Landmarks Preservation Commission

January 10th, 2022
Public Meeting

The current proposal is:

Preservation Department – Item 2, LPC-23-02975

112 2nd Avenue – East Village/Lower East Side Historic District

Borough of Manhattan

Note: this is a Public Meeting item. No public testimony will be received today as the hearing on this item is closed

DECEMBER 13TH, 2022

SUPPLEMENTAL PRESENTATION IN SUPPORT OF MCC APPLICATION

FACADE BEFORE FIRE

MINIMUM OF MATERIALS DESTROYED IN FIRE OR REQUIRED TO BE REMOVED FOR EGRESS AND SITE ACCESS OF EQUIPMENT

MINIMUM OF MATERIALS DAMAGED OR TO BE REMOVED FOR SAFETY

DAMAGED/REMOVED MATERIAL

NEEDLE BEAMS FOR OVERHEAD PROTECTION

ARCHITECTURAL FEATURES DESTROYED / DAMAGED / REQUIRED TO BE REMOVED

middle church
JUST LOVE

MIDDLE COLLEGIATE CHURCH

112 [illegible], NEW YORK, NY 10009

OWNER
COLLEGIATE CHURCH CORPORATION
500 Fifth Avenue
New York, NY 10110
TEL (212) 233-1980

ARCHITECT
ANTHONY JOHNSON ARCHITECT, LLC
80 Eighth Avenue
New York, NY 10011
TEL (646) 930-2135

