

# PZ-HIST-23-000229

Menu Reports Help

File Date: [09/06/2023](#)

Application Status: [Pending](#)

Assigned To: [Alexander Castro](#)

Description of Work: [The scope of work outlined in this application is to provide temporary bracing/shoring to the existing facade of 224 Washington Street. This temporary measure will allow Washington/Jefferson Streets, as well as the future demolition and re-development of the remainder of the site.](#)

Application Detail: [Detail](#)

Application Type: [Historic Preservation](#)

Documents:	File Name	Document Group	Category	Description	Type	Docun
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[Show all](#)

Address: [224 WASHINGTON ST, HARTFORD, CT 06106](#)

Owner Name: [HARTFORD HOSPITAL](#)

Owner Address: [80 SEYMOUR ST, HARTFORD, CT 06106 331](#)

Application Name:

Parcel No: [226549140](#)

Contact Info:	Name	Organization Name	Contact Type	Contact Primary Address	Status
	<a href="#">Dave Casale</a>	<a href="#">Hartford Health...</a>	Owner	<a href="#">Mailing, 129 Patricia ...</a>	Active

Licensed Professionals Info:	Primary	License Number	License Type	Name	Business Name	Business License #
	Yes	<a href="#">ARI.0014484</a>	ARCHITECT	LAURA CROSSKEY		

Job Value: [\\$0.00](#)

Total Fee Assessed: [\\$400.00](#)

Total Fee Invoiced: [\\$400.00](#)

Balance: [\\$0.00](#)

Custom Fields: PLNG\_COA\_CF

GIS Information

Zoning District	Zoning Overlay	FEMA Flood Zone	Land Use Per Assessor
<a href="#">MX-1</a>	-	-	-

NRZ	Neighborhood	Local Historic District
<a href="#">FROG HOLLOW NRZ</a>	<a href="#">SOUTH GREEN</a>	-

Historic District	Historic Landmark/Site	State Historic District
-	-	-

Dispersion met?	Identify Dispersion	National Historic District
<a href="#">No</a>	-	<a href="#">Jefferson Seymour</a>

### General Project Information

Is this application a result of a violation notice? [Yes](#) Zoning Enforcement Case ID # [BT-URGENT-2023-004435](#)

Is this a contributing building or structure? [No](#)

Is this proposed work visible from the street? [Yes](#)

### Historic Review Types

New Construction/Addition [No](#) Exterior Alteration [Yes](#)

Demolition [Yes](#) Signage [No](#)

Solar Panel [No](#)

Other [-](#)

Does this project include a demolition?

[Yes](#)

If a demolition request, what alternatives have you sought?

[The building can not be salvaged.](#)

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Exterior Alterations

**Windows**

**Doors**

**Porches/Walkways**

**Siding**

**Roofs**

**Mechanical Appurtenances**

**Other**

-

Describe the existing conditions and materials

[The existing facades are to remain and restored with future development of the site.](#)

Describe the proposed materials

[n/a](#)

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Hardships and Reason for Hardships

Is this an owner-occupied principal residence?

[No](#)

Is this a non-owner occupied residential building containing six (6) or fewer dwelling units?

[No](#)

Is this a commercial and industrial building?

[No](#)

Is this a request for demolition where there is no feasible and prudent alternative to demolition?

[Yes](#)

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Other Payment Required

**Green Infrastructure Fund**      **Amount**

-

**City Tree Fund**                      **Amount**

-

**Complete Street Fund**              **Amount**

-

Describe Reason for Payments

-

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Reason for Request

Reason for Request

-

---

Recommendation

Recommendation

-

Adverse Impacts on Neighboring Lands Suitability as Presently Zoned

-

Consistency with POCD

-

This is a dynamic label.

PLNG\_COA\_DIGEPLAN  
Enhanced Doc List

-

Reason for Hardship

Cost of historic preservation recommendations:

Economic circumstances of the applicant: Lack of availa



Impact of the historic preservation recommendations on the district as a whole and on property value

Dates and Notices

Application Received

Open Hearing Deadline

Close Hearing Deadline

Decision Deadline

Extensions Requested?

If yes, describe how the dates abc

Notice sent to NRZ/CRCOG

Legal Ad #1

Legal Ad #2

Sign Affidavit Received

Certificate of Mailings Returned

Notice of Decision Published

Recordation Date

Approval Expiration Date

Sign Deposit Check #

Sign Deposit Date Received

Sign Deposit Check Amount

Public Hearing Date

Public Hearing Time

Meeting Link or Location

Document Link

Certificate of Compliance

As-Built Drawing Date

Type of Bond

Escrow Account #

Bonding Company Name

Bonding Contact Name

Bonding Primary Phone #

Bonding Email

Drawings Number of Sheets

Drawings Last Revised

Prior Approvals

Type of Permit/Authorization Issued By Issued Date Expiration Date

Resolution Clauses

Type Comment

Workflow Status: Task Assigned To Status Status Date Action By

[Application Intake](#)

Planning and Zoning Re...

Public Notice

Historic Commission

Notice of Decision

Appeal Period

Permit Issuance

Permit Status

Certificate of Plannin...

