

MESOCORE **ADU**

ACCESSORY DWELLING UNIT

Live simply, enjoy freedom.

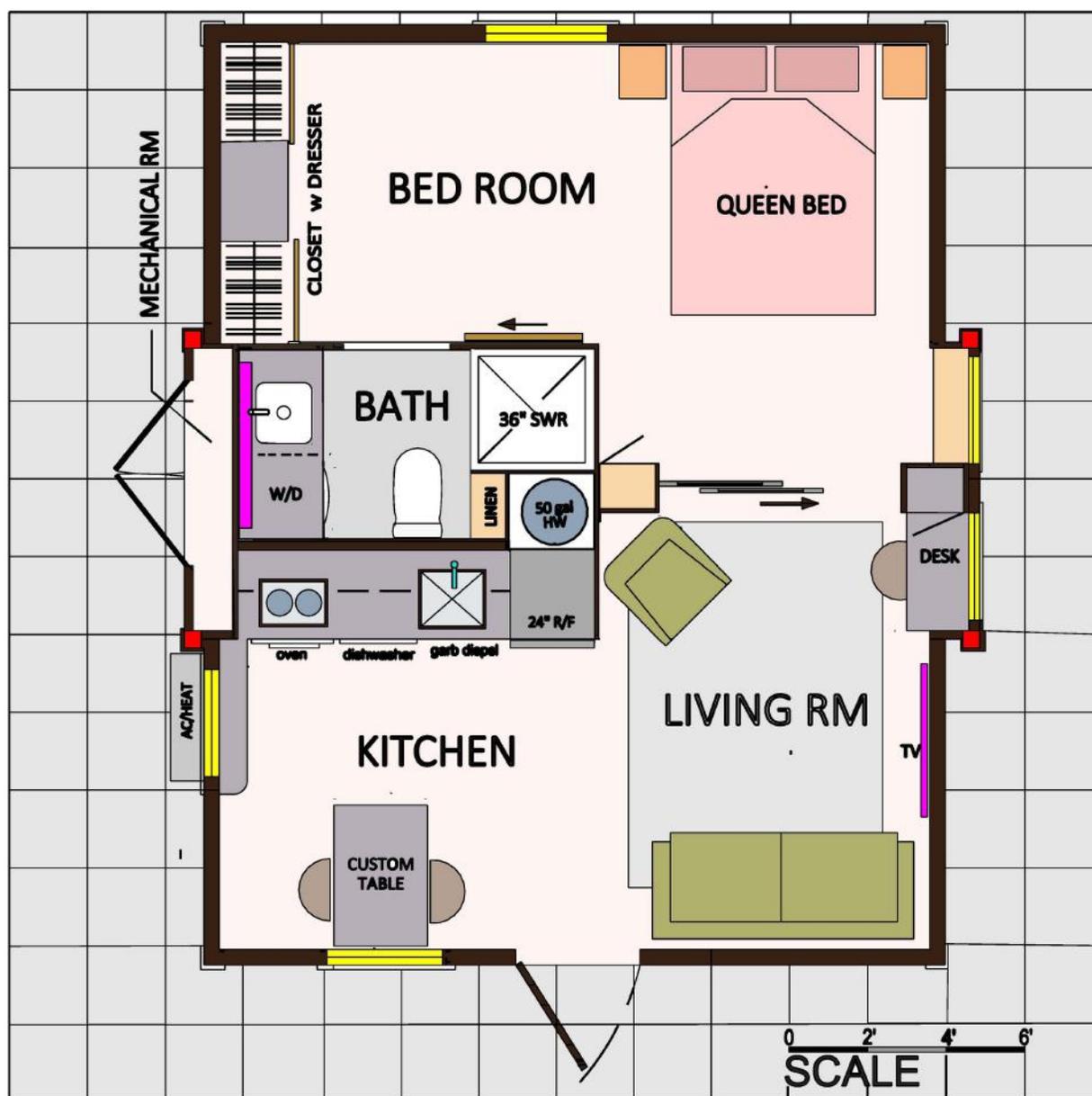


Mesocore ADU, an advanced design for compact, sustainable living, empowers users to enjoy independence and security without the burdens of conventional housing and its cost, whether as a primary or an accessory dwelling. Since 2008, Mesocore has researched new technologies, materials, living amenities, and necessities, blending them into a factory-built modular, Advanced Dwelling Unit suitable for anywhere on earth. We welcome you to learn more about this exciting design..

The Mesocore ADU is not for short-term stays, but rather for long-term living for two people. The livability of this space is best of class for low-cost compact dwellings and free living, enhanced by...

uniquely livable interior spaces, thoughtfully laid out with rich handcrafted finishes.

An open design concept in both the kitchen/living area and the bedroom/dressing area enables users to function without being in the same space, separated by skillful design and a modern, soft close, pair of frosted glass doors.



The bedroom is ideal for a queen-size bed with end tables, but can fit a king-size, and will also fit a full-sized dresser, an exercise machine, or an extra desk and still have room to dance around! **An alternate layout can incorporate a partitioned-off, full-size 5' desk & side table if you need to work at home**, or to accommodate an infant's crib if needed, and still have room for a full or queen bed.

Storage space, always in high demand, features a crafted 7'-6" closet with four hanging rods, separated by a built-in 30-inch-wide, 3-drawer dresser and an upper storage cabinet for sweaters and other folded items. Double sliding bypass doors, with the look of rich natural wood, allow full access, adding elegance and never getting in the way.

