PORTFOLIO

2025

GSAPP

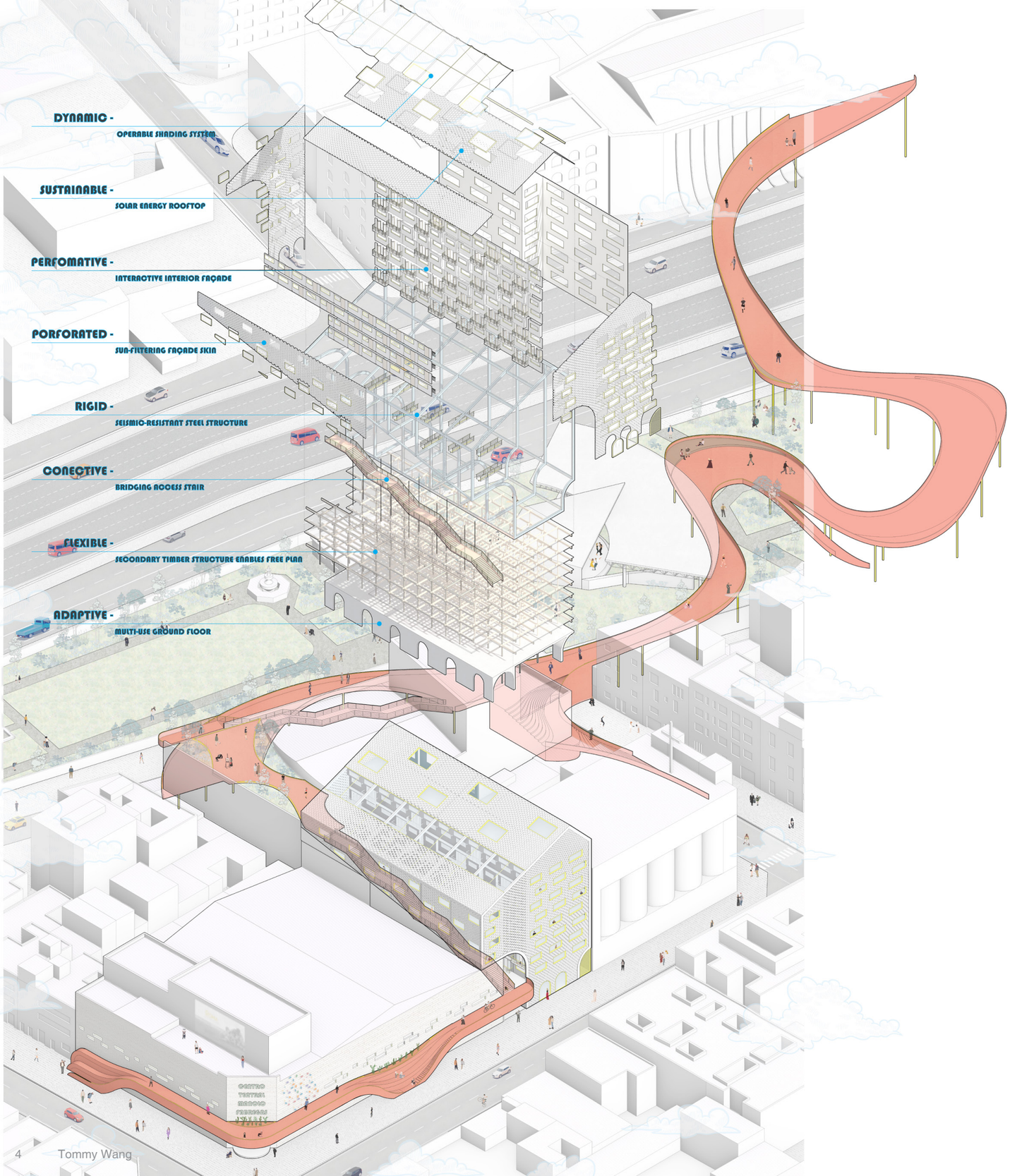
YUQIAN

WANG

ARCHIVE

PORTFOLIO

CONTENT

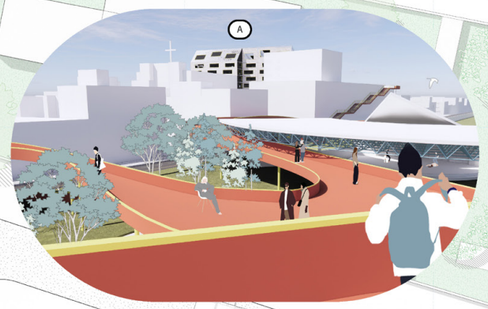


01

Dwelling in Motion

SP 2025 | ADVI | T. Monchaux | G. Carrillo | M. Zhao | CDMX

Dwelling in Motion reimagines an underutilized spaces in San Rafael, Mexico City, as supportive housing for performance artists anchoring culture, care, and creativity in a neighborhood marked by decline and disconnection. Once a vibrant artistic district, San Rafael now faces fragmentation by elevated infrastructure and uneven development. This project addresses both the precarity of emerging artists and the physical rupture of the urban fabric. The design combines flexible, earthquake-resilient housing with communal kitchens, rehearsal spaces, and cultural facilities, blurring the boundaries between domestic life and performance. A central idea is the “Plus One” promenade, a linear urban intervention that stitches together theaters, plazas, parks, and dead-end streets into a continuous public journey. Inspired by the High Line, this elevated path reactivates forgotten spaces, culminating in a layered network of art, gathering, and refuge. Crucially, the project also transforms neglected voids, beneath highways and within dead ends into emergency shelters for earthquakes and displacement. Architecture becomes not just form, but response: a living system that supports artists, protects the vulnerable, and restores public memory. Dwelling in Motion is both housing and infrastructure, both city and stage, a new platform for living, performing, and belonging.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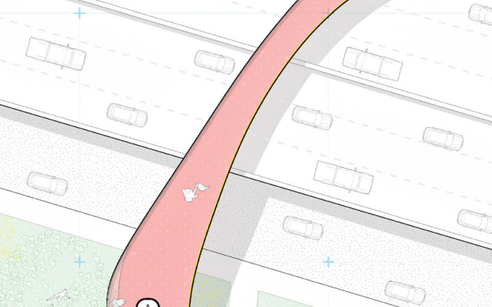
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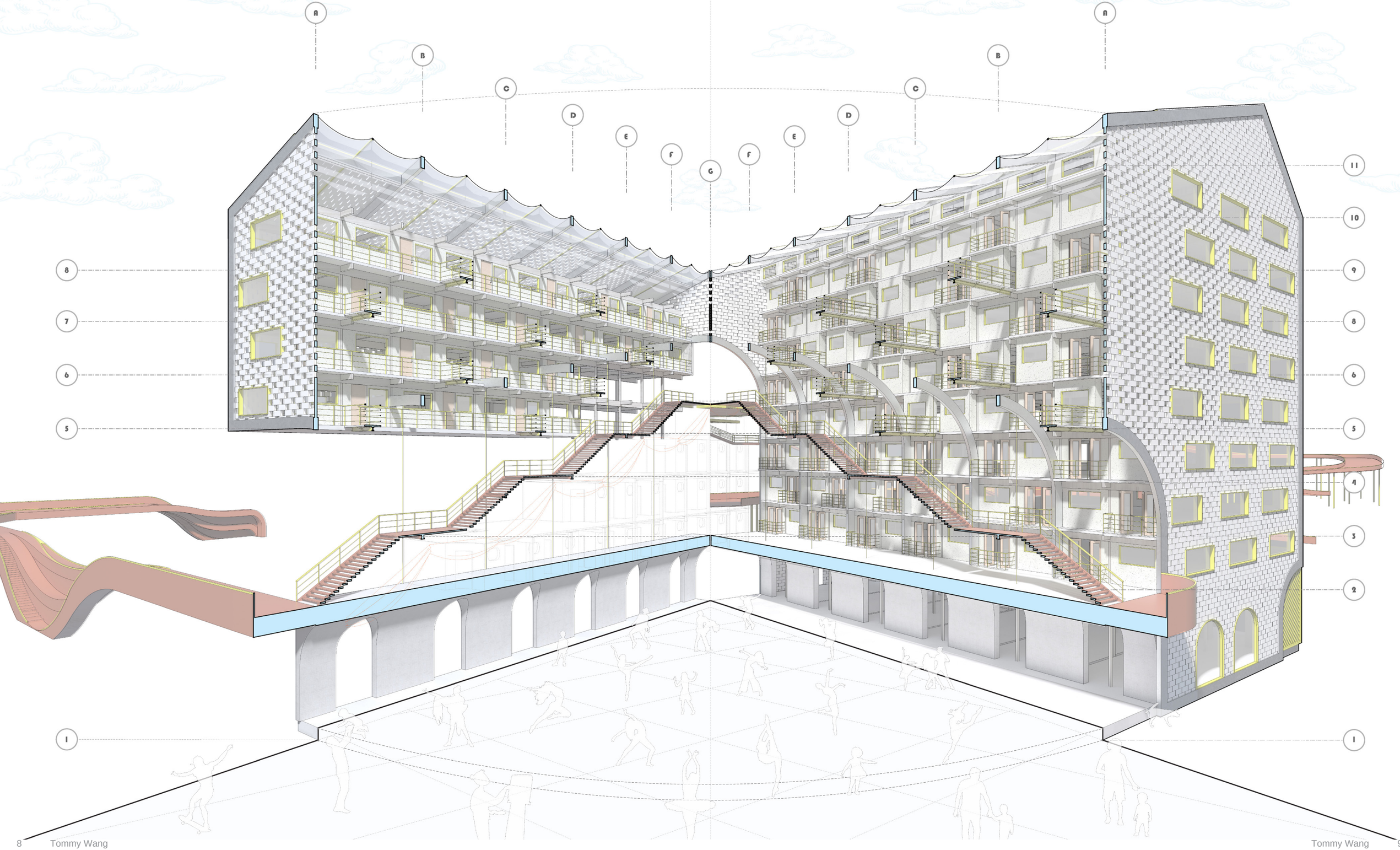
A
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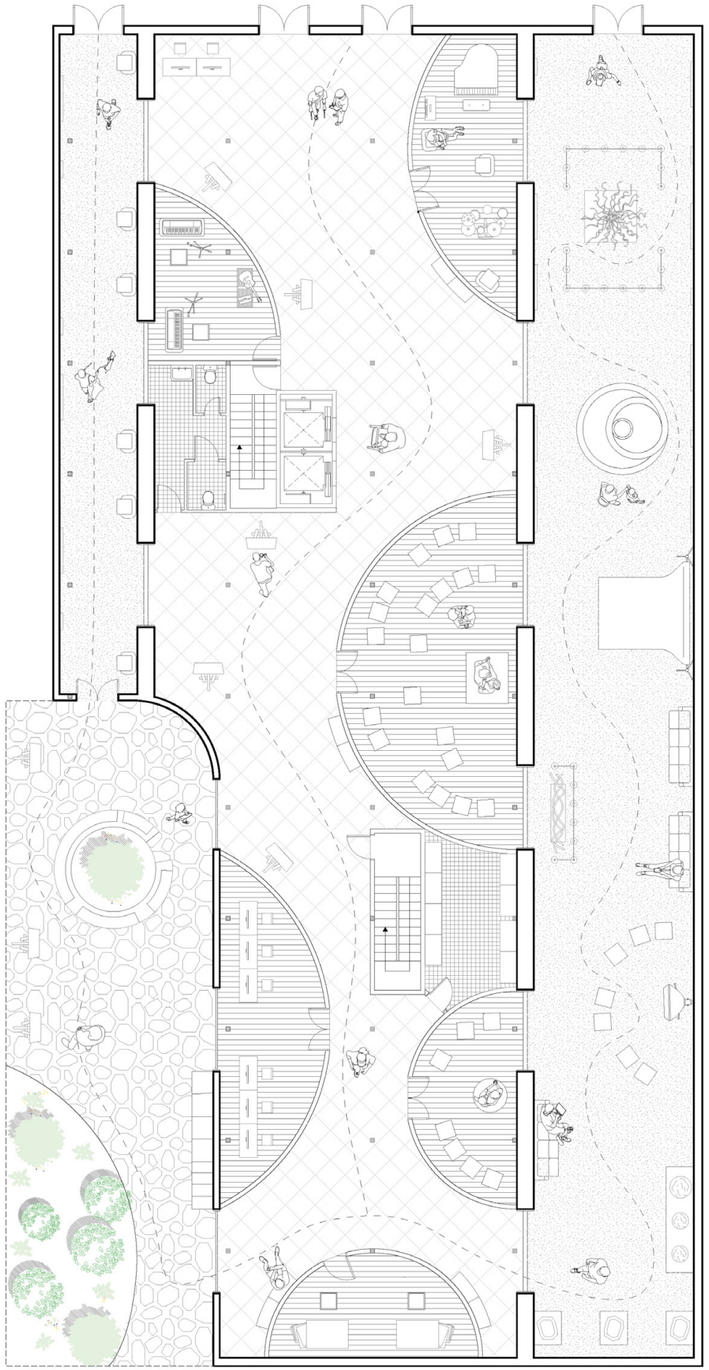
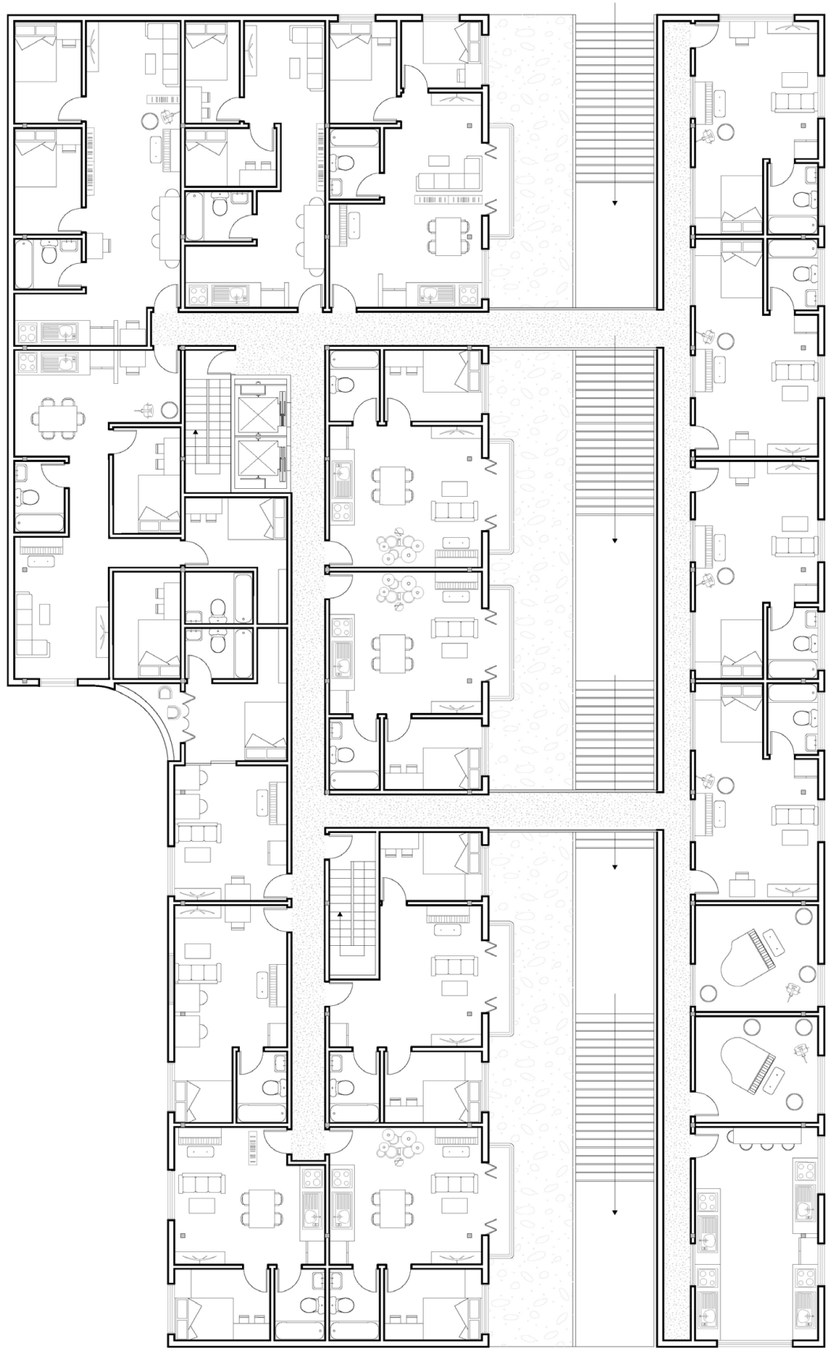
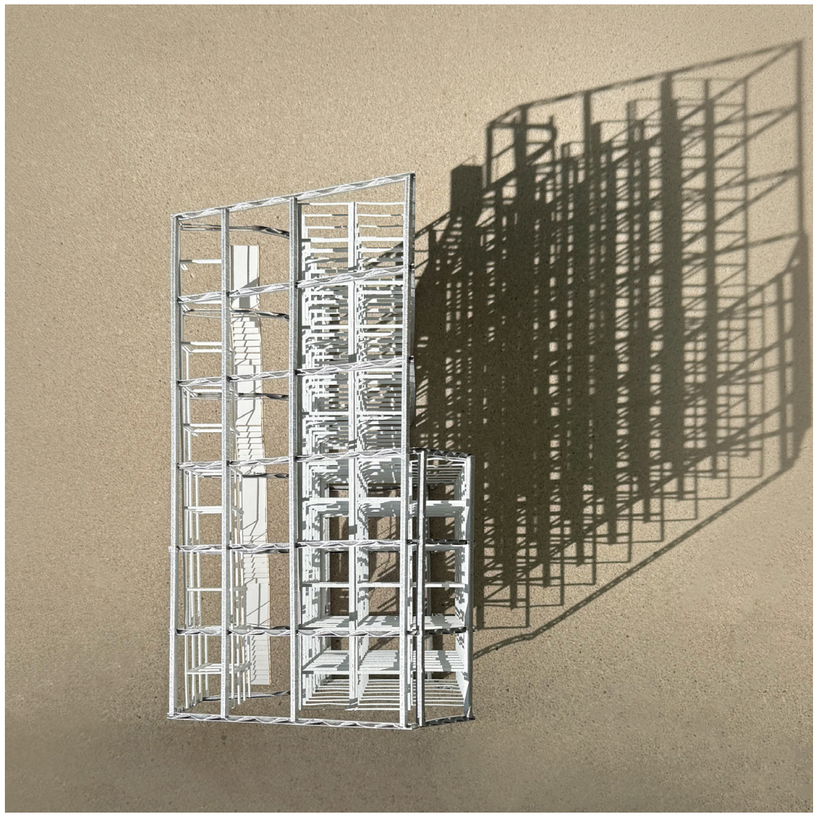
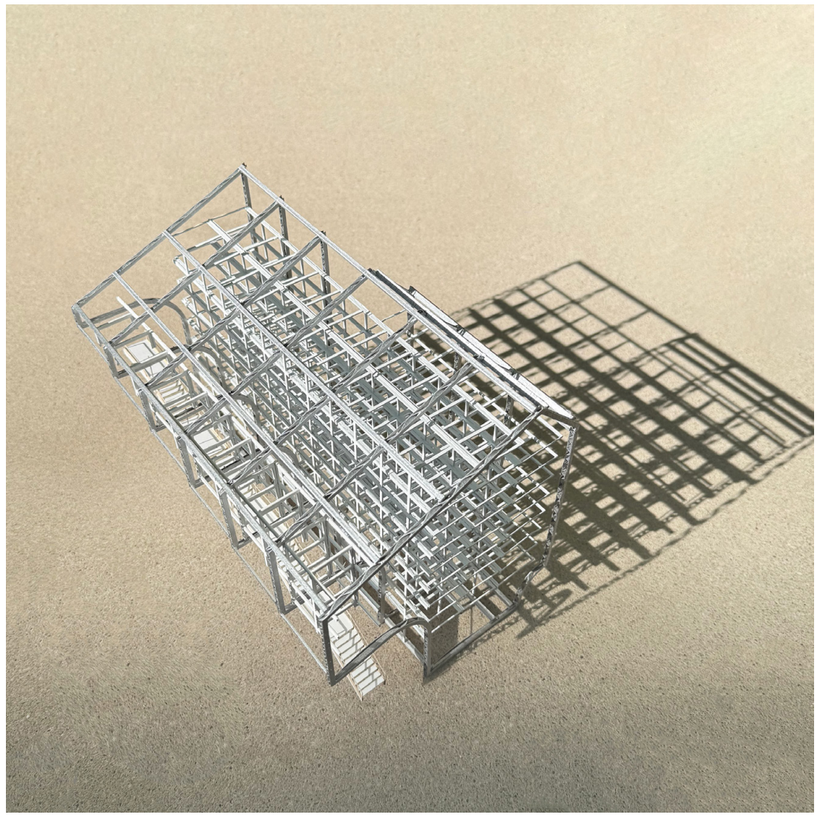


