

Croft for Architects

- Croft is unlike virtually any other component supplier: we provide a carbon-negative building envelope with unparalleled environmental credentials.

- From sourcing to production, our company prioritizes climate-positive behavior. Our manufacturing utilizes a tiny fraction of the energy of comparable processors, and we have single-link supply chains, purchasing from local organic farms practicing no-till agriculture and Maine-based lumber mills with FSC certified timber.

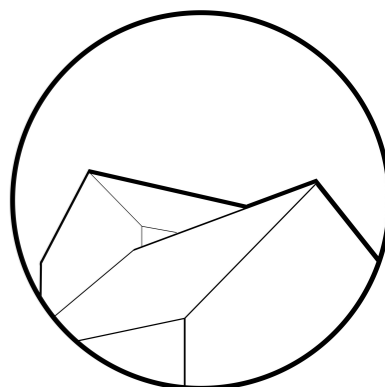
- Think: Passivhaus pedigree with a natural-material slant. Our building panels are airtight inside and out, achieving high-performance thermal and exceptional acoustic insulation levels.

- The wall assembly described herein is vapor open, highly resistant to mold and mildew, structural, and fire-resistant. In-house testing reveals that 10 minutes of exposure to a 20,000 Btu flame self-extinguishes within seconds. A 1 minute exposure to 500,000 Btu flame extinguishes immediately.

- Our system is designed to be trade-friendly, with a ready-made service chase, rainscreen, and pre-gasketed chaseways to maintain high long-term reliability & building performance. We sweat the details so future generations can rest easy.

- Healthy, non-toxic construction: Our panels are crafted with straw and lumber containing zero added VOCs, formaldehyde, or other chemicals, with Living Building Challenge Red List Free air & water membranes.

- Our diligent team is able to solve detailing and design coordination across a myriad of assemblies and building typologies. We know every project is unique: just ask about customized options!



Starting Point

- Single modules are compressed in custom widths, optimized per project
-available in 1/32" increments from 16" to 50" wide

