

CODE ANALYSIS
PART 3 CHECKLIST – NBC 2020

1. Occupancy Classification

Major occupancy (s) **GROUP C (FLOORS 2-4) 3.2.2.52., GROUP A DIVISION 2(FLOOR 1) 3.2.2.24.**

Building Area **1300SF=1208M2**

No. of storeys **4**

No. of streets **2**

2. Height and Area Requirements 3.2.2.24. , 3.2.2.52.

- a. Type of construction **Non combustible**
- b. Floor assembly(FRR) **1H**
- c. Roof assembly(FRR) **1H**
- d. Balconies and mezzanines(FRR) **not less than 1h**
- e. Load bearing walls and columns (FRR) **not less than 1h (frr required for supporting assembly)**

3. Requirements for Exits – Section 3.4

- a. Minimum no. required **2 (3.4.2.1(1))**
- b. Mezzanine exits **1 unless occupant load is below 60 (3.4.2.2)**
- c. Distance between exits **one half the maximum diagonal dimension of the floor area, but not less than 9 m for all other floor areas (3.4.2.3.)**
- d. Location of exits (travel distance) **max 45m (3.4.2.5.(1)(c))**
- e. Guards **on each side of every exit (3.4.6.6.(1))**
- f. Door swing in exit **In The direction of travel of exit (3.3.1.11.(2)) (3.4.6.12.)**
- g. Stair requirements
 - a. Rise: max/min **max 180mm min 125mm (3.4.6.8.(2))**
 - b. Run: min. **280mm between successive steps (3.4.6.8.(1))**
 - c. Width: max/min **min 1100mm, max (3.4.3.2.B)**
- d. No. of handrails **1 if width is less than 1100mm, 1 on each side of the stairs if width is greater than 1100mm, ramps, and curved flights (3.4.6.5.(1)(2))**
- e. Handrail height **not less than 865mm not greater than 1070mm (3.4.6.5.(7))**
- f. Guardrail height (stair) **min 900mm high from nosing (3.4.6.6.(6)(a)(i))**
- g. Guardrail height (landing) **not less than 1070mm (3.4.6.6.(6)(a)(ii))**
- h. Opening in guardrail **max 100mm (3.4.6.6.(5))**
- h. Fire separation of exits **frr not less than required in subsection 3.2.2. or 45min for the floor assembly above or below, not more than 2h (3.4.4.1)**

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- i. Exit capacity 50% of occupancy (3.4.3.3.(7))(3.4.1.2.(2))

4. Fire Safety Requirements within Floor Areas – Section 3.3

- a. Separation of suites FRR not less than 1h
- b. Access to roof for a building more than 3 storeys high and with a roof eith a slope less than 1 in 4, all main roof areas shall be provided with direct access from the floor areas either by a stairway or a hatch not less than 500mm by 900mm with a fixed ladder
- c. Public corridor – fire separation(s) FRR not less than 45 min but not more than 2h (3.4.4.1.)
- d. Egress doorways from suites Travel distance max:150mm
- e. Width of public corridors 1100mm (3.4.3.2.A)
- f. Dead-end corridor max 9m
- g. Door swing In The direction of travel of exit if occupant load is more than 60 (3.3.1.11.(2))
- h. Glass in doors Where vision glass is provided in doors or transparent sidelights, the lowest edge of the glass shall be no higher than 900 mm above floor level.
- i. Openable windows shall be protected by a guard with a min height of 1070mm or have a special mechanism to control free swinging and limit unobstructed opening to 100m
- j. Fire alarm and detection system req'd: Yes (3.2.2.24. , 3.2.2.52.)

4. Health Requirements – Section 3.7 (3.7.2.2)

- a. Number of male water closets required: 2
- b. Number of male urinals allowed: 1
- c. Number of female water closets required: 4
- d. Number of male lavatories required: 1
- e. Number of female lavatories required: 2
- f. Floor drain: Yes

5. Barrier-Free Design – Section 3.8

- a. Barrier-Free washrooms required: on the assembly occupancy floor, at least one enclosure should be provided for every 10 stall/urinal
- b. Barrier-Free access – entrance If theres more than one doorway, only one needs to be designed in accordance to subsection 3.8.3
- c. Doorways and door widths min 850mm
- d. Ramps max slope of 1 in 12
- e. Requirements for water closet stalls, water closets, urinals, lavatories
stalls: not less than 1500mm wide and deep, have a clear lateral transfer space adjacent to the water closet

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that is 1500mm long and 900mm wide, have a clear floor space of 1700mm by 1700mm in front of the stall, have a door that provides min 850mm clearance and that swings outwards, is equipped with a grab bar

Urinal: wall-mounted with the rim located not more than 430mm above the floor, have a clear unobstructed width of approach that is min 800mm wide by 1350mm long, has a vertically mounted grab bar

Lavatories: distance between the centre line of the lavatory and any side wall is not less than 460mm, has a clear floor space in front of the lavatory that is at least 800mm wide and 1350mm long of which no more than 430mm is beneath the lavatory

- f. Universal washroom required? **Min 1** at each location where washrooms are provided with a barrier free path of travel
- g. Gender neutral washroom(s) required? **Not explicitly stated in the code, but could be the same requirement as universal bathroom**

6. VERTICAL TRANSPORTATION (3.5.4.1.)

- a. Min Fire resistance rating: **1h**
- b. Min Elevator car dimensions: **2010mm x 610mm (6'7 9/64" x 2'1/64") [3.5.4.1.]**