



CAMBRIDGE HISTORICAL COMMISSION

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CAMBRIDGE HISTORICAL COMMISSION

APPLICATION FOR CERTIFICATE

1. The undersigned hereby applies to the Cambridge Historical Commission for a Certificate of (check one box): Appropriateness, Nonapplicability, or Hardship, in accordance with Chapter 40C of the Massachusetts General Laws and/or Chapter 2.78 of the Municipal Code.

2. Address of property: , Cambridge, Massachusetts

3. Describe the proposed alteration(s), construction or demolition in the space provided below: (An additional page can be attached, if necessary).

Please see attached description and graphics.

I certify that the information contained herein is true and accurate to the best of my knowledge and belief. The undersigned also attests that he/she has read the statements printed on the reverse.

Name of Property Owner of Record:	<input type="text" value="President and Fellows of Harvard College"/>		
Mailing Address:	<input type="text" value="c/o Erika Johnson, Harvard Planning Office, 1350 Mass Ave, Cambridge, MA 02138"/>		
Telephone/Fax:	<input type="text" value="617-384-7745 / 617-495-0559"/>	E-mail:	<input type="text" value="erika_johnson@harvard.edu"/>
Signature of Property Owner of Record:	<input type="text" value="Erika Johnson"/>		
<small>(Required field; application will not be considered complete without property owner's signature)</small>			
Name of proponent, if not record owner:	<input type="text"/>		
Mailing Address:	<input type="text"/>		
Telephone/Fax:	<input type="text"/>	E-mail:	<input type="text"/>

<small>(for office use only):</small>			
Date Application Received:	<input type="text" value="3/12/19"/>	Case Number:	<input type="text" value="4078"/>
		Hearing Date:	<input type="text" value="4/4/19"/>
Type of Certificate Issued:	<input type="text"/>	Date Issued:	<input type="text"/>

Introduction

Adams House Renewal is the sixth project in Harvard's undergraduate House Renewal campaign. While upgrades to life safety, accessibility, and building systems are fundamental and necessary goals of the campaign, the broader Renewal mission is to preserve the historic character and culture of the Houses while renewing the House experience as part of a twenty-first century approach to liberal arts education.

The buildings comprising Adams House are situated across three city blocks bounded by Bow Street to the south and east, Holyoke Street to the west, and Massachusetts Avenue to the north. All of Adams House falls within the boundaries of the Harvard Square Neighborhood Conservation District.

This application concerns Randolph Hall, which is to be renovated as part of Adams Renewal Phase II.

Adams House History

Since its formation in 1930, the House system has been a cornerstone of the undergraduate experience at Harvard. Unlike the six other Houses which Harvard created in 1930-31, Adams House was established from a grouping of off-campus buildings that Harvard had acquired, the most visually prominent of which were Claverly Hall (1892), Randolph Hall (1897-1902), and Westmorly Court (1898-1902). Built in the 1890s by private developers to serve the high end of the student housing market, these apartment houses were synonymous at that time with the wealth and privilege of Harvard's "Gold Coast." Apthorp House (1760) was incorporated into Adams as the Master's Residence, and Harvard built new as well, adding a dining hall/commons building and another dormitory (Library Commons, 1931; Russell Hall, 1932). The overall complex of six structures comprises approx. 240,000 GSF.

History of Randolph Hall

Randolph Hall was constructed in 1897-1898, with the east wing extension completed in 1901-1902. Randolph was developed by three brothers: Joseph Randolph Coolidge, Jr., its architect (of the firm Coolidge & Wright and no relation to architect Charles Coolidge); Harold Coolidge, a lawyer; and Archibald Cary Coolidge, a Harvard history professor who became the first Director of the Harvard College Library and founding editor of *Foreign Affairs* magazine. The brothers, all alumni of Harvard, were descendants of both Thomas Jefferson (through their grandmother, Ellen Wayles Randolph, inspiring the development's name) and of Reverend East Apthorp, original owner of the eponymous Colonial-era home that is directly adjacent to Randolph Hall.

Drawing on Oxford and Cambridge precedents, the Coolidge brothers' intention was to create an American version of an English residential college, complete with vertical entryways fronting an interior quadrangle (translated here as a driving court). In 1897, the brothers purchased the south half of the Apthorp estate fronting Bow Street and began construction the same year. Coolidge & Wright designed Randolph in an eclectic Jacobean Revival style, with a picturesque yet rigorous massing of bays, shaped gables, turrets, and chimneys. Upon its completion, Randolph provided fifty single and double suites outfitted with telephones, steam heating, dumbwaiters, squash courts, exercise and reading rooms, and a breakfast room with murals by the American illustrator Edward Penfield depicting scenes from Harvard student life. A self-styled Oxford don, Archibald Cary Coolidge maintained a residence in Randolph and marketed the development as "Apthorp College." To set the context of the era, the competition between various Gold Coast developments to differentiate themselves and attract the wealthiest students was fierce; as several histories of Adams House note, the presence of the setback along Linden Street was the outcome of a rivalry and disagreement between the Coolidge brothers and fellow developer Charles Wetmore, who built the Gold Coast apartment houses Claverly Hall, Apley Court, and Westmorly Court.

Harvard University Adams House Renewal

Phase II: Randolph Hall

Application for Certificate of Appropriateness

PREPARED FOR
CAMBRIDGE HISTORICAL COMMISSION

PREPARED BY
Beyer Blinder Belle Architects & Planners LLP

MARCH 12, 2019

TABLE OF CONTENTS

TEXT DESCRIPTION

Project Background and Description of Proposed Alterations 2

11" X 17" DRAWINGS

Neighborhood Plan 5

Adams House Plot Plan 6

Adams House Renewal - Phasing Plan for Permitting and Construction 7

Sightline Analysis - 1 8

Sightline Analysis - 2 9

Demo and Proposed Elevations - South (Bow Street) and North 10

Demo and Proposed Elevations - East and West (Plympton & Linden Streets) 11

Demo and Proposed Elevations - Courtyard Elevations 12

Proposed Entries and Accessibility - Bow Street 13

Proposed Entries and Accessibility - Mid-Block Entries 14

Proposed Entries and Accessibility - Plympton Mid-Block Entry 15

Proposed Entries and Accessibility - Plympton Mid-Block Windows 16

Masonry Repairs and Restoration 17

Roof and Dormer Work 19

Bow St. Entry - Dormer Cartouche 20

Window Scope 21

Window Scope - Alterations for Mechanical 23

Exterior Metalwork Scope 25

Landscape Changes 27

Landscape - Linden Street Gate 28

Landscape - Plympton Street Gate 29

Summer 2019 Advance Construction Scope 30

Keen to capitalize on Randolph's early financial success, the Coolidge brothers purchased the remaining Apthorp property and the home itself in 1901, allowing them to extend Randolph's east wing along Plympton Street with an additional entryway. This addition, completed in 1902, closely followed the design of the original construction in its exterior articulation and massing, including the Flemish Revival dormer windows at the fourth floor and a projecting stair tower. Six years later, Coolidge & Carlson (successor firm to Coolidge & Wright) filled out the "Apthorp College" campus with their design for the Randolph Tennis and Racquet Court Building, planned around (a slightly relocated) Apthorp House and completed in 1908. This building, which contained a swimming pool (one of Adams' three former pools), squash courts, locker rooms, and one of the very few *court* tennis courts in the U.S. (removed in the 1920s to make room for additional squash courts), has been a Harvard academic building for the visual arts since 2001, and is outside the scope of this project.

Architectural Description of Randolph Hall

Randolph is a U-shaped building with a narrow cross-section that fronts Bow, Linden, and Plympton Streets. The original building had symmetrical side wings, but the 1902 addition resulted in a longer east "leg" along Plympton. The basement and ground-level stories are faced with grey ashlar granite in alternating major and minor courses, while the upper four floors are brick with granite and carved sandstone accents. Likely owing to advanced deterioration, the sandstone decorative elements were replaced with cast stone sometime in the mid-century. The roof is pitched slate with dormers and brick chimneys running between major end-gables at either end of the south wing and northern terminations on the east and west wings. The main entrance on Bow Street, at the center of the symmetrical south elevation, is expressed as a monumental granite portal with scroll brackets and quoined pilasters below a cornice. A vertical pattern of projecting major and minor brick bays on the street facades, corbeled out in granite above the ground floor windows, contain multi-unit windows (alternating in a consistent but subtle pattern between two and three ganged sash windows). These bays break down the scale of the facades and emphasize the living rooms of the original student apartments. The windows, with flush brick jack arches and either single-unit or ganged, are typically double-hung sashes with no muntins in the lower sash and two rows of the lites in the upper sash. Window depth within the masonry opening is determined by window type and elevation. Within the courtyard, the six entryway stairs are expressed as towers, each capped with a turret roof. There are rhomboid casement windows at the stair towers on the east and west wings, but this was not carried through to the 1902 addition. Decorative wrought-iron balconies and metal balustrades at the dormer level add visual interest (modifications were made to these balconies and their adjacent windows for egress when exterior fire escapes were added). Due to the natural topography of the site, the relatively flat interior courtyard, accessed through gated entrances at Plympton and Linden Streets, is a full story above the entry grade on Bow Street.

Significance in the Harvard Square Conservation District

The National Register application for the Harvard Square District identifies six thematic elements in the area's history that contribute to its overall significance. Randolph Hall falls under the category of Theme Five, which refers to "Harvard Clubs and private dormitories from 1882 to 1930, which is significant in the areas of architecture, social history, and education." Randolph, like Claverly before it, reinforced the pattern for future development with its architectural grandeur, no street level-retail, and the establishment of clearly-defined street walls. However, there is little hint along Bow Street of the astonishing green space tucked within, a flat quadrangle a full story above the entry grade. While it was an off-campus development, Randolph and "Apthorp College" were groundbreaking in providing the Harvard undergraduates who lived there with something akin to a residential college experience, complete with vertical entryways, amenities and communal spaces surrounding a courtyard, all three decades before Harvard implemented the House System with many of the same features.

Summary of Proposed Alterations

Proposed alterations fall into the following categories:

- Alteration of Entrances for Accessibility: Modifications to the existing Bow Street primary entrance and basement entry and exterior ramp for universal accessibility (*Visible from Public Ways*)
- New Entrance on Plympton Street: New accessible mid-block entry on east elevation, comprised of two existing windows converted to a door and modified window set within a new entry portal. (*Visible from Public Ways*)
- Façade Restoration: Removal of non-original fire escapes and appendages, combined with brick and stone masonry conservation and restoration; rebuilding of brick masonry with at dormers. Replacement of non-original cast-stone trimmings in-kind. Replacement of missing cartouche on Bow Street. (*Visible from Public Ways*)
- Roof and Chimney Restoration: Replacement of slate roofs with color to match; chimney rebuilds in-kind. (*Visible from Public Ways*)
- New Dormers in the Courtyard: Four shed-roof louvered dormers to be added in the field of the slate roof on the north side of the south wing, facing the courtyard. (*Not Visible from Public Ways*)
- Typical Windows: Sash replacement and frame restoration. Sash muntin profiles will match existing widths. (*Visible from Public Ways*)
- Selective Windows: Modification of masonry openings to increase area for mechanical intake louvers, removal of some basement windows in areaways, addition of ground floor windows along Plympton Street. (*Visible from Public Ways*)
- Metalwork Restoration: Restoration of window grilles, gutters/downspouts, ornamental balconies and miscellaneous balustrades; removal of non-original alterations to ornamental balconies, replacing missing ornamental window grilles in kind. Addition of ornamental security grilles at ground floor residential windows. (*Visible from Public Ways*)
- Landscape and Site Elements: Regrading and alteration of site elements (walls, stairs, fencing) for accessibility and other improvements in the courtyard. (*Partially visible from Public Ways*)

NOTE: Advance Construction work is proposed for the summer months of 2019. The scope of this work comprises selective façade and roof restoration work, window sash replacement and frame restoration work, site civil work, and the removal and salvage of the west retaining wall to create temporary site access for vehicles.

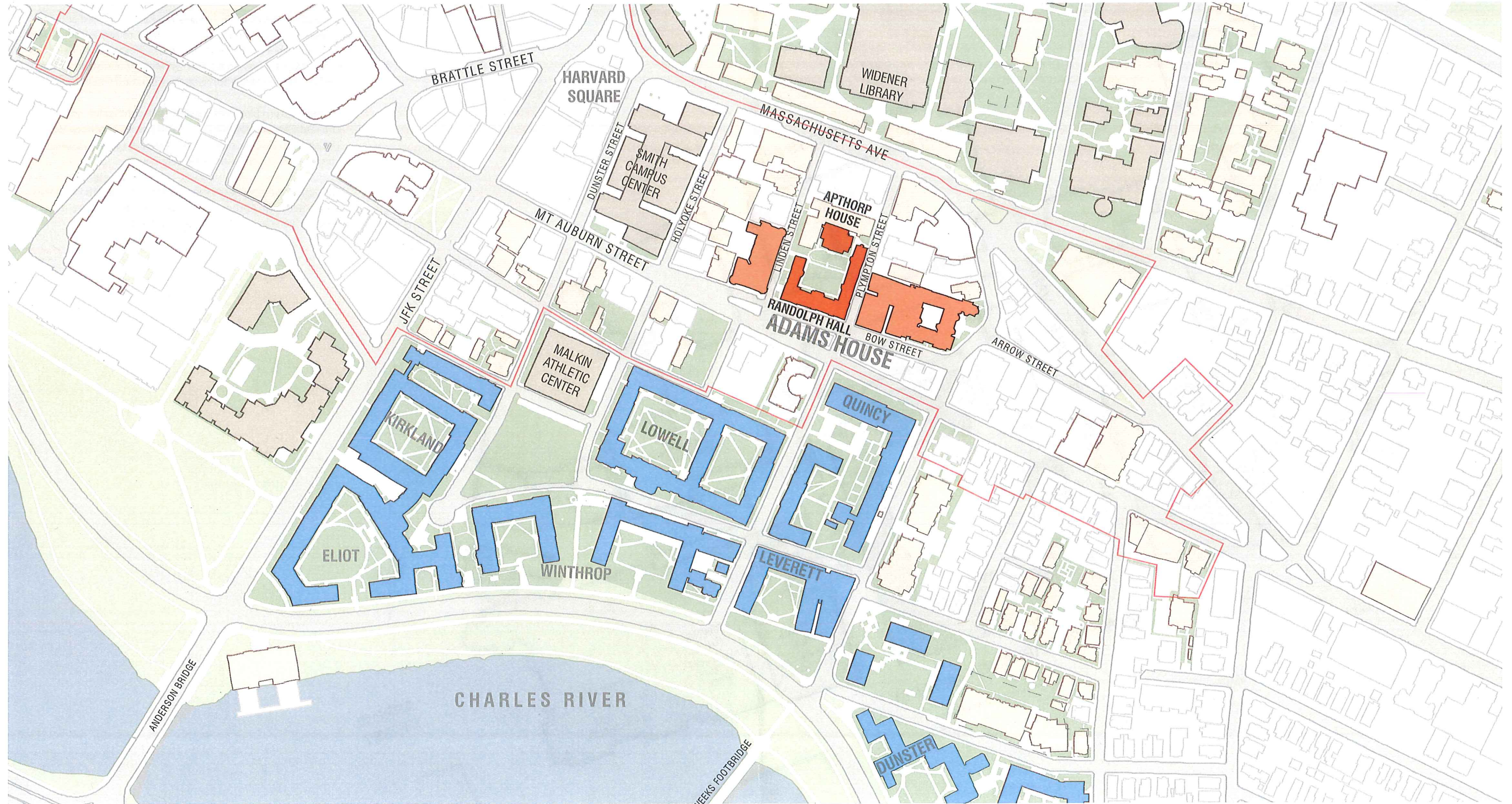
Neighborhood Plan

Adams House Renewal

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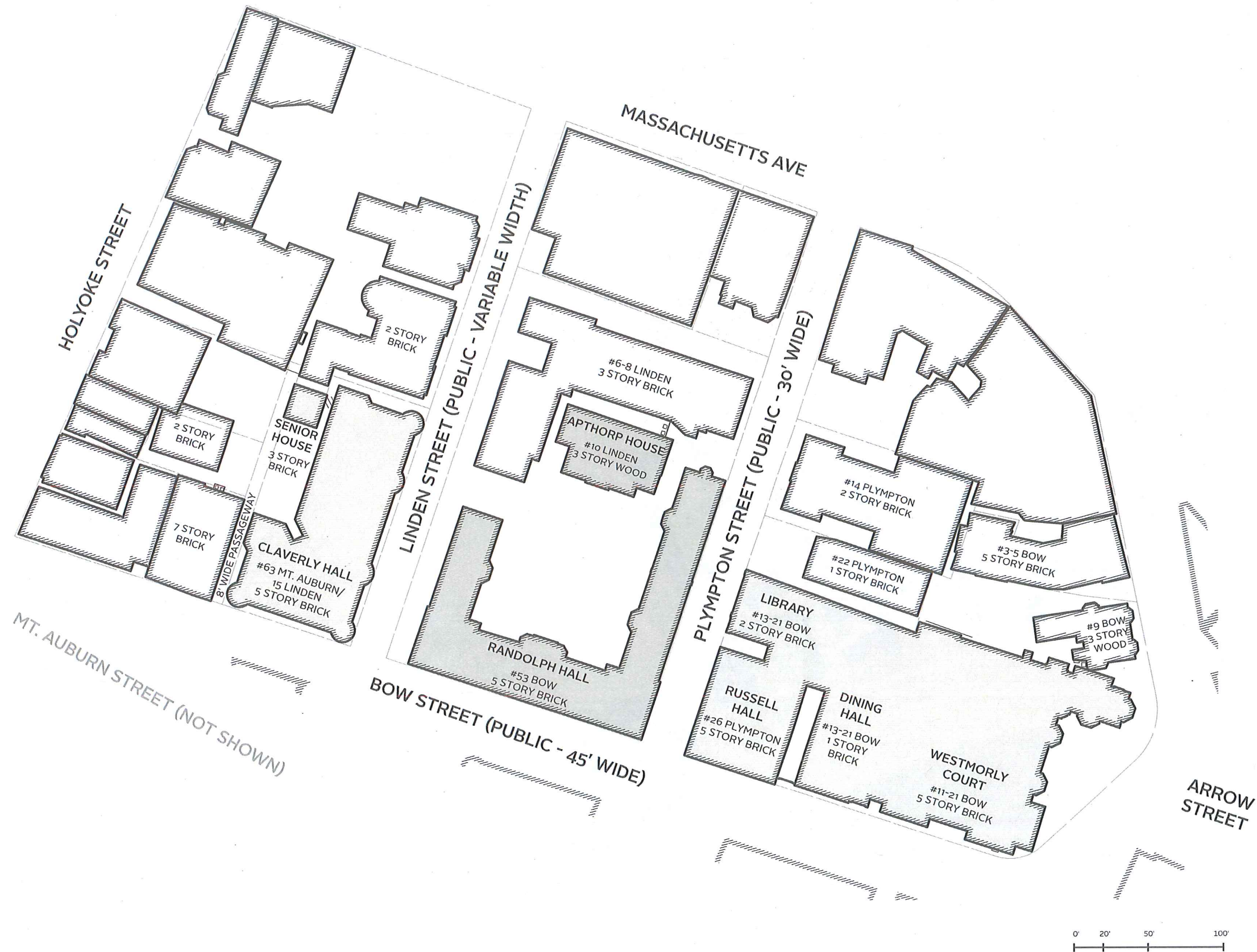


— HARVARD SQUARE NEIGHBORHOOD CONSERVATION DISTRICT



Plot Plan

Adams House Renewal



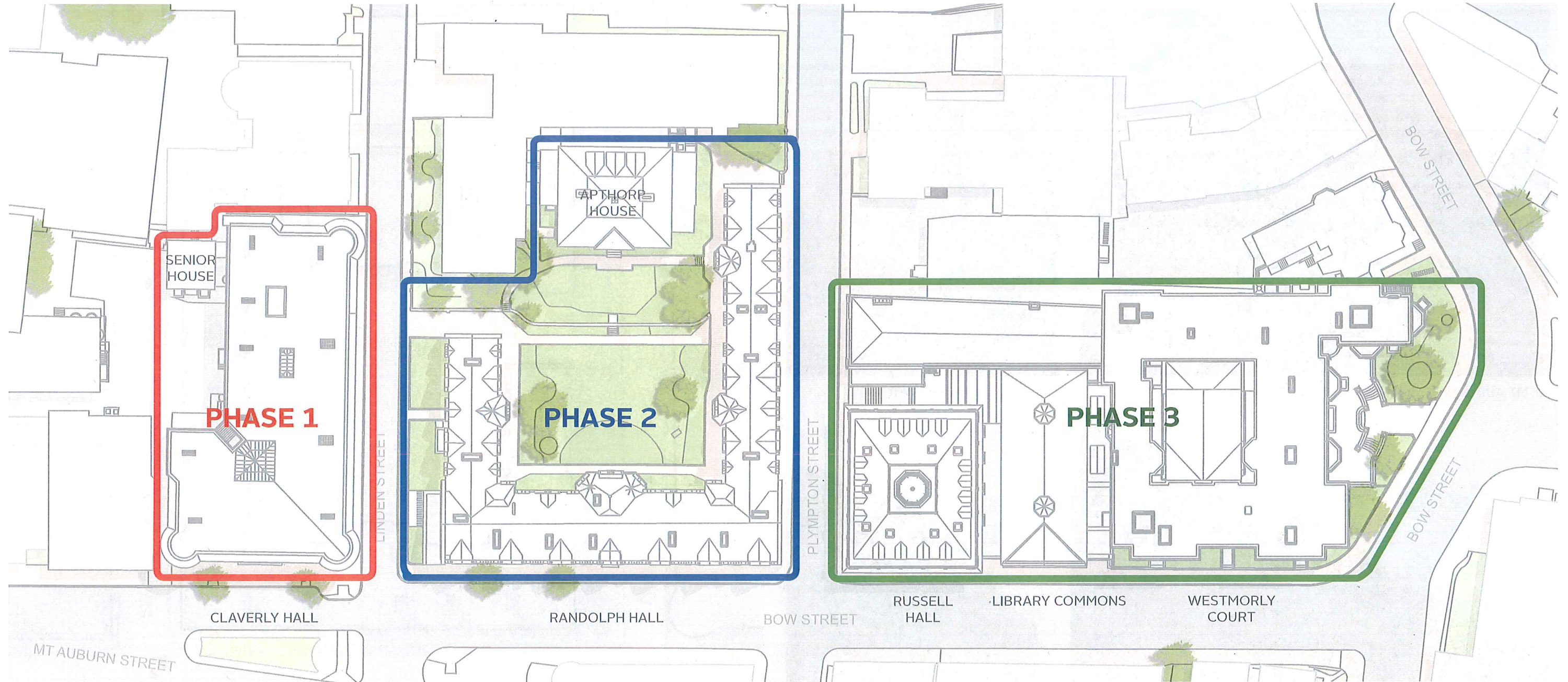
The buildings comprising Adams House are situated across three city blocks bounded by Bow Street to the south and east, Holyoke Street to the west, and Massachusetts Avenue to the north. All of Adams House falls within the boundaries of the Harvard Square Neighborhood Conservation District.

On the western block are Claverly Hall with Senior House. The middle block contains Randolph Hall and Apthorp House. The eastern block contains Russell Hall, the Dining/Library Commons Building, and Westmorly Court.

