



## *Massachusetts ADU Design Challenge | Project Cover Sheet*

### **1. Design Team**

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Lead Applicant: Jack DiGeronimo  
Additional Applicants:  
Design Firm Name (If Applicable):  
Contact Info: jackdigeronimo.arch@gmail.com

### **2. Design Information**

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EntryID (randomly assigned by HLC for tracking purposes): 3521  
Design Name: Accessory House, Boston  
ADU Gross Floor Area (square footage): 895  
Unit Layout: One-Bedroom  
ADU Height (feet): 28  
Window/Wall Ratio: 18%  
Foundation Type: Concrete Frost Wall

### **3. Project Narrative**

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Accessory House proposes a materially simple and regionally pragmatic accessory dwelling unit that is focused on ecological responsibility and construction economy. The envelope utilizes straw bale insulation, selected for its agricultural abundance, low embodied carbon, nontoxic composition, and thermal performance. As a renewable byproduct, straw reframes waste as resource. The exterior is clad in acetylated timber siding, chosen for durability, dimensional stability, and longevity without toxic treatment, its quiet grain and silvery weathering provide a familiar style of New England domesticity. Light wood framing leverages local labor, standardized detailing, and cost-effective supply chains. A panelized prefabrication strategy streamlines construction, improves quality control, and reduces on-site waste. Above, a generous metal roof accommodates optional photovoltaics and rainwater harvesting, consolidating performance, durability, and form in a single architectural gesture.

***Please note that the information contained in this file was submitted to the Executive Office of Housing and Livable Communities (HLC) by ADU Design Challenge participants and has not been independently verified by HLC or the Commonwealth of Massachusetts. Please direct questions to the designers.***

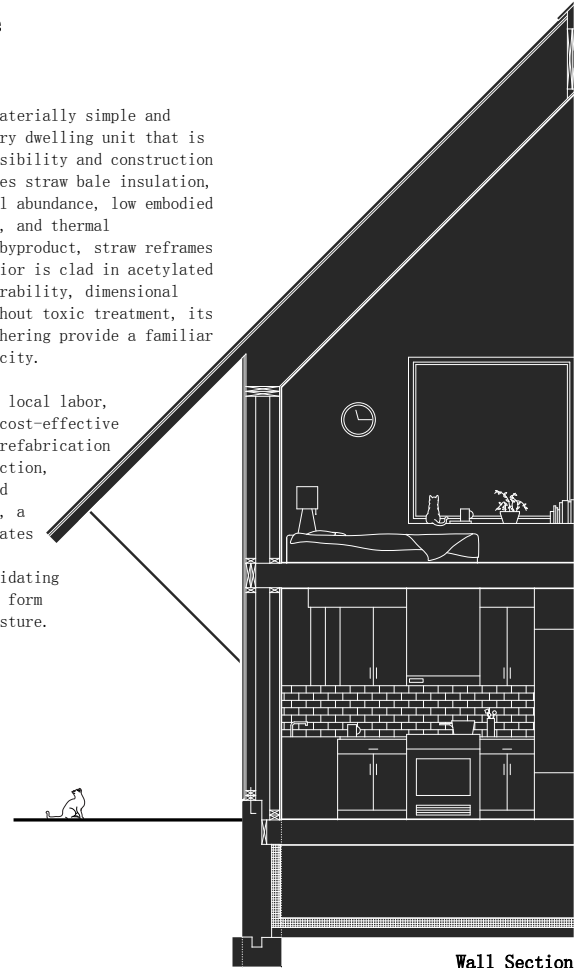
# Accessory House, Boston

## Design Competition Boards

design narrative :

Accessory House proposes a materially simple and regionally pragmatic accessory dwelling unit that is focused on ecological responsibility and construction economy. The envelope utilizes straw bale insulation, selected for its agricultural abundance, low embodied carbon, nontoxic composition, and thermal performance. As a renewable byproduct, straw reframes waste as resource. The exterior is clad in acetylated timber siding, chosen for durability, dimensional stability, and longevity without toxic treatment, its quiet grain and silvery weathering provide a familiar style of New England domesticity.

Light wood framing leverages local labor, standardized detailing, and cost-effective supply chains. A panelized prefabrication strategy streamlines construction, improves quality control, and reduces on-site waste. Above, a generous metal roof accommodates optional photovoltaics and rainwater harvesting, consolidating performance, durability, and form in a single architectural gesture.



Wall Section

page size: 24" x 36"

drawing scale: varies

description of competition board one for digital accessibility:

Presentation board layout. On the left are two isometric renderings of the accessory house displayed as architectural study models resting on square plywood bases. On the right is a large wall section drawing, with descriptive text wrapping around the roof overhang. Below the wall section are the site plan contextualization drawing and a detailed plan wall assembly drawing. The board combines representation, construction, and site relationships.

description of rendered images for digital accessibility:

Two thirty-degree by thirty-degree isometric renderings viewed from the northeast and northwest. The building is shown as a physical architectural model, emphasizing light, shadow, and the warmth of wood surfaces. The north, east, and west faces are visible across the views, clarifying massing and window placement.

description of site plan contextualization for digital accessibility:

Site plan of a 7,000-square-foot lot. The primary house sits slightly left of center with a bay window projecting outward. The accessory dwelling is placed to the right, twelve feet away. Its south face fronts the road. The east side is shaded by a deep roof overhang. Open space remains between the two buildings for light, air, and circulation.

description of wall section for digital accessibility:

Detailed wall section showing a ridge beam and sloped rafters filled with 24 inches of straw bale insulation, approximately R-55. Double-stud framed walls contain 15 inches of straw bale insulation, approximately R-34. Foundation extends eight inches above grade with insulated crawl space and slab below. Continuous insulation reduces thermal bridging. A cat peers at the structure from under the overhanging roof.

description of plan details for digital accessibility:

Plan detail showing a double-stud wall assembly with straw bale insulation between the two framed walls. The detail aligns with the wall section, indicated by dotted reference lines. Interior space is shown adjacent to the assembly: a chair with a cat curled on it, a small table with a mug and reading material, and a nearby kitchen counter with upper cabinets above. The drawing connects construction thickness to lived interior space.



