Feasibility Study for Adaptive Use of

The Former Stephen Sanford & Sons Carpet Mill
37 Prospect Street, Amsterdam, NY
(a.k.a. Bigelow-Sanford Carpet Mill, and Sanford Clocktower)

September 22, 2014

Prepared by:

With funding from:

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J.M. KAPLAN FUND

ERIE CANALWAY
National Heritage Corridor

nationalgrid
Foreword

New York State, a leader in 19th and 20th century industry, has seen those industries move elsewhere and businesses close over the last half-century. While this dynamic can be found throughout upstate New York, industrial corridors along water or transportation lines have the greatest concentration of vacant or greatly underutilized historic buildings. These industrial buildings are often found within struggling communities, as the loss of their dominant industry leads to population decline and closing of Main Street businesses.

From the opening of the Erie Canal in 1825 through the mid-20th century, companies built a rich and diverse assortment of headquarters, warehouses, mills, manufacturing and utility buildings reflecting the leading upstate industries. These include masonry-clad post and beam structures from the first half of the 19th century, through the Daylight Factories of the late 19th and early 20th centuries, and beyond to the large General Electric plants of the post-World War II period.

Throughout the second half of the 20th century, industry largely abandoned upstate New York, leaving behind canyons of historic industrial buildings. These buildings define the history of each municipality yet present very modern development challenges. Many communities have mixed feelings about these surviving reminders of their city’s boom and bust, seeing them as liabilities and remnants of the past, instead of assets and development opportunities.

The Preservation League’s Industrial Heritage Reuse Project is the first effort of its kind in New York State to promote historic industrial building redevelopment through condition survey and code analysis. Troy Architectural Program (TAP, Inc) has produced these feasibility studies for our five project sites, located within New York’s Capital Region in Montgomery, Schenectady, Albany, and Rensselaer Counties. We believe that these reports will spur industrial building rehabilitation in the project communities and provide models for similar properties across New York State.

Thank you to the J. M. Kaplan Fund for providing primary support for this project. We also thank the Erie Canalway National Heritage Corridor and National Grid for their project support.

Jay DiLorenzo, President
Preservation League of New York State
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Feasibility Study for 37 Prospect Street, Amsterdam, NY

September 22, 2014

I. Overview:

This Feasibility Study is part of the Preservation League of New York State’s Industrial Heritage Reuse Project. By providing building owners with schematic re-use alternatives, code evaluations, cost estimates, a list of funding assistance, and an outline of approvals required, the Preservation League hopes owners and community officials will successfully package a development plan. The project is supported by the J.M. Kaplan Fund with additional assistance from the Erie Canalway National Heritage Corridor and National Grid.

II. Building Location:

The building is centrally located in the City of Amsterdam, New York, on the corner of Prospect Street and Brookside Avenue.

It is located between a light industrial and a residential neighborhood. To the east and south are similar buildings: large, partially occupied or vacant brick and concrete factory/mill buildings, with the exception of a 1-story car-repair business across Brookside Ave. To the west and north, and also across Brookside to the east, are typically 2-story single or multi-family houses, mostly low- and moderate-income housing. It is situated between Routes 30 and 67, with easy access to the NYS Thruway.
There are very few eateries nearby, a few small businesses on adjacent Market St. (Stewart’s, gas station, tax prep, nail salon), and it is about 1 mile to the downtown area. Big box stores (Wal-Mart, supermarkets, home center) are located 1.5 miles north on Route 30; St. Mary’s Hospital is located about 2.5 miles away; and Fulton-Montgomery Community College is about 7 miles away. There is some public transportation within the city, and also connecting to Fonda and Albany.

III. Building Description:

The building was built in 1922 as the corporate headquarters for Stephen Sanford & Sons Carpet Mill. It is 6 stories tall, with no basement. The exterior is brick, in excellent condition, with concrete ledges and cornices, and a stair tower at each end. The building boasts 3 loading bays, 2 freight elevators, 1 passenger elevator, a metal canopy at the front entrance, and a majestic clock tower.

The site includes a small unpaved parking lot to the west, with space for over 30 cars. The building owner also owns the unpaved parking lot across Prospect Street, with space for about 25 more cars. Additional on-street parking is available on Brookside Avenue.

The original front entry doors on Prospect Street have been replaced with dark bronze aluminum and glass storefront doors. The exterior doors on the west (parking lot) side and on the east (Brookside Ave.) side are the original wood and glass doors, in fair condition. Most of the windows are the original multi-pane metal factory windows, fixed except for a section that pivots to open. If operable windows are desired on these floors, replacement windows will be necessary, as storm windows cannot be used with the original pivot-style factory window. Only the 5th and 6th floors have replacement windows, double-hungs with a 1/1 lite pattern, which fill the opening. The 3 loading bays have older wooden overhead garage doors in fair condition.
The roof is a saw-tooth roof in the center with flat roof at the perimeter, pitching to three interior roof drains. It has a 4’ high brick parapet wall on all sides. The black EPDM roofing membrane is in good condition, except for an area in the front, SW corner where it has separated from the parapet. There is evidence that several of the roof drains have leaked in the past (rotten floor boards), but there are new PVC interior roof leaders and the roof is weather-tight at this time.

The building has a non-combustible interior structural frame consisting of square concrete columns with steel beams and girders. The floor is solid wood, 6” thick, consisting of multiple layers of maple and pine flooring, resulting in a wood finished floor and a wood ceiling below. There are no visible structural problems.

The 1st floor is sub-divided into multiple tenant spaces and mostly occupied by small businesses (dog-grooming, printing, dance studio, massage, tattoos) and self-storage spaces. The floor is a concrete slab on grade and consists of five different levels as it steps up the hill. All levels are connected by concrete ramps, and the wide corridor connects the two freight elevators and the two grade-level exits at opposite ends of the building. There are 3 internal loading bays on the Brookside Avenue side of the building.

The 2nd floor is sub-divided into several tenant spaces, with a portion of the floor still open. A central corridor is partially constructed, connecting the two freight elevators and the two enclosed stairwells. Tenants include an engineering office, artist work space, and more storage. Tenants on the 1st and 2nd floors have individual heating and cooling systems.
The 3rd and 4th floors are largely unfinished. The 3rd floor is divided into larger spaces by a wide central corridor, which connects the freight elevators and the stairwells at each end of the building. These spaces are mostly unfinished, used only for storage. There are a few ceiling-hung, gas-fired, industrial space heaters, and no cooling. The 4th floor is wide open in its original state, and can be used as open floor space or sub-divided in the future.

