Biochemistry II Building

State of Wisconsin
Division of State Facilities

The University of Wisconsin - Madison
New Biochemistry II Building
Project Number 05 F 1 K

Urban Design Commission
Informational Presentation
September 19, 2007

Flad

Site:

The Biochemistry II project site is currently a fully developed site occupied by various departments of the College of Agriculture and Life Sciences. In order to accommodate the program, demolition of the entire 1956 Biochemistry building and demolition of the single story auditorium and associated below grade animal facility of the 1985 Biochemistry building will take place as a separately contracted phase of work. Vehicular access to the site will be altered by the inclusion of a new access drive from Linden Drive to the north of the site and closure of the two existing vehicle access points from Henry Mall in response to the Campus's desire to limit vehicle traffic on Henry Mall. Loading, moped, limited staff parking and required Fire Department approaches to the high-rise portion of the project will be served from the new drive.
A mature 'heritage' American elm tree is located between the 1937 and 1998 Biochemistry buildings. The Heritage Tree has been evaluated and deemed healthy and will thus be preserved as the focal point of the existing courtyard.

Pedestrian access to the new facility will be gained primarily from the newly created Biochemistry Mall area between the research tower and the 1912 and 1937 Biochemistry buildings to the South. In this area, there will be two entries into the first floor lobby space and additional accessible entries into the Southern facade of Agricultural Journalism building and the Northern façade of the 1912 and 1937 complex. The area directly south of the Agricultural Journalism building will be developed as a courtyard serving the cafe. The current bicycle parking area north of the Heritage Elm tree will be displaced by construction. These bicycle parking stalls along with additional stalls for the increased population in the area will be strategically located throughout the site.

Stone paving will be used on site to accent the research tower and to complement surrounding buildings. Colored concretes will be used for additional paved surfaces. Site lighting will be used to illuminate building entries, pedestrian walkways, and to accent landscape plantings. Landscape plantings will consist of deciduous ornamental trees, and a mix of evergreen and deciduous shrubs and groundcover. Deciduous shade and ornamental trees will be used along the western edge of Henry Mall in accordance with recommendations made by the December 2005 Henry Mall Cultural Landscape Inventory.

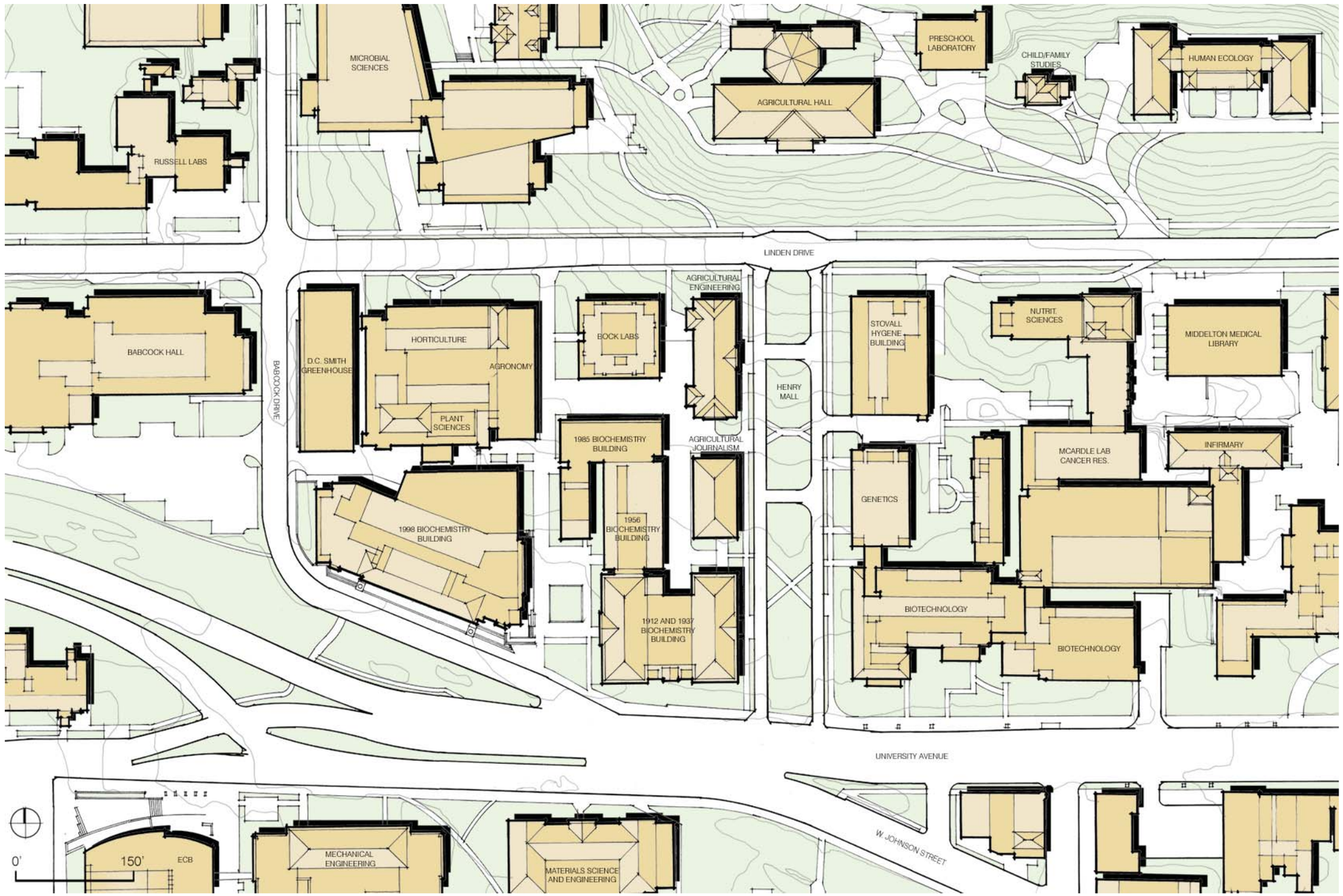
Architectural:

The Biochemistry II project holds a significantly large program area on a highly constrained and historically rich site, balancing these two opposing constraints was the key challenge to project team. The project serves two primary missions: instruction and research. Through the evolution of the design, a natural articulation of these two program elements emerged. Instruction is located exclusively in the historic 1912 and 1937 Biochemistry buildings fronting Henry mall to the east and University Avenue to the south. Research laboratories will be located in the newly constructed research tower located in the void created by the demolition of the 1956 Biochemistry building and portions of the 1985 Biochemistry building. Careful consideration has been devoted to the massing, proportions and contextual relationship of the new research tower to its surroundings. The roof height of the research tower is approximately the same as that of the 1985 Biochemistry building, although mechanical screens and limited penthouse space will exceed that height. The research tower is separated from the historic buildings to the south by approximately thirty feet, reestablishing the intent of the original 1908 Campus Master Plan by Peabody, Laird and Cret. The Agriculture Journalism Building (circa 1906) is programmatically incorporated into the new research tower but a separation of approximately twelve feet has been maintained to preserve the character of the historic building and to give the appearance of a separate building. Furthermore, the research tower is stepped back at the sixth floor by approximately eight feet in an effort to minimize the overall impact of the size disparity between the two buildings.

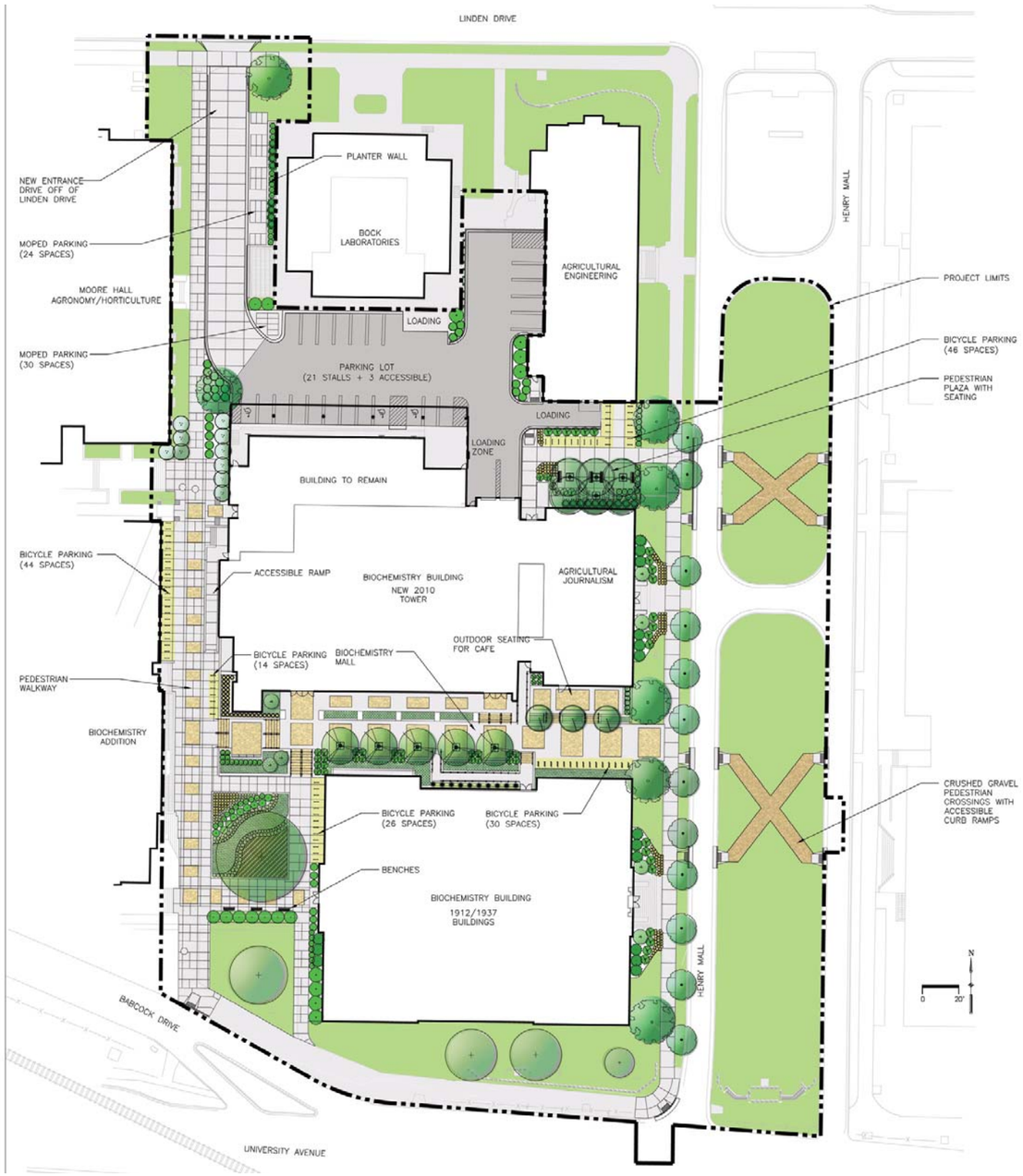
