

VENTILATION STRATEGY STATEMENT

For

SALVIS RESTAURANT, DEANS GATE SQUARE



Submitted and Prepared by Joe Kirrane
20_027-Z1-MEP-G525-RP-XX-001

MEP Design
1st Floor
The Hillock
Harwood
Bolton
BL2 3HP

DOCUMENT HISTORY

Revision	Date	Purpose	Author	Approved
P01	24/02/2021	Issued for Comment	J.K.	B.W.J.
P02	25/01/2022	Incorporating Manchester City Councils comments – Document updated to include EMQA+ odour control risk assessment.	J.K.	S.R.
P03	26/01/2022	Contractors comment incorporated	J.K.	S.R.

CONTENTS

1	INTRODUCTION	3
2	VENTILATION STRATEGY	4
3	APPENDICES	5

1 INTRODUCTION

1.1 Background

Retail unit 2B is proposed to be converted into a restaurant. The proposal is an open plan restaurant, with a kitchen area open and visible from the dining area. See appendix 1 for the proposed layout drawing.

This Ventilation Statement prepared by MEP Design provides a brief description of the ventilation strategy for the retail unit 2B within Deansgate square.

The purpose of this statement is to achieve the below planning condition, which is an extract from "Deansgate Square – Design standards for commercial tenants":

"- Planning Condition No. 20 - Fumes, vapours and odours shall be extracted and discharged from the premises in accordance with a scheme to be submitted to and approved in writing by the City Council as local planning authority before the use commences; any works approved shall be implemented before the use commences smoke extract and fumes."

See appendix 2 for a site plan highlighting the location of the retail unit.

2 VENTILATION STRATEGY

This section shall be read in conjunction with the projects proposed layout ventilation drawing, see appendix 3.

General

Unbalanced MVHR unit provides tempered fresh air to the dining space. The MVHR system serving the dining area exhaust/intake via a louvre band at high level within the restaurant.

Extract only fans exhaust from the toilets and the kitchen canopy.

Tempered make up air is provided to the kitchen and to a back of house service area.

The dirty exhaust systems (kitchen and toilet) group together and extract via a full height louvre on the Owen Street side of the development. This louvre is also used for flue discharge from the gas fired hot water heater.

Air Pressure

The space has a negative air pressure, with a ratio of 0.85 litres of supply air for every 1.0 litre of extract air.

The air pressure is designed to encourage air from the dining area and to the kitchen area, before being exhausted outside.

Positive air pressure is supplied to the dining area. Negative air pressure is provided to the kitchen and toilet area.

Noise

A noise rating of NR50 has been used as the maximum permissible external break out noise. The attenuation provided is designed in accordance with this. Where attenuation is not shown, this is because an acoustician advised it was not required.

Control

A control panel is provided which provides the following capability:

- Monitoring and fault alarm for the supply ventilation systems filtration
- Gas and Ventilation System interlock
- Monitoring and control of make up air electric heater batteries

A separate control panel is provided which monitors CO2 within the kitchen.

Odour Control

An EMQA+ risk assessment for odour control has been produced (See Appendix 4) following comments received by Manchester City Council on the revision P01 of this document. The result from the risk assessment was "high level odour control requirements".

To meet the requirements of the EMQA+ document, an electrostatic precipitator (ESP) unit followed by a UV ozone system are recommended to be installed.

3 APPENDICES

Appendix 1 – Internal unit layout plan (WIP)

Appendix 2 – Site plan highlighting retail unit 2B.