02235
08/11/22

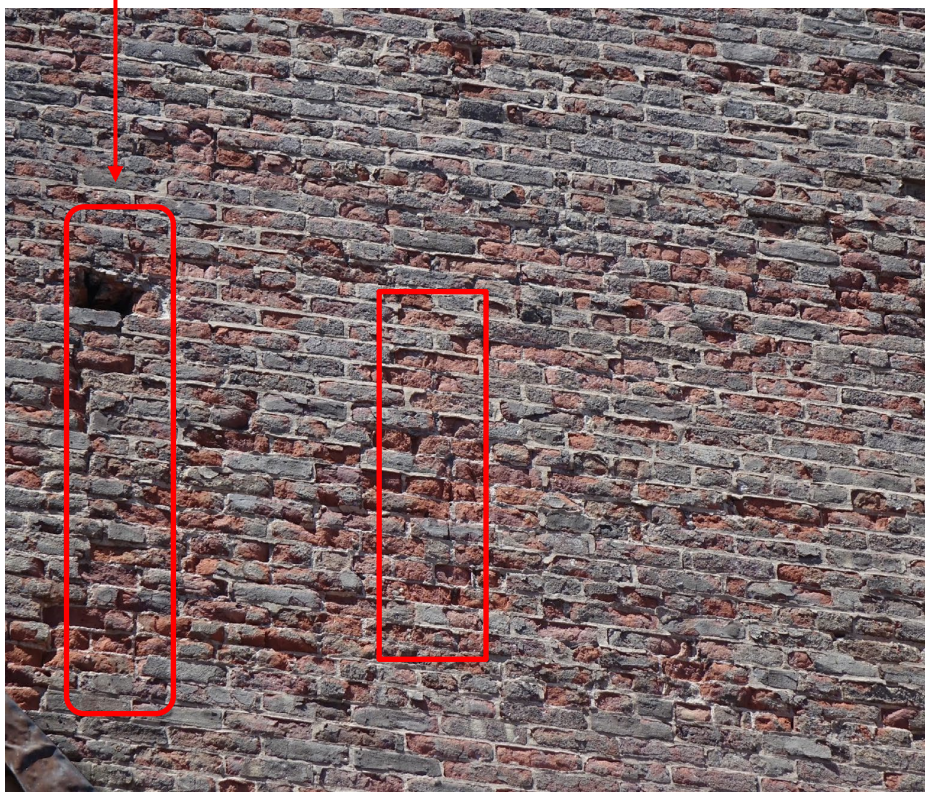
R-01

NORTH SPIRE

NORTH SPIRE

NORTH TOWER

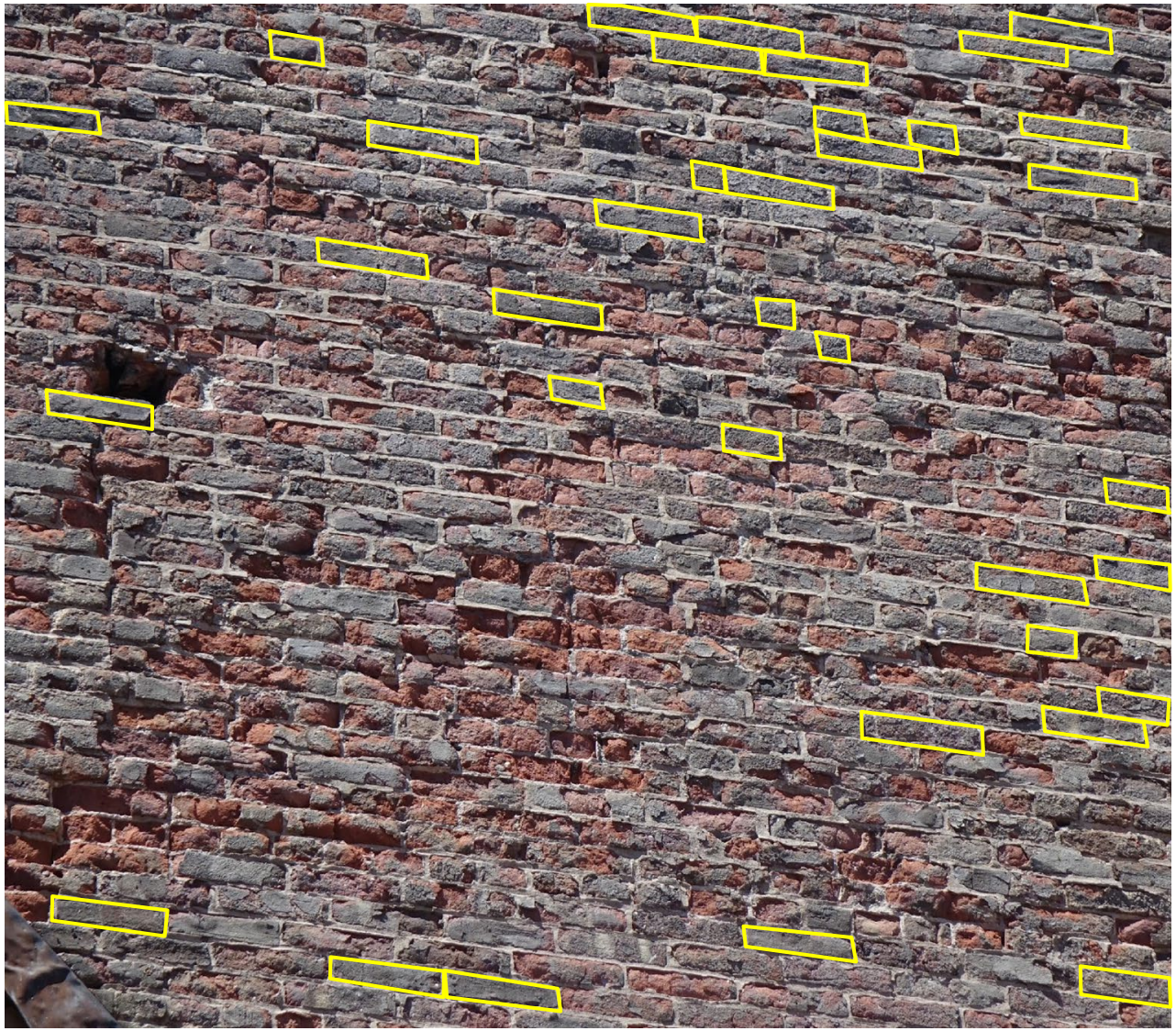
NORTH TOWER - ENLARGED



REPRESENTATIVE IMAGE OF DETERIORATED MASONRY

DETERIORATED MASONRY

NORTH TOWER



35 BRICKS WITHOUT VISIBLE SURFACE DAMAGE

386 DAMAGED BRICKS

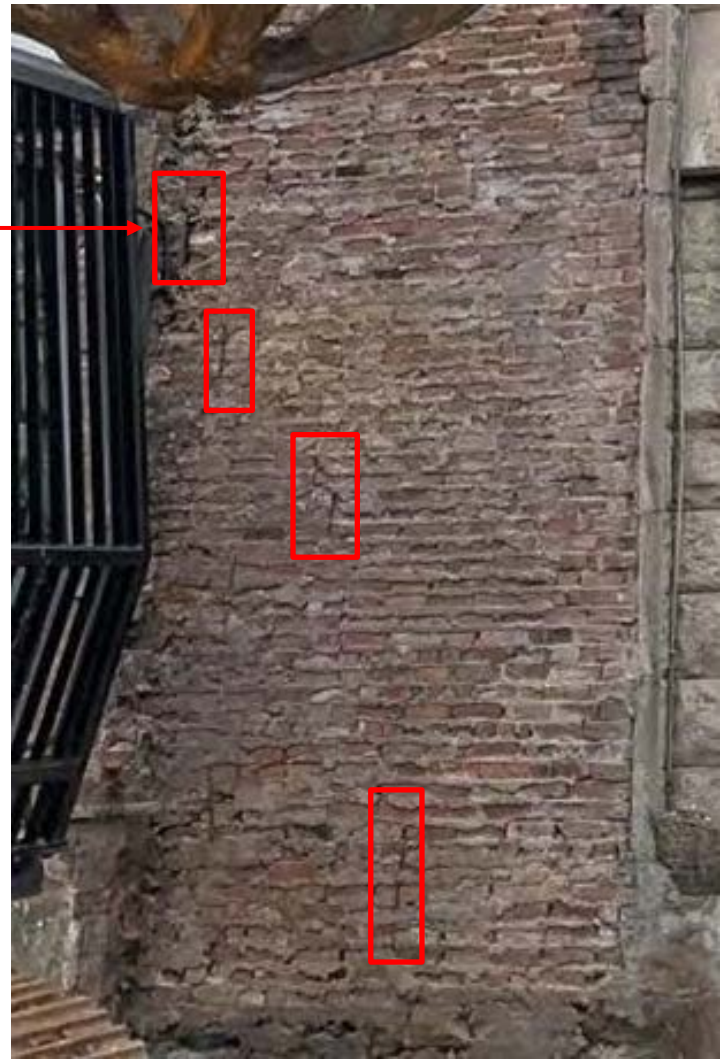
88% DAMAGED BRICKS

IMAGE IS APPROXIMATELY 15% OF TOWER FACE

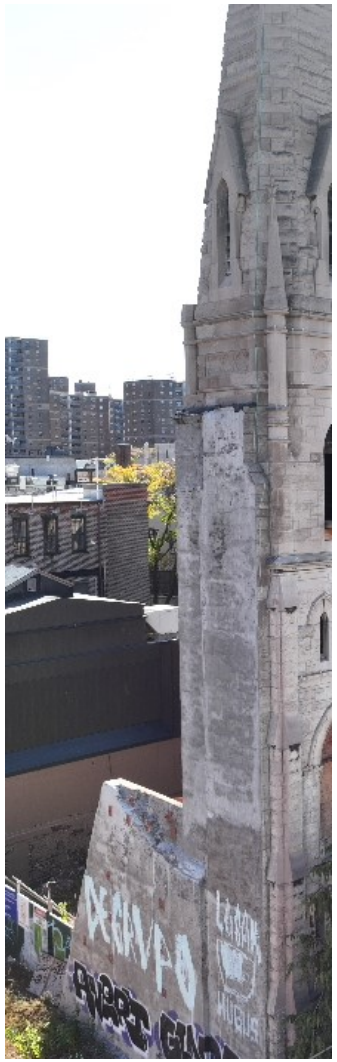
NORTH TOWER MASONRY – POST FIRE CONDITION - ENLARGED

NORTH TOWER – NORTH WALL

CRACKS



VISIBLE MASONRY CRACKS



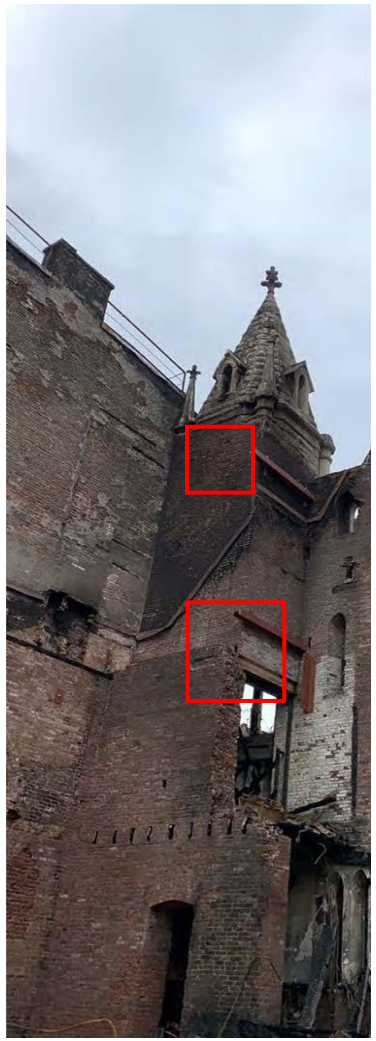
NORTH TOWER – WITH PARGE

NORTH TOWER MASONRY – CURRENTLY COVERED BY CEMENT PARGE

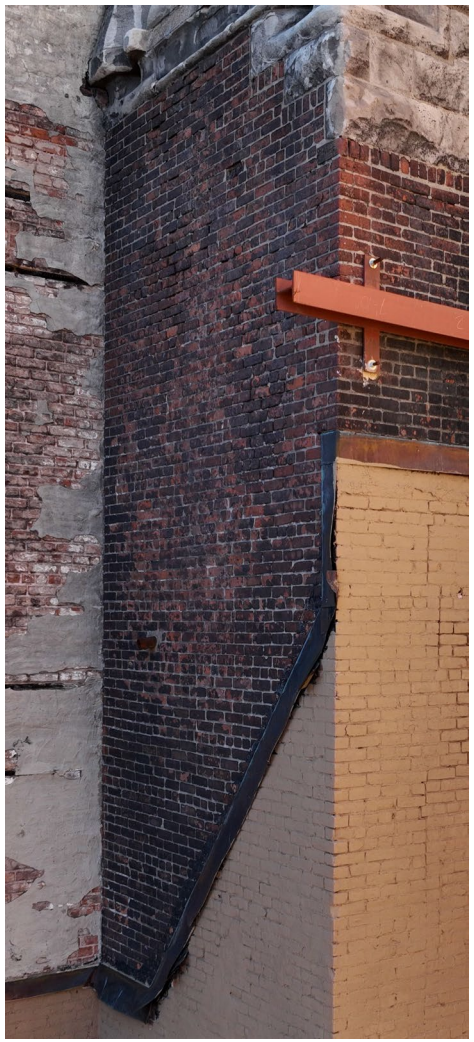
SOUTH SPIRE

SOUTH SPIRE - CLOSEUP

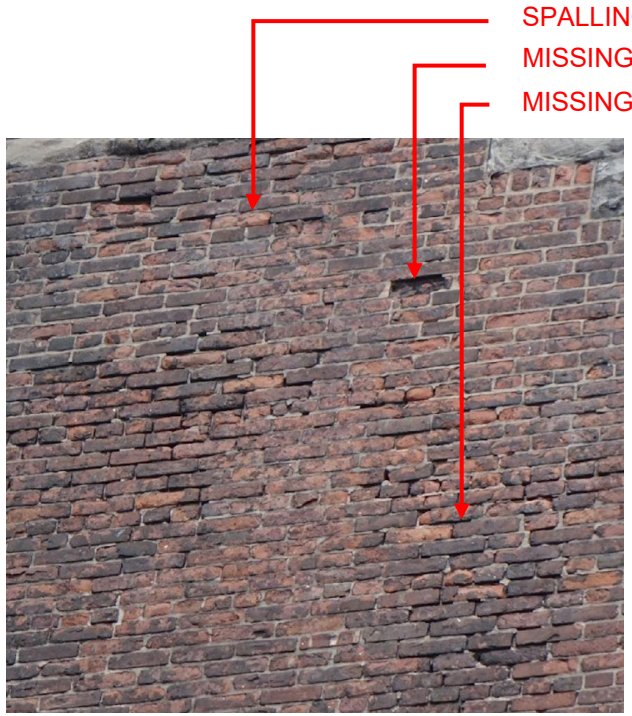
SOUTH TOWER



SOUTH TOWER



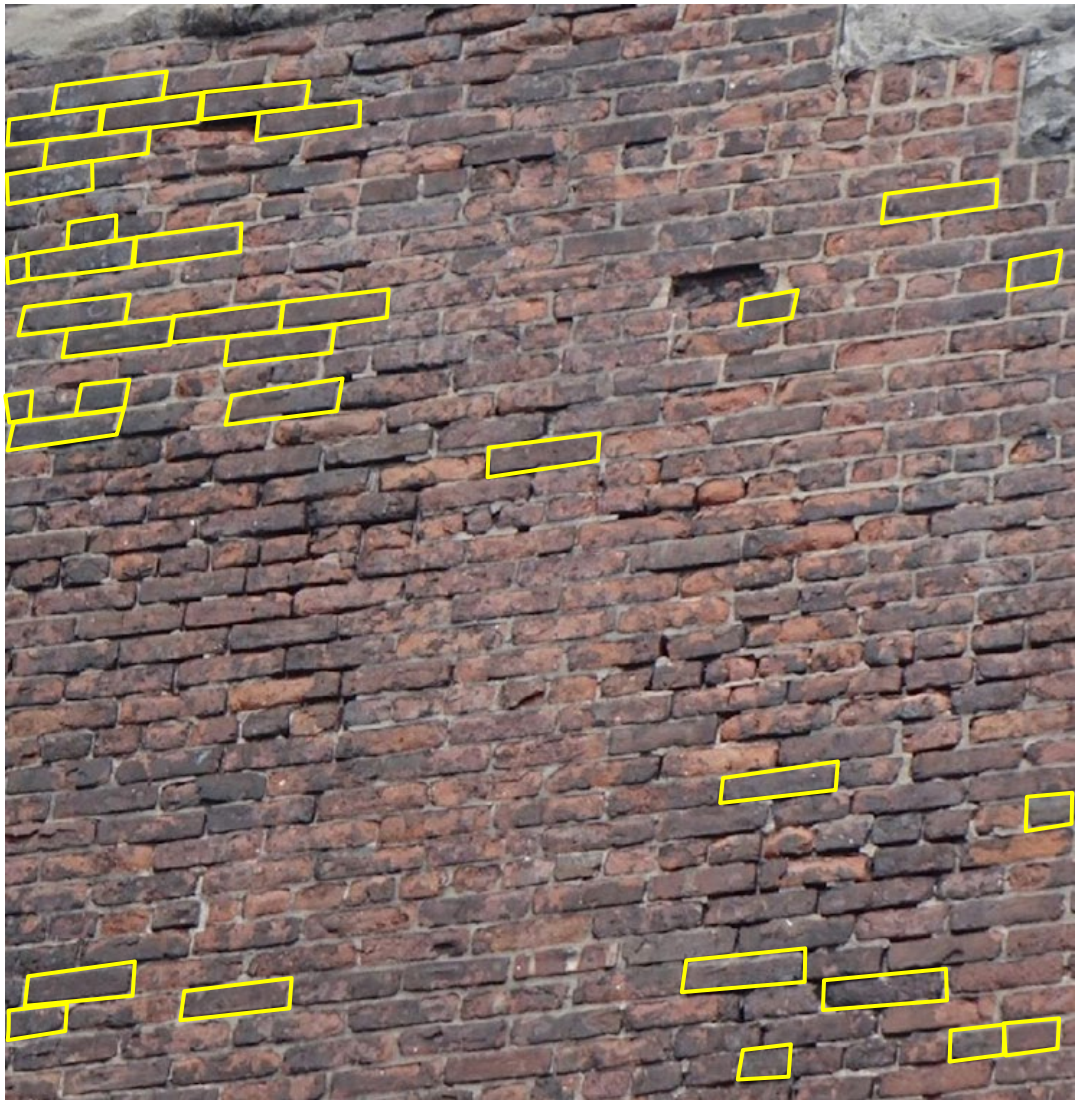
SOUTH TOWER - ENLARGED



REPRESENTATIVE IMAGE OF DETERIORATED MASONRY

CRACK AT STEEL TRANSFER

SOUTH TOWER



35 BRICKS WITHOUT VISIBLE SURFACE DAMAGE

322 DAMAGED BRICKS

90% DAMAGED BRICKS

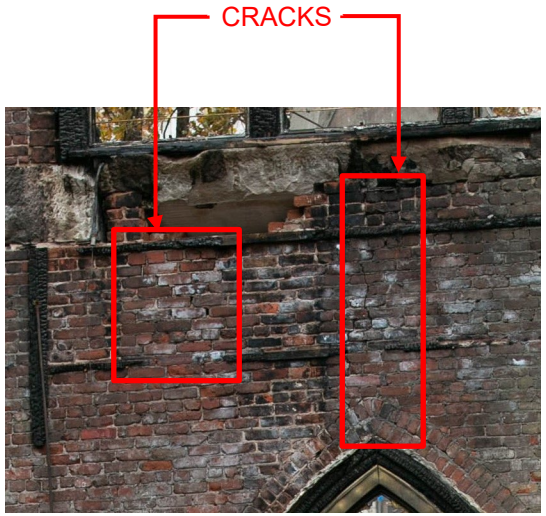
IMAGE IS APPROXIMATELY 25% OF TOWER FACE

SOUTH TOWER MASONRY – POST FIRE CONDITION - ENLARGED

GABLE – BACK OF FACADE

GABLE COPING DAMAGED STONE

GABLE SILL FRACTURED STONE



GABLE MASONRY CRACKS

GABLE MASONRY– CURRENTLY COVERED BY WATERPROOFING

EAST WALL - POST FIRE

EAST WALL REMOVED PER DOB ORDER

middle church
JUST LOVE

MIDDLE COLLEGIATE CHURCH

112 SECOND AVENUE, NEW YORK, NY 10003

COLLEGIATE CHURCH CORPORATION
500 Fifth Avenue
New York, NY 10110
TEL (212) 233-1960

ANTHONY JOHNSON ARCHITECT, LLC
80 Eighth Avenue
New York, NY 10011
TEL (646) 930-2135

02235
08/11/22

R-10

FACADE AFTER FIRE

ORIGINAL MATERIALS LOST IN FIRE
OR REMOVED FOR EGRESS
& SITE ACCESS

MINIMUM OF MATERIALS DAMAGED OR TO
BE REMOVED FOR SAFETY

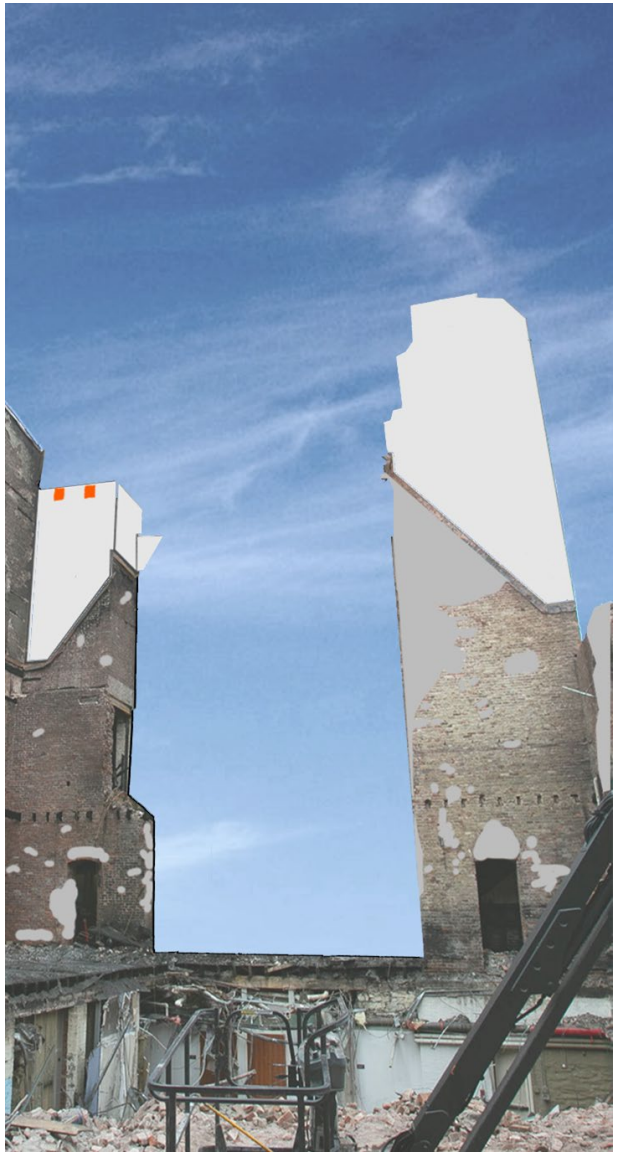
DAMAGED/REMOVED MATERIAL

NEEDLE BEAMS FOR OVERHEAD PROTECTION

INTERIOR SPALLING BRICK TO BE REMOVED

EXTERIOR SPALLING BRICK TO BE REMOVED

FRONT - 65% ORIGINAL MATERIAL LOST



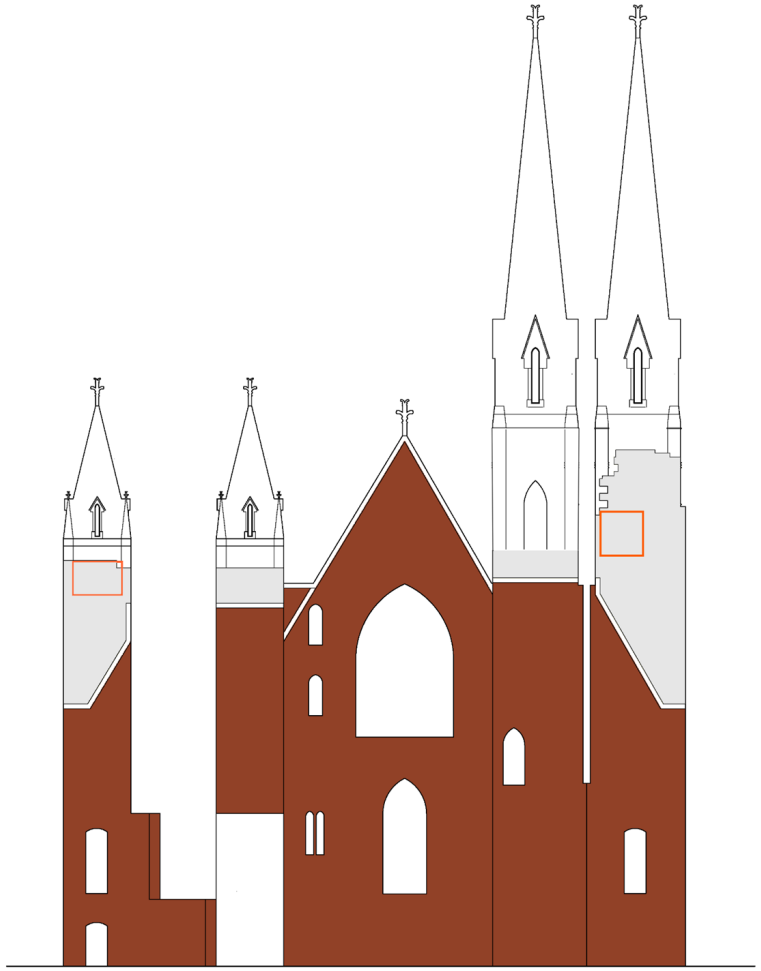
BACK - 60% ORIGINAL MATERIAL LOST

DAMAGED/REMOVED MATERIAL

EXTERIOR SPALLING BRICK TO BE REMOVED

INTERIOR SPALLING BRICK TO BE REMOVED

NEEDLE BEAMS FOR OVERHEAD PROTECTION

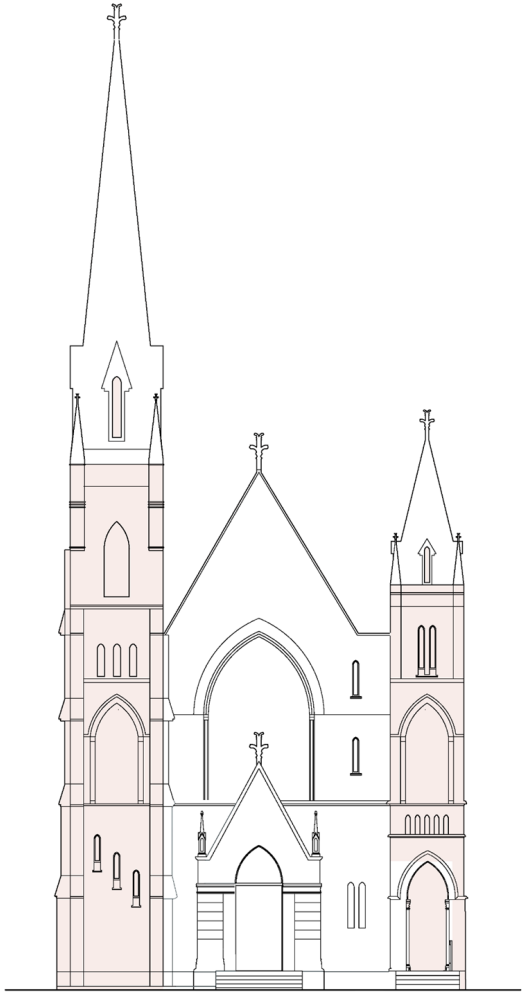


UNFOLDED BACK ELEVATION

EXTERIOR BRICK		**SAMPLED AREA**
NORTH TOWER	387 SF	**52 SF = 15%**
SOUTH TOWER	195 SF	**45 SF = 25%**
TOTAL	**582 SF**	

INTERIOR BRICK	
GABLE	1,375 SF
NORTH TOWER	1,188 SF
SOUTH TOWER	735 SF
TOTAL	**3,298 SF**

CALCULATED AREAS OF DAMAGED BRICK



FRONT ELEVATION

LIMESTONE DAMAGED OR TO BE REMOVED

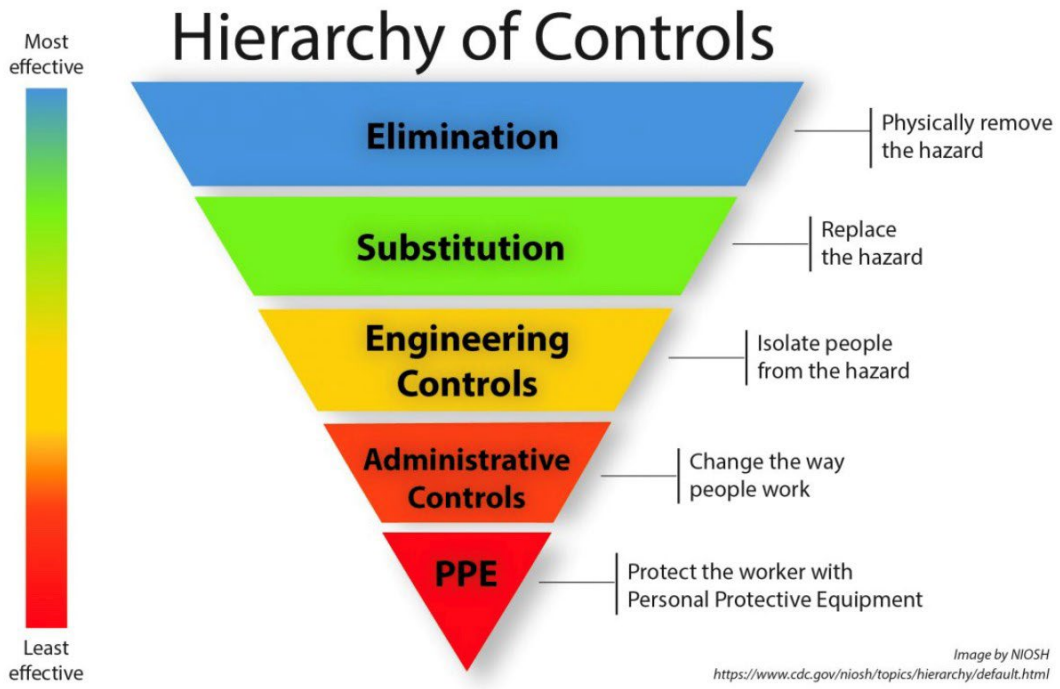
GABLE		1,395 SF
NORTH SPIRE	(230 SF X 4) =	920 SF
SOUTH SPIRE	(125 SF X 4) =	500 SF
TOTAL		**2,815 SF**