The first floor of the building is set back further to enhance and to create a sheltered portion of the pedestrian open space. Ground floor spaces are dedicated to large group and general use spaces. A small plaza which serves the café is set back slightly from the corner of Agriculture Journalism.
The exterior treatment of the new research tower has evolved in accordance with the direction of the Division of State Facilities Peer Review and the University Design Review processes with contribution from the State Historical Society. The primary exterior materials are terra cotta, glass and anodized aluminum. The east façade, which creates the backdrop for the Agriculture Journalism Building, is a weave of terra cotta sun shading elements over a deep vertical aluminum window mullion sun shading system. This façade is intended to present a delicate texture which de-materializes the scale of this elevation while the terra-cotta sunshade elements create a direct material relation to the terra-cotta roof tiles on the historic buildings. The south façade is composed in a vertical rhythm familiar to the 1998 Biochemistry building directly to the west. Terra cotta cladding and glass window bays create the primary rhythm of this elevation. A layer of aluminum sun shading is beyond the glass to limit solar heat gain as well as to relate this façade to the other elevations. The southwest corner of the building holds break rooms which look out over the existing courtyard between the 1937 and 1998 Biochemistry buildings and features the mature American elm tree. Although the exterior of the break room corner is detailed to relate to the reminder of the building, the emphasis on transparency expresses the open social character of the space within. It is a focal point upon approach to the building and a unique element in the composition.

