Massachusetts ADU Design Challenge | Project Cover Sheet

1. Design Team

Lead Applicant: Darguin Fortuna
Additional Applicants:
Design Firm Name (If Applicable): Flow Design Architects
Contact Info: dfortuna@flow-design-studio.com

2. Design Information

EntryID (randomly assigned by HLC for tracking purposes): 3567
Design Name: SUSTAINED LIVING
ADU Gross Floor Area (square footage): 900
Unit Layout: Two-Bedroom or more
ADU Height (feet): 29
Window/Wall Ratio: 11.8%
Foundation Type: Concrete Frost Wall

3. Project Narrative

The Sustained Living ADU is a 900-square-foot detached dwelling designed to demonstrate how small-scale housing can achieve long-term environmental performance, affordability, and adaptability in Massachusetts neighborhoods. The design embraces a simple, replicable form that maximizes daylight, passive solar gain, and spatial efficiency while meeting required energy performance thresholds. A highly insulated envelope, integrated solar wall, and rooftop photovoltaic array reduce operational costs and carbon footprint. The compact footprint is organized around flexible, multi-functional living spaces that support diverse households—from aging parents to young professionals. Durable, regionally appropriate materials and a straightforward structural system ensure feasibility, constructability, and long-term resilience.

SUSTAINED LIVING

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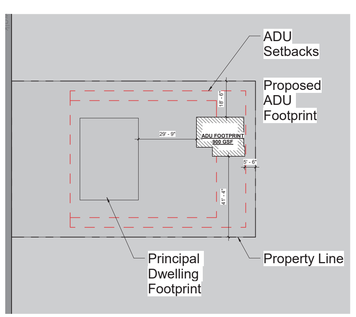
FRONT

