City of Somerville Community Services and Activities Master Plan

VOLUME I - FINAL REPORT

NOVEMBER 24, 2021





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Master Plan

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CITY OF SOMERVILLE LEADERSHIP

Joseph A. Curtatone, Mayor

CITY OF SOMERVILLE BUILDING RENOVATION & DEPARTMENT RELOCATION MASTER PLAN INTERNAL TECHNICAL TEAM

Cortni K. Desir, Director, SomerStat Ralph Henry, Deputy Director, Capital Projects & Planning Erik Larson, Energy Manager, Office of Sustainability & Environment Fred Massaro, Jr., Director, Capital Projects & Planning Debora Mitrano, Project Assistant, Capital Projects & Planning Rich Raiche, Director, Infrastructure & Asset Management Melissa Woods, Senior Project Manager, Capital Projects & Planning

OWNER'S PROJECT MANAGER

PMA Consultants

DESIGN TEAM

Beyer Blinder Belle Architects & Planners, Planning, Architecture, and Historic Preservation

Studio ENÉE, Collaborating Architect, Programming & Planning Support Silman Engineers, Structural Wiss, Janney, Elstner Associates, Building Envelope Science Nitsch Engineering, Civil BR+A Consulting Engineers, Mechanical, Electrical, Plumbing, Fire Protection & Fire Alarm Haley & Aldrich, Geotechnical & Hazardous Materials Atelier Ten, Environmental Design & LEED Consulting Energysmiths, Net-Zero Energy Strategy Consulting Jensen Hughes Associates, Code Dharam, Cost Estimating

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EXECUTIVE SUMMARY

A VISIONARY CITY

Locally, regionally, and nationally, the City of Somerville is recognized for its ability to craft a vision and implement it. Alongside the concurrent visioning effort for city administrative services in the Building Renovation and Department Relocation Master Plan (BMP), the City aims to tackle an important and related objective: to leverage underutilized and aging Cityowned building assets in order to satisfy important program needs for community services and activities.

A ROAD MAP FOR HOUSING COMMUNITY SERVICES AND ACTIVITIES

During the development of the BMP, conversations with departments highlighted the lack of available space to support important community services and activities. Over time, Somerville's portfolio of buildings housing these functions has responded to necessary reorganizations and relocations in both targeted and organic ways. This has left Somerville with a number of buildings and spaces today that do not best serve the community nor best support the important work of the City's administrative departments and divisions to run these kinds of community programs.

The solution to these challenges and opportunities requires a road map that will guide near-term capital expenditures within the portfolio of buildings available for potential use for these purposes. The Community Services and Activities (CSA) Master Plan creates that road map.

THE BUILDINGS IN PLAY

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Five buildings—165 Broadway (Cross Street Center),

115 Broadway (East Branch Library), 24 Cross Street East, 45 College Avenue, and 191 Highland (The Armory) —formed the primary terrain of the CSA Master Plan effort, which contemplates the best programmatic use of each potential building and/or site. The condition and history of each building was carefully evaluated as part of the CSA efforts and is included in the appendix.

In addition, 19 Walnut Street was studied at a high level in order to contemplate future use given its asset potential, current underutilization and need for rehabilitation. (As the design team was not charged with a full assessment of 19 Walnut, a scoping document and cost estimate was not produced.) Each of these six building sites poses opportunities and challenges in housing community services and activities for the twenty-first century.

THE CSA MASTER PLAN

The recommended scenario was refined from a larger set of initial options in consultation with the City's Internal Technical Team.

165 Broadway (Cross Street Center) is proposed to provide community program and administrative support spaces, alongside the provision for a community food pantry to remain on the first floor.

191 Highland (The Armory) will remain an artsfocused hub under City ownership. The Arts Council's administrative operations are proposed to move here.

45 College Avenue is proposed as a site for ground-up new construction utilizing a public-private partnership. It would provide a purpose-designed home for Council on Aging community programming and administrative offices, with tenant commercial or residential use on the levels above. **115 Broadway (East Branch Library)** is also proposed as a site for a new building utilizing a publicprivate partnership. The first floor would house an expanded and improved East Branch Library with additional community gathering space, and private residential development above.

COORDINATING WITH THE BMP MASTER PLAN

The 2021 Somerville Building Renovation and Department Relocation Master Plan (BMP) was the launching point for this CSA Master Plan. The BMP specifically explores the City's desire to create an enhanced civic and educational district focused around historic Central Hill that can more efficiently serve its administrative and governmental missions and the Somerville community. The BMP report is an important companion document to the CSA Master Plan.

COST ESTIMATES

Conceptual master planning-level cost estimates were developed mid-way through the planning effort, with one estimate for each property for all five properties included in the study. Depending on the site, the scopes of work estimated included renovation and rehabilitation and/or ground-up construction. The estimates for 165 Broadway and the Armory were further refined in the fall of 2021. The total costs in this report include both building and site work and contingencies at a magnitude and level of detail appropriate to this stage of predesign. Detailed information is provided in the Cost Estimate Summary chapter and the technical appendix.



PROCESS, METHODOLOGY AND BACKGROUND

EXISTING BUILDING HISTORIC RESEARCH

In-depth archival research on the buildings was conducted using a broad range of desktop digital sources as well as drawings found in the Massachusetts State Building Inspection Collection (1889-1987), held in the State Archives, and Somerville's own Archives Division.

IDENTIFYING SPACE NEEDS

Programming interviews were conducted with six city departments and divisions that provide or facilitate community programs and activities within the city of Somerville: Libraries, Arts Council, Health and Human Services/Council on Aging, Schools, Parks & Recreation, and Economic Development. The findings of the interviews were reviewed and vetted with the Internal Technical Team to arrive at a set of priorities and objectives to develop scenarios for reuse of the targeted buildings. Interview minutes from all conversations along with space need programs developed for planning purposes can be found in the Appendix to this report.

By necessity, the space needs program for the Building Renovation and Department Relocation Master Plan (BMP) was highly detailed to ensure that current and future administrative staff counts and space needs would be accommodated. By comparison, the needs of the departments interviewed for the CSA Master Plan are less easily quantifiable. The frequency, scale, and types of community services and activities that are offered are typically limited by existing space constraints in City-owned buildings, with space borrowed or rented often on an ad-hoc basis from non-city entities. However, the team recognizes that community partners will play a key role alongside the City in providing

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certain types of community spaces and event venues. The approach for the CSA Master Plan was therefore to determine the best use for the identified spaces, buildings, or sites for the needs of the City's relevant departments and divisions, rather than quantifying a program fully independent of physical parameters.

ASSESSMENT AND EXPLORATORY WORK

Five buildings were comprehensively assessed as part of the CSA Master Plan. The documentation and assessment of existing conditions falls into two categories of work: (1) documentation of the building's built form through three-dimensional laser scanning and digital BIM modeling, and (2) multi-disciplinary assessment of the material condition of envelope, structure, systems, finishes, and equipment relative to performance, service life, and compatibility with the City's objectives for building assets in its portfolio. This preliminary, non-invasive round of assessment took place during the spring and early summer of 2021. (Per direction from the City, 45 College Avenue was laser scanned but a BIM model was not constructed.)

During the fall of 2021, additional exploratory work was conducted at 165 Broadway in order to gain a deeper understanding of building conditions and potential constraints to renovation. Openings were made in interior finishes to identify existing structural conditions, and on the exterior, probes were made to confirm masonry wall assemblies and remove brick units for WUFI laboratory analysis. The results of this hygrothermic analysis determines how much insulation can be added to the inside face of exterior walls without endangering the historic masonry. Selective materials survey and sampling was conducted at all the buildings to quantify the hazardous materials present.

THE SCENARIO DRIVERS

The recommended master plan scenario is driven by several key considerations and parameters. The design team began by looking at where and how the city currently runs community programming, taking cues from past studies and survey findings. This information was overlaid with the results of the programming interviews to determine what services and activities are in need of space. An analysis of each site and building was then completed to determine what program types might be best suited to each urban context and site, taking into account what other programs, services and amenities are located nearby.

NOTE: BUILDINGS IN THE BMP MASTER PLAN

There is overlap between the BMP and the CSA Master Plans where administrative and community program space are housed in the same building. An overview of anticipated disposition for all the City's administrative buildings is included in the BMP report. The buildings proposed for near-term renovation in the BMP are:

• City Hall

The incrementally renovated and expanded home of Somerville's City Government since 1852

The 1895 Building

Formerly Somerville High School, to be adaptively reused as an administrative building.

Edgerly Education Center

The former Edgerly School that is the home of Somerville Public Schools administration today; to be adaptively reused for offices and other uses. Space Needs and Building Summary

PRIOR REPORT RECOMMENDATIONS

Executive Summary

The purpose of this report is to provide an assessment of indoor spaces throughout Somerville that can be used by the public and are managed by the City, a non-profit, or a religious entity. Civic Space Collaborative partnered with the City to conduct this assessment and engage the community in the Spring of 2020. Below are several key findings and recommendations.

Top Desired Spaces

- Indoor recreation
- A space for youth
- o Updated senior center
- Accessible and affordable space to gather
- Space for community organizations

Recommendations

Publicize existing community spaces

- Create community space directory that includes free and paid spaces
- Include for-profit spaces with a mission to provide affordable space for the public
- Launch outreach campaign
- o Simplify the process wherever possible

Invest in existing assets

• Support the library as it evolves and innovates • Support the renovation of the YMCA

Somerville: Community Spaces

o Make minor improvements to existing spaces o Expand hours of existing programs and services

Explore creative initiatives, pilots and

partnerships to increase indoor space in existing buildings

- Partner with local businesses
- Engage local artists in temporary indoor placemaking
 Explore partnership to support the Armory as a "Community Center"

Search for opportunities to add indoor

- community space capacity to the City
 o Recreation Center with an indoor pool
- o Youth Center
 o Senior Center
 o Meeting rooms for local groups
- Performance space
- Social gathering space

• Neutral locations for civic activities

Prioritize wish-list items when considering redevelopment of City-owned properties o Potential Sites

- o 45 College Ave o 90 Washington Street o The Homans Building in Gilman Square
- The paved parking along Foss Park
 Co-locate different uses and groups

Space

Survey Findings

The survey was open for three weeks in May 2020 and 279 respondents participated. Below is a summary of the survey results. Full survey results and comments are in Appendix A.

Programs and Services

Respondents were asked to check all the programs and services they or their family use. Seventy three percent of survey respondents reported using library space and programming, with parks and recreation programming coming next at sixty three percent. Forty percent of the survey respondents used the schools either as a parent or

Survey Respondents Use of Programs and Services

Parks and Recreation programming Library spaces and programming Council on Aging services Somerville Family Learning Collaborative City of Somerville schools (as a parent or a student) None Othe 200 250 Somerville: Community Spaces 12

Excerpts from City of Somerville Community Spaces: An Assessment of Indoor Public Spaces Managed by City, Nonprofit or Religions Entities; June 2020

In the spring of 2020, the City of Somerville and Civic Space Collaborative partnered to engage the community about their awareness and usage of indoor program spaces across the city. The survey included assessment of existing available spaces, overall needs and wish-lists, and opportunities and recommendations for future spaces. Interviews were held with both civic and community leaders and focus groups in order to provide broad stakeholder feedback on the needs of Somerville's youth, senior, and non-English speaking residents. The team also sought direct feedback from the wider Somerville community through a three-week online survey campaign. It should be noted that the survey and its findings were impacted by complications from the Covid-19 pandemic.

a student. Eleven percent reported that they didn't use

Of the 60+ population who took the survey, library spaces

and programming was the most used of the programs and

services listed, with Parks and Recreation programming

Library spaces and programming were also the most

next most used service or program of those listed.

popular of the youth (age 24 and under) who completed

the survey, with Parks and Recreation programming the

any programs or services.

coming in second.

The CSA design team reviewed the findings of this report alongside what we heard in the programming conversations in order to consider how the results align, overlap, or differ and how this might influence potential scenarios for the buildings and sites in play.

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Satisfaction With Amount of Community Spaces

Forty one percent of residents noted dissatisfaction with the amount of space for "indoor sports and physical recreation" and "social hangout space." The highest level of satisfaction with spaces was for "performance, arts and cultural events" spaces.

It's worth noting that there was a significant amount of people who responded being "neutral" about the quantity of different spaces with many explaining further that they just did not feel they were aware enough about the assets to answer fully. Of the older adults who took the survey (age 60+), there was a strong interest in space for physical activity, adult education (similar to programs in Cambridge and Arlington) and small group space for meetings. Performance space, as well as flexible spaces to meet, socialize and relax were also of interest to this age group.

The youth who took the survey (age 24 and under) expressed the strongest interest in flexible spaces to meet, socialize, and relax, with indoor recreation space also mentioned frequently.

Awareness Of and Use of Spaces

The survey revealed that the Assembly Community Room is unknown to residents with only three percent reporting that they sometimes or often use the space. The most used spaces are nonprofit spaces (e.g. Armory, Elizabeth Peabody House, etc), Parks and Recreation spaces, and Somerville Public Schools spaces. *NOTE: The library spaces option was noted included in the survey until several days after it had launched accounting for the low response rate below. However, it can be assumed that the same proportions would apply and that most residents are aware of these spaces.

Awareness and Use of Community Spaces





Key takeaways from the executive summary included participants' top desired spaces, and priorities for potential additions to or redevelopment of city-owned properties. Participants widely supported investment in existing city assets and advocated for the exploration of "creative initiatives, pilots and partnerships" as ways to increase available indoor program spaces. They also strongly believe that improved visibility of spaces, predictability of programming, and unified accessible scheduling systems are key prerequisites for better utilization of spaces.

The findings indicated that the community is very aware of and frequently makes use of the city's libraries and Parks and Recreation spaces, with 41% generally noting dissatisfaction with available indoor sports and physical recreation spaces across the city. Other community spaces were less visible to survey participants and many neutral participants simply did not know enough about assets to fully respond.

The report also included a comprehensive map (see page 72) highlighting where existing program opportunities exist in spaces managed by the City, nonprofits or religious entities. This information was used by the design team to inform the CSA scenario options.

PROGRAMMING FINDINGS

Programming interviews were conducted with six city departments and divisions that provide or facilitate community programs and activities within the city of Somerville: Libraries, Arts Council, Health and Human Services/Council on Aging, Schools, Parks & Recreation, and Economic Development. These programming interviews targeted a better understanding of each group's program offerings, sought to understand where they currently house their programs, identified other groups they partner with to provide services, highlighted deficiencies in current spaces or services, and wishlisted programs or spaces they would ideally have access to in the future to better serve residents.

Unlike the Building Renovation and Department Relocation Master Plan, which resulted in a tallied quantification of physical square footage of space needs, these programming conversations resulted in a qualitative description of priorities, the highlights of which are included at right.

A number of **commonalities** across department input were evident from these conversations and include the following:

- There is an ongoing need for these community spaces despite the pandemic; departments anticipate increased demand moving forward
- Departments want a centralized scheduling system to have more reliable access, and to make sure spaces are utilized around the clock
- Collaboration and partnerships are generally welcomed, but facilitators need to have a sense of control over scheduling
- If there were more spaces, they would get used
- Flexibility and range of space sizes is important
- Access to transit/transportation or parking is important

As part of the Building Renovation and Department Relocation Master Plan, BBB proposed a series of guiding principles to steer current and future design work. Highlighting the key foundational values that should be reflected in the City's building fabric to help support its mission, those principles established the evaluation criteria for the subsequent processes in the course of planning and design.

Similarly, the CSA Master Plan will be driven by a series of key objectives, and as a coordinated framework, turn the objectives into concrete actionable projects. These objectives will serve as evaluation criteria to inform not only those projects in the pipeline today but any future implementation of recommendations made by the CSA Master Plan.

Key **objectives** include the following:

- Provide variety in scale of space sizes and types
- Balance geography in identifying what programs and activities should ideally be provided in specific neighborhoods
- Maximize utilization by improving scheduling capabilities of building sites and spaces
- Minimize "ownership" and create neutral spaces that can be easily shared by all residents and community groups



City-wide Track Meet (Parks and Recreation)



Colorful Rio (Arts Council)



Tech Goes Home Program (Economic Development)

SPACE NEEDS SUMMARY OF DEPARTMENT INTERVIEWS

Economic Development

- Most of their programs are direct assistance by other partners
- Focused in real estate, small business and workforce development
- Use Central Library, Cross Street Center, storefronts, or off-site venues
- Expect to use Somerville High School spaces after hours
- For buildings it invests in, the City should have control of the spaces and ability to schedule in any scenario

Arts Council

- Ability to schedule events is very spacedependent; city assets could be better utilized
- Youth programs are in partnership with nonprofits, whose own programs become so popular they no longer feel the need to partner
- Gallery and artist work spaces are in high demand
- Want theater and performance space and flexible spaces to accommodate multiple types of events; outdoor space will be in high demand

Somerville Public Schools (SPS)

- Program needs vary by school; very active from end of school until 6 pm.
- Security and access control in schools is a challenge for outside group use
- Outdoor space is in high demand; SPS is short on fields and open spaces
- The new high school provides great opportunities for expanded programs
- High demand for summer programs
- Need additional spaces for music and theater programs and performance; most schools don't have auditoriums that are purpose-designed

Libraries

- WBL renovation was about baseline needs of systems and accessibility; desire for more community space in Davis Square than WBL can accommodate
- EBL is "one tiny library that programs in overdrive"; needs flexible and larger spaces, and ability to separate programs from general library use spaces
- EBL has many students after school
- EBL values having outdoor space
- Central Library needs investment and renovation; should not be overlooked in the master planning process
- The library system is the obvious place for community spaces: libraries are politically "neutral" spaces for multiple types of programs
- Anticipate significant demand for programs coming out of the pandemic

HHS / Council on Aging (COA)

- COA needs flexible spaces for larger group programming; ideally on the ground floor
- TAB is welcoming for COA programs because of co-located staff, ease of parking and transportation, and access to of Davis Square
- Large COA events are held off-site
- If COA is to be consolidated, 45 College would be the ideal location as a geographical balance to programs at the Ralph & Jenny Center
- HHS desire for teen center at CSC location

Parks & Recreation (P&R)

- City needs improved scheduling system in order to increase utilization of city spaces, particularly in the schools
- P&R often creates new pilot programs, proves their success, and other departments adapt the model
- P&R programs can appear redundant but have very different missions
- Ideally want a dedicated recreation center to host a range of programs; their impact in the city is limited by not having a facility they control
- Would take any location they could get if dedicated and accessible by transportation and/or available parking.
- Anticipate significant demand for programs coming out of the pandemic

OBSERVATIONS ON THE BUILDINGS IN PLAY

Through these programming conversations and site visits, the design team also started to form a series of key observations about the buildings and sites. Take-aways include the following:

191 Highland (the Armory), recently purchased by the City in May/June 2021, is a well-functioning building used primarily as an arts hub in central Somerville. It has benefited greatly from a recent (2009) comprehensive renovation which included adaptive reuse. The design team has provided some strategic recommendations for improvements to keep the building in shape and to code, along with prospective longer-term capital improvements to improve operating costs and sustainability as various system life cycles come due.