Case Complete

Condition Status: Name Short Comments Status Apply Date Severity Action By

Application Comments: View ID Comment Date

Initiated by Product: ACA

Scheduled/Pending Inspections: Inspection Type Scheduled Date Inspector Status Comments

Resulted Inspections: Inspection Type Inspection Date Inspector Status Comments



Real Estate Department

To whom it may concern

9/6/2023

I am writing this letter on behalf of Hartford Hospital as owner of 224 Washington St., providing authorization for the restorative work to be done at 224 Washington St Hartford

Hartford Healthcare is the parent corporation of Hartford Hospital and oversees all real estate transactions for this entity

Thank, you in advance for any consideration you give this request

A handwritten signature in cursive script that reads "St Alexandre".







August 30, 2023

Laura Crosskey, AIA, President  
Crosskey Architects, LLC  
750 Main St, Suite 150  
Hartford, CT 06103  
[lcrosskey@crosskey.com](mailto:lcrosskey@crosskey.com)

Re: 224 Washington St, Hartford, CT  
Schematic Design Narrative

Dear Laura,

Principals:  
Charles C. Brown, PE  
Richard A. Centola, PE  
Thomas Curry Jr, PE, SE

Geotechnical Associate:  
David L. Freed, PE

GNCB went to the existing structure at 224 Washington St in Hartford, CT on 07/26/2023 to review the condition of the existing façade and to discuss the proposed scope of work with you.

The intent of this structural narrative is to determine the feasibility of the following proposed work:

- 1) Temporarily bracing/shoring the existing façade of 224 Washington St.
- 2) Once bracing/shoring is installed, demolish the remainder of the structure at 224 Washington St.
- 3) Demolish the structure at 216 Washington St in its entirety.
- 4) Construct a new 4-story medical office building with full basement, with or without connecting to the existing building at 146 Jefferson St.
- 5) Connect the existing façade to the new construction to allow the removal of any temporary bracing/shoring.

Two other engineering firms have written reports indicating that the existing structure at 224 Washington Street is a hazard to public safety and should be demolished. GNCB's limited review of the existing conditions, the Building Code, and previous engineer's reports makes us believe that while the existing building should be demolished, the façade (on 2.5 sides of the building) can be saved. The following report should clarify steps that can be taken to salvage the existing façade.

Very truly yours,



---

Thomas Curry Jr, PE, SE  
Principal

**CODES**

- 2022 Connecticut State Building Code
- 2021 International Building Code – (IBC 2021)
- 2021 International Existing Building Code – (IEBC 2021)
- American Institute of Steel Construction “Specification for Structural Steel Buildings” – (AISC 360-16)
- American Concrete Institute “Building Code Requirements for Structural Concrete” – (ACI 318-19)

**LOADS**

**Design Live Loads:**

Corridors . . . . .	100 <sup>PSF</sup>
Offices . . . . .	50 <sup>PSF</sup>
Light Storage . . . . .	125 <sup>PSF</sup>

**Snow Loads:**

Ground Snow Load . . . . .	$P_g = 30^{PSF}$
Snow Exposure Factor . . . . .	$C_e = 1.0$
Thermal Factor . . . . .	$C_t = 1.0$
Snow Load Importance Factor . . . . .	$I_s = 1.0$
Flat Roof Snow Load . . . . .	$P_f = 21^{PSF}$
Flat Roof Snow Load (CT Min.) . . . . .	$P_{f, min} = 30^{PSF}$

**Wind Loads:**

Basic Wind Speed . . . . .	$V_{ult} = 120^{MPH}$
ASD Wind Speed . . . . .	$V_{asd} = 93^{MPH}$
Wind Exposure Category . . . . .	B
Internal Pressure Coefficient . . . . .	$\pm 0.18$

**Seismic Loads:**

Risk Category . . . . .	II
Seismic Importance Factor . . . . .	$I_e = 1.0$
Mapped Response Accelerations . . . . .	$S_s = 0.189g$ $S_1 = 0.054g$
Site Class . . . . .	D (assumed to be verified)
Design Response Accelerations . . . . .	$S_{DS} = 0.xxxg$ (to be verified) $S_{D1} = 0.xxxg$ (to be verified)
Seismic Design Category . . . . .	B
Analysis Procedure . . . . .	Equivalent Lateral Force Method
Seismic Response Coefficient . . . . .	$C_s = x.xxx$ (to be verified)

**Lateral Load Resisting Systems:**

Building Frame Systems . . . . .	Structural Steel System Not Specifically Detailed For Seismic
Response Modification Factor . . . . .	$R = 3.0$
Overstrength Factor . . . . .	$\Omega_0 = 3.0$
Deflection Amplification Factor . . . . .	$C_d = 3.0$

## **MATERIALS**

### **Concrete:**

Foundations / Underpinning . . . . .	NWC, Air Entrained . . . . .	( $f'_c = 3.0^{\text{KSI}}$ )
Slab on Grade / Topping . . . . .	NWC, No Air . . . . .	( $f'_c = 4.0^{\text{KSI}}$ )
Slab on Metal Deck . . . . .	NWC, No Air . . . . .	( $f'_c = 3.5^{\text{KSI}}$ )
Rebar . . . . .	ASTM A615 . . . . .	( $F_y = 60^{\text{KSI}}$ )
Welded Wire Fabric . . . . .	ASTM A185 . . . . .	( $F_y = 75^{\text{KSI}}$ )

