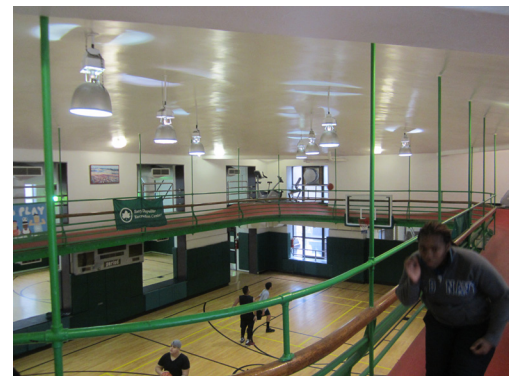




# Investigation and Assessment of the Tony Dapolito Recreation Center Greenwich Village, New York, NY

## Final Report

Task 5.1  
26 October 2015



Prepared for : NYC Parks Capital Division  
Prepared by : Urbahn Architects PLLC



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## Consultant Team

# Tony Dapolito Recreation Center - Final Report - Draft

26 October 2015

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Satellite Imaging Site Plan

## I. EXECUTIVE SUMMARY

### A. OVERVIEW

Located in the West Village section of the borough of Manhattan the Tony Dapolito Recreation Center is a well-used and much loved recreation center, housing indoor and outdoor swimming pools, basketball courts, indoor running track, gymnasium, instructional rooms, and a range of auxiliary and support spaces. The facility is located in the landmarked “Greenwich Village Extension II” and is therefore subject to NYC Landmarks Preservation Commission review for the exterior façade. Over a century old, this building suffers from a multitude of physical problems.

Urbahn Architects was hired by the NYC Office of Management and Budget on behalf of the NYC Department of Parks and Recreation, to undertake a study to develop the scope of work for needed improvements. The study addresses physical, code compliance and programmatic deficiencies and recommended corrective activities. The building investigation survey included visual surveys, localized exterior probe inspections, building material testing, interior subsurface probes, hazardous material survey, and examinations of the mechanical, electrical, plumbing and pool systems, in order to identify building deficiencies. In addition, a Code Analysis of the building was completed and a Facility Needs and Space Utilization Study was undertaken to review the current spatial utilization and functionality, understand current and future programmatic needs, and recommend future modifications to optimize the use of the space.

This Final Investigation & Assessment of the Tony Dapolito Recreation Center Report, is an aggregation of these studies wherein we have integrated all of the findings and provided recommendations for immediate repair and stabilization work; recommendations for capital improvements to bring the building to a state of good repair; and recommendations for modifications and additions to provide the facility with better utilized and functional space to meet the Department of Parks and Recreation's needs for the next 30 years.

Our recommendations have been distilled from our investigations as detailed in previous reports. For the purpose of this final report, we have categorized our recommendations in three groups:

1. Repair & Stabilization (Life Safety, Local Law 11, code required modification)
2. Capital Improvements
3. Facility Utilization Program Modifications

Please note that our recommendations regarding façade repair and stabilization are based on visual survey and limited localized probe inspections. We strongly recommend that a future repair design contract include removal of all the netting and a hands-on inspection to quantify the full extent of repairs.

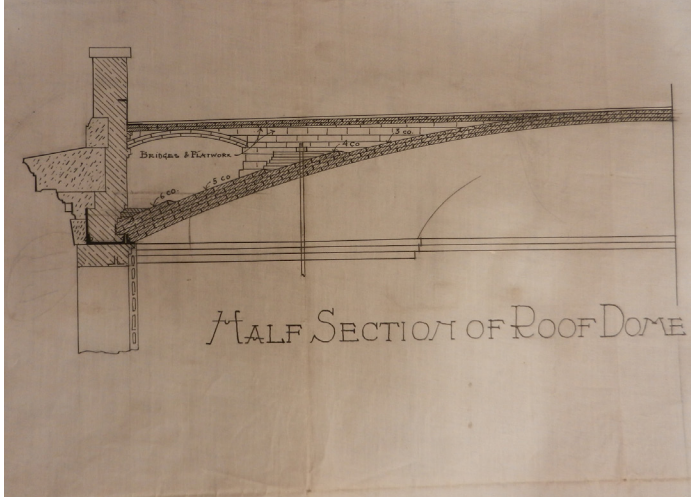
### B. HISTORY OF THE FACILITY

The facility was originally built as the Carmine Street Bath House in 1906-8. Designed in a Colonial Revival style, the bathhouse was part of a city-wide initiative to provide hygienic bathing facilities to New Yorkers, particularly newly arrived immigrants who crowded into tenements with inadequate bathing facilities.

The original structure from this time period consisted of a Guastavino tile-arch system for the floors and load-bearing masonry walls along the perimeter. Tubs and showers were located on two levels and a gym on the third. The bearing walls and the Guastavino arches of the original construction are clearly visible in the mid-section of the building.



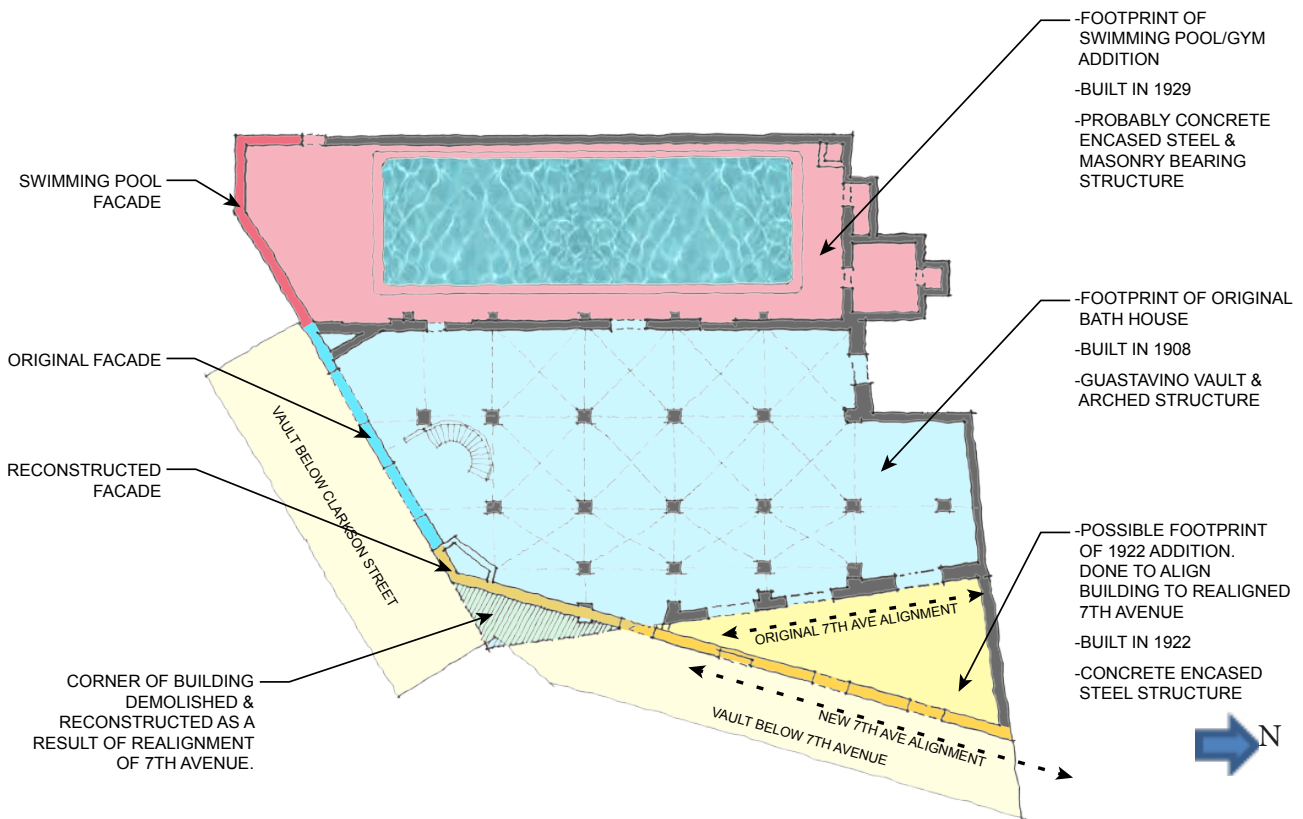
Carmine Street Public Baths as originally constructed, c. 1908



Detail of Guastavino tile arch ceilings for the Carmine Street Public Baths. Courtesy of Avery Drawings and Archives, NYDA. 1963.002.01273



7th Avenue Lobby - Guastavino tile arch ceilings



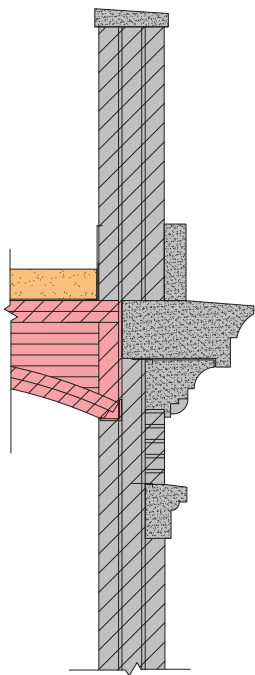
Chronological of Alterations to Tony Dapolito Recreation Center

Shortly after its original construction, the bathhouse underwent a major alteration that involved both demolition and addition. Between 1914 and 1917, the extension of 7th Avenue to Varick Street was re-aligned to the surrounding street grid and the northeast corner of the building, which stood in the way of the new alignment, was demolished. A new angular extension, completed in 1922, was constructed responding to the new orientation of 7th Avenue. This addition is masonry bearing wall similar to the original 1908 construction, but with concrete or concrete encased steel beams pocketed into the bearing walls to support a concrete floor slab.

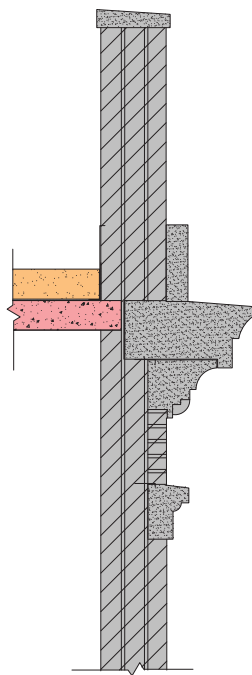
In 1929 a second addition was built on the western side of the original bathhouse and is constructed of concrete encased steel. This houses a first floor level indoor swimming pool with a gym above, and a loggia on the roof. The juncture between

this western addition and the original building is clearly visible at the basement, pool and the gym levels. The thick masonry bearing walls of the 1908 construction are independent from the adjacent concrete encased steel frame of the 1929 addition. Despite the separate construction systems, both spaces have continuous finishes without expansion joints.

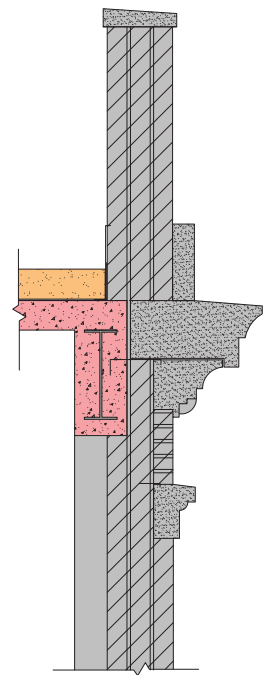
Over time, several additions were incorporated into the Tony Dapolito Recreation Center. In 1931 an outdoor pool was added to the west. The addition included an extension at the basement level to provide the pool equipment rooms beneath and around the 1931 pool shell. A third floor addition was added on a portion of the roof in 1982 and, a public work of art, a Keith Haring mural depicting aquatic scenes, was painted on the west wall adjacent to the outdoor pool.



1908 Guastavino Arch Construction - Bonded Brick Bearing Wall with Limestone Banding



1922 Construction - Bonded Brick Bearing Wall with Limestone Banding



1929 Construction - Steel Frame with Non-Bearing Brick and Limestone Banding

Assumed Exterior Wall Construction Methods at 1908, 1922 and 1929 Additions

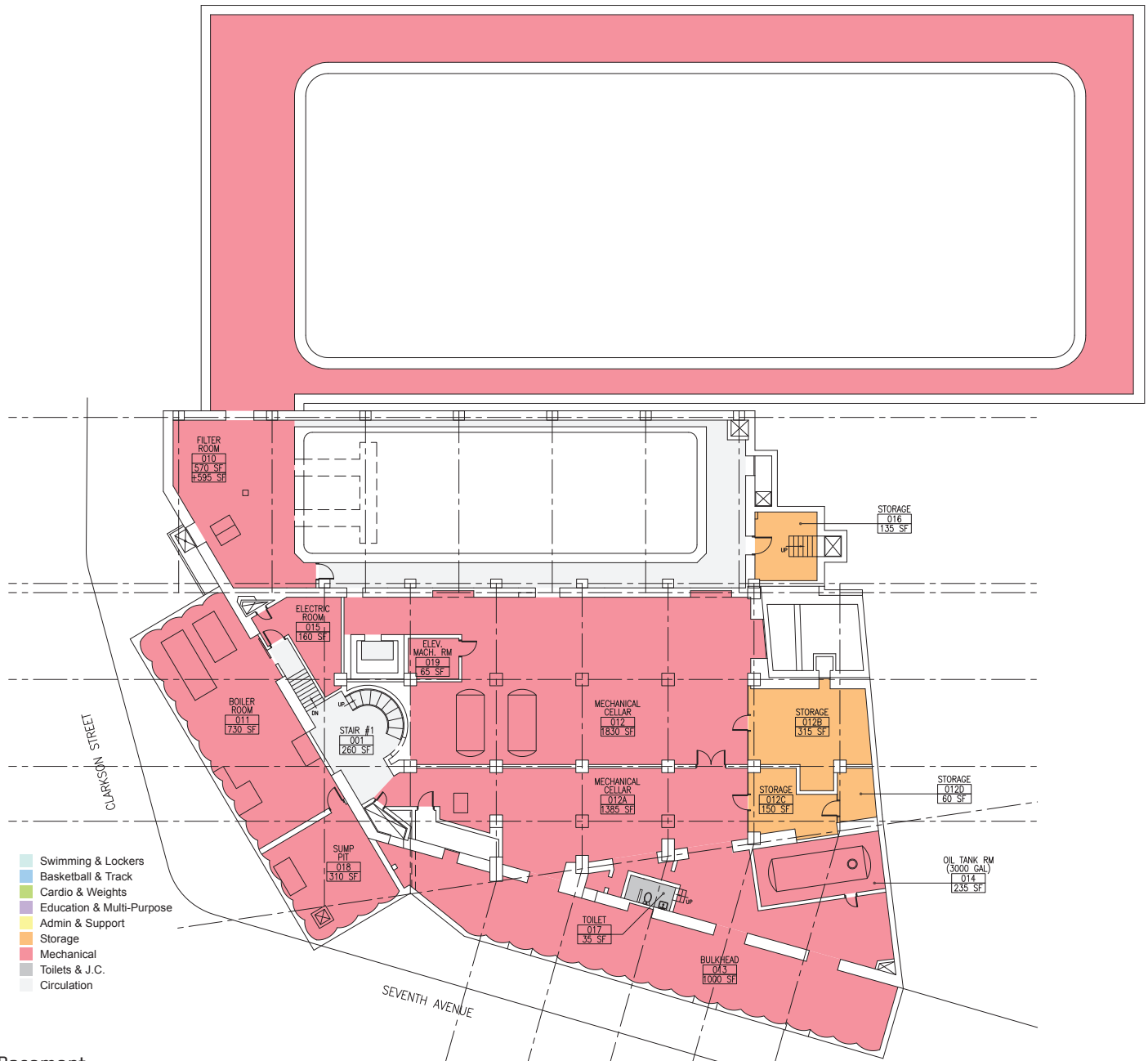
**C. EXISTING USE**

**BASEMENT:**

The basement houses mechanical spaces, the electrical room, elevator machine room, and pumps and filtration equipment for the swimming pools.

**FIRST FLOOR:**

The first floor primarily has three types of spaces – entrance lobby, locker rooms, and the indoor swimming pool. The existing main entrance is off of Clarkson Street and is accessed via outdoor steps and a three run, dog-leg ramp. A small reception desk, sized for being manned by one person, is located on one side of the lobby. An elevator is located behind the reception desk and a reception support space (Registration) is situated beyond the elevator. To the east of reception, a historic semicircular stair serves as the main



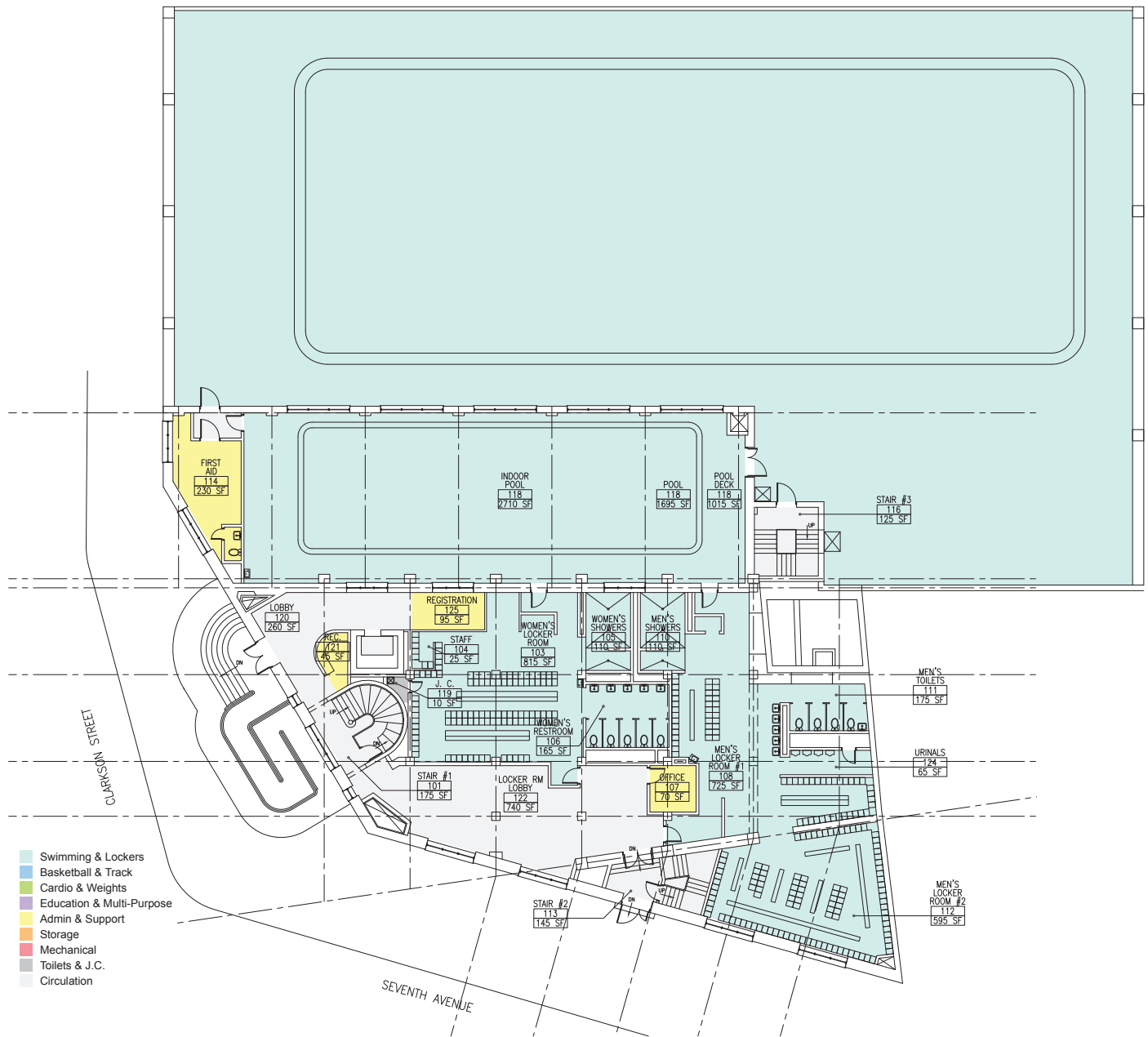
Basement

means of access to the upper levels. A waiting room with benches is located on the eastern side of the building facing Seventh Avenue.

The women's locker room is located to the south of the men's locker room. Both of these locker rooms are in tall spaces with Guastavino vaults. Within the locker rooms there are areas for toilets, sinks, and group showers. The toilets and showers do not meet current accessibility requirements. The men's and women's locker rooms each have a door opening into the indoor pool, located to the west. The indoor pool is opened

September through May. The pool side decks are very narrow and are not compliant with current codes.

The outdoor pool is open in the summer months only, when the indoor pool is closed. The outdoor pool is accessed through the indoor pool deck from the locker rooms. A temporary partition is installed too separate the indoor pool and the path leading to the outdoor pool. A small first aid room, manned by the life guards, on the southern end of the indoor pool, serves both the indoor and the outdoor pools.



First Floor

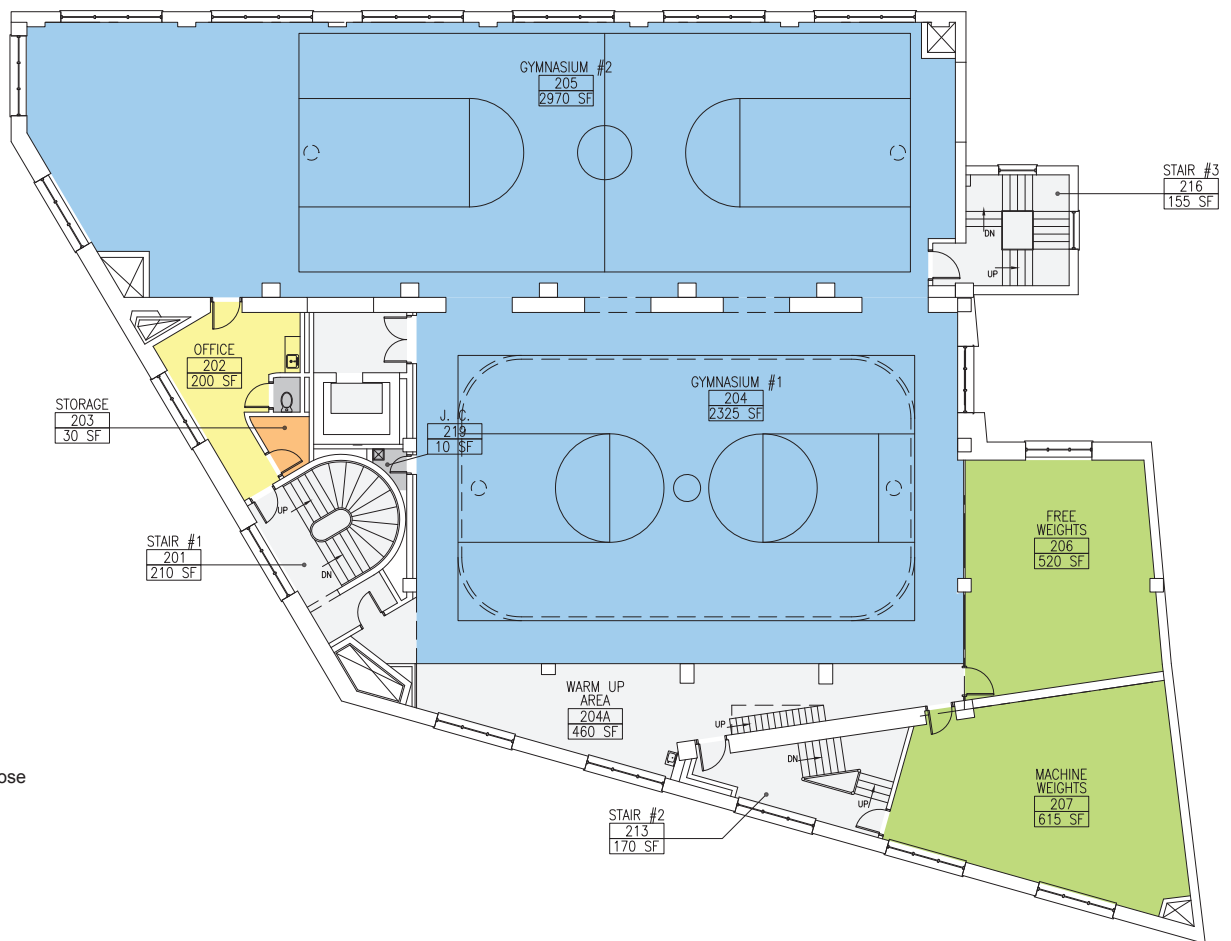
**SECOND FLOOR:**

The second floor is primarily used as gymnasiums with two basketball courts, fitness rooms, an office, and incidental corridors with cardio equipment.

On the second floor, an improvised office with a toilet and storage closet is located off the main winder stair. This is occupied by an official who manages the gym on this floor. Located behind the main stair and accessed through a vestibule, Gymnasium Number 1 has a small basketball court. To the west of this gym and directly above the indoor swimming pool is Gymnasium Number 2, which has a second basketball court and a small trapezoidal area at the southern end. This residual space is used informally for ping-pong tables and various activities, or for game spectators. Gym #2 is generally accessed by passing through Gym #1, however the aforementioned office by the main stair has a door that leads directly into Gym #2. Both basketball courts, especially the one in Gym #2, are also used for volleyball, badminton, dodge ball and other sports.



Second Floor - Gymnasium # 2



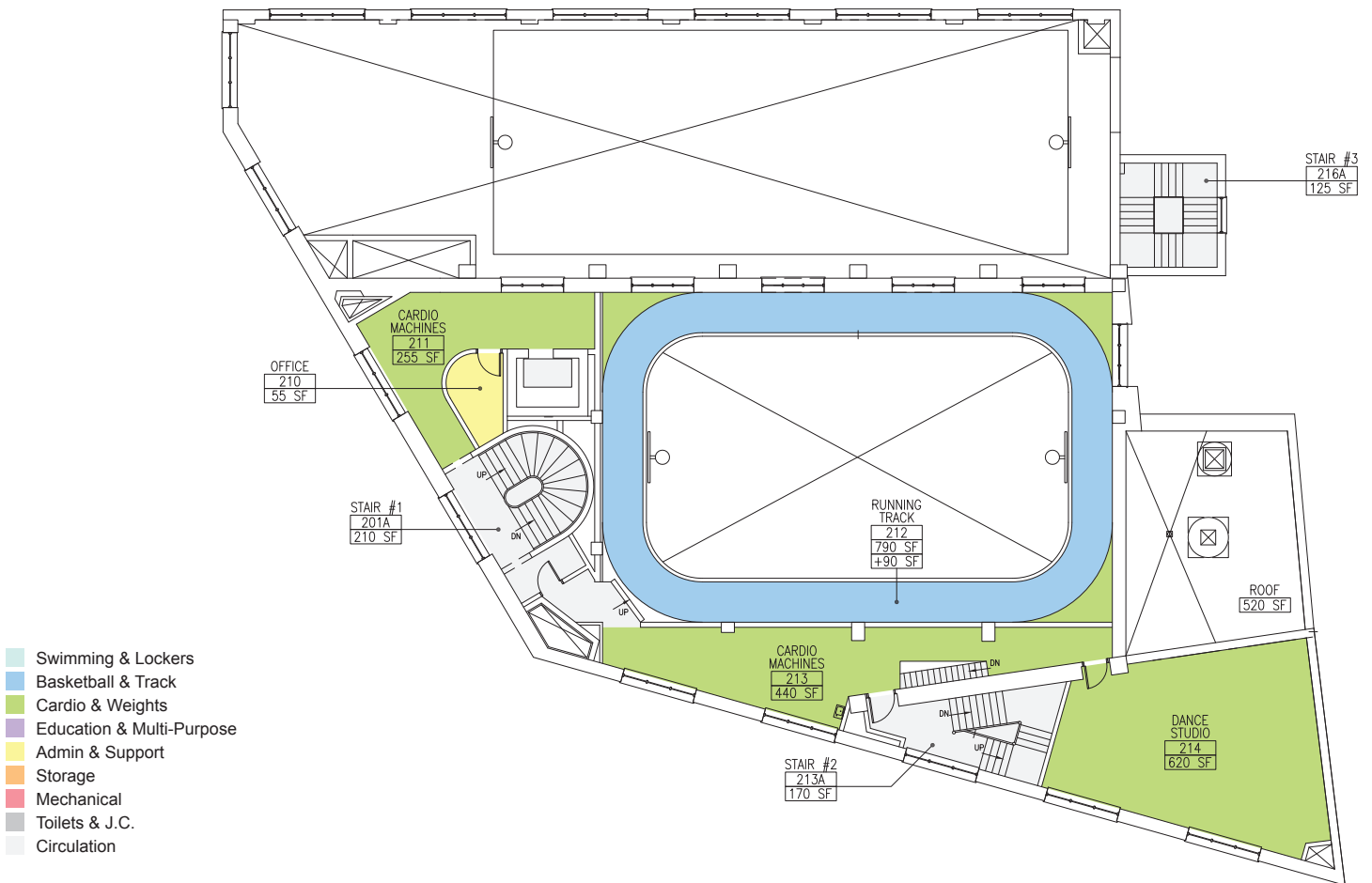
Second Floor

SECOND FLOOR MEZZANINE:

The second floor has a mezzanine level that is accessed by the main winder stair, the elevator, as well as a very narrow, 21” wide stair in the warm-up area off Gym #1. While serving as a second means of egress from the mezzanine level, this stair is non-code compliant. The main feature of the mezzanine level is a running track above Gym #1. Besides the track, there are several odd shaped spaces being used for cardio equipment around the elevator lobby and running track. Additionally, there is a 620 sf dance studio in a wedge shaped room at the northeast corner of the floor.



