

## BUILDING CODE MEMO

Project Name: Boyertown  
Project Number: 230240  
Date: 08/30/2023

### **Borough of Boyertown – Uniform Construction Codes:**

- **Adoption as per PA Construction Code Act, Act 45 of 1999**
  - Refers back to Uniform Construction Code, in 34 PA code, Ch 401-405,
  - Which adopts the 2018 International Code Council building codes with minimal amendments.
  - Accessibility shall meet the requirements of the 2018 International Building Code (IBC), which references the 2009 version of ANSI A117.1.
  
- **2018 International Existing Building Code (IEBC)**
  - Alteration Level 3 – essentially new work will have to comply with requirements of the IBC, with some accommodations for existing conditions.
  - Structural:
    - The IEBC relies on previously approved loads to inform what new uses are allowed in the existing building.
    - Proposed apartments on the second floor will be Residential use, R-2, and require 100 psf live load for public corridors and 40 psf for the private units.
    - *A structural assessment will be required to determine if the existing second floor can accommodate the Residential loads (specifically the 100 psf live load requirement).*
    - A structural assessment will also be helpful to evaluate the exterior walls, roof, and roof structure in greater detail than the visual existing conditions survey.
  - Fire Protection:
    - Sprinklers will be required for the Residential use on the second floor. Three (3) units qualifies the residential use as R-2, which requires a residential-type sprinkler system.
    - The first floor does not necessarily require an automatic sprinkler system. The second-floor horizontal assembly can be built out to create a 2-hr rated fire separation between the first floor retail and the second floor residential.
    - If an automatic sprinkler system is installed in the first floor, then the second floor horizontal assembly will still be required to be modified to perform as a 1-hr rated fire separation.

- Accessibility:
  - The first-floor retail will require an accessible route from the parking, to an accessible entrance, and through the space to the areas of primary function (this would be the proposed café area, restrooms, and into the retail area).
    - We have identified the side entrance at the parking as the ideal Accessible entrance.
    - The original main entrance at the sidewalk may still be used.
  - Of the three apartments, one shall be accessible.
    - Boyertown TC zoning prohibits residential units on the first floor.
    - Therefore, the accessible unit will be on the second floor, and require an accessible route to and egress from the second floor.
    - We are proposing to demolish the rear stair and dumbwaiter and construct an elevator and rated stair that meets the requirements of an accessible means of egress.
    - An elevator is NOT required for egress from the second floor but may be required once we get into further details of the design of the apartments.
    - A limited use lift (LULA), which is generally cheaper and smaller than an elevator, may be an acceptable feature to get to the second-floor units.
- Electrical:
  - Electrical service to the building will need to be upgraded to meet current requirements.
  - Existing electrical service unknown.
- Energy Conservation:
  - The code only requires the new alternations to meet energy code performance criteria. The entire building does not need to comply with the International Energy Conservation Code (IECC). This typically means you do not have to add insulation to roofs or walls to meet current insulation requirements.
- **2018 International Building Code (IBC)**
  - The existing building construction is assumed to be Type II B, which allows zero-hour fire ratings for all major building elements.
  - The proposed occupancies are:
    - M-Mercantile – retail area on first floor.
    - B-Business – small café that is part of retail.
    - R-2 Residential – second floor apartments.
  - The existing building height, area, and stories are all allowable for each occupancy for Type IIB with OR without sprinklers.
  - Plumbing Fixtures:

- We anticipate one men's and one women's restroom for the first floor, but the exact fixture count will be confirmed once the design is set and occupant loads can be calculated for each space.
- **Other Considerations**
  - The existing mezzanine should be demolished. The head height of the mezzanine does not meet current code requirements of min 7'-6".
  - Retaining the existing stair to the second floor does not appear to be beneficial to the proposed program. The stair may also be demolished, which would allow the retail space to use both storefront windows.
    - The apartments can be accessed from the rear stairwell.
    - There is no shared circulation space between the retail tenant and the residential tenants.