Emergency Damage Assessment **APPENDIX**

Elias Brookings School

Springfield, Mass

Prepared by

Drummey Rosane Anderson, Inc.

June 22, 2011

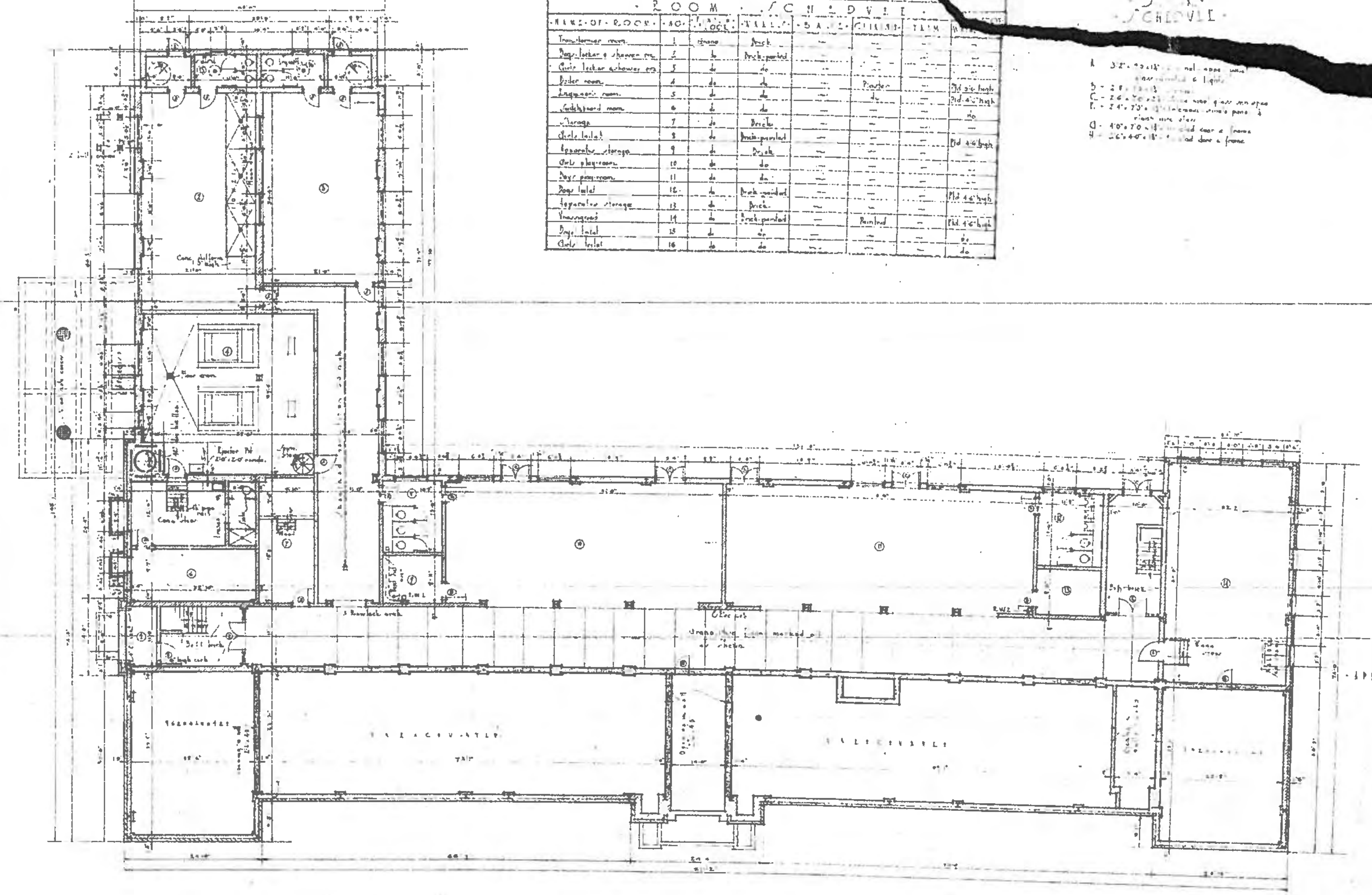
Emergency Damage Assessment

Elias Brookings School

Springfield, Mass

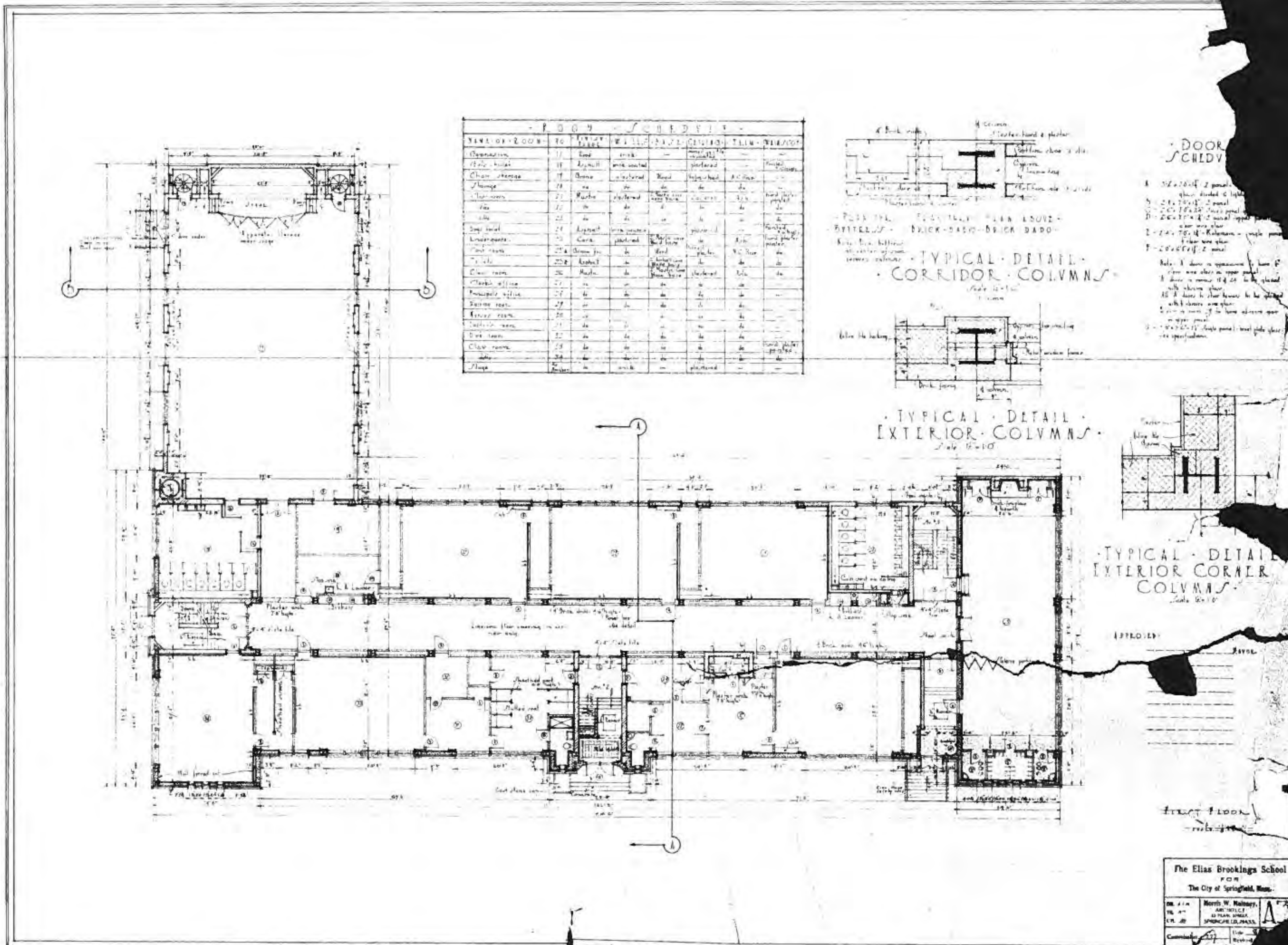
APPENDIX

- Site Plan
- Floor Plans
- Roof Plan
- Structural Engineers Report
- Mechanical Electrical Engineers Report
- Hazardous Materials Report

