Squared Ventures Ltd

UNIT 19 & BASEMENT LEVEL, ROYAL EXCHANGE ARCADE, MANCHESTER

Waste and Service Strategy

VN80965

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1 INTRODUCTION

1.1 Introduction

1.1.1 Vectos has been commissioned by Squared Ventures Ltd to provide a supporting statement on the waste and servicing arrangements for two separate change of use applications. The first proposing the change of use of unit 19 to A1 use (retail)/A3 use (café). The second proposing the change of use of the basement of the Royal Exchange Arcade to D2 (gymnasium) use.

1.1.2 This report forecasts the number of deliveries needed to serve the site and the arrangements for goods to be received and moved within the building. It also sets out the waste management strategy and predicts the various waste streams generated the development, the refuse storage provision and the recycling strategy for the café and gym.

1.2 The Royal Exchange

1.2.1 The Royal Exchange is a Grade II Listed building which forms part of the St Ann's Conservation Area that was designated on 29 July 1970 and was the first conservation area to be designated by the City Council.

1.2.2 The building consists of five main floors to parapet level and two storeys above parapet level. It extends to eleven storeys in total (sub-basement to seventh floor included). The units within the arcade, comprise a mix of number of A1 (retail) and A3 (café/restaurant) uses. Upper floors of the building are occupied by offices (B1 use).

1.2.3 Unit 19 is located in close proximity to the Cross Street entrance, located immediately to the right upon entering the shopping arcade from this direction. The unit is currently vacant, with the ground floor having been last occupied by a health and beauty salon (A2 use). The basement floorspace is also currently vacant, having been last occupied by a nightclub (sui generis use) until 1995.

1.3 Café

1.3.1 The layout of the proposed ground floor café is shown on **Dwg APM-3SQ-1001,** with the café's basement shown in **Dwg APM-3SQ-1002**. It is expected that approximately 40 covers will be accommodated.

1.3.2 The proposed hours of operation for the café is as follows:

- Monday to Friday 07:00 to 20:00;
- Saturday 08:00 to 19:00; and
- Sunday 08:00 to 18:00.

1.4 Gym

1.4.1 The proposed gym located at basement level is expected is expected to have a floor area of 975sqm. The proposed layout of the basement gym is shown on **Dwg APM-G2-1001**.

1.4.2 The proposed hours of operation for the gym is as follows:

- Monday to Friday 06:00 to 22:00
- Saturday 08:00 to 19:00
- Sunday 08:00 to 18:00

1.4.3 The **servicing strategy** sets out the movement of vehicles to and from the building and includes:

- Calculation of deliveries to the café and gym
- Service Strategy for goods to be delivered to the occupiers

1.4.4 The Waste and Servicing Strategy is accompanied by a Waste Proforma for both the café and gym and is provided in **Appendix A**.

1.4.5 The **waste strategy** sets out the means of recycling the material generated and sets out the:

- Forecast waste generation & recycling rates
- Proposed waste management strategy
- Proposed waste storage facilities
- Forecast refuse collection frequency

2 DELIVERY STRATEGY

2.1 Delivery Forecasts

2.1.1 It is forecast that the site would be served by up to one or two large rigid delivery lorries per week. There would then be a number of smaller vans making deliveries/private collections. We expect overall that there would be around 5 vehicles serving the site during the course of a day.

2.2 Café

2.2.1 For a café use we forecast around 2 food/consumables deliveries per day plus postal deliveries which would be a combined delivery to other businesses.

2.2.2 The majority of deliveries would be by vans which could be up to 3.5 tonne and 6m in length. There could well be a delivery by a large Chilled or Frozen delivery vehicle which could be a 7.5 tonne vehicle or depending on the supplier could potentially be a vehicle up to 17 tonnes and 10m in length.

2.3 Gym

2.3.1 For gym use we expect service vehicles to be generated by the site due to daily equipment, consumables drop-offs and postal deliveries. We therefore expect approximately 2 to 3 van deliveries per day

2.4 Total Daily Deliveries

2.4.1 The forecast number of delivery vehicles expected over the day by the type of use is given below in **Table 2.1.**

Service Vehicles	Vehicles per day
Café	2
Gym	3

Table 2.1: Daily Deliveries by land use

2.4.1 Typically most deliveries are small consignments and observations from other sites show that 40% of all deliveries take less than 5 minutes.

2.4.2 Many of these delivery vehicles will already be on the highway serving premises as part of a delivery round. The locality has numerous occupiers that sell food and drink similar to that expected at the Royal Exchange. There are also other common delivery types such as post, couriers, sanitation as well as waste collection in which the wider area is managed.

2.5 Proposed Delivery Strategy

2.5.1 Deliveries would take place via the existing vehicle entrance located on Old Bank Street. Service vehicles are expected to travel down Half Moon Street in order to make deliveries and collect refuse.

2.5.2 The service vehicles will use the vehicle lift in order to access sub-basement level once they have entered the Royal Exchange building. The existing service vehicle entrance is shown in **Figure 2.1**, with the service vehicle route being shown in **Figure 2.2**.

