



Specifications
45 Artwill Avenue
7-22/2023

1. Energy Efficient Construction

Energy used for heating and cooling is reduced by use by more than 50% compared to the Energy Star EPA reference home. Every component of the thermal envelope is improved.

Details are the key. All the weak points in conventional construction are addressed. Insulation is increased. Infiltration is greatly reduced and homeowner-controlled mechanical ventilation is added to maintain a healthy interior environment

Instead of relying on any one technology, the thermal envelope is designed as a whole, balancing energy loss through each component to achieve the most cost-effective home.

2. Energy Efficient and Green Components

-Eight Inch Exterior Walls

Most exterior walls are framed with 2x8's to accommodate R30 high density fiberglass batts. Insulated headers are used, and framing is 24" oc to minimize thermal bridging.

-Air-tight shell

The air tight drywall method is used for the walls. Air-tight electrical boxes are used to maintain the vapor and air barrier. Poly sheathing is used on exterior ceilings and caulked to all partitions to prevent infiltration at the partitions. The exterior air barrier is taped at all laps. Windows and doors and all penetrations are sealed with foam or caulk.

-Cellulose Insulation

Cellulose insulation carries less than half of the embedded energy of fiberglass or spray foam. It is a recycled product. We use it primarily in the ceilings. The roof framing is upgraded to 2x12 framing to allow a minimum of 11" of full-depth cellulose all the way out to the exterior of the walls below. Minimum R values are R55 in attics, R40 below attic floors, if applicable.

The basement walls are insulated, rather than the basement ceiling, by using “Thermax” foil-faced foam insulation on the inside of the basement walls. The basement is thus brought within the insulated envelope. This eliminates drafts from the basement to the first floor, heat loss through heating equipment and ductwork, frozen pipes, and fiberglass shedding, all common to conventional construction. The basement is a pleasant, useable part of the home.

-Energy Efficient Windows and Doors

R4 windows will be included by Mathews Brothers: U value: .26. The high insulation value windows reduces energy use and increases the comfort of the home by greatly reducing drafts caused by convection

Exterior Doors are foam filled R5 doors, with Low E Glazing where applicable.

-Infiltration and Ventilation

A cleaner, healthier, quieter and more comfortable home is achieved by reducing infiltration to far lower than in a conventional home and adding mechanical ventilation which the homeowner can control.

Continuous Ventilation is provided by a variable speed, pressure compensating bath fan by Broan. When the home is sealed up, in winter or in the heat of summer, the fan operates continuously on low, drawing fresh air into the home at a controlled rate. The low speed is adjustable from 30 to 80 cfm. When the bath is in use, the fan is switched to high exhausting the moisture from the room. After the high switch is turned off, the fan continues to run on high for a period of time to complete the removal of the moisture, and then returns to its low setting. The time period of delay to low is adjustable. Other baths are equipped with Broan or Delta Breeze single speed fans, and delayed off automatic timer switches. These switches continue to operate the fan for an adjustable period of time after the switch is turned off.

Kitchen range hood ductwork to the outside of the home is included. Ducted range hoods are important to remove cooking odors and moisture at the source.

“Cape” backdraft dampers, by Tamarack Technologies are installed in range hood and bath exhaust ductwork. These are a particularly effective product for this important function. They prevent backdraft infiltration into the home when the fans are not running.

Roof Ventilation is provided by soffit vents, ridge vents and “Accuvent” insulation baffles. The roof framing is upgraded to 2x12’s to allow full depth insulation and the baffle out to the outside face of the exterior walls.

-Independent Certification

This home will be computer modeled, inspected, and tested by an EPA-certified third party third party Energy Rater. The Energy rater performs a blower door test upon the home’s completion, and provide a certification report detailing the home’s performance.

-High Efficiency Heating System

A duct leakage test is performed upon completion.
Heating is provided by a 95% efficient condensing gas furnace.
Fuel is Natural Gas

Cooling is by 13 SEER Air Conditioning.

Domestic Hot Water is provided by 65 gallon Bradford White heat pump water heater

-Lighting:

All lighting is LED
Recessed lights are included They are 4" LED wafers. For the 1st fl master, four are included for the BR and two for the WIC. Additional wafers will be billed at cost

-Light Fixtures:

-Decking: Front Stoop, Rear Porch, and Garage Steps

Composite Decking, hidden or screw and plug fastening system: Color: Trex
Winchester Grey

3. Site Work

Sewer: E-One pump to City Sewer

Water: City Water

Foundation Drains: Inside and outside drains to sump pump.

Under Slab fill: Basement footers filled with stone

Garage Fill: Structural Fill, compacted in 12" lifts.

Shared Driveway: Gravel base: 6"; crushed gravel: 4"; One coat paving

Loam: On-site loam, spread over disturbed areas to a depth of 4 to 6 inches.

Landscaping- As Installed

Walk: Decorative masonry pavers

4. Foundation

Poured Concrete Foundation, 8" walls with steel

5. Framing

Professionally designed framing:

Walls: 2x8, 24 oc

Floors: 2x12 or All Joists, 16 and 24oc

Ceiling Joists: 2x8, 10, or 12 depending on span

Rafters: 2x12 to accommodate full depth insulation at eaves.

6. Ceiling Heights

1st Floor: 9'-0" +/-; 2nd Floor: 8'-0" +/-, Basement: 7'-6" +/- 1st floor master 8'-0" +/-

7. Roofing

IKO Cambridge Architectural Shingles, dual black, lifetime warranty.

Full coverage felt underlayment

Ice shield along eaves.

8. Siding and Trim

Double Four vinyl siding, Certainteed Monogram. Pacific Blue

Full metal wrap on roof trim

8" PVC Corners

Soffit: Certainteed "Invisivent" for a coordinated painted -wood appearance.