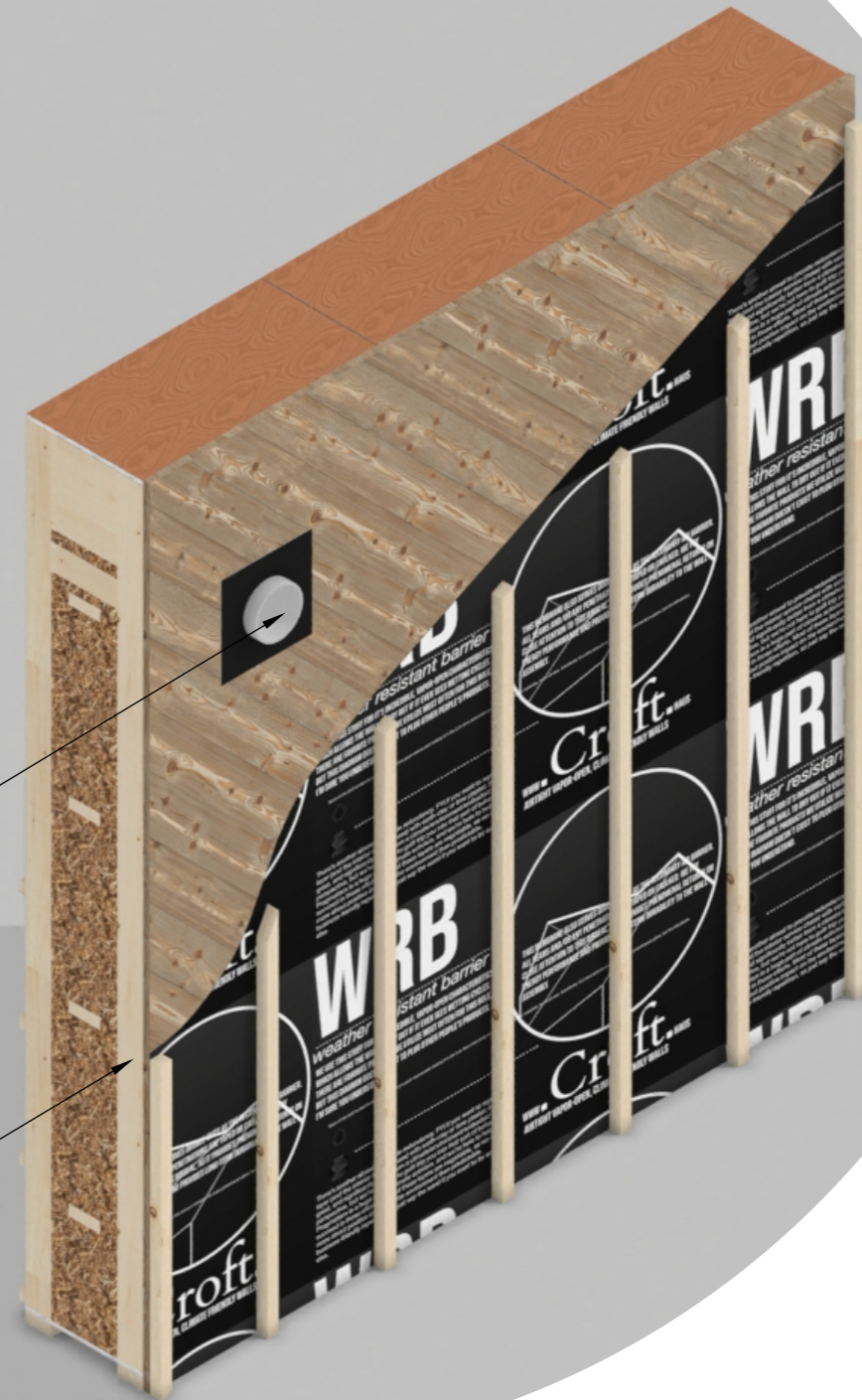
Optimized Assembly



project-specific, gasketed chaseways supplied for duct/service penetrations to maintain continuity of airseal •

Completed Panel

After filling/compressing, single modules are ganged, sheathed, wrapped, supplied with service chase on interior & rainscreen strapping on exterior, and prepared for shipment •



Anatomy of a Croft Panel

- ≈R-38.8 insulation value (based on similar panel testing)
- typical OA finished wall depth of ≈ 21.5" (assumes 1/2" GWB and 3/4" exterior cladding)
- redundant interior & exterior air seal, vapor-open assembly
- 99% plant-based, carbon sequestering building materials by weight

1. Service Chase* - 16" OC horizontal battens & nailbase for interior finish. (typically 1 1/2" - other depths available upon request)