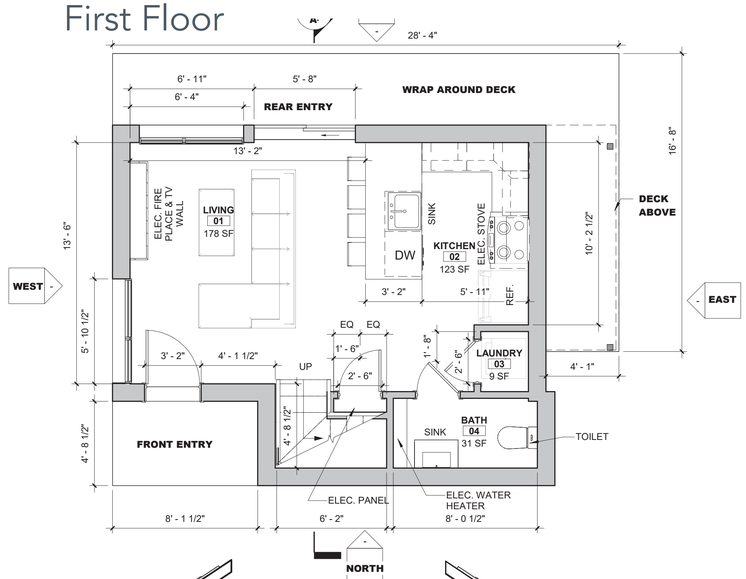
RENDERING



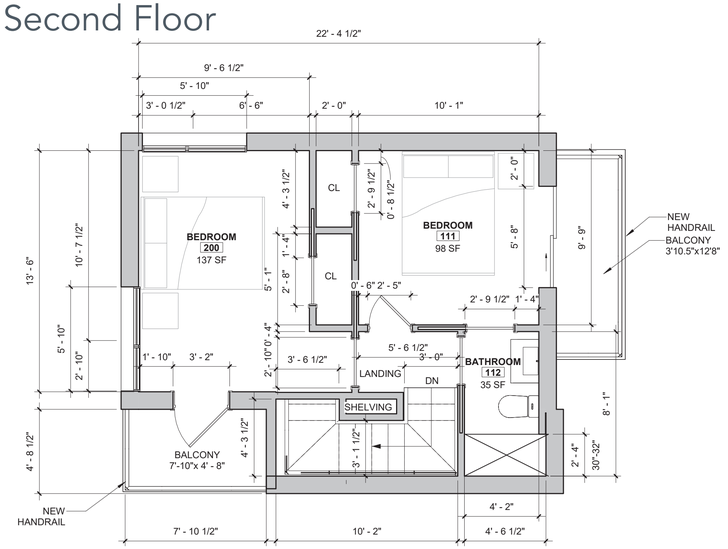
Site Plan

Interior Rendering

First Floor

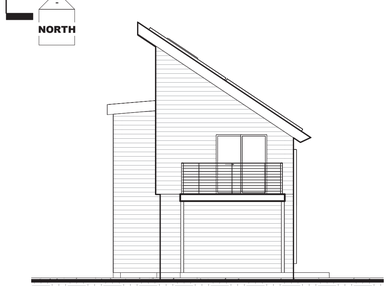


Second Floor