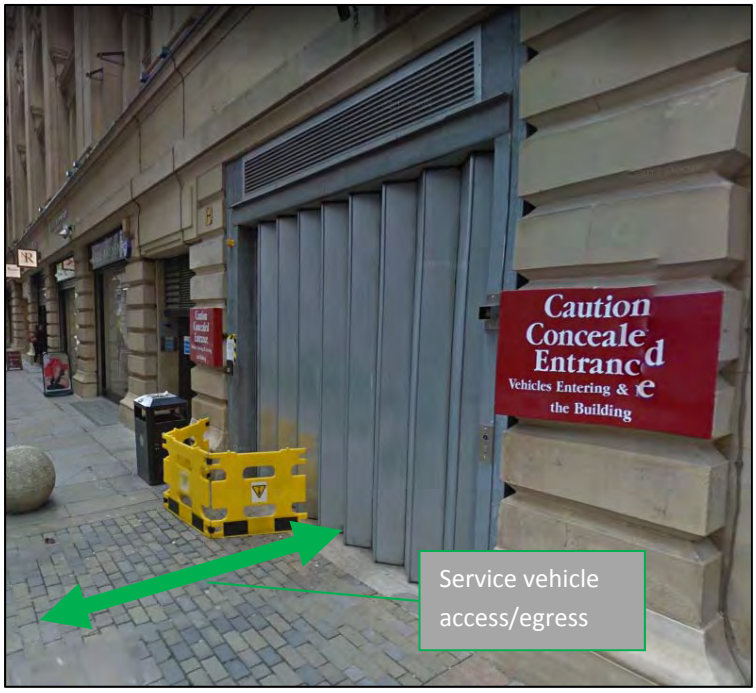


Figure 2.1: Existing Servicing Location Entrance

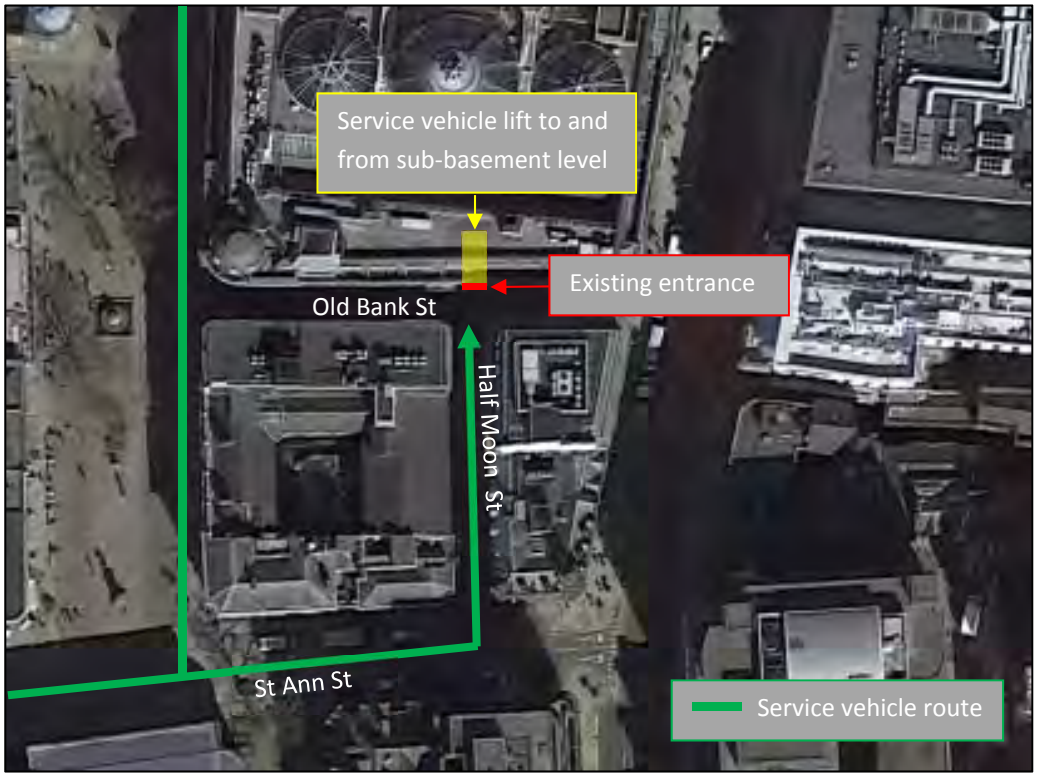


Figure 2.2: Service Vehicle Route

2.5.3 Refuse and service vehicles will serve the site by use of an exisitng route used by refuse vehicles serving nearby proporties. This route involves a refuse vehicle reversing down Half Moon Street, as shown on **Figure 2.3**. Service vehicles generated by the site will be able to reverse straight into the building where they will be able to directly access the service vehicle lift in order to drop off goods and collect waste from sub-basement level.

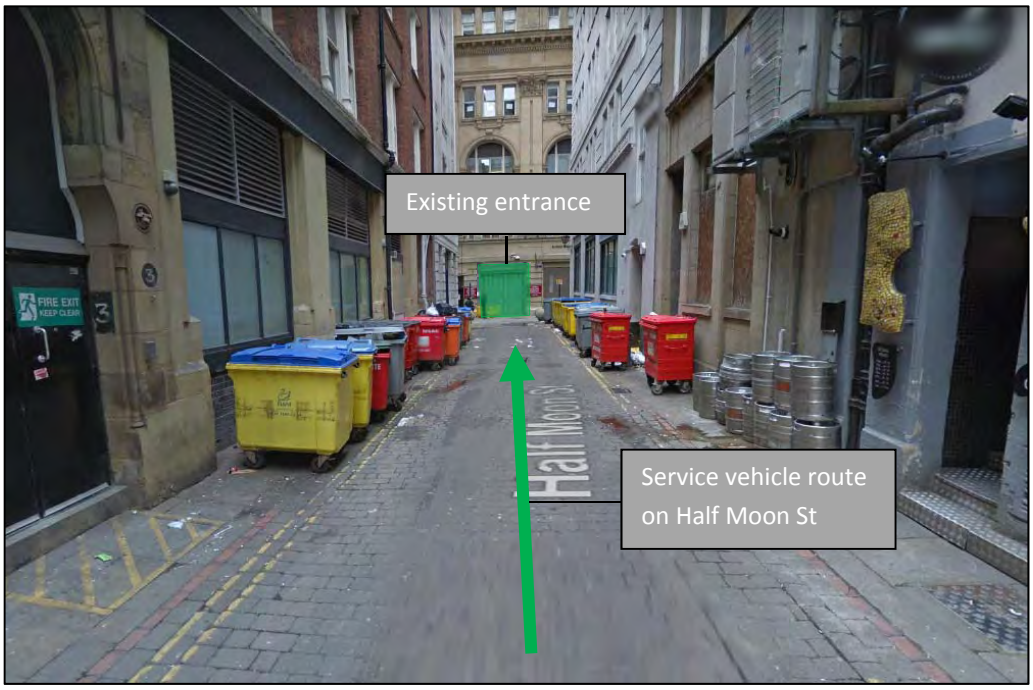


Figure 2.3: Service Vehicle Route

2.5.4 It is also noted that the existing highway network provides off-street short stay parking for goods vehicles, as shown in **Figure 2.4**.



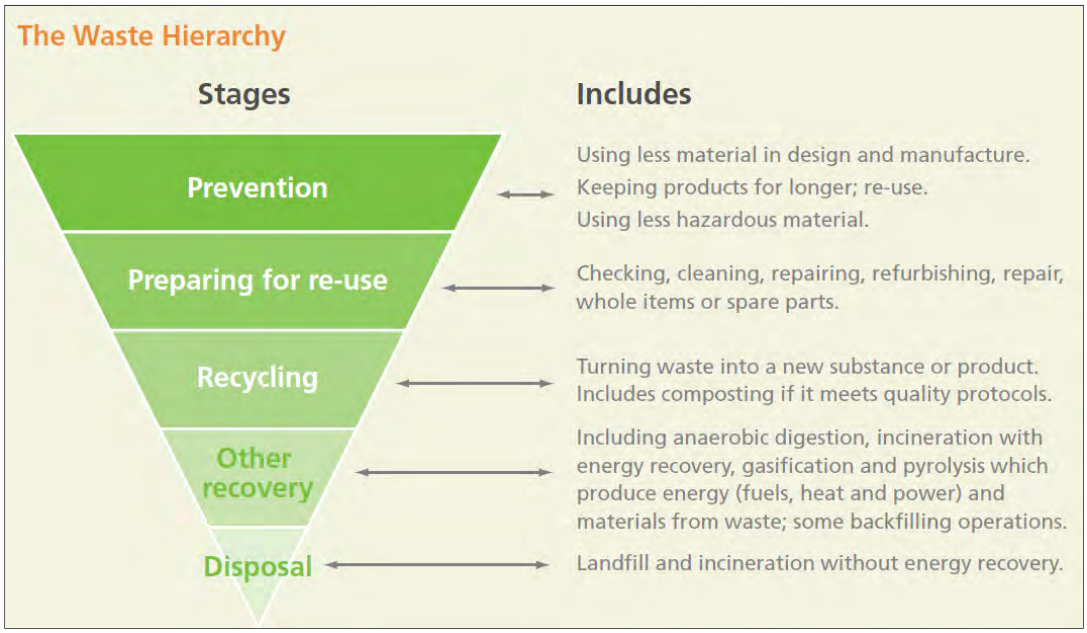
Figure 2.4: Existing Service Vehicle Provision

3 WASTE POLICY CONTEXT

3.1 Introduction

3.1.1 The Royal Exchange Arcade lies within the City of Manchester. They have published guidance on the design and management of buildings to produce waste management strategies that maximise the amount of waste that is recycled. To achieve high recycling rates, it states that all refuse should be separated at source and stored off the highway in purpose-built refuse stores minimising the distance to collection thus reducing the opportunity for spillage.

3.1.2 Central Government's strategy for minimising waste generation and its transfer to landfill is most simply described according to the 'Waste Hierarchy' as shown below. Interventions are needed in all stages of the process to minimise waste going to landfill. The minimisation of waste and recycling interventions by occupiers and the management company for the Royal Exchange can help meet the government's aspirations.



3.1.3 The waste collection would be overseen by the developer who will operate and manage the building. They would appoint a licensed waste carrier to remove the waste. The management company would have responsibility to ensure the internal and external areas are kept clean and to move the bins in coordination with the occupiers.