LIMESTONE REMAINING

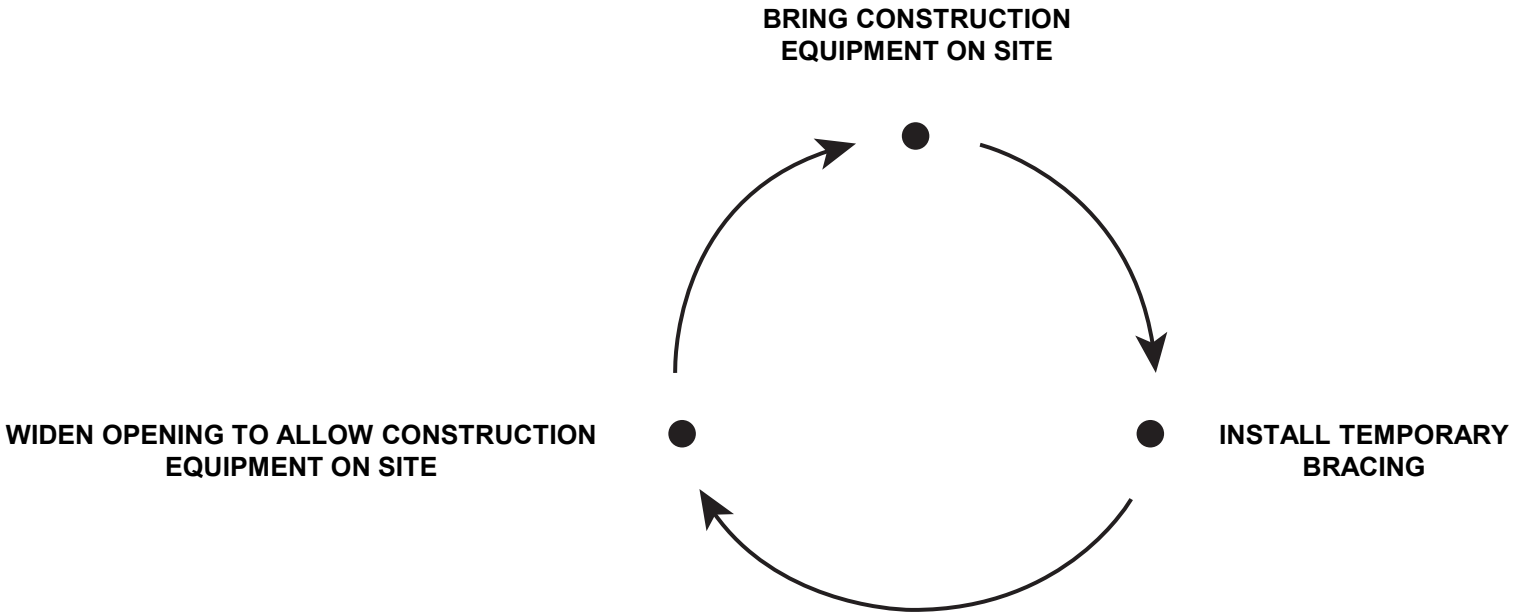
NORTH TOWER	835 SF
SOUTH TOWER	250 SF
TOTAL	**1,085 SF**

TOTAL LIMESTONE AREA	**3,900 SF**
TOTAL DAMAGED / TO BE REMOVED	**2,815 SF (72%)**
TOTAL REMAINING	**1,085 SF (28%)**

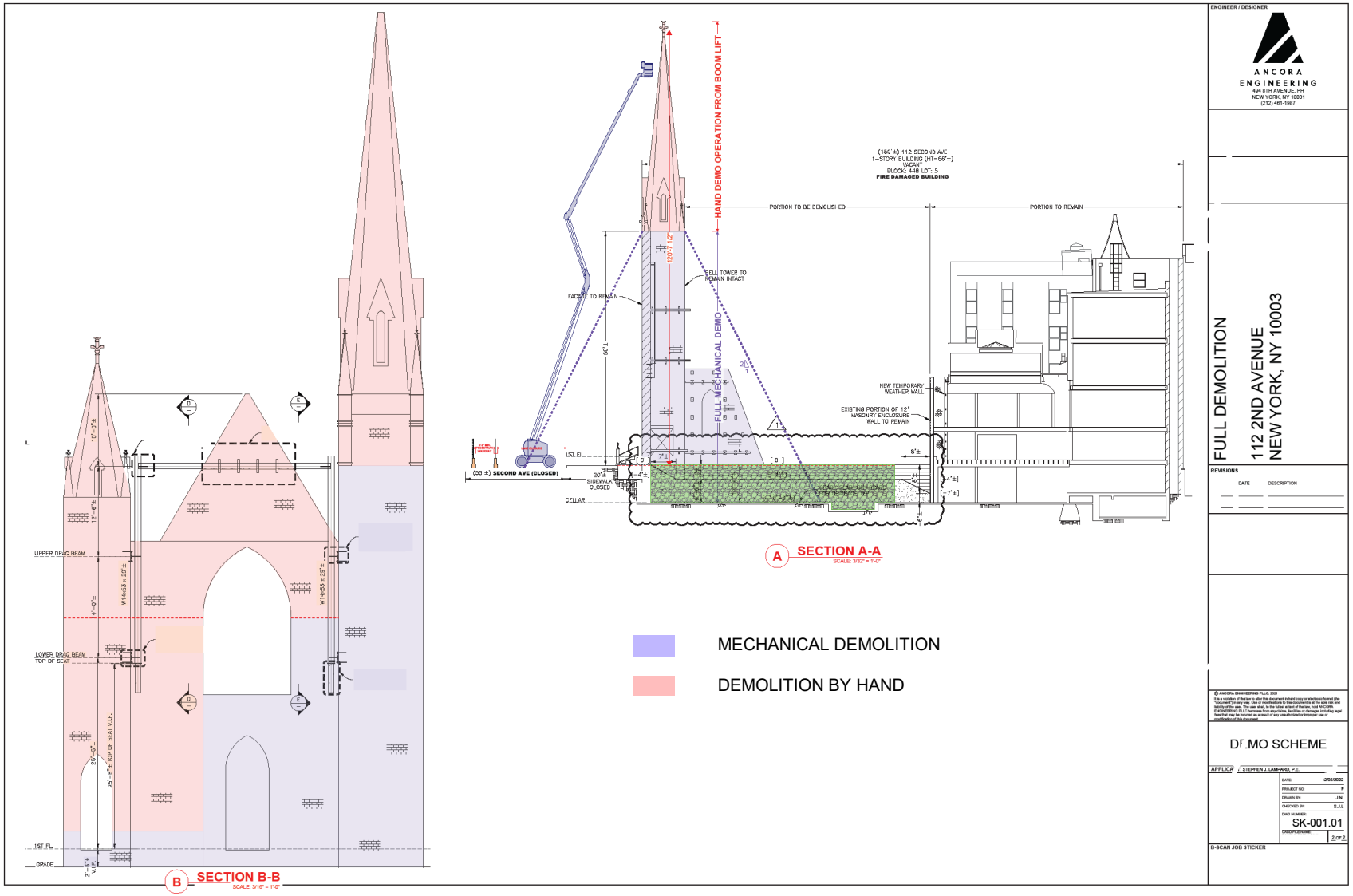
CALCULATED AREAS OF DAMAGED LIMESTONE



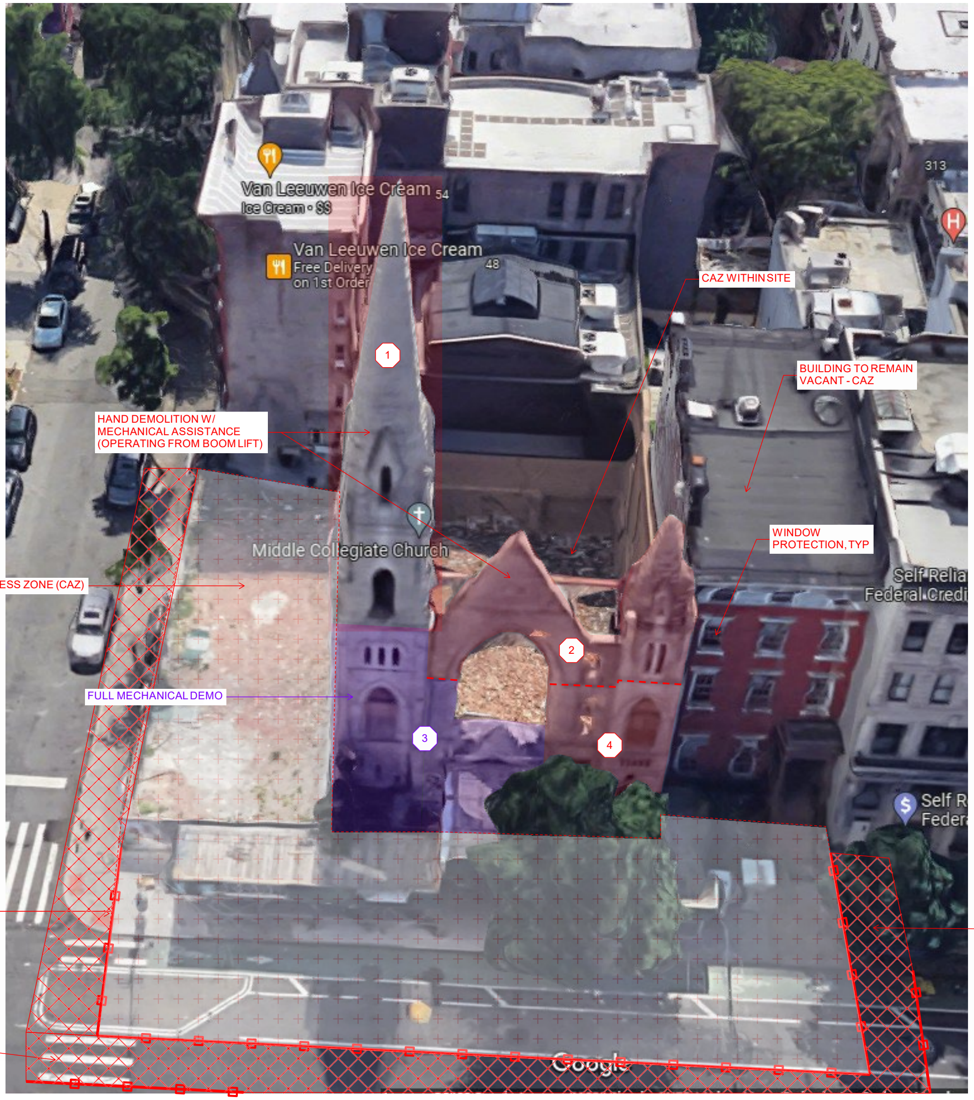
SAFETY HAZARD CONTROL HIERARCHY - NIOSH/OSHA



INSPECTION SEQUENCE



DEMOLITION SEQUENCE



ENGINEER / DESIGNER

ANCORA ENGINEERING
494 8TH AVENUE, PH
NEW YORK, NY 10001
(212) 461-1987

FULL DEMOLITION
112 2ND AVENUE
NEW YORK, NY 10003

REVISIONS

DATE	DESCRIPTION

DEMO SCHEME

APPLICANT: STEPHEN J. LAMPARD, P.E.

DATE:	12/05/2022
PROJECT NO:	#
DRAWN BY:	J.N.
CHECKED BY:	S.J.L
DWG NUMBER:	SK-001.01
CADD FILE NAME:	1 OF 2

B-SCAN JOB STICKER

DEMOLITION SEQUENCE

middle church

MIDDLE COLLEGIATE CHURCH

COLLEGIATE CHURCH CORPORATION
500 Fifth Avenue
New York, NY 10110
TEL (212) 233-1960

ANTHONY JOHNSON ARCHITECT, LLC
80 Eighth Avenue
New York, NY 10011
TEL (646) 930-2135

02235

R-18

COLLEGIATE CHURCH OF NEW YORK
245 W 77TH STREET
NEW YORK, NY 10024

MIDDLE COLLEGIATE CHURCH
112 2ND AVENUE
NEWW YORK, NY 10003

TEC BUILDING CONSULTANTS
641 LEXINGTON AVENUE
NEW YOK, NY 10022

ANTHONY JOHNSON ARCHITECT LLC
80 EIGHTH AVENUE
NEW YORK, NY 10011

ANCORA ENGINEERING PLLC
494 EIGHTH AVENUE
NEW YORK, NY 10001

LOZIER INC
150-48 14TH AVENUE
WHITESTONE, NY 11357

TRITON CONSTRUCTION
30 EAST 33RD STREET
NEW YORK, NY 10016

COZEN O'CONNOR
3 WTC, 175 GREENWICH STREET
NEW YORK, NY 10007

AERIAL VIEW – POST FIRE

middle church
JUST LOVE

MIDDLE COLLEGIATE CHURCH
112 SECOND AVENUE, NEW YORK, NY 10003

OWNER
COLLEGIATE CHURCH CORPORATION
500 Fifth Avenue
New York, NY 10110
TEL (212) 233-1960

ARCHITECT
ANTHONY JOHNSON ARCHITECT, LLC
80 Eighth Avenue
New York, NY 10011
TEL (646) 930-2135

02235
PROJECT #
08/11/22
DATE
1/8" = 1'-0"
SCALE

LPC-2

middle church
JUST LOVE

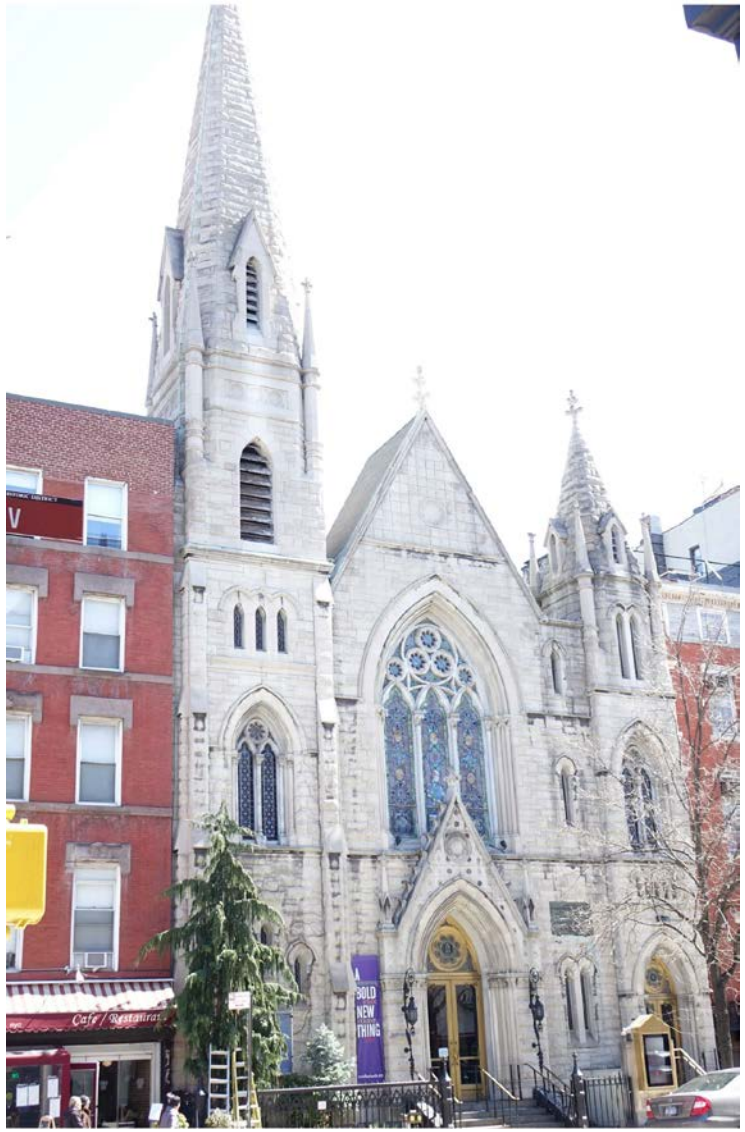
MIDDLE COLLEGIATE CHURCH
112 SECOND AVENUE, NEW YORK, NY 10003

