

# CONDITIONAL ZONING APPLICATION



**TOWN OF CHAPEL HILL**  
**Planning Department**  
405 Martin Luther King Jr. Blvd.  
(919) 968-2728 fax (919) 969-2014  
www.townofchapelhill.org

Parcel Identifier Number (PIN): 9880028073

Date: 04/20/22

## Section A: Project Information

Project Name: Stanat's Place

Property Address: 2516 Homestead Rd, Chapel Hill, NC Zip Code: 27516

Use Groups (A, B, and/or C): A Existing Zoning District: R-2

Project Description: A residential community with 47 lots designated for townhomes.

## Section B: Applicant, Owner, and/or Contract Purchaser Information

### Applicant Information (to whom correspondence will be mailed):

Name: Adanced Civil Design, Inc.

Address: 51 Kilmayne Drive, Suite 102

City: Cary State: NC Zip Code: 27511

Phone: 919-481-6290 Email: crice@advancedcivildesign.com

The undersigned applicant hereby certifies that, to the best of their knowledge and belief, all information supplied with this application and accurate.

Signature: \_\_\_\_\_ Date: April 20, 2022

### Owner/Contract Purchaser Information:

Owner  Contract Purchaser

Name: CapKov Ventures, Inc.

Address: P.O. Box 16815

City: Chapel Hill State: NC Zip Code: 27516

Phone: 919-942-8005 (office), 919-260-7262 (Cell) Email: ericbchupp@bellsouth.net

The undersigned applicant hereby certifies that, to the best of their knowledge and belief, all information supplied with this application and accurate.

Signature:  Date: April 20, 2022

[Click here](#) for application submittal instructions.

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Signature: \_\_\_\_\_ Date: April 20, 2022

### Owner/Contract Purchaser Information:

Owner  Contract Purchaser

Name: Donald and Sylvia Stanat

Address: 9 Birchtree Circle, Apt 901

City: Chapel Hill State: NC Zip Code: 27517

Phone: 919-942-1355 H, 919-619-2475 (Cell) Email: sylvia@stanats.com

The undersigned applicant hereby certifies that, to the best of their knowledge and belief, all information supplied with this application and accurate.

Signature:  /  Date: September 10, 2022

Click [here](#) for application submittal instructions.



## CONDITIONAL ZONING

TOWN OF CHAPEL HILL

Planning Department

Conditional Rezoning applications are reviewed by staff, Planning Commission, and Town Council. The application is part of an open public process that enables Town Council to discuss and decide on the key issues of a rezoning proposal. If a rezoning is approved, the applicant may then submit a detailed final plan application to staff for compliance review with the technical development standards and with the Council rezoning approval.

The establishment of a Conditional Zoning District shall be consistent with the Land Use Plan in the Comprehensive Plan. A proposed Conditional Zoning District is deemed consistent if the proposed District will be located in conformance with an adopted small area plan and/or in one of the following Land Use Categories:

- Medium Residential
- High Residential
- Commercial
- Mixed Use, Office/Commercial Emphasis
- Mixed Use, Office Emphasis
- Town/Village Center
- Institutional
- Office
- University
- Development Opportunity Area
- Light Industrial Opportunity Area

If the proposed conditional zoning districts is located in a Low Residential or a Rural Residential Land Use Category, the Town Council must approve a Land Use Plan amendment prior to proceeding.

**SIGNED CONDITIONS:** All conditions shall be in writing, prepared by the owner of the property or an attorney and must be signed by all property owners and contract purchasers, if applicable. The Town Attorney may require additional signatures if necessary and will determine whether or not the conditions statement is legally sufficient. Within thirty (30) days after receipt of the conditions the Planning Division Manager will notify the applicant of any deficiencies in the conditions statement or if any additional information is needed. The applicant may make changes to the written conditions statement provided it is submitted at least thirty (30) prior to Planning Commission meeting or thirty (30) days prior to Town Council public hearing.

**RECORDATION OF CONDITIONS:** After a rezoning has been approved by the Town Council, the conditions statement shall be recorded with the Register of Deeds Office. After a rezoning has been approved by Town Council and recorded by the Register of Deeds Office, the conditions may not be amended except through a new rezoning application.



**PROJECT FACT SHEET**

**TOWN OF CHAPEL HILL**

Planning Department

**Section A: Project Information**

**Use Type:** (check/list all that apply)

Office/Institutional     Residential     Mixed-Use     Other: \_\_\_\_\_

**Overlay District:** (check all that apply)

Historic District     Neighborhood Conservation District     Airport Hazard Zone

**Section B: Land Area**

Net Land Area (NLA): Area within zoning lot boundaries		NLA=	355,563	sq. ft.
Choose one, or both, of the following (a or b), not to exceed 10% of NLA	a) Credited Street Area (total adjacent frontage) x ½ width of public right-of-way	CSA=	0	sq. ft.
	b) Credited Permanent Open Space (total adjacent frontage) x ½ public or dedicated open space	COS=	35,556	sq. ft.
TOTAL: NLA + CSA and/or COS = Gross Land Area (not to exceed NLA + 10%)		GLA=	391,119	sq. ft.

**Section C: Special Protection Areas, Land Disturbance, and Impervious Area**

**Special Protection Areas:** (check all those that apply)

Jordan Buffer     Resource Conservation District     100 Year Floodplain     Watershed Protection District

Land Disturbance	Total (sq. ft.)
Area of Land Disturbance (Includes: Footprint of proposed activity plus work area envelope, staging area for materials, access/equipment paths, and all grading, including off-site clearing)	325,000
Area of Land Disturbance within RCD	58,000
Area of Land Disturbance within Jordan Buffer	0

Impervious Areas	Existing (sq. ft.)	Demolition (sq. ft.)	Proposed (sq. ft.)	Total (sq. ft.)
Impervious Surface Area (ISA)	18,107	18,107	170,000	170,000
Impervious Surface Ratio: Percent Impervious Surface Area of Gross Land Area (ISA/GLA)%	0.046	0.046	0.44	0.44
If located in Watershed Protection District, % of impervious surface on 7/1/1993	N/A	N/A	N/A	N/A



**PROJECT FACT SHEET**

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**Section D: Dimensions**

Dimensional Unit (sq. ft.)	Existing (sq. ft.)	Demolition (sq. ft.)	Proposed (sq. ft.)	Total (sq. ft.)
Number of Buildings	(4) 5,786	(4) 5,786	(47) 85,000	(47) 85,000
Number of Floors	1 - 1.5	1 - 1.5	2	2
Recreational Space	0	0	27,956	27,956

**Residential Space**

Dimensional Unit (sq. ft.)	Existing (sq. ft.)	Demolition (sq. ft.)	Proposed (sq. ft.)	Total (sq. ft.)
Floor Area (all floors – heated and unheated)	3,190	3,190	101,000q	101,000
Total Square Footage of All Units	3,190	3,190	85,000	85,000
Total Square Footage of Affordable Units	0	0	6,759	6,759
Total Residential Density	15 units/ac	15 units/ac	5.23 units/ac	5.23 units/ac
Number of Dwelling Units	1	1	47	47
Number of Affordable Dwelling Units	0	0	4	4
Number of Single Bedroom Units	0	0	0	0
Number of Two Bedroom Units	0	0	0	0
Number of Three Bedroom Units	1	1	43	43

**Non-Residential Space (Gross Floor Area in Square Feet)**

Use Type	Existing	Proposed	Uses	Existing	Proposed
Commercial					
Restaurant			# of Seats		
Government					
Institutional					
Medical					
Office					
Hotel			# of Rooms		
Industrial					
Place of Worship			# of Seats		
Other					

Dimensional Requirements		Required by Ordinance	Existing	Proposed
<b>Setbacks (minimum)</b>	Street	20'	0'	20'
	Interior (neighboring property lines)	6'	0'	6'
	Solar (northern property line)	8'	N/A	8'
<b>Height (maximum)</b>	Primary	39'	N/A	39'
	Secondary	60'	N/A	60'
<b>Streets</b>	Frontages	40'	0	0
	Widths	50'	0	0



**PROJECT FACT SHEET**

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**Section F: Adjoining or Connecting Streets and Sidewalks**

*Note: For approval of proposed street names, contact the Engineering Department.*

Street Name	Right-of-Way Width	Pavement Width	Number of Lanes	Existing Sidewalk*	Existing Curb/Gutter
Cabernet Dr	50'	22'	2	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
Aquatic Dr	60' Public Access Easement	28'	2	<input checked="" type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes

**List Proposed Points of Access** (Ex: Number, Street Name):

\*If existing sidewalks do not exist and the applicant is adding sidewalks, please provide the following information:

Sidewalk Information			
Street Names	Dimensions	Surface	Handicapped Ramps
Cabernet Drive	27' b/b (36',40.5', 50' R/W)	Asphalt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Street A	27' b/b (40.5' R/W)	Asphalt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
Street B	27' b/b (52.5' R/W)	Asphalt	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

**Section G: Parking Information**

Parking Spaces	Minimum	Maximum	Proposed
Regular Spaces	n/a	n/a	16
Handicap Spaces	n/a	n/a	1
Total Spaces	n/a	n/a	17
Loading Spaces	0	0	0
Bicycle Spaces	n/a	n/a	13 total (11 will be wall-mounted bike hook within garage)
Surface Type	Asphalt		

**Section H: Landscape Buffers**

Location (North, South, Street, Etc.)	Minimum Width	Proposed Width	Alternate Buffer	Modify Buffer
Eastern Property Line	20'	20	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
Western Property Line	10'	20	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
Southern Property Line	10'	10'	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> Yes
			<input type="checkbox"/> Yes	<input type="checkbox"/> Yes



**PROJECT FACT SHEET**  
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**Section I: Land Use Intensity**

Existing Zoning District:  
 Proposed Zoning Change (if any):

Zoning – Area – Ratio			Impervious Surface Thresholds			Minimum and Maximum Limitations	
Zoning District(s)	Floor Area Ratio (FAR)	Recreation Space Ratio (RSR)	Low Density Residential (0.24)	High Density Residential (0.50)	Non-Residential (0.70)	Maximum Floor Area (MFA) = FAR x GLA	Minimum Recreation Space (MSR) = RSR x GLA
R-5-CZD	n/a	n/s	n/a			n/a	n/a
<b>TOTAL</b>							
<b>RCD Streamside</b>		0.01					
<b>RCD Managed</b>		0.019					
<b>RCD Upland</b>							

**Section J: Utility Service**

Check all that apply:

<b>Water</b>	<input checked="" type="checkbox"/> OWASA	<input type="checkbox"/> Individual Well	<input type="checkbox"/> Community Well	<input type="checkbox"/> Other
<b>Sewer</b>	<input checked="" type="checkbox"/> OWASA	<input type="checkbox"/> Individual Septic Tank	<input type="checkbox"/> Community Package Plant	<input type="checkbox"/> Other
<b>Electrical</b>	<input checked="" type="checkbox"/> Underground	<input type="checkbox"/> Above Ground		
<b>Telephone</b>	<input checked="" type="checkbox"/> Underground	<input type="checkbox"/> Above Ground		
<b>Solid Waste</b>	<input checked="" type="checkbox"/> Town	<input type="checkbox"/> Private		



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SUBMITTAL REQUIREMENTS  
TOWN OF CHAPEL HILL  
Planning Department**

The following must accompany your application. Failure to do so will result in your application being considered incomplete. For assistance with this application, please contact the Chapel Hill Planning Department (Planning) at (919) 968-2728 or at [planning@townofchapelhill.org](mailto:planning@townofchapelhill.org).

cmr	<b>Application fee</b> ( <a href="#">including Engineering Review fee</a> ) ( <a href="#">refer to fee schedule</a> )	Amount Paid \$	35,986.40
cmr	<b>Pre-application meeting</b> –with appropriate staff		
cmr	<b>Digital Files</b> – provide digital files of all plans and documents		
cmr	<b>Recorded Plat or Deed of Property</b>		
cmr	<b>Project Fact Sheet</b>		
n/a	<b>Traffic Impact Statement</b> – completed by Town’s consultant (or exemption)		
n/a	<b>Description of Public Art Proposal</b> , if applicable		
cmr	<b>Statement of Justification</b>		
n/a	<b>Response to Community Design Commission and Town Council Concept Plan comments</b> , if applicable		
cmr	<b>Affordable Housing Proposal</b> , if applicable		
cmr	<b>Statement of Consistency with Comprehensive Plan or request to amend Comprehensive Plan</b>		
cmr	<b>Mailing list of owners of property within 1,000 feet perimeter of subject property</b> ( <a href="#">see GIS notification tool</a> )		
cmr	<b>Mailing fee for above mailing list (mailing fee is double due to 2 mailings)</b>	Amount Paid \$	450.00
cmr	<b>Written Narrative describing the proposal, including proposed land uses and proposed conditions</b>		
cmr	<b>Resource Conservation District, Floodplain, &amp; Jordan Buffers Determination</b> – necessary for all submittals		
cmr	<b>Jurisdictional Wetland Determination</b> – if applicable		
n/a	<b>Resource Conservation District Encroachment Exemption or Variance (determined by Planning)</b>		
n/a	<b>Jordan Buffer Authorization Certificate or Mitigation Plan Approval (determined by Planning)</b>		
cmr	<b>Reduced Site Plan Set (reduced to 8.5” x 11”)</b>		

**Stormwater Impact Statement (1 copy to be submitted)**

- a) Written narrative describing existing & proposed conditions, anticipated stormwater impacts and management structures and strategies to mitigate impacts
- b) Description of land uses and area (in square footage)
- c) Existing and proposed impervious surface area in square feet for all subareas and project area
- d) Ground cover and uses information
- e) Soil information (classification, infiltration rates, depth to groundwater and bedrock)
- f) Time of concentration calculations and assumptions
- g) Topography (2-foot contours)
- h) Pertinent on-site and off-site drainage conditions
- i) Upstream and/or downstream volumes
- j) Discharges and velocities
- k) Backwater elevations and effects on existing drainage conveyance facilities
- l) Location of jurisdictional wetlands and regulatory FEMA Special Flood Hazard Areas
- m) Water quality volume calculations
- n) Drainage areas and sub-areas delineated
- o) Peak discharge calculations and rates (1, 2, and 25-year storms)
- p) Hydrographs for pre- & post-development without mitigation, post-development with mitigation
- q) Volume calculations and documentation of retention for 2-year storm





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Planning and Development Services**

- r) 85% TSS removal for post-development stormwater runoff
- s) Nutrient loading calculations
- t) BMP sizing calculations
- u) Pipe sizing calculations and schedule (include HGL & EGL calculations and profiles)

**Plan Sets (10 copies to be submitted no larger than 24" x 36")**

Plans should be legible and clearly drawn. All plan set sheets should include the following:

- Project Name
- Legend
- Labels
- North Arrow (North oriented toward top of page)
- Property boundaries with bearing and distances
- Scale (Engineering), denoted graphically and numerically
- Setbacks
- Streams, RCD Boundary, Jordan Riparian Buffer Boundary, Floodplain, and Wetlands Boundary, where applicable
- Revision dates and professional seals and signatures, as applicable

**Cover Sheet**

- a) Include Project Name, Project fact information, PIN, and Design Team

**Area Map**

- a) Project name, applicant, contact information, location, PIN, & legend
- b) Dedicated open space, parks, greenways
- c) Overlay Districts, if applicable
- d) Property lines, zoning district boundaries, land uses, project names of site and surrounding properties, significant buildings, corporate limit lines
- e) Existing roads (public & private), rights-of-way, sidewalks, driveways, vehicular parking areas, bicycle parking, handicapped parking, street names
- f) 1,000' notification boundary

**Existing Conditions Plan**

- a) Slopes, soils, environmental constraints, existing vegetation, and any existing land features
- b) Location of all existing structures and uses
- c) Existing property line and right-of-way lines
- d) Existing utilities & easements including location & sizes of water, sewer, electrical, & drainage lines
- e) Nearest fire hydrants
- f) Nearest bus shelters and transit facilities
- g) Existing topography at minimum 2-foot intervals and finished grade
- h) Natural drainage features & water bodies, floodways, floodplain, RCD, Jordan Buffers & Watershed boundaries



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Planning and Development Services**

**Detailed Site Plan**

- a) Existing and proposed building locations
- b) Description & analysis of adjacent land uses, roads, topography, soils, drainage patterns, environmental constraints, features, existing vegetation, vistas (on and off-site)
- c) Location, arrangement, & dimension of vehicular parking, width of aisles and bays, angle of parking, number of spaces, handicapped parking, bicycle parking. Typical pavement sections & surface type.
- d) Location of existing and proposed fire hydrants
- e) Location and dimension of all vehicle entrances, exits, and drives
- f) Dimensioned street cross-sections and rights-of-way widths
- g) Pavement and curb & gutter construction details
- h) Dimensioned sidewalk and tree lawn cross sections
- i) Proposed transit improvements including bus pull-off and/or bus shelter
- j) Required landscape buffers (or proposed alternate/modified buffers)
- k) Required recreation area/space (including written statement of recreation plans)
- l) Refuse collection facilities (existing and proposed) or shared dumpster agreement
- m) Construction parking, staging, storage area, and construction trailer location
- n) Sight distance triangles at intersections
- o) Proposed location of street lights and underground utility lines and/or conduit lines to be installed
- p) Easements
- q) Clearing and construction limits
- r) Traffic Calming Plan – detailed construction designs of devices proposed & associated sign & marking plan

**Stormwater Management Plan**

- a) Topography (2-foot contours)
- b) Existing drainage conditions
- c) RCD and Jordan Riparian Buffer delineation and boundary (perennial & intermittent streams; note ephemeral streams on site)
- d) Proposed drainage and stormwater conditions
- e) Drainage conveyance system (piping)
- f) Roof drains
- g) Easements
- h) BMP plans, dimensions, details, and cross-sections
- i) Planting and stabilization plans and specifications

**Landscape Protection Plan**

- a) Rare, specimen, and significant tree survey within 50 feet of construction area
- b) Rare and specimen tree critical root zones
- c) Rare and specimen trees proposed to be removed
- d) Certified arborist tree evaluation, if applicable
- e) Significant tree stand survey
- f) Clearing limit line
- g) Proposed tree protection/silt fence location
- h) Pre-construction/demolition conference note
- i) Landscape protection supervisor note
- j) Existing and proposed tree canopy calculations, if applicable



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**Planting Plan**

- a) Dimensioned and labeled perimeter buffers
- b) Off-site buffer easement, if applicable
- c) Landscape buffer and parking lot planting plan (including planting strip between parking and building, entryway planting, and 35% shading requirement)

**Steep Slope Plan**

- a) Classify and quantify slopes 0-10%, 10-15%, 15-25%, and 25% and greater
- b) Show and quantify areas of disturbance in each slope category
- c) Provide/show specialized site design and construction techniques

**Grading and Erosion Control Plan**

- a) Topography (2-foot contours)
- b) Limits of Disturbance
- c) Pertinent off-site drainage features
- d) Existing and proposed impervious surface tallies

**Streetscape Plan, if applicable**

- a) Public right-of-way existing conditions plan
- b) Streetscape demolition plan
- c) Streetscape proposed improvement plan
- d) Streetscape proposed utility plan and details
- e) Streetscape proposed pavement/sidewalk details
- f) Streetscape proposed furnishing details
- g) Streetscape proposed lighting detail

**Solid Waste Plan**

- a) Preliminary Solid Waste Management Plan
- b) Existing and proposed dumpster pads
- c) Proposed dumpster pad layout design
- d) Proposed heavy duty pavement locations and pavement construction detail
- e) Preliminary shared dumpster agreement, if applicable



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**Construction Management Plan**

- a) Construction trailer location
- b) Location of construction personnel parking and construction equipment parking
- c) Location and size of staging and materials storage area
- d) Description of emergency vehicle access to and around project site during construction
- e) Delivery truck routes shown or noted on plan sheets

**Energy Management Plan**

- a) Description of how project will be 20% more energy efficient than ASHRAE standards
- b) Description of utilization of sustainable forms of energy (Solar, Wind, Hydroelectric, and Biofuels)
- c) Participation in NC GreenPower program
- d) Description of how project will ensure indoor air quality, adequate access to natural lighting, and allow for proposed utilization of sustainable energy
- e) Description of how project will maintain commitment to energy efficiency and reduced carbon footprint over time
- f) Description of how the project's Transportation Management Plan will support efforts to reduce energy consumption as it affects the community

**Exterior Elevations**

- a) An outline of each elevation of the building, including the finished grade line along the foundation (height of building measured from mean natural grade)



## **Stanat's Place Project Narrative**

**Developers Background:** Capkov Ventures Inc. is a Chapel Hill owned and operated development company that has been building communities in Chapel Hill and Carrboro for the last 30 years. Capkov Ventures is owned by Scott Kovens who has lived in Chapel Hill for his entire adult life. Communities that have been designed and developed by Capkov Ventures Inc. include;

- 1) Weatherhill Pointe, Carrboro
- 2) Bolin Forest, Carrboro
- 3) Erwin Village, Chapel Hill
- 4) Columbia Place, Chapel Hill
- 5) Pickard Oaks, Chapel Hill
- 6) The Cedars at Bolin Forest, Carrboro
- 7) Franklin Grove, Chapel Hill
- 8) Chancellors View, Chapel Hill
- 9) Winmore, Carrboro
- 10) The Goddard School, Chapel Hill
- 11) Burch Kove, Chapel Hill (design and entitlements only)
- 12) Chandlers Woods (design and entitlements only)

**Overview:** Capkov Ventures is proposing to develop a community of 47 town homes on a wonderful infill site located between the Vineyard Square town home community and Homestead Park. Cabernet Drive will extend through the community and intersect with Aquatic Dive which leads directly to Homestead Park. Stanat's Place is an ideal location for a town home community immediately adjacent to Chapel Hill's signature park and aquatics center.

Capkov recently received approval for the Bridgepoint town home community just across Weaver Dairy Road Extension from this proposed site. We have taken the feedback we received from the Town Council, the Community Design Commission, and the Town Review Boards during the approval process for Bridgepoint and tried to incorporate that feedback into the design of this new community.

The roughly eight (8) acre property has been owned by the Stanat family for the last 30 years. The Stanat's are hoping to downsize and move to a community for active seniors with less maintenance.

Stanat's Place will serve a wide range of age groups focusing on first time home buyers, families, and downsizing seniors who are looking for lower maintenance than a single-family home. The community is designed to serve the middle-income price range often referred to in Chapel Hill as the "Missing Middle". As we are all aware it has become virtually impossible to find homes in Chapel Hill in the middle-income price range. Stanat's Place will add diversity and depth to the available housing opportunities in Chapel Hill.

**Proposal Specifics:** Stanat's Place is roughly eight-acres. Capkov is requesting a Conditional Zoning Permit for 47 town homes. The current zoning of R-2 will need to be revised to Conditional Zoning (CZ)-R-5. The property is located north of Homestead Road, west of Aquatic Drive, east of Weaver Dairy Extension Road, and south of the Vineyard Square community. As proposed Stanat's Place will have two means of ingress and egress. One from the natural extension of Cabernet Drive on the west, and a second from Aquatic Drive on the east side of the community. All utilities are currently available to the site and a 30' OWASA sewer easement with a public-main runs west to east through the site. The property is triangular in shape with a stream running from west to east across the southern property line. A 20' Greenway Trail Easement will run along the stream and will be dedicated to the Town of Chapel Hill creating an important link in the Greenway Trail System. A water quality pond will be constructed just south of the town homes overlooking the Greenway Trail and the creek. The water quality pond will be a wet pond that is heavily landscaped.

**Access and Circulation:** Two vehicular access points have been proposed for Stanat's Place both conforming to the Chapel Hill Land Use Ordinance and the State Fire Code. The first access point will be facilitated by the extension of Cabernet Drive from Vineyard Square. Cabernet Drive was designed to extend into Stanat's Place when Vineyard Square was developed. A sign stating that "This Road May Continue in the Future" was required at the termination of Cabernet Drive when Vineyard Square was developed. The Cabernet Drive access point will provide direct access to I-40 via Weaver Dairy Road Extension. The second access will be formed by connecting Cabernet Drive to Aquatic Drive. Aquatic Drive then travels south to Homestead Road. The entry point of Cabernet Drive onto Aquatic Drive is south of any of the Homestead Park amenities. An extensive Traffic Impact Analysis was prepared for this area just over a year ago which indicated that both Weaver Dairy Road Extension and Homestead Road had sufficient capacity for additional development. The Traffic Impact Analysis is currently being updated. The soon to be constructed Homestead Road Improvement Project, and the signal light improvements being done as part of Bridgepoint, will enhance traffic safety along Homestead Road. All roads will be built to public standards and dedicated to the Town of Chapel Hill as public roadways. Stanat's Place will also provide an important link in the Chapel Hill Greenway System that will eventually connect the Green Tract and all the communities to the south to Homestead Park. Currently Greenway Trail Easements are in place across the Towns 2200 Homestead Road site, Bridgepoint, and as proposed Stanat's Place.

**Buffers and Natural Constraints:** Stanat's Place has been designed with vegetative buffers around the perimeter of the community and street trees along the internal public streets. The buffers will conform to both the Design Guidelines and the Chapel Hill Land Use Ordinance. There is an existing buffer between Stanat's Place and Homestead Park that is roughly 40' of both hardwood and evergreen trees. The community will feature a central park with over half of an acre public green. The southern property line has a perennial stream running west to east across the site. The proposed plan takes advantage of the Resource Conservation District (RCD) surrounding the stream by allowing it to become a beautiful natural area with an extension of the Chapel Hill Greenway Trail running along the creek. We will place benches along the Greenway Trail and dedicate it to the Town of Chapel Hill Parks and Recreation System. The town homes which front Public Street "B" will overlook a heavily landscaped pond, the Greenway Trail, and the stream and associated buffers. The site is generally flat sloping from north to south. There are small unconnected areas of moderately steep slopes resulting from the house and driveway construction. The site is naturally gently sloping.

**Stormwater Management:** As proposed Stanat's Place will have an elongated wet pond running parallel, but separated from, the perennial stream running along the southern portion of the site. The pond will be heavily landscaped with three tiers of plantings above and below the water line and will be an attractive amenity. The pond will be designed to conform with volume, velocity, and water quality standards laid out in the Chapel Hill Land Use Management Ordinance and the Design Guidelines.

**Recreational Amenities:** Stanat's Place will provide onsite recreational facilities. The Applicant proposes constructing an important link in the Chapel Hill Greenway Trail leading to Homestead Park. It will eventually connect Bridgepoint, the Town owned 2200 Homestead Road community, and future communities to the north. A Greenway Trail link was provided by the Bridgepoint site community to the east and the Town owned 2200 Homestead Road site as part of their respective approvals. The only remaining link will be across the Vineyard Square Open Space and Chapel Hill Parks and Recreation Department is working to acquire that last segment. With the inspiration of Brian Peterson, we have designed a central park which all of the homes will look out onto. The park will have an open green with a Chapel Hill stone wall running along the north side for sitting. It will have a reading area with a community library and fire pit, and a separate small children's playground with benches and picnic tables. One of the wonderful things about this unique location is that it shares a property line with Homestead Park with its soccer fields, baseball fields, dog park, aquatics center, skateboard park, and several wonderful playgrounds for the children.

**Home Design:** The town homes in the Stanat's Place community will be a traditionally designed homes with attached two car garages. There will be two full parking spaces outside the garage providing two off-street parking spaces. The lot size will allow for a town home with a footprint of 24' X 62' providing great flexibility in design and size of the homes. Each town home will have a private courtyard. The homes will be designed for middle income families that will enjoy the nearby schools and recreational opportunities and downsizing adults moving from single family homes. Both upstairs and downstairs master plans will be

available with three-bedroom two bath town homes being the most frequently purchased. The town homes will be arranged in buildings ranging between 4-6 units.

**Impact on Neighboring Properties:** Stanat's Place is entirely consistent with the adjacent town homes in the Vineyard Square community. The connection to Vineyard Square will allow neighboring residents to access Homestead Park more easily by either driving or walking. We believe connectivity in this location is important as it promotes all of the many attributes of connectivity.

We are very excited about the possibility of having an opportunity to bring Stanat's Place to Chapel Hill. We believe the town home market in Chapel Hill is badly underserved as is middle income homes across the region. We believe that Stanat's will fill an essential part of the communities' housing needs and we ask for your support.

Thank you, Eric Chupp

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## **Stanat's Place Statement of Compliance with the Comprehensive Plan**

The proposed Stanat's Place townhome community has been designed to comply with the Town of Chapel Hill's Comprehensive Plan, Northern Area Task Force Report, and the Future Land Use Map. The site plan has been designed to meet the plans in the following ways;

### **A. Compliance with the Comprehensive Plan**

#### *1) A Place for Everyone*

One of the major goals under the theme "A Place for Everyone" is to provide "A range of housing options for current and future residents". Diversity of housing options has become a significant problem in Chapel Hill. Stanat's Place will provide 47 town homes and make a significant contribution to "Missing Middle". In the last several years over 3,500 for rent apartment units have been built in Chapel Hill but only one town home community has been approved which was Bridgepoint. If approved Stanat's Place will fill an essential housing that is almost missing in Chapel Hill, homes for middle income families and downsizing seniors. As the University of North Carolina tries to attract the best and the brightest to Chapel Hill, those potential employees who have children, or anticipate having children, will have as one of their primary considerations the availability of for sale housing. The same is true for the wider community as Chapel Hill tries to encourage innovative businesses to locate in Chapel Hill. While Stanat's Place will not solve the problem of providing diversity in housing it will provide some additional options for middle income families who are looking for something other than an apartment home.

#### *2) Community Prosperity and Engagement*

One of the major goals under the theme "Community Prosperity and Engagement" is to "Foster success of local businesses." The Town of Chapel Hill has consistently expressed the desire to promote our world-class university and to attract new employers who can utilize the talents and technologies developed at UNC to launch new and creative businesses. As mentioned in the preceding paragraph, to successfully attract such businesses the Town must provide appropriate housing to meet the needs of the prospective employees. Stanat's

Place will add diversity to the existing housing stock, which is terribly underserved. The proposed Stanat's Place is ideally located. The site surrounded by Homestead Park and Aquatics Center, across the street from the Seymore Senior Center, the Orange County Health and Human Services Center, right down the street from all three levels of public schools. It is also next door to the Horace Williams tract, the University of North Carolina's next big campus.

3) *Getting Around*

The goal is to promote "A connected community that links neighborhoods, businesses, and schools through the provision of greenways, sidewalks, bike facilities, and public transportation." The Stanat's Place as proposed will provide a critical link in providing a holistic transportation system in Chapel Hill. Stanat's Place is proposing to construct an important link in a branch of the Chapel Hill Greenway System connecting the communities north of Homestead Road to Homestead Park. The Town owned and soon to be developed 2200 Homestead Road Community, Bridgepoint, Vineyard Square, and now Stanat's Place have or will dedicate Greenway Trail easements which connect to Homestead Park. Eventually the Greenway Trail could stretch north all the way to the Green Tract and Eubanks Road. Stanat's Place will have two access points. One from Cabernet Drive on the western side of the site that will feed into Weaver Dairy Extension Road and provide direct access to I-40. The second entrance will be at Aquatic Drive, which will provide access to Homestead Road. The second entrance at Aquatic Drive will also provide two means of access to Homestead Park increasing the public safety for all of those using the park and enhance overall connectivity.

4) *Good Places, New Spaces*

Stanat's Place will promote several of the goals of "Good Places, New Spaces" including the goal of providing "Open and accessible common spaces for community gathering, cultural uses, and community development." As mentioned above, Stanat's Place will provide a Greenway System link between the communities to the north of Homestead Road and Homestead Park. The trail will run parallel with the creek, be appointed with benches, and open for the entire Chapel Hill community to enjoy. There are few places more community oriented than Homestead Park with the Aquatics Center, soccer fields, baseball fields, skate park, dog park, and several playgrounds for children. We have also located a "Central Park" in the middle of the community. As designed, it will have an open green, stone retaining walls, an area for reading with a community book exchange and a fire pit, and a separate area for a young children's playground with picnic tables and benches.

5) *Nurturing Our Community*

In the design of the proposed Stanat's Place community we have made a conscious effort to leave the southern part of the site undisturbed where a perennial stream runs west to east through the site. The only exception will be the natural mulched surface Greenway Trail running along the stream. North of the stream and Greenway Trail we will construct a wet

pond that will serve as the water quality device but also as a continuation of the natural area being created on the southern portion of the property. We will heavily landscape the pond with three different tiers of landscaping both above and below the water line. We propose meeting or exceeding the rigorous Chapel Hill storm water, open space, and tree canopy standards.

6) *Town and Gown Collaboration*

While the proposed Stanat's Place community may not directly affect the operations of the University of North Carolina, we believe that adding to the diversity of the Chapel Hill housing stock near the Universities' future northern campus on the Horace Williams site will provide opportunities for the families who move to Chapel Hill to work at the University. With the future supply of town homes seriously in question this may be important factor in the University of North Carolina's ability to attract the best and the brightest work force.

Best Regards, Eric Chupp

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## Stanat's Place Townhome Community Statement of Reasonableness Chapel Hill Land Use Ordinance Section 4.4.3(f)(2)

Section 4.3.3(f)(2) of the Town of Chapel Hill's Land Use Management Ordinance states that "When adopting or rejecting any petition for a zoning atlas amendment a statement analyzing the reasonableness of the proposed rezoning shall be approved by the Town Council. The statement of reasonableness may consider, among other factors.

- (i) The size, physical conditions, and other attributes of the area proposed to be rezoned.
- (ii) The benefits and detriments to the landowners, the neighbors, and the surrounding community.
- (iii) The relationship between the current actual and permissible development on the tract and adjoining areas and the development that would be permissible under the proposed amendments.
- (iv) Why the action taken is in the public interest,
- (v) Any changed conditions warranting the amendment.

The applicant hereby submits the following "Statement of Reasonableness" as evidence that the proposed Stanat's Place townhome community meets the standard of reasonableness found under NCGS-160D-605(b).

- (i) The size, physical conditions, and other attributes of the area proposed to be rezoned.

The Stanat's Place property is located just north of Homestead Road between the Aquatic Center in Homestead Park and Weaver Dairy Road. Vineyard Square townhomes are located immediately north of the site. The site is just over eight acres in size and is triangular shaped. It slopes gently towards the south where a perennial stream runs west to east along the southern property line.

Stanat's Place is designed to help meet the middle-income housing needs of the Chapel Hill community. The proposed site plan has forty-seven townhome lots that are twenty-four' wide and ninety-five' deep and will accommodate townhomes in the 1700 – 2100 square foot range. The proposed density is consistent with the immediately adjacent neighborhoods and is aligned with the Chapel Hill 2020 Comprehensive Plan and the recently approved Future land Use Map. The size of the lots, the overall density and the size of the homes is almost identical to the Vineyard Square community which adjoins the site to the north, and the Bridgepoint

community across Weaver Dairy Extension Road to the west. Chapel View and Chapel Ridge Apartments are located south of the site across Homestead Road. Stanat's Place serves as a perfect transition between the single-family homes north of Vineyard Square townhomes and the apartment homes south of Homestead Road and is consistent with the adjoining residential uses.

In addition to the surrounding residential uses Stanat's Place is surrounded by public amenities and services which make it a wonderful location for medium density residential. Homestead Park will share a property line with Stanat's Place, and we have designed several pedestrian connections so that future residents can take advantage of the Park's walkability. The Aquatics Center, skate park, soccer fields, dog park, playgrounds, and baseball field will all be walkable from Stanat's Place. The Seymore Senior Center is just across Homestead Road from Stanat's Place, as is the Orange County Health and Human Services Complex. All three public school levels are within one mile and public sidewalks will provide walkability the entire way. The site is close to numerous bus stops and the BRT (Bus Rapid Transit) planned for Martin Luther King Jr. Blvd. will be within a short walk providing quick and efficient commutes to downtown Chapel Hill and the University. As proposed, Stanat's Place is a perfect infill community.

The Chapel Hill Future Land Use Map shows the Stanat's Place property within the North MLK Boulevard Focus Area and shows townhomes as a primary recommended use. The map also shows the connection between the Vineyard Square townhomes running through Stanat's Place as a "proposed connection."

- (ii) The benefits and detriments to the landowners, the neighbors, and the surrounding community.

Stanat's Place provides multiple benefits for the adjacent landowners, neighbors, and the wider Chapel Hill community.

1. The proposed plan for Stanat's Place includes the dedication of a Greenway Trail easement and the improvement of the trail with a Chapel Hill Gravel surface that will make a connection to Homestead Park. The section of Greenway Trail provides a vital link in the overall approved Greenway Trail Plan for Chapel Hill. The link to be provided by the Stanat's Place development is a spur off the "Rail Trail" section of the Greenway and will eventually connect the Horace Williams Tract with the Green Tract and proceed north to Millhouse Road.
2. The proposed plan for Stanat's Place will provide a new sidewalk connection for adjacent communities to use to access Homestead Park and the BRT (Bus Rapid Transit) stops along MLK Blvd. One connection will be directly to the Aquatic Center's parking lot and the other will provide access to Aquatics Drive and Cabernet Drive.
3. The only undeveloped adjacent property is the Maddry property which shares the southern property line of Stanat's Place. We have been contacted by a representative of Ms. Maddry's about the potential future development of her property for a senior living condominium. We have agreed to work with them on an access easement, sewer easement and to work together to provide the best developments on both sites.
4. Chapel Hill has seen very few middle-income housing in the last 20 years. A recent housing needs report commissioned by the Town stressed the need for additional housing to be built

to accommodate the “Missing Middle.” Stanat’s Place will provide middle income housing at a time when the community needs it most.

