

Holyoke Armory, HOLYOKE, Mass.

Holyoke Armory 1910



Holyoke Armory Potential Restoration & Addition

Holyoke Armory

Holyoke, Massachusetts

Final Study Report

26 June 2020

Acknowledgments

Individuals who have contributed to this study since its launch in December, 2019, include:

City of Holyoke

Marcos Merrero, Director, Planning and Economic Development, City of Holyoke

Ben Murphy, Development Specialist, Planning and Economic Development, City of Holyoke

Mass Development

Beth Murphy, Vice President, Real Estate

Christine Madore, Vice President, Real Estate Services

The design team includes these firms and individuals:

Architectural design and project coordination, Taylor & Burns Architects

Carol Burns

Conrad Chudzicki

Structural design and cost estimation for structural engineering, Simpson Gumpertz & Heger

Dominic Kelly

Jason Varney

Matt Gilbertson

Edward Taylor

Shoring cost estimating, Isaac Blair & Co., Inc.

For structural stabilization of existing masonry walls during demolition and construction phases

Louis Giunta

Holyoke Armory Study

Holyoke, Massachusetts

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Introduction

Statement of Objectives, Process, and Executive Summary

Objectives

This study of the Castle of the Holyoke Armory (the building), the portion that remains standing at 163 Sargeant Street in Holyoke, MA, is intended to be used by representative of the City of Holyoke to determine the future of the building, which is not currently occupiable.

The study launched with the purpose of answering the threshold question:

What, if any, of the existing building can be reused and at what cost?

Following the initial site visit, it became clear that the three historic exterior walls can be reused, but not any of the interior floors, spans, or structure (see Part 2 Existing Conditions). The threshold question was therefore refined:

What might be the interest among developers to keep the three walls of the existing building?

Process

Taylor & Burns Architects, under contract with MassDevelopment, led a design team in a study of the building including structural assessment and limited structural design to stabilize the Castle walls as well as cost estimating. The study process has been informed and directed in a sequence of meetings and other regular communications since the project inception in December, 2019.

Executive Summary

The three historic exterior walls of the Castle can be reused, as stated above. However, the floors, spans, and structure cannot be reused, as they are undersized and deteriorated, with collapses in many locations. The process of construction related to reuse of the Castle would therefore involve, first, shoring the masonry walls to allow for demolition of all elements of the existing building interior footprint. Shoring is fundamental so that the brick walls, thin non-reinforced vertical planes, do not collapse due to wind, ground shaking or, simply, height relative to their thinness. In this study, cost of shoring has been estimated by Isaac Blair & Co., Inc., a firm with extensive experience shoring similar historic masonry structures in western Massachusetts. The shoring would remain in place until other structural means related to forward-moving construction could stabilize the three historic walls. The costs of building structure in this study have been estimated by Simpson Gumpertz & Heger. SGH has also provided the structural approach for three programmatic design options described in this study, approved by representatives of the City of Holyoke: a regional farmers market, residential use, and commercial office use. Fully itemized in Part 4 Cost Estimates, costs are summarized here.

	Concept 1 Regional Farmers Market	Concept 2 Residential Use	Concept 3 Commercial Office Use
Construction Cost	\$ 425,000	\$ 4,854,000 to \$ 5,314,000	\$ 5,635,000 to \$6,095,000
Temporary Shoring Cost (4 weeks)	\$ 625,000	\$ 625,000	\$ 625,000
Total Estimated Costs	\$ 1,050,000	\$ 5,479,000 to \$ 5,939,000	\$ 6,260,000 to \$ 6,720,500

Building History

This historical summary includes information extracted from various documents, with different authors and dates, included in the Massachusetts Cultural Resources Inventory System (MCRIS) for the Holyoke National Guard Amory (Inventory item number HLY_134). That file, including reference documents and information sources (local histories, deeds, assessor's records, early maps, etc.) is included in full in the appendices of this study.

The site for the Armory was purchased from the Holyoke Water Power Company in 1906. William J. Howes, a local architect, drew up the plans for the structure, a revival form of "Fortified English Romanesque" style. The facade is supposedly a replica of the Gladstone Home, Hawarden Castle in England. It was completed in 1907, when a large dedication ceremony took place.

The building consists of a symmetrically square main block embellished with three three-story towers—two square ones in front and one round one in the rear. The towers and horizontal parapet walls on four sides of the castle project forward with corbeling and have crenellated parapets. The main entry is set back in a brick recess under a low arch. Muscular foliate concrete brackets and brick corbelling support a brick and concrete battlement projecting above the entry. The seal of the State of Massachusetts is situated between the front two towers. The paired windows on the first floor (raised seven feet above the ground) are narrow, reportedly to bar a human from entering through them. The second story arch-topped windows are trimmed with concrete lintels and keystones.

Before World War Two, the structure was known as M.V.M. Armory, for the Massachusetts Volunteer Militia Armory. It was later referred to commonly as the Drill Shed, reflecting the use of the rear ell for regimental maneuvers. A project for fireproofing improvements including new exit stairs was designed by McClintock & Craig, Inc., of Springfield and approved for construction in 1957. Drawing A1 from that project on file at Mass Archive provides the basis for drawings included in this report and is included in the appendices. In 1969, the front entrance and steps were altered. By 1990, the building was used in some part by the Hampden County Sheriff as a temporary jail. In 2016, following structural collapse of the roof of the Drill Shed, that portion of the building was demolished.

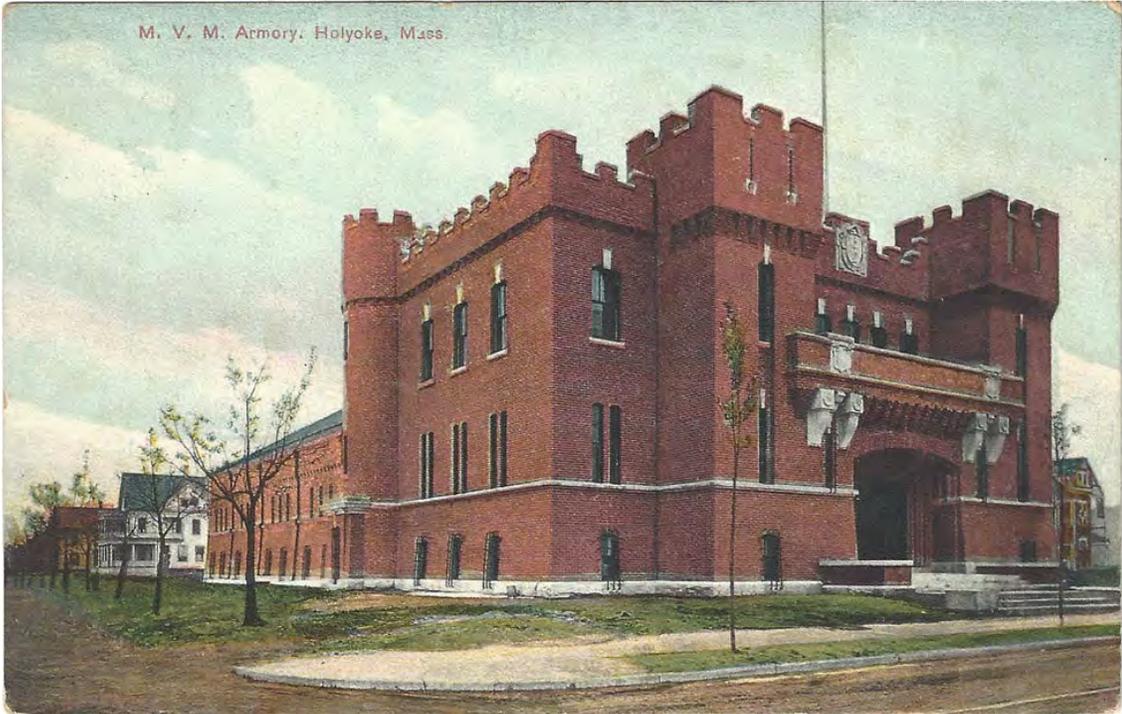
According to the *Historic Preservation Plan Update Report* completed by the Pioneer Valley Planning Commission, "Early in 2016, the rear portion of the building, the drill hall, collapsed. The Building Inspector required some additional demolition to shore up the structure. In addition to the immediate structural stabilization, the building needs roof repair and brick repointing." There are no prior reports available, though documentation dating from the 2016 structural collapse of the drill hall offers some description.

The building is not currently listed with the Massachusetts State Register of Historic Places. However, when a historic survey was completed in 1990, it was considered eligible per Criterion A Event (the property makes a contribution to the major pattern of American history) and Criterion C Design and Construction (the distinctive characteristics of the building by its architecture and construction, including having great artistic value) and was also characterized as a community icon. Massachusetts Historic Commission (MHC) holds an historic covenant.

Historic Photos

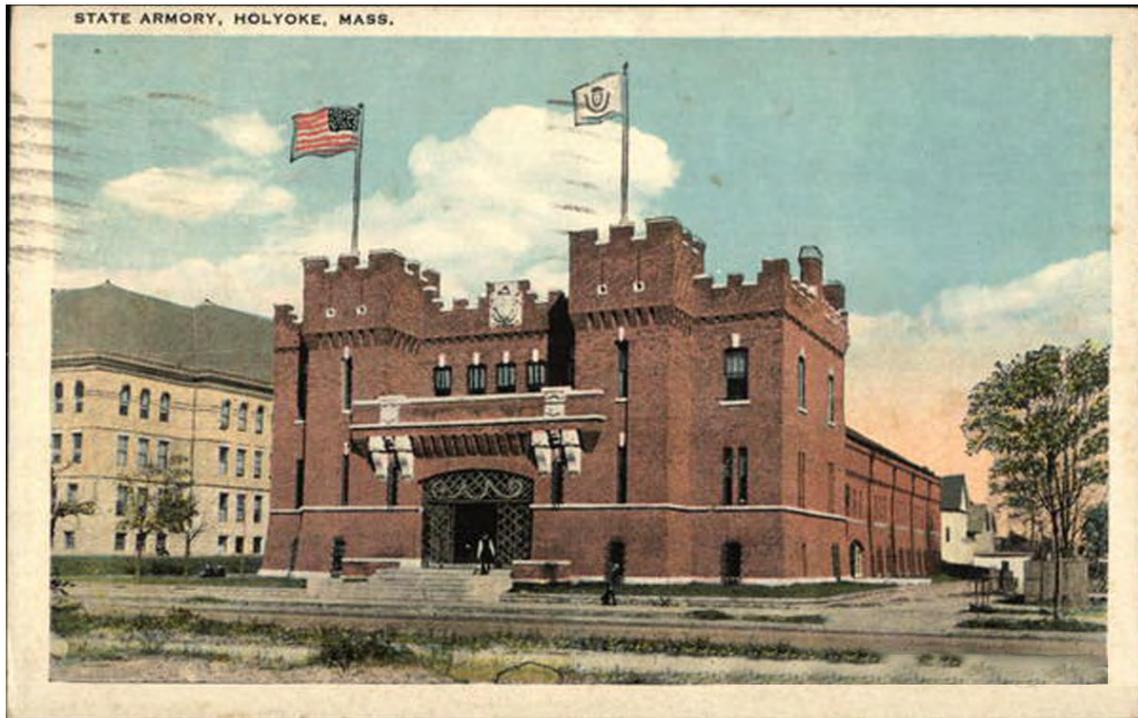


Holyoke Armory, Date Unkown



Holyoke Armory, Date Unkown

Historic Photos



Holyoke Armory Postcard, 1925



Holyoke Armory Postcard, 1909

Existing Conditions

The building is constructed of masonry with wood spans and wood floors. It includes about 9,000 square feet in area on a site 19,250 square feet in area. Functionally abandoned for many years, it has undergone severe deterioration.

Structure

It was impossible to view much of the interior beyond the main entry hall, as floors and stairs have collapsed in several locations. Indeed, on the date the design team visited the site in December, 2019, the structural engineer fell from the main floor to the basement in a newly-failed location (and was not hurt but needed rescue assistance). The wood structure, perhaps undersized by today's standards, is observed as subject to dry rot as well as wet rot. The structural conclusion about the Building is that all floors and spans require demolition.

Exterior Envelope

The exterior wall fabric consists of red brick, granite and limestone trim, and concrete. The main roof, which could not be viewed in this study due to structural collapse of the building, has been described as needing replacement. Windows are generally boarded, and also include many broken panes, including some open to weather. The building appears to have no insulation. Brick has been repointed in many areas, and brick repair and repointing will be needed for the Building to be repurposed and renovated.

MEP/FP and Interior Finishes

There currently are no functional systems or interior in the building.

Hazardous Materials

No environmental site assessment has been completed.

Below Grade Infrastructure

No information is available.

Following pages include photographs and drawings of existing conditions.

The existing conditions drawings show:

Site plan with an aerial view showing abutting properties superimposed with the Castle floor plan and showing extent of the Armory property

Castle floor plans

Castle elevations

Castle section

Limitations

Building Survey Dimensions:

Drawings have been compiled based on existing available information and very limited survey information. Following completion of the study phase, should the project move forward into more-focused study, design, and realization, additional survey work would be required to establish reliable dimensional information.

