



CABN 
CLIENT GUIDE 2024



WELCOME TO CABN

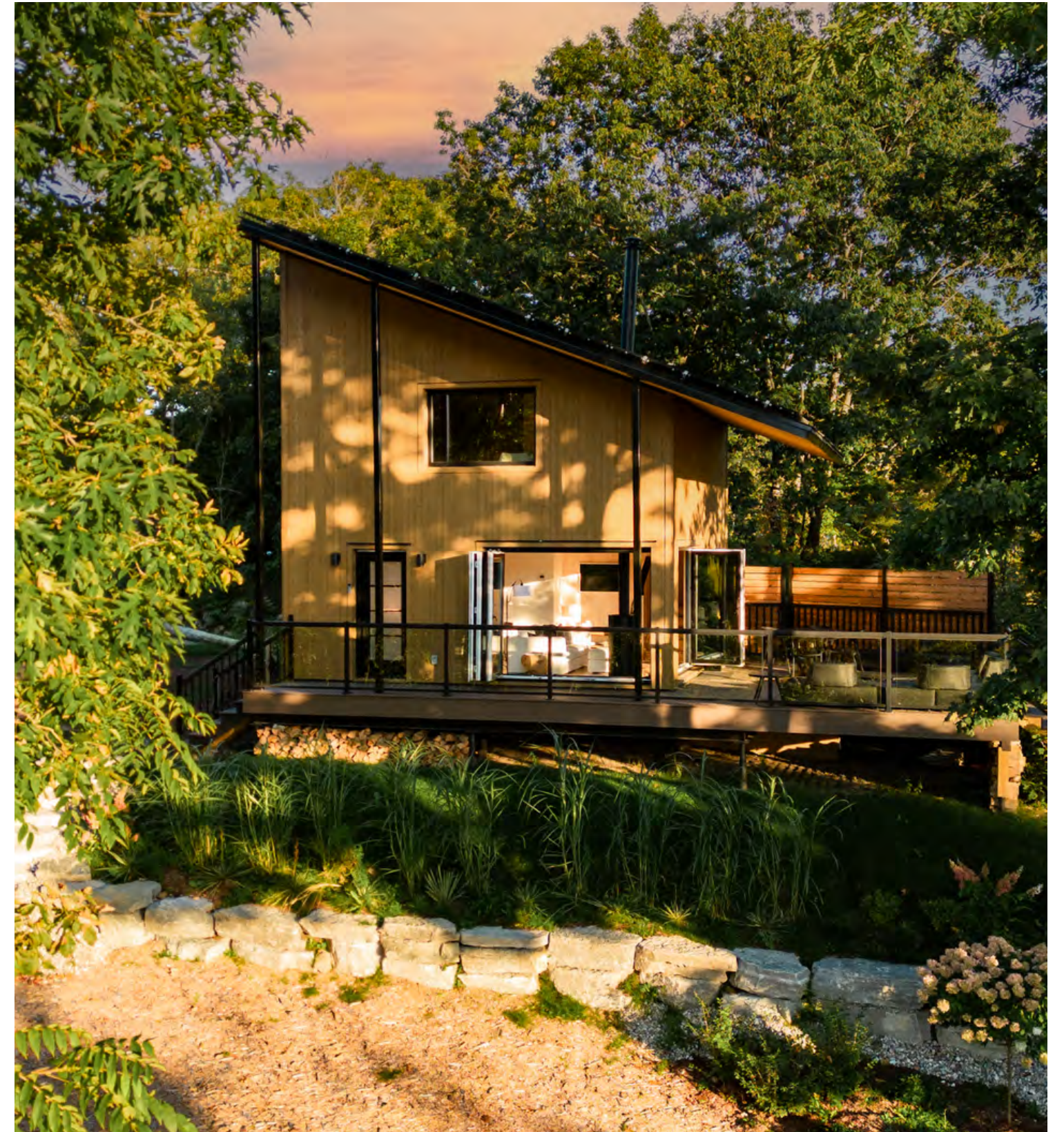
Welcome to your CABN experience! We are excited to have you. CABN has developed a rapid building strategy that allows for homes to be assembled in days, finished in weeks, with the final product using as low as 20% of the energy of a conventional home.

CABN is a building envelope provider, which means that the components needed for the CABN build are shipped to you. It is the client's responsibility to hire a general contractor and assembly team for the build.