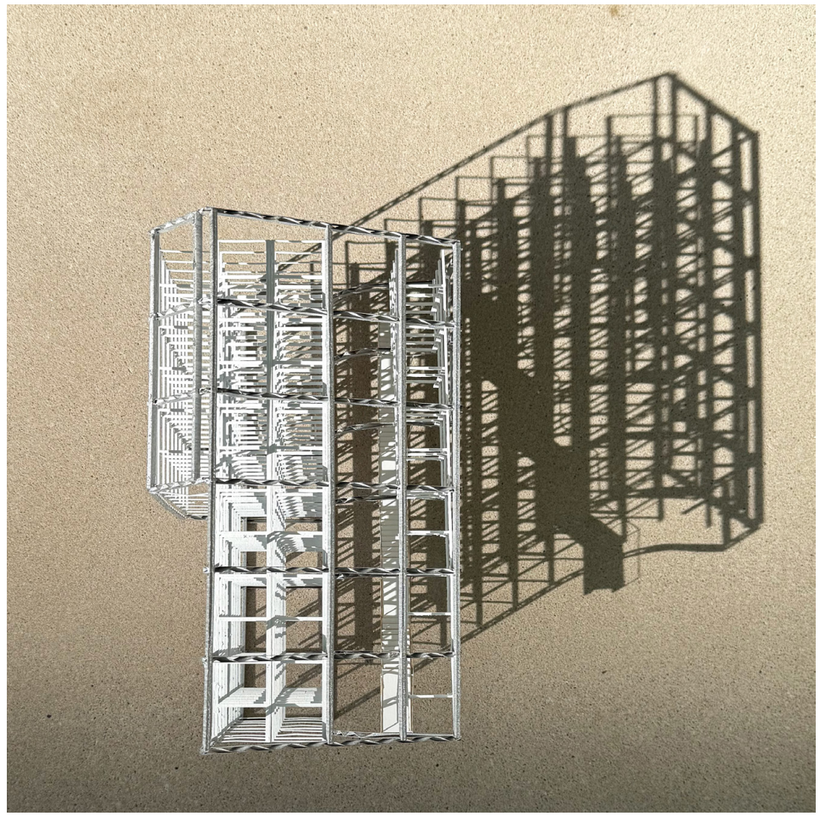



Bienvenidos


Bienvenidos





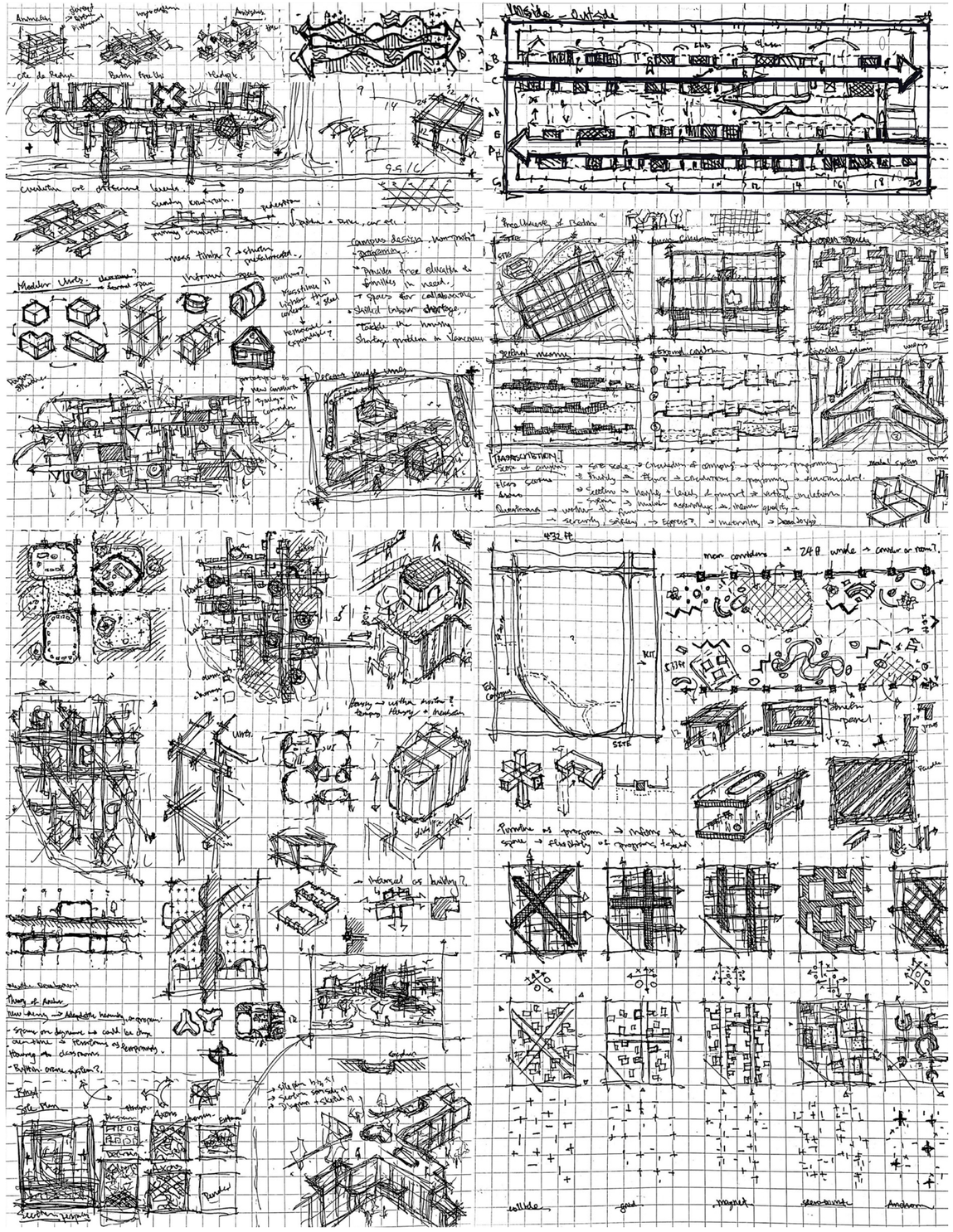


02

Plug-in Nexus

FA 2024 | ADV | M. Bell | Vancouver, BC

This project begins with a close transcription of the 1963 proposal for the Free University of Berlin by Candilis, Josic, Woods, and Schiedhelm. While their visionary scheme emphasized ideas of “mat-building,” “growth through change,” and a non-hierarchical, democratic spatial order, many of these concepts were lost or diluted in the built realization. Key ideas such as adaptable modularity, open-ended expansion, and primary circulation through elevated megastructural corridors were never fully realized due to political, technical, and economic constraints. Plug-In Nexus re-engages these original intentions by designing a modular campus defined by oversized connective corridors that serve not only as primary circulation but also as infrastructural and social spines. Around and within these spines, academic, residential, and communal programs are conceived as discrete, flexible plug-ins. The result is a dynamic framework that prioritizes openness, reconfiguration, and spatial democracy. This project is both a critique and continuation of the original vision a built argument for flexibility, community, and architectural infrastructure that adapts over time.

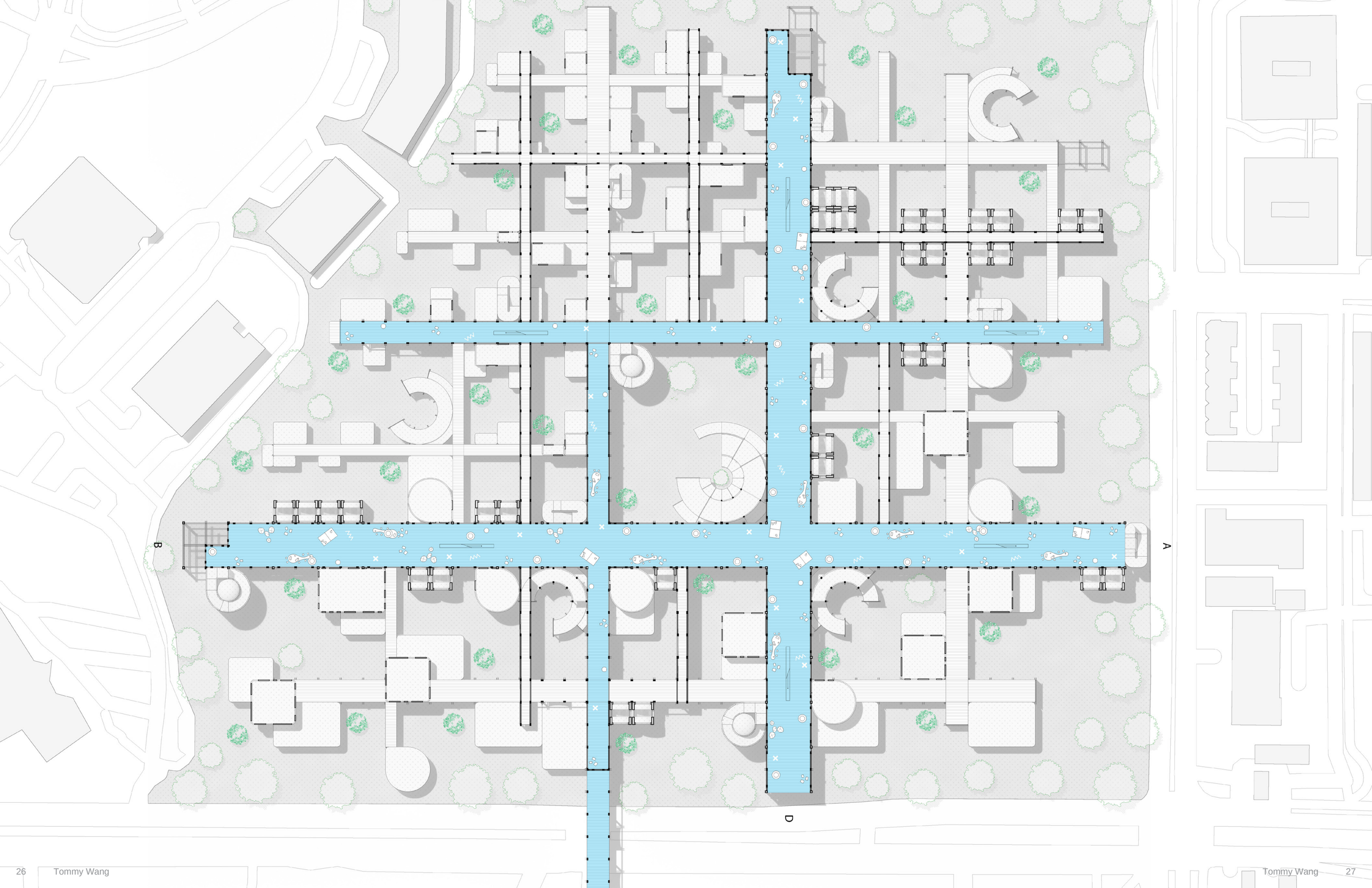


CIRCULATION

PROGRAM

PROPOSED

BUILT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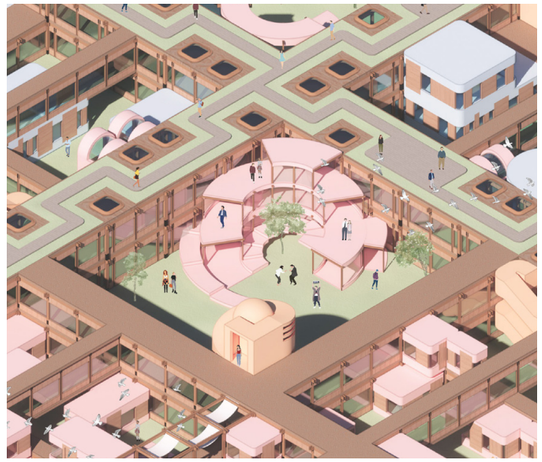
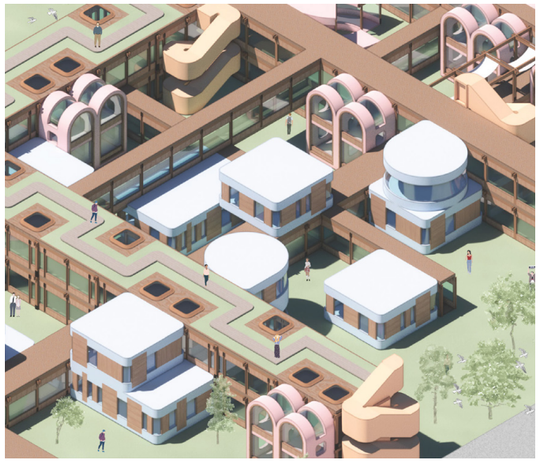
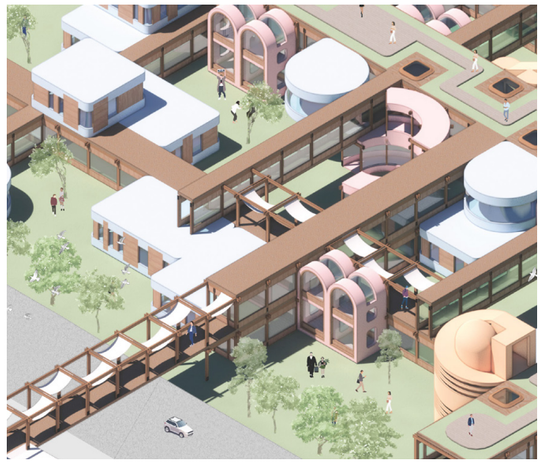
A
D