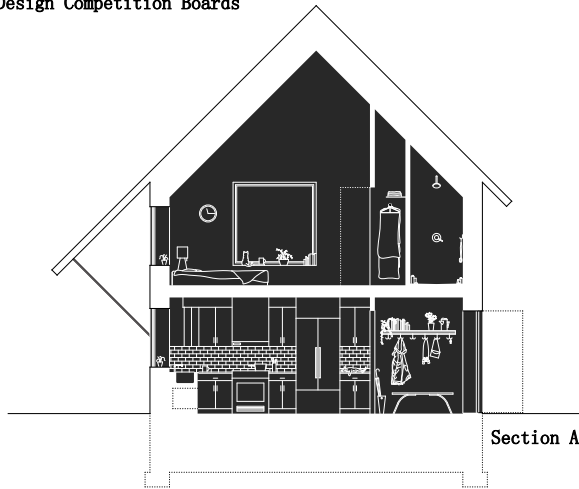
Site Plan Context



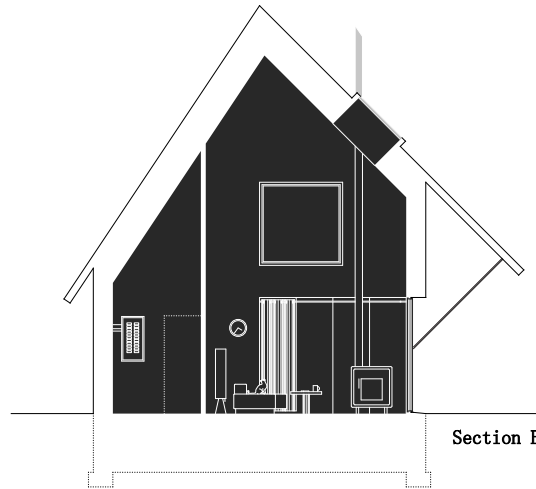
Plan Detail

# Accessory House, Boston

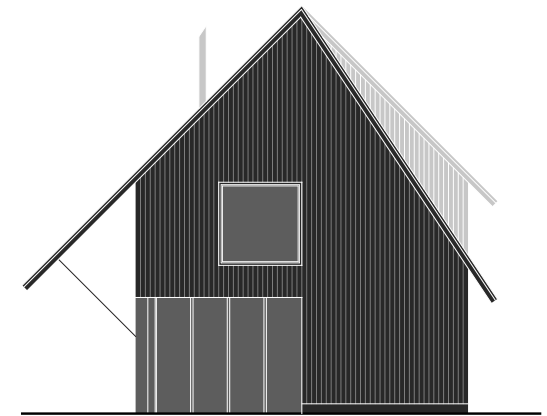
Design Competition Boards



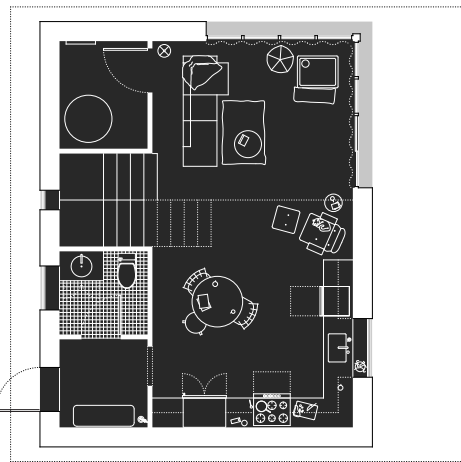
Section A



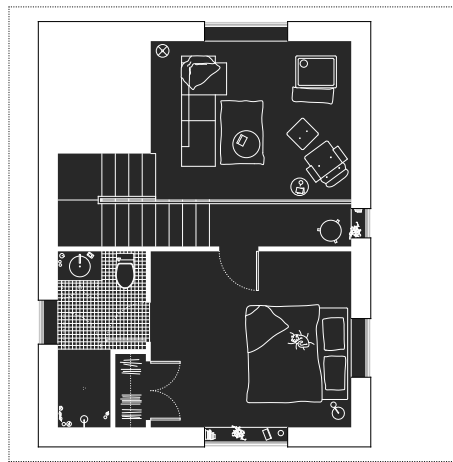
Section B



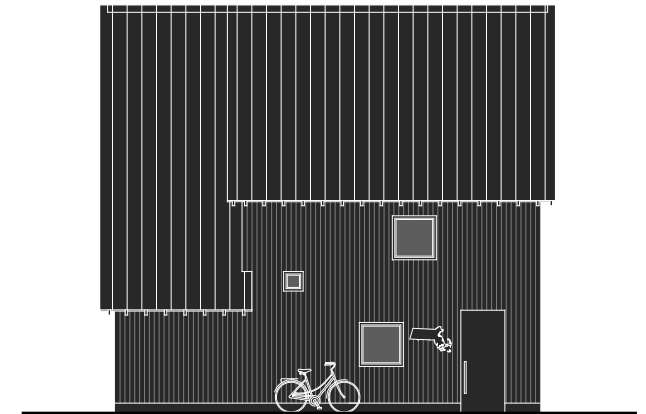
North Face



First Floor Plan



Second Floor Plan



West Face

page size: 24" x 36"

drawing scale: 1/4" : 1'



description of competition board two for digital accessibility:

Presentation board layout. On the left, section A aligns directly with the first-floor plan above. In the center, Section B aligns with the second-floor plan, which aligns with the first floor plan. Across the top row, the north face aligns horizontally with Sections A and B. Below the north face, the west face is positioned. The board organizes plans, sections, and elevations to clarify spatial and vertical relationships.

description of first floor plan for digital accessibility:

Entry at the southwest corner leads into a mudroom with bench and hooks. A lavatory is to the left. The kitchen, dining, and living areas form one open space. Cabinets line the south and east walls, with the sink under an east-facing window. A double-height living room occupies the north side with tall corner windows and a skylight above. A sliding door on the east wall opens to a covered exterior area. Stairs rise in a U shape along the west side.

description of second floor plan for digital accessibility:

Stairs arrive at a small landing with a window ahead. The bedroom is to the left, approximately 13 feet 8 inches by 12 feet, with a large south-facing window. A bathroom in the southeast corner contains shower, toilet, and sink. A closet with double doors opens to the bedroom. The hall overlooks the double-height living room below.

description of north face for digital accessibility:

Gable-end, 22 feet 8 inches wide, with two roof pitches: 12 on the left and 18 on the right, and a supported overhang. A large square window on the second floor aligns above tall corner windows wrapping the first floor. Exterior finish is vertical acetylated wood siding.

description of west face for digital accessibility:

Gutter-end, 29 feet long. The roof slopes downward on the left and rises higher at center and right. Daylight enters small stair and bathroom windows. The primary entry door is located on the right side. Square windows punctuate the façade. Exterior cladding is vertical acetylated wood siding.

description of section a for digital accessibility:

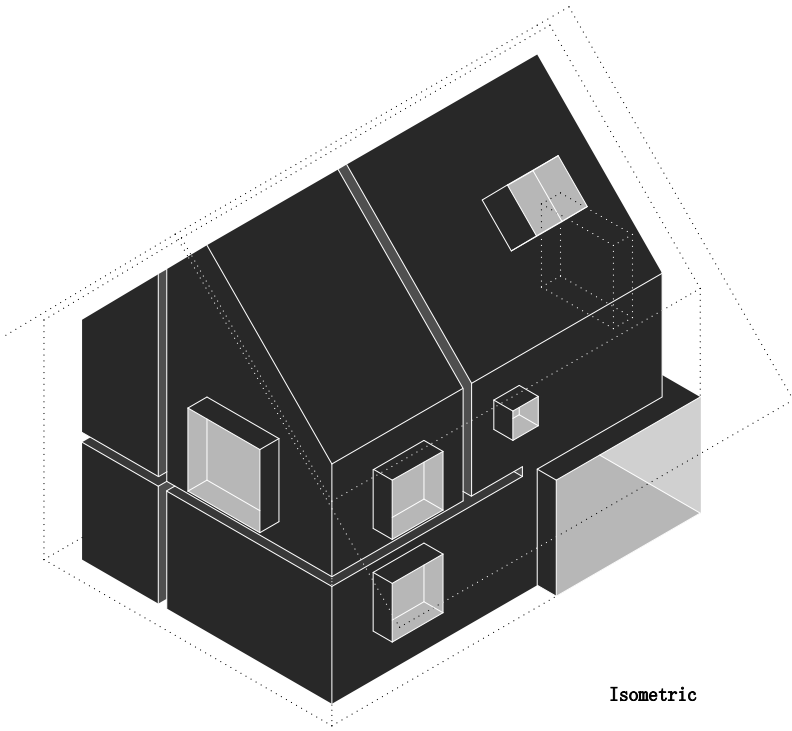
Building section looking south. First floor shows kitchen with east-facing window above the sink, cabinetry, stove, and tiled backsplash. A cased opening leads to the mudroom and entry. Second floor shows a vaulted bedroom aligned with a large south window, with closet and bathroom to the right under the sloped roof.

description of section b for digital accessibility:

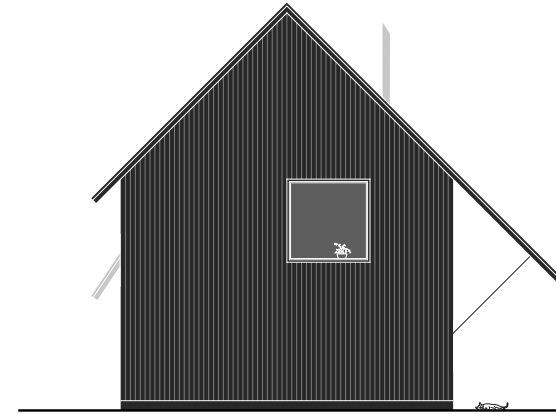
Building section looking north, cutting through two roof pitches. A double-height living room occupies the space below. A skylight above brings light near a wood stove and flue. Tall corner window anchors the first floor, with a square window above. A mechanical room sits to one side.

