

## SUMMARY OF PROPOSED DEVELOPMENT

The Cambridge Redevelopment Authority seeks to develop the Cambridge Foundry with a mix of publicly accessible spaces and market rate space. The goal is to dedicate a majority of the building to community uses, and to rent the remaining portion at market lease rate to support the operation of community spaces. HMFH was asked by the CRA to develop options that tested both the physical possibilities of the building as well as a variety of program uses that could be housed in the facility and meet the stated goals.

In its original use as a foundry, the building was comprised of a 60 foot wide, 30 foot tall space that spanned 200 feet from Rogers Street to Bent Street. Two lower wings flank the center space. At some point a small three story office component was added to the North side, and in the mid-1980's, the central open space of the Foundry was filled in with floors that created a basement parking level and three floors of office space.

The floors add in the 1980's increased the usable area of the building, but diminished its interior architectural qualities and its potential value as a large open space. Additionally, these floors are only ten feet apart, resulting in very low ceilings and no natural light at one of the levels. Another complication is that the first floor level is six feet above street grade to accommodate space for parking below. This is both a real barrier for accessibility as well as a perceptual barrier as to the public nature of the building. Finally, the infill floors are only structurally sufficient for office or residential uses. Public assembly spaces and other programs considered for the building would require reconstruction.

The current development strategy is to remove some of the infill floors in order to recapture a portion of the original volume for a large public venue. The infill floors that remain can support smaller scale community uses as well as commercial rental space. The team explored several reconfiguration options that could achieve an appropriate split of community and market rate spaces. Options including dividing the groups by floor level, keeping the central area for public use and the wings for rental, and adding to the North side to create additional square footage.

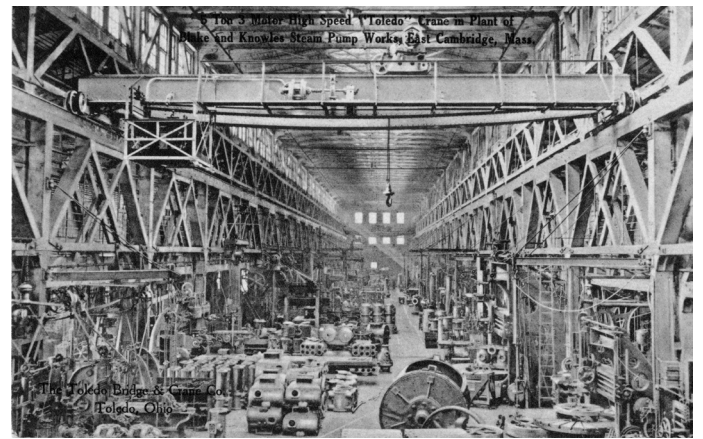
### OPTION 1

This approach creates a public end of the building accessed from Rogers Street and a commercial end of the building on Bent Street. Two entrances with independent stairs, elevators, and restrooms provide the separation needed between public and private user groups. The groups can operate on different schedules, have different security protocols, and the designs can more directly reflect the needs of users. A shared second means of exit is located at the intersection of the two groups, in the North wing.

The proposed reconfiguration of the building also lowers the first floor on the Rogers Street end, providing full accessibility to the public spaces. This basement below would be too low for parking, but is usable for mechanical systems. The basement level of the Bent Street end was finished for occupancy when constructed in the 1980's. The current proposal leaves most of this space open for rental, lowering only a small area for an accessible entrance.



