Feasibility Study for Adaptive Use of

The former D+H Freight Building
1410 Erie Boulevard, Schenectady, NY
(a.k.a. Grossman’s Bargain Outlet)

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With funding from:
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
Feasibility Study for Adaptive Use of
1410 Erie Boulevard, Schenectady, NY

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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 located in the northern end of the Downtown district, in a more commercial/industrial neighborhood, just blocks away from the former ALCO site, and also from the Front Street and Riverside Parks. The property is a through-lot, on the corners of Erie Boulevard, Jefferson Street, and Pine Street. There is an active, elevated rail line at the rear of the property.

To the northeast along Erie Blvd. are several 2-story brick office buildings. To the southwest along Erie are a restaurant, convenience store, bowling alley, and other 1-story commercial buildings. Directly across Erie Blvd. are an auto parts store and a neighborhood of older 2-family homes. Nearby amenities include: Union College (less than 1 mile away), Schenectady County Community College (1.25 miles away), as well as Proctors Theater and the downtown shopping district (less than 1 mile). The access ramps to I-890 are about 1 mile away. There is public bus transportation on nearby State Street, Union Street, and Nott Street (all about ½-mile away), but not on Erie Blvd. The Amtrak train station is about ½-mile away. It is also about ½-mile to the parks along the Mohawk River, and the Mohawk Hudson Bikeway.

The property has good visibility and frontage along Erie, which has a traffic count of over 21,000 cars per day. There are plans to redevelop the former ALCO site into Mohawk Harbor, a waterfront community that contains condos, a marina, office and retail space, a hotel, restaurants, and possibly a casino.
III. Building Description:

The building was built in the late 19\textsuperscript{th} century as a D&H railroad freight building, and consists of a 1-story original freight shed with a 2-story freight office and a newer, 20\textsuperscript{th} century, 1-story rear addition. The exterior of the freight building and the 2-story office is brick, with a large-aggregate concrete foundation. There are several areas where paint is peeling, mortar is missing between bricks, and where the foundation has exposed aggregate, indicating areas of potential water damage. The two primary facades have been painted. The newer 1-story rear addition is concrete block, also painted.

On the original freight building, the main entry doors are aluminum and glass storefront doors. It is unknown if these were the original points of entry into the building. There are multiple loading bays on both the front and rear facades, some with overhead garage doors and some boarded up. Although the floor height and now-missing exterior loading docks were originally about 3.5’ above grade, the grade of the front parking lot has been raised flush with the storefront entry. There are no windows in this section, nor are there any windows in the 1-story rear addition.

The 2-story freight office’s only exterior door has been replaced with a steel door with infill panel above to fill the masonry opening. All of the original windows are missing and boarded up, except for a few smaller replacement windows on the second floor which do not fill the original opening.

The roofs are of various materials, including a temporary roof on the freight shed and a worn asphalt shingle roof on the 2-story office. All require replacement roofing, and the freight building roof deck, especially over the deep eaves, shows signs of rot and disrepair. There are some missing downleaders which need replacing.
The original freight building has a clear-span wood roof truss, and no columns. Where the original rear brick bearing wall was removed to open up the freight building to the additions, a steel beam and steel columns were installed. The 1-story rear addition has steel roof framing. The basement and 1st floor of the 2-story freight office have wood beams and columns down the centerline which support the floor above, but the 2nd floor is wide open without columns, and a wood framed roof.

The floor of the freight building is solid wood consisting of 3” thick members side by side, over a crawl space. The 1-story rear addition has a concrete slab floor. The 2-story addition has wood finished floors over wood joists on both stories. With the exception an office and toilet rooms, the space is wide open on all floors with few partitions and few finishes. There is no visible structural damage inside the building.

IV. Proposed Use:

The owner envisions this building as a retail store, which is a continued use. The following code analysis and approval processes are based on the schematic layout below, showing one retail tenant occupying the entire building.
V. Code Analysis:

Occupancy Classification:  

**Current or Last known occupancies:**  
Group M Mercantile (building products outlet store) with 2\textsuperscript{nd} floor accessory office space. [now vacant]  

**Proposed occupancies:**  
Group M Mercantile with 2\textsuperscript{nd} floor accessory office space. Single tenant or possibly multiple retail tenants.  