CABN can make recommendations for the assembly, as well as some site preparation and finishing work, but unless previously arranged, will not be involved in these activities.

CABN will support you, your general contractor, and trades teams when required – we are committed to a smooth process for all parties involved! This guide outlines the steps required, as well as some critical elements to consider as you prepare for the CABN build.

NOTE THAT THIS IS CURRENT UP TO DATE OF REVISION, BUT CHANGES MAY OCCUR. ALWAYS CHECK WITH YOUR CABN PM TO ENSURE YOU HAVE THE MOST UP TO DATE COPY



CABN PHASES

There are four distinct phases to your CABN assembly:

1. Site Preparations: Readyng a site to receive a CABN – this phase can be complex or straightforward depending on the state of the property
2. Manufacturing: Fabricating the panels and procuring the components for delivery
3. Assembly: Joining and fastening panels to erect the building envelope
4. Finishing: Completing the interior and exterior elements to finish the CABN

**TAKE IN A CABN BUILD AND FINISHED
PROJECT IN 90 SECONDS:**



SITE PREPARATIONS



SITE PREPARATIONS

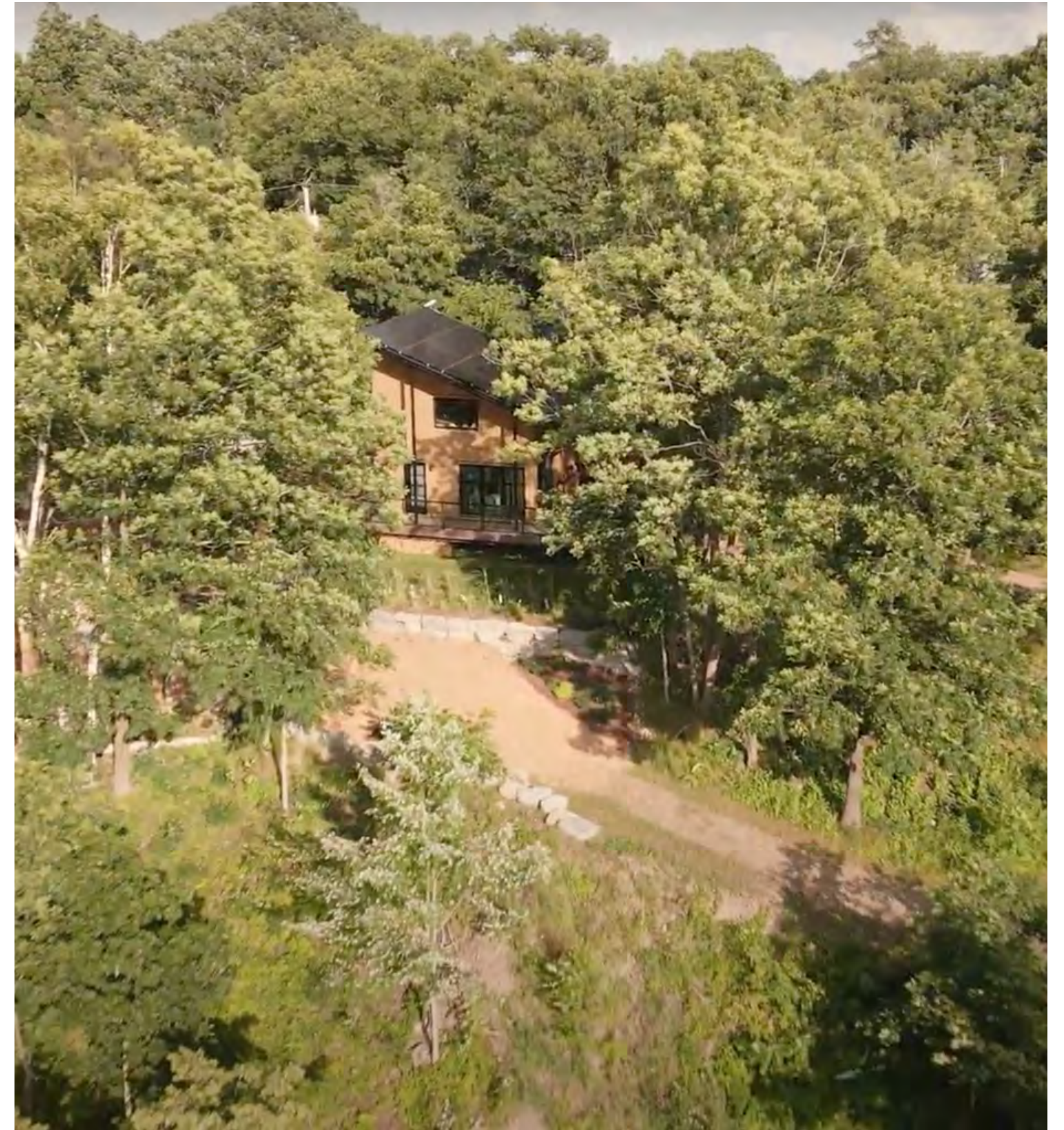
The customer journey with CABN starts with site preparations. This ensures your site is ready for the assembly and finishing of the CABN. Site preparations vary from site to site, as everyone's property is unique. Key activities include, but are not limited to:

- Construction of roadway and site staging area
- Installation of waste and water systems
- Forest management for assembly and sun access
- Selection of foundation options
- Submission of permit applications
- Completion of surveys and studies with relevant authorities
- Procurement of other jurisdictional approvals
- Hiring professionals, such as a General Contractor

Every site is different, but these are great starting points to kick off your project. Note that some site preparations can happen simultaneously, while others rely on a specific order.

We detail each of these phases in the next pages.

**STILL SEARCHING FOR YOUR PERFECT
PROPERTY?
READ OUR TIPS FOR CHOOSING LAND**



CONSTRUCTION OF ROADWAY AND SITE STAGING AREA

Ensuring that the property has an accessible roadway that can withstand the weight and turning requirements of a truck and trailer is important, as is having a clear space to stage equipment prior to installation.

- Roadways need to be constructed to withstand heavy loads, not have extremely sharp turns that could limit a truck and trailer getting into the build site, have turn around points if two vehicles travelling opposite directions meet each other, and a large area near the build site for staging (details below)
- Staging area should be sized large enough for multiple trucks/machines/cars to be parked
 - A good rule of thumb is approximately double or even triple the square footage of the home.
 - Area needs to allow for trucks to back in or turn around, material to be stored temporarily, machines to move around, tool container storage, etc.
- The site must also have room for the crane/telehandler that will be the main machine for constructing the house.
 - Generally, cranes take up about a 30' x 60' foot print to operate.
 - Ideally the crane should be seated as close to the building as possible with room on one side to be picking up panels. If the staging area is slightly further away from the house site, a larger crane may need to be used to have the same lifting capacity further away.



INSTALLATION OF WASTE AND WATER SYSTEMS

Depending on the region where your CABN is being built, there may be different waste and water considerations- municipal utilities may offer an easy hook up, while more remote properties may rely on a well and septic tank.

- It is important to note that the number of fixtures in a home (sinks, showers, toilets) may dictate the size of the septic tank
- Given this, clients should be aware that waste management permit acquisition cannot happen until client signs off on floor plans

The style of waste management is dependent on local regulations, site geography, and the total number of plumbing fixtures.



