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# Do Your Homework

## Considerations for a Live/Work Lifestyle

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**Typical facades of the Soho Cast-Iron District. Soho loft buildings were legalized for use as artists' residences and studios in the 1970s.**  
(Courtesy of Pxfuel, DMCA)

With the onset of the Industrial Revolution, local governments began to implement strict zoning laws that separated living and working spaces. This fundamentally changed how society developed as more and more people commuted to their work. Today, amid the COVID-19 pandemic, it is clear that the way in which we occupy our spaces must be re-envisioned, as many find themselves working from home.

### **A BRIEF HISTORY**

Traditionally, people lived where they worked. Examples include the Machiya in Japan, which allowed for a store or workshop to face the street with living quarters behind. With the ability to transition the storefront into a private living space, it is considered the predecessor of the contemporary flex-space. A second example is the “top-shop” model, first introduced during the 17th and 18th centuries. Workshops were found at the top level of homes where large windows brought in lots of natural light, and living spaces were below. (Appendix A provides further examples and Appendix B provides detailed typologies)

For a period of about 100 years, the live/work model disappeared as urban planners addressed congestion, air pollution, and poor sanitary conditions brought upon by the Industrial Revolution



**Many have realized that a remote office setup can be a long-term option.”**

by separating residential, commercial, and manufacturing uses into different zones within a city. Working from home, or living at work, became in many cases illegal. In some places such as New York City, it wasn't until the 1970s when laws began to change, as seen in the city's "Joint Live-Work Quarters for Artists" zoning amendment. (Appendix C provides further regulations)

Today, as the COVID-19 pandemic has forced a large percentage of the professional population to work from home, many have realized that a remote office setup can be a long-term option. The sudden transition has proven to be surprisingly positive, but far from perfect. The nuances that allow live/work spaces to function best are undeveloped. Difficulties include lack of space for all family members, lack of appropriate utilities and storage, and less human interaction. The current challenge is to rectify these deficiencies while maintaining the merits live/work can provide. (Appendix D provides documentation of current live/work models in action)

**A traditional Japanese Machiya.**  
(Courtesy of Yoichi Nakanishi, Flickr) ▶



## OPPORTUNITIES

For Residents, opportunities include improved work/life balance, reduced commuting times and costs, more equitably shared household tasks, and the flexibility to be at home during business hours.

For Building Owners, renovations can be an opportunity to attract new tenants looking for contemporary amenities.

For Developers of new properties, examining and implementing live/work options can add value to the unit types and round out your offering.



**The live/work option allows neighborhoods to be livelier and safer.”**

For communities and local governments, the live/work option allows neighborhoods to be livelier and safer as residential neighborhoods are no longer empty during the day, nor are commercial neighborhoods empty at night.

**Cash's cottages,  
Cash's Lane, Coventry,  
England.**  
(Courtesy of Snowmanradio, Creative Commons) ▶



Katz Architecture explored what a prototype for a new live/work unit could look like, designing a building that includes ground floor storefronts, apartments and separate offices for residents. The apartments are all duplex units with a flex-space located either below or above the main floor. They all face the rear of the building and can be used as in-home offices or additional apartment floor space. Independent offices, situated at the front of the building may be used either by the building inhabitants, or by people not living in the building. To support a strong community within the building, the roof deck recreation space may be used both by residents and commercial tenants of the building.