Construction Classification:  
This building is classified as Type IIIB ordinary construction. Its brick and concrete block exterior walls are considered 2-hour fire-rated, while the interior structure (steel and wood) and roof are not fire-rated.

Allowable Building Heights and Areas:  

**Actual (existing) height:** approx. 35’ (from grade plane to freight office roof)  
**Actual (existing) # stories:** 2 (basement is not a story above grade plane)  
**Actual 1\textsuperscript{st} floor area:** 16,960 SF (within exterior walls)  
**Actual 2\textsuperscript{nd} floor area:** 1,555 SF (within exterior walls) [9.2% of]  
**Actual Total building area:** 18,515 SF (+ 1,555 SF basement = 20,070 SF)  

When there is no change of occupancy, such as the proposed Group M continued use, the Existing Building Code section 102.8 allows the legal occupancy of any building to continue. Assuming that the concrete block addition was legal when it was built, the continued use is allowed without fire-separations. **The area of the building is acceptable for the proposed Group M continued.**  

If the change of occupancy is from a lower hazard category to a higher hazard category (Group M to Group A assembly, for example), the height and area of the existing building must comply with Building Code T.503, which limits the area for certain occupancy groups. In this example, T.503 limits a Group A (restaurant, theater, church, recreation facility) to 9,500 SF unless fire-separated into smaller fire areas or unless fully sprinklered. The Existing Building Code (EBC) T.912.5 is included in Appendix B to show the hazard categories for each occupancy group.

Fire Separation:  

If there is no change of occupancy (existing & proposed Group M with 2\textsuperscript{nd} floor office), and only one tenant, then no fire separations are required.  

If the building is subdivided into two or more tenants of Group M occupancy, the Existing Building Code does not require the demising wall between tenants to be fire-rated, although a 1-hour rated wall should be considered.  

If the building is subdivided into two or more tenants where one is Group M continued, but the other is a new occupancy, such as Group A-2 restaurant or Group B offices, or where both tenants are new occupancy groups, the different occupancies must be fire-separated by fire barrier walls. In a non-sprinklered building such as this, the fire-rating of the fire-separations shall be 2 hours.
Fire Protection Systems:

Sprinkler:

There is no existing automatic sprinkler system in the building. Since there is no change of occupancy (proposed Group M continued use), the Existing Building Code (EBC) § 704.2 only requires a sprinkler system when all three of the following conditions occur: it would be required by the Building Code (BC) if newly constructed, the alteration work exceeds 50% of the floor area, and there is sufficient municipal water supply to the building to support a sprinkler system without a new fire pump. In this case, a sprinkler system would be required in a newly constructed Group M building only if over 12,000 SF, and this building is 16,850 SF. However, there is insufficient municipal water supply to the building, so therefore a sprinkler is not required. High-piled or rack storage in a Group M also triggers the need for a sprinkler system.

Per EBC 912.2.1, if the occupancy group should change to an occupancy that requires a sprinkler system per the Building Code, such system shall be provided throughout the area where the change of occupancy occurs. For example:
- Group A-2 Restaurant requires a sprinkler if over 5,000 SF or if over 100-person occupant load;
- Group F-1 Moderate-hazard Factory and Group S-1 Moderate-hazard Storage both require a sprinkler if over 12,000 SF.

The sprinkler system must be monitored by a central station (outside alarm company) and must be tied to the building fire alarm system.

Remaining a Group M Mercantile, or changing to Group B Business, F-2 Low-hazard Factory, or Group S-2 Low-hazard Storage would not require an automatic sprinkler system.

Standpipe:

There is no standpipe system in this building, and, in a one-story building, regardless of occupancy group, a standpipe is not required.