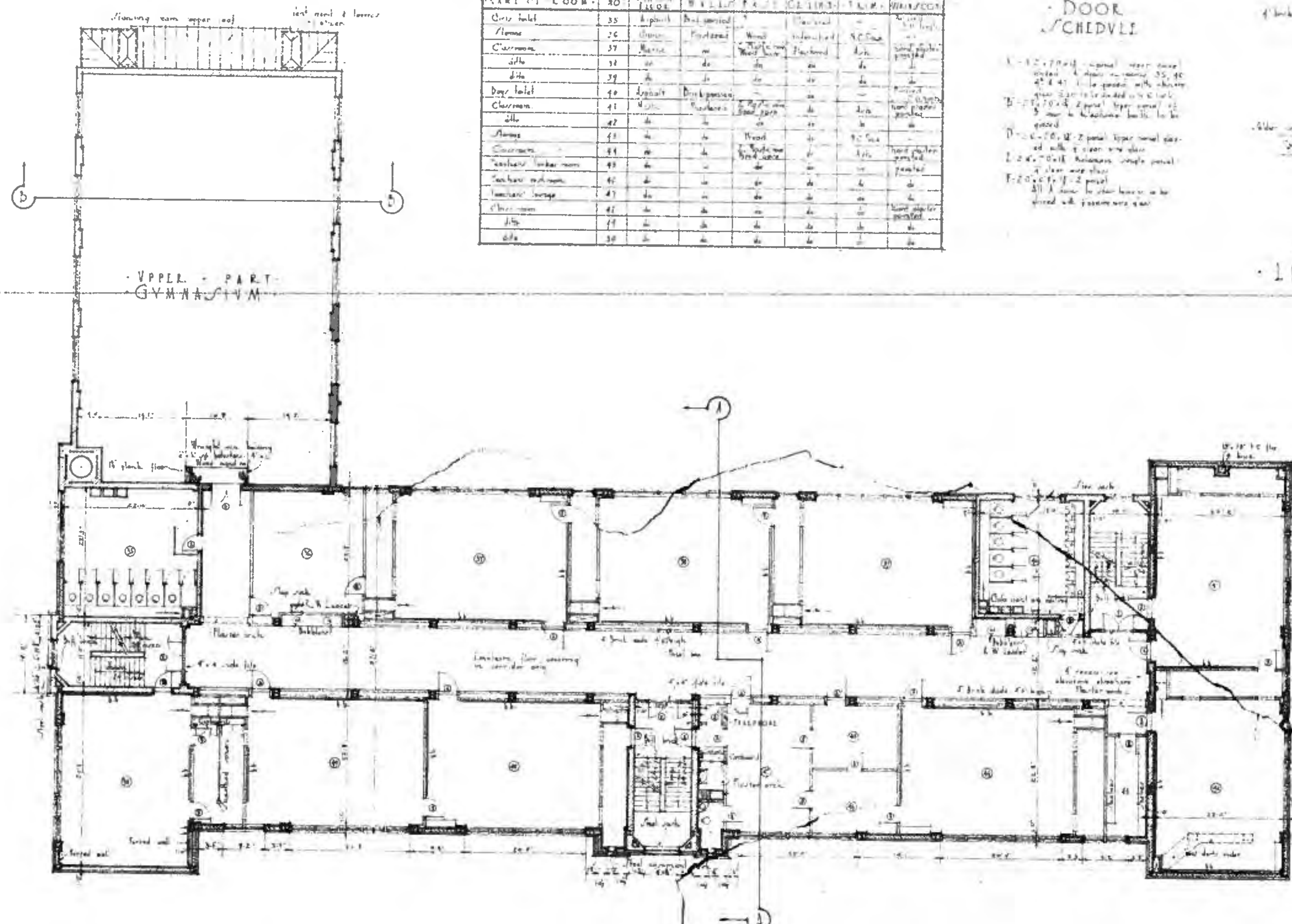


ROOM SCHEDULE							
NAME OF ROOM	NO.	FLOOR	WALLS	BASE	CEILING	TRIM	WAINSCOT
Transformer room	1	Stone	Brick	—	—	—	—
Boys locker & shower rm.	2	do	Brick-painted	—	—	—	—
Girls locker & shower rm.	3	do	do	—	—	—	—
Boiler room	4	do	do	—	Plaster	—	Ptd 3'6" high
Engineer's room	5	do	do	—	do	—	Ptd 4'0" high
Switchboard room	6	do	do	—	—	—	do
Storage	7	do	Brick	—	—	—	—
Girls toilet	8	do	Brick-painted	—	—	—	Ptd 4'6" high
Apparatus storage	9	do	Brick	—	—	—	—
Girls play-room	10	do	do	—	—	—	—
Boys play-room	11	do	do	—	—	—	—
Boys toilet	12	do	Brick-painted	—	—	—	Ptd 4'6" high
Apparatus storage	13	do	Brick	—	—	—	—
Passageway	14	do	Brick-painted	—	Painted	—	Ptd 4'6" high
Boys toilet	15	do	do	—	—	—	do
Girls toilet	16	do	do	—	—	—	do

DOOR SCHEDULE



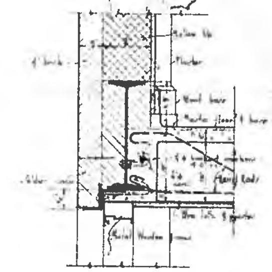
ROOM SCHEDULE
DOOR SCHEDULE
TYPICAL DETAIL CORRIDOR COLUMNS
TYPICAL DETAIL EXTERIOR COLUMNS
TYPICAL DETAIL EXTERIOR CORNER COLUMNS
APPROVED
FIRST FLOOR
The Elias Brookings School
FOR
The City of Springfield, Mass.
Morris W. Maloney, ARCHITECT
SPRINGFIELD, MASS.



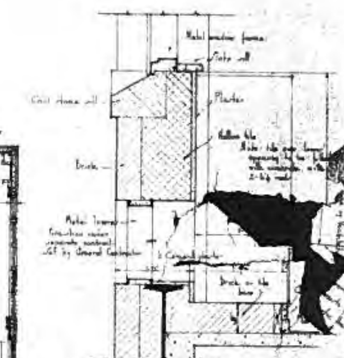
ROOM SCHEDULE							
NAME OF ROOM	NO.	FINISH FLOOR	WALLS	BASE	CEILING	TRIM	WAINSCOT
Girls toilet	35	Asphalt	Brick painted	[illegible]	Plastered	—	[illegible]
Storage	36	Cement	Plastered	Wood	Unfinished	N.C. Pine	—
Classroom	37	Maple	do	[illegible]	Plastered	Ash	Sand plaster painted
ditto	38	do	do	do	do	do	do
ditto	39	do	do	do	do	do	do
Boys toilet	40	Asphalt	Brick painted	—	do	—	Painted
Classroom	41	Maple	Plastered	[illegible]	do	Ash	Sand plaster painted
ditto	42	do	do	do	do	do	do
Storage	43	do	do	Wood	do	N.C. Pine	—
Classroom	44	do	do	[illegible]	do	Ash	Sand plaster painted
Teachers' locker room	45	do	do	do	do	do	painted
Teachers' rest room	46	do	do	do	do	do	do
Teachers' lounge	47	do	do	do	do	do	do
Classroom	48	do	do	do	do	do	Sand plaster painted
ditto	49	do	do	do	do	do	do
ditto	50	do	do	do	do	do	do

DOOR SCHEDULE

A - [illegible] 35, 40 [illegible] 47 [illegible]
B - [illegible] glazed
D - [illegible] 2 panel, upper panel glazed with [illegible] clear wire glass
E - [illegible] clear wire glass
F - [illegible] 2 panel
All [illegible] glazed with [illegible] wire glass