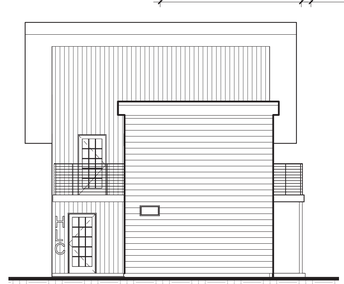


East

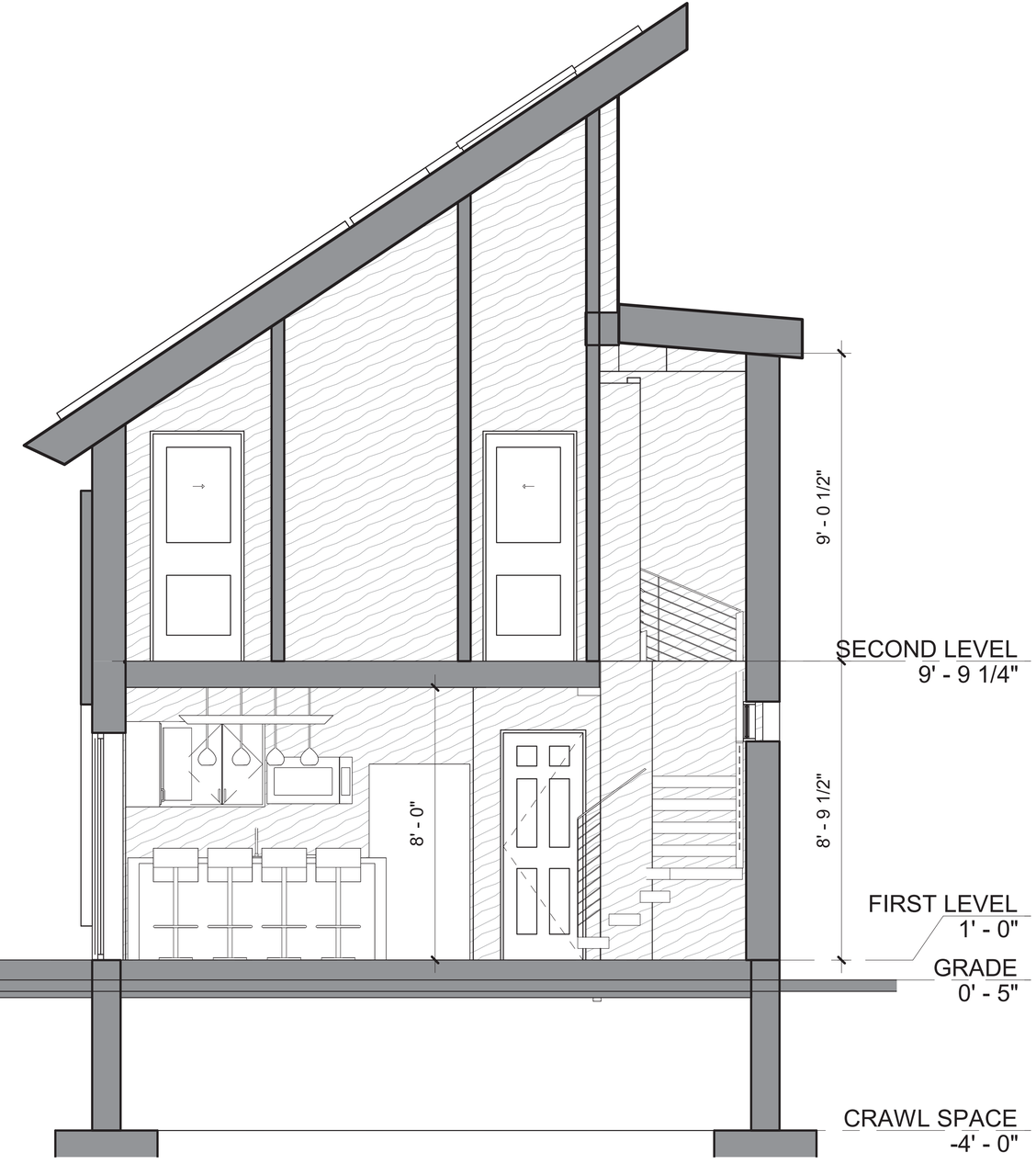
East

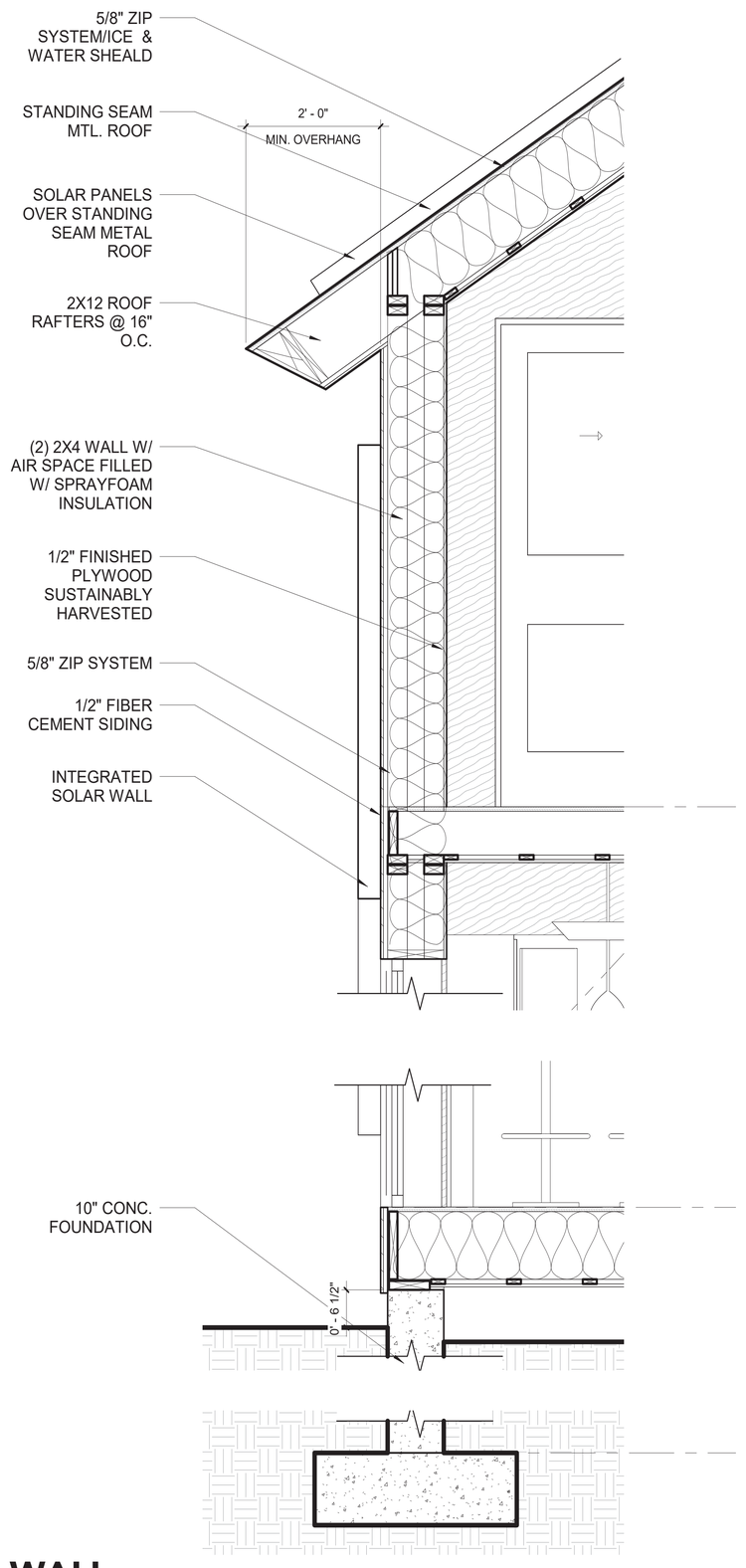


North



South

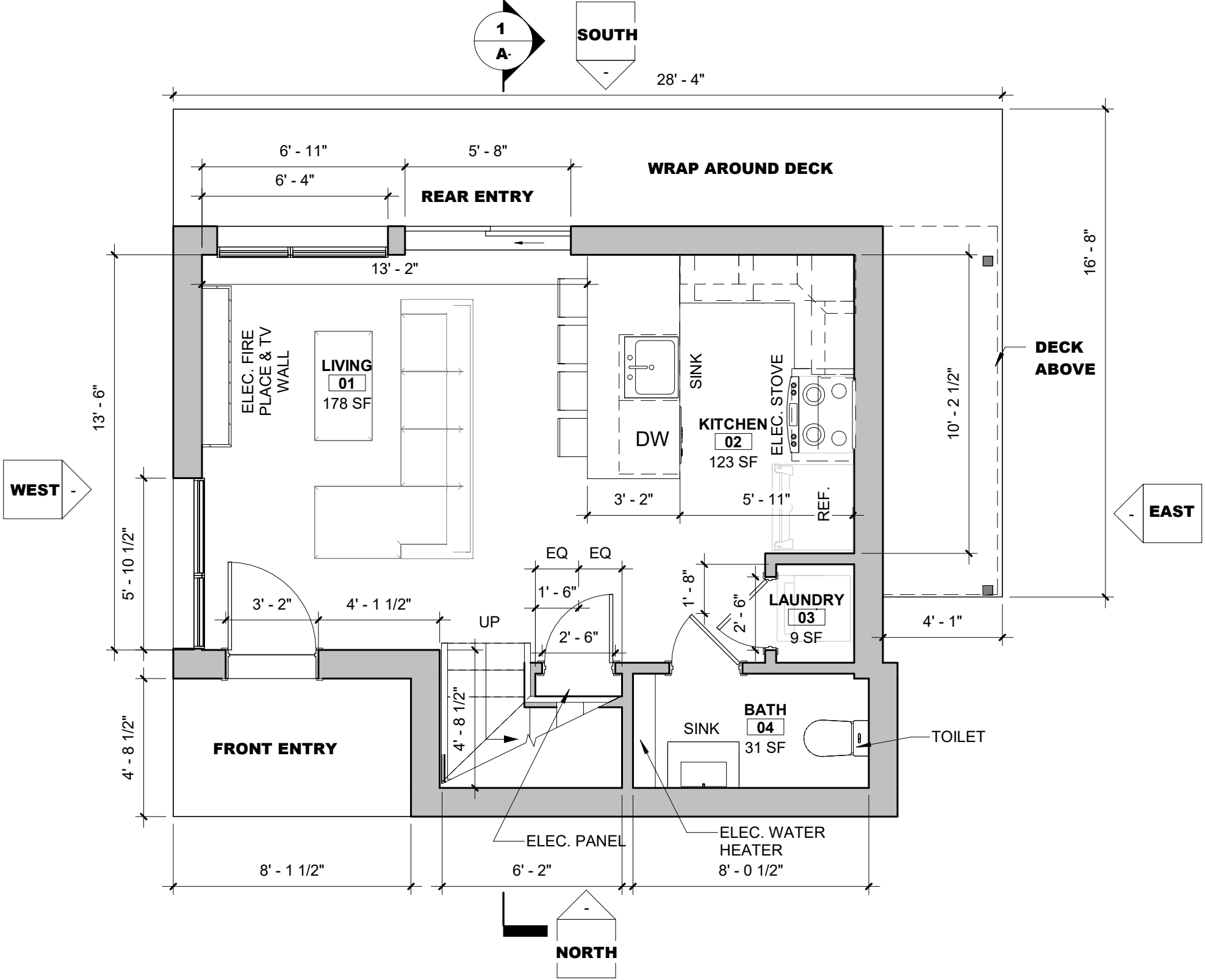


