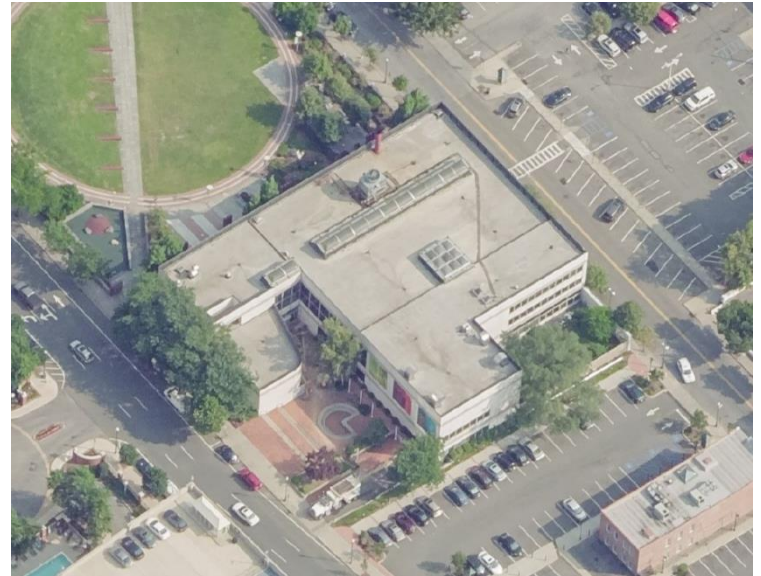


# NEW ROCHELLE PUBLIC LIBRARY

## PHYSICAL CONDITIONS ASSESSMENT

### MAIN BRANCH HUGUENOT CHILDREN'S LIBRARY

Presentation to the Library Board  
October 8<sup>th</sup> 2020



# Tonight's Objective

**Provide a high-level overview of the project.**

## Timeline

- **RFP Issued by Library: March 2019**
- **Proposal Submitted: April 2019**
- **Agreement Approved: End of October 2019**
- **Kick-off Meeting: November 13<sup>th</sup>, 2019**
- **Field Investigation: November 2019 Through January 2020**
- **Meeting to Review Draft Report: February 11<sup>th</sup>, 2020**
- **Report Issued: February 28<sup>th</sup>, 2020**

## Project Team

- **Architectural Preservation Studio, DPC (APS) – Architecture**
- **OLA Consulting Engineers – MEP Engineering**
- **Charles Minozzi, Jr. - Code Review**



# Project Objective

**APS was retained by the New Rochelle Public Library to undertake a Physical Conditions Assessment at the Main Branch and Huguenot Children's Library, including site features, building-envelope elements, interior finishes, MEP and fire-protection infrastructure, life-safety, and code compliance.**

**The goal of the project is to provide the Owner with comprehensive knowledge of the condition of the physical plant and its infrastructure. The findings and budget estimates listed in the summary of recommendations are based on experience and probable cost for the direct replacement or current code-compliance upgrades.**

**A Physical Conditions Assessment is not:**

- **A Schematic Design**
- **A Master Plan**
- **A Program**



# Assessment Methodology

**This conditions assessment by APS and the project team generally followed the ASTM Standard E2018-15 Standard - Property Condition Assessments. The goal of the standard is to identify and communicate physical deficiencies of the subject property.**

- **Reviewed existing documents**
- **Interviewed NRPL personnel**
- **Visual inspections included:**
  - **Walk-around survey**
  - **Recording observations on systems and materials observed at each area and noting any obvious defects or potential defects.**

