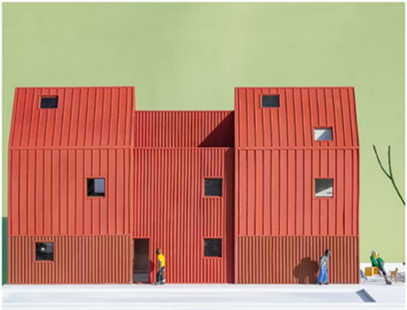
Chicago Is Running a Design Contest to Create Infill Housing—Here's a First Look at Submissions

Firms participating in the city's Come Home Initiative, an effort to encourage much-needed development, are sharing these concepts and more with the contest's judges this week in downtown Chicago.

Text by

Duncan Nielsen



Can a design contest actually spur development? Eager to turn at least some of its empty lots into new housing, the City of Chicago and the Chicago Architecture Center want to prove that with collaboration, the answer is yes, and everyone can win.

In early February of this year, they announced a selection of 42 firms invited to design infill housing concepts that developers could then use to build on any number of the city's disused lots in its South and West Side neighborhoods. (The City of Los Angeles held two similar contests in early 2021, one for ADU designs and another for low-rise homes.) The Chicago competition, called the Come Home Initiative, aims to encourage community development via homeownership in Auburn Gresham, Bronzeville, East Garfield Park, Englewood, Humboldt Park, and Woodlawn.

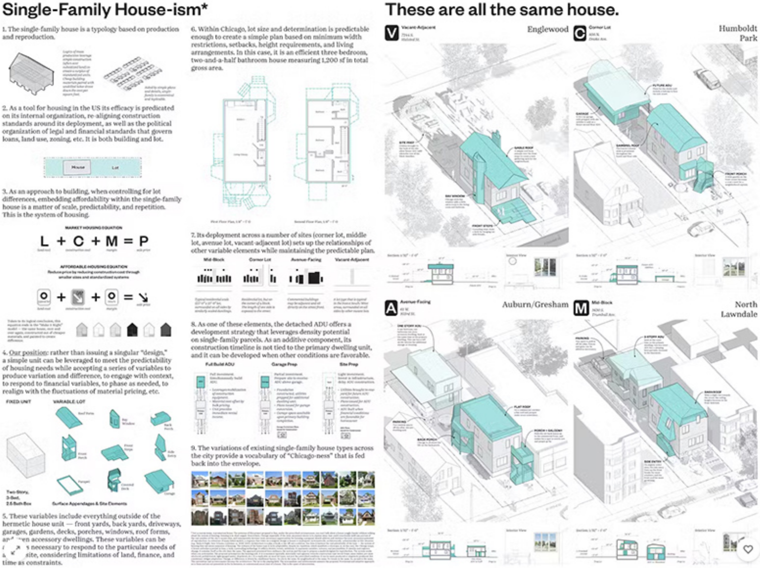
Now, the firms are set to present their work on Tuesday, March 7, at a private pop-up poster exhibition at the architecture center's Skyscraper Gallery. Their concepts will include plans for single-family homes, two, three, and six flats, and rowhouses, all of which are designed to fill in the "missing middle" with the goal of helping these communities thrive and build wealth long-term.

Chosen winners' plans will be compiled in a pattern book of pre-approved models that developers can "take off the shelf, or use as starting points for projects," Eleanor Esser Gorski, a licensed architect and the recently appointed CEO of the Chicago Architecture Center, told Dwell last month. But contest organizers aren't waiting around for the moment to strike. Gorski says winners will be given a stipend and paired with local emerging real estate developers with a goal of starting construction later this year on anywhere from 30 to 100 of the city's empty lots.

The proposed designs from international participants including local studios Future Firm and CAMESgibson, New York's MOS Architects, and Mexico's Productora iterate on typologies currently found within the South and West Sides, but are updated with an eye toward the contest's goals of strengthening pride of place, improving all-around quality of life, and providing a means of homeownership. Here are a few of the designs under review at the poster exhibition in Downtown Chicago, organized by type.

Single Family

Office of Jonathan Tate



Single-Family House-ism*

1. The single-family house is a typology based on production and reproduction.

2. As a tool for housing in the US its efficacy is predicated on its internal organization, re-aligning construction standards around its deployment, as well as the political organization of legal and financial standards that govern loans, land use, zoning, etc. It is both building and lot.

House

Lot

3. As an approach to building, when controlling for lot differences, embedding affordability within the single-family house is a matter of scale, predictability, and repetition. This is the system of housing.

MARKET HOUSING EQUATION

L + C + M = P

AFFORDABLE HOUSING EQUATION

4. Our position: rather than issuing a singular "design," a simple unit can be leveraged to meet the predictability of housing needs while accepting a series of variables to produce variation and difference, to engage with context, to respond to financial variables, to phase as needed, to realign with the fluctuations of material pricing, etc.

FIXED UNIT

VARIABLE LOT

Surface Appendages & Site Elements

5. These variables include everything outside of the hermetic house unit — front yards, back yards, driveways, garages, gardens, decks, porches, windows, roof forms, and even accessory dwellings. These variables can be [illegible] necessary to respond to the particular needs of [illegible] site, considering limitations of land, finance, and time as constraints.