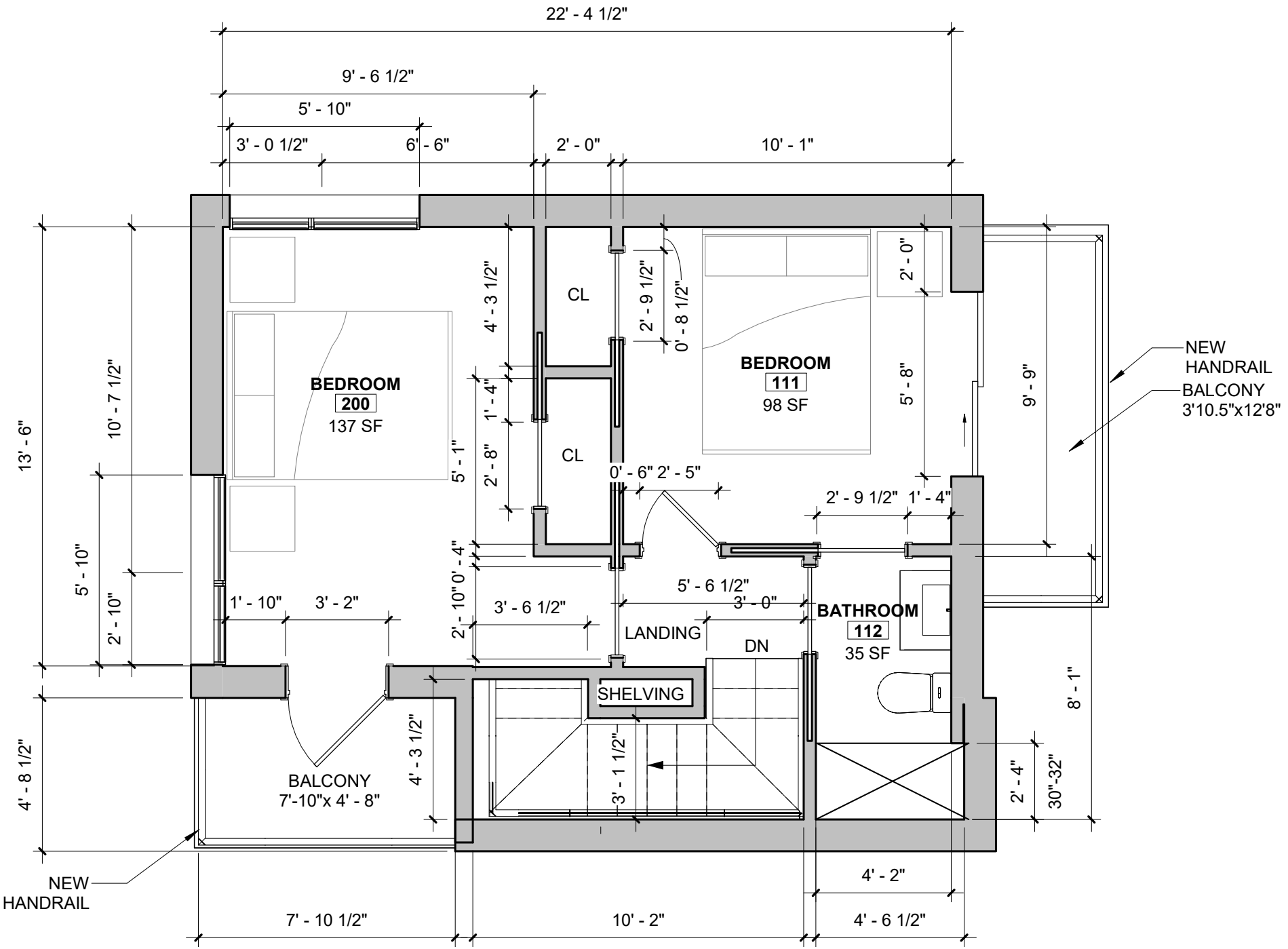


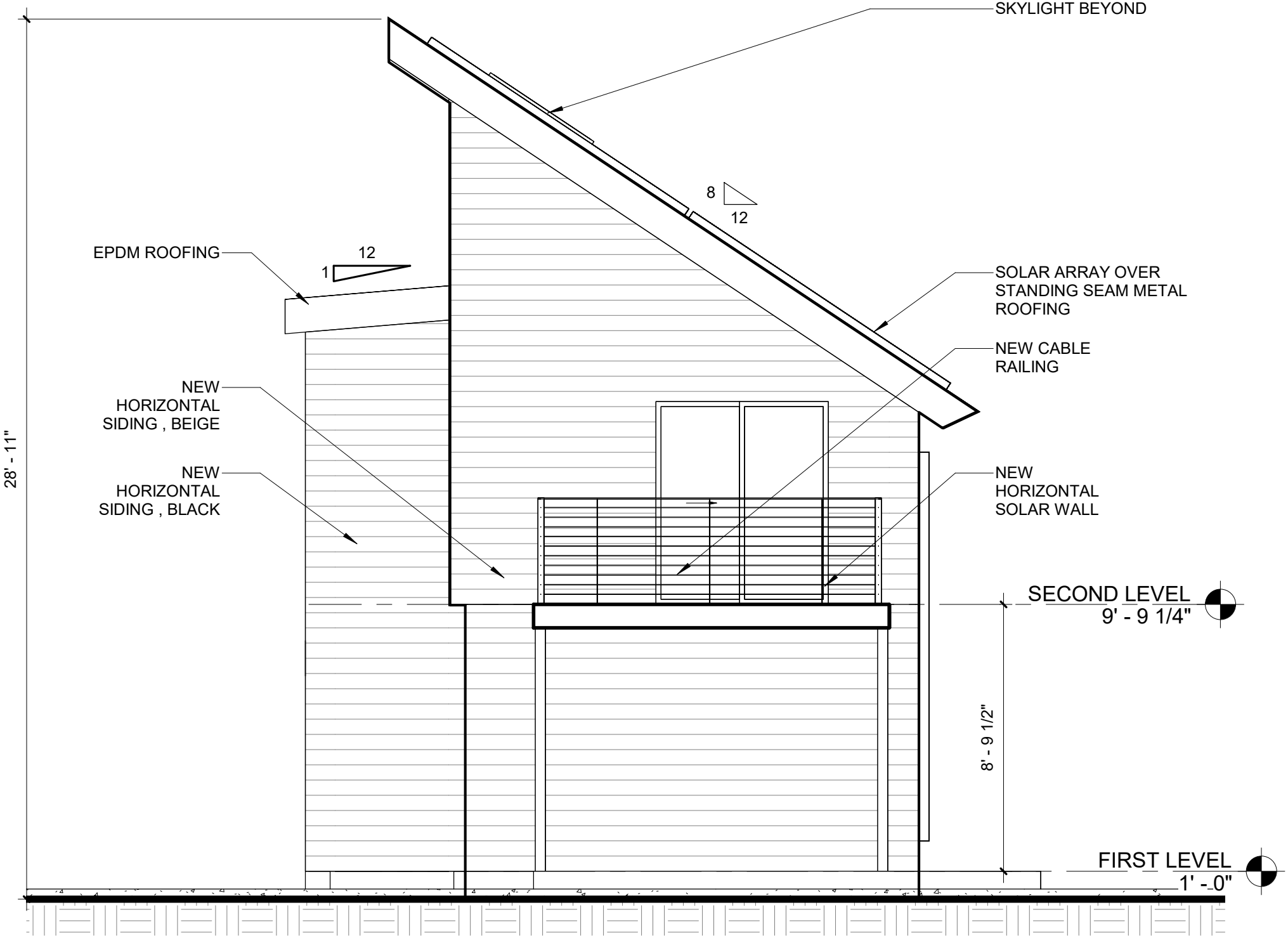
The Sustained Living ADU is designed for panelized or hybrid prefabrication strategies. The wall assemblies