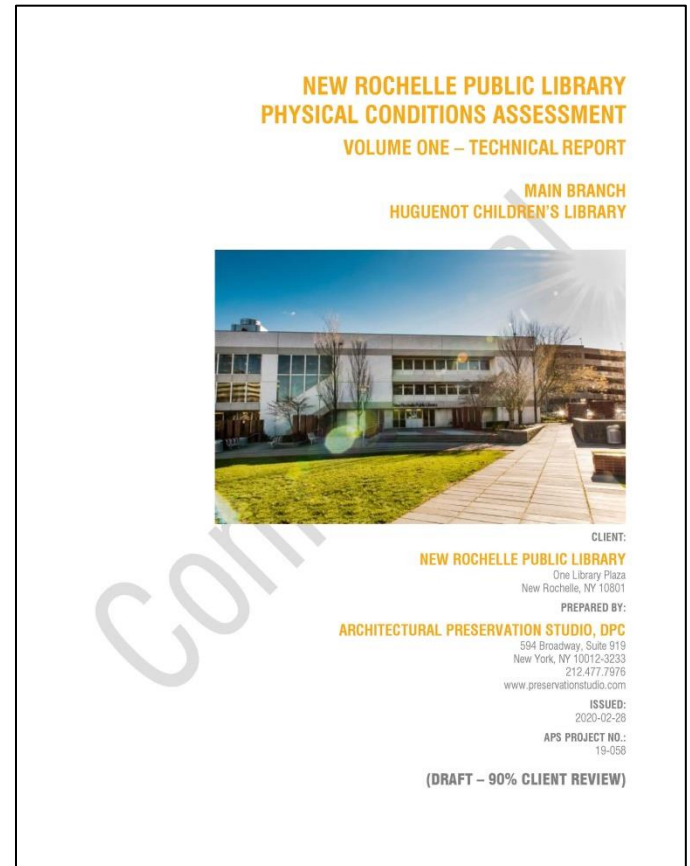
**This report excluded the Library Green, parking lot, elevator evaluation, environmental testing (ACM, LBP, PCB, Water and IDAQ), field-measured building and updated CAD drawings, probes and non-destructive testing, and a preventive-maintenance plan.**



# Actual Report (1)

The Physical Conditions Assessment Report Consisted of Two Volumes:

- Volume One – Technical Report, 179 Pages
- Volume Two – Existing Conditions Photographs, 255 Pages



# Actual Report (2)

## 1 EXTERIOR ENVELOPE

### a MAIN ROOF

The main roof is on two levels (upper and lower) and the access between the levels is by one (1) side-wall-mounted metal ladder with 3 rungs. The existing roof appears to be the built-up type, approximately 18 years-old with small white aggregate in the cap sheet. The main roof appears to be leveled with no or little slope. Vertical flashings are typically  $\pm 10'$  above the finished roof surface and are terminated with a one-piece  $\pm 4'$  metal counter-flashing. The inside face of the parapets, above the counter-flashing is single-ply EPDM, which is fully adhered. There is a one-piece metal drip edge at the outside face of the parapet,  $\pm 4'$  in height, with splice plates. Below the counter flashing and above the roof level, the membrane does not have aggregate embedded. We recommend that a core-cut be performed to determine the type and height of insulation at the main roof.

There is evidence of multiple previous repair campaigns, primarily at the parapets, above and below the counter-flashing. The EPDM membrane has previous adhered patches at the field and at lap joints.

All roof parapets are  $\pm 54"$  above finished roof membrane, except for the east parapet which is  $\pm 32'$  above the finished roof and does not have an adequate OSHA-compliant fall protection.

The primary access to the main roof is from one (1) metal roof hatch measuring  $\pm 57 \frac{1}{2}' \times \pm 45'$ . The hatch opening is  $\pm 15'$  above roof level. There is no fall protection surrounding the hatch. The access hatch to the roof is via a ship's ladder from the third floor. The hatch is not alarmed or locked.

There are two other types of hatches, they include:

- One (1) elevator:  $\pm 52' \times \pm 52'$
- Three (3) smoke vents:  $\pm 40' \times \pm 34'$ .

All hatches have clear plastic domes on aluminum frames. All hatches have side-wall vents on the short end of the curb. One (1) of the domed smoke vents at the southwest corner has a cracked acrylic dome at corner. All the acrylic domes show signs of aging with crazing. As for the smoke-vent functionality, one (1) was tested and found not to be working.

Vent pipes: Three (3) were located on the low roof and three (3) on the high roof. All are of  $\pm 5$ - $1 \frac{1}{4}'$  diameter and are  $\pm 34'$  above the finished roof clad fully in metal.

Roof drains are cast-iron type with metal domes: Nine (9) on the low roof and four (4) on the high roof. The inside pipe diameter could not be measured as the domes are fixed in place.

Multiple mushroom-style floor vents of various sizes exist across the roof. All are on low curbs  $\pm 12'$  above the finished roof.

There are two through-wall scuppers on the lower roof, both facing west,  $\pm 3 \frac{1}{2}' \times \pm 7'$  and  $\pm 2'$  above the finished roof.

The metal chimney on west side of the roof has a label noting that it is a medium-heat appliance by Van Packer products model HT, No. C32863 UL listed. It is  $\pm 34'$  in diam. and  $\pm 16$ - $0'$  in height. There are three (3) cables holding it with turn buckles at the ends. The painted finish is falling. At the mid-point of the chimney, a previous metal, butt joint. At the approximate mid-point of the chimney, there is a metal plate that is deteriorating. At the roof level, there is a storm collar that should be removed, and the concealed area inspected. The storm collar at the roof is wider than the chimney by  $10'$  in diameter.