45 College Avenue was assessed alongside the Building Renovation and Department Relocation PDP phase in the beginning of 2021. From that study, it became clear that the building has been altered significantly over time, with little historic material still intact or in good repair. As a late-19th-century church, its architecture is also relatively inflexible. The investment to stabilize and adaptively reuse the structure will likely outweigh the returns in terms of flexible and highperforming community and support spaces. However, the site holds significant potential due to its geographic location near Davis Square, and across the street from the newly renovated West Branch Library.

115 Broadway (East Branch Library) is undersized for current and potential library services while also significantly underutilizing the available development potential of its site. A more robust building, taking advantage of the site's distinctive location on East Broadway, could better serve the library's needs and offer significant square footage for additional use serving the community either with public or private investment.

165 Broadway (Cross Street Center) holds good potential both physically and programmatically. Despite modifications to the exterior and interior of the building over time as its function evolved, it retains a street presence and a meaningful connection to its original civic use as a firehouse. It is a notable piece of historic architecture and community landmark. The building's location on the Cross Street and Broadway corridors in East Somerville has strategic value as a hub for community programs for this neighborhood.

24 Cross Street East, built as a church in the late-19th century, has suffered significantly over time from many changes of function, repeated alterations of its physical form, and long-term lack of investment or even cyclical maintenance to arrest the irreversible deterioration of historic material. This building would require significant investment to be rehabilitated, while returning a fairly limited and inflexible yield of public space on a site less strategically located than the other sites in the Plan. Given that several sites are currently being redeveloped nearby, the property's location might be of more interest for private development.

19 Walnut has suffered from deferred maintenance over time and is currently not functional in its existing condition. As an important historic property and neighborhood landmark with high-style 1920s architecture, it is easy to envision great value in the rehabilitation and restoration of this structure. The location near Union Square is easily accessible and walkable, and could lend itself well to commercial or residential use. The building is National Registereligible, making the use of the Historic Preservation Tax Credit by a private developer a potential incentive for investment.



The Armory - 191 Highland Avenue



45 College Avenue



East Branch Library - 115 Broadway



Cross Street Center - 165 Broadway



24 Cross Street East





"PERIODIC TABLE" OF THE CITY OF SOMERVILLE; DIVISIONS INTERVIEWED FOR THE CSA MASTER PLAN ARE DESIGNATED WITH A 🛛 🧚

Urban & Site-Level Analysis

CITY-SCALE - EXISTING COMMUNITY SPACES IDENTIFIED IN THE PRIOR REPORT



Excerpt from City of Somerville Community Spaces: An Assessment of Indoor Public Spaces Managed by City, Nonprofit or Religions Entities; June 2020

CITY SCALE - COMMUNITY SPACES + THE CSA SITES



As part of the 2020 Community Spaces Assessment, a comprehensive map of community spaces was generated (opposite page), highlighting where existing programming is possible in spaces managed by the City, non-profits, religious, or other entities. As an initial overlay for the CSA study, the design team reviewed these existing available spaces relative to the six CSA buildings and sites in play to determine what space needs described by user groups in the programming interviews might be best suited to specific locations. The geographical location relative to overall program opportunities within the city was an important consideration in the development of scenario options.

CITY SCALE - ADMIN MASTER PLAN PREFERRED SCENARIO THEMES



As an additional comparison, the design team mapped the city administrative departments and divisions targeted for the buildings in play as part of the 2021 Building Renovation and Department Relocation Master Plan, Scenario 4, which became the preferred scenario. This exercise graphically identifies this selected scenario for relocation and reorganization of administrative groups relative to the potential CSA buildings and sites shown in yellow. This geographical analysis is also an important consideration in terms of where the city staff who organize and facilitate programs would be physically located relative to their program spaces and offerings.

CITY SCALE - WHERE PROGRAMMING TAKES PLACE TODAY*



Finally, the design team analyzed where programming takes place today in the city of Somerville, as a comparison with the potential added offerings that might be provided with the CSA Master Plan; offerings based on the feedback provided in the programming interviews and discussions.

Emerging from the portfolio of CSA buildings and sites, two key geographic areas of focus within the CSA are Davis Square and East Somerville. These neighborhoods are further evaluated in the following section to identify and highlight important neighborhood qualities and characteristics that would support specific programming development. 19 Walnut, while not slated for use in the core CSA scenario, is strategically located adjacent to Union Square.

NEIGHBORHOOD ANALYSIS - DAVIS SQUARE



45 COLLEGE AVENUE



COLLEGE AVENUE SITE CONTEXT

Davis Square is a thriving, successful business district and community hub adjacent to the Tufts campus, well-supported by efficient transportation in the form of subway, bus and bike lane access. The Davis Red Line T station is an important intermodal transit hub for commuters and travelers, where six MBTA bus routes converge with the walking and cycling Community Path.

Most important when thinking of connectivity across the city, the 88 route runs along Highland from Teele Square via Davis to Central Hill, while the 89 route passes directly by the 45 College Avenue site to run along Broadway to East Somerville. It should be noted that the College Avenue site will be approximately 10 minutes walking from the soon-to-be completed Ball Square Station on the Green Line Extension. This should probably be considered as a less useful transit option for the site compared to other alternatives.

Easy access and a range of retail offerings makes Davis an attractive location for programming opportunities as part of the CSA master plan. Currently, HHS Council on Aging programs are currently offered nearby at the Tufts Administration Building (TAB) on Holland Street. The recently completed renovation of the West Branch Library with a new addition is also an important upgrade of city services within this vibrant Somerville neighborhood.

The site is located two blocks north of Davis Square along College Avenue, a well-traveled, tree-lined thoroughfare linking Davis to Powder House Circle. The site could be said to demarcate the transition between





EXISTING LAND USE & LANDMARKS

the Davis commercial district and its building density versus the more typical multi-family residential uses running northward. The context along College Avenue consists of multi-story brick and wood-frame residential buildings, with the West Branch Library directly across the street. Site context to the east consists of the finer-grained neighborhood fabric of detached 2.5-story late-19th- and early 20th-century homes, some architecturally significant, which are typical to West Somerville.





NEIGHBORHOOD ANALYSIS - SPRING HILL / HIGHLAND AVENUE



191 HIGHLAND



HIGHLAND AVENUE SITE CONTEXT

Highland Avenue is a medium-density, well-traveled main street that provides an important physical connection across the City of Somerville linking prominent neighborhoods, landmarks, and sites. The urban fabric surrounding the Armory is primarily residential, interspersed with small-scale street-corner retail and several larger institutional properties.

From the Armory, the Highland thoroughfare provides direct links across the heart of the city: the hub of Davis Square to the west, and the Central Hill civic and educational district to the east, continuing on to connect to Medford Street and Route 28. Two key bus routes, numbers 88 and 90, pass directly by the Armory site. The Green Line Extension will increase transit offerings at the site with the future Magoun Square Station located only a seven-minute walk from the Armory via Lowell Street.

The Highland corridor immediately adjacent to the Armory is an extension of the Spring Hill neighborhood, with prewar wood-frame detached homes lining the street alongside larger-parcel institutions such as the Somerville Hospital and Little Sisters of the Poor.

The Armory is only an 8 minute walk from the Central Hill campus containing City Hall, the 1895 Building, Somerville High School and the Central Library. This site is being dramatically enhanced by ongoing landscape improvements, the newly-built High School, and the pending renovations of City Hall and the 1895 Building that are proposed as part of the City's Administrative Building Master Plan.





EXISTING LAND USE & LANDMARKS

To the rear of the Armory, the George O. Proctor Public School existed fronting Hudson Street until at least 1970. By 1978, the school had been demolished and today the site is a paved parking lot serving Armory visitors and tenants.

Retail Zoning
Park
CSA Building

NEIGHBORHOOD ANALYSIS - EAST SOMERVILLE



115 BROADWAY (EAST BRANCH LIBRARY)



BROADWAY SITE CONTEXT

Broadway in East Somerville has a distinctive feel, due in part to the very wide right-of-way for which it is aptly named, its planted medians, and the relatively lowrise character of the street wall. The existing building fabric along Broadway is generally of a newer vintage compared to Davis, while early 20th-century homes comprise the residential neighborhoods immediately north and south. Broadway is an important Somerville main street, linking Charlestown to the east with Powder House Circle and Tufts to the west. A significant City-led project to implement traffic-calming measures and streetscape improvements along Broadway was completed circa 2016. As part of this project, specialty pavers in the roadbed were integrated into a public plaza design fronting the East Branch Library. This neighborhood focal point includes outdoor seating.

Transit and mobility offerings at 115 Broadway are mostly focused around bus and bicycle infrastructure with good bike lanes and two bike-share hubs in close proximity. The 89, 90, and 101 bus routes pass directly by the 115 Broadway site. Compared to other areas of the city, this part of East Somerville will see less significant benefit from the extension of the Green Line. The closest Green Line extension stations, Gilman Square and East Somerville, will each be a 10-15 minute walk from 115 Broadway. The existing Orange Line T Station at Sullivan Square is not far from the site geographically and does efficiently connect to downtown Boston, but the Orange Line does not serve other areas of Somerville apart from Assembly Square. In addition, the configuration of Interstate 93 requires an indirect 15-minute walk to get from the site to the Sullivan station.



EXISTING LAND USE & LANDMARKS

As the existing land use diagram above indicates, Broadway is well-suited for commercial, retail, and civic use, leveraging its new streetscape improvements and broad sidewalks. East Somerville is a dense, diverse and vibrant neighborhood, home to a large proportion of immigrants and non-English speakers. Based on current construction activity, a number of underutilized or underdeveloped properties in the area are likely to witness redevelopment in the coming decade. Some city services, such as the City's Office of Immigrant Affairs at 42 Cross Street, are located in East Somerville.







DEVELOPMENT POTENTIAL BY SITE

In order to assist the City in evaluating the relative benefits of potential site development scenarios, the design team reviewed the Somerville Zoning Ordinance in collaboration with the City to confirm parameters for City and/or speculative building development studies.

DETERMINING DEVELOPMENT POTENTIAL FOR CITY-OWNED PROPERTIES

It should be noted that all city-owned properties are designated—by definition of their ownership—as within the Civic (CIV) Special Zoning District. According to the ordinance text, the intent of the Special District is to:

- Implement the various objectives of the City's Comprehensive Plan;
- Preserve already established sites as civic space;
- Accommodate facilities of a public nature, governmental uses, and public or private utility services that support the community.

Development on CIV sites is exempt from specific Development Standards, assuming the property remains in city ownership. The design team understands that the Planning Board, in its capacity to approve special permit applications; the City Council, in its role to set city priorities and approve budgetary funding; and the public, engaged through stakeholder review processes, together act as guardrails to ensure appropriate development and use of city property while seeking design of the highest quality.

Despite CIV properties being exempt from development standards, the City's traditional practice is to use as a non-binding launching point the most likely development district designation were the property in private ownership. This due-diligence benchmarking helps build the case for projects during approvals.

PROCESS FOR CSA SITES

The process of establishing development potential for CSA sites first began by confirming the most appropriate district designation with the City. For the three sites upon which new construction or additions were contemplated, these districts were determined to be variations of the Mid-Rise (MR) classification. MR-4 (four-story) was deemed appropriate for the 45 College Avenue site and MR-3 was used as a starting point for the 115 Broadway and 24 Cross Street sites.

The maximum zoning envelope was first defined in plan, section, and three-dimensional massing, then further refined by contextual and urban design considerations and the recognition that pervious open space for stormwater management will be desired beyond what a maximum allowable footprint would provide. Several footprint options for each site were vetted with the Internal Technical Team to arrive at the illustrated development footprint scenarios for the three sites in the following pages. These initial footprint and massing studies were further adjusted while developing the test-fit floor plans at the building scale.

NOTE ON ZONING FOR 115 BROADWAY: While MR-3 was the starting designation for 115 Broadway and is shown in the following diagrams, the design team and Internal Technical Team believe there is a compelling case to be made for a fourth story in this location due to the property's three-sided frontage and the size of the Broadway right-of-way. A four-story scheme with setbacks is illustrated in the building studies chapter.

45 COLLEGE AVENUE - POTENTIAL FOR 4 STORIES





ZONING ENVELOPE - SECTION



ZONING ZONING ENVELOPE 4 FLOORS T 79.5'

ZONING ENVELOPE - PLAN

Building Statistics, SF	NEW BUILD
Building Footprint (B-3rd floor)	4,325
Stories Above Grade	4
Fourth Floor Footprint	3,495
Zoning Floor Area	16,470
Sub-Grade Basement Footprint	4,325
Gross Square Footage	20,795



INITIAL SITE FOOTPRINT STUDY

ZONING ENVELOPE - AXONOMETRIC

115 BROADWAY - POTENTIAL FOR 3+ STORIES





ZONING ENVELOPE - SECTION



ZONING ENVELOPE - AXONOMETRIC



ZONING ENVELOPE - PLAN

Building Statistics, SF	NEW BUILD
Building Footprint	7,300
Stories Above Grade	3+
Zoning Floor Area	21,900+
Sub-Grade Basement Footprint	7,300
Gross Square Footage	29,200+



INITIAL SITE FOOTPRINT STUDY

24 CROSS STREET EAST - POTENTIAL FOR 3+ STORIES









ZONING ENVELOPE - AXONOMETRIC

Building Statistics, SF	NEW BUILD
Building Footprint	5,430
Stories Above Grade	3
Zoning Floor Area	16,290
Sub-Grade Basement Footprint	5,430
Gross Square Footage	21,720
Gross Square Footage	21,720



INITIAL SITE FOOTPRINT STUDY

Initial Scenarios & Final Recommendations

INITIAL SCENARIOS

A single scenario is outlined here for 45 College Avenue, while several scenarios were conceived for occupancy of the city-owned collection of East Somerville buildings. Edgerly, a building primarily addressed in the concurrent Building Master Plan, is referenced here due to proximity and department overlap with CSA programming. The departments in play abbreviated at right are HHS's Council on Aging (COA), Somerville Public Schools' (SPS) SCALE division, HHS's SomerPromise (SOP) division, Communications' SOIA division, Parks & Rec (P&R), Libraries, the non-profit food pantry, and a potential HHS Teen Center focused on community and mental health.

These initial scenarios were driven by several key considerations and parameters. The design team began by looking at where and how the City currently runs community programming, taking cues from past studies and survey findings. This information was overlaid with the results of the programming interviews to determine what services and activities are in need of space.

An analysis of each site and building was then completed to determine what program types might be best suited to each urban context and site, taking into account what other programs, services and amenities are located nearby.

In order to assist the City in evaluating the relative benefits of the initial scenarios and to select a preferred option(s) for final PDP development, the design team created a list of pros and cons to describe each initial scenario.

DAVIS SQUARE



Single Scenario

COA at 45 College Avenue (including programs and staff)

Pros

- Consolidates staff and programs in one primary location
- Accessible and lively location; near WBL and thriving business district
- Program spaces can double as community spaces in non-COA hours
- COA still have R&J in E. Somerville for additional program offerings

Cons

 East Somerville COA program sites reduced from 2 to 1 (Ralph and Jenny Center to continue being used for programs

EAST SOMERVILLE



Scenario A

New EBL Development @115 B'way Teen Center and Food Pantry at CSC Parks & Rec at Edgerly Divest 24 Cross Street East (CSE)

Pros

- New build at East Branch Library (EBL) dramatically improves library offerings
- SF for other uses or P3 in EBL zoning envelope
- Dedicated space for HHS Teen/Youth Center which could also provide community use during school day
- Dedicated space for food pantry
- No investment or complex disposal needed at Cross St. East (divest for income)

Cons

- Must structure funding/P3 for a new EBL (if necessary to proceed)
- P&R has minimal program space at Edgerly outside gymnasium
- Still no P&R "Rec Center"



Ronomay HHS - TEEN CTR FOOD PANTRY LIBRARIES SPS/SCALE HHS - SOP COMM SOIA SWING CLASSROOMS /FUTURE GROWTH



Scenario D

East Branch Library to 24 CSE Teen Center and Food Pantry at CSC Parks & Rec at Edgerly Divest 115 Broadway or other use

Pros

- Dedicated space for HHS Teen/Youth Center which could also provide community use during school day
- Dedicated space for food pantry
- Uses the existing buildings, no new buildings required to be built by City in East Somerville
- 115 Broadway site could provide income or other use

Cons

- Large capital investment to rehabilitate 24 CSE; program limited by existing architecture
- 24 CSE site can feel like an out-of-theway location
- P&R has minimal program space at Edgerly outside gymnasium
- Still no P&R "Rec Center"

Scenario B

New EBL Development @115 B'way Parks & Rec at CSC (incl. programs) Food Pantry at 24 CSE by others Some unassigned space at Edgerly

Pros

- New build at EBL dramatically improves library offerings
- SF for other uses or P3 in EBL zoning envelope
- Edgerly growth/swing space
- Dedicated building for Parks & Rec with retail presence on Broadway, some program space
- Investment in CSE by others to create permanent home for Food Pantry

Cons

- No Teen Center
- Process for Food Pantry at 24 CSE may be difficult to achieve
- Timing of Food Pantry move could be complicated re: CSC renovation
- Still no P&R "Rec Center"

Scenario C

New EBL Development @115 B'way Teen Center and Food Pantry at CSC Parks & Rec at 24 CSE (incl. programs) Some unassigned space at Edgerly

Pros

- New build at EBL dramatically improves library offerings
- SF for other uses or P3 in EBL zoning envelope
- Edgerly growth/swing space
- Dedicated space for HHS Teen/Youth Center which could also provide community use during school day
- Dedicated space for food pantry
- Dedicated building for Parks & Rec with some program space, adjacent to CSC

Cons

- Large capital investment to rehabilitate 24 CSE; program limited by existing architecture
- 24 CSE site can feel like an out-of-theway location
- Still no P&R "Rec Center"

PROPOSED RECOMMENDATION

SUMMARY MATRIX



The CSA planning and development recommendation was refined from the larger set of initial options in consultation with the City's Internal Technical Team. The matrix above is organized by building location and the maps at right graphically illustrate the recommendation by neighborhood.

