



CITY OF CAMBRIDGE, MASSACHUSETTS
PLANNING BOARD
 CITY HALL ANNEX, 344 BROADWAY, CAMBRIDGE, MA 02139

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 CITY OF CAMBRIDGE
 COMMUNITY DEVELOPMENT DEPARTMENT

NOTICE OF DECISION

Permit No: #204
 Address: 24 Oxford Street
 Applicant/Owner: President and Fellows of Harvard College,
 Zoning District: Residence C-3
 Application Date: January 24, 2005
 Public Hearing: February 15, 2005
 Planning Board Decision: February 15, 2005
 Date of Filing Decision: March 14, 2005

Application: Project Review Special Permit to construct 410,000 square feet of institutional laboratory and classroom space with an additional 140,000 square feet of mechanical space including a chilled water plant and electrical substation.

Decision: GRANTED with conditions.

Appeals, if any, shall be made pursuant to Section 17 of Massachusetts General Laws, Chapter 40A, and shall be filed within twenty (20) days after the filing of the above referenced decision with the City Clerk. Copies of the complete decision and final plans, if applicable, are on with the City Clerk and the Community Development Department, 344 Broadway, Cambridge, MA 02139

Authorized Representative to the Planning Board

For more information regarding this special permit, please contact Liza Paden at the Community Development Department, 344 Broadway, Cambridge, 617 349 4647, TTY 617 349 4621, or lpaden@cambridgema.gov.

Application Documents

Special Permit application including Ownership Certificate; drawings titled "Harvard University Faculty of Arts and Sciences, dated January 21, 2005"; Project Narrative; Site Conditions; Building Details, dimensional form, Supplementary Documents.

Other Documents Submitted

1. Letter to the Planning Board from Susan Clippinger, Director of Traffic, Parking and Transportation, dated 2/10/05.
2. Letter to the Planning Board from Charles M. Sullivan, Executive Director Cambridge Historical Commission, dated 2/9/05.
3. Letter to the Planning Board from Kelly Writer, City of Cambridge Arborist, dated 2/14/05.
4. Letter to Barbara Shaw, Planning Board from Fred Meyer, dated 2/14/05.

Findings

Based on its review of the application documents, supplemental materials, and other documents submitted to the Board, testimony taken at the public hearing and submitted in written form to the Board, and the review and consideration of the relevant special permit criteria, the Planning Board makes the following findings:

I. Conformance to the Citywide Criteria for Urban Design Objectives, Section 19.30

The urban design objectives are intended to provide guidance with regard to the appropriate form and character each new development should express. The desire is that the intent of the criteria be met as the context for each new development varies. All objectives need not be met and creative variations are encouraged. The Planning Board makes the following findings.

a. Section 19.31 – New projects are responsive to the existing or anticipated patterns of development.

In keeping with the existing campus pattern of development, the proposed building maintains and extends the scale, density and system of landscaped yards found in the North Campus area. Among the new building's major features are the following:

- It completes a connection from the center of Harvard's campus to its northern boundaries;
- It creates an attractive buffer between residential and University uses by creating an 80 feet wide area of lawn and trees along the north edge of campus, reflecting the objectives of the Hammond and Gorham Streets Transition Overlay District;
- It maximizes the utilization of space on Harvard's existing campus, in furtherance of a number of goals in *Toward a Sustainable Future: Cambridge Growth Policy Document* by building over an underground garage; and
- It addresses chiller needs for the larger area by incorporating a central plant into the design of the new building.

The Northwest Building is carefully sited to be within Harvard's existing campus adjacent to other science buildings. The proposed building has a generous setback from both Oxford and Hammond Streets, creating newly landscaped, accessible yards along Hammond and Oxford Streets. Over half of the building is underground, which will help preserve the scale of existing campus development. Its connection to the adjacent MCZ Lab enhances its scientific functionality and provides an opportunity to create a new courtyard adjacent to the University Museum, a building on the National Register of Historic Places. Siting the new building so that it connects existing landscaped yards to new ones improves existing pedestrian connections from the North Campus and the adjacent neighborhood to Harvard Square.

This North Campus area is adjacent to the Agassiz Neighborhood. Hammond and Gorham Streets Transition Overlay District was adopted to address the need for a transition between Harvard University and that Neighborhood along the campus's northern edge. In furtherance of the objectives of the Overlay District the project creates an 80-foot wide landscaped yard along Hammond and Gorham Streets; additionally, the northern face of the Northwest Building has been designed to lower roof heights as the building approaches the neighborhood.

b. Section 19.32 – New Development is pedestrian and bicycle-friendly, with a positive relationship to its surroundings.