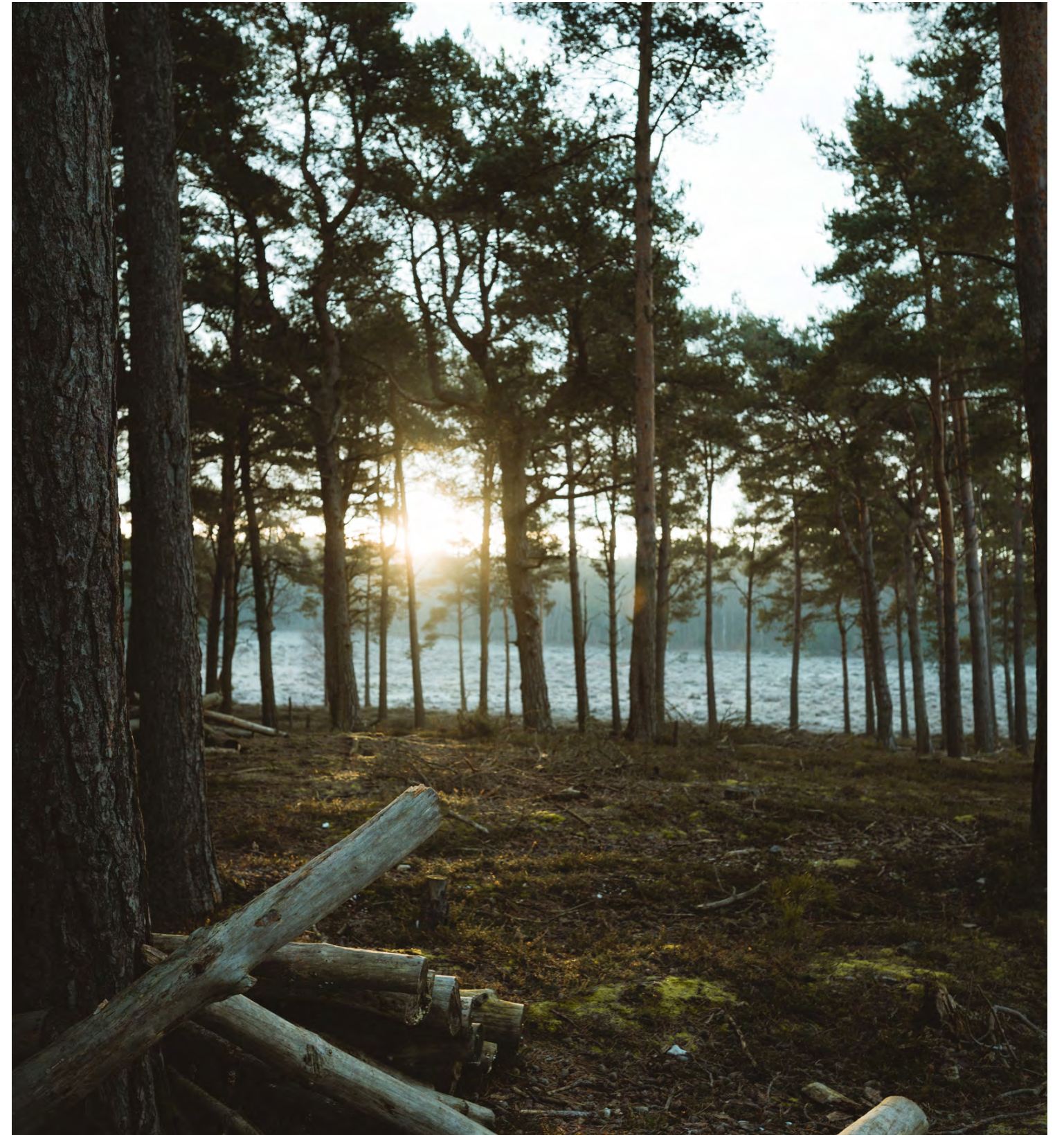
**NEED A BIT MORE INFORMATION ON
WASTE AND WATER?
WE RUN THROUGH IT ON OUR BLOG**



FOREST MANAGEMENT FOR ASSEMBLY AND SUN ACCESS

Shading can significantly affect solar performance- the position of the house relative to trees on the south side is extremely important especially for offgrid units. CABN energy score accounts for some shading.

- CABN encourages clients to use the app called “Sun Seeker” to understand the angle of the sun in relation to the building at different times of the year
- Visiting the property at different times of year and day will be helpful to understand the best positioning for the home, as well as if any trees need to be harvested to support renewable energy goals



**DOWNLOAD THE FREE SUNSEEKER APP TO
ANALYZE YOUR PROPERTY!**



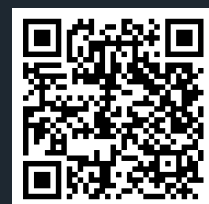
SELECTION OF FOUNDATION OPTIONS

CABN focuses on the house design from the steel frame up – what it sits on is up to the client and their land requirements.

- Given the rapid and minimally-invasive method, as well as the massive strain concrete production has on the environment, CABN recommends a helical pile foundation with a steel frame (CABN supplies this steel frame)
- Examples for local installers are PostTech and TechnoMetalPost
- Generally helical pile foundations run about \$1000 per post, prices could fluctuate heavily based on ground characteristics, access to site, etc
- Concrete slab or post/pier foundations are options as well, but could cost significantly more if extra grading/site excavation is required



**WE BREAKDOWN ALL THINGS HELICAL
PILES AT THE CABN BLOG**



SUBMISSION OF PERMIT APPLICATIONS

While not every jurisdiction is the same, permitting is essential if you're considering a CABN. While CABN can offer guidance, this is the responsibility of the homeowner to lead, allowing you to remain the key contact for the property. Luckily, we're here to help every step of the way.