The treatment of the historic buildings has developed in response to the State Historical Society direction. The Agriculture Journalism Building (c. 1906), the 1912 and 1937 Biochemistry buildings will all be restored as part of this project. Restoration will involve cleaning and tuck-pointing brick, removal of terra-cotta roof tiles to refurbish or rebuild roof structures and reinstallation of the roof tiles (replacing those that are damaged with matching antique tiles). Windows are also to be replaced with matching replica aluminum windows which will allow permanent removal of the storm windows thus returning the buildings to their original character. The 1937 Biochemistry addition also houses two murals painted in-situ by notable artist John Steuart Curry, the murals will be protected during construction and restored at the completion of this project. The newly constructed auditoria spaces which will be inserted between the 1912 and 1937 buildings will be clad differently from the existing structures per Wisconsin Historical Society direction (the south façade, facing University Avenue, will be preserved). Brick reclaimed from the demolition of existing structures will be crushed and used to fill gabions and hung from a steel frame to create the weather surface of the north façade infill. Rooftop additions to the 1912 and 1937 buildings are limited in height as much as practical, and are held between the ridges of the existing rooflines.

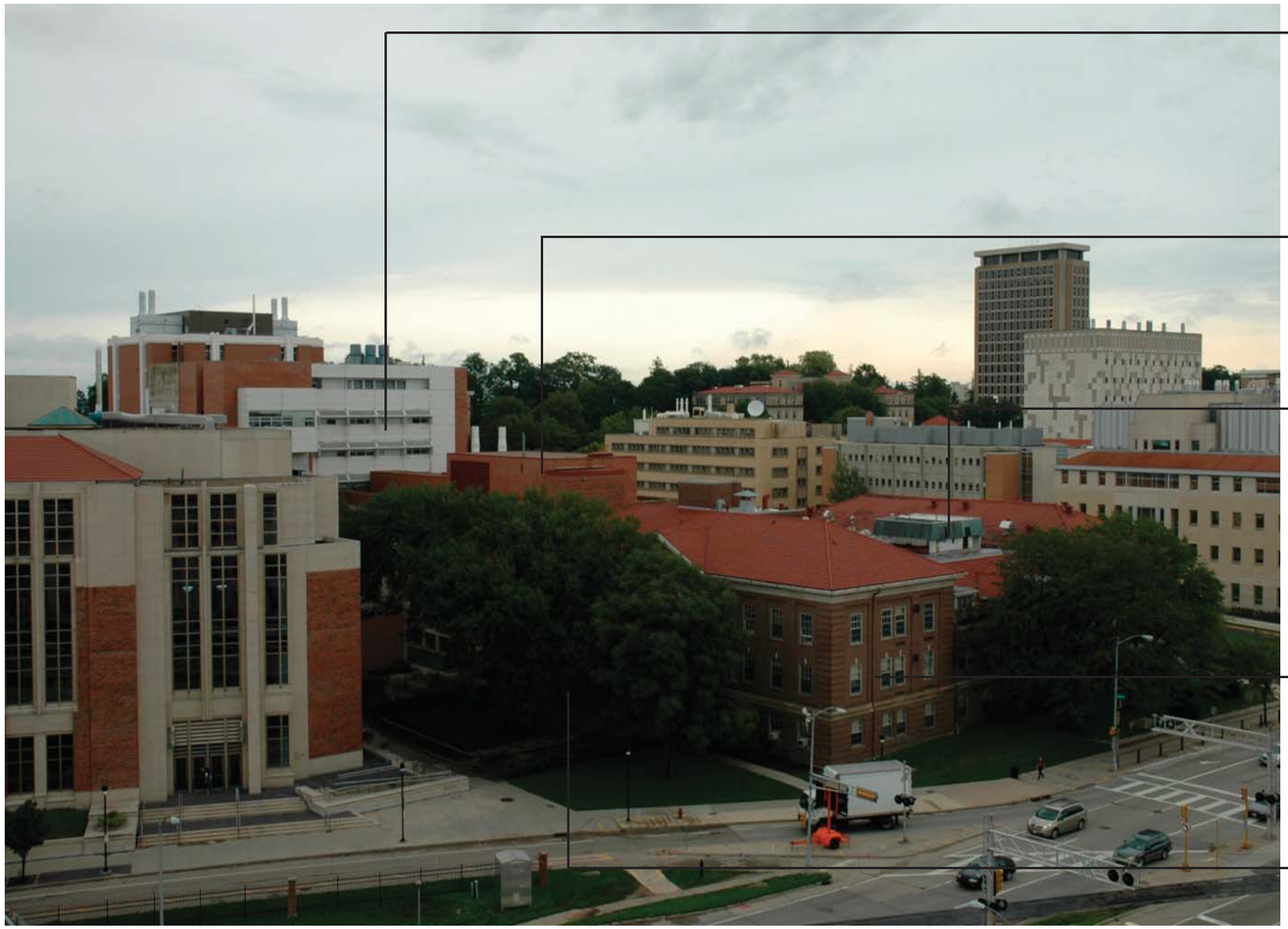
A pedestrian bridge will connect the newly constructed infill portion of the 1912 and 1937 buildings to the new research tower. The available space to make the connections between the buildings is extremely limited thus the bridge is relatively narrow requiring efficient structural and cladding systems. An approach of minimal detailing has been adopted to maximize transparency and to limit the visual obtrusiveness of the bridge. Large glass panels and thin steel structural elements are being employed to accomplish this means.



