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Collective project abstract and propositions

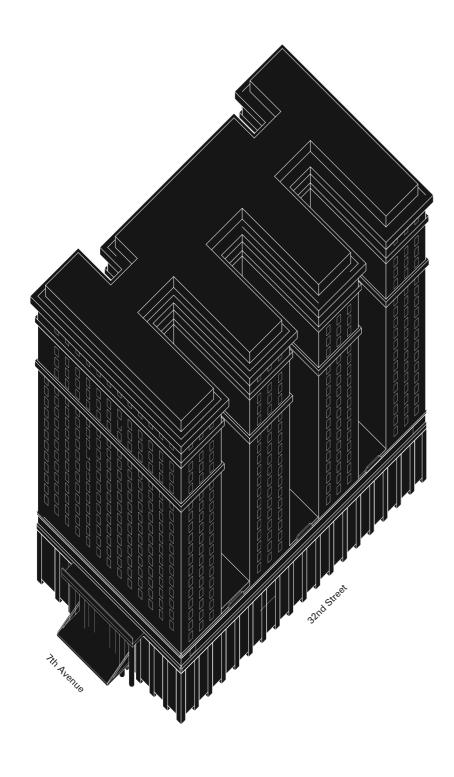
The Hotel is a collective project that studies the hotel, both as a building type and as a place of hospitality, through a collection of fourteen individual contributions inside one skyscraper. The project imagines hospitality as a realm of exchange that condenses the diversity of the city through an assortment of guests, staff, and the broader public.

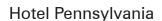
The hotel is a function of temporality and hospitality. The study questions the requirements for an architecture of hospitality to welcome, host, and entertain. As an architecture of temporality—an architecture that is dynamic and ever-changing, embodying a sense of transience and constant activity—the hotel allows for experimentation, while anticipating adaptation to meet the changing demands of its temporary residents. The hotel, as type, is understood beyond its curated front. It is, instead, a place of anonymity and exchange, of served and serving, a place characterized by short stays in a lasting structure.

The skyscraper, as a formal and monumental object, appears to contrast the hotel's temporality. In its autonomy, the skyscraper is a landmark in the skyline. Located in Midtown Manhattan—on the former site of Hotel Pennsylvania and adjacent to Penn Station—this project is a reflection on the metropolis of New York City.

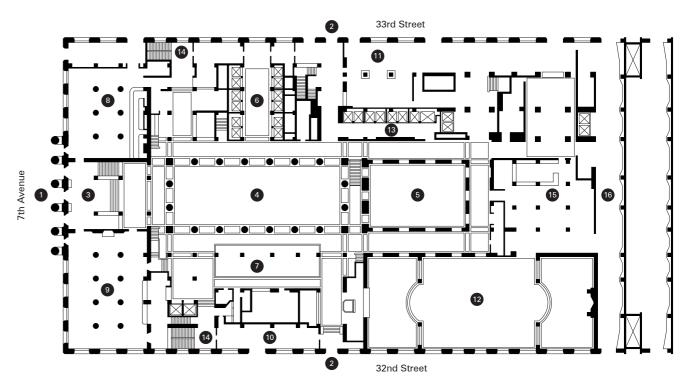
The Hotel consists of the design of the skyscraper as landmark—The Metropolitan—and the hotel as tenant—One Hotel.

- 1. *The Hotel* embraces the frenetic energy of New York City while opposing its outward expansion.
- 2. The Metropolitan will outlast One Hotel.
- 3. One Hotel accommodates fourteen types of guests, and its staff.
- 4. One Hotel shares accommodation, amenities, systems, and services with a 24/7 cycle.
- 5. *The Hotel* sets a standard for an architecture of hospitality.

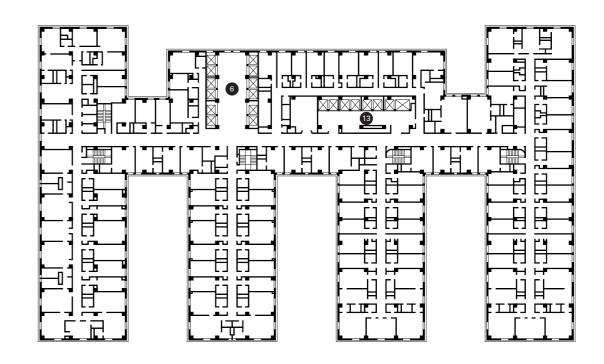




Hotel Pennsylvania was designed by the renowned firm of McKim, Mead & White. Consisting of 2,200 guest rooms over twenty-two floors, it was the largest hotel in the world at the time. Facing Seventh Avenue—and Pennsylvania Station—a portico greeted guests and led into the building through a sequence of spaces culminating in the hotel's lobby.



Ground Floor



Typical Accommodation Floor

1. Main entrance

2. Secondary entrances

3. Entrance vestibule

4. Lobby

5. Palm room 6. Guest elevators

7. Office 8. Soda room 14. Subway entrance

16. Service driveway

9

15. Pantry

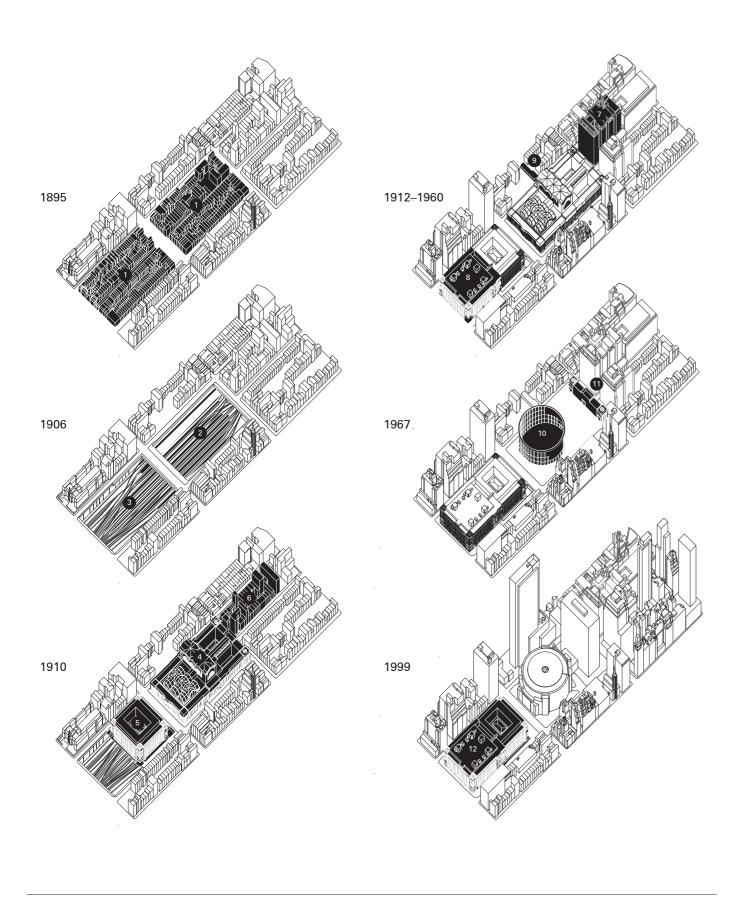
9. Mens' café

10. Shop

11. Drug store

12. Dining room

13. Service elevators



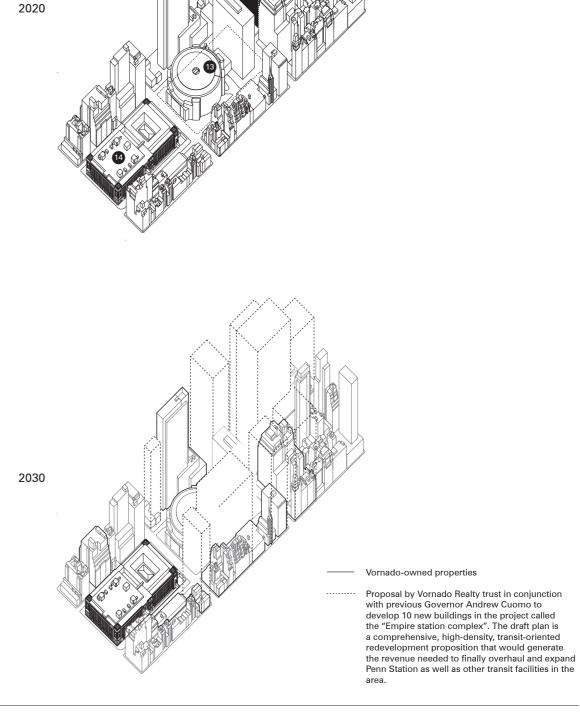
## Pennsylvania Station

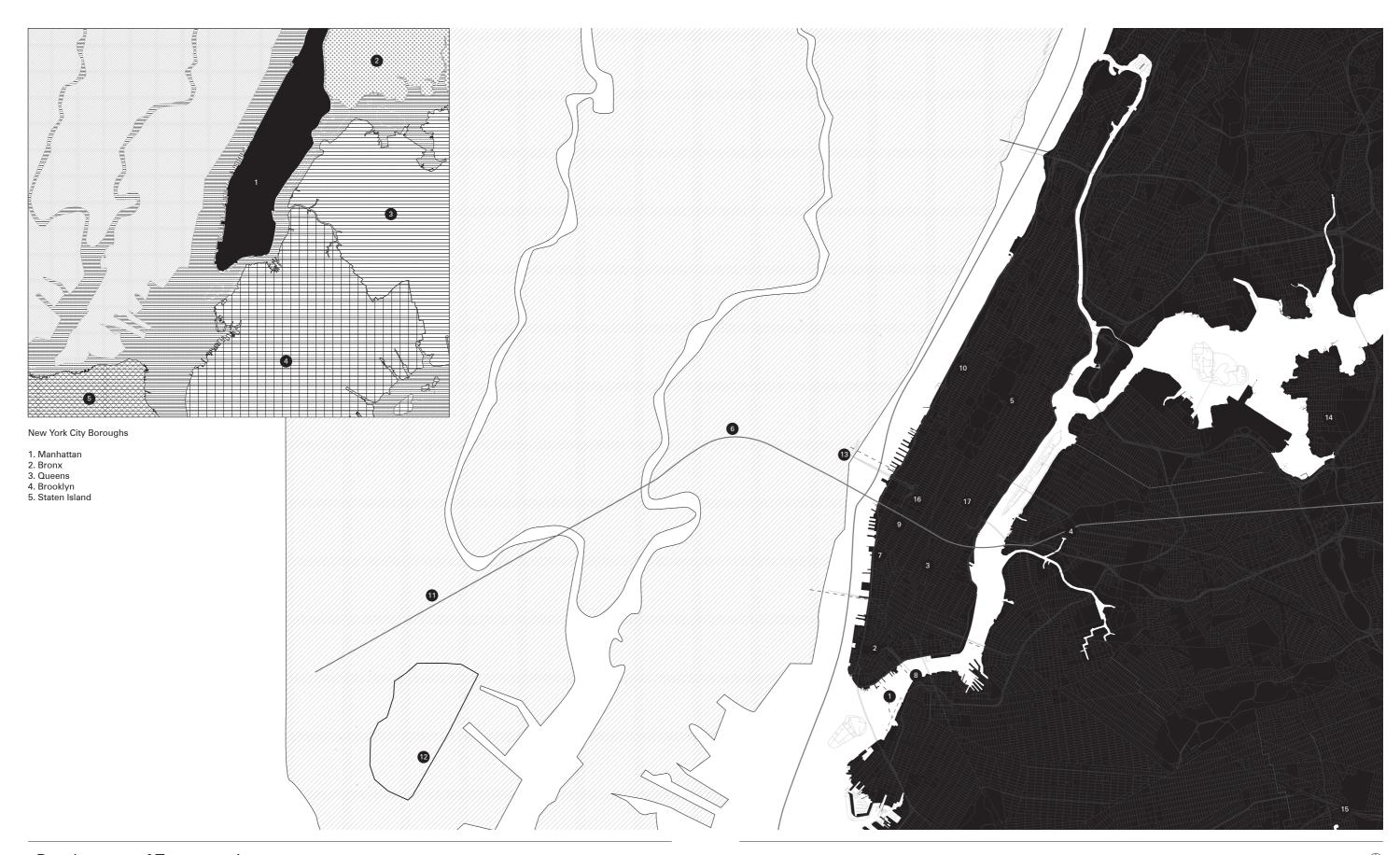
- 1. Pennsylvania Station stood on the former Tenderloin neighborhood, a lively district from 20th to 53rd Streets, Fifth to Seventh Avenues, evolving from the adjacent theater and hotel hub. 2. In 1901, the Pennsylvania Railroad unveiled a \$150 million plan to electrify and expand, connecting Pennsylvania and Long Island Railroads
- to Manhattan.
- 3. Pennsylvania Railroad tunnels span Manhattan
- and link Long Island Railroad at Hunter's Point. 4. Opened in 1910, the original Pennsylvania Station, with North River Tunnels, was a Beaux Arts masterpiece by McKim, Mead & White, spanning West 31st to West 33rd Streets.
- 5. During Penn Station's planning, the Pennsylvania Railroad proposed a nearby post office on 8th avenue for the United States Post Office
- 6. Six years after the opening of the station, PRR proposed a \$9 million, 1,000-room hotel on Seventh Avenue by McKim, Mead & White: Hotel Pennsylvania.
- 7. On January 25, 1919, the Hotel Pennsylvania was officially dedicated. With 2,200 rooms and baths, it claimed the title of the world's largest hotel. 8. The expansion of the Post Office Department was handled by McKim, Mead & White and
- occurred between 1932 and 1934. 9. In 1935, a new bus terminal opened, adding to the area's importance as the city's main transportation hub.
- 10. Madison Square Garden Corporation replaced Pennsylvania Station with a sports complex, citing benefits like tax revenues and construction boost. 11. The old structure was leveled but continued to operate underground as the Garden's skeleton rose

- 12. The expansion of Pennsylvania station into the Farley building begins, adding three underground levels along with the redesign of the first floor. 13. Today, Pennsylvania station functions below Madison square garden sports arena and Penn Plaza.
- 14. Moynihan Train Hall is an expansion of Pennsylvania Station, in the former post office

building, the James A. Farley Building. 15. Hotel Pennsylvania was demolished and in the now vacant plot, 15 Penn Plaza, also known as PENN15 and Vornado Tower, has been planned to be constructed by Vornado Realty Trust.

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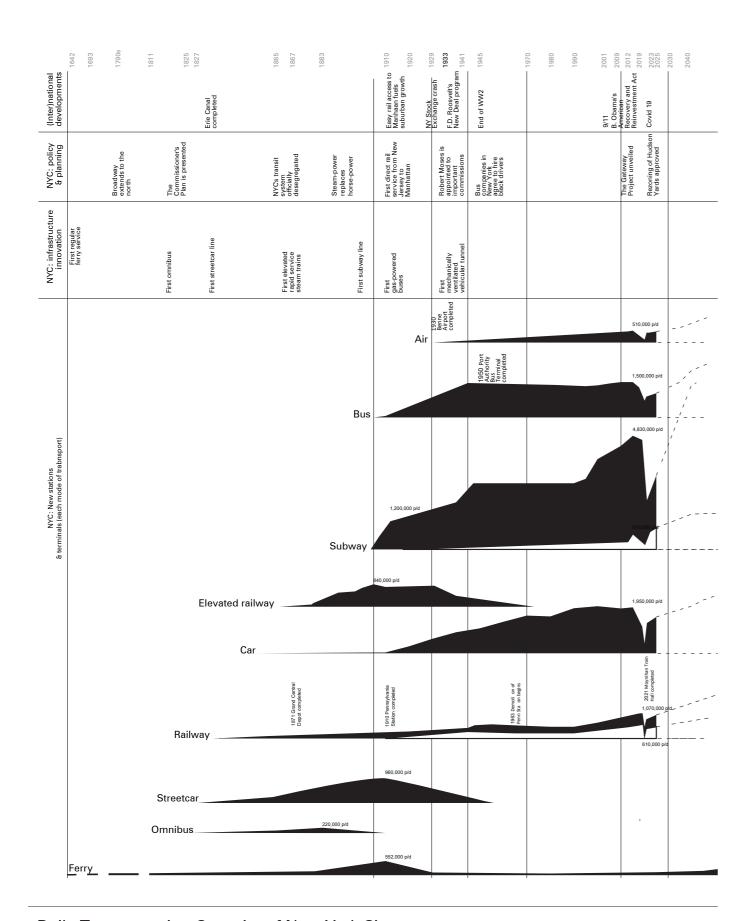


# **Development of Transportation**

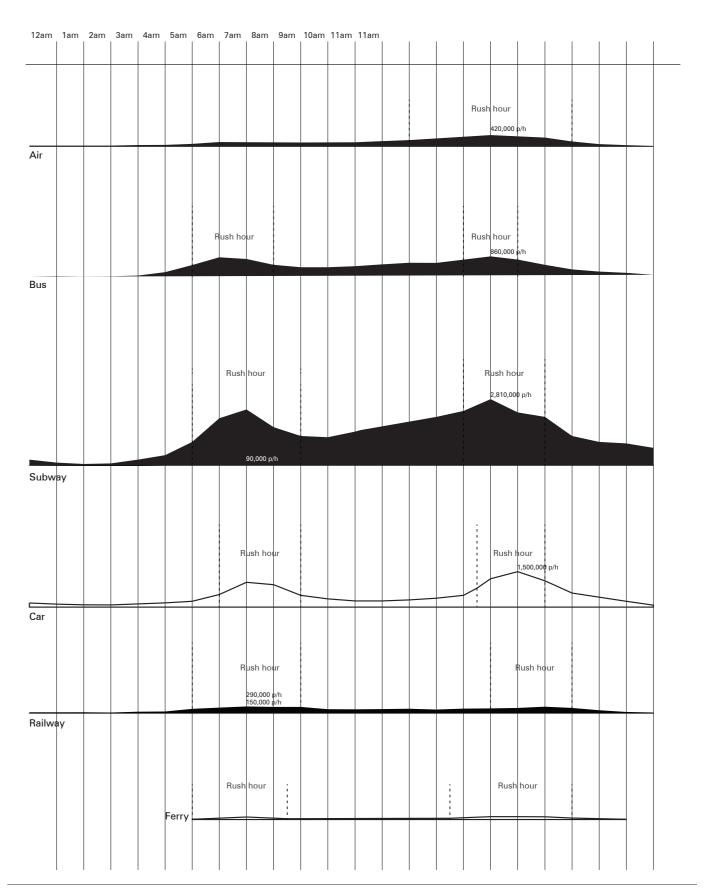
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As the city expanded, the development of efficient modes of transport has allowed more people to cross greater distances more frequently across the densely knit island of Manhattan.

- 1. First regular ferry service starts in 1642
- 2. Broadway extends North in 1790s
- 3. First streetcar line opens in 1832
- 4. Railroad line to the East opens in 1850s
- 5. Railroad line to the North opens in 1850s
- 6. Railroad line to the West opens in 1850s
- 7. First elevated railroad opens in 1871
- 8. Brooklyn Bridge opens in 1883
- 9. Construction of Penn Station begins in 1903
- 10. First subway line opens in 1905
- 11. Hudson tunnels and Penn Station open in
- 1910 12. Newark Liberty Airport opens in 1928
- 13. Lincoln Tunnel opens in 1938
- 14. La Guardia Airfield opens in 1939 15. Idlewild International Airport -later renamed
- John F. Kennedy Airport- opens in 1948 16. Port Authority Bus Terminal opens in 1950
- 17. Grand Central Depot opens in 1971

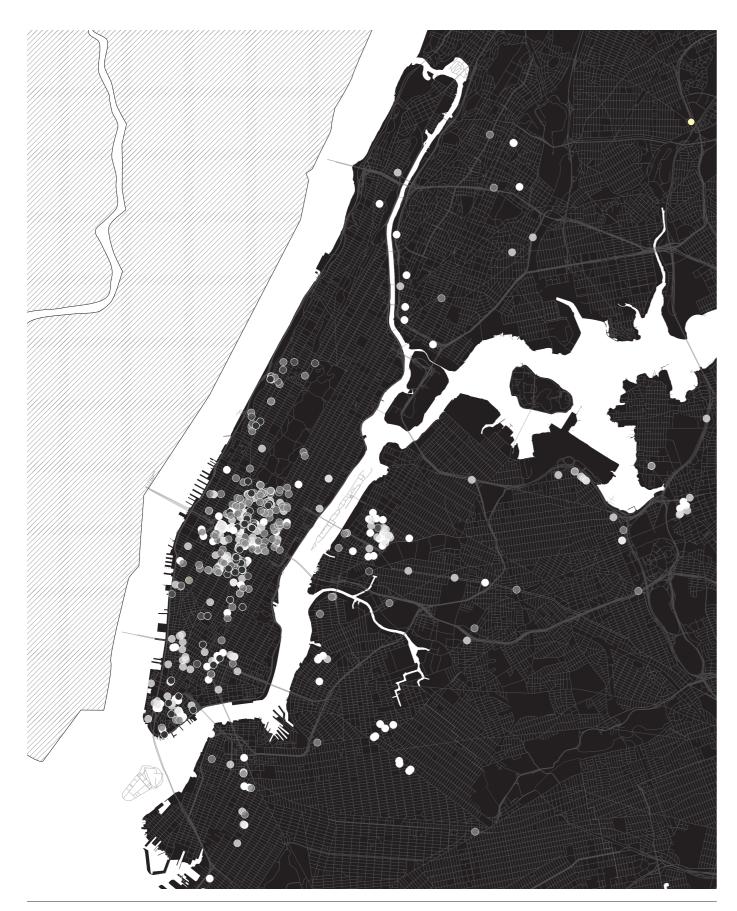


Daily Transportation Capacity of New York City



15

**Peak Operating Hours** 



Development of Accommodation and Lodging

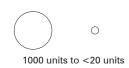
Historically, hotels were concentrated in Midtown Manhattan where most of the city's attractions were located.