The 5th and 6th floors were completely renovated in the 1980’s as modern offices, in use through the late-1980’s, and currently vacant. Renovations included the addition of an open stair in the middle of the building, which only connects the 5th and 6th floors. On the 6th floor, in the southeast corner, the original executive offices of the Sanford Carpet company were kept intact, with varnished wood doors and moldings, wood paneling, and a plaster ceiling. The middle of the 6th floor enjoys natural light from the saw-tooth roof above. The heating and cooling on these floors are provided by rooftop units, of unknown condition. The 6th floor finishes have sustained some water damage, and there are a few areas where old roof leaks have rotted the top layer of the solid wood floor. Repairs and updating of the spaces and mechanicals would likely be required.
IV. Proposed Use:

A mixed-use occupancy is likely the best use of this building. Once the exit corridors are in place, tenant spaces of multiple sizes can be provided. Because so much of the building is still undeveloped, it lends itself to many different types of tenants, offering plentiful natural light, tall ceiling heights, wide open spaces, and freight elevators.

However, the Building Code analysis that follows indicates that the types of tenants most easily allowed by Code on all floors are businesses (offices, personal services, print shops, educational training, etc), low-hazard factory (non-combustibles), and low-hazard storage (non-combustibles). Even the loading bays can be rented out as garage space/car storage if not needed by any tenants for loading.

The following schematic design shows the available tenant space on the first floor and a typical upper floor. Demising walls between tenants can be relocated according to tenant space needs, but the exit corridor would remain intact, unless a tenant will occupy an entire floor as open space, in which case a similar path to exits must be marked and maintained.
V. Code Analysis:

Occupancy Classification: (BC 303.1)

Current or Last known occupancies: (mixed use)
1st and 2nd flrs: Group B Business (print shop, professional services);
Group M Mercantile (game store); and
Group S-1 Moderate-Hazard Storage (combustibles)

3rd and 4th flrs: Group F-1 Moderate-Hazard Factory [now vacant]

5th and 6th flrs: Group B Business (offices) [now vacant]

Proposed occupancies: (mixed use, based on Code compliance)
1st and 2nd flrs: Groups B, M, F-1, F-2 (Low-Hazard Factory), S-1, and S-2

3rd and 4th flrs: Groups B, M, F-2, S-1, and S-2 (Low-Hazard Storage)

5th and 6th flrs: Groups B, F-2, S-2

Construction Classification: (BC 602)

This building is an unusual combination of materials, mixing non-combustible and heavy timber structural elements. It cannot be classified as Type I or Type II non-combustible, because the solid wood floor is combustible. It cannot be classified as Type IV/HT Heavy Timber, because the concrete columns and steel beams are not solid wood. It cannot be classified as a Type IIIA (2-hour-rated masonry exterior walls with 1-hour-rated interior structure) because the exposed steel does not have a 1-hour fire-rating. Therefore, in its current state, it is classified as a Type IIIB (2-hour-rated masonry exterior walls with non-fire-rated interior structure).

Depending on the proposed use(s), it may be advantageous or even necessary to upgrade it to a Type IIIA by providing a 1-hour fire-rating on the unprotected interior structural elements.

Allowable Building Heights and Areas: (EBC T.912.5 and BC T. 503)

The Code definition of Bldg. Height = “vertical distance from grade plane to the average height of the highest roof surface.” This excludes parapets, and we interpret the stair & clock towers as excluded too.

Actual (existing) avg. height: approx. 85.5’ (from grade plane to avg. height of main roof)
Actual (existing) # stories: 6
Actual floor area (each): approx. 23,333 SF (within exterior walls) x 6 floors
Actual Total building area: approx. 140,000 SF (within exterior walls)

The Existing Building Code accepts the existing building height and area when the change of occupancy is from a higher hazard category to an equal or lower hazard category, per EBC T.912.5 (included in Appendix B). If the change of occupancy is from a lower hazard category to a higher hazard category, the height and area of the existing building must comply with Building Code T.503.

In a mixed use building, each floor or even tenant space needs to be evaluated separately for code compliance. As an example, if the change of occupancy is from Group F-1 Mod-hazard Factory to Group B Business (a lower hazard), the existing building height and area are acceptable. If the change is from Group B to Group F-1 (a higher hazard), the building height and area must comply with T.503. This change would not be permitted, because T.503 only allows Group F-1 in Type IIIB construction to be 3 stories, 75’ maximum building height, and 24,000 SF per story (both include sprinkler increase).
Occupancies that are considered an equal or lesser hazard include Group B Business, Group E Educational, Groups F-1 and F-2 Factory/Industrial, Group M Mercantile, and Groups S-1 and S-2 Storage. If any occupancy is changed to a higher hazard, such as Group A Assembly or Group R Residential, compliance may be achieved by one of the following:

1. Change it into a Type IIIA. This requires that all steel beams, columns, floor/ceiling assemblies, and roof assembly be 1-hour fire-rated. The most common methods are to cover these structural elements and ceilings with gypsum board or spray-applied fireproofing. (This will allow Group R-3 (two apts.), not Group R-2 (multiple apts.) nor Group A-2 Restaurant.)
2. Seek a NYS Code Variance so that it may remain a Type IIIB (with non-fire-rated or lesser rated structural elements). This is a 2- to 6-month long process, with no guarantee of a favorable outcome; usually requires offering additional life-safety elements such as more exits, etc.
3. Evaluate the building per Chapter 13 of the Existing Building Code, which uses a point system for compliance, and may not require compliance with T. 503. No guarantees.

Fire Separation: (BC 508.3)

In a mixed use building with all new occupancies, the different occupancies must be fire-separated by fire barriers (walls) and horizontal assemblies (floor/ceilings). In a sprinklered building such as this, the fire-rating of the fire-separations shall be:

<table>
<thead>
<tr>
<th>Occupancy</th>
<th>Group A or E</th>
<th>Group R-2</th>
<th>Group B</th>
<th>Group F-2, S-2, U</th>
<th>Group M</th>
<th>Group F-1, S-1</th>
</tr>
</thead>
<tbody>
<tr>
<td>Group A or E</td>
<td>0</td>
<td>1-hour</td>
<td>1-hour</td>
<td>0</td>
<td>1-hour</td>
<td>1-hour</td>
</tr>
<tr>
<td>Group R-2</td>
<td>1-hour*</td>
<td>1-hour</td>
<td>1-hour</td>
<td>1-hour</td>
<td>1-hour</td>
<td>1-hour</td>
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<tr>
<td>Group B</td>
<td>0</td>
<td>1-hour</td>
<td>1-hour</td>
<td>1-hour</td>
<td>1-hour</td>
<td>1-hour</td>
</tr>
<tr>
<td>Group F-2, S-2, U</td>
<td>0</td>
<td>1-hour</td>
<td>1-hour</td>
<td>1-hour</td>
<td>1-hour</td>
<td>1-hour</td>
</tr>
<tr>
<td>Group M</td>
<td>0</td>
<td>1-hour</td>
<td>1-hour</td>
<td>0</td>
<td>1-hour</td>
<td>1-hour</td>
</tr>
<tr>
<td>Group F-1, S-1</td>
<td>0</td>
<td>1-hour</td>
<td>1-hour</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

* 1-hour required between dwelling units per BC 406.1.4

If the existing 6” thick, 3-layer, solid wood floor and exposed steel beam floor/ceiling assembly is accepted as providing a 1-hour fire-rating, the floor/ceiling assembly will suffice as is. If it is not accepted as a 1-hour assembly, then the exposed members must be covered by either fire-code drywall or spray-applied fire-proofing to obtain the required 1-hour fire-rating.