Second Floor Mezzanine- Running Track above Gymnasium # 1



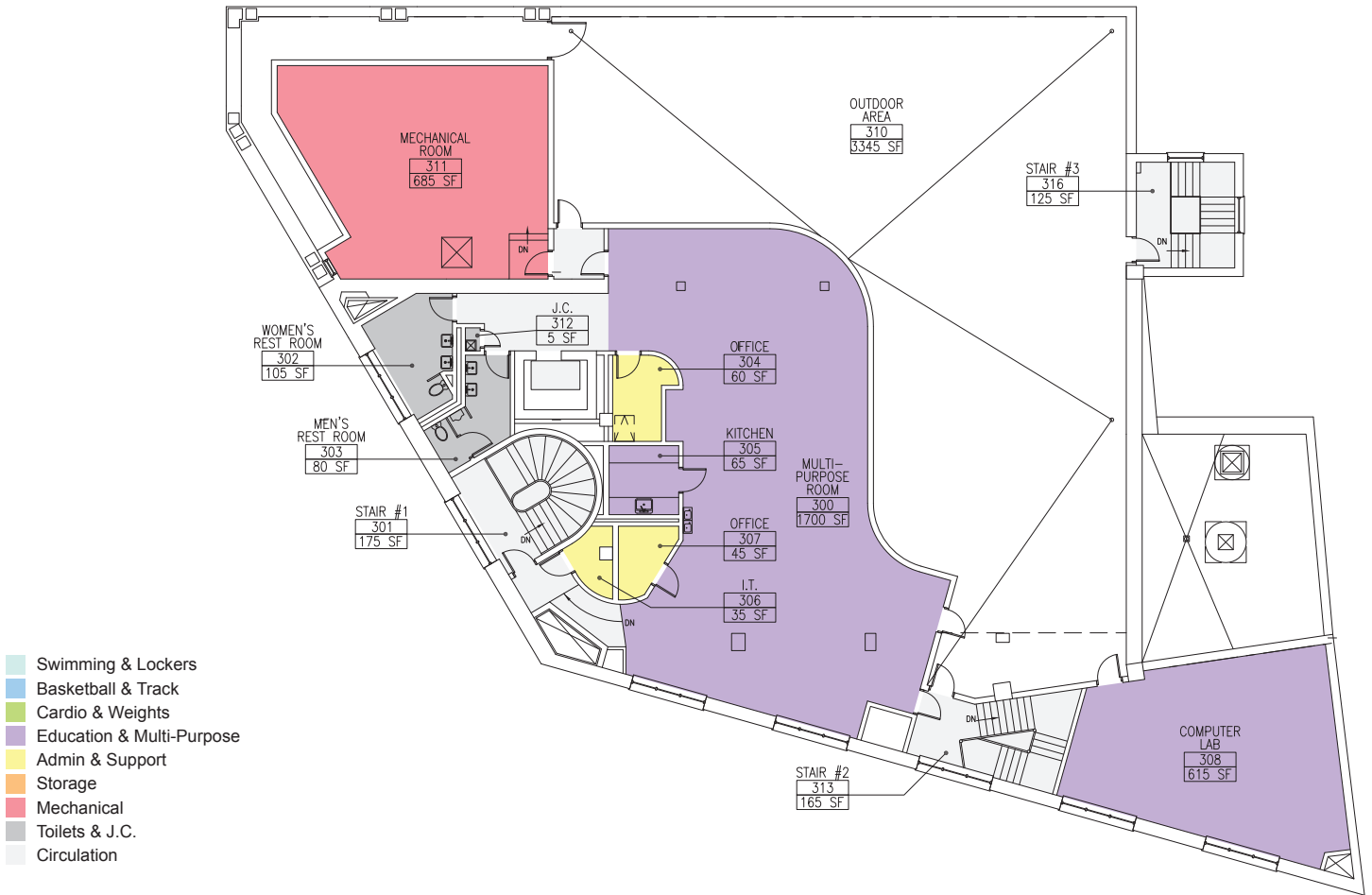
Second Floor Mezzanine

**THIRD FLOOR:**

The third floor is accessed via the main winder stair as well as the elevator. Two small rest rooms are located off the elevator lobby. A 1700 sf multi-purpose room constructed during a 1980's renovation is located north of the main stair and the elevator. This space is currently used for numerous types of programs including after school and summer children's activities, dance classes, GED classes, and community board meetings. The multi-purpose room overlooks the roof terrace which is used for outdoor activities and additional programs in the summer. A computer resource center is located in a trapezoidal room in the northeast corner of the floor. In addition to holding computer classes and providing free internet access, this room is also used as a GED classroom. The computer room can only be accessed from a partially-covered loggia that is open on the side. A large mechanical room is located in the southwest corner of the third floor. Presently, Egress Stair #3 on the northern side of the roof can only be accessed by crossing the roof terrace.



Third Floor - 1982 Addition and Playroof



Third Floor

**D. SUMMARY OF CONDITION**

Overall the Tony Dapolito building is in fair condition, with the exception of a few localized areas. The two areas that present the highest importance for repair are stair tower 3, and the rooftop colonnade/loggia at the southwest corner of the building (1929 addition). At stair tower 3, the upper portion of the interior stair construction and the exterior wall construction is badly deteriorated and could present a safety hazard if not stabilized. At the rooftop loggia there is extensive deterioration at parapets and limestone banding. Both of these areas could present a safety hazard if not stabilized in the near future.

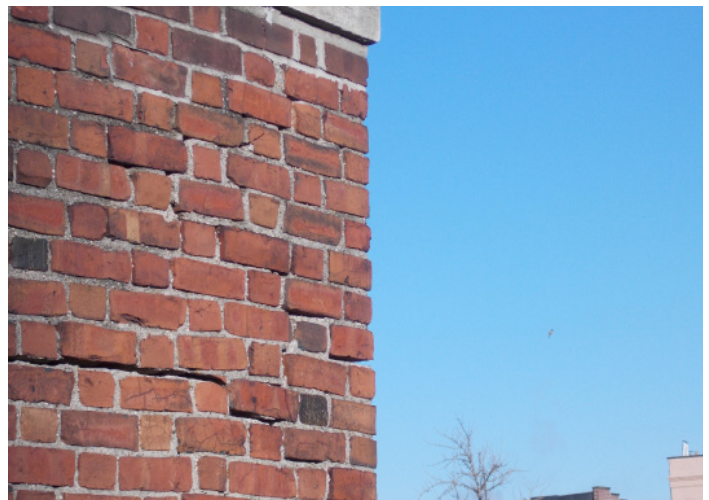
Of serious, but less critical consideration are the sidewalk vaults under Seventh Avenue and Clarkson Street, where water infiltration has caused considerable deterioration to the beams supporting the sidewalk. The condition of the main entrance ramp/stairs have contributed to the water infiltration into the vault areas due to lack of waterproofing and settlement gaps.



Stair Tower 3



Rooftop Colonnade / Loggia - Cracks at Limestone Band



Stair Tower 3 - Separation and Cracks at Parapet Wall



Deteriorated Structure at Sidewalk Vaults



Entrance Stair / Ramp - Open Joints Allowing Water Infiltration

Throughout the building the mechanical systems are at the end of their useful life and therefore the code required ventilation is not being provided. The pool equipment systems are also at the end of their useful life, which causes excessive humidity in the pool as well as associated finish deterioration. The pools are not equipped with safety drain covers as required by the Virginia Graeme Baker regulation, which prevent suction entrapment and evisceration at drains. The shell construction of both the indoor and the outdoor pools have deteriorated causing numerous leaks.

The exterior envelope of the building, including the parapets, windows, brick and limestone, is in fair condition except at localized areas. This work is not currently a safety issue and therefore can be delegated to a second priority repair status.

The interior of the building is worn, but in fairly good condition. There is an open joint between the original structure and the 1929 addition, where settlement has created a gap between the two structures; this is cosmetic and not a structural issue. The same can be said for a crack running transverse across the pool ceiling and the gym ceiling. These gaps are expansion related and although they are not a safety hazard at present, the tile finish may loosen and fall if the expansion joint isn't stabilized.



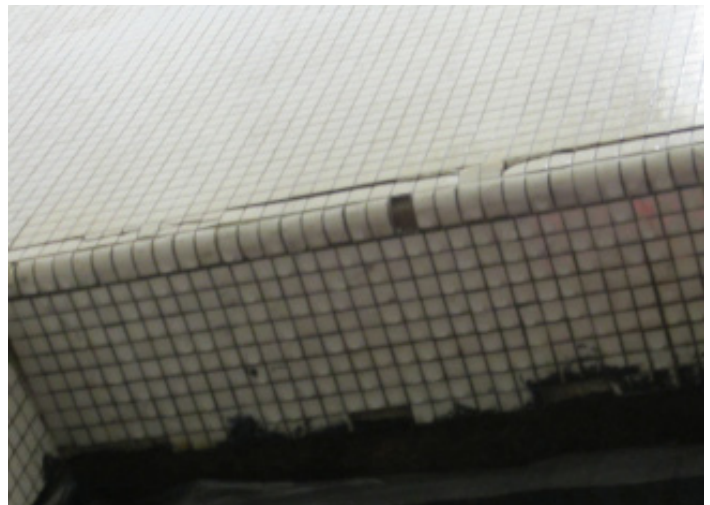
Gym Ceiling Expansion Crack in Tile Finish



Antiquated and Deteriorated Mechanical Systems



Expansion Separation between 1908 and 1929 Constructions



Excessive Humidity and Condensation on Pool Finishes

There are numerous elements of the existing building that would not comply with the current code, however these are typically allowed to remain as is, unless these building elements are renovated. The existing elevator is not sized to comply with accessibility requirements and is also at the end of its useful life, therefore it is recommended that the elevator be replaced with a larger, compliant elevator.

#### **E. ACCOMMODATION OF FUTURE NEEDS**

The major constraint for the facility is the limited physical space available for programs at the Tony Dapolito Recreation Center, which in turn limits DPR's ability to offer the size and number of programs that the community could sustain. The inefficiency in space utilization is partly a result of the incremental manner in which the building was constructed and added to over time, and partly the location of stairs and elevator which force a circuitous circulation path. If space can be added to the building it would reduce congestion, and could also provide a more straight-forward organization of the plan. The full Facility Needs and Space Utilization Assessment Report, dated 10 April 2015, is included in the Appendix. This report outlines options for reconfiguration and additions to meet the facility's utilization needs, but does not include any recommendations for repair or remediation of the existing structure. The proposed work outlined in this report is broken down into discrete actions, most of which may be done independently or combined with other actions to create larger projects.

There are three of general kinds of modifications that have been reviewed:

1. **Minor modifications to create efficiencies:** These suggestions include creating new openings to combine existing spaces, creating new circulation connections, and adding new equipment / lockers at the exterior to free up interior space.
2. **Additions:** Although there is very little area which would lend itself to an addition at the Tony Dapolito site, it is possible to add a space adjacent to the existing Stair #3 at the outdoor pool side of the building. (Refer to Diagram Priority 4 - Miscellaneous Modifications - Action A-1.8 in Section I) In addition, there are two roof areas which do not extend above the second floor. These two low roofs provide an opportunity to extend the building envelop upward to gain additional second floor mezzanine, and third spaces. (Refer to Diagram Priority 3 - Reconfiguration of Interior Spaces - Action A-1.3 and A-2M.2 in Section I)
3. **Reconfiguring existing spaces:** Due to the large footprint requirements of the main spaces in Tony Dapolito (pool, gymnasium and multi-purpose activity room), the majority of the space reconfigurations create minor improvements, with the exception of our recommendations for the first floor. As described in the programming and space utilization report, we recommend totally reconfiguring the first floor, by relocating the main entrance, lobby, and locker rooms and by creating a new first floor mezzanine. This new mezzanine level would house more locker rooms, and provide additional space while organizing a cohesive plan with clear paths of travel for the facility.

The options present a variety of possibilities, some more beneficial than others. In our recommendations and the cost estimate, we suggested which of the options should be implemented. Please note that several of the Program Need Assessment Modifications and Additions options are mutually exclusive of some of the Repair and Stabilization items.

**F. CODE**

As allowed under the current 2014 NYC Building Code, existing buildings constructed prior to the 1968 NYC building code, may be reviewed under the old code. The Tony Dapolito facility was constructed in 1908, and therefore has been reviewed for compliance with the 1916 NYC Building Code. For old code buildings, the 2014 NYC Building Code stipulates that, dependent on the amount and cost of renovation work completed in any given year, the new work may be required to be constructed in accordance with the 1968 building code and current accessibility requirements OR the entire building may be required to be brought up to compliance with the current code. This facility could not be brought into compliance with the current code without reconstruction of elements that are fundamental to the building structure (ie: replacement of all of the building staircases with non-winder stairs). Therefore we recommend that the Tony Dapolito renovation work be phased so that any alterations made within a 12 month period cost less than 60% of the replacement value of the building. Please refer to the Code Compliance Report.

There is no existing Certificate of Occupancy for the facility in the NYC Building Department or at the Department of Parks and Recreation archives. This is not required for a building owned by the NYC DPR, however it makes it difficult to gain approval for modifications from the NYC Building Department without proving compliance with the current building code. Therefore we strongly recommend that before any new work is undertaken, the owner should apply for a Certificate of Occupancy.



Indoor Pool - Non-Code Compliant Narrow Deck

The major building elements are handicapped accessible, however there are a number of areas where spaces do not comply with current NYC BC accessibility codes and ANSI A117.1, as required. These non-handicapped accessible elements include: the elevator (which is undersized), doors (which have inadequate pull/push clearances), stair handrails (in terms of profile, size, and extensions), and toilets / showers (which lack proper clearances).

The majority of the code compliance issues should be rectified when each of the areas are renovated (ie: adding building-wide ventilation, adding basement exit signage, removing storage in the exit path, providing an outdoor pool handicapped lift, and replacing miscellaneous door hardware). There are several elements that are compliant with the old code, but would not be acceptable under the 1968 or current code. These elements are typically a result of the era in which the building was constructed. For example, the main stair #1 is a winder stair, which would not be permitted today except for residential occupancy. As noted above, these elements can be maintained as-of-right if each alteration is phased to be under the required construction value.



Primary Egress Stair - Non-Code Compliant Winder Stairs

**G. RECOMMENDED SOLUTION**

We have classified the scope of work items into three categories: those relating to repair / stabilization (code/health/safety issues), capital improvements, and upgrades/additions. We then prioritized the work to complete the most critical items first, while grouping the work for efficient construction.

PRIORITY 1: CRITICAL ITEMS: STAIR TOWER #3 AND SOUTHWEST CORNER PARAPETS BY ROOFTOP COLONNADE / LOGGIA

Priority 1 recommendations address the most critical code/health/safety repair items.

Repair of Stair Tower 3 is of the utmost importance due to its extremely poor condition of both the interior stair construction and the exterior masonry walls. The stair is currently closed due to the poor condition; deteriorated treads and risers at the upper level could be a danger to occupants attempting to exit the gymnasium and the roof. The tower parapets and tie-beams are deteriorating and could eventually result in masonry falling onto the outdoor pool deck three stories below. In the cost estimate and the previous reports, we evaluated repairing this stair tower compared to rebuilding the stair tower in a new configuration. As the stair is the main egress path from the public assembly gymnasium space, and as the current stair configuration is not compliant with rise and run standards in the current building codes, we recommend rebuilding the stair to comply with the current codes. (Refer to Cost Estimate - Needs Assessment Modifications/Additions item A-1.7)

The rooftop colonnade/loggia at the southwest corner of the building (1929 addition) is the portion of the exterior envelope with the most severe deterioration. The open joints at the parapets have caused separation at the limestone banding below. As this area could present a safety hazard to anyone on the sidewalk below, we recommend repairing the parapets and resetting the limestone in the near future. (Refer to Cost Estimate - Repair and Stabilize items 3a, 4a and 4b.)

Please note that this Priority 1 work could be scheduled when the building is occupied, however a Fire Watch or temporary stair would be required for the duration of the stair tower 3 closure.



Priority 1 -Stair 3 Tower with Corroded Structure and finishes



Priority 1 -Stair 3 Tower with Separating & Canting parapet

PRIORITY 2: EXTERIOR ENVELOPE, SIDEWALKS / VAULTS, ENTRANCE STAIR / RAMP, MEP / POOL EQUIPMENT & POOL REPAIRS

In priority 2, we recommend the repair and replacement of the deteriorated structure of the sidewalk vaults under Seventh Avenue and Clarkson Street, as well as repair of the sidewalks. As the condition of the main entrance ramp/stairs significantly contribute to the deterioration of the sidewalk vault below, we also recommend rebuilding the main entrance ramp/stair. In the cost estimate and the previous reports, we evaluated rebuilding the main entrance ramp/stair in the existing location versus rebuilding it to create a new entrance



Priority 1 -Colonnade Loggia with Spalling Stucco & Open Joints



Priority 1 -Colonnade Loggia cracked and Spalled Limestone

location on Seventh Avenue. We recommend rebuilding the stair and ramp at a new location. (Refer to Cost Estimate - Needs Assessment Modifications/Additions item C.A-1.1)

We recommend replacing the building mechanical equipment and the pool equipment in Priority 2. The equipment should be connected to the existing duct work, with the exception of the duct work at the basement level, which is included in this Priority. The equipment should be sized for future Priority 3 program upgrades, but can be installed in this phase. By including the replacement of the mechanical equipment and the sidewalk vault repairs in one phase, the contractor can sequence the work to remove and replace the mechanical equipment when there is basement access through the sidewalk. This would minimize the cost for breaking down the existing equipment for removal and installing the new equipment through temporary sidewalk openings.

The indoor and the outdoor pools should be repaired under Priority 2 work. Although repairing the interior pool shell and finishes might be more convenient if it were included in Priority 3 along with the majority of the interior work, the current condition of the pool shell commands a more timely repair.

The exterior envelope of the building, including the parapets, windows, brick and limestone bands, should be repaired in this phase. Windows should be replaced, open joints in masonry filled, localized areas of spalled or missing masonry should be patched/repared/replaced, and sections of the brick facades should be repointed. By combining the majority of the exterior envelop work into this phase, the cost for scaffolding the building will be limited to one time.



Priority 2 - Sidewalk Vault - Deteriorated Structure

Please note that this Priority 2 work could be scheduled when the building is occupied if the work is sequenced. The contractor would have to leave the existing Clarkson Street entrance operational while the structural vault repair, sidewalk, and new entry ramp/stair on 7th avenue were completed. After completion of the new entrance, the contractor could finish the Clarkson street sidewalk repair and vault repairs.

PRIORITY 3: INTERIOR REPAIRS, RECONFIGURING EXISTING SPACES AND ADDITIONS

In Priority 3 we recommend renovating the majority of the interior building. This phase predominantly provides for the recommendations outlined in the Facility Need & Space Utilization Report as well as interior repairs that were not included in the previous priorities, such as providing soft joints in finishes at cosmetic expansion cracks. By reconfiguring the first floor, the circulation of the building could be reorganized and streamlined, additional space could be created with new mezzanine level locker rooms, a handicapped accessible elevator and lockers facilities, and (with a new entrance location as per Priority 2), a more spacious lobby could be created to facilitate better control and highlight the existing Guastavino arch structure. This would create additional space to accommodate administrative offices and a new program space.



Priority 2 - Masonry Settlement Causing Window Cracking



Priority 2 - Parapet and Coping Repair

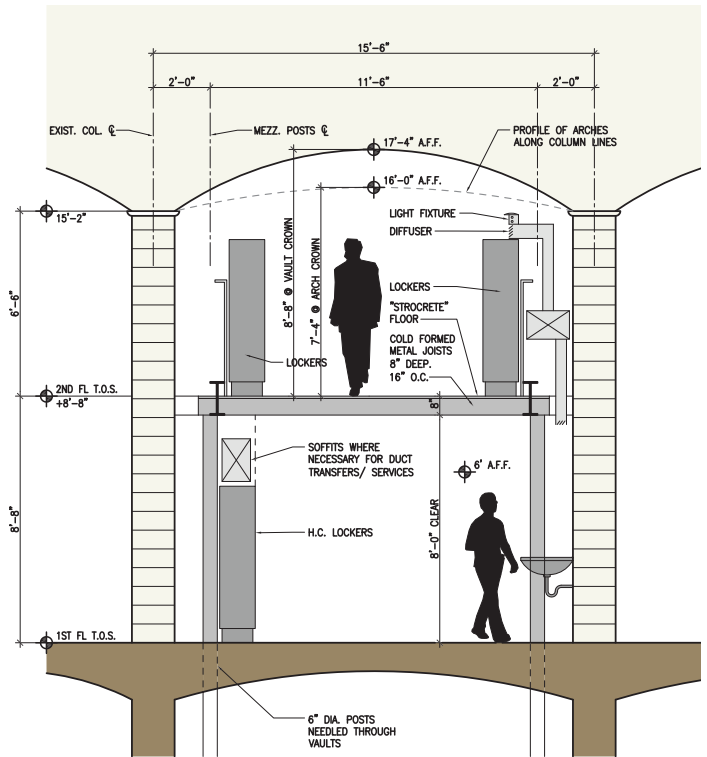


Priority 2 - Sidewalk Cracking above Deteriorated Vault Structure

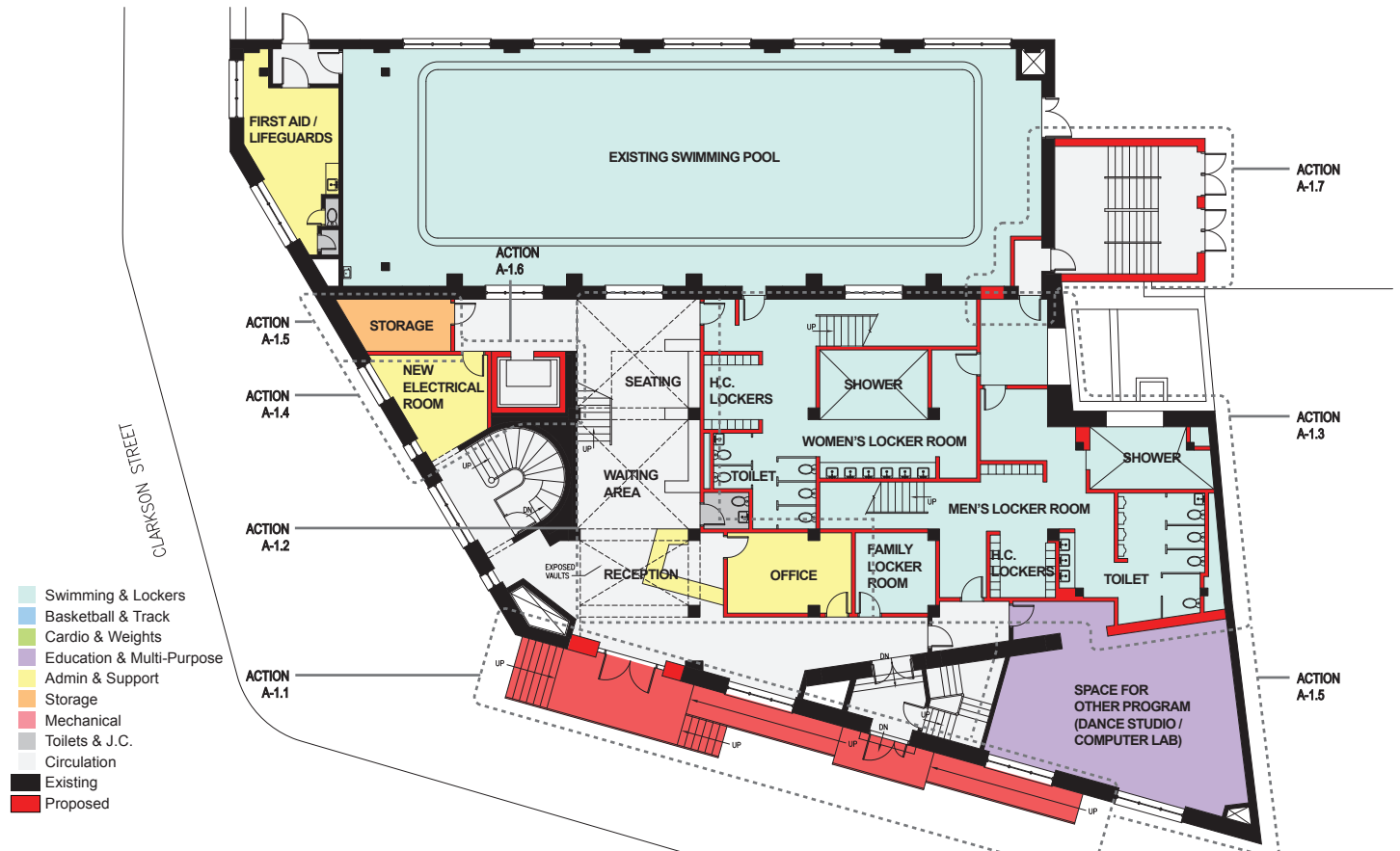


Priority 2 - Replacement of Antiquated MEP

On the second floor mezzanine level, a two level addition could be added over the free-weight room providing two additional, or one expanded, program space. This phase would require closing the building for the duration of construction, but would also provide the largest impacts: increased program space, more efficient space utilization, and upgraded facilities to support the facility program for the next 50 years. (Refer to Cost Estimate - Repair and Stabilize items A-8, A-13, A-15; Capital Improvement items B-1, B-4, B-8; and Needs Assessment Modifications/Additions items C.A-1.8, C.A-1.9)



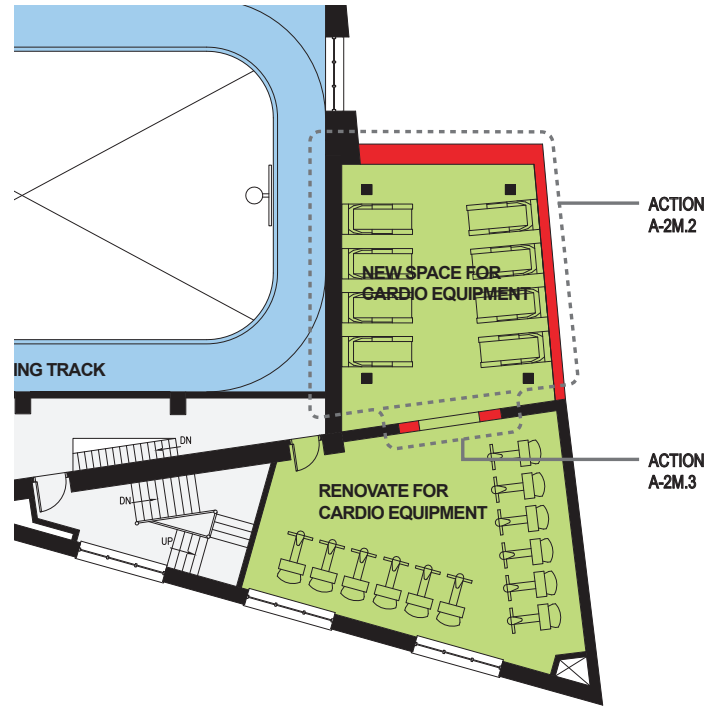
Priority 3 - Reconfigure Interior Spaces  
Recommendation A-1.3 Create New First Floor Mezzanine



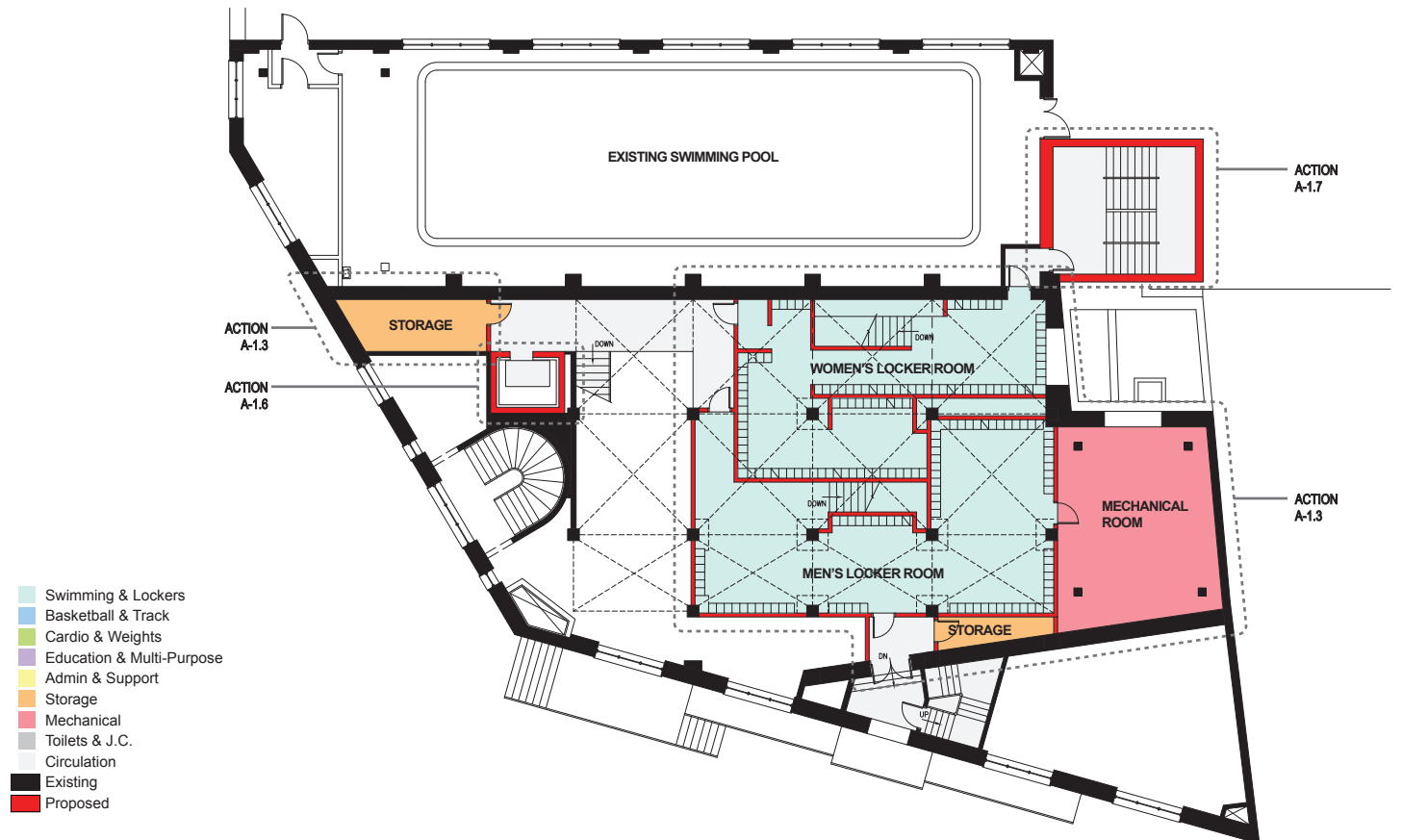
Priority 3 - Reconfigure Interior Spaces - First Floor

**PRIORITY 4: MISCELLANEOUS UPGRADES**

The upgrades designated under Priority 4 could be combined with an earlier phase or completed at any time. This includes: repairs to the outdoor pool sidewalk, walls, and fence; basement level door repairs; and adding lockers at the exterior pool. This phase also includes a one story addition for a new first aid room and reconfiguring an interior corridor from the lobby to the outdoor pool. This work is only recommended if the facility determines that a direct connection from the outdoor pool to the lobby is needed. Although the first aid room addition could be constructed at any phase, the modification for the corridor to the outdoor pool could only be accomplished in conjunction with Priority 3 work or later.