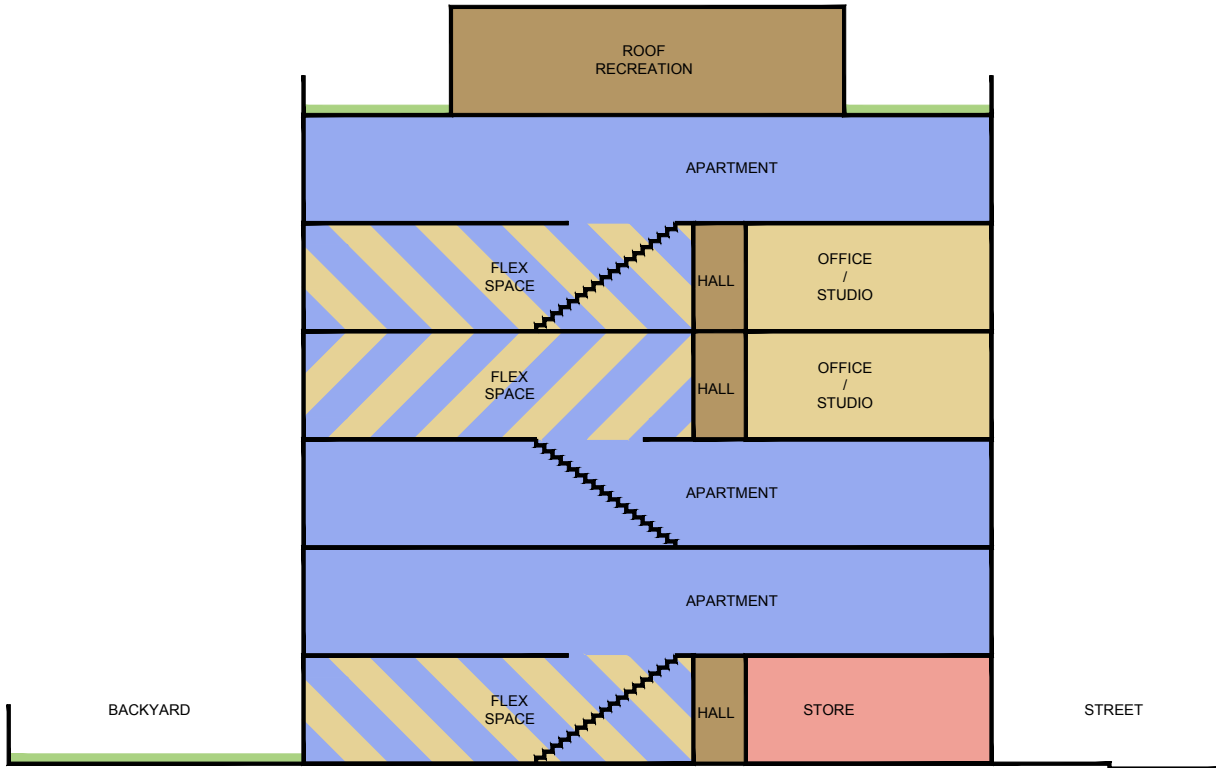
## CONTRIBUTORS



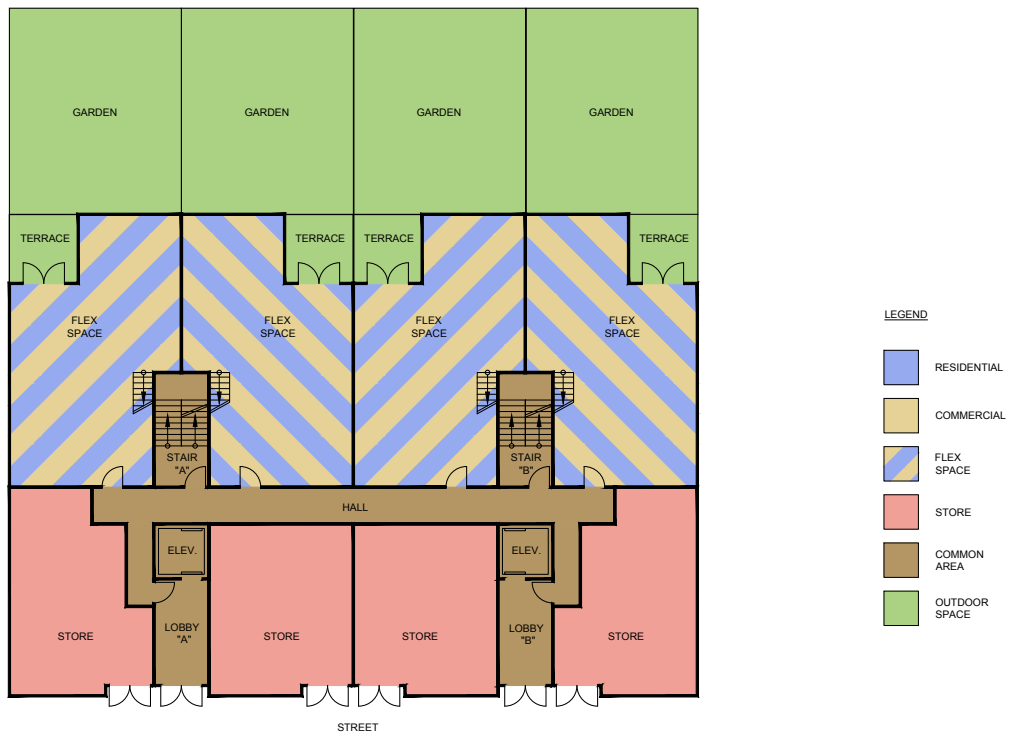
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