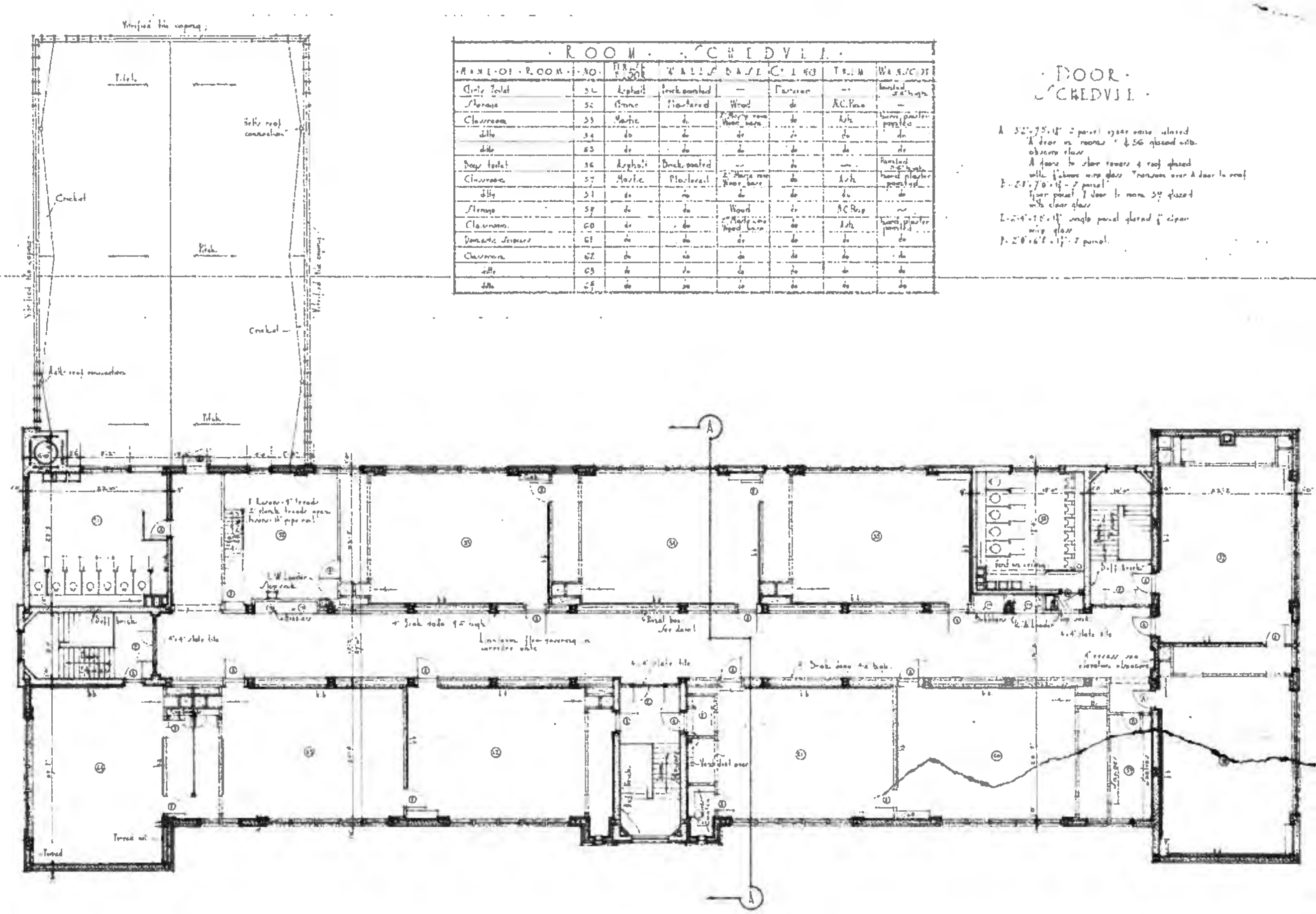
TYPICAL LINTEL DETAIL



DETAIL OF VENTILATION INTAKE LOUVRES

SECOND FLOOR

The Elias Brookings S[illegible]
FOR
The City of Springfield
Morris W. [illegible]
ARCHITECT
SPRINGFIELD [illegible]



ROOM SCHEDULE

NAME OF ROOM	NO.	FLOOR	WALLS	BASE	CEILING	TRIM	WAINSCOT
Girls Toilet	50	Asphalt	Brick painted	—	Plaster	—	Painted [illegible]
Storage	52	Cement	Plastered	Wood	do	A.C. Pine	—
Classroom	53	Mastic	do	[illegible] Wood base	do	Ash	hard plaster painted
ditto	54	do	do	do	do	do	do
ditto	55	do	do	do	do	do	do
Boys toilet	56	Asphalt	Brick painted	—	do	—	Painted [illegible]
Classroom	57	Mastic	Plastered	[illegible] Wood base	do	Ash	hard plaster painted
ditto	58	do	do	do	do	do	do
Storage	59	do	do	Wood	do	A.C. Pine	—
Classroom	60	do	do	[illegible] Wood base	do	Ash	hard plaster painted
Domestic Science	61	do	do	do	do	do	do
Classroom	62	do	do	do	do	do	do
ditto	63	do	do	do	do	do	do
ditto	64	do	do	do	do	do	do

DOOR SCHEDULE

A. 3'2" x 7'5" x 1¾" 2 panel upper panel glazed. A door in rooms [illegible] & 56 glazed with obscure glass. A doors to stair towers & roof glazed with ¼" polished wire glass. Transom over A door to roof.