This application concerns renovations to Randolph Hall, shown in a darker tone. Apthorp House, also in a darker tone, is the subject of a separate but concurrent filing.

Phasing Plan for Permitting and Construction

Adams House Renewal



PHASE 1: CLAVERLY/SENIOR HOUSE

IN CONSTRUCTION:
JUNE 2019 - JULY 2020

TO OPEN AUGUST 2020

PHASE 2: RANDOLPH AND APTHORP HOUSE

IN CONSTRUCTION:

RANDOLPH SUMMER ADVANCE WORK
JUNE 2019 - AUG 2019

APTHORP CONSTRUCTION
AUGUST 2019 - JULY 2021

RANDOLPH MAIN WORK
JUNE 2020 - JULY 2021

TO OPEN AUGUST 2021

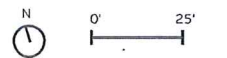
PHASE 3: RUSSELL, LIBRARY-COMMONS, AND WESTMORLY COURT

IN CONSTRUCTION:
JUNE 2021 - JULY 2023

TO OPEN AUGUST 2023

The construction of Adams House Renewal is planned to be sequenced over three phases, running west to east, with each phase corresponding to a single city block.

This application concerns Randolph Hall, which is part of Phase II. Phase II also consists of renovations to Apthorp House (separate filing).



Sightline Analysis - 1

Phase 2 - Randolph Hall



AT MT AUBURN/BOW & LINDEN STREETS - LOOKING NORTHEAST



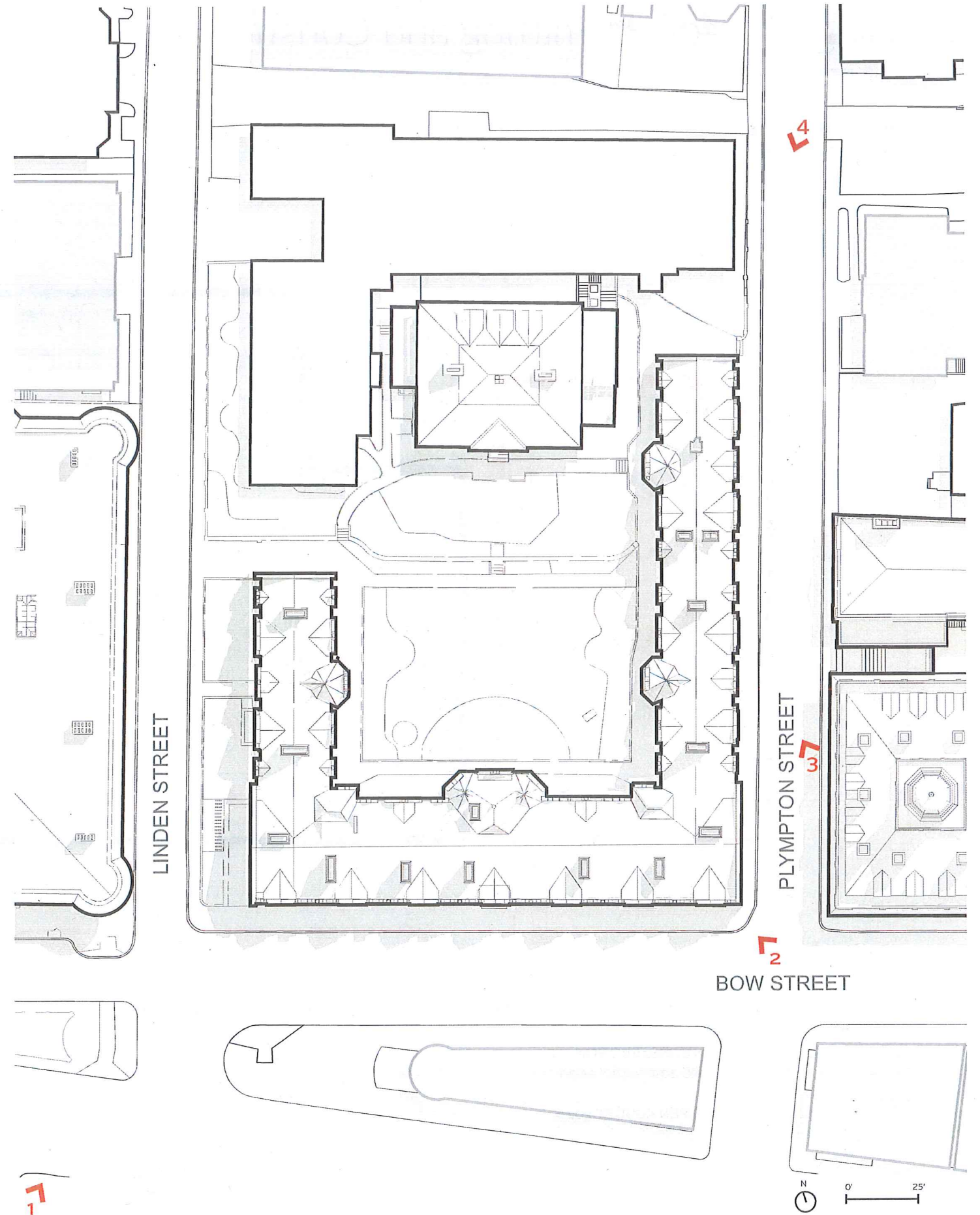
VIEW NORTH ON PLYMPTON ST



AT PLYMPTON/BOW STREETS - LOOKING NORTHWEST



VIEW SOUTHWEST ON PLYMPTON ST



Sightline Analysis - 2

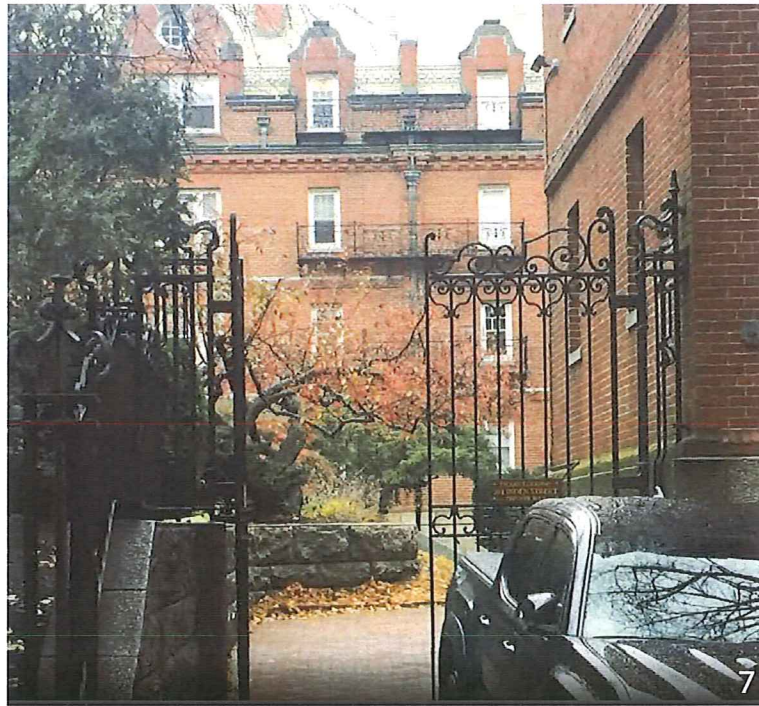
Phase 2 - Randolph Hall



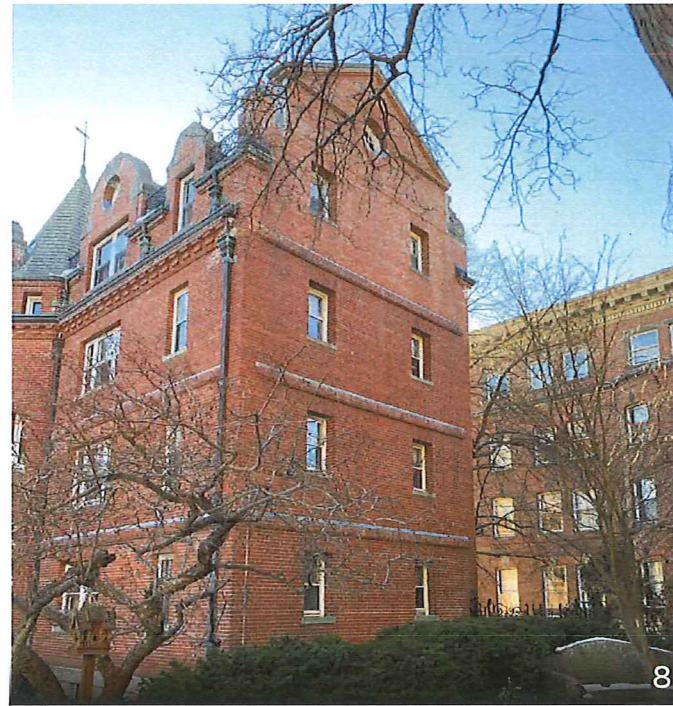
BOW & LINDEN STREETS, LOOKING NORTHEAST



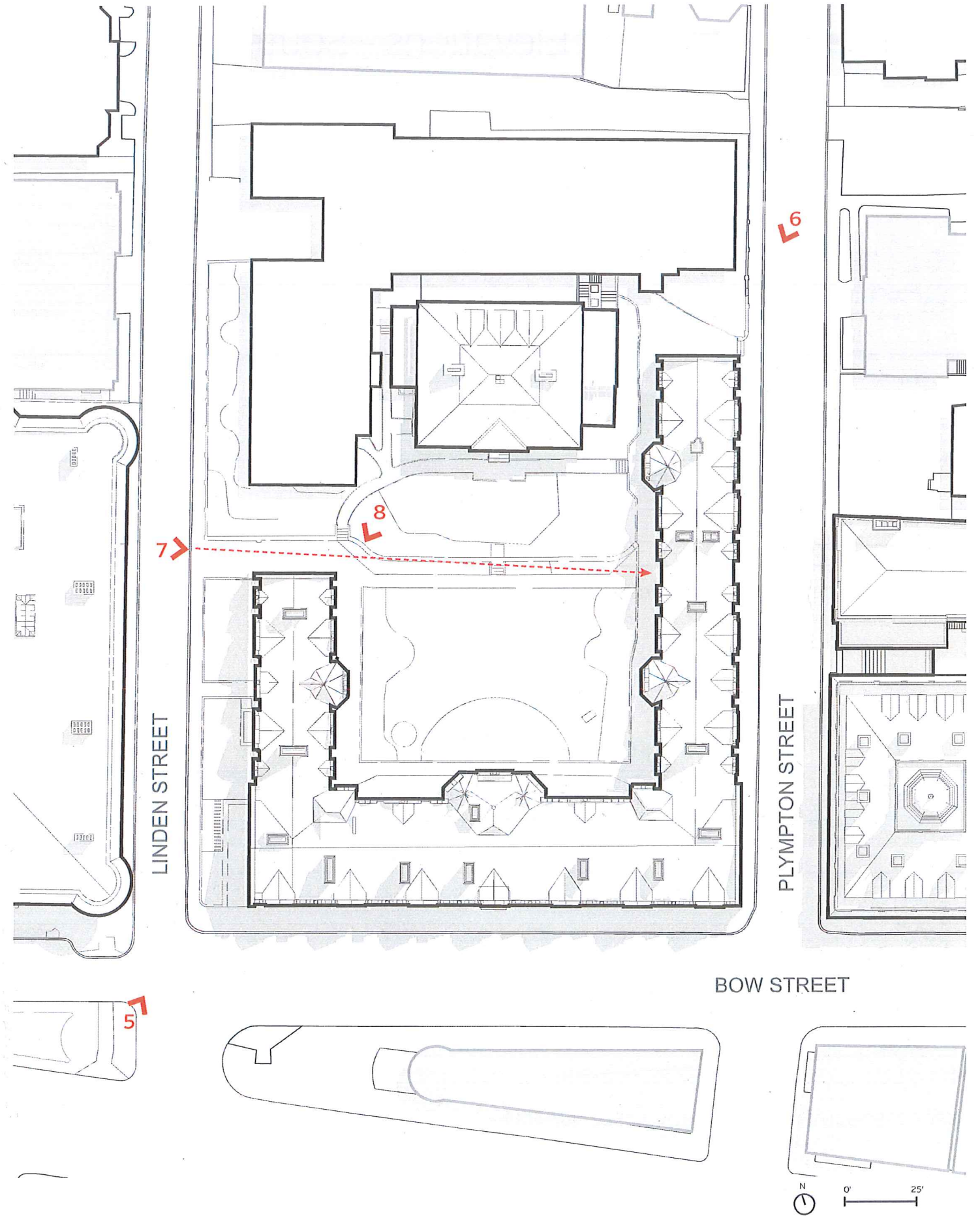
NORTH ELEVATION, EAST WING



VISIBLE PORTION OF COURTYARD ELEVATION, VIEW FROM LINDEN STREET SIDEWALK

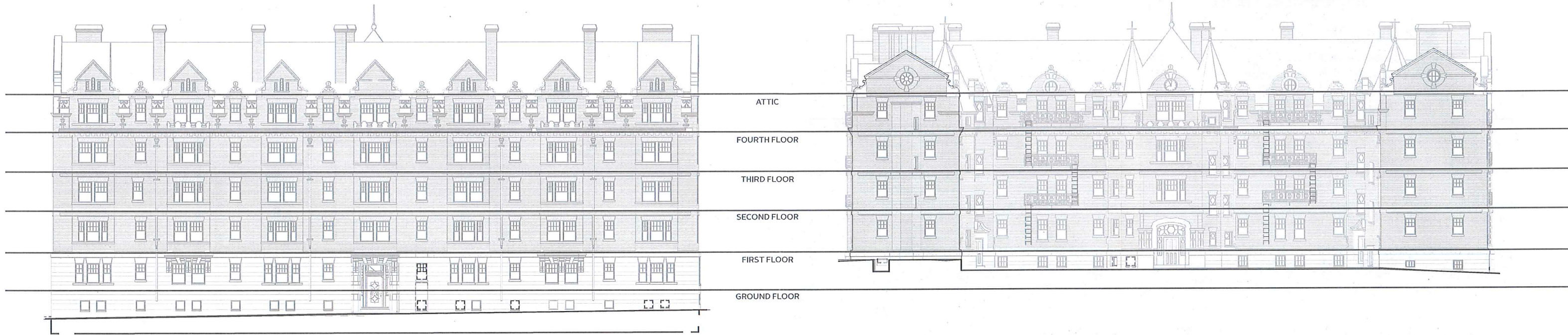


NORTH ELEVATION, WEST WING



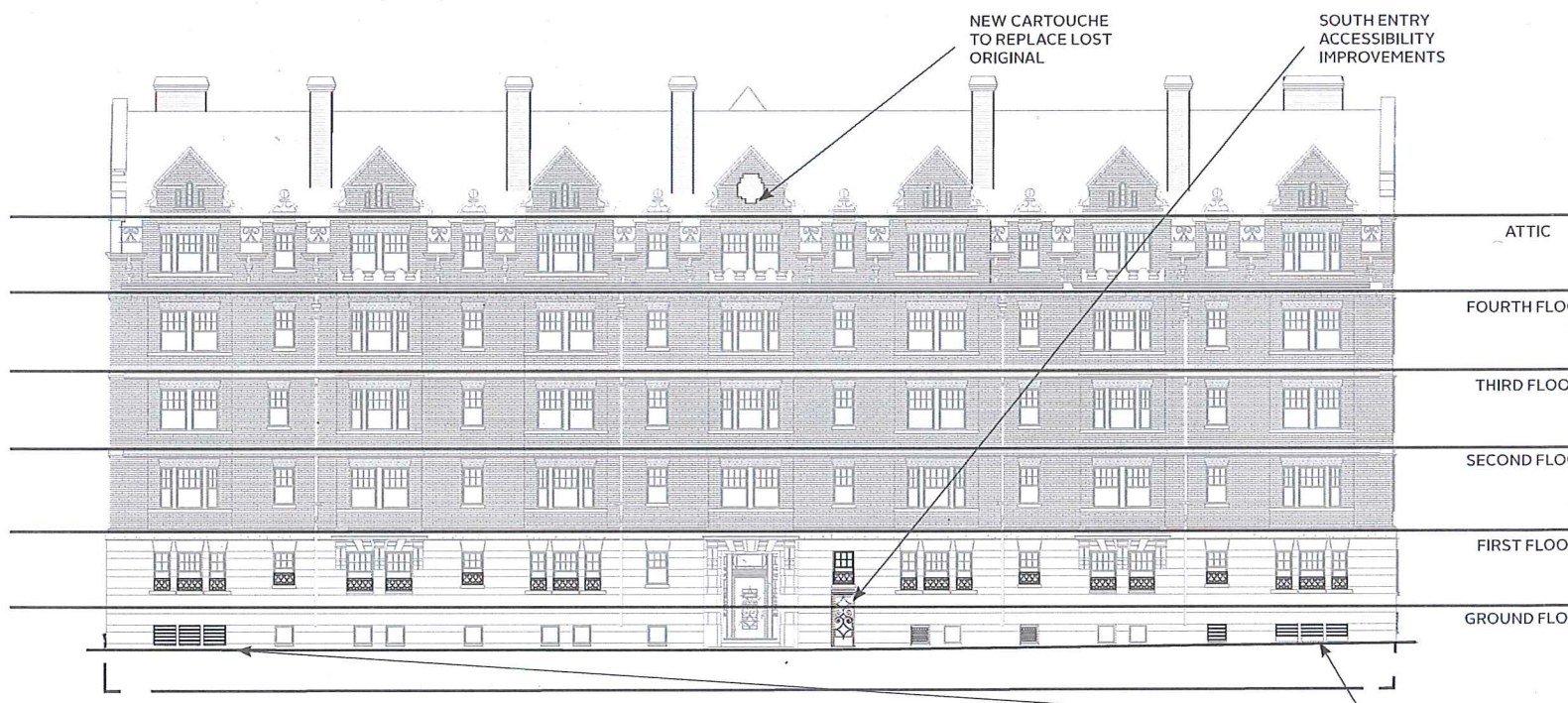
Demo and Proposed Elevations - South and North

Phase 2 - Randolph Hall

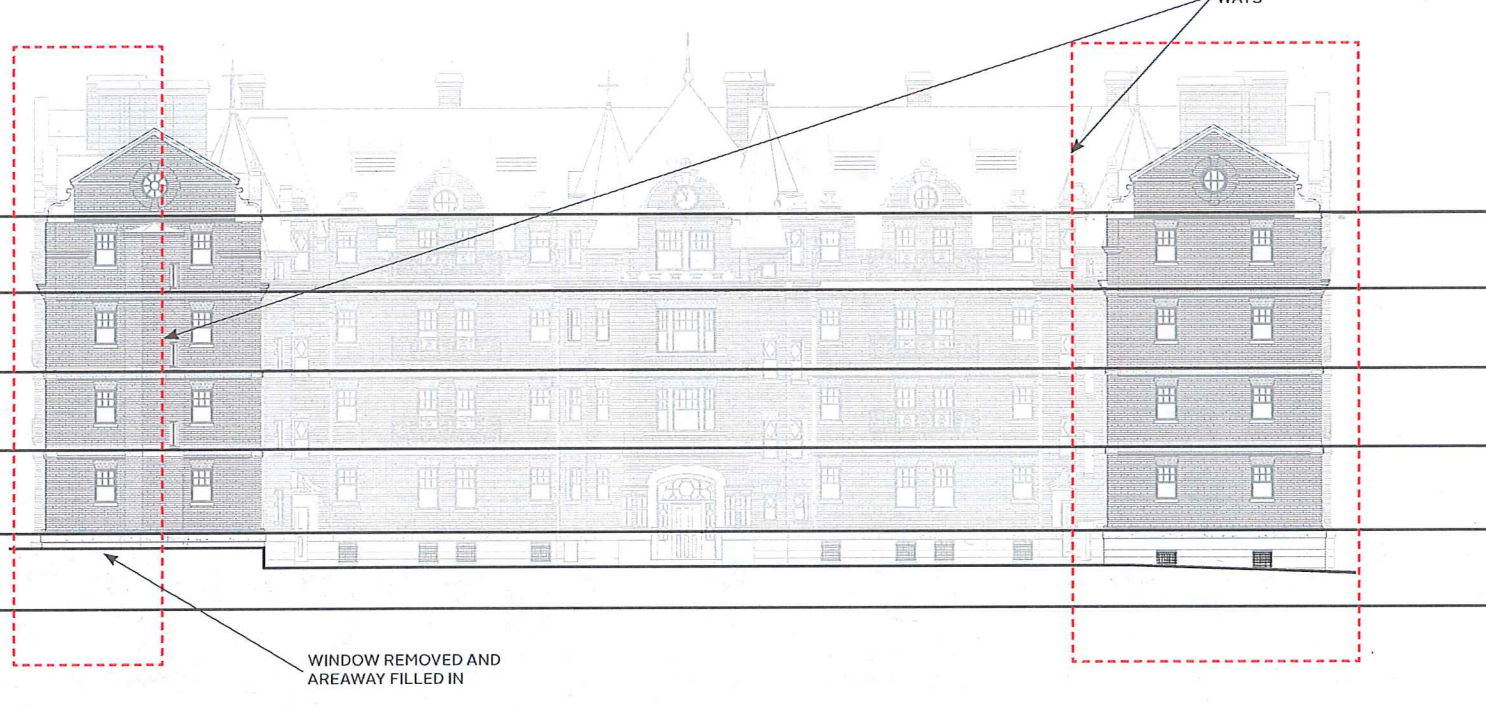


EXISTING/DEMO SOUTH ELEVATION (BOW STREET FACADE)

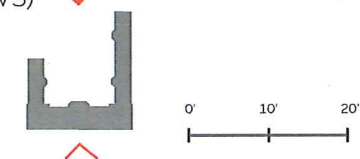
EXISTING/DEMO NORTH ELEVATION (LOOKING SOUTHWARD - SEE COURTYARD ELEVATIONS)



PROPOSED SOUTH ELEVATION (BOW STREET FACADE)

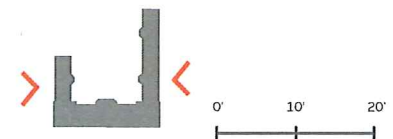
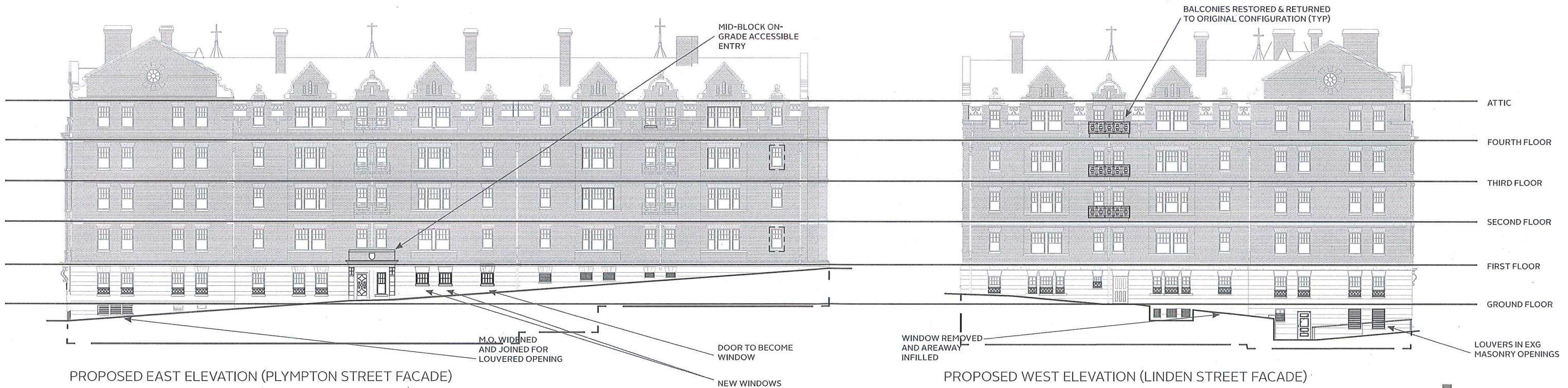