- CABN will provide a final shop drawings for a local engineer and architect to sign off on- it is the Client's responsibility to review local requirements
- It is also the responsibility of the client and GC to determine what signatures and approvals are required for permitting in their location, provide site documentation necessary for permitting (ex. site plan, septic design, drainage plan (if required), well location, etc.), and facilitate the permit submission process
- CABN will NOT provide permit ready site plan drawings, but can provide initial site plan drawings to help clients visualize the location of the CABN on their site
- Any other unforeseen jurisdictional approvals in unique areas are the responsibility of the client and their GC.

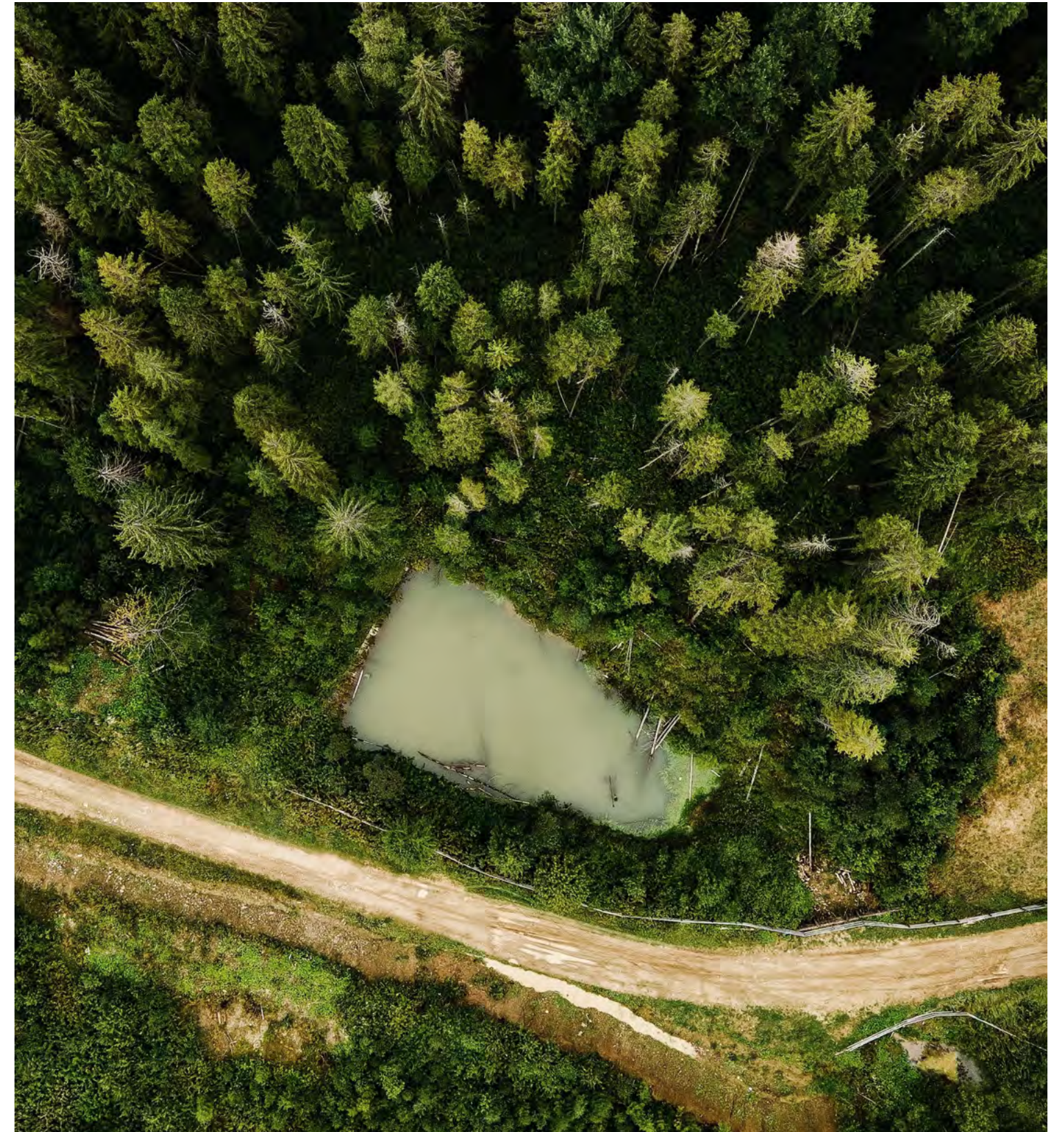
**FOR MORE DETAILS ON WHAT TO EXPECT
IN PERMITTING, SCAN THE QR CODE**



COMPLETION OF SURVEYS AND STUDIES WITH RELEVANT AUTHORITIES

Clients should be aware that often municipalities/counties/townships will require review of the site and construction plans prior to releasing permits. These may include but are not limited to:

- Site survey and geotech reports for foundation and site plan approval
- Conservation authority for building close to lakes, wetlands, ponds, protected areas, etc.
- Health unit(s) for septic/wastewater management plans and any infrastructure that may already be in place for these systems.
- Zoning/planning administration for location of residential unit on property with regard to setbacks, other structures, waste and water system location, etc



HIRING A GENERAL CONTRACTOR

Hiring a General Contractor (GC) is a great way to have the project professionally managed. Some clients opt to fill the role of GC themselves, while others hire out for it. CABN recommends hiring an experienced professional, as they can take on the responsibility of managing site schedules, trades, and site safety.

The GC can provide oversight through the entirety of the process, coordinating different elements for while adhering to scheduling parameters. A clear expectation of timeline and budget is important for GCs, as they can then act on your behalf to see the project to completion.

When preparing the site to receive the CABN, there will be several jobs related to the key activities above. Having a clear understanding of them will help you solicit quotes from different contractors, or provide an in-depth list for your GC to handle.



HIRING A GENERAL CONTRACTOR

When deciding about hiring a GC, it's important to have a clear understanding of the scope of services the GC will be responsible for coordinating.

- **Electrical Work:** CABN provides all electrical materials necessary for an electrical rough in (i.e. all switches, sockets, wires, panels). CABN does not provide light fixtures or installation of any of these components.