6. Within Chicago, lot size and determination is predictable enough to create a simple plan based on minimum width restrictions, setbacks, height requirements, and living arrangements. In this case, it is an efficient three bedroom, two-and-a-half bathroom house measuring 1,200 sf in total gross area.

7. Its deployment across a number of sites (corner lot, middle lot, avenue lot, vacant-adjacent lot) sets up the relationships of other variable elements while maintaining the predictable plan.

Mid-Block

Corner Lot

Avenue-Facing

Vacant-Adjacent

8. As one of these elements, the detached ADU offers a development strategy that leverages density potential on single-family parcels. As an additive component, its construction timeline is not tied to the primary dwelling unit, and it can be developed when other conditions are favorable.

Full Build ADU

Garage Prep

Site Prep

9. The variations of existing single-family house types across the city provide a vocabulary of "Chicago-ness" that is fed back into the envelope.

These are all the same house.

V Vacant-Adjacent

Englewood

C Corner Lot

Humboldt Park

A Avenue-Facing

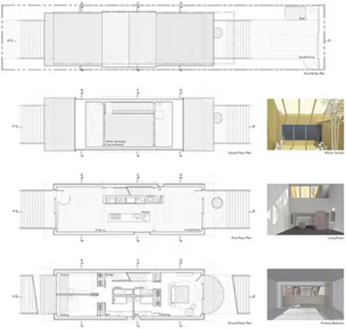
Auburn/Gresham

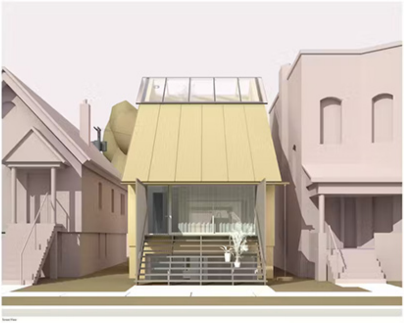
M Mid-Block

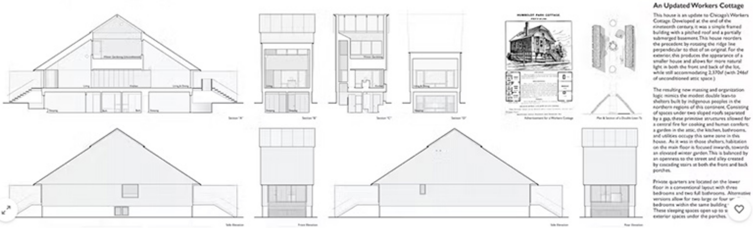
North Lawndale

Courtesy of the Chicago Architecture Center

CAMESgibson







An Updated Workers Cottage

This house is an update to Chicago's Workers Cottage. Developed at the end of the nineteenth century, it was a simple framed building with a pitched roof and a partially submerged basement. This house reorders the precedent by rotating the ridge line perpendicular to that of an original. For the exterior, this produces the appearance of a smaller house and allows for more natural light in both the front and back of the lot, while still accommodating 2,370sf (with 246sf of unconditioned attic space.)

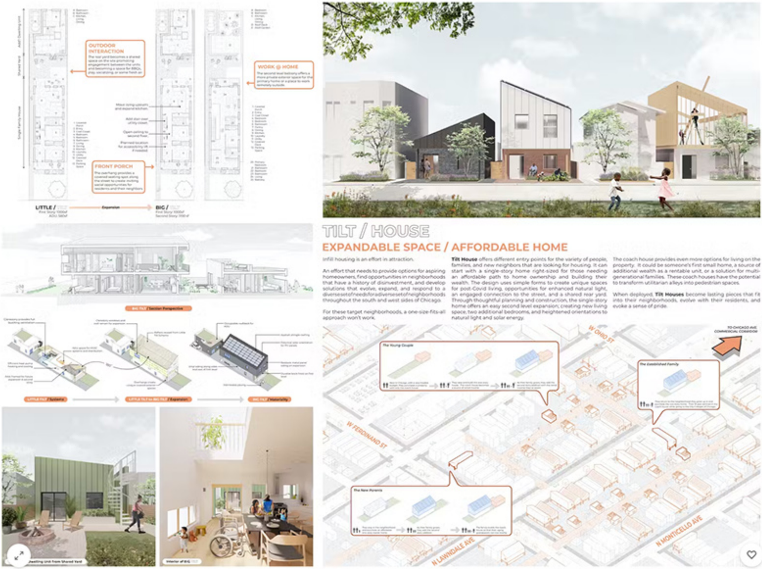
The resulting new massing and organization logic mimics the modest double lean-to shelters built by indigenous peoples in the northern regions of this continent. Consisting of spaces under two sloped roofs separated by a gap, these primitive structures allowed for a central fire for cooking and human comfort; a garden in the attic, the kitchen, bathrooms, and utilities occupy this same zone in this house. As it was in those shelters, habitation on the main floor is focused inwards, towards an elevated winter garden. This is balanced by an openness to the street and alley created by cascading stairs at both the front and back porches.