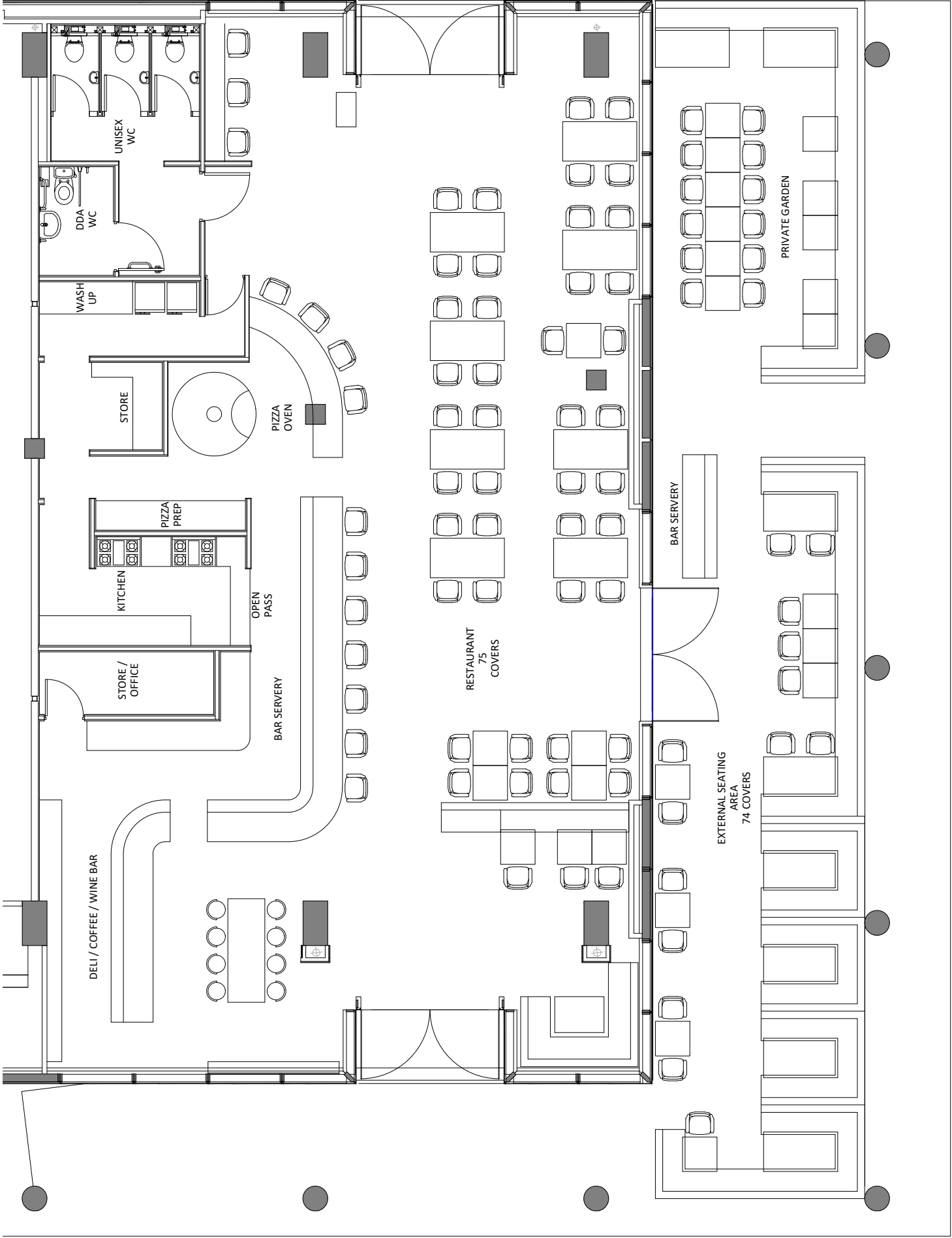
Appendix 3 – Ventilation Layout Drawing (WIP)

Appendix 4 – EMQA+ Risk Assessment for Odour Control

Appendix 1 Internal unit layout plan (WIP)

Document Reference AXI 100

DO NOT SCALE FROM THIS DRAWING.
ALL DIMENSIONS TO BE CHECKED ON SITE.
(DRAWINGS MAYBE SCALED FOR LOCAL AUTHORITY & PLANNING PURPOSE ONLY)
COPYRIGHT PROTECTED.



01 PROPOSED GF PLAN
100 SCALE - 1:100@A3
PLAN

FOR COMMENT

GENERAL NOTES:

THE CONTRACTOR MUST ENSURE ALL DRAWINGS AND PLANS COMPLY WITH THE WRITTEN DIMENSIONS. ANY DISCREPANCIES BETWEEN THE DRAWING AND THE OTHER CONTRACT DOCUMENTS OR ANY DISCREPANCIES WITHIN A DRAWING OR BETWEEN DRAWINGS MUST BE REPORTED IMMEDIATELY TO THE ARCHITECT.