3.1.4 All new developments must meet the requirements of Part H6 of the Building Regulations 2000 (solid waste storage) which states:

- Adequate means of storing solid waste shall be provided;
- Adequate means of access should be provided for people in the building to the place of storage, and, from the place of storage to a collection point agreed by the waste collection authority, Manchester City Council.

3.1.5 A record is kept of all waste received or transferred via the licensed carrier through a system of signed Waste Transfer Notes.

3.1.6 Food Waste is subject to the animal by-products controls. Developments which generate food waste will have to comply with the requirements of the 'Animal By-Product' Regulations (Defra 2011). This may have implications for the types of containers and collections made depending on the nature of the occupier.

3.1.7 The site also aims for BREEAM Excellence and for waste management. This states that a minimum area of 10 sqm be available for recycling. This criteria is exceeded by some considerable margin with the various waste streams sorted into different bins. The calculation of the storage requirements for the various bins is described further within the report.

4 WASTE FORECAST

4.1 Introduction

4.1.1 The land uses associated with this development comprise a café and a gym. The forecast waste expected to be generated form these land uses are now described.

4.1.2 The waste forecast for the various land uses are derived from BS5906:2005 and is also informed by other surveys of developments in Manchester undertaken by Vectos.

4.2 Forecast Café Waste Volumes

4.2.1 The forecast for the volume of waste collection can vary depending on the type of facility. The British Standard BS 5906:2005 makes its forecast of 75 litres per week per cover for restaurants which is taken as a robust assumption. The café will accommodate approximately 40 covers and will be situated on the ground floor of Unit 19 within the Royal Exchange Arcade. This therefore results in the following waste forecast:

40 covers x 75 litres per week = 3,000 litres per week

4.2.2 Based on the 'WRAP Study of Waste in the Hospitality Sector' the proportions of waste result in the following proportions shown in **Table 4.1**:

Café Waste Streams	Percentage	Litres of Waste Per Week	Litres of Waste Per Day (x5 collections)
General Waste	10%	300	60
Pulpable Paper/Card	22%	660	132
Mixed Recyclables (Glass/Metal/Plastics)	28%	840	168
Food Waste	40%	1,200	240

Table 4.1: Cafe Waste Streams

4.2.3 We expect that there will be food waste generated which needs to be covered by the Animal By-Products (Enforcement) (England) Regulations 2011. If that is the case and the volumes of waste are greater than 20kg then such waste needs to be stored in a labelled container and collected by a licensed carrier and records kept.

4.3 Gym Waste Forecast

4.3.1 The gym will have an approximate floor area of 975sqm and will be situated on the basement level of Unit 19 within the Royal Exchange Arcade.

4.3.2 Gyms can vary in the volume of waste they produce based on size and intensity of use. Given the floor area of the gym along with its entrance lounge, office and changing rooms, waste calculations have been based on the assumption of 200 litres per day.

4.3.3 The weekly forecast of waste generation is therefore as follows:

200 litres of waste per day = 1,400 litres per week

4.3.4 The proportions of waste result in the following proportions shown in **Table 4.2**:

Gym Waste Streams	Percentage	Litres of Waste Per Week	Litres of Waste Per Day (x5 collections)
General Waste	40%	560	112
Pulpable Paper/Card	25%	350	70
Mixed Recyclables (Glass/Metal/Plastics)	25%	350	70
Food Waste	10%	140	28

Table 4.2: Gym Waste streams

Table 4.2: Gym Waste Streams

4.4 Recycling Forecasts

4.4.1 The aim of the waste strategy is to divert as much waste as practical from landfill. The forecast recycling rates are derived from WRAP (Waste Resource Action Programme) Studies. To facilitate good recycling behaviour the café and gym will be provided with adequate bins/ containers that accord with the main collection waste streams for disposal. Those waste streams are:

- General Refuse = 3x 75ltr sacks per day to general bin store
- Paper / Card = 3x 75ltr sacks per day to general bin store
- Co-Mingled (Recyclable Plastic, Metal) = 4x 75ltr sacks per day to general bin store
- Organic (Food) Waste = 4x 75ltr sacks per day to general bin store

4.5 Café Waste Strategy

4.5.1 The café will have under the counter bins for the public which are separated into general waste and co-mingled recyclable waste. The staff will have also have bins behind the servery areas and also within the food preparation areas for general waste, food waste (including coffee grounds), co-mingled and glass. In reference to the Manchester Royal Exchange Tenants Handbook, waste will not be mixed not mixed and will therefore not risk being contaminated.

4.5.2 As shown in the attached Waste Proforma, waste would be collected in those bins at ground level and transported in sacks by staff to the basement level refuse store where waste storage will be shared with the gym. Once café waste has been transported to the sub-basement level, refuse is then transferred by internal Manchester Royal Exchange (MRE) staff to the loading bay / main disposal area and returned.

4.5.3 From this point the refuse vehicle will access the waste by using the existing access on ground floor level and then use the service vehicle lift to access the sub-basement level where it will collect the waste and head back out via the ground floor level.

4.5.4 Should this café generate sufficient cooking oil waste then that waste would be stored in appropriate containers in the kitchen area and collected by a specialist recycler.

4.5.5 The waste management company may specify different waste streams depending on the nature of their operation and recycling capability but in summary the waste streams can be segregated into four categories:

- Site segregated glass - i.e. separate glass bin collections
- Site segregated recyclables - this includes card, plastic bottles
- Non-segregated recyclates – This is likely to be recycled off site at a Materials Recycling Facility
- Refuse Derived Fuel (RDF) – this is the amount of waste (such as cooking oil) sent to RDF Production Facilities.

4.6 Gym Waste Strategy

4.6.1 The gym will provide bins for users to deposit waste into on the gym floor. The waste is expected to be largely plastic bottles and snack packaging which will be collected in general waste and co-mingled bins.

4.6.2 Similarly to café waste and also shown in the attached Waste Proforma, gym waste will be transported to the basement level refuse store. Refuse is then transferred by internal MRE staff to the loading bay/main disposal area and returned.

4.6.3 Again, from this point the refuse vehicle will access the waste by using the existing access on ground floor level and then will use the service vehicle lift to access the sub-basement level where it will collect the waste and head back out via the ground floor level.

4.6.4 The service vehicle will then leave the building and travel back onto Old Bank Road / Half Moon Street.

4.7 WRAP Compliance

4.7.1 The government has initiated a number of waste minimisation and recycling initiatives. Notably they include the Hospitality and Food Service Agreement (HaFSA) from careful ordering, menu planning, using nose to tail preparation, portion sizing and auditing the returns waste amongst others.

4.7.2 It is expected that the occupier of the café be a signatory to the HaFSA and seek to employ best practice in minimising waste.

http://www.wrap.org.uk/sites/files/wrap/HaFSA_signatory_pack_SEPT_2014.pdf.

4.7.3 Of the 920,000 tonnes of food waste thrown away each year three quarters could have been eaten. In addition 56% of packaging and other 'non-food' waste that is thrown away could have been readily recycled.

4.7.4 The WRAP targets for recycling are to achieve a minimum of 70% recycling rates for the hospitality sector and with good practice employed it is expected that recycling rates of 70% can be achieved for the café at the Royal Exchange Arcade.

4.8 Manchester Royal Exchange Compliance

4.8.1 Both the café and the gym will comply with guidance from the Manchester Royal Exchange and sacks that will store waste will be in Manchester Royal Exchange allocated white / transparent sacks. Manchester Royal Exchange will provide these sacks and the operators of the café and gym will comply with their request to do so. The sacks are the same sacks as currently in circulation and are used by all the other current tenants at the Royal Exchange Arcade.

5 REFUSE STORAGE AND COLLECTION

5.1 Refuse Store Sizing

5.1.1 The size of the Basement bin store has been considered against the level of demand identified in Section 4 above. In practice there will be a daily collection for the higher generating waste streams.