Private quarters are located on the lower floor in a conventional layout with three bedrooms and two full bathrooms. Alternative versions allow for two large or four [illegible] bedrooms within the same building. These sleeping spaces open up to [illegible] exterior spaces under the porches.

HUMBOLDT PARK COTTAGE
Section "A"
Section "B"
Section "C"
Section "D"
Advertisement for a Workers Cottage
Plan & Section of a Double Lean-To
Side Elevation
Front Elevation
Side Elevation
Rear Elevation

Courtesy of the Chicago Architecture Center

New Office



TILT / HOUSE

EXPANDABLE SPACE / AFFORDABLE HOME

Infill housing is an effort in attraction.

An effort that needs to provide options for aspiring homeowners, find opportunities in neighborhoods that have a history of disinvestment, and develop solutions that evolve, expand, and respond to a diverse set of needs for a diverse set of neighborhoods throughout the south and west sides of Chicago.

For these target neighborhoods, a one-size-fits-all approach won't work.

Tilt House offers different entry points for the variety of people, families, and new neighbors that are looking for housing. It can start with a single-story home right-sized for those needing an affordable path to home ownership and building their wealth. The design uses simple forms to create unique spaces for post-Covid living, opportunities for enhanced natural light, an engaged connection to the street, and a shared rear yard. Through thoughtful planning and construction, the single-story home offers an easy second level expansion; creating new living space, two additional bedrooms, and heightened orientations to natural light and solar energy.

The coach house provides even more options for living on the property. It could be someone's first small home, a source of additional wealth as a rentable unit, or a solution for multi-generational families. These coach houses have the potential to transform utilitarian alleys into pedestrian spaces.

When deployed, **Tilt Houses** become lasting pieces that fit into their neighborhoods, evolve with their residents, and evoke a sense of pride.

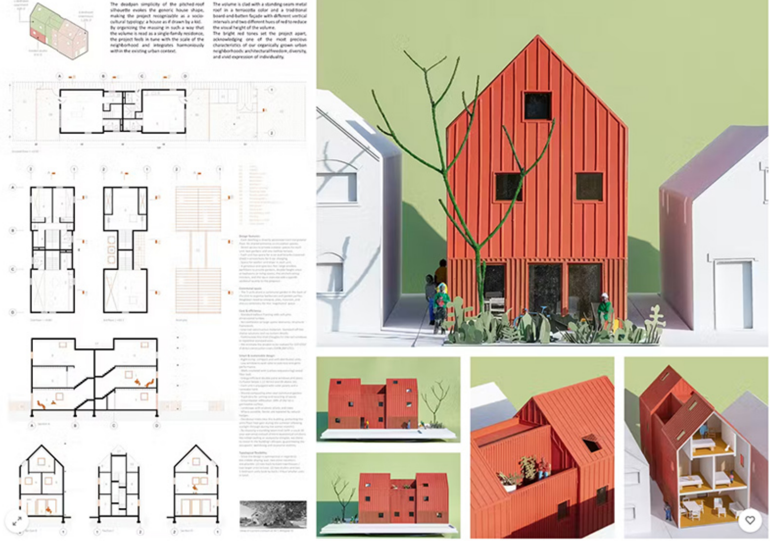
OUTDOOR INTERACTION
The rear yard becomes a shared space on the site promoting engagement between the units and becoming a space for BBQs, play, socializing, or some fresh air
WORK @ HOME
The second level balcony offers a more private exterior space for the primary home or a place to work remotely outside.
Move living upstairs and expand kitchen.
Add stair over utility closet.
Open ceiling to second floor.
Planned location for accessibility lift if needed.
FRONT PORCH
The overhang provides a covered seating spot along the street to create inviting social opportunities for residents and their neighbors.
LITTLE / TILT
Expansion
BIG / TILT
BIG TILT / Section Perspective
LITTLE TILT / Systems
LITTLE TILT to BIG TILT / Expansion
BIG TILT / Materiality
Dwelling Unit from Shared Yard
Interior of BIG TILT
W OHIO ST
TO CHICAGO AVE COMMERCIAL CORRIDOR
The Young Couple
The Established Family
The New Parents
W FERDINAND ST
N LAWNDALE AVE
N MONTICELLO AVE

Courtesy of the Chicago Architecture Center

Two and Three Flats

Productora

A HOUSE FOR THREE



The deadpan simplicity of the pitched-roof silhouette evokes the generic house shape, making the project recognizable as a socio-cultural typology: a house as if drawn by a kid.

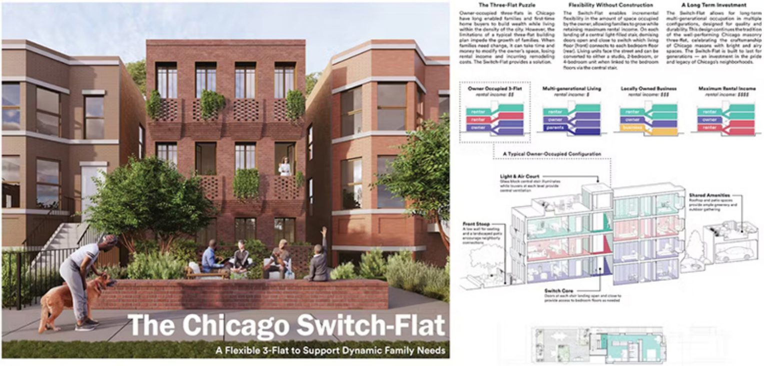
By organizing the massing in such a way that the volume is read as a single-family residence, the project feels in tune with the scale of the neighborhood and integrates harmoniously within the existing urban context.