THE CONTRACTOR IS TO INSPECT THE SITE PRIOR TO TENDER AND IS RESPONSIBLE FOR STRIPPING OUT IN ACCORDANCE WITH THE DRAWINGS ENSURING THAT THE WORK IS UNDERTAKEN SAFELY.

THE CONTRACTOR WILL BE RESPONSIBLE FOR THE SETTING OUT OF THE WORKS.

CONTRACTOR IS TO ALLOW FOR ALL FIRE STOPPING THROUGH WALLS, CEILINGS AND FLOORS.

THE ELECTRICAL INSTALLATION IS TO BE IN ACCORDANCE WITH THE CURRENT EDITION OF THE BEE REGULATIONS AND ALL CABLES MUST BE TRACED AND LABELED BY THE CONTRACTOR.

THE CONTRACTOR IS RESPONSIBLE FOR THE SET AND SERVICES PERSON INCLUDING LOOSENESS, CABLE AND PIPE BULGES AND IMPROPER CABLE BENDING AND SUPPORTS. ALL CABLES MUST BE CONDUIT AND OTHER SERVICES ARE TO BE EXPOSED BELOW SLAB CEILINGS.

ANY NEW PROPOSAL IS INDICATIVE ONLY AND THE SPECIALIST CONTRACTOR IS TO BE RESPONSIBLE FOR THE DETAIL DESIGN AND ALL SWITCH/SOCKET OUTLETS TO COMPLY WITH CLIENT'S STANDARD SPECIFICATION. ANY SOCKETS IN METAL AREA TO BE FINISHED BRUSHED STAINLESS STEEL.

NOTE - ALL EXISTING FIRE RESISTING ENCLOSURES TO SERVICE RISERS TO BE MAINTAINED OR MADE GOOD WHERE DISTURBED. NEW AND EXISTING CABLES, PIPES AND DUCTS PASSING THROUGH FIRE RESISTING ENCLOSURES TO BE PROTECTED BY THE CONTRACTOR AND EXISTING DUCT WORK PASSING THROUGH FIRE RESISTING CONSTRUCTION TO HAVE FIRE DAMPERS.

ANY WALL, CEILING LININGS TO BE TO BRICK/GAS (CLASS 0 EQUIVALENT).

CONTRACTOR AND SUPPLIERS OF SPECIALIST JOINERY/ EQUIPMENT TO ENSURE ALL TIMBER MATERIALS ARE TREATED WITH FIRE RETARDANT FINISH TO ACHIEVE CLASS 1 RATING. MGP TO BE A-CHE CLASS 1 RATED.

CONTRACTOR AND SUPPLIERS OF SPECIALIST EQUIPMENT TO PROVIDE FIRE RATING CERTIFICATES FOR ALL SPECIALIST LININGS AND LINAMENTS TO BE USED FOR NEW APPROVAL.

ALL PLANTS TO BE WATER BASED

ALL DIMENSIONS TO BE CHECKED ON SITE PRIOR TO ANY MANUFACTURE OR CONSTRUCTION OF EQUIPMENT, FINISH, SIGNAGE ETC.