# Accessory House, Boston

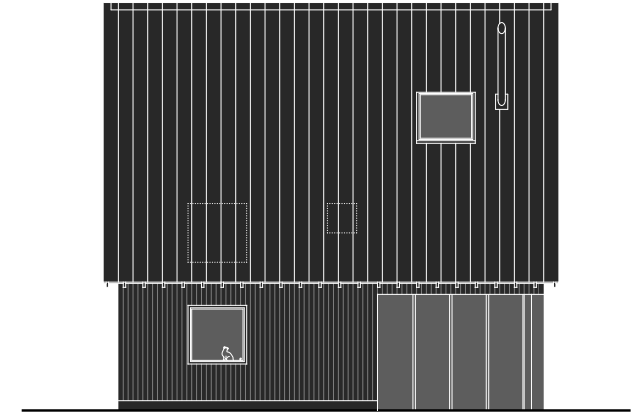
Design Competition Boards



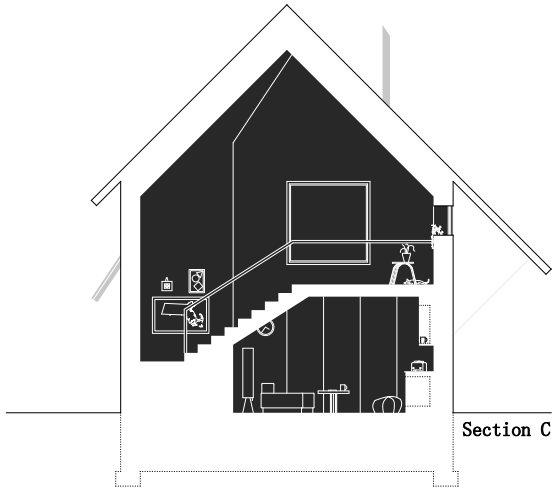
Isometric



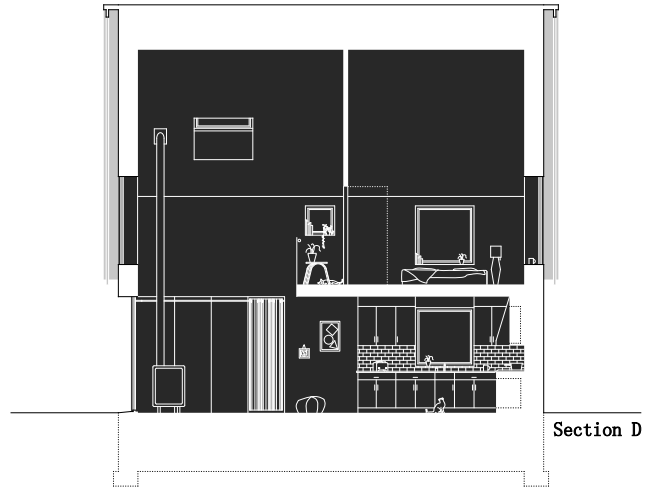
South Face



East Face



Section C



Section D

page size: 24" x 36"

drawing scale: 1/4" : 1'



description of competition board two for digital accessibility:

Presentation board layout. A 30-degree by 30-degree isometric drawing is positioned on the left. Along the top row, the south face sits in the center aligned to the east face to the right. Below them, Section C aligns beneath the south face, and Section D aligns beneath the east face. The board pairs three-dimensional representation with corresponding elevations and sections to explain massing and interior volume.

description of isometric for digital accessibility:

Thirty-degree-thirty-degree isometric view facing southeast corner. Gable-end is on the left and extended roof overhang shown dotted on the right. Roof lines are shown dotted above the interior, which is rendered as solid. Windows project outward from the walls because of this rendering choice. Large north and south windows align through the building. Drawing illustrates massing, roof geometry, and openings.

description of south face for digital accessibility:

Gable-end, 22 feet 8 inches wide, with a symmetrical 12-pitch gable roof. A supported overhang extends on the right side. A large square window is located on the second floor, slightly right of center. Exterior cladding is vertical black acetylated wood siding.

description of east face for digital accessibility:

Gutter-end, 29 feet long, showing a sloped standing-seam metal roof with ridge west. A deep overhang projects at the right. A tall corner window anchors the first floor. Square windows align vertically, with the upper partially concealed by the roofline. A skylight is positioned above the living space. Exterior siding is vertical acetylated wood.

description of section c for digital accessibility:

Building section looking north through the stair. The stair connects both floors and overlooks the living room. The ceiling vault and differing roof pitches are visible above. The large second-floor window appears beyond the railing. First floor shows kitchen counters transitioning into living space.

description of section d for digital accessibility:

Building section looking west. The double-height living room and skylight are centered. A wood stove rises toward the ceiling. The second-floor hall overlooks the living space, with the bedroom beyond. On the first floor, a tall corner window and sliding door define the east wall, and the kitchen aligns beneath the bedroom window.

# Accessory House, Boston

## First Floor Plan

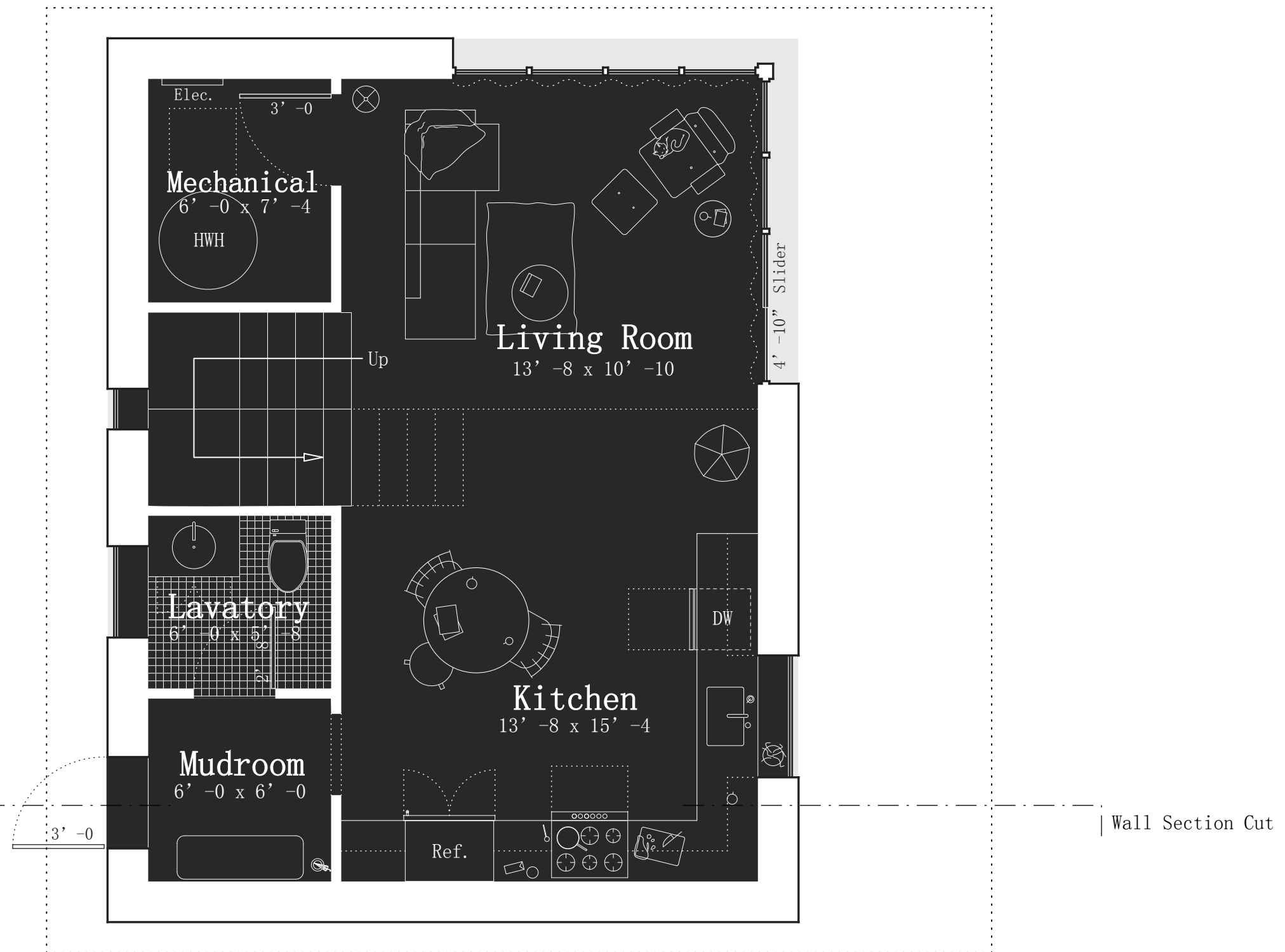
description for digital accessibility :