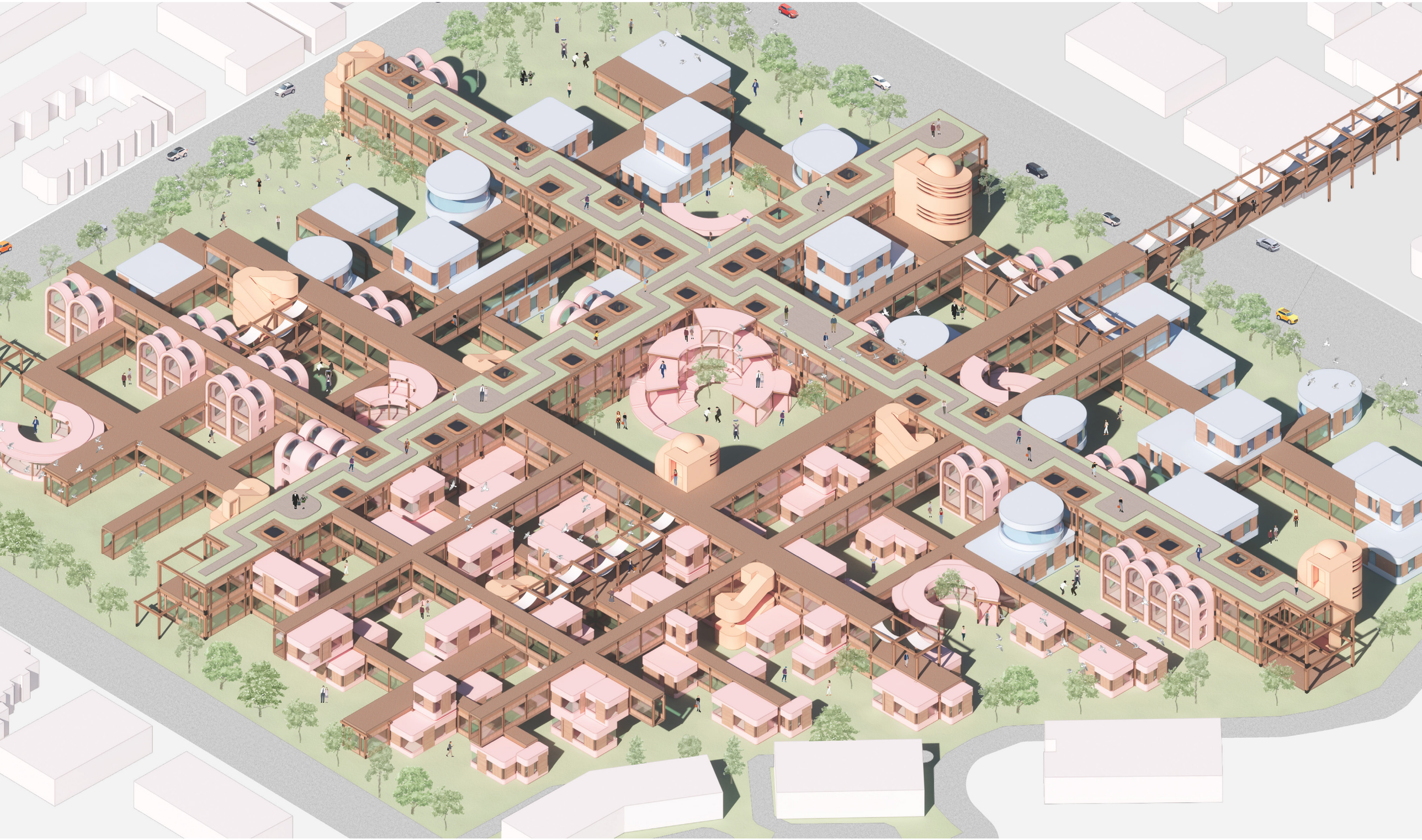






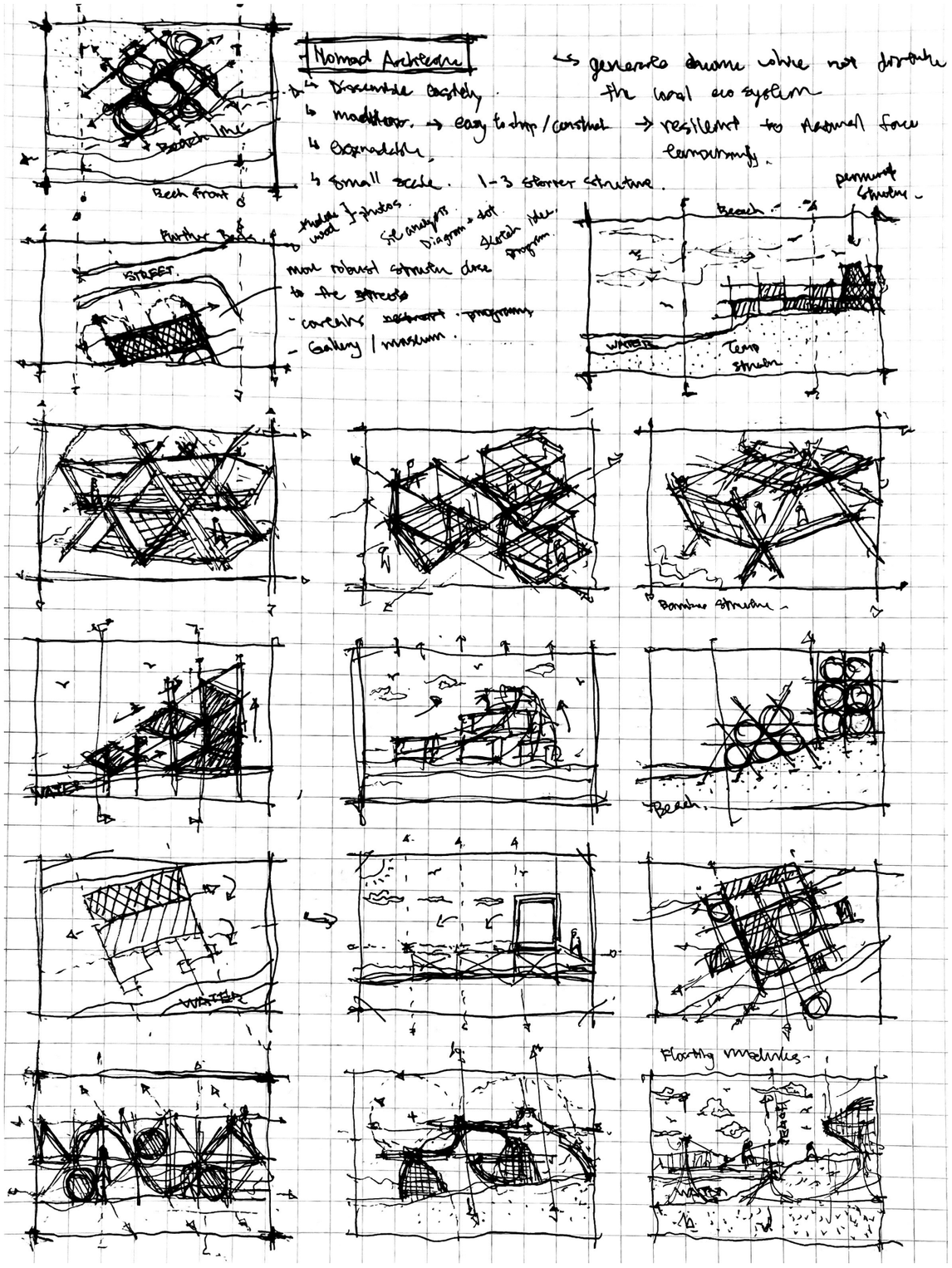



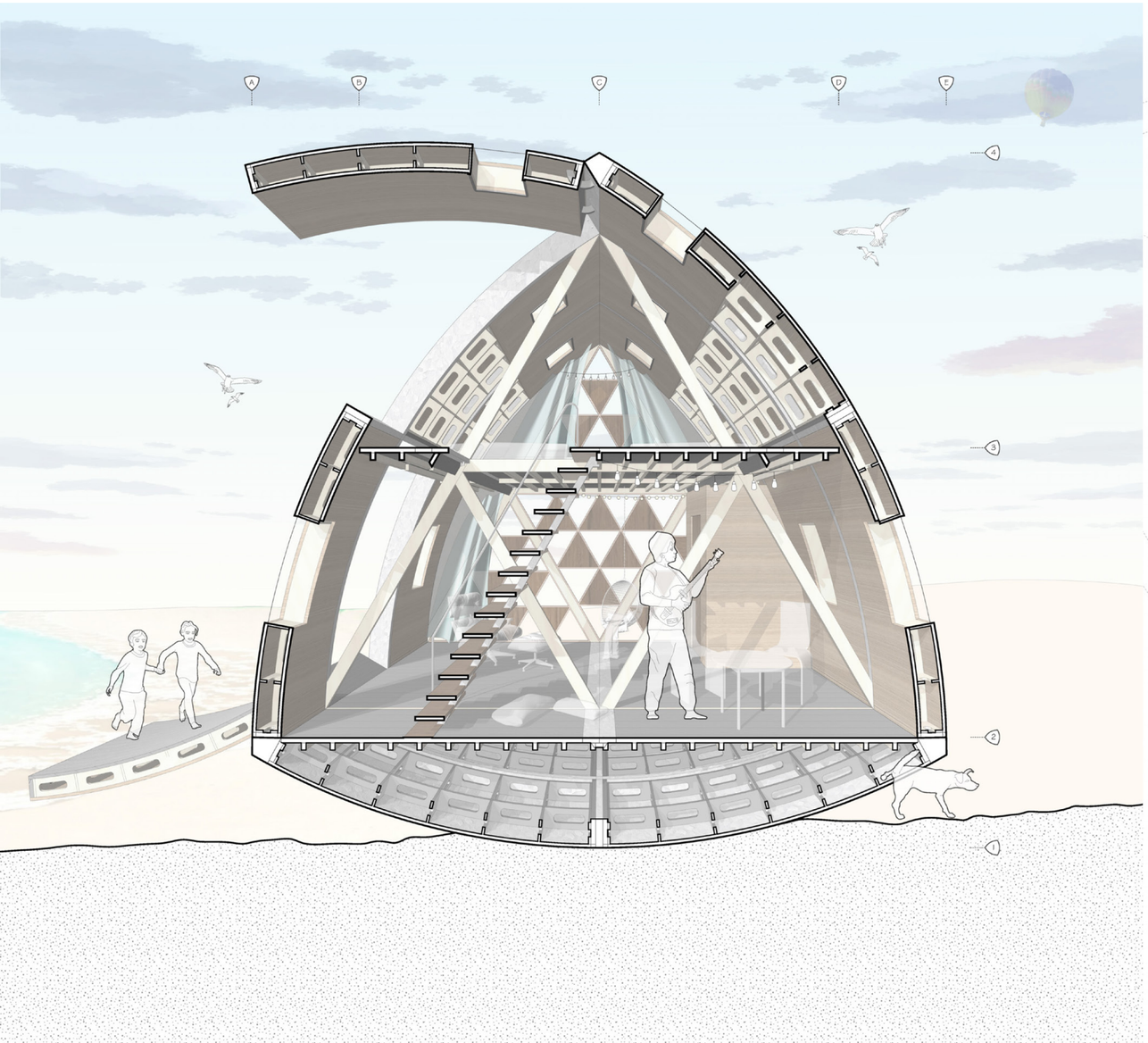
03

Rolling House

SP 2024 | ADIV | R. Marino | Montauk, NY

This project responds to the urgent ecological and economic challenges facing Montauk's coastline, specifically accelerating beach erosion, rising sea levels, and deteriorating tourist infrastructure. Rather than retreating inland, Rolling House explores how architecture can remain adaptable, responsive, and present within a volatile environment. Through site visits and environmental analysis, we recognized the need for flexible, transitional housing that can be quickly deployed, relocated, or expanded. This led to the development of modular prototypes that could "roll" or shift with changing shorelines. The cylindrical unit prioritizes ease of movement and minimal site impact, while the Realux Triangle offers expandable configurations through interlocking geometry. Both systems are conceived as lightweight, prefabricated structures that allow for growth in multiple directions promoting long-term resilience and immediate deployability. Rolling House reimagines coastal development not as fixed, fragile construction, but as mobile, regenerative infrastructure. The proposal combines spatial ingenuity with environmental pragmatism, offering a new typology for waterfront living, one that acknowledges uncertainty while enabling community continuity.


Nomad Architecture
↳ generates income while not disrupting the local eco system
↳ Disassemble easily.
↳ modular. → easy to ship / construct → resilient to seasonal force
↳ Expandable. temporarily.
↳ small scale. 1-3 starter structure.
Beach front
Partner Beach
STREET
Beach
permanent structure
WATER
Temp structure
Floating modules
Beach


A
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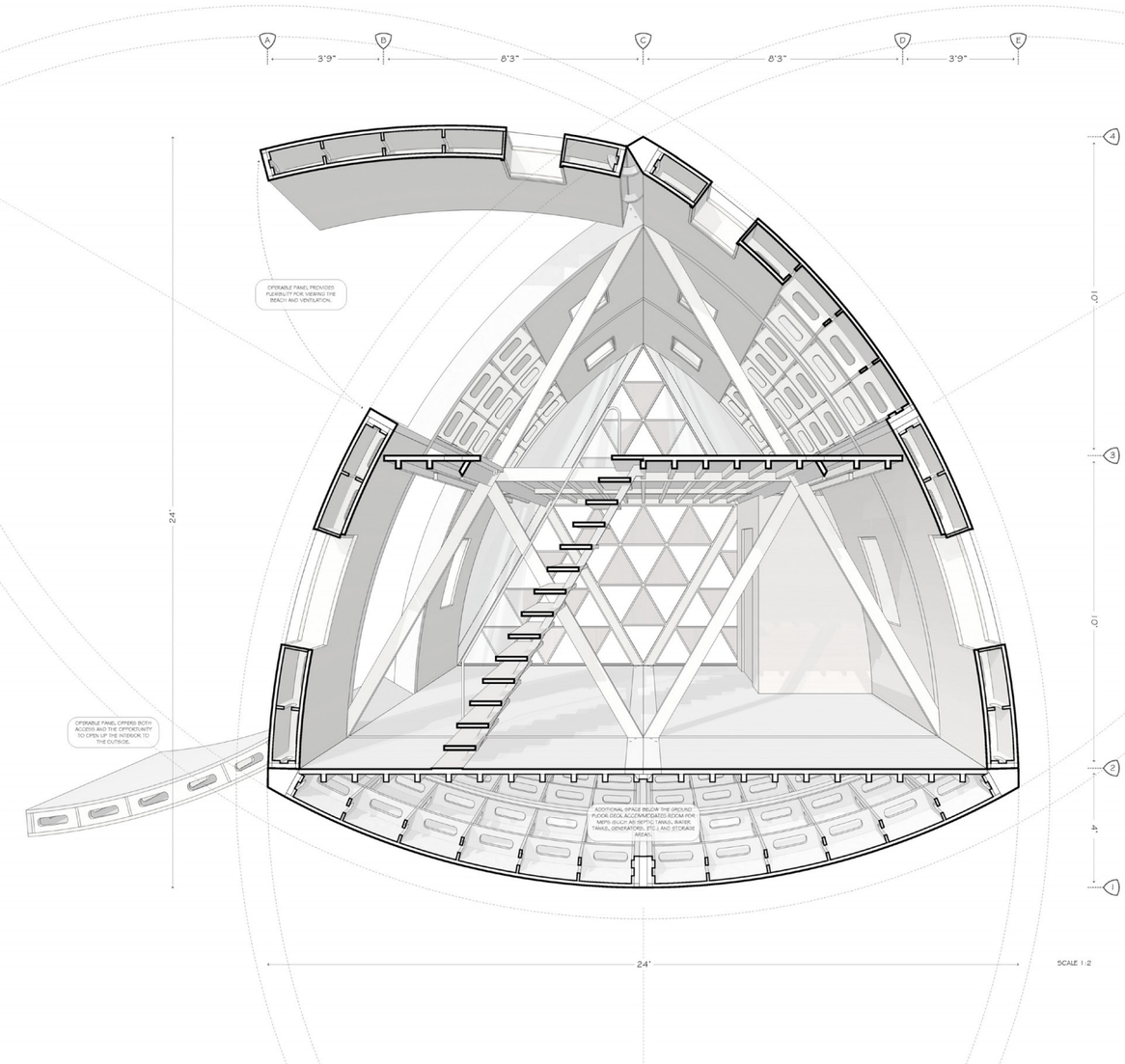
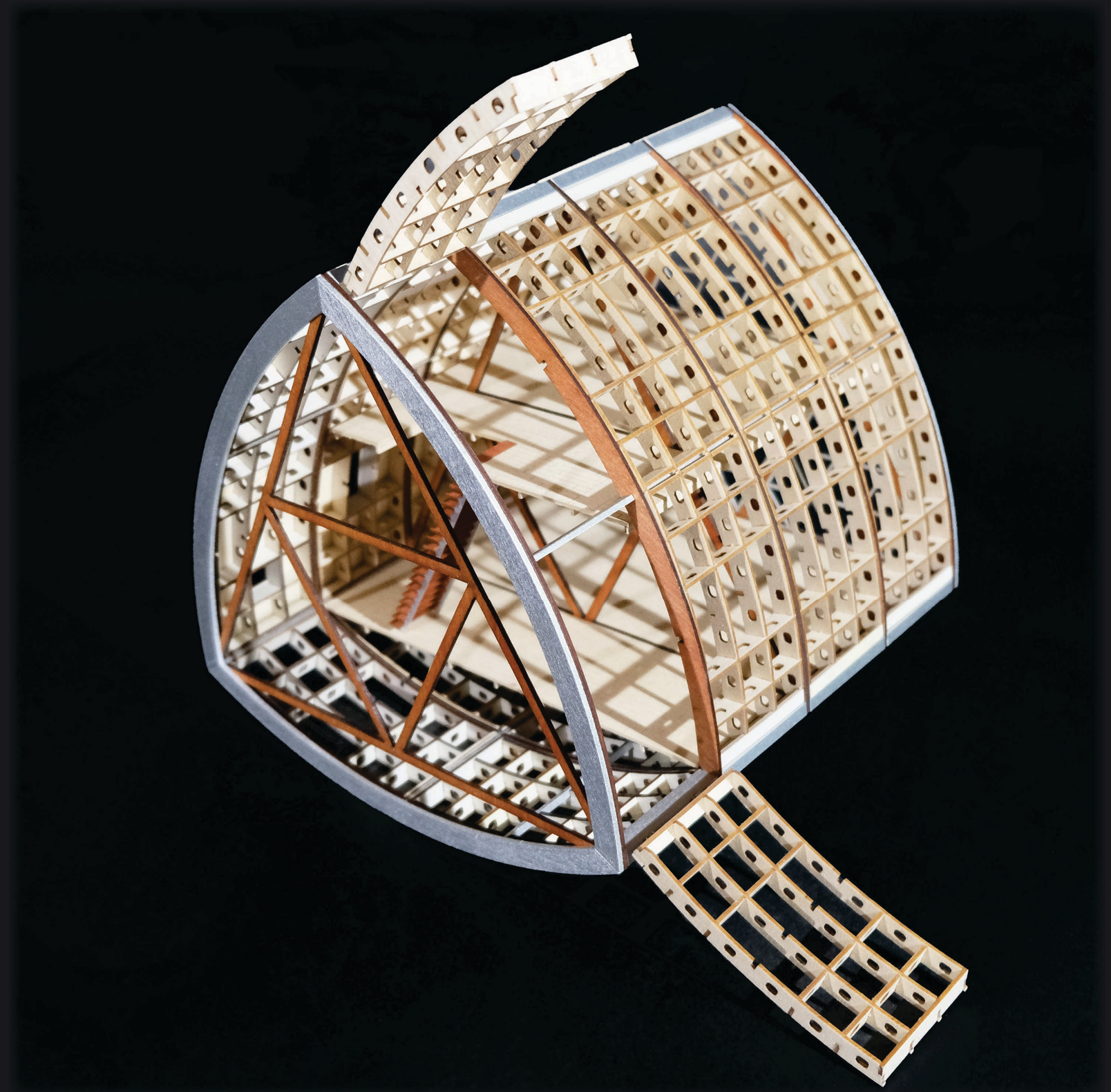
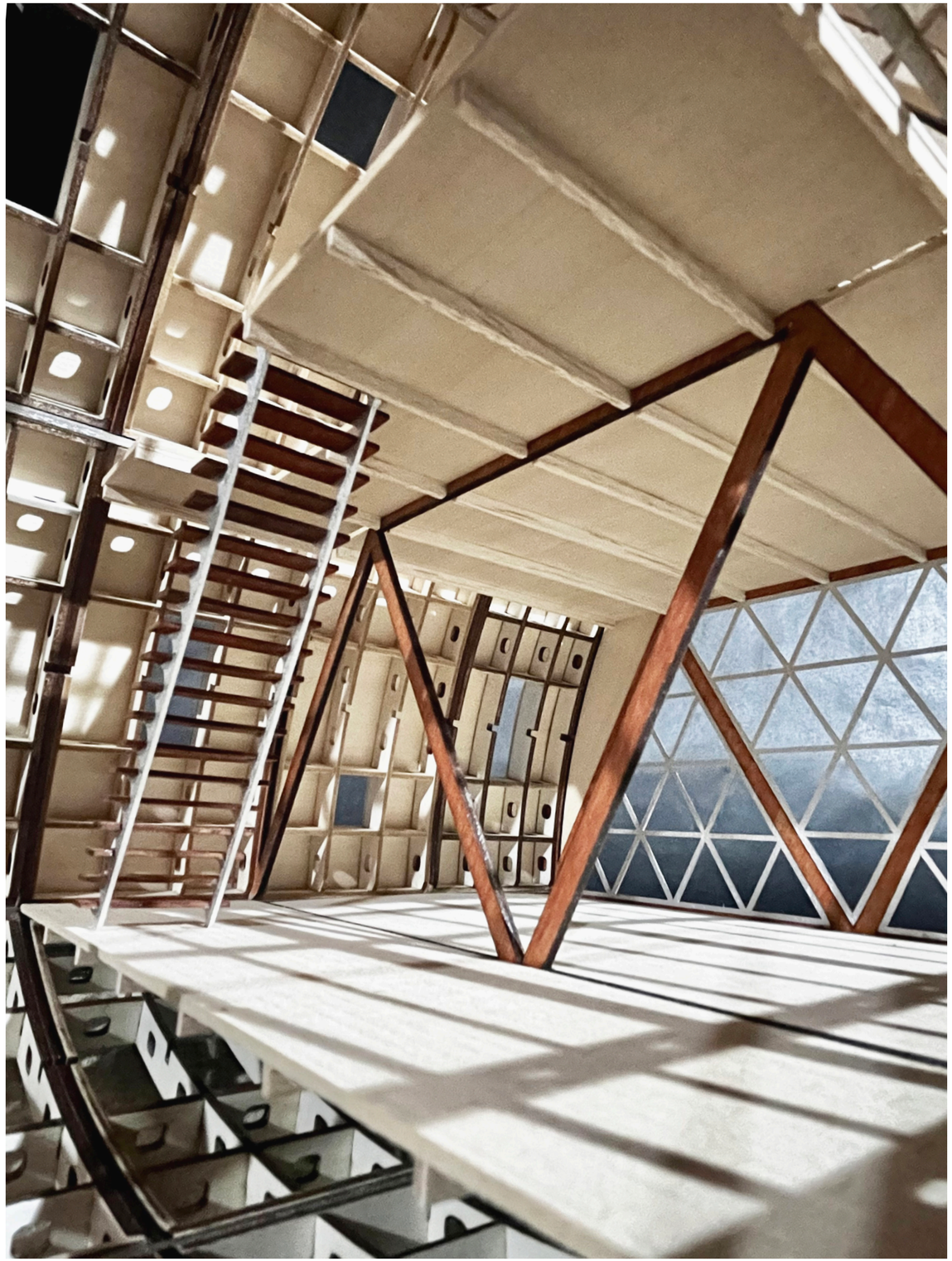
1