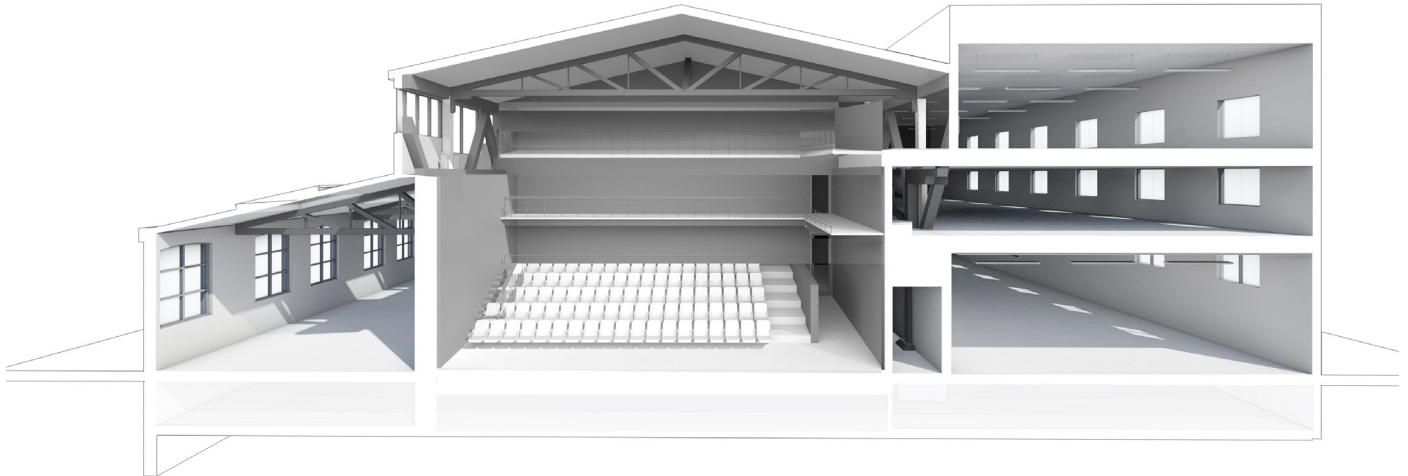
Original Foundry - Rogers Street view



Original Foundry - open central volume



Current Foundry - third floor with exposed heavy timber trusses



Black Box Option 1 - on level with entry, exposed to trusses above

**Ground Level Public Spaces**

Public areas of the building are programmed to serve a spectrum of the Cambridge community. A flexible use Community Space along the South wing can be programmed independently or in conjunction with events at the centrally located Black Box Theater. With the floor at ground level, it is possible to make a direct connection between the Community Space and the lawn to the South.

The Black Box provides a formal setting for performance and presentation and can be programmed for theater, music, dance, or community meetings. In this approach, the Black Box is situated at the ground level with the volume extending to the original building trusses. This would be a day-lit space with a dramatic view of the open structure above. Light could be controlled by blackout shades for theatrical events or the glazing can remain open for music performances or general presentations.

A Kitchen situated in the North wing can serve as a catering point for events, as a training facility, or as a place for community events centered on food preparation.

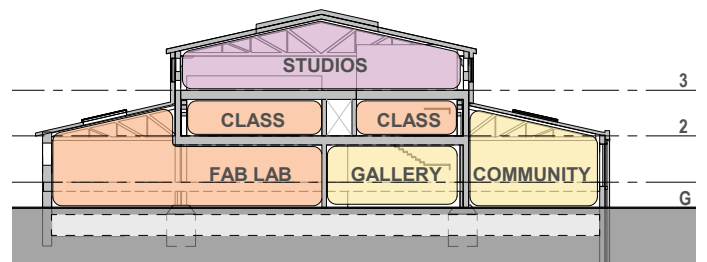
A Fabrication Lab provides a community resource for “making”. A variety of tools, machines, and materials could support any number of project types, such as woodworking, textiles, jewelry making, etc.

**Upper Level Spaces**

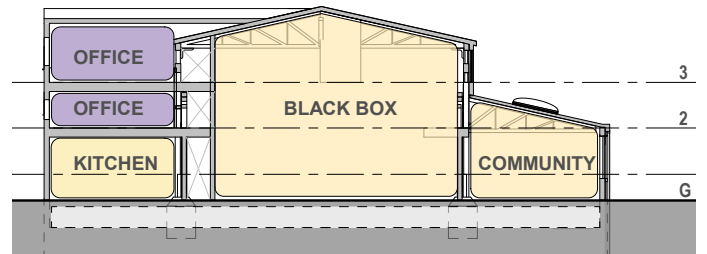
The second and third floors of the Rogers Street end of the building provide additional community areas, but due to structural limitations, this is limited to smaller programs. The second floor has limited day light, so is best suited to users who do not occupy the spaces for long periods of time. Classrooms of a variety of sizes can be programmed throughout the day for teaching or group meetings.