OWNER
COLLEGIATE CHURCH CORPORATION
500 Fifth Avenue
New York, NY 10110
TEL (212) 233-1960

ARCHITECT
ANTHONY JOHNSON ARCHITECT, LLC
80 Eighth Avenue
New York, NY 10011
TEL (646) 930-2135

02235
PROJECT #
08/11/22
DATE
1/8" = 1'-0"
SCALE

LPC-3



2nd Ave. FAÇADE – PRE FIRE

middle church
JUST LOVE

MIDDLE COLLEGIATE CHURCH
112 SECOND AVENUE, NEW YORK, NY 10003

OWNER
COLLEGIATE CHURCH CORPORATION
500 Fifth Avenue
New York, NY 10110
TEL (212) 233-1960

ARCHITECT
ANTHONY JOHNSON ARCHITECT, LLC
80 Eighth Avenue
New York, NY 10011
TEL (646) 930-2135

02235
PROJECT #
08/11/22
DATE
1/8" = 1'-0"
SCALE

LPC DESIGNATION REPORT FEATURES

INDIANA LIMESTONE FAÇADE – *DAMAGED AND LOCALLY DESTABILIZED*

LIMESTONE BUTTRESSES – *CRACKS FORMED*

LIMESTONE FINIALS – *DAMAGED AND DESTROYED*

STAINED GLASS WINDOWS (POSSIBLY TIFFANY GLASS) – *DESTROYED*

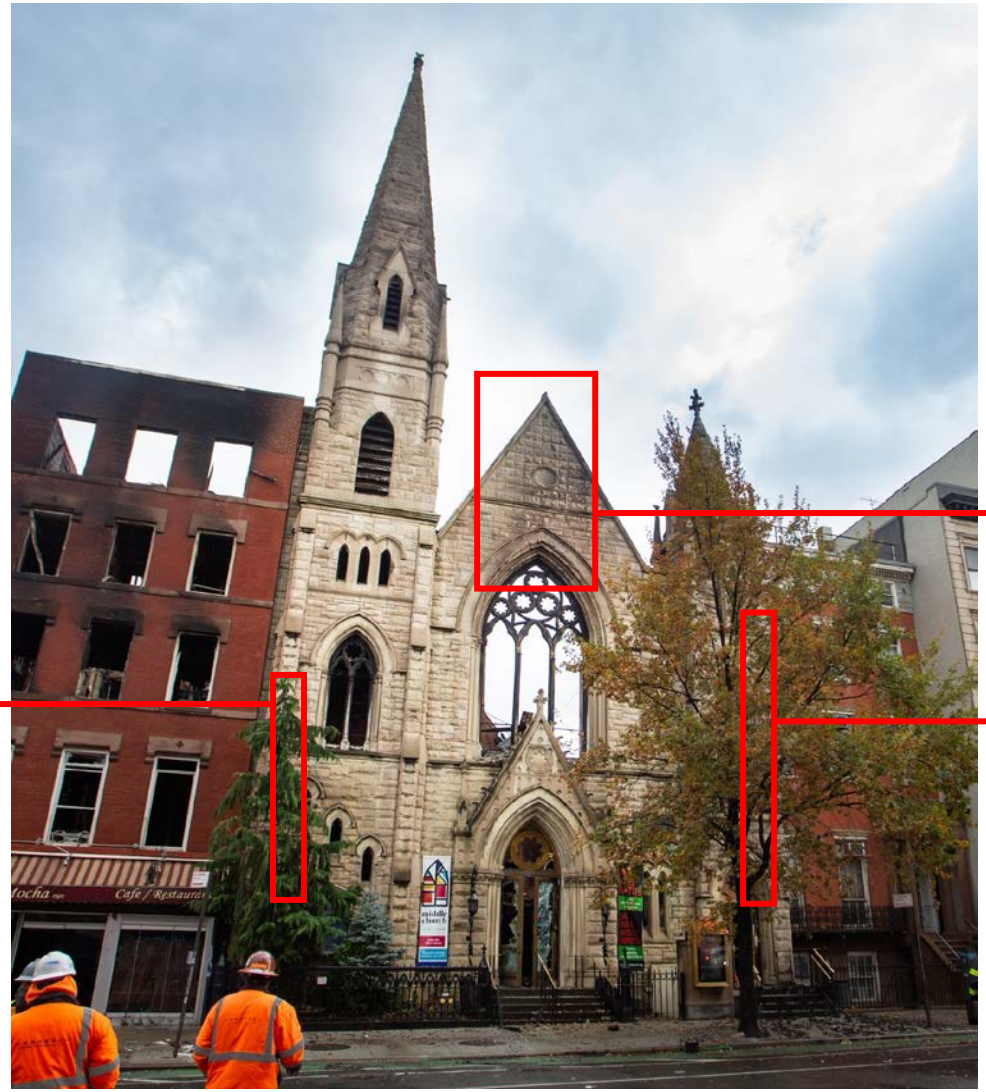
WOOD AND BRONZE TRACERY – *DAMAGED, AND REMOVED BY ORDER NYC DOB*

GABLED CENTRAL BAY – *DAMAGED AND LOCALLY DESTABILIZED*

NORTHERN TOWER AND SPIRE – *MASONRY DAMAGED, LIMESTONE FRACTURED AND LOCALLY DESTABILIZED*

SOUTHERN TOWER AND SPIRE – *MASONRY DAMAGED, LIMESTONE FRACTURED AND LOCALLY DESTABILIZED*

2ND Ave. FACADE – POST FIRE



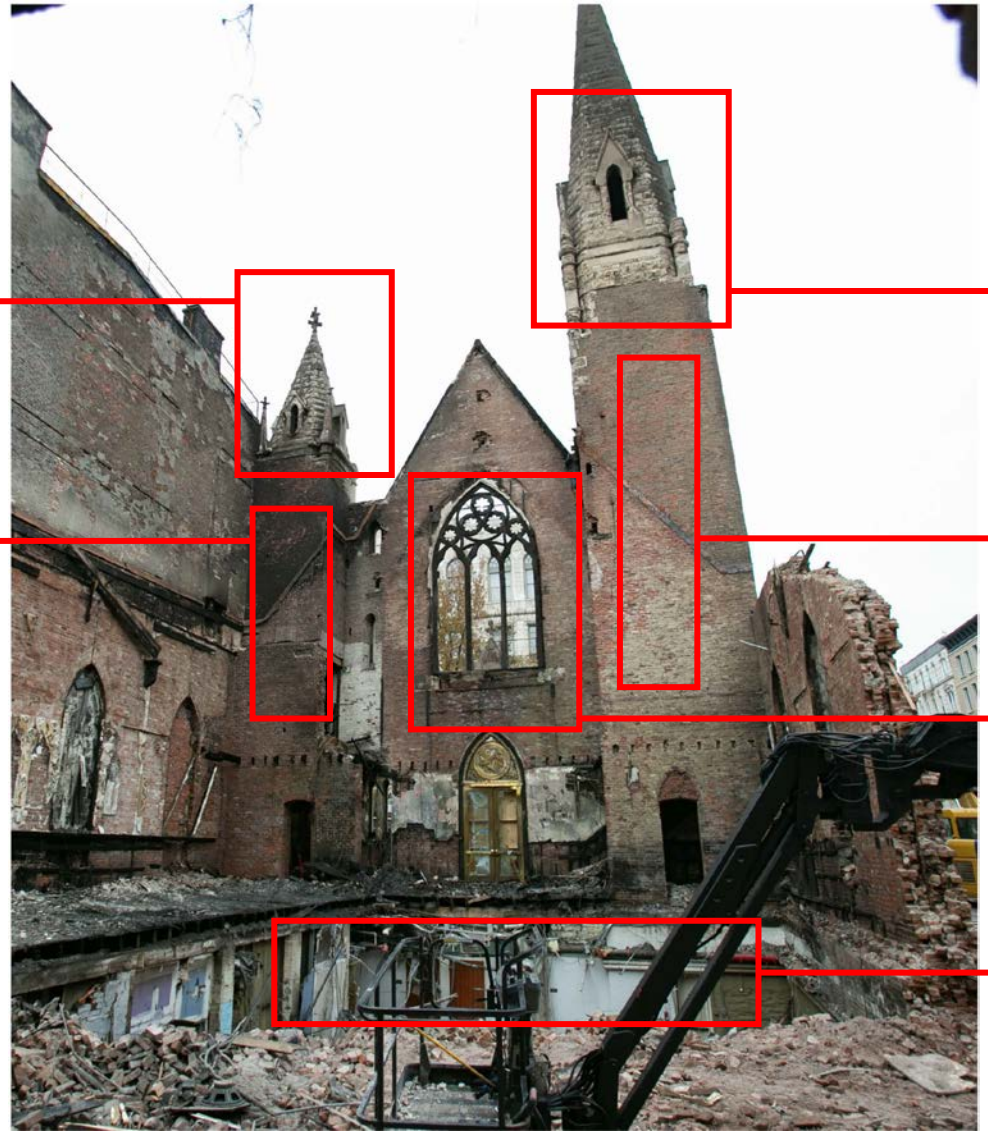
2ND Ave. FAÇADE – POST FIRE

HISTORIC FABRIC TO BE REMOVED

2ND Ave. FAÇADE MODIFICATIONS REQUIRED FOR EGRESS BY NYC CODE

SOUTH SPIRE LIMESTONE

SOUTH TOWER MASONRY



NORTH SPIRE LIMESTONE

NORTH TOWER MASONRY

GABLE SILL AND ARCH

FOUNDATION WALL

BACK SIDE OF 2ND Ave. FACADE

VIEW OF TYPICAL MASONRY

LOCALIZED DESTABILIZATION

SPALLING BRICK DUE TO THERMAL SHOCK

MISSING MORTAR

MISSING BRICKS

SOUTH SPIRE PRE-FIRE

LOCALIZED DESTABILIZATION

LIMESTONE SPALLING FROM THERMAL SHOCK

LIMESTONE FRACTURED

LIMESTONE LOOSE

FINIALS DAMAGED

LIMESTONE HELD IN PLACE BY GRAVITY AND/OR FRICTION

SOUTH SPIRE POST-FIRE

SOUTH SPIRE

LOCALIZED DESTABILIZATION

LIMESTONE SPALLING FROM THERMAL SHOCK

LIMESTONE FRACTURED

LIMESTONE LOOSE

FINIALS DAMAGED

SOUTH SPIRE

NORTH TOWER WINDOW

LOCALIZED DESTABILIZATION

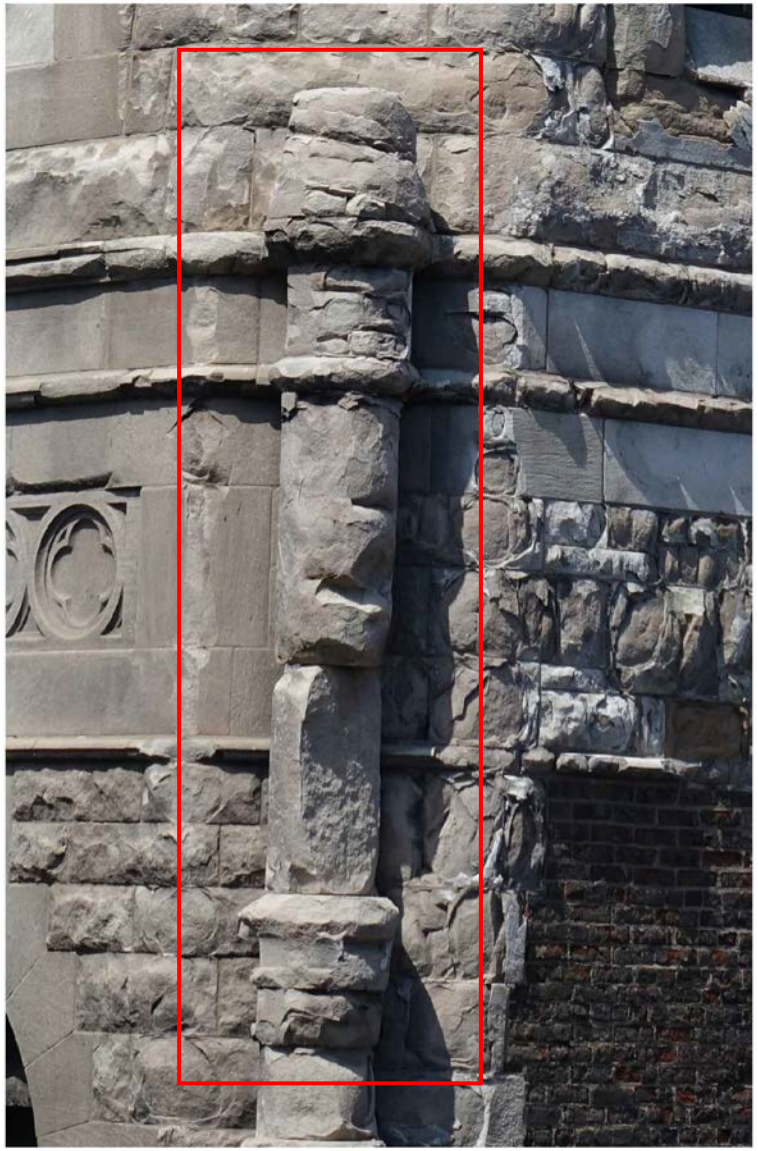
LIMESTONE SPALLING FROM THERMAL SHOCK

LIMESTONE FRACTURED

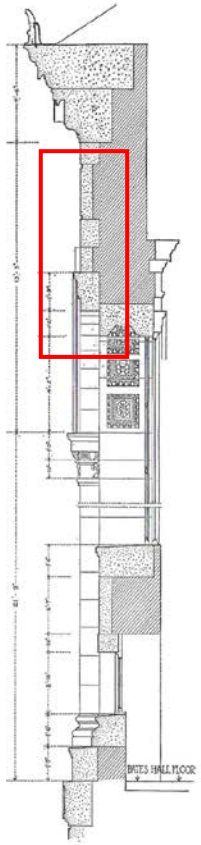
LIMESTONE LOOSE

FINIALS DESTROYED

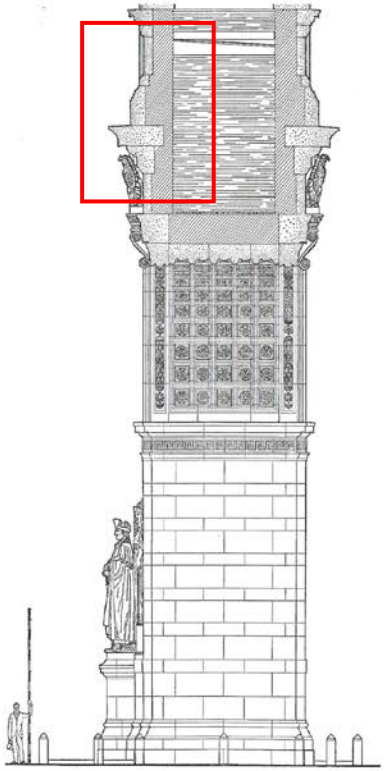
LIMESTONE HELD IN PLACE BY GRAVITY AND/OR FRICTION



