

Code Review

Feb 10, 201

Munjoy Heights

Buildings B,C,D

IBC 2009

NFPA 101 2009

4 floors above grade

502.1

903.3.1.2.1

Sprinkler Protection required at Balconies and Decks

706.1.1

No openings or penetrations for utilities are allowed at unit Party Walls

Sprinklers

NFPA 13R

NFPA 13R

Occupant Load

T 1004.1.1

Building A1 13,800 sf (Residential 200 gsf/oc) = 69

24.1.7

No Occupant Load Requirements

Use Group(s)

310.1

R3 - Townhouses

24.1

One and Two Family Dwelling

Construction Type

T 503

5B - combustible unprotected

V (000) combustible unprotected

Building Height

T 503 and 504.2

Sprinkler increase = 4 stories and 60' max.

Building Area

T 503

Unlimited Area per floor

Building Elements

T 601

0 hr Structural Frame

24.1.6

No Minimum Construction requirements

T 602

0 hr Bearing Walls Exterior (sep. dist \geq 10')

T 602

1 hr Bearing Walls Exterior (sep. dist <10') Not applicable

T 601

0 hr Bearing Walls Interior

T 601

0 hr Non-Bearing Walls Interior

T 602

0 hr Non-Bearing Walls Exterior (sep. dist \geq 10')

T 602

1 hr Non-Bearing Walls Exterior (sep. dist <10') Not Applicable

| | | | | | |
|---------------------|--|--------------|--|------------|---|
| | | 705.5 | Exterior Wall with >10' sep. needs rating only from inside | | |
| | | T 601 | 0 hr Floor Construction | | |
| | | T 601 | 0 hr Roof Construction | | |
| | | | | | |
| Townhouse | | 202 - comm. | 2 hr Firewalls to separate every other unit (2 units max) | 8.2.1.3 | Considered Separate Bldgs with 2 hr FireBarrier |
| | | | | | |
| Firewalls | | 706.3 | Exception - materials can be combustibile in type 5 const. Fire retardant Plywood is used in wall types E1, E3 and E4 | | |
| | | T 706.4 | R3 firewalls to be 2hr rated | | |
| | | 706.5 ex. 3 | Firewalls can terminate at non-combustible exterior sheathing when both sides of firewall have 13R sprinkler system | | |
| | | 706.5.2 | Horiz. Projecting Elements - firewalls to extend out to balconies | | |
| | | 706.2 | The Area Separation Wall system utilized between units is designed with 'melt away' clips so each unit on each side of the wall is is structurally independent. | | |
| Parapet | | 706.6 ex. 4 | Firewalls can terminate at underside of combustibile roof deck if roof has Class B finish rating and Fire retardant plywood 4' out from each side of firewall | | |
| | | 705.11 | Parapets at fire rated Exterior walls, if wall can have 25% unprotected openings per705.8 then no parapet required (>5' sep) If sep. is <5' R3 needs class C roofing and 4' fire rated plywood | | |
| Separations | | 406.1.4 | 1/2 hr Between Dwelling and Garage | | |
| | | 708.2 ex 1 | Not required within single dwelling 4 stories or less | 8.6.5 | 2 hr fire rated shafts for a 4 story building |
| | | | | | |
| | | 709.1 | 1 hr Between Dwelling Units | | |
| | | 1022.1 ex. 3 | Stair shafts not required within individual Dwelling Unit | | |
| | | 508.2.5 | 1 hr Boiler Room or Automatic Fire Suppression System | | |
| | | | | | |
| Distances and Exits | | 1021.1 ex. 4 | Single Exit from and within Dwelling unit when occupancy is under 20 | 24.2.2.1.2 | Second means of escape not required with 13R |
| | | 1016.1 | 250' Travel Distance to exits with Sprinklers | 24.1 | Not found in 1 and 2 family |
| | | 1021.2 | NA Common Path of Travel as R3 can have a single exit | 24.1 | Not found in 1 and 2 family |

| | | | | | | |
|----------------------|--|------------|--|--|----------------|--|
| | | 1018.4 | 50' Dead End | | 24.1 | Not found in 1 and 2 family |
| Unprotected Openings | | T 705.8 | 15% when exterior wall sep. dist. is 3'>5' | | | |
| | | T 705.8 | 45% when exterior wall sep. dist. is 10'>15' | | | |
| | | | Building A -West wall = 11.5% unprotected openings with 14' sep | | | |
| | | | Building A -North wall = 8.1% unprotected openings with 13' sep | | | |
| | | | Building B,C,D -West wall = 7% unprotected openings with 11' sep | | | |
| | | | Building B,C,D -East wall = 7% unprotected openings with 1' sep | | | |
| | | | Building E -East wall = 9.6% unprotected openings with 33' sep | | | |
| | | | Building F -West wall = 9.5% unprotected openings with 33' sep | | | |
| | | T 705.8 | 75% when exterior wall sep. dist. is 15'>20' | | | |
| | | T 705.8 | Unlimited when exterior wall sep. dist. is 25'>30' | | | |
| | | T 705.8 | Unlimited when exterior wall sep. dist. is >30' | | | |
| Elevator Lobby | | 708.14.1.4 | Not required as Sprinkled with 13R | | | |
| Elevator as MoE | | 1007.2.1.1 | Not required as bldg. is not 4 stories above the level of exit discharge | | | |
| Egress Windows | | 1029.1.1 | Required from Bedrooms in R3 | | 24.2.2.1.2 | Second means of escape not required with 13R |
| Egress Stairs | | 1009.1 | Occ. Load >50 = 44" min width | | 24.2.5.4 | 36" min. stair width |
| | | 1009.1 | Occ. Load <=50 = 36" min width | | 7.2.2.2.1.2(B) | 44" min. over 50 occ. |
| | | 1003.3 | Handrails can protrude into stair 4.5" max | | 7.2.2.2.1.2 | Handrails can protrude into stair 4.5" max |
| | | 1005.2 | Door Swings may not reduce egress width by > 1/2 | | | |
| | | 1009.2 | 80" min headroom | | 7.2.2.2.1.1(a) | 6'-8" min. headroom |
| | | 1009.3 | 7" max. riser | | 7.2.2.2.1.1(a) | 7" max. riser |
| | | 1009.3 | 11" min Tread depth | | 7.2.2.2.1.1(a) | 11" min. tread |
| | | 1009.6 | 12' max. total rise between floors or landings | | 7.2.2.2.1.1(a) | 12' max. height between landings |
| Ramps | | 1010.2 | 1:12 (8%) Max slope | | 7.2.5.2(a) | 1:12 max. slope |
| | | 1010.6 | 60" long landings at top and bottom | | | |
| | | 1010.6 | 2% max slope of landings | | 7.2.5.2(a) | 1:48 max. cross slope |
| | | 1010.8 | >6" rise must have handrails on both sides of ramp | | | |