

25/5/2009

M Raad Investments 1 Pty Ltd
C/ Studio Internationale Pty Ltd
by email

Dear Milad,

RE – ADDENDUM TO BUSHFIRE ASSESSMENT: FIRE SAFETY, PROPOSED TOURIST DEVELOPMENT, GOODNIGHT ISLAND, NSW

INTRODUCTION

This letter is written to support the Preferred Progress Report (PPR) for the above development, in light of the information request by the Department of Planning (DoP) dated 17/12/2009, undersigned by Ms Heather Warton. Under Point 16, DoP requested that *'the NSWFB and the NSWRFs be consulted to identify how a fire within the buildings on the island would be extinguished in the event of an emergency, how access would be gained to the island in such a situation by any fire fighting vehicle/persons, and water supply in an emergency'*. Our response to the information request letter is provided in the following sections.

CONSULTATION WITH NSWFB

A meeting was held on the May 12, 2009 between Martens and Associates (Mr Jeff Fulton) and NSWFB (Mr Steve Parkins and Mr Mark Castelli), at the NSWFB head offices in Greenacre. The meeting minutes are attached to this letter, along with confirmation of the minutes via email. During the meeting, it was made clear by NSWFB that the response time for a mainland based fire crew to get to the island and provide effective fire fighting is too great. As a result, they provided the following recommendations regarding fire extinguishing within buildings and general fire safety on the island:

- o Internal sprinkler systems for all buildings on the island. Sprinkler systems to be designed in accordance with AS 2118 part 5 (for the cabins) and AS 2118 part 4 (for the main complex and villa).
- o Smoke alarms in all habitable rooms.
- o An on-site fire crew (minimum of 1 person on the Island at all times) to be trained by NSWFB or other appropriate agency.
- o An on-site fire fighting vehicle/trailer, with appropriately sized pump, water cart and protective equipment.
- o Provide hydrants off the proposed ring main attached to the 1,200 KL potable water source. Off duty pump and generator may be required in case of power outage. Hydrants to be spaced at no more than 2 hose lengths (and preferably 1 hose length) to all buildings. A typical hose length is 30m.

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Head Office

Unit 6 / 37 Leighton Place
Hornsby NSW 2077, Australia
Ph 02 9476 9999 Fax 02 9476 8767

> mail@martens.com.au
www.martens.com.au
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ABN 85 070 240 890 ACN 070 240 890

- Hydraulic consultant should be engaged to provide detailed designs of sprinklers and hydrants at the CC stage.
- Prepare an emergency response plan between the NSWFB, NSWRFS and Goodnight Island.

CONSULTATION WITH NSWRFS

A phone conversation was held on the May 13, 2009 between Martens and Associates (Mr Jeff Fulton) and NSWRFS (Mr Mark Hawkins) regarding fire safety on Goodnight Island. NSWRFS made the following comments:

- Mark reiterated the NSWFB request for an on-site vehicle/trailer specifically set-up for fire fighting, with appropriate pumps and water storage.
- The Island should always have a NSWRFS or NSWFB trained operator on the site at all times.
- An emergency evacuation plan is to be prepared in accordance with relevant standards, with emergency procedures and egress routes clearly outlined.

DISCUSSION AND RECOMMENDATIONS

Based on our consultations, both agencies believe that fire can be managed by the combined use of a number of management methods including internal sprinklers, ring main hydrant, generator and backup pump, static water supply, staff training and and evacuation plan. Whilst access to the island for fire trucks can be gained via the use of the barge, the response time would be too great to provide effective fire fighting.

The following information will be required at the detailed design stage of the development:

1. Hydraulic design of internal sprinkler system.
2. Hydraulic design of non-potable ring main and hydrant system.
3. Hydraulic engineer to ascertain the minimum static supply of water required for points 1 and 2.
4. Emergency evacuation plan (this is to incorporate a sub-plan for the initial and on-going training of site personnel for fire fighting purposes, as well as requirements for the on-site fire fighting vehicle).

If you require any further information, please do not hesitate to contact the undersigned.