The majority of the North Campus area has been to date a combination of surface parking lots and service buildings. The Northwest Building will be built over a portion of the newly completed North Campus underground garage and helps to create four landscaped areas, extending the established campus network of pedestrian pathways and landscaped area through the North Campus. Two pathways from the neighborhood into the campus are established, consistent with the

requirements of the Hammond and Gorham Streets Transition Overlay District zoning.

The Northwest building incorporates a public ground floor, which will provide covered and secure access from the northern edge into the main campus. The ground floor will include coffee and snack stalls, classrooms, laboratories, and offices ensuring academic activity throughout the day and likely into the evening. The building interior will provide opportunities for educational displays and academic exchange.

Bike parking will be provided in the new landscaped yards convenient to the Northwest building entrances.

c. Section 19.33 – Building and site design should mitigate adverse environmental impacts of the development upon its neighbors.

The Northwest Building has been designed to mitigate adverse environmental impacts on its neighbors.

(i) Mechanical Equipment and Noise Attenuation

The mechanical systems in the Northwest Building have been designed to be aesthetically integrated into the building design and to attenuate noise. The majority of the mechanical equipment is located as far away from the residential neighborhood as possible. All mechanical equipment will meet the City of Cambridge Noise Ordinance requirements at the property line.

In addition to the mechanical equipment directly associated with the Northwest Building, the building also includes a new central chilled water plant and electrical substation. The chilled water plant will augment the existing campus district cooling system (located at the science center) in addition to meeting the cooling needs of the proposed Northwest Building.

The electrical substation will feed Harvard electric service to the new chilled water plant, the proposed Northwest Building, and other existing/future North Campus facilities. The basement location avoids the exterior above-grade facilities typical of electrical substations of this size. Electrical and magnetic fields will also be attenuated by the location in the building.

With the exception of the cooling towers and exhaust fans, which are required to be on the roof, all mechanical elements will be located in the basement levels of the proposed building.

(ii) Traffic

Harvard has undertaken a comprehensive transportation study to assess the possible transportation impacts that future development in the North Campus area might have on the adjacent neighborhood. The study found that Harvard development will not have an adverse impact on traffic due to several factors; the low rate of Harvard employees driving to work alone (less than 30%); no increase in parking supply; and the implementation of the Parking and Transportation Demand Management program, the goal of which is to further reduce the single-occupancy-vehicle rate.

(iii) Trash handling

Trash handling will avoid noise, odor, and visual impacts on the neighbors as all trash storage will be contained within the building and placed outdoors only for trash pick up.

(iv) Loading

Harvard has made significant efforts to consolidate as much loading activity as possible, including trash pickup; equipment, office supplies, furniture deliveries; and dining services. Currently, many of the buildings in the North Campus are served by a centralized loading facility at the Bauer Head House on Divinity Avenue. The Northwest Building will also be served by this loading facility. A drop-off area has also been designed under the Northwest Building "bridge" to allow for express mail deliveries, catering, etc.

(v) Stormwater Runoff

The proposed landscaping plan reduces the impervious area (former surface parking lot) of the site by approximately 22%. The result is a reduction in the peak rate of stormwater runoff to the Oxford Street combined sewer system. Additionally, the grading plan and landscape design employ creatively planted earth berms to minimize water runoff. To meet City of Cambridge standards for runoff, a multi-phased mitigation strategy has been designed including the construction of approximately 14,500 gallons of storage in a proposed 48-inch perforated pipe and the utilization of additional capacity available in the existing Oxford Street stormwater holding tank. The combined effect of the mitigation strategies provides enough additional mitigation capacity to meet the City standards.

(vi) Shadow Impact

The shadow study shows that there will be minimal impact on the adjacent residential buildings. In the worst case shadow situation, on December 21st, some houses would be in shadows for up to 3 hours. This situation occurs, however, for only a handful of days out of the year. The proposed building is set back 100 feet from the centerline of the Hammond and Gorham Streets, which minimizes shadow impacts on abutting residential lots.

The height of the building is consistent with the adjacent buildings in the North Campus and will not produce shadows that are unlike those of the neighboring structures. The height is well below the maximum allowed in the Residence C-3 District.

(vii) Lighting

Outdoor lighting will be designed to provide minimum light levels for safety and comfort. The site lighting will maximize light on the paths through strategically located cut-off fixtures that minimize glare and spill-over to neighboring areas.

Interior lighting also reinforces the goal of a non-obtrusive building. Light levels meet Illuminating Engineering Society of North America recommended illumination levels specific to each area and task performed. The use of direct down-lighting rather than indirect up-lights minimizes the amount of bright ceiling surfaces that create glare for viewers in surrounding areas. The lighting design will be energy efficient while supporting the building's program and architectural feature elements in a subdued manner.

d. Section 19.34 – Projects should not overburden the City infrastructure services, including neighborhood roads, City water supply system, and sewer system.