2. Variable-Perm "Smart" Vapor Retarder*, airtight

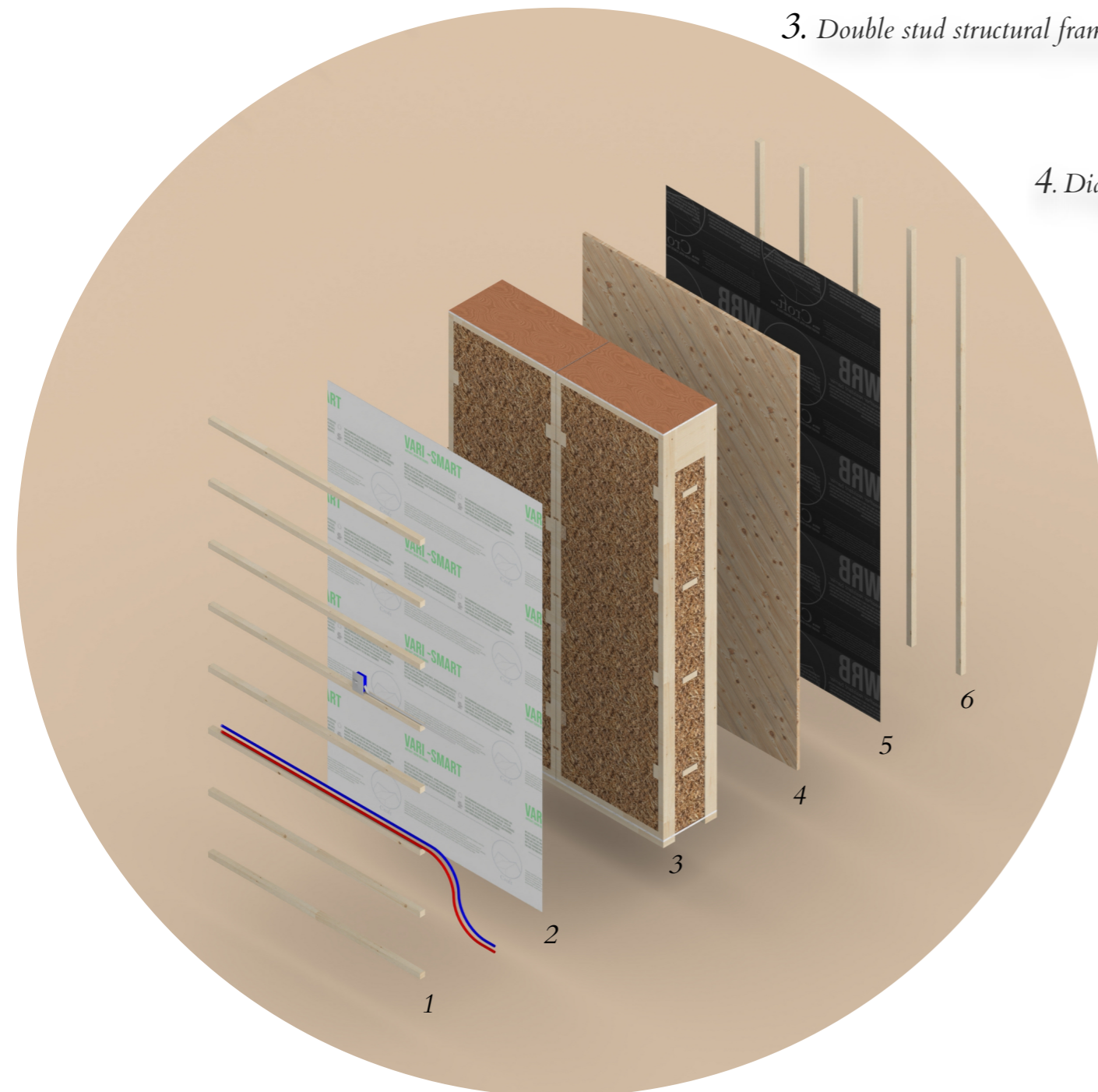
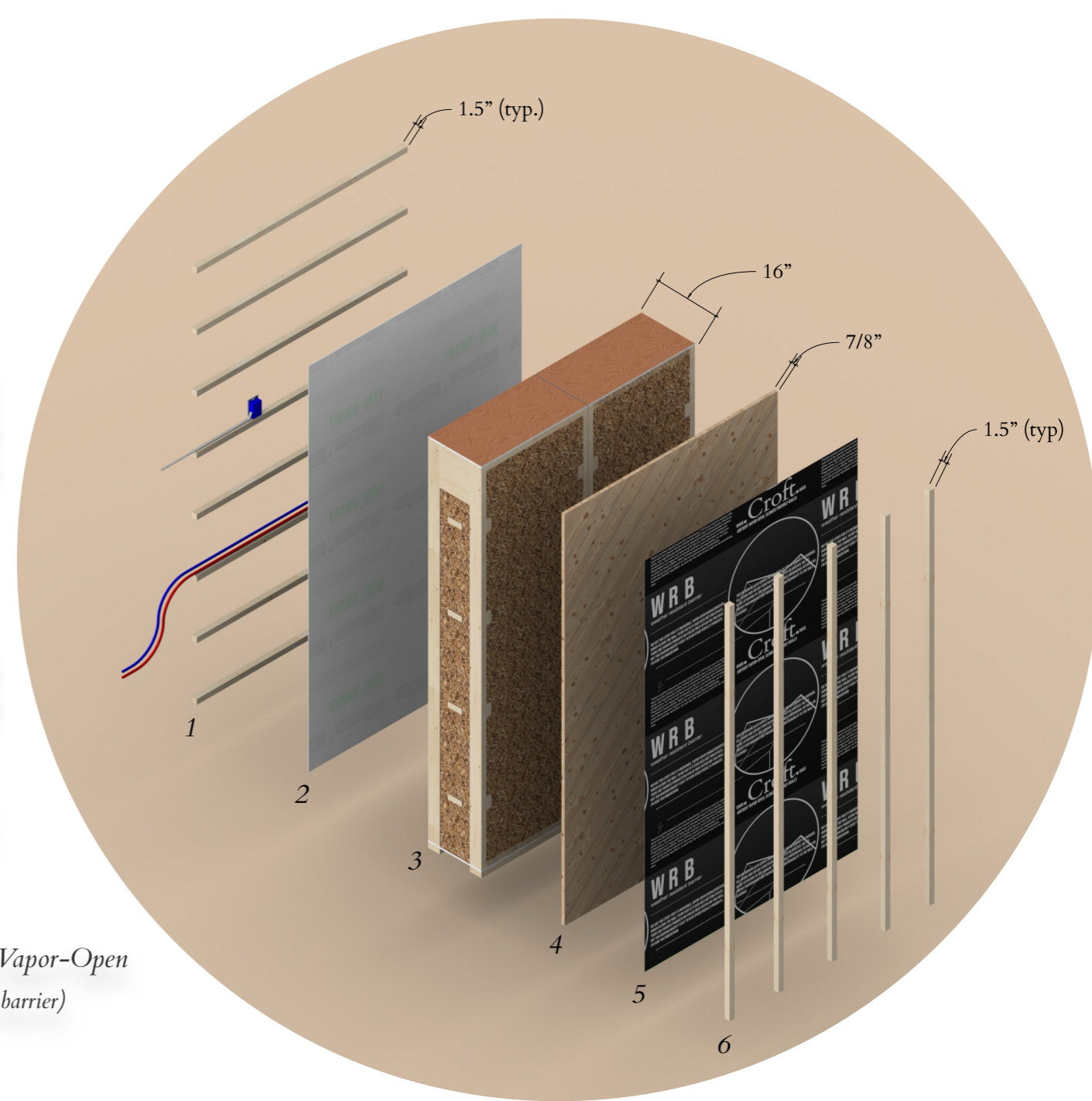
3. Double stud structural frame with supercompressed straw infill