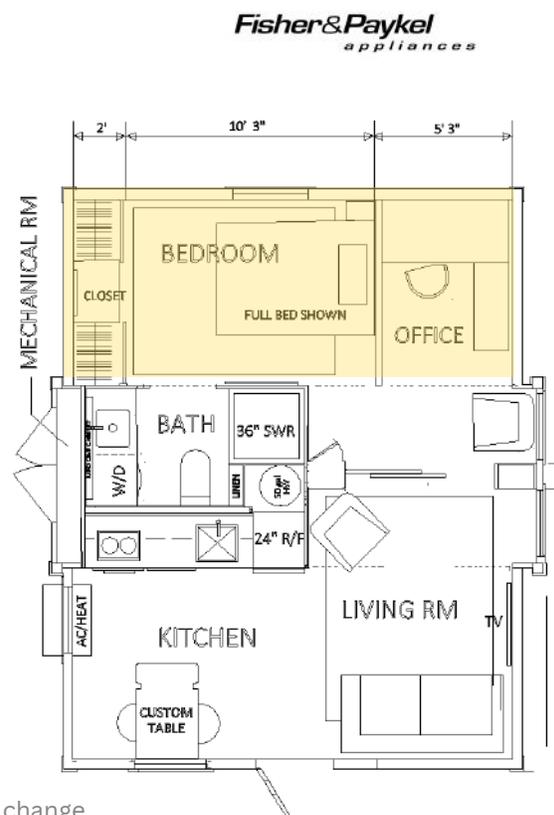


In another part of the bedroom, an 80" tall matching cabinet, for tall items such as coats, vacuum, and ironing board, is discreetly tucked into the bedroom's dividing wall, and a niche space ideal for shoe display is under one of the two windows in this space, which bring in natural light and air.

In the Kitchen-living area: space, appliances and storage are masterfully blended together.

The living area can accommodate a full-size 80" long sofa and a club chair, or two reclining chairs, or your choice of designs, all positioned for optimal orientation to a 60"+ flat-screen TV. **A standard built-in desktop with adjacent wall cabinet** for endless paperwork, mail, and books, and to accommodate a laptop and printer, is nestled under one of several windows in the kitchen/living area. Mesocore ADU thoughtfully positions operable windows and solid walls where they are needed.

The kitchen dining table captures the view to the front through the oversized 36" x 72" impact double-hung window, and with another large window and glazed front door, **plenty of natural light and ample room are available to enjoy preparing your gourmet meal.** An optional, custom-built table that seats 4 and features extra cabinet storage is available.



Specifications subject to change

Upscale kitchen appliances and cabinetry are designed not only for their best use but also for their clean, modern look.

Walk into the kitchen and see the decorator's selection, perfectly balanced upper wall cabinets with contrasting base cabinets, all featuring soft-close hardware. **The five upper wall cabinets not only provide storage but are also creatively recessed into the wall**, capturing inter-wall space to create a more open feeling when preparing meals.

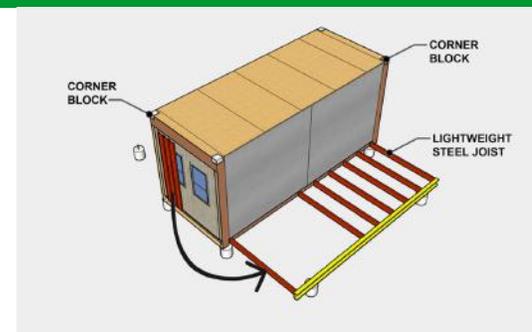
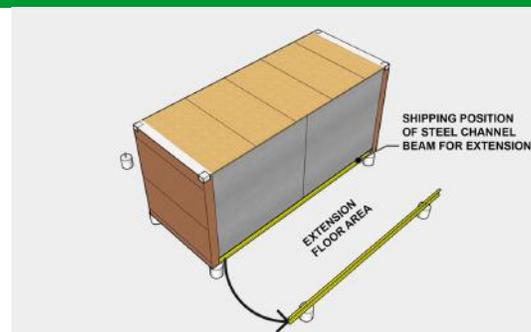
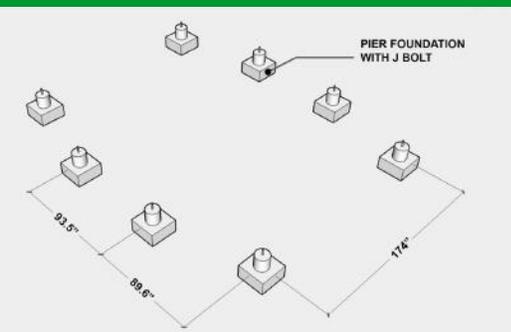


Base cabinets house carefully selected high quality appliances including an efficient **Forno oven**, all stainless & convection powered which both bakes and broils, and is also a microwave for quick snacks. Adjacent is a **Fisher-pakill single drawer dishwasher** and is perfectly located next to the sink base, which holds the In-sink garbage disposal and garbage drawer.