5.1.2 The overall recycling rates for the ground floor and basement level uses are now given. Based on the above combined waste generation from the café and gym within Unit 19, it is assumed that the occupiers will take 5 collections per week. Based on the recycling rates, this equates to the following refuse storage:

Combined Café/Gym Waste Streams	Weekly total
• General Refuse	= 860 litres
• Paper Card	= 1,010 litres
• Co-Mingled (Metal/Plastic)	= 1,190 litres
• Organic	= 1,340 litres

5.1.3 Translating the expected waste generated by the café and gym in Unit 19 into a total bin requirement is given below together with a frequency of collection.

Unit 19 Total Bin Store Requirement and Collection Frequency

• General Refuse	= 1x Eurobins
• Paper Card	= 1x Eurobins
• Co-Mingled (Metal/Plastic)	= 1x Eurobins
• Organic	= 2x 240ltr bins

5.3 Main refuse store on sub-basement level

5.3.1 The refuse store on the basement level will be used to deposit waste sacks generated by the café and gym. These waste sacks will then be carried down to sub-basement level and then wheeled to the main refuse store.

5.3.2 The main refuse store and allocation of bins for each waste stream generated by the café and gym are shown in **Figure 5.1** below. This area may include bins for other tenants.

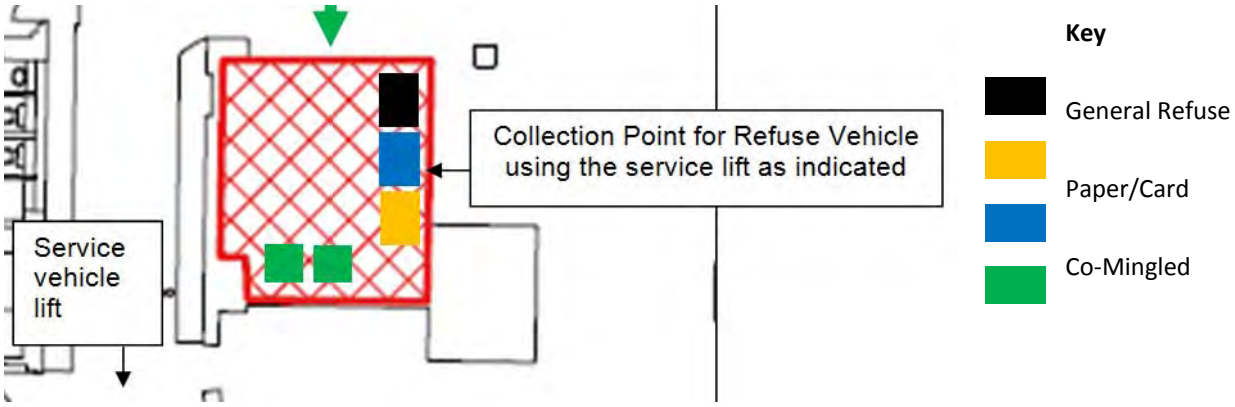


Figure 5.1 Gym Bin Store Sizing and Allocation of Bins (Main Refuse Store)

5.4 Waste Collection

5.4.1 The Royal Exchange Arcade Management will contract a licensed operator to collect the waste. Royal Exchange Arcade Management would have responsibility to ensure bins are taken out for collection and returned immediately after although they may contract the waste operator to undertake that task. The Royal Exchange Arcade Management will ensure that the refuse areas and waste transfer routes are kept clean and uncluttered.

5.4.2 Refuse for Unit 19 will be collected out of office hours but not before 07:00.

5.4.3 Depending on the waste generated and the level of activity over the weekend at the café and gym there may need to be a General Refuse collection on a Saturday.

5.4.4 The waste transfer routes for both the café and gym are shown in **Figure 5.2** below and are displayed in more detail in the attached Waste Proforma.