The volume is clad with a standing-seam metal roof in a terracotta color and a traditional board-and-batten façade with different vertical intervals and two different hues of red to reduce the visual height of the volume.

The bright red tones set the project apart, acknowledging one of the most precious characteristics of our organically grown urban neighborhoods: architectural freedom, diversity, and vivid expression of individuality.

Courtesy of the Chicago Architecture Center

Dirk Denison Architects



The Chicago Switch-Flat

A Flexible 3-Flat to Support Dynamic Family Needs

The Three-Flat Puzzle

Owner-occupied three-flats in Chicago have long enabled families and first-time home buyers to build wealth while living within the density of the city. However, the limitations of a typical three-flat building plan impede the growth of families. When families need change, it can take time and money to modify the owner's space, losing rental income and incurring remodeling costs. The Switch-Flat provides a solution.

Flexibility Without Construction

The Switch-Flat enables incremental flexibility in the amount of space occupied by the owner, allowing families to grow while retaining maximum rental income. On each landing of a central light-filled stair, demising doors open and close to switch which living floor (front) connects to each bedroom floor (rear). Living units face the street and can be converted to either a studio, 2-bedroom, or 4-bedroom unit when linked to the bedroom floors via the central stair.

A Long Term Investment

The Switch-Flat allows for long-term multi-generational occupation in multiple configurations, designed for quality and durability. This design continues the tradition of the well-performing Chicago masonry three-flat, celebrating the craftsmanship of Chicago masons with bright and airy spaces. The Switch-Flat is built to last for generations — an investment in the pride and legacy of Chicago's neighborhoods.

Owner Occupied 3-Flat
rental income: $$

Multi-generational Living
rental income: $

Locally Owned Business
rental income: $$$

Maximum Rental Income
rental income: $$$$

renter
renter
owner
renter
owner
parents
renter
owner
business
renter
owner
renter

A Typical Owner-Occupied Configuration

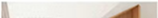
Light & Air Court
Glass block central stair illuminates while louvers at each level provide central ventilation

Shared Amenities
Rooftop and patio spaces provide ample greenery and outdoor gathering

Front Stoop
A low wall for seating and a landscaped patio encourage neighborly connections

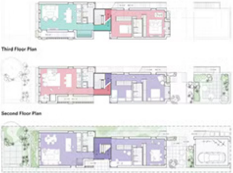
Switch Core
Doors at each stair landing open and close to provide access to bedroom floors as needed

Fourth Floor Plan



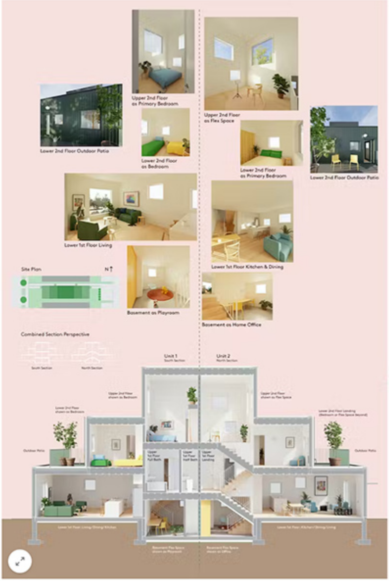
Street-facing living space with doors opened to the neighborhood

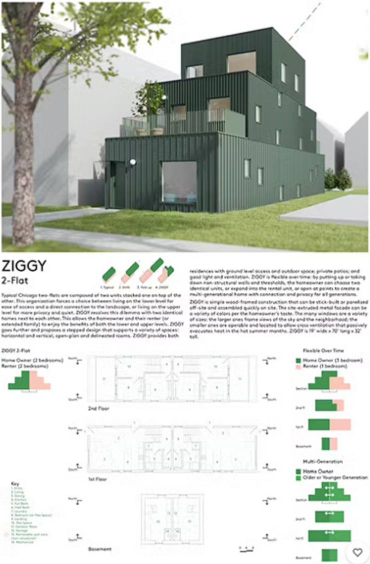
Central stair with flexible door system in 'open' position


Third Floor Plan
Second Floor Plan
Ground Floor Plan

Courtesy of the Chicago Architecture Center

Urban Lab + The Available City


Upper 2nd Floor as Primary Bedroom
Upper 2nd Floor as Flex Space
Lower 2nd Floor Outdoor Patio
Lower 2nd Floor as Bedroom
Lower 2nd Floor as Primary Bedroom
Lower 2nd Floor Outdoor Patio
Lower 1st Floor Living
Lower 1st Floor Kitchen & Dining
Site Plan
N
Basement as Playroom
Basement as Home Office
Combined Section Perspective
South Section
North Section
Unit 1
South Section
Unit 2
North Section
Outdoor Patio
Outdoor Patio


