

144 WILDER STREET

BONNA SAM MAI

Building Type: Three story, three unit, residential building built in 1923. Two, one-bedroom units located on the first floor, and a three-bedroom unit located on second and third floors. 3,213 gross square feet.

Existing Building Efficiency (HERS*): 107

Proposed Building Efficiency (HERS): 81



PROPOSED ENHANCEMENTS

BUILDING INSULATION | COST: \$10,300 | INCENTIVES: \$6,000

Existing building insulation includes 3.5” Fiberglass Batts in the walls and 3.5” cellulose blown into the ceiling cavity. The proposed strategy includes removal of all visible asbestos from heating pipes and replacing with fiber insulation materials † Seal leaks in basement ceiling and install 6” batt fiberglass insulation, and apply foam insulation on the rim joist † Remove and replace insulation in attic to protect from potential condensation issues; quantity of insulation will be increased † Remove siding from building addition on second floor, and install 2” Polysio Board over sheathing † Provide sealing in areas were leakage is found including; attic hatch, chimney, windows, dryer/ exhaust fan vents, door sweep/gaskets, and re-insulate heating ducts.

DOORS & WINDOWS | COST: \$2,287 | INCENTIVES: NONE

The building has four metal exterior doors, two insulated will remain, two uninsulated to be replaced with insulated metal doors. An Energy Star sliding patio door will replace the existing single pane sliders. The building’s 21 double paned vinyl windows will remain.

MECHANICAL | COST: \$20,000 | INCENTIVES: \$1,800

The building’s three heating units operate with three different fuel types: natural gas with steam distribution, oil with hot water distribution, and baseboard electric. The electric and natural gas units will be replaced with natural gas units (85% efficient) with hot water distribution, the oil unit will be replaced with an 82% efficient system with steam distribution. All three hot water heaters stand alone electric units will be replaced; two will be indirect gas hot water units, and a stand along natural gas tank.

APPLIANCES | COST: \$3,100 | INCENTIVES: NONE

One existing refrigerator will be replaced with energy star unit, six light bulbs will be replaced with Compact Fluorescents, and will utilize three energy efficient window air conditioners during the summer months.

PROJECT OUTCOMES

Project Funding

Total Cost:	\$36,641	1st. yr Savings:	\$1,823	NPV:	\$51,551
Incentives:	(\$7,800)	30yr Savings:	\$86,730	ROI:	44%

Project Cost: \$28,941

Energy Savings

Existing Energy Use (MMBTU): 237.8

Proposed Energy Use (MMBTU): 192.8

Emissions Reduction (CO²): 7 TONS/ YR

Emissions Reduction Equivalent:

1,137 Trees Planted

1.2 cars off the road / year

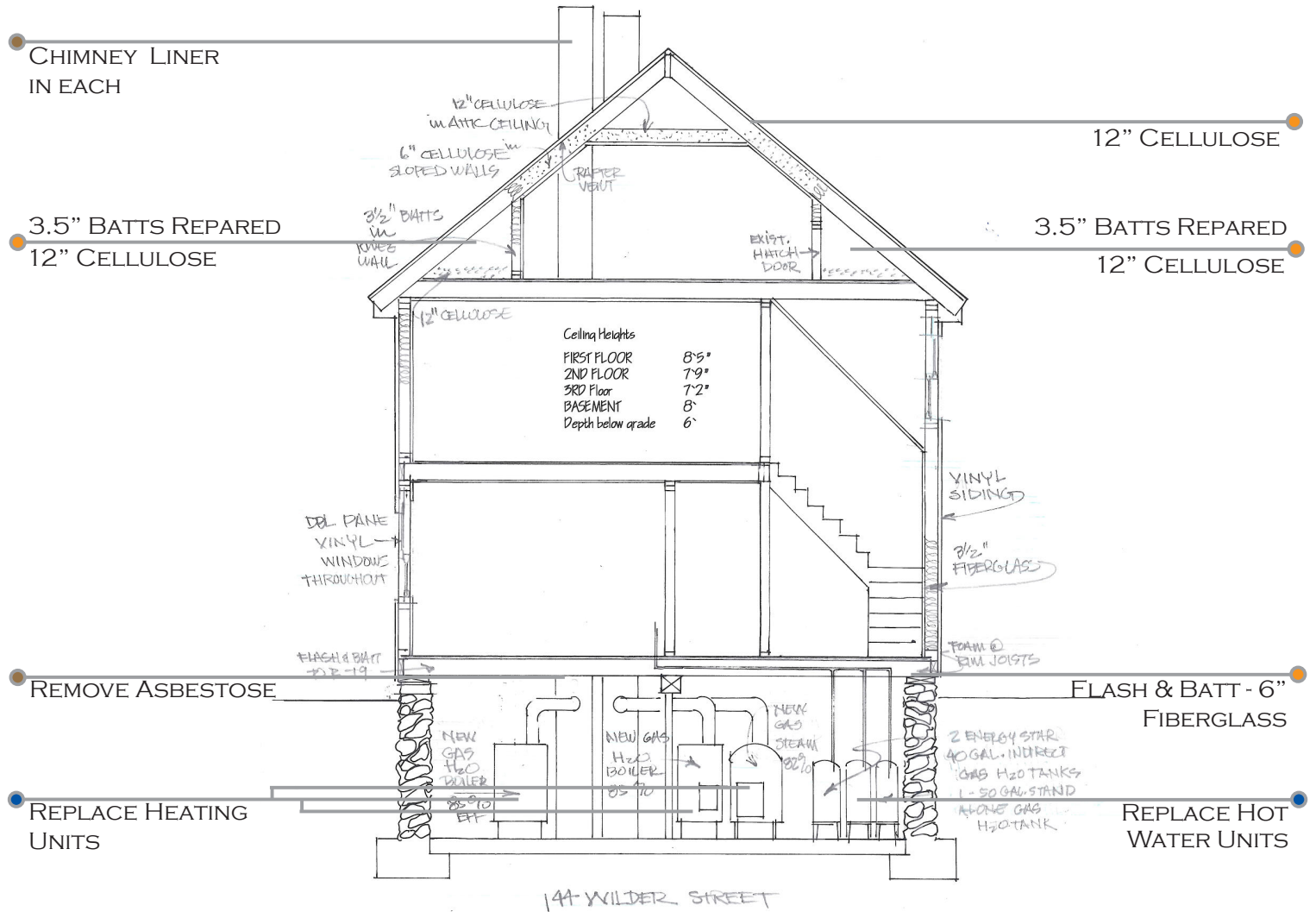
*The Home Energy Rating Systems (HERS) is used to determine a building’s efficiency. For reference, newly constructed homes have a 100 HERS rating, and Energy Star homes are rated 85 on the HERS index.

CHIMNEY LINER
IN EACH

3.5" BATTS REPAIRED
12" CELLULOSE

12" CELLULOSE

3.5" BATTS REPAIRED
12" CELLULOSE



2" POLYISO EXTERIOR
W/ NEW SIDING

ENERGY STAR
PATIO DOOR

ENERGY STAR
PATIO DOORS

INSULATED DOOR