Built into the seamless resin marble countertop is a two-burner induction cook top (noted by many famous chefs to be the preferred energy-efficient cooking device) with a vented exhaust, a fully lit work space, and a 22" undermount stainless kitchen sink. To the right is a counter-depth Whirlpool 12.7 cu. ft. stainless two-door refrigerator/freezer with a built-in ice maker. A compact kitchen made for creating snacks to gourmet meals, and all **appliances are included!**

Whirlpool

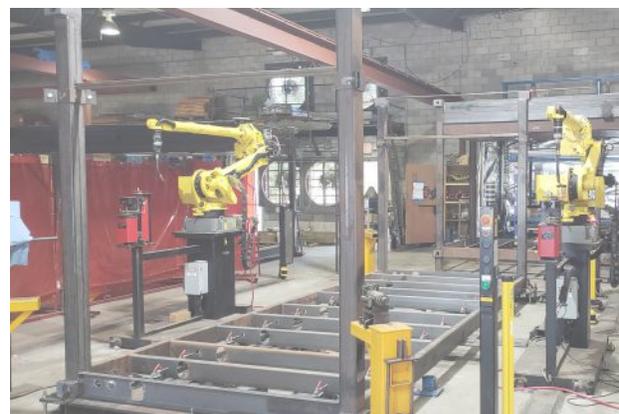
Watch this modular ADU come to life – step-by-step from foundation to finish!



All together, the storage built-ins consist of 16 exquisite or natural wood-grained closet/cabinet doors, six drawers covering approximately 200 cubic feet of highly accessible storage, and 34 square feet of high-end countertop workspace.

Durability and resistance to natural disasters is unmatched, meeting all demanding codes.

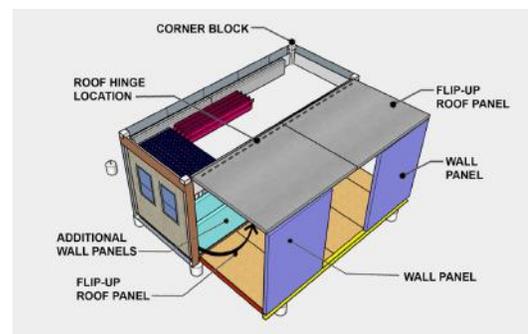
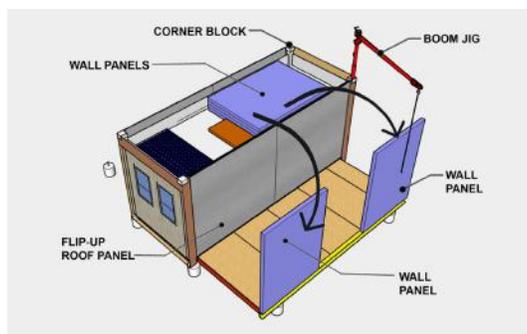
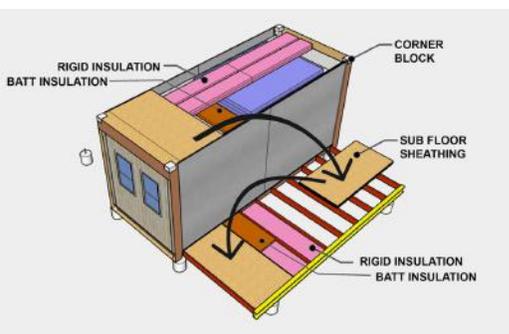
The Mesocore ADU begins in the factory as a steel chassis constructed from structural steel tubular sections, which are welded together in a precise configuration by robots and skilled craftsmen. With over 4,000 pounds of steel, this chassis brings strength to the core of the house that is of a magnitude of ten times the strength of conventional construction (*it has been tested to support 320,000 pounds on the core structure*). **It is the reason the house is resistant to hurricanes, tornadoes, and earthquakes.** The engineers say the total expanded house meets the highest wind loading required, but the core far exceeds that level.



NUCOR[®]

Be confident adding a Mesocore ADU to your valuable property as a permanent, habitable, enduring structure.

This volumetric chassis (8' x 20') is pre-fitted with electrical, mechanical, kitchen, bath, and utility systems – all tested before delivery. Its welded steel frame also stores the remaining materials (walls, roof, windows, doors, etc.), bringing the delivered weight to 25,000 lbs. These pre-fabricated components expand the unit to 20' x 24' on-site. The result is a hybrid build: with the complex work done in the factory and the simpler assembly completed on your property.



Mesocore's sustainable energy design increases comfort, saves money and lessens negative impact on the planet.

Because of the LED lighting, high levels of insulation, efficient appliances, state-of-the-art hot water and air conditioning production, low E, insulated window glazing, shaded, reflective roofing, and an overall concept to be sustainable, the Mesocore ADU needs considerably less energy than normal!

And then there is the solar!

Integrated and built into the unit is a 6 kW photovoltaic solar power generating system, which enables the house to operate off the grid in moderate climates, and also facilitates placement of the unit on your home's existing property without the need to upgrade your electric service. This will eliminate the need for an electrical contractor and the corresponding costs.

Fourteen 410-watt monocrystalline Panasonic PV panels (with a highly efficient 21.25% conversion rate) are independently affixed to the steel and other structure just above the roof and are assured an adequate solar orientation by virtue of the low-slope roof, regardless of how the house is oriented.

From ground level, these 'hidden', can't-be-seen, panels generate some 8,000 to 10,000 kWh of electric power per year (*about \$1,700 worth @ 0.19/kWh*). Unlike net-metered solar systems, you can be confident that you have essential power even during storms and utility power outages.