4. Diagonal Board Sheathing

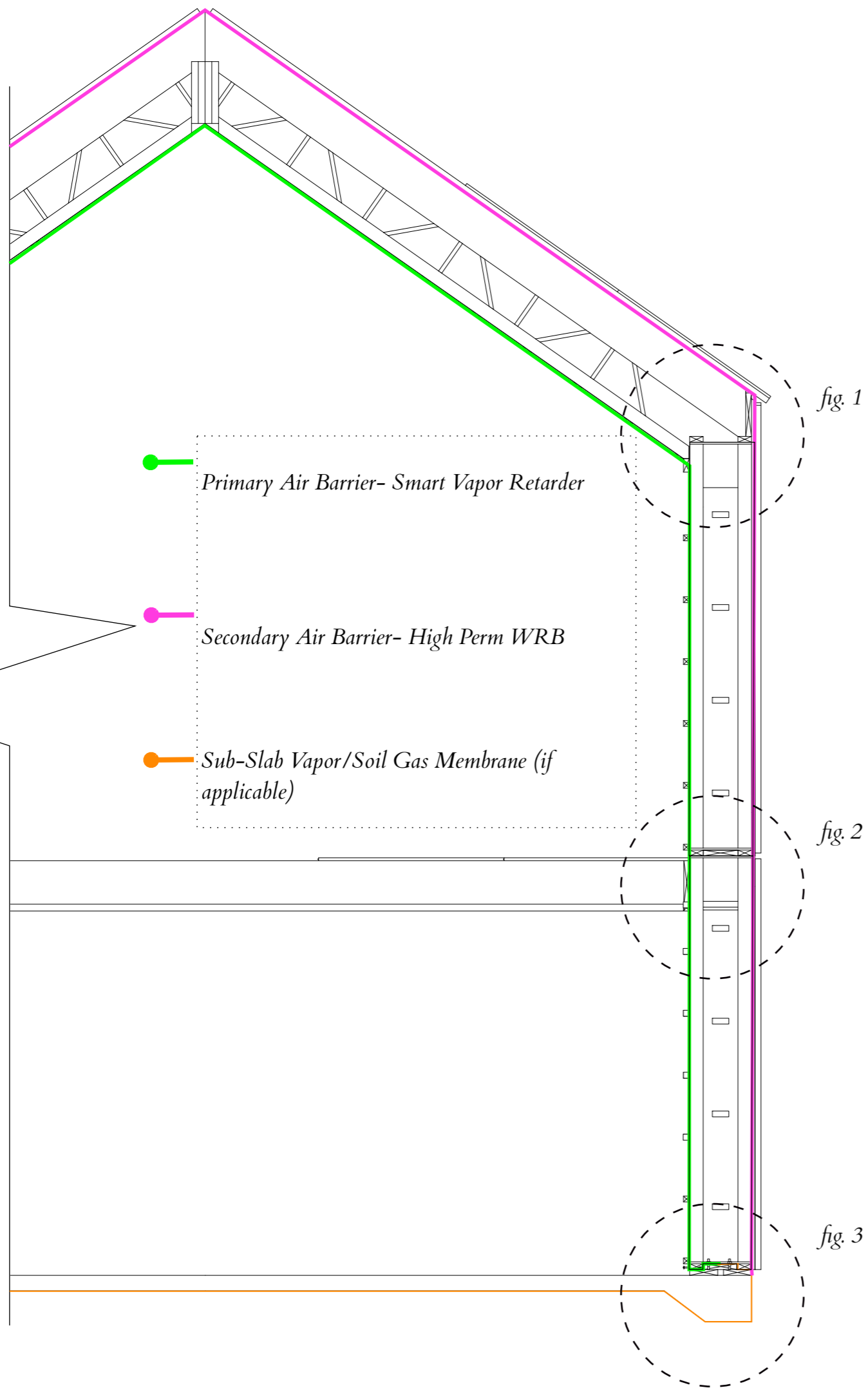
5. High Performance, Vapor-Open WRB (weather-resistant barrier)