The third floor of the community side is dedicated to artist studios. The windows and skylights provide ample light to the perimeter as well as the center spaces. This floor could be open studios, with no subdivisions, or partitions could be added to create private and acoustically isolated rooms for individuals or small groups.

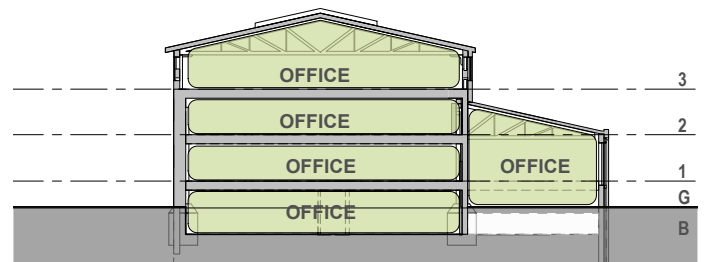
Due to the limited floor space and low ceilings, the second and third floors of the North are best suited to office use. This is also the location of toilet rooms for the upper levels and the egress stair that serves the community half of the building and the office.



SECTION - A



SECTION - B



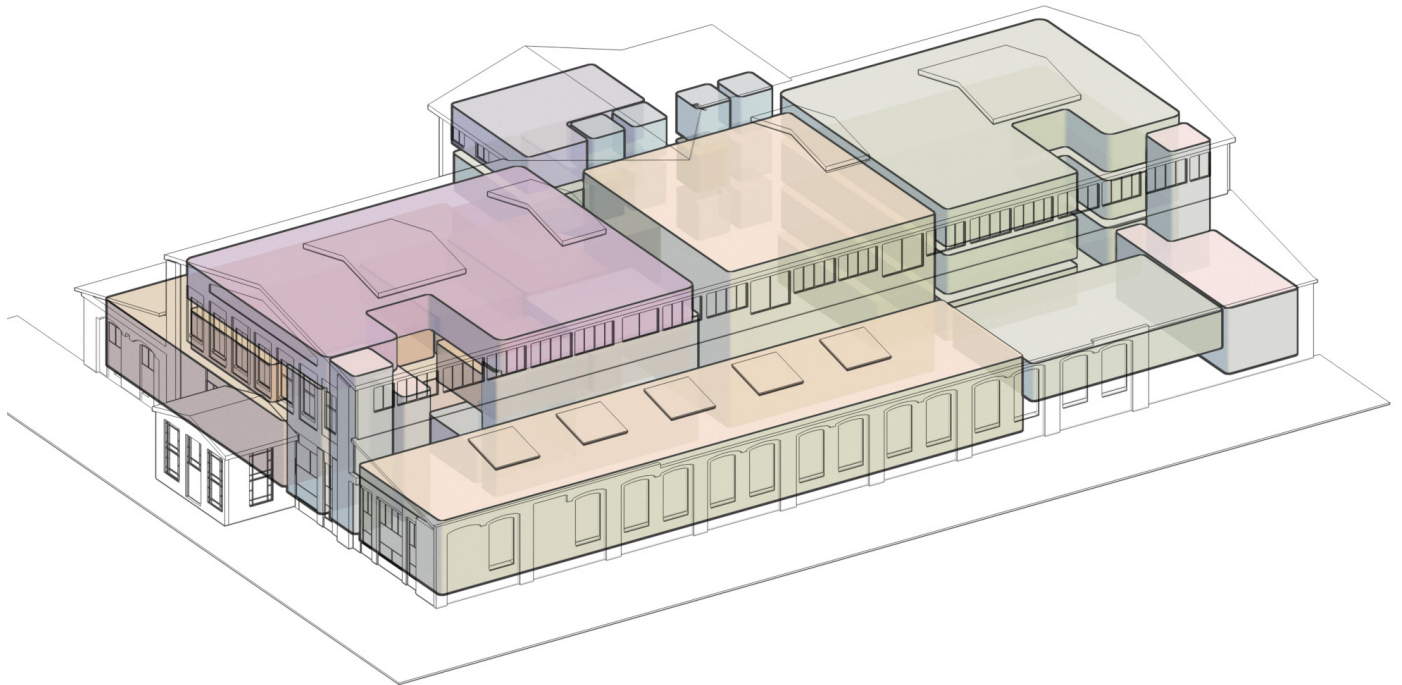
SECTION - C

**Market Rate Office Space**

The Bent Street side of the building would not be significantly restructured, with the exception of lowering the South wing for on-grade access. Because there is not a North wing on this end of the building, more of the space is exposed to natural light. There are currently no windows on the North side, but they can be added in the course of renovation. The rentable area on each level can be an open office suite for a larger tenant or subdivided into multiple offices spaces, as long as there is a corridor to access the stair and toilet rooms in the North wing.