### **Steel:**

Rolled Wide Flange Sections . . . . .	ASTM A992 . . . . .	( $F_y = 50^{\text{KSI}}$ )
All Other Rolled Sections . . . . .	ASTM A36 . . . . .	( $F_y = 36^{\text{KSI}}$ )
Square/Rectangular HSS Sections . . . . .	ASTM A500, Gr C . . . . .	( $F_y = 50^{\text{KSI}}$ )
Round HSS Sections . . . . .	ASTM A500, Gr C . . . . .	( $F_y = 46^{\text{KSI}}$ )
Pipe Sections . . . . .	ASTM A53, Gr B . . . . .	( $F_y = 35^{\text{KSI}}$ )
Anchor Rods / Tie Rods . . . . .	ASTM F1554, Gr 55 . . . . .	( $F_y = 55^{\text{KSI}}$ )
Moment Frame Connection Plates . . . . .	ASTM A572 . . . . .	( $F_y = 50^{\text{KSI}}$ )
Misc. Plates and Conn'x Material . . . . .	ASTM A36 . . . . .	( $F_y = 36^{\text{KSI}}$ )
Welding Electrode . . . . .	ASTM E70XX	
Bolts . . . . .	ASTM A325	

### **Cold-Formed Metal Framing:**

16 Gage (0.0598") or Heavier . . . . .	ASTM A1003 . . . . .	( $F_y = 50^{\text{KSI}}$ )
18 Gage (0.0474") or Lighter . . . . .	ASTM A1003 . . . . .	( $F_y = 33^{\text{KSI}}$ )

## **OVERALL SCOPE OF WORK**

- The intent of the project is to minimize cost while meeting three goals:
  - Temporarily bracing/shoring and maintain the 2.5 street facing facades west along Washington St, south along Jefferson St, and an eastern return on the Jefferson St side.
  - Demolish 216 Washington St.
  - While the shoring mentioned above is installed, demolish the remainder of the structure at 224 Washington St.
  - Construct a new medical office building on the 216 & 224 Washington St lots that may or may not connect with the 146 Jefferson St building.

## **SCOPE OF WORK (SHORING 224 WASHINGTON ST FAÇADE)**

### **Schedule:**

- GNCB agrees with the conclusions of the two previous structural evaluations that the existing building at 224 Washington is seriously deteriorated and not suitable for reuse. Demolition will be required. One report suggested a 6-month timeframe beginning around February, 2023, while the other did not provide a specific timetable. GNCB's experience with similar type structures and conditions is that with safeguarding of the site and building from the public, the bracing/shoring of the facades to remain and the demolition can be undertaken within 2 years. This will allow for a suitable time frame for design and implementation of a controlled demolition that will safeguard the facades to remain.

Façade Shoring:

- Existing brick façade along Washington St, Jefferson St, and a 15 ft+/- return on the Jefferson Street side will remain.
- Façade can be braced/shored using horizontal surface framing inside and outside of windows connected through the window locations with threaded anchor rods clamping the wall. Vertical strong backs linking the horizontal bracing can be braced with exterior diagonal braces to inclined helical piling to provide foundation support with system exterior to the building to allow unfettered demolition and new construction inside the facade. See attached schematic details S1.1-S1.4.
- Once bracing/shoring is in place, the demolition and new construction can take place with new attachments to the new structure.

Foundations:

- The construction and condition of the existing foundations are unknown, but are assumed to be brick foundation walls down to just below the existing basement slab-on-grade.
- Test pits would be required to determine thickness of wall and whether reinforcement of existing foundations is required.
- Underpinning the existing foundation is not anticipated, but this will need to be verified in the field via test pits.

Ground Floor Slab-on-Grade:

- The construction and condition of the existing slabs-on-grade are unknown, but is assumed to be concrete slabs-on-grade.

Floors and Roof:

- Based on previous engineer's reports, the existing floors and roof are timber-framed.
- Floors and roofs will be removed in their entirety once the steel shoring is installed.

**SCOPE OF WORK (DEMOLISHING 216 WASHINGTON ST)**

Foundations:

- Foundations are to be removed in their entirety.

Floor and Roof Framing:

- Floor and roof framing are to be removed in their entirety.

### **SCOPE OF WORK (PROPOSED MEDICAL BUILDING) (SKETCHES S1.5,S1.6)**

#### **Foundations:**

- GNCB is not aware of any geotechnical information that has been performed on the site. To proceed further with the design, a geotechnical investigation will need to be performed.
- Foundations are anticipated to be concrete column and wall spread footings with 3'-6" minimum frost protection where exposed to freezing.
- Both existing buildings (216 & 224 Washington St) have full depth, below grade, basements.
- If there is no proposed basement at the existing buildings, structural fill will be required to bring grade up to the underside of the new footings.
- At steel columns, there will be concrete piers installed. Hold top of pier down 8" below top of new slab. Column footings will be sized once an architectural layout has been determined.

#### **Ground Floor Slab-on-Grade:**

- Slab-on-grade at basement areas are anticipated to be 5" normal weight concrete slabs-on-grade reinforced with 6x6 – W2.9xW2.9 welded wire fabric, 1" clear from the top.

#### **Floor Framing:**

- Steel columns to be W10-W12 structural steel wide flange columns at a maximum spacing of 25-30 feet on center.
- Floor framing is anticipated to be made with W14-W16 structural steel wide flange beams spaced at third points along girders.
- Floor deck is anticipated to be 3" composite metal deck, perpendicular to the infill beams, with either 3.25" of light weight concrete or 3.5" of normal weight concrete above the deck flutes. Concrete slab on metal deck will be reinforced with 6x6 – W2.9xW2.9 welded wire fabric, 1" clear from the top.
- ¾" diameter shear connectors will be installed to make the concrete slab on metal deck composite with the steel floor beams.

