



**AGENDA ITEM REQUEST FORM  
CITY OF JOHNSON CITY, TEXAS  
CITY COUNCIL**

**ITEM NO. 4**

**MEETING DATE:** June 17, 2021

**AGENDA PLACEMENT:**

- Ceremonial
- Consent
- Individual
- Closed Session

**CAPTION:**

Presentation by Sean McDonald and Fred Ballard of, respectively, Vanguard National Builder Group and Blue Horse Building + Design and discussion of and action on a request for a variance from Municipal Code of Ordinances Chapter 3 *Building Regulations*, Article 3.02 *Technical and Construction Codes and Standards* allowing for the use of the Federal Housing and Urban Development Code in lieu of the International Residential Code for One- and Two-Family Dwellings, 2015 ed., for the development of a 91.55 acre single-family residential subdivision located at 217 281 Loop, Johnson City, TX 78636, more particularly described as BCAD ID No. 8609 or ABS A0147 Survey 172 J. Duel, Acres 91.55. (Applicant)

**STRATEGIC WORK PLAN:**

- |  |  |
|--|--|
| <input type="checkbox"/> Not Applicable                                | <input type="checkbox"/> Goal 5: Improve Fire Safety                             |
| <input checked="" type="checkbox"/> Goal 1: Increase Housing Diversity | <input type="checkbox"/> Goal 6: Improve Streets                                 |
| <input type="checkbox"/> Goal 2: Expand Quality Lodging                | <input type="checkbox"/> Goal 7: Increase Publicity & Promotion of the Community |
| <input type="checkbox"/> Goal 3: Improve Code Enforcement              | <input type="checkbox"/> Goal 8: Increase Economic Development Activities        |
| <input type="checkbox"/> Goal 4: Improve Streetscaping & Signage       |  |

**EXECUTIVE SUMMARY:**

City Staff met with Sean McDonald and Fred Ballard on May 17, 2021 regarding the development of a single-family residential subdivision on a 91.55 acre tract bounded by 281 Loop and A. Robinson Road (RR 2766). To increase the affordability of residential homes, the developers proposed CrossMod housing and stick-built attached garages on permanent foundations. Unlike manufactured or “mobile” homes, the proposed homes qualify for 30-year fixed mortgages through financial institutions, such as Fannie Mae and Freddie Mac.

On May 27, 2021, the developers approached City Staff again and requested confirmation that the home manufacturer could follow the Federal Housing and Urban Development Code in lieu of the City's adopted International Residential Code for One- and Two-Family Dwellings, 2015 ed. City Staff consulted with Bureau Veritas on the matter, and Bureau Veritas had no objections to the request; however, City Staff did not feel comfortable approving said request until the matter was presented to the City Council and approved by the body as a whole.

**FINANCIAL:** N/a

**ATTACHMENTS:**

- Property Map;
- Zoning Map & Mixed Residential District Regulations;
- City of Johnson City Map;
- *It's Real: Seguin Welcomes Texas' First CrossMod Manufactured Housing Development*, Texas A&M University Texas Real Estate Research Center (2021);
- U.S. Department of Housing and Urban Development Discussion;
- *Understanding Today's Manufactured Housing*, Manufactured Housing Institute;
- Email History between Sean McDonald and City Staff;
- Article 3.02 *Technical and Construction Codes and Standards* of the Municipal Code of Ordinances

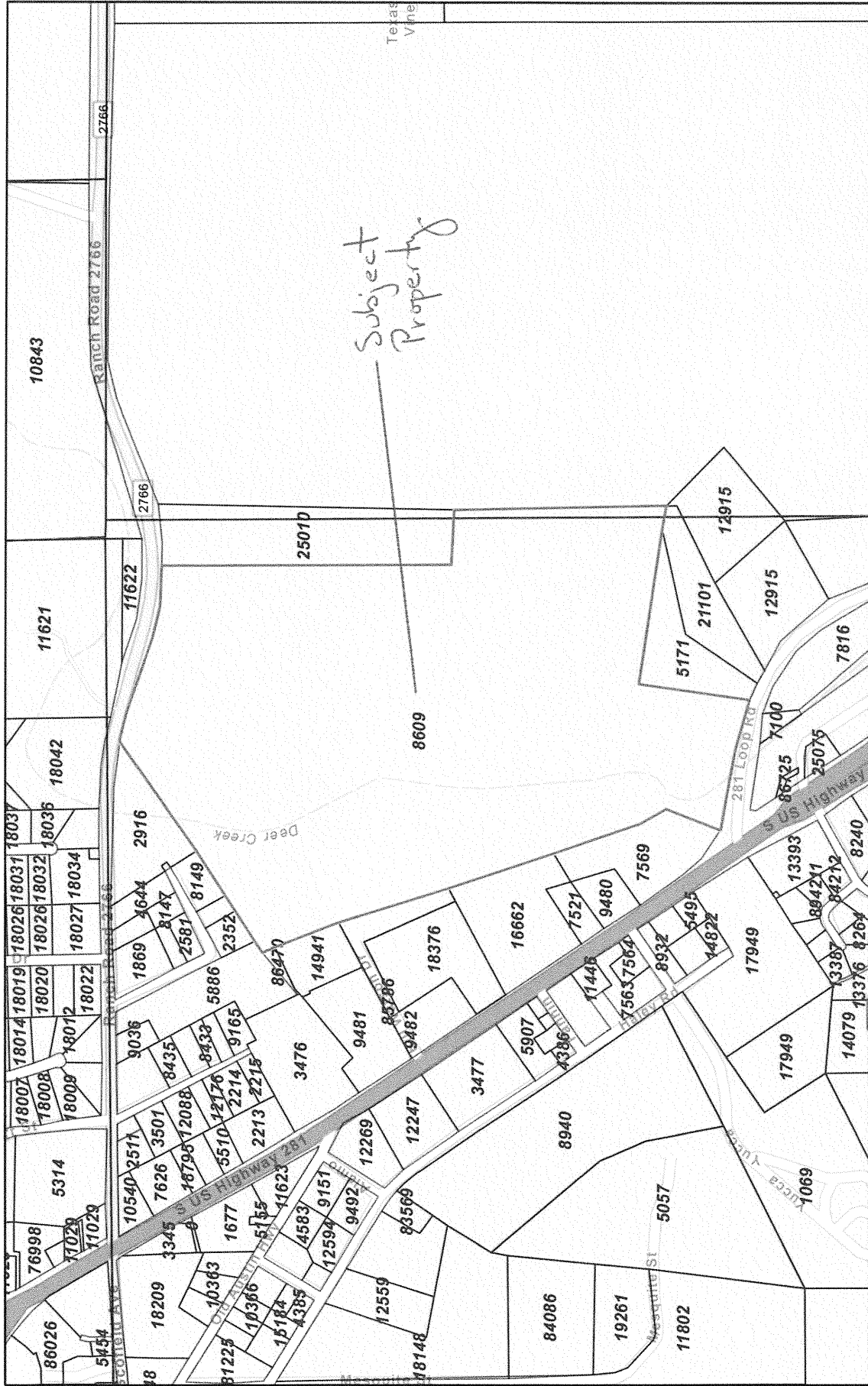
**SUGGESTED ACTION:**

Motion to approve a request for a variance from Municipal Code of Ordinances Chapter 3 *Building Regulations*, Article 3.02 *Technical and Construction Codes and Standards* allowing for the use of the Federal Housing and Urban Development Code in lieu of the International Residential Code for One- and Two-Family Dwellings, 2015 ed., for the development of a 91.55 acre single-family residential subdivision located at 217 281 Loop, Johnson City, TX 78636, more particularly described as BCAD ID No. 8609 or ABS A0147 Survey 172 J. Duel, Acres 91.55.

