights with the new City standard poles with LED fixtures. Because the Streetscape Plan proposed improvements are primarily in the City-owned Right-of-Way, the entire plan was reviewed and approved by the Pittsburgh Art Commission on 25 Feb 2020.

APPENDIX H

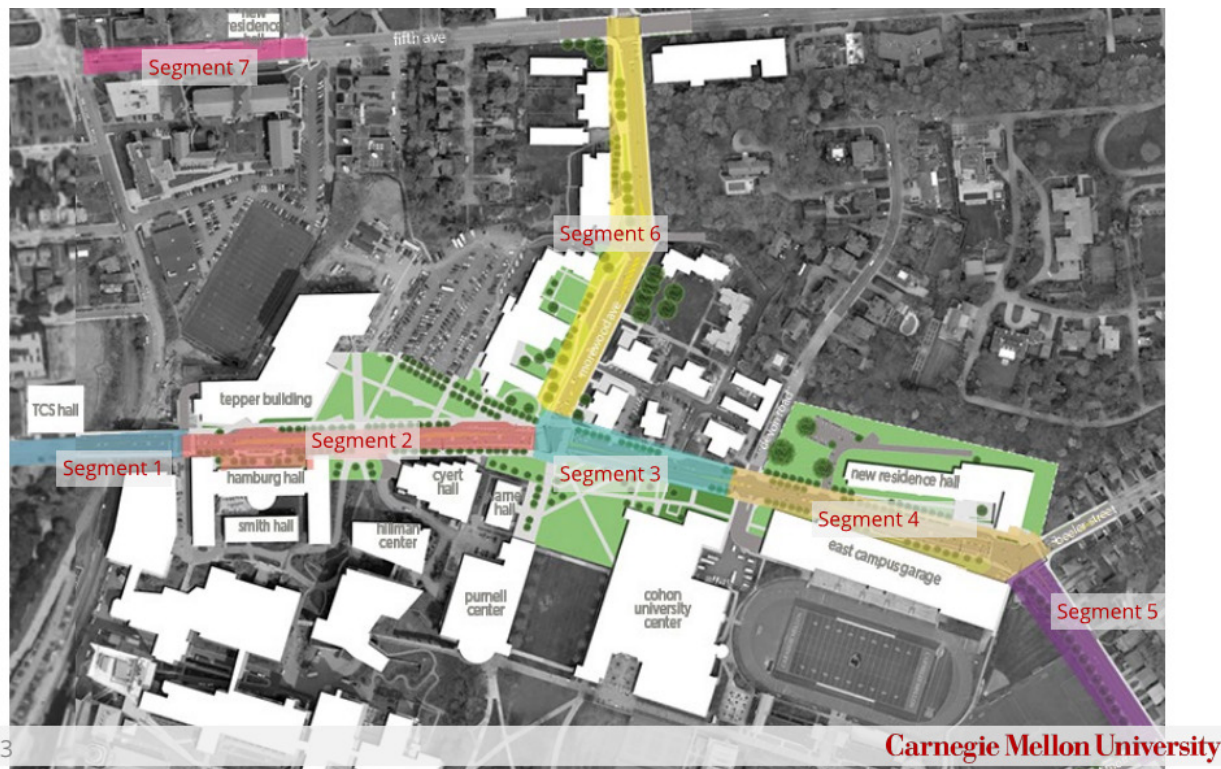
Forbes Corridor Art Commission Review

Segment 1 - South Craig through Junction Hollow Bridge



4

Carnegie Mellon University



3

Carnegie Mellon University

Segment 1/North: TCS Hall (Under construction)

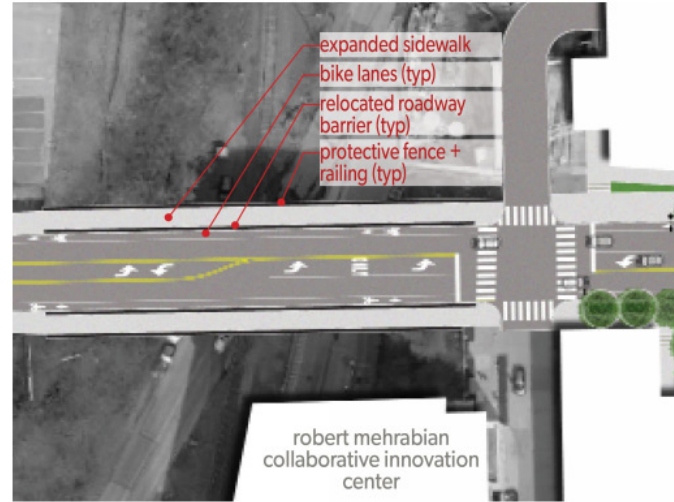


5

Carnegie Mellon University

CMU Streetscape Program Approved by Pittsburgh Art Commission (February 7, 2020)