Existing Conditions Photos



South East Corner



South Elevation



Southwest Corner

Existing Conditions Photos



West Elevation



North Elevation

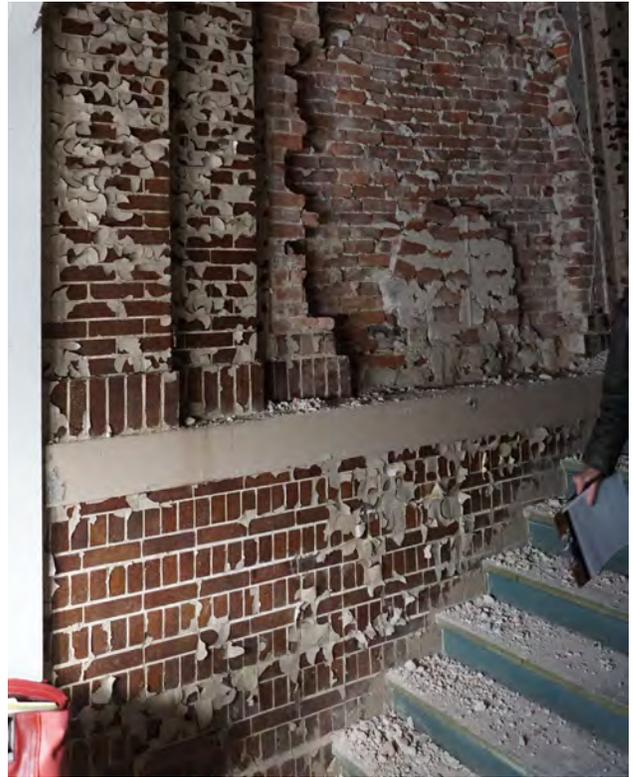


East Elevation

Existing Conditions Photos



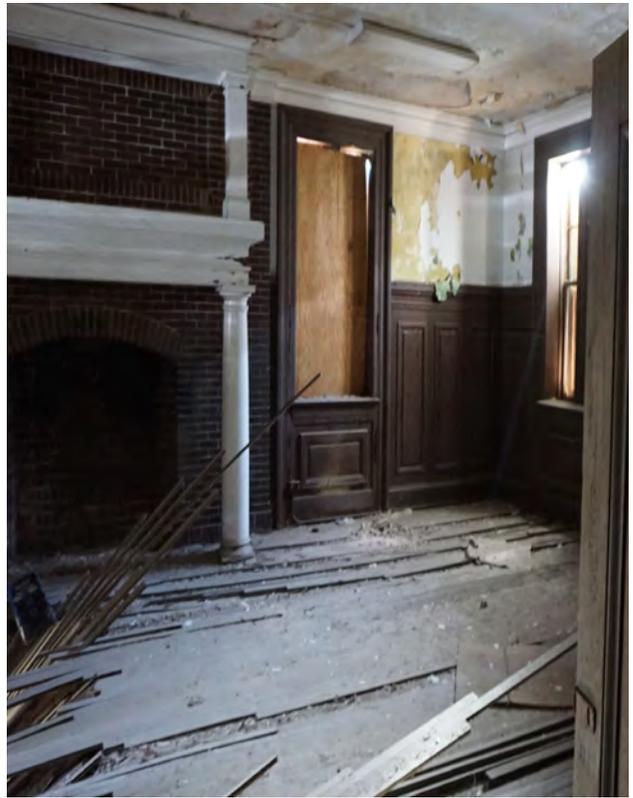
Main Entry



Side Wall at Entry



Entrance Hall



Company Room

Existing Conditions Photos



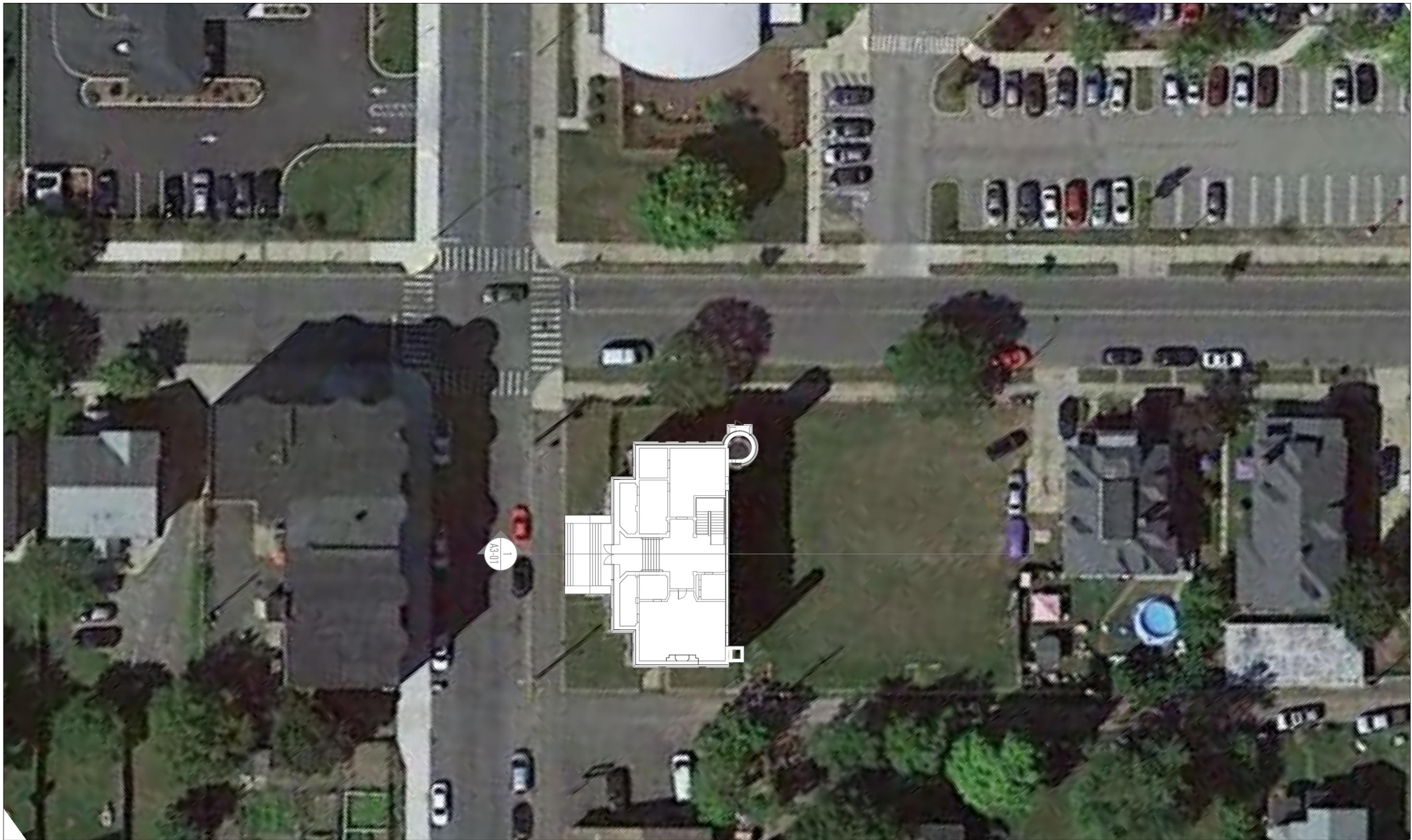
Collapsed Floor in Company Room



Collapsed Ceiling of West Wing



Deteriorating Interior



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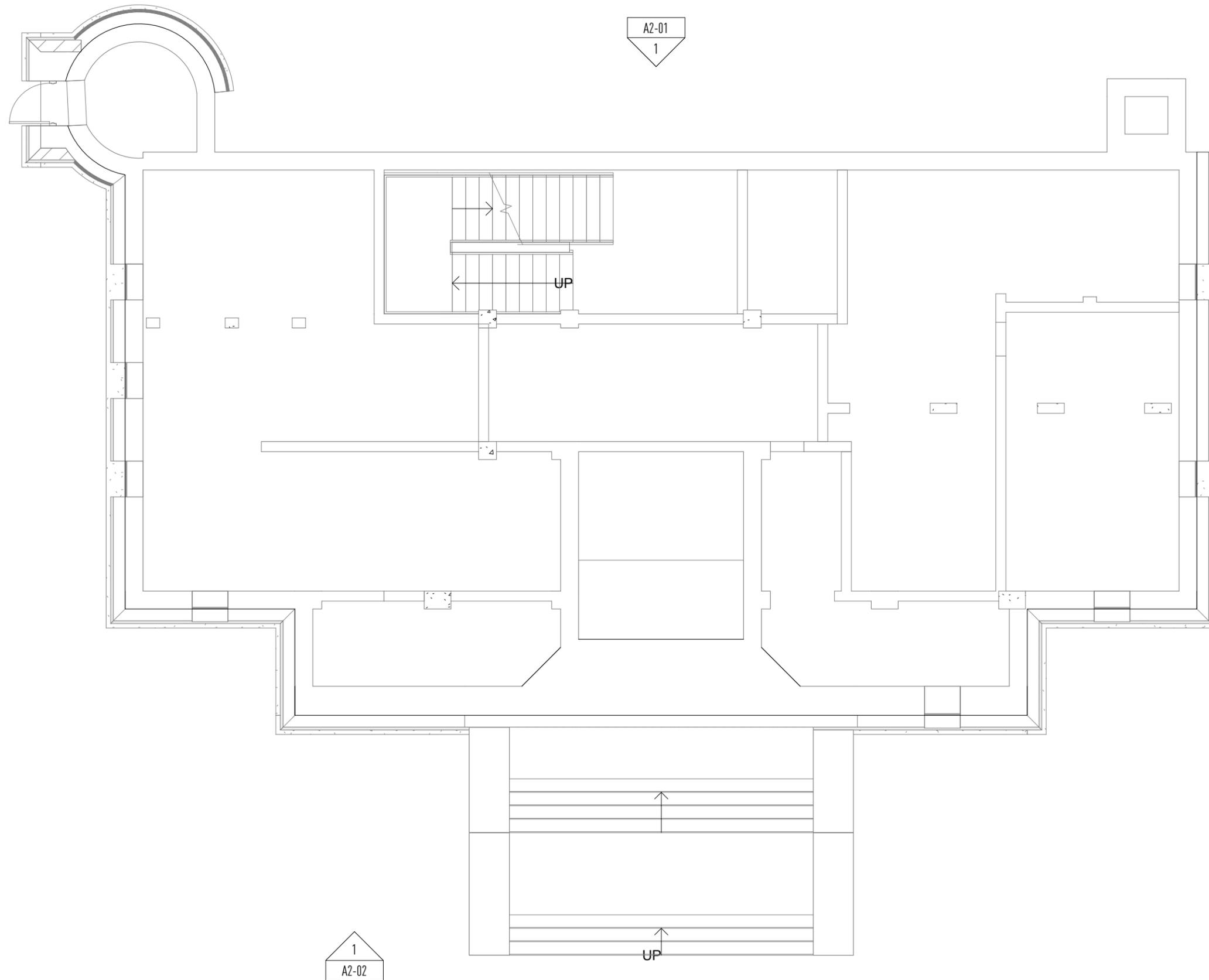
SCALE: 1/32" = 1'-0"



HOLYOKE ARMORY FEASIBILITY STUDY

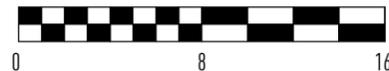
163 SARGENT ST. HOLYOKE, MA 01040
06/26/2020

SITE PLAN
A1-00



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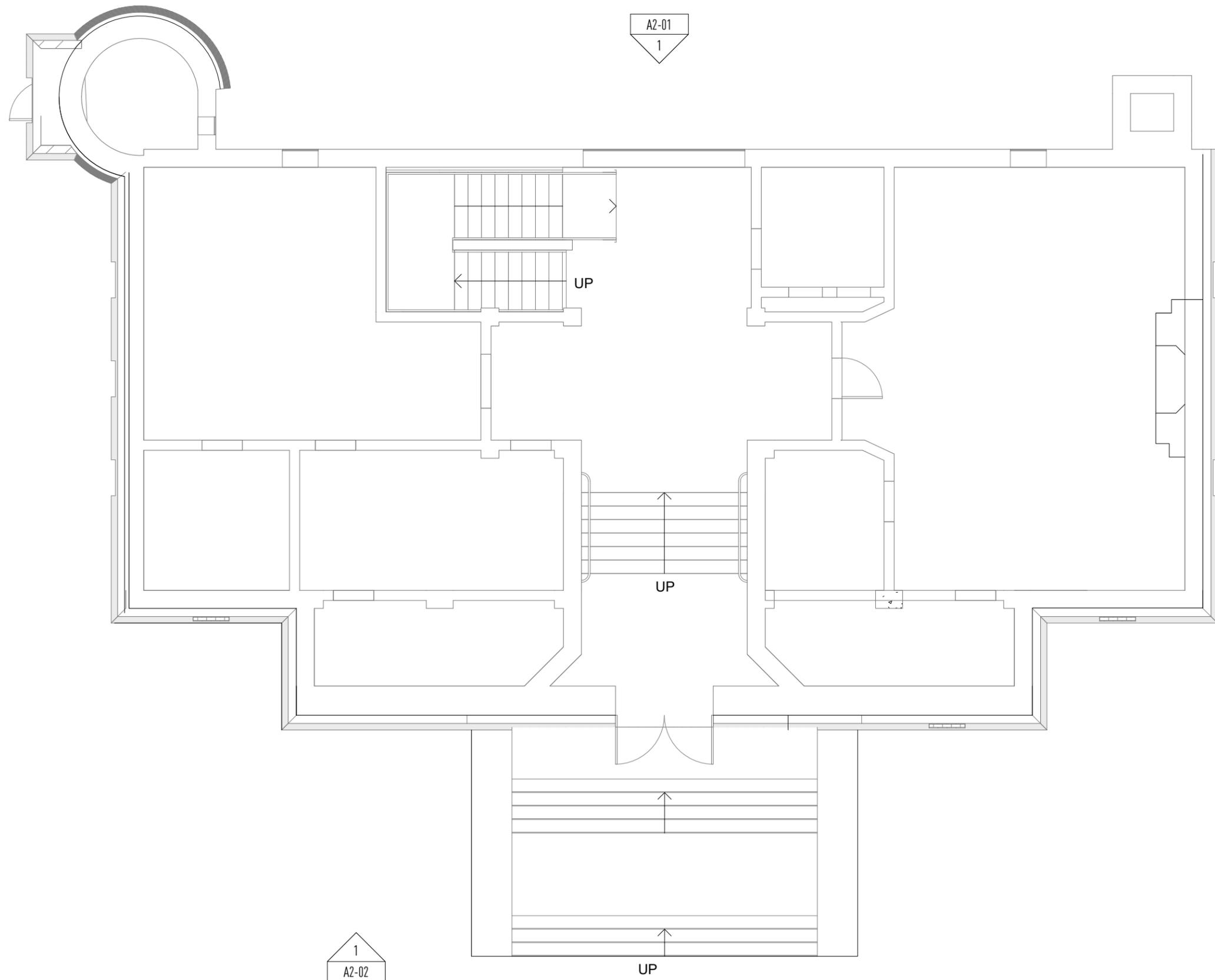
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HOLYOKE ARMORY FEASIBILITY STUDY

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BASEMENT PLAN
A1-01



A2-01
1

A2-04
1

A2-03
1

1
A2-02

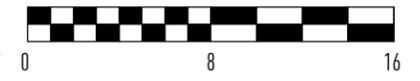
UP

UP

UP

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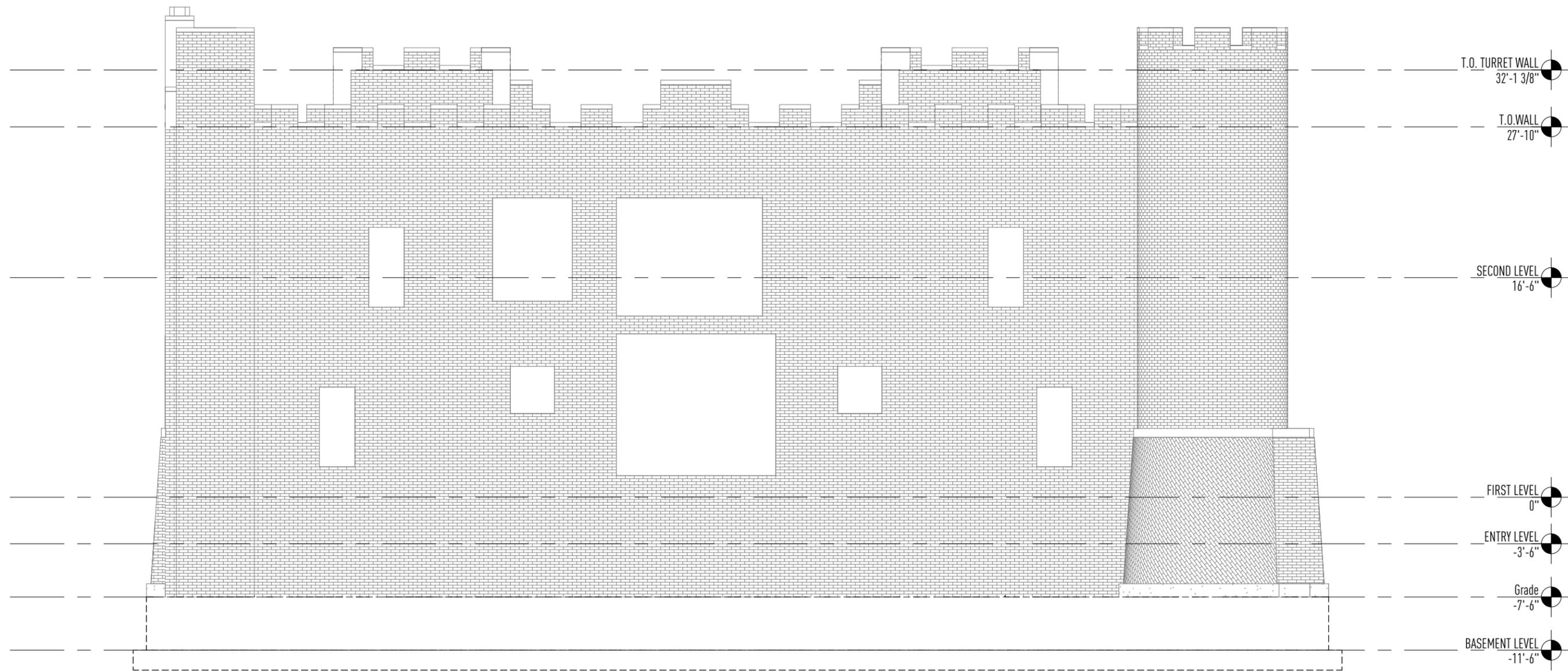


HOLYOKE ARMORY FEASIBILITY STUDY

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1ST FLOOR PLAN

A1-02



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HOLYOKE ARMORY FEASIBILITY STUDY

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NORTH ELEVATION
A2-01



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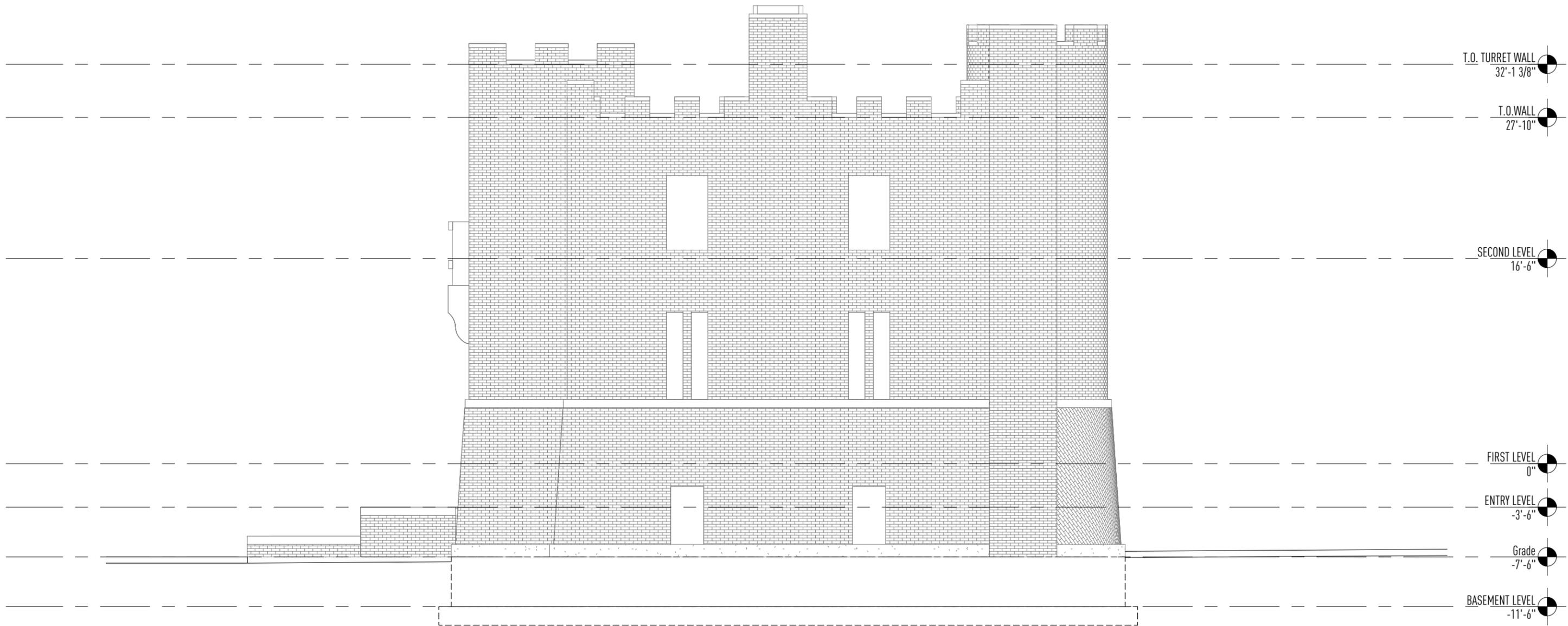


HOLYOKE ARMORY FEASIBILITY STUDY

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SOUTH ELEVATION

A2-02



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HOLYOKE ARMORY FEASIBILITY STUDY