**PREPARED BY:** City Staff

**DATE SUBMITTED:** 6/14/2021

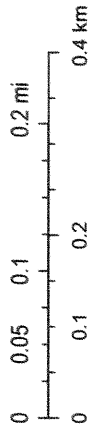
# 91.55 Acre Tract



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- Parcels
- Abstracts

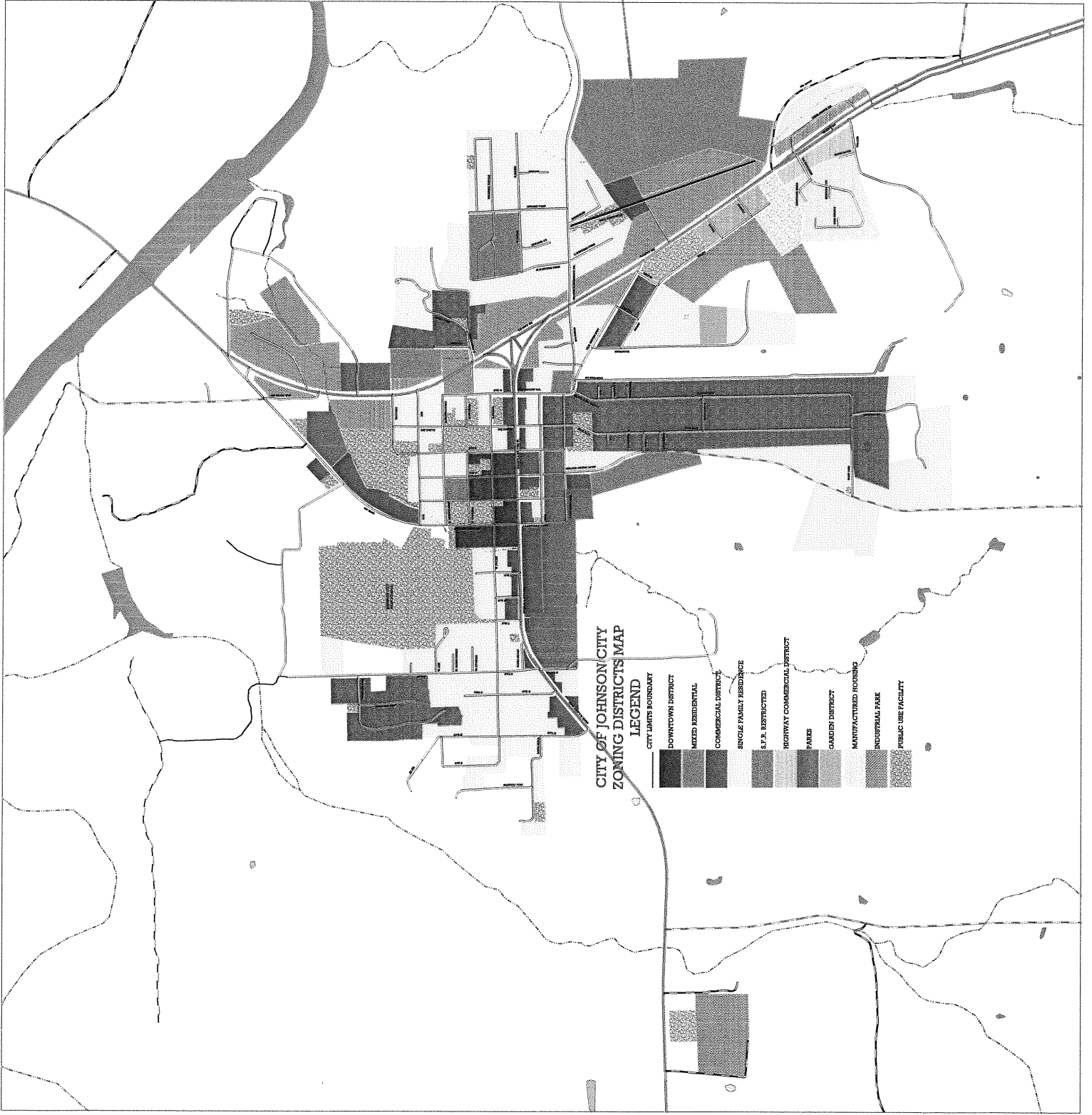
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Esri Community Maps Contributors, Texas Parks & Wildlife, Esri, HERE.













Disclaimer: This product is for informational purposes only and has not been prepared for or be suitable for legal, engineering, or surveying purposes. It does not represent an on-the-ground survey and represents only the approximate relative location of boundaries. Blanco County Appraisal District, BIS Consulting - [www.bisconsulting.com](http://www.bisconsulting.com)

Mixed Residential



**CITY OF JOHNSON CITY  
ZONING DISTRICTS MAP**

**LEGEND**

-  CITY LIMITS BOUNDARY
-  DOWNTOWN DISTRICT
-  MIXED RESIDENTIAL
-  COMMERCIAL DISTRICT
-  SINGLE FAMILY RESIDENCE
-  S.F.A. RESTRICTED
-  HIGHWAY COMMERCIAL DISTRICT
-  PARKS
-  GARDEN DISTRICT
-  MANUFACTURED HOUSING
-  INDUSTRIAL PARK
-  PUBLIC USE FACILITY

**Sec. 3-2. Mixed Residential District (MR).**

- (a) The purpose of the MR district is to provide for owner-occupied single-family housing and also to provide for and to encourage development at higher densities with smaller minimum lot sizes, and duplex, triplex, quadplex, or small multifamily apartment buildings. (Ordinance 19-0401, att. A, sec. C, adopted 5/3/19)
- (b) See schedule of uses in Article VIII of this ordinance for permitted and conditional uses. (Ordinance 16-0303 adopted 2/1/16)
- (c) General regulations of the MR zone are contained in the table below:

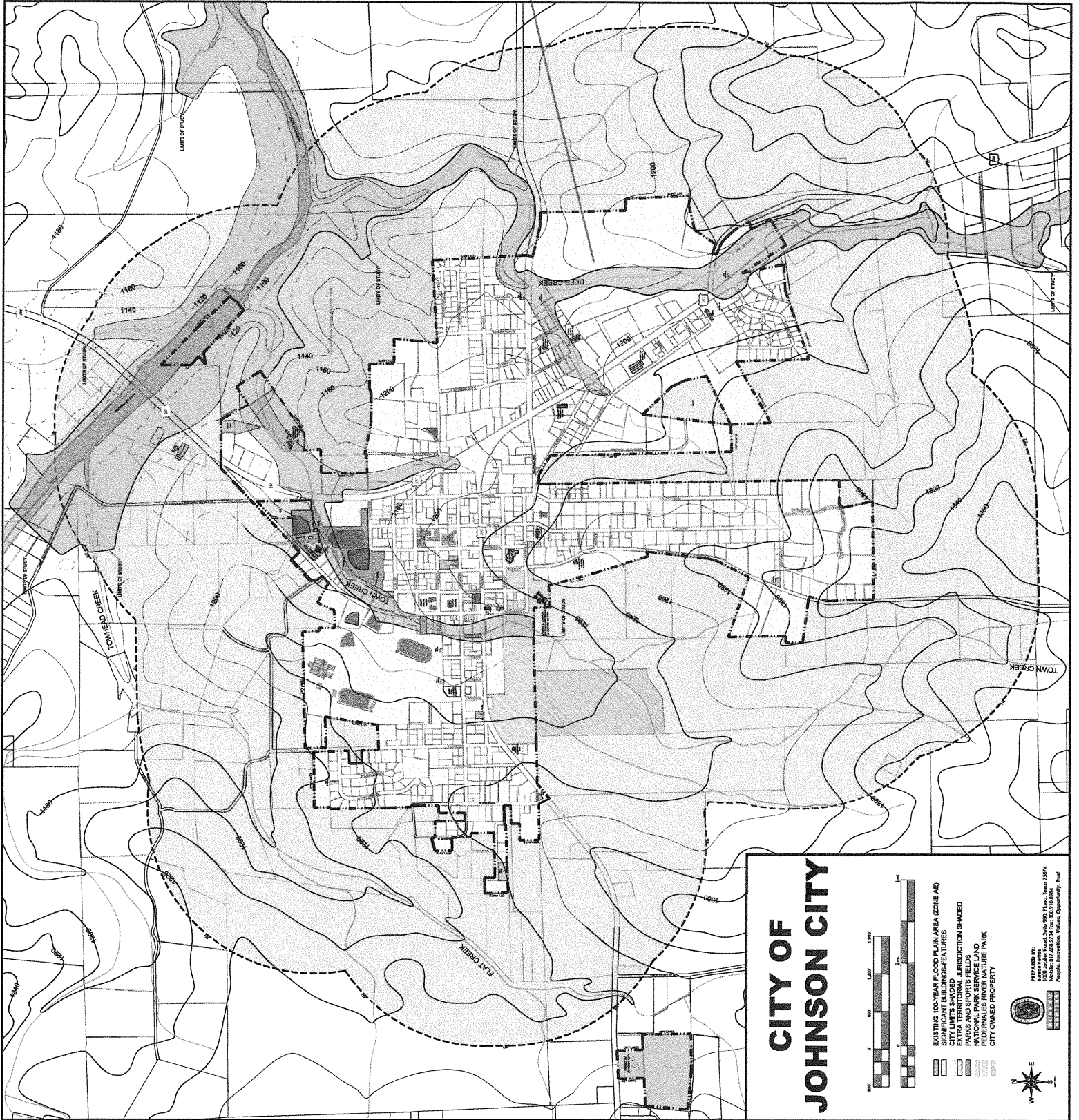
**MR DISTRICT**

Maximum dwelling units	None
Minimum lot width (street frontage)	50 feet
Minimum lot size (area)	8,000 square feet
Minimum front yard	5 feet
Minimum side yard	10 feet
Minimum side yard, adjacent to street	10 feet
Minimum rear yard	15 feet
Minimum dwelling unit size	500 square feet for single-bedroom; 750 for two-bedroom unit
Maximum lot coverage (all structures)	80%
Maximum structure height (stories)	2 stories
Maximum structure height (feet)	35 feet

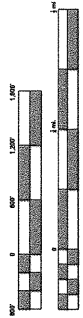
(Ordinance 19-0401, att. A, sec. E, adopted 5/3/19)

- (d) Landscaping requirements are contained in the City's landscaping ordinance.
- (e) Parking requirements are contained in the City's parking ordinance.

Subject Property



# CITY OF JOHNSON CITY



- EXISTING 100-YEAR FLOOD PLAIN AREA (ZONE AE)
- SIGNIFICANT BUILDINGS-FEATURES
- CITY LIMITS SHADED
- JURISDICTION SHADED
- PARKS AND SPORTS FIELDS
- NATIONAL PARK SERVICE LAND
- FEDERALIZED RIVER NATURE PARK
- CITY OWNED PROPERTY



PREPARED BY:  
M. J. HARRIS & ASSOCIATES, INC.  
1000 Apple Road, Suite 100, Boone, Iowa 52604  
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# It's Real

## Seguin Welcomes Texas' First CrossMod Manufactured Housing Development

Harold D. Hunt  
June 4, 2021

Publication 2305



The first residential subdivision in Texas exclusively offering “CrossMod” manufactured homes is currently under development about four miles outside Seguin. CrossMod is the Manufactured Housing Institute’s trademarked name for an upgraded class of national HUD-code manufactured homes (MH). It should not be confused with “modular” homes built to meet a specific local building code.