The NYS Building Code also requires an exit corridor that connects the two enclosed exit stairs. This corridor likely requires a 1-hour fire-rating, with rated tenant entry doors with automatic closers.
Fire Protection Systems:

Sprinkler:

Per the Existing Building Code [EBC 912.2.1], where the occupancy group changes to an occupancy that requires a sprinkler system per the Building Code Chapter 9, such system shall be provided throughout the area where the change of occupancy occurs. Per Chapter 9, the following occupancy groups require a sprinkler system:

- **Group A** (unless very small)
- **Group E** (if > 20,000 SF)
- **Group F-1** (if > 12,000 SF or > 3 stories, or wood-working operations > 2,500 SF)
- **Group M** (if > 12,000 SF or > 3 stories, or if high-piled storage)
- **Group R**
- **Group S-1** (if > 12,000 SF or > 3 stories, or if bulk tire storage)
- **Group S-2** (if located beneath other occ. groups)

Even without a change of occupancy, the Code defines this as a high-rise building, and alterations of this scope trigger a requirement for sprinklers throughout the building [EBC 804.1.1].

The sprinkler system must be monitored by a central station (outside alarm company) and must be tied to the building fire alarm system, if one is present. Currently there is an exterior sprinkler alarm on the east side of the building.

There is an existing sprinkler system with sprinkler piping and heads visible on all stories of the building, which is kept in working order. There are no sprinkler heads and pipes within either stairwell. There is an existing Fire Dept. connection on the east side of the building, which may connect to the sprinkler system and/or the standpipe. The existing sprinkler system will need to be evaluated by a professional sprinkler installer, and redesigned to comply with the NFPA 13 standards as the floor space is subdivided into smaller tenant spaces.

Standpipe:

Per EBC 704.3, because the work areas exceed 50% of any floor area, and a work area is more than 30’ above the lowest level of fire dept. access, a standpipe system will be required per the Building Code. Per BC chapter 9, a class I standpipe is required where the building is equipped throughout with a sprinkler system per NFPA 13.

There is a standpipe and fire hose cabinet in each of the two stairwells, both believed to be Class I standpipes, in good working order. It is unknown if either standpipe continues to the top, roof level of the stairwell. There is an existing Fire Dept. connection on the east side of the building, which may connect to the sprinkler system and/or the standpipe. An inspection of the two standpipes shall be done to confirm they are Class I standpipe systems, with the required hose connections, and functioning properly.
Fire alarm and detection:

Per the Existing Building Code [EBC 912.2.2], where the occupancy group changes to an occupancy that requires a fire alarm & detection system per the Building Code chapter 9, such system shall be provided throughout the area where the change of occupancy occurs. Even without a change of occupancy, alterations of this scope trigger a requirement for both a manual and automatic fire alarm system if required by Chapter 9 of the Building Code.

Per BC Chapter 9, the following occupancies require fire alarms:

- **Group B**: manual fire alarm where occupied by >500 people or >100 people above 1st floor
- **Group E**: manual fire alarm where occupied by 50 or more people
- **Group F**: manual fire alarm where occupied by 100 or more people
- **Group M**: manual fire alarm where occupied by >500 people or >100 people above 1st floor
- **Group S**: none required
- **Groups A, R-2**: manual fire alarm and automatic fire detection system (smoke detectors).

In addition, per BC 907.2.12, this building is considered a high-rise building (having an occupied floor located more than 75’ above the lowest level of fire dept. vehicle access), which requires the building to have an automatic fire alarm system (in mechanical/utility spaces, elevator lobbies, main return air plenums, and other locations), and an emergency voice/alarm communications system in designated areas (elevator areas, exit stairways, each floor) which gives instructions for evacuation. Currently there are no fire alarm systems in the building.

**Both manual and automatic fire alarm systems shall be installed throughout the building and connected to a fire alarm panel, monitored by a central station. The sprinkler system shall be tied to the alarm system, so that activation of any sprinkler head notifies the monitoring station.**

Exits:

**The existing enclosed exit stairs and exit doors have adequate capacity for almost all occupancy groups and their code-prescribed occupancy loads, regardless of whether there is a change to a lesser, equal, or higher hazard occupancy. For all occupancy groups, the allowable travel distance to exit can be met. In all cases, each floor must have an enclosed exit corridor connecting the two exist stairs, exit signs, and emergency lighting in all exit corridors and stairwells.**

If this is a change to an equal or lesser hazard occupancy per EBC T. 912.4 [Group F-1 Factory to Group B Business, Group E Educational, and/or Group S-1 Mod-Hazard Storage], existing means of egress shall comply with EBC 805, which requires compliance with EBC 705, and egress capacity shall meet or exceed the occupant load of the new occupancy. These occupancies all require a minimum of 2 exits.

**Code-prescribed Occupancy Load (based on either gross or net square footage):**

- **Group B, F**: 23,333 GSF @ 100 GSF/p = 234 people per floor, divided by 2 exits = 117 people per exit.
- **Group E**: 17,500 NSF (75% of GSF) @ 20 NSF/p = 875 p div. by 2 exits = 437people per exit.
- **Group M**: 23,333 GSF @ 30 GSF/p = 778 p
- **Group S**: 23,333 GSF @ 500 GSF/p = 47 p per floor, divided by 2 exits = 24 p per exit.

There are two existing enclosed exit stairs, each 67” wide, with either (2) 36” or (1) 48” door into the stairwell.
Existing door capacity = (2) 36” doors = 72” div. by 0.15” per p = 480 p capacity per exit, or
(1) 48” door div. by 0.15” per person = 320 p capacity per exit.
Existing stair capacity = 67” wide stairs (all) div. by 0.2” per p = 335 p capacity per exit.

Floors that have (1) 48” door at each exit stair are limited to 320 p x 2 doors = 640 people per floor, which can easily accommodate a Group B, F, or S occupancy. Most likely, if Group M only occupies part of the floor, the door capacity will be adequate. The stairs limit the capacity of occupants to 335p x 2 stairs = 670 people per floor, which also accommodate these occupancy groups.

A change of occupancy to Group A-2 (restaurant) or a full floor of Group M (retail) requires a closer code review to determine adequate exit capacity.

EBC 705.3.1 requires that every story undergoing alterations, where exits and corridors are shared by more than one tenant, shall have the minimum number of exits based on the occupancy and occupant load per the Building Code. Per BC T. 1016.1, the maximum length of exit access travel, measured from the most remote point within a story to the entrance to an exit along the natural and unobstructed path, is limited to 300’ in Group B, 400’ in Groups F-2 and S-2, and 250’ in Groups F-1 and S-1, provided the sprinkler system complies with NFPA 13. In addition, per BC T.1019.1, two exits are permitted for an occupant load up to 500 people per story.