Priority 3 - Reconfigure Interior Spaces  
 Recommendation A-2M.2 Create Two Story Addition on Low Roof



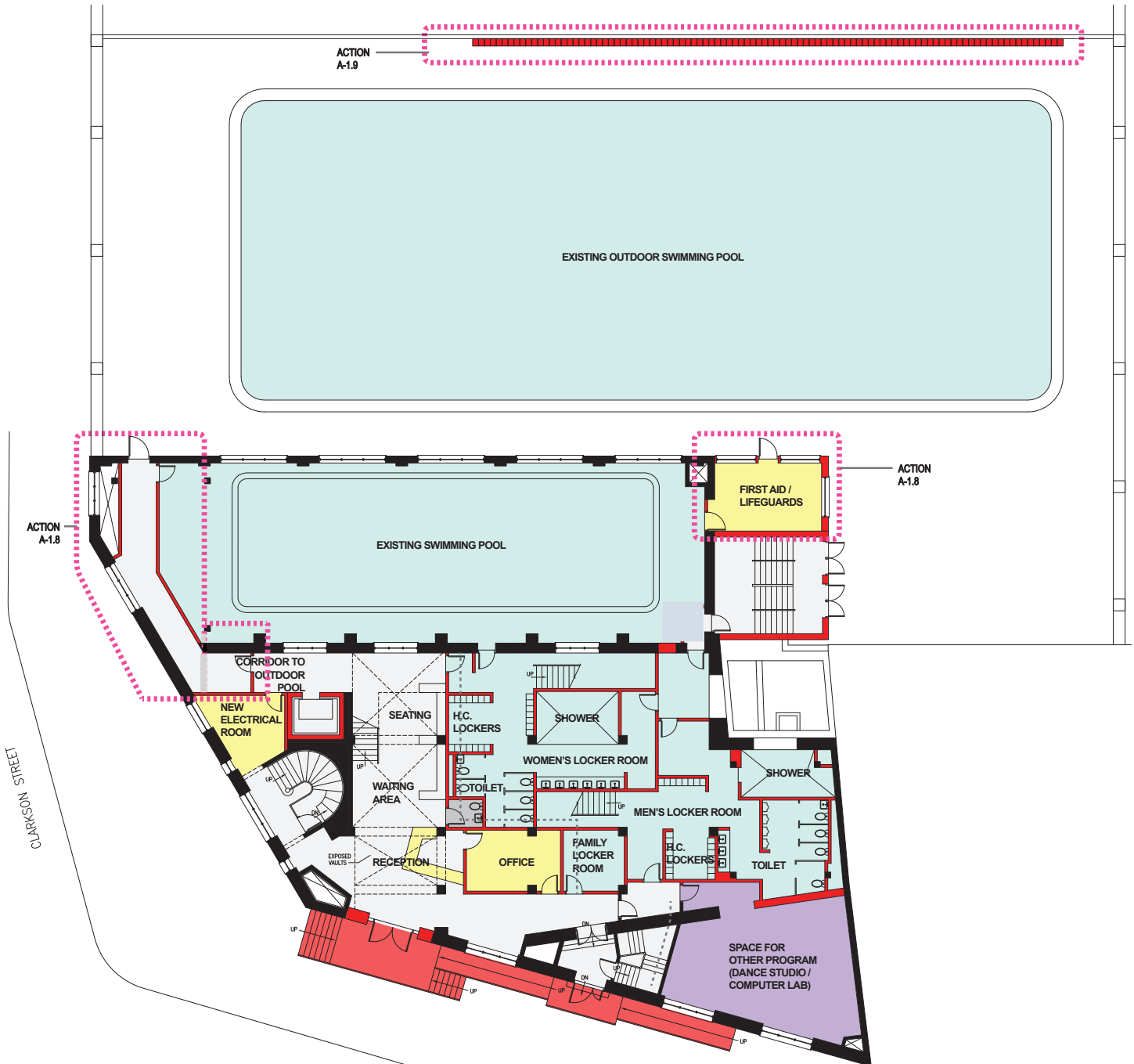
Priority 3 - Reconfigure Interior Spaces - First Floor Mezzanine

**H. SUMMARY OF COST**

The cost estimate is included in section IV of the Report and was prepared by Cost Concepts based on the recommendations provided herein and the Facility Needs & Space Utilization Assessment Report Task 4.

This conceptual cost estimate has been developed for each recommendation for repair/stabilization (code/health/safety issues), upgrade/capital improvement, and each needs assessment modification/addition task. These task items have been grouped and prioritized based on importance and to achieve economies of scale.

Design documents should be funded and awarded a minimum of 2 years prior to the construction start dates, as indicated herein.



Priority 4 - Miscellaneous Modifications - First Floor Options

Summary of Cost Estimate:

Qualifications:

1. This estimate is based on escalated prevailing wage construction costs and does not include:
  - Lead paint removal / PCP removal / universal waste / hazardous material removal -Unless Otherwise Noted
  - Furniture / furnishings / equipment (FFE)
  - Land costs / financing
2. Escalation at the rate of 0.33% per month is added from the date of this estimate to the start of construction for each priority package (as listed above). Escalation of 0.33% per month is a current factor and it is subject to change. Should the schedule change, escalation should be adjusted accordingly.
3. This estimate is based on work being performed during regular working hours (other than noted).
4. This estimate is based on work performed by general contractor for each priority package as a separate contract. CM fee (if any) is not included.
5. This estimate includes mark-ups for each individual priority package as a separate construction bid.
6. Costs that appear within this estimate are specific to this project.
7. This estimate is based on current market conditions.
8. This estimate is based on 5 or more bids (for each of the priority packages as separate contracts), received via a competitive bidding process.
9. Moving and relocation costs are not included.
10. This is an itemized conceptual estimate and it is based on allowances and approximations, a further detailed estimate is required as design progresses.
11. This estimate is based on the space being unoccupied during interior construction.

12.

Mark-ups:

The estimate costs summarized herein include the following mark-ups:

General Conditions (varies depending on the magnitude of the phase's direct cost)

- Priority 1: 15%
- Priority 2: 12%
- Priority 3: 10%
- Priority 4: 20%

Overhead & Profit (varies depending on the magnitude of the phase's direct cost)

- Priority 1: 21%
- Priority 2: 18%
- Priority 3: 15%
- Priority 4: 30%

Escalation to start of Construction (varies depending on the phase's start date)

- Priority 1: 5.28%
- Priority 2: 13.20%
- Priority 3: 21.12%
- Priority 4: 33%;

Design Contingency: 20%

Soft Cost Mark-ups:

- Construction Contingency: 10% of Construction (Hard) Cost
- Percent For Art: 1% of Construction (Hard) Cost
- Special Inspection: 2% of Construction (Hard) Cost
- Commissioning: 0.5% of Construction (Hard) Cost
- CM Fee: 3% of Construction (Hard) Cost
- Design Fee: 6% of Construction (Hard) Cost

Summary of Cost per Priority Phase

Priority	Schedule	Construction Direct Cost	Costruction Cost	Project Cost
Group	Construction start	Labor and Material only	Including markups	Including soft costs
Priority 1	1/2017	\$ 1,318,450	\$ 2,317,790	\$ 2,839,292
Priority 2	1/2019	\$ 4,242,528	\$ 7,810,085	\$ 9,567,355
Priority 3	1/2021	\$ 8,461,934	\$ 15,558,125	\$ 19,058,704
Priority 4	1/2024	\$ 354,380	\$ 882,321	\$ 1,080,843
<b>Total</b>		<b>\$ 14,377,292</b>	<b>\$ 26,568,321</b>	<b>\$ 32,546,194</b>

Note: Alternate costs are not recommended and/or are mutually exclusive of other selected recommendations. The cost for these not-recommended items, excluding Mark-ups - General Condition, Overhead & Profit, Escalation, etc., is \$1,063,894.

## II. INVESTIGATION

### A. EXISTING CONDITION REPORT

#### 1. ARCHIVAL RESEARCH

The design team researched the NYC Department of Parks and Recreation's archive and the NYC Department of Buildings for relevant drawings. Background floor plans and elevations of the existing building as well as documentation from the 1938 exterior pool addition and the 1982 third floor addition were found. Additional information was sourced from the Landmarks Preservation Commission and historic Brickbuilder magazine. These documents provided information on as-built construction and subsequent modifications. No information was available at the Department of Buildings and a Certificate of Occupancy is not available.

#### 2. PROBES

In order to evaluate the condition of the building structure, visual inspections identified locations where subsurface probes were required. Probes were completed in April and June, 2014 at the interior and at the exterior, including sampling and material testing. This information was cataloged in the Building Investigation Summary Report - Task 2.4.

Additional inspections and material sampling were undertaken in the autumn of 2014 by Environmental Planning and Management, Inc for the purpose of identifying asbestos containing materials, lead containing paint, Universal Wastes and PCB containing Light Fixture Ballasts.

#### EXTERIOR SUBSURFACE PROBES

Elements of the exterior facades including limestone banding, cornices and parapets, are covered with protective netting, which limits access for visual inspection of the exterior facade. Therefore in July, 2014, the team, aided by Sharon Construction, performed localized inspections. These inspections included removing portions of netting, accessing, photographing and, where applicable, removing loose sections of material to examine substrate conditions, then patching and reinstalling the netting.

Based on the amount of damage found in the representative areas examined, we have extrapolated the amount of repair required to the entire area. For example, the design team viewed 160 sf of the limestone banding at the 1929 facades. Of this, 32 SF requires replacement, which equals 20% of the limestone banding viewed. Therefore, we project that 20% of



Limestone Dentil Molding at Cornice (Temp Safety Net Removal)

the total SF of that material will also require replacement.

As previously noted, the building was constructed in 1908 then added to in 1922 and 1929. As such, the facade has three different construction methods and material variations. Material samples were tested from each of the three building areas and the percentage of repair or stabilization has been estimated for each of the three areas.

The façade is brick with decorative limestone arches, banding and cornice. The brick is laid in Flemish bond with glazed headers and sits on a stone foundation. Arches with molded keystones frame the entrance doors and first floor windows. Windows are multi-lite and include both double hung and fixed sashes. The windows at the second/mezzanine level are framed by flat surrounds and surmounted by continuous molded lintel with double keystones. There is a molded, denticulate cornice; open-air roof pavilion supported on grouped piers with molded plinths and capitals; square stair tower with corner piers and stone parapet.

At the 1908 and the 1922 facades the construction is bearing, 3 layers of bonded brick with limestone set back and anchored to the brick. The 1929 addition on the West is constructed of concrete encased steel with brick and masonry anchored back to the steel. The 1982 rooftop addition is enclosed in metal curtainwall and spandrel panel construction.

TABLE 1 - PROBE INVESTIGATION SUMMARY

DESCRIPTION OF WORK – REASON FOR PROBE	FINDINGS
Probes at Gym & 3rd Fl:	
<ul style="list-style-type: none"> <li>Drill 1/2" Pilot Hole to verify material is solid brick or until steel is found. (2 locations)</li> </ul>	The pilot holes were taken and steel was found.
<ul style="list-style-type: none"> <li>Cut 24" x 24" opening in decorative tile ceiling at crack location. Expose Slab and structure above ceiling for examination of structure. (1 location)</li> </ul>	The decorative tile ceiling was observed to be hung from the underside of the existing slab structure/. The existing slab structure was in satisfactory condition with little to no spalling or exposed reinforcement observed.
<ul style="list-style-type: none"> <li>Provide 15" x 15" opening in decorative tile wall at crack location. Expose column and column/beam connection for examination. (1 location)</li> </ul>	The existing column was observed and it was in satisfactory with no section loss observed.
<ul style="list-style-type: none"> <li>At 3Fl Multipurpose Room - Removed 2' x 2 area of VCT and subsurface to expose floor slab at crack to determine condition of substrate.</li> </ul>	The slab was exposed and found to be in good condition.
<ul style="list-style-type: none"> <li>Cut 24" x 24" opening in soffit enclosure. Ex-pose duct and structure above for examination. (1 location)</li> </ul>	The structure was located beyond the soffit enclosure. The structure was observed to be in satisfactory condition.
<ul style="list-style-type: none"> <li>Additional Probe requested: 24" x 24" probe into ceiling/wall juncture to examine large opening. Verify structural connection</li> </ul>	The existing structural connection was exposed and observed to be in satisfactory condition with no rust or corrosion or loss of section observed.
Exterior:	
Pool side and West side of Clarkson Facades	
<ul style="list-style-type: none"> <li>Remove netting for visual inspection of cornice and banding - reinstall after inspection (4 locations)</li> </ul>	No sample taken from west end of Clarkson. A sample of limestone was taken from the east corner above the second floor window. There is a large ¼" crack running from the top of the limestone banding through to the bottom. A limestone sample was taken from the pool side south location of the parapet where the stone was displaced at the pilaster. The back-up masonry is in good condition.
<ul style="list-style-type: none"> <li>Scrape off loose salt and place in clean container for Salt Identification Test. (2 locations)</li> </ul>	Samples of the efflorescence were taken at two locations. Refer to testing results.
<ul style="list-style-type: none"> <li>Collected sample of Limestone for Petrographic Analysis (3 locations)</li> </ul>	Limestone samples were taken at three locations. Refer to testing results.
East side of Clarkson & 7th Avenue facades	
<ul style="list-style-type: none"> <li>Water Spray Tests to determine if water is infiltrating to basement from openings in entrance stair and ramp.</li> </ul>	Spray test 1 and 3 at the ramp and ramp connection to the building both resulted in water entering the sump pit vault. The lack of waterproofing at this location contributed to the Storm-Sandy water infiltration. Test #2 at the steps result in no additional water infiltration.
<ul style="list-style-type: none"> <li>Remove netting for visual inspection of cornice and banding - reinstall after inspection (5 locations)</li> </ul>	The north corner façade of Seventh Avenue has a long vertical masonry crack from the second floor up to the third. The crack continues through the limestone banding. Segmenting the limestone into 4 pieces. One piece was removed as a sample. The backup masonry was in fair condition.
<ul style="list-style-type: none"> <li>Collected sample of Limestone for Petrographic Analysis (4 locations)</li> </ul>	Brick and limestone were taken from the north corner at Seventh Avenue.

INTERIOR SUBSURFACE PROBES

A summary of the probes and findings are indicated in Table 1. This table summarizes the probe locations and results with reference to the probe location drawings included in the Building Investigation Summary Report.

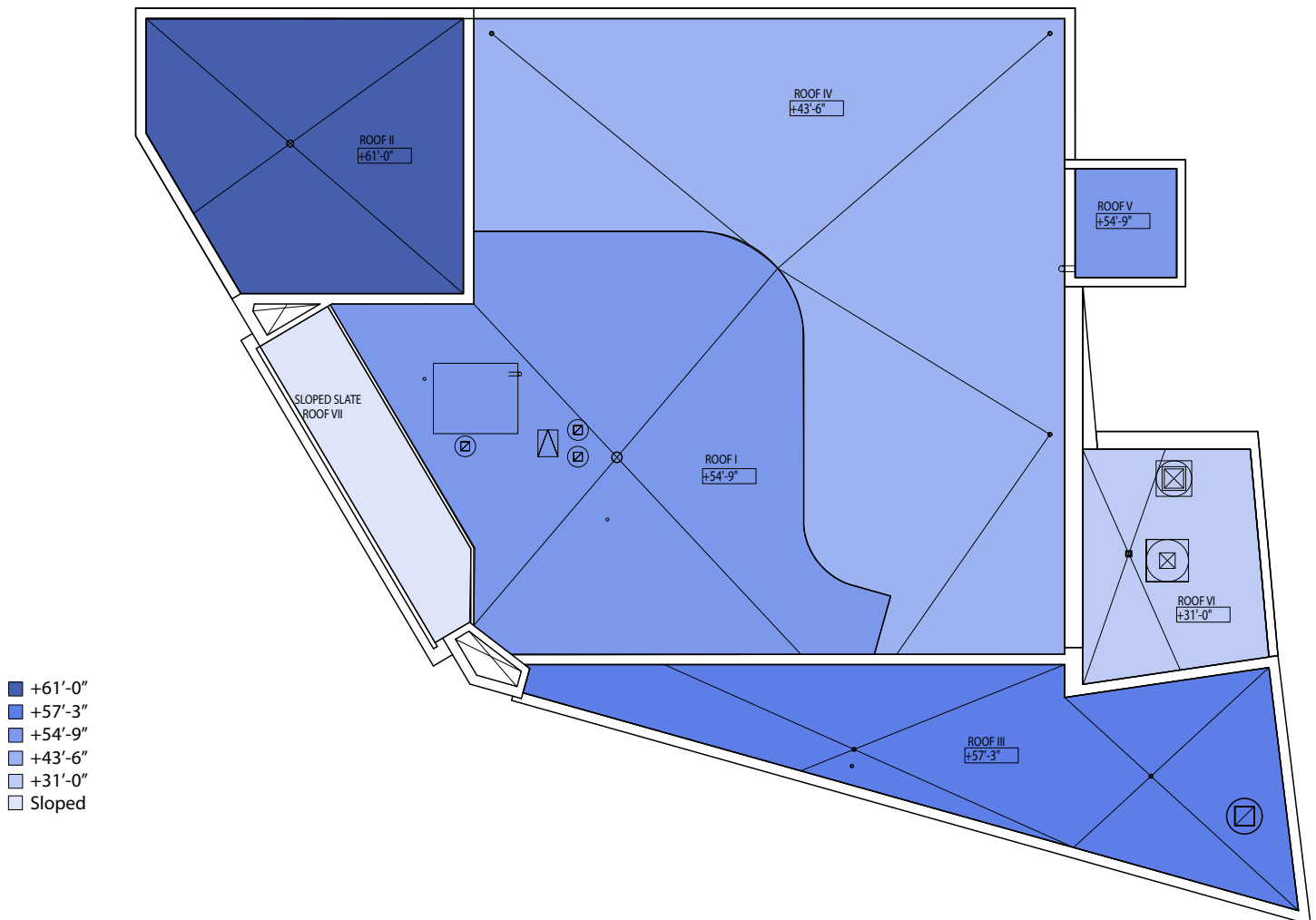
3. TESTING

HAZARDOUS MATERIAL SURVEY AND TESTING

Visual inspections and sampling were undertaken in October and November 2014 by Environmental Planning and Management, Inc. (EPM) for the purpose of identifying asbestos containing materials, lead containing paint, Universal Wastes and PCB containing Light Fixture Ballasts. The results are documented in the Task 3 Hazardous Material Investigation Report.

*Asbestos Containing Material*

EPM inspected all accessible areas and structures within the building for the presence of asbestos containing material and found that the following items contain asbestos:



Roof Plan

*At Exterior Masonry and Roofs*

- Roof III: Parapet mastic, roof base, drain and vent flashing
- Roof I: Light gray repair caulk at the cap flashing at the southeast parapet wall and Black dense old caulk (beneath the light gray repair caulk) at the cap flashing at the southeast parapet wall
- Mastic at the top of the larger eastern chimney on the south side of the roof;
- Black mastic (newer) adhered to the slate tiles on the slate tile roof;
- Old, dark gray mastic at the slate roof tiles and at the seams between the copper flashing and brick wall;
- Black/gray Caulk at the east side of the slate roof, at the seam of the roof and brick wall;
- Black mastic used as a patch at the corners of Roof V above the cap flashing;
- Roof base flashing on Roof VI;
- Black mastic at the north parapet wall of Roof VI, at the seam of the parapet wall and the attached building to the north.

*At Windows*

- Black interior window caulk at the vertical seam (between the window frame and the window opening) of the gymnasium windows;

*At Basement*

- 10" dark grey flange gaskets at south end of the 1922 building basement;
- Aircell pipe insulation at the south wall of the filter room for the indoor pool;
- Interior Finishes
- 12" x 12" tan vinyl floor tile with off-white specks at storage room offices on mezzanine and second floor to the west of the main staircase and in kitchen and adjoining offices on the third floor;
- 12" x 12" light tan vinyl floor tile located on the majority of the third floor; and
- Black mastic associated with 12" x 12" light beige vinyl floor tile in the third floor, computer lab room 308.

Some materials were assumed to be asbestos containing in areas where there was no access for sampling without destructive means, including fire insulated doors, waterproofing mastic within the exterior masonry walls, pipe insulation in chases and/or within walls behind bathroom fixtures, live electrical components (wiring and electrical panel components), waterproofing material under wood floors, interior and exterior pool body and interior pool deck, beneath ceramic floor tile setting beds in rest rooms and locker rooms and beneath terrazzo flooring in various areas such as lobbies and offices. The red Kemper roof at the main third floor roof level (referred to as Roof IV in the HazMat report) was not included in the scope of work since DPR indicated the roof had been replaced in 2012 and will likely not be impacted. Additionally, the slate roof was not cored, however accessible materials were investigated.

*Universal Waste*

Universal Wastes and Miscellaneous Hazardous Materials were identified at many locations within the probable work area, which will require proper handling and disposal prior to any demolition/construction work. These include fluorescent, compact fluorescent and incandescent light bulbs, metal halide bulbs, electrical circuit boards, lead batteries, refrigerant gas, various oils and solvents and fire extinguishers. Many of these materials are used during daily maintenance and may not need to be discarded prior to any renovation work.

*Lead-Based Paint*

All accessible paints were investigated for lead content and the findings are summarized in Table III of the Hazardous Material Investigation Report. Lead containing paints were identified at thirty-five (35) of the fifty-five (55) suspect locations, with many paints located in the basement and in stair # 3 (216A) being found to have very high lead content .

*PCB-Containing Caulks*

All exterior caulks and putties, and all interior caulks and putties associated with façade openings affected by the project, were sampled and analyzed for the presence of PCBs. None of the caulks collected contained PCB concentrations at Hazardous Waste levels.

HISTORICAL MATERIALS TESTING

Material samples were removed from the Tony Dapolito Recreation Center by Jablonski Building Conservation, Inc. The samples of the various mortars and limestones typical for each building area were catalogued and sent to Highbridge Materials Consulting for petrographic analysis. Sample locations are located in the Task 3.2 – Laboratory Testing Results and Summary Report.

*Mortar*

Six mortar samples were removed for testing, including original and repointing mortar from the 1908 portion of the building, the 1922 addition, and the 1929 addition.

Petrographic analyses suggest that the mortar at the Tony Dapolito Recreation Center is in good condition. The original mortars are thought to be compatible with the original brick for each era of facade work. However the cement-rich repointing mortars are characteristic of a modern-day type M or S mortar, which is significantly harder and less permeable than the lime-rich mortars originally used during each period of construction. This may be cause for concern, particularly on the Seventh Avenue façade, which has been almost entirely repointed with this material.

The high compressive strength of the repointing mortar may lead to cracking and spalling of the softer brick when the wall is subjected to changes in compressive forces, such as thermal expansion and contraction. Field evidence and petrographic analysis of the mortar suggest that the brick and repointing mortar are incompatible.

The low permeability of the repointing mortar will cause evaporation to occur through the brick, which may be contributing to the current formation of efflorescence on the brick. Cyclical hydration and recrystallization of soluble salts within the pores of the brick can cause the pore walls to rupture, resulting in cracks and erosion.

*Limestone*

Three broken pieces of limestone were removed from each façade, representing the three periods of construction. Petrographic analysis was performed on the samples in order to characterize the mineralogy, sedimentary fabric, and microstructure of the material. Identifying these characteristics helps determine whether limestone cracks and spalls on site are the result of material failure or structural issues.

All three limestone samples are similar in quality, microstructure, and appearance. They appear to be Indiana limestone, with moderate density, moderate porosity, high calcium content, and very little silicate material. There is no evidence of distress in any of the examined samples.

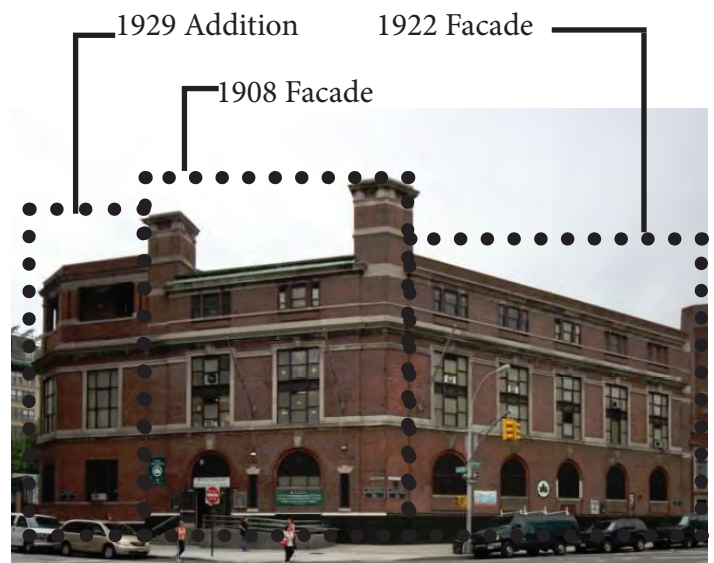
4. EXISTING CONDITION SURVEY

ARCHITECTURE

*Exterior*

At the exterior of the Tony Dapolito Recreation Center minor variations in the building’s materials reflect three different dates of construction. The south façade faces Clarkson Street and includes the original 1908 façade at the eastern side and the 1929 addition at the west side. The east façade along Seventh Avenue was completed in 1922. The west façade is solely on the 1929 addition. An outdoor pool was added to the west of the building in 1931. All three building sections are constructed with a red brick field and limestone water tables, keystones, window surrounds and cornices. The common red brick is laid in Flemish bond with clinker brick headers. The limestone base has been painted.

Because the exterior facade limestone banding, cornices and parapets are covered with protective netting, we temporarily



Three Eras of Facade

removed portions of the netting to assess a representative sample of each material and condition at each of the three building sections: 1908, 1922 and 1929. At the joint between the original 1908 construction and the 1929 pool addition, there is a vertical crack and spalled bricks, indicative of differential movement at the juncture of the two building systems. This also occurs, but to a lesser extent, at the Clarkson Street façade joint between the 1908 and 1922 facades.

#### Masonry:

**1908 Construction:** The brick and mortar from the original façade appears to be in good condition, except for minor cracking and brick spalling at limited locations on this façade. The limestone and mortar are also in good condition.

**1922 Construction:** The brick is weathered along the Seventh Avenue façade with areas of spalling, but the overall condition is fair. This Seventh Avenue façade has been almost entirely repointed with more current mortar, which may be contributing to cracking and spalling of the softer brick at this façade. Open mortar joints and efflorescence on the brick are visible above the first floor windows which correspond to the open joints in the limestone above. The limestone is in good condition, but there are many areas with open limestone mortar joints.

#### 1929 Construction:

The brick and limestone at the pool addition is in poor to fair condition. There are vertical cracks below each window at the Clarkson St. façade, which have affected the window condition and operation. The outdoor pool side façade has vertical cracks at the window bearing points, spalling and delaminating brick at window header cornices. One vertical



Spalling Brick due to Inappropriate Repointing Mortar

crack coincides with the interior ceiling crack in gym #2 and appears to be an expansion crack. The masonry stairwell at the rear of the indoor pool (stair #3) is in poor condition from basement to roof. This area is discussed under subsection Stair #3 - Stair Tower, to follow. The Colonnade / Mechanical Bulkhead at the southwest corner of the building is also in poor condition. This is discussed under subsection Parapets and Bulkheads, to follow.

#### Windows and Louvers:

The windows are generally in poor condition, with a large percentage of windows being inoperable. Polycarbonate glazing has been installed to replace glass in a number of windows. Two of the window frames are bent due to the masonry cracking and settlement below the window sill. The first floor windows have exterior mesh security guards that are in good condition. The gymnasium windows have interior guards which are in good condition. The two louvers which have been installed within the existing window frames and are in poor condition.

#### Roofs:

There are several roofs which have been repaired / reroofed at different times. The roof above the multi-purpose room (roof I) and the main roof above the gymnasium (Roof IV) are in good condition. The roofs over the mechanical room (roof II), the computer room along Seventh Avenue (roof III), the 2nd floor weight room (roof VI), and the stair tower (roof V) are in poor condition.



Damaged Window due to Masonry Settlement

The slate roof along Clarkson (roof IIV) is in good to fair condition, with a few slate shingles that are out of alignment. With monitoring and maintenance this roof should continue to provide a watertight system for many years to come. The copper gutter along the slate roof is in poor condition.

**Parapets and Bulkheads:**

- **Parapets:** The parapet is in fair to poor condition with numerous cracks in the brick from roof level to coping stone. This condition is more prevalent along the 1929 addition parapet at Roof IV and at several locations at the parapet along 7th Avenue (roof III). The upper roof parapets are fairly low and have less indication of deterioration. The coping stones are in very poor condition and are almost all cracked, with open or poorly patched joints between coping stones.
- **Colonnade / Mechanical Bulkhead:** There is a loggia colonnade on the parapet in the southwest corner of the roof (1929 addition), which encloses a recessed third floor mechanical bulkhead constructed of 6" CMU. The condition of the parapet at the colonnade is poor, with open joints and through-wall cracks. Limestone banding sitting above the limestone cornice is severely cracked and separating from the brick parapet wall. There is water infiltration into the parapet from open joints and from poor roof drainage at the small roof area adjacent to the colonnade. There is a vertical expansion crack in the mechanical room wall which has caused spalling of limestone and stucco finishes at the loggia ceiling.

**Stair #3 – Stair Tower:**

The masonry stair tower bulkhead (stair #3) at the northwest corner of the building is in very poor condition. The stair tower has two segmented limestone bands located at the 3rd floor slab level and at approximately 3'-0" below roof level, which appear to have separated from the structure. There are visible gaps and open joints. The brick walls above the segmented prefabricated concrete beams are in very poor condition, with misalignment and cracking, particularly at corners and beneath windows. The parapet at the north side appears to be leaning outward. This condition was brought to OMB's and DPR's attention on April 10, 2014 and was subsequently covered with safety netting. As previously noted, the roof, parapet, and coping stones at this stair tower are in poor condition. The interior of the stair is also in very poor condition, particularly above the second floor.

**Ramp and Entrance Stair:**

The exterior ramp and stairs were part of the 1982 renovation and are in very poor condition, with numerous cracks and gaps between the granite veneer, substrate, and adjacent surfaces. There is separation between the posts and rails and rusting at the connection points. The water spray test indicated extensive water infiltration into the sidewalk vault areas below the entrance ramp and stairs. Extensive repair of the sidewalks is required, as outlined in subsection Site Paving, below.



Parapet and Coping Deteriorated Joints



Spalling Stucco at Colonnade Loggia

**Exterior Doors and Lintels:**

The exterior doors are hollow metal and appear to have been replaced. The main entrance doors appear to be less than 10 years old. The secondary doors to the street and pool areas appear to be 20 to 30 years old and are in fair condition. The lintels for the doors appear to be in good to fair condition, with the exception of the door in the southeast corner of the building from the First Aid Room to the outdoor pool, which is in poor condition.

**Exterior Pool Enclosure Fence and Barrier Wall:**

The exterior pool is separated from Clarkson Street and the Leroy Street playground by a 12' metal fence set between 9' tall limestone piers. The fence is in good condition, however the limestone piers, which are original to the 1939 outdoor pool construction, are in fair condition. There are several displaced limestone blocks, visible cracks in the stone blocks, and the limestone has been painted.

The East wall separating the outdoor pool from Walker (Hudson) Park is an approximately 16' high masonry wall with a large mural painted by Keith Haring in 1987. The wall itself is plumb and appears to be in good condition, however due to the importance of this mural, the wall should be monitored and repaired.