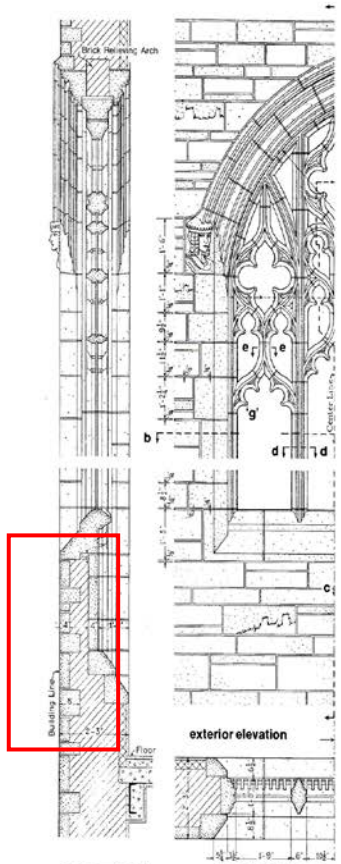
NORTH TOWER FINIAL



SECTION
BOSTON PUBLIC LIBRARY
MCKIM MEAD & WHITE
1889



SECTION
WASHINGTON SQUARE ARCH
NEW YORK - MCKIM MEAD & WHITE
1892



SECTION ELEVATION
GOTHIC TRACERY WINDOW
INDIANA LIMESTONE INSTITUTE

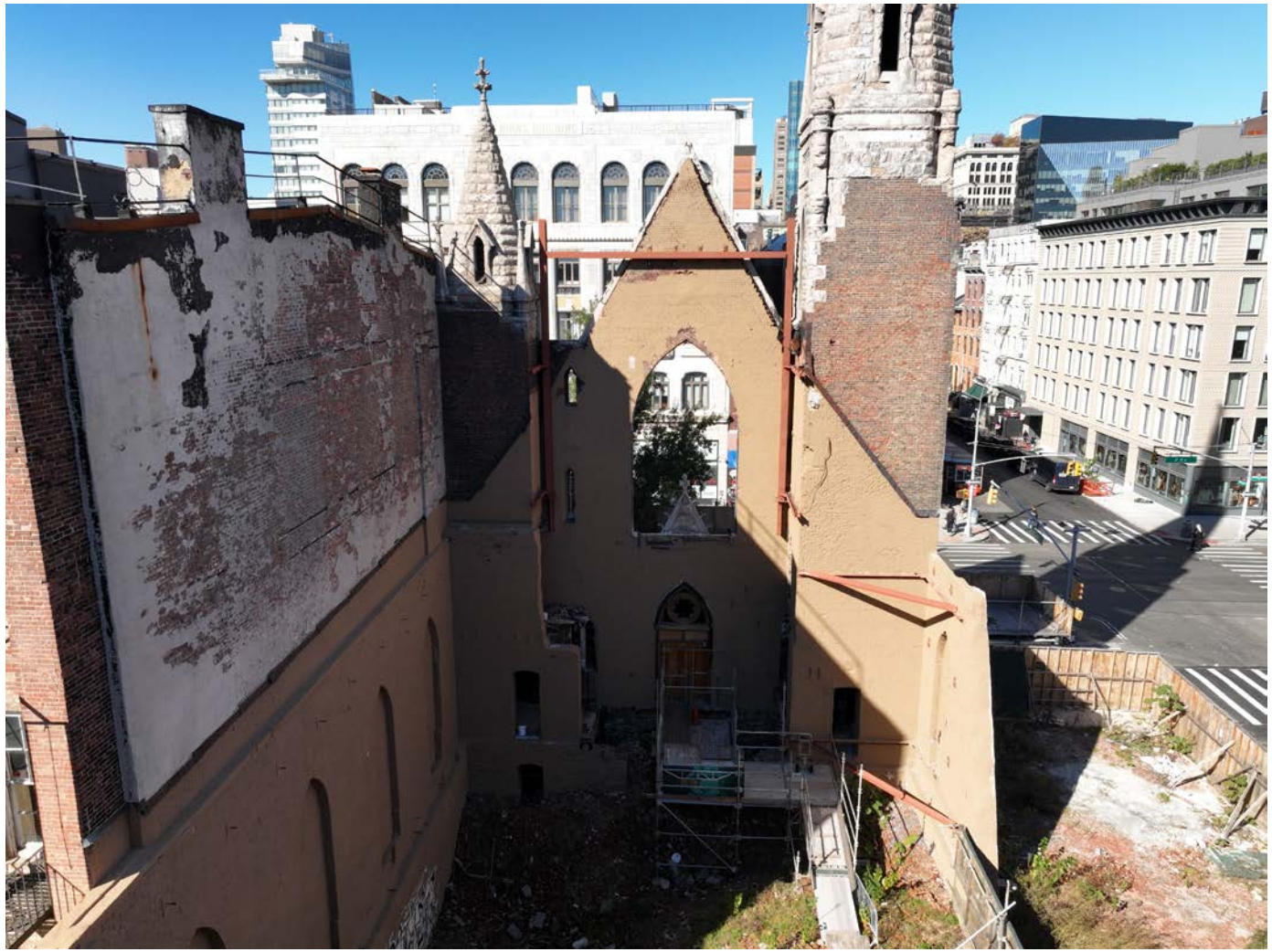
LIMESTONE FAÇADE

MASONRY BACKUP

INTERLOCKING LIMESTONE
AND MASONRY

MIDDLE CHURCH CONSTRUCTION
1891

TYPICAL LOAD BEARING MASONRY CONSTRUCTION OF THE TIME



CORNER SITE CLEARED

FAÇADE TEMPORARILY BRACED

NORTH WALL REMOVED FOR TEMPORARY ACCESS

CURRENT AERIAL VIEW

SOUTH TOWER BRACING

GABLE BRACING

NORTH TOWER BRACING

LOCALIZED DESTABILIZATION

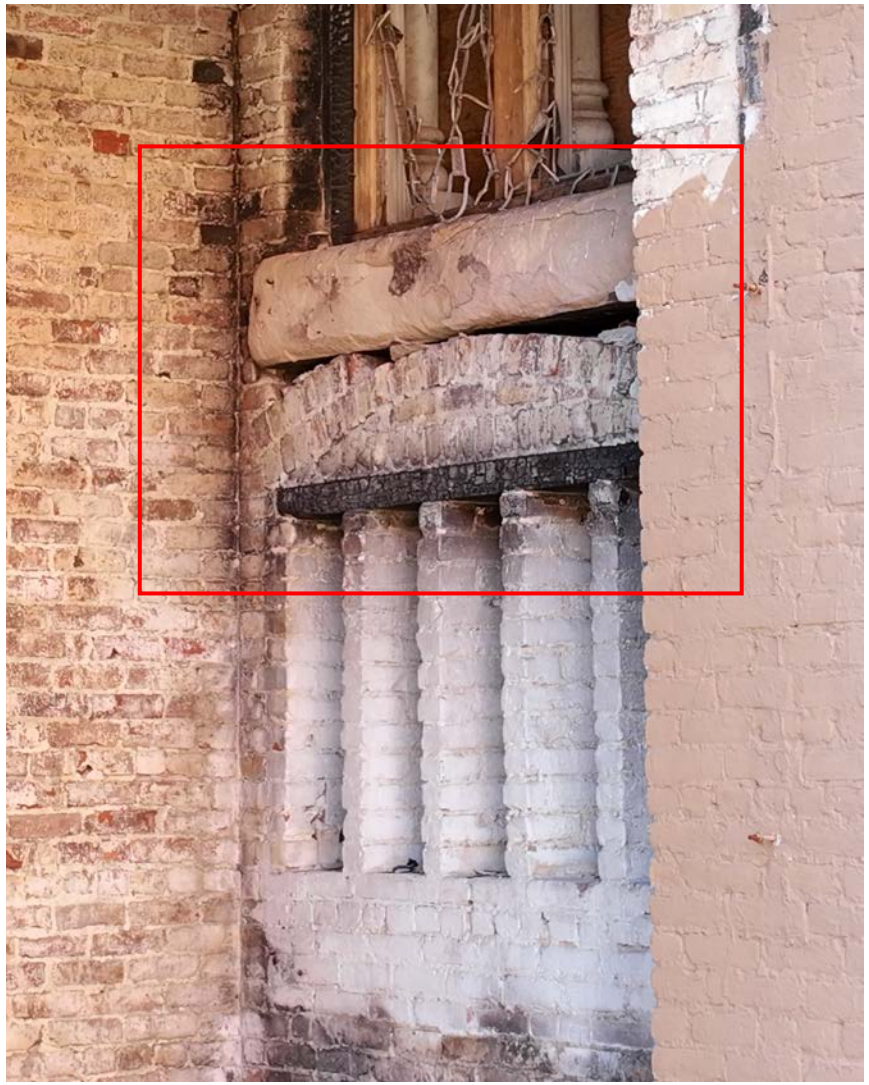
DIMENSIONAL STONE FRACTURED

MORTAR MISSING

MASONRY DAMAGED BY THERMAL SHOCK

GABLE ARCH

BACK OF GABLE SILL



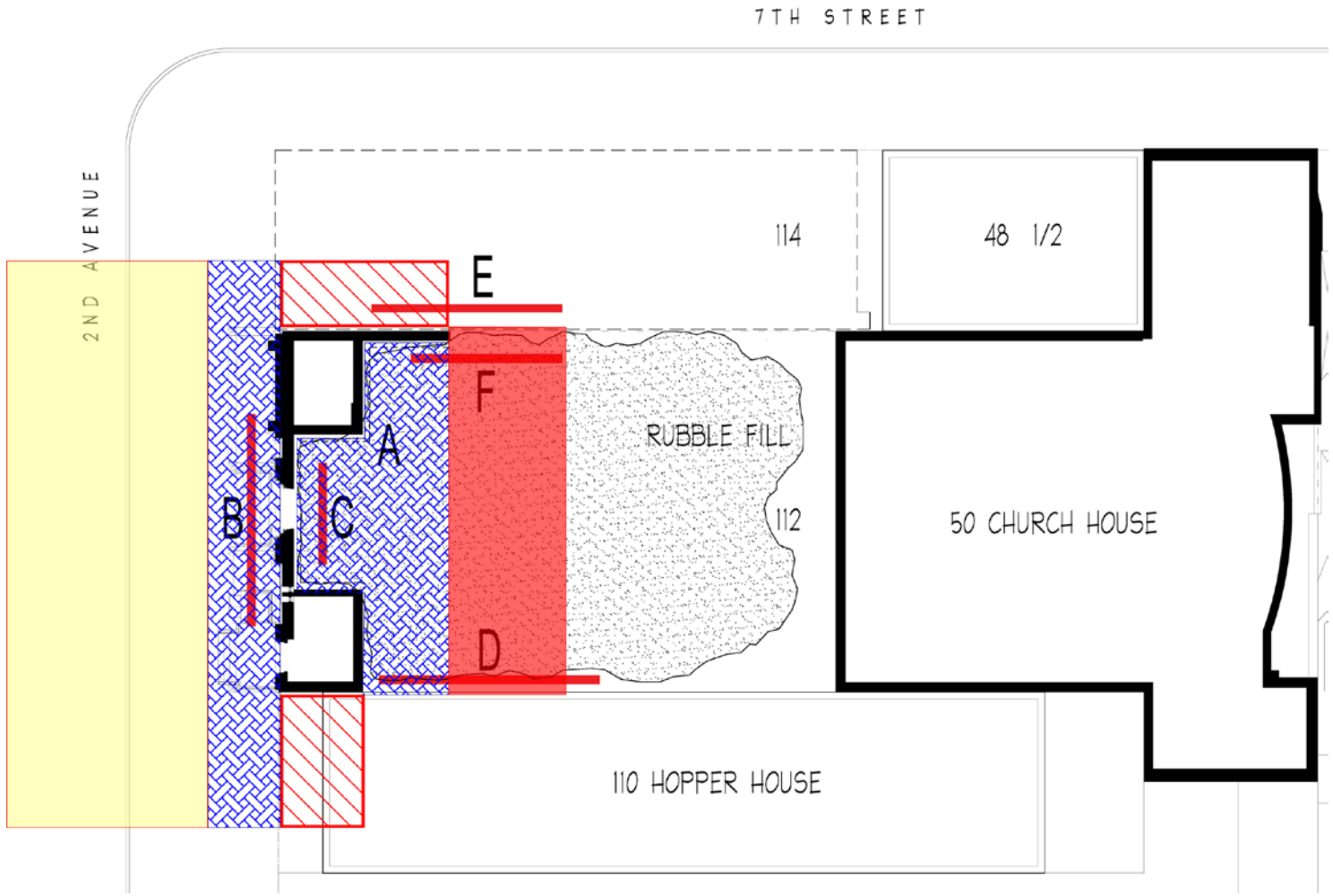
VIEW INSIDE SOUTH TOWER

LOCALIZED DESTABILIZATION

SPALLING LIMESTONE DUE TO THERMAL SHOCK

MISSING MASONRY

CHARRED WOOD SUPPORT



Legend:

- Additional Structural Bracing Zones required for inspections or repairs
- DOT Logistics Area
- Overhead Protection & Pipe Scaffolding required for inspections or repairs
- Overhead Protection & Pipe Scaffolding required for inspections or repairs and requiring access to adjacent properties
- Leveled out Debris to Sidewalk Grade

SITE LOGISTICS CONSTRAINTS

LIMESTONE FAÇADE IS IN STATE OF DISREPAIR * DETERIORATED BEYOND USABLE LIFE * BRICK SUPPORT STRUCTURALLY COMPROMISED * NUMEROUS SAFETY AND LOGISTICAL CONCERNS * RETENTION MOVING FORWARD INTO CONSTRUCTION NOT WARRANTED

1. **Further structural investigations into feasibility of restoring stability to façade remnant not practical due to the following issues:**
    - Leveling interior of job site to sidewalk grade presents safety, logistic and engineering issues
    - Site logistics hurdles
    - Safety and protection of inspectors and workers
    - Engineering Designs
    - No access to site from northern and southern adjacent properties
    - North and South Towers inaccessible - due to no structure left to ascend them
    - No safe access for equipment to investigate back side of façade remnant

2. **Engineering/construction to stabilize of the façade remnant is not practical due to following issues:**
    - Reinforcement of rubble foundation wall presents safety risk, logistical and engineering challenges
    - Bracing portions of façade remnant while construction takes place on site presents safety, logistical and engineering challenges
    - Site logistics challenges with protection of adjacent properties
    - Engineering challenges with protection of adjacent properties

ENGINEERING CONCLUSION

AERIAL VIEW – POST FIRE

APPENDIX

“Test Your Assumptions”

Job Safety Analysis (JSA) is an accumulation of **Job Hazard Analysis (JHA)** that drives the safety programs