North is oriented upward. The plan measures twenty-two feet eight inches along the north and south walls and twenty-nine feet between them.

Entry occurs on the south side of the west face. A modest mudroom equipped with a bench, hooks, and an umbrella stand offers a moment of pause. From here, one proceeds directly into the kitchen or turns left toward a tiled lavatory.

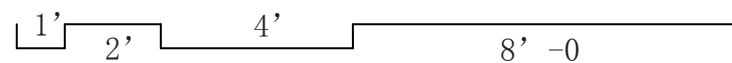
The kitchen, dining, and living areas are conceived as a continuous, shared volume. Along the south wall sit the stove and refrigerator; the sink and dishwasher occupy the east wall. Cabinets form an L-shaped configuration wrapping these two sides. Morning light enters through a square window above the sink, where a plant rests on the sill. A pot simmers on the stove, vegetables are being prepared, and reading materials with two coffee mugs remain on the kitchen table.

The double-height living area occupies the north side of the plan. In the northeast corner, seven-foot-six-inch windows form an L-shaped aperture, while a larger square window above aligns with the corresponding bedroom window on the second floor. A skylight admits direct light into the volume. A sliding door along the east wall opens beneath the roof overhang, extending the living space outward. The stair, configured in a U-shape, rises from this primary room, reinforcing its spatial centrality. A mechanical room occupies the northwest corner, marked externally by a steeper roof pitch. A cat rests on a chair; a blanket drapes casually over the sofa.



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drawing scale: 1/4" : 1'



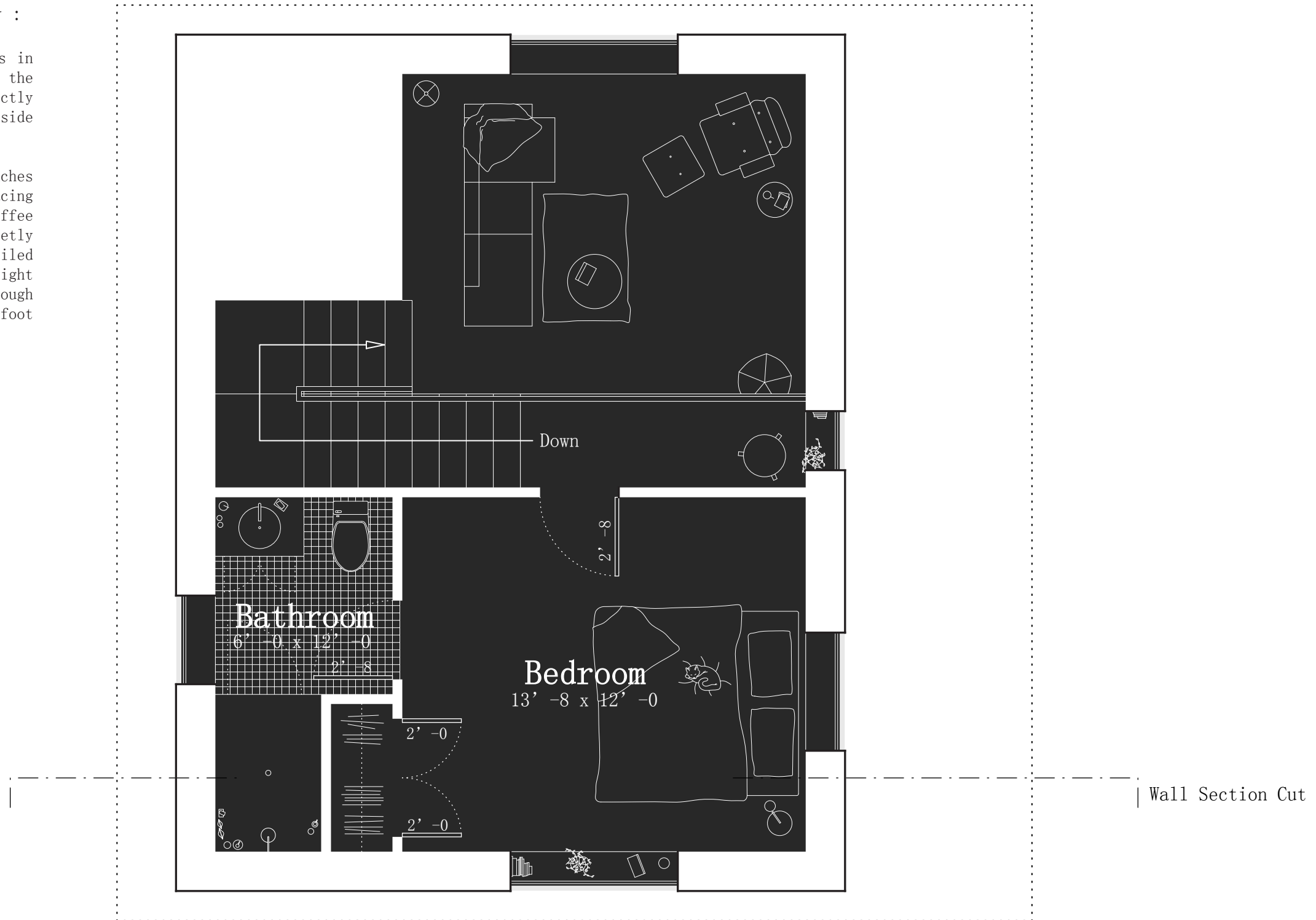
# Accessory House, Boston

## Second Floor Plan

description for digital accessibility :

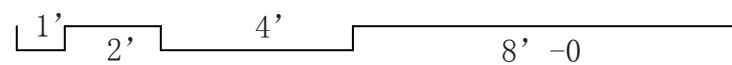
North is oriented upward. The stair arrives in the middle of the plan: the bedroom lies to the right, while a modest square window sits directly ahead, its sill holding books and a plant beside a stool.

The bedroom measures thirteen feet eight inches by twelve feet. A large square south-facing window provides ample light; books and a coffee mug rest along its sill, and a cat curls quietly on the bed. In the southwest corner, a tiled bathroom contains a sink and toilet to the right and a shower to the left. A closet, formed through negative space, is accessed by two two-foot doors, opening directly into the bedroom.