5. Stanat’s Place as proposed will provide (4) affordable homes to the Community Home Trust for perpetual affordability. Two of the homes will be built for those earning 65% or less of the median income and two of the homes will be build for those earning less than 80% of the median income.
6. The homes will be attractive to downsizing seniors who live in Chapel Hill or who are moving here. Seniors are Chapel Hill’s fastest growing age demographic and Stanat’s Place will provide them with a townhome alternative.

- (iii) The relationship between the current actual permissible development on the tract and adjoining areas and the development that would be permissible under the proposed amendment.

There is little difference in what the current zoning will allow in terms of the number of allowable homes or the potential use. The current Zoning is R-2 which given the net land area of approximately nine acres would allow thirty-six homes. The R-5 would allow up to fifteen units per acre or 135 homes. We are not changing the allowable uses under the current zoning. We are requesting R-5CZD which will only allow the forty-seven homes we are providing as shown on our site plan. The constraining factor of R-2 zoning is floor area. To make a financially viable community, forty-seven homes is the minimum threshold. As stated earlier the R-5 CZD zoning is entirely consistent with the adjacent and surrounding uses.

- (iv) Why the action taken is in the public interest.

1. As described above providing middle income housing has been a challenge in Chapel Hill for the better part of the last two decades. Predictions in the recently commissioned Housing Needs Report state that if more middle-income housing is not provided Chapel Hill risks losing its major employers to other areas where more affordable housing is available. UNC Hospital could start moving facilities to Hillsborough and Wake County. Providing middle income housing as is being proposed with Stanat’s Place is a public interest.
2. As stated above the Stanat’s Place proposal is offering to build (4) perpetually affordable homes for dedication to the Community Home Trust. This is a public interest.
3. The Stanat’s Place proposal provides a vital link in the Chapel Hill Greenway Plan. This is a public interest.
4. Stanat’s Place is an infill community surrounded by public utilities, public amenities, and public services. This type of infill development allows for the most efficient use of public resources and is a public interest.
5. Through multiple sidewalk connections to Homestead Park the Stanat’s Place community will add over 1,000 feet to the public sidewalk system in Chapel Hill. This is a public interest.

- (v) Any change in conditions warranting the amendment.

At the risk of sounding redundant a major shift in housing production and housing prices has occurred in Chapel Hill over the last 20 years. Single-family housing in Chapel Hill is virtually impossible to build with the limited land left for development. Townhomes have become a viable option for downsizing seniors and young families alike and everyone in between. Housing cost have risen dramatically over the last 10 years where a single-family home is often unattainable for those who work in Chapel Hill. Townhome communities like Stanat's Place will need to replace single family communities to adapt to these changing conditions.

Please contact me at 919-780-8005 if you have any questions or concerns.

Sincerely,

ADVANCED CIVIL DESIGN, INC.

*Cameron M. Rice*

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Cameron M. Rice, P.E.  
Senior Project Manager

cc: 21-0002-978  
KB Homes  
CapKov

**STANAT'S PLACE  
RESIDENTIAL DEVELOPMENT**

**DRAFT** TRANSPORTATION IMPACT ANALYSIS

**EXECUTIVE SUMMARY**



**Prepared for:**

The Town of Chapel Hill  
Public Works Department - Engineering

**Prepared by:**

***HNTB North Carolina, PC***

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*NCBELS License #: C-1554*

March 2022





**STANAT'S PLACE  
RESIDENTIAL DEVELOPMENT**

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March 2022



## **EXECUTIVE SUMMARY - DRAFT**

### **Project Overview**

A new residential community, known as Stanat's Place, is being proposed in Chapel Hill near Homestead Road and Aquatic Drive. **Figure ES-1** shows the general location of the site. The project proposes to construct 47 individual residential townhome/condominium units and is anticipated to be fully complete and occupied by 2025. This report analyzes the full build-out scenario for Stanat's Place for the year 2026 (one year after anticipated completion), the no-build scenario for 2026, as well as 2022 existing year traffic conditions. The impacts of the proposed site at the study area intersections are evaluated during the AM, noon, and PM peak hours of an average weekday.

The current proposed site plan shows a provision for a full movement access driveway serving the site that connects to Aquatic Drive and a provision for a full movement access street connection to tie into existing Cabernet Drive in the Vineyard Square subdivision that would provide external connectivity to Weaver Dairy Road Extension via Napa Valley Way. No other external roadway vehicular access connections are proposed. **Figure ES-2** displays the overall site plan and nearby land uses and roadways. The Stanat's Place site is expected to provide individual vehicle parking spaces located as part of each condominium lot – with potential on-street parking allowed in areas where curb space permits. Several internal street parking spaces near the central neighborhood green are also proposed. This report analyzes and presents the transportation impacts that Stanat's Place will have on the following intersections in the project study area:

- Homestead Road and Weaver Dairy Road Extension
- Homestead Road and Aquatic Drive / Chapel View Apartments Driveway
- Homestead Road and NC 86 (Martin Luther King, Jr. Boulevard)
- Weaver Dairy Road Extension and Sonoma Way / Napa Valley Way
- Aquatic Drive and Proposed Site Driveway

### **Existing Conditions**

#### **Study Area**

The site is located in north Chapel Hill north of Homestead Road. The study area contains two signalized intersections along Homestead Road at NC 86 (Martin Luther King, Jr. Boulevard) and Weaver Dairy Road Extension. Two scenarios are analyzed in this study – one assessing two access points from the site (Aquatic Drive and Cabernet Drive) and one assessing a single access at Aquatic Drive only. NC 86 (Martin Luther King, Jr. Boulevard) is a major north-south arterial providing connectivity between downtown Chapel Hill, north and south Chapel Hill, the I-40 corridor and Hillsborough. Homestead Road is a minor east-west arterial providing connectivity through northern Chapel Hill. Remaining study area network roadways are either suburban collector streets or local neighborhood/commercial access streets.

#### **Site Traffic Generation**

With the addition of new trips during the weekday AM, noon, and PM peak hours, there are potential site traffic impacts to study area intersections. **Table ES-1** shows the site trip generation details, with rates taken from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, Version 10*.

#### **Background Traffic**

Background traffic growth for the 2026 analysis years is expected to come from two sources - ambient regional traffic growth and specific development-related traffic growth. Four Town-approved sites near the project study area were considered for specific development related growth. All remaining estimated



traffic volume increases are assumed to occur due to overall region-wide ambient growth (assumed 1.5 percent per year) based on NCDOT/Town historic growth data and taking into consideration the on-going rebound to pre-COVID traffic levels caused by the pandemic.

**Table ES-1. Weekday Vehicle Trip Generation Summary**

Description	Density	Daily			AM Peak			Noon Peak*			PM Peak		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Condominiums	47 Units	157	157	314	5	18	23	12	15	27	19	11	30

\* - No Noon Peak ITE Data Available – Used Average of AM and PM Peak Data

**Impact Analysis**

**Peak Hour Intersection Level of Service**

Existing traffic operations at all study area intersections are acceptable during all three peak hours analyzed. The projected ambient and background development traffic growth will increase impacts by 2026. Even with the addition of peak hour site-generated trips to the projected 2026 background traffic volumes, no study area intersection is expected to experience deficient traffic operations in any peak hour and projected maximum queues at all locations are not expected to be excessive. No additional mitigation improvements to any intersection were considered necessary. A summary of the traffic operations for each intersection, related to vehicular delays (intersection average as a whole if signalized, critical movement if stop-controlled) and the corresponding traffic simulation Level-of-Service (LOS<sub>s</sub>) is shown in **Table ES-2**.

**Table ES-2. Peak Hour Intersection Capacity Analysis Summary**

Intersections	Peak Hour	2022 Existing		2026 No-Build		2026 Build Two Access Points		2026 Build One Access Point		2026 Mitigated	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Homestead Road & Weaver Dairy Road Extension	AM	B	15.6	A	9.0	A	9.1	A	9.0	N/A	N/A
	NOON	B	14.2	B	10.4	A	9.8	B	10.0	N/A	N/A
	PM	B	16.4	B	13.2	B	13.0	B	13.4	N/A	N/A
Homestead Road & Aquatic Drive / Chapel View Apts Driveway <sup>#</sup>	AM	A	7.7	A	8.2	A	8.9	A	9.6	N/A	N/A
	NOON	A	6.2	A	6.7	A	7.3	A	7.5	N/A	N/A
	PM	A	7.5	A	9.1	A	9.4	B	10.4	N/A	N/A
Homestead Road & NC 86 (Martin Luther King, Jr. Boulevard)	AM	B	17.0	B	14.2	B	14.4	B	14.3	N/A	N/A
	NOON	B	19.7	C	22.8	C	23.1	C	23.2	N/A	N/A
	PM	B	16.5	B	17.6	B	18.0	B	18.1	N/A	N/A
Weaver Dairy Road Extension & Sonoma Way / Napa Valley Way <sup>#</sup>	AM	A	8.3	A	8.8	A	9.1	A	8.6	N/A	N/A
	NOON	A	5.7	A	5.9	A	6.2	A	5.8	N/A	N/A
	PM	A	7.5	A	8.5	A	8.9	A	8.0	N/A	N/A
Aquatic Drive & Proposed Site Driveway <sup>#</sup>	AM	N/A	N/A	N/A	N/A	A	4.5	A	4.5	N/A	N/A
	NOON	N/A	N/A	N/A	N/A	A	4.6	A	4.5	N/A	N/A
	PM	N/A	N/A	N/A	N/A	A	4.6	A	4.5	N/A	N/A

N/A – Not Applicable or No Improvements Necessary

***BOLD/ITALICS*** – Critical Movement or Overall Intersection Requires Mitigation Per Town TIA Guidelines

# - Worst-Case LOS/Delay for Unsignalized/Stop-Controlled Critical Movement



**Access Analysis**

Vehicular site access to the project is to be accommodated at a proposed full movement local street access connecting to Aquatic Drive about 1,100 feet to the north of Aquatic Drive's intersection with the Homestead Road. The proposed driveway has single inbound and outbound lanes. A second local street access connection is also proposed to link with Cabernet Drive within the Vineyard Square subdivision. This connection would provide access between Stanat's Place and the Weaver Dairy Road Extension via Napa Valley Way. Driveway throat lengths, and intersection/driveway separation minimum criteria, as set forth in the 2003 *NCDOT Policy on Street and Driveway Access to North Carolina Highways* and the 2017 Town of Chapel Hill Design Manual are acceptable for current site plans for the project.

Access for pedestrians is adequate in the project study area and will be improved with the construction of the Town's Homestead Road Improvements project. Crosswalk exists across the NC 86, Aquatic Drive, and Weaver Dairy Extension intersections. No specific bicycle amenities are present along Homestead Road, but bicycle lanes are present on the Weaver Dairy Road Extension and along NC 86 north of Homestead Road. Additional bicycle lanes/off-road paved paths along Homestead Road will be provided upon the completion of the Town's improvement project.

**Signal Warrant Analysis**

Based on projected 2026 traffic volumes and proposed access plans, no unsignalized study area intersection with Homestead Road would warrant the installation of a traffic signal, based on the Peak Hour warrant methodology found in the *2009 Manual on Uniform Traffic Control Devices (MUTCD)*.

**Crash Analysis**

Data from the NCDOT Traffic Safety Unit was provided for the five-year period 2/1/2017 to 1/31/2022 for the segments of Homestead Road and Weaver Dairy Road Extension in the vicinity of the proposed site. There were 13 crashes reported along Homestead Road study area corridor between Weaver Dairy Road Extension and NC 86 over the five year period and 3 crashes along Weaver Dairy Road Extension north of Homestead Road to Sonoma Way. The primary crash type was rear end crashes and crashes were primarily clustered near the NC 86 intersection. Overall, the number and severity of crashes along Homestead Road and Weaver Dairy Road Extension in the project study area is lower than state-wide averages for similar facilities.

**Other Transportation-Related Analyses**

Other transportation-related analyses relevant to the 2001 Town of Chapel Hill Guidelines for the preparation of Traffic Impact Studies were completed as appropriate. The following topics listed in **Table ES-3** are germane to the scope of this study.

**Table ES-3. Other Transportation-Related Analyses**

<b>Analysis</b>	<b>Comment</b>
Turn Lane Storage Requirements	Storage bay lengths at study area intersections were analyzed using TransModeler maximum queue length estimates for the 2026 Build Scenario. At the intersection of Homestead Road and Weaver Dairy Road Extension, the southbound right-turn lane queue may exceed its existing storage regardless of site traffic impacts. Adjustments to signal timing may be necessary to mitigate this issue. No other intersection maximum queue results indicate potential queue spillback.
Appropriateness of Acceleration/Deceleration Lanes	With low posted neighborhood speed limits and relatively light traffic turning volumes, no additional acceleration/decelerations lanes are necessary in the vicinity of the project. Existing roadway facilities have appropriate auxiliary turn lanes to facilitate traffic flow.



Analysis	Comment
Pedestrian and Bicycle Analysis	Existing pedestrian access and connectivity is adequate along the Homestead Road corridor just south of the site, though some gaps exist on both sides of the road in certain areas. Bicycle lanes extend along NC 86 north of Homestead Road and along the Weaver Dairy Road Extension with bicycle sharrows present on Aquatic Drive, but no bicycle facilities exist along Homestead Road within the project study area. The Town's Homestead Road Improvements project will considerably improve pedestrian and bicycle facilities along Homestead Road to the west of the project study area.
Public Transportation Analysis	Public transportation service to the study area, and to the proposed site is adequate, with bus stops and multiple local and regional bus routes on both NC 86 and Homestead Road proximate to the site.

**Mitigation Measures/Recommendations**

**Planned Improvements**

There are no North Carolina Department of Transportation improvement projects for study area roadway facilities within the analysis year time frame of 2022-2026. The Town of Chapel Hill has a transportation improvement project currently slated for construction prior to the 2026 site build-out year. The Homestead Road Improvements project (U-4726 IK) will create a consistent three-lane roadway cross-section west of the Weaver Dairy Road Extension intersection, as well as construct pedestrian and bicycle facility improvements between Seawell School Road and Weaver Dairy Road Extension. Improvements related to this project are shown schematically on **Figure ES-3**.

The Town also has the North-South Bus Rapid Transit Project, which will provide dedicated lanes for transit along the NC 86 corridor, along with other transit amenity improvements scheduled for construction in 2028. As final design details are not complete as of the submittal of this TIA, no specific lane usage changes along NC 86 were analyzed as part of this study.

**Background Committed Improvements**

Several traffic impact studies for development projects in and near the study area recommended signal timing reoptimization for signalized intersections along the NC 86 corridor by their respective build-out years. It is assumed that signal timing reoptimization will occur for the NC 86 corridor and for the Homestead Road/Weaver Dairy Road intersection by the year 2026, whether or not specifically needed by any of the proposed background traffic generating developments included in this study.

**Applicant Committed Improvements**

Based on the preliminary site plans and supporting development information provided, there are several specific transportation-related improvements proposed for the Stanat's Place project. Internal and external improvements (shown schematically in **Figure ES-3**) include:

- Provision of a primary full movement access street connecting to Aquatic Drive with a proposed unsignalized crosswalk to access existing sidewalk on the eastern side of Aquatic Drive. Sidewalk on at least one side of this access street, along with all other proposed access streets within Stanat's Place will be provided.
- Provision of a multi-use path along the southern property frontage that ties into the proposed sidewalk described above and would allow future connection to undeveloped properties to the west near the Weaver Dairy Road Extension.
- Construction of a full access minor street connection to existing Cabernet Drive with an accompanying extension of existing sidewalk along Cabernet Drive to connect to internal sidewalk in the Stanat's Place development.

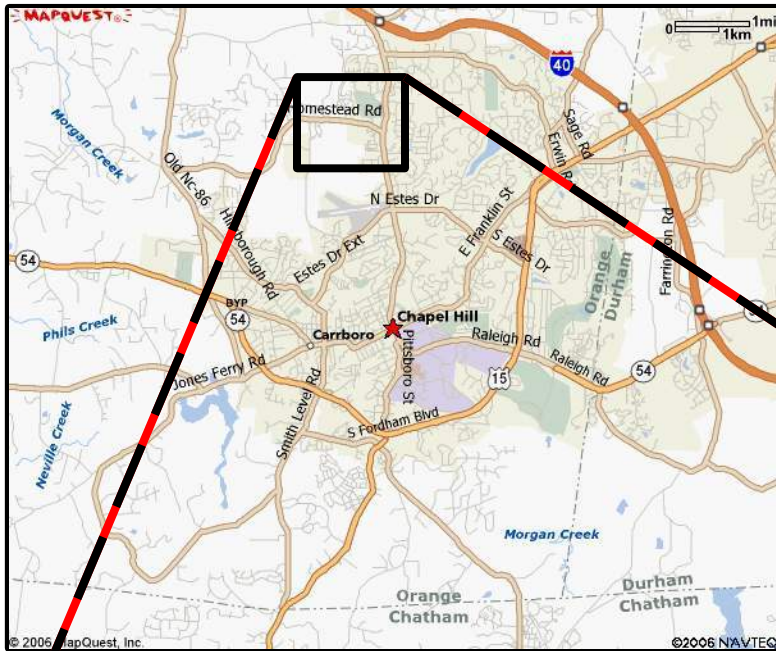


### Necessary Improvements





Based on traffic capacity analyses for the 2026 design year with one access point or two access points for the Stanat's Place development and analyses of existing study area turning bay storage lengths and site access, the following improvement is recommended as being necessary for adequate transportation network operations and safety (see **Figure ES-3**).

- The proposed local access connection between the site and Cabernet Drive is not expected to cause excessive additional traffic demands through the existing Vineyard Square neighborhood, nor conversely to attract excessive traffic demand from the existing neighborhood through the Stanat's Place development. To help ensure that traffic traveling between the two neighborhoods maintains appropriate speeds using the connection, it is recommended that a traffic calming measure – such as a raised speed table –be constructed in the vicinity of the proposed connection along Cabernet Drive, along with appropriate upstream warning signage in both directions for the speed table. Coupled with the nearby curvature of the Cabernet Drive extension into Stanat's Place and the presence of on street parked vehicles in the Vineyard Square subdivision, these measures should mitigate any excessive vehicle speeds in the vicinity of this proposed connection.

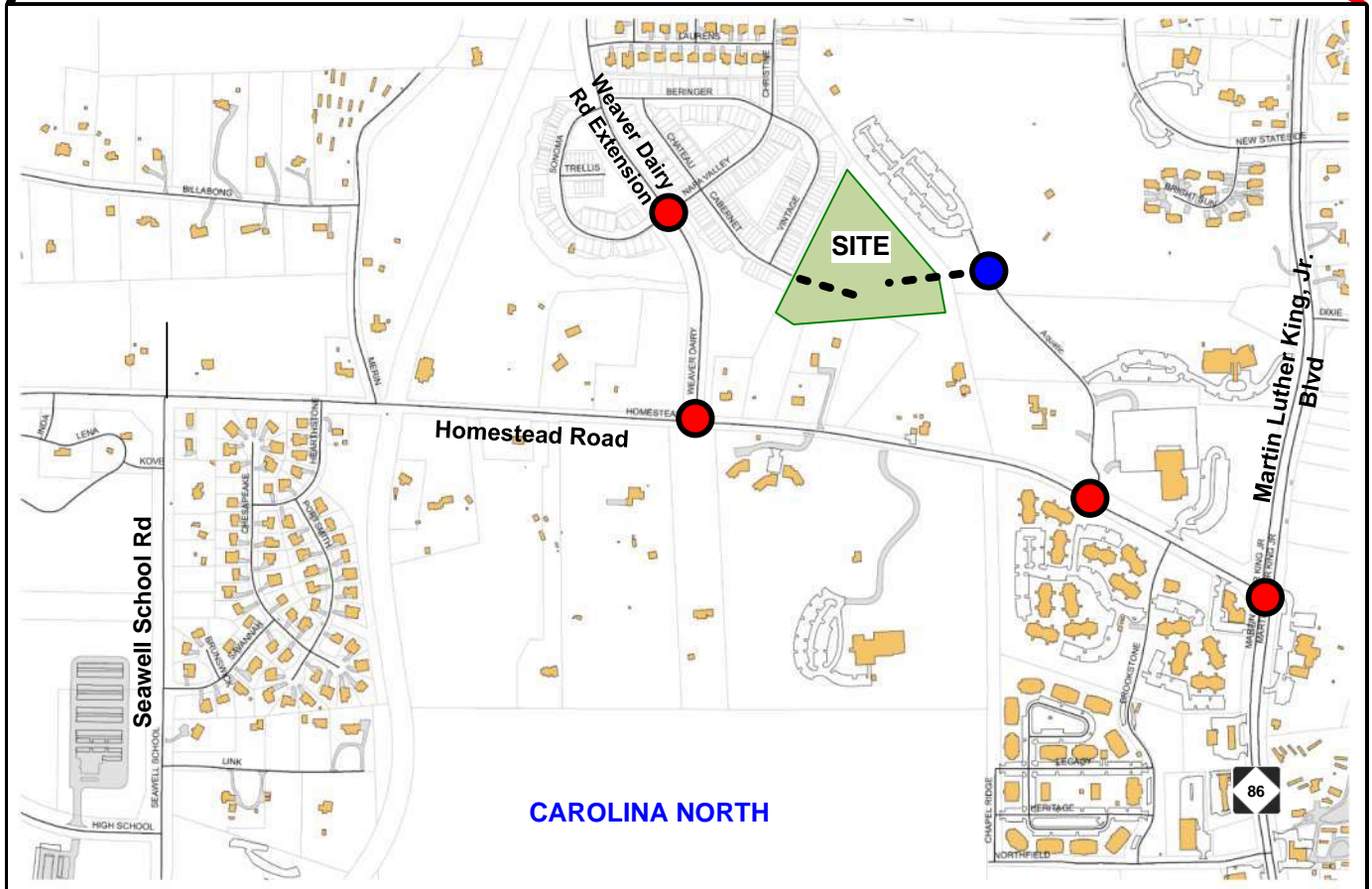




**LEGEND**

-  = Existing Building Footprint
-  = Existing Study Area Intersection
-  = Proposed Site Driveway
-  = Proposed 2200 Homestead Site

 **NOT TO SCALE**



Source: Town of Chapel Hill GIS Files

**DRAFT**

**HNTB**



**Stanat's Place Residential  
Transportation Impact Analysis**

**DATE:** March 2022

**PROJECT STUDY AREA**

**FIGURE ES-1**

EXISTING POND:	0.084 AC
RIGHT OF WAY:	1.294 AC
TOTAL LAND AREA NOT COUNTED:	3.429 AC
APPLICABLE LAND AREA:	4.734 AC
TREE CANOPY REQUIRED:	4.734 AC X 30% = 1.420 AC
EXISTING TREE CANOPY TO REMAIN:	1.130 AC
ADDITIONAL TREE CANOPY REQUIRED:	0.291 AC
REQUIRED REPLACEMENT TREES (1 PER 500 SF):	25 TREES = 0.287 AC
PROPOSED STREET TREES:	26 TREES
OTHER SITE TREES:	4 TREES
TOTAL TREES:	30 TREES

**CODED NOTES**

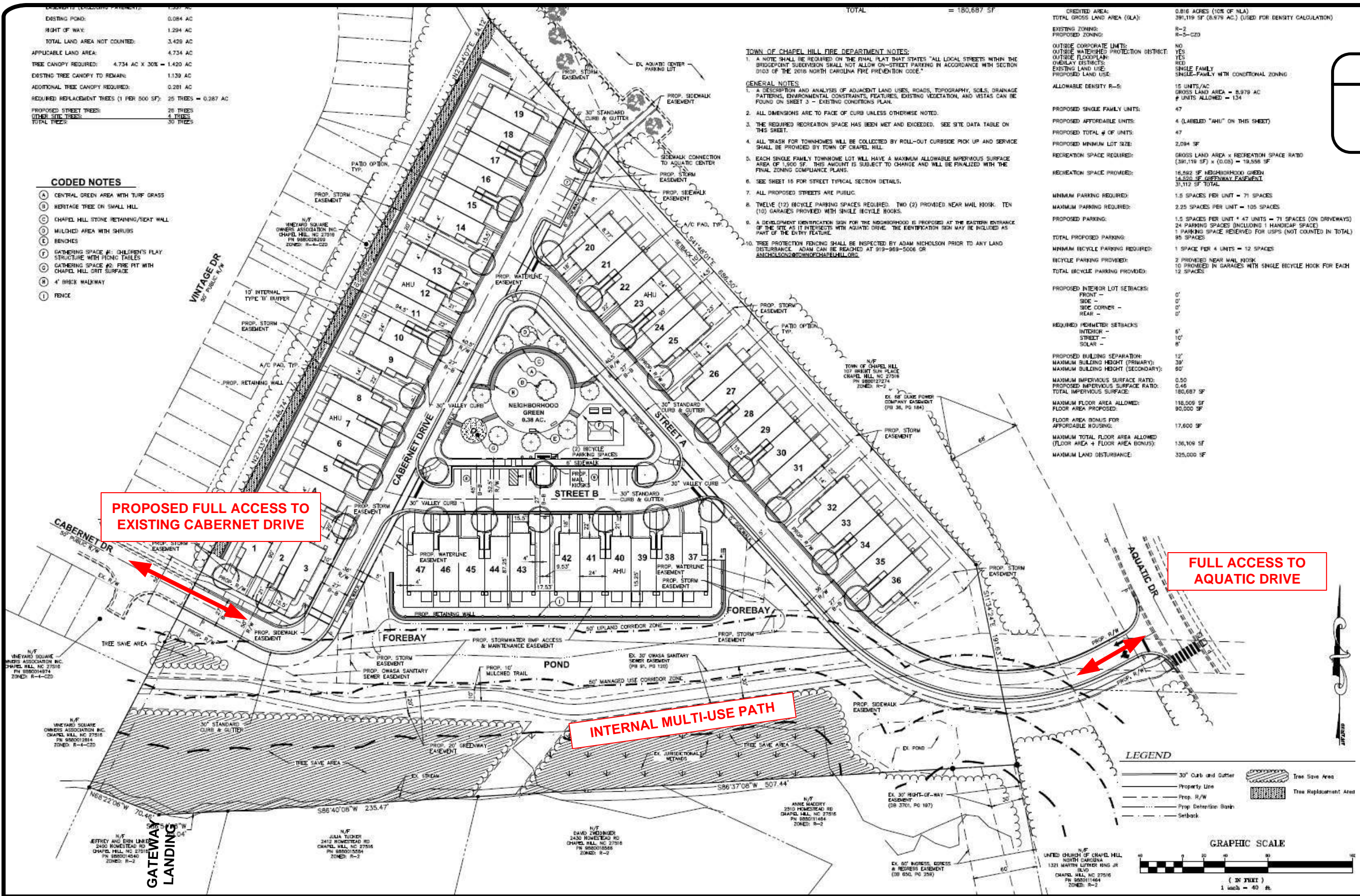
- (A) CENTRAL GREEN AREA WITH TURF GRASS
- (B) HERITAGE TREE ON SMALL HILL
- (C) CHAPEL HILL STONE RETAINING/DEAT WALL
- (D) MULCHED AREA WITH SHRUBS
- (E) BENCHES
- (F) GATHERING SPACE #1 CHILDREN'S PLAY STRUCTURE WITH BENCH TABLES
- (G) GATHERING SPACE #2 FIRE PIT WITH CHAPEL HILL GRIT SURFACE
- (H) 4' BRICK WALKWAY
- (I) FENCE

- TOWN OF CHAPEL HILL FIRE DEPARTMENT NOTES:**
- A NOTE SHALL BE REQUIRED ON THE FINAL PLAN THAT STATES "ALL LOCAL STREETS WITHIN THE BRIDGEPOINT SUBDIVISION SHALL NOT ALLOW ON-STREET PARKING IN ACCORDANCE WITH SECTION 0103 OF THE 2016 NORTH CAROLINA FIRE PREVENTION CODE."
- GENERAL NOTES:**
- A DESCRIPTION AND ANALYSIS OF ADJACENT LAND USES, ROADS, TOPOGRAPHY, SOILS, DRAINAGE PATTERNS, ENVIRONMENTAL CONSTRAINTS, FEATURES, EXISTING VEGETATION, AND METAS CAN BE FOUND ON SHEET 3 - EXISTING CONDITIONS PLAN.
  - ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
  - THE REQUIRED RECREATION SPACE HAS BEEN MET AND EXCEEDED. SEE SITE DATA TABLE ON THIS SHEET.
  - ALL TRASH FOR TOWNHOMES WILL BE COLLECTED BY ROLL-OUT CURBSIDE PICK UP AND SERVICE SHALL BE PROVIDED BY TOWN OF CHAPEL HILL.
  - EACH SINGLE FAMILY TOWNHOME LOT WILL HAVE A MAXIMUM ALLOWABLE IMPERVIOUS SURFACE AREA OF 1,500 SF. THIS AMOUNT IS SUBJECT TO CHANGE AND WILL BE FINALIZED WITH THE FINAL ZONING COMPLIANCE PLANS.
  - SEE SHEET 16 FOR STREET TYPICAL SECTION DETAILS.
  - ALL PROPOSED STREETS ARE PUBLIC.
  - TWELVE (12) BICYCLE PARKING SPACES REQUIRED. TWO (2) PROVIDED NEAR MAIL HOOK. TEN (10) GARAGES PROVIDED WITH SINGLE BICYCLE HOOKS.
  - A DEVELOPMENT IDENTIFICATION SIGN FOR THE NEIGHBORHOOD IS PROPOSED AT THE EASTERN ENTRANCE OF THE SITE AS IT INTERSECTS WITH AQUATIC DRIVE. THE IDENTIFICATION SIGN MAY BE INCLUDED AS PART OF THE ENTRY FEATURE.
  - TREE PROTECTION FENCING SHALL BE INSPECTED BY ADAM NICHOLSON PRIOR TO ANY LAND DISTURBANCE. ADAM CAN BE REACHED AT 919-369-5006 OR ANICHOLSON@TOWNOFCHAPELHILL.ORG.

CREATED AREA:	0.816 ACRES (10% OF NLA)
TOTAL GROSS LAND AREA (GLA):	391,119 SF (8,979 AC.) (USED FOR DENSITY CALCULATION)
EXISTING ZONING:	R-2
PROPOSED ZONING:	R-5-C20
OUTSIDE CORPORATE LIMITS:	NO
OUTSIDE WATERSHED PROTECTION DISTRICT:	YES
OUTSIDE FLOODPLAIN:	YES
OVERLAY DISTRICTS:	NO
EXISTING LAND USE:	SINGLE FAMILY
PROPOSED LAND USE:	SINGLE-FAMILY WITH CONDITIONAL ZONING
ALLOWABLE DENSITY R-5:	15 UNITS/AC
	GROSS LAND AREA = 8,979 AC
	# UNITS ALLOWED = 134
PROPOSED SINGLE FAMILY UNITS:	47
PROPOSED AFFORDABLE UNITS:	4 (LABELED "AHU" ON THIS SHEET)
PROPOSED TOTAL # OF UNITS:	47
PROPOSED MINIMUM LOT SIZE:	2,094 SF
RECREATION SPACE REQUIRED:	GROSS LAND AREA X RECREATION SPACE RATIO (391,119 SF) X (0.05) = 19,556 SF
RECREATION SPACE PROVIDED:	16,592 SF NEIGHBORHOOD GREEN 14,500 SF GOLFWAY FOREMANT 31,112 SF TOTAL
MINIMUM PARKING REQUIRED:	1.5 SPACES PER UNIT = 71 SPACES
MAXIMUM PARKING REQUIRED:	2.25 SPACES PER UNIT = 105 SPACES
PROPOSED PARKING:	1.5 SPACES PER UNIT * 47 UNITS = 71 SPACES (ON DRIVEWAYS) 24 PARKING SPACES (INCLUDING 1 HANDICAP SPACE) 1 PARKING SPACE RESERVED FOR USPS (NOT COUNTED IN TOTAL) 95 SPACES
TOTAL PROPOSED PARKING:	95 SPACES
MINIMUM BICYCLE PARKING REQUIRED:	1 SPACE PER 4 UNITS = 12 SPACES
BICYCLE PARKING PROVIDED:	2 PROVIDED NEAR MAIL HOOK 10 PROVIDED IN GARAGES WITH SINGLE BICYCLE HOOK FOR EACH 12 SPACES
PROPOSED INTERIOR LOT SETBACKS:	FRONT - 0' SIDE - 0' REAR CORNER - 0' REAR - 0'
REQUIRED SETBACKS:	INTERIOR - 6' STREET - 10' SOLAR - 8'
PROPOSED BUILDING SEPARATION:	12'
MAXIMUM BUILDING HEIGHT (PRIMARY):	39'
MAXIMUM BUILDING HEIGHT (SECONDARY):	80'
MAXIMUM IMPERVIOUS SURFACE RATIO:	0.50
PROPOSED IMPERVIOUS SURFACE RATIO:	0.46
TOTAL IMPERVIOUS SURFACE:	180,687 SF
MAXIMUM FLOOR AREA ALLOWED:	116,505 SF
FLOOR AREA PROPOSED:	90,000 SF
FLOOR AREA BONUS FOR AFFORDABLE HOUSING:	17,600 SF
MAXIMUM TOTAL FLOOR AREA ALLOWED (FLOOR AREA + FLOOR AREA BONUS):	136,109 SF
MAXIMUM LAND DISTURBANCE:	325,000 SF

**LEGEND**

= PROPOSED SITE ACCESS



NOT TO SCALE

**Stanat's Place Residential**  
 Transportation Impact Analysis  
**PRELIMINARY SITE PLAN**

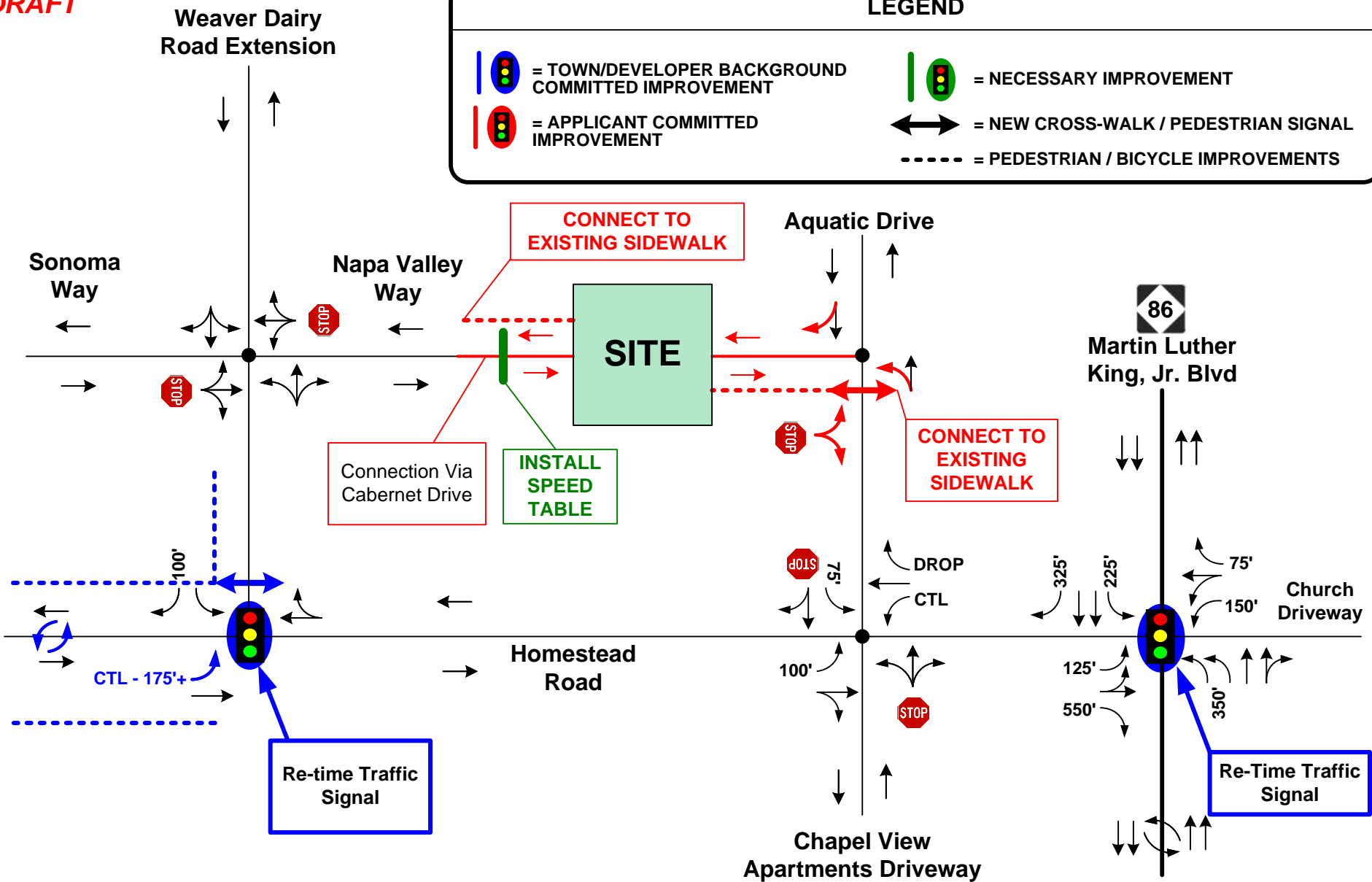
DATE: March 2022  
**FIGURE ES-2**



**DRAFT**

**LEGEND**

- = TOWN/DEVELOPER BACKGROUND COMMITTED IMPROVEMENT
- = APPLICANT COMMITTED IMPROVEMENT
- = NECESSARY IMPROVEMENT
- = NEW CROSS-WALK / PEDESTRIAN SIGNAL
- = PEDESTRIAN / BICYCLE IMPROVEMENTS



## **Stanat's Place Energy Management Plan**

KB Homes will be the builder of the Stanat's Place community. They are the industry leader in providing energy efficient, sustainably built homes. They work under the Energy Star certification platform and each home is certified by independent inspectors from Southern Energy Management. Energy Star certification produces energy efficiency ratings that exceed most current building codes by 20% meeting or exceeding Chapel Hill Town Council policy. In addition, KB Homes uses a variety of water saving measures in their home construction under the Environmental Protection Agencies Water Sense Program, they use recycled building materials where possible, and employ recycling techniques on every job site. KB Home makes energy efficiency a big part of their home building process and has provided a wealth of material explaining what they are doing, and what the results of their efforts are using verifiable metrics.