B. 2'8" x 7'0" x 1¾" 2 panel. Upper panel of door to room 59 glazed with clear glass.

C. 2'4" x 7'0" x 1¾" single panel glazed ¼" clear wire glass.

D. 2'0" x 6'8" x 1⅜" 2 panel.

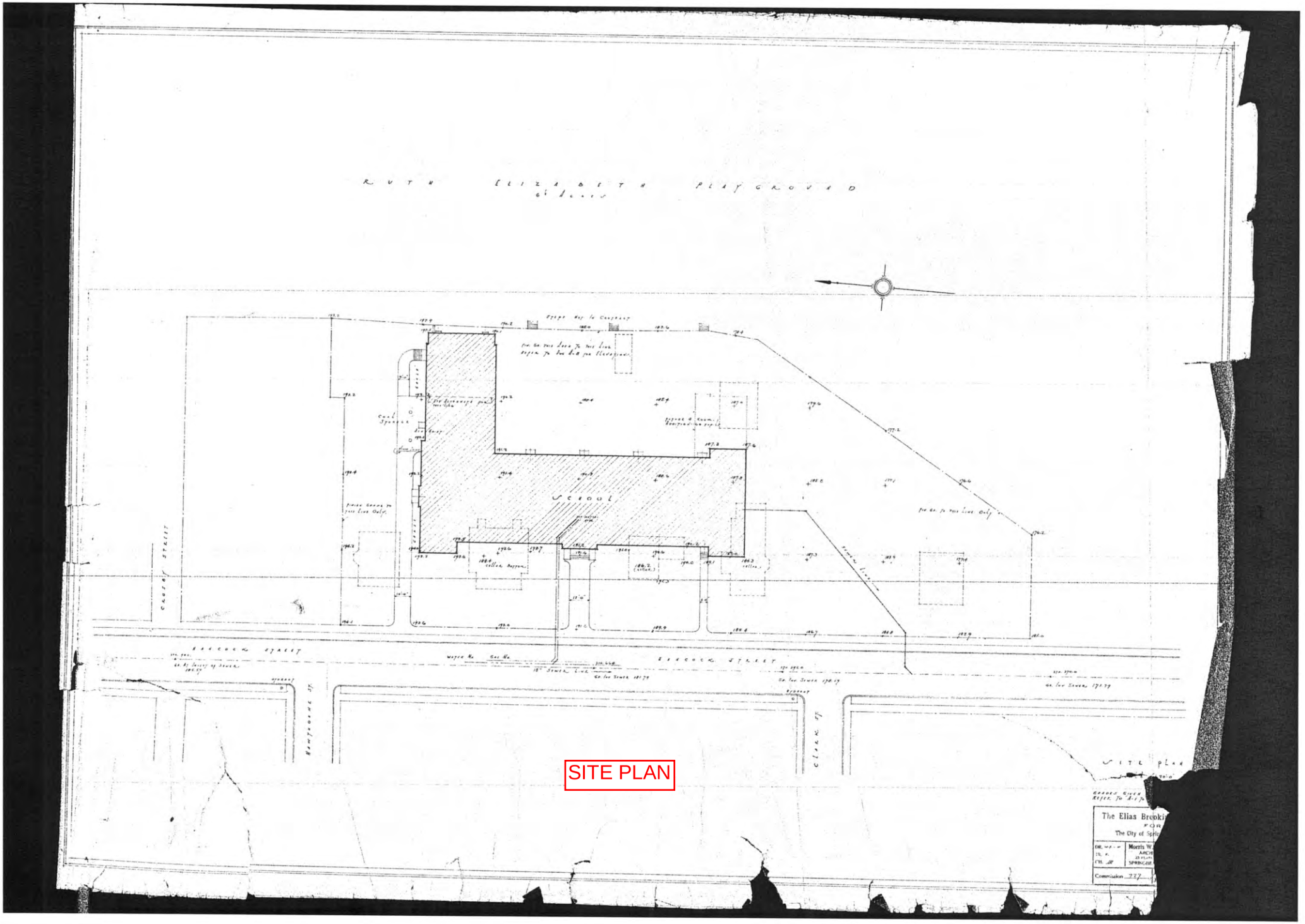
APPROVED

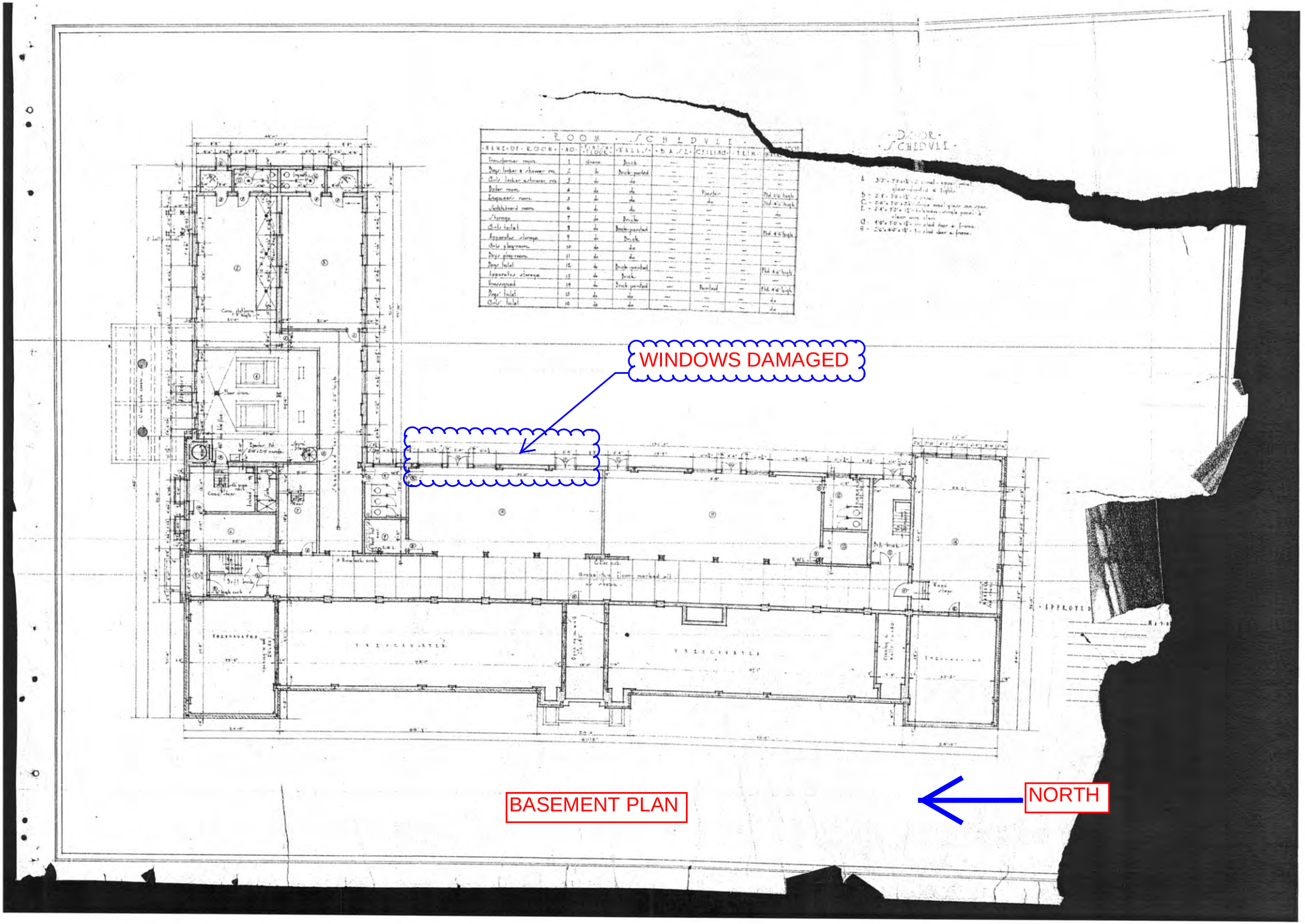
THIRD FLOOR PLAN
Scale ⅛" = 1'0"

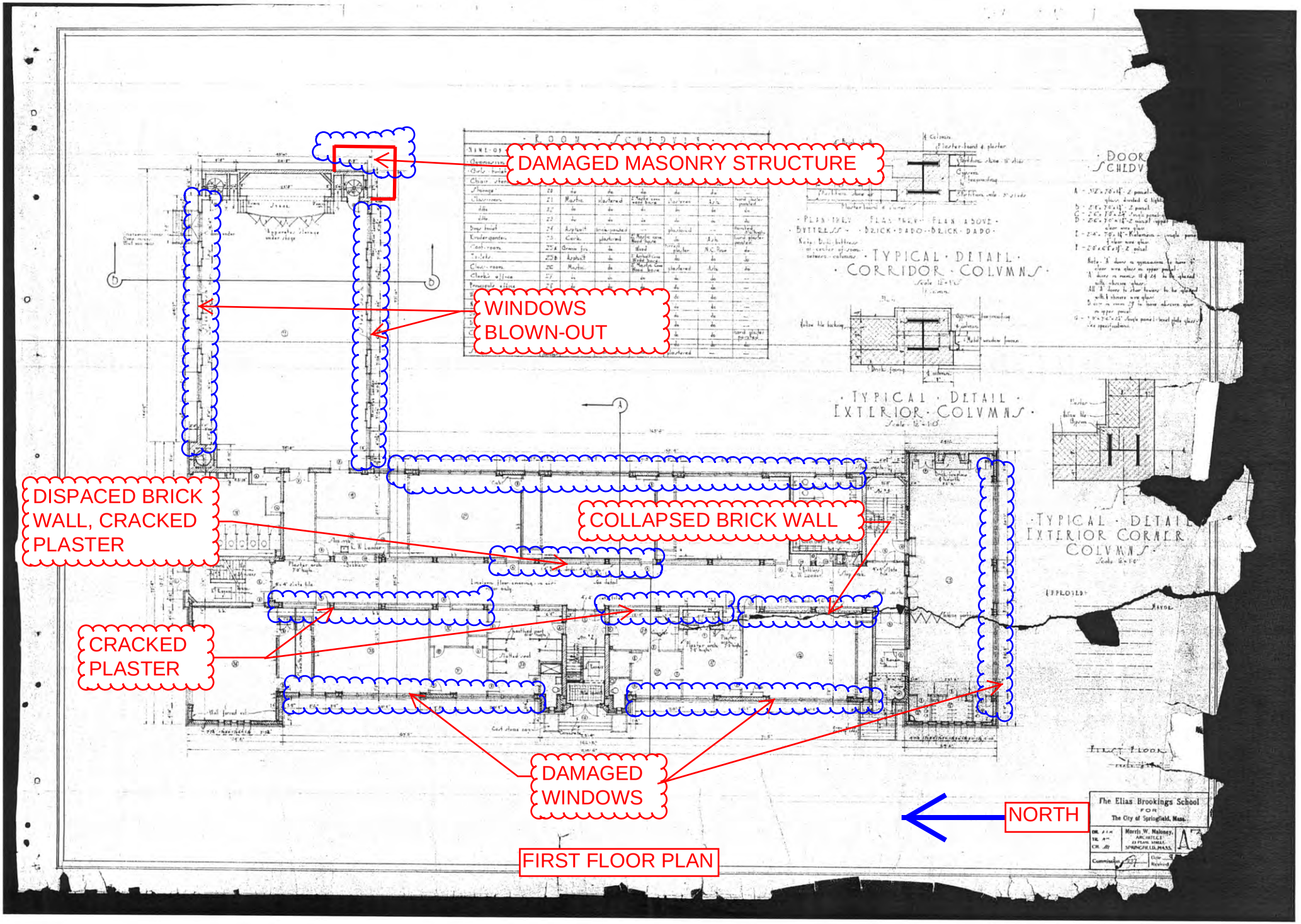
The Elias Brookings S[…]
FOR
The City of Springfield, Ma[…]