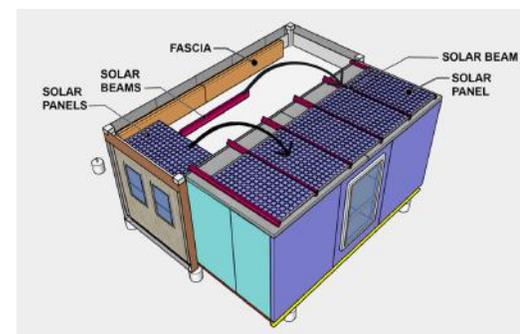
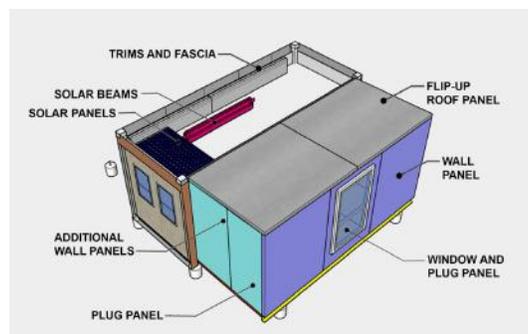
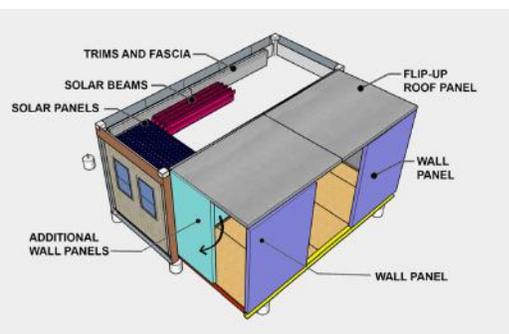
HOW THE SOLAR HOT WATER WORKS. Hot water is essential and a significant energy consumer.

During the prime sunny times of the day the 6 kW PV system is generally producing more energy than the house is consuming (*the AC needs about 17%, which at times may be the only large draw*) so, the surplus energy will then charge the storage batteries, but once they are fully charged where does the remaining energy go?

The Mesocore hot water system will now allow this excess energy to go to the heating coils and essentially store it as hot water in the 50 gallon tank. (*to raise the 50 gallon tank from 80 to 120 degrees, 5 kw hrs or about 1 hour of the array's production is needed*) A timer prevents these coils from using energy during the evening hours (when the house load is drawing from the batteries) but the 50 gallons of already heated water is adequate to satisfy demand for a day or two.

In cold climates (say the outside temperature is 40 degrees) this excess energy in the form of hot water flows thru a mechanical control valve into the cistern, storing energy in this larger roof top reservoir, stabilizing the temperature in the house.

To raise an average of, say 700 gallons, in the cistern from 40 deg to 70 you need some 60 kW hrs or about 2 days of the arrays production but any increase in this water's temperature will help the heat pump satisfy the remaining needed heat more easily.



Mesocore utilizes solar power to charge two 10kW batteries, providing a reliable energy source during the night and on cloudy days. An advanced inverter/charger manages this system, delivering continuous 10kW power to a 200-amp breaker box, which then distributes electricity throughout the unit, mainly through the core but also through a pre-wired harness around the exterior walls. **The system can also accept power from the main house or a generator, making it ideal for off-grid use.**

A separate 12V system powers all built-in LED lighting, including modern strip lights and ceiling fixtures, using very little energy.

Most people don't think much about a roof, as long as it keeps the rain out.

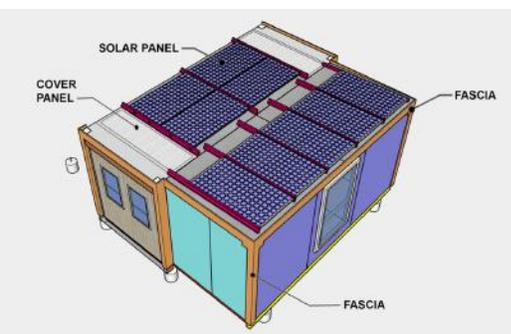
However, Mesocore has made this building element a multi-functional engineering marvel. The reflective roofing is 80% covered by solar panels, which protect and shade the roofing from UV light and radiant heat, reducing the AC load.



The roof deck also slopes inward, funneling harvested rainwater at a rate of 300 gallons per inch of rain into a double-walled, steel cistern storage reservoir. The slope of 3/8" per foot is undetectable, hidden behind cleverly detailed trim fascia from the outside and the continuous rigid insulated ceiling inside.

This integrated and hidden rooftop storage reservoir holds 1,400 gallons and weighs over 13,000 pounds. The cistern serves as both a backup water source and a thermal mass, stabilizing temperature swings and increasing comfort in the house, much like the mass of the earth that keeps wine cellars cool. As a water source, it is filtered and then purified by UV lights to eliminate sediment and harmful microorganisms.

In addition, a 50-gallon (much larger than normally needed) **hot water tank derives all of its energy solely from excess solar energy** and stores it for later use (see detail info box). The rooftop cistern is also designed to store excess solar energy for heating, especially in cold weather climates.



Mesocore, where exceptional technology, worldclass suppliers, design and workmanship intersect, truly an Advanced Dwelling Unit.

Mesocore's HVAC system features a quiet, ductless Amana unit with 12,000 BTU of cooling and 11,000 BTU of heating. Using just 1,000 watts, it runs on only 17% of the solar power generated. **Using next-gen R-32 refrigerant (future code-compliant), they are easy to maintain or replace, and are designed for low noise.** Two additional circulation fans, equipped with a HEPA filter, evenly distribute conditioned air throughout the house.

AMANA
JUST RIGHT.

Our HVHZ-rated Simonton **windows are professionally set in the factory** and rated for winds up to 180 mph. With insulated, argon-filled glass (U-value 0.27, SHGC 0.21) and no painting required, durable vinyl frames, they keep heat or cooling in and UV and glare out. The double-hung design allows the top and bottom sashes, or both, to open or tilt for cleaning. Each of these substantial 60-pound sashes are secure, impact-rated and resistant to break-ins.