PROPOSED NORTH ELEVATION (LOOKING SOUTHWARD - SEE COURTYARD ELEVATIONS)



Demo and Proposed Elevations - East and West

Phase 2 - Randolph Hall



Demo and Proposed Elevations - Courtyard Elevations

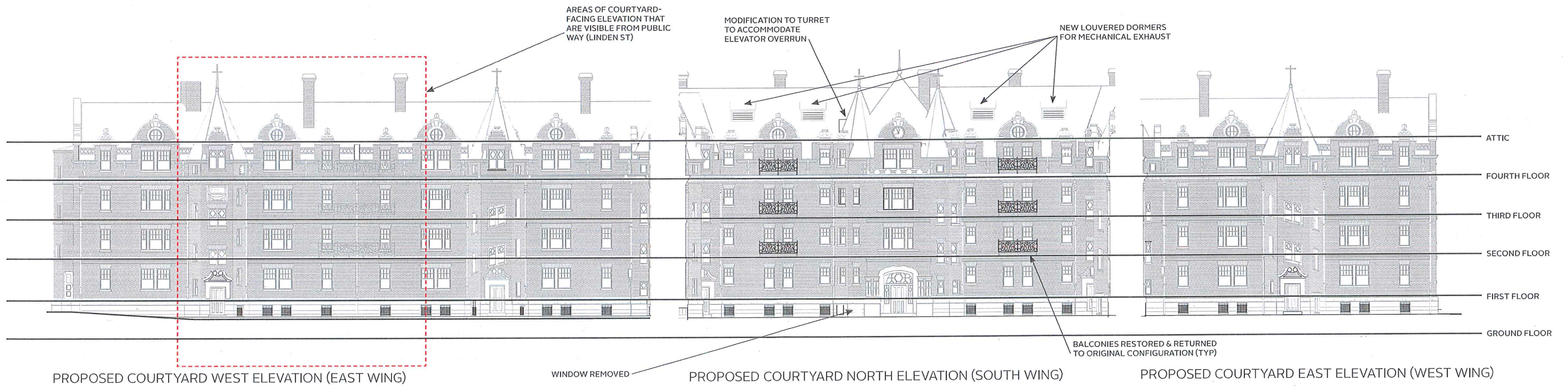
Phase 2 - Randolph Hall



EXISTING/DEMO COURTYARD WEST ELEVATION (EAST WING)

EXISTING/DEMO COURTYARD NORTH ELEVATION (SOUTH WING)

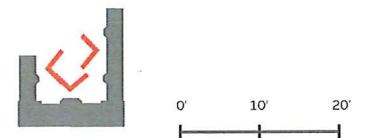
EXISTING/DEMO COURTYARD EAST ELEVATION (WEST WING)



PROPOSED COURTYARD WEST ELEVATION (EAST WING)




PROPOSED COURTYARD NORTH ELEVATION (SOUTH WING)

PROPOSED COURTYARD EAST ELEVATION (WEST WING)



Proposed Entries and Accessibility - Bow St.

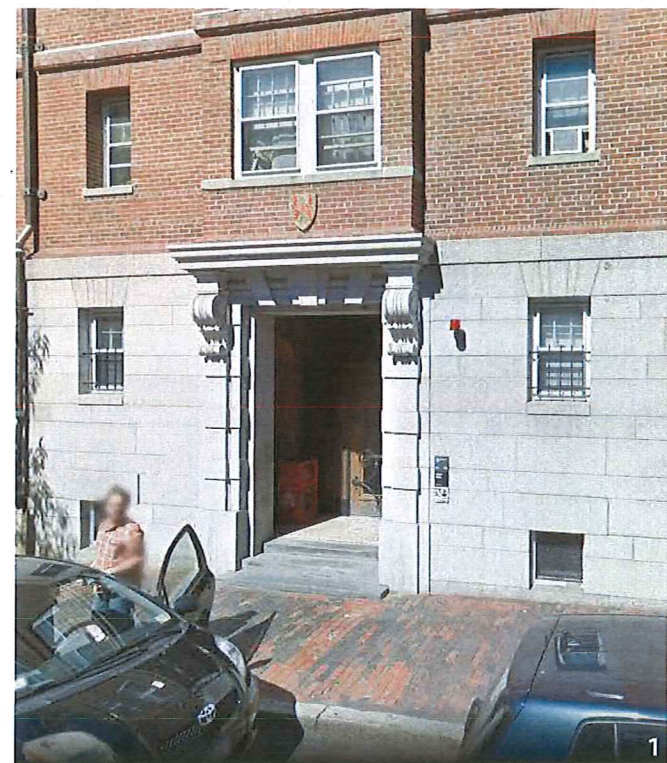
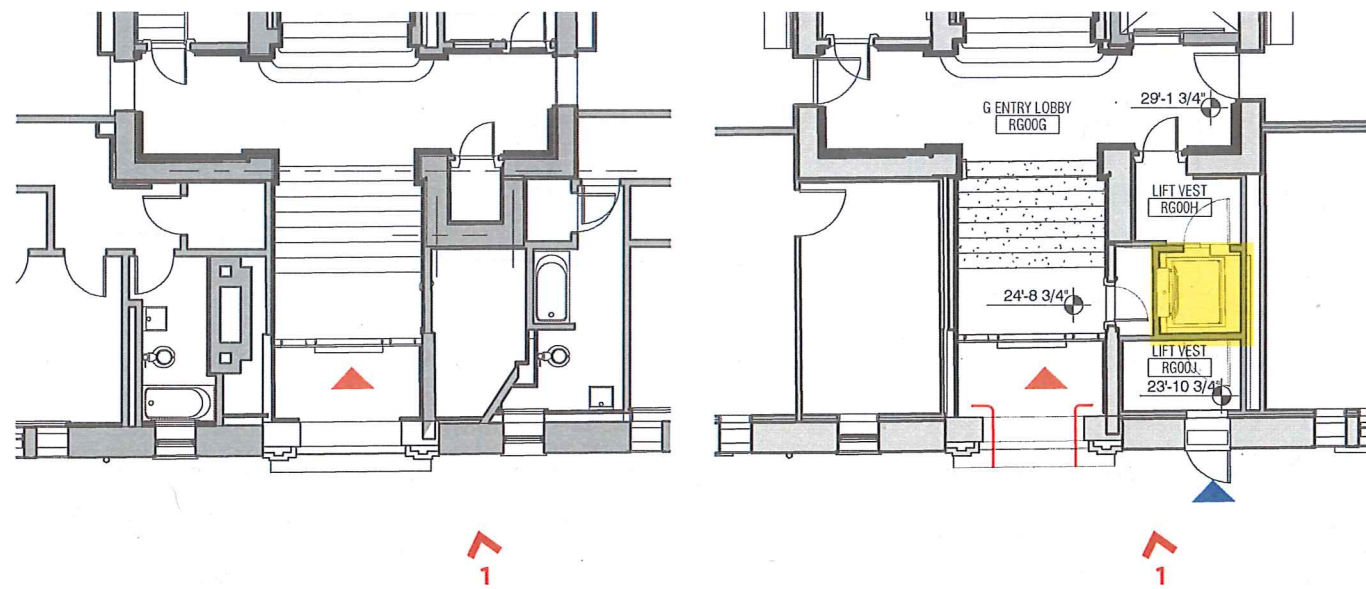
Phase 2 - Randolph Hall

-  NEW HANDRAILS
-  NON-ACCESSIBLE ENTRY
-  ACCESSIBLE ENTRY

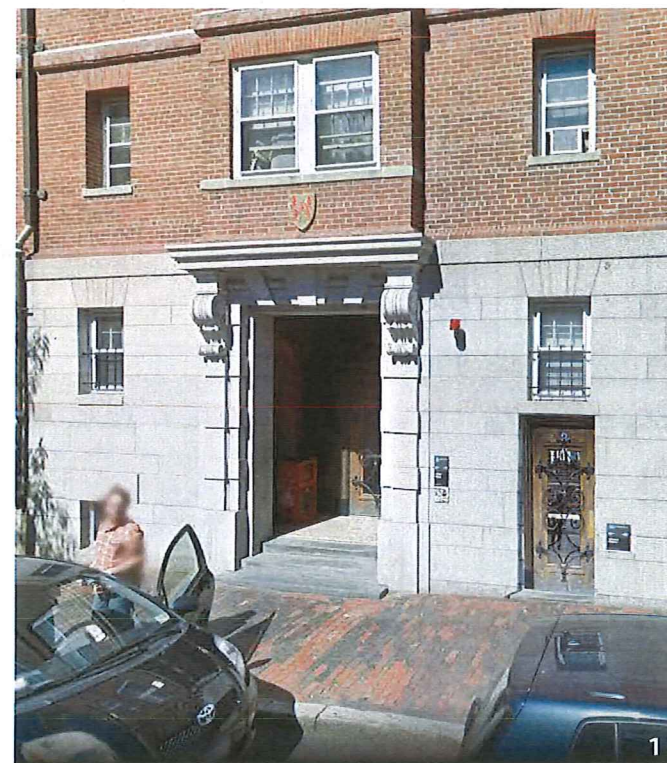
SOUTH (MAIN) ENTRY - ACCESSIBLE IMPROVEMENTS

At the principal entrance to Randolph on Bow Street, the sidewalk grade is approximately four feet below the level of the main floor. In order to achieve universal accessibility at this entrance, the window bay immediately east will be converted to a grade-level entry door while maintaining the existing window above. This door will give access to an interior lift to make up the level change, as was approved

for Claverly Hall. The detailing of the door will be compatible with existing adjacent. Post-mounted painted metal handrails will be added to the existing entrance stoop to meet MAAB accessibility requirements.



EXISTING ENTRY

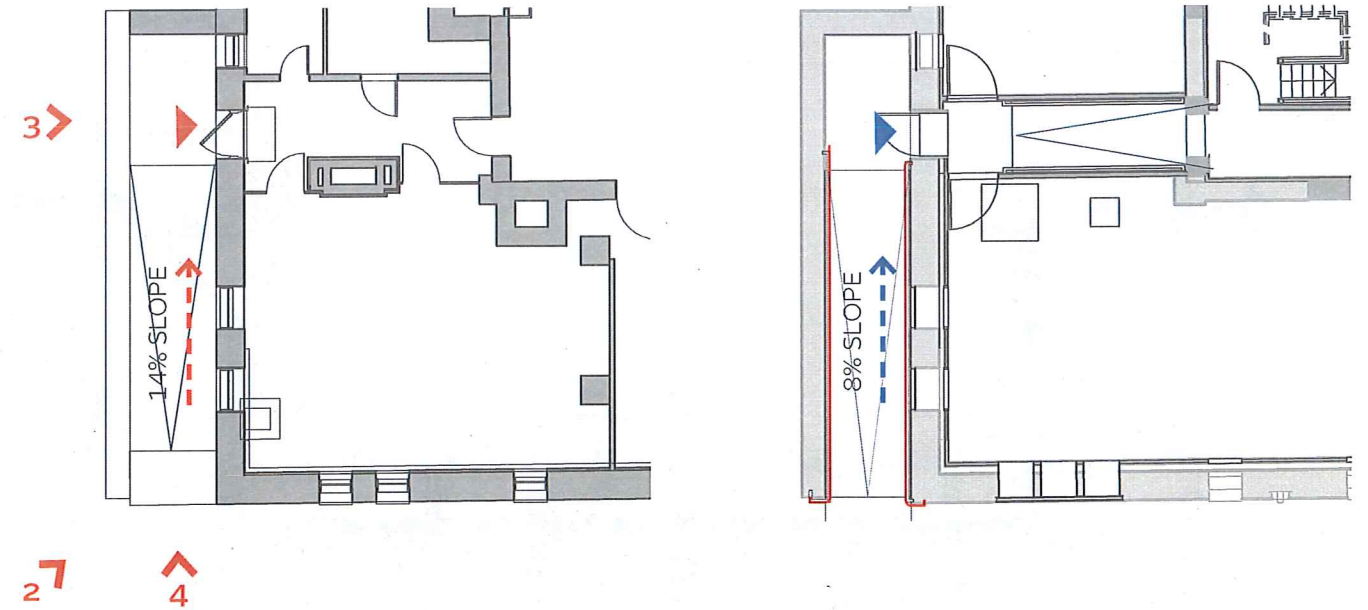


PROPOSED ENTRY WITH NEW LIFT ACCESS

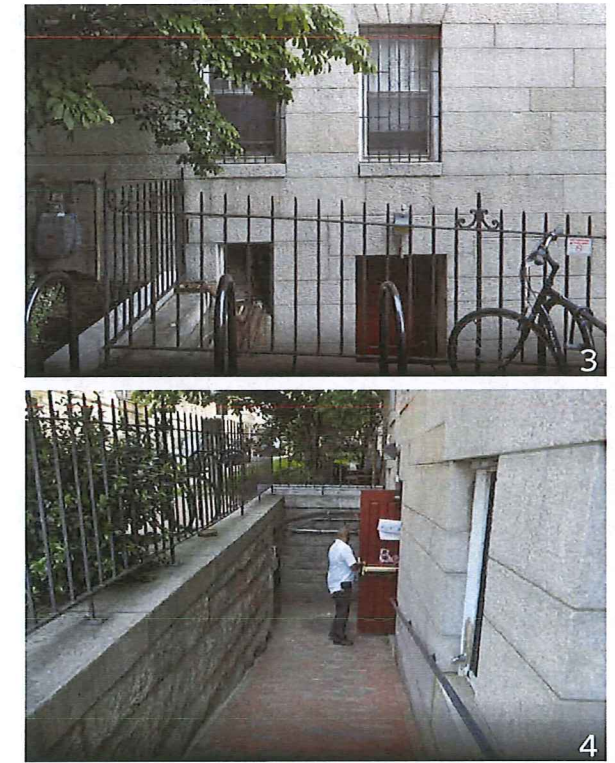
SOUTHWEST CORNER RAMPED ENTRY TO BASEMENT - ACCESSIBLE IMPROVEMENTS

At the southwest corner of the building, the existing ramp and basement entrance will receive several upgrades for accessibility. The slope of the ramp will be made less steep for code compliance (1:12 MAX). The entry door threshold will be raised along with the lower landing. This requires a new

door frame/leaf, but the top and sides of the masonry opening can remain as-is. The existing metal handrail on the building wall will be removed, and new, code-compliant painted metal handrails will be installed on both sides. These will be wall-mounted on the east, and post- and wall-mounted on the west.



EXISTING SW CORNER - RAMPED ENTRY



EXISTING ENTRY DOOR - VISIBILITY

Proposed Entries and Accessibility - Mid-Block Entries

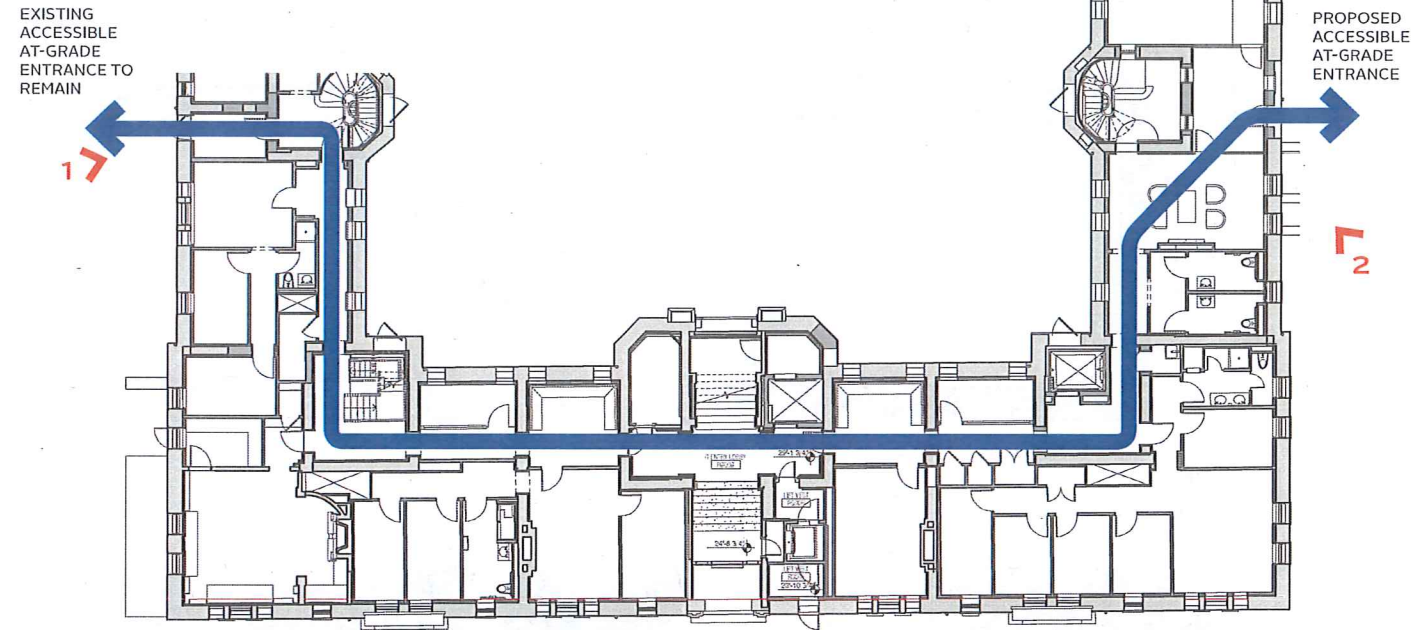
Phase 2 - Randolph Hall

CONCEPT OF THE MID-BLOCK ENTRIES

While Adams' Gold Coast dormitories were each oriented to face Bow Street instead of each other—a legacy of their history as independent off-campus developments—this configuration does not reflect students' desired paths of travel and contributes to the fragmentary, disconnected identity of the House. Similar to what was approved for Claverly Hall (filed with CHC 5/15/18), existing secondary "mid-block" entries will be altered or relocated to achieve universal accessibility

and strengthen connections both between blocks and northward to the Yard. While the main floors of these buildings are typically four feet above grade along Bow Street, the rising grade of Plympton and Linden Streets at the mid-block locations means that no lift or elevator will be needed to provide access to the main floor.

The existing Linden mid-block entry into Randolph will remain. The Plympton entry is proposed to be relocated southward.



EXISTING ELEVATION - EXISTING ENTRY, BLANK WALL, AND PAIR OF FIXED WINDOWS



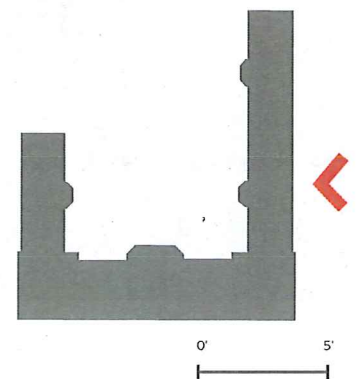
PROPOSED ELEVATION - NEW ENTRY, TWO NEW WINDOWS, AND DOOR CONVERTED TO WINDOW



EXISTING WEST AT-GRADE ENTRY TO REMAIN



PROPOSED LOCATION FOR EAST AT-GRADE ENTRY



Proposed Entries and Accessibility - Plympton Mid-Block Entry

Phase 2 - Randolph Hall

In the course of our research, the design team came across an unbuilt 1931 design by Coolidge, Shepley, Bulfinch and Abbot for the mid-block Plympton Street entrance into Randolph. Coolidge et. al. recognized the need to appropriately identify this door as an important secondary entry to the building, as well as the need for a dignified entry that might acknowledge the ornamental Adams gate and main entrance into the Library Commons building across the street. However, while Coolidge's

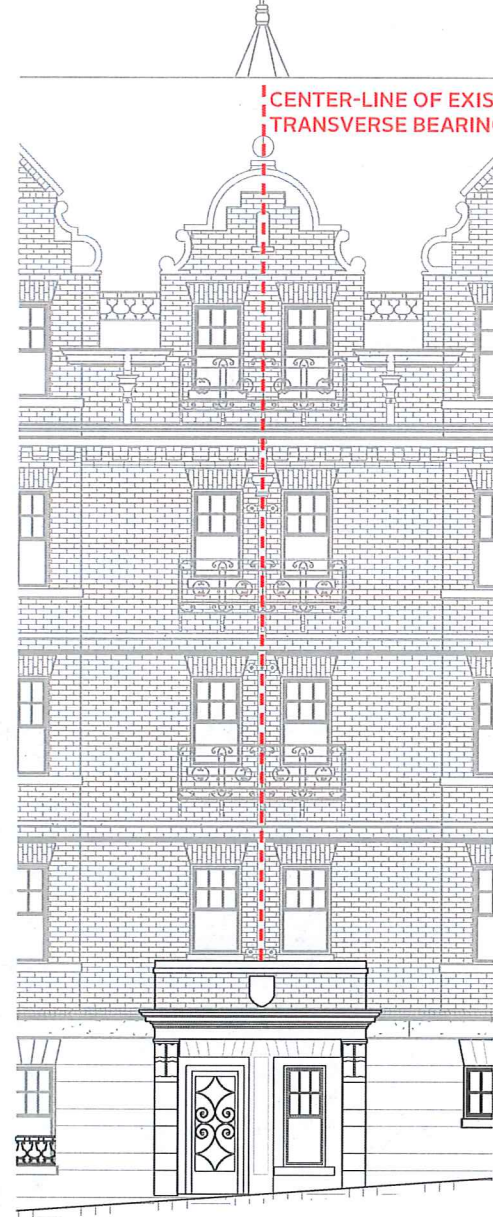
design was resolutely Neo-Georgian, perhaps reflecting the conceit of modifications to a Jacobean English country house made in the English Baroque period, it seems more appropriate in the contemporary era to take a more directly contextual approach to the existing building. Nonetheless, in contrast to the low and mean existing mid-block door, there should be nothing mean or apologetic about this relocated entry. Taking the existing materials, proportions and articulations of the

Bow Street entry as a departure point, a similar portal is proposed, framed by granite brackets supporting a cornice. Two existing windows, which are to the immediate north and south sides of a transverse interior masonry bearing wall, become a modified window and new door with the same centerlines. The proposed pilaster between the new door and window is structural. Aspects of the proposed design are more understated or streamlined than at Bow Street to acknowledge

the present era. The brackets are simpler, the pilasters will not be quoined, and the projecting voussoirs at Bow here become two separate flat jack arches. Because of the need for height clearance at this location, the cornice profile is intentionally modified and is sensitively raised to align with the top of the brick water table. A projecting brick parapet with stone coping recalls the projecting bay at the Bow Street entrance.