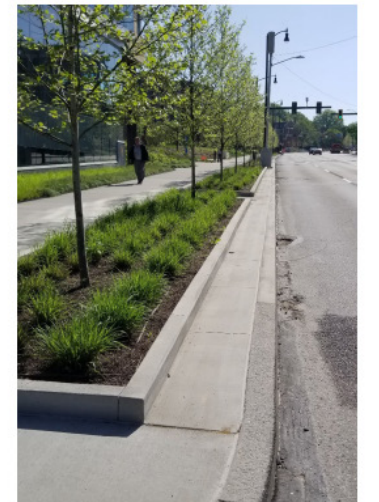
Segment 1/South: Junction Hollow Bridge (Future)



6

Carnegie Mellon University

Segment 2/North: Tepper Quad (Completed)

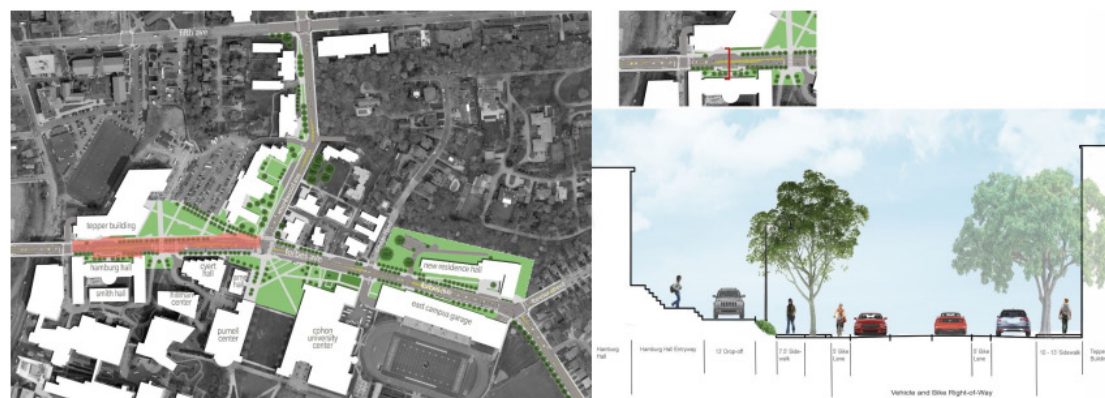


8

Carnegie Mellon University

Forbes Corridor Art Commission Review

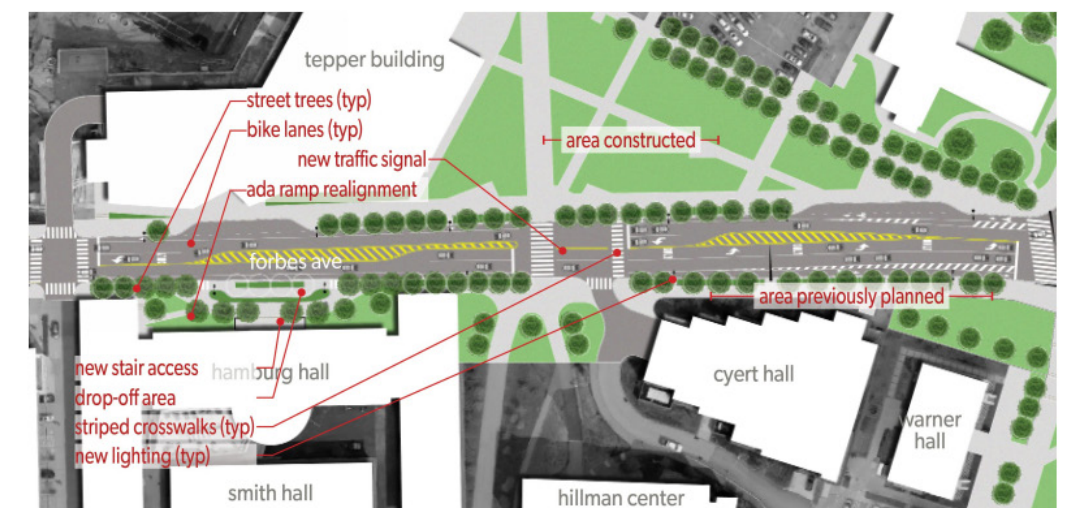
Segment 2 - Forbes Ave between The Bridge to Morewood