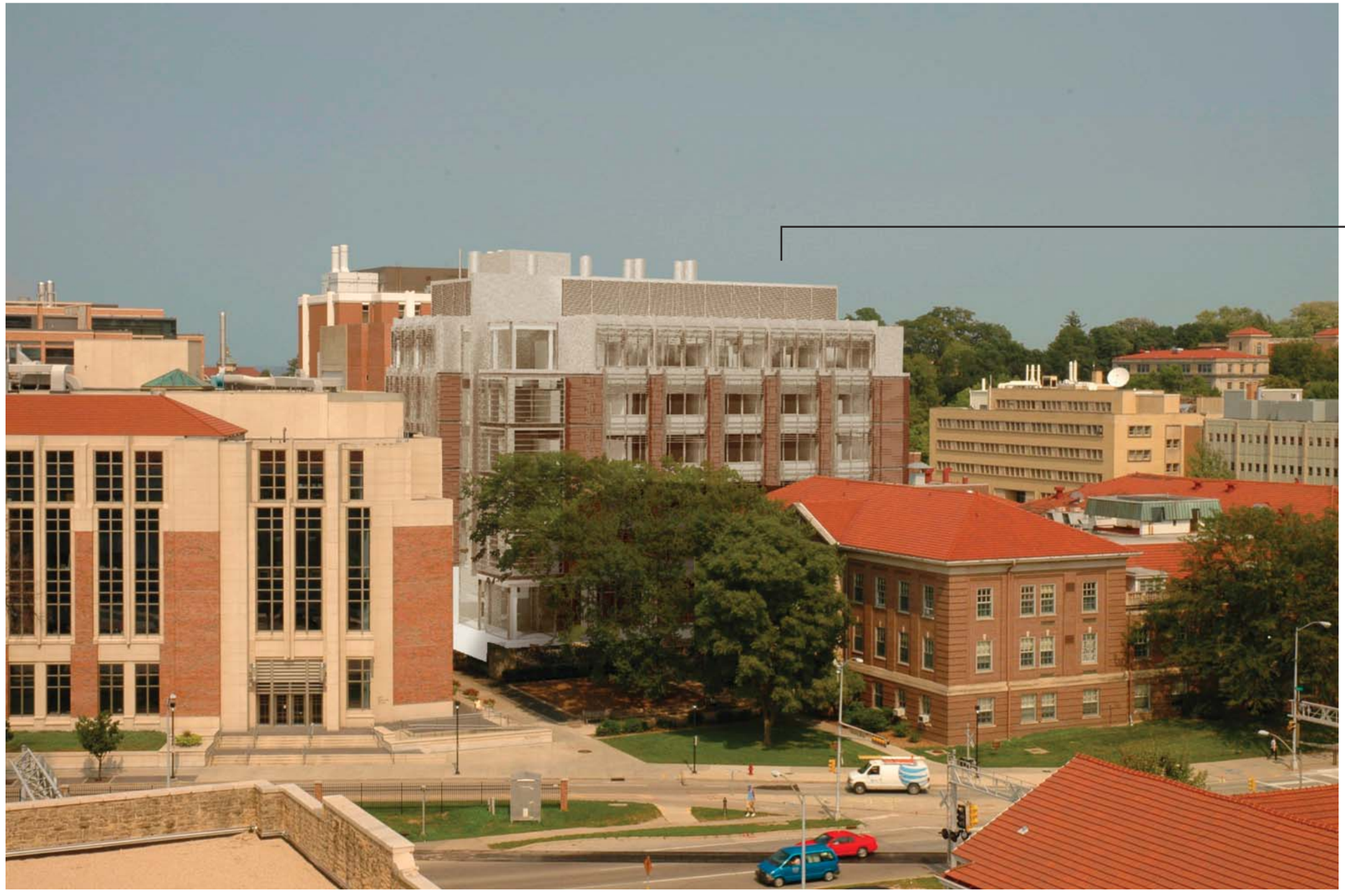
Existing Site Plan



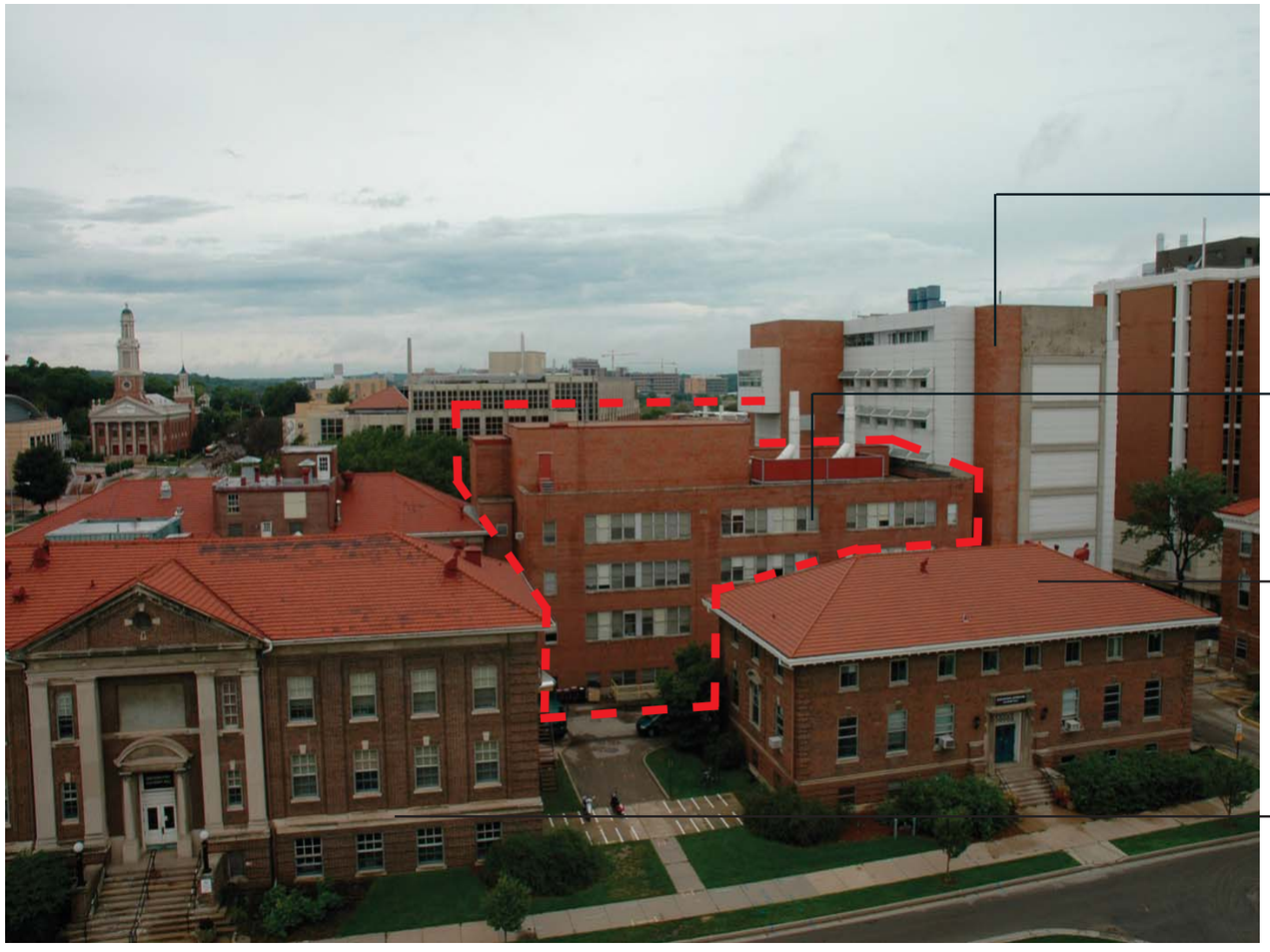
Proposed Site Development Plan