Hotels by year of opening



Around 90% of public housing developments in New York City are situated within low-income neighborhoods, with about 21% found in areas undergoing gentrification.



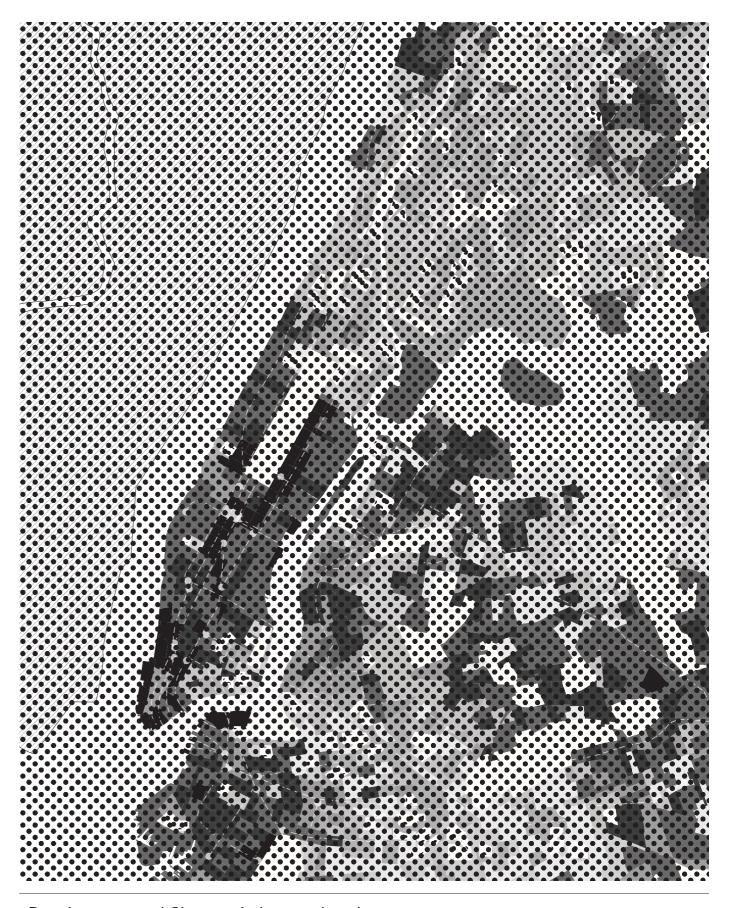




# **Development of Office Density**

The majority of office buildings are in Midtown and Downtown Manhattan, with some smaller clusters in Brooklyn and Queens. Today, there are almost 9 million square meters of vacant office spaces in the city.

Office buildings



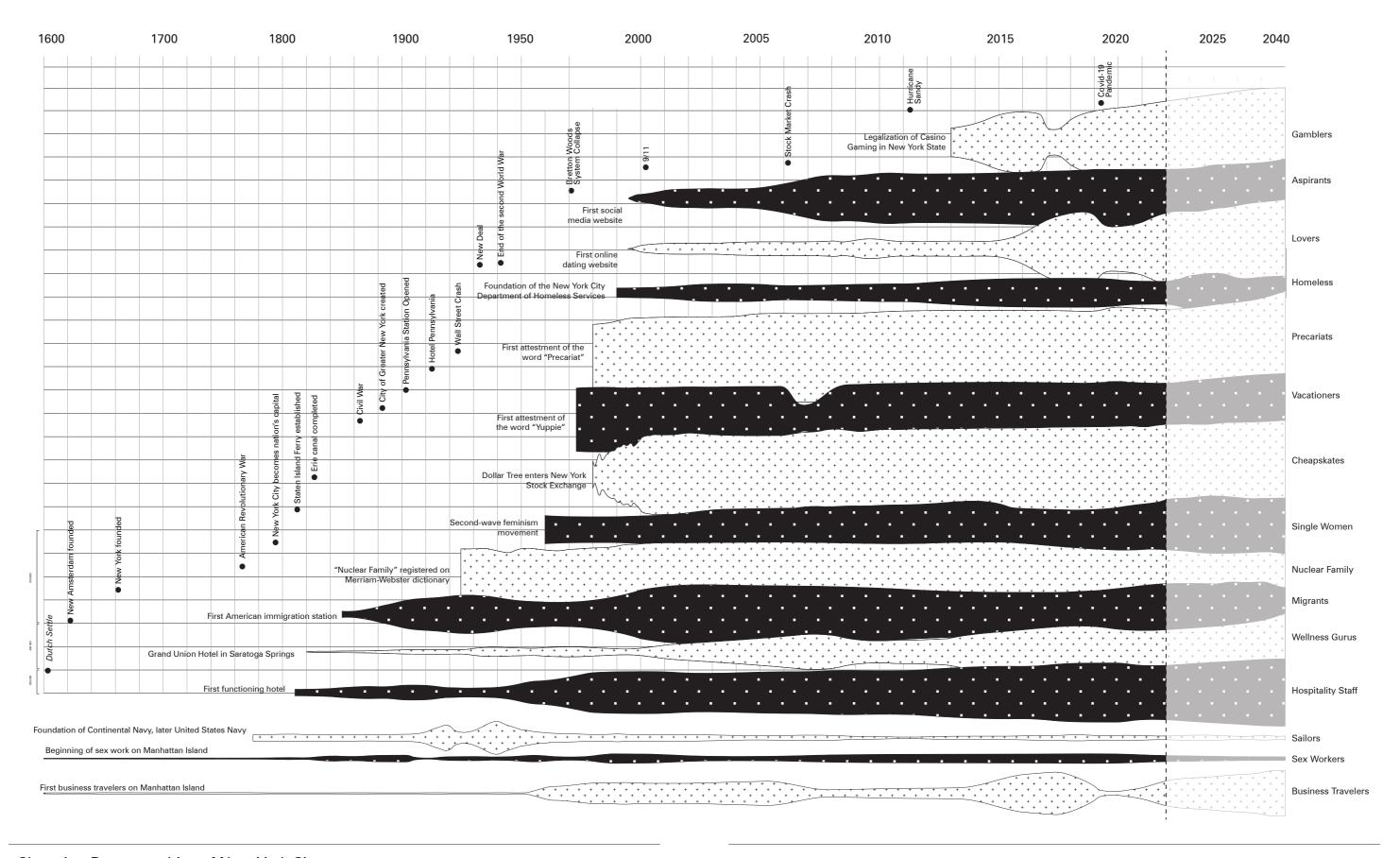
# **Development and Changes in Income Levels**

Manhattan is one of the most expensive places to live, with an average of \$15,000—or EUR 14,000—per square meter. In the 515 census tracts of New York City today, 23% are situated in neighborhoods undergoing gentrification, while an additional 30% are in areas considered at risk of gentrification.

Degree of gentrification based on area median income

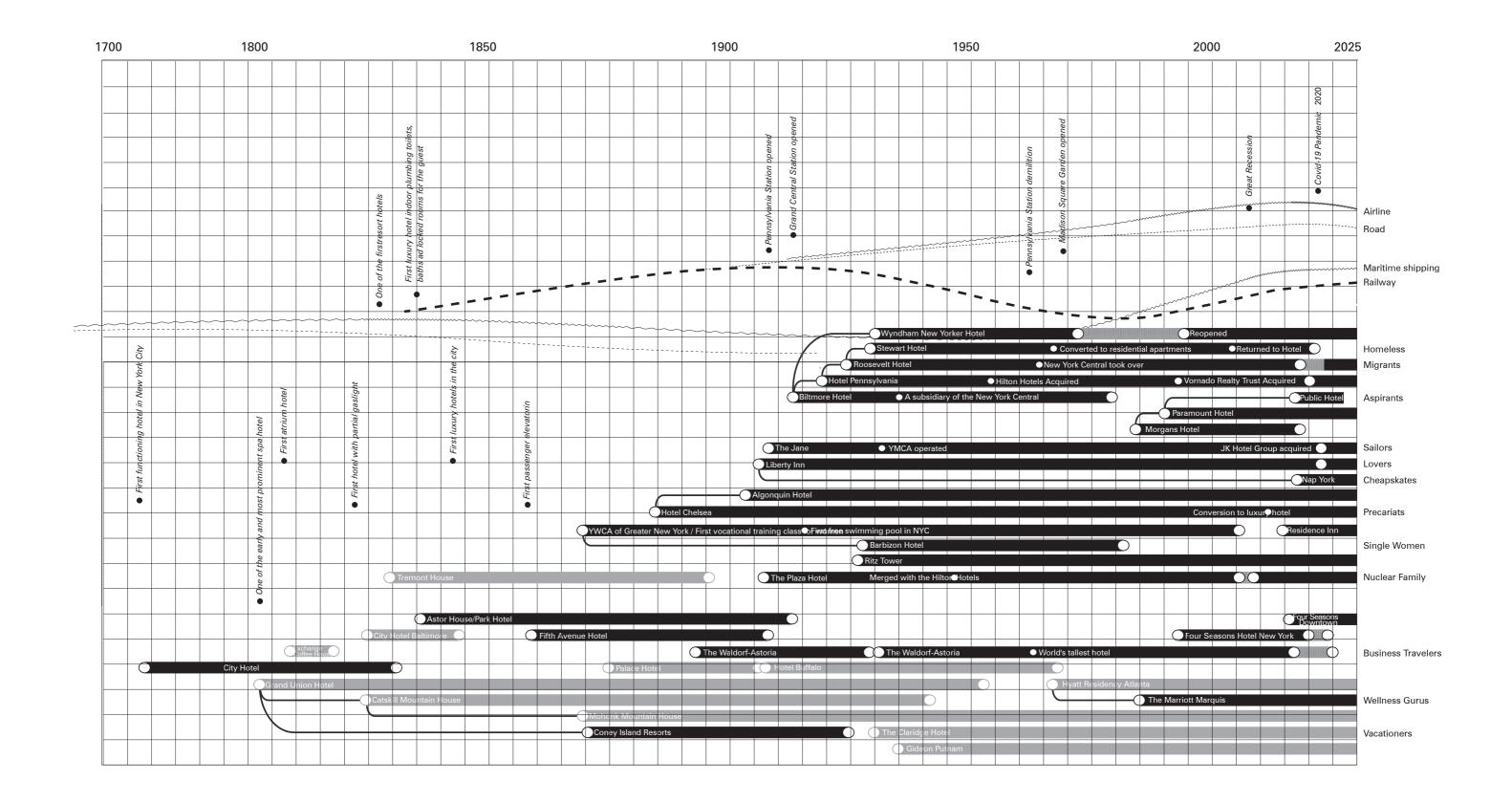
Current public housing stock

···· Metro lines



## Changing Demographics of New York City

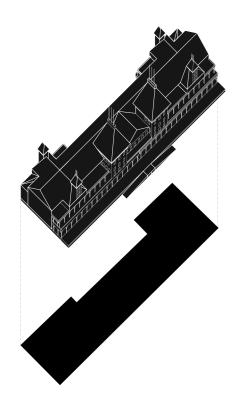
New York City has been the epicenter for immigration into the United States, especially from Europe, since the arrival of the Dutch in the seventeenth century. In recent times, various demographic groups have been introduced into the city's history, contributing to its diverse and dynamic tapestry. On top of this, as an economic and cultural center, New York hosts travelers for business and pleasure, welcoming many, along with their money.



### Hotel Development in New York City

The beginning of the hotel as a building type dates to the late eighteenth century in the United States as a result of trade and commerce, and the development of new modes of transportation. In the first half of the twentieth century, hotels became the epitome of modernity—centers of mobility, temporality, and anonymity. With the increasing ease of traveling, hotel types expanded to meet the needs of new customers.

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Brighton Beach Hotel opened in Coney Island in 1870, before it closed in 1924. The seaside resort was constructed near Manhattan, where it offered a place of residence and seclusion of 400 keys, while providing its guests with a highend amenity program.



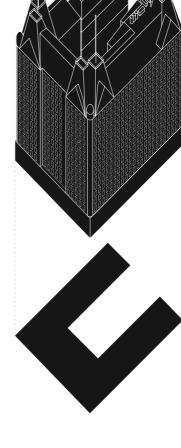
Hotel Chelsea 1884– Rooms: 250 Floors: 12 Case study for Precariats/Residential segment

The Hotel Chelsea opened in 1884. As one of the city's first private apartment cooperatives, it housed 250 keys before its renovation and reopening in 2022.



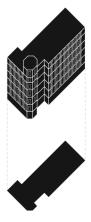
Liberty Inn 1906–2022 Rooms: 17 Floors: 3 Case study for Lovers/ Day segment

Built in 1906 by poultry wholesalers as the Strand Hotel, it was an old remnant of the Meatpacking District with a saloon on the ground floor that catered to sailors. It got its name in 1969, when it functioned as an afterhours sex club, shut down short after due to the AIDS scare. It continued to operate as an hourly hotel until 2022 when it was sold to Hyundai.



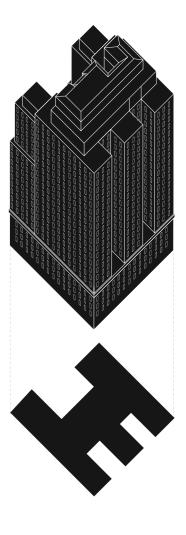
The Plaza 1907– Rooms: 463 Floors:18 Case study for Nuclear Family/Family segment

The luxurious hotel opened its doors in 1907 in Midtown Manhattan, next to Central Park. It continues to operate, offering a total of 463 keys, some of which are used as residences. Among the various room types, it offers a spacious family room. The hotel has often appeared in many movies, in which the main protagonist, a child, lived at The Plaza.



The Jane 1908– Rooms: 200 Floors: 6 Case study for Sailors/ Sailors' Boarding House segment

The Jane, a historic Sailors' Boarding House containing 200 rooms and cabins, opened in West Village in 1908 as the American Seaman's Friend Society Sailors' Home and Institute. It continues to offer accommodations to this day, now transformed into a boutique hotel with a maritime theme and vintage feel.

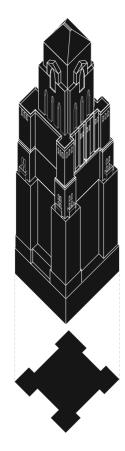


Roosevelt Hotel 1924– Rooms: 1025 Floors:19 Case study for Migrants/Migrant segment

The Roosevelt Hotel opened in Midtown Manhattan in 1924, with 1025 rooms. After its closure in 2020 due to the economic downturn of the covid pandemic, it reopened in 2023 as a shelter for asylum seekers.

#### Fourteen Case Studies

Hotels evolved to meet varying guest needs, resulting in a diversification of hotel types. Fourteen case studies from different time periods, all in New York City and each a different hotel type, are analized in their diverse spatial and functional characteristics, as well as in their relation to a specific guest.

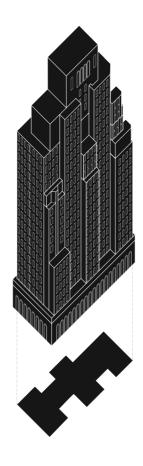




The Elk Hotel is a relic of Times Square's grungy past. It closed its doors in 2012, after almost a century of offering cheap short- and long-term accommodation to its guests.

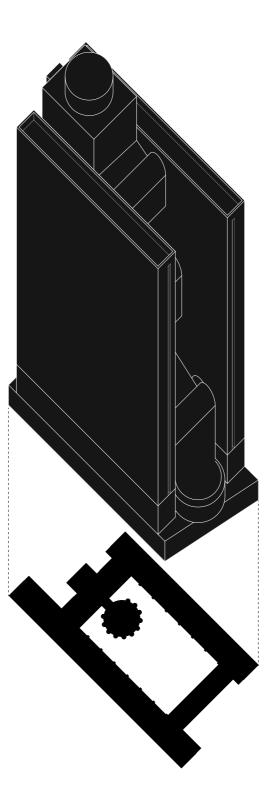


The Barbizon opened in Lenox Hill in 1927, housing 372 keys for women only. Before its renovation in 1981, it was a womenonly residential hotel, with a broad range of amenities to support women in all their needs.

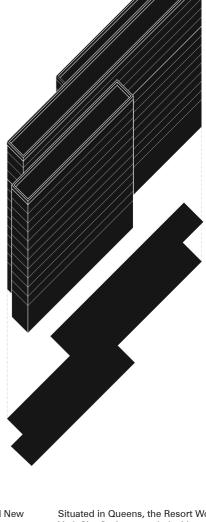


Stewart Hotel 1929– Rooms: 610 Floors: 28 Case study for Homeless/Homeless segment

The Stewart Hotel opened in Midtown in 1929. After several ownership changes, the hotel was converted in 2022 as a shelter for the homeless and/or asylum seekers with a total of 610 keys. Its primary focus is to provide care and compassion.



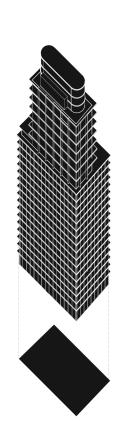
Marriott Marquis 1985– Rooms: 2023 Floors: 49 Case study for Business Travelers/Chain segment



Resorts World New York City 2012– Rooms: 400 Floors: 12 Case study for Gamblers/Casino segment Situated in Queens, the Resort World New York City Casino, coupled with an on-site Hyatt Regency hotel, operates as a racino. The distinction between a casino license and the current gaming infrastructure in the city lies in the authorization to offer table games such as poker or blackjack.

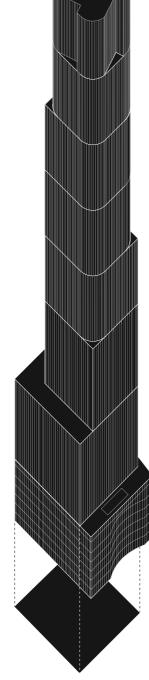
The Mariott Marquis, opened its doors on Broadway in 1985. With almost 2000 rooms, and over 100,000 m2 of convention spaces, it is

one of the biggest hotels in New York City.



Public Hotel 2017-Rooms: 367 Floors: 28 Case study for Aspirants/Boutique segment

The Public opened in Bowery in 2017 as part of lan Schragers' latest boutique hotel chain. Consisting of 367 keys, its aim is to make luxury accessible to all through comfortable accommodations and an extensive ray of private and public amenities.



Equinox Hotel 2019– Rooms: 212 Floors: 14 Case study for Wellness Gurus/Wellness Spa segment

The Equinox Hotel opened in Hudson Yards in 2019: a spa hotel launched by the Equinox fitness chain, comprising 212 keys and amenities focussed on fitness, relaxation, culture, and community. Office spaces and luxury housing are located at the bottom and top of the tower, respectively.

Nap York Central Park

Case study for Cheapskates/Capsule

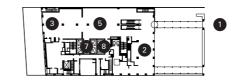
from the hustle of the city.