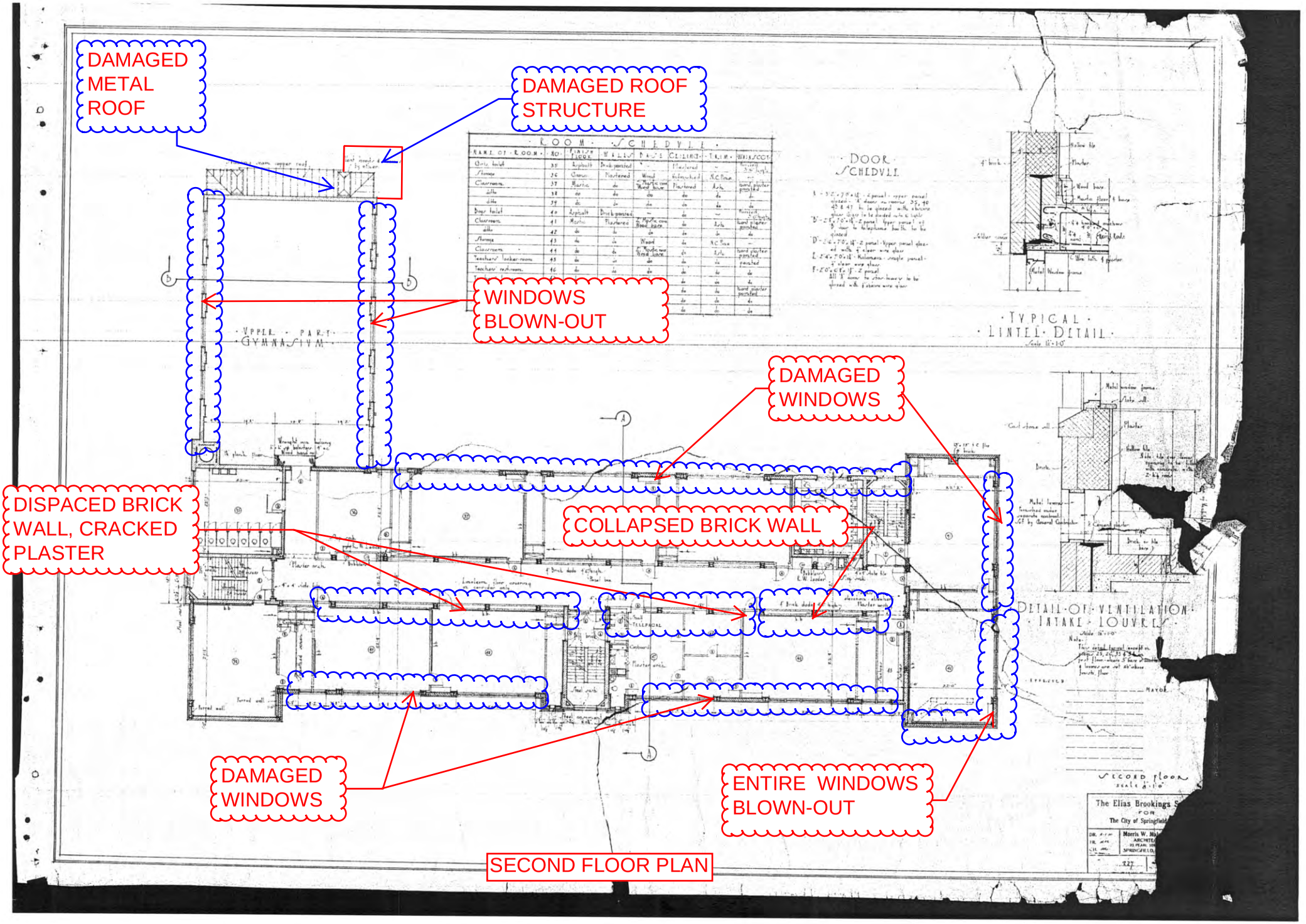
DR. [illegible] | Morris W. Maloney, ARCHITECT, 23 Pearl Street, Springfield[…]
TR. [illegible]
CH. [illegible]

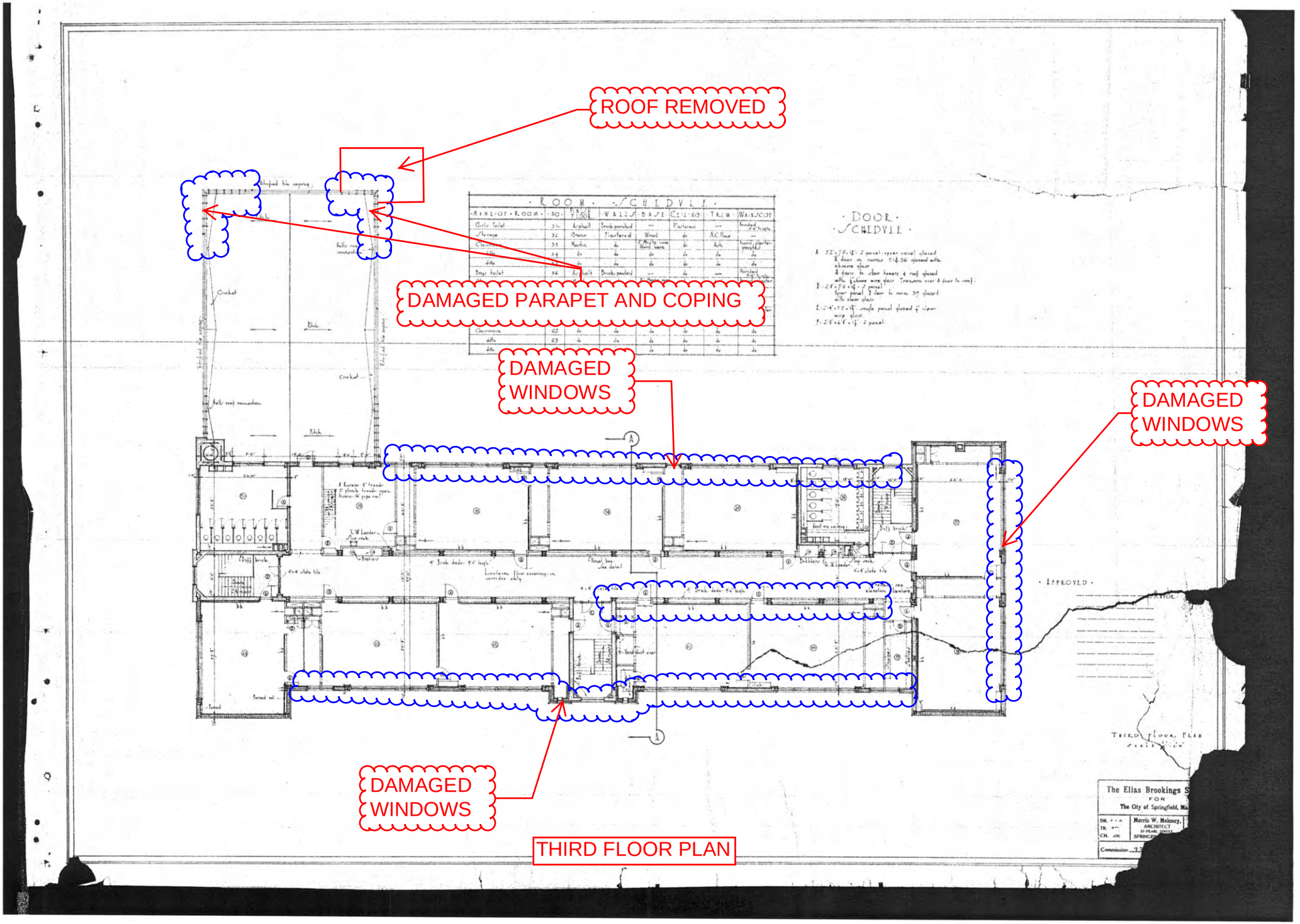
Commission 3[…]