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EAST ELEVATION
A2-03



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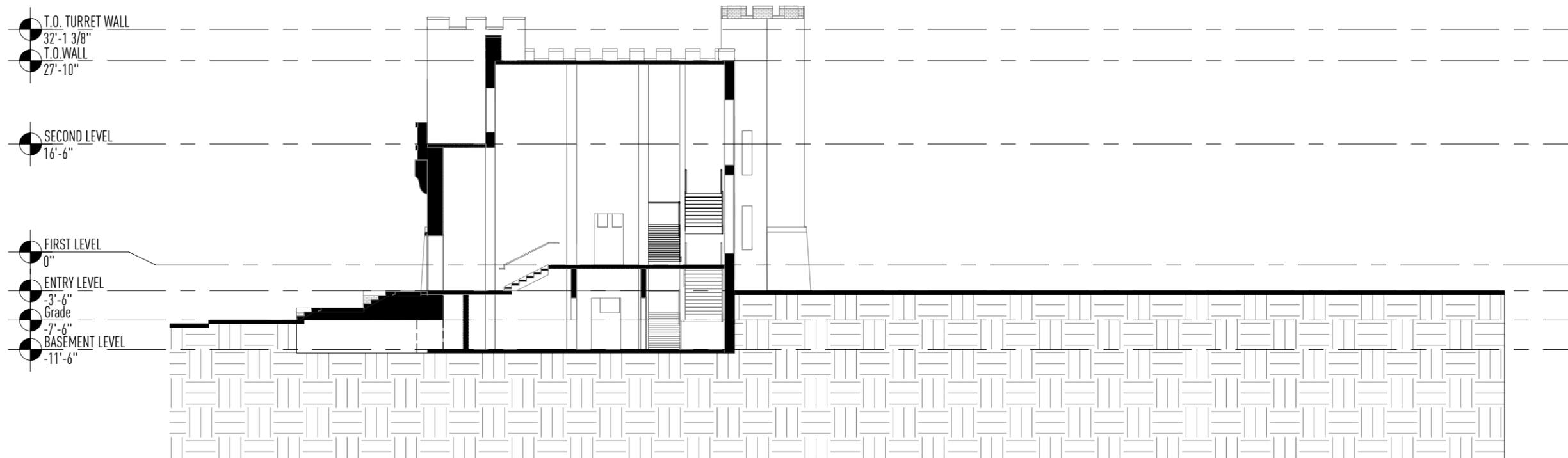
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HOLYOKE ARMORY FEASIBILITY STUDY

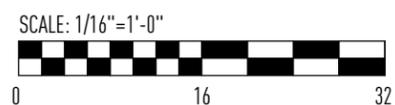
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WEST ELEVATION
A2-04



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HOLYOKE ARMORY FEASIBILITY STUDY

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06/26/2020

SITE SECTION
A3-01

Proposed Reuses

Approach

Zoning: According to the City of Holyoke Zoning Ordinance dated 2/19/2002, the Holyoke Armory site is located within the Downtown Residential District (DR). The full description of this District extracted from the Ordinance is included in Appendix A.

Three programmatic options and three structural approaches described and shown on the following pages share these fundamental criteria:

- Conform to the 10-foot zoning setbacks relevant to the DR District
- Use the space within the three walls of the Armory Castle proposed for preservation
- Provide a primary accessible entry from the Pine Street side of the property, preserving the historic entry and exterior stair at the Sargeant Street side of the building
- Range in cost as well as spatial interaction with the historic Armory fabric

Program of Uses and Structural Concepts

Three different uses have been identified and approved during the study process, intended to appeal to a broad range of potential developer interests. This approach of presenting a range of study options similarly informs the work of SGH in providing structural engineering options for the Castle. The three structural approaches described in the narrative are each linked to the spatial implications of the programmatic options; however, any of the structural approaches would be physically possible with any of the programs of use.

Concept 1 -- Regional Farmers Market

Shipping containers and tents in a courtyard configuration behind the Castle, with flexible uses, can support a farmers market drawing from the entire region outside the city limits. For this concept, the structural work will be largely limited to the installation of permanent lateral shoring for the three walls at the Castle.

Concept 2 -- Residential Use

A residential use based on a double-loaded corridor fits well behind the Castle. Structural work at the Castle includes a traditional lateral shoring system installed to support the three existing masonry walls.

Concept 3 -- Commercial Use

The third scheme shows use of the Armory site for offices, possibly for a not-for-profit organization in Holyoke. Structurally, this approach interacts spatially with the existing Castle, as elevated platforms are proposed to be installed within the Castle at the first-floor level and at the third-floor level as steel frame structures. It also proposes a new roof deck and steel roof framing installed at the roof-level of the Castle, supported on columns extending up from the platform structures below.

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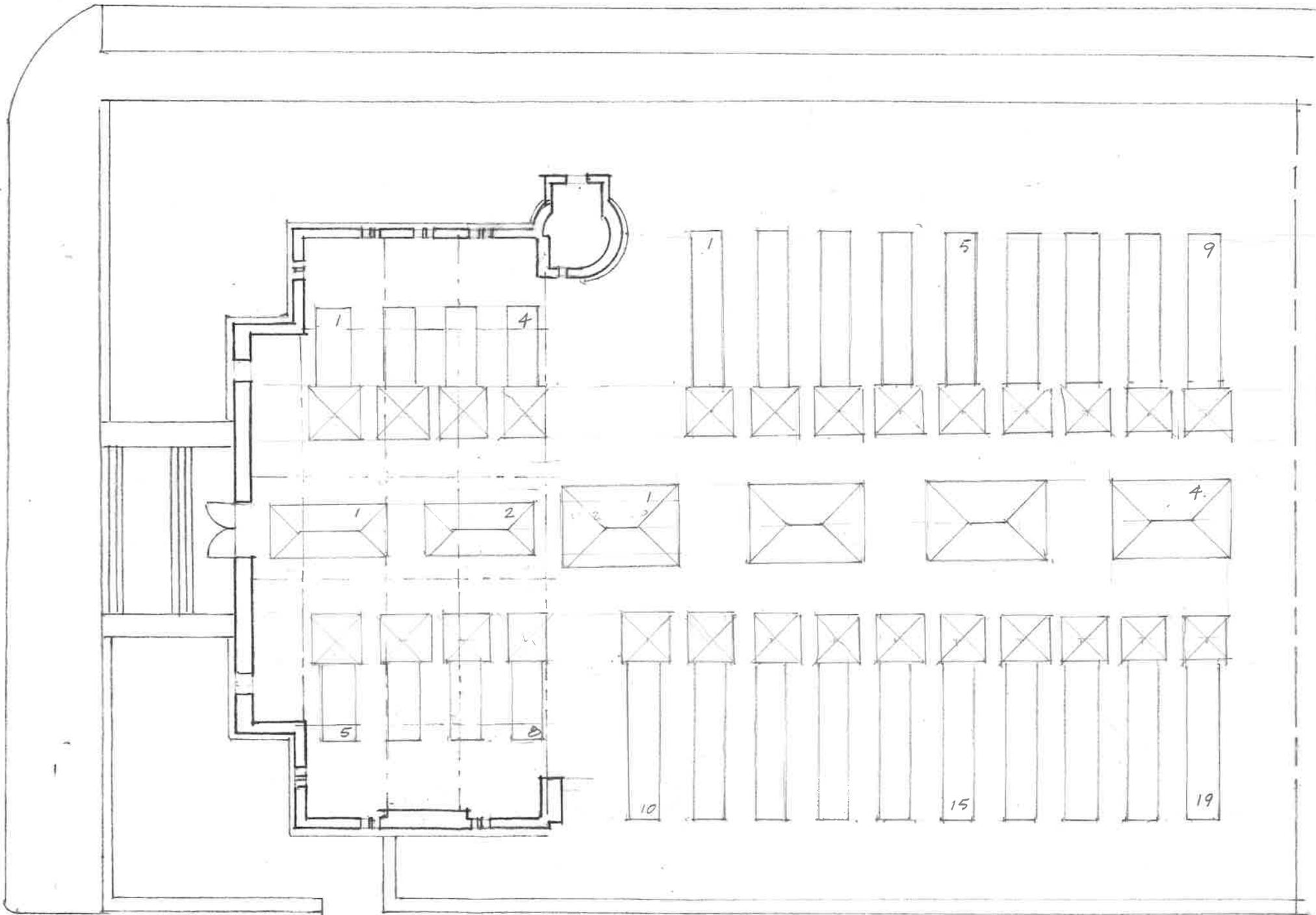
Concept 1 – Regional Farmers Market

Architectural Narrative

Shipping containers and tents in a courtyard configuration behind the Castle, with flexible uses, including a seasonal market that could draw from the entire region outside the city limits. The plan shows a maximum configuration of freestanding containers in standard sizes—8' wide and 8.5 feet tall, with 20' long containers within the Castle footprint and 40' long ones outside the footprint. Small tents are shown with each container, and larger tents to provide cover on major market days (again, all in standard sizes for rental or purchase). This scheme shows a ground level within the Castle at the same elevation as the existing grade behind it. Otherwise, initial costs after shoring the Castle walls are intentionally minimized. This concept proposes a new type of rental/community space, drawing on MassDevelopment experience using shipping containers. It minimizes the amount of space to rent in the Holyoke market, which has much space to rent, with temporary use could change and a spatial layout that could be reconfigured in the future.

Structural Narrative

For this concept, the structural work will be largely limited to the installation of permanent lateral shoring for the three walls at the Castle. In order to maximize the usable space within the Castle, this concept will use steel strongbacks, spanning vertically between ground level and the roof, to provide lateral support for the existing masonry walls. Steel framing and horizontal bracing will be installed at the roof level in lieu of a new roof diaphragm. The existing below-grade spaces will be infilled with structural fill to match the elevation in the former Drill Hall area and a new slab-on-grade will be installed at the ground level over the footprint of the Castle. This concept will also require replacing the roof system at the low roof on the south elevation of the Castle and may require installing vertical steel shoring to support the weight of the set-back wall on the south elevation.



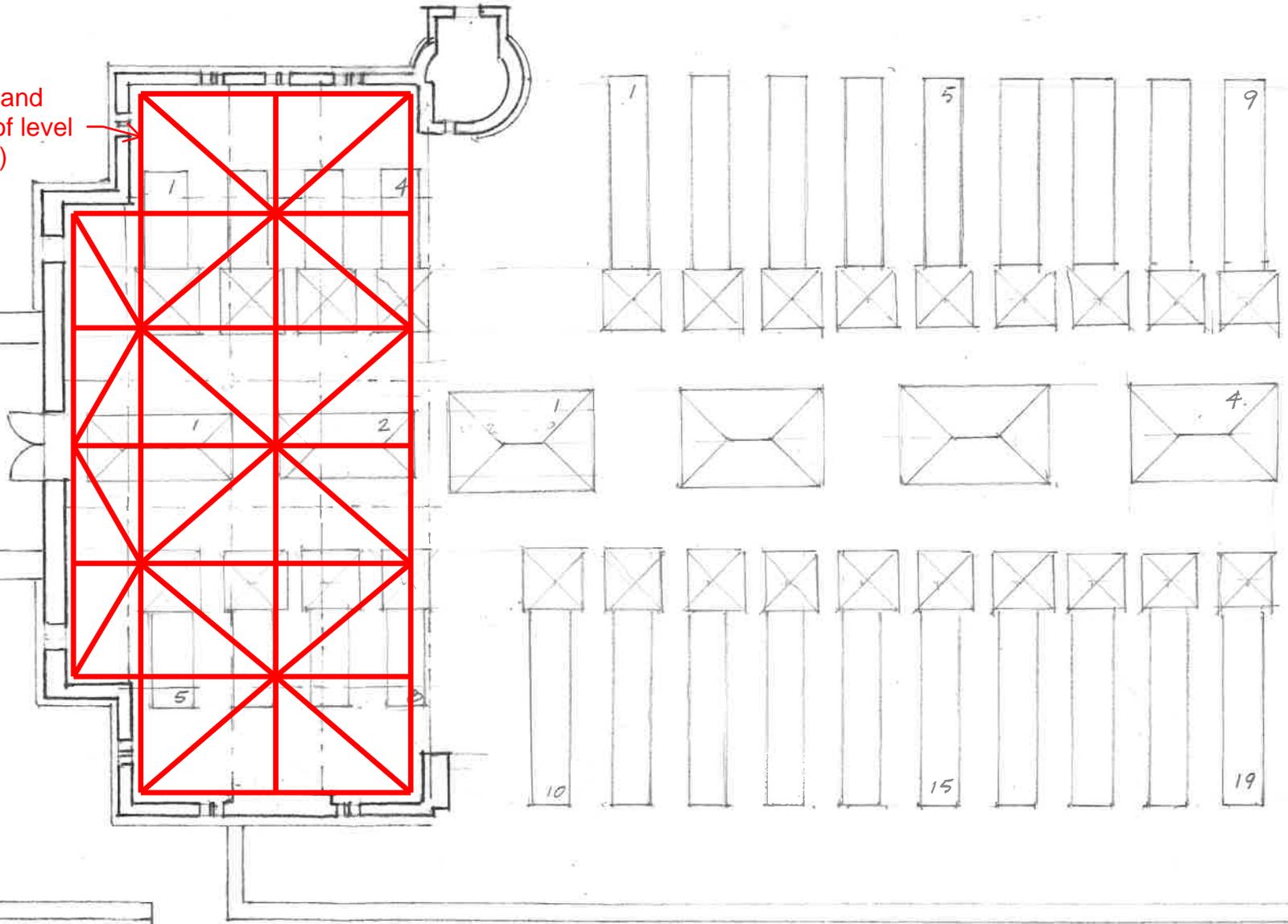
SHIPPING CONTAINERS + TENTS
 REGIONAL FARMERS MARKET
 HOLYOKE ARMORY

TAYLOR & BURNS ARCHITECTS
 1/16" = 1'-0"
 N ⊗

Concept 1 - Regional Farmers Market

Roof Plan

Plan framing and bracing at roof level (no roof deck)



SHIPPING CONTAINERS + TENTS
REGIONAL FARMERS MARKET
HOLYOKE ARMORY

TAYLOR & BURNS ARCHITECTS
1/16" = 1'-0"
N ⊗

Concept 1 - Regional Farmers Market

Section Looking West

Plan framing and bracing at roof level

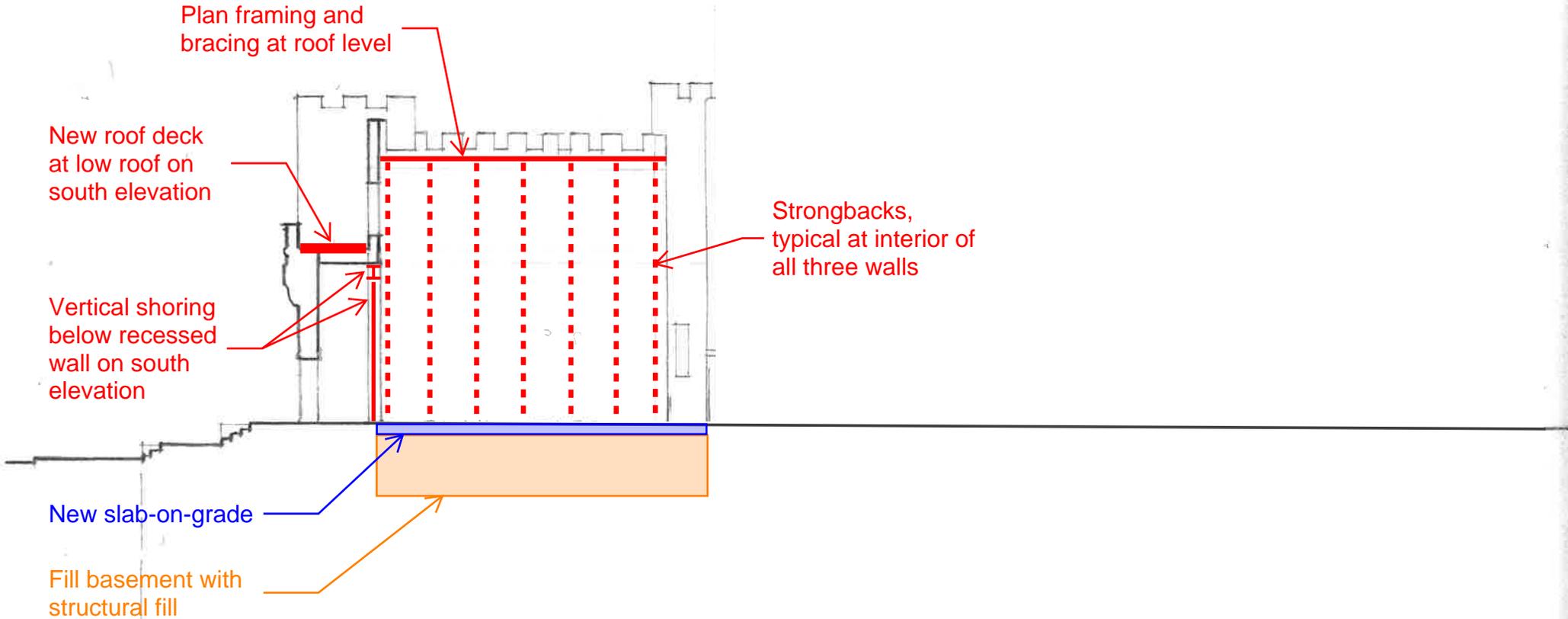
New roof deck at low roof on south elevation