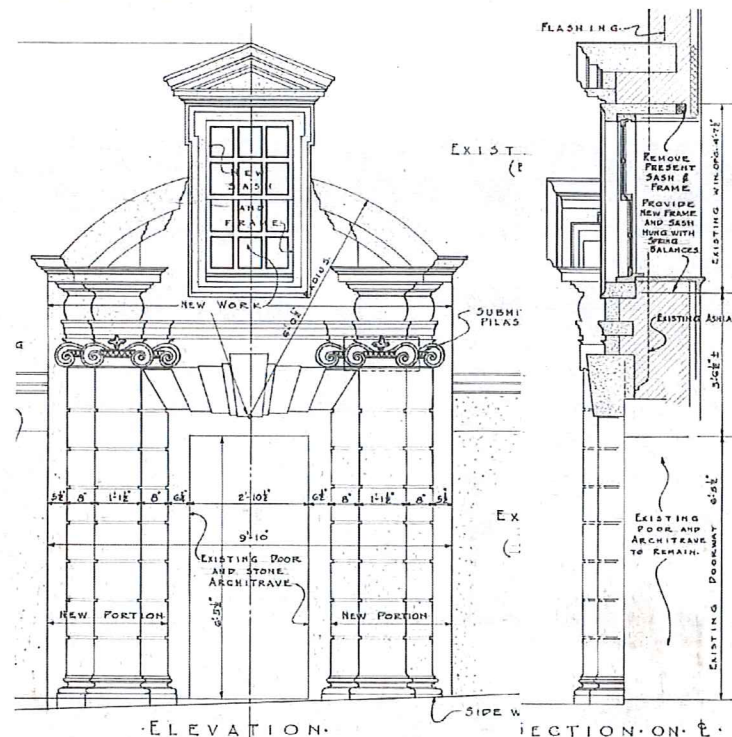
EXISTING BOW ST ENTRY PORTAL CENTERED UNDER PRIMARY GABLE



PROPOSED PLYMPTON ST ENTRY PORTAL CENTERED UNDER SECONDARY GABLE



EXISTING BOW ST ENTRANCE PORTAL



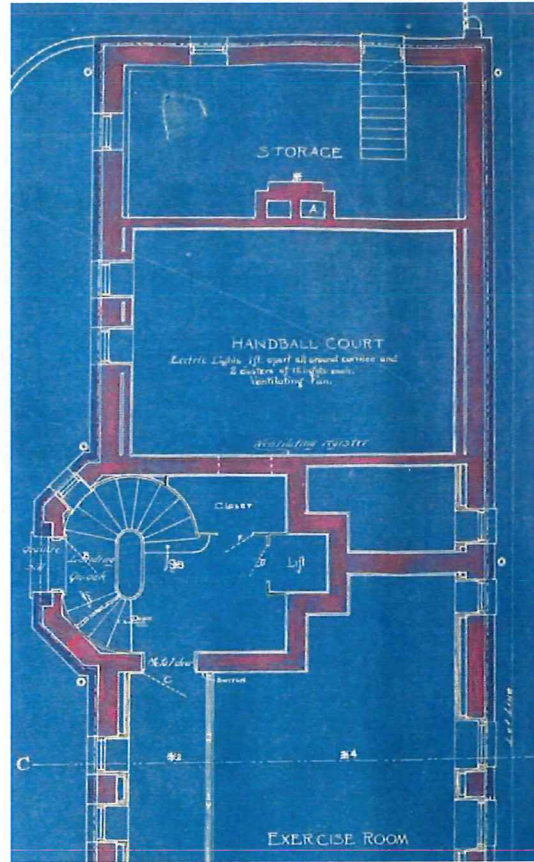
PROPOSED PLYMPTON ST. ENTRY TO RANDOLPH HALL, COOLIDGE, SHEPLEY, BULFINCH & ABBOT C.1931 (UNBUILT)
NOTE: PROPOSED LOCATION MATCHES EXISTING DOOR LOCATION



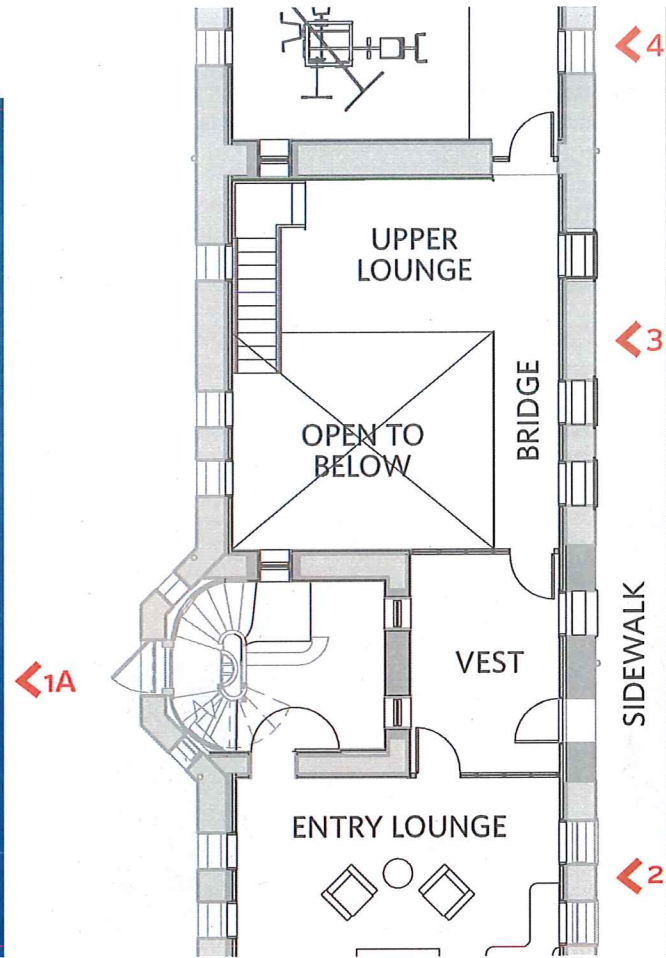
PROPOSED ELEVATION - ACCESSIBLE MID-BLOCK ENTRY ON PLYMPTON

Proposed Entries and Accessibility - Plympton Mid-Block Windows

Phase 2 - Randolph Hall



GROUND FLOOR PLAN - ORIGINAL DESIGN (1897)



GROUND FLOOR PLAN - PROPOSED

NEW AND MODIFIED WINDOW OPENINGS

Originally, the spaces north of the proposed new mid-block entry consisted of a double-height handball court on the basement level, with a small storage room to the north. For functional reasons, these double-height spaces together had three small windows on the courtyard side but no windows on the sidewalk side.

As part of renewal, these two rooms will be combined into a student lounge which takes advantage of the volume of space. Because of its basement location, increasing the natural light into this larger space is greatly desired. In addition, it will enliven the sidewalk by expressing the activities within. There is also a relationship between the proposed windows and those across the wing. The current design proposes to convert the present entry door into a window, with the head detail to match the flush jack arch at existing window immediately north (Photo 4; indicated in blue).

The blank wall section at the location of the former squash court is slated to receive two windows. The corbeled belt course and projecting brick bay immediately above matches the geometry and configuration to the next projecting brick bay to the south (Photo 2), which has two existing windows. This same head detail, with projecting voussoirs, would be matched at the two new windows (indicated in red).



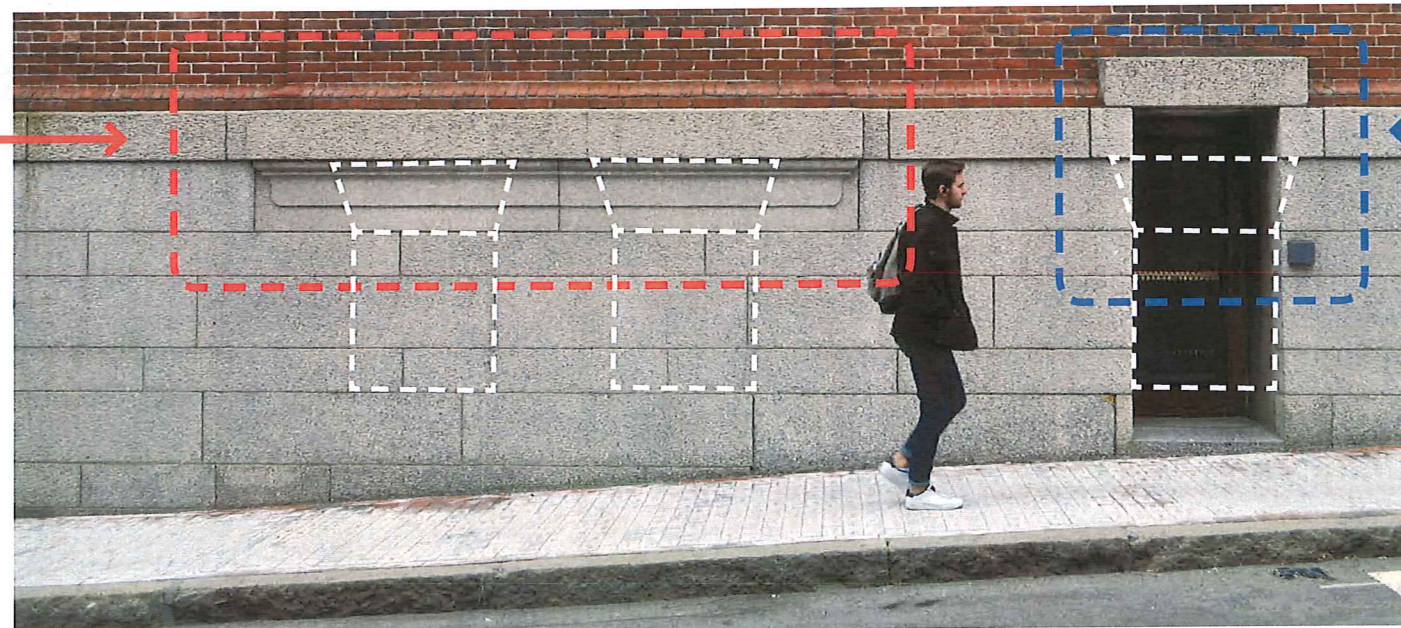
1A. EXISTING ELEVATION (EXISTING ENTRY DOOR NOT ORIGINAL)



1B. PROPOSED ELEVATION



2. PHOTO OF WINDOW HEAD DETAIL - NEXT PROJECTING BAY TO SOUTH



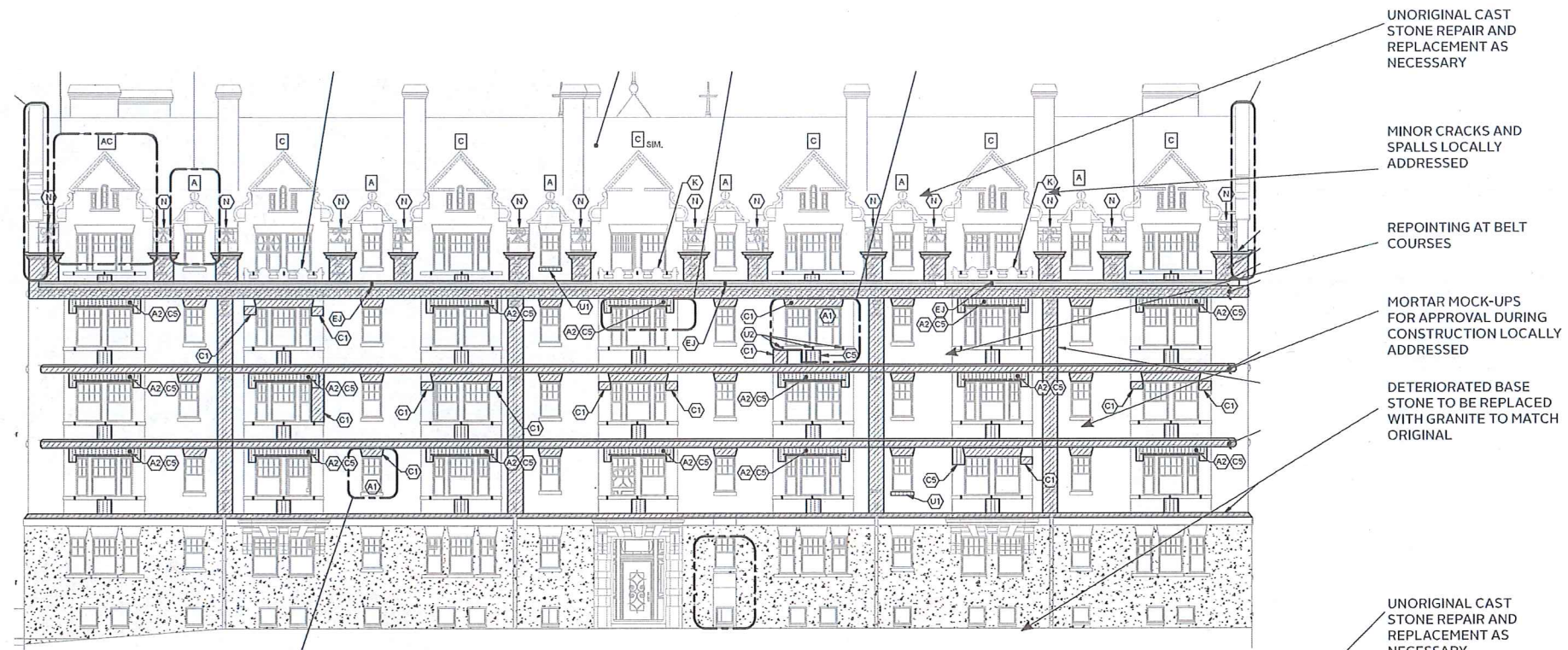
3. PHOTO OF EXISTING CONDITIONS WHERE THREE WINDOWS PROPOSED (SHOWN DASHED)



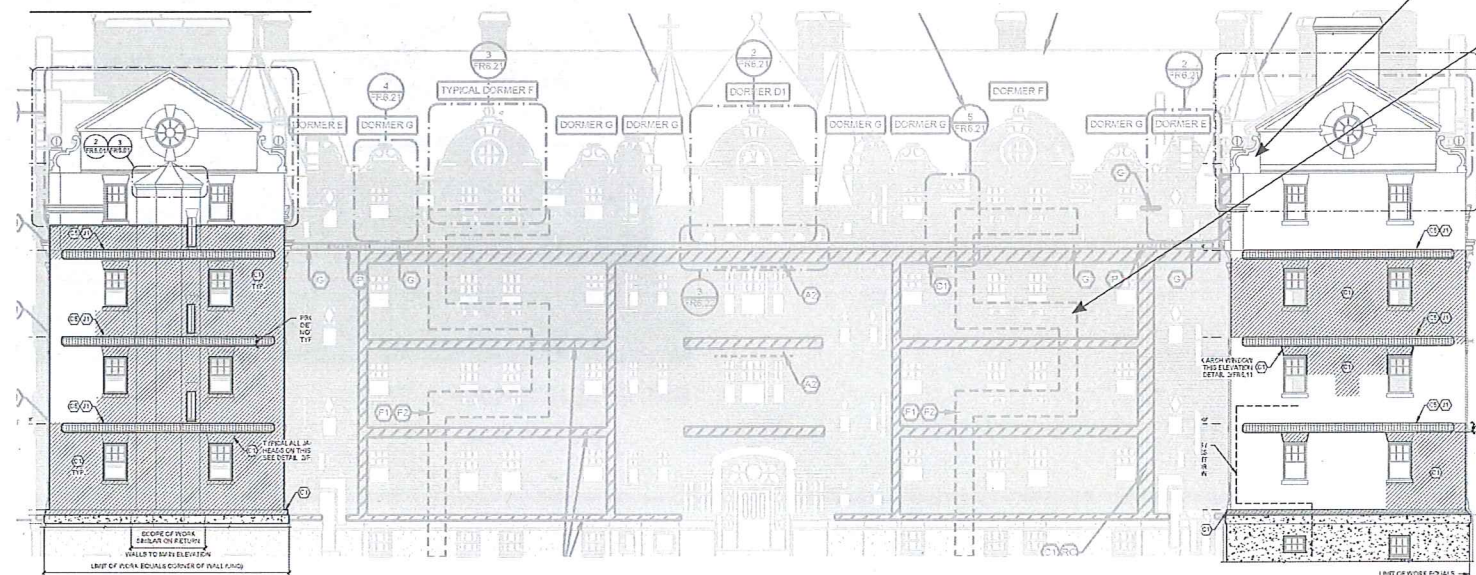
4. PHOTO OF WINDOW HEAD DETAIL - IMMEDIATELY NORTH OF EXG. DOOR

Masonry - Repairs and Restoration

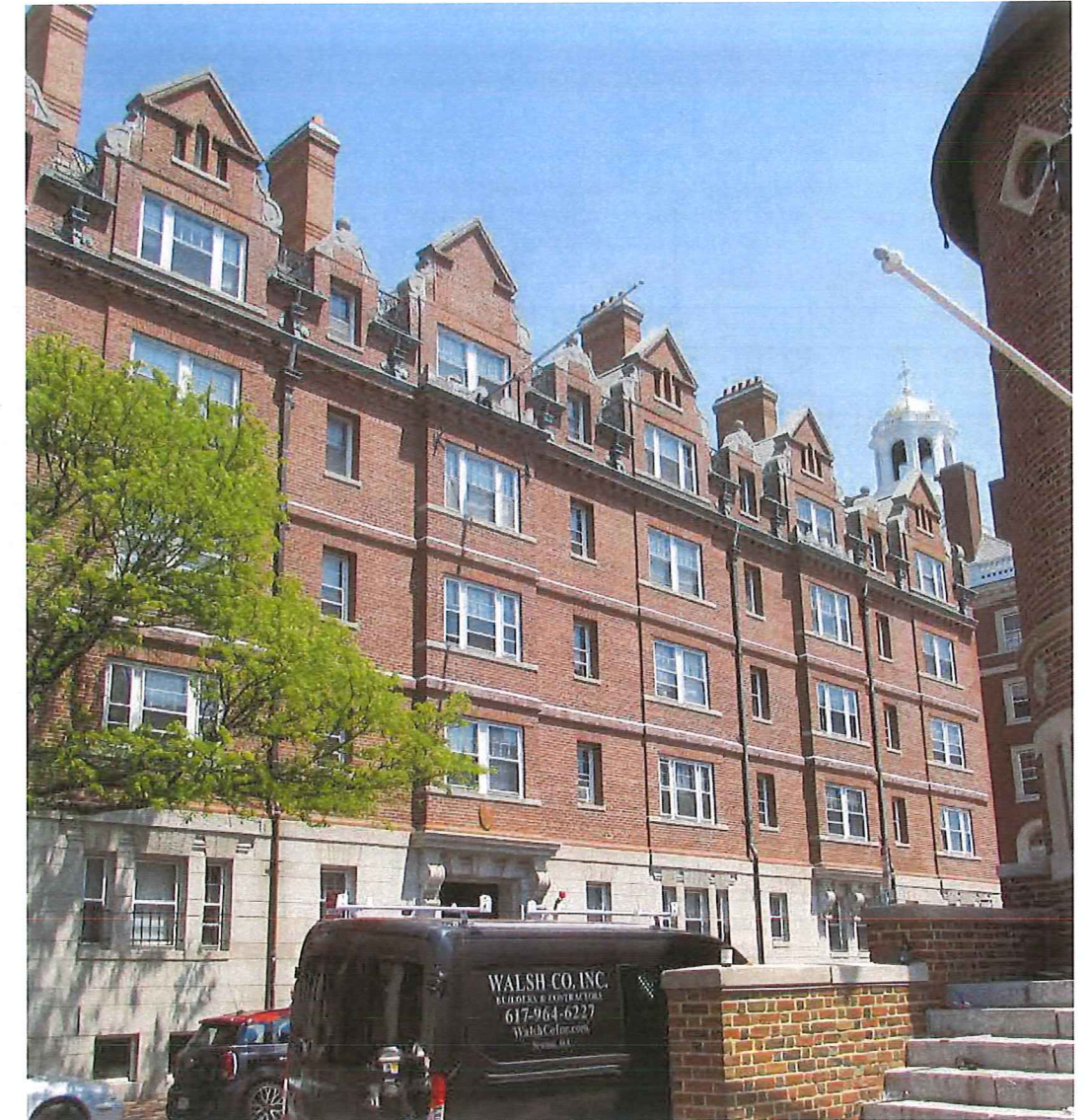
Phase 2 - Randolph Hall



PROPOSED SOUTH ELEVATION DRAWING



PROPOSED NORTH ELEVATION DRAWING



EXISTING SOUTH ELEVATION

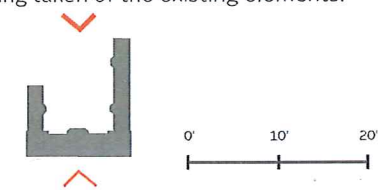
The exterior restoration scope at Randolph will be similar in its aims to Claverly Hall, although exploratory survey has indicated that areas of the Randolph envelope, including many of the large window lintels and decorative stone and masonry elements at the dormer/attic level, are more severely deteriorated and will require a greater degree of intervention and preventative repair. In general, the field masonry will also require a greater degree of restoration scope.

Masonry Restoration - General

A majority of steel window lintels at the extra-wide window openings are in states of distress and will be replaced; brick jack arches will be removed and rebuilt to match existing configuration. Non-original fire escapes will be removed, and masonry will be patched locally as required. The mortar in the field masonry will be cleaned, with several

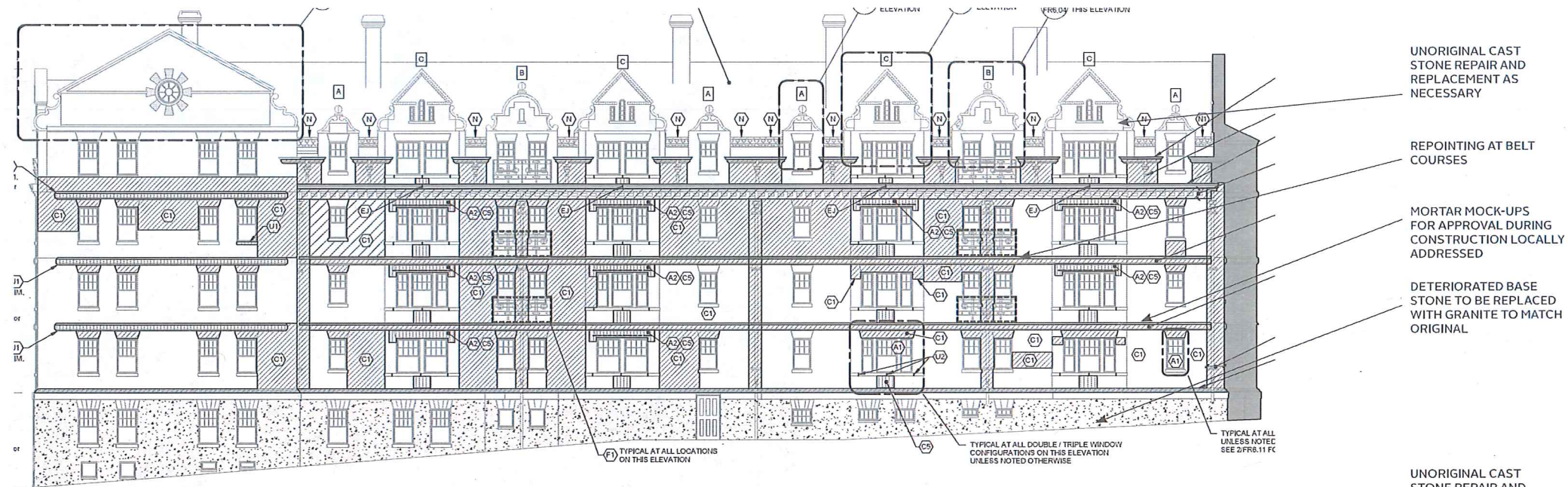
areas requiring widespread repointing (mortar mixes subject to CHC approval). Minor cracks, scaling, stains, and atmospheric dirt at the granite Ground Floor story will be locally addressed with Dutchmen, crack stitching, and gentle cleaning.