10. Front Stoop

Framing: pressure-treated framing

Trim: Klear PVC

Decking: Composite Decking

Skirting: White PVC trim

11. Garage Doors

Overlay Steel Doors, craftsman style in white with openers

12. Moisture Control and Ventilation

Foundation: Asphalt moisture proofing.

Walls: 4 mill polyethene sheathing

Ceilings: Blown Cellulose: R 40-60.

Slabs: 4 mil polyethylene sheathing.

Soffit vents: continuous soffit vent.

Ridge Vent: continuous ridge vent.

13. Electrical and Plumbing Trim

Allowance for light fixtures, bulbs, and plumbing faucets

Per Order for Lot 1 dated 7/22/23: \$3,983. To that, add \$165 for the tub filler, \$161

for the first floor shower valve trim, \$109 for the 1st Fl shower diverter trim, and

93 x 2 for the two 1st floor master faucets: Total: \$4,634

Service: 200 amp, underground.

Outlets & Smokes: To Code.

Outside outlets: Two

Stove & Dryer Outlets: Gas

TV Cable outlets as installed.

Telephone outlets Cat 6 as installed.

Doorbell with front door button

Recessed LED Wafer Lights: included as installed, see Section 25 for additional

15. Plumbing

Second Floor Master Bath

Shower: Custom tiled shower

Maax Freestanding soaking tub

Vanity: see cabinets

Vanity Top: Quartz

Toilet: Kohler Wellworth elongated 1.28 gallon

Shower Trim: See Plumbing Faucet order.

Second Floor Master Bath

Shower: Custom tiled shower

Vanity: see cabinets

Vanity Top: Quartz

Toilet: Kohler Wellworth elongated 1.28 gallon

Shower Trim: See Plumbing Faucet order.

Guest Bath

Tub Shower : Fiberglass tub with tiled wall

Vanity: see cabinets

Vanity Top: Quartz

Toilet: Kohler Wellworth elongated 1.28 gallon

Half Bath

Quartz vanity top

Toilet: Kohler Wellworth elongated 1.28 gallon

General

Water Piping: PEX

Drain piping: Schedule 40 PVC.

Outside spigot: Two, freeze proof, anti-siphon

Washer Hookup Box: located per plan.

Dryer Vent: to exterior

16. Drywall

Walls & Ceilings: 1/2" drywall; smooth finish on walls, smooth ceilings.

17: Stairs

Main Stair: Hardwood treads and handrail. Painted riders and skirts, stained to compliment the ADM flooring as installed.

Basement Stairs: Treads and risers: Advantech: Railing: Fir

Attic Stairs: Carpeted per Lot 1

18. Interior Trim

General: Craftsman hand trimmed windows and doors as installed.

Doors: 3 panel Craftsman

Casing: 1st floor: 4 1/2" flat casing with 5/4 x 5 1/2" head trim, no scotia

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Baseboard: 7 1/4 square edge base,

Mudroom Fitments: Bench, cubbies, shelf and hook board

Vinyl-coated wire shelving by Closet Maid, except pantry and linen closets are white laminate adjustable shelves on wall standards.

19. Cabinets and Counters

Kitchen and bath cabinets: Welborn Cheswick in Arctic White

Island Cabinets in Earl Grey

Counters: Quartz as installed in Lot 1

Backsplash: Tile: White tiles

Cabinet Pull Allowance: Per Lot 1: 35 gold and 15 chrome: Total: \$280.
To that add 10 chrome for 1st floor master bath: \$56. Total Allowance: \$336

Bar Area: See Section 25

20. Fireplace

Gas Linear fireplace Napoleon Ascent BL46, 25,000 BTU
Surround and mantle : Granite

20. Flooring:

First floor, except bath, master BR and second floor hall: Wide plank engineered Italian flooring by ADM Flooring: Color: Moon Shadow, Satin factory finish

Laundry, and bath Floors: Ceramic Tile allowance as installed in Lot 1

Second Floor Bedrooms and third Floor: Carpet, as installed in Lot 1

21. Exterior Paint:

Front door trim front door entrance and post: 2 coats Super paint white as installed

22. Interior Paint:

Ceilings: Primer and topcoat, white flat.

Walls: Primer & 2 topcoats with Sherwin Williams Satin. Colors per Essex and Lot 1

Trim: Two coats white 100% acrylic, semi-gloss, white

All paints are low VOC formulas.

23. Rubbish & Cleaning:

All rubbish disposed of prior to completion. Cleaning prior to occupancy.

24. Appliances:

Appliance Allowance per order for Lot 1: \$3,748

25: First Floor Master Suite with Bar Area

Below materials and labor to modify plans at cost plus 5%

Recessed Lights: Add Nine

Delete One Ceiling Fan

Electrical Labor

Sprinkler Labor

Re-insulation Labor

Switched outlets

Bar area outlets and switches

Framing to add wall and remove wall

Cabinets for bar Area: white Shaker Cab Tech See Ricci Invoice

Counters for Bar Area: TBD

Two Grab Bars for shower: TBD

26: Other Framing and Electrical changes per week of 7/20

Below materials and labor to modify plans at cost plus 5%

Framing to remove and add closet walls

Electrical Labor in BR's, master, garage, , add Cat 6 at alcove, etc

Sprinkler Labor

Re-insulation Labor

Switched outlets

Framing for Shower Seat 5" deep x ??? High

Tile M and L for shower seat

27: Built-Ins

Mudroom and Linen closet built ins

Mudroom: add mid shoe shelf at cost plus 5%

Linen closet built in's less white shelves at cost plus 5%