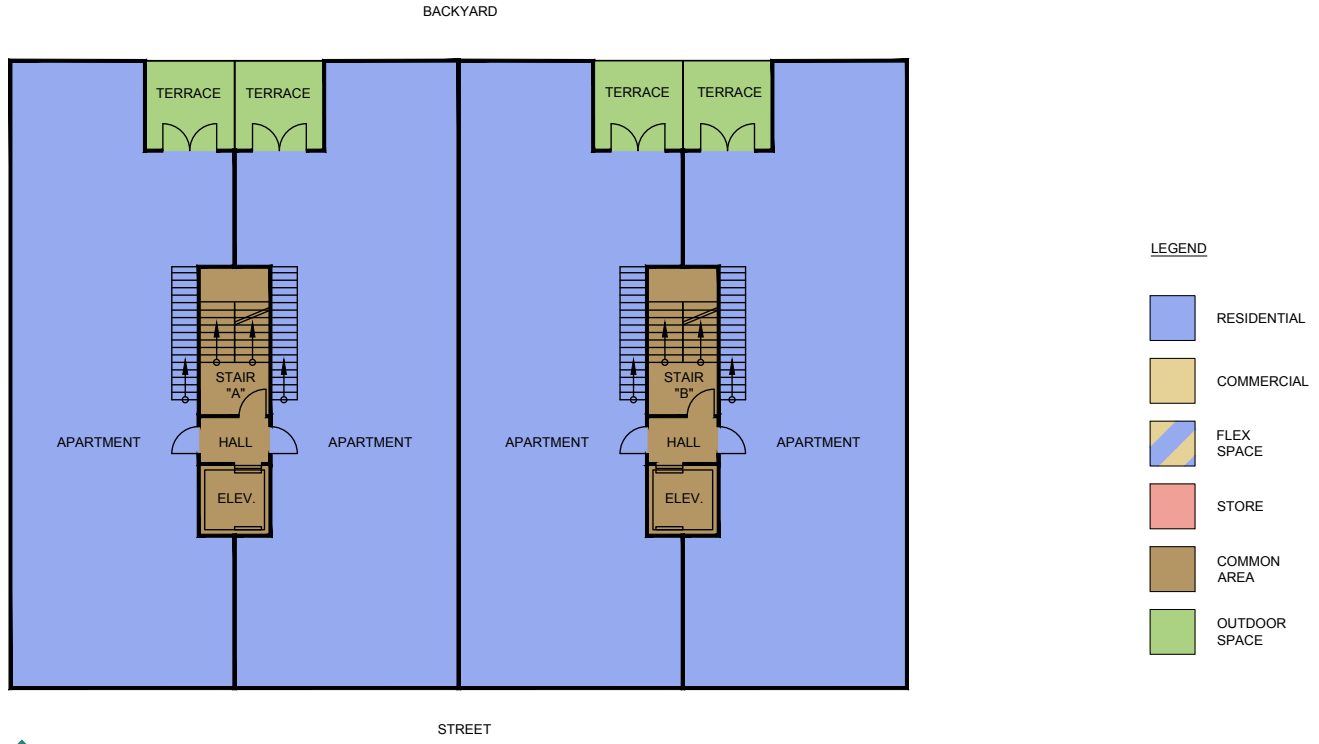
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Building Section Diagram