6. Rainscreen strapping - provides ventilation gap behind exterior cladding

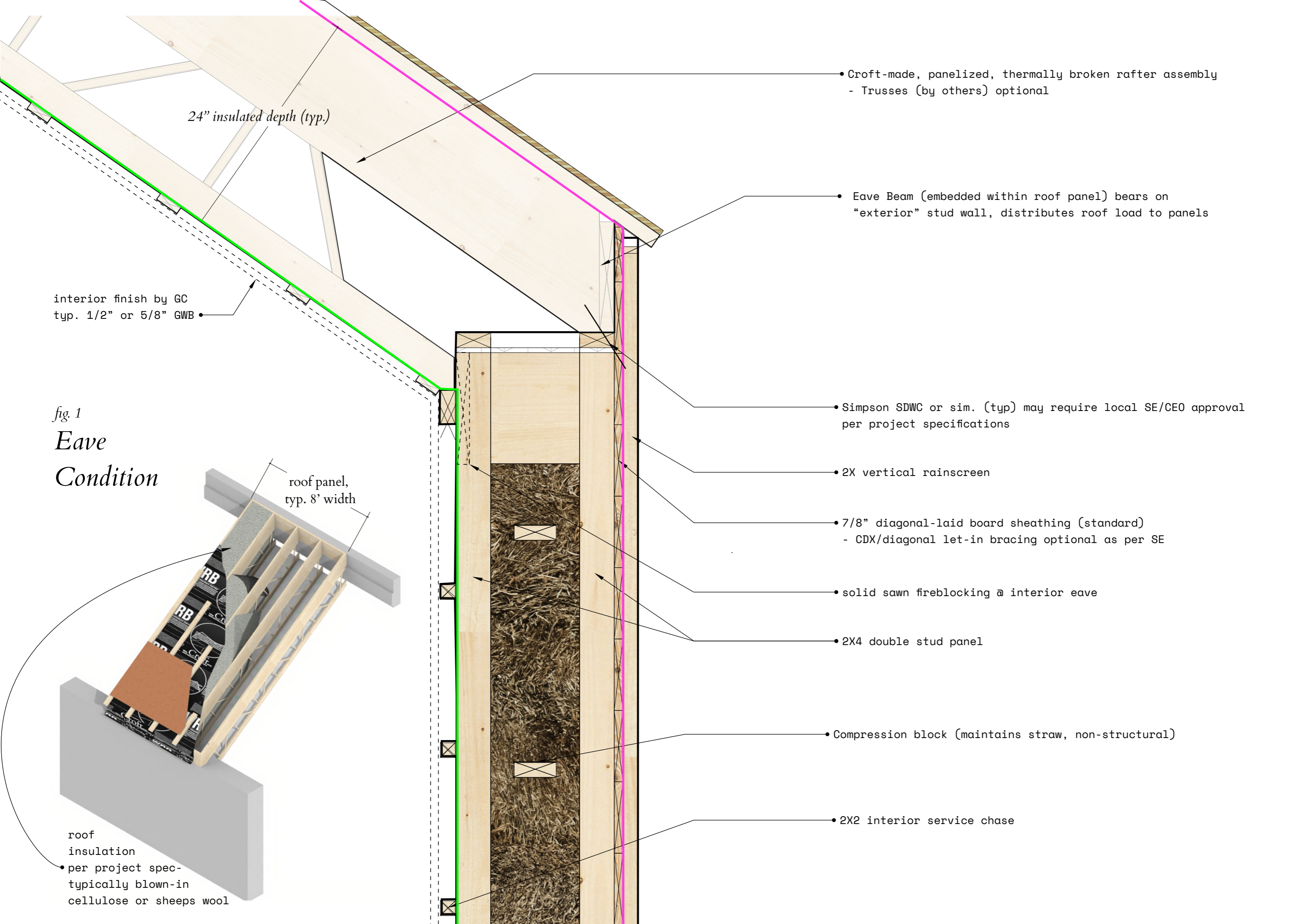
* Layers 1 & 2 may be omitted if utilizing airtight plaster system direct to straw panel