Risk Assessment Code Matrix

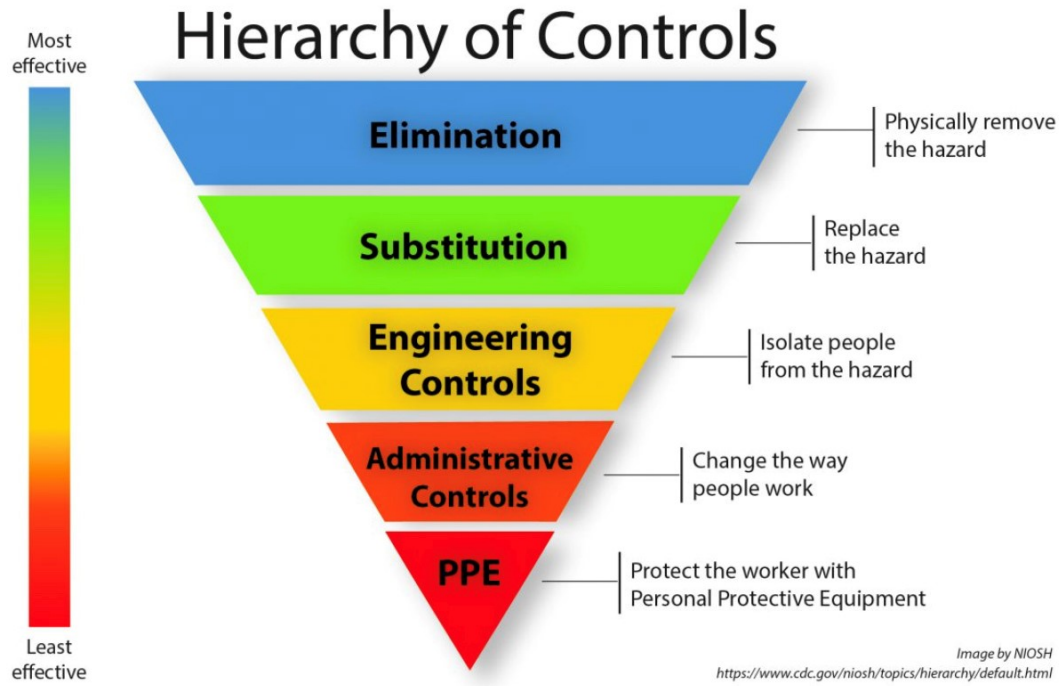
Severity	Likelihood of occurrence			
High to Low	A	B	C	D
I	1	1	2	4
II	1	2	3	4
III	2	3	4	5
IV	3	4	5	5

Categories of Hazard Severity

Description	Category	Definition
Catastrophic	1	Death, system loss, devastating property damage or environmental damage
Critical	2	Severe injury or occupational illness, major system or environmental damage
Marginal	3	Minor injury, minor occupational illness, or minor system or environmental damage
Negligible	4	Less than minor injury or occupational illness, or less than minor system or environmental damage

Hazard Probability Levels

Probability	Level	Category Parameters
Frequent	A	Likely to occur frequently
Probable	B	Will occur several times during a product’s life cycle or person’s life span
Occasional	C	Likely to occur sometime during a product’s life cycle or a person’s life span
Remote	D	Unlikely but possible to occur during a product’s life cycle or person’s life span
Improbable	E	So unlikely it can be assumed the occurrence may not be experienced



SAFETY HAZARD CONTROL HIERARCHY

BETH HAMEDRASH HAGADOL SYNAGOGUE
60 Norfolk Street, NY, NY

POSSIBLE SALVAGE OF STONE BELOW 8’-0”

middle church
JUST LOVE

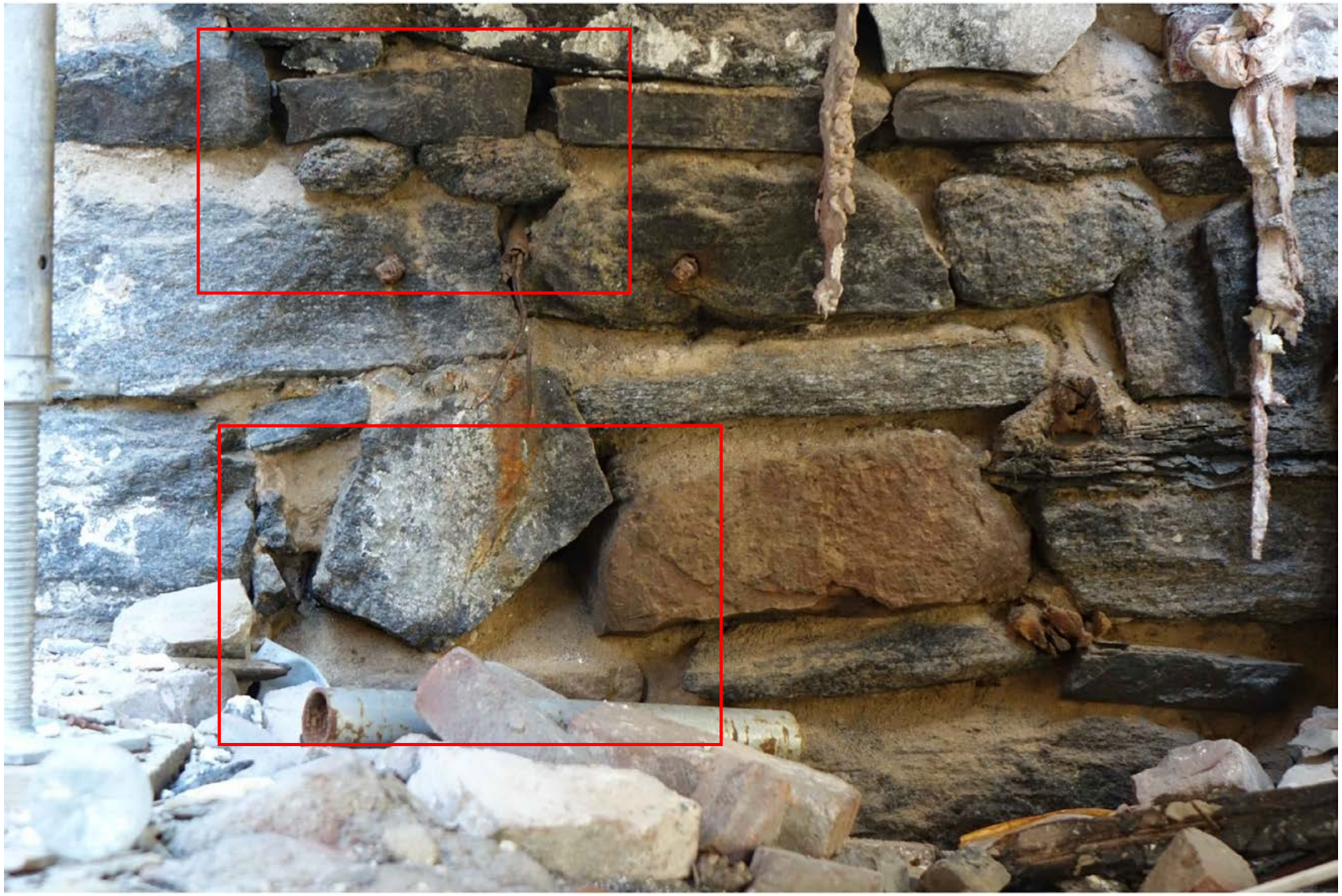
MIDDLE COLLEGIATE CHURCH
112 SECOND AVENUE, NEW YORK, NY 10003

OWNER
COLLEGIATE CHURCH CORPORATION
500 Fifth Avenue
New York, NY 10110
TEL (212) 233-1960

ARCHITECT
ANTHONY JOHNSON ARCHITECT, LLC
80 Eighth Avenue
New York, NY 10011
TEL (646) 930-2135

02235
PROJECT #
08/11/22
DATE
1/8" = 1'-0"
SCALE

A-5



LOCALIZED DESTABILIZATION

RUBBLE STONE

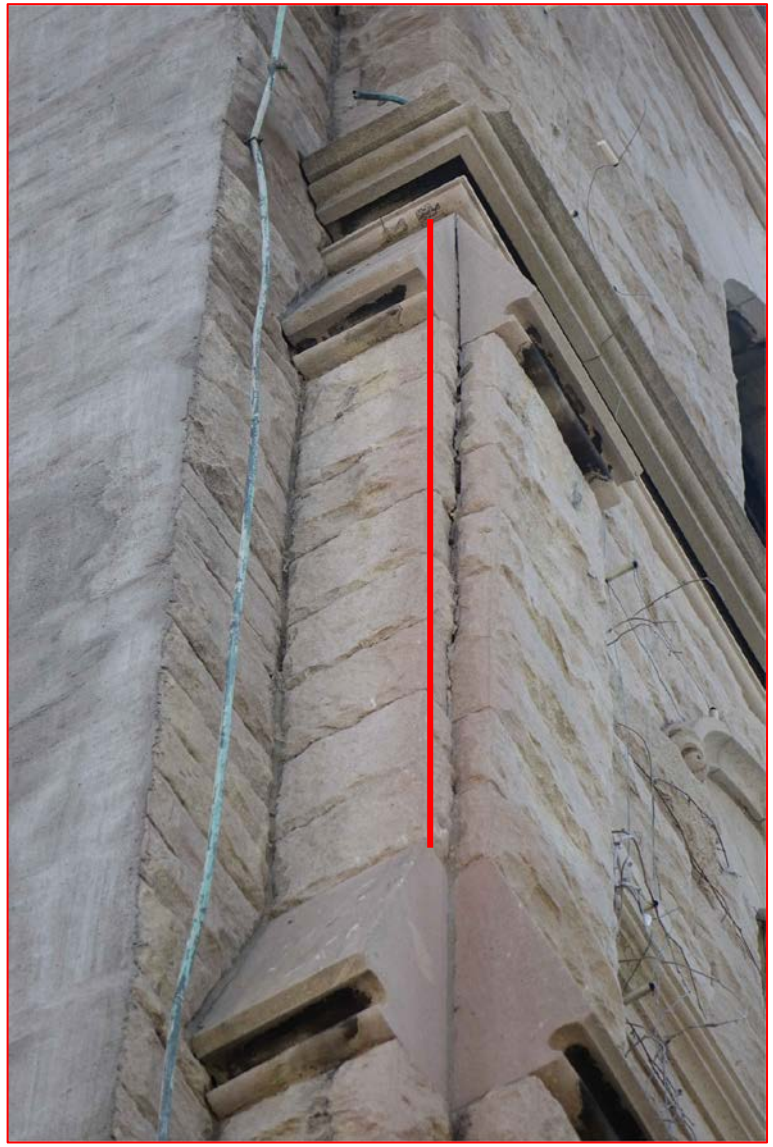
DETERIORATING MORTAR

MISSING MORTAR

POROUS, HISTORY OF WATER LEAKS

TEMPOPARILY STABILIZED BY RUBBLE BERM

1. FOUNDATION WALL - 2nd Ave. FACADE

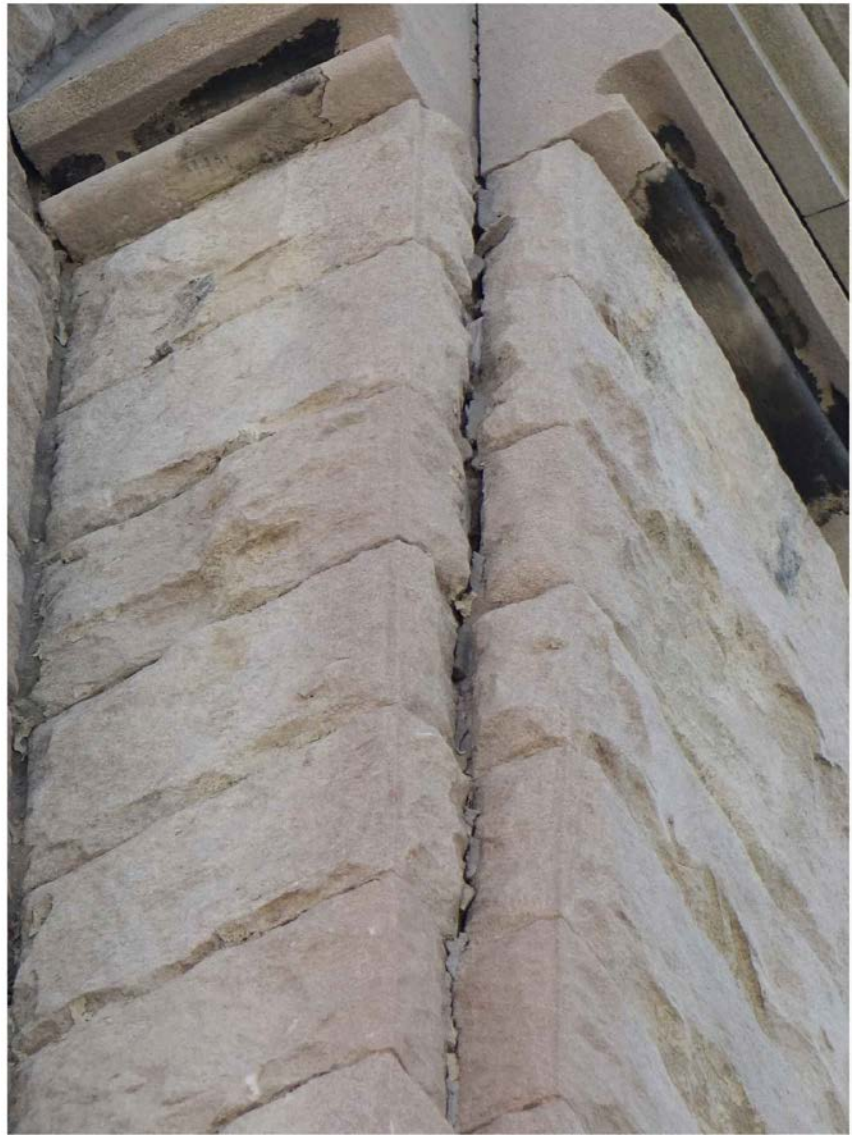


7. NORTH TOWER – EXTENT OF LIMESTONE CRACK

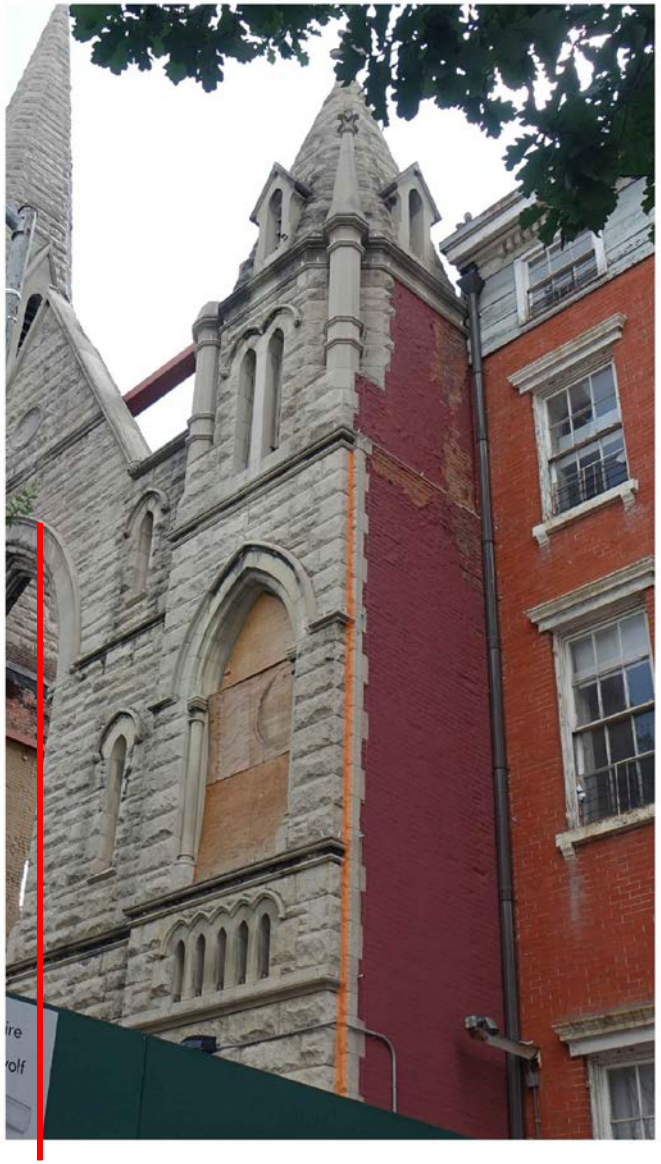
LOCALIZED DESTABILIZATION

LIMESTONE SEPARATING AT BUTRESS

WATER INFILTRATION AND FREEZE THAW LIKELYHOOD



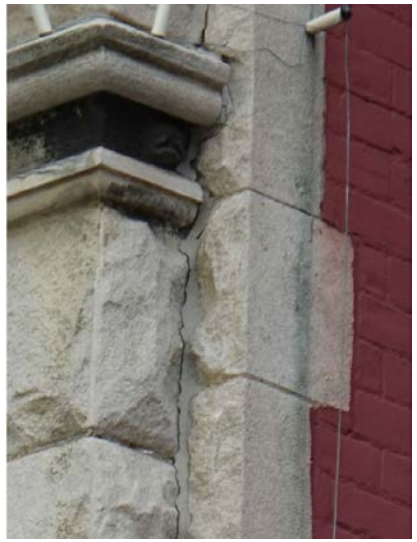
7. NORTH TOWER – LIMESTONE CRACK ENLARGED