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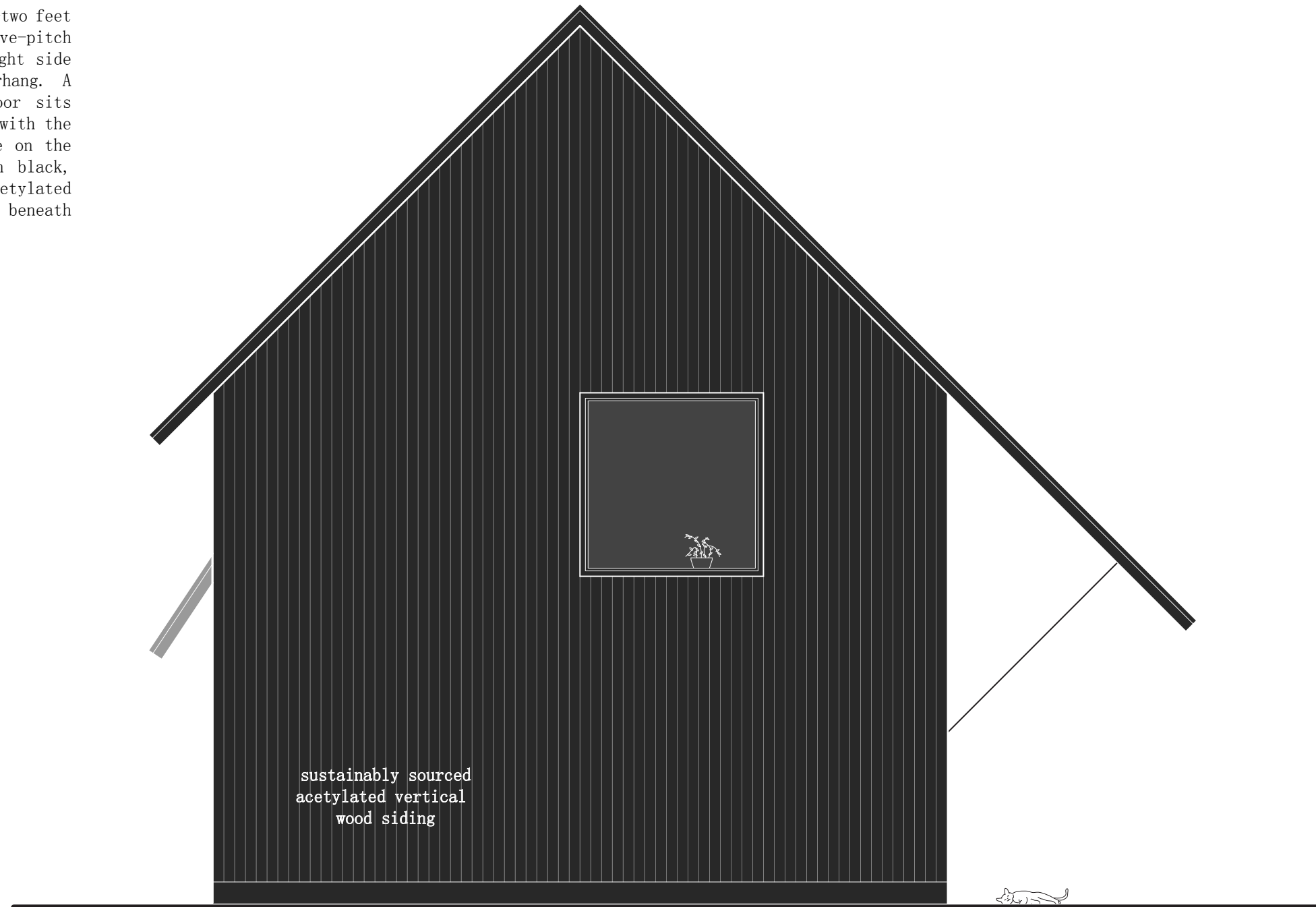


# Accessory House, Boston

## South Face

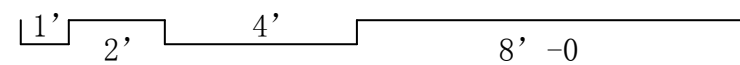
description for digital accessibility :

The gable-end south face measures twenty-two feet eight inches across. A symmetrical twelve-pitch gable crowns the structure, with the right side extending outward in a supported overhang. A large square window on the second floor sits slightly to the right, its edge aligned with the gable's centerline; a plant is visible on the sill. Exterior cladding is rendered in black, identified as sustainably sourced acetylated vertical wood siding. Morning light pools beneath the overhang, where a cat sleeps.



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drawing scale: 1/4" : 1'



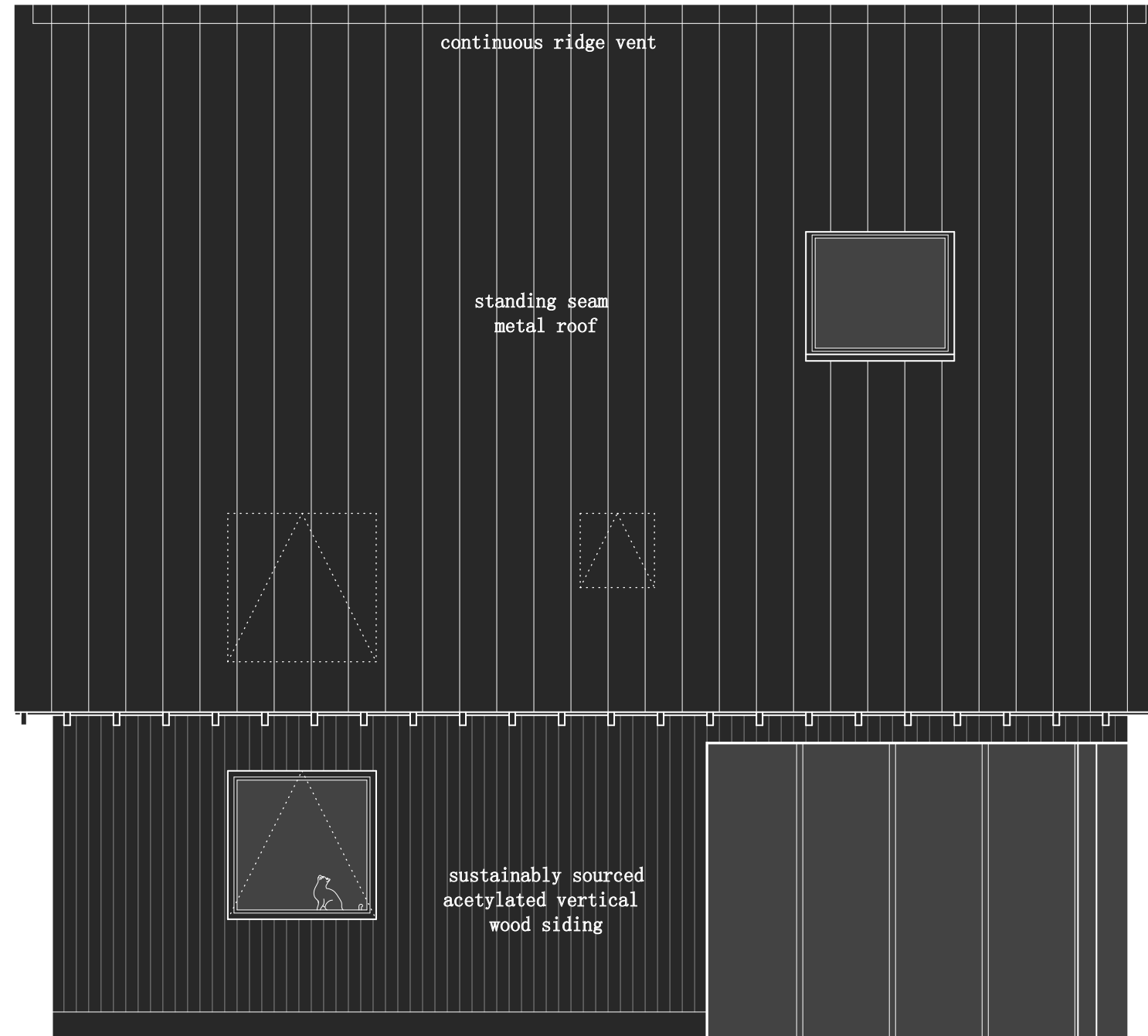
# Accessory House, Boston

## East Face

description for digital accessibility :

