



30 November 2016

Phil Kiehne
Project Manager
Level 14, Tower Three, International Towers Sydney,
Exchange Place, 300 Barangaroo Avenue
Barangaroo NSW 2000

Dear Phil,

Re: Response to Submissions for SSD7521 - North Plot and Square

In response to the Department of Planning & Environment and The Sydney City Council's letters on the SSDA submission for the North Plot and Square at Darling Square, we note the following to be addressed;

To avoid future adverse air quality discharge from retail tenancies, including animal fats, grease, smoke and odours, the Applicant should be requested to determine the targeted mechanical capacities of the retail tenancies and their discharge. The design or limitations of mechanical systems may determine how retail spaces are occupied or where a discharge point may be required. This is especially so given the recent popularity of charcoal, wood fire and other solid fuel cooking methods.

Lendlease Design Mechanical Services Response:

Kitchen exhaust provisions have been coordinated with the retail leasing team based on the likely tenancy mix and cooking types. This includes the incorporation of both 'standard' commercial kitchen exhaust and solid fuel kitchen exhaust systems.

The exhaust provisions are noted in the following table:

Table 1 - Ground Floor Market Hall Kitchen Exhaust Provisions

Tenancy No.	Tenancy Type	Tenancy Area (m ²)	Standard K/E Provision (L/s)	Charcoal K/E Provision (L/s)	K/E Make-Up (L/s)
T1	Food & Beverage	21	3,000	1,500	3,600
T2	Food & Beverage	21	3,000	1,500	3,600
T3	Food & Beverage	14	1,000	1,000	1,600
T4	Food & Beverage	15	3,000	1,000	3,200
T5	Food & Beverage	30	3,000	1,000	3,200
T6	Food & Beverage	21	3,000	1,000	3,200
T7	Food & Beverage	14	1,500	0	1,200
T8	Food & Beverage	15	1,500	0	1,200
T9	Food & Beverage	20	1,500	0	1,200
T10	Food & Beverage	22	1,500	0	1,200
		910 m2	22,000 L/s	7,000 L/s	23,200 L/s

Table 2 – Mezzanine Level Kitchen Exhaust Provisions

Tenancy No.	Tenancy Type	Tenancy Area (m ²)	Standard K/E Provision (L/s)	Charcoal K/E Provision (L/s)	K/E Make-Up (L/s)
Mezz	Food & Beverage	177	3,500	1,500	4,000
		177 m2	3,500 L/s	1,500 L/s	4,000 L/s

Table 3 – Level 5 Bar/Restaurant Kitchen Exhaust Provisions

Tenancy No.	Tenancy Type	Tenancy Area (m ²)	Standard K/E Provision (L/s)	Charcoal K/E Provision (L/s)	K/E Make-Up (L/s)
L05	Food & Beverage	130	3,500	1,500	4,000
		130 m2	3,500 L/s	1,500 L/s	4,000 L/s

The mechanical services design incorporates a level of flexibility to ensure that adequate exhaust provisions are available for the intended tenancy types, cooking styles and operational usage.

Adverse air quality discharge from retail tenancies has also been addressed through the incorporation of exhaust discharge treatment systems. Individual tenancies shall be required to install exhaust canopies complete with electrostatic precipitation (ESP) filters, UV lamps and ozone generation and charcoal filtration. Kitchen exhaust systems shall discharge vertically at roof level in compliance with AS1668.2-2012.

Yours sincerely,



Adam Burger
Specialist Project Engineer – Mechanical, Design Lendlease Building Pty Ltd
Australia

BEng (Mechanical), Hons, 9 years building services experience

cc: Nishi Patel Lendlease Building