- iii Assessment: Normal wear and tear.

## 3 East Side

### a Minor rust at bike racks and roof drainpipe (See Existing Conditions Photo 23)

- i Description: Minor rust showing at bike racks base plates and roof drainpipe.

- ii Classification: Recommended, Building integrity, Appearance.

- iii Assessment: Normal wear and tear.

### b Brick accent at sidewalk settling (See Existing Conditions Photos 24, 25)

- i Description: The brick accent at east elevation sidewalk appears to be settling and could be a tripping hazard.

- ii Classification: Currently critical, Building code compliance.

- iii Assessment: Determine if this is the responsibility of the City of New Rochelle or the Library.

### c Garden wall in poor condition (See Existing Conditions Photos 26-31)

- i Description: The street side has extensive crazing and cracking, biological growth, significant open joints at round opening ( $\pm 1/2'$  wide). The metal grille is rusting. The southeast corner of the wall has impact damage and open mortar joints, bottom 11 courses of tiles.

- ii Classification: Potentially critical, Building integrity, Appearance.

- iii Assessment:

## B Exterior Envelope

### 1 Roof

#### a Deteriorated roofing membrane at roof and parapet (See Existing Conditions Photos 32-35)

- i Description: There are open seams and membrane has cracked above and below the metal flashing at parapets and bubbling at roof various locations.

- ii Classification: Necessary, Building integrity.

- iii Assessment: The membrane is deteriorated due to age.

#### b Parapet height non-code compliant (See Existing Conditions Photos 36, 37)

- i Description: The southern portion parapet height is  $\pm 32'$  above the finished roof, on five (5) sides.

- ii Classification: Currently critical, Life-safety code compliance, Building code compliance.

- iii Assessment: Parapet heights do not meet the minimum 42' height requirement of the current NYS Building Code.



Photo 34. Open seams at parapet EPDM membrane.



Photo 35. Roof membrane bubbling.



Photo 36. Detail of room membrane bubbling.

# Summary of Findings (1)

In general, both buildings were found to be in fair condition with repairs required to abate routine wear and tear and deferred capital improvements.

It should be noted that significant capital improvements to the physical plant and aesthetics have already been undertaken by the NRPL over the last 10 years at the Main Branch. Those improvements have included, but are not limited to:

- a new boiler
- a new cooling tower
- new sprinkler-system infrastructure and branch piping in the basement and first floor
- new entrances at Lawton Street and Memorial Highway
- new circulation and registration desk
- new seating for the theater
- elevator upgrades



# Summary of Findings (2)

**This Physical Conditions Assessment has revealed the following major deficiencies, which should be prioritized moving forward:**

- **Correction of immediate life-safety issues at the Main Branch and Huguenot Children's Library (completed).**
- **Handicapped issues at the Main Branch in both public and staff areas.**
- **Assuming full occupancy based on the calculated occupant load per the 20155 NYSBC Chapter 10, Table 1004 Occupant Load, there are inadequate toilet fixture counts for the general public at the Main Branch.**





# Summary of Findings (3)

- **Several systems at the Main Branch, including the air handlers and electrical switch gear, are from the original construction and require replacement as they have reached the end of their service life after 40 years.**
- **The completion of the sprinkler cross and branch piping on the second and third floors.**
- **Dysfunctional vertical circulation at HCL.**



# Next Steps (1)

**We recommend the following next steps:**

- **A space analysis and development of current existing conditions drawings in electronic format to determine the current building usage.**
- **A programing phase to determine the extent of any new space requirements and moving/relocating of spaces to accommodate shortcomings in the existing building programing/space allocations including, but not limited to:**
  - **New public and staff restrooms.**
  - **New entrance off the Library Green that is aligned with the Main Entry Steps.**
  - **New addition to the Huguenot Children's Library for improved vertical circulation.**



# Next Steps (2)

- **We recommend that energy modelling be undertaken to determine the energy efficiency that can be achieved and determine payback periods for any applicable capital improvements, including the over-cladding of the facades, windows, and roofs.**
- **Budget verification by a professional construction cost-estimation firm to ensure the most accurate costs are presented to the community in any future Bond resolutions for Capital Improvements.**
- **Developing a realistic schedule to allow for any required programming, design, phasing, and updating of construction costs before approaching the community.**