“The goal for this development is to provide someone with a nice home that they are proud to own in a lower price range than starter homes in a traditional densely developed subdivision,” said Dustin Arp, president of New Braunfels-based Spark Homes LLC, the subdivision’s developer.

CrossMods, which are only sold with land as real property, are eligible for financing under the same conventional loan terms as site-built, single-family homes through Fannie Mae and Freddie Mac. The two government-sponsored enterprises (GSEs) teamed up with the manufactured housing industry to develop and finance factory-built housing of similar quality to site-built starter homes but at a more affordable price point.

### The Takeaway

Developers have broken ground on the first residential subdivision in Texas consisting entirely of an upgraded class of HUD-code manufactured homes. These “CrossMod” homes qualify for conventional Fannie Mae and Freddie Mac financing.

While Fannie Mae has named its mortgage program MH Advantage, Freddie Mac has chosen the name CHOICE-Home.

“The GSE loan programs offer a rare opportunity for the MH industry to grow from representing only 9 percent of all new home sales annually,” said Dave Busche, director of business development central region at Skyline Champion Homes. “MH finally has the chance to enter into mainstream homebuilding and really participate in the affordable housing solution.”

“You also need a mix of FHA (Federal Housing Administration) and VA (Veterans Affairs) loan products along with the conventional loans being financed by Fannie

and Freddie,” said Arp. “You can’t just offer conventional financing in a development like this. A CrossMod that qualifies under the MH Advantage or CHOICE-Home programs can qualify for an FHA or VA loan. It is just less likely to make value on an appraisal, and the interest rate would be higher when compared with site-built homes. But the real difference is about \$2,000 to \$3,000 in added closing costs from cost surcharges such as points.”

Arp’s least expensive floor plan starts at \$185,000 with no options or upgrades. The majority of homes in the development will be priced between \$200,000 and \$230,000. Lot size is one acre while home sizes range from 1,113 to 1,789 square feet.

“Developers choosing a subdivision model similar to production homebuilding on a typical 1/8-acre lot could probably reduce these prices by about \$15,000 to \$18,000,” Arp said.

## Development Challenges

Demand for factory-built housing in Texas is currently quite strong.

“MH manufacturers are experiencing exceptional backlogs,” said Busche. “If the backlogs continue, the only way to achieve real growth in CrossMod projects is to expand production through new manufacturing plants. But construction of new facilities will be no small task.”

“A big challenge to widespread adoption of CrossMods is going to be sufficient inventory,” Arp said. “If the houses aren’t out there on the ground, consumer acceptance is going to be slow.”

“Two other delay influencers besides backlogs are development timeframes as well as restrictive zoning—‘not in my backyard’ issues,” said Busche. “We have four business development managers at Skyline Champion. Each of us is engaged with multiple CrossMod prospects/projects, some for well over a year. Most new projects are just not ready to accept delivery of homes yet.”

Although Texas does not have county zoning ordinances, allowable zoning for all MH, including CrossMods, inside metropolitan areas remains a challenge.

“Acceptance by municipalities is a key topic in every convention I’ve been to,” said Arp. “Most cities start with a base of codes provided to them by consultants that they can adopt and make small changes to. If we could create a new zoning category for CrossMod that cities would accept, that would be a major breakthrough.” To that

end, Arp makes it a point to drive as many local city and county officials through the subdivision as possible.

Busche states that only four large MH manufacturers in Texas are currently offering CrossMod homes. Skyline Champion’s Athens, Texas, factory, which is providing the CrossMods for Arp’s development, is one of them. Each of Skyline Champion’s four Texas facilities produces a different mix of factory-built homes, with the Athens factory building modular-coded product as well.

Arp also believes real estate agents have to be made more aware of the existence of CrossMods.

“Most agents don’t know that potential homeowners can obtain an attractive home and lot size by purchasing a CrossMod. Unfortunately, it’s hard for them to get involved until the homes are actually out there and available to show,” he said. “If there were sufficient CrossMod developers, I believe we could provide manufacturers with loads of CrossMod sales.”

Appraisals present another challenge. In December 2020, FHA issued a mortgagee letter recognizing a difference between CrossMod and traditional MH for appraisal purposes. As a result, FHA appraisers may include site-built comparables if fewer than two comparable MH Advantage or CHOICEHome sales are available. This appraisal allowance was already acceptable for conventional GSE financing.

“But just because that mortgagee letter is out there doesn’t mean that an appraiser is aware of it,” Arp said.

Based on his banking experience, Arp uses accepted appraisal adjustments to piece together a comparative market analysis for appraisers. He spends considerable time making sure comparable sales support the required sales price he is targeting.

“If they don’t have the knowledge of how to appraise a CrossMod, then no one can buy these products,” he said.

## Developer Skills Affect Affordability

Arp thinks developers who have a more diverse background and skillset will be much more adept at producing the most affordable CrossMod product.

“It’s difficult for any MH developer to be diversified,” he said. “All MH purchases require a retailer’s license, but a retailer generally can’t do the land development. A licensed installer, or a subcontractor working under one, is then responsible for installing the foundation, septic system, and so forth.



"I also believe that if the developer pursues a production homebuilder sales model, with a model home and inventory to show, the product will explain itself. The lower collateral risk that allows Fannie and Freddie to remove cost surcharges such as points stems from the increased marketability of CrossMods. That increased marketability results in higher product acceptance from consumers. I don't think the industry will ever be successful trying to pursue a scattered-site development model where the home is shown at a MH dealership and sold to be put on a homeowner's vacant lot. It needs to be shown in the environment in which it will be placed as a finished product."

Counties also have subdivision regulations that developers must be familiar with.

"An example is sewer treatment," Arp said. "Unless you want to build a treatment facility, which is a lengthy process with the Texas Commission on Environmental Quality, you will need to be familiar with the state requirement for septic tanks."

A civil engineer must also be involved in the project to address issues such as drainage and watersheds. Drainage requirements will come from the area's floodplain administrator who will require an inundation study examining watersheds crossing the property. The civil engineer must come up with a plan to show impact on adjoining neighbors and homeowners.

Arp thinks there doesn't have to be as much homebuyer education if the product is on the ground to view in person.

"The home will speak for itself," he said. "If you follow the guidelines, especially frontal elevation to make it look more like a site-built home, product adoption is immediate. The reality is a developer must find the right piece of land in the right configuration at the right price with the right utilities to the site."

In a 50-mile radius, he might find one piece of land that fits all those requirements.

"It could easily be a year to 18 months from the beginning of this process to selling the first house," Arp said.

Arp also drew up his own homeowners' association rules as well as a 60-page builder's contract.

"We are taking three separate components and, at the time of closing, putting them all together: a garage that is constructed on site, the CrossMod house, and the land," he said.

Arp notes there are separate disclosures and warranties to be considered.

"The garage technically has a separate warranty from the house," he said. "The CrossMod manufacturer will warranty the actual house. The foundation has a totally separate warranty as well."

## Not for All Developers

Developing CrossMods won't be for everyone. Arp summed it up well in a February 25, 2021, podcast for [ManufacturedHomes.com](http://ManufacturedHomes.com).

"Developers are going to want to see my books," he said. "They have all done their own proformas, modeling, and market research. However, unless they identify some of the key efficiencies not currently being exploited by MH retailers pursuing a scattered-site model, CrossMod just won't make sense."

"The key here is to build a product that is visually competitive with an entry level site-built house that remains as affordable as possible. When you exit the affordable segment, you lose that market share where MH could triple the size of the industry in the next six or seven years with enough market participants. You can't be a horizontal developer/land man who wants to outsource everything and then participate in the affordable sector."

Arp believes developers will have to get creative to develop the right efficiencies.

"Some of the savings have to be passed on to the consumer," he said. "We will probably have to offer the buyer an 8 to 10 percent savings over the site-built homes being offered by production homebuilders to initially gain wide acceptance of CrossMods." ♣

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*Dr. Hunt (hhunt@tamu.edu) is a research economist with the Texas Real Estate Research Center at Texas A&M University.*



### *What is a manufactured home?*

A manufactured home (formerly known as a mobile home) is built to the Manufactured Home Construction and Safety Standards (HUD Code) and displays a red certification label on the exterior of each transportable section. Manufactured homes are built in the controlled environment of a manufacturing plant and are transported in one or more sections on a

permanent chassis.

### *What is the difference between manufactured and modular homes?*

Manufactured homes are constructed according to a code administered by the U.S. Department of Housing and Urban Development (HUD Code). The HUD Code, unlike conventional building codes, requires manufactured homes to be constructed on a permanent chassis. Modular homes are constructed to the same state, local or regional building codes as site-built homes. Other types of systems-built homes include panelized wall systems, log homes, structural insulated panels, and insulating concrete forms.

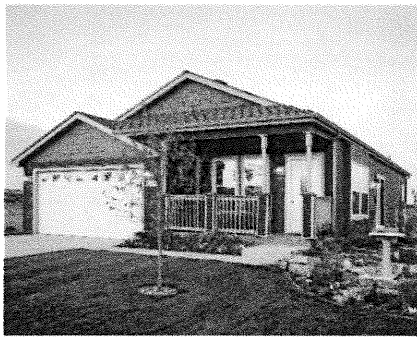


## Understanding Today's Manufactured Housing

The need for quality, affordable housing has never been greater. Today's manufactured homes can deliver outstanding quality and performance at prices that are up to 50 percent less per square foot than conventional site-built homes. These savings allow more and more Americans to own their own home, even in the face of an ever-widening housing affordability gap.