7

Carnegie Mellon University

Segment 2/South: Forbes Ave between The Bridge to Morewood (Future)



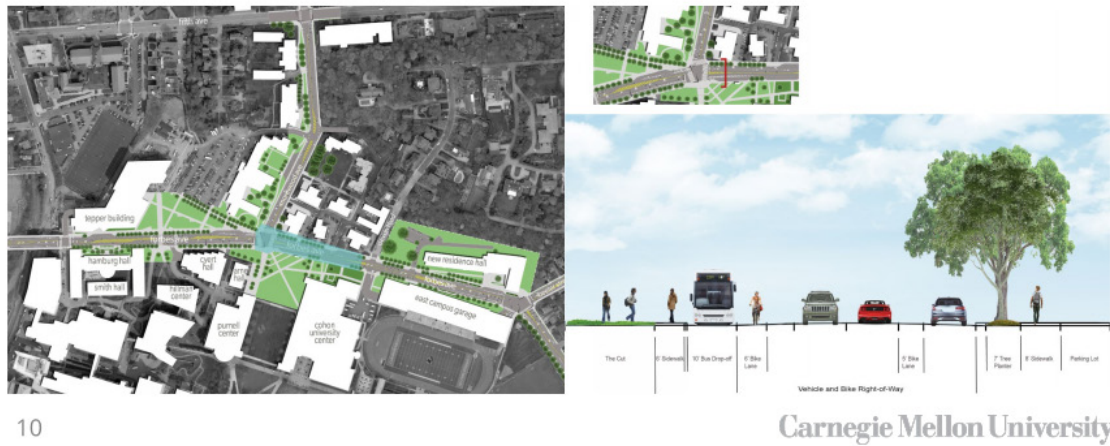
9

Carnegie Mellon University

CMU Streetscape Program Approved by Pittsburgh Art Commission (February 7, 2020)

Forbes Corridor Art Commission Review

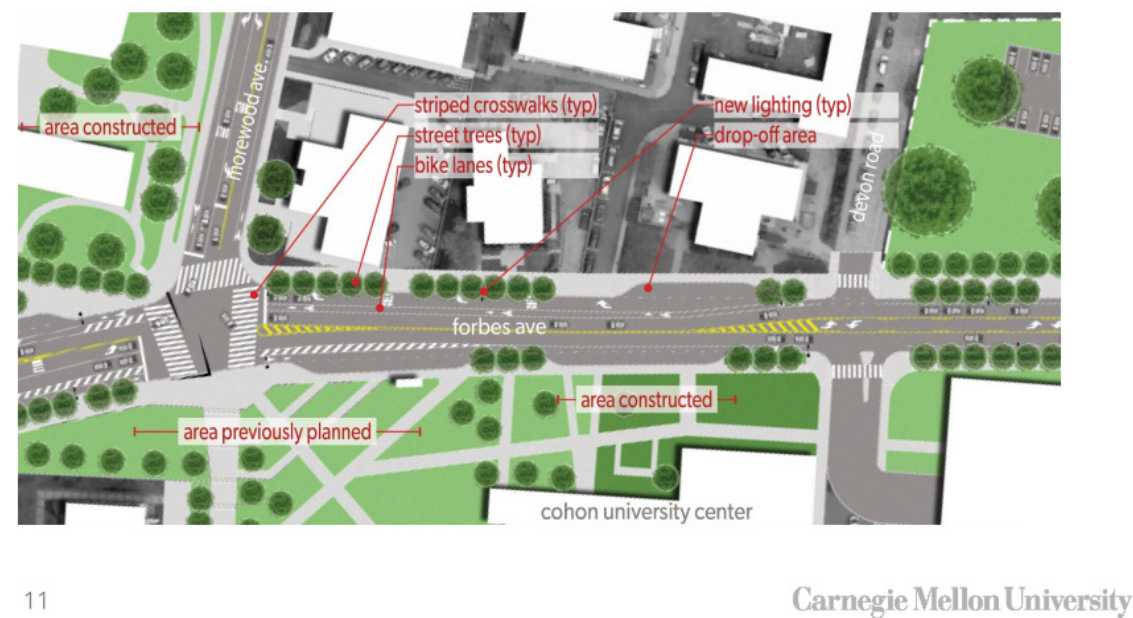
Segment 3 - Forbes Ave between Morewood to Devon