The exterior ramp and railing to the pool appear to be in good condition

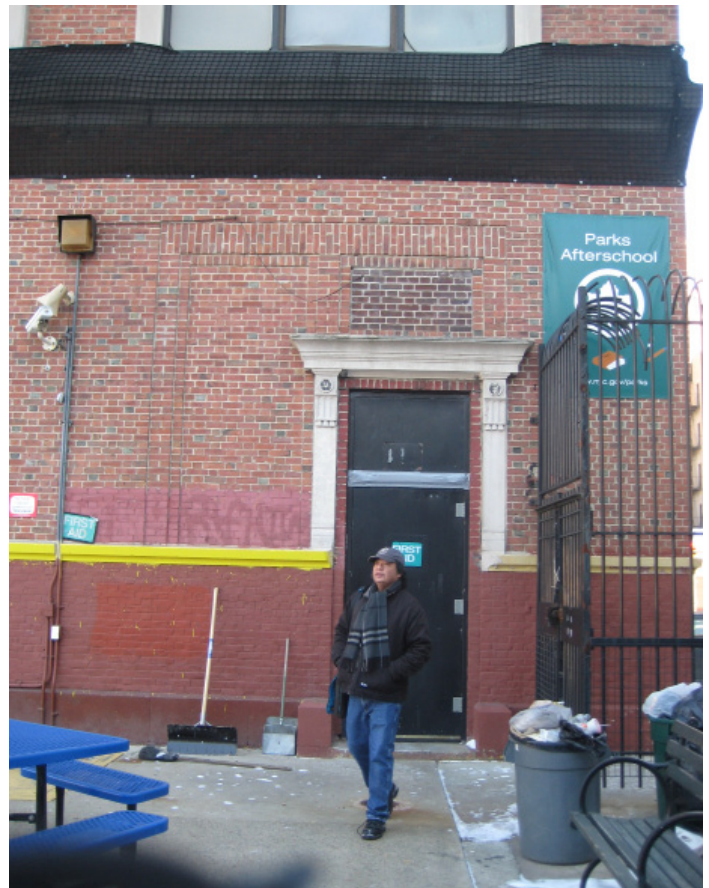
**Site Paving:**

The exterior pool paving is in good condition, with minor areas of surface deterioration, however the underside of the deck structural slab is in poor condition, with section loss and many areas with spalled concrete exposing rebar. The slab is deteriorated around the existing pool deck sidewalk access hatch. Overall, the deck drains inadequately.

The public sidewalks are in poor to fair condition. At the Clarkson Street sidewalk immediately outside the main entrance, the concrete slab is very deteriorated and is contributing to the water infiltration occurring in the Sump Pit and Boiler Room vaults below. The Seventh Avenue public sidewalk is in poor condition, and there is linear cracking, which corresponds to the line of the sidewalk vault wall below. This is probably due to a lack of compaction of the soil below the portion of sidewalk that is on grade. The structural beams at the vaults below the Seventh Avenue sidewalk are in very poor condition and need to be replaced.



Stair 3 Tower



Fence from Clarkson St. to Outdoor Pool

*Interior*

**Doors, Frame and Hardware:**

Interior doors and door hardware are typically in fair condition. At the main and upper floors, the doors are hollow metal. At the basement level there are a number of doors into ancillary spaces that are constructed of plywood. The doors into the Elevator Machine Room, Electric Room and Sump Pit Room are hollow metal and are in good condition. There is a sliding steel fire door into the boiler room, which is not functioning.

**Floors, Walls and Ceiling Finishes:**

- **Basement Level** - The floors, walls and ceilings are generally sound, but with localized areas of deterioration. The basement floor is concrete and is in fair condition. The wall and slab constructions vary with the eras in which they were built. The original 1908 construction was bearing masonry columns with Guastavino arch vaulted ceilings and exposed masonry interior partitions, all of which are typically in good condition. The 1922 sidewalk vaults are constructed with I-beam columns and with thin vertical concrete arched walls and concrete arched slabs above. These vault areas are in poor condition, particularly at the 7th Avenue sidewalk vault ceiling and the Sump Pit Room ceiling. The 1929 addition is steel structure encased in masonry. The ceiling slab at the walkways beneath the interior pool, the column enclosures, and the walls have cracks, but the masonry that encases the steel and the steel itself are typically in good condition. The basement ceiling is the exposed underside of the first floor slab; at the walkways beneath the interior pool and in Storage Room 016, the ceiling slab is deteriorated and spalled, exposing rusting rebar.
- **First Floor** - The first floor ceiling in the 1908 construction (lobby and locker rooms) is exposed Guastavino arch vaulted ceiling, which is typically in good condition. The arches are sound but they have been patched in a number of locations. The locker rooms and waiting areas have a 6" x 6" red quarry tile floor finish which is in good condition. These finishes extend into the 1922 addition, with the exception of the suspended ceiling hung from the concrete, or concrete encased steel, floor structure above. At the 1929 addition, the indoor pool and First Aid Room have historically significant tile finishes at the walls, ceilings and floors. The ceiling is a suspended plaster ceiling with tile finish, which is in fair condition



Basement Level Plywood Door at Second Means of Egress



Sidewalk Vault Deteriorated Structure



Basement Level Exposed Rebar

with the exception of a large crack transversing east to west above the pool. This is an expansion crack and is not structural in nature, however the historic, decorative ceiling tiles are falling and could present a safety hazard. The wall tile is in good condition except for localized areas where there is cracking and spalling. This typically occurs at the expansion joint between the addition and original construction, at the head of the adjacent arched interior window soffits, and at all the column bases along the west wall where the columns are near to the pool water. These cracks continue into the pool coping in both the horizontal and vertical planes. The First Aid Room and its vestibule have tile finishes which are in poor condition.



Indoor Pool Mosaic Tile Finish

- Second Floor and Second Floor Mezzanine - The second and second floor mezzanine ceilings in the 1908 construction (Gym # 1 and the surrounding weight and dance rooms) have a plaster finished Guastavino arch vaulted ceiling, which is typically in good condition, however there are minor areas with indications of water damage, primarily from piping and roof drainage. None of the leaks are active at this time. The walls and floors of these spaces are typically in good condition. At the 1922 addition, Stair #2 and the Weight Room finishes are in good condition. At Gym #2 in the 1929 addition, the ceiling is a suspended plaster ceiling with a historically significant tile finish, which is in fair condition with the exception of a large crack transversing east to west across the gym. This is also an expansion crack and while it is approximately in line with the transversal crack at the first floor, it is not structural in nature. The plaster walls and wood floor are in good condition.



Pool - Cracks at Window Arch

- Third Floor - The spaces in the 1982 third floor addition are finished with VCT flooring and gypsum drywall ceilings and wall partitions. The flooring is in fair condition, with the exception of cracked and missing tiles along the joint between the 1908 and the 1929 addition. While this is indicative of differential movement at the juncture of the two building systems, the walls and ceiling are in good condition. The mechanical room, which was originally a roof loggia, is in poor condition. It was enclosed in the 1982 renovation with 6" CMU and the original concrete floor slab was left exposed. The floor slab has several large cracks that extend from the corners of a 1982 era duct opening through to the floor. The CMU wall was installed under the rooftop colonnade up to the existing limestone and, in many locations, the limestone



Crack in Floor of Third Floor Mechanical Room

has cracked and fallen off, exposing the steel beams. There is a vertical crack in the CMU just below the spalled limestone. The Computer room has an acoustic ceiling tile hung ceiling, VCT floor and gypsum wall board walls. With the exception of some water damage on the ceiling, the finishes are in good condition.

**Stairs:**

The main staircase (stair #1) is an ornate semicircular stair with marble treads and a wood railing, all of which are in fair condition. Stair #2 at the Seventh Avenue entrance is also in good condition. As noted in the Parapet and Bulkhead subsection 1(d) above, Stair #3 at the rear of the indoor pool and Gym #2, is in poor condition. This stair requires replacement of the interior stair construction (treads, risers, landings and support structure) above the second floor level, as well as reconstruction of the exterior masonry walls structure. At any areas being reconstructed, these historically significant tile finishes should be replaced to match the existing.

**Foundation Walls:**

The foundation walls are in good condition with the exception of the following items:

- At the Seventh Avenue sidewalk vault the lintels at the coal chute openings are in poor condition.
- Water infiltrates the building via the coal chutes.
- The outdoor pool walls are displaying efflorescence and calcification.
- An approximately 30"W by 36"H opening was cut through the 1922 foundation into the vault area without a lintel to support the 24" thick masonry, making the foundation wall above the opening vulnerable to failure.



Unsupported Opening in Bearing Foundation Wall



Abandoned Coal Chute with Deteriorated Lintel



Stair 1



Stair 2

STRUCTURAL

The original building was constructed in 1908 with masonry bearing Guastavino arch construction. In 1922, when Seventh Avenue was widened and realigned, the East façade and a portion of the original construction was modified with a masonry bearing construction. In 1929 an addition was added to the West, utilizing steel framed structure encased in masonry with concrete deck. An outdoor pool was added in 1931, which extended the basement level Pool Filter Room around the outdoor pool structure. This was also constructed with concrete encased steel frame and reinforced concrete slabs. An exterior topping slab was added above the structural slab.

The general condition of the structure could be considered fair with localized problem areas and areas that are in good condition. Typically, the most serious distress is found in the basement level sidewalk vaults, at the deck structures around the pools, at the loggia and Mechanical room on the roof and at the Stair #3 tower. The original Guastavino arch structure is in the best condition.

*Interior*

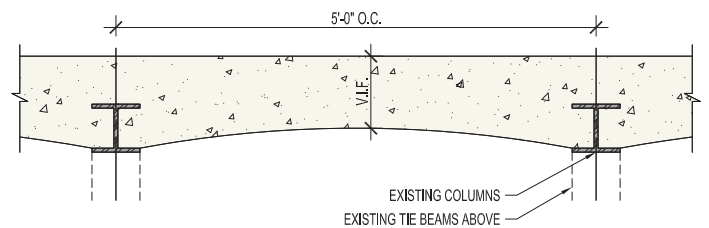
Sidewalk Vaults:

The exterior walls of the vault spaces beneath the sidewalks at Seventh Avenue and at Clarkson Street are constructed with I-beam columns approximately five feet apart and vertical concrete arches between the columns. The I-beam columns support the masonry, allowing the walls to be built thinner than they could have been if concrete alone were used. At the Seventh Avenue sidewalk vault and the Sump Pit Room, the steel columns and beam tie-backs are very deteriorated, with scaling, delamination, and section loss at some of the beams. The vertical concrete arches between the I-beam columns appear to be in fair to good condition, with the exception of areas in the Sump Pit room where they are deteriorated. At these Sump Pit Room walls, rebar is exposed, therefore the walls should be stabilized to prevent further deterioration. The structural beams and columns that have section loss will need to be replaced or reinforced to restore their original capacity.

At the ceiling slab of the vaults, there is spalled concrete with exposed reinforcement, primarily at the Sump Pit Room and in the Seventh Avenue sidewalk vault. The reinforcement is rusted due to leaks and moisture causing the concrete to spall. The deteriorated portions of the ceiling slab should be stabi-



Basement Guastavino Arch Construction



Typical Vault Wall Construction - Plan View

lized to prevent further deterioration and to restore its load capacity.

At the Boiler Room sidewalk vault, the steel columns and beam tie-backs, ceiling slabs and the walls are in good condition.

**1908 & 1922 Construction:**

At the original 1908 building (basement, first, second, and third floors) was constructed with masonry bearing Guastavino arch structure. While this structure is typically in good condition, there are locations where the arches have been patched and where penetrations have been created through the arches for MEP systems; these areas appear stable. The small triangle of the 1922 modification is masonry bearing wall matching the original 1908 construction, but with concrete or concrete encased steel beams pocketed into the bearing walls to support a concrete floor slab; this structure is in good condition.

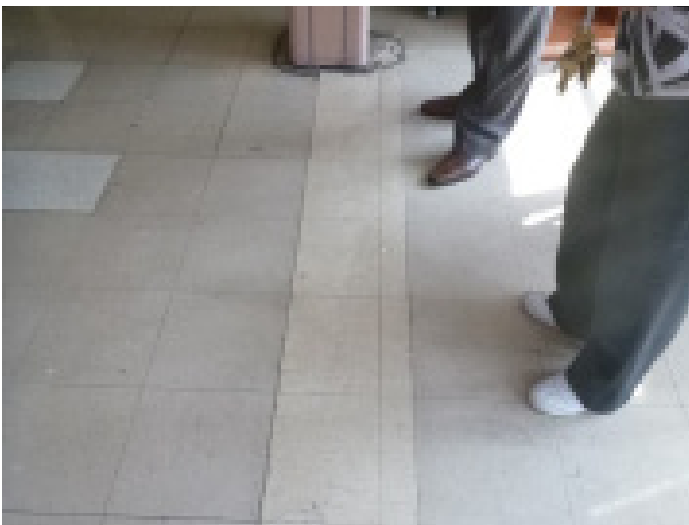
**1929 & 1931 Construction:**

The 1929 addition was constructed with a separate foundation and structure, independent from the original building. At the basement level, the 1929 addition foundation walls surrounding the indoor pool appear to be in fair condition. The brick pilasters encapsulating steel at the juncture between the 1929 addition and the original 1908 building are cracked at their bases. The structural steel that was examined within these brick pilasters was found to be in good condition. The ceiling of this portion of the basement is reinforced concrete

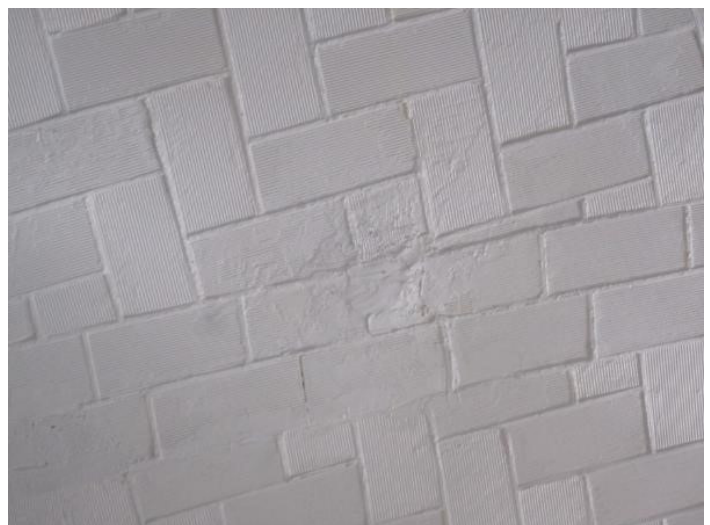
slab. The concrete encasement of the beams is spalled in several locations, primarily beneath the interior pool side decks. Where the encasement has spalled, the bottom flange of the beams are scaling and delaminating and have lost section. They will require replaced or reinforcement to restore their original capacity.

At the 1931 outdoor pool construction, the structural slab below the pool deck (basement ceiling slab) is reinforced concrete. There is spalled concrete with exposed reinforcement in several locations, primarily beneath the exterior pool side decks. The reinforcement is rusted due to moisture penetrating from leaks in the pool shell, primarily around the drains, which are causing the concrete deck to spall. The deteriorated portions of the ceiling slab should be stabilized to prevent further deterioration and to restore its load capacity.

At the first, second and third floors, the steel structure of the 1929 addition appears to be sound, but has some areas which require cosmetic repair and others that require structural stabilization. As this construction is not tied to the 1908 building structure, the two sections of the building move independently, which has caused a 1/2" to 1" gap at the first and second floor between the original wall and the pilasters. This same building line translates to the floor of the 1982 3rd floor addition, with a crack in the Multi-Purpose Room VCT flooring. At the first floor, there are arched interior windows between the pool and the 1908 construction, which were originally exterior wall openings. At two of the arches there are cracks in the tile finish, but the substructure appears to be sound.



1908 / 1929 Expansion Crack at Multipurpose Room Floor



Patch at Guastivino Ceiling

At the third floor, an outdoor loggia in the southwest corner of the 1929 addition was enclosed to create a mechanical room during the 1982 renovation. The limestone encasing the steel structure is spalling, evidently due to different expansion rates between the limestone encasement and the more recently installed CMU walls.

As noted in the architectural section, the Stair # 3 tower located at the north-west corner of building, which provides egress from all floors to the outdoor pool area, is in poor condition. The stair tower walls are constructed of 3 layers of bonded brick (12" thick), with segmented limestone banding around the tower at all the floor slab levels and at ± 3'-0" below roof level. The two limestone bands at the 3rd floor level and below the roof level do not appear to be connected to the building and there are open joints all along the band. The brick walls and parapets above this band (segmented prefabricated concrete tie-beams) are in poor condition. There is severe spalling and cracking, and the parapet is splayed outward. The metal stairs run around a center core and are supported by four vertical steel angles at this center core and along the exterior walls. The metal stairs from the 2nd floor level to the roof are in poor condition, with corroded stringers and cracks in the treads and landings.



Falling Limestone at 3rd Floor Mechanical Room

*Exterior*

At the exterior of the building, there are areas where the masonry is cracked and areas where the limestone banding has spalled, cracked, or is separating from the brick. Most of the masonry damage is localized and appears to be caused by open masonry joints or incompatible (too strong) patching mortar. The structure appears to be sound.

There is a deep crack in the exterior wall and window sills at the westernmost window on the South façade at both the first and second floors. The crack appears to be stable and was probably due to settlement.

At the pool (west) façade, there is cracked masonry. At two locations the window lintels are deteriorated and are causing masonry deterioration at the bearing points.

*Calculations*

The design team requested additional structural probes at the foundation in order to assess the building's structural capacity, as required by the contract. This additional scope for probes was not approved, therefore structural calculation could not be performed.



Mortared Joint between 1908 and 1929 Construction

MECHANICAL

In general, the mechanical systems in the building are over 30 years old and are in poor condition or are not functioning. The boilers have been replaced under a Hurricane Sandy emergency project. The ductwork however is deteriorated, particularly at the pool AHU 1.

*Basement*

- 7th Ave Sidewalk Vault / Bulkhead Room 013 - Oil pipes serving the boilers traverse along the ceiling from the Oil Tank Room to the Boiler Room. The oil piping is 30 year old and is in good condition.
- Mechanical Cellar Room 012 - The Mechanical room houses two domestic hot water storage heaters, and three AHUs. The hot water storage heaters are functioning but are in poor condition. AHU 1 and AHU 2 serving the pool and locker rooms are over 30 years old and are operational, although in poor condition. AHU 3, serving the first and mezzanine floors, is not functioning, therefore only radiators provide heat to these areas and no ventilation is being provided. Ductwork in the basement associated with AHU 1 was observed to be rusted through and compromised in several areas due to moisture in the return air from the pool area.
- Boiler Room 011 - This room was completely submerged during Hurricane Sandy and therefore the two gas burners for boilers 1 and 2 and the complete LAARS HW Boiler unit were replaced through an emergency project.
- Pool Filter Room 010 and Pool Equipment Room 020 - There are two steam unit heaters in these rooms which are not functional. One steam line was observed to be compromised and leaking condensate.

*First Floor*

AHU 1 and AHU 2 provide ventilation to the pool and locker rooms and, as noted above, are operational but in poor condition. Ductwork at the first floor is typically exposed, round ducts and is in fair condition. The ductwork at the pool is rusting.

*Second Floor and Second Floor Mezzanine*

As AHU 3 is not functioning, the gyms and weight rooms are being heated only by radiators and there is no ventilation being provided. Temporary fans, window fans, and window A/C units have been installed, however they do not provide the necessary ventilation to be code compliant.



Pool Filter Room Steam Piping



Boiler Room



Electrical Room - Flooded During Hurricane Sandy

### Third Floor

AC-1/AC1 are located in the third floor mechanical room and are not functioning. Temporary cooling and heating units have been provided and while these units do provide some ventilation, they are at best a temporary fix. Similarly, temporary heating and cooling window units were installed in the Computer Room, however these units do not provide the code required amount of ventilation.

### ELECTRICAL

#### Electrical Service and Distribution

The 1200 Amp electrical service enters the building into Electrical Room 015, which was upgraded in 1982. Electrical Room 015, Boiler Room 011 and Sump Pit Room 018 were completely submerged during Hurricane Sandy. All the electrical panels were rinsed and put back into service. The lighting and electrical wiring in these rooms were also rinsed and are being used. The electrical power and lighting at the upper floors are functional for the most part, although the lighting in the first, second, and mezzanine levels is antiquated.

### PLUMBING

#### Utilities

- Water Service - The majority of the plumbing service was replaced in 1982. The Seventh Avenue sidewalk vault - Bulkhead Room 013 houses the 4" incoming water service. The insulated service piping pre-dates 1982, but is connected to a meter and check valve assembly installed in 1982. The 4" water main and meter located in Sump Pit Room 018 were installed in 1982 and the water valves appear to be in poor condition. Mechanical Room 012 houses two domestic hot water storage heaters, which utilize steam along with a circulating pump, installed in 1982; these are in working condition
- Sanitary - The 5" sewer leader from the upper floors travels across the Seventh Avenue sidewalk vault - Bulkhead Room 013 and connects to the existing combined 6" sewer. The sewer piping connection and the 6" sewer line are in poor condition, with areas of plastic piping repairs. The 6" combined sewer leaving the building could not be observed since it lies beneath the floor slab.
- Gas - A new 4" gas service and meter are located in Sump Pit Room 018 and are in good condition.



Air Handler Serving Locker Rooms



Domestic Water from Sump Pump Room



3rd Floor Temporary AC in Multi-Purpose Room

*Bathrooms and Roof Leaders*

The existing plumbing at the upper floors is, for the most part, in good condition. The first floor showers/toilet rooms were renovated and the third floor bathrooms were added in 1982 utilizing copper piping. There are janitor's sinks and individual toilets which are of an older vintage and are in poor condition. Roof leaders are exposed in some locations and may be a source of water damage at the upper levels.

FIRE PROTECTION

The building is unsprinklered.

A 6" fire water pipe goes across along the ceiling of the Seventh Avenue sidewalk vault - Bulkhead Room 013 from the service connection at the North wall to the Sump Pit Room 018 at the south. The assembly including incoming service line and the OS&Y valve are in fair condition.



Deteriorated Roof Leader at Colonnade Loggia w/ plant growth

ELEVATOR

The existing elevator is over 60 years old and while it is functioning, it is not an adequate size to comply with ADA accessibility requirements. The electro-mechanical controls are in poor condition.

POOL EQUIPMENT

*General*

The condition of the both the indoor and outdoor pool structures and the pool mechanical and chemical treatment systems are nearing the end of their useful life. The mechanical and chemical treatment units are rusting, leaking and antiquated. There is routinely standing water in the pool mechanical space, which is located around both pools in the basement level. Nearly all cracks and other penetrations of the pool shell (piping, lights, etc.) indicate corrosion and a non-watertight condition.

The drain covers do not meet federal requirements of the Virginia Graeme Baker Pool and Spa Safety regulations. Although the pool is allowed to operate since it pre-dated the 2007 safety regulations, it is strongly recommended that the drain covers be replaced with anti-vortex drain covers to comply with regulations, which were designed to prevent drain entrapments and eviscerations in pools.

Currently, the chemical feed equipment (sanitizer, pH buffer, and chemical controller) are shared by the two pools and therefore, the pools cannot be operated simultaneously. To



Leaks in Pool Shell

accommodate both pools operating at the same time, two additional chemical feed pumps would be necessary along with some minor 1" piping modifications. It is recommended that a second water chemistry controller be provided so that each pool can be monitored and controlled. (Note that there are some water chemistry controller models that can monitor two pools with one unit.)

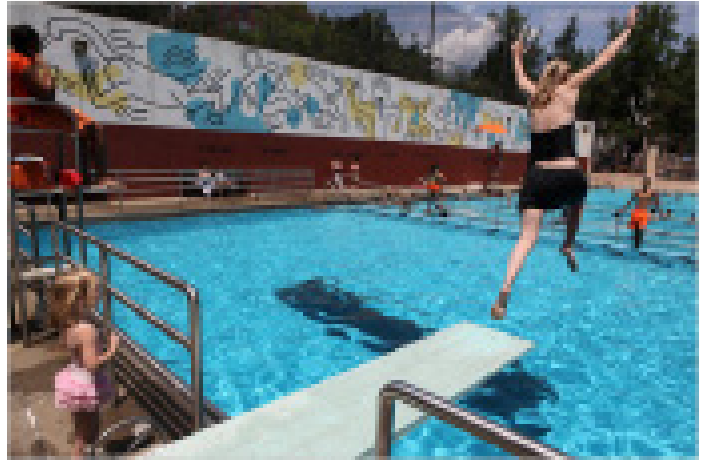
*Indoor pool*

The pool is losing water daily. There are structural cracks in the pool lining and the pool deck. The pool has missing 1"x1" tiles and the pool lining has spalls, which have been troweled with cement. The gutter system is sized to capacity and cannot handle surges, however the inlets are adequate and ADA access is acceptable. Marking and signage are lacking in some areas and the existing deck width is not per the current code.

*Outdoor Pool*

The outdoor pool has expansion joints which are in poor condition. The concrete has spalled in areas and has been patched with cement; areas where piping has been removed have been patched. Cracks are apparent through the concrete. The gutter system is sized to capacity and can handle minimal surges, while the inlets are inadequate.

ADA accessibility is lacking by one lift and the ramp is not per code. The diving board is missing slip resistant material and railings. The diving well has stainless steel barriers around the full perimeter, which creates safety issues for life guards retrieving patrons, as well as patrons trying to exit the pool.



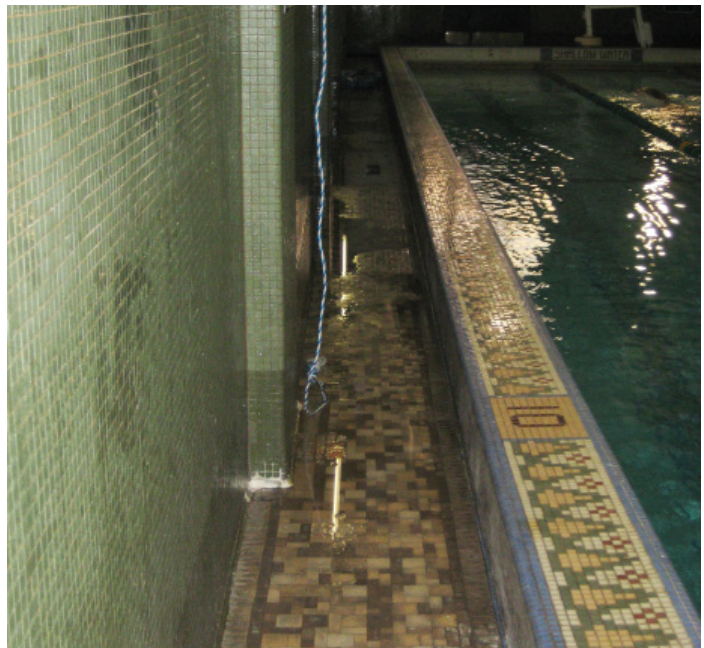
Outdoor Pool



Indoor Pool - Crack in Deck by Drain



Pool Finishes Exhibiting Moisture Damage



Indoor Pool Deck - Narrow Clearance

**B. CODE ANALYSIS**

As allowed under the current 2014 NYC Building Code, existing buildings constructed prior to the 1968 NYC building code may be reviewed under the old code. The Tony Dapolito facility was constructed in 1908 and therefore has been reviewed for compliance with the old 1916 NYC Building Code. As noted in the Code Compliance Report, if renovation work exceeds 30% of the replacement cost of the building in any 12-month period, the new work is required to be constructed in accordance with the 1968 building code. If renovation work exceeds 60% of the replacement cost of the building in any 12-month period, the entire building may be required to be brought up to compliance with the current code.

There is no existing Certificate of Occupancy for the facility in the NYC Building Department or at the Department of Parks and Recreation archives. This may present difficulties with gaining approvals from the NYC DOB.

The major building elements are handicapped accessible, however there are a number of areas where spaces do not comply with current NYC BC accessibility codes and ANSI A117.1, as required. The elevator is undersized and therefore not compliant and in a number of locations, doors do not have handicapped accessible pull/push clearances. Stair handrails are not compliant in profile, size or top and bottom extensions. Furthermore, toilets and showers do not meet current accessibility clearance requirements.

The majority of the code compliance issues should be rectified when each of the areas are renovated (ie: adding building-wide ventilation, adding basement exit signage, removing storage from the exit path, providing an outdoor pool handicapped lift, and replacing miscellaneous door hardware). There are several elements that are compliant with the old code, but would not be acceptable under the 1968 or current code. These elements typically result from the era that the building was constructed:

- Stair #1 is constructed with winder stairs treads, which are not permitted under current code, except for residential occupancy. Therefore, renovations to the building should be planned so that the entire building is not required to be brought up to current code (ie: if the alteration cost in a 12-month period exceeded 60% of the building replacement cost). If the entire building had to be brought up to current or 1968 code, Stair #1 could not be used as an egress stair and an additional stair would be required.

- The configuration of Stair #3 does not comply with 1968 or 2014 code requirements for top and bottom landing clearances, handrail extensions, and tread / riser sizing. This stair is in very poor condition with deteriorated structure at landings, stair treads, and the exterior structural envelope. The stair could be repaired, which would allow it to maintain its current configuration, however because this stair is the primary means of egress from the two Gymnasiums (combined egress capacity of 392 occupants), it may be prudent to rebuild the stair in accordance with 1968 or 2014 code requirements.
- The third floor multipurpose room has direct interior access to Stair #1 and Stair #2, but Stair #3 can only be accessed by crossing the open air roof. The third floor Computer Room can only be accessed from the roof. Although this is not a code violation, it is recommended that any modification at third floor computer room area provide at least one direct interior means of egress. This could be accomplished fairly easily by building an enclosure connecting the Computer Room to the Multi-purpose Room and Stair #2.



Computer Room Access across Roof



Winder Stair with Broken Treads

### C. FACILITY NEEDS AND SPACE UTILIZATION ASSESSMENT

Tony Dapolito Recreation Center is not only short in space for the desired programs, but it makes inefficient use of the existing space due to constraints in the building's historic plan. As noted in the Facility Needs Assessment Report, we analyzed the existing space usage, identified spaces where functional or spatial problems exist, and identified areas where improvements could be made. The team met with DPR officials and

facility management staff to identify short and long term facility needs. In conjunction with DPR, we developed options that help resolve spatial and programmatic issues.

The full Facility Needs and Space Utilization Assessment Report, dated April 10, 2015, is included in the Appendix. Proposed work outlined in this report is broken down into the following actions, most of which may be done independently or combined with other actions to create larger projects.