Nap York is a sleep station that offers sleeping

pods by the hour. It provides a tranquil environment for individuals seeking a brief rest

Rooms: 30 Floors: 3

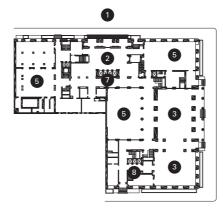
segment





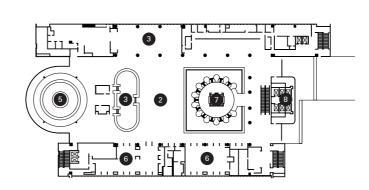
Public Hotel Rooms: 367

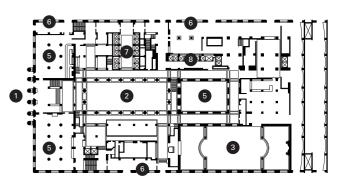
The Barbizon Rooms: 372



The Plaza Rooms: 463

Roosevelt Hotel Rooms: 1125





Marriott Marquis Rooms per floor: 2023 Hotel Pennsylvania Rooms per floor: 2200

#### **Entrance Floor**

As temporary accommodations, all hotels function according to the same fundamental principles: Guests are welcomed, guided to the entrance, and greeted at reception or check-in kiosk, receiving keys for access. After guests check in, they navigate to their accommodations and use a variety of amenities during their stay.



- 1. Street entrance
- 2. Lobby 3. Restaurant/Dining
- 4. Kitchen
- 5. Café/Bar/Lounge
- 6. Retail

7. Guest elevators 8. Service elevators

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Liberty Inn Rooms per floor: 6

Hotel Chelsea Rooms per floor: 11



Equinox Hotel Rooms per floor: 18



Public Hotel Rooms per floor: 29



The Jane

4 m2

1.8 x 2.4 m

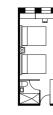
Elk Hotel 1.2 x 4 m 4.8 m2



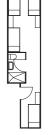
The Barbizon Public Hotel 2.8 x 3.6 m 3 x 6.5 m 10 m2 18 m2



Liberty Inn 3.4 x 6.5 m 22 m2



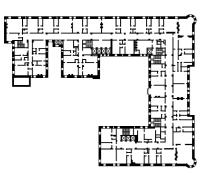
Stewart Hotel 3.2 x 7.5 m 24 m2



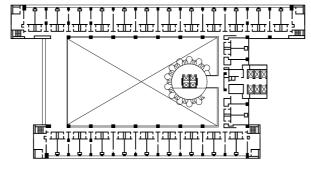
Nap York 2.7 x 11.5 m 27 m2



Roosevelt Hotel 4.2 x 9.6 m



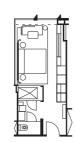
The Plaza Rooms per floor: 40



Marriott Marquis Rooms per floor: 50



Marriott Marquis 4.2 x 9.2 m 40 m2



tt Equinox Hotel is 4.2 x 10 m .2 m 42 m2



The Plaza 7.2 x 6.4 m 43 m2



Aria Rooms & Suits Las Vegas\* 5.2 x 9.6 m

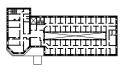


Four Seasons Orlando\* 4.5 x 12.5 m 55 m2

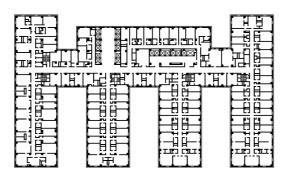


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Chelsea Hotel 8.4 x 7.8 m 74 m2



The Jane Rooms per floor: 59



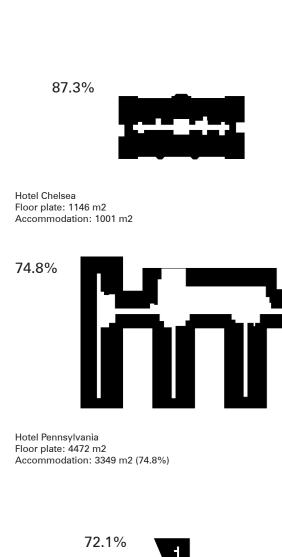
Hotel Pennsylvania Rooms per floor: 121



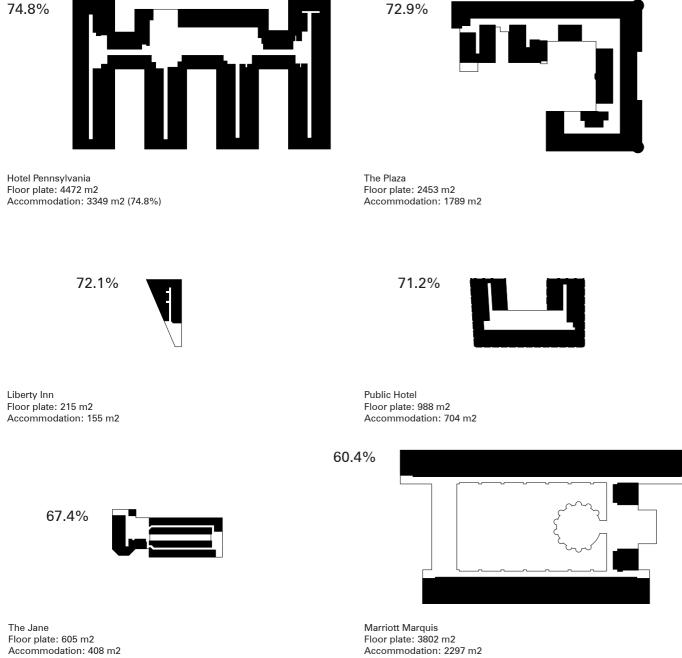


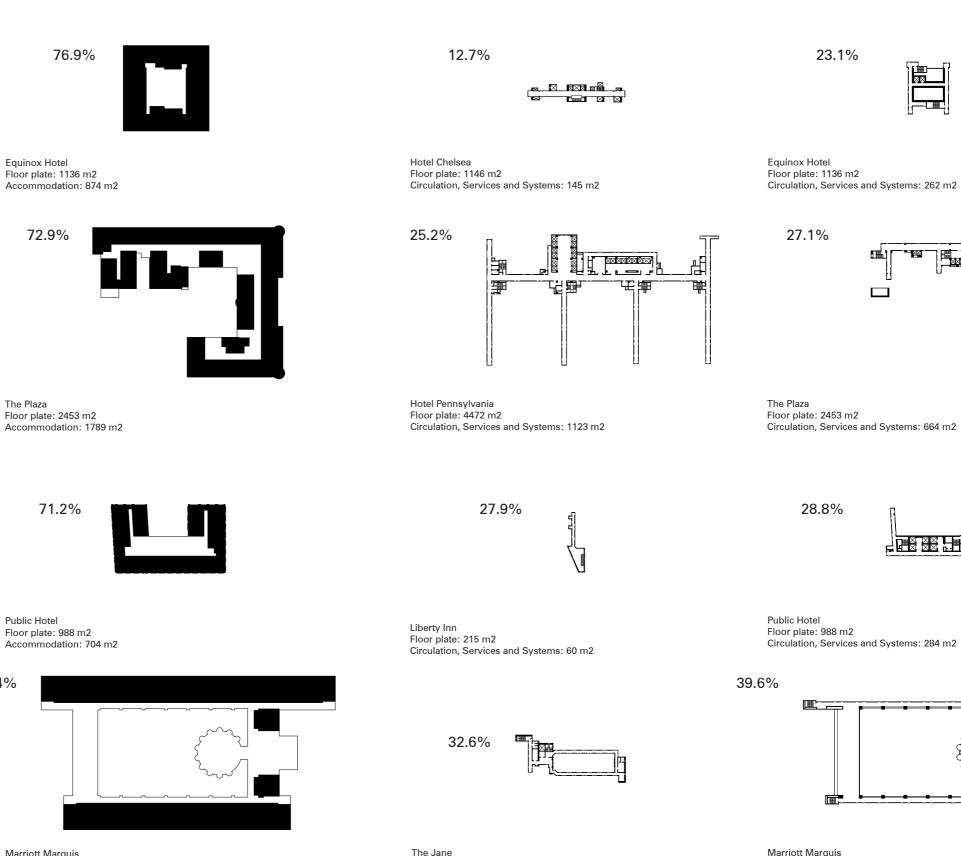
#### Fourteen Hotel Rooms

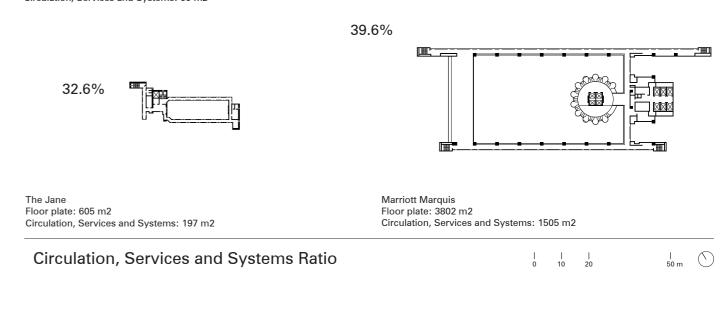
The characteristics of the hotel type and its targuet guest are reflected in the room's size, spatial configuration, furnishings and room amenities.



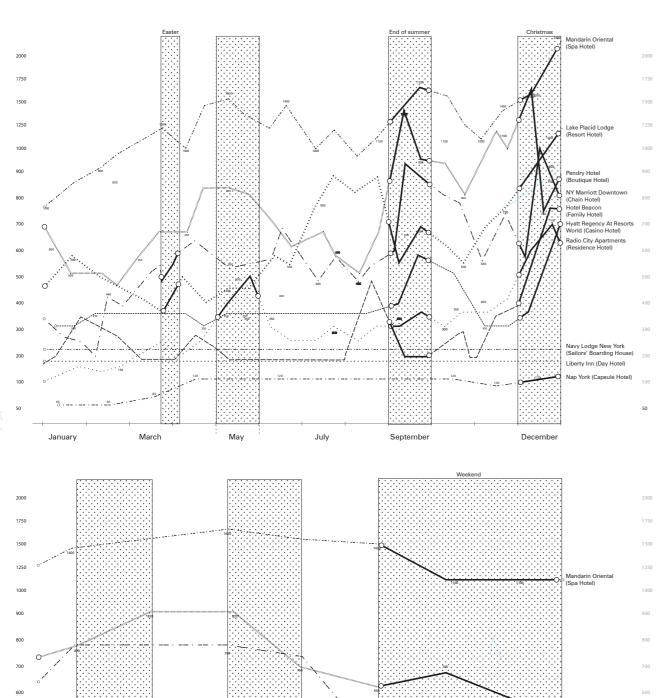
Accommodations Ratio

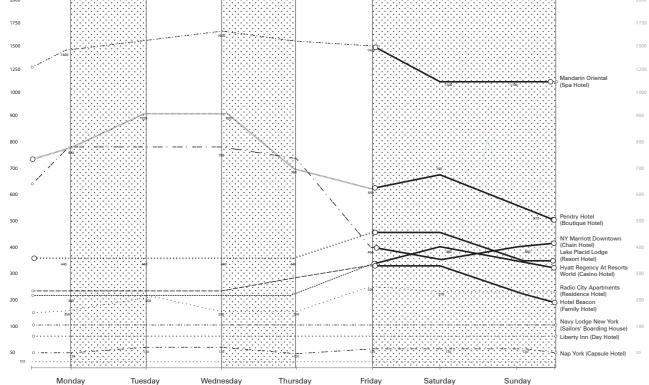






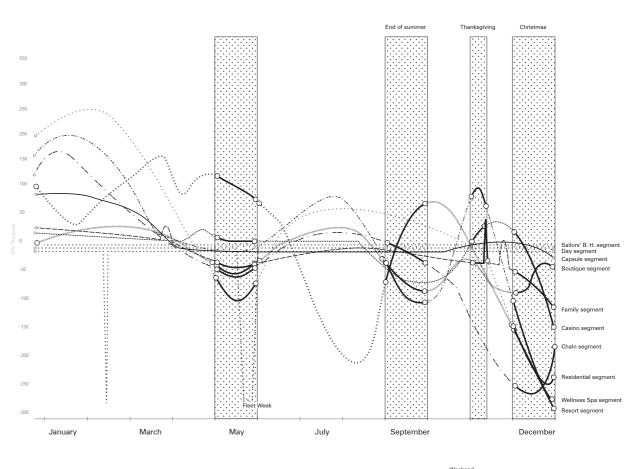
I 50 m

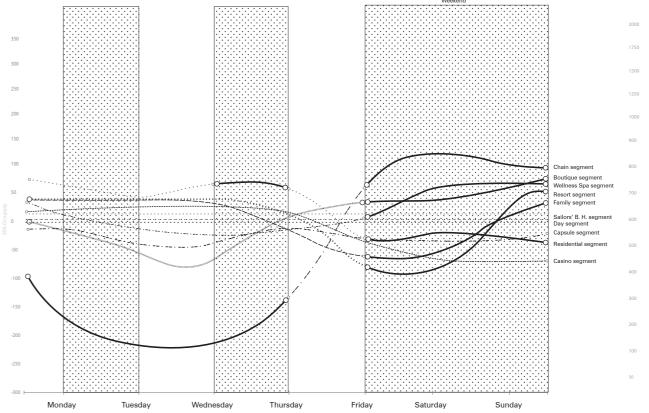




# Yearly/Weekly Hotel Prices per Type

These diagrams map the yearly and weekly hotel price fluctuations based on different hotel-type precedents.





# Projected Yearly/Weekly Room Availability per Type

A visualization of the projected occupancy and room availability of each hotel type throughout the year based on the size as a way to map potential seasonal occupancy compensations.

#### Skyscraper Museum

The Skyscraper Museum tour in NYC traced a timeline of significant skyscraper landmarks, spanning from the Landmarks Preservation Commission's inception in 1965 to the completion of the AT&T Building in 2018. Insight from the tour guides delved into city commission dynamics, exploring the impact of appointed mayors and diverse commissioner backgrounds. The evolution of landmark designations initially focused on Midtown and later downtown. Museum maps showcased designated skyscrapers, highlighting Manhattan schist's (bedrock) role and financial factors influencing locations.

A section spotlighted the Empire State Building's early 2000s restoration, addressing disrepair

and past modifications. Led by preservation architect Byran Linda Bell, the restoration, approved by the Landmarks Preservation Commission, involved replacing marble, restoring an Art Deco chandelier, and creating a new typeface. The guides pointed out the historical significance of the Bankers Trust Building, emphasizing the need for comprehensive designation reports to prevent loss to development. The AT&T Building, a 2018 landmark, exemplified adaptive preservation in a postmodern style.

Air rights and zoning emerged as crucial elements in NYC's preservation landscape, sparking public debates. The collaboration between the Landmarks Preservation Commission and building owners, fueled by federal historic preservation tax credits and tourism, played a pivotal role

in landmark decisions, underlining the intricate balance between preservation and development.

#### Skidmore, Owings & Merril

The meeting with the architecture firm began with a tour of the firm's 20th floor New York City office. The office values collaboration spaces, open areas, natural light, and acoustic solutions. The tour covered dedicated collaboration spaces, a double-height forum, material research, technology's role, flexible workspace usage, and overall comfort in the office environment.

Following the tour, a discussion on skyscrapers and hospitality took place, featuring two main projects. One project focused on a prominent super tall tower in Midtown, deemed a mega-project,

Saturday

documentation

The Barbizon

Four Seasons

The Ritz-Carlton

The Roosevelt

Hotel

Hotel

Sunday Monday Tuesday Site visit Remnants of Penn 7th Avenue and Station Museum 32nd Street and Tour with Justin demolition of Rivers Hotel Pennsylvania

Hotel Nap York Marriott Marguis Paramount Hotel

Vornado Realty Meeting with Barry Langer and Patrice Derrington

documentation: The Jane Liberty Inn

Archive visit New York City Municipal Library Skyscraper Tour, presentation and discussion

> Skidmore, Owings & Merrill (SOM) Tour, presentation and project

Wednesday

Guy Nordenson Associates Presentation and project discussion

Hotel documentation

Resort Worlds

Casino

Thursday

Columbia University Asset course on hospitality and real estate

> Hotel tour Equinox Hotel

Friday

documentation The Standard Hotel PUBLIC Hotel Hotel Chelsea The New Yorker Algonquin Hotel design and collaboration was emphasized, showcasing an office redesign project for health and wellness.

while the other highlighted low-

carbon skyscrapers. The impact

of the pandemic on workplace

The conversation delved into a research project centered on environmentally friendly, highperformance buildings. This included a manufacturing facility and research center dedicated to exploring low-carbon materials. Later, the focus turned to an indepth exploration of the Urban Sequoia project, aiming to design buildings that mimic trees and actively absorb carbon. The design featured an integrated construction approach, a concrete shell, a timber floor, and a cavity for air distribution to surpass netzero carbon emissions.

The presentation underscored the importance of flexibility in building design, incorporating technologies like solar glass, photovoltaics, and direct air capture for sustainability. The envisioned building network contributes to a forest-like system of structures for environmental benefits. The meeting concluded with a video presentation showcasing the Urban Sequoia project, addressing reduced embodied carbon, clean energy production, and an extended building lifespan.

#### **Guy Nordenson Associates**

The consultation with Guy Nordenson Associates aimed to gather expertise in designing the structure of a skyscraper featuring diverse hotel programs. The primary focus was on overcoming challenges related to core structure and fostering innovative design to shape a

distinctive communal space. The engineers emphasized

the resilience of reinforced masonry structures, spotlighting variations like cage-frame and skeleton frame constructions. The discourse also touched upon strategic material choices, including the use of timber with a height limit of 85 feet. Exploring the dichotomy between heavy and light structures, the conversation underscored the role of glass facades in light structures for optimal views. The engineers discussed the benefits of redundancy and reducing weight, proposing potential integration of masonry for infill or load-bearing functions, challenging conventional perceptions of skyscrapers as exclusively glass towers. Further discussions revolved around the relationship between structure and core, examining ad-hoc structures like the Seagram building and moment frames, alongside innovative concepts like outrigger trusses meeting the core. Superstructures were positioned as primary elements, complemented by adaptable and lighter secondary structures aligned with a Metabolism approach. Additional considerations included sitespecific factors such as bedrock presence, potential subway rails below, and the utilization of trusses for spanning tracks. The meeting concluded with insights into the significance of skylobbies, the flexibility of secondary structures, and considerations for spread footings contingent on-site conditions.

Remnants of Penn Station Tour

Justin Rivers, the enthusiastic tour guide, led a captivating

exploration of Penn Station, weaving personal anecdotes and historical insights. His roots in New York and a 25-year obsession with Penn Station, dating back to his Fordham University days, added a personal touch.

The two-hour tour delved into Penn Station's rich history, from its grand opening in 1910 to the controversial demolition and the subsequent construction of Moynihan Train Hall. Using images, Jason showcased the station's original grandeur, drawing parallels with Roman baths and European architecture. Exploring the station's layout, Rivers touched on challenges faced by non-vehicle travelers, navigating areas like Seventh Avenue. He detailed the original driveways, courtyards, and waiting rooms, which have long been replaced by retail and high-traffic concourses. The back area discussion covered baggage carousels, entryways, and historical lighting fixtures. Art installations, redevelopment plans, and controversial proposals were also addressed, emphasizing the significance of oftenoverlooked details.

Jason's narration extended beyond Penn Station to Hotel Pennsylvania, touching on its failed restoration plans and proposed redevelopment. He discussed the challenges of preserving historical landmarks, the potential relocation of Madison Square Garden, and the historical context of Gimbels Mall. Concluding with the latest Penn Station renderings, including art installations and the challenges faced during its original demolition, the tour provided an in-depth insight onto the complex history of renovation and development around Penn Station since the 1960s.

#### **Expert Conversations**

Ten-day schedule of fieldwork in New York City, along with summaries of conversations we had with experts from different fields.