Segment 3/South: The Square and CUC Addition (Completed)



Segment 3/North: Forbes Ave between Morewood to Devon (Future)



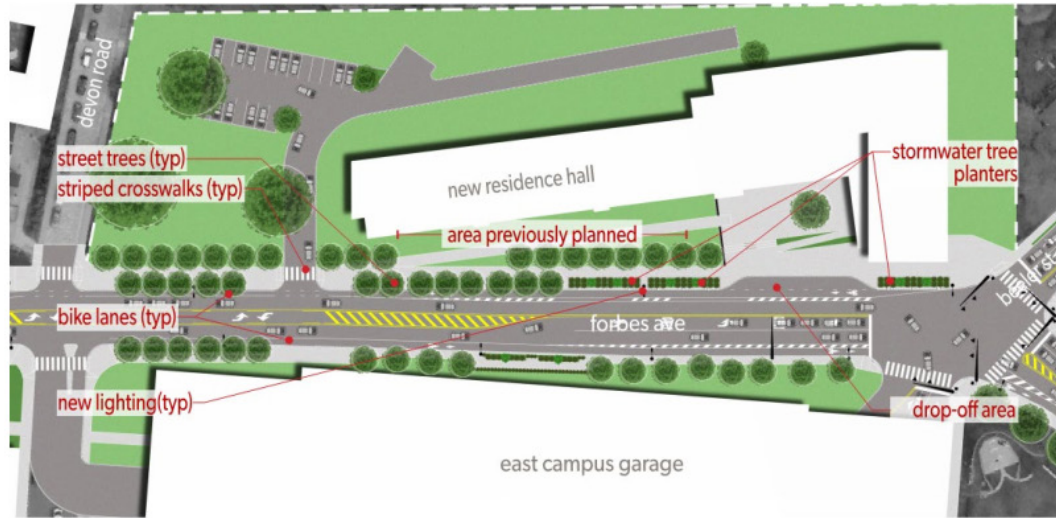
Forbes Corridor Art Commission Review

Segment 4 - Forbes Ave between Devon to Beeler



CMU Streetscape Program Approved by Pittsburgh Art Commission (February 7, 2020)

Segment 4/North: Forbes Ave between Devon to Beeler (In Planning)



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Carnegie Mellon University

Forbes Corridor Art Commission Review

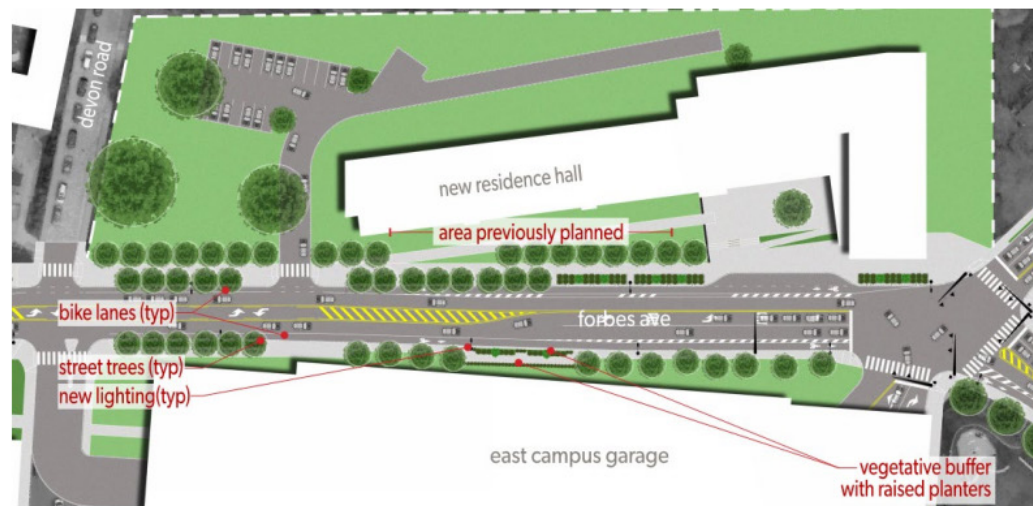
Segment 5 - Forbes Ave between Beeler to Margaret Morrison



