

EXHIBIT “D”

MHDC UNIVERSAL DESIGN

MHDC requirements for Universal Design on New Construction in affordable housing developments:

1. Equitable Use:

- a. Minimum 36” door with a “no-step” entry, at accessible entries.
- b. Provide 60” rotation maneuvering space on exterior and interior latch side of accessible entries, with 18” minimum front approach clearance at latch side.
- c. Flat landing surfaces leading to doorways and at both sides of all accessible entry doorways.
- d. No thresholds and/or change of walking surface greater than ½” rise. Sliding glass doors may require a threshold rise each side to accommodate the threshold height limit.
- e. Continuous accessible path, minimum 42” width (excepting FHA’s steep site rule), from parking and the public access to the unit, maximum 1:20 slope; 1:12 slope may be considered where space or conditions mitigate. On multiple story buildings with no elevator, upper floors may waive this item and Universal Design measures that can be easily retrofitted at a later date, including items 2 (a), 6 (a), and 7 (g).
- f. Patio or Deck landing at same level as interior floor at accessible entry doors.
- g. Mailboxes to be at an accessible location on the accessible route.
- h. Lever action door hardware.

2. Flexibility in Use:

- a. 24” Blocking or plywood substrate in bathrooms for future grab bars where needed, horizontal and vertical at all toilets, showers, and tubs. Around toilets, substrate up to 42” Above Finish Floor (AFF) (or blocking centered at 30” AFF). In shower and tub areas, substrate up to 60” AFF (or blocking centered at 42”); tubs may have shower fixture with integral grab bars.
- b. All electrical devices and environmental controls to be mounted between 15” and 48” AFF.
- c. On Townhouse developments provide a bedroom and a fully accessible bathroom on the main level of the unit as well as laundry if included. This requirement item is only required at accessible units. Stairways on all Townhouse units, regardless of accessibility, are required to be a minimum of 42” in width.

3. Simple and Intuitive:

- a. Lever action or grip friendly plumbing fixtures, trim, controls, door, and cabinet hardware.
- b. Buttons on control panels that can be distinguished by touch.
- c. Front mounted controls on appliances, 15”-48” AFF.
- d. Thermostat controls that are user friendly to adjust by feel and read easily.

4. Perceptible Information:

- a. Signage with color contrasting print in addition to generally recognized icons.
- b. Create color or texture contrast between light switches/wall outlets and surrounding surfaces as well as contrasting colors between countertops and flooring and walls.
- c. Color contrast or texture change between wet rooms (bath, laundry, kitchen) and adjoining spaces.
- d. Contrasting lit doorbell or internal light when a doorbell is installed.
- e. Minimum 4" high house numbers posted in contrasting colors.
- f. Contrasting colors between wiring devices [receptacles and light switches] and surrounding surfaces
- g. Contrasting colors between steps and landing or living space.
- h. Contrasting colors between different floor coverings.
- i. Contrasting colors between plumbing fixtures and flooring/countertops.

5. Tolerance for Error:

- a. Slip-resistant surfaces, especially in bathrooms, kitchens and entry areas. High gloss surfaces, 'smooth' ceramic floor tile, or similar flooring is not acceptable.
- b. Provide for ease of maintenance of all flooring. Deep pile carpets, highly textured masonry, or similar floor finishes are not acceptable.
- c. Ventilation to meet current ASHRAE 62.2 standard where applicable. Operable ventilation for bathrooms and kitchens highly recommended.
- d. Light switches with large flat pads.

6. Low Physical Effort:

- a. Provide minimum of one low threshold shower on primary level; tubs are acceptable with backing installed for wall mount or overhead lift. On Townhouse developments this item is only required at accessible units.
- b. One operable window in each bedroom and living room, with 36" maximum sill heights; 44" in garden level (partial below grade) is acceptable.
- c. Self-closing fire rated doors must be on lowest setting while complying with the enforced building code.
- d. No interior ramps.

7. Size and space for approach and use:

- a. 36 inch minimum width doors.
- b. 60 inch clear turning space provided in at least one bathroom and in the kitchen; 60" T-turns acceptable where conditions warrant.
- c. 42 inch wide residential unit and common hallways
- d. Provide for parallel or front approach to all sinks and appliances.
- e. 20% of storage space within 15-48" reach AFF.
- f. Bottom of bathroom mirror within 40" AFF.
- g. Allow knee clearance below one lavatory and below a 30-32" height kitchen workstation which may be a pull-out accessory.

- h. Toilet set at a minimum of 18" off one sidewall from toilet center in a space that is at least 48" wide on accessible units only.
- i. Shower controls on nearest wall to opening at 15"-48" AFF, controls setback not to exceed 15".