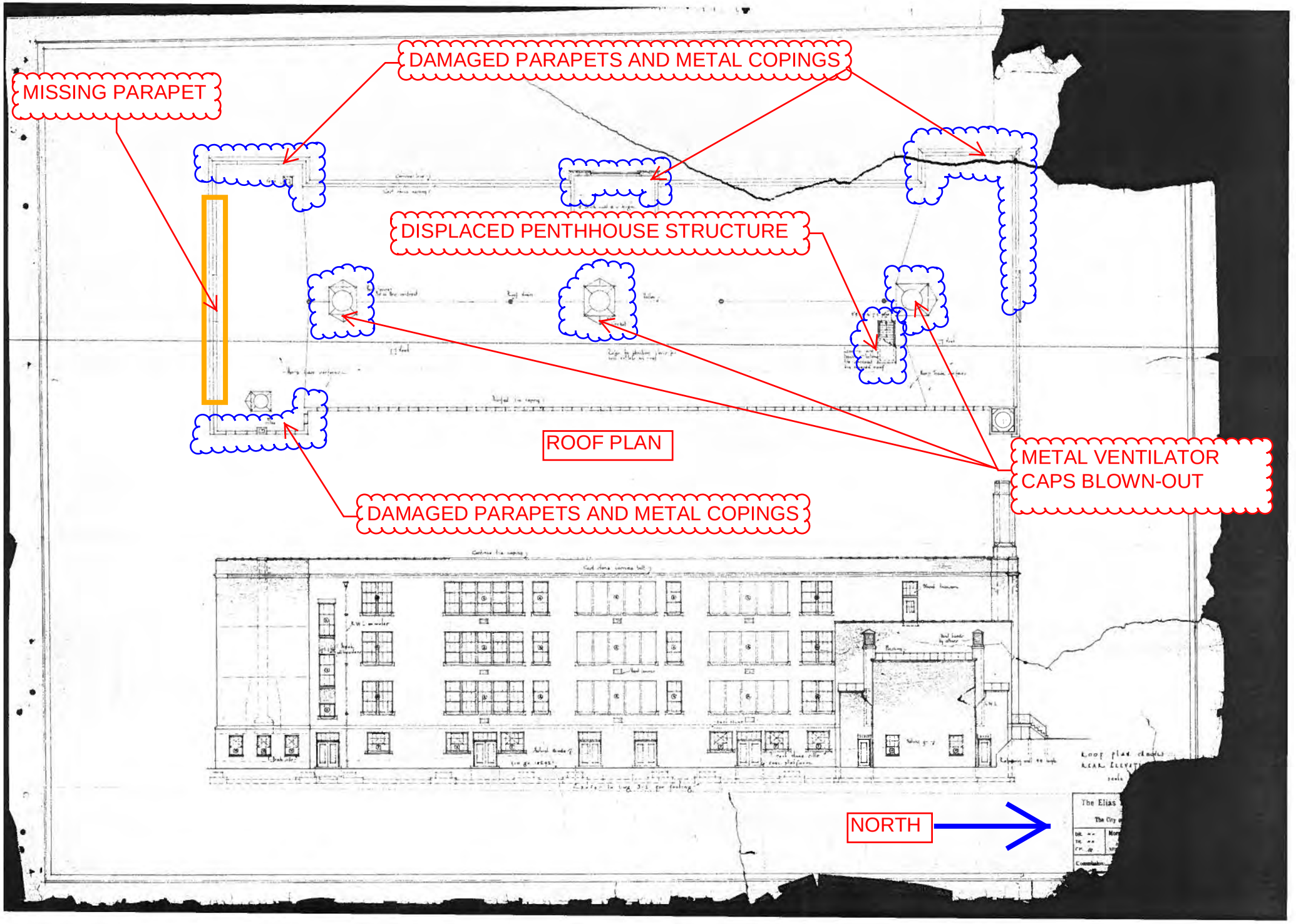

RUTH ELIZABETH PLAYGROUND
SCHOOL
BEACON STREET
BEACON STREET
SITE PLAN


WINDOWS DAMAGED
BASEMENT PLAN
NORTH


DAMAGED MASONRY STRUCTURE
WINDOWS BLOWN-OUT
DISPACED BRICK WALL, CRACKED PLASTER
COLLAPSED BRICK WALL
CRACKED PLASTER
DAMAGED WINDOWS
NORTH
FIRST FLOOR PLAN
TYPICAL DETAIL CORRIDOR COLUMNS
TYPICAL DETAIL EXTERIOR COLUMNS
TYPICAL DETAIL EXTERIOR CORNER COLUMNS
The Elias Brookings School
FOR
The City of Springfield, Mass.
Morris W. Maloney, ARCHITECT, SPRINGFIELD, MASS.


DAMAGED METAL ROOF
DAMAGED ROOF STRUCTURE
WINDOWS BLOWN-OUT
DAMAGED WINDOWS
DISPACED BRICK WALL, CRACKED PLASTER
COLLAPSED BRICK WALL
DAMAGED WINDOWS
ENTIRE WINDOWS BLOWN-OUT
SECOND FLOOR PLAN
ROOM SCHEDULE
DOOR SCHEDULE
TYPICAL LINTEL DETAIL
DETAIL OF VENTILATION INTAKE LOUVRE
UPPER PART GYMNASIUM
SECOND FLOOR


ROOF REMOVED
DAMAGED PARAPET AND COPING
DAMAGED WINDOWS
DAMAGED WINDOWS
DAMAGED WINDOWS
THIRD FLOOR PLAN
ROOM SCHEDULE
DOOR SCHEDULE
APPROVED
The Elias Brookings
The City of Springfield, Ma
Morris W. Maloney, ARCHITECT


MISSING PARAPET
DAMAGED PARAPETS AND METAL COPINGS
DISPLACED PENTHHOUSE STRUCTURE
ROOF PLAN
METAL VENTILATOR CAPS BLOWN-OUT
DAMAGED PARAPETS AND METAL COPINGS
NORTH

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www.edginc.com

June 9, 2011

Via email only to rcoppola@springfieldcityhall.com
Ms. Rita Coppola-Wallace, PMP
Director of Capital Asset Construction
City of Springfield
200 Trafton Road
Springfield, MA 01108

Re: Damage Investigation of Elias Brookings Expeditionary Learning Museum Magnet School
EDG Project Number: 2011-054

Dear Rita:

At your request, we visited the Elias Brookings Expeditionary Learning Museum Magnet School on June 2, 2011 to assess the structural damage from the tornado of June 1, 2011.

The Elias Brookings Expeditionary Learning Museum Magnet School is located at 367 Hancock Street in Springfield, Massachusetts. The school is essentially a four story steel and concrete building with a double story gymnasium that is framed with steel trusses and structural steel purlins. The typical floor construction is ribbed concrete slab supported on steel framing. The roof construction is similar to the typical floor construction. The exterior wall is a solid brick façade.

The school structure is in the shape of an 'L'. The main four story wing is oriented north to south and the gymnasium that forms the second leg of the 'L' is connected at the east side of the north end of the main school structure. There are a couple of single story additions connected to the east end of the gymnasium; these may have been constructed at a later date from the time of the original construction.

As we walked around the school, we noted shattered pane damage to the exterior windows. Exterior windows had blown out of the south and west faces of the building. All of the large windows of the gymnasium were blown away with the frames. We noted damage at the top of the masonry walls at the roof level where the coping had lifted up at various locations. We observed extensive damage to the wall and roof of the small single story addition to the gymnasium. As we walked through the school building, we noted that the corridor wall at the second and third level at the south end of the school had collapsed and noted that some corridor walls had bowed in from the force of the wind after the window panes had shattered. The corridor walls are non-structural and are constructed of masonry and terracotta block to a certain height above the floor, and then continue as a metal stud and plaster wall above the masonry. We observed water ponding on the floor at some locations. As we walked on the roof, we noted that the roof membrane was intact everywhere; but, it had separated from the structure

as you could see it balloon up from the wind blowing through the tears in the roof. There is extensive damage to the coping at the south end edge of the roof and the edge coping has lifted off the structure. We noted wind damage to the masonry parapet above the roof. The stair enclosure structure above the main roof is damaged and structurally unstable. We also noted some wind blown debris from adjacent structures had landed on the roof and several mechanical roof fans have blown off the roof and landed on the grounds around the school.

Based on our preliminary assessment, we would recommend that the damaged single story addition to the east of the gymnasium be demolished and reconstructed since the bearing walls and the roof structure are structurally unstable; or, the structure should be temporarily stabilized until permanent repairs can be made. We would also recommend that the stair enclosure structure above the main roof be demolished and rebuilt. The parapet that is damaged should be stabilized and repaired.

Other than the items noted above, there is no major structural damage to the school structure. The damage that is visible is non-structural in nature. We would recommend that a full assessment of the school be conducted involving all other disciplines, i.e. Architectural, Mechanical, Plumbing and Fire Protection. This should be followed by a feasibility study to determine the extent of the repairs and renovations required for occupation of the school.

We have included photographs at the end of this report to better describe the damage. Some of the photographs in this report were shared by you.

Please feel free to call the office if you have any questions regarding the above.

Very truly yours,

ENGINEERS DESIGN GROUP, INC.

Mehul V. Dhruv, P. E.
Principal

/mem

PHOTOGRAPHS

Aerial view of Elias Brookings School

Front elevation of Elias Brookings School

Blown out gymnasium windows and damaged single story addition.

South elevation blown out window damage.

Typical roof coping damage.

Blown out interior corridor wall.

Blown out interior corridor wall.

Blown out windows at south and west walls.

Blown out window at south facing wall.

Damaged roof coping and top of masonry wall damage.

Damaged roof coping.

Damaged roof fans and detached/ballooned roof membrane.

Structurally damaged stair enclosure.

Damaged and parapet and blown off roof fan.