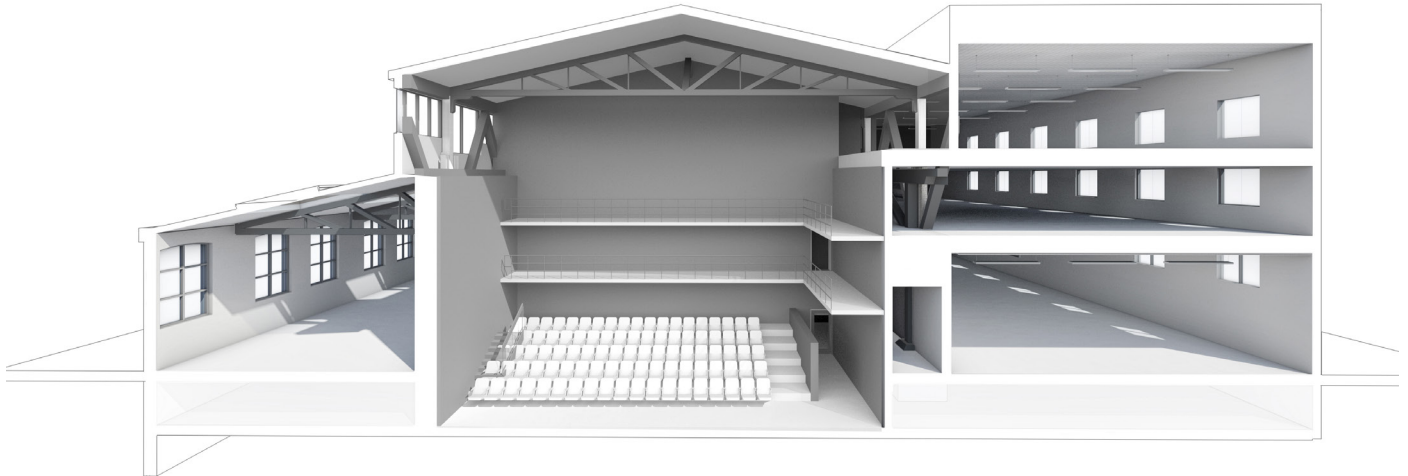


Option 1 - floor plans



Option 1 - view of program distribution





Black Box Option 2 - lower floor for taller space

**OPTION 2**

A second approach dedicated the original foundry structure to public and community uses. More areas of intermediate floors are removed to provide high bay spaces for uses such as the black box theater. Some of this square footage is recovered through new construction on the north side of the building that is dedicated to market rate office space. A portion of the existing loading drive is built upon while a loading bay is constructed at grade.

**Ground Level Spaces**

The public areas of the ground floor are treated much like proposed in the first approach with the addition of classroom space. The ground level access to the theater and Fabrication Lab remains.

In this option, the floor of the Black Box is lowered to the basement level and extends only the third floor, allowing the top level to be used for office space. The lowered floor is necessary for the height of the Black Box, and requires a more complex solution for access.