#### **Roof Framing:**

- Steel columns to be W10-W12 structural steel wide flange columns at a maximum spacing of 25-30 feet on center.
- Roof framing is anticipated to be made with W10-W12 structural steel wide flange beams or 16"-18" deep open steel bar joists spaced at a maximum of 6 feet on center.
- Roof deck is anticipated to be 1.5" Type B roof deck spanning between steel beams, fastened with a combination of puddle welds to the steel framing and screws between steel deck panels.

#### **Proposed Facade:**

- In their elevations, the architect proposes to use brick veneer as a façade to match the existing.
- The backup of this brick façade can be cold-formed metal framing. This would be either 6" or 8" deep studs, depending on the floor-to-floor height.
- The backup will be designed to minimize cracking in the veneer due to excessive lateral movements (deflections) in the studs due to wind or seismic.
- Steel relieving angles will be required every 2-3 stories up the building. These relieving angles may need to be thermally isolated from the rest of the structure. This is typically very expensive and might push the veneer to become thin brick instead of true brick.

Existing Façade:

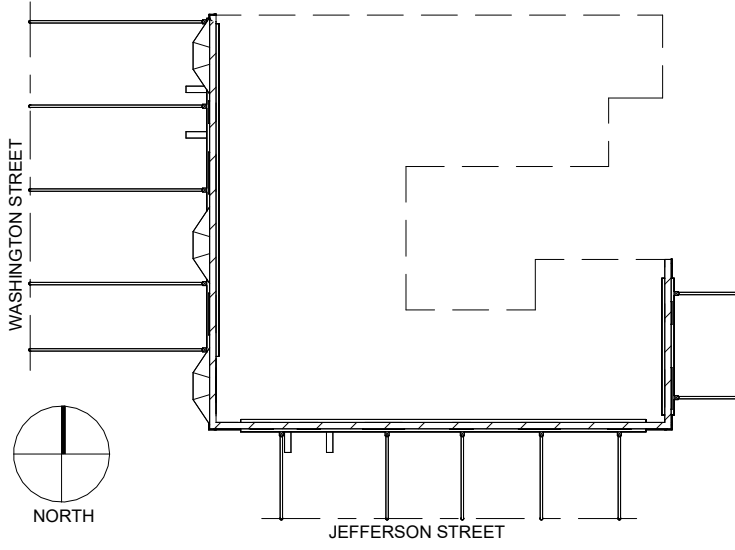
- The existing façade will need to be fastened to the new structure in order for the temporary bracing/shoring to be removed.
- This can be done using one of two methods:
  - Providing Helifix (or similar) type anchors to drill into the existing brick façade, then attaching those anchors to the backup system. These anchors would be spaced vertically and horizontally every 16" – 24" on center.
  - Providing ties at the floor elevations. These ties would include a galvanized steel anchor rod that is attached to the steel framing on the inside of the building, then is drilled through the brick façade to a steel plate on the exterior of the building. That steel plate on the exterior of the building will be exposed to view. Since the architect proposes to change the floor-to-floor heights of the new building compared to the existing, these ties wouldn't be at the existing floor elevations.
- The backup of this brick façade shall be cold-formed metal framing. This would be either 6" or 8" deep studs, depending on the floor-to-floor height.
- The backup will be designed to minimize cracking in the veneer due to excessive lateral movements (deflections) in the studs due to wind or seismic.

Elevator and Stair Shafts:

- Elevator and stair shafts will be made out of concrete masonry units (CMU):
  - Interior facing walls will be 8" CMU
  - Exterior facing walls will be 12" CMU
  - Bond beams with (2)-#5 continuous bars will be installed every 48"oc vertically throughout the shaft walls
  - Ladder type reinforcement will be required every 16"oc vertically throughout the walls
  - Vertical reinforcement will be determined based on the loads, but a good estimate would be #5 at 32"oc.

Lateral System:

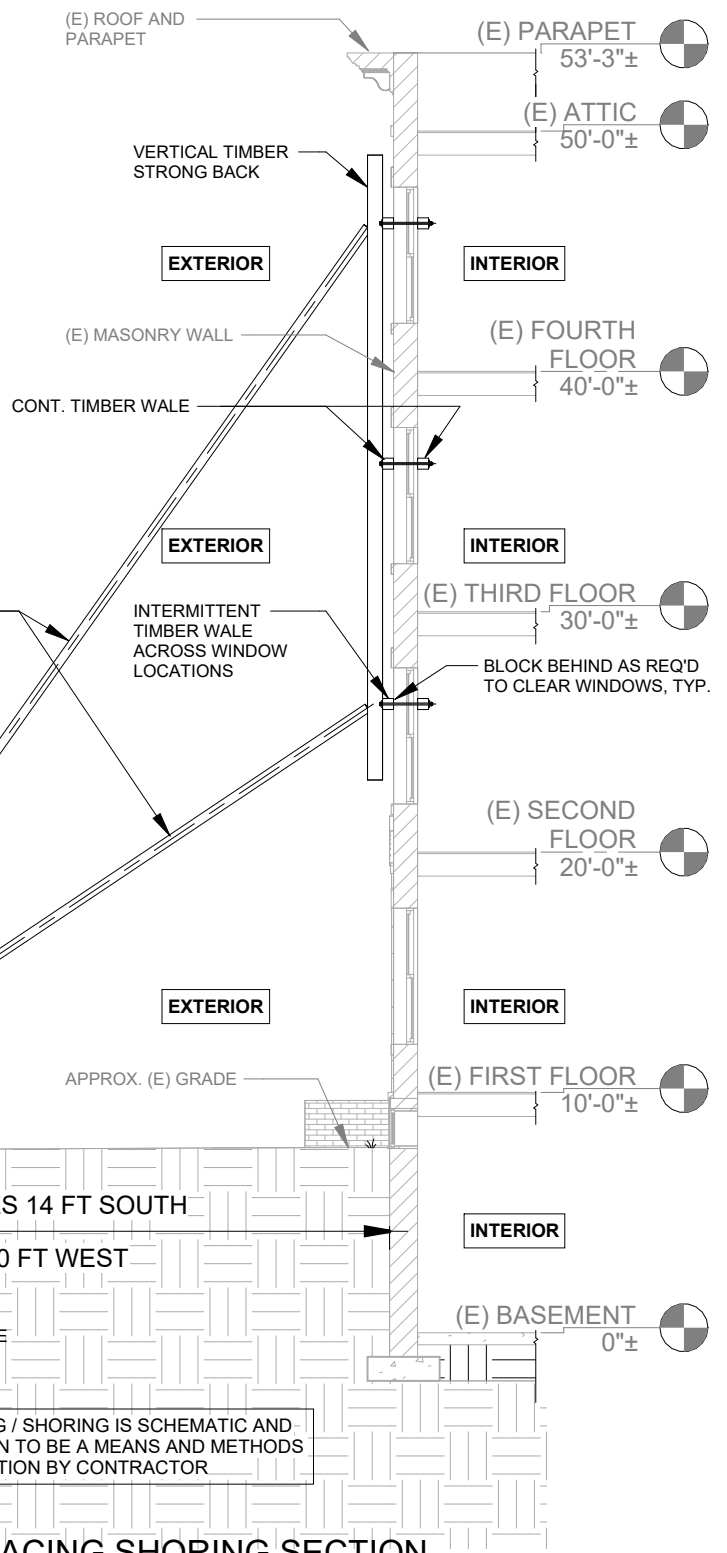
- Since the proposed building will need to support itself and be stiff enough to minimize any cracking in the existing brick façade walls, we recommend that the building utilize steel braced frames as its lateral system.



**3 BUILDING DEMO PLAN**  
1" = 30'-0"



PERSPECTIVE VIEW WITH BRACING



**1 TYPICAL BRACING SHORING SECTION**  
1/8" = 1'-0"

**GNCB**  
Consulting Engineers, P.C.  
1358 BOSTON POST ROAD  
POST OFFICE BOX 802  
OLD SAYBROOK  
CONNECTICUT 06475  
PHONE: 860 388 1224  
GNCBENGINEERS.COM

Hartford Hospital  
224 Washington St  
Hartford CT

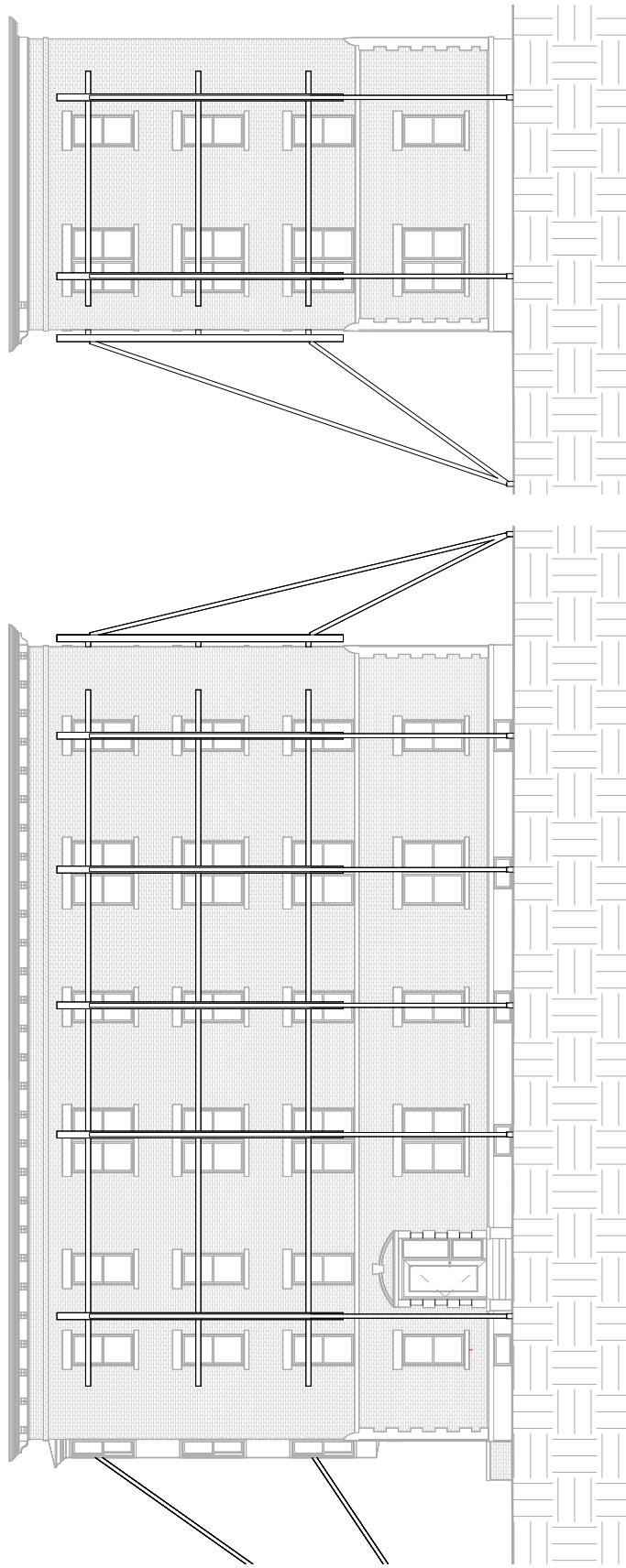
SCALE:	As indicated
PROJECT NO:	23211
DATE:	8/2/23
DRAWN BY:	JJS
CHECKED BY:	TC - CCB