TABLE: FACILITY NEEDS AND SPACE UTILIZATION ASSESSMENT SUMMARY

A-1.1	Relocate Main Entrance to 7th Avenue
	*** If this item A-1.1 is selected, then Repair and Stabilize item 6a - Remove and Replace Main Entrance Ramp and Stair - is not required.
A-1.2	Renovate to create a new lobby
A-1.3	Construct First Floor Mezzanine for lockers & mech room and reconfigure first floor lockers to add program space
A-1.4	Relocate Electrical Room to first floor
A-1.5	Renovate other spaces on first floor
A-1.6	Install new ADA-compliant elevator
A-1.7	Reconstruct stair tower at north-west side of building
	*** If this item A-1.7 is selected, then Repair and Stabilize item 5a and 5b - Repair and Stabilize Stair 3 - is not required
A-1.8	New First Aid Room & new exit corridor to Outdoor Pool
A-1.9	Add 3-tiered lockers (high density polyethylene panels) at exterior pool.
A-2.1	Renovate area around existing elevator
A-2.2	Create an opening between 2 weight rooms
A-2M.1	Build partial mezzanine over Gym #2, including new mechanical systems
A-2M.2	Build new 2-story structure above Existing Roof VI for cardio exercise room on the second floor mezzanine level and dance studio on third floor, including new mechanical systems
	*** If this item A-2M.2 is selected, then Repair and Stabilize item 8b - Roof VI Repair - is not required
A-2M.3	Create an opening between 2 weight rooms
A-2M.4	Eliminate bank from running track
A-2M.5	Eliminate running track including structure
A-3.1	Remove equipment from mechanical room and convert to computer room. Fence in roof area for new rooftop mechanical equipment.
A-3.2	Enclose existing loggia connecting multipurpose room with existing computer room
A-3.3	Create an opening between two rooms to create a large dance studio.
A-3.4	Create a door opening between corridor and new addition

As noted in the Executive Summary and further defined in the Cost Estimate, we have classified the scope of work items into three categories: those relating to repair and stabilization (code/health/safety issues), capital improvements, and upgrades/additions. We then prioritized the work to complete the most critical items first. The majority of the Facility Needs and Space Utilization Assessment recommendations fall into the upgrades/additions category which are designated as Priority 3 or 4, however in order to create efficiencies in construction, there are two exceptions:

- Item A-1.7 "Reconstruct new stair tower at north-east side of building" was included in Priority 1. This item was recommended as Priority 1 work in lieu of repairing the stair tower. Due to the importance of this egress stair and in order to provide better future egress under Priority 3 for the locker rooms, we recommend that this work be completed at the earliest time.
- Item A-1.1 "Relocate Main Entrance to 7th Avenue" was designated as Priority 2. This item was grouped with required structural vault repair and sidewalk replacement work to allow for sequencing the sidewalk work to maintain building access.

### III. RECOMMENDATIONS

We have categorized our recommendations as Repair & Stabilization (Life Safety, Local Law 11, and code required modification), Capital Improvements, and Needs Assessment Modifications/ Additions.

These recommendations are based on our investigations and assessments, as outlined in previous reports, which are included in the Appendix.

Please note that our recommendations regarding façade repair and stabilization are based on visual survey and limited localized probe inspections. We strongly recommend that the repair contract include removal of all the netting and a hands on inspection to quantify the full extent of necessary repairs.

All of the recommendations are summarized below and have been prioritized in the cost estimate table in section IV.

#### Recommendation Prioritization Summary

		Priority
A.	REPAIR & STABILIZE	
1	Exterior Masonry Repair and Stabilization - ALL LOCALIZED	2
2	Windows and Louvers	2
3	Parapet Repair and Stabilization	2
4	Colonnade /Mech Room Bulkhead Repair and Stabilization	1
5	Rebuild Stair 3:	na - see A-1.7
6	Main Entrance Ramp Stair and Sidewalk	na - see A-1.1
7	Repair Site Paving and Stabilize Substructure	2
8	Roof Repair	3
9	Foundation Repair and Stabilization	2
10	Structural Repair and Stabilization	2
11	Mechanical System:	2
12	Plumbing and Fire Protection System:	2
13	Electrical System:	3
14	Elevator:	na - see A-1.7
15	Interior Floor, Walls and Ceiling	3
16	Pool Repairs	2
17	Indoor Pool Repairs	2
18	Outdoor Pool Repairs	2
B.	CAPITAL IMPROVEMENT	
1	Roofs	3
2	Exterior Masonry Repair and Stabilization	2
3	Exterior Doors & Lintels	2
4	Fire Alarm System:	3
5	Stairs:	3
6	Outdoor Pool Enclosure Fence, Barrier wall:	4
7	Doors, Frame and Hardware.	4
8	Floor, Walls and Ceiling Finishes	3

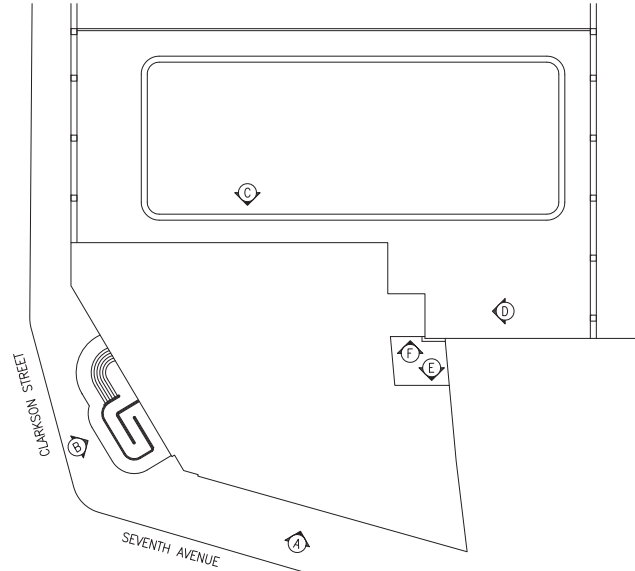
C.	NEEDS ASSESSMENT MODIFICATIONS/ ADDITIONS	
A-1.1	Relocate Main Entrance to 7th Avenue  *** If this Program Needs Assessment Modifications and Additions item A-1.1 Relocate Main Entrance to 7th Ave is selected then Repair item 6a is not required; Repair item 6b would be required	2
A-1.2	Create new lobby	3
A-1.3	Construct First Floor Mezzanine for lockers & mech room and reconfigure first floor lockers to add program space	3
A-1.4	Relocate Electrical Room to 1st floor	3
A-1.5	Renovate other spaces on first floor	3
A-1.6	Install new HC accessible elevator	3
A-1.7	Reconstruct new stair tower at north-east side of building *** If this item A-1.7 is selected then Repair item 5a and 5b are not required	1
A-1.8	New First Aid Room & New exit corridor to Outdoor Pool	4
A-1.9	Install new outdoor lockers at the outdoor pool	4
A-2.1	Renovate area around existing elevator	3
A-2.2	Create an opening between 2 weight rooms	3
A-2M.1	Build partial mezzanine over Gym 2	3
A-2M.2	Build new 2-story Structure above Existing Roof VI for Cardio exercise room on floor 2M and dance studio on floor 3 *** If this Program Needs Assessment Modifications and Additions item A-2M.2 Build new 2-story Structure above Existing Roof VI" is selected then Repair item 8b is not required	3
A-2M.3	Create an opening between 2 weight rooms	3
A-2M.4	Unback Running Track	nr
A-2M.5	Remove Running Track	nr
A-3.1	Remove equipment from mechanical room and covert to computer room	nr
A-3.2	Enclose existing loggia connecting multipurpose room with existing computer room	3
A-3.3	Create an opening between 2 rooms to create a large dance	3
A-3.4	Create an opening between the new Program Area and the new corridor (enclosed Loggia)	3

**A. REPAIR AND STABILIZATION**

**1. EXTERIOR MASONRY REPAIR AND STABILIZATION – DESCRIPTION, HISTORICAL IMPACTS, DIAGRAMS**

As noted in the Summary of Investigations and the detailed Building Investigation Report task 2.4, the Tony Dapolito Recreation Center was constructed in three periods and the types of deterioration differ for these three construction areas.

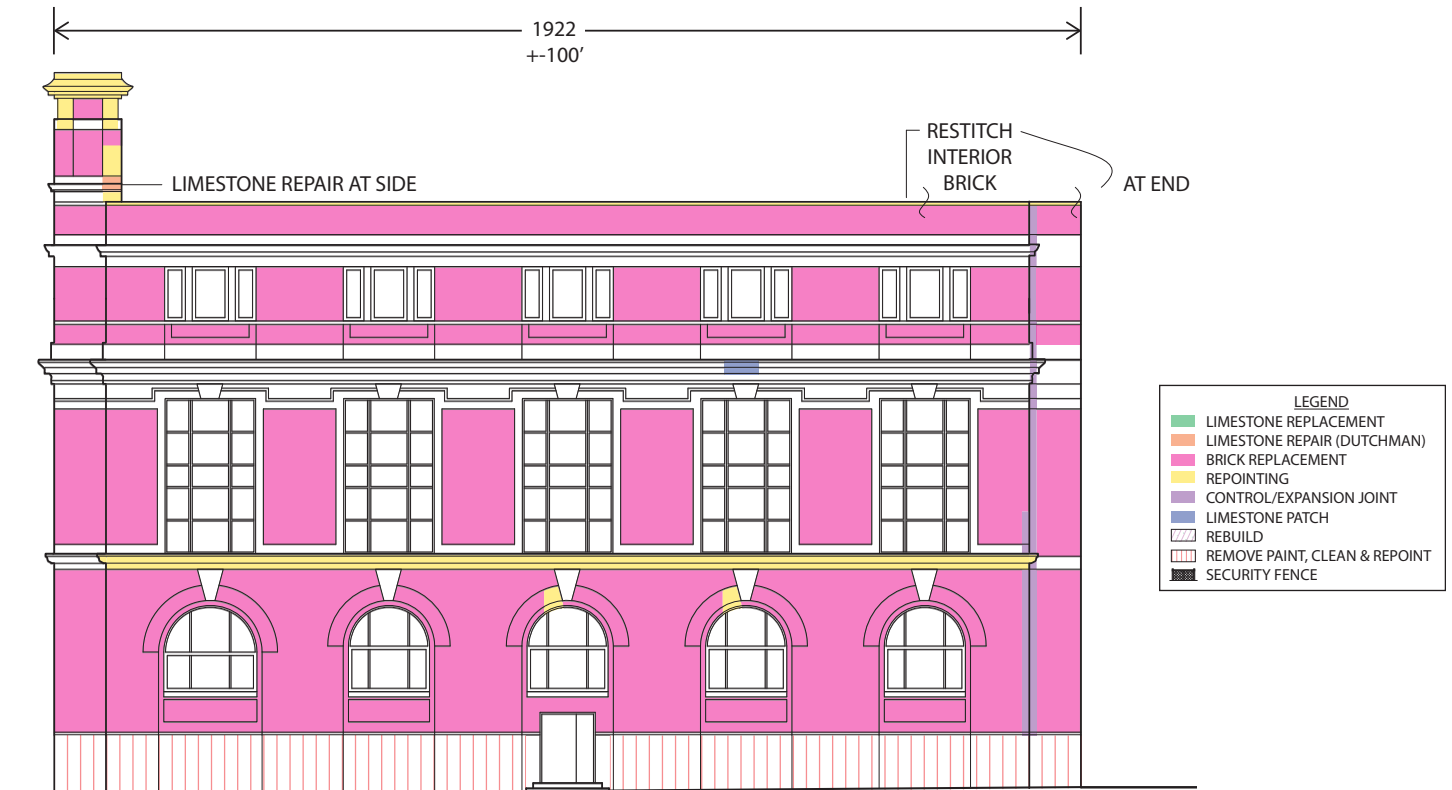
Because the exterior facade limestone banding, cornices, and parapets are covered with protective netting, we temporarily removed portions of the netting to assess a representative sample of each material and condition at each of the three building sections: 1908, 1922 and 1929. We calculated the percentage of each feature viewed versus the total amount of that feature for each era of construction, then extrapolated the overall amount of that feature which requires repair. We also added a safety factor to the overall percentage to come to the amount of masonry repair recommended and costed.



Key Plan - Facade Repair Diagrams

*a. Limestone Replacement (total 500 SF)*

- Where an entire block of limestone is damaged or missing, it should be replaced, from joint to joint in its entirety.
- 1908 Construction -The limestone banding and cornice at this east side of the Clarkson Street façade is in good condition. There are no areas of limestone banding that are broken or missing.



A. Facade Repair Diagram - East Elevation - Seventh Avenue

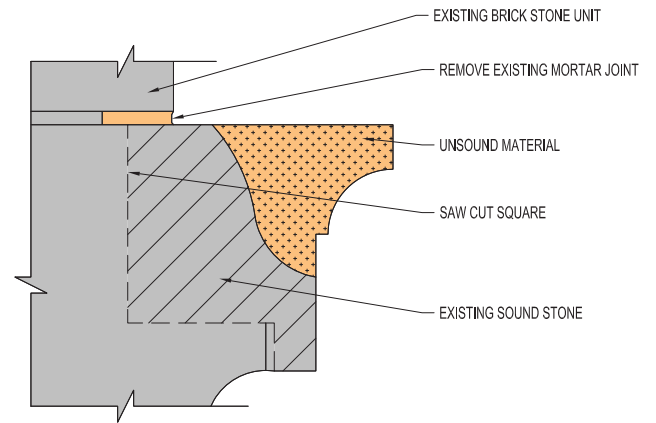
- 1922 Construction - The limestone along the Seventh Avenue façade is in good condition, but there are many areas with open limestone mortar joints and areas where the limestone has been repointed with more current mortar. There are no areas of limestone banding that are broken or missing.
- 1929 Construction - The limestone at the pool addition is in poor to fair condition. The limestone at the parapet is quantified in the Repair and Stabilization section, item 3. There are vertical cracks below each window along the Clarkson Street façade, which extend through the limestone sills. These are recommended to be replaced with cast stone sills, also in the Repair and Stabilization section, item 3. The outdoor pool side façade has vertical cracks at the window bearing points. These cracks run through the brick and limestone banding. One vertical crack coincides with the interior ceiling crack in Gym #2 and appears to be an expansion crack. The masonry stairwell at the rear of the indoor pool (Stair #3) is in poor condition, as discussed in Section II. The Stair Tower #3 limestone tie-beam at the third floor has separated and is no longer performing its structural function. The Colonnade / Mechanical Bulkhead at the southeast corner of the building is in very poor condition. There are approximately 500 SF of limestone banding that is broken and or missing.

*b. Limestone Repair: (total 250 SF)*

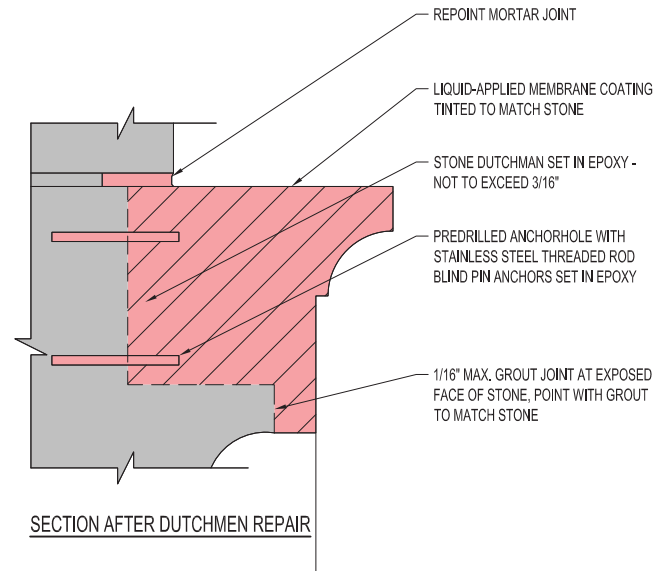
- Limestone chips and spalls larger than 6" x 6" x 3" deep should be replaced with a Dutchman repair - refer to Dutchman Repair Diagram. This repair type requires identifying the unsound material, typically around an area of missing limestone, saw-cutting, and then removing the deteriorated section. New limestone sections, matching the existing in all physical properties, color & profile etc., should be fabricated and pinned to the existing with stainless steel threaded rods set in epoxy.
- The patching mix must be more vapor-permeable than the limestone. The profile of patches applied to carved elements should match the level of detail, texture, reflectance, and pattern of the element to which it is applied.

*c. Limestone Patch at spalls: (total 350 SF)*

- Small spalls in limestone (less than 6") should be patched and repaired and cracks should be injection filled. Limestone that has become loose should be reset and grouted solid.
- The patching mix must be more vapor-permeable than the existing limestone material composition. The profile of patches applied to carved elements should match the level of detail, texture, reflectance, and pattern of the element to which it is applied.



SECTION BEFORE DUTCHMEN REPAIR

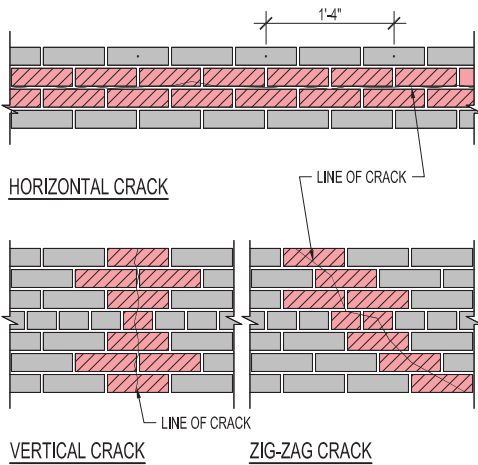


SECTION AFTER DUTCHMEN REPAIR

Dutchman Repair Diagram

*d. Brick Replacement: (total 350 SF)*

- Where face brick has spalled or brick units are damaged, the exterior wythe of brick should be carefully saw cut at the mortar joint and removed. A new custom brick should be manufactured to match the size, material composition and strength of the existing brick. The new brick should be stitched in place - refer to Masonry Crack Repair Diagram. The brick should be fully buttered with mortar that is more compatible with the brick. The new mortar should have a higher lime content, which will result in a higher porosity and lower compressive strength than the existing repointing mortar. Please note that parapet mastics and waterproofing mastic within the exterior masonry walls has not been tested but is assumed to contain hazardous material. This material should be tested prior to masonry reconstruction. Please refer to the Hazardous Abatement Report



NOTES:

1. REPLACE HATCHED BRICKS WITH NEW BRICKS.
2. DO NOT REPLACE HEADER BRICKS IF NOT CRACKED.
3. ALL JOINTS BETWEEN BRICK HEAD, BED AND COLLAR JOINTS ARE TO BE FILLED SOLID

Masonry Crack Repair Diagram

- Although the exterior wall construction varies at each of the three eras of construction, the brick construction is consistently three layers of bonded brick.

*e. Installation of Expansion Joint: (total 120 LF)*

- Cut and install a formed expansion joint between the original 1908 construction and the 1929 pool addition and between the 1908 and 1922 addition. Patch and replace brick as needed on each side of the expansion joint.

*f. Sidewalk Bridge*

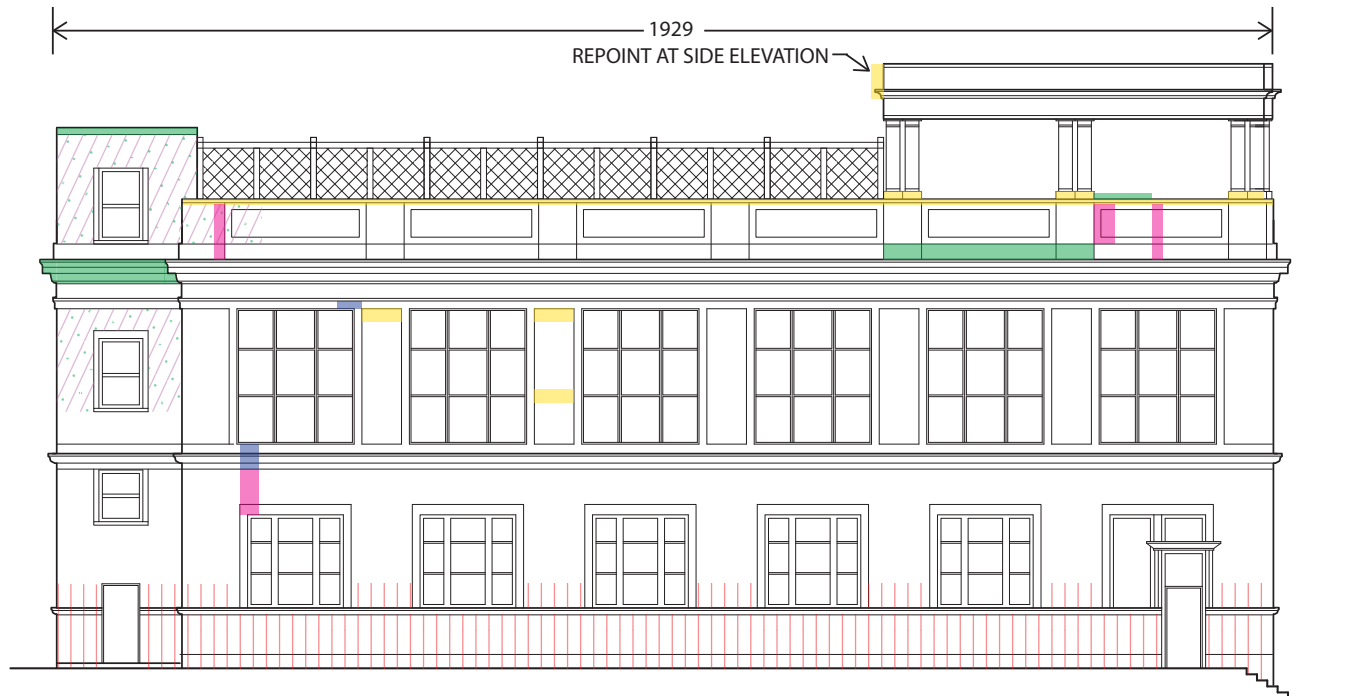
A sidewalk bridge is required for the Exterior Masonry Repair and Stabilization. This bridge is included under this section, but should be utilized for all Priority 2 exterior repairs and capital improvements, including window repair and repointing.

*g. Scaffolding*

Scaffolding of the entire façade is required for the Exterior Masonry Repair and Stabilization. This scaffolding is included under this section, but should be utilized for all Priority 2 exterior repairs and capital improvements, including window repair and repointing.

*h. Hazardous Abatement*

Hazardous Abatement is assumed to be required at ACM waterproofing within masonry walls.



C. Facade Repair Diagram - West Elevation - Pool Side

2. WINDOWS AND LOUVERS

a. Exterior Windows

Replace all exterior windows with insulated aluminum windows.

b. Gymnasium Windows

At the gymnasium windows, remove, refurbish (clean, paint, and adjust), and reinstall existing interior window guards. Please note that the black interior window caulk at the vertical seams (between the window frame and the window opening) of the gymnasium windows has been identified as containing hazardous material.

c. Security Guards

Remove, refurbish (clean, paint, and adjust) and reinstall the existing security guards at the first floor.

d. Hazardous Abatement

Hazardous Abatement is required at ACM interior black caulk on vertical sides of window frames.

3. PARAPET REPAIR AND STABILIZATION

The condition of the parapets varies. At the 1929 building they are in fair to poor condition. The parapets in localized areas should be rebuilt, including removing the three-wythes bonded brick parapet walls, limestone coping stones, and limestone band/cornice at the roof level. The limestone coping stones should be replaced with cast stone fabricated to match the limestone. A new rooftop security fence should be provided to screen the play area. All sky joints should be repointed.

a. Clarkson St. Parapet

At the west side of the Clarkson Street façade, the parapet needs to be rebuilt, including the limestone banding and the coping stones. Coping stones should be replaced with cast-in-place coping and provide stainless steel through-wall flashing.

b. Pool Side Facade Parapet

At the pool side facade, the 140 ft long parapet needs to be rebuilt, including the limestone banding and the coping stones. Coping stones should be replaced with cast-in-place coping and provide stainless steel through-wall flashing.



B. Facade Repair Diagram - South Elevation - Clarkson Street

*c. Coping Stones*

All of the remaining coping stones should be replaced with cast-in-place coping and provide stainless steel through-wall flashing.

*d. Rooftop Security Fence*

A new 7'-0" high anodized aluminum security fence should be provided to prevent objects from being thrown off the roof top play area. The fence posts should be anchored to the inside face of the parapet.

Please note that parapet mastics and waterproofing mastic within the exterior masonry walls has not been tested, but is assumed to contain hazardous material. This material should be tested prior to masonry reconstruction. Please refer to the Hazardous Abatement Report provided in the Appendix.

4. COLONNADE /MECH BULKHEAD REPAIR AND STABILIZATION:

The condition of the loggia colonnade at the mechanical bulkhead (1929 addition) is in poor condition. The condition of the parapet at the colonnade is also poor, with open joints and through-wall cracks. The limestone banding sitting above the limestone cornice is severely cracked and separating from the brick parapet wall. Part of this parapet should be rebuilt, as described in the Repair and Stabilize section 3 above. The remaining portions of the parapet in this loggia colonnade should be repaired. The limestone and brick should be raked and repointed, and the interior parapet should be re-stitched. The CMU wall that encloses the mechanical room was installed in the 1982 addition, without expansion joints between the CMU and limestone encased steel beams. This has caused the limestone encasement to spall and therefore an expansion joint must be cut in by saw cutting a joint at the top of the CMU wall and installing a prefabricated expansion joint. The loose limestone encasing the steel structure should be removed and then the steel beams should be covered with spray fireproofing.

At the second floor mezzanine ceiling, the enclosure around the existing duct should be opened and framing installed around the duct slab opening to stabilize the mechanical room floor from cracking before the duct enclosure is re-installed.

Please note that waterproofing mastic within the exterior masonry walls has not been tested but is assumed to contain hazardous material. This material should be tested prior to masonry reconstruction.



Colonnade / Mechanical Bulkhead

5. REBUILD STAIR #3: (NOTE: REPLACEMENT OF THE STAIR TOWER ROOF AND COPING STONES ARE INCLUDED ELSEWHERE)

Note: If Program Building Modifications and Additions item A-1.7 Reconstruct Stair Tower is selected, then Repair items 5a and 5b are not required

*a. Exterior*

Rebuild the Stair enclosure above the segmented precast concrete beam located approximately 3'-0" below the roof level. Remove the limestone band at the stair tower approx. 3'-0" below the 3rd floor level and replace it with a continuous concrete tie-beam, then remove and rebuild the stair tower brick walls, limestone cornice, and parapets above the 3rd floor level, and rebuild the parapet. Below the third floor, brick joints should be raked and re-pointed.

*b. Interior*

Rebuild the interior stair structure from the second floor landing up to the third floor roof, include replacing the second and third floor landings. Replace the stair stringers and stair treads from the second floor landing up to the roof, and replace the mosaic tile at landing ceilings and at damaged wall areas. Replace the concrete slab at first floor, including the structural C channel supports below.

Please note that parapet mastics and waterproofing mastic within the exterior masonry walls has not been tested but is assumed to contain hazardous material. This material should be tested prior to masonry reconstruction. In addition, lead containing paints were identified in Stair # 3 and should be removed or encapsulated prior to any modifications.

6. REBUILD MAIN ENTRANCE RAMP STAIR AND SIDEWALK.

a. Entrance Ramp

Remove and rebuild the entrance ramp and stairs at the existing location. NOTE: If Program Building Modifications and Additions item A-1.1 - Rebuilding Main Entrance at Seventh Avenue - is selected, then repair item 6a is not required.

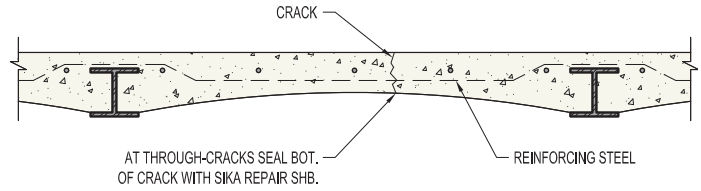
b. Sidewalk Repair

Remove existing sidewalk at Clarkson Street down to existing structural slab. Examine and remove any deteriorated structural slab concrete. Use injection grout with epoxy crack repair at all through cracks (assume 100 lf) - refer to Through-Slab Crack Repair Diagram for recommended repair. If spalls at structural slab are found, remove corrosion and repair spalls - refer to Concrete Spall Repair Diagram for recommended repairs. Provide waterproofing above structural slab and install new sidewalk ramp and stairs and seal all joints to the building.

Please note that waterproofing mastic within the exterior masonry walls and between the sidewalk and the structural slab has not been tested but is assumed to contain hazardous material. This material should be tested prior to masonry reconstruction.



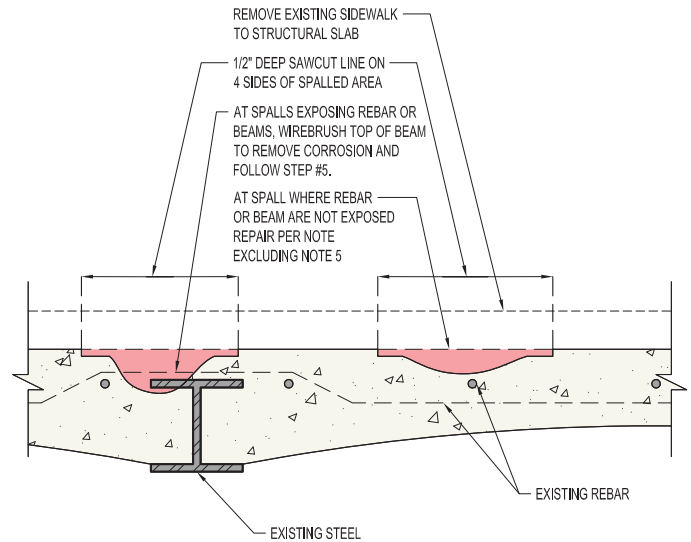
Spalls in Public Sidewalk



REPAIR PROCEDURE

1. CLEAN SURFACE AT CRACK WITH GRINDER TO REOPEN FOREIGN SUBSTANCES AND REMOVE DUST AND LOOSE PARTICLES WITH AIRHOSE
2. INSTALL EPOXY CRACK REPAIR SYSTEM IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

Through-Slab Crack Repair Diagram



REPAIR PROCEDURE

1. REMOVE DETERIORATED CONCRETE TO SOUND SUBSTRATE WITH A 15-LB CHIPPING HAMMER OR HYDROBLAST. SAWCUT PERIMETER EDGE A MINIMUM 1/2" DEEP.
2. SAND-BLAST CONCRETE SURFACE.
3. CONDITION OF CORRODED REINF. EXPOSED TO VIEW AFTER TOPPING SLAB IS REMOVED IS TO BE EVALUATED BY A STRUCTURAL ENGINEER AT THE SITE, REPLACE BARS IF THE EXISTING RETAINS LESS THAN 75% OF ORIGINAL CROSS SECTIONAL AREA. ADEQUATE LAP SHALL BE PROVIDED.
4. PREPARE CONCRETE SURFACE IN ACCORDANCE WITH REPAIR MATERIAL MANUFACTURER'S WRITTEN RECOMMENDATIONS, TYPICALLY BY WETTING, SLURRY COAT, OR OTHER BONDING AGENT.
5. COAT EXISTING REINFORCING STEEL WITH 2 PART POLYMER MODIFIED EPOXY ADHESIVE AND ANTI CORROSION COMPOUND.
6. APPLY TWO-PART POLYMER MODIFIED CEMENT INTO REPAIR AREA IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
7. ALLOW MORTAR TO CURE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. FOLLOW MEMBRANE W.P. MANUFACTURER'S REQUIREMENTS WITH RESPECT TO ALLOW MOISTURE CONTENT OF REPAIR MORTAR BEFORE W.P. IS INSTALLED.

Concrete Spall Repair Diagram

7. REPAIR SITE PAVING AND STABILIZE SUBSTRUCTURE:

a. Pool Deck

Replace sidewalk access hatch 6'x6' door, scrape, prime, and paint steel. Repair concrete slab and provide new deck drain, and replace the topping slab and waterproofing above the structural slab.

b. Seventh Avenue vault and sidewalk

Remove the existing sidewalk and existing structural slab. Replace (12) W12x30 x 15' long steel tie beams and finish exposed beams with spray -on fireproofing. Provide new 9" composite concrete structural slab, provide waterproofing above the structural slab, and install new 3" sidewalk topping. Fill coal chutes with sand/gravel and block up the chute openings into the interior vault.