The affordability of manufactured housing is due to the efficiencies of the factory-building process. Manufactured homes are constructed with standard building materials, and are built almost entirely off-site in a factory. The controlled construction environment and assembly line techniques remove many of the problems encountered during traditional home construction, such as weather, theft, vandalism, damage to building products and materials, and unskilled labor. Factory employees are trained and managed more effectively and efficiently than the system of contracted labor employed by the site-built home construction industry.

Much like other assembly line operations, manufactured homes benefit from the economies of scale resulting from purchasing large quantities of materials, products and appliances. Manufactured home builders can negotiate substantial savings on many components used in building a home, with these savings passed on directly to the homebuyer.



Today's manufactured homes have experienced an evolution in the types and quality of homes available to buyers. Technological advances allow manufactured home builders to offer a variety of architectural styles and exterior finishes that will suit most any buyer's dreams while allowing the home to blend in seamlessly into most any neighborhood. Two-story and single-family attached homes are but two of the new styles being generated by factory-built innovation.

At the same time, greater flexibility in the construction process allows for customization of each home to meet a buyer's lifestyle and needs.

Interior features include vaulted ceilings, working fireplaces, state-of-the-art kitchens and baths, and porches, giving the homebuyer all the features found in traditional, site-built homes. Enhanced energy efficiency in manufactured homes, achieved with upgraded levels of insulation and more efficient heating and cooling systems, provide another source of savings for homeowners, especially in this era of rising energy costs. Smart buyers also are turning to EnergyStar-labeled manufactured homes for substantial savings in many aspects of owning and operating home.

Technological advances, evolutionary designs, and a focus on delivering quality homes that families can afford are the driving forces within the manufactured housing industry. That's why more people are turning to manufactured housing to deliver homes that fit their needs and wants, at prices they can afford.

## Cost & Size Comparisons of New Manufactured & New Single-Family Site-Built Homes

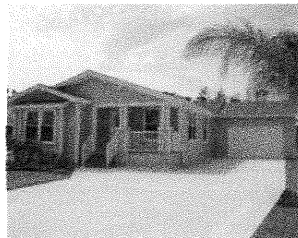
### New Manufactured Homes *(Includes typical installation cost, excludes land cost)*

Year	2012	2013	2014	2015	2016
<u>All Homes</u>					
Average Sales Price	\$62,200	\$64,000	\$65,300	\$68,000	\$70,600
Average Square Footage	1,480	1,470	1,438	1,430	1,446
Cost Per Square Foot	\$42.02	\$43.54	\$45.41	\$47.55	\$48.82
<u>Single-Section</u>					
Average Sales Price	\$41,100	\$42,200	\$45,000	\$45,600	\$46,700
Average Square Footage	1,100	1,100	1,115	1,092	1,075
Cost Per Square Foot	\$37.36	\$38.36	\$40.36	\$41.76	\$43.44
<u>Multi-section</u>					
Average Sales Price	\$75,700	\$78,600	\$82,000	\$86,700	\$89,500
Average Square Footage	1,725	1,720	1,710	1,713	1,746
Cost Per Square Foot	\$43.88	\$45.70	\$47.95	\$50.61	\$51.26

### New Single-Family Site-Built Homes Sold *(House and the land sold as a package)*

Average Sales Price	\$292,200	\$324,500	\$345,800	\$360,600	\$372,500
Less Land Price	- 69,115	- 75,071	- 84,628	- 84,316	-85,686
Price of Structure	\$223,085	\$249,429	\$261,1729	\$276,284	\$286,814
<hr/>					
Average Square Footage	2,585	2,662	2,690	2,745	2,676
Cost Per Square Foot	\$86.30	\$93.70	\$97.10	\$100.65	\$107.18

Source: U.S. Census Bureau (Note – Data from 2013 and prior are not comparable to 2014 and beyond)



FACTORY-BUILT HOUSING

Many types of structures are built in the factory and designed for long-term residential use. In the case of manufactured and modular homes, units are built in a factory, transported to the site and installed. In panelized and pre-cut homes, essentially flat subassemblies (factory-built panels or factory-cut building materials) are transported to the site and assembled. The different types of factory-built housing can be summarized as follows:

**Manufactured Homes:** These are homes built entirely in the factory, transported to the site, and installed under a federal building code administered by the U.S. Department of Housing and Urban Development (HUD). The Federal Manufactured Home Construction and Safety Standards (commonly known as the HUD Code) went into effect June 15, 1976. The federal standards regulate manufactured housing design and construction, strength and durability, transportability, fire resistance, energy efficiency and quality. The HUD Code also sets performance standards for the heating, plumbing, air conditioning, thermal and electrical systems.

It is the only federally-regulated national building code. On-site additions, such as garages, decks and porches, often add to the attractiveness of manufactured homes and must be built to local, state or regional building codes.

**Modular Homes:** These factory-built homes are built to the state or regional code where the home will be located. Modules are transported to the site and installed.

**Panelized Homes:** These are factory-built homes in which panels—a whole wall with windows, doors, wiring and outside siding—are transported to the site and assembled. The homes must meet state or local building codes where they are sited.

**Pre-Cut Homes:** This is the name for factory-built housing in which building materials are factory-cut to design specifications, transported to the site and assembled. Pre-cut homes include kit, log and dome homes. These homes must meet local, state or regional building codes.

**Mobile Homes:** This is the term used for manufactured homes produced prior to June 15, 1976, when the HUD Code went into effect. By 1970, these homes were built to voluntary industry standards that were eventually enforced by 45 of the 48 contiguous states.

## THE HUD CODE

Just as site-built homes are constructed according to a specific building code to ensure proper design and safety, today's manufactured homes are constructed in accordance with the HUD Code. The United States Congress laid the foundation for the HUD Code in the National Manufactured Housing Construction and Safety Standards Act of 1974, which was enacted because of three inter-related reasons:

The interstate shipment of homes from the plant to the retailer to the home site meant that the manufacturer—prior to the advent of the HUD Code—ordinarily did not know in advance which code would apply; States were not able to effectively and uniformly regulate manufactured home construction and safety issues; and Congress wished to preserve access to affordable housing for middle and lower income families.

In its legislation, Congress directed the Secretary of the U.S. Department of Housing and Urban Development (HUD) to establish appropriate manufactured home construction and safety standards that "...meet the highest standards of protection, taking into account existing state and local laws relating to manufactured home safety and construction." Every manufactured home is built in a factory, under controlled conditions, and has a special

label affixed on the exterior of the home indicating that the home has been designed, constructed, tested and inspected to comply with the stringent federal standards set forth in the code. No manufactured home may be shipped from the factory unless it complies with the HUD Code and is released for shipment by an independent third-party inspector certified by HUD.

The HUD Code is unique since it is specifically designed for compatibility with the factory production process. Performance standards for heating, plumbing, air conditioning, thermal and electrical systems are set in the code. In addition, performance requirements are established for structural design, construction, fire safety, energy efficiency, and transportation from the factory to the customer's home site. Manufactured homes are constructed with virtually the same materials used in site-built homes. However, in contrast to traditional site-building techniques, manufactured homes have the advantage of using engineered design applications and the most cost-efficient assembly-line techniques to produce a quality home at a much lower cost per square foot. To ensure quality, the design and construction of the home is monitored by both HUD and its monitoring contractor. The familiar red seal (the certification label) attached to the exterior of a manufactured home indicates that it has undergone and passed perhaps the most thorough inspection process in the home building industry.

### **Is the HUD Code less stringent than state or local building codes?**

Although the HUD Code is more performance-based while model codes, such as the International Residential Code (used by many state and local jurisdictions to regulate site-built housing) tend to be more prescriptive, independent analyses and comparisons of the HUD and IRC generally come to the conclusion that they are comparable in nature. A 1997 comparison study of the HUD and CABO Codes (predecessor to the IRC) by the University of Illinois Architecture-Building Research Council stated:

*"There are many similarities in these codes, along with minor differences of slight consequence and some differences of notable consequence. On balance, the codes are comparable."*<sup>1</sup>

While some areas of the CABO Code are deemed "more restrictive" than the HUD Code in the University of Illinois study, there are also areas where the HUD Code is deemed more restrictive than the CABO Code, such as in ventilation, flame spread, structural loads, window construction, vapor retarders and service wiring.

While some believe the HUD Code is solely responsible for the affordable nature of manufactured housing, the National Association of Home Builders Research Center, in a report prepared for HUD, concluded that:  
*...the net cumulative effect of the differences between the two codes is more likely on the order of hundreds of dollars, rather than thousands of dollars per unit.*<sup>2</sup>

<sup>1</sup> Jeffrey Gordon and William B. Rose, *Code Comparison Summary, University of Illinois at Urbana—Champaign School of*

*Architecture, published by the Manufactured Housing Institute, December 1997*

<sup>2</sup> NAHB Research Center, *Factory and Site-Built Housing: A Comparative Analysis, U.S. Department of Housing & Urban*

*development, Office of Policy Development and Research, October 1998*

A recent study by Dr. K. R. Grosskopf of the University of Florida found that not one manufactured home built and installed after 1994 Code changes was destroyed or seriously damaged by four hurricanes that struck Florida in 2004.