Hotel visit

One Hotel

Hotel

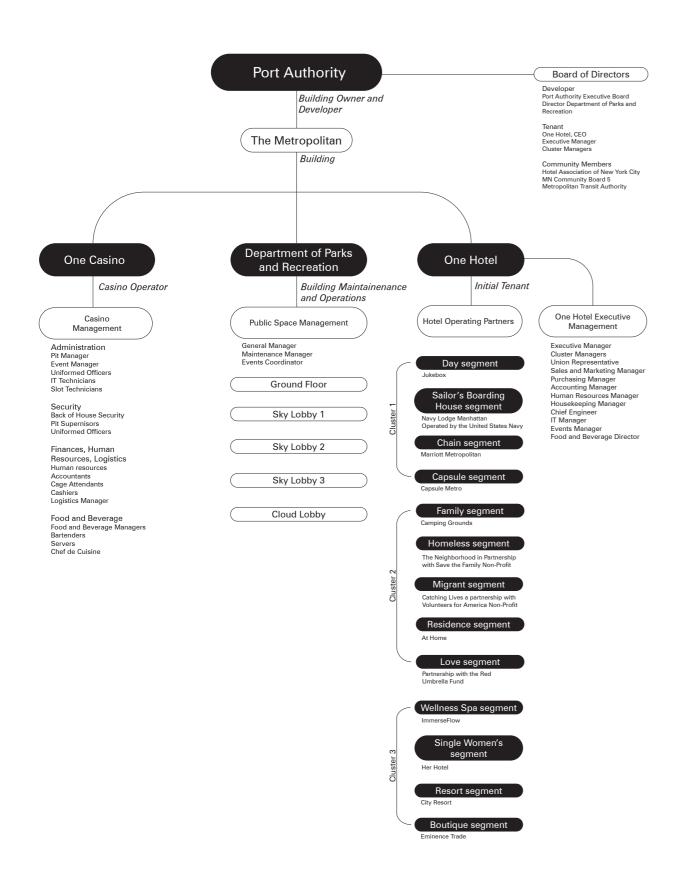
Brooklyn Bridge

documentation

Waldorf Astoria

Archive visit

New York City Municipal Library



A casino where gamblers are dealt a good time.

A boarding house that refreshes enlisted sailors.

A day hotel where lovers cross paths and share fleeting intimacies.

Capsules that treat cheapskates with a good deal.

A chain hotel that entices business travelers to extend their journey.

A family hotel that all members of the nuclear family can enjoy.

A homeless hotel that invests in children's better future.

A migrant hotel that shelters those on long-term relocation.

A residential hotel that is (almost) home to precariats on the move.

A love hotel where sex workers and customers can be intimate in a safe environment.

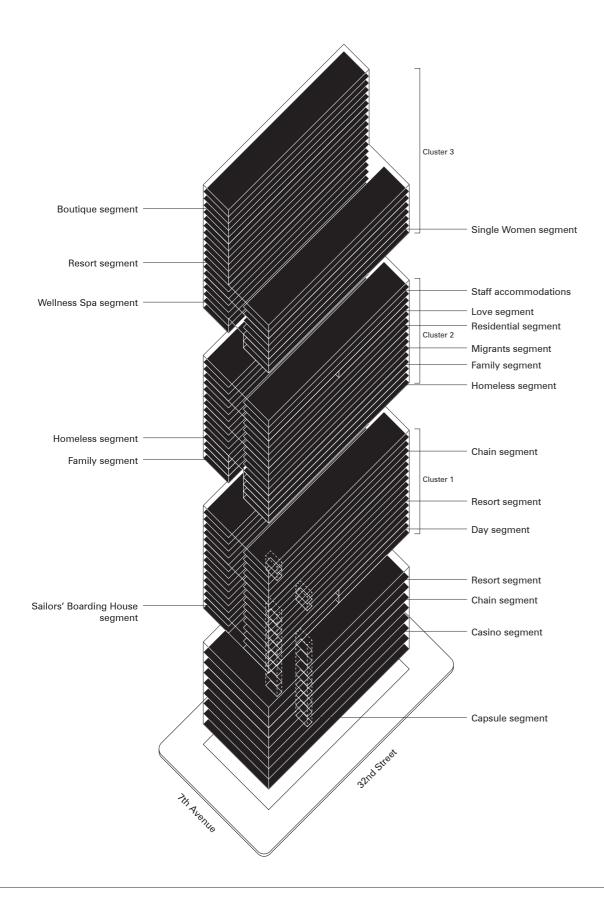
A wellness spa that blends sensory treatment with water-enhanced tranquility.

A resort that indulges vacationers in a manicured paradise.

A single women's hotel that supports women to live freely and confidently.

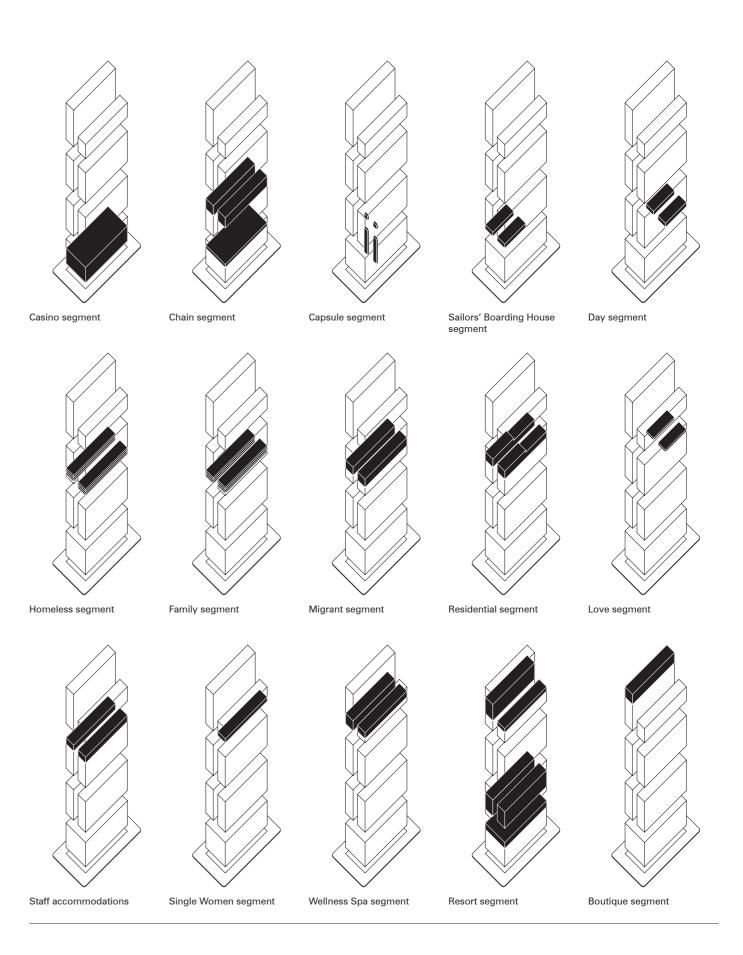
A boutique hotel that elevates aspirants' real life and online presence.

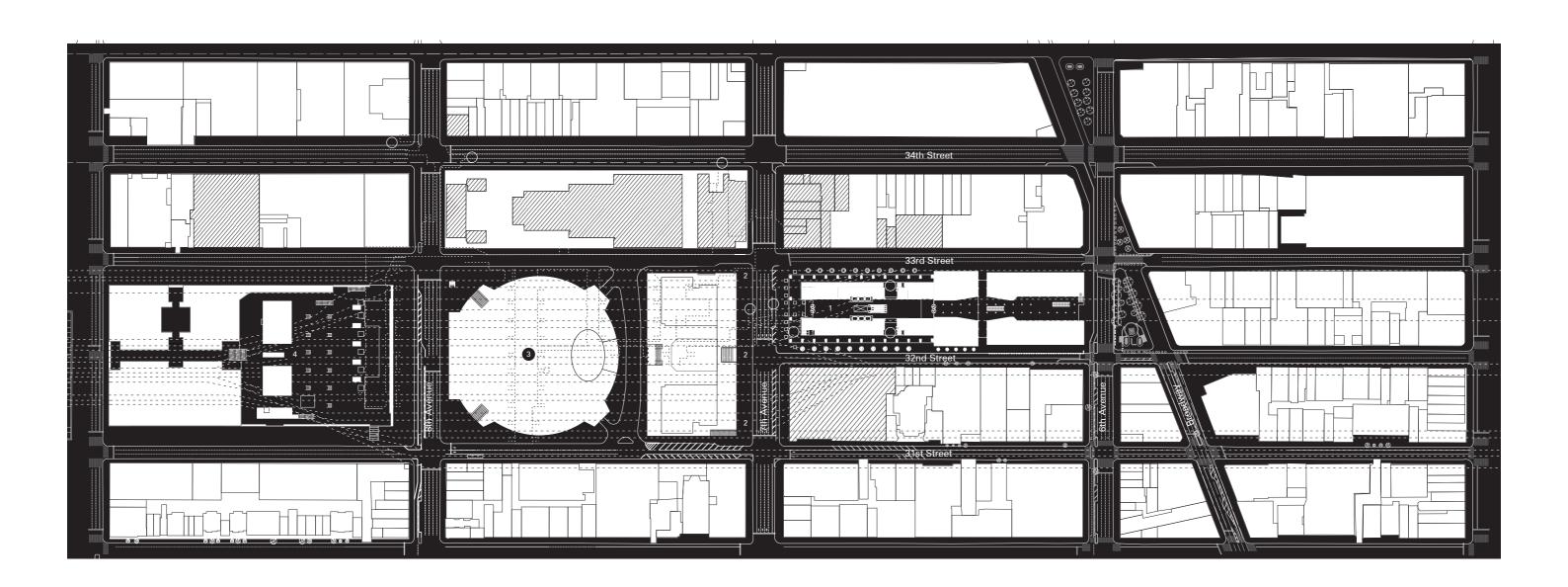
Hotel Ownership and Operation Diagram





The fourteen segments are arranged in clusters in the building. The first cluster has hotel accommodations and amenities intimately connected to the life of the city. The hotel types of the second cluster are associated with longer-stay accommodations and amenities. The accommodations in the third cluster are more private in nature. They are still connected to the city, but this connection occurs through views, rather than through the public invitation at the base of the building.





## Site Plan

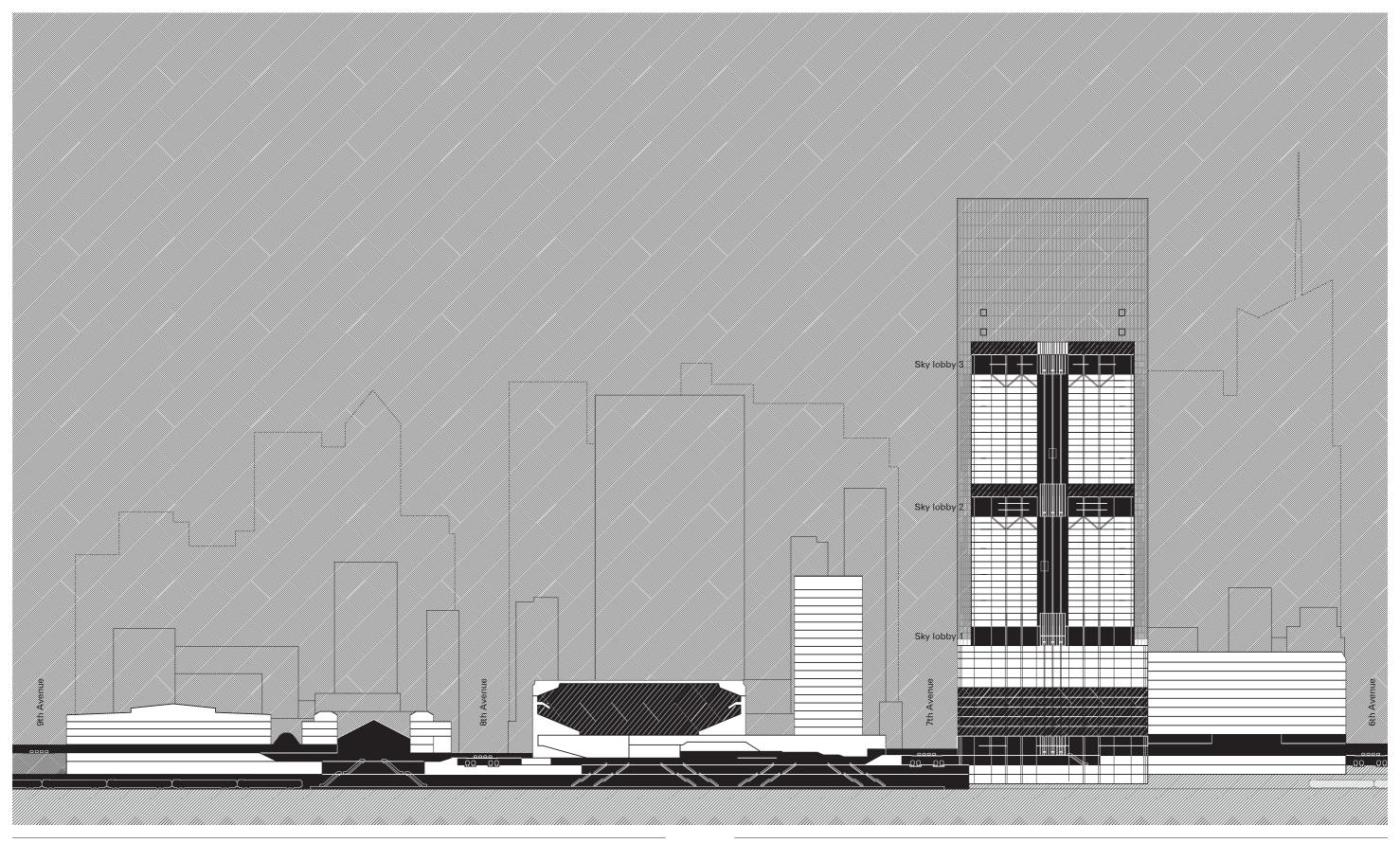
The Site of The Metropolitan is largely influenced by the Pennsylvania Station which runs below Madison Square Garden. The entrances to the station are at several points around the site thus leading to a complex underground network. The Moynihan Train Hall, redeveloped in 2020, is an above ground part of Pennsylvania Station and contributes to the commuter traffic. Besides the density of the site the details of ownership and real estate are important factors to note. The Vornado owned and development sites around The Metropolitan have a great influence on the design decisions that are taken for it. This would eventually modify the current nature of the site.



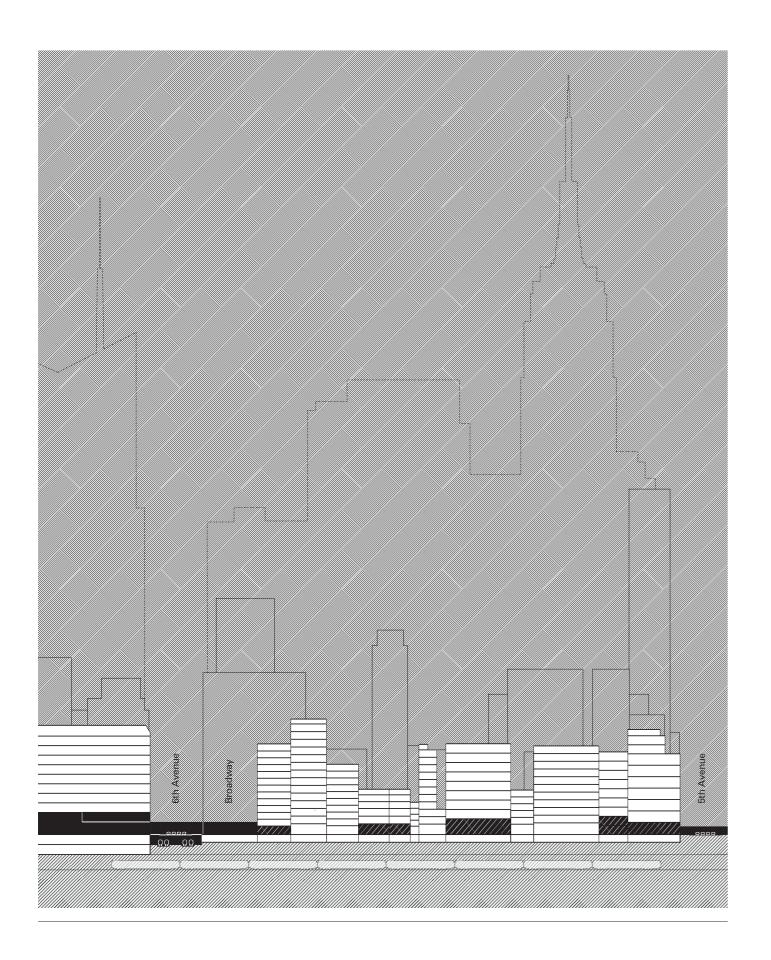
50

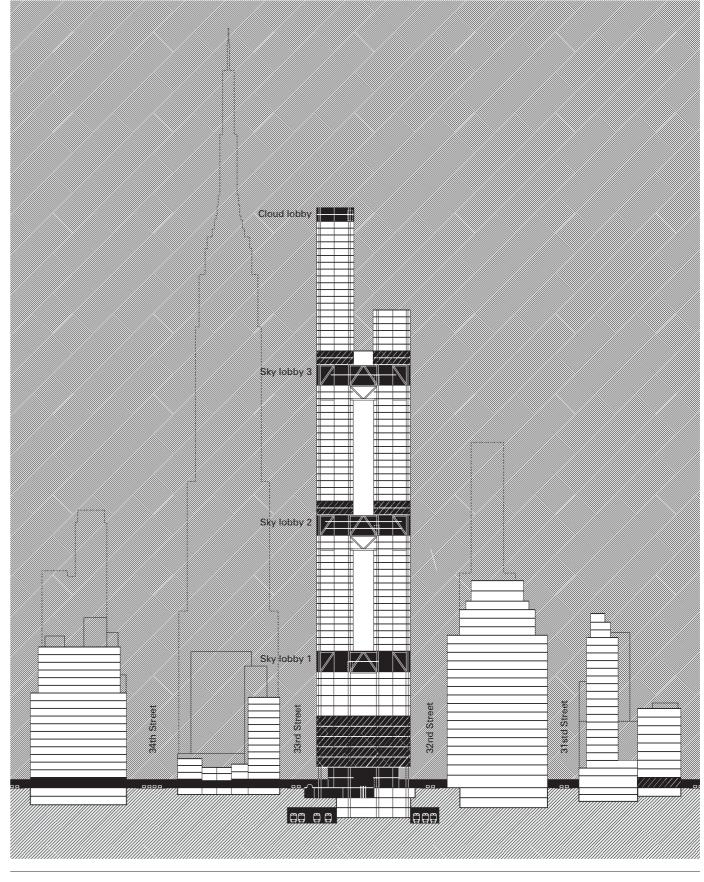
m ()

- The Metropolitan
   Access to Penn
- Station 3. Madison Square
- Garden
  4. Moynihan Train
  Hall
- Public space
  Subway exits
  Vornado property
- --- Penn Station tracks
  --- Lower level commute
- --- Lower level com

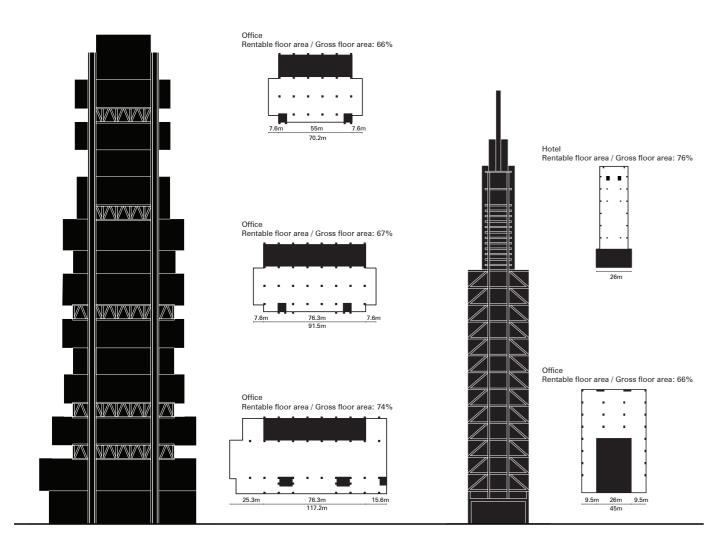


Context Section East-West





Context Section North-South



The peripheral core in PENN15 is designed to provide large office space to attract high-end tenants.

Off-set cores of different sizes at different heights in the Comcast Technology Centre give the office and hotel their own spatial flexibility.

