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How Much Does It Cost to Build a New House: Itemized Costs in 2020

The cost to build a house includes a large number of components and variables based on site factors, design and materials. There's a lot of information to tackle, but that's what we're here to do. You won't find a more comprehensive, itemized list of costs for building a home from initial site work on a vacant lot to the finished product.

This home construction cost guide covers:

- Land development costs and fees
- Foundation costs
- Framing costs
- Exterior finish costs such as siding and roofing
- Interior rough-ins such as plumbing and electrical
- Interior finish costs from drywall to flooring, cabinets and countertops
- Final grading and landscaping
- Driveway and deck

In each section, you'll find: a price range and an average cost for that phase, factors affecting cost, percentage of the whole cost that each phase represents, potential pitfalls and a timeline for each phase of development and construction.

Average Home Size

According to the US Census Bureau, the median size of new homes sold last year was 2,438 square feet. That's the size we use for the average costs below.

Let's jump into residential home construction costs from start to finish:

Residential Construction Site Work Cost

- Average cost: \$14,355
- Cost range: \$10,000 to \$25,000
- Share of total home cost: 5.6%

Overview: These are fixed costs regardless of home size. This phase involves the work needed to make vacant land habitable. Engineers inspect the property to determine whether it is buildable, where the home (and well and septic field, if applicable) should go and how the site should be graded for drainage.

The more complex the site and house design, the higher the fees will be. Water on the property typically raises the costs significantly, as an impact study must be done. The design, engineering and studies are often done for entire developments, so the absolute costs might be higher, but the cost could be less on a per-home basis.

Time frame: 4-10 weeks depending on the complexity of the inspections and engineering and the workload of the engineers

Potential pitfalls: Finding wetlands or a water table so high it prohibits building or the installation of a basement or standard drain field, delays in getting site reports completed or plans approved.

Here is a breakdown of the average costs of the steps involved in permitting, planning and preparation process:

- Permits, fees and inspections: \$3,650
- Impact study cost, if required: \$1,750
- Architecture & site engineering fees: \$4,600
- City water hookup: \$1,500 **or** Well: \$4,500
- City sewer hookup: \$2,500 **or** Standard septic system: \$3,700 **or** Engineered (mound) septic system: \$13,500

Excavation and Foundation Cost

- Average total cost: \$29,900
- Cost range: \$10.75 to \$19.25/sq. ft.
- Average cost: \$16.65/sq. ft.
- Share of the total home cost: 11.7%

Overview: Installing the home's foundation involves excavating the site by clearing brush and trees, removing the topsoil for the home and driveway, grading the site for drainage and installing a concrete foundation, either a full basement, crawlspace, slab or a combination, and backfilling the foundation.

Did you know? The type of foundation is the largest cost variable.

Time frame: 5-10 days including up to 7 days to allow the concrete to cure before building on it

Potential pitfalls: Muddy conditions making it impossible to get heavy equipment or a concrete truck onto the work site until the soil is drier, spring frost laws (seasonal weight restrictions) preventing concrete trucks from using roads leading to the site until the frost is out of the ground, excavator behind on other work.

Itemized excavation and foundation average costs:

- Dirt work – removing topsoil, digging the foundation, adding drainage and pea stone and backfilling: \$7,600
- Concrete slab: \$5.50/sq. ft.
- Concrete crawl space: \$8.85/sq. ft.
- Full concrete basement: \$11.75/sq. ft.

Home and Roof Framing Cost

By RNB Design Group

- Average total cost: \$46,400
- Cost range: \$14.75 to \$27.00/sq. ft.
- Average cost: \$18.80/sq. ft.
- Share of total home cost: 18.0%

Overview: This step includes the cost of the framing materials including the trusses and sheathing for the home, and the labor to construct the frame. Most trusses are built offsite in a factory, trucked to the site and installed using a lift or by hand. Pitch of the roof and roof type – gable, hip, combination – affect the cost of the truss package and the amount of sheathing required.

Time frame: 7-14 days for most homes.

Potential pitfalls: Delays caused by bad weather or trusses not ready on time, builders having issues with the architect's design.

An itemized list of average house framing costs:

- Trusses: \$1.55/sq. ft. of the home's footprint
- Framing materials and labor: \$16.00/sq. ft.
- Steel and supplies: \$1.25/sq. ft.