Damage Investigation of

BROOKING SCHOOL

June 22, 2011

A. Plumbing:

1. Background Information

a. The following utilities and services exist at this school site. The exact location of where these services enter or exit the building was not specifically determined during this site visit. The location of the gas service was noted outside the building.

b. The list of services included within the building:

1) Roof Drainage System

2) Sanitary Waste and Vent System

3) Domestic Cold Water System

4) Domestic Hot Water System

5) Domestic Hot Water Return System

6) Natural Gas System

7) Central Vacuum System

2. Damage Observed

a. The existing plumbing systems listed above appear to have suffered minimal damage resulting from the storm.

b. Damage from the storm resulted in the loss of electrical power to the building. Due to the loss of electrical power, the operation of the existing systems requiring power could not be verified. The gas service to the building was also turned off as a safety precaution. The existing water service was left on and water is currently available throughout the building with no sign of visible damage to the system.

c. Visible damage that may have affected the plumbing systems was observed within the building at various interior walls, which buckled or fell. This resulted in exposed plumbing systems specifically gas, water, waste and vent piping. The existing piping systems in these areas also appear to be intact. The water piping did not appear to be leaking and there seemed to be no smell of sewer gases present. Due to the gas service being turned off the extent of any damage to the gas piping system could

not be verified. With the loss of power it could not be determined if the central vacuum system was operational.

d. It is also not known if this system is operational all the equipment is still in place. The basement mechanical room has a sump pump for ground water control, the basement floor was covered with approximately 1" of water during the time of our visit. The standing water appeared to be from ground water. The existing pump should be activated and the extent of any water damage or source of water if not ground water can then be further investigated.

3. Recommendations

a. Short Term

1) The existing gas piping system is to be subject to some pressure tests to verify that no leaks exist and to identify the extent and quantity of repairs that may be necessary. The entire roof drainage, sanitary waste and vent systems should also be smoke tested to determine the extent and quantity of repairs that may be necessary. The existing domestic water piping appears to be functional as no leaks appeared to be present during the walk through, along with the fact that the piping is installed below the floor. The existing sump pumps need to be energized to prevent any additional water damage to the equipment in the mechanical room.

2) All of the above tests and testing procedures should be coordinated with the local plumbing inspector.

3) Repair any damage to the existing piping systems as a result of the above testing procedures, and repair any other damage discovered during the restoration work.

b. Long Term

1) Based on the age and current conditions of the building, the following is to identify systems that will need to be updated or added in the future:

a) Based upon the extent of new work proposed for the building new fire protection systems may need to be provided. This should be determined with the input from a code consultant.

The installation of these systems will need to satisfy all current code requirements.

This new system will require the installation of a new water service from the street to the building, complete with backflow prevention and possibly a fire pump. Based on the results of a fire flow test the necessity of a fire pump can be determined.

b) Toilet Rooms and fixtures throughout the building are to be upgraded to meet all of the latest ADA requirements.

Plumbing fixtures are to be upgraded to conform to all the latest water saving type fixtures.

Existing piping systems are to be modified as necessary to provide services to meet the requirements of the proposed new ADA room layouts along with any building modifications.

c) Existing piping systems that would be effected by the above work include:

(1) Roof Drainage System

(2) Sanitary Waste and Vent System

(3) Domestic Cold Water System

(4) Domestic Hot Water System

(5) Domestic Hot Water Return System

(6) Natural Gas Piping System

d) Existing piping systems need to be further investigated to determine the condition of the piping.

Based on the age of the existing building and plumbing systems it may be necessary that all the existing piping systems be replaced. It is further recommended that all unused piping and equipment be removed to the extent possible in lieu of leaving abandoned in place.

4.

5. Prices do not include any asbestos removal. Asbestos is to be removed by properly trained and certified personal and properly disposed of in accordance with all local, state and federal requirements.

6. Estimated Cost:

a. Short Term: In our opinion, testing and verifying the extent and location of damaged piping for the various existing building plumbing systems may cost approximately $10,000.

b. Long Term

1) New fire protection system with fire pump: $ 360,000.00

2) Renovations to meet the new building requirements: $ 840,000.00

B. HVAC:

1. Background Information

a. The existing HVAC system consists of gas-fired central steam boilers serving a series of perimeter cast iron radiators and induction units (and on the lowest level horizontal Unit Ventilators) to provide the heating and ventilation for the various classrooms and related spaces in this 60,000 square foot, four story school building. The building vents up shafts to passive roof vents, the induction units pressurize the building. Steam supply and condensate return piping is distributed in the lowest level to riser locations mostly along the perimeter of the building. Head height restrictions existing in the lower level due to this somewhat exposed piping. The boiler room is located in a basement level that communicates with the lower level of the school in the Northeast corner of the building. The Automatic Temperature Controls (ATC) system also is located in the boiler room with a network of pneumatic tubing circuiting the four floors of the building to the various thermostats, damper actuators and HVAC equipment serving the building providing the actuation and scheduling logic.

2. Damage Observed

a. The entire roof of the school seemed to shift and all six large gravity ventilators that were located on the roof were impacted. They all experience damage from being ripped entirely off the roof to partial destructions. None of these units are salvageable. Interior walls crumbled and failed to various degrees. Steam piping and some ATC pneumatic lines as well as possibly some exhaust risers are located in these destroyed walls so there may be possible damage to these pipe systems. Most of the HVAC equipment (various condensing units) that were located on the roof were displaced by the tornado winds and will most likely need repair or replacement.

3. Survey and Testing

a. The steam and condensate piping systems should be both visually inspected (where the interior walls failed) and then leak tested after obvious problems are repaired to insure its integrity for continued use. The roof vents would need to be replaced. The ATC pneumatic system would also need to be surveyed tested and all leaks repaired. All debris that may have fallen into the open roof vents would have to be removed and the vent system cleaned.

4. Recommendations

a. Short Term

1) It has been reported that the induction units (that equipment that provides the ventilation in a given room) did not work at the time of the tornado. We assume that the operable windows were used to provide proper ventilation for the spaces. The building was built in 1925 and has at least 50 to 60 year old HVAC terminal equipment (induction units) that serve the majority of the perimeter

classrooms. This equipment is no longer being made and these systems (induction style) are no longer being used for classroom buildings. The passive roof vents would also require custom manufacture since they no longer are being used in standard HVAC design. This building is in need of a complete HVAC renovation and short term repairs are not recommended.

b. Long Term

1) The HVAC systems serving the school are, for the most part obsolete with the exception of the new gas-fire boiler/burner and its associated feed water system. This equipment is estimated to be 50 to 60 years old if not original to the school (making it in excess of 75 years old). A complete renovation of the HVAC system is mandated since all of the existing equipment is well beyond its useful life expectancy. The following recommendations will include completely replacing this HVAC equipment.

a) Install new unitary classroom heating units. Ventilation can be ducted to the classrooms or the existing perimeter louvers can be enlarged to allow for today's ventilation standard in each of the classrooms. Unit Ventilators of various new designs (to address the classroom noise issue plaguing these units), or fan coil units or even heat recovery HVAC units could be implemented in the HVAC renovation without monumental changes in the buildings architecture.

b) Install new exhaust systems centrally ducted up to new roof exhaust fans.

c) Install new DDC (direct digital control) automatic temperature control system consistent with the school systems latest sites.

d) Replace the existing (the original abandoned-in-place) boiler with a high-efficiency gas-fired condensing style boiler system. Reuse the two-year old steam boiler and add a new steam to hot water converter to back up the new condensing boiler system.

5. Estimated Cost:

a. This work is estimated to cost +/- $2,100,000.

C. Electrical:

1. Background Information

a. The existing main electric service enters the basement at the southwest corner. The electric service is 120/208 volt, 1000 amp. There are approximately 8 feeder circuit breakers, including a couple of spare devices. The main switchboard appears to be manufactured and installed in 1975.

It is manufactured by FPE which is no longer manufacturing switchboards or protective devices. This vintage FPE equipment has been known to malfunction and is no longer manufactured. There is no emergency generator for this building.

2. Damage Observed

   a. The resulting storm damage left the power, lighting and fire alarm systems with what appears to be minimal damage. Some interior walls are buckled or settled resulting in exposed electrical systems in the respective walls. The extent of this damage requires further investigation or testing of the affected systems. Other damage extends to electrically-connected mechanical components that were forcefully dislodged or removed from the roof.

3. Survey and Testing

   a. Testing of the existing main electric service equipment shall to be performed by a qualified electrical testing agency before energizing. Electrical testing should be performed according to NETA (International Electrical Testing Association) standards. At a minimum, electrical protection devices and feeder circuits shall have their insulation integrity tested before each feeder or circuit is energized. The fire alarm system shall be witness tested by qualified personnel before permanent occupancy. Emergency lighting shall be tested by qualified personnel before permanent occupancy. Identified electrical system deficiencies shall be remedied before safe occupancy.