In fact, it could be argued that the HUD Code, is more restrictive than most site built codes, because of its robust, uniform federal compliance program, which ensures that every home built meets the prescribed code.

#### THE "AFFORDABILITY" FACTOR

The affordability of manufactured housing is mainly attributable to the efficiencies of the factory process. The controlled environment and assembly-line techniques remove many of the problems of the site-built sector, such as poor weather, theft, vandalism and damage to building products and materials stored on site. Also, factory employees are trained, scheduled and managed by one employer, as opposed to the system of contracted labor in the site-built sector.

Manufactured home producers also benefit from the economies of scale which result from being able to purchase large quantities of building materials and products. As a result they are able to negotiate the lowest possible price for items that are invariably more expensive in a site-built house.

According to a 2002 report released by the Millennial Housing Commission, manufactured housing remains one of the largest sources of non-subsidized housing in the nation. The report also cites that manufactured housing accounted for almost 72% of the growth in the nation's affordable housing stock in the 1990s. It is imperative that manufactured housing remain affordable to those that need it most.

According to the 2002 Apgar Report, "An Examination of Manufactured Housing as a Community- and Asset-Building Strategy," over the past decade and a half, manufactured housing has emerged as an important affordable housing option. Among households with very-low incomes (less than 50% of AMI) 23 percent of homeownership growth between 1993 and 1999 came from manufactured housing.

#### THE INSPECTION SYSTEM FOR MANUFACTURED HOMES

It can generally be acknowledged that a building code is only as good as the enforcement system that accompanies it. The manufactured home enforcement program required by the U.S. Department of Housing and Urban Development (HUD) is a thorough and efficient system designed specifically for the factory production environment. Because the factory pace differs from that of the construction site, the manufactured home enforcement system is necessarily different, too. However, the goal in both cases is the same—to ensure the highest degree of safety in the design and construction of the home. The HUD enforcement system relies on a cooperative federal/state program to ensure compliance with the Federal Manufactured Home Construction and Safety Standards (the HUD Code). The Department of Housing and Urban Development enforces the HUD Code through its monitoring contractor. Uniformity and consistency can be maintained better in the HUD enforcement system because of two key factors. First, the inspections take place in the factory and follow behind the manufacturer's own in-plant inspection and quality assurance teams. This allows for more thoroughness, since time is spent inspecting homes rather than traveling to inspection sites. Efficiency is increased because travel time is limited and necessary paperwork is minimized. Second, consistency is maintained because the home is inspected by a third party during the construction process. The enforcement procedure is much less susceptible to individual interpretations, as would be the case with on-site inspections in every jurisdiction across the country.

### **Inspection Starts Before Production Starts**

The HUD enforcement system begins with oversight by the Design Approval Primary Inspection Agency (DAPIA). The DAPIA (a third-party inspection agency) must: approve the engineering design of the home; approve the manufacturer's quality assurance manual for its plant; and coordinate with the other third-party inspection agency, known as the IPIA. The Production Inspection Primary Inspection Agency (IPIA) has the responsibility to make sure the production facility programs and procedures are in accordance with the DAPIA approved quality assurance manual; and, it conducts inspections of homes produced in the factory to assure conformance with the approved design. Three interesting notes: 1) every home is inspected during at least one stage of production; 2) in the course of each plant visit, the IPIA makes a complete inspection of every phase of production and every visible part of each home in production; and 3) when a new plant is opened by the manufacturer, the first home built according to approved plans is inspected 100 percent— every step in the building process undergoes close scrutiny by the inspection agency. Along with this, the audit inspection teams of HUD's monitoring contractors conduct representative inspections as a check on the performance of the third-party inspection agents and the manufacturer.

Keep in mind that all this is in addition to the inspections carried out by the manufacturer's own foremen and its quality assurance inspectors.

### **Certification Assures the Homebuyer**

Before leaving the factory, each home must have a numbered certification label affixed to the exterior of each section of the home. This label certifies to the homebuyer that the home has been inspected in accordance with the HUD enforcement procedures and that it complies with the HUD building code. Only when all inspection parties are satisfied that the home complies with the code will the certification label be affixed to the home. A consumer seeing the home for the first time will have the assurance that the home has been thoroughly tested and inspected from the design stage through final construction and found to be built according to the approved design.

### DESIGN INNOVATIONS IN MANUFACTURED HOUSING

In the last several years, the manufactured housing industry has seen rapid growth in the aesthetic variety of manufactured housing, helping the homes appeal to a broader market than ever before. The addition of new plants and the introduction of new transportation technologies have enabled factories to increase interior ceiling height up to nine feet on many homes. Also, "hinged roof" systems allow designers to produce homes with roof pitches of up to 12:12, so that manufactured homes can blend seamlessly into existing neighborhoods. The single most important advancement in the industry over the last seven years has been the development of two-story models. Until recently, engineering and materials technology, the physical constraints of many factories, and transportation issues made the possibility of multi-story manufactured homes seem like a pipe dream. However, the development of innovative chassis and transportation systems have enabled manufacturers and developers to work together to produce attractive and affordable two-story units. While multi-story models are still a small percentage of the overall manufactured housing market, the tremendous consumer interest in the concept will translate into more and more manufacturers adding them to their housing lineup.



## WHY ARE BUILDER-DEVELOPERS USING MANUFACTURED HOMES?

Successful builder-developers have discovered that manufactured housing can help them:

- *Effectively expand their current market*

With a minimum of time, labor and cost, builders can add substantially to their annual production by using manufactured homes.

- *Provide a high-quality product at a lower cost than site-built housing*

Factory building maximizes efficiencies and takes advantage of economies of scale to produce a comparable product at significantly less cost.

- *Meet pent-up consumer demand for entry-level, single-family detached housing*

Rising costs have made it difficult to build for the entry-level home buyer. Manufactured housing makes it possible for the builder-developer to meet the needs of this growing market.

- *Produce housing using significantly less on-site labor*

The factory essentially functions as one huge subcontractor on the structure of the house itself. This makes the builder-developer less vulnerable to the problems of a shrinking construction labor pool.

- *Secure long-term income*

Land-lease communities in particular offer an attractive long-term stream of income that builders can depend on—something almost unheard of in single-family residential development.

- *Utilize property that might otherwise be financially or technically difficult to develop*

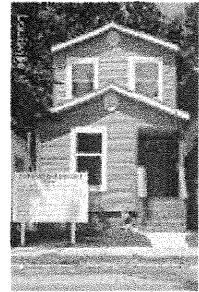
Manufactured homes can help builder-developers build new homes in cost-sensitive markets, take advantage of difficult or environmentally sensitive home sites, and make the most of lots in areas where security is a concern. Many builders also like the ability to additionally customize the house on site by adding such features as garages, porches and decks.

## MANUFACTURED HOUSING REVITALIZES URBAN AREAS

In an effort to address housing affordability in urban and suburban areas, the Manufactured Housing Institute (MHI) announced a project to bring manufactured homes to five major urban areas. Working in conjunction with Susan Maxman & Partners, a nationally recognized architectural firm, the project focused on Wilksburg, Pennsylvania; Washington, D.C.; Louisville, Kentucky; Birmingham, Alabama; and Milwaukee, Wisconsin.

The project was intended to address the outdated assumption that manufactured homes are not appropriate for placement in major urban and suburban areas. Also, the project was designed to highlight any impediments and challenges to using manufactured homes, and help pave the way for a more extensive use of manufactured housing in future efforts.

The concept for the MHI Urban Design Project called for MHI to work closely with local government officials, neighborhood groups, and residential developers in bringing this new resource to urban areas, which are suffering from an unprecedented housing affordability crisis. Based on feedback from these neighborhood groups and local public officials, the project architects designed the homes to reflect the local character and architectural style of the surrounding neighborhood. As with any pilot project, the success of the effort varied from city to city. However, all of the lessons learned have been invaluable, and will assist others in taking advantage of manufactured homes to provide housing.



#### SITING AND PLACEMENT OF MANUFACTURED HOMES

According to the U.S. Census in 2015, 66 percent of manufactured homes were placed on private property, while the remaining 34 percent were sited in residential land-lease communities. The percentage of manufactured homes placed on private property has been growing over the last decade, and this trend is expected to continue as more and more residential land is zoned appropriately to allow for manufactured housing.

Rural and suburban markets have traditionally been the stronghold of the industry. While this remains true even today, manufactured homes are increasingly being used in urban areas. Two converging factors virtually ensure manufactured housing will play an ever growing role in providing housing in urban neighborhoods—the escalating cost of new housing, and the rising use of technological and design innovations in homes.

#### **Are manufactured homes more vulnerable to fire than site-built homes?**

Manufactured homes are no more prone to fire than homes built on-site. As a matter of fact, a 1986 national fire safety study by the Foremost Insurance Company showed that site-built homes are more than twice as likely to experience a fire than manufactured homes. The study showed that the number of home fires is 17 per 1,000 for site-built homes, while only eight per 1,000 for manufactured homes.<sup>3</sup>

A 2011 report on “Manufactured Homes Fires in the U.S.,” by Dr. John R. Hall Jr., National Fire Protection Association, compared manufactured homes and other dwelling fire experiences in the mid-1990’s. It found that the fire death rate in HUD Code homes built after 1976 is equivalent to other single family homes. In addition, the report found that manufactured homes have a lower incidence of fires and lower injury rates than other single family homes. According to the report, the fire experience rate was 38 to 44 percent lower than the rate for other dwellings.<sup>4</sup>

<sup>3</sup> *Foremost Insurance Group of Companies, Fire Loss Study, 1986*

<sup>4</sup> *Manufactured Home Fires, Dr. John R. Hall, Jr., National Fire Protection Association, October 2011*

Some fire resistance features of the HUD Code include strict standards for flame spread and smoke generation in materials, egress windows in bedrooms, smoke detectors, and at least two exterior doors, which must be remote from each other and reachable without passage through other doors that are lockable. Single-story site-built homes are required to have only one exterior door, and there is no “reachability” requirement.