For and on behalf of

MARTENS & ASSOCIATES PTY LTD



JEFF FULTON

BSc

Project Coordinator / Environmental Engineer

MEETING OVERVIEW

Meeting Time	15:00 May 12, 2009	
Meeting Location	NSWFB Head Office: Amarina Ave, Greenacre	
Meeting Parties	Martens & Associates	Mr Jeff Fulton (JF)
	NSWFB	Mr Steve Parkins (SP) Mr Mark Castelli (MC) Cecil Eveleigh (CE)
Meeting Agenda	Martens and Associates (on behalf of M Raad Investments No. 1) required to liaise with NSWFB regarding fire safety for a development application at Goodnight Island, Crookhaven River	

DISCUSSION ITEMS

- 1.01 JF introduced the main points of the development relevant to the meeting agenda as summarised below:
- Island located in the Crookhaven River, in between Orient Point and Greenwell Point.
 - Proposed tourist 'eco-resort' with 15 separated 1 bedroom cabins scattered over island, managers residence and 15 room hotel with associated restaurant, spa room, gym, pool etc.
 - Main access to the Island from Greenwell Point, however the barge for heavy vehicles accesses Orient Point boat ramp.
 - Goodnight Island to have wharf and a private ferry for customers and staff of the resort.
 - Existing Barge for light to medium vehicles. Proposed barge likely to carry heavy construction vehicles.
 - Barge takes 15-20 minutes to make pickup and drop off (each way).
 - Closest NSWFB department is Nowra – 25km to Orient Point (30 minute drive).
- 1.02 SP noted that fire trucks weigh around 15 tonne GVM.
- 1.03 SP asked if there were any dangerous / flammable goods to be kept on Island. JF mentioned that chlorine and alum may be required for the STP and stored in shed next to sewage treatment plant (STP). Other than that, there will be standard basic items for maintenance such as diesel/petrol for maintenance vehicles, as well as cleaning products.

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- 1.04 SP/MC asked about provision of water on the island. JF discussed the water cycle management plan, outlining the following points:
- Mains water not likely to be connected.
 - 1,200 KL of non-potable storage to be located underneath the main building on the island.
 - Roof water from main building to drain to the tanks. Roof water from cabins to be collected in small collection wells and pumped to the main tank.
 - All wastewater collected on the site and treated at an STP. Reclaimed water to be utilised for toilet flushing and landscaping requirements. A small (possibly 100-200 KL) wet weather storage facility may take the shape of a lined dam or tank.
 - 2 small (5KL) header tanks, one for non-potable, one for potable, to be constructed on southern side of island to provide 15m head for water pressure. Header tanks are trickle fed from main storage tanks / STP, and will provide running water if electrical blackout.
 - Water fed into 2 ring mains to supply all buildings on the island.
- 1.05 SP noted that to provide fire hydrants on the island, minimum pipe size of 100mm is normally required.
- 1.06 JF asked about the potential for fire crews to access the island, and what measures are required for fire safety.
- 1.07 SP & MC confirmed that the response time to get to the island and provide effective fire fighting from the mainland is too great. SP & MC recommend the following:
1. Internal sprinkler system for all buildings on the island. Sprinkler system to be designed in accordance with AS 2118 part 5 (for the cabins) and AS 2118 part 4 (for the larger unit block and villa).
 2. Smoke alarms in all habitable rooms.
 3. An on-site fire crew to be trained by NSWFB or other appropriate agency.
 4. An on-site fire fighting vehicle/trailer, with appropriately sized pump, water cart and protective equipment.
 5. Provide hydrants off the proposed ring main attached to the potable water source. Hydrants to be spaced at no more than 2 hose lengths (and preferably 1 hose length) to all buildings. A typical hose length is 30m.
 6. Hydraulic consultant should be engaged to provide detailed designs of sprinklers and hydrants.
 7. Prepare an emergency response plan between the NSWFB, NSWRFs and Goodnight Island.
- 1.07 JF to provide minutes to NSWFB and have them confirmed by EC.
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CONFIRMATION OF MINUTES

I, Jeff Fulton of Martens and Associates P/L confirm the above minutes are a true account of our meeting, dated 12/5/09 at NSWFB offices.

Sign:



Date:

13/5/09

Confirmed by Cecil Eveleigh of NSWFB via email (see attached)

J Fulton

From: Cecil Eveleigh [Cecil.Eveleigh@fire.nsw.gov.au]
Sent: Thursday, 14 May 2009 3:58 PM
To: J Fulton
Subject: Goodnight Island

Jeff

The NSW Fire Brigades concur that the meeting notes you forwarded are a true and accurate record of the meeting that took place at the Structural Fire safety Unit on Tuesday 12 May 2009

Regards
Cec Eveleigh

5970 Cecil Eveleigh
Fire Safety Officer
Structural Fire Safety Unit
NSW Fire Brigades

Ph - 9742 7400
Fax - 9742 7483

www.fire.nsw.gov.au

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15/05/2009