

# 509 Maine, Quincy, proposed

- Stories: Three
- Historic use: Retail
- Current use: Storage, mostly vacant
- Proposed use: 2-bedroom owner-occupied apt.
- Exits: 1 from 2nd floor into 1st floor retail space
- Windows: 6 on front, 3' x 8'
- Sq. footage: 1st and 2nd floors are each 3,500 sq. ft.; 3rd floor is 650 sq. ft. Building is approx. 36' x 100'
- Construction: Brick load-bearing walls, plaster & lath interior partitions, wood roof and floor, concrete foundation.

## Comments:

The owner has an antique store on the first floor and uses some of the second floor for storage. Accessed from the second floor, the third floor is unused. The original street entrance to the second floor has been closed off. The only entrance to the second floor is from within the ground-floor retail space. The building has a freight elevator towards the rear accessed through an employee area. The owner would like to use the second and third floors for his business or for an apartment for himself. Since the second floor is so large, a design that included both functions was possible. The new floor plans include the construction of a 2-hour fire-rated stair from the second floor that exits to the street.



## Code Information: residence:

- Type of Construction: Type 3A
- Occupancy Class: R-2, Residential
- Light 8% req: 2nd floor front windows = 2,015 sq. ft.
- Ventilation 4% req: 2nd floor front window = 1,375 sq. ft.
- Max depth of habitable space on 2nd fl: 1,375 sq'
- Max Occupancy Load: 1,470 sq. ft. \* ÷ 200 = 7
- Min Number of Exits: 1 Exit ‡
- Common Path of Egress: 48' (maximum is 75')
- Exit Access Travel Dist.: 65' (maximum is 200')
- Vertical Exit Enclosure: 2 hour fire rating

\*The sq. ft. of the 2nd & 3rd floor residential space.

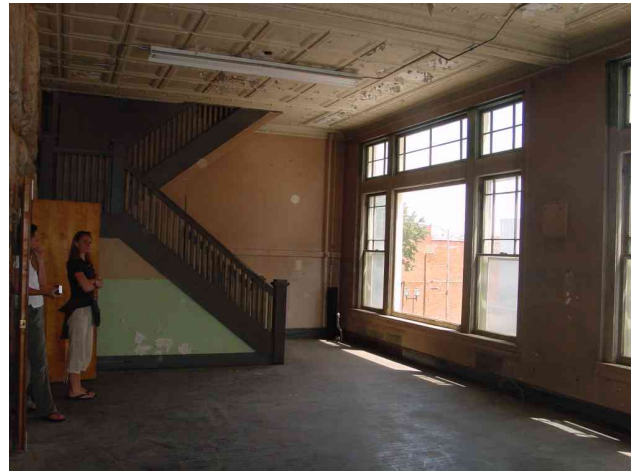
‡ The IEBC states in Section 605.3.1.1.6.1 that in multilevel dwelling units of occupancy R-1 and R-2, a single exit is allowed if travel distance within the unit does not exceed 75 feet.

‡ Section 605.3.1.1.6.2 states that three-story buildings of R-1 and R-2 occupancy are allowed to have 1 exit provided that all third floor space is part of dwelling units that are located on the second floor and that the distance from the door to the farthest habitable room on the third floor be no longer than 50 feet to the door of the unit.



## Code Information: 2nd floor retail space:

Type of Construction:	Type 3A
Occupancy Classification:	M, Mercantile
Max Occupancy Load:	1,750 sq. ft. ÷ 60 = 29
Min Number of Exits:	Occ. Load ≤ 50 = 1 Exit
Common Path of Egress:	48' (maximum is 75')
Exit Access Travel Distance:	65' (maximum is 200')
Vertical Exit Enclosure:	2 hour fire rating



## Expenses:

Services: new plumbing, heating, cooling, electrical, lighting and fire protection = **\$49,300**

Finishes: new walls, painting, kitchen cabinets, lowered ceilings in bathroom and closets, and refinish wood floors = **\$42,600**

Appliances: washer and dryer, refrigerator, microwave, ice maker, dishwasher, range, hood and vent = **\$9,600**