A
B
C
D
E
3'9"
8'3"
8'3"
3'9"
4
3
2
1
24'
10'
4'
24'
OPERABLE PANEL PROVIDES FLEXIBILITY FOR VIEWING THE BEACH AND VENTILATION.
OPERABLE PANEL OFFERS BOTH ACCESS AND THE OPPORTUNITY TO OPEN UP THE INTERIOR TO THE OUTSIDE.
ADDITIONAL SPACE BELOW THE GROUND FLOOR DECK ACCOMMODATES ROOM FOR MEPS (ELEC.), AN SEPTIC TANK, WATER TANKS, GENERATORS, ETC.) AND STORAGE AREAS.
SCALE 1:2



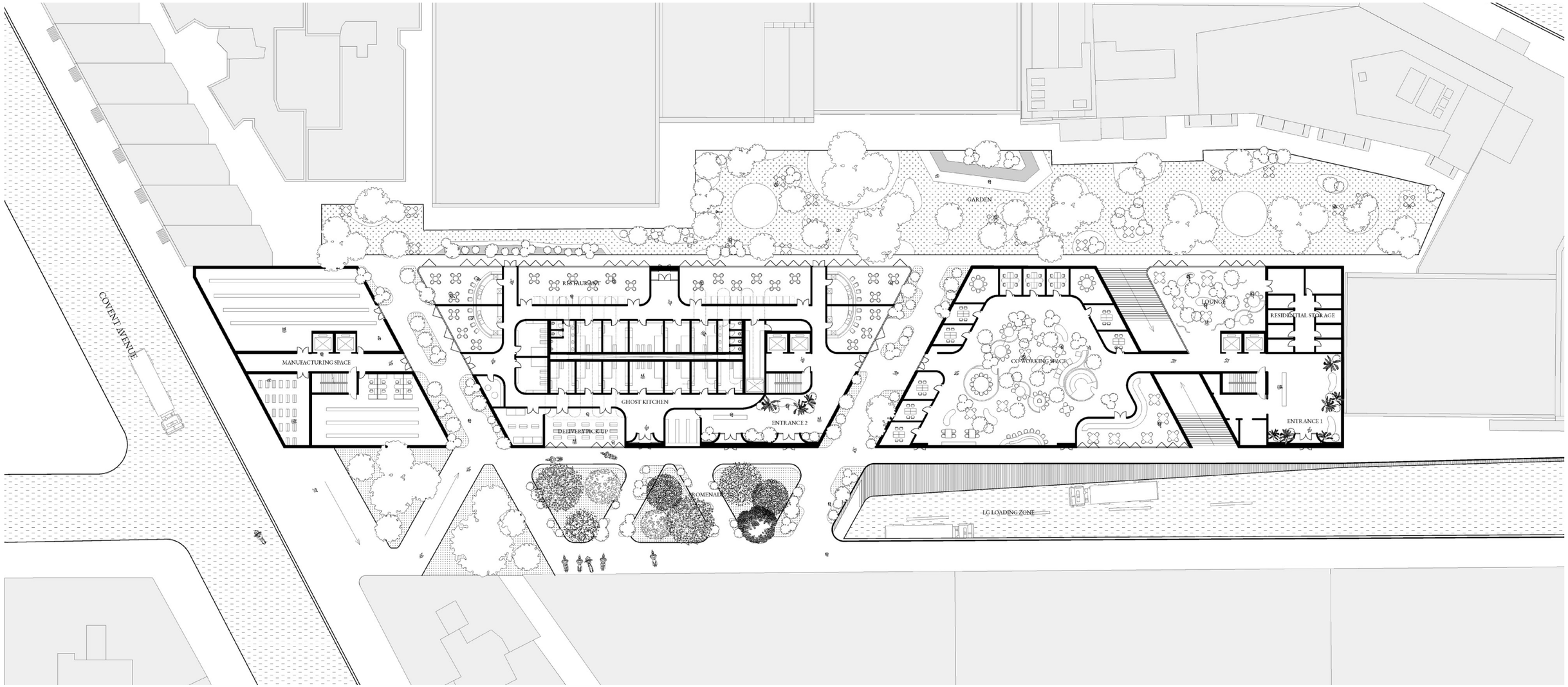


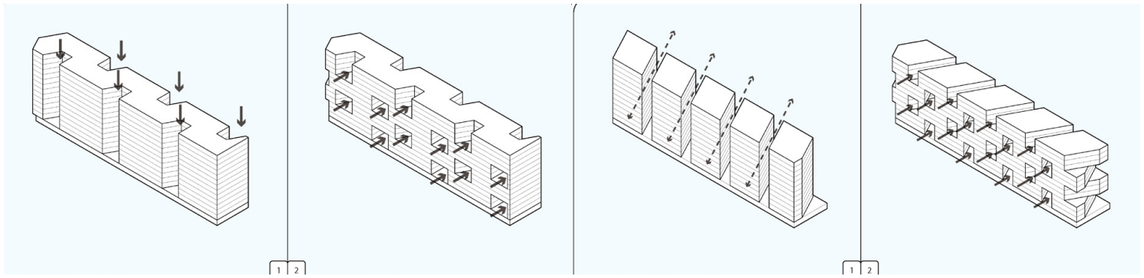
04

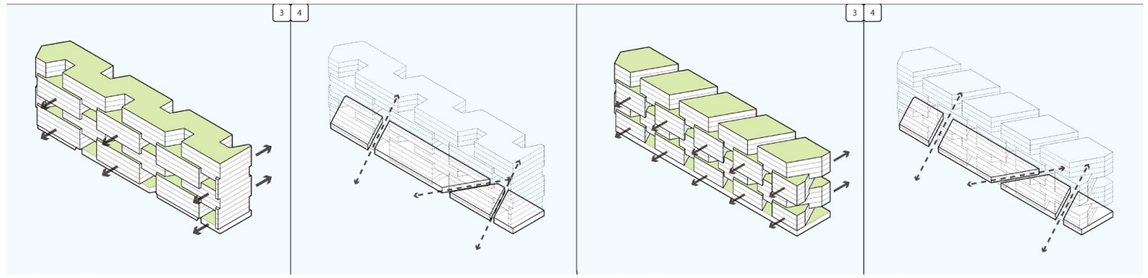
Transitional Housing

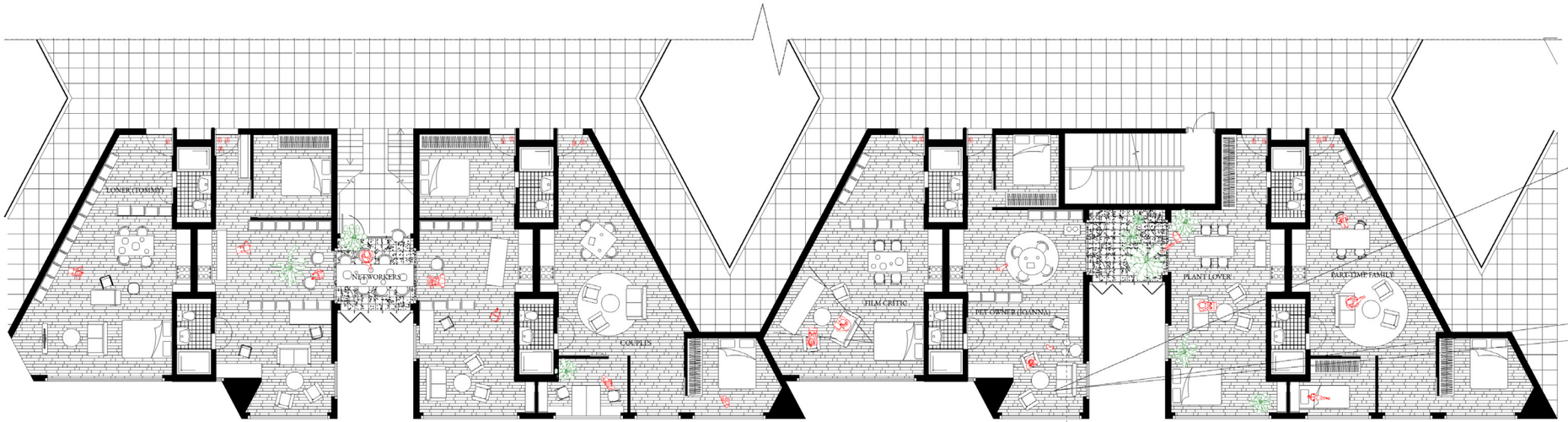
FA 2023 | Core III | G. Solomonoff | J. Cheung | Harlem, NY

Transitional Housing is a cooperative housing prototype designed for individuals and families aged 18 to 30, offering an adaptable, affordable alternative to the conventional nuclear family model. The project recognizes housing as more than shelter, it is a platform for mutual support, shared labor, and communal growth during critical life transitions. Guided by the principles of Shared Labor and Economy and Shared Property, the architecture fosters a collaborative living environment where resources, space, and responsibilities are collectively managed. The site is organized into five porous, interconnected blocks spanning three continuous levels. This structure promotes spatial fluidity, social interaction, and access to shared gardens, coworking zones, and recreational areas. Each unit features a central service core, housing kitchens and bathrooms lanked by private or semi-private living quarters. Between units, adaptable “joker rooms” provide multipurpose space that can be adapted for communal gatherings, work-from-home needs, or quiet retreat. This modular approach meets the evolving needs of young adults as they move through varying stages of independence, intimacy, and economic stability. Architecturally, the design merges adaptability with density, maximizing communal benefit while preserving personal space. By rethinking ownership, domesticity, and spatial hierarchy, Transitional Housing offers a contemporary model for urban resilience, supporting youth through uncertainty with dignity, structure, and community.


COVENT AVENUE
MANUFACTURING SPACE
RESTAURANT
GHOST KITCHEN
DELIVERY PICK-UP
ENTRANCE 2
PROMENADE
GARDEN
LOUNGE
COWORKING SPACE
LOUNGE
RESIDENTIAL STORAGE
ENTRANCE 1
LG LOADING ZONE







UNIT PLAN
1 : 1/8"

STUDIO
550 SQFT

2B2B WITH JOKER ROOM
1250 SQFT

2B1B
700 SQFT

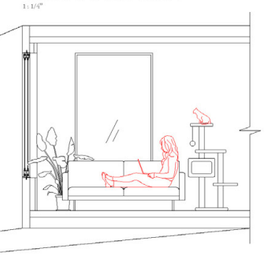
STUDIO
550 SQFT

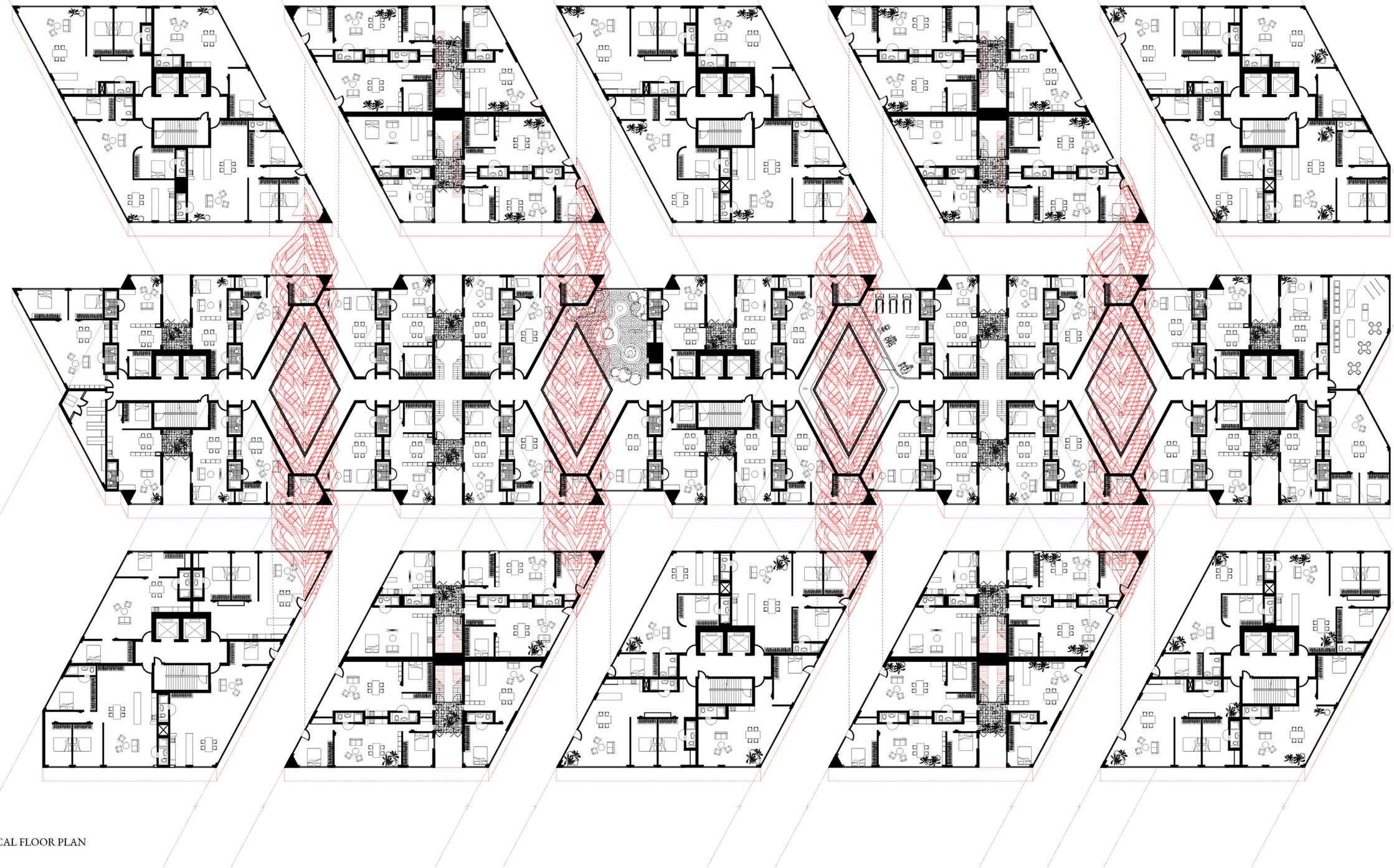
1B1B
600 SQFT

STUDIO WITH JOKER ROOM
750 SQFT

2B1B
700 SQFT

WINDOW SECTION
1 : 1/4"



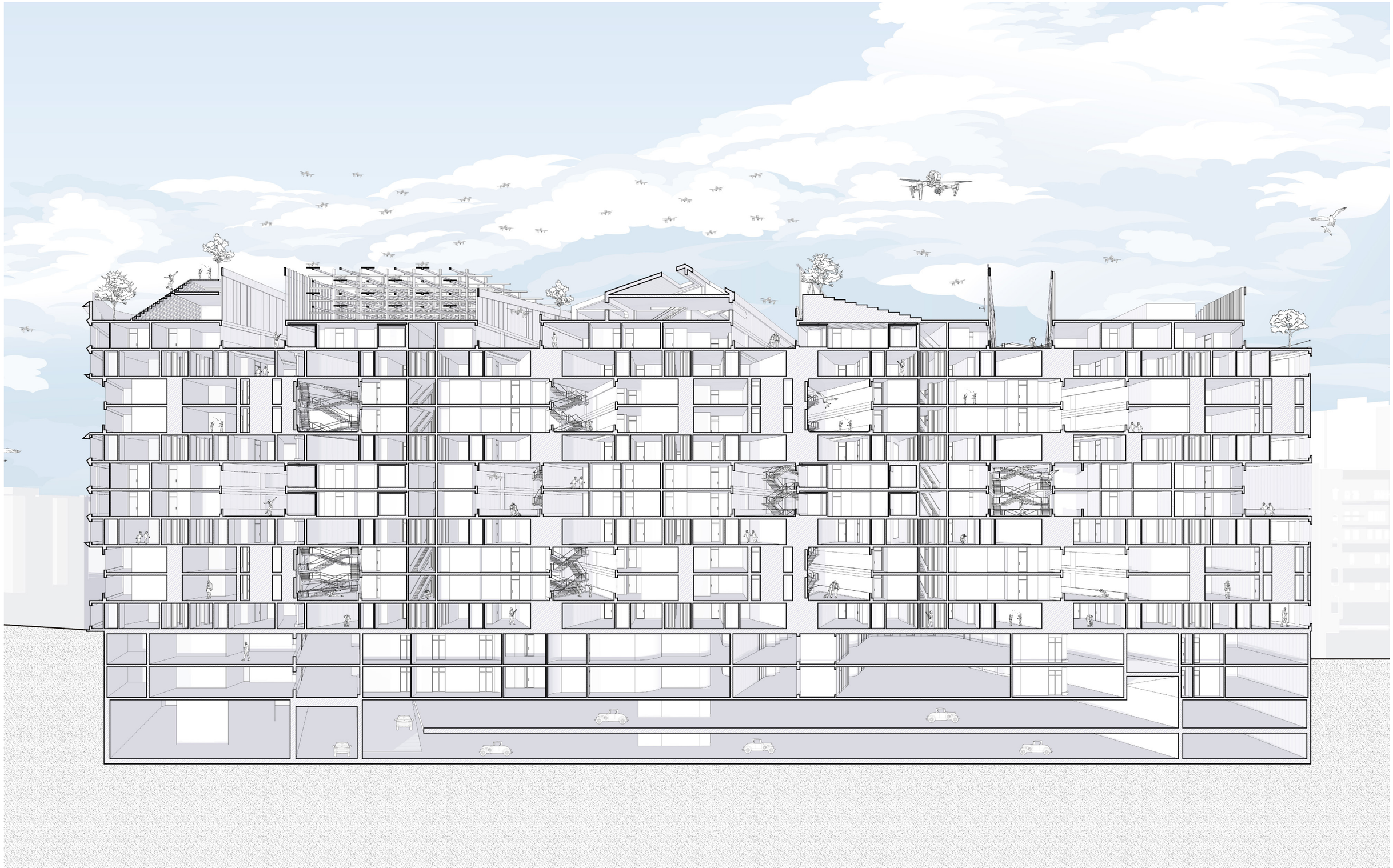


LOFT PLAN 2

FULL FLOOR PLAN

LOFT PLAN 1

TYPICAL FLOOR PLAN
1: 1/16"

