BUROHAPPOLD ENGINEERING

BH-ZSG-CAL-M-0002

FA & EA CALCULATIONS

Revision	Description	Issued by	Date	Checked by
00	Tender	TA	Nov-15	TA
01	Tender	TA	Dec-15	TA

BUROHAPPOLD ENGINEERING

Project	Lodha Clarient		
		Revision	01
Area Of Project	Plot C - Sales Gallery	Prepared by	TA
		Date	01/12/2015
Element Description	FA & EA Calculation (As per ASHRAE 62.1)	Checked by	TA
		Date	01/12/2015

INPUT	OUTPUT	CALCULATED

Without 30% Extra Fresh Air

Sr No.	Area Identification	Area / Unit	Occupancy	Fresh Air - ASHRAE-62.1-2010					Exhaust			Total Exh Air	Selected		Adjusted Supply
				Area		People		Total	Gen	Toilet	Qty		EA	FA	
		(m^2)		cfm/ft^2	cfm	cfm/per	cfm	cfm	cfm	cfm	Nos	cfm	cfm	cfm	cfm
	Sales Gallery														
1	Viewing deck	135	14	0.06	87.2	5	67.5	155	155		1	155	**155**	155	**400**
2	Back office	42	17	0.06	27.1	2.5	42.5	70	70		1	70	**70**	70	**70**
3	Meeting room	9	5	0.06	5.8	2.5	12.5	18	18		1	18	**18**	18	**20**
4	Entrannce	74	7	0.06	47.8	5	37.0	85	85		1	85	**85**	85	**200**
5	Model Room	359	36	0.06	231.9	5	179.5	411	411		1	411	**411**	411	**600**
6	Meeting room-1	18	3	0.06	11.6	2.5	7.5	19	19		1	19	**19**	19	**20**
7	Meeting room-2	18	3	0.06	11.6	2.5	7.5	19	19		1	19	**19**	19	**20**
8	Meeting room-3	18	3	0.06	11.6	2.5	7.5	19	19		1	19	**19**	19	**20**
9	Meeting room-4	18	3	0.06	11.6	2.5	7.5	19	19		1	19	**19**	19	**20**
10	Meeting room-5	18	3	0.06	11.6	2.5	7.5	19	19		1	19	**19**	19	**20**
11	Meeting room-6	18	3	0.06	11.6	2.5	7.5	19	19		1	19	**19**	19	**20**
12	Meeting room-7	13	3	0.06	8.4	2.5	7.5	16	16		1	16	**16**	16	**20**
13	Meeting room-8	13	3	0.06	8.4	2.5	7.5	16	16		1	16	**16**	16	**20**
													885	**885**	**1450**
	By Toilet Calculations												**1100**	**1430**	
	Final Selected CFM												**1100**	**1450**	

Note : For cfm/ft2 and cfm/person, please refer to the ASHRAE 62.1 - 2013, Table 6.2.2.1 Page-12

BUROHAPPOLD ENGINEERING

Project	Lodha Clarient		
		Revision	01
Area Of Project	Plot C - Sales Gallery	Prepared by	TA
		Date	01/12/2015
Element Description	Toilet Extract Calculation	Checked by	TA
		Date	01/12/2015

INPUT	**OUTPUT**	CALCULATED

Sr. No	Toilet Identification	Area Serving	Area	Height	Quantity		Ventilation Rate			Exhaust Air Qty	Supply Air Qty (30% More Than Exhaust)
					Water Closet	Urinal	Water Closet	Urinal	ACH		
			(m^2)	(m)	No.	No.	50 CFM	50 CFM	10	CFM	CFM
Sales Gallery											
1	Male Toilet		16	2.8	2	4	100	200	263	300	
2	Female Toilet		19	2.8	5	0	250	0	313	313	
3	Change Toilet		2.7	2.8	1	0	50	0	44	50	
4	Ex Chg Toilet		2.7	2.8	1	0	50	0	44	50	
3	Change rooms		11	2.8	0	0	0	0	181	181	
4	Ex Chg rooms		12.5	2.8	0	0	0	0	206	206	
										1100	**1430**