Hotal
Rentable floor area / Gross floor area: 71%

Office
Rentable floor area / Gross floor area: 75%

Office
Rentable floor area / Gross floor area: 75%

Office
Rentable floor area / Gross floor area: 63%

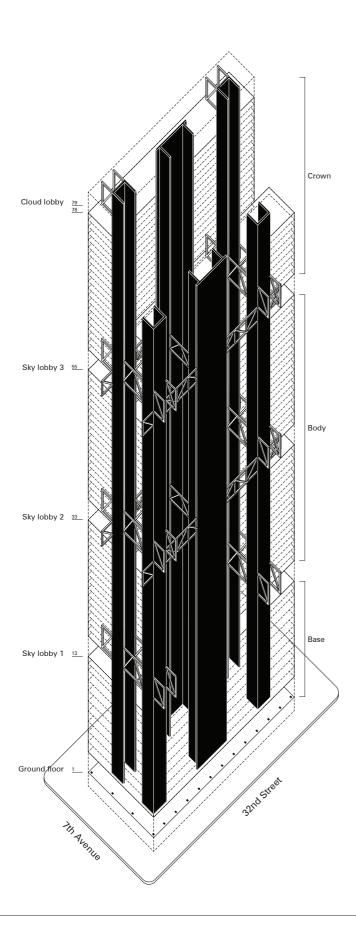
Office
Rentable floor area / Gross floor area: 63%

Office
Rentable floor area / Gross floor area: 63%

The decentralized cores of HSBC reduce the area ratio of the cores through a structural system enhanced by the association of multiple cores.

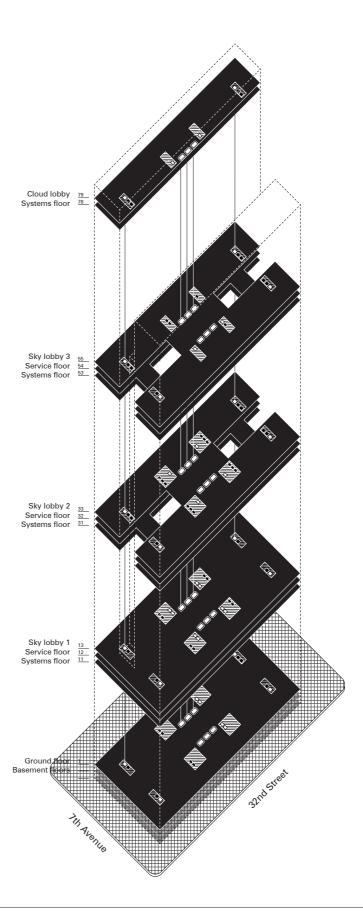
Kingkey 100 embodies the high potential of an outrigger structural system, and the core shrinks with increasing height and splits from the central core into two atrium cores.

Skyscraper Core and Structure Case Studies



## Structure Axonometric

Symmetrical cores and trusses increase the structural efficiency, thus reducing core sizes. The cores are divided into three six smaller cores along the length of the building, leaving adaptable open spaces, and allowing for differing arrangements between hotel types across the floors. The lateral load is absorbed by an outrigger truss system that stiffens the building. Where the outrigger trusses are located, big open spaces with long spans become possible, which is desirable for public amenities.

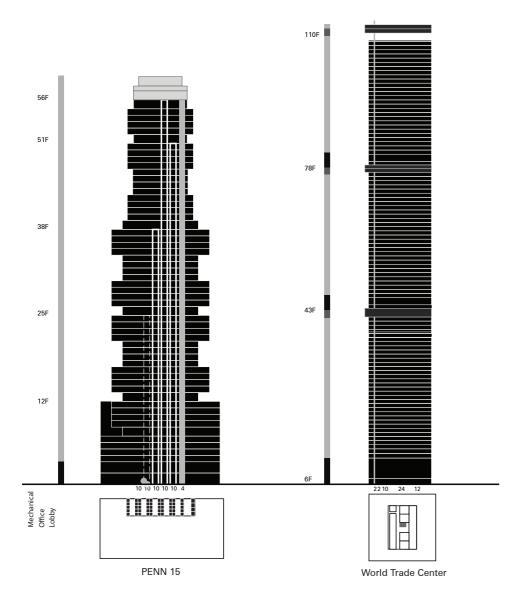


### Vertical Circulation Axonometric

The vertical circulation is composed of three elevator systems: Metro Express, express, and local. The Metro Express connects with the subway, and stops on the ground floor, sky lobbies and observation deck. The express and local elevators are separated according to guest (central cores) and service use (corner cores). The express elevators stop at public and service floors, while the local elevators shuttle inside designated clusters.

Guest elevator core

Service elevator core



Office building high-rise like PENN 15 uses a straight-forward elevator scheme where the elevators connect the ground floor to a set of higher floors.

Sky lobby is a typical elevator scheme employed to reduce shaft space, and improve the efficiency of the elevator system. It acts as an intermediate interchange floor where people can change from an express elevator to a local elevator that stops at a subset of higher floors.

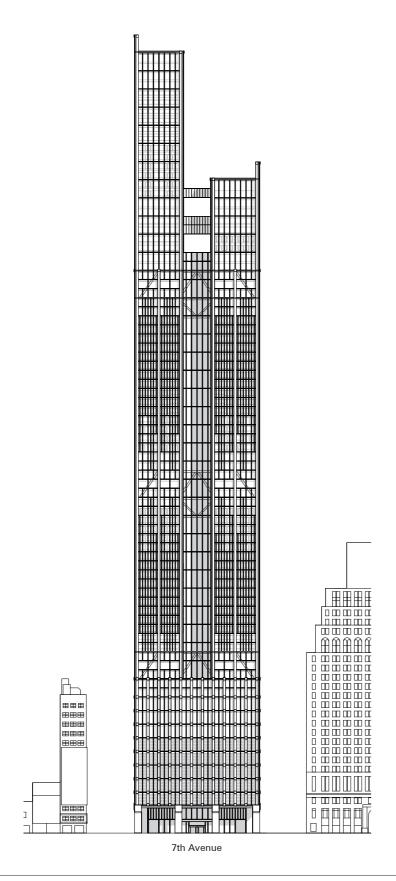
75F 

Shenzhen Jingii Tower

In the case of a mixed-use skyscraper with office and hotel, Kingkey 100 has a more complex elevator system with different ground access, one sky lobby for its office space, one check-in lobby for hotel, and an observational deck.

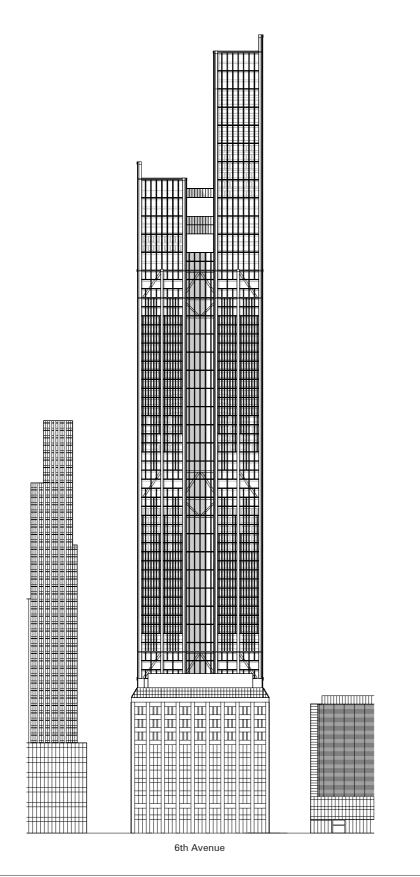
When envisioning a mixed-use highrise with office, residence, and hotel, the sharing of amenities floor is achieved through additional express elevators.

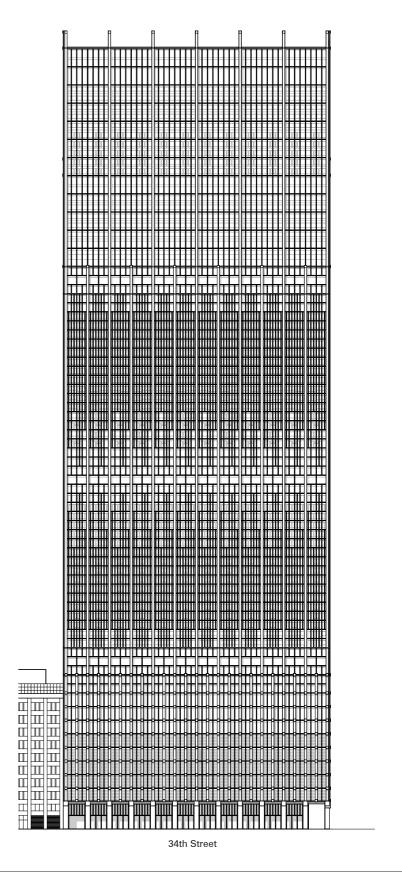
Skyscraper Elevator Case Studies

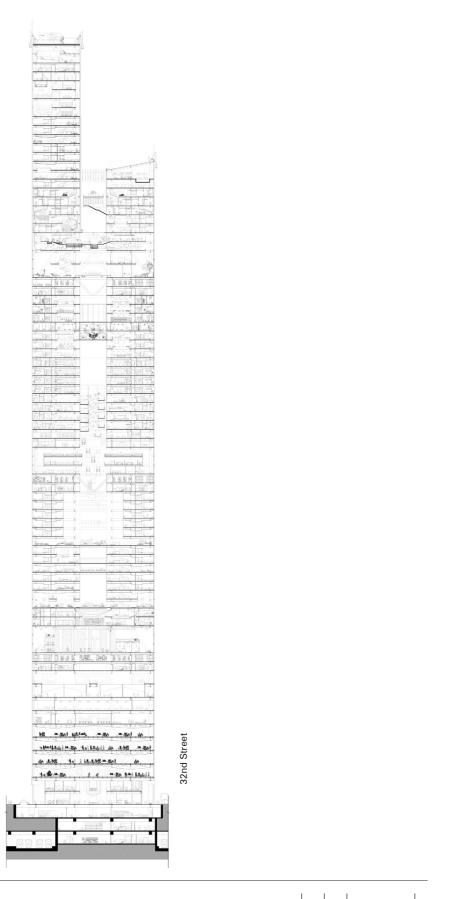


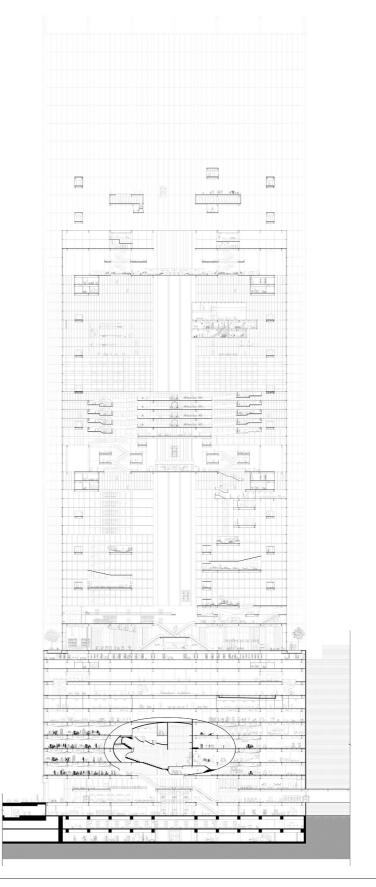
33rd Street

Tower Elevation - West Tower Elevation - South



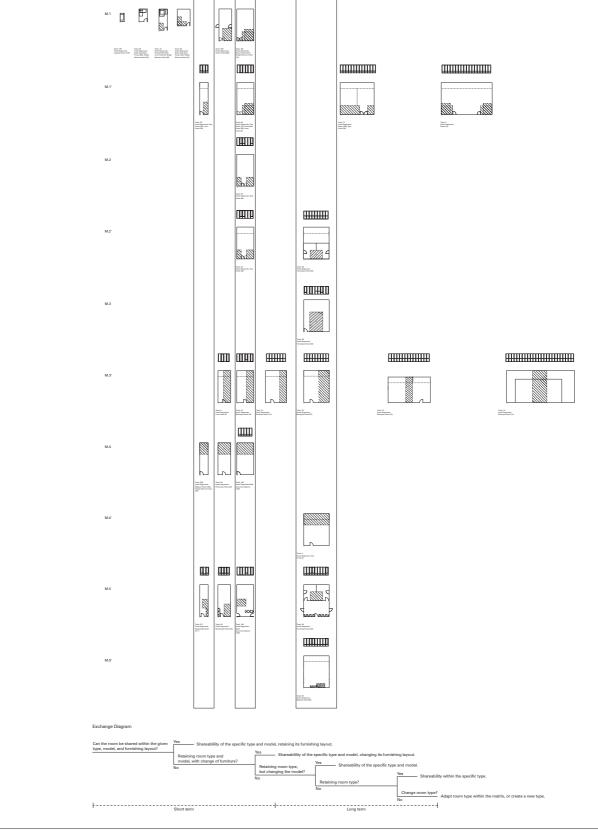






Tower Section North-South Tower Section West-East

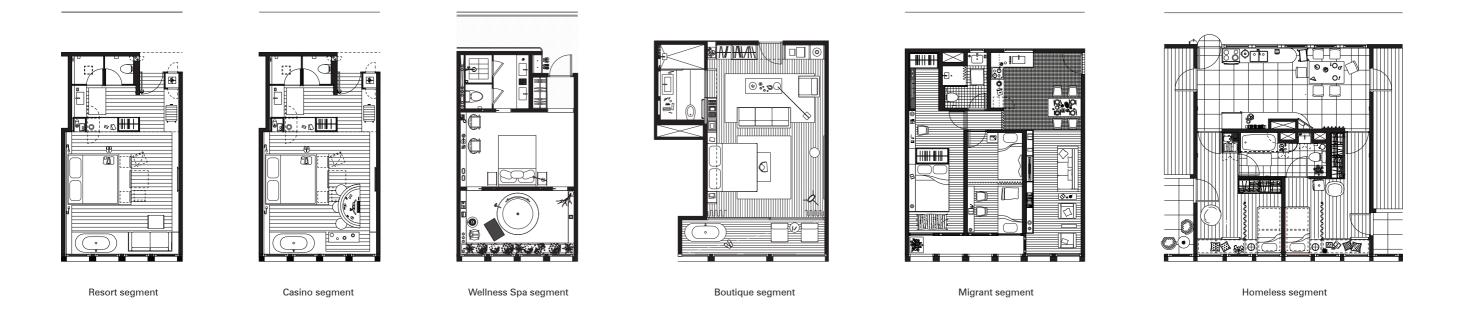
0 Casino segment 72 Day segment 100 Sailors' Boarding House segment 160 Capsule segment 300 Chain segment 112 Family segment 84 Homeless segment 264 Migrant segment 365 Residential segment 40 Love segment 130 Wellness Spa segment 112 Single Women's segment 508 Resort segment 70 Boutique segment 180 Staff Accommodation 2497 One Hotel Total Keys



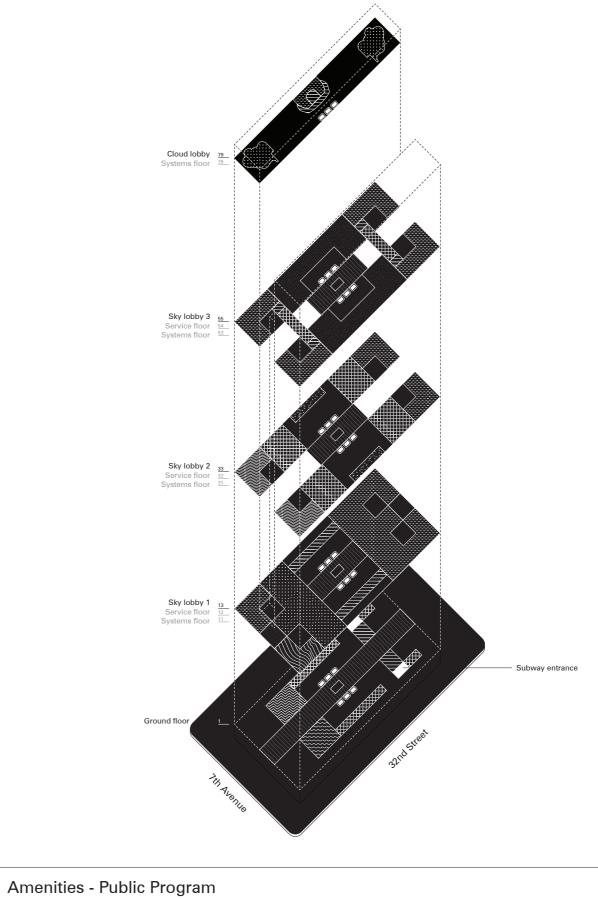
Accommodation Matrix

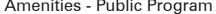
One Hotel Keys



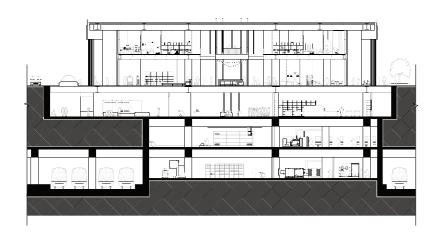


Typical Room







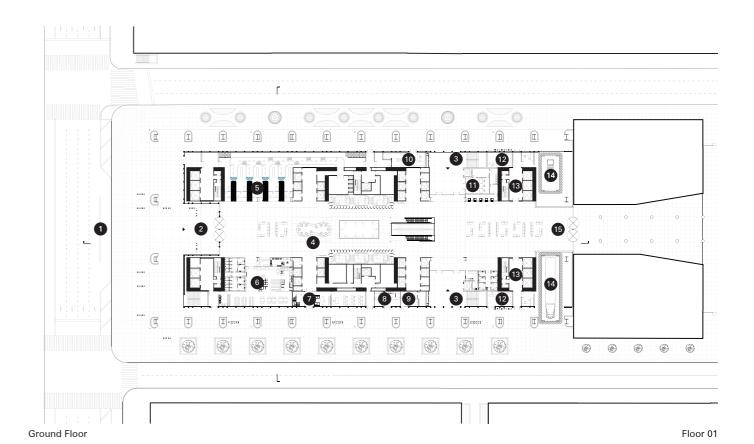


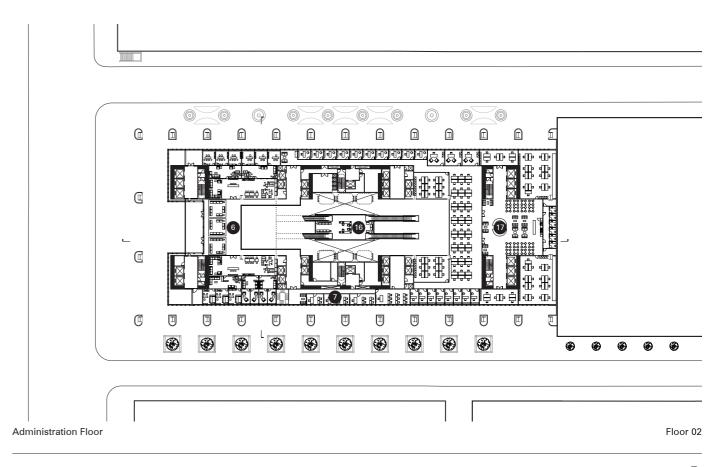
Cross Section of Basement and Ground Floor



Longitudinal Section of Basement and Ground Floor

**Ground Floor** 





1. Motor lobby

4. Reception

facility

6. Migrant

2. Entry plaza 3. Subway entrance

5. Luggage drop-off

7. Language center

8. Coffee shop

9. Post office

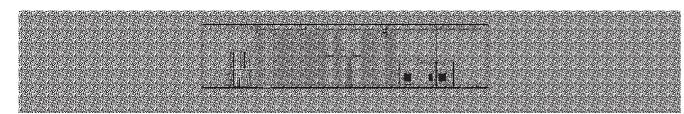
welcoming center

10. 24/7 convenience

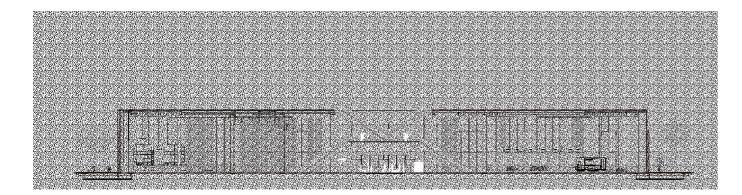
store 11. Bank 12. Flower shop 13. Staff entrance