SIMONTON
WINDOWS & DOORS

Smart Materials. Smaller Footprint.

Mesocore avoids high-emission materials like sheetrock and excess concrete.

- Just 2 cubic yards of concrete used – vs. 10–20 in typical small homes
- No drywall – interior walls are finished with natural pine shiplap planks.
- **Exterior siding is LP Smart Siding – a carbon-negative, renewable wood product** (they absorb more carbon than is used for their production)

Advanced Insulation = Year-Round Efficiency

We combine two high-performance materials for comfort and efficiency:

- R-15 high-density fiberglass batt insulation in the walls
- R-24.4 polyiso foam board in the roof and floor

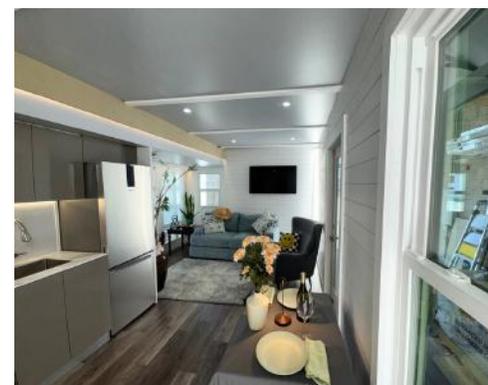
Performance ratings:

R-40 in the roof

R-15 walls (upgradeable to R-20)

R-20 in the floor

 **Georgia-Pacific**

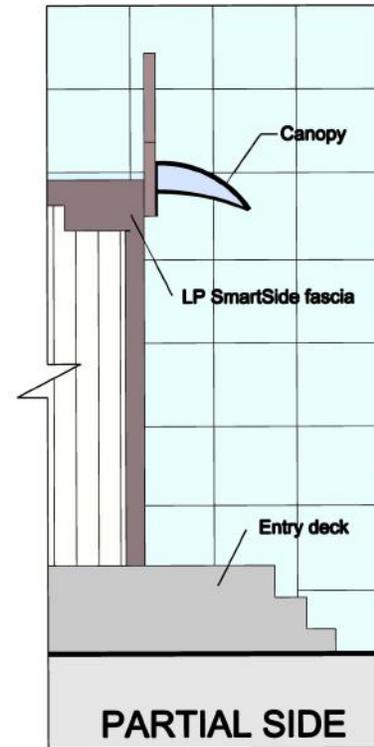
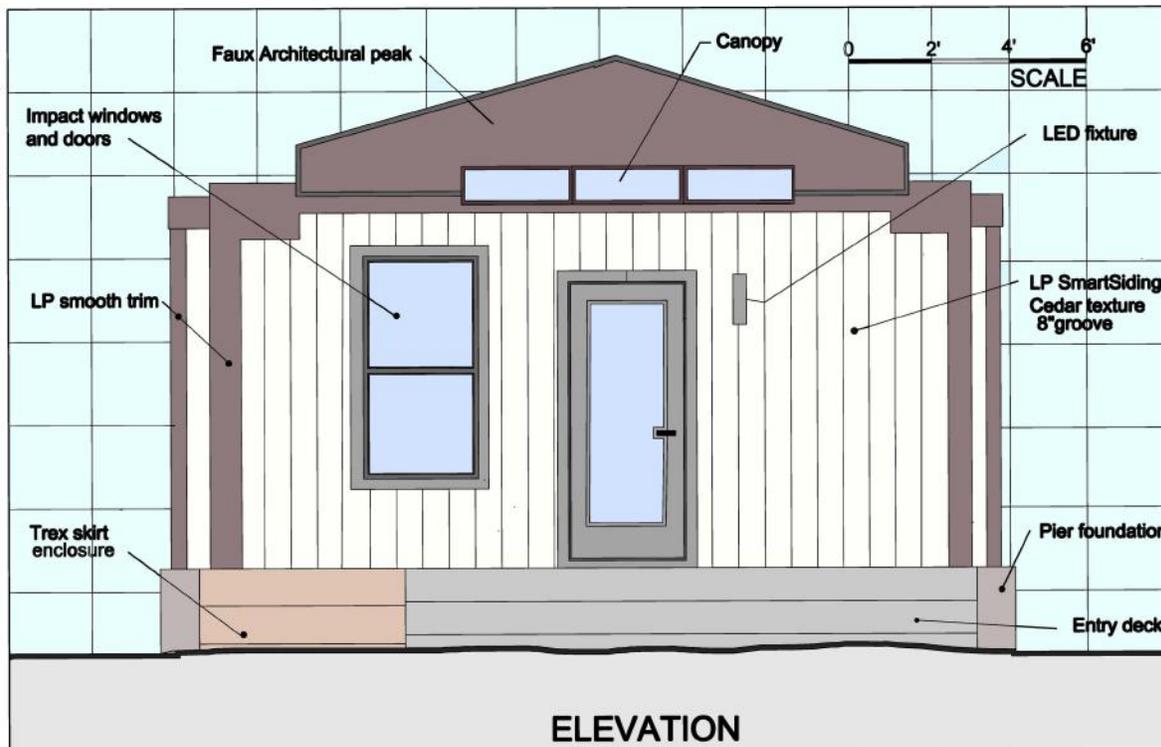


Starting at under \$150,000. a lot of good things can happen with a Mesocore ADU.