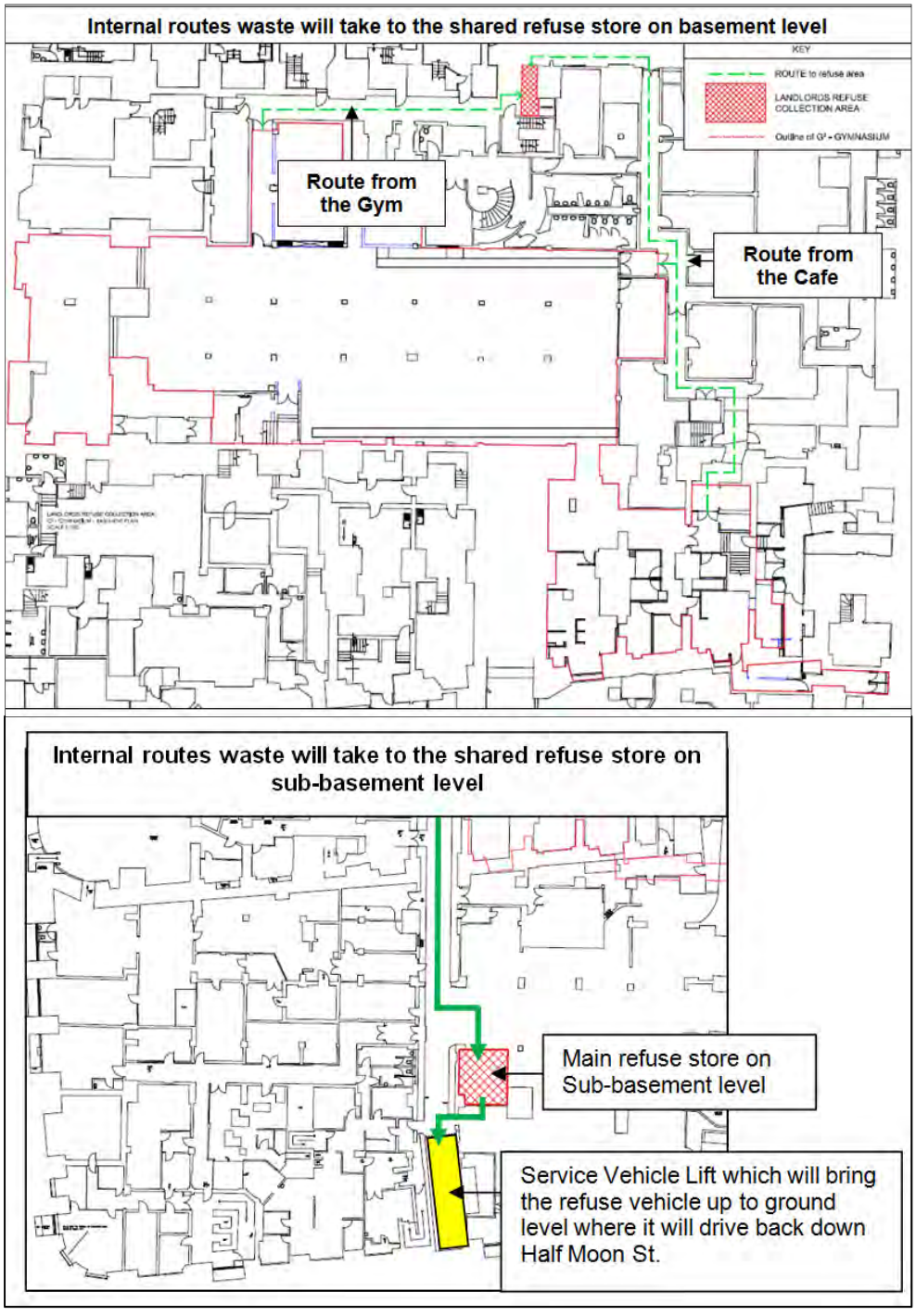


Figure 5.2: Unit 19 Waste Transfer Routes

6 CONCLUSIONS

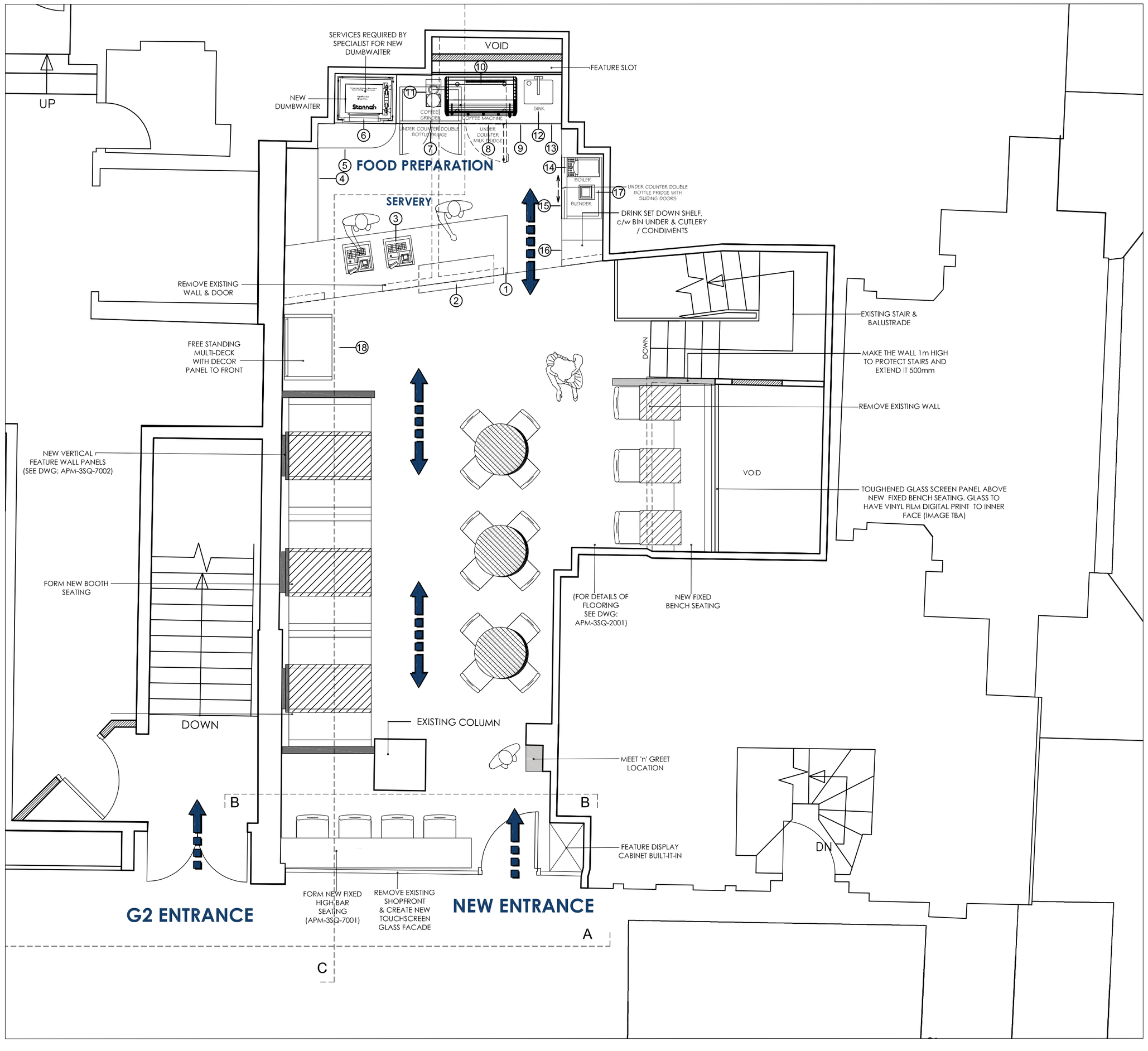
6.1 Conclusion

6.1.1 This document sets out the Waste Management and Servicing for development at Unit 19 of the Royal Exchange Arcade. It has calculated the service vehicle generation for the various premises on the site and established that the proposed provision is suitable to meet demand.

6.1.2 The document also calculates the likely waste generation for each land use proposed within Unit 19, the recycling strategy and the storage requirements for bins. It describes how these will be collected and the movements of vehicles to access those.

6.1.3 It is concluded that the forecast deliveries, waste management and refuse collection proposed is appropriate for this scale of development and that servicing and waste collection can be undertaken in an efficient manner.

DRAWINGS



PROPOSED GENERAL ARRANGEMENT LAYOUT PLAN
3 SQUARED - GROUND FLOOR
SCALE 1:50

DRAFT ISSUE

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ALL LIGHTING TO BE DIMMABLE WHERE POSSIBLE

GENERAL FLOORING NOTES
ALL FLOOR FINISHES TO BE SUITABLY HEAT WELDED AT ALL JOINTS, ALL SUB FLOOR TO BE CHECKED, BY CONTRACTOR, FOR SUITABILITY OF PRODUCT, DAMPNESS LEVELS & ALL MATERIALS TO BE STRICTLY LAID IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS USING RECOMMENDED WATERPROOF ADHESIVE ONLY.

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B	NP	Changes to Layout	19.10.2017
A	NP	Changes to Layout	25.08.2017

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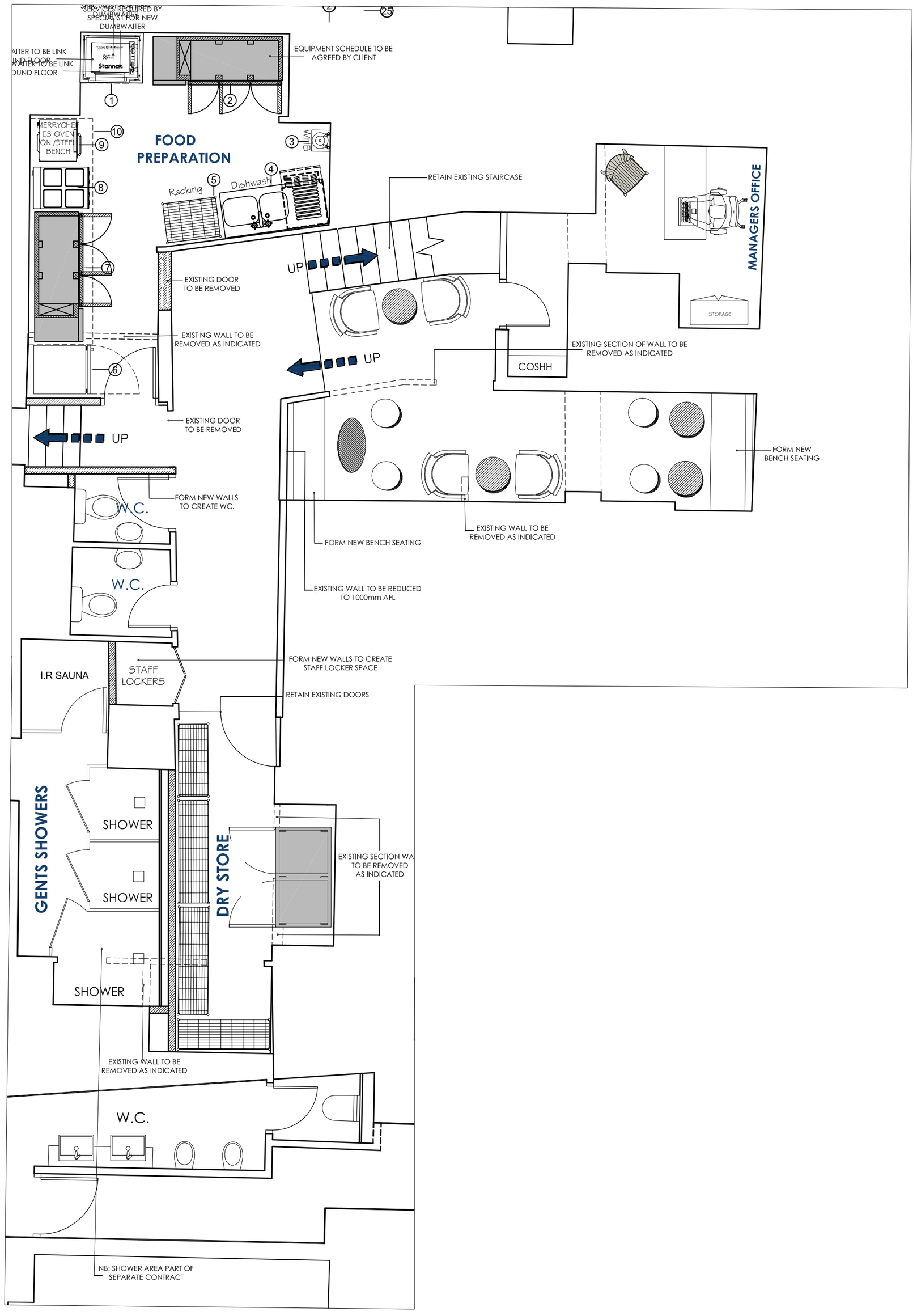
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AMENDMENTS : — DATE :