Aerial View of Existing Site From Southwest



Proposed View from the Southeast



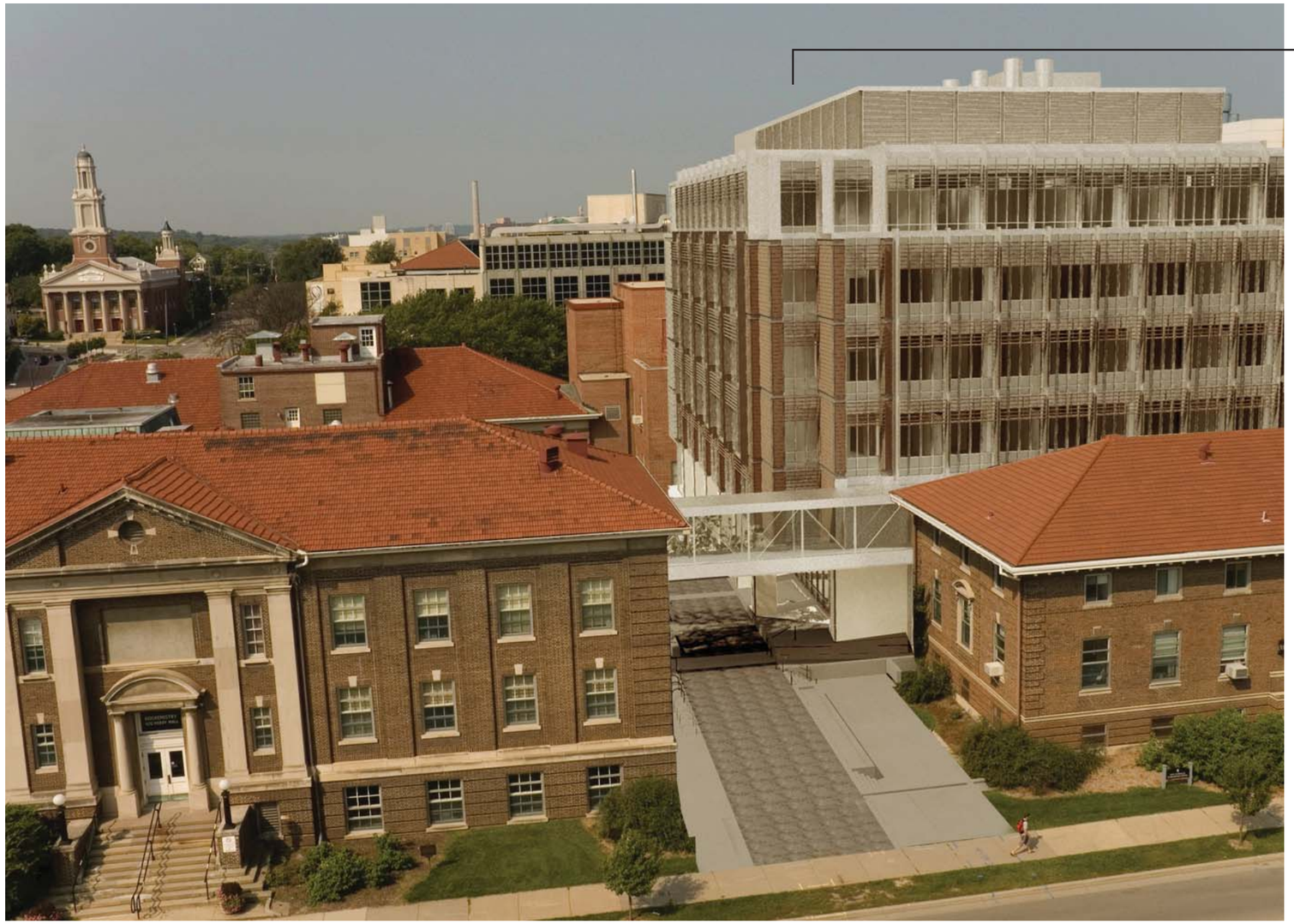
1985 Biochemistry Building - Single story auditorium and associated below grade vivarium to be demolished (obscured from view).