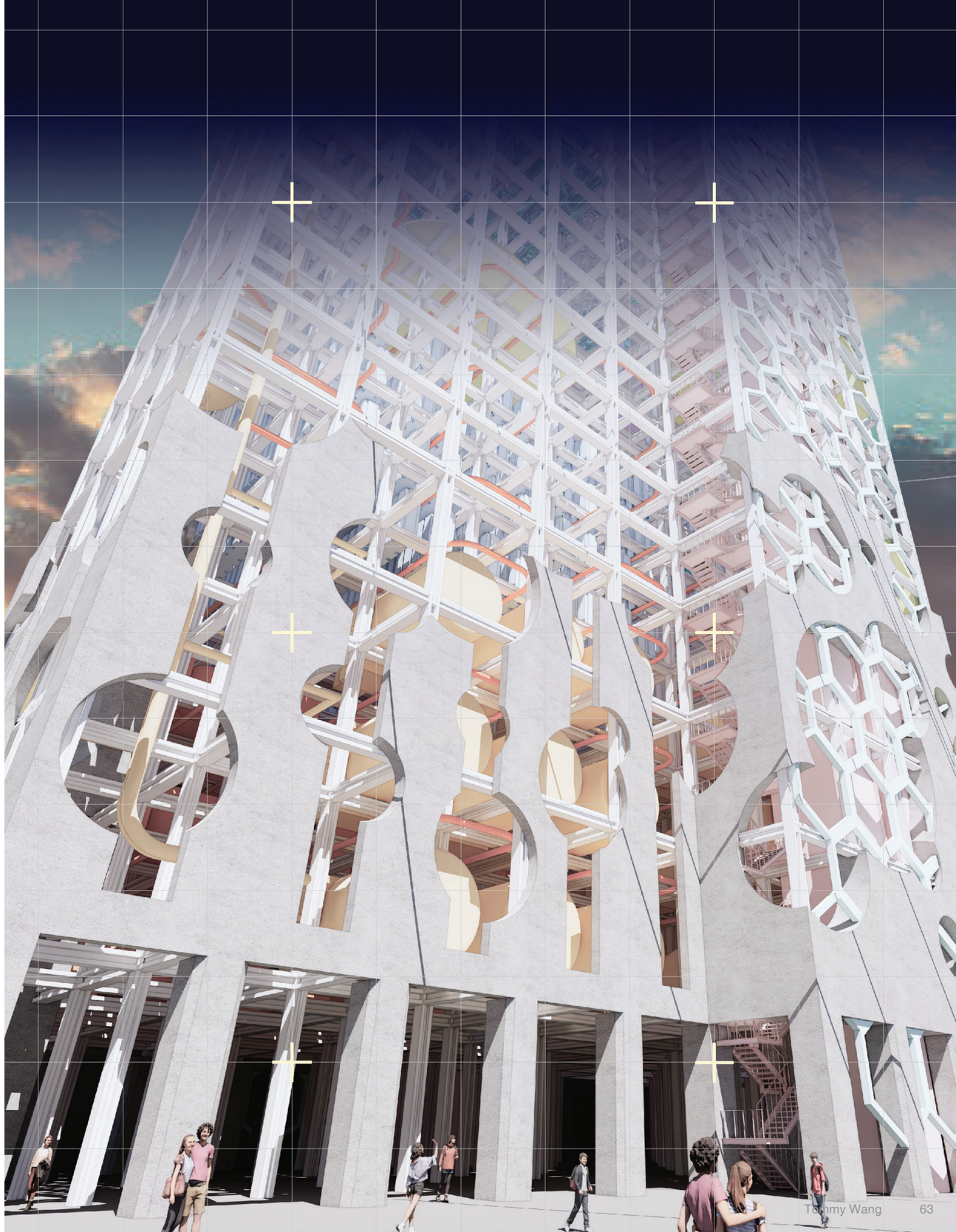


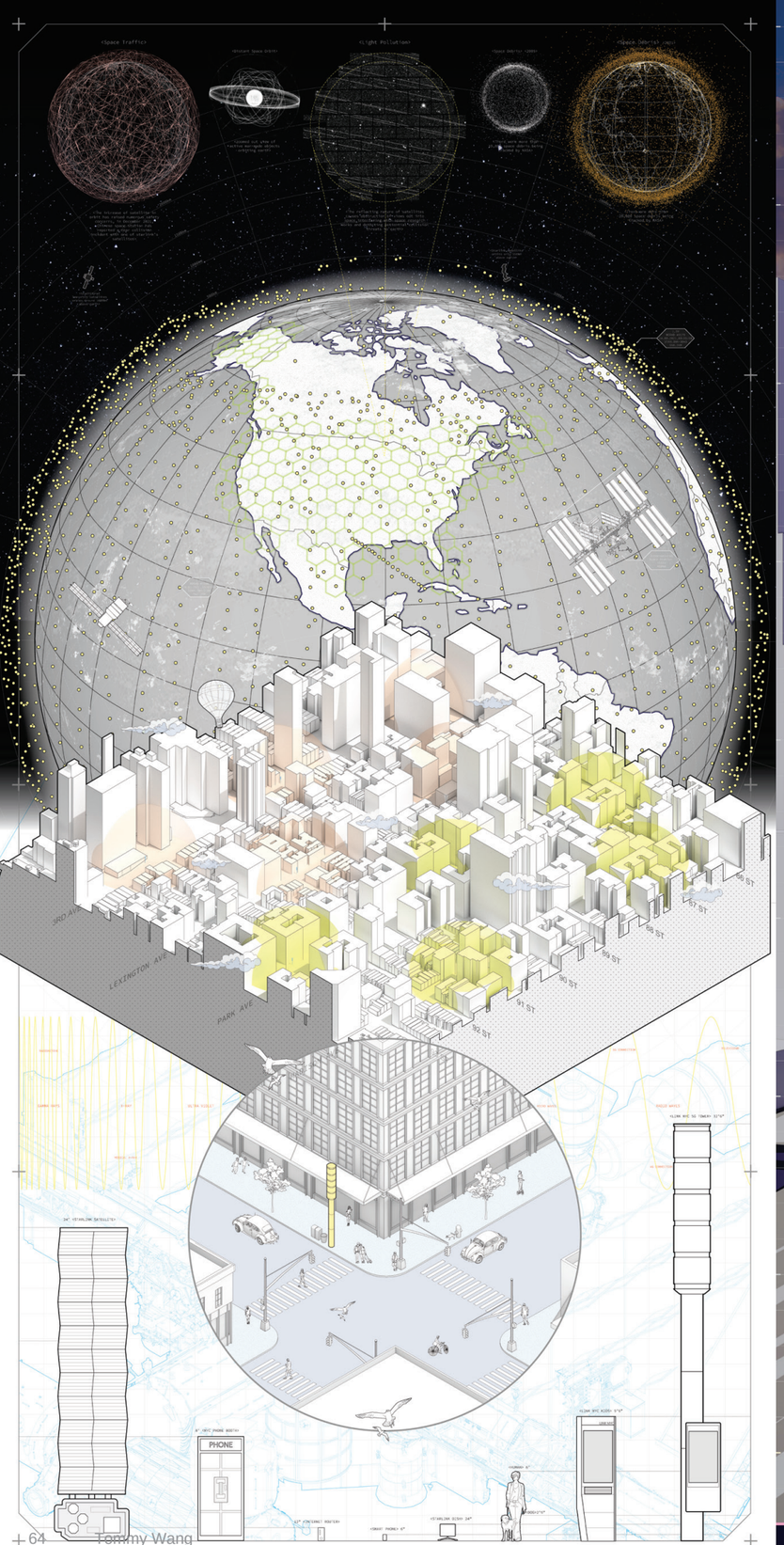
05

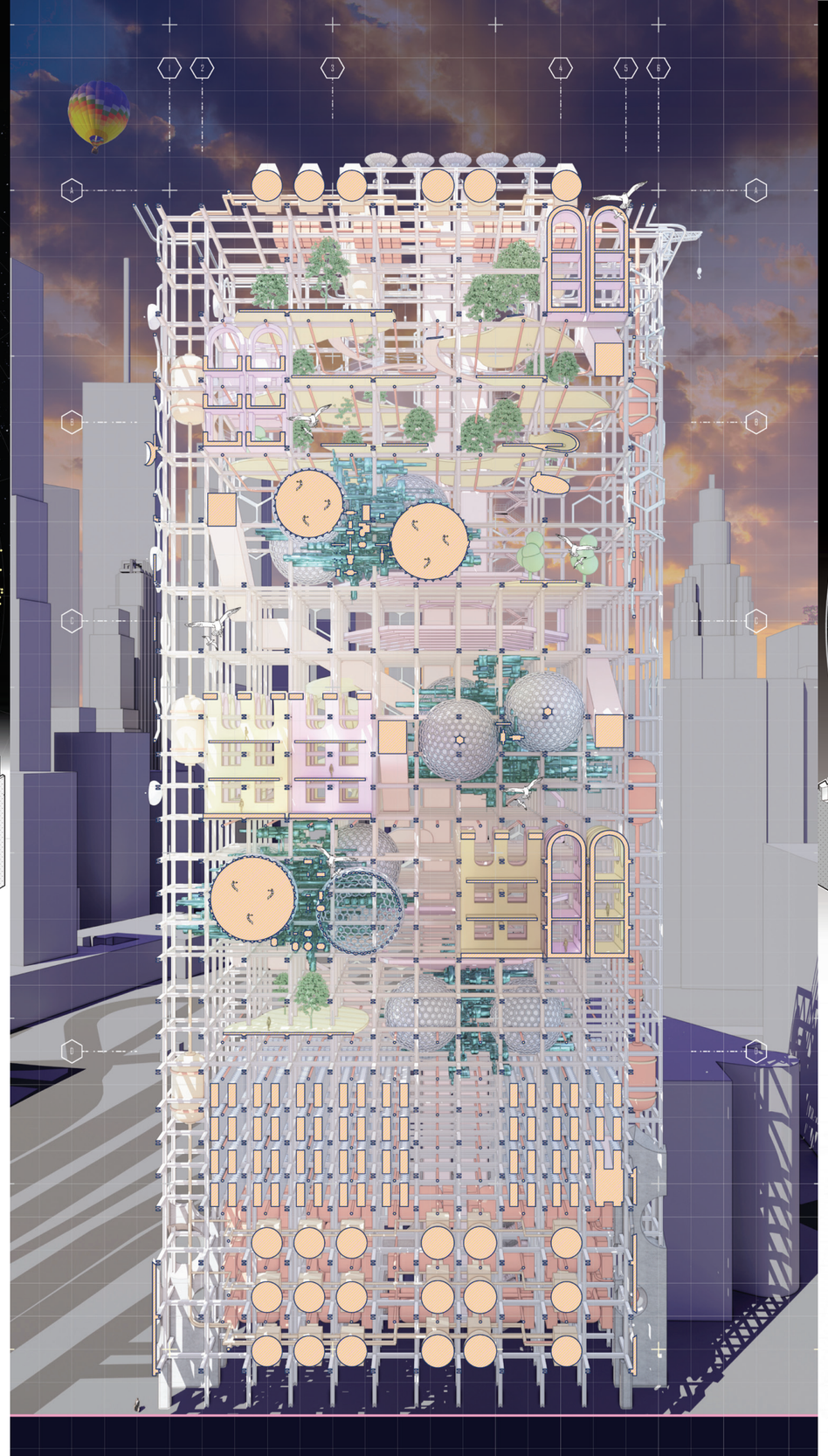
Data-E-Scape

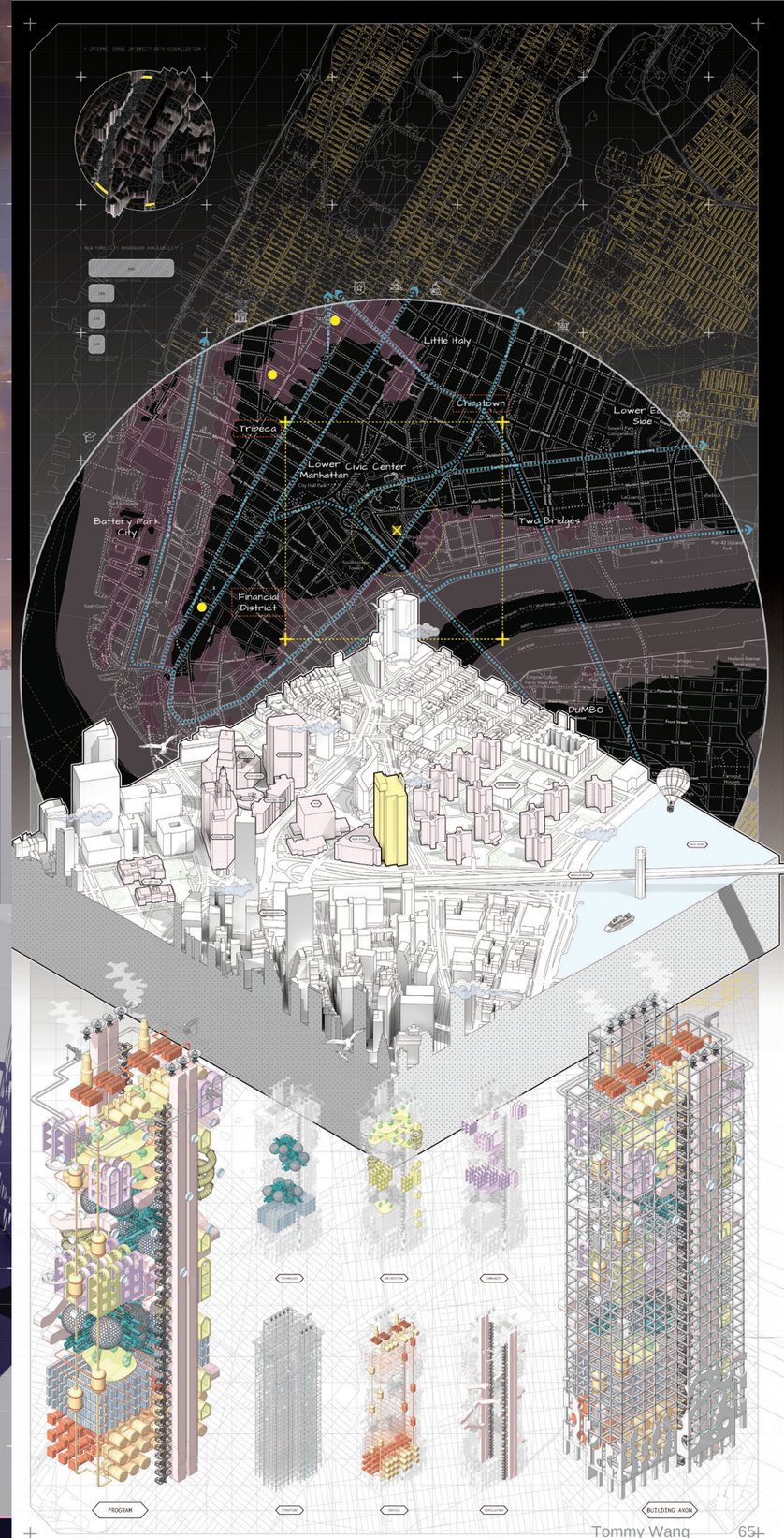
SP 2023 | Core II | R. Elkhatib | Manhattan, NY