I have provided the following documents for your review.

1. KB Homes 2021 Sustainability Report.
2. Summary of 2021 achievements from the Sustainability Report.
3. Energy Star National Rater Field Checklist.
4. List of Energy Savings Features that will be built into the Stanat's Place homes.
5. Southern Energy Management's Home Performance Dashboard Results.
6. KB Home Efficiency Report Summary.

Please use the following index to the KB Home Sustainability Report to reference the information requested by Mr. Richardson in the Staff comments from April 7<sup>th</sup>, 2022.

Page	Subject
14	Awards to KB Homes for Sustainability 2021.
18-19	Specific Accomplishments 2021.
26	HERS Scores.
27	Energy Star.
28	HERS Explained.
31-32	Water Conservation.
38	Commitment to First Time Home Buyers and Middle-Income Housing.
50	Building Certifications.
61-61	Greenhouse Gas Emissions and Carbon Reductions.
65-66	Environmental Performance Overview.

### **Site Location and Design**

In addition to the techniques used by KB Homes in the individual home construction, the site itself has been located and designed to reduce transportation related energy use and promote the BRT and the Town's mobility plan. We have also saved significant areas of natural open space, provided

ample street trees for tree canopy, and a central park which is mostly comprised of natural surfaces all of which help reduce the heat island effect.

1. The location of Stanat's Place and the site plan will facilitate the long-term reduction of fossil fuel and has been designed to preserve open space and tree canopy thus reducing the urban heat island effect.
  - a. Stanat's place is located within walking distance of Martin Luther King Blvd. where the bus rapid transit (BRT) is currently being planned to provide fast and efficient mass transit opportunities for the residents. There are several Chapel Hill Transit stops surrounding Stanat's Place in addition to the future BRT. There are stops at Weaver Dairy Extension and Homestead Road, Aquatic Drive and Homestead Road, Chapel View Apartments, and numerous bus stops along Martin Luther King Jr. Blvd.
  - b. Stanat's Place will have internal public sidewalks that will connect to both Cabernet Drive and Aquatics Drive. These will in turn connect to Weaver Dairy Road and Homestead Road respectively, and to an expansive network of public sidewalks. This will make it possible to walk to all three levels of public school, Homestead Park, the Seymore Senior Center, the Orange County Health and Human Services Center and the BRT stops along Martin Luther King Jr. Blvd.
  - c. Stanat's Place will provide a vital link in the Chapel Hill Greenway system dedicating a Greenway easement along the southern portion of the site from west to east connecting the Greenway Trail to Homestead Park. The Greenway Trail will eventually lead north to the Green Tract and Eubanks Road and south to the Horace Williams property where UNC will have its satellite campus.
  - d. The southern portion of the site will be left as open space and Resource Conservation District (RCD), and we have proposed a central park which the homes will look out onto. In addition, the proposed landscape buffers will exceed the required Town buffers by 100% on all sides. This combined with our street tree proposal will help reduce the heat island effect.

Sincerely,

ADVANCED CIVIL DESIGN, INC.

*Cameron M. Rice*

---

Cameron M. Rice, P.E.  
Senior Project Manager

cc: 21-0002-978

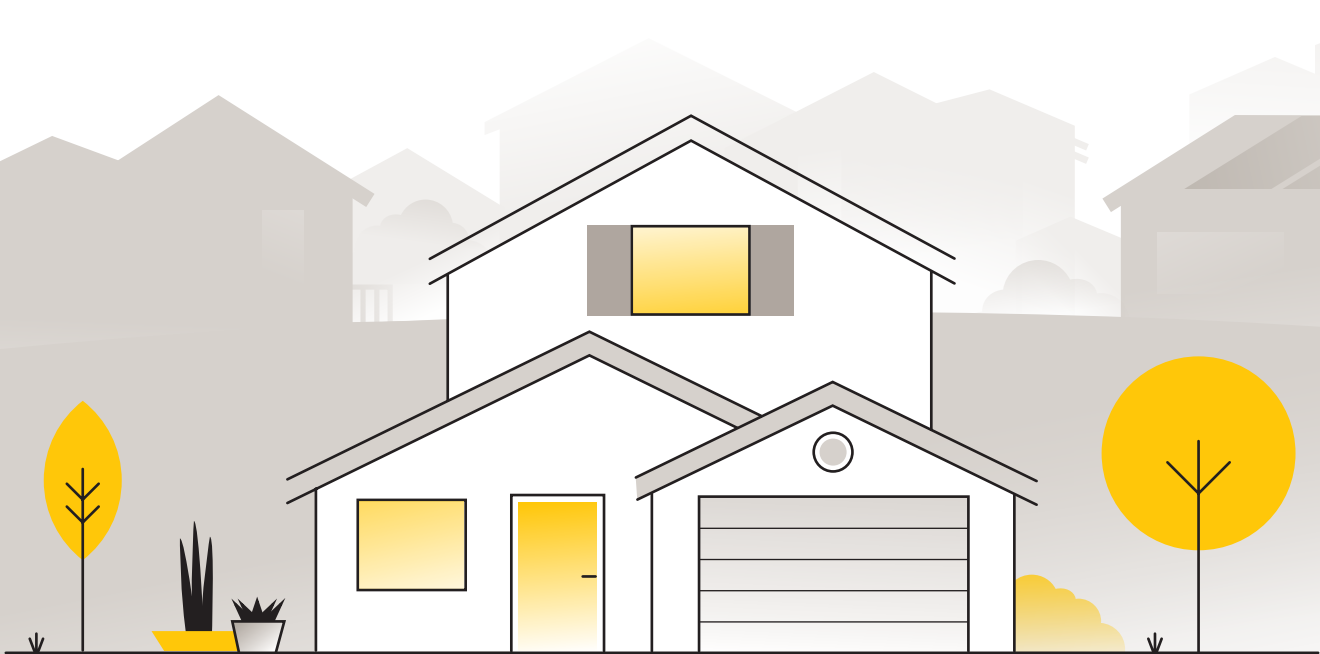


Built on Relationships

Better  
**Homes**

Better  
**Communities**

Better  
**Future**



2021 **Sustainability** Report

# Letter from KB Home Chairman, President and Chief Executive Officer, Jeffrey Mezger

I am honored to lead one of the oldest and largest homebuilders in the United States, whose legacy is built on strong relationships and leading customer satisfaction. For 65 years, KB Home has pioneered new approaches to building homes, evolved our home designs to reflect contemporary living, and created vibrant, enduring communities. We have helped generations of American families achieve their dreams of homeownership – many for the first time.

We aspire to be the most customer-obsessed homebuilder in the world. Our consistent, rigorous focus on understanding homebuyers' needs and desires helps us to deliver a compelling, personalized product and an exceptional homebuying experience to every customer, every day. We are proud that our customers' trust in us has made KB Home the #1 Customer-Ranked National Homebuilder in third-party customer surveys.

Over 15 years ago, we decided to make a customer-driven, industry-first commitment to sustainability paired with affordability. Even then, we believed that sustainability could go far beyond building what many called "green homes." It could deepen the relationships on which our success has always been based by building innovative homes for our customers and our planet, homes that have healthier indoor air environments and are more efficient, now and into the future. Building welcoming communities that enable people to put down the roots that sustain their social bonds and can help them with generating wealth over time. And building a stronger corporate future by implementing rigorous governance through integrity, purpose and an inclusive culture, shaping a resilient company that can deliver long-term value.

We took this path because we believe that what we do matters. It matters to our homeowners and their families, who make their lives in the homes and communities we build, as well as to the local governments who look to us to help them meet their housing needs. It matters to our employees, who find meaningful work in a safe and supportive workplace, and to our suppliers and trade partners, who share our drive for sustained excellence. And it also matters to all of us who believe in the power of business to do well while doing good.

Both today and for the future, knowing what matters guides our actions and produces meaningful results.

## **We build better homes that we believe can help reduce climate change and protect the world we all share**

We have made sustainability the foundational lens for our operations. Our energy- and water-efficient new homes are designed to reduce the total cost of homeownership while also reducing their environmental footprints. Since 2000, we have built more than 160,000 high-performance ENERGY STAR® certified homes and delivered more than 14,000 solar homes, cumulatively saving our homeowners an estimated \$856 million in utility bills and reducing greenhouse gas (GHG) emissions by an estimated 6.3 billion pounds while offering features that promote healthier indoor air environments. And I'm pleased to share that our focus on sustainability has made us the #1 energy-efficient national homebuilder with the lowest publicly reported home energy rating score among large production home builders.

## **We create better communities that help expand the American dream for all of us**

We aim to give our customers the ability to purchase a new home that reflects what they value and how they want to live, at a price they can afford. Homeownership is one of the ways Americans of every background can potentially build household wealth. It also helps create stable communities where strong social connections thrive. In 2021, we helped 13,472 homebuyers achieve the American dream – 62% of them were first-time homebuyers who placed their trust in KB Home to help them make this significant investment in their futures. We also create meaningful change through KB Cares, our philanthropic program, helping thousands of Americans and contributing to local communities across the country.

## **We strive for a better future that creates value for all stakeholders by operating with integrity and purpose**

We continually strive to build a more sustainable company, committed to operational excellence produced through a respectful, team-focused workplace and strong governance standards and practices. And our approach has been recognized. We're humbled to have been named to Newsweek®'s 2022 list of America's Most Trusted Companies and recognized on its Most Responsible Companies list, the only national builder to receive this distinction for two consecutive years.

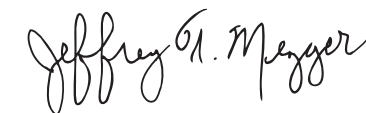
We've distinguished ourselves as an employer, too. In 2021, The Wall Street Journal® and the Drucker Institute named us to their Management Top 250 list of the most effectively managed companies in the country, and we've been recognized among the "World's Most Admired Companies" on Fortune®'s 2022 list. Forbes® also named us as one of America's Best Midsize Employers for the second consecutive year, placing us in the top 10% of the 500 companies ranked for 2022.

It is gratifying to earn such acclaim, but it's even better to know that we attained this recognition by putting our customers first. We continue to be motivated by the privilege of building our customers' dreams and placing the great American aspiration of homeownership in reach for families across our nation.

Looking forward, we intend to continue our journey by applying innovation toward a more sustainable future. As we have over the past 15 years – even in the midst of a continuing pandemic – we plan to progressively incorporate high-efficiency, cost-effective technologies into our homes. We cannot do this alone; we are leveraging our long-term, collaborative relationships with our suppliers to help design and adopt emerging innovations. We are also taking an equally important step in our sustainability evolution: acting as a catalyst within our value chain to minimize embodied carbon in the materials used to construct our homes.

This is our 15th Annual Sustainability Report, the longest-running publication of its kind in the homebuilding industry. In the pages that follow, we share our pursuit of better homes, better communities and a better future. Most importantly, we share our focus on building enduring relationships and why it matters, to our customers, to our business, to our employees and the environment we all share.

I invite you to join us on our journey today and into the future.



# Report Purpose and Structure

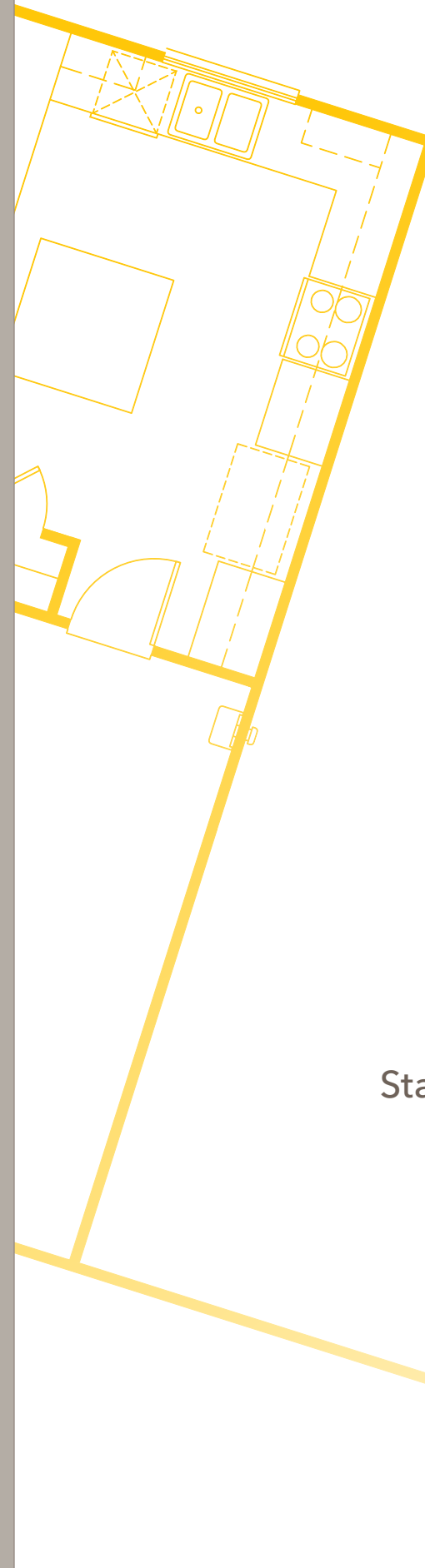
This is our 15th Annual Sustainability Report, which follows our most recent report published on Earth Day in April 2021. In this report, we discuss our accomplishments in 2021 and our priorities moving forward. In addition, with this report, we seek to foster continued discussion and engagement with all of our stakeholders on the complex issues surrounding sustainability and broader environmental, social and governance (ESG) practices for long-term value creation. All information provided in this report is for our fiscal year ended November 30, 2021, unless otherwise noted. Inquiries regarding our sustainability initiatives can be directed to [sustainability@kbhome.com](mailto:sustainability@kbhome.com).

## Reporting Standards

We believe transparency and accountability are important elements of sustainability reporting. Our reporting herein and elsewhere is aligned with the SASB, TCFD, GRI and UN Sustainable Development Goals (SDG) frameworks, providing data consistency and decision-useful information. Indices for both SASB and GRI can be found in the Stakeholder Transparency & Data Tables section of this report, as well as a chart that demonstrates alignment between select UN SDGs and our policies and strategies.

### Advisory Note

Certain matters discussed in this report, including any statements that are predictive in nature or concern future performance, or our future initiatives or actions and their expected results, are forward-looking statements and/or reflect aspirational goals. These statements are based on current expectations, hopes and projections about future events and are not guarantees of future performance. We do not have a specific policy or intent of updating or revising forward-looking statements. Actual events and results may differ materially from those expressed or forecasted in forward-looking or aspirational statements due to a number of factors, including, but not limited to: general economic and business conditions; government actions and regulations directed at or affecting the housing market, the homebuilding industry or construction activities; costs and/or charges arising from regulatory compliance requirements or from legal, arbitral or regulatory proceedings, investigations, claims or settlements, including injunctions, consent decrees or other voluntary or involuntary restrictions or adjustments to our business operations; consumer interest in our new-home communities and products, particularly from first-time homebuyers and higher-income consumers; our ability to execute on our sustainability and other business plans or initiatives within the timeframes and at the cost, revenues or margins we expect; the pace, scale, trajectory and affordability of technologies that can generally address, or specifically enable us to address, climate change and any negative effects from it; an epidemic or pandemic (such as the outbreak and worldwide spread of COVID-19), and the measures that international, federal, state and local governments, agencies, law enforcement and/or health authorities implement to address it, which may (as with COVID-19) precipitate or exacerbate one or more of the above-mentioned and/or other risks; and other events outside of our control. Please see our periodic reports and other filings with the U.S. Securities and Exchange Commission (SEC) for a further discussion of these and other risks and uncertainties applicable to our business and our sustainability initiatives. In addition, the inclusion of information, or the manner in which it is described herein, in this report should not be construed as a characterization regarding the materiality or financial impact of that information.



About KB Home

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Better Homes

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Stakeholder Transparency  
& Data Tables

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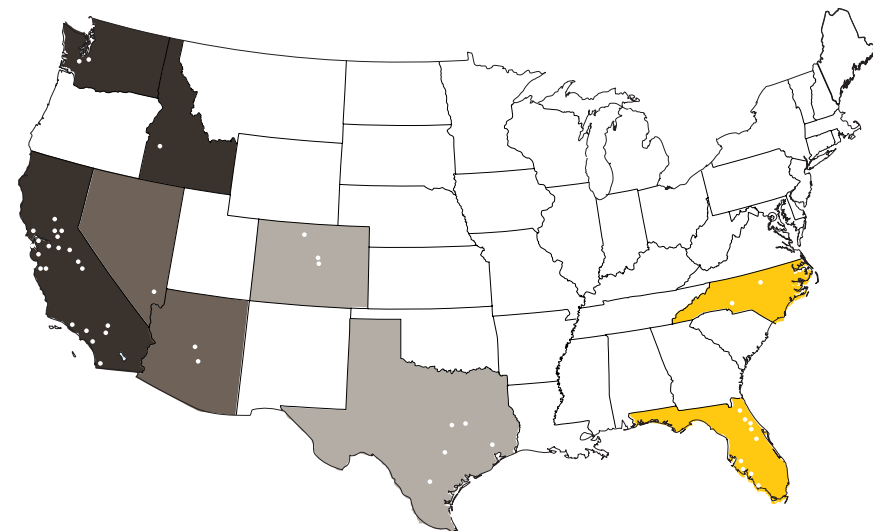


# KB Home Built on Relationships<sup>®</sup>

Relationships have been at the heart of what we do since day one. Understanding the needs of homebuyers before we break ground. Building homes where our customers can build their lives. Identifying the right principles and partners to guide us. Creating new pathways to the American dream. Sustainability has become an integral part of our business because it supports these goals, making homeownership more attainable, communities more resilient and the future more achievable.

# Our Company

KB Home builds in 47 markets across America.



Market listing as of report publication date:

- **West Coast**  
California  
Idaho  
Washington
- **Southwest**  
Arizona  
Nevada
- **Central**  
Colorado  
Texas
- **Southeast**  
North Carolina  
Florida

**Principal Business:** Building personalized new homes designed primarily for first-time and first move-up as well as second move-up and active adult homebuyers

Founded	<b>1957</b>
Chairman, President and CEO	<b>Jeffrey T. Mezger</b>
2021 Revenues	<b>\$5.72 Billion</b>
Homes Delivered in 2021	<b>13,472</b>
Total Homes Delivered Since 1957	<b>655,000+</b>
Total Land Owned or Under Option as of November 30, 2021	<b>86,768 Lots</b>
Community Count as of November 30, 2021	<b>217</b>
Ticker Symbol	<b>KBH</b>

## Our customer-obsessed approach to homebuilding

### Our Vision

To be the most customer-obsessed homebuilder in the world.

### Our Mission

Give our customers the ability to purchase a new home that reflects what they value and how they want to live, at a price they can afford.

### Our Values



#### We make relationships the foundation for all we do.

It takes strong relationships to build a home. To build a strong relationship it takes respect, integrity, and open and honest communication. Our employees are the heart and soul of KB, and that belief in relationships defines how we behave towards each other, how we treat our customers through every step of the process, and how we work with our suppliers, trades, and municipal partners.



#### We build homes that make lives better.

Innovative design and quality construction standards are the cornerstones of our brand. Behind our continuous drive to build exceptional homes is a passion for the well-being of those who live in them. From architecture to construction to customer service, we care about making our buyers' lives more comfortable, convenient and healthy. That's how we lead the industry in customer satisfaction and strive to keep it that way.



#### We believe that everyone deserves a home that's as unique as they are.

Our business model is built on a simple yet radical idea: a house becomes your home when it's an expression of who you are. That's why we give our customers the ability to choose – from homesite to elevation, from floor plan to design options – and a buying experience that's personalized from end to end.



#### We deliver more for less.

We believe that every customer deserves a home that lives up to their dreams. That's why it's our shared responsibility to ensure that what we build delivers great value, so that every customer gets a home – and a homebuying experience – that can exceed their expectations without exceeding their budget. It's a disciplined and responsible approach to homebuilding that's good for our homebuyers and our business.



#### We strive for a better shared future.

From individuals, to families, to whole communities, our collective actions can have a beneficial impact on the world. We believe that every decision we make, from how we manage our workplace, to how we run our operations, has the potential to advance environmental, social and economic sustainability.



## ■ Our values drive our stakeholder relationships

Building on relationships drives us to create a sustainable economic enterprise that can positively impact our stakeholders and deliver long-term value. Our stakeholders include:

### Our Homeowners and Homebuyers

We build places where our customers can fulfill the fundamental human need for connection, come together to rejuvenate and recharge, and create their own community of relationships in a place called home. A home is the largest purchase most people make in their lifetimes, and we are honored that our homebuyers trust us to build their dreams. Our internal customer satisfaction ratings as of April 2022 are at their highest in our history, and we are the #1 Customer-Ranked National Homebuilder according to third-party customer surveys, reflecting our ongoing attention to providing a quality customer experience.

### Our Employees

We strive to provide meaningful work and compensation to support our employee team to deliver superior customer satisfaction and stockholder value. We aim to be an employer of choice through our focus on inclusion, diversity and equitable treatment, as a culture of excellence and safety. We are privileged that our employees' opinions earned us a place on Forbes' 2022 list of America's Best Midsize Employers, the only national builder to receive this distinction. We are proud to be in the top 10% of the 500 companies ranked for 2022.

### Our Stockholders and Potential Investors

As a publicly held company, delivering long-term value to our stockholders is our top priority. We value the trust that has been placed in us, and we strive to honor that through sound corporate governance and disclosure, transparency and a two-way dialogue.

In 2009, we created a National Advisory Board (NAB) to support our stakeholder interactions, particularly around sustainability issues. This group, comprised of leaders from diverse backgrounds and disciplines, provides important perspectives on our strategies and initiatives. See page 55 for more information on the NAB and its current membership.

### Our Suppliers and Trade Partners

Effective collaboration with our trade partners is the engine that has driven our progress. Leveraging their experience, expertise and creativity is among our strongest business assets. They are also our partners in jobsite safety and waste reduction. We work to cultivate long-term relationships that allow us to create true partnerships.

### Local Government and Community Organizations

We endeavor to develop strong working relationships with local government officials in order to jointly identify housing needs and mutually beneficial solutions that aim to strengthen communities. We also partner with a number of local nonprofits and community organizations to contribute to the long-term social fabric of the areas in which we build.

### Environmental and Non-Governmental Organizations

As a leading voice for sustainability in the homebuilding industry, we partner with select national and local environmental and non-governmental organizations, both to learn from perspectives outside our industry and to join together on advocacy and awareness initiatives about important environmental and sustainability issues.



# We believe satisfied employees create a culture of excellence

KB Home strives to create a workplace environment that offers employees meaningful opportunities to grow as professionals and broaden their horizons. Our human capital investments are centered on supporting an equal opportunity, diverse and inclusive workforce with programs for training, career advancement, competitive benefits, incentives and initiatives that promote health, safety and wellness. We have published a Human Rights Statement that, among other things, demonstrates our attention to maintaining a work culture that treats all employees fairly and with respect.

We believe that KB Home's position as an industry leader in sustainability supports our ability to both attract and retain high-caliber individuals – people who are dedicated to leading the future of our industry. We are honored to be the only national builder named to Forbes 2021 and 2022 lists of America's Best Midsize Employers, the only national builder to receive this distinction. We are proud to be in the top 10% of the 500 companies ranked for 2022.



**2,244**  
full-time employees  
as of November 30, 2021

**100%**  
of our Board members  
and employees are covered  
by our Ethics Policy

**100%**  
of our national supplier  
agreements include  
obligations to acknowledge  
our Ethics Policy

**100%**  
of our employees  
are required to complete  
anti-harassment and  
anti-discrimination training

**100%**  
of our employees are  
certified on Ethics Policy

## Our diverse and inclusive culture is one of our greatest strengths

**Employee advancement is fueled by respectful work culture**, and we are committed to supporting a workplace that treats all employees with fairness and dignity, promotes inclusivity and provides equal opportunities for the professional growth of the diverse individuals who join us and advancement based on merit.

**We represent a diverse and inclusive workforce**, and benefit from attracting individuals focused on leading the future of sustainability. We utilize professional networks, minority partnerships, job boards, social media and specialized job sites to help us cast a wide net and encourage talented individuals to apply to work at KB Home.

### Workforce Diversity as of November 30, 2021

	Female	Minority
Managers	32%	21%
Overall	40%	35%

**We believe one of our strengths is our human capital development** efforts to retain and foster talent that helps us achieve our strategic goals. We strive to create an engaging internal environment that offers our employees satisfying opportunities, and an array of programs tailored to the needs of our workforce. During 2021, our team members completed more than 26,000 work-related courses in total, an average of approximately 12 courses per employee. Managers and supervisors are provided training to help their direct reports progress in their professional development.



Our corporate wellness program, Living Well: Built on Health, is complimentary for all KB Home employees to support their mental, emotional and physical health through fitness classes, interactive webinars and meetings on a range of topics like preventative care, natural medicine and nutrition.

In 2021, KB employees' attendance at Weekly Stretch and Yoga classes surpassed 1,600 individual sessions. For six weeks over the summer, 514 Fitness Challenge participants logged more than one million minutes of movement. In April and November, 265 KB employees participated in a sugar cleanse and reported notable improvements in their health.



## ■ We are honored to be the #1 Customer-Ranked National Homebuilder\*

Our vision is to be the most customer-obsessed homebuilder in the world, and feedback from our customers is an essential part of our business. We systematically follow up with all of our customers post-purchase using a comprehensive survey process. Our customers are generally eager to let us know about their experience, with 74% responding to our 30-day survey and 50% to our 11-month survey. In 2021, our full-year customer satisfaction rating was 94%, and 92% of these customers would recommend us to a friend. We have utilized this process for over a decade, and customer satisfaction data going back to 2012 can be found at the end of this report.




TrustBuilder® ratings and reviews are powered by NewHomeSource™, the leading new-home website delivering honest reviews from real homeowners about the homebuying experience. To provide a credible and accurate representation of buyer sentiment, all homebuyer reviews are independent and transparent. In other words, the reviews are real.

### ConsumerAffairs

ConsumerAffairs® is an online platform that gives companies the opportunity to engage with customers, collect reviews, respond quickly to resolve issues and build brand awareness.


See what our customers are saying at [kbhome.com/reviews](https://kbhome.com/reviews).

\* Based on an internal compilation of the nationwide average of customers in the above-noted third-party surveys over the prior 12 months through to April 11, 2022 among large production homebuilders. These are the top 20 U.S. homebuilders ranked by number of closings on the most recent annual Builder Magazine Builder 100 list that Builder Magazine identifies as operating in at least two regions (excluding any company primarily operating a single-family rental, build-on-your-lot or a manufactured home business, or operating as a nonprofit organization). Please note that KBH is part owner with other homebuilders of, and has a board seat at, Builder Homesite, Inc. (BHI), whose subsidiary, Builders Digital Experience (BDX), conducts the TrustBuilder® survey through NewHomeSource™. However, BHI has an independent management team, and KBH is not involved in TrustBuilder's collection or reporting of reviews or ratings. No affiliation or sponsorship is intended or implied with Consumer Affairs®. While we strive to be the highest-rated homebuilder in customer satisfaction, ratings are subject to change, and we cannot guarantee that we will be #1 in any given survey or in any given market at any point in time or over any particular period, or that any particular customer will be fully satisfied with their KB home. All trademarks are owned by the respective trademark owners.



**4.6 out of 5 stars**  
We are the highest-rated national builder on **TrustBuilder**

"I have purchased 6 homes, 3 of which were new construction and this experience went far beyond anything I've ever experienced... my sales person, Kevin, was phenomenal...I would recommend KB to everyone as I have finally found my forever home!"  
– Kristy of New Braunfels, TX



**4.5 out of 5 stars**  
We are the highest-rated national builder on **ConsumerAffairs**

"We were first-time buyers and explored with many other builders/sellers. Decided to go with KB because we felt like everyone involved in every step of the purchase was extremely professional, knowledgeable, and were willing to go above and beyond their job requirements and they did!"  
– Wint of Fontana, CA

## ■ We are recognized as a leader in sustainability and ESG practices in our industry

### Awards

KB Home's commitment to offering energy-efficient and water-saving features that can benefit homeowners and the environment, earned us key Environmental Protection Agency (EPA) awards.

- ★ 2021 ENERGY STAR® Partner of the Year – Sustained Excellence Award Winner (11 consecutive years)
- ★ 2021 Recipient of 25 ENERGY STAR Certified Homes Market Leader Awards, more than any other homebuilder in 2021
- ★ 2021 WaterSense® Sustained Excellence Award Winner, the only homebuilder to be honored by EPA WaterSense program for 11 straight years
- ★ 2021 RESNET HERS H<sub>2</sub>O award winner. First homebuilder to earn this award.



### Recognition

KB Home's focus on effective management and leading employment practices has garnered national attention.

- ★ Named to Newsweek's 2022 list of America's Most Trusted Companies
- ★ Named to Newsweek's 2022 list of America's Most Responsible Companies, the only national builder to receive this distinction two years in a row
- ★ Named one of America's Best Midsize Employers by Forbes in 2022, earning a place in the top 10% of the 500 companies ranked for 2022
- ★ Named to The Wall Street Journal's Management Top 250 list, the only national homebuilder to receive this distinction in 2021





# Sustainability is not just the right thing to do – it's also right for our business

Sustainability is both the right thing to do and the right thing for our business. It is the foundational core of our ESG practices – and we believe it provides long-term benefits for our customers, our operations and the world we all share.

We believe that sustainability is built on one essential idea: balance. We strive to ensure that today's homebuyers can achieve the dream of homeownership while balancing that objective with mindfulness about the sustainability needs of future generations and our environment. Sustaining the dream of homeownership both today and into the future is what we do every day. We closely collaborate with all our partners, both inside our company and beyond, in building a sustainable future together.



## Increasing New-Home Affordability

Our largest customer segment is first-time homebuyers. The homes we build help address the significant need in many of our markets to create additional housing that is affordable at median-income levels.



## Lowering the Total Cost of Homeownership

Energy- and water-efficient homes can be more affordable to operate than typical new or resale homes, which increases the long-term benefits to homeowners, thus making sustainability a compelling competitive advantage.



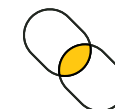
## Preserving the Environment and Natural Resources for Long-Term Value

Our scale, leadership and technical expertise help create positive environmental attributes in our homes. We prioritize energy- and water-efficient products as a business strategy for long-term value creation for our stakeholders and potential GHG emissions reduction.



## Designing Homes That Are Healthier for Residents

We have identified designing healthier homes as a key element of our sustainability platform, addressing the growing number of homebuyers who prioritize homes that can promote the health of their residents as well as the environment.



## Improving Strength of Supply Chain

Our partners' sustainability practices add depth to our initiatives. We require certain product-sourcing certifications, waste-reduction practices and acknowledgment of our Ethics Policy and Supplier Code of Conduct. We encourage suppliers to join us in continuous improvement in sustainability practices.



## Containing the Cost to Build

While we have faced significant cost pressures throughout the last year, our scale and waste reduction efforts allow us to build sustainable homes more economically and with less environmental impact than other builders.



## Becoming the Builder of Choice for Partners

We believe our legacy of vibrant, sustainable communities and industry leadership allows us to be a partner of choice for municipalities, land sellers, developers and other partners.



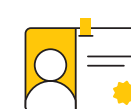
## Elevating Water Conservation

We address this growing imperative for homebuyers, communities and local governments by providing water-saving features in our homes that reduce our customers' water bills and may help to mitigate strain on local communities.



## Integrating Sustainability Technology for Increased Comfort

Many of the sustainability technologies we build into our homes have the added benefit of offering our homeowners more comfort and personal efficiency, along with cutting-edge and user-friendly smart home interfaces.



## Becoming the Employer of Choice

We aim to be an employer of choice for top-tier talent in the homebuilding industry and beyond by creating a culture of excellence as well as providing a socially and economically sustainable and safe work environment that supports inclusion, equity and meaningful work.

# ■ Our sustainability journey celebrates 15 years

KB Home has a proud history of being a leader in sustainability in the homebuilding industry and beyond. For 15 years, we have been building energy- and water-efficient homes and applying innovation toward a more sustainable future. While not all of our efforts have been successful, what remains constant is our drive to build on our experience and continue to bring fresh thinking to the design of the American home. Below is a brief chronology of our various relevant achievements.

## Pre-2007

- Built ENERGY STAR certified homes in many areas
- Built Water Smart homes in Las Vegas
- Offered solar photovoltaic options in California

## 2008

- Published first annual sustainability report
- Committed to building 100% ENERGY STAR certified homes
- Ranked #1 Green Builder by Calvert (also #1 in 2010)

## 2010

- First WaterSense® labeled homes
- First U.S. Green Building Council (USGBC) LEED Platinum net-zero energy concept home
- Built solar and energy storage demonstration home

## 2012

- 1,000th solar-powered home
- Offered ZeroHouse 2.0 option in most markets

## 2014

- First RESNET® President's Award (also won in 2015, 2016)
- Received first ENERGY STAR Partner of the Year - Climate Communicator Award (also won in 2015 and 2016)
- Introduced Double ZeroHouse 2.0 and 3.0
- Declared 5-year goal of 55 national HERS score
- Introduced two USGBC LEED Platinum communities in Los Angeles

## 2016

- 5,000th solar-powered home
- 100,000th ENERGY STAR certified home
- First KB ProjeKt® concept home
- Introduced HomeKit® option package with Apple®

## 2018

- Declared 5-year goal of 50 national HERS score
- 7,000th solar-powered home
- Launched KB Smart Home System partnership with Google
- Field-tested RESNET HERSH<sub>2</sub>O water-efficiency rating system

## 2020

- Achieved 50 average HERS score (three years ahead of target)
- Declared 5-year goal of 45 national average HERS score
- Delivered our 11,000th solar-powered home
- The only national builder named to Newsweek's 2021 list of America's Most Responsible Companies
- Named to Forbes' 2021 list of America's Best Midsize Employers, the only national builder to receive this distinction
- First national builder to implement EPA WaterSense Labeled Homes Version 2.0
- First national builder to participate in American Made Solar Prize Connector Network
- First national builder to collaborate with Well Living Lab

- Committed to 100% ENERGY STAR certified appliances
- 50,000th ENERGY STAR certified home

## 2007

- First ENERGY STAR Award for Excellence (also won in 2010)
- Launched National Advisory Board
- GROW company-wide waste analysis
- Introduced first Build It Green® GreenPoint Rated™ Community

## 2009

- Offered first standard solar photovoltaic systems
- Introduced the EPG® (Energy Performance Guide®)
- Launched KB Home ZeroHouse 2.0 in six states
- First 100% LEED Platinum community
- First Department of Energy (DOE) Builders Challenge Award (also won in 2012)
- USGBC LEED for Homes Award
- First ENERGY STAR Sustained Excellence Award (also won, 2012-2020)
- First WaterSense Partner of the Year Award (also won, 2012-2014)

## 2011

- Sponsored DOE Solar Decathlon
- First DOE Zero Energy Ready Home, Housing Innovation Award (also won in 2014)

## 2013

- Environmental Leader Product of the Year Award
- DOE Zero Energy Ready Home Housing Innovation Grand Award
- Indoor airPLUS Leader Award
- First WaterSense Sustained Excellence Award (also won, 2016-2020)
- 10,000th Water Smart home

## 2015

- Achieved national record for most WaterSense labeled and Water Smart homes
- Opened first Indoor airPLUS community in San Diego
- TecHome Brilliance Award (also won in 2019)
- Environmental Leader Top Project of the Year Award

## 2017

- Debuted KB ProjeKt 2.0: Where Tomorrow Lives
- Reached national milestone of building the most ENERGY STAR certified homes
- 10,000th solar-powered home
- Opened first Indoor airPLUS community in Irvine
- Environmental Leader Top Product of the Year Award

## 2019

- Achieved 49 average HERS score on the path towards our 5-year goal of 45 national average HERS score by 2025
- Built 160,000th ENERGY STAR certified home, more than any other builder
- Delivered our 14,000th solar-powered homes
- The only national builder named to Newsweek's list of America's Most Responsible Companies for two years in a row (2021 and 2022)
- Named to Forbes' list of America's Best Midsize Employers, the only national builder to receive this distinction for two years in a row (2021 and 2022)
- First national builder to earn RESNET's HERS H<sub>2</sub>O award for achieving lowest HERS H<sub>2</sub>O score of 47 at a KB home built in Las Vegas in 2021
- 11th consecutive ENERGY STAR Sustained Excellence Award
- Seventh consecutive WaterSense Sustained Excellence Award

## 2021

# ■ We believe our numbers speak for themselves

## Sustainability Industry Leadership

**1st**

national builder named to Newsweek's list of America's Most Responsible Companies for two years in a row (2021 and 2022)

**11**

ENERGY STAR Partner of the Year Sustained Excellence Awards through 2021, more than any other homebuilder

**25**

ENERGY STAR Certified Homes Market Leader Awards in 2021 among KB's divisions, one in each of our primary markets nationwide

**7**

WaterSense Sustained Excellence Awards through 2021, the only national homebuilder to receive this award

**1**

Indoor airPLUS Leader Award, the first production homebuilder to receive this award

**15**

Sustainability Reports FY 2007-2021

**3**

sustainability innovation lab concept homes: 2010-11, 2016, 2018-19

## Energy Efficiency and Greenhouse Gas Reduction

**#1**

energy-efficient national homebuilder\*

**49**

average HERS Index energy performance score by the end of 2021, compared to a new-home average HERS Index score of 58 and resale average HERS Index score of 130

**100%**

ENERGY STAR certified home commitment by KB Home for over a decade; while only 10% of U.S. new homes were ENERGY STAR certified in recent years

**160,000+**

ENERGY STAR certified new homes built since 2000; 13,404 in 2021

**6.3 billion**

pounds estimated cumulative CO<sub>2</sub>e emission reduction from these homes

**\$856 million**

estimated cumulative utility bill savings

**14,000+**

total solar homes delivered; 3,081 built in 2021

**44**

megawatts of solar power installed, producing an estimated 75 million total kilowatt hours of renewable energy annually

## Water Conservation

**1st**

national builder to join the U.S. EPA WaterSense program

**100%**

WaterSense labeled fixture commitment since 2009

**18,000+**

cumulative WaterSense labeled and Water Smart homes built, 1,284 in 2021

**900,000+**

WaterSense labeled fixtures installed

**1.6 billion**

gallons of water saved each year from KB homes and fixtures

## Waste Reduction

**13.3 million**

sheets of paper saved in 2021 through digital transformation

**31,420**

pounds of office paper recycled

**24%**

of office supplies are "Earth Conscious," containing recycled content

**100%**

of retired electronics were donated to nonprofit organizations, sold for reuse or recycled through e-waste services

## Keeping Homeownership Attainable

**655,000+**

total KB homes delivered since 1957

**13,472**

new KB homes delivered in 2021

**62%**

first-time buyers in 2021

**19%**

first move-up buyers in 2021

**2,059**

average sq. ft. of KB homes in 2021

**84%**

of KB communities offered 1,800 sq.-ft. plans or less

**32%**

of KB communities offered 1,400 sq.-ft. plans or less

## Customer Satisfaction

**#1**

Customer-Ranked National Homebuilder based on survey data†

**94%**

overall customer satisfaction rating in 2021

**92%**

would recommend KB Home to a friend

**4.6**

stars out of a possible five nationwide on Trustbuilder†

**4.5**

stars out of a possible five nationwide on ConsumerAffairs†

## Community Development

**36+**

high-density communities nationwide in 2021

**25+**

infill/redevelopment communities nationwide in 2021

**1,790+**

homes delivered at such communities in 2021

## Employees and Partners

**1st**

national builder named to Forbes' list of America's Best Midsize Employers in 2021 for two years in a row; placed in the top 10% of the 500 companies ranked for 2022

**2,244**

full-time employees as of November 30, 2021

**100%**

of employees and trade partners required to wear protective equipment at construction sites

**100%**

of Board members and employees covered by our Ethics Policy. 100% of employees certified on Ethics Policy standards

**100%**

of our national supplier agreements included obligations to acknowledge our Ethics Policy

**100%**

of employees are required to complete anti-harassment and anti-discrimination training

**26,000+**

total training courses completed by our employees in 2021

† Based on an internal compilation of the nationwide average of customers in the above-noted third-party surveys (see page 13) over the prior 12 months through to April 11, 2022 among large production homebuilders. These are the top 20 U.S. homebuilders ranked by number of closings on the most recent annual Builder Magazine Builder 100 list that Builder Magazine identifies as operating in at least two regions (excluding any company primarily operating a single-family rental, build-on-your-lot or a manufactured home business, or operating as a nonprofit organization). Please note that KBH is part owner with other homebuilders of, and has a board seat at, Builder Homesite, Inc. (BHI), whose subsidiary, Builders Digital Experience (BDX), conducts the TrustBuilder® survey through NewHomeSource™. However, BHI has an independent management team, and KBH is not involved in TrustBuilder's collection or reporting of reviews or ratings. No affiliation or sponsorship is intended or implied with Consumer Affairs®. While we strive to be the highest-rated homebuilder in customer satisfaction, ratings are subject to change, and we cannot guarantee that we will be #1 in any given survey or in any given market at any point in time or over any particular period, or that any particular customer will be fully satisfied with their KB home. All trademarks are owned by the respective trademark owners.