1. Typical
2. Shift
3. Fold up
4. ZIGGY
ZIGGY 2-Flat
Home Owner (2 bedrooms)
Renter (2 bedrooms)
North
South
2nd Floor
1st Floor
Basement
Flexible Over Time
Home Owner (3 bedroom)
Renter (1 bedroom)
Section
2nd Fl
1st Fl
Basement
Multi-Generation
Home Owner
Older or Younger Generation
Key

ZIGGY

2-Flat

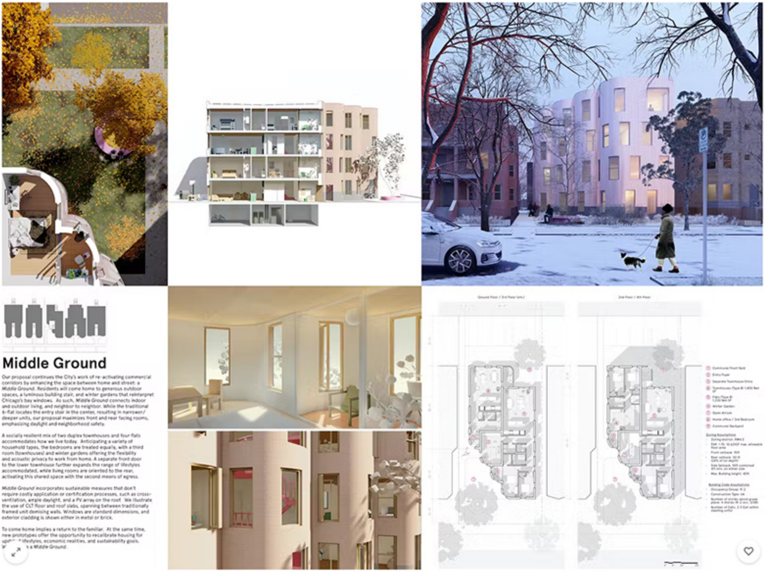
Typical Chicago two-flats are composed of two units stacked one on top of the other. This organization forces a choice between living on the lower level for ease of access and a direct connection to the landscape, or living on the upper level for more privacy and quiet. ZIGGY resolves this dilemma with two identical homes next to each other. This allows the homeowner and their renter (or extended family) to enjoy the benefits of both the lower and upper levels. ZIGGY goes further and proposes a stepped design that supports a variety of spaces: horizontal and vertical, open-plan and delineated rooms. ZIGGY provides both residences with ground level access and outdoor space; private patios; and good light and ventilation. ZIGGY is flexible over time: by putting up or taking down non-structural walls and thresholds, the homeowner can choose two identical units, or expand into the rental unit, or open at points to create a multi-generational home with connection and privacy for all generations.

ZIGGY is simple wood-framed construction that can be stick-built or panelized off-site and assembled quickly on site. The site-extruded metal facade can be a variety of colors per the homeowner's taste. The many windows are a variety of sizes: the larger ones frame views of the sky and the neighborhood; the smaller ones are operable and located to allow cross ventilation that passively evacuates heat in the hot summer months. ZIGGY is 19' wide x 70' long x 32' tall.

Courtesy of the Chicago Architecture Center

Six Flats

nArchitects



Middle Ground

Our proposal continues the City's work of re-activating commercial corridors by enhancing the space between home and street: a *Middle Ground*. Residents will come home to generous outdoor spaces, a luminous building stair, and winter gardens that reinterpret Chicago's bay windows. As such, *Middle Ground* connects indoor and outdoor living, and neighbor to neighbor. While the traditional 6-flat locates the entry stair in the center, resulting in narrower/deeper units, our proposal maximizes front and rear facing rooms, emphasizing daylight and neighborhood safety.

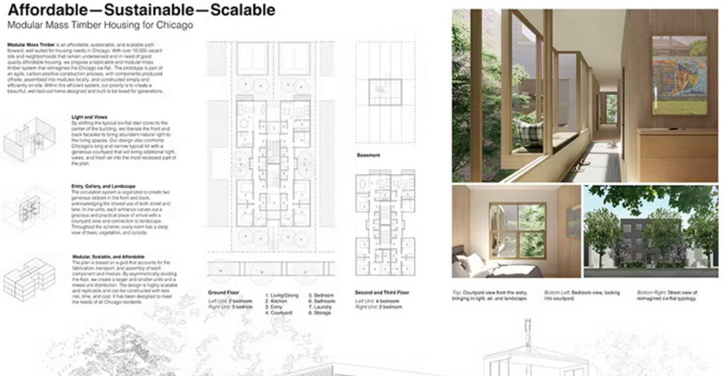
A socially resilient mix of two duplex townhouses and four flats accommodates how we live today. Anticipating a variety of household types, the bedrooms are treated equally, with a third room (townhouses) and winter gardens offering the flexibility and acoustic privacy to work from home. A separate front door to the lower townhouse further expands the range of lifestyles accommodated, while living rooms are oriented to the rear, activating this shared space with the second means of egress.