The recommendation is a result of matching the right program need to the appropriate building potential, and is influenced by geography and existing building condition. Two additional buildings, 24 Cross Street East and 19 Walnut Street, do not appear in the matrix above. It was determined that due to geographic location, material condition, and architectural and site constraints, they do not satisfy criteria for City use as part of the CSA Master Plan. A range of potential redevelopments and uses for these two buildings and sites is studied in more detail in the "Other Building Studies" section of this report. The design team's recommendations for these two properties are as follows: **24 Cross Street East** would best be divested, given the condition of the building and the limited return on investment that a significant renovation would require. A rehabilitation/addition project to support City occupancy was studied for order-of-magnitude cost estimating.

19 Walnut will be vacated by Parks and Recreation as part of the Building Renovation and Relocation Master Plan, thereby opening up opportunities for exploration as to the best use the property, which could include divestment.
OVERVIEW BY NEIGHBORHOOD

DAVIS SQUARE



SPRING HILL



EAST SOMERVILLE



Davis Square Scenario: A new building at **45 College Avenue** is proposed for Council on Aging programs and administrative spaces. The Davis Square location is a familiar environment for these programs and provides important connections to the nearby thriving business district. An expanded footprint and volume also provides the opportunity for expanded community program space, and the redevelopment could provide additional income in the form of commercial tenant space on the upper floors.

remain an arts-focused hub under City ownership. The former drill hall is a well-functioning multi-purpose event and community space, which will continue to be managed by a third party. The City is currently

Highland Avenue Corridor Scenario: The Armory will

considering various ways to ensure the slate of tenants reflects the mission of the building as "Somerville's Home for the Arts." The Arts Council's administrative operations are proposed to move to this building, no later than the time the City Hall Annex is vacated, although a move could take place sooner. **East Somerville:** 115 Broadway is proposed as the site for a new building to house an expanded East Branch Library and provides the opportunity for residential units on the upper levels. **Edgerly** will house the departments and divisions as outlined in Scenario 4 of the Building Renovation and Relocation Master Plan. **165 Broadway** will more fully become program space for the city, potentially for a teen center, and could continue to share the building with the non-profit community food pantry as desired. Building-Level Planning Studies

45 COLLEGE AVENUE NEW BUILD OPTION 1 - COUNCIL ON AGING + COMMERCIAL LEASED OFFICE

A new building at 45 College Avenue would provide a consolidated location for Council on Aging (COA) programs and staff. The location in Davis Square provides a familiar geographical location for these programs and an important connection to nearby businesses and community amenities.

In this first option, COA program space and staff areas can occupy the lower two floors, leaving space for commercial tenants or other City administrative needs on the upper floors. Some second floor space is held for COA admin. The program spaces could also be used for community or other city programming when not being used by COA. The first floor plan includes a divisible 1,700 SF multipurpose space with attached support kitchen. A shared entry lobby, other admin support, and toilets round out the plan. The lower level, which could be day-lit with planted areaways, contains an additional large flexible space and computer lab. An amenity terrace is located on the fourth floor due to the required setback.

Space Use	SF
All Rentable SF, Floors 2-4 (-5%)*	7,600
Exclude: COA Admin on 2nd Fl.	1,400
RENT - NET TENANT USABLE	6,200
*Demising; does not include prorated amenity of	common space
GROSS SF AS SHOWN	20,800
TOILETS / BOH	

MECHANICAL
CIRCULATION
VERTICAL CIRCULATION
PROGRAM / COMMUNITY SPACE
RENTABLE OFFICE SPACE
CITY OFFICE / MTG / SUPPORT



SECTION



SITE KEY PLAN





FOURTH FLOOR





SECOND/THIRD FLOORS



45 COLLEGE AVENUE NEW BUILD OPTION 2 - COUNCIL ON AGING + RESIDENTIAL

A second option was also developed to test-fit residential use for floors 2-4 above the community and Council on Aging programs. In this version, the COA admin space has been located on the Lower Level in order to maintain separation between the various building uses. Note that given the compact site footprint, only one elevator is planned. However, this would require residential occupants sharing the elevator with staff and visitors taking the elevator to the Lower Level. The conceptual unit mix is provided in a table on the facing page.



SECTION



TOILETS / BOH
MECHANICAL
CIRCULATION
VERTICAL CIRCULATION
PROGRAM / COMMUNITY SPACE
RESIDENTIAL
CITY OFFICE / MTG / SUPPORT



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FOURTH FLOOR





TOTAL UNIT COUNT - 11

3 BEDROOM	0
2 BEDROOM	2
1 BEDROOM	5
STUDIO	4



SECOND/THIRD FLOORS

BASEMENT

115 BROADWAY (EAST BRANCH LIBRARY)

NEW BUILD - LIBRARY AND RESIDENTIAL

A new building at 115 Broadway would allow for an expansion of the East Branch Library. The first floor would provide dedicated spaces for collections and programming areas, separated by age group, as well as appropriate spaces for staff and support functions. Significant community meeting and multipurpose space, missing from the library today, is also included. The proposed footprint responds to the recently built Broadway streetscape improvements and new plaza.

Ostensibly through a public-private partnership, the upper levels of the building could be used for multi-family residential. A dedicated entrance lobby is provided in the southeast corner to maintain separation of identity and function while still providing a street presence on Broadway. The residential unit mix is conceived to include studios, 1, and 2 bedroom apartments, with shared amenities in the building basement. A fourth floor setback could be an opportunity for an extensive (non-occupiable) green roof to address stormwater mitigation.

Space Use	SF
All Rentable SF*, Floors 2-4 (-5%)	15,200
*Demising; does not include prorated amenity of	r common space
GROSS SF AS SHOWN	37,100





SECTION A





FIRST FLOOR





SECOND & THIRD FLOORS



165 BROADWAY (CROSS STREET CENTER)

REHABILITATION - CITY/COMMUNITY PROGRAMMING AND NON-PROFIT/OTHER

The rehabilitation of 165 Broadway holds good potential both physically and programmatically. Renovation of the building provides ample opportunity to create well-functioning spaces for city programming and the community. The building's location, historic architecture, and visibility on Broadway makes it a community landmark.

The following drawings and diagrams illustrate a scenario that could support both city programming and potential continued non-profit use by the community food pantry, Project Soup. One possible city program option that has been discussed is a Teen Center run by HHS with a focus on mental health, one of the potential needs described both in the previous surveys and the CSA programming conversations. The City would support Teen Empowerment, a current tenant, in finding a new location.

Space Use	SF
EXISTING GROSS SF	12,100





> CONCEPT PLAN - FIRST FLOOR

CONCEPT PLAN - SECOND FLOOR











FIRST FLOOR TEST-FIT PLAN





While an exact program for the building has not yet been defined, the illustrated floor plans above provide additional detail to help the City envision future building use. The First Floor is reorganized to more efficiently house the food pantry and serve the constituents who access this important community service, and also provides an opportunity for a revitalized entry and reception space from Broadway fronting a large community program space. The Second Floor has program and small meeting rooms alongside office space for an administrative group who might also manage and facilitate programs in the building. All community program spaces and meeting rooms are laid out so they can be physically accessed by outside groups when not in use by the department.

20 ft

Cost Estimate Summary

INTRODUCTION TO COST ESTIMATES

COST OVERVIEW

The summary table below provides a high-level overview of the current cost estimate values for each project. An initial round of cost estimating across all of the properties was conducted in August 2021, using drawings, sketch markups, and narratives provided by the design team. The renovation projects, 165 Broadway and the Armory, were re-estimated in October 2021 due to further design development and the increased quality of existing conditions information. The design team provided the estimators with revised pricing narratives, conceptual demo and proposed floor layouts, detailed elevation markups, and site/ utility sketches. Hazardous materials reports helped capture the expected level of abatement, while exploratory work over the summer of 2021 helped fill in information gaps and better direct the scope.

The qualifications and full backup for the cost estimates up through the present-dollar GMP values is contained in the appendix, while the build-up to Total Project Cost with percentages is found in the table on page 52. The design team drawings and narratives used by the estimators can be found in the appendix.

METHODOLOGY: DEVELOPING COST ESTIMATES

Using materials provided by the design team the estimators calculated trade-level costs based on a range of current installed unit costs, cost-per-square-foot benchmarks, and itemized allowances appropriate to this pre-design stage. All applicable exterior renovation construction, existing building MEP replacement, and core renovation work were estimated in UniFormat detail. The model then predicts allowances for interior space fit-out based on approximate anticipated proportions of program type, subject to greater design resolution in the future.

Corollary to the estimating of trade costs is modeling the build-up to an estimated hard cost, starting with an appropriate level of embedded contingencies for future design. This hard cost number is the projected Guaranteed Maximum Price (GMP) in present-dollars. Because the potential scheduling of these projects has not yet been reviewed and vetted by the City, construction start-date scenarios are unknown.

Escalation is therefore currently excluded from the cost models.

Below the line, soft cost allowances and percentage build-ups were developed in coordination with the City's project manager and Internal Technical Team. The GMP, owner's soft costs, and owner's internal budgeting contingencies are all summed to determine an estimated Total Project Cost (TPC) in present dollars.

REVISITING INITIAL ESTIMATES

Several key variables impacted the change of estimate values in the re-estimating. Design scope was revised based on client or exploratory feedback, or better clarified by drawings vs. earlier narratives. This increase in the quality of information that could be provided to the estimators led to a modest decrease in the design contingency, from 12% to 11%. At the same time, an evolving perspective on the highly volatile construction

PDP COST ESTIMATES	165 Broady Rehabilita	vay - tion	45 College New Bui	Ave - Id	115 Broadv New Bui	vay - Id	The Armo Phase 1	ry -	The Armory - Phase 2		
Project Gross Sq Ft	12,100 GSF	\$/SF	20,900 GSF	\$/SF	37,100 GSF	\$/SF	34,100 GSF	\$/SF	34,100 GSF	\$/SF	
Construction Cost (2021 \$*)	\$9,800,000	\$814	\$19,700,000	\$942	\$27,000,000	\$728	\$4,200,000	\$123	\$7,800,000	\$229	
Total Project Cost (2021 \$*)	\$14,400,000	\$1,193	\$27,700,000	\$1,324	\$37,700,000	\$1,017	\$5,800,000	\$171	\$10,900,000	\$320	

*Escalation is excluded as the potential scheduling and sequencing of projects has not been reviewed with the City.

165 BROADWAY - RENOVATION



45 COLLEGE AVE - NEW BUILD



THE ARMORY - PHASE 1/2 RENOVATION



CONSTRUCTION COSTS \$ (ESCALATION EXCLUDED)

COST ELEMENT	GSF	\$/	/SF	CONST \$ (NOT ESCALATED)
ENVELOPE ROOF & CODE - PH1	34,100	\$	56	\$ 1,923,317
MEP INFRASTRUCTURE - PH1	34,100	\$	66	\$ 2,263,966
PHASE 1 TOTAL	34,100	\$	123	\$ 4,187,283
ENVELOPE & ROOF - PH2	34,100	\$	65	\$ 2,206,765
MEP INFRASTRUCTURE - PH2	34,100	\$	50	\$ 1,705,005
FIT OUT ALLOWANCES - PH2	34,100	\$	68	\$ 2,324,350
ARMORY - SITE PH2	27,805	\$	57	\$ 1,577,968
PHASE 2 TOTAL	34,100	\$	229	\$ 7,814,088
TOTAL CONSTRUCTION COSTS	34.100	\$	352	\$ 12.001.370

115 BROADWAY - NEW BUILD



market over the last five months meant increased materials and labor costs and a revised outlook on escalation.

The bar graphs and tables above are extracted from the Executive Summaries of the Cost Estimates, and indicate the cost of key elements in each project at an present-dollar hard cost (GMP) level. The cost per square foot is also provided, a function of the gross square footage of each building or area of work (note that for the site work, the SF denominator used is site area defined by the limit of work, with the building footprint excluded).

On the following page, additional detail on the build-up from trade-level cost to Total Project Cost is provided.

Excerpts are from the cost model Executive Summaries; hard costs only. 165 Broadway and the Armory estimates are dated Oct 2021; 45 College Avenue and 115 Broadway estimates are dated Aug 2021

BUILD-UPS TO TOTAL CONSTRUCTION COST

		[Sum A1:						[Sum A1:A5]					
			A1		A2		A3	A4		A4 A5			A6
1	Rates		165 Broadway Rehab		45 College Ave New Build		115 Broadway New Build		Armory Phase 1	1	Armory Phase 2		Total
3			10/29/2021		8/13/2021		8/13/2021		10/29/2021		10/29/2021		Combined Dates
4	TOTAL CONSTRUCTION - GMP, Rounded Current Dollars [from line 19]	\$	9,800,000	\$	19,700,000	\$	27,000,000	\$	4,200,000	\$	7,800,000	\$	68,500,000
5	TOTAL CONSTRUCTION GSF (Armory only counted once)		12,100		20,900		37,100		34,100		34,100		104,200
6	TOTAL CONSTRUCTION \$/GSF, Current Dollars		\$814		\$942		\$728		\$123		\$229		\$658
7													
8	1. Hard Costs												
9	SUBTOTAL TRADE COST (includes embedded 5% General Reqs.)	\$	7,156,616	\$	14,386,936	\$	20,382,046	\$	3,100,944	\$	5,745,128	\$	50,771,670
10	Design Contingency [% applied to line 9, project-specific]	\$	787,228 11%	\$	1,726,432 12%	\$	2,445,846 12%	\$	341,104 11%	\$	631,964 11%	\$	5,932,574
11	Phasing Allowance [% applied to sum of lines 9-10]		-		-		-		-		-	\$	-
12	Construction Contingency [% applied to sum of lines 9-11] 4.5%	\$	357,473	\$	725,102	\$	1,027,255	\$	154,892	\$	286,969	\$	2,551,691
13	General Conditions [calculated; resultant % = line 13/lines 9-12] Calculated	\$	884,929 1 0.7 %	\$	1,517,638 9.0 %	\$	1,339,613 5.6 %	\$	308,269 8.6 %	\$	623,636 9.4 %	\$	4,674,085 7.9 %
14	COST OF THE WORK [sum of lines 9-13]	\$	9,186,246	\$	18,356,108	\$	25,194,760	\$	3,905,209	\$	7,287,697	\$	63,930,019
15	Permits [Excluded] 0.0%	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
16	Insurances - 1.35% GL, 1.25% Sub Default [% applied to line 14] 2.6%	\$	238,842	\$	477,259	\$	655,064	\$	101,535	\$	189,480	\$	1,662,181
17	Bond [% applied to line 14] 1.5%	\$	137,794	\$	275,342	\$	377,921	\$	58,578	\$	109,315	\$	958,950
18	CM Fee [% applied to sum of lines 14 & 15-17] 3.0%	\$	286,886	\$	573,261	\$	786,832	\$	121,960	\$	227,595	\$	1,996,535
19	GMP BEFORE ESCALATION - 5/2021 Dollars [sum of lines 14 & 15-18]	\$	9,849,769	\$	19,681,969	\$	27,014,577	\$	4,187,283	\$	7,814,088	\$	68,547,686
20	Multiplier: GMP markup on (Subtotal Trade Cost+Design Contingency)		1.24		1.22		1.18		1.22		1.23		1.21
21	Construction Midpoint		tbd		tbd		tbd		tbd		tbd		
22	Escalation [calculated to midpoint of construction; % of line 19 for ref.]	\$	- 0.0%	\$	- 0.0%	\$	- 0.0%	\$	- 0.0%	\$	- 0.0%	\$	- 0.0%
23	GMP [lines 19 + 22] - ESCALATION CURRENTLY EXCLUDED	\$	9,849,769	\$	19,681,969	\$	27,014,577	\$	4,187,283	\$	7,814,088	\$	68,547,686
24	2. Soft Costs												
25	Owner's Soft Costs - A/E Team [% applied to line 23] 12.5%	\$	1,231,221	\$	2,460,246	\$	3,376,822	\$	523,410	\$	976,761	\$	8,568,461
26	Owner's Soft Costs - OPM [% applied to line 23] 4.25%	\$	418,615	\$	836,484	\$	1,148,120	\$	177,960	\$	332,099	\$	2,913,277
27	Owner's Soft Costs - Other Misc Costs [% applied to line 23] 6.5%	\$	640,235	\$	1,279,328	\$	1,755,948	\$	272,173	\$	507,916	\$	4,455,600
28	Owner's Soft Costs - FFE & AV/IT [\$10/SF for Program + \$6k/Workstation]	\$	122,000 12ppl	\$	110,000 11ppl	\$	68,000 3ppl		- Excl		- Excl	\$	300,000
29	Owner's Soft Costs - Police Details [\$500/day/detail x project duration]	\$	130,000 1qt	\$	340,000 2qt	\$	340,000 2qt	\$	50,000 Allw	\$	100,000 Allw	\$	960,000
30	SOFT COSTS SUBTOTAL, NO ESCALATION [% indicated is a resultant % of line 23]	\$	2,542,071 25.8%	\$	5,026,058 25.5%	\$	6,688,889 24.8%	\$	1,023,543 24.4%	\$	1,916,775 24.5%	\$	17,197,337 25.1%
31	3. Owner Contingencies												
32	Owner's Construction Contingency [% applied to line 23, % is project-type specific]	\$	1,625,212 16.5%	\$	2,361,836 12.0%	\$	3,241,749 12.0%	\$	502,474 12.0%	\$	937,691 12.0%	\$	8,668,962
33	Owner's Soft Cost Contingency [% applied to line 30, % is project-type specific]	\$	419,442 16.5%	\$	603,127 12.0%	\$	802,667 12.0%	\$	122,825 12.0%	\$	230,013 12.0%	\$	2,178,074
34	4. Total Project Costs												
35	TOTAL PROJECT COST, NO ESCALATION [lines 23+30 and 32-33]	\$	14,436,494	\$	27,672,989	\$	37,747,882	\$	5,836,126	\$	10,898,567	\$	96,592,058



CONCLUSIONS AND NEXT STEPS

With the programming discussions and the evaluation of potential sites for renovation and development resulting in the recommended scenario contained herein, the City can take the initial steps to move forward with the CSA master plan in coordination with other City priorities. What this means will vary across the portfolio of properties.