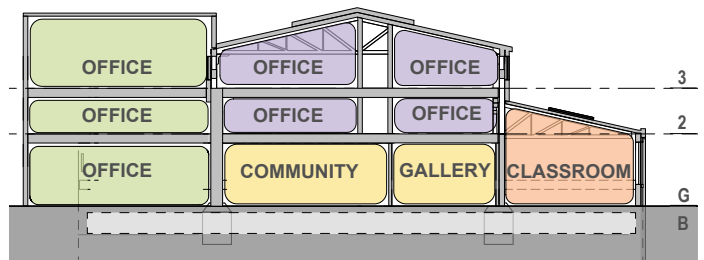
The other half of the basement would be for the Fab Lab, with a variety of options for what this could become. The proximity of the Fab Lab and theater allow possible shared use of equipment and storage between these uses.

**Upper Level Spaces**

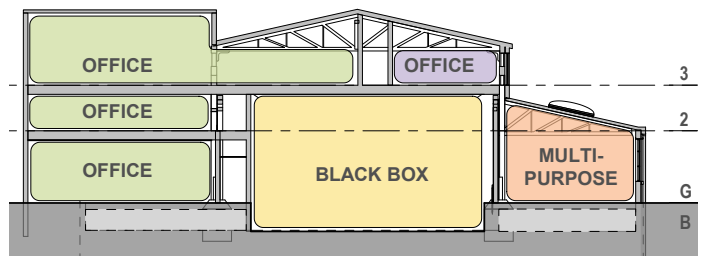
The upper floors are better suited for lower traffic uses such as studios and offices. This could be wide open co-working space, or discrete suites for particular groups. The split of office and studio space can be altered over time, as different needs arise. The plans here show artists studios at the Bent Street end of the building, where they would have more direct access to the Fab Lab resources.

**Market Rate Office Space**

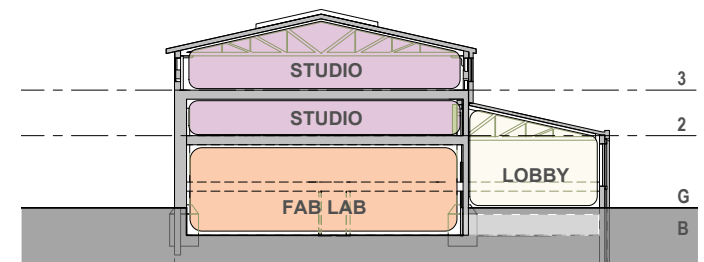
Locating the commercial offices in the new construction provides for a virtually autonomous space, including separate entrance, circulation, toilet rooms, and mechanical systems. Additionally, new construction would more readily accommodate the specific requirements of market office space.