**Due to the number of existing exits, the occupancy load is limited to 500 people per floor.**

Handicapped Accessibility:

Per the Existing Building Code, section 912.8, buildings with a change of occupancy shall have all of the following accessible features:
1. At least one accessible building entrance.
2. At least one accessible route from accessible entrance to primary function areas.
3. Signage per BC 1110.
4. Accessible parking, if parking is provided.
5. At least one accessible passenger loading zone, if loading zones are provided.
6. At least one accessible route connecting accessible parking to accessible entrance.
7. At least one accessible toilet room per BC 1109.2.1, where WC’s provided.
8. Where >4 Group R-2 dwelling units, 25% shall comply with BC 1107.2.
In addition, alterations of this scope trigger the requirements of EBC 605, unless technically infeasible. One requirement is to provide an accessible route to all altered areas containing a “primary function” (i.e., tenant spaces), which includes an accessible entry and vertical accessibility. The costs of providing the accessible route are not required to exceed 20% of the costs of the alterations, but with a project of this size and scope, that 20% will almost certainly fund the necessary elevator retrofit.

There are two existing building entrances that could be made accessible. The west (parking lot) entrance is at grade, and the east (Brookside Ave.) entrance could be at grade with some sidewalk modification. Both have heavy wooden double doors which might require automatic door openers.

The 1st floor has an accessible route, linking both entrances, both freight elevators, and the common toilet rooms. There is currently no code-compliant accessible route to the upper floors, as the 1st floor corridor does not connect to the passenger elevator. The existing passenger elevator opens onto the front lobby, which is about 2'-9” below the 1st floor level, and the lobby can only be accessed by stairs. It is possible that one of the freight elevators could be converted to a passenger elevator, or that major alterations could make the existing passenger elevator accessible at the first floor. Accessible routes can be easily achieved on the upper floors by providing corridors connecting the exits and elevator, and locating common accessible toilet rooms along this route.

All new occupancies will require full accessibility, including an accessible entrance, vertical accessibility, accessible route within, accessible toilet rooms, accessible hardware and controls, and signage as required by Chapter 11 of the Building Code.

**Toilet rooms:**

The number of code-required toilet rooms is based on the code-determined number of occupants on each floor. The calculations below show the requirements for the most likely occupant group, Group B. Both Groups F and S have lower requirements; adding a Group A-2 (restaurant) will likely increase the requirements.

<table>
<thead>
<tr>
<th>Group B</th>
<th>Toilets Req’d</th>
<th>Total # of Toilets PER FLOOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>234p/flr = 1/25 for 1st 50 M+W; 117 M+W then 1/50 M+W</td>
<td>1st 50 Men = 2 + 67 remaining div. by 50 = 2 = 4 for Men plus 1st 50 Women = 2 + 67 div. by 50 = 2 - 4 for Women</td>
<td></td>
</tr>
</tbody>
</table>

New toilet rooms will need to be added on each floor.
VI. Scope of Work Needed:

Although this building is in excellent condition, it still requires a healthy budget to bring it back into usable space. Because a large part of the building is either raw space with nothing to be reused, or space that has sat vacant for years, there are many building systems needed that are big-ticket items.

The building envelope needs work to bring it into compliance with the NYS Energy Code, including window repair and/or replacement, and insulation of walls and attic/roof. Currently, the 1st through 4th floors have the original single-glazed, multi-lite metal factory windows, which are fixed with a section in the middle that pivots for ventilation. They are in good to fair condition. If the building is listed on the Historic Register and historic tax credits are used, replacing these windows with new ones may be discouraged by SHPO. Adding either exterior or interior storm windows, the usual fix for keeping historic windows, cannot work with this type of window unless the windows are made inoperable, because the pivoting section tilts in at the top and out at the bottom. The 5th and 6th floors have insulated double-hung replacement windows from the 1980’s, in good condition. There will likely be much discussion with SHPO as to what window solutions are acceptable to all parties. There will likely be a similar discussion of the exterior walls, which would historically have been simply painted brick, as seen on the lower floors, with no insulation or interior finish.

It is important to note that if the building is listed on the National and State Register of Historic Places, it would be exempt from the current (2010) NYS Energy Code, although this exemption is likely to sunset in the next 2-3 years. However, to keep the utility bills reasonable and the building occupants comfortable, it is recommended that the Energy Code be followed as much as possible.

Work is needed to provide passenger elevator service to all floors, in order to comply with the handicapped accessibility requirements. Either the existing passenger elevator or one of the freight elevators can be retrofitted to comply with the Code. Although it is possible to alter the passenger elevator and hoistway so that it can have a door opening onto the 1st floor, it is expensive and may be considered by SHPO as too much alteration of existing building fabric (the elevator cab, doors, and existing wall). Since the front freight elevator only goes to the 5th floor, it is not a good candidate for conversion to passenger. It is likely more cost effective and less disruptive to historic fabric to convert the rear freight elevator to a passenger elevator.

Work is needed to create a fire-rated exit corridor on each floor connecting the exit stairs, with all tenant doors being fire-rated with automatic closing devices. Tenant fit-up (framing, drywall, floor and ceiling finishes, interior doors and hardware, etc.) will be extensive. The 1st and 2nd floors are only partially built out and occupied; the 3rd and 4th floors are mostly unfinished; and the 5th and 6th floors have been vacant for 20+ years and recently water damaged, requiring some demolition before tenant fit-up can commence.

All new mechanical systems (plumbing, HVAC, and electrical,) need to be installed throughout the building. Although the existing sprinkler system is functional, it may require reconfiguration, extension of piping, and/or additional sprinkler heads to comply with current sprinkler requirements.

In addition to construction work, actively marketing this building is a key component to getting it occupied. Working with an established commercial realtor is highly recommended, to connect potential tenants with the available space. Marketing the space to regional business start-up or incubator groups, chambers of commerce, the NYS Small Business Association, artists’ organizations, and other such groups are also valuable tools for reaching potential tenants.
VII. Cost Estimates

At this stage of the project (the conceptual stage when no details are available), it is useful to use square foot costs to estimate the construction costs. The estimated costs represent what the project may be built for, based on data of what other similar projects have been built for, but it is no guarantee, merely a useful starting point. It is customary for a project of this size to have a developer that can pull together the funding required and coordinate all of the consultants, approvals, and construction, especially if any tax credits are to be used.

For this project, a square foot cost could range from $80 - $130 per SF. At a total area of 140,000 SF that means a total budget of about $11.2 – 18.2 million for construction renovation of all floors. Converting the freight elevator to a passenger elevator alone is about a $150,000 job. Other items that may drive up these costs include:

- Abatement of hazardous materials
- Site work & parking areas
- High-end finishes and equipment
- Architectural and engineering fees
- Financing, accounting, and legal fees
- Insurance
- Developer’s fee

VIII. Approval Processes:

1. City of Amsterdam Zoning and Planning, including SEQR:

   The property is zoned R-2 Two-Family Residential, although it is situated adjacent to both the LI Light Industrial zone and the RB Retail Business zone. It is not in a local historic district. Permitted uses in the R-2 zone include only 1- and 2-family homes, and bed & breakfasts. Special permit uses include senior housing, religious or educational uses, cultural facilities (library, museum, etc), and non-profit recreation facilities. Most uses that would be better suited to this large building, such as business or medical offices, light manufacturing, personal services (salon, barber, etc), for-profit educational or vocational training, warehouse, and wholesale, are prohibited in the R-2 zone.