The outcomes proposed in the CSA study are contingent upon how and when potential sites can be developed, rather than by what can be resolved as a single solution in a single location. And while Somerville would undeniably benefit from the new and renovated spaces proposed, the design team and stakeholders agree that a holistic effort to address scheduling, utilization, way-finding and awareness of existing CSA venues and sites is as essential as individual renovation or development projects. The recommended scenario outlines the most optimal longterm destiny of each building in play, but each site is on its own path with additional property-specific decisions to be made around prioritization and project execution.

Next Steps and Priorities, by Property

Across all the CSA potential projects, we believe that 165 Broadway is the priority for renovation and redevelopment given the upside benefits and the fact that capital investment in the building's envelope and systems is overdue. The property is an iconic neighborhood landmark in a desirable location with great 'community anchor' potential, but the current condition and fit-out have shortcomings. For the moment, the building is also partially vacant, meaning less swing space will be required during construction. However, to move forward, the city must identify the best match of program to geography and architecture for the building, including whether or not the non-profit food pantry should remain in the building.

As described in the report, the 45 College Avenue and 115 East Broadway sites have been identified as good candidates for ground-up construction utilizing public-private partnerships to address the city's space needs in a financially prudent manner. This also puts these two sites on a different timeline versus a City-led new build or renovation. The design team's speculative test-fit concepts were reviewed with OSPCD's Economic Development leadership. As all agreed, the next step is for the City to lay the groundwork for partnerships on these sites that satisfy the City's objectives while also constituting an attractive pro forma for developer-partners. It is also relevant to note that while an expanded East Branch Library would be on par with the West Branch in size, this investment in Somerville's library facilities does not address the significant deficiencies and expanded program aspirations of the Central Library.

45 College is a good opportunity for community programming space in a desirable location that would achieve valuable benefits to the Council on Aging, while the direct adjacency to the West Branch Library would enable shared programming synergies. In the interim, the continued availability of space in the TAB for COA tenancy will give the City time to develop the brief and find a partner for a fully optimized facility in this location.

The East Branch Library at 115 Broadway has outgrown its limited space, but could potentially make use of facilities in a newly renovated 165 Broadway to host overflow programming until the 115 Broadway parcel itself can be re-developed. The Armory was renovated comparatively recently, in 2009, and purchased by the City in the spring of 2021. The building is expected to continue in its use as-is for the near term. At this time, a deep energy retrofit and site resiliency project is not a City priority. Some strategic capital investments could be made in the interim that would steward this city landmark and improve its function while lowering operating costs. Along these lines, the design team has proposed a scope of near-term mechanical and envelope upgrades the City could incorporate into their capital planning.

Lastly, in consultation with the City, 24 Cross Street East and 19 Walnut have been recommended by the design team for City divestment. No further work is projected as part of the CSA study for these two properties.

A related planning effort by this team, the Building Renovation and Department Relocation Master Plan (BMP), completed the initial phase effort, the Preliminary Design Program, in June of 2021, and has concluded the Preferred Schematic Report phase in coordination with this CSA report. The two reports, one for the City administrative space and one for community services and activities, comprise a combined set of deliverables that reference one another so that the City's built assets and space needs are being addressed holistically.

Finally, it is expected these planning efforts will culminate with presentations to government and community stakeholders to advance the prioritized projects in each plan to the next phase of design.

Appendix Building History and Existing Conditions Assessments

The Armory

BACKGROUND AND RESEARCH

The Armory was constructed in 1903 for the Somerville Light Infantry, part of the Massachusetts Volunteer Militia. The Somerville Light Infantry was one of twelve companies that formed the Second of Massachusetts' two Militia brigades. The Militia was renamed the Massachusetts State Guard in 1917, was activated during World War II, and deactivated in 1947.

The architect of the Armory was George A. Moore, a partner in the Boston firm of Little, Browne, & Moore until 1896 when he left to form his own practice. Notable projects by the firm during Moore's time there include the palatial Chicago home for Mrs. Wirt Dexter, as well as a number of private residences in Boston's Back Bay. Working under his own shingle, Moore designed a number of buildings in the greater Boston area including the Lynn Public Library (1898).

In its planning and design, the Somerville Armory is typical of the American armory building type of the late nineteenth- and early-twentieth centuries. A castle-like 'headhouse' fronts the street, containing a central stair hall and a range of medium- and smaller-sized rooms on three levels above a finished basement. To the rear, a large, clear-span drill hall was set in a separate but attached shed-like massing. While load-bearing multiwythe red brick was typically left exposed on armories as the external finish, the Somerville Armory is unusual for its use of stucco cladding over the masonry. This finish material dates to the original construction.

The massing of the headhouse, square in plan, includes four corner turrets and battered walls, with deep-set, narrow 1/1 double-hung arched windows in the turrets at the first and second floors. Wider, 6/6 double-hung windows punctuate the planar portions of the facades. Tudor- and English Castle-style decorative flourishes, like the ogival arch over the entrance, pyramidal capped buttresses, and medieval pipe grilles at the turret windows, were utilized throughout the design. The drawbridge-like ramp at the entry enabled horses and vehicles to be driven through to the drill hall beyond. To address the formal challenge of suppressing the gabled-third story at the building's front, Moore turned to an eclectic inspiration, centering a belled parapet or "campanulate" in the composition; this may have intentionally recalled the same form added to the Alamo in the mid-nineteenth century. Together, the eclectic use of the campanulate and stucco cladding depart from the feel of a New England armory and recall the imagery of the American Southwest.

The drill shed has a comparatively simple form and detailing, with a gable roof that runs perpendicular to the ridge of the headhouse. The bays of the exposed steel roof trusses that make the enormous span possible are expressed with exterior buttresses which help support the trusses. A projecting chimney-like pier demarcates each corner of the drill shed, and a hipped ventilation cupola tops the drill shed roof. The two endgables of the drill shed originally included semicircular arched clerestory windows, but these were later closed in. Smaller clerestory windows run around the wing lower down.

The building saw fairly minimal change throughout the twentieth century and is a well-preserved example of the monumental armory building type. The building was continuously used by the Massachusetts National Guard until the mid-1970s, and then by the State Police for several years after. The historical record indicates that some alterations were made in 1962 by Abraham Woolf Associates to improve the fire resistance of the structure; work included replacement of interior doors and some interior finishes. The building sat vacant or underutilized from the 1980s until 2004, when it was sold by the Commonwealth to Joseph and Nabil Sater. Photographs from the early 2000s show that the facade stucco exhibited widespread deterioration. The Saters engaged the Cambridge architecture firm Single Speed Design to design the rehabilitation and adaptive reuse of the building in its conversion to an arts center. The renovation program included commercial tenant suites for arts organizations, a café, and two live/work units for artists. The drill hall was rehabilitated as a multiuse events space. The exterior was comprehensively rehabilitated and the third floor subtly expanded with two small roof additions behind the existing parapets.

By the late 2010s, the building had been operating under an unsustainable financial model only made worse by the COVID-19 pandemic. In mid-2021, the City of Somerville acquired the Armory property via eminent domain in order to stabilize the finances while ensuring the facility was preserved for arts uses, making it the first publicly-owned arts and culture center in Somerville.



Postcard, 1907

Research sources include the Mass. Archives State Building Inspection Office Drawing Collection, Mass. Cultural Resource Inventory Form SMV.710, recent news articles, and misc. filing drawings in City of Somerville possession



First Floor Plan, 1902



N-S Section Looking West, 1902 File Drawings, 1902 "Armory of Somerville Mass.", Massachusetts Archives, A.2.5.3024



Photograph, 1909



Photograph, circa 2006



Photograph, 2011

THE ARMORY - EXISTING USE PLANS





191 HIGHLAND BASEMENT - EXISTING BY USE

NOTE: Areas rounded to nearest 10 SF

SCALE: 1/32" = 1'-0"

191 HIGHLAND FIRST FLOOR - EXISTING BY USE





191 HIGHLAND SECOND FLOOR - EXISTING BY USE

191 HIGHLAND THIRD FLOOR - EXISTING BY USE

SCALE: 1/32" = 1'-0"

SCALE: 1/32" = 1'-0"

EXISTING CONDITIONS ASSESSMENT

CODE

Construction Type

The building consists of brick masonry exterior loadbearing walls with a cementitious stucco finish, brick columns and interior bearing walls of brick and wood, with wood floor assemblies, some supported on heavy timber construction, others on steel beams. Some roofing (primarily in the drill hall) consists of, and is supported by, unprotected steel trusses, while other combustible roofing appears to be supported by heavy timber framing and wood purlins. The building most closely resembles Type IIIB construction, where the exterior walls are comprised of noncombustible materials that achieves a 2-HR fire-resistance rating. The interior building elements can be of any material permitted by 780 CMR.

Existing Occupancy Type

Mixed-use – Group A (dining facilities including commercial kitchens, performance halls, art galleries, etc.), Group B (business, small assembly areas < 50 persons), Group R (live-work residential units).

Planned Occupancy Type

Mixed-use – Group A (dining facilities including commercial kitchens, performance halls, art galleries, etc.), Group B (business, small assembly areas < 50 persons), Group R (live-work residential units).

Change of Use

The design team is not aware of any change in use planned for the building.

Number of Exits

The building is provided with multiple egress stairways and exits to grade. There are 6 stairways: two enclosed exit stairs that serve the basement only (one discharges at grade adjacent to the parking lot drive aisle entrance and the other discharges through a vestibule on the first floor with exit doors to the outside – also serving as one of the means of egress from the performance hall), two enclosed "tower" stairs that discharge to the exterior at the first-floor level, and two partially enclosed "grand" lobby-stair hall stairs that provide access to the exterior via travel through interior portions of the first floor.

The enclosed "tower" stairs are spiral stairs located on the east and west sides of the building; each stair serves the basement to second floor, though the east stair is only accessible from a small MEP/storage portion of the basement and is not accessible from the rest of the basement level. The west stair is extended by an unenclosed corridor and stair that leads to the third floor. The "grand" stairs serve all levels of the building (basement through third floor); the stairs are enclosed from the basement to first floor and unenclosed between the first, second, and third floors.

In addition to exit access to the exterior through the "tower" exit stairs, the first floor is also served by the main entry/exit to Highland Avenue.

The Performance Hall, which is expected to have the greatest occupant load of any space based on its use, is provided with three means of egress. One is the main entrance to the space and egress through these doors leads via the main lobby to the main entry/exit to Highland Avenue. The other means of egress are provided by (1) access to the exterior through the east "tower" stairs and (2) via a direct-to-grade vestibule and stoop in the northwest corner of the building. The Performance Hall mezzanine is served by one unenclosed stair discharging to the main level, as well as the second floor "grand" stair hall.

Preliminary Means of Egress Considerations for Renovation

• While the communal / open areas at the second and third floor landings of the grand stairs are



Second Floor Landing, Main Stair



Mezzanine Stair, Drill Hall



Spiral Stair

primarily for circulation, such areas are also part of the means of egress for occupants of such floors. These areas have some wall art, paintings, etc. but should be kept clear of any displays or items that would obstruct the means of egress or significantly increase the combustible load of the space.

- Alterations must be done in a manner that maintains the level of protection provided for the means of egress. Newly reconfigured space must be provided with adequate number of exits and exit capacity as required per 780 CMR Chapter 34.
- A Level 2 or Level 3 alteration may trigger required upgrades to the existing unenclosed grand stairs.
- Further assessment is necessary based on scope of work and occupancies/spaces to be upgraded.

Sprinkler System

The building is protected throughout by an automatic sprinkler system and a Class I standpipe system with hose connections located at stairways and Performance Hall mezzanine. A fire alarm system with emergency voice/announcement capability is also installed that appears to provide coverage throughout the building. The fire alarm system appears to be comprised of smoke detector and manual pull station initiating devices and combination audible/visual notification appliances. Emergency lighting and exit signage were also observed.

Other Renovation Considerations – 521 CMR

If the construction cost of the proposed renovation work in the existing building is expected to cost more than 30% of the full and fair cash value of the building, the entire building, exclusive of employee-only work areas, is required to comply fully with the new construction accessibility requirements of 521 CMR (521 CMR §3.3.2). This would trigger upgrades to restrooms, stairs, doors, and entrances, including reconfiguring the main entry ramp to include a proper landing. While an existing elevator reaches all floors and addresses current accessibility, further analysis would need to be conducted to confirm compliance relative to the extent of proposed renovations. Note that some level of accessibility upgrades will likely be required even with limited renovation work that does not exceed the 30% threshold.

STRUCTURE

There are no known structural issues to be addressed at the time of assessment. The design team understands that the event space operator has engaged outside consultants to study the load capacity of the drill hall's unprotected steel roof trusses and the feasibility of adding additional hanging equipment.

Prior Documentation

The design team is in possession of the original 1902 filing drawings, which include foundation and structural framing plans for most floors. In addition, the team also has images of the drawings indicating the limited structural modifications done as part of the 2009 renovation. The drawings indicate that most of that scope involved sistering joists at the third floor level to enable the one-story roof additions added in 2009, plus the additions themselves.

FACADE & ENVELOPE

Facades and Windows

The Armory's facades are in fairly good condition, with some areas that have issues, although further investigation is required. As noted in the introduction, the Armory is unusual in its use of stucco as an exterior finish over the multi-wythe load-bearing brick masonry. It appears a paint coating was applied to the stucco as part of the 2009 renovation to renew the building's aesthetic appearance. More than a decade on, the stucco and its paint coating indicate evidence of a few



Ceiling of Drill Hall with roof trusses; NE corner "chimney" brick displacement



Damaged soffit and runoff staining; delamination of paint coating on stucco



Stoop and egress door deterioration; window grate deterioration

different issues which are being explored further as part of the work about to commence. There is surfacelevel crazing, spalling, and delamination of the coating in numerous areas which may indicate issues with the paint breathability. Deeper cracks and water damage in the stucco may require re-stuccoing in several localized areas including the full east elevation of the drill hall. In addition, indicated conditions of opening brick joints in a number of areas are telegraphing through the stucco, which will necessitate brick stitching and repointing. Further, a few specific areas like the top of the northeast corner buttress need full brick reconstruction. Lastly, staining is present on most facades from secondary runoff carrying oxidation from metal flashings, also subject to investigation.

In the headhouse, the Armory's windows are a combination of original wood double-hung sash windows (generally the 1/1 narrow arches) and newer frame-within-frame wood window inserts with insulated glass and simulated divided lite grilles (generally limited to 6/6 format on south elevation). The original wood windows appear serviceable but need full repainting and likely consolidation/epoxy repairs due to cracking of the exposed wood. At the drill hall, clerestory height half-round windows appear to have been replaced in the recent renovation. Exterior storms have been added more recently to provide additional measures of acoustic control.

Exterior Doors and Stoops

The exterior doors show a range of conditions. The oversized double doors at the primary entry are weathered and will require wood consolidation, dutchman repairs, and a full exterior re-coating with spar varnish. The remaining doors, which are generally for emergency egress use, are a mix of heavily weathered wood doors and metal leaf doors, all in wood frames, and in fair to poor condition. The bottom foot of all frames will require dutchman repairs and repainting, and the clear-finish wood door leaves should be replaced with paneled metal leaves. In general, the door stoops are cast-in-place concrete and in fair condition, but will require localized patching and/or grinding typically due to metal rust jacking. 100% of painted metal handrails/guardrails will need replacement due to poor condition or non-compliance with building and accessibility codes. The main entry lacks a landing at the top of the ramp, and the ramp appears to be steeply sloped. If work is proposed for the building, it should be paired with a site grading study to address this issue and the relationship of the adjacent sidewalk to the curb.

Roofing

It appears likely all headhouse roofing surfaces date to the 2009 renovation; they appear in generally good condition with the caveat of the thermal anomaly noted below. The headhouse roofing is comprised of three distinct types. The original third story mass has a pitched roof with a single ridge terminating in campanulates, contains modern unit skylights, and is clad with asphalt shingles. The two 2009 third floor roof additions, immediately east and west of the original pitched roof, have low-slope membrane systems and internal drainage. Outboard of these setback additions, small occupiable roof terraces have synthetic wood decking set above a membrane roof system. The pitched shingle roof has no external gutter and drains directly onto the membrane roofs where the water is handled by drains and overflow drains. The roof terraces also have internal drains and overflow is handled by scuppers in the parapets that appear to be original.

The drill hall roof is a pitched roof with a single ridge oriented east-west. A copper ventilation cupola with hipped roof planes emerges from the center. All roofing surfaces are asphalt shingle with the exception of a large roof cricket, surfaced with membrane, which negotiates the geometry between the drill hall and head house. The drill hall has external aluminum gutters at the eaves, connected to aluminum leaders. The eaves, fascia, gutters and soffits are in good condition with the exception of the short runs of eave at the southwest



Drone photograph of Armory roof



Key Plan for Thermal Anomaly



Thermal Anomaly Imagery

and southeast corners. These assemblies are in poor condition and should be wholesale replaced. Because of the large cricket upstream, a tremendous amount of water volume is channeled to these short gutters and downspouts. There is also an issue with the flashing details at each of the adjacent corner "chimneys," which is causing deterioration to the masonry and stucco.