Vertical shoring below recessed wall on south elevation

Strongbacks, typical at interior of all three walls

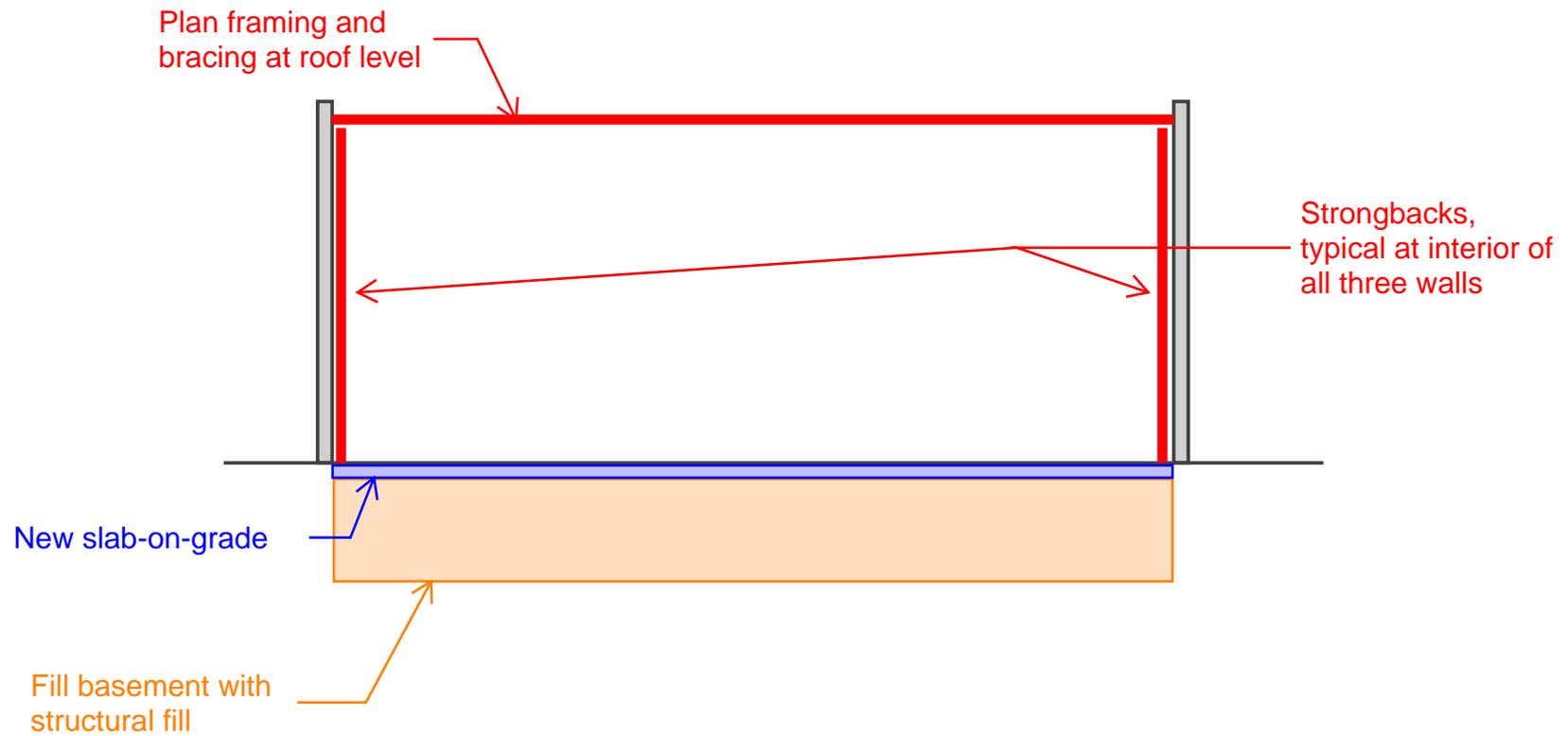
New slab-on-grade

Fill basement with structural fill



Concept 1 - Regional Farmers Market

Section Looking South



Concept 2 – Residential Use

Architectural Narrative

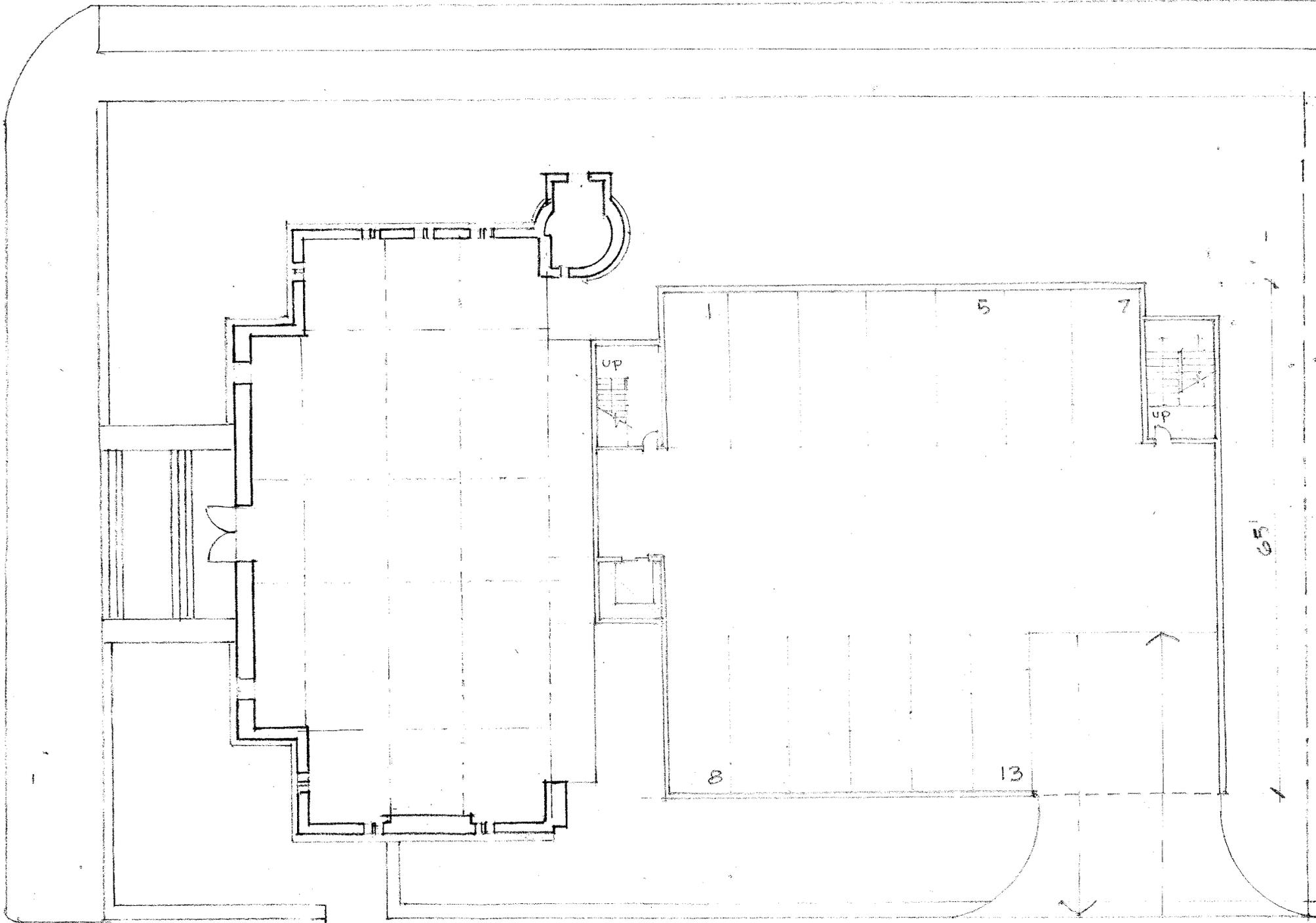
A residential use based on a double-loaded corridor fits well behind the Castle. The concept illustrates a layout for studio or loft-type apartments as well as one-bedroom units, and larger units could also be accommodated. The plan and section show 24 units; obviously, this number could vary with different working assumptions regarding unit types and sizes, among other factors. This concept illustrates an approach to leaving the Castle as it would appear following required demolition of all floors—the three preserved walls define an outdoor courtyard below the current grade level.

Structural Narrative

The new residential building will primarily consist of a new, multi-story structure on shallow concrete foundations over the footprint of the former Drill Hall. The new residential building will include a new concrete parking garage at the lowest (below-grade) level. The first above-grade level will consist of a new concrete slab-on-deck floor supported on steel or concrete framing. All levels above the first floor will be light-framed construction.

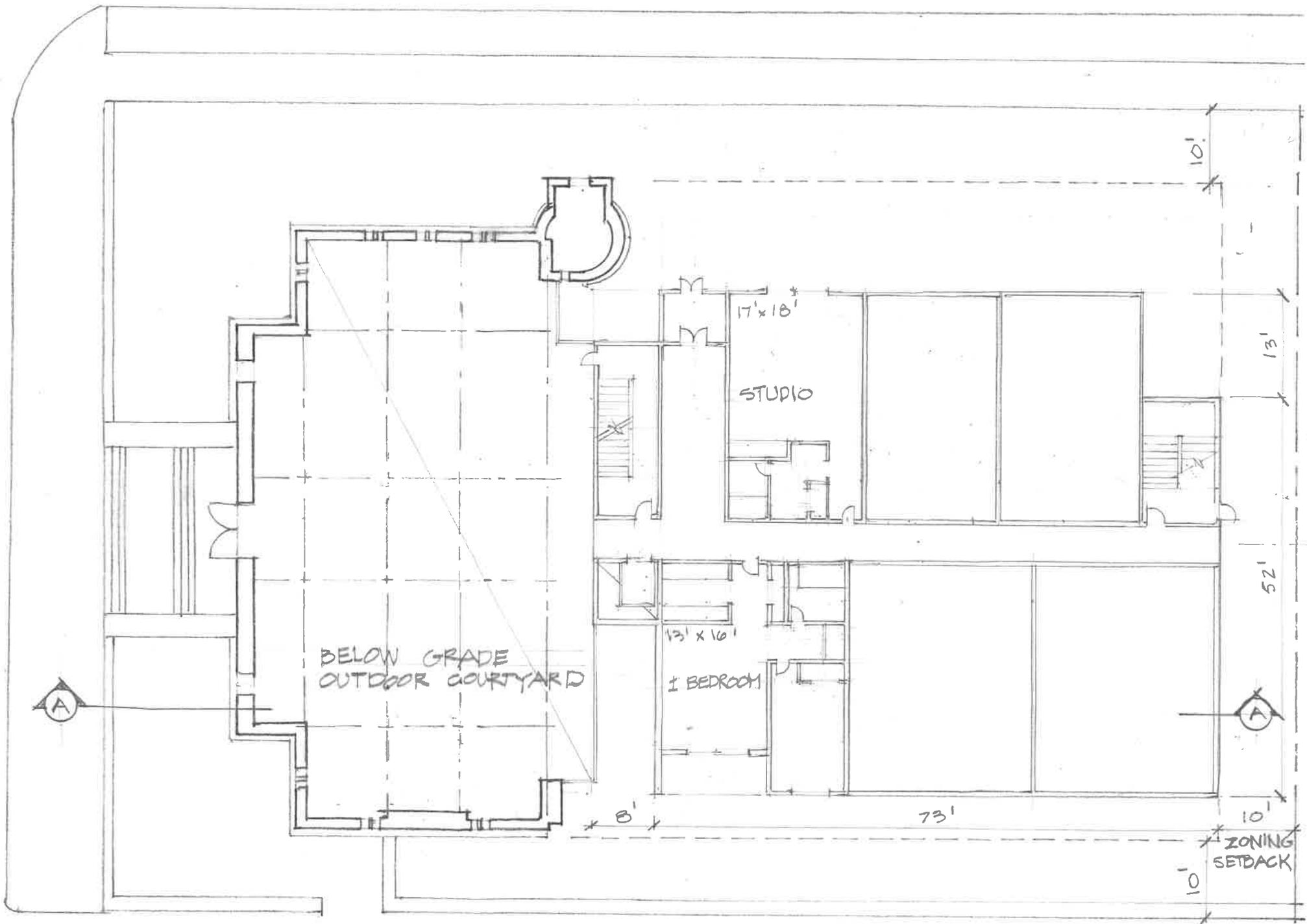
At the Castle, a traditional lateral shoring system will be installed to support the three existing masonry walls. The lateral shoring will consist of steel walers or wall plates installed on the inside face of the existing walls, steel bracing and rakers extending into the interior footprint of the building, and new concrete foundations for the bracing. This type of shoring system is anticipated to substantially reduce the useable space within the Castle, possibly by greater than fifty percent. However, this concept does not require new overhead structural elements at the roof-level of the Castle.

Similar to Concept 1, this approach will also require replacing the roof system at the low roof on the south elevation of the Castle and may also require installing vertical steel shoring to support the weight of the set-back wall on the south elevation.



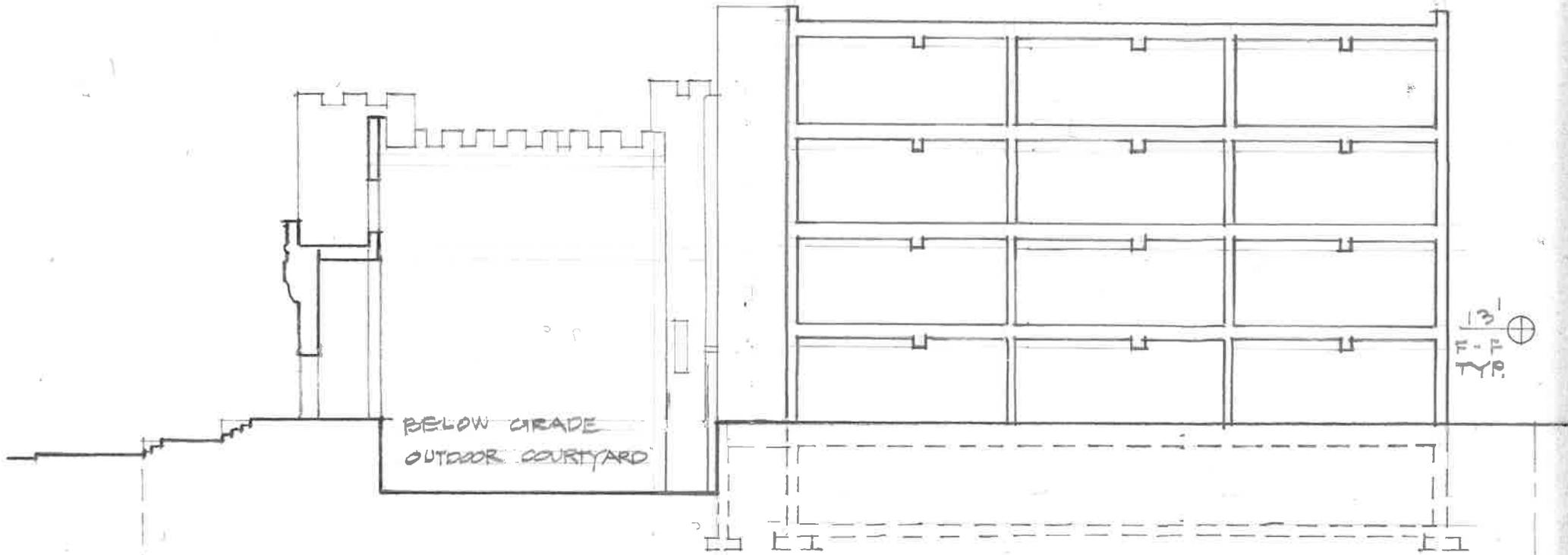
RESIDENTIAL PARKING
HOLYOKE ARMORY

TAYLOR & BURNS ARCHITECTS
1/16" = 1'-0"
N ⊗



RESIDENTIAL USE
 HOLYOKE ARMORY

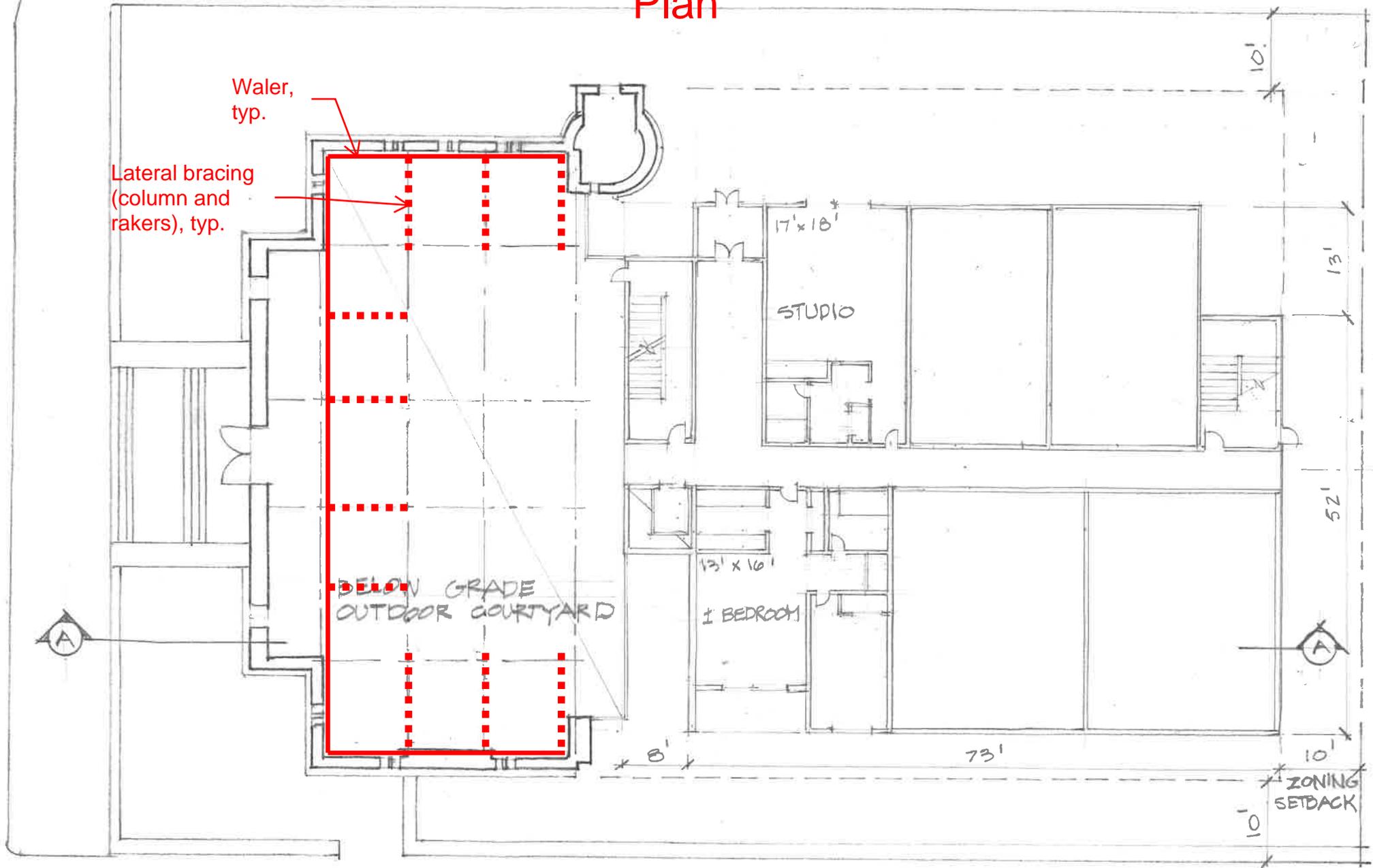
TAYLOR & BURNS ARCHITECTS
 1/16" = 1'-0"
 N ⊗