   According to Jeff Senecal at the City Engineering office, the existing business and mercantile uses on the first two floors are considered legal non-conforming uses. If these uses were to be expanded to the other floors of the building, the proposed uses would require Use Variances in this district. A Use Variance is a special authorization by the Zoning Board for a use which is otherwise not allowed by the zoning regulations. The Board would also review the off-street parking requirements.

   The City may also require, as part of this application, a State Environmental Quality Review (SEQR), which is an environmental assessment to identify and mitigate any potential environmental impacts produced by the proposed project. If the proposed project is determined not to have significant adverse environmental impacts, a determination of no significance (Negative Declaration) is prepared. It is likely that the proposed uses of this building will be considered a “neg dec.”

   The process for Zoning approval consists of preparing a site plan per the Zoning requirements and submitting it along with the Zoning application, and possibly attending a public Zoning Board meeting, where the Board will make a decision. The approval process for non-controversial projects can often be done in about 2 months.
2. **Listing the building on the NYS and National Register:**

The first step in getting a building listed is to submit a State and National Registers Program Applicant Form and a Historic Resource Inventory Form and/or other explanatory materials to the State Historic Preservation Office (SHPO). These materials are evaluated by the staff for compliance with the listing criteria. This step has been completed.

**NYSHPO staff has already visited this building and decided that, as a stand-alone building, it is not eligible for listing on the National Register.** It would only be considered eligible if it was part of a historic district, comprised of the other factory buildings located two blocks away. At this time, there are no plans for the district to be established and listed.

If, in the future, the City of Amsterdam and the other building owners decide to pursue listing as a historic district, they will work with the NYSHPO to submit all the required documentation. Doing so would require working with an architect or other preservation consultant, as it includes research, maps, and photographs. The draft Nomination is submitted to the State Review Board for approval and entry onto the State Register, then sent to the National Park Service for approval and entry onto the National Register. For more information, visit: [http://nysparks.com/shpo/national-register/](http://nysparks.com/shpo/national-register/)

3. **Building Permit:**

Once the Zoning variances and approvals are obtained, a building permit is required. To apply for a permit, the following items are usually required to be submitted to the Building Dept.

- Building Permit Application;
- Stamped drawings from a licensed architect or engineer which address structural issues, building code issues, energy code issues, and all mechanicals;
- Estimate of the cost of construction, upon which the permit fee is based;
- Payment for the building permit fee; and
- Proof of liability insurance with the City of Amsterdam additionally insured must be submitted along with proof of worker’s compensation insurance.

For more information, contact the Amsterdam City Dept. of Building & Zoning at (518) 841-4319.

The process of hiring an architect, finalizing the design, complying with all code requirements, producing construction documents, undergoing building department review, and obtaining a building permit can take a minimum of 4-6 months, if everything goes smoothly. Common delays which can increase this time include, but are not limited to, extensive design exploration, change of direction or scope of work during design phase, negotiating design elements with the SHPO or code official, and cash flow problems.
IX.  Funding Assistance:

1. Federal Rehabilitation Tax Credit for Non-Historic Buildings:
   http://www.nps.gov/tps/tax-incentives.htm

   The 10% Rehabilitation Tax Credit is available for the rehabilitation of non-historic buildings placed in service before 1936. The building must be rehabilitated for non-residential use. “Rehabilitation” includes renovation, restoration, and reconstruction, but not enlargement or new construction. “Non-historic” means that the building is not listed on the National Register of Historic Places, or is located in a Registered Historic District but is certified as a non-contributing building.

   In order to qualify, the rehabilitation must meet three criteria: at least 50% of the existing external walls must remain in place as external walls, at least 75% of the existing external walls must remain in place as either external or internal walls, and at least 75% of the internal structural framework must remain in place. There is no formal review process for rehabilitations of non-historic buildings.

   This building could use the 10% Rehabilitation Tax Credit if no action is taken regarding a possible National Register Historic District. If, in the future, this building owner and others in the possible National Register Historic District decide to pursue listing as a historic district, the status of this building would change to “historic” and it might then be eligible for the State and Federal Rehabilitation Tax Credits described below.

2. State and Federal Historic Tax Credits:
   http://www.nps.gov/tps/tax-incentives.htm
   http://nysparks.com/shpo/tax-credit-programs/

   If this building is determined eligible for listing on the National Register, it may be eligible for both Federal and NYS Rehabilitation Tax Credits, totaling 40% of the cost of the rehabilitation. The credits may be taken by the property owner, or syndicated to investors whose purchase of the credits provides upfront financing for rehabilitation.

   The Federal Rehabilitation Tax Credit program is administered by the National Park Service (NPS) and the Internal Revenue Service in partnership with the State Historic Preservation Office (SHPO). An income tax credit of 20% of the cost of substantial rehabilitation is available for the rehabilitation of “certified historic,” income-producing buildings. Owner-occupied residential properties do not qualify for this tax credit.

   Part 1 of this process is obtaining “certified historic structure” status, by securing National Register eligibility and beginning the National Register designation process, to get the building listed on the National Register. Part 2 consists of a property narrative, pictures that document the architectural and historical features of the building in its current state, and a description of the proposed work. It should be filed with the SHPO before the rehabilitation begins, and both SHPO and the NPS must approve all proposed work. This process can take several months.

   After the rehabilitation is complete, Part 3 is submitted and the SHPO and NPS review the work and certify compliance with the Part 2 approved scope of work. The 20% credit is based on the total qualified rehabilitation expenses incurred. Working with a tax professional is recommended to properly claim this credit.
The NYS Rehabilitation Tax Credit must be used with the Federal Rehabilitation Tax Credit Program for Income Producing Properties. Owners of income producing properties that have been approved to receive the 20% federal rehabilitation tax credit automatically qualify for the additional 20% state rehabilitation tax credit if the property is located in an eligible census tract and the Part 2 and Part 3 state fees have been paid. There is no application form. After Part 3 of the federal application is approved by the National Park Service and, the state fees are paid, the New York State Office of Parks, Recreation, and Historic Preservation will issue a certification allowing owners to take the state credit.

3. New Markets Tax Credits
http://www.cdfifund.gov/what_we_do/programs_id.asp?programID=5

The New Markets Tax Credit Program attracts investment capital to qualified low-income communities, based on specific census tract demographics. The tax credits are awarded to Community Development Entities, who match projects with investments. New Markets Tax Credits are available for operating businesses, commercial or industrial real estate, or mixed-use buildings that meet the commercial/industrial depreciation test with over 20% of the gross income derived from non-residential activity.