Everything about this product is upscale, but the real difference that sets Mesocore apart is its conception as a product built in a factory assembly line with a high level of automation and 100% use of materials. No waste means lower costs, robotic welding and automation reduce labor content, and new, tried-and-tested detailing increases durability and ease of maintenance.

Mesocore sets a new benchmark for affordability and speed of completion.

However, it does not stop at the factory level. The same dedication to attaining affordability in the factory extends to the work on site. As a hybrid system, we understand the importance of ensuring a smooth setup on the final site for the customer, the dealer, and the contractors.



We do not just give you ALL the materials needed to complete the project, and we don't just pre-fabricate them so they can be simply lifted and fastened in place, but we set the fasteners in place, insert the insulation, hinge the roof panels, and even provide a custom winch jib to handle the larger pieces. **Not counting fasteners, there are as few as 60 large panels or parts to handle, and the task can be completed in a week.** Time enough to get off the customer's property and on to the next job.



LEARN HOW EASY IT IS TO BUY A MESOCORE ADU!



Creativity is in your hands. Make your selection and make it your own.

Although the manufacturing process limits the size of the Mesocore core and compliance and approvals prevent changes to the integrated systems, there are many options that can be modified to give the house your touch.

There are two offerings of the Mesocore ADU;

The Standard unit includes all core features, with interior finishes selected from our curated palette of cabinetry, countertops, and doors (see last page). Walls are primed MDF or shiplap plank, ready for paint. A matching table is available at an added cost. The exterior features LP Smart Siding with a cedar texture and smooth trim, all of which is fully primed for acrylic latex paint. This is our most economical model, always in production and often available from stock. Estimated delivery: ~2 months (subject to production schedule).



A custom, one-of-a-kind unit allows you to select any cabinet style or color from the in-stock Lioher collection (featuring hundreds of options – see lioher.com or samples on the last page), along with your choice of any Compact Slab countertop. We'll also credit the standard luxury vinyl tile flooring, giving you the flexibility to choose and install any suitable floor. For the exterior, you may choose LP Smart Siding in either the standard cedar texture or a stucco texture, both primed and ready for paint. Custom units require a firm, non-refundable deposit, a factory-issued price quote, and an estimated lead time of 4 to 6 months.

But mostly, further enhancements are unlimited as pre- or aftermarket work.

Some favorites are (1) custom awnings for shade and special color, (2) any deck design, large or small, including wrap around, (3) extended porch overhang and railings (see back cover), (4) conventional window shutters, window mullions and even Bahama shutters and, (5) custom light fixtures.

And of course, never underestimate the value of COLOR! The design, architectural details, and trim of both the interior and exterior are carefully crafted to allow the application of color to extend throughout the entire house, giving you unlimited choices for your color creativity.

For more advanced structural applications, for example, the height of piers can raise the floor, even high enough for a garage below, or to locate the house on a steep hill, a local engineer would be required for a site-specific foundation solution.

OK I am interested. How do I move forward?

Recognizing that building an entirely new structure for long-term living presents numerous challenges, Mesocore places a high priority on assisting customers throughout this process.

If you are interested in building an ADU on your property:

The best first steps are to call, text, or email our customer service advisors at 561-386-7252 or Steveu@mesocore.com.

To be most effective, please include your name, contact information, and importantly, the address of the property you plan to build on. If you have a survey, please send it via scan or a picture from your cell phone, along with the address. We will assume your preference is to place the ADU in the backyard, but if you think your property allows for it, please let us know where you would prefer it.

We will analyze the data provided and let you know if there are any issues that might present a problem, especially Local ordinances and Zoning setback requirements, and access to get a delivery of a Mesocore unit onto the required foundation location. If you are in a Homeowners Association, please check with their requirements before you contact us.

If you are a general contractor interested in becoming an authorized dealer, call, email, or text our business development director at 561-601-6910 or jmesposito@mesocore.com. Please provide your license number, state, and a brief description of your current business, including the geographic location in which you operate. As a dealer, you will benefit from a wealth of information from our experience, a lead referral program, and advertising credits and discounts.





Homeownership builds wealth and offers the freedom to pursue life goals. Whether starting out, saving for a larger home, pursuing continuing education, or simply enjoying hobbies, affordable living is beneficial. Homeowners can rent out an ADU for extra income, while retirees may downsize or own one as a second home, perfect for travel and flexibility.



Building a house is complicated, but Mesocore makes it as easy as possible.

Four Ways to Buy a Mesocore ADU

Through a Local Authorized Dealer

Work with a licensed general contractor for a turnkey solution – including permits, foundation, delivery, assembly, utilities, and final site work. No sales tax is charged to the homeowner. Don't see a dealer in your area? We'll coordinate with your preferred contractor or help train one for you.

Buy Direct from Mesocore (Owner-Managed)

For hands-on buyers, Mesocore can sell directly. Homeowners secure permits and manage subcontractors. We provide full drawings, deliver the unit, and install it on your prepared foundation – all under a real property construction contract.

Direct Turnkey Purchase (Florida Only)

If you're in Palm Beach or Martin County, FL, Mesocore can manage the entire project directly, offering a fixed price and comprehensive service.

Developer, Government, and NGO Bulk Orders

Need 5+ units? We offer volume pricing and flexible delivery options for developers, nonprofits, and government agencies. Contact us to discuss your project.