SECTION A-A RESIDENTIAL USE.
HOLYOKE ARMORY

TAYLOR & BURNS ARCHITECTS
1/16" = 1'-0"

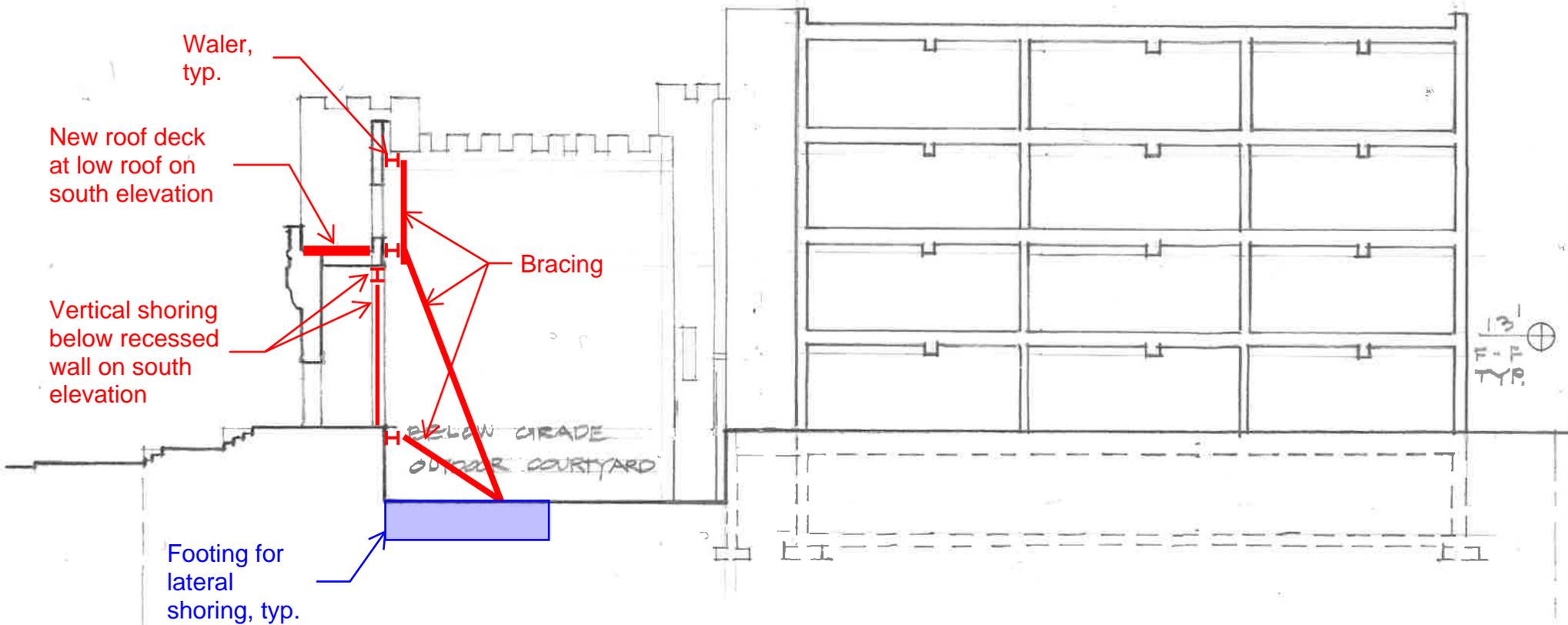
Concept 2 - Residential Plan



RESIDENTIAL USE
HOLYOKE ARMORY

TAYLOR & BURNS ARCHITECTS
1/16" = 1'-0"
N

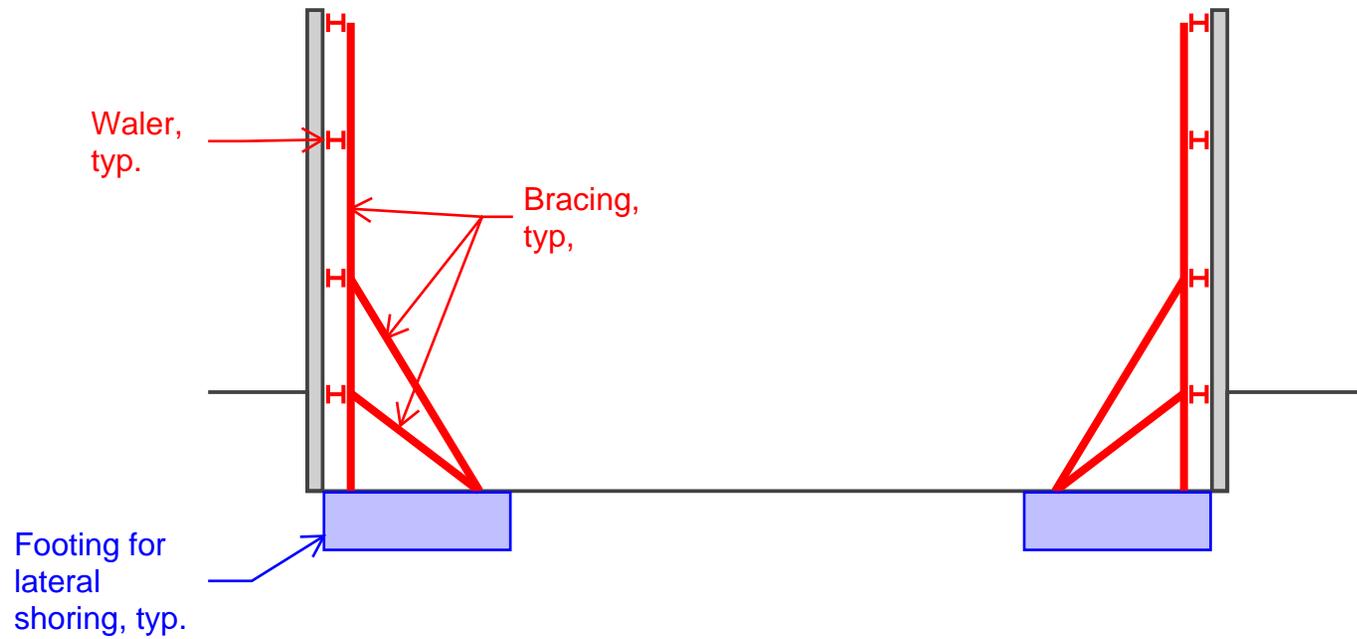
Concept 2 - Residential Section Looking West



SECTION A-A RESIDENTIAL USE.
HOLYOKE ARMORY

TAYLOR & BURNS ARCHITECTS
1/16" = 1'-0"

Concept 2 - Residential Section Looking South



Concept 3 – Commercial Office Use

Architectural Narrative

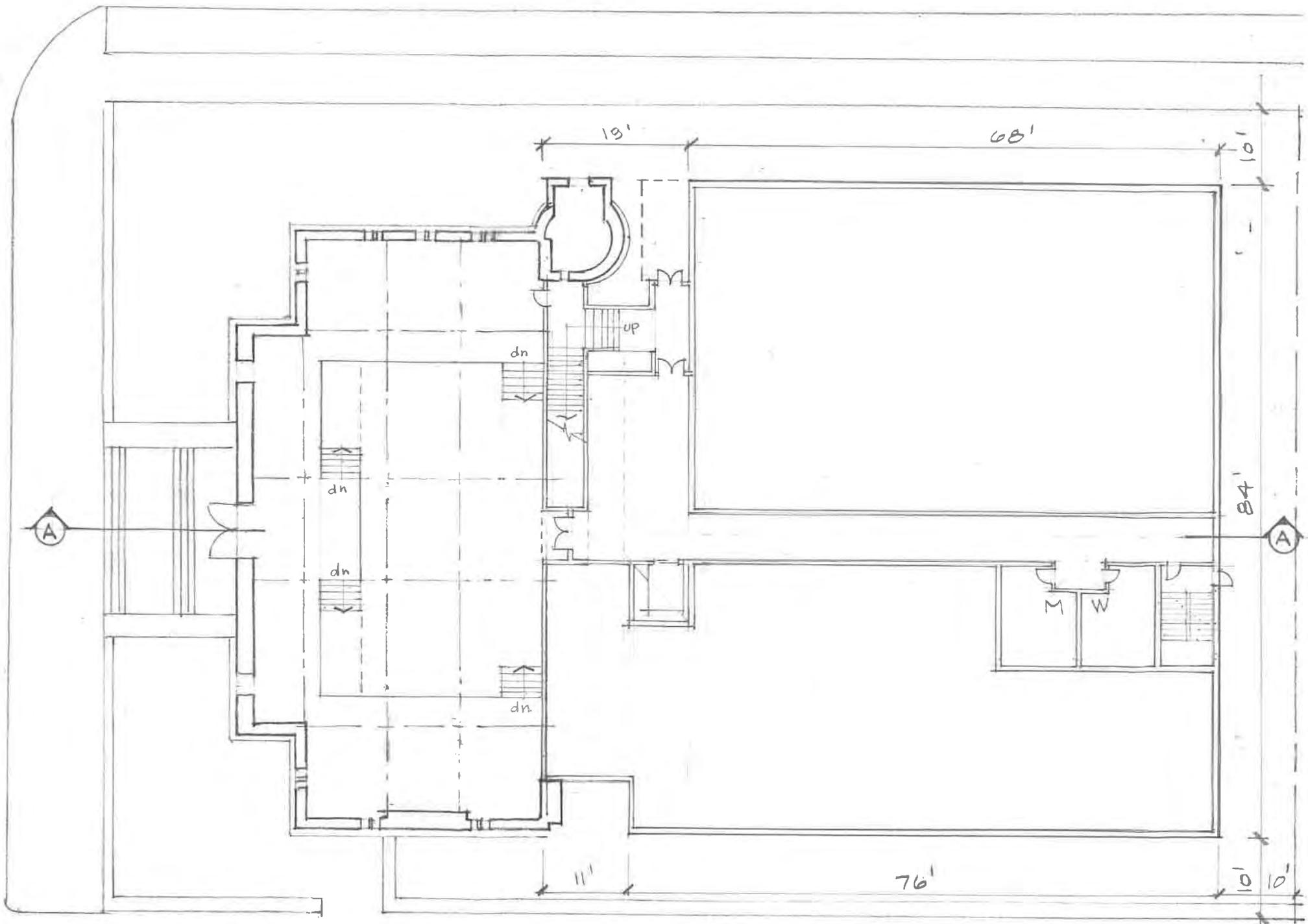
The third scheme shows use of the Armory site for offices, possibly for a not-for-profit organization in Holyoke. A continuous stair provides access to upper floors and would have glazing along the wall looking into the Castle space. Direct connections from the first and third floor provide access to floors in the Castle (rendered here as open to the sky, though a roof could span across the Castle walls, making this additional interior space). This scheme makes most intense use of the space within the Castle walls and also provides more enclosed area. For both these reasons, it would involve more cost to develop.

Structural Narrative

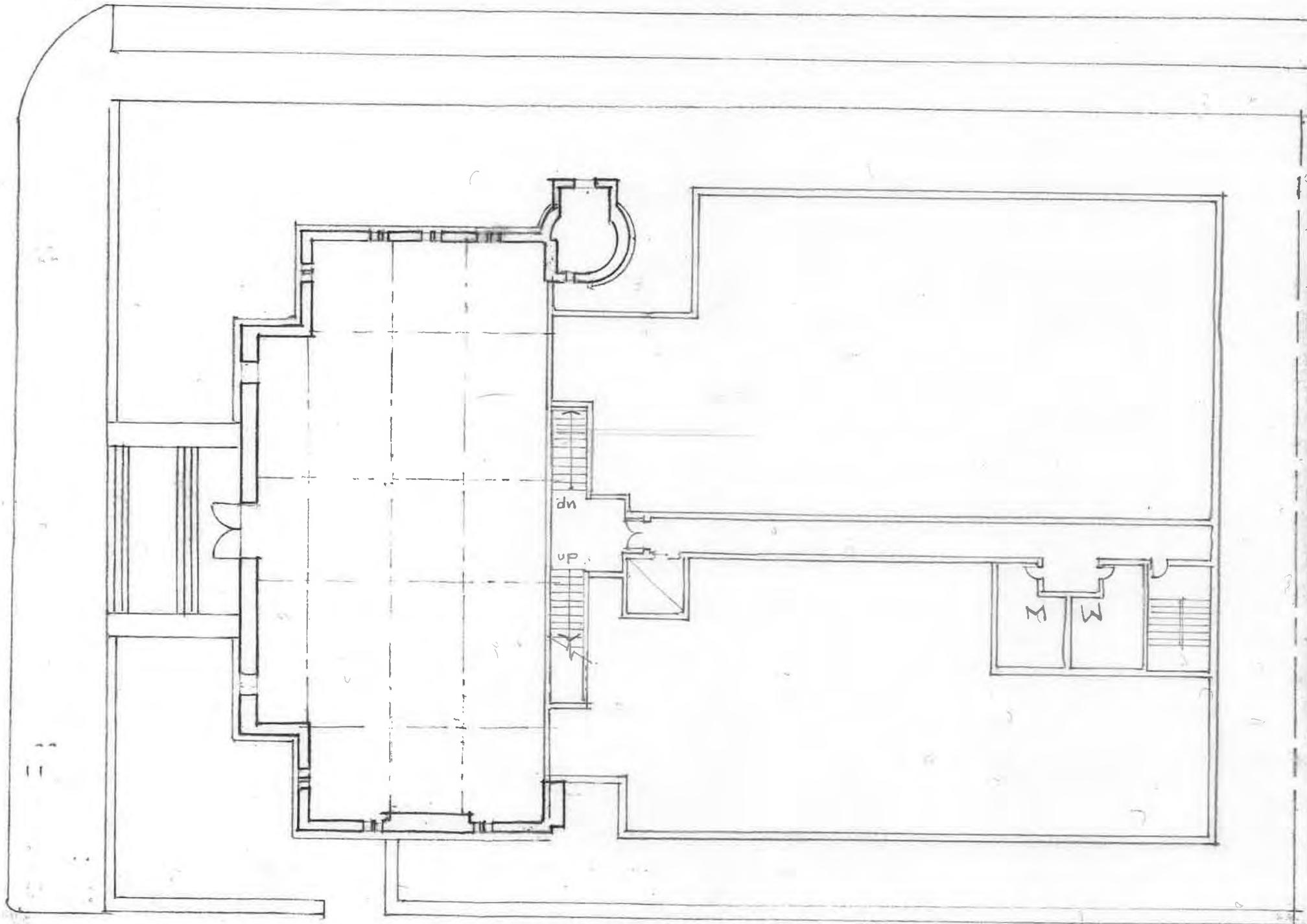
This concept also includes a new multi-story structure over the footprint of the former Drill Hall with similar construction to the Residential Use concept discussed above, including a below-grade parking concrete garage, and light-frame concrete above.

Elevated platforms will be installed within the Castle at the first-floor level and at the third-floor level. The platforms will be steel frame structures with diagonal bracing and will support concrete slab-on-deck floors. The new interior platform structures will provide the permanent lateral support for the existing masonry walls. A new roof deck and steel roof framing will be installed at the roof-level of the Castle, supported on columns extending up from the platform structures below.

Similar to Concepts 1 and 2, this concept will also require replacing the roof system at the low roof on the south elevation of the Castle and may require installing vertical steel shoring to support the weight of the set-back wall on the south elevation.