## ■ Our commitment to sustainability reporting

### Our sustainability materiality priorities

Over the course of our 15-year sustainability journey, we have progressively developed a deep and dynamic portfolio of programs and initiatives that we believe is unmatched in our industry in its breadth, strength, flexibility and growth potential. The steady, organic expansion of our sustainability commitment has become fundamental to how we operate and a core element of the distinct value we offer to our customers, trade partners and other stakeholders.

When we set out to formalize our sustainability commitment in our first comprehensive sustainability report, published in 2008, we evaluated the impact of our business operations and solicited input from select stakeholders to determine what mattered most to them among key issues. These findings were used to determine the focus of our sustainability efforts and reporting, each centered around our collaborative evaluation with our stakeholders of how our business can make the most significant positive impact.

Over the years, we have also tracked evolving expectations and gathered input and guidance through external advisors as part of our NAB meetings to adjust our priorities based on our stakeholders' areas of interest within sustainability. Our reporting herein and elsewhere is aligned with the SASB, TCFD, GRI and UN SDG frameworks, and we provide information to help stakeholders track year-over-year performance.

We have two primary sustainability priorities that continue to evolve in service of our goals. In addition to these two priorities, we place high importance on workforce health and safety, product quality and environmental protections at new-home development sites, among other factors that contribute to our ESG profile.

1

### Energy efficiency and greenhouse gas reduction

Approximately 85% of the energy consumed during the multi-decade lifecycle of a home – including the initial raw material extraction, manufacturing and construction – comes from the day-to-day living in it. That's why the primary focus of our GHG emissions reduction strategy is to build highly energy-efficient homes that are expected to provide reductions in GHG emissions in their daily operations for decades to come. This also has the benefit of integrating our product sustainability strategy with our customers' needs by lowering the total cost of homeownership through lower utility bills, while also contributing to the greening of housing stock in the markets in which we build to provide social and community benefits. Our highly energy-efficient ENERGY STAR certified homes utilize, on average, half of the energy of a home of the same size built just a decade ago, making a meaningful contribution to GHG emissions reduction over the long term. We are also steadily increasing the number of homes we build with renewable energy capability through solar photovoltaic power systems.

2

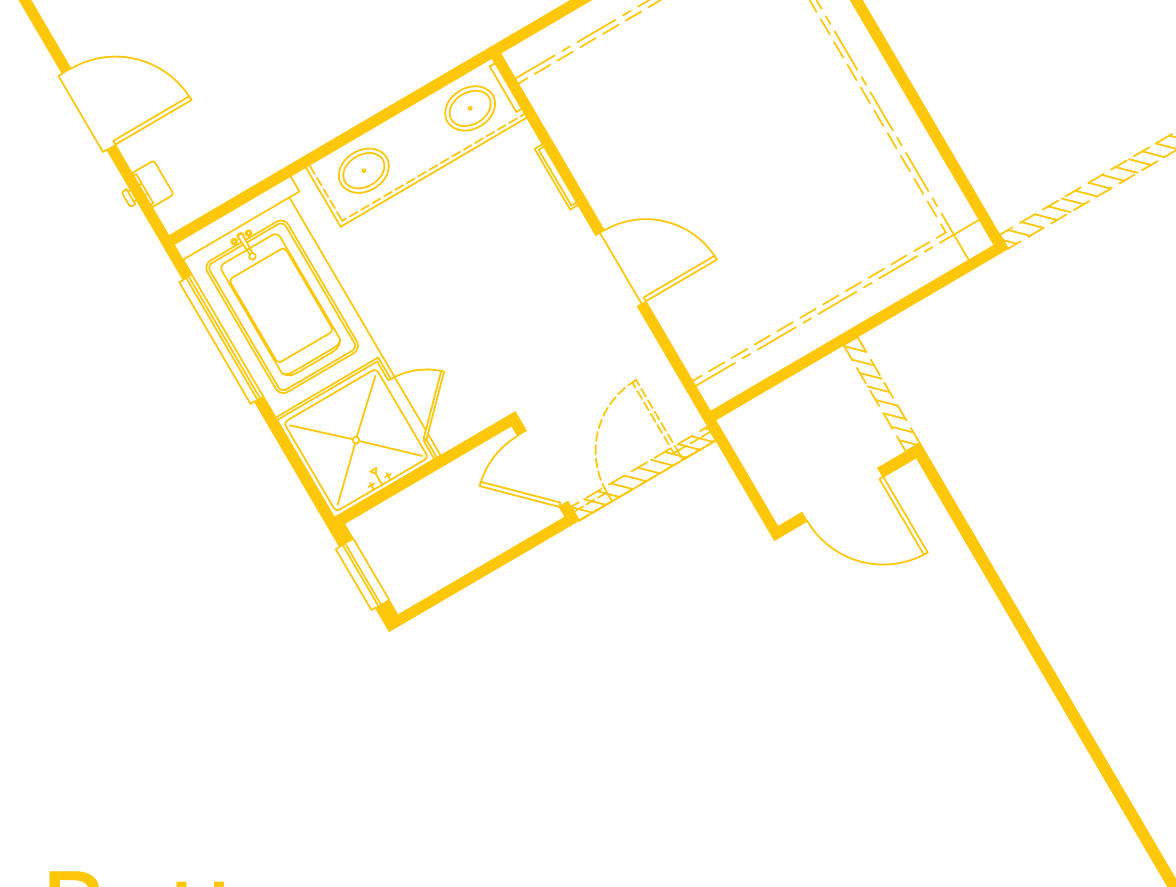
### Water conservation

As a builder operating in some of the most water-challenged regions of the U.S., we prioritize water conservation. Water availability is an important consideration for local governments in approving new-home developments. We provide water-saving features in our homes that reduce our customers' water bills and may help to mitigate strain on local communities. Prioritizing water conservation enables us to effectively address water-related concerns and help preserve this critical resource as well as reduce the energy it takes others to pump and treat water (reducing energy usage overall).

## ■ Our index of ESG topics

To make it easier for our stakeholders to locate key ESG topics and data in this report, we have created an index pointing to important topics for our business and our industry within this report. We reference certain ESG guidelines and standards, including SASB, GRI and UN SDGs, and provide indices to the information in the Stakeholder Transparency & Data Tables chapter at the back of this report. Historical data tables, UN SDGs alignment charts, and our policies and strategies are included for added reference. We also provided an outline of our approach to sustainability in line with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations in our 2022 Proxy Statement. Additional ESG information and data can be found on our ESG website ([www.kbhome.com/esg](http://www.kbhome.com/esg)).

Topic	Page
Climate change, carbon and GHG emission Scopes 1, 2 and 3 disclosures	61-62, 66
Climate change, carbon and GHG reduction strategies, targets and performance against targets	18, 21, 25-29, 61-62, 66
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Charitable giving and community involvement	40, 43-44
Governance structure and composition	53-55



# Better Homes

We build better homes that we believe can help reduce climate change and protect the world we all share. For 15 years, we have been building sustainable homes that use energy and water efficiently, create healthier indoor environments and offer comfort and well-being, while also reducing the total cost of homeownership. To us, that's a better home.





# Energy efficiency is the cornerstone of our sustainability commitment

Our goal is to bring sustainability to the production home market and model innovation in our industry. When we formalized our sustainability commitment 15 years ago, sustainability was considered a luxury in homebuilding. We saw an opportunity to help protect the environment while reducing the overall cost of long-term homeownership for our customers through lower utility bills. We determined that energy efficiency would be the foundation of our program, helping to keep the dream of homeownership attainable while reducing the impact on our environment. Since then, we have expanded our view of sustainability beyond energy efficiency to encompass water efficiency and healthier indoor environments.

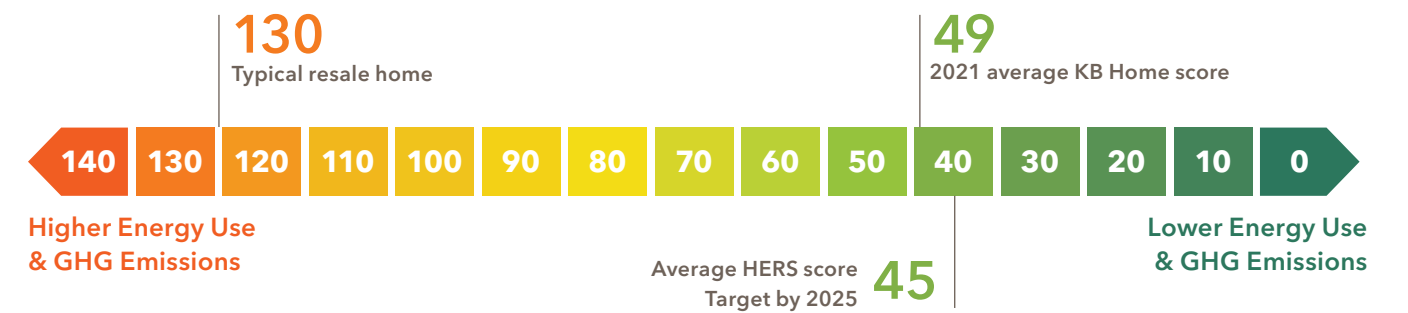
## ■ We are the #1 Energy-Efficient National Homebuilder\*

In 2021, KB Home reached a national average RESNET Home Energy Rating System (HERS) score of 49 (compared to 58 average for all HERS-rated homes in the U.S.). We're proud to have the lowest (and therefore, the most efficient) publicly reported national average HERS score among large production homebuilders.\* This means meaningful savings for our homeowners, with their new homes being twice as energy-efficient as homes built as recently as 2006, and 81% more energy-efficient than a typical resale home today. Not resting on our laurels, we are maintaining our HERS score target for additional energy efficiency – 45 by 2025. We intend to pursue renewable solar energy and advanced technologies, (including those yet to be developed or not yet available at a cost-effective, commercial scale), to achieve this goal and help reduce GHG emissions.



KB Home was the first national homebuilder to achieve this designation.

### Home Energy Rating System (HERS) Index



\*Based on an internal compilation of the nationwide average of publicly reported HERS Scores from 6/21 through 4/11/22 among large production homebuilders. These are the top 20 U.S. homebuilders ranked by number of closings on the most recent annual Builder Magazine Builder 100 list that Builder Magazine identifies as operating in at least two regions (excluding any company primarily operating a single-family rental, build-on-your-lot or a manufactured home business, or operating as a nonprofit organization).

Les Chateaux in Turlock, CA



## ■ We have built more ENERGY STAR certified homes than any other homebuilder

ENERGY STAR is our building science-based platform for energy efficiency and achieving the lowest national average HERS score. KB Home is proud to have been the first homebuilder to commit to building 100% of our homes to this voluntary and rigorous “above code” standard in 2008, and we have maintained this commitment for over a decade. In contrast, just one in 10 new homes built in the U.S. in recent years was ENERGY STAR certified, according to U.S. EPA data. ENERGY STAR certified new homes are independently verified to meet strict guidelines for energy-smart construction set by the U.S. EPA. These homes achieve a 20% energy-efficiency improvement on average compared to homes built to current code and even more

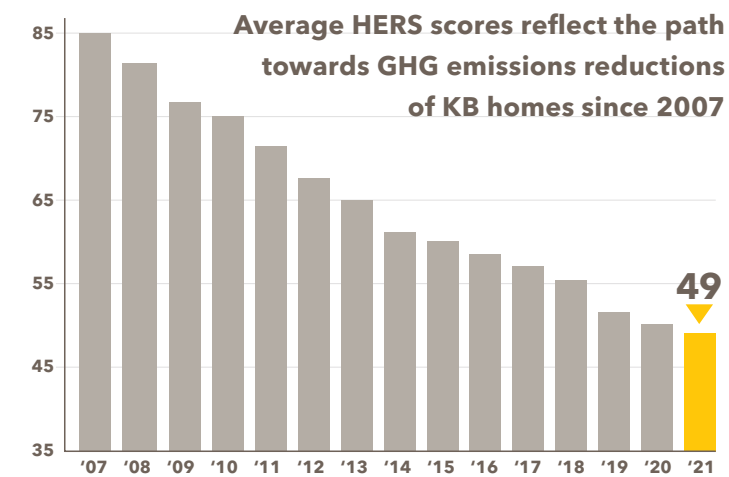
compared to resale homes, according to EPA analysis. Each ENERGY STAR certified home is estimated to reduce GHG emissions by approximately 3,287 pounds (1.5 metric tons) per year compared to a typical home. Based on our energy use analysis, KB homes also save our homeowners an estimated average of \$1,300 annually on utility bills compared to resale homes. We have built over 160,000 ENERGY STAR certified homes since 2000, cumulatively reducing GHG emissions by an estimated 6.3 billion pounds (2.8 million metric tons), the equivalent, according to EPA, of removing nearly 616,000 gasoline-powered passenger vehicles from the road for one year, and helping homeowners to save a cumulative estimated \$856 million on utility bills.

Energy Savings Comparison™ is our consumer education tool displayed at our model homes and on our website. It offers an estimate of monthly energy costs as well as estimated monthly savings when compared to a typical resale home. It is one of many educational efforts we use to increase consumer awareness of the importance and impact of sustainability in selecting a resource-efficient home.



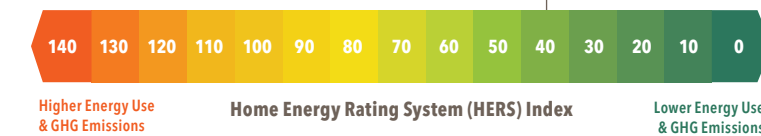
## ■ We're reducing carbon emissions through home energy performance

GHG emission reduction targets are an important part of our environmental strategy. Our benchmark to achieve greater energy efficiency and establish our homes' Scope 3 carbon emission reduction targets is RESNET's HERS Index. The HERS Index is the standard by which a home's energy efficiency is measured using an easy-to-understand scale: the lower the number, the more energy-efficient the home and the fewer GHG emissions it generates over its lifetime. According to RESNET, each point reduction in HERS score equates to a 1% improvement in energy efficiency, potentially reducing GHG emissions by an average of 0.1 metric tons (based on the states in which we operate). We are committed to publicly disclosing our national average HERS score for our homes each year so that our stakeholders can see how we are measuring up to our energy efficiency and GHG emission reduction goals and target dates. To date, we have met every national HERS score goal and target date that we have set.



KB Home has a national average HERS score target of 45 by 2025 and intends to pursue further reductions of GHG emissions.

**45**



### 2025 Carbon Emissions Reduction Target\*

**6**

Estimated metric tons/year, national average GHG emissions (Scope 3) of a 2020 KB home (ranging from 3 to 9 metric tons)

**0.5**

Metric tons, estimated target aggregate reduction in annual per-home GHG emissions by 2025 (based on achieving a national average HERS score goal of 45, down from 50 in 2020)

**8%**

Estimated target reduction in metric tons/year of a 2025 KB home, compared to a 2020 KB home, in line with achieving a national average HERS score goal of 45

\*Targets were set based on the current ANSI/RESNET/ICC 301-2019 Standard. This standard provides a consistent, uniform methodology for evaluating the energy performance of homes. Revisions to this standard, or adoption of different standards, could impact our ability to achieve the planned targets.

## ■ Renewable solar energy and other advanced technologies are part of the path forward

Our current and future decarbonization initiatives depend on available energy efficiency technology at a cost-effective scale, as well as renewable solar and energy storage systems and low-embodied carbon materials and products (what some call “Climate Tech”). Availability, cost, ease of application/installation and consumer acceptance will be key factors for success, none of which is guaranteed.

As part of our ongoing decarbonization efforts, KB Home is already building all-electric homes across the country. In 2021, 30% of all homes delivered were all-electric incorporating heat pumps and other energy efficient technology.

### Solar leadership

We built our first solar home in 2005 and introduced our first all-solar communities in 2011, taking an early leadership position in our industry. We offer both leasing and mortgage financing options for our homeowners’ convenience. In recent years, we have added higher efficiency solar panels that generate more power using the same roof space.

### Leaning into advanced technologies

To further support innovation in the residential solar and smart-energy sector, we became the first production builder to join the National Renewable Energy Laboratory’s (NREL) American-Made Solar Prize Challenge as a Connector, mentoring innovators and helping to connect them with potential outside business opportunities in 2020 and 2021.

Also, in 2021 we partnered with SunPower; the Advanced Power and Energy Program (APEP) at the University of California, Irvine; Schneider Electric™; and Southern California Edison® to submit a proposal to the U.S. Department of Energy (DOE) Connected Communities initiative. The project involves the development of two new KB Home communities of 219 all-electric homes designed to meet the DOE’s Zero Energy Ready Home criteria. These homes will be connected with a microgrid and feature solar systems paired with energy storage systems (batteries) and smart energy management systems. Our joint proposal was selected by DOE to move forward in 2022. We expect this pilot to provide benefits to the homeowners, while also serving as a test bed for the homes and communities of the future.

**14,000+**

total solar homes delivered;  
3,081 built in 2021

**44**

cumulative megawatts of  
solar power installed

**75**

million estimated kilowatt hours  
of renewable energy produced  
annually by our solar homes

**833**

million estimated cumulative  
kilowatt hours of electrical power  
produced by our solar homes



Sundance at Park Circle, Plan 2061

### SPOTLIGHT

## Sundance at Park Circle

Valley Center, California

In 2021, KB Home began building all-electric ENERGY STAR certified homes at the Sundance neighborhood in the Park Circle master-planned community in northeast San Diego County. Each home uses the energy-efficient heat pump technology for water heating and air conditioning systems, supported by a 3.4 kW solar array. An expanded solar array and energy storage systems (batteries) were available to further reduce the need for grid power and enhance the resiliency of these homes. In addition, KB Home was the first builder to partner with Schneider Electric to include their award-winning Square D™ Energy Center at our homes in Sundance. This recent innovation can help homeowners add future solar, EV charging and batteries. The energy management system monitors power supply, storage and usage within one app.

This plan’s projected  
**HERS score is 14**

currently one of the  
lowest HERS scores in  
our portfolio of homes





# Water conservation is essential

From the start of KB Home’s sustainability commitment in 2007, water conservation has been a critical issue for housing, and one that does not get enough attention. Building water conservation into our homes reduces use of a precious natural resource, saves our homeowners on utility costs and helps to mitigate drought conditions and the load on aging infrastructure. WaterSense and other water conservation efforts that we undertake help address this infrastructure challenge and can provide us with a compelling differentiator for local municipalities when they are evaluating our proposed new development projects.

## Leading the way for water conservation with EPA’s WaterSense program

We were the first national homebuilder to join the EPA’s WaterSense program, which is a voluntary partnership program that is a label for both water-efficient products and certified homes. According to the EPA, WaterSense labeled products use at least 20% percent less water compared to products that are not labeled. To date, we have built over 18,000 WaterSense and Water Smart homes, more than any other homebuilder, and installed over 900,000 WaterSense labeled fixtures, collectively helping to save an estimated 1.6 billion gallons of water per year. We were the first national homebuilder to implement the new WaterSense Labeled Homes Program, Version 2, which was released in February 2021 and requires homes to be at least 30% more water efficient than a typical new home. We are the only builder to earn EPA WaterSense Sustained Excellence Awards for seven consecutive years.



## Proven water savings

In 2021, the EPA and Southern Nevada Water Authority (SNWA) began a study on actual water usage at our WaterSense labeled KB homes in the Las Vegas area, using metered water use data obtained from local water utilities. Currently, there are over 1,000 KB homes in the study. Initial data analysis by EPA and SNWA shows the median water use for these homes was 44,000 gallons per year, compared to an average consumption of 97,000 gallons per year for the area – a 55% reduction in use of this precious natural resource.

Water consumption of KB homes in the other regions in which we operate will vary. However, a sample set of water-efficiency ratings that we conducted in several of our markets utilizing RESNET’s HERS H<sub>2</sub>O water-efficiency rating system demonstrated similar estimated results.

## The next wave of water efficiency and measurements

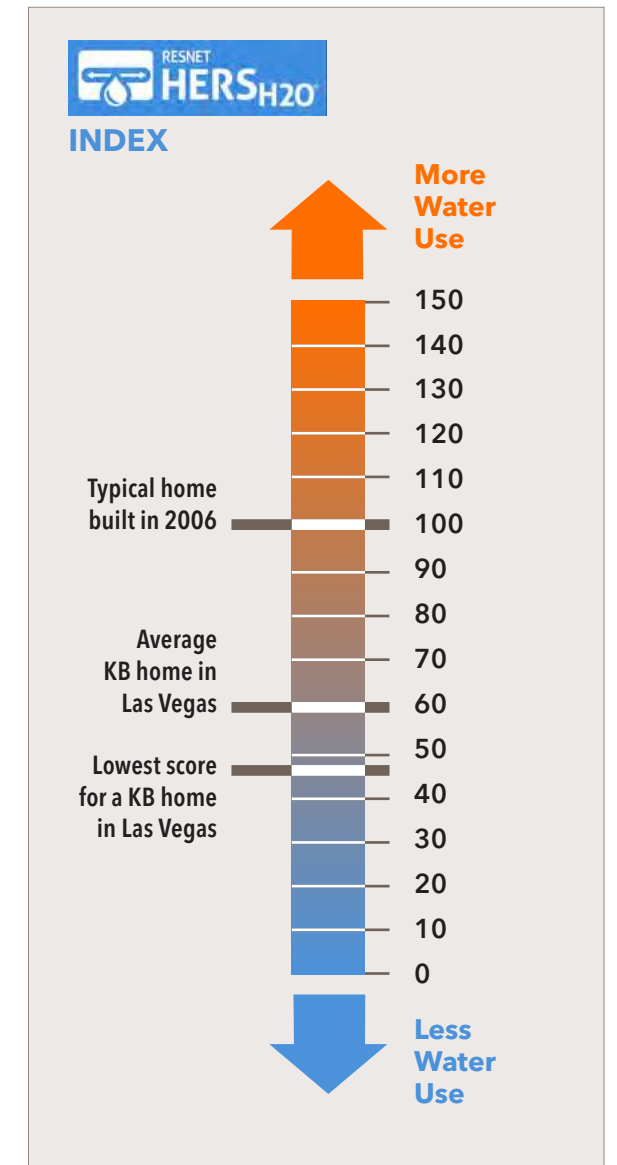
Recently, we began offering fixtures that can yield additional water savings without impacting performance.

- Moen®’s Nebia Quattro 1.5 gpm (user-adjustable to 1.2 gpm) showerhead has a unique design that allows users to save water without sacrificing the experience. It uses up to 50% less water compared to a typical 2.5 gpm showerhead.
- Kohler®’s Highline® 1.0 gpf toilet can save up to 2,100 gallons of water annually, compared to a typical 1.28 gpf toilet.

We are expanding our use of the HERS H<sub>2</sub>O rating system to measure the water-efficiency of our homes in more markets.

## Our operational water use

Along with our yearslong focus on reducing our homes’ water usage, we have been attentive to the water used in our own operations. At this time, we can provide only a high-level estimate of this water use and are working to improve our ability to more precisely measure it as we take steps to use less of this critical resource. For 2021, we estimate that we used 70 million gallons of water. This estimate, which currently encompasses water usage only at our community sales offices and model homes, is based on model home utility invoices for three communities in Colorado, coupled with projected water consumption at certain model and production homes in communities in Arizona, California, Florida and Nevada determined over the prior three-year period using RESNET’s HERS H<sub>2</sub>O Index methodology. We recognize that this is very rough estimate of our operational water use. It reflects the significant challenges we face in collecting, processing and aggregating water usage data across our operations due to the large number of homes we build annually.



# Healthier indoor environments support wellness

We believe wellness starts at home, and it's in our homes where we can make the biggest changes to improve our overall well-being.

Every KB home is designed and built with quality construction techniques and features that are guided by the EPA's ENERGY STAR and Indoor airPLUS standards to support wellness and deliver a broad set of health-related benefits compared to homes without these features, including:

## Enhanced indoor air quality

Every KB home incorporates high-performance ventilation that regularly introduces fresh outdoor air and helps to reduce indoor air pollutants. MERV 13 rated filters capture 90% of airborne particles as small as 1.0 micron and are designed to remove dust, pollen, mold and certain bacteria and viruses for enhanced indoor air quality.

## Elevated level of comfort

All KB homes include a high-efficiency heating and cooling system designed to provide better comfort in every room through every season. We also feature smartphone-controllable ecobee3 lite smart thermostats, which can learn homeowner patterns and help save money on electric bills each year without impacting comfort.

## Enhanced pollutant and moisture control

Every KB home is built with comprehensive air sealing to help reduce drafts, moisture, dust and pollen.

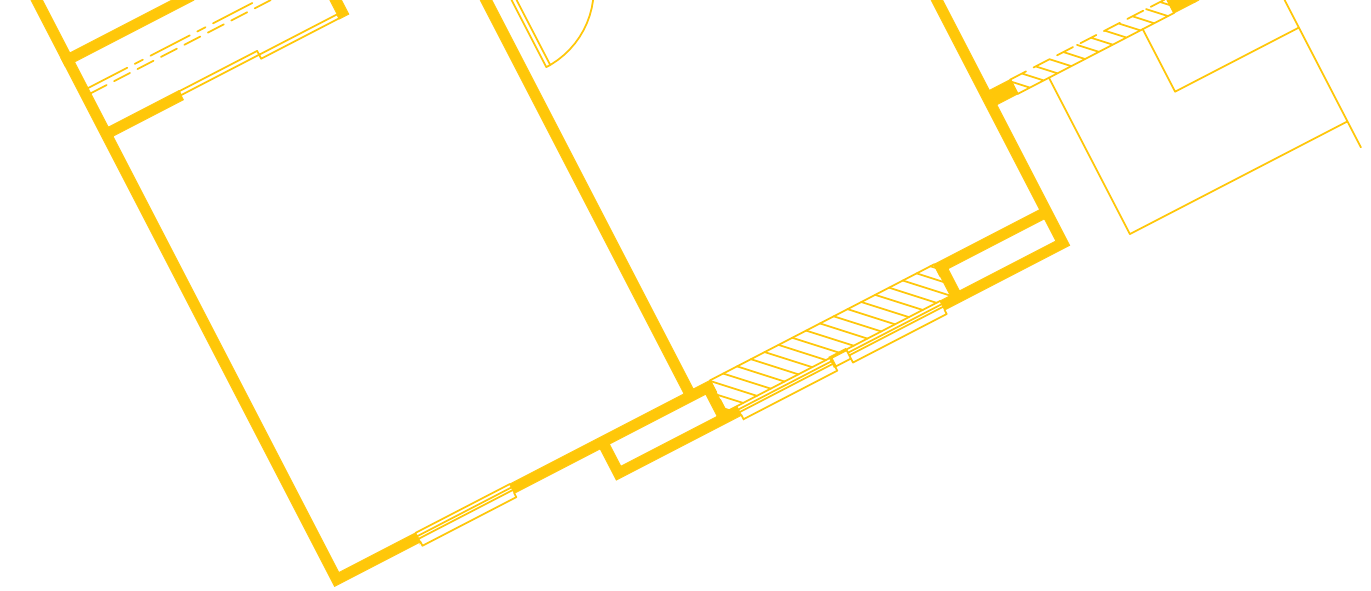
## Reduced spread of germs

KB homes feature Kwikset® interior door hardware with Microban® 24/7 antimicrobial protection that inhibits the growth of microbes, such as bacteria, mold and mildew, on product surfaces. Additional upgrades like Moen touchless faucets as well as voice-activated light switches and Whirlpool® smart appliances further help reduce the spread of germs.



## Features for healthier interiors

KB Home uses environmentally conscious products like Shaw® flooring, Emser tile, Sherwin-Williams® paint and quality cabinetry that have fewer harsh chemicals. We frequently review Health Product Declaration (HPD) or similar documentation before selecting our materials.



# Better Communities

We strive to create better communities that support an American dream that's as richly diverse and optimistic as Americans themselves. As a company in the business of building communities not just homes, we believe safe, welcoming and nurturing neighborhoods are the foundation of a positive social and family life. We also believe in supporting the wider communities in which we live, work and build.

# Expanding the American dream

Homeownership has long been referred to as “the American dream.” It is a gateway to many important personal and financial milestones. A place to build a family, put down roots and establish a community, a place of refuge from the cares of the world where it is possible to rest and rejuvenate, a place to realize our hopes and aspirations through life’s stages.



## Homeownership and the wealth gap

According to several governmental and economic studies, homeownership has a significant impact on long-term household wealth, and expanding affordable homeownership opportunities can potentially help reduce wealth disparities.

- The Federal Reserve reports that homeowners have on average 40 times higher household wealth than those who rent <sup>1</sup>
- Homeownership offers lower and middle-income Americans of every background an opportunity to lift their economic prospects over time <sup>2</sup>
- Studies show that stable homeownership is associated with better educational performance, higher participation in civic and volunteering activity, improved health care outcomes and lower crime rates <sup>3</sup>

<sup>1</sup> Federal Reserve 2019 Survey of Consumer Finances

<sup>2</sup> Paper in Journal of Economic Perspectives, supported by the Housing Finance Policy Center at the Urban Institute and the Paul Milstein Center for Real Estate at Columbia Business School, <https://pubs.aeaweb.org/doi/pdfplus/10.1257/jep.32.1.31>

<sup>3</sup> National Association of Realtors, Research Division, “SOCIAL BENEFITS OF HOMEOWNERSHIP AND STABLE HOUSING,” December 2016, page 15: [https://www.gmar.com/data/resources\\_files/Social%20Benefits%20of%20Homeownership%20Stable%20Housing.pdf](https://www.gmar.com/data/resources_files/Social%20Benefits%20of%20Homeownership%20Stable%20Housing.pdf)

## Affordable homeownership supports thriving communities

### First-time homeownership is the foundation of who we are

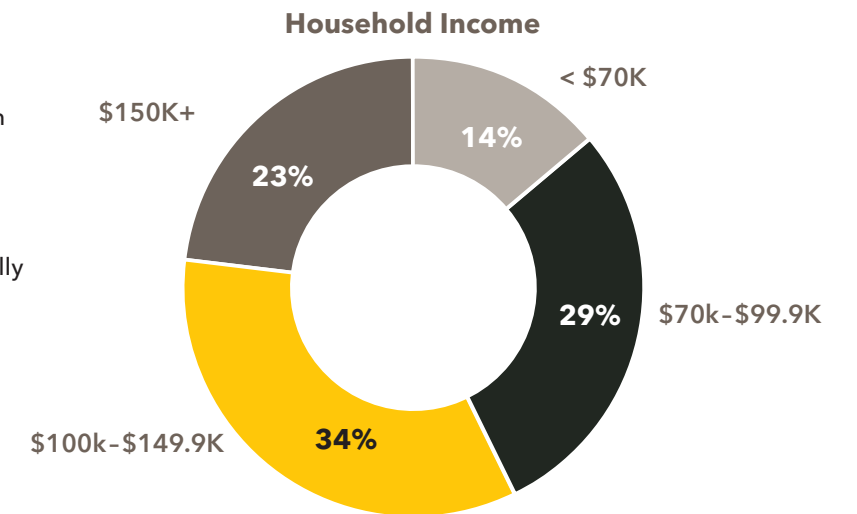
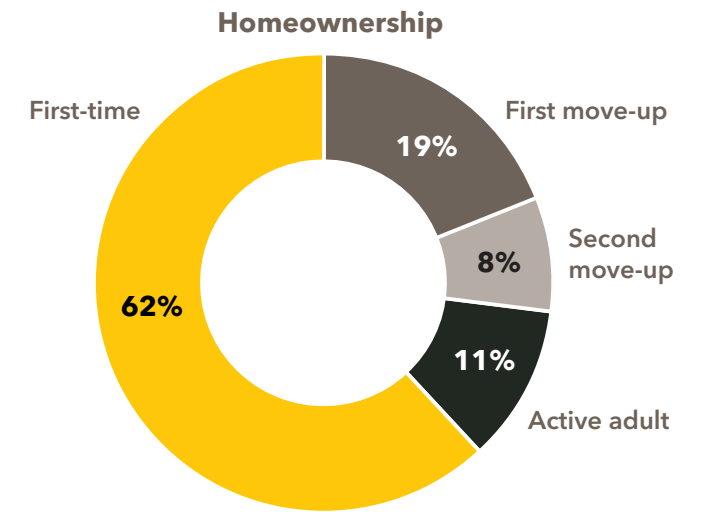
KB Home was founded in 1957 on the idea that we could challenge conventional assumptions about homebuilding in order to make homeownership more affordable for more people. First-time homebuyers have long been the heart of our business, and helping them to achieve their goal drives us each day. In 2021, 62% of our KB homebuyers were purchasing a home for the first time.

### Building homes for median-income households

As a homebuilder with a focus on helping first-time buyers achieve homeownership, we pay a lot of attention to what affordability means in different parts of the country. We strive to build homes in each of our markets that are generally priced to be affordable for those with household incomes within a range of the local area’s median level. We base our evaluations of potential land purchases as well as product design decisions on their potential to serve local median-income households, and carefully weigh sales price increases against affordability. Our data-driven approach to product and design efficiencies allows us to reduce costs through materials and resource conservation efforts, as well as strong trade partnerships that leverage economies of scale. Our focus on energy efficiency helps to lower the total cost of homeownership.

We believe our Built-to-Order homebuying process provides a way to help serve the need for affordable housing. We give each of our homebuyers a highly personalized experience where they can make a wide range of lot location and structural and design choices, enabling them to create their future new home that reflects how they want to live and what they value within their budget.