Please note that waterproofing mastic within the exterior masonry walls and between the sidewalk and the structural slab has not been tested but is assumed to contain hazardous material. This material should be tested prior to masonry reconstruction.



Coal Chute Opening in Basement

8. ROOFS

a. Roofs II & III

Provide new insulated styrene-butadine-styrene (SBS) modified bitumen roofing at Roofs II & III , over the Mechanical room, Computer room and along Seventh Avenue.

b. Roof VI

Provide new insulated styrene-butadine-styrene (SBS) modified bitumen roofing at roof VI , over the 2nd floor weight room.

NOTE: If Program Building Modifications and Additions item A-2M.2 Build new 2-story Structure above Existing Roof VI" is selected, then repair item 8b is not required

Please note that parapet mastic, roof base, drain and vent flashing at roof III, and roof base flashing and black mastic at the north parapet wall of Roof VI have been identified as containing hazardous material. Please refer to the Hazardous Abatement report.

9. FOUNDATION REPAIRS AND STABILIZATION

There is an unsupported opening through the 1922 foundation into the vault area, which requires the installation of a lintel to support the 24" thick masonry. This material should be tested prior to masonry reconstruction, as the mastics and waterproofing membrane may contain hazardous material.

10. STRUCTURAL REPAIRS AND STABILIZATION

a. Beams & Columns

At the deteriorated, scaling steel columns and beam tie-backs in the Sump Pit Room, structural beams and columns that have section loss will need to be reinforced to restore their original capacity. Exposed and rusted steel beams should be sandblasted and exposed flanges reinforced with steel plates, then painted with epoxy coating.

b. Rebar & Slabs

At exposed deteriorated rebar in reinforced concrete walls and slabs (Sump Pit room, ceiling slabs at both pools, storage room 016 and miscellaneous areas at the basement ceiling) sandblast the concrete area, to expose sound rebar section, clean the area and splice in new rebar. Patch the concrete and re-surface with Sika concrete repair material.

### c. Pilasters

At the cracked brick pilasters encapsulating steel at the juncture between the 1929 addition and the original 1908 building line, rout out cracks and fill with epoxy grout.

### d. Sidewalk Hatch

At the deteriorated framing of a sidewalk hatch at the exterior pool slab, sandblast exposed, rusted steel beams and reinforce the exposed angle flange with steel plates, then paint with epoxy coating.

### e. Bearing Points

At the pool side (West) façade, the four masonry bearing points should be repaired and the two lintels replaced.

## 11. HVAC

All of the burners, boilers, hot water heaters, air handling units and AC unit are recommended to be replaced as part of any upgrade or renovation to the building. All the units, with the exception of one burner to one boiler and one water heater, date to 1982; with the exception of a single AHU they are not presently functional. The burner and water heater installed in 2001 were both damaged beyond repair during flooding from Hurricane Sandy. The remaining equipment, with the exception of a single boiler and an AHU, are presently not functional and have been out of service for several years. Please note that 10" dark grey flange gaskets at the South end of the 1922 addition basement have been identified as containing hazardous material. Lead containing paints were also identified in the basement and should be removed or encapsulated prior to any modifications. In addition, pipe insulation in chases and/or within walls behind bathroom fixtures, and live electrical components have not been tested but are assumed to contain hazardous material. These materials should be tested prior to masonry reconstruction.

The following specific actions are recommended:

- a. Replace AHU #1 5,000 CFM capacity and 2,000 SF of sheet metal ducts.
- b. Replace AHU #2 5,000 CFM capacity
- c. Replace AHU #3 15,000 CFM capacity
- d. 4,000 MBH gas-fired HW boiler
- e. 3,400 MBH gas-fired HW Boiler

## 12. PLUMBING AND FIRE PROTECTION

Due to the poor condition of the existing incoming services, the following portions of the plumbing and fire protection service should be replaced: 5" sewer valve, 4" domestic water valve, check valve and meter, OS&Y (Outside Stem and Yoke) valve on the 6" fire protection water service, and approximately 30' of the 6" sewer line.

## 13. ELECTRICAL

### a. Electrical Service

The electric service was upgraded to 1200 Amps in 1982. However, due to flooding from Hurricane Sandy, all electrical panels and all electrical wiring in the Electrical Room, Boiler Room, Sump Pit Room and Bulkhead Room (7th Avenue vault) are recommended to be replaced, ideally at a new location above the flood plane. (Refer to Needs Assessment Modifications/ Additions item A-1.4)

### b. Lighting

Replace all lighting at the basement level.

Please note that fluorescent, compact fluorescent, and incandescent light bulbs, metal halide bulbs, electrical circuit boards, lead batteries, refrigerant gas, various oils and solvents and fire extinguishers must be handled and disposed of as Universal Waste and Miscellaneous Hazardous Materials.

## 14. ELEVATOR

### a. Equipment

Replace the elevator within the existing elevator shaft. (Note this repair item should not be selected if renovation item # A-1.6 - Install New HC Reconfigured Accessible Elevator - is selected.)

### b. Controls

Upgrade the existing elevator controls.

15. INTERIOR FLOOR, WALLS, AND CEILING

a. Walls & Ceilings










Install an expansion joint between the walls and ceiling joints between the 1908 and 1929 constructions, at the interior of the pool and gym. Fill the 1/2" to 1" gap with resilient sealant and backer rod.

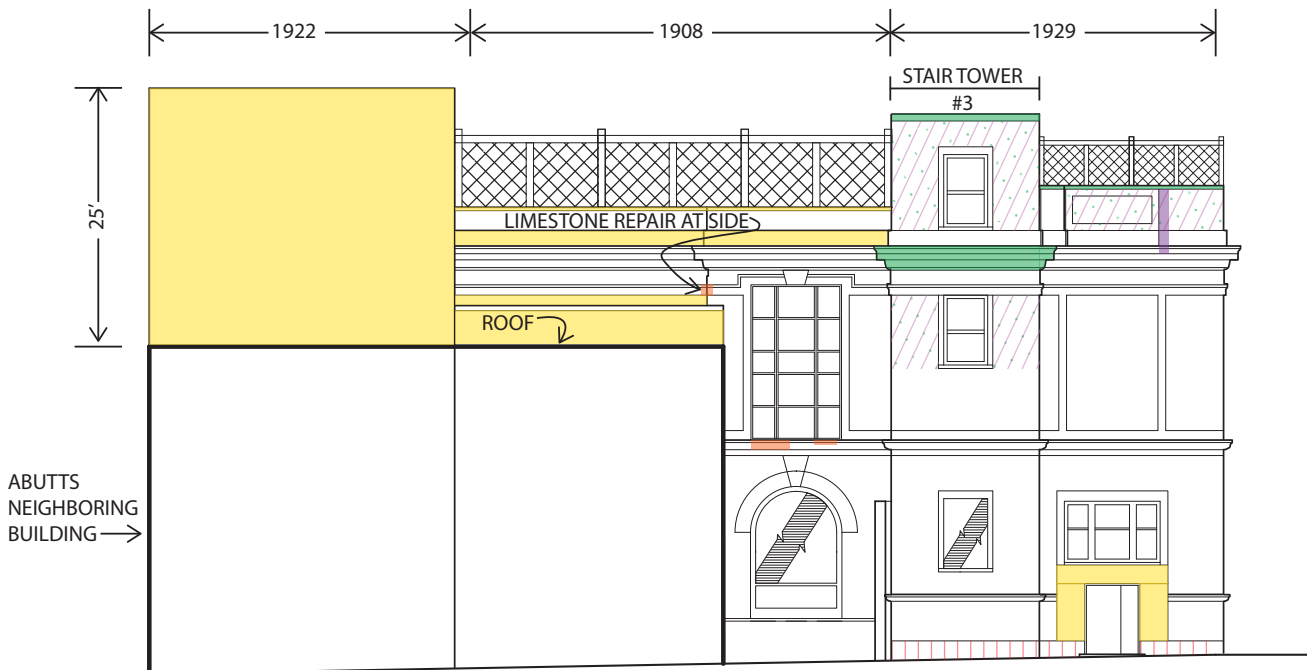
b. Floors

At the crack in the Multi-purpose room VCT flooring, install an expansion joint with cover. Otherwise provide carpet tile throughout the room.

c. Interior Windows

At two first floor arched interior windows between the pool and the 1908 construction, where there are cracks in the tile finish or the arches, clean out the cracks and install pressure grouted epoxy mortar and reset the tiles.

LEGEND	
	LIMESTONE REPLACEMENT
	LIMESTONE REPAIR (DUTCHMAN)
	BRICK REPLACEMENT
	REPOINTING
	CONTROL/EXPANSION JOINT
	LIMESTONE PATCH
	REBUILD
	REMOVE PAINT, CLEAN & REPOINT
	SECURITY FENCE



D. Facade Repair Diagram - North Elevation - Pool / Library Side

16. POOL REPAIRS (BOTH POOLS)

a. General

Provide a manual pool vacuum with waste filtered and water returned to the pool. Re-pipe accessible pool piping in the mechanical room, including supports, hangers, and valves, and provide new digital flow meters for each pool's filtered water return. Provide an impact flow meter for backwash piping and provide vacuum and compound pressure gauges. Provide double walled tanks for liquid chlorine storage and a spill platform and ramp for the pH feed system. Provide new chemical feed pumps for sanitizer and PH buffering agent and provide a new water chemistry controller in addition to chemical hazard signage for the pH buffering agent. Provide dry well water level controllers for each pool and provide a water meter on the domestic water line with totalizer and readout.

b. Accessibility

Provide a pool handicapped lift for the outdoor pool as required by the NYC Department of Buildings. The lack of this equipment has been cited as a violation and should be provided as soon as possible.

Please note that pipe insulation in chases and/or within walls, pool bodies (at both pools), and the interior pool deck beneath the ceramic floor tile setting beds have not been tested but are assumed to contain hazardous material. This material should be tested prior to masonry reconstruction.

17. INDOOR POOL

a. Repair Pool Structure and Finishes

Inject epoxy grout at cracks in the indoor pool shell, replace missing tile, and regROUT the pool. If item A-17.c below is selected, then this item A-17.a may not be selected.

b. Repair Pool Deck

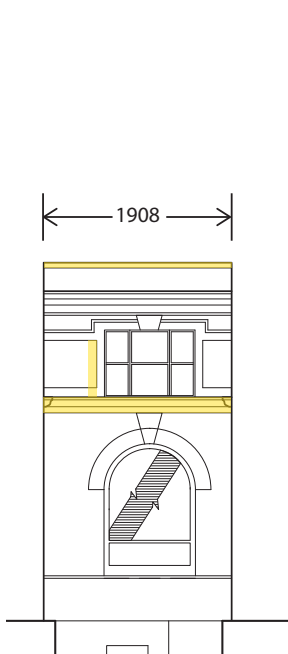
Remove and repair the indoor pool deck tile at the entire pool deck.

c. Completely re-tile the indoor pool shell

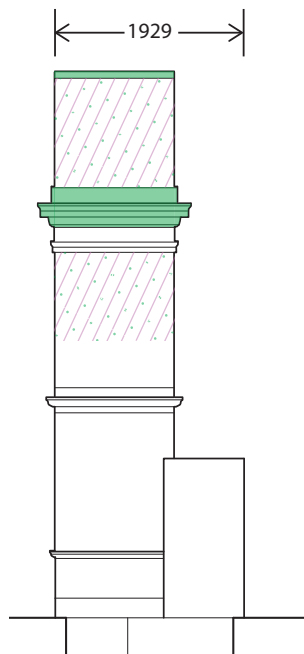
Remove all tile, inject epoxy grout at cracks in the indoor pool shell, install new waterproofing, and replace the pool tile and regROUT the pool.

d. Provide/Replace Pool Equipment

Replace the drain cover and install a safety vacuum release system (SVRS) on the suction side of each recirculation pump. Provide a new indoor barrier railing and anchors. Provide new pumps for the indoor pool, with new hair and lint strainers with spare baskets and a new high rate sand filter.



E. Facade Repair Diagram - West Elevation - Areaway



F. Facade Repair Diagram - East Elevation - Stair Tower / Areaway

e. Provide/Replace Pool Mechanical Equipment

Furnish a medium pressure ultra-violet sanitizing system for the indoor pool. Provide a dehumidification system, including a 16 horse-power outdoor packaged DX unit with gas heat, purge mode and heat recovery on the minimum Outside Air/ Exhaust Air. Provide the dehumidification system with exposed aluminum, or fiberglass (not stainless steel) ductwork in the pool area.

Please note that Aircell Pipe Insulation at the South wall of the filter room for the indoor pool has been identified as containing hazardous material.

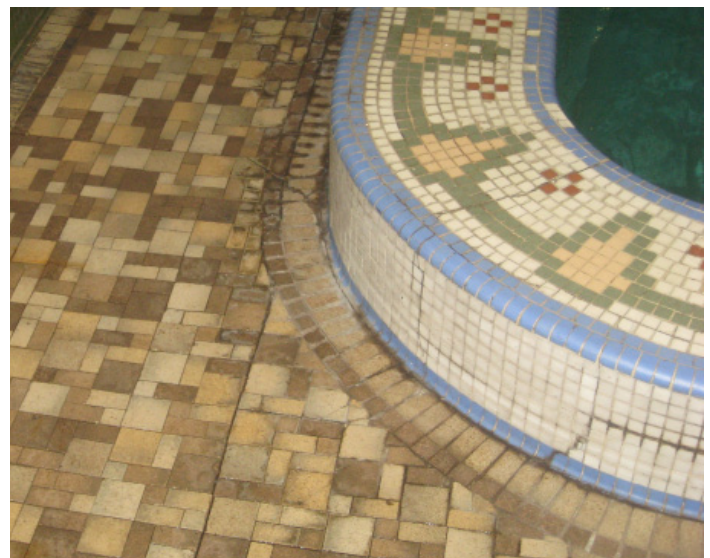
18. OUTDOOR POOL:

a. Repair Pool Structure and Finishes

RegROUT and provide link seals at outdoor pool pipe penetrations. Inject epoxy grout at cracks in the exterior pool shell, and install expansion joint sealant at joints to the pool deck slab. Remove guard rails around the diving well and patch existing concrete cracks.

b. Provide/Replace Pool Equipment

Replace the drain cover and provide two new pumps with safety vacuum release systems (SVRS) on the suction side of each pump. Install two battery powered ADA Pool Lifts. Provide new diving board safety railings and "No Diving" signage with the international no diving symbol. Provide new hair and lint strainers with spare basekets for the outdoor pool pumps, and provide new high rate sand filters.



Cracked Tile at Indoor Pool

**B. CAPITAL IMPROVEMENTS**

1. ROOFS

*a. Slate Tiles*

Examine and repair all loose or displaced slate tiles and establish a monitoring program to maintain the slate roof (Roof # IIV). Please note that black mastic (newer type), old dark, gray mastic, and black/gray caulk at the slate roof and seams between the slate roof and the brick wall have been identified as containing hazardous material. Please refer to the Hazardous Abatement report.

*b. Gutters*

Replace the copper gutter at the slate roof at the Clarkson Street façade (50LF).

2. EXTERIOR MASONRY REPAIR AND STABILIZATION

*a. Repointing*

Remove the existing repointing mortar and replace with new mortar that is more compatible with the brick. At each of the three building areas (1908, 1922 and 1929), the existing mortar shall be tested and the new mortar shall be compared for compatibility. At the 1922 façade, the new mortar should have a higher lime content than the existing repointing mortar. An ASTM C270 type O mortar is more appropriate at this façade.

*b. Remove Paint, Clean and Repoint*

At the base of the building, remove the paint using a biodegradable coating stripper. Multiple applications may be required to fully remove all paint. Do not sand blast or power wash. After paint is removed clean the masonry using mild detergent and rinse with clean water. Where masonry is stained, wash with a mild bleach mixture and rinse. Repoint as noted above.

*c. Masonry Cleaning*

Vacuum efflorescence from the masonry. Remove any remaining salts with a poultice. Poultice cleaning may be conducted using distilled water mixed with inert clay, such as kaolin or Fuller's earth, or using acid-free paper. Wash the masonry using a mild biodegradable masonry detergent and rinse with clean water. Do not sand blast or power wash.

3. EXTERIOR DOORS & LINTELS

Replace the door and lintel at the Southwest corner of the building, from the First Aid Room area to the outdoor pool. Provide a new hollow metal door. At the interior, salvage the existing interior tile and reinstall to match existing. Please note that that fire insulated doors have not been tested but are assumed to contain hazardous material. This material should be tested prior to masonry reconstruction.

4. FIRE ALARM

Provide a new Fire Alarm system for all areas being upgraded per program improvements, including modifications to the existing FA control panel to include several points for monitoring new equipment provided with the new program spaces.

5. STAIRS

At Stair #1 there are several severely deteriorated marble treads (approximately 80 sf), which should be replaced to match the existing semi-circular treads. Stair handrails should be upgraded to code-compliant railings, where possible.

6. OUTDOOR POOL ENCLOSURE FENCE, BARRIER WALL

At Clarkson Street, the barrier wall and fence separating the outdoor pool from the street is in good condition, with the exception of two existing limestone blocks (24"x16"x16") at piers, which should be reset. The existing stone base has been painted and the paint should be stripped and the limestone cleaned. There are several cracks in the limestone that should be repaired with epoxy grout injection. In addition, the limestone should be repointed.

The masonry wall containing the Keith Haring mural is in good condition, but should be monitored to keep any future deterioration at bay to preserve the valuable mural.

7. DOORS, FRAME AND HARDWARE

The basement level has a number of plywood doors that are not code-compliant and should be replaced with hollow metal doors and frames. In addition, there is a sliding steel fire door into the Boiler Room that is not operational and should be replaced.

Door hardware throughout the building is not code-compliant, with non-lever handles at most doors. The door hardware should be replaced as part of the interior reconfigurations.

Please note that that fire insulated doors have not been tested but are assumed to contain hazardous material. This material should be tested prior to masonry reconstruction.

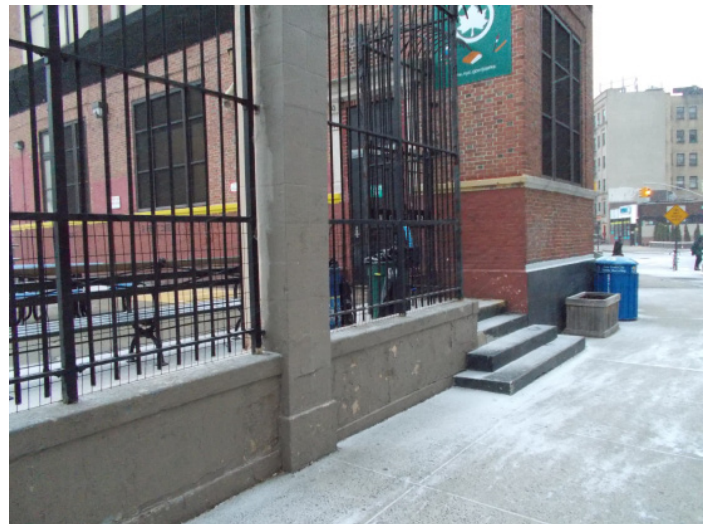


Keith Haring Mural

8. FLOOR, WALLS AND CEILING FINISHES

The wall, floor and ceiling finishes throughout the building are in good condition, considering the building's age. There are areas where tiles are cracked, plaster is damaged, and paint is flaking. In general, the interior could use sprucing up, but no major work is required. The Guastavino ceiling tiles should be scraped, patched, and painted (4,000 SF). Repair and replacement of localized areas of tile are required at the mosaic tiles in Gym #2 and the First Aid Room (pool tile is discussed elsewhere). The tile is a defining feature of the building and should be replicated to match the existing. Limited areas of quarry tile flooring are damaged at the first floor and should be removed and replaced. There are areas where repair is required at the concrete encasements around damaged column enclosures in room 206. All areas should be painted.

Please note that that waterproofing materials under the ceramic tile, terrazzo, and quarry tile floor tile setting beds have not been tested but are assumed to contain hazardous material. These materials should be tested prior to masonry reconstruction



Clarkson Street - Barrier Wall & Enclosure Fence



Clarkson Street - Pier at Barrier Wall

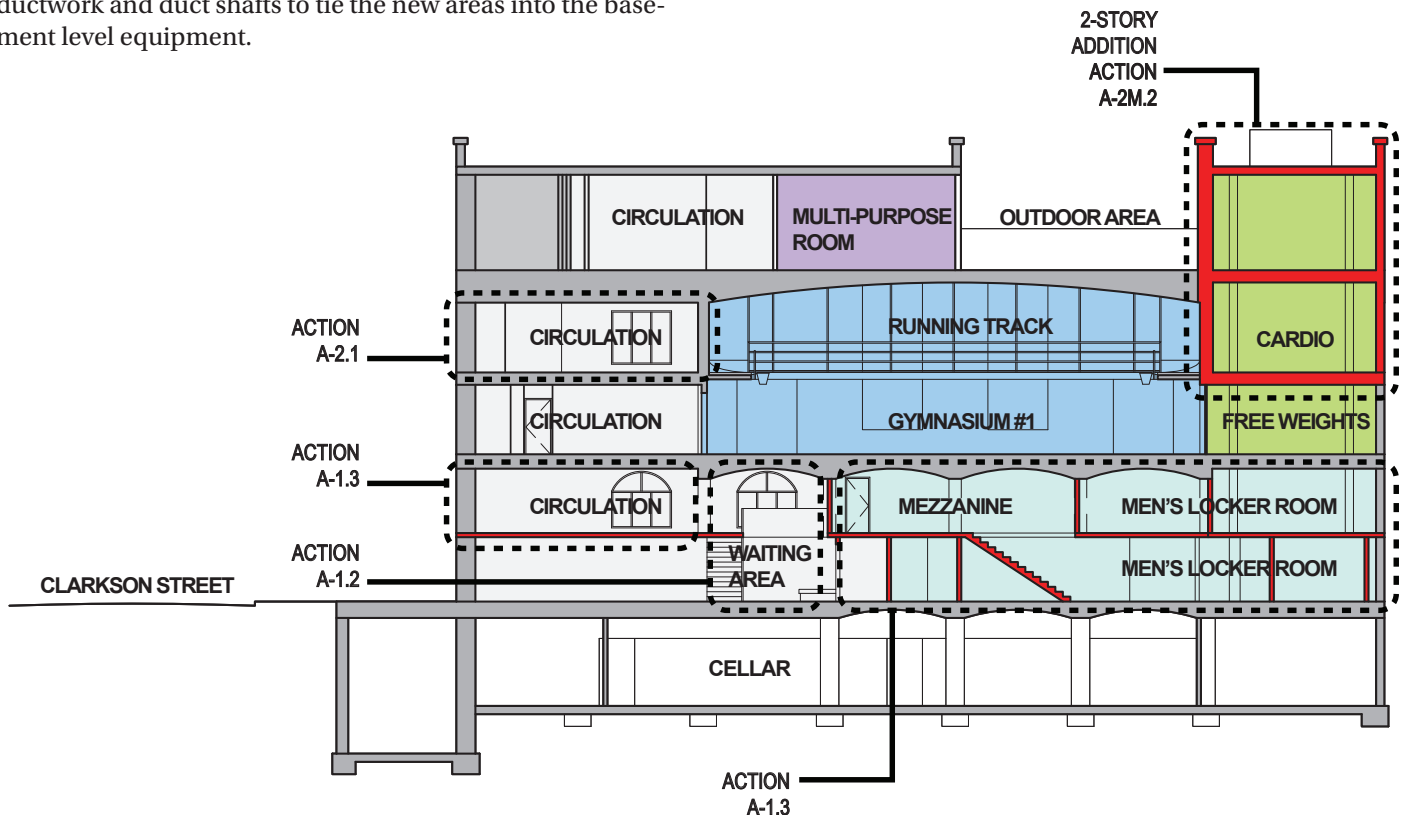
**C. NEEDS ASSESSMENT MODIFICATIONS / ADDITIONS**

As noted in the Executive Summary, the major constraint for the facility is the limited physical space available for programs. The first floor circulation path is circuitous, having one pass from the lobby, through the main stair, before accessing the locker rooms. Refer to the Facility Needs and Space Utilization Assessment Report, Task 4.1, (included in the Appendix) for detailed descriptions of the reconfiguration and addition options. The proposed work is broken down into discrete actions, most of which may be done independently, however there are many efficiencies to be gained from doing the major interior renovations and additions at one time. There are three general kinds of modifications that have been reviewed: minor modifications to create efficiencies (such as creating new openings to combine existing spaces), building additions on two low roof areas, and reconfiguring existing spaces.

The options present a variety of possibilities, some more beneficial than others. In our recommendations and the cost estimate, we suggested which of the options should be implemented. Please note that several of the Program Need Assessment Modifications and Additions options are mutually exclusive of some of the Repair and Stabilization items (refer to the task 4.1 Needs Assessment Cost Estimate for a detailed breakdown). Please note that, for the most part, the reconfiguration of spaces includes modifications to branch ductwork and duct shafts to tie the new areas into the basement level equipment.

**1. RECONSTRUCT NEW STAIR TOWER #3 AT NORTHWEST SIDE OF BUILDING**

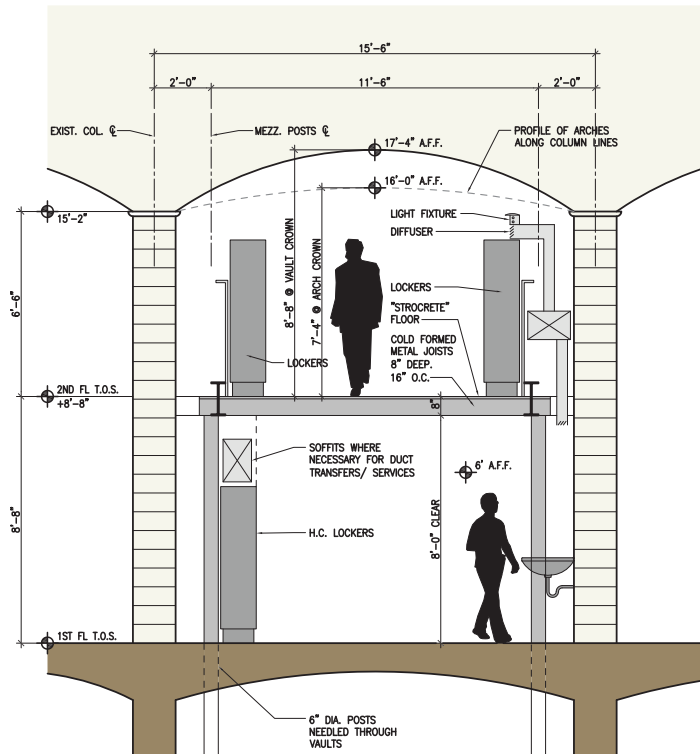
We recommend the reconstruction of the Stair Tower # 3 at the Northwest side of the building. As previously noted, repair of Stair Tower #3 is of the highest importance because the upper portions of the interior stair construction and the exterior wall construction are badly deteriorated and could present safety hazards if not stabilized. Considering that this stair is the primary egress from the second floor gymnasiums, we recommend rebuilding this stair entirely, enlarging the width and egress capacity (item A-1.7). This will require Landmark Preservation Commission approval, however this should not be a major issue since the stair is not visible from the street. The new stair tower plan should be sympathetic to the original design. By providing a new stair tower layout in conjunction with reconfiguring the locker rooms, direct access could be provided to the outdoor pool without passing through the indoor pool. This work should bring the stair into compliance with the current code. This work can occur independently from the remainder of the interior renovation work. We have recommended that this be completed under Priority 1, in conjunction with repair of the most deteriorated parapet areas.



Reconfigure Interior Spaces - Transverse Building Section

2. RENOVATE THE FIRST FLOOR

We recommend totally reconfiguring the first floor by relocating the main entrance, lobby, and locker rooms, and creating a new first floor mezzanine level to house additional locker rooms. This modification provides the most impact, creating a new and more efficient entrance lobby, streamlining the circulation, creating two levels of handicapped accessible lockers and bathrooms, and providing a more direct connection to the outdoor pool from the locker rooms. A new ADA compliant elevator should be installed with the additional first floor mezzanine stop. This first floor gut renovation would leave the Guastavino Arch ceilings exposed, highlighting the historic features of the building. The insertion of the first floor mezzanine would free up space for additional program space, offices, a family locker room, and a new first floor electrical room. In order to accomplish this, light columns will need to be needed through the Guastavino-arched floor construction of the first floor, down through the basement, to independent foundations; a light, steel-framed, thin floor mezzanine would be supported by these columns. New MEP systems would need to be carefully planned to maximize headroom at this new first floor mezzanine, which would add approximately 2,800 SF above the locker rooms. Refer to Needs Assessment Modifications/ Additions items A-1.2, A-1.3, A-1.4, A-1.5 & A-1.6. We have designated this work as Priority 3.



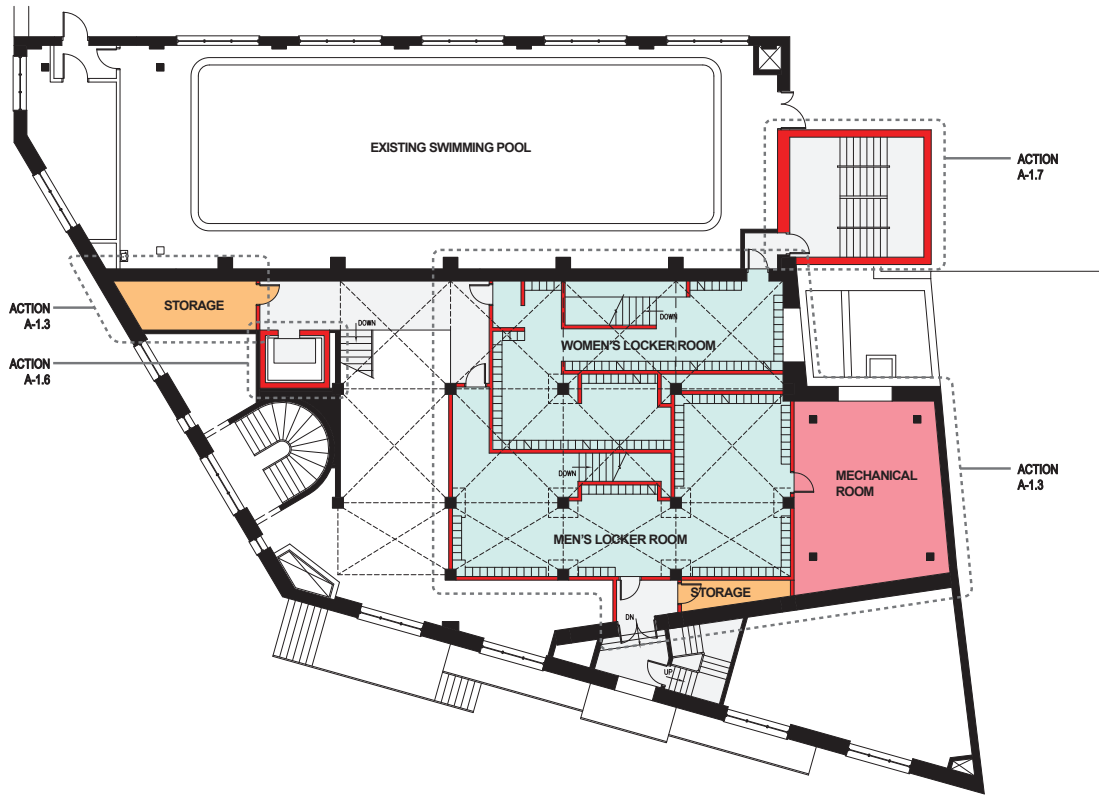
Priority 3 - Reconfigure Interior Spaces  
Recommendation A-1.3 Create New First Floor Mezzanine

In order to reconfigure the interior, make the circulation more efficient, and maximize the first floor usable space, we recommend relocating the main entrance to 7th Avenue, on the eastern side of the building (item A-1.1). With this configuration, the lobby would not be constrained and patrons could go directly from the reception desk to the locker rooms, without passing through the main stair. The existing main entrance ramp and stair are in very poor condition and are required to be rebuilt in any event. If the entrance is relocated, the work can be sequenced to do the required exterior sidewalk and vault repairs while maintaining building access. We have designated this work as Priority 2. While relocation of the entrance will require NYC Landmarks Preservation Commission approval, it is anticipated that this should not be a major issue since the current entrance is not the original one. The character of the entrance door within the arch will need to be in keeping with the original design. All sidewalk work, including the entrance relocation and sidewalk and vault replacement, will require DOT and other regulatory approvals.