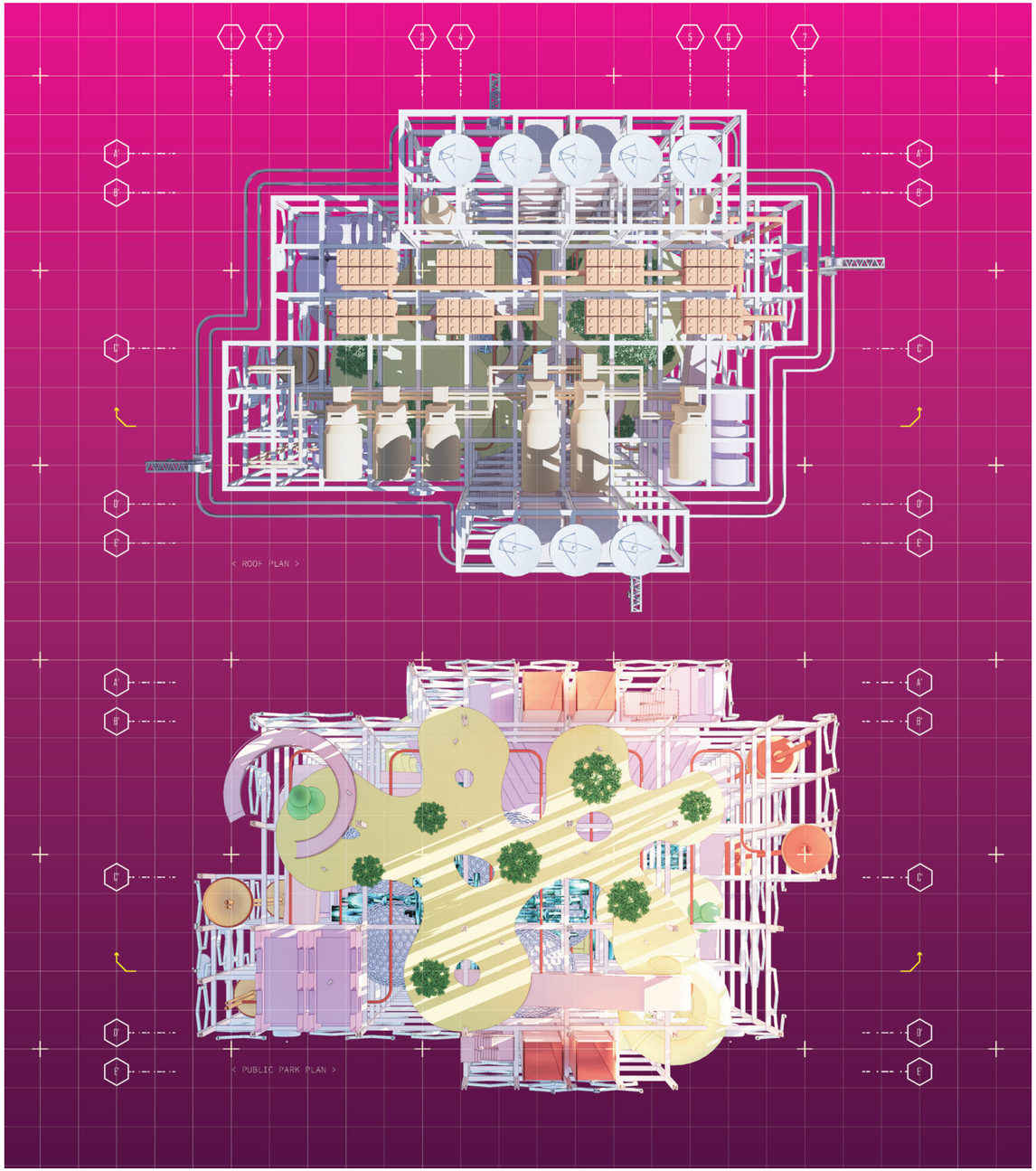
This project explores the hidden physical infrastructure of the internet a vast network of satellites, 5G towers, data centers, and broadband lines embedded in the fabric of urban life. In cities like New York, the internet has become an omnipresent force, shaping how we live and interact. Yet its rapid expansion has brought overlooked consequences: 5G towers raise concerns about surveillance and health, while Starlink's satellites contribute to light pollution and space debris. As our dependence on this infrastructure grows, so does its environmental and social impact. At the heart of this system lies the data center, responsible for processing, storing, and transmitting massive amounts of data. These buildings raise fundamental questions about power and access: Who controls this infrastructure? Who benefits from it? This project focuses on the Sabey Data Center in Lower Manhattan, the tallest in the world, currently controlled by the NYC government and Verizon. Set in a speculative future of internet decentralization, the project reclaims the data center as a civic space. Its existing infrastructure power generators, water systems, antennae, is reprogrammed for public use. The structure is transformed into a vertical commons: classrooms, gardens, archives, galleries, coworking spaces. Operated and shaped by the local community, the building becomes a symbol of digital empowerment, collective stewardship, and spatial reclamation. It challenges the dominance of tech monopolies by proposing an internet infrastructure rooted in public life.




Space Traffic
Light Pollution
Space Debris (2001)
3RD AVE
LEXINGTON AVE
PARK AVE
88 ST
89 ST
90 ST
91 ST
92 ST
93 ST
97 ST
PHONE




Little Italy
Chinatown
Lower East Side
Tribeca
Lower Civic Center Manhattan
Two Bridges
Battery Park City
Financial District
DUMBO
PROGRAM
BUILDING AXON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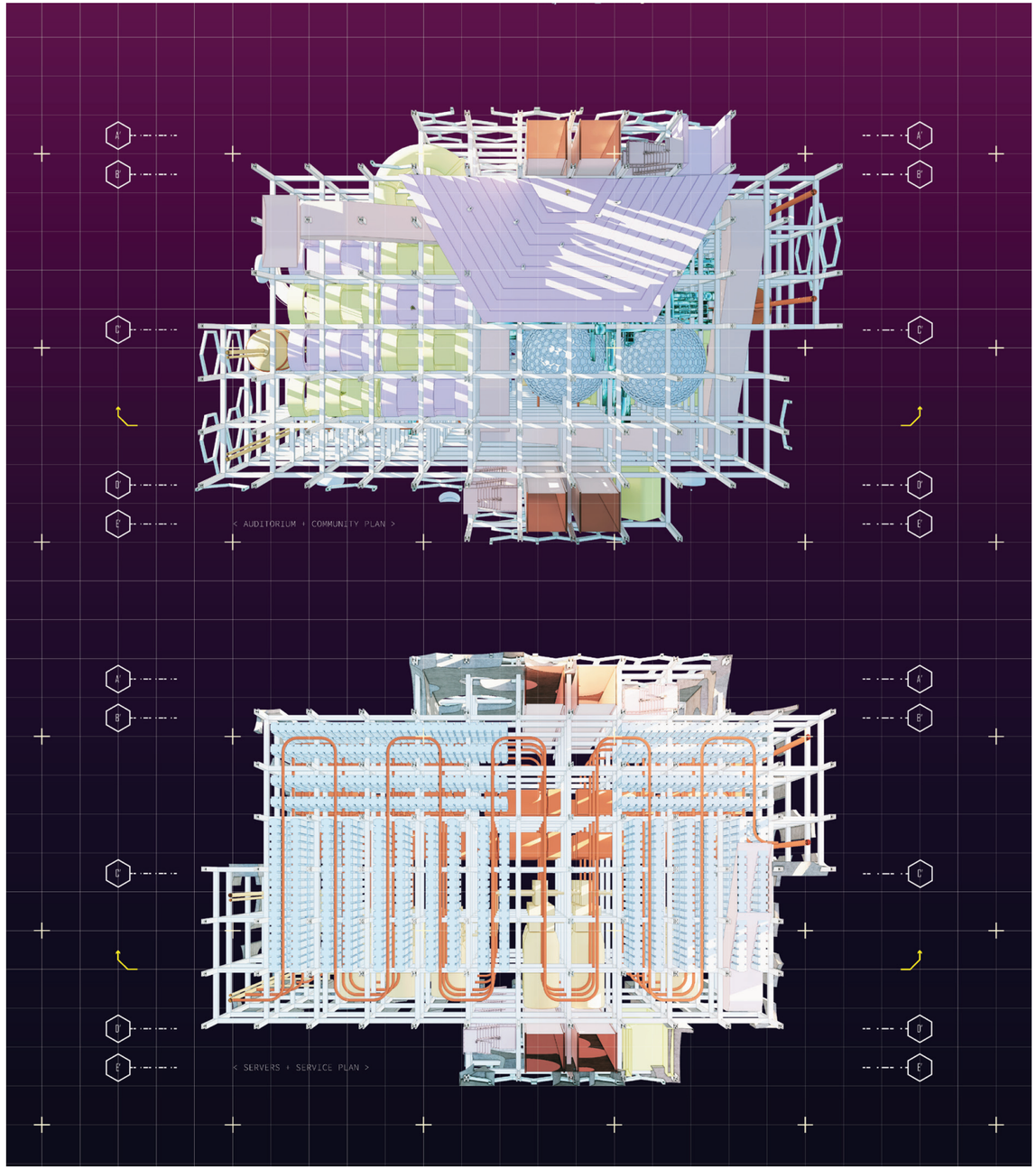
< PUBLIC PARK PLAN >


< AUDITORIUM + COMMUNITY PLAN >

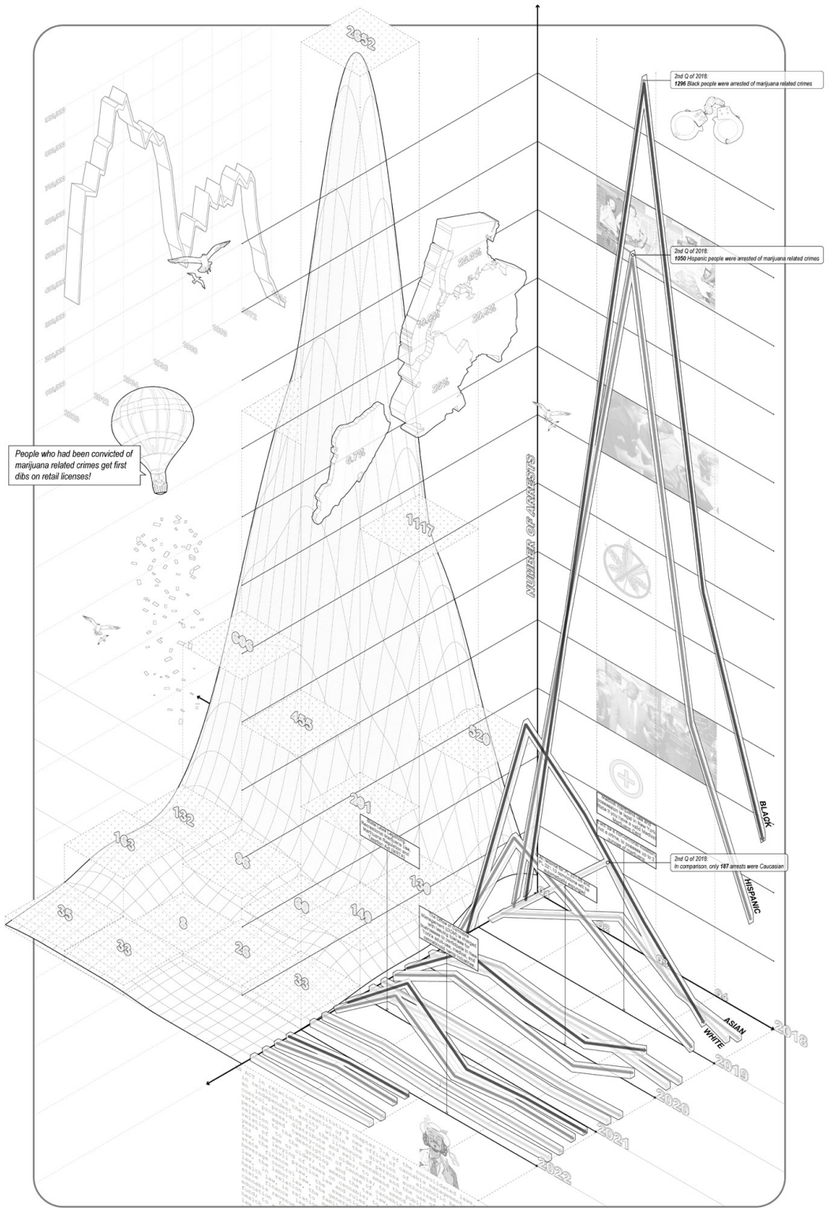
< SERVERS + SERVICE PLAN >

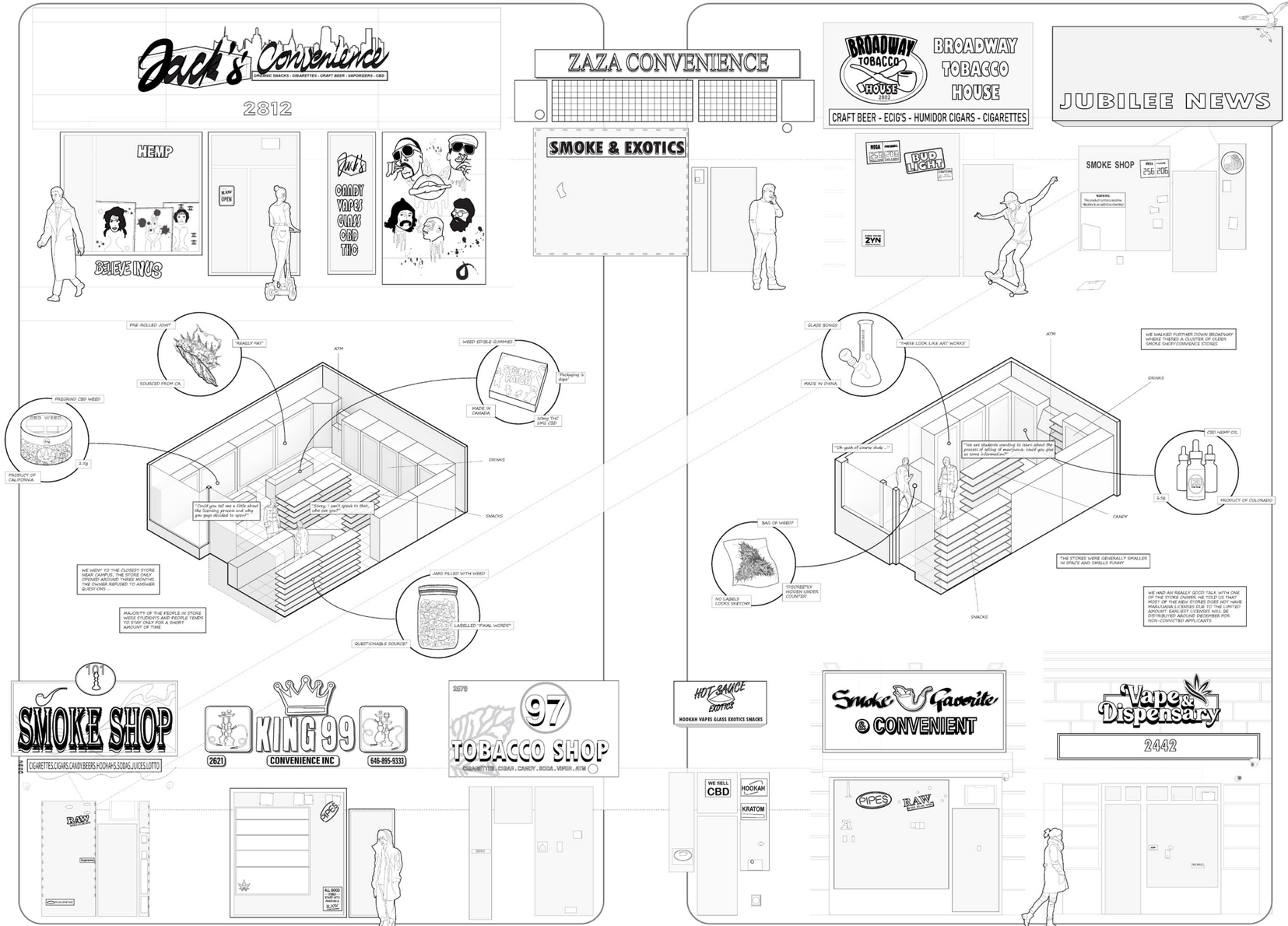
06

The Green Incubator

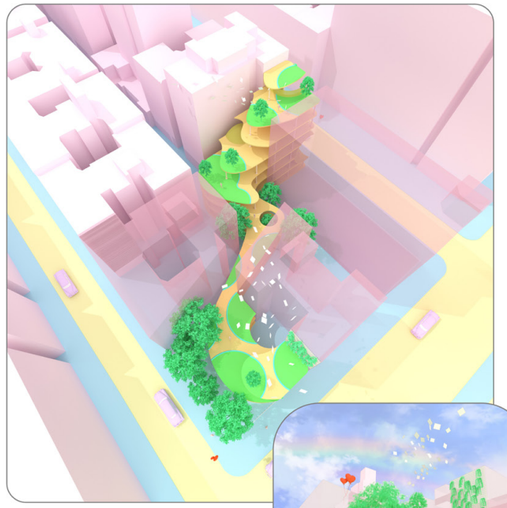
FA 2022 | Core I | G. Pardee | New York, NY

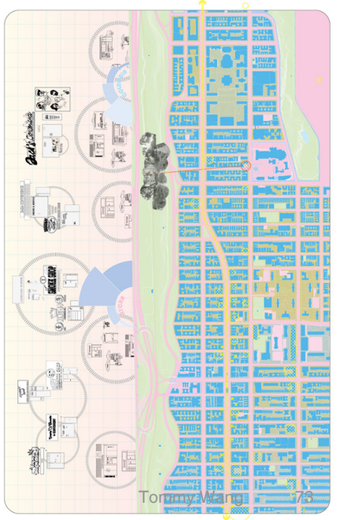
With the legalization of recreational marijuana in New York City, a significant cultural and regulatory shift is underway. This project investigates the complex history of cannabis criminalization, highlighting how Black and Brown communities were disproportionately targeted through aggressive policing and uneven policy enforcement. While legalization marks a progressive step, it also risks reproducing systemic inequities if left in the hands of private capital alone. I proposes a Green incubator that reframes marijuana as a civic resource, supporting education, destigmatization, and economic empowerment through architecture. The site becomes a hybrid ground for Columbia University, local residents, and small scale entrepreneurs to co-develop sustainable, community based cannabis industries. The program integrates vertical farms, seed libraries, hemp processing labs, co-working hubs, retail stores, and public plazas into a cohesive, playful environment. Beyond consumption, the project educates on marijuana's full ecological and material potential: hemp as building insulation, biodegradable plastics, textile fiber, and medical applications. Through speculative renderings and layered data visualizations, the project critiques the aesthetics of capitalist greenwashing while offering an alternative rooted in transparency, local agency, and design justice. It envisions a future where cannabis supports not only wellness, but reparative economies and inclusive urban growth.