LOCALIZED DESTABILIZATION

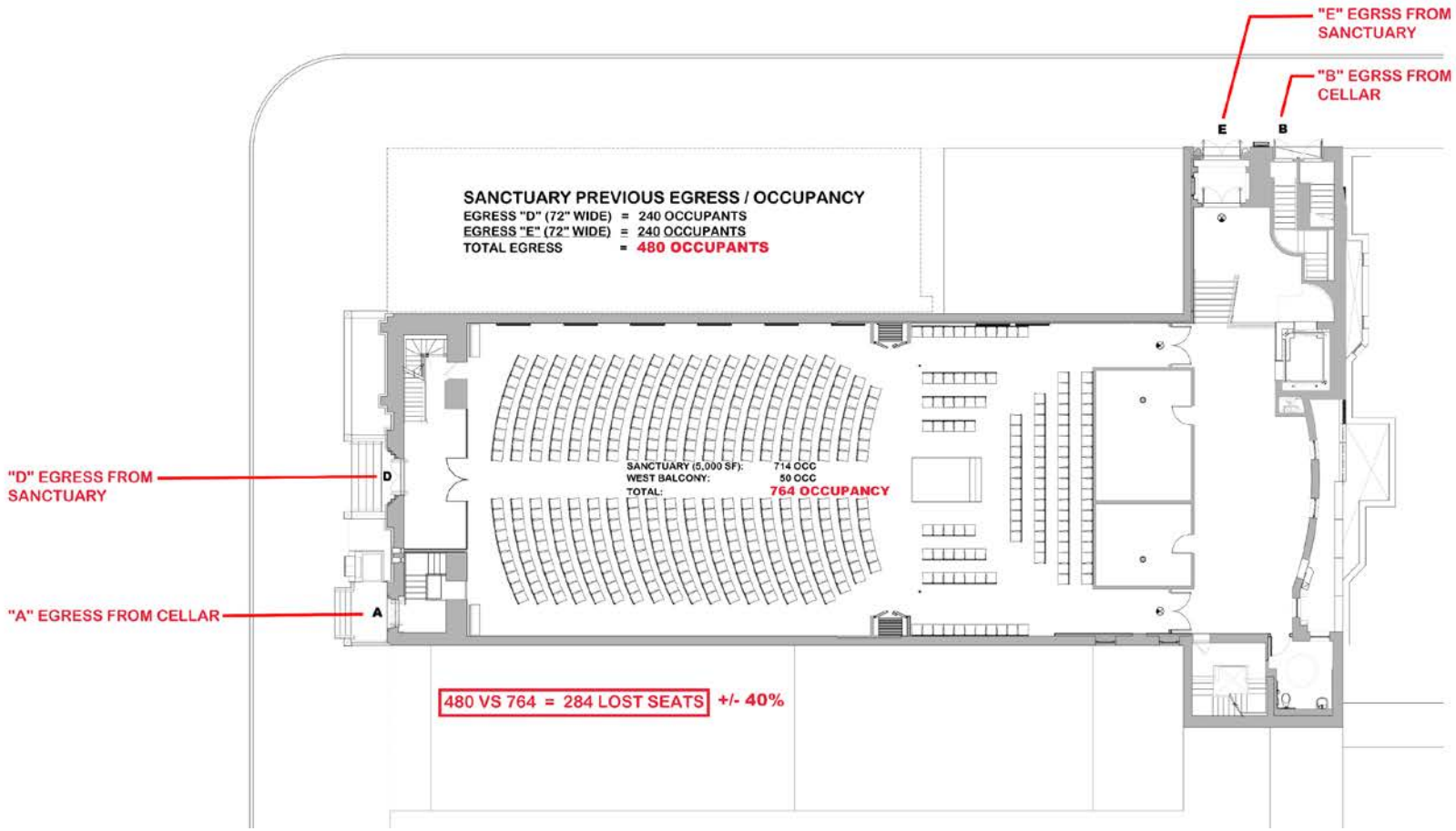
LIMESTONE SEPARATING AT SOUTH WALL

WATER INFILTRATION AND FREEZE THAW LIKELYHOOD



8. SOUTH TOWER – EXTENT OF LIMESTONE CRACK

8. SOUTH TOWER – CRACK ENLARGED



REBUILT SANCTUARY WITH PREVIOUS EGRESS

middle church
JUST LOVE

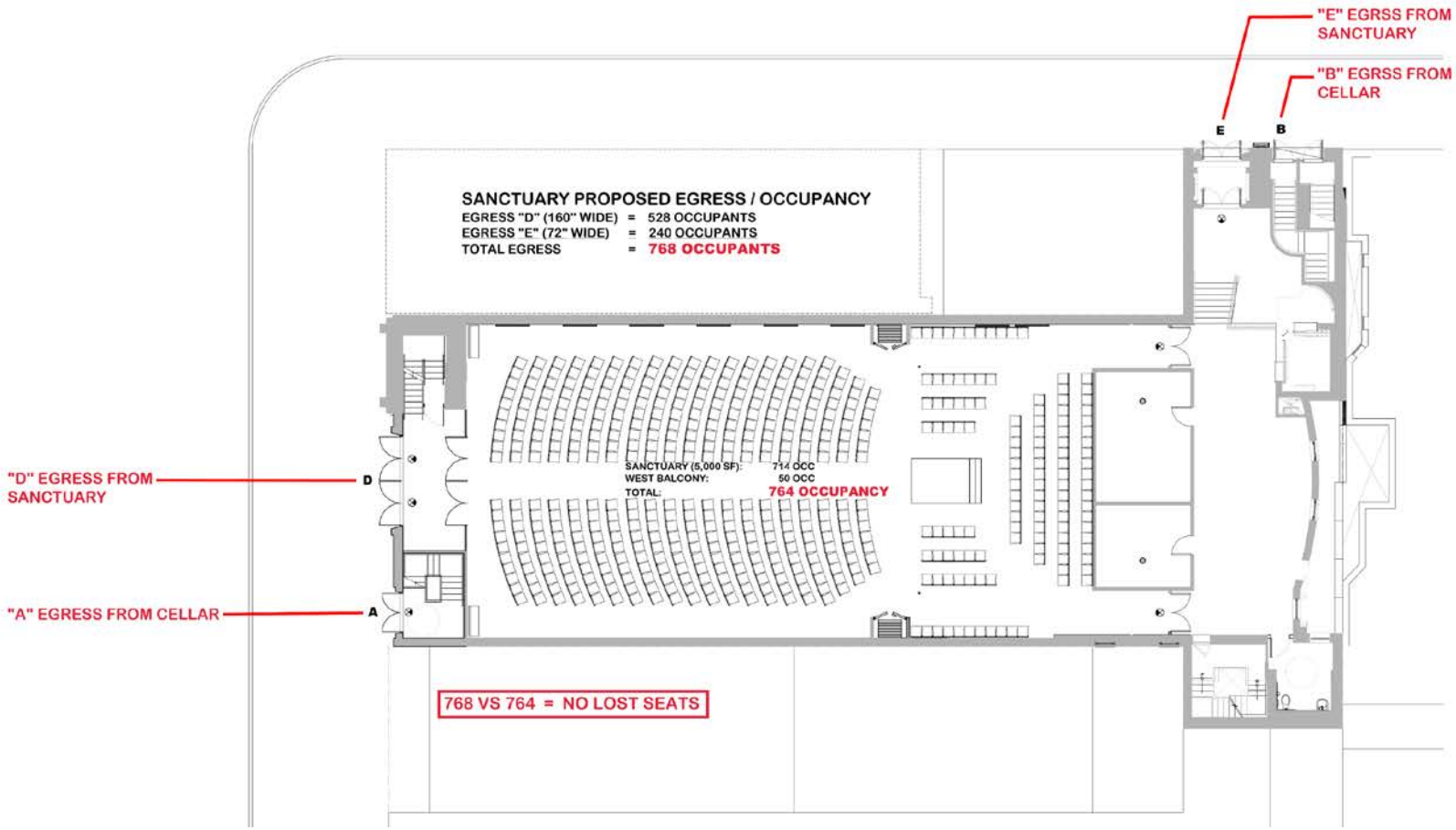
MIDDLE COLLEGIATE CHURCH
112 SECOND AVENUE, NEW YORK, NY 10003

OWNER
COLLEGIATE CHURCH CORPORATION
500 Fifth Avenue
New York, NY 10110
TEL (212) 233-1960

ARCHITECT
ANTHONY JOHNSON ARCHITECT, LLC
80 Eighth Avenue
New York, NY 10011
TEL (646) 930-2135

02235
PROJECT #
08/11/22
DATE
1/8" = 1'-0"
SCALE

A-9



REBUILT SANCTUARY WITH PROPOSED EGRESS

middle church
JUST LOVE

MIDDLE COLLEGIATE CHURCH
112 SECOND AVENUE, NEW YORK, NY 10003

OWNER
COLLEGIATE CHURCH CORPORATION
500 Fifth Avenue
New York, NY 10110
TEL (212) 233-1960

ARCHITECT
ANTHONY JOHNSON ARCHITECT, LLC
80 Eighth Avenue
New York, NY 10011
TEL (646) 930-2135

02235
PROJECT #
08/11/22
DATE
1/8" = 1'-0"
SCALE

CELLAR OCCUPANCY (PREVIOUS EGRESS)

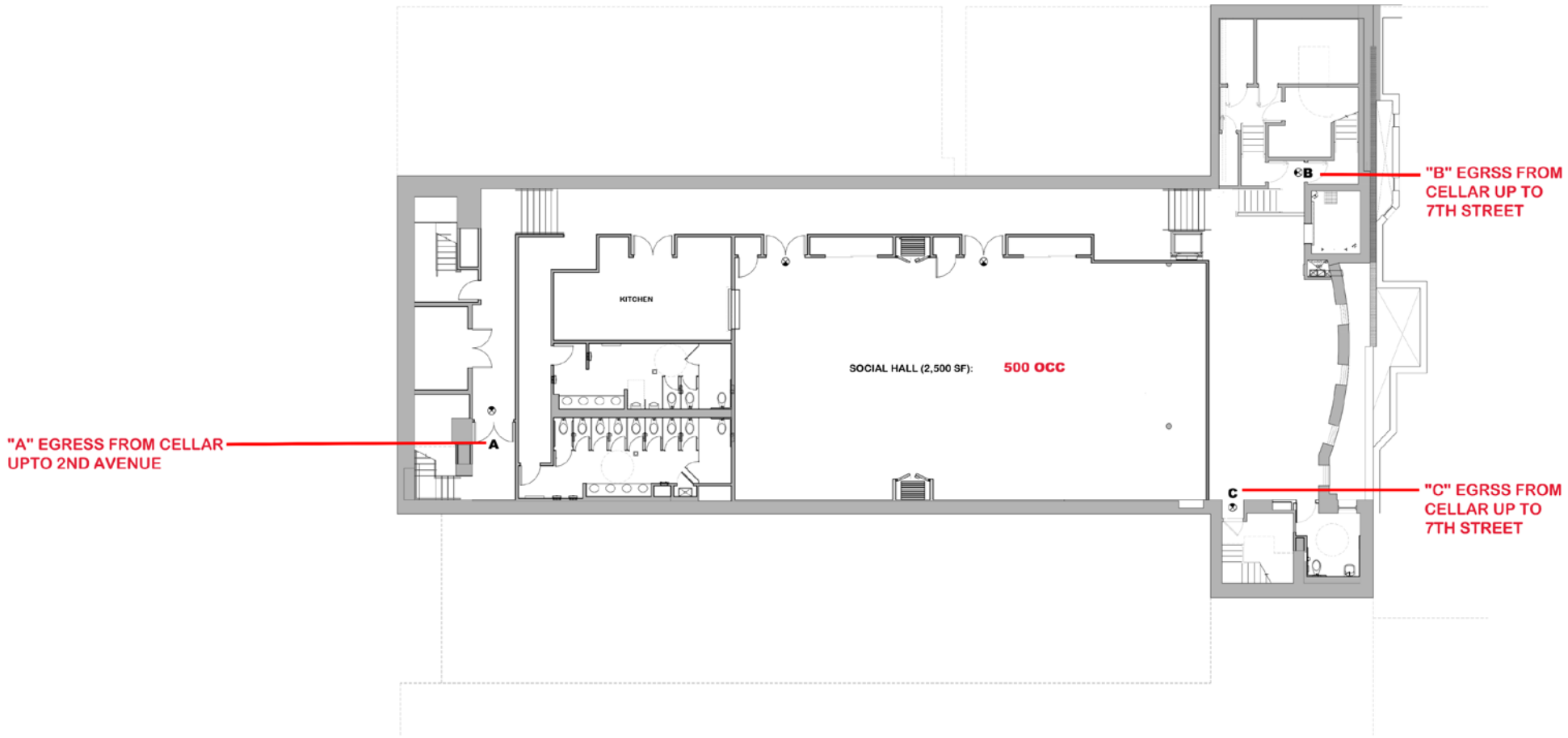
EGRESS "A" (42" WIDE)	=	140 OCCUPANTS
EGRESS "B" (36" WIDE)	=	120 OCCUPANTS
EGRESS "C" (36" WIDE)	=	120 OCCUPANTS
TOTAL EGRESS	=	380 OCCUPANTS

500 VS 380 = 120 LOST SEATS +/- 25% LOSS

CELLAR OCCUPANCY (PROPOSED EGRESS)

EGRESS "A" (80" WIDE)	=	264 OCCUPANTS
EGRESS "B" (36" WIDE)	=	120 OCCUPANTS
EGRESS "C" (36" WIDE)	=	120 OCCUPANTS
TOTAL EGRESS	=	504 OCCUPANTS

500 VS 504 = NO LOST SEATS



PROPOSED SOCIAL HALL

middle church
JUST LOVE

MIDDLE COLLEGIATE CHURCH
112 SECOND AVENUE, NEW YORK, NY 10003

OWNER
COLLEGIATE CHURCH CORPORATION
500 Fifth Avenue
New York, NY 10110
TEL (212) 233-1960

ARCHITECT
ANTHONY JOHNSON ARCHITECT, LLC
80 Eighth Avenue
New York, NY 10011
TEL (646) 930-2135

02235
PROJECT #
08/11/22
DATE
1/8" = 1'-0"
SCALE

ANTHONY JOHNSON ARCHITECT, LLC
80 Eighth Avenue, New York, NY 10011
t/646.930.2135

Supplemental Statement
in support of the
Middle Collegiate Church
Application for a Certificate of Appropriateness
December 12, 2022

This is in response to the Commission's request that the applicant respond to certain questions and observations in the Madsen Consulting Engineering, PLLC report dated November 5, 2022 ("the Report") and additional comments received after the public hearing on November 22, 2022 in an email dated November 29, 2022 ("the email")[1]. The response focuses on statements in the Report that are factually incorrect, depended on unsupported assumptions, recommend a course of action that does not account for the known overhead loose masonry risk and that lack of safe site access prevents sequencing necessary for the Report recommendations. This context informs the response to the email, below.

This statement has been reviewed and concurred in by Mark Drozdov, SSM, CUSP, the project safety consultant, architect Anthony Johnson, AIA, and Stephen Lampard, PE, the consulting construction engineer..

SUMMARY

The Application is not based on concern that the entire braced structure is currently at risk of spontaneous collapse[2]. It is based on our professional opinion that obvious large fragments of cracked, deformed limestone and brick at high overhead heights, held in place by friction, are at risk of falling and will be at greater risk if invasive testing, bracing or repair are attempted, since any of these involve require the application of force causing vibrations to the structure at various points which can cause displacement of damaged masonry.