PROPOSED ELEVATIONS

PROPOSED DEMO PLAN, PERSPECTIVE VIEW  
WITH WALL BRACING AND BUILDING SECTION

**S1.1**





2 EAST ELEVATION W/ WALL BRACING  
1/16" = 1'-0"

1 SOUTH ELEVATION WITH WALL BRACING (JEFFERSON ST)  
1/16" = 1'-0"

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 OLD SAYBROOK  
 CONNECTICUT 06475  
 PHONE: 860 388 1224  
 GNCBENGINEERS.COM

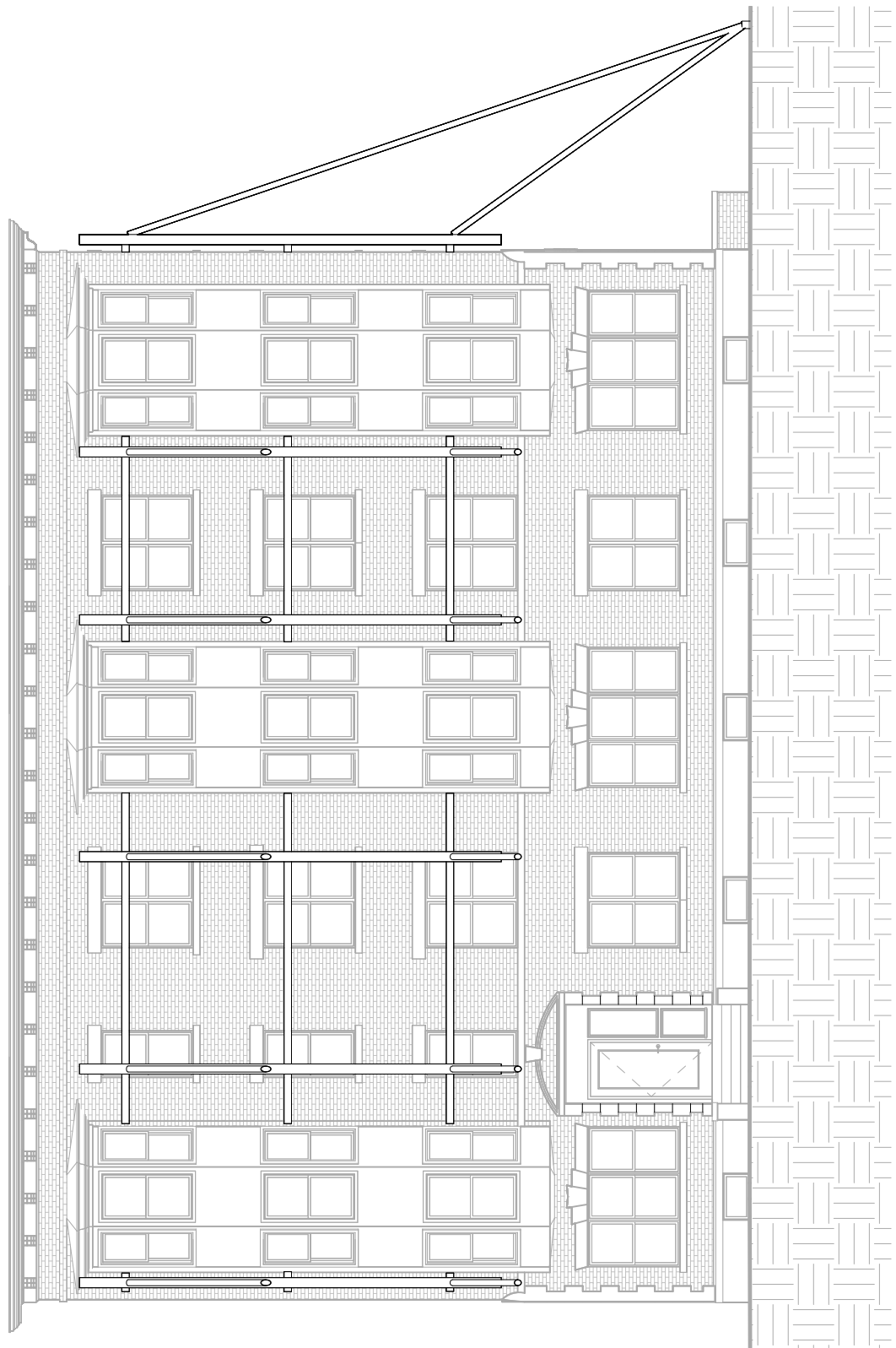
Hartford Hospital  
 224 Washington St  
 Hartford CT