4. Recommendations

   a. Short Term

      1) Repair the damage caused to the electrical systems from minor water damage, wall damage, ceiling damage and roof damage. This will involve work to the visually exposed damage as well as potential damage above ceilings and visually minimal damaged walls.

   b. Long Term

      1) The existing main electric service is recommended to have its capacity evaluated and replaced to meet the goals of an educational environment meeting today's technology needs. Power circuiting for the administrative and academic portions of the school must meet the needs of the technology components for a safe operating environment. Emergency lighting is recommended to be upgraded for compliance with current codes. The fire alarm system is recommended to be upgraded to meet current design codes and standards. This is a prime opportunity to bring the systems up to current energy codes with efficient lighting and lighting controls.

5. Estimated Cost:

   a. Survey and Testing: $50K barring addressing identified system or component deficiencies

   b. Short Term: $100K

   c. Long Term: $1.62M

Figure 1 Piping risers in wall at damaged wall area

Figure 2 Horizontal piping in damaged wall

Figure 3 Basement flooding

Figure 4: Lower level Unit Ventilator

Figure 5: Lower level steam radiator

Figure 6: Damaged Roof Vent on roof

Figure 7: Shifted Condensing Unit on roof

Figure 8: Roof Vent in adjacent field

Figure 9: Gas service with Telephone Service disconnection from wall

Figure 10: Exterior wall exposed cast iron radiator and Induction Unit serving classroom

Figure 11: New Boiler/Burner in Flooded Basement

Figure 12: Collapsed Interior Wall with Pipes exposed

Figure 13: Torn off Roof Vent with opening through roof and exposed damper

School System: Springfield Public Schools Building: Brookings School – 367 Hancock Street Date(s) of Reinspection: 4/19/11
ID Number: AI070449

REINSPECTION FINDINGS FOR ACBM							MANAGEMENT PLANNER RECOMMENDATIONS		
								Schedule	
Material Description	Location(s) of ACBM by assessment category	Quantity	Friability	Assessment category (1-7,X)	Justification of assessment category	Change in assessment	Preventive measures, response actions, and initial/additional cleanings	Begin	Complete
Linoleum & Associated Mastic	1st Floor Counselors Rooms		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
Linoleum & Associated Mastic	2nd Floor Teacher's Lounge		Non-Friable	4	Spot Damage	Removed in 2007 Summer	Remove From O&M Plan	4/19/11	4/19/14
Linoleum & Associated Mastic	Assistant Principal's Office		Non-Friable	4	Spot Damage	Intact, Covered by "Pergo" Floor	Follow O&M Plan	4/19/11	4/19/14
Cementitious Fittings	Attic (Via Rm. 307 Stairs 2'x 2' Access Panel)		Friable	5	Intact	No Change	Follow O&M Plan	4/19/11	4/19/14
Thermal Systems Insulation Pipe Insulation	Attic (Via Rm. 307 Stairs 2'x 2' Access Panel)		Friable	5	Intact	No Change	Follow O&M Plan	4/19/11	4/19/14
12"x 12" Floor Tiles & Associated Mastic	Room 205		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
12"x 12" Floor Tiles & Associated Mastic	Room 206		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
12"x 12" Floor Tiles & Associated Mastic	Room 207		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
12"x 12" Floor Tiles & Associated Mastic	Room 208		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
12"x 12" Floor Tiles & Associated Mastic	Room 211		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
12"x 12" Floor Tiles & Associated Mastic	Coat Room Between Rooms 206 & 207		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12

AHERA Assessment category: 1 = Damaged or significantly damaged TSI ACBM, 2 = Damaged friable surfacing ADBM, 3 = Significantly damaged friable surfacing ACBM, 4 = Damaged or significantly damaged friable miscellaneous ACBM, 5 = ACBM with potential for damage, 6 = ACBM with potential for significant damage, 7 = Any remaining friable ACBM or friable suspected ACBM.

VATC ASSOCIATES INC.

School System: Springfield Public Schools Building: Brookings School – 367 Hancock Street Date(s) of Reinspection: 4/19/11
ID Number: AI070449

REINSPECTION FINDINGS FOR ACBM							MANAGEMENT PLANNER RECOMMENDATIONS		
								Schedule	
Material Description	Location(s) of ACBM by assessment category	Quantity	Friability	Assessment category (1-7,X)	Justification of assessment category	Change in assessment	Preventive measures, response actions, and initial/additional cleanings	Begin	Complete
12”x 12” Floor Tiles & Associated Mastic	Room 302		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
12”x 12” Floor Tiles & Associated Mastic	Room 303		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
12”x 12” Floor Tiles & Associated Mastic	Room 304		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
12”x 12” Floor Tiles & Associated Mastic	Room 305		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
12”x 12” Floor Tiles & Associated Mastic	Room 306		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
12”x 12” Floor Tiles & Associated Mastic	Room 308		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
12”x 12” Floor Tiles & Associated Mastic	Room 309		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
12”x 12” Floor Tiles & Associated Mastic	Room 310		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
12”x 12” Floor Tiles & Associated Mastic	Principal’s Offices		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
Linoleum & Associated Mastic	Room 202		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
Linoleum & Associated Mastic	Room 203		Non-Friable	4	Spot Damage	Removed in 2009 Summer	Remove From O&M Plan	4/19/11	4/19/14
Linoleum & Associated Mastic	Room 204		Non-Friable	4	Spot Damage	Removed in 2009 Summer	Remove From O&M Plan	4/19/11	4/19/14
Linoleum & Associated Mastic	Room 210		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12

AHERA Assessment category: 1 = Damaged or significantly damaged TSI ACBM, 2 = Damaged friable surfacing ADBM, 3 = Significantly damaged friable surfacing ACBM, 4 = Damaged or significantly damaged friable miscellaneous ACBM, 5 = ACBM with potential for damage, 6 = ACBM with potential for significant damage, 7 = Any remaining friable ACBM or friable suspected ACBM.

VATC ASSOCIATES INC.

School System: Springfield Public Schools Building: Brookings School – 367 Hancock Street Date(s) of Reinspection: 4/19/11
ID Number: AI070449

REINSPECTION FINDINGS FOR ACBM							MANAGEMENT PLANNER RECOMMENDATIONS		
								Schedule	
Material Description	Location(s) of ACBM by assessment category	Quantity	Friability	Assessment category (1-7,X)	Justification of assessment category	Change in assessment	Preventive measures, response actions, and initial/additional cleanings	Begin	Complete
Linoleum & Associated Mastic	Room 212		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
Linoleum & Associated Mastic	Room 300		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12
Linoleum & Associated Mastic	Room 301		Non-Friable	4	Spot Damage	No Change	Repair, Then Follow O&M Plan	4/19/11	4/19/12

AHERA Assessment category: 1 = Damaged or significantly damaged TSI ACBM, 2 = Damaged friable surfacing ADBM, 3 = Significantly damaged friable surfacing ACBM, 4 = Damaged or significantly damaged friable miscellaneous ACBM, 5 = ACBM with potential for damage, 6 = ACBM with potential for significant damage, 7 = Any remaining friable ACBM or friable suspected ACBM.

Were additional samples of this ACBM collected: No Date of management planner review: 4/19/11

Inspector name: Steve Dolinski Management planner name: Steve Dolinski

Inspector Signature: _____ Management planner signature: _____

Accreditation # / State: AI070449 / Massachusetts Accreditation # / State: AP072157/ Massachusetts

Expiration date: September 27, 2011 Expiration date: September 27, 2011

Additional specific information on newly damaged asbestos materials: _____

Asbestos materials found which were previously undetected: _____

I, the LEA's Designated Person, have read and understood the recommendations made above:_____

ATTACHMENT A

SUMMARY OF ASBESTOS-CONTAINING MATERIALS

(TABLES 1.0 – 13.0)

TABLE 1.0 BROOKINGS ELEMENTARY SCHOOL			
MATERIAL	**LOCATION**	**QUANTITY**	**NOTES**
Boiler Unit	Boiler Unit No. 1	1 EA	Includes all interior/exterior ACM; Unit to be demolished under containment; Includes demo and disposal of the pediment/base down to the slab on-grade.
Breeching Insulation	At the Rear of Boiler Unit No. 1	80 SF	Includes all material at rear of Boiler Unit No. 1 up to 1st connection/flange on breeching; Remaining exposed ends to be wet-wrapped; Existing breeching to remain shall be supported by Contractor upon demolition of the boiler unit.
Remaining Breeching Insulation	Boiler Room	All	Patch and repair (with rewettable fiberglass) all damaged areas remaining on breeching throughout Boiler Room