We are also building additional smaller single family homes, a segment of the market that has been declining in recent decades. According to the

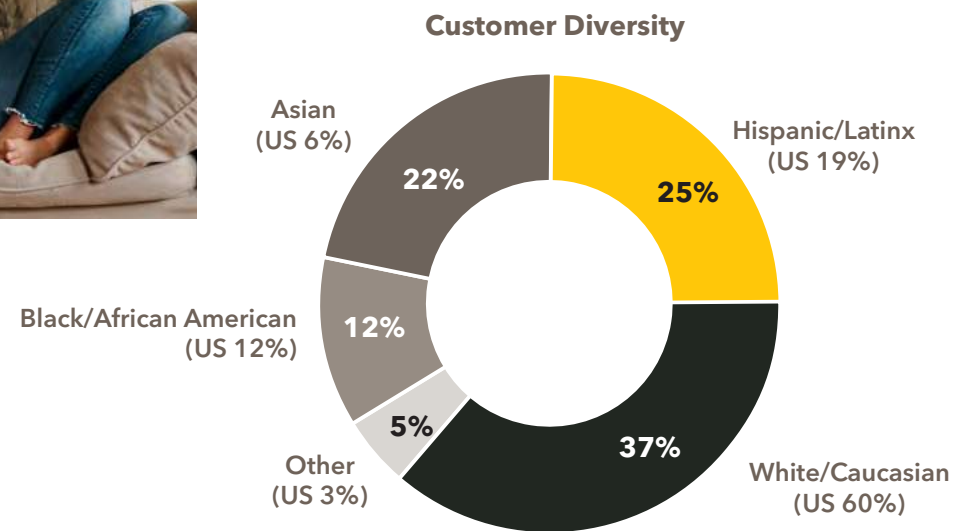


U.S. Census Bureau, in 1999, single-family homes under 1,800 square feet made up 37% of new homes. In recent years, that number has been just 23%. We believe this is an important part of the market to serve, as many homebuyers select single-family homes and smaller homes help to address affordability, and because greater variety in housing supports more socially diverse and economically sustainable neighborhoods. In 2021, 84% of KB Home communities offered homes of 1,800 square feet or less, and 32% offered homes that were under 1,400 square feet.

FY 2021 buyer profile data based on gross sales; buyer experience data from KBIT buyer database and based on deliveries

## ■ KB homeownership reflects the face of America

We are proud that KB homeownership reflects the many faces that make up America. We believe our Built-to-Order business model, focus on first-time homebuyers and generally pricing our homes to be attainable for those with local median-level household incomes enable us to serve buyers from a diverse range of experiences and backgrounds. In addition, the personalizing options we offer are designed to help make homeownership accessible at a range of price points and reflect a variety of lifestyle and cultural preferences. We are honored to be part of expanding the American dream to make homeownership and all its benefits an achievable goal for more Americans.



KB Home: FY 2021 buyer profile data based on gross sales; buyer experience data from KBIT buyer database and based on deliveries  
US: 2020 Census

## Community revitalization through new homes

We look for opportunities to help revitalize older neighborhoods or convert underutilized land to productive use with new homes. Creating infill communities and participating in redevelopment projects are among our considerations when evaluating potential land investments. Several of our communities have been built on brownfield, greyfield or infill properties. Often, our homes are the first to be built in these locations in years and can enhance communities with more energy- and water-efficient housing. In addition, we strive to make more effective use of limited land resources by designing high density communities of eight to 40+ dwelling units (du) per acre where zoning permits.







# Communities that sustain biodiversity

At KB Home, we strive to align our land purchase process to be consistent with our commitment to provide customers with a sustainable home at an affordable cost. KB Home builds across the country in geographically diverse areas and we want to continue building in an environmentally sensitive manner wherever we build. As such, our land purchase policy goes beyond environmental protection and includes considerations for community enhancements. Our decision-making process for land purchase approvals includes an evaluation of past use, environmentally sensitive sites, potentially sensitive wildlife habitats, community green spaces, storm water mitigation needs, culturally sensitive sites, and neighborhood amenities and features. We take these extensive measures as we recognize that we are not just building a home; we are building a community.

In the evaluation of a land acquisition, our priorities include:

**Limit impact to local ecosystems** - Beyond the thorough environmental assessment we require for all land acquisitions, we additionally look for ways to limit impact or contribute to the local ecosystem. Where possible, we create conservation spaces to preserve existing plant and animal ecosystems; modify or delay our development activities to accommodate migratory, nesting or mating cycles; seek to mitigate our impact through the design of the corresponding community as described above; and assist or make financial or in-kind contributions to nearby dedicated nature conservancy zones or organizations.

**Revitalization of older neighborhoods** - We seek out opportunities to develop on previously developed lands and revitalize older neighborhoods. KB Home's portfolio includes a mix of brownfields, greyfields, and infill properties. With limited land resources available in many communities, we strive to maximize available housing stock by making efficient use of land especially when developing in densely populated communities. See the Mitchell Village spotlight on the previous page for a recent neighborhood revitalization example.

**Values-aligned partnerships** - We prefer working with developers who share our values of sustainable and developments. Many of our developers have their own sustainable development plans on top of conducting environmental assessments.

## SPOTLIGHT

### Mitchell Village in Citrus Heights, CA

At Mitchell Village in Citrus Heights, a city outside Sacramento, KB Home transformed a 52-acre former golf course that had been underutilized for years into the site of 255 beautiful homes. Over 40% of the site was dedicated to protecting and preserving greenspace for the community. Mitchell Village was designed to highlight its natural features through a large greenway with a meandering creek, multiple bridges, and plenty of open picnic and play areas.

Some key features of Mitchell Village include:

**Investing \$1.2 million to restore Arcade Creek:** KB Home expects to spend over \$1.2 million for trash and debris removal, restoration of healthy vegetation and a five-year monitoring and maintenance plan. This greenway is now a featured amenity for residents and has been dedicated to the Sunrise Recreation and Park District for public use.

**Offering options to accommodate our customers:** Three different neighborhoods at varying densities were offered at Mitchell Village so that our homes could accommodate residents at diverse life stages. The Canyon featured a density of 10 du/acre; Oaks 8 du/acre; and Heritage 6 du/acre. With a mix of single-family attached and detached home options and a variety of floor plans available within each neighborhood, customers were offered the flexibility to find a home that could support their lifestyles.

**Decarbonization:** Mitchell Village was one of our recent all-electric communities. Paired with solar systems, these all-electric homes will have a lower operational carbon footprint than a mixed-fuel house for decades to come.

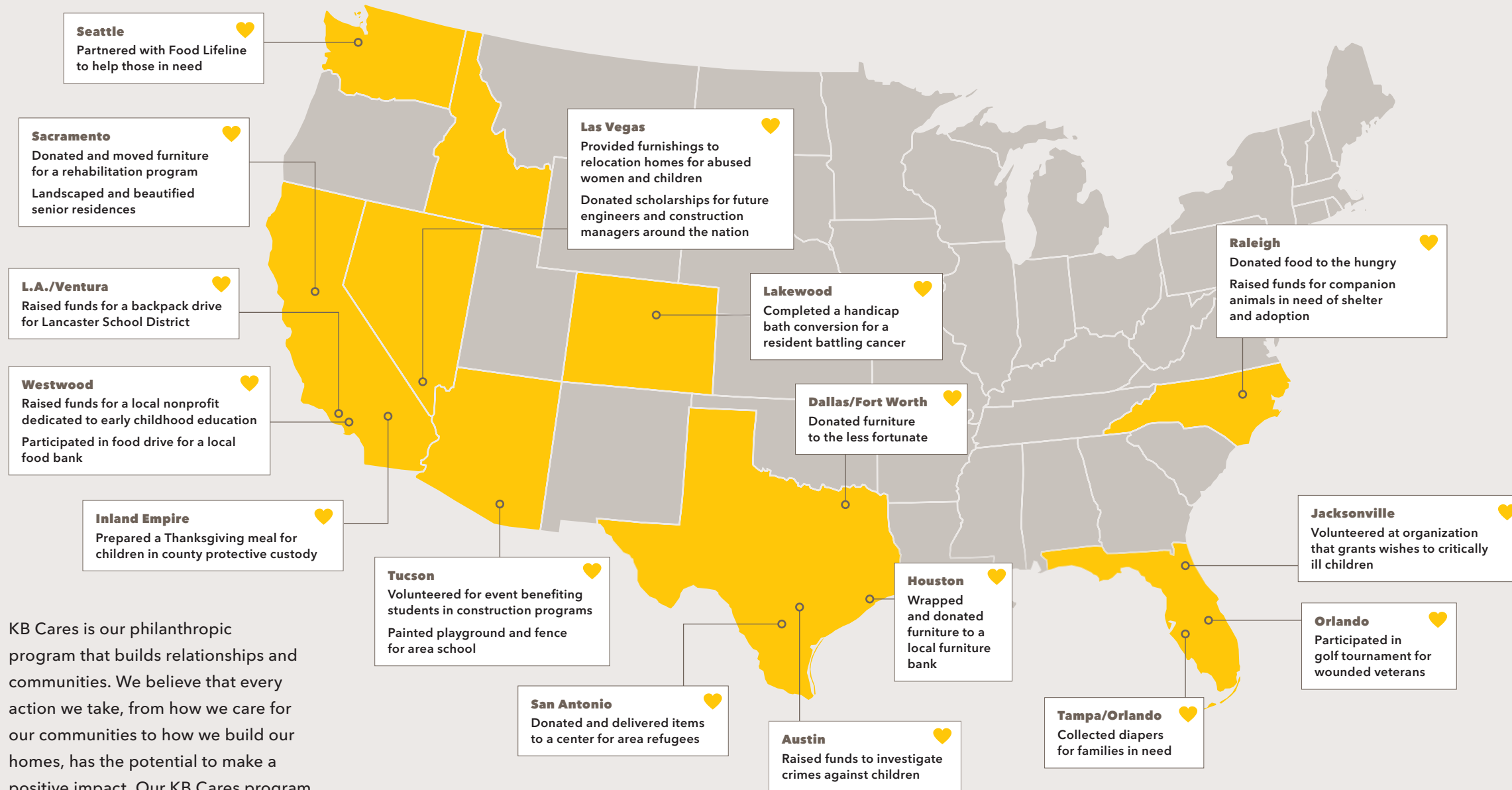
**Contributing over \$3.1 million to local public services:** At buildout, KB Home will have contributed over \$3.1 million to local public services, with over \$1.8 million of that amount going toward school fees.



Riverton at Wallis Ranch in Dublin, CA

# Supporting the wider communities we call home

**kbcares**  
around the nation



KB Cares is our philanthropic program that builds relationships and communities. We believe that every action we take, from how we care for our communities to how we build our homes, has the potential to make a positive impact. Our KB Cares program is one way we put that ideal into action. Through KB Cares, our divisions make strategic investments in their local communities by acting in the interests of four pillars of caring: shelter, community, sustainability and environment, and construction skills and employment. In 2021, our divisions donated over \$1 million and our employees volunteered over 1,200 hours.



## SPOTLIGHT

### One new home and two new blankets

In 2021, KB Home began welcoming each new homeowner with a blanket through a unique partnership with mission-driven Sackcloth & Ashes, which donates a second new blanket to a person in need. We're donating more than 15,000 blankets to homeless shelters nationwide. It's a meaningful gift that helps make a house a home, and offers comfort to others. After homeowners unwrap their gift, they find instructions on how to fill the empty box with items for a local homeless shelter, completing the cycle of care. No matter where you are in your life, whether putting down roots or in transition, a blanket can represent so much more than warmth. It's security, shelter, comfort and hope. That's why we are so pleased to be contributing this important resource to help those who are struggling as we also welcome our new customers home.





# Better Future

The homebuilding business is about the future. Homes are built for generations to come to make memories, grow and build wealth over time. That is why we build with the highest standards and strongest partnerships. We have built a business designed to weather whatever the future may bring and create value for all our stakeholders by operating with integrity and purpose. We believe this includes taking steps to decarbonize our operations and products.



# Strong partnerships create better homes

Driving sustainability throughout the value chain is about reducing carbon emissions and managing climate risk.

KB Home works with our industry partners and sustainability leaders on strategies to build sustainable homes at a lower cost and with less environmental impact, by identifying best practices and taking meaningful steps. Our strategies include lowering the embodied carbon of building products, supporting circular solutions and alternatives, and forging greater transparency through environmental product declaration (EPDs).

When we say we're built on relationships as a company, a big part of that is our list of premier partners who help realize our goals and elevate our focus on sustainability. Below are just a few of the ways our premier partners deliver sustainable, healthy, and innovative low-carbon products for our homes.

**Healthier Indoor Environments**



**Energy-Efficient Solutions**



**Water-Saving Solutions**



**Carbon Emissions Reductions**



**Recycling and Material Conservation**



**Responsible Sourcing and Manufacturing**



## ■ Collaboration and innovation go hand in hand

Collaboration, brainstorming and planning with our national strategic suppliers and partners play an important part in continuing to evolve our sustainability initiatives. In 2020 and 2021, due to the pandemic, we convened our annual National Strategic Supplier Conference with suppliers and partners virtually to discuss supply chain issues and reaffirm our shared goals of delivering value for our clients and each other. We also partnered to implement practices to decarbonize the value chain and reduce Scope 3 GHG emissions through lowered embodied carbon solutions, circularity strategies and continued innovation. At KB Home, it has never been more important to collaborate on key sustainability research initiatives that focus on real-world implementation. However, don't take it from us. Take it from our partners.

"Decarbonization is a serious effort for Schneider, and we see our commitment in broad terms, with specific goals to achieve a climate-positive world. Our partners at KB Home share our commitment, and we're proud that their Sundance project is the first new-home community to feature our Square D Energy Center and connected wiring devices."

**Esther Finidori**  
Vice President of Environment, Schneider Electric

"Rheem® applauds KB Home's leadership on energy efficiency, emissions reduction, and conservation. A like-minded partner, Rheem is committed to advancing these goals globally through our sustainable practices and products. We are excited to provide the high-efficiency, grid-connected Rheem ProTerra™ Hybrid Electric Water Heater to KB Home's new microgrid development in California to help reduce household energy use by up to 75%."

**Chee Wee Gan**  
Senior Vice President, Strategy and Sustainability, Rheem®

"Mission Moen commitment means working with KB and other partners towards saving 1 trillion gallons of water by 2030. Our growing stewardship of water now includes products made from ocean-bound recycled plastic. We have ambitious goals, and we know KB will help us get there."

**Mark-Hans Richer**  
Chief Marketing and Innovation Officer, Moen

### SPOTLIGHT **Diverting plastic waste from landfills and oceans**

With only approximately 9% of the overall 35.7 million tons of U.S. plastic waste recycled in a year (based on EPA data for 2018), we have sought out ways to incorporate into our homes building materials and products that contain recycled plastics diverted from landfills and oceans. In 2021, we teamed up with two partners to implement solutions that meet our quality and performance standards while addressing this important goal.



KB homes built in 2021 used Moen's mixing valves that contain recycled ocean plastics. The new valve has just over an ounce of this green-colored plastic. With an average of 2.5 Moen valves installed per home, Moen estimates we have used almost 2,300 lbs. of recycled plastic.

In 2022, we worked with a road paving company in Southern California to install the first plastic asphalt in a KB community. Plastic asphalt replaces components of a traditional asphalt mix with waste plastic while still producing a similar look and performance. Through our first project, KB Home diverted over 3,100 lbs. of plastic from landfills.

## ■ Product and quality certifications provide lasting peace of mind

We seek out products that provide independent sustainability assessment, like the Cradle to Cradle Certified® Products Program (C2C). C2C offers an independent, third-party assessment of a product's performance against rigorous standards and evaluates both a company's products and operations based on material health, material reutilization, renewable energy, water stewardship and social fairness. A number of our national suppliers participate in the C2C certification process, including our flooring partner, Shaw; our solar panel partner, SunPower; and our paint partner, Sherwin-Williams.



### **Lumber and Forestry**

As part of our contracts with lumber suppliers, we require them to certify that the wood they provide us with is not sourced from endangered forests or is certified by recognized sustainable forestry management programs like the Forest Stewardship Council® (FSC) program. We took this early leadership position in our industry more than a decade ago. We have also been a public proponent for the preservation of old-growth national forests in partnership with the National Resources Defense Council (NRDC).



### **Building Certifications and Memberships**

Our homes are backed by third-party, industry-recognized standards and initiatives that promote sustainable construction and provide building performance and quality assurance. Over the years, we have participated in national and regional building initiatives from both governmental and non-governmental organizations, including:

U.S. EPA ENERGY STAR partner and award winner

U.S. EPA WaterSense first builder partner and award winner

U.S. EPA Indoor airPLUS partner and award winner

RESNET Energy Smart Builders first builder partner and award winner

U.S. DOE Zero Energy Ready Homes partner and award winner

U.S. Green Building Council LEED-certified homes builder and award winner

California Advanced Homes Program participating builder

Build San Antonio Green participating builder



## ■ Quality and safety belong together

We strive to create new homes that our customers are proud to own, and our employees are proud to stand behind. Each of our homes reflects dedication to product quality improvement, workplace safety and customer satisfaction.

### Quality construction practices

The construction quality assurance program that we use assesses over 600 checkpoints related to safety, occupant comfort, indoor air quality, and building durability.

#### Quality Construction Practices

Our construction operations undergo a rigorous annual evaluation by IBACOS®, a nationally recognized expert in home construction quality and performance, against their industry-recognized best practice scorecard.

**13.25%**

improvement in overall construction quality score from 2014 to 2021

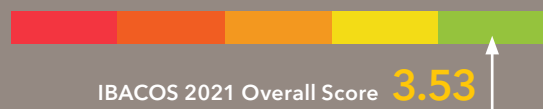


#### Jobsite Safety Reviews

In addition to measuring quality, IBACOS also reviews safety. Since 2014, we have been conducting annual jobsite safety reviews and maintaining scorecards for each of our divisions in conjunction with IBACOS.

**22%**

improvement in KB Home's overall jobsite safety score from 2014 to 2021



### Workplace safety

Safety is a priority for our employees, our homebuyers and our independent contractors. To get a sense of our independent contractors' compliance with their safety obligations, we track nearly 50 checkpoints across key aspects of jobsite safety, including safety documentation, personal protective equipment, scaffolding and ladders, fall protection, trenching and excavation, hazard assessment protocol, first aid and emergency plan, electrical safety and material safety. Our practices include:

- Management review and update of our field safety manual
- A designated safety representative who has completed the Occupational Safety and Health Administration (OSHA) 30-hour training course at each local operating division
- On-site construction managers who have completed the OSHA 10-hour training course and at least one weekly safety inspection of the sites for which they are responsible as well as online modules from a third-party industry quality and safety expert
- A quarterly safety inspection completed and verified by each local operating division's head of operations and a company-wide safety representative
- Regular employee training is an important component of our quality and safety program. New employees are required to complete training certification on both quality processes and standards as well as sustainability features and standards

### SPOTLIGHT

#### Jobsite pollution prevention practices

Our jobsite management practices include Stormwater Pollution Prevention Plans (SWPPP) at each community. These mitigation efforts include dedicated concrete washouts, paint washouts, silt fencing, and inlet drain protection to prevent runoff into nearby waterways, which also keep debris out of the streets and off neighboring properties.



#### e-Waste diversion practices

KB Home pollution prevention practices extend beyond our jobsites. We aim to responsibly divert our electronic waste from landfills. Our information technology teams maintain a robust inventory of all electronics issued to employees to help track them and ensure that such items are timely retired. Under our policy, all KB Home electronics are retired through one of the three following methods:

- **Direct donation to non-profit organizations** - If retired electronics have any useful remaining life, we prioritize donating them to local non-profits. This gives these assets a second life while supporting community groups at the same time.
- **Refurbished through secondary sellers** - If there is an opportunity for substantial reuse, retired electronics are sent to be refurbished through a secondary seller. This diverts these assets from waste stream and again gives them a second life.
- **Recycled through certified e-waste centers** - When retired electronics are at the end of their useful life, we work with certified disposal sites that recycle electronic components where possible and properly dispose of any toxic or hazardous materials.

#### A few of the local groups we supported in 2021 include:

- Arizona Students Recycling Used Technology
- Blind Center of Las Vegas, NV
- Clark County School District in Las Vegas, NV
- Palos Verdes Institute of Technology in Palos Verdes, CA



# Corporate Governance Overview

We believe transparency is essential to operating an inclusive, stakeholder-driven business. Publicly disclosing our organizational governance standards and practices in an easy-to-find, easy-to-understand format is part of how we do that. Because strong corporate governance is a key factor in driving long-term stockholder value, our Board of Directors has implemented a robust governance framework and leading practices to oversee the management of our business, as highlighted here.

- All directors, except for our President and Chief Executive Officer (“CEO”), are independent.
- There is a robust Lead Independent Director position with significant responsibilities and authority.
- Only independent directors serve on Board committees.
- During 2021, there were no related party transactions.
- All directors are elected on an annual basis under a majority voting standard.
- We have one class of voting securities that allow each holder one vote for each share held, and no supermajority voting requirements (except per Delaware law, our state of incorporation).
- We proactively engage with our stockholders year round on ESG matters, our business strategy, performance and outlook.
- Directors and senior executives are subject to significant stock ownership requirements, and they and all employees may not pledge or hedge holdings of our securities.
- Executive officers are subject to an incentive compensation claw-back policy, and all unvested employee equity awards require double-trigger vesting in a change in control. Each director attended at least 75% of his or her total Board and committee meetings.
- No directors are over-boarded.

Comments or questions for the KB Home Board of Directors or any individual Board member can be directed in care of our Corporate Secretary at KB Home, 10990 Wilshire Blvd., 7th Fl., Los Angeles, CA 90024. Additional information about our corporate governance practices can be found in our 2022 Proxy Statement through our Investor Relations website.

## ■ Strong governance and oversight are the backbone of businesses built for the future

Sustainability is integrated into virtually every function of our organization and is a critical strategy for our business. As such, we have created a number of structures as well as an Environmental Management System (EMS) to oversee and continuously fine-tune these efforts.

### Sustainability Oversight Structure

We have a number of governance structures that are specifically tasked with driving our sustainability strategies and actions throughout our entire organization.

Two directors also serve as the Board’s liaisons to management on ESG matters:

**Dorene C. Dominguez**  
Chairwoman and CEO  
Vanir Group of Companies, Inc.  
Vanir Construction, and  
Vanir Development Company

**Arthur R. Collins**  
Founder and Managing Partner  
theGROUP

<b>Board of Directors Oversight</b>	The Board of Directors oversees sustainability as part of our overall business strategy. In addition, the Board’s Audit and Compliance Committee has oversight responsibilities for environmental sustainability matters; its Management Development and Compensation Committee has oversight responsibility for social responsibilities for social matters related to human capital management and employee health and safety; and its Nominating and Corporate Governance Committee has oversight responsibility for governance.
<b>National Advisory Board</b>	As discussed on the following page, nationally recognized leaders meet twice yearly with us to discuss recommendations related to sustainability and other issues.
<b>Sustainability Leadership Team</b>	A group of high-level executives, led by our Chief Operating Officer and Senior Vice President for Sustainability and including select Division Presidents, convenes on a regular basis to discuss sustainability strategies and craft, refine company policies and initiatives, and create buy-in with leaders across all of our operating regions and major functional departments.
<b>ESG Steering Committee</b>	A group of senior executives, led by our Senior Vice President of Investor Relations and Senior Vice President for Sustainability, interacts with various disciplines within KB Home and with key external stakeholders, raising the profile of ESG across the Company and enhancing our transparency and disclosure around our ESG initiatives.
<b>Environmental Management System (EMS)</b>	We have a process for decision-making and continuous improvement for all of our sustainability initiatives, including environmental, which involves all levels of the organization. In 2020, we formalized this process into an EMS process, as outlined on page 56, to continue to expand the transparency of our processes.



## ■ National Advisory Board (NAB)

In 2009, we formed our NAB in an effort to formalize our stakeholder engagement. Our members are leaders from diverse disciplines that bring an independent perspective on our sustainability initiatives and progress. They ask insightful questions, challenge our thinking and make us better in the process. Our NAB meets twice a year and includes participation from our Chairman of the Board and our senior sustainability executive. We also consult with members throughout the year on specific issues and emerging topics.

### 2021 National Advisory Board members

#### Jacob Atalla

Vice President, Innovation and Sustainability, KB Home

#### Dan Bridleman

Senior Vice President, Sustainability, Technology & Strategic Sourcing, KB Home

#### Professor Magali Delmas

Professor of Management, Institute of the Environment and Sustainability, Anderson School of Management, UCLA

#### Dr. Jonathan Fink

Director, Digital City Testbed Center, Portland State University

#### Peter Harkness

Former Group Publisher, Governing, Senior Policy Advisor, Pew Center on the States

#### Sheila Hollis, Esq.

Partner, Duane Morris LLP

#### Anne Kelly

Vice President, Government Relations, and BICEP Program, Ceres

#### Nancy LeaMond

Executive Vice President and Chief Advocacy & Engagement Officer, AARP

#### Rob McGibney

Executive Vice President and Chief Operating Officer, KB Home

#### Jeffrey Mezger

Chairman, President and Chief Executive Officer, KB Home

#### Dr. Lou Moret

Former CalPERS Board Member

#### Andre Pettigrew

Director, Office of Economic and Workforce Development, City of Durham

#### Sam Rashkin

Founder, Retooling the U.S. Housing Industry  
Former Chief Architect, U.S. DOE Building Technologies Office

#### Daniel Seligman

Director, Clean Energy Solutions, Ceres

#### Tim Smith

Principal - AIA, AICP SERA Architects, Inc.

## ■ Environmental Management System (EMS)

We have established an EMS within the U.S. EPA definition: “a set of processes and practices that enable an organization to reduce its environmental impact and increase its operating efficiency.” The main focus of our EMS is reducing the GHG emissions associated with the use of the homes we build over their multi-decade life cycle. Our EMS provides a framework for planning, implementing, measuring, evaluating and refining these efforts over time. The flow chart below demonstrates this framework and the rigorous validation we bring to the process.





## ■ Social Standards and Policies

### Ethical Standards

KB Home is committed to achieving its business goals by acting with integrity, high ethical standards and in compliance with the law. This is essential to building lasting relationships with our customers, business partners and investors that are based on trust. Our KB Home Ethics Policy is a guide for all KB Home employees to follow when facing questions of business ethics. Every year, all KB Home employees must certify that they have read and understood the policy.

We have established an Ethics Reporting Process, which allows for reporting concerns either using an anonymous telephone hotline ([800-304-0657](tel:800-304-0657)) or an anonymous reporting website ([kbhome.ethicspoint.com](http://kbhome.ethicspoint.com)) administered by an independent third party to ensure maximum possible confidentiality and neutrality. Our Ethics Reporting Process is intended to be used as a communication channel for reporting compliance concerns, violations of policies and procedures as well as fraud, illegal or unethical conduct or suspected criminal activity, but is not intended for submitting general customer service issues.



Print copies of our Corporate Governance Principles and Ethics Policy are available free of charge by written request to our Corporate Secretary as well as on our website ([kbhome.com/ethics](http://kbhome.com/ethics)).

### Supplier Code of Conduct

We recognize that our procurement decisions can have important economic, environmental and social impact in the communities we serve and beyond. We have developed a Supplier Code of Conduct ([kbhome.com/supplierconduct](http://kbhome.com/supplierconduct)) to establish principles, guidelines and standards with respect to the supply of the products and materials we use in our business.

These principles, guidelines and standards build on those contained within our Ethics Policy and are intended to help us address certain supply chain risks. We expect our covered suppliers and service providers to respect the principles, guidelines and standards in this Code as well as in our Ethics Policy. We also expect our covered suppliers and service providers to follow best industry practices.

### Responsible Marketing Policy

As a company built on relationships, we are committed to using responsible sales and marketing practices ([kbhome.com/marketingpolicy](http://kbhome.com/marketingpolicy)) to communicate the value of our products and services to consumers in accordance with applicable law. In conducting our sales and marketing activities, we strive to be clear, consistent, accurate, honest, customer-driven, trustworthy, attentive and fair.

### Human Rights Standards

We recognize the importance of respecting and promoting human rights, and have adopted principles, guidelines and standards within our Ethics Policy that operationalize them ([kbhome.com/humanrights](http://kbhome.com/humanrights)). These principles, guidelines and standards are grounded in fundamental human rights that have been advanced under international conventions, such as the United Nations Universal Declaration of Human Rights, and apply to all of our employees, whether full-time or part-time, and directors and to our relationships with our service providers, customers and business partners across our operational footprint within the U.S.

## ■ Public Policy Participation

We believe that actively participating in the public policy-making process is an important aspect of being a responsible member of the communities in which we build and necessary to pursue our business goals. To this end, we:

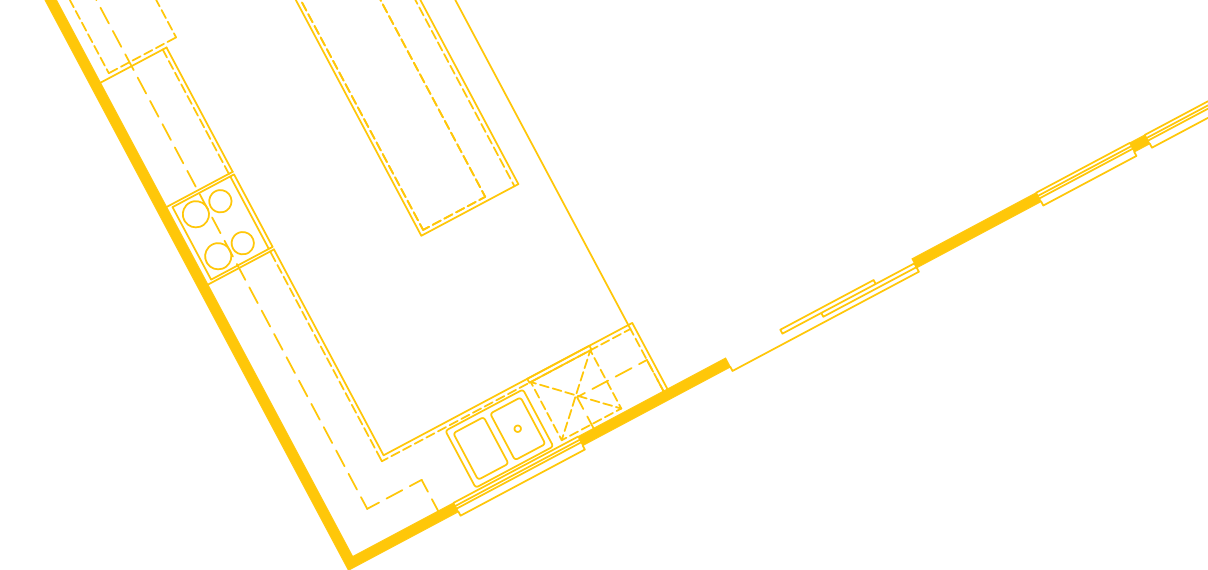
- Engage with public officials and other policy makers at all levels of government in discussions about issues that affect homeownership.
- Make contributions to candidates for public office, irrespective of political party affiliation, and to certain ballot initiatives.
- Support candidates who understand the homebuilding process and champion the broadening of homeownership opportunities.
- Support ballot initiatives that enhance community development and services – primarily bond measures for schools, parks, transportation, water and environmental protection.
- Commit to complying with all laws applicable to the making and public reporting of political campaign contributions. Contributions to federal campaigns are made only by the KB Home American Dream Political Action Committee.
- Contribute to state and local campaigns as permitted by applicable law.
- Put in place an internal management approval process for political campaign contributions and a reporting process to our Board of Directors' Nominating and Corporate Governance Committee.

- In 2021, we contributed \$484,850 to campaigns for state and local offices in California, Idaho and Nevada, and to California and Colorado campaign committees.

The California contributions can be found on the California Secretary of State's website at [www.sos.ca.gov](http://www.sos.ca.gov). The Colorado contributions can be found on the Colorado Secretary of State's website at [www.sos.state.co.us](http://www.sos.state.co.us). The Idaho contributions can be found on the Idaho Secretary of State's website at <https://sos.idaho.gov>. And the Nevada contributions can be found on the Nevada Secretary of State's website at <https://www.nvsos.gov/sos>.



We are proud members of the Ceres BICEP Network, a group of leading consumer brands and Fortune 500 companies. Members support three principles: increased adoption of renewable energy and energy efficiency; increased investment in a clean energy economy; and increased support for climate change resilience.



# Stakeholder Transparency & Data Tables

Since our inaugural Sustainability Report, published in 2008, we have consistently demonstrated our commitment to transparency and accountability. We lead the way for our industry in the breadth and depth of our public data dating back 15 years, which we believe demonstrates that, for us, sustainability and robust ESG practices are the foundation for a business that does well by doing good.

# We provide all our stakeholders visibility into our business and sustainability goals, as well as our GHG emissions and carbon reduction efforts

Since 2008, we have provided comprehensive data tables of key ESG and business metrics for both the most recent fiscal year and historical comparisons (subject to available data). We report such information below and we provide relevant subsets in other reports and on our website in alignment with the SASB, TCFD, GRI and UN SDG frameworks. We intend to continue this reporting in the normal course of our business. We also describe certain climate change-related risks to our business in our periodic reports to the SEC, including in our 2021 Annual Report on Form 10-K.

This chapter contains SASB and GRI indices as well as a chart demonstrating alignment between select UN SDGs and KB Home policies and strategies. This section contains information on the carbon footprint impact of our business, which encompasses Scope 1, 2 and 3 emissions. Additional information on salient sustainability items can be found in the SASB Sustainability Disclosure Topics and Accounting Metrics, Note 2 section of this report.

## GHG emissions and carbon reduction

We use the data we report year over year in considering potential actions to address our organization's carbon footprint, especially with respect to the homes we build. As the largest portion of our business' carbon footprint comes from residents' day-to-day living in our homes, for the past 15 years we have focused on constructing highly energy-efficient homes that are designed to generate fewer GHG emissions in their daily operation over their expected multi-decade lives. Our energy efficiency benchmark – the HERS Index – also serves as the basis for our GHG emission reduction targets, as discussed on page 28. We have set three prior HERS Index national average score targets since 2014 and have met each past target. Our current target of 45 by 2025 was established in 2020, when our national average HERS Index score was 50. We are on our way to achieve this target and expect to set new targets in the future as we also pursue to the extent possible additional reductions in Scope 3 GHG emissions.

To support our efforts to minimize our business' carbon footprint, KB Home in April 2022 became the first national homebuilder to participate in the Science Based Targets initiative (SBTi). SBTi is a global coalition of organizations that have joined together to set ambitious corporate climate action. Moving forward, KB Home plans to continue disclosing emissions annually and monitoring progress as we assess our SBTi targets.



## Scope 1

We determined that our Scope 1 GHG emissions are low when compared to other aspects of our business activities. In this year's report, we have moved natural gas purchases (for heating of our offices, Design Studios, and model homes) from Scope 2 to Scope 1. This change to our calculation method has led to an increase in value for our Scope 1 emissions compared to our reporting in prior years.

## Scope 2

We believe that the Scope 2 GHG emissions of our operations are significant and important to measure and report. Our Scope 2 GHG emissions come from three major areas: our production homes, our model homes and our Design Studios and offices. One of the key challenges in measuring our Scope 2 GHG emissions is that our business spans the country, and regional variables significantly affect the accuracy of these estimates. While we do not have a policy to specifically require the use of energy from renewable sources, 72% of our model homes in California are equipped with solar energy systems, which reduce the amount of electricity that we buy from the local utility companies. To help address the above challenges, the Scope 2 GHG emissions measurement system we have been utilizing for over a decade to estimate our GHG emissions is based on a broad sample that reflects specific monthly energy consumption tracking from multiple premises in each of our divisions company wide and considers regional variations in energy source and consumption.

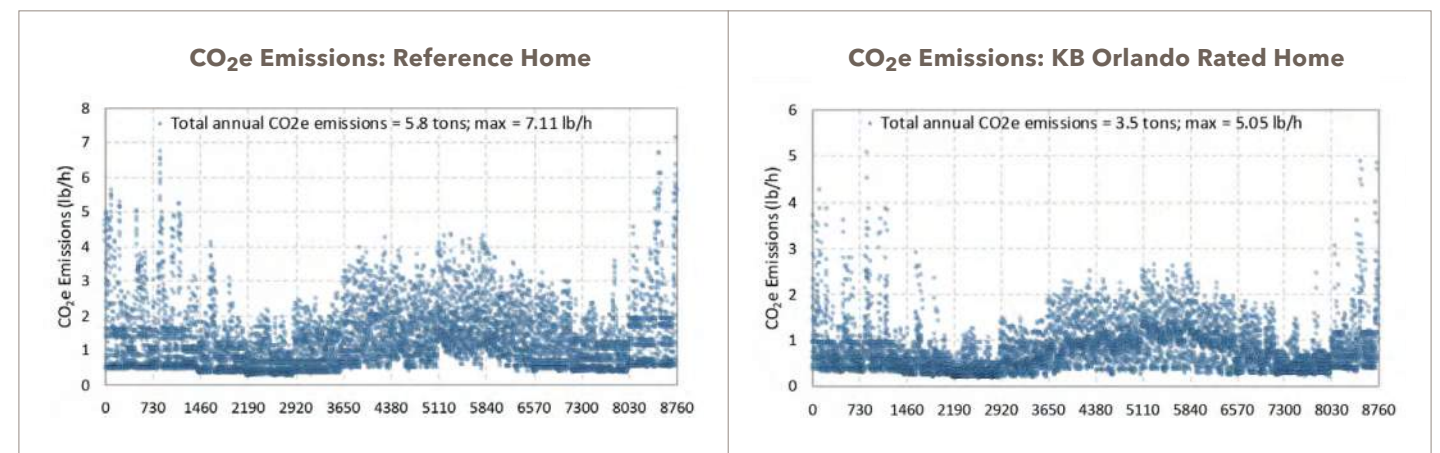
<b>2021 Scope 1 &amp; 2 Carbon Footprint Disclosure</b>  <small>The Environmental Performance Overview table on the following pages shows carbon footprint data for the past 10 years.</small>	Estimated Scope 1 GHG emissions	<b>1,844 CO<sub>2</sub>e</b> in metric tons
	Estimated Scope 2 GHG emissions	<b>13,662 CO<sub>2</sub>e</b> in metric tons
	Total estimated Scope 1 & 2 GHG emissions for KB Home operations	<b>15,506 CO<sub>2</sub>e</b> in metric tons
	Estimated GHG emission financial intensity	<b>0.000027</b>
	Estimated GHG emission activity-related intensity	<b>1.2 CO<sub>2</sub>e</b> in metric tons per delivered home

## Scope 3

We believe Scope 3 represents the largest segment of GHG emissions from our business operations and products. However, many of the impacts derived from our supply chain are currently beyond our capabilities to reasonably measure. In addition, we are not able to directly measure the Scope 3 GHG emissions of our production homes after delivery to buyers because we do not have direct access to our customers' utility usage. Therefore, we utilize the U.S. EPA's estimates for GHG emissions associated with day-to-day living in ENERGY STAR certified homes compared to those built to current standard codes to provide reasonable estimates of these Scope 3 GHG emissions.