4. New York State Consolidated Funding Application
http://regionalcouncils.ny.gov/

In 2011, Governor Andrew M. Cuomo created 10 Regional Councils to develop long-term strategic plans for economic growth. The annual Consolidated Funding Application became the umbrella, single-grant procedure for these key programs:

- **The Environmental Protection Fund**
  http://nysparks.com/grants/grant-programs.aspx

  The Environmental Protection Fund is a matching grant program to improve, protect, preserve, rehabilitate, restore or acquire properties listed on the State or National Registers of Historic Places and for structural assessments and/or planning for such projects.

- **Empire State Development (ESD)**
  http://esd.ny.gov/BusinessPrograms.html
  http://www.esd.ny.gov/smallbusiness.html

  ESD grants fund capital projects intended to foster job growth. Funds may be used for planning, acquisition, renovation and equipment purchase.

- **New York Main Street**
  http://www.nyshcr.org/Programs/NYMainStreet/

  The New York Main Street (NYMS) Program provides resources to assist communities with Main Street and downtown revitalization efforts. The program funds projects that provide economic development and housing opportunities in downtown, mixed-use commercial districts. Funds may be used to help rehabilitate upper-floor space and larger anchor projects.
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- **Community Development Block Grant**
  [http://www.nyshcr.org/Funding/](http://www.nyshcr.org/Funding/)
  
  The (CDBG) program is a federally funded program administered by the NYS Office of Community Renewal (OCR). The funds, provided to small communities (below 50,000 population) and counties in New York State, support community development activities such as creating or expanding job opportunities, providing safe affordable housing, and/or addressing local public infrastructure and public facilities.

- **NYSERDA**
  [https://www.nyserda.ny.gov/](https://www.nyserda.ny.gov/)
  
  The New York State Energy Research and Development Authority offers financial incentives to assist large commercial projects make energy efficiency improvements.

5. **NYS Brownfield Redevelopment Programs**

- **Environmental Restoration Program**
  
  Under the Environmental Restoration Program, the NYS Department of Environmental Conservation provides grants to municipalities and community-based organizations to reimburse up to 90 percent of on-site eligible costs and 100% of off-site eligible costs for site investigation and remediation activities. Once remediated, the property may then be reused for commercial, industrial, residential or public use.

- **Brownfield Opportunity Areas Program**
  
  The Brownfield Opportunity Areas Program, made possible by the Superfund/Brownfield law in October 2003, provides municipalities and community based organizations with assistance, up to 90 percent of the eligible project costs, to complete revitalization plans and implementation strategies for areas or communities affected by the presence of brownfield sites, and site assessments for strategic brownfield sites.

6. **The Community Preservation Corporation (CPC):**
  [http://www.communityp.com](http://www.communityp.com)
  
  The Community Preservation Corporation (CPC) is a not-for-profit mortgage finance company which specializes in lending for the preservation and construction of multi-family affordable housing and downtown revitalization projects throughout New York State. CPC offers a range of products, including:
  
  - Construction financing
  - Permanent financing
  - Freddie Mac
  - Coop financing
7. **Industrial Development Agencies**
   
   http://www.mcbdc.org/  

   An IDA is a municipal-sponsored agency designed to promote economic development because the agency can offer several benefits to private companies as inducements for them to relocate to, expand in or remain in their jurisdictions. An IDA can:

   - Offer tax breaks to eligible projects whose developers in turn may agree to a PILOT (Payment in Lieu of Taxes,) usually for an amount less than the true tax amount;
   - Directly issue debt with competitive loan rates;
   - Make purchases exempt from state and local sales taxes in support of an approved project.

   Many of these programs have complex requirements. It is recommended that you work with a developer, attorney, accountant, and/or an architect who has experience with the program requirements.
X. Summary of Recommendations:

37 Prospect Street is a well-built factory building, constructed before the existence of a NYS building code. In the current Building Code, this construction type (IIIB) is not permitted to be 6 stories, regardless of use. To allow it be fully developed on all floors, the building must be brought up to a Type IIIA or Heavy Timber (HT) classification, or it will require a code variance.

TAP recommends fire-protecting the necessary structural elements of the building to upgrade it to a Type IIIA classification.

The plan for the building calls for expanding the existing Business, Mercantile, and Storage uses to the upper floors, while allowing for the possibility of a low-hazard Factory tenant.

TAP endorses this proposal. From a code standpoint, it is a viable project.

An accessible route must be provided into the building and through the building, including vertical accessibility to the upper floors.

TAP recommends converting the rear freight elevator to a passenger elevator when the upper floors are developed.

The expansion of business, mercantile, and storage uses to the upper floors will require Zoning approval.

TAP recommends pursuing the Zoning Use Variance approval when ready to expand into the upper floors.

This building is in excellent condition, but has very few finished spaces. The costs of tenant fit-up, energy conservation measures, the installation of all new mechanical, electrical and plumbing systems, and the extensive window repair or replacement suggest a substantial project budget.

TAP estimates the cost at $11.2 to $18.2 million.

Developing the upper floors of this building can only be achieved if there is a market for the space. In this economic climate, available commercial space exceeds the need. Zoning and Building Code approvals, and actual construction, should only start when a committed anchor tenant or long-term smaller tenants are in hand.

TAP recommends aggressively marketing the space with the help of a commercial realtor, and continuing the good stewardship of maintaining the entire building while only two floors are occupied.
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Appendix A
Common Environmental Contaminants – Resources

Older buildings often contain materials that are environmental hazards or contaminants, both in their existing state and during their removal. Many of these materials are regulated by the federal Environmental Protection Agency (EPA) or other governmental bodies. Since contamination of the surrounding air, soil, and adjacent building spaces can occur during removal, it is important to follow safe removal practices to protect the health of workers, neighbors, and future building occupants. Below is a list of the most commonly found environmental contaminants and the best practices for removal.

1. Lead

Lead exposure continues to be a significant health concern despite federal and state policies and practices aimed at reducing it. Lead-based paint is a major source of lead poisoning for children and can also affect adults. Lead exposure from lead plumbing pipes is another potential source. The lifelong effects of childhood exposure, to even small amounts of lead or lead dust, are well established by medical research, and include learning disabilities, behavioral problems, and retarded mental and physical development.

Severe lead poisoning in children and adults can cause irritability, poor muscle coordination and damage to the kidneys, nerves and brain. Lead poisoning also may increase blood pressure in adults. Because lead does not break down naturally, it remains a problem until removed.

Lead paint was outlawed for residential purposes in 1978, yet it is still present in millions of buildings and homes, particularly in neighborhoods with older building stock. Lead paint may be found on any surface, but is most commonly found on exterior-painted surfaces, interior woodwork, doors, and windows. When properly maintained and managed, this paint poses little risk, although friction surfaces (windows and window sills, doors and door frames, and stairs and railings) are a concern. Lead-based paint that peels or deteriorates is especially risky. Lead dust is most commonly found around friction surfaces, as well as in the soil around a building. Lead poisoning can occur not only through visible lead-based paint chips and flakes, but also from inhaling lead contaminated dust or soil.

