



*Serving through the construction of high-performance homes
that are sustainable, practical, and affordable*

Welcome to “The Gem”!

This home is a real workhorse
for energy efficiency, water efficiency, and indoor air quality,
while implementing thoughtful selections
to limit negative impacts on the planet,
increase comfort and decrease maintenance,
giving you more time for what’s important to you.

At first glance you might see ‘just another new home’. This guide will provide
information on some of the features planned into this design
to make a stylish and “universally friendly” home that works for you.

None of this would have possible without a dedicated team effort. A list of team
members is provided at the end of this guide.

This house is being evaluated under the National Association of Home Builders’ National
Green Building Certification Program.

The final certification is anticipated to be at the Emerald Level.





First Impressions

At first glance, you'll notice the attractive landscaping. The bioswale and customized, sustainable landscaping are planned to work for you. Careful attention has been given to selecting turf, plant, tree, and shrub species that are suitable to the local conditions and soils, without demanding excessive maintenance or water usage. The bioswale will grow into a beautiful storm water management tool, putting water back into the ground instead of adding to the burden on the storm sewer system. The pervious concrete driveway strip is another storm water management tool.

Not Just Another Pretty Face

While fresh and inviting, this exterior is hard-working. Materials that are durable, low maintenance, and energy-efficient create a building envelope to minimize energy usage, keeping your energy bills low and the indoor air quality high. Certainteed's WeatherBoard fiber cement siding and Landmark Shingles are teamed with Miratec composite trim, EverGrain composite decking, and Owens-Corning ProStone to dress this house for success. High-performance Windgate vinyl casement windows by Alliance complete the package.

The Heavy Lifters

Beneath the beautiful exterior is a high-performance building envelope. Low heating and cooling bills depend on an airtight, insulated structure. Insulating systems start below the basement slab and continue through the roof deck, keeping conditioned air inside and noise, moisture, and drafts outside. The basement walls are Insulated Concrete Forms (ICFs). The above-grade structure is made of Thermocore Structural Insulated Panels (SIPS). The roof deck and band board are sealed and insulated by Demilec Spray Foam insulation. Working together, these systems form one of the tightest houses tested by Energy Diagnostics in twenty years of evaluations.

A Breath of Fresh Air

Despite opinion to the contrary, a house can't be too tight, but it can be out of balance. It is extremely important the systems of the house work together to keep the house healthy. The 95% efficient, dual-zone Lennox Comfort system mechanically draws fresh outdoor air through the 16 MERV air filter, before conditioning the air and sending it throughout the home. The ventilation is managed and not accidental, saving you money and keeping the air fresh.



Water, Water, Everywhere

With Lake Michigan water, provided by Indiana-American Water Co. readily available, it's hard to remember that 49 of 50 states are currently facing critical water issues. Attention has been given to water usage in The Gem. The manifold water delivery system keeps the delivery system efficient. The Rinnai tankless water heater conserves energy while heating water quickly. The high performance Gerber low flow toilets (1.25 gpf) save an average of 2,000 – 5,000 gallons of water per toilet every year over a toilet with a 1.6 gpf toilet. The remaining fixtures have been selected for stylish appearance while conserving water.

What You Can't See

One of the indoor air quality culprits is called VOCs or Volatile Organic Compounds. These compounds sometimes add things to the air that you don't want to breathe. Low VOC Sherwin Williams paint, no-formaldehyde adhesives, 'green board' substrate under the countertops, and products that have been designed to eliminate off-gassing have been used.

Living Large

Almost too pretty to walk on, these floors are tough little numbers with big personalities. The beautiful Brazilian chestnut floors are one of the hardest wood species in the flooring market. The wood is harvested under sustainable forestry practices. The clear finish on $\frac{3}{4}$ solid boards can easily be refinished down the road, but for now only light cleaning is required. The porcelain tiles are stronger than traditional ceramic tiles while holding up to dirt and scuffs. The carpeting is a green fiber that can be recycled when it's time for a new color. In the upstairs bathroom, linseed oil based Marmoleum gets tougher as it gets older.

A Place for Everything

Coats, shoes, keys, cell phones, laptops, mail, briefcases, backpacks, recycling bins...and that's just a few of the everyday necessities that must be dealt with. Adjustable storage solutions are included with this home. Built-ins in the family foyer, bedrooms, and entry are just the beginning. The IKEA kitchen cabinetry allows you to add organizers that suit the way you live. Customizing the Master Bedroom closet according to your lifestyle is another way to keep life under control. A two and a half car garage will store your cars and toys. There's even room for a small dog run, if needed.



A Hop, Skip, and a Jump

What could be better than a beautiful view out your window? One that you don't have to maintain! The green spaces and sidewalks in the Village in Burns Harbor are for all the residents to use and enjoy. There's no 'Stay Off the Grass!' signs here. The playground has safe equipment and is a popular place for children and their adults. The Village Green is a gathering place for neighborhood parties. There's a community garden for those who want to grow their own food. Not far from the Village, two South Shore stations make commuting or trips to the city a breeze. Schools, parks, and the Lakeshore are nearby.

Thinking Ahead, But Not Thinking For You

Sometimes things change. You might need a little more cabinet space or room for someone using a walker or wheelchair. Maybe someday you'll want to add solar panels to the roof or add a gas grill hookup on the patio. Perhaps another bedroom, home office, or entertainment area are needed. These possibilities have been considered and designed into this home, allowing this house to adapt to your changing needs in a universally friendly way with the least amount of inconvenience. Not only that, but the Village in Burns Harbor encourages home-based businesses, if that is a dream of yours.

Who Says It's Green?

Don't take 'green' at face value. Look for a third party verification that any product has been tested to satisfy the claims made. This house has been constructed under the **ANSI approved National Green Building Standard**, developed by the National Association of Home Builders. ANSI, the American National Standards Institute, is a broad-based group that scrutinizes the basis for a claim and establishes minimums of performance – not just on construction, but on many products. This group will only authorize one standard to be recognized on a nationwide standing. We've chosen to satisfy this standard. The National Green Building Standard addresses key areas of green residential construction, including:

- Site design and development
- Lot design, Preparation, and Development
- Resource Efficiency
- Energy Efficiency
- Water Efficiency
- Indoor Environmental Quality
- Operation, Maintenance, and Building Owner Education