Why Mesocore's ADU Stands Out

Not all Accessory Dwelling Units (ADUs) are created equal. The Mesocore unit is built as a **modular-approved product**, which distinguishes it significantly in terms of quality, compliance, and oversight. Modular construction, with units having been built repeatedly, eliminates much of the uncertainty associated with entirely site- or stick-built methods, such as weather delays, supplier or labor shortages, errors, purchasing mistakes, design deficiencies, and long-term building delays.

Modular approval requires comprehensive design documentation, adherence to strict state government regulations, and in-factory inspections for each unit.

Mesocore meets all modular compliance standards through Intertek, a globally recognized certification company founded in 1888, with over 40,000 employees worldwide.



Understanding ADUs: Resources and Benefits

If you're exploring ADUs—whether for personal use, investment, or business expansion—numerous resources are available that cover:

- The advantages and versatile uses of ADUs
- Why local and state governments are actively encouraging ADU development
- Available incentives and funding programs
- Siting and zoning considerations, including newly granted exceptions
- The permitting process, including access to pre-approved plans
- Financing options and models
- Community Land Trust (CLT) development led by nonprofits to foster affordable housing

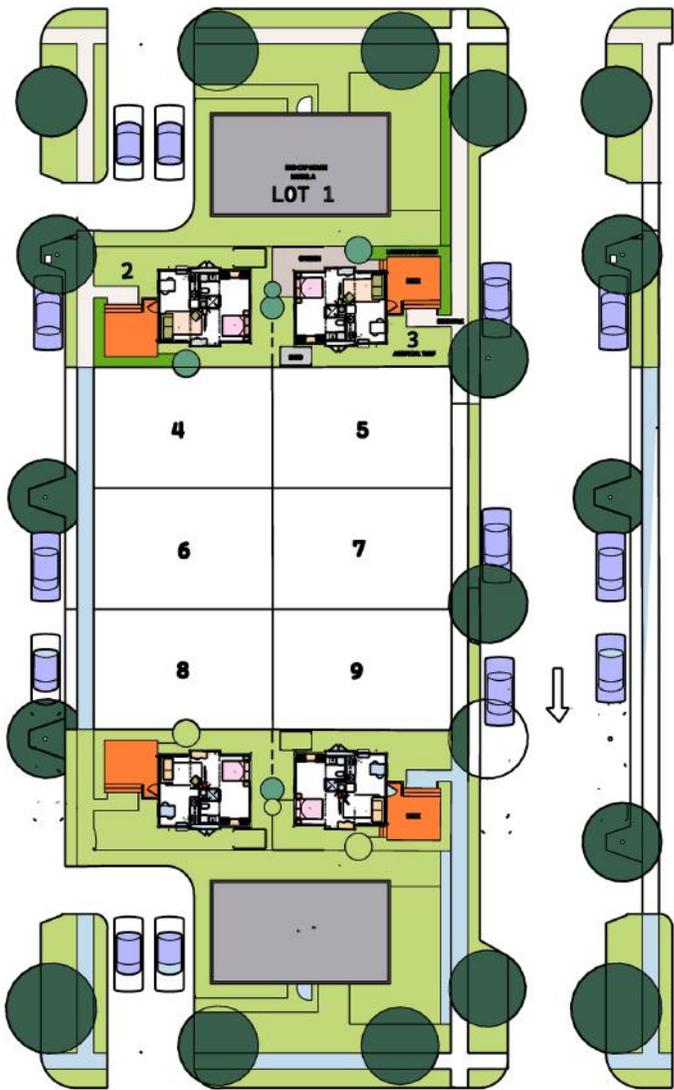
For builders, developers, or nonprofits considering entering the ADU space, understanding these dynamics is crucial. ADU initiatives are rapidly expanding nationwide, creating new opportunities for sustainable, community-friendly housing.

Helpful Resources

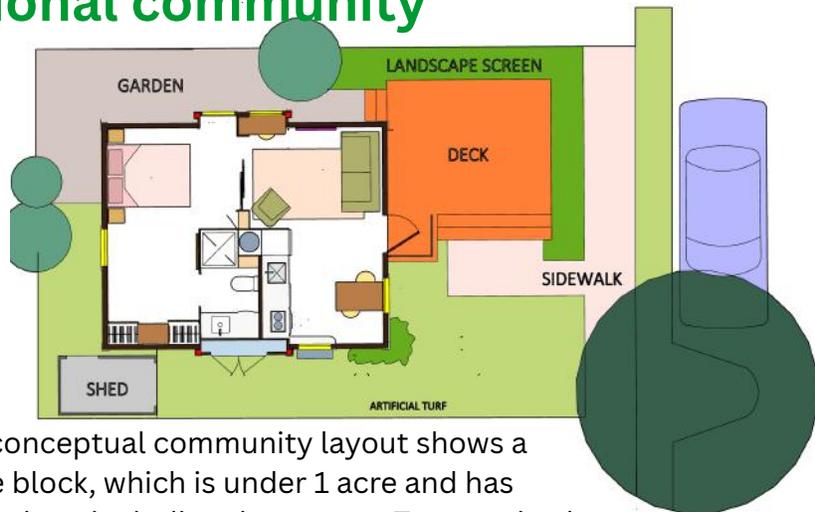
Explore these reputable sources for in-depth guidance:

- Florida Housing Coalition: [FHC – Accessory Dwelling Units](#)
- City of Raleigh, North Carolina: ["Building an Accessory Dwelling Unit \(ADU\)"](#)
- California Department of Housing and Community Development: [Accessory Dwelling Unit Handbook \(54 pages\)](#)
 - Fun fact: As of 2025, approximately 20% of new housing permits in California are for ADUs.
- Community Land Trust Model: [Fidelity Brokers – CLT Overview](#)

Mesocore makes a great addition to private lots and helps create exceptional community neighborhoods.