Eliminating the lead hazard(s) in a building can be done by abatement work or by renovation, repair, and painting (RRP). Abatement work is a specialized activity designed to permanently remove lead in the building and includes lead-based paint inspections, risk assessments and paint removal. RRP activities (including most building renovations) disturb paint as a consequence of the activity, but they are often undertaken for reasons unrelated to lead issues. One can either presume the existence of lead-based paint and dust or have trained personnel take actual XRF readings to locate specific areas containing lead-based paint. Soil samples should also be taken since contamination of the soil is possible from paint chips. EPA requires individuals and firms who perform abatement projects in pre-1978 target housing and child-occupied facilities to be RRP-trained and certified, and to follow specific work practices, including verifying that the work area is clean (free of lead dust) after completion of the renovation.

If lead plumbing pipes still exist, either within the building or connecting the building to the water line in the road, there are two options. Either remove and replace them with copper or other code-allowed material, or install a reverse osmosis water system to purify the drinking water.

For more information about lead hazards and abatement, visit the website: [http://www2.epa.gov/lead](http://www2.epa.gov/lead)
2. Asbestos

Asbestos is a generic term referring to a group of naturally occurring fibrous minerals, prized for their thermal and insular properties, as well as their flexibility and durability. Vermiculite, a lightweight, granular, fire-resistant insulation, is also considered an asbestos containing material (ACM). Generally, asbestos-containing material that is in good condition and will not be disturbed (by renovations, for example) will not release asbestos fibers, and does not pose a health risk. Asbestos containing material is most hazardous when friable, or easily crumbled or powdered by hand. Asbestos fibers may be released into the air by the disturbance of asbestos-containing material during product use, demolition work, building or home maintenance, repair, and remodeling. Exposure may occur when the asbestos-containing material releases particles and fibers into the air, which are then inhaled or ingested. Exposure to asbestos increases your risk of developing lung disease and cancer.

Although the EPA began banning various types of asbestos containing materials in the 1970’s, many construction products containing asbestos are not banned and are actively used today. Therefore, ACM are still present in many buildings. Asbestos was and is commonly used as a fire retardant, heat insulator, sound reducer. It can be found in roofing cement and coatings, exterior shingles, drywall compound, flooring tiles and mastic, wall and ceiling insulation, pipe insulation, gaskets on furnace and boiler doors, and glazing compound on windows. Vermiculite is commonly found as attic or concrete block fill insulation.

Eliminating the hazard of asbestos before a renovation can only be done by identifying and removing the ACM. This work should be done by trained asbestos professionals, before demolition and construction begin. An asbestos inspector can inspect a building, take samples of suspected materials for testing, and advise about what corrections are needed. They can also ensure the corrective-action contractor has followed proper procedures, including proper clean up, and can monitor the air to ensure no increase of asbestos fibers. An asbestos contractor can remove the ACM.

For more information about asbestos and abatement, visit the website: http://www2.epa.gov/asbestos.

3. Mold

Molds are fungi, found both indoors and out, which reproduce and spread by spores. Exposure to molds can cause respiratory symptoms ranging from coughing and wheezing in healthy people, to nasal stuffiness, eye or skin irritation, or asthma in mold-sensitive people, to fever, shortness of breath, or lung infections in workers with long-term exposed to mold.

Mold grows best in warm, damp, and humid conditions, and mold spores can even survive in dry conditions that do not support normal mold growth. Indoors they can be found where humidity levels are high, such as basements or showers, or anywhere building elements are wet due to leaks in the building envelope (particularly roofs) or plumbing.

Eliminating the hazard of mold starts with identifying the sources of water, condensation, and humidity, and eliminating them via repairs, maintenance, or ventilation. Completely clean up mold, and dry water-damaged areas, using the most appropriate cleaning and drying methods for damaged/contaminated materials. These methods include:

- using a wet-vac to vacuum up actively wet areas;
- damp-wiping non-porous surfaces or scrubbing with a bleach solution;
- carefully containing and discarding wet and moldy porous surfaces such as wood and carpet in doubled 6-mil poly bags, or wrapping large items in plastic sheeting and securing with duct tape;
• using a HEPA-vacuum for final cleanup of remediation areas after materials have been thoroughly dried and contaminated materials removed. HEPA vacuums are also recommended for cleanup of dust that may have settled on surfaces outside the remediation area.
• To reduce the risk of airborne mold exposure, use appropriate Personal Protective Equipment (PPE)

The use of a biocide, such as chlorine bleach, is not recommended as a routine practice during mold remediation, although there may be instances where professional judgment may indicate its use. Any remaining spores will not grow if the moisture problem in the building has been resolved. If you choose to use disinfectants or biocides, always ventilate the area taking care not to distribute mold spores throughout an unaffected area. Biocides are toxic to humans, as well as to mold, so appropriate PPE should be worn. Some biocides are considered pesticides, and some States require that only registered pesticide applicators apply these products.

For more information about mold and its removal, visit the website: http://www2.epa.gov/mold.

4. Guano

Guano is bird excrement. It is often accompanied by other organic matter such as feathers, bones, carcasses, and the bugs and rodents that are attracted to such. Guano itself poses a respiratory health risk, particularly during removal when airborne particles are likely to be inhaled, while the live specimens (birds, bugs, etc) carry disease and parasites.

Guano is present when there is or was a bird infestation; usually pigeons or even bats. Piles of guano can be seen where birds roost or below areas where birds perch. Typical locations include attic floors, tops of joists or other exposed horizontal members, on walls below nests, on debris and other floor surfaces.

Eliminating the hazard of guano starts with determining if there is an existing infestation, and taking measures to seal off all entry points to the building prior to removal. Using an Industrial Cleaning or Pest Control company is recommended over do-it-yourself or contractor removal, as these professionals know the governmental regulations and have all the proper personal protective equipment. Prior to actual removal, design a plan which includes the following:

• Identify all locations to be decontaminated (rooms, floors, walls, beams, sills, ductwork, etc.)
• Identify all locations to be protected from airborne dust, both within building and at perimeter.
• Identify all items to be removed (just guano and organic matter, or the contaminated materials like insulation also?)
• Wet or dry removal? (Wet reduces dust and airborne particulates.)
• Method of removal from building elements (shovel, scraper, wire brush, power washer, HEPA-vacuum?)
• Method of removal from building (bag, bucket, barrel) and route out of building. This is particularly important if the building is partially occupied.
• Disinfection/wet cleaning of areas and building elements after bulk removal with a 1:10 bleach solution.
• Disposal of material must comply with governmental regulations.
5. Radon

Exposure to radon in the home or workplace is responsible for an estimated 20,000 lung cancer deaths each year. Exposure to radon is the second leading cause of lung cancer after smoking. Radon is an odorless, tasteless and invisible gas produced by the decay of naturally occurring uranium in soil and water, and is a proven carcinogen. Lung cancer is the only known effect on human health from exposure to radon in air. Thus far, there is no evidence that children are at greater risk of lung cancer than are adults.