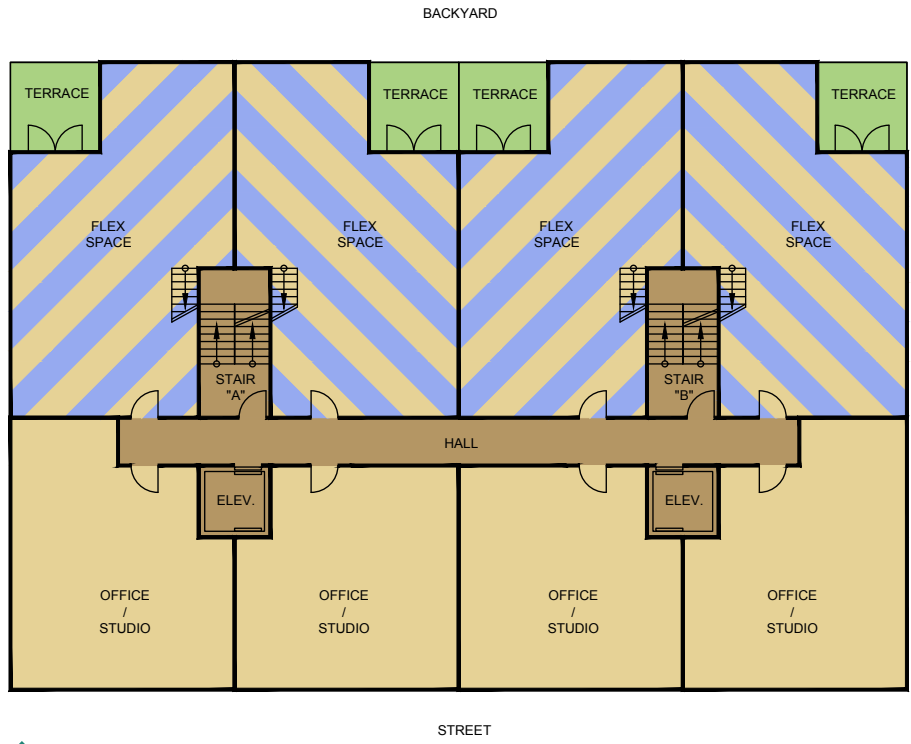
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Building Plan Diagram -  
Street Level

LEGEND

	RESIDENTIAL
	COMMERCIAL
	FLEX SPACE
	STORE
	COMMON AREA
	OUTDOOR SPACE



**Building Plan Diagram - Residential Level**



**Building Plan Diagram - Mixed-Use Level**



### ▲ Rendered Building Section

## APPENDIX A - HISTORY

Prior to the Industrial Revolution, live/work uses were found in various forms.

The **Medieval Longhouse**, found in rural areas, and the **Medieval Townhouse**, found in urban areas, housed a home, workshop, and either a barn or merchant space under one roof.

The **Machiya**, a traditional Japanese wooden urban structure, housed the living quarters and workplace of a Japanese merchant or craftsman. The front was covered by a lattice (Koshi) which could be removed to allow the storefront to open to the street. Opaque sliding doors (Shoji) found behind the Koshi were used to close the store to create a private room at night. Many of these structures are being restored today.

The “**Top-Shop**” model allowed for workshops at the top level of homes and living spaces below. Silk-weavers, watchmakers, and stocking-knitters often used these spaces as large windows brought in natural light that was necessary for their trades.

Functional zoning, introduced during the Industrial Revolution, designated specific residential, commercial, industrial zones, and

made the live/work model relatively obsolete. As a result, architects reimagined what these spaces could be, as seen in the below examples.

Ebenezer Howard's **Garden City** attempted to create healthy, sanitary, and pleasant living environments that provided a physical and mental refuge from the hardship of the workday.

**La Ville Radieuse** by Le Corbusier was a city designed around the idea of housing that allowed free circulation while providing much needed greenspaces.

The iconic **Unite d'Habitation** contained apartments, a shopping street, a daycare center, and a rooftop recreational space, providing residents with many amenities within a single building.

## APPENDIX B - TYPOLOGIES

### Spatial

Spatial typologies define the physical relationship between the live and work components. "Live with" models include single buildings with one entry where living and working happen in the same space. An example is the **Maison Verre** in Paris, where a gynecologist's office is located on the ground floor with the doctor's residence above. "Live adjacent" models include single buildings with two entrances to separate the living and working space. Le Corbusier's **Atelier d'Ozenfant** features the artist's apartment below, with a tall, light-filled studio above. "Live nearby" models separate live and work spaces within two buildings that are in close proximity. The **Eames House** in Los Angeles includes two free-standing double-height structures separated by a courtyard.

### Dominant Use

The three forms of dominant use include home dominated, work dominated, and equal status.

### Security/Access

In terms of privacy and security, there are three general scenarios – private, semi-public, and public. Private spaces are home dominated, as one needs to walk through the residential portion of the space to enter the work portion, often found in a home office setup. Semi-public spaces include an office space that is adjacent to the residence, but has a separate, secured entrance, allowing clients and employees to enter the workspace without the need of setting foot into the residential quarters. In the public typology, the entrance to the workspace is open to all, while the residential space is separate and secure, as seen in a storefront at the base of a rowhouse.