While we are not able to calculate GHG emissions for each our homes, our team has undertaken limited assessments of our newest homes. We recently analyzed data through an early model of the proposed RESNET's CO<sub>2</sub> Rating Index, developed by one of our long-time

partners. The KB home selected for study was built in Orlando, Florida and received a HERS Index score of 55 in 2021, using the RESNET-accredited EnergyGauge® USA software tool. The assessment estimated hourly carbon emissions for a full year of occupancy. An average Orlando reference home of similar size was estimated to have total annual carbon emissions of approximately 5.8 tons. In comparison, the KB home we tested was estimated to have total annual carbon emissions of approximately 3.5 tons, corresponding to a total savings of approximately 2.3 tons each year for the years the house is occupied. While this was an informal utilization of RESNET's proposed carbon rating index, we are pleased to see a further indication that our efforts to reduce GHG emissions can have an impact. We plan to continue incorporating new tools and resources as they become available, like this RESNET carbon rating index, on our path toward minimizing our carbon footprint.



## 2021 Scope 3 Carbon Footprint Disclosure

Based on currently available data, including our 2021 national average HERS score of 49, we estimate the Scope 3 GHG emissions from the use of homes we delivered in 2021 to be around 7,948,480 metric tons, with a typical 2021 KB home producing about 5.9 metric tons/year (national average level).



The Enclave in Eastvale, CA



Laterra in San Diego, CA

## ■ Alignment with United Nations' Sustainable Development Goals

The United Nations' Sustainable Development Goals (SDGs), are a set of goals for all organizations and governments worldwide to aspire to in order to achieve a better and more sustainable future by 2030. Below, we have mapped our evaluation of our current ESG efforts against the UN SDGs in the three major areas of sustainability (environmental, social and economic) in order to demonstrate how these priorities align with our business activities.

### Environmental Alignment

- Energy efficiency and GHG reduction
- Third-party HERS testing and rating
- 100% ENERGY STAR certified new homes
- Solar leadership
- Elevating water conservation and waterway protection
- Designing homes that are intended to be healthier for residents
- Integrating sustainability technology for increased comfort
- Working to protect local ecosystems with responsible land development practices



### Social Alignment

- Increasing supply of affordable housing
- Becoming the employer of choice
- Maintaining industry-leading customer satisfaction
- Revitalizing older neighborhoods with infill homes
- Creating local community partnerships
- Increase gender equity in workforce diversity
- Upholding human rights standards
- Provide inclusive and equitable employee technical and vocational training



### Economic Alignment

- Lowering the total cost of homeownership
- Reducing cost to build
- Preserving the environment and natural resources for long-term value
- Engage in public-private partnerships to promote sustainable development
- Adhering to quality and safety standards
- Maintaining workplace safety
- Promoting responsible marketing policy
- Upholding supplier code of conduct
- Convening NAB



## ■ Environmental Performance Overview

PERFORMANCE INDICATOR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total # of homes delivered	6,282	7,145	7,215	8,196	9,829	10,909	11,317	11,871	10,672	13,472
<b>Energy Efficiency</b>										
Number of ENERGY STAR® certified homes delivered <sup>1</sup>	6,207	7,078	7,168	8,099	9,768	10,736	11,176	11,797	10,668	13,404
% of total homes delivered that were ENERGY STAR certified	99%	99%	99%	99%	99%	98%	99%	99%	99%	99%
% of KB Home divisions building at least some homes to ENERGY STAR specifications	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Number of ENERGY STAR certified appliances installed <sup>2</sup>	9,065	9,695	9,789	11,181	13,261	15,276	15,960	17,083	13,507	15,315
Homeowner satisfaction ratings on the energy efficiency of their KB home <sup>3</sup>	93.10%	92.80%	91.50%	91%	91%	89%	89%	93%	93%	93%
<b>Water Conservation</b>										
Number of KB homes built to EPA's WaterSense specifications <sup>4</sup>	85	61	96	233	265	170	134	147	270	1,284
Number of Water Smart homes built <sup>5</sup>	438	503	400	589	807	854	1,132	950	449	0
Number of EPA WaterSense labeled fixtures installed in KB homes: <sup>6</sup>										
Bath faucets	22,500	23,500	23,800	28,700	34,400	40,000	42,000	44,000	39,500	49,846
Toilets	18,100	20,000	20,200	23,000	27,600	33,800	35,000	36,800	33,100	40,416
Showerheads	13,700	15,000	15,150	16,400	19,700	23,400	24,300	25,600	22,950	28,965
<b>Sustainable products and options</b>										
Total number of sustainable products and options installed <sup>7</sup>	20,039	33,582	35,373	46,717	52,094	59,454	61,585	64,697	64,032	72,449

<sup>1</sup> Project site conditions and development requirements as well as factors outside of our control can restrict our ability to build ENERGY STAR certified homes in certain communities.

<sup>2</sup> Began tracking in 2008.

<sup>3</sup> Began tracking in 2010, from a 12-month post-closing survey on a scale of 0-100% satisfaction.

<sup>4</sup> Construction commenced in late 2010.

<sup>5</sup> The Southern Nevada Water Authority sunsetted the Water Smart program in mid 2020. The EPA WaterSense program has replaced it.

<sup>6</sup> Figures are estimated based on average number of fixtures per home.

<sup>7</sup> Began tracking in 2009. Optional upgrades include appliances, HVAC equipment, WaterSense labeled fixtures, ENERGY STAR certified doors and low-E windows. Figures are estimated.

## ■ Environmental Performance Overview (continued)

PERFORMANCE INDICATOR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>Office Sustainability Practice</b>										
% of office supplies purchased that are earth conscious	22%	15%	20%	19%	22%	22%	26%	33%	33%	24%
Sheets of paper saved through process improvement and reduction of paper in homebuying process, estimated <sup>1</sup>									55,000,000	13,300,000
Recycled paper (office grade) processed through our national service provider, which recycles the paper after shredding (lbs.) <sup>2</sup>	94,703	123,637	66,114	203,341	165,606	335,526	181,981	329,900	92,620	31,420
Trees saved	805	1,051	555	1,706	1,389	2,815	1,527	2,768	6,715	1,778
<b>Our Carbon Footprint</b>										
Scope 1 & 2 estimated GHG emission for KB Home operations (CO <sub>2</sub> e in metric tons)	13,468	14,092	16,078	19,186	22,961	25,062	24,992	24,025	19,744	15,506
Estimated GHG emission financial intensity <sup>3</sup>	0.0000086 (13,468 metric tons/US \$1,560,115,000 total revenue)	0.0000068 (14,092 metric tons/US \$2,084,978,000 total revenue)	0.0000067 (16,078 metric tons/US \$2,400,949,000 total revenue)	0.0000063 (19,186 metric tons/US \$3,032,030,000 total revenue)	0.0000064 (22,961 metric tons/US \$3,582,900,000 total revenue)	0.0000057 (25,062 metric tons/US \$4,368,529,000 total revenue)	0.0000055 (24,992 metric tons/US \$4,547,002,000 total revenue)	0.0000053 (24,025 metric tons/US \$4,552,747,000 total revenue)	0.0000047 (19,744 metric tons/US \$4,182,174,000 total revenue)	0.0000027 (15,506 metric tons/US \$5,724,930,000 total revenue)
Estimated GHG emission activity-related intensity (CO <sub>2</sub> e in metric tons per delivered home)	2.1 (13,468 metric tons/ 6,282 homes)	2.0 (14,092 metric tons/ 7,145 homes)	2.2 (16,078 metric tons/ 7,215 homes)	2.3 (19,186 metric tons/ 8,196 homes)	2.3 (22,961 metric tons/ 9,829 homes)	2.3 (25,062 metric tons/ 10,909 homes)	2.2 (24,992 metric tons/ 11,317 homes)	2.0 (24,025 metric tons/ 11,871 homes)	1.8 (19,744 metric tons/ 10,672 homes)	1.2 (15,506 metric tons/ 13,472 homes)
Scope 3 estimated GHG emission for customer occupancy of KB homes (CO <sub>2</sub> e in metric tons)										7,948,480
<b>Waste Reduction and Recycling</b>										
% of KB homes built with preconstructed panels <sup>4</sup> (est.)	98%	85%	85%	85%	85%	85%	85%	85%	90%	90%
% of KB Home communities incorporating recycling into their standard jobsite processes (est.)	64%	70%	80%	85%	85%	85%	85%	85%	85%	85%

<sup>1</sup> We began our digital transformation and documents simplification process improvement in 2019 and continued in 2020. New metric introduced in 2020 to track going forward. The reductions in years following 2020 will show a smaller amount of savings, as we are only counting the impact of digital transformation without accounting for the impact of the initial documents simplification.

<sup>2</sup> This service provider also calculated the environmental benefits in the related rows below. This figure does not include the recycling programs we have established in the majority of our local offices.

<sup>3</sup> Based on the methodology identified by the Carbon Disclosure Project.

<sup>4</sup> Preconstructed panels help to minimize waste and increase durability and are constructed off site for greater precision. Using these panels results in more airtight, better insulated building envelope and helps reduce energy bills.

## Social Performance Overview

PERFORMANCE INDICATOR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total # of homes delivered	6,282	7,145	7,215	8,196	9,829	10,909	11,317	11,871	10,672	13,472
<b>Stakeholder and Community Involvement</b>										
NAB	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES
Infrastructure development - approx. school-related fees paid	\$22 million	\$26 million	\$25 million	\$28 million	\$34 million	\$40 million	\$44 million	\$49 million	\$42 million	\$67 million
<b>Employees, Training and Labor Practices</b>										
Number of full-time employees	1,172	1,422	1,605	1,710	1,797	1,936	2,025	2,157	1,752	2,244
Number of collective bargaining agreements with employees	0	0	0	0	0	0	0	0	0	0
Average online training certifications per employee <sup>1</sup>	12	17	13	14	10	7	8	13	10	12
Average online training hours per employee <sup>2</sup>	12	13	10	11	8	5	6	11	8	10
<b>Employee injuries by region:</b>										
West	4	8	6	7	14	12	17	10	12	19
Southwest	1	1	7	6	8	16	9	7	3	4
Central	14	5	5	10	11	6	6	7	6	6
Southeast	1	6	5	6	8	3	4	8	0	9
<b>Annual Core Training Certification Rate</b>										
KBEdge white papers <sup>3</sup>	90%	83%	87%	83%	66%	70%	80%	92%	96%	96%
Ethics Policy	99%	99%	98%	96%	97%	100%	98%	98%	99%	100%
100% complete/100% satisfied <sup>3</sup>	97%	100%	90%	85%	75%	77%	83%	94%	95%	97%
Sustainability certification <sup>3</sup>	83%	85%	85%	81%	64%	70%	77%	93%	96%	95%
Number of safety certifications	235	894	1,045	901	861	199	315	1,408	2,447	2,210

<sup>1</sup> Decline is due in large part to our lower numbers of new employees, who are required to complete a large number of certifications as part of our new-hire orientation.

<sup>2</sup> Decline is due in large part to lower numbers of new employees, who are required to complete more hours of training as part of our new-hire orientation. In addition to online training and certifications, we conduct on-site field training of employees that is not reflected in these numbers.

<sup>3</sup> Decline in 2016 is due to transition to a new learning management system. These white papers were formerly known as KB2020.

## Economic Performance Overview

Below are key financial and overall customer satisfaction performance indicators. Additional operational results for fiscal year 2021 and prior years as well as additional information about our financial performance and business operations, including discussion of the material risk factors, are available in the periodic and other reports we file with the SEC, which can be found on our website at [www.kbhome.com/investor](http://www.kbhome.com/investor) or at [www.sec.gov](http://www.sec.gov).

PERFORMANCE INDICATOR	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Total # of homes delivered	6,282	7,145	7,215	8,196	9,829	10,909	11,317	11,871	10,672	13,472
<b>Financial Performance</b>										
Financial total revenue (in thousands)	\$1,560,115	\$2,084,978	\$2,400,949	\$3,032,030	\$3,594,646	\$4,368,529	\$4,547,002	\$4,552,747	\$4,183,174	\$5,724,930
Net income/loss (in thousands)	(\$58,953)	\$39,963	\$918,349	\$84,643	\$105,615	\$180,595	\$170,365	\$268,775	\$296,243	\$564,746
Net orders	6,703	7,125	7,567	9,253	10,283	10,900	11,014	12,841	13,404	16,206
Backlog units	2,577	2,577	2,909	3,966	4,420	4,411	4,108	5,078	7,810	10,544
Backlog value (in thousands)	\$618,626	\$682,489	\$914,025	\$1,281,478	\$1,519,089	\$1,660,131	\$1,434,368	\$1,813,707	\$2,962,403	\$4,951,725
Average selling price	\$246,500	\$291,700	\$328,400	\$354,800	\$363,800	\$397,400	\$399,200	\$380,000	\$388,900	\$422,700
Housing gross margin	14.90%	16.70%	18.10%	16.30%	16.20%	16.30%	17.50%	18.30%	18.90%	21.6%
<b>Customer Satisfaction</b>										
Customer satisfaction rating <sup>1</sup>	9.4	9.2	9.1	9.1	9.2	9.2	9.4	9.5	9.5	9.4
Customer recommendation rating <sup>2</sup>	9.4	9.1	9	8.9	8.9	9	9.2	9.4	9.4	9.2

<sup>1</sup> From a 30-day post-closing survey on a scale of 1-10.

<sup>2</sup> From a 30-day post-closing survey on a scale of 1-10; began tracking in 2010.

## ■ SASB Sustainability Disclosure Topics and Accounting Metrics

As the first U.S. high production homebuilder to provide an annual Sustainability Report beginning 15 years ago, we have embraced transparency as a core component of our sustainability efforts. For interested stakeholders, we are providing disclosures against activity metrics in line with the SASB Home Builders Industry Standard, Version 2018-10. All disclosures are for or as of the fiscal year ending November 30, 2021, unless otherwise noted.

SASB Activity Metric	KB Home 2021 Disclosure
IF-HB-000.A Number of controlled lots	<b>86,768 lots</b>
F-HB-000.B Number of homes delivered	<b>13,472 homes delivered</b>
F-HB-000.C Number of active selling communities	<b>217 communities</b>

SASB Accounting Metric	KB Home 2021 Disclosure
<b>Land Use &amp; Ecological Impacts</b>	
IF-HB-160a.1 Number of (1) lots and (2) homes delivered on redevelopment sites	Some of our communities are built on previously developed sites. This varies widely by market and reflects both availability and our focus on affordability for our core first-time and first move-up homebuyers.  In 2021 we delivered <b>857 homes</b> at infill communities, which we define as communities in established urban settings and consider to be similarly situated to SASB's definition of "redevelopment sites." For more information, please review pages 40-42.
IF-HB-160a.2 Number of (1) lots and (2) homes delivered in regions with High or extremely high baseline water stress	<b>1,309 homes delivered</b> in regions with High or Extremely High Baseline Water Stress, as delineated by the World Resources Institute's (WRI) Water Risk Atlas (Aqueduct) tool.  As every KB home is built using WaterSense labeled products and landscaped according to water conservation principles, our homes delivered in water-stressed areas have less relative impact than homes delivered in those locations without similar water-efficient features. For more information, please review pages 31-32.
IF-HB-160a.3 Total amount of monetary losses as a result of legal proceedings associated with environmental regulations	<b>\$0</b>
IF-HB-160a.4 Discussion of process to integrate environmental considerations into site selection, site design, and site development and construction	Developable land for the production of our homes is a core resource for our business. We carefully seek out what we believe are the best places for our new-home communities based on a variety of factors. Several of our communities are transit-friendly, which offers certain environmental benefits and helps foster social connections among residents. Our land acquisition, design and development processes incorporate environmental considerations relating to site selection, layout, amenities, conservation features and construction, among other elements. Please see Note 1 on page 71 for more details.
<b>Workforce Health &amp; Safety</b>	
IF-HB-320a.1 (1) Total recordable incident rate (TRIR) and (2) fatality rate for (a) direct employees and (b) contract employees	(1) Total recordable incident rate (TRIR) for calendar year 2021: Work-related injuries (a) direct employees: 1.7* (b) contract employees: 0  (2) Work-related injury fatalities (a) direct employees: 0 (b) contract employees: 0  * The hours worked, which is part of the SASB-defined TRIR calculation, are calculated using a combination of actual and averages.

## ■ SASB Sustainability Disclosure Topics and Accounting Metrics *(continued)*

SASB Accounting Metric	KB Home 2021 Disclosure
<b>Design for Resource Efficiency</b>	
IF-HB-410a.1 (1) Number of homes that obtained a certified HERS Index Score and (2) average score	(1) <b>99.5% of homes (13,404 homes*)</b> were rated and obtained a HERS Index Score, or equivalent. (The State of California uses a different, but equivalent, rating system called Energy Design Rating.) (2) <b>National Average HERS Index Score was 49</b> by end of 2021, down from 85 when we began tracking this metric company-wide in 2007.  For more information, please review pages 25-30.  <small>* Industry-wide supply chain disruptions delayed the final rating for 68 homes. Without these delays, 100% of our 2021 homes would have been rated.</small>
IF-HB-410a.2 Percentage of installed water fixtures certified to WaterSense® specifications	<b>100% of indoor water fixtures</b> installed in 2021 are within eligible WaterSense product categories. We installed over 900,000 such fixtures to date.  Approximately 60% of irrigation controllers installed in 2021 are WaterSense labeled.  For more information, please review pages 31-32.
IF-HB-410a.3 Number of homes delivered certified to a third-party multi-attribute green building standard	<b>13,404 homes</b> achieved U.S. EPA STAR certification and utilize WaterSense labeled fixtures. We also build a limited number of WaterSense labeled new homes and participate in EPA's Indoor airPLUS program, which we consider to be applicable third-party multi-attribute green building standards.  For more information, please review page 50.
IF-HB-410a.4 Description of risks and opportunities related to incorporating resource efficiency into home design, and how benefits are communicated to customers	See Note 2 on page 72.
<b>Community Impacts of New Developments</b>	
IF-HB-410b.1 Description of how proximity and access to infrastructure, services, and economic centers affect site selection and development decisions	Proximity and access to infrastructure, services and economic centers are among the considerations when we evaluate potential land purchases for new communities.  For examples, please review pages 40-42.
IF-HB-410b.2 Number of (1) lots and (2) homes delivered on infill sites	In 2021 we delivered <b>857 homes</b> at infill/redevelopment communities.
IF-HB-410b.3 (1) Number of homes delivered in compact developments and (2) average density	We strive to make more efficient use of limited land resources by designing compact communities where zoning permits.  Although we did not deliver any homes in compact developments as SASB defines that term, in 2021 we delivered over <b>1,512 homes</b> in higher density communities. The relevant communities had densities of <b>8 to 30 dwelling units per acre</b> .  For examples, please review pages 40-41.
<b>Climate Change</b>	
IF-HB-420a.1 Number of lots located in 100-year flood zones	<b>0 of our buildable lots are in 100-year flood zones.</b>  From time to time, we purchase land that may include areas designated by the U.S. Federal Emergency Management Agency (FEMA) as special flood hazard areas (SFHA). Typically, we work with FEMA to prepare studies, grade the land and install necessary drainage facilities to obtain a letter of map revision (LOMR) and an update to the flood insurance rate map (FIRM) to remove the property from a flood plain before we move on to the next phase of community development.
IF-HB-420a.2 Description of climate change risk exposure analysis, degree of systematic portfolio exposure and strategies for mitigating risks	Please review pages 25-32, 42, 61-62 for information.

## ■ SASB Sustainability Disclosure Topics and Accounting Metrics *(continued)*

### Note 1

#### IF-HB-160a.4

*Discussion of process to integrate environmental considerations into site selection, site design, and site development and construction*

We continuously evaluate land acquisition opportunities against our investment return standards, while balancing competing needs for financial strength, liquidity and land inventory for future growth. When we acquire land, we generally focus on parcels with lots that are entitled for residential construction and are either physically developed to start home construction (referred to as “finished lots”) or partially finished. However, depending on market conditions and available opportunities, we may acquire undeveloped and/or unentitled land. We may also invest in land that requires us to repurpose and re-entitle the property for residential use, such as urban infill developments. We expect that the overall balance of undeveloped, unentitled, entitled, partially finished and finished lots in our inventory will vary over time, and in implementing our strategic growth initiatives, we may acquire a greater proportion of undeveloped or unentitled land in the future if and as the availability of reasonably priced land with finished or partially finished lots diminishes.

As part of the decision-making process for approving a land purchase, our senior executive Land Committee reviews extensive information about a proposed project, including past use; assessment of environmentally sensitive areas and areas that may be suitable for parks, trails and open space preservation areas; assessment of site development required, including any work needed to comply with storm water regulations; distance to major employment and retail centers; and a detailed proposal for site design and product (home designs and specifications) consistent with our commitment to building 100% ENERGY STAR certified homes using 100% WaterSense labeled fixtures.

Our strategies for mitigating risks include the use of third-party environmental consultants to investigate potential environmental risks in our due diligence process for land acquisitions. We also require disclosures, representations and warranties, and indemnities from land sellers regarding environmental risks. As we are subject to federal, state and local rules that can require us to undertake extensive measures to prevent or minimize discharges of stormwater and other materials from our communities and to protect wetlands and other designated areas as part of our due diligence process for land acquisitions, we often use third-party environmental consultants to investigate potential environmental risks, and we require disclosures, representations and warranties from land sellers regarding environmental risks. We also take steps prior to our acquisition of the land to gain reasonable assurance as to the precise scope of any remediation work required and the costs associated with removal, site restoration and/or monitoring. To the extent contamination or other environmental issues have occurred in the past, we will attempt to recover restoration costs from third parties, such as the generators of hazardous waste, land sellers or others in the prior chain of title and/or their insurers.

For more information, please review pages 20, 40–42.

## ■ SASB Sustainability Disclosure Topics and Accounting Metrics *(continued)*

### Note 2

#### IF-HB-410a.4

*Description of risks and opportunities related to incorporating resource efficiency into home design, and how benefits are communicated to customers*

The major risk with incorporating resource efficiency into our home designs is the increased cost associated with doing so, which we weigh carefully as part of our focus on serving our core first-time and first move-up homebuyers. This is one reason that we have chosen to build all of our homes to meet the standards of the ENERGY STAR certification program. ENERGY STAR certification is not a prescription with only one way to achieve it; it identifies performance targets and allows builders to identify the most cost-effective ways to achieve them.

In addition to the risks associated with incorporating resource efficiency into our homes, we feel there are risks with not doing so; including with respect to entitling new communities and offering homes for sale to a consumer base that is becoming increasingly conscious of its environmental impact. Also, in taking the long-term perspective inherent with our business, not prioritizing the resource efficiency of our homes to the extent feasible may make communities more vulnerable to rising energy and water costs and potentially subject use restrictions.

As one of the earliest adopters of sustainable homebuilding, we see opportunities related to resource efficiency as a key part of our business strategy for long-term value creation. Our leadership in this area has allowed us to identify opportunities to streamline sustainable homebuilding and leverage economies of scale.

With our leadership in this area, sustainability has become a key differentiator for KB Home in the homebuilding industry. Leveraging our experience, we have developed a number of consumer materials

to communicate the benefits of resource efficiency and other sustainable features to our prospective homebuyers, including online advertising, consumer website materials and email campaigns and social media. Most notably, our Energy Savings Comparison (ESC) estimates the specific energy performance and potential utility cost savings of every KB home design, and which is prominently displayed for use as a consumer education tool in every model home and as part of our home design selection process as well as on our consumer website. This allows prospective homebuyers to understand how choosing an energy-efficient new KB home can personally benefit them, with a current (2020–2021) estimated average annual savings of \$1,300 on energy utility bills. We also provide a personalized email to our new KB homeowners with the individual as-built HERS score for their unique home wherever the HERS system is used. We are currently working to identify a similar process for California, which does not currently use the HERS system.

We have also found our emphasis on both resource conservation and waste reduction to be important for local government planning boards and other local officials and can make the difference in receiving approval for a proposed new-home community. We have long advocated for the protection of old-growth national forests and have been recognized for our efforts by the NRDC. KB Home requires our lumber suppliers to provide us with wood that is not sourced from endangered forests or is certified by recognized sustainable forestry management programs like the FSC program.

For more information, please review pages 19, 25–32.



## ■ Global Reporting Initiative Index of Indicators

From our inaugural 2007 Annual Sustainability Report, we have referenced certain Global Reporting Initiative (GRI) guidelines and standards and published an annual index of where information relevant to these GRI standards can be found within our report. We did not pursue external assurance for this report; however, there are no restatements in information presented in this or previous reports.

Disclosure Number	Disclosure Title	Location
<b>GRI 102: General disclosures organizational profile</b>		
102-1	Name of the organization	pages 1, 7-8
102-2	Activities, brands, products, and services	page 7, 10-K
102-3	Location of headquarters	page 53, 10-K
102-4	Location of operations	page 7, 10-K
102-5	Ownership and legal form	10-K
102-6	Markets served	page 7, 10-K
102-7	Scale of the organization	pages 7, 67-68, 10-K
102-8	Information on employees and other workers	pages 11-12, 67, 10-K
102-9	Supply chain	pages 48-50
102-10	Significant changes to the organization and its supply chain	pages 48-50, 10-K
102-11	Precautionary principle or approach	10-K
102-12	External initiatives	none
102-13	Membership of associations	Leading Builders of America
<b>Strategy</b>		
102-14	Statement from senior decision-maker	pages 1-2, Proxy
102-15	Key impacts, risks and opportunities	10-K
<b>Ethics and Integrity</b>		
102-16	Values, principles, standards and norms of behavior	pages 8-9, 11-12, 15-16, 21, 53-54
<b>Governance</b>		
102-18	Governance structure	pages 9, 53-55, 10-K, Proxy
102-31	Review of economic, environmental, and social topics	pages 65-68, 10-K, Proxy
<b>Stakeholder Engagement</b>		
102-40	List of stakeholder groups	page 9, Proxy
102-41	Collective bargaining agreements	page 67
102-42	Identifying and selecting stakeholders	pages 9, 53-55
102-43	Approach to stakeholder engagement	pages 53-55, 10-K, Proxy
102-44	Key topics and concerns raised	pages 53-55, 10-K
<b>Reporting Practice</b>		
102-45	Entities included in the consolidated financial statements	pages 9, 10-K
102-46	Defining report content and topic boundaries	pages 3, 21
102-47	List of material topics	pages 16, 21, 10-K
102-48	Restatements of information	N/A
102-49	Changes in reporting	10-K
102-50	Reporting period	page 3
102-51	Date of most recent report	page 3
102-52	Reporting cycle	page 3
102-53	Contact point for questions regarding the report	page 3

## ■ Global Reporting Initiative Index of Indicators *(continued)*

Disclosure Number	Disclosure Title	Location
<b>Reporting Practice</b>		
102-54	Claims of reporting in accordance with GRI standards	pages 3, 21-22, 56, 61, 73-74
102-55	GRI content index	pages 73-74
102-56	External assurance	N/A
<b>GRI 103: Management Approach</b>		
103-1	Explanation of the material topic and its boundary	pages 21, 25-29, 31-32, 61-62, 73-74
103-2	The management approach and its components	pages 15-16, 25-29, 31-32, 56
103-3	Evaluation of the management approach	pages 28, 56, 61-62
<b>GRI 201: Economic Performance</b>		
201-1	Direct economic value generated and distributed	pages 7, 68, 10-K
201-2	Financial implications and other risks and opportunities for the organization's activities due to climate change	pages 61-62, 69-72, 10-K
<b>GRI 203: Indirect Economic Impacts</b>		
203-1	Infrastructure investments and services supported	pages 37-42
<b>GRI 205: Anti-Corruption</b>		
205-2	Communication and training about anti-corruption policies and procedures	pages 11, 57-58, 67
<b>GRI 302: Energy</b>		
302-1	Energy consumption within the organization	pages 65-66
302-3	Energy intensity	pages 19, 26-29, 61-62, 65-66
302-4	Reduction of energy consumption	pages 26-29, 65-66
302-5	Reductions in energy requirements of products and services	pages 19, 26-29
<b>GRI 304: Biodiversity</b>		
304-2	Significant impacts of activities, products and services on biodiversity	pages 41-42
304-3	Habitats protected or restored	pages 41-42
<b>GRI 305: Emissions</b>		
305-1	Direct (Scope 1) GHG emissions	pages 61-62, 66
305-2	Energy indirect (Scope 2) GHG emissions	pages 19, 21, 25-29, 61-62, 66
305-3	Other indirect (Scope 3) GHG emissions	pages 49, 61-62
305-4	GHG emissions intensity	pages 27-28, 61-62
305-5	Reduction of GHG emissions	pages 21, 27-28, 56, 61-62
<b>GRI 403: Occupational Health and Safety</b>		
403-2	Types of injury and rates of injury, occupational diseases, lost days and absenteeism, and number of work-related fatalities	pages 51, 67, 69, 10-K
<b>GRI 404: Training and Education</b>		
404-1	Average hours of training per year per employee	page 67
<b>GRI: 413: Local Communities</b>		
413-1	Operations with local community engagement, impact assessments and development programs	pages 20, 37-38, 43-44, 58, 70
<b>GRI 416: Customer Health and Safety</b>		
416-1	Assessment of the health and safety impacts of product and service categories	pages 33-34
<b>GRI 417: Marketing and Labeling</b>		
417-1	Requirements for product and service information and labeling	pages 26-29, 31-34, 50

# Fifteen Years of Sustainability

We encourage you to review our previous 14 Sustainability reports to learn more about our consistent, long-term approach and all of the work that lies behind our 2021 sustainability results.

To access all of our Sustainability reports, visit:  
[www.kbhome.com/sustainability](http://www.kbhome.com/sustainability)



2007



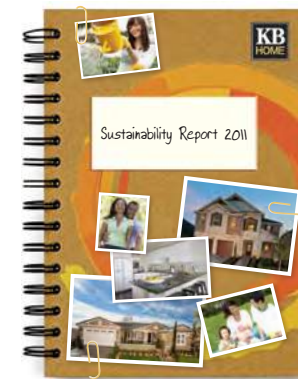
2008



2009



2010



2011



2012



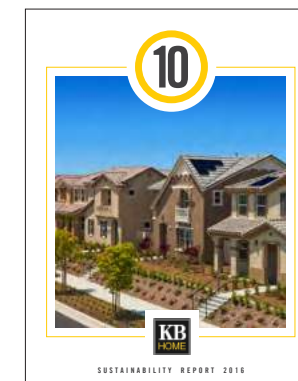
2013



2014



2015



2016



2017



2018



2019



2020



Built on  
Relationships®

10990 Wilshire Blvd., 7th Fl.  
Los Angeles, CA 90024  
888-KB-HOMES  
kbhome.com

For more information on our environmental,  
social and governance (ESG) initiatives, visit:  
[www.kbhome.com/esg](http://www.kbhome.com/esg)

We welcome your feedback about this report  
and our sustainability initiatives at:  
[sustainability@kbhome.com](mailto:sustainability@kbhome.com)

To: Schwartz, Doug <dschwartz@kbhome.com>  
Subject: Better Homes. Better Communities. Better Future.

[View in Browser](#)



Dear KB Home Team—

Today, KB Home released its 15th Annual Sustainability Report, which is the longest-running publication of its kind in the homebuilding industry. Our 2021 Sustainability Report chronicles our long-term pursuit to build better homes, better communities and a better future.

Sustainability has long been a strategic priority for our company because it matters to our homeowners, their families, our employees and our environment. We continue to lead with a customer-driven, industry-first commitment to sustainability because it improves our results and helps to create shareholder value. This year's report details our achievements and goals across important dimensions that play a key role in our mission to build new homes that reflect what homebuyers value and how they want to live.

In 2021, we reached many significant milestones, and I am proud to share a few highlights:

- Helped more than 13,000 customers achieve the dream of homeownership, 62% of which were first-time homebuyers and 63% of which were from diverse backgrounds, reflecting the face of America.
- Maintained our position as the #1 energy-efficient national homebuilder based on a national average Residential Energy Services Network Home Energy Rating System (RESNET® HERS®) Index score of 49, an industry-leading publicly reported score.

- Reached a new milestone of over 160,000 high-performance ENERGY STAR® certified homes built, more than any other builder in the nation.
- Cumulatively saved homeowners an estimated \$856 million in utility bills and reduced greenhouse gas (GHG) emissions by an estimated 6.3 billion pounds.
- Delivered our 14,000th solar home, achieving 44 cumulative megawatts of solar power installed and producing an estimated total of 75 million kilowatt hours of renewable energy annually.
- Earned RESNET's HERS<sup>H2O</sup> (Water Efficiency Rating System) award, the first national homebuilder to receive this recognition based on achieving the lowest index score of 47 and on average using 53,000 less gallons of water annually when compared to the average water consumption of homes in the Las Vegas area, a 55% savings.
- Created meaningful change through KB Cares, our philanthropic program that contributed more than \$1 million to local communities and was supported by over 1,200 hours of volunteered time by KB employees.
- Continued to implement a robust governance framework and leading practices to oversee the management of the business and drive long-term stockholder value.

I want to thank all of you who have played such an integral role in helping make KB Home an industry leader in sustainability and for working to provide meaningful value to KB homebuyers. We will continue

to invest in our commitment to sustainability, driving greater impact while operating with integrity and purpose. We plan to progressively pioneer new approaches to building homes, creating vibrant communities and helping generations of American families achieve homeownership.

To learn more about how we're building better homes, better communities and a better future, [click here](#) to view the 2021 Sustainability Report.