The stone trimmings which decorate the dormers, crenelate the main cornice line, and bracket the gable ends were originally carved gray sandstone. These were replaced at some point in the mid-century with cast stone, likely due to deterioration of the original. These replacements themselves are in poor condition and are slated for replacement in-kind. Molds are being taken of the existing elements.

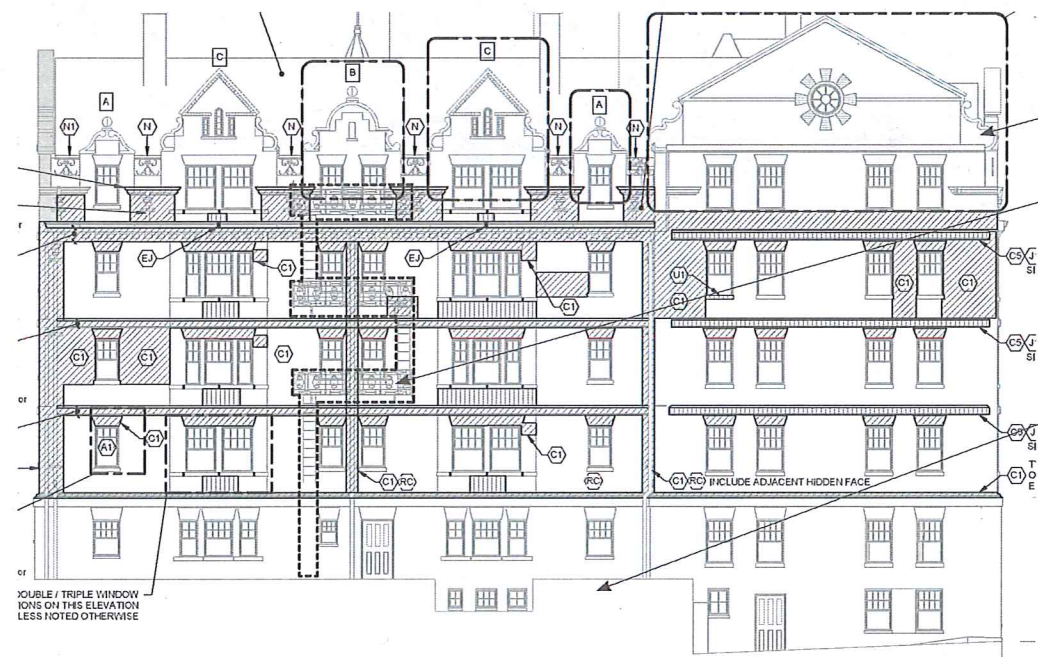


Masonry - Repairs and Restoration

Phase 2 - Randolph Hall



PROPOSED EAST ELEVATION DRAWING



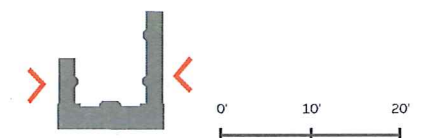
PROPOSED WEST ELEVATION DRAWING



AREAWAY WITH WINDOW TO BE REMOVED

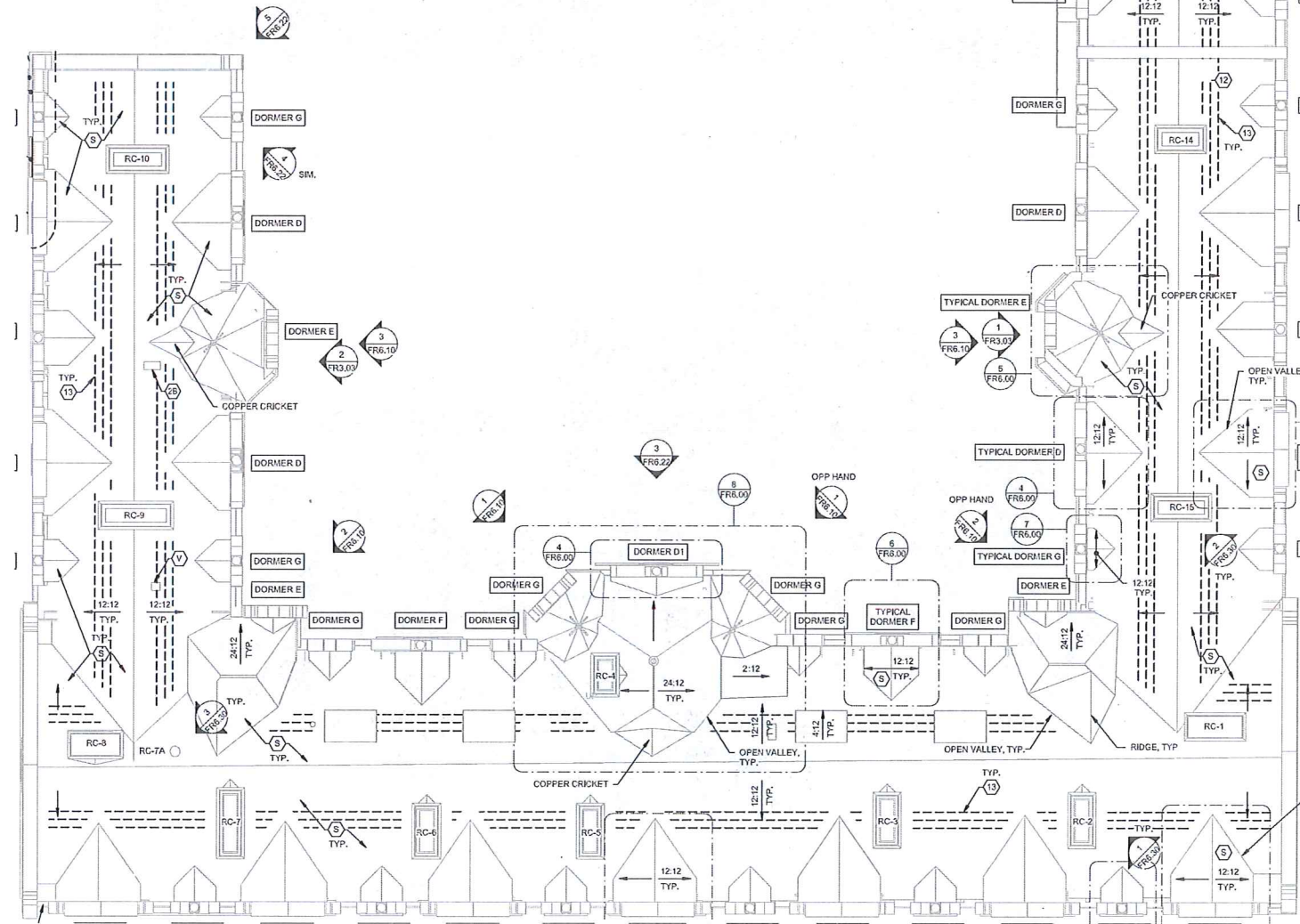


EAST FACADE GABLE-END

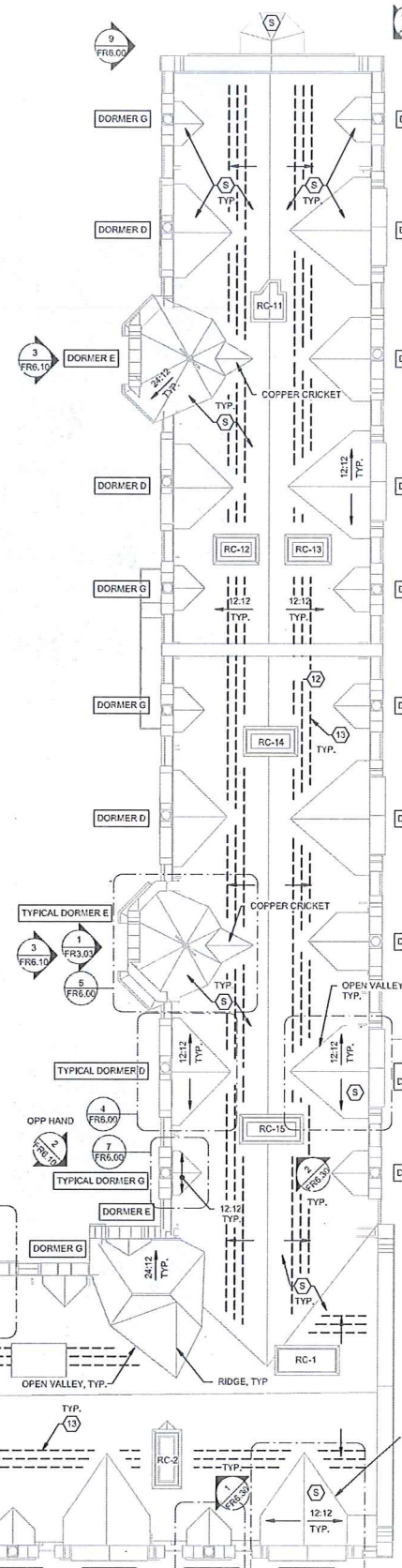


Roof and Dormer Work

Phase 2 - Randolph Hall



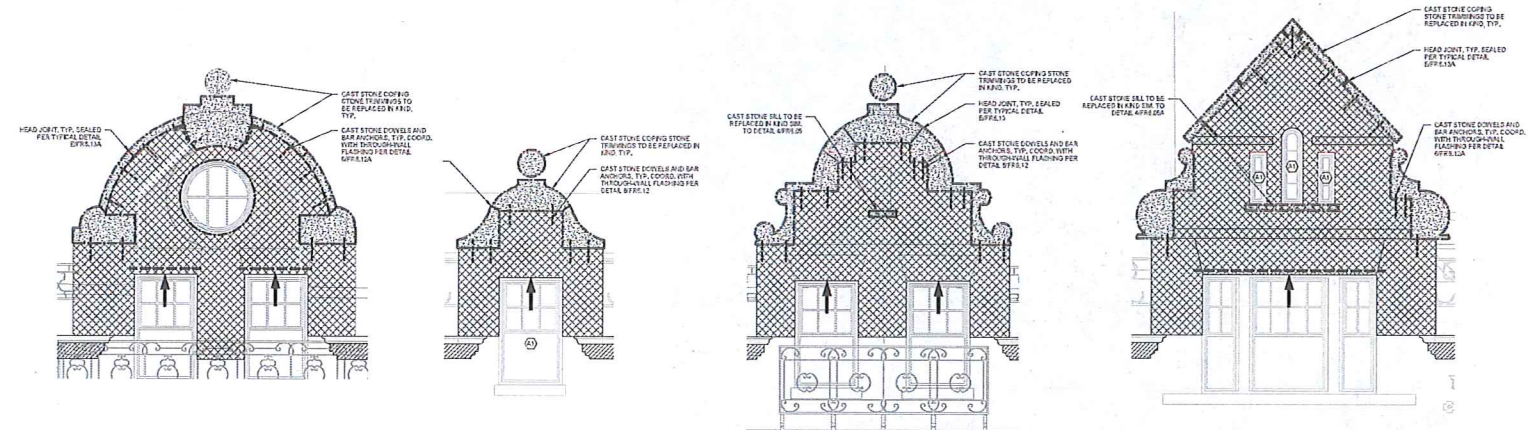
ROOF PLAN



EAST WING ROOF



SOUTHWEST CORNER DORMER AND GABLE END



DORMER RESTORATION SCOPE

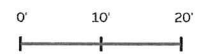
Roofing and Chimneys

The slate and copper roofing has reached the end of its useful life and will be replaced. The new slate will be culled so as to be consistent with original slate color. All of the existing chimneys are significantly deteriorated and will be rebuilt from the attic floor upwards, matching the original size, configuration, and detailing, similar to what has been done at other House Renewal projects; salvage brick will be used in the reconstructions. The chimneys will remain inactive as Randolph will have no wood-burning fireplaces after Renewal. Concrete and copper flashed chimney caps will be replaced as part of chimney rehabilitation.

Four low-profile louvered shed dormers will be added at the south wing on the courtyard-facing roof pitch. These will serve a pair of exhaust fans in the attic. They are not visible from the public ways.

Dormers

The brick masonry at the many dormers and one of the end-gables is heavily deteriorated and will need to be extensively rebuilt. These dormers can be categorized into several types, with specific cast stone ornament associated with each; because of their unique geometry, each dormer has a complex interrelationship of envelope components. Extensive exploratory survey has been conducted to understand how these elements come together, and will inform a restoration and repair approach that ensures the longevity of the building. Where there are to be reconstructions, salvage brick will be used as much as possible.



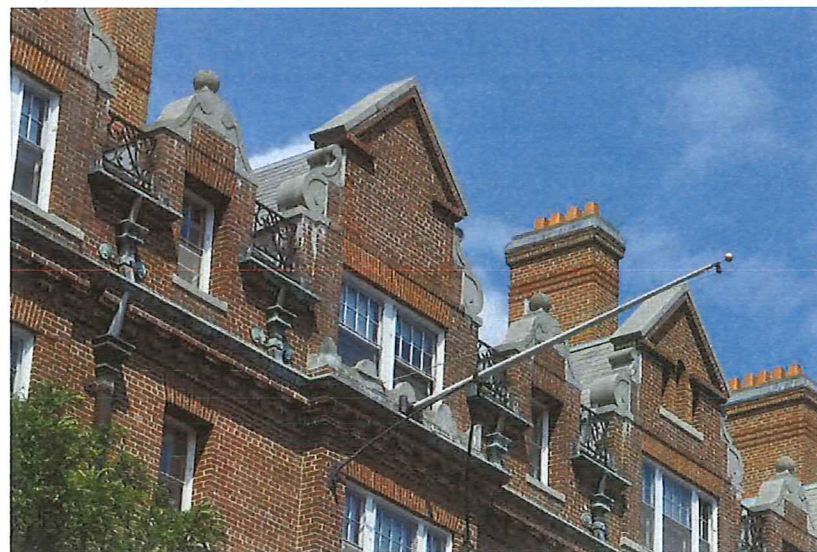
Bow St. Entry - Dormer Cartouche

Phase 2 - Randolph Hall

RESTORING AN IMPORTANT DECORATIVE FEATURE

A perspective drawing published in 1898 upon the building's completion, as well as a historic photograph from 1903, indicate the presence of a decorative cartouche in the field of the brick masonry on the gable directly above the Bow Street entrance. At some point—perhaps in the mid-century at the same time the sandstone ornament was replaced with cast stone—this cartouche was removed. With seven major gabled dormers on this elevation, the cartouche effectively set the center dormer apart and expressed the axis of symmetry and formal entrance below.

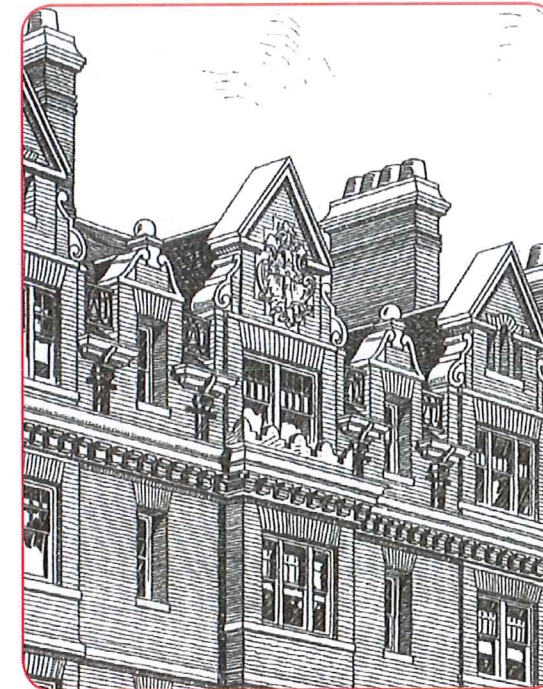
As part of the renovation, it is proposed to install a new cartouche of the same size and shape. Nothing is known of the original content of the cartouche, but the new design will be historically sympathetic and express Adams insignia.



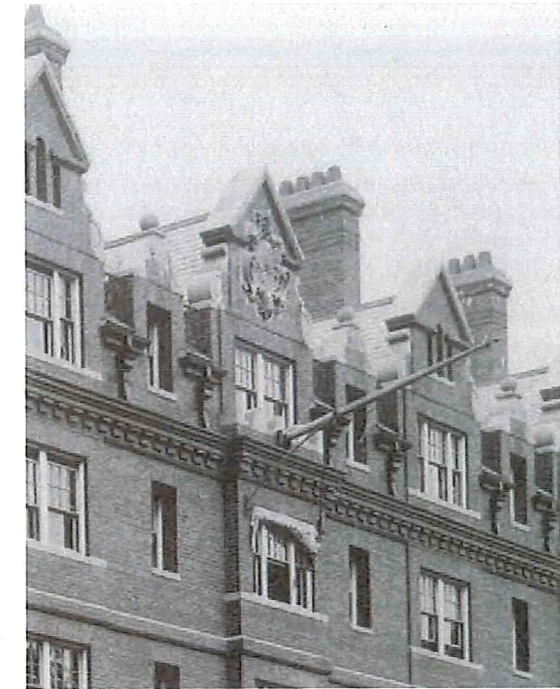
EXISTING CONDITIONS PHOTOGRAPH



EXISTING CONDITIONS PHOTOGRAPH DETAIL



DETAIL OF PERSPECTIVE DRAWING



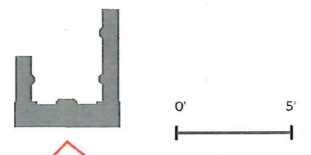
HISTORIC PHOTO, CA. 1903

AMERICAN ARCHITECT AND BUILDING NEWS, APR. 23, 1898.

No. 1165.



PERSPECTIVE DRAWING IN AMERICAN ARCHITECT AND BUILDING NEWS, APRIL 23, 1898



Window Scope - Typical Conditions

Phase 2 - Randolph Hall

The great majority of Randolph's windows are double-hung wood sash windows, the exception being rhomboid wood casements at two of the stair towers within the courtyard, and single-sash wood windows at the basement levels. At the typical double-hung windows, whether single-unit

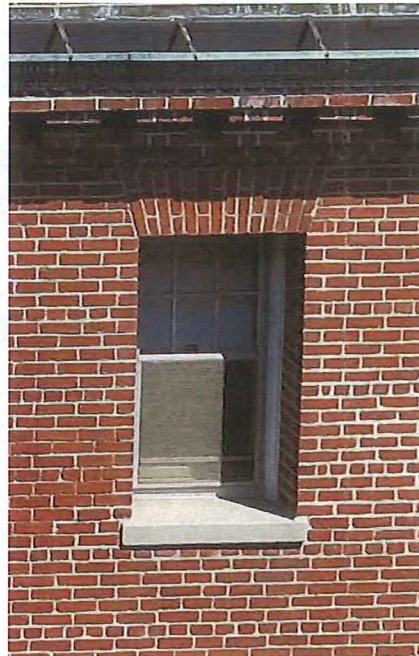
or ganged, the lower sash contains a single lite with no dividing muntins, while the upper sash has a horizontal muntin and one to three vertical muntins. Windows are headed by flush or projecting granite flat arches at the ground floor and basement, or brick jack arches set flush on the upper floors.



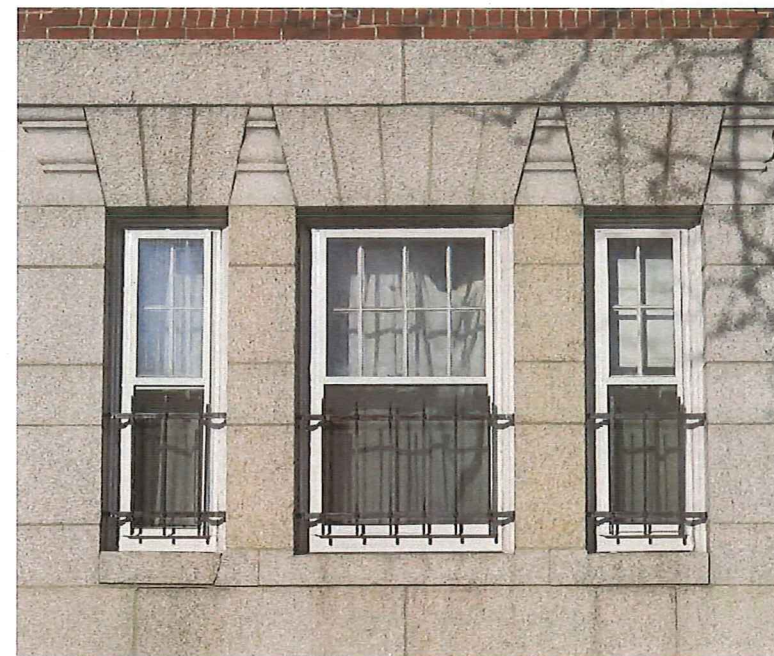
MULTI DIVISION WINDOWS AT WEST WING



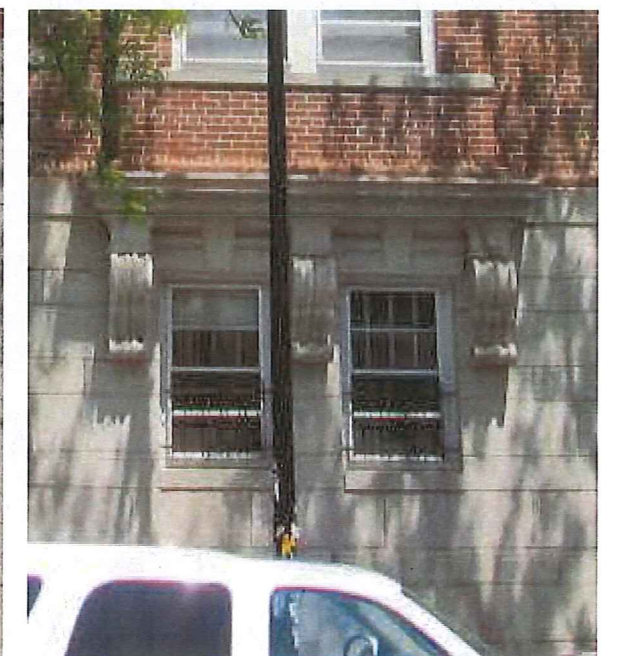
COURTYARD DORMER



STREET-SIDE DOUBLE-HUNG SASH



GROUND FLOOR MULTI DIVISION ON BOW ST



GROUND FLOOR MULTI DIVISION ON BOW ST



GROUND FLOOR SASH AT EAST WING



STAIR TOWER CASEMENT



STREET-SIDE DOUBLE-HUNG SASH



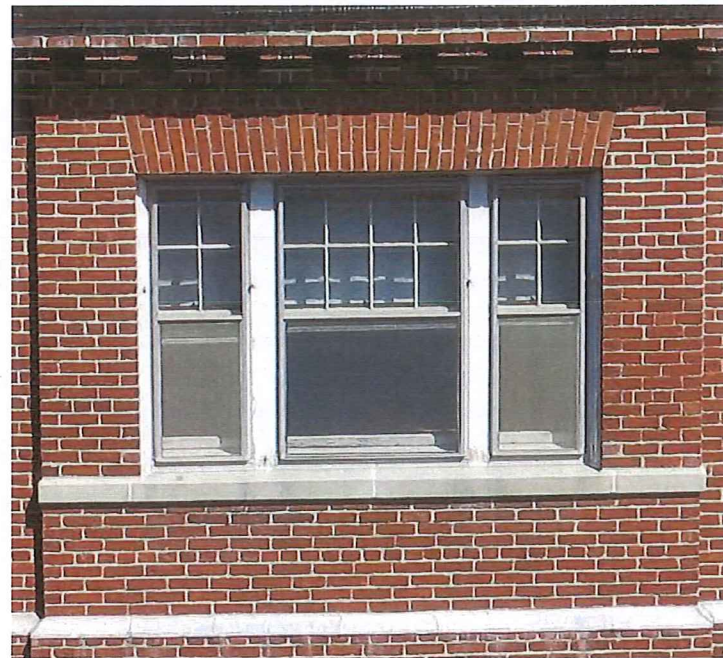
CASEMENT AT BALCONY



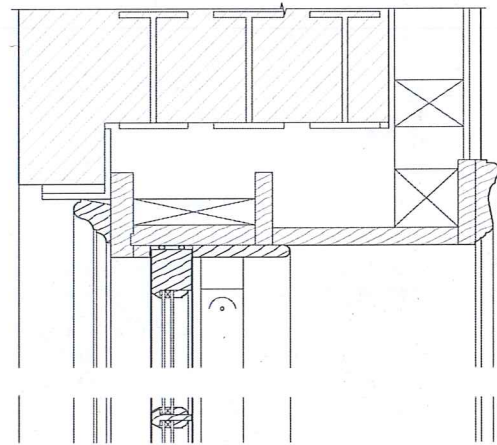
GROUND FLOOR SASH AT WEST WING

Window Scope - Typical Scope

Phase 2 - Randolph Hall



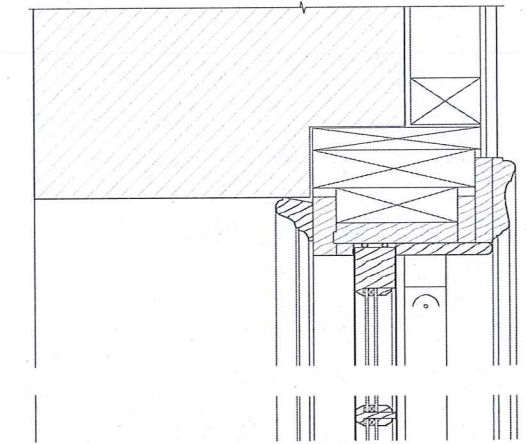
EXISTING WINDOW TYPES - MULTI-DIVISION WINDOWS (COMBINATION OF TWO- AND THREE-PART DIVISIONS; SILL HEIGHTS AND RECESSES VARY)