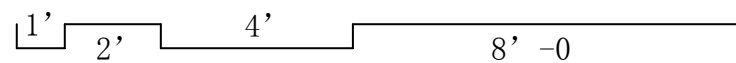
Measuring twenty-nine feet across, the structure is capped by a standing-seam metal roof that extends just below the second-floor plate from this view, and a foot to either side. A continuous ridge vent runs along the peak. Exterior cladding is rendered in black, identified as sustainably sourced acetylated vertical wood siding.

On the left, the four-by-four-foot square kitchen window aligns with a corresponding second-floor bedroom window indicated by dotted lines behind the roof plane. On the right, a prominent seven-foot-six-inch window occupies the corner of the first floor. Centered on the building, a two-by-two-foot square window appears drawn with dotted lines, sharing the same sash as the adjacent second-floor window. A skylight is positioned on the right slope of the roof, roughly centered over the large corner window below.



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drawing scale: 1/4" : 1'

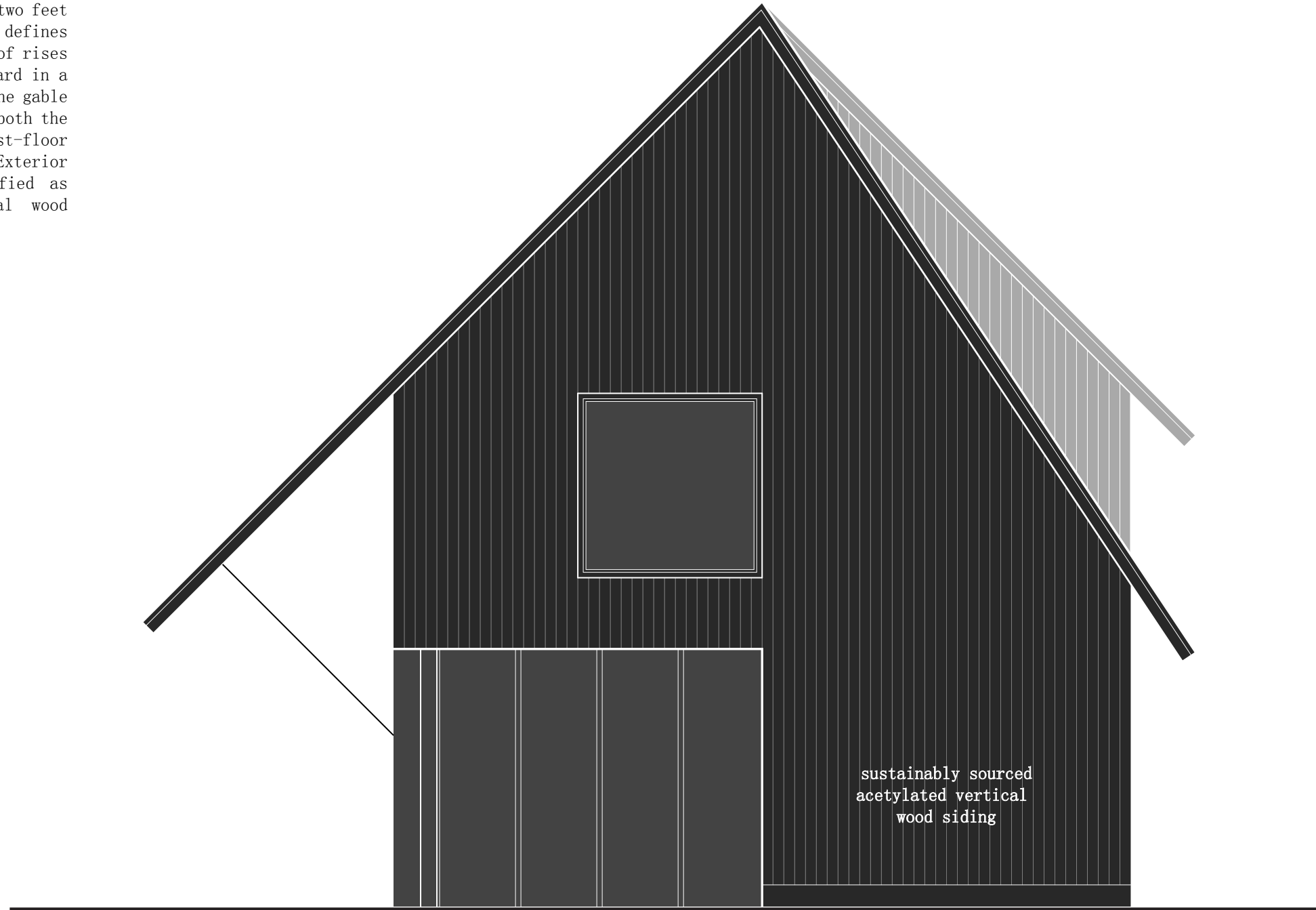


# Accessory House, Boston

## North Face

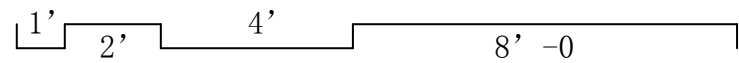
description for digital accessibility :

The gable-end north face measures twenty-two feet eight inches across. A twelve-pitch roof defines the left side, while an eighteen-pitch roof rises on the right; the left edge extends outward in a supported overhang. The intersection of the gable establishes a vertical datum that aligns both the large second-floor window and the first-floor window array that wraps the left corner. Exterior cladding is rendered in black, identified as sustainably sourced acetylated vertical wood siding.



page size: 11" x 17"

drawing scale: 1/4" : 1'