[KBHOME.COM](https://www.kbhome.com)





# ENERGY STAR Single-Family New Homes

## National Rater Field Checklist, Version 3 / 3.1 (Rev. 11)

OMB Control Number: 2060-0587  
 Expiration Date: 01-31-2024  
 EPA Form Number: 5900-428

Home Address: _____		City: _____		State: _____		Permit Date: _____	
Thermal Enclosure System		Must Correct	Builder Verified <sup>1</sup>	Rater Verified <sup>2</sup>	N/A <sup>3</sup>		
<b>1. High-Performance Fenestration &amp; Insulation</b>							
1.1 Fenestration meets or exceeds specification in Item 2.1 of the National Rater Design Review Checklist.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-		
1.2 Insulation meets or exceeds specification in Item 3.1 of the National Rater Design Review Checklist. <sup>4</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-		
1.3 All insulation achieves Grade I install, per ANSI / RESNET / ICC Std. 301. Alternatives in Footnote 5. <sup>5,6</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-		
<b>2. Fully-Aligned Air Barriers<sup>7</sup></b> - At each insulated location below, a complete air barrier is provided that is fully aligned as follows:							
Ceilings: At interior or exterior horizontal surface of ceiling insulation in Climate Zones 1-3; at interior horizontal surface of ceiling insulation in Climate Zones 4-8. Also, at exterior vertical surface of ceiling insulation in all climate zones (e.g., using a wind baffle that extends to the full height of the insulation in every bay or a tabbed baffle in each bay with a soffit vent that prevents wind washing in adjacent bays). <sup>8</sup>							
2.1 Dropped ceilings / soffits below unconditioned attics, and all other ceilings.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Walls: At exterior vertical surface of wall insulation in all climate zones; also at interior vertical surface of wall insulation in Climate Zones 4-8. <sup>9</sup>							
2.2 Walls behind showers, tubs, staircases, and fireplaces.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.3 Attic knee walls and skylight shaft walls. <sup>10</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.4 Walls adjoining porch roofs or garages.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.5 Double-walls and all other exterior walls.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-		
Floors: At exterior vertical surface of floor insulation in all climate zones and, if over unconditioned space, also at interior horizontal surface including supports to ensure alignment. Alternatives in Footnotes 12 & 13. <sup>11, 12, 13</sup>							
2.6 Floors above garages, floors above unconditioned basements or crawlspaces, and cantilevered floors.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
2.7 All other floors adjoining unconditioned space (e.g., rim / band joists at exterior wall or at porch roof).		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>3. Reduced Thermal Bridging</b>							
3.1 For insulated ceilings with attic space above (i.e., non-cathedralized), Grade I insulation extends to the inside face of the exterior wall below and is $\geq R-21$ in CZ 1-5; $\geq R-30$ in CZ 6-8. <sup>14</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.2 For slabs on grade in CZ 4-8, 100% of slab edge insulated to $\geq R-5$ at the depth specified by the 2009 IECC and aligned with the thermal boundary of the walls. <sup>15, 16</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.3 Insulation beneath attic platforms (e.g., HVAC platforms, walkways) $\geq R-21$ in CZ 1-5; $\geq R-30$ in CZ 6-8.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.4 At above-grade walls separating conditioned from unconditioned space, one of the following options used (rim / band joists exempted): <sup>17</sup>							
3.4.1 Continuous rigid insulation, insulated siding, or combination of the two is: $\geq R-3$ in CZ 1-4; $\geq R-5$ in CZ 5-8 <sup>18, 19, 20</sup> <b>OR</b> ;		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.4.2 Structural Insulated Panels <b>OR</b> ; Insulated Concrete Forms <b>OR</b> ; Double-wall framing <b>OR</b> ; <sup>18, 21</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.4.3 Advanced framing, including all of the Items below: <sup>22</sup>							
3.4.3a Corners insulated $\geq R-6$ to edge <sup>23</sup> , <b>AND</b> ;		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.4.3b Headers above windows & doors insulated $\geq R-3$ for 2x4 framing or equivalent cavity width, and $\geq R-5$ for all other assemblies (e.g., with 2x6 framing) <sup>24</sup> , <b>AND</b> ;		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.4.3c Framing limited at all windows & doors to one pair of king studs, plus one pair of jack studs per window opening to support the header and sill, <b>AND</b> ;		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.4.3d Interior / exterior wall intersections insulated to same R-value as rest of exterior wall. <sup>25</sup> <b>AND</b> ;		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
3.4.3e Minimum stud spacing of 16 in. o.c. for 2x4 framing in all Climate Zones and, in CZ 6-8, 24 in. o.c. for 2x6 framing. <sup>26</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
<b>4. Air Sealing</b> (Unless otherwise noted below, "sealed" indicates the use of caulk, foam, or equivalent material)							
4.1 Ducts, flues, shafts, plumbing, piping, wiring, exhaust fans, & other penetrations to unconditioned space sealed, with blocking / flashing as needed.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-		
4.2 Recessed lighting fixtures adjacent to unconditioned space ICAT labeled and gasketed. Also, if in insulated ceiling without attic above, exterior surface of fixture insulated to $\geq R-10$ in CZ 4-8.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.3 Above-grade sill plates adjacent to conditioned space sealed to foundation or sub-floor. Gasket also placed beneath above-grade sill plate if resting atop concrete / masonry & adjacent to cond. space. <sup>27, 28</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.4 Continuous top plate or blocking is at top of walls adjoining unconditioned space, and sealed.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.5 Drywall sealed to top plate at all unconditioned attic / wall interfaces using caulk, foam, drywall adhesive (but not other construction adhesives), or equivalent material. Either apply sealant directly between drywall and top plate or to the seam between the two from the attic above.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.6 Rough opening around windows & exterior doors sealed. <sup>29</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	-		
4.7 Walls that separate attached garages from occupiable space sealed and, also, an air barrier installed and sealed at floor cavities aligned with these walls.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.8 In multifamily buildings, the gap between the common wall (e.g., the drywall shaft wall) and the structural framing between units sealed at all exterior boundaries.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.9 Doors adjacent to unconditioned space (e.g., attics, garages, basements) or ambient conditions made substantially air-tight with weatherstripping or equivalent gasket.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
4.10 Attic access panels, drop-down stairs, & whole-house fans equipped with durable $\geq R-10$ cover that is gasketed (i.e., not caulked). Fan covers either installed on house side or mechanically operated. <sup>30</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		





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HVAC System <sup>31</sup>			Must Correct	Rater Verified <sup>2</sup>	N/A <sup>3</sup>
<b>5. Heating &amp; Cooling Equipment - Complete Track A - HVAC Grading <sup>32</sup> or Track B - HVAC Credential</b>					
Track A	5a.1 Blower fan volumetric airflow is Grade I or II per ANSI / RESNET / ACCA Std. 310.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5a.2 Blower fan watt draw is Grade I or II per ANSI / RESNET / ACCA Std. 310.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5a.3 Refrigerant charge is Grade I per ANSI / RESNET / ACCA Std. 310. See Footnote 33 for exemptions. <sup>33</sup>		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Track B	5b.1 HVAC manufacturer & model number on installed equipment matches either of the following (check box): <sup>34</sup> <input type="checkbox"/> National HVAC Design Report <input type="checkbox"/> Written approval received from designer		<input type="checkbox"/>	<input type="checkbox"/>	-
	5b.2 External static pressure measured by Rater at contractor-provided test locations and documented below: <sup>35</sup> Return-Side External Static Pressure: _____ IWC    Supply-Side External Static Pressure: _____ IWC		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	5b.3 <u>Permitted, but not required</u> : National HVAC Commissioning Checklist collected, with no items left blank.		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>6. Duct Quality Installation (Applies to Heating, Cooling, Ventilation, Exhaust, &amp; Pressure Balancing Ducts, Unless Noted in Footnote)</b>					
6.1 Ductwork installed without kinks, sharp bends, compressions, or excessive coiled flexible ductwork. <sup>36</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.2 Bedrooms pressure-balanced (e.g., using transfer grilles, jump ducts, dedicated return ducts, undercut doors) to achieve a Rater-measured pressure differential $\geq -3$ Pa and $\leq +3$ Pa with respect to the main body of the house when all air handlers are operating. Test configuration and an alternative compliance option in Footnote 37. <sup>37</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
6.3 All supply and return ducts in unconditioned space, including connections to trunk ducts, are insulated to $\geq$ R-6 <sup>38</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.4 Rater-measured total duct leakage meets one of the following two options. Alternative in Footnote 40: <sup>39, 40, 41</sup>					
6.4.1 <u>Rough-in</u> : The greater of $\leq 4$ CFM25 per 100 sq. ft. of CFA or $\leq 40$ CFM25, with air handler & all ducts, building cavities used as ducts, & duct boots installed. <u>All</u> duct boots sealed to finished surface, Rater-verified at final. <sup>42</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.4.2 <u>Final</u> : The greater of $\leq 8$ CFM25 per 100 sq. ft. of CFA or $\leq 80$ CFM25, with the air handler & all ducts, building cavities used as ducts, duct boots, & register grilles atop the finished surface (e.g., drywall, floor) installed. <sup>43</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.5 Rater-measured duct leakage to outdoors the greater of $\leq 4$ CFM25 per 100 sq. ft. of CFA or $\leq 40$ CFM25. <sup>39, 44</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>7. Dwelling Unit Mechanical Ventilation Systems ("Vent System")<sup>45</sup> &amp; Inlets In Return Duct <sup>46</sup></b>					
7.1 Rater-measured ventilation rate is within either $\pm 15$ CFM or $\pm 15\%$ of design report value. <sup>47</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.2 A readily-accessible ventilation override control installed and also labeled if its function is not obvious (e.g., a label is required for a toggle wall switch, but not for a switch that's on the ventilation equipment). <sup>48</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.3 For any outdoor air inlet connected to a ducted return of the HVAC system (Complete if present; otherwise check "N/A"): <sup>46</sup>					<input type="checkbox"/>
7.3.1 Controls automatically restrict airflow using a motorized damper during vent. off-cycle and occupant override. <sup>49</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.3.2 Rater-measured vent. rate is $\leq 15$ CFM or 15% above design value at highest HVAC fan speed. Alt. in Fn. 50. <sup>50</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.4 System fan rated $\leq 3$ sones if intermittent and $\leq 1$ sone if continuous, or exempted. <sup>51</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.5 If Vent System controller operates the HVAC fan, then HVAC fan operation is intermittent and either the fan type is ECM / ICM or the controls will reduce the run-time by accounting for HVAC system heating or cooling hours. <sup>52</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.6 Bathroom fans are ENERGY STAR certified if used as part of the Vent System. <sup>53</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.7 Air inlet location (Complete if ventilation air inlet location was specified on design report; otherwise check "N/A"): <sup>54, 55</sup>					<input type="checkbox"/>
7.7.1 Inlet pulls ventilation air directly from outdoors and not from attic, crawlspace, garage, or adjacent dwelling unit.			<input type="checkbox"/>	<input type="checkbox"/>	-
7.7.2 Inlet is $\geq 2$ ft. above grade or roof deck; $\geq 10$ ft. of stretched-string distance from known contamination sources not exiting the roof, and $\geq 3$ ft. distance from dryer exhausts and sources exiting the roof. <sup>56</sup>			<input type="checkbox"/>	<input type="checkbox"/>	-
7.7.3 Inlet is provided with rodent / insect screen with $\leq 0.5$ inch mesh.			<input type="checkbox"/>	<input type="checkbox"/>	-
<b>8. Local Mechanical Exhaust - In each kitchen and bathroom, a system is installed that exhausts directly to the outdoors and meets one of the following Rater-measured airflow and manufacturer-rated sound level standards:<sup>47, 57</sup></b>					
<b>Location</b>		<b>Continuous Rate</b>	<b>Intermittent Rate <sup>58</sup></b>		
8.1 Kitchen	Airflow	$\geq 5$ ACH, based on kitchen volume <sup>59, 60</sup>	$\geq 100$ CFM and, if not integrated with range, also $\geq 5$ ACH based on kitchen volume <sup>59, 60, 61</sup>		
	Sound	Recommended: $\leq 1$ sone	Recommended: $\leq 3$ sones		
8.2 Bathroom	Airflow	$\geq 20$ CFM	$\geq 50$ CFM		
	Sound	Required: $\leq 1$ sone	Recommended: $\leq 3$ sones		
<b>9. Filtration</b>					
9.1 MERV 6+ filter(s) installed in each ducted mech. system, located to facilitate occupant access & regular service. <sup>62</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.2 Filter access panel includes gasket and fits snugly against exposed edge of filter when closed to prevent bypass. <sup>63</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.3 All return air and mechanically supplied outdoor air passes through filter prior to conditioning.			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>10. Combustion Appliances</b>					
10.1 Furnaces, boilers, & water heaters are mechanically drafted or direct-vented. Alternatives in Footnote 66. <sup>64, 65, 66</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.2 Fireplaces are mechanically drafted or direct-vented. Alternatives in Footnote 67. <sup>64, 65, 67</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.3 If unvented combustion appliances other than cooking ranges or ovens are located inside the home's pressure boundary, the Rater has followed ANSI/ACCA 12 QH-2014, Section 3.2.2, Appendix A Sections A2.2.6, A3, and A4, and verified the equipment meets the limits defined within. <sup>64, 68</sup>			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Rater Name: _____		Rater Pre-Drywall Inspection Date: _____		Rater Initials: _____	
Rater Name: _____		Rater Final Inspection Date: _____		Rater Initials: _____	
Builder Employee: _____		Builder Inspection Date: _____		Builder Initials: _____	



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## Footnotes

1. At the discretion of the Rater, the builder may verify up to eight items in Sections 1-4 of this Checklist. When exercised, the builder's responsibility will be formally acknowledged by the builder signing off on the checklist for the item(s) that they verified. However, if a quality assurance review indicates that Items have not been successfully completed, the Rater will be responsible for facilitating corrective action.
2. The term 'Rater' refers to the person(s) completing the third-party verification required for certification. The person(s) shall: a) be a Certified Rater or Approved Inspector, as defined by ANSI / RESNET / ICC Standard 301, or an equivalent designation as determined by a Home Certification Organization (HCO); and, b) have attended and successfully completed an EPA-recognized training class. See [www.energystar.gov/newhomestraining](http://www.energystar.gov/newhomestraining).
3. The column titled "N/A," which denotes items that are "not applicable," should be used when the checklist Item is not present in the home or conflicts with local requirements.
4. In addition, the infiltration shall not exceed the limits specified in Item 3.1.2 of the National Rater Design Review Checklist, if this option has been used to comply with Item 3.1.
5. Two alternatives are provided: a) Grade II cavity insulation is permitted to be used for assemblies that contain a layer of continuous, air impermeable insulation  $\geq R-3$  in Climate Zones 1 to 4,  $\geq R-5$  in Climate Zones 5 to 8; b) Grade II batts are permitted to be used in floors if they fill the full width and depth of the floor cavity, even when compression occurs due to excess insulation, as long as the R-value of the batts has been appropriately assessed based on manufacturer guidance and the only defect preventing the insulation from achieving Grade I is the compression caused by the excess insulation.
6. Ensure compliance with this requirement using ANSI / RESNET / ICC Std. 301 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO that the home is being certified under, with approved exceptions listed at [www.energystar.gov/ERIExceptions](http://www.energystar.gov/ERIExceptions).
7. For purposes of this Checklist, an air barrier is defined as any durable solid material that blocks air flow between conditioned space and unconditioned space, including necessary sealing to block excessive air flow at edges and seams and adequate support to resist positive and negative pressures without displacement or damage. EPA recommends, but does not require, rigid air barriers.  
Open-cell or closed-cell foam shall have a finished thickness  $\geq 5.5$  in. or 1.5 in., respectively, to qualify as an air barrier unless the manufacturer indicates otherwise.  
If flexible air barriers such as house wrap are used, they shall be fully sealed at all seams and edges and supported using fasteners with caps or heads  $\geq 1$  in. diameter unless otherwise indicated by the manufacturer. Flexible air barriers shall not be made of kraft paper, paper-based products, or other materials that are easily torn. If polyethylene is used, its thickness shall be  $\geq 6$  mil.
8. All insulated ceiling surfaces, regardless of slope (e.g., cathedral ceilings, tray ceilings, conditioned attic roof decks, flat ceilings, sloped ceilings), must meet the requirements for ceilings.
9. All insulated vertical surfaces are considered walls (e.g., above and below grade exterior walls, knee walls) and must meet the air barrier requirements for walls. The following exceptions apply: air barriers recommended, but not required, in adiabatic walls in multifamily dwellings; and, in Climate Zones 4 through 8, an air barrier at the interior vertical surface of insulation is recommended but not required in basement walls or crawlspace walls. For the purpose of these exceptions, a basement or crawlspace is a space for which  $\geq 40\%$  of the total gross wall area is below-grade.
10. Exterior air barriers are not required for attic knee walls that are  $\leq 24$  in. in height if an interior air barrier is provided and insulation extends in all directions from the top of this interior air barrier into unconditioned space at the following levels: CZ 1-5:  $\geq R-21$ ; CZ 6-8:  $\geq R-30$ .
11. EPA highly recommends, but does not require, an air barrier at the interior vertical surface of floor insulation in Climate Zones 4-8.
12. Examples of supports necessary for permanent contact include staves for batt insulation or netting for blown-in insulation. Alternatively, supports are not required if batts fill the full depth of the floor cavity, even when compression occurs due to excess insulation, as long as the R-value of the batts has been appropriately assessed based on manufacturer guidance and the only defect preventing the insulation from achieving the required installation grade is the compression caused by the excess insulation.
13. Alternatively, an air barrier is permitted to be installed at the exterior horizontal surface of the floor insulation if the insulation is installed in contact with this air barrier, the exterior vertical surfaces of the floor cavity are also insulated, and air barriers are included at the exterior vertical surfaces of this insulation.
14. The minimum designated R-values must be achieved regardless of the trade-offs determined using an equivalent U-factor or UA alternative calculation. Note that if the minimum designated values are used, then higher insulation values may be needed elsewhere to meet Item 1.2. Also, note that these requirements can be met by using any available strategy, such as a raised-heel truss, alternate framing that provides adequate space, and / or high-density insulation.
15. Consistent with the 2009 IECC, slab edge insulation is only required for slab-on-grade floors with a floor surface less than 12 inches below grade. Slab insulation shall extend to the top of the slab to provide a complete thermal break. If the top edge of the insulation is installed between the exterior wall and the edge of the interior slab, it shall be permitted to be cut at a 45-degree angle away from the exterior wall. Alternatively, the thermal break is permitted to be created using  $\geq R-3$  rigid insulation on top of an existing slab (e.g., in a home undergoing a gut rehabilitation). In such cases, up to 10% of the slab surface is permitted to not be insulated (e.g., for sleepers, for sill plates). Insulation installed on top of slab shall be covered by a durable floor surface (e.g., hardwood, tile, carpet).
16. Where an insulated wall separates a garage, patio, porch, or other unconditioned space from the conditioned space of the house, slab insulation shall also be installed at this interface to provide a thermal break between the conditioned and unconditioned slab. Where specific details cannot meet this requirement, partners shall provide the detail to EPA to request an exemption prior to the home's certification. EPA will compile exempted details and work with industry to develop feasible details for use in future revisions to the program. A list of currently exempted details is available at: [energystar.gov/slabeledge](http://energystar.gov/slabeledge).



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17. Mass walls utilized as the thermal mass component of a passive solar design (e.g., a Trombe wall) are exempt from this Item. To be eligible for this exemption, the passive solar design shall be comprised of the following five components: an aperture or collector, an absorber, thermal mass, a distribution system, and a control system. For more information, see: [energy.gov/sites/prod/files/guide\\_to\\_passive\\_solar\\_home\\_design.pdf](http://energy.gov/sites/prod/files/guide_to_passive_solar_home_design.pdf).  
Mass walls that are not part of a passive solar design (e.g., CMU block or log home enclosure) shall either utilize the strategies outlined in Item 3.4 or the pathway in the assembly with the least thermal resistance, as determined using a method consistent with the 2013 ASHRAE Handbook of Fundamentals, shall provide  $\geq 50\%$  of the applicable assembly resistance, defined as the reciprocal of the mass wall equivalent U-factor in the 2009 IECC Table 402.1.3. Documentation identifying the pathway with the least thermal resistance and its resistance value shall be collected by the Rater and any Builder Verified or Rater Verified box under Item 3.4 shall be checked.
18. Up to 10% of the total exterior wall surface area is exempted from the reduced thermal bridging requirements to accommodate intentional designed details (e.g., architectural details such as thermal fins, wing walls, or masonry fireplaces; structural details, such as steel columns). It shall be apparent to the Rater that the exempted areas are intentional designed details or the exempted area shall be documented in a plan provided by the builder, architect, or engineer. The Rater need not evaluate the necessity of the designed detail to certify the home.
19. If used, insulated siding shall be attached directly over a water-resistive barrier and sheathing. In addition, it shall provide the required R-value as demonstrated through either testing in accordance with ASTM C 1363 or by attaining the required R-value at its minimum thickness. Insulated sheathing rated for water protection can be used as a water resistant barrier if all seams are taped and sealed. If non-insulated structural sheathing is used at corners, the advanced framing details listed in Item 3.4.3 shall be met for those wall sections.
20. Steel framing shall meet the reduced thermal bridging requirements by complying with Item 3.4.1 of the Checklist.
21. Double-wall framing is defined as any framing method that ensures a continuous layer of insulation covering the studs to at least the R-value required in Item 3.4.1 of the Checklist, such as offset double-stud walls, aligned double-stud walls with continuous insulation between the adjacent stud faces, or single-stud walls with 2x2 or 2x3 cross-framing. In all cases, insulation shall fill the entire wall cavity from the interior to exterior sheathing except at windows, doors and other penetrations.
22. All advanced framing details shall be met except where the builder, architect, or engineer provides a framing plan that encompasses the details in question, indicating that structural members are required at these locations and including the rationale for these members (e.g., full-depth solid framing is required at wall corners or interior / exterior wall intersections for shear strength, a full-depth solid header is required above a window to transfer load to jacks studs, additional jack studs are required to support transferred loads, additional cripple studs are required to maintain on-center spacing, or stud spacing must be reduced to support multiple stories in a multifamily building). The Rater shall retain a copy of the detail and rationale for their records, but need not evaluate the rationale to certify the home.
23. All exterior corners shall be constructed to allow access for the installation of  $\geq R-6$  insulation that extends to the exterior wall sheathing. Examples of compliance options include standard-density insulation with alternative framing techniques, such as using three studs per corner, or high-density insulation (e.g., spray foam) with standard framing techniques.
24. Compliance options include continuous rigid insulation sheathing, SIP headers, other prefabricated insulated headers, single-member or two-member headers with insulation either in between or on one side, or an equivalent assembly. R-value requirement refers to manufacturer's nominal insulation value.
25. Insulation shall run behind interior / exterior wall intersections using ladder blocking, full length 2x6 or 1x6 furring behind the first partition stud, drywall clips, or other equivalent alternative.
26. In Climate Zones 6 - 8, a minimum stud spacing of 16 in. o.c. is permitted to be used with 2x6 framing if  $\geq R-20.0$  wall cavity insulation is achieved. However, all 2x6 framing with stud spacing of 16 in. o.c. in Climate Zones 6 - 8 shall have  $\geq R-20.0$  wall cavity insulation installed regardless of any framing plan or alternative equivalent total UA calculation.
27. Existing sill plates (e.g., in a home undergoing a gut rehabilitation) on the interior side of structural masonry or monolithic walls are exempt from this Item. In addition, other existing sill plates resting atop concrete or masonry and adjacent to conditioned space are permitted, in lieu of using a gasket, to be sealed with caulk, foam, or equivalent material at both the interior seam between the sill plate and the subfloor and the seam between the top of the sill plate and the sheathing.
28. In Climate Zones 1 through 3, a continuous stucco cladding system adjacent to sill and bottom plates is permitted to be used in lieu of sealing plates to foundation or sub-floor with caulk, foam, or equivalent material.
29. In Climate Zones 1 through 3, a continuous stucco cladding system sealed to windows and doors is permitted to be used in lieu of sealing rough openings with caulk or foam.
30. Examples of durable covers include, but are not limited to, pre-fabricated covers with integral insulation, rigid foam adhered to cover with adhesive, or batt insulation mechanically fastened to the cover (e.g., using bolts, metal wire, or metal strapping).
31. This Checklist is designed to meet the requirements of ASHRAE 62.2-2010 / 2013 / 2016, and ANSI / ACCA's 5 QI-2015 protocol, thereby improving the performance of HVAC equipment in new homes when compared to homes built to minimum code. However, these features alone cannot prevent all ventilation, indoor air quality, and HVAC problems, (e.g., those caused by a lack of maintenance by occupants). Therefore, this Checklist is not a guarantee of proper ventilation, indoor air quality, or HVAC performance.
32. Track A – HVAC Grading shall not be used until an implementation schedule has been defined for ANSI / RESNET / ACCA Std. 310 by the HCO that the home is being certified under. Track A – HVAC Grading shall then use ANSI / RESNET / ACCA Std. 310 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO that the home is being certified under. For Track A, all unitary HVAC Systems including air conditioners and heat pumps up to 65 kBtu/h and furnaces up to 125 kBtu/h shall comply with 5a.1 through 5a.3 for the home to be certified.
33. If the non-invasive procedure in ANSI / RESNET / ACCA Std. 310 is not permitted to be used during the final inspection of a home (i.e., due to the equipment type or to outdoor air temperatures that do not meet the requirements of the non-invasive method), then the home is permitted to be certified with a default refrigerant charge designation of Grade III. Note that in these circumstances, the weigh-in method procedure in ANSI / RESNET / ACCA Std. 310 may still be used to pursue a Grade I designation.
34. If installed equipment does not match the National HVAC Design Report, then prior to certification the Rater shall obtain written approval from the designer (e.g., email, updated National HVAC Design Report) confirming that the installed equipment meets the requirements of the National



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HVAC Design Report. In addition, if "N/A" was selected for Item 1.2 of the National Rater Design Review Checklist, then the Rater shall verify that all installed equipment is an exempted type per Footnote 9 of that Checklist or, if not an exempted type, shall re-review the National Rater Design Review Checklist to ensure compliance with all requirements (e.g., contractor credential, full completion of HVAC Design Report, HVAC design tolerances).

In cases where the condenser unit is installed after the time of inspection by the Rater, the HVAC manufacturer and model numbers on installed equipment can be documented through the use of photographs provided by the HVAC Contractor after installation is complete.

35. The Rater shall measure and record the external static pressure in the return-side and supply-side of the system using the contractor-provided test locations. However, at this time, the Rater need not assess whether these values are within a specific range to certify the home.
36. Kinks are to be avoided and are caused when ducts are bent across sharp corners such as framing members. Sharp bends are to be avoided and occur when the radius of the turn in the duct is less than one duct diameter. Compression is to be avoided and occurs when flexible ducts in unconditioned space are installed in cavities smaller than the outer duct diameter and ducts in conditioned space are installed in cavities smaller than inner duct diameter. Ducts shall not include coils or loops except to the extent needed for acoustical control.
37. Item 6.2 does not apply to ventilation ducts, exhaust ducts, or non-ducted systems. For an HVAC system with a multi-speed fan, the highest design fan speed shall be used when verifying this requirement. For an HVAC system with multiple zones, this requirement shall be verified with all zones calling for heating or cooling simultaneously; additional testing of individual zones is not required. When verifying this requirement, doors separating bedrooms from the main body of the house (e.g., a door between a bedroom and a hallway) shall be closed and doors to rooms that can only be entered from the bedroom (e.g., a closet, a bathroom) shall be open. As an alternative to the  $\pm 3$  Pa limit, a Rater-measured pressure differential  $\geq -5$  Pa and  $\leq +5$  Pa is permitted to be used for bedrooms with a design airflow  $\geq 150$  CFM. The Rater-measured pressure shall be rounded to the nearest whole number to assess compliance.
38. Item 6.3 does not apply to ducts that are a part of local mechanical exhaust and exhaust-only dwelling unit mechanical ventilation systems. EPA recommends, but does not require, that all metal ductwork not encompassed by Section 6 (e.g., exhaust ducts, duct boots, ducts in conditioned space) also be insulated and that insulation be sealed to duct boots to prevent condensation.
39. Items 6.4 and 6.5 generally apply to the ducts of space heating, space cooling, and dwelling unit mechanical ventilation systems. However, visual inspection is permitted in lieu of testing for a dwelling unit mechanical ventilation system not connected to the space heating or space cooling system, regardless of the number of dwelling units it serves. In such cases, a Rater shall visually verify that all seams and connections are sealed with mastic or metal tape and all duct boots are sealed to floor, wall, or ceiling using caulk, foam, or mastic tape. For duct systems requiring testing, duct leakage shall be determined and documented by a Rater using ANSI / RESNET / ICC Std. 380 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO that the home is being certified under. Leakage limits shall be assessed on a per-system, rather than per-home, basis.
40. For a duct system with three or more returns, the total Rater-measured duct leakage is permitted to be the greater of  $\leq 6$  CFM25 per 100 sq. ft. of CFA or  $\leq 60$  CFM25 at 'rough-in' or the greater of  $\leq 12$  CFM25 per 100 sq. ft. of CFA or  $\leq 120$  CFM25 at 'final'.
41. Note that compliance with Item 6.4.1 or 6.4.2 in conjunction with Section 4a of the National Rater Design Review Checklist automatically achieves Grade I total duct leakage per ANSI / RESNET / ACCA Std. 310.
42. Cabinets (e.g., kitchen, bath, multimedia) or ducts that connect duct boots to toe-kick registers are not required to be in place during the 'rough-in' test.
43. Registers atop carpets are permitted to be removed and the face of the duct boot temporarily sealed during testing. In such cases, the Rater shall visually verify that the boot has been durably sealed to the subfloor (e.g., using duct mastic or caulk) to prevent leakage during normal operation.
44. Testing of duct leakage to the outdoors can be waived in accordance with the 2nd or 3rd alternative of ANSI / RESNET / ICC Std. 301, Table 4.2.2 (1), footnote (w). Alternatively, testing of duct leakage to outdoors can be waived in accordance with Section 5.5.2 of ANSI / RESNET / ICC Std. 380 if total duct leakage, at rough-in or final, is  $\leq 4$  CFM25 per 100 sq. ft. of conditioned floor area or 40 CFM25, whichever is larger. Guidance to assist partners with these alternatives, including modeling inputs, is available at <http://www.energystar.gov/newhomesguidance>.
45. As defined by ANSI / RESNET / ICC Std. 301-2019, a Dwelling Unit Mechanical Ventilation System is a ventilation system consisting of powered ventilation equipment such as motor-driven fans and blowers and related mechanical components such as ducts, inlets, dampers, filters and associated control devices that provides dwelling-unit ventilation at a known or measured airflow rate.
46. Item 7.3 applies to any outdoor air inlet connected to a ducted return of the dwelling unit HVAC system, regardless of its intended purpose (e.g., for ventilation air, make-up air, combustion air). This Item does not apply to HVAC systems without a ducted return.
47. The Dwelling Unit Mechanical Ventilation System air flows and local exhaust air flows shall be determined and documented by a Rater using ANSI / RESNET / ICC Std. 380 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO that the home is being certified under.
48. For an attached dwelling unit, excluding units in dwellings (i.e., duplex) and townhomes, the override control is not required to be readily accessible to the occupant. However, in such cases, EPA recommends but does not require that the control be readily accessible to others (e.g., building maintenance staff) in lieu of the occupant.
49. For example, if an outdoor air inlet connected to a ducted return is used as a dedicated source of outdoor air for an exhaust ventilation system (e.g., bath fan), the outdoor airflow must be automatically restricted when the exhaust fan is not running and in the event of an override of the exhaust ventilation system.
50. When assessing the ventilation rate, the highest HVAC fan speed applicable to ventilation mode shall be used (e.g., if the inlet only opens when the HVAC is in 'fan-only' mode, then test in this mode). If the inlet has a motorized damper that only opens when the local mechanical kitchen exhaust is turned on, then testing is not required.

When required, the ventilation airflow through the inlet shall be measured and documented by a Rater using ANSI / RESNET / ICC Std. 380 including all Addenda and Normative Appendices, with new versions and Addenda implemented according to the schedule defined by the HCO that the home is being certified under. As an alternative, measurement of the outdoor airflow can be waived if a Constant Airflow Regulating



# ENERGY STAR Single-Family New Homes National Rater Field Checklist, Version 3 / 3.1 (Rev. 11)

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- (CAR) damper with a manufacturer-specified maximum flow rate no higher than 15 CFM or 15% above the ventilation design value is installed on the inlet.
51. Dwelling Unit Mechanical Ventilation System fans shall be rated for sound at no less than the airflow rate in Item 2.3 of the National HVAC Design Report. Fans exempted from this requirement include HVAC air handler fans, remote-mounted fans, and intermittent fans rated  $\geq 400$  CFM. To be considered for this exemption, a remote-mounted fan must be mounted outside the habitable spaces, bathrooms, toilets, and hallways and there shall be  $\geq 4$  ft. ductwork between the fan and intake grill. Per ASHRAE 62.2-2010, habitable spaces are intended for continual human occupancy; such space generally includes areas used for living, sleeping, dining, and cooking but does not generally include bathrooms, toilets, hallways, storage areas, closets, or utility rooms.
  52. Note that the 'fan-on' setting of a thermostat would not be an acceptable controller because it would continuously operate the HVAC fan.
  53. Bathroom fans with a rated flow rate  $\geq 500$  CFM are exempted from the requirement to be ENERGY STAR certified.
  54. Ventilation air inlets that are only visible via rooftop access are exempted from Item 7.7 and the Rater shall mark "N/A". The outlet and inlet of balanced ventilation systems shall meet these spacing requirements unless manufacturer instructions indicate that a smaller distance may be used. However, if this occurs the manufacturer's instructions shall be collected for documentation purposes.
  55. Without proper maintenance, ventilation air inlet screens often become filled with debris. Therefore, EPA recommends, but does not require, that these ventilation air inlets be located so as to facilitate access and regular service by the occupant.
  56. Known contamination sources include, but are not limited to, stacks, vents, exhausts, and vehicles.
  57. Continuous bathroom local mechanical exhaust fans shall be rated for sound at no less than the airflow rate in Item 8.2. Intermittent bathroom and both intermittent and continuous kitchen local mechanical exhaust fans are recommended, but not required, to be rated for sound at no less than the airflow rate in Items 8.1 and 8.2. Per ASHRAE 62.2-2010, an exhaust system is one or more fans that remove air from the building, causing outdoor air to enter by ventilation inlets or normal leakage paths through the building envelope (e.g., bath exhaust fans, range hoods, clothes dryers). Per ASHRAE 62.2-2010, a bathroom is any room containing a bathtub, shower, spa, or similar source of moisture.
  58. An intermittent mechanical exhaust system, where provided, shall be designed to operate as needed by the occupant. Control devices shall not impede occupant control in intermittent systems.
  59. Kitchen volume shall be determined by drawing the smallest possible rectangle on the floor plan that encompasses all cabinets, pantries, islands, peninsulas, ranges / ovens, and the kitchen exhaust fan, and multiplying by the average ceiling height for this area. In addition, the continuous kitchen exhaust rate shall be  $\geq 25$  CFM, per 2009 IRC Table M1507.3, regardless of the rate calculated using the kitchen volume. Cabinet volume shall be included in the kitchen volume.
  60. Homes shall meet this Item. Alternatively, the prescriptive duct sizing requirements in Table 5.3 of ASHRAE 62.2-2010 / 2013 / 2016 are permitted to be used for kitchen exhaust fans based upon the rated airflow of the fan at 0.25 IWC. If the rated airflow is unknown,  $\geq 6$  in. smooth duct shall be used, with a rectangular to round duct transition as needed. Guidance to assist partners with these alternatives is available at <http://www.energystar.gov/newhomesguidance>. As an alternative to Item 8.1, homes are permitted to use a continuous kitchen exhaust rate of 25 CFM per 2009 IRC Table M1507.3, if they are either a) PHIUS+ or PHI certified, or b) provide both dwelling unit ventilation and local mechanical kitchen exhaust using a balanced system, and have a Rater-verified whole-building infiltration rate  $\leq 1.0$  ACH50 or  $\leq 0.05$  CFM50 per sq. ft. of Enclosure Area, and a Rater-verified dwelling unit compartmentalization rate  $\leq 0.30$  CFM50 per sq. ft. of Enclosure Area if multiple dwelling units are present in the building. 'Enclosure Area' is defined as the area of the surfaces that bound the volume being pressurized / depressurized during the test.
  61. All intermittent kitchen exhaust fans must be capable of exhausting at least 100 CFM. In addition, if the fan is not part of a vented range hood or appliance-range hood combination (i.e., if the fan is not integrated with the range), then it must also be capable of exhausting  $\geq 5$  ACH, based on the kitchen volume.
  62. Based upon ASHRAE 62.2-2010, ducted mechanical systems are those that supply air to an occupiable space with a total amount of supply ductwork exceeding 10 ft. in length and through a thermal conditioning component, except for evaporative coolers. Systems that do not meet this definition are exempt from this requirement. While filters are recommended for mini-split systems, HRV's and ERV's, these systems, ducted or not, typically do not have MERV-rated filters available for use and are, therefore, also exempted under this version of the requirements. HVAC filters located in the attic shall be considered accessible to the occupant if either 1) drop-down stairs, a pull-down ladder, or door provide access to attic and a permanently installed walkway has been provided between the attic access location and the filter or 2) the filter location enables arm-length access from a portable ladder without the need to step into the attic and the height of the ceiling access panel or the bottom of the wall access panel where access is provided is  $\leq 12$  ft.
  63. Sealing mechanisms comparable to a gasket are also permitted to be used. The filter media box (i.e., the component in the HVAC system that houses the filter) may be either site-fabricated by the installer or pre-fabricated by the manufacturer to meet this requirement. These requirements only apply when the filter is installed in a filter media box located in the HVAC system, not when the filter is installed flush with the return grill.
  64. The pressure boundary is the primary enclosure boundary separating indoor and outdoor air. For example, a volume that has more leakage to outside than to conditioned space would be outside the pressure boundary.
  65. Per the 2009 International Mechanical Code, a direct-vent appliance is one that is constructed and installed so that all air for combustion is derived from the outdoor atmosphere and all flue gases are discharged to the outside atmosphere; a mechanical draft system is a venting system designed to remove flue or vent gases by mechanical means consisting of an induced draft portion under non-positive static pressure or a forced draft portion under positive static pressure; and a natural draft system is a venting system designed to remove flue or vent gases under nonpositive static vent pressure entirely by natural draft.
  66. This item only applies to furnaces, boilers, and water heaters located within the home's pressure boundary. Naturally drafted equipment is allowed within the home's pressure boundary in Climate Zones 1-3 if the Rater has followed ANSI / ACCA 12 QH-2014, Section 3.2.2, Appendix A Sections A2.2.6, A3 (Carbon Monoxide Test), A4 (Depressurization Test for the Combustion Appliance Zone), and verified that the equipment meets the limits defined within.
  67. This item only applies to fireplaces located within the home's pressure boundary. Naturally drafted fireplaces are allowed within the home's pressure boundary if the Rater has verified that the total net rated exhaust flow of the two largest exhaust fans (excluding summer cooling fans)



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is  $\leq$  15 CFM per 100 sq. ft. of occupiable space when at full capacity. If the net exhaust flow exceeds the allowable limit, it shall be reduced or compensating outdoor airflow provided. Per ASHRAE 62.2-2010, the term "net rated exhaust flow" is defined as flow through an exhaust fan minus the compensating outdoor airflow through any supply fan that is interlocked to the exhaust fan. Per ASHRAE 62.2-2010, the term "occupiable space" is defined as any enclosed space inside the pressure boundary and intended for human activities, including, but not limited to, all habitable spaces, toilets, closets, halls, storage and utility areas, and laundry areas. See Footnote 51 for the definition of "habitable spaces".

68. The minimum volume of combustion air required for safe operation by the manufacturer and / or code shall be met or exceeded. Also, in accordance with the National Fuel Gas Code, ANSI Z223.1 / NFPA54, unvented room heaters shall not be installed in bathrooms or bedrooms.