Mesocore Model A is an earlier-generation modular design with a footprint of 26 by 45 feet. It offers 1,130 square feet of living space, which can be reduced to 800 square feet. The model includes two or three bedrooms, two full bathrooms, and is installed on a slab-on-grade foundation.



This conceptual community layout shows a single block, which is under 1 acre and has twelve lots, including the streets. Ten are sized for Mesocore ADUs, and the two end caps have the Model A. See below.

Look carefully at the site layout of the ADU and its positioning to the street, the outdoor spaces, and adjacent properties. You will notice how better the livability of the small, yet feature-packed house and community layout is, as compared to today's condominium offerings, especially because:

You own the house and lot outright without expensive HOA dues and rules.

It has private parking spots immediately in front, and overflow guest parking nearby on the street.

A deck and outdoor space to enjoy barbeques, gardening, entertaining, and space for the family pet.

A detached structure, featuring complete privacy with windows on all four elevations, with no shared common walls or floors.

The streets are lined with trees, and the block presents a high-end, upscale look, featuring dedicated, recessed parking. Density and full sidewalks enable access to walkable local shopping, neighbors, transportation, and even schools.

Needing as little as 1,500 square feet, some 12 to 18 units can fit on a single acre. As a developer, you can market a housing solution that leverages valuable land costs with a primary house and one or more rental ADU units, or for multi-generational or elder care living units, or simply work at home offices. Some large home building companies are offering ADUs as an option (with the proper planning) that can be added at any time—a perfect use of a pre-designed Mesocore unit.

With affordable housing in high demand, governments are easing zoning rules to allow mixed-use lots, smaller homes, and even multi-family layouts with standalone permanent ADUs

Color Samples

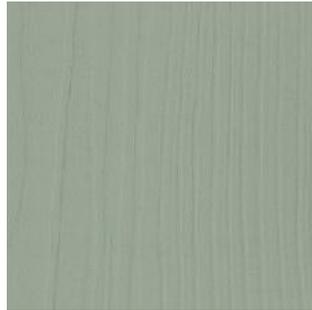
In a Mesocore ADU, the interior finishes for doors, cabinetry, and countertops are by Lioher, a premium cabinet maker since 2010. Impressive collections, including LUXE high gloss, ZENIT supermatt, and SYNCRON textures, are available. Our standard offering of SYNCRON Natural Wood and other textures are the perfect complement of finishes for our in-stock program and are shown here. However, if your desire is to use any of the hundreds of colors, glosses, and textures available, some of which are shown below, check out lioher.com. and use our easy custom purchase plan to incorporate your selection into a made to order ADU.



The standard ADU, always in production, uses this selection of finishes:



Synchron Picasso 1
Base cabinets and closet doors



Synchron Agave
Upper wall cabinets

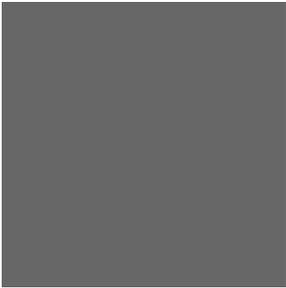


Synchron Brushed Concrete
Desk and closet countertop



Compact Slab - Taziano
Kitchen and bath tops

Below is a small sampling of custom color options available for cabinets and compact slab countertops:



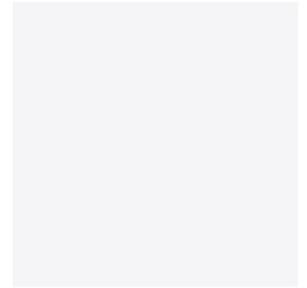
Zenit Gris Paloma



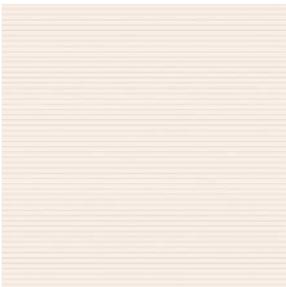
Zenit Gris Carmel



Luxe Azul Indigo



Luxe Bianco Polar



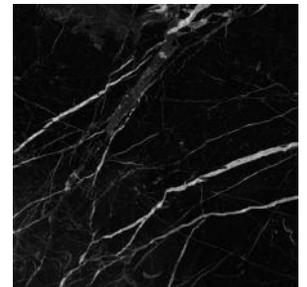
Synchron Reeded Petal



Synchron Olmo 2



Compact Slab - Himalaya

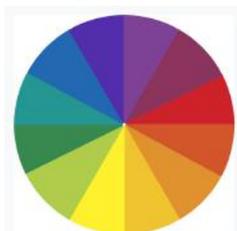


Compact Slab - Palazzo

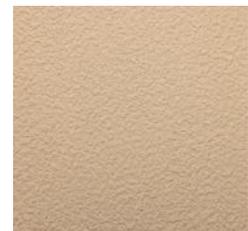
Louisiana Pacific Exterior Smartsiding with smooth trim - primed for any color:



Standard
Cedar Texture Groove 8" on center



Choose your own color



Custom -Pebbled Stucco

MESOCORE

MODULAR SOLAR HOMES

MESOCORE ADU



Mesocore Corporate Headquarters

3715 Fiscal Ct.

Riviera Beach FL, 33404

Customer Service

Project Manager

561-386-7252

Business

Development

561-601-6910

www.mesocore.com

Mesocore Authorized Dealer