SCALE:	1/16" = 1'-0"
PROJECT NO:	23211
DATE:	8/2/23
DRAWN BY:	JJS
CHECKED BY:	TC - CCB

PROPOSED ELEVATIONS

SOUTH ELEVATION WITH WALL BRACING

**S1.2**



1 WEST ELEVATION WITH WALL BRACING (WASHINGTON STREET)

1" = 10'-0"

**GNCB**  
Consulting Engineers, P.C.

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PHONE: 860 388 1224  
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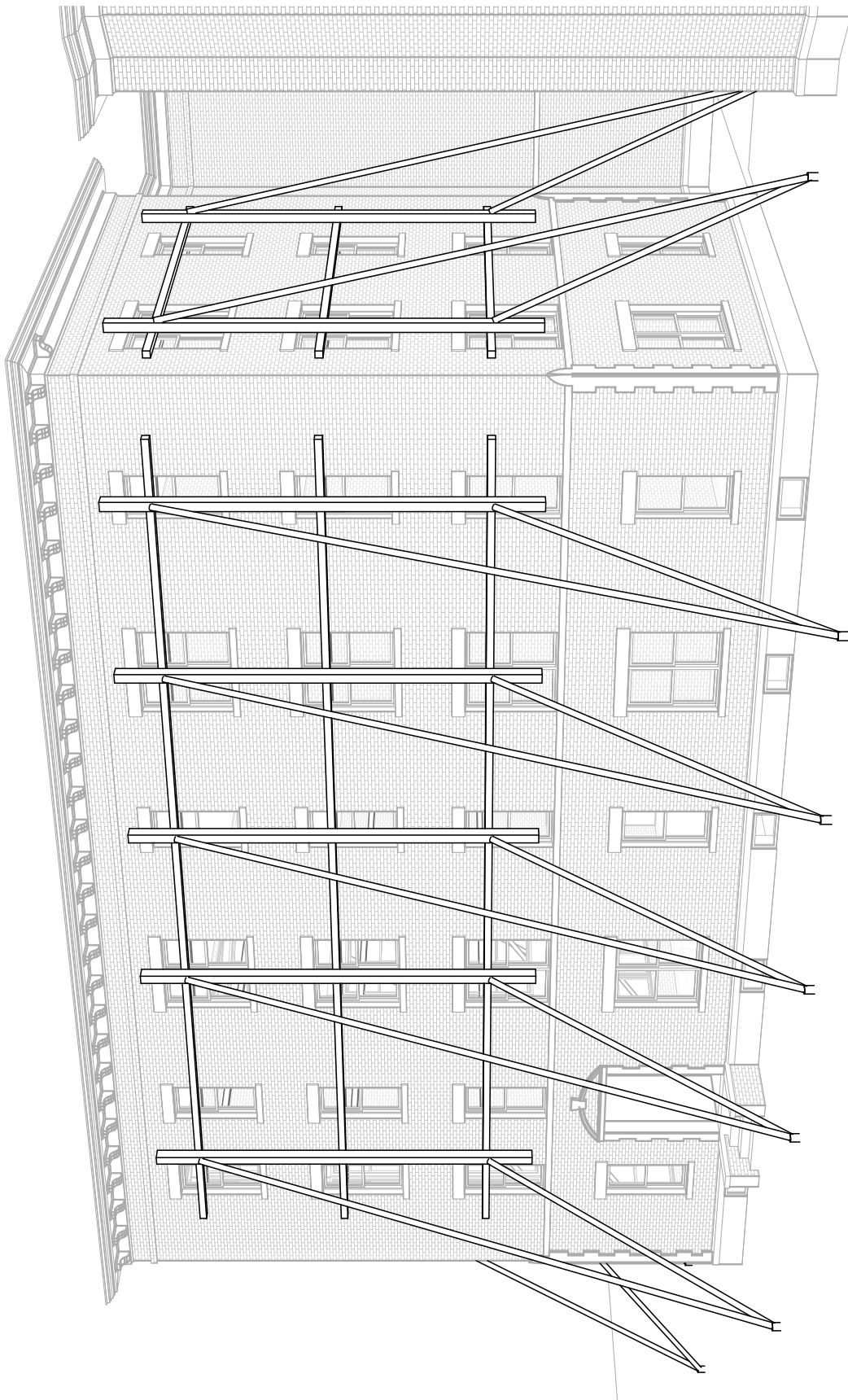
Hartford Hospital  
224 Washington St  
Hartford CT

SCALE:	1" = 10'-0"
PROJECT NO:	23211
DATE:	8/2/23
DRAWN BY:	JJS
CHECKED BY:	TC - CCB

PROPOSED ELEVATIONS

WEST ELEVATION WITH WALL BRACING

**S1.3**



2 SOUTH PERSPECTIVE VIEW 2 WITH WALL BRACING (JEFFERSON STREET)

2

**GNCB**   
 Consulting Engineers, P.C.  
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 OLD SAYBROOK  
 CONNECTICUT 06475  
 PHONE: 860 388 1224  
 GNCBENGINEERS.COM