2022
2021
2020
2019
2018
People who had been convicted of marijuana related crimes get first dibs on retail licenses!
3rd Q of 2018:
1296 Black people were arrested of marijuana related crimes
3rd Q of 2018:
1050 Hispanic people were arrested of marijuana related crimes
NUMBER OF ARRESTS
BLACK
HISPANIC
ASIAN
WHITE
3rd Q of 2018:
In comparison, only 187 arrests were Caucasian


Jack's Convenience
HISPANIC SNACKS - CIGARETTES - CRAFT BEER - VAPORIZERS - CBD
2812
HEMP
BELIEVE IN US
SLAW OPEN
Jack's
CANDY VAPES GLASS AND THC
ZAZA CONVENIENCE
SMOKE & EXOTICS
BROADWAY TOBACCO HOUSE
2002
BROADWAY TOBACCO HOUSE
CRAFT BEER - ECIG'S - HUMIDOR CIGARS - CIGARETTES
JUBILEE NEWS
SMOKE SHOP
BUD LIGHT
ZYN
PRE-ROLLED JOINT
"REALLY FAT"
SOURCED FROM CA
PREGRIND CBD WEED
CBD WEED
2.5g
PRODUCT OF CALIFORNIA
ATM
WEED EDIBLE GUMMIES
CANDY PACK
"Packaging is dope"
MADE IN CANADA
10mg THC 10MG CBD
DRINKS
SNACKS
"Could you tell me a little about the licensing process and why you guys decided to open?"
"Sorry, I can't speak to that, who are you?"
WE WENT TO THE CLOSEST STORE NEAR CAMPUS, THE STORE ONLY OPENED AROUND THREE MONTHS. THE OWNER REFUSED TO ANSWER QUESTIONS ...
MAJORITY OF THE PEOPLE IN STORE WERE STUDENTS AND PEOPLE TENDS TO STAY ONLY FOR A SHORT AMOUNT OF TIME
JARS FILLED WITH WEED
LABELLED "FINAL WORDS"
QUESTIONABLE SOURCE?
GLASS BONGS
"THESE LOOK LIKE ART WORKS"
MADE IN CHINA
ATM
WE WALKED FURTHER DOWN BROADWAY WHERE THERES A CLUSTER OF OLDER SMOKE SHOP/CONVENIENCE STORES
DRINKS
"We are students wanting to learn about the process of selling of marijuana, could you give us some information?"
"Oh gosh of course dude ..."
CBD HEMP OIL
2.5g
PRODUCT OF COLORADO
CANDY
SNACKS
BAG OF WEED?
NO LABELS LOOKS SKETCHY
DISCREETLY HIDDEN UNDER COUNTER
THE STORES WERE GENERALLY SMALLER IN SPACE AND SMELLS FUNNY
WE HAD AN REALLY GOOD TALK WITH ONE OF THE STORE OWNERS, HE TOLD US THAT MOST OF THE NEW STORES DOES NOT HAVE MARIJUANA LICENSES DUE TO THE LIMITED AMOUNT. EARLIEST LICENSES WILL BE DISTRIBUTED AROUND DECEMBER FOR NON-CONVICTED APPLICANTS.
SMOKE SHOP
CIGARETTES.CIGARS.CANDY.BEERS.HOOKAHS.SODAS.JUICES.LOTTO
2621
KING 99
CONVENIENCE INC
646-895-9333
2578
97
TOBACCO SHOP
CIGARETTES . CIGAR . CANDY . SODA . VAPER . ATM
HOT SAUCE EXOTICS
HOOKAH VAPES GLASS EXOTICS SMACKS
Smoke Gaverite
& CONVENIENT
Vape & Dispensary
2442
WE SELL
CBD
HOOKAH
KRATOM
PIPES
RAW


TRUMP STORE
TRUMP STORE
FOR LEASE
FOR LEASE
FOR LEASE
ORDER ONLINE
LOCAL ORGANIC WEED
PICK A HEMP
FARMERS MARKET
CANNABIS





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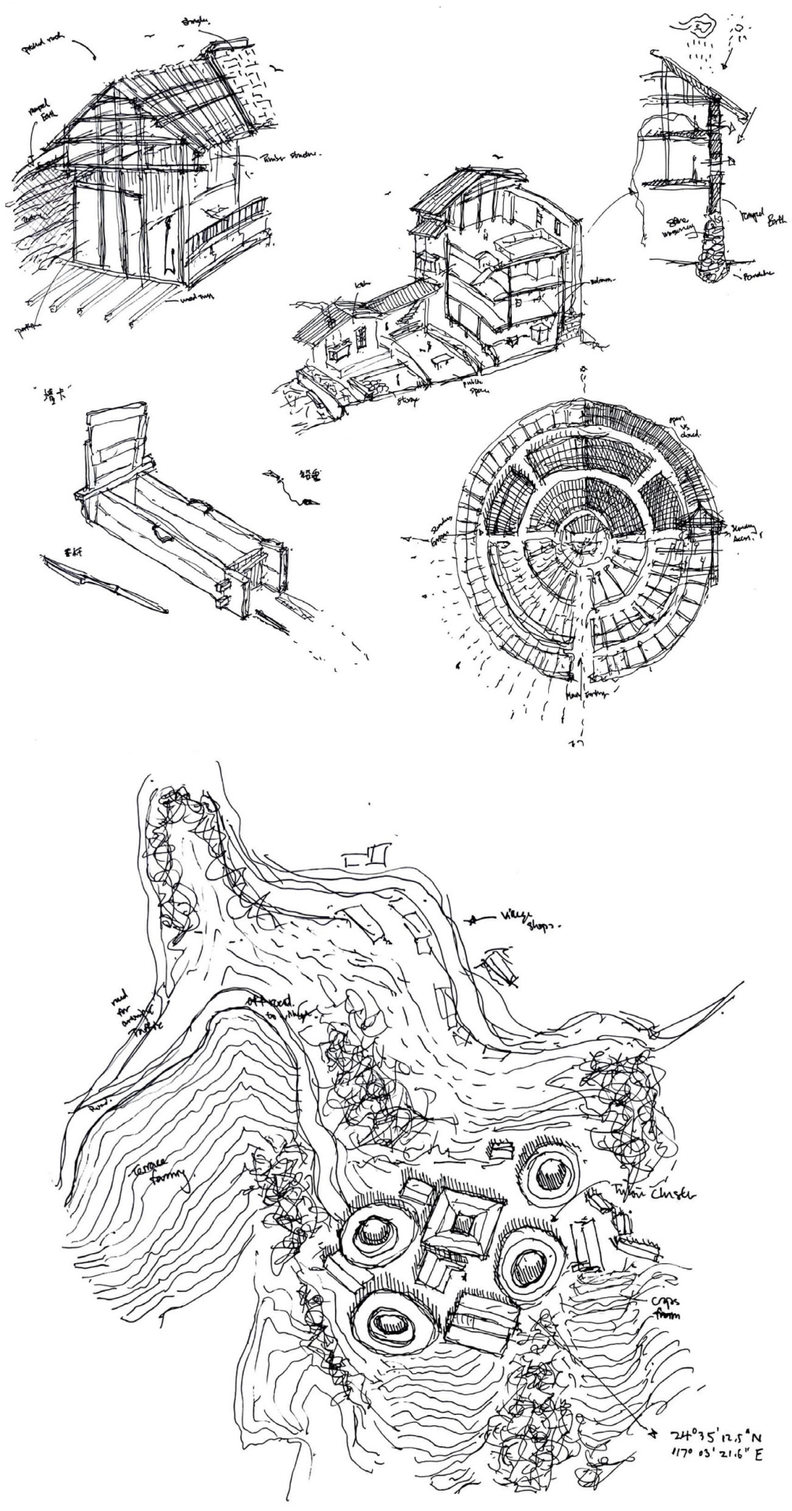
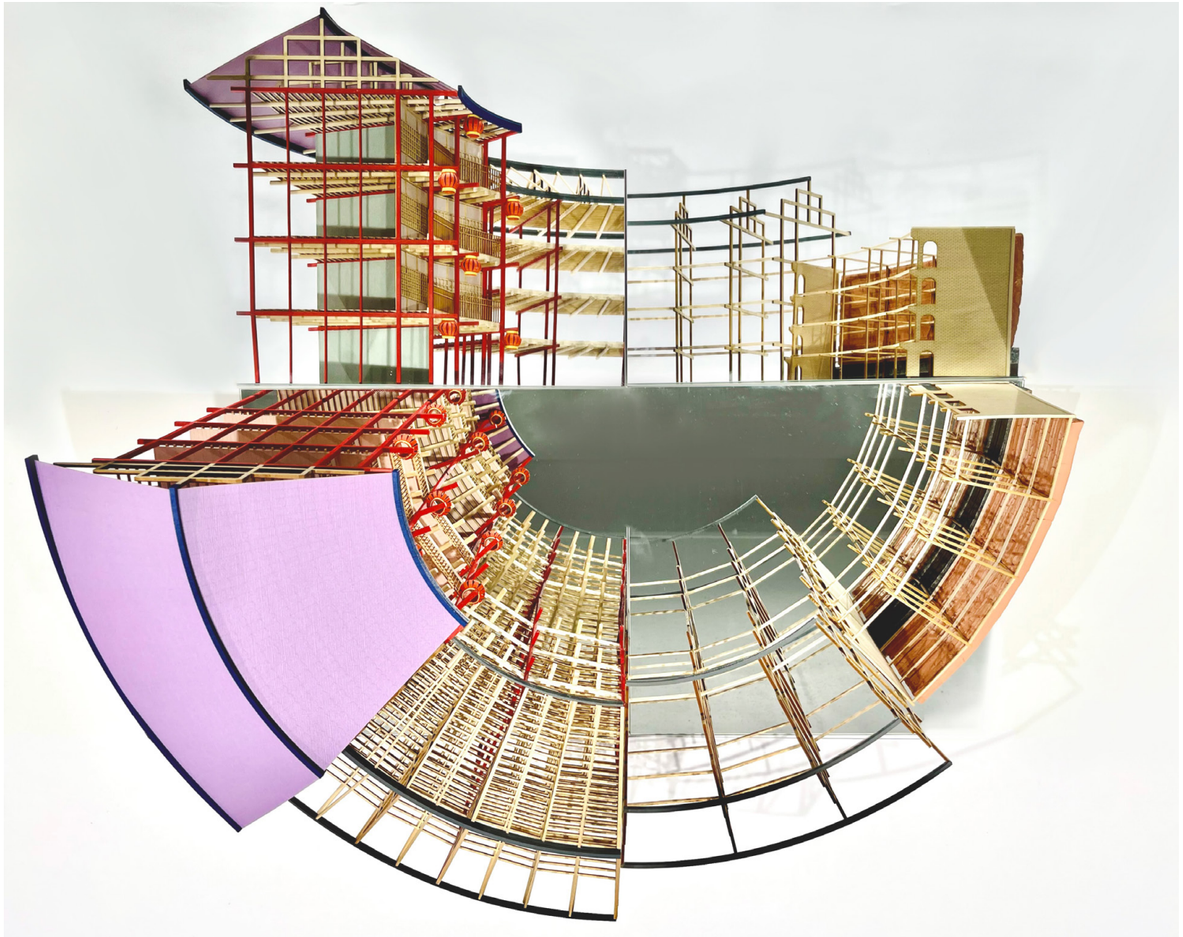
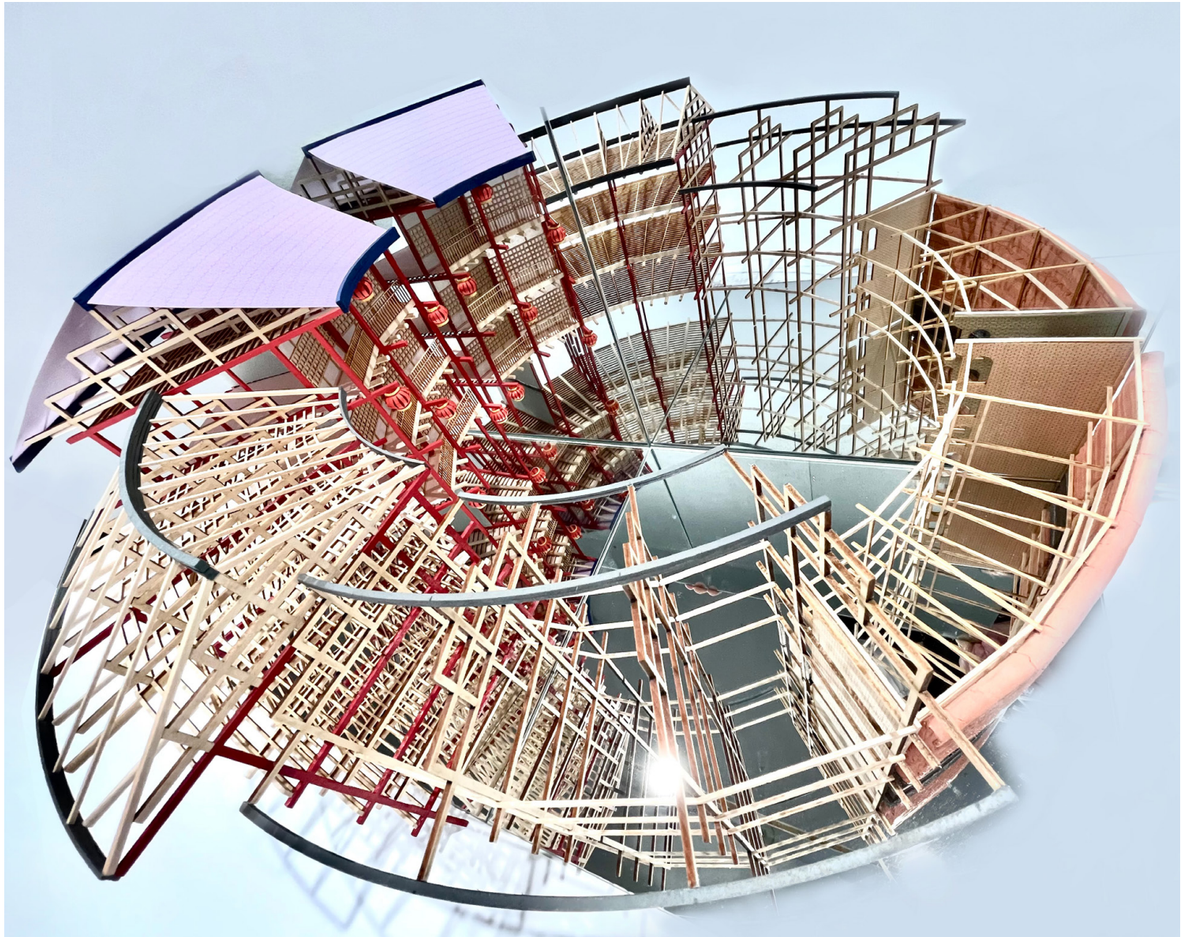
Tulou

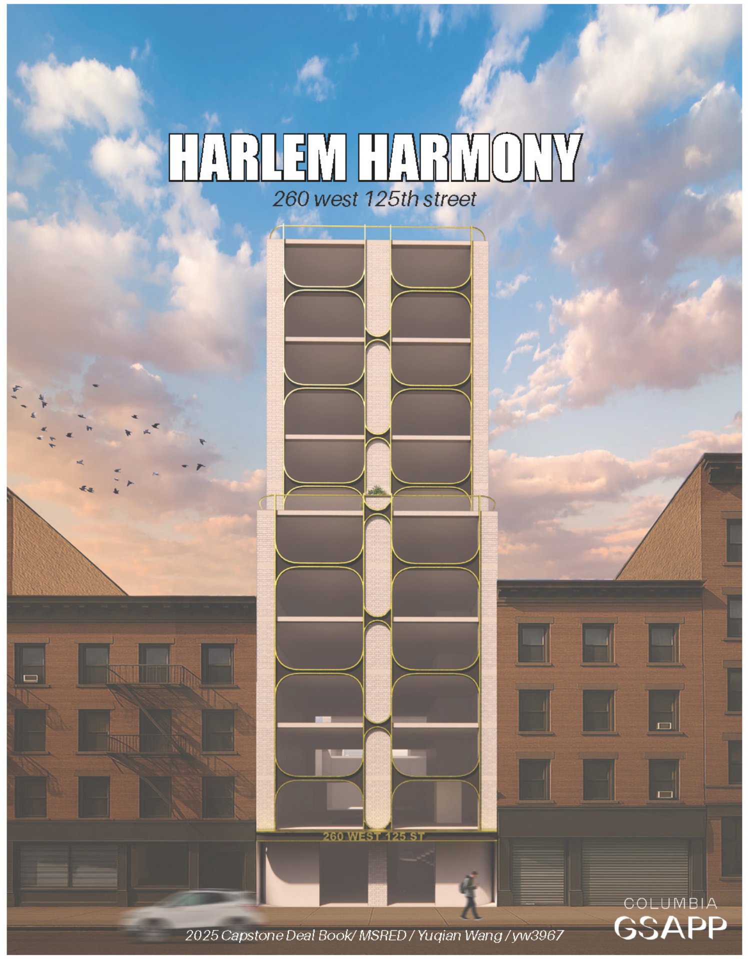
FA 2022 | ADR | A. Chiney | Fujian

This project is a detailed architectural exploration of the Tulou, a traditional earthen dwelling typology unique to Fujian Province, China. Built by the Hakka people, these monumental, often circular communal buildings embody centuries of resilient, self-sustaining architecture. Through sketch analysis, sectional drawings, site mappings, and physical model, this study unpacks the spatial logic, material systems, and cultural values embedded in Tulou architecture. The project examines how Tulou integrate domestic life, defense, ecology, and collective governance within a singular architectural form. Key architectural components rammed earth walls, timber joinery, shared courtyards, radial circulation, and agrarian adjacency are analyzed to understand the interplay between structure, climate, and social life. The physical model highlights tectonic techniques and spatial sequences across layers of construction and occupancy, revealing the deep sophistication of what is often dismissed as vernacular form. Beyond documentation, this investigation positions Tulou as a living system: an evolving prototype for sustainable, high-density, and community-based living. In an era of urban alienation, the Tulou offers critical lessons in collective spatial organization, structural integrity, and ecological continuity.









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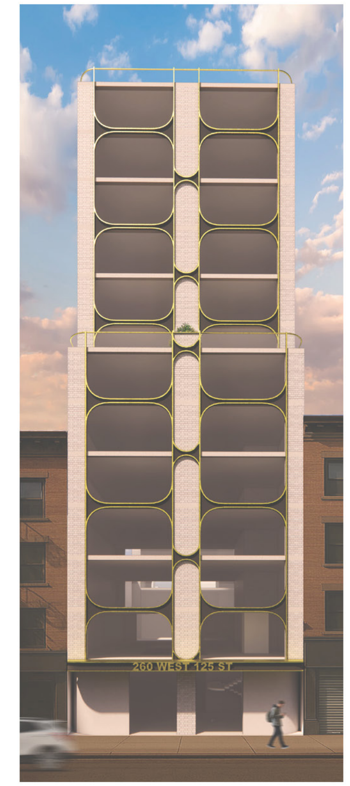
Harlem Harmony Deal Book

FA 2025 | MsRED Capstone | A. Lubinsky | C. King | Harlem, NY

CONTENT

PROJECT HIGHLIGHTS



13 Stories Mixed-Use Rental

Total RFA: 81,531 ft²
Total Units: 78
Residential GFA: 59,876 ft²
Commercial GFA: 15,100 ft²
Cultural GFA: 10,855 ft²

Project Value: $72.7 million
Equity Multiple: 1.67x
IRR Levered: 11.26%
IRR Unlevered: 7.61%
Yield on Cost: 10.30%
DSCR: 1.25

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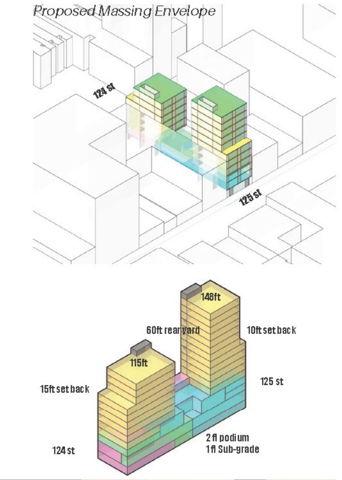
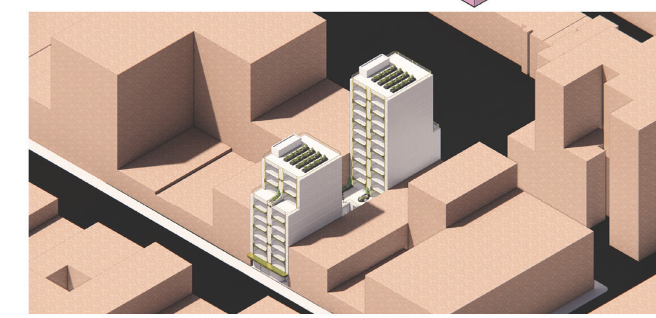
ENVELOPE MASSING

The physical characteristics of the site consist of a through-lot configuration with dual frontages on both 125th and 124th Streets. The total lot area spans approximately 10,092 square feet, with dimensions measuring 50 feet in frontage and a depth of 201.83 feet. The site's zoning falls under the C4-4D and C6-3 districts, part of the Special Purpose District along 125th Street.