As part of this preliminary documentation and assessment effort, WJE also conducted qualitative infrared drone survey on the roofs of four buildings. Surveyed in the hours immediately following sunset, infrared anomalies can indicate the presence of moisture-laden roof components. Wet components have greater thermal mass than if they were dry, releasing their heat energy from the day more slowly and representing as heat islands in the infrared scan.

One area of thermal anomaly was identified at the Armory at the intermediate EPDM roof of the square structure at the north end of the east roof adjacent to a chimney and air conditioner penetration.

CIVIL/SITE INFRASTRUCTURE

The Armory is located on a 0.92-acre site on Highland Ave. The site includes the existing building, rear parking lot, driveway, and landscaped areas on the front and side of the building. The building is currently occupied.

Water Systems

No information for the existing domestic water or fire protection system for the building were observed onsite. Additional record information needed.

Sanitary Sewer

Based on the City of Somerville Stormwater Management Plan, dated June 15, 2020, the Armory is located within a portion of the City served by combined sewers. This should be confirmed by the City.

Sewer manholes were observed in Highland Ave and the sidewalk adjacent to Hudson Street.

No information for the existing sanitary connection to the building were observed on-site. Additional record information needed.

Site Drainage

The existing roof drains are exterior and discharge atgrade. Catch basins and drain manholes were observed within Highland Avenue.

The parking lot has six catch basins. Significant ponding occurs in the middle of the parking lot.

Natural Gas/ Oil/ Other Utilities

Transformer was observed at the southeast corner of the building. There are overhead electrical wires in the vicinity that do not connect to the building.

Hardscape Pathways, Parking, and Access Drives

The parking lot and access drive pavement is in fair condition with some cracking and significant drainage and ponding issues. Six catch basins are located in the parking lot at the perimeter; ponding has been observed in the middle of the lot. The walkway pavement is in fairly good condition with some cracking; no drainage issues were observed in dry weather. Along Highland Avenue, the public sidewalk was raised from the curb to improve accessibility in 2009 but erosion has created a steep drop. The long term recommendation to address the City's stormwater mitigation goals is to resurface the entire parking area and replace all drainage infrastructure while also increasing amount of bio-retention landscape areas. On Highland Avenue, accessibility should be addressed by reconfigured sloped paths and the sidewalk should be returned to the curb height.



Catch basin and sewer manhole at west end of parking lot



Google Earth aerial of ponding occurring in parking lot



Pad-mounted transformer and plastic areaway cover at southeast corner

MECHANICAL SYSTEMS

The main performance/event space is heated and cooled by ten (10) individual Carrier split AHUs with condensing gas heat and DX cooling. Most AHUs were manufactured in 2006. They are in fair condition and are near the end of their expected service life. Some appear to have had various repairs already. Overhead ductwork is in good condition. Outdoor condensing units are of varying type and age, and also appear to be in fair condition and near the end of their service life. Each AHU serves a single supply duct and thermostat. Staff report general dissatisfaction with the HVAC system and in particular that some AHUs are not used due to disruptive noise during events; these thermostats are labeled "Loud" and remain off. We anticipate the split AC systems will need to be replaced soon, and recommend converting to a centralized system with more robust heating and cooling components, including energy recovery and heat pump heating, and a centralized controller. Some ductwork can likely be reused when replacing the system, however thorough duct cleaning is recommended throughout the building in this case.

Additional split AC systems exist throughout the building with condensing units on the roof that were not observed during the site visit. The boiler was not observed during the site visit. We recommend replacing tenant systems with single-zone heat pumps and adding energy recovery ventilators as needed to gradually eliminate the need for the boiler.

ELECTRICAL & FIRE ALARM

The main electrical service and distribution equipment was manufactured in 2007 and is in good working condition. There are multiple electric meters. Equipment was inspected visually but was not evaluated for capacity during the site visit. There is a Notifier fire alarm system, which is of unknown age and appears to be in good condition.

PLUMBING & FIRE PROTECTION

The building is served by a 1-1/2 inch water service and 6-inch fire protection. The building is fully sprinklered. Domestic hot water is served by an electric storage heater with three (3) recirculation loops. The water heater was manufactured in 2019 and is in good condition. Other water heaters may exist in tenant or live/work areas of the building but were not observed during the site visit. Fixtures appear to be in good condition. The lower mechanical room contains a sump pump that appears to be in good condition. No reports or observations were made on drainage systems. Based on building age, scoping of the lines and destructive testing on select interior drainage piping is recommended to determine integrity of piping.

There are multiple gas meters outside the building and additional meters within the basement mechanical rooms.

TECHNOLOGY, COMMUNICATIONS & SECURITY

Given the relatively recent date of the 2009 renovation and the likelihood of incremental upgrades to data infrastructure since then, it is presumed that the data system is limited but in good condition. It is the design team's understanding that the event space operator is currently studying the feasibility of upgrades to the drill hall's audio-visual and lighting systems. No building access control system was observed.

GEOTECHNICAL

No geotechnical issues were observed or reported. No additional geotechnical documentation from prior renovations or reports has been provided to the design team.



Ductwork (dating to 2009) in the Drill Hall



Notifier Fire Alarm Panel



Main electrical service switchgear

HAZARDOUS MATERIALS

Refer to Technical Appendices for Environmental Site Assessment and Hazardous Materials Survey.



Gas meters on west side of building



Domestic hot water heater and recirculating pumps



Sprinkler control valve assembly

45 College Avenue

BACKGROUND AND RESEARCH

This introduction and conditions assessment was previously issued in a March 2021 deliverable as part of the City's Administrative Building Master Plan, but is reprised here for completeness in the CSA Master Plan.

The Third Universalist Church, constructed in 1883-84, is located in the Davis Square neighborhood and faces the West Branch Library across College Avenue. The church is unusual as a surviving all-wood religious building from the nineteenth century. Most churches of that era were built in stone or brick, materials that also proved more resistant to fire. The church was designed in an informal and eclectic Queen Anne / Stick Style, which was in keeping with the surrounding architecture of the era. The Third Universalist Church was organized in West Somerville in 1881. The congregation purchased the corner lot in 1883. Hosea B. Dennison, a member of the congregation, served as the architect and superintendent. The church was dedicated in 1884.

No drawings from the 1884 construction are on file with the State Public Safety and Building Inspection Office collection at the State Archives, as that collection begins in the year 1889. However, seven drawings are on file from 1897, titled "Additions and Alternations" and listing Boston designer George L. Nichols as the architect of record. The scope of this campaign is not clear, but drawing notes mostly refer to vent flues and registers, so this may have been a heating system upgrade. Nonetheless the drawings give a very good indication of the original appearance of the building and its internal layout.

The main block of the structure is a gable-end facing College Avenue with a prominent ell projecting above; the ell massing encloses the sanctuary balcony and a minister's study. The main block gable-end terminates in a tower with a four-sided pyramidal steeple and open belfry. The building was clad in wood clapboard, set on a brick foundation. Historic drawings indicate Stick Style motifs in the gable peaks and around the open belfry, some of which are still extant. Other characteristic features still partly existing today are the stained and grisaille glass windows, and the bracketed oriel bay on the ell facing Morrison Avenue, although the windows are not original.

The historic drawings are instructive as records for how the building appeared originally; the building has been subjected to a number of unsympathetic alterations over the years, with much of the original details either covered over with non-traditional materials, fully replaced with modern elements, or lost. All visible original or historic building fabric on the exterior is in disrepair.

Public property records provide some indication of the several lives the building has led. While it is not clear when the church was no longer home to a Universalist congregation, in 1959 the church was sold by the New England District Council of the Assemblies of God to Somerville Assembly of God for \$100. Given the purchase price, it is likely that the District Council purchased the church on behalf of the local parish and then turned it over to them, so the Universalist parish may have been in residence as late as the 1950s.

In 1995, the former Somerville Assembly of God (now renamed the St. Paul Evangelical Church) sold the building to the Haitian Bible Baptist Church for \$370,000. The City purchased the building from the Haitian Bible Baptist Church in 2017 for \$1.6M. It has been vacant since then, most recently used for Elections equipment storage.

The Third Universalist Church is in the State's Cultural Resource Inventory but not locally designated.

NOTE: Upon review with the client in early 2021, the decision was made to laser-scan and Matterport photograph the building but not generate a BIM model nor existing conditions plans until a determination could be made on the future of the property.



MHC Inventory Survey Photo, 1988

Research sources include the Mass. Archives State Building Inspection Office Drawing Collection, Mass. Cultural Resource Inventory Form SMV342, and Somerville property records and deed books



First Floor Plan

File Drawings, 1897 "Additions and Alterations, 3rd Universalist Church, W. Somerville, Mass", Massachusetts Archives, D.1.6.2716

EXISTING CONDITIONS ASSESSMENT

CODE

Construction Type

The building is built of wood construction, most closely resembling Type VB construction (unprotected wood frame).

Existing Occupancy Type

Group A-3 (Assembly uses intended for worship, recreation or amusement)

Planned Occupancy Type:

Assumed Group A-3

Change of Use

Use/disposition of the building is not yet determined.

Number of Exits

The second floor is served by three stairs, two of which (narrow in width) discharge to the interior church hall below, and one which discharges directly to the exterior. The ground floor is served by two exits. The third floor/ balcony level is served by a single stair.

Preliminary Means of Egress Considerations

In order to obtain assembly permits, the means of egress doors from the assembly spaces will need to be provided with panic hardware, and a detailed occupant load analysis and egress capacity analysis will need to be conducted. The two narrow stairways, less than 36" clear, may be considered too hazardous to serve an assembly occupancy and may require widening.

Sprinkler System

Not sprinklered. The building does not contain more than 7,500 gross square feet in floor area, so a sprinkler system requirement will not be triggered by a "major alteration." However, a sprinkler system and fire alarm may be required to obtain an assembly permit.

Renovation and Addition Considerations

The building will likely require major fire protection, life safety, and accessibility upgrades (also see above subsections). See 165 Broadway for 521 CMR compliance triggers. There is no compliant accessible route to any level, and no existing elevator.

STRUCTURE

This building appears to be predominantly wood framed though there could be some limited steel to support joist framing below the sanctuary seating areas. Structural observations of existing structure were limited to a small sub-basement space that allowed visual access to a handful of structural members below the ground floor. The area was damp, and the framing appeared wet in spots, rotted in others. The full extent of grade structure could not be seen. The roof line showed indications of visible deflection. None of the roof structure was visible from the interior (with the exception of steel tie rods across the sanctuary) so we could not assess whether or not this was due to structural deficiencies within the (assumed) roof truss framing, the exterior wall, or some other cause. There are long cracks in the plaster of the sloped ceiling corresponding to the tie rod and likely truss locations. The tie rods may or may not be original to the building. Existing architectural drawings for the original church layout were provided, however these did not shed any additional light as to the structural framing within.

The sanctuary floor has a range of deflection/ settlement of about 4", while the balcony has approx. 3.5" of deflection across the span. More investigation is needed to confirm if elements of the structure are overstressed or deteriorating due to some other environmental condition.



Drone photograph of the Church



Sanctuary, with uneven flooring, cracked plaster ceiling



Evidence of moisture in the Sub-basement, open steeple belfry
FACADE & ENVELOPE

Facades and Windows

The building is fully clad with vinyl clapboard siding. Limited areas of missing/lost vinyl panels show exposed underlying wood clapboard and wood trim in poor condition, but the extent of these conditions are unknown.

The foundation walls are exposed brick down to grade; these require 100% repointing at minimum and wholesale replacement of the face brick is recommended due to extensive salt and water damage. The foundation is rubble below the level of grade and is in poor condition where visible in the sub-basement. The sub-basement has evident dampness issues.

A number of windows are still the original stained or leaded glass but all are in poor condition and require full rebuilding. Approx 10-15% of glass area is severely damaged or lost. Several windows, such as at the south oriel bay, are non-original modern replacements not appropriate to the building. All exposed wood trim and/ or window elements are heavily weathered and in poor condition.

Exterior Doors and Stoops

The exterior doors are low-quality non-original replacements in extremely poor condition and require 100% replacement. The stoop at the main sanctuary entry is in poor repair and requires the full replacement of stoop and railings.

Roofing

The roofs are steep-slope with a primary ridge oriented east-west. The roofs were surveyed using drone photography and on-site observation. The slate on primary roof planes is in fair condition overall with some missing and displaced slate tiles, others with cracks and exfoliation. Localized unevenness and distortion of the roof planes may indicate overstressing of roof trusses. In numerous locations older copper flashings have been top-coated with flashing cement, suggesting past or current leaks. Aluminum gutters and downspouts are in poor repair and missing in areas.

See City Hall Roofing for an introduction to the qualitative infrared drone survey. No thermal anomalies were noted at the Third Universalist Church.

CIVIL/SITE INFRASTRUCTURE

The information below is based on on-site observations only, as Nitsch has not been provided with record drawings for the Church site.

The Church is located on a 0.15-acre site at the intersection of College Ave and Morrison Ave. The site includes the existing building, perimeter sidewalks, and small landscaped areas. The building is not occupied.

Water Systems

No information for the existing domestic water or fire protection system for the building were observed onsite. Additional record information needed.

Sanitary Sewer

Based on the City of Somerville Stormwater Management Plan, dated June 15, 2020, the Church is located within a portion of the City served by combined sewers. This should be confirmed by the City.

Sewer manholes were observed in College Ave and the sidewalk adjacent to Morrison Ave.

No indication of the existing sanitary connection to the building was observed on-site. Additional record information is needed.

Site Drainage

The existing roof drains are exterior and piped externally around the building to discharge at-grade along the east side of the building. Runoff from these downspouts and the south side of the site appears to flow overland towards Morrison Ave. Catch basins and drain manholes were observed within Morrison Avenue.

A second roof drain was observed on the west face of the building. This drain and the adjacent site area



Area of prior vinyl siding loss or removal; wood clapboards exposed



Rear entry door sill deterioration, condition of masonry foundation



Drone photograph of church roof

appears to discharge towards the drainage system in College Ave.

Gas/Oil/Other Utilities

- Tank vents were observed to be located west of building.
- Site lighting is limited to building-mounted lights over the entrance doors.
- Overhead wires were observed to connect to the building from utility poles in College Ave and Morrison Ave.

Preliminary Site Opportunities and Constraints:

• Site is small but there are opportunities to disconnect downspouts and utilize landscape for stormwater management.

MECHANICAL SYSTEMS

The Baptist Church is currently used for storage and contains only temporary heat from an electric unit heater in the kitchen. The oil-fired boiler and tanks are in poor condition and have been abandoned in the basement.

ELECTRICAL & FIRE ALARM

The electrical service and distribution panel are older and in fair condition. No central fire alarm system was observed.

PLUMBING & FIRE PROTECTION

Alongside the heating system, an electric hot water tank is also abandoned in the basement. Plumbing fixtures appear outdated and do not conform to modern water conservation standards. Incoming water service, supply

piping and sanitary/vent piping were not observed. There is no existing fire protection system in the building.

Kitchen

Dated kitchen in fair condition; upgrades would be required for commercial use.

TECHNOLOGY, COMMUNICATIONS & SECURITY

There is a basic security system for intrusion.

GEOTECHNICAL

No additional geotechnical documentation from prior renovations or reports has been provided to the design team.

Foundations – General Note for New Structures

New structures will need a geotechnical assessment and report for foundation design to meet building code requirements. Refer to the 45 College Avenue Geotechnical Memo in the Technical Appendices.

Disturbed Soils – General Note for Buildings in Study

Soil disturbed during excavation will require



External downspout drainage at the north elevation









Main electrical distribution panel

Electric hot water tank



Oil-fired boiler and oil tanks. Sub-Basement

environmental screening and characterization for on-site reuse or off-site disposal. If contaminants are detected that exceed Reportable Concentrations (per the Massachusetts Contingency Plan) there will be an obligation to report these results to the Massachusetts Department of Environmental Protection (MassDEP). Subsequent regulatory compliance activities would include environmental characterization work and possibly remediation, under the direction of a Licensed Site Professional (LSP), to ensure that residual contaminants do not pose a threat to human health, public welfare, safety and the environment. Refer to Technical Appendices.

HAZARDOUS MATERIALS

Refer to Technical Appendices for Environmental Site Assessment and Hazardous Materials Survey.

East Branch Library

BACKGROUND AND RESEARCH

The East Branch Library, or Gold Star Memorial Library, was completed in 1918. Somerville's public library system dates back to 1871, when a small public library opened within City Hall. Funds were subsequently raised to construct a stand-alone City Library on Central Hill in 1884, but this structure grew antiquated within a few decades and was sited poorly in relation to the City's English High School (1895). In 1907, Andrew Carnegie's charitable foundation provided Somerville with \$123,000 to build a new central library on a new Central Hill site, along with two branch libraries for East and West Somerville. These libraries were three of the original 43 Carnegie libraries built from 1901-1917 funded by 35 separate grants. While the West Branch Library (1906-1909) was a larger and grander monumental Beaux Arts design completed a decade earlier, the East Branch Library is a small, one-story Classical Revival pavilion with a flat roof. The interior is essentially one large room, with a few ancillary support spaces. This relationship may reflect the distinction in City priorities at that time between the well-established and solidly middle class environs of West Somerville, in contrast to the rapid population growth and up-andcoming nature that typified East Somerville in the World Warlera.

The architect of the East Branch Library was Edward L. Tilton, a nationally renowned architect who had previously designed Somerville's Central Branch Library (completed 1914). While the Central Library is designed in a Renaissance Revival style, the East Branch is more modest. Built of red brick and painted wood, the building and its stripped-down classical ornament recall the appearance of a New England village post office. A vestibule opens into a single large room with staff spaces in the northwest corner. A small partial basement is unfinished. The primary facade is divided into three bays, with the left and right bays containing three 6/6 double-hung windows each. The center bay contains three full-height masonry openings, punctuated by fluted ionic pilasters, with the entry door and transom in the center opening. Steel and glass window walls with ornamental grille work infilled these openings. A dentiled cornice sits atop a planar frieze where the words "Gold Star Memorial Library" are expressed with raised copper letters; these letters replaced the original "East Somerville Branch Library" lettering at some point.