Finished Exterior Construction Cost

- Average total cost: \$37,820
- Cost range: \$8.25 to \$35.00/sq. ft.
- Average cost: \$15.55/sq. ft.
- Share of total home cost: 15.1%

Overview: Roofing and siding are usually priced by the square feet they cover. For consistency, these costs are per the home's square footage.

Keep in mind that multistory homes have less roofing than ranch/single-story homes with the same square footage. The quality of the materials used produces wide cost ranges.

Time frame: 4-10 days

Potential pitfalls: Weather and material delays; Installation quality suffering due to inexperienced labor.

Itemized home exterior construction costs:

- Roofing: \$3.90/sq. ft.

Siding/cladding: \$7.50/sq. ft.

Windows, doors and garage door: \$3.30/sq. ft.

Major Home Systems Rough-in Costs

Average total cost: \$33,950

Cost range: \$11.15 to \$16.85/sq. ft.

Average cost: \$13.60/sq. ft.

Share of total home cost: 13.1%

Overview: These electrical, plumbing and HVAC systems are installed before the drywall, flooring, cabinetry and other finish items are installed.

Note: There's a narrower cost range in piping and wiring than in other phases of home construction.

Time frame: 7-14 days

Potential pitfalls: Poor planning of the work flow can either lead to conflicts when contractors' schedules clash or delays when no work is being done; delays can be caused by problems with the utility company installing its equipment.

Itemized home system rough-in average costs:

Electrical mast, hookup, panel and wiring: \$4.35/sq. ft.

Plumbing rough-in: \$4.50/sq. ft.

HVAC – Heating, air conditioning and ductwork average cost: \$12,700

Interior Finishes

Average total cost: \$76,355

Cost range: \$21.75 to \$44.75/sq. ft.

Average cost: \$30.60/sq. ft.

Share of total home cost: 29.6%

Overview: The quality of materials used is the major factor in the total cost.

Time frame: 14-35 days

Potential pitfalls: Once home construction has started, this is the area most prone to delays through material shortages, materials or appliances damaged during shipping, poor scheduling of the contractors or contractors being behind on other jobs, the homeowner wanting last-minute changes and delays in the bank clearing loan money to pay contractors.

Itemized home finished system costs based on a national average 2,438-sq. ft. for new homes:

Insulation: \$2.35/sq. ft.

Drywall: \$4.30/sq. ft.

Painting: \$3.15/sq. ft.

Flooring: \$4.85/sq. ft.

Doors and trim: \$3.45/sq. ft.

Appliances: \$3,925

Light fixtures and covers: \$3,150

Plumbing fixtures: \$4,000

Fireplace: \$2,485

Cabinets and countertops: \$14,100

Cost of Final Construction Steps

Average total cost: \$17,800

Share of total home cost: 6.9%

Overview: These steps add the finishing touches to your home, and some are optional.

The type of driveway – gravel (\$), asphalt (\$\$), concrete (\$\$\$) or paver (\$\$\$\$), how much landscaping is done and whether any exterior structures are added are the major cost factors.

With the exception of the final cleanup of the interior, these are exterior projects and don't affect the homeowner's ability to move into the home. They are often delayed by months until weather permits.

Time frame: 7-21 days, weather permitting

Potential pitfalls: Bad weather, contractor delays, wrong season for planting or installing a driveway.

Itemized final home construction costs:

Final grading and landscaping: \$6,255

Driveway: \$5,525

Deck, patio or gazebo: \$4,865

Construction cleanup and waste disposal: \$1,925

Total Home Construction Cost

Now, let's add up the total costs and consider the cost per square foot for 2018/2019 for a home 2,438 square feet:

US Census Bureau Stats: 119,000 contractor-built single-family homes were started in 2018, with the median contract price of \$281,200. Thus, we can derive the average cost per

square foot:

- **Average total home construction cost: \$281,200**
- Average cost per square foot: \$115.35

Conclusion:

Home construction cost per square foot has risen from about \$80/sq. ft. in 2011 to \$95/sq. ft. in 2013 to today's figure of \$115.35, per the National Association of Home Builders, the industry's leading professional association.

The NAHB also reports that the size of new homes has generally been rising over the last decade while lot sizes are shrinking!

If you'd like to share your costs for any phase of your building project, other readers will benefit from your experience.

Please share the information and the scope of the project! And if this home construction cost guide has been helpful, perhaps your friends and followers would benefit if you passed it on to them. 😊

Robinson Builders Mart, PO Box 345, Newton, NC 28658