This collection of information is approved by OMB under the Paperwork Reduction Act, 44 U.S.C. 3501 et seq. (OMB Control No. 2060-0587). Responses to this collection of information are voluntary. An agency may not conduct or sponsor, and a person is not required to respond to, a collection of information unless it displays a currently valid OMB control number. The public reporting and recordkeeping burden for this collection of information is estimated to be 1 hour per response. Send comments on the Agency's need for this information, the accuracy of the provided burden estimates and any suggested methods for minimizing respondent burden including through the use of automated collection techniques to the Director, Regulatory Support Division, U.S. Environmental Protection Agency (2821T), 1200 Pennsylvania Ave., NW, Washington, D.C. 20460. Include the OMB control number in any correspondence. Do not send the completed form to this address.

## **KB Homes Energy Saving Features**

- 1) **Energy Star Certified** home verified by independent third party inspector
- 2) Thermal Enclosure System: air sealing, quality insulation and high performance windows to enhance comfort, improve durability. Reduce maintenance costs and help lower monthly utility bills.
- 3) Crawl spaces sealed, and conditioned, or energy efficient slabs
- 4) Water saving plumbing fixtures.
- 5) Water management System to help protect roofs, walls and foundations from water damage.
- 6) **LP TechShield** radiant barrier sheathing to help reduce cooling cost by lowering attic temperatures by up to 30 degrees F
- 7) **Ecobee3** lite smart thermostat
- 8) **Generation Lighting** TraverseLyte LED light fixtures at foyer, kitchen, family room, loft, flex, hallways, stairways, and walk-in closets. LED lighting is installed in approximately 90% of each homes lighting fixtures.
- 9) R-15 exterior wall insulation, R-38 blown attic insulation and 2-in. R-10 slab insulation
- 10) 14 Sheer **Carrier** HVAC system with gas furnace designed and installed to deliver more comfort, better moisture control, improved indoor air quality and quieter operation
- 11) Low-E **Ply Gem** windows with Grids on front of home and window screens on entire home
- 12) **Energy Performance Guide (EPG)** a monthly energy cost estimate to help you better understand the money-saving advantages of a KB home.
- 13) KB Home has industry leading HERS Scores that puts KB Home in the 50% fossil fuel reduction range.
- 14) KB Home hires professional disposal companies that sort through and recycle the construction debris.

# Home Performance Dashboard

KB  
2020 Q4

This consumer-friendly dashboard summarizes key facts and performance metrics for your homes—numbers that prove to potential buyers that your homes have a history of high performance.

## Highlights

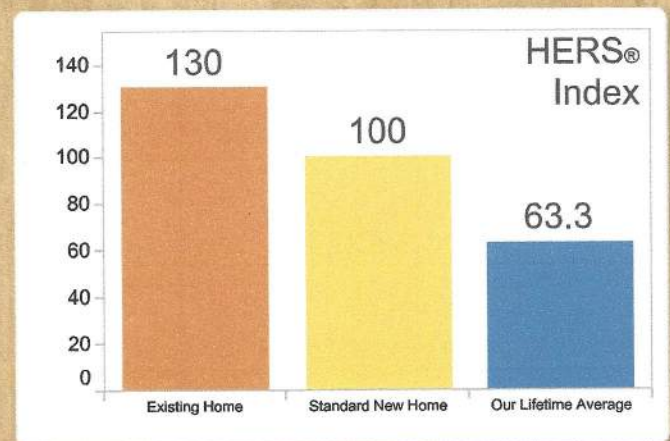
<b>\$392</b>	<b>62</b>	<b>1,737 tons</b>
Total Annual Savings per Home	Quarter Avg HERS Score	Carbon Emissions Our Homes Save Annually

## Savings annually

	Our Homes	Standard Homes	Annual Savings
Heating	\$345	\$612	\$266
Cooling	\$167	\$226	\$59
Appliances	\$615	\$642	\$27
Hot Water	\$266	\$307	\$40
<b>Total per Home</b>	<b>\$1,646</b>	<b>\$2,040</b>	<b>\$392</b>

**\$411,560** Amount We'll Save Our Homeowners On Energy This Year

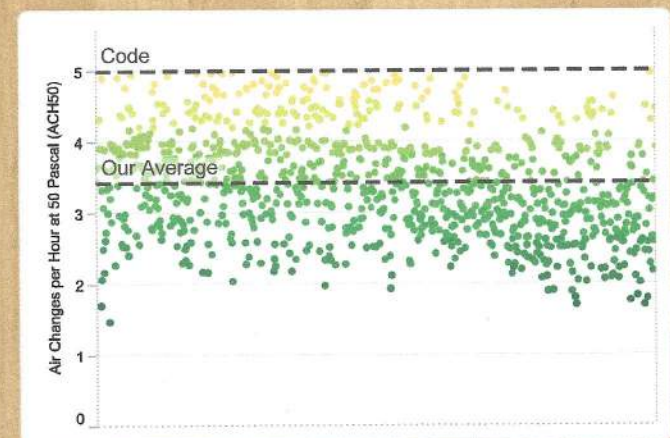
## Efficiency



The Home Energy Rating System (HERS) Index is the best way to compare performance between homes. A lower HERS score means a home will be more efficient and comfortable.

Building homes to a higher standard translates into real dollar savings for our homeowners, lowering the lifetime cost of home ownership.

## Comfort



Air Changes per Hour at 50 Pascals (ACH50) measures a home's air-tightness. A lower ACH50 indicates a tighter, more comfortable home where less conditioned air escapes to the outside.

## Impact annually



Tons of Carbon Saved Annually	Trips Around Earth Avoided	Trees Planted
<b>1,737.1</b>	<b>150.7</b>	<b>40,408</b>

The energy our homes save every year greatly reduce their environmental footprint.

Certified



Corporation  
bcorporation.net



**SOUTHERN ENERGY MANAGEMENT**  
ENERGY EFFICIENCY & SOLAR POWER

southern-energy.com  
919.836.0330  
5908 Triangle Drive  
Raleigh, NC 27617





**So what can you expect from a KB home?**

Dedication to both homeowner peace of mind and energy efficiency by having third-party energy inspections on all our homes. Every home comes with a HERS Certificate showing the home's efficiency, energy savings, and solar potential.



Select date range ▾      Select subdivision ▾  
 Select home type ▾      Select lot ▾

HOME EFFICIENCY

**3.6**  
Average Blower Door

**What does this mean?** A blower door test measures the number of times the air in your home changes out per hour. Getting the right circulation balance translates to energy efficiency, indoor air quality, and overall comfort. NC Code requires a blower door maximum of 5 ACH.

---

**2.1%**  
Average Duct LTO

**What does this mean?** Leakage to the outside (LTO), measures the amount of air that escapes a home's conditioned space. The lower the leakage, the more efficient the duct system and the more money you'll save on heating and cooling. NC Code requires 4% LTO or below.

---

**63**  
Average HERS Score

**What does this mean?** The lower the HERS score the more energy efficient! A typical existing home has a HERS Index of 130, while a standard new home has a HERS Index of 100. Learn more at [www.hersindex.com](http://www.hersindex.com).

ENVIRONMENTAL IMPACT

**4.1M**  
Pounds of Emissions Avoided Annually

---

**210.4K**  
Equivalent Gallons of Gasoline Saved

---

**What does this mean?** You can feel good about saving money, and having a positive environmental impact.

FINANCIAL IMPACT

**\$1.82M**  
Homeowner Savings Since 2010

---

**\$398.73**  
Average Annual Savings

---

**What does this mean?** Our average homeowner saves hundreds of dollars on their energy bills each year – meaning you can spend your money elsewhere!

## *Stanat's Place Energy Saving Features*

1. **Energy Star Certified** home verified by Southern Energy Management or another independent third-party inspector.
2. **All electric townhomes.** No gas or other fossil fuel provided within the development.
3. Thermal Enclosure System: air sealing, quality insulation and high-performance windows.
4. Conditioned and sealed crawl spaces, or energy efficient slabs
5. Water saving plumbing fixtures, **EPA Watersense** Program.
6. **SEER 15 Two Stage** HVAC System.
7. **LP TechShield** radiant barrier sheathing to help reduce cooling cost by lowering attic temperatures by up to 30 degrees F
8. **Ecobee3** lite smart thermostat
9. **Generation Lighting** TraverseLyte **LED Light fixtures** at foyer, kitchen, family room, loft, flex, hallways, stairways, and walk-in closets. LED lighting is installed in approximately 90% of each homes lighting fixtures.
10. R-15 exterior wall insulation, R-49 blown attic insulation and 2-in. R-10 slab insulation.
- 11) **Low-E Ply Gem windows** with Grids on front of home and window screens on entire home
- 12) **Energy Performance Guide (EPG)** a monthly energy cost estimate to help you better understand the money-saving advantages of a KB home.
- 13) KB Home has industry leading HERS Scores. **Anticipated HERS score range between 55-60.**
- 14) KB Home hires professional disposal companies that sort through and recycle the construction debris.
- 15) Draught resistant turf and native plantings, where possible.
- 16) No permanent irrigation systems on common property.

17) Consult the Botanical Gardens for a planting list.

18) Plant a small number of larger trees, where possible.

19) Provide a total of (6) bicycle parking spaces near guest parking. These spaces are not covered.

# Capkov Ventures

Developing Homes And Communities Since 1954, In Chapel Hill Since 1972.



## Applicant Response to Transit Request for \$25,000.

As proposed Stanat's Place is a small infill community of 47 townhomes. It has been specifically designed to serve the missing middle income housing needs of Chapel Hill. The community has no frontage on any major streets, and the Traffic Impact Analysis commissioned by the Town of Chapel Hill shows this small community will have little impact on traffic for the surrounding areas. The staff report presented to the Town Council indicates that the morning peak flow generated by Stanat's Place will generate less than 20 cars, and the afternoon peak flow only a dozen cars. Stanat's Place will have little impact on traffic or transit.

The growth of development fees and proffers necessary to gain approval in Chapel Hill is the most significant barrier to developing middle income housing in the community. While inclusionary zoning provides the biggest barrier, satisfying the individual interest of the wide array of individual departments in Chapel Hill has a significant impact on a developer's willingness to attempt a for sale community in Chapel Hill. While there is nothing in the ordinance requiring a payment in lieu of recreation one has been asked for and agreed to. Countless modifications have been made to satisfy the other interest of the various Advisory Boards. Together they have a chilling effect on those who might otherwise consider developing in Chapel Hill

Stanat's Place is not part of a larger multi-family community, or a hotel complex that can help defray the cost of infrastructure improvements or approval cost. It is a stand-alone community trying to figure out how to bring some moderately priced homes to Chapel Hill. The request for a \$25,000 payment from the Transit Department is not coming from the Land Use Ordinance and is not warranted for this community.



**STANAT'S PLACE  
RESIDENTIAL DEVELOPMENT  
TRANSPORTATION IMPACT ANALYSIS**

**EXECUTIVE SUMMARY**



**Prepared for:**

The Town of Chapel Hill  
Public Works Department - Engineering

**Prepared by:**

***HNTB North Carolina, PC***

*343 East Six Forks Road  
Suite 200  
Raleigh, NC 27609*

*NCBELS License #: C-1554*

September 2022



**STANAT'S PLACE  
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## EXECUTIVE SUMMARY

### **Project Overview**

A new residential community, known as Stanat's Place, is being proposed in Chapel Hill near Homestead Road and Aquatic Drive. **Figure ES-1** shows the general location of the site. The project proposes to construct 47 individual residential townhome/condominium units and is anticipated to be fully complete and occupied by 2025. This report analyzes the full build-out scenario for Stanat's Place for the year 2026 (one year after anticipated completion), the no-build scenario for 2026, as well as 2022 existing year traffic conditions. The impacts of the proposed site at the study area intersections are evaluated during the AM, noon, and PM peak hours of an average weekday.

The current proposed site plan shows a provision for a full movement access driveway serving the site that connects to Aquatic Drive and a provision for a full movement access street connection to tie into existing Cabernet Drive in the Vineyard Square subdivision that would provide external connectivity to Weaver Dairy Road Extension via Napa Valley Way. No other external roadway vehicular access connections are proposed. **Figure ES-2** displays the overall site plan and nearby land uses and roadways. The Stanat's Place site is expected to provide individual vehicle parking spaces located as part of each condominium lot – with potential on-street parking allowed in areas where curb space permits. Several internal street parking spaces near the central neighborhood green are also proposed. This report analyzes and presents the transportation impacts that Stanat's Place will have on the following intersections in the project study area:

- Homestead Road and Weaver Dairy Road Extension
- Homestead Road and Aquatic Drive / Chapel View Apartments Driveway
- Homestead Road and NC 86 (Martin Luther King, Jr. Boulevard)
- Weaver Dairy Road Extension and Sonoma Way / Napa Valley Way
- Aquatic Drive and Proposed Site Driveway

### **Existing Conditions**

#### **Study Area**

The site is located in north Chapel Hill north of Homestead Road. The study area contains two signalized intersections along Homestead Road at NC 86 (Martin Luther King, Jr. Boulevard) and Weaver Dairy Road Extension. Two scenarios are analyzed in this study – one assessing two access points from the site (Aquatic Drive and Cabernet Drive) and one assessing a single access at Aquatic Drive only. NC 86 (Martin Luther King, Jr. Boulevard) is a major north-south arterial providing connectivity between downtown Chapel Hill, north and south Chapel Hill, the I-40 corridor and Hillsborough. Homestead Road is a minor east-west arterial providing connectivity through northern Chapel Hill. Remaining study area network roadways are either suburban collector streets or local neighborhood/commercial access streets.

#### **Site Traffic Generation**

With the addition of new trips during the weekday AM, noon, and PM peak hours, there are potential site traffic impacts to study area intersections. **Table ES-1** shows the site trip generation details, with rates taken from the Institute of Transportation Engineers (ITE) *Trip Generation Manual, Version 10*.

#### **Background Traffic**

Background traffic growth for the 2026 analysis years is expected to come from two sources - ambient regional traffic growth and specific development-related traffic growth. Four Town-approved sites near the project study area were considered for specific development related growth. All remaining estimated





traffic volume increases are assumed to occur due to overall region-wide ambient growth (assumed 1.5 percent per year) based on NCDOT/Town historic growth data and taking into consideration the on-going rebound to pre-COVID traffic levels caused by the pandemic.

**Table ES-1. Weekday Vehicle Trip Generation Summary**

Description	Density	Daily			AM Peak			Noon Peak*			PM Peak		
		Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total	Enter	Exit	Total
Condominiums	47 Units	157	157	314	5	18	23	12	15	27	19	11	30

\* - No Noon Peak ITE Data Available – Used Average of AM and PM Peak Data

**Impact Analysis**

**Peak Hour Intersection Level of Service**

Existing traffic operations at all study area intersections are acceptable during all three peak hours analyzed. The projected ambient and background development traffic growth will increase impacts by 2026. Even with the addition of peak hour site-generated trips to the projected 2026 background traffic volumes, no study area intersection is expected to experience deficient traffic operations in any peak hour and projected maximum queues at all locations are not expected to be excessive. No additional mitigation improvements to any intersection were considered necessary. A summary of the traffic operations for each intersection, related to vehicular delays (intersection average as a whole if signalized, critical movement if stop-controlled) and the corresponding traffic simulation Level-of-Service (LOS<sub>s</sub>) is shown in **Table ES-2**.

**Table ES-2. Peak Hour Intersection Capacity Analysis Summary**

Intersections	Peak Hour	2022 Existing		2026 No-Build		2026 Build Two Access Points		2026 Build One Access Point		2026 Mitigated	
		LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
Homestead Road & Weaver Dairy Road Extension	AM	B	15.6	A	9.0	A	9.1	A	9.0	N/A	N/A
	NOON	B	14.2	B	10.4	A	9.8	B	10.0	N/A	N/A
	PM	B	16.4	B	13.2	B	13.0	B	13.4	N/A	N/A
Homestead Road & Aquatic Drive / Chapel View Apts Driveway <sup>#</sup>	AM	A	7.7	A	8.2	A	8.9	A	9.6	N/A	N/A
	NOON	A	6.2	A	6.7	A	7.3	A	7.5	N/A	N/A
	PM	A	7.5	A	9.1	A	9.4	B	10.4	N/A	N/A
Homestead Road & NC 86 (Martin Luther King, Jr. Boulevard)	AM	B	17.0	B	14.2	B	14.4	B	14.3	N/A	N/A
	NOON	B	19.7	C	22.8	C	23.1	C	23.2	N/A	N/A
	PM	B	16.5	B	17.6	B	18.0	B	18.1	N/A	N/A
Weaver Dairy Road Extension & Sonoma Way / Napa Valley Way <sup>#</sup>	AM	A	8.3	A	8.8	A	9.1	A	8.6	N/A	N/A
	NOON	A	5.7	A	5.9	A	6.2	A	5.8	N/A	N/A
	PM	A	7.5	A	8.5	A	8.9	A	8.0	N/A	N/A
Aquatic Drive & Proposed Site Driveway <sup>#</sup>	AM	N/A	N/A	N/A	N/A	A	4.5	A	4.5	N/A	N/A
	NOON	N/A	N/A	N/A	N/A	A	4.6	A	4.5	N/A	N/A
	PM	N/A	N/A	N/A	N/A	A	4.6	A	4.5	N/A	N/A

N/A – Not Applicable or No Improvements Necessary

***BOLD/ITALICS*** – Critical Movement or Overall Intersection Requires Mitigation Per Town TIA Guidelines

# - Worst-Case LOS/Delay for Unsignalized/Stop-Controlled Critical Movement



**Access Analysis**

Vehicular site access to the project is to be accommodated at a proposed full movement local street access connecting to Aquatic Drive about 1,100 feet to the north of Aquatic Drive's intersection with the Homestead Road. The proposed driveway has single inbound and outbound lanes. A second local street access connection is also proposed to link with Cabernet Drive within the Vineyard Square subdivision. This connection would provide access between Stanat's Place and the Weaver Dairy Road Extension via Napa Valley Way. Driveway throat lengths, and intersection/driveway separation minimum criteria, as set forth in the 2003 *NCDOT Policy on Street and Driveway Access to North Carolina Highways* and the 2017 Town of Chapel Hill Design Manual are acceptable for current site plans for the project.

Access for pedestrians is adequate in the project study area and will be improved with the construction of the Town's Homestead Road Improvements project. Crosswalk exists across the NC 86, Aquatic Drive, and Weaver Dairy Extension intersections. No specific bicycle amenities are present along Homestead Road, but bicycle lanes are present on the Weaver Dairy Road Extension and along NC 86 north of Homestead Road. Additional bicycle lanes/off-road paved paths along Homestead Road will be provided upon the completion of the Town's improvement project.

**Signal Warrant Analysis**

Based on projected 2026 traffic volumes and proposed access plans, no unsignalized study area intersection with Homestead Road would warrant the installation of a traffic signal, based on the Peak Hour warrant methodology found in the *2009 Manual on Uniform Traffic Control Devices (MUTCD)*.

**Crash Analysis**

Data from the NCDOT Traffic Safety Unit was provided for the five-year period 2/1/2017 to 1/31/2022 for the segments of Homestead Road and Weaver Dairy Road Extension in the vicinity of the proposed site. There were 13 crashes reported along Homestead Road study area corridor between Weaver Dairy Road Extension and NC 86 over the five year period and 3 crashes along Weaver Dairy Road Extension north of Homestead Road to Sonoma Way. The primary crash type was rear end crashes and crashes were primarily clustered near the NC 86 intersection. Overall, the number and severity of crashes along Homestead Road and Weaver Dairy Road Extension in the project study area is lower than state-wide averages for similar facilities.

**Other Transportation-Related Analyses**

Other transportation-related analyses relevant to the 2001 Town of Chapel Hill Guidelines for the preparation of Traffic Impact Studies were completed as appropriate. The following topics listed in **Table ES-3** are germane to the scope of this study.

**Table ES-3. Other Transportation-Related Analyses**

Analysis	Comment
Turn Lane Storage Requirements	Storage bay lengths at study area intersections were analyzed using TransModeler maximum queue length estimates for the 2026 Build Scenario. At the intersection of Homestead Road and Weaver Dairy Road Extension, the southbound right-turn lane queue may exceed its existing storage regardless of site traffic impacts. Adjustments to signal timing may be necessary to mitigate this issue. No other intersection maximum queue results indicate potential queue spillback.
Appropriateness of Acceleration/Deceleration Lanes	With low posted neighborhood speed limits and relatively light traffic turning volumes, no additional acceleration/decelerations lanes are necessary in the vicinity of the project. Existing roadway facilities have appropriate auxiliary turn lanes to facilitate traffic flow.



Analysis	Comment
Pedestrian and Bicycle Analysis	Existing pedestrian access and connectivity is adequate along the Homestead Road corridor just south of the site, though some gaps exist on both sides of the road in certain areas. Bicycle lanes extend along NC 86 north of Homestead Road and along the Weaver Dairy Road Extension with bicycle sharrows present on Aquatic Drive, but no bicycle facilities exist along Homestead Road within the project study area. The Town's Homestead Road Improvements project will considerably improve pedestrian and bicycle facilities along Homestead Road to the west of the project study area.
Public Transportation Analysis	Public transportation service to the study area, and to the proposed site is adequate, with bus stops and multiple local and regional bus routes on both NC 86 and Homestead Road proximate to the site.

**Mitigation Measures/Recommendations**

**Planned Improvements**

There are no North Carolina Department of Transportation improvement projects for study area roadway facilities within the analysis year time frame of 2022-2026. The Town of Chapel Hill has a transportation improvement project currently slated for construction prior to the 2026 site build-out year. The Homestead Road Improvements project (U-4726 IK) will create a consistent three-lane roadway cross-section west of the Weaver Dairy Road Extension intersection, as well as construct pedestrian and bicycle facility improvements between Seawell School Road and Weaver Dairy Road Extension. Improvements related to this project are shown schematically on **Figure ES-3**.

The Town also has the North-South Bus Rapid Transit Project, which will provide dedicated lanes for transit along the NC 86 corridor, along with other transit amenity improvements scheduled for construction in 2028. As final design details are not complete as of the submittal of this TIA, no specific lane usage changes along NC 86 were analyzed as part of this study.

**Background Committed Improvements**

Several traffic impact studies for development projects in and near the study area recommended signal timing reoptimization for signalized intersections along the NC 86 corridor by their respective build-out years. It is assumed that signal timing reoptimization will occur for the NC 86 corridor and for the Homestead Road/Weaver Dairy Road intersection by the year 2026, whether or not specifically needed by any of the proposed background traffic generating developments included in this study.

**Applicant Committed Improvements**

Based on the preliminary site plans and supporting development information provided, there are several specific transportation-related improvements proposed for the Stanat's Place project. Internal and external improvements (shown schematically in **Figure ES-3**) include:

- Provision of a primary full movement access street connecting to Aquatic Drive with a proposed unsignalized crosswalk to access existing sidewalk on the eastern side of Aquatic Drive. Sidewalk on at least one side of this access street, along with all other proposed access streets within Stanat's Place will be provided.
- Provision of a multi-use path along the southern property frontage that ties into the proposed sidewalk described above and would allow future connection to undeveloped properties to the west near the Weaver Dairy Road Extension.
- Construction of a full access minor street connection to existing Cabernet Drive with an accompanying extension of existing sidewalk along Cabernet Drive to connect to internal sidewalk in the Stanat's Place development.

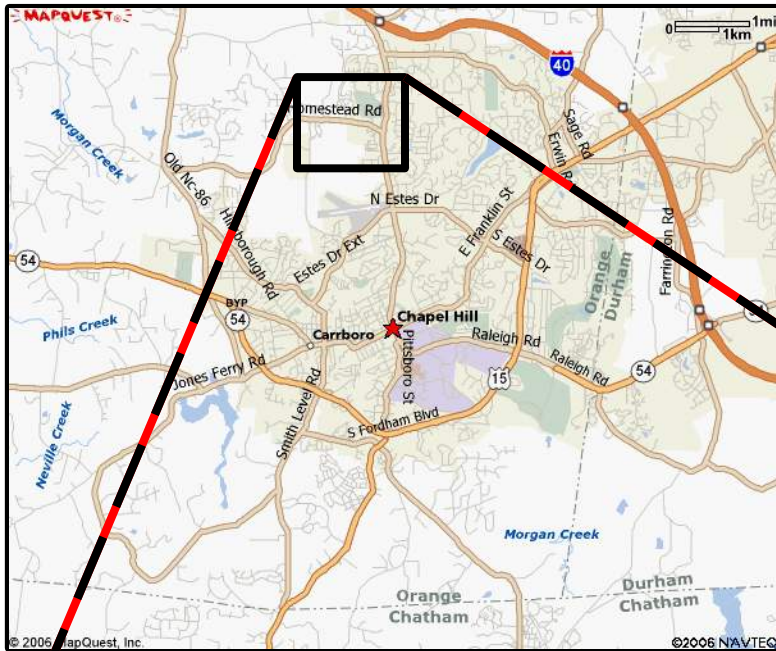


### **Necessary Improvements**





Based on traffic capacity analyses for the 2026 design year with one access point or two access points for the Stanat's Place development and analyses of existing study area turning bay storage lengths and site access, the following improvement is recommended as being necessary for adequate transportation network operations and safety (see **Figure ES-3**).

- The proposed local access connection between the site and Cabernet Drive is not expected to cause excessive additional traffic demands through the existing Vineyard Square neighborhood, nor conversely to attract excessive traffic demand from the existing neighborhood through the Stanat's Place development. To help ensure that traffic traveling between the two neighborhoods maintains appropriate speeds using the connection, it is recommended that a traffic calming measure – such as a raised speed table – be constructed in the vicinity of the proposed connection along Cabernet Drive, along with appropriate upstream warning signage in both directions for the speed table. Coupled with the nearby curvature of the Cabernet Drive extension into Stanat's Place and the presence of on street parked vehicles in the Vineyard Square subdivision, these measures should mitigate any excessive vehicle speeds in the vicinity of this proposed connection.

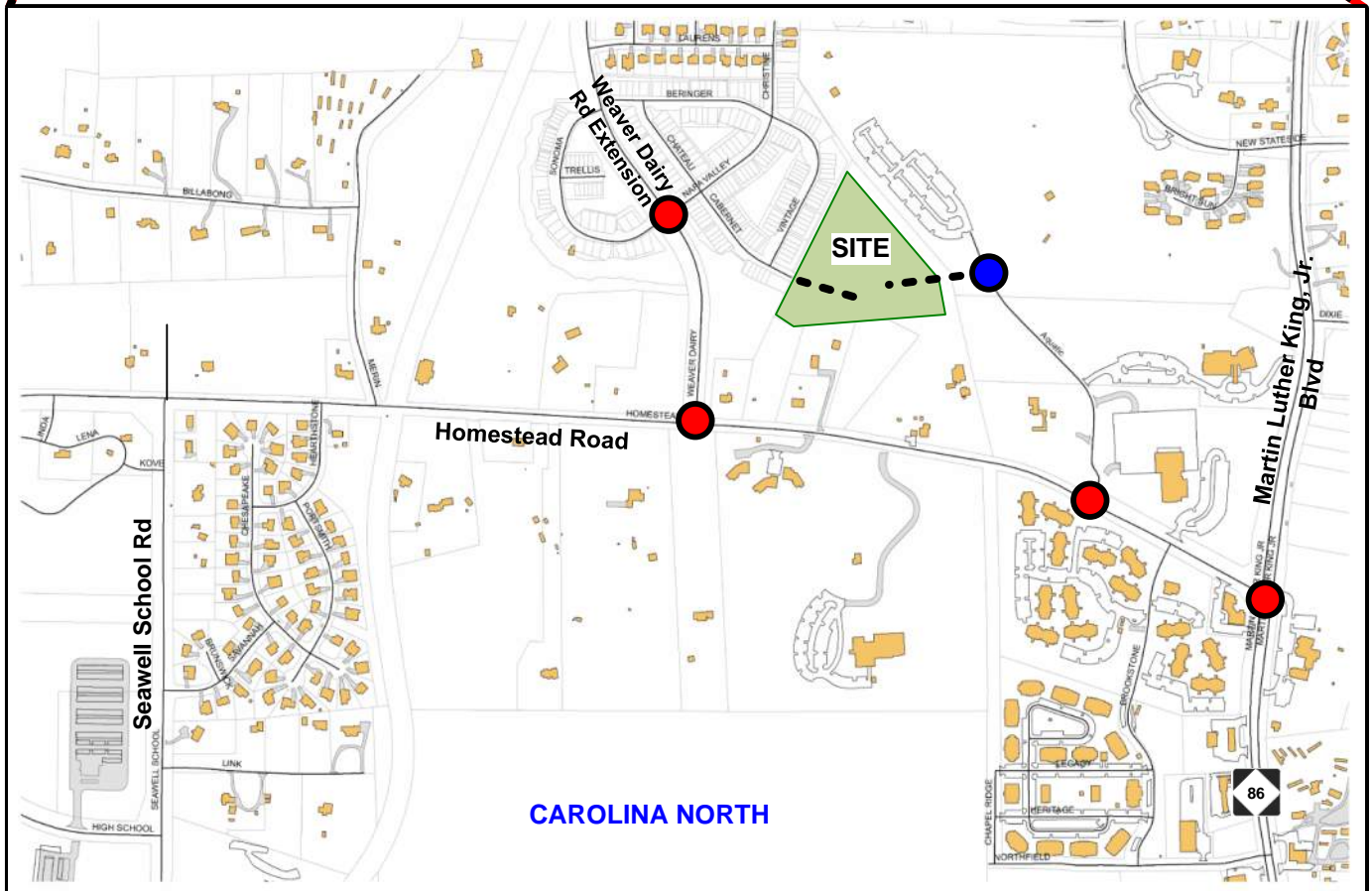




**LEGEND**

-  = Existing Building Footprint
-  = Existing Study Area Intersection
-  = Proposed Site Driveway
-  = Proposed 2200 Homestead Site

 **NOT TO SCALE**



Source: Town of Chapel Hill GIS Files



**Stanat's Place Residential  
Transportation Impact Analysis**

DATE: September 2022

**PROJECT STUDY AREA**

**FIGURE ES-1**

EXISTING POND:	0.084 AC
RIGHT OF WAY:	1.294 AC
TOTAL LAND AREA NOT COUNTED:	3.429 AC
APPLICABLE LAND AREA:	4.734 AC
TREE CANOPY REQUIRED:	4.734 AC X 30% = 1.420 AC
EXISTING TREE CANOPY TO REMAIN:	1.130 AC
ADDITIONAL TREE CANOPY REQUIRED:	0.291 AC
REQUIRED REPLACEMENT TREES (1 PER 500 SF):	25 TREES = 0.287 AC
PROPOSED STREET TREES:	26 TREES
OTHER SITE TREES:	4 TREES
TOTAL TREES:	30 TREES

**CODED NOTES**

- (A) CENTRAL GREEN AREA WITH TURF GRASS
- (B) HERITAGE TREE ON SMALL HILL
- (C) CHAPEL HILL STONE RETAINING/DEAT WALL
- (D) MULCHED AREA WITH SHRUBS
- (E) BENCHES
- (F) GATHERING SPACE #1 CHILDREN'S PLAY STRUCTURE WITH FRINGE TABLES
- (G) GATHERING SPACE #2 FIRE PIT WITH CHAPEL HILL GRIT SURFACE
- (H) 4' BRICK WALKWAY
- (I) FENCE

**TOWN OF CHAPEL HILL FIRE DEPARTMENT NOTES:**

- A NOTE SHALL BE REQUIRED ON THE FINAL PLAN THAT STATES "ALL LOCAL STREETS WITHIN THE BRIDGEPOINT SUBDIVISION SHALL NOT ALLOW ON-STREET PARKING IN ACCORDANCE WITH SECTION 0103 OF THE 2016 NORTH CAROLINA FIRE PREVENTION CODE."

**GENERAL NOTES:**

- A DESCRIPTION AND ANALYSIS OF ADJACENT LAND USES, ROADS, TOPOGRAPHY, SOILS, DRAINAGE PATTERNS, ENVIRONMENTAL CONSTRAINTS, FEATURES, EXISTING VEGETATION, AND METAS CAN BE FOUND ON SHEET 3 - EXISTING CONDITIONS PLAN.
- ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
- THE REQUIRED RECREATION SPACE HAS BEEN MET AND EXCEEDED. SEE SITE DATA TABLE ON THIS SHEET.
- ALL TRASH FOR TOWNHOMES WILL BE COLLECTED BY ROLL-OUT CURBSIDE PICK UP AND SERVICE SHALL BE PROVIDED BY TOWN OF CHAPEL HILL.
- EACH SINGLE FAMILY TOWNHOME LOT WILL HAVE A MAXIMUM ALLOWABLE IMPERVIOUS SURFACE AREA OF 1,500 SF. THIS AMOUNT IS SUBJECT TO CHANGE AND WILL BE FINALIZED WITH THE FINAL ZONING COMPLIANCE PLANS.
- SEE SHEET 16 FOR STREET TYPICAL SECTION DETAILS.
- ALL PROPOSED STREETS ARE PUBLIC.
- TWELVE (12) BICYCLE PARKING SPACES REQUIRED. TWO (2) PROVIDED NEAR MAIL HOOK. TEN (10) GARAGES PROVIDED WITH SINGLE BICYCLE HOOKS.
- A DEVELOPMENT IDENTIFICATION SIGN FOR THE NEIGHBORHOOD IS PROPOSED AT THE EASTERN ENTRANCE OF THE SITE AS IT INTERSECTS WITH AQUATIC DRIVE. THE IDENTIFICATION SIGN MAY BE INCLUDED AS PART OF THE ENTRY FEATURE.
- TREE PROTECTION FENCING SHALL BE INSPECTED BY ADAM NICHOLSON PRIOR TO ANY LAND DISTURBANCE. ADAM CAN BE REACHED AT 919-969-5006 OR ANICHOLSON@TOWNOFCHAPELHILL.ORG.

CREATED AREA:	0.816 ACRES (10% OF NLA)
TOTAL GROSS LAND AREA (GLA):	391,119 SF (8,979 AC.) (USED FOR DENSITY CALCULATION)
EXISTING ZONING:	R-2
PROPOSED ZONING:	R-5-C20
OUTSIDE CORPORATE LIMITS:	NO
OUTSIDE WATERSHED PROTECTION DISTRICT:	YES
OUTSIDE FLOODPLAIN:	YES
OVERLAY DISTRICTS:	NO
EXISTING LAND USE:	SINGLE FAMILY
PROPOSED LAND USE:	SINGLE-FAMILY WITH CONDITIONAL ZONING
ALLOWABLE DENSITY R-5:	15 UNITS/AC GROSS LAND AREA = 8,979 AC # UNITS ALLOWED = 134
PROPOSED SINGLE FAMILY UNITS:	47
PROPOSED AFFORDABLE UNITS:	4 (LABELED "AHU" ON THIS SHEET)
PROPOSED TOTAL # OF UNITS:	47
PROPOSED MINIMUM LOT SIZE:	2,094 SF
RECREATION SPACE REQUIRED:	GROSS LAND AREA X RECREATION SPACE RATIO (391,119 SF) X (0.05) = 19,556 SF
RECREATION SPACE PROVIDED:	16,592 SF NEIGHBORHOOD GREEN 14,500 SF GOLFWAY FOREMANT 31,112 SF TOTAL
MINIMUM PARKING REQUIRED:	1.5 SPACES PER UNIT = 71 SPACES
MAXIMUM PARKING REQUIRED:	2.25 SPACES PER UNIT = 105 SPACES
PROPOSED PARKING:	1.5 SPACES PER UNIT * 47 UNITS = 71 SPACES (ON DRIVEWAYS) 24 PARKING SPACES (INCLUDING 1 HANDICAP SPACE) 1 PARKING SPACE RESERVED FOR USPS (NOT COUNTED IN TOTAL) 95 SPACES
TOTAL PROPOSED PARKING:	
MINIMUM BICYCLE PARKING REQUIRED:	1 SPACE PER 4 UNITS = 12 SPACES
BICYCLE PARKING PROVIDED:	2 PROVIDED NEAR MAIL HOOK 10 PROVIDED IN GARAGES WITH SINGLE BICYCLE HOOK FOR EACH 12 SPACES
TOTAL BICYCLE PARKING PROVIDED:	
PROPOSED INTERIOR LOT SETBACKS:	
FRONT -	0'
SIDE -	0'
REAR CORNER -	0'
REAR -	0'
REQUIRED HEIGHTER SETBACKS:	
INTERIOR -	6'
STREET -	10'
SOLAR -	8'
PROPOSED BUILDING SEPARATION:	
MAXIMUM BUILDING HEIGHT (PRIMARY):	39'
MAXIMUM BUILDING HEIGHT (SECONDARY):	50'
MAXIMUM IMPERVIOUS SURFACE RATIO:	0.50
PROPOSED IMPERVIOUS SURFACE RATIO:	0.46
TOTAL IMPERVIOUS SURFACE:	180,687 SF
MAXIMUM FLOOR AREA ALLOWED:	116,509 SF
FLOOR AREA PROPOSED:	90,000 SF
FLOOR AREA BONUS FOR AFFORDABLE HOUSING:	17,600 SF
MAXIMUM TOTAL FLOOR AREA ALLOWED (FLOOR AREA + FLOOR AREA BONUS):	136,109 SF
MAXIMUM LAND DISTURBANCE:	325,000 SF

**LEGEND**

= PROPOSED SITE ACCESS

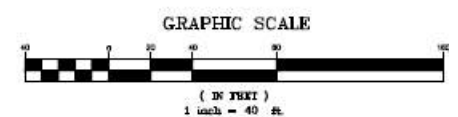
**PROPOSED FULL ACCESS TO EXISTING CABERNET DRIVE**

**FULL ACCESS TO AQUATIC DRIVE**

**INTERNAL MULTI-USE PATH**

**LEGEND**

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**HNTB**

**NOT TO SCALE**

**Stanat's Place Residential  
Transportation Impact Analysis  
PRELIMINARY SITE PLAN**

DATE: September 2022

**FIGURE ES-2**