Scale 1:100

REV	DATE	DESCRIPTION	DRAWN	CHECKED
A X I				
CLIENT				
ADDRESS : 41, 42A, 43A, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 78, 79, 80, 81, 82, 83, 84, 85, 86, 87, 88, 89, 90, 91, 92, 93, 94, 95, 96, 97, 98, 99, 100, 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, 122, 123, 124, 125, 126, 127, 128, 129, 130, 131, 132, 133, 134, 135, 136, 137, 138, 139, 140, 141, 142, 143, 144, 145, 146, 147, 148, 149, 150, 151, 152, 153, 154, 155, 156, 157, 158, 159, 160, 161, 162, 163, 164, 165, 166, 167, 168, 169, 170, 171, 172, 173, 174, 175, 176, 177, 178, 179, 180, 181, 182, 183, 184, 185, 186, 187, 188, 189, 190, 191, 192, 193, 194, 195, 196, 197, 198, 199, 200, 201, 202, 203, 204, 205, 206, 207, 208, 209, 210, 211, 212, 213, 214, 215, 216, 217, 218, 219, 220, 221, 222, 223, 224, 225, 226, 227, 228, 229, 230, 231, 232, 233, 234, 235, 236, 237, 238, 239, 240, 241, 242, 243, 244, 245, 246, 247, 248, 249, 250, 251, 252, 253, 254, 255, 256, 257, 258, 259, 260, 261, 262, 263, 264, 265, 266, 267, 268, 269, 270, 271, 272, 273, 274, 275, 276, 277, 278, 279, 280, 281, 282, 283, 284, 285, 286, 287, 288, 289, 290, 291, 292, 293, 294, 295, 296, 297, 298, 299, 300, 301, 302, 303, 304, 305, 306, 307, 308, 309, 310, 311, 312, 313, 314, 315, 316, 317, 318, 319, 320, 321, 322, 323, 324, 325, 326, 327, 328, 329, 330, 331, 332, 333, 334, 335, 336, 337, 338, 339, 340, 341, 342, 343, 344, 345, 346, 347, 348, 349, 350, 351, 352, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 367, 368, 369, 370, 371, 372, 373, 374, 375, 376, 377, 378, 379, 380, 381, 382, 383, 384, 385, 386, 387, 388, 389, 390, 391, 392, 393, 394, 395, 396, 397, 398, 399, 400, 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000				
PROJECT				
SALVIS				
UNIT 2B, DEANS GATE SQUARE				
MANCHESTER				
DRAWING REFERENCE				
GROUND FLOOR PLAN				
PROPOSED SHELL FITOUT				
JOB REFERENCE	DRAWING SCALE	DATE	DRAWN	CHECKED
20-039	1:100@A3		ARB	FWF
DRAWING No	STAGE	REV		
AXI 100		2		01

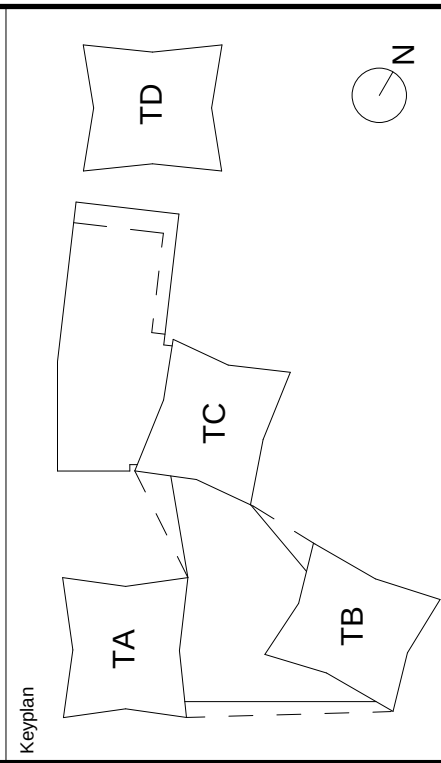
Appendix 2 Site plan highlighting retail unit 2B.

Document Reference Z1-SHP-G200-PL-GF-001-MODIFIED

RETAIL UNIT 2B

NOTE:
DO NOT SCALE OFF DRAWING REFER TO INDICATED DIMENSIONS ONLY.
DRAWING TO BE READ IN CONJUNCTION WITH SHIP SPECIFICATION.
INDICATIVE DETAILS TO ILLUSTRATE VISUAL INTENT ONLY. ALL TO CONTRACTORS DESIGN.
ALL DETAILS TO BE COORDINATED WITH ADJACENT TRADES AND SE AND M+E ENGINEER DETAILS.
THE CONTRACTOR IS RESPONSIBLE FOR MEETING THE SPECIFIED PERFORMANCE CRITERIA.