Historically, a key factor in the severity of fires in manufactured homes is that there are a significantly higher percentage of manufactured homes in rural areas than in urban areas, while the percentage of site-built homes is much higher in urban/suburban areas. A fire in a home located in a rural area has a greater chance of

becoming a “total fire” because of the increased amount of time needed for fire equipment to reach the home, since it may be outside a fire-protected zone.

Studies indicate that the majority of fires in manufactured homes are related to human carelessness, disproving the assumption that the construction standards are at fault. Further complicating the situation are reports from fire safety and government experts that more than a third of fires in post-HUD Code manufactured homes occurred in homes having no functioning smoke alarm present. Yet, every HUD-code manufactured home is built with a smoke detector to protect each bedroom area.

#### IMPACT OF MANUFACTURED HOUSING ON PROPERTY VALUES

For years, many people have believed that having manufactured housing, either on a scattered site or in communities, near or adjacent to site-built housing would depreciate the property values of the site-built housing. There is little evidence to support this notion. In fact, all the recent studies on the subject have come to the conclusion that manufactured homes, either in communities or on individual lots, have no impact on the property values of site-built homes that are adjacent to or in close proximity to them.

One of the first studies to tackle this issue was produced in 1986 by the Joint Center for Housing Studies of the Massachusetts Institute of Technology and Harvard University. In its analysis of a New Hampshire town without zoning restrictions for manufactured housing, the authors could find no statistically significant evidence that manufactured housing had any impact on adjacent site-built homes.<sup>5</sup>

This conclusion was also supported by a 1993 study by the University of Michigan’s College of Architecture and Planning. In its examination of the impact of three Michigan manufactured home communities on adjacent residential property values, the authors stated:

*...in all the cases we reviewed, the adjacent residential property values showed substantial rates of appreciation that were similar to the appreciation of comparable non-adjacent properties. We found that neither the private market nor local public officials differentiate between adjacent and non-adjacent properties when valuation levels are established.<sup>6</sup>*

<sup>5</sup> Thomas E. Nutt-Powell, David Hoaglin and Jonathan Layzer, *Residential Property Value and Manufactured Homes, Working Paper 86-1, Joint Center for Housing Studies of the Massachusetts Institute of Technology and Harvard University, 1986*

<sup>6</sup> Kate Warner and Jeff Scheurer, *Manufactured Housing Impacts on Adjacent Property Values, Manufactured Housing Research Project Report No. 4, University of Michigan College of Architecture & Urban Planning, 1993*

And in 1997, the East Carolina University Department of Planning conducted the most extensive study to date on the topic. Using Geographical Information Systems (GIS) and spatial analysis, the authors analyzed the impact of both scattered manufactured housing and manufactured home communities on neighboring site-built homes in four North Carolina counties (Carteret, Henderson, Pitt and Wake). Even this extensive study came to the conclusion that the presence of manufactured home communities or individual manufactured homes had no impact on the property values of adjacent site-built residential properties.<sup>7</sup>

## **Do manufactured homes appreciate in value?**

When properly sited and maintained, manufactured homes will appreciate like any other form of housing in the neighborhood. But, as with all housing, it is subject to the same market factors which affect appreciation. The factors that impact future value include:

- the housing market in which the home is located;
- the community in which the home is located;
- the initial price paid for the home;
- the age and maintenance of the home;
- the inflation rate;
- the availability and cost of community sites, which reflects the supply and demand influences on the home's value; and
- the extent of an organized resale network, where an organized network will usually result in homes selling for a higher price than in markets without such an organized network.

## IMPACT OF MANUFACTURED HOUSING ON LOCAL COMMUNITY SERVICES

Some local government officials have discouraged the use of manufactured housing in their community because of the belief that the tax revenue from manufactured housing is less than site-built homes and therefore will not be enough to offset the cost of additional local government services (e.g. schools, roads, sewers, etc.). Obviously, all housing developments, whether they are site-built or manufactured, have to be evaluated on a case-by-case basis as to their impact on services, but it is unfair to characterize manufactured housing as not paying its fair share.

Where manufactured homes are titled as real property, those homeowners are assessed property taxes at the same rate as the owners of site-built homes, so they are paying their fair share. And many people also do not understand that in the case of land-lease communities, the homeowners pay taxes on the house and the community owner pays property taxes on the land. Some community owners also pay taxes to the local government on the rental income derived from the community. Also, since most streets and utilities in land-lease communities are installed and maintained by the developer, local governments are spared the cost of installation and maintenance of this infrastructure.

<sup>7</sup> *Guaqiang Shen and Richard Stephenson, The Impact of Manufactured Housing on Adjacent Site-Built Residential Properties in North Carolina, East Carolina University Department of Planning, 1997*

The bottom line is that manufactured housing gives many people the chance to join the ranks of homeowners for the first time and therefore increases the overall homeownership rate in the community. That translates into more tax revenue and economic vitality for local governments.

## **Are manufactured homes more susceptible to damage from tornadoes and hurricanes?**

There is no meteorological or scientific basis to thinking that manufactured homes attract tornadoes. It is estimated that approximately 40 percent of all tornadoes have winds in excess of 112 miles-per-hour and can exceed 200 miles-per-hour in extreme cases. Current building codes and practices, for either manufactured or

site-built homes, are not designed to withstand severe tornadoes. A direct hit from a tornado will bring about severe damage or destruction of any home in its path—site-built or manufactured. When it comes to hurricanes, valuable lessons were learned from the devastation of Hurricane Andrew in 1992. With winds in excess of 140 miles-per-hour, thousands of site-built and manufactured homes suffered extensive damage. Within weeks of the storm, the manufactured housing industry endorsed appropriate improvements of the wind resistance of manufactured homes, and, in July 1994, the U.S. Department of Housing and Urban Development (HUD) issued revisions to the wind safety provision of the HUD Code. Updates were issued 2005-2007. Now, in areas prone to hurricane-force winds (known as Wind Zones II and III according to HUD's Basic Wind Zone Map), the standards for manufactured homes are equivalent to the current regional and national building codes for site-built homes in these wind zones.

During four hurricanes that struck Florida in 2004, not one manufactured home built and installed after 1994 was destroyed by hurricane force winds. The same phenomenon occurred in the Gulf Coast region during Hurricane Katrina, with newer manufactured homes performing beyond expectations.

#### FINANCING MANUFACTURED HOUSING

Today's buyer of both new and existing manufactured homes may choose from several different financing options. Some financial institutions offer an entire menu of lending programs. The house can be financed as personal property, on leased land, in a manufactured home community or on a privately owned site. Buyers who desire to acquire land in conjunction with the home can finance the land and home together. Properly financed, the purchase of a manufactured home should lead to equity building for the homeowner.

Manufactured homes can be financed as personal property. Even when the home and land are financed together, the home is often secured as personal property and the land as real property. A growing number of buyers are opting to put their homes on land they are purchasing or already own. Traditional manufactured home personal property lenders have created land-and-home financing programs designed to accommodate this trend.

Homebuyers may also finance their home and land together as real property using conventional mortgage financing obtained through a traditional mortgage lender. Fannie Mae and Freddie Mac, the primary secondary market sources for mortgage loans in the U.S., encourage this with their guidelines for accepting real estate mortgage loans for 20 and 30 year terms secured by manufactured homes. The federal government also guarantees homes under the Veterans Administration's (VA's) Home Loan Guarantee program and the United States Department of Agriculture's (USDA's) Rural Housing Programs. Qualified homebuyers may also obtain loans insured by the United States Department of Housing and Urban Development's (HUD's), Federal Housing Administration (FHA).

#### ABOUT THE MANUFACTURED HOUSING INSTITUTE (MHI)

The Manufactured Housing Institute (MHI) is a nonprofit national trade association representing all MHI is the preeminent national trade association for the manufactured and modular home businesses, representing all segments of these industries before Congress and the Federal government. From its Washington, D.C. area headquarters, MHI actively works to promote fair laws and regulation for all MHI members and the industry. For more information on MHI, visit [www.manufacturedhousing.org](http://www.manufacturedhousing.org).

1655 Fort Myer Drive, Suite 104, Arlington, VA 22209 Tel 703.558.0400  
[www.manufacturedhousing.org](http://www.manufacturedhousing.org)    [info@mfgghome.org](mailto:info@mfgghome.org)

From: Sean McDonald <sean@myvnb.com>  
Sent: Wednesday, June 9, 2021 10:42 PM  
To: Rick Schroder <rschroder@johnsoncitytx.org>  
Cc: Brent J Sultemeier <bsultemeier@johnsoncitytx.org>; Fred Ballard <Fred@bluehorse.build>; Natalie Roberts <natalie@myvnb.com>; Rhonda Stell <rstell@johnsoncitytx.org>; Whitney Walston <wwalston@johnsoncitytx.org>  
Subject: Re: City of Johnson City Development

Rick,

We will gladly present to City Council. However, as a point of clarification, based on our last meeting we were told this was accepted by you all especially after the call that was had with the inspector. You said in that meeting that we were good and the letter was going to be a follow up so that we could have the documentation needed to show to Skykine Champion. We also shared in that meeting that this project would not move forward without being able to use HUD code and the timeline was important for us for feasibility which has now expired as of last Thursday, and all of our deposits are now non-refundable. Our meeting with you was so we would know if the project would work or not. We were certain we left the last meeting with the assurance on this key item that it would.