can be factory-built to improve quality control, reduce waste, and accelerate site installation. The straightforward structural grid supports modular thinking without sacrificing architectural character.

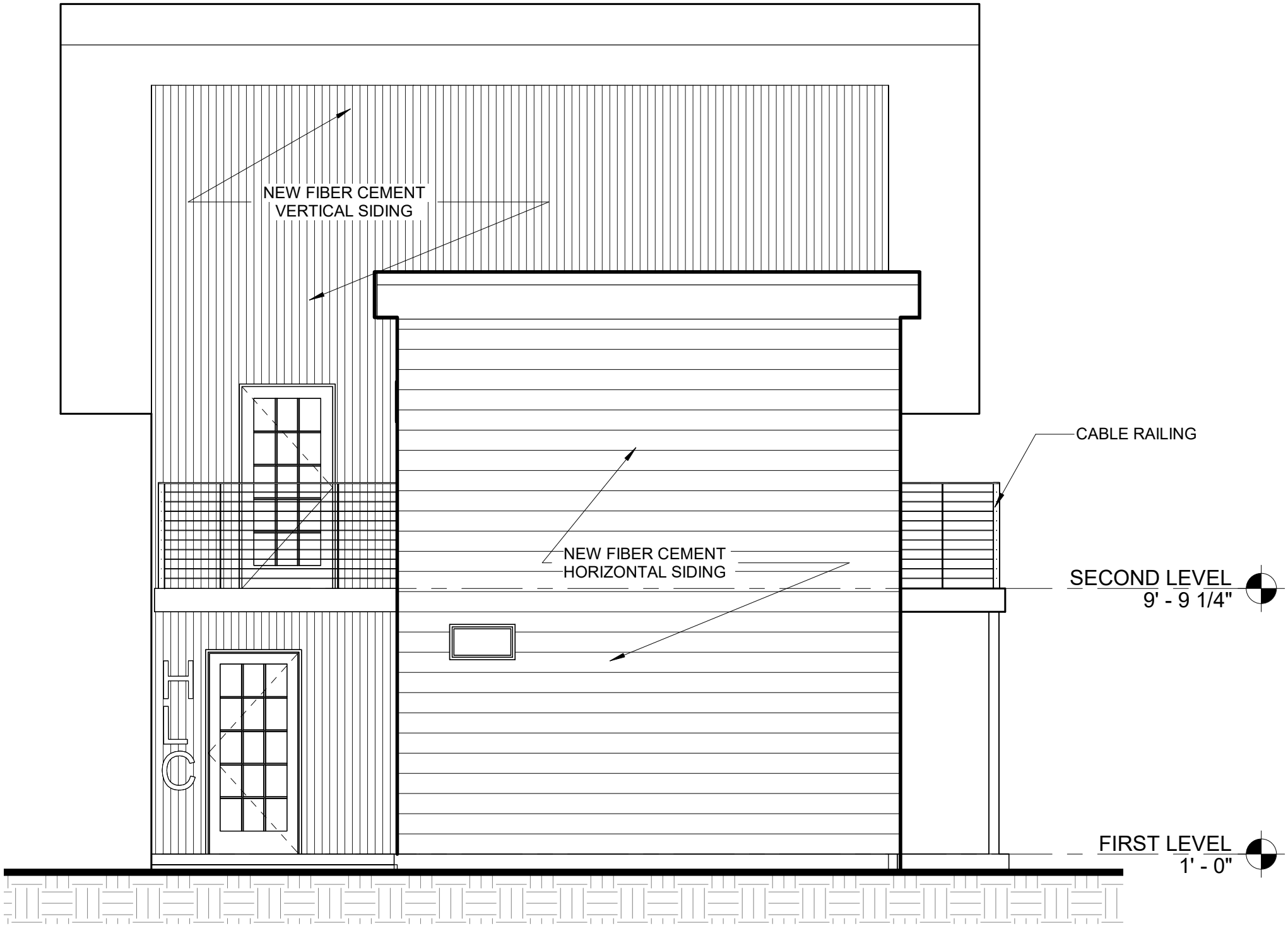
This approach enhances construction efficiency, reduces on-site labor time, and supports scalable implementation across Massachusetts communities.