Detail Key



Details and schematics shown herein are typical of Croft assemblies and have been approved in regional projects. They are provided here as clarifying details for the purposes of communicating typical panelization assemblies, and should not be used for construction without approval from local jurisdiction and/or structural engineer. Details subject to change without notice- inquire with Croft and local SE as per specific project requirements.



- Croft-made, panelized, thermally broken rafter assembly
- Trusses (by others) optional

24" insulated depth (typ.)

- Eave Beam (embedded within roof panel) bears on "exterior" stud wall, distributes roof load to panels

interior finish by GC
typ. 1/2" or 5/8" GWB

- Simpson SDWC or sim. (typ) may require local SE/CEO approval per project specifications

fig. 1
Eave Condition

- 2X vertical rainscreen

roof panel,
typ. 8' width

- 7/8" diagonal-laid board sheathing (standard)
- CDX/diagonal let-in bracing optional as per SE

- solid sawn fireblocking @ interior eave

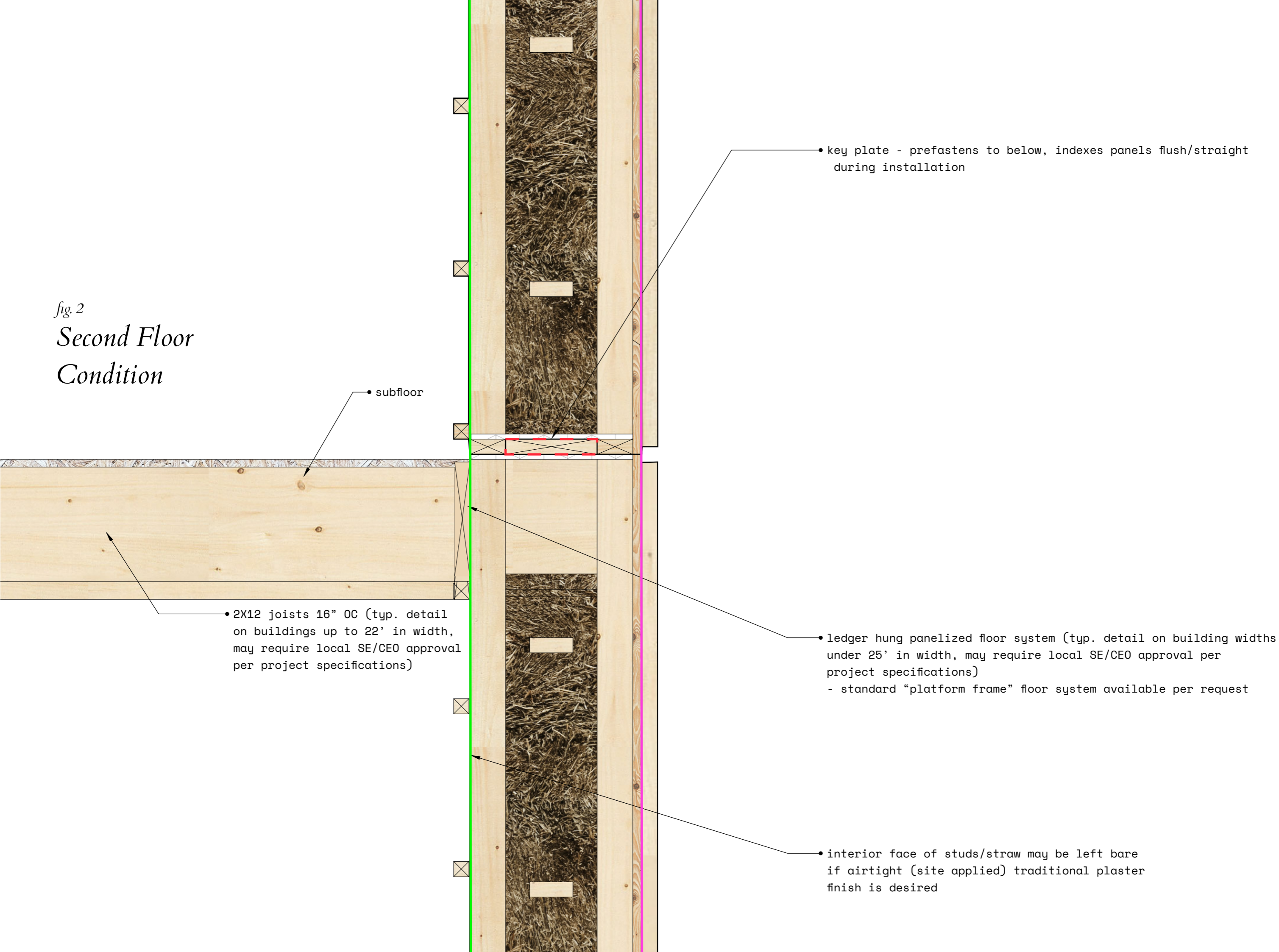
- 2X4 double stud panel

- Compression block (maintains straw, non-structural)

roof insulation
• per project spec- typically blown-in cellulose or sheeps wool

- 2X2 interior service chase

fig. 2
*Second Floor
Condition*



• subfloor

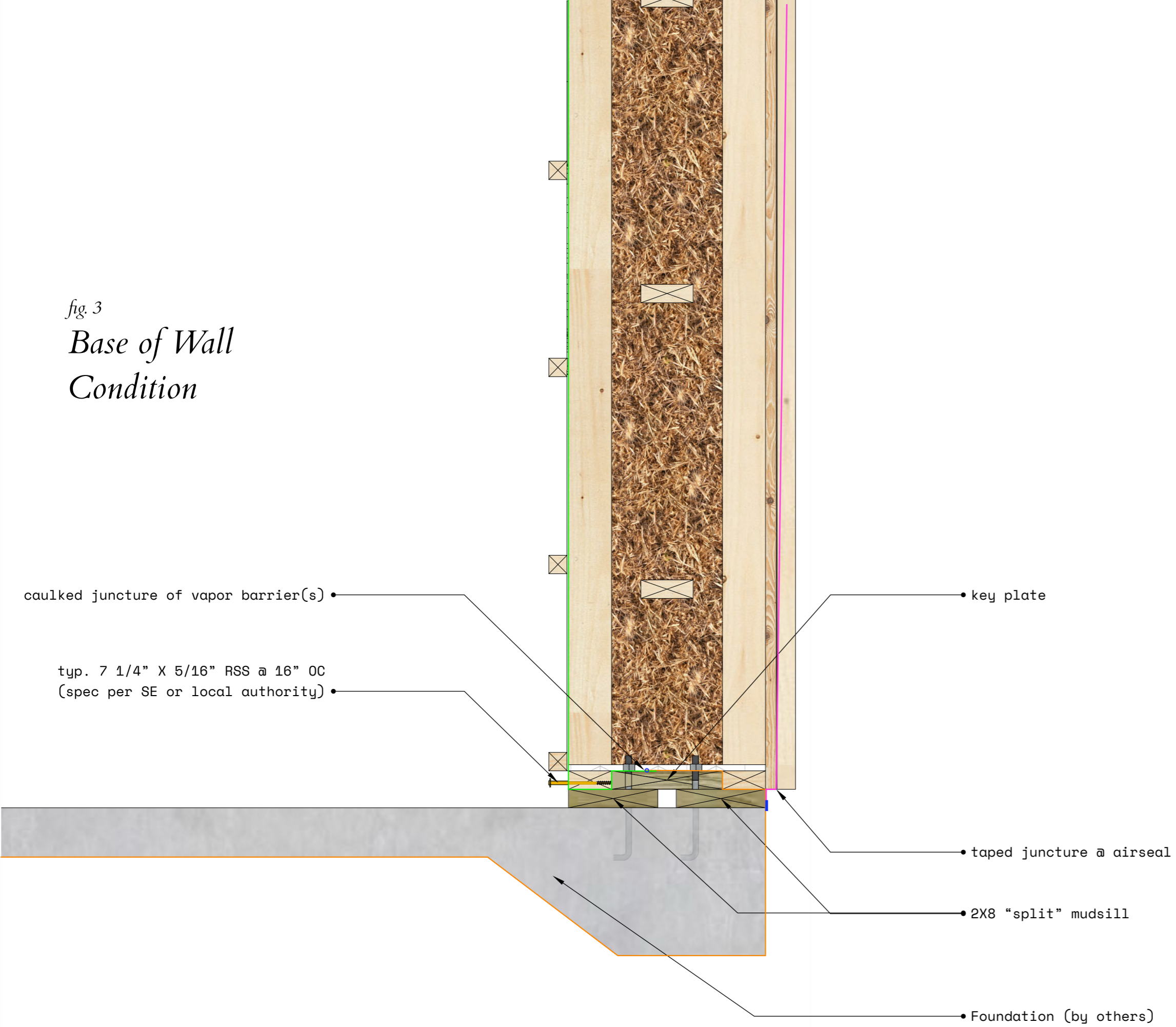
• 2X12 joists 16" OC (typ. detail on buildings up to 22' in width, may require local SE/CEO approval per project specifications)