Phase 1 Delivery Zone



Project Title
Owen Street - Renaker ltd
Owen St., Manchester, UK

Drawing Title
Ground Floor - GA Plan

Final Issue

Job No	Scale	Date
7359	1 : 250 @ A1	03.06.16
Drawing No	Revision	
7359-Z1-SHP-G200-PL-GF-001	FI	

SimpsonHaugh
AND PARTNERS

MANCHESTER
Riverside, 4 Commercial St
Manchester M15 4RQ
+44 (0)161 835 2345
www.simpsonhaugh.com

LONDON
5-8 Roberts Place
London EC1R 0BB
+44 (0)20 7549 4000
mail@simpsonhaugh.com

© SimpsonHaugh and Partners 2016

NOTE:

This drawing is copyright
Do not scale off dimensions.
All dimensions to be checked on site by contractor.
Contractor to report any dimensional discrepancies,
errors or omissions prior to commencing on site.

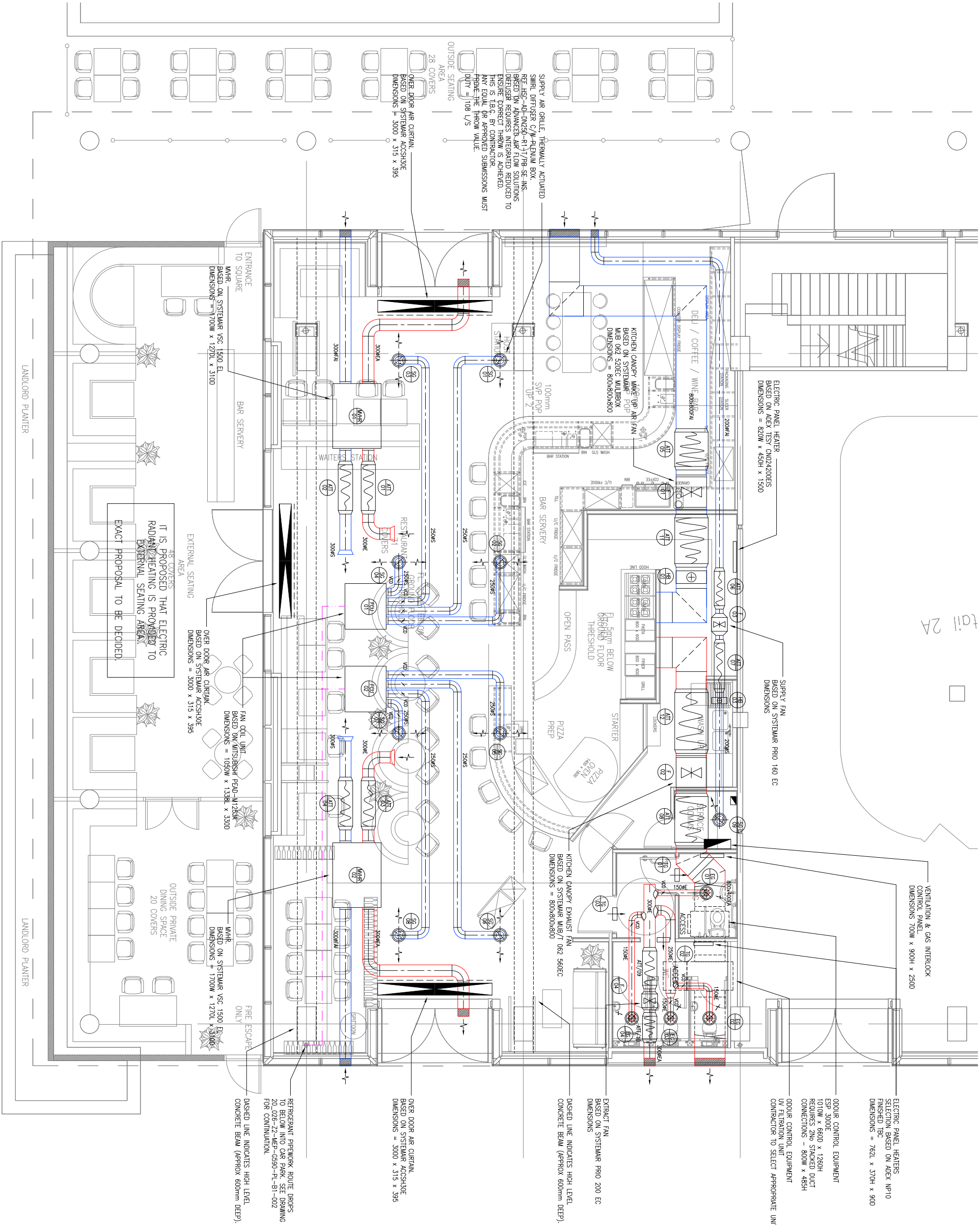
Date Stamp: 29/03/2019 08:28:55
 Local Creating No: Z1-SHP-G200-PL-GF-001
 File Path: C:\Source\Jassini\Documents\23_SHP_VV_MF_VV_e_jassini.nut