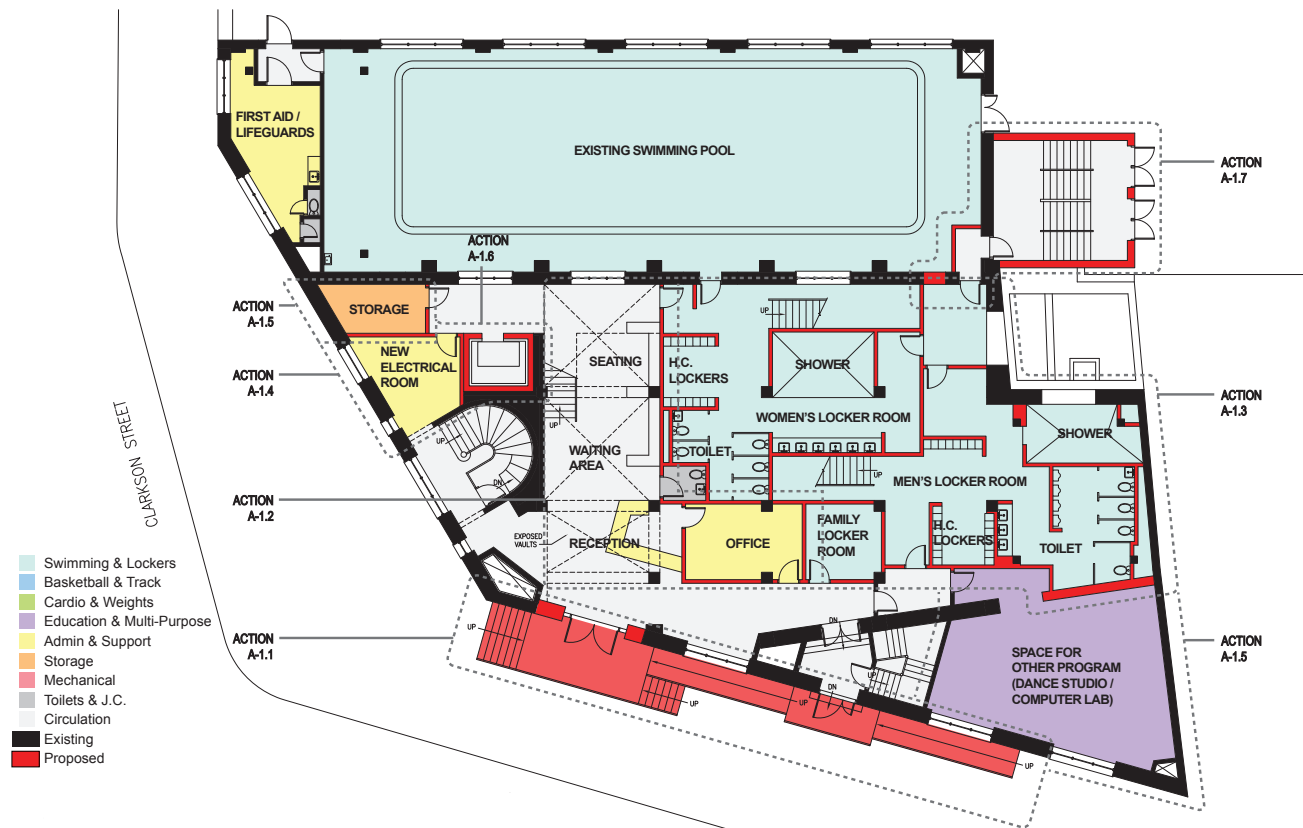


Reconfigure Interior Spaces - Location of 7th Avenue Entrance Lobby

III. SUMMARY OF RECOMMENDATIONS



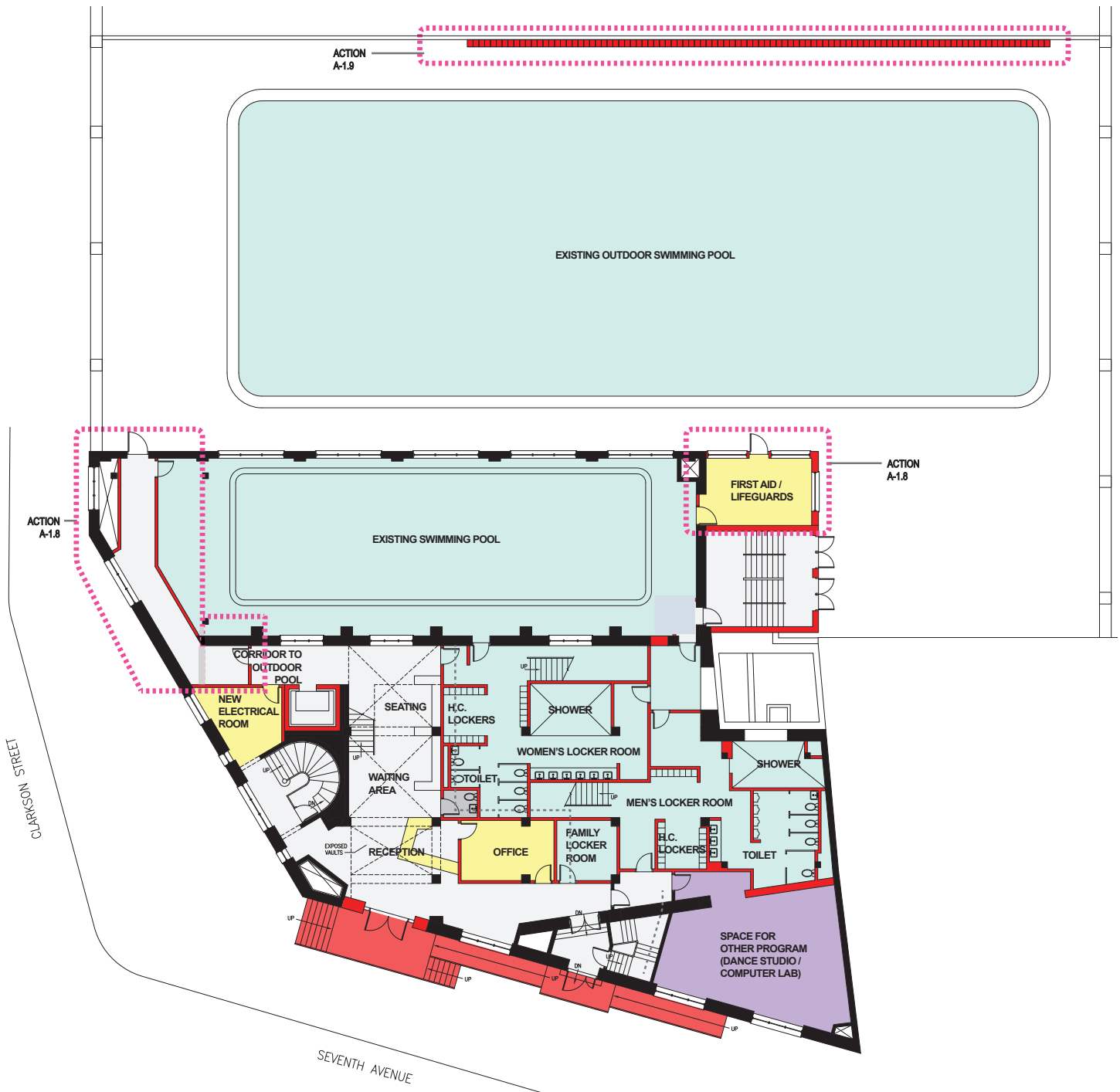
Priority 3 - Reconfigure Interior Spaces - First Floor Mezzanine



Priority 3 - Reconfigure Interior Spaces - First Floor

In response to requests from the facility, we have included an additional modification to the first floor layout. This modification builds a new one-story addition adjacent to Stair Tower #3 to relocate the First Aid Room. This would allow for the creation of a dedicated corridor from the elevator lobby to the outdoor pool. (item A-1.8). Also in response to

requests from the facility, we have recommended the addition of high density plastic lockers beneath the Keith Haring mural at the outdoor pool (item A-1.9). These modifications could occur in conjunction with the recommended Priority 2 work, or at any time thereafter.



Priority 4 - Miscellaneous Modifications - First Floor Options

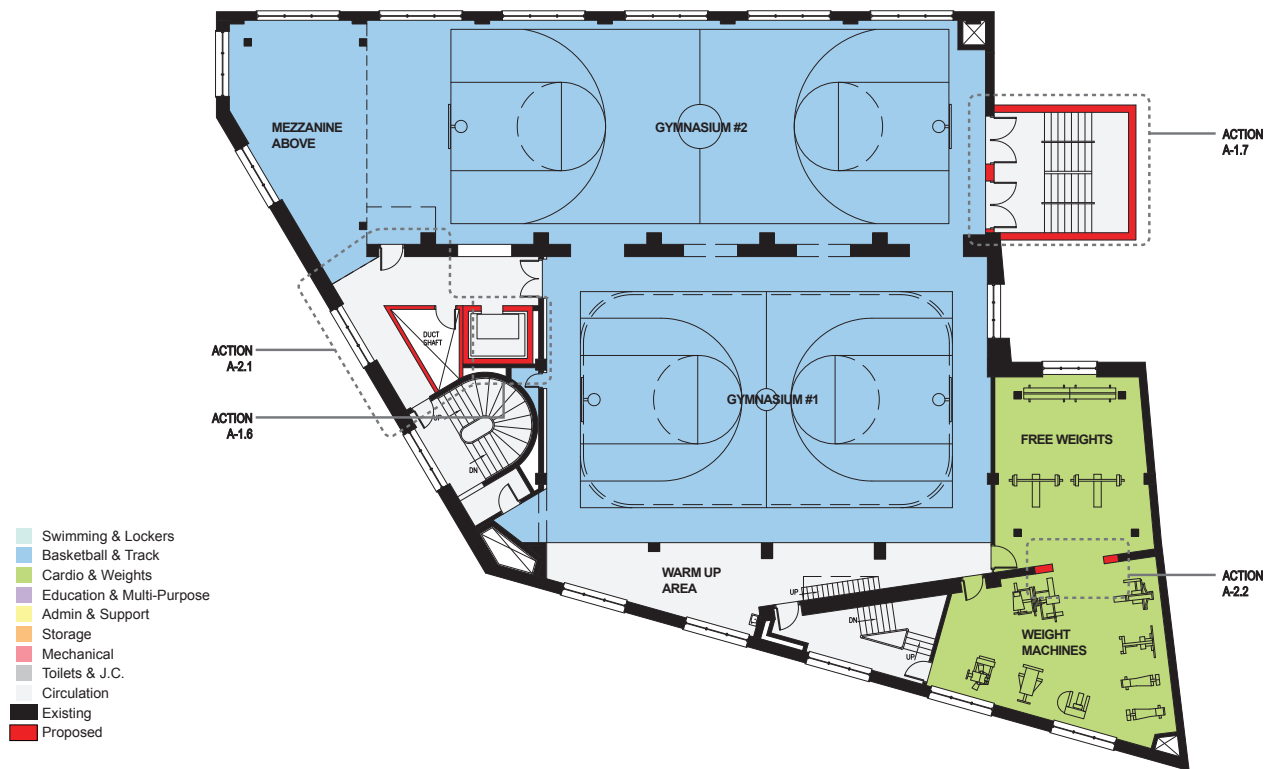
3. RENOVATE THE SECOND FLOOR & SECOND FLOOR MEZZANINE

At the second floor, we are recommending construction of a mezzanine level at the south end of Gym #2. This will maintain the free floor space at the gym level. We also recommend creating an opening between the two existing weight rooms. By rerouting the mechanical duct shafts, an opening can be created from the elevator lobby & Stair #1 into Gym #2, so that patrons don't need to pass through Gym #1 to access Gym #2. This would also allow access to the new gym mezzanine from the second floor mezzanine elevator lobby & Stair #1 (item A-2.1, A-2.2 & A-2M.1).

The existing Roof VI above the second floor Free Weight Room provides an opportunity for expansion. A two-story addition could be added at the second floor mezzanine and third floor levels. This addition could increase program space by approximately 1000 SF, however, this 2-story ad-

dition would be more structurally challenging than adding the mezzanine at the first floor. At this location, the needed columns would have to run through the second floor, the first floor and the basement before their loads could be supported at independent foundations (item A-2M.2). At either the second floor mezzanine or the third floor, an opening could be made to combine the new room with the existing room at the southeast corner of the building (item A-2M.3) This work is designated as Priority #3.

The second floor mezzanine has an existing running track circling above the perimeter of Gym #1. At the request of the facility, we reviewed removing the existing steeply banked fill to level-out the track, as well as removing the track in its entirety. We do not recommend either of these options however, since they do not add any useful space and the track is a defining element of the building that we recommend maintaining (item A-2M.4 & A-2M.5).



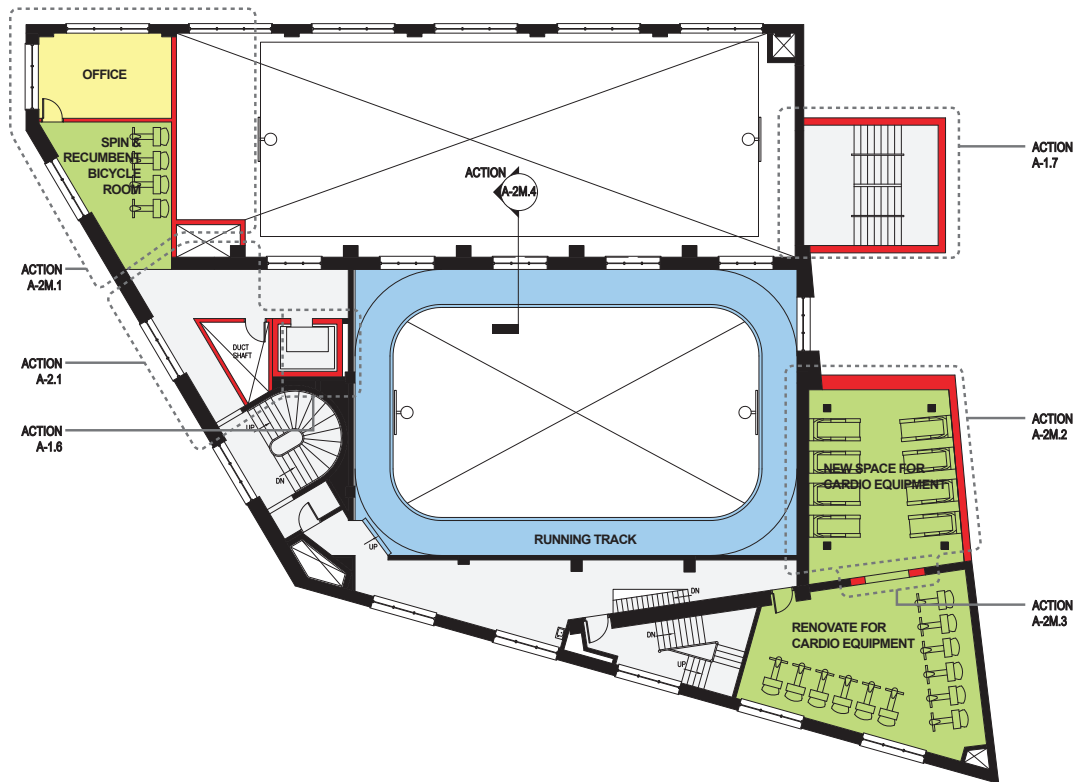
Reconfigure Interior Spaces - Second Floor



Gym #1 with Running Track at Mezzanine Level



Gym #2 - Connection to Mezzanine Level

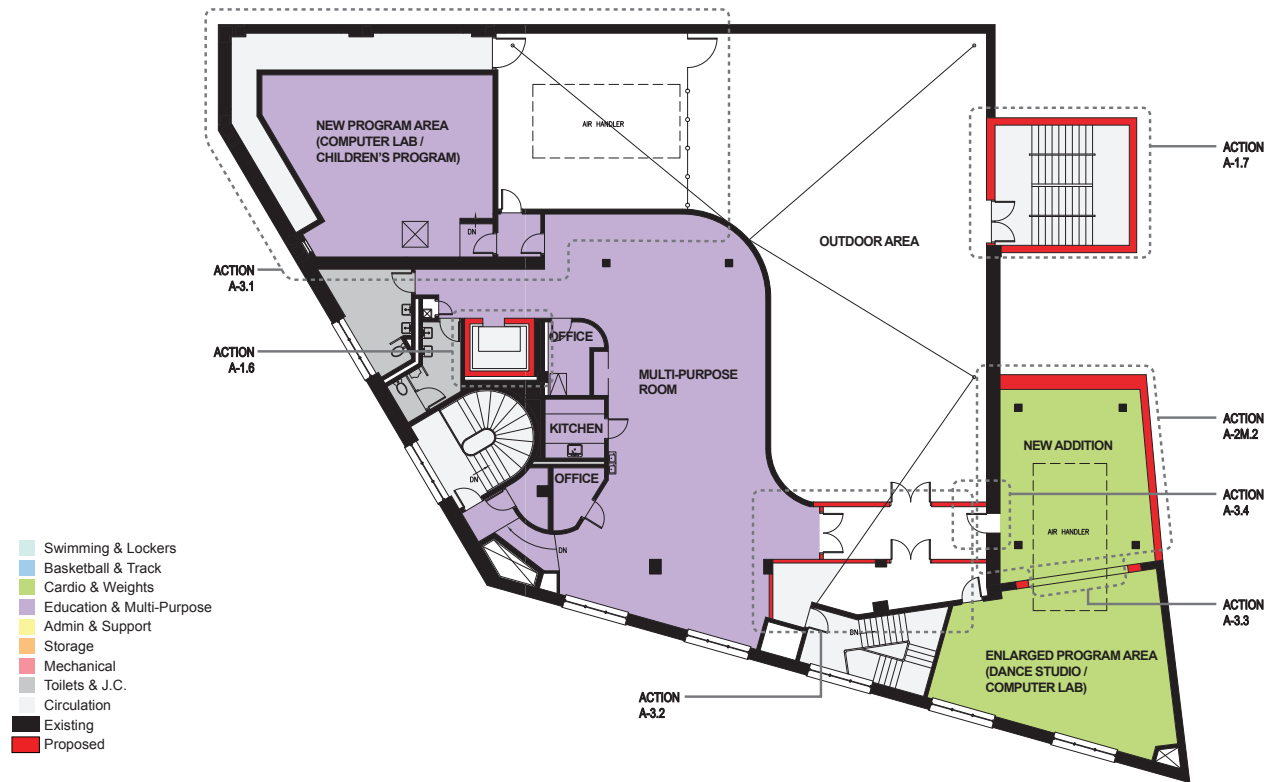


Reconfigure Interior Spaces - Second Floor Mezzanine

4. RENOVATE THE THIRD FLOOR & ROOF

As noted above, we recommend a 2-story addition above Roof VI. This would provide additional program space at the second floor mezzanine and the third floor. This addition exacerbates an existing odd condition: currently a patron must to walk outside on the third floor roof to get to existing program space (Computer Room). We have therefore recommended creating a new enclosed loggia to connect the main floor area (the Multi-purpose Room and ancillary spaces), with Stair #2 and the new addition. An opening could be created to connect the addition and the existing program space (item A-2M.2, A-3.2, A-3.3 & A-3.4).

In the Facility Needs and Space Utilization Assessment Report, we investigated adding new roof-top air conditioning and heating units (RTU) on the third floor outdoor area, which would free-up the existing Mechanical Room to be used for program space. We have not recommended this option however, as the relocation of the mechanical equipment onto the roof would reduce the usable rooftop play area and in turn adversely affect the OST (Out of School Time) and SACC (School Aged Child Care) requirements for outdoor space. In addition, if the current Mechanical Room were utilized for any new program, public access would be through the Multi-purpose Room. Per OST and SACC, adults are not allowed into or through children’s spaces, therefore the new adult program area could not be used when children’s programs were going on in the Multi-purpose Room; we do not think this is a viable option (item A-3.1).



Third Floor

## IV. COST ESTIMATE

### IV. Cost Estimate and Prioritization of Recommended Tasks

The cost estimate was prepared by Cost Concepts based on the recommendations provided herein and the Facility Needs & Space Utilization Assessment Report Task 4.

This conceptual cost estimate has been developed for each recommendation for repair and stabilization (code/health/safety issues), upgrade/capital improvement, and each needs assessment modification/addition task. These task items have been grouped and prioritized based on importance and to achieve economies of scale. The building could remain occupied during the work recommended in Priorities 1, 2 and 4, with some concessions (ie: fire watch at the egress stair during Priority 1, sequencing relocation of the entrance during Priority 2, etc.). The most economical option would be to complete all work under one contract with the building unoccupied, but the contractor would need to assure that any new (not repair) work would not exceed 60% of the replacement cost of the building, in any 12-month period.

### QUALIFICATIONS:

1.	This estimate is based on escalated prevailing wage construction costs and does not include:
	a. Lead paint removal / PCP removal / universal waste / hazardous material removal - unless otherwise noted
	b. Furniture / furnishings / equipment (FF&E)
	c. Land costs / financing
2.	Escalation at the rate of 0.33% per month is added from the date of this estimate to the start of construction for each priority package (as listed above).
	Escalation of 0.33% per month is a current factor and it is subject to change. Should the schedule change, escalation should be adjusted accordingly.
3.	This estimate is based on work being performed during regular working hours (other than noted).
4.	This estimate is based on work performed by General Contractor for each priority package as a separate contract. CM fee (if any) is not included.
5.	This estimate includes mark-ups for each individual priority package as a separate construction bid.
6.	Costs that appear within this estimate are specific to this project.
7.	This estimate is based on current market conditions.
8.	This estimate is based on 5 or more bids (for each of the priority packages as separate contracts), received via a competitive bidding process.
9.	Moving and relocation costs are not included.
10.	This is an itemized conceptual estimate and it is based on allowances and approximations, a further detailed estimate is required as design progresses.
11.	This estimate is based on the space being unoccupied during interior construction.
12.	This estimate is based on the documents received by cost concepts from Urbahn Architects via email on 07/02/2015





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 BLDG GSF : NOT APPLIC  
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**PROJECT: NYC OMB - INVESTIGATION & ASSESSMENT OF THE TONY DAPOLITO RECREATION CENTER - PLANNING ACTIONS - FINAL REPORT - TASK 5.1A**

**CLIENT : URBAHN ARCHITECTS**

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<b>A. Repair &amp; Stabilize</b>										
<b>1 Exterior Masonry Stabilization and Repair - ALL LOCALIZED</b>										
1.a Limestone Replacement (500 SF)	2	500	SF	\$250.00	\$125,000		\$125,000			
1.b Limestone Repair - Dutchman (250 SF)	2	250	SF	\$250.00	\$62,500		\$62,500			
1.c Limestone Patch at spalls (350 sf)	2	350	SF	\$150.00	\$52,500		\$52,500			
1.d Brick Replacement (350 sf)	2	350	SF	\$125.00	\$43,750		\$43,750			
1.e Installation of Control Joints (120 LF)	1	120	LF	\$75.00	\$9,000		\$9,000			
1.F SIDEWALK BRIDGE	1	430	LF	\$300.00	\$129,000		\$129,000			
1.G SCAFFOLDING	1	24500	SF	\$15.00	\$367,500		\$367,500			
1.H - HAZMAT HAZMAT AT HAZMAT ABATEMENT @ ENTIRE ITEM 1. SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	8	Tent	\$3,000.00	\$24,000		\$24,000			
<b>2 Windows and Louvers</b>										
2.a Replace all exterior windows with Insulated aluminum windows	1	3712	SF	\$150.00	\$556,800		\$556,800			
2.b At the gymnasium windows remove, refurbish (clean, paint and adjust) and reinstall existing interior window guards.	1	1232	SF	\$20.00	\$24,640		\$24,640			
2.c Remove, refurbish (clean, paint and adjust) and reinstall the existing security guards at the first floor. 47 windows, Total 1,041 SF.	1	1041	SF	\$20.00	\$20,820		\$20,820			
2.d Replace two 6" deep x 10' long x 4" high window sills with cast stone . (20 LF)	1	20	lf	\$75.00	\$1,500		\$1,500			
2.e - HAZMAT HAZMAT AT HAZMAT ABATEMENT @ ENTIRE ITEM 2. SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	970	SF	\$40.00	\$38,800		\$38,800			





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<b>A. Repair &amp; Stabilize (CONT'D)</b>										
<b>3 Parapet Stabilization and Repair</b>										
3.a Clarkson: Rebuild to 48" height x 40' including limestone banding replacement (18" high band x 10').	1	40	If	\$1,500.00	<b>\$60,000</b>	\$60,000				
3.a - HAZMAT PARAPET - HAZMAT ABATEMENT @ ENTIRE ITEM 3.a. SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	160	SF	\$40.00	<b>\$6,400</b>	\$6,400				
3.a - HAZMAT ROOF - HAZMAT ABATEMENT @ ENTIRE ITEM 3.a. SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1	Loc	\$900.00	<b>\$900</b>	\$900				
3.b Pool side: Rebuild 48" high 140' long parapet including and limestone banding replacement (18" high x 20').	1	140	If	\$1,500.00	<b>\$210,000</b>		\$210,000			
3.b - HAZMAT HAZMAT ABATEMENT @ ENTIRE ITEM 3.b. SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	560	SF	\$40.00	<b>\$22,400</b>		\$22,400			
3.c Replace all coping stones with cast in place coping and provide thru stainless steel wall flashing.	1	133	If	\$100.00	<b>\$13,300</b>		\$13,300			
3.d Provide a new 7'-0" high anodized aluminum security fence to protect from objects being thrown off the roof top play area. Anchor the fence post to the inside face of the parapet. 110' long x 48" to bring the full height to 7' above the roof.	1	110	If	\$350.00	<b>\$38,500</b>		\$38,500			
<b>4 Colonnade /Mech Room Bulkhead Stabilization and Repair</b>										
4.a Rake and Repoint limestone and brick sky joints on cornices and banding. (150 LF)	1	150	If	\$25.00	<b>\$3,750</b>	\$3,750				
4.b Restitch interior parapet at computer room roof III and at Mech room roof II (20 SF)	1	20	SF	\$300.00	<b>\$6,000</b>	\$6,000				
4.b - HAZMAT HAZMAT ABATEMENT @ ENTIRE ITEM 4.b. SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	20	SF	\$40.00	<b>\$800</b>	\$800				
4.c Provide expansion joints in the Mechanical room CMU walls (80 LF)	1	80	LF	\$100.00	<b>\$8,000</b>		\$8,000			
4.d Remove the existing stucco and provide new lath and stucco plaster at the ceiling of the colonnade (900 SF)	1	900	SF	\$50.00	<b>\$45,000</b>		\$45,000			
4.e Remove limestone at interior of Mechanical Room top of CMU wall and spray fireproof exposed steel beam (80 LF)		80	LF	\$75.00	<b>\$6,000</b>		\$6,000			
4.c - HAZMAT HAZMAT ABATEMENT @ ENTIRE ITEM 4.c. SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	80	SF	\$40.00	<b>\$3,200</b>		\$3,200			





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<b>A. Repair &amp; Stabilize (CONT'D)</b>										
<b>5 Rebuild Stair 3:</b>										
5.a	na ***	1	lot	\$200,000.00	SEE ALTERNATE COSTS					\$200,000
5.a - HAZMAT	1	280	SF	\$40.00	SEE ALTERNATE COSTS					\$11,200
5.b	na ***	1	lot	\$75,000.00	SEE ALTERNATE COSTS					\$75,000
5.b - HAZMAT	1	96	SF	\$36.00	SEE ALTERNATE COSTS					\$3,456
<b>6 Main Entrance Ramp Stair and Sidewalk</b>										
6.a	na ***	1	lot	\$125,000.00	SEE ALTERNATE COSTS					\$125,000
6.b	1	1200	SF	\$65.00	\$78,000		\$78,000			
6.b - HAZMAT	1	1200	SF	\$40.00	\$48,000		\$48,000			
6.c	1	1200	SF	\$40.00	\$48,000		\$48,000			
6.c - HAZMAT	1	1200	SF	\$40.00	\$48,000		\$48,000			





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<b>A. Repair &amp; Stabilize (CONT'D)</b>											
<b>7</b>	<b>Repair Site Paving and Stabilize Substructure</b>										
7.a	At the Pool Deck - Replace sidewalk access hatch, 6x6 Door , scrape prime and paint steel. Repair concrete slab (10 SF) and (1) Provide new deck drain, Replace topping slab and waterproofing above structural slab. (200 SF)	1	1	lot	\$20,000.00	<b>\$20,000</b>		\$20,000			
7.a - HAZMAT	HAZMAT ABATEMENT @ ENTIRE ITEM 7.a. SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	200	SF	\$40.00	<b>\$8,000</b>		\$8,000			
7.b	Repair Seventh Avenue Vault and sidewalk: Remove existing sidewalk and existing structural slab; Replace (17) W12x30 x 15' long Steel tie beams and finish exposed beams with spray on fireproofing; Provide new 9" composite concrete structural slab (1000 SF) Provide waterproofing above structural slab and install new 3" sidewalk topping.	1	1	lot	\$250,000.00	<b>\$250,000</b>		\$250,000			
7.b - HAZMAT	HAZMAT ABATEMENT @ ENTIRE ITEM 7.b. SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1000	SF	\$40.00	<b>\$40,000</b>		\$40,000			
7.C	Replace Seventh Avenue sidewalk on grade and above original coal chutes. Remove existing sidewalk slab on grade and 12" soli beneath. Install new 12" crush gravel and vapor barrier and install new reinforced 5" sidewalk slab per DOT standards. At four existing coal chutes beneath sidewalk slab, fill chute with crushed gravel cover with vapor barrier and install sidewalk. (900 sf of sidewalk; 1800 cubic feet of gravel under sidewalk; 1000 cubic feet (total) of fill in coal chutes)	1	900	SF	\$55.00	<b>\$49,500</b>		\$49,500			