• key plate - prefastens to below, indexes panels flush/straight during installation

• ledger hung panelized floor system (typ. detail on building widths under 25' in width, may require local SE/CEO approval per project specifications)
- standard "platform frame" floor system available per request

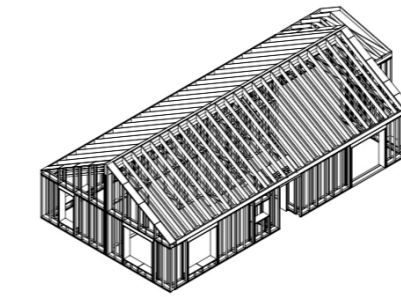
• interior face of studs/straw may be left bare if airtight (site applied) traditional plaster finish is desired

fig. 3
*Base of Wall
Condition*

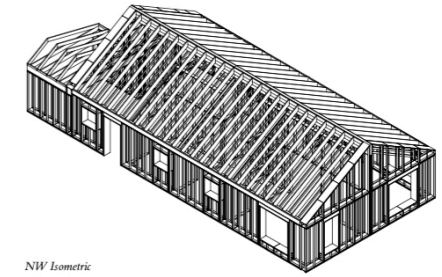


Working With Croft

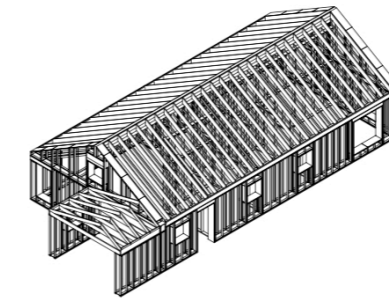
1. Early involvement is best; schematic design stage is an ideal time to begin the conversation about optimizing your design for panelization.
2. At or near completion of design development, your firm will provide 2D plans and elevations with dimensions given to Outside Of 2X Framing (not including sheathing).
3. Croft will use the given framing dimensions to establish a “control” section and submit for review. Control Sections - typically a section view of the structural system - will display panel heights, roof, foundation, and floor connection details- this allows broad-strokes communication to occur before full panelization/shop drawings are undertaken.
4. After approval of Control dimensions, Croft will prepare a full suite of shop drawings, including specified duct/chaseway locations, panel junction/break locations, and layout of structure, rainscreen, and service chase locations. This set of drawings will express the full breadth of Croft’s scope for the project, aiding in clarity for any local GC’s or other build partners.
5. After approval and sign-off from your team, we fabricate the panels and prepare them for delivery!
6. Panels are delivered and erected on site, either by our team or local GC. Typical on-site assembly time for a 1,500 SFH envelope is 2-3 days.



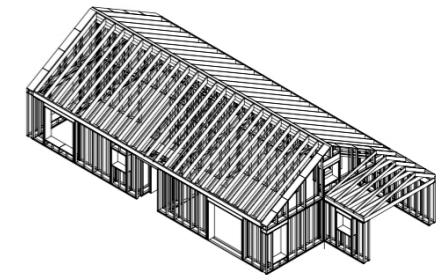
SW Isometric



NW Isometric



NE Isometric



SE Isometric