Radon in air is ubiquitous. Radon is found in outdoor air and in the indoor air of buildings of all kinds. According to the NYS Department of Health, there are 37 counties in NY designated as high radon risk areas and they include: Albany, Columbia, Rensselaer, Schoharie and Washington Counties. The EPA recommends radon mitigation in buildings where the radon level is 4 pCi/L (picocuries per liter) or more. Because there is no known safe level of exposure to radon, EPA also recommends mitigation for radon levels between 2 pCi/L and 4 pCi/L. The average radon concentration in the indoor air of America's homes is about 1.3 pCi/L. The average concentration of radon in outdoor air is 0.4 pCi/L or 1/10th of EPA's 4 pCi/L action level. Radon can also be found in the water supply, most commonly if the building’s water source is ground water.

Eliminating the hazard of radon begins with testing for its presence. Both long and short term radon testing devices are available, and will show the level of radon present in the air of the space tested. Since radon in the soil primarily enters a building through the foundation and floor slab, reducing radon in a building can be done by sealing cracks in foundations and slabs, and providing proper ventilation to allow the radon to exit the building by either natural or mechanical means. The primary method of radon reduction, or mitigation, is a vent pipe system and fan, which pulls radon from beneath the building and vents it to the outside. This system, known as a soil suction radon reduction system, does not require major changes to the building. If radon is found in the public water supply, the water supplier should be contacted to take action. If radon is found in the water from a private well, it can be removed by installing a point-of-entry treatment system or a point-of-use treatment device. Lowering high radon levels requires technical knowledge and special skills. A qualified contractor who is trained to fix radon problems can study the radon problem in the building and recommend the right treatment method.

For more information about radon hazards and mitigation, visit the website: [http://www2.epa.gov.radon](http://www2.epa.gov.radon).

6. Fuel Oil Storage Tanks

Fuel oil storage tanks, both under-ground and above-ground, can become an environmental hazard and a financial liability when they begin to leak. Clean-up costs due to a leak are borne by the owner. If a fuel oil leak contaminates the soil, clean-up costs can be $20,000 – $50,000. If it contaminates the groundwater, the costs can exceed $100,000.

Fuel oil storage tanks are used primarily for heating oil, but also for gasoline or other petroleum products. For comparison, a single-family home heating oil tank might be 275-1,000 gallons; a multi-family or commercial property might have tanks up to 20,000 gallons. They are commonly found in basements, yards, and underground. Because all responsibility for leaking tanks belongs to the owner, it is important to know if and where there are any such storage tanks on the property, especially underground tanks. The NYS Department of Conservation (NYSDEC) regulates both UST’s (underground storage tanks) and AST’s (above-ground storage tanks) when at least one tank exceeds 1,100 gallons. A building with (3) 500-gallon tanks, for example, would not be regulated. UST’s must be registered with DEC, require periodic testing, and must meet other performance standards.
Eliminating the hazard of fuel oil storage tanks starts with identifying their location, age, condition, and registry with the NYSDEC. If there are known petroleum tanks on the property, it is important to review their maintenance records, and keep them current. NYSDEC has rules and enforcement actions for buildings which fail to properly register tanks, report spills and remediate contamination. It is critical therefore to hire the right kind of consultant for leaking oil tanks, such as an environmental remediation specialist. Regulated heating oil tanks that are out of service for more than a year must undergo closure per NYSDEC’s closure requirements. The tank must be cleaned out, visually inspected for holes, but no groundwater or soil samples are ordinarily required to achieve closure unless there is visual evidence or a leak. It is therefore possible that a heating oil tank that was closed in place and obtained regulatory closure by NYSDEC may have impacted the property. It is always advisable for purchasers of property with abandoned heating oil tanks to review the closure documentation to see if sampling was conducted. In the absence of such documentation, purchasers should consider conducting their own sampling since the purchasers could be strictly liable under the state Navigation Law if an abandoned tank that was closed in place has impacted the environment. It is crucial that purchasers determine if abandoned tanks exist or are discovered, particularly heating oil tanks, and that prior to the closing or before the purchaser takes control, they be removed.

To search the NYSDEC database of known, regulated tanks, visit: http://www.dec.ny.gov/cfmx/extapps/derexternal/index.cfm?pageid=4

For more information on petroleum bulk storage regulations, visit: http://www.dec.ny.gov/regulations/2387.html
Industrial Heritage Reuse Project

Appendix B - Relative Hazard Classes

EVALUATING HAZARD CATEGORIES per §912 of the Existing Building Code:

When considering a change of use to an existing building it is advisable to consider whether the proposed new use increases the hazard classification of the building. When a change of occupancy is made to an equal or lower hazard category, it is treated much like a continued use. But, when a change of occupancy is made to a higher hazard category in any of the categories, the building must meet many of the requirements of new construction for those categories. These tables do not apply if using the EBC Chapter 13 Performance Compliance Method.

<table>
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<tr>
<th>SEC. 912 Existing Bldg Code 2010</th>
<th>TABLE 912.4 MEANS OF EGRESS</th>
<th>TABLE 912.5 HEIGHTS AND AREAS</th>
<th>TABLE 912.6 EXPOSURE OF EXTERIOR WALLS</th>
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OCCUPANCY CLASSIFICATION per §302.1 of the Building Code of NYS

Structures or portions of structures shall be classified with respect to occupancy in one or more of the groups listed below. A room or space that is intended to be occupied at different times for different purposes shall comply with all of the requirements that are applicable to each of the purposes for which the room or space will be occupied.

Occupancy Classifications: (Note descriptions below are summaries, not full quotes from code)

1. **Assembly = Group A:**
   - A-1 Performing Arts or Motion Pictures
   - A-2 Food or Drink Consumption
   - A-3 Uses not Classified elsewhere in Group A
   - A-4 Spectator Seating Arenas
   - A-5 Outdoor Activities

2. **Business = Group B**

3. **Educational = Group E**

4. **Factory and Industrial = Group F:**
   - F-1 Moderate Hazard (all that are not F-2)
   - F-2 Low Hazard (non-combustibles)

5. **High Hazard = Group H:**
   - H-1 Detonation Hazard
   - H-2 High Flame Hazard
   - H-3 Readily Combustible
   - H-4 High Health Hazard
   - H-5 Hazardous Research & Development

6. **Institutional = Group I:**
   - I-1 Required Supervised Residential
   - I-2 24 hour care
   - I-3 Restrained and Secured Persons
   - I-4 Daycare Facilities

7. **Mercantile = Group M** (retail or wholesale)

8. **Residential = Group R:**
   - R-1 Transient Occupancy
   - R-2 Apartment Houses
   - R-3 Permanent Residence not otherwise listed
   - R-4 Assisted Living, less than 16 people

9. **Storage = Group S:**
   - S-1, Moderate Hazard (all that are not S-2)
   - S-2 Low Hazard (non-combustibles)

10. **Utility and Miscellaneous = Group U**