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<b>A.</b>	<b>Repair &amp; Stabilize (CONT'D)</b>											
<b>8</b>	<b>Roof Repair</b>											
8.a	Provide new insulated SBS roofing at roofs II & III , over the mechanical room, computer room and along Seventh Avenue. (2500 sq ft) - INCL/ REMOVAL	1	2500	SF	\$48.00	\$120,000			\$120,000			
8.a - HAZMAT	HAZMAT ABATEMENT @ ENTIRE ITEM 8.a - SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1	lot	\$12,492.00	\$12,492			\$12,492			
8.b	Provide new insulated SBS roofing at roof VI , over the 2nd floor weight room. (500 sq ft) *** If Program Building Modifications and Additions item A-2M.2 Build new 2-story Structure above Existing Roof VI" is selected then Repair item 8b is not required		500	SF	\$48.00	SEE ALTERNATE COSTS					\$24,000	
8.b - HAZMAT	HAZMAT ABATEMENT @ ENTIRE ITEM 7.a. SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1	lot	\$4,478.00	SEE ALTERNATE COSTS					\$4,478	
<b>9</b>	<b>Foundation Repair and Stabilization</b>											
9.a	Install a 3'-6" lintel to support the 24" thick masonry at the unsupported approximately 30"W by 36"H opening through the 1922 foundation into the vault area.	1	1	LOC	\$5,000.00	\$5,000		\$5,000				
9.a - HAZMAT	HAZMAT ABATEMENT @ ENTIRE ITEM 9.a - SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1	Loc.	\$900.00	\$900		\$900				
<b>10</b>	<b>Structural Repair and Stabilization</b>											
10.a	At the deteriorated, scaling steel columns and beam tie-backs in the Sump Pit Room, structural beams and columns that have section loss will need reinforced to restore their original capacity. Therefore sandblast exposed and rusted steel beams and reinforce exposed flange with steel plates, then paint with epoxy coating. (300 LF) - ALLOW TOTAL REINF PLATE 50 LBS / LF	1	300	LF	\$350.00	\$105,000		\$105,000				
10.b	At exposed deteriorated rebar in reinforced concrete walls and slabs (Sump Pit room, ceiling slabs at both pools, storage room 016 and miscellaneous areas at the basement ceiling) sandblast the concrete area to expose sound rebar section, clean the area and splice in new rebar. Patch the concrete and re-surfaced with Sika concrete repair material. (1100 sq ft)	1	1100	SF	\$50.00	\$55,000		\$55,000				
10.c	Route out cracks in brick pilasters and fill with epoxy grout. (12 LF)	1	12	LF	\$150.00	\$1,800		\$1,800				
10.d	At deteriorated framing of a sidewalk hatch at the exterior pool slab, sandblast exposed, rusted steel beams and reinforce exposed angle flange with steel plates, then paint with epoxy coating. (20 lf)	1	1	LOC	\$15,000.00	\$15,000		\$15,000				
10.e	Replace window two lintels (30 lf))	1	2	loc	\$5,000.00	\$10,000		\$10,000				





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<b>A. Repair &amp; Stabilize (CONT'D)</b>											
<b>11</b>	<b>Mechanical System:</b>										
11.a	Replace existing with new AHU #1 - 5,000 CFM capacity and 2,000 SF of sheet metal ducts.	1	1	lot	\$60,000.00	<b>\$60,000</b>		\$60,000			
	Replace existing with new AHU #2 - 5,000 CFM capacity	1	1	ea	\$42,000.00	<b>\$42,000</b>		\$42,000			
	Replace existing with new AHU #3 - 15,000 CFM capacity	1	1	ea	\$115,000.00	<b>\$115,000</b>		\$115,000			
	Replace existing with new 4,000 MBH gas-fired HW boiler	1	1	ea	\$35,000.00	<b>\$35,000</b>		\$35,000			
	Replace existing with new 3,400 MBH gas fired HW Boiler	1	1	ea	\$30,000.00	<b>\$30,000</b>		\$30,000			
11.a - HAZMAT	HAZMAT ABATEMENT @ ENTIRE ITEM 11.a - SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1	lot	\$65,000.00	<b>\$65,000</b>		\$65,000			
<b>12</b>	<b>Plumbing and Fire Protection System:</b>										
	Replace existing with new 5" Sewer valve, 4" Dom. Water Valve, check valve and meter, OS&Y 6" Fire valve	1	1	lot	\$25,000.00	<b>\$25,000</b>		\$25,000			
	Replace 30' of existing 6" sewer line with new with new 6" sewer line @ BASEMENT LEVEL CLG	1	30	lf	\$200.00	<b>\$6,000</b>		\$6,000			
<b>13</b>	<b>Electrical System:</b>										
	Replace / relocate electrical service including 1200 amp service new panel (assume 60 feet displacement and 50 contacts), and replace all distribution electrical panels and all electrical wiring in Electrical Room, Boiler Room, Sump Pit Room and Bulkhead 013.	1	1	lot	\$105,000.00	<b>\$105,000</b>			\$105,000		
	Replace all lighting at the basement level (11,000 SF)	1	11000	SF	\$5.00	<b>\$55,000</b>			\$55,000		
13 - HAZMAT	HAZMAT ABATEMENT @ ENTIRE ITEM 13 - SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1	lot	\$7,500.00	<b>\$7,500</b>			\$7,500		
<b>14</b>	<b>Elevator:</b>										
	Replace elevator in existing elevator shaft. (Note this repair item should not be selected if renovation item # A-1.6 Install New HC Reconfigured Accessible Elevator is selected.)	1	1	lot	\$450,000.00	<b>SEE ALTERNATE COSTS</b>					<b>\$450,000</b>
14 - HAZMAT	HAZMAT ABATEMENT @ ENTIRE ITEM 14 - SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1	lot	\$42,000.00	<b>\$42,000</b>			\$42,000		
<b>15</b>	<b>Interior Floor, Walls and Ceiling</b>										
15.a	Fill the ½" to 1" gap at the first and second floor between the original wall and the pilasters, with resilient sealant and backer rod. (3000 lf)	1	3000	lf	\$10.00	<b>\$30,000</b>			\$30,000		
15.b	At the crack in the Multi-purpose room VCT flooring install an expansion joint with cover. Or provide carpet tile throughout the room. (30 LF)	1	30	lf	\$75.00	<b>\$2,250</b>			\$2,250		
15.b - HAZMAT	HAZMAT ABATEMENT @ ENTIRE ITEM 15.b - SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1	tent	\$2,500.00	<b>\$2,500</b>			\$2,500		
15.c	At two first floor arched interior windows between the pool and the 1908 construction, where there are cracks in the tile finish or the arches, clean out the crack install pressure grouted with epoxy mortar and reset the tiles. (8 LF)	1	1	loc	\$2,500.00	<b>\$2,500</b>			\$2,500		





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REV DATE : 10/26/15

DATE : 08/03/15

BLDG GSF : NOT APPLIC

TYPE OF ESTIMATE : ITEMIZED CONCEPTUAL (FINAL REPORT - TASK 5.1A)

**PROJECT: NYC OMB - INVESTIGATION & ASSESSMENT OF THE TONY DAPOLITO RECREATION CENTER - PLANNING ACTIONS - FINAL REPORT - TASK 5.1A**

**CLIENT : URBAHN ARCHITECTS**

Recommendation Prioritization Summary:	Priority	Qty	Unit	Unit Cost (Material + Labor)	TOTAL COST (See below for Mark-ups - General Condition, OH & P, Escal, etc.) - Not including Alternate costs	Priority Recommendations				Alternate Costs - Not Included in Total Costs (See below for Mark-ups - General Condition, OH & P, Escal, etc.)
						Priority 1 - Construction start 1/2017	Priority 2 - Construction start 1/2019	Priority 3 - Construction start 1/2021	Priority 4 - Construction start 1/2024	
<b>A. Repair &amp; Stabilize (CONT'D)</b>										
<b>16 Pool Repairs</b>										
16.a At both pools: Provide a manual pool vacuum with waste filtered and returned to the pool; Re-pipe accessible pool piping in the mechanical room including supports, hangers, and valves; ; Provide new digital flow meters for each pool's filtered water return; Provide impact flow meter for backwash piping; Provide vacuum and compound pressure gauges; Provide double walled tanks for liquid chlorine storage; Provide spill platform and ramp for pH feed system; Provide dry well water level controllers for each pool; Provide new chemical feed pumps for sanitizer and PH buffering agent; Provide a new water chemistry controller; Provide a water meter on the domestic water line with totalizer and readout; Provide chemical hazard signage for pH buffering agent - - COST AS PER POOL CONSULTANT	1	1	lot	\$135,178.00	<b>\$135,178</b>		\$135,178			
16.a - HAZMAT HAZMAT ABATEMENT @ ENTIRE ITEM 16.a - SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1	tent	\$2,500.00	<b>\$2,500</b>		\$2,500			
<b>17 Indoor Pool Repairs</b>										
17.a Repair Pool Structure and Finishes: Pool Shell epoxy grout injection for cracks (160 LF); Replace missing tile (1x1, 200 SF) and regrout (4,250 SF) ****Mutually exclusive - If item 17c is selected than this item may not be selected - COST AS PER POOL CONSULTANT	1	1	lot	\$65,000.00	<b>SEE ALTERNATE COSTS</b>					<b>\$65,000</b>
17.b Remove and repair Indoor Pool Deck Tile (2x2 tile 1,200 SF)	1	1200	sf	\$30.00	<b>\$36,000</b>		\$36,000			
17.c Completely re-tile indoor pool shell with new waterproofing and crack remediation: Replace missing tile (1x1, 3400 SF) and regrout (4,250 SF) - COST AS PER POOL CONSULTANT	1	1	lot	\$153,000.00	<b>\$153,000</b>		\$153,000			
17.d Provide / Replace Pool Equipment: Replace Drain Cover (1) 25 SF; Install an SVRS on the suction side of each recirculation pump; Provide a new indoor barrier railing and anchors; Provide new pumps for the indoor pool; Provide new hair and lint strainers for the indoor pool pumps with spare baskets; Provide a new high rate sand filter for the indoor pool - COST AS PER POOL CONSULTANT	1	1	lot	\$78,460.00	<b>\$78,460</b>		\$78,460			
17.e Provide / Replace Pool Mechanical Equipment: Furnish a medium pressure UV system for the indoor pool; Provide Dehumidification System including a 16 HP outdoor packaged DX unit loaded up with gas heat, purge mode and heat recovery on the minimum OA/EA. Provide dehumidification system ductwork which shall be exposed in the pool area and be constructed of aluminum, or fiberglass (not stainless steel); Furnish a medium pressure UV system for the indoor pool	1	1	lot	\$262,500.00	<b>\$262,500</b>		\$262,500			
17.d - HAZMAT HAZMAT ABATEMENT @ ENTIRE ITEM 17. SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1200	SF	\$28.00	<b>\$33,600</b>		\$33,600			





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**CLIENT : URBAHN ARCHITECTS**

Recommendation Prioritization Summary:		Priority	Qty	Unit	Unit Cost (Material + Labor)	TOTAL COST (See below for Mark-ups - General Condition, OH & P, Escal, etc.) - Not including Alternate costs	Priority Recommendations				Alternate Costs - Not Included in Total Costs (See below for Mark-ups - General Condition, OH & P, Escal, etc.)
							Priority 1 - Construction start 1/2017	Priority 2 - Construction start 1/2019	Priority 3 - Construction start 1/2021	Priority 4 - Construction start 1/2024	
<b>A.</b>	<b>Repair &amp; Stabilize (CONT'D)</b>										
<b>18</b>	<b>Outdoor Pool Repairs</b>										
18.a	Repair Pool Structure and Finishes: Regrout and provide link seals at outdoor pool pipe penetrations; Pool Shell epoxy grout injection for cracks (160 LF); Expansion joint sealant to pool deck slab (400 LF); Remove guard rails around deep end (120 LF) Patch concrete at 26 locations; Regrout and provide link seals at outdoor pool pipe penetrations; Remove and replace outdoor pool finish including resealing at joints and below the gutter, and crack remediation (8,900 sf)	1	1	lot	\$118,800.00	<b>\$118,800</b>		\$118,800			
18.b	Provide / Replace Pool Equipment: Replace Drain Cover (1) 60 SF; Provide new pumps for the outdoor pool; Install two battery powered ADA Pool Lifts.; Provide new diving board safety railings; Provide "No Diving" signage with the international no diving symbol; Provide new hair and lint strainers for the outdoor pool pumps with spare baskets; Provide new high rate sand filters for the outdoor pool - - COST AS PER POOL CONSULTANT	1	1	lot	\$133,280.00	<b>\$133,280</b>		\$133,280			
<b>A.</b>	<b>SUBTOTAL (A) - CONSTRUCTION COST - Repair &amp; Stabilize - DIRECT COST (SEE BELOW FOR MARK-UPS)</b>					<b>\$4,372,820</b>	<b>\$77,850</b>	<b>\$3,915,728</b>	<b>\$379,242</b>	<b>\$0</b>	





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**CLIENT : URBAHN ARCHITECTS**

Recommendation Prioritization Summary:		Priority	Qty	Unit	Unit Cost (Material + Labor)	TOTAL COST (See below for Mark-ups - General Condition, OH & P, Escal, etc.) - Not including Alternate costs	Priority Recommendations				Alternate Costs - Not Included in Total Costs (See below for Mark-ups - General Condition, OH & P, Escal, etc.)
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<b>B.</b>	<b>Capital Improvement</b>										
<b>1</b>	<b>Roofs</b>										
1.a	Examine and repair all loose or displaced slate tiles. (approx. 6). Monitor the condition of the slate roof. (roof # IIV).	2	6	loc	\$250.00	<b>\$1,500</b>			\$1,500		
1.a - HAZMAT	HAZMAT ABATEMENT @ ENTIRE ITEM 1.a - SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1	LS	\$900.00	<b>\$900</b>			\$900		
1.b	Replace the copper gutter at Clarkson Street façade at the slate roof. (50LF)	2	50	lf	\$75.00	<b>\$3,750</b>			\$3,750		
1.b - HAZMAT	HAZMAT ABATEMENT @ ENTIRE ITEM 1.b - SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1	LS	\$900.00	<b>\$900</b>			\$900		
<b>2</b>	<b>Exterior Masonry Stabilization and Repair - SEE SECTION A. Repair &amp; Stabilize FOR SIDEWALK BRIDGE AND SCAFFOLDING</b>										
2.a	Repointing	3	2815	SF	\$25.00	<b>\$70,375</b>		\$70,375			
2.b	Remove Paint, Clean and Repoint	5	1585	SF	\$35.00	<b>\$55,475</b>		\$55,475			
2.c	Clean Masonry (9000 SF)	5	9000	SF	\$5.00	<b>\$45,000</b>		\$45,000			
<b>3</b>	<b>Exterior Doors &amp; Lintels</b>										
	Replace door and lintel at the door in the south east corner of the building from the first aid office area to the outdoor pool. Provide new hollow metal door. At the interior, salvage the existing interior tile and reinstall to match existing	2	1	LOC	\$10,000.00	<b>\$10,000</b>		\$10,000			
	HAZMAT ABATEMENT @ ENTIRE ITEM 3 - SEE HAZMAT CONSULTANT REPORT FOR DETAIL - COSTS ARE AS PER HAZMAT CONSULTANT	1	1	Door	\$350.00	<b>\$350</b>		\$350			
<b>4</b>	<b>Fire Alarm System:</b>										
	Replace existing with new FA system.	2	24404	SF	\$6.00	<b>\$146,424</b>			\$146,424		
	Provide a FA control panel with approximately 10 control points	2	1	ea	\$8,500.00	<b>\$8,500</b>			\$8,500		
<b>5</b>	<b>Stairs:</b>										
	At Stair # 1 Replace Marble treads (80 SF) to match existing semi- circular treads	4	80	SF	\$100.00	<b>\$8,000</b>			\$8,000		
<b>6</b>	<b>Outdoor Pool Enclosure Fence, Barrier wall:</b>										
	Reset approximately two existing limestone blocks (24"x16"x16") at piers at the outdoor pool fencing.	4	2	loc	\$880.00	<b>\$1,760</b>			\$1,760		
	Strip paint from the limestone at the Clarkson Street wall.	4	160	SF	\$7.00	<b>\$1,120</b>			\$1,120		
	Provide injection grout to repair limestone cracks.	2	10	lf	\$75.00	<b>\$750</b>			\$750		
	Repoint limestone (100 LF)	4	100	lf	\$25.00	<b>\$2,500</b>			\$2,500		









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**PROJECT: NYC OMB - INVESTIGATION & ASSESSMENT OF THE TONY DAPOLITO RECREATION CENTER - PLANNING ACTIONS - FINAL REPORT - TASK 5.1A**

**CLIENT : URBAHN ARCHITECTS**

Recommendation Prioritization Summary:		Priority	Qty	Unit	Unit Cost (Material + Labor)	TOTAL COST (See below for Mark-ups - General Condition, OH & P, Escal, etc.) - Not including Alternate costs	Priority Recommendations				Alternate Costs - Not Included in Total Costs (See below for Mark-ups - General Condition, OH & P, Escal, etc.)
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<b>C. Needs Assessment Modifications/ Additions</b>											
<i>(Refer to the task 4.1 Needs Assessment Cost Estimate for detailed breakdown)</i>											
A-1.1	Relocate Main Entrance to 7th Avenue <b>*** If this Program Needs Assessment Modifications and Additions item A-1.1 Relocate Main Entrance to 7th Ave is selected then Repair item 6a is not required; Repair item 6b would be required</b>	2				\$145,600		\$145,600			
A-1.2	Create new lobby	2				\$329,635			\$329,635		
A-1.3	Construct First Floor Mezzanine for lockers & mech room and reconfigure first floor lockers to add program space	2				\$4,066,835			\$4,066,835		
A-1.4	Relocate Electrical Room to 1st floor					\$420,000			\$420,000		
A-1.5	Renovate other spaces on first floor	2				\$102,800			\$102,800		
A-1.6	Install new HC accessible elevator	3				\$839,000			\$839,000		
A-1.7	Reconstruct new stair tower at north-east side of building <b>*** If this Program Needs Assessment Modifications and Additions item A-1.7 Reconstruct Stair Tower is selected then Repair item 5a and 5b are not required</b>	2				\$1,240,600	\$1,240,600				
A-1.8	New First Aid Room & New exit corridor to Outdoor Pool	1				\$212,100			\$212,100		
A-1.9	Install new outdoor lockers at the outdoor pool	2				\$115,500			\$115,500		
A-2.1	Renovate area around existing elevator	4				\$230,335			\$230,335		
A-2.2	Create an opening between 2 weight rooms	4				\$12,560			\$12,560		
A-2M.1	Build partial mezzanine over Gym 2	4				\$565,235			\$565,235		
A-2M.2	Build new 2-story Structure above Existing Roof VI for Cardio exercise room on floor 2M and dance studio on floor 3 <b>*** If this Program Needs Assessment Modifications and Additions item A-2M.2 Build new 2-story Structure above Existing Roof VI" is selected then Repair item 8b is not required</b>					\$1,034,218			\$1,034,218		
A-2M.3	Create an opening between 2 weight rooms					\$12,560			\$12,560		
A-2M.4	Unback Running Track	nr				SEE ALTERNATE COSTS					\$12,000
A-2M.5	Eliminating the running track	nr				SEE ALTERNATE COSTS					\$234,079
A-3.1	Remove equipment from mechanical room and covert to computer room	nr				SEE ALTERNATE COSTS					\$93,760
A-3.2	Enclose existing loggia connecting multipurpose room with existing computer room	4				\$194,220			\$194,220		
A-3.3	Create an opening between 2 rooms to create a large dance	4				\$12,560			\$12,560		
A-3.4	Create an opening between the new Program Area and the new corridor (enclosed Loggia)	4				\$18,760			\$18,760		
9	HAZMAT ABATEMENT @ ENTIRE C. Needs Assessment Modifications/ Additions					INCLUDED W/ INDIVIDUAL ITEMS					
<b>SUBTOTAL (C) - CONSTRUCTION COST - Needs Assessment Modifications/ Additions</b>						<b>\$9,552,518</b>	<b>\$1,240,600</b>	<b>\$145,600</b>	<b>\$7,838,718</b>	<b>\$327,600</b>	
<b>DIRECT COST (SEE BELOW FOR MARK-UPS)</b>											

R1





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<b>SUBTOTAL - CONSTRUCTION (HARD) COST - A. Repair &amp; Stabilize + B. Capital Improvement + C. Needs Assessment Modifications/ Additions - DIRECT COST (SEE BELOW FOR MARK-UPS)</b>					<b>\$14,377,292</b>	<b>\$1,318,450</b>	<b>\$4,242,528</b>	<b>\$8,461,934</b>	<b>\$354,380</b>	
GENERAL CONDITIONS - 15% (AS PER PROJECT REQUIREMENTS) - Priority 1 - 01/2017					\$197,768	\$197,768				
GENERAL CONDITIONS - 12% (AS PER PROJECT REQUIREMENTS) - Priority 2 - 01/2019					\$509,103		\$509,103			
GENERAL CONDITIONS - 10% (AS PER PROJECT REQUIREMENTS) - Priority 3 - 01/2021					\$846,193			\$846,193		
GENERAL CONDITIONS - 20% (AS PER PROJECT REQUIREMENTS) - Priority 4 - 01/2023					\$70,876				\$70,876	
<b>SUBTOTAL</b>					<b>\$16,001,232</b>	<b>\$1,516,218</b>	<b>\$4,751,631</b>	<b>\$9,308,127</b>	<b>\$425,256</b>	
OVERHEAD & PROFIT - 21% (AS PER CURRENT MARKET CONDITIONS AND PROJECT SIZE) - Priority 1 - 01/2017					\$318,406	\$318,406				
OVERHEAD & PROFIT - 18% (AS PER CURRENT MARKET CONDITIONS AND PROJECT SIZE) - Priority 2 - 01/2019					\$997,843		\$997,843			
OVERHEAD & PROFIT - 15% (AS PER CURRENT MARKET CONDITIONS AND PROJECT SIZE) - Priority 3 - 01/2021					\$1,396,219			\$1,396,219		
OVERHEAD & PROFIT - 30% (AS PER CURRENT MARKET CONDITIONS AND PROJECT SIZE) - Priority 4 - 01/2023					\$127,577				\$127,577	
<b>SUBTOTAL</b>					<b>\$18,841,276</b>	<b>\$1,834,623</b>	<b>\$5,749,474</b>	<b>\$10,704,347</b>	<b>\$552,833</b>	
PHASING					NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	NOT REQUIRED	
<b>SUBTOTAL</b>					<b>\$18,841,276</b>	<b>\$1,834,623</b>	<b>\$5,749,474</b>	<b>\$10,704,347</b>	<b>\$552,833</b>	
ESCALATION TO START OF CONSTRUCTION - PRIORITY 1 - 01/ 2017 - 16 MO @ 0.33%/MO = 5.28%					\$96,868	\$96,868				
ESCALATION TO START OF CONSTRUCTION - PRIORITY 2 - 01/ 2019 - 40 MO @ 0.33%/MO = 13.20%					\$758,931		\$758,931			
ESCALATION TO START OF CONSTRUCTION - PRIORITY 3 - 01/ 2021 - 64 MO @ 0.33%/MO = 21.12%					\$2,260,758			\$2,260,758		
ESCALATION TO START OF CONSTRUCTION - PRIORITY 4 - 01/ 2024 - 100 MO @ 0.33%/MO = 33%					\$182,435				\$182,435	
<b>SUBTOTAL</b>					<b>\$22,140,268</b>	<b>\$1,931,491</b>	<b>\$6,508,405</b>	<b>\$12,965,104</b>	<b>\$735,268</b>	
DESIGN CONTINGENCY - 20%					\$4,428,054	\$386,298	\$1,301,681	\$2,593,021	\$147,054	
<b>GRAND TOTAL - CONSTRUCTION (HARD) COST - A. Repair &amp; Stabilize + B. Capital Improvement + C. Needs Assessment Modifications/ Additions - DIRECT COST (SEE BELOW FOR MARK-UPS)</b>					<b>\$26,568,321</b>	<b>\$2,317,790</b>	<b>\$7,810,085</b>	<b>\$15,558,125</b>	<b>\$882,321</b>	





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<b>GRAND TOTAL - CONSTRUCTION (HARD) COST - A. Repair &amp; Stabilize + B. Capital Improvement + C. Needs Assessment Modifications/ Additions - DIRECT COST (SEE BELOW FOR MARK-UPS)</b>					<b>\$26,568,321</b>	<b>\$2,317,790</b>	<b>\$7,810,085</b>	<b>\$15,558,125</b>	<b>\$882,321</b>		
<b>SOFT COSTS:</b>											
CONSTRUCTION CONTINGENCY - 10% OF CONSTRUCTION (HARD) COST					\$2,656,832	\$231,779	\$781,009	\$1,555,813	\$88,232		
SUBTOTAL					\$29,225,154	\$2,549,568	\$8,591,094	\$17,113,938	\$970,553		
PERCENT FOR ART - 1% OF CONSTRUCTION (HARD) COST					\$265,683	\$23,178	\$78,101	\$155,581	\$8,823		
SUBTOTAL					\$29,490,837	\$2,572,746	\$8,669,195	\$17,269,519	\$979,376		
SPECIAL INSPECTION - 2% OF CONSTRUCTION (HARD) COST					\$531,366	\$46,356	\$156,202	\$311,163	\$17,646		
SUBTOTAL					\$30,022,203	\$2,619,102	\$8,825,397	\$17,580,682	\$997,023		
COMMISSIONING - 0.5% OF CONSTRUCTION (HARD) COST					\$132,842	\$11,589	\$39,050	\$77,791	\$4,412		
SUBTOTAL					\$30,155,045	\$2,630,691	\$8,864,447	\$17,658,472	\$1,001,435		
CM FEE - 3% OF CONSTRUCTION (HARD) COST					\$797,050	\$69,534	\$234,303	\$466,744	\$26,470		
SUBTOTAL					\$30,952,095	\$2,700,225	\$9,098,749	\$18,125,216	\$1,027,904		
DESIGN FEE - 6% OF CONSTRUCTION (HARD) COST					\$1,594,099	\$139,067	\$468,605	\$933,488	\$52,939		
SUBTOTAL					\$32,546,194	\$2,839,292	\$9,567,355	\$19,058,704	\$1,080,843		
FFE					NOT INCLUDED	NOT INCLUDED	NOT INCLUDED	NOT INCLUDED	NOT INCLUDED		
<b>GRAND TOTAL - CONSTRUCTION (HARD) COST + SOFT COST - A. Repair &amp; Stabilize + B. Capital Improvement + C. Needs Assessment Modifications/ Additions - DIRECT COST (SEE BELOW FOR MARK-UPS)</b>					<b>\$32,546,194</b>	<b>\$2,839,292</b>	<b>\$9,567,355</b>	<b>\$19,058,704</b>	<b>\$1,080,843</b>		

NOTES : SEE PAGE #14





CC JOB# : A21328\_5.1A\_UA\_Cost\_Concepts\_NYC\_OMB\_Tony\_Dapolito\_Recreation\_Center\_Task\_5.1A\_REV2

REV DATE : 10/26/15

DATE : 08/03/15

BLDG GSF : NOT APPLIC

TYPE OF ESTIMATE : ITEMIZED CONCEPTUAL (FINAL REPORT - TASK 5.1A)

**PROJECT: NYC OMB - INVESTIGATION & ASSESSMENT OF THE TONY DAPOLITO RECREATION CENTER - PLANNING ACTIONS - FINAL REPORT - TASK 5.1A**

**CLIENT : URBAHN ARCHITECTS**

Recommendation Prioritization Summary:	Priority	Qty	Unit	Unit Cost  (Material + Labor )	TOTAL COST (See below for Mark-ups - General Condition, OH & P, Escal, etc.) - Not including Alternate costs	Priority Recommendations				Alternate Costs - Not Included in Total Costs (See below for Mark-ups - General Condition, OH & P, Escal, etc.)
						Priority 1 - Construction start 1/2017	Priority 2 - Construction start 1/2019	Priority 3 - Construction start 1/2021	Priority 4 - Construction start 1/2024	

**NOTES:**

**1. THIS ESTIMATE IS BASED ON ESCALATED PREVAILING WAGE CONSTRUCTION COSTS AND DOES NOT INCLUDE:**

- A. LEAD PAINT REMOVAL / PCP REMOVAL / UNIVERSAL WASTE / HAZARDOUS MATERIAL REMOVAL - **\*\*\*UNLESS OTHERWISE NOTED\*\*\***
- B. FURNITURE / FURNISHINGS / EQUIPMENT (FFE)
- C. LAND COSTS / FINANCING

2. ESCALATION AT THE RATE OF 0.33% PER MONTH IS ADDED FROM THE DATE OF THIS ESTIMATE TO THE START OF CONSTRUCTION FOR EACH PRIORITY PACKAGE (AS LISTED ABOVE). ESCALATION OF 0.33% PER MONTH IS A CURRENT FACTOR AND IT IS SUBJECT TO CHANGE. SHOULD THE SCHEDULE CHANGE, ESCALATION SHOULD BE ADJUSTED ACCORDINGLY.

3. THIS ESTIMATE IS BASED ON WORK BEING PERFORMED DURING REGULAR WORKING HOURS (OTHER THAN NOTED).

4. THIS ESTIMATE IS BASED ON WORK PERFORMED BY GENERAL CONTRACTOR FOR EACH PRIORITY PACKAGE AS A SEPARATE CONTRACT. CM FEE (IF ANY) IS NOT INCLUDED.

5. THIS ESTIMATE INCLUDES MARK-UPS FOR EACH INDIVIDUAL PRIORITY PACKAGE AS A SEPARATE CONSTRUCTION BID.

5. COSTS THAT APPEAR WITHIN THIS ESTIMATE ARE SPECIFIC TO THIS PROJECT.

6. THIS ESTIMATE IS BASED ON CURRENT MARKET CONDITIONS.

7. THIS ESTIMATE IS BASED ON 5 OR MORE BIDS (FOR EACH OF THE PRIORITY PACKAGES AS SEPARATE CONTRACTS), RECEIVED VIA A COMPETITIVE BIDDING PROCESS.

8. MOVING AND RELOCATION COSTS ARE NOT INCLUDED.

**\*\*\*9. THIS IS A ITEMIZED CONCEPTUAL ESTIMATE AND IT IS BASED ON ALLOWANCES AND APPROXIMATIONS, A FURTHER DETAILED ESTIMATE IS REQUIRED AS DESIGN PROGRESSES.**

10. THIS ESTIMATE IS BASED ON THE SPACE BEING UNOCCUPIED DURING INTERIOR CONSTRUCTION.

11. THIS ESTIMATE IS BASED ON THE DOCUMENTS RECEIVED BY COST CONCEPTS FROM URBAHN ARCHITECTS VIA EMAIL ON 07/02/2015.