Other changes made in the interim decades include the loss of the wood balustrade that capped the exterior walls. This was likely removed in the mid-twentieth century due to a deteriorated condition, and was already absent by 1984, the date of a drawing set in the City's collection proposing a comprehensive interior and exterior renovation of the building. Work included a new weather vestibule at the entry; all new finishes and lighting, interior doors, and millwork in the public zones; reconfiguration of the staff areas: and infill of some rear windows to enclose what had been an exterior areaway for the basement stair. At the exterior, work included a new membrane roof over rigid insulation, masonry repointing, restoration and replacement of exterior millwork, and installation of insulated lites in the windows. This project appears to have been completed largely as designed.

Sometime more recently, the windows were replaced with modern aluminum replacements and the grillwork lost. Circa 2016, the East Broadway Road Diet and Streetscape Improvement Project was completed, introducing a new pedestrian plaza and landscape features to the front of the Library. The East Branch Library is not a locally designated property.



Drone photograph, 2021



Photograph, circa 2019

Research sources include the Mass. Archives State Building Inspection Office Drawing Collection, and misc. design and construction drawings in City of Somerville possession



File Drawings, 1917 "East Somerville Branch Library", Massachusetts Archives, C.3.6.8154; South Elevation & Transverse Section



Photograph, "East Somerville Branch Library", circa 1918



1984 Renovation - Proposed Elevation, Anthony Tappe and Associates

EXISTING USE PLANS



115 BROADWAY GROUND FLOOR - EXISTING BY USE

NOTE: Areas rounded to nearest 10 SF

SCALE: 1/16" = 1'-0"

Circulation

Mech

Toilets

EXISTING CONDITIONS ASSESSMENT

CODE

Construction Type

This single-story building with partial basement appears to be constructed of brick exterior load-bearing walls supporting steel roof structure, assumed to be unprotected. The unexcavated portion of the building is slab-on-grade at the main floor, with a reinforced concrete pan joist slab above the small basement. The building most closely resembles Type IIB construction, where the structural system is comprised of noncombustible materials that are not fire protected to 1 HR FRR minimum.

Existing Occupancy Type

Group A (libraries)

Planned Occupancy Type

Group A (libraries)

Change of Use

The design team is not aware of any proposed change of occupancy for the existing building. It was indicated during the site survey that any potential additions contemplated would expand the library use/function such that no change of occupancy would occur.

Number of Exits

The building is provided with two exterior exits. The first (a vestibuled single exterior door) also serves as the main entrance to the building from Broadway. The other exit (a single exterior door) discharges to a pedestrian pathway at the rear of the building that leads to Michigan Avenue. The basement is served by a single enclosed stairway that leads up to the first-floor vestibule at the rear exit.

Preliminary Means of Egress Considerations for Renovation

- If the City wishes the building to perform as a space of assembly (i.e., 50 or more people), then modifications should be made to the rear exit to remove the existing screen door. In addition, the rear exterior egress door should be provided with panic hardware; a keyed lock is currently installed.
- Alterations must be done in a manner that maintains the level of protection provided for the means of egress. Newly reconfigured space must be provided with adequate number of exits and exit capacity as required per 780 CMR Chapter 34.
- Any addition to a building must comply with 780 CMR requirements for new construction.

Sprinkler System

The building is not sprinklered. Under M.G.L. c. 148, s. 26, when existing buildings greater than 7,500 square feet in gross area undergo "major alteration" or addition, a system of automatic sprinklers is required to be installed throughout the building. The fire alarm system is comprised of a smoke detector, heat detector (in basement), and manual pull station initiating devices and combination audible/visual notification appliances. A sprinkler system and fire alarm may also be required to obtain assembly permit. Emergency lighting and exit signage were also observed.

Other Renovation Considerations

• If the construction cost of the proposed renovation work in the existing building is expected to cost more than 30% of the full and fair cash value of the building, the entire building, exclusive of employee only work areas, is required to comply fully with the



Basement Stair



Front Entry Vestibule



Rear addition over basement stair with second exit

new construction accessibility requirements of 521 CMR (521 CMR §3.3.2). Further analysis would need to be conducted based on the extent of proposed renovations. Some level of accessibility upgrades will likely be required even with limited renovation work that does not exceed the 30% threshold.

- We understand that one or more additions to the building is possible. Under M.G.L. c. 148, s. 26 a system of automatic sprinklers is required to be installed throughout the building if there is an addition.
- Additions must not create or extend any nonconformity in the existing building to which the addition is being made. Also, no addition is permitted to increase the height or area of an existing building beyond that permitted under 780 CMR Chapter 5 for new buildings. Existing fire areas increased by any addition must comply with 780 CMR Chapter 9.

STRUCTURE

This single-story building with partial basement is constructed of brick exterior load-bearing walls supporting a roof structure of steel primary members. The unexcavated portion of the building is slab-ongrade at the main floor, with a reinforced concrete pan joist slab (archaic "Truscon Floretyle" system) above the small basement. There are two areas in the basement where rebar is exposed or a rib has been compromised and will need local reinforcing.

Renovation Considerations

The existing roof structure, bearing walls, and footings are not sized to provide adequate excess capacity for the existing building to support a future roof addition, nor are modern lateral load requirements addressed by multi-wythe masonry buildings. The construction of a rooftop addition would involve reinforcing the existing structure and/or threading new structure down to foundations as well as addressing modern lateral load requirements.

FACADE & ENVELOPE

Facades and Windows

The facades and exterior envelope of the East Branch Library are in good condition. However, the building is in need of routine preventative maintenance work, including scrape, prime, and paint of the exterior millwork; replacing sealant at windows; and some localized repointing of the brick. Grading at the site appears to encourage positive drainage.

The windows are full-frame aluminum replacements which may date circa 1990s to early 2000s. They are serviceable and in good condition. The modern aluminum storefront entry is in serviceable condition.

Roofing

The roof, a low-slope membrane system with four internal drains, appears to be fairly recent and is in good condition. The chimney cap appears to be improvised and a proper cap is recommended.

As part of this preliminary documentation and assessment effort, WJE also conducted qualitative infrared drone survey on the roofs of four buildings. Surveyed in the hours immediately following sunset, infrared anomalies can indicate the presence of moisture-laden roof components. Wet components have greater thermal mass than if they were dry, releasing their heat energy from the day more slowly and representing as heat islands in the infrared scan.

There were no areas of thermal anomalies at East Branch Library.

CIVIL/SITE INFRASTRUCTURE

The 0.25-acre East Branch Library site is located on Broadway between Michigan and Illinois Avenues. The



Deteriorated paint at the cornice; unsympathetic brick infill at window



Weathering of exterior millwork; original half-pilaster detail



Graffiti paint-over and efflorescence; Broadway Plaza seating

site includes the existing library building, a pedestrian plaza along the sidewalk, and landscaping around the sides and back. Vehicle access with parking for one car is on the west side.

Water Systems

Record plans or further investigation will be needed.

Sanitary Sewer

Based on the City of Somerville Stormwater Management Plan, dated June 15, 2020, the library site is located within a portion of the City served by combined sewers. A sanitary sewer manhole was observed onsite adjacent to the vehicle access. The location of the building service is not known.

Record plans or further investigation will be needed.

Site Drainage

No downspouts or drainage infrastructure was observed onsite. Roof drainage is likely internal to the building and connects to City system. The site appears to pitch towards the adjacent sidewalks and streets. Catch basins and manholes were observed in Broadway. Based on the City of Somerville Stormwater Management Plan, dated June 15, 2020, the library is located within a portion of the City served by combined sewers.

Natural Gas/Oil

A gas meter is located at the west side of the building. Further information is needed.

Other Utilities

Overhead electrical wires connect from a utility pole to the back side of the building.

Site Pavement

Site pavement is in good condition with no cracking or ponding observed.

MECHANICAL SYSTEMS

The primary library circulation space is heated and cooled by a newer gas-fired DX rooftop air handling unit. The unit is constant volume and serves overhead ductwork distribution. Staff report that the system provides adequate thermal comfort, however the system is excessively loud when operating. A boiler has been decommissioned and removed from the basement, although some cast-iron radiators remain abandoned in place. Toilet rooms are exhausted via individual fans with manual timers. The basement is heated by a small electric unit heater and ventilated by a small semipermanent "fan-in-a-can." Both pieces of equipment are in good condition.

ELECTRICAL & FIRE ALARM

The majority of the electrical service and distribution equipment is of significant age and beyond its useful service life. There are two electric meters. Equipment was inspected visually but was not evaluated for capacity during the site visit. There is an existing Miniscan fire alarm fire alarm system, which is of unknown age.

PLUMBING & FIRE PROTECTION

The library is served by a 1-inch water service. The building contains only a few plumbing fixtures, including two toilet rooms, kitchenette, and a utility sink in the basement. Fixtures appear to be of significant age and some do not meet accessibility requirements. A sump pump in the basement is in working order but appears to be of significant age. Domestic hot water is served by a small electric water tank in the basement that is in good condition. There is an existing irrigation system that appears to no longer be in use.

The library building does not have an existing fire protection system.

No reports or observations were made on drainage



Drone photograph, 2021



Thermal Image of East Branch Library Roof



Sewer manhole west of building

systems. Based on building age, scoping of the lines and destructive testing on select interior drainage piping is recommended to determine integrity of piping.

TECHNOLOGY, COMMUNICATIONS & SECURITY

It is presumed the building has limited voice and data infrastructure. Access control consists of a remote buzzer at the desk for the outer door of the front entrance. There is no security system.

GEOTECHNICAL

No geotechnical issues were observed or reported. No additional geotechnical documentation from prior renovations or reports has been provided to the design team.

Foundations - General Note for New Structures

New structures will need a geotechnical assessment and report for foundation design to meet building code requirements.

Disturbed Soils - General Note for Buildings in Study

Soil disturbed during excavation will require environmental screening and characterization for on-site reuse or off-site disposal. If contaminants are detected that exceed Reportable Concentrations (per the Massachusetts Contingency Plan) there will be an obligation to report these results to the Massachusetts Department of Environmental Protection (MassDEP). Subsequent regulatory compliance activities would include environmental characterization work and possibly remediation, under the direction of a Licensed Site Professional (LSP), to ensure that residual contaminants do not pose a threat to human health, public welfare, safety and the environment. Refer to Technical Appendices.

HAZARDOUS MATERIALS

Refer to Technical Appendices for Environmental Site Assessment and Hazardous Materials Survey.



Exposed ductwork fed from rooftop air handling unit



Miniscan Fire Alarm System



Electric service, meters and panel

165 Broadway

165 BROADWAY (CROSS STREET CENTER)

The Cross Street Center, originally constructed in 1895 as the Broadway Fire Station (or Fire Engine No. 2) was one of a number of similarly-sized stations built throughout Somerville at the end of the late-19th century to serve rapidly densifying neighborhoods. The design of the building is typical of fire stations of the era: a two-story load-bearing brick masonry structure over an unfinished basement, expressed in an eclectic Revival style. Fronting Broadway, the ground level consisted of three garage bays which each held a horse-drawn vehicle: an engine, a hose wagon, and a ladder truck. Immediately north were eight stalls for horses, and the one-story wing at the rear held an additional garage bay for the coal and district chief's wagons, a box stall and a covered porch. On the second level were living quarters for eight firefighters, along with a hayloft, recreation room and equipment drying room.

The architect of the firehouse was Thomas M. Sargent, designer of the central wing of Somerville's City Hall completed in 1896. Sargent designed the firehouse in the Florentine Revival style that was typical for fire houses of this era. While the entire exterior is brick above a low granite water table, the first story exterior is worked into a quoined brick pattern which simulates the ground-level rustication emblematic of the style. The expressed "voussoirs" of the garage bay arches, also in patterned brick, terminate in an implied pointed arch while forming a rounded opening, another hallmark of the style. Monumental paneled wood doors once infilled the openings. A narrow, galvanized metal cornice, meant to simulate stone, separates the rusticated first story from the second story. Unlike the ground level, the upper level masonry is planar, set in common bond with Flemish bond every eighth course. A larger cornice with dentils projects above the second-story windows. A crenelated parapet originally

topped the primary facade, worked into a stepped center portion that holds the molded copper name and date plate "18 Fire Station 95". The crenelations have since been removed and replaced with a simple copper parapet cap flashing. A gently tapering masonry tower, square in plan, projects from the building's southwest corner. The tower, common to firehouses of the era. would have been open inside so that canvas fire hoses could be hung for drying. The common inspiration for many of these tower designs was the belfry of the Florentine Palazzo Vecchio. The associations with monumental secular civic architecture were no doubt deliberate. Closer to home, Boston's Fire Department Headquarters, constructed in 1893, employed many of the same stylistic features, and the 1895 Somerville Annual Report mentions the new Boston headquarters as a direct model. Original design drawings and historic photographs confirm the Broadway tower was originally much taller and terminated in a crenelated cupola with arched openings supported on elongated corbels. A cupola of that height may have also been designed for use as a neighborhood fire watch.

Several alteration campaigns evidently took place over the twentieth century, but the historical record is not clear on dates or details. The first-floor structure, which would have originally been a wood floor supported by heavy timber, was replaced with a concrete structural slab on concrete beams and columns, no doubt to support the heavier weight of modern firefighting vehicles. An internal rear staircase was removed, and an external metal fire escape was added at the rear wing. Sometime prior to 1995, the tower cupola was removed down to the spring-point of the corbels; this effort may have coincided with the removal of the parapet crenelations. The existing 1/1 aluminum windows were installed circa 1980. The building was converted to community use circa 1980s-1990s, which may coincide with the replacement of the garage bay doors with wood window walls. The layout of the interior partitions were significantly altered from the original design. Envelope and limited accessibility upgrades were made circa 2016, and included renovated toilet rooms and first floor accessibility. Prior to the pandemic, the building has most recently been the home of Somerville's Council on Aging, Project Soup, and the nonprofit Center for Teen Empowerment.



Broadway looking west, circa 1909



Engine #2, circa 1909

Boston Fire Department Headquarters, completed 1893

Research sources include the Mass. Archives State Building Inspection Office Drawing Collection, Somerville Annual Reports, and misc. design drawings



Broadway Elevation, circa 1990



Broadway Elevation, 2021



South Elevation, 1895

First Floor Plan, 1895

Second Floor Plan, 1895

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165 BROADWAY (CROSS STREET CENTER)





165 BROADWAY BASEMENT - EXISTING BY USE

NOTE: Areas rounded to nearest 10 SF

SCALE: 3/64" = 1'-0" (1:256)







SCALE: 3/64" = 1'-0" (1:256)





165 BROADWAY (CROSS STREET CENTER)

EXISTING CONDITIONS ASSESSMENT

CODE

Construction Type

The building appears to consist of brick masonry exterior load-bearing walls set on rubble foundations. The first floor structure is reinforced concrete beams and slabs over an unfinished basement. The overall superstructure above is not known but is assumed to be a mixture of wood and steel bearing and spanning structure on masonry walls or steel posts. The building most closely resembles Type IIIB construction, where the exterior walls are comprised of noncombustible materials that should maintain a 2-HR fire-resistance rating (required rating due to walls being load bearing, rating must be confirmed) and the interior building elements are of any material permitted by 780 CMR.

Existing Occupancy Type

Mixed-use – Group A (community/youth center and accessory educational spaces), Group B (associated business, offices/administration), Group S-2 (storage of foods and food products)

Planned Occupancy Type

Mixed-use – Group A (community/youth center and accessory educational spaces), Group B (associated business, offices/administration), Group S-2 (storage of foods and food products)

Change of Use

The design team is not aware of any change in use planned for the building.

Number of Exits

Cross St Center is provided with five exits at grade. The first floor of the southern portion of the building contains three exits (exterior doors): two at the west side discharging to Cross Street and one at the south side, discharging to Broadway. One of the west side exits is through the interior exit stair enclosure. The first floor of the addition at the north side of the building is provided with two exits (exterior doors): one at the west side discharging to Cross Street and one at the east side discharging to an exterior pathway/alley leading to Broadway.

The second floor of the building is provided with a single enclosed interior exit stairway, located in the southwest corner of the building, with discharge directly to the exterior (Cross Street) via a vestibule. The second floor is additionally served by a fire escape on the north end of the building, which discharges facing Cross Street.

Preliminary Means of Egress Considerations for Renovation

- Alterations must be done in a manner that maintains the level of protection provided for the means of egress. Newly reconfigured space must be provided with adequate number of exits and exit capacity as required per 780 CMR Chapter 34.
- A structural inspection for the fire escape should be conducted to ensure the fire escape is in good structural condition. The fire escapes may be used as means of egress (e.g., to alleviate any dead-end or common path of travel condition). Occupants must have unobstructed access to the fire escape without having to pass through a room subject to locking.

Sprinkler System

The building is not sprinklered. Should the renovation work area exceed 50% of the floor area the entire work area or floor level where renovation is occurring must be provided with automatic sprinkler protection. Furthermore, Under M.G.L. c. 148, s. 26, when existing



Internal stairwell, first floor



Basement; concrete basement Stair in poor condition



External steel fire escape, north elevation

buildings greater than 7,500 square feet in gross area undergo "major alteration", a system of automatic sprinklers is required to be installed throughout the building. The fire alarm system is comprised of smoke detector and manual pull station initiating devices and combination audible/visual notification. Emergency lighting and exit signage were also observed.

Other Renovation Considerations

- If the construction cost of the proposed renovation work in the existing building is expected to cost more than 30% of the full and fair cash value of the building, the entire building, exclusive of employee only work areas, is required to comply fully with the new construction accessibility requirements of 521 CMR (521 CMR §3.3.2). Further analysis would need to be conducted based on the extent of proposed renovations. Some level of accessibility upgrades will likely be required even with limited renovation work that does not exceed the 30% threshold.
- A Level 2 or Level 3 alteration may trigger required upgrades to the existing exit enclosure if it cannot be verified to provide a minimum 1-HR fireresistance rating and approved opening protectives.
- Providing sprinkler protection may alleviate need to upgrade exit enclosure to 1-HR. Further assessment is necessary based on scope of work and occupancies/spaces to be upgraded.

STRUCTURE

The overall structural system is unknown but is assumed to be a mixture of wood spanning structure (above grade) to internal steel posts or exterior masonry bearing walls and potentially some steel spanning members. The roof structure is unknown. At this time, there are no significant anticipated layout changes to the upper levels that would warrant structural alterations.