### **Skin/Presence**

These spaces may be hidden or exposed. When they are hidden, it is often not possible to tell whether the space has a live/work setup when looking at the exterior of the building. In the exposed version, the live/work space is celebrated and clearly distinguishable.

## **APPENDIX C - REGULATIONS**

Zoning regulations allow for three basic districts: residential, commercial, and manufacturing. Just as commercial and manufacturing uses are generally not allowed in residential districts, residential uses are not permitted in manufacturing districts. In cases where there is overlap, many restrictions apply. Commercial spaces may not be situated above residences, and fire separations are required between the two uses.

There are no national regulations for home-based businesses in the U.S. and codes between cities vary greatly. In California, Berkeley allows a mixed-use residential zone that permits certain types of small manufacturing on the same property as residences. Oakland has its own Live/Work building code, introduced in 1999.

In New York City, zoning amendments have been passed to allow for certain mixed-use spaces. In 1971, the “Joint Live-Work Quarters for Artists”, or JLWQA, permitted certified artists to reside in the manufacturing buildings of SoHo if the buildings were constructed before 1961. This greatly reshaped the neighborhood as it put into place the adaptive reuse of historic buildings. In 1982, the “Loft Law” was passed, protecting not only owners, but also tenants from eviction. In 1997, several mixed-use districts were introduced, allowing as-of-right existence of residential and commercial or industrial uses in the same building or in adjacent buildings. The “Home Occupation” allows home office use, however the number of employees as well as the professions permitted are limited.

## **APPENDIX D - CURRENT EXAMPLES**

Due to the century-long separation of live and work uses, few examples of this building type exist today. Of the few that do, not all meet the definitions of the live/work models we have discussed. Courtyard communities on the east coast, which house teacher residences and non-profit offices, offer both residential and commercial use, but not for the same occupants. Similarly, the live/work/play concept of many recent developments combines residences, offices, and recreation under one roof, without necessarily serving the same user.

A more appealing concept may therefore be the Flex Space (flexible workspace) – a building or a portion thereof that can be utilized either for living or working purposes. Examples include the Art Stable in Seattle by Olson Kundig, the Live-Work Home in Syracuse by Cookfox, and the Stock Orchard Street House in London by Sarah Wigglesworth. In the Art Stable we find a series of floor-through lofts that are zoned for residential and commercial use, allowing both to happen in one space. Similarly, the Live-Work Home adjusts its layout to the current needs of the user by means of removable partitions. The Stock Orchard Street House features an architect's office side-by-side with the residence. Here, both uses have separate entrances and are connected by a flex space that serves as conference room by day and a dining room in the evening.

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**Katz Architecture works as a partner to building managers, design professionals, and city agencies to ensure the ongoing integrity of our built environment."**

**NEXT STEPS**

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## About This Series

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**Throughout history, the built environment has transformed in response to the psychological and physical reactions to disease. Likewise, there is a long tradition in architecture of retrofitting buildings for health and hygiene.**

In New York City in 1832, a cholera outbreak attributed to the lack of clean water, killed 5,000 people over the course of three months. In response, five years later, work began on the Croton Aqueduct and a complex system to supply enough water for indoor plumbing - an unheard of luxury before that time.

America's first tuberculosis sanatorium opened in 1885 at Saranac Lake, in Upstate New York where patients were encouraged to sit in wide, glass-enclosed "cure porches" to take in natural light and fresh air. The idea of a sleeping porch or sunroom thus worked its way into the architectural vocabulary of residential buildings from that point forward.

In the days and weeks ahead, New York will face some very difficult challenges. Spaces that seemed adequate before the pandemic will no longer function properly. The building lobby, the office, the restaurant, the grocery store, the apartment, even our green spaces will all require more permanent measures of separation and cleanliness. All of this will need to be done with great speed and with severely limited budgets.

Katz Architecture focuses on the restoration, renovation, preservation, and maintenance of the physical environment. In that capacity, our services include feasibility studies, design, code and zoning consulting, team formation, filing and construction administration services. We have been in practice since 2002, and remain committed to the health, well being, and future of this city.

We continue to actively research the specific architectural implications of the COVID-19 pandemic and the potential new types of spaces and uses that will result from it. We view this as an extension of the work we have always been doing. As a firm, we remain firmly committed to finding order and creating light-filled, hygienic, and uplifting places for people to live, work, and play – and we continue to be ready for those challenges and opportunities.