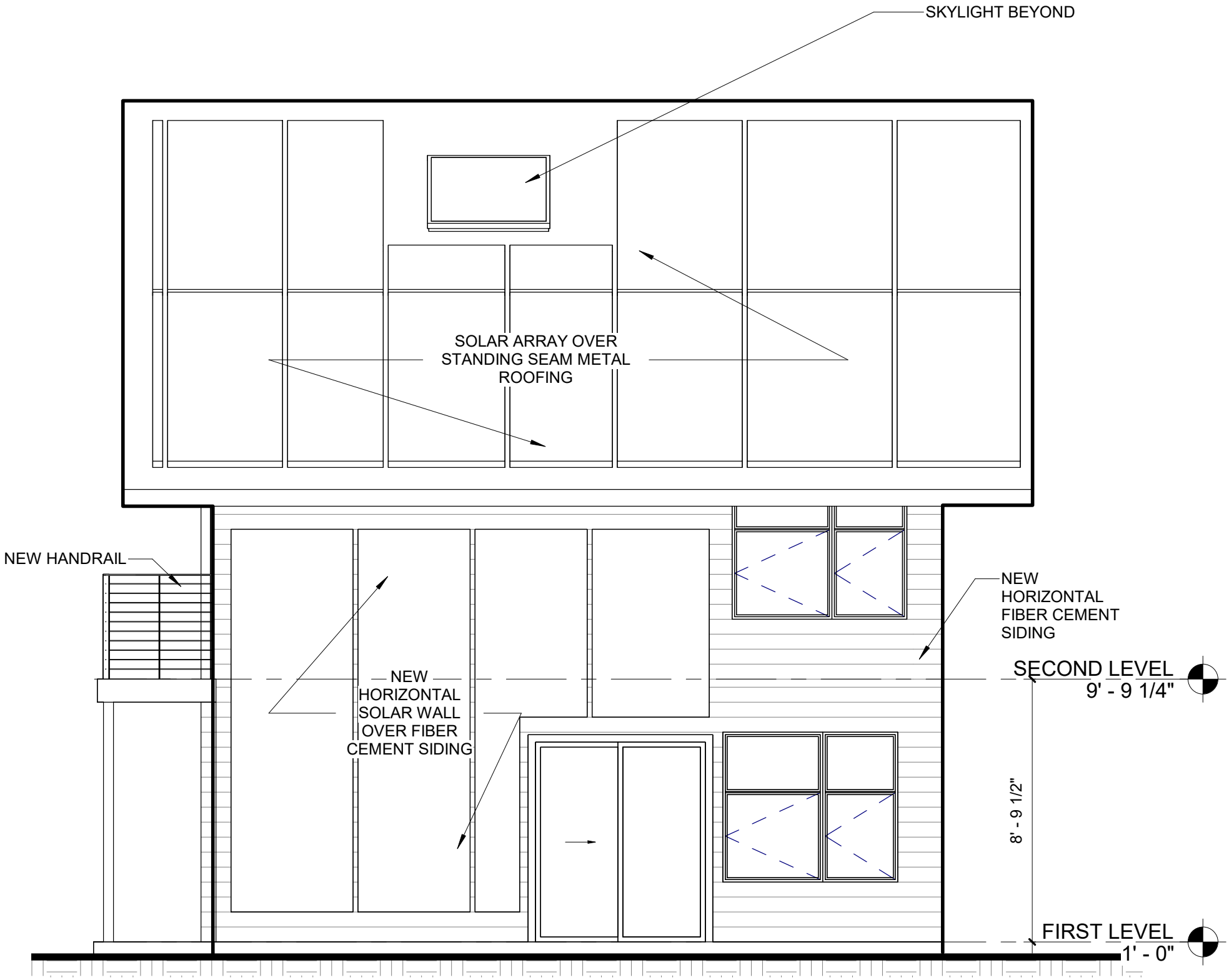
WALL SECTION

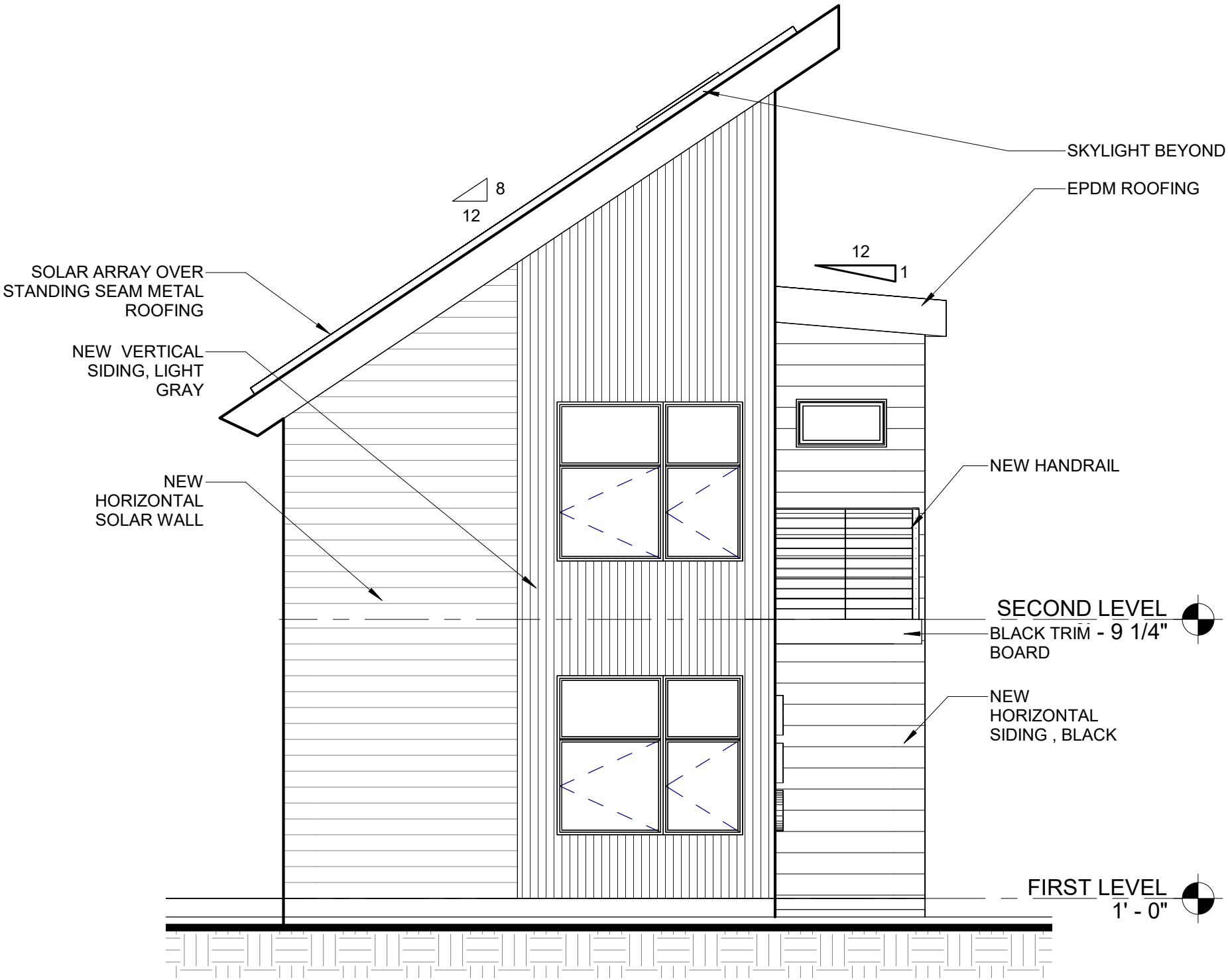

1
A-
SOUTH
-
28' - 4"
6' - 11"
5' - 8"
6' - 4"
REAR ENTRY
WRAP AROUND DECK
16' - 8"
13' - 2"
13' - 6"
ELEC. FIRE PLACE & TV WALL
LIVING
01
178 SF
SINK
ELEC. STOVE
DW
KITCHEN
02
123 SF
DECK ABOVE
10' - 2 1/2"
WEST
-
EAST
3' - 2"
5' - 11"
REF.
5' - 10 1/2"
EQ
EQ
1' - 6"
1' - 8"
2' - 6"
LAUNDRY
03
9 SF
3' - 2"
4' - 1 1/2"
UP
2' - 6"
4' - 1"
4' - 8 1/2"
FRONT ENTRY
4' - 8 1/2"
BATH
04
31 SF
SINK
TOILET
ELEC. PANEL
ELEC. WATER HEATER
8' - 1 1/2"
6' - 2"
8' - 0 1/2"
-
NORTH