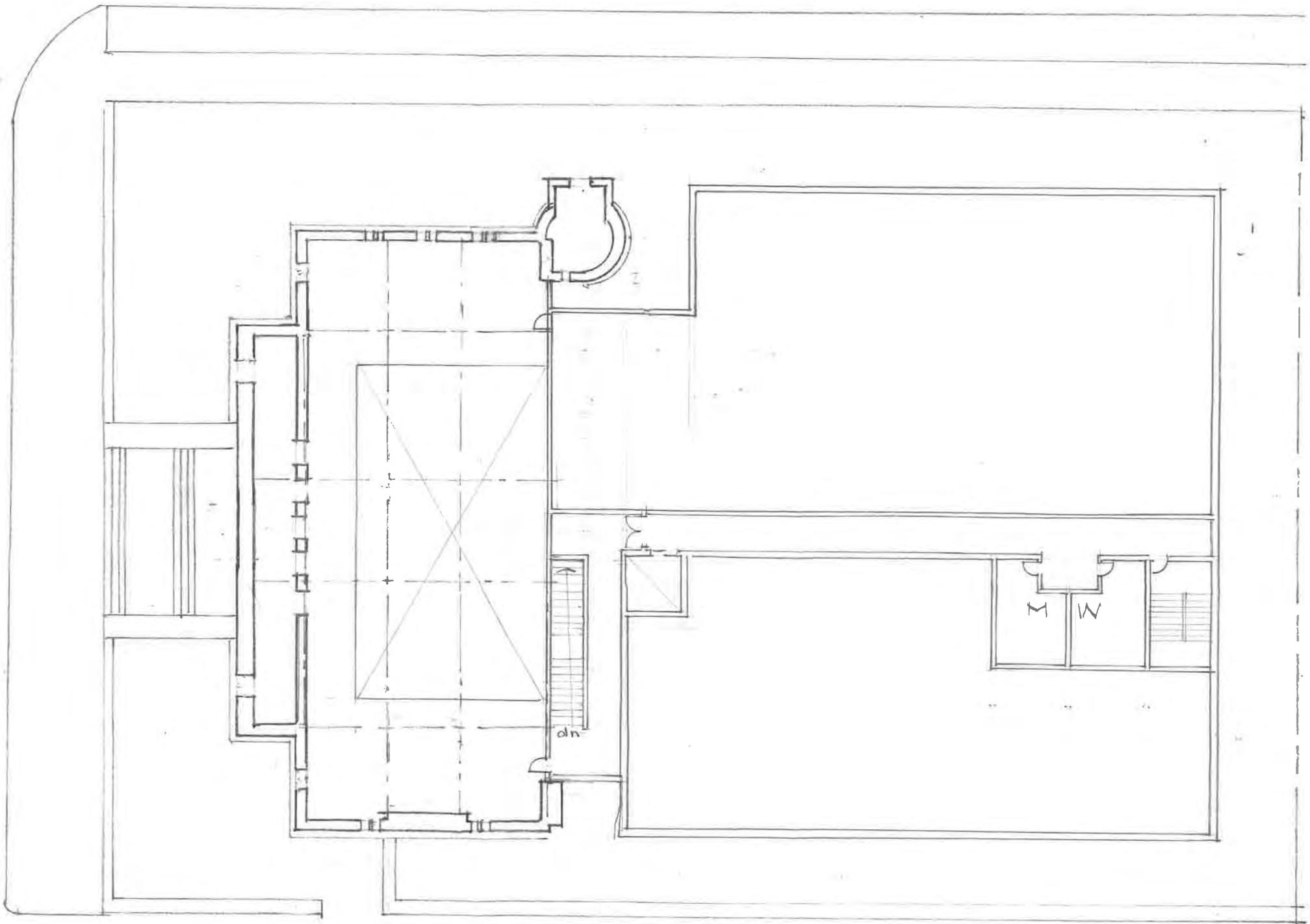


OFFICE USE - FIRST FLOOR LEVEL TAYLOR & BURNS ARCHITECTS
 HOLYOKE ARMORY 1/16" = 1'-0" N ⊗



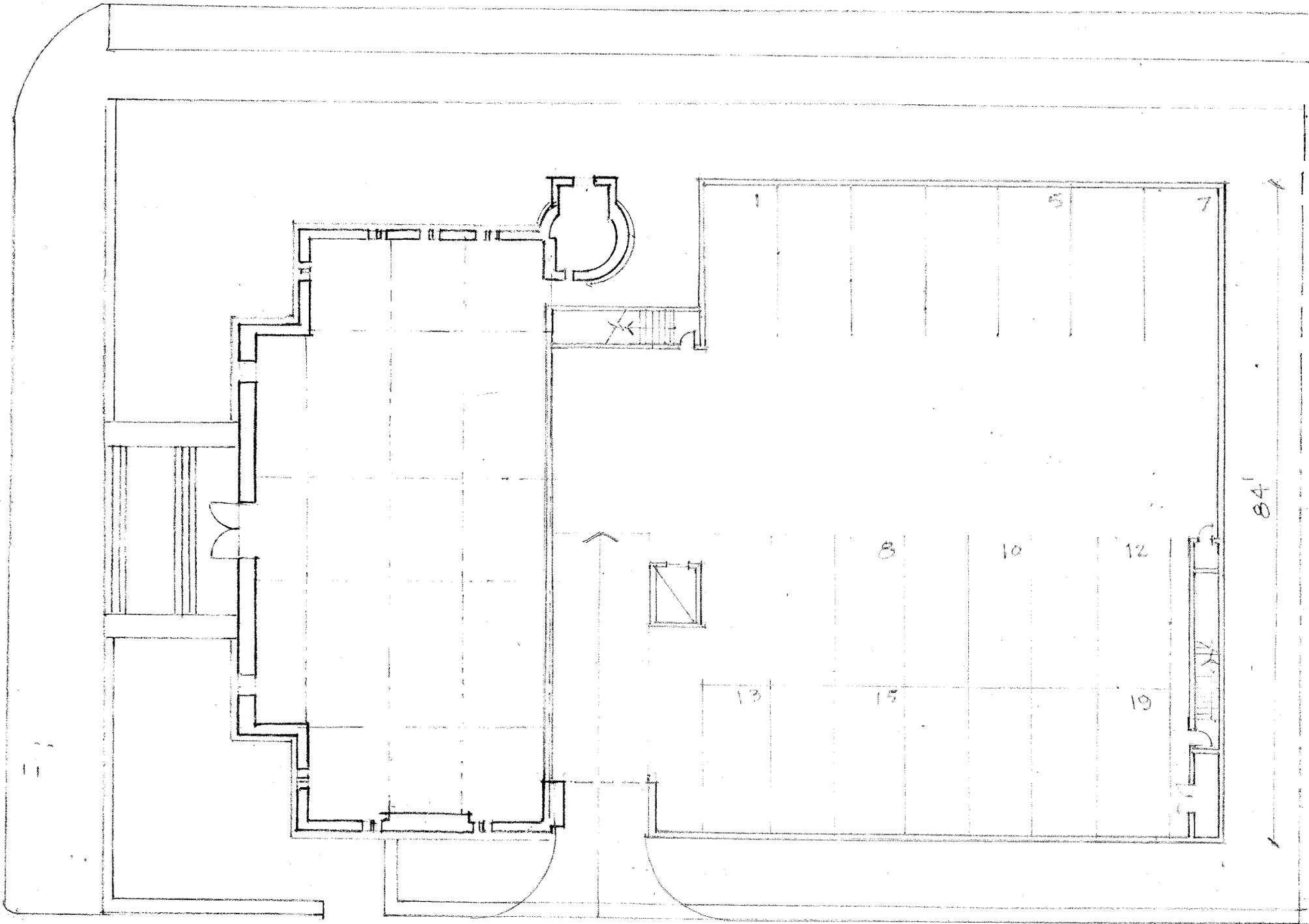
OFFICE USE - SECOND FLOOR PLAN
HOLYOKE ARMORY

TAYLOR & BURNS ARCHITECTS
1/16" = 1'-0"
N ⊗



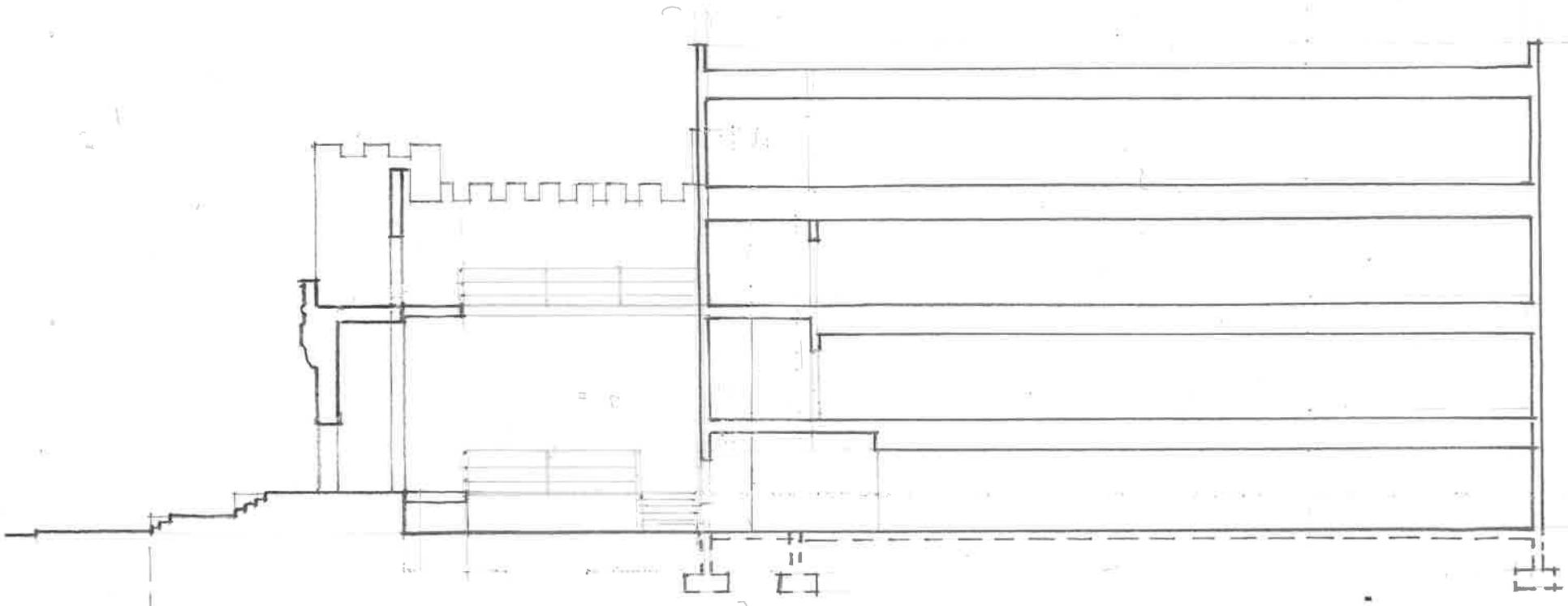
OFFICE USE - THIRD FLOOR PLAN
HOLYOKE ARMORY

TAYLOR & BURNS ARCHITECTS
1/16" = 1'-0"
N ⊗



OFFICE USE - PARKING
 HOLYOKE ARMORY

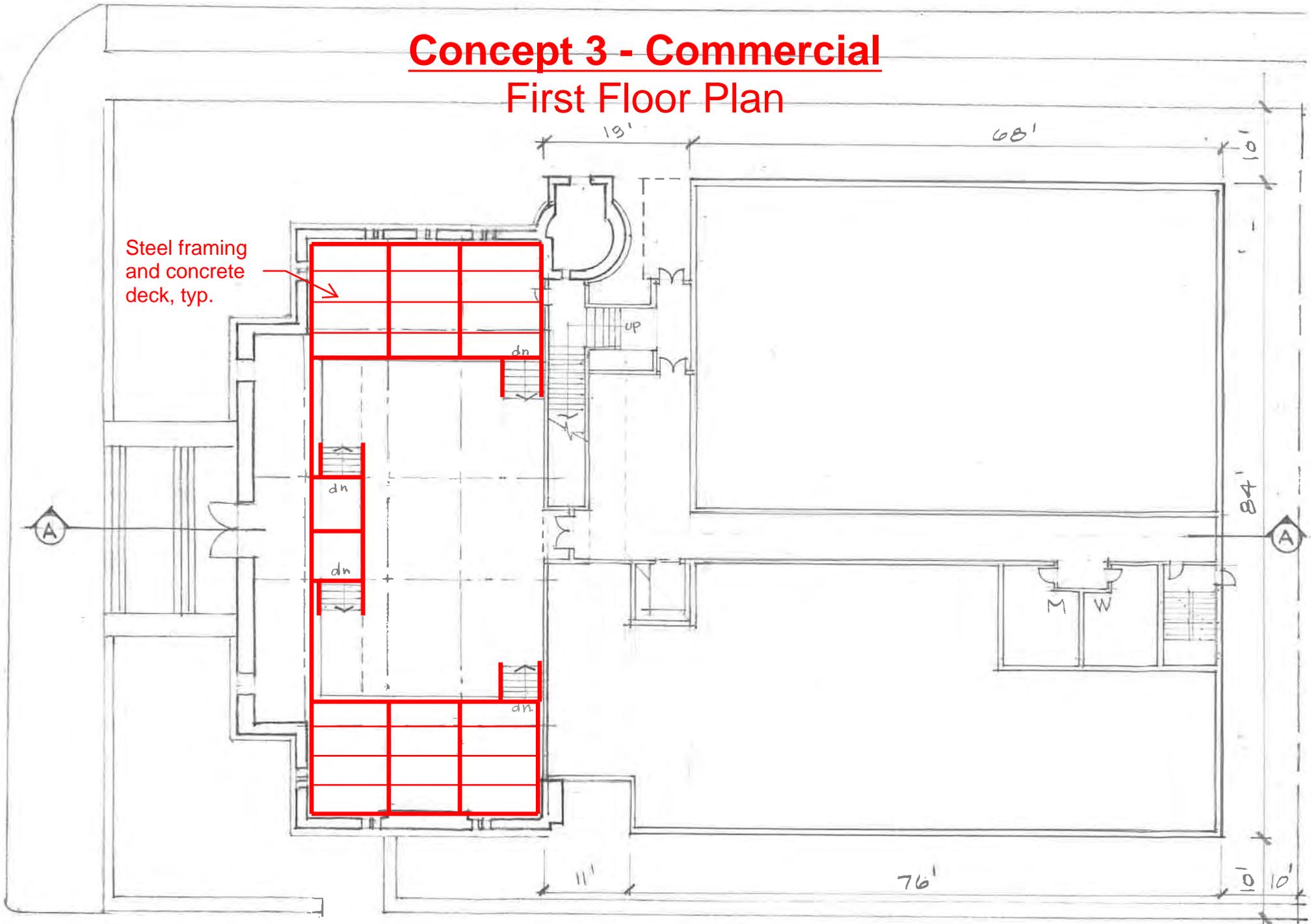
TAYLOR & BURNS ARCHITECTS
 1/16" = 1'-0"
 N ⊗



SECTION A-A OFFICE USE
HOLYOKE ARMORY

TAYLOR & BURNS ARCHITECTS
1/16" = 1'-0"

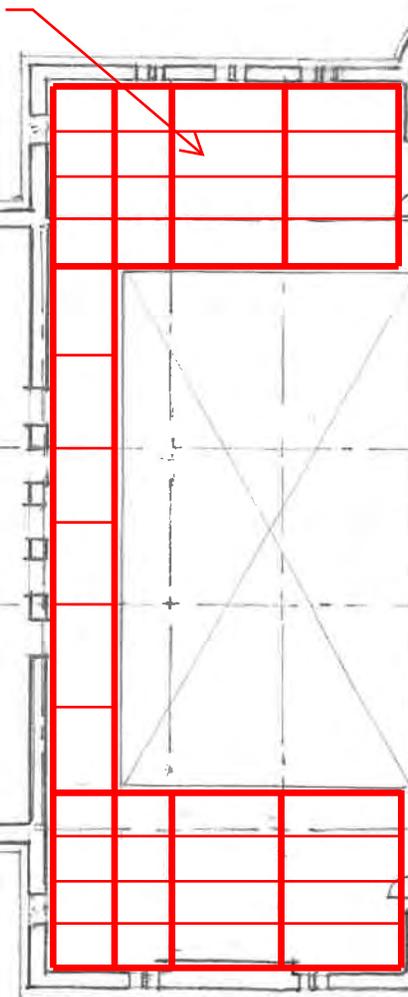
Concept 3 - Commercial First Floor Plan



OFFICE USE - FIRST FLOOR LEVEL TAYLOR & BURNS ARCHITECTS
HOLYOKE ARMORY 1/16" = 1'-0" N

Concept 3 - Commercial Third Floor Plan

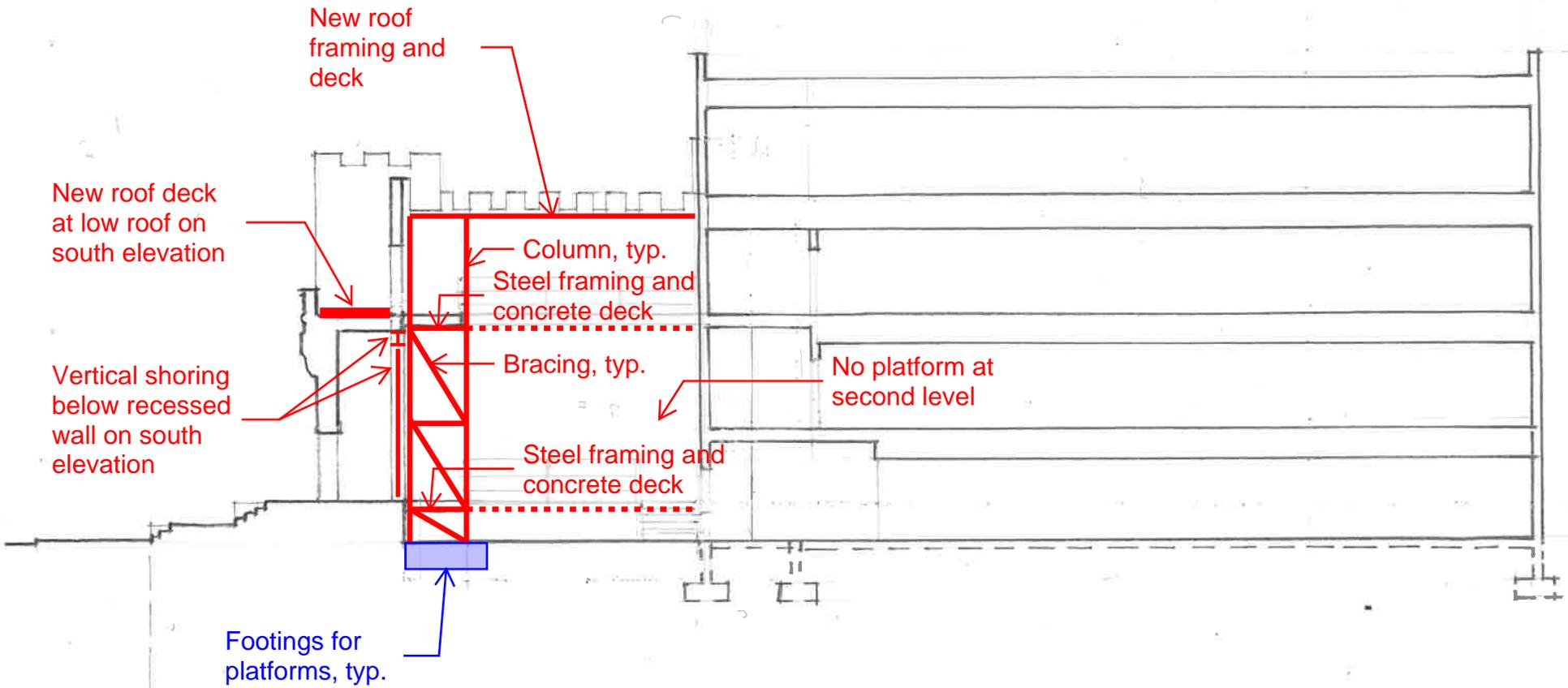
Steel framing
and concrete
deck, typ.