Middle Ground incorporates sustainable measures that don't require costly application or certification processes, such as cross-ventilation, ample daylight, and a PV array on the roof. We illustrate the use of CLT floor and roof slabs, spanning between traditionally framed unit demising walls. Windows are standard dimensions, and exterior cladding is shown either in metal or brick.

To come home implies a return to the familiar. At the same time, new prototypes offer the opportunity to recalibrate housing for [illegible] lifestyles, economic realities, and sustainability goals. [illegible] a Middle Ground.

Courtesy of the Chicago Architecture Center

Architecture for Public Benefit + Pete Rose Partners



Affordable—Sustainable—Scalable

Modular Mass Timber Housing for Chicago

Modular Mass Timber is an affordable, sustainable, and scalable path forward, well suited for housing needs in Chicago. With over 10,000 vacant lots and neighborhoods that remain underserved and in need of good quality affordable housing, we propose a replicable and modular mass timber system that reimagines the Chicago six-flat. The prototype is part of an agile, carbon-positive construction process, with components produced off-site, assembled into modules locally, and constructed simply and efficiently on-site. Within this efficient system, our priority is to create a beautiful, well-laid-out home designed and built to be loved for generations.

Light and Views

By shifting the typical six-flat stair cores to the center of the building, we liberate the front and back facades to bring abundant natural light to the living spaces. Our design also confronts Chicago's long and narrow typical lot with a generous courtyard that will bring additional light, views, and fresh air into the most recessed part of the plan.

Entry, Gallery, and Landscape

The circulation system is organized to create two generous lobbies in the front and back, acknowledging the shared use of both street and lane. In the units, each entrance carves out a gracious and practical place of arrival with a courtyard view and connection to landscape. Throughout the scheme, every room has a deep view of trees, vegetation, and outside.

Modular, Scalable, and Affordable

The plan is based on a grid that accounts for the fabrication, transport, and assembly of each component and module. By asymmetrically dividing the floor, we create a larger and smaller units and a mixed unit distribution. The design is highly scalable and replicable and can be constructed with less risk, time, and cost. It has been designed to meet the needs of all Chicago residents.

Basement

Ground Floor

Left Unit: 2 bedroom
Right Unit: 3 bedroom

1. Living/Dining
2. Kitchen
3. Entry
4. Courtyard
5. Bedroom
6. Bathroom
7. Laundry
8. Storage

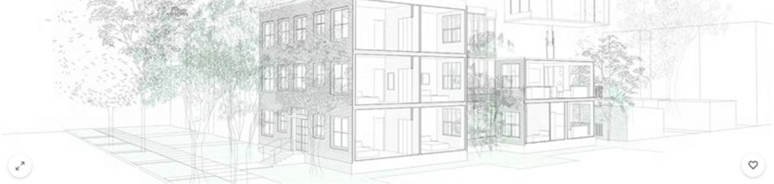
Second and Third Floor

Left Unit: 4 bedroom
Right Unit: 3 bedroom

Top: Courtyard view from the entry, bringing in light, air, and landscape.

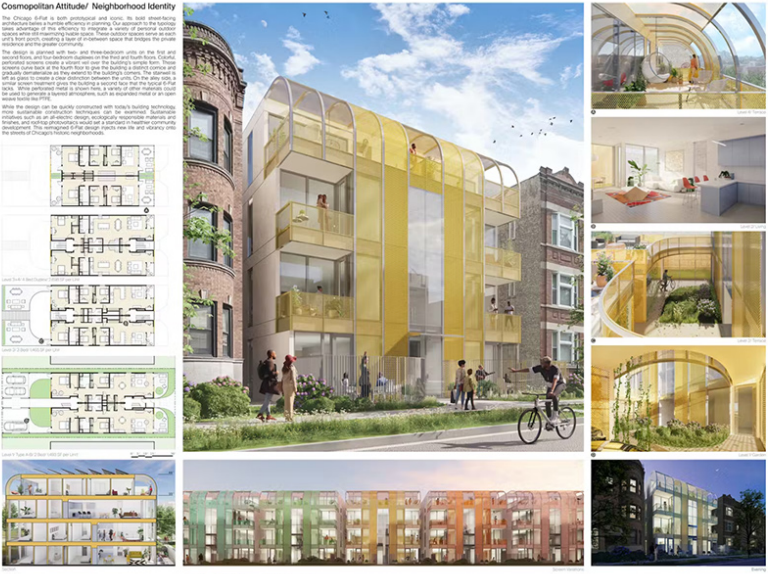
Bottom Left: Bedroom view, looking into courtyard.

Bottom Right: Street view of reimagined six-flat typology.



Courtesy of the Chicago Architecture Center

JAHN



Cosmopolitan Attitude/ Neighborhood Identity

The Chicago 6-Flat is both prototypical and iconic. Its bold street-facing architecture belies a humble efficiency in planning. Our approach to the typology takes advantage of this efficiency to integrate a variety of personal outdoor spaces while still maximizing livable space. These outdoor spaces serve as each unit's front porch, creating a layer of in-between space that bridges the private residence and the greater community.