TITLE :
PROPOSED GENERAL ARRANGEMENT PLAN
GROUND FLOOR PLAN

PROJECT :
3 SQUARED
ROYAL EXCHANGE MANCHESTER

SCALE :	DRAWING NUMBER :	REVISION :
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PROPOSED GENERAL ARRANGEMENT LAYOUT PLAN
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ALL LIGHTING TO BE DIMMABLE WHERE POSSIBLE

GENERAL FLOORING NOTES
ALL FLOOR FINISHES TO BE SUITABLY HEAT WELDED AT ALL JOINTS, ALL SUB FLOOR TO BE CHECKED, BY CONTRACTOR, FOR SUITABILITY OF PRODUCT, DAMPNESS LEVELS & ALL MATERIALS TO BE STRICTLY LAID IN ACCORDANCE WITH MANUFACTURERS INSTRUCTIONS USING RECOMMENDED WATERPROOF ADHESIVE ONLY.

REV	BY	DESCRIPTION	DATE
B	NP	Changes to Layout	19.10.2017
A	NP	Changes to Layout	25.08.2017

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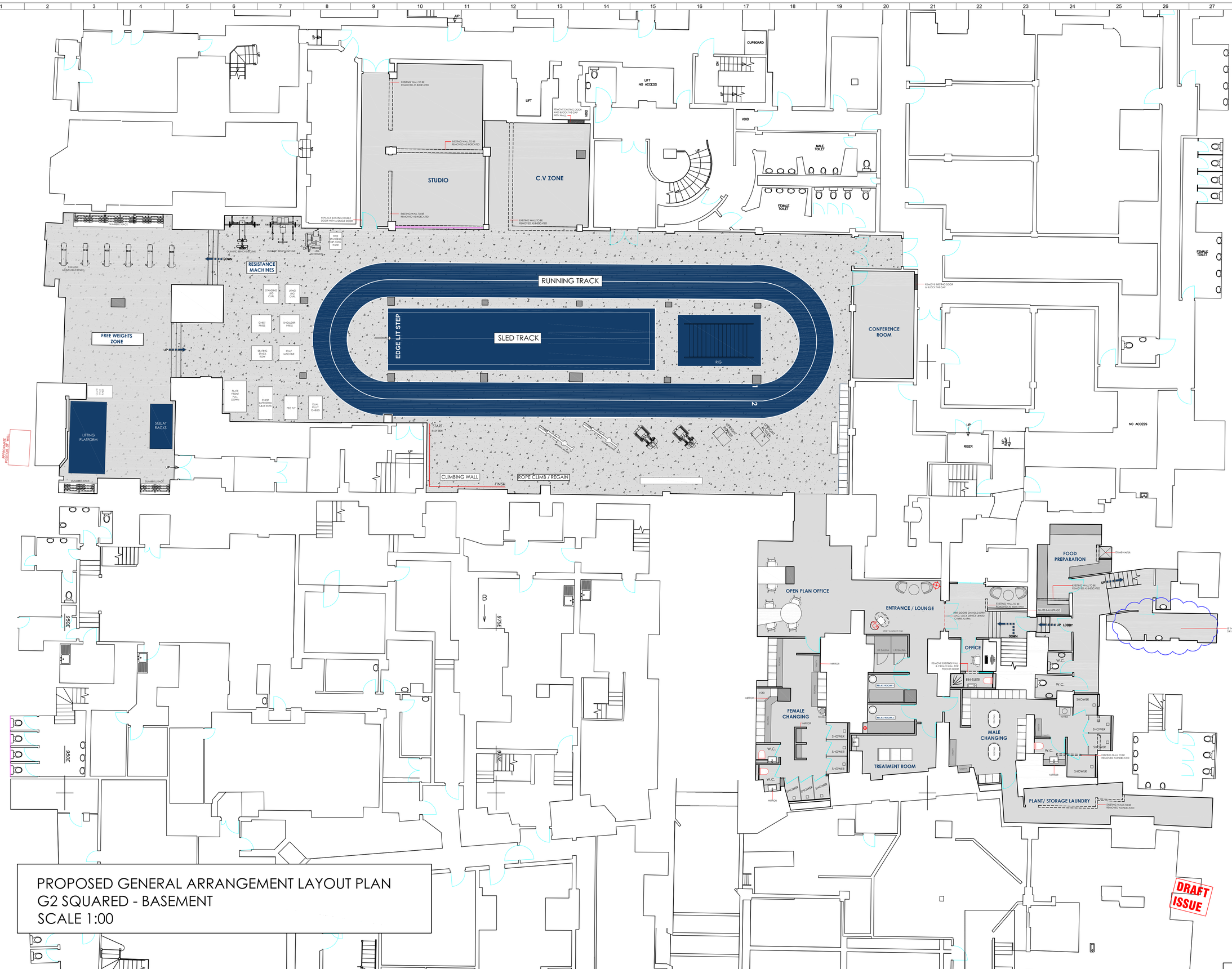
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DRAWN BY :	NAME :	DATE :
	NP	22.08.2017
AMENDMENTS :		DATE :

TITLE :
PROPOSED GENERAL ARRANGEMENT PLAN
BASEMENT

PROJECT :
3 SQUARED
ROYAL EXCHANGE MANCHESTER

SCALE :	DRAWING NUMBER :	REVISION :
1:50@A2	APM-3SQ-1002	-



PROPOSED GENERAL ARRANGEMENT LAYOUT PLAN
G2 SQUARED - BASEMENT
SCALE 1:00

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	NP	22.08.2017
AMENDMENTS :		DATE :

TITLE :
Proposed Layout arrangment
Basement

PROJECT :
G2 SQUERED
Royal Exchange Manchester

SCALE :	DRAWING NUMBER :	REVISION :
1:100@A1	APM-G2-1001	A

APPENDICES

APPENDIX A – WASTE PROFORMA

Squared Ventures Ltd

UNIT 19 & BASEMENT LEVEL, ROYAL EXCHANGE ARCADE, MANCHESTER

Waste Management Strategy
Addendum Report

VN80965

February 2018

REPORT CONTROL

Document:	Waste & Service Strategy Addendum Report
Project:	Unit 19 & Basement Level, Royal Exchange Arcade, Manchester
Client:	Squared Ventures Ltd
Job Number:	VN80965
File Origin:	N:\Vectos Job Data\2018\VN80965 Royal Exchange, Manchester\Docs\Reports\Waste & Servicing Strategy

Document Checking:

Primary Author	Elliot Read	**Initialled:**	ER
Contributor	Elliot Read	**Initialled:**	ER
Review By	Gareth Davis	**Initialled:**	GD

Issue	Date	Status	Checked for Issue
1	02/02/2018	V1	GD
2			
3			
4			

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1.2 Proposed Uses 4

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UNIT 19, ROYAL EXCHANGE ARCADE - WASTE PROFORMA

1.1 Introduction

1.1.1 Vectos has been commissioned by Squared Ventures Ltd to provide a supporting statement on the waste and servicing arrangements for two separate change of use applications. The first proposing the change of use of unit 19 to A1 use (retail)/A3 use (café). The second proposing the change of use of the basement of the Royal Exchange Arcade to D2 (gymnasium) use.