- **Plumbing:** Similar to the electrical, CABN provides all materials necessary for plumbing rough in (water lines, drain lines, all fittings). CABN does not provide any plumbing fixtures (sinks, showers, baths, vanities, toilets, etc.).
- **HVAC Connection:** CABN provides all materials necessary for the HVAC system in the house (heat pump, ducting, fittings, thermostats, vent covers).
- **Interior Wall Finishing:** CABN provides timber finishing products. Structural CLT walls are in place but unfinished to then be sanded and stained or coated by a finish carpenter. The client may choose if they'd like to cover interior non-load bearing walls with drywall or Nano-CLT (provides identical look to structural CLT wall) for an additional fee.
- **Doors and Windows:** CABN includes exterior doors and windows. Larger windows are to be installed on site by client and their GC for protection purposes. For warranty purposes, CABN encourages all clients and their GC to use installers certified by the window manufacturer's installers. Further recommendations available upon request.



HIRING A GENERAL CONTRACTOR

Finishing installations are an important step in transforming a construction site into a home. There are key elements best left to professionals, and the GC is an important tool in recruiting the best team for the task.

- Flooring installation: CABN provides flooring in all packages, and also offers optional in-floor heating. A flooring installer should include a quote for the labour to install subfloor, in-floor heating, and finally laying the flooring. If selecting in-floor heating, scheduling should be done so that the flooring installer and electrician can coordinate hook up and testing prior to laying the final floor.
- Kitchen Cabinetry: CABN does not supply kitchens. The client and GC are responsible for quoting all kitchen components and should consider using CABN design drawings with options like IKEA, Home Depot, or custom cabinetry, including countertops. Clients can use CABN base floor plans as a basis of design for their kitchen layout if they wish.
- Bathroom Finishing: CABN does not supply bathrooms. The Client and GC are responsible for quoting all costs for tiling or other chosen finishes, along with installation of toilets, vanity, and shower/bath.
- Exterior Finishing: Coordinating the finishing of the external elements: cladding, metal roof, deck and railings. While CABN supplies the materials, it is up to the client and GC to coordinate the installation.



HIRING A GENERAL CONTRACTOR

CABNs are intentionally designed for straightforward installation. A GC will have high level oversight over all elements of the assembly.