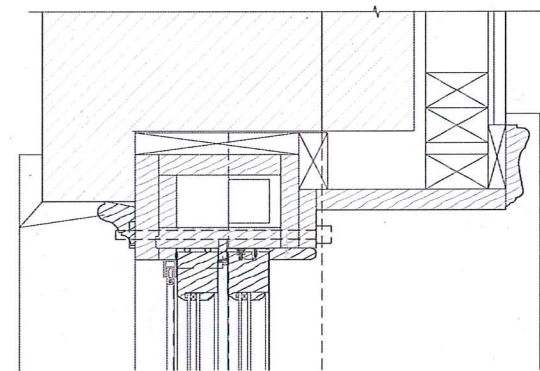
HEAD DETAIL - 4" SET BACK



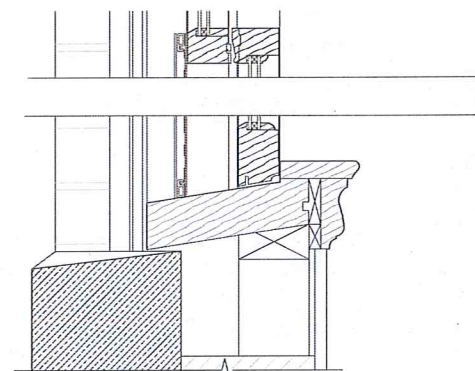
EXISTING WINDOW TYPES - INDIVIDUAL DOUBLE-HUNG SASH WINDOWS (SILL HEIGHTS AND RECESSES VARY)



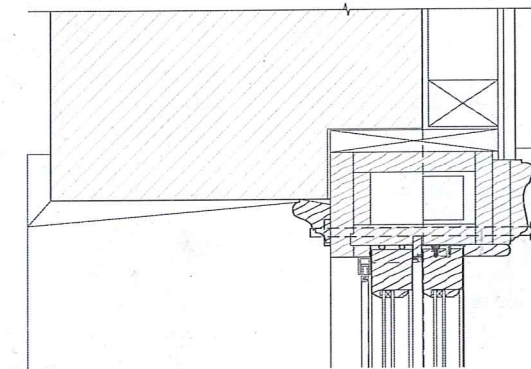
HEAD DETAIL - 12" SET BACK



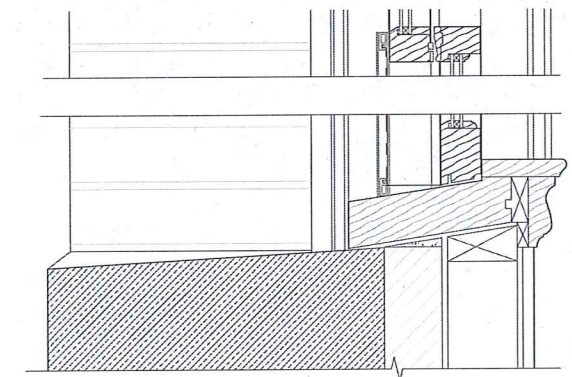
JAMB DETAIL - 4" SET BACK



SILL DETAIL - 4" SET BACK



JAMB DETAIL - 12" SET BACK



SILL DETAIL - 12" SET BACK

GANGED DOUBLE-HUNG SASH WINDOWS: FRAME REPAIR AND SASH REPLACEMENT

Just as at other House Renewal Projects, the approach to windows will be frame restoration and sash replacement with sash units to match existing sash geometry, but with the addition of double-glazed lites. Existing muntin width is to be maintained. This will allow for the removal of non-historic outer storm windows. Windows that were

converted to casements for egress will be returned to their original configuration. At windows that are ganged, either as a pair of equal windows or a set of three A-B-A windows, the renovation will maintain the existing geometry of the wood dividing mullion.

INDIVIDUAL SASH WINDOWS (DOUBLE-HUNG, CASEMENT, AND FIXED): FRAME REPAIR AND SASH REPLACEMENT

The balance of wood sash windows are in single masonry openings. These will receive the same treatment of frame restoration with sash replacement with sash units to match existing sash geometry except for changes required to include double-glazed IGUs in a true divided-

lite configuration. Existing muntin width is to be maintained. For both ganged and individual sash windows, the existing installation depth of the window within the masonry opening is determined by window type and elevation and will be maintained.

Window Scope - Alterations for Mechanical

Phase 2 - Randolph Hall

SPACEPROOFING CHALLENGES IN RANDOLPH HALL

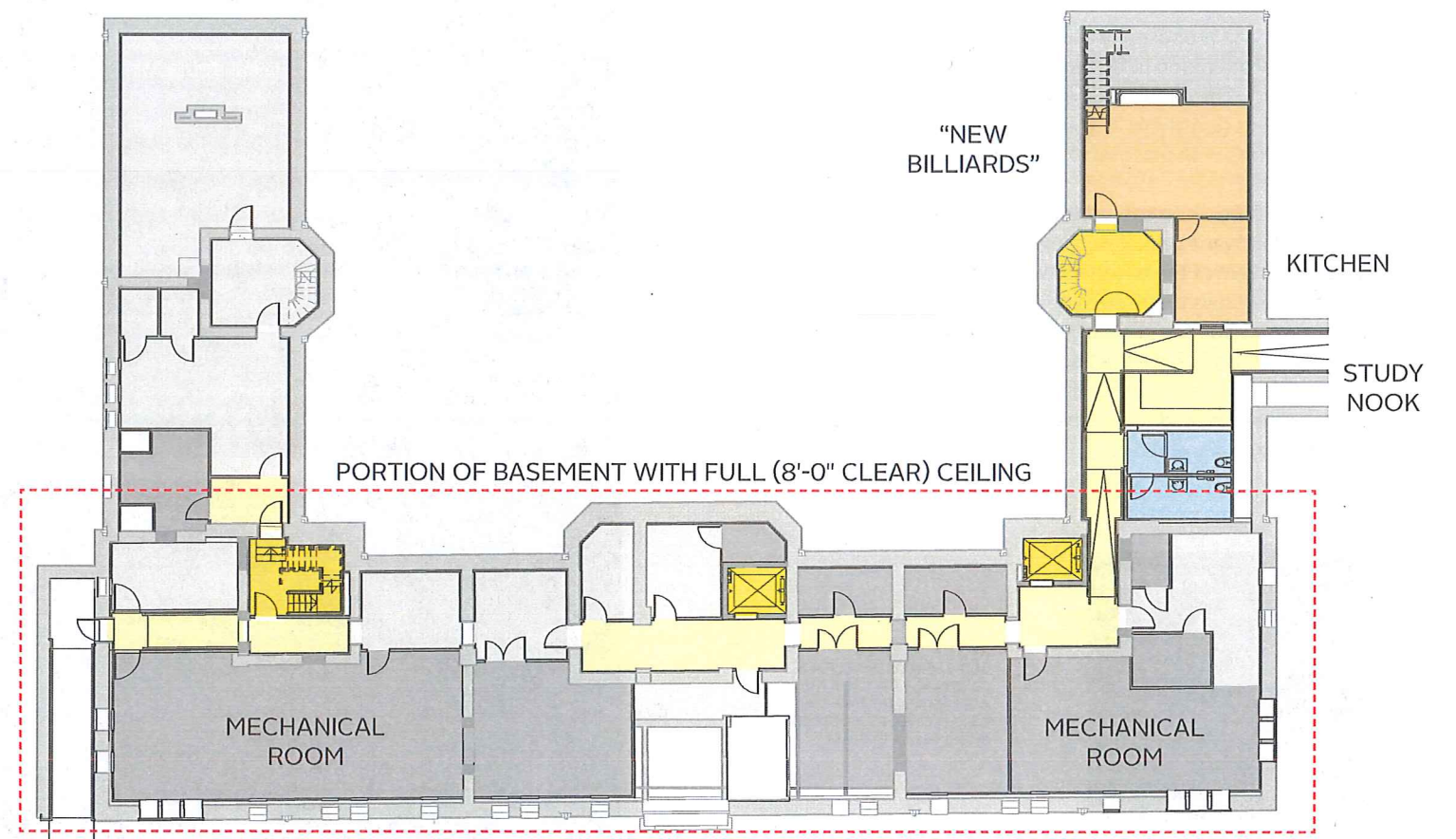
Unsurprisingly, due to its age and era of construction, Randolph Hall was never designed to accommodate ducted air, either for exhaust or ventilation. Its typical floor-to-floor dimensions are 9'-7", presenting various coordination challenges. Because the renovation must comply with contemporary environmental, life safety, and sustainability codes—and moreover, its occupants expect a certain level of modern interior environmental standards—a baseline amount of ventilation air must be provided to corridors and common spaces, and bathrooms must be exhausted. This has presented a unique set of challenges regarding where to locate mechanical equipment and how to provide intake and exhaust routes to it.

After thorough study and review of various alternatives, the design team settled on the current and most feasible solution, which is a pair of air handling units in the Randolph basement, located at each knuckle between the south wing and the east and west wings. The list of other options studied includes elsewhere in the basement, the attic level (which proved too limited in its volume and clearances), and on the ground floor rear. Where to locate intake and how to route the required air volume to the units was also an important consideration.

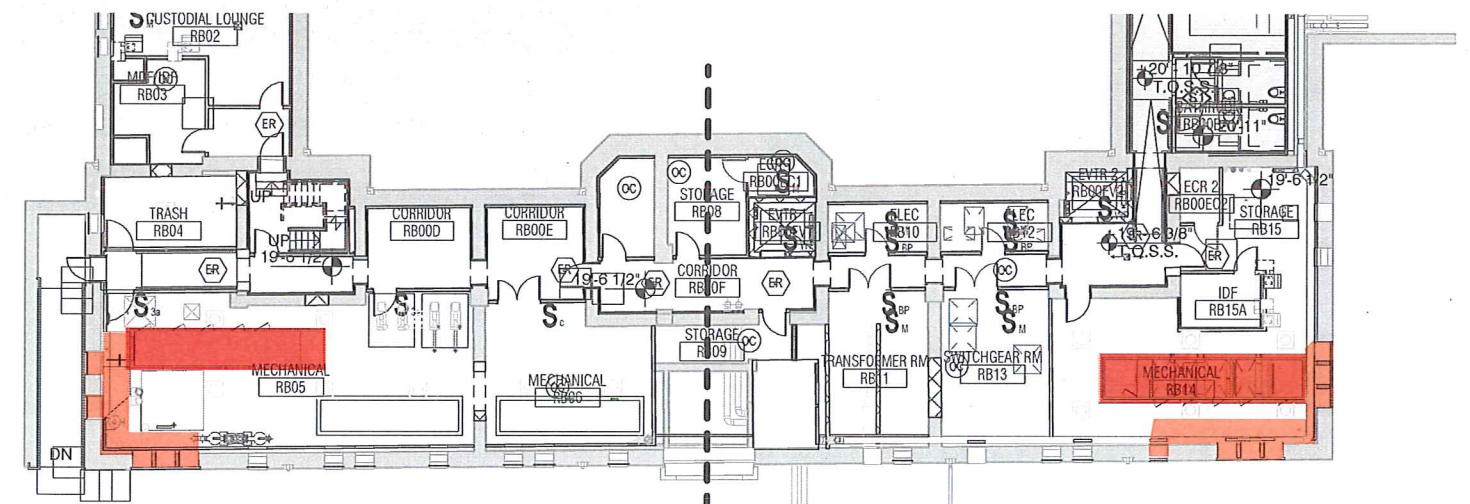
Because the footings and slabs progressively step up in the east and west wings, the south wing is the only part of the building with a full basement which can provide a minimum of 8'-0" clear, a dimension necessary to feasibly coordinate infrastructure and modern mechanical equipment. These knuckles are also advantageous locations for the equipment, since they are well-located to serve their own wings and split the south wing roughly in half. It is critical to minimize the height and cross-sectional area of duct runs in order to maintain compliance with residential corridor ceiling height.

These matters impact the Randolph exterior due to the requirement for intake air to serve the two air handling units. As illustrated on the next page, the proposed renovation scope involves converting several basement windows to louvered openings (intake only) while maintaining the existing masonry opening. At three locations comprising a total of six small windows, however, it is proposed to widen and combine masonry openings to achieve the required louver area. These locations are generally below waist-height for passers-by on the city sidewalks. However, intermediate granite mullions are proposed to better relate these modified openings to historic proportions, and to lessen their visual impact.

- COMMON CIRCULATION
- VERTICAL CIRCULATION
- SUPPORT
- STUDENT LIFE
- BATHROOMS
- MECHANICAL



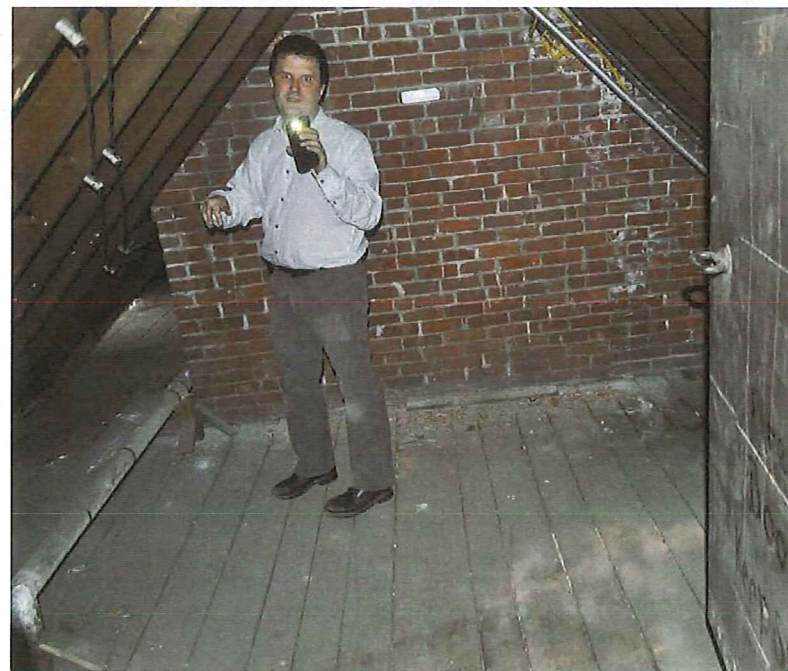
PROPOSED BASEMENT PLAN SHOWING PROGRAM COLORS



PROPOSED BASEMENT MECHANICAL PLAN
(AIR HANDLING UNITS IN DARK RED TONE, AIR INTAKE PLENUMS IN LIGHT RED)



ATTIC SPACE IS INSUFFICIENTLY LARGE TO FIT MECHANICAL EQUIPMENT



Window Scope - Alterations for Mechanical

Phase 2 - Randolph Hall

OPENING MODIFICATIONS FOR LOUVERS

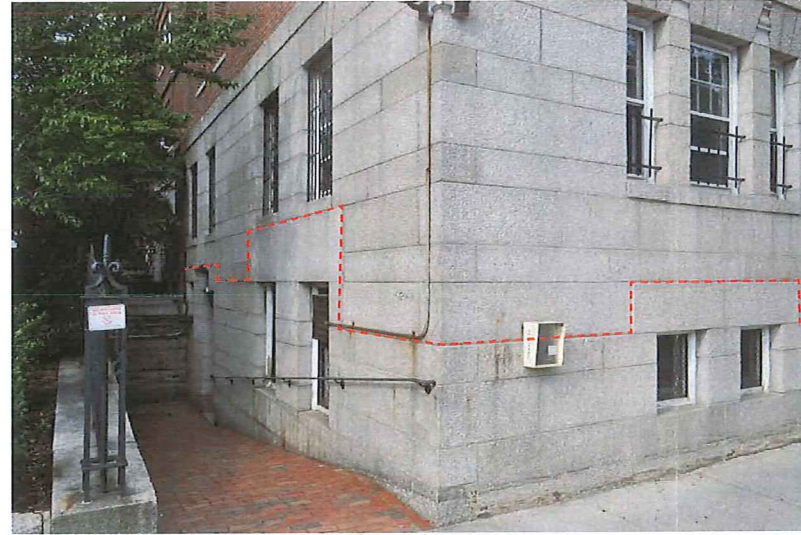
The existing and proposed photos and photomontage at right indicate the extent of alteration to existing masonry openings for mechanical intake louvers. The joined and widened openings are proposed for three locations (Locations 2, 3, and 4 as indicated). As described, granite mullions with material to match existing will subdivide the openings.

The ashlar granite base of the building features a subtle change of plane which varies along each elevation but generally aligns with the upper extent of the basement window masonry openings. At the basement windows themselves, this change of plane "steps" over the window to include the granite lintel. The proposed modified basement louvered openings on the east and west ends of the south facade, as well as at the south end of the east facade, will honor this detail: the lintels will be extended to either side and will also continue to sit proud of the masonry plane above.

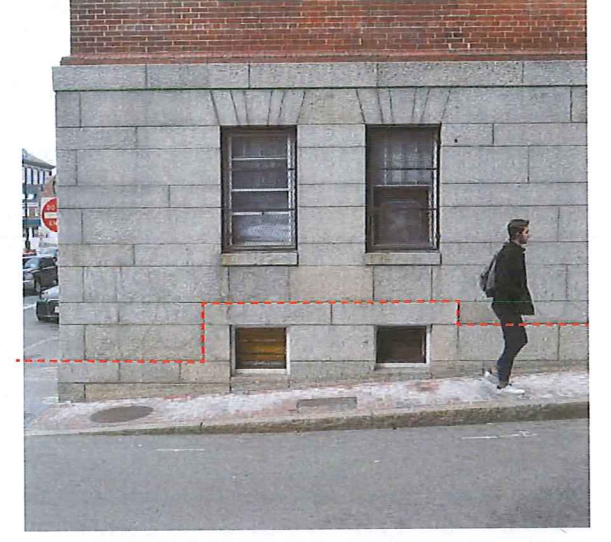


EXISTING PHOTOS:
RED DASHED LINE REFERS
TO CHANGE IN PLANE AT
ASHLAR GRANITE WHICH WILL
BE HONORED AT MODIFIED
MASONRY OPENINGS

EXISTING



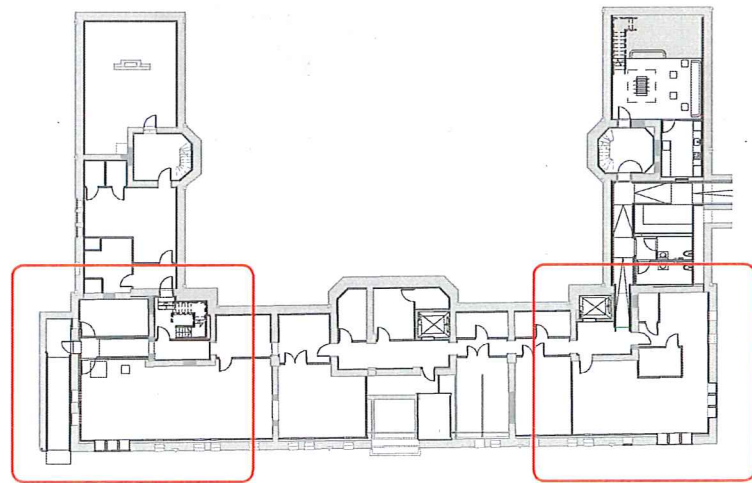
PROPOSED



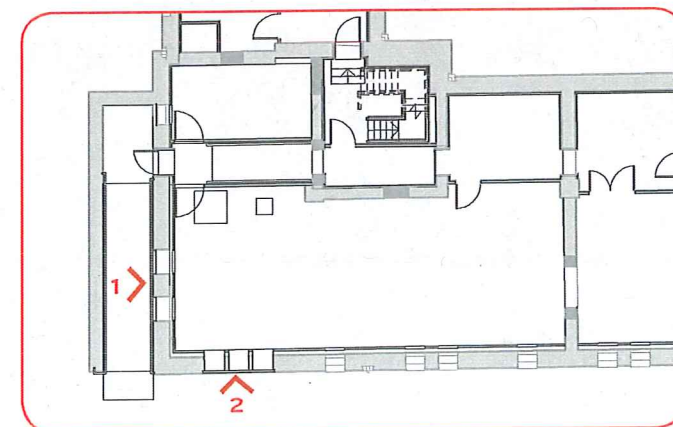
1. WEST ELEVATION, SOUTHWEST CORNER:
INTAKE LOUVERS IN EXISTING OPENINGS AT RAMPED
BASEMENT ENTRY (OPENINGS HERE TO REMAIN AS-IS)
2. SOUTH ELEVATION, SOUTHWEST CORNER:
RECONFIGURED BASEMENT OPENINGS WITH INTAKE
LOUVERS

3. SOUTH ELEVATION, SOUTHEAST CORNER:
RECONFIGURED BASEMENT OPENINGS WITH INTAKE
LOUVERS

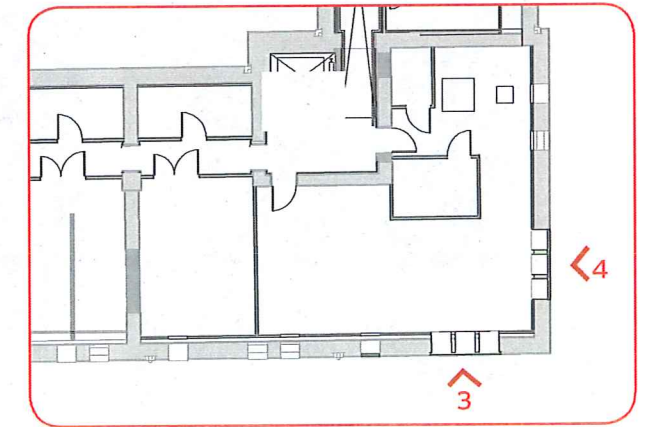
4. EAST ELEVATION, SOUTHEAST CORNER:
RECONFIGURED BASEMENT OPENINGS WITH
INTAKE LOUVERS



KEY PLAN FOR ENLARGEMENTS AT RIGHT



OPENINGS INTO BASEMENT MECHANICAL SPACES



Exterior Metalwork Scope

Phase 2 - Randolph Hall

METALWORK

Proposed scope consists of the restoration and refurbishment of the original ornamental balconnettes and balustrades. Fire escape ladders will be removed, and the non-original additional bays and projects that were added with the fire escape conversion will be removed with the original configuration restored.