Roof porch & deck = **\$6,000**

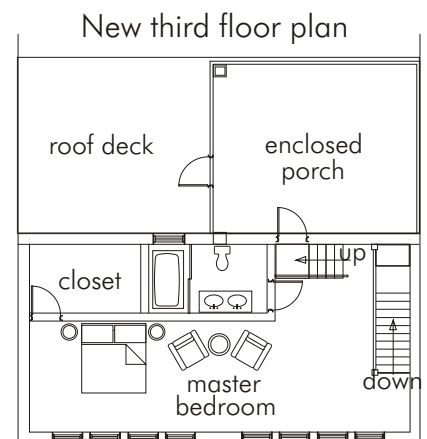
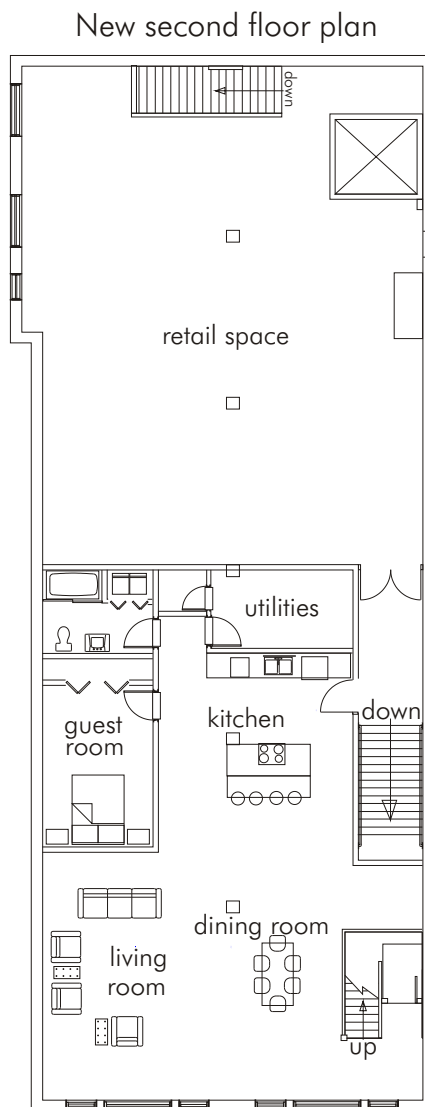
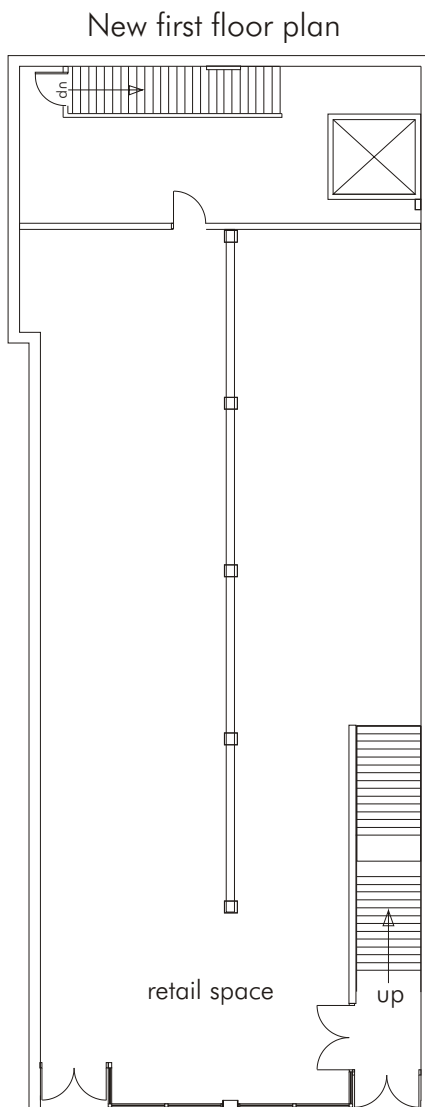
Sub-total = **\$107,500**

Contractor fees 25% = **\$26,875**

Architect fees 10% = **\$10,750**

Total cost = **\$145,125**

Cost per sq. ft. 2,250 = **\$64.50**



Street facade