14. Truck elevator to loading dock below

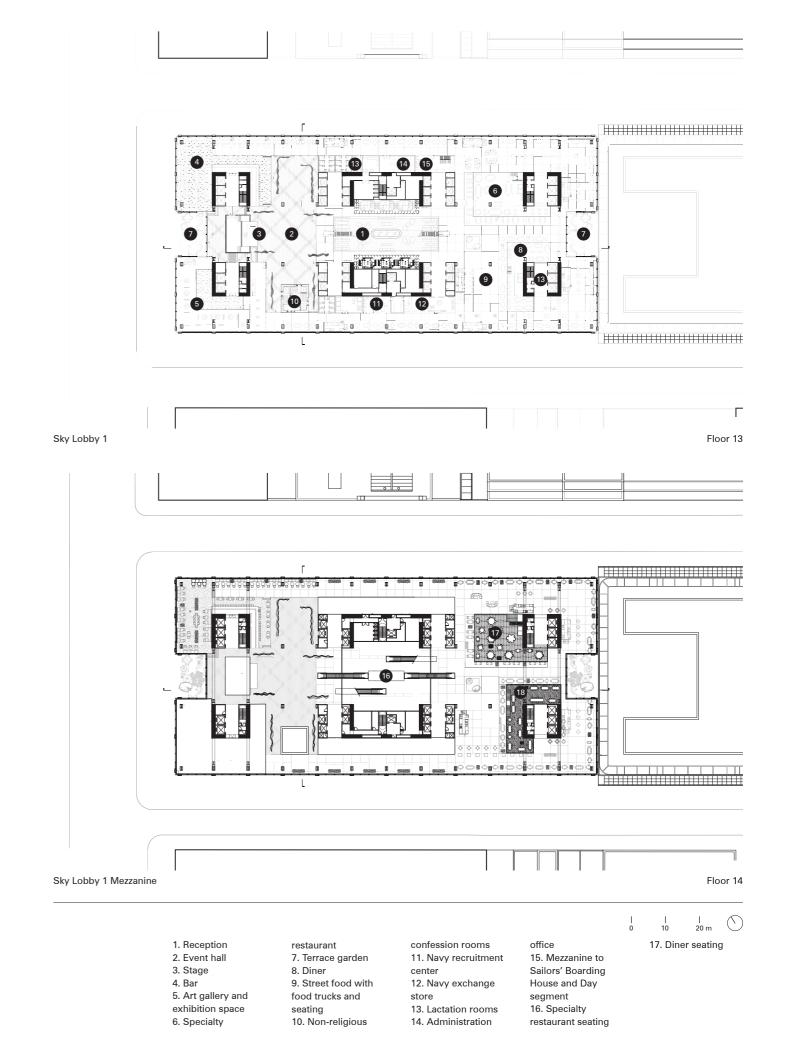
15. Link to Manhattan Mall 16. Casino security check-point 17. One Hotel administration offices

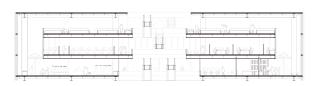


Cross Section of Sky Lobby 1

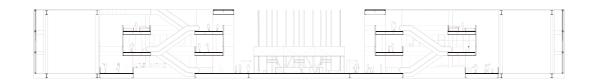


Longitudinal Section of Sky Lobby 1

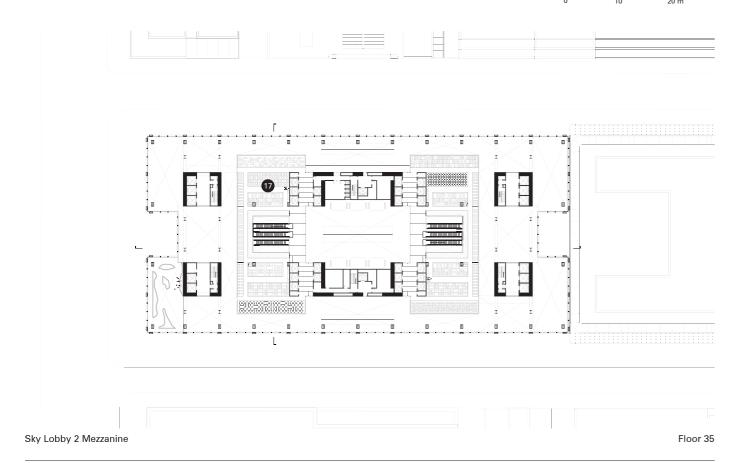




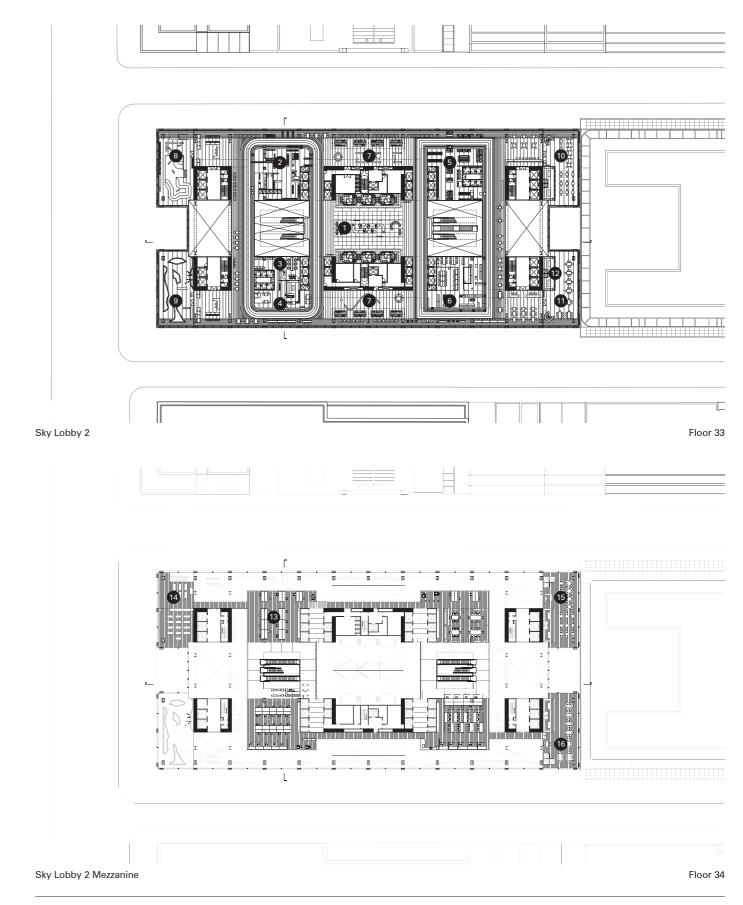
Cross Section of Sky Lobby 2



Longitudinal Section of Sky Lobby 2



Sky Lobby 2



Reception
 Thrift shop and tailor's shop

hop 9. Rock o

3. Barber shop

4. Bakery5. Convenience store

5. Convenience store restaurant
6. Library 11. All-day

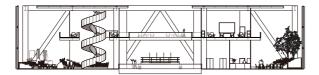
7. Street market8. Skatepark9. Rock climbing

gym space 10. Specialty 14. \

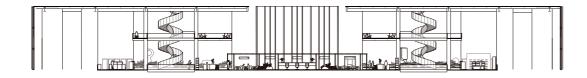
restaurant
12. Dumbwaiter
13. Co-working
spaces

14. Yoga studio
15. Specialty
restaurant seating

16. All-day restaurant seating 17. Indoor production garden

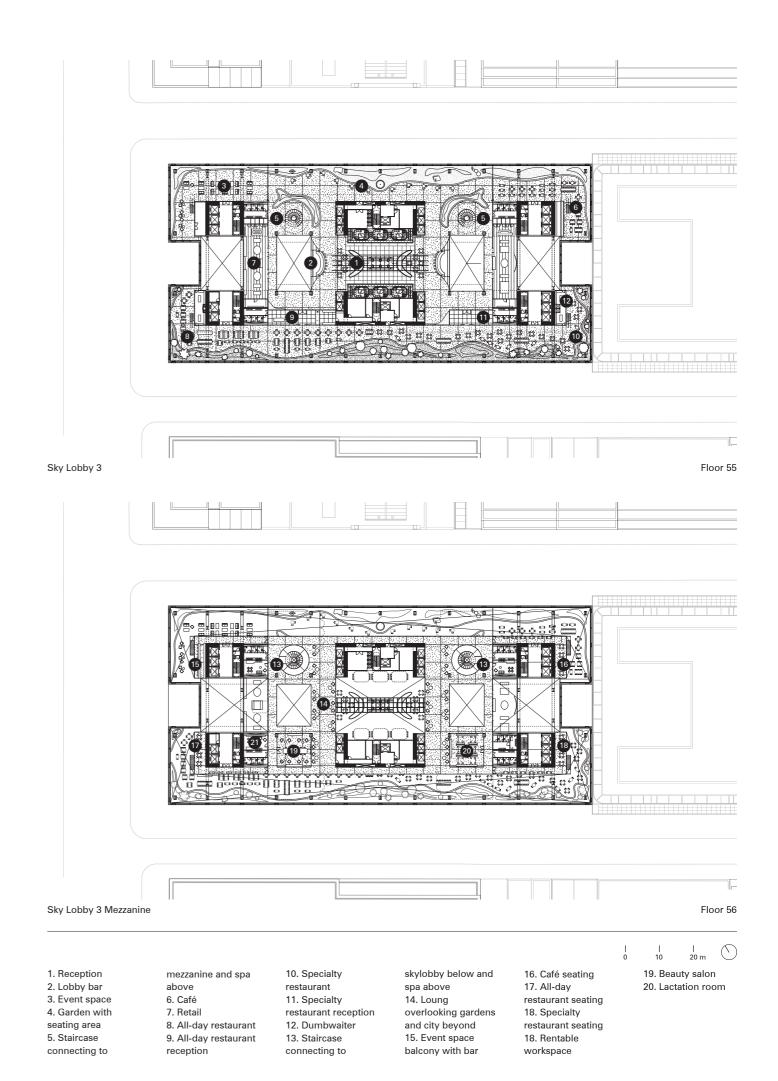


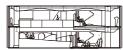
Cross Section of Sky Lobby 3



Longitudinal Section of Sky Lobby 3

Sky Lobby 3



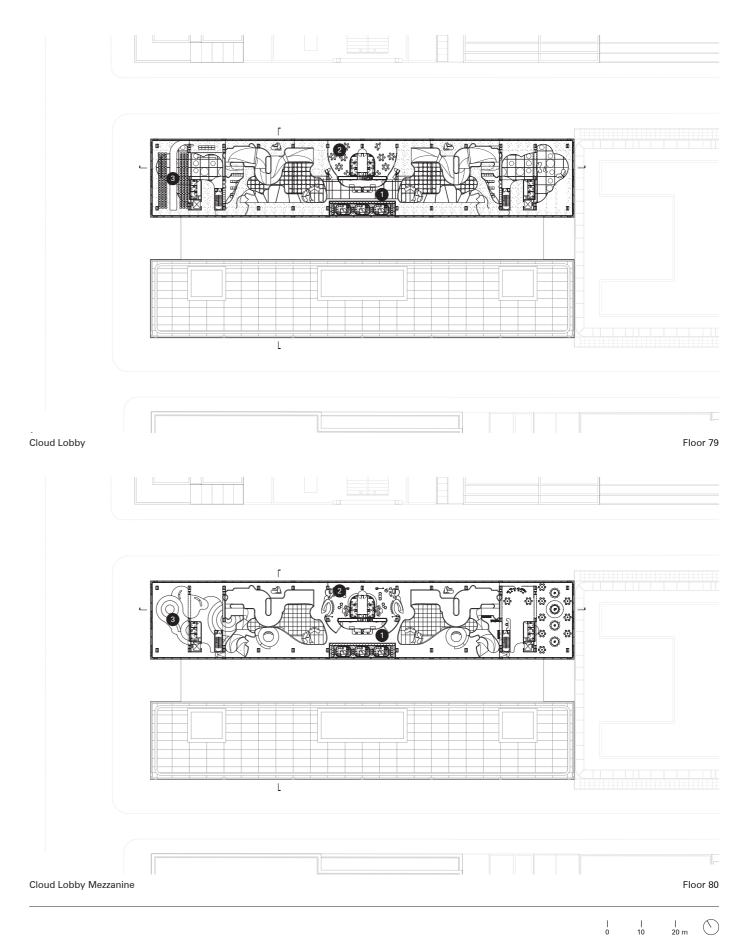


Cross Section of Cloud Lobby



Longitudinal Section of Cloud Lobby

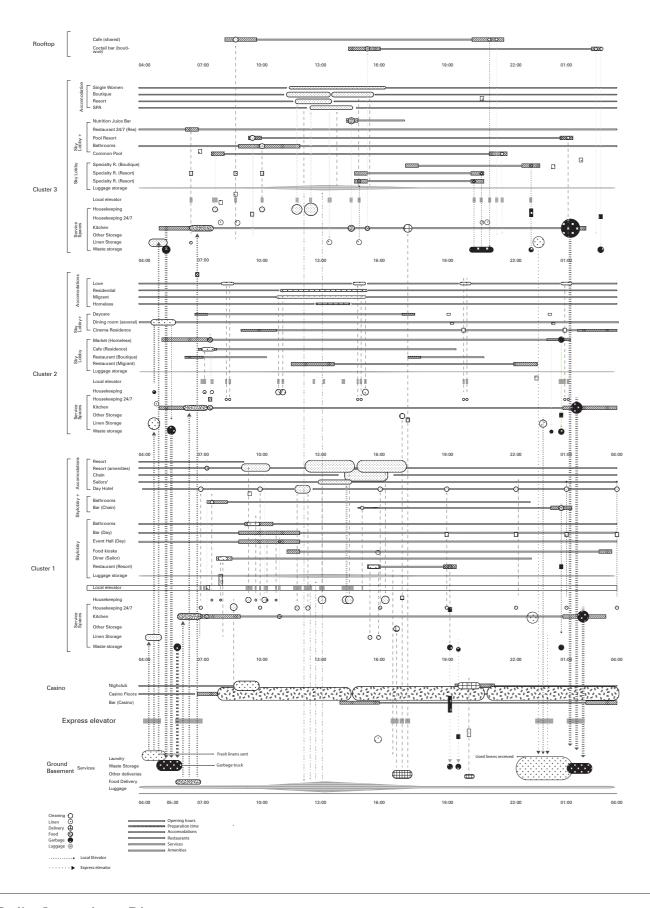




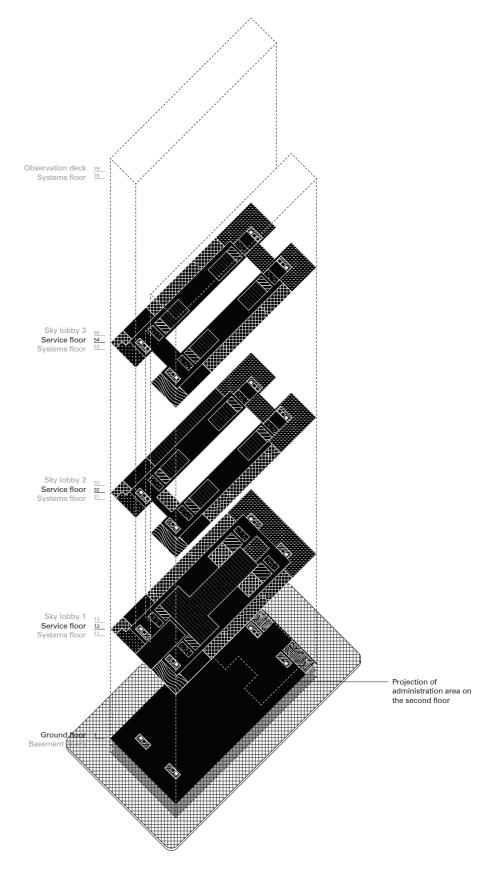
1. Reception

2. Café

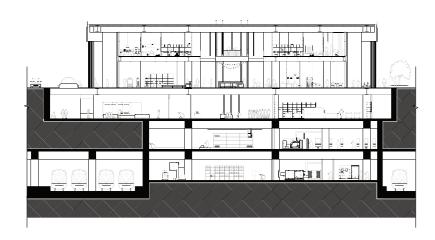
3. Event space



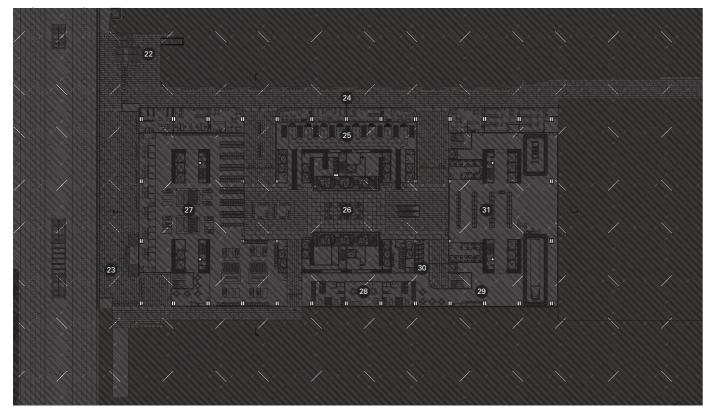
Daily Operations Diagram











Basement Floor -1

### **Basement Floors**

- 1. Elevator maintenance and
- repair 2. General storage
- 3. Truck elevator
- 4. Casino vault
- 5. CCTV room
- 6. Water treatment room
- 7. Water tank room
- 8. HVAC room
- 9. Maintenance room 10. Smoke control
- 11. Sprinkler System room
  - 12. Fire pump room 13. Irrigation pump room
  - 14. Gas distribution 15. Access control
- 16. Luggage storage facility 17. Waste loading
- and sorting area connected to truck elevators
- 18. Track compactor
- 19. Backup generator 20. Uninterrupted

passage to Penn

- power supply room 21. Storage 22. Underground
- 23. 34th Street Penn Station subway platform

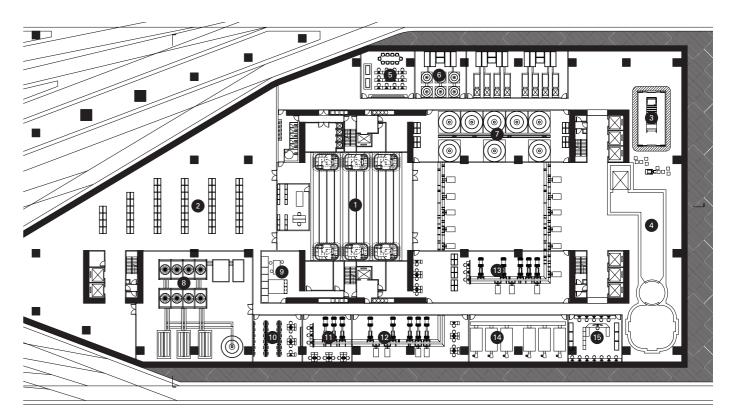
Station

24. Gimbel's passage and retail 25. Luggage drop-off facility 26. Reception 27. Central laundry

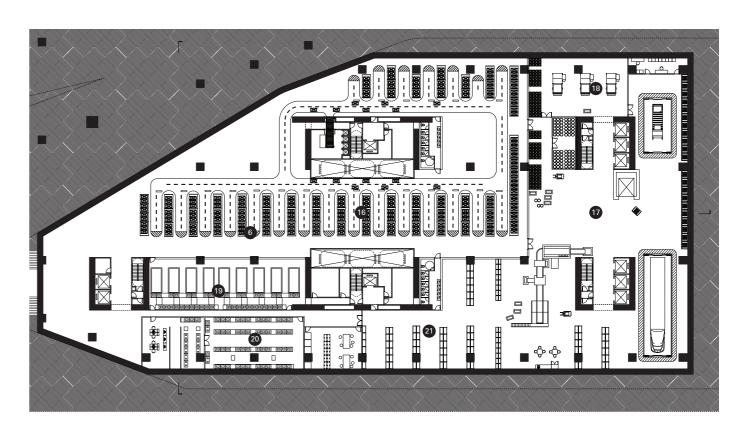
28. Employee uniform and changing areas 29. Employee

lunchroom 30. On-duty sleeping pods 31. Loading dock connected to truck elevators on the

floor above



Basement Floor -3



Basement Floor -2

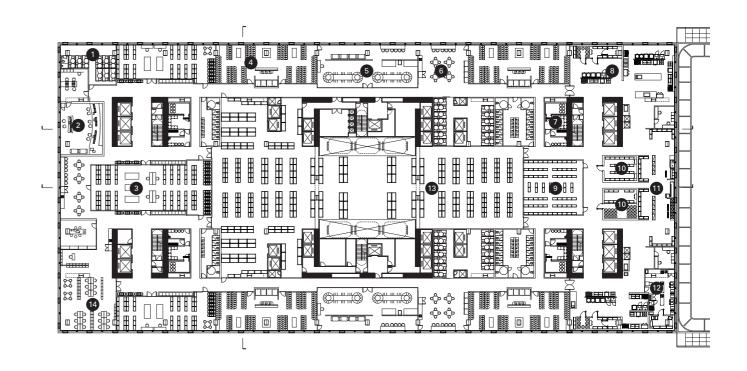


Service and Systems Floor Sections (Floors 11–12)