At windows, missing grilles will be replicated, and new security

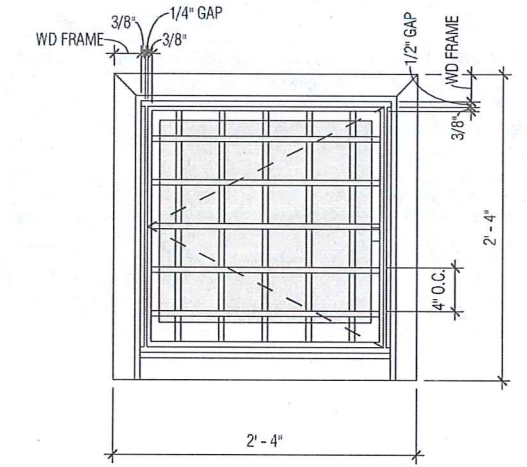
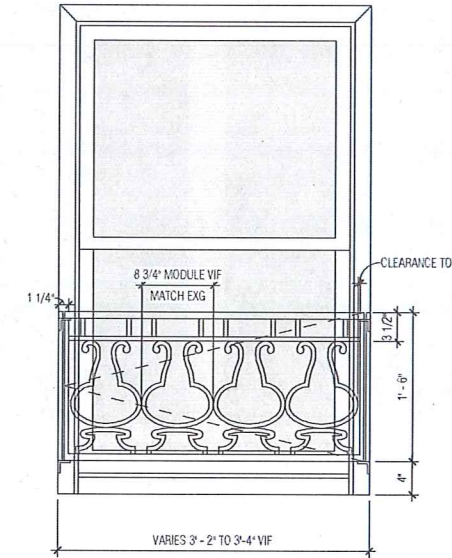
grilles are to be added outside the Ground Floor lower sashes in a sympathetic style which uses the lyre motif found elsewhere on the ground floor. Lattice grilles are to be installed at the small windows on the basement level. The copper gutter at the cornice and upper cornice between dormers is deteriorated and will be replaced, along with all copper downspouts.



PROPOSED SOUTH ELEVATION



TYPICAL GROUND FLOOR WINDOW GRILLES (EXG, PROPOSED)



PROPOSED BASEMENT GRILLE

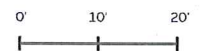


PROPOSED EAST ELEVATION



PROPOSED WEST ELEVATION

- BASEMENT WINDOW MECHANICAL LOUVER
- METALWORK TO BE RESTORED
- NEW SECURITY GRILLE
- RESTORED TO ORIGINAL CONFIG.
- BASEMENT WINDOW GRILLE REPLACEMENT



Exterior Metalwork Scope

Phase 2 - Randolph Hall



BALCONY AND BALUSTRADE TYPICAL OF EAST & WEST WINGS



WEST WING BALCONIES - NOTE NON-ORIGINAL ALTERATIONS TO BALCONY BE REMOVED, SHOWN WITH WHITE DASHED LINES AT RIGHT



SOUTH COURTYARD BALCONIES WITH UNORIGINAL LADDERS AND WIDTH EXTENSIONS

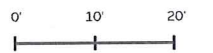


PROPOSED COURTYARD WEST ELEVATION (EAST WING)

PROPOSED COURTYARD NORTH ELEVATION (SOUTH WING)

PROPOSED COURTYARD EAST ELEVATION (WEST WING)

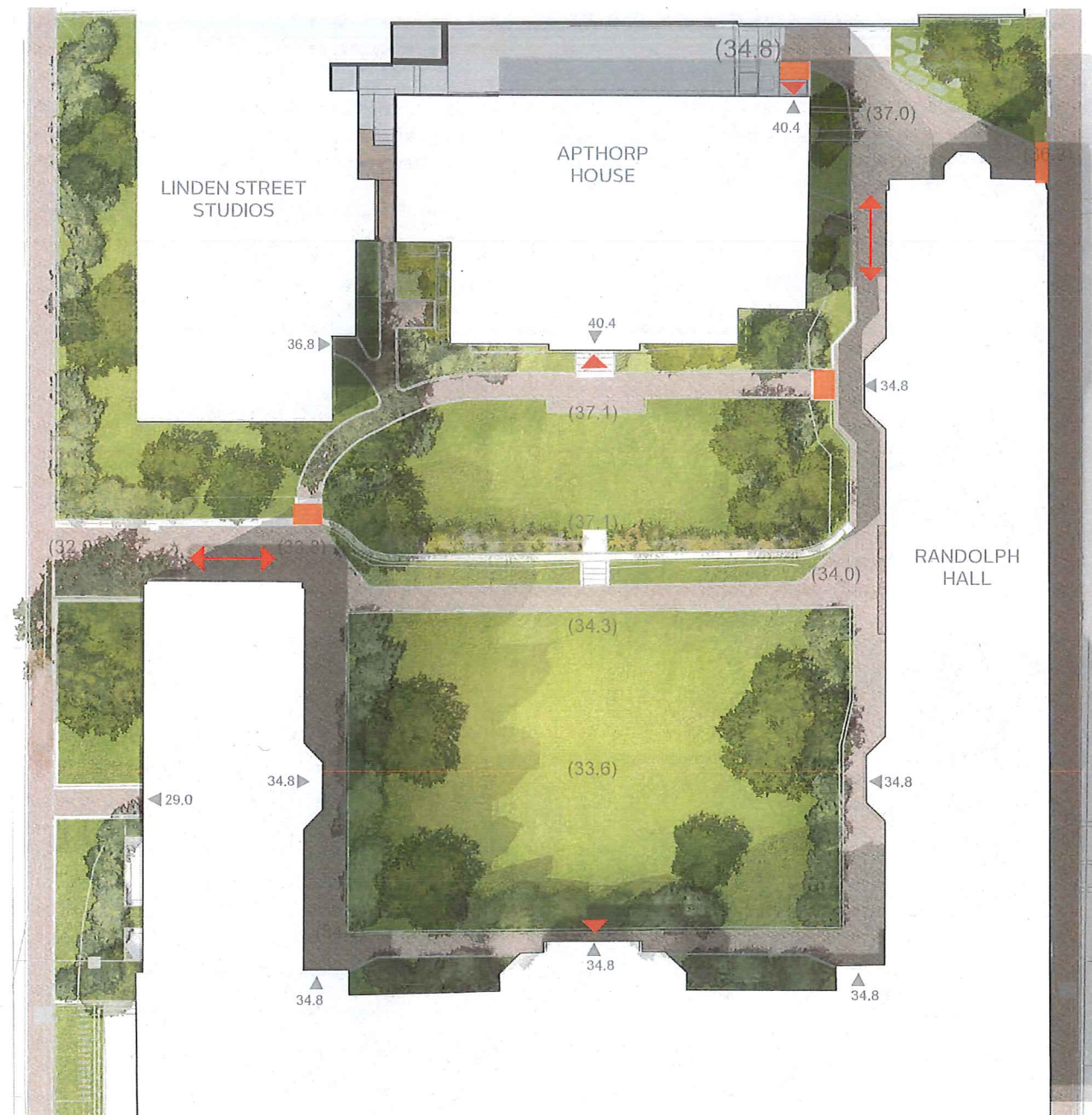
- BASEMENT WINDOW MECHANICAL LOUVER
- METALWORK TO BE RESTORED
- NEW SECURITY GRILLE
- RESTORED TO ORIGINAL CONFIG.
- BASEMENT WINDOW GRILLE REPLACEMENT IN-KIND



Landscape Changes

Phase 2 - Randolph Hall

-  NON-ACCESSIBLE ENTRY
-  ACCESSIBLE ENTRY
-  NON-ACCESSIBLE SLOPE
-  ACCESSIBLE SLOPE
-  NON-ACCESSIBLE STAIR

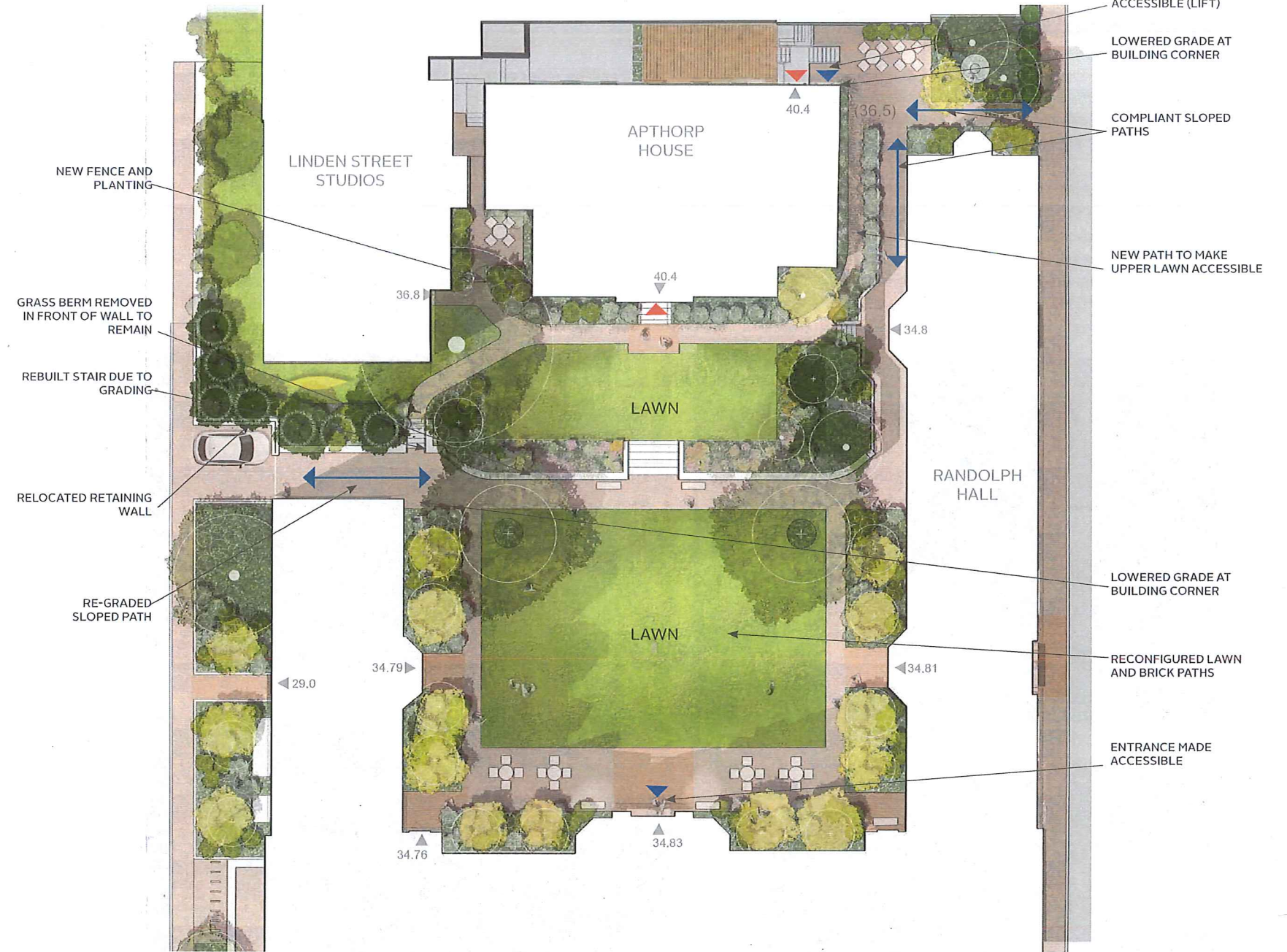


EXISTING LANDSCAPE CONDITIONS

The interior courtyard of Randolph, while a welcome place of respite for Adams students amidst the business of the Square, was never a landscape designed in totality. Instead, it is a legacy of various overlapping owners, uses and configurations. The earliest historical documentation of this landscape dates to the late eighteenth and early nineteenth centuries, when it was the foreground of the prospect from Apthorp House south to the Charles River. Photos from the mid-nineteenth century show a terraced series of gardens. In 1898, with the completion of Randolph, the landscape was divided into what remained of the Apthorp gardens, at a dais-like higher elevation, separated from

the Randolph driving court, several feet below, by a stone retaining wall and wrought-iron fence. When Apthorp House was incorporated into the Randolph development in 1902, the fence was removed but the wall and elevation change remained; two stairs were added connecting the levels. At this time, vehicular access from Plympton Street was cut off with the addition of the east wing extension and the gate was added from Linden.

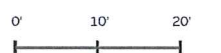
With the establishment of Adams House, the lower courtyard became the House's principal green space, but it retained a number of these older features. The third stair in the center was added ca. 1999.



PROPOSED LANDSCAPE DESIGN

The proposed changes to the landscape comprise an overall rationalization and improvement to the hardscape, walking paths, and plantings as well as key upgrades to accessibility—since none of the upper or lower courtyard spaces are currently accessible—while maintaining the unique sense of historic character. The brick walks along the perimeter of the central lawn have been pulled away from the building to allow for planting beds and to soften the meeting of the building and the ground. To increase usable space for recreation, the lawn will be cleared of all plantings apart from a pair of larger trees. A more generous zone of hardscape will be located along Randolph's

south wing, which is shaded most of the year and has less optimal growing conditions. The non-historic grass berm against the historic retaining wall will be removed. The existing granite center stair, installed ca. 1999, plays a key role in the House's diploma ceremony each May. It will be reconfigured and re-formalized, embedded into the existing retaining wall and given a more generous width. Improvements at the Linden and Plympton gates will make both courtyard entries accessible, while a compliant route along the east wing of Randolph provides access to the accessible Apthorp entry and upper lawn. Discrete handrails will be added to all stairs.



Landscape - Linden Street Gate

Phase 2 - Randolph Hall

PROPOSED CHANGES FOR ACCESSIBILITY, LIFE SAFETY

The extent of hardscape leading to the Linden Street entry gate currently allows for a single off-street parking space, but this is in conflict with the need for a dedicated accessible route between the sidewalk and the interior courtyard, and the egress path out of the courtyard.

The scope of proposed renovation includes regrading the sloped pathway through the gate so that it is code compliant, and reconfiguring a portion of the existing granite retaining wall to relocate the existing off-street parking space northward and establish adequate clearance for access to/from the courtyard. The widened area is designed to coordinate with the rhythm of existing site fencing. The proposed north-south "return" of the site wall as it transitions to the narrower

width from the wider zone will align with the existing ornamental metal gate, which is to remain in its existing location but will be sensitively altered to accommodate panic hardware. The regrading will lower the ground elevation along the north elevation of Randolph's west wing. This regrading will also require the slight modification of the west granite stair, with two additional risers added.

In order to create adequate site access for the main phase of construction, a summer 2019 enabling project will entail removing the western portion of the stone retaining wall and salvaging the existing granite blocks; they will be numbered and stored for reinstallation. The vehicular entry drive will be widened by installing temporary soil retaining on an east-west line located northward of the present wall.

-  NON-ACCESSIBLE ENTRY
-  ACCESSIBLE ENTRY
-  NON-ACCESSIBLE SLOPE
-  ACCESSIBLE SLOPE
-  NON-ACCESSIBLE STAIR



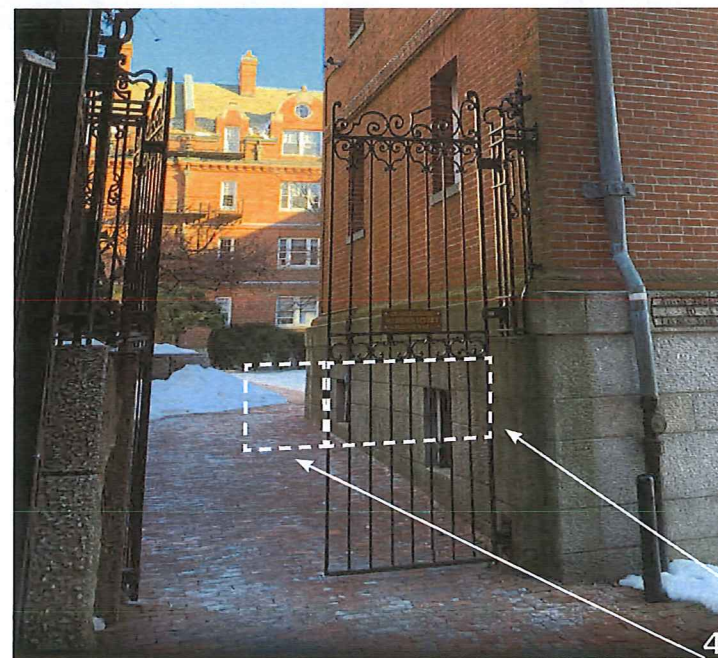
COURTYARD-SIDE VIEW OF LINDEN ST ENTRY



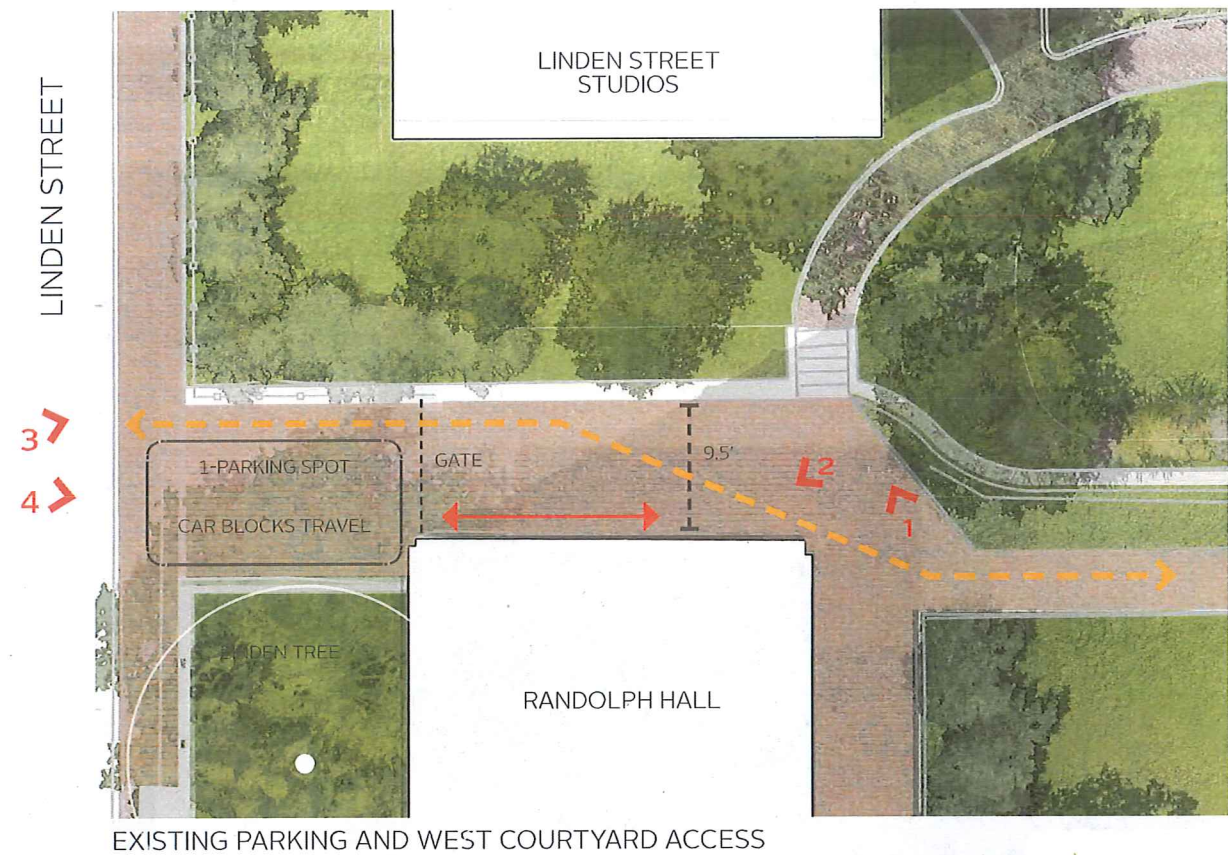
GATE AND NORTH ELEVATION, RANDOLPH WEST WING



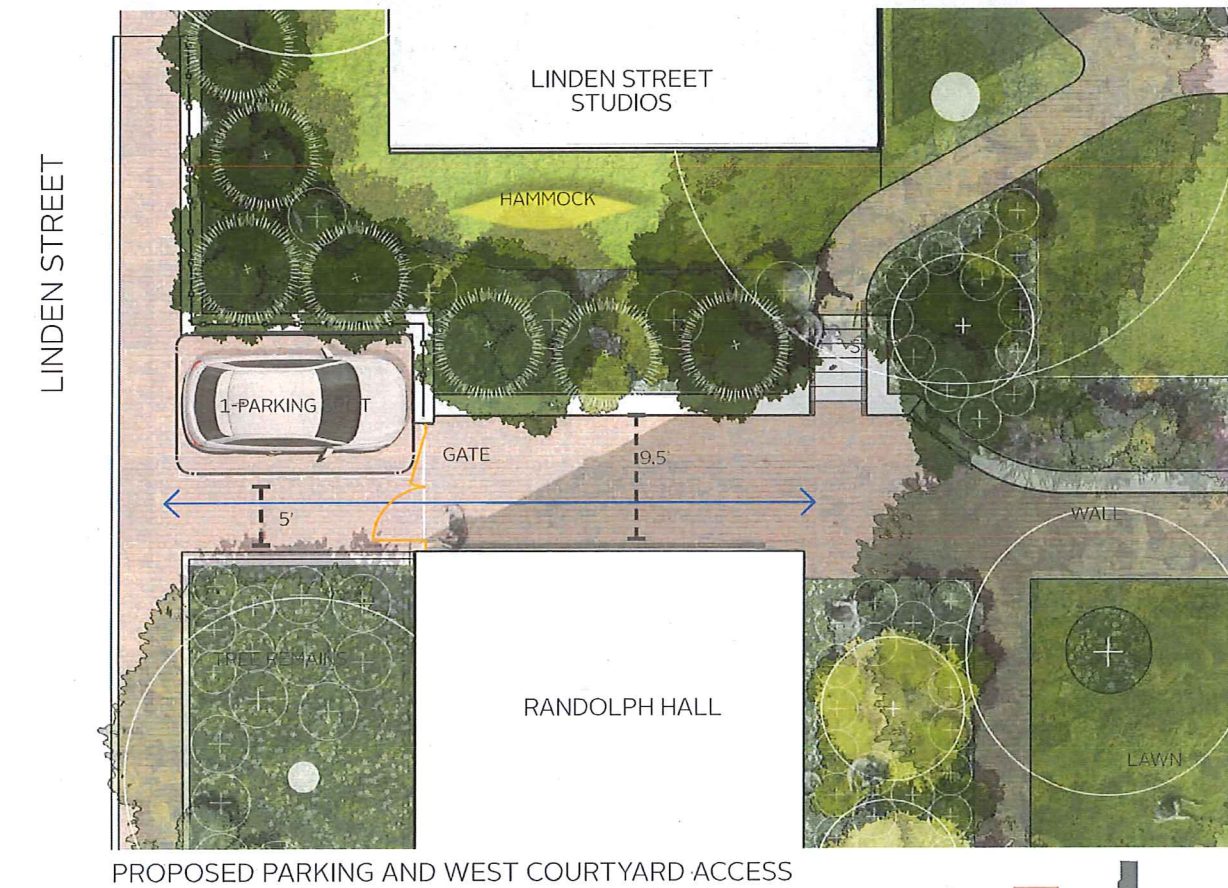
RETAINING WALL AT LINDEN ST ENTRY TO COURTYARD



GATE AND NORTH RANDOLPH FACADE

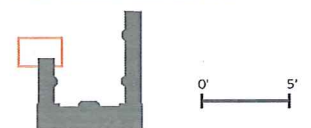


EXISTING PARKING AND WEST COURTYARD ACCESS



PROPOSED PARKING AND WEST COURTYARD ACCESS

ACTIVE LEAF TO RECEIVE SOLID PANEL TO PROPERLY SECURE PANIC HARDWARE FROM USERS OUTSIDE GATE
 INACTIVE LEAF TO RECEIVE SOLID PANEL OVER 50% OF WIDTH TO SECURE PANIC HARDWARE



Landscape - Plympton Street Gate

Phase 2 - Randolph Hall

-  NON-ACCESSIBLE ENTRY
-  ACCESSIBLE ENTRY
-  NON-ACCESSIBLE SLOPE
-  ACCESSIBLE SLOPE
-  NON-ACCESSIBLE STAIR

PROPOSED CHANGES FOR ACCESSIBILITY, LIFE SAFETY

To establish a code-compliant accessible route to Apthorp and the Randolph courtyard from Plympton Street, several changes are required to the existing grades and site elements.