Fire alarm and detection:

Currently there are no fire alarm systems in the building. If there is no change of occupancy (Group M continued use), EBC 704.4 does not require a fire alarm system, and EBC 804.2.1 requires a manual fire alarm system where it would be required by the Building Code for new construction. For Group M, BC 907.2.7 requires a manual fire alarm system where the occupant load is 500 or more persons or more than 100 persons on the 2nd floor, and an automatic smoke detection or heat detection system where the occupant load is more than 100 and there is no sprinkler system. An automatic smoke or heat detection system is required for a continued Group M occupancy.

Per EBC 912.2.2, if there is a change of occupancy 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. Per Chapter 9:
- Group B requires automatic fire or heat detection (>100p w/no sprinkler).
- Group F requires a manual fire alarm (>100p).
Exits:

The number of required exits is based on the occupant load of the building. For Group M mercantile:

1\textsuperscript{st} floor mercantile area (assume 80%) = 13,568 SF @ 30 GSF/person = 453 p
1\textsuperscript{st} floor storage/shipping area (assume 20%) = 3,392 SF @ 300 GSF/person = 12p
2\textsuperscript{nd} floor business area (offices) = 1,555 SF @ 100 GSF/person = 16 p
TOTAL # OCCUPANTS = 481 people

With no change of occupancy, or a change to an equal or lesser hazard category, the means of egress shall comply with EBC 805, which requires compliance with EBC 705. Per 705, Group M mercantile, Group B business, and Group S-2 low-hazard storage all require a minimum of 2 exits when the floor area exceeds 3,500 SF. All occupancy groups require 2 exits in any space that has more than 50 people or where the travel distance to an exit exceeds 75’. In addition, the egress capacity must meet or exceed the requirements of the Building Code.

Currently there are two pairs of exit doors next to each other on the front of the building, and one exit door on the right side. It appears that the existing exits never met the code requirements, because they are not adequately spaced apart and there is essentially a large dead end at one end of the building with a travel distance of well over 75’ to the nearest exit. Existing building elements that were not legal previously are not “grandfathered” in. Therefore, additional exit doors must be installed to reduce the travel distance and the dead end situation. See the schematic plan included in Section IV of this report for suggested locations.

If there is a change of occupancy to a higher hazard category per EBC 912.4, the means of egress shall comply with BC Chap. 10.

Handicapped Accessibility:

Where there is no change of occupancy (continued Group M), EBC 605 requires that alterations comply with this chapter and with BC chapter 11, and with ANSI A117.1, except where technically infeasible. Where alterations contain an area of primary function, the route to this/these areas shall be made accessible. The costs of providing the accessible route need not exceed 20% of the costs of the alterations. If the space is divided into two tenants, each tenant space shall meet these requirements.

Entrances: If the building already has an accessible entrance, an altered entrance need not be accessible, but any new entrances shall be accessible. Accessible means of egress are not required.

Thresholds: Maximum threshold height shall be \(\frac{3}{4}''\), with beveled edges on both sides. Existing non-conforming thresholds shall be replaced to meet code.

Toilet rooms: Where it is technically infeasible to alter existing toilet rooms to be accessible, an accessible unisex toilet room is permitted, and must be located near the existing toilet rooms.

Signage and accessible parking and loading zones are not required, but strongly recommended.
If there is a change of occupancy, EBC 912.8 requires buildings to have other accessible features, unless technically infeasible:

There are two accessible building entrances in front, consisting of double doors with automatic openers. The right side entrance has exterior stairs up to the doors at the 1st floor level.

**The Group M retail store requires full accessibility, including an accessible entrance, accessible route within, and accessible toilet room(s).**

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**Bathrooms:**

If there is no change of occupancy, EBC 710 requires the number of plumbing fixtures to meet the requirements of the Building Code only if the occupant load of the story is increased by more than 20%. In a Group M continued use, there is no increase in occupant load at all.