We now have a short closing date that will require \$4.5 million dollars and another \$7M in development costs that we are not going to spend if this can't be worked out very quickly.

We are asking as a developer for the city to work with us in short fashion to create a win/win for a project that Johnson City needs and we have a strong desire to build.

Please let us know the next steps Rick.

Thank you,

Sean

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On Wed, Jun 9, 2021 at 3:17 PM Rick Schroder <rschroder@johnsoncitytx.org> wrote:

Sean –

I do not feel comfortable making a determination on this without City Council input and approval. The Zoning Code does not permit Single-family Industrialized Housing in Mixed Residential zoning districts; however, it does not define the term either. The Code also prohibits HUD-Code structures within Mixed Residential; but the intent of that was to prohibit mobile homes.

I would feel much more comfortable having you present the concept to the full Council and having them make the decision. In other words, I'm punting the ball on this one.

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From: Sean McDonald <sean@myvnb.com>  
Sent: Wednesday, June 9, 2021 11:32 AM  
To: Rick Schroder <rschroder@johnsoncitytx.org>  
Cc: Fred Ballard <Fred@bluehorse.build>; Brent J Sultemeier <bsultemeier@johnsoncitytx.org>; Rhonda Stell <rstell@johnsoncitytx.org>; Whitney Walston <wwalston@johnsoncitytx.org>; Natalie Roberts <natalie@myvnb.com>  
Subject: Re: City of Johnson City Development

Rick,

Thank you for your response and recap. To clarify, we are asking the City to fully approve HUD code homes to be built for the 92 acre site minus the 10 acres that you proposed we could build high density based upon review and approval. This would include the review of plans and inspection of homes in accordance with Federal HUD Code Standards, which is typically only used for manufactured housing – not modular housing. We are asking the City to allow the placement of each home on a permanent foundation without removing its steel chassis among all other variables that differ from MOD code.

The HUD code homes being built within the 92 acre site are regulated by the Texas Department of Licensing and Regulation (TDLR), and TDLR will provide a blue decal signifying that the home is built to the HUD code standards required for each plan. TDLR differentiates modular from manufactured housing by clarifying that modular (MOD) housing is “constructed to the same codes as site built housing.” Manufactured housing is constructed to Federal HUD Code Standards. As a manufactured HUD code home, once installed on a parcel, the HUD home will become part of the real property, Federally backed by Fannie Mae and able to obtain a 30 year mortgage.

HUD code housing (also known as MH Advantage) are installed in accordance with the manufacturer’s specifications or to the unique site details sealed by a professional engineer or architect and approved by the State. Site work will include a permanent foundation, the home installation, and utilities. All HUD code housing will be inspected by an in-plant inspector and a third-party inspector prior to delivery to the site. The City is responsible for all inspections once the house reaches the site.

Once purchased, the builder will provide to the homeowner the following:

- Name, address, and registration number of the builder;
- Location of the data plate;
- Location of the decal;
- Floor plan and schematics;
- Site plan;
- Energy compliance checklist;
- Set of approved plans; and
- Stamped foundation drawings.

Rick, please let me know if there is any further clarification needed and thank you very much for working with us on this project. I have also included a link to an article that went live in the Texas A&M Real Estate Center's Tierra Grande magazine.

<https://www.recenter.tamu.edu/articles/tierra-grande/It's-Real-2305>

We are looking forward to developing and building a very successful community that we strongly believe will be an asset to Johnson City.

SEAN MCDONALD  
Founder  
Cell: 480-760-1884  
sean@myvnb.com

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On Thu, Jun 3, 2021 at 12:58 PM Rick Schroder <rschroder@johnsoncitytx.org> wrote:

Sean and Fred,

I am drafting a letter to you, as requested on May 27th; however, I would like you to confirm compliance with the following:

You are proposing to develop an approximate 92 acre development comprised of "industrialized" or "modular" homes. The Texas Occupations Code Sec. 1202.002 defines an "industrialized" or "modular" home as a structure "designed for the occupancy of one or more families, that is constructed in one or more modules or constructed using one or more modular components built at a location other than the permanent site; and designed to be used as a permanent residential structure when the module or the modular component is transported to the permanent site and erected or installed on a permanent foundation."

Said homes are regulated by the Texas Department of Licensing and Regulation (TDLR), and TDLR will provide a blue decal signifying that the home is built to the model code standards required. TDLR differentiates modular from manufactured housing as housing "constructed to the same



codes as site built housing.” Manufactured housing is constructed to Federal HUD Code Standards. Unlike manufactured housing, titles are not issued to modular homes, as a modular home, once installed on a parcel, becomes part of the real property.

As the proposed product is a modular structure, TDLR requires licensing of the industrialized builder. Champion Home Builders, Inc. is registered with TDLR under Registration No. IHB-1560 and located at 755 W. Big Beaver Rd., Ste. 1000, Troy, MI 48084.

Industrial housing is installed in accordance with the manufacturer’s specifications or to the unique site details sealed by a professional engineer or architect and approved by the City. Site work will include a permanent foundation, modular installation, and utilities.

Industrial housing will be inspected by an in-plant inspector and a third-party inspector prior to delivery to the site. The City is responsible for all inspections once the house reaches the site.

Once purchased, the builder will provide to the homeowner the following:

- Name, address, and registration number of the builder;
- Location of the data plate;
- Location of the decal;
- Floor plan and schematics;
- Site plan;
- Energy compliance checklist;
- Set of approved plans; and
- Stamped foundation drawings.

You are asking the City to review plans and inspect homes in accordance with Federal HUD Code Standards, which is typically only used for manufactured housing – not modular housing. You are also asking the City to allow the placement of each home on a permanent foundation without removing its steel chassis. Rather, you are proposing to bolt the steel chassis directly onto the poured foundation.

Please advise if the above is correct and will be complied with.

Best,

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**From:** Sean McDonald <sean@myvnb.com>  
**Sent:** Thursday, May 13, 2021 2:53 PM  
**To:** Rick Schroder <rschroder@johnsoncitytx.org>  
**Cc:** Fred Ballard <fred@bluehorse.build>; Natalie Roberts <natalie@myvnb.com>  
**Subject:** Re: Re:

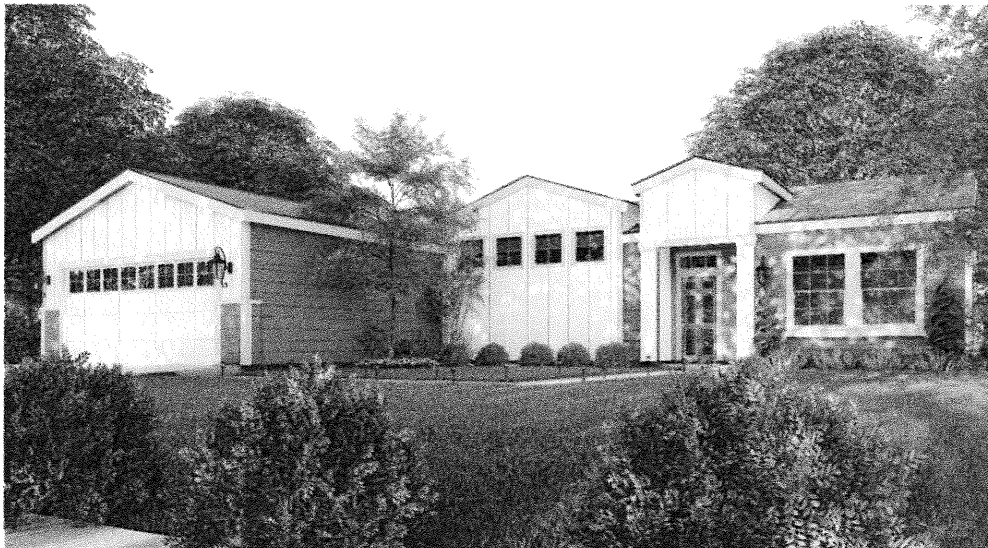
Rick,

Here is a [video](#) that gives a brief vision of the Genesis Homes product and also includes the technology and customer engagement experience.

<https://youtu.be/of6dSf7vWoA>

Below are also some renderings that will give you a snapshot of the quality, style and design that we will be building.

Looking forward to meeting you and the team in person on Monday.





SEAN MCDONALD  
Founder  
Cell: 480-760-1884  
[sean@myvnb.com](mailto:sean@myvnb.com)

**VANGUARD**  
NATIONAL BUILDER GROUP

## ARTICLE 3.02 TECHNICAL AND CONSTRUCTION CODES AND STANDARDS

### Division 1. Generally

#### Sec. 3.02.001 Popular name

This article may be referred to as the “building code ordinance.” (Ordinance 13-004, sec. 1(A), adopted 2/5/13)

#### Sec. 3.02.002 Purpose

This article is adopted so that the city council may promote the public health, safety, morals and general welfare within the city through the regulation of certain construction activities. (Ordinance 13-004, sec. 1(C), adopted 2/5/13)

#### Sec. 3.02.003 Compliance required

(a) It shall be unlawful for any person to alter, build, construct, demolish, erect, extend, install, modify, move, relocate, remodel, or remove a building, site place, or structure in a manner not in compliance with this article.