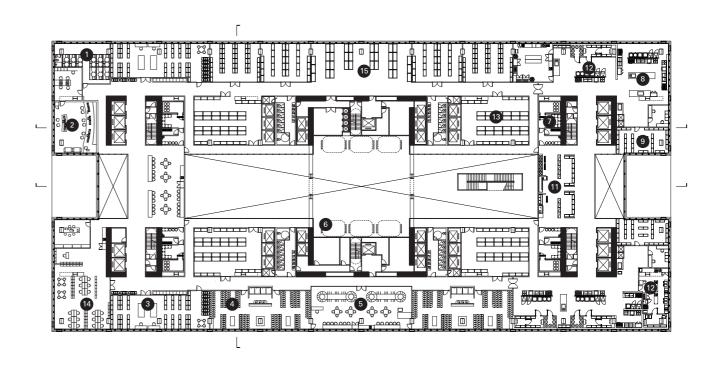


Service and Systems Floor Sections (Floors 31–32)

Service Floors



Service Floor Floor 12



Service Floor Floor 52

1. On-duty sleeping pod

CCTV control room
 Housekeeping

offices 4. Employee

room 8. Kitchen

room

changing room 5. Uniform room

6. Employee lunch

7. Waste collection

Dry storageCold storage

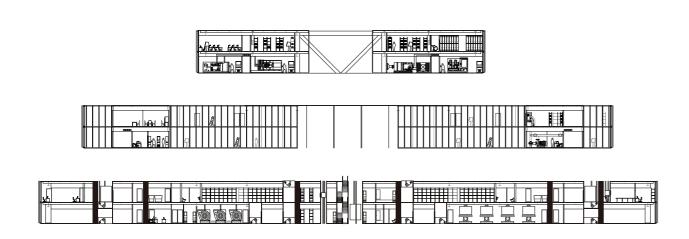
10. Cold storage 11. Dishwashing

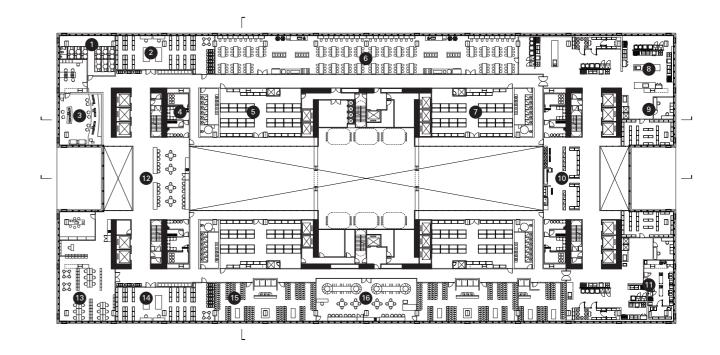
station 12. Pastry kitchen

13. General storage14. Cluster

management offices 15. Guest storage

87





Service and Systems Floor Sections (Floors 53–54) Service Floor Floor 54

Service Floors

pod 2. Housekeeping offices 3. CCTV control room 4. Waste

1. On-duty sleeping

5. Luggage storage 6. Employee dining 7. General storage

8. Kitchen

10. Dishwashing

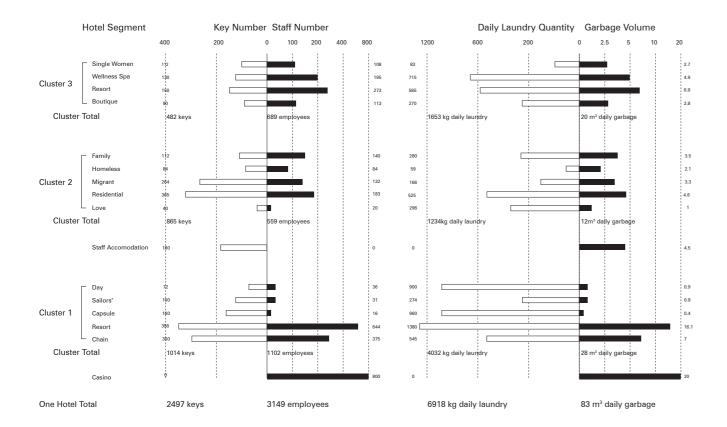
9. Dry storage

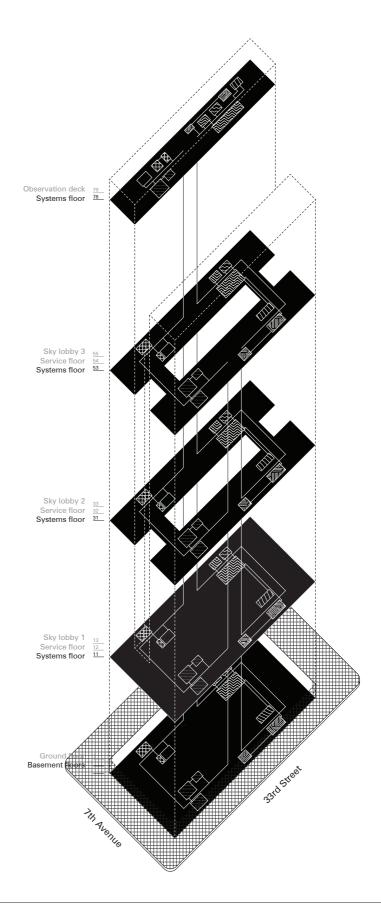
station 11. Pastry kitchen 12. Employee lunchroom

14. Housekeeping

13. Cluster management office

office 15. Employee changing room 16. Uniform room

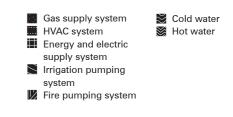




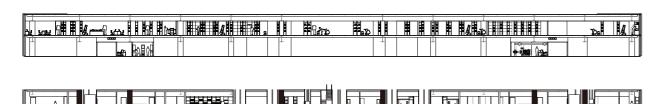
# **Hotel Calculations**

Diagram comparing hotel segments through number of keys, calculations of number of elevators, number of staff, amount of laundry and waste.

# Systems





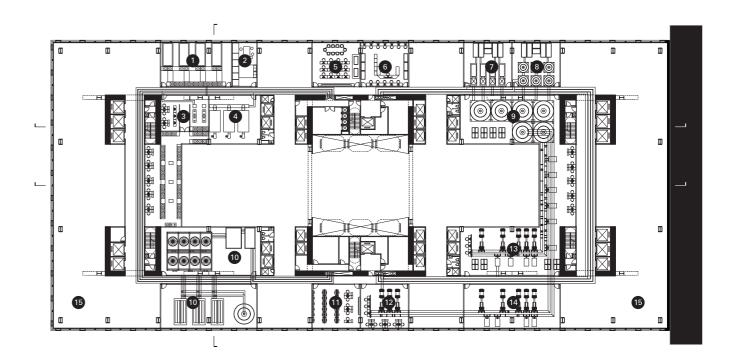


Service and Systems Floor Sections (Floors 11–12)

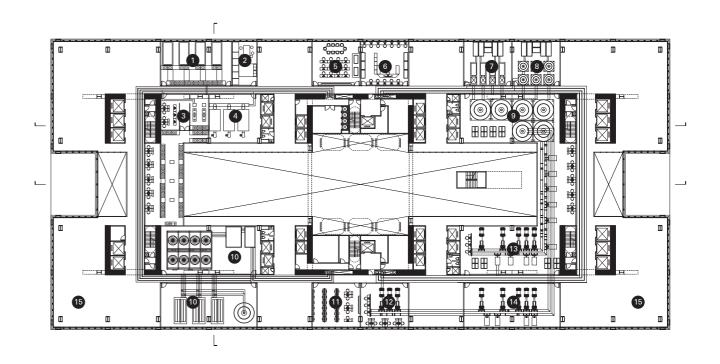


Service and Systems Floor Sections (Floors 31–32)

Systems Floors



Systems Floor Floor 11



Systems Floor Floor 31

room

room

Backup generator room

2. Maintenance

workshop
3. Uninterrupted
power supply room

4. Gas distribution

7. Water treatment room8. Hot water plant

5. CCTV room

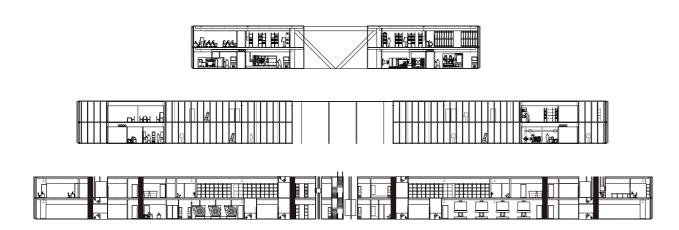
6. Access control

room
9. Intermediate water tank rooms
10. Central HVAC

13. Irrigation pump
HVAC room
14. Fire pump room

plant room 14. Fire pump room 11. Smoke control 15. Refuge area

12. Sprinkler system

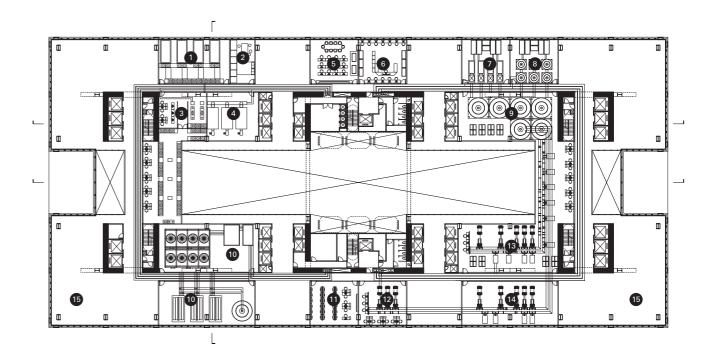


Service and Systems Floor Sections (Floors 53-54)

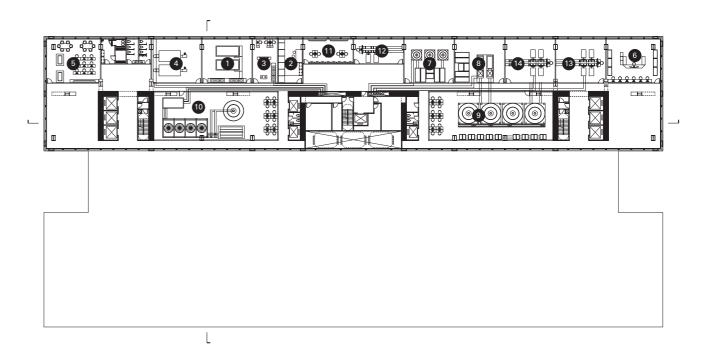


Systems Floor Cross Section

# Systems Floors



Systems Floor Floor 53



Systems Floor Floor 78

room

room

1. Backup generator 2. Maintenance

workshop 3. Uninterrupted

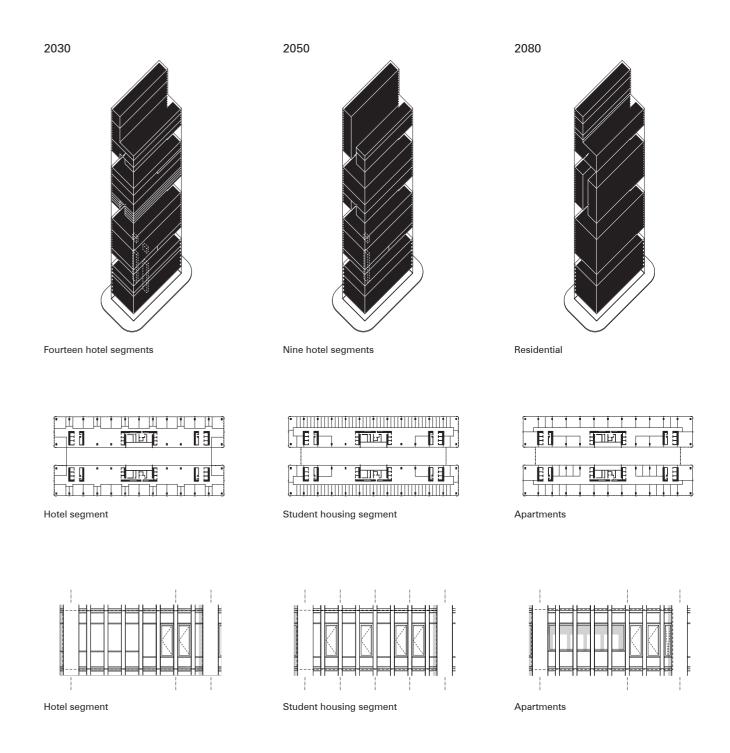
power supply room room 4. Gas distribution 8. Hot water plant

5. CCTV room 9. Intermediate water 6. Access control tank rooms 10. Central HVAC 7. Water treatment

room

plant room 11. Smoke control 12. Sprinkler system 13. Irrigation pump

room 14. Fire pump room 15. Refuge area



## Afterlife

One Hotel may shift and change in response to changing demographics. A successful hotel segment may take over another. The hotel segments could move from thirteen, to eight, or twenty-three. As the program shifts, the facade's secondary elements will come and go. As will temporary walls and plumbing. Public spaces will host new tenants. Apartments could fill the floors once held by One Hotel. Regardless of the fluctuation inside, the Metropolitan will remain a landmark in the skyline of New York City.

One Casino, the flagship gaming establishment from One Hotel, introduces to New York City a game of chance by offering physical gambling facilities to fund the infrastructure of the hotel segments, the skyscraper, and the city.

The origins of gambling can be traced as far back as 2300 BC, and from the time of those ancient origins, competition and gaming have often gone hand in hand as social activities vital for the success of society. During the 1850s, gambling houses gained widespread popularity, but it was not until the mid-twentieth century that the legalization and taxation of gambling began in the United States. This development paved the way for certain states, such as Nevada and New Jersey, to monopolize the gambling industry with the establishment of renowned and so-called "Sin Cities." In the late twentieth century, Las Vegas, with its opulent hotels and lavish casinos, emerged as the epitome of gambling in the Western Hemisphere. In the late nineteen-eighties and nineties, a shift in casino design philosophy took place, transitioning from artificially lit rooms devoid of clocks to extravagant interiors with a "playground"-like layout. The underlying idea was to provide a comfortable environment for individuals to partake in gambling, even in the event of financial losses.

In early 2023, New York allocated three new gambling establishment licenses for the southern portion of the state. Of these licenses, it is expected that two will be obtained by existing racinos (or race-track casinos) in Queens and Yonkers, while the remaining one will be determined through an open bidding process. The distinction between a casino license and the current gaming infrastructure in the city lies in the authorization to offer table games such as poker or blackjack. The new casino opportunity has attracted many companies with an estimated bid price of at least 500 million dollars. The city has estimated that a casino could profit 5 billion dollars annually with around 500 million dollars in tax revenues to the state. Vornado is one of the corporate entities that has expressed interest in the possibility of developing a new casino, and they have notably proposed considering the former Hotel Pennsylvania as a

potential location.

In contemporary terms, a gambler is characterized as a frequent participant in games of chance, or as someone who regularly invests money in such activities. New York City, renowned as a global cultural hub, boasts an array of museums, activities, shows, and entertainment around every corner. By contrast, a casino represents a more elemental form of excitement, presenting a straightforward game of chance. The intended audience for such establishments can encompass both culturally indifferent locals and tourists seeking a fun night out.

The project proposes One Hotel, a management company partnered with Port Authority, to operate a casino and various hotels in the heart of Manhattan as a symbol of hospitality for the city. Aligning with both contemporary casino principles and the vibrant lifestyle of New York, the project's One Casino blends a dynamic gaming experience with the meticulously controlled and monitored environment characteristic of a gaming setting. The casino encompasses five floors, including public amenities such as specialty restaurants, a theater, and over 11,000 square meters of gaming area including 1,500 slots and 300 table games.

Positioned at the base of the skyscraper, the One Casino engages in a lively dialogue with the bustling energy of the city. Day and night, the vibrant street life mirrors itself in the polished exterior of the casino, illuminated by the continuous golden glow emanating from ongoing gaming inside. As a fundamental component of the One Hotel, One Casino establishes itself within the busy streetscape rather than as part of the city's skyline. The casino is structured into three components: the back of the house, a central egg-shaped structure containing a theater and nightclub, and the gaming floor that surrounds these foundational elements. Despite its opulence, the egg design subtly alludes to the surveillance of the entire gaming floor. The reflective golden surface provides a panoramic perspective of the gaming area, serving as a constant reminder to gamblers that they are under continuous observation.

Fundamental to casino design is the foundational infrastructure of control.

The casino operates as a dynamic realm that balances elements of both chaos and control. For gamblers, there exists a non-linear journey through clusters of games; simultaneously, staff oversees the entire space via security checkpoints and surveillance cameras. Nevertheless, crucial to all these systems is the essential role of interpersonal management. Consequently, the casino employs a substantial workforce, necessitating a spacious and comfortable environment for breaks and the cultivation of professional relationships. Beyond the oversight of patrons, the emphasis on promoting positive staff relationships is imperative for the creation of an efficient and secure gaming environment.

The casino provides direct access to the ground floor and public street via a set of escalators. Stringent monitoring is implemented at all casino entrances to prevent underage individuals from entering the gaming areas. The gaming area on the third floor spans the entire floor plate of the plinth. The layout of gaming clusters appears almost haphazard, yet it is meticulously designed for efficiency and constant surveillance through strategically placed security cameras and checkpoints. Densely packed gaming areas mirror the urban activity of Manhattan, offering a dynamic experience that diverges from the city's regular form. Gamblers can navigate through this intricate web of gaming clusters, discovering new paths, and enhancing their overall gaming adventure.

The "golden egg" extends across four levels of the casino. Inside, a 300-seat auditorium and a vibrant nightclub contribute to the city's lively atmosphere with ongoing shows and nightlife. The theater can be reached from both the fourth and fifth floors, whereas the nightclub offers direct access via a dedicated elevator from the ground floor to its space on the fifth floor.

The sixth floor hosts the casino amenities that are open to the public and features two specialty restaurants. The restaurants are served through a semi-shared kitchen along the east facade, mirroring the design of other service spaces found throughout the casino. Above the casino, the seventh floor is reserved for the casino's services, including essential

elements like staff areas, storage, and administration offices. Despite dedicating an entire floor to these operations, a meticulous approach is taken in strategically distributing components throughout the floor plans.