OFFICE USE - THIRD FLOOR PLAN
HOLYOKE ARMORY

TAYLOR & BURNS ARCHITECTS
1/16" = 1'-0"
N ⊗

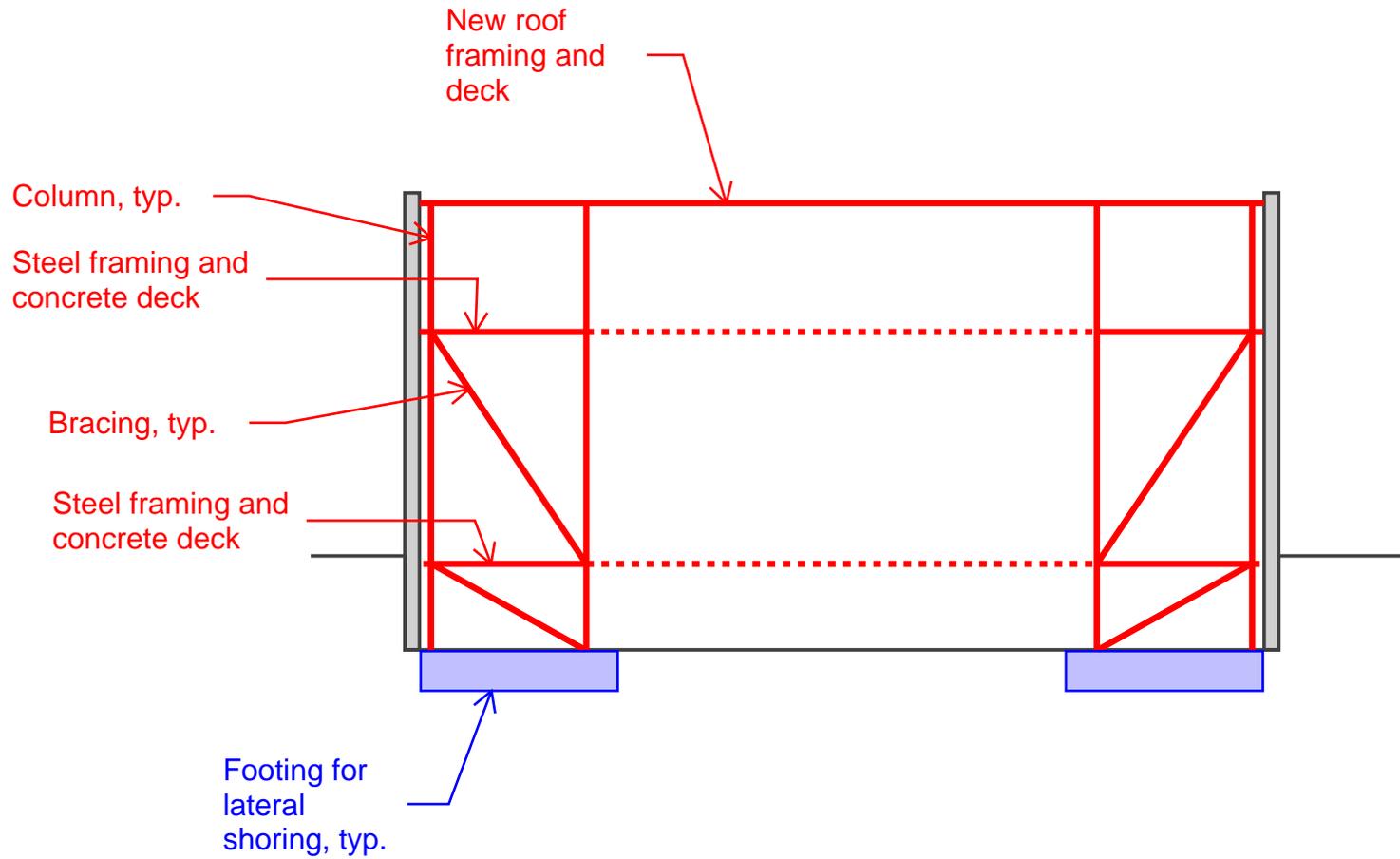
Concept 3 - Commercial Section Looking West



SECTION A-A OFFICE USE
HOLYOKE ARMORY

TAYLOR & BURNS ARCHITECTS
1/16" = 1'-0"

Concept 3 - Commercial Section Looking South



Construction Cost Estimate

Prepared by Simpson Gumpertz & Heger (SGH)
5 June 2020

CONCEPT 1 – REGIONAL FARMERS MARKET

The table below summarizes preliminary estimated pricing for Concept 1.

Component		Estimated Cost
Permanent Lateral Shoring at Castle	Steel Fabricated and Erected	\$295,000
	Concrete and Fill Work	\$75,000
GC Indirect and Profit (15%)		\$55,000
Total		\$425,000

CONCEPT 2 – RESIDENTIAL USE

The table below summarizes preliminary estimated pricing for Concept 2.

Component		Estimated Cost
New residential building at former Drill Hall		\$3,800,000 to \$4,200,000
Permanent Lateral Shoring at Castle	Steel Fabricated and Erected	\$346,000
	Concrete and Fill Work	\$75,000
GC Indirect and Profit (15%)		\$633,000 to \$693,000
Total		\$4,854,000 to \$5,314,000

CONCEPT 3 – COMMERCIAL OFFICE USE

The table below summarizes preliminary estimated pricing for Concept 3.

Component		Estimated Cost
New commercial building at former Drill Hall		\$4,400,000 to \$4,800,000
Permanent Lateral Shoring at Castle	Steel Fabricated and Erected	\$430,000
	Concrete and Fill Work	\$70,000
GC Indirect and Profit (15%)		\$735,000 to \$795,000
Total		\$5,635,000 to \$6,095,000

Note: the above estimated pricing does not include costs for temporary shoring of the existing masonry walls during demolition and construction, repointing and sealing existing masonry walls, new windows/doors at the Castle, or site work.

ISAAC BLAIR & CO INC.

1 D St
So Boston MA 02127
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Work Proposal

To: Simpson, Gumpertz & Heger
41 Seyon St Bldg 1 Suite 500
Waltham MA 02453
(Hereinafter "Customer")

Date: 3/10/18

Doc No.: WP-1

Project: Holyoke Armory

Attn: Matthew Gilbertson
mrgilbertson@sgh.com

Subject: Shoring proposal

On behalf of Isaac Blair & Co., Inc. (hereinafter "IBC"), we are pleased to provide this proposal which is complete in accordance with the following scope, exclusions, clarifications, and time limitations.

I. Price:

Our total cost to perform the work described in this proposal is broken down as follows:

Labor Price for T&M/Extra Work:

- a. Straight Time Hourly Rate: \$100.00
- b. Time and One Half Hourly Rate: \$125.00
- c. Double Time Hourly Rate: \$150.00
- d. Travel Pay Hourly Rate: \$ 20.00 (after 8 Hrs S/T at jobsite)

NOTE: Labor for loading of trucks at IBC warehouse or jobsite, and travel time to deliver material, is considered the same as work performed at the jobsite and is billable at the appropriate rate above.

II. General Scope of Work:

Provide P.E. design to laterally support exterior walls of armory.

Estimate for Labor (Install and Remove), Trucking and 4-Week Equipment Rentals **\$ 625,000.00**
Extended rentals to be \$ 11,800.00 per 4 weeks after 1st 4 weeks.

Note:

- Concrete footing (3'x3') may be required for anchorage for bracing – cost not included in this proposal.
- Deduct \$ 60,000.00 for eliminating 20' of bracing along east and west wall.
- Others to provide traffic barriers to protect shoring once installed.
- Allow IBC one month to order equipment prior to mobilizing on site.
- Rental cost would include monthly inspections of shoring.
- Price assumes walls are in good condition.
- Others to sawcut interior walls away from exterior walls in order to maintain integrity of exterior walls

III. Reference Documents:

1. Drawing Nos: Not Applicable unless specified hereunder.
2. General Conditions: Not Applicable unless specified hereunder.
3. Supplemental Conditions: Not Applicable unless specified hereunder.
4. Customer Purchase Order: Not Applicable unless specified hereunder.
5. G.C./Prime Contract: Not Applicable
6. Work Order – Upon signature below, this Work Proposal is submitted as the working agreement between the parties.

IV. Equipment Rental Rate/Trucking:

1. Monthly Rental Value per each 4 weeks: (after 1st 4 weeks) \$ see above
Rental Payment Terms per Article 2 below. Rental period shall commence on the first day of erection and terminate on the last day of dismantle.

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2. Trucking charges to transport equipment: \$ 200.00 per day per truck, if applicable.

V. Terms & Conditions:

1. **LABOR:** IBC shall provide the labor and equipment as specified in this proposal. All work shall be performed in a workmanlike manner in accordance with standard industry practice. Labor quotes based on Regular hours worked, unless specified. All T&M work shall be recorded daily on signed work slips. All work slips shall be signed and billed for an **8-hour Regular shift per man** plus actual overtime hours incurred, if any.
2. **EQUIPMENT:** This quotation includes special shoring equipment that will be installed and left in place for some period. Equipment Rentals commence when equipment is delivered to site and erection begins. Once installed, any relocation of our equipment, unless specified herein to the contrary, will be considered extra work.
Note; Any equipment returned by Customer will incur charges (to stock back into warehouse) at \$50.00/hr. (4 Hr Min).
3. **CHANGES:** Any work, equipment or change in the work which increases the scope of the work as specified shall be compensated as extra work. IBC shall not be obligated to perform extra work unless it has received an extra work order signed by the Customer.
4. **DELAYS:** IBC's performance shall be excused or delayed if caused by any act of the Customer, Owner, or separate contractor, changes in the work, labor disputes, fire, unusual delay in deliveries, unavoidable casualties, or other causes beyond the control of IBC. Any such delay shall be for a reasonable time.
5. **SAFETY:** IBC and Customer shall comply with all applicable laws, ordinances, rules and regulations, including OSHA bearing on the safety of persons and property.
6. **WORKING CONDITIONS:** Unless specified to the contrary, this price is based on a continuous, weekday (straight time) operation utilizing union labor and working under union conditions. IBC Labor is signatory to Massachusetts Laborers agreement only. Note that all work operations are provided on a portal to portal basis, i.e. labor for loading of trucks at IBC warehouse or jobsite, and travel time to deliver materials/equipment, is considered the same as work performed at the jobsite and is billable at the appropriate rate above.
7. **SITE CONDITIONS AND PERMITS:** Customer has the authority to use the site for purposes intended by this contract and shall provide IBC clear access to the work area which may require removal or relocation by the Customer of partitions, utilities or other obstructions. Customer to provide for adequate ground bearing conditions for intended loads. It shall be the Customer's responsibility to procure and pay for any and all permits or police details necessary to perform work. IBC shall have no responsibility for fire watch. Customer shall review the proposed shoring prior to commencement of work to determine any effect or impact it may have on other construction. Customer to identify all areas requiring shoring by marking the existing structural drawings appropriately. Proposals to customers are based on areas identified by such customers to be shored.
8. **CONSEQUENTIAL DAMAGES:** Regardless of any provision of this contract, neither IBC nor Customer shall ever be liable to each other for liquidated or consequential damage, lost profits or any other form of special damages. This is a mutual waiver of these damages.
9. **INDEMNIFICATION:** To the fullest extent permitted by law, the Customer shall indemnify and hold harmless IBC, its agents, servants, and employees from and against any claims, damages, losses and expenses, including but not limited to attorney fees, arising out of or resulting from any operation, maintenance or use of the items leased, provided that such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury or destruction of any property, including loss of use arising therefrom, and caused in whole or in part by the acts or omission of the Customer, its employees, agents or subcontractors. In case any action or other legal proceedings should be instituted against IBC on account of any said claim, damage, loss or expense, the Customer shall assume and pay the defense thereof with attorneys reasonably acceptable to IBC.
10. **INSURANCE:** IBC and all affiliated partnerships, joint ventures, corporations and anyone else who IBC is required to name as an additional insured on this construction project, are to be included as additional

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insureds on a primary and non-contributory basis on all of Customer's liability insurance policies except workers compensation, including excess/umbrella policies (ISO forms CG 2010 10/01 and CG 2037 10/01 or equivalent). Customer hereby agrees to waive any and all rights of subrogation and any and all lien rights which may accrue to it or its insurers. If specific endorsement is required to trigger the waiver of subrogation and lien rights as hereinabove described, Customer shall have an affirmative duty to cause its policies to be so endorsed. Customer shall provide all insurance certificates and endorsements to IBC when requested, though failure of IBC to demand such proof of coverage shall not serve as a waiver thereof.

Upon customer's request, IBC will supply a Certificate of Insurance evidencing (A) Worker's Compensation (Statutory Limits), (B) General Liability - \$1,000,000 per occurrence and (C) Automobile - \$1,000,000 per accident. If and only if IBC has issued Customer a Certificate of Insurance naming Customer and/or Others as additionally insured, such additional insured status is included in the price of this agreement.

1. **ENGINEERING:** If Professionally Engineered Drawings are required for the work, prior to commencement of work, they will be acquired by IBC by subcontract. That subcontract cost is included in this price of the work. If additional drawings are required, after work begins, that cost shall be considered Change Work and billable to customer at \$ 175.00/hr. Additional P.E. site visits and extra work by P.E. is billable in the same manner. Design of shoring for the project shall only be utilized and implemented by Isaac Blair.
2. **PROJECT MNGT:** Project manager site visits requested by Customer, over and above those normally provided by IBC are billable at \$ 150.00/hr.
3. **SCHEDULE:** 48 hours notice is required prior to work commencement and/or removal
4. **SHORING MONITORING:** On all work performed pursuant to our P.E. stamped drawing, one (1) site inspection is included in the pricing of this Proposal. On all Shoring Equipment left in place beyond one (1) month, additional site inspections by our professional, structural engineer is available prevailing rates. A minimum of four (4) hours applies for this service. Any hours over the (4) hour minimum are chargeable at eight (8) hours.
5. **PAYMENT:** Customer shall pay 100% of all billings within 30 days of invoice date. Late payments shall incur interest at the rate of 1.5 % per month.
6. **CARE AND CUSTODY:** All Equipment left in place shall be in the sole care and custody of the Customer, who shall see to it that no other person or contractor shall remove, adjust, modify or in any way alter the same.
7. **NEEDLE SHORING:** Needle shoring jobs may require core or saw cutting by others. Customer to verify if vertical or horizontal saw cutting is necessary prior to demo. After any such work, IBC makes no warranty or representation as to the integrity of remaining structure.
8. **RELEASE:** It is acknowledged by both parties that in shoring masonry walls over openings, there is a tendency for those walls to crack and loosen requiring their removal and replacement. Customer releases IBC from any and all claims of any nature arising from this acknowledged shoring risk. The Customer assumes any risk in that regard.
9. **ENTIRE AGREEMENT:** This proposal comprises the entire and complete agreement of the parties. There may be no change or modification of this agreement except in writing signed by both parties. Should Customer direct IBC to commence work prior to the execution of this proposal, such action shall indicate Customer's acceptance of this proposal and all term and conditions contained herein.

VI. Standard Exceptions:

1. Work not specified in this Work Proposal.
2. Lines and grades
3. All Saw-cutting.
4. IBC is not responsible for non-structural damage (cracking).
5. Performance and Payment Bond (*available as alternate add, if required*).
6. Consequential, Liquidated and/or any delay cost damages caused by or due to strikes, wage disputes or other circumstances beyond IBC's control whether related or unrelated to any of the foregoing.
7. Inspections and inspection costs
8. Payment(s) of any monies for stand-by engineers, labor stewards, etc..
9. Police details, street/meter permits, fire details, barricades, temporary walkways, portable toilets.

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10. Electrical Power.

VII. Project Specific Additional Qualifications and Clarifications:

1.

VIII. Project Specific Additional Exceptions:

1.

This Work Proposal is firm for a 60-day period from the date of same.
If there are any questions, please contact our office at your earliest convenience.
We thank you for the opportunity to offer this Work Proposal.

Originated by:
ISAAC BLAIR & CO INC.