The ground floor level appears to be reinforced concrete beams and slabs, and is likely a replacement of what would have been a wood framed floor prior to the changeover to mechanized fire apparatus. Based on a review of photographic documentation, it appears that there has been some localized damage to the floor slabs and beams, exposing rebar with potential significant section loss. Further investigation and analysis will be required to determine how extensive the material loss is. As the current occupancy load rating requirement is significantly lower than it would have been during its usage as a fire station, it is possible that no reinforcement is required, but more study is needed.

FACADE & ENVELOPE

Facades and Windows

The facades are in fair to good condition overall, with the exception of the brick masonry pointing. The mortar appears very soft and eroded, leading to the design team's recommendation of a 100% repoint on most of the facades. The brick units themselves appear generally in good condition with limited evidence of cracks and spalls or need for brick stitching. Small localized areas such as below a west second floor window, and the top six feet of the chimney, will require a 100% masonry rebuild. A patinated galvanized molded metal string course dividing the first and second stories is in poor condition, with numerous areas of heavy corrosion or loss of materials. Wire mesh infill has been used to dissuade birds from nesting behind the metal. This string course extends across the entirety of the south elevation and halfway along the east and west elevations. The granite water table that is present on the southern portion of the building does not extend to wrap the northwest corner; consideration should be given to installing a granite base as part of a comprehensive facade rehabilitation.

Existing windows are more modern aluminum frame within a frame with some concealed original wood frame elements likely still extant. The existing windows are in fair condition, with increasing likelihood that the seals on the insulating glass will start to fail. Exposed wood brick molds are deteriorated and require



Corner tower with soiling pattern evident; graffiti paint-over, northwest corner



Lost roof shingles at one-story roof; weathered window millwork



Damage to galvanized metal cornice at southeast corner of building; spalling and damage at entry brick return

attention. As part of a renovation, aluminum-clad wood window inserts are recommended, along with brick mold replacement and restoration of the blind stop and secondary sills.

Several original masonry openings contain nonoriginal infill: two rectangular bays on the west elevation that have a wood-clad infill wall, and three former arched garage bays on the south elevation, which contain wood and glass window walls. The center window wall contains the building entrance. The solid wood walls are in decent condition but not architecturally appropriate or detailed for longevity. The wood window walls on the primary south elevation are in poor condition and heavily weathered.

Exterior Doors and Stoops

The primary entrance door in the center window wall infill appears to be a more recent substitution and is not high quality. Secondary entrances consist of flush metal leaf doors in hollow metal frames that are in fair to poor condition.

Concrete stoops, ramps, raised curbs, and adjustments to the grading appear to have been installed as part of the recent accessibility upgrades, but merit reconsideration as part of a larger landscape plan to better integrate accessibility needs into the site.

Roofing

The existing roof over the main volume is a low-slope membrane system on tapered insulation. A single slope drains water to an external copper gutter along the north edge which connects to two downspouts. The condition of this membrane roof is fair to good in general, although ponding at the north end suggests the tapered insulation slope is not consistent. In the southwest corner adjacent to the tower, the membrane is up-swept and wrinkled, a potential weak point. The tower roof itself is in good condition, but drains down the tower face, resulting in staining and greater erosion of the brick pointing in multiple areas. The single-story wing to the north has a hipped roof with asphalt shingles. It is in fair condition, with areas of wear. Issues with graffiti at the rear of the building have also resulted in roof damage. Step flashing at this roof is in fairly good condition, and the gutters and downspouts are in fair condition with some areas of weathering.

As part of this preliminary documentation and assessment effort, WJE also conducted qualitative infrared drone survey on the roofs of four buildings. Surveyed in the hours immediately following sunset, infrared anomalies can indicate the presence of moisture-laden roof components. Wet components have greater thermal mass than if they were dry, releasing their heat energy from the day more slowly and representing as heat islands in the infrared scan.

One area of thermal anomaly was identified at Cross St Center of 75 SF at the south end of the main roof adjacent to the parapet. The EPDM adjacent to the tower is wrinkled.

CIVIL/SITE INFRASTRUCTURE

The Cross Street Center, formerly a fire station, sits on a 0.21-acre site at the intersection of Broadway and Cross Street. The building is currently occupied and houses a food pantry. There is pedestrian paving on the southwest side of the building, landscape area to the northwest, and a loading area to the northeast. The east side of the building has a narrow alleyway alongside the neighboring building. There is very limited to no parking on-site.

Water Systems

Cross Street Center has a hydrant along the street on the northwest side of the building, and there is a gate valve in the sidewalk along Cross Street.

Sanitary Sewer

Based on the City of Somerville Stormwater Management Plan, dated June 15, 2020, sewer and



Drone photograph, 2021



Key Plan of Thermal Anomaly



Thermal Anomaly

drainage systems are combined in this area. An unmarked manhole is located off the southwest side of the building.

Site Drainage

Roof downspouts daylight at grade. There is a catch basin in Broadway to the southwest of the building next to a drain manhole, as well as another catch basin in the paved loading area behind the building. There is a rain barrel near the back of the building which appears to have been set up to capture rainwater from the neighboring building, possibly for use at the park to the north, which appears to be disconnected from the downspout. The drainage system in this area is combined with sewer.

Natural Gas

Locations of gas lines were not determined from the site visit. More information is needed.

Site Pavement

Site pavement appears to be in good condition with no significant cracking or drainage issues observed.

Other Utilities

A transformer is located of the southwest side of the building. Overhead electric lines serve the building at the northwest corner.

More information is needed regarding the electric and telecom services for the Cross St Center.

MECHANICAL SYSTEMS

The building is cooled by two split DX air handlers, one on each floor serving overhead ductwork distribution. The unit on the first floor is in fair condition; the unit on the upper floor is nearing the end of its service life. Condensing units are located on the low roof and appear to be in good or fair condition. The food pantry area also contains ceiling fans. Heating is primarily via cast-iron radiators and baseboard fin tube. The boiler was not observed during the site visit due to restricted access to the basement mechanical room. The building has multiple Honeywell thermostats serving individual zone valves. Space heaters appear to be in use throughout the building, indicating that thermal comfort may be an issue in winter.

There is an exterior walk-in cooler behind the building, which was not evaluated for age or condition.

ELECTRICAL & FIRE ALARM

The building is fed from a pad mounted transformer located on the site. The main electrical distribution was not accessible during the site visit. There is an existing Simplex fire alarm fire alarm system, which appears to be of recent manufacture.

PLUMBING & FIRE PROTECTION

Service entrances were not observed in the Cross Street Center during the site visit due to restricted access during the site visit. No fire protection system exists in the building. Fixtures appear to be of significant age and likely do not meet fixture count requirements. The water heater was not observed during the site visit. No reports or observations were made on drainage systems. Based on building age, scoping of the lines and destructive testing on select interior drainage piping is recommended to determine integrity of piping.

TECHNOLOGY, COMMUNICATIONS & SECURITY

It is presumed the building has limited voice and data infrastructure. There is no digital access control system. There is a residential grade security system, date and condition unknown.



West side of building: manhole and basement access hatch



Condition of hardscape and sidewalk, Cross Street East



Catch basin and sidewalk on Broadway fronting building

GEOTECHNICAL

No geotechnical issues were observed or reported. No additional geotechnical documentation from prior renovations or reports has been provided to the design team. Significant excavation is not anticipated as part of a renovation.

HAZARDOUS MATERIALS

Refer to Technical Appendices for Environmental Site Assessment and Hazardous Materials Survey.



HVAC: Condensers for split DX air handling units



Pad-mounted transformer, west elevation



Simplex Fire Alarm System

24 Cross Street East

24 CROSS STREET EAST



The structure located at 24 Cross Street East was originally constructed as the Randall Memorial Free Baptist Church, built in 1896-1898. Originally organized in Charlestown in 1873 as the Freewill Baptist Mission Church, the congregation relocated to Broadway in 1874 and raised funds to begin construction on the present building a decade later. Filing drawings received in the Commonwealth's Building Inspection Office in 1896 state a design seating capacity in the sanctuary of 500 persons, with another 150 in the balcony. The church's pastor at the time of construction was the Reverend Edwin P. Moulton.

Confronted with a shallow, square property measuring approximately 80 feet wide by 90 feet deep, Boston Architects West & Granger designed the church in a picturesque essay of Gothic Revival, placing the primary square block on Cross Street East while a secondary, two-story wood-framed wing, containing offices and Sunday School classrooms, extended to the rear. The primary mass contained the sanctuary, lit by broad, monumental Gothic-arched stained-glass windows on the north, south, and east elevations. The clear-spanned space was capped by a cross-vaulted ceiling, above which timber roof trusses supported the main roof ridge, oriented east-west. The roof is roughly a Greek cruciform in plan, with prominent cross-gables on the north and south elevations intersecting the main ridge. Secondary roof hips run down to two towers, which were purposely unequal in size, at the northeast and southeast corners of the building. The taller, southeast tower, set directly above the main entrance, contained a belfry and culminated in a crenelated parapet above the roof ridge, while the northeast tower, secondary in stature, rose only several feet above the eave line. An artist's sketch shows a spire that does not appear in the filing drawings, so it is not known if this was actually built. On the north, south, and east gables, above the monumental arched windows, the walls transitioned from exposed brick finish to Tudor-style half-timbering and stucco.

The shallow property with its east frontage, as well as the liturgical needs of the denomination, also influenced the layout of the sanctuary. The architects set the congregation seating on a 45 degree-axis, running northeast-southwest. The southeast tower formed a weather vestibule for congregation entry into the sanctuary, while the pulpit, baptistery, organ, and choir were located on a dais underneath the northeast tower. An adjacent secondary chapel, oriented northsouth, was set to the west of the sanctuary and divided from it by movable partitions.

In the basement, a parish dining room, kitchen, toilets and coat rooms were located in the west wing, while the space below the sanctuary was taken up by utility and liturgical support spaces including the pastor's office. The second floor of the west wing contained, in addition to the sanctuary balcony, three small classrooms and a small library. It was accessed by stairwells located at the north and south ends of the rear wing. It is not known when the congregation disbanded or sold the property, but it had evidently been purchased by 1921, when James W. Holt, now listed as the owner, filed drawings with Commonwealth for alterations to convert the church to a dance hall. The sanctuary level became the ballroom, with the orchestra placed on the dais. The adjacent chapel was converted to a booth seating zone for refreshments. The exterior stoop on the south facade was removed and replaced with stairs leading down to the basement of the west wing, which was converted into a reception foyer, men's and ladies' lounges, and a coat room. The 1921 filing does not include a second floor plan, but this partial level presumably was used for offices and storage.

The Circle Dance Hall, as it was known, was in existence until at least the 1960s (Inventory Form B, SHPC, 2008). The venue found other uses along the way, hosting ballet and dance classes, graduation and wedding parties as well as regular dances. Oral histories reference the presence of New York radio announcer Sidney Tarnopol (1909-1984), known as "Symphony Sid," emceeing at The Circle (Form B) in what must have been the 1950s during his years in Boston. Tarnopol was a regionally and nationally prominent radio personality, notable in his early career as one of few white announcers in the 1930s to play records by Black artists on a regular basis. Awarded a radio network show in 1949, he continued to bring jazz to a national audience.

SHPC Inventory Form B states that in 1984, the building was rewired after a fire, which may correlate with the building's most recent use as an insulation warehouse before its abandonment and transfer to City ownership. While it is certainly likely that the building had reached a dilapidated state by the 1980s with widespread deferred maintenance, the effort to adapt the building into a warehouse resulted in substantial

Research sources include the Mass. Archives State Building Inspection Office Drawing Collection, Sanborn Maps, and a provided copy of MHC Inventory Form B completed by SHPC in 2008.

alteration and disfigurement of remaining architecturally significant fabric. The four gables of the primary roof, as well as the wood-framed west wing, were over-clad with aluminum siding, likely accelerating the deterioration of the original half-timbering substrate. The southeast tower was cut all the way down to the intermediate cornice line and given a flat roof, while the crenelations of the northeast tower were removed or left to collapse on their own. All the Gothic-arched windows were removed and the masonry openings infilled with aluminum siding or plywood. The sill of the monumental east window was cut down to the floor for the insertion of a garage door and loading apron. The primary entry stoop to the southeast tower entry was removed and replaced with a cast concrete raised loading platform. A number of elements on the facade are in an advanced, dynamic state of decay (see Envelope Assessment).

On the interior, virtually no significant architectural features or fixtures remain in situ. To increase the floor area for warehouse storage, a wood-framed mezzanine level was constructed within the sanctuary. This new infill mezzanine bears on steel posts which transfer down to posts at the basement level. These posts must have replaced the original masonry piers; the basement posts bear on original masonry footings. The interior is also in an advanced state of decay with rotting floors, destroyed wall finishes, and mold present. The building has not been conditioned, weather-tight, nor protected against the intrusion of animals for some time, and is in an accelerating state of deterioration.

If a rehabilitation effort of the building were undertaken, the only historically or architecturally significant historic fabric which could feasibly remain is limited to those areas of the masonry exterior walls and stone trim-work which can be repaired or salvaged.





File Drawings, 1896 "Randall Memorial Free Baptist Church", Massachusetts Archives, B.1.25.2613; East (Front) Elevation, First Floor Plan



Sanborn Map, 1900: Plate 97, "Broadway"

Building cornerstone

24 CROSS STREET EAST



Drone photo, 2021



24 CROSS STREET EAST BASEMENT - EXISTING BY USE

NOTE: Areas rounded to nearest 10 SF

SCALE: 3/64" = 1'-0" (1:256)





24 CROSS STREET FIRST FLOOR EXISTING BY USE

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24 CROSS STREET SECOND FLOOR - EXISTING BY USE

SCALE: 3/64" = 1'-0" (1:256)

SCALE: 3/64" = 1'-0" (1:256)

24 CROSS STREET EAST

EXISTING CONDITIONS ASSESSMENT

CODE

Construction Type

The two-story General Insulation building with basement is a combination of older and newer construction and two distinct exterior structural systems. The main portion is built of brick exterior load-bearing walls. Exposed wood-framed floors are supported by steel beams and columns while the timber roof trusses bear on masonry. The main portion closely resembles Type IIIB construction, where the exterior walls are comprised of noncombustible materials that should maintain a 2-HR fire-resistance rating and the interior building elements are of any material permitted by 780 CMR. However, the west wing appears to be wood frame construction with wood cladding beneath aluminum siding. This wing resembles Type VB construction, combustible unprotected, but improvements could be made to move it to Type VA. Nonetheless, this more restrictive Type V classification governs the entire building. Given the condition of the west wing, replacement of this wing may be beneficial from a code perspective.

Existing Occupancy Type

Mixed-use – Group F-1 (manufacturing, fabrication), Group S-1 (warehouse, storage); vacated and condemned.

Planned Occupancy Type

Mixed-use – Group A (community/youth center and accessory educational spaces), Group B (associated business, offices/administration

Change of Use

Prospective conversion of the entire building from Group F-1 and S-1 occupancies to Group A and B

occupancies. A change of occupancy classification to Group A will result in a higher hazard category as it relates to means of egress and building height and area and a lesser hazard category as it relates to exterior wall exposure. A change of occupancy classification to Group B results in an equal or lesser hazard category as it relates to means of egress, building height and area, and exterior wall exposure. Where a change to higher hazard occurs, compliance with the applicable requirements of the building code for new construction is required. Where a change to an equal or lesser hazard occurs, height and area and existing exterior walls, including openings, are deemed acceptable and the means of egress provisions under Level 3 Alterations must be met. Note that newly constructed or configured means of egress must always comply with the requirements of the building code for new construction.

Number of Exits

The first floor (main level) of the building is provided with two exits (exterior doors): one at the northeast and one at the southwest, both discharging to an exterior pathway/alley leading to Cross Street. The basement is served by a single unenclosed stairway that leads up to the first-floor interior nearest the northeast exit. The second floor is served by two unenclosed exit access stairways: one that leads to the first floor nearest the northeast exit and one that leads to the first floor near the east side of the building.

Preliminary Means of Egress Considerations for Renovation

• A change of occupancy classification to Group A will result in a higher hazard category as it relates to means of egress and compliance with the applicable requirements of 780 CMR for new construction is required.



Extant original stairwell with winder treads and balustrade



Circa 1920s basement stair, open to first floor



Collapsing "Office" wing constructed in south alley

• A change of occupancy classification to Group B results in an equal or lesser hazard category as it relates to means of egress; therefore, the provisions under Level 3 Alterations must be met. Among other requirements, an adequate number of exits and exit capacity must be provided per 780 CMR Chapter 34.

Sprinkler System

The building is not sprinklered. The proposed change of occupancy will require that the building be sprinklered throughout. A fire alarm system appeared to have been provided; however, its components could not be completely identified due to the building condition during the survey. The fire alarm system appeared to include heat detector and manual pull station initiating devices and audible notification appliances. Emergency lighting also appeared to have been provided. All fire protection and life safety systems would likely require complete upgrades and/or new installations.

Other Renovation Considerations

• The proposed use of the building will require major fire protection, life safety, and accessibility upgrades. There is no compliant accessible route to any level and no existing elevator. If the construction cost of the proposed renovation work in the existing building is expected to cost more than 30% of the full and fair cash value of the building, the entire building, exclusive of employee only work areas, is required to comply fully with the new construction accessibility requirements of 521 CMR (521 CMR §3.3.2). This would trigger extensive upgrades to stairs, doors, and entrances, including providing wheelchair accessible public entrances, accessible restrooms, and other accessible elements, e.g. an elevator. Further analysis would need to be conducted based on the extent of proposed renovations. Some level of accessibility upgrades will likely be required even with limited

renovation work that does not exceed the 30% threshold.

- Further assessment is necessary based on scope of work and occupancies/spaces to be upgraded. However, should the building be fully sprinklered with the occupancies indicated, it is likely that the existing building height and area will comply with the applicable height and area limitations per 780 CMR Chapter 5.
- Depending on the change of occupancy classification, upgrades to existing exit enclosures may be necessary if they cannot be verified to provide a minimum 1-HR fire-resistance rating and approved opening protectives.
- Further assessment is necessary based on scope of work and occupancies/spaces to be upgraded.
- In order to obtain assembly permits, means of egress doors from the assembly spaces must be provided with panic hardware and a detailed occupant load and egress capacity analysis must be conducted. Means of egress remoteness will also require further evaluation once concept designs are being considered.
- Given that the building is currently vacant, confirm with the authority having jurisdiction (AHJ) that the certificate of occupancy remains valid. If it is not, a new certificate of occupancy could require new construction compliance or a more conservative compliance approach for the existing building.