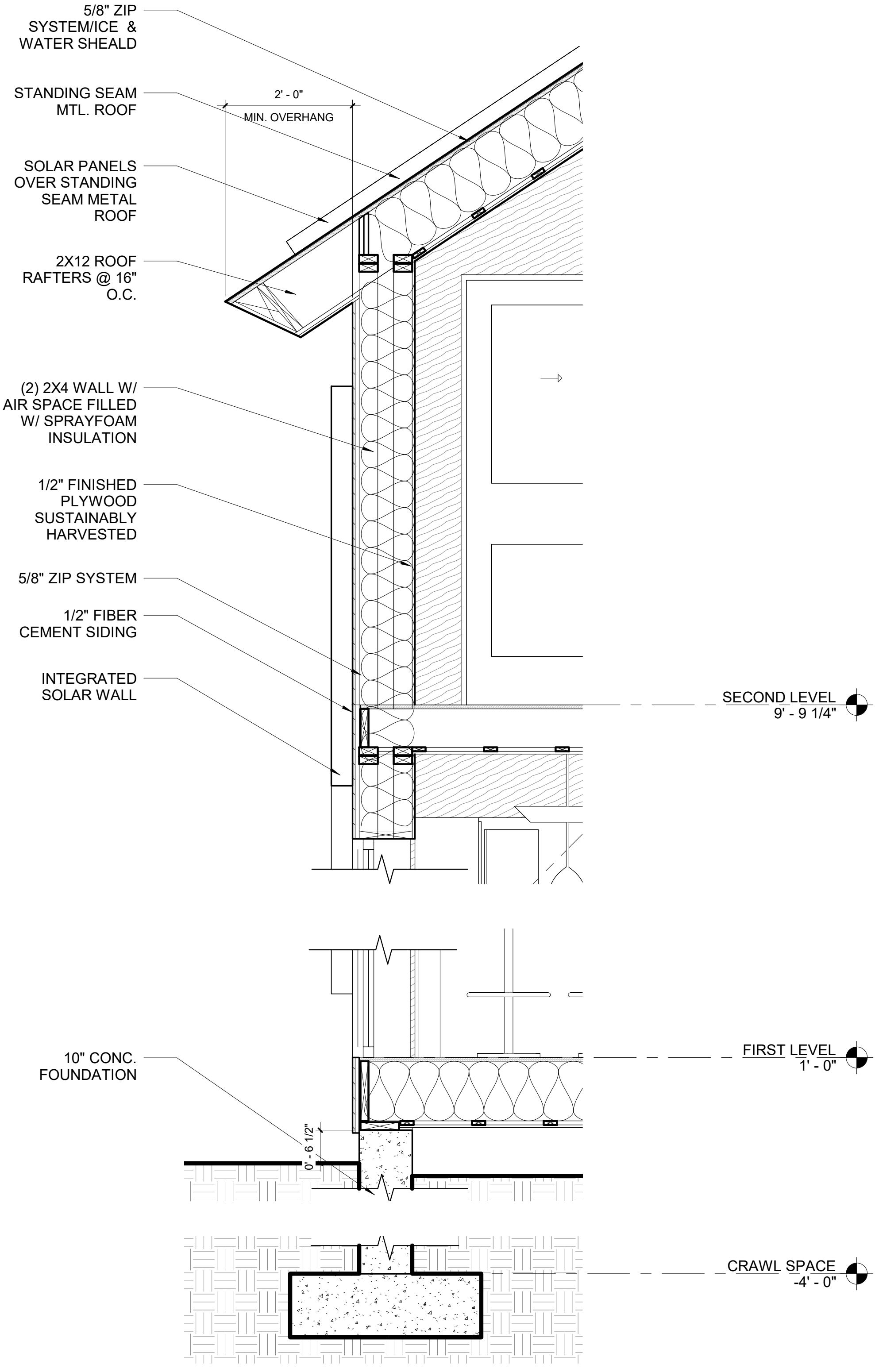

22' - 4 1/2"
9' - 6 1/2"
5' - 10"
3' - 0 1/2"
6' - 6"
2' - 0"
10' - 1"
BEDROOM
200
137 SF
CL
CL
BEDROOM
111
98 SF
NEW
HANDRAIL
BALCONY
3'10.5"x12'8"
13' - 6"
10' - 7 1/2"
5' - 10"
2' - 10"
4' - 3 1/2"
1' - 4"
2' - 8"
5' - 1"
2' - 9 1/2"
0' - 8 1/2"
2' - 0"
5' - 8"
9' - 9"
0' - 6"
2' - 5"
2' - 9 1/2"
1' - 4"
0' - 4"
2' - 10"
1' - 10"
3' - 2"
3' - 6 1/2"
5' - 6 1/2"
3' - 0"
LANDING
DN
BATHROOM
112
35 SF
SHELVING
8' - 1"
4' - 8 1/2"
4' - 3 1/2"
3' - 1 1/2"
BALCONY
7'-10"x 4' - 8"
2' - 4"
30"-32"
NEW
HANDRAIL
4' - 2"
7' - 10 1/2"
10' - 2"
4' - 6 1/2"


SKYLIGHT BEYOND
8
12
EPDM ROOFING
12
1
SOLAR ARRAY OVER
STANDING SEAM METAL
ROOFING
NEW CABLE
RAILING
NEW
HORIZONTAL
SIDING , BEIGE
NEW
HORIZONTAL
SIDING , BLACK
NEW
HORIZONTAL
SOLAR WALL
28' - 11"
SECOND LEVEL
9' - 9 1/4"
8' - 9 1/2"
FIRST LEVEL
1' - 0"


NEW FIBER CEMENT
VERTICAL SIDING
CABLE RAILING
NEW FIBER CEMENT
HORIZONTAL SIDING
SECOND LEVEL
9' - 9 1/4"
FIRST LEVEL
1' - 0"


SKYLIGHT BEYOND
SOLAR ARRAY OVER STANDING SEAM METAL ROOFING
NEW HANDRAIL
NEW HORIZONTAL FIBER CEMENT SIDING
NEW HORIZONTAL SOLAR WALL OVER FIBER CEMENT SIDING
SECOND LEVEL
9' - 9 1/4"
8' - 9 1/2"
FIRST LEVEL
1' - 0"


SKYLIGHT BEYOND
EPDM ROOFING
8
12
12
1
SOLAR ARRAY OVER STANDING SEAM METAL ROOFING
NEW VERTICAL SIDING, LIGHT GRAY
NEW HORIZONTAL SOLAR WALL
NEW HANDRAIL
SECOND LEVEL
BLACK TRIM - 9 1/4" BOARD
NEW HORIZONTAL SIDING , BLACK
FIRST LEVEL
1' - 0"


5/8" ZIP SYSTEM/ICE & WATER SHEALD
STANDING SEAM MTL. ROOF
SOLAR PANELS OVER STANDING SEAM METAL ROOF
2X12 ROOF RAFTERS @ 16" O.C.
(2) 2X4 WALL W/ AIR SPACE FILLED W/ SPRAYFOAM INSULATION
1/2" FINISHED PLYWOOD SUSTAINABLY HARVESTED
5/8" ZIP SYSTEM
1/2" FIBER CEMENT SIDING
INTEGRATED SOLAR WALL
10" CONC. FOUNDATION
2' - 0"
MIN. OVERHANG
0' - 6 1/2"
SECOND LEVEL
9' - 9 1/4"
FIRST LEVEL
1' - 0"
CRAWL SPACE
-4' - 0"