16

Carnegie Mellon University

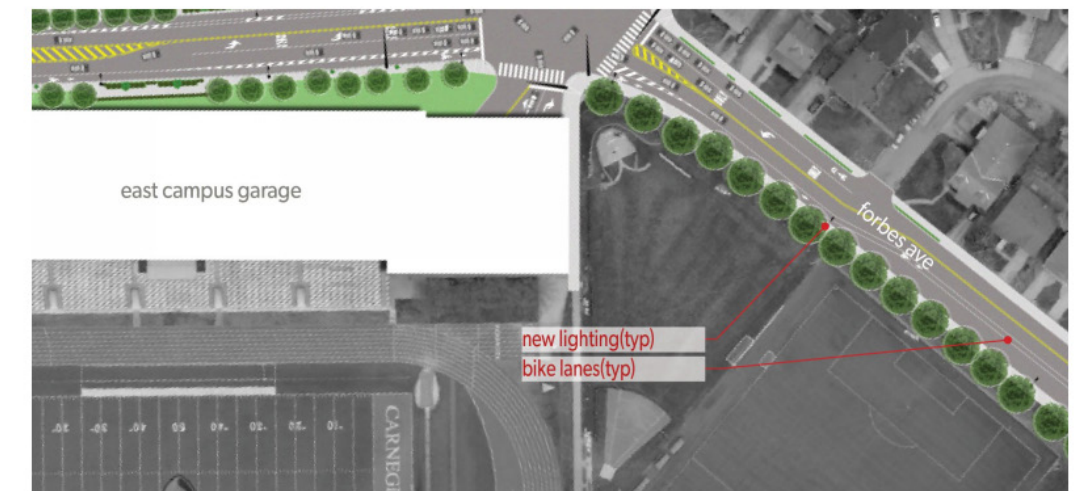
Segment 4/South: Forbes Ave between Devon to Beeler (In Planning)



15

Carnegie Mellon University

Segment 5: Forbes Ave between Beeler to Margaret Morrison (Future)

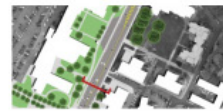


17

Carnegie Mellon University

Forbes Corridor Art Commission Review

Segment 6 - Morewood Ave between Forbes & Fifth

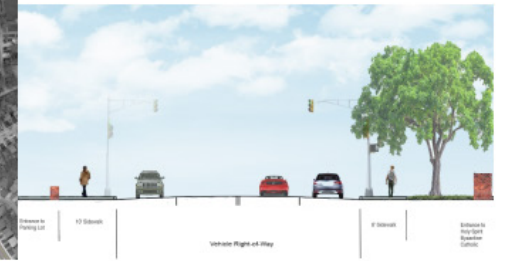


18

Carnegie Mellon University

Forbes Corridor Art Commission Review

Segment 7 - Fifth & Clyde



20

Carnegie Mellon University

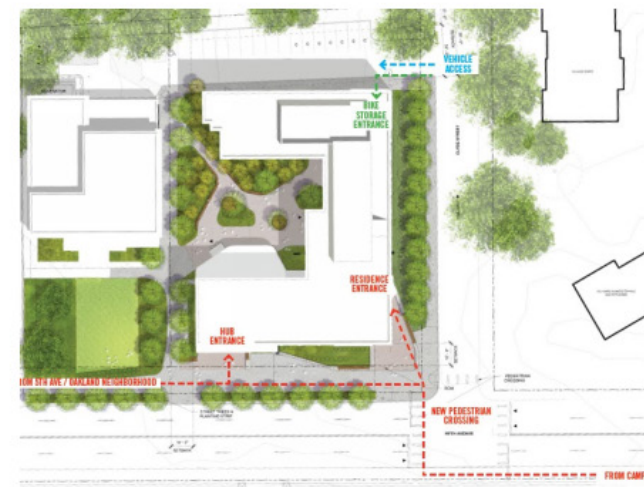
Segment 6: Morewood Ave between Forbes & Fifth (In planning)



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Carnegie Mellon University

Segment 7 - Fifth & Clyde (Pending construction)



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Carnegie Mellon University

Housing Master Plan



Housing Master Plan

8 February 2018



Impact of Housing on the Student Experience

As a result of living on campus, students will:

- Socialize and make friends
- Recreate and have fun
- Form meaningful one-to-one relationships
- Learn through diversity and interdisciplinarity
- Synthesize in- and out-of-classroom learning
- Engage in programs designed around house interests
- Refine personal values through reflection
- Care for self and others
- Receive support during challenging times
- Transition from adolescence to adulthood
- Develop a sense of belonging and affinity for CMU



Why focus on belonging?

