



Project: Gateway Luxury Apartments - Pompano Beach, FL	Date:
Project No. 12697.00	6/28/2022
Computed by: NW	Page:
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COMPUTING WORKSHEET

Summary of required Fire Flow

1. Site Data

Structure	Bldg Floor Area	Fire Flow Area
Building 1		
Residential	14,803 SF	14,803 SF (Max. with 1 hr rated fire wall separation)
Building 2		
Residential	6,998 SF	6,998 SF (Max. with 1 hr rated fire wall separation)
Building 3		
Residential	9,257 SF	9,257 SF (Max. with 1 hr rated fire wall separation)
Building 4		
Residential	14,964 SF	14,964 SF (Max. with 1 hr rated fire wall separation)

Building 1, 2, 3, & 4

Type of Construction - II(000) - from NFPA 220; Unprotected Non-Combustible

2. Determine Required Fire Flow per Florida Fire Prevention Code (NFPA 1 as amended) (Unsprinkled Building)

Building 1	Required Fire Flow (RFF) =	2,500 gpm @ 20 PSI	per NFPA 1 Ch 18 table 18.4.5.1.2
	Duration =	2 Hours	
Building 2	Required Fire Flow (RFF) =	1,750 gpm @ 20 PSI	per NFPA 1 Ch 18 table 18.4.5.1.2
	Duration =	2 Hours	
Building 3	Required Fire Flow (RFF) =	2,000 gpm @ 20 PSI	per NFPA 1 Ch 18 table 18.4.5.1.2
	Duration =	2 Hours	
Building 4	Required Fire Flow (RFF) =	2,500 gpm @ 20 PSI	per NFPA 1 Ch 18 table 18.4.5.1.2
	Duration =	2 Hours	

3. Determine Required Fire Flow per Florida Fire Prevention Code (NFPA 1 as amended) (For NFPA compliant Automatic Sprinkled Building)

Building 1	Sprinkled Bldg Required Fire Flow reduce RFFby 75% =	625 gpm @ 20 PSI	
	Minimum Required Flow for Sprinkled Bldg =	1000 gpm @ 20 PSI	USE 1000 gpm
	Minimum Required Flow for Quick Response Heads =	600 gpm @ 20 PSI	USE 1000 gpm
Building 2	Sprinkled Bldg Required Fire Flow reduce RFFby 75% =	437.5 gpm @ 20 PSI	
	Minimum Required Flow for Sprinkled Bldg =	1000 gpm @ 20 PSI	USE 1000 gpm
	Minimum Required Flow for Quick Response Heads =	600 gpm @ 20 PSI	USE 1000 gpm
Building 3	Sprinkled Bldg Required Fire Flow reduce RFFby 75% =	500 gpm @ 20 PSI	
	Minimum Required Flow for Sprinkled Bldg =	1000 gpm @ 20 PSI	USE 1000 gpm
	Minimum Required Flow for Quick Response Heads =	600 gpm @ 20 PSI	USE 1000 gpm
Building 4	Sprinkled Bldg Required Fire Flow reduce RFFby 75% =	625 gpm @ 20 PSI	
	Minimum Required Flow for Sprinkled Bldg =	1000 gpm @ 20 PSI	USE 1000 gpm
	Minimum Required Flow for Quick Response Heads =	600 gpm @ 20 PSI	USE 1000 gpm
	Total Required Fire Flow	4000 gpm	

4. Determine Available Flow from Flow Test

Total Flow at 20 psi using test data Residual Pressure:	
FH	7,848 gpm
Total Available Flow @Test Static (76 psi)	7,848 gpm Exceeds Required Fire Flow (RFF)

Available flow exceeds Required Fire Flow unsprinkled building

Total Flow at 20 psi with Design System Residual Pressure Adjusted to 50 psi:	
FH	5,602 gpm
Total Available Flow @ 50 psi Static	5,602 gpm Exceeds Sprinkled Bldg RFF

Available flow exceeds Required Fire Flow for sprinkled Building