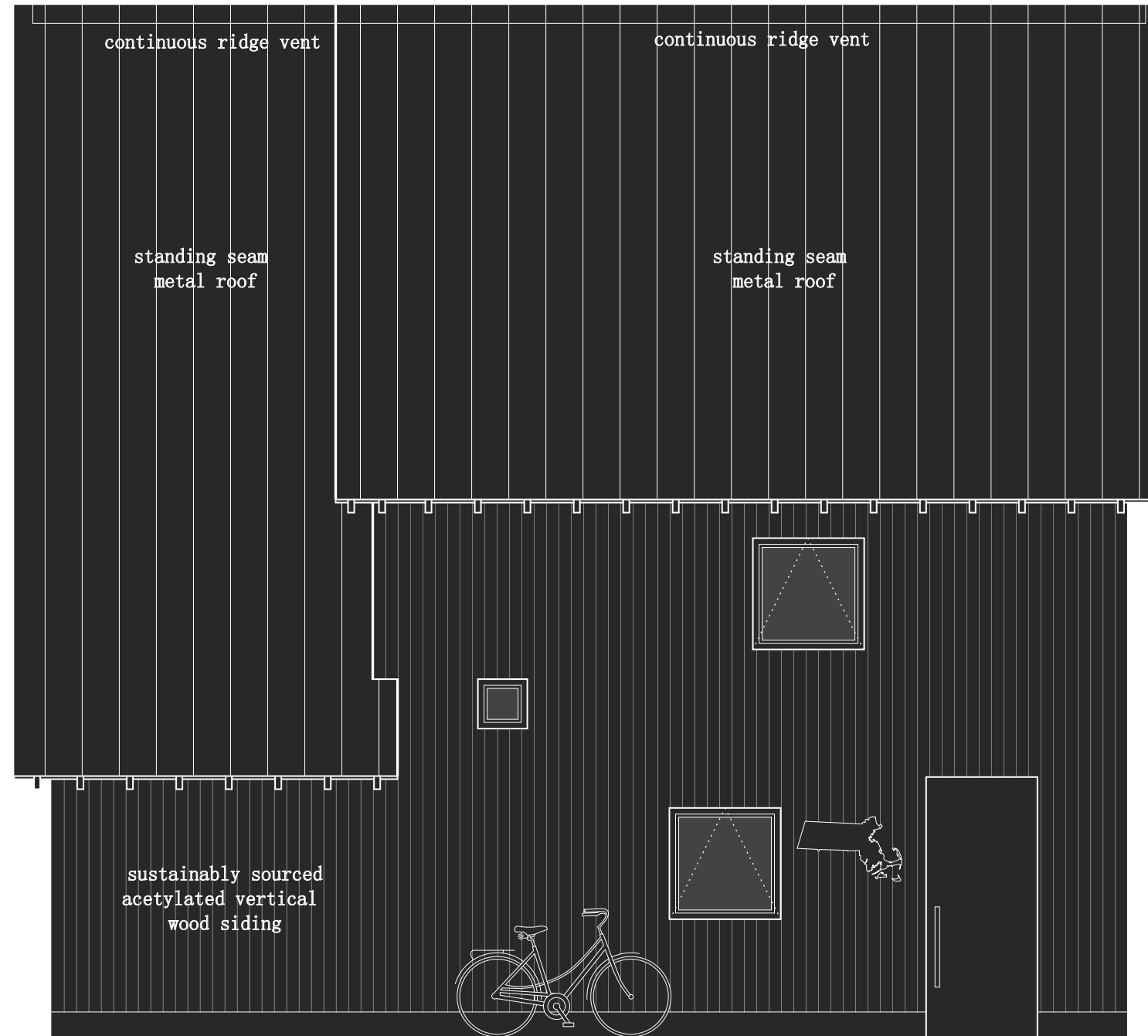
# Accessory House, Boston

## West Face

description for digital accessibility :

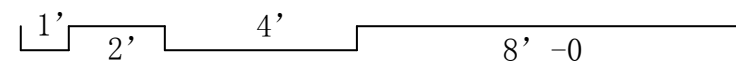
At twenty-nine feet wide, the west face roof-end view features a standing-seam metal roof extending roughly below the second-floor plate on the left. The central and right roof rises higher, permitting afternoon and evening daylight to enter a small stair window and staggered three-foot-square windows serving the first-floor lavatory and second-floor bathroom.

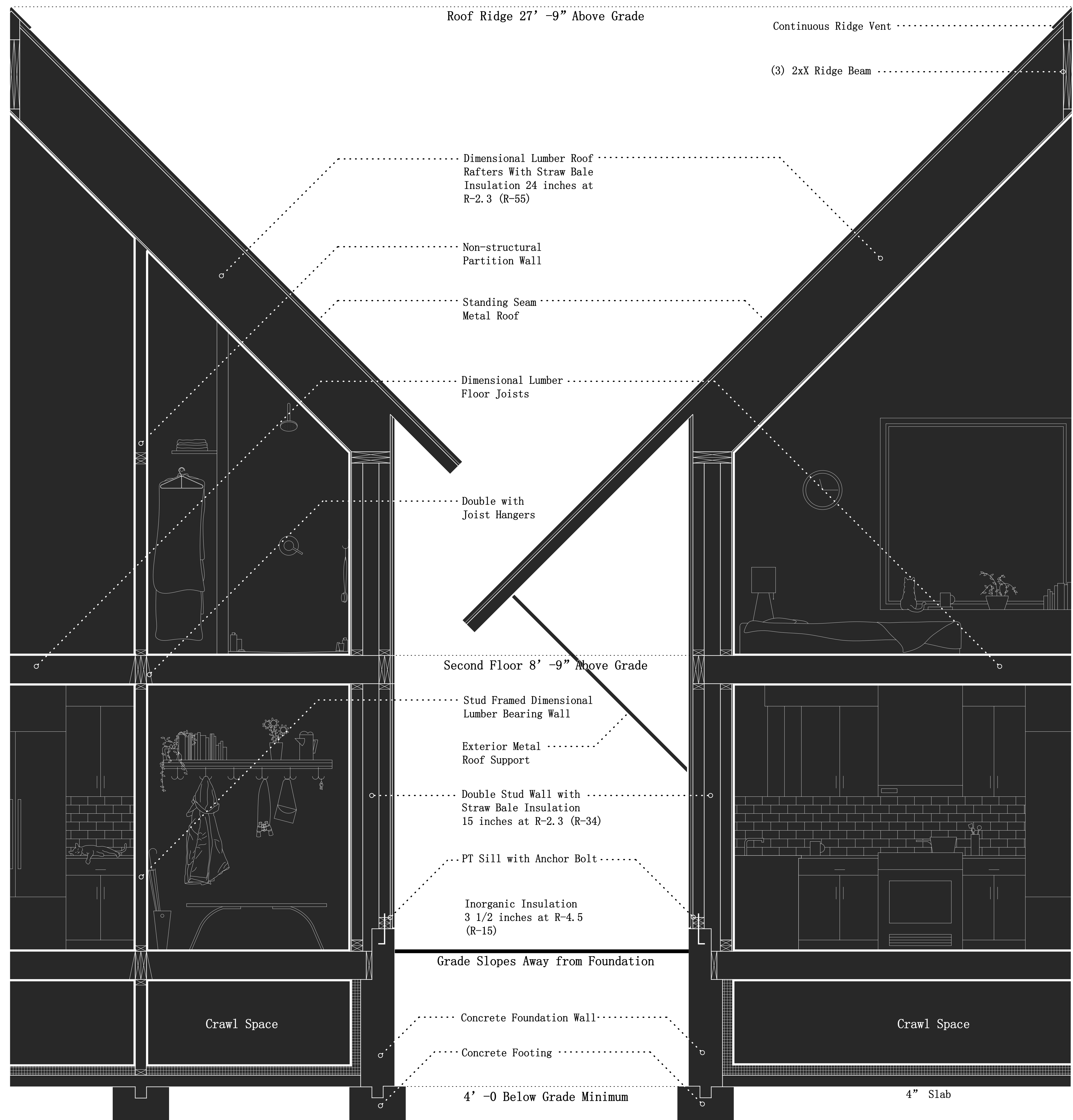
The primary entry appears on the right side, accompanied by a metal sign in the shape of Massachusetts. A bicycle leans casually against the façade. Exterior cladding is rendered in black, identified as sustainably sourced acetylated vertical wood siding.



page size: 11" x 17"

drawing scale: 1/4" : 1'





# Accessory House, Boston

## Wall Section

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drawing scale: 3/4" : 1'

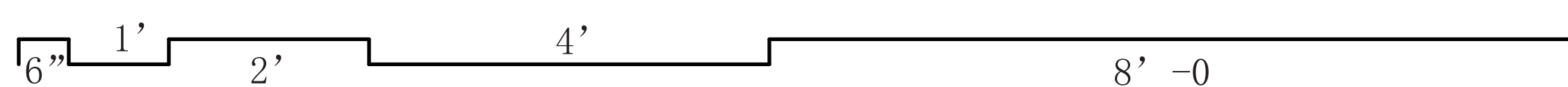
description for digital accessibility :

The large wall section is cut facing towards the south wall, with the kitchen, mudroom, bedroom, and shower in the background. This specific drawing is divided at the ridgeline and each side swapped so that callouts are all in the center and the drawing is flanking on either side.