1.1.2 This report forecasts the number of deliveries needed to serve the site and the arrangements for goods to be received and moved within the building. It also sets out the waste management strategy and predicts the various waste streams generated the development, the refuse storage provision and the recycling strategy for the café and gym.

1.1.3 This combined strategy is considered essential in reducing the number of refuse vehicles arriving. In effect a refuse vehicle will conduct a collection round picking up at the various collection points.

1.1.4 It is therefore considered essential that this Addendum be considered within the context of the Waste and Servicing Strategy submitted with the application, which encapsulates the information included within the attached report and accurately reflects how Unit 19 will operate.

1.2 Proposed Uses

1.2.1 The proposed cafe will accommodate 40 covers and will have an approximate floor area of 186 sqm, with the gym having a floor area of 975 sqm.

1.2.2 The report next presents a completed Waste Pro forma as described in Manchester City Council's **Appendix E** for Planning Applications and goes onto predicting various waste streams generated by the occupiers of the café and gym, the refuse storage provision and sets out the strategy for minimising and the collection of waste.

WASTE PRO FORMA

MANCHESTER CITY COUNCIL

Planning Application – Waste Management Strategy

Planning Application Number: **PP-06506753**
Date Submitted: **February 2018**

Estimated volumes / m² required by the development

Low Rise Domestic

Waste Types	(V) Volume of Waste Generated	Capacity Required (litres)	Number of Bins required	Number of Bins proposed by applicant
General refuse	V = N x 110	V =	V / 1100 =	
Pulpable Recycling	V = N x 55	V =	V / 1100 =	
Mixed Recycling	V = N x 55	V =	V / 1100 =	
Food Waste	V = N x 5	V =	V / 240 =	

High Rise Apartment Developments

	Yes/No – how much space has been provided?
0.43m² has been provided per apartment for the container space. Space to manoeuvre and access containers individually has also been provided so that each container can be accessed and removed for collection individually.	N/A

Commercial Developments

Please state number of bins you propose, showing calculations where appropriate.

Café and Gym Waste

Waste is to be collected 5 times per week. Based on this level of collection, the main refuse store will have sufficient space to store the required amount of waste containers outlined below:

3 x1100 litre Eurobins
2 x 240 litre bins

Waste Assumptions

Café

The restaurant units are assumed to generate waste at 75 litres per cover per week based on BS5906:2005.

Gym

Given the floor area of the gym along with its entrance lounge, office and changing rooms, waste calculations have been based on the robust assumption of 200 litres per day.

Waste Calculations

Café Waste

The forecast for the volume of waste collection can vary depending on the type of facility. The British Standard BS 5906:2005 makes its forecast of 75 litres per week per cover. The café will accommodate approximately 40 covers and will be situated on the ground floor of Unit 19 within the Royal Exchange Arcade. This therefore results in the following waste forecast:

40 covers x 75 litres per week = 3,000 litres per week

It is expected that the café will look for regular collections. Assuming that the occupier will choose 5 collections per week then the storage requirements is for approximately 2x 240litre bins and 4x 1100litre Eurobins. The operator will store the bins within their own demise.

Gym Waste

The gym will have an approximate floor area of 975sqm and will be situated on the basement level of Unit 19 within the Royal Exchange Arcade. Gyms can vary in the volume of waste they produce based on size and intensity of use. Given the floor area of the gym along with its entrance lounge, office and changing rooms, waste calculations have been based on the assumption of **200 litres per day**. The weekly forecast of waste generation is therefore as follows: 200 litres of waste per day = **1,400 litres per week**

Recycling of Waste

The recycling proportions and associated volume of waste produced by the café is presented below:

Café Waste Streams	**%**	**Ltrs Per Week**	**Per Day (x5 collections)**
General Waste	10%	300	60
Pulpable Paper/Card	22%	660	132
Mixed Recyclables (Glass/Metal/Plastics)	28%	840	168
Food Waste	40%	1,200	240

Gym Waste Streams	**%**	**Ltrs Per Week**	**Per Day (x5 collections)**
General Waste	40%	560	112
Pulpable Paper/Card	25%	350	70
Mixed Recyclables (Glass/Metal/Plastics)	25%	350	70
Food Waste	10%	140	28

Recycling Forecast

Based on the recycling rates, this equates to the following refuse storage:

General Refuse = 3 sacks per day to general bin store

Paper / Card = 3 sacks per day to general bin store

Co-Mingled (Recyclable Plastic, Metal)	= 4 sacks per day to general bin store
Organic (Food) Waste	= 4 sacks per day to general bin store
	Note: each sack has a capacity of 75ltrs

Has / will a contract be obtained with a licenced waste carrier?	**Y**

Mixed Use Developments

Are the stores for residential and commercial separate from each other?	**Y**

Internal Stores

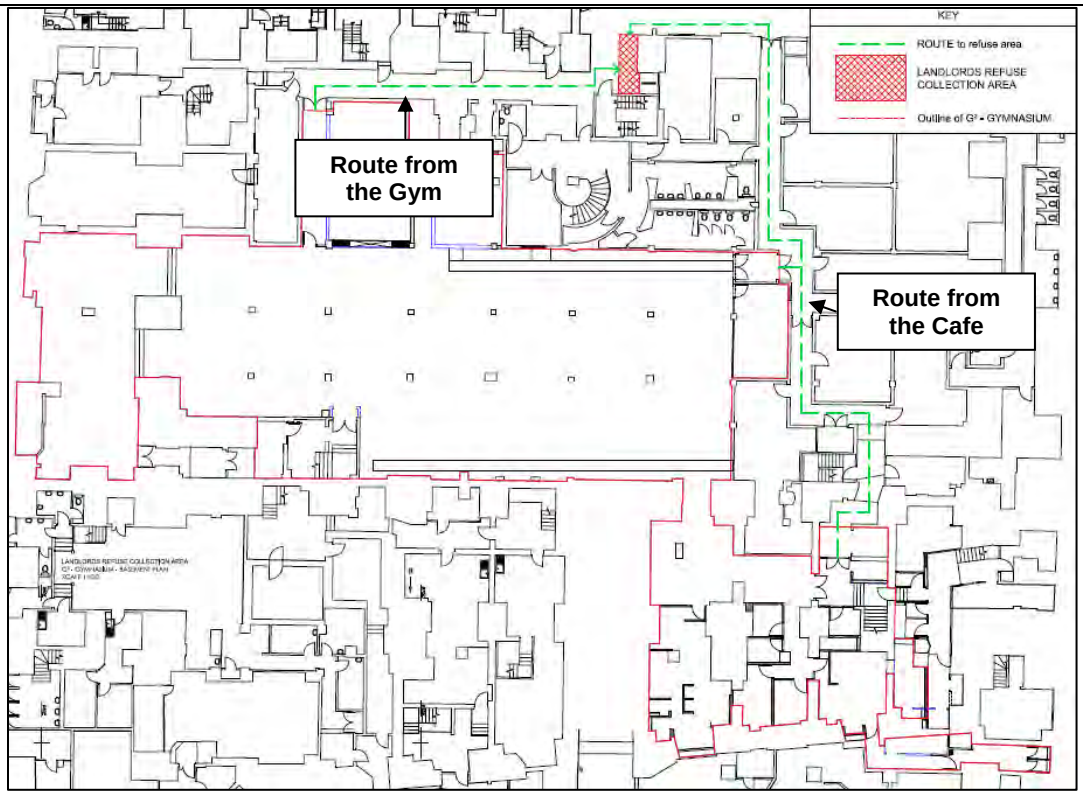
Please provide details of internal stores / segregation of waste and recycling.