The proposed massing features two residential towers atop a two-level podium and one sub-grade level. A 60-foot rear-yard setback ensures optimal lighting and privacy, also enabling a central courtyard at the first and second levels that engages both public and residents.

Proposed Massing Envelope





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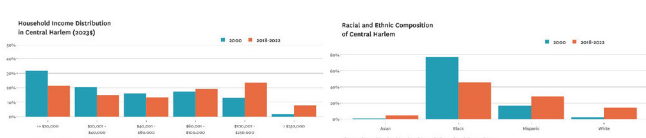
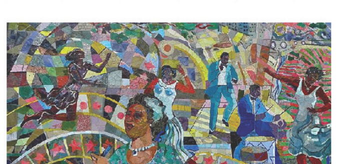
DEMOGRAPHICS



Indicator	2000	2006	2010	2019	2021	2022	2023
Population							
Born in New York State		57.6%	57.5%	58.5%	52.4%	54.1%	
Disabled population			11.8%	10.6%	11.8%	10.8%	
Foreign born population	17.8%	20.8%	19.7%	20.5%	23.4%	26.5%	
Population	109,091	118,143	126,558	135,351	128,792	138,953	
Population aged 65+	11.3%	10.3%	10.5%	11.9%	13.6%	12.2%	
Households							
Households with children under 18 years old	31.0%	32.5%	27.8%	22.8%	23.4%	21.9%	
Single person households		46.9%	41.5%	42.7%	45.7%	45.3%	
Race and Ethnicity							
Percent Asian	0.8%	2.0%	0.5%	3.6%	3.9%	4.5%	
Percent Black	77.3%	69.5%	58.6%	54.3%	44.2%	45.8%	
Percent Hispanic	16.8%	18.4%	23.6%	23.6%	27.0%	28.2%	
Percent White	2.1%	6.8%	11.8%	15.5%	17.5%	14.4%	
Racial diversity index	0.37	0.48	0.59	0.62	0.70	0.69	
Income, Poverty and Ownership							
Income diversity ratio		7.5	7.5	8.9	8.3	9.2	
Homeownership rate	6.6%	12.2%	13.4%	14.0%	15.5%	13.4%	
Median household income (2023$)	$38,930	$39,400	$47,240	$63,590	$49,820	$51,990	
Median household income, homeowners (2023$)		$131,470	$148,520	$151,190	$140,870	$129,260	
Median household income, renters (2023$)		$35,170	$42,020	$58,130	$41,030	$41,890	
Poverty rate	36.4%	28.7%	28.1%	20.1%	28.4%	28.2%	
Poverty rate, population aged 65+		34.0%	27.5%	25.2%	36.8%	28.8%	
Poverty rate, population under 18 years old		33.7%	35.8%	26.4%	35.5%	26.8%	
Labor Market							
Labor force participation rate		60.7%	58.8%	69.0%	64.5%	60.3%	
Population aged 25+ without a high school diploma		26.3%	21.1%	13.9%	16.0%	18.5%	
Unemployment rate	18.6%	13.4%	15.9%	8.7%	15.9%	10.5%	

1.Majority Black population (50%) with rising diversity
2.Median renter income: $41,890 vs. homeowner: $129,260
3.Poverty rate: Down to 28.2% (2023); higher among seniors
4.Unemployment: Dropped to 10.5%
5.Improved education: 18.5% without high school diploma (down from 26.3%)



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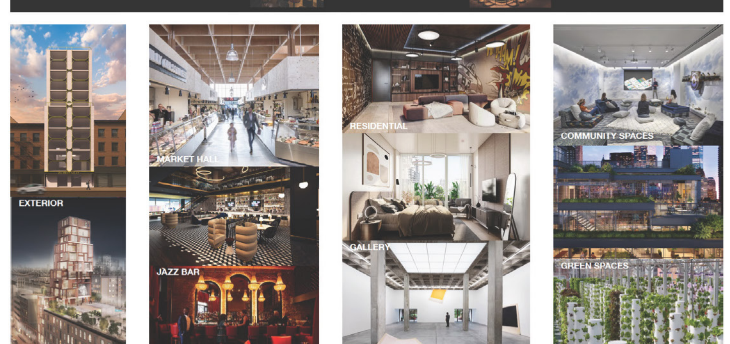
DESIGN VISION



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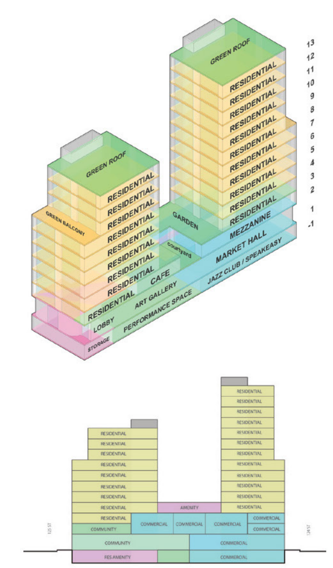
STACKING DIAGRAMS

The design of Harlem Harmony is rooted in honoring the cultural legacy of Mart 125 while reimagining it as a vibrant, inclusive destination for community life. At its core, the project channels Harlem's artistic spirit through a subterranean jazz club and performance space, evoking the neighborhood's storied musical past. Above, a dynamic market hall revives the original Mart 125's essence by prioritizing local vendors and fostering economic opportunity from within the community. A multifunctional art gallery and performance center further anchors the development as a cultural hub, offering interactive experiences that celebrate Black creativity and heritage.

Above the podium, two residential towers introduce a mix of affordable, workforce, and market-rate units, expanding access to high-quality housing in Central Harlem. These homes are designed around principles of daylight, privacy, and well-being, with many units opening onto courtyard that provides light, air, and social connectivity. Balcony gardens and green roofs extend the landscape vertically, creating microclimates for relaxation, reflection, and sustainable living.

Together, these spaces form a design language that is celebratory, grounded, and resilient paying tribute to Harlem's past while cultivating a sustainable and socially rich future.



Floor	Resi Lobb	Storage	Studio	1B	1B+Den	2B	Jazz Club	Market	Art gallery	Performance	Height (ft)
-1		1375					4500			4175	15
1	4020							3850	2180		15
2					2100			6950			11
3			936	1376	3762						11
4			936	1376	3762						11
5			936	1376	3762						11
6			936	1376	3762						11
7			936	1376	3762						11
8			458.5	4365.5							11
9			458.5	4365.5							11
10			458.5	4365.5							11
11			477.5	2034.5							11
12			477.5	2035.5							11
13			477.5	2036.5							11
Total Area (ft2)	4020	1375	7488	26083	20910	0	4500	10800	2180	4175	162

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FLOOR PLANS

Unit mix:
Studios (20%)
1 Beds (55%)
1 Bed with Den (25%)

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RENDERS

Roof Garden

Resident Courtyard

Cafe + Resident Courtyard

FINANCIAL SUMMARY

FINANCIAL HIGHLIGHTS

7.61% UNLEVERED IRR

10.30% YIELD ON COST

1.67x EQUITY MULTIPLE

11.26% LEVERED IRR

Harlem Harmony is a mixed-use development designed to deliver strong financial returns while fulfilling community, cultural, and ESG objectives. The project's financial plan is grounded in a balanced capital structure, conservative underwriting assumptions, and sensitivity-tested exit strategies.

The total development cost is projected at $45.8 million, funded through a 70% loan and 30% sponsor equity. Equity contributions are divided between a General Partner (10%) and Limited Partners (90%). Upon stabilization, the project is expected to refinance with a $68.8 million permanent loan at a 70% loan-to-value (LTV) and a 1.25 debt service coverage ratio (DSCR).

The project achieves a base case levered internal rate of return (IRR) of approximately 7.61%, with an levered IRR of 11.26%, and a yield on cost of 10.30%. The projected equity multiple is 1.67x over a 10-year hold period.

Sensitivity testing indicates strong resilience to market fluctuations. A faster lease-up, accelerated construction, or cap rate compression materially improves returns, while downside scenarios—such as delayed absorption or rising cap rates—reduce IRR but remain within feasible risk tolerances.

Overall, Harlem Harmony offers a compelling investment opportunity that balances strong financial performance with lasting neighborhood impact through housing affordability, cultural activation, and sustainable design.

Sources		Uses		Return Metrics	
Equity	$18,581,283.00	Land Purchase Price	$4,716,000.00	**Unlevered IRR**	7.61%
Loan	$27,258,966.00	Hard Costs	$32,451,150.00	**Yield on Cost**	10.30%
		Soft Costs	$6,490,230.00	**EM**	1.67x
		Development Fees	$2,182,869.00	**Lowest CF at year 2 and 3**	$21,516,821.45
				Levered IRR	11.26%
Total Sources	$45,840,249.00	Total Uses	$45,840,249.00	**Total Budget required**	$45,925,621.90

CAPITAL STRUCTURE

The Harlem Harmony development is financed through a conventional equity and debt structure designed to balance risk, maintain flexibility, and ensure sufficient capital throughout the project lifecycle.

The total development cost is approximately $58.6 million. To fund construction, the project will utilize a 70% loan-to-cost (LTC) construction loan, amounting to $41.0 million, with the remaining 30%, or $17.6 million, funded through sponsor equity contributions.

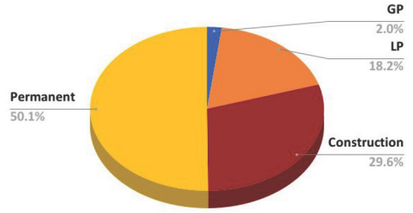
Of the equity portion, 90% will be provided by Limited Partners (LPs) and 10% by the General Partner (GP). This structure aligns investor interests while limiting overexposure to leverage.

Upon stabilization, the project is projected to be refinanced with a permanent loan of approximately $68.8 million, structured at a 70% loan-to-value (LTV) ratio. This refinance assumes a Debt Service Coverage Ratio (DSCR) of 1.25, ensuring sustainable debt servicing based on projected net operating income. Interest rates are modeled at 7.00% for residential and 6.88% for commercial components.

The capital structure provides a balanced approach that supports development through construction while offering flexibility at exit, either via asset sale or refinancing, depending on market conditions.

Construction Loan		
LTC	70%	$27,258,966.00
LTV	70%	$40,494,311.62
Loan Term		3.00
Interest rate	I/O	6.0%
Construction Loan		$27,258,966.00
Cons Loan D/S		$1,635,537.96

Permanent Loan		
Stabilized NOI		$4,338,676.25
Amort		30
Interest rate		7.00%
Cap rate		7.50%
Capitalized Value		$57,849,016.60
DSCR	1.25	$43,475,724.97
Permanent Loan		$43,475,724.97
Perm Loan D/S		$3,470,941.00
LTC		95%
LTV		75%



WATERFALL

Goodwin Law. (2021, November). Hall of private investment funds: Just hurdle rates at 8%. https://www.goodwinlaw.com/en/insights/publications/2021/11/insights-other-industries-pif-hall-of-private-investment-funds-just-hurdle-rates

The waterfall structure for Harlem Harmony is a tiered distribution model that effectively aligns investor protections with sponsor incentives. Limited Partners (LPs) are prioritized through an 8% preferred return hurdle in Tier I, ensuring early cash flows go toward capital recovery and risk mitigation. This structure enhances fundraising appeal by offering LPs downside protection. Once this hurdle is met, Tier II introduces a 12% IRR benchmark, beyond which the General Partner (GP) begins to participate in promote distributions.
In Tier III, excess profits are split 54% to LPs, 10% to the GP's equity, and 36% to the GP as promote. This arrangement encourages strong project execution by rewarding the sponsor only after key investor thresholds are achieved. The structure balances disciplined risk management with meaningful upside, resulting in a 25.5% IRR for the GP in the base case scenario. It is well-calibrated for institutional capital, emphasizing performance accountability while maintaining flexibility for market fluctuations.

	Hurdle	GP	LP	GP Promote	Promote %
Tier I (up to Hurdle 1)	8.00%	10.00%	90.00%	10.00%	10.00%
Tier II (from Hurdle 1 up to Hurdle 2)	12.00%	10.00%	72.00%	18.00%	10.00%
Tier III (Above Hurdle 2)		10.00%	54.00%	36.00%	40.00%

	IRR
Cashflow	9.19%
Capital Contributions	%
LP	90.00%
GP	10.00%
Tier I	
LP	
Beginning Balance	Hurdle
Preferred Return Due	8.00%
Capital Contribution	
Tier I Distributions	
Ending Balance	
	Check
LP Cashflow	7.70%
GP	
Capital Contributions	
Tier I Distributions	
	Check
GP Cashflow	7.70%
Total	
Total Tier I Distributions	
Cashflow After Tier I Distributions	
Tier II	
LP	
Beginning Balance	Hurdle
Preferred Return Due	12.00%
Capital Contributions	
Tier II Distributions	
Ending Balance	
	Check
LP Cashflow	-13.40%
GP	
Tier II Distributions	
Tier II Promote	
	IRR
GP Cashflow	22.70%
Total	
Total Tier II Distributions + Promote	
Cashflow After Tier II Distributions	
Tier III	
	%
LP Distributions	54.00%
GP Distributions	10.00%
GP Promote Distributions	36.00%
Total Tier III Distributions	
	IRR
LP Cashflow	6.10%
GP Cashflow	25.50%
Total Cashflow	9.10%

RISK MITIGATION

1. Absorption Rate Sensitivity
A faster lease-up (20% improvement) increases IRR from 12.00% to 12.67%, while a slower lease-up (20% delay) reduces it to 11.22%.The effect is moderate but significant, especially early in the hold period.
Interpretation: Velocity of absorption influences how quickly the project generates stabilized income, which affects cash flow timing and reinvestment potential.
Investor Risk: Extended lease-up increases holding costs and delays cash returns, particularly impacting short-term IRR targets.

2. Development Timeline Sensitivity
A 20% construction delay (e.g., from 24 to ~29 months) drops IRR to 10.95%, while a 20% acceleration lifts IRR to 13.42%.
Interpretation: IRR is very time-sensitive. Delays mean higher financing costs, extended exposure to construction risk, and deferred revenue.
Investor Risk: Extended timeline increases capital at risk and erodes returns, especially for limited partners expecting cash flow by a target year.

3. Exit Cap Rate Sensitivity
IRR increases to 14.35% with a 20% cap rate compression (e.g., 5.0% to 4.0%), and drops to 10.37% with a 20% cap rate expansion (5.0% to 6.0%).
Interpretation: This is the most sensitive variable in the model. Since the majority of value is realized at exit, changes in investor sentiment or interest rates significantly affect equity returns.
Investor Risk: A macro-driven rise in cap rates due to inflation, interest rate hikes, or recession can substantially reduce terminal value.

Change (%)	Absorption Rate IRR	Development Timeline IRR	Exit Cap Rate IRR
-20%	11.22%	13.42%	14.35%
-10%	11.63%	12.65%	13.06%
0%	12.00%	12.00%	12.00%
10%	12.35%	11.44%	11.12%
20%	12.67%	10.95%	10.37%

Primary Exit Strategy: Stabilized Asset Sale (Year 10)
Sell the fully leased, stabilized mixed-use asset at market cap rate
Target stabilized cap rate of 5.5%–6.0%, yielding strong returns on equity
Utilize cultural programming and ESG credentials to command premium pricing
Time disposition to align with favorable market cycles (e.g., low interest rate environments)

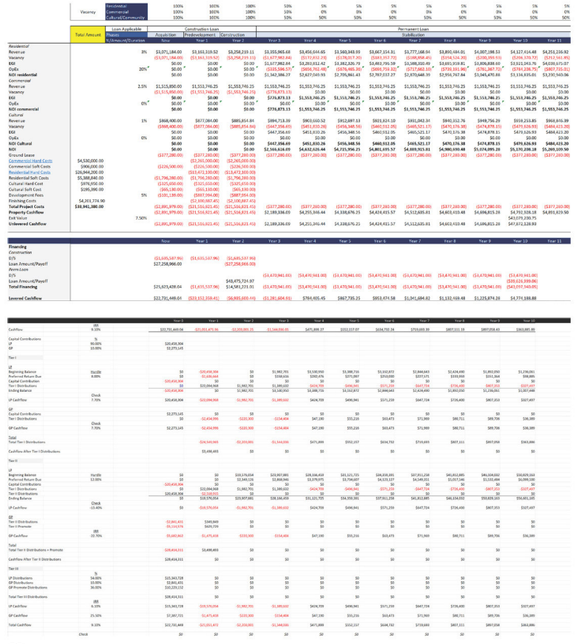
Alternate Exit Options to Mitigate Risk
1. Refinance & Hold
If cap rates rise or market conditions weaken at Year 10:
Refinance into permanent debt at 70% LTV
Return capital to LPs via cash-out refinancing
Hold long-term with stabilized cash flow and rent escalations
Benefit: De-risk exit timing, continue income generation, and preserve upside

2. Partial Condo Conversion
Consider stratifying ownership:
Sell residential or commercial condo components separately
Retain long-term ownership of cultural or income-generating ground-floor uses
Benefit: Unlock value in tranches while keeping long-term stake in high-performing assets

3. REIT or Institutional Takeout
Position the stabilized project as a prime candidate for acquisition by:
Affordable housing-focused REITs
ESG-aligned institutional investors
Benefit: Broader buyer pool with appetite for long-term, stabilized community assets

Key Risk Mitigation Measures
GMP Contracting: Lock in construction cost via Guaranteed Maximum Price agreements
Pre-Leasing Strategy: Begin leasing 6–9 months prior to completion; incentivize anchor tenants early
Reserves & Contingencies: Maintain capital reserves for delays, lease-up incentives, and interest rate volatility
Phased Exit Flexibility: Consider exiting in phases or holding strategic components (e.g., retail/cultural space)

APPENDIX



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