(b) It shall be unlawful for any person to grade or fill in a manner not in compliance with this article.

(c) It shall be unlawful for any person to construct a swimming pool or septic system in a manner not in compliance with this article.

(Ordinance 13-004, sec. 1(D), adopted 2/5/13)

#### Sec. 3.02.004 Scope of jurisdiction

The provisions of this article shall apply within the city limits (i.e., incorporated municipal boundary) of the city. (Ordinance 13-004, sec. 1(E), adopted 2/5/13)

#### Sec. 3.02.005 Applicability

This article shall not apply to properties upon which construction lawfully commenced prior to the adoption of the ordinance from which this article derives. Construction initiated prior to the adoption of the ordinance from which this article derives shall remain subject to previously adopted building codes unless the owner opts to comply with this article through written notification to the city. (Ordinance 13-004, sec. 1(F), adopted 2/5/13)

#### Sec. 3.02.006 Permit fees

No permit required by the building code shall be issued until the fees prescribed in section 3.01.001 have been paid; nor shall any amendment to a permit be approved until the additional fees, if any, have been paid.

(Ordinance 13-004, sec. 1(H), adopted 2/5/13)

#### Sec. 3.02.007 Enforcement

(a) Civil and criminal penalties. The city shall have the power to administer and enforce the provisions of this article and the codes adopted by this article as may be required by governing law. Any person violating any provision of this article or the codes herein adopted is subject to suit for injunctive relief as well as prosecution for criminal violations. Any violation of this article is hereby declared to be a nuisance.

(b) Criminal prosecution. Any person violating any provision of this article or the codes herein adopted shall, upon conviction, be fined a sum not exceeding \$2,000.00. Each day that a provision of this article is violated shall constitute a separate offense. An offense under this article is a misdemeanor.

(c) Civil remedies. Nothing in this article shall be construed as a waiver of the city’s right to bring a civil action to enforce the provisions of this article and the codes herein adopted, and to seek remedies as allowed by law, including, but not limited to the following:

(1) Injunctive relief to prevent specific conduct that violates this article or to require specific conduct that is necessary for compliance with this article;

(2) A civil penalty up to \$100.00 a day when it is shown that the defendant was actually notified of the provisions of this article and after receiving notice committed acts in violation of this article or failed to take action necessary for compliance with this article; and

(3) Other available relief.

(Ordinance 13-004, sec. 11, adopted 2/5/13)

**Sec. 3.02.008 Code conflicts**

If any provision of this article shall be interpreted as conflicting with or being contrary to a provision in any of the codes adopted by this article, the more stringent requirement shall govern. If in case of a conflict it is not easily discernible which provision is more stringent, the requirements stated in the text of this article shall govern.

(Ordinance 13-004, sec. 12, adopted 2/5/13)

**Secs. 3.02.009–3.02.050 Reserved**

**Division 2. Residential Building Code**

**Sec. 3.02.051 Adopted**

The city hereby adopts a certain document, one copy of which is on file in the office of the city secretary, being marked and designated as the 2015 edition of the “International Residential Code for One- and Two-Family Dwellings,” published by the International Code Council, Inc., as may be amended. Such document, as may be amended, is hereby adopted as the “residential building code” of the city for regulating the design, construction, quality of materials, erection, installation, alteration, repair, location, relocation, replacement, addition to and use or maintenance of one- and two-family dwellings and townhouses not more than three stories in height in the city, and providing for the issuance of permits and collection of fees therefor; and each and all regulations, provisions, conditions and terms of such International Residential Code, which is adopted and made a part hereof as if fully set out in this division. The residential building code shall also include the certain appendix chapters as may be designated by the city council. The city council specifically adopts appendix G of this code. (Ordinance 16-0703 adopted 7/5/16)

**Sec. 3.02.052 Permit required**

It shall be unlawful for any person to build residential buildings or structures within the city without first applying for and receiving a permit. It shall also be unlawful to build within the city contrary to a permit that has been issued. (Ordinance 13-004, sec. 3(B), adopted 2/5/13)

**Secs. 3.02.053–3.02.100 Reserved**

**Division 3. Commercial Building Code**

**Sec. 3.02.101 Adopted**

The city hereby adopts a certain document, a copy of which are on file in the office of the city secretary, being marked and designated as the 2015 edition of “International Building Code,” published by the International Code Council, Inc., as may be amended. Such document, as may be amended, is hereby adopted as the “commercial building code” of the city for control of building and structures as herein provided; and each and all of the regulations, provisions, penalties, conditions and terms of said commercial building code, which is adopted and made a part hereof as if fully set out in this division. The commercial building code shall also include the certain appendix chapters as may be designated by the city council. (Ordinance 16-0703 adopted 7/5/16)

**Sec. 3.02.102 Permit required**

It shall be unlawful for any person to build nonresidential buildings or structures within the city without first applying for and receiving a permit. It shall also be unlawful to build within the city contrary to a permit that has been issued. (Ordinance 13-004, sec. 4(B), adopted 2/5/13)

**Secs. 3.02.103–3.02.150 Reserved**

**Division 4. Electrical Code**

**Sec. 3.02.151 Adopted**

The city hereby adopts a certain document, one copy of which is on file in the office of the city secretary, being marked and designated as the 2015 edition of the “National Electrical Code,” as may be amended. Such document, as may be amended, is hereby adopted as the “electrical code” of the city, and as such shall apply to all residential electrical construction applications. The city council may establish procedures for the administration and

enforcement of the electrical code, and may adopt local amendments to the National Electrical Code. (Ordinance 16-0703 adopted 7/5/16)

**Sec. 3.02.152 Permit required**

It shall be unlawful for any person to perform any electrical work within the city without first applying for and receiving a permit. It shall also be unlawful to perform any electrical work within the city contrary to a permit that has been issued. (Ordinance 13-004, sec. 5(B), adopted 2/5/13)

**Secs. 3.02.153–3.02.200 Reserved**

**Division 5. Plumbing Code**

**Sec. 3.02.201 Adopted**

The city hereby adopts a certain document, one copy of which is on file in the office of the city secretary, being marked and designated as the 2015 edition of “The International Plumbing Code,” published by the International Association of Plumbing and Mechanical Officials, as may be amended. Such document, as may be amended, is hereby adopted as the “plumbing code” of the city, and as such shall apply to all plumbing construction applications. The city council may establish procedures for the administration and enforcement of the plumbing code, and may adopt local amendments to the International Plumbing Code. (Ordinance 16-0703 adopted 7/5/16)

**Sec. 3.02.202 Permit required**

It shall be unlawful for any person to perform any plumbing work within the city without first applying for and receiving a permit. It shall also be unlawful to perform any plumbing work within the city contrary to a permit that has been issued. (Ordinance 13-004, sec. 6(B), adopted 2/5/13)

**Secs. 3.02.203–3.02.250 Reserved**

**Division 6. Mechanical Code**

**Sec. 3.02.251 Adopted**

The city hereby adopts a certain document, one copy of which is on file in the office of the city secretary, being marked and designated as the 2015 edition of “The International Mechanical Code,” as developed by the International Code Council, as may be amended. Such document, as may be amended, is hereby adopted as the “mechanical code” of the city, and as such shall apply to all mechanical construction applications. The city council may establish procedures for the administration and enforcement of the mechanical code, and may adopt local amendments to the International Mechanical Code. (Ordinance 16-0703 adopted 7/5/16)

**Sec. 3.02.252 Permit required**

It shall be unlawful for any person to perform any mechanical work within the city without first applying for and receiving a permit. It shall also be unlawful to perform any mechanical work within the city contrary to a permit that has been issued. (Ordinance 13-004, sec. 7(B), adopted 2/5/13)

**Secs. 3.02.253–3.02.300 Reserved**

**Division 7. Energy Conservation Code**

**Sec. 3.02.301 Adopted**

The city hereby adopts a certain document, one copy of which is on file in the office of the city secretary, being marked and designated as the 2015 edition of “The International Energy Conservation Code.” Such document, as may be amended, is hereby adopted as the “energy conservation code” of the city, and as such shall apply to all residential and commercial construction applications. The city council may establish procedures for the administration and enforcement of the energy conservation code, and may adopt local amendments to the International Energy Conservation Code. (Ordinance 16-0703 adopted 7/5/16)

**Secs. 3.02.302–3.02.350 Reserved**

**Division 8. Fuel and Gas Code**

**Sec. 3.02.351 Adopted**

The city hereby adopts a certain document, one copy of which is on file in the office of the city secretary, being marked and designated as the 2015 edition of “The International Fuel and Gas Code.” Such document, as may be amended, is hereby adopted as the “fuel and gas code” of the city, and as such shall apply to all residential and commercial construction applications. The city council may establish procedures for the administration and enforcement of the fuel and gas code, and may adopt local amendments to the International Fuel and Gas Code. (Ordinance 16-0703 adopted 7/5/16)

**Secs. 3.02.352–3.02.400 Reserved**

**Division 9. Fire Code**

**Sec. 3.02.401 Adopted**

The city hereby adopts a certain document, one copy of which is on file in the office of the city secretary, being marked and designated as the 2015 edition of “The International Fire Code.” Such document, as may be amended, is hereby adopted as the “fire code” of the city, and as such shall apply to all residential and commercial construction applications. The city council may establish procedures for the administration and enforcement of the fire code, and may adopt local amendments to the International Fire Conservation [Code]. (Ordinance 16-0703 adopted 7/5/16)