The Northwest Building will not overburden the City infrastructure services, including neighborhood roads, city water supply system, and sewer system, as demonstrated by the following:

(i) Water conservation and minimizing storm runoff

As stated above, the Northwest Building will incorporate a 14,500-gallon storm water retention tank to mitigate stormwater runoff. With the proposed stormwater mitigation measures runoff from the 25-year post-developed storm event will have an equivalent impact on the sewer system as that of a 2-year storm event in the pre-developed condition.

(ii) Sewer

The project will require a Sewer Connection Permit applied for by the University and issued by the Massachusetts Water Resource Authority, (MWRA) subsequent to their review because of the size of anticipated sewer discharges. Some realignment of existing infrastructure will occur in conjunction with the project.

(iii) Water

Some realignment and improvement of existing infrastructure will occur in conjunction with the project.

(iv) Energy and Resource Efficiency

The Northwest Building has been designed to efficiently utilize water and energy resources. The building will incorporate sustainable features related to water use and waste generation; storm water retention; proximity to public transportation; energy use for lighting and HVAC systems; materials and resources used in the construction of the building; and the overall indoor environmental quality. The LEED checklist included in the application identifies the specific level of sustainable design incorporated into this building.

The chilled water plant incorporated into this building provides a centralized district cooling system that offers several advantages over a distributed system that would locate cooling equipment at each facility:

- Noise control. Sound attenuation can be cost effectively applied at a centralized location; sound attenuation is not typically used with distributed unitary systems.
- Higher energy efficiency. Centralized systems offer the opportunity to utilize higher efficiency equipment (such as water cooled, rather than air cooled chillers), which is more cost effective at larger capacities.
- Increased reliability. By grouping chillers and pumps, the impact of losing a single piece of equipment is minimized.
- Higher utilization of equipment. By sharing the load between facilities at a central plant, fewer chillers can operate at peak efficiency.
- Space efficiency. The building and equipment yard space required for a centralized system is always less than that required for a comparable distributed system.
- Simplified maintenance. A central location is more easily maintained by fewer people.

e. Section 19.35 – New construction should reinforce and enhance the complex urban aspects of Cambridge as it has historically developed.

The approved building will reinforce the existing university campus and the academic functions that occur in the North Campus. Its design and location are so as not to significantly negatively impact the abutting residential neighborhood and important historic building resources within the campus itself.

f. Section 19.36 - Expansion of the inventory of housing in the city.

No housing will be constructed as a part of this project.

g. Section 19.37 - Enhancement and expansion of open space amenities in the city should be incorporated into new development in the city

For many years, most of the North Campus has consisted of surface parking lots and obsolete service buildings. A series of four landscaped yards will be created in conjunction with the construction of the Northwest Building.

- The first is located in the new courtyard that marks the primary entrance of this new building. This courtyard will be bounded by the MCZ building and the University Museum complex.
- The second landscaped area will be between the eastern face of the new building and the accelerator building. This will also serve as primary pedestrian path for the users of the North Campus underground garage.
- The third is the passageway between the west face of the proposed Northwest Building and 60 Oxford Street and the ESL building that creates a landscaped walkway that incorporates the underground garage vehicle entry and addresses pedestrian and vehicle safety concerns.
- The fourth landscaped area will be located along Hammond Street. This will be an 80-foot wide stretch of green space that will meet the transition requirements of the Hammond Street zoning and serve as an entry to the Harvard campus from the Agassiz neighborhood.

II. Conformance with the General Criteria for Issuance of a Special Permit- Section 10.43

A special permit will normally be granted where specific provisions of this Ordinance are met, except when the particulars of the location or use,

not generally true of the district or of the uses permitted in the district, would cause granting of such permit to be to the detriment of the public interest for the following reasons:

a. The Requirements of this Ordinance cannot be met.

With the granting of this Project Review Special Permit, the requirements of the Ordinance will be met. The Northwest Building has been designed in accordance with the requirements for the C-3 zoning district. In addition, the Northwest Building is consistent with the urban design objectives of Section 19.30 as outlined above. Because the new building will be physically connected to a legally existing non-conforming structure a variance under Article 8.000 of the Zoning Ordinance is required; the variance was approved at a hearing on January 13, 2005.

b. Traffic Generated or patterns of access or egress will cause congestion, hazard, or substantial change in established neighborhood character.

The transportation study undertaken by the University indicate that this development and future construction anticipated in the North Campus will not have an adverse impact on traffic on city streets or within the residential neighborhood. Improvements to be undertaken by Harvard, as outlined in the letter to the Planning Board from Susan Clippinger as referenced above will provide for more efficient and safer operation of cars and pedestrians along the public streets in the vicinity of the project.

c. The continued operation of the development of adjacent uses as permitted in the Zoning Ordinance will be adversely affected by the nature of the proposed use.