- Assembly Team: The GC will be able to facilitate labour quotes for assembling the CABN.
- Foundation: As CABNs can be put on most any foundation, it is up to the client and their GC to work with local engineers to design the appropriate foundation for their needs, taking into account geotechnical characteristics, and environmental constraints. This will ensure the bearing capacity of the foundation can support the CABN structure.
- Waste and Water Systems: Depending on the property, clients may need a quote for excavation and installation of elements such as a septic system or well. Often this could be bundled with other excavation work, such as driveway or site clearing, and could facilitate a more efficient site development phase.
- Solar: CABN provides solar panels, batteries, and electrical supplies, but the installation is to be done by a qualified electrician equipped with solar installation certification. CABN can provide exact specifications based on your unit relative to the size of the system and number of connections for an accurate quote. This installation may be bundled with the rest of the electrical work done in the unit if the electrician has all proper certifications for solar installation in the municipality where the house is being constructed. A local solar installer allows the client to benefit from all potential rebates and future maintenance (if required).



MANUFACTURING

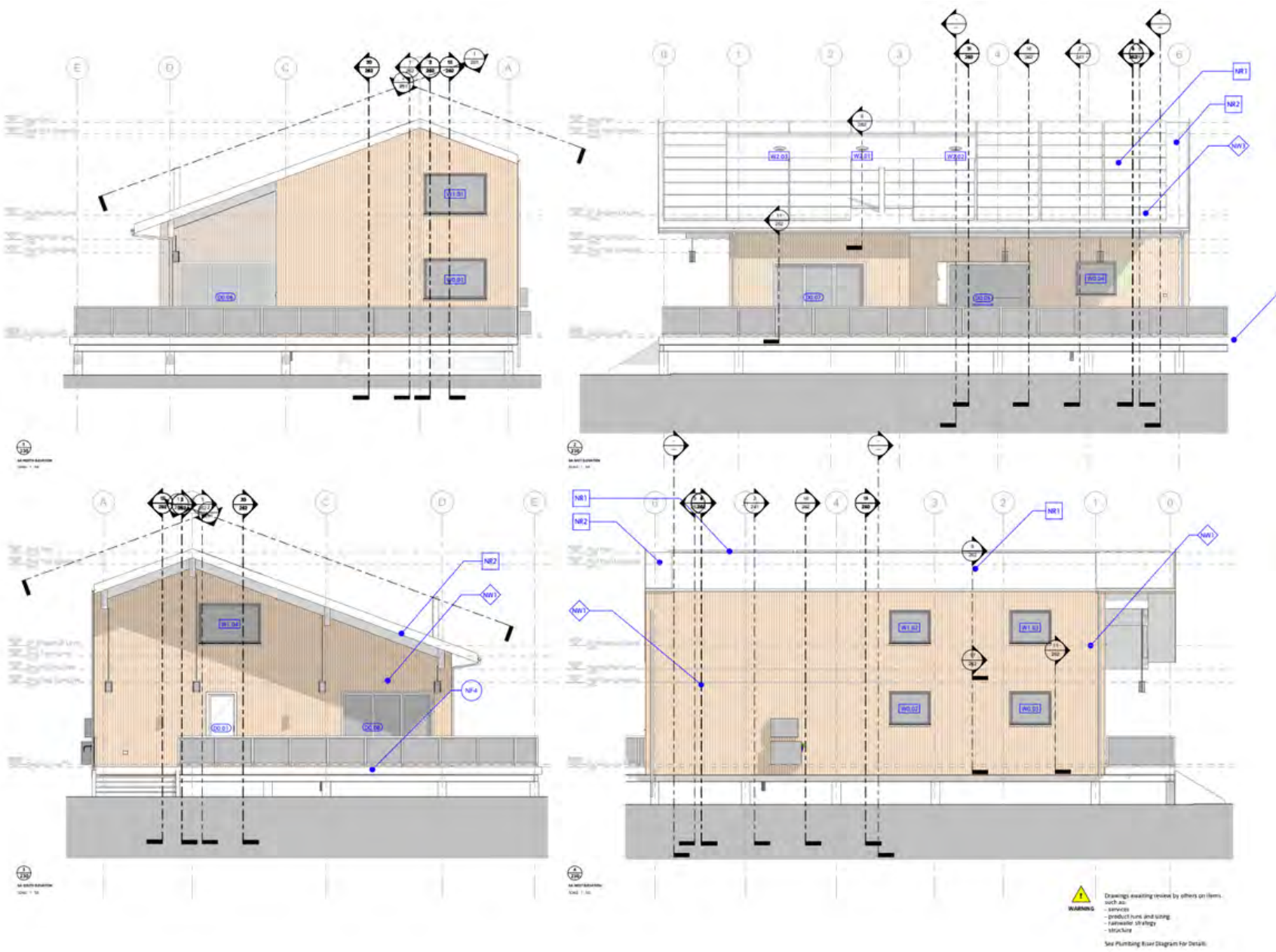


MANUFACTURING

As site preparations are made, CABN manufactures home components in Brockville, Ontario, Canada to be shipped with supporting electrical, plumbing, heating and cooling technologies.

CABN’s standardized designs allow for efficient fabrication- our four models, as well as accessory units, are designed for both rapid production and assembly.

Note that CABN will only move into manufacturing once we have sign off from the client. This ensures that everything is to your specifications before production.



MANUFACTURING

CABN is responsible for:

- Providing the client with shop drawings pertaining to the house (steel frame and above). It is the client's responsibility to facilitate any stamping or approval processes required by the local municipality(s)
- CABN does NOT provide stamped engineering documents as these heavily depend on site geotechnical characteristics.
- CABN will provide structural loading estimates for foundation design to be facilitated by the client and their GC
- Processing Cross Laminated Timber (CLT) into floors, walls and roof systems to be used as all structural components of the home
- Planning electrical, plumbing, and HVAC layouts to be installed by a licensed technician onsite.
- Pre-installing (where possible) and ship all window and door components of the house
- Packaging solar, HVAC, electrical and plumbing technologies labeled for install location
- Fabricating steel frame
- Coordinating logistics, shipping and delivery



ASSEMBLY



ASSEMBLY