Students' sense of belonging and social connectedness is significantly correlated with persistence and other educational outcomes (Allen et al., 2008).

Students who report a higher sense of belonging are more likely to have strong affinity for their institution and education, are more motivated to successfully engage in their academics, and are more motivated to remain at their institution (Pascarella & Terenzini, 2005).

Allen, J., Robbins, S. B., Casillas, A., & Oh, I. (2008). *Third-Year College Retention and Transfer: Effects of Academic Performance, Motivation, and Social Connectedness. Research in Higher Education*, 49, 647-664.

Pascarella, E. T., & Terenzini, P. T. (2005). *How College Affects Students: A Third Decade of Research. Volume 2. San Francisco, CA: Jossey-Bass.*



Why focus on belonging?

Carnegie Mellon's Office of Institutional Research and Analysis conducted a recent study of the **expectations** of incoming first-year students upon their arrival and their **reported experiences** at the end of the first year. The study found:

Students rate it "very important" to feel a sense of belonging to their residential communities, but a gap exists between expectations and experiences for some students.

An investment in our residential neighborhoods can enhance student sense of belonging through a combination of new programs, resources and facilities co-located in "neighborhood hubs."



Housing Master Plan

CMU Housing Inventory Today

Overview

- 6,804 undergraduates enrolled
- 4,028 total beds
- 59% undergraduates housed on campus

Housing Inventory

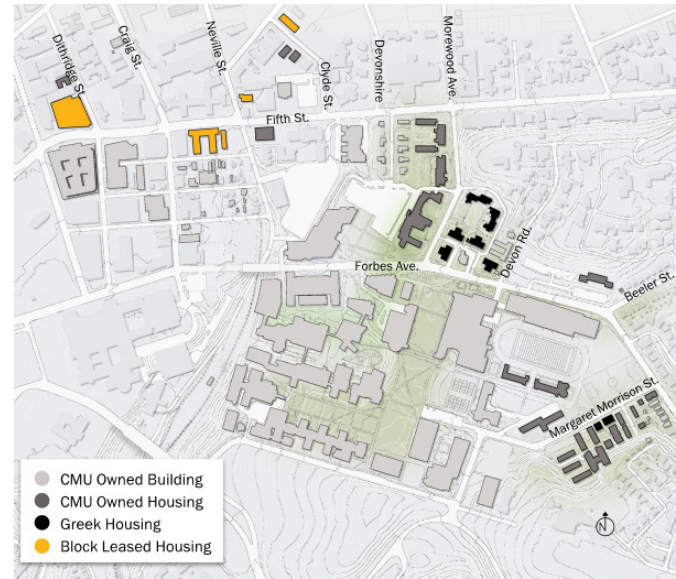
- BEDS - 4,028 total beds
 - 2,837 in CMU-owned residence halls
 - 727 in block-leased apartments
 - 464 in CMU-owned Greek housing

BUILDINGS - 26 residence halls

- 22 owned
- 4 block leased

University Policy:

- Requires first-year students to live in CMU-affiliated housing
- Guarantees CMU-affiliated housing for four years



5

Housing Facilities Conditions

As part of the master planning process, facility consultants were engaged to thoroughly review the conditions of university-owned housing properties.

Programmatic and physical conditions, accessibility, and code deficiencies of the residence halls were assessed, as well as the urgency of issues that were found.

The overall building condition was calculated by averaging interior, exterior, programmatic, MEP and student satisfaction scores with weights assigned to each (displayed on the right). In summary:

- 5 Buildings rate as Poor**
- 13 Buildings rate as Fair**
- 1 Building rates as Good**

	INT	EXT	PROG	MEP	SAT	OVERALL
POOR	3.14	2.33	2.36	2.17	1.33	2.22
	2.92	2.08	4.00	2.10	1.43	2.32
	3.19	1.98	1.92	2.48	2.64	2.40
	3.42	2.40	4.00	2.04	2.36	2.65
	2.67	2.20	4.00	2.16	3.52	2.73
FAIR	3.03	3.00	4.00	2.03	2.67	2.75
	2.69	2.87	2.80	2.08	3.58	2.77
	3.48	3.00	3.02	2.29	2.44	2.79
	2.85	2.63	4.00	2.00	2.53	2.83
	3.05	3.08	3.52	1.91	4.0	2.95
	3.03	3.55	4.00	2.23	3.37	3.06
	3.46	3.26		2.56	3.14	3.06
	3.13	3.14	4.00	2.17	2.87	3.06
	2.92	3.09	4.00	2.21	3.35	3.12
	3.88	2.85	4.00	2.69	2.83	3.12
	3.44	2.24	4.00	2.71	2.18	3.12
	3.54	3.13	3.08	2.50	4.0	3.19
3.41	3.00	3.54	2.69	4.0	3.32	
GOOD	3.92	3.08	4.00	2.98	3.92	3.58