The design is planned with two- and three-bedroom units on the first and second floors, and four-bedroom duplexes on the third and fourth floors. Colorful, perforated screens create a vibrant veil over the building's simple form. These screens curve back at the fourth floor to give the building a distinct cornice and gradually dematerialize as they extend to the building's corners. The stairwell is left as glass to create a clear distinction between the units. On the alley side, a similar screen treatment gives the building a second face that the typical 6-Flat lacks. While perforated metal is shown here, a variety of other materials could be used to generate a layered atmosphere, such as expanded metal or an open weave textile like PTFE.

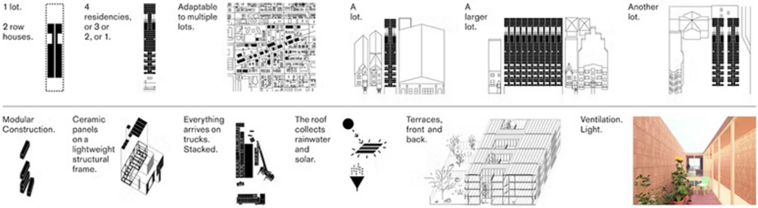
While the design can be quickly constructed with today's building technology, more sustainable construction techniques can be examined. Sustainable initiatives such as an all-electric design, ecologically responsible materials and finishes, and roof-top photovoltaics would set a standard in healthier community development. This reimagined 6-Flat design injects new life and vibrancy onto the streets of Chicago's historic neighborhoods.

Section
Screen Variations
Evening

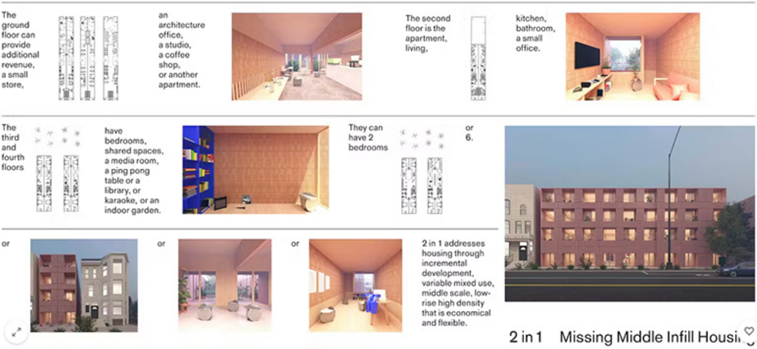
Courtesy of the Chicago Architecture Center

Rowhouses

MOS Architects



1 lot.
2 row houses.
4 residencies, or 3 or 2, or 1.
Adaptable to multiple lots.
A lot.
A larger lot.
Another lot.
Modular Construction.
Ceramic panels on a lightweight structural frame.
Everything arrives on trucks. Stacked.
The roof collects rainwater and solar.
Terraces, front and back.
Ventilation. Light.



The ground floor can provide additional revenue, a small store, an architecture office, a studio, a coffee shop, or another apartment.

The second floor is the apartment, living, kitchen, bathroom, a small office.

The third and fourth floors have bedrooms, shared spaces, a media room, a ping pong table or a library, or karaoke, or an indoor garden.

They can have 2 bedrooms or 6.

or

or

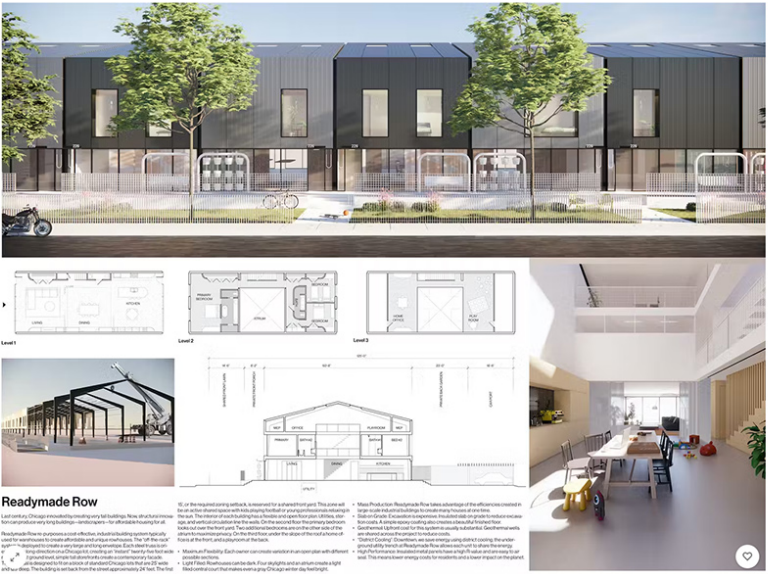
or

2 in 1 addresses housing through incremental development, variable mixed use, middle scale, low-rise high density that is economical and flexible.