The project will be constructed in the North Campus on a large institutional lot where other institutional uses are located. The project has been designed to have minimal impact on the adjacent residential neighborhood: an open space buffer will be created, the greatest building bulk will be located farthest from the neighborhood, pedestrian access to the amenities to the campus will be enhanced, all vehicular access to the site will be off of Oxford Street amid institutional buildings abutting that street. The same types of uses in the proposed building are already occurring in adjacent buildings on the campus..

d. Nuisance or hazard would be created to the detriment of the health, safety and/or welfare of the occupants of the proposed use or the citizens of the City.

No nuisance or hazard will occur as a result of the proposed project. The project meets all health, safety, and noise standards. Mechanical systems in particular have been carefully designed so as not to adversely impact the adjacent neighborhood in any significant way.

e. For other reasons, the proposed use will impair the integrity of the district or adjoining district or otherwise derogate from the intent or purpose of this ordinance.

The Northwest Building, an institutional educational use located in the core of the Harvard campus, is compatible with its surrounding institutional buildings and to its underlying Residence C-3 zoning district. It is an allowed use and located within the Harvard, Radcliffe, and Lesley Institutional Overlay District.

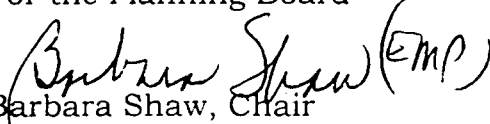
Decision

Based on a review of the application documents, comments made at the public hearing, and based on the above findings, the Planning Board **GRANTS** the requested Project Review Special Permit subject to the following conditions and limitations:

1. All use, building construction and site plan development shall be in substantial conformance with the updated plans and application documents submitted to the Planning Board as reference above, dated January 21, 2005. Appendix I summarizes the dimensional features of the Project as approved.
2. The project shall be subject to continuing design review by the Community Development Department (CDD). Before issuance of the first Building Permit for the project after the granting of this special permit, the Community Development Department (CDD) shall certify to the Superintendent of Buildings that the final plans submitted to secure the Building Permit are consistent with and meet all conditions of this Permit.
3. The transportation improvements outlined in the letter to the Planning Board from Susan Clippinger shall be a requirement of this permit and shall be completed no later than the issuance of the Final Certificate of Occupancy.
4. All authorized development shall conform to the requirements of the City of Cambridge *Noise Control Ordinance*, Chapter 8.16 of the City Municipal Code.

Voting in the Affirmative to GRANT the Special Permit were B. Shaw, H. Russell, P. Winters, T. Anninger, L. Brown, T. Carpenter and J. Molinsky Associate Member appointed by the Chair to this application review, constituting at least two thirds of the members of the Planning Board necessary to grant a Special Permit.

For the Planning Board


Barbara Shaw, Chair

A copy of this decision, #204 shall be filed with the City Clerk. Appeals if any, shall be made pursuant to Section 17, Chapter 40A, Massachusetts General Laws, and shall be filed within twenty (20) days after the date of such filing in the Office of the City Clerk.

ATTEST: A true and correct copy of the above decision filed with the Office of the City Clerk on March 14, 2005 by Elizabeth M. Paden, authorized representative of the Cambridge Planning Board. All plans referred to in the decision have been filed with the City Clerk on said date or as part of the original application.

Twenty (20) days have elapsed since the filing of the decision.
No appeal has been filed.
DATE:

Appendix I – Dimensional Form

Special Permit # 204

Address: 24 Oxford Street

	Allowed/Required	Existing	Proposed	Granted
Total FAR	3.0	1.75	2.12	2.12
Residential	NA	NA	NA	NA
Non-Residential	NA	NA	NA	NA
Inclusionary Bonus	NA	NA	NA	NA
Total GFA in Sq. Ft.				
Residential	NA	NA	NA	NA
Non-Residential	3,334,140	2,128,546	2,128,546	2,128,546
Inclusionary Bonus	NA	NA	NA	NA
Max. Height	120	74.7	60	60
Range of heights				
Lot Size	5,000	1,111,380	1,111,380	1,111,380
Lot area/du	NA	NA	NA	NA
Total Dwelling Units	NA	NA	NA	NA
Base units				
Inclusionary units				
Min. Lot Width	50	>500	>500	>500
Min. Yard Setbacks				
Front	189	52.6	52.6	52.6
Side. Left				
Side. Right				
Rear				
Total % Open Space	10%	70%	70%	70%
Usable	NA	NA	NA	NA
Other	NA	NA	NA	NA
Off Street Parking	1/1,800		228 spaces allocated from Parking Inventory	228 spaces allocated from Parking Inventory
Min #	1/1,800			
Max #	1/1,200			
Handicapped				
Bicycle Spaces	1/10 cars		23	23
Loading Bays	8	19	19	19