Appendix 3 Ventilation Layout Drawing (WIP)

Document Reference 20_027-Z2-MEP-G525-PL-GRD-001

- NOTES
- THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ALL OTHER DRAWINGS & DOCUMENTS PRODUCED BY MEP DESIGN.
 - PLEASE CONSULT WITH MEF ON 07927 806669 or on MEPDESIGN@MFLH.CO.UK.
 - THE CONTROL PANEL SHALL MONITOR THE FILTERS ON ALL THE FAN AND PROVIDE A LED SIGNAL IF THE FILTER REQUIRES CHANGING.
 - THE ODOUR CONTROL EQUIPMENT MUST BE SUITABLE TO MEET THE REQUIREMENTS FOR "HIGH LEVEL ODOR CONTROL REQUIREMENTS" ACCORDING TO BADA+ RISK ASSESSMENT, COMBINED WITH AN EXTRACT AIR VOLUME OF 2.3m³/s.

- LEGEND
- EXTRACT DUCTWORK.
 - SUPPLY DUCTWORK.
 - LOCAL CONTROLLER.
 - VOLUME CONTROL DAMPER.
 - CEILING FIXED EXTRACT VALVE.
 - RISE FROM BELOW.
 - RISE TO ABOVE.
 - DROP TO.
 - LOW LEVEL.
 - HIGH LEVEL.
 - CEILING VOID.
 - ROOF VOID.



Appendix 4 EMQA+ Risk Assessment for Odour Control

Appendix 3: Risk Assessment for Odour

Odour control must be designed to prevent odour nuisance in a given situation. The following score methodology is suggested as a means of determining odour control requirements using a simple risk assessment approach. The odour control requirements considered here are consistent with the performance requirements listed in this report.

Impact Risk	Odour Control Requirement	Significance Score*
Low to Medium	Low level odour control	Less than 20
High	High level odour control	20 to 35
Very high	Very high level odour control	more than 35

* based on the sum of contributions from dispersion, proximity of receptors, size of kitchen and cooking type:

Criteria	Score	Score	Details
Dispersion	Very poor	20	Low level discharge, discharge into courtyard or restriction on stack.
	Poor	15	Not low level but below eaves, or discharge at below 10 m/s.
	Moderate	10	Discharging 1m above eaves at 10 -15 m/s.
	Good	5	Discharging 1m above ridge at 15 m/s.
Proximity of receptors	Close	10	Closest sensitive receptor less than 20m from kitchen discharge.
	Medium	5	Closest sensitive receptor between 20 and 100m from kitchen discharge.
	Far	1	Closest sensitive receptor more than 100m from kitchen discharge ¹ .
Size of kitchen	Large	5	More than 100 covers or large sized take away.
	Medium	3	Between 30 and 100 covers or medium sized take away.
	Small	1	Less than 30 covers or small take away ¹ .
Cooking type (odour and grease loading)	Very high	10	Pub (high level of fried food), fried chicken, burgers or fish & chips. <i>Turkish, Middle Eastern or any premises cooking with solid fuel</i>
	High	7	Vietnamese, Thai, Indian, <i>Japanese, Chinese, steakhouse</i>
	Medium	4	<i>Cantonese, Italian, French, Pizza (gas fired),</i>
	Low	1	Most pubs (no fried food, mainly reheating and sandwiches etc), <i>Tea rooms¹</i>

TOTAL = 32,
PROJECT RISK = HIGH