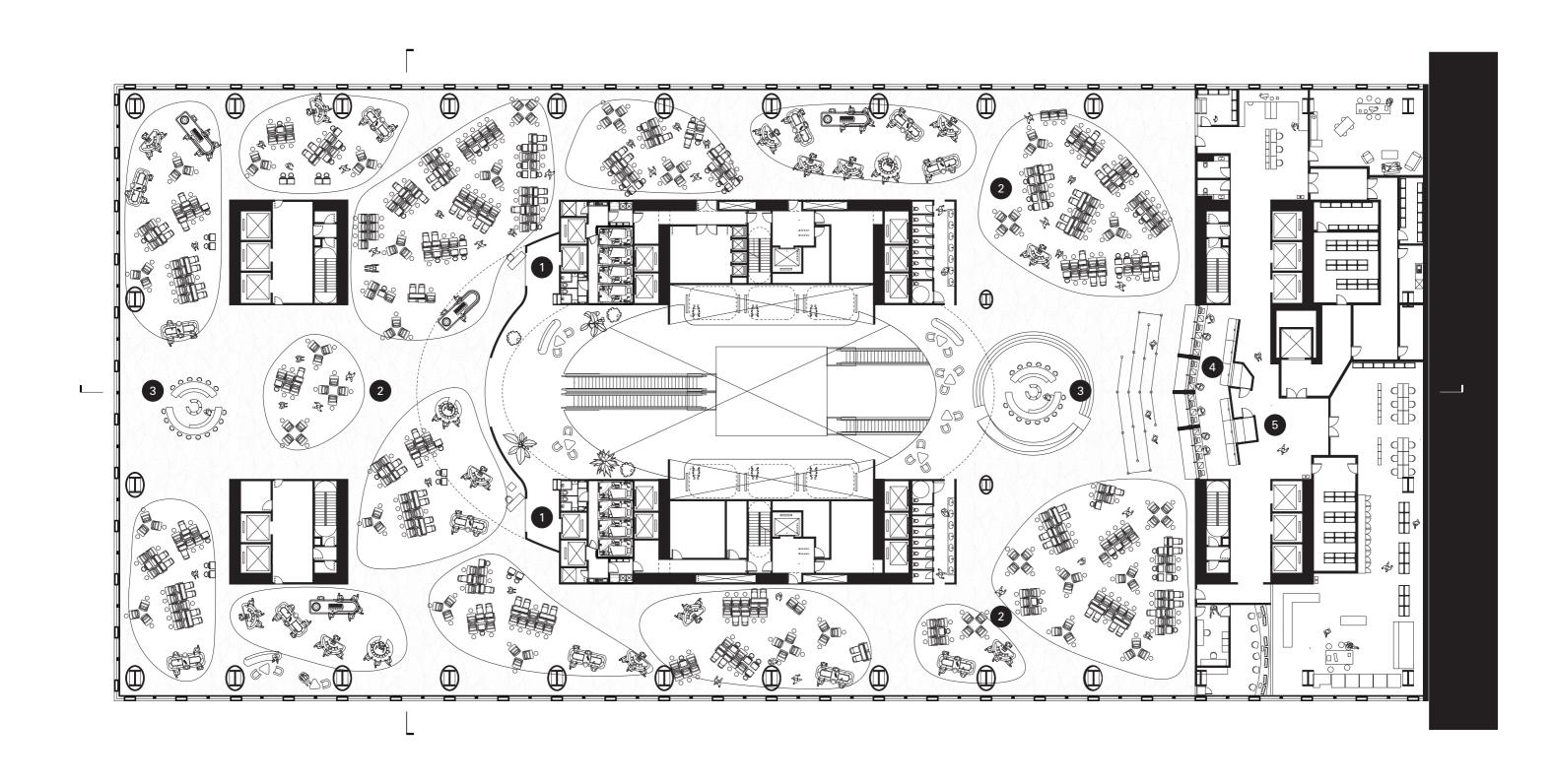
Along the building's eastern facade, a designated space is allocated for the cashier and tellers to efficiently collect, count, and securely store the circulating money. The cages on the third and fifth floors ensure convenient access for gamblers to approach a teller as needed. Mantraps and checkpoints are necessary for the safe storage and movement of liquid assets. In the basement, the casino vault is only accessible through a separate service elevator accessible on floors housing the casino's cashier and counting areas. Every day, the casino meticulously collects, counts, and sorts its chips and coins before securely transporting them to the vault.

The casino does not operate specific lodging options. Instead, guests have the option to select a room from other segments within One Hotel's operational umbrella for their overnight or weekend stay. The nature of these stavs means that these rooms are allocated from the Resort, Chain, and Boutique segments, which have the more generous room sizes. Given the limited number of available rooms, accommodations are exclusively reserved for high-spending patrons and casino rewards members. These privileged guests enjoy the added perk of having an in-house poker table set up in their rooms throughout the entirety of their stays.

Inside the skyscraper, the casino plays a pivotal role in upholding financial stability. The revenue it generates not only ensures the seamless functioning of the entire establishment but also provides substantial income for the city through a 30 percent gambling tax. The partnership with Port Authority fosters a greater responsibility for both the city and One Hotel to represent hospitality in New York City, and One Casino serves, in this framework, as a cornerstone for continuous entertainment and attraction.

## Propositions

- 1. The Casino segment caters to a diverse gambling audience, including culturally indifferent residents and visitors, offering an alternative source of amusement tailored to their preferences in the vibrant setting of New York City.
- 2. Reflecting the city's frenetic energy, the lower floors of the skyscraper are exclusively dedicated to the casino, operating continuously around the clock.
- 3. The Casino segment recreates the excitement of gaming in a dynamic manner, maintaining rigorous surveillance and operational efficiency within the skyscraper's confined space.
- 4. Instead of offering accommodations, the Casino segment arranges rooms from other segments to accommodate specific high-spending guests.
- 5. The Casino plays a crucial role in bolstering significant revenue for the hotel, the city, and the state by collecting a 30 percent gambling tax and creating numerous job opportunities.

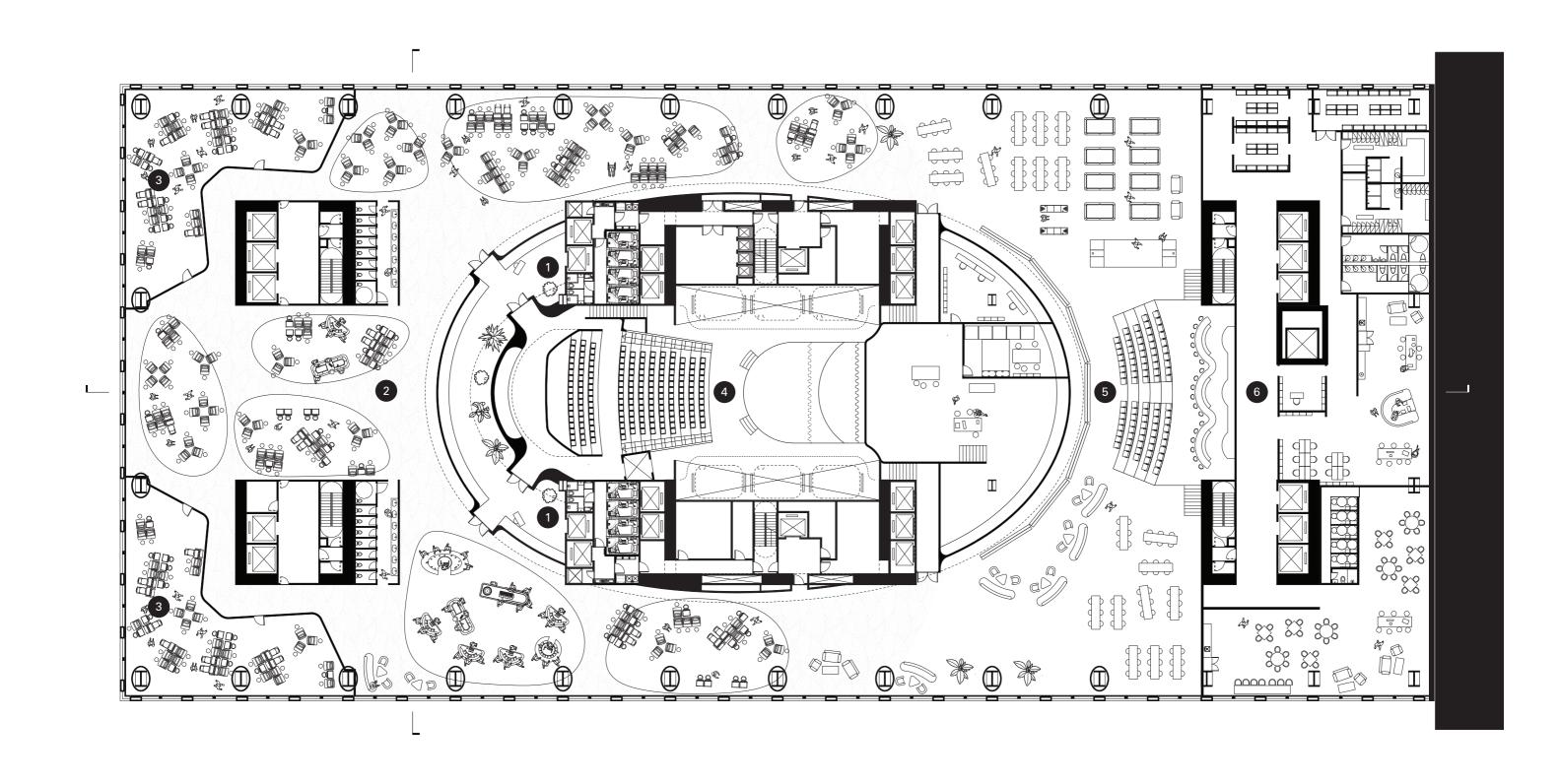


<sup>1.</sup> Security checkpoint

Casino floor with a gaming area for slots, table games, and lounges
 Bar

<sup>4.</sup> Cashier

<sup>5.</sup> The Cage with supervisors, counting rooms, mantraps, vaults, and CCTV



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1. Security checkpoint

2. Casino floor with a gaming area for slots, table games, and lounges

3. Smoking lounge

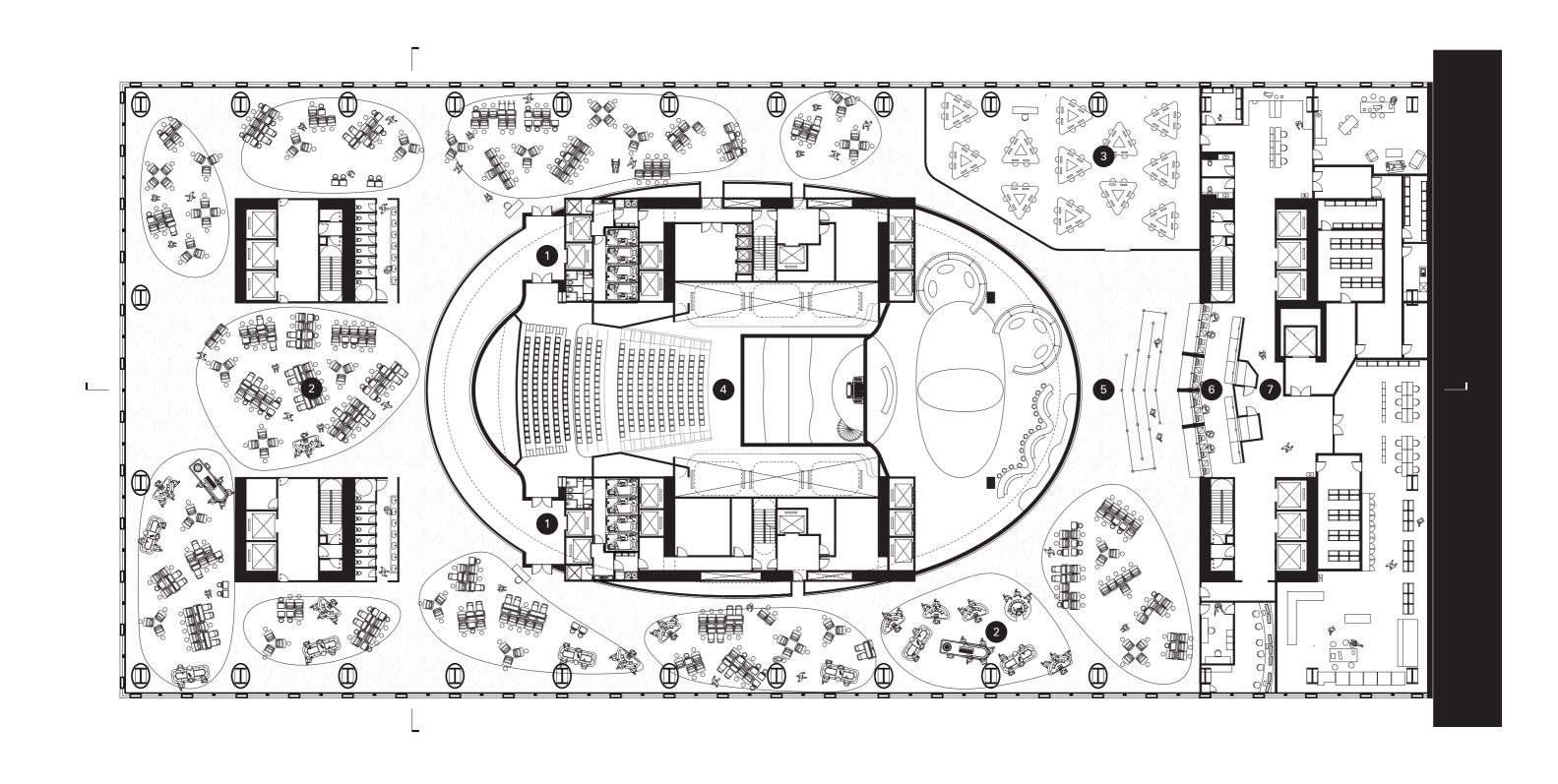
106

4. Performance hall

5. Sport betting bar

6. Employee area with cafeteria, lounge, administration, employee

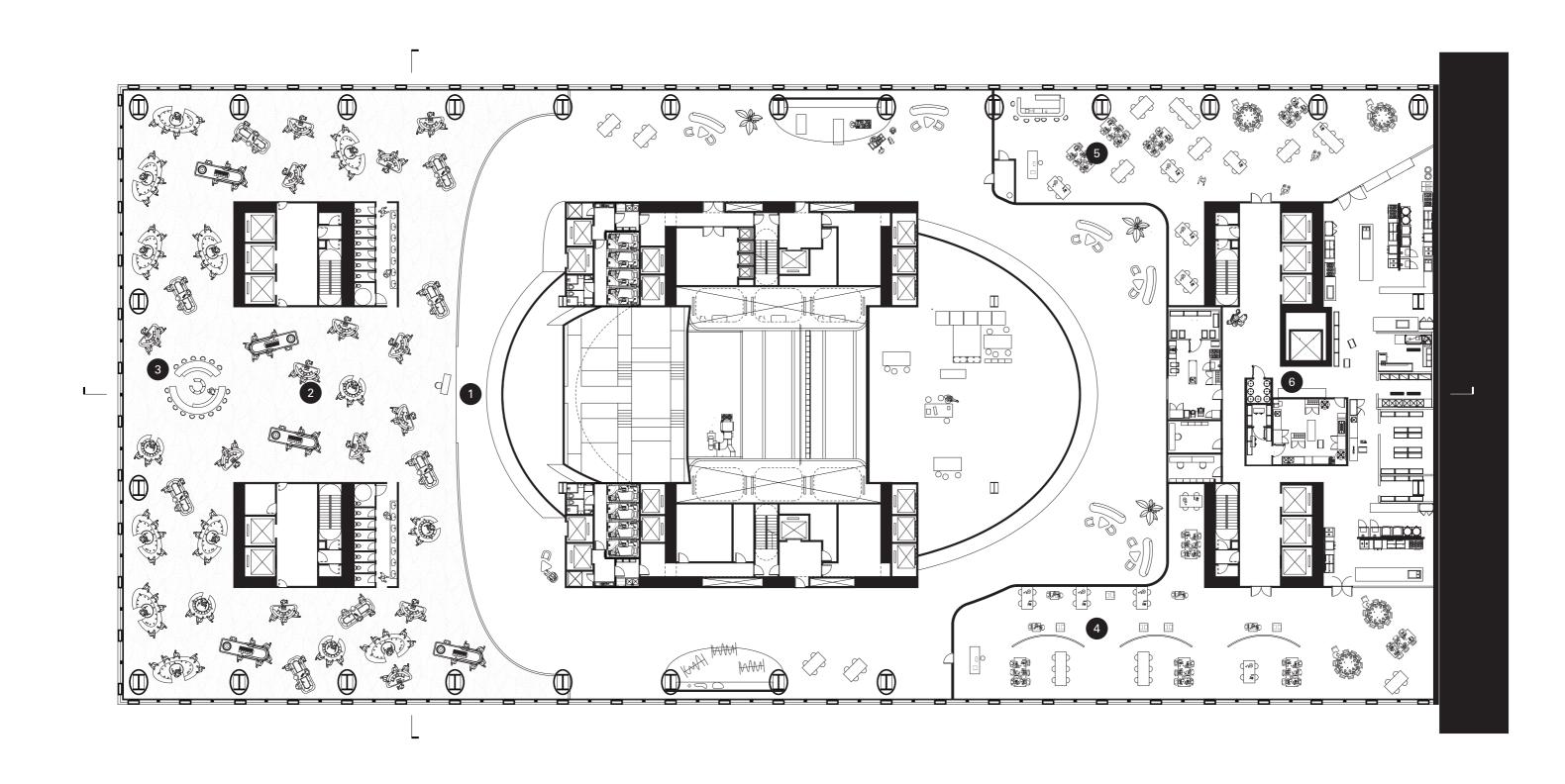
changing, and storage



- 1. Security checkpoint
- 2. Casino floor with a gaming area for slots, table games, and lounges
- 3. E-gaming lounge

- 4. Performance hall
- 5. Night club
- 6. Cashier
- 7. The Cage with supervisors, counting

rooms, mantraps, vaults, and CCTV



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1. Security checkpoint

2. Casino floor with a gaming area for slots, table games, and lounges3. Bar

4. Specialty restaurant

5. Restaurant

6. Central kitchen



| 10 m

1. CCTV

2. Uniform room

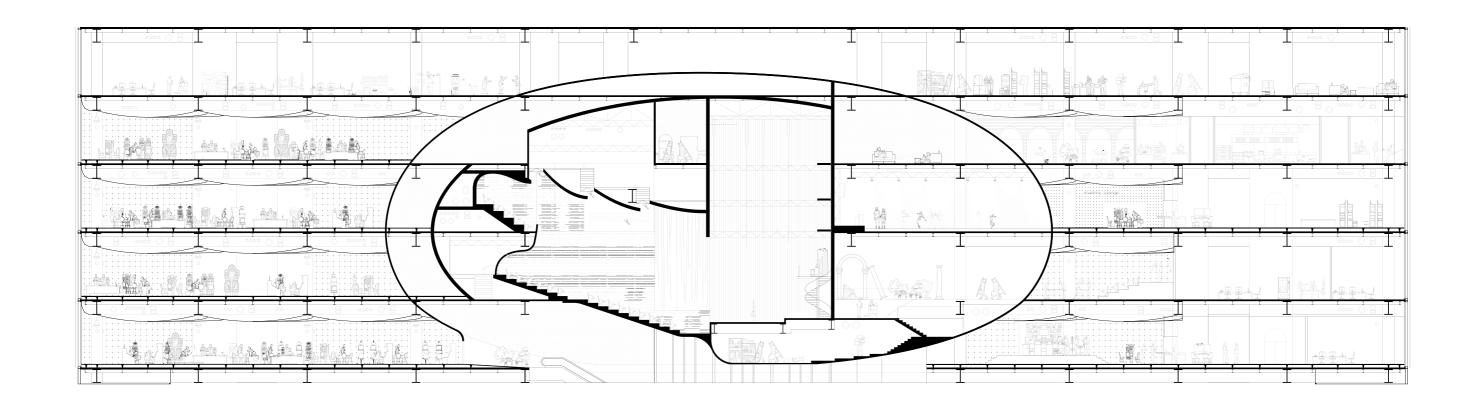
4. Employee lounge

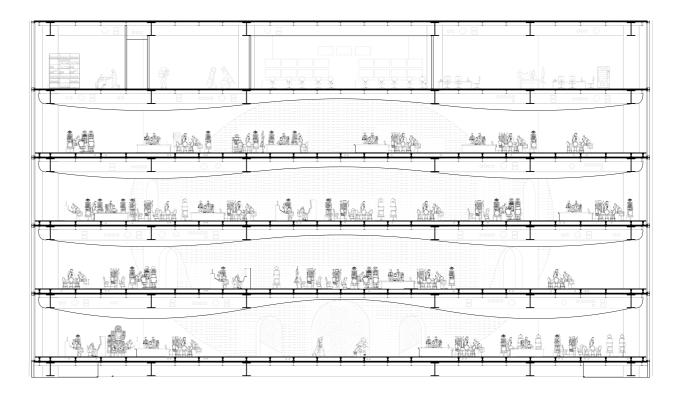
3. Employee changing room

5. Storage 6. Offices

7. Employee sleeping pods

8. Employee kitchen







City Hall Station New York City Subway, 1904



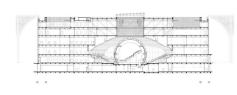
New York Casino Las Vegas



Casino cage



Le roi et loiseau by Paul Grimault, 1980



Tianjin Binhai Library designed by MVRDV



Inamori Auditorium designed by Tadao Ando



Hermes Building in Tokyo designed by Renzo Piano



Al generated imagined casino

The Hotel is a collective project that studies the hotel, both as a building type and as a place of hospitality, through a collection of fourteen individual contributions inside one skyscraper. The project imagines hospitality as a realm of exchange that condenses the diversity of the city through an assortment of guests, staff, and the broader public.

This contribution is a casino where gamblers are dealt a good time.

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