A ridge beam spans the roof peak, eliminating the need for collar ties and preserving the clarity and beauty of the gable form within the interior volume. Dimensional lumber rafters are filled with 24 inches of straw bale insulation at approximately R-2.3 per inch, resulting in an overall roof assembly value near R-55. The exterior wall consists of a double-stud, platform-framed assembly. Fifteen inches of straw bale insulation at R-2.3 per inch produces an

approximate R-34 wall system. A continuous six inch cavity between the two stud frames enhances thermal continuity and mitigates bridging.

The exterior stud wall bears upon pressure-treated sill plates anchored to the foundation with bolts. The concrete foundation rises eight inches above grade. First-floor framing sits on an interior ledge. Below, a crawl space is insulated along its interior face with three-and-a-half inches of mineral wool insulation at approximately R-4.5 per inch, achieving roughly R-15. The foundation wall bears on a footing extending a minimum of four feet below grade and supports a four-inch concrete slab.





## Accessory House, Boston

Renderings

description for digital accessibility:

Close perspective of the northwest corner emphasizing the striking façade, roof geometry, and wall thickness. The tall corner window and upper square window align vertically. A small triangle object sits nearby, reinforcing the model's tabletop scale.

View of Northwest corner

page size: 11" x 17"



## Accessory House, Boston

Renderings

description for digital accessibility:

Architectural model placed directly beneath a lamp, with a mug and stacked books positioned behind it. The lighting casts strong shadows that emphasize the roof form and overhang. The plywood base reinforces the model's crafted, study-like quality.

Model on table

page size: 11" x 17"



## Accessory House, Boston

Renderings

description for digital accessibility:

Isometric view from the northeast showing the sloped roof, extended overhang, and window placement along the east and north faces. The tall corner glazing and upper square window align vertically. The model appears as a crafted object, emphasizing depth and shadow.

Isometric facing Northeast

page size: 11" x 17"



## Accessory House, Boston

Renderings

description for digital accessibility:

Isometric view from the northwest highlighting the symmetrical gable and façade depth. The north-facing corner windows and upper square window are visible together. The overhang and wall thickness are expressed through strong shadow lines.

Isometric facing Northwest

page size: 11" x 17"



## Accessory House, Boston

Renderings

description for digital accessibility:

View of the northeast corner elevation showing the relationship between the large second-floor window and living room glazing. Through the opening, the main living space is visible with the stair rising behind. The roof overhang frames the composition and emphasizes depth.

Northeast elevation

page size: 11" x 17"



## Accessory House, Boston

Renderings

description for digital accessibility:

A symmetrical gable defines the south face, with a supported overhang extending on the right. A large square window and vertical acetylated wood siding establish a restrained, contemporary vernacular expression.

South face

page size: 11" x 17"



## Accessory House, Boston

Renderings

description for digital accessibility:

The east face reveals the sloping metal roof and deep overhang that shades the wall below. Tall and square windows align vertically, and a skylight brings light into the double-height interior.

East face

page size: 11" x 17"



## Accessory House, Boston

Renderings

description for digital accessibility:

Two roof pitches shape the north elevation, creating variation in height and interior volume. A large upper window aligns above tall corner glazing.

North face

page size: 11" x 17"



## Accessory House, Boston

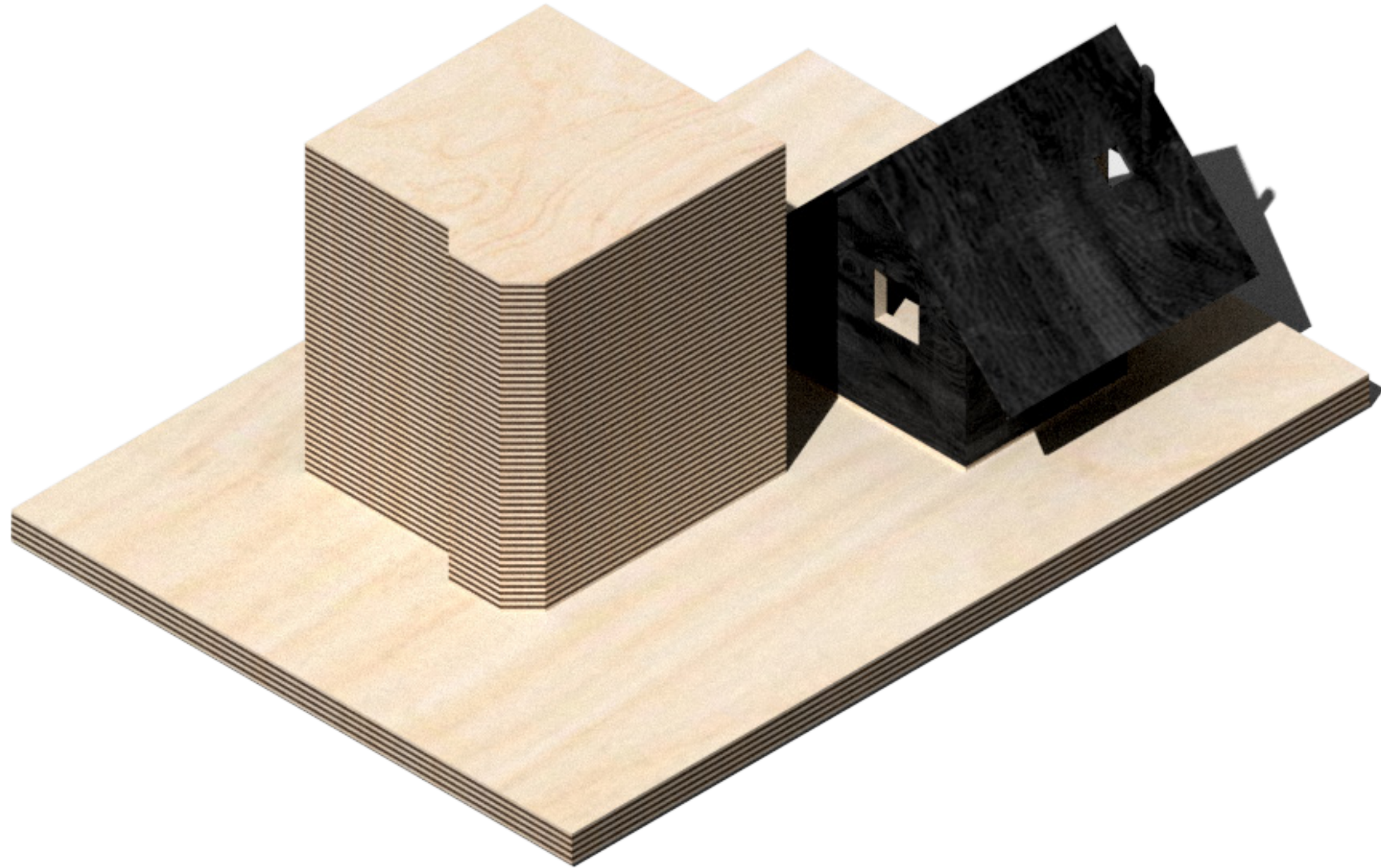
Renderings

description for digital accessibility:

The west face contains the primary entry and carefully placed square windows for stair and bathroom light. The varied roof heights admit daylight while maintaining a composed, minimal façade.

West face

page size: 11" x 17"



## Accessory House, Boston

Renderings

description for digital accessibility:

The primary house sits slightly left of center with a bay window projecting outward. The accessory dwelling is placed to the right, Its south face is seen from the road.

Site Plan Contextualization

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