STRUCTURE

In the brick masonry portion of the building, the primary structure is in overall fair to poor condition. The foundations below the masonry walls appear to be sound, with little evidence of settlement. The timber



Main attic roof trusses; typical brick cracking and displacement on buttress



Wood clapboard siding beneath aluminum at west wing; brick displacement



Cracked water table and random ashlar base displacement and loss of pointing; loading dock and garage door at center window, east elevation

roof trusses above the ceiling also appear sound. It is expected that some number of the roof rafters would need require sistering or replacement.

The secondary structure in the main mass, particularly the wood joist floor structure supporting the former sanctuary, is generally in poor condition. Approximately 500 SF of the floor must be replaced where rot has taken hold. More investigation is required to determine the condition of the spread footings below the steel columns below the sanctuary. In addition, the existing steel beams bearing on these columns may require reinforcement and all remaining joists may need to be sistered (approx 2,600 SF) in order to meet assembly live loads with a potential change in occupancy back to public use.

The primary vertical structure of the wood-framed west wing is in poor condition. This wing consists of exterior wood bearing walls and wood clapboard covered in aluminum siding. Noticeable settlement on the center of the west facade indicates either a geotechnical issue at the foundation, or the presence of rot at the sill plate. Closer examination will take place in the next few weeks.

The one-story "Office" wing running in the south alley is in very poor condition, having essentially collapsed.

FACADE & ENVELOPE

Facades and Windows

The masonry facades consist of a random ashlar stone base, oversized limestone water table, and red brick masonry above. The ashlar and limestone water table are in poor condition, with significant areas of cracking and displacement. Some ashlar has partially collapsed. Both zones require 100% repointing with numerous locations of patching, rebuilding, and dutchman repair. All the brick masonry needs 100% repoint, with significant brick stitching in some areas, and brick unit replacement equivalent to 5% of all brick units. The three primary gables are clad with aluminum siding, making an assessment of the historic finish in these locations infeasible. Historic drawings indicate this was half-timbering, so it is presumed this is in very poor condition.

The windows on the masonry wing are non-existent, having been infilled with stud walls and aluminum siding. The monumental arched window on the east elevation had its sill cut down to install an overhead garage door. Windows are still present in the wood-framed west wing, but these are low-grade vinyl inserts.

Exterior Doors and Stoops

No original stoops or doors remain. All have been infilled with stud walls and aluminum siding apart from the north door, which is the only access point. The historic primary entrance stoop on Cross Street was demolished to make way for a concrete loading platform. The stoop in the south alley was reconfigured in the 1920s when the building changed use, and was likely removed completely with the addition of the one-story "Office" wing. The north stoop was demolished at an unknown date; a pressure-treated wood stair and landing provide access to the only functioning entry door. All doors and stoops would need to be reconstituted in an architecturally appropriate and accessible manner with compliant guardrails.

Roofing

The roofing is in poor condition across the board, with multiple campaigns of asphalt shingles exposed on the main roof. The main roof design results in a geometry that concentrates large areas of rain runoff to very short eave runs, two per facade. Tremendous water volume must pass through these pinch points to gutters and downspouts nestled behind masonry buttresses. The condition of the aluminum gutters and downspouts in these areas is poor, disconnected, or non-existent. The large amount of runoff in these locations is directly linked to biological growth and the extremely poor condition of the buttress masonry.

A low-slope roof with no parapet caps the twostory west wing. The roof is sloped to drain to external



Drone photograph, 2021





Thermal Anomaly 1



Thermal Anomaly 2



Thermal Anomaly 3

aluminum gutters. The roofing is in such poor condition that it appears the membrane has complete delaminated and is draped in piles around the roof.

As part of this preliminary documentation and assessment effort, WJE also conducted qualitative infrared drone survey on the roofs of four buildings. Surveyed in the hours immediately following sunset, infrared anomalies can indicate the presence of moisture-laden roof components. Wet components have greater thermal mass than if they were dry, releasing their heat energy from the day more slowly and representing as heat islands in the infrared scan.

Four areas of thermal anomalies were identified at 24 Cross St East: the first is approx. 60 SF at the north corner tower, the second is approx. 144 SF at the south corner tower, the third is throughout the cruciform roof where shingles are missing ranging is size from 4 SF to 150 SF, and the last is throughout the addition at low-slope roof assembly stretching beyond the 25 SF of displaced ballast.

CIVIL/SITE INFRASTRUCTURE

The General Insulation Building is located on a 0.17-acre site on Cross St E. The building extends to or nearly to the property line on all four sides. The building is not currently occupied.

Water Systems

Further information is needed to determine the size and location of water service to the building.

Sanitary Sewer

Based on the City of Somerville Stormwater Management Plan, dated June 15, 2020, the General Insulation Building is located within a portion of the City served by combined storm sewers. There are multiple unlabeled manholes in Cross St E. More information is needed to determine location of sewer discharge.

Site Drainage

Based on the City of Somerville Stormwater Management Plan, dated June 15, 2020, the General Insulation Building is located within a portion of the City served by combined storm sewers. Gutters and downspouts were observed on the exterior of the building that discharge to grade.

Natural Gas/Oil

More information is needed.

Other Utilities

Utility poles are located around the site perimeter with overhead wire connections to the existing building.

Site Pavement

Site pavement is in very poor condition, with major cracking, vegetation growth and soil accumulation, and likely ponding in wet conditions.

MEP/FP/IT - ALL SYSTEMS

The building is abandoned and has not been in use for some time. Various mechanical equipment exists abandoned in place in the building, including a split AHU and boiler, which are well beyond their useful service life.

Power has been disconnected from the building. The electrical service and distribution is beyond its useful service life. Equipment was inspected visually but was not evaluated for capacity during the site visit.

Incoming services were not observed. No reports or observations were made on drainage systems. Plumbing fixtures have been disconnected and in some cases destroyed. Based on building age, scoping of the lines and destructive testing on select interior drainage piping is recommended to determine integrity of piping. A new water service is likely required to bring the building back in service.



Street facade, looking west



Detached aluminum downspout and bio-growth, north facade



Severe weathering and displacement, brick and stone masonry at buttress

GEOTECHNICAL

Settlement at the rear west wing, which is woodframed, indicates either a geotechnical issue at the foundation or the deterioration of the interior structure due to water intrusion. Additional geotechnical investigation is on hold due to building condition and City decisions regarding its future.

Foundations - General Note for New Structures

New structures will need a geotechnical assessment and report for foundation design to meet building code requirements.

Disturbed Soils - General Note for Buildings in Study

Soil disturbed during excavation will require environmental screening and characterization for on-site reuse or off-site disposal. If contaminants are detected that exceed Reportable Concentrations (per the Massachusetts Contingency Plan) there will be an obligation to report these results to the Massachusetts Department of Environmental Protection (MassDEP). Subsequent regulatory compliance activities would include environmental characterization work and possibly remediation, under the direction of a Licensed Site Professional (LSP), to ensure that residual contaminants do not pose a threat to human health, public welfare, safety and the environment. See Technical Appendices.

HAZARDOUS MATERIALS

The design team was provided with a 2017 Investigative Survey Report for Asbestos and Other Hazardous Materials authored by TRC Consultants for the City. TRC also prepared a Phase 1 Environmental Site Assessment in 2016 for the City. These two reports have been included in the Technical Appendices.



Former restroom



First Floor, northeast corner; electrical and telephone services and panels



Basement with defunct boiler

19 Walnut

BACKGROUND AND RESEARCH

NOTE: 19 Walnut, a city-owned property and the current home of the Parks & Recreation Department, was not included in the scope for the CSA Master Plan, so no dimensional or photographic survey has been conducted, nor any assessments completed to verify the condition of building envelope or systems. However, an introduction to the building is included here to provide context for a consideration of the building's future and the CSA Master Plan space-capacity studies that appear in later chapters.

The two-story brick masonry building at 19 Walnut Street was constructed in 1924-25 as the Somerville District Courthouse. It was the first building purposebuilt as a courthouse in Somerville and housed the offices of the Court for over four decades, until the late 1960s, when the Massachusetts Legislature authorized construction of the current district courthouse located on the Fellsway. Issues with the existing building at that time included a limited interior space, parking, and an increasing volume of courthouse business. The City of Somerville purchased the property in 1969, and it has housed the City's Parks & Recreation Department since that time. The history of the municipal district court in Somerville is not a long one, extending back only to the late nineteenth century. Following Somerville's incorporation as a city in 1872, sessions of the newly established "Police Court" were held in City Hall for several years until the City's Police Station, at 50 Bow Street, was completed in 1875. Sessions remained at the Station until the completion of 19 Walnut in 1925. The nomenclature changed from Police Court to District Court in 1921.

The design was awarded to a Boston-based architect, Charles R. Greco, responsible for numerous public commissions throughout Massachusetts. Greco planned the courthouse with an L-shaped footprint to make best use of the west-facing 10,000 SF lot, which is set along the slope of Walnut Street as it climbs up Prospect Hill. His courthouse design is emblematic of the Renaissance Revival style as it was applied to civic architecture in the first decades of the 20th century. In the late nineteenth century, increasing numbers of American architects with Beaux Arts training and the 1893 Chicago Columbian Exposition brought decorated Classical Revival styles to the forefront of the architectural practice. However, by the 1920s, the extravagant detailing of the 1890s was increasingly eschewed for a more restrained Classical aesthetic which could be more pragmatically attained through new man-made materials such as cast stone.

The basement level, half-exposed, is clad with a granite base and cast stone ashlar, with load-bearing brick masonry exposed for the two stories above the water table. The main, two-story rectangular block fronts Walnut, with the single-story volume of the main courtroom projecting off the rear. Each volume is topped by a low-slope membrane roof and masonry parapet. The building's decorative ornament is primarily focused on the projecting three center bays of the five-bay west facade. Cast stone Corinthian pilasters, which appear to have been consolidated with some kind of coating, divide the bays vertically. A flat cast stone belt course, in plane with the brick, demarcates the second floor. The pilasters visually support a broad cast stone entablature with flat frieze and dentiled cornice. The words "DISTRICT OF SOMERVILLE" are chiseled into the frieze. A cast stone parapet with balusters sits above the cornice, culminating in a central stone medallion containing the City's seal and adorned with swags and garlands. In contrast, the rest of the building has a simpler brick parapet above a cast stone molded cornice. Simpler cast stone panels set into the brick



Walnut Street Elevation



Main Courtroom, looking southeast

Research sources include the Mass. Archives State Building Inspection Office Drawing Collection and Mass. Cultural Resource Inventory Form SMV.460, from which the architectural description has been adapted.

parapet form a trio with the central stone medallion. A deep round-arched opening in the center bay leads to the building entry, a double-leaf wood paneled door and fanlight.

Above the entrance, a three-part rectangular window, 8/12 wood double-hung sash flanked by narrow 2/2 double-hung sash, is ornamented with a bracketed decorative metal balconette. The building's typical windows are 8/12 double-hung wood units set within simple masonry openings with cast stone sills, metal lintels and no jack arches. The main courtroom on the first floor is lit by five monumental wood 12/12/12 triplehung, true round-arch windows befitting the room's 16-foot ceiling height.

The interior planning of the building followed a hierarchical logic typical to the style and era, placing the high-ceilinged courtroom in its own rear wing. A narrow entry hall with short stair run leads to the building lobby and main stair hall. Judges' and clerks' offices, and an attorneys' room, make up the balance of the floor. Upstairs, a smaller, "second session" courtroom is placed on-center, with consultation rooms, toilets, and the court officer's room arrayed to both sides. The lower level was comprised of various detention and support spaces, along with Juvenile Court and a secondary public entrance to the building. Reflecting societal attitudes towards alleged criminality at the turn of the century, a separate circulation stair led from the men's detention area directly up to a penned dock in the main courtroom. Like much of the original millwork fixtures in the building which were specific to courthouse use, this pen and stair no longer exist, likely removed at or before the time the building changed ownership and use.

As noted, while a comprehensive facade and systems assessment are outside the current scope of the CSA Master Plan, it should be noted that the condition of 19 Walnut is fairly dilapidated, with active deterioration of the cast stone on the facade and noticeable material failure at exterior elements such as windows. Interior finishes are generally in disrepair, with peeling paint and water damage noticeable throughout the building. During a design team walk-through in February 2021, it was related that Parks & Recreation programming is no longer held in the building because of its condition. At the same time, it should be noted that some interior finishes such as terrazzo and mosaic tile, as well as the exterior brick, are in fair to good condition and with an appropriate level of investment and program "fit", the building is a good candidate for rehabilitation and adaptive reuse.



Window in poor condition



Entry Hall and Lobby



First Floor Plan



File Drawings, 1924 "District Court", Massachusetts Archives, B.5.25.18519
Appendix Planning Studies: Other Buildings

24 CROSS STREET EAST OPTION 1 - REHABILITATION AND ADDITION FOR COMMUNITY PROGRAMMING AND CITY ADMIN

The rehabilitation of 24 Cross Street East would require significant investment, and the existing building alone would provide a fairly limited and inflexible yield of public space. At the time of the CSA study, it was determined that the building does not satisfy near term program needs relative to the CSA Master Plan.

The study illustrated here was developed for the purposes of cost estimating and benchmarking an adaptive reuse rehabilitation scheme by the City in order to gain community and administrative space. As the poor structural condition of the wood-framed west wing likely necessitates its demolition, a three-story addition on the same footprint is proposed behind the existing masonry massing to remain. The primary historic structure would be renovated as a large, signature multipurpose space, while the new build at the rear would provide staff and support spaces. While dramatic, the multipurpose space would be relatively inflexible. It should be noted that this is a study and not a recommended scheme. Refer to the cost estimates for the likely level of investment required for rehabilitation. Also refer to the Technical Appendices for further information.



SITE KEY PLAN



SECTION A



Space Use	SF
EXISTING GROSS SF TO REMAIN	6,100
GROSS SF - NEW ADDITION	7,900

 \wedge





FIRST FLOOR





BASEMENT



SECOND FLOOR



24 CROSS STREET EAST OPTION 2A - NEW BUILD RESIDENTIAL - NO ONSITE PARKING

The speculative study illustrated here explores the potential for residential development by a developer (not the City), for the purposes of evaluating the feasibility of the site for such uses. In this recommended scenario, the city divests the property. The residential unit mix shown here includes studio and 1-bedroom apartments with shared amenities in the building basement. The first floor front of the building could be either residential or retail.

Two sub-options have been developed: the first, shown here contains no off-street parking on the property. This approach would presumably require either a special permit from the City (if no parking is to be provided) or a covenant with a neighboring property owner to provide tenant parking in an adjacent lot. The parcel is outside the maximum radius of the Sullivan Square T station that would allow the owner to take advantage of the transit-oriented development incentives in the zoning ordinance which include the omission of off-street parking.

A three-story structure is imagined: one which negotiates between the architecture of the brick rowhouse neighbors to the south and the larger scale of fabrication uses to the north. The new building is aligned with the existing street wall. Projecting bays on the building front flank an on-center entrance. At the rear, a notch in the southwest corner retains an alignment to the existing setbacks to the south.





SECTION A





FIRST FLOOR





THIRD FLOOR



SECOND FLOOR



24 CROSS STREET EAST OPTION 2B - NEW BUILD RESIDENTIAL - ONSITE PARKING

This second sub-option of a speculative developer newbuild on the property includes the off-street parking required by the zoning ordinance on the parcel itself. The ordinance requires one off-street space per unit. Due to the constrained nature of the site, 80 feet wide x 90 deep, providing any amount of parking is a challenge. The unit mix was consolidated into fewer, larger units of two and three bedrooms in order to match the maximized number of parking spaces, drawn here at six. The building layout from Option 2A is adapted to this scheme while retaining the core elements in the same location. A two-way drive aisle, required by the Zoning Ordinance, provides access to a short run of 60-degree angled spaces and a turnaround zone at the southeast corner.

As noted, a parking covenant with an abutting neighbor, or the purchase of multiple lots, may result in a more optimized approach to parking.

TOILETS / BOH



SECTION A



SITE KEY PLAN

FION	
Space Use	SF
All Rentable SF* (-5%)	9,200
*Demising; does not include prorated amenity or common space	
GROSS SF AS SHOWN (Incl. Parking)	22,300
	TION Space Use All Rentable SF* (-5%) *Demising; does not include prorated amenity o GROSS SF AS SHOWN (Incl. Parking)



FIRST FLOOR



BASEMENT



THIRD FLOOR



SECOND FLOOR



19 WALNUT OPTION 1 - REHABILITATION - COMMUNITY PROGRAMMING OPTION 2 - REHABILITATION - RESIDENTIAL REDEVELOPMENT

19 Walnut was speculatively studied for continued city use to host community programming and administrative space, as well as for potential adaptive reuse as a residential redevelopment by a private developer. At the time of the CSA study, it was determined that the building does not satisfy near-term program needs relative to the CSA Master Plan, and will require significant investment to address envelope and systems issues and accessibility.

Option 1 illustrates the possibility of utilizing the historic building for community program space alongside associated staff and support functions. A targeted administrative and city program use is not determined. Option 2 illustrates opportunities for use of the building as a residential redevelopment. The residential unit mix includes studio 1, and 2 bedroom apartments with shared amenities in the building basement. If redeveloped under Option 2, the project could potentially be eligible for the Historic Preservation Tax Credit Program.





OPTION 1 - SECTION



OPTION 2 - SECTION

Space Use - Residential/Rental	SF	
All Rentable SF* (-5%)	4,800	
*Demising; does not include prorated amenity or common space		
EXISTING GROSS SF	12,300	



32 ft



OPTION 1 - SECOND FLOOR



OPTION 1 - FIRST FLOOR



OPTION 2- SECOND FLOOR



OPTION 2- FIRST FLOOR