Hartford Hospital  
 224 Washington St  
 Hartford CT

PROPOSED ELEVATIONS

SOUTH PERSPECTIVE VIEW 2 WITH WALL  
 BRACING (JEFFERSON STREET)

SCALE:  
 PROJECT NO: 23211  
 DATE: 8/2/23  
 DRAWN BY: JJS  
 CHECKED BY: TC - CCB

**S1.4**



3 PROPOSED WEST PERSPECTIVE VIEW (WASHINGTON STREET)

**GNCB**  
 Consulting Engineers, P.C.  
 1358 BOSTON POST ROAD  
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Hartford Hospital  
 224 Washington St  
 Hartford CT

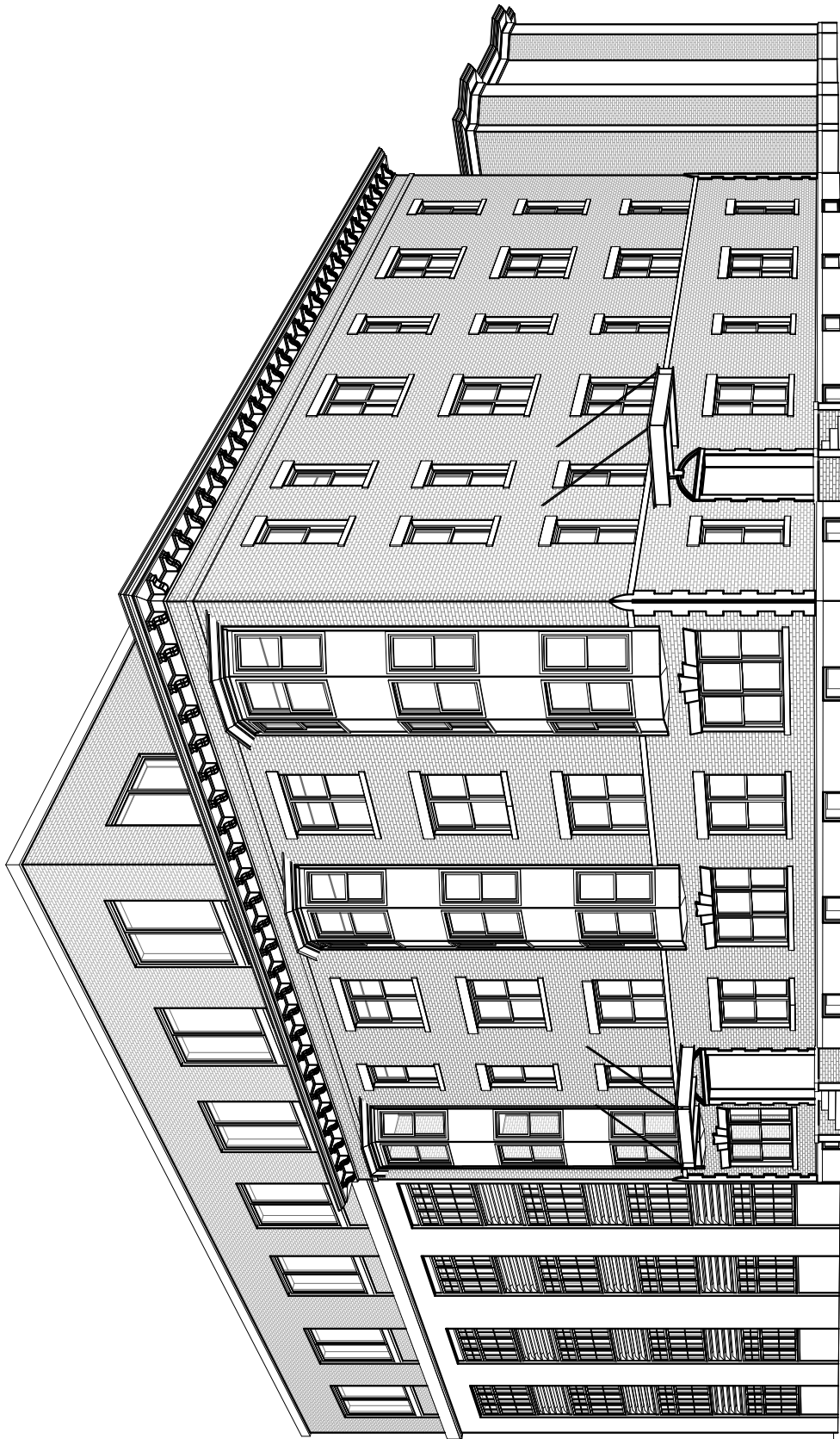
SCALE:  
 PROJECT NO: 23211  
 DATE: 8/2/23  
 DRAWN BY: JJS  
 CHECKED BY: TC - CCB

PROPOSED ELEVATIONS

PROPOSED WEST PERSPECTIVE VIEW  
 (WASHINGTON STREET)

**S1.5**





PROPOSED SOUTH-WEST PERSPECTIVE VIEW (WASHINGTON AND JEFFERSON STREETS)

4

**GNCB**  
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 1358 BOSTON POST ROAD  
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 Hartford CT

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 CHECKED BY: TC - CCB

PROPOSED ELEVATIONS

PROPOSED SOUTH-WEST PERSPECTIVE VIEW  
 (WASHINGTON AND JEFFERSON STREETS)

**S1.6**