Accepted by:
("Customer")

Lou Giunta , Vice President
Cell: 617-839-8640

Name, Date Title

Upon Acceptance, Original and copy to follow

Appendices

- A. City of Holyoke Zoning Ordinance for the Downtown Residential District (DR)
- B. Information from Massachusetts Cultural Resource Information System
- C. Meeting Minutes
- D. Architectural Sheet A-1 "Fire Proofing Improvements" from Mass Archive (Document ID #88022)
 - Signed and sealed by Max R. Uhlig of McClintock & Craig, Inc., Engineers and Architects, Springfield, MA
 - Stamped approved 12/4/1951 by Fred W. Clarridge, Supervisor of Plans, Holyoke Department of Public Safety

City Of Holyoke Zoning Ordinance

Effective Date: February 19, 2002



Holyoke Planning Board

20 Korean Veterans Plaza, Rm 406

Holyoke, MA 01040

Phone-(413) 322-5575

Fax-(413) 322-5576

planning@holyoke.org

www.holyoke.org

8.8 DOWNTOWN RESIDENTIAL DISTRICT (DR)

8.8.1 Purpose.

The Downtown Residential District (DR) has been established to encourage infill and redevelopment that is in keeping with the existing neighboring buildings and structures; to permit a flexible approach to redevelopment of larger parcels; to promote a mix of residential and smaller-scale commercial uses in the same building or neighborhood; and to increase property values in downtown residential neighborhoods.

8.8.2 Permitted Uses.

In the DR District, those commercial uses marked "Y" in the Table of Principal Uses shall be permitted as of right; provided, however, that such commercial uses shall be allowed only in conformance with the following conditions:

1. Such commercial use shall occupy the first floor only of a building; provided, however, that there shall be at least two (2) dwelling units in the remainder of the building. No such commercial use shall be permitted unless residential uses also exist within the same building.
2. The building shall contain not less than three (3) stories, excluding basements and attics.

8.8.3 Special Permit for Nonconforming Structures Abandoned or Not Used for More than Two (2) Years.

Notwithstanding the provisions of G.L. c. 40A, s. 6, the City Council may grant a special permit authorizing the reconstruction, alteration, or rehabilitation, and occupancy and use of a nonconforming structure that has been abandoned or not used for a period of more than two (2) years. To be eligible for such special permit, the structure must have the following characteristics:

1. masonry construction;
2. architectural or other features deemed appropriate for rehabilitation by the City Council.

8.8.4 Dimensional Regulations.

In the DR District, the maximum setback, maximum lot coverage, maximum number of stories, and minimum area per dwelling unit required shall be the average of these features on the nearest five (5) lots containing structures on the same side of the street on the same block. In circumstances where the block is vacant and averaging is not possible, the requirements shall be the following provided, however, that the Planning Board might vary this requirement by special permit to a greater or lesser number.

Minimum lot size:	6,000 square feet	Minimum frontage:	60 feet
Minimum setback:	10 feet	Maximum height:	90 feet (7 stories)
Maximum density:	60 units/acre		

8.8.5 Special Permit for Dimensional Variation.

In the DR District, the City Council may grant a special permit to reduce otherwise applicable requirements for lot area, frontage, width, density, front/side/rear yard, building height, or lot coverage upon a finding that:

1. Compliance with such requirements would be impracticable, unreasonable, or undesirable because of:
 - a. the area, width, depth or shape of the lot; or
 - b. the lot coverage or height of existing neighboring structures; or
 - c. the characteristics of buildings situated on nearby properties.
2. Such reduction may be accomplished without substantial detriment to the neighborhood; and
3. The proposed structure is consistent with the architectural scale and style of those in the immediate area.
4. The proposed variation is consistent with Holyoke's traditional downtown neighborhood development pattern(s).

Massachusetts Cultural Resource Information System

Scanned Record Cover Page

Inventory No:	HLY.134
Historic Name:	Holyoke National Guard Armory
Common Name:	M. V. M. Armory
Address:	163 Sargeant St
City/Town:	Holyoke
Village/Neighborhood:	Churchill
Local No:	
Year Constructed:	c 1900
Architect(s):	Howes, William J.
Architectural Style(s):	English Revival
Use(s):	Armory; Penal Institution
Significance:	Architecture; Community Planning; Military; Politics Government
Area(s):	HLY.C: Churchill
Designation(s):	
Building Materials(s):	Wall: Brick; Concrete Unspecified; Granite; Limestone



The Massachusetts Historical Commission (MHC) has converted this paper record to digital format as part of ongoing projects to scan records of the Inventory of Historic Assets of the Commonwealth and National Register of Historic Places nominations for Massachusetts. Efforts are ongoing and not all inventory or National Register records related to this resource may be available in digital format at this time.

The MACRIS database and scanned files are highly dynamic; new information is added daily and both database records and related scanned files may be updated as new information is incorporated into MHC files. Users should note that there may be a considerable lag time between the receipt of new or updated records by MHC and the appearance of related information in MACRIS. Users should also note that not all source materials for the MACRIS database are made available as scanned images. Users may consult the records, files and maps available in MHC's public research area at its offices at the State Archives Building, 220 Morrissey Boulevard, Boston, open M-F, 9-5.

Users of this digital material acknowledge that they have read and understood the MACRIS Information and Disclaimer (<http://mhc-macris.net/macrisdisclaimer.htm>)

Data available via the MACRIS web interface, and associated scanned files are for information purposes only. THE ACT OF CHECKING THIS DATABASE AND ASSOCIATED SCANNED FILES DOES NOT SUBSTITUTE FOR COMPLIANCE WITH APPLICABLE LOCAL, STATE OR FEDERAL LAWS AND REGULATIONS. IF YOU ARE REPRESENTING A DEVELOPER AND/OR A PROPOSED PROJECT THAT WILL REQUIRE A PERMIT, LICENSE OR FUNDING FROM ANY STATE OR FEDERAL AGENCY YOU MUST SUBMIT A PROJECT NOTIFICATION FORM TO MHC FOR MHC'S REVIEW AND COMMENT. You can obtain a copy of a PNF through the MHC web site (www.sec.state.ma.us/mhc) under the subject heading "MHC Forms."

Commonwealth of Massachusetts
Massachusetts Historical Commission
220 Morrissey Boulevard, Boston, Massachusetts 02125
www.sec.state.ma.us/mhc



HLV.134

AREA: Churchill

FORM NUMBER: * 134

Area C

Town: Holyoke

Address: 163 Sargeant Street

Historic Name: National Guard Armory

Use Present: Armory & Jail
Original: Armory

DESCRIPTION

Date: c. 1900

Source: Maps

Style: Tudor

Architect: Unknown

Exterior Wall Fabric: Brick

Outbuildings: None

Major Alterations: Extension on rear

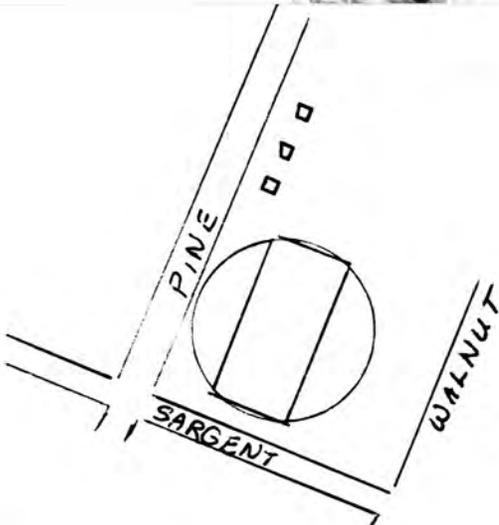
Condition: Very Good.

Moved: No

Date:

Acreage: Less than 1.

Setting: Urban residential / commercial.



UTM REFERENCE:

USGS QUADRANGLE:

SCALE:

Recorded by: Martha Lyon

Organization: PVPC

Date: 1990

124.134

AREA: Churchill

FORM NUMBER: * 134

NATIONAL REGISTER CRITERIA STATEMENT (if applicable): The armory meets criterion A as an expression of the role of volunteer militia in providing a national defense network, and criterion C as a well-preserved example of the fortified Romanesque style favored for local armories.

ARCHITECTURAL SIGNIFICANCE: This large military building is the only structure in Churchill built in the Tudor style. Resembling a medieval castle, the building consists of a symmetrically square main block embellished with three-story towers on its facade and rear corners, and a front gable one-story "shed" which projects from the rear of the main block. Castellations trim the flat roofline and towers of the main block. Its main entry rests in a slightly arched brick recess, and massive foliate concrete brackets support a brick and concrete battlement above the entry. Corbelling along the main block frieze line and under the lintel provided additional detail. The second story arch-topped windows are trimmed with concrete lintels and keystones. The first story windows appear in tall narrow pairs. The shed extension features symmetrical fenestration, with windows in threes separated by brick piers.

HISTORICAL SIGNIFICANCE: In its early years, before World War II, the building was referred to as the "M.V.M. Armory" for the Massachusetts Volunteer Militia. It was later referred to commonly as the "drill shed" reflecting the addition of the rear ell and the use of the building for regimental maneuvers.

The building is still an active armory, but has recently been taken over by the Hampden County Sheriff for use as a temporary jail.

BIBLIOGRAPHY and/or REFERENCES: Walker 1884 Atlas.
Richards 1911 Atlas.
1911 and 1953 Sanborns.



FORM B - BUILDING

MASSACHUSETTS HISTORICAL COMMISSION
Office of the Secretary, State House, Boston

In Area no. <u>DUP</u>	Form no. 134
---------------------------	-----------------



1. Town Holyoke HLY.134
 Address 163 Sargeant Street
 Name Armory
 Present use National Guard Headquarters
 Present owner Commonwealth of Massachusetts

3. Description:
 Date 1907
 "Armory", Holyoke Public Library
 Source Local File.

Style Crenellated
 Architect William J. Howes, Holyoke

Exterior wall fabric Red brick, granite and limestone trim.

Outbuildings (describe) _____

Other features 3 towers

New front entrance
 Altered and steps Date 1969

Moved _____ Date _____

5. Lot size: 19,250 sq. ft.

One acre or less x Over one acre _____

Approximate frontage 80 feet

Approximate distance of building from street
12 feet

6. Recorded by Judith Jacob

Organization Holyoke Planning Board

Date August 11, 1978

4. Map. Draw sketch of building location in relation to nearest cross streets and other buildings. Indicate north.



DO NOT WRITE IN THIS SPACE
 USGS Quadrant _____
 MHC Photo no. _____

(over)

HLY.134

7. Original owner (if known) Commonwealth of Massachusetts

Original use Armory

Subsequent uses (if any) and dates _____

8. Themes (check as many as applicable)

Aboriginal	_____	Conservation	_____	Recreation	_____
Agricultural	_____	Education	_____	Religion	_____
Architectural	<u>X</u>	Exploration/ settlement	_____	Science/ invention	_____
The Arts	_____	Industry	_____	Social/ humanitarian	_____
Commerce	_____	Military	<u>X</u>	Transportation	_____
Communication	_____	Political	_____		_____
Community development	_____				

9. Historical significance (include explanation of themes checked above)

The site for the Armory was purchased from the Holyoke Water Power Company in 1906. The next year the building was completed and a large dedication ceremony took place.

William J. Howes, a local architect, drew up the plans for this "Feudal Castle". Supposedly, the facade is a replica of the "Gladstone Home, Hawarden Castle in England".* The windows on the first floor (raised seven feet above the ground) are extra-narrow so as to bar a human from entering through them. There are three towers; two square ones in front and one round one in the rear, all with crenellated parapets. The seal of the State of Massachusetts is situated between the front two towers and stars adorn the brackets on either side of the door. Certainly, it is the only building of its kind in Holyoke.

*Holyoke Public Library Scrapbook No. 28, p. 116.

10. Bibliography and/or references (such as local histories, deeds, assessor's records, early maps, etc.)

"Armory". Holyoke Public Library Local Files.

Holyoke Assessor's Records.

Holyoke Public Lebrary Scrapbooks. No. 22 p. 8; No. 28, p. 116.

date	6 December 2019	time	10:30 am
project	Holyoke Armory Study	location	NGA Building
meeting date	5 December 2019		
recorded by	Carol Burns		
attendees	Marcos Merrero, Director, Planning and Economic Development, City of Holyoke Ben Murphy, Development Specialist, Planning and Economic Development, City of Holyoke Beth Murphy, MassDevelopment Dominic Kelly, Jason Varney, Simpson Gumpertz & Heger Carol Burns, Conrad Chudzicki, Taylor & Burns Architects		
distribution	Attendees		
purpose	Kick-Off Meeting		

Introductions and Review of Project Goals, Process, and Issues

After introductions, Beth reviewed the threshold question for this study: *What, if any, of the existing building can be reused and at what cost?* Marcos states also that preservation of a façade might not meet current public expectations, and that the cost of preserving the structure will be most important to determine.

Building Code and Occupancy interrelate in considering an addition to the existing building. Beth suggests that potential programs for consideration include: institutional use, perhaps related to the nearby hospital; housing, perhaps including Veteran’s housing; or low-impact commercial.

Historic tax credits, which can cover up to 40% of a project’s cost, are a factor to consider. Ben states that, though tax credits are not typically available for projects that preserve facades only, the condition of the existing building (described below) could justify conversation to explore potential exception here. The front façade has character-defining features, including the limestone trim and the two square turrets with projecting exterior second-story porch between them; the street façade includes the third circular turret, which could also be worthy of considering for preservation, if possible.

The project calendar was reviewed by Beth as a three to five month process. This timeframe relates to the accepted proposal as follows: the initial phase (Design) could take 1 to 2 months, in advance of a proposed teleconference meeting to determine a preferred option; the following phase (Recommendations) could take 1 to 2 months to reconcile the cost estimate information and take in comments from the City; and the final report could take 1 month including presentation as appropriate in Holyoke.

Cost Information will be pursued in several ways, including comparison to two prior similar projects completed by SGH cited by Dominic. Ben offers to reach out to colleagues at the Springfield MGM casino when relevant questions become clearly identified.

Drawings of the Building: Though no drawings have been located, Ben suggests in discussion that additional possible sources of drawings could be pursued. Given limited inaccessibility to the building interior, pursuing all potential sources would be highly advisable. Several people mentioned the possibility of using a drone to photograph the building interior.

Assessing the Existing Building and Gathering Survey Measurements

The design team could not assess the majority of the building interior, which is inaccessible due to failed structure: floors have collapsed in bays to either side of the central entry bay; stairs to the lower basement level have also collapsed.

Nevertheless, based on assessment from the main entry area and limited exploration from there, the design team observes:

- None of the floors in the existing structure can be saved, as the wood joists have been subject to rot.
- The source of this “dry rot” seems to be rising or retained interior dampness. There is little evidence of water infiltration through the roof (which would be evident, for example, in vertical staining on walls or delamination and lifting of floor materials).
- The structural system apparently includes timber beams that bear on brick columns or on timber columns encased in brick.
- The second-story brick façade, set back behind the cantilevered exterior second-story porch, aligns over the front-most clear span which, therefore, likely includes a steel beam to carry the load of this exterior wall.
- An exterior door at the lower level in the round turret, not operable on the day of this kick-off meeting, could provide access, even if only visually, to the lower level.

The design team would like to have more information about the building; fuller knowledge can support more accurate cost estimation. The design team suggests that appropriate personnel pursue the following:

- Drone exploration. The presence of masonry walls and the need for upward-pointing cameras may present issues here.
- Photography from outside the lower-level door. Opening the lower-level door in the circular bay and photographing visible conditions would greatly inform the structural understanding of that bay, and the potential of its preservation.
- Drawings. Any and all source of drawings for the building should be pursued and exhausted.

End of Minutes.

For corrections or modifications, please contact the author.

date	21 April 2020	time	10:00 am
project	Holyoke Armory Study	location	Conference Call
meeting date	21 April 2020		
recorded by	Carol Burns		
attendees	Marcos Merrero, Director, Planning and Economic Development, City of Holyoke; Ben Murphy, Development Specialist, Planning and Economic Development, City of Holyoke; Beth Murphy, MassDevelopment; Carol Burns, Taylor & Burns Architects		
distribution	Attendees		
purpose	Review of Interim Study Report dated 4.15.2020		

Review of Project Goals, Process, and Issues

Carol described the Interim Study Report with three concept plans showing a range of intensity of cost and spatial interaction within the three historic walls of the Armory Castle including: a farmers market, new construction of a multi-unit residential structure, and new construction of office space including development of space at three levels within the Castle footprint.

Beth restated the threshold question for an RFP to be issued to potential developers: *What might be the interest among developers to keep the three walls of the existing building?* Beth notes that the study bakes this cost into all three concepts. She reinforces that conversations with potential developers, including perhaps The Community Builders, would be part of the process of creating the RFP.

Construction Cost Estimation: Agreeing that these three concepts could animate different potential segments of the development community, it was agreed that there is no “preferred scheme.” This departs from the agreed scope of service. Carol suggests that an estimate in an R.S. Means format on a per-square-foot basis (rather than a full construction cost estimate in a multi-section CSI format) could provide some ballpark costs, particularly for the second and third schemes which involve conventional construction. Different viewpoints were discussed about the potentials and perils of sharing cost information as part of the RFP process.

Zoning: Marco shared his understanding of the City Council process for considering special permits in the Downtown Residential District (DR). It was agreed that the heights of options seems appropriate for the study. Marco stated that the concepts options are sufficiently broad for the study and RFP.

Pro Forma Numbers: Any developer considering or responding to an RFP regarding the Armory will create a working *pro forma*. Should the formulation of a feasible *pro forma* require consideration of special permitting, that would be an appropriate time to review it as an option.

Three-Dimensional Perspective Drawing: Ben asked whether it would be useful to create a 3D view. Various approaches were discussed, given that the study is focused moreso on concepts than on design. Carol offered the idea of showing a historic view of the entire Armory next to a wire-frame view of the proposed volumes. This should be possible, even though the executed agreement states: “Scope does not include design of three-dimensional perspective drawings.”

Next Steps: SGH will assist with cost estimating, including some initial preliminary design so the estimating team has a basis to develop numbers. The draft 90% report should be completed in the week of June 8th so the full study can be completed by the end of June.

End of Minutes.

For corrections or modifications, please contact the author.