1956 Biochemistry Building to be demolished.

1906 Agricultural Journalism Building to receive full exterior restoration and to be fully renovated inside.

1912 Biochemistry Building to receive full exterior restoration and to be fully renovated inside.

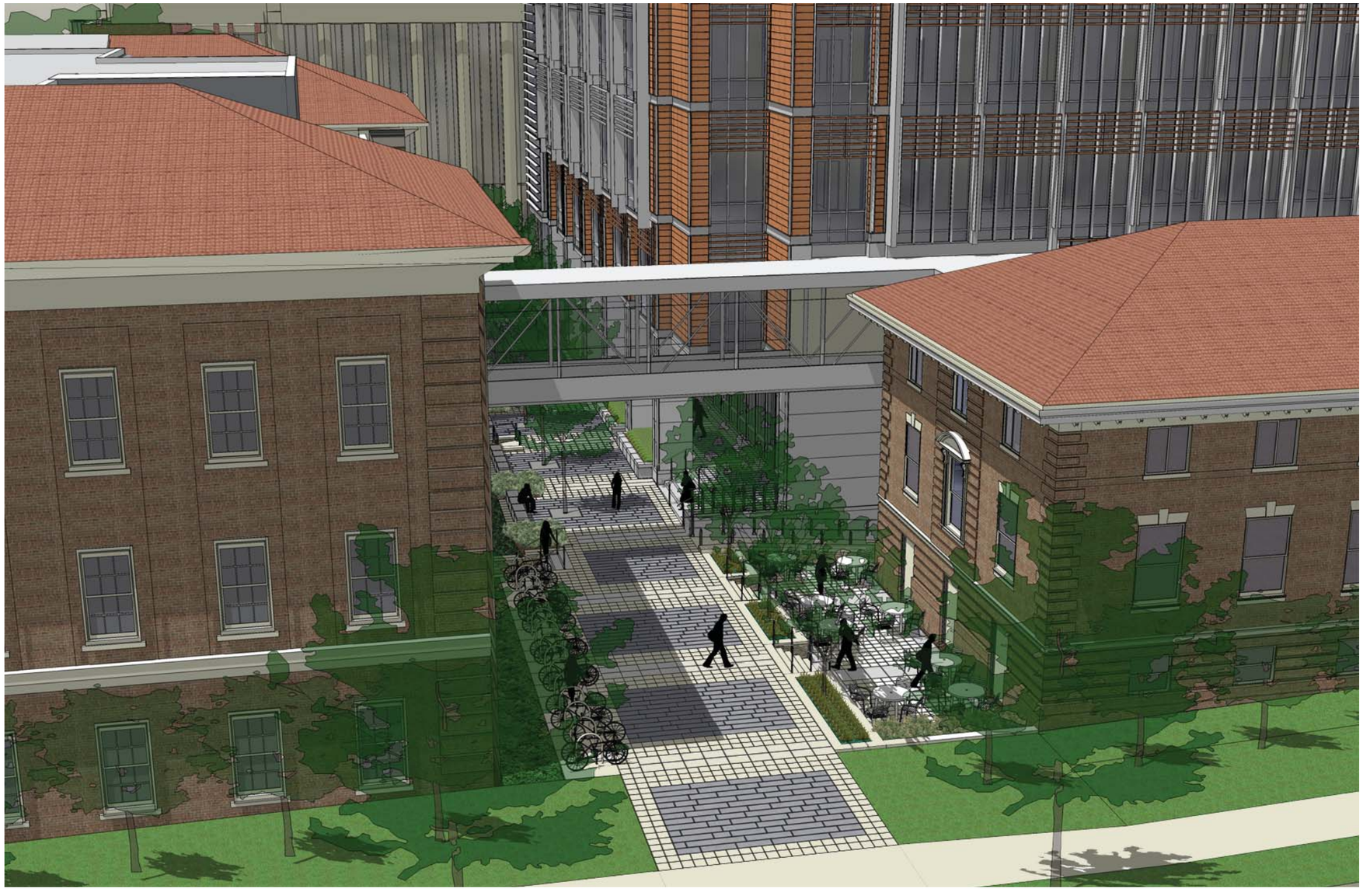
Aerial View of Existing Site From East



Proposed View from the East

Proposed Biochemistry Plaza and Courtyard

Proposed Biochemistry Plaza - Henry Mall View



Proposed Biochemistry Plaza and Cafe - East View

Proposed Biochemistry Mall - East View

Proposed Biochemistry Courtyard - West View