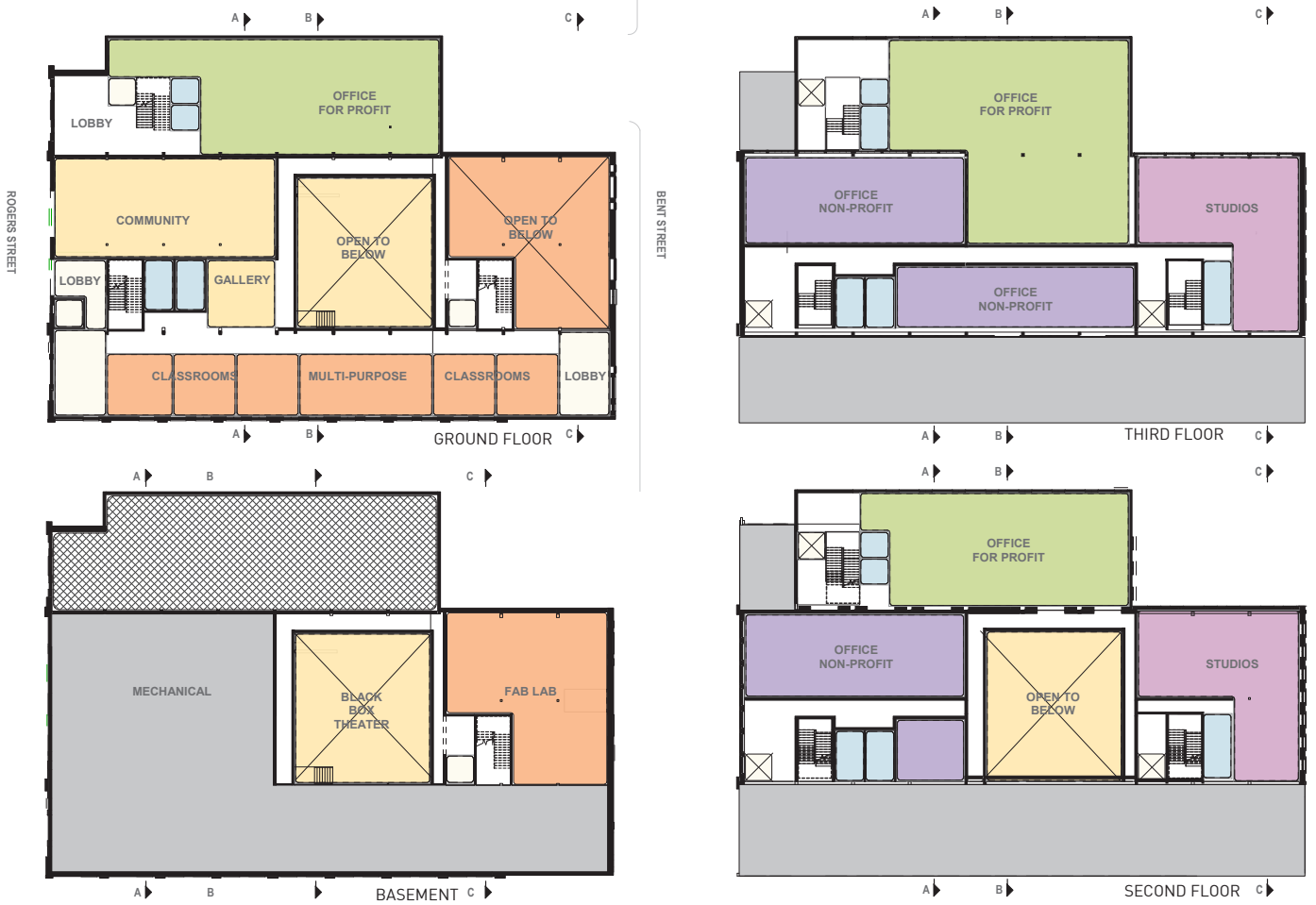
SECTION - A



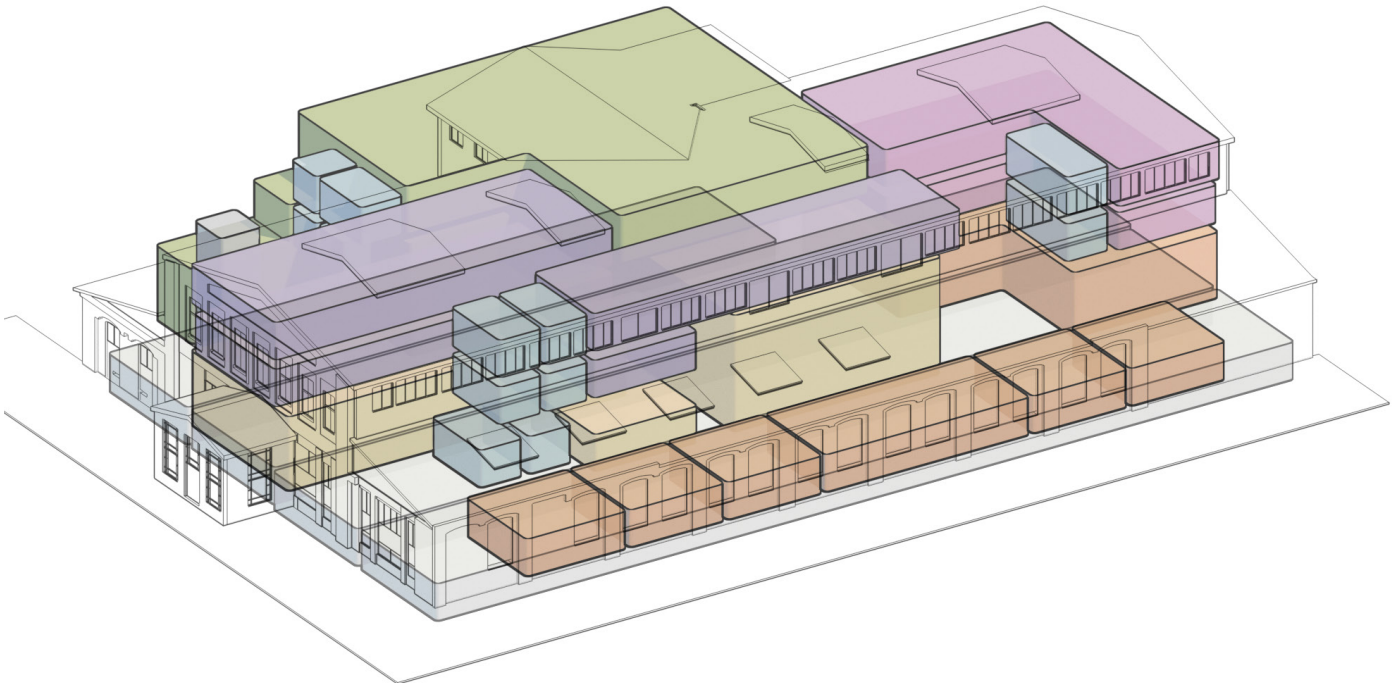
SECTION - B



SECTION C



Option 2 - floor plans



Option 2 - view of program distribution



Current Foundry - view of second floor level



Current Foundry - view of South wing bay



Current Foundry - view of outdoor space on South side

## SPATIAL ASSESSMENT

One element of this study was to evaluate the spatial “potential” for the building. In other words, given the large volume nature of the original foundry and the inserted floor levels, what are the possible reconfigurations. These closely placed floors create smaller spaces that are reasonable for residences or studios, but not suitable for larger public uses. If one or more of the inserted floors are removed, the building would have a combination of smaller and larger spaces.

**Option A** opens up only one half of one floor, creating a two story volume at the first floor level. The inserted floors are supported on a column line down the center of the original volume, so it is possible to open one side of the space and leave the other half untouched.

This approach also demonstrates potential reconfiguration of the smaller spaces by creating two-level lofts. Because the second floor has no windows, connecting spaces between the second and third floors will provide daylight to these lower floors.

**Option B** removes both halves of the second floor level. This creates a larger two-story space, but the center column would remain. This larger open space would be usable for certain types of community spaces, such as a maker space, however it would not allow other uses such as a black box theater. This scenario also requires the first floor structure to be altered for the extra weight of a community use.

**Option C** is a more comprehensive approach to opening up the central space. In this option, two floors are removed and replaced with a mid-level new floor. This results in two larger, column free spaces, the lower roughly 13 feet high and the upper 13 feet clear to the underside of the trusses. These heights aren’t sufficient for a black box or other large gathering space, but good for many community uses. The lower level central space does not have access to daylight, further limiting the appropriate uses. The upper level has ample light from clerestory windows and skylights and it is exposed to the original heavy timber structure.

**Option D** further opens the spaces by removing the parking level. The two resulting spaces are tall enough to accommodate many uses, including a theater or sports courts. This option also illustrates lowering the wings to connect directly to the ground level on the south side of the building. These larger volume spaces work well for community uses that connect directly to the outdoors.

The long direction of the building is 200 feet, organized in 20 foot structural bays. Any of the above options could be applied to portions of the building or the full length of the building. For example, a black box theater only needs to be 40 to 50 feet wide, so only a few bays would need the floors removed to create this volume.

The 20 foot bay structure lends itself naturally to uses such as studios or offices. Natural light is an important factor for these program types, so the smaller spaces should be limited to the side wings or the top floor.