<table>
<thead>
<tr>
<th>Group M</th>
<th>Toilets Req’d</th>
<th>Total # of Toilets (for all one tenant space)</th>
</tr>
</thead>
<tbody>
<tr>
<td>481p</td>
<td>I/500 M + 1/500 W</td>
<td>1 for Men + 1 for Women (both accessible) OR 1 Men’s, 1 Women’s (non-accessible) + 1 unisex accessible.</td>
</tr>
</tbody>
</table>

If the building is subdivided, each tenant requires its own toilet rooms, or there could be shared toilet rooms in a common hall area. The existing 6’-9” x 7’-0” toilet rooms are not quite adequate as accessible toilet rooms. They could be enlarged (not easily), or a new unisex accessible toilet room could be added.
VI. Scope of Work Needed:

This building needs a good amount of work to bring it back into usable space. Because the building is mostly raw space, with nothing to be re-used, almost every building system is a big-ticket item.

The first priority is repairs to the exterior envelope. This will include replacing the temporary roofing and all damaged portions of the roof deck, as well as mold remediation on structurally sound portions of the roof deck. Removal of all insulation in the rafter bays immediately below the roof deck is necessary to expose the condition of the deck and rafters, and to dry out any damp areas. There are several areas where the exterior brick wall is water-damaged, spalling, and/or cracked, which will require repair, repointing, and new mortar or sealants.

The building envelope needs work to bring it into compliance with the NYS Energy Code, including window/door repair and replacement, and insulation of walls and attic/roof. The existing plywood infill in the many overhead door openings should be replaced with insulated and weather-tight wall materials.

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.

Additional exit doors are required to meet the means of egress (exit) requirements, and existing doors may need modification to meet the handicapped accessibility requirements.

There are no finished spaces in the building to be reused, so tenant fit-up (framing, drywall, floor and ceiling finishes, interior doors and hardware, etc.) will be extensive.

All new mechanical systems (plumbing, HVAC, electrical, and fire protection) need to be installed throughout the building.

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.

For this project, a square foot cost could range from $110 - $130 per SF. At a total area of 18,515 SF (excluding basement), that means a total budget of about $2.0 – 2.4 million for construction renovation. 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 Schenectady Zoning and Planning, including SEQR:

The property is located in the C-4, Mixed Use Downtown zone. It is not in a local historic district. Permitted uses in this zone include retail, retail with light manufacturing as an accessory use, professional and general business offices, restaurants and taverns, recreational facilities, religious facilities, educational facilities etc. The off-street parking requirements per the Zoning regulations are:

<table>
<thead>
<tr>
<th>Proposed Use:</th>
<th>Required parking ratio:</th>
<th>Required # of parking spaces:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business and commercial establishments</td>
<td>1 space per 300 SF of floor area</td>
<td>62 spaces minimum (based on 18,385 SF)</td>
</tr>
</tbody>
</table>

Currently there appears to be sufficient parking on the property. **Since the proposed retail use is an allowed use, with adequate off-street parking, there is no need to get Zoning approval** unless an addition or a non-compliant sign is proposed.

The City also requires Planning Board review any time there is a new business or change in tenancy. Paperwork for this review includes a change in tenancy application, a site plan, and a drawing of the proposed signs. As part of this application, a State Environmental Quality Review (SEQR) environmental assessment may be done to identify and mitigate any potential environmental impacts produced by the proposed project. The City of Schenectady requires the short form Environmental Assessment Form (EAF). 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.”

After the application is submitted, attending the public Planning Board meeting is required, where the Board will make a decision. The approval process for a non-controversial project can take about 2 months.

2. Listing the building on the NYS and National Register:

The first step in getting the 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 will be evaluated by the staff for compliance with the listing criteria.

Once basic compliance is determined, NYSHPO staff makes a site visit and owner must submit all other documentation as required to complete the National Register Nomination Form. This documentation can involve working with an architect or other preservation consultant, as it includes research, maps, and photographs. The draft Nomination is shared with local officials for feedback, then submitted to the State Review Board for approval and entry onto the State Register. Nominations must be submitted 3 months in advance of the Review Board’s meeting. After State approval, the Nomination is sent to the National Park Service for approval and entry onto the National Register. For more information, visit the NYSHPO website: [http://nysparks.com/shpo/national-register/](http://nysparks.com/shpo/national-register/)

The process to get the building listed can take a minimum of 6 months. Listing the building helps pave the way for using the Historic Tax Credits. See the “Funding Assistance” section of this study.
3. Building Permit

Once the Planning approval is obtained, a building permit is required. To apply for a permit, submit the following 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 Schenectady additionally insured must be submitted along with proof of worker’s compensation insurance.