.[1] All underlining indicates emphasis added.

[2] The bracing was designed to keep the towers and gable standing throughout severe wind and weather conditions. It was not specifically designed for repair work and the bulldozed foundation berm was not specifically engineered to support construction equipment.

The Report acknowledges that without access from the adjacent property, the front gable must be significantly removed to allow construction equipment onto the site:

"As access from the north site is not allowed per the Owner, access is available only from 2nd Avenue. In this case, the entry door is too small to drive significant equipment through. It is possible this would need to be altered and widened to allow for the passage of new construction machinery and equipment. If the door is widened, heavier materials can be brought in. Installation of a new slab on grade and foundation where needed would be the first step. Hand digging would be laborious, and a smaller excavator at least would be necessary to begin work. The front wall would need to be opened enough to allow for the entry of this equipment." P. 3

The fundamental difference between the Ancora Engineering approach and the Report approach is that Ancora prioritizes worker safety over whatever limited additional information might be obtained from invasive testing, whereas the Report focusses primarily on things that cannot be done without access from the adjacent property because they cannot be logistically sequenced prior to securing the site and removing the gable.

Simply put, these overhead risks must be eliminated prior to attempting any such work. The Report acknowledges this at various points[3], but suggests ways to install overhead protection to mitigate the risk, assuming access. It does so without acknowledging the NIOSH/OSHA safety hierarchy that known risks posing an immediate danger to life and safety must be removed before attempting to install protective equipment or take other measures. OSHA defines feasibility as work capable of being done by placing worker safety above all other considerations. This guideline was not referenced in the Report before the testimony by Mr. Drozdov, and does not appear to be reflected in the comments in the email, let alone refuted.

Most of the Report's ideas for how to do testing, bracing, overhead protection or construction work are based on the erroneous assumption that access can be mandated by DOB through the adjacent property. There is no basis for this in the

[3] *"The tops of the walls, the limestone and the bell towers must be assessed to identify any loose pieces of masonry. Any masonry that is loose should be removed. Any areas that are vulnerable should be secured and sealed to prevent dislodging."* P.3. That assessment has been made based on visual evidence from photos before and after the waterproofing was applied, as well as site observations.

Building Code[4], and there is no safe sequence for bringing in necessary construction material and supplies until the overhead risk is eliminated.

Based on what is known from photographic evidence and observations, the amount of material that needs to be removed substantially deprives the structure of the characteristics underlying the designation. See supplemental slide R-12.

Unfortunately, this is true regardless of the condition of the front facing limestone: the tower spires are severely damaged and the damaged material cannot be safely removed in a way that would leave the front alone in place. The gable is not only visibly damaged in the arches, the damage affects key structural supports. Further, while inspection of the front might reveal areas of the limestone which are particularly fragile, the required course of action is the same, even if none are identified.

Similarly, most of the rear exterior brick is broken. Its removal also requires the elimination of overhead risk, without regard to the degree the interiors of the towers are damaged. Further inspection of the interiors is not required to see the danger. While additional information might be obtained by the extreme interventions of inserting needle beans through the towers to support overhead protection to allow for the creation of new openings in the towers, as suggested by the Report, the Application does not depend on such additional testing. Moreover, these techniques would themselves require removal of portions of the front facing limestone, even if they weren't prevented by the lack of access to install protection.

As discussed in more detail below-

-The Report is expressly premised on the purported ability of the New York City Department of Buildings to "require" the adjacent property owner to provide access to the church site, which does not exist in the Building Code. Without such access from the adjacent property, construction equipment cannot be introduced into the site absent creating an opening in the gable, which cannot be done without the equipment already having been installed. Such equipment is necessary, at a

[4] While the DOB might have extraordinary powers in a pending emergency, that was addressed when the bracing and other measures were installed prior to expiration of the access agreement with the adjoining owner.

minimum, to protect against the risk of collapse from removing a section of the gable, which the Report acknowledges is necessary[5].

-Given the extent of the clearly broken and deformed limestone at the tops of the towers and at critical points in the gable[6], the amount of original material that must be removed is so extensive that the portions of the towers that would remain do not warrant preservation, regardless of their surface appearance.

REPORT EXCERPTS AND RESPONSE

"In 2020, a devastating fire damaged the church such that the only remaining parts of the structure are the east (rear) wall…" pP.1.

This is factually incorrect. The east/rear wall did not remain after the fire. .The wall was extensively damaged and was ordered demolished by DOB. What is visible today was installed after the fire. See, supplemental slide R-10.

The damage suffered by the rear wall brick was substantially the same as that suffered by the brick backing the front limestone façade (If anything, the forward brick was subject to greater damage, as noted in the Report). The owner's rep was advised by DOB at the time that the same direction to demolish the front façade was not issued only after consultation with LPC staff, solely to give LPC the opportunity to assess the architectural features. DOB did not state that the front façade was in better condition than the east wall. To the contrary, it ordered that it be made safe, which was accomplished by the steel bracing and the berm to hold up the foundation wall.

---

[5] Installation of pipe scaffolding -which can only be anchored within the site, on what is now the rubble pile- is further complicated by the requirement in OSHA Standard reference 29 CFR 1926.502(d)(15): Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds (22.2 kN) per employee attached.

[6] *"The exterior peak of the limestone window arch above the front door suffered a fair amount of surface damage with some damage extending above the top of the arch. The limestone of the bell tower roofs and corners near the top facing east to the interior of the site experienced damage as well. Some of the expressive pieces sticking out from the tower were missing. The stone around the dormer windows on each interior face were heavily damaged."* P. 3

"In its original condition, the front wall seems like it carried very little gravity load beyond its own weight other than a 5-to-10-foot span of the front bay of the wood roof.""…while the top of the wall is braced by the added steel frame, the wall loading remains mostly as it was originally." P. 2

Three truss pockets are visible and shown in supplemental slide R-09. The trusses to the roof were integral to the loading of the front wall.

"On the north or south interior faces of the bell towers, the brick transfers out onto steel beams about twenty feet above grade. The steel appears to be in serviceable condition and has functioned since the fire, it should be reviewed prior to any repair work to confirm its adequacy." P. 2

There is a visible masonry crack at the steel transfer beam on the south tower. There are cracks in the east face of the north tower. There are cracks in the masonry on the north face of the north tower. See supplemental slides R-3, 5, 7 and 9.

"Bricks are not particularly vulnerable to fire and unless large cracking was seen, which it was not during our site visit[7], the brick is likely in serviceable condition.[8]" P. 4

It was not the fire alone which damaged the brick. Hours of high pressure hosing by the FDNY degraded the brick, as did thermal shock from the cold water hitting the superheated masonry. Neither is referenced in the Report. This resulted in +/- 90% spalling exterior bricks (i.e. bricks on the exterior of the church as opposed to bricks interior to the building which were covered by plaster or otherwise). See supplemental slides 13 and 14. These bricks are not serviceable. See supplemental slides 3, 4, 5, 7 and 8. See also, Brick Institute of America technical bulletin #46 and extensive literature recommending against high pressure cleaning of brick.

[7] Further investigation of the brick would require stripping off the waterproofing, which currently obscures its condition.

[8] The Report was apparently based on two site visits and the Ancora Engineering report and presentation provided prior to the public hearing. Photos showing the brick condition prior to the waterproofing and concrete parge coat on the side of the North tower were not requested, but are included in the supplemental presentation.

"NYC DOB often requires access from a neighboring property be extended to remediate imminently hazard conditions." P.3

It was noted in the testimony that there is no provision in the Building Code by which DOB can require a neighboring property to provide access for investigation, additional bracing or repair and reconstruction work.[9] This is not addressed in the email.

"Parging and weatherproofing of the adjacent shelter wall to the south that extends above the church's remaining south wall should also be considered with any work that occurs." P. 4

This is not church property.

"*[M[]ortar is typically not affected for strength beyond ¾" of depth."* P. 5

During the renovation of the connected church house +/- 10 years ago, Thornton Tomasetti observed that while the masonry "is in fair condition", "the mortar is generally of low strength", "with very little mortar between the brick wythes", "these walls should be cut back to 1 ½" and repointed"[10].This was before the fire, high pressure hoses and thermal shock further degraded the mortar.

"[T]he sidewalk side of the wall must be weatherproofed and then the wall can be injection grouted to restore stability with the mortar. In order to weatherproof the exterior, dig boxes can be created along the sidewalk and a membrane can be installed in a sequence similar to underpinning." P. 6

To create dig boxes along the sidewalk in the front, the original steps must be removed. In addition, breaking up the concrete sidewalk will risk dislodgement of loose masonry from vibrations. The Report does not address the need to shore exterior and interior of the front wall simultaneously , which requires driving sheets or piles by mechanical means to hold the dirt

[9] Please note the Report statement that the DOB could order access, "to remediate imminently hazard conditions" While unsupported, it implicitly validates that conditions are currently immediately hazardous notwithstanding global stability.

[10] These reports are available upon request.

back in order to insert the dig boxes, as does the leveling of the rubble pile[11], as the Report notes will be required at some point, These steps, and placement of a rig to deliver concrete to the interior of the site, are all prevented by the inability to introduce construction equipment, which is blocked by the gable.

"If the new 2022 NYC Building code must be applied to this structure, special care would need to be applied to determine what items may be waived by LPC and DOB for the historic structure to create compliance with the new Code…Egress requirements must be reviewed and studied. Some of these may be required for equipment access anyway and can be addressed then." P. 7

We are aware of no provision in the Building Code that allows waiver of life/safety egress requirements and none has been provided to us since this was stated this at the public hearing.

"[W]e agree that the risk in these areas [the tower interiors] due to difficulty of access is higher than normal and must be considered." P. 7

It is for this reason, among others, that we believe that requiring invasive intervention by creating new openings for observation or needle beams would be unwarranted when the amount of material already known to require removal is so substantial relative to what might remain.

"Limited investigation can be done and is necessary prior to demolition or new construction to determine loose elements. As discussed above, a façade investigation would be the first step to determine stability." P. 8

Respectfully, the <u>first step</u> is to eliminate immediate overhead danger to life and health <u>before</u> taking <u>any</u> invasive steps.

"It is possible that demolishing the structure may be difficult and might not

---

[11] *"Access to the interior for mechanical equipment and material deliveries must be provided. Remediation of the foundation wall and the securing of the site is necessary first. Once remediated, the foundation wall will still likely need to be shored during construction as it was originally braced by the ground floor on the interior...If the foundation wall is stabilized, equipment can be brought onto the site."* P. 6

be easier than maintaining it. This topic needs to be given more consideration by the Owner's team." P. 8

See supplemental slides 17 and 18 for demolition sequence.

Site logistics and construction operations will be difficult, not least of which is due to site access. Widening the doorways sufficiently to allow the passage of heavy equipment will alter the architecture and structure of the front façade and require additional shoring…. Remediation of the foundation wall will require significant coordination and time. Carefully excavating the front sidewalk areas in coordination with staging the sidewalk shed will be challenging. The necessary steps to be taken prior to any new construction work beginning will add significantly more time than if the structure were to be built from new." P. 9

Given the extent to which architectural alterations are already known to be required, imposing additional safety risks, costs and delays would themselves impose a hardship and are not appropriate under the circumstances.

"[I]t is recommended that a broadstroke analysis demolition plan be prepared after the assessment phase and compared with the Owner's and/or an independent LPC remediation broadstroke analysis for new construction in order for LPC to better understand if one is safer or more feasible than the other." P. 10

We understand that it is outside of the Commission's purview for the Application to be evaluated based on its assessment of the safety of the proposed demolition plan, by itself and certainly in comparison with some other plan that the Commission might direct be prepared. Safety determinations are the purview of DOB.

RESPONSE TO THE EMAIL

"At present, there is no technical documentation addressing:

1) the scientific status of the building components,"

The condition of the building components was assessed based upon repeated visual inspections of the property before and after application of the waterproofing; close review of photographic documentation of the property after the fire and before the waterproofing was applied; photographs after the waterproofing was applied (and

visual observations of subsequent spalling); review of previous Thorton Tomasetti inspection reports indicating mortar deterioration to a depth of 1 ½" due to age prior to the fire; historical drawings of limestone/brick interlocking consistent with observations of the property; guidelines developed by NIOSH/OSHA and recommendations of the Brick Institute with respect to damaged brick.

Portions of the limestone are associated with immediate danger to life or health (IDLH) from visibly damaged material to which it is connected, and must be removed prior to any construction activity at the sight. Therefore, the recommendation for safety demolition, and the consequent alteration of the façade, remains without regard to whether or not the front facing limestone is damaged.

"2) the means and methods required to perform assessments"

There is no viable means to do invasive testing given that the site is only accessible from the Second Avenue side.

Under any circumstance, the first step is the removal of the overhead damaged materials, which can be accomplished with the use of chipping guns and sledgehammers from an exterior boom, with controlled access areas all around the work area. To introduce a boom or other construction equipment (such as a bulldozer to clear and level the rubble pile) requires creating an opening in the gable, as stated in the Report. This cannot be done without installing additional steel bracing on the towers, currently sharing load with the gable. However, the bracing would itself require an opening to allow equipment necessary to the installation to enter the site.

"3) the means and methods of remediation repairs"

A boom or other equipment for remediation faces the same obstacle as described above for testing: the towers must be braced on the interior before a portion of the gable is removed so the equipment can enter, but the bracing requires equipment that cannot enter without removing the gable.

Attempting remediation (or inspection) from a scaffold requires excavation of the rubble pile, in turn requiring heavy equipment, necessitating a gable opening preceded by new bracing. Similarly, attempting to stabilize the foundation walls without excavation would require heavy equipment to install earth retaining sheeting, piles or both.

"Additionally to the 3 items mentioned above, the applicant needs to provide the following specific items:

"1) A report from a limestone expert on the current condition of the limestone and what would be required to repair it. How would this occur, what would be involved. Can it mostly be salvaged? What areas must be replaced?"

Even if it is assumed that the front facing limestone is undamaged, which requires no further inspection, the limestone interlocked with visibly damaged brick running the extent of the gable must be removed. As stated in the Report, this will involve chopping through the limestone. In addition, it is apparent from the photographic evidence and what is currently visible that the limestone spires are damaged and the deformed material must be removed. Given its condition, there is no basis to suggest that any significant portion could be repaired.

"2) Architectural elevations indicating after Step 1 how much of the limestone facade can be salvaged and the original remaining architecture kept?"

Please see supplemental slide R-14..

"3) a) Provide a detailed sequence of demolition. The height of 53' appears to be the top of the front wall, but the bell towers seem higher[12]*. The heights and existing information must be further clarified."*

The demolition sequence would commence with the highest danger and remove that, then the next highest point based on what was observed, and then moving to the next segment. See supplemental slides R-17 and 18 for the demolition sequence

"b) There was discussion of "pushing the building over". This is not mentioned clearly in the Applicant's report documentation. How will the high structure be demolished? Will scaffolding be needed? Street closures on 2nd Avenue? What other challenges?"

See supplemental slides R-17 and 18 showing hand removal to a safe height, then mechanical demolition, and where controlled access zones would be established, per the Building Code. .

" c) If the challenges of demolition overlap those of remediation, these should be assessed side by side in a comparison."

[12] No basis is provided for saying that the towers only, "seem" higher. They uncontrovertibly are.

The challenges of demolition are met by proceeding from the exterior, which does not require access from the adjacent property or opening the gable to insert construction equipment necessary for work that is required before the gable can be opened.

CONCLUSION

Further testing is not required to assess the extent to which original material is already demonstrated as needing removal. With access limited to the Second Avenue side, and prevented by the damaged gable, exterior demolition is warranted and appropriate.

Respectfully submitted,

Mark Drozdov, SSM, CUSP

Anthony Johnson, AIA

Stephen Lampard, PE

Landmarks Preservation Commission

January 10th, 2022
Public Meeting

The current proposal is:

Preservation Department – Item 2, LPC-23-02975

112 2nd Avenue – East Village/Lower East Side Historic District

Borough of Manhattan

Note: this is a Public Meeting item. No public testimony will be received today as the hearing on this item is closed