Beginning at the Plympton sidewalk, the wrought-iron gate will be relocated northward, opening on a perpendicular pathway with a 3.5% slope. The two existing granite steps will be removed, but the granite low wall will be maintained and modified only as required to relocate the gated opening. The gate will be recessed onto the property to allow for

conversion to out-swing for life safety. It will be sensitively altered to accommodate secured panic hardware. The historical stone monument to Apthorp House will remain.

A new compliant path network provides accessibility to the upper lawn via the hardscaped area at the northeast corner of Apthorp. Changes at Apthorp House are addressed in a separate filing. Along Randolph Hall, the existing sloped path will be regraded to achieve a compliant slope down to the lower (main) lawn.



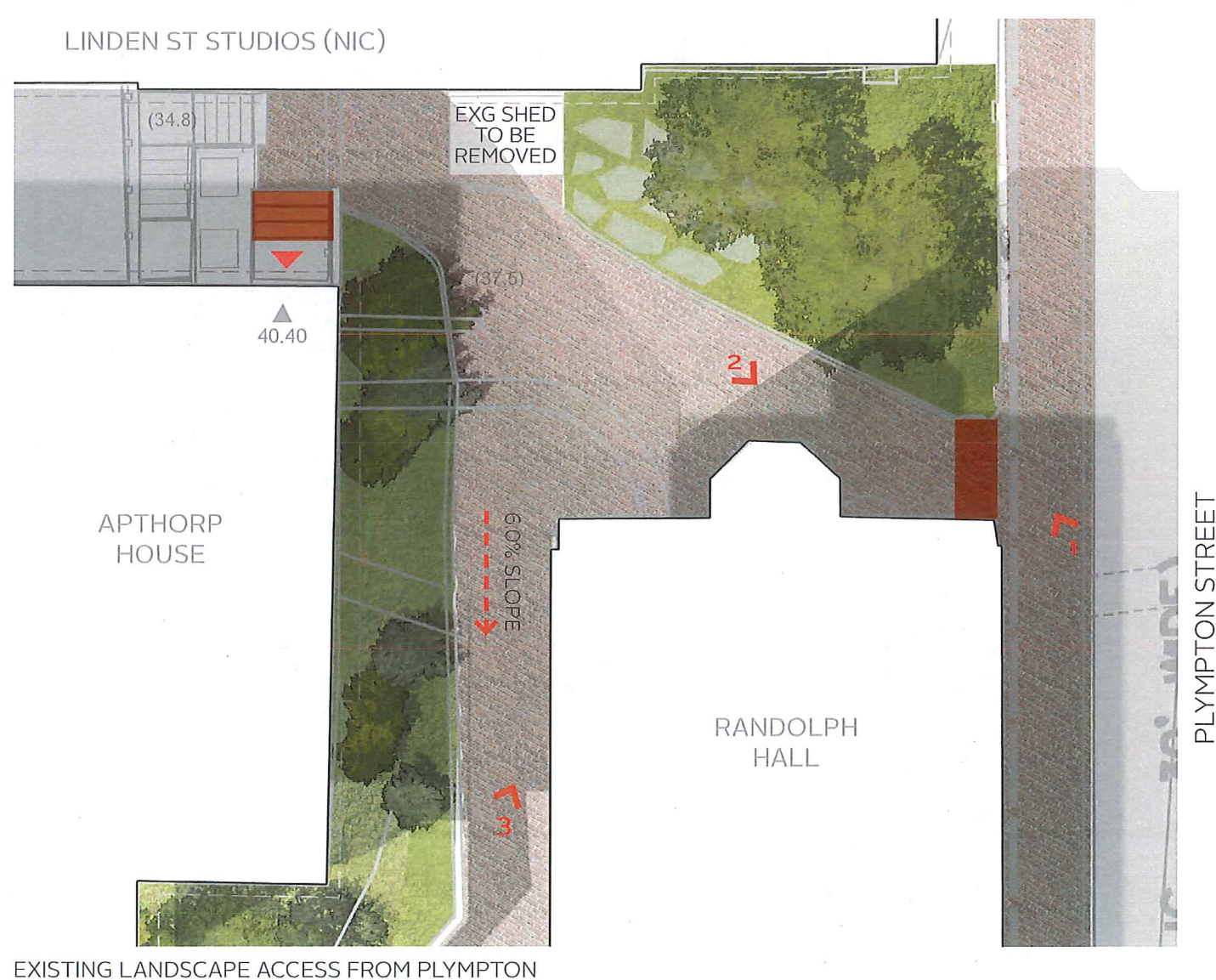
PLYMPTON STREET FENCE AND RETAINING WALL



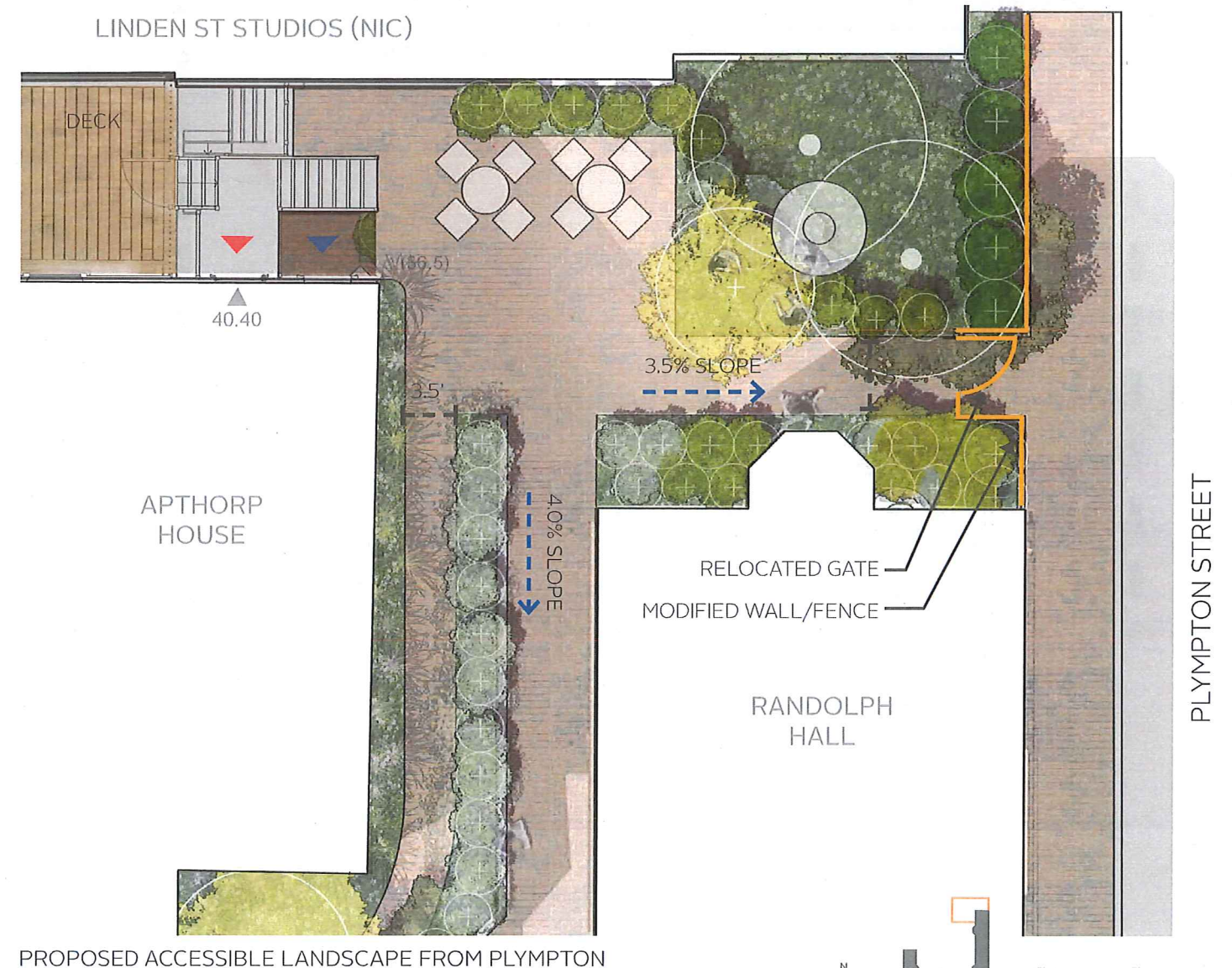
TERRACE ADJACENT TO RANDOLPH HALL



PATH ADJACENT TO RANDOLPH HALL



EXISTING LANDSCAPE ACCESS FROM PLYMPTON



PROPOSED ACCESSIBLE LANDSCAPE FROM PLYMPTON



Advanced Construction Scope

Phase 2 - Randolph Hall




SUMMER 2019 ENABLING WORK FOR PHASE 2 CONSTRUCTION

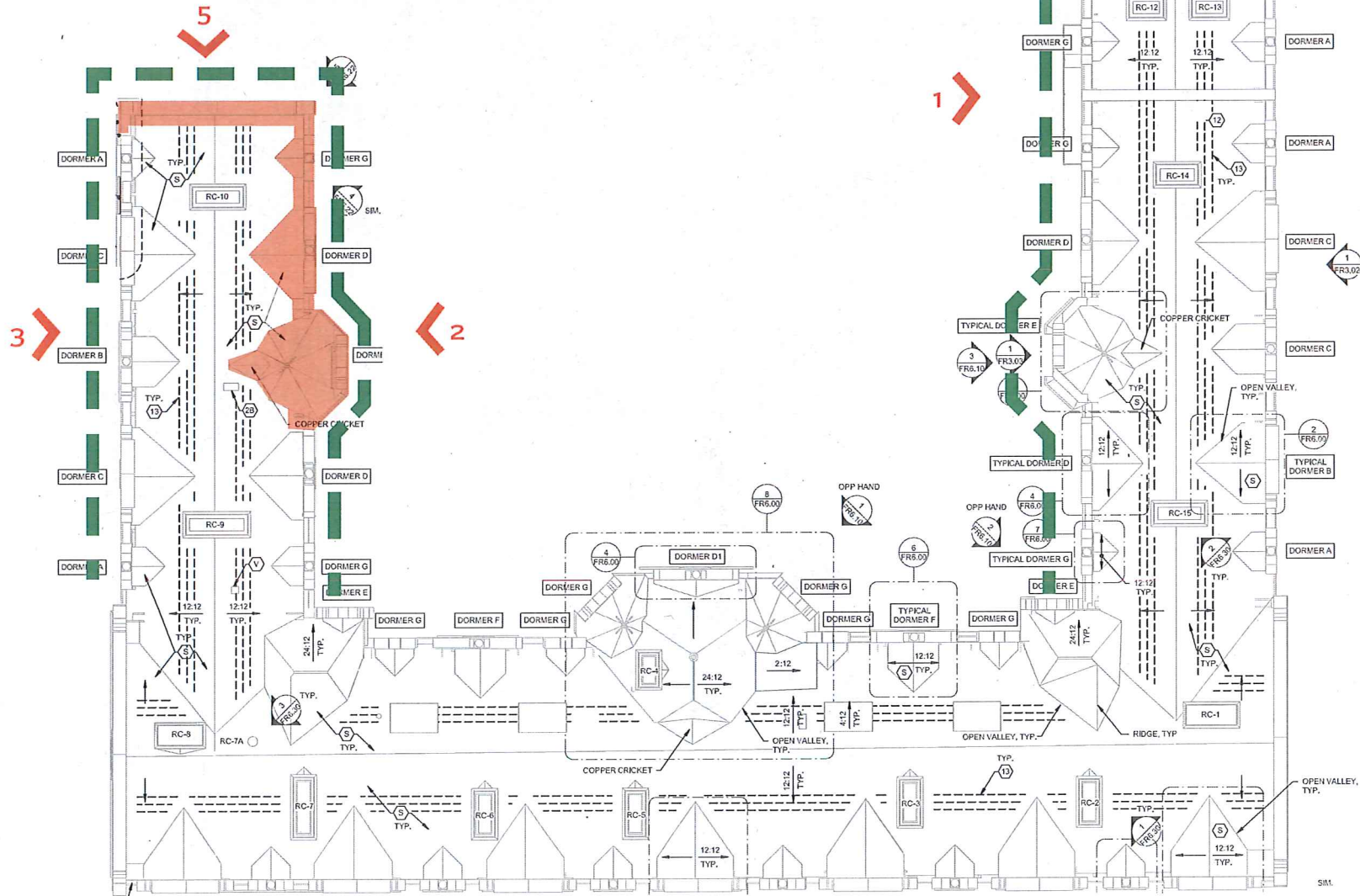
Due to the highly constrained access to the courtyard and the challenge of coordinating landscape and site civil work with facade restoration, Harvard will embark on advance construction work over the summer months of 2019 in order to reduce the risk to schedule of the main construction campaign (June 2020-August 2021). An additional advantage of this advance construction work will be the development of a knowledge base around the existing archaic construction details, materials, and specific challenges of Randolph facade restoration that can then be applied to the main phase of construction beginning the following summer.

As these included drawings and diagrams indicate, the summer facade and roof restoration

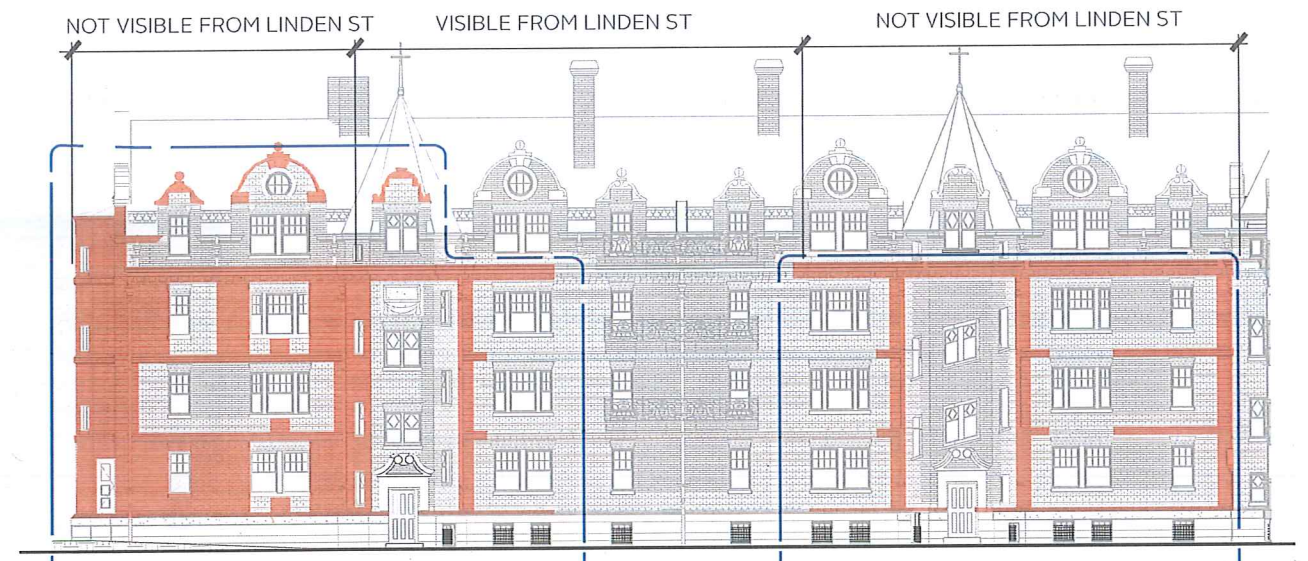
scope includes: masonry repair and restoration along the north, east, and west facades of the west wing; the north and west facades of the east wing; restoration and reconstruction of the roof and brick masonry of three different types of dormers on each wing, and selective window restoration (sash replacement and frame restoration). The proposed exterior window trim color has been reviewed with CHC staff and approved.

As described on page 28, the site wall to the northwest of Randolph (adjacent to Linden street) will be partially removed and salvaged for future reinstallation this summer in order to create a widened pathway for construction vehicle access into the courtyard. The temporary condition will be in place until July 2021 main phase completion date.

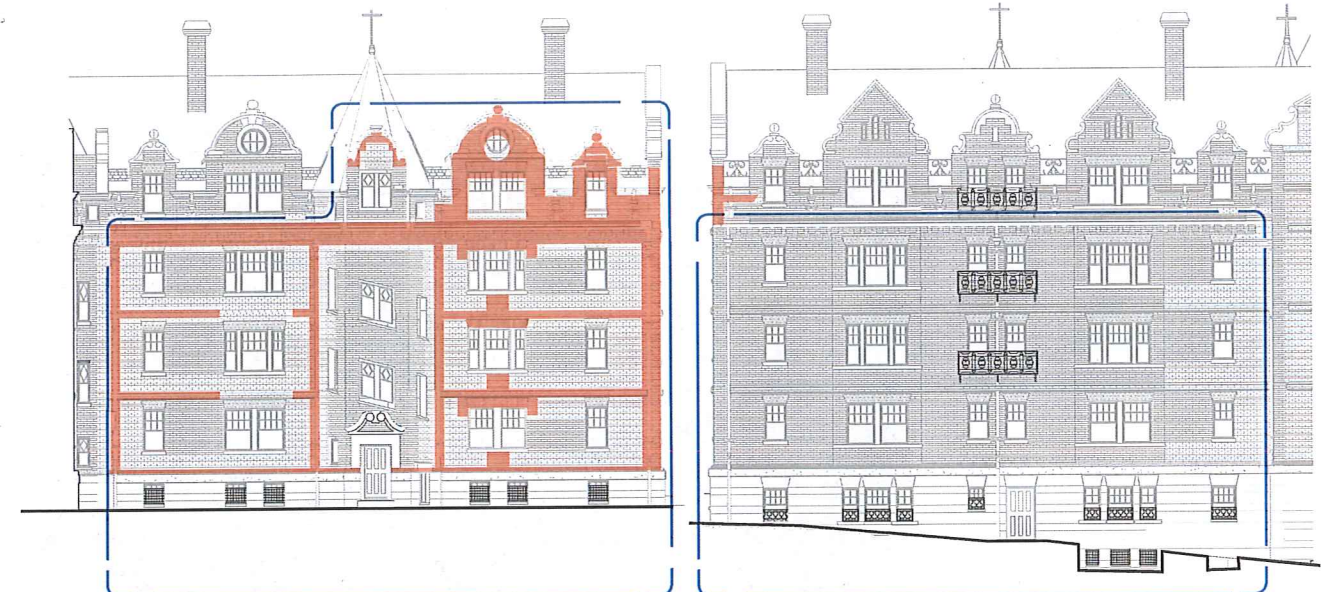
-  EXTENT OF WINDOW REPAIR/REPLACEMENT
-  MASONRY REPAIR/RESTORATION
-  OVERALL EXTENT OF ENVELOPE WORK



ROOF PLAN

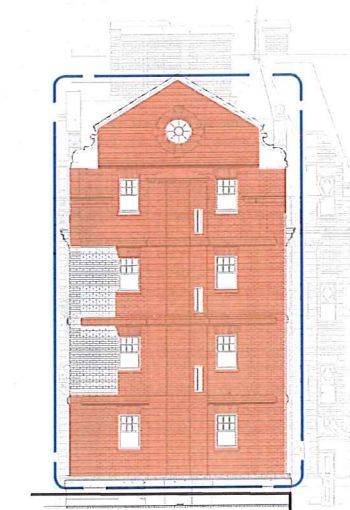


1. COURTYARD EAST ELEVATION - PARTIALLY VISIBLE FROM LINDEN ST

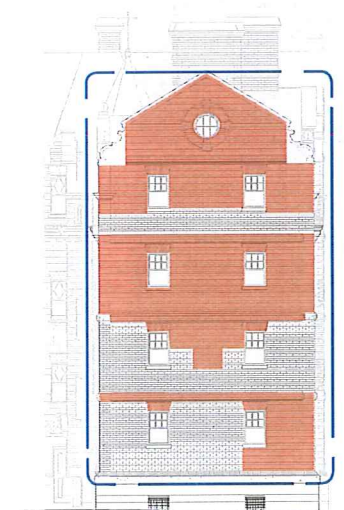


2. COURTYARD WEST ELEVATION - NOT VISIBLE FROM LINDEN ST

3. WEST ELEVATION (NO ADVANCE MASONRY WORK)



4. NORTH ELEVATION - EAST WING



5. NORTH ELEVATION - WEST WING