For more information, visit the City Building Dept. website: http://www.cityofschenectady.com/code_responsibilities.htm

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

Once the building is eligible for listing on the National Register of Historic Places, 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.

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

If the building is not eligible for listing, 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.

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

   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:

   - **New York Main Street**
     [http://www.nyshcr.org/Programs/NYMainStreet/](http://www.nyshcr.org/Programs/NYMainStreet/)

     The New York Main Street (NYMS) Program provides resources to assist New York’s 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. A primary goal of the program is to stimulate reinvestment and leverage additional funds to establish and sustain downtown and neighborhood revitalization efforts. Funds may be used to help rehabilitate upper-floor space and larger anchor projects.

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

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

   - **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. A similar program exists for multi-family buildings of five or more units.
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
   - Supportive and Special Needs Housing financing

7. **Industrial Development Agencies and Local Development Corporations**

   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;
   - Acquire, own and dispose of property;
   - Directly issue debt;
   - Own property that is exempt from property taxes and mortgage recording taxes, and;
   - Make purchases exempt from state and local sales taxes in support of an approved project.
A LDC is a private, not-for-profit corporation often created by, or for the benefit of, local governments for economic development. A LDC can:

- Construct, acquire, rehabilitate, and improve industrial or manufacturing plants;
- Assist financially in such construction, acquisition, rehabilitation, and improvement;
- Maintain such plants for others;
- Acquire real or personal property by purchase, lease, gift, or bequest;
- Borrow money and issue bonds, notes, and other obligations therefore;
- Sell, lease, mortgage or otherwise dispose of any such plants or any of their real or personal property upon terms determined by the LDC.

These local IDA and LDC may assist in the reuse of historic properties:

Schenectady County  
http://www.schenectadycounty.com/MenuItemList.aspx?m=183

City of Schenectady  
http://www.cityofschenectady.com/cosida.htm

Schenectady Metroplex Development Authority  
http://schenectadymetroplex.com

The Schenectady Metroplex Development Authority was established in 1998 to enhance the long-term economic vitality and quality of life in Schenectady County. It has the ability to award grants and loans, and offers technical assistance to businesses. Metroplex also can design, plan, finance, site, construct, administer, operate, manage, and maintain facilities within its service district.

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

1410 Erie Boulevard in Schenectady is a typical railroad freight building, classified as Type IIIB construction. It is an appropriate building type for the proposed use as mercantile space. **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 toilet rooms, hardware, and signage. Vertical accessibility to the 2nd floor is not required because it is under 3,000 SF.

The building is not in a Historic District and is not yet individually listed on the National Register. **TAP recommends pursuing a determination of eligibility from SHPO and proceeding with NR nomination and a filing for Historic Tax Credits, if the owner wishes to do so.**

The proposed use in the existing space does not trigger review by the Zoning Board. Constructing an addition or proposing non-compliant exterior signage may.

This building is a stable structure with localized damage of roof deck and brick walls due to roof leaks. The scope of repair work needed to make the building habitable is extensive. The cost of energy conservation measures, the repair of structural and surficial damages, the installation of all new mechanical, electrical and plumbing systems, the addition of more exit doors, and the repair or replacement of windows suggest a substantial project budget. **TAP estimates the cost at $2.0 – 2.4 million.**

This project is well-situated on a busy commercial street and is poised to benefit from proposed development along the river. If a solid tenant can be found, this should be an achievable project. **TAP recommends actively marketing the space with the help of a commercial realtor, and continuing the good stewardship of maintaining the entire building.**
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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 insulator 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.

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:

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

### Occupational Classifications

**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 Restrainted 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**