Cape Coral, FL 33909-3332

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Jeffrey L. Zenoniani, PE, LLC 3316 Andalusia Boulevard

Date: January 9, 2018

Subject: Florida Administrative Code No. 61G15-32.003 (1) (2) (5) Florida Administrative Code No. 61G15-32.004 (2) (a-m)

RE: Moorings Park @ Grande Lakes, 12-units Master Little Lake Lane Naples, FL

As the fire sprinkler system Engineer-of-Record, I advise that the following specifications are to be followed for the design of the fire sprinkler system for the above referenced condominium building.

<u>61G15-32.003 (1) (2) (5):</u>

(1) <u>Scope of Work:</u>

This is a 7-story; 12-unit condominium building that is equipped with an elevator. The ground floor is parking and the upper 6 floors have 2 units each. The building, its fire sprinkler and standpipe systems will be new construction and based on NFPA 13 2013 edition.

(2) Acceptance Test Criteria:

The acceptance testing of the fire protection system and components shall consist of all applicable items shown on these two forms: NFPA 13, 2013 Edition, Figure 25.1, Contractor's Material and Test Certificate for Aboveground Piping. NFPA 24, 2013 Edition, Figure 10.10.1 Contractor's Material and Test Certificate for Underground Piping.

(5) Structural Support and Structural Openings:

The support systems for each level of this building shall have adequate load carrying capacity of 3-psf dead load and the live load, which will be contributed by the fire sprinkler system for each floor level. There are no significant structural openings that will be required for this fire sprinkler system. This sprinkler information shall be passed to structural engineer for inclusion on their documents.

61G15-32.004(2)(a-m):

(a) <u>Point of Service</u>: The point of service is the 6" tap off the 8" dedicated fire main serving all buildings.

(b) <u>Applicable NFPA standards to be applied</u>:

NFPA 13, 2013 Ed., Installation of Automatic Sprinkler Systems

NFPA 14, 2013 Ed., Standard for the Installation of Standpipe and Hose System

NFPA 24, 2013 Ed., Standard for the Installation of Private Fire Service Mains and Their Appurtenances

NFPA 20, 2013 Ed., Standard for the Installation of Stationary Fire Pumps

(c) <u>Classification of Hazard Occupancy for each room or area:</u>

Residential Areas: Residential as defined in NFPA 13, 2013 Edition, requires .10 GPM/s.f. min. over the design area. **Parking:** Ordinary Hazard Group I

(d) <u>Design approach</u>:

Residential Areas: Fire protection shall be provided by a wet piped automatic sprinkler system using CPVC plastic supply piping located above the ceiling. Provide pipe drops off the supply piping to residential pendent heads located below the ceiling or to residential horizontal sidewall heads. Any exposed sprinkler piping is to be run using steel piping. **Density**: 0.10 gpm/sq. ft. minimum. **Head temperature rating**: Ordinary **Spacing**: Protection area and spacing is to be determined by the listed residential sprinkler head manufacturer's coverage area specifications.

Approval subject to field inspection/verification. Additional corrections may be required for compliance with prevailing codes.



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Page 2 of 2 Parking Area: Fire protection shall be provided by a wet piped automatic sprinkler system, using steel supply piping with quick response heads. **Density:** 0.15 gpm/sq. ft. for a 1500 sq. ft. area of sprinkler operation. **Head Temperature Rating:** Intermediate Spacing: Protection area and spacing is to be determined by the listed sprinkler head manufacturer age area specifications. Exception: Area reduction allowed per head manufacturer.

Elevator: Provide a horizontal sidewall, quick response, intermediate temperature rating, sprinkler head not more than 2 ft. above the floor of the pit. Sprinkler head at top the elevator is not required by 8.15.5.6. In the machine room install an upright, quick response, intermediate temperature classification, sprinkler head. Provide head guards on all heads.

Standpipes: Install a class 1 manual wet standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe system in each stairwell, connected on the ground floor, with standpipe states to field the states to f isolation valves for each. There is to be a 2-1/2" fire dept valve and connection at each floor, on each standpipe. Standpiperfication. will also supply fire sprinkler water to the residential units on each residential floor. Additional corrections may

be required for compliance

(e) Characteristics of the Water Supply to be used:

A 12" circulating main runs down Golden Gate Parkway. A 12" water main feeds the development fire pump though an 8" tap. An 8" dedicated fire main will serve the site off the fire pump. The attached flow test shall be used in contractor's calculations.

(f) Flow test data:

Static: 62 psi; Residual: 38 psi; Flow: 1,588 gpm. The calculated flow at 20 psi is 2,149 gpm. **Dated:** 11/1/17 See attached flow test for data and location of hydrant test.

(g) Valving and Alarm Requirements to Minimize Potential for Impairments and Unrecognized Flow of Water:

The fire sprinkler riser for each building shall have a water flow switch with a local audible alarm and remote station monitoring. The backflow prevention device assembly shut-off valves and any other shut-off valves used in the water supply piping for this sprinkler system shall have tamper switches with remote station monitoring.

(h) Microbial Induced Corrosion (MIC):

Collier County Utilities, the water purveyor to this development, was contacted. They have stated, in a letter dated 04/26/06 and signed by Ms. Margaret Bush, Chemist, that their water is in compliance with all state and federal drinking water standards. The testing programs they have to assure the quality of their water are stated in this letter. Based on this information, this engineer identifies this water supply to be of a quality that would not be reasonably expected to lead to MIC

(i) Backflow Prevention and Metering Specifications:

The backflow prevention device assembly and the metering equipment shall meet the requirements of the local water purveyor. The backflow prevention device assembly is to have a maximum allowable pressure drop of 10 psi @ 7.5 fps. A backflow device will be located on the 8" line serving the fire pump ONLY.

(i) Quality and Performance Specifications of all Yard and Interior Fire Protection Components:

The yard underground service line shall be type DR-14, C-900, PVC pipe. Interior grooved piping, 1-1/2" and larger, shall be schedule 10 steel, with grooved end fittings and welded branch line outlets. Threaded piping 2" and smaller shall be schedule 40 steel with standard thread C.I. or D.I. fittings. Sprigs, arm-overs and drops shall be schedule 40 steel with threaded ends. Steel piping is to be black or galvanized. CPVC is acceptable per NFPA 13R.

(k) Fire Pump Requirements:

An electric fire pump with reduced voltage soft start and transfer switch will be provided to serve the site. The pump will be 208/3 ph, 90 psi, 1000 gpm

(1) Fire Water Storage Tank:

None required at this time. If the designer's hydraulic calculations show otherwise, he shall contact this engineer for a revised 61G15 letter.

(m) Owner's Certificate: 7-story; multiple unit condominium.

Jeffrey L. Zenoniani, PE, LLC

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GREATER NAPLES FIRE RESCUE DISTRICT FIRE AND LIFE SAFETY 2700 N Horseshoe Dr. • Naples, FL 34104 Phone: (239)774-2800 Fax: (239)774-3116



	1		Approval su
	Hydrant Flow Tes	t	Additional co
Date: 11-1-17	Time: 2:30/14 To	ested By:	be required for with prevai
Location: Golden Gate Pkwy	- Moorings Park at Grande	Lake within LB Napl	es Grande
Requested By: Dan Garner, P	.E., Stantec Consulting Serv	vices, I Date	: 10/30/17
Email: daniel.garner@stantec.	com	Phone: 239	/649-4040
Comments: Please test East h	ydrants as highlighted on m	ap.	
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