7

Most Recent Significant Investments

New Construction

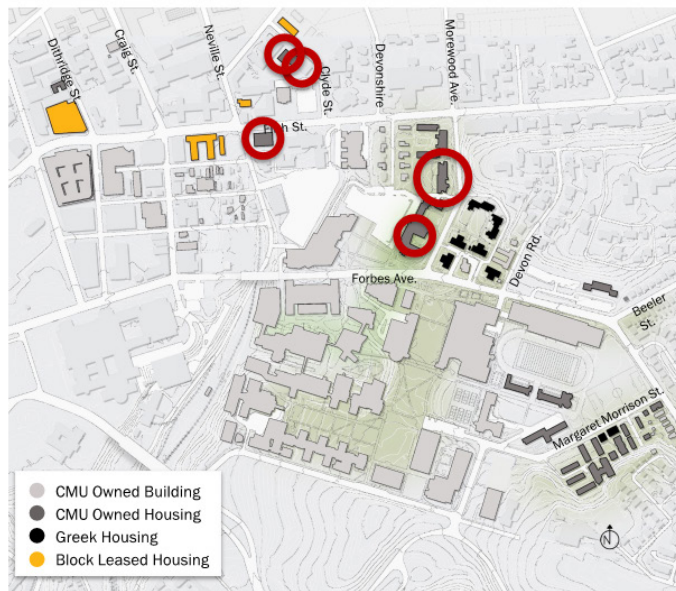
- Stever House (254 beds) – 2003

New Acquisitions

- Res on Fifth (146) – 2011
- Clyde House (24 beds) – 2015
- Highlands (34 beds) - 2016

Major Renovations (\$5M+)

- Morewood Gardens (bathrooms) – 2017-2020



6

Housing Master Plan Goals

1. Strengthen the Neighborhood Concept.

- Three vibrant neighborhoods with a mix of age-appropriate unit types
- A meaningful hub in each neighborhood
- Appropriate building sizes - small residence halls are inefficient, large halls can be impersonal
- Enhance the campus community for students, faculty and staff

2. Maximize the value of existing housing inventory.

- Consistent physical condition in all halls
- Appropriate program spaces to support community building

3. Provide more on-campus student housing.

- Capture unmet demand
- Strategic approach to block-leasing

4. Contribute to an urban campus environment.

- Institutional Master Plan – City of Pittsburgh
- Simonds Principles for campus expansion and development

5. Establish a comprehensive approach.

- 30 year-phasing plan that addresses facility condition issues and is financially feasible

8

Housing Master Plan

The Neighborhood Concept

A residential experience that is unique to Carnegie Mellon

Vision

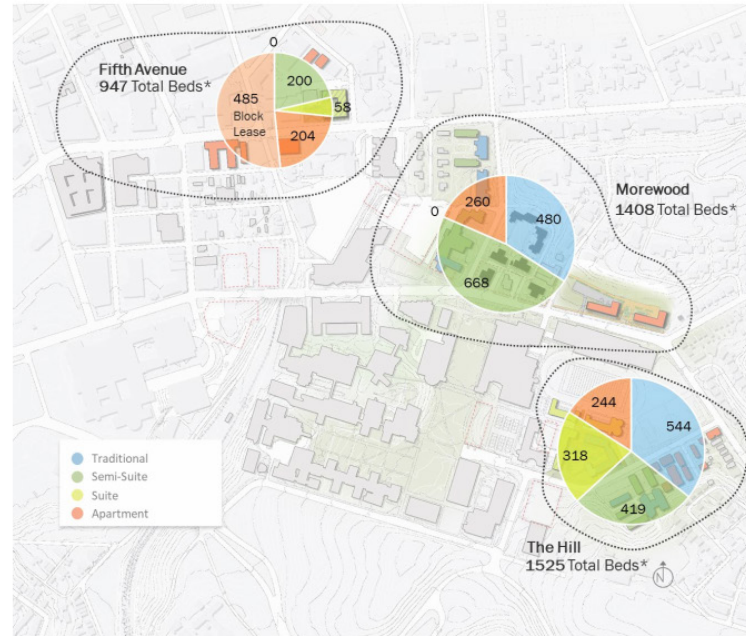
- Three neighborhoods that offer a mix of unit types to provide age-appropriate unit typology
- A neighborhood hub in each area
- Students could choose to live in the same neighborhood for multiple years and identify with the neighborhood community