Café & Gym

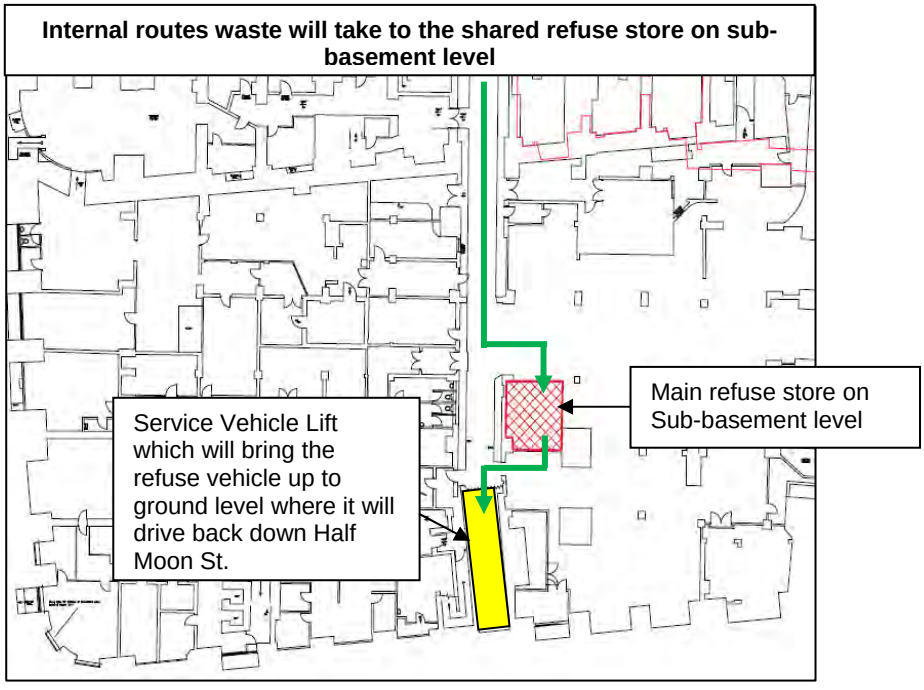
The commercial occupiers of Unit 19 would all initially have bins stores within their own demise. They would typically have bins for general refuse, paper/card, co-mingled recyclables (glass/metal/plastic) and organic waste.

An internal refuse store is provided on basement level, as indicated on the plan below. This refuse store will be used to accommodate both café and gym waste sacks before they are taken down to sub-basement level.

Waste from this internal refuse store will then be transferred to the main refuse collection area in the sub-basement adjacent to the buildings southern elevation. Refuse vehicles enter the building and use the service vehicle lift which allows them to gain access to the sub-basement/ground floor level.



Once refuse is been transported to the sub-basement level, waste is then transferred by internal MRE staff / contract company to the loading bay / main disposal area and returned. From the main refuse collection area at sub-basement level, there is a vehicle lift that the refuse trucks access & travel down into the sub-basement from ground floor level and pick the main refuse and back up the lift and out the building



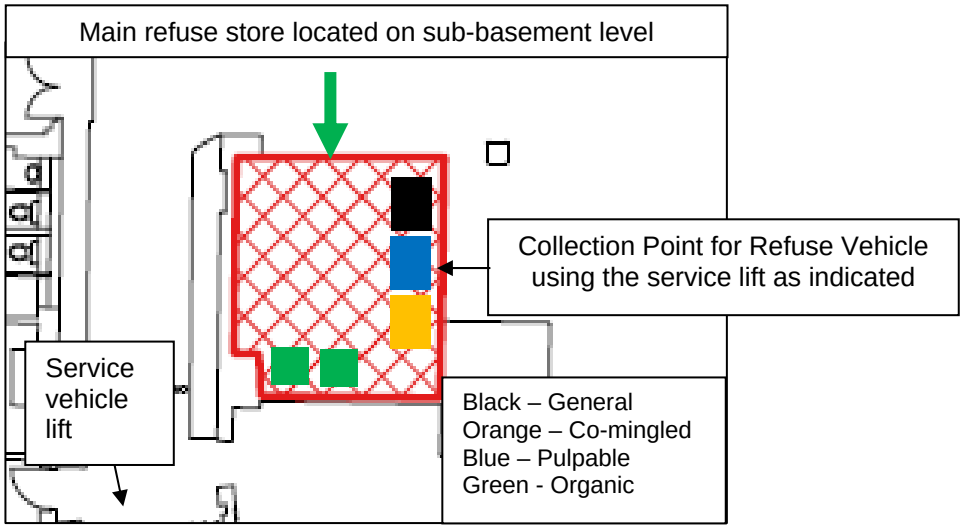
It will be the responsibility of the occupier to separate the waste at source and put that into the appropriate bin. That waste would then be transferred to the bin store by the occupier's staff or their cleaner under their direction. This transfer of waste will be undertaken using wheeled bins for ease of movement and to contain any refuse.

Storage Areas for Waste Containers

Please provide details of container stores, attaching plans if appropriate.

As previously shown, waste generated by the café and gym at Unit 19 will be stored within the internal refuse store on basement level and then transport to the main refuse store on sub-basement level where it then waits to be collected by the refuse vehicle via the service vehicle lift.

The collection of waste is therefore acheieved within the demise of the building and the refuse vehicles are fully loaded before they access the highway. No bins generated by the development will therefore be left on-street.
The plan below shows the areas where waste will be stored in Unit 19.



The attached plan also shows the route in which bins will be taken to their collection points. Once bins have been taken to the main collection point on sub-basement level they will then be taken by the refuse vehicle.

Bins would be brought out immediately prior to collection and returned immediately after. This process may be undertaken by the waste operatives ensuring that the bins are not left out on street.

Please confirm details of waste store ventilation and hygiene / cleaning proposals

The café and gym will be cleaned regularly nightly by staff within the Royal Exchange Arcade. Cleaning procedures will be fulfilled on a nightly, weekly, monthly, or semi-annual basis, depending on the scope of work of the specific task. Food waste and other rubbish will be placed in containers and waste will be disposed where appropriate as previously outlined. Containers will be of appropriate construction, kept in sound condition, and will be easily cleaned / disinfected. Adequate facilities will be used for storing and disposing waste. Stores for waste will be managed in a way that enables them to be kept clean. Waste will be disposed of in a hygienic and environmentally-friendly way, in accordance with legislation. The waste will therefore not be a direct or indirect source of contamination (e.g. touching surfaces that food is prepared on, or attracting pests).

Are all bins in the store accessible?	**Y**
Are recycling facilities as easy to access as general refuse?	**Y**
Has consideration been given to ventilation and hygiene?	**Y**

Please provide details of who will be responsible for placing the bins at the collection point and returning them to the store / property promptly e.g. resident / Management Company

The Management Company has responsibility to transfer the bins to the collection point but may employ the Refuse Collection operators to undertake this operation. The bins would be taken out immediately prior to and returned immediately after collection.

Please ensure that you have attached:

Detailed plans of waste stores	**Y**
Location plans showing stores	**Y**
Location plans showing the proposed collection point and the route the collection vehicle will take	**Y**

Please ensure that you have completed this form in accordance with our Guidance document: GD04 Waste Storage and Collection Guidance for New Development.