2 in 1   Missing Middle Infill Housi

Courtesy of the Chicago Architecture Center

Future Firm


LIVING
DINING
KITCHEN
Level 1
PRIMARY BEDROOM
ATRIUM
BEDROOM
BEDROOM
Level 2
HOME OFFICE
PLAY ROOM
Level 3
SHARED FRONT LAWN
PRIVATE FRONT PORCH
PRIVATE BACK GARDEN
CARPORT
MEP
OFFICE
PLAYROOM
MEP
PRIMARY
BATH
BATH
BED
LIVING
DINING
KITCHEN
UTILITY

Readymade Row

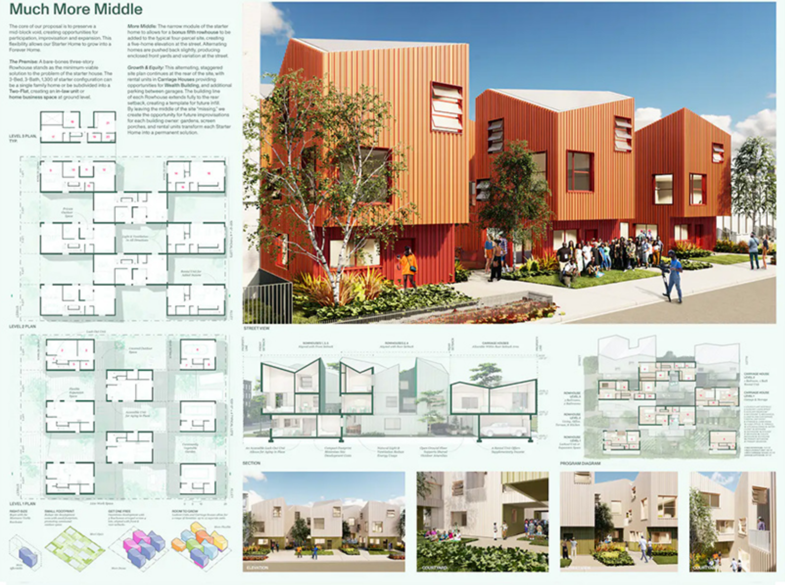
Last century, Chicago innovated by creating very tall buildings. Now, structural innovation can produce very long buildings—landscrapers—for affordable housing for all.

Readymade Row re-purposes a cost-effective, industrial building system typically used for warehouses to create affordable and unique rowhouses. The "off-the-rack" syst[illegible] deployed to create a very large and long envelope. Each steel truss is ori[illegible] long direction on a Chicago lot, creating an "instant" twenty-five foot wide [illegible] ground level, simple tall storefronts create a contemporary facade. T[illegible]al is designed to fit on a block of standard Chicago lots that are 25' wide and [illegible] deep. The building is set back from the street approximately 24' feet. The first 15', or the required zoning setback, is reserved for a shared front yard. This zone will be an active shared space with kids playing football or young professionals relaxing in the sun. The interior of each building has a flexible and open floor plan. Utilities, storage, and vertical circulation line the walls. On the second floor the primary bedroom looks out over the front yard. Two additional bedrooms are on the other side of the atrium to maximize privacy. On the third floor, under the slope of the roof a home office is at the front, and a playroom at the back.

- Maximum Flexibility: Each owner can create variation in an open plan with different possible sections.
- Light Filled: Rowhouses can be dark. Four skylights and an atrium create a light filled central court that makes even a gray Chicago winter day feel bright.
- Mass Production: Readymade Row takes advantage of the efficiencies created in large-scale industrial buildings to create many houses at one time.
- Slab-on-Grade: Excavation is expensive. Insulated slab-on-grade to reduce excavation costs. A simple epoxy coating also creates a beautiful finished floor.
- Geothermal: Upfront cost for this system is usually substantial. Geothermal wells are shared across the project to reduce costs.
- "District Cooling": Downtown, we save energy using district cooling, the underground utility trench at Readymade Row allows each unit to share the energy.
- High Performance: Insulated metal panels have a high R value and are easy to air seal. This means lower energy costs for residents and a lower impact on the planet.

Courtesy of the Chicago Architecture Center

Kevin Daly Architects



Much More Middle

The core of our proposal is to preserve a mid-block void, creating opportunities for participation, improvisation and expansion. This flexibility allows our Starter Home to grow into a Forever Home.

The Premise: A bare-bones three-story Rowhouse stands as the minimum-viable solution to the problem of the starter house. The 3-Bed, 3-Bath, 1,300 sf starter configuration can be a single family home or be subdivided into a **Two-Flat**, creating an **in-law unit** or **home business space** at ground level.

More Middle: The narrow module of the starter home to allows for a **bonus fifth rowhouse** to be added to the typical four-parcel site, creating a five-home elevation at the street. Alternating homes are pushed back slightly, producing enclosed front yards and variation at the street.

Growth & Equity: This alternating, staggered site plan continues at the rear of the site, with rental units in **Carriage Houses** providing opportunities for **Wealth Building**, and additional parking between garages. The building line of each Rowhouse extends fully to the rear setback, creating a template for future infill. By leaving the middle of the site "missing," we create the opportunity for future improvisations for each building owner: gardens, screen porches, and rental units transform each Starter Home into a permanent solution.

LEVEL 3 PLAN, TYP.
LEVEL 2 PLAN
LEVEL 1 PLAN
STREET VIEW
SECTION
PROGRAM DIAGRAM
ELEVATION
COURTYARD

Courtesy of the Chicago Architecture Center

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