Assembly begins upon delivery of your unit– this phase is focused on the construction of the building envelope or the “shell” of the structure. It can only begin when site preparations are complete, as the build site must be clear, with an accessible road, with all permits and supporting utilities set up. CABN will not release the home kit from our facility without photographic documentation proving the site is ready to accept the shipment of all components. Assembly includes:

- Installation of the foundation strategy
- Installation of steel frame to foundation
- Review and acceptance of CABN materials delivered onsite
- Offload and installation of CABN panels and components
- Installation of additional windows and doors not already installed in Brockville
- Installation of roof
- Installation of deck
- Installation of electrical, plumbing, and HVAC rough-in components
- Installation of solar system

The Client and their GC will be responsible for all parts of assembly listed above and their respective subcontractors. Your CABN Project Manager will facilitate a call with your GC and installer to review the steps for assembly to ensure everyone is on the same page. Note that if you would prefer, you can engage CABN Install in the assembly of your unit.



ASSEMBLY

Listed below are items necessary to be onsite for assembly that are the responsibility of the client and the GC unless otherwise stated by CABN:

- At minimum, a 20 ton crane and large telehandler. If a telehandler will be used for placement of panels/components of the house and not just staging, access to the house footprint must be viable from all 4 sides of the house for the machine to work.
- Washroom for onsite workers
- Dumpster
- Central shed or site trailer for housing materials and offering a break space.

CABN recommends a careful consideration of how seasonality may impact the assembly process, and encourages clients to consider spring, summer, and fall months for an installation. This allows for maximum amounts of daylight while minimizing the potential impacts of inclement weather.



FINISHING



FINISHING

Finishing occurs once the building envelope is complete. This stage is up to the client's specifications for finishing but will complete the build. This stage requires qualified, certified trades for several tasks, such as electricians and plumbers. Working with local trades ensures a clear line of sight on regional requirements and bylaws. Finishing can include, but isn't limited to:

- Installation of solar panels and system components
- Installation of exterior cladding
- Application of interior wall panel finishing sealant
- Connection of interior electrical and plumbing
- Installation of interior wall partitions and doors
- Installation of interior cabinetry, fixtures, appliances
- Completion of final inspections and permit close

Note that CABN does not include interior finishing in packages – this means that clients are responsible for selecting cabinetry, appliances, fixtures, and more.





For more information,
please visit
www.cabn.co or
www.countyroad36.ca