Current State:

- The Hill**
- 1,238 housing beds
 - 80 Greek beds in Margaret Morrison
- Morewood**
- 1358 total beds
 - 384 Greek beds at the Greek Quad
- Fifth Avenue**
- 968 total beds
 - 75% of available beds are block leased (726)

Future State:

See diagram (*Greek housing not indicated but maintained)



Neighborhood Hubs

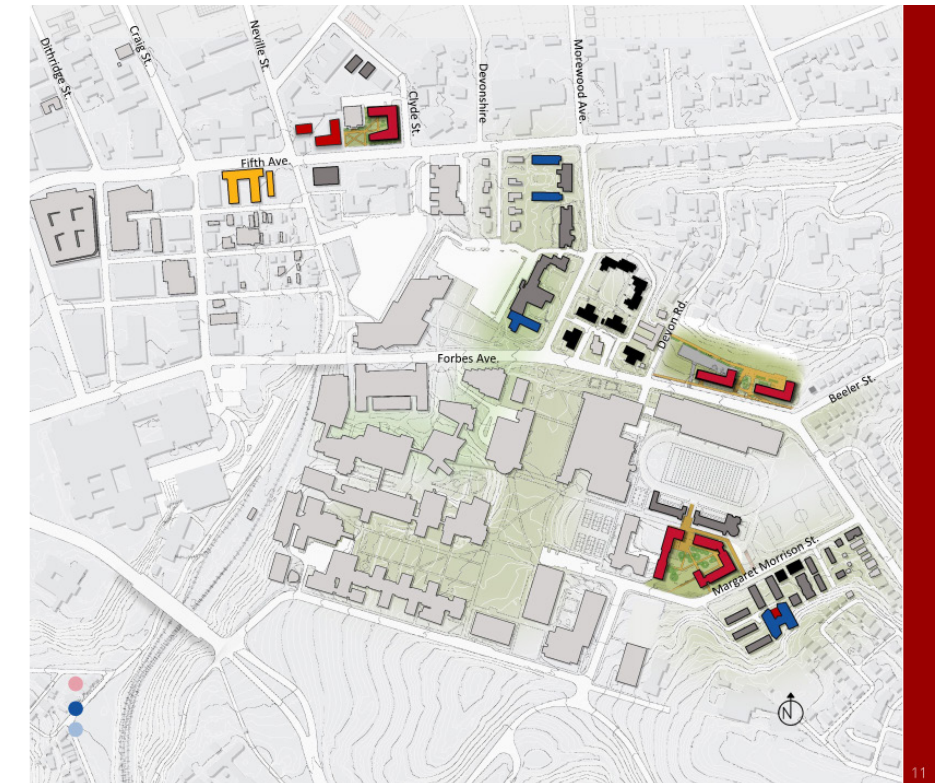
Components could include:

- Signature multifunctional dining spaces for community building
- Technology-enhanced learning commons to facilitate teaching in residence and metacurricular learning
- Academic support services with robust slate of tutoring, supplemental instruction, individual coaching, etc. to support student success
- Distinct maker spaces for the budding hands-on do-er
- Spaces designed for creative endeavors and play involving music or art
- Holistic wellness spaces that create space to work out, to retreat, to reflect
- Commons that encourage engagement among students, faculty, staff, alumni



Phasing Plan

- Phase 1 (Fifth/Clyde (Hub), Fifth/Neville) 2020/21
- Phase 2 (Forbes/Beeler + Market) 2023
- Phase 2 (Fairfax + Annex) 2023
- Phase 4 (Hamerschlag Hub) 2024
- Phase 5 (Resnik + WW)
- Phase 6 (Donner A)
- Phase 7 (Donner B (Hub))
- Phase 8 (Mudge Reno)



Long-Term Opportunities

NOTE: Projects listed are not included in Draft Plan.

- 1 - Graduate housing (parking) at Whitfield (~150 beds)
- 2 - Re-development of Greek Quad (net ~400 beds or gain Capstone site)
- 3 - Re-development of Woodlawn corner (net TBD)



